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INTERVENTO

**FONDO COMPLEMENTARE AL PIANO NAZIONALE DI RIPRESA E RESILIENZA
PROGRAMMA "SICURO, VERDE E SOCIALE: RIQUALIFICAZIONE DELL'EDILIZIA RESIDENZIALE PUBBLICA"**

**PROGETTO DI MANUTENZIONE STRAORDINARIA PER IL RESTAURO E RISANAMENTO
CONSERVATIVO DI DUE CASAMENTI A CORTE SITI IN
COMUNE DI BOLOGNA LOCALITA' CIRENAICA.
VIA LIBIA CIV. 29÷51 PER COMPLESSIVI 70 ALLOGGI
DI ERP CON RELATIVE PERTINENZE E PARTI COMUNI**

LOTTO **3053/PN_2**

PROGETTO ESECUTIVO

TAV. TAB_13		OGGETTO TABULATI DI CALCOLO CIVICO 41 STATO DI FATTO			DATA Settembre 2022	
SCALA					N. DISEGNO	
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TABULATI DI CALCOLO
CIVICO 41
STATO DI FATTO



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1 Risultati numerici

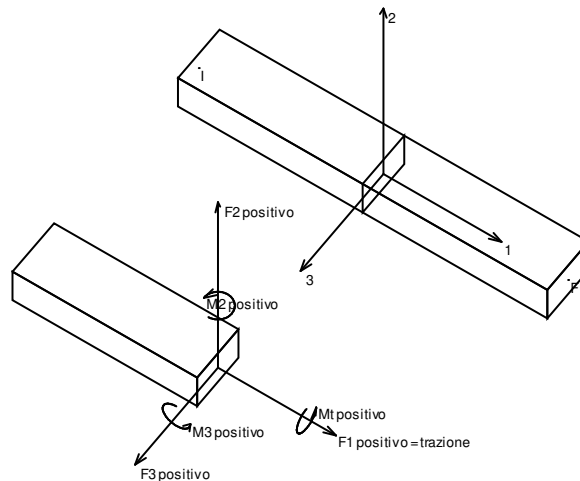
1.1 Sollecitazioni

1.1.1 Sollecitazioni aste

1.1.1.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

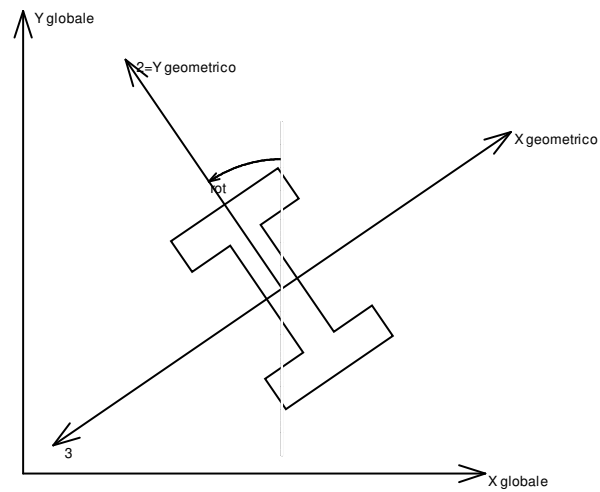
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

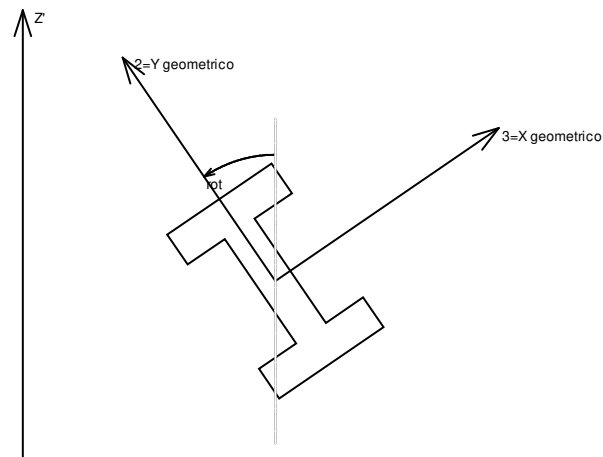


Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

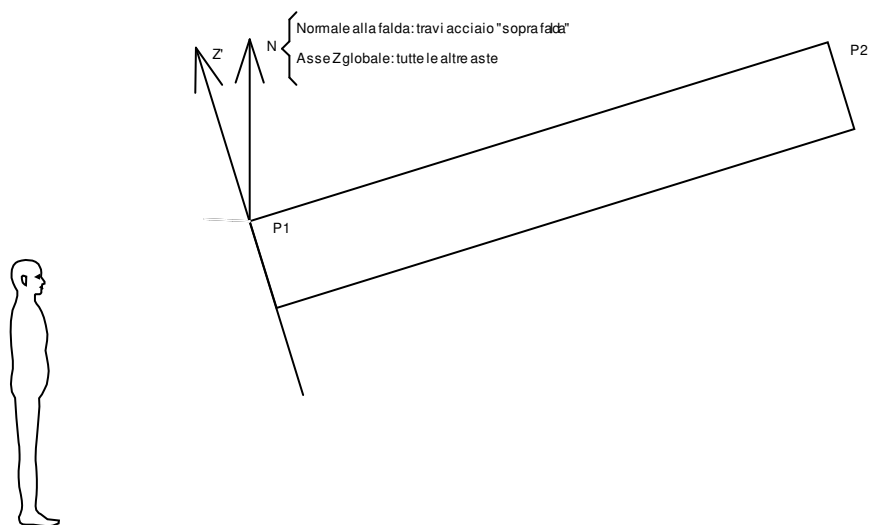
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

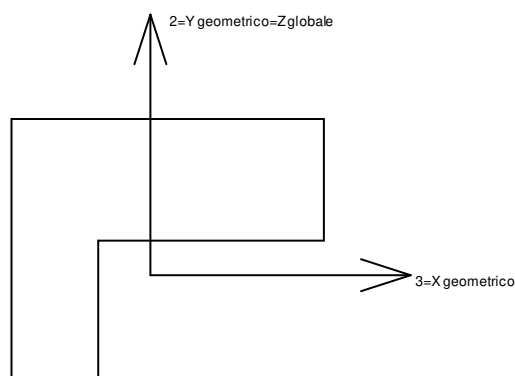
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.1.2 Sollecitazioni estreme aste

Asta: elemento asta a cui si riferiscono le sollecitazioni.

Ind.: indice dell'asta.

Cont.: contesto a cui si riferisce la sollecitazione

N.br.: nome breve della condizione o combinazione di carico.

Pos.: numero della sezione all'interno dell'asta (tra 1 e 31, dove 1 corrisponde alla sezione al nodo iniziale, 16 è la sezione in mezzzeria, 31 corrisponde alla sezione al nodo finale).

Posizione: posizione a cui si riferisce la sollecitazione dell'asta.

X: componente X della posizione a cui si riferisce la sollecitazione dell'asta. [m]

Y: componente Y della posizione a cui si riferisce la sollecitazione dell'asta. [m]

Z: componente Z della posizione a cui si riferisce la sollecitazione dell'asta. [m]

Soll.traslazionale: componente traslazionale della sollecitazione dell'asta.

F1: componente F1 della sollecitazione dell'asta. [kN]

F2: componente F2 della sollecitazione dell'asta. [kN]

F3: componente F3 della sollecitazione dell'asta. [kN]

Soll.rotazionale: componente rotazionale della sollecitazione dell'asta.

M1: componente M1 della sollecitazione dell'asta. [kN*m]

M2: componente M2 della sollecitazione dell'asta. [kN*m]

M3: componente M3 della sollecitazione dell'asta. [kN*m]



Sollecitazioni con sforzo normale (N) minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
118	SLU 79	31	-22.32	-1.07	16.34	-62.02	1.1	4.88	-0.1952	5.5811	15.0835
120	SLU 80	31	-23.19	-1.91	15.89	-58.22	8.98	-0.6	1.1566	0.9458	5.7213
119	SLU 80	31	-22.51	-1.26	16.24	-57.74	6.57	-1.98	2.1688	2.0433	14.3075
121	SLU 80	31	-23.86	-2.57	15.53	-57.03	9.21	-0.43	0.6161	0.2732	-3.5101
107	SLU 79	1	-23.18	4.32	15.87	-54.7	-12.72	2.11	-0.004	2.8374	11.9135

Sollecitazioni con sforzo normale (N) massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
207	SLV 11	31	-18.45	-0.97	16.17	31.69	-0.84	0.22	0.0048	0.3084	1.2175
101	SLV 9	1	-19.12	6.14	15.28	31.09	0.42	1.7	0.3932	-0.6816	-6.4221
128	SLV Y	1	-11.02	-3.49	15	30	-0.29	0.1	-0.0036	-0.1323	-0.3921
177	SLV 7	31	-6.29	-0.97	16.16	29.98	-0.64	-0.33	-0.0048	-0.414	0.4747
100	SLV 9	1	-18.45	5.43	15.58	29.97	2.41	0.98	0.2097	-1.5214	-2.0374

Sollecitazioni con momento M2 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
113	SLU 71	31	-20.24	0.96	17.44	-35.03	-1.17	-0.15	-10.5712	-10.6456	-22.725
95	SLU 72	31	-16.42	3.31	16.5	-22.13	-5.86	-0.96	-1.254	-7.1993	41.3086
96	SLU 72	1	-16.42	3.31	16.5	-22.06	1.14	1.08	-1.062	-7.1042	40.9848
338	SLV 7	1	-7.64	-0.97	16.16	9.35	-4.3	8.41	0.1416	-6.8203	-2.5467
48	SLV 7	1	-7.64	1.05	17.09	-8.76	-0.14	6.24	-0.653	-6.616	-0.0796

Sollecitazioni con momento M2 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
57	SLU 71	1	-4.75	1.05	17.47	-0.57	15.46	-11.7	12.3551	12.1861	-13.4537
84	SLU 71	31	-8.31	3.35	16.49	-31.42	-5.56	0.78	1.0791	6.7862	38.6792
85	SLU 71	1	-8.31	3.35	16.49	-31.22	1.64	-1.32	0.8946	6.6784	38.3682
338	SLV 9	1	-7.64	-0.97	16.16	-11.82	2.82	-8.72	-0.0883	6.3903	2.4232
48	SLV 9	1	-7.64	1.05	17.09	0.95	0.15	-6.61	0.1956	6.1712	0.0981

Sollecitazioni con momento M3 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
112	SLU 79	31	-20.15	1.05	17.49	-31.44	34.91	-1.42	1.8207	-6.4358	-32.9974
101	SLU 80	31	-19.56	6.6	15.08	-22.64	14.15	1.19	2.6115	2.1845	-29.6961
114	SLU 72	1	-20.24	0.96	17.44	-30.9	-33.96	-2.67	-1.5407	-2.4881	-29.3665
90	SLU 80	31	-5.21	6.6	15.08	-30.66	11.21	-1.44	-3.1316	-2.8828	-28.8028
67	SLU 80	1	-4.75	1.05	17.47	-19.3	-29.21	1.63	-1.6985	-6.1054	-25.9932

Sollecitazioni con momento M3 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
95	SLU 71	31	-16.42	3.31	16.5	-22.06	-5.86	-0.96	-1.2547	-7.1985	41.318
96	SLU 71	1	-16.42	3.31	16.5	-22	1.14	1.08	-1.0624	-7.1036	40.9939
84	SLU 71	31	-8.31	3.35	16.49	-31.42	-5.56	0.78	1.0791	6.7862	38.6792
85	SLU 71	1	-8.31	3.35	16.49	-31.22	1.64	-1.32	0.8946	6.6784	38.3682
97	SLU 71	1	-16.86	3.77	16.31	-21.98	7.99	0.84	-4.2297	-5.6014	36.4244

1.1.2 Sollecitazioni gusci

1.1.2.1 Convenzioni di segno gusci

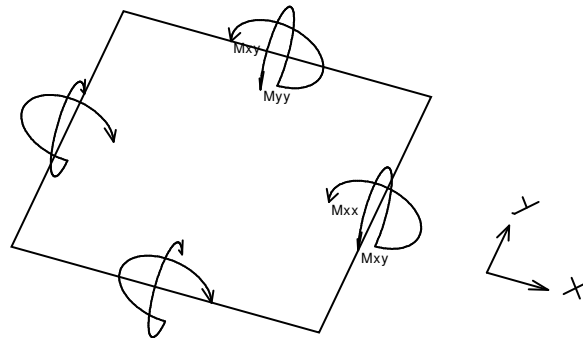
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

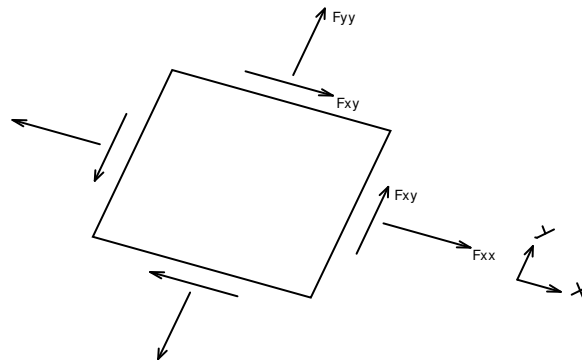
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : momento torcente [Forza*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione F_{xx} , F_{yy} , F_{xy} .



Si definiscono:

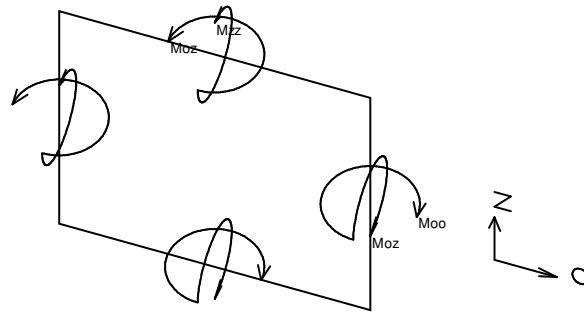
- F_{xx} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{xy} : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- V_x : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse x ;
- V_y : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse y .

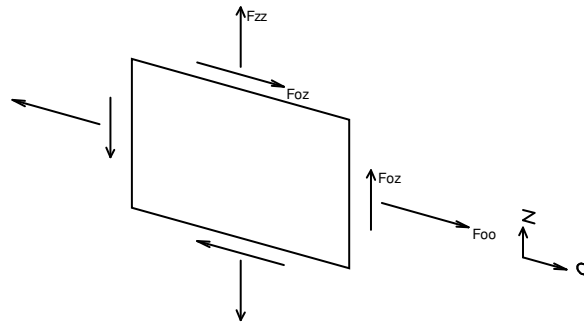
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} , F_{xx} , F_{yy} , F_{xy} .



- Moo: momento flettente distribuito $[Forza * Lunghezza / Lunghezza]$ applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito $[Forza * Lunghezza / Lunghezza]$ applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito $[Forza * Lunghezza / Lunghezza]$ applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



- Fzz: sforzo tensionale distribuito $[Forza / Lunghezza]$ applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito $[Forza / Lunghezza]$ applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito $[Forza / Lunghezza]$ applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vo: taglio fuori piano applicato al bordo di normale parallela all'asse O;
- Vz: taglio fuori piano applicato al bordo di normale parallela all'asse z.

1.1.2.2 Sollecitazioni estreme gusci

Shell: elemento guscio a cui si riferiscono le sollecitazioni.

Ind: indice del guscio.

Cont.: contesto a cui si riferiscono le sollecitazioni.

N.br.: nome breve della condizione o combinazione di carico.

Nodo: nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

Ind: indice del nodo.

Sollecitazione: valori della sollecitazione.

M11: componente M11 della sollecitazione del guscio nel nodo indicato. $[kN * m / m]$

M12: componente M12 della sollecitazione del guscio nel nodo indicato. $[kN * m / m]$

M22: componente M22 della sollecitazione del guscio nel nodo indicato. $[kN * m / m]$

F11: componente F11 della sollecitazione del guscio nel nodo indicato. $[kN / m]$

F12: componente F12 della sollecitazione del guscio nel nodo indicato. $[kN / m]$

F22: componente F22 della sollecitazione del guscio nel nodo indicato. $[kN / m]$

V13: componente V13 della sollecitazione del guscio nel nodo indicato. $[kN / m]$

V23: componente V23 della sollecitazione del guscio nel nodo indicato. $[kN / m]$

Sollecitazioni con momento M11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.



Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
4996	SLV 11	14024	-48.64	1.18	-14.18	77	13	-280	-5202	61
4977	SLV 5	14024	-48.59	-8.35	-12.16	16	-3	2	-5480	-1196
4997	SLV 7	13571	-31.69	0.29	8.85	-68	12	-265	-4225	27
5022	SLV 11	17134	-24.09	-0.65	-8.19	-164	-55	-572	2460	-28
5003	SLV 7	17134	-24.02	-0.41	-4.67	107	21	-38	2459	-252

Sollecitazioni con momento M11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
4977	SLV 11	14024	48.63	8.41	12.2	-39	6	-13	5480	1198
4996	SLV 5	14024	48.6	-1.11	13.95	-62	-1	-45	5200	-61
4997	SLV 9	13571	31.69	-0.23	-8.85	64	-4	-71	4225	-27
5022	SLV 5	17134	24.51	0.68	8.59	44	-6	-58	-2491	31
5003	SLV 9	17134	24.38	0.46	4.82	2	2	-17	-2491	253

Sollecitazioni con momento M22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
14592	SLV 1	18686	-3.31	2.78	-15.41	149	46	-46	-15	45
14704	SLV 5	18704	-2.64	3.25	-15.2	39	-43	167	-14	39
8773	SLV 9	18705	-2.65	-3.01	-14.48	-78	37	153	13	37
4996	SLV 11	14024	-48.64	1.18	-14.18	77	13	-280	-5202	61
10084	SLV 5	11207	-8.89	-2.55	-12.65	-28	-8	-60	-30	-32

Sollecitazioni con momento M22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
9403	SLU 80	19441	7.95	3.95	41.41	-45	-33	14	-28	-173
9400	SLU 80	19441	1.96	-8.49	29.15	-12	-14	-108	24	-68
9413	SLU 80	19429	8.27	1.9	27.44	-21	-29	-124	-42	-75
9412	SLU 80	19429	7.84	-1.08	27.33	-72	75	38	18	-75
9404	SLU 80	19435	0.55	3.88	22.07	-36	-13	-19	-5	-62

Sollecitazioni con sforzo F11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
9040	SLU 80	19394	-3.16	0.41	-3.46	-2493	-1092	-1630	10	-32
9041	SLU 79	19403	-0.07	-0.57	3.18	-1657	-508	-955	-21	-14
5021	SLU 79	18160	-0.62	0.68	-3.7	-896	-253	-1096	-518	3
5000	SLU 71	18724	-2.07	-1.13	-2.83	-841	-1023	-2381	37	31
15364	SLV 5	6903	-0.55	0.47	0.42	-800	-292	-299	5	1

Sollecitazioni con sforzo F11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
9040	SLU 72	19454	3.84	-0.16	6.5	2480	340	-158	10	-31
9041	SLU 30	19455	-2.73	-1.54	3.76	1596	895	1583	-20	-13
5000	SLU 79	18161	8.34	-0.58	3.4	935	789	1205	-472	92
15364	SLV 11	6903	0.56	-0.45	-0.38	788	282	327	-5	-1
4998	SLU 80	18720	0.37	-0.74	0.1	758	-268	445	30	-8

Sollecitazioni con sforzo F22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
5000	SLU 71	18724	-2.07	-1.13	-2.83	-841	-1023	-2381	37	31
9041	SLU 72	19454	5.9	-0.94	7.24	584	-792	-1641	-22	-14
9040	SLU 72	19394	-3.17	0.41	-3.44	-2480	-1087	-1637	10	-31
15390	SLV 9	3698	0.14	-0.61	0.41	116	-42	-1636	2	-1
9430	SLU 72	19348	-1.7	-0.58	-3.01	-563	1036	-1510	-14	-33

Sollecitazioni con sforzo F22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			M11	M12	M22	F11	F12	F22	V13	V23
9041	SLU 79	19455	-2.82	-1.58	3.8	1566	904	1618	-21	-14
5000	SLU 71	18160	1.17	0.4	3.47	749	1173	1252	-426	87
15390	SLV Y	2967	0.45	0.25	-0.52	232	138	1227	6	1
12464	SLU 71	18098	0.74	-0.59	0.7	572	683	1159	-1	11
15362	SLV Y	2966	0.27	-0.19	0.48	253	20	1155	-1	1

1.1.2.3 Sollecitazioni estreme gusci non verticali

Shell: elemento guscio a cui si riferiscono le sollecitazioni.

Ind: indice del guscio.

Cont.: contesto a cui si riferiscono le sollecitazioni.

N.br.: nome breve della condizione o combinazione di carico.



Nodo: nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

Ind: indice del nodo.

Sollecitazione: valori della sollecitazione.

Mxx: componente Mxx della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Mxy: componente Mxy della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Myy: componente Myy della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Fxx: componente Fxx della sollecitazione del guscio nel nodo indicato. [kN/m]

Fxy: componente Fxy della sollecitazione del guscio nel nodo indicato. [kN/m]

Fyy: componente Fyy della sollecitazione del guscio nel nodo indicato. [kN/m]

Vx: componente Vo della sollecitazione del guscio nel nodo indicato. [kN/m]

Vy: componente Vz della sollecitazione del guscio nel nodo indicato. [kN/m]

Sollecitazioni con momento Mxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
7923	SLV 15	3145	-5.4	-0.86	-2.16	-196	43	-63	-19	-5
7557	SLV 1	3173	-5.25	-0.24	-2.48	64	75	76	11	7
7556	SLV 1	3173	-5.15	0.29	-2.8	81	-12	93	13	-6
7922	SLV 15	3145	-4.84	0.83	-2.04	-202	39	-41	-12	10
9112	SLV 11	18564	-3.67	-0.27	-5.91	-9	-5	-25	-15	-26

Sollecitazioni con momento Mxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
16760	SLV 15	3148	5.17	-0.08	3.91	-93	-45	-20	-21	1
9112	SLV 5	18564	3.66	0.26	5.63	-15	-2	-13	14	25
9113	SLV 9	18564	3.57	-0.43	4.86	5	8	22	-14	18
15610	SLV 7	10949	3.5	-0.06	0.88	2	-27	-86	-8	-1
8712	SLV 11	10950	3.44	-0.04	0.87	-16	16	-33	6	0

Sollecitazioni con momento Myy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
9112	SLV 11	18564	-3.67	-0.27	-5.91	-9	-5	-25	-15	-26
9113	SLV 11	18564	-3.17	0.36	-5.72	-6	-2	-24	16	-21
9128	SLV 7	18548	-3.43	0.17	-4.07	-10	-8	-4	-10	-14
9129	SLV 7	18548	-2.84	0.24	-4.06	-9	-8	-4	9	-14
9117	SLV 7	18560	-2.84	-0.34	-3.68	-28	-5	-29	10	-11

Sollecitazioni con momento Myy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
9112	SLV 5	18564	3.66	0.26	5.63	-15	-2	-13	14	25
9113	SLV 5	18564	3.14	-0.32	5.44	-13	-1	-12	-15	21
16760	SLV 15	3148	5.17	-0.08	3.91	-93	-45	-20	-21	1
1080	SLV 13	3207	2.27	1.65	3.62	-129	-13	-379	-4	-11
16537	SLU 84	796	0.69	0	3.11	4	-36	-187	-3	-14

Sollecitazioni con sforzo Fxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
7923	SLV 11	3149	-1.85	-0.99	0.03	-429	81	-70	-2	-7
1079	SLU 84	2846	0.01	0.44	-0.13	-390	189	-130	-1	1
9531	SLV 5	2958	-0.55	-0.18	-0.38	-389	-98	-61	-2	2
9521	SLV 5	3741	0.63	-0.18	0.46	-361	-98	-30	-4	1
9491	SLV 9	2957	-0.75	-0.11	-0.48	-353	-91	-42	-3	2

Sollecitazioni con sforzo Fxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1080	SLV 7	3171	-1.13	-1.27	-1.28	218	248	529	0	4
1079	SLV Y	2832	0.44	0.15	0.16	171	-2	-2	0	1
18214	SLV X	7067	0.58	-0.31	0.45	160	-6	-5	0	0
18213	SLV X	6083	-0.43	0.26	-0.43	156	-3	-20	1	0
9531	SLV Y	2958	0.29	0.07	0.29	146	47	21	1	-1

Sollecitazioni con sforzo Fyy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
7567	SLV 1	2973	-0.41	-0.38	-1.05	-297	217	-455	1	-1
1080	SLV 9	3207	1.63	1.36	3.54	-128	-127	-446	-2	-11
7544	SLV 3	3367	-0.39	0.38	-0.88	-232	-176	-406	0	0
25	SLU 84	68	-0.03	0	-0.13	-76	-10	-363	0	0
23	SLU 84	979	-0.2	0.01	-0.18	-9	49	-339	2	1



Sollecitazioni con sforzo Fyy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1080	SLV 7	3171	-1.13	-1.27	-1.28	218	248	529	0	4
7567	SLV X	2973	0.26	0.19	0.79	144	-82	191	0	1
7544	SLV X	3367	0.26	-0.2	0.71	113	62	169	0	-1
25	SLV X	424	-0.06	0.15	-0.58	14	-31	136	0	-4
7557	SLV 3	3165	-2.39	-0.2	-0.49	-100	90	112	5	8

1.1.2.4 Sollecitazioni estreme gusci verticali

Shell: elemento guscio a cui si riferiscono le sollecitazioni.

Ind: indice del guscio.

Cont.: contesto a cui si riferiscono le sollecitazioni.

N.br.: nome breve della condizione o combinazione di carico.

Nodo: nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

Ind: indice del nodo.

Sollecitazione: valori della sollecitazione.

Moo: componente Moo della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Moz: componente Moz della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Mzz: componente Mzz della sollecitazione del guscio nel nodo indicato. [kN*m/m]

Foo: componente Foo della sollecitazione del guscio nel nodo indicato. [kN/m]

Foz: componente Foz della sollecitazione del guscio nel nodo indicato. [kN/m]

Fzz: componente Fzz della sollecitazione del guscio nel nodo indicato. [kN/m]

Vo: componente Vo della sollecitazione del guscio nel nodo indicato. [kN/m]

Vz: componente Vz della sollecitazione del guscio nel nodo indicato. [kN/m]

Sollecitazioni con momento Moo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
4996	SLV 11	14024	-48.64	1.18	-14.18	77	13	-280	-5202	61
4977	SLV 5	14024	-48.59	-8.35	-12.16	16	-3	2	-5480	-1196
4997	SLV 7	13571	-31.69	0.29	8.85	-68	12	-265	-4225	27
5022	SLV 11	17134	-24.09	-0.65	-8.19	-164	-55	-572	2460	-28
5003	SLV 7	17134	-24.02	-0.41	-4.67	107	21	-38	2459	-252

Sollecitazioni con momento Moo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
4977	SLV 11	14024	48.63	8.41	12.2	-39	6	-13	5480	1198
4996	SLV 5	14024	48.6	-1.11	13.95	-62	-1	-45	5200	-61
4997	SLV 9	13571	31.69	-0.23	-8.85	64	-4	-71	4225	-27
5022	SLV 5	17134	24.51	0.68	8.59	44	-6	-58	-2491	31
5003	SLV 9	17134	24.38	0.46	4.82	2	2	-17	-2491	253

Sollecitazioni con momento Mzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
9403	SLU 80	19441	-7.95	3.95	-41.41	-45	33	14	-28	173
9400	SLU 80	19441	-1.96	-8.49	-29.15	-12	14	-108	24	68
9413	SLU 80	19429	-8.27	1.9	-27.44	-21	29	-124	-42	75
9412	SLU 80	19429	-7.84	-1.08	-27.33	-72	-75	38	18	75
9404	SLU 80	19435	-0.55	3.88	-22.07	-36	13	-19	-5	62

Sollecitazioni con momento Mzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
12360	SLU 71	18743	2.01	3.14	16.97	-19	1	-24	-11	-56
12337	SLU 71	18755	1.79	-4.13	16.18	-10	1	-25	14	-46
12355	SLU 72	18747	-0.97	-2.01	15.44	-16	-1	-17	-8	-55
12357	SLU 71	18745	-0.33	-1.57	15.4	-7	4	-16	4	-48
12358	SLU 72	18745	0.45	3.9	15.36	-8	-3	-17	-7	-47

Sollecitazioni con sforzo Foo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
9040	SLU 80	19394	3.16	0.41	3.46	-2493	1092	-1630	10	32
9041	SLU 79	19403	0.07	-0.57	-3.18	-1657	508	-955	-21	14
5021	SLU 79	18160	-0.62	0.68	-3.7	-896	-253	-1096	-518	3
5000	SLU 71	18724	-2.07	-1.13	-2.83	-841	-1023	-2381	37	31
15364	SLV 5	6903	-0.55	0.47	0.42	-800	-292	-299	5	1

Sollecitazioni con sforzo Foo massimo

Vengono mostrati i soli 5 gusci più sollecitati.



Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
9040	SLU 72	19454	-3.84	-0.16	-6.5	2480	-340	-158	10	31
9041	SLU 30	19455	2.73	-1.54	-3.76	1596	-895	1583	-20	13
5000	SLU 79	18161	8.34	-0.58	3.4	935	789	1205	-472	92
15364	SLV 11	6903	0.56	-0.45	-0.38	788	282	327	-5	-1
4998	SLU 80	18720	0.37	-0.74	0.1	758	-268	445	30	-8

Sollecitazioni con sforzo Fzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
5000	SLU 71	18724	-2.07	-1.13	-2.83	-841	-1023	-2381	37	31
9041	SLU 72	19454	-5.9	-0.94	-7.24	584	792	-1641	-22	14
9040	SLU 72	19394	3.17	0.41	3.44	-2480	1087	-1637	10	31
15390	SLV 9	3698	0.14	-0.61	0.41	116	-42	-1636	2	-1
9430	SLU 72	19348	1.7	-0.58	3.01	-563	-1036	-1510	-14	33

Sollecitazioni con sforzo Fzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
9041	SLU 79	19455	2.82	-1.58	-3.8	1566	-904	1618	-21	14
5000	SLU 71	18160	1.17	0.4	3.47	749	1173	1252	-426	87
15390	SLV Y	2967	0.45	0.25	-0.52	232	138	1227	6	1
12464	SLU 71	18098	0.74	-0.59	0.7	572	683	1159	-1	11
15362	SLV Y	2966	0.27	-0.19	0.48	253	20	1155	-1	1

1.1.3 Sollecitazioni gusci armati

1.1.3.1 Convenzioni di segno gusci

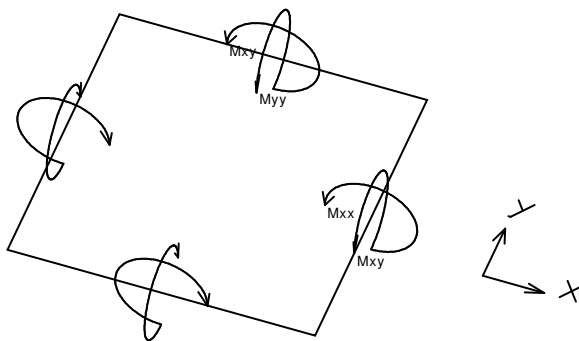
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

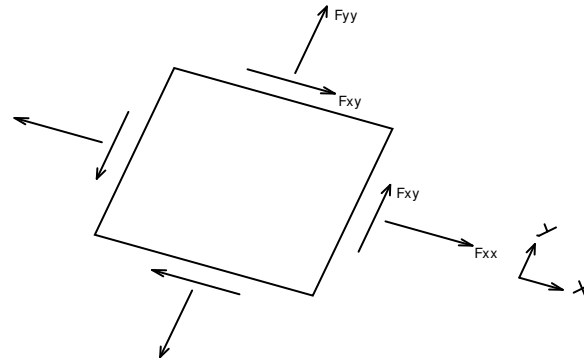
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente $[Forza \cdot Lunghezza / Lunghezza]$ agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente $[Forza \cdot Lunghezza / Lunghezza]$ agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : momento torcente $[Forza \cdot Lunghezza / Lunghezza]$ agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione F_{xx} , F_{yy} , F_{xy} .



Si definiscono:

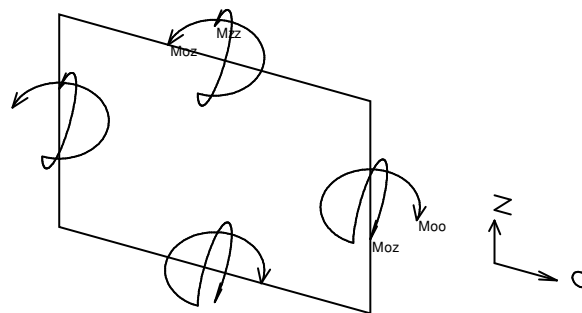
- F_{xx} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{xy} : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- V_x : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse x ;
- V_y : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse y .

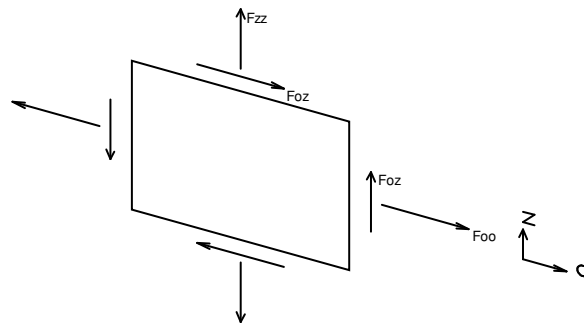
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{oo} , M_{zz} , M_{oz} .



- M_{oo} : momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{zz} : momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{oz} : momento 'torcente' distribuito [Forza*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione F_{oo} , F_{zz} , F_{oz} sono rispettivamente:



- F_{zz} : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{oo} : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{oz} : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- V_o : taglio fuori piano applicato al bordo di normale parallela all'asse O ;
- V_z : taglio fuori piano applicato al bordo di normale parallela all'asse z .

1.1.4 Sollecitazioni gusci muratura

1.1.4.1 Convenzioni di segno gusci muratura

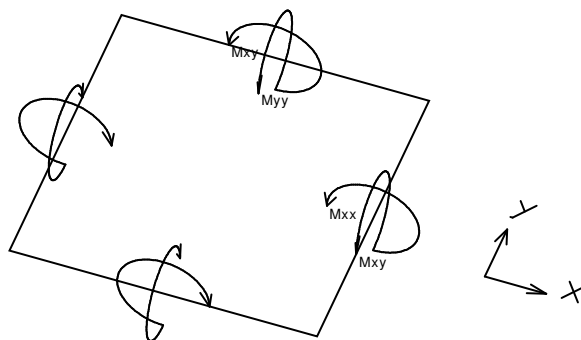
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio muratura si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X . Nel caso di piastre orizzontali (caso più comune) gli assi x , y e z locali all'elemento sono paralleli ed equiversi agli assi X , Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

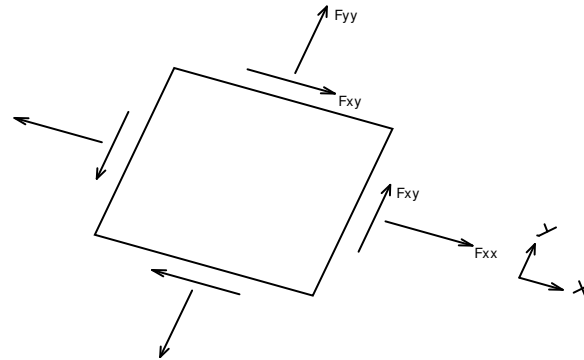
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : momento torcente [Forza*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione F_{xx} , F_{yy} , F_{xy} .

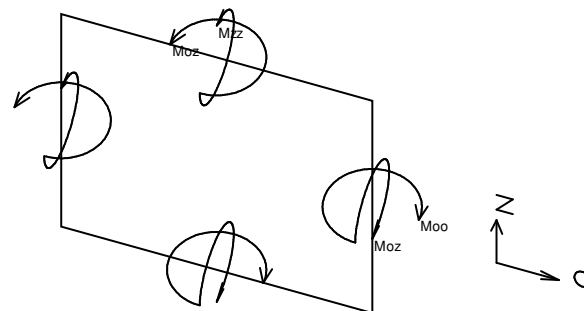


Si definiscono:

- F_{xx} : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{xy} : sforzo tagliante [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

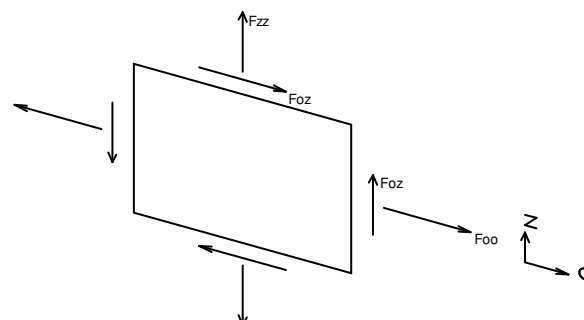
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{oo} , M_{zz} , M_{oz} .



- M_{oo} : momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{zz} : momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{oz} : momento 'torcente' distribuito [Forza*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione F_{oo} , F_{zz} , F_{oz} sono rispettivamente:



- F_{zz} : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette



in trazione l'elemento);

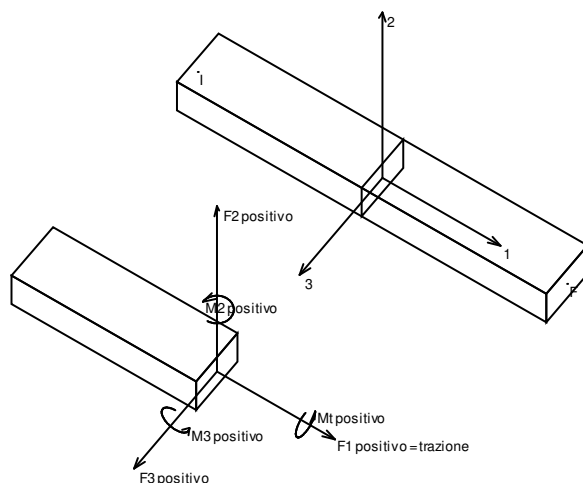
- F_{oo} : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{oz} : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

1.1.5 Sollecitazioni aste in muratura

1.1.5.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F_1 (N): sforzo normale nell'asta;
- F_2 : sforzo di taglio agente nella direzione dell'asse locale 2;
- F_3 : sforzo di taglio agente nella direzione dell'asse locale 3;
- M_1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M_2 : momento attorno all'asse locale 2;
- M_3 : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale i e nodo finale f , asse 1 che va da i a f , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

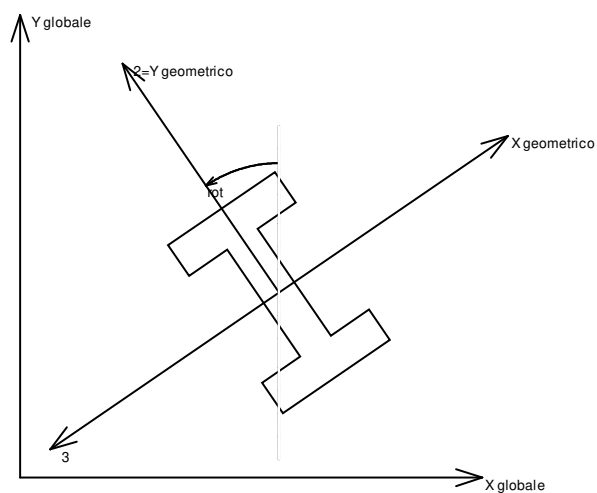
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

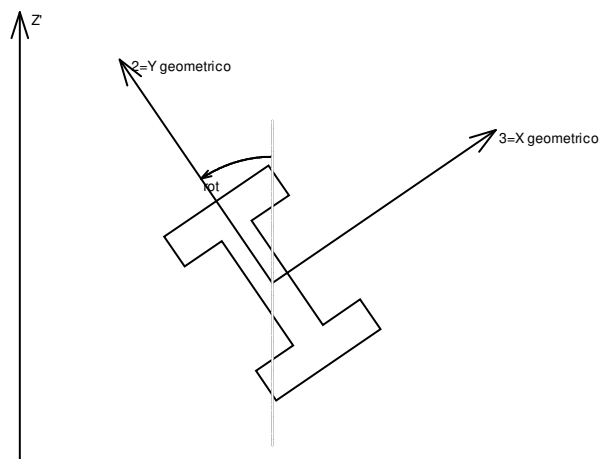


Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

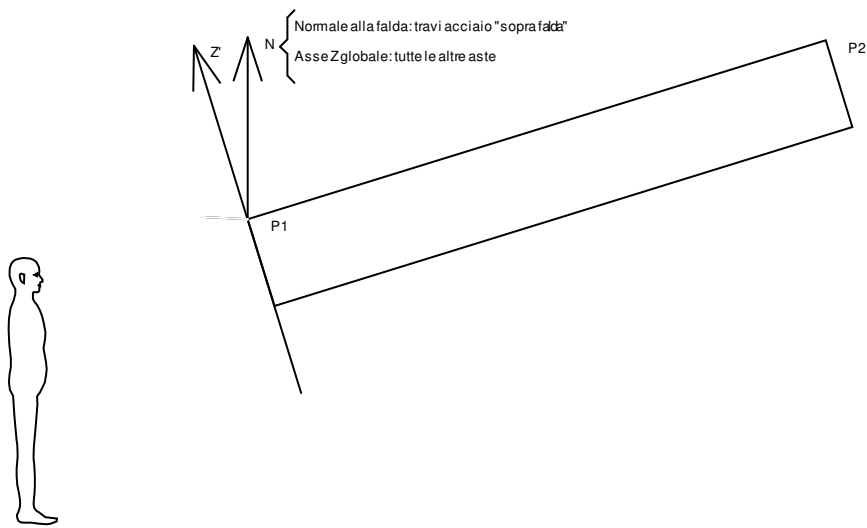
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

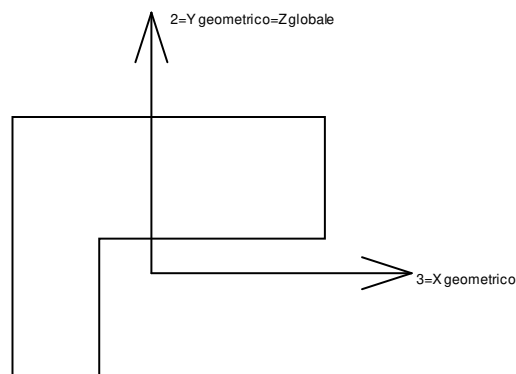
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per $P1, P2$ contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



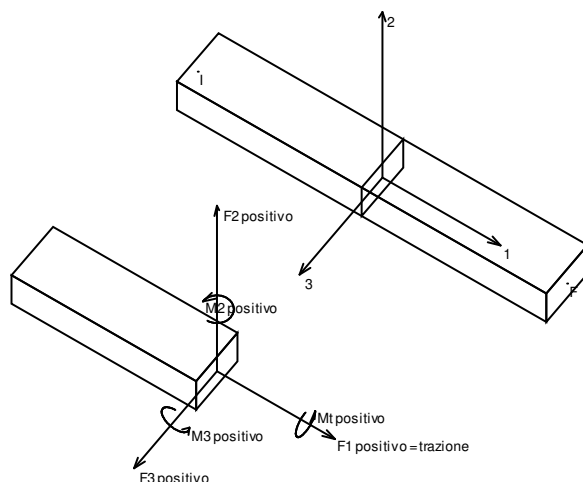
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.6 Sollecitazioni aste in muratura FRCM

1.1.6.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F1 (N)$: sforzo normale nell'asta;
- $F2$: sforzo di taglio agente nella direzione dell'asse locale 2;
- $F3$: sforzo di taglio agente nella direzione dell'asse locale 3;
- $M1 (Mt)$: momento attorno all'asse locale 1; equivale al momento torcente;
- $M2$: momento attorno all'asse locale 2;
- $M3$: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

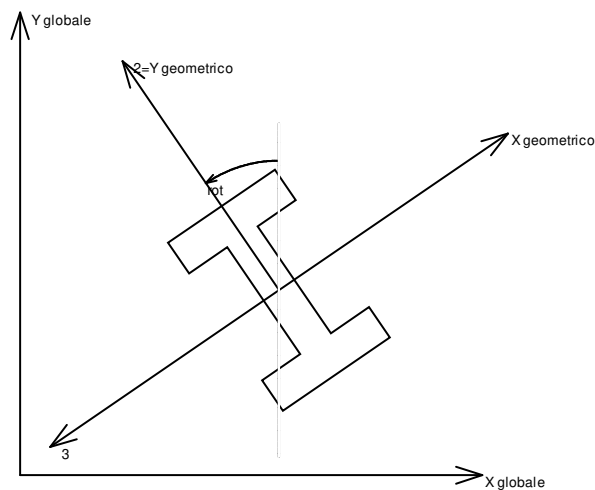
presa un'asta con nodo iniziale i e nodo finale f , asse 1 che va da i a f , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il vettore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

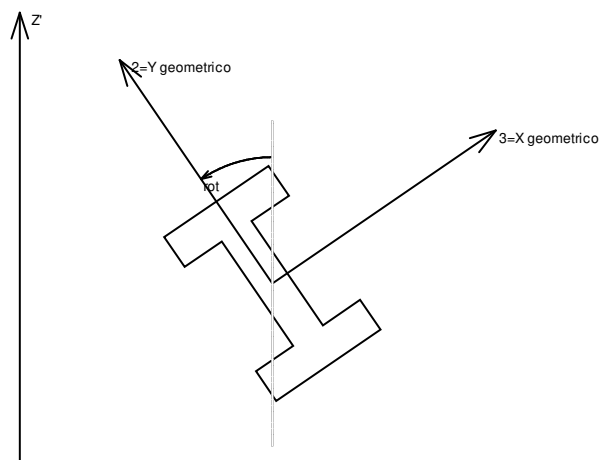
Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).



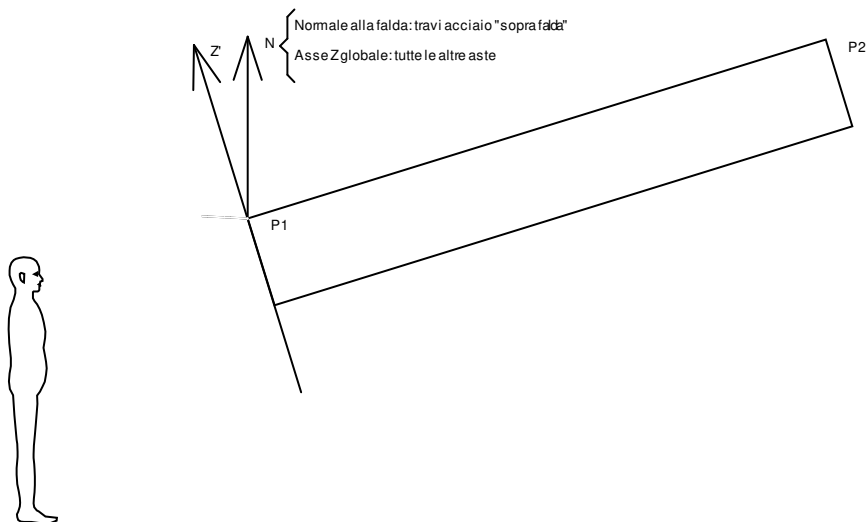
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

L'asse Z' è illustrato nella figura seguente dove:

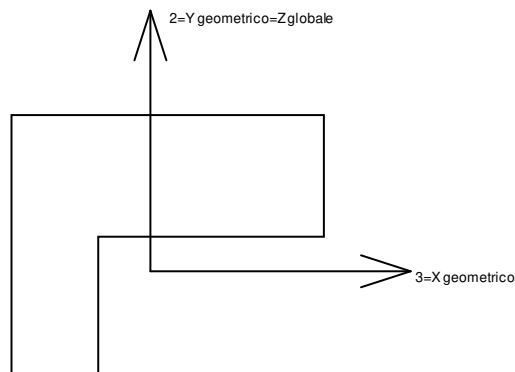
- $P1$ è il punto di inserimento iniziale dell'asta;
- $P2$ è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per $P1$, $P2$ contenente N e il piano della sezione iniziale dell'asta.



Sistema locale aste derivanti da travi in c.a.



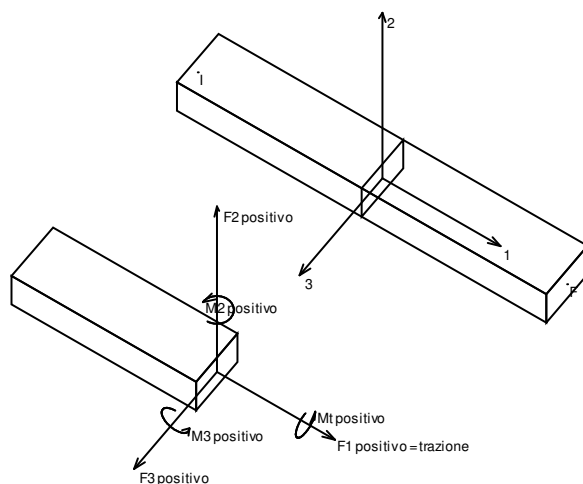
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.7 Sollecitazioni aste in muratura armata

1.1.7.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

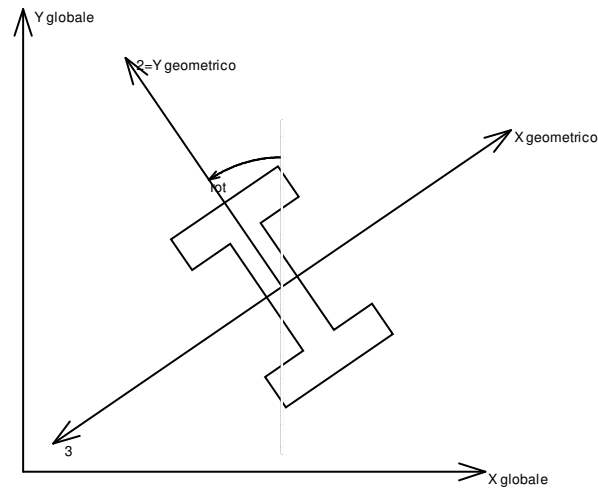
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.



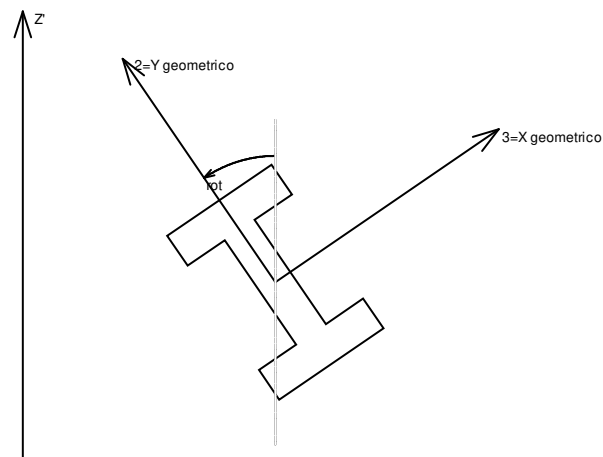
Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

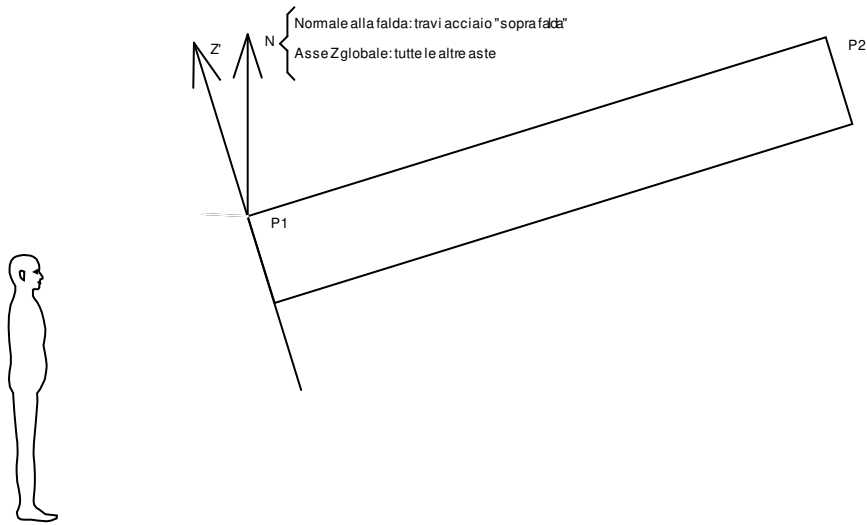
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

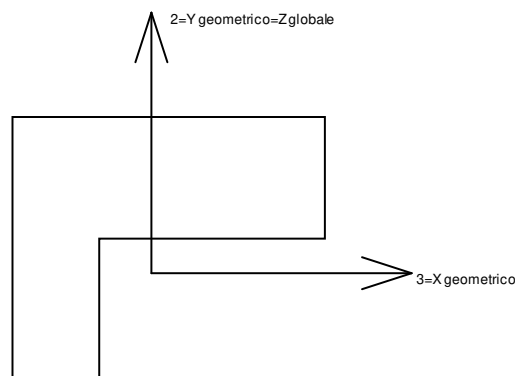
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per $P1$, $P2$ contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.2 Reazioni nodali

1.2.1 Reazioni nodali estreme

Nodo: Nodo sollecitato dalla reazione vincolare.

Ind.: indice del nodo.

Cont.: Contesto a cui si riferisce la reazione vincolare.

N.br.: nome breve della condizione o combinazione di carico.

Reazione a traslazione: reazione vincolare traslazionale del nodo.

x: componente X della reazione vincolare del nodo. [kN]

y: componente Y della reazione vincolare del nodo. [kN]

z: componente Z della reazione vincolare del nodo. [kN]

Reazione a rotazione: reazione vincolare rotazionale del nodo.

x: componente X della reazione a rotazione del nodo. [kN*m]

y: componente Y della reazione a rotazione del nodo. [kN*m]

z: componente Z della reazione a rotazione del nodo. [kN*m]

Reazioni Fx minime

Vengono mostrati i soli 5 nodi più sollecitati.



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
221	SLV 15	-35.8	-0.35	125.51	0.149	-1.8716	0
220	SLV 15	-35.13	0.03	101.6	0.2304	-1.6681	0.0007
203	SLV 15	-34.64	0.06	93.82	-0.0492	-1.7685	-0.0002
189	SLV 15	-33.9	0.62	115.37	0.0617	-1.0354	0.0134
219	SLV 15	-33.72	-0.27	89.88	0.3269	-1.5625	0.001

Reazioni Fx massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
183	SLV 3	39.77	0.12	92.13	-0.0417	1.8685	-0.0001
182	SLV 3	39.74	0.14	103.43	-0.0266	1.894	0
184	SLV 3	38.51	0.07	77.72	-0.0417	1.7841	0.0001
185	SLV 3	36.4	0.06	76.02	-0.0437	1.7138	0.0001
166	SLV 3	33.72	-0.34	102.08	0.1315	1.7861	0.0001

Reazioni Fy minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
330	SLV 11	0.05	-30.98	55.25	1.7045	0.0378	0.0001
191	SLV 11	1.78	-30.79	157.47	0.8494	-0.1158	-0.0053
277	SLV 7	-0.59	-26.65	35.59	1.1614	-0.3106	0.0019
283	SLV 7	-0.54	-25.82	37.14	1.0804	-0.2661	0.0013
271	SLV 7	-0.41	-25.77	36.08	1.0776	-0.3182	0.0023

Reazioni Fy massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLV 5	0.04	33.34	64.92	-1.5791	0.0155	0.0001
32	SLV 5	-0.06	31.61	60.36	-1.512	-0.0275	-0.0001
99	SLV 9	-0.55	30.03	120.12	-1.4847	0.1313	-0.001
35	SLV 5	0.08	27.27	58.96	-1.1034	-0.04	-0.0005
36	SLV 5	-0.16	25.93	64.56	-1.0169	0.025	0.0003

Reazioni Fz minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6913	SLV X	0	0	-233.13	-1.2552	0.7387	0
7189	SLV X	0	0	-206.79	1.1526	0.7509	0
3030	SLV X	0	0	-145.94	6.8534	-1.7448	0
3367	SLV X	0	0	-116.08	3.6539	1.5728	0
200	SLV X	-22.2	0.07	-66.82	-0.0487	-1.3373	0.0001

Reazioni Fz massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6913	SLV 1	0	0	653.59	3.4221	-3.0263	0
7189	SLV 3	0	0	561.13	-3.074	-2.8494	0
3030	SLV 1	0	0	346.25	-16.5392	3.5733	0
3367	SLV 3	0	0	282.79	-8.7399	-4.2736	0
222	SLV 15	-32.6	-22.53	172.01	19.5146	-1.1237	0.1665

1.2.2 Reazioni nodali in combinazioni di carico

Nodo: Nodo sollecitato dalla reazione vincolare.

Ind.: indice del nodo.

Cont.: Contesto a cui si riferisce la reazione vincolare.

N.br.: nome breve della condizione o combinazione di carico.

Reazione a traslazione: reazione vincolare traslazionale del nodo.

x: componente X della reazione vincolare del nodo. [kN]

y: componente Y della reazione vincolare del nodo. [kN]

z: componente Z della reazione vincolare del nodo. [kN]

Reazione a rotazione: reazione vincolare rotazionale del nodo.

x: componente X della reazione a rotazione del nodo. [kN*m]

y: componente Y della reazione a rotazione del nodo. [kN*m]

z: componente Z della reazione a rotazione del nodo. [kN*m]

Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLU 1	3.92	2.73	19.57	2.6408	0.1124	-0.8933
2	SLU 2	3.89	1.95	16.49	2.5127	0.1145	-0.8853
2	SLU 3	3.95	2.7	19.38	2.631	0.1138	-0.8984
2	SLU 4	3.93	2.23	17.53	2.5541	0.115	-0.8936
2	SLU 5	3.9	1.89	16.2	2.494	0.1157	-0.8886
2	SLU 6	3.96	2.64	19.1	2.6123	0.115	-0.9017
2	SLU 7	3.94	2.17	17.25	2.5355	0.1163	-0.8969
2	SLU 8	3.95	2.62	19	2.6035	0.1149	-0.8999



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLU 9	3.93	2.15	17.15	2.5266	0.1161	-0.8951
2	SLU 10	4.11	2.1	16.96	2.5973	0.1226	-0.9372
2	SLU 11	4.17	2.85	19.86	2.7156	0.1219	-0.9503
2	SLU 12	4.15	2.38	18.01	2.6387	0.1231	-0.9455
2	SLU 13	4.13	2.05	16.68	2.5786	0.1239	-0.9405
2	SLU 14	4.19	2.8	19.57	2.6969	0.1231	-0.9536
2	SLU 15	4.17	2.33	17.72	2.6201	0.1244	-0.9488
2	SLU 16	4.18	2.77	19.48	2.6881	0.123	-0.9518
2	SLU 17	4.16	2.3	17.63	2.6112	0.1243	-0.947
2	SLU 18	4.24	2.96	20.25	2.7617	0.124	-0.9674
2	SLU 19	4.22	2.49	18.4	2.6848	0.1253	-0.9626
2	SLU 20	4.26	2.9	19.97	2.743	0.1253	-0.9707
2	SLU 21	4.24	2.43	18.12	2.6661	0.1265	-0.9659
2	SLU 22	4.04	2.82	19.7	2.6758	0.1168	-0.9201
2	SLU 23	4	2.03	16.61	2.5477	0.1188	-0.9121
2	SLU 24	4.06	2.78	19.5	2.666	0.1181	-0.9252
2	SLU 25	4.04	2.31	17.65	2.5891	0.1194	-0.9204
2	SLU 26	4.02	1.98	16.33	2.529	0.1201	-0.9154
2	SLU 27	4.08	2.73	19.22	2.6473	0.1193	-0.9285
2	SLU 28	4.06	2.26	17.37	2.5704	0.1206	-0.9237
2	SLU 29	4.07	2.7	19.12	2.6384	0.1192	-0.9267
2	SLU 30	4.05	2.23	17.27	2.5616	0.1205	-0.9219
2	SLU 31	4.23	2.19	17.09	2.6323	0.127	-0.964
2	SLU 32	4.29	2.94	19.98	2.7506	0.1262	-0.9771
2	SLU 33	4.27	2.47	18.13	2.6737	0.1275	-0.9723
2	SLU 34	4.24	2.13	16.8	2.6136	0.1282	-0.9673
2	SLU 35	4.3	2.88	19.69	2.7319	0.1275	-0.9804
2	SLU 36	4.28	2.41	17.84	2.655	0.1287	-0.9756
2	SLU 37	4.29	2.86	19.6	2.723	0.1274	-0.9786
2	SLU 38	4.27	2.39	17.75	2.6462	0.1286	-0.9738
2	SLU 39	4.36	3.04	20.37	2.7966	0.1284	-0.9942
2	SLU 40	4.34	2.57	18.52	2.7198	0.1296	-0.9894
2	SLU 41	4.37	2.99	20.09	2.778	0.1296	-0.9975
2	SLU 42	4.35	2.51	18.24	2.7011	0.1309	-0.9927
2	SLU 43	5.06	3.52	25.41	3.421	0.1446	-1.1522
2	SLU 44	5.03	2.74	22.32	3.293	0.1467	-1.1441
2	SLU 45	5.08	3.49	25.21	3.4113	0.146	-1.1573
2	SLU 46	5.06	3.02	23.36	3.3344	0.1472	-1.1525
2	SLU 47	5.04	2.68	22.03	3.2743	0.148	-1.1474
2	SLU 48	5.1	3.43	24.93	3.3926	0.1472	-1.1606
2	SLU 49	5.08	2.96	23.08	3.3157	0.1485	-1.1557
2	SLU 50	5.09	3.41	24.83	3.3837	0.1471	-1.1587
2	SLU 51	5.07	2.94	22.98	3.3069	0.1484	-1.1539
2	SLU 52	5.25	2.89	22.79	3.3775	0.1549	-1.196
2	SLU 53	5.31	3.65	25.69	3.4959	0.1541	-1.2091
2	SLU 54	5.29	3.17	23.84	3.419	0.1554	-1.2043
2	SLU 55	5.27	2.84	22.51	3.3589	0.1561	-1.1993
2	SLU 56	5.32	3.59	25.4	3.4772	0.1554	-1.2124
2	SLU 57	5.3	3.12	23.55	3.4003	0.1566	-1.2076
2	SLU 58	5.32	3.56	25.31	3.4683	0.1553	-1.2106
2	SLU 59	5.3	3.09	23.46	3.3915	0.1565	-1.2058
2	SLU 60	5.38	3.75	26.08	3.5419	0.1563	-1.2263
2	SLU 61	5.36	3.28	24.23	3.465	0.1575	-1.2215
2	SLU 62	5.4	3.69	25.8	3.5232	0.1575	-1.2296
2	SLU 63	5.38	3.22	23.95	3.4464	0.1587	-1.2248
2	SLU 64	5.18	3.61	25.53	3.456	0.149	-1.1789
2	SLU 65	5.14	2.82	22.44	3.3279	0.1511	-1.1709
2	SLU 66	5.2	3.57	25.33	3.4462	0.1503	-1.184
2	SLU 67	5.18	3.1	23.48	3.3694	0.1516	-1.1792
2	SLU 68	5.16	2.77	22.16	3.3093	0.1523	-1.1742
2	SLU 69	5.21	3.52	25.05	3.4276	0.1516	-1.1873
2	SLU 70	5.19	3.05	23.2	3.3507	0.1528	-1.1825
2	SLU 71	5.21	3.49	24.96	3.4187	0.1515	-1.1855
2	SLU 72	5.19	3.02	23.1	3.3418	0.1527	-1.1807
2	SLU 73	5.37	2.98	22.92	3.4125	0.1592	-1.2228
2	SLU 74	5.42	3.73	25.81	3.5308	0.1585	-1.2359
2	SLU 75	5.4	3.26	23.96	3.454	0.1597	-1.2311
2	SLU 76	5.38	2.92	22.63	3.3939	0.1604	-1.2261
2	SLU 77	5.44	3.67	25.52	3.5122	0.1597	-1.2392
2	SLU 78	5.42	3.2	23.67	3.4353	0.161	-1.2344
2	SLU 79	5.43	3.65	25.43	3.5033	0.1596	-1.2374
2	SLU 80	5.41	3.18	23.58	3.4264	0.1609	-1.2326
2	SLU 81	5.5	3.83	26.2	3.5769	0.1606	-1.253
2	SLU 82	5.48	3.36	24.35	3.5	0.1619	-1.2482
2	SLU 83	5.51	3.78	25.92	3.5582	0.1618	-1.2563
2	SLU 84	5.49	3.3	24.07	3.4813	0.1631	-1.2515
2	SLE RA 1	3.96	2.76	19.61	2.6508	0.1136	-0.901
2	SLE RA 2	3.93	2.23	17.55	2.5654	0.115	-0.8956
2	SLE RA 3	3.97	2.73	19.48	2.6443	0.1145	-0.9044
2	SLE RA 4	3.96	2.42	18.25	2.593	0.1154	-0.9012
2	SLE RA 5	3.94	2.2	17.36	2.5529	0.1159	-0.8978
2	SLE RA 6	3.98	2.7	19.29	2.6318	0.1154	-0.9066
2	SLE RA 7	3.97	2.38	18.06	2.5806	0.1162	-0.9034
2	SLE RA 8	3.98	2.68	19.23	2.6259	0.1153	-0.9054
2	SLE RA 9	3.96	2.37	17.99	2.5747	0.1161	-0.9022
2	SLE RA 10	4.08	2.34	17.87	2.6218	0.1205	-0.9302
2	SLE RA 11	4.12	2.84	19.8	2.7007	0.12	-0.939



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLE RA 12	4.11	2.52	18.56	2.6494	0.1208	-0.9358
2	SLE RA 13	4.09	2.3	17.68	2.6093	0.1213	-0.9324
2	SLE RA 14	4.13	2.8	19.61	2.6882	0.1208	-0.9412
2	SLE RA 15	4.12	2.49	18.37	2.637	0.1216	-0.938
2	SLE RA 16	4.13	2.79	19.54	2.6823	0.1207	-0.94
2	SLE RA 17	4.11	2.47	18.31	2.6311	0.1216	-0.9368
2	SLE RA 18	4.17	2.91	20.06	2.7314	0.1214	-0.9504
2	SLE RA 19	4.16	2.59	18.83	2.6801	0.1222	-0.9472
2	SLE RA 20	4.18	2.87	19.87	2.7189	0.1222	-0.9526
2	SLE RA 21	4.17	2.55	18.64	2.6677	0.1231	-0.9494
2	SLE FR 1	3.96	2.76	19.61	2.6508	0.1136	-0.901
2	SLE FR 2	3.95	2.65	19.2	2.6337	0.1139	-0.8999
2	SLE FR 3	3.96	2.74	19.53	2.6458	0.114	-0.9019
2	SLE FR 4	4.02	2.7	19.33	2.6579	0.1163	-0.9147
2	SLE FR 5	4.02	2.79	19.67	2.67	0.1163	-0.9167
2	SLE FR 6	4.06	2.83	19.84	2.6911	0.1175	-0.9257
2	SLE QP 1	3.96	2.76	19.61	2.6508	0.1136	-0.901
2	SLE QP 2	4.02	2.8	19.74	2.675	0.116	-0.9158
2	SLD 1	6.61	4.65	31.79	4.1518	0.2045	-1.5068
2	SLD 2	6.61	4.65	31.79	4.1518	0.2045	-1.5068
2	SLD 3	5.94	2.72	24.19	3.6769	0.1826	-1.357
2	SLD 4	5.94	2.72	24.19	3.6769	0.1826	-1.357
2	SLD 5	5.81	6.28	34.88	3.8381	0.1757	-1.3203
2	SLD 6	5.81	6.28	34.88	3.8381	0.1757	-1.3203
2	SLD 7	3.58	-0.14	9.56	2.2554	0.1028	-0.8209
2	SLD 8	3.58	-0.14	9.56	2.2554	0.1028	-0.8209
2	SLD 9	4.46	5.75	29.93	3.0945	0.1291	-1.0107
2	SLD 10	4.46	5.75	29.93	3.0945	0.1291	-1.0107
2	SLD 11	2.23	-0.67	4.61	1.5118	0.0563	-0.5113
2	SLD 12	2.23	-0.67	4.61	1.5118	0.0563	-0.5113
2	SLD 13	2.1	2.88	15.3	1.673	0.0493	-0.4746
2	SLD 14	2.1	2.88	15.3	1.673	0.0493	-0.4746
2	SLD 15	1.43	0.96	7.7	1.1982	0.0275	-0.3248
2	SLD 16	1.43	0.96	7.7	1.1982	0.0275	-0.3248
2	SLV 1	10.09	7.23	48.31	6.148	0.3232	-2.3009
2	SLV 2	10.09	7.23	48.31	6.148	0.3232	-2.3009
2	SLV 3	8.51	2.54	29.81	5.0038	0.2719	-1.9471
2	SLV 4	8.51	2.54	29.81	5.0038	0.2719	-1.9471
2	SLV 5	8.24	11.24	56.37	5.4522	0.2559	-1.868
2	SLV 6	8.24	11.24	56.37	5.4522	0.2559	-1.868
2	SLV 7	2.97	-4.38	-5.29	1.6382	0.085	-0.6886
2	SLV 8	2.97	-4.38	-5.29	1.6382	0.085	-0.6886
2	SLV 9	5.07	9.99	44.78	3.7117	0.147	-1.143
2	SLV 10	5.07	9.99	44.78	3.7117	0.147	-1.143
2	SLV 11	-0.19	-5.63	-16.88	-0.1023	-0.024	0.0363
2	SLV 12	-0.19	-5.63	-16.88	-0.1023	-0.024	0.0363
2	SLV 13	-0.46	3.06	9.68	0.3461	-0.04	0.1155
2	SLV 14	-0.46	3.06	9.68	0.3461	-0.04	0.1155
2	SLV 15	-2.04	-1.62	-8.82	-0.7981	-0.0913	0.4693
2	SLV 16	-2.04	-1.62	-8.82	-0.7981	-0.0913	0.4693
4	SLU 1	4.06	-0.02	20.03	0.0206	0.1826	0.0001
4	SLU 2	4.27	-0.03	18.93	0.0229	0.1897	0.0001
4	SLU 3	4.15	-0.02	19.93	0.0208	0.186	0.0001
4	SLU 4	4.27	-0.03	19.27	0.0222	0.1903	0.0001
4	SLU 5	4.36	-0.03	18.76	0.0231	0.1932	0.0001
4	SLU 6	4.24	-0.02	19.76	0.021	0.1895	0.0001
4	SLU 7	4.36	-0.03	19.1	0.0224	0.1938	0.0001
4	SLU 8	4.24	-0.02	19.69	0.021	0.1895	0.0001
4	SLU 9	4.36	-0.03	19.03	0.0223	0.1939	0.0001
4	SLU 10	4.66	-0.03	19.55	0.0253	0.2062	0.0001
4	SLU 11	4.54	-0.02	20.55	0.0233	0.2025	0.0001
4	SLU 12	4.67	-0.03	19.89	0.0247	0.2068	0.0001
4	SLU 13	4.75	-0.03	19.38	0.0255	0.2097	0.0001
4	SLU 14	4.63	-0.03	20.38	0.0235	0.206	0.0001
4	SLU 15	4.76	-0.03	19.72	0.0249	0.2103	0.0001
4	SLU 16	4.63	-0.03	20.31	0.0234	0.206	0.0001
4	SLU 17	4.76	-0.03	19.65	0.0248	0.2103	0.0001
4	SLU 18	4.62	-0.03	20.91	0.0241	0.206	0.0001
4	SLU 19	4.75	-0.03	20.25	0.0255	0.2103	0.0001
4	SLU 20	4.71	-0.03	20.74	0.0243	0.2095	0.0001
4	SLU 21	4.84	-0.03	20.08	0.0257	0.2138	0.0001
4	SLU 22	4.28	-0.02	20.29	0.0221	0.1917	0.0001
4	SLU 23	4.49	-0.03	19.19	0.0244	0.1989	0.0001
4	SLU 24	4.37	-0.02	20.19	0.0224	0.1952	0.0001
4	SLU 25	4.49	-0.03	19.53	0.0238	0.1995	0.0001
4	SLU 26	4.58	-0.03	19.02	0.0246	0.2023	0.0001
4	SLU 27	4.46	-0.02	20.02	0.0226	0.1987	0.0001
4	SLU 28	4.58	-0.03	19.36	0.0239	0.203	0.0001
4	SLU 29	4.46	-0.02	19.95	0.0225	0.1987	0.0001
4	SLU 30	4.59	-0.03	19.29	0.0239	0.203	0.0001
4	SLU 31	4.89	-0.03	19.81	0.0269	0.2153	0.0001
4	SLU 32	4.76	-0.03	20.81	0.0248	0.2116	0.0001
4	SLU 33	4.89	-0.03	20.15	0.0262	0.2159	0.0001
4	SLU 34	4.98	-0.03	19.64	0.0271	0.2188	0.0001
4	SLU 35	4.85	-0.03	20.64	0.025	0.2151	0.0001
4	SLU 36	4.98	-0.03	19.98	0.0264	0.2194	0.0001
4	SLU 37	4.86	-0.03	20.57	0.0249	0.2151	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLU 38	4.98	-0.03	19.91	0.0263	0.2194	0.0001
4	SLU 39	4.85	-0.03	21.17	0.0256	0.2152	0.0001
4	SLU 40	4.97	-0.03	20.52	0.027	0.2195	0.0001
4	SLU 41	4.94	-0.03	21	0.0258	0.2187	0.0001
4	SLU 42	5.06	-0.03	20.34	0.0272	0.223	0.0001
4	SLU 43	5.2	-0.03	25.95	0.0262	0.2342	0.0001
4	SLU 44	5.41	-0.04	24.85	0.0285	0.2414	0.0001
4	SLU 45	5.29	-0.03	25.85	0.0265	0.2377	0.0001
4	SLU 46	5.41	-0.03	25.19	0.0279	0.242	0.0001
4	SLU 47	5.5	-0.04	24.68	0.0287	0.2449	0.0001
4	SLU 48	5.38	-0.03	25.68	0.0267	0.2412	0.0001
4	SLU 49	5.5	-0.03	25.02	0.0281	0.2455	0.0001
4	SLU 50	5.38	-0.03	25.61	0.0266	0.2412	0.0001
4	SLU 51	5.5	-0.03	24.95	0.028	0.2455	0.0001
4	SLU 52	5.8	-0.04	25.47	0.031	0.2578	0.0001
4	SLU 53	5.68	-0.03	26.47	0.029	0.2541	0.0001
4	SLU 54	5.81	-0.04	25.81	0.0303	0.2584	0.0001
4	SLU 55	5.89	-0.04	25.3	0.0312	0.2613	0.0001
4	SLU 56	5.77	-0.03	26.3	0.0291	0.2576	0.0001
4	SLU 57	5.9	-0.04	25.64	0.0305	0.2619	0.0001
4	SLU 58	5.77	-0.03	26.22	0.0291	0.2576	0.0001
4	SLU 59	5.9	-0.04	25.57	0.0305	0.2619	0.0001
4	SLU 60	5.76	-0.03	26.83	0.0297	0.2577	0.0001
4	SLU 61	5.89	-0.04	26.17	0.0311	0.262	0.0001
4	SLU 62	5.85	-0.03	26.66	0.0299	0.2612	0.0001
4	SLU 63	5.98	-0.04	26	0.0313	0.2655	0.0001
4	SLU 64	5.42	-0.03	26.21	0.0278	0.2433	0.0001
4	SLU 65	5.63	-0.04	25.11	0.0301	0.2505	0.0001
4	SLU 66	5.51	-0.03	26.11	0.028	0.2468	0.0001
4	SLU 67	5.64	-0.04	25.45	0.0294	0.2511	0.0001
4	SLU 68	5.72	-0.04	24.94	0.0303	0.254	0.0001
4	SLU 69	5.6	-0.03	25.94	0.0282	0.2503	0.0001
4	SLU 70	5.72	-0.04	25.28	0.0296	0.2546	0.0001
4	SLU 71	5.6	-0.03	25.87	0.0281	0.2503	0.0001
4	SLU 72	5.73	-0.04	25.21	0.0295	0.2546	0.0001
4	SLU 73	6.03	-0.04	25.73	0.0325	0.2669	0.0001
4	SLU 74	5.91	-0.03	26.73	0.0305	0.2632	0.0001
4	SLU 75	6.03	-0.04	26.07	0.0319	0.2675	0.0001
4	SLU 76	6.12	-0.04	25.56	0.0327	0.2704	0.0001
4	SLU 77	6	-0.03	26.56	0.0307	0.2667	0.0001
4	SLU 78	6.12	-0.04	25.9	0.032	0.271	0.0001
4	SLU 79	6	-0.03	26.49	0.0306	0.2667	0.0001
4	SLU 80	6.12	-0.04	25.83	0.032	0.271	0.0001
4	SLU 81	5.99	-0.03	27.09	0.0313	0.2668	0.0001
4	SLU 82	6.11	-0.04	26.43	0.0326	0.2711	0.0001
4	SLU 83	6.08	-0.03	26.92	0.0314	0.2703	0.0001
4	SLU 84	6.2	-0.04	26.26	0.0328	0.2746	0.0001
4	SLE RA 1	4.12	-0.02	20.1	0.021	0.1852	0.0001
4	SLE RA 2	4.26	-0.03	19.37	0.0226	0.1899	0.0001
4	SLE RA 3	4.18	-0.02	20.04	0.0212	0.1875	0.0001
4	SLE RA 4	4.26	-0.03	19.6	0.0221	0.1904	0.0001
4	SLE RA 5	4.32	-0.03	19.26	0.0227	0.1923	0.0001
4	SLE RA 6	4.24	-0.02	19.93	0.0213	0.1898	0.0001
4	SLE RA 7	4.32	-0.03	19.49	0.0222	0.1927	0.0001
4	SLE RA 8	4.24	-0.02	19.88	0.0213	0.1898	0.0001
4	SLE RA 9	4.32	-0.03	19.44	0.0222	0.1927	0.0001
4	SLE RA 10	4.53	-0.03	19.78	0.0242	0.2009	0.0001
4	SLE RA 11	4.44	-0.02	20.45	0.0228	0.1984	0.0001
4	SLE RA 12	4.53	-0.03	20.01	0.0238	0.2013	0.0001
4	SLE RA 13	4.58	-0.03	19.67	0.0243	0.2032	0.0001
4	SLE RA 14	4.5	-0.02	20.34	0.023	0.2008	0.0001
4	SLE RA 15	4.59	-0.03	19.9	0.0239	0.2036	0.0001
4	SLE RA 16	4.51	-0.02	20.29	0.0229	0.2008	0.0001
4	SLE RA 17	4.59	-0.03	19.85	0.0238	0.2036	0.0001
4	SLE RA 18	4.5	-0.03	20.69	0.0233	0.2008	0.0001
4	SLE RA 19	4.58	-0.03	20.25	0.0243	0.2037	0.0001
4	SLE RA 20	4.56	-0.03	20.58	0.0235	0.2031	0.0001
4	SLE RA 21	4.64	-0.03	20.14	0.0244	0.206	0.0001
4	SLE FR 1	4.12	-0.02	20.1	0.021	0.1852	0.0001
4	SLE FR 2	4.15	-0.02	19.96	0.0213	0.1861	0.0001
4	SLE FR 3	4.15	-0.02	20.06	0.0211	0.1861	0.0001
4	SLE FR 4	4.26	-0.02	20.13	0.022	0.1908	0.0001
4	SLE FR 5	4.26	-0.02	20.24	0.0218	0.1908	0.0001
4	SLE FR 6	4.31	-0.02	20.4	0.0222	0.193	0.0001
4	SLE QP 1	4.12	-0.02	20.1	0.021	0.1852	0.0001
4	SLE QP 2	4.24	-0.02	20.28	0.0217	0.1899	0.0001
4	SLD 1	7.56	-0.07	29.22	0.0517	0.3473	0.0002
4	SLD 2	7.56	-0.07	29.22	0.0517	0.3473	0.0002
4	SLD 3	6.7	-0.04	25.69	0.0379	0.3077	0.0001
4	SLD 4	6.7	-0.04	25.69	0.0379	0.3077	0.0001
4	SLD 5	6.54	-0.08	28.33	0.0516	0.2971	0.0002
4	SLD 6	6.54	-0.08	28.33	0.0516	0.2971	0.0002
4	SLD 7	3.67	0.01	16.54	0.0056	0.1652	0
4	SLD 8	3.67	0.01	16.54	0.0056	0.1652	0
4	SLD 9	4.8	-0.06	24.02	0.0378	0.2145	0.0002
4	SLD 10	4.8	-0.06	24.02	0.0378	0.2145	0.0002
4	SLD 11	1.93	0.03	12.24	-0.0082	0.0826	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLD 12	1.93	0.03	12.24	-0.0082	0.0826	-0.0001
4	SLD 13	1.77	-0.01	14.88	0.0055	0.072	0
4	SLD 14	1.77	-0.01	14.88	0.0055	0.072	0
4	SLD 15	0.91	0.02	11.34	-0.0083	0.0324	-0.0001
4	SLD 16	0.91	0.02	11.34	-0.0083	0.0324	-0.0001
4	SLV 1	12.03	-0.12	41.36	0.0919	0.5588	0.0005
4	SLV 2	12.03	-0.12	41.36	0.0919	0.5588	0.0005
4	SLV 3	9.99	-0.06	32.79	0.0596	0.4657	0.0003
4	SLV 4	9.99	-0.06	32.79	0.0596	0.4657	0.0003
4	SLV 5	9.65	-0.14	39.6	0.0917	0.4416	0.0005
4	SLV 6	9.65	-0.14	39.6	0.0917	0.4416	0.0005
4	SLV 7	2.88	0.06	11.04	-0.0158	0.1315	-0.0002
4	SLV 8	2.88	0.06	11.04	-0.0158	0.1315	-0.0002
4	SLV 9	5.59	-0.1	29.53	0.0593	0.2482	0.0003
4	SLV 10	5.59	-0.1	29.53	0.0593	0.2482	0.0003
4	SLV 11	-1.18	0.1	0.96	-0.0482	-0.0619	-0.0004
4	SLV 12	-1.18	0.1	0.96	-0.0482	-0.0619	-0.0004
4	SLV 13	-1.52	0.01	7.77	-0.0162	-0.086	-0.0001
4	SLV 14	-1.52	0.01	7.77	-0.0162	-0.086	-0.0001
4	SLV 15	-3.56	0.07	-0.8	-0.0485	-0.179	-0.0003
4	SLV 16	-3.56	0.07	-0.8	-0.0485	-0.179	-0.0003
5	SLU 1	3.79	-0.07	20.15	0.0463	0.1611	-0.0001
5	SLU 2	4.02	-0.07	19.39	0.046	0.1692	-0.0001
5	SLU 3	3.93	-0.07	20.13	0.0467	0.1663	-0.0001
5	SLU 4	4.06	-0.07	19.68	0.0465	0.1712	-0.0001
5	SLU 5	4.16	-0.07	19.31	0.0462	0.1747	-0.0001
5	SLU 6	4.07	-0.07	20.05	0.0469	0.1719	-0.0001
5	SLU 7	4.2	-0.07	19.6	0.0467	0.1768	-0.0001
5	SLU 8	4.08	-0.07	19.99	0.0467	0.1722	-0.0001
5	SLU 9	4.21	-0.07	19.53	0.0465	0.1771	-0.0001
5	SLU 10	4.53	-0.08	20.22	0.0511	0.1899	-0.0002
5	SLU 11	4.43	-0.08	20.96	0.0518	0.1871	-0.0002
5	SLU 12	4.57	-0.08	20.5	0.0516	0.192	-0.0002
5	SLU 13	4.67	-0.08	20.14	0.0513	0.1955	-0.0002
5	SLU 14	4.58	-0.08	20.88	0.052	0.1927	-0.0002
5	SLU 15	4.71	-0.08	20.42	0.0518	0.1975	-0.0002
5	SLU 16	4.58	-0.08	20.81	0.0518	0.193	-0.0002
5	SLU 17	4.72	-0.08	20.36	0.0516	0.1978	-0.0002
5	SLU 18	4.52	-0.08	21.33	0.0536	0.1907	-0.0002
5	SLU 19	4.66	-0.08	20.88	0.0534	0.1956	-0.0002
5	SLU 20	4.66	-0.08	21.25	0.0538	0.1963	-0.0002
5	SLU 21	4.8	-0.08	20.79	0.0536	0.2012	-0.0002
5	SLU 22	4.08	-0.08	20.55	0.0493	0.1728	-0.0001
5	SLU 23	4.31	-0.08	19.79	0.049	0.1809	-0.0002
5	SLU 24	4.22	-0.08	20.53	0.0497	0.1781	-0.0001
5	SLU 25	4.35	-0.08	20.08	0.0495	0.1829	-0.0002
5	SLU 26	4.45	-0.08	19.71	0.0492	0.1865	-0.0002
5	SLU 27	4.36	-0.07	20.45	0.0499	0.1836	-0.0001
5	SLU 28	4.49	-0.08	20	0.0497	0.1885	-0.0002
5	SLU 29	4.37	-0.07	20.39	0.0497	0.1839	-0.0001
5	SLU 30	4.5	-0.07	19.93	0.0495	0.1888	-0.0002
5	SLU 31	4.82	-0.08	20.62	0.054	0.2017	-0.0002
5	SLU 32	4.72	-0.08	21.36	0.0548	0.1988	-0.0002
5	SLU 33	4.86	-0.08	20.9	0.0546	0.2037	-0.0002
5	SLU 34	4.96	-0.08	20.54	0.0542	0.2072	-0.0002
5	SLU 35	4.87	-0.08	21.28	0.055	0.2044	-0.0002
5	SLU 36	5	-0.08	20.82	0.0548	0.2093	-0.0002
5	SLU 37	4.87	-0.08	21.21	0.0548	0.2047	-0.0002
5	SLU 38	5.01	-0.08	20.76	0.0546	0.2096	-0.0002
5	SLU 39	4.81	-0.08	21.73	0.0566	0.2025	-0.0002
5	SLU 40	4.94	-0.08	21.28	0.0564	0.2073	-0.0002
5	SLU 41	4.95	-0.08	21.65	0.0568	0.208	-0.0002
5	SLU 42	5.09	-0.08	21.2	0.0566	0.2129	-0.0002
5	SLU 43	4.83	-0.09	26.06	0.0592	0.2054	-0.0002
5	SLU 44	5.06	-0.09	25.3	0.0589	0.2134	-0.0002
5	SLU 45	4.97	-0.09	26.04	0.0596	0.2106	-0.0002
5	SLU 46	5.1	-0.09	25.59	0.0594	0.2155	-0.0002
5	SLU 47	5.2	-0.09	25.22	0.0591	0.219	-0.0002
5	SLU 48	5.11	-0.09	25.96	0.0598	0.2162	-0.0002
5	SLU 49	5.24	-0.09	25.5	0.0596	0.2211	-0.0002
5	SLU 50	5.12	-0.09	25.89	0.0596	0.2165	-0.0002
5	SLU 51	5.25	-0.09	25.44	0.0594	0.2214	-0.0002
5	SLU 52	5.57	-0.1	26.13	0.0639	0.2342	-0.0002
5	SLU 53	5.47	-0.1	26.87	0.0647	0.2314	-0.0002
5	SLU 54	5.61	-0.1	26.41	0.0645	0.2363	-0.0002
5	SLU 55	5.71	-0.1	26.05	0.0641	0.2398	-0.0002
5	SLU 56	5.62	-0.1	26.78	0.0649	0.237	-0.0002
5	SLU 57	5.75	-0.1	26.33	0.0647	0.2418	-0.0002
5	SLU 58	5.62	-0.1	26.72	0.0647	0.2373	-0.0002
5	SLU 59	5.76	-0.1	26.27	0.0645	0.2421	-0.0002
5	SLU 60	5.56	-0.1	27.24	0.0665	0.235	-0.0002
5	SLU 61	5.69	-0.1	26.78	0.0663	0.2399	-0.0002
5	SLU 62	5.7	-0.1	27.16	0.0667	0.2406	-0.0002
5	SLU 63	5.84	-0.1	26.7	0.0665	0.2455	-0.0002
5	SLU 64	5.12	-0.1	26.46	0.0622	0.2171	-0.0002
5	SLU 65	5.35	-0.1	25.7	0.0619	0.2252	-0.0002
5	SLU 66	5.26	-0.1	26.44	0.0626	0.2224	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
5	SLU 67	5.39	-0.1	25.99	0.0624	0.2272	-0.0002
5	SLU 68	5.49	-0.1	25.62	0.062	0.2308	-0.0002
5	SLU 69	5.4	-0.1	26.36	0.0628	0.2279	-0.0002
5	SLU 70	5.53	-0.1	25.9	0.0626	0.2328	-0.0002
5	SLU 71	5.4	-0.09	26.3	0.0626	0.2282	-0.0002
5	SLU 72	5.54	-0.1	25.84	0.0624	0.2331	-0.0002
5	SLU 73	5.86	-0.1	26.53	0.0669	0.246	-0.0002
5	SLU 74	5.76	-0.1	27.27	0.0677	0.2431	-0.0002
5	SLU 75	5.9	-0.1	26.81	0.0675	0.248	-0.0002
5	SLU 76	6	-0.1	26.45	0.0671	0.2515	-0.0002
5	SLU 77	5.9	-0.1	27.18	0.0679	0.2487	-0.0002
5	SLU 78	6.04	-0.1	26.73	0.0677	0.2536	-0.0002
5	SLU 79	5.91	-0.1	27.12	0.0677	0.249	-0.0002
5	SLU 80	6.05	-0.1	26.67	0.0675	0.2539	-0.0002
5	SLU 81	5.85	-0.1	27.64	0.0695	0.2468	-0.0002
5	SLU 82	5.98	-0.1	27.18	0.0692	0.2516	-0.0002
5	SLU 83	5.99	-0.1	27.56	0.0696	0.2523	-0.0002
5	SLU 84	6.13	-0.1	27.1	0.0694	0.2572	-0.0002
5	SLE RA 1	3.88	-0.07	20.26	0.0472	0.1644	-0.0001
5	SLE RA 2	4.03	-0.07	19.76	0.047	0.1698	-0.0001
5	SLE RA 3	3.97	-0.07	20.25	0.0475	0.1679	-0.0001
5	SLE RA 4	4.06	-0.07	19.95	0.0473	0.1712	-0.0001
5	SLE RA 5	4.12	-0.07	19.71	0.0471	0.1735	-0.0001
5	SLE RA 6	4.06	-0.07	20.2	0.0476	0.1716	-0.0001
5	SLE RA 7	4.15	-0.07	19.9	0.0475	0.1749	-0.0001
5	SLE RA 8	4.06	-0.07	20.16	0.0475	0.1718	-0.0001
5	SLE RA 9	4.16	-0.07	19.85	0.0473	0.1751	-0.0001
5	SLE RA 10	4.37	-0.08	20.31	0.0503	0.1837	-0.0002
5	SLE RA 11	4.3	-0.08	20.8	0.0508	0.1818	-0.0002
5	SLE RA 12	4.39	-0.08	20.5	0.0507	0.185	-0.0002
5	SLE RA 13	4.46	-0.08	20.26	0.0505	0.1874	-0.0002
5	SLE RA 14	4.4	-0.08	20.75	0.051	0.1855	-0.0002
5	SLE RA 15	4.49	-0.08	20.45	0.0508	0.1887	-0.0002
5	SLE RA 16	4.4	-0.08	20.71	0.0508	0.1857	-0.0002
5	SLE RA 17	4.49	-0.08	20.4	0.0507	0.1889	-0.0002
5	SLE RA 18	4.36	-0.08	21.05	0.052	0.1842	-0.0002
5	SLE RA 19	4.45	-0.08	20.75	0.0519	0.1874	-0.0002
5	SLE RA 20	4.45	-0.08	21	0.0522	0.1879	-0.0002
5	SLE RA 21	4.55	-0.08	20.69	0.052	0.1912	-0.0002
5	SLE FR 1	3.88	-0.07	20.26	0.0472	0.1644	-0.0001
5	SLE FR 2	3.91	-0.07	20.16	0.0472	0.1655	-0.0001
5	SLE FR 3	3.91	-0.07	20.24	0.0472	0.1659	-0.0001
5	SLE FR 4	4.05	-0.07	20.4	0.0486	0.1714	-0.0001
5	SLE FR 5	4.06	-0.07	20.48	0.0487	0.1718	-0.0001
5	SLE FR 6	4.12	-0.08	20.66	0.0496	0.1743	-0.0001
5	SLE QP 1	3.88	-0.07	20.26	0.0472	0.1644	-0.0001
5	SLE QP 2	4.02	-0.07	20.5	0.0486	0.1703	-0.0001
5	SLD 1	7.73	-0.14	27.53	0.1061	0.3362	-0.0003
5	SLD 2	7.73	-0.14	27.53	0.1061	0.3362	-0.0003
5	SLD 3	6.72	-0.11	24.57	0.0823	0.293	-0.0003
5	SLD 4	6.72	-0.11	24.57	0.0823	0.293	-0.0003
5	SLD 5	6.68	-0.14	27.09	0.102	0.2856	-0.0003
5	SLD 6	6.68	-0.14	27.09	0.102	0.2856	-0.0003
5	SLD 7	3.29	-0.04	17.24	0.0226	0.1416	-0.0001
5	SLD 8	3.29	-0.04	17.24	0.0226	0.1416	-0.0001
5	SLD 9	4.76	-0.11	23.76	0.0747	0.1991	-0.0002
5	SLD 10	4.76	-0.11	23.76	0.0747	0.1991	-0.0002
5	SLD 11	1.37	-0.01	13.91	-0.0047	0.0551	0
5	SLD 12	1.37	-0.01	13.91	-0.0047	0.0551	0
5	SLD 13	1.33	-0.04	16.43	0.015	0.0477	0
5	SLD 14	1.33	-0.04	16.43	0.015	0.0477	0
5	SLD 15	0.31	-0.01	13.48	-0.0088	0.0045	0
5	SLD 16	0.31	-0.01	13.48	-0.0088	0.0045	0
5	SLV 1	12.72	-0.22	37.06	0.1831	0.5589	-0.0006
5	SLV 2	12.72	-0.22	37.06	0.1831	0.5589	-0.0006
5	SLV 3	10.32	-0.15	29.93	0.1272	0.4573	-0.0004
5	SLV 4	10.32	-0.15	29.93	0.1272	0.4573	-0.0004
5	SLV 5	10.27	-0.22	36.29	0.1738	0.441	-0.0005
5	SLV 6	10.27	-0.22	36.29	0.1738	0.441	-0.0005
5	SLV 7	2.28	0.01	12.51	-0.0126	0.1023	0
5	SLV 8	2.28	0.01	12.51	-0.0126	0.1023	0
5	SLV 9	5.77	-0.16	28.49	0.1099	0.2384	-0.0003
5	SLV 10	5.77	-0.16	28.49	0.1099	0.2384	-0.0003
5	SLV 11	-2.22	0.08	4.71	-0.0765	-0.1003	0.0002
5	SLV 12	-2.22	0.08	4.71	-0.0765	-0.1003	0.0002
5	SLV 13	-2.28	0	11.08	-0.0299	-0.1166	0.0001
5	SLV 14	-2.28	0	11.08	-0.0299	-0.1166	0.0001
5	SLV 15	-4.68	0.07	3.94	-0.0858	-0.2182	0.0003
5	SLV 16	-4.68	0.07	3.94	-0.0858	-0.2182	0.0003
6	SLU 1	3.78	-0.11	21.44	0.0646	0.1531	-0.0002
6	SLU 2	3.95	-0.11	20.93	0.062	0.1596	-0.0002
6	SLU 3	3.94	-0.11	21.54	0.0653	0.1595	-0.0002
6	SLU 4	4.05	-0.11	21.23	0.0637	0.1634	-0.0002
6	SLU 5	4.13	-0.11	20.98	0.0624	0.1665	-0.0002
6	SLU 6	4.12	-0.11	21.59	0.0657	0.1664	-0.0002
6	SLU 7	4.23	-0.11	21.28	0.0641	0.1703	-0.0002
6	SLU 8	4.14	-0.11	21.53	0.0654	0.1669	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6	SLU 9	4.24	-0.11	21.23	0.0638	0.1708	-0.0002
6	SLU 10	4.56	-0.12	22.12	0.0693	0.1833	-0.0002
6	SLU 11	4.55	-0.12	22.73	0.0726	0.1832	-0.0002
6	SLU 12	4.66	-0.12	22.43	0.071	0.1871	-0.0002
6	SLU 13	4.74	-0.12	22.17	0.0697	0.1902	-0.0002
6	SLU 14	4.73	-0.12	22.78	0.073	0.1902	-0.0002
6	SLU 15	4.84	-0.12	22.48	0.0714	0.1941	-0.0002
6	SLU 16	4.74	-0.12	22.73	0.0727	0.1906	-0.0002
6	SLU 17	4.85	-0.12	22.43	0.0711	0.1945	-0.0002
6	SLU 18	4.65	-0.12	23.15	0.0751	0.1869	-0.0002
6	SLU 19	4.75	-0.12	22.84	0.0735	0.1908	-0.0002
6	SLU 20	4.83	-0.12	23.19	0.0754	0.1939	-0.0002
6	SLU 21	4.93	-0.12	22.89	0.0739	0.1978	-0.0002
6	SLU 22	4.12	-0.12	22.06	0.0688	0.1664	-0.0002
6	SLU 23	4.3	-0.11	21.55	0.0662	0.1729	-0.0002
6	SLU 24	4.29	-0.12	22.16	0.0695	0.1729	-0.0002
6	SLU 25	4.39	-0.11	21.86	0.0679	0.1768	-0.0002
6	SLU 26	4.47	-0.11	21.6	0.0666	0.1799	-0.0002
6	SLU 27	4.47	-0.12	22.21	0.0698	0.1798	-0.0002
6	SLU 28	4.57	-0.11	21.91	0.0683	0.1837	-0.0002
6	SLU 29	4.48	-0.12	22.16	0.0696	0.1803	-0.0002
6	SLU 30	4.58	-0.11	21.86	0.068	0.1842	-0.0002
6	SLU 31	4.9	-0.12	22.75	0.0735	0.1966	-0.0002
6	SLU 32	4.9	-0.13	23.36	0.0768	0.1966	-0.0002
6	SLU 33	5	-0.12	23.06	0.0752	0.2005	-0.0002
6	SLU 34	5.08	-0.12	22.8	0.0739	0.2036	-0.0002
6	SLU 35	5.08	-0.13	23.41	0.0771	0.2035	-0.0002
6	SLU 36	5.18	-0.12	23.1	0.0756	0.2074	-0.0002
6	SLU 37	5.09	-0.13	23.36	0.0769	0.204	-0.0002
6	SLU 38	5.19	-0.12	23.05	0.0753	0.2079	-0.0002
6	SLU 39	4.99	-0.13	23.77	0.0792	0.2003	-0.0002
6	SLU 40	5.1	-0.13	23.47	0.0777	0.2042	-0.0002
6	SLU 41	5.17	-0.13	23.82	0.0796	0.2072	-0.0002
6	SLU 42	5.28	-0.13	23.52	0.078	0.2111	-0.0002
6	SLU 43	4.79	-0.14	27.65	0.0826	0.1944	-0.0002
6	SLU 44	4.96	-0.14	27.14	0.08	0.2009	-0.0002
6	SLU 45	4.96	-0.14	27.75	0.0832	0.2008	-0.0002
6	SLU 46	5.06	-0.14	27.45	0.0817	0.2047	-0.0002
6	SLU 47	5.14	-0.14	27.19	0.0803	0.2078	-0.0002
6	SLU 48	5.14	-0.14	27.8	0.0836	0.2078	-0.0002
6	SLU 49	5.24	-0.14	27.5	0.082	0.2117	-0.0002
6	SLU 50	5.15	-0.14	27.75	0.0833	0.2082	-0.0002
6	SLU 51	5.25	-0.14	27.44	0.0818	0.2121	-0.0002
6	SLU 52	5.57	-0.15	28.34	0.0873	0.2246	-0.0003
6	SLU 53	5.57	-0.15	28.95	0.0905	0.2246	-0.0003
6	SLU 54	5.67	-0.15	28.64	0.089	0.2285	-0.0003
6	SLU 55	5.75	-0.15	28.39	0.0876	0.2315	-0.0003
6	SLU 56	5.75	-0.15	29	0.0909	0.2315	-0.0003
6	SLU 57	5.85	-0.15	28.69	0.0893	0.2354	-0.0003
6	SLU 58	5.76	-0.15	28.95	0.0906	0.232	-0.0003
6	SLU 59	5.86	-0.15	28.64	0.0891	0.2359	-0.0003
6	SLU 60	5.66	-0.16	29.36	0.093	0.2283	-0.0003
6	SLU 61	5.77	-0.15	29.05	0.0914	0.2322	-0.0003
6	SLU 62	5.84	-0.16	29.41	0.0934	0.2352	-0.0003
6	SLU 63	5.95	-0.15	29.1	0.0918	0.2391	-0.0003
6	SLU 64	5.14	-0.15	28.28	0.0868	0.2078	-0.0003
6	SLU 65	5.31	-0.14	27.77	0.0841	0.2143	-0.0002
6	SLU 66	5.3	-0.15	28.38	0.0874	0.2142	-0.0003
6	SLU 67	5.41	-0.14	28.07	0.0858	0.2181	-0.0003
6	SLU 68	5.49	-0.14	27.82	0.0845	0.2212	-0.0002
6	SLU 69	5.48	-0.15	28.43	0.0878	0.2211	-0.0003
6	SLU 70	5.59	-0.14	28.12	0.0862	0.225	-0.0003
6	SLU 71	5.5	-0.15	28.38	0.0875	0.2216	-0.0003
6	SLU 72	5.6	-0.14	28.07	0.0859	0.2255	-0.0003
6	SLU 73	5.92	-0.15	28.97	0.0914	0.238	-0.0003
6	SLU 74	5.91	-0.16	29.58	0.0947	0.2379	-0.0003
6	SLU 75	6.02	-0.15	29.27	0.0931	0.2418	-0.0003
6	SLU 76	6.1	-0.15	29.02	0.0918	0.2449	-0.0003
6	SLU 77	6.09	-0.16	29.63	0.0951	0.2449	-0.0003
6	SLU 78	6.2	-0.15	29.32	0.0935	0.2488	-0.0003
6	SLU 79	6.1	-0.16	29.57	0.0948	0.2453	-0.0003
6	SLU 80	6.21	-0.15	29.27	0.0932	0.2492	-0.0003
6	SLU 81	6.01	-0.16	29.99	0.0972	0.2416	-0.0003
6	SLU 82	6.11	-0.16	29.68	0.0956	0.2455	-0.0003
6	SLU 83	6.19	-0.16	30.04	0.0976	0.2486	-0.0003
6	SLU 84	6.29	-0.16	29.73	0.096	0.2525	-0.0003
6	SLE RA 1	3.88	-0.11	21.62	0.0658	0.1569	-0.0002
6	SLE RA 2	3.99	-0.11	21.28	0.0641	0.1612	-0.0002
6	SLE RA 3	3.99	-0.11	21.68	0.0663	0.1612	-0.0002
6	SLE RA 4	4.06	-0.11	21.48	0.0652	0.1638	-0.0002
6	SLE RA 5	4.11	-0.11	21.31	0.0643	0.1658	-0.0002
6	SLE RA 6	4.11	-0.11	21.72	0.0665	0.1658	-0.0002
6	SLE RA 7	4.18	-0.11	21.51	0.0655	0.1684	-0.0002
6	SLE RA 8	4.11	-0.11	21.68	0.0663	0.1661	-0.0002
6	SLE RA 9	4.18	-0.11	21.48	0.0653	0.1687	-0.0002
6	SLE RA 10	4.4	-0.12	22.07	0.0689	0.177	-0.0002
6	SLE RA 11	4.39	-0.12	22.48	0.0711	0.177	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6	SLE RA 12	4.46	-0.12	22.28	0.0701	0.1796	-0.0002
6	SLE RA 13	4.52	-0.12	22.11	0.0692	0.1816	-0.0002
6	SLE RA 14	4.51	-0.12	22.51	0.0714	0.1816	-0.0002
6	SLE RA 15	4.58	-0.12	22.31	0.0703	0.1842	-0.0002
6	SLE RA 16	4.52	-0.12	22.48	0.0712	0.1819	-0.0002
6	SLE RA 17	4.59	-0.12	22.28	0.0701	0.1845	-0.0002
6	SLE RA 18	4.46	-0.12	22.75	0.0728	0.1795	-0.0002
6	SLE RA 19	4.53	-0.12	22.55	0.0717	0.1821	-0.0002
6	SLE RA 20	4.58	-0.12	22.79	0.073	0.1841	-0.0002
6	SLE RA 21	4.64	-0.12	22.58	0.072	0.1867	-0.0002
6	SLE FR 1	3.88	-0.11	21.62	0.0658	0.1569	-0.0002
6	SLE FR 2	3.9	-0.11	21.55	0.0655	0.1577	-0.0002
6	SLE FR 3	3.92	-0.11	21.63	0.0659	0.1587	-0.0002
6	SLE FR 4	4.07	-0.11	21.89	0.0676	0.1645	-0.0002
6	SLE FR 5	4.1	-0.11	21.97	0.068	0.1655	-0.0002
6	SLE FR 6	4.17	-0.12	22.19	0.0693	0.1682	-0.0002
6	SLE QP 1	3.88	-0.11	21.62	0.0658	0.1569	-0.0002
6	SLE QP 2	4.05	-0.11	21.96	0.0679	0.1637	-0.0002
6	SLD 1	7.95	-0.22	28.56	0.1512	0.3325	-0.0004
6	SLD 2	7.95	-0.22	28.56	0.1512	0.3325	-0.0004
6	SLD 3	6.81	-0.18	25.63	0.1181	0.2854	-0.0003
6	SLD 4	6.81	-0.18	25.63	0.1181	0.2854	-0.0003
6	SLD 5	6.95	-0.21	28.38	0.1431	0.2857	-0.0004
6	SLD 6	6.95	-0.21	28.38	0.1431	0.2857	-0.0004
6	SLD 7	3.15	-0.07	18.61	0.0327	0.1288	-0.0001
6	SLD 8	3.15	-0.07	18.61	0.0327	0.1288	-0.0001
6	SLD 9	4.95	-0.16	25.3	0.1031	0.1986	-0.0003
6	SLD 10	4.95	-0.16	25.3	0.1031	0.1986	-0.0003
6	SLD 11	1.15	-0.02	15.53	-0.0073	0.0416	0
6	SLD 12	1.15	-0.02	15.53	-0.0073	0.0416	0
6	SLD 13	1.29	-0.05	18.29	0.0177	0.0419	-0.0001
6	SLD 14	1.29	-0.05	18.29	0.0177	0.0419	-0.0001
6	SLD 15	0.15	-0.01	15.36	-0.0154	-0.0052	0
6	SLD 16	0.15	-0.01	15.36	-0.0154	-0.0052	0
6	SLV 1	13.19	-0.37	37.5	0.263	0.5592	-0.0007
6	SLV 2	13.19	-0.37	37.5	0.263	0.5592	-0.0007
6	SLV 3	10.51	-0.26	30.48	0.1851	0.4485	-0.0005
6	SLV 4	10.51	-0.26	30.48	0.1851	0.4485	-0.0005
6	SLV 5	10.86	-0.35	37.26	0.2445	0.4502	-0.0007
6	SLV 6	10.86	-0.35	37.26	0.2445	0.4502	-0.0007
6	SLV 7	1.93	0	13.87	-0.0149	0.0813	0
6	SLV 8	1.93	0	13.87	-0.0149	0.0813	0
6	SLV 9	6.17	-0.22	30.05	0.1508	0.2461	-0.0004
6	SLV 10	6.17	-0.22	30.05	0.1508	0.2461	-0.0004
6	SLV 11	-2.76	0.12	6.65	-0.1086	-0.1229	0.0003
6	SLV 12	-2.76	0.12	6.65	-0.1086	-0.1229	0.0003
6	SLV 13	-2.41	0.04	13.44	-0.0493	-0.1212	0.0001
6	SLV 14	-2.41	0.04	13.44	-0.0493	-0.1212	0.0001
6	SLV 15	-5.09	0.14	6.42	-0.1271	-0.2319	0.0003
6	SLV 16	-5.09	0.14	6.42	-0.1271	-0.2319	0.0003
7	SLU 1	4.38	-0.13	23.34	0.0726	0.1816	-0.0002
7	SLU 2	4.49	-0.12	22.98	0.0683	0.1858	-0.0002
7	SLU 3	4.58	-0.13	23.58	0.0735	0.1896	-0.0002
7	SLU 4	4.65	-0.12	23.37	0.0709	0.1921	-0.0002
7	SLU 5	4.71	-0.12	23.18	0.0689	0.1943	-0.0002
7	SLU 6	4.8	-0.13	23.79	0.0742	0.1981	-0.0002
7	SLU 7	4.86	-0.12	23.57	0.0715	0.2006	-0.0002
7	SLU 8	4.81	-0.13	23.75	0.0739	0.1986	-0.0002
7	SLU 9	4.88	-0.12	23.54	0.0713	0.2011	-0.0002
7	SLU 10	5.25	-0.13	24.66	0.077	0.2164	-0.0002
7	SLU 11	5.34	-0.14	25.27	0.0822	0.2201	-0.0002
7	SLU 12	5.41	-0.14	25.05	0.0796	0.2227	-0.0002
7	SLU 13	5.47	-0.13	24.86	0.0776	0.2249	-0.0002
7	SLU 14	5.55	-0.14	25.47	0.0829	0.2286	-0.0002
7	SLU 15	5.62	-0.14	25.26	0.0803	0.2312	-0.0002
7	SLU 16	5.57	-0.14	25.43	0.0826	0.2291	-0.0002
7	SLU 17	5.64	-0.14	25.22	0.08	0.2317	-0.0002
7	SLU 18	5.46	-0.15	25.74	0.0851	0.2252	-0.0002
7	SLU 19	5.53	-0.14	25.52	0.0825	0.2278	-0.0002
7	SLU 20	5.68	-0.15	25.95	0.0857	0.2337	-0.0003
7	SLU 21	5.75	-0.14	25.73	0.0831	0.2363	-0.0002
7	SLU 22	4.8	-0.13	24.25	0.0775	0.1986	-0.0002
7	SLU 23	4.92	-0.13	23.89	0.0732	0.2028	-0.0002
7	SLU 24	5.01	-0.13	24.5	0.0784	0.2066	-0.0002
7	SLU 25	5.07	-0.13	24.28	0.0758	0.2092	-0.0002
7	SLU 26	5.13	-0.13	24.1	0.0738	0.2113	-0.0002
7	SLU 27	5.22	-0.14	24.71	0.0791	0.2151	-0.0002
7	SLU 28	5.29	-0.13	24.49	0.0765	0.2177	-0.0002
7	SLU 29	5.23	-0.14	24.67	0.0788	0.2156	-0.0002
7	SLU 30	5.3	-0.13	24.45	0.0762	0.2182	-0.0002
7	SLU 31	5.68	-0.14	25.57	0.0819	0.2334	-0.0002
7	SLU 32	5.76	-0.15	26.18	0.0872	0.2372	-0.0003
7	SLU 33	5.83	-0.14	25.96	0.0845	0.2397	-0.0002
7	SLU 34	5.89	-0.14	25.78	0.0825	0.2419	-0.0002
7	SLU 35	5.98	-0.15	26.39	0.0878	0.2457	-0.0003
7	SLU 36	6.05	-0.14	26.17	0.0852	0.2482	-0.0003
7	SLU 37	5.99	-0.15	26.35	0.0875	0.2462	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLU 38	6.06	-0.14	26.13	0.0849	0.2487	-0.0003
7	SLU 39	5.89	-0.15	26.65	0.09	0.2423	-0.0003
7	SLU 40	5.95	-0.15	26.44	0.0874	0.2448	-0.0003
7	SLU 41	6.1	-0.15	26.86	0.0906	0.2508	-0.0003
7	SLU 42	6.17	-0.15	26.65	0.088	0.2533	-0.0003
7	SLU 43	5.55	-0.16	30.02	0.0927	0.2302	-0.0003
7	SLU 44	5.66	-0.16	29.66	0.0884	0.2344	-0.0003
7	SLU 45	5.75	-0.16	30.27	0.0936	0.2382	-0.0003
7	SLU 46	5.82	-0.16	30.05	0.091	0.2407	-0.0003
7	SLU 47	5.88	-0.16	29.87	0.089	0.2429	-0.0003
7	SLU 48	5.96	-0.16	30.48	0.0943	0.2467	-0.0003
7	SLU 49	6.03	-0.16	30.26	0.0916	0.2492	-0.0003
7	SLU 50	5.98	-0.16	30.44	0.094	0.2472	-0.0003
7	SLU 51	6.05	-0.16	30.22	0.0914	0.2497	-0.0003
7	SLU 52	6.42	-0.17	31.34	0.0971	0.265	-0.0003
7	SLU 53	6.51	-0.18	31.95	0.1023	0.2687	-0.0003
7	SLU 54	6.57	-0.17	31.74	0.0997	0.2713	-0.0003
7	SLU 55	6.63	-0.17	31.55	0.0977	0.2735	-0.0003
7	SLU 56	6.72	-0.18	32.16	0.103	0.2772	-0.0003
7	SLU 57	6.79	-0.17	31.94	0.1004	0.2798	-0.0003
7	SLU 58	6.74	-0.18	32.12	0.1027	0.2777	-0.0003
7	SLU 59	6.8	-0.17	31.9	0.1001	0.2803	-0.0003
7	SLU 60	6.63	-0.18	32.43	0.1052	0.2738	-0.0003
7	SLU 61	6.7	-0.18	32.21	0.1026	0.2764	-0.0003
7	SLU 62	6.85	-0.18	32.63	0.1058	0.2823	-0.0003
7	SLU 63	6.91	-0.18	32.42	0.1032	0.2849	-0.0003
7	SLU 64	5.97	-0.17	30.94	0.0976	0.2472	-0.0003
7	SLU 65	6.08	-0.16	30.58	0.0933	0.2515	-0.0003
7	SLU 66	6.17	-0.17	31.19	0.0985	0.2552	-0.0003
7	SLU 67	6.24	-0.17	30.97	0.0959	0.2578	-0.0003
7	SLU 68	6.3	-0.16	30.79	0.0939	0.26	-0.0003
7	SLU 69	6.39	-0.17	31.39	0.0992	0.2637	-0.0003
7	SLU 70	6.46	-0.17	31.18	0.0966	0.2663	-0.0003
7	SLU 71	6.4	-0.17	31.35	0.0989	0.2642	-0.0003
7	SLU 72	6.47	-0.17	31.14	0.0963	0.2668	-0.0003
7	SLU 73	6.84	-0.18	32.26	0.102	0.282	-0.0003
7	SLU 74	6.93	-0.18	32.87	0.1073	0.2858	-0.0003
7	SLU 75	7	-0.18	32.65	0.1046	0.2883	-0.0003
7	SLU 76	7.06	-0.18	32.47	0.1026	0.2905	-0.0003
7	SLU 77	7.15	-0.18	33.08	0.1079	0.2943	-0.0003
7	SLU 78	7.22	-0.18	32.86	0.1053	0.2968	-0.0003
7	SLU 79	7.16	-0.18	33.04	0.1076	0.2948	-0.0003
7	SLU 80	7.23	-0.18	32.82	0.105	0.2973	-0.0003
7	SLU 81	7.06	-0.19	33.34	0.1101	0.2909	-0.0003
7	SLU 82	7.12	-0.18	33.12	0.1075	0.2934	-0.0003
7	SLU 83	7.27	-0.19	33.55	0.1107	0.2994	-0.0003
7	SLU 84	7.34	-0.18	33.33	0.1081	0.3019	-0.0003
7	SLE RA 1	4.5	-0.13	23.6	0.074	0.1864	-0.0002
7	SLE RA 2	4.58	-0.12	23.36	0.0711	0.1893	-0.0002
7	SLE RA 3	4.64	-0.13	23.76	0.0746	0.1918	-0.0002
7	SLE RA 4	4.68	-0.13	23.62	0.0729	0.1935	-0.0002
7	SLE RA 5	4.72	-0.12	23.5	0.0715	0.1949	-0.0002
7	SLE RA 6	4.78	-0.13	23.9	0.0751	0.1974	-0.0002
7	SLE RA 7	4.82	-0.13	23.76	0.0733	0.1991	-0.0002
7	SLE RA 8	4.79	-0.13	23.88	0.0749	0.1978	-0.0002
7	SLE RA 9	4.83	-0.13	23.73	0.0731	0.1995	-0.0002
7	SLE RA 10	5.08	-0.13	24.48	0.0769	0.2096	-0.0002
7	SLE RA 11	5.14	-0.14	24.88	0.0804	0.2121	-0.0002
7	SLE RA 12	5.19	-0.14	24.74	0.0787	0.2138	-0.0002
7	SLE RA 13	5.22	-0.13	24.62	0.0774	0.2153	-0.0002
7	SLE RA 14	5.28	-0.14	25.02	0.0809	0.2178	-0.0002
7	SLE RA 15	5.33	-0.14	24.88	0.0791	0.2195	-0.0002
7	SLE RA 16	5.29	-0.14	25	0.0807	0.2181	-0.0002
7	SLE RA 17	5.34	-0.14	24.85	0.0789	0.2198	-0.0002
7	SLE RA 18	5.22	-0.14	25.2	0.0823	0.2155	-0.0002
7	SLE RA 19	5.27	-0.14	25.06	0.0806	0.2172	-0.0002
7	SLE RA 20	5.37	-0.14	25.34	0.0827	0.2212	-0.0002
7	SLE RA 21	5.41	-0.14	25.19	0.081	0.2229	-0.0002
7	SLE FR 1	4.5	-0.13	23.6	0.074	0.1864	-0.0002
7	SLE FR 2	4.52	-0.13	23.55	0.0734	0.187	-0.0002
7	SLE FR 3	4.56	-0.13	23.65	0.0742	0.1887	-0.0002
7	SLE FR 4	4.73	-0.13	24.03	0.0759	0.1957	-0.0002
7	SLE FR 5	4.77	-0.13	24.13	0.0767	0.1974	-0.0002
7	SLE FR 6	4.86	-0.13	24.4	0.0782	0.201	-0.0002
7	SLE QP 1	4.5	-0.13	23.6	0.074	0.1864	-0.0002
7	SLE QP 2	4.72	-0.13	24.08	0.0765	0.1952	-0.0002
7	SLD 1	8.9	-0.27	30.87	0.1765	0.3751	-0.0005
7	SLD 2	8.9	-0.27	30.87	0.1765	0.3751	-0.0005
7	SLD 3	7.56	-0.22	27.54	0.1379	0.3195	-0.0004
7	SLD 4	7.56	-0.22	27.54	0.1379	0.3195	-0.0004
7	SLD 5	8.01	-0.25	31.17	0.1651	0.3336	-0.0004
7	SLD 6	8.01	-0.25	31.17	0.1651	0.3336	-0.0004
7	SLD 7	3.53	-0.08	20.07	0.0364	0.148	-0.0001
7	SLD 8	3.53	-0.08	20.07	0.0364	0.148	-0.0001
7	SLD 9	5.9	-0.18	28.09	0.1167	0.2423	-0.0003
7	SLD 10	5.9	-0.18	28.09	0.1167	0.2423	-0.0003
7	SLD 11	1.43	-0.01	16.99	-0.012	0.0567	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLD 12	1.43	-0.01	16.99	-0.012	0.0567	0
7	SLD 13	1.88	-0.04	20.62	0.0151	0.0709	-0.0001
7	SLD 14	1.88	-0.04	20.62	0.0151	0.0709	-0.0001
7	SLD 15	0.53	0.01	17.29	-0.0235	0.0152	0
7	SLD 16	0.53	0.01	17.29	-0.0235	0.0152	0
7	SLV 1	14.52	-0.46	40.06	0.3105	0.6169	-0.0008
7	SLV 2	14.52	-0.46	40.06	0.3105	0.6169	-0.0008
7	SLV 3	11.36	-0.34	32.13	0.2198	0.486	-0.0006
7	SLV 4	11.36	-0.34	32.13	0.2198	0.486	-0.0006
7	SLV 5	12.44	-0.42	40.9	0.2843	0.5202	-0.0007
7	SLV 6	12.44	-0.42	40.9	0.2843	0.5202	-0.0007
7	SLV 7	1.92	-0.01	14.47	-0.018	0.0839	0
7	SLV 8	1.92	-0.01	14.47	-0.018	0.0839	0
7	SLV 9	7.51	-0.26	33.69	0.1711	0.3064	-0.0004
7	SLV 10	7.51	-0.26	33.69	0.1711	0.3064	-0.0004
7	SLV 11	-3.01	0.15	7.26	-0.1312	-0.1299	0.0003
7	SLV 12	-3.01	0.15	7.26	-0.1312	-0.1299	0.0003
7	SLV 13	-1.93	0.07	16.03	-0.0668	-0.0957	0.0002
7	SLV 14	-1.93	0.07	16.03	-0.0668	-0.0957	0.0002
7	SLV 15	-5.08	0.19	8.1	-0.1575	-0.2265	0.0004
7	SLV 16	-5.08	0.19	8.1	-0.1575	-0.2265	0.0004
8	SLU 1	4.99	-0.12	26.16	0.0679	0.1973	-0.0002
8	SLU 2	5.05	-0.11	25.88	0.0625	0.1999	-0.0002
8	SLU 3	5.21	-0.12	26.58	0.0689	0.2062	-0.0002
8	SLU 4	5.25	-0.11	26.41	0.0657	0.2078	-0.0002
8	SLU 5	5.29	-0.11	26.27	0.0633	0.2094	-0.0002
8	SLU 6	5.45	-0.12	26.97	0.0697	0.2156	-0.0002
8	SLU 7	5.49	-0.12	26.8	0.0665	0.2172	-0.0002
8	SLU 8	5.47	-0.12	26.94	0.0695	0.2162	-0.0002
8	SLU 9	5.51	-0.12	26.77	0.0662	0.2178	-0.0002
8	SLU 10	5.94	-0.12	28.18	0.0712	0.2344	-0.0002
8	SLU 11	6.1	-0.13	28.88	0.0776	0.2406	-0.0002
8	SLU 12	6.14	-0.13	28.71	0.0744	0.2422	-0.0002
8	SLU 13	6.18	-0.13	28.57	0.072	0.2438	-0.0002
8	SLU 14	6.34	-0.14	29.27	0.0784	0.2501	-0.0002
8	SLU 15	6.38	-0.13	29.11	0.0752	0.2517	-0.0002
8	SLU 16	6.35	-0.13	29.25	0.0782	0.2506	-0.0002
8	SLU 17	6.39	-0.13	29.08	0.0749	0.2522	-0.0002
8	SLU 18	6.25	-0.14	29.45	0.0803	0.2465	-0.0002
8	SLU 19	6.29	-0.13	29.28	0.0771	0.2481	-0.0002
8	SLU 20	6.49	-0.14	29.84	0.0811	0.2559	-0.0002
8	SLU 21	6.53	-0.13	29.67	0.0779	0.2575	-0.0002
8	SLU 22	5.48	-0.13	27.43	0.0728	0.2163	-0.0002
8	SLU 23	5.54	-0.12	27.15	0.0674	0.219	-0.0002
8	SLU 24	5.7	-0.13	27.85	0.0738	0.2252	-0.0002
8	SLU 25	5.74	-0.12	27.69	0.0705	0.2268	-0.0002
8	SLU 26	5.78	-0.12	27.55	0.0682	0.2284	-0.0002
8	SLU 27	5.94	-0.13	28.25	0.0746	0.2347	-0.0002
8	SLU 28	5.98	-0.12	28.08	0.0713	0.2362	-0.0002
8	SLU 29	5.96	-0.13	28.22	0.0743	0.2352	-0.0002
8	SLU 30	6	-0.12	28.05	0.0711	0.2368	-0.0002
8	SLU 31	6.42	-0.13	29.46	0.0761	0.2534	-0.0002
8	SLU 32	6.59	-0.14	30.16	0.0825	0.2597	-0.0002
8	SLU 33	6.63	-0.14	29.99	0.0793	0.2612	-0.0002
8	SLU 34	6.66	-0.13	29.85	0.0769	0.2628	-0.0002
8	SLU 35	6.83	-0.14	30.55	0.0833	0.2691	-0.0002
8	SLU 36	6.87	-0.14	30.38	0.08	0.2707	-0.0002
8	SLU 37	6.84	-0.14	30.52	0.083	0.2696	-0.0002
8	SLU 38	6.88	-0.14	30.36	0.0798	0.2712	-0.0002
8	SLU 39	6.74	-0.15	30.73	0.0852	0.2655	-0.0003
8	SLU 40	6.78	-0.14	30.56	0.082	0.2671	-0.0002
8	SLU 41	6.98	-0.15	31.12	0.086	0.275	-0.0003
8	SLU 42	7.02	-0.14	30.95	0.0828	0.2765	-0.0002
8	SLU 43	6.31	-0.15	33.57	0.0866	0.25	-0.0003
8	SLU 44	6.38	-0.14	33.29	0.0812	0.2526	-0.0002
8	SLU 45	6.54	-0.15	33.99	0.0876	0.2589	-0.0003
8	SLU 46	6.58	-0.15	33.82	0.0844	0.2605	-0.0002
8	SLU 47	6.62	-0.14	33.68	0.082	0.262	-0.0002
8	SLU 48	6.78	-0.15	34.38	0.0884	0.2683	-0.0003
8	SLU 49	6.82	-0.15	34.21	0.0852	0.2699	-0.0003
8	SLU 50	6.8	-0.15	34.35	0.0882	0.2688	-0.0003
8	SLU 51	6.83	-0.15	34.18	0.0849	0.2704	-0.0002
8	SLU 52	7.26	-0.16	35.59	0.0899	0.287	-0.0003
8	SLU 53	7.43	-0.17	36.29	0.0963	0.2933	-0.0003
8	SLU 54	7.46	-0.16	36.12	0.0931	0.2949	-0.0003
8	SLU 55	7.5	-0.16	35.98	0.0907	0.2965	-0.0003
8	SLU 56	7.67	-0.17	36.68	0.0971	0.3028	-0.0003
8	SLU 57	7.7	-0.16	36.52	0.0939	0.3043	-0.0003
8	SLU 58	7.68	-0.17	36.66	0.0969	0.3033	-0.0003
8	SLU 59	7.72	-0.16	36.49	0.0936	0.3049	-0.0003
8	SLU 60	7.58	-0.17	36.86	0.099	0.2992	-0.0003
8	SLU 61	7.62	-0.17	36.69	0.0958	0.3007	-0.0003
8	SLU 62	7.82	-0.17	37.25	0.0998	0.3086	-0.0003
8	SLU 63	7.86	-0.17	37.08	0.0966	0.3102	-0.0003
8	SLU 64	6.8	-0.16	34.84	0.0915	0.269	-0.0003
8	SLU 65	6.87	-0.15	34.56	0.0861	0.2716	-0.0003
8	SLU 66	7.03	-0.16	35.26	0.0925	0.2779	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
8	SLU 67	7.07	-0.16	35.09	0.0892	0.2795	-0.0003
8	SLU 68	7.11	-0.15	34.95	0.0869	0.2811	-0.0003
8	SLU 69	7.27	-0.16	35.66	0.0933	0.2873	-0.0003
8	SLU 70	7.31	-0.16	35.49	0.09	0.2889	-0.0003
8	SLU 71	7.28	-0.16	35.63	0.093	0.2879	-0.0003
8	SLU 72	7.32	-0.16	35.46	0.0898	0.2894	-0.0003
8	SLU 73	7.75	-0.16	36.87	0.0948	0.3061	-0.0003
8	SLU 74	7.91	-0.17	37.57	0.1012	0.3123	-0.0003
8	SLU 75	7.95	-0.17	37.4	0.098	0.3139	-0.0003
8	SLU 76	7.99	-0.17	37.26	0.0956	0.3155	-0.0003
8	SLU 77	8.15	-0.18	37.96	0.102	0.3218	-0.0003
8	SLU 78	8.19	-0.17	37.79	0.0987	0.3234	-0.0003
8	SLU 79	8.17	-0.18	37.93	0.1017	0.3223	-0.0003
8	SLU 80	8.21	-0.17	37.77	0.0985	0.3239	-0.0003
8	SLU 81	8.07	-0.18	38.14	0.1039	0.3182	-0.0003
8	SLU 82	8.1	-0.17	37.97	0.1007	0.3198	-0.0003
8	SLU 83	8.31	-0.18	38.53	0.1047	0.3276	-0.0003
8	SLU 84	8.35	-0.18	38.36	0.1015	0.3292	-0.0003
8	SLE RA 1	5.13	-0.12	26.52	0.0693	0.2027	-0.0002
8	SLE RA 2	5.17	-0.11	26.33	0.0657	0.2045	-0.0002
8	SLE RA 3	5.28	-0.12	26.8	0.07	0.2087	-0.0002
8	SLE RA 4	5.3	-0.12	26.69	0.0678	0.2097	-0.0002
8	SLE RA 5	5.33	-0.12	26.6	0.0662	0.2108	-0.0002
8	SLE RA 6	5.44	-0.12	27.06	0.0705	0.215	-0.0002
8	SLE RA 7	5.46	-0.12	26.95	0.0683	0.216	-0.0002
8	SLE RA 8	5.45	-0.12	27.05	0.0703	0.2153	-0.0002
8	SLE RA 9	5.47	-0.12	26.93	0.0682	0.2164	-0.0002
8	SLE RA 10	5.76	-0.12	27.87	0.0715	0.2274	-0.0002
8	SLE RA 11	5.87	-0.13	28.34	0.0758	0.2316	-0.0002
8	SLE RA 12	5.89	-0.13	28.23	0.0736	0.2327	-0.0002
8	SLE RA 13	5.92	-0.13	28.13	0.072	0.2337	-0.0002
8	SLE RA 14	6.03	-0.13	28.6	0.0763	0.2379	-0.0002
8	SLE RA 15	6.05	-0.13	28.49	0.0741	0.239	-0.0002
8	SLE RA 16	6.04	-0.13	28.58	0.0761	0.2383	-0.0002
8	SLE RA 17	6.06	-0.13	28.47	0.074	0.2393	-0.0002
8	SLE RA 18	5.97	-0.13	28.72	0.0776	0.2355	-0.0002
8	SLE RA 19	5.99	-0.13	28.61	0.0754	0.2366	-0.0002
8	SLE RA 20	6.13	-0.13	28.98	0.0781	0.2418	-0.0002
8	SLE RA 21	6.15	-0.13	28.87	0.076	0.2429	-0.0002
8	SLE FR 1	5.13	-0.12	26.52	0.0693	0.2027	-0.0002
8	SLE FR 2	5.13	-0.12	26.48	0.0686	0.2031	-0.0002
8	SLE FR 3	5.19	-0.12	26.63	0.0695	0.2052	-0.0002
8	SLE FR 4	5.39	-0.12	27.14	0.0711	0.2129	-0.0002
8	SLE FR 5	5.44	-0.13	27.29	0.072	0.2151	-0.0002
8	SLE FR 6	5.55	-0.13	27.62	0.0734	0.2191	-0.0002
8	SLE QP 1	5.13	-0.12	26.52	0.0693	0.2027	-0.0002
8	SLE QP 2	5.38	-0.12	27.18	0.0718	0.2126	-0.0002
8	SLD 1	9.77	-0.27	34.74	0.1734	0.4018	-0.0004
8	SLD 2	9.77	-0.27	34.74	0.1734	0.4018	-0.0004
8	SLD 3	8.25	-0.22	30.65	0.1344	0.3403	-0.0004
8	SLD 4	8.25	-0.22	30.65	0.1344	0.3403	-0.0004
8	SLD 5	9.01	-0.25	35.66	0.1613	0.3627	-0.0004
8	SLD 6	9.01	-0.25	35.66	0.1613	0.3627	-0.0004
8	SLD 7	3.93	-0.07	22.01	0.0315	0.1575	-0.0001
8	SLD 8	3.93	-0.07	22.01	0.0315	0.1575	-0.0001
8	SLD 9	6.83	-0.18	32.35	0.112	0.2676	-0.0003
8	SLD 10	6.83	-0.18	32.35	0.112	0.2676	-0.0003
8	SLD 11	1.75	0	18.7	-0.0177	0.0624	0
8	SLD 12	1.75	0	18.7	-0.0177	0.0624	0
8	SLD 13	2.51	-0.03	23.71	0.0092	0.0849	-0.0001
8	SLD 14	2.51	-0.03	23.71	0.0092	0.0849	-0.0001
8	SLD 15	0.98	0.02	19.62	-0.0298	0.0233	0
8	SLD 16	0.98	0.02	19.62	-0.0298	0.0233	0
8	SLV 1	15.68	-0.46	44.98	0.3095	0.6561	-0.0007
8	SLV 2	15.68	-0.46	44.98	0.3095	0.6561	-0.0007
8	SLV 3	12.09	-0.34	35.25	0.2181	0.5113	-0.0005
8	SLV 4	12.09	-0.34	35.25	0.2181	0.5113	-0.0005
8	SLV 5	13.91	-0.41	47.27	0.2817	0.5652	-0.0007
8	SLV 6	13.91	-0.41	47.27	0.2817	0.5652	-0.0007
8	SLV 7	1.95	0	14.85	-0.0229	0.0826	0
8	SLV 8	1.95	0	14.85	-0.0229	0.0826	0
8	SLV 9	8.81	-0.25	39.51	0.1665	0.3426	-0.0004
8	SLV 10	8.81	-0.25	39.51	0.1665	0.3426	-0.0004
8	SLV 11	-3.15	0.16	7.09	-0.1381	-0.1401	0.0002
8	SLV 12	-3.15	0.16	7.09	-0.1381	-0.1401	0.0002
8	SLV 13	-1.33	0.09	19.11	-0.0745	-0.0861	0.0001
8	SLV 14	-1.33	0.09	19.11	-0.0745	-0.0861	0.0001
8	SLV 15	-4.92	0.21	9.38	-0.1659	-0.2309	0.0003
8	SLV 16	-4.92	0.21	9.38	-0.1659	-0.2309	0.0003
9	SLU 1	5.36	-0.08	29.84	0.0494	0.2173	-0.0001
9	SLU 2	5.39	-0.07	29.59	0.044	0.2184	-0.0001
9	SLU 3	5.6	-0.08	30.45	0.0502	0.2266	-0.0001
9	SLU 4	5.61	-0.08	30.31	0.0469	0.2272	-0.0001
9	SLU 5	5.64	-0.07	30.19	0.0445	0.2281	-0.0001
9	SLU 6	5.84	-0.08	31.05	0.0507	0.2363	-0.0001
9	SLU 7	5.86	-0.08	30.9	0.0475	0.2369	-0.0001
9	SLU 8	5.85	-0.08	31.03	0.0506	0.2367	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
9	SLU 9	5.87	-0.08	30.88	0.0473	0.2374	-0.0001
9	SLU 10	6.35	-0.08	32.65	0.0507	0.2569	-0.0001
9	SLU 11	6.56	-0.09	33.51	0.0569	0.2651	-0.0001
9	SLU 12	6.58	-0.09	33.36	0.0536	0.2658	-0.0001
9	SLU 13	6.6	-0.08	33.24	0.0513	0.2666	-0.0001
9	SLU 14	6.81	-0.09	34.1	0.0575	0.2748	-0.0001
9	SLU 15	6.83	-0.09	33.95	0.0542	0.2755	-0.0001
9	SLU 16	6.82	-0.09	34.09	0.0573	0.2752	-0.0001
9	SLU 17	6.84	-0.09	33.94	0.054	0.2759	-0.0001
9	SLU 18	6.74	-0.1	34.21	0.0591	0.2723	-0.0001
9	SLU 19	6.76	-0.09	34.06	0.0558	0.273	-0.0001
9	SLU 20	6.99	-0.1	34.8	0.0596	0.282	-0.0001
9	SLU 21	7	-0.09	34.65	0.0563	0.2827	-0.0001
9	SLU 22	5.89	-0.09	31.54	0.0532	0.2381	-0.0001
9	SLU 23	5.92	-0.08	31.3	0.0477	0.2393	-0.0001
9	SLU 24	6.12	-0.09	32.16	0.0539	0.2474	-0.0001
9	SLU 25	6.14	-0.08	32.01	0.0506	0.2481	-0.0001
9	SLU 26	6.16	-0.08	31.89	0.0483	0.249	-0.0001
9	SLU 27	6.37	-0.09	32.75	0.0545	0.2571	-0.0001
9	SLU 28	6.39	-0.08	32.6	0.0512	0.2578	-0.0001
9	SLU 29	6.38	-0.09	32.73	0.0543	0.2576	-0.0001
9	SLU 30	6.4	-0.08	32.58	0.0511	0.2582	-0.0001
9	SLU 31	6.88	-0.09	34.35	0.0544	0.2778	-0.0001
9	SLU 32	7.09	-0.1	35.21	0.0606	0.286	-0.0001
9	SLU 33	7.1	-0.09	35.06	0.0574	0.2867	-0.0001
9	SLU 34	7.13	-0.09	34.95	0.055	0.2875	-0.0001
9	SLU 35	7.33	-0.1	35.81	0.0612	0.2957	-0.0001
9	SLU 36	7.35	-0.09	35.66	0.0579	0.2964	-0.0001
9	SLU 37	7.34	-0.1	35.79	0.0611	0.2961	-0.0001
9	SLU 38	7.36	-0.09	35.64	0.0578	0.2968	-0.0001
9	SLU 39	7.26	-0.1	35.91	0.0628	0.2932	-0.0001
9	SLU 40	7.28	-0.1	35.76	0.0595	0.2939	-0.0001
9	SLU 41	7.51	-0.1	36.5	0.0634	0.3029	-0.0001
9	SLU 42	7.53	-0.1	36.35	0.0601	0.3036	-0.0001
9	SLU 43	6.79	-0.1	38.21	0.063	0.2753	-0.0001
9	SLU 44	6.82	-0.09	37.96	0.0575	0.2764	-0.0001
9	SLU 45	7.03	-0.11	38.82	0.0637	0.2846	-0.0001
9	SLU 46	7.04	-0.1	38.67	0.0604	0.2853	-0.0001
9	SLU 47	7.07	-0.1	38.56	0.0581	0.2861	-0.0001
9	SLU 48	7.27	-0.11	39.42	0.0643	0.2943	-0.0001
9	SLU 49	7.29	-0.1	39.27	0.061	0.295	-0.0001
9	SLU 50	7.28	-0.11	39.4	0.0641	0.2947	-0.0001
9	SLU 51	7.3	-0.1	39.25	0.0609	0.2954	-0.0001
9	SLU 52	7.78	-0.11	41.02	0.0642	0.3149	-0.0001
9	SLU 53	7.99	-0.12	41.88	0.0704	0.3231	-0.0002
9	SLU 54	8.01	-0.11	41.73	0.0672	0.3238	-0.0001
9	SLU 55	8.03	-0.11	41.61	0.0648	0.3246	-0.0001
9	SLU 56	8.24	-0.12	42.47	0.071	0.3328	-0.0002
9	SLU 57	8.25	-0.11	42.32	0.0677	0.3335	-0.0001
9	SLU 58	8.25	-0.12	42.45	0.0709	0.3332	-0.0002
9	SLU 59	8.26	-0.11	42.31	0.0676	0.3339	-0.0001
9	SLU 60	8.17	-0.12	42.57	0.0726	0.3303	-0.0002
9	SLU 61	8.18	-0.11	42.43	0.0693	0.331	-0.0001
9	SLU 62	8.41	-0.12	43.17	0.0732	0.34	-0.0002
9	SLU 63	8.43	-0.11	43.02	0.0699	0.3407	-0.0002
9	SLU 64	7.32	-0.11	39.91	0.0667	0.2962	-0.0001
9	SLU 65	7.34	-0.1	39.66	0.0613	0.2973	-0.0001
9	SLU 66	7.55	-0.11	40.53	0.0675	0.3055	-0.0001
9	SLU 67	7.57	-0.11	40.38	0.0642	0.3061	-0.0001
9	SLU 68	7.59	-0.1	40.26	0.0618	0.307	-0.0001
9	SLU 69	7.8	-0.11	41.12	0.068	0.3152	-0.0001
9	SLU 70	7.81	-0.11	40.97	0.0648	0.3158	-0.0001
9	SLU 71	7.81	-0.11	41.1	0.0679	0.3156	-0.0001
9	SLU 72	7.83	-0.11	40.95	0.0646	0.3163	-0.0001
9	SLU 73	8.31	-0.11	42.72	0.068	0.3358	-0.0001
9	SLU 74	8.51	-0.12	43.58	0.0742	0.344	-0.0002
9	SLU 75	8.53	-0.12	43.43	0.0709	0.3447	-0.0002
9	SLU 76	8.55	-0.11	43.31	0.0686	0.3455	-0.0001
9	SLU 77	8.76	-0.12	44.18	0.0748	0.3537	-0.0002
9	SLU 78	8.78	-0.12	44.03	0.0715	0.3544	-0.0002
9	SLU 79	8.77	-0.12	44.16	0.0746	0.3541	-0.0002
9	SLU 80	8.79	-0.12	44.01	0.0713	0.3548	-0.0002
9	SLU 81	8.69	-0.13	44.28	0.0763	0.3512	-0.0002
9	SLU 82	8.71	-0.12	44.13	0.0731	0.3519	-0.0002
9	SLU 83	8.94	-0.13	44.87	0.0769	0.3609	-0.0002
9	SLU 84	8.96	-0.12	44.72	0.0736	0.3616	-0.0002
9	SLE RA 1	5.51	-0.08	30.33	0.0505	0.2232	-0.0001
9	SLE RA 2	5.53	-0.08	30.16	0.0469	0.224	-0.0001
9	SLE RA 3	5.67	-0.08	30.74	0.051	0.2294	-0.0001
9	SLE RA 4	5.68	-0.08	30.64	0.0488	0.2299	-0.0001
9	SLE RA 5	5.7	-0.08	30.56	0.0472	0.2305	-0.0001
9	SLE RA 6	5.83	-0.08	31.13	0.0514	0.2359	-0.0001
9	SLE RA 7	5.84	-0.08	31.03	0.0492	0.2363	-0.0001
9	SLE RA 8	5.84	-0.08	31.12	0.0513	0.2362	-0.0001
9	SLE RA 9	5.85	-0.08	31.02	0.0491	0.2366	-0.0001
9	SLE RA 10	6.17	-0.08	32.2	0.0513	0.2497	-0.0001
9	SLE RA 11	6.31	-0.09	32.77	0.0555	0.2551	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
9	SLE RA 12	6.32	-0.09	32.67	0.0533	0.2556	-0.0001
9	SLE RA 13	6.34	-0.08	32.6	0.0517	0.2561	-0.0001
9	SLE RA 14	6.48	-0.09	33.17	0.0559	0.2616	-0.0001
9	SLE RA 15	6.49	-0.09	33.07	0.0537	0.262	-0.0001
9	SLE RA 16	6.48	-0.09	33.16	0.0558	0.2619	-0.0001
9	SLE RA 17	6.49	-0.09	33.06	0.0536	0.2623	-0.0001
9	SLE RA 18	6.43	-0.09	33.24	0.0569	0.2599	-0.0001
9	SLE RA 19	6.44	-0.09	33.14	0.0547	0.2604	-0.0001
9	SLE RA 20	6.59	-0.09	33.63	0.0573	0.2664	-0.0001
9	SLE RA 21	6.61	-0.09	33.53	0.0551	0.2669	-0.0001
9	SLE FR 1	5.51	-0.08	30.33	0.0505	0.2232	-0.0001
9	SLE FR 2	5.52	-0.08	30.29	0.0498	0.2234	-0.0001
9	SLE FR 3	5.58	-0.08	30.49	0.0507	0.2258	-0.0001
9	SLE FR 4	5.79	-0.09	31.17	0.0517	0.2344	-0.0001
9	SLE FR 5	5.85	-0.09	31.36	0.0526	0.2368	-0.0001
9	SLE FR 6	5.97	-0.09	31.78	0.0537	0.2416	-0.0001
9	SLE QP 1	5.51	-0.08	30.33	0.0505	0.2232	-0.0001
9	SLE QP 2	5.79	-0.09	31.2	0.0524	0.2342	-0.0001
9	SLD 1	10.12	-0.2	39.92	0.1393	0.4176	-0.0003
9	SLD 2	10.12	-0.2	39.92	0.1393	0.4176	-0.0003
9	SLD 3	8.49	-0.16	34.77	0.1047	0.3513	-0.0002
9	SLD 4	8.49	-0.16	34.77	0.1047	0.3513	-0.0002
9	SLD 5	9.56	-0.19	41.63	0.1311	0.3898	-0.0003
9	SLD 6	9.56	-0.19	41.63	0.1311	0.3898	-0.0003
9	SLD 7	4.13	-0.04	24.46	0.0155	0.1688	0
9	SLD 8	4.13	-0.04	24.46	0.0155	0.1688	0
9	SLD 9	7.45	-0.13	37.94	0.0893	0.2997	-0.0002
9	SLD 10	7.45	-0.13	37.94	0.0893	0.2997	-0.0002
9	SLD 11	2.01	0.02	20.78	-0.0262	0.0786	0
9	SLD 12	2.01	0.02	20.78	-0.0262	0.0786	0
9	SLD 13	3.08	-0.01	27.63	0.0002	0.1172	0
9	SLD 14	3.08	-0.01	27.63	0.0002	0.1172	0
9	SLD 15	1.45	0.03	22.48	-0.0345	0.0509	0
9	SLD 16	1.45	0.03	22.48	-0.0345	0.0509	0
9	SLV 1	15.95	-0.36	51.72	0.2558	0.6641	-0.0004
9	SLV 2	15.95	-0.36	51.72	0.2558	0.6641	-0.0004
9	SLV 3	12.11	-0.25	39.52	0.1745	0.5079	-0.0003
9	SLV 4	12.11	-0.25	39.52	0.1745	0.5079	-0.0003
9	SLV 5	14.66	-0.33	55.87	0.2367	0.6001	-0.0004
9	SLV 6	14.66	-0.33	55.87	0.2367	0.6001	-0.0004
9	SLV 7	1.86	0.03	15.18	-0.0342	0.0795	0.0001
9	SLV 8	1.86	0.03	15.18	-0.0342	0.0795	0.0001
9	SLV 9	9.71	-0.2	47.22	0.1391	0.389	-0.0003
9	SLV 10	9.71	-0.2	47.22	0.1391	0.389	-0.0003
9	SLV 11	-3.09	0.16	6.53	-0.1318	-0.1316	0.0002
9	SLV 12	-3.09	0.16	6.53	-0.1318	-0.1316	0.0002
9	SLV 13	-0.54	0.08	22.88	-0.0696	-0.0394	0.0001
9	SLV 14	-0.54	0.08	22.88	-0.0696	-0.0394	0.0001
9	SLV 15	-4.38	0.19	10.68	-0.1509	-0.1956	0.0002
9	SLV 16	-4.38	0.19	10.68	-0.1509	-0.1956	0.0002
10	SLU 1	4.88	-0.01	34.02	0.0175	0.188	0
10	SLU 2	4.89	0	33.77	0.0131	0.1887	0
10	SLU 3	5.1	-0.01	34.83	0.0175	0.1965	0
10	SLU 4	5.11	0	34.68	0.0149	0.197	0
10	SLU 5	5.12	0	34.57	0.013	0.1977	0
10	SLU 6	5.33	-0.01	35.63	0.0175	0.2055	0
10	SLU 7	5.34	0	35.48	0.0148	0.2059	0
10	SLU 8	5.34	-0.01	35.62	0.0174	0.2059	0
10	SLU 9	5.35	0	35.47	0.0147	0.2063	0
10	SLU 10	5.82	0	37.65	0.0155	0.2241	0
10	SLU 11	6.03	-0.01	38.72	0.02	0.2319	0
10	SLU 12	6.03	0	38.57	0.0173	0.2323	0
10	SLU 13	6.05	0	38.46	0.0155	0.233	0
10	SLU 14	6.25	-0.01	39.52	0.0199	0.2408	0
10	SLU 15	6.26	0	39.37	0.0173	0.2412	0
10	SLU 16	6.26	-0.01	39.51	0.0198	0.2413	0
10	SLU 17	6.27	0	39.36	0.0172	0.2417	0
10	SLU 18	6.2	-0.01	39.57	0.021	0.2385	0
10	SLU 19	6.21	0	39.42	0.0184	0.2389	0
10	SLU 20	6.43	-0.01	40.37	0.021	0.2475	0
10	SLU 21	6.44	0	40.22	0.0183	0.2479	0
10	SLU 22	5.37	-0.01	36.18	0.0189	0.2067	0
10	SLU 23	5.38	0	35.93	0.0144	0.2074	0
10	SLU 24	5.59	-0.01	37	0.0189	0.2152	0
10	SLU 25	5.6	0	36.85	0.0162	0.2156	0
10	SLU 26	5.61	0	36.74	0.0144	0.2163	0
10	SLU 27	5.82	-0.01	37.8	0.0188	0.2241	0
10	SLU 28	5.83	0	37.65	0.0162	0.2246	0
10	SLU 29	5.83	-0.01	37.79	0.0188	0.2246	0
10	SLU 30	5.84	0	37.64	0.0161	0.225	0
10	SLU 31	6.31	0	39.82	0.0169	0.2427	0
10	SLU 32	6.52	-0.01	40.88	0.0214	0.2506	0
10	SLU 33	6.52	0	40.73	0.0187	0.251	0
10	SLU 34	6.54	0	40.62	0.0168	0.2517	0
10	SLU 35	6.74	-0.01	41.69	0.0213	0.2595	0
10	SLU 36	6.75	0	41.54	0.0186	0.2599	0
10	SLU 37	6.75	-0.01	41.67	0.0212	0.2599	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
10	SLU 38	6.76	0	41.52	0.0185	0.2603	0
10	SLU 39	6.69	-0.01	41.74	0.0224	0.2572	0
10	SLU 40	6.7	-0.01	41.59	0.0197	0.2576	0
10	SLU 41	6.92	-0.01	42.54	0.0223	0.2661	0
10	SLU 42	6.93	0	42.39	0.0197	0.2665	0
10	SLU 43	6.18	-0.01	43.48	0.0223	0.238	0
10	SLU 44	6.19	0	43.23	0.0179	0.2387	0
10	SLU 45	6.4	-0.01	44.29	0.0223	0.2466	0
10	SLU 46	6.41	0	44.14	0.0197	0.247	0
10	SLU 47	6.42	0	44.03	0.0178	0.2477	0
10	SLU 48	6.63	-0.01	45.1	0.0223	0.2555	0
10	SLU 49	6.63	0	44.95	0.0196	0.2559	0
10	SLU 50	6.64	-0.01	45.08	0.0222	0.2559	0
10	SLU 51	6.64	0	44.93	0.0195	0.2563	0
10	SLU 52	7.11	0	47.12	0.0203	0.2741	0
10	SLU 53	7.32	-0.01	48.18	0.0248	0.2819	0
10	SLU 54	7.33	-0.01	48.03	0.0221	0.2823	0
10	SLU 55	7.34	0	47.92	0.0203	0.283	0
10	SLU 56	7.55	-0.01	48.98	0.0247	0.2908	0
10	SLU 57	7.56	-0.01	48.83	0.0221	0.2913	0
10	SLU 58	7.56	-0.01	48.97	0.0246	0.2913	0
10	SLU 59	7.57	-0.01	48.82	0.022	0.2917	0
10	SLU 60	7.5	-0.01	49.03	0.0258	0.2885	0
10	SLU 61	7.51	-0.01	48.88	0.0232	0.289	0
10	SLU 62	7.73	-0.01	49.84	0.0258	0.2975	0
10	SLU 63	7.73	-0.01	49.68	0.0231	0.2979	0
10	SLU 64	6.67	-0.01	45.65	0.0237	0.2567	0
10	SLU 65	6.68	0	45.4	0.0192	0.2574	0
10	SLU 66	6.89	-0.01	46.46	0.0237	0.2652	0
10	SLU 67	6.9	-0.01	46.31	0.021	0.2656	0
10	SLU 68	6.91	0	46.2	0.0192	0.2663	0
10	SLU 69	7.12	-0.01	47.26	0.0236	0.2742	0
10	SLU 70	7.12	0	47.11	0.021	0.2746	0
10	SLU 71	7.13	-0.01	47.25	0.0236	0.2746	0
10	SLU 72	7.13	0	47.1	0.0209	0.275	0
10	SLU 73	7.6	0	49.28	0.0217	0.2927	0
10	SLU 74	7.81	-0.01	50.35	0.0261	0.3006	0
10	SLU 75	7.82	-0.01	50.2	0.0235	0.301	0
10	SLU 76	7.83	0	50.09	0.0216	0.3017	0
10	SLU 77	8.04	-0.01	51.15	0.0261	0.3095	0
10	SLU 78	8.05	-0.01	51	0.0234	0.3099	0
10	SLU 79	8.05	-0.01	51.14	0.026	0.3099	0
10	SLU 80	8.06	-0.01	50.99	0.0233	0.3103	0
10	SLU 81	7.99	-0.01	51.2	0.0272	0.3072	0
10	SLU 82	8	-0.01	51.05	0.0245	0.3076	0
10	SLU 83	8.22	-0.01	52	0.0271	0.3161	0
10	SLU 84	8.22	-0.01	51.85	0.0245	0.3166	0
10	SLE RA 1	5.02	-0.01	34.64	0.0179	0.1934	0
10	SLE RA 2	5.03	0	34.47	0.015	0.1938	0
10	SLE RA 3	5.17	-0.01	35.18	0.0179	0.199	0
10	SLE RA 4	5.17	0	35.08	0.0162	0.1993	0
10	SLE RA 5	5.18	0	35	0.0149	0.1998	0
10	SLE RA 6	5.32	-0.01	35.71	0.0179	0.205	0
10	SLE RA 7	5.33	0	35.61	0.0161	0.2053	0
10	SLE RA 8	5.33	-0.01	35.71	0.0178	0.2053	0
10	SLE RA 9	5.33	0	35.61	0.0161	0.2056	0
10	SLE RA 10	5.65	0	37.06	0.0166	0.2174	0
10	SLE RA 11	5.79	-0.01	37.77	0.0196	0.2226	0
10	SLE RA 12	5.79	-0.01	37.67	0.0178	0.2229	0
10	SLE RA 13	5.8	0	37.6	0.0165	0.2234	0
10	SLE RA 14	5.94	-0.01	38.3	0.0195	0.2286	0
10	SLE RA 15	5.94	0	38.2	0.0177	0.2288	0
10	SLE RA 16	5.94	-0.01	38.3	0.0195	0.2288	0
10	SLE RA 17	5.95	0	38.2	0.0177	0.2291	0
10	SLE RA 18	5.9	-0.01	38.34	0.0203	0.227	0
10	SLE RA 19	5.91	-0.01	38.24	0.0185	0.2273	0
10	SLE RA 20	6.06	-0.01	38.87	0.0202	0.233	0
10	SLE RA 21	6.06	-0.01	38.77	0.0184	0.2333	0
10	SLE FR 1	5.02	-0.01	34.64	0.0179	0.1934	0
10	SLE FR 2	5.02	-0.01	34.6	0.0173	0.1935	0
10	SLE FR 3	5.08	-0.01	34.85	0.0179	0.1958	0
10	SLE FR 4	5.29	-0.01	35.71	0.018	0.2036	0
10	SLE FR 5	5.35	-0.01	35.96	0.0186	0.2058	0
10	SLE FR 6	5.46	-0.01	36.49	0.0191	0.2102	0
10	SLE QP 1	5.02	-0.01	34.64	0.0179	0.1934	0
10	SLE QP 2	5.29	-0.01	35.75	0.0186	0.2035	0
10	SLD 1	9.37	-0.04	45.88	0.0505	0.3804	-0.0001
10	SLD 2	9.37	-0.04	45.88	0.0505	0.3804	-0.0001
10	SLD 3	7.81	-0.08	39.47	0.0781	0.3194	0
10	SLD 4	7.81	-0.08	39.47	0.0781	0.3194	0
10	SLD 5	8.87	0.04	48.5	-0.0136	0.3491	-0.0002
10	SLD 6	8.87	0.04	48.5	-0.0136	0.3491	-0.0002
10	SLD 7	3.68	-0.09	27.15	0.0782	0.1456	0.0001
10	SLD 8	3.68	-0.09	27.15	0.0782	0.1456	0.0001
10	SLD 9	6.89	0.07	44.34	-0.041	0.2613	-0.0001
10	SLD 10	6.89	0.07	44.34	-0.041	0.2613	-0.0001
10	SLD 11	1.7	-0.06	22.99	0.0508	0.0578	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
10	SLD 12	1.7	-0.06	22.99	0.0508	0.0578	0.0001
10	SLD 13	2.77	0.06	32.02	-0.0408	0.0876	0
10	SLD 14	2.77	0.06	32.02	-0.0408	0.0876	0
10	SLD 15	1.21	0.02	25.62	-0.0133	0.0265	0
10	SLD 16	1.21	0.02	25.62	-0.0133	0.0265	0
10	SLV 1	14.85	-0.08	59.58	0.0933	0.6181	-0.0002
10	SLV 2	14.85	-0.08	59.58	0.0933	0.6181	-0.0002
10	SLV 3	11.18	-0.17	44.41	0.1578	0.4744	0
10	SLV 4	11.18	-0.17	44.41	0.1578	0.4744	0
10	SLV 5	13.72	0.11	65.91	-0.0568	0.5458	-0.0003
10	SLV 6	13.72	0.11	65.91	-0.0568	0.5458	-0.0003
10	SLV 7	1.49	-0.19	15.33	0.1582	0.0668	0.0002
10	SLV 8	1.49	-0.19	15.33	0.1582	0.0668	0.0002
10	SLV 9	9.08	0.18	56.16	-0.1209	0.3401	-0.0003
10	SLV 10	9.08	0.18	56.16	-0.1209	0.3401	-0.0003
10	SLV 11	-3.15	-0.12	5.59	0.094	-0.1389	0.0003
10	SLV 12	-3.15	-0.12	5.59	0.094	-0.1389	0.0003
10	SLV 13	-0.61	0.15	27.09	-0.1205	-0.0675	0
10	SLV 14	-0.61	0.15	27.09	-0.1205	-0.0675	0
10	SLV 15	-4.28	0.06	11.91	-0.056	-0.2112	0.0002
10	SLV 16	-4.28	0.06	11.91	-0.056	-0.2112	0.0002
11	SLU 1	3.86	0.15	39.06	-0.024	0.14	0.0005
11	SLU 2	3.86	0.15	38.76	-0.0262	0.1402	0.0005
11	SLU 3	4.05	0.15	40.1	-0.0251	0.1467	0.0005
11	SLU 4	4.05	0.16	39.92	-0.0264	0.1468	0.0005
11	SLU 5	4.05	0.16	39.79	-0.0273	0.1472	0.0005
11	SLU 6	4.24	0.16	41.13	-0.0262	0.1536	0.0005
11	SLU 7	4.24	0.16	40.95	-0.0275	0.1537	0.0005
11	SLU 8	4.24	0.16	41.12	-0.0262	0.1539	0.0005
11	SLU 9	4.24	0.16	40.94	-0.0275	0.154	0.0005
11	SLU 10	4.68	0.18	43.67	-0.0301	0.1704	0.0006
11	SLU 11	4.87	0.18	45.01	-0.0291	0.1768	0.0006
11	SLU 12	4.87	0.18	44.83	-0.0304	0.1769	0.0006
11	SLU 13	4.87	0.18	44.7	-0.0312	0.1773	0.0006
11	SLU 14	5.06	0.18	46.04	-0.0302	0.1837	0.0006
11	SLU 15	5.06	0.18	45.86	-0.0315	0.1839	0.0006
11	SLU 16	5.06	0.18	46.03	-0.0302	0.184	0.0006
11	SLU 17	5.06	0.18	45.85	-0.0315	0.1841	0.0006
11	SLU 18	5.04	0.18	46.08	-0.0297	0.1831	0.0006
11	SLU 19	5.04	0.18	45.9	-0.031	0.1832	0.0006
11	SLU 20	5.23	0.19	47.11	-0.0308	0.19	0.0006
11	SLU 21	5.23	0.19	46.93	-0.0321	0.1901	0.0006
11	SLU 22	4.28	0.16	41.78	-0.0263	0.155	0.0006
11	SLU 23	4.28	0.17	41.48	-0.0284	0.1552	0.0006
11	SLU 24	4.46	0.17	42.82	-0.0274	0.1617	0.0006
11	SLU 25	4.46	0.17	42.64	-0.0287	0.1618	0.0006
11	SLU 26	4.47	0.17	42.51	-0.0295	0.1622	0.0006
11	SLU 27	4.65	0.17	43.85	-0.0285	0.1686	0.0006
11	SLU 28	4.65	0.17	43.67	-0.0297	0.1687	0.0006
11	SLU 29	4.66	0.17	43.84	-0.0285	0.1688	0.0006
11	SLU 30	4.66	0.17	43.66	-0.0297	0.169	0.0006
11	SLU 31	5.1	0.19	46.4	-0.0324	0.1854	0.0006
11	SLU 32	5.28	0.19	47.73	-0.0314	0.1918	0.0007
11	SLU 33	5.28	0.19	47.56	-0.0326	0.1919	0.0007
11	SLU 34	5.29	0.19	47.43	-0.0335	0.1923	0.0006
11	SLU 35	5.47	0.19	48.76	-0.0325	0.1987	0.0007
11	SLU 36	5.47	0.2	48.59	-0.0337	0.1988	0.0007
11	SLU 37	5.48	0.19	48.75	-0.0324	0.199	0.0007
11	SLU 38	5.48	0.2	48.58	-0.0337	0.1991	0.0007
11	SLU 39	5.45	0.19	48.8	-0.032	0.1981	0.0007
11	SLU 40	5.45	0.2	48.62	-0.0332	0.1982	0.0007
11	SLU 41	5.64	0.2	49.83	-0.0331	0.205	0.0007
11	SLU 42	5.64	0.2	49.65	-0.0343	0.2051	0.0007
11	SLU 43	4.88	0.19	49.84	-0.0305	0.1769	0.0006
11	SLU 44	4.88	0.19	49.55	-0.0326	0.1771	0.0006
11	SLU 45	5.06	0.19	50.88	-0.0316	0.1835	0.0007
11	SLU 46	5.06	0.2	50.71	-0.0328	0.1837	0.0007
11	SLU 47	5.07	0.2	50.58	-0.0337	0.184	0.0007
11	SLU 48	5.25	0.2	51.91	-0.0327	0.1904	0.0007
11	SLU 49	5.25	0.2	51.74	-0.0339	0.1906	0.0007
11	SLU 50	5.26	0.2	51.9	-0.0327	0.1907	0.0007
11	SLU 51	5.26	0.2	51.73	-0.0339	0.1909	0.0007
11	SLU 52	5.7	0.22	54.46	-0.0366	0.2072	0.0007
11	SLU 53	5.88	0.22	55.8	-0.0356	0.2137	0.0007
11	SLU 54	5.88	0.22	55.62	-0.0368	0.2138	0.0007
11	SLU 55	5.89	0.22	55.49	-0.0377	0.2142	0.0007
11	SLU 56	6.07	0.22	56.83	-0.0366	0.2206	0.0008
11	SLU 57	6.07	0.22	56.65	-0.0379	0.2207	0.0008
11	SLU 58	6.08	0.22	56.82	-0.0366	0.2209	0.0008
11	SLU 59	6.08	0.22	56.64	-0.0379	0.221	0.0008
11	SLU 60	6.05	0.22	56.86	-0.0362	0.2199	0.0008
11	SLU 61	6.05	0.22	56.68	-0.0374	0.2201	0.0008
11	SLU 62	6.24	0.23	57.89	-0.0373	0.2268	0.0008
11	SLU 63	6.24	0.23	57.71	-0.0385	0.227	0.0008
11	SLU 64	5.29	0.2	52.57	-0.0327	0.1919	0.0007
11	SLU 65	5.29	0.21	52.27	-0.0348	0.1921	0.0007
11	SLU 66	5.48	0.21	53.61	-0.0338	0.1985	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
11	SLU 67	5.48	0.21	53.43	-0.0351	0.1986	0.0007
11	SLU 68	5.48	0.21	53.3	-0.0359	0.199	0.0007
11	SLU 69	5.67	0.21	54.64	-0.0349	0.2054	0.0007
11	SLU 70	5.67	0.21	54.46	-0.0362	0.2056	0.0007
11	SLU 71	5.67	0.21	54.63	-0.0349	0.2057	0.0007
11	SLU 72	5.67	0.21	54.45	-0.0362	0.2058	0.0007
11	SLU 73	6.11	0.23	57.18	-0.0388	0.2222	0.0008
11	SLU 74	6.3	0.23	58.52	-0.0378	0.2287	0.0008
11	SLU 75	6.3	0.23	58.34	-0.0391	0.2288	0.0008
11	SLU 76	6.3	0.23	58.21	-0.0399	0.2292	0.0008
11	SLU 77	6.49	0.23	59.55	-0.0389	0.2356	0.0008
11	SLU 78	6.49	0.24	59.37	-0.0402	0.2357	0.0008
11	SLU 79	6.5	0.23	59.54	-0.0389	0.2358	0.0008
11	SLU 80	6.5	0.24	59.36	-0.0402	0.236	0.0008
11	SLU 81	6.47	0.23	59.58	-0.0384	0.2349	0.0008
11	SLU 82	6.47	0.24	59.4	-0.0397	0.2351	0.0008
11	SLU 83	6.66	0.24	60.61	-0.0395	0.2418	0.0008
11	SLU 84	6.66	0.24	60.43	-0.0408	0.242	0.0008
11	SLE RA 1	3.98	0.15	39.84	-0.0247	0.1443	0.0005
11	SLE RA 2	3.98	0.15	39.64	-0.0261	0.1444	0.0005
11	SLE RA 3	4.1	0.16	40.53	-0.0254	0.1487	0.0005
11	SLE RA 4	4.1	0.16	40.41	-0.0263	0.1488	0.0005
11	SLE RA 5	4.11	0.16	40.33	-0.0268	0.1491	0.0005
11	SLE RA 6	4.23	0.16	41.22	-0.0261	0.1533	0.0005
11	SLE RA 7	4.23	0.16	41.1	-0.027	0.1534	0.0005
11	SLE RA 8	4.23	0.16	41.21	-0.0261	0.1535	0.0005
11	SLE RA 9	4.23	0.16	41.09	-0.027	0.1536	0.0005
11	SLE RA 10	4.53	0.17	42.91	-0.0287	0.1645	0.0006
11	SLE RA 11	4.65	0.17	43.81	-0.0281	0.1688	0.0006
11	SLE RA 12	4.65	0.17	43.69	-0.0289	0.1689	0.0006
11	SLE RA 13	4.65	0.17	43.6	-0.0295	0.1692	0.0006
11	SLE RA 14	4.78	0.17	44.49	-0.0288	0.1734	0.0006
11	SLE RA 15	4.78	0.18	44.37	-0.0296	0.1735	0.0006
11	SLE RA 16	4.78	0.17	44.49	-0.0288	0.1736	0.0006
11	SLE RA 17	4.78	0.18	44.37	-0.0296	0.1737	0.0006
11	SLE RA 18	4.76	0.17	44.52	-0.0285	0.173	0.0006
11	SLE RA 19	4.76	0.18	44.4	-0.0293	0.1731	0.0006
11	SLE RA 20	4.89	0.18	45.2	-0.0292	0.1776	0.0006
11	SLE RA 21	4.89	0.18	45.08	-0.03	0.1777	0.0006
11	SLE FR 1	3.98	0.15	39.84	-0.0247	0.1443	0.0005
11	SLE FR 2	3.98	0.15	39.8	-0.025	0.1443	0.0005
11	SLE FR 3	4.03	0.15	40.11	-0.025	0.1461	0.0005
11	SLE FR 4	4.22	0.16	41.2	-0.0261	0.1529	0.0005
11	SLE FR 5	4.27	0.16	41.52	-0.0261	0.1547	0.0005
11	SLE FR 6	4.37	0.16	42.18	-0.0266	0.1586	0.0006
11	SLE QP 1	3.98	0.15	39.84	-0.0247	0.1443	0.0005
11	SLE QP 2	4.22	0.16	41.24	-0.0258	0.1529	0.0005
11	SLD 1	7.74	0.22	53.24	-0.0178	0.2971	0.0007
11	SLD 2	7.74	0.22	53.24	-0.0178	0.2971	0.0007
11	SLD 3	6.36	0.17	45.14	0.0034	0.2462	0.0006
11	SLD 4	6.36	0.17	45.14	0.0034	0.2462	0.0006
11	SLD 5	7.36	0.25	57.13	-0.0556	0.2733	0.0008
11	SLD 6	7.36	0.25	57.13	-0.0556	0.2733	0.0008
11	SLD 7	2.77	0.09	30.12	0.0152	0.1037	0.0003
11	SLD 8	2.77	0.09	30.12	0.0152	0.1037	0.0003
11	SLD 9	5.66	0.23	52.36	-0.0668	0.2021	0.0008
11	SLD 10	5.66	0.23	52.36	-0.0668	0.2021	0.0008
11	SLD 11	1.07	0.07	25.35	0.004	0.0325	0.0003
11	SLD 12	1.07	0.07	25.35	0.004	0.0325	0.0003
11	SLD 13	2.07	0.15	37.34	-0.055	0.0596	0.0005
11	SLD 14	2.07	0.15	37.34	-0.055	0.0596	0.0005
11	SLD 15	0.7	0.1	29.24	-0.0338	0.0087	0.0003
11	SLD 16	0.7	0.1	29.24	-0.0338	0.0087	0.0003
11	SLV 1	12.46	0.3	69.48	-0.0072	0.4905	0.001
11	SLV 2	12.46	0.3	69.48	-0.0072	0.4905	0.001
11	SLV 3	9.22	0.19	50.3	0.0426	0.3709	0.0007
11	SLV 4	9.22	0.19	50.3	0.0426	0.3709	0.0007
11	SLV 5	11.6	0.37	78.8	-0.0956	0.4355	0.0012
11	SLV 6	11.6	0.37	78.8	-0.0956	0.4355	0.0012
11	SLV 7	0.81	0	14.87	0.0701	0.0369	0.0001
11	SLV 8	0.81	0	14.87	0.0701	0.0369	0.0001
11	SLV 9	7.62	0.32	67.61	-0.1218	0.2689	0.001
11	SLV 10	7.62	0.32	67.61	-0.1218	0.2689	0.001
11	SLV 11	-3.17	-0.06	3.68	0.044	-0.1297	-0.0001
11	SLV 12	-3.17	-0.06	3.68	0.044	-0.1297	-0.0001
11	SLV 13	-0.79	0.13	32.19	-0.0942	-0.0651	0.0004
11	SLV 14	-0.79	0.13	32.19	-0.0942	-0.0651	0.0004
11	SLV 15	-4.03	0.01	13.01	-0.0445	-0.1847	0.0001
11	SLV 16	-4.03	0.01	13.01	-0.0445	-0.1847	0.0001
12	SLU 1	-0.28	9.35	63.43	-0.3091	0.0065	0.0001
12	SLU 2	-0.23	9.23	62.93	-0.3031	0.0088	0.0001
12	SLU 3	-0.23	9.65	65.24	-0.32	0.0092	0.0001
12	SLU 4	-0.2	9.58	64.94	-0.3164	0.0105	0.0001
12	SLU 5	-0.17	9.51	64.71	-0.3133	0.012	0.0001
12	SLU 6	-0.17	9.94	67.03	-0.3302	0.0124	0.0001
12	SLU 7	-0.14	9.86	66.73	-0.3266	0.0138	0.0001
12	SLU 8	-0.16	9.92	66.99	-0.3296	0.0129	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
12	SLU 9	-0.13	9.85	66.69	-0.326	0.0143	0.0001
12	SLU 10	-0.04	10.8	71.71	-0.3581	0.0185	0.0001
12	SLU 11	-0.05	11.22	74.02	-0.375	0.0189	0.0001
12	SLU 12	-0.02	11.15	73.72	-0.3714	0.0203	0.0001
12	SLU 13	0.02	11.08	73.49	-0.3683	0.0217	0.0001
12	SLU 14	0.01	11.51	75.8	-0.3853	0.0221	0.0001
12	SLU 15	0.05	11.44	75.5	-0.3817	0.0235	0.0001
12	SLU 16	0.02	11.49	75.77	-0.3846	0.0226	0.0001
12	SLU 17	0.06	11.42	75.47	-0.381	0.024	0.0001
12	SLU 18	-0.02	11.59	75.97	-0.3877	0.0204	0.0001
12	SLU 19	0.01	11.52	75.67	-0.3841	0.0217	0.0001
12	SLU 20	0.04	11.88	77.75	-0.398	0.0236	0.0001
12	SLU 21	0.08	11.81	77.45	-0.3943	0.025	0.0001
12	SLU 22	-0.24	10.24	68.28	-0.3403	0.0096	0.0001
12	SLU 23	-0.19	10.12	67.78	-0.3342	0.0118	0.0001
12	SLU 24	-0.19	10.54	70.09	-0.3512	0.0122	0.0001
12	SLU 25	-0.16	10.47	69.79	-0.3476	0.0136	0.0001
12	SLU 26	-0.12	10.4	69.56	-0.3445	0.015	0.0001
12	SLU 27	-0.13	10.83	71.87	-0.3614	0.0155	0.0001
12	SLU 28	-0.1	10.75	71.57	-0.3578	0.0168	0.0001
12	SLU 29	-0.12	10.81	71.84	-0.3608	0.016	0.0001
12	SLU 30	-0.09	10.74	71.54	-0.3571	0.0173	0.0001
12	SLU 31	0	11.69	76.56	-0.3893	0.0216	0.0001
12	SLU 32	-0.01	12.11	78.87	-0.4062	0.022	0.0001
12	SLU 33	0.03	12.04	78.57	-0.4026	0.0233	0.0001
12	SLU 34	0.06	11.97	78.34	-0.3995	0.0248	0.0001
12	SLU 35	0.05	12.4	80.65	-0.4165	0.0252	0.0001
12	SLU 36	0.09	12.32	80.35	-0.4128	0.0265	0.0001
12	SLU 37	0.07	12.38	80.62	-0.4158	0.0257	0.0001
12	SLU 38	0.1	12.31	80.32	-0.4122	0.0271	0.0001
12	SLU 39	0.02	12.48	80.82	-0.4189	0.0234	0.0001
12	SLU 40	0.06	12.41	80.52	-0.4153	0.0248	0.0001
12	SLU 41	0.08	12.77	82.6	-0.4291	0.0267	0.0001
12	SLU 42	0.12	12.69	82.3	-0.4255	0.028	0.0001
12	SLU 43	-0.38	11.85	80.79	-0.3911	0.0074	0.0001
12	SLU 44	-0.33	11.73	80.3	-0.3851	0.0097	0.0001
12	SLU 45	-0.33	12.15	82.61	-0.402	0.0101	0.0001
12	SLU 46	-0.3	12.08	82.31	-0.3984	0.0114	0.0001
12	SLU 47	-0.27	12.01	82.08	-0.3953	0.0129	0.0001
12	SLU 48	-0.27	12.44	84.39	-0.4123	0.0133	0.0001
12	SLU 49	-0.24	12.37	84.09	-0.4087	0.0147	0.0001
12	SLU 50	-0.26	12.42	84.36	-0.4116	0.0138	0.0001
12	SLU 51	-0.23	12.35	84.06	-0.408	0.0152	0.0001
12	SLU 52	-0.14	13.3	89.07	-0.4401	0.0194	0.0001
12	SLU 53	-0.15	13.73	91.39	-0.4571	0.0198	0.0001
12	SLU 54	-0.12	13.65	91.09	-0.4534	0.0212	0.0001
12	SLU 55	-0.08	13.58	90.86	-0.4504	0.0226	0.0001
12	SLU 56	-0.09	14.01	93.17	-0.4673	0.023	0.0001
12	SLU 57	-0.05	13.94	92.87	-0.4637	0.0244	0.0001
12	SLU 58	-0.08	13.99	93.14	-0.4667	0.0235	0.0001
12	SLU 59	-0.04	13.92	92.84	-0.463	0.0249	0.0001
12	SLU 60	-0.12	14.1	93.34	-0.4697	0.0213	0.0001
12	SLU 61	-0.09	14.02	93.04	-0.4661	0.0226	0.0001
12	SLU 62	-0.06	14.38	95.12	-0.48	0.0245	0.0001
12	SLU 63	-0.02	14.31	94.82	-0.4764	0.0258	0.0001
12	SLU 64	-0.34	12.74	85.64	-0.4223	0.0104	0.0001
12	SLU 65	-0.28	12.62	85.14	-0.4163	0.0127	0.0001
12	SLU 66	-0.29	13.04	87.46	-0.4332	0.0131	0.0001
12	SLU 67	-0.26	12.97	87.16	-0.4296	0.0145	0.0001
12	SLU 68	-0.22	12.9	86.93	-0.4265	0.0159	0.0001
12	SLU 69	-0.23	13.33	89.24	-0.4435	0.0164	0.0001
12	SLU 70	-0.2	13.25	88.94	-0.4398	0.0177	0.0001
12	SLU 71	-0.22	13.31	89.21	-0.4428	0.0169	0.0001
12	SLU 72	-0.18	13.24	88.91	-0.4392	0.0182	0.0001
12	SLU 73	-0.1	14.19	93.92	-0.4713	0.0224	0.0001
12	SLU 74	-0.11	14.61	96.24	-0.4882	0.0229	0.0001
12	SLU 75	-0.07	14.54	95.94	-0.4846	0.0242	0.0001
12	SLU 76	-0.04	14.47	95.71	-0.4816	0.0257	0.0001
12	SLU 77	-0.05	14.9	98.02	-0.4985	0.0261	0.0001
12	SLU 78	-0.01	14.83	97.72	-0.4949	0.0274	0.0001
12	SLU 79	-0.03	14.88	97.99	-0.4978	0.0266	0.0001
12	SLU 80	0	14.81	97.69	-0.4942	0.028	0.0001
12	SLU 81	-0.08	14.98	98.18	-0.5009	0.0243	0.0001
12	SLU 82	-0.04	14.91	97.89	-0.4973	0.0257	0.0001
12	SLU 83	-0.02	15.27	99.97	-0.5112	0.0275	0.0001
12	SLU 84	0.02	15.2	99.67	-0.5075	0.0289	0.0001
12	SLE RA 1	-0.27	9.61	64.81	-0.318	0.0074	0.0001
12	SLE RA 2	-0.23	9.52	64.48	-0.314	0.0089	0.0001
12	SLE RA 3	-0.24	9.81	66.02	-0.3253	0.0092	0.0001
12	SLE RA 4	-0.22	9.76	65.82	-0.3228	0.0101	0.0001
12	SLE RA 5	-0.19	9.71	65.67	-0.3208	0.011	0.0001
12	SLE RA 6	-0.2	10	67.21	-0.3321	0.0113	0.0001
12	SLE RA 7	-0.18	9.95	67.01	-0.3297	0.0122	0.0001
12	SLE RA 8	-0.19	9.98	67.19	-0.3317	0.0116	0.0001
12	SLE RA 9	-0.17	9.94	66.99	-0.3292	0.0126	0.0001
12	SLE RA 10	-0.11	10.57	70.33	-0.3507	0.0154	0.0001
12	SLE RA 11	-0.12	10.85	71.88	-0.3619	0.0156	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
12	SLE RA 12	-0.09	10.8	71.68	-0.3595	0.0165	0.0001
12	SLE RA 13	-0.07	10.76	71.52	-0.3575	0.0175	0.0001
12	SLE RA 14	-0.07	11.04	73.06	-0.3688	0.0178	0.0001
12	SLE RA 15	-0.05	10.99	72.86	-0.3664	0.0187	0.0001
12	SLE RA 16	-0.07	11.03	73.04	-0.3683	0.0181	0.0001
12	SLE RA 17	-0.04	10.98	72.84	-0.3659	0.019	0.0001
12	SLE RA 18	-0.1	11.1	73.17	-0.3704	0.0166	0.0001
12	SLE RA 19	-0.07	11.05	72.98	-0.368	0.0175	0.0001
12	SLE RA 20	-0.05	11.29	74.36	-0.3772	0.0188	0.0001
12	SLE RA 21	-0.03	11.24	74.16	-0.3748	0.0197	0.0001
12	SLE FR 1	-0.27	9.61	64.81	-0.318	0.0074	0.0001
12	SLE FR 2	-0.26	9.59	64.75	-0.3172	0.0077	0.0001
12	SLE FR 3	-0.26	9.68	65.29	-0.3207	0.0082	0.0001
12	SLE FR 4	-0.21	10.04	67.26	-0.3329	0.0104	0.0001
12	SLE FR 5	-0.2	10.13	67.8	-0.3364	0.011	0.0001
12	SLE FR 6	-0.18	10.35	68.99	-0.3442	0.012	0.0001
12	SLE QP 1	-0.27	9.61	64.81	-0.318	0.0074	0.0001
12	SLE QP 2	-0.22	10.05	67.32	-0.3337	0.0101	0.0001
12	SLD 1	1.87	13.8	87.38	-0.478	0.1361	0
12	SLD 2	1.87	13.8	87.38	-0.478	0.1361	0
12	SLD 3	2.39	11	73.21	-0.3642	0.1109	-0.0001
12	SLD 4	2.39	11	73.21	-0.3642	0.1109	-0.0001
12	SLD 5	-0.37	15.43	94.82	-0.5497	0.0861	0.0001
12	SLD 6	-0.37	15.43	94.82	-0.5497	0.0861	0.0001
12	SLD 7	1.35	6.09	47.61	-0.1702	0.0022	0
12	SLD 8	1.35	6.09	47.61	-0.1702	0.0022	0
12	SLD 9	-1.78	14.02	87.04	-0.4973	0.0181	0.0002
12	SLD 10	-1.78	14.02	87.04	-0.4973	0.0181	0.0002
12	SLD 11	-0.06	4.68	39.82	-0.1177	-0.0658	0
12	SLD 12	-0.06	4.68	39.82	-0.1177	-0.0658	0
12	SLD 13	-2.82	9.11	61.43	-0.3032	-0.0906	0.0002
12	SLD 14	-2.82	9.11	61.43	-0.3032	-0.0906	0.0002
12	SLD 15	-2.31	6.31	47.27	-0.1894	-0.1158	0.0002
12	SLD 16	-2.31	6.31	47.27	-0.1894	-0.1158	0.0002
12	SLV 1	4.66	18.86	114.48	-0.6725	0.3047	-0.0002
12	SLV 2	4.66	18.86	114.48	-0.6725	0.3047	-0.0002
12	SLV 3	5.87	12.25	80.99	-0.4045	0.2457	-0.0003
12	SLV 4	5.87	12.25	80.99	-0.4045	0.2457	-0.0003
12	SLV 5	-0.59	22.71	132.26	-0.8418	0.1879	0.0001
12	SLV 6	-0.59	22.71	132.26	-0.8418	0.1879	0.0001
12	SLV 7	3.45	0.7	20.63	0.0515	-0.0086	-0.0002
12	SLV 8	3.45	0.7	20.63	0.0515	-0.0086	-0.0002
12	SLV 9	-3.89	19.4	114.01	-0.7189	0.0289	0.0003
12	SLV 10	-3.89	19.4	114.01	-0.7189	0.0289	0.0003
12	SLV 11	0.15	-2.6	2.38	0.1743	-0.1677	0
12	SLV 12	0.15	-2.6	2.38	0.1743	-0.1677	0
12	SLV 13	-6.31	7.85	53.65	-0.2629	-0.2254	0.0004
12	SLV 14	-6.31	7.85	53.65	-0.2629	-0.2254	0.0004
12	SLV 15	-5.1	1.25	20.17	0.0051	-0.2844	0.0003
12	SLV 16	-5.1	1.25	20.17	0.0051	-0.2844	0.0003
13	SLU 1	-4.04	0.12	39.03	-0.0262	-0.1295	-0.0006
13	SLU 2	-3.93	0.12	38.79	-0.0216	-0.1258	-0.0006
13	SLU 3	-4.11	0.12	40.15	-0.0271	-0.1313	-0.0006
13	SLU 4	-4.04	0.12	40.01	-0.0244	-0.129	-0.0006
13	SLU 5	-3.98	0.12	39.92	-0.0224	-0.1269	-0.0006
13	SLU 6	-4.16	0.13	41.28	-0.0279	-0.1324	-0.0006
13	SLU 7	-4.09	0.12	41.14	-0.0252	-0.1301	-0.0006
13	SLU 8	-4.14	0.13	41.29	-0.0279	-0.1317	-0.0006
13	SLU 9	-4.07	0.12	41.15	-0.0251	-0.1295	-0.0006
13	SLU 10	-4.35	0.14	44.09	-0.0274	-0.1376	-0.0007
13	SLU 11	-4.52	0.14	45.45	-0.0329	-0.1431	-0.0007
13	SLU 12	-4.46	0.14	45.31	-0.0302	-0.1409	-0.0007
13	SLU 13	-4.39	0.14	45.22	-0.0282	-0.1387	-0.0007
13	SLU 14	-4.57	0.15	46.58	-0.0337	-0.1442	-0.0007
13	SLU 15	-4.5	0.15	46.44	-0.031	-0.142	-0.0007
13	SLU 16	-4.55	0.15	46.58	-0.0336	-0.1436	-0.0007
13	SLU 17	-4.48	0.15	46.44	-0.0309	-0.1413	-0.0007
13	SLU 18	-4.63	0.15	46.59	-0.0345	-0.1465	-0.0008
13	SLU 19	-4.57	0.15	46.45	-0.0317	-0.1442	-0.0007
13	SLU 20	-4.68	0.15	47.72	-0.0353	-0.1476	-0.0008
13	SLU 21	-4.61	0.15	47.58	-0.0325	-0.1453	-0.0008
13	SLU 22	-4.34	0.13	41.86	-0.0295	-0.1388	-0.0007
13	SLU 23	-4.23	0.13	41.63	-0.0248	-0.135	-0.0006
13	SLU 24	-4.41	0.14	42.99	-0.0304	-0.1405	-0.0007
13	SLU 25	-4.34	0.13	42.85	-0.0276	-0.1383	-0.0007
13	SLU 26	-4.28	0.13	42.76	-0.0256	-0.1361	-0.0007
13	SLU 27	-4.45	0.14	44.12	-0.0312	-0.1416	-0.0007
13	SLU 28	-4.39	0.14	43.98	-0.0284	-0.1394	-0.0007
13	SLU 29	-4.44	0.14	44.12	-0.0311	-0.141	-0.0007
13	SLU 30	-4.37	0.14	43.98	-0.0283	-0.1387	-0.0007
13	SLU 31	-4.65	0.15	46.93	-0.0306	-0.1469	-0.0008
13	SLU 32	-4.82	0.16	48.29	-0.0361	-0.1524	-0.0008
13	SLU 33	-4.75	0.15	48.15	-0.0334	-0.1501	-0.0008
13	SLU 34	-4.69	0.15	48.06	-0.0314	-0.148	-0.0008
13	SLU 35	-4.87	0.16	49.42	-0.0369	-0.1535	-0.0008
13	SLU 36	-4.8	0.16	49.28	-0.0342	-0.1512	-0.0008
13	SLU 37	-4.85	0.16	49.42	-0.0369	-0.1528	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
13	SLU 38	-4.78	0.16	49.28	-0.0341	-0.1506	-0.0008
13	SLU 39	-4.93	0.16	49.43	-0.0377	-0.1557	-0.0008
13	SLU 40	-4.87	0.16	49.29	-0.035	-0.1535	-0.0008
13	SLU 41	-4.98	0.17	50.56	-0.0385	-0.1568	-0.0008
13	SLU 42	-4.91	0.16	50.42	-0.0358	-0.1545	-0.0008
13	SLU 43	-5.15	0.15	49.76	-0.033	-0.1652	-0.0008
13	SLU 44	-5.04	0.15	49.53	-0.0284	-0.1615	-0.0007
13	SLU 45	-5.22	0.16	50.88	-0.0339	-0.167	-0.0008
13	SLU 46	-5.15	0.15	50.75	-0.0311	-0.1647	-0.0008
13	SLU 47	-5.09	0.15	50.66	-0.0292	-0.1626	-0.0008
13	SLU 48	-5.26	0.16	52.01	-0.0347	-0.1681	-0.0008
13	SLU 49	-5.2	0.16	51.88	-0.0319	-0.1658	-0.0008
13	SLU 50	-5.25	0.16	52.02	-0.0346	-0.1674	-0.0008
13	SLU 51	-5.18	0.16	51.88	-0.0319	-0.1652	-0.0008
13	SLU 52	-5.46	0.17	54.82	-0.0342	-0.1733	-0.0009
13	SLU 53	-5.63	0.18	56.18	-0.0397	-0.1788	-0.0009
13	SLU 54	-5.57	0.17	56.04	-0.0369	-0.1766	-0.0009
13	SLU 55	-5.5	0.17	55.95	-0.035	-0.1744	-0.0009
13	SLU 56	-5.68	0.18	57.31	-0.0405	-0.1799	-0.0009
13	SLU 57	-5.61	0.18	57.17	-0.0377	-0.1777	-0.0009
13	SLU 58	-5.66	0.18	57.32	-0.0404	-0.1793	-0.0009
13	SLU 59	-5.59	0.18	57.18	-0.0376	-0.177	-0.0009
13	SLU 60	-5.74	0.18	57.33	-0.0413	-0.1822	-0.0009
13	SLU 61	-5.68	0.18	57.19	-0.0385	-0.1799	-0.0009
13	SLU 62	-5.79	0.19	58.46	-0.0421	-0.1832	-0.0009
13	SLU 63	-5.72	0.18	58.32	-0.0393	-0.181	-0.0009
13	SLU 64	-5.45	0.16	52.6	-0.0362	-0.1745	-0.0008
13	SLU 65	-5.34	0.16	52.37	-0.0316	-0.1707	-0.0008
13	SLU 66	-5.52	0.17	53.72	-0.0371	-0.1762	-0.0008
13	SLU 67	-5.45	0.17	53.58	-0.0344	-0.174	-0.0008
13	SLU 68	-5.39	0.16	53.5	-0.0324	-0.1718	-0.0008
13	SLU 69	-5.56	0.17	54.85	-0.0379	-0.1773	-0.0009
13	SLU 70	-5.5	0.17	54.71	-0.0352	-0.1751	-0.0008
13	SLU 71	-5.55	0.17	54.86	-0.0378	-0.1767	-0.0009
13	SLU 72	-5.48	0.17	54.72	-0.0351	-0.1744	-0.0008
13	SLU 73	-5.76	0.18	57.66	-0.0374	-0.1826	-0.0009
13	SLU 74	-5.93	0.19	59.02	-0.0429	-0.1881	-0.0009
13	SLU 75	-5.86	0.19	58.88	-0.0401	-0.1858	-0.0009
13	SLU 76	-5.8	0.18	58.79	-0.0382	-0.1837	-0.0009
13	SLU 77	-5.98	0.19	60.15	-0.0437	-0.1892	-0.001
13	SLU 78	-5.91	0.19	60.01	-0.0409	-0.1869	-0.001
13	SLU 79	-5.96	0.19	60.15	-0.0436	-0.1885	-0.001
13	SLU 80	-5.89	0.19	60.02	-0.0409	-0.1863	-0.001
13	SLU 81	-6.04	0.19	60.16	-0.0445	-0.1914	-0.001
13	SLU 82	-5.98	0.19	60.03	-0.0417	-0.1892	-0.001
13	SLU 83	-6.09	0.2	61.29	-0.0453	-0.1925	-0.001
13	SLU 84	-6.02	0.19	61.16	-0.0425	-0.1902	-0.001
13	SLE RA 1	-4.13	0.12	39.84	-0.0272	-0.1322	-0.0006
13	SLE RA 2	-4.05	0.12	39.68	-0.0241	-0.1297	-0.0006
13	SLE RA 3	-4.17	0.13	40.59	-0.0278	-0.1333	-0.0006
13	SLE RA 4	-4.13	0.12	40.49	-0.0259	-0.1318	-0.0006
13	SLE RA 5	-4.09	0.12	40.44	-0.0246	-0.1304	-0.0006
13	SLE RA 6	-4.2	0.13	41.34	-0.0283	-0.1341	-0.0006
13	SLE RA 7	-4.16	0.13	41.25	-0.0264	-0.1326	-0.0006
13	SLE RA 8	-4.19	0.13	41.34	-0.0282	-0.1336	-0.0006
13	SLE RA 9	-4.15	0.13	41.25	-0.0264	-0.1321	-0.0006
13	SLE RA 10	-4.33	0.13	43.21	-0.0279	-0.1376	-0.0007
13	SLE RA 11	-4.45	0.14	44.12	-0.0316	-0.1412	-0.0007
13	SLE RA 12	-4.4	0.14	44.02	-0.0298	-0.1397	-0.0007
13	SLE RA 13	-4.36	0.14	43.97	-0.0285	-0.1383	-0.0007
13	SLE RA 14	-4.48	0.14	44.87	-0.0322	-0.142	-0.0007
13	SLE RA 15	-4.43	0.14	44.78	-0.0303	-0.1405	-0.0007
13	SLE RA 16	-4.47	0.14	44.87	-0.0321	-0.1415	-0.0007
13	SLE RA 17	-4.42	0.14	44.78	-0.0302	-0.14	-0.0007
13	SLE RA 18	-4.52	0.14	44.88	-0.0327	-0.1435	-0.0007
13	SLE RA 19	-4.48	0.14	44.79	-0.0308	-0.142	-0.0007
13	SLE RA 20	-4.55	0.15	45.63	-0.0332	-0.1442	-0.0007
13	SLE RA 21	-4.51	0.14	45.54	-0.0314	-0.1427	-0.0007
13	SLE FR 1	-4.13	0.12	39.84	-0.0272	-0.1322	-0.0006
13	SLE FR 2	-4.11	0.12	39.81	-0.0266	-0.1317	-0.0006
13	SLE FR 3	-4.14	0.12	40.14	-0.0274	-0.1325	-0.0006
13	SLE FR 4	-4.23	0.13	41.32	-0.0282	-0.1351	-0.0006
13	SLE FR 5	-4.26	0.13	41.65	-0.029	-0.1359	-0.0007
13	SLE FR 6	-4.32	0.13	42.36	-0.0299	-0.1378	-0.0007
13	SLE QP 1	-4.13	0.12	39.84	-0.0272	-0.1322	-0.0006
13	SLE QP 2	-4.24	0.13	41.35	-0.0288	-0.1356	-0.0006
13	SLD 1	-2.48	0.23	52.33	-0.0616	-0.0598	-0.0011
13	SLD 2	-2.48	0.23	52.33	-0.0616	-0.0598	-0.0011
13	SLD 3	-1.2	0.19	44.17	-0.0446	-0.0172	-0.0009
13	SLD 4	-1.2	0.19	44.17	-0.0446	-0.0172	-0.0009
13	SLD 5	-5.65	0.22	57.02	-0.0644	-0.1774	-0.001
13	SLD 6	-5.65	0.22	57.02	-0.0644	-0.1774	-0.001
13	SLD 7	-1.39	0.09	29.82	-0.0078	-0.0355	-0.0005
13	SLD 8	-1.39	0.09	29.82	-0.0078	-0.0355	-0.0005
13	SLD 9	-7.1	0.17	52.88	-0.0498	-0.2356	-0.0008
13	SLD 10	-7.1	0.17	52.88	-0.0498	-0.2356	-0.0008
13	SLD 11	-2.84	0.04	25.68	0.0067	-0.0938	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
13	SLD 12	-2.84	0.04	25.68	0.0067	-0.0938	-0.0003
13	SLD 13	-7.29	0.07	38.53	-0.013	-0.2539	-0.0003
13	SLD 14	-7.29	0.07	38.53	-0.013	-0.2539	-0.0003
13	SLD 15	-6.01	0.03	30.37	0.0039	-0.2113	-0.0002
13	SLD 16	-6.01	0.03	30.37	0.0039	-0.2113	-0.0002
13	SLV 1	-0.14	0.36	67.17	-0.1055	0.0406	-0.0017
13	SLV 2	-0.14	0.36	67.17	-0.1055	0.0406	-0.0017
13	SLV 3	2.89	0.27	47.88	-0.0657	0.1416	-0.0013
13	SLV 4	2.89	0.27	47.88	-0.0657	0.1416	-0.0013
13	SLV 5	-7.61	0.33	78.37	-0.1122	-0.2358	-0.0016
13	SLV 6	-7.61	0.33	78.37	-0.1122	-0.2358	-0.0016
13	SLV 7	2.49	0.04	14.04	0.0205	0.1007	-0.0003
13	SLV 8	2.49	0.04	14.04	0.0205	0.1007	-0.0003
13	SLV 9	-10.98	0.22	68.66	-0.0782	-0.3718	-0.001
13	SLV 10	-10.98	0.22	68.66	-0.0782	-0.3718	-0.001
13	SLV 11	-0.88	-0.07	4.33	0.0546	-0.0353	0.0003
13	SLV 12	-0.88	-0.07	4.33	0.0546	-0.0353	0.0003
13	SLV 13	-11.38	-0.01	34.82	0.0081	-0.4127	0
13	SLV 14	-11.38	-0.01	34.82	0.0081	-0.4127	0
13	SLV 15	-8.35	-0.1	15.52	0.0479	-0.3118	0.0004
13	SLV 16	-8.35	-0.1	15.52	0.0479	-0.3118	0.0004
14	SLU 1	-3.33	-0.05	32.31	0.0119	-0.1025	0.0001
14	SLU 2	-3.24	-0.06	32.2	0.0201	-0.0995	0.0002
14	SLU 3	-3.34	-0.05	33.28	0.0124	-0.1018	0.0001
14	SLU 4	-3.29	-0.06	33.21	0.0173	-0.1	0.0002
14	SLU 5	-3.23	-0.06	33.19	0.0206	-0.0979	0.0002
14	SLU 6	-3.32	-0.06	34.27	0.013	-0.1001	0.0001
14	SLU 7	-3.27	-0.06	34.2	0.0179	-0.0983	0.0002
14	SLU 8	-3.3	-0.06	34.29	0.0131	-0.0992	0.0001
14	SLU 9	-3.25	-0.06	34.22	0.018	-0.0974	0.0002
14	SLU 10	-3.56	-0.07	36.63	0.0192	-0.1072	0.0002
14	SLU 11	-3.65	-0.06	37.71	0.0115	-0.1095	0.0001
14	SLU 12	-3.6	-0.06	37.65	0.0164	-0.1077	0.0002
14	SLU 13	-3.54	-0.07	37.63	0.0198	-0.1056	0.0002
14	SLU 14	-3.64	-0.06	38.71	0.0121	-0.1078	0.0002
14	SLU 15	-3.59	-0.07	38.64	0.017	-0.106	0.0002
14	SLU 16	-3.61	-0.06	38.73	0.0122	-0.1069	0.0002
14	SLU 17	-3.56	-0.07	38.66	0.0171	-0.1051	0.0002
14	SLU 18	-3.78	-0.06	38.65	0.0107	-0.1135	0.0001
14	SLU 19	-3.73	-0.06	38.58	0.0155	-0.1117	0.0002
14	SLU 20	-3.76	-0.06	39.64	0.0113	-0.1118	0.0002
14	SLU 21	-3.71	-0.07	39.57	0.0161	-0.11	0.0002
14	SLU 22	-3.55	-0.05	34.61	0.0116	-0.1088	0.0001
14	SLU 23	-3.47	-0.06	34.49	0.0198	-0.1058	0.0002
14	SLU 24	-3.56	-0.06	35.57	0.0121	-0.1081	0.0001
14	SLU 25	-3.51	-0.06	35.51	0.017	-0.1063	0.0002
14	SLU 26	-3.45	-0.07	35.48	0.0204	-0.1041	0.0002
14	SLU 27	-3.54	-0.06	36.56	0.0127	-0.1064	0.0001
14	SLU 28	-3.49	-0.06	36.5	0.0176	-0.1046	0.0002
14	SLU 29	-3.52	-0.06	36.59	0.0128	-0.1054	0.0001
14	SLU 30	-3.47	-0.07	36.52	0.0177	-0.1036	0.0002
14	SLU 31	-3.78	-0.07	38.93	0.0189	-0.1135	0.0002
14	SLU 32	-3.88	-0.06	40.01	0.0112	-0.1158	0.0002
14	SLU 33	-3.83	-0.07	39.94	0.0161	-0.114	0.0002
14	SLU 34	-3.77	-0.07	39.92	0.0195	-0.1118	0.0002
14	SLU 35	-3.86	-0.06	41	0.0118	-0.1141	0.0002
14	SLU 36	-3.81	-0.07	40.93	0.0167	-0.1123	0.0002
14	SLU 37	-3.84	-0.06	41.03	0.0119	-0.1131	0.0002
14	SLU 38	-3.79	-0.07	40.96	0.0168	-0.1113	0.0002
14	SLU 39	-4	-0.06	40.95	0.0104	-0.1198	0.0002
14	SLU 40	-3.95	-0.07	40.88	0.0153	-0.118	0.0002
14	SLU 41	-3.99	-0.06	41.94	0.011	-0.1181	0.0002
14	SLU 42	-3.94	-0.07	41.87	0.0158	-0.1163	0.0002
14	SLU 43	-4.25	-0.07	41.22	0.0156	-0.1311	0.0002
14	SLU 44	-4.17	-0.08	41.1	0.0237	-0.1281	0.0002
14	SLU 45	-4.26	-0.07	42.18	0.0161	-0.1304	0.0002
14	SLU 46	-4.21	-0.07	42.11	0.021	-0.1286	0.0002
14	SLU 47	-4.15	-0.08	42.09	0.0243	-0.1265	0.0002
14	SLU 48	-4.24	-0.07	43.17	0.0167	-0.1287	0.0002
14	SLU 49	-4.19	-0.08	43.1	0.0216	-0.1269	0.0002
14	SLU 50	-4.22	-0.07	43.2	0.0168	-0.1278	0.0002
14	SLU 51	-4.17	-0.08	43.13	0.0217	-0.126	0.0002
14	SLU 52	-4.48	-0.08	45.54	0.0229	-0.1358	0.0002
14	SLU 53	-4.57	-0.07	46.62	0.0152	-0.1381	0.0002
14	SLU 54	-4.52	-0.08	46.55	0.0201	-0.1363	0.0002
14	SLU 55	-4.47	-0.08	46.53	0.0234	-0.1342	0.0002
14	SLU 56	-4.56	-0.08	47.61	0.0158	-0.1364	0.0002
14	SLU 57	-4.51	-0.08	47.54	0.0207	-0.1346	0.0002
14	SLU 58	-4.53	-0.08	47.64	0.0159	-0.1355	0.0002
14	SLU 59	-4.48	-0.08	47.57	0.0208	-0.1337	0.0002
14	SLU 60	-4.7	-0.07	47.56	0.0143	-0.1421	0.0002
14	SLU 61	-4.65	-0.08	47.49	0.0192	-0.1403	0.0002
14	SLU 62	-4.68	-0.08	48.55	0.0149	-0.1404	0.0002
14	SLU 63	-4.63	-0.08	48.48	0.0198	-0.1387	0.0002
14	SLU 64	-4.47	-0.07	43.51	0.0153	-0.1374	0.0002
14	SLU 65	-4.39	-0.08	43.4	0.0234	-0.1344	0.0002
14	SLU 66	-4.48	-0.07	44.48	0.0158	-0.1367	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
14	SLU 67	-4.43	-0.08	44.41	0.0207	-0.1349	0.0002
14	SLU 68	-4.37	-0.08	44.39	0.024	-0.1327	0.0002
14	SLU 69	-4.47	-0.07	45.47	0.0164	-0.135	0.0002
14	SLU 70	-4.42	-0.08	45.4	0.0213	-0.1332	0.0002
14	SLU 71	-4.44	-0.07	45.49	0.0165	-0.134	0.0002
14	SLU 72	-4.39	-0.08	45.43	0.0214	-0.1322	0.0002
14	SLU 73	-4.7	-0.08	47.84	0.0226	-0.1421	0.0002
14	SLU 74	-4.8	-0.08	48.92	0.0149	-0.1444	0.0002
14	SLU 75	-4.75	-0.08	48.85	0.0198	-0.1426	0.0002
14	SLU 76	-4.69	-0.09	48.83	0.0232	-0.1404	0.0002
14	SLU 77	-4.78	-0.08	49.91	0.0155	-0.1427	0.0002
14	SLU 78	-4.73	-0.08	49.84	0.0204	-0.1409	0.0002
14	SLU 79	-4.76	-0.08	49.93	0.0156	-0.1417	0.0002
14	SLU 80	-4.71	-0.08	49.86	0.0205	-0.14	0.0002
14	SLU 81	-4.92	-0.08	49.85	0.0141	-0.1484	0.0002
14	SLU 82	-4.87	-0.08	49.78	0.0189	-0.1466	0.0002
14	SLU 83	-4.91	-0.08	50.84	0.0146	-0.1467	0.0002
14	SLU 84	-4.86	-0.08	50.77	0.0195	-0.1449	0.0002
14	SLE RA 1	-3.39	-0.05	32.97	0.0118	-0.1043	0.0001
14	SLE RA 2	-3.34	-0.06	32.89	0.0173	-0.1023	0.0002
14	SLE RA 3	-3.4	-0.05	33.61	0.0122	-0.1038	0.0001
14	SLE RA 4	-3.36	-0.06	33.56	0.0154	-0.1026	0.0001
14	SLE RA 5	-3.33	-0.06	33.55	0.0177	-0.1012	0.0002
14	SLE RA 6	-3.39	-0.06	34.27	0.0126	-0.1027	0.0001
14	SLE RA 7	-3.35	-0.06	34.23	0.0158	-0.1015	0.0002
14	SLE RA 8	-3.37	-0.06	34.29	0.0126	-0.1021	0.0001
14	SLE RA 9	-3.34	-0.06	34.24	0.0159	-0.1009	0.0002
14	SLE RA 10	-3.55	-0.06	35.85	0.0167	-0.1074	0.0002
14	SLE RA 11	-3.61	-0.06	36.57	0.0116	-0.109	0.0001
14	SLE RA 12	-3.57	-0.06	36.52	0.0148	-0.1078	0.0002
14	SLE RA 13	-3.54	-0.06	36.51	0.0171	-0.1063	0.0002
14	SLE RA 14	-3.6	-0.06	37.23	0.012	-0.1078	0.0001
14	SLE RA 15	-3.56	-0.06	37.18	0.0152	-0.1067	0.0002
14	SLE RA 16	-3.58	-0.06	37.25	0.012	-0.1072	0.0001
14	SLE RA 17	-3.55	-0.06	37.2	0.0153	-0.106	0.0002
14	SLE RA 18	-3.69	-0.06	37.19	0.011	-0.1116	0.0001
14	SLE RA 19	-3.66	-0.06	37.15	0.0143	-0.1104	0.0002
14	SLE RA 20	-3.68	-0.06	37.85	0.0114	-0.1105	0.0001
14	SLE RA 21	-3.65	-0.06	37.81	0.0147	-0.1093	0.0002
14	SLE FR 1	-3.39	-0.05	32.97	0.0118	-0.1043	0.0001
14	SLE FR 2	-3.38	-0.05	32.95	0.0129	-0.1039	0.0001
14	SLE FR 3	-3.39	-0.05	33.23	0.012	-0.1038	0.0001
14	SLE FR 4	-3.47	-0.06	34.22	0.0127	-0.1061	0.0001
14	SLE FR 5	-3.48	-0.05	34.5	0.0118	-0.106	0.0001
14	SLE FR 6	-3.54	-0.05	35.08	0.0114	-0.108	0.0001
14	SLE QP 1	-3.39	-0.05	32.97	0.0118	-0.1043	0.0001
14	SLE QP 2	-3.48	-0.05	34.23	0.0116	-0.1065	0.0001
14	SLD 1	-1.29	-0.01	41.55	0.0031	-0.0074	-0.0003
14	SLD 2	-1.29	-0.01	41.55	0.0031	-0.0074	-0.0003
14	SLD 3	-0.13	0.03	35.37	-0.0244	0.0342	-0.0005
14	SLD 4	-0.13	0.03	35.37	-0.0244	0.0342	-0.0005
14	SLD 5	-4.57	-0.11	45.8	0.0507	-0.1398	0.0004
14	SLD 6	-4.57	-0.11	45.8	0.0507	-0.1398	0.0004
14	SLD 7	-0.73	0.04	25.2	-0.0409	-0.0012	-0.0004
14	SLD 8	-0.73	0.04	25.2	-0.0409	-0.0012	-0.0004
14	SLD 9	-6.23	-0.15	43.27	0.0641	-0.2118	0.0007
14	SLD 10	-6.23	-0.15	43.27	0.0641	-0.2118	0.0007
14	SLD 11	-2.39	0.01	22.67	-0.0275	-0.0731	-0.0001
14	SLD 12	-2.39	0.01	22.67	-0.0275	-0.0731	-0.0001
14	SLD 13	-6.83	-0.14	33.1	0.0476	-0.2472	0.0008
14	SLD 14	-6.83	-0.14	33.1	0.0476	-0.2472	0.0008
14	SLD 15	-5.68	-0.09	26.92	0.0201	-0.2056	0.0005
14	SLD 16	-5.68	-0.09	26.92	0.0201	-0.2056	0.0005
14	SLV 1	1.62	0.04	51.45	-0.0084	0.1242	-0.0008
14	SLV 2	1.62	0.04	51.45	-0.0084	0.1242	-0.0008
14	SLV 3	4.36	0.15	36.83	-0.0727	0.223	-0.0013
14	SLV 4	4.36	0.15	36.83	-0.0727	0.223	-0.0013
14	SLV 5	-6.1	-0.19	61.56	0.1031	-0.1871	0.0007
14	SLV 6	-6.1	-0.19	61.56	0.1031	-0.1871	0.0007
14	SLV 7	3.03	0.17	12.85	-0.1112	0.1422	-0.0012
14	SLV 8	3.03	0.17	12.85	-0.1112	0.1422	-0.0012
14	SLV 9	-9.99	-0.28	55.62	0.1344	-0.3552	0.0014
14	SLV 10	-9.99	-0.28	55.62	0.1344	-0.3552	0.0014
14	SLV 11	-0.86	0.08	6.9	-0.0799	-0.0259	-0.0004
14	SLV 12	-0.86	0.08	6.9	-0.0799	-0.0259	-0.0004
14	SLV 13	-11.32	-0.26	31.64	0.0959	-0.436	0.0016
14	SLV 14	-11.32	-0.26	31.64	0.0959	-0.436	0.0016
14	SLV 15	-8.58	-0.15	17.02	0.0316	-0.3372	0.0011
14	SLV 16	-8.58	-0.15	17.02	0.0316	-0.3372	0.0011
15	SLU 1	-1.87	-0.11	28.83	0.0326	-0.0845	0.0003
15	SLU 2	-1.82	-0.13	28.76	0.0431	-0.0821	0.0003
15	SLU 3	-1.8	-0.12	29.79	0.0339	-0.0822	0.0003
15	SLU 4	-1.77	-0.13	29.74	0.0402	-0.0807	0.0003
15	SLU 5	-1.72	-0.13	29.76	0.0446	-0.0787	0.0003
15	SLU 6	-1.7	-0.12	30.79	0.0353	-0.0787	0.0003
15	SLU 7	-1.67	-0.13	30.75	0.0417	-0.0773	0.0003
15	SLU 8	-1.67	-0.12	30.84	0.0355	-0.0776	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
15	SLU 9	-1.64	-0.13	30.79	0.0418	-0.0761	0.0003
15	SLU 10	-2	-0.14	32.81	0.0447	-0.0916	0.0003
15	SLU 11	-1.98	-0.13	33.83	0.0354	-0.0917	0.0003
15	SLU 12	-1.95	-0.14	33.79	0.0418	-0.0903	0.0003
15	SLU 13	-1.9	-0.14	33.81	0.0462	-0.0882	0.0003
15	SLU 14	-1.88	-0.13	34.83	0.0369	-0.0882	0.0003
15	SLU 15	-1.85	-0.14	34.79	0.0432	-0.0868	0.0003
15	SLU 16	-1.85	-0.13	34.88	0.037	-0.0871	0.0003
15	SLU 17	-1.82	-0.14	34.84	0.0434	-0.0857	0.0003
15	SLU 18	-2.13	-0.13	34.61	0.0348	-0.098	0.0003
15	SLU 19	-2.1	-0.14	34.57	0.0411	-0.0966	0.0003
15	SLU 20	-2.03	-0.13	35.61	0.0362	-0.0946	0.0003
15	SLU 21	-2	-0.14	35.57	0.0426	-0.0932	0.0003
15	SLU 22	-1.97	-0.12	30.88	0.0338	-0.0894	0.0003
15	SLU 23	-1.92	-0.13	30.81	0.0444	-0.087	0.0003
15	SLU 24	-1.9	-0.12	31.84	0.0351	-0.0871	0.0003
15	SLU 25	-1.87	-0.13	31.8	0.0414	-0.0857	0.0003
15	SLU 26	-1.82	-0.14	31.82	0.0458	-0.0836	0.0003
15	SLU 27	-1.8	-0.13	32.84	0.0365	-0.0836	0.0003
15	SLU 28	-1.77	-0.14	32.8	0.0429	-0.0822	0.0003
15	SLU 29	-1.77	-0.13	32.89	0.0367	-0.0825	0.0003
15	SLU 30	-1.74	-0.14	32.85	0.0431	-0.0811	0.0003
15	SLU 31	-2.1	-0.14	34.86	0.0459	-0.0965	0.0003
15	SLU 32	-2.08	-0.13	35.88	0.0366	-0.0966	0.0003
15	SLU 33	-2.05	-0.14	35.84	0.043	-0.0952	0.0003
15	SLU 34	-2	-0.15	35.86	0.0474	-0.0931	0.0003
15	SLU 35	-1.98	-0.14	36.89	0.0381	-0.0932	0.0003
15	SLU 36	-1.95	-0.15	36.84	0.0445	-0.0917	0.0003
15	SLU 37	-1.95	-0.14	36.93	0.0382	-0.092	0.0003
15	SLU 38	-1.92	-0.15	36.89	0.0446	-0.0906	0.0003
15	SLU 39	-2.23	-0.14	36.66	0.036	-0.103	0.0003
15	SLU 40	-2.2	-0.14	36.62	0.0423	-0.1016	0.0003
15	SLU 41	-2.13	-0.14	37.66	0.0374	-0.0995	0.0003
15	SLU 42	-2.1	-0.15	37.62	0.0438	-0.0981	0.0003
15	SLU 43	-2.4	-0.14	36.78	0.0419	-0.1081	0.0003
15	SLU 44	-2.35	-0.16	36.71	0.0525	-0.1057	0.0004
15	SLU 45	-2.33	-0.15	37.73	0.0432	-0.1058	0.0003
15	SLU 46	-2.3	-0.16	37.69	0.0496	-0.1044	0.0004
15	SLU 47	-2.25	-0.16	37.71	0.054	-0.1023	0.0004
15	SLU 48	-2.22	-0.15	38.73	0.0447	-0.1024	0.0004
15	SLU 49	-2.2	-0.16	38.69	0.051	-0.1009	0.0004
15	SLU 50	-2.19	-0.15	38.78	0.0448	-0.1012	0.0004
15	SLU 51	-2.16	-0.16	38.74	0.0512	-0.0998	0.0004
15	SLU 52	-2.53	-0.17	40.75	0.0541	-0.1153	0.0004
15	SLU 53	-2.51	-0.16	41.78	0.0448	-0.1153	0.0004
15	SLU 54	-2.48	-0.17	41.73	0.0511	-0.1139	0.0004
15	SLU 55	-2.43	-0.17	41.75	0.0555	-0.1118	0.0004
15	SLU 56	-2.41	-0.16	42.78	0.0462	-0.1119	0.0004
15	SLU 57	-2.38	-0.17	42.74	0.0526	-0.1105	0.0004
15	SLU 58	-2.38	-0.16	42.83	0.0464	-0.1107	0.0004
15	SLU 59	-2.35	-0.17	42.78	0.0527	-0.1093	0.0004
15	SLU 60	-2.66	-0.16	42.56	0.0441	-0.1217	0.0004
15	SLU 61	-2.63	-0.17	42.51	0.0505	-0.1203	0.0004
15	SLU 62	-2.56	-0.16	43.56	0.0456	-0.1182	0.0004
15	SLU 63	-2.53	-0.17	43.52	0.0519	-0.1168	0.0004
15	SLU 64	-2.5	-0.15	38.83	0.0431	-0.113	0.0003
15	SLU 65	-2.45	-0.16	38.76	0.0537	-0.1107	0.0004
15	SLU 66	-2.42	-0.15	39.78	0.0444	-0.1107	0.0004
15	SLU 67	-2.4	-0.16	39.74	0.0508	-0.1093	0.0004
15	SLU 68	-2.35	-0.17	39.76	0.0552	-0.1072	0.0004
15	SLU 69	-2.32	-0.16	40.79	0.0459	-0.1073	0.0004
15	SLU 70	-2.29	-0.17	40.74	0.0522	-0.1059	0.0004
15	SLU 71	-2.29	-0.16	40.83	0.046	-0.1061	0.0004
15	SLU 72	-2.26	-0.17	40.79	0.0524	-0.1047	0.0004
15	SLU 73	-2.63	-0.18	42.8	0.0553	-0.1202	0.0004
15	SLU 74	-2.61	-0.17	43.83	0.046	-0.1202	0.0004
15	SLU 75	-2.58	-0.17	43.79	0.0523	-0.1188	0.0004
15	SLU 76	-2.53	-0.18	43.81	0.0567	-0.1167	0.0004
15	SLU 77	-2.51	-0.17	44.83	0.0474	-0.1168	0.0004
15	SLU 78	-2.48	-0.18	44.79	0.0538	-0.1154	0.0004
15	SLU 79	-2.48	-0.17	44.88	0.0476	-0.1156	0.0004
15	SLU 80	-2.45	-0.18	44.84	0.054	-0.1142	0.0004
15	SLU 81	-2.76	-0.17	44.61	0.0453	-0.1266	0.0004
15	SLU 82	-2.73	-0.18	44.57	0.0517	-0.1252	0.0004
15	SLU 83	-2.66	-0.17	45.61	0.0468	-0.1232	0.0004
15	SLU 84	-2.63	-0.18	45.57	0.0532	-0.1218	0.0004
15	SLE RA 1	-1.9	-0.11	29.42	0.0329	-0.0859	0.0003
15	SLE RA 2	-1.87	-0.12	29.37	0.04	-0.0843	0.0003
15	SLE RA 3	-1.85	-0.12	30.05	0.0338	-0.0843	0.0003
15	SLE RA 4	-1.83	-0.12	30.03	0.038	-0.0834	0.0003
15	SLE RA 5	-1.8	-0.13	30.04	0.0409	-0.082	0.0003
15	SLE RA 6	-1.78	-0.12	30.72	0.0347	-0.082	0.0003
15	SLE RA 7	-1.76	-0.13	30.69	0.039	-0.0811	0.0003
15	SLE RA 8	-1.76	-0.12	30.75	0.0349	-0.0813	0.0003
15	SLE RA 9	-1.74	-0.13	30.73	0.0391	-0.0803	0.0003
15	SLE RA 10	-1.99	-0.13	32.07	0.041	-0.0906	0.0003
15	SLE RA 11	-1.97	-0.12	32.75	0.0348	-0.0907	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
15	SLE RA 12	-1.95	-0.13	32.72	0.039	-0.0897	0.0003
15	SLE RA 13	-1.92	-0.13	32.74	0.042	-0.0883	0.0003
15	SLE RA 14	-1.9	-0.13	33.42	0.0358	-0.0884	0.0003
15	SLE RA 15	-1.88	-0.13	33.39	0.04	-0.0874	0.0003
15	SLE RA 16	-1.88	-0.13	33.45	0.0359	-0.0876	0.0003
15	SLE RA 17	-1.86	-0.13	33.42	0.0401	-0.0867	0.0003
15	SLE RA 18	-2.07	-0.12	33.27	0.0344	-0.0949	0.0003
15	SLE RA 19	-2.05	-0.13	33.24	0.0386	-0.094	0.0003
15	SLE RA 20	-2	-0.13	33.94	0.0354	-0.0926	0.0003
15	SLE RA 21	-1.98	-0.13	33.91	0.0396	-0.0917	0.0003
15	SLE FR 1	-1.9	-0.11	29.42	0.0329	-0.0859	0.0003
15	SLE FR 2	-1.89	-0.12	29.41	0.0343	-0.0855	0.0003
15	SLE FR 3	-1.87	-0.11	29.68	0.0333	-0.0849	0.0003
15	SLE FR 4	-1.94	-0.12	30.56	0.0348	-0.0883	0.0003
15	SLE FR 5	-1.92	-0.12	30.84	0.0337	-0.0877	0.0003
15	SLE FR 6	-1.99	-0.12	31.34	0.0336	-0.0904	0.0003
15	SLE QP 1	-1.9	-0.11	29.42	0.0329	-0.0859	0.0003
15	SLE QP 2	-1.95	-0.12	30.57	0.0333	-0.0886	0.0003
15	SLD 1	0.47	-0.17	35.18	0.061	0.0129	0.0001
15	SLD 2	0.47	-0.17	35.18	0.061	0.0129	0.0001
15	SLD 3	1.39	-0.11	29.97	0.0261	0.0508	0
15	SLD 4	1.39	-0.11	29.97	0.0261	0.0508	0
15	SLD 5	-2.61	-0.22	39.85	0.0946	-0.1155	0.0005
15	SLD 6	-2.61	-0.22	39.85	0.0946	-0.1155	0.0005
15	SLD 7	0.44	-0.02	22.49	-0.0218	0.0107	-0.0001
15	SLD 8	0.44	-0.02	22.49	-0.0218	0.0107	-0.0001
15	SLD 9	-4.34	-0.21	38.65	0.0884	-0.1878	0.0006
15	SLD 10	-4.34	-0.21	38.65	0.0884	-0.1878	0.0006
15	SLD 11	-1.29	-0.01	21.29	-0.0279	-0.0616	0
15	SLD 12	-1.29	-0.01	21.29	-0.0279	-0.0616	0
15	SLD 13	-5.29	-0.12	31.18	0.0406	-0.228	0.0006
15	SLD 14	-5.29	-0.12	31.18	0.0406	-0.228	0.0006
15	SLD 15	-4.37	-0.06	25.97	0.0057	-0.1901	0.0004
15	SLD 16	-4.37	-0.06	25.97	0.0057	-0.1901	0.0004
15	SLV 1	3.68	-0.24	41.43	0.0981	0.1477	0
15	SLV 2	3.68	-0.24	41.43	0.0981	0.1477	0
15	SLV 3	5.87	-0.1	29.13	0.0164	0.2378	-0.0004
15	SLV 4	5.87	-0.1	29.13	0.0164	0.2378	-0.0004
15	SLV 5	-3.57	-0.37	52.49	0.1766	-0.1543	0.0008
15	SLV 6	-3.57	-0.37	52.49	0.1766	-0.1543	0.0008
15	SLV 7	3.7	0.1	11.48	-0.0956	0.146	-0.0006
15	SLV 8	3.7	0.1	11.48	-0.0956	0.146	-0.0006
15	SLV 9	-7.61	-0.34	49.66	0.1623	-0.3231	0.0011
15	SLV 10	-7.61	-0.34	49.66	0.1623	-0.3231	0.0011
15	SLV 11	-0.33	0.14	8.66	-0.1099	-0.0228	-0.0003
15	SLV 12	-0.33	0.14	8.66	-0.1099	-0.0228	-0.0003
15	SLV 13	-9.77	-0.13	32.02	0.0502	-0.415	0.001
15	SLV 14	-9.77	-0.13	32.02	0.0502	-0.415	0.001
15	SLV 15	-7.58	0.01	19.72	-0.0314	-0.3249	0.0006
15	SLV 16	-7.58	0.01	19.72	-0.0314	-0.3249	0.0006
16	SLU 1	0.64	-0.11	28.52	0.0335	0.0304	0.0003
16	SLU 2	0.64	-0.13	28.43	0.0443	0.0306	0.0003
16	SLU 3	0.82	-0.12	29.61	0.0349	0.0378	0.0003
16	SLU 4	0.82	-0.13	29.55	0.0414	0.0379	0.0003
16	SLU 5	0.86	-0.14	29.59	0.0459	0.0393	0.0003
16	SLU 6	1.04	-0.13	30.77	0.0365	0.0466	0.0003
16	SLU 7	1.05	-0.14	30.71	0.043	0.0466	0.0003
16	SLU 8	1.08	-0.13	30.85	0.0366	0.0479	0.0003
16	SLU 9	1.08	-0.14	30.79	0.0431	0.048	0.0003
16	SLU 10	0.74	-0.14	32.46	0.0461	0.0361	0.0003
16	SLU 11	0.92	-0.13	33.64	0.0367	0.0434	0.0003
16	SLU 12	0.92	-0.14	33.58	0.0432	0.0434	0.0004
16	SLU 13	0.96	-0.15	33.62	0.0477	0.0449	0.0004
16	SLU 14	1.14	-0.14	34.8	0.0382	0.0521	0.0003
16	SLU 15	1.15	-0.15	34.75	0.0447	0.0522	0.0004
16	SLU 16	1.18	-0.14	34.88	0.0384	0.0535	0.0003
16	SLU 17	1.18	-0.15	34.83	0.0449	0.0536	0.0004
16	SLU 18	0.78	-0.13	34.28	0.036	0.0384	0.0003
16	SLU 19	0.78	-0.14	34.22	0.0425	0.0384	0.0004
16	SLU 20	1	-0.14	35.45	0.0376	0.0471	0.0004
16	SLU 21	1	-0.15	35.39	0.0441	0.0472	0.0004
16	SLU 22	0.75	-0.12	30.6	0.0348	0.0356	0.0003
16	SLU 23	0.76	-0.14	30.5	0.0456	0.0357	0.0003
16	SLU 24	0.94	-0.13	31.68	0.0362	0.0429	0.0003
16	SLU 25	0.94	-0.14	31.62	0.0427	0.043	0.0003
16	SLU 26	0.98	-0.14	31.67	0.0472	0.0444	0.0003
16	SLU 27	1.16	-0.13	32.85	0.0377	0.0517	0.0003
16	SLU 28	1.16	-0.14	32.79	0.0442	0.0518	0.0003
16	SLU 29	1.19	-0.13	32.93	0.0379	0.0531	0.0003
16	SLU 30	1.2	-0.14	32.87	0.0444	0.0531	0.0003
16	SLU 31	0.86	-0.15	34.53	0.0474	0.0412	0.0004
16	SLU 32	1.04	-0.14	35.71	0.0379	0.0485	0.0004
16	SLU 33	1.04	-0.15	35.66	0.0444	0.0485	0.0004
16	SLU 34	1.08	-0.16	35.7	0.0489	0.05	0.0004
16	SLU 35	1.26	-0.15	36.88	0.0395	0.0572	0.0004
16	SLU 36	1.26	-0.15	36.82	0.046	0.0573	0.0004
16	SLU 37	1.29	-0.15	36.96	0.0397	0.0586	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
16	SLU 38	1.3	-0.16	36.9	0.0462	0.0587	0.0004
16	SLU 39	0.9	-0.14	36.36	0.0373	0.0435	0.0004
16	SLU 40	0.9	-0.15	36.3	0.0438	0.0436	0.0004
16	SLU 41	1.12	-0.15	37.52	0.0389	0.0522	0.0004
16	SLU 42	1.12	-0.15	37.46	0.0454	0.0523	0.0004
16	SLU 43	0.79	-0.15	36.37	0.0431	0.0378	0.0004
16	SLU 44	0.79	-0.16	36.27	0.054	0.0379	0.0004
16	SLU 45	0.98	-0.15	37.45	0.0445	0.0452	0.0004
16	SLU 46	0.98	-0.16	37.39	0.051	0.0453	0.0004
16	SLU 47	1.01	-0.17	37.43	0.0555	0.0467	0.0004
16	SLU 48	1.2	-0.16	38.62	0.0461	0.0539	0.0004
16	SLU 49	1.2	-0.17	38.56	0.0526	0.054	0.0004
16	SLU 50	1.23	-0.16	38.7	0.0463	0.0553	0.0004
16	SLU 51	1.23	-0.17	38.64	0.0528	0.0554	0.0004
16	SLU 52	0.89	-0.17	40.3	0.0557	0.0435	0.0004
16	SLU 53	1.08	-0.16	41.48	0.0463	0.0507	0.0004
16	SLU 54	1.08	-0.17	41.43	0.0528	0.0508	0.0004
16	SLU 55	1.11	-0.18	41.47	0.0573	0.0522	0.0004
16	SLU 56	1.3	-0.17	42.65	0.0478	0.0595	0.0004
16	SLU 57	1.3	-0.18	42.59	0.0543	0.0596	0.0004
16	SLU 58	1.33	-0.17	42.73	0.048	0.0609	0.0004
16	SLU 59	1.33	-0.18	42.67	0.0545	0.0609	0.0004
16	SLU 60	0.94	-0.16	42.13	0.0457	0.0457	0.0004
16	SLU 61	0.94	-0.17	42.07	0.0522	0.0458	0.0004
16	SLU 62	1.16	-0.17	43.29	0.0472	0.0545	0.0004
16	SLU 63	1.16	-0.18	43.23	0.0537	0.0546	0.0004
16	SLU 64	0.91	-0.15	38.44	0.0444	0.0429	0.0004
16	SLU 65	0.91	-0.17	38.35	0.0552	0.0431	0.0004
16	SLU 66	1.09	-0.16	39.53	0.0458	0.0503	0.0004
16	SLU 67	1.09	-0.17	39.47	0.0523	0.0504	0.0004
16	SLU 68	1.13	-0.18	39.51	0.0568	0.0518	0.0004
16	SLU 69	1.31	-0.17	40.69	0.0473	0.0591	0.0004
16	SLU 70	1.31	-0.17	40.63	0.0538	0.0591	0.0004
16	SLU 71	1.35	-0.17	40.77	0.0475	0.0604	0.0004
16	SLU 72	1.35	-0.18	40.71	0.054	0.0605	0.0004
16	SLU 73	1.01	-0.18	42.38	0.057	0.0486	0.0004
16	SLU 74	1.19	-0.17	43.56	0.0475	0.0559	0.0004
16	SLU 75	1.19	-0.18	43.5	0.054	0.0559	0.0004
16	SLU 76	1.23	-0.19	43.54	0.0586	0.0574	0.0005
16	SLU 77	1.41	-0.18	44.72	0.0491	0.0646	0.0004
16	SLU 78	1.41	-0.19	44.67	0.0556	0.0647	0.0005
16	SLU 79	1.45	-0.18	44.8	0.0493	0.066	0.0004
16	SLU 80	1.45	-0.19	44.75	0.0558	0.0661	0.0005
16	SLU 81	1.05	-0.17	44.2	0.0469	0.0509	0.0004
16	SLU 82	1.05	-0.18	44.14	0.0534	0.0509	0.0005
16	SLU 83	1.27	-0.18	45.37	0.0485	0.0596	0.0005
16	SLU 84	1.27	-0.19	45.31	0.055	0.0597	0.0005
16	SLE RA 1	0.67	-0.12	29.11	0.0339	0.0319	0.0003
16	SLE RA 2	0.67	-0.13	29.05	0.0411	0.032	0.0003
16	SLE RA 3	0.8	-0.12	29.84	0.0348	0.0368	0.0003
16	SLE RA 4	0.8	-0.13	29.8	0.0391	0.0369	0.0003
16	SLE RA 5	0.82	-0.13	29.83	0.0421	0.0378	0.0003
16	SLE RA 6	0.94	-0.12	30.61	0.0358	0.0427	0.0003
16	SLE RA 7	0.94	-0.13	30.58	0.0402	0.0427	0.0003
16	SLE RA 8	0.97	-0.12	30.67	0.036	0.0436	0.0003
16	SLE RA 9	0.97	-0.13	30.63	0.0403	0.0436	0.0003
16	SLE RA 10	0.74	-0.14	31.74	0.0423	0.0357	0.0003
16	SLE RA 11	0.86	-0.13	32.52	0.036	0.0405	0.0003
16	SLE RA 12	0.86	-0.13	32.49	0.0403	0.0406	0.0003
16	SLE RA 13	0.89	-0.14	32.51	0.0433	0.0415	0.0003
16	SLE RA 14	1.01	-0.13	33.3	0.037	0.0464	0.0003
16	SLE RA 15	1.01	-0.14	33.26	0.0413	0.0464	0.0003
16	SLE RA 16	1.03	-0.13	33.35	0.0371	0.0473	0.0003
16	SLE RA 17	1.03	-0.14	33.32	0.0415	0.0473	0.0003
16	SLE RA 18	0.77	-0.13	32.95	0.0356	0.0372	0.0003
16	SLE RA 19	0.77	-0.13	32.92	0.0399	0.0372	0.0003
16	SLE RA 20	0.91	-0.13	33.73	0.0366	0.043	0.0003
16	SLE RA 21	0.91	-0.14	33.69	0.0409	0.0431	0.0003
16	SLE FR 1	0.67	-0.12	29.11	0.0339	0.0319	0.0003
16	SLE FR 2	0.67	-0.12	29.1	0.0353	0.0319	0.0003
16	SLE FR 3	0.73	-0.12	29.42	0.0343	0.0342	0.0003
16	SLE FR 4	0.7	-0.12	30.25	0.0358	0.0335	0.0003
16	SLE FR 5	0.76	-0.12	30.58	0.0348	0.0358	0.0003
16	SLE FR 6	0.72	-0.12	31.03	0.0347	0.0345	0.0003
16	SLE QP 1	0.67	-0.12	29.11	0.0339	0.0319	0.0003
16	SLE QP 2	0.7	-0.12	30.27	0.0344	0.0335	0.0003
16	SLD 1	3.9	-0.19	33.99	0.0687	0.1696	0.0003
16	SLD 2	3.9	-0.19	33.99	0.0687	0.1696	0.0003
16	SLD 3	3.15	-0.13	28.9	0.0343	0.1382	0.0001
16	SLD 4	3.15	-0.13	28.9	0.0343	0.1382	0.0001
16	SLD 5	2.8	-0.23	39.1	0.0968	0.1218	0.0005
16	SLD 6	2.8	-0.23	39.1	0.0968	0.1218	0.0005
16	SLD 7	0.3	-0.03	22.14	-0.0178	0.0174	0.0001
16	SLD 8	0.3	-0.03	22.14	-0.0178	0.0174	0.0001
16	SLD 9	1.11	-0.21	38.39	0.0866	0.0496	0.0005
16	SLD 10	1.11	-0.21	38.39	0.0866	0.0496	0.0005
16	SLD 11	-1.4	-0.01	21.44	-0.0281	-0.0548	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
16	SLD 12	-1.4	-0.01	21.44	-0.0281	-0.0548	0.0001
16	SLD 13	-1.75	-0.11	31.63	0.0345	-0.0712	0.0005
16	SLD 14	-1.75	-0.11	31.63	0.0345	-0.0712	0.0005
16	SLD 15	-2.5	-0.05	26.54	0.0001	-0.1026	0.0003
16	SLD 16	-2.5	-0.05	26.54	0.0001	-0.1026	0.0003
16	SLV 1	8.18	-0.29	39.06	0.1147	0.3518	0.0002
16	SLV 2	8.18	-0.29	39.06	0.1147	0.3518	0.0002
16	SLV 3	6.4	-0.15	27.06	0.0342	0.2777	-0.0001
16	SLV 4	6.4	-0.15	27.06	0.0342	0.2777	-0.0001
16	SLV 5	5.64	-0.38	51.11	0.1806	0.2413	0.0007
16	SLV 6	5.64	-0.38	51.11	0.1806	0.2413	0.0007
16	SLV 7	-0.28	0.08	11.1	-0.0877	-0.0056	-0.0002
16	SLV 8	-0.28	0.08	11.1	-0.0877	-0.0056	-0.0002
16	SLV 9	1.69	-0.32	49.43	0.1565	0.0725	0.0009
16	SLV 10	1.69	-0.32	49.43	0.1565	0.0725	0.0009
16	SLV 11	-4.24	0.14	9.42	-0.1118	-0.1743	-0.0001
16	SLV 12	-4.24	0.14	9.42	-0.1118	-0.1743	-0.0001
16	SLV 13	-5	-0.09	33.47	0.0345	-0.2107	0.0007
16	SLV 14	-5	-0.09	33.47	0.0345	-0.2107	0.0007
16	SLV 15	-6.78	0.05	21.47	-0.046	-0.2848	0.0004
16	SLV 16	-6.78	0.05	21.47	-0.046	-0.2848	0.0004
17	SLU 1	2.18	-0.06	31.41	0.0145	0.0629	0.0002
17	SLU 2	2.14	-0.07	31.22	0.0231	0.0623	0.0002
17	SLU 3	2.42	-0.06	32.77	0.0148	0.0713	0.0002
17	SLU 4	2.4	-0.07	32.66	0.0201	0.071	0.0002
17	SLU 5	2.42	-0.08	32.7	0.0236	0.0721	0.0002
17	SLU 6	2.7	-0.07	34.25	0.0153	0.0811	0.0002
17	SLU 7	2.68	-0.07	34.14	0.0206	0.0808	0.0002
17	SLU 8	2.74	-0.07	34.37	0.0154	0.0825	0.0002
17	SLU 9	2.71	-0.07	34.25	0.0207	0.0821	0.0002
17	SLU 10	2.35	-0.08	35.6	0.0229	0.0669	0.0003
17	SLU 11	2.63	-0.07	37.15	0.0146	0.0759	0.0003
17	SLU 12	2.61	-0.08	37.03	0.0198	0.0755	0.0003
17	SLU 13	2.63	-0.08	37.08	0.0234	0.0766	0.0003
17	SLU 14	2.91	-0.07	38.63	0.0151	0.0857	0.0003
17	SLU 15	2.89	-0.08	38.51	0.0203	0.0853	0.0003
17	SLU 16	2.95	-0.07	38.75	0.0152	0.087	0.0003
17	SLU 17	2.92	-0.08	38.63	0.0204	0.0867	0.0003
17	SLU 18	2.48	-0.07	37.67	0.0141	0.0694	0.0003
17	SLU 19	2.45	-0.08	37.55	0.0193	0.0691	0.0003
17	SLU 20	2.76	-0.07	39.14	0.0146	0.0792	0.0003
17	SLU 21	2.73	-0.08	39.03	0.0198	0.0788	0.0003
17	SLU 22	2.41	-0.06	33.78	0.0142	0.0701	0.0002
17	SLU 23	2.38	-0.07	33.59	0.0229	0.0695	0.0002
17	SLU 24	2.66	-0.07	35.14	0.0146	0.0785	0.0002
17	SLU 25	2.63	-0.07	35.02	0.0198	0.0781	0.0002
17	SLU 26	2.66	-0.08	35.07	0.0234	0.0793	0.0002
17	SLU 27	2.94	-0.07	36.62	0.0151	0.0883	0.0002
17	SLU 28	2.92	-0.08	36.5	0.0203	0.0879	0.0002
17	SLU 29	2.97	-0.07	36.74	0.0152	0.0896	0.0002
17	SLU 30	2.95	-0.08	36.62	0.0204	0.0893	0.0002
17	SLU 31	2.59	-0.08	37.96	0.0227	0.074	0.0003
17	SLU 32	2.87	-0.07	39.52	0.0144	0.0831	0.0003
17	SLU 33	2.84	-0.08	39.4	0.0196	0.0827	0.0003
17	SLU 34	2.87	-0.08	39.44	0.0232	0.0838	0.0003
17	SLU 35	3.15	-0.08	40.99	0.0149	0.0929	0.0003
17	SLU 36	3.13	-0.08	40.88	0.0201	0.0925	0.0003
17	SLU 37	3.18	-0.08	41.11	0.015	0.0942	0.0003
17	SLU 38	3.16	-0.08	41	0.0202	0.0939	0.0003
17	SLU 39	2.71	-0.07	40.03	0.0139	0.0766	0.0003
17	SLU 40	2.69	-0.08	39.92	0.0191	0.0762	0.0003
17	SLU 41	2.99	-0.08	41.51	0.0144	0.0864	0.0003
17	SLU 42	2.97	-0.08	41.39	0.0196	0.086	0.0003
17	SLU 43	2.75	-0.08	40.03	0.0189	0.0793	0.0003
17	SLU 44	2.71	-0.09	39.83	0.0276	0.0787	0.0003
17	SLU 45	2.99	-0.08	41.39	0.0193	0.0877	0.0003
17	SLU 46	2.97	-0.09	41.27	0.0245	0.0874	0.0003
17	SLU 47	2.99	-0.09	41.31	0.0281	0.0885	0.0003
17	SLU 48	3.27	-0.08	42.86	0.0198	0.0975	0.0003
17	SLU 49	3.25	-0.09	42.75	0.025	0.0972	0.0003
17	SLU 50	3.31	-0.08	42.98	0.0199	0.0989	0.0003
17	SLU 51	3.29	-0.09	42.87	0.0251	0.0985	0.0003
17	SLU 52	2.92	-0.09	44.21	0.0273	0.0833	0.0003
17	SLU 53	3.2	-0.09	45.76	0.019	0.0923	0.0003
17	SLU 54	3.18	-0.09	45.65	0.0242	0.0919	0.0003
17	SLU 55	3.2	-0.1	45.69	0.0278	0.093	0.0003
17	SLU 56	3.48	-0.09	47.24	0.0195	0.1021	0.0003
17	SLU 57	3.46	-0.1	47.13	0.0247	0.1017	0.0003
17	SLU 58	3.52	-0.09	47.36	0.0196	0.1034	0.0003
17	SLU 59	3.5	-0.1	47.24	0.0248	0.1031	0.0003
17	SLU 60	3.05	-0.09	46.28	0.0185	0.0858	0.0003
17	SLU 61	3.03	-0.09	46.16	0.0237	0.0855	0.0003
17	SLU 62	3.33	-0.09	47.76	0.019	0.0956	0.0003
17	SLU 63	3.31	-0.1	47.64	0.0242	0.0952	0.0003
17	SLU 64	2.98	-0.08	42.39	0.0186	0.0865	0.0003
17	SLU 65	2.95	-0.09	42.2	0.0273	0.0859	0.0003
17	SLU 66	3.23	-0.08	43.75	0.019	0.0949	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
17	SLU 67	3.21	-0.09	43.64	0.0242	0.0946	0.0003
17	SLU 68	3.23	-0.1	43.68	0.0278	0.0957	0.0003
17	SLU 69	3.51	-0.09	45.23	0.0195	0.1047	0.0003
17	SLU 70	3.49	-0.09	45.11	0.0247	0.1043	0.0003
17	SLU 71	3.54	-0.09	45.35	0.0196	0.106	0.0003
17	SLU 72	3.52	-0.09	45.23	0.0249	0.1057	0.0003
17	SLU 73	3.16	-0.1	46.58	0.0271	0.0904	0.0003
17	SLU 74	3.44	-0.09	48.13	0.0188	0.0995	0.0003
17	SLU 75	3.42	-0.1	48.01	0.024	0.0991	0.0003
17	SLU 76	3.44	-0.1	48.06	0.0276	0.1002	0.0003
17	SLU 77	3.72	-0.09	49.61	0.0193	0.1093	0.0003
17	SLU 78	3.7	-0.1	49.49	0.0245	0.1089	0.0003
17	SLU 79	3.75	-0.09	49.73	0.0194	0.1106	0.0003
17	SLU 80	3.73	-0.1	49.61	0.0246	0.1103	0.0003
17	SLU 81	3.28	-0.09	48.65	0.0183	0.093	0.0003
17	SLU 82	3.26	-0.1	48.53	0.0235	0.0926	0.0003
17	SLU 83	3.56	-0.09	50.12	0.0188	0.1028	0.0003
17	SLU 84	3.54	-0.1	50.01	0.024	0.1024	0.0003
17	SLE RA 1	2.24	-0.06	32.09	0.0144	0.0649	0.0002
17	SLE RA 2	2.22	-0.07	31.96	0.0202	0.0645	0.0002
17	SLE RA 3	2.41	-0.06	33	0.0146	0.0706	0.0002
17	SLE RA 4	2.39	-0.07	32.92	0.0181	0.0703	0.0002
17	SLE RA 5	2.41	-0.07	32.95	0.0205	0.0711	0.0002
17	SLE RA 6	2.59	-0.07	33.98	0.015	0.0771	0.0002
17	SLE RA 7	2.58	-0.07	33.9	0.0185	0.0769	0.0002
17	SLE RA 8	2.62	-0.07	34.06	0.0151	0.078	0.0002
17	SLE RA 9	2.6	-0.07	33.98	0.0185	0.0777	0.0002
17	SLE RA 10	2.36	-0.07	34.88	0.02	0.0676	0.0002
17	SLE RA 11	2.55	-0.07	35.91	0.0145	0.0736	0.0002
17	SLE RA 12	2.53	-0.07	35.84	0.018	0.0734	0.0002
17	SLE RA 13	2.55	-0.08	35.86	0.0203	0.0741	0.0002
17	SLE RA 14	2.73	-0.07	36.9	0.0148	0.0801	0.0002
17	SLE RA 15	2.72	-0.07	36.82	0.0183	0.0799	0.0002
17	SLE RA 16	2.76	-0.07	36.98	0.0149	0.081	0.0002
17	SLE RA 17	2.74	-0.07	36.9	0.0184	0.0808	0.0002
17	SLE RA 18	2.44	-0.07	36.26	0.0141	0.0693	0.0003
17	SLE RA 19	2.43	-0.07	36.18	0.0176	0.069	0.0003
17	SLE RA 20	2.63	-0.07	37.24	0.0145	0.0758	0.0003
17	SLE RA 21	2.62	-0.07	37.17	0.018	0.0756	0.0003
17	SLE FR 1	2.24	-0.06	32.09	0.0144	0.0649	0.0002
17	SLE FR 2	2.24	-0.06	32.06	0.0155	0.0649	0.0002
17	SLE FR 3	2.32	-0.06	32.48	0.0145	0.0675	0.0002
17	SLE FR 4	2.3	-0.06	33.31	0.0155	0.0662	0.0002
17	SLE FR 5	2.38	-0.06	33.73	0.0144	0.0689	0.0002
17	SLE FR 6	2.34	-0.06	34.17	0.0143	0.0671	0.0002
17	SLE QP 1	2.24	-0.06	32.09	0.0144	0.0649	0.0002
17	SLE QP 2	2.3	-0.06	33.34	0.0143	0.0662	0.0002
17	SLD 1	5.3	-0.16	39.25	0.0548	0.1935	0
17	SLD 2	5.3	-0.16	39.25	0.0548	0.1935	0
17	SLD 3	4.47	-0.11	33.44	0.0282	0.163	-0.0002
17	SLD 4	4.47	-0.11	33.44	0.0282	0.163	-0.0002
17	SLD 5	4.45	-0.16	43.93	0.0668	0.1507	0.0004
17	SLD 6	4.45	-0.16	43.93	0.0668	0.1507	0.0004
17	SLD 7	1.7	-0.01	24.55	-0.0219	0.0491	-0.0002
17	SLD 8	1.7	-0.01	24.55	-0.0219	0.0491	-0.0002
17	SLD 9	2.91	-0.12	42.13	0.0505	0.0834	0.0006
17	SLD 10	2.91	-0.12	42.13	0.0505	0.0834	0.0006
17	SLD 11	0.15	0.03	22.75	-0.0382	-0.0182	0
17	SLD 12	0.15	0.03	22.75	-0.0382	-0.0182	0
17	SLD 13	0.14	-0.01	33.24	0.0005	-0.0306	0.0006
17	SLD 14	0.14	-0.01	33.24	0.0005	-0.0306	0.0006
17	SLD 15	-0.69	0.03	27.43	-0.0262	-0.061	0.0004
17	SLD 16	-0.69	0.03	27.43	-0.0262	-0.061	0.0004
17	SLV 1	9.3	-0.28	47.26	0.1092	0.3639	-0.0002
17	SLV 2	9.3	-0.28	47.26	0.1092	0.3639	-0.0002
17	SLV 3	7.36	-0.18	33.54	0.0469	0.2921	-0.0007
17	SLV 4	7.36	-0.18	33.54	0.0469	0.2921	-0.0007
17	SLV 5	7.36	-0.29	58.32	0.1372	0.2645	0.0007
17	SLV 6	7.36	-0.29	58.32	0.1372	0.2645	0.0007
17	SLV 7	0.86	0.06	12.59	-0.0704	0.025	-0.0007
17	SLV 8	0.86	0.06	12.59	-0.0704	0.025	-0.0007
17	SLV 9	3.74	-0.19	54.09	0.099	0.1075	0.0011
17	SLV 10	3.74	-0.19	54.09	0.099	0.1075	0.0011
17	SLV 11	-2.75	0.16	8.36	-0.1086	-0.132	-0.0003
17	SLV 12	-2.75	0.16	8.36	-0.1086	-0.132	-0.0003
17	SLV 13	-2.75	0.05	33.14	-0.0182	-0.1596	0.0011
17	SLV 14	-2.75	0.05	33.14	-0.0182	-0.1596	0.0011
17	SLV 15	-4.7	0.16	19.42	-0.0805	-0.2314	0.0007
17	SLV 16	-4.7	0.16	19.42	-0.0805	-0.2314	0.0007
18	SLU 1	2.72	0.11	37.3	-0.0227	0.0652	0.0005
18	SLU 2	2.66	0.1	36.91	-0.0174	0.064	0.0005
18	SLU 3	2.97	0.11	39.1	-0.0245	0.0724	0.0006
18	SLU 4	2.93	0.11	38.87	-0.0214	0.0717	0.0006
18	SLU 5	2.94	0.11	38.88	-0.0193	0.0722	0.0006
18	SLU 6	3.25	0.12	41.06	-0.0265	0.0806	0.0006
18	SLU 7	3.21	0.12	40.83	-0.0233	0.0799	0.0006
18	SLU 8	3.28	0.12	41.23	-0.0266	0.0815	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLU 9	3.24	0.12	40.99	-0.0234	0.0808	0.0006
18	SLU 10	2.88	0.12	41.97	-0.0219	0.0667	0.0006
18	SLU 11	3.19	0.13	44.15	-0.0291	0.0751	0.0007
18	SLU 12	3.15	0.13	43.92	-0.0259	0.0744	0.0006
18	SLU 13	3.16	0.12	43.93	-0.0239	0.0748	0.0006
18	SLU 14	3.47	0.14	46.11	-0.031	0.0832	0.0007
18	SLU 15	3.43	0.13	45.88	-0.0278	0.0826	0.0007
18	SLU 16	3.5	0.14	46.28	-0.0311	0.0842	0.0007
18	SLU 17	3.46	0.13	46.05	-0.0279	0.0835	0.0007
18	SLU 18	3.04	0.13	44.52	-0.0292	0.0689	0.0007
18	SLU 19	3	0.13	44.29	-0.026	0.0682	0.0007
18	SLU 20	3.31	0.14	46.48	-0.0311	0.0771	0.0007
18	SLU 21	3.28	0.13	46.25	-0.028	0.0764	0.0007
18	SLU 22	3.01	0.12	40.24	-0.026	0.0724	0.0006
18	SLU 23	2.94	0.11	39.86	-0.0207	0.0712	0.0006
18	SLU 24	3.25	0.13	42.04	-0.0279	0.0797	0.0006
18	SLU 25	3.22	0.12	41.81	-0.0247	0.079	0.0006
18	SLU 26	3.22	0.12	41.82	-0.0227	0.0794	0.0006
18	SLU 27	3.53	0.13	44	-0.0298	0.0878	0.0006
18	SLU 28	3.49	0.13	43.77	-0.0266	0.0871	0.0006
18	SLU 29	3.56	0.13	44.17	-0.0299	0.0887	0.0006
18	SLU 30	3.52	0.13	43.94	-0.0267	0.0881	0.0006
18	SLU 31	3.16	0.13	44.91	-0.0253	0.0739	0.0007
18	SLU 32	3.47	0.14	47.09	-0.0324	0.0823	0.0007
18	SLU 33	3.43	0.14	46.86	-0.0293	0.0816	0.0007
18	SLU 34	3.44	0.14	46.87	-0.0272	0.0821	0.0007
18	SLU 35	3.75	0.15	49.06	-0.0344	0.0905	0.0007
18	SLU 36	3.71	0.14	48.83	-0.0312	0.0898	0.0007
18	SLU 37	3.78	0.15	49.22	-0.0345	0.0914	0.0007
18	SLU 38	3.74	0.15	48.99	-0.0313	0.0907	0.0007
18	SLU 39	3.32	0.14	47.46	-0.0326	0.0762	0.0007
18	SLU 40	3.28	0.14	47.23	-0.0294	0.0755	0.0007
18	SLU 41	3.6	0.15	49.42	-0.0345	0.0843	0.0007
18	SLU 42	3.56	0.15	49.19	-0.0313	0.0836	0.0007
18	SLU 43	3.44	0.13	47.48	-0.0283	0.0822	0.0007
18	SLU 44	3.38	0.13	47.1	-0.023	0.0811	0.0007
18	SLU 45	3.69	0.14	49.28	-0.0302	0.0895	0.0007
18	SLU 46	3.65	0.14	49.05	-0.027	0.0888	0.0007
18	SLU 47	3.66	0.13	49.06	-0.025	0.0893	0.0007
18	SLU 48	3.97	0.15	51.24	-0.0321	0.0977	0.0007
18	SLU 49	3.93	0.14	51.01	-0.0289	0.097	0.0007
18	SLU 50	4	0.15	51.41	-0.0322	0.0986	0.0007
18	SLU 51	3.96	0.14	51.18	-0.029	0.0979	0.0007
18	SLU 52	3.6	0.14	52.15	-0.0276	0.0837	0.0008
18	SLU 53	3.91	0.16	54.33	-0.0347	0.0921	0.0008
18	SLU 54	3.87	0.15	54.1	-0.0316	0.0915	0.0008
18	SLU 55	3.88	0.15	54.11	-0.0295	0.0919	0.0008
18	SLU 56	4.19	0.16	56.3	-0.0367	0.1003	0.0008
18	SLU 57	4.15	0.16	56.06	-0.0335	0.0996	0.0008
18	SLU 58	4.22	0.16	56.46	-0.0368	0.1012	0.0008
18	SLU 59	4.18	0.16	56.23	-0.0336	0.1005	0.0008
18	SLU 60	3.76	0.16	54.7	-0.0349	0.086	0.0008
18	SLU 61	3.72	0.15	54.47	-0.0317	0.0853	0.0008
18	SLU 62	4.03	0.16	56.66	-0.0368	0.0942	0.0008
18	SLU 63	4	0.16	56.43	-0.0336	0.0935	0.0008
18	SLU 64	3.73	0.15	50.42	-0.0317	0.0895	0.0007
18	SLU 65	3.66	0.14	50.04	-0.0264	0.0883	0.0007
18	SLU 66	3.97	0.15	52.22	-0.0335	0.0967	0.0008
18	SLU 67	3.94	0.15	51.99	-0.0304	0.096	0.0007
18	SLU 68	3.94	0.15	52	-0.0283	0.0965	0.0007
18	SLU 69	4.25	0.16	54.18	-0.0355	0.1049	0.0008
18	SLU 70	4.21	0.16	53.95	-0.0323	0.1042	0.0008
18	SLU 71	4.28	0.16	54.35	-0.0356	0.1058	0.0008
18	SLU 72	4.24	0.16	54.12	-0.0324	0.1051	0.0008
18	SLU 73	3.88	0.16	55.09	-0.031	0.0909	0.0008
18	SLU 74	4.19	0.17	57.28	-0.0381	0.0994	0.0008
18	SLU 75	4.15	0.17	57.04	-0.0349	0.0987	0.0008
18	SLU 76	4.16	0.16	57.05	-0.0329	0.0991	0.0008
18	SLU 77	4.47	0.18	59.24	-0.04	0.1075	0.0009
18	SLU 78	4.43	0.17	59.01	-0.0369	0.1069	0.0009
18	SLU 79	4.5	0.18	59.4	-0.0401	0.1085	0.0009
18	SLU 80	4.46	0.17	59.17	-0.0369	0.1078	0.0009
18	SLU 81	4.04	0.17	57.64	-0.0382	0.0932	0.0009
18	SLU 82	4	0.17	57.41	-0.035	0.0925	0.0009
18	SLU 83	4.32	0.18	59.6	-0.0401	0.1014	0.0009
18	SLU 84	4.28	0.17	59.37	-0.037	0.1007	0.0009
18	SLE RA 1	2.8	0.11	38.14	-0.0236	0.0672	0.0005
18	SLE RA 2	2.76	0.11	37.88	-0.0201	0.0665	0.0005
18	SLE RA 3	2.97	0.11	39.34	-0.0249	0.0721	0.0006
18	SLE RA 4	2.94	0.11	39.19	-0.0228	0.0716	0.0006
18	SLE RA 5	2.95	0.11	39.19	-0.0214	0.0719	0.0006
18	SLE RA 6	3.16	0.12	40.65	-0.0262	0.0775	0.0006
18	SLE RA 7	3.13	0.12	40.49	-0.024	0.0771	0.0006
18	SLE RA 8	3.17	0.12	40.76	-0.0262	0.0781	0.0006
18	SLE RA 9	3.15	0.12	40.6	-0.0241	0.0777	0.0006
18	SLE RA 10	2.91	0.12	41.25	-0.0232	0.0682	0.0006
18	SLE RA 11	3.12	0.13	42.71	-0.0279	0.0738	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLE RA 12	3.09	0.12	42.55	-0.0258	0.0734	0.0006
18	SLE RA 13	3.09	0.12	42.56	-0.0244	0.0737	0.0006
18	SLE RA 14	3.3	0.13	44.02	-0.0292	0.0793	0.0006
18	SLE RA 15	3.28	0.13	43.86	-0.0271	0.0788	0.0006
18	SLE RA 16	3.32	0.13	44.13	-0.0293	0.0799	0.0006
18	SLE RA 17	3.29	0.13	43.97	-0.0271	0.0794	0.0006
18	SLE RA 18	3.01	0.13	42.95	-0.028	0.0697	0.0006
18	SLE RA 19	2.99	0.12	42.8	-0.0259	0.0693	0.0006
18	SLE RA 20	3.2	0.13	44.26	-0.0293	0.0752	0.0007
18	SLE RA 21	3.17	0.13	44.11	-0.0272	0.0747	0.0007
18	SLE FR 1	2.8	0.11	38.14	-0.0236	0.0672	0.0005
18	SLE FR 2	2.8	0.11	38.09	-0.0229	0.0671	0.0005
18	SLE FR 3	2.88	0.11	38.66	-0.0242	0.0694	0.0006
18	SLE FR 4	2.86	0.11	39.53	-0.0242	0.0678	0.0006
18	SLE FR 5	2.94	0.12	40.11	-0.0255	0.0702	0.0006
18	SLE FR 6	2.91	0.12	40.55	-0.0258	0.0685	0.0006
18	SLE QP 1	2.8	0.11	38.14	-0.0236	0.0672	0.0005
18	SLE QP 2	2.87	0.11	39.58	-0.0249	0.068	0.0006
18	SLD 1	5.55	0.06	48.76	-0.009	0.1763	0.0004
18	SLD 2	5.55	0.06	48.76	-0.009	0.1763	0.0004
18	SLD 3	4.64	0.03	41.26	0.0075	0.1483	0.0002
18	SLD 4	4.64	0.03	41.26	0.0075	0.1483	0.0002
18	SLD 5	5.06	0.15	53.72	-0.0452	0.1429	0.0008
18	SLD 6	5.06	0.15	53.72	-0.0452	0.1429	0.0008
18	SLD 7	2.01	0.03	28.71	0.0098	0.0496	0.0002
18	SLD 8	2.01	0.03	28.71	0.0098	0.0496	0.0002
18	SLD 9	3.72	0.2	50.46	-0.0597	0.0863	0.0009
18	SLD 10	3.72	0.2	50.46	-0.0597	0.0863	0.0009
18	SLD 11	0.67	0.07	25.45	-0.0047	-0.007	0.0004
18	SLD 12	0.67	0.07	25.45	-0.0047	-0.007	0.0004
18	SLD 13	1.09	0.2	37.91	-0.0574	-0.0123	0.0009
18	SLD 14	1.09	0.2	37.91	-0.0574	-0.0123	0.0009
18	SLD 15	0.18	0.17	30.41	-0.0409	-0.0403	0.0008
18	SLD 16	0.18	0.17	30.41	-0.0409	-0.0403	0.0008
18	SLV 1	9.15	-0.01	61.16	0.0124	0.3212	0.0001
18	SLV 2	9.15	-0.01	61.16	0.0124	0.3212	0.0001
18	SLV 3	7	-0.1	43.46	0.0511	0.2555	-0.0002
18	SLV 4	7	-0.1	43.46	0.0511	0.2555	-0.0002
18	SLV 5	8.01	0.21	72.9	-0.0725	0.2436	0.001
18	SLV 6	8.01	0.21	72.9	-0.0725	0.2436	0.001
18	SLV 7	0.85	-0.08	13.91	0.0566	0.0246	-0.0002
18	SLV 8	0.85	-0.08	13.91	0.0566	0.0246	-0.0002
18	SLV 9	4.89	0.31	65.26	-0.1065	0.1114	0.0014
18	SLV 10	4.89	0.31	65.26	-0.1065	0.1114	0.0014
18	SLV 11	-2.28	0.02	6.27	0.0226	-0.1076	0.0001
18	SLV 12	-2.28	0.02	6.27	0.0226	-0.1076	0.0001
18	SLV 13	-1.27	0.32	35.7	-0.101	-0.1195	0.0014
18	SLV 14	-1.27	0.32	35.7	-0.101	-0.1195	0.0014
18	SLV 15	-3.42	0.24	18.01	-0.0623	-0.1852	0.001
18	SLV 16	-3.42	0.24	18.01	-0.0623	-0.1852	0.001
19	SLU 1	-0.44	8.79	59.84	-0.2863	-0.0319	0.0001
19	SLU 2	-0.43	8.58	58.99	-0.2771	-0.031	0.0001
19	SLU 3	-0.44	9.37	62.94	-0.3083	-0.0327	0.0001
19	SLU 4	-0.44	9.25	62.44	-0.3027	-0.0321	0.0001
19	SLU 5	-0.43	9.2	62.37	-0.3005	-0.0317	0.0001
19	SLU 6	-0.44	9.99	66.32	-0.3317	-0.0333	0.0001
19	SLU 7	-0.44	9.87	65.81	-0.3261	-0.0328	0.0001
19	SLU 8	-0.44	10.03	66.58	-0.3331	-0.0332	0.0001
19	SLU 9	-0.43	9.91	66.08	-0.3276	-0.0327	0.0001
19	SLU 10	-0.71	9.88	66.98	-0.3205	-0.0434	0.0002
19	SLU 11	-0.72	10.67	70.93	-0.3517	-0.045	0.0002
19	SLU 12	-0.71	10.55	70.43	-0.3462	-0.0445	0.0002
19	SLU 13	-0.71	10.5	70.35	-0.3439	-0.044	0.0002
19	SLU 14	-0.72	11.29	74.31	-0.3751	-0.0456	0.0002
19	SLU 15	-0.71	11.17	73.8	-0.3696	-0.0451	0.0002
19	SLU 16	-0.72	11.33	74.57	-0.3766	-0.0455	0.0002
19	SLU 17	-0.71	11.21	74.07	-0.371	-0.045	0.0002
19	SLU 18	-0.84	10.64	71.25	-0.3484	-0.0495	0.0002
19	SLU 19	-0.83	10.52	70.74	-0.3429	-0.049	0.0002
19	SLU 20	-0.83	11.27	74.62	-0.3718	-0.0501	0.0002
19	SLU 21	-0.83	11.14	74.12	-0.3662	-0.0496	0.0002
19	SLU 22	-0.51	9.74	64.86	-0.3199	-0.0357	0.0001
19	SLU 23	-0.5	9.53	64.02	-0.3106	-0.0348	0.0001
19	SLU 24	-0.51	10.32	67.97	-0.3419	-0.0364	0.0001
19	SLU 25	-0.51	10.2	67.46	-0.3363	-0.0359	0.0001
19	SLU 26	-0.5	10.15	67.39	-0.334	-0.0355	0.0001
19	SLU 27	-0.51	10.94	71.34	-0.3653	-0.0371	0.0001
19	SLU 28	-0.51	10.82	70.84	-0.3597	-0.0365	0.0001
19	SLU 29	-0.51	10.98	71.61	-0.3667	-0.037	0.0001
19	SLU 30	-0.5	10.85	71.1	-0.3611	-0.0364	0.0001
19	SLU 31	-0.77	10.83	72.01	-0.3541	-0.0471	0.0002
19	SLU 32	-0.79	11.62	75.96	-0.3853	-0.0487	0.0002
19	SLU 33	-0.78	11.5	75.45	-0.3798	-0.0482	0.0002
19	SLU 34	-0.77	11.45	75.38	-0.3775	-0.0478	0.0002
19	SLU 35	-0.79	12.24	79.33	-0.4087	-0.0494	0.0002
19	SLU 36	-0.78	12.12	78.83	-0.4031	-0.0489	0.0002
19	SLU 37	-0.78	12.28	79.6	-0.4102	-0.0493	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
19	SLU 38	-0.78	12.15	79.09	-0.4046	-0.0488	0.0002
19	SLU 39	-0.9	11.59	76.27	-0.382	-0.0533	0.0002
19	SLU 40	-0.9	11.47	75.77	-0.3764	-0.0527	0.0002
19	SLU 41	-0.9	12.22	79.65	-0.4054	-0.0539	0.0002
19	SLU 42	-0.9	12.09	79.14	-0.3998	-0.0534	0.0002
19	SLU 43	-0.55	11.1	76.06	-0.3607	-0.0402	0.0002
19	SLU 44	-0.54	10.89	75.22	-0.3514	-0.0393	0.0002
19	SLU 45	-0.55	11.68	79.17	-0.3827	-0.0409	0.0002
19	SLU 46	-0.55	11.56	78.67	-0.3771	-0.0404	0.0002
19	SLU 47	-0.54	11.51	78.59	-0.3748	-0.04	0.0002
19	SLU 48	-0.55	12.3	82.55	-0.4061	-0.0416	0.0002
19	SLU 49	-0.55	12.18	82.04	-0.4005	-0.0411	0.0002
19	SLU 50	-0.55	12.34	82.81	-0.4075	-0.0415	0.0002
19	SLU 51	-0.54	12.22	82.3	-0.4019	-0.041	0.0002
19	SLU 52	-0.82	12.19	83.21	-0.3949	-0.0516	0.0002
19	SLU 53	-0.83	12.98	87.16	-0.4261	-0.0533	0.0002
19	SLU 54	-0.82	12.86	86.65	-0.4206	-0.0527	0.0002
19	SLU 55	-0.82	12.81	86.58	-0.4183	-0.0523	0.0002
19	SLU 56	-0.83	13.6	90.53	-0.4495	-0.0539	0.0002
19	SLU 57	-0.82	13.48	90.03	-0.444	-0.0534	0.0002
19	SLU 58	-0.83	13.64	90.8	-0.451	-0.0538	0.0002
19	SLU 59	-0.82	13.52	90.29	-0.4454	-0.0533	0.0002
19	SLU 60	-0.94	12.95	87.47	-0.4228	-0.0578	0.0002
19	SLU 61	-0.94	12.83	86.97	-0.4172	-0.0573	0.0002
19	SLU 62	-0.94	13.58	90.85	-0.4462	-0.0584	0.0002
19	SLU 63	-0.94	13.45	90.34	-0.4406	-0.0579	0.0002
19	SLU 64	-0.62	12.05	81.09	-0.3943	-0.0439	0.0002
19	SLU 65	-0.61	11.84	80.24	-0.385	-0.0431	0.0002
19	SLU 66	-0.62	12.63	84.2	-0.4163	-0.0447	0.0002
19	SLU 67	-0.62	12.51	83.69	-0.4107	-0.0442	0.0002
19	SLU 68	-0.61	12.46	83.62	-0.4084	-0.0437	0.0002
19	SLU 69	-0.62	13.25	87.57	-0.4397	-0.0453	0.0002
19	SLU 70	-0.61	13.13	87.07	-0.4341	-0.0448	0.0002
19	SLU 71	-0.62	13.29	87.84	-0.4411	-0.0452	0.0002
19	SLU 72	-0.61	13.16	87.33	-0.4355	-0.0447	0.0002
19	SLU 73	-0.88	13.14	88.23	-0.4285	-0.0554	0.0002
19	SLU 74	-0.9	13.93	92.19	-0.4597	-0.057	0.0002
19	SLU 75	-0.89	13.81	91.68	-0.4541	-0.0565	0.0002
19	SLU 76	-0.88	13.76	91.61	-0.4519	-0.056	0.0002
19	SLU 77	-0.9	14.55	95.56	-0.4831	-0.0577	0.0002
19	SLU 78	-0.89	14.43	95.05	-0.4775	-0.0571	0.0002
19	SLU 79	-0.89	14.59	95.83	-0.4846	-0.0576	0.0002
19	SLU 80	-0.89	14.46	95.32	-0.479	-0.057	0.0002
19	SLU 81	-1.01	13.9	92.5	-0.4564	-0.0615	0.0002
19	SLU 82	-1.01	13.78	91.99	-0.4508	-0.061	0.0002
19	SLU 83	-1.01	14.53	95.87	-0.4798	-0.0622	0.0002
19	SLU 84	-1.01	14.4	95.37	-0.4742	-0.0617	0.0002
19	SLE RA 1	-0.46	9.06	61.27	-0.2959	-0.033	0.0001
19	SLE RA 2	-0.45	8.92	60.71	-0.2897	-0.0324	0.0001
19	SLE RA 3	-0.46	9.45	63.34	-0.3106	-0.0335	0.0001
19	SLE RA 4	-0.46	9.36	63.01	-0.3069	-0.0331	0.0001
19	SLE RA 5	-0.45	9.33	62.96	-0.3053	-0.0328	0.0001
19	SLE RA 6	-0.46	9.86	65.59	-0.3262	-0.0339	0.0001
19	SLE RA 7	-0.46	9.78	65.26	-0.3224	-0.0336	0.0001
19	SLE RA 8	-0.46	9.89	65.77	-0.3271	-0.0338	0.0001
19	SLE RA 9	-0.46	9.8	65.43	-0.3234	-0.0335	0.0001
19	SLE RA 10	-0.64	9.79	66.03	-0.3187	-0.0406	0.0002
19	SLE RA 11	-0.65	10.31	68.67	-0.3395	-0.0417	0.0002
19	SLE RA 12	-0.64	10.23	68.33	-0.3358	-0.0413	0.0002
19	SLE RA 13	-0.64	10.2	68.28	-0.3343	-0.041	0.0002
19	SLE RA 14	-0.65	10.73	70.92	-0.3551	-0.0421	0.0002
19	SLE RA 15	-0.64	10.65	70.58	-0.3514	-0.0418	0.0002
19	SLE RA 16	-0.64	10.75	71.1	-0.3561	-0.0421	0.0002
19	SLE RA 17	-0.64	10.67	70.76	-0.3524	-0.0417	0.0002
19	SLE RA 18	-0.72	10.3	68.88	-0.3373	-0.0447	0.0002
19	SLE RA 19	-0.72	10.21	68.54	-0.3336	-0.0444	0.0002
19	SLE RA 20	-0.72	10.71	71.13	-0.3529	-0.0451	0.0002
19	SLE RA 21	-0.72	10.63	70.79	-0.3492	-0.0448	0.0002
19	SLE FR 1	-0.46	9.06	61.27	-0.2959	-0.033	0.0001
19	SLE FR 2	-0.46	9.03	61.16	-0.2947	-0.0329	0.0001
19	SLE FR 3	-0.46	9.22	62.17	-0.3022	-0.0332	0.0001
19	SLE FR 4	-0.54	9.4	63.44	-0.3071	-0.0364	0.0002
19	SLE FR 5	-0.54	9.6	64.45	-0.3146	-0.0367	0.0002
19	SLE FR 6	-0.59	9.68	65.08	-0.3166	-0.0388	0.0002
19	SLE QP 1	-0.46	9.06	61.27	-0.2959	-0.033	0.0001
19	SLE QP 2	-0.54	9.43	63.55	-0.3084	-0.0365	0.0002
19	SLD 1	1.63	12.74	80.79	-0.4349	0.0663	0
19	SLD 2	1.63	12.74	80.79	-0.4349	0.0663	0
19	SLD 3	2.15	10.1	67.82	-0.3279	0.092	0
19	SLD 4	2.15	10.1	67.82	-0.3279	0.092	0
19	SLD 5	-0.68	14.43	88.39	-0.5086	-0.0447	0.0002
19	SLD 6	-0.68	14.43	88.39	-0.5086	-0.0447	0.0002
19	SLD 7	1.05	5.63	45.17	-0.152	0.0411	0
19	SLD 8	1.05	5.63	45.17	-0.152	0.0411	0
19	SLD 9	-2.13	13.23	81.94	-0.4647	-0.1141	0.0003
19	SLD 10	-2.13	13.23	81.94	-0.4647	-0.1141	0.0003
19	SLD 11	-0.4	4.43	38.72	-0.1081	-0.0283	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
19	SLD 12	-0.4	4.43	38.72	-0.1081	-0.0283	0.0001
19	SLD 13	-3.23	8.75	59.28	-0.2888	-0.165	0.0003
19	SLD 14	-3.23	8.75	59.28	-0.2888	-0.165	0.0003
19	SLD 15	-2.71	6.11	46.32	-0.1818	-0.1393	0.0003
19	SLD 16	-2.71	6.11	46.32	-0.1818	-0.1393	0.0003
19	SLV 1	4.52	17.22	104.08	-0.6057	0.2036	-0.0002
19	SLV 2	4.52	17.22	104.08	-0.6057	0.2036	-0.0002
19	SLV 3	5.74	11.01	73.5	-0.3545	0.2641	-0.0003
19	SLV 4	5.74	11.01	73.5	-0.3545	0.2641	-0.0003
19	SLV 5	-0.87	21.18	122.08	-0.7786	-0.0564	0.0003
19	SLV 6	-0.87	21.18	122.08	-0.7786	-0.0564	0.0003
19	SLV 7	3.2	0.49	20.17	0.0588	0.1456	-0.0002
19	SLV 8	3.2	0.49	20.17	0.0588	0.1456	-0.0002
19	SLV 9	-4.28	18.37	106.94	-0.6755	-0.2186	0.0005
19	SLV 10	-4.28	18.37	106.94	-0.6755	-0.2186	0.0005
19	SLV 11	-0.21	-2.33	5.03	0.1619	-0.0166	0.0001
19	SLV 12	-0.21	-2.33	5.03	0.1619	-0.0166	0.0001
19	SLV 13	-6.82	7.85	53.61	-0.2622	-0.3371	0.0006
19	SLV 14	-6.82	7.85	53.61	-0.2622	-0.3371	0.0006
19	SLV 15	-5.6	1.64	23.03	-0.011	-0.2766	0.0005
19	SLV 16	-5.6	1.64	23.03	-0.011	-0.2766	0.0005
20	SLU 1	-4.27	0.14	36.73	-0.0241	-0.1665	-0.0008
20	SLU 2	-4.18	0.15	36.23	-0.0261	-0.163	-0.0008
20	SLU 3	-4.56	0.15	38.47	-0.0266	-0.1772	-0.0009
20	SLU 4	-4.5	0.16	38.17	-0.0278	-0.1751	-0.0009
20	SLU 5	-4.49	0.16	38.14	-0.0289	-0.1746	-0.0009
20	SLU 6	-4.87	0.17	40.38	-0.0293	-0.1888	-0.0009
20	SLU 7	-4.81	0.17	40.08	-0.0305	-0.1867	-0.0009
20	SLU 8	-4.89	0.17	40.54	-0.0295	-0.1897	-0.0009
20	SLU 9	-4.84	0.17	40.24	-0.0308	-0.1876	-0.0009
20	SLU 10	-5.02	0.17	40.76	-0.0291	-0.1957	-0.0009
20	SLU 11	-5.4	0.17	43	-0.0296	-0.2099	-0.001
20	SLU 12	-5.34	0.18	42.7	-0.0308	-0.2078	-0.001
20	SLU 13	-5.33	0.18	42.66	-0.0319	-0.2073	-0.001
20	SLU 14	-5.71	0.18	44.91	-0.0323	-0.2215	-0.001
20	SLU 15	-5.66	0.19	44.61	-0.0335	-0.2194	-0.001
20	SLU 16	-5.73	0.18	45.07	-0.0325	-0.2224	-0.001
20	SLU 17	-5.68	0.19	44.77	-0.0338	-0.2203	-0.001
20	SLU 18	-5.47	0.17	43.19	-0.0284	-0.2133	-0.001
20	SLU 19	-5.42	0.17	42.9	-0.0296	-0.2111	-0.001
20	SLU 20	-5.78	0.18	45.1	-0.0311	-0.2248	-0.001
20	SLU 21	-5.73	0.19	44.8	-0.0323	-0.2227	-0.001
20	SLU 22	-4.74	0.16	39.51	-0.0268	-0.1843	-0.0009
20	SLU 23	-4.65	0.16	39.02	-0.0289	-0.1808	-0.0009
20	SLU 24	-5.03	0.17	41.26	-0.0293	-0.195	-0.0009
20	SLU 25	-4.98	0.17	40.96	-0.0305	-0.1929	-0.0009
20	SLU 26	-4.96	0.17	40.92	-0.0316	-0.1924	-0.001
20	SLU 27	-5.34	0.18	43.17	-0.032	-0.2066	-0.001
20	SLU 28	-5.29	0.18	42.87	-0.0333	-0.2045	-0.001
20	SLU 29	-5.36	0.18	43.33	-0.0323	-0.2075	-0.001
20	SLU 30	-5.31	0.18	43.03	-0.0335	-0.2054	-0.001
20	SLU 31	-5.49	0.18	43.54	-0.0319	-0.2135	-0.001
20	SLU 32	-5.87	0.19	45.79	-0.0323	-0.2277	-0.0011
20	SLU 33	-5.82	0.19	45.49	-0.0335	-0.2256	-0.0011
20	SLU 34	-5.81	0.19	45.45	-0.0346	-0.2251	-0.0011
20	SLU 35	-6.18	0.2	47.69	-0.035	-0.2393	-0.0011
20	SLU 36	-6.13	0.2	47.39	-0.0363	-0.2372	-0.0011
20	SLU 37	-6.21	0.2	47.85	-0.0353	-0.2402	-0.0011
20	SLU 38	-6.15	0.2	47.55	-0.0365	-0.2381	-0.0011
20	SLU 39	-5.94	0.19	45.98	-0.0311	-0.2311	-0.0011
20	SLU 40	-5.89	0.19	45.68	-0.0323	-0.2289	-0.0011
20	SLU 41	-6.25	0.2	47.89	-0.0338	-0.2426	-0.0011
20	SLU 42	-6.2	0.2	47.59	-0.0351	-0.2405	-0.0011
20	SLU 43	-5.39	0.18	46.79	-0.0304	-0.2104	-0.001
20	SLU 44	-5.3	0.19	46.29	-0.0324	-0.2069	-0.001
20	SLU 45	-5.68	0.19	48.54	-0.0329	-0.2211	-0.0011
20	SLU 46	-5.62	0.2	48.24	-0.0341	-0.2189	-0.0011
20	SLU 47	-5.61	0.2	48.2	-0.0351	-0.2184	-0.0011
20	SLU 48	-5.99	0.2	50.44	-0.0356	-0.2326	-0.0011
20	SLU 49	-5.93	0.21	50.14	-0.0368	-0.2305	-0.0011
20	SLU 50	-6.01	0.2	50.6	-0.0358	-0.2336	-0.0011
20	SLU 51	-5.96	0.21	50.3	-0.0371	-0.2314	-0.0011
20	SLU 52	-6.14	0.21	50.82	-0.0354	-0.2396	-0.0011
20	SLU 53	-6.52	0.21	53.06	-0.0359	-0.2538	-0.0012
20	SLU 54	-6.46	0.21	52.76	-0.0371	-0.2516	-0.0012
20	SLU 55	-6.45	0.22	52.73	-0.0381	-0.2512	-0.0012
20	SLU 56	-6.83	0.22	54.97	-0.0386	-0.2653	-0.0012
20	SLU 57	-6.78	0.23	54.67	-0.0398	-0.2632	-0.0012
20	SLU 58	-6.85	0.22	55.13	-0.0388	-0.2663	-0.0013
20	SLU 59	-6.8	0.23	54.83	-0.0401	-0.2641	-0.0013
20	SLU 60	-6.59	0.21	53.26	-0.0347	-0.2571	-0.0012
20	SLU 61	-6.54	0.21	52.96	-0.0359	-0.255	-0.0012
20	SLU 62	-6.9	0.22	55.16	-0.0374	-0.2687	-0.0012
20	SLU 63	-6.85	0.22	54.86	-0.0386	-0.2666	-0.0012
20	SLU 64	-5.86	0.2	49.57	-0.0331	-0.2282	-0.0011
20	SLU 65	-5.77	0.2	49.08	-0.0352	-0.2247	-0.0011
20	SLU 66	-6.15	0.21	51.32	-0.0356	-0.2388	-0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
20	SLU 67	-6.09	0.21	51.02	-0.0368	-0.2367	-0.0012
20	SLU 68	-6.08	0.21	50.99	-0.0379	-0.2362	-0.0012
20	SLU 69	-6.46	0.22	53.23	-0.0383	-0.2504	-0.0012
20	SLU 70	-6.41	0.22	52.93	-0.0395	-0.2483	-0.0012
20	SLU 71	-6.48	0.22	53.39	-0.0386	-0.2514	-0.0012
20	SLU 72	-6.43	0.22	53.09	-0.0398	-0.2492	-0.0012
20	SLU 73	-6.61	0.22	53.61	-0.0382	-0.2574	-0.0012
20	SLU 74	-6.99	0.23	55.85	-0.0386	-0.2716	-0.0013
20	SLU 75	-6.94	0.23	55.55	-0.0398	-0.2694	-0.0013
20	SLU 76	-6.93	0.23	55.51	-0.0409	-0.2689	-0.0013
20	SLU 77	-7.3	0.24	57.75	-0.0413	-0.2831	-0.0013
20	SLU 78	-7.25	0.24	57.46	-0.0425	-0.281	-0.0013
20	SLU 79	-7.32	0.24	57.91	-0.0416	-0.2841	-0.0013
20	SLU 80	-7.27	0.24	57.62	-0.0428	-0.2819	-0.0013
20	SLU 81	-7.06	0.23	56.04	-0.0374	-0.2749	-0.0013
20	SLU 82	-7.01	0.23	55.74	-0.0386	-0.2728	-0.0013
20	SLU 83	-7.37	0.24	57.95	-0.0401	-0.2865	-0.0013
20	SLU 84	-7.32	0.24	57.65	-0.0413	-0.2844	-0.0013
20	SLE RA 1	-4.41	0.15	37.52	-0.0249	-0.1716	-0.0008
20	SLE RA 2	-4.35	0.15	37.19	-0.0262	-0.1693	-0.0008
20	SLE RA 3	-4.6	0.16	38.69	-0.0265	-0.1787	-0.0009
20	SLE RA 4	-4.56	0.16	38.49	-0.0273	-0.1773	-0.0009
20	SLE RA 5	-4.55	0.16	38.46	-0.0281	-0.177	-0.0009
20	SLE RA 6	-4.8	0.16	39.96	-0.0283	-0.1864	-0.0009
20	SLE RA 7	-4.77	0.16	39.76	-0.0292	-0.185	-0.0009
20	SLE RA 8	-4.82	0.16	40.06	-0.0285	-0.1871	-0.0009
20	SLE RA 9	-4.78	0.16	39.87	-0.0293	-0.1857	-0.0009
20	SLE RA 10	-4.91	0.16	40.21	-0.0282	-0.1911	-0.0009
20	SLE RA 11	-5.16	0.17	41.7	-0.0285	-0.2005	-0.0009
20	SLE RA 12	-5.12	0.17	41.51	-0.0293	-0.1991	-0.0009
20	SLE RA 13	-5.11	0.17	41.48	-0.03	-0.1988	-0.0009
20	SLE RA 14	-5.36	0.18	42.98	-0.0303	-0.2083	-0.001
20	SLE RA 15	-5.33	0.18	42.78	-0.0312	-0.2068	-0.001
20	SLE RA 16	-5.38	0.18	43.08	-0.0305	-0.2089	-0.001
20	SLE RA 17	-5.35	0.18	42.88	-0.0313	-0.2075	-0.001
20	SLE RA 18	-5.21	0.17	41.83	-0.0277	-0.2028	-0.0009
20	SLE RA 19	-5.17	0.17	41.63	-0.0285	-0.2014	-0.0009
20	SLE RA 20	-5.41	0.17	43.1	-0.0295	-0.2105	-0.001
20	SLE RA 21	-5.38	0.18	42.91	-0.0304	-0.2091	-0.001
20	SLE FR 1	-4.41	0.15	37.52	-0.0249	-0.1716	-0.0008
20	SLE FR 2	-4.39	0.15	37.46	-0.0252	-0.1711	-0.0008
20	SLE FR 3	-4.49	0.15	38.03	-0.0256	-0.1747	-0.0008
20	SLE FR 4	-4.63	0.15	38.75	-0.026	-0.1805	-0.0009
20	SLE FR 5	-4.73	0.16	39.32	-0.0265	-0.1841	-0.0009
20	SLE FR 6	-4.81	0.16	39.68	-0.0263	-0.1872	-0.0009
20	SLE QP 1	-4.41	0.15	37.52	-0.0249	-0.1716	-0.0008
20	SLE QP 2	-4.65	0.15	38.82	-0.0257	-0.181	-0.0009
20	SLD 1	-2.33	0.21	35.87	-0.0513	-0.0797	-0.0012
20	SLD 2	-2.33	0.21	35.87	-0.0513	-0.0797	-0.0012
20	SLD 3	-0.92	0.17	28.58	-0.0307	-0.0255	-0.0009
20	SLD 4	-0.92	0.17	28.58	-0.0307	-0.0255	-0.0009
20	SLD 5	-6.09	0.24	48.98	-0.0647	-0.2328	-0.0013
20	SLD 6	-6.09	0.24	48.98	-0.0647	-0.2328	-0.0013
20	SLD 7	-1.39	0.09	24.69	0.0041	-0.0521	-0.0005
20	SLD 8	-1.39	0.09	24.69	0.0041	-0.0521	-0.0005
20	SLD 9	-7.9	0.22	52.94	-0.0556	-0.3098	-0.0012
20	SLD 10	-7.9	0.22	52.94	-0.0556	-0.3098	-0.0012
20	SLD 11	-3.2	0.07	28.65	0.0132	-0.1291	-0.0004
20	SLD 12	-3.2	0.07	28.65	0.0132	-0.1291	-0.0004
20	SLD 13	-8.37	0.14	49.05	-0.0208	-0.3365	-0.0008
20	SLD 14	-8.37	0.14	49.05	-0.0208	-0.3365	-0.0008
20	SLD 15	-6.96	0.1	41.76	-0.0002	-0.2822	-0.0006
20	SLD 16	-6.96	0.1	41.76	-0.0002	-0.2822	-0.0006
20	SLV 1	0.76	0.29	31.95	-0.0858	0.0556	-0.0016
20	SLV 2	0.76	0.29	31.95	-0.0858	0.0556	-0.0016
20	SLV 3	4.08	0.19	14.74	-0.0375	0.1834	-0.001
20	SLV 4	4.08	0.19	14.74	-0.0375	0.1834	-0.001
20	SLV 5	-8.06	0.35	62.85	-0.117	-0.3039	-0.0019
20	SLV 6	-8.06	0.35	62.85	-0.117	-0.3039	-0.0019
20	SLV 7	3.01	0.01	5.5	0.044	0.1222	-0.0001
20	SLV 8	3.01	0.01	5.5	0.044	0.1222	-0.0001
20	SLV 9	-12.3	0.3	72.13	-0.0955	-0.4841	-0.0017
20	SLV 10	-12.3	0.3	72.13	-0.0955	-0.4841	-0.0017
20	SLV 11	-1.23	-0.04	14.79	0.0655	-0.0581	0.0002
20	SLV 12	-1.23	-0.04	14.79	0.0655	-0.0581	0.0002
20	SLV 13	-13.37	0.12	62.89	-0.014	-0.5453	-0.0007
20	SLV 14	-13.37	0.12	62.89	-0.014	-0.5453	-0.0007
20	SLV 15	-10.05	0.02	45.69	0.0343	-0.4175	-0.0002
20	SLV 16	-10.05	0.02	45.69	0.0343	-0.4175	-0.0002
21	SLU 1	-4.86	0	31.98	0.0143	-0.1847	0
21	SLU 2	-4.8	0.01	31.54	0.0098	-0.1823	-0.0001
21	SLU 3	-5.18	0	33.33	0.0137	-0.1968	0
21	SLU 4	-5.15	0.01	33.06	0.011	-0.1953	-0.0001
21	SLU 5	-5.15	0.01	33.01	0.009	-0.1955	-0.0001
21	SLU 6	-5.54	0	34.8	0.0129	-0.2101	0
21	SLU 7	-5.5	0.01	34.54	0.0102	-0.2086	-0.0001
21	SLU 8	-5.57	0	34.92	0.0127	-0.2112	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLU 9	-5.54	0.01	34.66	0.01	-0.2098	-0.0001
21	SLU 10	-5.71	0.01	35.12	0.0125	-0.2168	-0.0001
21	SLU 11	-6.1	0	36.9	0.0163	-0.2314	0
21	SLU 12	-6.06	0	36.64	0.0136	-0.2299	-0.0001
21	SLU 13	-6.07	0.01	36.59	0.0116	-0.2301	-0.0001
21	SLU 14	-6.45	0	38.38	0.0155	-0.2447	0
21	SLU 15	-6.42	0.01	38.11	0.0128	-0.2432	-0.0001
21	SLU 16	-6.49	0	38.5	0.0153	-0.2458	0
21	SLU 17	-6.45	0.01	38.24	0.0126	-0.2444	-0.0001
21	SLU 18	-6.16	0	37.09	0.0181	-0.2341	0
21	SLU 19	-6.13	0	36.83	0.0154	-0.2326	0
21	SLU 20	-6.52	0	38.56	0.0173	-0.2474	0
21	SLU 21	-6.48	0	38.3	0.0146	-0.2459	-0.0001
21	SLU 22	-5.38	0	34.16	0.0153	-0.2042	0
21	SLU 23	-5.32	0.01	33.73	0.0108	-0.2018	-0.0001
21	SLU 24	-5.7	0	35.51	0.0146	-0.2163	0
21	SLU 25	-5.67	0.01	35.25	0.0119	-0.2149	-0.0001
21	SLU 26	-5.68	0.01	35.2	0.01	-0.2151	-0.0001
21	SLU 27	-6.06	0	36.98	0.0138	-0.2296	0
21	SLU 28	-6.03	0.01	36.72	0.0111	-0.2282	-0.0001
21	SLU 29	-6.09	0	37.1	0.0137	-0.2308	0
21	SLU 30	-6.06	0.01	36.84	0.011	-0.2293	-0.0001
21	SLU 31	-6.23	0.01	37.3	0.0134	-0.2364	-0.0001
21	SLU 32	-6.62	0	39.09	0.0172	-0.2509	0
21	SLU 33	-6.58	0	38.83	0.0146	-0.2495	-0.0001
21	SLU 34	-6.59	0.01	38.77	0.0126	-0.2497	-0.0001
21	SLU 35	-6.98	0	40.56	0.0164	-0.2642	0
21	SLU 36	-6.94	0.01	40.3	0.0137	-0.2628	-0.0001
21	SLU 37	-7.01	0	40.68	0.0163	-0.2654	0
21	SLU 38	-6.97	0.01	40.42	0.0136	-0.2639	-0.0001
21	SLU 39	-6.68	0	39.27	0.019	-0.2537	0
21	SLU 40	-6.65	0	39.01	0.0163	-0.2522	0
21	SLU 41	-7.04	0	40.74	0.0182	-0.2669	0
21	SLU 42	-7.01	0	40.48	0.0155	-0.2655	-0.0001
21	SLU 43	-6.13	0	40.82	0.0183	-0.2334	0
21	SLU 44	-6.07	0.01	40.39	0.0138	-0.231	-0.0001
21	SLU 45	-6.46	0	42.17	0.0177	-0.2455	0
21	SLU 46	-6.42	0.01	41.91	0.015	-0.244	-0.0001
21	SLU 47	-6.43	0.01	41.86	0.013	-0.2442	-0.0001
21	SLU 48	-6.82	0	43.64	0.0169	-0.2588	0
21	SLU 49	-6.78	0.01	43.38	0.0142	-0.2573	-0.0001
21	SLU 50	-6.85	0	43.77	0.0167	-0.26	0
21	SLU 51	-6.81	0.01	43.5	0.014	-0.2585	-0.0001
21	SLU 52	-6.99	0.01	43.97	0.0164	-0.2655	-0.0001
21	SLU 53	-7.37	0	45.75	0.0203	-0.2801	0
21	SLU 54	-7.34	0	45.49	0.0176	-0.2786	-0.0001
21	SLU 55	-7.35	0.01	45.44	0.0156	-0.2788	-0.0001
21	SLU 56	-7.73	0	47.22	0.0195	-0.2934	0
21	SLU 57	-7.7	0.01	46.96	0.0168	-0.2919	-0.0001
21	SLU 58	-7.76	0	47.34	0.0193	-0.2945	0
21	SLU 59	-7.73	0.01	47.08	0.0166	-0.2931	-0.0001
21	SLU 60	-7.44	0	45.94	0.022	-0.2828	0
21	SLU 61	-7.4	0	45.67	0.0193	-0.2813	0
21	SLU 62	-7.8	0	47.41	0.0212	-0.2961	0
21	SLU 63	-7.76	0	47.15	0.0185	-0.2946	-0.0001
21	SLU 64	-6.66	0	43.01	0.0192	-0.2529	0
21	SLU 65	-6.6	0.01	42.57	0.0148	-0.2505	-0.0001
21	SLU 66	-6.98	0	44.35	0.0186	-0.265	0
21	SLU 67	-6.95	0.01	44.09	0.0159	-0.2636	-0.0001
21	SLU 68	-6.95	0.01	44.04	0.014	-0.2638	-0.0001
21	SLU 69	-7.34	0	45.82	0.0178	-0.2783	0
21	SLU 70	-7.3	0.01	45.56	0.0151	-0.2769	-0.0001
21	SLU 71	-7.37	0	45.95	0.0176	-0.2795	0
21	SLU 72	-7.34	0.01	45.69	0.0149	-0.278	-0.0001
21	SLU 73	-7.51	0.01	46.15	0.0174	-0.2851	-0.0001
21	SLU 74	-7.9	0	47.93	0.0212	-0.2996	0
21	SLU 75	-7.86	0	47.67	0.0185	-0.2982	-0.0001
21	SLU 76	-7.87	0.01	47.62	0.0166	-0.2984	-0.0001
21	SLU 77	-8.25	0	49.4	0.0204	-0.3129	0
21	SLU 78	-8.22	0.01	49.14	0.0177	-0.3115	-0.0001
21	SLU 79	-8.29	0	49.53	0.0202	-0.3141	0
21	SLU 80	-8.25	0.01	49.26	0.0176	-0.3126	-0.0001
21	SLU 81	-7.96	0	48.12	0.023	-0.3024	0
21	SLU 82	-7.93	0	47.86	0.0203	-0.3009	0
21	SLU 83	-8.32	0	49.59	0.0222	-0.3156	0
21	SLU 84	-8.28	0	49.33	0.0195	-0.3142	-0.0001
21	SLE RA 1	-5	0	32.6	0.0146	-0.1903	0
21	SLE RA 2	-4.97	0	32.31	0.0116	-0.1886	-0.0001
21	SLE RA 3	-5.22	0	33.5	0.0142	-0.1983	0
21	SLE RA 4	-5.2	0	33.33	0.0124	-0.1974	0
21	SLE RA 5	-5.2	0.01	33.29	0.0111	-0.1975	-0.0001
21	SLE RA 6	-5.46	0	34.48	0.0136	-0.2072	0
21	SLE RA 7	-5.44	0.01	34.31	0.0118	-0.2062	-0.0001
21	SLE RA 8	-5.48	0	34.56	0.0135	-0.208	0
21	SLE RA 9	-5.46	0.01	34.39	0.0117	-0.207	-0.0001
21	SLE RA 10	-5.57	0	34.7	0.0134	-0.2117	0
21	SLE RA 11	-5.83	0	35.89	0.0159	-0.2214	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLE RA 12	-5.81	0	35.71	0.0141	-0.2204	0
21	SLE RA 13	-5.81	0.01	35.68	0.0128	-0.2206	-0.0001
21	SLE RA 14	-6.07	0	36.87	0.0154	-0.2303	0
21	SLE RA 15	-6.05	0	36.69	0.0136	-0.2293	-0.0001
21	SLE RA 16	-6.09	0	36.95	0.0153	-0.231	0
21	SLE RA 17	-6.07	0	36.77	0.0135	-0.2301	-0.0001
21	SLE RA 18	-5.88	0	36.01	0.0171	-0.2232	0
21	SLE RA 19	-5.85	0	35.84	0.0153	-0.2222	0
21	SLE RA 20	-6.11	0	36.99	0.0166	-0.2321	0
21	SLE RA 21	-6.09	0	36.82	0.0148	-0.2311	0
21	SLE FR 1	-5	0	32.6	0.0146	-0.1903	0
21	SLE FR 2	-5	0	32.54	0.014	-0.1899	0
21	SLE FR 3	-5.1	0	32.99	0.0144	-0.1938	0
21	SLE FR 4	-5.26	0	33.57	0.0147	-0.1998	0
21	SLE FR 5	-5.36	0	34.02	0.0151	-0.2037	0
21	SLE FR 6	-5.44	0	34.31	0.0158	-0.2067	0
21	SLE QP 1	-5	0	32.6	0.0146	-0.1903	0
21	SLE QP 2	-5.27	0	33.62	0.0153	-0.2002	0
21	SLD 1	-2.58	0.06	30.72	-0.0338	-0.0763	-0.0004
21	SLD 2	-2.58	0.06	30.72	-0.0338	-0.0763	-0.0004
21	SLD 3	-1.1	0.02	25.01	-0.0056	-0.0186	-0.0001
21	SLD 4	-1.1	0.02	25.01	-0.0056	-0.0186	-0.0001
21	SLD 5	-6.7	0.07	41.41	-0.0422	-0.2505	-0.0005
21	SLD 6	-6.7	0.07	41.41	-0.0422	-0.2505	-0.0005
21	SLD 7	-1.77	-0.05	22.38	0.0519	-0.0582	0.0003
21	SLD 8	-1.77	-0.05	22.38	0.0519	-0.0582	0.0003
21	SLD 9	-8.76	0.05	44.87	-0.0212	-0.3421	-0.0003
21	SLD 10	-8.76	0.05	44.87	-0.0212	-0.3421	-0.0003
21	SLD 11	-3.83	-0.08	25.84	0.0729	-0.1498	0.0004
21	SLD 12	-3.83	-0.08	25.84	0.0729	-0.1498	0.0004
21	SLD 13	-9.43	-0.03	42.24	0.0362	-0.3817	0.0001
21	SLD 14	-9.43	-0.03	42.24	0.0362	-0.3817	0.0001
21	SLD 15	-7.95	-0.06	36.53	0.0645	-0.324	0.0003
21	SLD 16	-7.95	-0.06	36.53	0.0645	-0.324	0.0003
21	SLV 1	1.02	0.15	26.86	-0.0998	0.0893	-0.0009
21	SLV 2	1.02	0.15	26.86	-0.0998	0.0893	-0.0009
21	SLV 3	4.5	0.06	13.36	-0.0337	0.2252	-0.0003
21	SLV 4	4.5	0.06	13.36	-0.0337	0.2252	-0.0003
21	SLV 5	-8.67	0.18	52.07	-0.1195	-0.3194	-0.0011
21	SLV 6	-8.67	0.18	52.07	-0.1195	-0.3194	-0.0011
21	SLV 7	2.95	-0.12	7.07	0.1009	0.1335	0.0007
21	SLV 8	2.95	-0.12	7.07	0.1009	0.1335	0.0007
21	SLV 9	-13.48	0.11	60.18	-0.0702	-0.5338	-0.0007
21	SLV 10	-13.48	0.11	60.18	-0.0702	-0.5338	-0.0007
21	SLV 11	-1.87	-0.18	15.18	0.1502	-0.0809	0.0011
21	SLV 12	-1.87	-0.18	15.18	0.1502	-0.0809	0.0011
21	SLV 13	-15.03	-0.06	53.89	0.0643	-0.6255	0.0003
21	SLV 14	-15.03	-0.06	53.89	0.0643	-0.6255	0.0003
21	SLV 15	-11.55	-0.15	40.39	0.1305	-0.4896	0.0008
21	SLV 16	-11.55	-0.15	40.39	0.1305	-0.4896	0.0008
22	SLU 1	-5.09	-0.07	28.27	0.0438	-0.2128	0.0005
22	SLU 2	-5.08	-0.06	27.81	0.0385	-0.2118	0.0004
22	SLU 3	-5.44	-0.07	29.29	0.0444	-0.2267	0.0005
22	SLU 4	-5.43	-0.07	29.02	0.0412	-0.2261	0.0004
22	SLU 5	-5.46	-0.06	28.93	0.039	-0.2271	0.0004
22	SLU 6	-5.82	-0.07	30.41	0.0449	-0.242	0.0005
22	SLU 7	-5.81	-0.07	30.14	0.0417	-0.2414	0.0005
22	SLU 8	-5.86	-0.07	30.5	0.0447	-0.2435	0.0005
22	SLU 9	-5.85	-0.07	30.23	0.0416	-0.2428	0.0005
22	SLU 10	-6.02	-0.07	30.59	0.0448	-0.2501	0.0005
22	SLU 11	-6.38	-0.08	32.07	0.0507	-0.265	0.0006
22	SLU 12	-6.37	-0.07	31.8	0.0475	-0.2644	0.0005
22	SLU 13	-6.4	-0.07	31.71	0.0453	-0.2654	0.0005
22	SLU 14	-6.76	-0.08	33.19	0.0512	-0.2804	0.0006
22	SLU 15	-6.75	-0.08	32.92	0.048	-0.2797	0.0005
22	SLU 16	-6.8	-0.08	33.28	0.051	-0.2818	0.0006
22	SLU 17	-6.79	-0.08	33.01	0.0479	-0.2811	0.0005
22	SLU 18	-6.44	-0.08	32.24	0.0528	-0.2676	0.0006
22	SLU 19	-6.43	-0.08	31.97	0.0496	-0.267	0.0005
22	SLU 20	-6.82	-0.08	33.35	0.0533	-0.2829	0.0006
22	SLU 21	-6.81	-0.08	33.08	0.0501	-0.2823	0.0005
22	SLU 22	-5.64	-0.07	29.96	0.0471	-0.235	0.0005
22	SLU 23	-5.63	-0.07	29.51	0.0419	-0.234	0.0004
22	SLU 24	-5.99	-0.08	30.99	0.0477	-0.2489	0.0005
22	SLU 25	-5.98	-0.07	30.72	0.0446	-0.2483	0.0005
22	SLU 26	-6.01	-0.07	30.62	0.0424	-0.2493	0.0005
22	SLU 27	-6.37	-0.08	32.11	0.0482	-0.2642	0.0005
22	SLU 28	-6.36	-0.07	31.83	0.0451	-0.2636	0.0005
22	SLU 29	-6.4	-0.08	32.19	0.0481	-0.2656	0.0005
22	SLU 30	-6.39	-0.07	31.92	0.045	-0.265	0.0005
22	SLU 31	-6.57	-0.08	32.29	0.0482	-0.2723	0.0005
22	SLU 32	-6.93	-0.09	33.77	0.054	-0.2872	0.0006
22	SLU 33	-6.92	-0.08	33.5	0.0509	-0.2866	0.0005
22	SLU 34	-6.95	-0.08	33.4	0.0487	-0.2876	0.0005
22	SLU 35	-7.31	-0.09	34.89	0.0545	-0.3025	0.0006
22	SLU 36	-7.3	-0.08	34.61	0.0514	-0.3019	0.0006
22	SLU 37	-7.34	-0.09	34.98	0.0544	-0.3039	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
22	SLU 38	-7.33	-0.08	34.7	0.0513	-0.3033	0.0006
22	SLU 39	-6.98	-0.09	33.93	0.0561	-0.2897	0.0006
22	SLU 40	-6.98	-0.08	33.66	0.053	-0.2891	0.0006
22	SLU 41	-7.37	-0.09	35.05	0.0566	-0.3051	0.0006
22	SLU 42	-7.36	-0.08	34.78	0.0535	-0.3044	0.0006
22	SLU 43	-6.43	-0.09	36.16	0.0557	-0.2691	0.0006
22	SLU 44	-6.42	-0.08	35.71	0.0505	-0.2681	0.0005
22	SLU 45	-6.78	-0.09	37.19	0.0563	-0.283	0.0006
22	SLU 46	-6.77	-0.08	36.92	0.0532	-0.2824	0.0006
22	SLU 47	-6.8	-0.08	36.83	0.051	-0.2834	0.0006
22	SLU 48	-7.16	-0.09	38.31	0.0568	-0.2983	0.0006
22	SLU 49	-7.15	-0.09	38.03	0.0537	-0.2977	0.0006
22	SLU 50	-7.2	-0.09	38.4	0.0567	-0.2997	0.0006
22	SLU 51	-7.19	-0.09	38.12	0.0536	-0.2991	0.0006
22	SLU 52	-7.36	-0.09	38.49	0.0568	-0.3064	0.0006
22	SLU 53	-7.72	-0.1	39.97	0.0626	-0.3213	0.0007
22	SLU 54	-7.71	-0.09	39.7	0.0595	-0.3207	0.0006
22	SLU 55	-7.74	-0.09	39.61	0.0573	-0.3217	0.0006
22	SLU 56	-8.1	-0.1	41.09	0.0631	-0.3366	0.0007
22	SLU 57	-8.09	-0.1	40.82	0.06	-0.336	0.0007
22	SLU 58	-8.14	-0.1	41.18	0.063	-0.338	0.0007
22	SLU 59	-8.13	-0.1	40.9	0.0599	-0.3374	0.0007
22	SLU 60	-7.78	-0.1	40.14	0.0647	-0.3238	0.0007
22	SLU 61	-7.77	-0.1	39.86	0.0616	-0.3232	0.0007
22	SLU 62	-8.16	-0.1	41.25	0.0652	-0.3391	0.0007
22	SLU 63	-8.15	-0.1	40.98	0.0621	-0.3385	0.0007
22	SLU 64	-6.98	-0.09	37.86	0.0591	-0.2913	0.0007
22	SLU 65	-6.97	-0.08	37.41	0.0538	-0.2902	0.0006
22	SLU 66	-7.33	-0.1	38.89	0.0597	-0.3052	0.0007
22	SLU 67	-7.32	-0.09	38.61	0.0566	-0.3046	0.0006
22	SLU 68	-7.35	-0.09	38.52	0.0543	-0.3056	0.0006
22	SLU 69	-7.71	-0.1	40	0.0602	-0.3205	0.0007
22	SLU 70	-7.7	-0.09	39.73	0.0571	-0.3199	0.0006
22	SLU 71	-7.74	-0.1	40.09	0.0601	-0.3219	0.0007
22	SLU 72	-7.73	-0.09	39.82	0.0569	-0.3213	0.0006
22	SLU 73	-7.91	-0.09	40.19	0.0601	-0.3286	0.0006
22	SLU 74	-8.27	-0.1	41.67	0.066	-0.3435	0.0007
22	SLU 75	-8.26	-0.1	41.4	0.0629	-0.3429	0.0007
22	SLU 76	-8.29	-0.1	41.3	0.0606	-0.3439	0.0007
22	SLU 77	-8.65	-0.11	42.78	0.0665	-0.3588	0.0007
22	SLU 78	-8.64	-0.1	42.51	0.0634	-0.3582	0.0007
22	SLU 79	-8.68	-0.11	42.87	0.0664	-0.3602	0.0007
22	SLU 80	-8.68	-0.1	42.6	0.0632	-0.3596	0.0007
22	SLU 81	-8.32	-0.11	41.83	0.0681	-0.346	0.0007
22	SLU 82	-8.32	-0.1	41.56	0.065	-0.3454	0.0007
22	SLU 83	-8.71	-0.11	42.95	0.0686	-0.3613	0.0008
22	SLU 84	-8.7	-0.1	42.68	0.0654	-0.3607	0.0007
22	SLE RA 1	-5.25	-0.07	28.75	0.0447	-0.2192	0.0005
22	SLE RA 2	-5.24	-0.07	28.45	0.0412	-0.2185	0.0004
22	SLE RA 3	-5.48	-0.07	29.43	0.0451	-0.2284	0.0005
22	SLE RA 4	-5.47	-0.07	29.25	0.043	-0.228	0.0005
22	SLE RA 5	-5.49	-0.07	29.19	0.0415	-0.2287	0.0004
22	SLE RA 6	-5.73	-0.07	30.18	0.0455	-0.2386	0.0005
22	SLE RA 7	-5.73	-0.07	30	0.0434	-0.2382	0.0005
22	SLE RA 8	-5.76	-0.07	30.24	0.0454	-0.2396	0.0005
22	SLE RA 9	-5.75	-0.07	30.06	0.0433	-0.2392	0.0005
22	SLE RA 10	-5.87	-0.07	30.3	0.0454	-0.244	0.0005
22	SLE RA 11	-6.11	-0.08	31.29	0.0493	-0.254	0.0005
22	SLE RA 12	-6.1	-0.07	31.11	0.0472	-0.2536	0.0005
22	SLE RA 13	-6.12	-0.07	31.05	0.0457	-0.2542	0.0005
22	SLE RA 14	-6.36	-0.08	32.03	0.0497	-0.2642	0.0005
22	SLE RA 15	-6.36	-0.08	31.85	0.0476	-0.2638	0.0005
22	SLE RA 16	-6.38	-0.08	32.09	0.0496	-0.2651	0.0005
22	SLE RA 17	-6.38	-0.08	31.91	0.0475	-0.2647	0.0005
22	SLE RA 18	-6.15	-0.08	31.4	0.0507	-0.2557	0.0006
22	SLE RA 19	-6.14	-0.08	31.22	0.0486	-0.2553	0.0005
22	SLE RA 20	-6.4	-0.08	32.14	0.0511	-0.2659	0.0006
22	SLE RA 21	-6.39	-0.08	31.96	0.0489	-0.2655	0.0005
22	SLE FR 1	-5.25	-0.07	28.75	0.0447	-0.2192	0.0005
22	SLE FR 2	-5.25	-0.07	28.69	0.044	-0.219	0.0005
22	SLE FR 3	-5.35	-0.07	29.05	0.0449	-0.2233	0.0005
22	SLE FR 4	-5.52	-0.07	29.48	0.0458	-0.23	0.0005
22	SLE FR 5	-5.62	-0.07	29.84	0.0467	-0.2342	0.0005
22	SLE FR 6	-5.7	-0.08	30.07	0.0477	-0.2374	0.0005
22	SLE QP 1	-5.25	-0.07	28.75	0.0447	-0.2192	0.0005
22	SLE QP 2	-5.52	-0.07	29.54	0.0465	-0.2301	0.0005
22	SLD 1	-2.71	-0.03	26.68	0.0144	-0.1085	0.0002
22	SLD 2	-2.71	-0.03	26.68	0.0144	-0.1085	0.0002
22	SLD 3	-1.21	0.02	22.07	-0.0228	-0.0463	-0.0001
22	SLD 4	-1.21	0.02	22.07	-0.0228	-0.0463	-0.0001
22	SLD 5	-6.94	-0.13	35.68	0.0933	-0.288	0.0009
22	SLD 6	-6.94	-0.13	35.68	0.0933	-0.288	0.0009
22	SLD 7	-1.96	0.03	20.31	-0.0307	-0.0806	-0.0002
22	SLD 8	-1.96	0.03	20.31	-0.0307	-0.0806	-0.0002
22	SLD 9	-9.08	-0.17	38.78	0.1238	-0.3796	0.0012
22	SLD 10	-9.08	-0.17	38.78	0.1238	-0.3796	0.0012
22	SLD 11	-4.1	-0.02	23.41	-0.0003	-0.1723	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
22	SLD 12	-4.1	-0.02	23.41	-0.0003	-0.1723	0.0001
22	SLD 13	-9.82	-0.17	37.02	0.1158	-0.4139	0.0012
22	SLD 14	-9.82	-0.17	37.02	0.1158	-0.4139	0.0012
22	SLD 15	-8.33	-0.12	32.41	0.0786	-0.3517	0.0008
22	SLD 16	-8.33	-0.12	32.41	0.0786	-0.3517	0.0008
22	SLV 1	1.06	0.03	22.88	-0.0285	0.0542	-0.0002
22	SLV 2	1.06	0.03	22.88	-0.0285	0.0542	-0.0002
22	SLV 3	4.57	0.14	11.95	-0.1157	0.2005	-0.001
22	SLV 4	4.57	0.14	11.95	-0.1157	0.2005	-0.001
22	SLV 5	-8.87	-0.21	44.12	0.1562	-0.3668	0.0015
22	SLV 6	-8.87	-0.21	44.12	0.1562	-0.3668	0.0015
22	SLV 7	2.84	0.16	7.69	-0.1343	0.121	-0.0012
22	SLV 8	2.84	0.16	7.69	-0.1343	0.121	-0.0012
22	SLV 9	-13.87	-0.31	51.4	0.2274	-0.5812	0.0022
22	SLV 10	-13.87	-0.31	51.4	0.2274	-0.5812	0.0022
22	SLV 11	-2.16	0.06	14.97	-0.0631	-0.0935	-0.0005
22	SLV 12	-2.16	0.06	14.97	-0.0631	-0.0935	-0.0005
22	SLV 13	-15.61	-0.29	47.14	0.2087	-0.6608	0.0021
22	SLV 14	-15.61	-0.29	47.14	0.2087	-0.6608	0.0021
22	SLV 15	-12.09	-0.18	36.21	0.1216	-0.5144	0.0013
22	SLV 16	-12.09	-0.18	36.21	0.1216	-0.5144	0.0013
23	SLU 1	-4.39	-0.1	25.27	0.0606	-0.1748	0.0008
23	SLU 2	-4.45	-0.1	24.72	0.0559	-0.1768	0.0008
23	SLU 3	-4.7	-0.11	26.01	0.0619	-0.1868	0.0009
23	SLU 4	-4.74	-0.1	25.68	0.059	-0.188	0.0008
23	SLU 5	-4.8	-0.1	25.52	0.057	-0.1901	0.0008
23	SLU 6	-5.05	-0.11	26.8	0.063	-0.2001	0.0009
23	SLU 7	-5.08	-0.1	26.48	0.0601	-0.2013	0.0008
23	SLU 8	-5.08	-0.11	26.86	0.0629	-0.2013	0.0009
23	SLU 9	-5.12	-0.1	26.53	0.06	-0.2025	0.0008
23	SLU 10	-5.28	-0.11	26.79	0.0638	-0.2088	0.0009
23	SLU 11	-5.53	-0.12	28.08	0.0697	-0.2189	0.001
23	SLU 12	-5.57	-0.11	27.75	0.0669	-0.22	0.0009
23	SLU 13	-5.62	-0.11	27.59	0.0649	-0.2221	0.0009
23	SLU 14	-5.87	-0.12	28.87	0.0709	-0.2321	0.001
23	SLU 15	-5.91	-0.12	28.55	0.068	-0.2333	0.0009
23	SLU 16	-5.91	-0.12	28.93	0.0708	-0.2334	0.001
23	SLU 17	-5.94	-0.12	28.6	0.0679	-0.2345	0.0009
23	SLU 18	-5.57	-0.12	28.22	0.0719	-0.2206	0.001
23	SLU 19	-5.61	-0.12	27.9	0.069	-0.2218	0.0009
23	SLU 20	-5.92	-0.12	29.02	0.073	-0.2338	0.001
23	SLU 21	-5.95	-0.12	28.7	0.0702	-0.235	0.001
23	SLU 22	-4.88	-0.11	26.53	0.0652	-0.1938	0.0009
23	SLU 23	-4.94	-0.1	25.99	0.0604	-0.1958	0.0008
23	SLU 24	-5.19	-0.11	27.27	0.0664	-0.2058	0.0009
23	SLU 25	-5.23	-0.11	26.94	0.0635	-0.207	0.0009
23	SLU 26	-5.29	-0.11	26.78	0.0615	-0.209	0.0008
23	SLU 27	-5.54	-0.12	28.06	0.0675	-0.219	0.0009
23	SLU 28	-5.57	-0.11	27.74	0.0647	-0.2202	0.0009
23	SLU 29	-5.57	-0.12	28.12	0.0674	-0.2203	0.0009
23	SLU 30	-5.61	-0.11	27.8	0.0646	-0.2215	0.0009
23	SLU 31	-5.77	-0.12	28.06	0.0683	-0.2278	0.0009
23	SLU 32	-6.02	-0.13	29.34	0.0743	-0.2378	0.001
23	SLU 33	-6.06	-0.12	29.01	0.0714	-0.239	0.001
23	SLU 34	-6.11	-0.12	28.85	0.0694	-0.2411	0.0009
23	SLU 35	-6.36	-0.13	30.14	0.0754	-0.2511	0.001
23	SLU 36	-6.4	-0.12	29.81	0.0725	-0.2523	0.001
23	SLU 37	-6.4	-0.13	30.19	0.0753	-0.2523	0.001
23	SLU 38	-6.43	-0.12	29.87	0.0724	-0.2535	0.001
23	SLU 39	-6.06	-0.13	29.49	0.0764	-0.2396	0.001
23	SLU 40	-6.1	-0.12	29.16	0.0736	-0.2408	0.001
23	SLU 41	-6.41	-0.13	30.28	0.0775	-0.2528	0.0011
23	SLU 42	-6.44	-0.13	29.96	0.0747	-0.254	0.001
23	SLU 43	-5.54	-0.13	32.41	0.0773	-0.2208	0.0011
23	SLU 44	-5.6	-0.13	31.87	0.0725	-0.2228	0.001
23	SLU 45	-5.85	-0.14	33.15	0.0785	-0.2328	0.0011
23	SLU 46	-5.89	-0.13	32.83	0.0757	-0.234	0.001
23	SLU 47	-5.95	-0.13	32.67	0.0737	-0.236	0.001
23	SLU 48	-6.2	-0.14	33.95	0.0796	-0.246	0.0011
23	SLU 49	-6.23	-0.13	33.62	0.0768	-0.2472	0.0011
23	SLU 50	-6.23	-0.14	34.01	0.0795	-0.2473	0.0011
23	SLU 51	-6.27	-0.13	33.68	0.0767	-0.2485	0.0011
23	SLU 52	-6.43	-0.14	33.94	0.0804	-0.2548	0.0011
23	SLU 53	-6.68	-0.15	35.22	0.0864	-0.2648	0.0012
23	SLU 54	-6.72	-0.14	34.9	0.0835	-0.266	0.0011
23	SLU 55	-6.77	-0.14	34.74	0.0815	-0.268	0.0011
23	SLU 56	-7.02	-0.15	36.02	0.0875	-0.2781	0.0012
23	SLU 57	-7.06	-0.15	35.69	0.0847	-0.2792	0.0012
23	SLU 58	-7.06	-0.15	36.08	0.0874	-0.2793	0.0012
23	SLU 59	-7.09	-0.14	35.75	0.0846	-0.2805	0.0012
23	SLU 60	-6.72	-0.15	35.37	0.0885	-0.2665	0.0012
23	SLU 61	-6.76	-0.15	35.05	0.0857	-0.2677	0.0012
23	SLU 62	-7.07	-0.15	36.17	0.0897	-0.2798	0.0012
23	SLU 63	-7.1	-0.15	35.84	0.0868	-0.281	0.0012
23	SLU 64	-6.03	-0.14	33.68	0.0818	-0.2398	0.0011
23	SLU 65	-6.09	-0.13	33.13	0.077	-0.2417	0.0011
23	SLU 66	-6.34	-0.14	34.42	0.083	-0.2517	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
23	SLU 67	-6.38	-0.14	34.09	0.0802	-0.2529	0.0011
23	SLU 68	-6.44	-0.13	33.93	0.0782	-0.255	0.0011
23	SLU 69	-6.69	-0.14	35.21	0.0842	-0.265	0.0012
23	SLU 70	-6.72	-0.14	34.89	0.0813	-0.2662	0.0011
23	SLU 71	-6.72	-0.14	35.27	0.0841	-0.2663	0.0012
23	SLU 72	-6.76	-0.14	34.94	0.0812	-0.2674	0.0011
23	SLU 73	-6.92	-0.14	35.2	0.0849	-0.2738	0.0012
23	SLU 74	-7.17	-0.15	36.49	0.0909	-0.2838	0.0012
23	SLU 75	-7.21	-0.15	36.16	0.088	-0.285	0.0012
23	SLU 76	-7.26	-0.15	36	0.0861	-0.287	0.0012
23	SLU 77	-7.51	-0.16	37.28	0.092	-0.297	0.0013
23	SLU 78	-7.55	-0.15	36.96	0.0892	-0.2982	0.0012
23	SLU 79	-7.55	-0.16	37.34	0.0919	-0.2983	0.0013
23	SLU 80	-7.58	-0.15	37.01	0.0891	-0.2995	0.0012
23	SLU 81	-7.21	-0.16	36.63	0.093	-0.2855	0.0013
23	SLU 82	-7.25	-0.15	36.31	0.0902	-0.2867	0.0012
23	SLU 83	-7.56	-0.16	37.43	0.0942	-0.2988	0.0013
23	SLU 84	-7.59	-0.16	37.1	0.0913	-0.2999	0.0012
23	SLE RA 1	-4.53	-0.11	25.63	0.0619	-0.1803	0.0009
23	SLE RA 2	-4.57	-0.1	25.26	0.0588	-0.1816	0.0008
23	SLE RA 3	-4.74	-0.11	26.12	0.0627	-0.1883	0.0009
23	SLE RA 4	-4.76	-0.1	25.9	0.0608	-0.189	0.0008
23	SLE RA 5	-4.8	-0.1	25.8	0.0595	-0.1904	0.0008
23	SLE RA 6	-4.97	-0.11	26.65	0.0635	-0.1971	0.0009
23	SLE RA 7	-4.99	-0.11	26.43	0.0616	-0.1979	0.0008
23	SLE RA 8	-4.99	-0.11	26.69	0.0634	-0.1979	0.0009
23	SLE RA 9	-5.02	-0.11	26.47	0.0615	-0.1987	0.0008
23	SLE RA 10	-5.12	-0.11	26.65	0.064	-0.2029	0.0009
23	SLE RA 11	-5.29	-0.12	27.5	0.068	-0.2096	0.0009
23	SLE RA 12	-5.31	-0.11	27.28	0.0661	-0.2104	0.0009
23	SLE RA 13	-5.35	-0.11	27.18	0.0648	-0.2118	0.0009
23	SLE RA 14	-5.52	-0.12	28.03	0.0687	-0.2184	0.0009
23	SLE RA 15	-5.54	-0.11	27.81	0.0668	-0.2192	0.0009
23	SLE RA 16	-5.54	-0.12	28.07	0.0687	-0.2193	0.0009
23	SLE RA 17	-5.57	-0.11	27.85	0.0668	-0.2201	0.0009
23	SLE RA 18	-5.32	-0.12	27.6	0.0694	-0.2108	0.0009
23	SLE RA 19	-5.34	-0.11	27.38	0.0675	-0.2116	0.0009
23	SLE RA 20	-5.55	-0.12	28.13	0.0702	-0.2196	0.001
23	SLE RA 21	-5.57	-0.12	27.91	0.0683	-0.2204	0.0009
23	SLE FR 1	-4.53	-0.11	25.63	0.0619	-0.1803	0.0009
23	SLE FR 2	-4.54	-0.11	25.55	0.0613	-0.1805	0.0008
23	SLE FR 3	-4.62	-0.11	25.84	0.0622	-0.1838	0.0009
23	SLE FR 4	-4.78	-0.11	26.15	0.0635	-0.1897	0.0009
23	SLE FR 5	-4.86	-0.11	26.43	0.0645	-0.1929	0.0009
23	SLE FR 6	-4.93	-0.11	26.61	0.0657	-0.1955	0.0009
23	SLE QP 1	-4.53	-0.11	25.63	0.0619	-0.1803	0.0009
23	SLE QP 2	-4.77	-0.11	26.22	0.0642	-0.1894	0.0009
23	SLD 1	-1.86	-0.06	23.35	0.0282	-0.0572	0.0005
23	SLD 2	-1.86	-0.06	23.35	0.0282	-0.0572	0.0005
23	SLD 3	-0.54	0	19.55	-0.015	-0.0038	0
23	SLD 4	-0.54	0	19.55	-0.015	-0.0038	0
23	SLD 5	-5.9	-0.18	31.11	0.1189	-0.2308	0.0015
23	SLD 6	-5.9	-0.18	31.11	0.1189	-0.2308	0.0015
23	SLD 7	-1.5	0.01	18.46	-0.0251	-0.0527	-0.0001
23	SLD 8	-1.5	0.01	18.46	-0.0251	-0.0527	-0.0001
23	SLD 9	-8.04	-0.23	33.97	0.1534	-0.3261	0.0018
23	SLD 10	-8.04	-0.23	33.97	0.1534	-0.3261	0.0018
23	SLD 11	-3.64	-0.04	21.33	0.0094	-0.1481	0.0003
23	SLD 12	-3.64	-0.04	21.33	0.0094	-0.1481	0.0003
23	SLD 13	-8.99	-0.22	32.88	0.1433	-0.375	0.0018
23	SLD 14	-8.99	-0.22	32.88	0.1433	-0.375	0.0018
23	SLD 15	-7.67	-0.16	29.09	0.1001	-0.3216	0.0013
23	SLD 16	-7.67	-0.16	29.09	0.1001	-0.3216	0.0013
23	SLV 1	2.03	0.01	19.56	-0.0199	0.12	-0.0001
23	SLV 2	2.03	0.01	19.56	-0.0199	0.12	-0.0001
23	SLV 3	5.13	0.15	10.52	-0.1211	0.2454	-0.0012
23	SLV 4	5.13	0.15	10.52	-0.1211	0.2454	-0.0012
23	SLV 5	-7.43	-0.28	37.94	0.1924	-0.2867	0.0022
23	SLV 6	-7.43	-0.28	37.94	0.1924	-0.2867	0.0022
23	SLV 7	2.9	0.17	7.79	-0.1449	0.1312	-0.0014
23	SLV 8	2.9	0.17	7.79	-0.1449	0.1312	-0.0014
23	SLV 9	-12.44	-0.39	44.65	0.2732	-0.51	0.0031
23	SLV 10	-12.44	-0.39	44.65	0.2732	-0.51	0.0031
23	SLV 11	-2.11	0.06	14.49	-0.0641	-0.0921	-0.0005
23	SLV 12	-2.11	0.06	14.49	-0.0641	-0.0921	-0.0005
23	SLV 13	-14.67	-0.37	41.92	0.2494	-0.6242	0.0029
23	SLV 14	-14.67	-0.37	41.92	0.2494	-0.6242	0.0029
23	SLV 15	-11.57	-0.23	32.87	0.1483	-0.4988	0.0019
23	SLV 16	-11.57	-0.23	32.87	0.1483	-0.4988	0.0019
24	SLU 1	-3.62	-0.11	23.35	0.0645	-0.1561	0.0009
24	SLU 2	-3.78	-0.11	22.62	0.0612	-0.1615	0.0009
24	SLU 3	-3.88	-0.11	23.85	0.0659	-0.1666	0.0009
24	SLU 4	-3.98	-0.11	23.41	0.0638	-0.1698	0.0009
24	SLU 5	-4.07	-0.11	23.15	0.0624	-0.1731	0.0009
24	SLU 6	-4.17	-0.12	24.38	0.0671	-0.1782	0.0009
24	SLU 7	-4.27	-0.11	23.95	0.0651	-0.1814	0.0009
24	SLU 8	-4.2	-0.12	24.41	0.067	-0.1793	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
24	SLU 9	-4.29	-0.11	23.97	0.065	-0.1826	0.0009
24	SLU 10	-4.46	-0.12	24.12	0.0688	-0.1896	0.001
24	SLU 11	-4.57	-0.13	25.35	0.0735	-0.1947	0.001
24	SLU 12	-4.66	-0.12	24.91	0.0715	-0.1979	0.001
24	SLU 13	-4.75	-0.12	24.65	0.0701	-0.2012	0.001
24	SLU 14	-4.86	-0.13	25.88	0.0748	-0.2063	0.001
24	SLU 15	-4.95	-0.12	25.45	0.0728	-0.2095	0.001
24	SLU 16	-4.89	-0.13	25.91	0.0747	-0.2074	0.001
24	SLU 17	-4.98	-0.12	25.47	0.0727	-0.2106	0.001
24	SLU 18	-4.6	-0.13	25.49	0.0755	-0.1962	0.001
24	SLU 19	-4.7	-0.12	25.05	0.0735	-0.1994	0.001
24	SLU 20	-4.89	-0.13	26.02	0.0767	-0.2078	0.0011
24	SLU 21	-4.99	-0.13	25.59	0.0747	-0.2111	0.001
24	SLU 22	-4.04	-0.12	24.26	0.0691	-0.1729	0.001
24	SLU 23	-4.19	-0.11	23.53	0.0657	-0.1783	0.0009
24	SLU 24	-4.3	-0.12	24.76	0.0704	-0.1834	0.001
24	SLU 25	-4.39	-0.12	24.32	0.0684	-0.1866	0.001
24	SLU 26	-4.48	-0.12	24.06	0.067	-0.1899	0.0009
24	SLU 27	-4.59	-0.12	25.29	0.0717	-0.195	0.001
24	SLU 28	-4.68	-0.12	24.86	0.0696	-0.1983	0.001
24	SLU 29	-4.61	-0.12	25.32	0.0716	-0.1961	0.001
24	SLU 30	-4.71	-0.12	24.88	0.0695	-0.1994	0.001
24	SLU 31	-4.88	-0.13	25.03	0.0734	-0.2064	0.001
24	SLU 32	-4.98	-0.13	26.26	0.0781	-0.2115	0.0011
24	SLU 33	-5.08	-0.13	25.82	0.0761	-0.2147	0.0011
24	SLU 34	-5.17	-0.13	25.56	0.0746	-0.218	0.001
24	SLU 35	-5.27	-0.13	26.79	0.0793	-0.2231	0.0011
24	SLU 36	-5.37	-0.13	26.36	0.0773	-0.2263	0.0011
24	SLU 37	-5.3	-0.13	26.82	0.0792	-0.2242	0.0011
24	SLU 38	-5.39	-0.13	26.38	0.0772	-0.2274	0.0011
24	SLU 39	-5.02	-0.13	26.4	0.08	-0.213	0.0011
24	SLU 40	-5.11	-0.13	25.96	0.078	-0.2162	0.0011
24	SLU 41	-5.31	-0.14	26.93	0.0813	-0.2246	0.0011
24	SLU 42	-5.4	-0.13	26.49	0.0793	-0.2279	0.0011
24	SLU 43	-4.57	-0.14	30.04	0.0823	-0.1971	0.0012
24	SLU 44	-4.72	-0.14	29.31	0.0789	-0.2025	0.0011
24	SLU 45	-4.83	-0.15	30.54	0.0836	-0.2076	0.0012
24	SLU 46	-4.92	-0.14	30.11	0.0816	-0.2109	0.0012
24	SLU 47	-5.01	-0.14	29.84	0.0802	-0.2142	0.0011
24	SLU 48	-5.12	-0.15	31.07	0.0849	-0.2193	0.0012
24	SLU 49	-5.21	-0.14	30.64	0.0829	-0.2225	0.0012
24	SLU 50	-5.15	-0.15	31.1	0.0848	-0.2204	0.0012
24	SLU 51	-5.24	-0.14	30.67	0.0828	-0.2236	0.0012
24	SLU 52	-5.41	-0.15	30.81	0.0866	-0.2306	0.0012
24	SLU 53	-5.52	-0.16	32.04	0.0913	-0.2357	0.0013
24	SLU 54	-5.61	-0.15	31.61	0.0893	-0.239	0.0012
24	SLU 55	-5.7	-0.15	31.34	0.0879	-0.2422	0.0012
24	SLU 56	-5.8	-0.16	32.57	0.0926	-0.2473	0.0013
24	SLU 57	-5.9	-0.16	32.14	0.0905	-0.2506	0.0013
24	SLU 58	-5.83	-0.16	32.6	0.0925	-0.2485	0.0013
24	SLU 59	-5.93	-0.16	32.17	0.0904	-0.2517	0.0013
24	SLU 60	-5.55	-0.16	32.18	0.0933	-0.2372	0.0013
24	SLU 61	-5.64	-0.16	31.75	0.0912	-0.2405	0.0013
24	SLU 62	-5.84	-0.16	32.71	0.0945	-0.2489	0.0013
24	SLU 63	-5.93	-0.16	32.28	0.0925	-0.2521	0.0013
24	SLU 64	-4.98	-0.15	30.95	0.0869	-0.2139	0.0012
24	SLU 65	-5.14	-0.15	30.22	0.0835	-0.2193	0.0012
24	SLU 66	-5.24	-0.15	31.45	0.0882	-0.2244	0.0012
24	SLU 67	-5.33	-0.15	31.02	0.0862	-0.2277	0.0012
24	SLU 68	-5.42	-0.15	30.75	0.0848	-0.231	0.0012
24	SLU 69	-5.53	-0.15	31.98	0.0894	-0.2361	0.0013
24	SLU 70	-5.62	-0.15	31.55	0.0874	-0.2393	0.0012
24	SLU 71	-5.56	-0.15	32.01	0.0894	-0.2372	0.0013
24	SLU 72	-5.65	-0.15	31.58	0.0873	-0.2404	0.0012
24	SLU 73	-5.82	-0.16	31.72	0.0912	-0.2474	0.0013
24	SLU 74	-5.93	-0.16	32.95	0.0959	-0.2525	0.0013
24	SLU 75	-6.02	-0.16	32.52	0.0939	-0.2558	0.0013
24	SLU 76	-6.11	-0.16	32.25	0.0924	-0.259	0.0013
24	SLU 77	-6.22	-0.17	33.48	0.0971	-0.2641	0.0013
24	SLU 78	-6.31	-0.16	33.05	0.0951	-0.2674	0.0013
24	SLU 79	-6.25	-0.17	33.51	0.097	-0.2653	0.0013
24	SLU 80	-6.34	-0.16	33.08	0.095	-0.2685	0.0013
24	SLU 81	-5.96	-0.17	33.09	0.0978	-0.254	0.0014
24	SLU 82	-6.05	-0.16	32.65	0.0958	-0.2573	0.0013
24	SLU 83	-6.25	-0.17	33.62	0.0991	-0.2657	0.0014
24	SLU 84	-6.34	-0.17	33.19	0.0971	-0.2689	0.0013
24	SLE RA 1	-3.74	-0.11	23.61	0.0658	-0.1609	0.0009
24	SLE RA 2	-3.84	-0.11	23.12	0.0636	-0.1645	0.0009
24	SLE RA 3	-3.91	-0.12	23.94	0.0667	-0.1679	0.0009
24	SLE RA 4	-3.98	-0.11	23.65	0.0654	-0.17	0.0009
24	SLE RA 5	-4.04	-0.11	23.48	0.0644	-0.1722	0.0009
24	SLE RA 6	-4.11	-0.12	24.3	0.0675	-0.1756	0.0009
24	SLE RA 7	-4.17	-0.11	24.01	0.0662	-0.1778	0.0009
24	SLE RA 8	-4.13	-0.12	24.32	0.0675	-0.1764	0.0009
24	SLE RA 9	-4.19	-0.11	24.02	0.0661	-0.1785	0.0009
24	SLE RA 10	-4.3	-0.12	24.12	0.0687	-0.1832	0.001
24	SLE RA 11	-4.37	-0.12	24.94	0.0718	-0.1866	0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
24	SLE RA 12	-4.43	-0.12	24.65	0.0705	-0.1888	0.001
24	SLE RA 13	-4.49	-0.12	24.48	0.0695	-0.1909	0.001
24	SLE RA 14	-4.57	-0.12	25.3	0.0727	-0.1943	0.001
24	SLE RA 15	-4.63	-0.12	25.01	0.0713	-0.1965	0.001
24	SLE RA 16	-4.58	-0.12	25.32	0.0726	-0.1951	0.001
24	SLE RA 17	-4.65	-0.12	25.02	0.0712	-0.1973	0.001
24	SLE RA 18	-4.39	-0.12	25.03	0.0731	-0.1876	0.001
24	SLE RA 19	-4.46	-0.12	24.74	0.0718	-0.1898	0.001
24	SLE RA 20	-4.59	-0.13	25.39	0.074	-0.1954	0.001
24	SLE RA 21	-4.65	-0.12	25.1	0.0726	-0.1975	0.001
24	SLE FR 1	-3.74	-0.11	23.61	0.0658	-0.1609	0.0009
24	SLE FR 2	-3.76	-0.11	23.51	0.0654	-0.1616	0.0009
24	SLE FR 3	-3.82	-0.11	23.75	0.0661	-0.164	0.0009
24	SLE FR 4	-3.96	-0.12	23.94	0.0676	-0.1696	0.0009
24	SLE FR 5	-4.01	-0.12	24.18	0.0683	-0.172	0.001
24	SLE FR 6	-4.07	-0.12	24.32	0.0695	-0.1742	0.001
24	SLE QP 1	-3.74	-0.11	23.61	0.0658	-0.1609	0.0009
24	SLE QP 2	-3.94	-0.12	24.03	0.068	-0.1689	0.0009
24	SLD 1	-1.23	-0.07	20.99	0.035	-0.0496	0.0006
24	SLD 2	-1.23	-0.07	20.99	0.035	-0.0496	0.0006
24	SLD 3	-0.11	-0.01	17.59	-0.0082	-0.0019	0.0001
24	SLD 4	-0.11	-0.01	17.59	-0.0082	-0.0019	0.0001
24	SLD 5	-4.83	-0.19	28.27	0.1237	-0.2053	0.0016
24	SLD 6	-4.83	-0.19	28.27	0.1237	-0.2053	0.0016
24	SLD 7	-1.08	0	16.95	-0.0204	-0.0466	0
24	SLD 8	-1.08	0	16.95	-0.0204	-0.0466	0
24	SLD 9	-6.79	-0.24	31.12	0.1564	-0.2912	0.0019
24	SLD 10	-6.79	-0.24	31.12	0.1564	-0.2912	0.0019
24	SLD 11	-3.04	-0.04	19.8	0.0124	-0.1325	0.0003
24	SLD 12	-3.04	-0.04	19.8	0.0124	-0.1325	0.0003
24	SLD 13	-7.77	-0.22	30.48	0.1442	-0.3359	0.0018
24	SLD 14	-7.77	-0.22	30.48	0.1442	-0.3359	0.0018
24	SLD 15	-6.64	-0.16	27.08	0.101	-0.2882	0.0013
24	SLD 16	-6.64	-0.16	27.08	0.101	-0.2882	0.0013
24	SLV 1	2.4	-0.01	17.01	-0.009	0.1105	0.0001
24	SLV 2	2.4	-0.01	17.01	-0.009	0.1105	0.0001
24	SLV 3	5.04	0.13	8.83	-0.1102	0.2223	-0.0011
24	SLV 4	5.04	0.13	8.83	-0.1102	0.2223	-0.0011
24	SLV 5	-6.04	-0.3	34.33	0.1984	-0.2546	0.0024
24	SLV 6	-6.04	-0.3	34.33	0.1984	-0.2546	0.0024
24	SLV 7	2.77	0.17	7.06	-0.139	0.118	-0.0014
24	SLV 8	2.77	0.17	7.06	-0.139	0.118	-0.0014
24	SLV 9	-10.64	-0.4	41.01	0.275	-0.4558	0.0033
24	SLV 10	-10.64	-0.4	41.01	0.275	-0.4558	0.0033
24	SLV 11	-1.83	0.06	13.74	-0.0624	-0.0832	-0.0005
24	SLV 12	-1.83	0.06	13.74	-0.0624	-0.0832	-0.0005
24	SLV 13	-12.92	-0.36	39.24	0.2462	-0.5601	0.003
24	SLV 14	-12.92	-0.36	39.24	0.2462	-0.5601	0.003
24	SLV 15	-10.27	-0.22	31.06	0.145	-0.4483	0.0018
24	SLV 16	-10.27	-0.22	31.06	0.145	-0.4483	0.0018
25	SLU 1	-2.89	-0.1	22.52	0.0561	-0.1212	0.0007
25	SLU 2	-3.14	-0.09	21.48	0.0546	-0.13	0.0007
25	SLU 3	-3.09	-0.1	22.84	0.0572	-0.1289	0.0007
25	SLU 4	-3.24	-0.1	22.22	0.0563	-0.1342	0.0007
25	SLU 5	-3.37	-0.1	21.81	0.0556	-0.1385	0.0007
25	SLU 6	-3.31	-0.1	23.17	0.0582	-0.1374	0.0008
25	SLU 7	-3.46	-0.1	22.55	0.0573	-0.1427	0.0008
25	SLU 8	-3.34	-0.1	23.17	0.0581	-0.1383	0.0008
25	SLU 9	-3.49	-0.1	22.55	0.0572	-0.1435	0.0008
25	SLU 10	-3.67	-0.1	22.56	0.0608	-0.1503	0.0008
25	SLU 11	-3.61	-0.11	23.92	0.0634	-0.1492	0.0008
25	SLU 12	-3.77	-0.1	23.3	0.0625	-0.1545	0.0008
25	SLU 13	-3.89	-0.1	22.89	0.0618	-0.1588	0.0008
25	SLU 14	-3.84	-0.11	24.24	0.0644	-0.1577	0.0008
25	SLU 15	-3.99	-0.11	23.62	0.0635	-0.163	0.0008
25	SLU 16	-3.86	-0.11	24.25	0.0643	-0.1585	0.0008
25	SLU 17	-4.01	-0.11	23.63	0.0634	-0.1638	0.0008
25	SLU 18	-3.64	-0.11	24.06	0.0649	-0.1502	0.0008
25	SLU 19	-3.79	-0.11	23.44	0.064	-0.1555	0.0008
25	SLU 20	-3.86	-0.11	24.38	0.0659	-0.1587	0.0008
25	SLU 21	-4.01	-0.11	23.76	0.065	-0.164	0.0008
25	SLU 22	-3.21	-0.1	23.16	0.0598	-0.1336	0.0008
25	SLU 23	-3.46	-0.1	22.13	0.0584	-0.1424	0.0008
25	SLU 24	-3.41	-0.1	23.48	0.061	-0.1413	0.0008
25	SLU 25	-3.56	-0.1	22.86	0.0601	-0.1466	0.0008
25	SLU 26	-3.69	-0.1	22.45	0.0594	-0.1509	0.0008
25	SLU 27	-3.63	-0.1	23.81	0.062	-0.1498	0.0008
25	SLU 28	-3.78	-0.1	23.19	0.0611	-0.1551	0.0008
25	SLU 29	-3.66	-0.1	23.81	0.0619	-0.1506	0.0008
25	SLU 30	-3.81	-0.1	23.19	0.061	-0.1559	0.0008
25	SLU 31	-3.99	-0.11	23.2	0.0646	-0.1627	0.0008
25	SLU 32	-3.93	-0.11	24.56	0.0671	-0.1616	0.0009
25	SLU 33	-4.09	-0.11	23.94	0.0663	-0.1668	0.0008
25	SLU 34	-4.21	-0.11	23.53	0.0656	-0.1712	0.0008
25	SLU 35	-4.16	-0.11	24.89	0.0682	-0.1701	0.0009
25	SLU 36	-4.31	-0.11	24.27	0.0673	-0.1754	0.0009
25	SLU 37	-4.18	-0.11	24.89	0.0681	-0.1709	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
25	SLU 38	-4.33	-0.11	24.27	0.0672	-0.1762	0.0009
25	SLU 39	-3.96	-0.11	24.7	0.0687	-0.1626	0.0009
25	SLU 40	-4.11	-0.11	24.08	0.0678	-0.1679	0.0009
25	SLU 41	-4.18	-0.11	25.03	0.0697	-0.1711	0.0009
25	SLU 42	-4.33	-0.11	24.4	0.0688	-0.1764	0.0009
25	SLU 43	-3.65	-0.12	29.05	0.0716	-0.1534	0.0009
25	SLU 44	-3.9	-0.12	28.02	0.0701	-0.1621	0.0009
25	SLU 45	-3.85	-0.12	29.38	0.0727	-0.161	0.001
25	SLU 46	-4	-0.12	28.75	0.0718	-0.1663	0.0009
25	SLU 47	-4.12	-0.12	28.35	0.0711	-0.1707	0.0009
25	SLU 48	-4.07	-0.13	29.7	0.0737	-0.1695	0.001
25	SLU 49	-4.22	-0.13	29.08	0.0728	-0.1748	0.001
25	SLU 50	-4.09	-0.13	29.71	0.0736	-0.1704	0.001
25	SLU 51	-4.24	-0.13	29.09	0.0727	-0.1756	0.001
25	SLU 52	-4.42	-0.13	29.1	0.0763	-0.1824	0.001
25	SLU 53	-4.37	-0.13	30.45	0.0789	-0.1813	0.001
25	SLU 54	-4.52	-0.13	29.83	0.078	-0.1866	0.001
25	SLU 55	-4.65	-0.13	29.42	0.0773	-0.1909	0.001
25	SLU 56	-4.59	-0.13	30.78	0.0799	-0.1898	0.001
25	SLU 57	-4.75	-0.13	30.16	0.079	-0.1951	0.001
25	SLU 58	-4.62	-0.13	30.78	0.0798	-0.1907	0.001
25	SLU 59	-4.77	-0.13	30.16	0.0789	-0.1959	0.001
25	SLU 60	-4.4	-0.13	30.59	0.0804	-0.1824	0.001
25	SLU 61	-4.55	-0.13	29.97	0.0795	-0.1876	0.001
25	SLU 62	-4.62	-0.14	30.92	0.0814	-0.1909	0.001
25	SLU 63	-4.77	-0.14	30.3	0.0805	-0.1961	0.001
25	SLU 64	-3.97	-0.13	29.7	0.0754	-0.1658	0.001
25	SLU 65	-4.22	-0.13	28.66	0.0739	-0.1745	0.001
25	SLU 66	-4.17	-0.13	30.02	0.0765	-0.1734	0.001
25	SLU 67	-4.32	-0.13	29.4	0.0756	-0.1787	0.001
25	SLU 68	-4.44	-0.13	28.99	0.0749	-0.183	0.001
25	SLU 69	-4.39	-0.13	30.34	0.0775	-0.1819	0.001
25	SLU 70	-4.54	-0.13	29.72	0.0766	-0.1872	0.001
25	SLU 71	-4.41	-0.13	30.35	0.0774	-0.1828	0.001
25	SLU 72	-4.56	-0.13	29.73	0.0765	-0.188	0.001
25	SLU 73	-4.74	-0.14	29.74	0.0801	-0.1948	0.001
25	SLU 74	-4.69	-0.14	31.09	0.0827	-0.1937	0.0011
25	SLU 75	-4.84	-0.14	30.47	0.0818	-0.199	0.0011
25	SLU 76	-4.97	-0.14	30.06	0.0811	-0.2033	0.001
25	SLU 77	-4.91	-0.14	31.42	0.0837	-0.2022	0.0011
25	SLU 78	-5.07	-0.14	30.8	0.0828	-0.2075	0.0011
25	SLU 79	-4.94	-0.14	31.43	0.0836	-0.2031	0.0011
25	SLU 80	-5.09	-0.14	30.81	0.0827	-0.2083	0.0011
25	SLU 81	-4.72	-0.14	31.23	0.0842	-0.1947	0.0011
25	SLU 82	-4.87	-0.14	30.61	0.0833	-0.2	0.0011
25	SLU 83	-4.94	-0.14	31.56	0.0852	-0.2032	0.0011
25	SLU 84	-5.09	-0.14	30.94	0.0843	-0.2085	0.0011
25	SLE RA 1	-2.98	-0.1	22.7	0.0571	-0.1248	0.0007
25	SLE RA 2	-3.15	-0.1	22.01	0.0561	-0.1306	0.0007
25	SLE RA 3	-3.12	-0.1	22.92	0.0579	-0.1299	0.0008
25	SLE RA 4	-3.22	-0.1	22.5	0.0573	-0.1334	0.0007
25	SLE RA 5	-3.3	-0.1	22.23	0.0568	-0.1363	0.0007
25	SLE RA 6	-3.26	-0.1	23.13	0.0586	-0.1356	0.0008
25	SLE RA 7	-3.37	-0.1	22.72	0.058	-0.1391	0.0008
25	SLE RA 8	-3.28	-0.1	23.14	0.0585	-0.1361	0.0008
25	SLE RA 9	-3.38	-0.1	22.72	0.0579	-0.1396	0.0008
25	SLE RA 10	-3.5	-0.1	22.73	0.0603	-0.1442	0.0008
25	SLE RA 11	-3.46	-0.1	23.63	0.062	-0.1434	0.0008
25	SLE RA 12	-3.57	-0.1	23.22	0.0614	-0.1469	0.0008
25	SLE RA 13	-3.65	-0.1	22.95	0.0609	-0.1498	0.0008
25	SLE RA 14	-3.61	-0.1	23.85	0.0627	-0.1491	0.0008
25	SLE RA 15	-3.71	-0.1	23.44	0.0621	-0.1526	0.0008
25	SLE RA 16	-3.63	-0.1	23.85	0.0626	-0.1496	0.0008
25	SLE RA 17	-3.73	-0.1	23.44	0.062	-0.1532	0.0008
25	SLE RA 18	-3.48	-0.11	23.73	0.063	-0.1441	0.0008
25	SLE RA 19	-3.58	-0.1	23.31	0.0624	-0.1476	0.0008
25	SLE RA 20	-3.63	-0.11	23.94	0.0637	-0.1498	0.0008
25	SLE RA 21	-3.73	-0.11	23.53	0.0631	-0.1533	0.0008
25	SLE FR 1	-2.98	-0.1	22.7	0.0571	-0.1248	0.0007
25	SLE FR 2	-3.02	-0.1	22.56	0.0569	-0.1259	0.0007
25	SLE FR 3	-3.04	-0.1	22.79	0.0574	-0.127	0.0007
25	SLE FR 4	-3.17	-0.1	22.87	0.0587	-0.1317	0.0008
25	SLE FR 5	-3.19	-0.1	23.1	0.0592	-0.1328	0.0008
25	SLE FR 6	-3.23	-0.1	23.21	0.0601	-0.1344	0.0008
25	SLE QP 1	-2.98	-0.1	22.7	0.0571	-0.1248	0.0007
25	SLE QP 2	-3.13	-0.1	23.01	0.0589	-0.1306	0.0008
25	SLD 1	-0.62	-0.07	19.53	0.0338	-0.0146	0.0005
25	SLD 2	-0.62	-0.07	19.53	0.0338	-0.0146	0.0005
25	SLD 3	0.34	-0.02	15.98	-0.0025	0.0242	0.0001
25	SLD 4	0.34	-0.02	15.98	-0.0025	0.0242	0.0001
25	SLD 5	-3.83	-0.16	27.35	0.1064	-0.1546	0.0013
25	SLD 6	-3.83	-0.16	27.35	0.1064	-0.1546	0.0013
25	SLD 7	-0.64	0	15.52	-0.0145	-0.0253	0
25	SLD 8	-0.64	0	15.52	-0.0145	-0.0253	0
25	SLD 9	-5.63	-0.19	30.5	0.1323	-0.2359	0.0015
25	SLD 10	-5.63	-0.19	30.5	0.1323	-0.2359	0.0015
25	SLD 11	-2.43	-0.04	18.67	0.0115	-0.1065	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
25	SLD 12	-2.43	-0.04	18.67	0.0115	-0.1065	0.0003
25	SLD 13	-6.6	-0.18	30.04	0.1203	-0.2853	0.0014
25	SLD 14	-6.6	-0.18	30.04	0.1203	-0.2853	0.0014
25	SLD 15	-5.65	-0.13	26.49	0.084	-0.2465	0.001
25	SLD 16	-5.65	-0.13	26.49	0.084	-0.2465	0.001
25	SLV 1	2.75	-0.03	15.03	0.0002	0.1407	0.0002
25	SLV 2	2.75	-0.03	15.03	0.0002	0.1407	0.0002
25	SLV 3	5.02	0.08	6.37	-0.0847	0.2323	-0.0007
25	SLV 4	5.02	0.08	6.37	-0.0847	0.2323	-0.0007
25	SLV 5	-4.81	-0.25	33.74	0.1701	-0.1882	0.0019
25	SLV 6	-4.81	-0.25	33.74	0.1701	-0.1882	0.0019
25	SLV 7	2.75	0.12	4.89	-0.1129	0.1173	-0.001
25	SLV 8	2.75	0.12	4.89	-0.1129	0.1173	-0.001
25	SLV 9	-9.02	-0.32	41.13	0.2307	-0.3784	0.0025
25	SLV 10	-9.02	-0.32	41.13	0.2307	-0.3784	0.0025
25	SLV 11	-1.45	0.05	12.28	-0.0523	-0.073	-0.0004
25	SLV 12	-1.45	0.05	12.28	-0.0523	-0.073	-0.0004
25	SLV 13	-11.28	-0.28	39.65	0.2025	-0.4935	0.0022
25	SLV 14	-11.28	-0.28	39.65	0.2025	-0.4935	0.0022
25	SLV 15	-9.01	-0.17	30.99	0.1176	-0.4018	0.0014
25	SLV 16	-9.01	-0.17	30.99	0.1176	-0.4018	0.0014
26	SLU 1	-2.89	-0.05	22.48	0.0356	-0.1295	0.0003
26	SLU 2	-3.21	-0.05	20.98	0.0361	-0.1408	0.0003
26	SLU 3	-3.04	-0.05	22.66	0.0363	-0.1358	0.0003
26	SLU 4	-3.24	-0.05	21.77	0.0366	-0.1426	0.0003
26	SLU 5	-3.39	-0.05	21.15	0.0368	-0.1478	0.0003
26	SLU 6	-3.21	-0.05	22.83	0.0369	-0.1428	0.0003
26	SLU 7	-3.41	-0.05	21.94	0.0372	-0.1496	0.0003
26	SLU 8	-3.23	-0.05	22.82	0.0368	-0.1434	0.0003
26	SLU 9	-3.43	-0.05	21.92	0.0372	-0.1502	0.0003
26	SLU 10	-3.63	-0.06	21.76	0.0399	-0.158	0.0003
26	SLU 11	-3.45	-0.05	23.44	0.0401	-0.153	0.0003
26	SLU 12	-3.65	-0.05	22.55	0.0404	-0.1598	0.0003
26	SLU 13	-3.8	-0.06	21.93	0.0405	-0.165	0.0003
26	SLU 14	-3.63	-0.05	23.61	0.0407	-0.16	0.0003
26	SLU 15	-3.82	-0.06	22.72	0.041	-0.1667	0.0003
26	SLU 16	-3.64	-0.05	23.6	0.0406	-0.1606	0.0003
26	SLU 17	-3.84	-0.06	22.7	0.041	-0.1674	0.0003
26	SLU 18	-3.47	-0.05	23.59	0.041	-0.1541	0.0003
26	SLU 19	-3.67	-0.06	22.69	0.0413	-0.1609	0.0003
26	SLU 20	-3.65	-0.05	23.76	0.0416	-0.161	0.0003
26	SLU 21	-3.84	-0.06	22.86	0.042	-0.1678	0.0003
26	SLU 22	-3.14	-0.05	22.93	0.038	-0.1401	0.0003
26	SLU 23	-3.47	-0.05	21.43	0.0385	-0.1514	0.0003
26	SLU 24	-3.3	-0.05	23.12	0.0387	-0.1464	0.0003
26	SLU 25	-3.49	-0.05	22.22	0.039	-0.1532	0.0003
26	SLU 26	-3.64	-0.05	21.6	0.0391	-0.1583	0.0003
26	SLU 27	-3.47	-0.05	23.28	0.0393	-0.1533	0.0003
26	SLU 28	-3.66	-0.05	22.39	0.0396	-0.1601	0.0003
26	SLU 29	-3.48	-0.05	23.27	0.0392	-0.154	0.0003
26	SLU 30	-3.68	-0.05	22.37	0.0395	-0.1608	0.0003
26	SLU 31	-3.88	-0.06	22.21	0.0423	-0.1686	0.0003
26	SLU 32	-3.71	-0.06	23.89	0.0424	-0.1636	0.0003
26	SLU 33	-3.9	-0.06	23	0.0428	-0.1704	0.0003
26	SLU 34	-4.05	-0.06	22.38	0.0429	-0.1755	0.0003
26	SLU 35	-3.88	-0.06	24.06	0.0431	-0.1705	0.0003
26	SLU 36	-4.08	-0.06	23.17	0.0434	-0.1773	0.0003
26	SLU 37	-3.9	-0.06	24.05	0.043	-0.1712	0.0003
26	SLU 38	-4.09	-0.06	23.15	0.0433	-0.178	0.0003
26	SLU 39	-3.73	-0.06	24.04	0.0434	-0.1646	0.0003
26	SLU 40	-3.92	-0.06	23.15	0.0437	-0.1714	0.0003
26	SLU 41	-3.9	-0.06	24.21	0.044	-0.1716	0.0003
26	SLU 42	-4.1	-0.06	23.31	0.0443	-0.1784	0.0003
26	SLU 43	-3.66	-0.06	29.07	0.0455	-0.1648	0.0004
26	SLU 44	-3.99	-0.07	27.57	0.046	-0.1761	0.0004
26	SLU 45	-3.82	-0.06	29.25	0.0461	-0.1711	0.0004
26	SLU 46	-4.02	-0.07	28.36	0.0465	-0.1778	0.0004
26	SLU 47	-4.16	-0.07	27.74	0.0466	-0.183	0.0004
26	SLU 48	-3.99	-0.06	29.42	0.0468	-0.178	0.0004
26	SLU 49	-4.19	-0.07	28.53	0.0471	-0.1848	0.0004
26	SLU 50	-4.01	-0.06	29.41	0.0467	-0.1787	0.0004
26	SLU 51	-4.21	-0.07	28.51	0.047	-0.1854	0.0004
26	SLU 52	-4.4	-0.07	28.35	0.0498	-0.1933	0.0004
26	SLU 53	-4.23	-0.07	30.03	0.0499	-0.1883	0.0004
26	SLU 54	-4.43	-0.07	29.14	0.0503	-0.195	0.0004
26	SLU 55	-4.58	-0.07	28.52	0.0504	-0.2002	0.0004
26	SLU 56	-4.4	-0.07	30.2	0.0506	-0.1952	0.0004
26	SLU 57	-4.6	-0.07	29.3	0.0509	-0.202	0.0004
26	SLU 58	-4.42	-0.07	30.19	0.0505	-0.1959	0.0004
26	SLU 59	-4.62	-0.07	29.29	0.0508	-0.2026	0.0004
26	SLU 60	-4.25	-0.07	30.18	0.0509	-0.1893	0.0004
26	SLU 61	-4.45	-0.07	29.28	0.0512	-0.1961	0.0004
26	SLU 62	-4.43	-0.07	30.35	0.0515	-0.1963	0.0004
26	SLU 63	-4.62	-0.07	29.45	0.0518	-0.203	0.0004
26	SLU 64	-3.92	-0.07	29.52	0.0478	-0.1753	0.0004
26	SLU 65	-4.25	-0.07	28.02	0.0484	-0.1866	0.0004
26	SLU 66	-4.07	-0.07	29.7	0.0485	-0.1816	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
26	SLU 67	-4.27	-0.07	28.81	0.0488	-0.1884	0.0004
26	SLU 68	-4.42	-0.07	28.19	0.049	-0.1936	0.0004
26	SLU 69	-4.25	-0.07	29.87	0.0491	-0.1886	0.0004
26	SLU 70	-4.44	-0.07	28.98	0.0495	-0.1954	0.0004
26	SLU 71	-4.26	-0.07	29.86	0.0491	-0.1892	0.0004
26	SLU 72	-4.46	-0.07	28.96	0.0494	-0.196	0.0004
26	SLU 73	-4.66	-0.07	28.8	0.0522	-0.2038	0.0004
26	SLU 74	-4.49	-0.07	30.48	0.0523	-0.1988	0.0004
26	SLU 75	-4.68	-0.07	29.59	0.0526	-0.2056	0.0004
26	SLU 76	-4.83	-0.07	28.97	0.0528	-0.2108	0.0004
26	SLU 77	-4.66	-0.07	30.65	0.0529	-0.2058	0.0004
26	SLU 78	-4.85	-0.07	29.76	0.0533	-0.2125	0.0004
26	SLU 79	-4.68	-0.07	30.64	0.0529	-0.2064	0.0004
26	SLU 80	-4.87	-0.07	29.74	0.0532	-0.2132	0.0004
26	SLU 81	-4.51	-0.07	30.63	0.0533	-0.1999	0.0004
26	SLU 82	-4.7	-0.07	29.73	0.0536	-0.2067	0.0004
26	SLU 83	-4.68	-0.07	30.8	0.0539	-0.2068	0.0004
26	SLU 84	-4.88	-0.07	29.9	0.0542	-0.2136	0.0004
26	SLE RA 1	-2.96	-0.05	22.61	0.0363	-0.1326	0.0003
26	SLE RA 2	-3.18	-0.05	21.61	0.0366	-0.1401	0.0003
26	SLE RA 3	-3.06	-0.05	22.73	0.0367	-0.1367	0.0003
26	SLE RA 4	-3.19	-0.05	22.13	0.0369	-0.1413	0.0003
26	SLE RA 5	-3.29	-0.05	21.72	0.037	-0.1447	0.0003
26	SLE RA 6	-3.18	-0.05	22.84	0.0371	-0.1414	0.0003
26	SLE RA 7	-3.31	-0.05	22.25	0.0374	-0.1459	0.0003
26	SLE RA 8	-3.19	-0.05	22.83	0.0371	-0.1418	0.0003
26	SLE RA 9	-3.32	-0.05	22.24	0.0373	-0.1463	0.0003
26	SLE RA 10	-3.45	-0.05	22.13	0.0392	-0.1515	0.0003
26	SLE RA 11	-3.34	-0.05	23.25	0.0393	-0.1482	0.0003
26	SLE RA 12	-3.47	-0.05	22.65	0.0395	-0.1527	0.0003
26	SLE RA 13	-3.57	-0.05	22.24	0.0396	-0.1562	0.0003
26	SLE RA 14	-3.45	-0.05	23.36	0.0397	-0.1528	0.0003
26	SLE RA 15	-3.58	-0.05	22.77	0.0399	-0.1574	0.0003
26	SLE RA 16	-3.46	-0.05	23.35	0.0396	-0.1533	0.0003
26	SLE RA 17	-3.59	-0.05	22.75	0.0398	-0.1578	0.0003
26	SLE RA 18	-3.35	-0.05	23.35	0.0399	-0.1489	0.0003
26	SLE RA 19	-3.48	-0.05	22.75	0.0401	-0.1534	0.0003
26	SLE RA 20	-3.47	-0.05	23.46	0.0403	-0.1536	0.0003
26	SLE RA 21	-3.6	-0.05	22.86	0.0405	-0.1581	0.0003
26	SLE FR 1	-2.96	-0.05	22.61	0.0363	-0.1326	0.0003
26	SLE FR 2	-3	-0.05	22.41	0.0363	-0.1341	0.0003
26	SLE FR 3	-3	-0.05	22.65	0.0364	-0.1344	0.0003
26	SLE FR 4	-3.12	-0.05	22.63	0.0374	-0.139	0.0003
26	SLE FR 5	-3.12	-0.05	22.88	0.0375	-0.1393	0.0003
26	SLE FR 6	-3.15	-0.05	22.98	0.0381	-0.1407	0.0003
26	SLE QP 1	-2.96	-0.05	22.61	0.0363	-0.1326	0.0003
26	SLE QP 2	-3.08	-0.05	22.83	0.0374	-0.1375	0.0003
26	SLD 1	-0.76	-0.09	18.68	0.0225	-0.0292	0.0006
26	SLD 2	-0.76	-0.09	18.68	0.0225	-0.0292	0.0006
26	SLD 3	0.17	-0.06	14.38	-0.0017	0.0085	0.0004
26	SLD 4	0.17	-0.06	14.38	-0.0017	0.0085	0.0004
26	SLD 5	-3.79	-0.1	28.11	0.0695	-0.1622	0.0007
26	SLD 6	-3.79	-0.1	28.11	0.0695	-0.1622	0.0007
26	SLD 7	-0.69	-0.01	13.77	-0.011	-0.0364	0
26	SLD 8	-0.69	-0.01	13.77	-0.011	-0.0364	0
26	SLD 9	-5.46	-0.09	31.89	0.0857	-0.2385	0.0005
26	SLD 10	-5.46	-0.09	31.89	0.0857	-0.2385	0.0005
26	SLD 11	-2.36	0	17.55	0.0052	-0.1127	-0.0001
26	SLD 12	-2.36	0	17.55	0.0052	-0.1127	-0.0001
26	SLD 13	-6.32	-0.04	31.28	0.0764	-0.2835	0.0002
26	SLD 14	-6.32	-0.04	31.28	0.0764	-0.2835	0.0002
26	SLD 15	-5.39	-0.01	26.98	0.0522	-0.2457	0
26	SLD 16	-5.39	-0.01	26.98	0.0522	-0.2457	0
26	SLV 1	2.32	-0.14	13.38	0.0026	0.1155	0.001
26	SLV 2	2.32	-0.14	13.38	0.0026	0.1155	0.001
26	SLV 3	4.55	-0.08	2.8	-0.054	0.2051	0.0006
26	SLV 4	4.55	-0.08	2.8	-0.054	0.2051	0.0006
26	SLV 5	-4.84	-0.17	36.04	0.1127	-0.1974	0.0012
26	SLV 6	-4.84	-0.17	36.04	0.1127	-0.1974	0.0012
26	SLV 7	2.59	0.04	0.77	-0.0758	0.1012	-0.0003
26	SLV 8	2.59	0.04	0.77	-0.0758	0.1012	-0.0003
26	SLV 9	-8.74	-0.14	44.89	0.1505	-0.3761	0.0009
26	SLV 10	-8.74	-0.14	44.89	0.1505	-0.3761	0.0009
26	SLV 11	-1.31	0.07	9.62	-0.038	-0.0775	-0.0006
26	SLV 12	-1.31	0.07	9.62	-0.038	-0.0775	-0.0006
26	SLV 13	-10.7	-0.02	42.87	0.1287	-0.4801	0
26	SLV 14	-10.7	-0.02	42.87	0.1287	-0.4801	0
26	SLV 15	-8.47	0.04	32.28	0.0721	-0.3905	-0.0004
26	SLV 16	-8.47	0.04	32.28	0.0721	-0.3905	-0.0004
27	SLU 1	-3.24	0.03	23.95	0.0096	-0.1592	0.0001
27	SLU 2	-3.58	0.02	21.7	0.0122	-0.1681	0.0001
27	SLU 3	-3.35	0.03	24.05	0.0099	-0.1635	0.0001
27	SLU 4	-3.56	0.02	22.7	0.0114	-0.1689	0.0001
27	SLU 5	-3.71	0.02	21.77	0.0124	-0.1728	0.0001
27	SLU 6	-3.47	0.03	24.11	0.0102	-0.1683	0.0001
27	SLU 7	-3.68	0.02	22.76	0.0117	-0.1736	0.0001
27	SLU 8	-3.48	0.03	24.07	0.0102	-0.1687	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
27	SLU 9	-3.69	0.02	22.73	0.0117	-0.174	0.0001
27	SLU 10	-3.87	0.02	22.39	0.0134	-0.1805	0.0001
27	SLU 11	-3.63	0.03	24.73	0.0112	-0.176	0.0001
27	SLU 12	-3.84	0.03	23.38	0.0127	-0.1813	0.0001
27	SLU 13	-3.99	0.02	22.45	0.0137	-0.1853	0.0001
27	SLU 14	-3.75	0.03	24.79	0.0114	-0.1807	0.0001
27	SLU 15	-3.96	0.03	23.45	0.0129	-0.1861	0.0001
27	SLU 16	-3.77	0.03	24.76	0.0114	-0.1811	0.0001
27	SLU 17	-3.97	0.03	23.41	0.0129	-0.1865	0.0001
27	SLU 18	-3.64	0.03	24.93	0.0114	-0.177	0.0001
27	SLU 19	-3.85	0.03	23.58	0.0129	-0.1823	0.0001
27	SLU 20	-3.76	0.03	24.99	0.0117	-0.1817	0.0001
27	SLU 21	-3.97	0.03	23.64	0.0132	-0.187	0.0001
27	SLU 22	-3.41	0.03	24.34	0.0104	-0.1667	0.0001
27	SLU 23	-3.75	0.02	22.09	0.013	-0.1756	0.0001
27	SLU 24	-3.52	0.03	24.44	0.0107	-0.1711	0.0001
27	SLU 25	-3.72	0.03	23.09	0.0122	-0.1764	0.0001
27	SLU 26	-3.88	0.02	22.16	0.0132	-0.1803	0.0001
27	SLU 27	-3.64	0.03	24.5	0.011	-0.1758	0.0001
27	SLU 28	-3.85	0.03	23.16	0.0125	-0.1811	0.0001
27	SLU 29	-3.65	0.03	24.47	0.011	-0.1762	0.0001
27	SLU 30	-3.86	0.03	23.12	0.0125	-0.1815	0.0001
27	SLU 31	-4.03	0.02	22.78	0.0142	-0.188	0.0002
27	SLU 32	-3.8	0.03	25.12	0.0119	-0.1835	0.0001
27	SLU 33	-4.01	0.03	23.78	0.0135	-0.1888	0.0001
27	SLU 34	-4.16	0.03	22.84	0.0145	-0.1928	0.0002
27	SLU 35	-3.92	0.03	25.19	0.0122	-0.1883	0.0001
27	SLU 36	-4.13	0.03	23.84	0.0137	-0.1936	0.0002
27	SLU 37	-3.93	0.03	25.15	0.0122	-0.1887	0.0001
27	SLU 38	-4.14	0.03	23.8	0.0137	-0.194	0.0002
27	SLU 39	-3.81	0.03	25.32	0.0122	-0.1845	0.0001
27	SLU 40	-4.02	0.03	23.97	0.0137	-0.1898	0.0002
27	SLU 41	-3.93	0.03	25.38	0.0125	-0.1892	0.0001
27	SLU 42	-4.14	0.03	24.03	0.014	-0.1946	0.0002
27	SLU 43	-4.15	0.04	31	0.0123	-0.2044	0.0002
27	SLU 44	-4.5	0.03	28.75	0.0148	-0.2132	0.0002
27	SLU 45	-4.26	0.04	31.1	0.0125	-0.2087	0.0002
27	SLU 46	-4.47	0.03	29.75	0.014	-0.214	0.0002
27	SLU 47	-4.62	0.03	28.82	0.0151	-0.218	0.0002
27	SLU 48	-4.38	0.04	31.16	0.0128	-0.2135	0.0002
27	SLU 49	-4.59	0.03	29.81	0.0143	-0.2188	0.0002
27	SLU 50	-4.4	0.04	31.12	0.0128	-0.2139	0.0002
27	SLU 51	-4.61	0.03	29.78	0.0143	-0.2192	0.0002
27	SLU 52	-4.78	0.03	29.44	0.0161	-0.2257	0.0002
27	SLU 53	-4.54	0.04	31.78	0.0138	-0.2212	0.0002
27	SLU 54	-4.75	0.03	30.44	0.0153	-0.2265	0.0002
27	SLU 55	-4.9	0.03	29.5	0.0163	-0.2304	0.0002
27	SLU 56	-4.67	0.04	31.85	0.014	-0.2259	0.0002
27	SLU 57	-4.87	0.03	30.5	0.0156	-0.2312	0.0002
27	SLU 58	-4.68	0.04	31.81	0.014	-0.2263	0.0002
27	SLU 59	-4.89	0.03	30.46	0.0156	-0.2316	0.0002
27	SLU 60	-4.55	0.04	31.98	0.014	-0.2221	0.0002
27	SLU 61	-4.76	0.04	30.63	0.0156	-0.2275	0.0002
27	SLU 62	-4.68	0.04	32.04	0.0143	-0.2269	0.0002
27	SLU 63	-4.88	0.04	30.69	0.0158	-0.2322	0.0002
27	SLU 64	-4.32	0.04	31.39	0.0131	-0.2119	0.0002
27	SLU 65	-4.67	0.03	29.15	0.0156	-0.2208	0.0002
27	SLU 66	-4.43	0.04	31.49	0.0133	-0.2162	0.0002
27	SLU 67	-4.64	0.03	30.14	0.0148	-0.2216	0.0002
27	SLU 68	-4.79	0.03	29.21	0.0159	-0.2255	0.0002
27	SLU 69	-4.55	0.04	31.55	0.0136	-0.221	0.0002
27	SLU 70	-4.76	0.03	30.21	0.0151	-0.2263	0.0002
27	SLU 71	-4.57	0.04	31.52	0.0136	-0.2214	0.0002
27	SLU 72	-4.77	0.03	30.17	0.0151	-0.2267	0.0002
27	SLU 73	-4.95	0.03	29.83	0.0168	-0.2332	0.0002
27	SLU 74	-4.71	0.04	32.17	0.0146	-0.2287	0.0002
27	SLU 75	-4.92	0.04	30.83	0.0161	-0.234	0.0002
27	SLU 76	-5.07	0.03	29.89	0.0171	-0.238	0.0002
27	SLU 77	-4.84	0.04	32.24	0.0148	-0.2334	0.0002
27	SLU 78	-5.04	0.04	30.89	0.0163	-0.2388	0.0002
27	SLU 79	-4.85	0.04	32.2	0.0148	-0.2338	0.0002
27	SLU 80	-5.06	0.04	30.85	0.0163	-0.2392	0.0002
27	SLU 81	-4.72	0.04	32.37	0.0148	-0.2297	0.0002
27	SLU 82	-4.93	0.04	31.02	0.0164	-0.235	0.0002
27	SLU 83	-4.85	0.04	32.43	0.0151	-0.2344	0.0002
27	SLU 84	-5.05	0.04	31.08	0.0166	-0.2397	0.0002
27	SLE RA 1	-3.29	0.03	24.06	0.0099	-0.1613	0.0001
27	SLE RA 2	-3.52	0.02	22.56	0.0116	-0.1672	0.0001
27	SLE RA 3	-3.36	0.03	24.13	0.01	-0.1642	0.0001
27	SLE RA 4	-3.5	0.03	23.23	0.0111	-0.1678	0.0001
27	SLE RA 5	-3.6	0.02	22.61	0.0117	-0.1704	0.0001
27	SLE RA 6	-3.44	0.03	24.17	0.0102	-0.1674	0.0001
27	SLE RA 7	-3.58	0.03	23.27	0.0112	-0.171	0.0001
27	SLE RA 8	-3.45	0.03	24.14	0.0102	-0.1677	0.0001
27	SLE RA 9	-3.59	0.03	23.25	0.0112	-0.1712	0.0001
27	SLE RA 10	-3.7	0.03	23.02	0.0124	-0.1755	0.0001
27	SLE RA 11	-3.55	0.03	24.58	0.0109	-0.1725	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
27	SLE RA 12	-3.69	0.03	23.68	0.0119	-0.1761	0.0001
27	SLE RA 13	-3.79	0.03	23.06	0.0126	-0.1787	0.0001
27	SLE RA 14	-3.63	0.03	24.63	0.011	-0.1757	0.0001
27	SLE RA 15	-3.77	0.03	23.73	0.0121	-0.1793	0.0001
27	SLE RA 16	-3.64	0.03	24.6	0.011	-0.176	0.0001
27	SLE RA 17	-3.78	0.03	23.7	0.0121	-0.1795	0.0001
27	SLE RA 18	-3.55	0.03	24.71	0.0111	-0.1732	0.0001
27	SLE RA 19	-3.69	0.03	23.81	0.0121	-0.1767	0.0001
27	SLE RA 20	-3.64	0.03	24.75	0.0112	-0.1764	0.0001
27	SLE RA 21	-3.78	0.03	23.85	0.0122	-0.1799	0.0001
27	SLE FR 1	-3.29	0.03	24.06	0.0099	-0.1613	0.0001
27	SLE FR 2	-3.33	0.03	23.76	0.0102	-0.1625	0.0001
27	SLE FR 3	-3.32	0.03	24.08	0.0099	-0.1626	0.0001
27	SLE FR 4	-3.41	0.03	23.96	0.0106	-0.1661	0.0001
27	SLE FR 5	-3.4	0.03	24.27	0.0103	-0.1662	0.0001
27	SLE FR 6	-3.42	0.03	24.39	0.0105	-0.1673	0.0001
27	SLE QP 1	-3.29	0.03	24.06	0.0099	-0.1613	0.0001
27	SLE QP 2	-3.37	0.03	24.26	0.0102	-0.1649	0.0001
27	SLD 1	-1.14	0.02	18.89	0.028	-0.0513	0.0001
27	SLD 2	-1.14	0.02	18.89	0.028	-0.0513	0.0001
27	SLD 3	-0.2	0	12.83	0.0162	-0.0176	0.0001
27	SLD 4	-0.2	0	12.83	0.0162	-0.0176	0.0001
27	SLD 5	-4.13	0.05	31.83	0.0333	-0.182	0.0002
27	SLD 6	-4.13	0.05	31.83	0.0333	-0.182	0.0002
27	SLD 7	-0.99	0	11.65	-0.0057	-0.0695	0
27	SLD 8	-0.99	0	11.65	-0.0057	-0.0695	0
27	SLD 9	-5.75	0.06	36.87	0.0262	-0.2603	0.0002
27	SLD 10	-5.75	0.06	36.87	0.0262	-0.2603	0.0002
27	SLD 11	-2.6	0.01	16.69	-0.0129	-0.1478	0.0001
27	SLD 12	-2.6	0.01	16.69	-0.0129	-0.1478	0.0001
27	SLD 13	-6.53	0.06	35.68	0.0042	-0.3122	0.0002
27	SLD 14	-6.53	0.06	35.68	0.0042	-0.3122	0.0002
27	SLD 15	-5.59	0.04	29.63	-0.0075	-0.2785	0.0002
27	SLD 16	-5.59	0.04	29.63	-0.0075	-0.2785	0.0002
27	SLV 1	1.82	0	12.05	0.0517	0.1008	0.0001
27	SLV 2	1.82	0	12.05	0.0517	0.1008	0.0001
27	SLV 3	4.08	-0.04	-2.86	0.0243	0.1805	-0.0001
27	SLV 4	4.08	-0.04	-2.86	0.0243	0.1805	-0.0001
27	SLV 5	-5.24	0.08	43.21	0.0642	-0.206	0.0003
27	SLV 6	-5.24	0.08	43.21	0.0642	-0.206	0.0003
27	SLV 7	2.3	-0.05	-6.49	-0.0271	0.0595	-0.0001
27	SLV 8	2.3	-0.05	-6.49	-0.0271	0.0595	-0.0001
27	SLV 9	-9.03	0.11	55	0.0476	-0.3893	0.0004
27	SLV 10	-9.03	0.11	55	0.0476	-0.3893	0.0004
27	SLV 11	-1.49	-0.02	5.3	-0.0438	-0.1238	0
27	SLV 12	-1.49	-0.02	5.3	-0.0438	-0.1238	0
27	SLV 13	-10.81	0.1	51.37	-0.0038	-0.5103	0.0003
27	SLV 14	-10.81	0.1	51.37	-0.0038	-0.5103	0.0003
27	SLV 15	-8.55	0.06	36.46	-0.0313	-0.4306	0.0002
27	SLV 16	-8.55	0.06	36.46	-0.0313	-0.4306	0.0002
28	SLU 1	-4.14	2.55	30.17	0.1281	-0.1154	-0.0002
28	SLU 2	-4.03	1.86	27.02	0.1514	-0.1175	0.0001
28	SLU 3	-4.19	2.55	30.3	0.1317	-0.1176	-0.0002
28	SLU 4	-4.13	2.14	28.41	0.1457	-0.1189	0
28	SLU 5	-4.08	1.85	27.08	0.1545	-0.1199	0.0002
28	SLU 6	-4.25	2.54	30.36	0.1348	-0.12	-0.0001
28	SLU 7	-4.18	2.12	28.48	0.1488	-0.1212	0
28	SLU 8	-4.25	2.52	30.29	0.1343	-0.1201	-0.0001
28	SLU 9	-4.18	2.11	28.4	0.1483	-0.1214	0.0001
28	SLU 10	-4.22	2.04	28.22	0.1645	-0.1243	0.0001
28	SLU 11	-4.38	2.73	31.5	0.1448	-0.1244	-0.0002
28	SLU 12	-4.32	2.32	29.61	0.1588	-0.1256	0
28	SLU 13	-4.27	2.03	28.28	0.1676	-0.1266	0.0001
28	SLU 14	-4.44	2.72	31.56	0.1479	-0.1267	-0.0002
28	SLU 15	-4.37	2.3	29.67	0.1619	-0.128	0
28	SLU 16	-4.44	2.7	31.48	0.1474	-0.1269	-0.0002
28	SLU 17	-4.37	2.29	29.6	0.1614	-0.1281	0
28	SLU 18	-4.41	2.81	31.87	0.1468	-0.1251	-0.0002
28	SLU 19	-4.34	2.39	29.99	0.1608	-0.1263	0
28	SLU 20	-4.47	2.79	31.94	0.1499	-0.1274	-0.0002
28	SLU 21	-4.4	2.38	30.05	0.1639	-0.1287	0
28	SLU 22	-4.25	2.68	30.95	0.1384	-0.1194	-0.0002
28	SLU 23	-4.14	1.99	27.8	0.1617	-0.1215	0.0001
28	SLU 24	-4.31	2.68	31.08	0.142	-0.1216	-0.0002
28	SLU 25	-4.24	2.26	29.2	0.156	-0.1229	0
28	SLU 26	-4.19	1.98	27.86	0.1648	-0.1238	0.0001
28	SLU 27	-4.36	2.66	31.14	0.1452	-0.124	-0.0002
28	SLU 28	-4.29	2.25	29.26	0.1591	-0.1252	0
28	SLU 29	-4.36	2.65	31.07	0.1447	-0.1241	-0.0002
28	SLU 30	-4.29	2.24	29.18	0.1586	-0.1254	0
28	SLU 31	-4.33	2.17	29	0.1748	-0.1283	0.0001
28	SLU 32	-4.5	2.86	32.28	0.1551	-0.1284	-0.0002
28	SLU 33	-4.43	2.44	30.39	0.1691	-0.1296	0
28	SLU 34	-4.38	2.16	29.06	0.1779	-0.1306	0.0001
28	SLU 35	-4.55	2.84	32.34	0.1582	-0.1307	-0.0002
28	SLU 36	-4.48	2.43	30.45	0.1722	-0.132	0
28	SLU 37	-4.55	2.83	32.26	0.1577	-0.1309	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
28	SLU 38	-4.48	2.42	30.38	0.1717	-0.1321	0
28	SLU 39	-4.52	2.93	32.65	0.1571	-0.1291	-0.0003
28	SLU 40	-4.46	2.52	30.77	0.1711	-0.1303	-0.0001
28	SLU 41	-4.58	2.92	32.72	0.1602	-0.1314	-0.0002
28	SLU 42	-4.51	2.51	30.83	0.1742	-0.1327	-0.0001
28	SLU 43	-5.34	3.27	38.95	0.163	-0.1487	-0.0002
28	SLU 44	-5.23	2.58	35.81	0.1863	-0.1508	0.0001
28	SLU 45	-5.4	3.27	39.08	0.1666	-0.1509	-0.0002
28	SLU 46	-5.33	2.86	37.2	0.1806	-0.1521	0
28	SLU 47	-5.29	2.57	35.87	0.1894	-0.1531	0.0001
28	SLU 48	-5.45	3.26	39.15	0.1697	-0.1532	-0.0002
28	SLU 49	-5.38	2.84	37.26	0.1837	-0.1545	0
28	SLU 50	-5.45	3.24	39.07	0.1692	-0.1534	-0.0002
28	SLU 51	-5.38	2.83	37.19	0.1832	-0.1546	0
28	SLU 52	-5.42	2.76	37	0.1994	-0.1575	0.0001
28	SLU 53	-5.59	3.45	40.28	0.1797	-0.1577	-0.0002
28	SLU 54	-5.52	3.04	38.39	0.1937	-0.1589	0
28	SLU 55	-5.48	2.75	37.06	0.2025	-0.1599	0.0001
28	SLU 56	-5.64	3.44	40.34	0.1828	-0.16	-0.0002
28	SLU 57	-5.57	3.02	38.45	0.1968	-0.1612	0
28	SLU 58	-5.64	3.42	40.27	0.1823	-0.1601	-0.0002
28	SLU 59	-5.58	3.01	38.38	0.1963	-0.1614	0
28	SLU 60	-5.62	3.53	40.66	0.1817	-0.1584	-0.0003
28	SLU 61	-5.55	3.11	38.77	0.1957	-0.1596	-0.0001
28	SLU 62	-5.67	3.51	40.72	0.1848	-0.1607	-0.0002
28	SLU 63	-5.6	3.1	38.83	0.1988	-0.1619	-0.0001
28	SLU 64	-5.45	3.4	39.73	0.1733	-0.1527	-0.0002
28	SLU 65	-5.34	2.71	36.59	0.1966	-0.1548	0.0001
28	SLU 66	-5.51	3.4	39.86	0.1769	-0.1549	-0.0002
28	SLU 67	-5.44	2.98	37.98	0.1909	-0.1561	0
28	SLU 68	-5.4	2.7	36.65	0.1997	-0.1571	0.0001
28	SLU 69	-5.56	3.39	39.93	0.18	-0.1572	-0.0002
28	SLU 70	-5.5	2.97	38.04	0.194	-0.1585	0
28	SLU 71	-5.56	3.37	39.85	0.1795	-0.1574	-0.0002
28	SLU 72	-5.5	2.96	37.97	0.1935	-0.1586	0
28	SLU 73	-5.53	2.89	37.78	0.2097	-0.1615	0
28	SLU 74	-5.7	3.58	41.06	0.19	-0.1616	-0.0003
28	SLU 75	-5.63	3.16	39.17	0.204	-0.1629	-0.0001
28	SLU 76	-5.59	2.88	37.84	0.2128	-0.1639	0
28	SLU 77	-5.75	3.57	41.12	0.1931	-0.164	-0.0003
28	SLU 78	-5.69	3.15	39.23	0.2071	-0.1652	-0.0001
28	SLU 79	-5.75	3.55	41.05	0.1926	-0.1641	-0.0002
28	SLU 80	-5.69	3.14	39.16	0.2066	-0.1654	-0.0001
28	SLU 81	-5.73	3.65	41.44	0.192	-0.1623	-0.0003
28	SLU 82	-5.66	3.24	39.55	0.206	-0.1636	-0.0001
28	SLU 83	-5.78	3.64	41.5	0.1951	-0.1647	-0.0003
28	SLU 84	-5.71	3.23	39.61	0.2091	-0.1659	-0.0001
28	SLE RA 1	-4.17	2.58	30.39	0.131	-0.1166	-0.0002
28	SLE RA 2	-4.1	2.13	28.29	0.1466	-0.118	0
28	SLE RA 3	-4.21	2.58	30.48	0.1335	-0.118	-0.0002
28	SLE RA 4	-4.16	2.31	29.22	0.1428	-0.1189	0
28	SLE RA 5	-4.13	2.12	28.33	0.1487	-0.1195	0
28	SLE RA 6	-4.24	2.58	30.52	0.1355	-0.1196	-0.0002
28	SLE RA 7	-4.2	2.3	29.26	0.1449	-0.1204	0
28	SLE RA 8	-4.24	2.57	30.47	0.1352	-0.1197	-0.0002
28	SLE RA 9	-4.2	2.29	29.21	0.1445	-0.1205	0
28	SLE RA 10	-4.22	2.25	29.09	0.1553	-0.1225	0
28	SLE RA 11	-4.33	2.71	31.28	0.1422	-0.1225	-0.0002
28	SLE RA 12	-4.29	2.43	30.02	0.1515	-0.1234	-0.0001
28	SLE RA 13	-4.26	2.24	29.13	0.1574	-0.124	0
28	SLE RA 14	-4.37	2.7	31.32	0.1443	-0.1241	-0.0002
28	SLE RA 15	-4.33	2.42	30.06	0.1536	-0.1249	-0.0001
28	SLE RA 16	-4.37	2.69	31.27	0.1439	-0.1242	-0.0002
28	SLE RA 17	-4.33	2.41	30.01	0.1533	-0.125	-0.0001
28	SLE RA 18	-4.35	2.76	31.53	0.1435	-0.123	-0.0002
28	SLE RA 19	-4.31	2.48	30.27	0.1528	-0.1238	-0.0001
28	SLE RA 20	-4.39	2.75	31.57	0.1456	-0.1246	-0.0002
28	SLE RA 21	-4.34	2.47	30.31	0.1549	-0.1254	-0.0001
28	SLE FR 1	-4.17	2.58	30.39	0.131	-0.1166	-0.0002
28	SLE FR 2	-4.16	2.49	29.97	0.1341	-0.1168	-0.0001
28	SLE FR 3	-4.19	2.58	30.41	0.1319	-0.1172	-0.0002
28	SLE FR 4	-4.21	2.54	30.31	0.1379	-0.1188	-0.0001
28	SLE FR 5	-4.24	2.63	30.75	0.1356	-0.1191	-0.0002
28	SLE FR 6	-4.26	2.67	30.96	0.1373	-0.1198	-0.0002
28	SLE QP 1	-4.17	2.58	30.39	0.131	-0.1166	-0.0002
28	SLE QP 2	-4.23	2.64	30.73	0.1348	-0.1185	-0.0002
28	SLD 1	-2.24	2.66	23.58	0.1141	-0.048	-0.0013
28	SLD 2	-2.24	2.66	23.58	0.1141	-0.048	-0.0013
28	SLD 3	-1.57	0.74	14.72	0.0534	-0.0291	-0.0004
28	SLD 4	-1.57	0.74	14.72	0.0534	-0.0291	-0.0004
28	SLD 5	-4.66	5.56	42.02	0.2208	-0.1259	-0.0018
28	SLD 6	-4.66	5.56	42.02	0.2208	-0.1259	-0.0018
28	SLD 7	-2.4	-0.85	12.5	0.0182	-0.0631	0.001
28	SLD 8	-2.4	-0.85	12.5	0.0182	-0.0631	0.001
28	SLD 9	-6.05	6.12	48.97	0.2514	-0.1739	-0.0014
28	SLD 10	-6.05	6.12	48.97	0.2514	-0.1739	-0.0014
28	SLD 11	-3.79	-0.29	19.45	0.0488	-0.1111	0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
28	SLD 12	-3.79	-0.29	19.45	0.0488	-0.1111	0.0014
28	SLD 13	-6.88	4.53	46.74	0.2162	-0.2079	0.0001
28	SLD 14	-6.88	4.53	46.74	0.2162	-0.2079	0.0001
28	SLD 15	-6.21	2.61	37.89	0.1554	-0.189	0.0009
28	SLD 16	-6.21	2.61	37.89	0.1554	-0.189	0.0009
28	SLV 1	0.39	2.76	14.49	0.0864	0.0466	-0.0028
28	SLV 2	0.39	2.76	14.49	0.0864	0.0466	-0.0028
28	SLV 3	2.01	-1.88	-7.26	-0.0565	0.0908	-0.0008
28	SLV 4	2.01	-1.88	-7.26	-0.0565	0.0908	-0.0008
28	SLV 5	-5.3	9.71	58.84	0.3371	-0.136	-0.004
28	SLV 6	-5.3	9.71	58.84	0.3371	-0.136	-0.004
28	SLV 7	0.1	-5.76	-13.64	-0.1394	0.0114	0.0027
28	SLV 8	0.1	-5.76	-13.64	-0.1394	0.0114	0.0027
28	SLV 9	-8.55	11.03	75.11	0.409	-0.2484	-0.0031
28	SLV 10	-8.55	11.03	75.11	0.409	-0.2484	-0.0031
28	SLV 11	-3.16	-4.44	2.63	-0.0675	-0.101	0.0036
28	SLV 12	-3.16	-4.44	2.63	-0.0675	-0.101	0.0036
28	SLV 13	-10.46	7.16	68.72	0.3261	-0.3278	0.0004
28	SLV 14	-10.46	7.16	68.72	0.3261	-0.3278	0.0004
28	SLV 15	-8.85	2.51	46.98	0.1831	-0.2836	0.0024
28	SLV 16	-8.85	2.51	46.98	0.1831	-0.2836	0.0024
29	SLU 1	0.06	2.35	15.44	-0.0635	0.0055	0.0002
29	SLU 2	0.06	1.73	12.64	-0.02	0.006	0.0002
29	SLU 3	0.06	2.35	15.27	-0.0621	0.0055	0.0002
29	SLU 4	0.06	1.98	13.59	-0.036	0.0058	0.0002
29	SLU 5	0.06	1.7	12.37	-0.0174	0.006	0.0002
29	SLU 6	0.06	2.32	14.99	-0.0595	0.0056	0.0002
29	SLU 7	0.06	1.94	13.32	-0.0334	0.0059	0.0002
29	SLU 8	0.06	2.28	14.89	-0.0584	0.0056	0.0002
29	SLU 9	0.06	1.91	13.21	-0.0323	0.0059	0.0002
29	SLU 10	0.06	2.11	13.26	-0.0292	0.0063	0.0002
29	SLU 11	0.07	2.73	15.89	-0.0713	0.0058	0.0002
29	SLU 12	0.07	2.36	14.21	-0.0452	0.0061	0.0002
29	SLU 13	0.06	2.08	12.98	-0.0267	0.0064	0.0002
29	SLU 14	0.07	2.7	15.61	-0.0688	0.0059	0.0002
29	SLU 15	0.07	2.32	13.93	-0.0427	0.0062	0.0002
29	SLU 16	0.07	2.66	15.51	-0.0677	0.0059	0.0002
29	SLU 17	0.07	2.29	13.83	-0.0416	0.0062	0.0002
29	SLU 18	0.07	2.9	16.32	-0.0767	0.0059	0.0002
29	SLU 19	0.07	2.52	14.64	-0.0506	0.0062	0.0002
29	SLU 20	0.07	2.86	16.04	-0.0742	0.006	0.0002
29	SLU 21	0.07	2.49	14.37	-0.0481	0.0063	0.0002
29	SLU 22	0.06	2.63	15.76	-0.0696	0.0056	0.0002
29	SLU 23	0.06	2.01	12.96	-0.0261	0.0061	0.0002
29	SLU 24	0.06	2.63	15.59	-0.0682	0.0057	0.0002
29	SLU 25	0.06	2.25	13.91	-0.0421	0.006	0.0002
29	SLU 26	0.06	1.97	12.69	-0.0236	0.0062	0.0002
29	SLU 27	0.07	2.59	15.32	-0.0657	0.0057	0.0002
29	SLU 28	0.06	2.22	13.64	-0.0396	0.006	0.0002
29	SLU 29	0.06	2.56	15.21	-0.0646	0.0057	0.0002
29	SLU 30	0.06	2.19	13.53	-0.0385	0.0061	0.0002
29	SLU 31	0.07	2.39	13.58	-0.0354	0.0065	0.0002
29	SLU 32	0.07	3.01	16.21	-0.0775	0.006	0.0002
29	SLU 33	0.07	2.63	14.53	-0.0514	0.0063	0.0002
29	SLU 34	0.07	2.35	13.31	-0.0329	0.0065	0.0002
29	SLU 35	0.07	2.97	15.93	-0.075	0.006	0.0002
29	SLU 36	0.07	2.6	14.26	-0.0489	0.0064	0.0002
29	SLU 37	0.07	2.94	15.83	-0.0738	0.0061	0.0002
29	SLU 38	0.07	2.57	14.15	-0.0477	0.0064	0.0002
29	SLU 39	0.07	3.17	16.64	-0.0829	0.0061	0.0003
29	SLU 40	0.07	2.8	14.96	-0.0568	0.0064	0.0003
29	SLU 41	0.07	3.14	16.37	-0.0803	0.0061	0.0003
29	SLU 42	0.07	2.77	14.69	-0.0542	0.0065	0.0003
29	SLU 43	0.08	2.97	19.96	-0.0804	0.007	0.0003
29	SLU 44	0.08	2.34	17.16	-0.0369	0.0076	0.0003
29	SLU 45	0.08	2.96	19.79	-0.079	0.0071	0.0003
29	SLU 46	0.08	2.59	18.11	-0.0529	0.0074	0.0003
29	SLU 47	0.08	2.31	16.89	-0.0344	0.0076	0.0003
29	SLU 48	0.08	2.93	19.52	-0.0765	0.0071	0.0003
29	SLU 49	0.08	2.55	17.84	-0.0504	0.0075	0.0003
29	SLU 50	0.08	2.9	19.41	-0.0754	0.0072	0.0003
29	SLU 51	0.08	2.52	17.73	-0.0493	0.0075	0.0003
29	SLU 52	0.08	2.72	17.78	-0.0462	0.0079	0.0003
29	SLU 53	0.08	3.34	20.41	-0.0883	0.0074	0.0003
29	SLU 54	0.08	2.97	18.73	-0.0622	0.0077	0.0003
29	SLU 55	0.08	2.69	17.51	-0.0437	0.0079	0.0003
29	SLU 56	0.09	3.31	20.13	-0.0858	0.0075	0.0003
29	SLU 57	0.08	2.93	18.45	-0.0596	0.0078	0.0003
29	SLU 58	0.08	3.28	20.03	-0.0846	0.0075	0.0003
29	SLU 59	0.08	2.9	18.35	-0.0585	0.0078	0.0003
29	SLU 60	0.09	3.51	20.84	-0.0937	0.0075	0.0003
29	SLU 61	0.09	3.14	19.16	-0.0676	0.0078	0.0003
29	SLU 62	0.09	3.47	20.57	-0.0911	0.0075	0.0003
29	SLU 63	0.09	3.1	18.89	-0.065	0.0079	0.0003
29	SLU 64	0.08	3.24	20.28	-0.0866	0.0072	0.0003
29	SLU 65	0.08	2.62	17.49	-0.0431	0.0077	0.0003
29	SLU 66	0.08	3.24	20.11	-0.0852	0.0072	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
29	SLU 67	0.08	2.87	18.43	-0.0591	0.0076	0.0003
29	SLU 68	0.08	2.59	17.21	-0.0405	0.0078	0.0003
29	SLU 69	0.08	3.2	19.84	-0.0826	0.0073	0.0003
29	SLU 70	0.08	2.83	18.16	-0.0565	0.0076	0.0003
29	SLU 71	0.08	3.17	19.73	-0.0815	0.0073	0.0003
29	SLU 72	0.08	2.8	18.05	-0.0554	0.0076	0.0003
29	SLU 73	0.08	3	18.1	-0.0523	0.008	0.0003
29	SLU 74	0.09	3.62	20.73	-0.0944	0.0076	0.0003
29	SLU 75	0.09	3.25	19.05	-0.0683	0.0079	0.0003
29	SLU 76	0.08	2.97	17.83	-0.0498	0.0081	0.0003
29	SLU 77	0.09	3.58	20.45	-0.0919	0.0076	0.0003
29	SLU 78	0.09	3.21	18.78	-0.0658	0.0079	0.0003
29	SLU 79	0.09	3.55	20.35	-0.0908	0.0076	0.0003
29	SLU 80	0.09	3.18	18.67	-0.0647	0.008	0.0003
29	SLU 81	0.09	3.78	21.16	-0.0998	0.0076	0.0003
29	SLU 82	0.09	3.41	19.49	-0.0737	0.008	0.0003
29	SLU 83	0.09	3.75	20.89	-0.0973	0.0077	0.0003
29	SLU 84	0.09	3.38	19.21	-0.0712	0.008	0.0003
29	SLE RA 1	0.06	2.43	15.53	-0.0652	0.0055	0.0002
29	SLE RA 2	0.06	2.02	13.67	-0.0362	0.0059	0.0002
29	SLE RA 3	0.06	2.43	15.42	-0.0643	0.0055	0.0002
29	SLE RA 4	0.06	2.18	14.3	-0.0469	0.0057	0.0002
29	SLE RA 5	0.06	2	13.48	-0.0346	0.0059	0.0002
29	SLE RA 6	0.06	2.41	15.23	-0.0626	0.0056	0.0002
29	SLE RA 7	0.06	2.16	14.12	-0.0452	0.0058	0.0002
29	SLE RA 8	0.06	2.39	15.16	-0.0619	0.0056	0.0002
29	SLE RA 9	0.06	2.14	14.05	-0.0445	0.0058	0.0002
29	SLE RA 10	0.06	2.27	14.08	-0.0424	0.0061	0.0002
29	SLE RA 11	0.07	2.68	15.83	-0.0705	0.0057	0.0002
29	SLE RA 12	0.07	2.44	14.71	-0.0531	0.006	0.0002
29	SLE RA 13	0.06	2.25	13.89	-0.0407	0.0061	0.0002
29	SLE RA 14	0.07	2.66	15.65	-0.0688	0.0058	0.0002
29	SLE RA 15	0.07	2.41	14.53	-0.0514	0.006	0.0002
29	SLE RA 16	0.07	2.64	15.58	-0.0681	0.0058	0.0002
29	SLE RA 17	0.07	2.39	14.46	-0.0506	0.006	0.0002
29	SLE RA 18	0.07	2.8	16.12	-0.0741	0.0058	0.0002
29	SLE RA 19	0.07	2.55	15	-0.0567	0.006	0.0002
29	SLE RA 20	0.07	2.77	15.93	-0.0724	0.0058	0.0002
29	SLE RA 21	0.07	2.52	14.82	-0.055	0.0061	0.0002
29	SLE FR 1	0.06	2.43	15.53	-0.0652	0.0055	0.0002
29	SLE FR 2	0.06	2.35	15.16	-0.0594	0.0056	0.0002
29	SLE FR 3	0.06	2.42	15.46	-0.0646	0.0055	0.0002
29	SLE FR 4	0.06	2.46	15.33	-0.0621	0.0057	0.0002
29	SLE FR 5	0.06	2.53	15.63	-0.0672	0.0056	0.0002
29	SLE FR 6	0.06	2.61	15.82	-0.0697	0.0056	0.0002
29	SLE QP 1	0.06	2.43	15.53	-0.0652	0.0055	0.0002
29	SLE QP 2	0.06	2.54	15.71	-0.0679	0.0056	0.0002
29	SLD 1	0.11	2.77	23.28	-0.0787	0.0121	0.0004
29	SLD 2	0.11	2.77	23.28	-0.0787	0.0121	0.0004
29	SLD 3	0.1	1.01	16.56	0.0295	0.0099	0.0003
29	SLD 4	0.1	1.01	16.56	0.0295	0.0099	0.0003
29	SLD 5	0.1	5.28	28.17	-0.2352	0.0107	0.0003
29	SLD 6	0.1	5.28	28.17	-0.2352	0.0107	0.0003
29	SLD 7	0.06	-0.59	5.77	0.1254	0.0037	0.0002
29	SLD 8	0.06	-0.59	5.77	0.1254	0.0037	0.0002
29	SLD 9	0.07	5.68	25.65	-0.2612	0.0075	0.0003
29	SLD 10	0.07	5.68	25.65	-0.2612	0.0075	0.0003
29	SLD 11	0.03	-0.2	3.24	0.0995	0.0004	0.0001
29	SLD 12	0.03	-0.2	3.24	0.0995	0.0004	0.0001
29	SLD 13	0.03	4.08	14.86	-0.1653	0.0012	0.0001
29	SLD 14	0.03	4.08	14.86	-0.1653	0.0012	0.0001
29	SLD 15	0.01	2.31	8.14	-0.0571	-0.0009	0.0001
29	SLD 16	0.01	2.31	8.14	-0.0571	-0.0009	0.0001
29	SLV 1	0.18	3.14	33.82	-0.0967	0.0208	0.0006
29	SLV 2	0.18	3.14	33.82	-0.0967	0.0208	0.0006
29	SLV 3	0.15	-1.14	17.36	0.1655	0.0158	0.0005
29	SLV 4	0.15	-1.14	17.36	0.1655	0.0158	0.0005
29	SLV 5	0.15	9.21	46.11	-0.4743	0.0177	0.0005
29	SLV 6	0.15	9.21	46.11	-0.4743	0.0177	0.0005
29	SLV 7	0.04	-5.05	-8.77	0.3999	0.0011	0.0002
29	SLV 8	0.04	-5.05	-8.77	0.3999	0.0011	0.0002
29	SLV 9	0.09	10.13	40.18	-0.5357	0.0101	0.0003
29	SLV 10	0.09	10.13	40.18	-0.5357	0.0101	0.0003
29	SLV 11	-0.02	-4.12	-14.7	0.3385	-0.0065	0
29	SLV 12	-0.02	-4.12	-14.7	0.3385	-0.0065	0
29	SLV 13	-0.02	6.22	14.06	-0.3013	-0.0046	0
29	SLV 14	-0.02	6.22	14.06	-0.3013	-0.0046	0
29	SLV 15	-0.06	1.95	-2.41	-0.0391	-0.0096	-0.0001
29	SLV 16	-0.06	1.95	-2.41	-0.0391	-0.0096	-0.0001
30	SLU 1	0.04	1.91	20.08	-0.0766	0.0066	0.0001
30	SLU 2	0.04	1.22	18.92	-0.0395	0.0078	0.0001
30	SLU 3	0.04	1.91	20.05	-0.0763	0.0066	0.0001
30	SLU 4	0.04	1.5	19.35	-0.0541	0.0073	0.0001
30	SLU 5	0.04	1.19	18.74	-0.038	0.0078	0.0001
30	SLU 6	0.04	1.88	19.86	-0.0748	0.0067	0.0001
30	SLU 7	0.04	1.47	19.17	-0.0526	0.0073	0.0001
30	SLU 8	0.04	1.85	19.71	-0.0735	0.0067	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
30	SLU 9	0.04	1.44	19.01	-0.0513	0.0073	0.0001
30	SLU 10	0.04	1.64	20.64	-0.0538	0.0085	0.0001
30	SLU 11	0.04	2.33	21.77	-0.0906	0.0074	0.0001
30	SLU 12	0.04	1.92	21.07	-0.0683	0.0081	0.0001
30	SLU 13	0.04	1.61	20.46	-0.0523	0.0085	0.0001
30	SLU 14	0.04	2.3	21.58	-0.0891	0.0074	0.0001
30	SLU 15	0.04	1.89	20.89	-0.0668	0.0081	0.0001
30	SLU 16	0.04	2.27	21.42	-0.0878	0.0074	0.0001
30	SLU 17	0.04	1.86	20.73	-0.0656	0.0081	0.0001
30	SLU 18	0.04	2.51	22.53	-0.097	0.0077	0.0001
30	SLU 19	0.04	2.1	21.84	-0.0747	0.0084	0.0001
30	SLU 20	0.04	2.48	22.35	-0.0954	0.0077	0.0001
30	SLU 21	0.04	2.07	21.65	-0.0732	0.0084	0.0001
30	SLU 22	0.04	2.22	21.29	-0.0869	0.0071	0.0001
30	SLU 23	0.04	1.53	20.13	-0.0498	0.0082	0.0001
30	SLU 24	0.04	2.22	21.26	-0.0866	0.0071	0.0001
30	SLU 25	0.04	1.81	20.57	-0.0643	0.0078	0.0001
30	SLU 26	0.04	1.5	19.95	-0.0483	0.0082	0.0001
30	SLU 27	0.04	2.2	21.07	-0.0851	0.0071	0.0001
30	SLU 28	0.04	1.78	20.38	-0.0628	0.0078	0.0001
30	SLU 29	0.04	2.16	20.92	-0.0838	0.0071	0.0001
30	SLU 30	0.04	1.75	20.22	-0.0616	0.0078	0.0001
30	SLU 31	0.04	1.95	21.85	-0.0641	0.009	0.0001
30	SLU 32	0.04	2.64	22.98	-0.1008	0.0078	0.0002
30	SLU 33	0.04	2.23	22.28	-0.0786	0.0085	0.0001
30	SLU 34	0.04	1.92	21.67	-0.0626	0.009	0.0001
30	SLU 35	0.04	2.61	22.79	-0.0993	0.0079	0.0002
30	SLU 36	0.04	2.2	22.1	-0.0771	0.0085	0.0001
30	SLU 37	0.04	2.58	22.64	-0.0981	0.0079	0.0002
30	SLU 38	0.04	2.17	21.94	-0.0759	0.0085	0.0001
30	SLU 39	0.04	2.82	23.74	-0.1072	0.0081	0.0002
30	SLU 40	0.04	2.41	23.05	-0.085	0.0088	0.0002
30	SLU 41	0.04	2.79	23.56	-0.1057	0.0081	0.0002
30	SLU 42	0.04	2.38	22.86	-0.0835	0.0088	0.0002
30	SLU 43	0.05	2.38	25.69	-0.096	0.0084	0.0002
30	SLU 44	0.05	1.69	24.53	-0.059	0.0096	0.0002
30	SLU 45	0.05	2.38	25.66	-0.0958	0.0085	0.0002
30	SLU 46	0.05	1.97	24.96	-0.0735	0.0091	0.0002
30	SLU 47	0.05	1.66	24.35	-0.0575	0.0096	0.0002
30	SLU 48	0.05	2.35	25.47	-0.0942	0.0085	0.0002
30	SLU 49	0.05	1.94	24.78	-0.072	0.0092	0.0002
30	SLU 50	0.05	2.32	25.32	-0.093	0.0085	0.0002
30	SLU 51	0.05	1.9	24.62	-0.0708	0.0092	0.0002
30	SLU 52	0.05	2.11	26.25	-0.0732	0.0103	0.0002
30	SLU 53	0.05	2.8	27.37	-0.11	0.0092	0.0002
30	SLU 54	0.05	2.39	26.68	-0.0878	0.0099	0.0002
30	SLU 55	0.05	2.08	26.06	-0.0717	0.0103	0.0002
30	SLU 56	0.05	2.77	27.19	-0.1085	0.0092	0.0002
30	SLU 57	0.05	2.36	26.5	-0.0863	0.0099	0.0002
30	SLU 58	0.05	2.74	27.03	-0.1073	0.0092	0.0002
30	SLU 59	0.05	2.32	26.34	-0.085	0.0099	0.0002
30	SLU 60	0.05	2.98	28.14	-0.1164	0.0095	0.0002
30	SLU 61	0.05	2.56	27.45	-0.0942	0.0102	0.0002
30	SLU 62	0.05	2.95	27.96	-0.1149	0.0095	0.0002
30	SLU 63	0.05	2.53	27.26	-0.0927	0.0102	0.0002
30	SLU 64	0.05	2.69	26.9	-0.1063	0.0089	0.0002
30	SLU 65	0.05	2	25.74	-0.0693	0.0101	0.0002
30	SLU 66	0.05	2.69	26.87	-0.106	0.0089	0.0002
30	SLU 67	0.05	2.28	26.17	-0.0838	0.0096	0.0002
30	SLU 68	0.05	1.97	25.56	-0.0677	0.0101	0.0002
30	SLU 69	0.05	2.66	26.68	-0.1045	0.0089	0.0002
30	SLU 70	0.05	2.25	25.99	-0.0823	0.0096	0.0002
30	SLU 71	0.05	2.63	26.53	-0.1033	0.0089	0.0002
30	SLU 72	0.05	2.22	25.83	-0.081	0.0096	0.0002
30	SLU 73	0.05	2.42	27.46	-0.0835	0.0108	0.0002
30	SLU 74	0.05	3.11	28.58	-0.1203	0.0097	0.0002
30	SLU 75	0.05	2.7	27.89	-0.0981	0.0103	0.0002
30	SLU 76	0.05	2.39	27.27	-0.082	0.0108	0.0002
30	SLU 77	0.05	3.08	28.4	-0.1188	0.0097	0.0002
30	SLU 78	0.05	2.67	27.71	-0.0965	0.0104	0.0002
30	SLU 79	0.05	3.05	28.24	-0.1175	0.0097	0.0002
30	SLU 80	0.05	2.63	27.55	-0.0953	0.0104	0.0002
30	SLU 81	0.05	3.29	29.35	-0.1267	0.01	0.0002
30	SLU 82	0.05	2.87	28.66	-0.1045	0.0106	0.0002
30	SLU 83	0.05	3.26	29.17	-0.1252	0.01	0.0002
30	SLU 84	0.05	2.84	28.47	-0.1029	0.0107	0.0002
30	SLE RA 1	0.04	2	20.42	-0.0795	0.0067	0.0001
30	SLE RA 2	0.04	1.54	19.65	-0.0548	0.0075	0.0001
30	SLE RA 3	0.04	2	20.4	-0.0793	0.0068	0.0001
30	SLE RA 4	0.04	1.73	19.94	-0.0645	0.0072	0.0001
30	SLE RA 5	0.04	1.52	19.53	-0.0538	0.0075	0.0001
30	SLE RA 6	0.04	1.98	20.28	-0.0783	0.0068	0.0001
30	SLE RA 7	0.04	1.71	19.82	-0.0635	0.0072	0.0001
30	SLE RA 8	0.04	1.96	20.18	-0.0775	0.0068	0.0001
30	SLE RA 9	0.04	1.68	19.71	-0.0627	0.0072	0.0001
30	SLE RA 10	0.04	1.82	20.8	-0.0643	0.008	0.0001
30	SLE RA 11	0.04	2.28	21.55	-0.0888	0.0072	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
30	SLE RA 12	0.04	2.01	21.09	-0.074	0.0077	0.0001
30	SLE RA 13	0.04	1.8	20.68	-0.0633	0.008	0.0001
30	SLE RA 14	0.04	2.26	21.43	-0.0878	0.0073	0.0001
30	SLE RA 15	0.04	1.99	20.96	-0.073	0.0077	0.0001
30	SLE RA 16	0.04	2.24	21.32	-0.087	0.0073	0.0001
30	SLE RA 17	0.04	1.96	20.86	-0.0722	0.0077	0.0001
30	SLE RA 18	0.04	2.4	22.06	-0.0931	0.0074	0.0001
30	SLE RA 19	0.04	2.12	21.6	-0.0783	0.0079	0.0001
30	SLE RA 20	0.04	2.38	21.94	-0.0921	0.0075	0.0001
30	SLE RA 21	0.04	2.1	21.47	-0.0773	0.0079	0.0001
30	SLE FR 1	0.04	2	20.42	-0.0795	0.0067	0.0001
30	SLE FR 2	0.04	1.91	20.27	-0.0746	0.0069	0.0001
30	SLE FR 3	0.04	1.99	20.37	-0.0791	0.0068	0.0001
30	SLE FR 4	0.04	2.03	20.76	-0.0787	0.0071	0.0001
30	SLE FR 5	0.04	2.11	20.87	-0.0832	0.007	0.0001
30	SLE FR 6	0.04	2.2	21.24	-0.0863	0.0071	0.0001
30	SLE QP 1	0.04	2	20.42	-0.0795	0.0067	0.0001
30	SLE QP 2	0.04	2.12	20.91	-0.0836	0.007	0.0001
30	SLD 1	0.09	2.2	25.45	-0.0936	0.0209	0.0003
30	SLD 2	0.09	2.2	25.45	-0.0936	0.0209	0.0003
30	SLD 3	0.06	0.15	21.45	0.0108	0.0118	0.0002
30	SLD 4	0.06	0.15	21.45	0.0108	0.0118	0.0002
30	SLD 5	0.1	5.25	28.34	-0.2449	0.025	0.0003
30	SLD 6	0.1	5.25	28.34	-0.2449	0.025	0.0003
30	SLD 7	0	-1.58	15.01	0.1031	-0.0054	0.0001
30	SLD 8	0	-1.58	15.01	0.1031	-0.0054	0.0001
30	SLD 9	0.07	5.82	26.82	-0.2703	0.0193	0.0002
30	SLD 10	0.07	5.82	26.82	-0.2703	0.0193	0.0002
30	SLD 11	-0.02	-1.01	13.49	0.0777	-0.011	0
30	SLD 12	-0.02	-1.01	13.49	0.0777	-0.011	0
30	SLD 13	0.01	4.09	20.38	-0.178	0.0021	0
30	SLD 14	0.01	4.09	20.38	-0.178	0.0021	0
30	SLD 15	-0.01	2.04	16.38	-0.0736	-0.007	0
30	SLD 16	-0.01	2.04	16.38	-0.0736	-0.007	0
30	SLV 1	0.16	2.37	31.82	-0.1097	0.0398	0.0005
30	SLV 2	0.16	2.37	31.82	-0.1097	0.0398	0.0005
30	SLV 3	0.09	-2.57	21.93	0.1416	0.018	0.0003
30	SLV 4	0.09	-2.57	21.93	0.1416	0.018	0.0003
30	SLV 5	0.18	9.68	39.2	-0.4726	0.0499	0.0005
30	SLV 6	0.18	9.68	39.2	-0.4726	0.0499	0.0005
30	SLV 7	-0.05	-6.77	6.21	0.3651	-0.0229	0
30	SLV 8	-0.05	-6.77	6.21	0.3651	-0.0229	0
30	SLV 9	0.12	11.01	35.62	-0.5323	0.0368	0.0003
30	SLV 10	0.12	11.01	35.62	-0.5323	0.0368	0.0003
30	SLV 11	-0.1	-5.44	2.63	0.3054	-0.036	-0.0002
30	SLV 12	-0.1	-5.44	2.63	0.3054	-0.036	-0.0002
30	SLV 13	-0.02	6.81	19.9	-0.3088	-0.0041	-0.0001
30	SLV 14	-0.02	6.81	19.9	-0.3088	-0.0041	-0.0001
30	SLV 15	-0.08	1.87	10.01	-0.0575	-0.0259	-0.0002
30	SLV 16	-0.08	1.87	10.01	-0.0575	-0.0259	-0.0002
31	SLU 1	0	12.99	35	-0.607	-0.0004	0
31	SLU 2	0.01	12.79	34.97	-0.597	0.0004	0
31	SLU 3	0	13.43	35.9	-0.6281	-0.0003	0
31	SLU 4	0.01	13.31	35.88	-0.622	0.0001	0
31	SLU 5	0.01	13.2	35.8	-0.6167	0.0005	0
31	SLU 6	0	13.83	36.73	-0.6478	-0.0003	0
31	SLU 7	0.01	13.72	36.71	-0.6418	0.0002	0
31	SLU 8	0	13.8	36.66	-0.6466	-0.0003	0
31	SLU 9	0.01	13.68	36.64	-0.6405	0.0002	0
31	SLU 10	0.01	15.15	40.13	-0.7042	0.0003	0
31	SLU 11	0	15.78	41.05	-0.7353	-0.0004	0
31	SLU 12	0.01	15.66	41.04	-0.7293	0	0
31	SLU 13	0.01	15.55	40.96	-0.724	0.0004	0
31	SLU 14	0	16.19	41.88	-0.7551	-0.0004	0
31	SLU 15	0.01	16.07	41.87	-0.749	0.0001	0
31	SLU 16	0	16.15	41.81	-0.7538	-0.0004	0
31	SLU 17	0.01	16.03	41.8	-0.7478	0.0001	0
31	SLU 18	0	16.35	42.36	-0.7603	-0.0005	0
31	SLU 19	0.01	16.23	42.35	-0.7542	-0.0001	0
31	SLU 20	0	16.75	43.19	-0.78	-0.0005	0
31	SLU 21	0.01	16.64	43.18	-0.774	0	0
31	SLU 22	0	14.34	37.89	-0.6686	-0.0005	0
31	SLU 23	0.01	14.15	37.87	-0.6585	0.0002	0
31	SLU 24	0	14.78	38.8	-0.6896	-0.0005	0
31	SLU 25	0.01	14.66	38.78	-0.6836	0	0
31	SLU 26	0.01	14.55	38.7	-0.6783	0.0003	0
31	SLU 27	0	15.19	39.63	-0.7094	-0.0004	0
31	SLU 28	0.01	15.07	39.61	-0.7033	0	0
31	SLU 29	0	15.15	39.56	-0.7081	-0.0004	0
31	SLU 30	0.01	15.03	39.54	-0.7021	0.0001	0
31	SLU 31	0.01	16.5	43.03	-0.7658	0.0001	0
31	SLU 32	0	17.13	43.95	-0.7969	-0.0006	0
31	SLU 33	0.01	17.02	43.94	-0.7908	-0.0001	0
31	SLU 34	0.01	16.9	43.86	-0.7855	0.0002	0
31	SLU 35	0	17.54	44.78	-0.8166	-0.0005	0
31	SLU 36	0.01	17.42	44.77	-0.8106	-0.0001	0
31	SLU 37	0	17.5	44.71	-0.8154	-0.0005	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLU 38	0.01	17.39	44.7	-0.8093	0	0
31	SLU 39	0	17.7	45.26	-0.8218	-0.0007	0
31	SLU 40	0.01	17.59	45.25	-0.8157	-0.0002	0
31	SLU 41	0	18.11	46.09	-0.8416	-0.0006	0
31	SLU 42	0.01	17.99	46.08	-0.8355	-0.0002	0
31	SLU 43	0	16.42	44.5	-0.768	-0.0004	0
31	SLU 44	0.01	16.22	44.48	-0.758	0.0003	0
31	SLU 45	0	16.86	45.4	-0.7891	-0.0004	0
31	SLU 46	0.01	16.74	45.39	-0.783	0.0001	0
31	SLU 47	0.01	16.63	45.31	-0.7777	0.0004	0
31	SLU 48	0	17.26	46.23	-0.8088	-0.0003	0
31	SLU 49	0.01	17.15	46.22	-0.8028	0.0001	0
31	SLU 50	0	17.23	46.16	-0.8076	-0.0003	0
31	SLU 51	0.01	17.11	46.15	-0.8015	0.0001	0
31	SLU 52	0.01	18.58	49.63	-0.8652	0.0002	0
31	SLU 53	0	19.21	50.56	-0.8963	-0.0005	0
31	SLU 54	0.01	19.1	50.54	-0.8903	0	0
31	SLU 55	0.01	18.98	50.46	-0.885	0.0003	0
31	SLU 56	0	19.62	51.39	-0.9161	-0.0004	0
31	SLU 57	0.01	19.5	51.37	-0.91	0	0
31	SLU 58	0	19.58	51.32	-0.9148	-0.0004	0
31	SLU 59	0.01	19.47	51.3	-0.9088	0	0
31	SLU 60	0	19.78	51.86	-0.9213	-0.0006	0
31	SLU 61	0.01	19.66	51.85	-0.9152	-0.0001	0
31	SLU 62	0	20.19	52.69	-0.941	-0.0005	0
31	SLU 63	0.01	20.07	52.68	-0.935	-0.0001	0
31	SLU 64	0	17.77	47.4	-0.8296	-0.0006	0
31	SLU 65	0.01	17.58	47.38	-0.8195	0.0002	0
31	SLU 66	0	18.21	48.3	-0.8506	-0.0005	0
31	SLU 67	0.01	18.1	48.29	-0.8446	-0.0001	0
31	SLU 68	0.01	17.98	48.21	-0.8393	0.0002	0
31	SLU 69	0.01	18.62	49.13	-0.8704	-0.0005	0
31	SLU 70	0.01	18.5	49.12	-0.8643	0	0
31	SLU 71	0.01	18.58	49.06	-0.8691	-0.0005	0
31	SLU 72	0.01	18.47	49.05	-0.8631	0	0
31	SLU 73	0.01	19.93	52.53	-0.9268	0.0001	0
31	SLU 74	0.01	20.57	53.45	-0.9579	-0.0007	0
31	SLU 75	0.01	20.45	53.44	-0.9518	-0.0002	0
31	SLU 76	0.01	20.34	53.36	-0.9465	0.0001	0
31	SLU 77	0.01	20.97	54.29	-0.9776	-0.0006	0
31	SLU 78	0.01	20.85	54.27	-0.9716	-0.0001	0
31	SLU 79	0.01	20.94	54.22	-0.9764	-0.0006	0
31	SLU 80	0.01	20.82	54.2	-0.9703	-0.0001	0
31	SLU 81	0.01	21.13	54.76	-0.9828	-0.0007	0
31	SLU 82	0.01	21.02	54.75	-0.9768	-0.0003	0
31	SLU 83	0.01	21.54	55.59	-1.0026	-0.0007	0
31	SLU 84	0.01	21.42	55.58	-0.9965	-0.0002	0
31	SLE RA 1	0	13.37	35.82	-0.6246	-0.0004	0
31	SLE RA 2	0.01	13.24	35.81	-0.6179	0.0001	0
31	SLE RA 3	0	13.67	36.42	-0.6386	-0.0004	0
31	SLE RA 4	0	13.59	36.42	-0.6346	-0.0001	0
31	SLE RA 5	0.01	13.51	36.36	-0.6311	0.0001	0
31	SLE RA 6	0	13.94	36.98	-0.6518	-0.0004	0
31	SLE RA 7	0	13.86	36.97	-0.6478	0	0
31	SLE RA 8	0	13.91	36.93	-0.651	-0.0003	0
31	SLE RA 9	0	13.84	36.92	-0.6469	0	0
31	SLE RA 10	0.01	14.81	39.25	-0.6894	0	0
31	SLE RA 11	0	15.24	39.86	-0.7101	-0.0005	0
31	SLE RA 12	0.01	15.16	39.85	-0.7061	-0.0002	0
31	SLE RA 13	0.01	15.08	39.8	-0.7026	0.0001	0
31	SLE RA 14	0	15.51	40.41	-0.7233	-0.0004	0
31	SLE RA 15	0.01	15.43	40.41	-0.7193	-0.0001	0
31	SLE RA 16	0	15.48	40.37	-0.7225	-0.0004	0
31	SLE RA 17	0.01	15.41	40.36	-0.7184	-0.0001	0
31	SLE RA 18	0	15.61	40.73	-0.7268	-0.0005	0
31	SLE RA 19	0.01	15.54	40.72	-0.7227	-0.0002	0
31	SLE RA 20	0	15.89	41.29	-0.7399	-0.0005	0
31	SLE RA 21	0.01	15.81	41.28	-0.7359	-0.0002	0
31	SLE FR 1	0	13.37	35.82	-0.6246	-0.0004	0
31	SLE FR 2	0	13.35	35.82	-0.6233	-0.0003	0
31	SLE FR 3	0	13.48	36.05	-0.6299	-0.0004	0
31	SLE FR 4	0	14.02	37.29	-0.6539	-0.0004	0
31	SLE FR 5	0	14.15	37.52	-0.6605	-0.0004	0
31	SLE FR 6	0	14.49	38.28	-0.6757	-0.0005	0
31	SLE QP 1	0	13.37	35.82	-0.6246	-0.0004	0
31	SLE QP 2	0	14.05	37.3	-0.6553	-0.0005	0
31	SLD 1	-0.01	19.67	46.72	-0.9225	-0.0021	0
31	SLD 2	-0.01	19.67	46.72	-0.9225	-0.0021	0
31	SLD 3	-0.02	15.38	40.88	-0.7166	-0.007	0
31	SLD 4	-0.02	15.38	40.88	-0.7166	-0.007	0
31	SLD 5	0.02	22.25	48.98	-1.0478	0.0064	0
31	SLD 6	0.02	22.25	48.98	-1.0478	0.0064	0
31	SLD 7	-0.02	7.93	29.51	-0.3613	-0.0098	-0.0001
31	SLD 8	-0.02	7.93	29.51	-0.3613	-0.0098	-0.0001
31	SLD 9	0.03	20.16	45.08	-0.9492	0.0088	0
31	SLD 10	0.03	20.16	45.08	-0.9492	0.0088	0
31	SLD 11	-0.01	5.84	25.61	-0.2627	-0.0073	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLD 12	-0.01	5.84	25.61	-0.2627	-0.0073	0
31	SLD 13	0.02	12.71	33.71	-0.594	0.0061	0
31	SLD 14	0.02	12.71	33.71	-0.594	0.0061	0
31	SLD 15	0.01	8.42	27.87	-0.388	0.0012	0
31	SLD 16	0.01	8.42	27.87	-0.388	0.0012	0
31	SLV 1	-0.02	27.26	59.46	-1.2826	-0.0047	0
31	SLV 2	-0.02	27.26	59.46	-1.2826	-0.0047	0
31	SLV 3	-0.04	17.14	45.63	-0.7976	-0.016	-0.0001
31	SLV 4	-0.04	17.14	45.63	-0.7976	-0.016	-0.0001
31	SLV 5	0.04	33.34	64.92	-1.5791	0.0155	0.0001
31	SLV 6	0.04	33.34	64.92	-1.5791	0.0155	0.0001
31	SLV 7	-0.05	-0.36	18.82	0.0377	-0.0223	-0.0001
31	SLV 8	-0.05	-0.36	18.82	0.0377	-0.0223	-0.0001
31	SLV 9	0.06	28.45	55.77	-1.3482	0.0214	0.0001
31	SLV 10	0.06	28.45	55.77	-1.3482	0.0214	0.0001
31	SLV 11	-0.03	-5.25	9.67	0.2686	-0.0164	-0.0001
31	SLV 12	-0.03	-5.25	9.67	0.2686	-0.0164	-0.0001
31	SLV 13	0.05	10.95	28.96	-0.5129	0.0151	0.0001
31	SLV 14	0.05	10.95	28.96	-0.5129	0.0151	0.0001
31	SLV 15	0.03	0.84	15.13	-0.0279	0.0038	0
31	SLV 16	0.03	0.84	15.13	-0.0279	0.0038	0
32	SLU 1	-0.01	12.39	32.71	-0.5923	-0.0021	0
32	SLU 2	-0.01	12.05	32.46	-0.576	-0.003	0
32	SLU 3	-0.01	13.28	34.22	-0.6346	-0.0023	0
32	SLU 4	-0.01	13.07	34.07	-0.6248	-0.0028	0
32	SLU 5	-0.01	12.99	34.06	-0.621	-0.0032	0
32	SLU 6	-0.01	14.21	35.82	-0.6795	-0.0025	0
32	SLU 7	-0.01	14.01	35.67	-0.6698	-0.003	0
32	SLU 8	-0.01	14.26	35.9	-0.6822	-0.0025	0
32	SLU 9	-0.01	14.06	35.75	-0.6724	-0.003	0
32	SLU 10	-0.01	13.98	37.02	-0.6667	-0.003	0
32	SLU 11	-0.01	15.2	38.78	-0.7253	-0.0023	0
32	SLU 12	-0.01	15	38.63	-0.7155	-0.0028	0
32	SLU 13	-0.01	14.91	38.61	-0.7116	-0.0032	0
32	SLU 14	-0.01	16.13	40.38	-0.7702	-0.0025	0
32	SLU 15	-0.01	15.93	40.23	-0.7604	-0.003	0
32	SLU 16	-0.01	16.18	40.46	-0.7729	-0.0025	0
32	SLU 17	-0.01	15.98	40.31	-0.7631	-0.003	0
32	SLU 18	-0.01	15.14	39.22	-0.7219	-0.0022	0
32	SLU 19	-0.01	14.94	39.07	-0.7121	-0.0027	0
32	SLU 20	-0.01	16.07	40.81	-0.7668	-0.0024	0
32	SLU 21	-0.01	15.87	40.67	-0.757	-0.0029	0
32	SLU 22	-0.01	13.87	35.63	-0.661	-0.0023	0
32	SLU 23	-0.01	13.53	35.38	-0.6446	-0.0031	0
32	SLU 24	-0.01	14.75	37.14	-0.7032	-0.0024	0
32	SLU 25	-0.01	14.55	36.99	-0.6934	-0.0029	0
32	SLU 26	-0.01	14.46	36.98	-0.6896	-0.0033	0
32	SLU 27	-0.01	15.69	38.74	-0.7482	-0.0026	0
32	SLU 28	-0.01	15.48	38.59	-0.7384	-0.0031	0
32	SLU 29	-0.01	15.73	38.82	-0.7508	-0.0026	0
32	SLU 30	-0.01	15.53	38.67	-0.7411	-0.0031	0
32	SLU 31	-0.01	15.45	39.94	-0.7353	-0.0032	0
32	SLU 32	-0.01	16.68	41.7	-0.7939	-0.0025	0
32	SLU 33	-0.01	16.47	41.55	-0.7841	-0.003	0
32	SLU 34	-0.01	16.39	41.53	-0.7803	-0.0033	0
32	SLU 35	-0.01	17.61	43.29	-0.8388	-0.0026	0
32	SLU 36	-0.01	17.41	43.15	-0.8291	-0.0032	0
32	SLU 37	-0.01	17.66	43.37	-0.8415	-0.0026	0
32	SLU 38	-0.01	17.46	43.23	-0.8317	-0.0032	0
32	SLU 39	-0.01	16.61	42.14	-0.7905	-0.0023	0
32	SLU 40	-0.01	16.41	41.99	-0.7807	-0.0028	0
32	SLU 41	-0.01	17.55	43.73	-0.8354	-0.0025	0
32	SLU 42	-0.01	17.35	43.59	-0.8256	-0.003	0
32	SLU 43	-0.01	15.6	41.52	-0.7465	-0.0027	0
32	SLU 44	-0.01	15.27	41.27	-0.7302	-0.0036	0
32	SLU 45	-0.01	16.49	43.03	-0.7888	-0.0029	0
32	SLU 46	-0.01	16.29	42.89	-0.779	-0.0034	0
32	SLU 47	-0.01	16.2	42.87	-0.7751	-0.0037	0
32	SLU 48	-0.01	17.42	44.63	-0.8337	-0.0031	0
32	SLU 49	-0.01	17.22	44.48	-0.8239	-0.0036	0
32	SLU 50	-0.01	17.47	44.71	-0.8364	-0.0031	0
32	SLU 51	-0.01	17.27	44.56	-0.8266	-0.0036	0
32	SLU 52	-0.01	17.19	45.83	-0.8209	-0.0036	0
32	SLU 53	-0.01	18.41	47.59	-0.8794	-0.0029	0
32	SLU 54	-0.01	18.21	47.44	-0.8697	-0.0034	0
32	SLU 55	-0.01	18.12	47.43	-0.8658	-0.0038	0
32	SLU 56	-0.01	19.35	49.19	-0.9244	-0.0031	0
32	SLU 57	-0.01	19.14	49.04	-0.9146	-0.0036	0
32	SLU 58	-0.01	19.4	49.27	-0.9271	-0.0031	0
32	SLU 59	-0.01	19.19	49.12	-0.9173	-0.0036	0
32	SLU 60	-0.01	18.35	48.03	-0.876	-0.0028	0
32	SLU 61	-0.01	18.15	47.88	-0.8663	-0.0033	0
32	SLU 62	-0.01	19.29	49.63	-0.921	-0.0029	0
32	SLU 63	-0.01	19.08	49.48	-0.9112	-0.0035	0
32	SLU 64	-0.01	17.08	44.44	-0.8151	-0.0029	0
32	SLU 65	-0.01	16.74	44.19	-0.7988	-0.0037	0
32	SLU 66	-0.01	17.96	45.95	-0.8574	-0.003	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
32	SLU 67	-0.01	17.76	45.81	-0.8476	-0.0035	0
32	SLU 68	-0.01	17.68	45.79	-0.8438	-0.0039	0
32	SLU 69	-0.01	18.9	47.55	-0.9023	-0.0032	0
32	SLU 70	-0.01	18.7	47.4	-0.8926	-0.0037	0
32	SLU 71	-0.01	18.95	47.63	-0.905	-0.0032	0
32	SLU 72	-0.01	18.74	47.48	-0.8952	-0.0037	0
32	SLU 73	-0.01	18.66	48.75	-0.8895	-0.0038	0
32	SLU 74	-0.01	19.89	50.51	-0.9481	-0.0031	0
32	SLU 75	-0.01	19.68	50.36	-0.9383	-0.0036	0
32	SLU 76	-0.01	19.6	50.35	-0.9344	-0.0039	0
32	SLU 77	-0.01	20.82	52.11	-0.993	-0.0032	0
32	SLU 78	-0.01	20.62	51.96	-0.9832	-0.0037	0
32	SLU 79	-0.01	20.87	52.19	-0.9957	-0.0032	0
32	SLU 80	-0.01	20.67	52.04	-0.9859	-0.0038	0
32	SLU 81	-0.01	19.83	50.95	-0.9447	-0.0029	0
32	SLU 82	-0.01	19.62	50.8	-0.9349	-0.0034	0
32	SLU 83	-0.01	20.76	52.55	-0.9896	-0.0031	0
32	SLU 84	-0.01	20.56	52.4	-0.9798	-0.0036	0
32	SLE RA 1	-0.01	12.81	33.54	-0.6119	-0.0022	0
32	SLE RA 2	-0.01	12.59	33.38	-0.6011	-0.0027	0
32	SLE RA 3	-0.01	13.4	34.55	-0.6401	-0.0023	0
32	SLE RA 4	-0.01	13.27	34.45	-0.6336	-0.0026	0
32	SLE RA 5	-0.01	13.21	34.44	-0.631	-0.0029	0
32	SLE RA 6	-0.01	14.03	35.61	-0.6701	-0.0024	0
32	SLE RA 7	-0.01	13.89	35.52	-0.6636	-0.0027	0
32	SLE RA 8	-0.01	14.06	35.67	-0.6719	-0.0024	0
32	SLE RA 9	-0.01	13.92	35.57	-0.6653	-0.0027	0
32	SLE RA 10	-0.01	13.87	36.42	-0.6615	-0.0028	0
32	SLE RA 11	-0.01	14.69	37.59	-0.7006	-0.0023	0
32	SLE RA 12	-0.01	14.55	37.49	-0.694	-0.0026	0
32	SLE RA 13	-0.01	14.49	37.48	-0.6915	-0.0029	0
32	SLE RA 14	-0.01	15.31	38.65	-0.7305	-0.0024	0
32	SLE RA 15	-0.01	15.17	38.56	-0.724	-0.0028	0
32	SLE RA 16	-0.01	15.34	38.71	-0.7323	-0.0024	0
32	SLE RA 17	-0.01	15.21	38.61	-0.7258	-0.0028	0
32	SLE RA 18	-0.01	14.64	37.88	-0.6983	-0.0022	0
32	SLE RA 19	-0.01	14.51	37.78	-0.6918	-0.0025	0
32	SLE RA 20	-0.01	15.27	38.95	-0.7283	-0.0023	0
32	SLE RA 21	-0.01	15.13	38.85	-0.7217	-0.0027	0
32	SLE FR 1	-0.01	12.81	33.54	-0.6119	-0.0022	0
32	SLE FR 2	-0.01	12.77	33.51	-0.6098	-0.0023	0
32	SLE FR 3	-0.01	13.06	33.97	-0.6239	-0.0022	0
32	SLE FR 4	-0.01	13.32	34.81	-0.6357	-0.0023	0
32	SLE FR 5	-0.01	13.61	35.27	-0.6498	-0.0022	0
32	SLE FR 6	-0.01	13.73	35.71	-0.6551	-0.0022	0
32	SLE QP 1	-0.01	12.81	33.54	-0.6119	-0.0022	0
32	SLE QP 2	-0.01	13.36	34.84	-0.6378	-0.0022	0
32	SLD 1	-0.03	18.4	43.27	-0.8776	-0.011	0
32	SLD 2	-0.03	18.4	43.27	-0.8776	-0.011	0
32	SLD 3	-0.02	14.27	37.81	-0.6798	-0.0056	0
32	SLD 4	-0.02	14.27	37.81	-0.6798	-0.0056	0
32	SLD 5	-0.03	21.13	45.66	-1.0098	-0.0129	0
32	SLD 6	-0.03	21.13	45.66	-1.0098	-0.0129	0
32	SLD 7	0.01	7.38	27.44	-0.3504	0.0049	0
32	SLD 8	0.01	7.38	27.44	-0.3504	0.0049	0
32	SLD 9	-0.02	19.35	42.25	-0.9253	-0.0092	0
32	SLD 10	-0.02	19.35	42.25	-0.9253	-0.0092	0
32	SLD 11	0.02	5.59	24.02	-0.2659	0.0085	0.0001
32	SLD 12	0.02	5.59	24.02	-0.2659	0.0085	0.0001
32	SLD 13	0	12.45	31.88	-0.5959	0.0013	0
32	SLD 14	0	12.45	31.88	-0.5959	0.0013	0
32	SLD 15	0.01	8.33	26.42	-0.3981	0.0066	0.0001
32	SLD 16	0.01	8.33	26.42	-0.3981	0.0066	0.0001
32	SLV 1	-0.05	25.19	54.66	-1.2013	-0.0235	-0.0001
32	SLV 2	-0.05	25.19	54.66	-1.2013	-0.0235	-0.0001
32	SLV 3	-0.03	15.5	41.76	-0.7364	-0.011	-0.0001
32	SLV 4	-0.03	15.5	41.76	-0.7364	-0.011	-0.0001
32	SLV 5	-0.06	31.61	60.36	-1.512	-0.0275	-0.0001
32	SLV 6	-0.06	31.61	60.36	-1.512	-0.0275	-0.0001
32	SLV 7	0.03	-0.7	17.34	0.0377	0.0141	0.0001
32	SLV 8	0.03	-0.7	17.34	0.0377	0.0141	0.0001
32	SLV 9	-0.04	27.42	52.34	-1.3134	-0.0185	0
32	SLV 10	-0.04	27.42	52.34	-1.3134	-0.0185	0
32	SLV 11	0.05	-4.89	9.32	0.2363	0.0232	0.0001
32	SLV 12	0.05	-4.89	9.32	0.2363	0.0232	0.0001
32	SLV 13	0.01	11.22	27.93	-0.5393	0.0067	0.0001
32	SLV 14	0.01	11.22	27.93	-0.5393	0.0067	0.0001
32	SLV 15	0.04	1.53	15.02	-0.0744	0.0192	0.0001
32	SLV 16	0.04	1.53	15.02	-0.0744	0.0192	0.0001
33	SLU 1	-0.06	6.53	30.11	-0.6286	-0.016	-0.0006
33	SLU 2	-0.05	5.65	28.74	-0.5737	-0.0161	-0.0006
33	SLU 3	-0.06	6.65	30.38	-0.6395	-0.0161	-0.0006
33	SLU 4	-0.06	6.12	29.56	-0.6066	-0.0162	-0.0006
33	SLU 5	-0.05	5.72	28.89	-0.5812	-0.0162	-0.0006
33	SLU 6	-0.06	6.73	30.54	-0.647	-0.0163	-0.0006
33	SLU 7	-0.06	6.2	29.71	-0.6141	-0.0163	-0.0006
33	SLU 8	-0.06	6.68	30.43	-0.6436	-0.0163	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
33	SLU 9	-0.06	6.15	29.6	-0.6107	-0.0163	-0.0006
33	SLU 10	-0.06	6.52	30.83	-0.6406	-0.0172	-0.0006
33	SLU 11	-0.06	7.53	32.47	-0.7064	-0.0172	-0.0007
33	SLU 12	-0.06	7	31.65	-0.6735	-0.0173	-0.0007
33	SLU 13	-0.06	6.6	30.98	-0.6481	-0.0173	-0.0006
33	SLU 14	-0.06	7.6	32.63	-0.7139	-0.0174	-0.0007
33	SLU 15	-0.06	7.07	31.81	-0.681	-0.0175	-0.0007
33	SLU 16	-0.06	7.56	32.52	-0.7105	-0.0174	-0.0007
33	SLU 17	-0.06	7.03	31.69	-0.6776	-0.0175	-0.0007
33	SLU 18	-0.06	7.78	33.1	-0.7241	-0.0176	-0.0007
33	SLU 19	-0.06	7.25	32.27	-0.6912	-0.0176	-0.0007
33	SLU 20	-0.06	7.86	33.26	-0.7317	-0.0177	-0.0007
33	SLU 21	-0.06	7.33	32.43	-0.6987	-0.0178	-0.0007
33	SLU 22	-0.06	7.21	31.7	-0.6793	-0.0166	-0.0006
33	SLU 23	-0.06	6.32	30.32	-0.6244	-0.0167	-0.0006
33	SLU 24	-0.06	7.33	31.97	-0.6902	-0.0168	-0.0006
33	SLU 25	-0.06	6.8	31.14	-0.6573	-0.0168	-0.0006
33	SLU 26	-0.06	6.4	30.48	-0.6319	-0.0169	-0.0006
33	SLU 27	-0.06	7.4	32.13	-0.6977	-0.0169	-0.0006
33	SLU 28	-0.06	6.87	31.3	-0.6648	-0.017	-0.0006
33	SLU 29	-0.06	7.36	32.01	-0.6943	-0.0169	-0.0006
33	SLU 30	-0.06	6.83	31.19	-0.6614	-0.017	-0.0006
33	SLU 31	-0.06	7.2	32.41	-0.6913	-0.0178	-0.0007
33	SLU 32	-0.06	8.2	34.06	-0.7571	-0.0179	-0.0007
33	SLU 33	-0.06	7.67	33.23	-0.7242	-0.0179	-0.0007
33	SLU 34	-0.06	7.27	32.57	-0.6988	-0.018	-0.0007
33	SLU 35	-0.06	8.28	34.22	-0.7646	-0.018	-0.0007
33	SLU 36	-0.06	7.75	33.39	-0.7317	-0.0181	-0.0007
33	SLU 37	-0.06	8.23	34.1	-0.7612	-0.018	-0.0007
33	SLU 38	-0.06	7.7	33.28	-0.7283	-0.0181	-0.0007
33	SLU 39	-0.06	8.46	34.69	-0.7748	-0.0182	-0.0007
33	SLU 40	-0.06	7.93	33.86	-0.7419	-0.0183	-0.0007
33	SLU 41	-0.06	8.53	34.84	-0.7824	-0.0184	-0.0007
33	SLU 42	-0.06	8	34.02	-0.7494	-0.0184	-0.0007
33	SLU 43	-0.07	8.26	38.6	-0.7997	-0.0205	-0.0007
33	SLU 44	-0.07	7.38	37.22	-0.7449	-0.0206	-0.0007
33	SLU 45	-0.07	8.38	38.87	-0.8107	-0.0207	-0.0007
33	SLU 46	-0.07	7.85	38.05	-0.7778	-0.0208	-0.0007
33	SLU 47	-0.07	7.45	37.38	-0.7524	-0.0208	-0.0007
33	SLU 48	-0.07	8.46	39.03	-0.8182	-0.0209	-0.0007
33	SLU 49	-0.07	7.93	38.2	-0.7853	-0.0209	-0.0007
33	SLU 50	-0.07	8.41	38.92	-0.8148	-0.0209	-0.0007
33	SLU 51	-0.07	7.88	38.09	-0.7819	-0.0209	-0.0007
33	SLU 52	-0.07	8.25	39.32	-0.8118	-0.0217	-0.0008
33	SLU 53	-0.08	9.26	40.96	-0.8776	-0.0218	-0.0008
33	SLU 54	-0.08	8.73	40.14	-0.8447	-0.0219	-0.0008
33	SLU 55	-0.07	8.33	39.47	-0.8193	-0.0219	-0.0008
33	SLU 56	-0.08	9.33	41.12	-0.8851	-0.022	-0.0008
33	SLU 57	-0.08	8.8	40.29	-0.8522	-0.022	-0.0008
33	SLU 58	-0.08	9.29	41.01	-0.8817	-0.022	-0.0008
33	SLU 59	-0.08	8.76	40.18	-0.8488	-0.022	-0.0008
33	SLU 60	-0.08	9.51	41.59	-0.8953	-0.0221	-0.0008
33	SLU 61	-0.08	8.98	40.76	-0.8624	-0.0222	-0.0008
33	SLU 62	-0.08	9.59	41.75	-0.9028	-0.0223	-0.0008
33	SLU 63	-0.08	9.06	40.92	-0.8699	-0.0223	-0.0008
33	SLU 64	-0.08	8.93	40.19	-0.8504	-0.0212	-0.0008
33	SLU 65	-0.07	8.05	38.81	-0.7956	-0.0213	-0.0008
33	SLU 66	-0.08	9.05	40.46	-0.8614	-0.0213	-0.0008
33	SLU 67	-0.07	8.52	39.63	-0.8285	-0.0214	-0.0008
33	SLU 68	-0.07	8.13	38.97	-0.8031	-0.0214	-0.0008
33	SLU 69	-0.08	9.13	40.62	-0.8689	-0.0215	-0.0008
33	SLU 70	-0.07	8.69	39.79	-0.836	-0.0215	-0.0008
33	SLU 71	-0.08	9.09	40.5	-0.8655	-0.0215	-0.0008
33	SLU 72	-0.07	8.56	39.68	-0.8326	-0.0215	-0.0008
33	SLU 73	-0.08	8.93	40.9	-0.8625	-0.0224	-0.0008
33	SLU 74	-0.08	9.93	42.55	-0.9283	-0.0225	-0.0009
33	SLU 75	-0.08	9.4	41.72	-0.8954	-0.0225	-0.0009
33	SLU 76	-0.08	9	41.06	-0.87	-0.0225	-0.0009
33	SLU 77	-0.08	10.01	42.71	-0.9358	-0.0226	-0.0009
33	SLU 78	-0.08	9.48	41.88	-0.9029	-0.0227	-0.0009
33	SLU 79	-0.08	9.96	42.59	-0.9324	-0.0226	-0.0009
33	SLU 80	-0.08	9.43	41.77	-0.8995	-0.0227	-0.0009
33	SLU 81	-0.08	10.19	43.18	-0.946	-0.0228	-0.0009
33	SLU 82	-0.08	9.66	42.35	-0.9131	-0.0228	-0.0009
33	SLU 83	-0.08	10.26	43.33	-0.9535	-0.0229	-0.0009
33	SLU 84	-0.08	9.73	42.51	-0.9206	-0.023	-0.0009
33	SLE RA 1	-0.06	6.72	30.57	-0.643	-0.0162	-0.0006
33	SLE RA 2	-0.06	6.14	29.65	-0.6065	-0.0162	-0.0006
33	SLE RA 3	-0.06	6.8	30.75	-0.6503	-0.0163	-0.0006
33	SLE RA 4	-0.06	6.45	30.19	-0.6284	-0.0163	-0.0006
33	SLE RA 5	-0.06	6.19	29.75	-0.6115	-0.0163	-0.0006
33	SLE RA 6	-0.06	6.85	30.85	-0.6554	-0.0164	-0.0006
33	SLE RA 7	-0.06	6.5	30.3	-0.6334	-0.0164	-0.0006
33	SLE RA 8	-0.06	6.83	30.78	-0.6531	-0.0164	-0.0006
33	SLE RA 9	-0.06	6.47	30.22	-0.6311	-0.0164	-0.0006
33	SLE RA 10	-0.06	6.72	31.04	-0.6511	-0.017	-0.0006
33	SLE RA 11	-0.06	7.39	32.14	-0.6949	-0.017	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
33	SLE RA 12	-0.06	7.04	31.59	-0.673	-0.017	-0.0006
33	SLE RA 13	-0.06	6.77	31.15	-0.6561	-0.0171	-0.0006
33	SLE RA 14	-0.06	7.44	32.24	-0.7	-0.0171	-0.0006
33	SLE RA 15	-0.06	7.09	31.69	-0.678	-0.0171	-0.0006
33	SLE RA 16	-0.06	7.41	32.17	-0.6977	-0.0171	-0.0006
33	SLE RA 17	-0.06	7.06	31.62	-0.6757	-0.0171	-0.0006
33	SLE RA 18	-0.06	7.56	32.56	-0.7067	-0.0172	-0.0007
33	SLE RA 19	-0.06	7.21	32.01	-0.6848	-0.0173	-0.0007
33	SLE RA 20	-0.06	7.61	32.66	-0.7118	-0.0173	-0.0007
33	SLE RA 21	-0.06	7.26	32.11	-0.6898	-0.0174	-0.0007
33	SLE FR 1	-0.06	6.72	30.57	-0.643	-0.0162	-0.0006
33	SLE FR 2	-0.06	6.61	30.38	-0.6357	-0.0162	-0.0006
33	SLE FR 3	-0.06	6.74	30.61	-0.6451	-0.0162	-0.0006
33	SLE FR 4	-0.06	6.86	30.98	-0.6548	-0.0165	-0.0006
33	SLE FR 5	-0.06	7	31.2	-0.6642	-0.0165	-0.0006
33	SLE FR 6	-0.06	7.14	31.56	-0.6749	-0.0167	-0.0006
33	SLE QP 1	-0.06	6.72	30.57	-0.643	-0.0162	-0.0006
33	SLE QP 2	-0.06	6.97	31.16	-0.6622	-0.0165	-0.0006
33	SLD 1	-0.04	7.49	26.78	-0.6452	-0.0106	-0.0005
33	SLD 2	-0.04	7.49	26.78	-0.6452	-0.0106	-0.0005
33	SLD 3	0	4.36	21.23	-0.4376	0.001	-0.0005
33	SLD 4	0	4.36	21.23	-0.4376	0.001	-0.0005
33	SLD 5	-0.1	11.87	38.27	-0.9719	-0.0323	-0.0007
33	SLD 6	-0.1	11.87	38.27	-0.9719	-0.0323	-0.0007
33	SLD 7	0.01	1.45	19.76	-0.2799	0.0063	-0.0005
33	SLD 8	0.01	1.45	19.76	-0.2799	0.0063	-0.0005
33	SLD 9	-0.13	12.5	42.57	-1.0444	-0.0392	-0.0007
33	SLD 10	-0.13	12.5	42.57	-1.0444	-0.0392	-0.0007
33	SLD 11	-0.01	2.08	24.05	-0.3524	-0.0007	-0.0005
33	SLD 12	-0.01	2.08	24.05	-0.3524	-0.0007	-0.0005
33	SLD 13	-0.11	9.59	41.1	-0.8867	-0.0339	-0.0007
33	SLD 14	-0.11	9.59	41.1	-0.8867	-0.0339	-0.0007
33	SLD 15	-0.08	6.46	35.54	-0.6791	-0.0223	-0.0007
33	SLD 16	-0.08	6.46	35.54	-0.6791	-0.0223	-0.0007
33	SLV 1	-0.01	8.28	21.24	-0.633	-0.0031	-0.0004
33	SLV 2	-0.01	8.28	21.24	-0.633	-0.0031	-0.0004
33	SLV 3	0.07	0.67	7.54	-0.1223	0.0246	-0.0003
33	SLV 4	0.07	0.67	7.54	-0.1223	0.0246	-0.0003
33	SLV 5	-0.17	18.9	48.97	-1.428	-0.0544	-0.0008
33	SLV 6	-0.17	18.9	48.97	-1.428	-0.0544	-0.0008
33	SLV 7	0.1	-6.45	3.29	0.2743	0.0378	-0.0003
33	SLV 8	0.1	-6.45	3.29	0.2743	0.0378	-0.0003
33	SLV 9	-0.22	20.4	59.03	-1.5987	-0.0708	-0.0009
33	SLV 10	-0.22	20.4	59.03	-1.5987	-0.0708	-0.0009
33	SLV 11	0.05	-4.95	13.36	0.1037	0.0215	-0.0005
33	SLV 12	0.05	-4.95	13.36	0.1037	0.0215	-0.0005
33	SLV 13	-0.19	13.28	54.78	-1.202	-0.0575	-0.0009
33	SLV 14	-0.19	13.28	54.78	-1.202	-0.0575	-0.0009
33	SLV 15	-0.1	5.67	41.08	-0.6913	-0.0299	-0.0008
33	SLV 16	-0.1	5.67	41.08	-0.6913	-0.0299	-0.0008
34	SLU 1	0.01	0.38	25.49	0.0455	0.0018	0.0001
34	SLU 2	0.01	-0.33	25.61	0.0914	0.0041	0.0001
34	SLU 3	0.01	0.37	25.58	0.0473	0.0018	0.0001
34	SLU 4	0.01	-0.05	25.66	0.0749	0.0032	0.0001
34	SLU 5	0.01	-0.36	25.49	0.0936	0.0041	0.0001
34	SLU 6	0.01	0.34	25.46	0.0495	0.0018	0.0001
34	SLU 7	0.01	-0.08	25.54	0.077	0.0032	0.0001
34	SLU 8	0.01	0.32	25.25	0.0498	0.0019	0.0001
34	SLU 9	0.01	-0.1	25.32	0.0773	0.0033	0.0001
34	SLU 10	0.02	-0.08	28.52	0.0908	0.0045	0.0001
34	SLU 11	0.01	0.62	28.49	0.0467	0.0022	0.0001
34	SLU 12	0.01	0.2	28.56	0.0743	0.0036	0.0001
34	SLU 13	0.02	-0.1	28.4	0.0929	0.0046	0.0001
34	SLU 14	0.01	0.59	28.37	0.0489	0.0023	0.0001
34	SLU 15	0.01	0.17	28.44	0.0764	0.0037	0.0001
34	SLU 16	0.01	0.57	28.15	0.0492	0.0023	0.0001
34	SLU 17	0.01	0.15	28.23	0.0767	0.0037	0.0001
34	SLU 18	0.01	0.74	29.64	0.0446	0.0024	0.0001
34	SLU 19	0.01	0.31	29.72	0.0722	0.0038	0.0001
34	SLU 20	0.01	0.71	29.52	0.0468	0.0025	0.0001
34	SLU 21	0.01	0.29	29.6	0.0743	0.0039	0.0001
34	SLU 22	0.01	0.56	27.64	0.0458	0.0021	0.0001
34	SLU 23	0.02	-0.15	27.77	0.0918	0.0044	0.0001
34	SLU 24	0.01	0.55	27.73	0.0477	0.0021	0.0001
34	SLU 25	0.01	0.13	27.81	0.0752	0.0035	0.0001
34	SLU 26	0.01	-0.17	27.65	0.0939	0.0045	0.0001
34	SLU 27	0.01	0.52	27.61	0.0498	0.0022	0.0001
34	SLU 28	0.01	0.1	27.69	0.0774	0.0036	0.0001
34	SLU 29	0.01	0.51	27.4	0.0501	0.0022	0.0001
34	SLU 30	0.01	0.08	27.47	0.0776	0.0036	0.0001
34	SLU 31	0.02	0.11	30.67	0.0911	0.0049	0.0001
34	SLU 32	0.01	0.8	30.64	0.0471	0.0026	0.0001
34	SLU 33	0.01	0.38	30.72	0.0746	0.004	0.0001
34	SLU 34	0.02	0.08	30.55	0.0933	0.0049	0.0001
34	SLU 35	0.01	0.78	30.52	0.0492	0.0026	0.0001
34	SLU 36	0.01	0.35	30.6	0.0767	0.004	0.0001
34	SLU 37	0.01	0.76	30.31	0.0495	0.0027	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
34	SLU 38	0.01	0.33	30.38	0.077	0.0041	0.0001
34	SLU 39	0.01	0.92	31.79	0.045	0.0028	0.0001
34	SLU 40	0.02	0.5	31.87	0.0725	0.0041	0.0001
34	SLU 41	0.01	0.89	31.67	0.0471	0.0028	0.0001
34	SLU 42	0.02	0.47	31.75	0.0746	0.0042	0.0001
34	SLU 43	0.01	0.43	32.39	0.059	0.0022	0.0001
34	SLU 44	0.02	-0.28	32.52	0.105	0.0045	0.0001
34	SLU 45	0.01	0.42	32.49	0.0609	0.0022	0.0001
34	SLU 46	0.01	0	32.56	0.0884	0.0036	0.0001
34	SLU 47	0.02	-0.3	32.4	0.1071	0.0045	0.0001
34	SLU 48	0.01	0.39	32.37	0.063	0.0023	0.0001
34	SLU 49	0.01	-0.03	32.44	0.0906	0.0036	0.0001
34	SLU 50	0.01	0.38	32.15	0.0633	0.0023	0.0001
34	SLU 51	0.01	-0.05	32.23	0.0909	0.0037	0.0001
34	SLU 52	0.02	-0.02	35.43	0.1043	0.0049	0.0001
34	SLU 53	0.01	0.67	35.39	0.0603	0.0027	0.0001
34	SLU 54	0.02	0.25	35.47	0.0878	0.004	0.0001
34	SLU 55	0.02	-0.05	35.31	0.1065	0.005	0.0001
34	SLU 56	0.01	0.64	35.27	0.0624	0.0027	0.0001
34	SLU 57	0.02	0.22	35.35	0.0899	0.0041	0.0001
34	SLU 58	0.01	0.63	35.06	0.0627	0.0028	0.0001
34	SLU 59	0.02	0.2	35.14	0.0902	0.0041	0.0001
34	SLU 60	0.01	0.79	36.55	0.0582	0.0028	0.0001
34	SLU 61	0.02	0.37	36.62	0.0857	0.0042	0.0001
34	SLU 62	0.01	0.76	36.43	0.0603	0.0029	0.0001
34	SLU 63	0.02	0.34	36.5	0.0878	0.0043	0.0001
34	SLU 64	0.01	0.61	34.55	0.0594	0.0025	0.0001
34	SLU 65	0.02	-0.09	34.67	0.1053	0.0048	0.0001
34	SLU 66	0.01	0.6	34.64	0.0612	0.0026	0.0001
34	SLU 67	0.01	0.18	34.72	0.0888	0.0039	0.0001
34	SLU 68	0.02	-0.12	34.55	0.1074	0.0049	0.0001
34	SLU 69	0.01	0.58	34.52	0.0633	0.0026	0.0001
34	SLU 70	0.01	0.15	34.6	0.0909	0.004	0.0001
34	SLU 71	0.01	0.56	34.31	0.0636	0.0027	0.0001
34	SLU 72	0.01	0.13	34.38	0.0912	0.004	0.0001
34	SLU 73	0.02	0.16	37.58	0.1047	0.0053	0.0001
34	SLU 74	0.01	0.86	37.55	0.0606	0.003	0.0001
34	SLU 75	0.02	0.43	37.62	0.0881	0.0044	0.0001
34	SLU 76	0.02	0.13	37.46	0.1068	0.0053	0.0001
34	SLU 77	0.01	0.83	37.43	0.0627	0.0031	0.0001
34	SLU 78	0.02	0.4	37.5	0.0903	0.0044	0.0001
34	SLU 79	0.01	0.81	37.21	0.063	0.0031	0.0001
34	SLU 80	0.02	0.38	37.29	0.0906	0.0045	0.0001
34	SLU 81	0.01	0.97	38.7	0.0585	0.0032	0.0001
34	SLU 82	0.02	0.55	38.78	0.086	0.0046	0.0001
34	SLU 83	0.01	0.94	38.58	0.0606	0.0032	0.0001
34	SLU 84	0.02	0.52	38.66	0.0882	0.0046	0.0001
34	SLE RA 1	0.01	0.43	26.1	0.0456	0.0019	0.0001
34	SLE RA 2	0.01	-0.04	26.19	0.0762	0.0034	0.0001
34	SLE RA 3	0.01	0.43	26.16	0.0468	0.0019	0.0001
34	SLE RA 4	0.01	0.14	26.21	0.0652	0.0028	0.0001
34	SLE RA 5	0.01	-0.06	26.11	0.0776	0.0034	0.0001
34	SLE RA 6	0.01	0.41	26.08	0.0482	0.0019	0.0001
34	SLE RA 7	0.01	0.12	26.13	0.0666	0.0028	0.0001
34	SLE RA 8	0.01	0.39	25.94	0.0484	0.002	0.0001
34	SLE RA 9	0.01	0.11	25.99	0.0668	0.0029	0.0001
34	SLE RA 10	0.01	0.13	28.13	0.0758	0.0037	0.0001
34	SLE RA 11	0.01	0.59	28.1	0.0464	0.0022	0.0001
34	SLE RA 12	0.01	0.31	28.15	0.0648	0.0031	0.0001
34	SLE RA 13	0.01	0.11	28.04	0.0772	0.0037	0.0001
34	SLE RA 14	0.01	0.57	28.02	0.0478	0.0022	0.0001
34	SLE RA 15	0.01	0.29	28.07	0.0662	0.0031	0.0001
34	SLE RA 16	0.01	0.56	27.88	0.048	0.0023	0.0001
34	SLE RA 17	0.01	0.28	27.93	0.0664	0.0032	0.0001
34	SLE RA 18	0.01	0.67	28.87	0.045	0.0023	0.0001
34	SLE RA 19	0.01	0.39	28.92	0.0634	0.0032	0.0001
34	SLE RA 20	0.01	0.65	28.79	0.0464	0.0023	0.0001
34	SLE RA 21	0.01	0.37	28.84	0.0648	0.0033	0.0001
34	SLE FR 1	0.01	0.43	26.1	0.0456	0.0019	0.0001
34	SLE FR 2	0.01	0.34	26.12	0.0517	0.0022	0.0001
34	SLE FR 3	0.01	0.42	26.07	0.0462	0.0019	0.0001
34	SLE FR 4	0.01	0.41	26.95	0.0515	0.0023	0.0001
34	SLE FR 5	0.01	0.5	26.9	0.046	0.002	0.0001
34	SLE FR 6	0.01	0.55	27.49	0.0453	0.0021	0.0001
34	SLE QP 1	0.01	0.43	26.1	0.0456	0.0019	0.0001
34	SLE QP 2	0.01	0.5	26.93	0.0454	0.002	0.0001
34	SLD 1	0.05	0.48	25.89	0.0437	0.0176	0.0002
34	SLD 2	0.05	0.48	25.89	0.0437	0.0176	0.0002
34	SLD 3	0.01	-1.5	23.23	0.1554	0.0045	0.0001
34	SLD 4	0.01	-1.5	23.23	0.1554	0.0045	0.0001
34	SLD 5	0.08	3.49	30.64	-0.1246	0.0265	0.0002
34	SLD 6	0.08	3.49	30.64	-0.1246	0.0265	0.0002
34	SLD 7	-0.05	-3.09	21.8	0.2479	-0.0171	0
34	SLD 8	-0.05	-3.09	21.8	0.2479	-0.0171	0
34	SLD 9	0.07	4.1	32.07	-0.1571	0.0211	0.0001
34	SLD 10	0.07	4.1	32.07	-0.1571	0.0211	0.0001
34	SLD 11	-0.06	-2.48	23.22	0.2154	-0.0225	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
34	SLD 12	-0.06	-2.48	23.22	0.2154	-0.0225	0
34	SLD 13	0.01	2.5	30.63	-0.0646	-0.0004	0
34	SLD 14	0.01	2.5	30.63	-0.0646	-0.0004	0
34	SLD 15	-0.03	0.53	27.98	0.0472	-0.0135	0
34	SLD 16	-0.03	0.53	27.98	0.0472	-0.0135	0
34	SLV 1	0.1	0.49	24.64	0.0387	0.0388	0.0003
34	SLV 2	0.1	0.49	24.64	0.0387	0.0388	0.0003
34	SLV 3	0.01	-4.24	18.06	0.3068	0.0073	0.0002
34	SLV 4	0.01	-4.24	18.06	0.3068	0.0073	0.0002
34	SLV 5	0.17	7.68	36.22	-0.3633	0.0607	0.0003
34	SLV 6	0.17	7.68	36.22	-0.3633	0.0607	0.0003
34	SLV 7	-0.13	-8.1	14.29	0.5305	-0.0441	-0.0001
34	SLV 8	-0.13	-8.1	14.29	0.5305	-0.0441	-0.0001
34	SLV 9	0.14	9.11	39.57	-0.4397	0.0481	0.0002
34	SLV 10	0.14	9.11	39.57	-0.4397	0.0481	0.0002
34	SLV 11	-0.16	-6.67	17.64	0.4541	-0.0567	-0.0002
34	SLV 12	-0.16	-6.67	17.64	0.4541	-0.0567	-0.0002
34	SLV 13	0.01	5.25	35.8	-0.216	-0.0033	0
34	SLV 14	0.01	5.25	35.8	-0.216	-0.0033	0
34	SLV 15	-0.08	0.52	29.22	0.0522	-0.0348	-0.0001
34	SLV 16	-0.08	0.52	29.22	0.0522	-0.0348	-0.0001
35	SLU 1	0.01	9.45	40.79	-0.3366	-0.0022	-0.0001
35	SLU 2	0.01	9.28	41.02	-0.3272	-0.0012	-0.0001
35	SLU 3	0.01	9.79	41.74	-0.3501	-0.0021	-0.0001
35	SLU 4	0.01	9.69	41.88	-0.3445	-0.0016	-0.0001
35	SLU 5	0.01	9.59	41.84	-0.3396	-0.0012	-0.0001
35	SLU 6	0.01	10.1	42.56	-0.3626	-0.0021	-0.0001
35	SLU 7	0.01	10	42.7	-0.3569	-0.0015	-0.0001
35	SLU 8	0.01	10.06	42.42	-0.3615	-0.002	-0.0001
35	SLU 9	0.01	9.96	42.56	-0.3558	-0.0015	-0.0001
35	SLU 10	0.01	11.14	47.41	-0.3946	-0.0017	-0.0001
35	SLU 11	0.01	11.65	48.13	-0.4175	-0.0026	-0.0002
35	SLU 12	0.01	11.55	48.27	-0.4118	-0.002	-0.0001
35	SLU 13	0.01	11.45	48.23	-0.407	-0.0016	-0.0001
35	SLU 14	0.01	11.95	48.95	-0.4299	-0.0025	-0.0002
35	SLU 15	0.01	11.85	49.09	-0.4243	-0.002	-0.0002
35	SLU 16	0.01	11.92	48.82	-0.4289	-0.0025	-0.0002
35	SLU 17	0.01	11.82	48.95	-0.4232	-0.0019	-0.0002
35	SLU 18	0.01	12.11	49.92	-0.4329	-0.0028	-0.0002
35	SLU 19	0.01	12.01	50.06	-0.4272	-0.0023	-0.0002
35	SLU 20	0.01	12.41	50.74	-0.4453	-0.0027	-0.0002
35	SLU 21	0.01	12.31	50.88	-0.4397	-0.0022	-0.0002
35	SLU 22	0.01	10.56	44.45	-0.3762	-0.0026	-0.0001
35	SLU 23	0.01	10.39	44.68	-0.3668	-0.0016	-0.0001
35	SLU 24	0.01	10.9	45.4	-0.3897	-0.0025	-0.0001
35	SLU 25	0.01	10.8	45.54	-0.3841	-0.002	-0.0001
35	SLU 26	0.01	10.69	45.5	-0.3793	-0.0016	-0.0001
35	SLU 27	0.01	11.2	46.22	-0.4022	-0.0025	-0.0001
35	SLU 28	0.01	11.1	46.36	-0.3965	-0.0019	-0.0001
35	SLU 29	0.01	11.17	46.08	-0.4011	-0.0024	-0.0001
35	SLU 30	0.01	11.06	46.22	-0.3955	-0.0019	-0.0001
35	SLU 31	0.02	12.25	51.07	-0.4342	-0.0021	-0.0002
35	SLU 32	0.01	12.75	51.79	-0.4571	-0.003	-0.0002
35	SLU 33	0.01	12.65	51.93	-0.4515	-0.0024	-0.0002
35	SLU 34	0.02	12.55	51.89	-0.4466	-0.002	-0.0002
35	SLU 35	0.01	13.06	52.61	-0.4696	-0.0029	-0.0002
35	SLU 36	0.01	12.96	52.75	-0.4639	-0.0024	-0.0002
35	SLU 37	0.01	13.02	52.48	-0.4685	-0.0029	-0.0002
35	SLU 38	0.01	12.92	52.61	-0.4628	-0.0023	-0.0002
35	SLU 39	0.01	13.21	53.58	-0.4725	-0.0032	-0.0002
35	SLU 40	0.01	13.11	53.72	-0.4669	-0.0027	-0.0002
35	SLU 41	0.01	13.52	54.4	-0.4849	-0.0031	-0.0002
35	SLU 42	0.01	13.41	54.54	-0.4793	-0.0026	-0.0002
35	SLU 43	0.01	11.91	51.77	-0.424	-0.0027	-0.0002
35	SLU 44	0.02	11.74	52	-0.4146	-0.0018	-0.0001
35	SLU 45	0.01	12.25	52.72	-0.4375	-0.0026	-0.0002
35	SLU 46	0.01	12.15	52.86	-0.4319	-0.0021	-0.0002
35	SLU 47	0.02	12.05	52.82	-0.427	-0.0017	-0.0001
35	SLU 48	0.01	12.55	53.54	-0.45	-0.0026	-0.0002
35	SLU 49	0.01	12.45	53.68	-0.4443	-0.002	-0.0002
35	SLU 50	0.01	12.52	53.41	-0.4489	-0.0026	-0.0002
35	SLU 51	0.01	12.42	53.55	-0.4432	-0.002	-0.0002
35	SLU 52	0.02	13.6	58.39	-0.482	-0.0022	-0.0002
35	SLU 53	0.01	14.11	59.12	-0.5049	-0.0031	-0.0002
35	SLU 54	0.02	14.01	59.26	-0.4992	-0.0025	-0.0002
35	SLU 55	0.02	13.9	59.21	-0.4944	-0.0021	-0.0002
35	SLU 56	0.01	14.41	59.93	-0.5173	-0.003	-0.0002
35	SLU 57	0.02	14.31	60.07	-0.5117	-0.0025	-0.0002
35	SLU 58	0.01	14.38	59.8	-0.5163	-0.003	-0.0002
35	SLU 59	0.02	14.28	59.94	-0.5106	-0.0025	-0.0002
35	SLU 60	0.01	14.57	60.9	-0.5203	-0.0033	-0.0002
35	SLU 61	0.02	14.46	61.04	-0.5146	-0.0028	-0.0002
35	SLU 62	0.01	14.87	61.72	-0.5327	-0.0033	-0.0002
35	SLU 63	0.02	14.77	61.86	-0.5271	-0.0027	-0.0002
35	SLU 64	0.01	13.02	55.43	-0.4636	-0.0031	-0.0002
35	SLU 65	0.02	12.85	55.66	-0.4542	-0.0022	-0.0002
35	SLU 66	0.01	13.36	56.38	-0.4771	-0.003	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
35	SLU 67	0.02	13.25	56.52	-0.4715	-0.0025	-0.0002
35	SLU 68	0.02	13.15	56.48	-0.4667	-0.0021	-0.0002
35	SLU 69	0.01	13.66	57.2	-0.4896	-0.003	-0.0002
35	SLU 70	0.02	13.56	57.34	-0.4839	-0.0024	-0.0002
35	SLU 71	0.01	13.62	57.07	-0.4885	-0.003	-0.0002
35	SLU 72	0.02	13.52	57.2	-0.4829	-0.0024	-0.0002
35	SLU 73	0.02	14.7	62.05	-0.5216	-0.0026	-0.0002
35	SLU 74	0.01	15.21	62.78	-0.5445	-0.0035	-0.0002
35	SLU 75	0.02	15.11	62.91	-0.5389	-0.0029	-0.0002
35	SLU 76	0.02	15.01	62.87	-0.534	-0.0025	-0.0002
35	SLU 77	0.01	15.52	63.59	-0.557	-0.0034	-0.0002
35	SLU 78	0.02	15.41	63.73	-0.5513	-0.0029	-0.0002
35	SLU 79	0.01	15.48	63.46	-0.5559	-0.0034	-0.0002
35	SLU 80	0.02	15.38	63.6	-0.5502	-0.0029	-0.0002
35	SLU 81	0.02	15.67	64.56	-0.5599	-0.0037	-0.0002
35	SLU 82	0.02	15.57	64.7	-0.5543	-0.0032	-0.0002
35	SLU 83	0.02	15.97	65.38	-0.5723	-0.0037	-0.0002
35	SLU 84	0.02	15.87	65.52	-0.5667	-0.0031	-0.0002
35	SLE RA 1	0.01	9.77	41.83	-0.3479	-0.0023	-0.0001
35	SLE RA 2	0.01	9.66	41.99	-0.3417	-0.0017	-0.0001
35	SLE RA 3	0.01	10	42.47	-0.3569	-0.0023	-0.0001
35	SLE RA 4	0.01	9.93	42.56	-0.3532	-0.0019	-0.0001
35	SLE RA 5	0.01	9.86	42.53	-0.35	-0.0016	-0.0001
35	SLE RA 6	0.01	10.2	43.02	-0.3652	-0.0022	-0.0001
35	SLE RA 7	0.01	10.13	43.11	-0.3615	-0.0018	-0.0001
35	SLE RA 8	0.01	10.18	42.93	-0.3645	-0.0022	-0.0001
35	SLE RA 9	0.01	10.11	43.02	-0.3608	-0.0018	-0.0001
35	SLE RA 10	0.01	10.9	46.25	-0.3866	-0.002	-0.0001
35	SLE RA 11	0.01	11.23	46.73	-0.4019	-0.0026	-0.0002
35	SLE RA 12	0.01	11.17	46.82	-0.3981	-0.0022	-0.0001
35	SLE RA 13	0.01	11.1	46.8	-0.3949	-0.0019	-0.0001
35	SLE RA 14	0.01	11.44	47.28	-0.4102	-0.0025	-0.0002
35	SLE RA 15	0.01	11.37	47.37	-0.4064	-0.0021	-0.0001
35	SLE RA 16	0.01	11.41	47.19	-0.4094	-0.0025	-0.0002
35	SLE RA 17	0.01	11.35	47.28	-0.4057	-0.0021	-0.0001
35	SLE RA 18	0.01	11.54	47.92	-0.4121	-0.0027	-0.0002
35	SLE RA 19	0.01	11.47	48.01	-0.4083	-0.0023	-0.0002
35	SLE RA 20	0.01	11.74	48.47	-0.4204	-0.0027	-0.0002
35	SLE RA 21	0.01	11.67	48.56	-0.4166	-0.0023	-0.0002
35	SLE FR 1	0.01	9.77	41.83	-0.3479	-0.0023	-0.0001
35	SLE FR 2	0.01	9.75	41.87	-0.3467	-0.0022	-0.0001
35	SLE FR 3	0.01	9.85	42.05	-0.3513	-0.0023	-0.0001
35	SLE FR 4	0.01	10.28	43.69	-0.3659	-0.0023	-0.0001
35	SLE FR 5	0.01	10.38	43.88	-0.3705	-0.0024	-0.0001
35	SLE FR 6	0.01	10.65	44.88	-0.38	-0.0025	-0.0001
35	SLE QP 1	0.01	9.77	41.83	-0.3479	-0.0023	-0.0001
35	SLE QP 2	0.01	10.3	43.66	-0.3672	-0.0024	-0.0001
35	SLD 1	0	15.07	39.29	-0.5653	-0.0137	-0.0003
35	SLD 2	0	15.07	39.29	-0.5653	-0.0137	-0.0003
35	SLD 3	-0.03	11.25	34.18	-0.3978	-0.0053	-0.0002
35	SLD 4	-0.03	11.25	34.18	-0.3978	-0.0053	-0.0002
35	SLD 5	0.04	17.53	50.1	-0.6808	-0.0184	-0.0003
35	SLD 6	0.04	17.53	50.1	-0.6808	-0.0184	-0.0003
35	SLD 7	-0.04	4.79	33.07	-0.1222	0.0093	-0.0001
35	SLD 8	-0.04	4.79	33.07	-0.1222	0.0093	-0.0001
35	SLD 9	0.06	15.81	54.25	-0.6122	-0.0141	-0.0002
35	SLD 10	0.06	15.81	54.25	-0.6122	-0.0141	-0.0002
35	SLD 11	-0.02	3.08	37.23	-0.0536	0.0136	0
35	SLD 12	-0.02	3.08	37.23	-0.0536	0.0136	0
35	SLD 13	0.05	9.35	53.14	-0.3366	0.0005	-0.0001
35	SLD 14	0.05	9.35	53.14	-0.3366	0.0005	-0.0001
35	SLD 15	0.02	5.53	48.04	-0.1691	0.0088	0
35	SLD 16	0.02	5.53	48.04	-0.1691	0.0088	0
35	SLV 1	-0.02	21.48	33.47	-0.8319	-0.0295	-0.0004
35	SLV 2	-0.02	21.48	33.47	-0.8319	-0.0295	-0.0004
35	SLV 3	-0.08	12.5	21.37	-0.4384	-0.01	-0.0003
35	SLV 4	-0.08	12.5	21.37	-0.4384	-0.01	-0.0003
35	SLV 5	0.08	27.27	58.96	-1.1034	-0.04	-0.0005
35	SLV 6	0.08	27.27	58.96	-1.1034	-0.04	-0.0005
35	SLV 7	-0.1	-2.65	18.62	0.2083	0.0248	0.0001
35	SLV 8	-0.1	-2.65	18.62	0.2083	0.0248	0.0001
35	SLV 9	0.12	23.26	68.7	-0.9426	-0.0296	-0.0003
35	SLV 10	0.12	23.26	68.7	-0.9426	-0.0296	-0.0003
35	SLV 11	-0.06	-6.67	28.36	0.369	0.0352	0.0002
35	SLV 12	-0.06	-6.67	28.36	0.369	0.0352	0.0002
35	SLV 13	0.1	8.1	65.96	-0.296	0.0052	0
35	SLV 14	0.1	8.1	65.96	-0.296	0.0052	0
35	SLV 15	0.04	-0.88	53.85	0.0975	0.0246	0.0002
35	SLV 16	0.04	-0.88	53.85	0.0975	0.0246	0.0002
36	SLU 1	-0.02	9.05	37.87	-0.3065	-0.0026	0.0001
36	SLU 2	-0.03	8.75	37.79	-0.2922	-0.0037	0.0001
36	SLU 3	-0.02	9.78	39.45	-0.3357	-0.0029	0.0001
36	SLU 4	-0.03	9.6	39.41	-0.3271	-0.0035	0.0001
36	SLU 5	-0.03	9.52	39.4	-0.3231	-0.004	0.0001
36	SLU 6	-0.03	10.54	41.06	-0.3666	-0.0031	0.0001
36	SLU 7	-0.03	10.36	41.01	-0.358	-0.0038	0.0001
36	SLU 8	-0.03	10.57	41.08	-0.3683	-0.0031	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
36	SLU 9	-0.03	10.4	41.03	-0.3597	-0.0038	0.0001
36	SLU 10	-0.03	10.26	43.31	-0.3433	-0.0035	0.0001
36	SLU 11	-0.03	11.29	44.97	-0.3868	-0.0027	0.0001
36	SLU 12	-0.03	11.11	44.93	-0.3782	-0.0034	0.0001
36	SLU 13	-0.03	11.03	44.92	-0.3742	-0.0038	0.0001
36	SLU 14	-0.03	12.05	46.58	-0.4177	-0.0029	0.0001
36	SLU 15	-0.03	11.87	46.53	-0.4091	-0.0036	0.0001
36	SLU 16	-0.03	12.08	46.6	-0.4194	-0.0029	0.0001
36	SLU 17	-0.03	11.91	46.56	-0.4108	-0.0036	0.0001
36	SLU 18	-0.03	11.2	45.75	-0.3795	-0.0024	0.0001
36	SLU 19	-0.03	11.03	45.71	-0.3709	-0.003	0.0001
36	SLU 20	-0.03	11.97	47.36	-0.4104	-0.0026	0.0001
36	SLU 21	-0.03	11.79	47.31	-0.4018	-0.0033	0.0001
36	SLU 22	-0.03	10.28	41.48	-0.3501	-0.0028	0.0001
36	SLU 23	-0.03	9.99	41.41	-0.3357	-0.0039	0.0001
36	SLU 24	-0.03	11.01	43.06	-0.3793	-0.0031	0.0001
36	SLU 25	-0.03	10.83	43.02	-0.3707	-0.0037	0.0001
36	SLU 26	-0.03	10.75	43.01	-0.3666	-0.0042	0.0001
36	SLU 27	-0.03	11.77	44.67	-0.4102	-0.0033	0.0001
36	SLU 28	-0.03	11.6	44.62	-0.4016	-0.004	0.0001
36	SLU 29	-0.03	11.81	44.69	-0.4119	-0.0033	0.0001
36	SLU 30	-0.03	11.63	44.65	-0.4033	-0.004	0.0001
36	SLU 31	-0.03	11.49	46.93	-0.3868	-0.0037	0.0001
36	SLU 32	-0.03	12.52	48.58	-0.4304	-0.0029	0.0001
36	SLU 33	-0.03	12.34	48.54	-0.4218	-0.0036	0.0001
36	SLU 34	-0.03	12.26	48.53	-0.4177	-0.004	0.0001
36	SLU 35	-0.03	13.28	50.19	-0.4613	-0.0031	0.0001
36	SLU 36	-0.03	13.11	50.14	-0.4527	-0.0038	0.0001
36	SLU 37	-0.03	13.31	50.21	-0.463	-0.0031	0.0001
36	SLU 38	-0.03	13.14	50.17	-0.4544	-0.0038	0.0001
36	SLU 39	-0.03	12.43	49.37	-0.423	-0.0026	0.0001
36	SLU 40	-0.03	12.26	49.32	-0.4144	-0.0032	0.0001
36	SLU 41	-0.03	13.2	50.97	-0.4539	-0.0028	0.0001
36	SLU 42	-0.03	13.02	50.93	-0.4454	-0.0035	0.0001
36	SLU 43	-0.03	11.34	47.99	-0.3835	-0.0033	0.0001
36	SLU 44	-0.03	11.05	47.91	-0.3692	-0.0045	0.0001
36	SLU 45	-0.03	12.07	49.57	-0.4127	-0.0036	0.0001
36	SLU 46	-0.03	11.89	49.53	-0.4041	-0.0043	0.0001
36	SLU 47	-0.03	11.81	49.52	-0.4001	-0.0047	0.0001
36	SLU 48	-0.03	12.83	51.18	-0.4437	-0.0038	0.0001
36	SLU 49	-0.03	12.66	51.13	-0.4351	-0.0045	0.0001
36	SLU 50	-0.03	12.87	51.2	-0.4454	-0.0038	0.0001
36	SLU 51	-0.03	12.69	51.16	-0.4368	-0.0045	0.0001
36	SLU 52	-0.04	12.55	53.43	-0.4203	-0.0043	0.0001
36	SLU 53	-0.03	13.58	55.09	-0.4638	-0.0034	0.0001
36	SLU 54	-0.04	13.4	55.05	-0.4552	-0.0041	0.0001
36	SLU 55	-0.04	13.32	55.04	-0.4512	-0.0045	0.0001
36	SLU 56	-0.03	14.34	56.7	-0.4947	-0.0037	0.0001
36	SLU 57	-0.04	14.17	56.65	-0.4861	-0.0043	0.0001
36	SLU 58	-0.03	14.37	56.72	-0.4964	-0.0036	0.0001
36	SLU 59	-0.04	14.2	56.68	-0.4878	-0.0043	0.0001
36	SLU 60	-0.03	13.5	55.88	-0.4565	-0.0031	0.0002
36	SLU 61	-0.04	13.32	55.83	-0.4479	-0.0037	0.0001
36	SLU 62	-0.03	14.26	57.48	-0.4874	-0.0033	0.0002
36	SLU 63	-0.04	14.08	57.44	-0.4788	-0.004	0.0001
36	SLU 64	-0.03	12.57	51.6	-0.4271	-0.0035	0.0001
36	SLU 65	-0.04	12.28	51.53	-0.4127	-0.0047	0.0001
36	SLU 66	-0.03	13.3	53.19	-0.4563	-0.0038	0.0001
36	SLU 67	-0.04	13.13	53.14	-0.4477	-0.0045	0.0001
36	SLU 68	-0.04	13.04	53.13	-0.4437	-0.0049	0.0001
36	SLU 69	-0.03	14.06	54.79	-0.4872	-0.004	0.0001
36	SLU 70	-0.04	13.89	54.75	-0.4786	-0.0047	0.0001
36	SLU 71	-0.03	14.1	54.81	-0.4889	-0.004	0.0001
36	SLU 72	-0.04	13.92	54.77	-0.4803	-0.0047	0.0001
36	SLU 73	-0.04	13.79	57.05	-0.4638	-0.0045	0.0001
36	SLU 74	-0.04	14.81	58.71	-0.5074	-0.0036	0.0002
36	SLU 75	-0.04	14.63	58.66	-0.4988	-0.0043	0.0002
36	SLU 76	-0.04	14.55	58.65	-0.4947	-0.0047	0.0001
36	SLU 77	-0.04	15.57	60.31	-0.5383	-0.0039	0.0002
36	SLU 78	-0.04	15.4	60.27	-0.5297	-0.0045	0.0002
36	SLU 79	-0.04	15.61	60.33	-0.54	-0.0038	0.0002
36	SLU 80	-0.04	15.43	60.29	-0.5314	-0.0045	0.0002
36	SLU 81	-0.04	14.73	59.49	-0.5	-0.0033	0.0002
36	SLU 82	-0.04	14.55	59.44	-0.4914	-0.0039	0.0002
36	SLU 83	-0.04	15.49	61.09	-0.531	-0.0035	0.0002
36	SLU 84	-0.04	15.31	61.05	-0.5224	-0.0042	0.0002
36	SLE RA 1	-0.02	9.4	38.9	-0.3189	-0.0027	0.0001
36	SLE RA 2	-0.03	9.2	38.85	-0.3094	-0.0034	0.0001
36	SLE RA 3	-0.03	9.89	39.96	-0.3384	-0.0028	0.0001
36	SLE RA 4	-0.03	9.77	39.93	-0.3327	-0.0033	0.0001
36	SLE RA 5	-0.03	9.71	39.92	-0.33	-0.0036	0.0001
36	SLE RA 6	-0.03	10.4	41.03	-0.359	-0.003	0.0001
36	SLE RA 7	-0.03	10.28	41	-0.3533	-0.0035	0.0001
36	SLE RA 8	-0.03	10.42	41.04	-0.3602	-0.003	0.0001
36	SLE RA 9	-0.03	10.3	41.01	-0.3544	-0.0035	0.0001
36	SLE RA 10	-0.03	10.21	42.53	-0.3434	-0.0033	0.0001
36	SLE RA 11	-0.03	10.89	43.64	-0.3725	-0.0027	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
36	SLE RA 12	-0.03	10.77	43.61	-0.3667	-0.0032	0.0001
36	SLE RA 13	-0.03	10.72	43.6	-0.3641	-0.0035	0.0001
36	SLE RA 14	-0.03	11.4	44.71	-0.3931	-0.0029	0.0001
36	SLE RA 15	-0.03	11.28	44.68	-0.3874	-0.0033	0.0001
36	SLE RA 16	-0.03	11.42	44.72	-0.3942	-0.0029	0.0001
36	SLE RA 17	-0.03	11.31	44.69	-0.3885	-0.0033	0.0001
36	SLE RA 18	-0.03	10.84	44.16	-0.3676	-0.0025	0.0001
36	SLE RA 19	-0.03	10.72	44.13	-0.3619	-0.0029	0.0001
36	SLE RA 20	-0.03	11.35	45.23	-0.3882	-0.0027	0.0001
36	SLE RA 21	-0.03	11.23	45.2	-0.3825	-0.0031	0.0001
36	SLE FR 1	-0.02	9.4	38.9	-0.3189	-0.0027	0.0001
36	SLE FR 2	-0.02	9.36	38.89	-0.317	-0.0028	0.0001
36	SLE FR 3	-0.02	9.6	39.33	-0.3272	-0.0027	0.0001
36	SLE FR 4	-0.03	9.79	40.47	-0.3316	-0.0028	0.0001
36	SLE FR 5	-0.03	10.03	40.91	-0.3418	-0.0027	0.0001
36	SLE FR 6	-0.03	10.12	41.53	-0.3433	-0.0026	0.0001
36	SLE QP 1	-0.02	9.4	38.9	-0.3189	-0.0027	0.0001
36	SLE QP 2	-0.02	9.83	40.48	-0.3335	-0.0026	0.0001
36	SLD 1	-0.08	14.01	49.26	-0.5022	-0.0105	0
36	SLD 2	-0.08	14.01	49.26	-0.5022	-0.0105	0
36	SLD 3	-0.05	10.31	44.27	-0.3434	-0.02	0
36	SLD 4	-0.05	10.31	44.27	-0.3434	-0.02	0
36	SLD 5	-0.08	16.7	50.68	-0.625	0.0094	0.0002
36	SLD 6	-0.08	16.7	50.68	-0.625	0.0094	0.0002
36	SLD 7	0.01	4.36	34.05	-0.0956	-0.0222	0
36	SLD 8	0.01	4.36	34.05	-0.0956	-0.0222	0
36	SLD 9	-0.06	15.3	46.91	-0.5714	0.017	0.0003
36	SLD 10	-0.06	15.3	46.91	-0.5714	0.017	0.0003
36	SLD 11	0.03	2.97	30.27	-0.0421	-0.0146	0
36	SLD 12	0.03	2.97	30.27	-0.0421	-0.0146	0
36	SLD 13	0	9.35	36.68	-0.3237	0.0147	0.0003
36	SLD 14	0	9.35	36.68	-0.3237	0.0147	0.0003
36	SLD 15	0.03	5.65	31.69	-0.1649	0.0053	0.0002
36	SLD 16	0.03	5.65	31.69	-0.1649	0.0053	0.0002
36	SLV 1	-0.16	19.65	61.15	-0.7297	-0.0229	-0.0001
36	SLV 2	-0.16	19.65	61.15	-0.7297	-0.0229	-0.0001
36	SLV 3	-0.09	10.97	49.36	-0.3575	-0.0451	-0.0002
36	SLV 4	-0.09	10.97	49.36	-0.3575	-0.0451	-0.0002
36	SLV 5	-0.16	25.93	64.56	-1.0169	0.025	0.0003
36	SLV 6	-0.16	25.93	64.56	-1.0169	0.025	0.0003
36	SLV 7	0.05	-2.99	25.26	0.2238	-0.0491	-0.0002
36	SLV 8	0.05	-2.99	25.26	0.2238	-0.0491	-0.0002
36	SLV 9	-0.1	22.65	55.69	-0.8909	0.0439	0.0005
36	SLV 10	-0.1	22.65	55.69	-0.8909	0.0439	0.0005
36	SLV 11	0.11	-6.27	16.4	0.3499	-0.0303	-0.0001
36	SLV 12	0.11	-6.27	16.4	0.3499	-0.0303	-0.0001
36	SLV 13	0.04	8.69	31.6	-0.3096	0.0399	0.0004
36	SLV 14	0.04	8.69	31.6	-0.3096	0.0399	0.0004
36	SLV 15	0.11	0.01	19.81	0.0626	0.0176	0.0003
36	SLV 16	0.11	0.01	19.81	0.0626	0.0176	0.0003
37	SLU 1	-0.07	-2.4	33.74	0.4862	-0.0199	0.0001
37	SLU 2	-0.08	-3.16	34.12	0.5229	-0.0219	0.0002
37	SLU 3	-0.07	-2.43	34.24	0.4961	-0.0202	0.0002
37	SLU 4	-0.08	-2.89	34.46	0.5182	-0.0214	0.0002
37	SLU 5	-0.08	-3.19	34.45	0.5308	-0.0221	0.0002
37	SLU 6	-0.08	-2.47	34.57	0.504	-0.0204	0.0002
37	SLU 7	-0.08	-2.92	34.8	0.5261	-0.0216	0.0002
37	SLU 8	-0.07	-2.47	34.41	0.502	-0.0204	0.0002
37	SLU 9	-0.08	-2.93	34.64	0.524	-0.0216	0.0002
37	SLU 10	-0.09	-3.12	37.62	0.5662	-0.0244	0.0002
37	SLU 11	-0.09	-2.4	37.74	0.5393	-0.0226	0.0002
37	SLU 12	-0.09	-2.85	37.96	0.5614	-0.0238	0.0002
37	SLU 13	-0.09	-3.16	37.95	0.5741	-0.0246	0.0002
37	SLU 14	-0.09	-2.43	38.07	0.5472	-0.0229	0.0002
37	SLU 15	-0.09	-2.89	38.3	0.5693	-0.0241	0.0002
37	SLU 16	-0.09	-2.44	37.91	0.5452	-0.0228	0.0002
37	SLU 17	-0.09	-2.89	38.14	0.5673	-0.024	0.0002
37	SLU 18	-0.09	-2.35	38.74	0.5479	-0.0234	0.0002
37	SLU 19	-0.09	-2.8	38.97	0.57	-0.0246	0.0002
37	SLU 20	-0.09	-2.38	39.07	0.5558	-0.0236	0.0002
37	SLU 21	-0.09	-2.84	39.3	0.5779	-0.0248	0.0002
37	SLU 22	-0.08	-2.37	36.51	0.5201	-0.0217	0.0002
37	SLU 23	-0.09	-3.13	36.89	0.5568	-0.0237	0.0002
37	SLU 24	-0.08	-2.41	37.01	0.53	-0.022	0.0002
37	SLU 25	-0.09	-2.86	37.24	0.552	-0.0232	0.0002
37	SLU 26	-0.09	-3.17	37.23	0.5647	-0.0239	0.0002
37	SLU 27	-0.08	-2.44	37.35	0.5379	-0.0222	0.0002
37	SLU 28	-0.09	-2.9	37.57	0.5599	-0.0234	0.0002
37	SLU 29	-0.08	-2.45	37.18	0.5359	-0.0221	0.0002
37	SLU 30	-0.09	-2.9	37.41	0.5579	-0.0233	0.0002
37	SLU 31	-0.1	-3.1	40.39	0.6	-0.0261	0.0002
37	SLU 32	-0.09	-2.37	40.51	0.5732	-0.0244	0.0002
37	SLU 33	-0.1	-2.83	40.74	0.5953	-0.0256	0.0002
37	SLU 34	-0.1	-3.13	40.73	0.6079	-0.0263	0.0002
37	SLU 35	-0.09	-2.41	40.85	0.5811	-0.0246	0.0002
37	SLU 36	-0.1	-2.86	41.07	0.6032	-0.0258	0.0002
37	SLU 37	-0.09	-2.41	40.68	0.5791	-0.0246	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLU 38	-0.1	-2.87	40.91	0.6011	-0.0258	0.0002
37	SLU 39	-0.1	-2.32	41.51	0.5818	-0.0252	0.0002
37	SLU 40	-0.1	-2.78	41.74	0.6039	-0.0264	0.0002
37	SLU 41	-0.1	-2.36	41.85	0.5897	-0.0254	0.0002
37	SLU 42	-0.1	-2.81	42.07	0.6118	-0.0266	0.0002
37	SLU 43	-0.09	-3.13	42.91	0.6204	-0.0253	0.0002
37	SLU 44	-0.1	-3.88	43.29	0.6571	-0.0273	0.0002
37	SLU 45	-0.09	-3.16	43.41	0.6303	-0.0256	0.0002
37	SLU 46	-0.1	-3.62	43.63	0.6524	-0.0268	0.0002
37	SLU 47	-0.1	-3.92	43.62	0.665	-0.0275	0.0002
37	SLU 48	-0.09	-3.2	43.74	0.6382	-0.0258	0.0002
37	SLU 49	-0.1	-3.65	43.97	0.6603	-0.027	0.0002
37	SLU 50	-0.09	-3.2	43.58	0.6362	-0.0257	0.0002
37	SLU 51	-0.1	-3.65	43.81	0.6582	-0.0269	0.0002
37	SLU 52	-0.11	-3.85	46.79	0.7004	-0.0298	0.0002
37	SLU 53	-0.1	-3.13	46.91	0.6736	-0.028	0.0002
37	SLU 54	-0.11	-3.58	47.13	0.6956	-0.0292	0.0002
37	SLU 55	-0.11	-3.89	47.12	0.7083	-0.03	0.0002
37	SLU 56	-0.11	-3.16	47.24	0.6815	-0.0282	0.0002
37	SLU 57	-0.11	-3.62	47.47	0.7035	-0.0294	0.0002
37	SLU 58	-0.11	-3.16	47.08	0.6794	-0.0282	0.0002
37	SLU 59	-0.11	-3.62	47.31	0.7015	-0.0294	0.0002
37	SLU 60	-0.11	-3.07	47.91	0.6822	-0.0288	0.0002
37	SLU 61	-0.11	-3.53	48.14	0.7042	-0.03	0.0002
37	SLU 62	-0.11	-3.11	48.24	0.6901	-0.029	0.0002
37	SLU 63	-0.11	-3.57	48.47	0.7121	-0.0302	0.0002
37	SLU 64	-0.1	-3.1	45.68	0.6543	-0.0271	0.0002
37	SLU 65	-0.11	-3.86	46.06	0.691	-0.0291	0.0002
37	SLU 66	-0.1	-3.14	46.18	0.6642	-0.0273	0.0002
37	SLU 67	-0.11	-3.59	46.41	0.6863	-0.0285	0.0002
37	SLU 68	-0.11	-3.9	46.4	0.6989	-0.0293	0.0002
37	SLU 69	-0.1	-3.17	46.52	0.6721	-0.0276	0.0002
37	SLU 70	-0.11	-3.63	46.74	0.6942	-0.0287	0.0002
37	SLU 71	-0.1	-3.17	46.35	0.6701	-0.0275	0.0002
37	SLU 72	-0.11	-3.63	46.58	0.6921	-0.0287	0.0002
37	SLU 73	-0.12	-3.82	49.56	0.7343	-0.0315	0.0003
37	SLU 74	-0.11	-3.1	49.68	0.7075	-0.0298	0.0003
37	SLU 75	-0.12	-3.56	49.91	0.7295	-0.031	0.0003
37	SLU 76	-0.12	-3.86	49.9	0.7422	-0.0317	0.0003
37	SLU 77	-0.11	-3.14	50.02	0.7154	-0.03	0.0003
37	SLU 78	-0.12	-3.59	50.24	0.7374	-0.0312	0.0003
37	SLU 79	-0.11	-3.14	49.85	0.7133	-0.03	0.0003
37	SLU 80	-0.12	-3.59	50.08	0.7354	-0.0311	0.0003
37	SLU 81	-0.12	-3.05	50.68	0.7161	-0.0306	0.0003
37	SLU 82	-0.12	-3.5	50.91	0.7381	-0.0318	0.0003
37	SLU 83	-0.12	-3.09	51.02	0.724	-0.0308	0.0003
37	SLU 84	-0.12	-3.54	51.24	0.746	-0.032	0.0003
37	SLE RA 1	-0.08	-2.39	34.53	0.4959	-0.0204	0.0002
37	SLE RA 2	-0.08	-2.9	34.78	0.5203	-0.0218	0.0002
37	SLE RA 3	-0.08	-2.41	34.86	0.5025	-0.0206	0.0002
37	SLE RA 4	-0.08	-2.72	35.01	0.5172	-0.0214	0.0002
37	SLE RA 5	-0.08	-2.92	35.01	0.5256	-0.0219	0.0002
37	SLE RA 6	-0.08	-2.44	35.09	0.5077	-0.0208	0.0002
37	SLE RA 7	-0.08	-2.74	35.24	0.5224	-0.0216	0.0002
37	SLE RA 8	-0.08	-2.44	34.98	0.5064	-0.0207	0.0002
37	SLE RA 9	-0.08	-2.74	35.13	0.5211	-0.0215	0.0002
37	SLE RA 10	-0.09	-2.87	37.12	0.5492	-0.0234	0.0002
37	SLE RA 11	-0.08	-2.39	37.2	0.5313	-0.0223	0.0002
37	SLE RA 12	-0.09	-2.69	37.35	0.546	-0.023	0.0002
37	SLE RA 13	-0.09	-2.9	37.34	0.5544	-0.0235	0.0002
37	SLE RA 14	-0.08	-2.41	37.42	0.5366	-0.0224	0.0002
37	SLE RA 15	-0.09	-2.72	37.57	0.5513	-0.0232	0.0002
37	SLE RA 16	-0.08	-2.42	37.31	0.5352	-0.0224	0.0002
37	SLE RA 17	-0.09	-2.72	37.46	0.5499	-0.0232	0.0002
37	SLE RA 18	-0.09	-2.36	37.86	0.537	-0.0228	0.0002
37	SLE RA 19	-0.09	-2.66	38.02	0.5517	-0.0236	0.0002
37	SLE RA 20	-0.09	-2.38	38.09	0.5423	-0.0229	0.0002
37	SLE RA 21	-0.09	-2.68	38.24	0.557	-0.0237	0.0002
37	SLE FR 1	-0.08	-2.39	34.53	0.4959	-0.0204	0.0002
37	SLE FR 2	-0.08	-2.49	34.58	0.5008	-0.0207	0.0002
37	SLE FR 3	-0.08	-2.4	34.62	0.498	-0.0205	0.0002
37	SLE FR 4	-0.08	-2.48	35.58	0.5131	-0.0214	0.0002
37	SLE FR 5	-0.08	-2.39	35.62	0.5103	-0.0212	0.0002
37	SLE FR 6	-0.08	-2.37	36.2	0.5164	-0.0216	0.0002
37	SLE QP 1	-0.08	-2.39	34.53	0.4959	-0.0204	0.0002
37	SLE QP 2	-0.08	-2.38	35.53	0.5082	-0.0211	0.0002
37	SLD 1	-0.13	0.52	32.67	0.432	-0.0196	0.0003
37	SLD 2	-0.13	0.52	32.67	0.432	-0.0196	0.0003
37	SLD 3	-0.08	-1.81	29.45	0.3172	-0.0025	0.0002
37	SLD 4	-0.08	-1.81	29.45	0.3172	-0.0025	0.0002
37	SLD 5	-0.17	2.03	39.55	0.6594	-0.0465	0.0004
37	SLD 6	-0.17	2.03	39.55	0.6594	-0.0465	0.0004
37	SLD 7	0	-5.75	28.83	0.2769	0.0103	0
37	SLD 8	0	-5.75	28.83	0.2769	0.0103	0
37	SLD 9	-0.16	0.99	42.23	0.7395	-0.0526	0.0003
37	SLD 10	-0.16	0.99	42.23	0.7395	-0.0526	0.0003
37	SLD 11	0.01	-6.79	31.51	0.357	0.0042	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLD 12	0.01	-6.79	31.51	0.357	0.0042	0
37	SLD 13	-0.08	-2.95	41.61	0.6992	-0.0398	0.0001
37	SLD 14	-0.08	-2.95	41.61	0.6992	-0.0398	0.0001
37	SLD 15	-0.03	-5.28	38.39	0.5844	-0.0227	0
37	SLD 16	-0.03	-5.28	38.39	0.5844	-0.0227	0
37	SLV 1	-0.19	4.45	28.99	0.3296	-0.0178	0.0005
37	SLV 2	-0.19	4.45	28.99	0.3296	-0.0178	0.0005
37	SLV 3	-0.07	-1.06	21.12	0.0608	0.0231	0.0003
37	SLV 4	-0.07	-1.06	21.12	0.0608	0.0231	0.0003
37	SLV 5	-0.29	8.02	45.51	0.8623	-0.0822	0.0006
37	SLV 6	-0.29	8.02	45.51	0.8623	-0.0822	0.0006
37	SLV 7	0.1	-10.34	19.27	-0.0337	0.0542	-0.0001
37	SLV 8	0.1	-10.34	19.27	-0.0337	0.0542	-0.0001
37	SLV 9	-0.26	5.58	51.79	1.0501	-0.0965	0.0005
37	SLV 10	-0.26	5.58	51.79	1.0501	-0.0965	0.0005
37	SLV 11	0.14	-12.78	25.55	0.1541	0.0399	-0.0003
37	SLV 12	0.14	-12.78	25.55	0.1541	0.0399	-0.0003
37	SLV 13	-0.09	-3.7	49.94	0.9556	-0.0654	0
37	SLV 14	-0.09	-3.7	49.94	0.9556	-0.0654	0
37	SLV 15	0.03	-9.21	42.07	0.6868	-0.0245	-0.0002
37	SLV 16	0.03	-9.21	42.07	0.6868	-0.0245	-0.0002
38	SLU 1	-0.02	-1.29	31.5	0.0675	-0.0036	0
38	SLU 2	0	-1.96	33.11	0.1017	-0.0004	0
38	SLU 3	-0.02	-1.31	31.72	0.0684	-0.0035	0
38	SLU 4	-0.01	-1.71	32.68	0.0889	-0.0016	0
38	SLU 5	0	-1.98	33.05	0.1025	-0.0002	0
38	SLU 6	-0.01	-1.33	31.67	0.0692	-0.0033	0
38	SLU 7	-0.01	-1.73	32.63	0.0897	-0.0014	0
38	SLU 8	-0.01	-1.33	31.39	0.0691	-0.0032	0
38	SLU 9	-0.01	-1.73	32.35	0.0896	-0.0013	0
38	SLU 10	0	-1.94	37.26	0.1054	-0.0005	0
38	SLU 11	-0.02	-1.29	35.88	0.0721	-0.0035	0
38	SLU 12	-0.01	-1.69	36.84	0.0926	-0.0016	0
38	SLU 13	0	-1.96	37.21	0.1062	-0.0003	0
38	SLU 14	-0.01	-1.31	35.82	0.0729	-0.0033	0
38	SLU 15	-0.01	-1.72	36.79	0.0934	-0.0014	0
38	SLU 16	-0.01	-1.31	35.55	0.0727	-0.0032	0
38	SLU 17	-0.01	-1.72	36.51	0.0933	-0.0013	0
38	SLU 18	-0.02	-1.27	37.44	0.0727	-0.0036	0
38	SLU 19	-0.01	-1.67	38.4	0.0932	-0.0017	0
38	SLU 20	-0.01	-1.29	37.38	0.0735	-0.0034	0
38	SLU 21	-0.01	-1.69	38.35	0.094	-0.0015	0
38	SLU 22	-0.01	-1.28	34.64	0.0704	-0.0035	0
38	SLU 23	0	-1.95	36.25	0.1047	-0.0004	0
38	SLU 24	-0.01	-1.3	34.86	0.0714	-0.0034	0
38	SLU 25	-0.01	-1.7	35.82	0.0919	-0.0015	0
38	SLU 26	0	-1.97	36.19	0.1055	-0.0002	0
38	SLU 27	-0.01	-1.32	34.81	0.0722	-0.0032	0
38	SLU 28	-0.01	-1.72	35.77	0.0927	-0.0013	0
38	SLU 29	-0.01	-1.32	34.53	0.072	-0.0031	0
38	SLU 30	-0.01	-1.72	35.49	0.0926	-0.0012	0
38	SLU 31	0	-1.94	40.4	0.1083	-0.0004	0
38	SLU 32	-0.01	-1.28	39.02	0.075	-0.0035	0
38	SLU 33	-0.01	-1.69	39.98	0.0956	-0.0016	0
38	SLU 34	0	-1.96	40.35	0.1091	-0.0002	0
38	SLU 35	-0.01	-1.31	38.96	0.0758	-0.0033	0
38	SLU 36	-0.01	-1.71	39.93	0.0964	-0.0014	0
38	SLU 37	-0.01	-1.31	38.69	0.0757	-0.0031	0
38	SLU 38	-0.01	-1.71	39.65	0.0963	-0.0013	0
38	SLU 39	-0.01	-1.26	40.58	0.0757	-0.0036	0
38	SLU 40	-0.01	-1.66	41.54	0.0962	-0.0017	0
38	SLU 41	-0.01	-1.28	40.52	0.0765	-0.0034	0
38	SLU 42	-0.01	-1.68	41.49	0.097	-0.0015	0
38	SLU 43	-0.02	-1.68	39.87	0.0867	-0.0047	0
38	SLU 44	-0.01	-2.35	41.48	0.1209	-0.0015	0
38	SLU 45	-0.02	-1.7	40.09	0.0876	-0.0046	0
38	SLU 46	-0.01	-2.1	41.06	0.1081	-0.0027	0
38	SLU 47	-0.01	-2.37	41.43	0.1217	-0.0013	0
38	SLU 48	-0.02	-1.72	40.04	0.0884	-0.0044	0
38	SLU 49	-0.01	-2.12	41	0.1089	-0.0025	0
38	SLU 50	-0.02	-1.72	39.76	0.0883	-0.0043	0
38	SLU 51	-0.01	-2.12	40.73	0.1088	-0.0024	0
38	SLU 52	-0.01	-2.33	45.64	0.1246	-0.0016	0
38	SLU 53	-0.02	-1.68	44.25	0.0913	-0.0046	0
38	SLU 54	-0.01	-2.08	45.21	0.1118	-0.0027	0
38	SLU 55	-0.01	-2.35	45.58	0.1254	-0.0014	0
38	SLU 56	-0.02	-1.7	44.2	0.0921	-0.0044	0
38	SLU 57	-0.01	-2.1	45.16	0.1126	-0.0025	0
38	SLU 58	-0.02	-1.7	43.92	0.0919	-0.0043	0
38	SLU 59	-0.01	-2.11	44.89	0.1125	-0.0024	0
38	SLU 60	-0.02	-1.66	45.81	0.0919	-0.0047	0
38	SLU 61	-0.01	-2.06	46.78	0.1124	-0.0028	0
38	SLU 62	-0.02	-1.68	45.76	0.0927	-0.0045	0
38	SLU 63	-0.01	-2.08	46.72	0.1132	-0.0026	0
38	SLU 64	-0.02	-1.67	43.01	0.0897	-0.0046	0
38	SLU 65	-0.01	-2.34	44.62	0.1239	-0.0015	0
38	SLU 66	-0.02	-1.69	43.23	0.0906	-0.0045	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
38	SLU 67	-0.01	-2.09	44.2	0.1111	-0.0026	0
38	SLU 68	-0.01	-2.36	44.57	0.1247	-0.0013	0
38	SLU 69	-0.02	-1.71	43.18	0.0914	-0.0043	0
38	SLU 70	-0.01	-2.11	44.14	0.1119	-0.0024	0
38	SLU 71	-0.02	-1.71	42.9	0.0913	-0.0042	0
38	SLU 72	-0.01	-2.11	43.87	0.1118	-0.0023	0
38	SLU 73	-0.01	-2.32	48.78	0.1276	-0.0015	0
38	SLU 74	-0.02	-1.67	47.39	0.0943	-0.0045	0
38	SLU 75	-0.01	-2.08	48.35	0.1148	-0.0027	0
38	SLU 76	-0.01	-2.34	48.72	0.1284	-0.0013	0
38	SLU 77	-0.02	-1.69	47.34	0.0951	-0.0043	0
38	SLU 78	-0.01	-2.1	48.3	0.1156	-0.0025	0
38	SLU 79	-0.02	-1.7	47.06	0.0949	-0.0042	0
38	SLU 80	-0.01	-2.1	48.02	0.1155	-0.0024	0
38	SLU 81	-0.02	-1.65	48.95	0.0949	-0.0046	0
38	SLU 82	-0.01	-2.05	49.92	0.1154	-0.0028	0
38	SLU 83	-0.02	-1.67	48.9	0.0957	-0.0045	0
38	SLU 84	-0.01	-2.07	49.86	0.1162	-0.0026	0
38	SLE RA 1	-0.02	-1.29	32.4	0.0683	-0.0036	0
38	SLE RA 2	-0.01	-1.73	33.47	0.0911	-0.0015	0
38	SLE RA 3	-0.02	-1.3	32.54	0.0689	-0.0035	0
38	SLE RA 4	-0.01	-1.57	33.19	0.0826	-0.0022	0
38	SLE RA 5	-0.01	-1.75	33.43	0.0917	-0.0013	0
38	SLE RA 6	-0.01	-1.31	32.51	0.0695	-0.0034	0
38	SLE RA 7	-0.01	-1.58	33.15	0.0832	-0.0021	0
38	SLE RA 8	-0.01	-1.31	32.32	0.0694	-0.0033	0
38	SLE RA 9	-0.01	-1.58	32.97	0.0831	-0.002	0
38	SLE RA 10	-0.01	-1.72	36.24	0.0936	-0.0015	0
38	SLE RA 11	-0.02	-1.29	35.32	0.0714	-0.0035	0
38	SLE RA 12	-0.01	-1.56	35.96	0.0851	-0.0023	0
38	SLE RA 13	-0.01	-1.74	36.2	0.0941	-0.0014	0
38	SLE RA 14	-0.01	-1.3	35.28	0.0719	-0.0034	0
38	SLE RA 15	-0.01	-1.57	35.92	0.0856	-0.0021	0
38	SLE RA 16	-0.01	-1.3	35.1	0.0718	-0.0033	0
38	SLE RA 17	-0.01	-1.57	35.74	0.0855	-0.0021	0
38	SLE RA 18	-0.02	-1.27	36.36	0.0718	-0.0036	0
38	SLE RA 19	-0.01	-1.54	37	0.0855	-0.0023	0
38	SLE RA 20	-0.01	-1.29	36.32	0.0723	-0.0035	0
38	SLE RA 21	-0.01	-1.55	36.96	0.086	-0.0022	0
38	SLE FR 1	-0.02	-1.29	32.4	0.0683	-0.0036	0
38	SLE FR 2	-0.01	-1.37	32.61	0.0729	-0.0031	0
38	SLE FR 3	-0.01	-1.29	32.38	0.0685	-0.0035	0
38	SLE FR 4	-0.01	-1.37	33.8	0.0739	-0.0031	0
38	SLE FR 5	-0.01	-1.29	33.57	0.0696	-0.0035	0
38	SLE FR 6	-0.02	-1.28	34.38	0.0701	-0.0036	0
38	SLE QP 1	-0.02	-1.29	32.4	0.0683	-0.0036	0
38	SLE QP 2	-0.02	-1.28	33.58	0.0694	-0.0036	0
38	SLD 1	0.03	-1.4	31.05	0.0728	0.0132	0
38	SLD 2	0.03	-1.4	31.05	0.0728	0.0132	0
38	SLD 3	-0.01	-3.26	28.26	0.1631	-0.0003	0
38	SLD 4	-0.01	-3.26	28.26	0.1631	-0.0003	0
38	SLD 5	0.06	1.5	37.05	-0.0665	0.0219	0.0001
38	SLD 6	0.06	1.5	37.05	-0.0665	0.0219	0.0001
38	SLD 7	-0.08	-4.69	27.76	0.2344	-0.023	0
38	SLD 8	-0.08	-4.69	27.76	0.2344	-0.023	0
38	SLD 9	0.05	2.13	39.41	-0.0957	0.0159	0.0001
38	SLD 10	0.05	2.13	39.41	-0.0957	0.0159	0.0001
38	SLD 11	-0.09	-4.06	30.12	0.2053	-0.029	0
38	SLD 12	-0.09	-4.06	30.12	0.2053	-0.029	0
38	SLD 13	-0.02	0.7	38.91	-0.0244	-0.0069	0.0001
38	SLD 14	-0.02	0.7	38.91	-0.0244	-0.0069	0.0001
38	SLD 15	-0.06	-1.16	36.12	0.0659	-0.0203	0
38	SLD 16	-0.06	-1.16	36.12	0.0659	-0.0203	0
38	SLV 1	0.09	-1.54	27.69	0.0762	0.0362	0
38	SLV 2	0.09	-1.54	27.69	0.0762	0.0362	0
38	SLV 3	-0.02	-5.95	21.05	0.291	0.0037	-0.0001
38	SLV 4	-0.02	-5.95	21.05	0.291	0.0037	-0.0001
38	SLV 5	0.18	5.33	41.88	-0.2542	0.0577	0.0001
38	SLV 6	0.18	5.33	41.88	-0.2542	0.0577	0.0001
38	SLV 7	-0.18	-9.37	19.76	0.4615	-0.0507	-0.0001
38	SLV 8	-0.18	-9.37	19.76	0.4615	-0.0507	-0.0001
38	SLV 9	0.15	6.8	47.41	-0.3228	0.0436	0.0002
38	SLV 10	0.15	6.8	47.41	-0.3228	0.0436	0.0002
38	SLV 11	-0.21	-7.89	25.29	0.3929	-0.0648	-0.0001
38	SLV 12	-0.21	-7.89	25.29	0.3929	-0.0648	-0.0001
38	SLV 13	-0.01	3.39	46.12	-0.1522	-0.0108	0.0001
38	SLV 14	-0.01	3.39	46.12	-0.1522	-0.0108	0.0001
38	SLV 15	-0.12	-1.02	39.48	0.0625	-0.0433	0.0001
38	SLV 16	-0.12	-1.02	39.48	0.0625	-0.0433	0.0001
39	SLU 1	-0.03	8.55	47.58	-0.3636	-0.0088	0.0002
39	SLU 2	-0.03	8.42	48.19	-0.3556	-0.0085	0.0003
39	SLU 3	-0.03	8.85	48.57	-0.3775	-0.0089	0.0002
39	SLU 4	-0.03	8.77	48.94	-0.3727	-0.0087	0.0003
39	SLU 5	-0.03	8.68	48.96	-0.3683	-0.0085	0.0003
39	SLU 6	-0.03	9.12	49.33	-0.3903	-0.0089	0.0003
39	SLU 7	-0.03	9.04	49.7	-0.3855	-0.0087	0.0003
39	SLU 8	-0.03	9.09	49.11	-0.3892	-0.0089	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
39	SLU 9	-0.03	9.01	49.48	-0.3844	-0.0086	0.0003
39	SLU 10	-0.03	10.11	56.08	-0.4258	-0.01	0.0003
39	SLU 11	-0.03	10.55	56.46	-0.4478	-0.0104	0.0003
39	SLU 12	-0.03	10.47	56.83	-0.443	-0.0102	0.0003
39	SLU 13	-0.03	10.38	56.85	-0.4386	-0.01	0.0003
39	SLU 14	-0.04	10.82	57.23	-0.4606	-0.0105	0.0003
39	SLU 15	-0.03	10.74	57.59	-0.4558	-0.0102	0.0003
39	SLU 16	-0.04	10.78	57	-0.4594	-0.0104	0.0003
39	SLU 17	-0.03	10.7	57.37	-0.4546	-0.0102	0.0003
39	SLU 18	-0.04	10.97	58.85	-0.4639	-0.011	0.0003
39	SLU 19	-0.03	10.89	59.22	-0.4591	-0.0108	0.0003
39	SLU 20	-0.04	11.24	59.62	-0.4767	-0.011	0.0003
39	SLU 21	-0.03	11.16	59.99	-0.4719	-0.0108	0.0003
39	SLU 22	-0.03	9.63	52.27	-0.4074	-0.01	0.0003
39	SLU 23	-0.03	9.49	52.88	-0.3994	-0.0096	0.0003
39	SLU 24	-0.03	9.93	53.26	-0.4213	-0.01	0.0003
39	SLU 25	-0.03	9.85	53.62	-0.4165	-0.0098	0.0003
39	SLU 26	-0.03	9.76	53.65	-0.4122	-0.0096	0.0003
39	SLU 27	-0.03	10.2	54.02	-0.4341	-0.01	0.0003
39	SLU 28	-0.03	10.12	54.39	-0.4293	-0.0098	0.0003
39	SLU 29	-0.03	10.17	53.8	-0.433	-0.01	0.0003
39	SLU 30	-0.03	10.09	54.17	-0.4282	-0.0098	0.0003
39	SLU 31	-0.03	11.19	60.77	-0.4696	-0.0111	0.0003
39	SLU 32	-0.04	11.63	61.15	-0.4916	-0.0116	0.0003
39	SLU 33	-0.03	11.55	61.51	-0.4868	-0.0113	0.0003
39	SLU 34	-0.03	11.46	61.54	-0.4824	-0.0111	0.0003
39	SLU 35	-0.04	11.9	61.91	-0.5044	-0.0116	0.0003
39	SLU 36	-0.03	11.82	62.28	-0.4996	-0.0114	0.0003
39	SLU 37	-0.04	11.86	61.69	-0.5032	-0.0115	0.0003
39	SLU 38	-0.03	11.78	62.06	-0.4984	-0.0113	0.0003
39	SLU 39	-0.04	12.05	63.54	-0.5077	-0.0121	0.0003
39	SLU 40	-0.03	11.97	63.91	-0.5029	-0.0119	0.0003
39	SLU 41	-0.04	12.32	64.31	-0.5205	-0.0121	0.0004
39	SLU 42	-0.04	12.24	64.68	-0.5157	-0.0119	0.0004
39	SLU 43	-0.04	10.74	60.25	-0.4576	-0.0111	0.0003
39	SLU 44	-0.03	10.61	60.86	-0.4496	-0.0108	0.0003
39	SLU 45	-0.04	11.05	61.23	-0.4716	-0.0112	0.0003
39	SLU 46	-0.04	10.97	61.6	-0.4668	-0.011	0.0003
39	SLU 47	-0.03	10.88	61.63	-0.4624	-0.0108	0.0003
39	SLU 48	-0.04	11.32	62	-0.4844	-0.0112	0.0003
39	SLU 49	-0.04	11.24	62.37	-0.4796	-0.011	0.0003
39	SLU 50	-0.04	11.28	61.78	-0.4832	-0.0111	0.0003
39	SLU 51	-0.04	11.2	62.15	-0.4784	-0.0109	0.0003
39	SLU 52	-0.04	12.31	68.75	-0.5199	-0.0123	0.0004
39	SLU 53	-0.04	12.75	69.12	-0.5418	-0.0127	0.0004
39	SLU 54	-0.04	12.67	69.49	-0.537	-0.0125	0.0004
39	SLU 55	-0.04	12.58	69.52	-0.5327	-0.0123	0.0004
39	SLU 56	-0.04	13.02	69.89	-0.5546	-0.0127	0.0004
39	SLU 57	-0.04	12.94	70.26	-0.5498	-0.0125	0.0004
39	SLU 58	-0.04	12.98	69.67	-0.5535	-0.0127	0.0004
39	SLU 59	-0.04	12.9	70.04	-0.5487	-0.0124	0.0004
39	SLU 60	-0.04	13.17	71.52	-0.558	-0.0133	0.0004
39	SLU 61	-0.04	13.09	71.89	-0.5532	-0.0131	0.0004
39	SLU 62	-0.04	13.44	72.28	-0.5708	-0.0133	0.0004
39	SLU 63	-0.04	13.36	72.65	-0.566	-0.0131	0.0004
39	SLU 64	-0.04	11.82	64.93	-0.5014	-0.0122	0.0003
39	SLU 65	-0.03	11.69	65.55	-0.4934	-0.0119	0.0003
39	SLU 66	-0.04	12.13	65.92	-0.5154	-0.0123	0.0003
39	SLU 67	-0.04	12.05	66.29	-0.5106	-0.0121	0.0003
39	SLU 68	-0.04	11.96	66.31	-0.5062	-0.0119	0.0003
39	SLU 69	-0.04	12.4	66.69	-0.5282	-0.0123	0.0003
39	SLU 70	-0.04	12.32	67.06	-0.5234	-0.0121	0.0003
39	SLU 71	-0.04	12.36	66.47	-0.527	-0.0122	0.0003
39	SLU 72	-0.04	12.28	66.84	-0.5222	-0.012	0.0003
39	SLU 73	-0.04	13.38	73.44	-0.5637	-0.0134	0.0004
39	SLU 74	-0.04	13.82	73.81	-0.5856	-0.0138	0.0004
39	SLU 75	-0.04	13.74	74.18	-0.5808	-0.0136	0.0004
39	SLU 76	-0.04	13.65	74.21	-0.5765	-0.0134	0.0004
39	SLU 77	-0.04	14.09	74.58	-0.5984	-0.0138	0.0004
39	SLU 78	-0.04	14.01	74.95	-0.5936	-0.0136	0.0004
39	SLU 79	-0.04	14.06	74.36	-0.5973	-0.0138	0.0004
39	SLU 80	-0.04	13.98	74.73	-0.5925	-0.0136	0.0004
39	SLU 81	-0.04	14.24	76.21	-0.6018	-0.0144	0.0004
39	SLU 82	-0.04	14.16	76.57	-0.597	-0.0142	0.0004
39	SLU 83	-0.05	14.51	76.97	-0.6146	-0.0144	0.0004
39	SLU 84	-0.04	14.43	77.34	-0.6098	-0.0142	0.0004
39	SLE RA 1	-0.03	8.86	48.92	-0.3761	-0.0092	0.0002
39	SLE RA 2	-0.03	8.77	49.33	-0.3707	-0.0089	0.0003
39	SLE RA 3	-0.03	9.06	49.58	-0.3854	-0.0092	0.0003
39	SLE RA 4	-0.03	9.01	49.82	-0.3822	-0.0091	0.0003
39	SLE RA 5	-0.03	8.95	49.84	-0.3793	-0.0089	0.0003
39	SLE RA 6	-0.03	9.24	50.09	-0.3939	-0.0092	0.0003
39	SLE RA 7	-0.03	9.19	50.33	-0.3907	-0.0091	0.0003
39	SLE RA 8	-0.03	9.22	49.94	-0.3931	-0.0092	0.0003
39	SLE RA 9	-0.03	9.16	50.19	-0.3899	-0.009	0.0003
39	SLE RA 10	-0.03	9.9	54.59	-0.4176	-0.0099	0.0003
39	SLE RA 11	-0.03	10.19	54.84	-0.4322	-0.0102	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
39	SLE RA 12	-0.03	10.14	55.08	-0.429	-0.0101	0.0003
39	SLE RA 13	-0.03	10.08	55.1	-0.4261	-0.0099	0.0003
39	SLE RA 14	-0.03	10.37	55.35	-0.4408	-0.0102	0.0003
39	SLE RA 15	-0.03	10.32	55.59	-0.4376	-0.0101	0.0003
39	SLE RA 16	-0.03	10.35	55.2	-0.44	-0.0102	0.0003
39	SLE RA 17	-0.03	10.29	55.45	-0.4368	-0.01	0.0003
39	SLE RA 18	-0.03	10.47	56.43	-0.443	-0.0106	0.0003
39	SLE RA 19	-0.03	10.42	56.68	-0.4398	-0.0105	0.0003
39	SLE RA 20	-0.03	10.65	56.94	-0.4515	-0.0106	0.0003
39	SLE RA 21	-0.03	10.6	57.19	-0.4483	-0.0105	0.0003
39	SLE FR 1	-0.03	8.86	48.92	-0.3761	-0.0092	0.0002
39	SLE FR 2	-0.03	8.84	49	-0.375	-0.0091	0.0003
39	SLE FR 3	-0.03	8.93	49.12	-0.3795	-0.0092	0.0003
39	SLE FR 4	-0.03	9.32	51.26	-0.3951	-0.0095	0.0003
39	SLE FR 5	-0.03	9.41	51.38	-0.3996	-0.0096	0.0003
39	SLE FR 6	-0.03	9.66	52.68	-0.4095	-0.0099	0.0003
39	SLE QP 1	-0.03	8.86	48.92	-0.3761	-0.0092	0.0002
39	SLE QP 2	-0.03	9.34	51.17	-0.3962	-0.0096	0.0003
39	SLD 1	-0.08	13.94	45.67	-0.6	-0.0073	0.0002
39	SLD 2	-0.08	13.94	45.67	-0.6	-0.0073	0.0002
39	SLD 3	-0.05	10.25	41.23	-0.4309	-0.0002	0
39	SLD 4	-0.05	10.25	41.23	-0.4309	-0.0002	0
39	SLD 5	-0.09	16.32	56.27	-0.7139	-0.0196	0.0004
39	SLD 6	-0.09	16.32	56.27	-0.7139	-0.0196	0.0004
39	SLD 7	0.01	4.01	41.45	-0.15	0.004	0
39	SLD 8	0.01	4.01	41.45	-0.15	0.004	0
39	SLD 9	-0.07	14.67	60.9	-0.6423	-0.0232	0.0005
39	SLD 10	-0.07	14.67	60.9	-0.6423	-0.0232	0.0005
39	SLD 11	0.03	2.36	46.08	-0.0784	0.0004	0.0001
39	SLD 12	0.03	2.36	46.08	-0.0784	0.0004	0.0001
39	SLD 13	-0.01	8.43	61.12	-0.3614	-0.019	0.0005
39	SLD 14	-0.01	8.43	61.12	-0.3614	-0.019	0.0005
39	SLD 15	0.02	4.74	56.67	-0.1923	-0.0119	0.0004
39	SLD 16	0.02	4.74	56.67	-0.1923	-0.0119	0.0004
39	SLV 1	-0.14	20.13	38.33	-0.8742	-0.0034	0
39	SLV 2	-0.14	20.13	38.33	-0.8742	-0.0034	0
39	SLV 3	-0.08	11.45	27.79	-0.4769	0.0132	-0.0003
39	SLV 4	-0.08	11.45	27.79	-0.4769	0.0132	-0.0003
39	SLV 5	-0.16	25.73	63.31	-1.1421	-0.0329	0.0007
39	SLV 6	-0.16	25.73	63.31	-1.1421	-0.0329	0.0007
39	SLV 7	0.05	-3.18	28.18	0.1822	0.0224	-0.0004
39	SLV 8	0.05	-3.18	28.18	0.1822	0.0224	-0.0004
39	SLV 9	-0.11	21.86	74.17	-0.9745	-0.0416	0.0009
39	SLV 10	-0.11	21.86	74.17	-0.9745	-0.0416	0.0009
39	SLV 11	0.1	-7.05	39.04	0.3498	0.0137	-0.0001
39	SLV 12	0.1	-7.05	39.04	0.3498	0.0137	-0.0001
39	SLV 13	0.02	7.23	74.55	-0.3154	-0.0324	0.0008
39	SLV 14	0.02	7.23	74.55	-0.3154	-0.0324	0.0008
39	SLV 15	0.08	-1.44	64.01	0.0819	-0.0158	0.0005
39	SLV 16	0.08	-1.44	64.01	0.0819	-0.0158	0.0005
40	SLU 1	0.01	8.93	44.51	-0.4077	0.0041	-0.0004
40	SLU 2	0.01	8.69	44.73	-0.3955	0.0035	-0.0004
40	SLU 3	0.01	9.64	46.19	-0.4404	0.0041	-0.0004
40	SLU 4	0.01	9.49	46.32	-0.4331	0.0037	-0.0004
40	SLU 5	0.01	9.42	46.36	-0.4297	0.0035	-0.0004
40	SLU 6	0.01	10.37	47.82	-0.4747	0.004	-0.0004
40	SLU 7	0.01	10.23	47.95	-0.4674	0.0037	-0.0004
40	SLU 8	0.01	10.4	47.77	-0.4762	0.004	-0.0004
40	SLU 9	0.01	10.25	47.9	-0.4689	0.0037	-0.0004
40	SLU 10	0.01	10.27	51.6	-0.4656	0.0048	-0.0004
40	SLU 11	0.02	11.22	53.05	-0.5105	0.0053	-0.0004
40	SLU 12	0.02	11.07	53.19	-0.5032	0.005	-0.0004
40	SLU 13	0.01	11	53.23	-0.4999	0.0047	-0.0004
40	SLU 14	0.02	11.95	54.68	-0.5448	0.0053	-0.0004
40	SLU 15	0.02	11.81	54.82	-0.5375	0.0049	-0.0004
40	SLU 16	0.02	11.98	54.63	-0.5463	0.0053	-0.0004
40	SLU 17	0.02	11.83	54.77	-0.539	0.0049	-0.0004
40	SLU 18	0.02	11.19	54.32	-0.5078	0.0059	-0.0004
40	SLU 19	0.02	11.04	54.45	-0.5005	0.0055	-0.0004
40	SLU 20	0.02	11.92	55.95	-0.5421	0.0058	-0.0004
40	SLU 21	0.02	11.78	56.08	-0.5348	0.0055	-0.0004
40	SLU 22	0.01	10.23	49.14	-0.4646	0.0046	-0.0004
40	SLU 23	0.01	9.99	49.37	-0.4524	0.0041	-0.0004
40	SLU 24	0.01	10.94	50.82	-0.4973	0.0046	-0.0004
40	SLU 25	0.01	10.79	50.96	-0.49	0.0043	-0.0004
40	SLU 26	0.01	10.72	51	-0.4867	0.004	-0.0004
40	SLU 27	0.01	11.67	52.45	-0.5316	0.0046	-0.0004
40	SLU 28	0.01	11.52	52.59	-0.5243	0.0042	-0.0004
40	SLU 29	0.01	11.69	52.4	-0.5331	0.0046	-0.0004
40	SLU 30	0.01	11.55	52.54	-0.5258	0.0042	-0.0004
40	SLU 31	0.01	11.57	56.23	-0.5225	0.0053	-0.0005
40	SLU 32	0.02	12.52	57.69	-0.5674	0.0058	-0.0005
40	SLU 33	0.01	12.37	57.82	-0.5601	0.0055	-0.0005
40	SLU 34	0.01	12.3	57.86	-0.5568	0.0053	-0.0005
40	SLU 35	0.02	13.25	59.32	-0.6017	0.0058	-0.0005
40	SLU 36	0.02	13.1	59.45	-0.5944	0.0055	-0.0005
40	SLU 37	0.02	13.27	59.27	-0.6032	0.0058	-0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
40	SLU 38	0.02	13.13	59.4	-0.5959	0.0055	-0.0005
40	SLU 39	0.02	12.49	58.95	-0.5648	0.0064	-0.0005
40	SLU 40	0.02	12.34	59.08	-0.5574	0.006	-0.0005
40	SLU 41	0.02	13.22	60.58	-0.599	0.0064	-0.0005
40	SLU 42	0.02	13.07	60.71	-0.5917	0.006	-0.0005
40	SLU 43	0.02	11.17	56.27	-0.5105	0.0051	-0.0004
40	SLU 44	0.01	10.92	56.5	-0.4983	0.0046	-0.0005
40	SLU 45	0.02	11.87	57.95	-0.5432	0.0051	-0.0005
40	SLU 46	0.02	11.73	58.09	-0.5359	0.0048	-0.0005
40	SLU 47	0.01	11.66	58.13	-0.5325	0.0045	-0.0005
40	SLU 48	0.02	12.61	59.58	-0.5775	0.0051	-0.0005
40	SLU 49	0.02	12.46	59.72	-0.5702	0.0047	-0.0005
40	SLU 50	0.02	12.63	59.53	-0.579	0.0051	-0.0005
40	SLU 51	0.02	12.49	59.67	-0.5717	0.0047	-0.0005
40	SLU 52	0.02	12.5	63.36	-0.5684	0.0058	-0.0005
40	SLU 53	0.02	13.45	64.82	-0.6133	0.0063	-0.0005
40	SLU 54	0.02	13.31	64.95	-0.606	0.006	-0.0005
40	SLU 55	0.02	13.24	64.99	-0.6027	0.0058	-0.0005
40	SLU 56	0.02	14.19	66.45	-0.6476	0.0063	-0.0005
40	SLU 57	0.02	14.04	66.58	-0.6403	0.006	-0.0005
40	SLU 58	0.02	14.21	66.4	-0.6491	0.0063	-0.0005
40	SLU 59	0.02	14.07	66.53	-0.6418	0.006	-0.0005
40	SLU 60	0.02	13.42	66.08	-0.6106	0.0069	-0.0005
40	SLU 61	0.02	13.28	66.21	-0.6033	0.0066	-0.0005
40	SLU 62	0.02	14.16	67.71	-0.6449	0.0069	-0.0005
40	SLU 63	0.02	14.01	67.84	-0.6376	0.0065	-0.0005
40	SLU 64	0.02	12.46	60.9	-0.5674	0.0057	-0.0005
40	SLU 65	0.01	12.22	61.13	-0.5552	0.0051	-0.0005
40	SLU 66	0.02	13.17	62.58	-0.6001	0.0056	-0.0005
40	SLU 67	0.02	13.03	62.72	-0.5928	0.0053	-0.0005
40	SLU 68	0.01	12.95	62.76	-0.5894	0.0051	-0.0005
40	SLU 69	0.02	13.9	64.22	-0.6344	0.0056	-0.0005
40	SLU 70	0.02	13.76	64.35	-0.6271	0.0053	-0.0005
40	SLU 71	0.02	13.93	64.17	-0.6359	0.0056	-0.0005
40	SLU 72	0.02	13.78	64.3	-0.6286	0.0053	-0.0005
40	SLU 73	0.02	13.8	67.99	-0.6253	0.0063	-0.0005
40	SLU 74	0.02	14.75	69.45	-0.6702	0.0069	-0.0005
40	SLU 75	0.02	14.61	69.59	-0.6629	0.0065	-0.0006
40	SLU 76	0.02	14.53	69.63	-0.6596	0.0063	-0.0006
40	SLU 77	0.02	15.48	71.08	-0.7045	0.0068	-0.0006
40	SLU 78	0.02	15.34	71.22	-0.6972	0.0065	-0.0006
40	SLU 79	0.02	15.51	71.03	-0.706	0.0068	-0.0006
40	SLU 80	0.02	15.36	71.17	-0.6987	0.0065	-0.0006
40	SLU 81	0.02	14.72	70.71	-0.6675	0.0074	-0.0005
40	SLU 82	0.02	14.57	70.85	-0.6602	0.0071	-0.0006
40	SLU 83	0.02	15.45	72.34	-0.7018	0.0074	-0.0006
40	SLU 84	0.02	15.31	72.48	-0.6945	0.0071	-0.0006
40	SLE RA 1	0.01	9.3	45.83	-0.4239	0.0042	-0.0004
40	SLE RA 2	0.01	9.14	45.98	-0.4158	0.0039	-0.0004
40	SLE RA 3	0.01	9.77	46.95	-0.4458	0.0042	-0.0004
40	SLE RA 4	0.01	9.68	47.04	-0.4409	0.004	-0.0004
40	SLE RA 5	0.01	9.63	47.07	-0.4386	0.0038	-0.0004
40	SLE RA 6	0.01	10.26	48.04	-0.4686	0.0042	-0.0004
40	SLE RA 7	0.01	10.17	48.13	-0.4637	0.004	-0.0004
40	SLE RA 8	0.01	10.28	48.01	-0.4696	0.0042	-0.0004
40	SLE RA 9	0.01	10.18	48.1	-0.4647	0.004	-0.0004
40	SLE RA 10	0.01	10.19	50.56	-0.4626	0.0047	-0.0004
40	SLE RA 11	0.02	10.83	51.53	-0.4925	0.005	-0.0004
40	SLE RA 12	0.01	10.73	51.62	-0.4876	0.0048	-0.0004
40	SLE RA 13	0.01	10.68	51.64	-0.4854	0.0047	-0.0004
40	SLE RA 14	0.02	11.32	52.62	-0.5154	0.005	-0.0004
40	SLE RA 15	0.02	11.22	52.71	-0.5105	0.0048	-0.0004
40	SLE RA 16	0.02	11.33	52.58	-0.5164	0.005	-0.0004
40	SLE RA 17	0.02	11.24	52.67	-0.5115	0.0048	-0.0004
40	SLE RA 18	0.02	10.81	52.37	-0.4907	0.0054	-0.0004
40	SLE RA 19	0.02	10.71	52.46	-0.4858	0.0052	-0.0004
40	SLE RA 20	0.02	11.3	53.46	-0.5136	0.0054	-0.0004
40	SLE RA 21	0.02	11.2	53.55	-0.5087	0.0052	-0.0004
40	SLE FR 1	0.01	9.3	45.83	-0.4239	0.0042	-0.0004
40	SLE FR 2	0.01	9.27	45.86	-0.4223	0.0042	-0.0004
40	SLE FR 3	0.01	9.5	46.27	-0.4331	0.0042	-0.0004
40	SLE FR 4	0.01	9.72	47.82	-0.4423	0.0045	-0.0004
40	SLE FR 5	0.01	9.95	48.23	-0.4531	0.0046	-0.0004
40	SLE FR 6	0.02	10.05	49.1	-0.4573	0.0048	-0.0004
40	SLE QP 1	0.01	9.3	45.83	-0.4239	0.0042	-0.0004
40	SLE QP 2	0.01	9.75	47.79	-0.444	0.0046	-0.0004
40	SLD 1	-0.03	13.81	57.37	-0.6295	-0.003	-0.0007
40	SLD 2	-0.03	13.81	57.37	-0.6295	-0.003	-0.0007
40	SLD 3	-0.06	10.16	52.68	-0.4609	-0.0113	-0.0006
40	SLD 4	-0.06	10.16	52.68	-0.4609	-0.0113	-0.0006
40	SLD 5	0.05	16.51	57.78	-0.7554	0.0148	-0.0007
40	SLD 6	0.05	16.51	57.78	-0.7554	0.0148	-0.0007
40	SLD 7	-0.05	4.34	42.14	-0.1933	-0.0126	-0.0002
40	SLD 8	-0.05	4.34	42.14	-0.1933	-0.0126	-0.0002
40	SLD 9	0.08	15.17	53.44	-0.6946	0.0218	-0.0006
40	SLD 10	0.08	15.17	53.44	-0.6946	0.0218	-0.0006
40	SLD 11	-0.02	3	37.8	-0.1326	-0.0056	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
40	SLD 12	-0.02	3	37.8	-0.1326	-0.0056	0
40	SLD 13	0.09	9.35	42.91	-0.4271	0.0204	-0.0002
40	SLD 14	0.09	9.35	42.91	-0.4271	0.0204	-0.0002
40	SLD 15	0.06	5.7	38.22	-0.2585	0.0122	0
40	SLD 16	0.06	5.7	38.22	-0.2585	0.0122	0
40	SLV 1	-0.09	19.28	70.32	-0.8797	-0.015	-0.0012
40	SLV 2	-0.09	19.28	70.32	-0.8797	-0.015	-0.0012
40	SLV 3	-0.16	10.72	59.23	-0.4843	-0.0343	-0.0009
40	SLV 4	-0.16	10.72	59.23	-0.4843	-0.0343	-0.0009
40	SLV 5	0.09	25.59	71.37	-1.1744	0.028	-0.0012
40	SLV 6	0.09	25.59	71.37	-1.1744	0.028	-0.0012
40	SLV 7	-0.15	-2.94	34.41	0.1436	-0.0364	0.0001
40	SLV 8	-0.15	-2.94	34.41	0.1436	-0.0364	0.0001
40	SLV 9	0.18	22.44	61.18	-1.0316	0.0456	-0.0008
40	SLV 10	0.18	22.44	61.18	-1.0316	0.0456	-0.0008
40	SLV 11	-0.06	-6.09	24.22	0.2864	-0.0188	0.0005
40	SLV 12	-0.06	-6.09	24.22	0.2864	-0.0188	0.0005
40	SLV 13	0.19	8.78	36.35	-0.4036	0.0435	0.0001
40	SLV 14	0.19	8.78	36.35	-0.4036	0.0435	0.0001
40	SLV 15	0.12	0.23	25.27	-0.0082	0.0242	0.0005
40	SLV 16	0.12	0.23	25.27	-0.0082	0.0242	0.0005
41	SLU 1	0.38	1.15	37.81	-0.3658	0.0675	-0.0233
41	SLU 2	0.35	0.19	39.84	-0.3083	0.0652	-0.0227
41	SLU 3	0.38	1.19	38.54	-0.373	0.0688	-0.0238
41	SLU 4	0.37	0.61	39.75	-0.3385	0.0674	-0.0234
41	SLU 5	0.36	0.21	40.35	-0.3132	0.066	-0.023
41	SLU 6	0.39	1.2	39.05	-0.3779	0.0696	-0.024
41	SLU 7	0.37	0.63	40.26	-0.3434	0.0682	-0.0237
41	SLU 8	0.39	1.18	38.83	-0.3756	0.0691	-0.0239
41	SLU 9	0.37	0.61	40.05	-0.3411	0.0677	-0.0235
41	SLU 10	0.41	0.51	44.78	-0.3497	0.0747	-0.0261
41	SLU 11	0.44	1.5	43.49	-0.4144	0.0784	-0.0272
41	SLU 12	0.42	0.92	44.7	-0.3798	0.077	-0.0268
41	SLU 13	0.41	0.52	45.29	-0.3546	0.0755	-0.0264
41	SLU 14	0.44	1.51	44	-0.4193	0.0792	-0.0275
41	SLU 15	0.43	0.94	45.21	-0.3847	0.0778	-0.0271
41	SLU 16	0.44	1.5	43.78	-0.417	0.0786	-0.0273
41	SLU 17	0.43	0.92	45	-0.3825	0.0772	-0.0269
41	SLU 18	0.45	1.6	44.88	-0.4249	0.0811	-0.0282
41	SLU 19	0.44	1.02	46.1	-0.3904	0.0797	-0.0278
41	SLU 20	0.46	1.61	45.39	-0.4298	0.0819	-0.0285
41	SLU 21	0.44	1.04	46.61	-0.3953	0.0805	-0.0281
41	SLU 22	0.42	1.38	41.8	-0.3965	0.0753	-0.026
41	SLU 23	0.4	0.42	43.82	-0.339	0.0729	-0.0254
41	SLU 24	0.43	1.41	42.53	-0.4037	0.0766	-0.0265
41	SLU 25	0.41	0.84	43.74	-0.3692	0.0752	-0.0261
41	SLU 26	0.4	0.44	44.33	-0.3439	0.0737	-0.0257
41	SLU 27	0.43	1.43	43.04	-0.4086	0.0774	-0.0268
41	SLU 28	0.42	0.85	44.25	-0.3741	0.076	-0.0264
41	SLU 29	0.43	1.41	42.82	-0.4063	0.0769	-0.0266
41	SLU 30	0.42	0.83	44.04	-0.3718	0.0755	-0.0262
41	SLU 31	0.45	0.73	48.77	-0.3804	0.0825	-0.0289
41	SLU 32	0.48	1.73	47.48	-0.4451	0.0861	-0.0299
41	SLU 33	0.47	1.15	48.69	-0.4106	0.0847	-0.0295
41	SLU 34	0.46	0.75	49.28	-0.3853	0.0833	-0.0291
41	SLU 35	0.49	1.74	47.99	-0.45	0.0869	-0.0302
41	SLU 36	0.47	1.16	49.2	-0.4155	0.0855	-0.0298
41	SLU 37	0.48	1.72	47.77	-0.4477	0.0864	-0.03
41	SLU 38	0.47	1.15	48.98	-0.4132	0.085	-0.0297
41	SLU 39	0.5	1.83	48.87	-0.4556	0.0889	-0.0309
41	SLU 40	0.48	1.25	50.08	-0.4211	0.0875	-0.0306
41	SLU 41	0.5	1.84	49.38	-0.4605	0.0897	-0.0312
41	SLU 42	0.49	1.27	50.59	-0.426	0.0883	-0.0308
41	SLU 43	0.47	1.42	47.79	-0.465	0.0851	-0.0294
41	SLU 44	0.45	0.46	49.81	-0.4075	0.0828	-0.0288
41	SLU 45	0.48	1.46	48.52	-0.4722	0.0864	-0.0298
41	SLU 46	0.47	0.88	49.73	-0.4377	0.085	-0.0295
41	SLU 47	0.46	0.48	50.32	-0.4124	0.0835	-0.0291
41	SLU 48	0.49	1.47	49.03	-0.4771	0.0872	-0.0301
41	SLU 49	0.47	0.89	50.24	-0.4426	0.0858	-0.0298
41	SLU 50	0.48	1.45	48.81	-0.4748	0.0867	-0.0299
41	SLU 51	0.47	0.88	50.02	-0.4403	0.0853	-0.0296
41	SLU 52	0.51	0.77	54.76	-0.4489	0.0923	-0.0322
41	SLU 53	0.54	1.77	53.47	-0.5136	0.096	-0.0332
41	SLU 54	0.52	1.19	54.68	-0.479	0.0945	-0.0329
41	SLU 55	0.51	0.79	55.27	-0.4538	0.0931	-0.0325
41	SLU 56	0.54	1.78	53.98	-0.5185	0.0967	-0.0335
41	SLU 57	0.53	1.21	55.19	-0.484	0.0953	-0.0332
41	SLU 58	0.54	1.76	53.76	-0.5162	0.0962	-0.0334
41	SLU 59	0.52	1.19	54.97	-0.4817	0.0948	-0.033
41	SLU 60	0.55	1.87	54.86	-0.5241	0.0987	-0.0342
41	SLU 61	0.54	1.29	56.07	-0.4896	0.0973	-0.0339
41	SLU 62	0.56	1.88	55.37	-0.529	0.0995	-0.0345
41	SLU 63	0.54	1.31	56.58	-0.4945	0.0981	-0.0342
41	SLU 64	0.52	1.65	51.78	-0.4957	0.0929	-0.0321
41	SLU 65	0.49	0.69	53.8	-0.4382	0.0905	-0.0315
41	SLU 66	0.53	1.68	52.51	-0.5029	0.0942	-0.0325



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
41	SLU 67	0.51	1.11	53.72	-0.4684	0.0928	-0.0322
41	SLU 68	0.5	0.7	54.31	-0.4431	0.0913	-0.0318
41	SLU 69	0.53	1.7	53.02	-0.5078	0.095	-0.0328
41	SLU 70	0.52	1.12	54.23	-0.4733	0.0936	-0.0325
41	SLU 71	0.53	1.68	52.8	-0.5056	0.0945	-0.0327
41	SLU 72	0.51	1.1	54.01	-0.471	0.0931	-0.0323
41	SLU 73	0.55	1	58.75	-0.4796	0.1001	-0.0349
41	SLU 74	0.58	2	57.46	-0.5443	0.1037	-0.0359
41	SLU 75	0.57	1.42	58.67	-0.5098	0.1023	-0.0356
41	SLU 76	0.55	1.02	59.26	-0.4845	0.1009	-0.0352
41	SLU 77	0.58	2.01	57.97	-0.5492	0.1045	-0.0362
41	SLU 78	0.57	1.43	59.18	-0.5147	0.1031	-0.0359
41	SLU 79	0.58	1.99	57.75	-0.5469	0.104	-0.0361
41	SLU 80	0.57	1.41	58.96	-0.5124	0.1026	-0.0357
41	SLU 81	0.6	2.1	58.85	-0.5549	0.1065	-0.037
41	SLU 82	0.58	1.52	60.06	-0.5203	0.1051	-0.0366
41	SLU 83	0.6	2.11	59.36	-0.5598	0.1073	-0.0372
41	SLU 84	0.59	1.53	60.57	-0.5252	0.1059	-0.0369
41	SLE RA 1	0.39	1.22	38.95	-0.3746	0.0697	-0.0241
41	SLE RA 2	0.37	0.58	40.3	-0.3362	0.0682	-0.0237
41	SLE RA 3	0.39	1.24	39.44	-0.3794	0.0706	-0.0244
41	SLE RA 4	0.38	0.86	40.25	-0.3564	0.0697	-0.0242
41	SLE RA 5	0.38	0.59	40.64	-0.3395	0.0687	-0.0239
41	SLE RA 6	0.4	1.25	39.78	-0.3826	0.0711	-0.0246
41	SLE RA 7	0.39	0.87	40.59	-0.3596	0.0702	-0.0243
41	SLE RA 8	0.39	1.24	39.63	-0.3811	0.0708	-0.0245
41	SLE RA 9	0.39	0.85	40.44	-0.3581	0.0699	-0.0242
41	SLE RA 10	0.41	0.79	43.6	-0.3638	0.0745	-0.026
41	SLE RA 11	0.43	1.45	42.74	-0.407	0.077	-0.0267
41	SLE RA 12	0.42	1.07	43.55	-0.3839	0.076	-0.0264
41	SLE RA 13	0.41	0.8	43.94	-0.3671	0.0751	-0.0262
41	SLE RA 14	0.43	1.46	43.08	-0.4102	0.0775	-0.0268
41	SLE RA 15	0.42	1.07	43.89	-0.3872	0.0766	-0.0266
41	SLE RA 16	0.43	1.45	42.93	-0.4087	0.0772	-0.0267
41	SLE RA 17	0.42	1.06	43.74	-0.3857	0.0762	-0.0265
41	SLE RA 18	0.44	1.52	43.67	-0.414	0.0788	-0.0273
41	SLE RA 19	0.43	1.13	44.47	-0.391	0.0779	-0.0271
41	SLE RA 20	0.44	1.53	44.01	-0.4173	0.0794	-0.0275
41	SLE RA 21	0.43	1.14	44.81	-0.3942	0.0784	-0.0273
41	SLE FR 1	0.39	1.22	38.95	-0.3746	0.0697	-0.0241
41	SLE FR 2	0.39	1.09	39.22	-0.3669	0.0694	-0.024
41	SLE FR 3	0.39	1.22	39.09	-0.3759	0.0699	-0.0242
41	SLE FR 4	0.4	1.18	40.64	-0.3787	0.0721	-0.025
41	SLE FR 5	0.41	1.31	40.5	-0.3877	0.0727	-0.0251
41	SLE FR 6	0.41	1.37	41.31	-0.3943	0.0743	-0.0257
41	SLE QP 1	0.39	1.22	38.95	-0.3746	0.0697	-0.0241
41	SLE QP 2	0.4	1.31	40.37	-0.3864	0.0725	-0.0251
41	SLD 1	0.52	3.73	47.3	-0.3824	0.1003	-0.0305
41	SLD 2	0.52	3.73	47.3	-0.3824	0.1003	-0.0305
41	SLD 3	0.44	1.01	44.47	-0.2021	0.087	-0.0259
41	SLD 4	0.44	1.01	44.47	-0.2021	0.087	-0.0259
41	SLD 5	0.55	6.16	46.73	-0.6587	0.1009	-0.0337
41	SLD 6	0.55	6.16	46.73	-0.6587	0.1009	-0.0337
41	SLD 7	0.3	-2.91	37.32	-0.0577	0.0567	-0.0184
41	SLD 8	0.3	-2.91	37.32	-0.0577	0.0567	-0.0184
41	SLD 9	0.51	5.52	43.42	-0.7152	0.0882	-0.0318
41	SLD 10	0.51	5.52	43.42	-0.7152	0.0882	-0.0318
41	SLD 11	0.25	-3.54	34	-0.1142	0.044	-0.0165
41	SLD 12	0.25	-3.54	34	-0.1142	0.044	-0.0165
41	SLD 13	0.37	1.6	36.26	-0.5707	0.0579	-0.0242
41	SLD 14	0.37	1.6	36.26	-0.5707	0.0579	-0.0242
41	SLD 15	0.29	-1.12	33.44	-0.3904	0.0446	-0.0196
41	SLD 16	0.29	-1.12	33.44	-0.3904	0.0446	-0.0196
41	SLV 1	0.67	7.11	56.64	-0.3849	0.1379	-0.038
41	SLV 2	0.67	7.11	56.64	-0.3849	0.1379	-0.038
41	SLV 3	0.5	0.57	49.95	0.0565	0.1065	-0.027
41	SLV 4	0.5	0.57	49.95	0.0565	0.1065	-0.027
41	SLV 5	0.76	12.96	55.39	-1.0553	0.1397	-0.0456
41	SLV 6	0.76	12.96	55.39	-1.0553	0.1397	-0.0456
41	SLV 7	0.16	-8.83	33.1	0.4158	0.0351	-0.009
41	SLV 8	0.16	-8.83	33.1	0.4158	0.0351	-0.009
41	SLV 9	0.65	11.44	47.63	-1.1886	0.1099	-0.0411
41	SLV 10	0.65	11.44	47.63	-1.1886	0.1099	-0.0411
41	SLV 11	0.05	-10.35	25.34	0.2825	0.0052	-0.0046
41	SLV 12	0.05	-10.35	25.34	0.2825	0.0052	-0.0046
41	SLV 13	0.31	2.05	30.78	-0.8293	0.0384	-0.0231
41	SLV 14	0.31	2.05	30.78	-0.8293	0.0384	-0.0231
41	SLV 15	0.13	-4.49	24.09	-0.388	0.0071	-0.0122
41	SLV 16	0.13	-4.49	24.09	-0.388	0.0071	-0.0122
42	SLU 1	-0.05	-0.18	0.37	0.0132	-0.012	0.0022
42	SLU 2	-0.05	-0.2	0.33	0.0136	-0.0125	0.0022
42	SLU 3	-0.05	-0.24	0.2	0.0152	-0.0121	0.0022
42	SLU 4	-0.05	-0.25	0.18	0.0155	-0.0124	0.0022
42	SLU 5	-0.05	-0.23	0.23	0.0149	-0.0125	0.0023
42	SLU 6	-0.05	-0.28	0.1	0.0164	-0.0121	0.0022
42	SLU 7	-0.05	-0.29	0.08	0.0167	-0.0124	0.0022
42	SLU 8	-0.05	-0.26	0.17	0.0157	-0.012	0.0022



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLU 9	-0.05	-0.27	0.14	0.016	-0.0123	0.0022
42	SLU 10	-0.08	0.25	2.45	0.006	-0.0232	0.0041
42	SLU 11	-0.08	0.2	2.32	0.0076	-0.0229	0.004
42	SLU 12	-0.08	0.19	2.29	0.0078	-0.0232	0.0041
42	SLU 13	-0.08	0.21	2.35	0.0073	-0.0233	0.0041
42	SLU 14	-0.08	0.17	2.21	0.0088	-0.0229	0.004
42	SLU 15	-0.08	0.16	2.19	0.0091	-0.0232	0.0041
42	SLU 16	-0.08	0.19	2.28	0.0081	-0.0228	0.004
42	SLU 17	-0.08	0.18	2.26	0.0084	-0.0231	0.0041
42	SLU 18	-0.09	0.45	3.39	0.0023	-0.0274	0.0048
42	SLU 19	-0.1	0.44	3.37	0.0026	-0.0277	0.0048
42	SLU 20	-0.09	0.42	3.29	0.0036	-0.0274	0.0048
42	SLU 21	-0.1	0.41	3.27	0.0039	-0.0277	0.0048
42	SLU 22	-0.06	-0.33	0.06	0.0189	-0.0144	0.0026
42	SLU 23	-0.06	-0.34	0.02	0.0194	-0.0149	0.0027
42	SLU 24	-0.06	-0.39	-0.11	0.0209	-0.0145	0.0026
42	SLU 25	-0.06	-0.4	-0.13	0.0212	-0.0148	0.0027
42	SLU 26	-0.06	-0.38	-0.08	0.0207	-0.0149	0.0027
42	SLU 27	-0.06	-0.43	-0.21	0.0222	-0.0145	0.0026
42	SLU 28	-0.06	-0.43	-0.23	0.0225	-0.0148	0.0027
42	SLU 29	-0.06	-0.4	-0.15	0.0215	-0.0144	0.0026
42	SLU 30	-0.06	-0.41	-0.17	0.0217	-0.0147	0.0026
42	SLU 31	-0.09	0.1	2.14	0.0118	-0.0256	0.0045
42	SLU 32	-0.09	0.06	2	0.0133	-0.0253	0.0044
42	SLU 33	-0.09	0.05	1.98	0.0136	-0.0256	0.0045
42	SLU 34	-0.09	0.07	2.04	0.0131	-0.0257	0.0045
42	SLU 35	-0.09	0.02	1.9	0.0146	-0.0253	0.0045
42	SLU 36	-0.09	0.01	1.88	0.0149	-0.0256	0.0045
42	SLU 37	-0.09	0.04	1.97	0.0139	-0.0252	0.0044
42	SLU 38	-0.09	0.04	1.95	0.0141	-0.0255	0.0045
42	SLU 39	-0.1	0.31	3.08	0.0081	-0.0298	0.0052
42	SLU 40	-0.1	0.3	3.06	0.0083	-0.0301	0.0053
42	SLU 41	-0.1	0.27	2.98	0.0093	-0.0298	0.0052
42	SLU 42	-0.1	0.26	2.96	0.0096	-0.0301	0.0053
42	SLU 43	-0.06	-0.19	0.59	0.0152	-0.0148	0.0027
42	SLU 44	-0.06	-0.2	0.55	0.0156	-0.0152	0.0027
42	SLU 45	-0.06	-0.25	0.42	0.0172	-0.0149	0.0027
42	SLU 46	-0.06	-0.26	0.4	0.0174	-0.0152	0.0027
42	SLU 47	-0.06	-0.24	0.45	0.0169	-0.0153	0.0028
42	SLU 48	-0.06	-0.29	0.32	0.0184	-0.0149	0.0027
42	SLU 49	-0.06	-0.29	0.29	0.0187	-0.0152	0.0028
42	SLU 50	-0.06	-0.26	0.38	0.0177	-0.0148	0.0027
42	SLU 51	-0.06	-0.27	0.36	0.018	-0.0151	0.0027
42	SLU 52	-0.09	0.24	2.67	0.008	-0.026	0.0046
42	SLU 53	-0.09	0.2	2.53	0.0096	-0.0257	0.0045
42	SLU 54	-0.09	0.19	2.51	0.0098	-0.0259	0.0046
42	SLU 55	-0.09	0.21	2.56	0.0093	-0.026	0.0046
42	SLU 56	-0.09	0.16	2.43	0.0108	-0.0257	0.0045
42	SLU 57	-0.1	0.15	2.41	0.0111	-0.026	0.0046
42	SLU 58	-0.09	0.18	2.5	0.0101	-0.0256	0.0045
42	SLU 59	-0.09	0.18	2.48	0.0104	-0.0259	0.0046
42	SLU 60	-0.11	0.45	3.61	0.0043	-0.0302	0.0053
42	SLU 61	-0.11	0.44	3.59	0.0046	-0.0304	0.0053
42	SLU 62	-0.11	0.41	3.51	0.0056	-0.0302	0.0053
42	SLU 63	-0.11	0.4	3.48	0.0058	-0.0305	0.0053
42	SLU 64	-0.07	-0.34	0.27	0.0209	-0.0172	0.0031
42	SLU 65	-0.07	-0.35	0.24	0.0214	-0.0177	0.0032
42	SLU 66	-0.07	-0.39	0.11	0.0229	-0.0173	0.0031
42	SLU 67	-0.07	-0.4	0.08	0.0232	-0.0176	0.0032
42	SLU 68	-0.07	-0.38	0.14	0.0226	-0.0177	0.0032
42	SLU 69	-0.07	-0.43	0	0.0242	-0.0173	0.0031
42	SLU 70	-0.07	-0.44	-0.02	0.0245	-0.0176	0.0032
42	SLU 71	-0.07	-0.41	0.07	0.0235	-0.0172	0.0031
42	SLU 72	-0.07	-0.42	0.05	0.0237	-0.0175	0.0032
42	SLU 73	-0.1	0.1	2.35	0.0138	-0.0284	0.005
42	SLU 74	-0.1	0.05	2.22	0.0153	-0.0281	0.0049
42	SLU 75	-0.1	0.04	2.2	0.0156	-0.0283	0.005
42	SLU 76	-0.1	0.06	2.25	0.015	-0.0284	0.005
42	SLU 77	-0.1	0.02	2.12	0.0166	-0.0281	0.005
42	SLU 78	-0.1	0.01	2.1	0.0168	-0.0284	0.005
42	SLU 79	-0.1	0.04	2.19	0.0158	-0.028	0.0049
42	SLU 80	-0.1	0.03	2.17	0.0161	-0.0283	0.005
42	SLU 81	-0.11	0.3	3.3	0.01	-0.0326	0.0057
42	SLU 82	-0.12	0.29	3.27	0.0103	-0.0328	0.0058
42	SLU 83	-0.12	0.27	3.19	0.0113	-0.0326	0.0057
42	SLU 84	-0.12	0.26	3.17	0.0116	-0.0329	0.0058
42	SLE RA 1	-0.05	-0.23	0.28	0.0148	-0.0127	0.0023
42	SLE RA 2	-0.05	-0.23	0.26	0.0151	-0.013	0.0023
42	SLE RA 3	-0.05	-0.27	0.17	0.0162	-0.0128	0.0023
42	SLE RA 4	-0.05	-0.27	0.15	0.0163	-0.013	0.0023
42	SLE RA 5	-0.05	-0.26	0.19	0.016	-0.013	0.0023
42	SLE RA 6	-0.05	-0.29	0.1	0.017	-0.0128	0.0023
42	SLE RA 7	-0.05	-0.29	0.09	0.0172	-0.013	0.0023
42	SLE RA 8	-0.05	-0.27	0.14	0.0165	-0.0127	0.0023
42	SLE RA 9	-0.05	-0.28	0.13	0.0167	-0.0129	0.0023
42	SLE RA 10	-0.07	0.06	1.67	0.0101	-0.0202	0.0036
42	SLE RA 11	-0.07	0.03	1.58	0.0111	-0.0199	0.0035



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLE RA 12	-0.07	0.03	1.56	0.0113	-0.0201	0.0036
42	SLE RA 13	-0.07	0.04	1.6	0.0109	-0.0202	0.0036
42	SLE RA 14	-0.07	0.01	1.51	0.0119	-0.02	0.0035
42	SLE RA 15	-0.07	0	1.5	0.0121	-0.0201	0.0036
42	SLE RA 16	-0.07	0.02	1.55	0.0114	-0.0199	0.0035
42	SLE RA 17	-0.07	0.02	1.54	0.0116	-0.0201	0.0035
42	SLE RA 18	-0.08	0.2	2.29	0.0076	-0.0229	0.004
42	SLE RA 19	-0.08	0.19	2.28	0.0078	-0.0231	0.0041
42	SLE RA 20	-0.08	0.17	2.23	0.0084	-0.023	0.004
42	SLE RA 21	-0.08	0.17	2.21	0.0086	-0.0231	0.0041
42	SLE FR 1	-0.05	-0.23	0.28	0.0148	-0.0127	0.0023
42	SLE FR 2	-0.05	-0.23	0.27	0.0149	-0.0128	0.0023
42	SLE FR 3	-0.05	-0.24	0.25	0.0152	-0.0127	0.0023
42	SLE FR 4	-0.06	-0.1	0.88	0.0127	-0.0158	0.0028
42	SLE FR 5	-0.06	-0.11	0.86	0.013	-0.0158	0.0028
42	SLE FR 6	-0.07	-0.01	1.29	0.0112	-0.0178	0.0032
42	SLE QP 1	-0.05	-0.23	0.28	0.0148	-0.0127	0.0023
42	SLE QP 2	-0.06	-0.1	0.88	0.0127	-0.0158	0.0028
42	SLD 1	-0.27	-0.33	0.3	0.0209	-0.0493	0.0093
42	SLD 2	-0.27	-0.33	0.3	0.0209	-0.0493	0.0093
42	SLD 3	-0.24	-1.63	-3.14	0.066	-0.0441	0.0083
42	SLD 4	-0.24	-1.63	-3.14	0.066	-0.0441	0.0083
42	SLD 5	-0.18	1.8	5.93	-0.0532	-0.0337	0.0063
42	SLD 6	-0.18	1.8	5.93	-0.0532	-0.0337	0.0063
42	SLD 7	-0.06	-2.52	-5.55	0.097	-0.0164	0.0029
42	SLD 8	-0.06	-2.52	-5.55	0.097	-0.0164	0.0029
42	SLD 9	-0.06	2.33	7.31	-0.0717	-0.0152	0.0027
42	SLD 10	-0.06	2.33	7.31	-0.0717	-0.0152	0.0027
42	SLD 11	0.06	-2	-4.16	0.0785	0.0022	-0.0007
42	SLD 12	0.06	-2	-4.16	0.0785	0.0022	-0.0007
42	SLD 13	0.12	1.43	4.91	-0.0407	0.0126	-0.0027
42	SLD 14	0.12	1.43	4.91	-0.0407	0.0126	-0.0027
42	SLD 15	0.15	0.13	1.46	0.0044	0.0178	-0.0037
42	SLD 16	0.15	0.13	1.46	0.0044	0.0178	-0.0037
42	SLV 1	-0.59	-0.64	-0.47	0.0319	-0.0997	0.0191
42	SLV 2	-0.59	-0.64	-0.47	0.0319	-0.0997	0.0191
42	SLV 3	-0.51	-3.68	-8.54	0.1376	-0.0871	0.0166
42	SLV 4	-0.51	-3.68	-8.54	0.1376	-0.0871	0.0166
42	SLV 5	-0.35	4.35	12.72	-0.1418	-0.0601	0.0115
42	SLV 6	-0.35	4.35	12.72	-0.1418	-0.0601	0.0115
42	SLV 7	-0.06	-5.78	-14.18	0.2104	-0.018	0.0031
42	SLV 8	-0.06	-5.78	-14.18	0.2104	-0.018	0.0031
42	SLV 9	-0.06	5.59	15.95	-0.1851	-0.0135	0.0025
42	SLV 10	-0.06	5.59	15.95	-0.1851	-0.0135	0.0025
42	SLV 11	0.23	-4.55	-10.95	0.1672	0.0286	-0.0059
42	SLV 12	0.23	-4.55	-10.95	0.1672	0.0286	-0.0059
42	SLV 13	0.39	3.48	10.3	-0.1122	0.0556	-0.011
42	SLV 14	0.39	3.48	10.3	-0.1122	0.0556	-0.011
42	SLV 15	0.47	0.44	2.23	-0.0066	0.0682	-0.0135
42	SLV 16	0.47	0.44	2.23	-0.0066	0.0682	-0.0135
44	SLU 1	3.82	6.39	32.95	-0.2008	0.0761	0.0006
44	SLU 2	2.88	7.15	31.99	-0.2404	0.0264	0.0014
44	SLU 3	3.98	6.64	34.21	-0.2089	0.0801	0.0007
44	SLU 4	3.41	7.1	33.63	-0.2327	0.0503	0.0011
44	SLU 5	3.02	7.35	33.04	-0.2467	0.0307	0.0014
44	SLU 6	4.13	6.84	35.27	-0.2152	0.0844	0.0007
44	SLU 7	3.56	7.29	34.69	-0.2389	0.0546	0.0011
44	SLU 8	4.12	6.78	35.07	-0.2134	0.0846	0.0007
44	SLU 9	3.55	7.24	34.49	-0.2371	0.0548	0.0011
44	SLU 10	3.47	7.79	35.84	-0.2599	0.0412	0.0013
44	SLU 11	4.58	7.28	38.06	-0.2284	0.0949	0.0006
44	SLU 12	4.01	7.74	37.48	-0.2522	0.0651	0.0011
44	SLU 13	3.62	7.99	36.9	-0.2662	0.0454	0.0013
44	SLU 14	4.73	7.48	39.12	-0.2347	0.0991	0.0006
44	SLU 15	4.16	7.93	38.54	-0.2585	0.0693	0.0011
44	SLU 16	4.72	7.42	38.93	-0.2329	0.0993	0.0006
44	SLU 17	4.15	7.88	38.35	-0.2567	0.0695	0.0011
44	SLU 18	4.67	7.3	38.46	-0.2287	0.0972	0.0006
44	SLU 19	4.11	7.76	37.88	-0.2525	0.0674	0.001
44	SLU 20	4.82	7.5	39.52	-0.235	0.1014	0.0006
44	SLU 21	4.26	7.96	38.94	-0.2587	0.0716	0.001
44	SLU 22	4.38	7.09	36.86	-0.2225	0.0894	0.0007
44	SLU 23	3.43	7.85	35.89	-0.2621	0.0397	0.0014
44	SLU 24	4.54	7.34	38.11	-0.2306	0.0934	0.0007
44	SLU 25	3.97	7.79	37.53	-0.2543	0.0636	0.0011
44	SLU 26	3.58	8.04	36.95	-0.2684	0.044	0.0014
44	SLU 27	4.68	7.53	39.17	-0.2368	0.0977	0.0007
44	SLU 28	4.12	7.99	38.59	-0.2606	0.0679	0.0011
44	SLU 29	4.67	7.48	38.98	-0.235	0.0979	0.0007
44	SLU 30	4.11	7.94	38.4	-0.2588	0.0681	0.0011
44	SLU 31	4.03	8.49	39.75	-0.2816	0.0545	0.0014
44	SLU 32	5.13	7.98	41.97	-0.2501	0.1082	0.0007
44	SLU 33	4.56	8.43	41.39	-0.2739	0.0784	0.0011
44	SLU 34	4.18	8.68	40.8	-0.2879	0.0588	0.0014
44	SLU 35	5.28	8.17	43.03	-0.2564	0.1124	0.0007
44	SLU 36	4.71	8.63	42.45	-0.2802	0.0827	0.0011
44	SLU 37	5.27	8.12	42.83	-0.2546	0.1127	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
44	SLU 38	4.7	8.58	42.25	-0.2783	0.0829	0.0011
44	SLU 39	5.23	8	42.36	-0.2504	0.1105	0.0006
44	SLU 40	4.66	8.46	41.78	-0.2741	0.0807	0.0011
44	SLU 41	5.38	8.2	43.42	-0.2566	0.1147	0.0006
44	SLU 42	4.81	8.65	42.84	-0.2804	0.0849	0.0011
44	SLU 43	4.78	8.07	41.5	-0.2536	0.0943	0.0008
44	SLU 44	3.83	8.83	40.53	-0.2932	0.0447	0.0016
44	SLU 45	4.94	8.32	42.76	-0.2617	0.0984	0.0009
44	SLU 46	4.37	8.78	42.18	-0.2855	0.0686	0.0013
44	SLU 47	3.98	9.03	41.59	-0.2995	0.0489	0.0016
44	SLU 48	5.08	8.52	43.82	-0.268	0.1026	0.0009
44	SLU 49	4.52	8.97	43.24	-0.2917	0.0728	0.0013
44	SLU 50	5.07	8.46	43.62	-0.2662	0.1028	0.0008
44	SLU 51	4.51	8.92	43.04	-0.2899	0.073	0.0013
44	SLU 52	4.43	9.47	44.39	-0.3127	0.0594	0.0015
44	SLU 53	5.53	8.96	46.61	-0.2812	0.1131	0.0008
44	SLU 54	4.96	9.41	46.03	-0.305	0.0833	0.0013
44	SLU 55	4.58	9.66	45.45	-0.319	0.0637	0.0015
44	SLU 56	5.68	9.16	47.67	-0.2875	0.1174	0.0008
44	SLU 57	5.11	9.61	47.09	-0.3113	0.0876	0.0013
44	SLU 58	5.67	9.1	47.47	-0.2857	0.1176	0.0008
44	SLU 59	5.1	9.56	46.89	-0.3095	0.0878	0.0013
44	SLU 60	5.63	8.98	47.01	-0.2815	0.1154	0.0008
44	SLU 61	5.06	9.44	46.43	-0.3053	0.0856	0.0012
44	SLU 62	5.78	9.18	48.06	-0.2878	0.1197	0.0008
44	SLU 63	5.21	9.63	47.49	-0.3115	0.0899	0.0012
44	SLU 64	5.33	8.76	45.4	-0.2753	0.1076	0.0008
44	SLU 65	4.39	9.53	44.44	-0.3149	0.058	0.0016
44	SLU 66	5.49	9.02	46.66	-0.2834	0.1117	0.0009
44	SLU 67	4.92	9.47	46.08	-0.3071	0.0819	0.0013
44	SLU 68	4.54	9.72	45.5	-0.3212	0.0622	0.0016
44	SLU 69	5.64	9.21	47.72	-0.2896	0.1159	0.0009
44	SLU 70	5.07	9.67	47.14	-0.3134	0.0861	0.0013
44	SLU 71	5.63	9.16	47.52	-0.2878	0.1161	0.0009
44	SLU 72	5.06	9.62	46.94	-0.3116	0.0863	0.0013
44	SLU 73	4.98	10.16	48.29	-0.3344	0.0728	0.0015
44	SLU 74	6.09	9.65	50.52	-0.3029	0.1265	0.0008
44	SLU 75	5.52	10.11	49.94	-0.3267	0.0967	0.0013
44	SLU 76	5.13	10.36	49.35	-0.3407	0.077	0.0015
44	SLU 77	6.24	9.85	51.58	-0.3092	0.1307	0.0008
44	SLU 78	5.67	10.31	51	-0.333	0.1009	0.0013
44	SLU 79	6.23	9.8	51.38	-0.3074	0.1309	0.0008
44	SLU 80	5.66	10.25	50.8	-0.3311	0.1011	0.0013
44	SLU 81	6.18	9.68	50.91	-0.3032	0.1287	0.0008
44	SLU 82	5.62	10.13	50.33	-0.3269	0.099	0.0012
44	SLU 83	6.33	9.87	51.97	-0.3094	0.133	0.0008
44	SLU 84	5.77	10.33	51.39	-0.3332	0.1032	0.0012
44	SLE RA 1	3.98	6.59	34.07	-0.207	0.0799	0.0006
44	SLE RA 2	3.35	7.1	33.42	-0.2334	0.0468	0.0011
44	SLE RA 3	4.09	6.76	34.91	-0.2124	0.0826	0.0007
44	SLE RA 4	3.71	7.06	34.52	-0.2282	0.0627	0.001
44	SLE RA 5	3.45	7.23	34.13	-0.2376	0.0496	0.0011
44	SLE RA 6	4.18	6.89	35.61	-0.2166	0.0854	0.0007
44	SLE RA 7	3.81	7.19	35.23	-0.2324	0.0655	0.001
44	SLE RA 8	4.18	6.85	35.48	-0.2154	0.0855	0.0007
44	SLE RA 9	3.8	7.16	35.09	-0.2312	0.0657	0.0009
44	SLE RA 10	3.75	7.52	35.99	-0.2464	0.0566	0.0011
44	SLE RA 11	4.48	7.18	37.48	-0.2254	0.0924	0.0006
44	SLE RA 12	4.11	7.49	37.09	-0.2412	0.0726	0.0009
44	SLE RA 13	3.85	7.65	36.7	-0.2506	0.0594	0.0011
44	SLE RA 14	4.58	7.31	38.18	-0.2296	0.0952	0.0006
44	SLE RA 15	4.2	7.62	37.8	-0.2454	0.0754	0.0009
44	SLE RA 16	4.58	7.28	38.05	-0.2284	0.0954	0.0006
44	SLE RA 17	4.2	7.58	37.66	-0.2442	0.0755	0.0009
44	SLE RA 18	4.55	7.2	37.74	-0.2256	0.0939	0.0006
44	SLE RA 19	4.17	7.5	37.35	-0.2414	0.0741	0.0009
44	SLE RA 20	4.65	7.33	38.44	-0.2298	0.0968	0.0006
44	SLE RA 21	4.27	7.63	38.06	-0.2456	0.0769	0.0009
44	SLE FR 1	3.98	6.59	34.07	-0.207	0.0799	0.0006
44	SLE FR 2	3.85	6.69	33.94	-0.2123	0.0733	0.0007
44	SLE FR 3	4.02	6.64	34.35	-0.2087	0.081	0.0007
44	SLE FR 4	4.02	6.87	35.04	-0.2178	0.0775	0.0007
44	SLE FR 5	4.19	6.82	35.45	-0.2142	0.0852	0.0006
44	SLE FR 6	4.26	6.89	35.9	-0.2163	0.0869	0.0006
44	SLE QP 1	3.98	6.59	34.07	-0.207	0.0799	0.0006
44	SLE QP 2	4.15	6.77	35.17	-0.2126	0.0841	0.0006
44	SLD 1	8.07	9.23	53.01	-0.2923	0.1998	-0.0002
44	SLD 2	8.07	9.23	53.01	-0.2923	0.1998	-0.0002
44	SLD 3	7.27	7.08	45.92	-0.2079	0.2356	-0.001
44	SLD 4	7.27	7.08	45.92	-0.2079	0.2356	-0.001
44	SLD 5	6.53	10.76	51.27	-0.3644	0.0645	0.0016
44	SLD 6	6.53	10.76	51.27	-0.3644	0.0645	0.0016
44	SLD 7	3.88	3.61	27.64	-0.0832	0.1838	-0.0011
44	SLD 8	3.88	3.61	27.64	-0.0832	0.1838	-0.0011
44	SLD 9	4.42	9.94	42.69	-0.3419	-0.0156	0.0024
44	SLD 10	4.42	9.94	42.69	-0.3419	-0.0156	0.0024
44	SLD 11	1.77	2.78	19.07	-0.0607	0.1037	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
44	SLD 12	1.77	2.78	19.07	-0.0607	0.1037	-0.0004
44	SLD 13	1.03	6.46	24.41	-0.2172	-0.0674	0.0023
44	SLD 14	1.03	6.46	24.41	-0.2172	-0.0674	0.0023
44	SLD 15	0.23	4.32	17.33	-0.1328	-0.0316	0.0015
44	SLD 16	0.23	4.32	17.33	-0.1328	-0.0316	0.0015
44	SLV 1	13.39	12.49	76.97	-0.3989	0.3519	-0.0013
44	SLV 2	13.39	12.49	76.97	-0.3989	0.3519	-0.0013
44	SLV 3	11.4	7.51	60.25	-0.2025	0.4427	-0.0033
44	SLV 4	11.4	7.51	60.25	-0.2025	0.4427	-0.0033
44	SLV 5	9.94	16.05	73.06	-0.5664	0.0267	0.003
44	SLV 6	9.94	16.05	73.06	-0.5664	0.0267	0.003
44	SLV 7	3.31	-0.57	17.35	0.0884	0.3295	-0.0035
44	SLV 8	3.31	-0.57	17.35	0.0884	0.3295	-0.0035
44	SLV 9	4.99	14.11	52.99	-0.5135	-0.1613	0.0048
44	SLV 10	4.99	14.11	52.99	-0.5135	-0.1613	0.0048
44	SLV 11	-1.64	-2.51	-2.72	0.1413	0.1415	-0.0017
44	SLV 12	-1.64	-2.51	-2.72	0.1413	0.1415	-0.0017
44	SLV 13	-3.1	6.03	10.08	-0.2226	-0.2745	0.0046
44	SLV 14	-3.1	6.03	10.08	-0.2226	-0.2745	0.0046
44	SLV 15	-5.09	1.05	-6.63	-0.0262	-0.1837	0.0026
44	SLV 16	-5.09	1.05	-6.63	-0.0262	-0.1837	0.0026
45	SLU 1	3.67	0.08	21.39	-0.0223	0.2518	-0.0003
45	SLU 2	2.07	0.09	20.55	-0.054	0.1893	-0.0003
45	SLU 3	3.83	0.08	22.08	-0.0232	0.2626	-0.0003
45	SLU 4	2.87	0.09	21.58	-0.0422	0.2521	-0.0003
45	SLU 5	2.23	0.09	21.13	-0.0548	0.1993	-0.0003
45	SLU 6	3.99	0.09	22.66	-0.0239	0.2727	-0.0003
45	SLU 7	3.03	0.09	22.16	-0.043	0.2351	-0.0003
45	SLU 8	3.99	0.09	22.54	-0.0238	0.2719	-0.0003
45	SLU 9	3.03	0.09	22.04	-0.0428	0.2344	-0.0003
45	SLU 10	2.81	0.1	23.07	-0.057	0.2335	-0.0003
45	SLU 11	4.57	0.09	24.59	-0.0262	0.3068	-0.0003
45	SLU 12	3.61	0.1	24.1	-0.0452	0.2693	-0.0003
45	SLU 13	2.97	0.1	23.64	-0.0578	0.2435	-0.0003
45	SLU 14	4.73	0.1	25.17	-0.027	0.3169	-0.0004
45	SLU 15	3.77	0.1	24.67	-0.046	0.2793	-0.0004
45	SLU 16	4.73	0.1	25.05	-0.0268	0.3161	-0.0003
45	SLU 17	3.77	0.1	24.55	-0.0458	0.2786	-0.0004
45	SLU 18	4.73	0.1	24.98	-0.0266	0.315	-0.0003
45	SLU 19	3.77	0.1	24.48	-0.0457	0.2774	-0.0003
45	SLU 20	4.89	0.1	25.55	-0.0274	0.325	-0.0004
45	SLU 21	3.93	0.1	25.06	-0.0464	0.2875	-0.0004
45	SLU 22	4.32	0.09	23.83	-0.0253	0.2923	-0.0003
45	SLU 23	2.72	0.1	23	-0.057	0.2297	-0.0003
45	SLU 24	4.48	0.09	24.53	-0.0262	0.3031	-0.0003
45	SLU 25	3.52	0.1	24.03	-0.0452	0.2655	-0.0003
45	SLU 26	2.88	0.1	23.58	-0.0578	0.2398	-0.0003
45	SLU 27	4.64	0.1	25.1	-0.027	0.3131	-0.0004
45	SLU 28	3.68	0.1	24.61	-0.046	0.2756	-0.0004
45	SLU 29	4.64	0.1	24.99	-0.0268	0.3123	-0.0004
45	SLU 30	3.68	0.1	24.49	-0.0458	0.2748	-0.0004
45	SLU 31	3.46	0.11	25.52	-0.0601	0.2739	-0.0004
45	SLU 32	5.22	0.1	27.04	-0.0292	0.3473	-0.0004
45	SLU 33	4.26	0.11	26.54	-0.0483	0.3097	-0.0004
45	SLU 34	3.62	0.11	26.09	-0.0608	0.284	-0.0004
45	SLU 35	5.38	0.11	27.62	-0.03	0.3573	-0.0004
45	SLU 36	4.42	0.11	27.12	-0.049	0.3198	-0.0004
45	SLU 37	5.38	0.11	27.5	-0.0298	0.3565	-0.0004
45	SLU 38	4.42	0.11	27	-0.0488	0.319	-0.0004
45	SLU 39	5.38	0.11	27.42	-0.0296	0.3554	-0.0004
45	SLU 40	4.42	0.11	26.93	-0.0487	0.3179	-0.0004
45	SLU 41	5.54	0.11	28	-0.0304	0.3654	-0.0004
45	SLU 42	4.58	0.11	27.5	-0.0494	0.3279	-0.0004
45	SLU 43	4.55	0.1	26.96	-0.028	0.3135	-0.0004
45	SLU 44	2.95	0.11	26.13	-0.0597	0.251	-0.0004
45	SLU 45	4.71	0.11	27.66	-0.0289	0.3243	-0.0004
45	SLU 46	3.75	0.11	27.16	-0.0479	0.2868	-0.0004
45	SLU 47	3.11	0.11	26.71	-0.0604	0.261	-0.0004
45	SLU 48	4.87	0.11	28.23	-0.0296	0.3343	-0.0004
45	SLU 49	3.91	0.11	27.73	-0.0486	0.2968	-0.0004
45	SLU 50	4.87	0.11	28.12	-0.0295	0.3336	-0.0004
45	SLU 51	3.91	0.11	27.62	-0.0485	0.2961	-0.0004
45	SLU 52	3.69	0.12	28.64	-0.0627	0.2952	-0.0004
45	SLU 53	5.45	0.12	30.17	-0.0319	0.3685	-0.0004
45	SLU 54	4.49	0.12	29.67	-0.0509	0.331	-0.0004
45	SLU 55	3.85	0.12	29.22	-0.0634	0.3052	-0.0004
45	SLU 56	5.61	0.12	30.75	-0.0326	0.3785	-0.0004
45	SLU 57	4.65	0.12	30.25	-0.0516	0.341	-0.0004
45	SLU 58	5.61	0.12	30.63	-0.0325	0.3778	-0.0004
45	SLU 59	4.65	0.12	30.13	-0.0515	0.3403	-0.0004
45	SLU 60	5.61	0.12	30.55	-0.0323	0.3766	-0.0004
45	SLU 61	4.65	0.12	30.06	-0.0513	0.3391	-0.0004
45	SLU 62	5.77	0.12	31.13	-0.033	0.3867	-0.0004
45	SLU 63	4.81	0.12	30.63	-0.0521	0.3492	-0.0004
45	SLU 64	5.2	0.11	29.41	-0.031	0.3539	-0.0004
45	SLU 65	3.6	0.12	28.58	-0.0627	0.2914	-0.0004
45	SLU 66	5.36	0.12	30.1	-0.0319	0.3647	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
45	SLU 67	4.4	0.12	29.61	-0.0509	0.3272	-0.0004
45	SLU 68	3.76	0.12	29.15	-0.0634	0.3014	-0.0004
45	SLU 69	5.52	0.12	30.68	-0.0326	0.3748	-0.0004
45	SLU 70	4.56	0.12	30.18	-0.0516	0.3373	-0.0004
45	SLU 71	5.52	0.12	30.56	-0.0325	0.374	-0.0004
45	SLU 72	4.56	0.12	30.06	-0.0515	0.3365	-0.0004
45	SLU 73	4.34	0.13	31.09	-0.0657	0.3356	-0.0004
45	SLU 74	6.1	0.13	32.62	-0.0349	0.4089	-0.0005
45	SLU 75	5.14	0.13	32.12	-0.0539	0.3714	-0.0005
45	SLU 76	4.5	0.13	31.67	-0.0665	0.3456	-0.0005
45	SLU 77	6.26	0.13	33.2	-0.0356	0.419	-0.0005
45	SLU 78	5.3	0.13	32.7	-0.0547	0.3815	-0.0005
45	SLU 79	6.26	0.13	33.08	-0.0355	0.4182	-0.0005
45	SLU 80	5.3	0.13	32.58	-0.0545	0.3807	-0.0005
45	SLU 81	6.26	0.13	33	-0.0353	0.4171	-0.0005
45	SLU 82	5.3	0.13	32.5	-0.0543	0.3796	-0.0005
45	SLU 83	6.42	0.13	33.58	-0.036	0.4271	-0.0005
45	SLU 84	5.46	0.13	33.08	-0.0551	0.3896	-0.0005
45	SLE RA 1	3.85	0.08	22.08	-0.0232	0.2634	-0.0003
45	SLE RA 2	2.79	0.09	21.53	-0.0443	0.2217	-0.0003
45	SLE RA 3	3.96	0.09	22.55	-0.0238	0.2706	-0.0003
45	SLE RA 4	3.32	0.09	22.22	-0.0365	0.2456	-0.0003
45	SLE RA 5	2.89	0.09	21.91	-0.0448	0.2284	-0.0003
45	SLE RA 6	4.07	0.09	22.93	-0.0243	0.2773	-0.0003
45	SLE RA 7	3.43	0.09	22.6	-0.0369	0.2522	-0.0003
45	SLE RA 8	4.07	0.09	22.85	-0.0242	0.2768	-0.0003
45	SLE RA 9	3.43	0.09	22.52	-0.0368	0.2517	-0.0003
45	SLE RA 10	3.28	0.1	23.21	-0.0463	0.2511	-0.0003
45	SLE RA 11	4.46	0.09	24.22	-0.0258	0.3	-0.0003
45	SLE RA 12	3.82	0.1	23.89	-0.0385	0.275	-0.0003
45	SLE RA 13	3.39	0.1	23.59	-0.0468	0.2578	-0.0003
45	SLE RA 14	4.56	0.09	24.61	-0.0263	0.3067	-0.0003
45	SLE RA 15	3.92	0.1	24.28	-0.039	0.2817	-0.0003
45	SLE RA 16	4.56	0.09	24.53	-0.0262	0.3062	-0.0003
45	SLE RA 17	3.92	0.1	24.2	-0.0389	0.2812	-0.0003
45	SLE RA 18	4.56	0.09	24.48	-0.0261	0.3055	-0.0003
45	SLE RA 19	3.92	0.1	24.15	-0.0387	0.2805	-0.0003
45	SLE RA 20	4.67	0.1	24.86	-0.0265	0.3122	-0.0003
45	SLE RA 21	4.03	0.1	24.53	-0.0392	0.2871	-0.0003
45	SLE FR 1	3.85	0.08	22.08	-0.0232	0.2634	-0.0003
45	SLE FR 2	3.64	0.09	21.97	-0.0274	0.255	-0.0003
45	SLE FR 3	3.9	0.08	22.24	-0.0234	0.266	-0.0003
45	SLE FR 4	3.85	0.09	22.69	-0.0283	0.2677	-0.0003
45	SLE FR 5	4.11	0.09	22.96	-0.0242	0.2787	-0.0003
45	SLE FR 6	4.21	0.09	23.28	-0.0246	0.2844	-0.0003
45	SLE QP 1	3.85	0.08	22.08	-0.0232	0.2634	-0.0003
45	SLE QP 2	4.07	0.09	22.8	-0.0241	0.276	-0.0003
45	SLD 1	8.55	0.15	32.1	-0.0659	0.501	-0.0005
45	SLD 2	8.55	0.15	32.1	-0.0659	0.501	-0.0005
45	SLD 3	9.66	0.13	28.27	-0.0317	0.5516	-0.0004
45	SLD 4	9.66	0.13	28.27	-0.0317	0.5516	-0.0004
45	SLD 5	3.73	0.14	31.4	-0.0884	0.2667	-0.0004
45	SLD 6	3.73	0.14	31.4	-0.0884	0.2667	-0.0004
45	SLD 7	7.43	0.07	18.64	0.0254	0.4355	-0.0003
45	SLD 8	7.43	0.07	18.64	0.0254	0.4355	-0.0003
45	SLD 9	0.71	0.1	26.97	-0.0735	0.1165	-0.0004
45	SLD 10	0.71	0.1	26.97	-0.0735	0.1165	-0.0004
45	SLD 11	4.4	0.04	14.21	0.0403	0.2853	-0.0002
45	SLD 12	4.4	0.04	14.21	0.0403	0.2853	-0.0002
45	SLD 13	-1.53	0.04	17.33	-0.0164	0.0004	-0.0002
45	SLD 14	-1.53	0.04	17.33	-0.0164	0.0004	-0.0002
45	SLD 15	-0.42	0.02	13.51	0.0178	0.051	-0.0002
45	SLD 16	-0.42	0.02	13.51	0.0178	0.051	-0.0002
45	SLV 1	14.49	0.24	44.58	-0.1278	0.799	-0.0007
45	SLV 2	14.49	0.24	44.58	-0.1278	0.799	-0.0007
45	SLV 3	17.24	0.19	35.56	-0.0409	0.9247	-0.0005
45	SLV 4	17.24	0.19	35.56	-0.0409	0.9247	-0.0005
45	SLV 5	3.02	0.2	43.01	-0.187	0.2421	-0.0006
45	SLV 6	3.02	0.2	43.01	-0.187	0.2421	-0.0006
45	SLV 7	12.19	0.05	12.95	0.1027	0.6614	-0.0002
45	SLV 8	12.19	0.05	12.95	0.1027	0.6614	-0.0002
45	SLV 9	-4.06	0.12	32.65	-0.1508	-0.1094	-0.0004
45	SLV 10	-4.06	0.12	32.65	-0.1508	-0.1094	-0.0004
45	SLV 11	5.11	-0.03	2.59	0.1389	0.3099	0
45	SLV 12	5.11	-0.03	2.59	0.1389	0.3099	0
45	SLV 13	-9.11	-0.02	10.04	-0.0072	-0.3728	-0.0001
45	SLV 14	-9.11	-0.02	10.04	-0.0072	-0.3728	-0.0001
45	SLV 15	-6.36	-0.06	1.03	0.0797	-0.247	0.0001
45	SLV 16	-6.36	-0.06	1.03	0.0797	-0.247	0.0001
46	SLU 1	2.91	0.01	17.16	-0.0088	0.0881	0
46	SLU 2	1.29	0.03	16.39	-0.0726	0.0111	0
46	SLU 3	3.08	0.01	17.57	-0.0092	0.0948	0
46	SLU 4	2.1	0.02	17.11	-0.0475	0.0486	-0.0001
46	SLU 5	1.46	0.04	16.72	-0.073	0.0185	-0.0001
46	SLU 6	3.25	0.01	17.9	-0.0095	0.1022	-0.0001
46	SLU 7	2.28	0.02	17.44	-0.0478	0.056	-0.0001
46	SLU 8	3.26	0.01	17.82	-0.0096	0.1029	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
46	SLU 9	2.28	0.02	17.35	-0.0478	0.0567	-0.0001
46	SLU 10	1.92	0.04	18.46	-0.0747	0.0324	-0.0001
46	SLU 11	3.71	0.01	19.64	-0.0112	0.1161	-0.0001
46	SLU 12	2.74	0.03	19.18	-0.0495	0.0699	-0.0001
46	SLU 13	2.1	0.04	18.79	-0.0751	0.0398	-0.0001
46	SLU 14	3.88	0.01	19.97	-0.0116	0.1235	-0.0001
46	SLU 15	2.91	0.03	19.51	-0.0499	0.0773	-0.0001
46	SLU 16	3.89	0.01	19.89	-0.0116	0.1242	-0.0001
46	SLU 17	2.92	0.03	19.42	-0.0499	0.078	-0.0001
46	SLU 18	3.81	0.01	20.12	-0.0118	0.1185	-0.0001
46	SLU 19	2.84	0.03	19.66	-0.0501	0.0723	-0.0001
46	SLU 20	3.99	0.01	20.45	-0.0121	0.1259	-0.0001
46	SLU 21	3.01	0.03	19.98	-0.0504	0.0797	-0.0001
46	SLU 22	3.47	0.01	19.05	-0.0106	0.1074	-0.0001
46	SLU 23	1.85	0.04	18.28	-0.0744	0.0304	-0.0001
46	SLU 24	3.64	0.01	19.46	-0.011	0.114	-0.0001
46	SLU 25	2.67	0.03	19	-0.0493	0.0678	-0.0001
46	SLU 26	2.03	0.04	18.6	-0.0748	0.0378	-0.0001
46	SLU 27	3.81	0.01	19.79	-0.0113	0.1214	-0.0001
46	SLU 28	2.84	0.03	19.32	-0.0496	0.0752	-0.0001
46	SLU 29	3.82	0.01	19.7	-0.0114	0.1221	-0.0001
46	SLU 30	2.85	0.03	19.24	-0.0496	0.0759	-0.0001
46	SLU 31	2.48	0.04	20.35	-0.0765	0.0516	-0.0001
46	SLU 32	4.27	0.01	21.53	-0.0131	0.1353	-0.0001
46	SLU 33	3.3	0.03	21.07	-0.0513	0.0891	-0.0001
46	SLU 34	2.66	0.04	20.67	-0.0769	0.059	-0.0001
46	SLU 35	4.44	0.01	21.86	-0.0134	0.1427	-0.0001
46	SLU 36	3.47	0.03	21.39	-0.0517	0.0965	-0.0001
46	SLU 37	4.45	0.01	21.77	-0.0134	0.1434	-0.0001
46	SLU 38	3.48	0.03	21.31	-0.0517	0.0972	-0.0001
46	SLU 39	4.38	0.01	22.01	-0.0136	0.1378	-0.0001
46	SLU 40	3.4	0.03	21.54	-0.0519	0.0916	-0.0001
46	SLU 41	4.55	0.01	22.33	-0.014	0.1452	-0.0001
46	SLU 42	3.58	0.03	21.87	-0.0522	0.099	-0.0001
46	SLU 43	3.59	0.01	21.67	-0.0109	0.108	-0.0001
46	SLU 44	1.97	0.04	20.89	-0.0747	0.031	-0.0001
46	SLU 45	3.76	0.01	22.08	-0.0112	0.1147	-0.0001
46	SLU 46	2.79	0.03	21.61	-0.0495	0.0685	-0.0001
46	SLU 47	2.14	0.04	21.22	-0.075	0.0384	-0.0001
46	SLU 48	3.93	0.01	22.4	-0.0116	0.122	-0.0001
46	SLU 49	2.96	0.03	21.94	-0.0498	0.0758	-0.0001
46	SLU 50	3.94	0.01	22.32	-0.0116	0.1228	-0.0001
46	SLU 51	2.97	0.03	21.86	-0.0499	0.0766	-0.0001
46	SLU 52	2.6	0.04	22.96	-0.0767	0.0523	-0.0001
46	SLU 53	4.39	0.01	24.15	-0.0133	0.1359	-0.0001
46	SLU 54	3.42	0.03	23.68	-0.0515	0.0897	-0.0001
46	SLU 55	2.78	0.04	23.29	-0.0771	0.0596	-0.0001
46	SLU 56	4.56	0.01	24.47	-0.0136	0.1433	-0.0001
46	SLU 57	3.59	0.03	24.01	-0.0519	0.0971	-0.0001
46	SLU 58	4.57	0.01	24.39	-0.0136	0.144	-0.0001
46	SLU 59	3.6	0.03	23.93	-0.0519	0.0978	-0.0001
46	SLU 60	4.49	0.01	24.62	-0.0138	0.1384	-0.0001
46	SLU 61	3.52	0.03	24.16	-0.0521	0.0922	-0.0001
46	SLU 62	4.67	0.01	24.95	-0.0142	0.1458	-0.0001
46	SLU 63	3.7	0.03	24.49	-0.0524	0.0996	-0.0001
46	SLU 64	4.15	0.01	23.55	-0.0127	0.1272	-0.0001
46	SLU 65	2.53	0.04	22.78	-0.0765	0.0502	-0.0001
46	SLU 66	4.32	0.01	23.96	-0.013	0.1339	-0.0001
46	SLU 67	3.35	0.03	23.5	-0.0513	0.0877	-0.0001
46	SLU 68	2.71	0.04	23.11	-0.0768	0.0576	-0.0001
46	SLU 69	4.49	0.01	24.29	-0.0134	0.1413	-0.0001
46	SLU 70	3.52	0.03	23.83	-0.0517	0.0951	-0.0001
46	SLU 71	4.5	0.01	24.21	-0.0134	0.142	-0.0001
46	SLU 72	3.53	0.03	23.74	-0.0517	0.0958	-0.0001
46	SLU 73	3.17	0.04	24.85	-0.0785	0.0715	-0.0001
46	SLU 74	4.95	0.01	26.03	-0.0151	0.1552	-0.0001
46	SLU 75	3.98	0.03	25.57	-0.0534	0.109	-0.0001
46	SLU 76	3.34	0.04	25.18	-0.0789	0.0789	-0.0001
46	SLU 77	5.12	0.01	26.36	-0.0154	0.1626	-0.0001
46	SLU 78	4.15	0.03	25.9	-0.0537	0.1164	-0.0001
46	SLU 79	5.13	0.01	26.28	-0.0155	0.1633	-0.0001
46	SLU 80	4.16	0.03	25.81	-0.0537	0.1171	-0.0001
46	SLU 81	5.06	0.01	26.51	-0.0156	0.1576	-0.0001
46	SLU 82	4.08	0.03	26.04	-0.0539	0.1114	-0.0001
46	SLU 83	5.23	0.01	26.84	-0.016	0.165	-0.0001
46	SLU 84	4.26	0.03	26.37	-0.0543	0.1188	-0.0001
46	SLE RA 1	3.07	0.01	17.7	-0.0093	0.0936	0
46	SLE RA 2	1.99	0.03	17.19	-0.0519	0.0423	0
46	SLE RA 3	3.18	0.01	17.98	-0.0096	0.0981	-0.0001
46	SLE RA 4	2.53	0.02	17.67	-0.0351	0.0673	-0.0001
46	SLE RA 5	2.11	0.03	17.4	-0.0521	0.0472	-0.0001
46	SLE RA 6	3.3	0.01	18.19	-0.0098	0.103	-0.0001
46	SLE RA 7	2.65	0.02	17.89	-0.0353	0.0722	-0.0001
46	SLE RA 8	3.3	0.01	18.14	-0.0098	0.1035	-0.0001
46	SLE RA 9	2.65	0.02	17.83	-0.0354	0.0727	-0.0001
46	SLE RA 10	2.41	0.03	18.57	-0.0533	0.0565	-0.0001
46	SLE RA 11	3.6	0.01	19.36	-0.011	0.1123	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
46	SLE RA 12	2.95	0.02	19.05	-0.0365	0.0815	-0.0001
46	SLE RA 13	2.53	0.03	18.78	-0.0535	0.0614	-0.0001
46	SLE RA 14	3.72	0.01	19.57	-0.0112	0.1172	-0.0001
46	SLE RA 15	3.07	0.02	19.27	-0.0367	0.0864	-0.0001
46	SLE RA 16	3.72	0.01	19.52	-0.0112	0.1177	-0.0001
46	SLE RA 17	3.08	0.02	19.21	-0.0367	0.0869	-0.0001
46	SLE RA 18	3.67	0.01	19.67	-0.0113	0.1139	-0.0001
46	SLE RA 19	3.03	0.02	19.36	-0.0368	0.0831	-0.0001
46	SLE RA 20	3.79	0.01	19.89	-0.0116	0.1188	-0.0001
46	SLE RA 21	3.14	0.02	19.58	-0.0371	0.088	-0.0001
46	SLE FR 1	3.07	0.01	17.7	-0.0093	0.0936	0
46	SLE FR 2	2.86	0.01	17.6	-0.0179	0.0834	0
46	SLE FR 3	3.12	0.01	17.79	-0.0094	0.0956	-0.0001
46	SLE FR 4	3.04	0.01	18.19	-0.0184	0.0894	-0.0001
46	SLE FR 5	3.3	0.01	18.38	-0.01	0.1017	-0.0001
46	SLE FR 6	3.37	0.01	18.69	-0.0103	0.1038	-0.0001
46	SLE QP 1	3.07	0.01	17.7	-0.0093	0.0936	0
46	SLE QP 2	3.25	0.01	18.29	-0.0099	0.0997	-0.0001
46	SLD 1	8.26	-0.04	23.02	-0.0052	0.3254	-0.0002
46	SLD 2	8.26	-0.04	23.02	-0.0052	0.3254	-0.0002
46	SLD 3	9.29	-0.08	20.92	0.0679	0.3755	-0.0003
46	SLD 4	9.29	-0.08	20.92	0.0679	0.3755	-0.0003
46	SLD 5	3.19	0.05	22.91	-0.1193	0.0913	0
46	SLD 6	3.19	0.05	22.91	-0.1193	0.0913	0
46	SLD 7	6.63	-0.07	15.88	0.1242	0.2585	-0.0002
46	SLD 8	6.63	-0.07	15.88	0.1242	0.2585	-0.0002
46	SLD 9	-0.12	0.09	20.7	-0.1441	-0.0591	0.0001
46	SLD 10	-0.12	0.09	20.7	-0.1441	-0.0591	0.0001
46	SLD 11	3.31	-0.03	13.68	0.0995	0.1081	-0.0001
46	SLD 12	3.31	-0.03	13.68	0.0995	0.1081	-0.0001
46	SLD 13	-2.79	0.1	15.67	-0.0878	-0.1761	0.0002
46	SLD 14	-2.79	0.1	15.67	-0.0878	-0.1761	0.0002
46	SLD 15	-1.76	0.06	13.56	-0.0147	-0.126	0.0001
46	SLD 16	-1.76	0.06	13.56	-0.0147	-0.126	0.0001
46	SLV 1	14.91	-0.12	29.35	-0.0017	0.624	-0.0004
46	SLV 2	14.91	-0.12	29.35	-0.0017	0.624	-0.0004
46	SLV 3	17.49	-0.21	24.44	0.1849	0.7507	-0.0006
46	SLV 4	17.49	-0.21	24.44	0.1849	0.7507	-0.0006
46	SLV 5	2.83	0.11	29.06	-0.2905	0.0648	0
46	SLV 6	2.83	0.11	29.06	-0.2905	0.0648	0
46	SLV 7	11.44	-0.19	12.69	0.3316	0.4872	-0.0004
46	SLV 8	11.44	-0.19	12.69	0.3316	0.4872	-0.0004
46	SLV 9	-4.94	0.21	23.9	-0.3515	-0.2878	0.0003
46	SLV 10	-4.94	0.21	23.9	-0.3515	-0.2878	0.0003
46	SLV 11	3.67	-0.09	7.53	0.2707	0.1346	-0.0001
46	SLV 12	3.67	-0.09	7.53	0.2707	0.1346	-0.0001
46	SLV 13	-10.98	0.22	12.15	-0.2048	-0.5513	0.0004
46	SLV 14	-10.98	0.22	12.15	-0.2048	-0.5513	0.0004
46	SLV 15	-8.4	0.13	7.24	-0.0182	-0.4246	0.0003
46	SLV 16	-8.4	0.13	7.24	-0.0182	-0.4246	0.0003
47	SLU 1	3.77	-0.04	15.65	0.0038	0.2153	0.0001
47	SLU 2	2.5	0.03	14.93	-0.0948	0.1669	-0.0001
47	SLU 3	3.98	-0.04	15.92	0.0039	0.2266	0.0001
47	SLU 4	3.23	0	15.49	-0.0552	0.1976	0
47	SLU 5	2.72	0.03	15.13	-0.0949	0.1776	-0.0001
47	SLU 6	4.2	-0.04	16.12	0.0039	0.2373	0.0001
47	SLU 7	3.44	0	15.69	-0.0553	0.2083	0
47	SLU 8	4.2	-0.04	16.05	0.0037	0.2367	0.0001
47	SLU 9	3.44	0	15.62	-0.0555	0.2077	0
47	SLU 10	3.23	0.02	16.9	-0.096	0.2052	-0.0001
47	SLU 11	4.71	-0.04	17.89	0.0028	0.2649	0.0001
47	SLU 12	3.95	0	17.46	-0.0564	0.2358	0
47	SLU 13	3.44	0.02	17.1	-0.096	0.2159	-0.0001
47	SLU 14	4.92	-0.04	18.09	0.0027	0.2756	0.0001
47	SLU 15	4.16	0	17.66	-0.0564	0.2465	0
47	SLU 16	4.92	-0.04	18.02	0.0025	0.275	0.0001
47	SLU 17	4.16	0	17.59	-0.0566	0.2459	0
47	SLU 18	4.8	-0.04	18.47	0.0021	0.27	0.0001
47	SLU 19	4.04	0	18.03	-0.057	0.2409	0
47	SLU 20	5.02	-0.04	18.67	0.0021	0.2807	0.0001
47	SLU 21	4.26	0	18.23	-0.0571	0.2516	0
47	SLU 22	4.44	-0.04	17.35	0.0031	0.2514	0.0001
47	SLU 23	3.18	0.02	16.62	-0.0955	0.203	-0.0001
47	SLU 24	4.66	-0.04	17.61	0.0032	0.2627	0.0001
47	SLU 25	3.9	0	17.18	-0.0559	0.2337	0
47	SLU 26	3.39	0.02	16.82	-0.0955	0.2137	-0.0001
47	SLU 27	4.87	-0.04	17.81	0.0032	0.2734	0.0001
47	SLU 28	4.11	0	17.38	-0.056	0.2444	0
47	SLU 29	4.87	-0.04	17.74	0.003	0.2728	0.0001
47	SLU 30	4.11	0	17.31	-0.0562	0.2438	0
47	SLU 31	3.9	0.02	18.59	-0.0966	0.2413	0
47	SLU 32	5.38	-0.04	19.58	0.0021	0.301	0.0001
47	SLU 33	4.62	-0.01	19.15	-0.0571	0.2719	0
47	SLU 34	4.12	0.02	18.79	-0.0967	0.252	0
47	SLU 35	5.6	-0.04	19.78	0.0021	0.3117	0.0001
47	SLU 36	4.84	-0.01	19.35	-0.0571	0.2826	0
47	SLU 37	5.59	-0.04	19.71	0.0019	0.3111	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
47	SLU 38	4.84	-0.01	19.28	-0.0573	0.282	0
47	SLU 39	5.48	-0.04	20.16	0.0015	0.3061	0.0001
47	SLU 40	4.72	-0.01	19.72	-0.0577	0.277	0
47	SLU 41	5.69	-0.04	20.36	0.0014	0.3168	0.0001
47	SLU 42	4.93	-0.01	19.92	-0.0577	0.2877	0
47	SLU 43	4.67	-0.05	19.77	0.0051	0.2675	0.0002
47	SLU 44	3.4	0.02	19.05	-0.0935	0.2191	0
47	SLU 45	4.88	-0.05	20.04	0.0053	0.2788	0.0002
47	SLU 46	4.13	-0.01	19.6	-0.0539	0.2498	0
47	SLU 47	3.62	0.02	19.24	-0.0935	0.2298	0
47	SLU 48	5.1	-0.05	20.24	0.0052	0.2895	0.0002
47	SLU 49	4.34	-0.01	19.8	-0.0539	0.2605	0
47	SLU 50	5.09	-0.05	20.17	0.005	0.2889	0.0002
47	SLU 51	4.34	-0.01	19.73	-0.0541	0.2599	0
47	SLU 52	4.13	0.01	21.01	-0.0946	0.2574	0
47	SLU 53	5.61	-0.05	22.01	0.0041	0.3171	0.0002
47	SLU 54	4.85	-0.01	21.57	-0.055	0.288	0.0001
47	SLU 55	4.34	0.01	21.21	-0.0946	0.2681	0
47	SLU 56	5.82	-0.05	22.21	0.0041	0.3278	0.0002
47	SLU 57	5.06	-0.01	21.77	-0.0551	0.2987	0.0001
47	SLU 58	5.82	-0.05	22.14	0.0039	0.3272	0.0002
47	SLU 59	5.06	-0.01	21.7	-0.0553	0.2981	0
47	SLU 60	5.7	-0.05	22.58	0.0035	0.3222	0.0002
47	SLU 61	4.94	-0.01	22.15	-0.0556	0.2931	0.0001
47	SLU 62	5.91	-0.05	22.78	0.0035	0.3329	0.0002
47	SLU 63	5.16	-0.01	22.35	-0.0557	0.3038	0.0001
47	SLU 64	5.34	-0.05	21.46	0.0045	0.3036	0.0002
47	SLU 65	4.08	0.01	20.74	-0.0941	0.2552	0
47	SLU 66	5.56	-0.05	21.73	0.0046	0.3149	0.0002
47	SLU 67	4.8	-0.01	21.29	-0.0546	0.2859	0.0001
47	SLU 68	4.29	0.01	20.93	-0.0942	0.2659	0
47	SLU 69	5.77	-0.05	21.93	0.0046	0.3256	0.0002
47	SLU 70	5.01	-0.01	21.49	-0.0546	0.2966	0.0001
47	SLU 71	5.77	-0.05	21.86	0.0044	0.325	0.0002
47	SLU 72	5.01	-0.01	21.42	-0.0548	0.296	0
47	SLU 73	4.8	0.01	22.71	-0.0953	0.2935	0
47	SLU 74	6.28	-0.05	23.7	0.0035	0.3532	0.0002
47	SLU 75	5.52	-0.02	23.26	-0.0557	0.3241	0.0001
47	SLU 76	5.02	0.01	22.9	-0.0953	0.3042	0
47	SLU 77	6.49	-0.05	23.9	0.0034	0.3639	0.0002
47	SLU 78	5.74	-0.02	23.46	-0.0557	0.3348	0.0001
47	SLU 79	6.49	-0.05	23.83	0.0032	0.3633	0.0002
47	SLU 80	5.74	-0.02	23.39	-0.0559	0.3342	0.0001
47	SLU 81	6.37	-0.05	24.28	0.0028	0.3583	0.0002
47	SLU 82	5.62	-0.02	23.84	-0.0563	0.3292	0.0001
47	SLU 83	6.59	-0.05	24.47	0.0028	0.369	0.0002
47	SLU 84	5.83	-0.02	24.04	-0.0564	0.3399	0.0001
47	SLE RA 1	3.96	-0.04	16.14	0.0036	0.2256	0.0001
47	SLE RA 2	3.12	0	15.65	-0.0622	0.1933	0
47	SLE RA 3	4.1	-0.04	16.32	0.0037	0.2331	0.0001
47	SLE RA 4	3.6	-0.01	16.03	-0.0358	0.2138	0
47	SLE RA 5	3.26	0	15.79	-0.0622	0.2005	0
47	SLE RA 6	4.25	-0.04	16.45	0.0036	0.2403	0.0001
47	SLE RA 7	3.74	-0.01	16.16	-0.0358	0.2209	0
47	SLE RA 8	4.25	-0.04	16.4	0.0035	0.2399	0.0001
47	SLE RA 9	3.74	-0.01	16.11	-0.0359	0.2205	0
47	SLE RA 10	3.6	0	16.97	-0.0629	0.2189	0
47	SLE RA 11	4.59	-0.04	17.63	0.0029	0.2586	0.0001
47	SLE RA 12	4.08	-0.01	17.34	-0.0365	0.2393	0.0001
47	SLE RA 13	3.74	0	17.1	-0.0629	0.226	0
47	SLE RA 14	4.73	-0.04	17.76	0.0029	0.2658	0.0001
47	SLE RA 15	4.22	-0.02	17.47	-0.0366	0.2464	0.0001
47	SLE RA 16	4.73	-0.04	17.72	0.0028	0.2654	0.0001
47	SLE RA 17	4.22	-0.01	17.43	-0.0367	0.246	0.0001
47	SLE RA 18	4.65	-0.04	18.01	0.0025	0.262	0.0001
47	SLE RA 19	4.14	-0.02	17.72	-0.0369	0.2427	0.0001
47	SLE RA 20	4.79	-0.04	18.15	0.0025	0.2692	0.0001
47	SLE RA 21	4.29	-0.02	17.86	-0.037	0.2498	0.0001
47	SLE FR 1	3.96	-0.04	16.14	0.0036	0.2256	0.0001
47	SLE FR 2	3.79	-0.03	16.04	-0.0096	0.2192	0.0001
47	SLE FR 3	4.02	-0.04	16.19	0.0036	0.2285	0.0001
47	SLE FR 4	4	-0.03	16.6	-0.0099	0.2301	0.0001
47	SLE FR 5	4.22	-0.04	16.75	0.0032	0.2394	0.0001
47	SLE FR 6	4.3	-0.04	17.08	0.003	0.2438	0.0001
47	SLE QP 1	3.96	-0.04	16.14	0.0036	0.2256	0.0001
47	SLE QP 2	4.17	-0.04	16.7	0.0032	0.2365	0.0001
47	SLD 1	9.71	-0.07	19.22	-0.004	0.5269	-0.0003
47	SLD 2	9.71	-0.07	19.22	-0.004	0.5269	-0.0003
47	SLD 3	10.62	-0.15	17.76	0.1129	0.485	0
47	SLD 4	10.62	-0.15	17.76	0.1129	0.485	0
47	SLD 5	4.46	0.08	19.66	-0.1762	0.3871	-0.0004
47	SLD 6	4.46	0.08	19.66	-0.1762	0.3871	-0.0004
47	SLD 7	7.48	-0.19	14.81	0.2135	0.2476	0.0005
47	SLD 8	7.48	-0.19	14.81	0.2135	0.2476	0.0005
47	SLD 9	0.85	0.12	18.59	-0.207	0.2255	-0.0002
47	SLD 10	0.85	0.12	18.59	-0.207	0.2255	-0.0002
47	SLD 11	3.88	-0.15	13.74	0.1827	0.086	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
47	SLD 12	3.88	-0.15	13.74	0.1827	0.086	0.0006
47	SLD 13	-2.29	0.07	15.64	-0.1064	-0.012	0.0003
47	SLD 14	-2.29	0.07	15.64	-0.1064	-0.012	0.0003
47	SLD 15	-1.38	-0.01	14.19	0.0105	-0.0538	0.0006
47	SLD 16	-1.38	-0.01	14.19	0.0105	-0.0538	0.0006
47	SLV 1	17.09	-0.1	22.6	-0.0188	0.9188	-0.0009
47	SLV 2	17.09	-0.1	22.6	-0.0188	0.9188	-0.0009
47	SLV 3	19.35	-0.31	19.2	0.2798	0.8157	-0.0003
47	SLV 4	19.35	-0.31	19.2	0.2798	0.8157	-0.0003
47	SLV 5	4.63	0.26	23.62	-0.4562	0.5976	-0.0012
47	SLV 6	4.63	0.26	23.62	-0.4562	0.5976	-0.0012
47	SLV 7	12.14	-0.44	12.3	0.5391	0.2539	0.001
47	SLV 8	12.14	-0.44	12.3	0.5391	0.2539	0.001
47	SLV 9	-3.81	0.36	21.1	-0.5326	0.2192	-0.0008
47	SLV 10	-3.81	0.36	21.1	-0.5326	0.2192	-0.0008
47	SLV 11	3.71	-0.33	9.78	0.4627	-0.1246	0.0014
47	SLV 12	3.71	-0.33	9.78	0.4627	-0.1246	0.0014
47	SLV 13	-11.02	0.24	14.2	-0.2733	-0.3426	0.0005
47	SLV 14	-11.02	0.24	14.2	-0.2733	-0.3426	0.0005
47	SLV 15	-8.76	0.03	10.8	0.0253	-0.4457	0.0012
47	SLV 16	-8.76	0.03	10.8	0.0253	-0.4457	0.0012
48	SLU 1	2.87	-0.06	14.88	0.0125	0.0879	0.0004
48	SLU 2	1.76	0.04	14.26	-0.1192	0.0329	-0.0002
48	SLU 3	3.09	-0.06	15.06	0.0129	0.0968	0.0004
48	SLU 4	2.42	0	14.69	-0.0661	0.0638	0.0001
48	SLU 5	1.98	0.04	14.38	-0.1191	0.0424	-0.0002
48	SLU 6	3.31	-0.06	15.18	0.0131	0.1062	0.0004
48	SLU 7	2.65	0	14.81	-0.0659	0.0732	0.0001
48	SLU 8	3.32	-0.06	15.12	0.0128	0.1068	0.0004
48	SLU 9	2.65	0	14.75	-0.0663	0.0738	0.0001
48	SLU 10	2.32	0.03	16.2	-0.1199	0.0516	-0.0001
48	SLU 11	3.65	-0.07	17	0.0123	0.1154	0.0004
48	SLU 12	2.98	-0.01	16.63	-0.0667	0.0824	0.0001
48	SLU 13	2.54	0.03	16.32	-0.1197	0.061	-0.0001
48	SLU 14	3.87	-0.07	17.12	0.0125	0.1249	0.0004
48	SLU 15	3.21	-0.01	16.75	-0.0666	0.0919	0.0001
48	SLU 16	3.88	-0.07	17.06	0.0121	0.1255	0.0004
48	SLU 17	3.21	-0.01	16.69	-0.0669	0.0925	0.0001
48	SLU 18	3.67	-0.07	17.65	0.0116	0.1145	0.0004
48	SLU 19	3	-0.01	17.28	-0.0674	0.0815	0.0001
48	SLU 20	3.89	-0.07	17.77	0.0117	0.124	0.0004
48	SLU 21	3.23	-0.01	17.4	-0.0673	0.091	0.0001
48	SLU 22	3.42	-0.06	16.47	0.0125	0.1067	0.0004
48	SLU 23	2.3	0.03	15.86	-0.1192	0.0517	-0.0001
48	SLU 24	3.64	-0.07	16.65	0.0129	0.1156	0.0004
48	SLU 25	2.97	-0.01	16.28	-0.0661	0.0826	0.0001
48	SLU 26	2.53	0.03	15.98	-0.1191	0.0612	-0.0001
48	SLU 27	3.86	-0.07	16.77	0.0131	0.125	0.0004
48	SLU 28	3.19	-0.01	16.4	-0.0659	0.092	0.0001
48	SLU 29	3.87	-0.07	16.71	0.0128	0.1256	0.0004
48	SLU 30	3.2	-0.01	16.34	-0.0663	0.0926	0.0001
48	SLU 31	2.86	0.03	17.8	-0.1199	0.0704	-0.0001
48	SLU 32	4.19	-0.07	18.59	0.0123	0.1342	0.0004
48	SLU 33	3.53	-0.01	18.22	-0.0667	0.1012	0.0001
48	SLU 34	3.09	0.03	17.92	-0.1197	0.0798	-0.0001
48	SLU 35	4.42	-0.07	18.71	0.0125	0.1436	0.0004
48	SLU 36	3.75	-0.01	18.34	-0.0666	0.1106	0.0001
48	SLU 37	4.42	-0.07	18.65	0.0121	0.1442	0.0004
48	SLU 38	3.76	-0.01	18.28	-0.0669	0.1112	0.0001
48	SLU 39	4.21	-0.07	19.25	0.0116	0.1333	0.0004
48	SLU 40	3.55	-0.01	18.87	-0.0674	0.1003	0.0001
48	SLU 41	4.44	-0.07	19.37	0.0117	0.1428	0.0004
48	SLU 42	3.77	-0.01	18.99	-0.0673	0.1098	0.0001
48	SLU 43	3.55	-0.07	18.8	0.0162	0.1079	0.0004
48	SLU 44	2.43	0.02	18.18	-0.1155	0.0529	-0.0001
48	SLU 45	3.77	-0.08	18.98	0.0167	0.1167	0.0005
48	SLU 46	3.1	-0.02	18.61	-0.0624	0.0837	0.0001
48	SLU 47	2.66	0.02	18.3	-0.1153	0.0623	-0.0001
48	SLU 48	3.99	-0.08	19.1	0.0168	0.1262	0.0005
48	SLU 49	3.32	-0.02	18.73	-0.0622	0.0932	0.0002
48	SLU 50	3.99	-0.08	19.04	0.0165	0.1268	0.0005
48	SLU 51	3.33	-0.02	18.67	-0.0625	0.0938	0.0001
48	SLU 52	2.99	0.02	20.12	-0.1161	0.0715	0
48	SLU 53	4.32	-0.08	20.92	0.016	0.1353	0.0005
48	SLU 54	3.66	-0.02	20.55	-0.063	0.1024	0.0002
48	SLU 55	3.21	0.02	20.24	-0.116	0.081	0
48	SLU 56	4.55	-0.08	21.04	0.0162	0.1448	0.0005
48	SLU 57	3.88	-0.02	20.67	-0.0628	0.1118	0.0002
48	SLU 58	4.55	-0.08	20.98	0.0159	0.1454	0.0005
48	SLU 59	3.88	-0.02	20.61	-0.0631	0.1124	0.0002
48	SLU 60	4.34	-0.08	21.57	0.0153	0.1345	0.0005
48	SLU 61	3.68	-0.02	21.2	-0.0637	0.1015	0.0002
48	SLU 62	4.57	-0.08	21.69	0.0155	0.1439	0.0005
48	SLU 63	3.9	-0.02	21.32	-0.0636	0.1109	0.0002
48	SLU 64	4.09	-0.08	20.39	0.0162	0.1266	0.0005
48	SLU 65	2.98	0.02	19.77	-0.1155	0.0717	0
48	SLU 66	4.31	-0.08	20.57	0.0167	0.1355	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
48	SLU 67	3.64	-0.02	20.2	-0.0624	0.1025	0.0002
48	SLU 68	3.2	0.02	19.89	-0.1153	0.0811	0
48	SLU 69	4.53	-0.08	20.69	0.0168	0.1449	0.0005
48	SLU 70	3.87	-0.02	20.32	-0.0622	0.112	0.0002
48	SLU 71	4.54	-0.08	20.63	0.0165	0.1455	0.0005
48	SLU 72	3.87	-0.02	20.26	-0.0625	0.1126	0.0002
48	SLU 73	3.54	0.01	21.71	-0.1161	0.0903	0
48	SLU 74	4.87	-0.09	22.51	0.016	0.1541	0.0005
48	SLU 75	4.2	-0.03	22.14	-0.063	0.1211	0.0002
48	SLU 76	3.76	0.01	21.83	-0.116	0.0997	0
48	SLU 77	5.09	-0.09	22.63	0.0162	0.1636	0.0005
48	SLU 78	4.42	-0.03	22.26	-0.0628	0.1306	0.0002
48	SLU 79	5.1	-0.09	22.57	0.0159	0.1642	0.0005
48	SLU 80	4.43	-0.03	22.2	-0.0631	0.1312	0.0002
48	SLU 81	4.89	-0.09	23.17	0.0153	0.1532	0.0005
48	SLU 82	4.22	-0.03	22.79	-0.0637	0.1203	0.0002
48	SLU 83	5.11	-0.09	23.28	0.0155	0.1627	0.0005
48	SLU 84	4.45	-0.03	22.91	-0.0636	0.1297	0.0002
48	SLE RA 1	3.03	-0.06	15.34	0.0125	0.0933	0.0004
48	SLE RA 2	2.28	0	14.92	-0.0753	0.0566	0
48	SLE RA 3	3.17	-0.06	15.46	0.0128	0.0992	0.0004
48	SLE RA 4	2.73	-0.02	15.21	-0.0399	0.0772	0.0002
48	SLE RA 5	2.43	0	15	-0.0752	0.0629	0
48	SLE RA 6	3.32	-0.06	15.54	0.0129	0.1055	0.0004
48	SLE RA 7	2.88	-0.02	15.29	-0.0398	0.0835	0.0002
48	SLE RA 8	3.33	-0.06	15.5	0.0127	0.1059	0.0004
48	SLE RA 9	2.88	-0.02	15.25	-0.04	0.0839	0.0002
48	SLE RA 10	2.66	0	16.22	-0.0758	0.0691	0
48	SLE RA 11	3.55	-0.06	16.75	0.0124	0.1116	0.0004
48	SLE RA 12	3.1	-0.03	16.5	-0.0403	0.0896	0.0002
48	SLE RA 13	2.81	0	16.3	-0.0756	0.0754	0
48	SLE RA 14	3.7	-0.07	16.83	0.0125	0.1179	0.0004
48	SLE RA 15	3.25	-0.03	16.58	-0.0402	0.0959	0.0002
48	SLE RA 16	3.7	-0.06	16.79	0.0122	0.1183	0.0004
48	SLE RA 17	3.25	-0.03	16.54	-0.0404	0.0963	0.0002
48	SLE RA 18	3.56	-0.06	17.19	0.0119	0.111	0.0004
48	SLE RA 19	3.11	-0.03	16.94	-0.0408	0.089	0.0002
48	SLE RA 20	3.71	-0.07	17.26	0.012	0.1173	0.0004
48	SLE RA 21	3.26	-0.03	17.02	-0.0407	0.0953	0.0002
48	SLE FR 1	3.03	-0.06	15.34	0.0125	0.0933	0.0004
48	SLE FR 2	2.88	-0.05	15.25	-0.0051	0.086	0.0003
48	SLE FR 3	3.09	-0.06	15.37	0.0125	0.0958	0.0004
48	SLE FR 4	3.04	-0.05	15.81	-0.0053	0.0913	0.0003
48	SLE FR 5	3.25	-0.06	15.92	0.0123	0.1011	0.0004
48	SLE FR 6	3.29	-0.06	16.26	0.0122	0.1022	0.0004
48	SLE QP 1	3.03	-0.06	15.34	0.0125	0.0933	0.0004
48	SLE QP 2	3.19	-0.06	15.89	0.0123	0.0986	0.0004
48	SLD 1	9.29	-0.06	17.58	-0.0107	0.3689	0.0004
48	SLD 2	9.29	-0.06	17.58	-0.0107	0.3689	0.0004
48	SLD 3	10.16	-0.19	16.1	0.149	0.4119	0.0011
48	SLD 4	10.16	-0.19	16.1	0.149	0.4119	0.0011
48	SLD 5	3.69	0.14	18.64	-0.2368	0.1145	-0.0007
48	SLD 6	3.69	0.14	18.64	-0.2368	0.1145	-0.0007
48	SLD 7	6.61	-0.3	13.72	0.2955	0.2578	0.0017
48	SLD 8	6.61	-0.3	13.72	0.2955	0.2578	0.0017
48	SLD 9	-0.23	0.17	18.07	-0.2709	-0.0606	-0.0009
48	SLD 10	-0.23	0.17	18.07	-0.2709	-0.0606	-0.0009
48	SLD 11	2.69	-0.26	13.15	0.2614	0.0827	0.0014
48	SLD 12	2.69	-0.26	13.15	0.2614	0.0827	0.0014
48	SLD 13	-3.79	0.07	15.68	-0.1244	-0.2147	-0.0004
48	SLD 14	-3.79	0.07	15.68	-0.1244	-0.2147	-0.0004
48	SLD 15	-2.91	-0.06	14.2	0.0352	-0.1717	0.0003
48	SLD 16	-2.91	-0.06	14.2	0.0352	-0.1717	0.0003
48	SLV 1	17.41	-0.06	19.97	-0.0489	0.7282	0.0004
48	SLV 2	17.41	-0.06	19.97	-0.0489	0.7282	0.0004
48	SLV 3	19.59	-0.39	16.38	0.3589	0.836	0.0022
48	SLV 4	19.59	-0.39	16.38	0.3589	0.836	0.0022
48	SLV 5	4.15	0.44	22.57	-0.6245	0.124	-0.0024
48	SLV 6	4.15	0.44	22.57	-0.6245	0.124	-0.0024
48	SLV 7	11.41	-0.66	10.58	0.7347	0.4833	0.0037
48	SLV 8	11.41	-0.66	10.58	0.7347	0.4833	0.0037
48	SLV 9	-5.04	0.54	21.2	-0.7101	-0.2861	-0.0029
48	SLV 10	-5.04	0.54	21.2	-0.7101	-0.2861	-0.0029
48	SLV 11	2.22	-0.56	9.21	0.649	0.0732	0.0031
48	SLV 12	2.22	-0.56	9.21	0.649	0.0732	0.0031
48	SLV 13	-13.21	0.26	15.41	-0.3343	-0.6388	-0.0015
48	SLV 14	-13.21	0.26	15.41	-0.3343	-0.6388	-0.0015
48	SLV 15	-11.04	-0.07	11.81	0.0734	-0.531	0.0003
48	SLV 16	-11.04	-0.07	11.81	0.0734	-0.531	0.0003
49	SLU 1	3.61	-0.07	14.54	0.0179	0.1942	0.0006
49	SLU 2	2.88	0.06	14.08	-0.1416	0.1664	-0.0003
49	SLU 3	3.87	-0.07	14.67	0.0186	0.2069	0.0006
49	SLU 4	3.43	0.01	14.39	-0.0772	0.1902	0
49	SLU 5	3.14	0.06	14.15	-0.1414	0.1785	-0.0003
49	SLU 6	4.13	-0.07	14.75	0.0188	0.219	0.0006
49	SLU 7	3.7	0.01	14.47	-0.0769	0.2023	0
49	SLU 8	4.13	-0.07	14.69	0.0184	0.2185	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
49	SLU 9	3.69	0.01	14.41	-0.0773	0.2018	0
49	SLU 10	3.51	0.05	16.02	-0.1419	0.199	-0.0003
49	SLU 11	4.5	-0.07	16.62	0.0182	0.2395	0.0006
49	SLU 12	4.06	0	16.34	-0.0775	0.2228	0.0001
49	SLU 13	3.77	0.05	16.09	-0.1417	0.2111	-0.0003
49	SLU 14	4.76	-0.07	16.69	0.0185	0.2516	0.0006
49	SLU 15	4.32	0	16.41	-0.0773	0.2349	0.0001
49	SLU 16	4.76	-0.07	16.63	0.0181	0.2511	0.0006
49	SLU 17	4.32	0	16.35	-0.0777	0.2344	0.0001
49	SLU 18	4.5	-0.07	17.32	0.0175	0.2408	0.0006
49	SLU 19	4.07	0	17.04	-0.0783	0.2241	0.0001
49	SLU 20	4.76	-0.07	17.39	0.0177	0.2529	0.0007
49	SLU 21	4.33	0	17.11	-0.078	0.2362	0.0001
49	SLU 22	4.24	-0.07	16.09	0.0183	0.2268	0.0006
49	SLU 23	3.51	0.05	15.62	-0.1413	0.199	-0.0003
49	SLU 24	4.5	-0.07	16.22	0.0189	0.2395	0.0006
49	SLU 25	4.07	0	15.94	-0.0768	0.2228	0.0001
49	SLU 26	3.77	0.05	15.7	-0.141	0.2111	-0.0003
49	SLU 27	4.77	-0.07	16.3	0.0191	0.2516	0.0007
49	SLU 28	4.33	0	16.02	-0.0766	0.2349	0.0001
49	SLU 29	4.76	-0.07	16.24	0.0187	0.2511	0.0006
49	SLU 30	4.32	0	15.96	-0.077	0.2344	0.0001
49	SLU 31	4.14	0.05	17.57	-0.1416	0.2316	-0.0002
49	SLU 32	5.13	-0.08	18.17	0.0186	0.2721	0.0007
49	SLU 33	4.69	0	17.89	-0.0772	0.2554	0.0001
49	SLU 34	4.4	0.05	17.64	-0.1414	0.2437	-0.0002
49	SLU 35	5.39	-0.08	18.24	0.0188	0.2842	0.0007
49	SLU 36	4.96	-0.01	17.96	-0.0769	0.2675	0.0002
49	SLU 37	5.39	-0.08	18.18	0.0184	0.2837	0.0007
49	SLU 38	4.95	0	17.9	-0.0773	0.267	0.0001
49	SLU 39	5.14	-0.08	18.87	0.0178	0.2734	0.0007
49	SLU 40	4.7	0	18.59	-0.0779	0.2567	0.0002
49	SLU 41	5.4	-0.08	18.94	0.018	0.2855	0.0007
49	SLU 42	4.96	-0.01	18.66	-0.0777	0.2689	0.0002
49	SLU 43	4.47	-0.08	18.38	0.0232	0.2413	0.0007
49	SLU 44	3.74	0.04	17.91	-0.1363	0.2135	-0.0002
49	SLU 45	4.74	-0.08	18.51	0.0238	0.254	0.0007
49	SLU 46	4.3	-0.01	18.23	-0.0719	0.2373	0.0002
49	SLU 47	4.01	0.04	17.98	-0.1361	0.2256	-0.0002
49	SLU 48	5	-0.09	18.58	0.0241	0.2661	0.0008
49	SLU 49	4.56	-0.01	18.3	-0.0717	0.2494	0.0002
49	SLU 50	4.99	-0.08	18.52	0.0236	0.2655	0.0007
49	SLU 51	4.56	-0.01	18.24	-0.0721	0.2489	0.0002
49	SLU 52	4.37	0.04	19.85	-0.1367	0.2461	-0.0001
49	SLU 53	5.36	-0.09	20.45	0.0235	0.2866	0.0008
49	SLU 54	4.93	-0.02	20.17	-0.0722	0.2699	0.0002
49	SLU 55	4.63	0.03	19.93	-0.1364	0.2582	-0.0001
49	SLU 56	5.62	-0.09	20.52	0.0237	0.2987	0.0008
49	SLU 57	5.19	-0.02	20.24	-0.072	0.282	0.0002
49	SLU 58	5.62	-0.09	20.47	0.0233	0.2982	0.0008
49	SLU 59	5.18	-0.02	20.19	-0.0724	0.2815	0.0002
49	SLU 60	5.37	-0.09	21.15	0.0227	0.2879	0.0008
49	SLU 61	4.93	-0.02	20.87	-0.073	0.2712	0.0002
49	SLU 62	5.63	-0.09	21.23	0.0229	0.3	0.0008
49	SLU 63	5.19	-0.02	20.95	-0.0728	0.2833	0.0003
49	SLU 64	5.11	-0.09	19.92	0.0235	0.2739	0.0008
49	SLU 65	4.38	0.03	19.46	-0.136	0.2461	-0.0001
49	SLU 66	5.37	-0.09	20.05	0.0242	0.2866	0.0008
49	SLU 67	4.93	-0.02	19.77	-0.0716	0.2699	0.0002
49	SLU 68	4.64	0.03	19.53	-0.1358	0.2582	-0.0001
49	SLU 69	5.63	-0.09	20.13	0.0244	0.2987	0.0008
49	SLU 70	5.19	-0.02	19.85	-0.0713	0.282	0.0003
49	SLU 71	5.63	-0.09	20.07	0.024	0.2982	0.0008
49	SLU 72	5.19	-0.02	19.79	-0.0717	0.2815	0.0002
49	SLU 73	5	0.03	21.4	-0.1363	0.2787	-0.0001
49	SLU 74	6	-0.1	22	0.0238	0.3192	0.0009
49	SLU 75	5.56	-0.02	21.72	-0.0719	0.3025	0.0003
49	SLU 76	5.26	0.03	21.47	-0.1361	0.2908	-0.0001
49	SLU 77	6.26	-0.1	22.07	0.0241	0.3313	0.0009
49	SLU 78	5.82	-0.02	21.79	-0.0717	0.3146	0.0003
49	SLU 79	6.25	-0.1	22.02	0.0237	0.3308	0.0008
49	SLU 80	5.82	-0.02	21.74	-0.0721	0.3141	0.0003
49	SLU 81	6	-0.1	22.7	0.0231	0.3205	0.0009
49	SLU 82	5.56	-0.02	22.42	-0.0727	0.3038	0.0003
49	SLU 83	6.26	-0.1	22.77	0.0233	0.3326	0.0009
49	SLU 84	5.82	-0.02	22.49	-0.0724	0.3159	0.0003
49	SLE RA 1	3.79	-0.07	14.99	0.018	0.2036	0.0006
49	SLE RA 2	3.3	0.02	14.67	-0.0883	0.185	0
49	SLE RA 3	3.96	-0.07	15.07	0.0184	0.212	0.0006
49	SLE RA 4	3.67	-0.02	14.89	-0.0454	0.2009	0.0002
49	SLE RA 5	3.48	0.01	14.72	-0.0882	0.1931	0
49	SLE RA 6	4.14	-0.07	15.12	0.0186	0.2201	0.0006
49	SLE RA 7	3.85	-0.02	14.94	-0.0452	0.2089	0.0002
49	SLE RA 8	4.14	-0.07	15.08	0.0183	0.2197	0.0006
49	SLE RA 9	3.84	-0.02	14.9	-0.0455	0.2086	0.0002
49	SLE RA 10	3.72	0.01	15.97	-0.0885	0.2067	0
49	SLE RA 11	4.38	-0.07	16.37	0.0182	0.2337	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
49	SLE RA 12	4.09	-0.02	16.18	-0.0456	0.2226	0.0003
49	SLE RA 13	3.89	0.01	16.02	-0.0884	0.2148	0
49	SLE RA 14	4.56	-0.07	16.42	0.0184	0.2418	0.0006
49	SLE RA 15	4.26	-0.02	16.23	-0.0454	0.2307	0.0003
49	SLE RA 16	4.55	-0.07	16.38	0.0181	0.2414	0.0006
49	SLE RA 17	4.26	-0.02	16.19	-0.0457	0.2303	0.0003
49	SLE RA 18	4.39	-0.07	16.84	0.0177	0.2346	0.0006
49	SLE RA 19	4.09	-0.02	16.65	-0.0461	0.2235	0.0003
49	SLE RA 20	4.56	-0.07	16.89	0.0179	0.2427	0.0006
49	SLE RA 21	4.27	-0.02	16.7	-0.0459	0.2316	0.0003
49	SLE FR 1	3.79	-0.07	14.99	0.018	0.2036	0.0006
49	SLE FR 2	3.69	-0.05	14.92	-0.0032	0.1998	0.0005
49	SLE FR 3	3.86	-0.07	15.01	0.0181	0.2068	0.0006
49	SLE FR 4	3.87	-0.05	15.48	-0.0033	0.2092	0.0005
49	SLE FR 5	4.04	-0.07	15.56	0.018	0.2161	0.0006
49	SLE FR 6	4.09	-0.07	15.91	0.0179	0.2191	0.0006
49	SLE QP 1	3.79	-0.07	14.99	0.018	0.2036	0.0006
49	SLE QP 2	3.97	-0.07	15.54	0.0179	0.2129	0.0006
49	SLD 1	11.45	-0.04	15.6	-0.0202	0.5405	0.0004
49	SLD 2	11.45	-0.04	15.6	-0.0202	0.5405	0.0004
49	SLD 3	10.61	-0.21	13.79	0.1765	0.5027	0.0017
49	SLD 4	10.61	-0.21	13.79	0.1765	0.5027	0.0017
49	SLD 5	7.47	0.2	18.31	-0.2919	0.3685	-0.0014
49	SLD 6	7.47	0.2	18.31	-0.2919	0.3685	-0.0014
49	SLD 7	4.7	-0.37	12.26	0.3639	0.2425	0.0029
49	SLD 8	4.7	-0.37	12.26	0.3639	0.2425	0.0029
49	SLD 9	3.24	0.23	18.82	-0.328	0.1832	-0.0017
49	SLD 10	3.24	0.23	18.82	-0.328	0.1832	-0.0017
49	SLD 11	0.46	-0.33	12.77	0.3278	0.0572	0.0026
49	SLD 12	0.46	-0.33	12.77	0.3278	0.0572	0.0026
49	SLD 13	-2.68	0.08	17.3	-0.1407	-0.077	-0.0005
49	SLD 14	-2.68	0.08	17.3	-0.1407	-0.077	-0.0005
49	SLD 15	-3.51	-0.09	15.48	0.0561	-0.1148	0.0008
49	SLD 16	-3.51	-0.09	15.48	0.0561	-0.1148	0.0008
49	SLV 1	21.52	0	15.74	-0.0808	0.9814	0.0002
49	SLV 2	21.52	0	15.74	-0.0808	0.9814	0.0002
49	SLV 3	19.48	-0.44	11.2	0.4213	0.8898	0.0035
49	SLV 4	19.48	-0.44	11.2	0.4213	0.8898	0.0035
49	SLV 5	12.32	0.61	22.48	-0.7732	0.5823	-0.0045
49	SLV 6	12.32	0.61	22.48	-0.7732	0.5823	-0.0045
49	SLV 7	5.54	-0.83	7.36	0.9005	0.2771	0.0065
49	SLV 8	5.54	-0.83	7.36	0.9005	0.2771	0.0065
49	SLV 9	2.39	0.7	23.72	-0.8646	0.1486	-0.0052
49	SLV 10	2.39	0.7	23.72	-0.8646	0.1486	-0.0052
49	SLV 11	-4.38	-0.74	8.6	0.8091	-0.1565	0.0057
49	SLV 12	-4.38	-0.74	8.6	0.8091	-0.1565	0.0057
49	SLV 13	-11.55	0.3	19.88	-0.3855	-0.4641	-0.0023
49	SLV 14	-11.55	0.3	19.88	-0.3855	-0.4641	-0.0023
49	SLV 15	-13.58	-0.13	15.34	0.1167	-0.5556	0.001
49	SLV 16	-13.58	-0.13	15.34	0.1167	-0.5556	0.001
50	SLU 1	3.16	-0.07	14.71	0.0238	0.1078	0.0008
50	SLU 2	2.57	0.07	14.38	-0.156	0.078	-0.0006
50	SLU 3	3.44	-0.07	14.83	0.0245	0.1193	0.0008
50	SLU 4	3.08	0.01	14.63	-0.0834	0.1015	0
50	SLU 5	2.84	0.07	14.45	-0.1558	0.0899	-0.0006
50	SLU 6	3.71	-0.07	14.89	0.0247	0.1312	0.0008
50	SLU 7	3.36	0.01	14.7	-0.0832	0.1133	0
50	SLU 8	3.71	-0.07	14.83	0.0242	0.1316	0.0008
50	SLU 9	3.36	0.01	14.64	-0.0837	0.1137	0
50	SLU 10	3.11	0.07	16.38	-0.1558	0.0966	-0.0005
50	SLU 11	3.97	-0.08	16.83	0.0247	0.1379	0.0009
50	SLU 12	3.62	0.01	16.63	-0.0832	0.1201	0
50	SLU 13	3.38	0.07	16.44	-0.1556	0.1085	-0.0005
50	SLU 14	4.25	-0.08	16.89	0.0249	0.1498	0.0009
50	SLU 15	3.89	0.01	16.69	-0.083	0.1319	0.0001
50	SLU 16	4.25	-0.08	16.83	0.0244	0.1501	0.0009
50	SLU 17	3.89	0.01	16.64	-0.0834	0.1323	0
50	SLU 18	3.93	-0.08	17.57	0.0241	0.1344	0.0009
50	SLU 19	3.58	0.01	17.37	-0.0838	0.1165	0.0001
50	SLU 20	4.2	-0.08	17.63	0.0243	0.1462	0.0009
50	SLU 21	3.85	0.01	17.43	-0.0836	0.1284	0.0001
50	SLU 22	3.73	-0.07	16.28	0.0246	0.1284	0.0008
50	SLU 23	3.14	0.07	15.96	-0.1552	0.0986	-0.0005
50	SLU 24	4	-0.08	16.4	0.0253	0.14	0.0009
50	SLU 25	3.65	0.01	16.21	-0.0826	0.1221	0.0001
50	SLU 26	3.41	0.07	16.02	-0.155	0.1105	-0.0005
50	SLU 27	4.28	-0.08	16.47	0.0255	0.1518	0.0009
50	SLU 28	3.92	0.01	16.27	-0.0824	0.134	0.0001
50	SLU 29	4.28	-0.08	16.41	0.025	0.1522	0.0009
50	SLU 30	3.92	0.01	16.21	-0.0829	0.1343	0
50	SLU 31	3.68	0.06	17.96	-0.155	0.1172	-0.0004
50	SLU 32	4.54	-0.08	18.4	0.0255	0.1586	0.0009
50	SLU 33	4.19	0	18.21	-0.0823	0.1407	0.0001
50	SLU 34	3.95	0.06	18.02	-0.1548	0.1291	-0.0004
50	SLU 35	4.81	-0.08	18.46	0.0258	0.1704	0.0009
50	SLU 36	4.46	0	18.27	-0.0821	0.1526	0.0001
50	SLU 37	4.81	-0.08	18.41	0.0253	0.1708	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
50	SLU 38	4.46	0	18.21	-0.0826	0.1529	0.0001
50	SLU 39	4.5	-0.08	19.14	0.0249	0.155	0.0009
50	SLU 40	4.14	0	18.94	-0.0829	0.1371	0.0001
50	SLU 41	4.77	-0.08	19.2	0.0252	0.1669	0.0009
50	SLU 42	4.42	0	19	-0.0827	0.149	0.0001
50	SLU 43	3.92	-0.09	18.58	0.0306	0.1331	0.001
50	SLU 44	3.33	0.06	18.26	-0.1492	0.1033	-0.0004
50	SLU 45	4.19	-0.09	18.7	0.0313	0.1446	0.001
50	SLU 46	3.84	0	18.51	-0.0766	0.1267	0.0002
50	SLU 47	3.6	0.05	18.32	-0.149	0.1152	-0.0004
50	SLU 48	4.46	-0.09	18.76	0.0315	0.1565	0.001
50	SLU 49	4.11	0	18.57	-0.0764	0.1386	0.0002
50	SLU 50	4.46	-0.09	18.71	0.031	0.1568	0.001
50	SLU 51	4.11	0	18.51	-0.0769	0.139	0.0002
50	SLU 52	3.86	0.05	20.26	-0.149	0.1219	-0.0003
50	SLU 53	4.73	-0.09	20.7	0.0316	0.1632	0.0011
50	SLU 54	4.37	-0.01	20.5	-0.0763	0.1453	0.0003
50	SLU 55	4.14	0.05	20.32	-0.1487	0.1337	-0.0003
50	SLU 56	5	-0.1	20.76	0.0318	0.1751	0.0011
50	SLU 57	4.65	-0.01	20.57	-0.0761	0.1572	0.0003
50	SLU 58	5	-0.09	20.71	0.0313	0.1754	0.0011
50	SLU 59	4.65	-0.01	20.51	-0.0766	0.1575	0.0002
50	SLU 60	4.68	-0.09	21.44	0.031	0.1596	0.0011
50	SLU 61	4.33	-0.01	21.24	-0.0769	0.1418	0.0003
50	SLU 62	4.96	-0.1	21.5	0.0312	0.1715	0.0011
50	SLU 63	4.6	-0.01	21.3	-0.0767	0.1536	0.0003
50	SLU 64	4.48	-0.09	20.16	0.0314	0.1537	0.001
50	SLU 65	3.89	0.05	19.83	-0.1484	0.1239	-0.0003
50	SLU 66	4.76	-0.09	20.28	0.0321	0.1652	0.0011
50	SLU 67	4.4	-0.01	20.08	-0.0758	0.1474	0.0003
50	SLU 68	4.17	0.05	19.89	-0.1482	0.1358	-0.0003
50	SLU 69	5.03	-0.1	20.34	0.0323	0.1771	0.0011
50	SLU 70	4.68	-0.01	20.14	-0.0755	0.1592	0.0003
50	SLU 71	5.03	-0.09	20.28	0.0319	0.1775	0.0011
50	SLU 72	4.68	-0.01	20.09	-0.076	0.1596	0.0003
50	SLU 73	4.43	0.04	21.83	-0.1481	0.1425	-0.0002
50	SLU 74	5.3	-0.1	22.27	0.0324	0.1838	0.0011
50	SLU 75	4.94	-0.02	22.08	-0.0755	0.166	0.0003
50	SLU 76	4.7	0.04	21.89	-0.1479	0.1544	-0.0002
50	SLU 77	5.57	-0.1	22.34	0.0326	0.1957	0.0011
50	SLU 78	5.21	-0.02	22.14	-0.0753	0.1778	0.0003
50	SLU 79	5.57	-0.1	22.28	0.0321	0.196	0.0011
50	SLU 80	5.21	-0.02	22.08	-0.0758	0.1782	0.0003
50	SLU 81	5.25	-0.1	23.01	0.0318	0.1803	0.0011
50	SLU 82	4.9	-0.02	22.82	-0.0761	0.1624	0.0003
50	SLU 83	5.53	-0.1	23.07	0.032	0.1921	0.0011
50	SLU 84	5.17	-0.02	22.88	-0.0759	0.1743	0.0003
50	SLE RA 1	3.32	-0.07	15.16	0.024	0.1137	0.0008
50	SLE RA 2	2.93	0.02	14.94	-0.0959	0.0938	-0.0001
50	SLE RA 3	3.51	-0.07	15.24	0.0245	0.1214	0.0008
50	SLE RA 4	3.27	-0.01	15.11	-0.0475	0.1095	0.0003
50	SLE RA 5	3.11	0.02	14.98	-0.0957	0.1018	-0.0001
50	SLE RA 6	3.69	-0.07	15.28	0.0246	0.1293	0.0008
50	SLE RA 7	3.45	-0.02	15.15	-0.0473	0.1174	0.0003
50	SLE RA 8	3.69	-0.07	15.24	0.0243	0.1295	0.0008
50	SLE RA 9	3.45	-0.01	15.11	-0.0476	0.1176	0.0003
50	SLE RA 10	3.29	0.02	16.27	-0.0957	0.1062	-0.0001
50	SLE RA 11	3.87	-0.08	16.57	0.0246	0.1338	0.0008
50	SLE RA 12	3.63	-0.02	16.44	-0.0473	0.1219	0.0003
50	SLE RA 13	3.47	0.02	16.32	-0.0956	0.1142	-0.0001
50	SLE RA 14	4.05	-0.08	16.61	0.0248	0.1417	0.0008
50	SLE RA 15	3.81	-0.02	16.48	-0.0471	0.1298	0.0003
50	SLE RA 16	4.05	-0.08	16.57	0.0244	0.1419	0.0008
50	SLE RA 17	3.81	-0.02	16.44	-0.0475	0.13	0.0003
50	SLE RA 18	3.84	-0.08	17.06	0.0242	0.1314	0.0009
50	SLE RA 19	3.6	-0.02	16.93	-0.0477	0.1195	0.0003
50	SLE RA 20	4.02	-0.08	17.1	0.0244	0.1393	0.0009
50	SLE RA 21	3.78	-0.02	16.97	-0.0475	0.1274	0.0003
50	SLE FR 1	3.32	-0.07	15.16	0.024	0.1137	0.0008
50	SLE FR 2	3.25	-0.05	15.12	0	0.1097	0.0006
50	SLE FR 3	3.4	-0.07	15.18	0.024	0.1169	0.0008
50	SLE FR 4	3.4	-0.05	15.69	0.0001	0.115	0.0006
50	SLE FR 5	3.55	-0.07	15.75	0.0241	0.1222	0.0008
50	SLE FR 6	3.58	-0.07	16.11	0.0241	0.1226	0.0008
50	SLE QP 1	3.32	-0.07	15.16	0.024	0.1137	0.0008
50	SLE QP 2	3.48	-0.07	15.73	0.0241	0.119	0.0008
50	SLD 1	11.55	-0.03	16.05	-0.0262	0.4816	0.0004
50	SLD 2	11.55	-0.03	16.05	-0.0262	0.4816	0.0004
50	SLD 3	10.68	-0.23	13.92	0.199	0.4408	0.0023
50	SLD 4	10.68	-0.23	13.92	0.199	0.4408	0.0023
50	SLD 5	7.22	0.24	19.05	-0.3326	0.2897	-0.0022
50	SLD 6	7.22	0.24	19.05	-0.3326	0.2897	-0.0022
50	SLD 7	4.32	-0.42	11.97	0.4182	0.1537	0.0041
50	SLD 8	4.32	-0.42	11.97	0.4182	0.1537	0.0041
50	SLD 9	2.64	0.28	19.49	-0.37	0.0844	-0.0025
50	SLD 10	2.64	0.28	19.49	-0.37	0.0844	-0.0025
50	SLD 11	-0.27	-0.38	12.41	0.3808	-0.0517	0.0038



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
50	SLD 12	-0.27	-0.38	12.41	0.3808	-0.0517	0.0038
50	SLD 13	-3.72	0.09	17.54	-0.1509	-0.2028	-0.0007
50	SLD 14	-3.72	0.09	17.54	-0.1509	-0.2028	-0.0007
50	SLD 15	-4.6	-0.11	15.41	0.0744	-0.2436	0.0012
50	SLD 16	-4.6	-0.11	15.41	0.0744	-0.2436	0.0012
50	SLV 1	22.42	0.04	16.56	-0.105	0.9702	-0.0002
50	SLV 2	22.42	0.04	16.56	-0.105	0.9702	-0.0002
50	SLV 3	20.3	-0.47	11.21	0.4696	0.8698	0.0047
50	SLV 4	20.3	-0.47	11.21	0.4696	0.8698	0.0047
50	SLV 5	12.38	0.73	24.09	-0.8861	0.5266	-0.0068
50	SLV 6	12.38	0.73	24.09	-0.8861	0.5266	-0.0068
50	SLV 7	5.3	-0.96	6.26	1.0292	0.192	0.0093
50	SLV 8	5.3	-0.96	6.26	1.0292	0.192	0.0093
50	SLV 9	1.66	0.81	25.2	-0.9811	0.046	-0.0077
50	SLV 10	1.66	0.81	25.2	-0.9811	0.046	-0.0077
50	SLV 11	-5.43	-0.87	7.37	0.9343	-0.2885	0.0085
50	SLV 12	-5.43	-0.87	7.37	0.9343	-0.2885	0.0085
50	SLV 13	-13.34	0.33	20.25	-0.4215	-0.6318	-0.0031
50	SLV 14	-13.34	0.33	20.25	-0.4215	-0.6318	-0.0031
50	SLV 15	-15.46	-0.18	14.9	0.1531	-0.7321	0.0018
50	SLV 16	-15.46	-0.18	14.9	0.1531	-0.7321	0.0018
51	SLU 1	3.88	-0.08	15.44	0.0341	0.1963	0.0009
51	SLU 2	3.53	0.07	15.13	-0.1574	0.1833	-0.0007
51	SLU 3	4.18	-0.08	15.57	0.0349	0.21	0.001
51	SLU 4	3.97	0.01	15.38	-0.08	0.2022	0
51	SLU 5	3.82	0.07	15.19	-0.1572	0.1963	-0.0007
51	SLU 6	4.47	-0.08	15.64	0.0351	0.2231	0.001
51	SLU 7	4.26	0.01	15.45	-0.0798	0.2153	0
51	SLU 8	4.46	-0.08	15.57	0.0344	0.2224	0.001
51	SLU 9	4.25	0.01	15.39	-0.0805	0.2146	0
51	SLU 10	4.17	0.06	17.26	-0.1557	0.2153	-0.0006
51	SLU 11	4.81	-0.09	17.71	0.0366	0.2421	0.0011
51	SLU 12	4.6	0	17.52	-0.0783	0.2342	0.0001
51	SLU 13	4.46	0.06	17.33	-0.1555	0.2284	-0.0006
51	SLU 14	5.1	-0.09	17.77	0.0368	0.2551	0.0011
51	SLU 15	4.89	0	17.59	-0.0781	0.2473	0.0001
51	SLU 16	5.09	-0.09	17.71	0.0361	0.2545	0.0011
51	SLU 17	4.88	0	17.52	-0.0787	0.2467	0.0001
51	SLU 18	4.78	-0.09	18.49	0.0365	0.2421	0.0011
51	SLU 19	4.58	0	18.3	-0.0784	0.2343	0.0001
51	SLU 20	5.07	-0.09	18.56	0.0367	0.2551	0.0011
51	SLU 21	4.87	0	18.37	-0.0782	0.2473	0.0001
51	SLU 22	4.54	-0.09	17.12	0.0361	0.229	0.001
51	SLU 23	4.19	0.06	16.81	-0.1554	0.2159	-0.0006
51	SLU 24	4.84	-0.09	17.25	0.0369	0.2427	0.0011
51	SLU 25	4.63	0	17.07	-0.078	0.2348	0.0001
51	SLU 26	4.48	0.06	16.88	-0.1552	0.229	-0.0006
51	SLU 27	5.12	-0.09	17.32	0.0371	0.2557	0.0011
51	SLU 28	4.92	0	17.13	-0.0778	0.2479	0.0001
51	SLU 29	5.12	-0.09	17.26	0.0364	0.2551	0.0011
51	SLU 30	4.91	0	17.07	-0.0785	0.2473	0.0001
51	SLU 31	4.82	0.05	18.95	-0.1537	0.248	-0.0005
51	SLU 32	5.47	-0.1	19.39	0.0386	0.2747	0.0011
51	SLU 33	5.26	-0.01	19.2	-0.0763	0.2669	0.0002
51	SLU 34	5.11	0.05	19.01	-0.1535	0.261	-0.0005
51	SLU 35	5.76	-0.1	19.46	0.0388	0.2878	0.0012
51	SLU 36	5.55	-0.01	19.27	-0.0761	0.2799	0.0002
51	SLU 37	5.75	-0.1	19.39	0.0381	0.2871	0.0011
51	SLU 38	5.54	-0.01	19.21	-0.0767	0.2793	0.0002
51	SLU 39	5.44	-0.1	20.17	0.0385	0.2747	0.0012
51	SLU 40	5.23	-0.01	19.99	-0.0764	0.2669	0.0002
51	SLU 41	5.73	-0.1	20.24	0.0387	0.2878	0.0012
51	SLU 42	5.52	-0.01	20.06	-0.0762	0.28	0.0002
51	SLU 43	4.82	-0.1	19.49	0.0436	0.244	0.0012
51	SLU 44	4.47	0.05	19.18	-0.1479	0.231	-0.0004
51	SLU 45	5.12	-0.1	19.62	0.0444	0.2577	0.0012
51	SLU 46	4.91	-0.01	19.44	-0.0705	0.2499	0.0002
51	SLU 47	4.76	0.05	19.25	-0.1477	0.244	-0.0004
51	SLU 48	5.41	-0.1	19.69	0.0446	0.2708	0.0012
51	SLU 49	5.2	-0.01	19.5	-0.0703	0.263	0.0002
51	SLU 50	5.4	-0.1	19.63	0.0439	0.2701	0.0012
51	SLU 51	5.19	-0.01	19.44	-0.0709	0.2623	0.0002
51	SLU 52	5.11	0.04	21.32	-0.1462	0.263	-0.0003
51	SLU 53	5.75	-0.11	21.76	0.0461	0.2898	0.0013
51	SLU 54	5.54	-0.02	21.57	-0.0688	0.2819	0.0003
51	SLU 55	5.39	0.04	21.39	-0.146	0.2761	-0.0003
51	SLU 56	6.04	-0.11	21.83	0.0463	0.3028	0.0013
51	SLU 57	5.83	-0.02	21.64	-0.0686	0.295	0.0003
51	SLU 58	6.03	-0.11	21.76	0.0457	0.3022	0.0013
51	SLU 59	5.82	-0.02	21.58	-0.0692	0.2944	0.0003
51	SLU 60	5.72	-0.11	22.55	0.046	0.2898	0.0013
51	SLU 61	5.51	-0.02	22.36	-0.0688	0.282	0.0003
51	SLU 62	6.01	-0.11	22.61	0.0462	0.3028	0.0013
51	SLU 63	5.8	-0.02	22.43	-0.0687	0.295	0.0004
51	SLU 64	5.48	-0.11	21.18	0.0456	0.2767	0.0013
51	SLU 65	5.13	0.04	20.86	-0.1459	0.2636	-0.0003
51	SLU 66	5.77	-0.11	21.31	0.0464	0.2904	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
51	SLU 67	5.57	-0.02	21.12	-0.0685	0.2825	0.0003
51	SLU 68	5.42	0.04	20.93	-0.1457	0.2767	-0.0003
51	SLU 69	6.06	-0.11	21.37	0.0466	0.3034	0.0013
51	SLU 70	5.86	-0.02	21.19	-0.0683	0.2956	0.0003
51	SLU 71	6.05	-0.11	21.31	0.0459	0.3028	0.0013
51	SLU 72	5.85	-0.02	21.12	-0.0689	0.295	0.0003
51	SLU 73	5.76	0.03	23	-0.1441	0.2957	-0.0003
51	SLU 74	6.41	-0.12	23.44	0.0481	0.3224	0.0014
51	SLU 75	6.2	-0.03	23.26	-0.0667	0.3146	0.0004
51	SLU 76	6.05	0.03	23.07	-0.144	0.3087	-0.0002
51	SLU 77	6.7	-0.12	23.51	0.0483	0.3355	0.0014
51	SLU 78	6.49	-0.03	23.33	-0.0666	0.3276	0.0004
51	SLU 79	6.69	-0.12	23.45	0.0477	0.3348	0.0014
51	SLU 80	6.48	-0.03	23.26	-0.0672	0.327	0.0004
51	SLU 81	6.38	-0.12	24.23	0.048	0.3224	0.0014
51	SLU 82	6.17	-0.03	24.04	-0.0668	0.3146	0.0004
51	SLU 83	6.67	-0.12	24.3	0.0482	0.3355	0.0014
51	SLU 84	6.46	-0.03	24.11	-0.0667	0.3277	0.0004
51	SLE RA 1	4.07	-0.08	15.92	0.0346	0.2056	0.001
51	SLE RA 2	3.84	0.02	15.71	-0.093	0.197	-0.0001
51	SLE RA 3	4.27	-0.08	16.01	0.0352	0.2148	0.001
51	SLE RA 4	4.13	-0.02	15.88	-0.0414	0.2096	0.0003
51	SLE RA 5	4.03	0.02	15.76	-0.0929	0.2057	-0.0001
51	SLE RA 6	4.46	-0.08	16.05	0.0353	0.2235	0.001
51	SLE RA 7	4.32	-0.02	15.93	-0.0413	0.2183	0.0003
51	SLE RA 8	4.45	-0.08	16.01	0.0349	0.2231	0.001
51	SLE RA 9	4.32	-0.02	15.88	-0.0417	0.2178	0.0003
51	SLE RA 10	4.26	0.01	17.14	-0.0919	0.2183	-0.0001
51	SLE RA 11	4.69	-0.09	17.43	0.0363	0.2361	0.001
51	SLE RA 12	4.55	-0.03	17.31	-0.0403	0.2309	0.0004
51	SLE RA 13	4.45	0.01	17.18	-0.0917	0.227	0
51	SLE RA 14	4.88	-0.09	17.48	0.0364	0.2448	0.0011
51	SLE RA 15	4.74	-0.03	17.35	-0.0401	0.2396	0.0004
51	SLE RA 16	4.88	-0.09	17.43	0.036	0.2444	0.001
51	SLE RA 17	4.74	-0.03	17.31	-0.0406	0.2392	0.0004
51	SLE RA 18	4.67	-0.09	17.95	0.0363	0.2361	0.0011
51	SLE RA 19	4.53	-0.03	17.83	-0.0403	0.2309	0.0004
51	SLE RA 20	4.86	-0.09	18	0.0364	0.2449	0.0011
51	SLE RA 21	4.73	-0.03	17.88	-0.0402	0.2396	0.0004
51	SLE FR 1	4.07	-0.08	15.92	0.0346	0.2056	0.001
51	SLE FR 2	4.02	-0.06	15.88	0.0091	0.2039	0.0008
51	SLE FR 3	4.14	-0.08	15.94	0.0347	0.2091	0.001
51	SLE FR 4	4.2	-0.06	16.49	0.0096	0.2131	0.0008
51	SLE FR 5	4.33	-0.09	16.55	0.0352	0.2183	0.001
51	SLE FR 6	4.37	-0.09	16.94	0.0354	0.2209	0.001
51	SLE QP 1	4.07	-0.08	15.92	0.0346	0.2056	0.001
51	SLE QP 2	4.25	-0.08	16.53	0.0351	0.2148	0.001
51	SLD 1	12.49	-0.03	18.44	-0.0233	0.5737	0.0004
51	SLD 2	12.49	-0.03	18.44	-0.0233	0.5737	0.0004
51	SLD 3	11.6	-0.25	16.15	0.2206	0.5345	0.0028
51	SLD 4	11.6	-0.25	16.15	0.2206	0.5345	0.0028
51	SLD 5	8.07	0.26	20.57	-0.3523	0.382	-0.0027
51	SLD 6	8.07	0.26	20.57	-0.3523	0.382	-0.0027
51	SLD 7	5.1	-0.46	12.95	0.4606	0.2512	0.0051
51	SLD 8	5.1	-0.46	12.95	0.4606	0.2512	0.0051
51	SLD 9	3.39	0.29	20.11	-0.3904	0.1784	-0.0031
51	SLD 10	3.39	0.29	20.11	-0.3904	0.1784	-0.0031
51	SLD 11	0.43	-0.43	12.49	0.4225	0.0476	0.0047
51	SLD 12	0.43	-0.43	12.49	0.4225	0.0476	0.0047
51	SLD 13	-3.1	0.08	16.91	-0.1503	-0.1049	-0.0008
51	SLD 14	-3.1	0.08	16.91	-0.1503	-0.1049	-0.0008
51	SLD 15	-3.99	-0.14	14.62	0.0935	-0.1441	0.0015
51	SLD 16	-3.99	-0.14	14.62	0.0935	-0.1441	0.0015
51	SLV 1	23.56	0.05	21.29	-0.1143	1.0557	-0.0004
51	SLV 2	23.56	0.05	21.29	-0.1143	1.0557	-0.0004
51	SLV 3	21.42	-0.5	15.53	0.5075	0.962	0.0055
51	SLV 4	21.42	-0.5	15.53	0.5075	0.962	0.0055
51	SLV 5	13.29	0.79	26.7	-0.9528	0.6091	-0.0085
51	SLV 6	13.29	0.79	26.7	-0.9528	0.6091	-0.0085
51	SLV 7	6.16	-1.05	7.49	1.12	0.2969	0.0114
51	SLV 8	6.16	-1.05	7.49	1.12	0.2969	0.0114
51	SLV 9	2.34	0.88	25.57	-1.0497	0.1327	-0.0094
51	SLV 10	2.34	0.88	25.57	-1.0497	0.1327	-0.0094
51	SLV 11	-4.79	-0.96	6.36	1.0231	-0.1795	0.0105
51	SLV 12	-4.79	-0.96	6.36	1.0231	-0.1795	0.0105
51	SLV 13	-12.93	0.34	17.53	-0.4373	-0.5324	-0.0036
51	SLV 14	-12.93	0.34	17.53	-0.4373	-0.5324	-0.0036
51	SLV 15	-15.06	-0.22	11.77	0.1846	-0.6261	0.0024
51	SLV 16	-15.06	-0.22	11.77	0.1846	-0.6261	0.0024
52	SLU 1	3.53	-0.11	16.62	0.0509	0.1228	0.0012
52	SLU 2	3.34	0.04	16.21	-0.1435	0.1145	-0.0004
52	SLU 3	3.82	-0.11	16.78	0.0519	0.1353	0.0012
52	SLU 4	3.71	-0.02	16.54	-0.0647	0.1303	0.0003
52	SLU 5	3.63	0.04	16.29	-0.1433	0.1271	-0.0004
52	SLU 6	4.11	-0.11	16.86	0.0521	0.1479	0.0012
52	SLU 7	4	-0.02	16.62	-0.0645	0.1429	0.0003
52	SLU 8	4.11	-0.11	16.79	0.0512	0.1481	0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
52	SLU 9	3.99	-0.02	16.54	-0.0654	0.143	0.0003
52	SLU 10	3.9	0.03	18.56	-0.1392	0.1335	-0.0002
52	SLU 11	4.39	-0.12	19.13	0.0562	0.1544	0.0013
52	SLU 12	4.27	-0.03	18.88	-0.0604	0.1493	0.0004
52	SLU 13	4.19	0.03	18.64	-0.139	0.1461	-0.0002
52	SLU 14	4.67	-0.12	19.21	0.0564	0.167	0.0013
52	SLU 15	4.56	-0.03	18.96	-0.0602	0.162	0.0004
52	SLU 16	4.67	-0.12	19.13	0.0555	0.1671	0.0013
52	SLU 17	4.55	-0.03	18.88	-0.0611	0.1621	0.0004
52	SLU 18	4.34	-0.13	19.97	0.057	0.1501	0.0013
52	SLU 19	4.22	-0.04	19.72	-0.0596	0.145	0.0004
52	SLU 20	4.62	-0.13	20.05	0.0572	0.1627	0.0014
52	SLU 21	4.51	-0.04	19.81	-0.0594	0.1577	0.0004
52	SLU 22	4.13	-0.12	18.48	0.055	0.1443	0.0013
52	SLU 23	3.94	0.03	18.07	-0.1393	0.1359	-0.0002
52	SLU 24	4.42	-0.12	18.64	0.056	0.1568	0.0013
52	SLU 25	4.31	-0.03	18.39	-0.0605	0.1517	0.0004
52	SLU 26	4.22	0.03	18.15	-0.1392	0.1485	-0.0002
52	SLU 27	4.71	-0.12	18.72	0.0562	0.1694	0.0013
52	SLU 28	4.59	-0.03	18.47	-0.0604	0.1643	0.0004
52	SLU 29	4.7	-0.12	18.64	0.0553	0.1695	0.0013
52	SLU 30	4.59	-0.03	18.4	-0.0613	0.1645	0.0004
52	SLU 31	4.5	0.02	20.41	-0.135	0.155	-0.0001
52	SLU 32	4.98	-0.13	20.98	0.0603	0.1758	0.0014
52	SLU 33	4.87	-0.04	20.73	-0.0563	0.1708	0.0005
52	SLU 34	4.79	0.02	20.49	-0.1349	0.1676	-0.0001
52	SLU 35	5.27	-0.14	21.06	0.0605	0.1884	0.0014
52	SLU 36	5.15	-0.04	20.82	-0.0561	0.1834	0.0005
52	SLU 37	5.26	-0.13	20.99	0.0596	0.1886	0.0014
52	SLU 38	5.15	-0.04	20.74	-0.057	0.1835	0.0005
52	SLU 39	4.93	-0.14	21.83	0.0612	0.1715	0.0015
52	SLU 40	4.82	-0.05	21.58	-0.0554	0.1665	0.0006
52	SLU 41	5.22	-0.14	21.91	0.0613	0.1841	0.0015
52	SLU 42	5.1	-0.05	21.66	-0.0553	0.1791	0.0006
52	SLU 43	4.39	-0.14	20.97	0.0647	0.1523	0.0015
52	SLU 44	4.2	0.01	20.56	-0.1296	0.144	-0.0001
52	SLU 45	4.68	-0.14	21.13	0.0657	0.1648	0.0015
52	SLU 46	4.57	-0.05	20.89	-0.0509	0.1598	0.0006
52	SLU 47	4.49	0.01	20.65	-0.1295	0.1566	0
52	SLU 48	4.97	-0.14	21.22	0.0659	0.1774	0.0015
52	SLU 49	4.85	-0.05	20.97	-0.0507	0.1724	0.0006
52	SLU 50	4.96	-0.14	21.14	0.065	0.1776	0.0015
52	SLU 51	4.85	-0.05	20.89	-0.0516	0.1725	0.0006
52	SLU 52	4.76	0	22.91	-0.1253	0.163	0.0001
52	SLU 53	5.24	-0.15	23.48	0.07	0.1839	0.0016
52	SLU 54	5.13	-0.06	23.23	-0.0466	0.1788	0.0007
52	SLU 55	5.05	0	22.99	-0.1252	0.1756	0.0001
52	SLU 56	5.53	-0.15	23.56	0.0702	0.1965	0.0016
52	SLU 57	5.42	-0.06	23.31	-0.0464	0.1915	0.0007
52	SLU 58	5.52	-0.15	23.48	0.0693	0.1966	0.0016
52	SLU 59	5.41	-0.06	23.24	-0.0473	0.1916	0.0007
52	SLU 60	5.19	-0.15	24.32	0.0708	0.1796	0.0017
52	SLU 61	5.08	-0.06	24.08	-0.0458	0.1745	0.0007
52	SLU 62	5.48	-0.16	24.4	0.071	0.1922	0.0017
52	SLU 63	5.36	-0.06	24.16	-0.0456	0.1871	0.0007
52	SLU 64	4.98	-0.15	22.83	0.0689	0.1738	0.0016
52	SLU 65	4.79	0	22.42	-0.1255	0.1654	0.0001
52	SLU 66	5.27	-0.15	22.99	0.0699	0.1863	0.0016
52	SLU 67	5.16	-0.06	22.74	-0.0467	0.1812	0.0007
52	SLU 68	5.08	0	22.5	-0.1253	0.178	0.0001
52	SLU 69	5.56	-0.15	23.07	0.0701	0.1989	0.0016
52	SLU 70	5.45	-0.06	22.82	-0.0465	0.1938	0.0007
52	SLU 71	5.56	-0.15	22.99	0.0692	0.199	0.0016
52	SLU 72	5.44	-0.06	22.75	-0.0474	0.194	0.0007
52	SLU 73	5.36	-0.01	24.76	-0.1212	0.1845	0.0002
52	SLU 74	5.84	-0.16	25.33	0.0742	0.2053	0.0017
52	SLU 75	5.72	-0.07	25.08	-0.0424	0.2003	0.0008
52	SLU 76	5.64	-0.01	24.84	-0.121	0.1971	0.0002
52	SLU 77	6.12	-0.16	25.41	0.0744	0.2179	0.0018
52	SLU 78	6.01	-0.07	25.17	-0.0422	0.2129	0.0008
52	SLU 79	6.12	-0.16	25.34	0.0735	0.2181	0.0017
52	SLU 80	6	-0.07	25.09	-0.0431	0.213	0.0008
52	SLU 81	5.79	-0.17	26.18	0.075	0.201	0.0018
52	SLU 82	5.67	-0.08	25.93	-0.0416	0.196	0.0009
52	SLU 83	6.07	-0.17	26.26	0.0752	0.2136	0.0018
52	SLU 84	5.96	-0.08	26.01	-0.0414	0.2086	0.0009
52	SLE RA 1	3.7	-0.11	17.15	0.0521	0.129	0.0012
52	SLE RA 2	3.58	-0.01	16.88	-0.0775	0.1234	0.0002
52	SLE RA 3	3.9	-0.11	17.26	0.0527	0.1373	0.0012
52	SLE RA 4	3.82	-0.05	17.09	-0.025	0.1339	0.0006
52	SLE RA 5	3.77	-0.01	16.93	-0.0774	0.1318	0.0002
52	SLE RA 6	4.09	-0.11	17.31	0.0529	0.1457	0.0012
52	SLE RA 7	4.01	-0.05	17.15	-0.0249	0.1423	0.0006
52	SLE RA 8	4.08	-0.11	17.26	0.0523	0.1458	0.0012
52	SLE RA 9	4.01	-0.05	17.1	-0.0255	0.1424	0.0006
52	SLE RA 10	3.95	-0.02	18.44	-0.0746	0.1361	0.0003
52	SLE RA 11	4.27	-0.12	18.82	0.0556	0.15	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
52	SLE RA 12	4.2	-0.06	18.66	-0.0221	0.1466	0.0007
52	SLE RA 13	4.14	-0.02	18.5	-0.0745	0.1445	0.0003
52	SLE RA 14	4.46	-0.12	18.88	0.0557	0.1584	0.0013
52	SLE RA 15	4.39	-0.06	18.71	-0.022	0.155	0.0007
52	SLE RA 16	4.46	-0.12	18.83	0.0551	0.1585	0.0013
52	SLE RA 17	4.38	-0.06	18.66	-0.0226	0.1551	0.0007
52	SLE RA 18	4.24	-0.12	19.39	0.0561	0.1471	0.0013
52	SLE RA 19	4.16	-0.06	19.22	-0.0216	0.1438	0.0007
52	SLE RA 20	4.43	-0.12	19.44	0.0563	0.1555	0.0013
52	SLE RA 21	4.35	-0.06	19.28	-0.0215	0.1522	0.0007
52	SLE FR 1	3.7	-0.11	17.15	0.0521	0.129	0.0012
52	SLE FR 2	3.68	-0.09	17.1	0.0261	0.1278	0.001
52	SLE FR 3	3.78	-0.11	17.18	0.0521	0.1323	0.0012
52	SLE FR 4	3.84	-0.1	17.77	0.0274	0.1333	0.001
52	SLE FR 5	3.94	-0.12	17.84	0.0533	0.1378	0.0012
52	SLE FR 6	3.97	-0.12	18.27	0.0541	0.138	0.0013
52	SLE QP 1	3.7	-0.11	17.15	0.0521	0.129	0.0012
52	SLE QP 2	3.86	-0.12	17.82	0.0533	0.1344	0.0012
52	SLD 1	12.22	-0.06	20.16	-0.009	0.5092	0.0007
52	SLD 2	12.22	-0.06	20.16	-0.009	0.5092	0.0007
52	SLD 3	11.3	-0.29	17.9	0.2432	0.4688	0.003
52	SLD 4	11.3	-0.29	17.9	0.2432	0.4688	0.003
52	SLD 5	7.76	0.24	21.95	-0.3479	0.3082	-0.0024
52	SLD 6	7.76	0.24	21.95	-0.3479	0.3082	-0.0024
52	SLD 7	4.7	-0.51	14.42	0.4927	0.1734	0.0052
52	SLD 8	4.7	-0.51	14.42	0.4927	0.1734	0.0052
52	SLD 9	3.03	0.28	21.23	-0.3862	0.0955	-0.0027
52	SLD 10	3.03	0.28	21.23	-0.3862	0.0955	-0.0027
52	SLD 11	-0.04	-0.48	13.7	0.4544	-0.0394	0.0049
52	SLD 12	-0.04	-0.48	13.7	0.4544	-0.0394	0.0049
52	SLD 13	-3.57	0.06	17.74	-0.1367	-0.1999	-0.0005
52	SLD 14	-3.57	0.06	17.74	-0.1367	-0.1999	-0.0005
52	SLD 15	-4.49	-0.17	15.49	0.1155	-0.2404	0.0018
52	SLD 16	-4.49	-0.17	15.49	0.1155	-0.2404	0.0018
52	SLV 1	23.44	0.03	23.53	-0.1061	1.0128	-0.0002
52	SLV 2	23.44	0.03	23.53	-0.1061	1.0128	-0.0002
52	SLV 3	21.23	-0.55	17.85	0.5367	0.9153	0.0056
52	SLV 4	21.23	-0.55	17.85	0.5367	0.9153	0.0056
52	SLV 5	13.08	0.8	28.15	-0.9694	0.546	-0.008
52	SLV 6	13.08	0.8	28.15	-0.9694	0.546	-0.008
52	SLV 7	5.72	-1.12	9.22	1.1732	0.2206	0.0114
52	SLV 8	5.72	-1.12	9.22	1.1732	0.2206	0.0114
52	SLV 9	2	0.89	26.43	-1.0666	0.0482	-0.0089
52	SLV 10	2	0.89	26.43	-1.0666	0.0482	-0.0089
52	SLV 11	-5.36	-1.03	7.5	1.0759	-0.2771	0.0105
52	SLV 12	-5.36	-1.03	7.5	1.0759	-0.2771	0.0105
52	SLV 13	-13.51	0.32	17.8	-0.4301	-0.6464	-0.0031
52	SLV 14	-13.51	0.32	17.8	-0.4301	-0.6464	-0.0031
52	SLV 15	-15.72	-0.26	12.12	0.2127	-0.744	0.0027
52	SLV 16	-15.72	-0.26	12.12	0.2127	-0.744	0.0027
53	SLU 1	3.91	-0.15	18.2	0.073	0.1881	0.0013
53	SLU 2	3.98	-0.01	17.58	-0.1157	0.1941	0
53	SLU 3	4.2	-0.15	18.39	0.0743	0.2013	0.0013
53	SLU 4	4.24	-0.07	18.02	-0.0389	0.2048	0.0006
53	SLU 5	4.26	-0.01	17.68	-0.1155	0.2065	0
53	SLU 6	4.48	-0.15	18.48	0.0745	0.2137	0.0013
53	SLU 7	4.52	-0.07	18.11	-0.0387	0.2173	0.0006
53	SLU 8	4.47	-0.15	18.38	0.0734	0.213	0.0013
53	SLU 9	4.51	-0.07	18.01	-0.0399	0.2166	0.0006
53	SLU 10	4.59	-0.02	20.2	-0.108	0.2239	0.0002
53	SLU 11	4.81	-0.17	21	0.0821	0.2311	0.0015
53	SLU 12	4.85	-0.09	20.63	-0.0311	0.2346	0.0007
53	SLU 13	4.87	-0.03	20.29	-0.1078	0.2363	0.0002
53	SLU 14	5.09	-0.17	21.09	0.0823	0.2435	0.0015
53	SLU 15	5.13	-0.09	20.72	-0.0309	0.2471	0.0007
53	SLU 16	5.08	-0.17	21	0.0811	0.2429	0.0015
53	SLU 17	5.12	-0.08	20.63	-0.0321	0.2464	0.0007
53	SLU 18	4.79	-0.18	21.94	0.0841	0.2308	0.0015
53	SLU 19	4.83	-0.09	21.57	-0.0291	0.2343	0.0008
53	SLU 20	5.07	-0.18	22.03	0.0843	0.2432	0.0015
53	SLU 21	5.11	-0.09	21.66	-0.0289	0.2467	0.0008
53	SLU 22	4.54	-0.17	20.28	0.08	0.2183	0.0014
53	SLU 23	4.61	-0.02	19.66	-0.1087	0.2242	0.0002
53	SLU 24	4.83	-0.17	20.47	0.0814	0.2314	0.0015
53	SLU 25	4.87	-0.08	20.09	-0.0318	0.235	0.0007
53	SLU 26	4.89	-0.02	19.75	-0.1085	0.2367	0.0002
53	SLU 27	5.11	-0.17	20.56	0.0816	0.2439	0.0015
53	SLU 28	5.15	-0.08	20.19	-0.0316	0.2474	0.0007
53	SLU 29	5.1	-0.17	20.46	0.0804	0.2432	0.0015
53	SLU 30	5.14	-0.08	20.09	-0.0328	0.2467	0.0007
53	SLU 31	5.22	-0.04	22.28	-0.1009	0.2541	0.0003
53	SLU 32	5.44	-0.19	23.08	0.0892	0.2613	0.0016
53	SLU 33	5.48	-0.1	22.71	-0.024	0.2648	0.0009
53	SLU 34	5.5	-0.04	22.37	-0.1007	0.2665	0.0004
53	SLU 35	5.72	-0.19	23.17	0.0894	0.2737	0.0016
53	SLU 36	5.76	-0.1	22.8	-0.0238	0.2773	0.0009
53	SLU 37	5.71	-0.19	23.08	0.0882	0.273	0.0016



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
53	SLU 38	5.75	-0.1	22.71	-0.025	0.2766	0.0009
53	SLU 39	5.42	-0.19	24.02	0.0911	0.2609	0.0017
53	SLU 40	5.46	-0.11	23.64	-0.0221	0.2645	0.0009
53	SLU 41	5.7	-0.19	24.11	0.0913	0.2734	0.0017
53	SLU 42	5.74	-0.11	23.74	-0.0219	0.2769	0.0009
53	SLU 43	4.87	-0.19	22.95	0.0924	0.2342	0.0016
53	SLU 44	4.93	-0.05	22.33	-0.0963	0.2402	0.0004
53	SLU 45	5.16	-0.19	23.14	0.0938	0.2474	0.0017
53	SLU 46	5.2	-0.11	22.77	-0.0194	0.2509	0.0009
53	SLU 47	5.21	-0.05	22.42	-0.0961	0.2526	0.0004
53	SLU 48	5.44	-0.19	23.23	0.094	0.2598	0.0017
53	SLU 49	5.48	-0.11	22.86	-0.0192	0.2634	0.0009
53	SLU 50	5.42	-0.19	23.13	0.0928	0.2591	0.0017
53	SLU 51	5.46	-0.1	22.76	-0.0204	0.2627	0.0009
53	SLU 52	5.55	-0.06	24.95	-0.0885	0.27	0.0005
53	SLU 53	5.77	-0.21	25.75	0.1016	0.2772	0.0018
53	SLU 54	5.81	-0.12	25.38	-0.0117	0.2807	0.0011
53	SLU 55	5.83	-0.06	25.04	-0.0883	0.2824	0.0006
53	SLU 56	6.05	-0.21	25.84	0.1018	0.2896	0.0018
53	SLU 57	6.09	-0.13	25.47	-0.0114	0.2932	0.0011
53	SLU 58	6.04	-0.21	25.75	0.1006	0.289	0.0018
53	SLU 59	6.08	-0.12	25.38	-0.0126	0.2925	0.0011
53	SLU 60	5.74	-0.22	26.69	0.1035	0.2769	0.0019
53	SLU 61	5.79	-0.13	26.32	-0.0097	0.2804	0.0011
53	SLU 62	6.02	-0.22	26.78	0.1037	0.2893	0.0019
53	SLU 63	6.06	-0.13	26.41	-0.0095	0.2928	0.0011
53	SLU 64	5.5	-0.21	25.03	0.0995	0.2644	0.0018
53	SLU 65	5.56	-0.06	24.41	-0.0892	0.2703	0.0005
53	SLU 66	5.79	-0.21	25.21	0.1009	0.2775	0.0018
53	SLU 67	5.83	-0.12	24.84	-0.0124	0.2811	0.0011
53	SLU 68	5.84	-0.06	24.5	-0.089	0.2828	0.0005
53	SLU 69	6.06	-0.21	25.31	0.1011	0.29	0.0018
53	SLU 70	6.11	-0.12	24.93	-0.0122	0.2935	0.0011
53	SLU 71	6.05	-0.21	25.21	0.0999	0.2893	0.0018
53	SLU 72	6.09	-0.12	24.84	-0.0133	0.2928	0.001
53	SLU 73	6.18	-0.08	27.03	-0.0814	0.3002	0.0007
53	SLU 74	6.4	-0.23	27.83	0.1086	0.3074	0.002
53	SLU 75	6.44	-0.14	27.46	-0.0046	0.3109	0.0012
53	SLU 76	6.46	-0.08	27.12	-0.0812	0.3126	0.0007
53	SLU 77	6.68	-0.23	27.92	0.1088	0.3198	0.002
53	SLU 78	6.72	-0.14	27.55	-0.0044	0.3234	0.0012
53	SLU 79	6.67	-0.23	27.83	0.1077	0.3191	0.002
53	SLU 80	6.71	-0.14	27.45	-0.0055	0.3227	0.0012
53	SLU 81	6.37	-0.23	28.76	0.1106	0.307	0.002
53	SLU 82	6.41	-0.15	28.39	-0.0026	0.3106	0.0013
53	SLU 83	6.65	-0.23	28.85	0.1108	0.3195	0.002
53	SLU 84	6.69	-0.15	28.48	-0.0024	0.323	0.0013
53	SLE RA 1	4.09	-0.15	18.8	0.075	0.1968	0.0013
53	SLE RA 2	4.13	-0.06	18.38	-0.0508	0.2007	0.0005
53	SLE RA 3	4.28	-0.16	18.92	0.0759	0.2055	0.0014
53	SLE RA 4	4.31	-0.1	18.67	0.0004	0.2079	0.0009
53	SLE RA 5	4.32	-0.06	18.44	-0.0507	0.209	0.0005
53	SLE RA 6	4.47	-0.16	18.98	0.076	0.2138	0.0014
53	SLE RA 7	4.5	-0.1	18.73	0.0005	0.2162	0.0009
53	SLE RA 8	4.46	-0.16	18.92	0.0752	0.2134	0.0013
53	SLE RA 9	4.49	-0.1	18.67	-0.0002	0.2157	0.0008
53	SLE RA 10	4.54	-0.07	20.13	-0.0456	0.2206	0.0006
53	SLE RA 11	4.69	-0.17	20.66	0.0811	0.2254	0.0015
53	SLE RA 12	4.72	-0.11	20.42	0.0056	0.2278	0.001
53	SLE RA 13	4.73	-0.07	20.19	-0.0455	0.2289	0.0006
53	SLE RA 14	4.88	-0.17	20.72	0.0812	0.2337	0.0015
53	SLE RA 15	4.91	-0.11	20.48	0.0057	0.2361	0.001
53	SLE RA 16	4.87	-0.17	20.66	0.0804	0.2332	0.0015
53	SLE RA 17	4.9	-0.11	20.41	0.005	0.2356	0.001
53	SLE RA 18	4.68	-0.17	21.29	0.0824	0.2252	0.0015
53	SLE RA 19	4.7	-0.11	21.04	0.0069	0.2275	0.001
53	SLE RA 20	4.86	-0.17	21.35	0.0825	0.2335	0.0015
53	SLE RA 21	4.89	-0.12	21.1	0.007	0.2358	0.001
53	SLE FR 1	4.09	-0.15	18.8	0.075	0.1968	0.0013
53	SLE FR 2	4.1	-0.14	18.71	0.0498	0.1976	0.0012
53	SLE FR 3	4.16	-0.15	18.82	0.075	0.2001	0.0013
53	SLE FR 4	4.27	-0.14	19.46	0.052	0.2061	0.0012
53	SLE FR 5	4.34	-0.16	19.57	0.0773	0.2086	0.0014
53	SLE FR 6	4.38	-0.16	20.04	0.0787	0.211	0.0014
53	SLE QP 1	4.09	-0.15	18.8	0.075	0.1968	0.0013
53	SLE QP 2	4.27	-0.16	19.54	0.0772	0.2053	0.0014
53	SLD 1	12.27	-0.11	22.19	0.0152	0.555	0.0009
53	SLD 2	12.27	-0.11	22.19	0.0152	0.555	0.0009
53	SLD 3	11.36	-0.33	20.08	0.2651	0.5153	0.0029
53	SLD 4	11.36	-0.33	20.08	0.2651	0.5153	0.0029
53	SLD 5	8.05	0.2	23.54	-0.3204	0.3704	-0.0017
53	SLD 6	8.05	0.2	23.54	-0.3204	0.3704	-0.0017
53	SLD 7	5.01	-0.55	16.51	0.5126	0.2381	0.0048
53	SLD 8	5.01	-0.55	16.51	0.5126	0.2381	0.0048
53	SLD 9	3.52	0.23	22.58	-0.3582	0.1724	-0.002
53	SLD 10	3.52	0.23	22.58	-0.3582	0.1724	-0.002
53	SLD 11	0.48	-0.52	15.55	0.4748	0.0402	0.0045



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
53	SLD 12	0.48	-0.52	15.55	0.4748	0.0402	0.0045
53	SLD 13	-2.83	0.01	19	-0.1107	-0.1047	-0.0001
53	SLD 14	-2.83	0.01	19	-0.1107	-0.1047	-0.0001
53	SLD 15	-3.74	-0.21	16.89	0.1392	-0.1444	0.0019
53	SLD 16	-3.74	-0.21	16.89	0.1392	-0.1444	0.0019
53	SLV 1	23.02	-0.02	25.92	-0.082	1.0239	0.0001
53	SLV 2	23.02	-0.02	25.92	-0.082	1.0239	0.0001
53	SLV 3	20.85	-0.59	20.66	0.5547	0.9304	0.0051
53	SLV 4	20.85	-0.59	20.66	0.5547	0.9304	0.0051
53	SLV 5	13.18	0.75	29.44	-0.9362	0.5928	-0.0065
53	SLV 6	13.18	0.75	29.44	-0.9362	0.5928	-0.0065
53	SLV 7	5.96	-1.16	11.89	1.1861	0.2809	0.0101
53	SLV 8	5.96	-1.16	11.89	1.1861	0.2809	0.0101
53	SLV 9	2.58	0.84	27.19	-1.0317	0.1297	-0.0073
53	SLV 10	2.58	0.84	27.19	-1.0317	0.1297	-0.0073
53	SLV 11	-4.65	-1.07	9.65	1.0906	-0.1823	0.0093
53	SLV 12	-4.65	-1.07	9.65	1.0906	-0.1823	0.0093
53	SLV 13	-12.32	0.27	18.43	-0.4003	-0.5198	-0.0024
53	SLV 14	-12.32	0.27	18.43	-0.4003	-0.5198	-0.0024
53	SLV 15	-14.49	-0.3	13.16	0.2364	-0.6134	0.0026
53	SLV 16	-14.49	-0.3	13.16	0.2364	-0.6134	0.0026
54	SLU 1	3.28	-0.2	19.91	0.0963	0.1147	0.0014
54	SLU 2	3.62	-0.07	19.08	-0.0786	0.1304	0.0004
54	SLU 3	3.55	-0.2	20.11	0.0981	0.1264	0.0014
54	SLU 4	3.75	-0.12	19.61	-0.0069	0.1358	0.0008
54	SLU 5	3.88	-0.07	19.16	-0.0783	0.1422	0.0004
54	SLU 6	3.81	-0.2	20.2	0.0984	0.1382	0.0014
54	SLU 7	4.02	-0.12	19.7	-0.0066	0.1477	0.0008
54	SLU 8	3.8	-0.2	20.09	0.0969	0.1384	0.0014
54	SLU 9	4.01	-0.12	19.59	-0.0081	0.1478	0.0008
54	SLU 10	4.11	-0.09	21.97	-0.0671	0.1468	0.0006
54	SLU 11	4.03	-0.22	23.01	0.1096	0.1428	0.0016
54	SLU 12	4.24	-0.15	22.51	0.0047	0.1522	0.001
54	SLU 13	4.37	-0.09	22.06	-0.0668	0.1586	0.0006
54	SLU 14	4.3	-0.23	23.1	0.1099	0.1546	0.0016
54	SLU 15	4.5	-0.15	22.6	0.0049	0.164	0.001
54	SLU 16	4.29	-0.22	22.98	0.1084	0.1547	0.0016
54	SLU 17	4.5	-0.15	22.48	0.0035	0.1641	0.001
54	SLU 18	3.97	-0.23	24.05	0.1128	0.1381	0.0016
54	SLU 19	4.18	-0.15	23.55	0.0079	0.1475	0.001
54	SLU 20	4.24	-0.23	24.14	0.1131	0.1499	0.0016
54	SLU 21	4.44	-0.16	23.64	0.0081	0.1593	0.0011
54	SLU 22	3.79	-0.22	22.21	0.1066	0.1331	0.0015
54	SLU 23	4.13	-0.09	21.38	-0.0684	0.1488	0.0006
54	SLU 24	4.06	-0.22	22.42	0.1083	0.1448	0.0016
54	SLU 25	4.26	-0.14	21.92	0.0034	0.1542	0.001
54	SLU 26	4.4	-0.09	21.47	-0.0681	0.1606	0.0006
54	SLU 27	4.32	-0.22	22.51	0.1086	0.1566	0.0016
54	SLU 28	4.53	-0.15	22	0.0036	0.166	0.001
54	SLU 29	4.31	-0.22	22.39	0.1072	0.1568	0.0016
54	SLU 30	4.52	-0.14	21.89	0.0022	0.1662	0.001
54	SLU 31	4.62	-0.11	24.28	-0.0568	0.1652	0.0007
54	SLU 32	4.54	-0.25	25.31	0.1199	0.1611	0.0017
54	SLU 33	4.75	-0.17	24.81	0.0149	0.1706	0.0012
54	SLU 34	4.88	-0.12	24.36	-0.0565	0.177	0.0007
54	SLU 35	4.81	-0.25	25.4	0.1202	0.173	0.0018
54	SLU 36	5.01	-0.17	24.9	0.0152	0.1824	0.0012
54	SLU 37	4.8	-0.25	25.29	0.1187	0.1731	0.0017
54	SLU 38	5.01	-0.17	24.79	0.0137	0.1825	0.0011
54	SLU 39	4.48	-0.25	26.35	0.1231	0.1565	0.0018
54	SLU 40	4.69	-0.18	25.85	0.0181	0.1659	0.0012
54	SLU 41	4.75	-0.26	26.44	0.1234	0.1683	0.0018
54	SLU 42	4.95	-0.18	25.94	0.0184	0.1777	0.0012
54	SLU 43	4.09	-0.25	25.1	0.1217	0.1428	0.0017
54	SLU 44	4.43	-0.12	24.26	-0.0532	0.1585	0.0008
54	SLU 45	4.35	-0.25	25.3	0.1235	0.1545	0.0018
54	SLU 46	4.56	-0.17	24.8	0.0185	0.1639	0.0012
54	SLU 47	4.69	-0.12	24.35	-0.0529	0.1704	0.0008
54	SLU 48	4.62	-0.25	25.39	0.1238	0.1663	0.0018
54	SLU 49	4.82	-0.17	24.89	0.0188	0.1758	0.0012
54	SLU 50	4.61	-0.25	25.27	0.1223	0.1665	0.0018
54	SLU 51	4.82	-0.17	24.77	0.0173	0.1759	0.0012
54	SLU 52	4.92	-0.14	27.16	-0.0417	0.1749	0.0009
54	SLU 53	4.84	-0.28	28.2	0.135	0.1709	0.0019
54	SLU 54	5.05	-0.2	27.7	0.03	0.1803	0.0014
54	SLU 55	5.18	-0.14	27.25	-0.0414	0.1867	0.0009
54	SLU 56	5.1	-0.28	28.28	0.1353	0.1827	0.002
54	SLU 57	5.31	-0.2	27.78	0.0303	0.1921	0.0014
54	SLU 58	5.1	-0.27	28.17	0.1338	0.1828	0.0019
54	SLU 59	5.3	-0.2	27.67	0.0289	0.1923	0.0013
54	SLU 60	4.78	-0.28	29.23	0.1382	0.1662	0.002
54	SLU 61	4.99	-0.21	28.73	0.0332	0.1756	0.0014
54	SLU 62	5.04	-0.28	29.32	0.1385	0.178	0.002
54	SLU 63	5.25	-0.21	28.82	0.0335	0.1874	0.0014
54	SLU 64	4.6	-0.27	27.4	0.132	0.1612	0.0019
54	SLU 65	4.94	-0.14	26.56	-0.043	0.1769	0.0009
54	SLU 66	4.87	-0.27	27.6	0.1337	0.1729	0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
54	SLU 67	5.07	-0.2	27.1	0.0288	0.1823	0.0013
54	SLU 68	5.2	-0.14	26.65	-0.0427	0.1887	0.0009
54	SLU 69	5.13	-0.27	27.69	0.134	0.1847	0.0019
54	SLU 70	5.34	-0.2	27.19	0.029	0.1942	0.0013
54	SLU 71	5.12	-0.27	27.57	0.1325	0.1849	0.0019
54	SLU 72	5.33	-0.19	27.07	0.0276	0.1943	0.0013
54	SLU 73	5.43	-0.17	29.46	-0.0314	0.1933	0.0011
54	SLU 74	5.35	-0.3	30.5	0.1453	0.1893	0.0021
54	SLU 75	5.56	-0.22	30	0.0403	0.1987	0.0015
54	SLU 76	5.69	-0.17	29.55	-0.0312	0.2051	0.0011
54	SLU 77	5.61	-0.3	30.59	0.1455	0.2011	0.0021
54	SLU 78	5.82	-0.22	30.09	0.0406	0.2105	0.0015
54	SLU 79	5.61	-0.3	30.47	0.1441	0.2012	0.0021
54	SLU 80	5.82	-0.22	29.97	0.0391	0.2106	0.0015
54	SLU 81	5.29	-0.31	31.54	0.1485	0.1846	0.0022
54	SLU 82	5.5	-0.23	31.04	0.0435	0.194	0.0016
54	SLU 83	5.55	-0.31	31.62	0.1488	0.1964	0.0022
54	SLU 84	5.76	-0.23	31.12	0.0438	0.2058	0.0016
54	SLE RA 1	3.42	-0.2	20.57	0.0993	0.12	0.0014
54	SLE RA 2	3.65	-0.12	20.01	-0.0174	0.1304	0.0008
54	SLE RA 3	3.6	-0.2	20.71	0.1004	0.1278	0.0014
54	SLE RA 4	3.74	-0.15	20.37	0.0305	0.134	0.0011
54	SLE RA 5	3.83	-0.12	20.07	-0.0172	0.1383	0.0008
54	SLE RA 6	3.78	-0.2	20.76	0.1006	0.1357	0.0014
54	SLE RA 7	3.92	-0.15	20.43	0.0306	0.1419	0.0011
54	SLE RA 8	3.77	-0.2	20.69	0.0996	0.1357	0.0014
54	SLE RA 9	3.91	-0.15	20.35	0.0297	0.142	0.001
54	SLE RA 10	3.98	-0.13	21.94	-0.0097	0.1413	0.0009
54	SLE RA 11	3.93	-0.22	22.64	0.1081	0.1387	0.0016
54	SLE RA 12	4.06	-0.17	22.3	0.0381	0.1449	0.0012
54	SLE RA 13	4.15	-0.13	22	-0.0095	0.1492	0.0009
54	SLE RA 14	4.1	-0.22	22.69	0.1083	0.1466	0.0016
54	SLE RA 15	4.24	-0.17	22.36	0.0383	0.1528	0.0012
54	SLE RA 16	4.1	-0.22	22.62	0.1073	0.1466	0.0016
54	SLE RA 17	4.24	-0.17	22.28	0.0374	0.1529	0.0012
54	SLE RA 18	3.89	-0.23	23.33	0.1103	0.1355	0.0016
54	SLE RA 19	4.02	-0.17	22.99	0.0403	0.1418	0.0012
54	SLE RA 20	4.06	-0.23	23.39	0.1105	0.1434	0.0016
54	SLE RA 21	4.2	-0.18	23.05	0.0405	0.1497	0.0012
54	SLE FR 1	3.42	-0.2	20.57	0.0993	0.12	0.0014
54	SLE FR 2	3.47	-0.18	20.46	0.0759	0.1221	0.0013
54	SLE FR 3	3.49	-0.2	20.59	0.0993	0.1231	0.0014
54	SLE FR 4	3.61	-0.19	21.29	0.0792	0.1267	0.0013
54	SLE FR 5	3.63	-0.21	21.42	0.1026	0.1278	0.0015
54	SLE FR 6	3.66	-0.21	21.95	0.1048	0.1278	0.0015
54	SLE QP 1	3.42	-0.2	20.57	0.0993	0.12	0.0014
54	SLE QP 2	3.56	-0.21	21.4	0.1026	0.1246	0.0015
54	SLD 1	11.37	-0.16	24.06	0.0445	0.4786	0.0011
54	SLD 2	11.37	-0.16	24.06	0.0445	0.4786	0.0011
54	SLD 3	10.47	-0.37	22.15	0.2813	0.4405	0.0027
54	SLD 4	10.47	-0.37	22.15	0.2813	0.4405	0.0027
54	SLD 5	7.27	0.13	25.08	-0.2739	0.2886	-0.0011
54	SLD 6	7.27	0.13	25.08	-0.2739	0.2886	-0.0011
54	SLD 7	4.27	-0.58	18.73	0.5153	0.1616	0.0043
54	SLD 8	4.27	-0.58	18.73	0.5153	0.1616	0.0043
54	SLD 9	2.86	0.17	24.06	-0.3101	0.0877	-0.0013
54	SLD 10	2.86	0.17	24.06	-0.3101	0.0877	-0.0013
54	SLD 11	-0.14	-0.55	17.71	0.4791	-0.0393	0.004
54	SLD 12	-0.14	-0.55	17.71	0.4791	-0.0393	0.004
54	SLD 13	-3.35	-0.04	20.64	-0.0761	-0.1912	0.0003
54	SLD 14	-3.35	-0.04	20.64	-0.0761	-0.1912	0.0003
54	SLD 15	-4.25	-0.26	18.74	0.1606	-0.2293	0.0019
54	SLD 16	-4.25	-0.26	18.74	0.1606	-0.2293	0.0019
54	SLV 1	21.84	-0.08	27.75	-0.047	0.9532	0.0005
54	SLV 2	21.84	-0.08	27.75	-0.047	0.9532	0.0005
54	SLV 3	19.71	-0.63	23.06	0.5561	0.863	0.0045
54	SLV 4	19.71	-0.63	23.06	0.5561	0.863	0.0045
54	SLV 5	12.28	0.65	30.41	-0.857	0.5101	-0.005
54	SLV 6	12.28	0.65	30.41	-0.857	0.5101	-0.005
54	SLV 7	5.18	-1.16	14.78	1.1533	0.2092	0.0086
54	SLV 8	5.18	-1.16	14.78	1.1533	0.2092	0.0086
54	SLV 9	1.95	0.74	28.01	-0.9482	0.04	-0.0056
54	SLV 10	1.95	0.74	28.01	-0.9482	0.04	-0.0056
54	SLV 11	-5.15	-1.07	12.38	1.0622	-0.2609	0.008
54	SLV 12	-5.15	-1.07	12.38	1.0622	-0.2609	0.008
54	SLV 13	-12.59	0.21	19.74	-0.3509	-0.6137	-0.0016
54	SLV 14	-12.59	0.21	19.74	-0.3509	-0.6137	-0.0016
54	SLV 15	-14.72	-0.34	15.05	0.2522	-0.704	0.0025
54	SLV 16	-14.72	-0.34	15.05	0.2522	-0.704	0.0025
55	SLU 1	3.28	-0.23	21.69	0.1155	0.1561	0.0013
55	SLU 2	3.97	-0.13	20.71	-0.0383	0.188	0.0006
55	SLU 3	3.54	-0.24	21.9	0.1176	0.1676	0.0013
55	SLU 4	3.95	-0.17	21.31	0.0253	0.1867	0.0009
55	SLU 5	4.22	-0.13	20.78	-0.038	0.199	0.0006
55	SLU 6	3.78	-0.24	21.96	0.1179	0.1786	0.0013
55	SLU 7	4.19	-0.17	21.38	0.0257	0.1978	0.0009
55	SLU 8	3.77	-0.24	21.82	0.1163	0.1781	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
55	SLU 9	4.19	-0.17	21.23	0.024	0.1972	0.0009
55	SLU 10	4.44	-0.16	23.89	-0.0236	0.2108	0.0008
55	SLU 11	4	-0.27	25.07	0.1323	0.1905	0.0015
55	SLU 12	4.42	-0.21	24.48	0.04	0.2096	0.0011
55	SLU 13	4.68	-0.16	23.95	-0.0232	0.2218	0.0008
55	SLU 14	4.25	-0.27	25.14	0.1327	0.2015	0.0015
55	SLU 15	4.66	-0.21	24.55	0.0404	0.2206	0.0011
55	SLU 16	4.24	-0.27	25	0.131	0.201	0.0015
55	SLU 17	4.66	-0.2	24.41	0.0387	0.2201	0.0011
55	SLU 18	3.95	-0.28	26.22	0.1365	0.1888	0.0016
55	SLU 19	4.36	-0.21	25.64	0.0442	0.2079	0.0011
55	SLU 20	4.2	-0.28	26.29	0.1369	0.1998	0.0016
55	SLU 21	4.61	-0.22	25.7	0.0446	0.2189	0.0011
55	SLU 22	3.76	-0.26	24.2	0.1285	0.1794	0.0015
55	SLU 23	4.45	-0.15	23.23	-0.0254	0.2112	0.0008
55	SLU 24	4.02	-0.27	24.41	0.1305	0.1909	0.0015
55	SLU 25	4.43	-0.2	23.83	0.0382	0.21	0.0011
55	SLU 26	4.7	-0.16	23.29	-0.025	0.2223	0.0008
55	SLU 27	4.26	-0.27	24.48	0.1309	0.2019	0.0015
55	SLU 28	4.68	-0.2	23.89	0.0386	0.221	0.0011
55	SLU 29	4.26	-0.26	24.34	0.1292	0.2014	0.0015
55	SLU 30	4.67	-0.2	23.75	0.0369	0.2205	0.0011
55	SLU 31	4.92	-0.19	26.4	-0.0106	0.2341	0.0009
55	SLU 32	4.49	-0.3	27.59	0.1453	0.2138	0.0017
55	SLU 33	4.9	-0.23	27	0.053	0.2329	0.0012
55	SLU 34	5.17	-0.19	26.47	-0.0103	0.2451	0.0009
55	SLU 35	4.73	-0.3	27.65	0.1456	0.2248	0.0017
55	SLU 36	5.15	-0.23	27.07	0.0533	0.2439	0.0012
55	SLU 37	4.73	-0.3	27.51	0.1439	0.2243	0.0016
55	SLU 38	5.14	-0.23	26.93	0.0516	0.2434	0.0012
55	SLU 39	4.43	-0.31	28.74	0.1495	0.212	0.0017
55	SLU 40	4.85	-0.24	28.15	0.0572	0.2312	0.0013
55	SLU 41	4.68	-0.31	28.81	0.1499	0.2231	0.0017
55	SLU 42	5.09	-0.24	28.22	0.0576	0.2422	0.0013
55	SLU 43	4.1	-0.29	27.33	0.1457	0.1949	0.0016
55	SLU 44	4.79	-0.19	26.35	-0.0081	0.2268	0.001
55	SLU 45	4.35	-0.3	27.54	0.1478	0.2065	0.0017
55	SLU 46	4.77	-0.23	26.95	0.0555	0.2256	0.0013
55	SLU 47	5.03	-0.19	26.42	-0.0077	0.2378	0.001
55	SLU 48	4.6	-0.3	27.61	0.1482	0.2175	0.0017
55	SLU 49	5.01	-0.24	27.02	0.0559	0.2366	0.0013
55	SLU 50	4.59	-0.3	27.46	0.1465	0.217	0.0017
55	SLU 51	5	-0.23	26.88	0.0542	0.2361	0.0012
55	SLU 52	5.26	-0.22	29.53	0.0066	0.2497	0.0011
55	SLU 53	4.82	-0.33	30.71	0.1625	0.2293	0.0018
55	SLU 54	5.24	-0.27	30.13	0.0702	0.2485	0.0014
55	SLU 55	5.5	-0.22	29.6	0.007	0.2607	0.0011
55	SLU 56	5.07	-0.33	30.78	0.1629	0.2404	0.0018
55	SLU 57	5.48	-0.27	30.19	0.0706	0.2595	0.0014
55	SLU 58	5.06	-0.33	30.64	0.1612	0.2398	0.0018
55	SLU 59	5.47	-0.26	30.05	0.0689	0.259	0.0014
55	SLU 60	4.77	-0.34	31.87	0.1667	0.2276	0.0019
55	SLU 61	5.18	-0.28	31.28	0.0744	0.2467	0.0015
55	SLU 62	5.02	-0.34	31.93	0.1671	0.2386	0.0019
55	SLU 63	5.43	-0.28	31.35	0.0748	0.2577	0.0015
55	SLU 64	4.58	-0.32	29.85	0.1587	0.2182	0.0018
55	SLU 65	5.27	-0.21	28.87	0.0048	0.2501	0.0011
55	SLU 66	4.84	-0.33	30.06	0.1607	0.2297	0.0018
55	SLU 67	5.25	-0.26	29.47	0.0684	0.2489	0.0014
55	SLU 68	5.52	-0.22	28.94	0.0052	0.2611	0.0011
55	SLU 69	5.08	-0.33	30.12	0.1611	0.2408	0.0018
55	SLU 70	5.5	-0.26	29.54	0.0688	0.2599	0.0014
55	SLU 71	5.07	-0.32	29.98	0.1594	0.2402	0.0018
55	SLU 72	5.49	-0.26	29.39	0.0671	0.2594	0.0014
55	SLU 73	5.74	-0.25	32.05	0.0196	0.273	0.0013
55	SLU 74	5.31	-0.36	33.23	0.1755	0.2526	0.002
55	SLU 75	5.72	-0.29	32.64	0.0832	0.2717	0.0016
55	SLU 76	5.99	-0.25	32.11	0.0199	0.284	0.0013
55	SLU 77	5.55	-0.36	33.3	0.1758	0.2636	0.002
55	SLU 78	5.97	-0.29	32.71	0.0836	0.2828	0.0016
55	SLU 79	5.54	-0.36	33.16	0.1742	0.2631	0.002
55	SLU 80	5.96	-0.29	32.57	0.0819	0.2822	0.0016
55	SLU 81	5.25	-0.37	34.38	0.1797	0.2509	0.002
55	SLU 82	5.67	-0.3	33.8	0.0874	0.27	0.0016
55	SLU 83	5.5	-0.37	34.45	0.1801	0.2619	0.0021
55	SLU 84	5.91	-0.3	33.86	0.0878	0.281	0.0016
55	SLE RA 1	3.42	-0.24	22.41	0.1192	0.1627	0.0013
55	SLE RA 2	3.88	-0.17	21.76	0.0166	0.184	0.0009
55	SLE RA 3	3.59	-0.24	22.55	0.1206	0.1704	0.0014
55	SLE RA 4	3.86	-0.2	22.15	0.0591	0.1832	0.0011
55	SLE RA 5	4.04	-0.17	21.8	0.0169	0.1913	0.0009
55	SLE RA 6	3.75	-0.25	22.59	0.1208	0.1778	0.0014
55	SLE RA 7	4.03	-0.2	22.2	0.0593	0.1905	0.0011
55	SLE RA 8	3.75	-0.24	22.5	0.1197	0.1774	0.0014
55	SLE RA 9	4.02	-0.2	22.1	0.0582	0.1902	0.0011
55	SLE RA 10	4.19	-0.19	23.87	0.0265	0.1992	0.001
55	SLE RA 11	3.9	-0.27	24.66	0.1304	0.1857	0.0015



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
55	SLE RA 12	4.18	-0.22	24.27	0.0689	0.1984	0.0012
55	SLE RA 13	4.35	-0.19	23.92	0.0267	0.2066	0.001
55	SLE RA 14	4.07	-0.27	24.71	0.1307	0.193	0.0015
55	SLE RA 15	4.34	-0.22	24.32	0.0691	0.2058	0.0012
55	SLE RA 16	4.06	-0.26	24.61	0.1295	0.1927	0.0015
55	SLE RA 17	4.34	-0.22	24.22	0.068	0.2054	0.0012
55	SLE RA 18	3.87	-0.27	25.43	0.1332	0.1845	0.0015
55	SLE RA 19	4.14	-0.23	25.04	0.0717	0.1973	0.0012
55	SLE RA 20	4.03	-0.27	25.48	0.1335	0.1919	0.0015
55	SLE RA 21	4.31	-0.23	25.08	0.0719	0.2046	0.0012
55	SLE FR 1	3.42	-0.24	22.41	0.1192	0.1627	0.0013
55	SLE FR 2	3.51	-0.23	22.28	0.0987	0.167	0.0013
55	SLE FR 3	3.48	-0.24	22.42	0.1193	0.1657	0.0013
55	SLE FR 4	3.64	-0.24	23.18	0.1029	0.1735	0.0013
55	SLE FR 5	3.62	-0.25	23.33	0.1235	0.1722	0.0014
55	SLE FR 6	3.64	-0.26	23.92	0.1262	0.1736	0.0014
55	SLE QP 1	3.42	-0.24	22.41	0.1192	0.1627	0.0013
55	SLE QP 2	3.55	-0.25	23.31	0.1234	0.1693	0.0014
55	SLD 1	10.99	-0.4	25.7	0.0726	0.4963	0.0005
55	SLD 2	10.99	-0.4	25.7	0.0726	0.4963	0.0005
55	SLD 3	10.07	-0.21	23.92	0.2856	0.4555	0.0017
55	SLD 4	10.07	-0.21	23.92	0.2856	0.4555	0.0017
55	SLD 5	7.17	-0.58	26.72	-0.2149	0.3293	-0.0007
55	SLD 6	7.17	-0.58	26.72	-0.2149	0.3293	-0.0007
55	SLD 7	4.12	0.05	20.81	0.4951	0.1932	0.0033
55	SLD 8	4.12	0.05	20.81	0.4951	0.1932	0.0033
55	SLD 9	2.98	-0.55	25.82	-0.2483	0.1453	-0.0005
55	SLD 10	2.98	-0.55	25.82	-0.2483	0.1453	-0.0005
55	SLD 11	-0.06	0.08	19.91	0.4617	0.0093	0.0035
55	SLD 12	-0.06	0.08	19.91	0.4617	0.0093	0.0035
55	SLD 13	-2.97	-0.29	22.7	-0.0388	-0.1169	0.0011
55	SLD 14	-2.97	-0.29	22.7	-0.0388	-0.1169	0.0011
55	SLD 15	-3.88	-0.1	20.93	0.1742	-0.1577	0.0023
55	SLD 16	-3.88	-0.1	20.93	0.1742	-0.1577	0.0023
55	SLV 1	20.95	-0.63	28.97	-0.0083	0.9347	-0.0009
55	SLV 2	20.95	-0.63	28.97	-0.0083	0.9347	-0.0009
55	SLV 3	18.8	-0.14	24.69	0.5342	0.8385	0.0021
55	SLV 4	18.8	-0.14	24.69	0.5342	0.8385	0.0021
55	SLV 5	12.04	-1.1	31.49	-0.7388	0.5448	-0.0039
55	SLV 6	12.04	-1.1	31.49	-0.7388	0.5448	-0.0039
55	SLV 7	4.86	0.51	17.24	1.0694	0.2241	0.0062
55	SLV 8	4.86	0.51	17.24	1.0694	0.2241	0.0062
55	SLV 9	2.24	-1.02	29.38	-0.8226	0.1144	-0.0034
55	SLV 10	2.24	-1.02	29.38	-0.8226	0.1144	-0.0034
55	SLV 11	-4.93	0.6	15.13	0.9857	-0.2063	0.0067
55	SLV 12	-4.93	0.6	15.13	0.9857	-0.2063	0.0067
55	SLV 13	-11.69	-0.36	21.93	-0.2874	-0.4999	0.0007
55	SLV 14	-11.69	-0.36	21.93	-0.2874	-0.4999	0.0007
55	SLV 15	-13.84	0.13	17.66	0.2551	-0.5961	0.0037
55	SLV 16	-13.84	0.13	17.66	0.2551	-0.5961	0.0037
56	SLU 1	2.45	-0.25	23.42	0.1245	0.0789	0.0011
56	SLU 2	3.45	-0.17	22.44	-0.0021	0.1221	0.0006
56	SLU 3	2.68	-0.26	23.62	0.1267	0.0892	0.0011
56	SLU 4	3.29	-0.21	23.03	0.0508	0.1151	0.0008
56	SLU 5	3.69	-0.18	22.47	-0.0017	0.1328	0.0007
56	SLU 6	2.92	-0.26	23.65	0.1272	0.0999	0.0011
56	SLU 7	3.52	-0.21	23.06	0.0512	0.1258	0.0008
56	SLU 8	2.92	-0.25	23.48	0.1254	0.1004	0.0011
56	SLU 9	3.52	-0.21	22.89	0.0495	0.1263	0.0008
56	SLU 10	3.76	-0.21	25.87	0.0143	0.1311	0.0008
56	SLU 11	2.99	-0.29	27.05	0.1432	0.0982	0.0013
56	SLU 12	3.6	-0.24	26.46	0.0672	0.1241	0.001
56	SLU 13	4	-0.21	25.9	0.0148	0.1419	0.0008
56	SLU 14	3.23	-0.29	27.08	0.1436	0.109	0.0013
56	SLU 15	3.83	-0.25	26.49	0.0677	0.1349	0.001
56	SLU 16	3.23	-0.29	26.91	0.1419	0.1094	0.0012
56	SLU 17	3.83	-0.24	26.32	0.0659	0.1354	0.001
56	SLU 18	2.89	-0.3	28.32	0.1479	0.0918	0.0013
56	SLU 19	3.5	-0.26	27.73	0.072	0.1177	0.001
56	SLU 20	3.13	-0.3	28.35	0.1484	0.1026	0.0013
56	SLU 21	3.73	-0.26	27.76	0.0725	0.1285	0.001
56	SLU 22	2.79	-0.28	26.12	0.1389	0.0901	0.0012
56	SLU 23	3.79	-0.2	25.14	0.0123	0.1333	0.0008
56	SLU 24	3.02	-0.29	26.32	0.1411	0.1004	0.0012
56	SLU 25	3.62	-0.24	25.74	0.0652	0.1263	0.001
56	SLU 26	4.03	-0.21	25.17	0.0128	0.144	0.0008
56	SLU 27	3.26	-0.29	26.35	0.1416	0.1111	0.0012
56	SLU 28	3.86	-0.24	25.77	0.0657	0.137	0.001
56	SLU 29	3.26	-0.28	26.18	0.1398	0.1116	0.0012
56	SLU 30	3.86	-0.24	25.6	0.0639	0.1375	0.001
56	SLU 31	4.1	-0.24	28.57	0.0287	0.1423	0.0009
56	SLU 32	3.33	-0.32	29.75	0.1576	0.1094	0.0014
56	SLU 33	3.94	-0.28	29.16	0.0816	0.1353	0.0011
56	SLU 34	4.34	-0.24	28.6	0.0292	0.1531	0.0009
56	SLU 35	3.57	-0.32	29.78	0.1581	0.1202	0.0014
56	SLU 36	4.17	-0.28	29.19	0.0821	0.1461	0.0011
56	SLU 37	3.57	-0.32	29.61	0.1563	0.1206	0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
56	SLU 38	4.17	-0.27	29.02	0.0803	0.1465	0.0011
56	SLU 39	3.23	-0.33	31.02	0.1624	0.103	0.0014
56	SLU 40	3.84	-0.29	30.43	0.0864	0.1289	0.0012
56	SLU 41	3.47	-0.33	31.05	0.1628	0.1138	0.0014
56	SLU 42	4.07	-0.29	30.46	0.0869	0.1397	0.0012
56	SLU 43	3.07	-0.32	29.52	0.1568	0.0988	0.0014
56	SLU 44	4.07	-0.24	28.54	0.0302	0.1419	0.0009
56	SLU 45	3.3	-0.32	29.72	0.1591	0.109	0.0014
56	SLU 46	3.9	-0.27	29.13	0.0832	0.1349	0.0011
56	SLU 47	4.31	-0.24	28.57	0.0307	0.1527	0.0009
56	SLU 48	3.54	-0.32	29.75	0.1596	0.1198	0.0014
56	SLU 49	4.14	-0.28	29.16	0.0836	0.1457	0.0011
56	SLU 50	3.54	-0.32	29.58	0.1578	0.1202	0.0014
56	SLU 51	4.14	-0.27	28.99	0.0818	0.1461	0.0011
56	SLU 52	4.38	-0.27	31.97	0.0467	0.151	0.0011
56	SLU 53	3.61	-0.36	33.15	0.1756	0.1181	0.0015
56	SLU 54	4.22	-0.31	32.56	0.0996	0.144	0.0013
56	SLU 55	4.62	-0.28	32	0.0472	0.1617	0.0011
56	SLU 56	3.85	-0.36	33.18	0.176	0.1288	0.0015
56	SLU 57	4.45	-0.31	32.59	0.1001	0.1547	0.0013
56	SLU 58	3.85	-0.35	33.01	0.1743	0.1293	0.0015
56	SLU 59	4.45	-0.31	32.42	0.0983	0.1552	0.0013
56	SLU 60	3.51	-0.37	34.42	0.1803	0.1117	0.0016
56	SLU 61	4.11	-0.32	33.83	0.1044	0.1376	0.0013
56	SLU 62	3.75	-0.37	34.45	0.1808	0.1224	0.0016
56	SLU 63	4.35	-0.32	33.86	0.1049	0.1483	0.0013
56	SLU 64	3.41	-0.35	32.22	0.1713	0.1099	0.0015
56	SLU 65	4.41	-0.27	31.24	0.0447	0.1531	0.0011
56	SLU 66	3.64	-0.35	32.42	0.1735	0.1202	0.0015
56	SLU 67	4.24	-0.31	31.83	0.0976	0.1461	0.0013
56	SLU 68	4.64	-0.27	31.27	0.0451	0.1639	0.0011
56	SLU 69	3.88	-0.35	32.45	0.174	0.131	0.0015
56	SLU 70	4.48	-0.31	31.87	0.0981	0.1569	0.0013
56	SLU 71	3.88	-0.35	32.28	0.1722	0.1314	0.0015
56	SLU 72	4.48	-0.3	31.7	0.0963	0.1573	0.0012
56	SLU 73	4.72	-0.3	34.67	0.0611	0.1622	0.0012
56	SLU 74	3.95	-0.39	35.85	0.19	0.1293	0.0017
56	SLU 75	4.55	-0.34	35.26	0.114	0.1552	0.0014
56	SLU 76	4.96	-0.31	34.7	0.0616	0.1729	0.0012
56	SLU 77	4.19	-0.39	35.88	0.1905	0.14	0.0017
56	SLU 78	4.79	-0.34	35.29	0.1145	0.1659	0.0014
56	SLU 79	4.19	-0.38	35.71	0.1887	0.1405	0.0017
56	SLU 80	4.79	-0.34	35.12	0.1127	0.1664	0.0014
56	SLU 81	3.85	-0.4	37.12	0.1948	0.1229	0.0017
56	SLU 82	4.45	-0.35	36.53	0.1188	0.1488	0.0015
56	SLU 83	4.09	-0.4	37.15	0.1952	0.1336	0.0017
56	SLU 84	4.69	-0.35	36.56	0.1193	0.1595	0.0015
56	SLE RA 1	2.55	-0.26	24.19	0.1286	0.0821	0.0011
56	SLE RA 2	3.21	-0.21	23.54	0.0442	0.1109	0.0008
56	SLE RA 3	2.7	-0.26	24.33	0.1301	0.089	0.0011
56	SLE RA 4	3.1	-0.23	23.93	0.0794	0.1062	0.001
56	SLE RA 5	3.37	-0.21	23.56	0.0445	0.1181	0.0008
56	SLE RA 6	2.86	-0.26	24.35	0.1304	0.0961	0.0011
56	SLE RA 7	3.26	-0.23	23.95	0.0798	0.1134	0.001
56	SLE RA 8	2.86	-0.26	24.23	0.1292	0.0964	0.0011
56	SLE RA 9	3.26	-0.23	23.84	0.0786	0.1137	0.001
56	SLE RA 10	3.42	-0.23	25.82	0.0551	0.1169	0.0009
56	SLE RA 11	2.91	-0.29	26.61	0.141	0.095	0.0012
56	SLE RA 12	3.31	-0.26	26.22	0.0904	0.1123	0.0011
56	SLE RA 13	3.58	-0.23	25.85	0.0555	0.1241	0.0009
56	SLE RA 14	3.07	-0.29	26.63	0.1414	0.1022	0.0012
56	SLE RA 15	3.47	-0.26	26.24	0.0907	0.1194	0.0011
56	SLE RA 16	3.07	-0.29	26.52	0.1402	0.1025	0.0012
56	SLE RA 17	3.47	-0.25	26.13	0.0895	0.1197	0.0011
56	SLE RA 18	2.84	-0.29	27.46	0.1442	0.0907	0.0013
56	SLE RA 19	3.24	-0.26	27.07	0.0936	0.108	0.0011
56	SLE RA 20	3	-0.29	27.48	0.1446	0.0979	0.0013
56	SLE RA 21	3.4	-0.26	27.09	0.0939	0.1152	0.0011
56	SLE FR 1	2.55	-0.26	24.19	0.1286	0.0821	0.0011
56	SLE FR 2	2.68	-0.25	24.06	0.1117	0.0879	0.0011
56	SLE FR 3	2.61	-0.26	24.2	0.1287	0.085	0.0011
56	SLE FR 4	2.77	-0.26	25.04	0.1164	0.0905	0.0011
56	SLE FR 5	2.7	-0.27	25.18	0.1334	0.0876	0.0012
56	SLE FR 6	2.69	-0.28	25.82	0.1364	0.0864	0.0012
56	SLE QP 1	2.55	-0.26	24.19	0.1286	0.0821	0.0011
56	SLE QP 2	2.63	-0.27	25.17	0.1333	0.0847	0.0012
56	SLD 1	10.01	-0.3	27.22	0.0924	0.419	0.0014
56	SLD 2	10.01	-0.3	27.22	0.0924	0.419	0.0014
56	SLD 3	9.1	-0.15	25.41	0.2721	0.3814	0.0005
56	SLD 4	9.1	-0.15	25.41	0.2721	0.3814	0.0005
56	SLD 5	6.23	-0.51	28.53	-0.1514	0.242	0.0024
56	SLD 6	6.23	-0.51	28.53	-0.1514	0.242	0.0024
56	SLD 7	3.19	0	22.5	0.4474	0.1167	-0.0002
56	SLD 8	3.19	0	22.5	0.4474	0.1167	-0.0002
56	SLD 9	2.08	-0.54	27.85	-0.1808	0.0527	0.0026
56	SLD 10	2.08	-0.54	27.85	-0.1808	0.0527	0.0026
56	SLD 11	-0.96	-0.03	21.81	0.418	-0.0726	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
56	SLD 12	-0.96	-0.03	21.81	0.418	-0.0726	-0.0001
56	SLD 13	-3.83	-0.4	24.94	-0.0055	-0.212	0.0018
56	SLD 14	-3.83	-0.4	24.94	-0.0055	-0.212	0.0018
56	SLD 15	-4.74	-0.24	23.13	0.1741	-0.2496	0.001
56	SLD 16	-4.74	-0.24	23.13	0.1741	-0.2496	0.001
56	SLV 1	19.91	-0.35	30.03	0.0267	0.8672	0.0016
56	SLV 2	19.91	-0.35	30.03	0.0267	0.8672	0.0016
56	SLV 3	17.75	0.04	25.73	0.4841	0.7783	-0.0004
56	SLV 4	17.75	0.04	25.73	0.4841	0.7783	-0.0004
56	SLV 5	11.09	-0.88	33.14	-0.5925	0.4543	0.0044
56	SLV 6	11.09	-0.88	33.14	-0.5925	0.4543	0.0044
56	SLV 7	3.9	0.41	18.83	0.9323	0.1579	-0.0024
56	SLV 8	3.9	0.41	18.83	0.9323	0.1579	-0.0024
56	SLV 9	1.37	-0.95	31.52	-0.6658	0.0115	0.0047
56	SLV 10	1.37	-0.95	31.52	-0.6658	0.0115	0.0047
56	SLV 11	-5.82	0.34	17.2	0.8591	-0.2849	-0.0021
56	SLV 12	-5.82	0.34	17.2	0.8591	-0.2849	-0.0021
56	SLV 13	-12.48	-0.58	24.61	-0.2176	-0.6089	0.0027
56	SLV 14	-12.48	-0.58	24.61	-0.2176	-0.6089	0.0027
56	SLV 15	-14.64	-0.19	20.32	0.2399	-0.6978	0.0007
56	SLV 16	-14.64	-0.19	20.32	0.2399	-0.6978	0.0007
57	SLU 1	2.24	-0.24	25.16	0.1179	0.1079	0.0008
57	SLU 2	3.54	-0.19	24.36	0.0225	0.1647	0.0005
57	SLU 3	2.46	-0.24	25.34	0.1202	0.118	0.0008
57	SLU 4	3.24	-0.22	24.86	0.0629	0.1521	0.0007
57	SLU 5	3.77	-0.2	24.34	0.0231	0.1747	0.0005
57	SLU 6	2.69	-0.24	25.32	0.1208	0.1281	0.0008
57	SLU 7	3.47	-0.22	24.84	0.0635	0.1621	0.0007
57	SLU 8	2.69	-0.24	25.12	0.1191	0.128	0.0008
57	SLU 9	3.47	-0.21	24.64	0.0618	0.162	0.0006
57	SLU 10	3.81	-0.23	28.02	0.0384	0.1784	0.0007
57	SLU 11	2.73	-0.27	29	0.1361	0.1318	0.0009
57	SLU 12	3.51	-0.25	28.52	0.0788	0.1659	0.0008
57	SLU 13	4.03	-0.23	28	0.039	0.1885	0.0007
57	SLU 14	2.95	-0.28	28.98	0.1367	0.1419	0.0009
57	SLU 15	3.74	-0.25	28.5	0.0794	0.1759	0.0008
57	SLU 16	2.95	-0.27	28.78	0.135	0.1418	0.0009
57	SLU 17	3.74	-0.25	28.3	0.0777	0.1758	0.0008
57	SLU 18	2.62	-0.28	30.39	0.1407	0.1276	0.001
57	SLU 19	3.4	-0.26	29.91	0.0834	0.1617	0.0008
57	SLU 20	2.85	-0.29	30.37	0.1412	0.1376	0.001
57	SLU 21	3.63	-0.26	29.89	0.084	0.1717	0.0008
57	SLU 22	2.53	-0.27	28.03	0.1319	0.1226	0.0009
57	SLU 23	3.83	-0.22	27.23	0.0364	0.1794	0.0006
57	SLU 24	2.75	-0.27	28.21	0.1341	0.1327	0.0009
57	SLU 25	3.54	-0.25	27.73	0.0768	0.1668	0.0008
57	SLU 26	4.06	-0.22	27.21	0.037	0.1894	0.0006
57	SLU 27	2.98	-0.27	28.19	0.1347	0.1428	0.0009
57	SLU 28	3.76	-0.25	27.71	0.0774	0.1768	0.0008
57	SLU 29	2.98	-0.27	27.99	0.1331	0.1427	0.0009
57	SLU 30	3.76	-0.24	27.51	0.0758	0.1767	0.0007
57	SLU 31	4.1	-0.26	30.89	0.0523	0.1931	0.0007
57	SLU 32	3.02	-0.3	31.87	0.15	0.1465	0.001
57	SLU 33	3.8	-0.28	31.39	0.0927	0.1806	0.0009
57	SLU 34	4.33	-0.26	30.87	0.0529	0.2032	0.0008
57	SLU 35	3.25	-0.31	31.85	0.1506	0.1566	0.001
57	SLU 36	4.03	-0.28	31.37	0.0933	0.1906	0.0009
57	SLU 37	3.25	-0.3	31.65	0.1489	0.1565	0.001
57	SLU 38	4.03	-0.28	31.17	0.0917	0.1905	0.0009
57	SLU 39	2.91	-0.31	33.26	0.1546	0.1423	0.0011
57	SLU 40	3.7	-0.29	32.78	0.0973	0.1763	0.0009
57	SLU 41	3.14	-0.31	33.24	0.1552	0.1523	0.0011
57	SLU 42	3.92	-0.29	32.76	0.0979	0.1864	0.0009
57	SLU 43	2.81	-0.3	31.72	0.1486	0.1352	0.001
57	SLU 44	4.11	-0.26	30.92	0.0531	0.192	0.0007
57	SLU 45	3.03	-0.3	31.9	0.1508	0.1454	0.001
57	SLU 46	3.82	-0.28	31.42	0.0935	0.1794	0.0009
57	SLU 47	4.34	-0.26	30.9	0.0537	0.202	0.0007
57	SLU 48	3.26	-0.3	31.88	0.1514	0.1554	0.001
57	SLU 49	4.04	-0.28	31.4	0.0941	0.1895	0.0009
57	SLU 50	3.26	-0.3	31.68	0.1497	0.1553	0.001
57	SLU 51	4.04	-0.27	31.2	0.0924	0.1894	0.0009
57	SLU 52	4.38	-0.29	34.58	0.069	0.2058	0.0009
57	SLU 53	3.3	-0.34	35.57	0.1667	0.1592	0.0011
57	SLU 54	4.08	-0.31	35.08	0.1094	0.1932	0.001
57	SLU 55	4.61	-0.29	34.56	0.0696	0.2158	0.0009
57	SLU 56	3.53	-0.34	35.54	0.1673	0.1692	0.0011
57	SLU 57	4.31	-0.31	35.06	0.11	0.2032	0.001
57	SLU 58	3.53	-0.33	35.34	0.1656	0.1691	0.0011
57	SLU 59	4.31	-0.31	34.86	0.1083	0.2032	0.001
57	SLU 60	3.19	-0.35	36.96	0.1713	0.1549	0.0012
57	SLU 61	3.98	-0.32	36.47	0.114	0.189	0.001
57	SLU 62	3.42	-0.35	36.93	0.1718	0.165	0.0012
57	SLU 63	4.2	-0.32	36.45	0.1146	0.199	0.001
57	SLU 64	3.1	-0.33	34.59	0.1625	0.1499	0.0011
57	SLU 65	4.41	-0.28	33.79	0.067	0.2067	0.0008
57	SLU 66	3.33	-0.33	34.77	0.1647	0.1601	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
57	SLU 67	4.11	-0.31	34.29	0.1075	0.1941	0.001
57	SLU 68	4.63	-0.29	33.77	0.0676	0.2167	0.0008
57	SLU 69	3.55	-0.33	34.75	0.1653	0.1701	0.0011
57	SLU 70	4.33	-0.31	34.27	0.108	0.2042	0.001
57	SLU 71	3.55	-0.33	34.55	0.1637	0.17	0.0011
57	SLU 72	4.33	-0.3	34.07	0.1064	0.2041	0.001
57	SLU 73	4.67	-0.32	37.45	0.0829	0.2205	0.001
57	SLU 74	3.59	-0.37	38.43	0.1806	0.1738	0.0012
57	SLU 75	4.38	-0.34	37.95	0.1233	0.2079	0.0011
57	SLU 76	4.9	-0.32	37.43	0.0835	0.2305	0.001
57	SLU 77	3.82	-0.37	38.41	0.1812	0.1839	0.0012
57	SLU 78	4.6	-0.34	37.93	0.1239	0.2179	0.0011
57	SLU 79	3.82	-0.36	38.21	0.1796	0.1838	0.0012
57	SLU 80	4.6	-0.34	37.73	0.1223	0.2179	0.0011
57	SLU 81	3.49	-0.37	39.82	0.1852	0.1696	0.0013
57	SLU 82	4.27	-0.35	39.34	0.1279	0.2037	0.0011
57	SLU 83	3.71	-0.38	39.8	0.1858	0.1797	0.0013
57	SLU 84	4.49	-0.35	39.32	0.1285	0.2137	0.0011
57	SLE RA 1	2.32	-0.25	25.98	0.1219	0.1121	0.0008
57	SLE RA 2	3.19	-0.22	25.44	0.0583	0.1499	0.0007
57	SLE RA 3	2.47	-0.25	26.1	0.1234	0.1189	0.0008
57	SLE RA 4	2.99	-0.23	25.78	0.0852	0.1416	0.0007
57	SLE RA 5	3.34	-0.22	25.43	0.0587	0.1566	0.0007
57	SLE RA 6	2.62	-0.25	26.09	0.1238	0.1255	0.0008
57	SLE RA 7	3.14	-0.23	25.76	0.0856	0.1482	0.0007
57	SLE RA 8	2.62	-0.25	25.95	0.1227	0.1255	0.0008
57	SLE RA 9	3.14	-0.23	25.63	0.0845	0.1482	0.0007
57	SLE RA 10	3.37	-0.24	27.89	0.0689	0.1591	0.0007
57	SLE RA 11	2.65	-0.27	28.54	0.134	0.128	0.0009
57	SLE RA 12	3.17	-0.25	28.22	0.0958	0.1507	0.0008
57	SLE RA 13	3.52	-0.24	27.87	0.0693	0.1658	0.0007
57	SLE RA 14	2.8	-0.27	28.53	0.1344	0.1347	0.0009
57	SLE RA 15	3.32	-0.25	28.21	0.0962	0.1574	0.0008
57	SLE RA 16	2.8	-0.27	28.39	0.1333	0.1347	0.0009
57	SLE RA 17	3.32	-0.25	28.07	0.0951	0.1574	0.0008
57	SLE RA 18	2.58	-0.28	29.47	0.1371	0.1252	0.0009
57	SLE RA 19	3.1	-0.26	29.15	0.0989	0.1479	0.0008
57	SLE RA 20	2.73	-0.28	29.45	0.1375	0.1319	0.0009
57	SLE RA 21	3.25	-0.26	29.13	0.0993	0.1546	0.0008
57	SLE FR 1	2.32	-0.25	25.98	0.1219	0.1121	0.0008
57	SLE FR 2	2.5	-0.24	25.87	0.1092	0.1197	0.0008
57	SLE FR 3	2.38	-0.25	25.97	0.1221	0.1148	0.0008
57	SLE FR 4	2.57	-0.25	26.92	0.1137	0.1236	0.0008
57	SLE FR 5	2.46	-0.26	27.02	0.1266	0.1187	0.0009
57	SLE FR 6	2.45	-0.26	27.72	0.1295	0.1187	0.0009
57	SLE QP 1	2.32	-0.25	25.98	0.1219	0.1121	0.0008
57	SLE QP 2	2.4	-0.25	27.03	0.1265	0.116	0.0009
57	SLD 1	9.7	-0.27	29.09	0.0162	0.4385	0.001
57	SLD 2	9.7	-0.27	29.09	0.0162	0.4385	0.001
57	SLD 3	8.7	-0.16	27.02	0.1552	0.3929	0.0005
57	SLD 4	8.7	-0.16	27.02	0.1552	0.3929	0.0005
57	SLD 5	6.1	-0.42	30.79	-0.1174	0.282	0.0016
57	SLD 6	6.1	-0.42	30.79	-0.1174	0.282	0.0016
57	SLD 7	2.78	-0.07	23.88	0.3459	0.1299	0
57	SLD 8	2.78	-0.07	23.88	0.3459	0.1299	0
57	SLD 9	2.02	-0.44	30.17	-0.093	0.1022	0.0017
57	SLD 10	2.02	-0.44	30.17	-0.093	0.1022	0.0017
57	SLD 11	-1.3	-0.09	23.26	0.3704	-0.0499	0.0001
57	SLD 12	-1.3	-0.09	23.26	0.3704	-0.0499	0.0001
57	SLD 13	-3.91	-0.35	27.03	0.0977	-0.1608	0.0013
57	SLD 14	-3.91	-0.35	27.03	0.0977	-0.1608	0.0013
57	SLD 15	-4.9	-0.24	24.96	0.2367	-0.2065	0.0008
57	SLD 16	-4.9	-0.24	24.96	0.2367	-0.2065	0.0008
57	SLV 1	19.5	-0.29	31.94	-0.1513	0.8718	0.0011
57	SLV 2	19.5	-0.29	31.94	-0.1513	0.8718	0.0011
57	SLV 3	17.12	-0.03	27.04	0.2025	0.7624	-0.0001
57	SLV 4	17.12	-0.03	27.04	0.2025	0.7624	-0.0001
57	SLV 5	11.13	-0.67	35.92	-0.4936	0.5087	0.0028
57	SLV 6	11.13	-0.67	35.92	-0.4936	0.5087	0.0028
57	SLV 7	3.21	0.22	19.6	0.686	0.144	-0.0013
57	SLV 8	3.21	0.22	19.6	0.686	0.144	-0.0013
57	SLV 9	1.59	-0.73	34.45	-0.4331	0.0881	0.0031
57	SLV 10	1.59	-0.73	34.45	-0.4331	0.0881	0.0031
57	SLV 11	-6.34	0.16	18.13	0.7466	-0.2766	-0.0011
57	SLV 12	-6.34	0.16	18.13	0.7466	-0.2766	-0.0011
57	SLV 13	-12.33	-0.48	27.01	0.0504	-0.5303	0.0019
57	SLV 14	-12.33	-0.48	27.01	0.0504	-0.5303	0.0019
57	SLV 15	-14.7	-0.22	22.11	0.4043	-0.6397	0.0006
57	SLV 16	-14.7	-0.22	22.11	0.4043	-0.6397	0.0006
58	SLU 1	1.14	-0.18	26.77	0.0937	0.0245	0.0005
58	SLU 2	2.63	-0.17	26.33	0.0298	0.0878	0.0003
58	SLU 3	1.34	-0.18	26.92	0.0956	0.0338	0.0005
58	SLU 4	2.24	-0.18	26.66	0.0573	0.0718	0.0004
58	SLU 5	2.86	-0.17	26.25	0.0305	0.0984	0.0003
58	SLU 6	1.57	-0.18	26.84	0.0963	0.0444	0.0005
58	SLU 7	2.47	-0.18	26.58	0.058	0.0824	0.0004
58	SLU 8	1.58	-0.18	26.61	0.095	0.0456	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
58	SLU 9	2.48	-0.18	26.34	0.0567	0.0836	0.0004
58	SLU 10	2.72	-0.2	30.2	0.0425	0.0877	0.0004
58	SLU 11	1.43	-0.21	30.79	0.1083	0.0337	0.0006
58	SLU 12	2.33	-0.2	30.52	0.07	0.0717	0.0005
58	SLU 13	2.94	-0.2	30.12	0.0432	0.0982	0.0004
58	SLU 14	1.65	-0.21	30.71	0.109	0.0442	0.0006
58	SLU 15	2.55	-0.2	30.44	0.0707	0.0822	0.0005
58	SLU 16	1.67	-0.21	30.47	0.1078	0.0455	0.0006
58	SLU 17	2.57	-0.2	30.21	0.0695	0.0835	0.0005
58	SLU 18	1.26	-0.21	32.3	0.1118	0.0243	0.0006
58	SLU 19	2.16	-0.21	32.03	0.0735	0.0623	0.0005
58	SLU 20	1.48	-0.22	32.21	0.1125	0.0349	0.0006
58	SLU 21	2.38	-0.21	31.95	0.0742	0.0728	0.0005
58	SLU 22	1.26	-0.2	29.78	0.1049	0.027	0.0006
58	SLU 23	2.76	-0.19	29.34	0.041	0.0903	0.0004
58	SLU 24	1.47	-0.2	29.93	0.1069	0.0363	0.0006
58	SLU 25	2.37	-0.2	29.66	0.0685	0.0743	0.0005
58	SLU 26	2.98	-0.2	29.25	0.0417	0.1009	0.0004
58	SLU 27	1.7	-0.21	29.84	0.1075	0.0469	0.0006
58	SLU 28	2.59	-0.2	29.58	0.0692	0.0849	0.0005
58	SLU 29	1.71	-0.2	29.61	0.1063	0.0481	0.0006
58	SLU 30	2.61	-0.2	29.35	0.068	0.0861	0.0005
58	SLU 31	2.85	-0.22	33.2	0.0538	0.0902	0.0005
58	SLU 32	1.56	-0.23	33.79	0.1196	0.0362	0.0006
58	SLU 33	2.46	-0.23	33.53	0.0813	0.0742	0.0005
58	SLU 34	3.07	-0.22	33.12	0.0545	0.1007	0.0005
58	SLU 35	1.78	-0.23	33.71	0.1203	0.0467	0.0006
58	SLU 36	2.68	-0.23	33.45	0.082	0.0847	0.0005
58	SLU 37	1.8	-0.23	33.48	0.119	0.048	0.0006
58	SLU 38	2.7	-0.22	33.21	0.0807	0.086	0.0005
58	SLU 39	1.39	-0.24	35.3	0.1231	0.0268	0.0007
58	SLU 40	2.29	-0.23	35.03	0.0848	0.0648	0.0006
58	SLU 41	1.61	-0.24	35.22	0.1238	0.0374	0.0007
58	SLU 42	2.51	-0.23	34.95	0.0855	0.0754	0.0006
58	SLU 43	1.43	-0.23	33.78	0.1179	0.031	0.0006
58	SLU 44	2.93	-0.22	33.34	0.054	0.0943	0.0005
58	SLU 45	1.64	-0.23	33.93	0.1199	0.0403	0.0006
58	SLU 46	2.54	-0.22	33.66	0.0815	0.0783	0.0005
58	SLU 47	3.15	-0.22	33.25	0.0547	0.1049	0.0005
58	SLU 48	1.86	-0.23	33.84	0.1205	0.0509	0.0006
58	SLU 49	2.76	-0.23	33.58	0.0822	0.0889	0.0005
58	SLU 50	1.88	-0.23	33.61	0.1193	0.0521	0.0006
58	SLU 51	2.78	-0.22	33.35	0.081	0.0901	0.0005
58	SLU 52	3.02	-0.24	37.2	0.0668	0.0941	0.0005
58	SLU 53	1.73	-0.25	37.79	0.1326	0.0402	0.0007
58	SLU 54	2.63	-0.25	37.53	0.0943	0.0781	0.0006
58	SLU 55	3.24	-0.24	37.12	0.0675	0.1047	0.0005
58	SLU 56	1.95	-0.25	37.71	0.1333	0.0507	0.0007
58	SLU 57	2.85	-0.25	37.44	0.095	0.0887	0.0006
58	SLU 58	1.97	-0.25	37.48	0.132	0.052	0.0007
58	SLU 59	2.87	-0.25	37.21	0.0937	0.09	0.0006
58	SLU 60	1.56	-0.26	39.3	0.1361	0.0308	0.0007
58	SLU 61	2.46	-0.26	39.03	0.0978	0.0688	0.0006
58	SLU 62	1.78	-0.26	39.22	0.1368	0.0413	0.0007
58	SLU 63	2.68	-0.26	38.95	0.0985	0.0793	0.0006
58	SLU 64	1.56	-0.25	36.78	0.1291	0.0335	0.0007
58	SLU 65	3.06	-0.24	36.34	0.0653	0.0968	0.0005
58	SLU 66	1.77	-0.25	36.93	0.1311	0.0428	0.0007
58	SLU 67	2.67	-0.25	36.67	0.0928	0.0808	0.0006
58	SLU 68	3.28	-0.24	36.26	0.066	0.1074	0.0005
58	SLU 69	1.99	-0.25	36.85	0.1318	0.0534	0.0007
58	SLU 70	2.89	-0.25	36.58	0.0935	0.0914	0.0006
58	SLU 71	2.01	-0.25	36.61	0.1305	0.0546	0.0007
58	SLU 72	2.91	-0.25	36.35	0.0922	0.0926	0.0006
58	SLU 73	3.14	-0.27	40.2	0.078	0.0967	0.0006
58	SLU 74	1.86	-0.28	40.8	0.1438	0.0427	0.0008
58	SLU 75	2.75	-0.27	40.53	0.1055	0.0806	0.0007
58	SLU 76	3.37	-0.27	40.12	0.0787	0.1072	0.0006
58	SLU 77	2.08	-0.28	40.71	0.1445	0.0532	0.0008
58	SLU 78	2.98	-0.27	40.45	0.1062	0.0912	0.0007
58	SLU 79	2.1	-0.27	40.48	0.1432	0.0545	0.0008
58	SLU 80	2.99	-0.27	40.21	0.1049	0.0925	0.0007
58	SLU 81	1.69	-0.28	42.3	0.1473	0.0333	0.0008
58	SLU 82	2.58	-0.28	42.04	0.109	0.0713	0.0007
58	SLU 83	1.91	-0.28	42.22	0.148	0.0439	0.0008
58	SLU 84	2.81	-0.28	41.95	0.1097	0.0818	0.0007
58	SLE RA 1	1.17	-0.19	27.63	0.0969	0.0252	0.0005
58	SLE RA 2	2.17	-0.18	27.34	0.0543	0.0674	0.0004
58	SLE RA 3	1.31	-0.19	27.73	0.0982	0.0314	0.0005
58	SLE RA 4	1.91	-0.19	27.56	0.0726	0.0567	0.0005
58	SLE RA 5	2.32	-0.18	27.28	0.0548	0.0745	0.0004
58	SLE RA 6	1.46	-0.19	27.68	0.0986	0.0385	0.0005
58	SLE RA 7	2.06	-0.19	27.5	0.0731	0.0638	0.0005
58	SLE RA 8	1.47	-0.19	27.52	0.0978	0.0393	0.0005
58	SLE RA 9	2.07	-0.18	27.35	0.0722	0.0646	0.0005
58	SLE RA 10	2.23	-0.2	29.92	0.0628	0.0673	0.0005
58	SLE RA 11	1.37	-0.2	30.31	0.1067	0.0313	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
58	SLE RA 12	1.97	-0.2	30.13	0.0811	0.0566	0.0005
58	SLE RA 13	2.38	-0.2	29.86	0.0632	0.0744	0.0005
58	SLE RA 14	1.52	-0.21	30.25	0.1071	0.0384	0.0006
58	SLE RA 15	2.12	-0.2	30.08	0.0816	0.0637	0.0005
58	SLE RA 16	1.53	-0.2	30.1	0.1063	0.0392	0.0006
58	SLE RA 17	2.13	-0.2	29.92	0.0807	0.0645	0.0005
58	SLE RA 18	1.26	-0.21	31.31	0.109	0.0251	0.0006
58	SLE RA 19	1.85	-0.21	31.14	0.0834	0.0504	0.0005
58	SLE RA 20	1.41	-0.21	31.26	0.1094	0.0321	0.0006
58	SLE RA 21	2	-0.21	31.08	0.0839	0.0574	0.0005
58	SLE FR 1	1.17	-0.19	27.63	0.0969	0.0252	0.0005
58	SLE FR 2	1.37	-0.18	27.57	0.0884	0.0336	0.0005
58	SLE FR 3	1.23	-0.19	27.61	0.097	0.028	0.0005
58	SLE FR 4	1.4	-0.19	28.68	0.092	0.0336	0.0005
58	SLE FR 5	1.26	-0.19	28.71	0.1007	0.028	0.0005
58	SLE FR 6	1.21	-0.2	29.47	0.1029	0.0251	0.0005
58	SLE QP 1	1.17	-0.19	27.63	0.0969	0.0252	0.0005
58	SLE QP 2	1.2	-0.19	28.74	0.1005	0.0252	0.0005
58	SLD 1	8.69	-0.18	28.56	0.0213	0.3656	0.0006
58	SLD 2	8.69	-0.18	28.56	0.0213	0.3656	0.0006
58	SLD 3	7.68	-0.13	26.07	0.1163	0.3243	0.0003
58	SLD 4	7.68	-0.13	26.07	0.1163	0.3243	0.0003
58	SLD 5	4.97	-0.26	32.45	-0.0674	0.1899	0.001
58	SLD 6	4.97	-0.26	32.45	-0.0674	0.1899	0.001
58	SLD 7	1.62	-0.1	24.17	0.2493	0.0522	0
58	SLD 8	1.62	-0.1	24.17	0.2493	0.0522	0
58	SLD 9	0.78	-0.28	33.3	-0.0483	-0.0019	0.001
58	SLD 10	0.78	-0.28	33.3	-0.0483	-0.0019	0.001
58	SLD 11	-2.58	-0.12	25.03	0.2684	-0.1396	0.0001
58	SLD 12	-2.58	-0.12	25.03	0.2684	-0.1396	0.0001
58	SLD 13	-5.29	-0.25	31.4	0.0847	-0.2739	0.0008
58	SLD 14	-5.29	-0.25	31.4	0.0847	-0.2739	0.0008
58	SLD 15	-6.3	-0.2	28.92	0.1798	-0.3152	0.0005
58	SLD 16	-6.3	-0.2	28.92	0.1798	-0.3152	0.0005
58	SLV 1	18.76	-0.17	28.29	-0.0982	0.8227	0.0006
58	SLV 2	18.76	-0.17	28.29	-0.0982	0.8227	0.0006
58	SLV 3	16.33	-0.05	22.4	0.1436	0.7232	-0.0001
58	SLV 4	16.33	-0.05	22.4	0.1436	0.7232	-0.0001
58	SLV 5	10.14	-0.37	37.52	-0.3259	0.4154	0.0016
58	SLV 6	10.14	-0.37	37.52	-0.3259	0.4154	0.0016
58	SLV 7	2.06	0.04	17.92	0.4803	0.0836	-0.0007
58	SLV 8	2.06	0.04	17.92	0.4803	0.0836	-0.0007
58	SLV 9	0.33	-0.42	39.56	-0.2793	-0.0333	0.0018
58	SLV 10	0.33	-0.42	39.56	-0.2793	-0.0333	0.0018
58	SLV 11	-7.75	-0.01	19.95	0.527	-0.3651	-0.0006
58	SLV 12	-7.75	-0.01	19.95	0.527	-0.3651	-0.0006
58	SLV 13	-13.94	-0.33	35.07	0.0574	-0.6729	0.0012
58	SLV 14	-13.94	-0.33	35.07	0.0574	-0.6729	0.0012
58	SLV 15	-16.36	-0.21	29.19	0.2992	-0.7724	0.0004
58	SLV 16	-16.36	-0.21	29.19	0.2992	-0.7724	0.0004
59	SLU 1	0.63	-0.07	28.16	0.0546	0.0342	0.0002
59	SLU 2	2.28	-0.09	28.29	0.018	0.1031	0.0001
59	SLU 3	0.82	-0.08	28.26	0.0561	0.0433	0.0002
59	SLU 4	1.82	-0.09	28.34	0.0342	0.0847	0.0002
59	SLU 5	2.5	-0.1	28.13	0.0188	0.1133	0.0001
59	SLU 6	1.05	-0.08	28.1	0.057	0.0535	0.0002
59	SLU 7	2.04	-0.09	28.18	0.035	0.0949	0.0002
59	SLU 8	1.07	-0.08	27.84	0.0563	0.0545	0.0002
59	SLU 9	2.06	-0.09	27.92	0.0343	0.0959	0.0002
59	SLU 10	2.3	-0.1	32.31	0.0254	0.1058	0.0002
59	SLU 11	0.84	-0.09	32.28	0.0636	0.0459	0.0003
59	SLU 12	1.84	-0.1	32.36	0.0416	0.0873	0.0002
59	SLU 13	2.52	-0.11	32.15	0.0263	0.1159	0.0002
59	SLU 14	1.07	-0.09	32.12	0.0644	0.0561	0.0003
59	SLU 15	2.06	-0.1	32.2	0.0425	0.0975	0.0002
59	SLU 16	1.09	-0.09	31.86	0.0638	0.0571	0.0003
59	SLU 17	2.08	-0.1	31.94	0.0418	0.0985	0.0002
59	SLU 18	0.65	-0.09	33.9	0.0653	0.0379	0.0003
59	SLU 19	1.65	-0.1	33.98	0.0433	0.0793	0.0002
59	SLU 20	0.88	-0.09	33.74	0.0661	0.0481	0.0003
59	SLU 21	1.87	-0.1	33.82	0.0441	0.0895	0.0002
59	SLU 22	0.68	-0.08	31.25	0.0614	0.0385	0.0003
59	SLU 23	2.34	-0.1	31.38	0.0247	0.1075	0.0001
59	SLU 24	0.88	-0.09	31.36	0.0629	0.0476	0.0003
59	SLU 25	1.87	-0.1	31.43	0.0409	0.089	0.0002
59	SLU 26	2.56	-0.11	31.22	0.0256	0.1176	0.0002
59	SLU 27	1.11	-0.09	31.19	0.0638	0.0578	0.0003
59	SLU 28	2.1	-0.1	31.27	0.0418	0.0992	0.0002
59	SLU 29	1.13	-0.09	30.93	0.0631	0.0588	0.0003
59	SLU 30	2.12	-0.1	31.01	0.0411	0.1002	0.0002
59	SLU 31	2.36	-0.11	35.41	0.0322	0.1101	0.0002
59	SLU 32	0.9	-0.1	35.38	0.0703	0.0503	0.0003
59	SLU 33	1.9	-0.11	35.46	0.0484	0.0917	0.0002
59	SLU 34	2.58	-0.12	35.24	0.033	0.1203	0.0002
59	SLU 35	1.13	-0.1	35.22	0.0712	0.0604	0.0003
59	SLU 36	2.12	-0.11	35.3	0.0492	0.1018	0.0002
59	SLU 37	1.15	-0.1	34.95	0.0705	0.0614	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
59	SLU 38	2.14	-0.11	35.03	0.0485	0.1028	0.0002
59	SLU 39	0.71	-0.1	37	0.072	0.0422	0.0003
59	SLU 40	1.71	-0.11	37.08	0.05	0.0836	0.0002
59	SLU 41	0.94	-0.1	36.84	0.0729	0.0524	0.0003
59	SLU 42	1.93	-0.11	36.92	0.0509	0.0938	0.0002
59	SLU 43	0.79	-0.09	35.55	0.0687	0.0429	0.0003
59	SLU 44	2.45	-0.11	35.68	0.032	0.1119	0.0002
59	SLU 45	0.99	-0.1	35.65	0.0702	0.0521	0.0003
59	SLU 46	1.98	-0.11	35.73	0.0482	0.0935	0.0002
59	SLU 47	2.67	-0.12	35.52	0.0329	0.1221	0.0002
59	SLU 48	1.21	-0.1	35.49	0.0711	0.0622	0.0003
59	SLU 49	2.21	-0.11	35.57	0.0491	0.1036	0.0002
59	SLU 50	1.24	-0.1	35.22	0.0704	0.0632	0.0003
59	SLU 51	2.23	-0.11	35.3	0.0484	0.1046	0.0002
59	SLU 52	2.47	-0.12	39.7	0.0395	0.1145	0.0002
59	SLU 53	1.01	-0.11	39.67	0.0777	0.0547	0.0003
59	SLU 54	2	-0.12	39.75	0.0557	0.0961	0.0003
59	SLU 55	2.69	-0.13	39.54	0.0403	0.1247	0.0002
59	SLU 56	1.24	-0.11	39.51	0.0785	0.0649	0.0003
59	SLU 57	2.23	-0.12	39.59	0.0565	0.1063	0.0003
59	SLU 58	1.26	-0.11	39.25	0.0779	0.0659	0.0003
59	SLU 59	2.25	-0.12	39.33	0.0559	0.1073	0.0003
59	SLU 60	0.82	-0.11	41.29	0.0793	0.0467	0.0003
59	SLU 61	1.81	-0.12	41.37	0.0573	0.0881	0.0003
59	SLU 62	1.05	-0.11	41.13	0.0802	0.0568	0.0003
59	SLU 63	2.04	-0.12	41.21	0.0582	0.0982	0.0003
59	SLU 64	0.85	-0.1	38.64	0.0754	0.0472	0.0003
59	SLU 65	2.51	-0.12	38.77	0.0388	0.1162	0.0002
59	SLU 66	1.05	-0.11	38.74	0.077	0.0564	0.0003
59	SLU 67	2.04	-0.12	38.82	0.055	0.0978	0.0003
59	SLU 68	2.73	-0.12	38.61	0.0396	0.1264	0.0002
59	SLU 69	1.27	-0.11	38.58	0.0778	0.0666	0.0003
59	SLU 70	2.27	-0.12	38.66	0.0558	0.108	0.0003
59	SLU 71	1.3	-0.11	38.32	0.0772	0.0676	0.0003
59	SLU 72	2.29	-0.12	38.4	0.0552	0.109	0.0003
59	SLU 73	2.53	-0.13	42.79	0.0462	0.1189	0.0002
59	SLU 74	1.07	-0.12	42.76	0.0844	0.059	0.0004
59	SLU 75	2.06	-0.13	42.84	0.0624	0.1004	0.0003
59	SLU 76	2.75	-0.13	42.63	0.0471	0.129	0.0002
59	SLU 77	1.29	-0.12	42.6	0.0853	0.0692	0.0004
59	SLU 78	2.29	-0.13	42.68	0.0633	0.1106	0.0003
59	SLU 79	1.32	-0.12	42.34	0.0846	0.0702	0.0004
59	SLU 80	2.31	-0.13	42.42	0.0626	0.1116	0.0003
59	SLU 81	0.88	-0.12	44.38	0.0861	0.051	0.0004
59	SLU 82	1.87	-0.13	44.46	0.0641	0.0924	0.0003
59	SLU 83	1.1	-0.12	44.22	0.0869	0.0612	0.0004
59	SLU 84	2.1	-0.13	44.3	0.0649	0.1026	0.0003
59	SLE RA 1	0.64	-0.08	29.04	0.0566	0.0354	0.0002
59	SLE RA 2	1.75	-0.09	29.13	0.0321	0.0814	0.0002
59	SLE RA 3	0.77	-0.08	29.11	0.0576	0.0415	0.0002
59	SLE RA 4	1.44	-0.09	29.16	0.0429	0.0691	0.0002
59	SLE RA 5	1.89	-0.09	29.02	0.0327	0.0882	0.0002
59	SLE RA 6	0.92	-0.08	29	0.0581	0.0483	0.0002
59	SLE RA 7	1.59	-0.09	29.06	0.0435	0.0759	0.0002
59	SLE RA 8	0.94	-0.08	28.83	0.0577	0.0489	0.0002
59	SLE RA 9	1.6	-0.09	28.88	0.043	0.0765	0.0002
59	SLE RA 10	1.76	-0.1	31.81	0.0371	0.0831	0.0002
59	SLE RA 11	0.79	-0.09	31.79	0.0625	0.0432	0.0003
59	SLE RA 12	1.45	-0.09	31.85	0.0479	0.0708	0.0002
59	SLE RA 13	1.91	-0.1	31.7	0.0377	0.0899	0.0002
59	SLE RA 14	0.94	-0.09	31.69	0.0631	0.05	0.0003
59	SLE RA 15	1.6	-0.09	31.74	0.0484	0.0776	0.0002
59	SLE RA 16	0.95	-0.09	31.51	0.0627	0.0507	0.0003
59	SLE RA 17	1.62	-0.09	31.56	0.048	0.0783	0.0002
59	SLE RA 18	0.66	-0.09	32.87	0.0636	0.0379	0.0003
59	SLE RA 19	1.32	-0.09	32.93	0.049	0.0655	0.0002
59	SLE RA 20	0.81	-0.09	32.77	0.0642	0.0447	0.0003
59	SLE RA 21	1.47	-0.1	32.82	0.0496	0.0723	0.0002
59	SLE FR 1	0.64	-0.08	29.04	0.0566	0.0354	0.0002
59	SLE FR 2	0.86	-0.08	29.06	0.0517	0.0446	0.0002
59	SLE FR 3	0.7	-0.08	29	0.0568	0.0381	0.0002
59	SLE FR 4	0.87	-0.08	30.21	0.0538	0.0453	0.0002
59	SLE FR 5	0.71	-0.08	30.15	0.0589	0.0389	0.0002
59	SLE FR 6	0.65	-0.08	30.96	0.0601	0.0366	0.0003
59	SLE QP 1	0.64	-0.08	29.04	0.0566	0.0354	0.0002
59	SLE QP 2	0.65	-0.08	30.19	0.0587	0.0361	0.0002
59	SLD 1	8.27	-0.06	29.6	0.0092	0.3739	0.0001
59	SLD 2	8.27	-0.06	29.6	0.0092	0.3739	0.0001
59	SLD 3	7.14	-0.04	26.61	0.0632	0.3227	0.0002
59	SLD 4	7.14	-0.04	26.61	0.0632	0.3227	0.0002
59	SLD 5	4.65	-0.09	34.55	-0.0381	0.215	-0.0001
59	SLD 6	4.65	-0.09	34.55	-0.0381	0.215	-0.0001
59	SLD 7	0.88	-0.05	24.59	0.142	0.0445	0.0005
59	SLD 8	0.88	-0.05	24.59	0.142	0.0445	0.0005
59	SLD 9	0.41	-0.11	35.8	-0.0246	0.0278	0
59	SLD 10	0.41	-0.11	35.8	-0.0246	0.0278	0
59	SLD 11	-3.35	-0.07	25.84	0.1555	-0.1428	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
59	SLD 12	-3.35	-0.07	25.84	0.1555	-0.1428	0.0006
59	SLD 13	-5.84	-0.12	33.77	0.0542	-0.2504	0.0002
59	SLD 14	-5.84	-0.12	33.77	0.0542	-0.2504	0.0002
59	SLD 15	-6.97	-0.1	30.78	0.1082	-0.3016	0.0004
59	SLD 16	-6.97	-0.1	30.78	0.1082	-0.3016	0.0004
59	SLV 1	18.52	-0.02	28.8	-0.0645	0.8288	-0.0002
59	SLV 2	18.52	-0.02	28.8	-0.0645	0.8288	-0.0002
59	SLV 3	15.77	0.01	21.7	0.0729	0.7034	0.0003
59	SLV 4	15.77	0.01	21.7	0.0729	0.7034	0.0003
59	SLV 5	10.19	-0.11	40.55	-0.1867	0.4642	-0.0005
59	SLV 6	10.19	-0.11	40.55	-0.1867	0.4642	-0.0005
59	SLV 7	1	-0.01	16.87	0.2713	0.0461	0.0009
59	SLV 8	1	-0.01	16.87	0.2713	0.0461	0.0009
59	SLV 9	0.29	-0.15	43.51	-0.154	0.0262	-0.0004
59	SLV 10	0.29	-0.15	43.51	-0.154	0.0262	-0.0004
59	SLV 11	-8.89	-0.05	19.84	0.304	-0.3919	0.001
59	SLV 12	-8.89	-0.05	19.84	0.304	-0.3919	0.001
59	SLV 13	-14.47	-0.17	38.68	0.0445	-0.6311	0.0002
59	SLV 14	-14.47	-0.17	38.68	0.0445	-0.6311	0.0002
59	SLV 15	-17.23	-0.14	31.58	0.1819	-0.7566	0.0007
59	SLV 16	-17.23	-0.14	31.58	0.1819	-0.7566	0.0007
60	SLU 1	-0.4	0.05	29.45	0.0152	-0.0346	0.0001
60	SLU 2	1.35	0.04	30.6	-0.0037	0.0375	0.0002
60	SLU 3	-0.21	0.04	29.46	0.0165	-0.0253	0.0001
60	SLU 4	0.84	0.04	30.16	0.0051	0.018	0.0001
60	SLU 5	1.59	0.03	30.32	-0.0025	0.0494	0.0001
60	SLU 6	0.03	0.04	29.18	0.0177	-0.0135	0.0001
60	SLU 7	1.08	0.03	29.87	0.0063	0.0298	0.0001
60	SLU 8	0.07	0.04	28.88	0.0177	-0.0109	0.0001
60	SLU 9	1.12	0.03	29.57	0.0063	0.0324	0.0001
60	SLU 10	1.23	0.04	34.74	-0.0015	0.0294	0.0002
60	SLU 11	-0.33	0.05	33.6	0.0188	-0.0334	0.0001
60	SLU 12	0.72	0.04	34.3	0.0074	0.0098	0.0001
60	SLU 13	1.46	0.04	34.46	-0.0003	0.0412	0.0002
60	SLU 14	-0.1	0.05	33.32	0.02	-0.0216	0.0001
60	SLU 15	0.95	0.04	34.01	0.0086	0.0217	0.0001
60	SLU 16	-0.05	0.04	33.02	0.0199	-0.019	0.0001
60	SLU 17	1	0.04	33.71	0.0086	0.0242	0.0001
60	SLU 18	-0.58	0.05	35.36	0.0185	-0.0462	0.0001
60	SLU 19	0.47	0.05	36.06	0.0071	-0.003	0.0001
60	SLU 20	-0.34	0.05	35.08	0.0197	-0.0344	0.0001
60	SLU 21	0.71	0.04	35.77	0.0083	0.0089	0.0001
60	SLU 22	-0.48	0.05	32.57	0.0177	-0.0399	0.0001
60	SLU 23	1.27	0.04	33.73	-0.0013	0.0322	0.0002
60	SLU 24	-0.29	0.05	32.59	0.0189	-0.0306	0.0001
60	SLU 25	0.76	0.04	33.29	0.0076	0.0127	0.0001
60	SLU 26	1.51	0.04	33.45	-0.0001	0.0441	0.0002
60	SLU 27	-0.05	0.04	32.31	0.0202	-0.0188	0.0001
60	SLU 28	1	0.04	33	0.0088	0.0245	0.0001
60	SLU 29	-0.01	0.04	32.01	0.0201	-0.0162	0.0001
60	SLU 30	1.04	0.04	32.7	0.0087	0.0271	0.0001
60	SLU 31	1.15	0.04	37.87	0.001	0.0241	0.0002
60	SLU 32	-0.41	0.05	36.73	0.0212	-0.0387	0.0001
60	SLU 33	0.64	0.05	37.43	0.0098	0.0045	0.0001
60	SLU 34	1.38	0.04	37.59	0.0022	0.0359	0.0002
60	SLU 35	-0.18	0.05	36.45	0.0224	-0.0269	0.0001
60	SLU 36	0.87	0.04	37.14	0.011	0.0164	0.0001
60	SLU 37	-0.13	0.05	36.15	0.0224	-0.0243	0.0001
60	SLU 38	0.92	0.04	36.84	0.011	0.0189	0.0001
60	SLU 39	-0.66	0.06	38.49	0.0209	-0.0515	0.0001
60	SLU 40	0.39	0.05	39.18	0.0095	-0.0083	0.0002
60	SLU 41	-0.42	0.05	38.21	0.0221	-0.0397	0.0001
60	SLU 42	0.63	0.05	38.9	0.0108	0.0036	0.0001
60	SLU 43	-0.49	0.06	37.21	0.019	-0.0432	0.0001
60	SLU 44	1.26	0.05	38.36	0	0.0289	0.0002
60	SLU 45	-0.3	0.06	37.22	0.0202	-0.0339	0.0001
60	SLU 46	0.75	0.05	37.92	0.0089	0.0094	0.0002
60	SLU 47	1.5	0.04	38.08	0.0012	0.0408	0.0002
60	SLU 48	-0.07	0.05	36.94	0.0215	-0.022	0.0001
60	SLU 49	0.99	0.05	37.63	0.0101	0.0213	0.0001
60	SLU 50	-0.02	0.05	36.64	0.0214	-0.0195	0.0001
60	SLU 51	1.03	0.05	37.33	0.01	0.0238	0.0001
60	SLU 52	1.14	0.05	42.5	0.0023	0.0208	0.0002
60	SLU 53	-0.43	0.06	41.37	0.0225	-0.042	0.0001
60	SLU 54	0.63	0.06	42.06	0.0111	0.0013	0.0002
60	SLU 55	1.37	0.05	42.22	0.0035	0.0327	0.0002
60	SLU 56	-0.19	0.06	41.08	0.0237	-0.0302	0.0001
60	SLU 57	0.86	0.05	41.78	0.0123	0.0131	0.0002
60	SLU 58	-0.14	0.06	40.78	0.0237	-0.0276	0.0001
60	SLU 59	0.91	0.05	41.47	0.0123	0.0157	0.0002
60	SLU 60	-0.67	0.07	43.12	0.0222	-0.0548	0.0001
60	SLU 61	0.38	0.06	43.82	0.0108	-0.0115	0.0002
60	SLU 62	-0.43	0.06	42.84	0.0234	-0.043	0.0001
60	SLU 63	0.62	0.06	43.53	0.012	0.0003	0.0002
60	SLU 64	-0.57	0.06	40.34	0.0214	-0.0485	0.0001
60	SLU 65	1.18	0.05	41.49	0.0024	0.0236	0.0002
60	SLU 66	-0.38	0.06	40.35	0.0227	-0.0392	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
60	SLU 67	0.67	0.05	41.05	0.0113	0.0041	0.0002
60	SLU 68	1.41	0.05	41.21	0.0036	0.0355	0.0002
60	SLU 69	-0.15	0.06	40.07	0.0239	-0.0273	0.0001
60	SLU 70	0.9	0.05	40.76	0.0125	0.016	0.0002
60	SLU 71	-0.1	0.05	39.77	0.0238	-0.0248	0.0001
60	SLU 72	0.95	0.05	40.46	0.0125	0.0185	0.0002
60	SLU 73	1.06	0.06	45.63	0.0047	0.0155	0.0002
60	SLU 74	-0.51	0.06	44.49	0.025	-0.0473	0.0001
60	SLU 75	0.54	0.06	45.19	0.0136	-0.004	0.0002
60	SLU 76	1.29	0.05	45.35	0.0059	0.0274	0.0002
60	SLU 77	-0.27	0.06	44.21	0.0262	-0.0354	0.0001
60	SLU 78	0.78	0.06	44.9	0.0148	0.0078	0.0002
60	SLU 79	-0.22	0.06	43.91	0.0261	-0.0329	0.0001
60	SLU 80	0.83	0.05	44.6	0.0147	0.0104	0.0002
60	SLU 81	-0.75	0.07	46.25	0.0247	-0.0601	0.0002
60	SLU 82	0.3	0.06	46.94	0.0133	-0.0168	0.0002
60	SLU 83	-0.51	0.07	45.97	0.0259	-0.0483	0.0001
60	SLU 84	0.54	0.06	46.66	0.0145	-0.005	0.0002
60	SLE RA 1	-0.42	0.05	30.34	0.0159	-0.0362	0.0001
60	SLE RA 2	0.75	0.04	31.11	0.0033	0.0119	0.0001
60	SLE RA 3	-0.3	0.04	30.35	0.0168	-0.0299	0.0001
60	SLE RA 4	0.41	0.04	30.81	0.0092	-0.0011	0.0001
60	SLE RA 5	0.9	0.04	30.92	0.0041	0.0198	0.0001
60	SLE RA 6	-0.14	0.04	30.16	0.0176	-0.022	0.0001
60	SLE RA 7	0.56	0.04	30.62	0.01	0.0068	0.0001
60	SLE RA 8	-0.11	0.04	29.96	0.0176	-0.0203	0.0001
60	SLE RA 9	0.59	0.04	30.42	0.01	0.0085	0.0001
60	SLE RA 10	0.66	0.04	33.87	0.0048	0.0065	0.0001
60	SLE RA 11	-0.38	0.05	33.11	0.0183	-0.0354	0.0001
60	SLE RA 12	0.32	0.04	33.57	0.0107	-0.0065	0.0001
60	SLE RA 13	0.82	0.04	33.68	0.0056	0.0144	0.0001
60	SLE RA 14	-0.22	0.05	32.92	0.0191	-0.0274	0.0001
60	SLE RA 15	0.48	0.04	33.38	0.0115	0.0014	0.0001
60	SLE RA 16	-0.19	0.05	32.72	0.0191	-0.0258	0.0001
60	SLE RA 17	0.51	0.04	33.18	0.0115	0.0031	0.0001
60	SLE RA 18	-0.54	0.05	34.28	0.0181	-0.0439	0.0001
60	SLE RA 19	0.16	0.05	34.75	0.0105	-0.015	0.0001
60	SLE RA 20	-0.38	0.05	34.09	0.0189	-0.036	0.0001
60	SLE RA 21	0.32	0.05	34.56	0.0113	-0.0071	0.0001
60	SLE FR 1	-0.42	0.05	30.34	0.0159	-0.0362	0.0001
60	SLE FR 2	-0.19	0.04	30.49	0.0134	-0.0265	0.0001
60	SLE FR 3	-0.36	0.05	30.26	0.0163	-0.033	0.0001
60	SLE FR 4	-0.22	0.05	31.68	0.0141	-0.0289	0.0001
60	SLE FR 5	-0.39	0.05	31.45	0.0169	-0.0353	0.0001
60	SLE FR 6	-0.48	0.05	32.31	0.017	-0.04	0.0001
60	SLE QP 1	-0.42	0.05	30.34	0.0159	-0.0362	0.0001
60	SLE QP 2	-0.46	0.05	31.52	0.0166	-0.0385	0.0001
60	SLD 1	7.49	0.04	30.52	0.0176	0.3256	0
60	SLD 2	7.49	0.04	30.52	0.0176	0.3256	0
60	SLD 3	6.32	0	26.74	0.0421	0.2791	0
60	SLD 4	6.32	0	26.74	0.0421	0.2791	0
60	SLD 5	3.7	0.1	36.96	-0.0203	0.1413	0.0002
60	SLD 6	3.7	0.1	36.96	-0.0203	0.1413	0.0002
60	SLD 7	-0.2	-0.02	24.35	0.0614	-0.0138	0
60	SLD 8	-0.2	-0.02	24.35	0.0614	-0.0138	0
60	SLD 9	-0.71	0.12	38.7	-0.0282	-0.0632	0.0002
60	SLD 10	-0.71	0.12	38.7	-0.0282	-0.0632	0.0002
60	SLD 11	-4.62	0	26.08	0.0534	-0.2183	0
60	SLD 12	-4.62	0	26.08	0.0534	-0.2183	0
60	SLD 13	-7.24	0.09	36.31	-0.0089	-0.356	0.0002
60	SLD 14	-7.24	0.09	36.31	-0.0089	-0.356	0.0002
60	SLD 15	-8.41	0.06	32.52	0.0155	-0.4026	0.0002
60	SLD 16	-8.41	0.06	32.52	0.0155	-0.4026	0.0002
60	SLV 1	18.2	0.03	29.17	0.0177	0.8157	0
60	SLV 2	18.2	0.03	29.17	0.0177	0.8157	0
60	SLV 3	15.32	-0.06	20.16	0.0794	0.7012	-0.0002
60	SLV 4	15.32	-0.06	20.16	0.0794	0.7012	-0.0002
60	SLV 5	9.51	0.18	44.47	-0.0768	0.3914	0.0003
60	SLV 6	9.51	0.18	44.47	-0.0768	0.3914	0.0003
60	SLV 7	-0.09	-0.12	14.46	0.1291	0.0099	-0.0002
60	SLV 8	-0.09	-0.12	14.46	0.1291	0.0099	-0.0002
60	SLV 9	-0.82	0.21	48.59	-0.096	-0.0868	0.0004
60	SLV 10	-0.82	0.21	48.59	-0.096	-0.0868	0.0004
60	SLV 11	-10.42	-0.08	18.57	0.1099	-0.4683	-0.0001
60	SLV 12	-10.42	-0.08	18.57	0.1099	-0.4683	-0.0001
60	SLV 13	-16.24	0.15	42.88	-0.0463	-0.7782	0.0004
60	SLV 14	-16.24	0.15	42.88	-0.0463	-0.7782	0.0004
60	SLV 15	-19.12	0.07	33.88	0.0155	-0.8926	0.0002
60	SLV 16	-19.12	0.07	33.88	0.0155	-0.8926	0.0002
61	SLU 1	-0.62	1.51	41.46	0.0562	-0.0396	0
61	SLU 2	0.69	2.77	45.07	0.0061	0.0152	-0.0001
61	SLU 3	-0.37	1.34	41.3	0.0661	-0.0289	-0.0001
61	SLU 4	0.42	2.09	43.46	0.036	0.004	-0.0001
61	SLU 5	1	2.54	44.44	0.0166	0.0289	-0.0002
61	SLU 6	-0.05	1.11	40.67	0.0766	-0.0152	-0.0001
61	SLU 7	0.73	1.86	42.84	0.0465	0.0177	-0.0001
61	SLU 8	0.02	1.06	40.2	0.0772	-0.0123	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
61	SLU 9	0.8	1.82	42.37	0.0471	0.0206	-0.0001
61	SLU 10	0.62	2.87	50.76	0.0191	0.0109	-0.0001
61	SLU 11	-0.43	1.44	46.99	0.0791	-0.0333	-0.0001
61	SLU 12	0.35	2.19	49.16	0.049	-0.0004	-0.0001
61	SLU 13	0.93	2.65	50.13	0.0296	0.0245	-0.0002
61	SLU 14	-0.12	1.21	46.36	0.0896	-0.0196	-0.0001
61	SLU 15	0.66	1.97	48.53	0.0595	0.0133	-0.0001
61	SLU 16	-0.05	1.17	45.9	0.0902	-0.0167	-0.0001
61	SLU 17	0.73	1.92	48.06	0.0602	0.0162	-0.0001
61	SLU 18	-0.71	1.66	49.59	0.0748	-0.0459	0
61	SLU 19	0.07	2.41	51.76	0.0447	-0.013	-0.0001
61	SLU 20	-0.4	1.44	48.97	0.0853	-0.0322	-0.0001
61	SLU 21	0.38	2.19	51.13	0.0552	0.0007	-0.0001
61	SLU 22	-0.65	1.51	45.66	0.0713	-0.0419	0
61	SLU 23	0.65	2.76	49.26	0.0211	0.0129	-0.0002
61	SLU 24	-0.4	1.33	45.49	0.0811	-0.0312	-0.0001
61	SLU 25	0.38	2.08	47.66	0.0511	0.0017	-0.0001
61	SLU 26	0.97	2.54	48.63	0.0316	0.0266	-0.0002
61	SLU 27	-0.08	1.1	44.87	0.0916	-0.0175	-0.0001
61	SLU 28	0.7	1.86	47.03	0.0616	0.0154	-0.0001
61	SLU 29	-0.01	1.06	44.4	0.0923	-0.0146	-0.0001
61	SLU 30	0.77	1.81	46.56	0.0622	0.0183	-0.0002
61	SLU 31	0.59	2.86	54.95	0.0342	0.0086	-0.0002
61	SLU 32	-0.46	1.43	51.19	0.0942	-0.0356	-0.0001
61	SLU 33	0.32	2.18	53.35	0.0641	-0.0027	-0.0001
61	SLU 34	0.9	2.64	54.33	0.0447	0.0222	-0.0002
61	SLU 35	-0.15	1.21	50.56	0.1047	-0.0219	-0.0001
61	SLU 36	0.63	1.96	52.72	0.0746	0.011	-0.0002
61	SLU 37	-0.08	1.16	50.09	0.1053	-0.019	-0.0001
61	SLU 38	0.7	1.91	52.26	0.0752	0.0139	-0.0002
61	SLU 39	-0.74	1.66	53.79	0.0899	-0.0482	-0.0001
61	SLU 40	0.04	2.41	55.95	0.0598	-0.0153	-0.0001
61	SLU 41	-0.43	1.43	53.16	0.1004	-0.0345	-0.0001
61	SLU 42	0.35	2.18	55.32	0.0703	-0.0016	-0.0001
61	SLU 43	-0.79	1.97	52.46	0.0679	-0.0507	0
61	SLU 44	0.51	3.22	56.07	0.0178	0.0041	-0.0002
61	SLU 45	-0.54	1.79	52.3	0.0778	-0.04	-0.0001
61	SLU 46	0.24	2.54	54.46	0.0477	-0.0071	-0.0001
61	SLU 47	0.83	3	55.44	0.0283	0.0178	-0.0002
61	SLU 48	-0.22	1.57	51.67	0.0883	-0.0263	-0.0001
61	SLU 49	0.56	2.32	53.84	0.0582	0.0066	-0.0001
61	SLU 50	-0.16	1.52	51.2	0.0889	-0.0234	-0.0001
61	SLU 51	0.63	2.27	53.37	0.0588	0.0095	-0.0002
61	SLU 52	0.44	3.33	61.76	0.0308	-0.0002	-0.0002
61	SLU 53	-0.61	1.9	57.99	0.0908	-0.0444	-0.0001
61	SLU 54	0.17	2.65	60.16	0.0607	-0.0115	-0.0001
61	SLU 55	0.76	3.1	61.13	0.0413	0.0134	-0.0002
61	SLU 56	-0.29	1.67	57.36	0.1013	-0.0307	-0.0001
61	SLU 57	0.49	2.42	59.53	0.0712	0.0022	-0.0002
61	SLU 58	-0.22	1.62	56.9	0.1019	-0.0278	-0.0001
61	SLU 59	0.56	2.38	59.06	0.0719	0.0051	-0.0002
61	SLU 60	-0.89	2.12	60.59	0.0865	-0.057	-0.0001
61	SLU 61	-0.11	2.87	62.76	0.0564	-0.0241	-0.0001
61	SLU 62	-0.57	1.89	59.97	0.097	-0.0433	-0.0001
61	SLU 63	0.21	2.65	62.13	0.0669	-0.0104	-0.0001
61	SLU 64	-0.82	1.96	56.66	0.083	-0.053	-0.0001
61	SLU 65	0.48	3.22	60.26	0.0328	0.0018	-0.0002
61	SLU 66	-0.57	1.79	56.49	0.0928	-0.0423	-0.0001
61	SLU 67	0.21	2.54	58.66	0.0627	-0.0094	-0.0001
61	SLU 68	0.8	2.99	59.63	0.0433	0.0155	-0.0002
61	SLU 69	-0.25	1.56	55.87	0.1033	-0.0286	-0.0001
61	SLU 70	0.53	2.31	58.03	0.0732	0.0043	-0.0002
61	SLU 71	-0.19	1.51	55.4	0.104	-0.0257	-0.0001
61	SLU 72	0.59	2.27	57.56	0.0739	0.0072	-0.0002
61	SLU 73	0.41	3.32	65.95	0.0459	-0.0025	-0.0002
61	SLU 74	-0.64	1.89	62.19	0.1059	-0.0467	-0.0001
61	SLU 75	0.14	2.64	64.35	0.0758	-0.0138	-0.0001
61	SLU 76	0.73	3.1	65.33	0.0564	0.0111	-0.0002
61	SLU 77	-0.32	1.66	61.56	0.1164	-0.033	-0.0001
61	SLU 78	0.46	2.42	63.72	0.0863	-0.0001	-0.0002
61	SLU 79	-0.25	1.62	61.09	0.117	-0.0301	-0.0001
61	SLU 80	0.53	2.37	63.26	0.0869	0.0028	-0.0002
61	SLU 81	-0.92	2.11	64.79	0.1016	-0.0593	-0.0001
61	SLU 82	-0.14	2.86	66.95	0.0715	-0.0264	-0.0001
61	SLU 83	-0.6	1.89	64.16	0.1121	-0.0456	-0.0001
61	SLU 84	0.18	2.64	66.32	0.082	-0.0127	-0.0001
61	SLE RA 1	-0.62	1.51	42.66	0.0605	-0.0403	0
61	SLE RA 2	0.24	2.35	45.06	0.0271	-0.0037	-0.0001
61	SLE RA 3	-0.46	1.39	42.55	0.0671	-0.0331	-0.0001
61	SLE RA 4	0.06	1.89	43.99	0.047	-0.0112	-0.0001
61	SLE RA 5	0.45	2.2	44.65	0.0341	0.0054	-0.0001
61	SLE RA 6	-0.25	1.24	42.13	0.0741	-0.024	-0.0001
61	SLE RA 7	0.27	1.74	43.58	0.054	-0.0021	-0.0001
61	SLE RA 8	-0.2	1.21	41.82	0.0745	-0.0221	-0.0001
61	SLE RA 9	0.32	1.71	43.26	0.0545	-0.0001	-0.0001
61	SLE RA 10	0.2	2.42	48.86	0.0358	-0.0066	-0.0001
61	SLE RA 11	-0.5	1.46	46.35	0.0758	-0.036	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
61	SLE RA 12	0.02	1.96	47.79	0.0557	-0.0141	-0.0001
61	SLE RA 13	0.41	2.27	48.44	0.0428	0.0025	-0.0001
61	SLE RA 14	-0.29	1.31	45.93	0.0828	-0.0269	-0.0001
61	SLE RA 15	0.23	1.81	47.37	0.0627	-0.005	-0.0001
61	SLE RA 16	-0.25	1.28	45.62	0.0832	-0.0025	-0.0001
61	SLE RA 17	0.27	1.78	47.06	0.0631	-0.0031	-0.0001
61	SLE RA 18	-0.69	1.61	48.08	0.0729	-0.0445	0
61	SLE RA 19	-0.17	2.11	49.52	0.0529	-0.0225	-0.0001
61	SLE RA 20	-0.48	1.46	47.66	0.0799	-0.0354	-0.0001
61	SLE RA 21	0.04	1.96	49.1	0.0599	-0.0134	-0.0001
61	SLE FR 1	-0.62	1.51	42.66	0.0605	-0.0403	0
61	SLE FR 2	-0.45	1.68	43.14	0.0538	-0.033	-0.0001
61	SLE FR 3	-0.54	1.45	42.49	0.0633	-0.0366	0
61	SLE FR 4	-0.47	1.71	44.77	0.0576	-0.0342	-0.0001
61	SLE FR 5	-0.56	1.48	44.12	0.067	-0.0379	0
61	SLE FR 6	-0.66	1.56	45.37	0.0667	-0.0424	0
61	SLE QP 1	-0.62	1.51	42.66	0.0605	-0.0403	0
61	SLE QP 2	-0.64	1.54	44.29	0.0642	-0.0415	0
61	SLD 1	7.37	1.3	42.41	0.0754	0.3195	-0.0006
61	SLD 2	7.37	1.3	42.41	0.0754	0.3195	-0.0006
61	SLD 3	6.35	-0.53	35.64	0.1539	0.2705	-0.0005
61	SLD 4	6.35	-0.53	35.64	0.1539	0.2705	-0.0005
61	SLD 5	3.3	4.24	53.99	-0.0514	0.141	-0.0004
61	SLD 6	3.3	4.24	53.99	-0.0514	0.141	-0.0004
61	SLD 7	-0.08	-1.86	31.42	0.2101	-0.0222	0
61	SLD 8	-0.08	-1.86	31.42	0.2101	-0.0222	0
61	SLD 9	-1.21	4.94	57.15	-0.0816	-0.0608	0
61	SLD 10	-1.21	4.94	57.15	-0.0816	-0.0608	0
61	SLD 11	-4.58	-1.16	34.58	0.1799	-0.2241	0.0003
61	SLD 12	-4.58	-1.16	34.58	0.1799	-0.2241	0.0003
61	SLD 13	-7.64	3.62	52.93	-0.0254	-0.3535	0.0005
61	SLD 14	-7.64	3.62	52.93	-0.0254	-0.3535	0.0005
61	SLD 15	-8.66	1.79	46.16	0.0531	-0.4025	0.0006
61	SLD 16	-8.66	1.79	46.16	0.0531	-0.4025	0.0006
61	SLV 1	18.16	0.92	39.85	0.0923	0.8062	-0.0015
61	SLV 2	18.16	0.92	39.85	0.0923	0.8062	-0.0015
61	SLV 3	15.63	-3.43	23.74	0.2791	0.6838	-0.0012
61	SLV 4	15.63	-3.43	23.74	0.2791	0.6838	-0.0012
61	SLV 5	8.82	7.97	67.39	-0.2106	0.3984	-0.0008
61	SLV 6	8.82	7.97	67.39	-0.2106	0.3984	-0.0008
61	SLV 7	0.41	-6.56	13.69	0.412	-0.0096	0
61	SLV 8	0.41	-6.56	13.69	0.412	-0.0096	0
61	SLV 9	-1.7	9.65	74.89	-0.2835	-0.0735	0
61	SLV 10	-1.7	9.65	74.89	-0.2835	-0.0735	0
61	SLV 11	-10.11	-4.88	21.18	0.3391	-0.4815	0.0007
61	SLV 12	-10.11	-4.88	21.18	0.3391	-0.4815	0.0007
61	SLV 13	-16.92	6.52	64.84	-0.1506	-0.7669	0.0011
61	SLV 14	-16.92	6.52	64.84	-0.1506	-0.7669	0.0011
61	SLV 15	-19.45	2.16	48.72	0.0362	-0.8893	0.0014
61	SLV 16	-19.45	2.16	48.72	0.0362	-0.8893	0.0014
62	SLU 1	-0.31	0.05	33.1	-0.0079	-0.0069	-0.0003
62	SLU 2	0.64	0.04	35.18	-0.005	0.0428	-0.0003
62	SLU 3	0.01	0.05	33.18	-0.0072	0.0079	-0.0002
62	SLU 4	0.58	0.04	34.43	-0.0055	0.0378	-0.0002
62	SLU 5	1.05	0.03	34.93	-0.0041	0.0615	-0.0002
62	SLU 6	0.42	0.05	32.93	-0.0063	0.0266	-0.0002
62	SLU 7	0.99	0.04	34.18	-0.0045	0.0564	-0.0002
62	SLU 8	0.51	0.04	32.6	-0.006	0.0304	-0.0002
62	SLU 9	1.08	0.04	33.85	-0.0043	0.0603	-0.0002
62	SLU 10	0.7	0.04	39.93	-0.0053	0.045	-0.0003
62	SLU 11	0.07	0.05	37.94	-0.0076	0.0101	-0.0003
62	SLU 12	0.64	0.04	39.18	-0.0058	0.0399	-0.0003
62	SLU 13	1.11	0.04	39.68	-0.0044	0.0637	-0.0003
62	SLU 14	0.48	0.05	37.69	-0.0066	0.0288	-0.0003
62	SLU 15	1.05	0.04	38.93	-0.0049	0.0586	-0.0003
62	SLU 16	0.57	0.05	37.36	-0.0064	0.0326	-0.0003
62	SLU 17	1.14	0.04	38.6	-0.0046	0.0624	-0.0003
62	SLU 18	-0.23	0.06	39.9	-0.0084	-0.0038	-0.0003
62	SLU 19	0.34	0.05	41.14	-0.0067	0.0261	-0.0003
62	SLU 20	0.18	0.05	39.65	-0.0075	0.0149	-0.0003
62	SLU 21	0.75	0.05	40.89	-0.0057	0.0447	-0.0003
62	SLU 22	-0.23	0.05	36.66	-0.0078	-0.0035	-0.0003
62	SLU 23	0.72	0.04	38.74	-0.0049	0.0462	-0.0003
62	SLU 24	0.09	0.05	36.74	-0.0071	0.0113	-0.0003
62	SLU 25	0.66	0.04	37.99	-0.0053	0.0412	-0.0003
62	SLU 26	1.13	0.04	38.49	-0.0039	0.0649	-0.0003
62	SLU 27	0.5	0.05	36.49	-0.0061	0.03	-0.0003
62	SLU 28	1.07	0.04	37.74	-0.0044	0.0598	-0.0003
62	SLU 29	0.59	0.05	36.16	-0.0059	0.0338	-0.0002
62	SLU 30	1.16	0.04	37.41	-0.0042	0.0636	-0.0002
62	SLU 31	0.78	0.04	43.49	-0.0052	0.0484	-0.0003
62	SLU 32	0.15	0.06	41.5	-0.0074	0.0135	-0.0003
62	SLU 33	0.72	0.05	42.74	-0.0057	0.0433	-0.0003
62	SLU 34	1.19	0.04	43.24	-0.0043	0.0671	-0.0003
62	SLU 35	0.56	0.05	41.25	-0.0065	0.0322	-0.0003
62	SLU 36	1.13	0.04	42.49	-0.0048	0.062	-0.0003
62	SLU 37	0.65	0.05	40.92	-0.0063	0.036	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
62	SLU 38	1.22	0.04	42.16	-0.0045	0.0658	-0.0003
62	SLU 39	-0.15	0.06	43.46	-0.0083	-0.0004	-0.0003
62	SLU 40	0.42	0.05	44.7	-0.0065	0.0295	-0.0003
62	SLU 41	0.26	0.06	43.21	-0.0073	0.0183	-0.0003
62	SLU 42	0.83	0.05	44.45	-0.0056	0.0481	-0.0003
62	SLU 43	-0.43	0.06	41.81	-0.0103	-0.0101	-0.0003
62	SLU 44	0.52	0.05	43.89	-0.0074	0.0396	-0.0003
62	SLU 45	-0.11	0.06	41.89	-0.0096	0.0047	-0.0003
62	SLU 46	0.46	0.05	43.14	-0.0079	0.0345	-0.0003
62	SLU 47	0.93	0.05	43.64	-0.0065	0.0583	-0.0003
62	SLU 48	0.3	0.06	41.64	-0.0087	0.0234	-0.0003
62	SLU 49	0.87	0.05	42.89	-0.0069	0.0532	-0.0003
62	SLU 50	0.39	0.06	41.31	-0.0084	0.0272	-0.0003
62	SLU 51	0.96	0.05	42.56	-0.0067	0.057	-0.0003
62	SLU 52	0.57	0.06	48.64	-0.0078	0.0418	-0.0004
62	SLU 53	-0.05	0.07	46.65	-0.01	0.0069	-0.0003
62	SLU 54	0.52	0.06	47.89	-0.0082	0.0367	-0.0003
62	SLU 55	0.99	0.05	48.39	-0.0068	0.0604	-0.0003
62	SLU 56	0.36	0.06	46.4	-0.009	0.0255	-0.0003
62	SLU 57	0.93	0.06	47.64	-0.0073	0.0554	-0.0003
62	SLU 58	0.45	0.06	46.07	-0.0088	0.0294	-0.0003
62	SLU 59	1.02	0.06	47.31	-0.0071	0.0592	-0.0003
62	SLU 60	-0.35	0.07	48.61	-0.0108	-0.007	-0.0004
62	SLU 61	0.22	0.06	49.85	-0.0091	0.0228	-0.0004
62	SLU 62	0.06	0.07	48.36	-0.0099	0.0116	-0.0004
62	SLU 63	0.63	0.06	49.6	-0.0081	0.0415	-0.0004
62	SLU 64	-0.35	0.07	45.37	-0.0102	-0.0067	-0.0003
62	SLU 65	0.6	0.05	47.45	-0.0073	0.043	-0.0003
62	SLU 66	-0.03	0.07	45.45	-0.0095	0.0081	-0.0003
62	SLU 67	0.54	0.06	46.69	-0.0077	0.0379	-0.0003
62	SLU 68	1.01	0.05	47.2	-0.0063	0.0617	-0.0003
62	SLU 69	0.38	0.06	45.2	-0.0086	0.0268	-0.0003
62	SLU 70	0.95	0.05	46.45	-0.0068	0.0566	-0.0003
62	SLU 71	0.47	0.06	44.87	-0.0083	0.0306	-0.0003
62	SLU 72	1.04	0.05	46.12	-0.0066	0.0604	-0.0003
62	SLU 73	0.65	0.06	52.2	-0.0076	0.0452	-0.0004
62	SLU 74	0.03	0.07	50.21	-0.0098	0.0103	-0.0004
62	SLU 75	0.6	0.06	51.45	-0.0081	0.0401	-0.0004
62	SLU 76	1.07	0.06	51.95	-0.0067	0.0638	-0.0004
62	SLU 77	0.44	0.07	49.96	-0.0089	0.0289	-0.0004
62	SLU 78	1.01	0.06	51.2	-0.0072	0.0588	-0.0004
62	SLU 79	0.53	0.07	49.63	-0.0087	0.0328	-0.0003
62	SLU 80	1.1	0.06	50.87	-0.0069	0.0626	-0.0003
62	SLU 81	-0.27	0.07	52.17	-0.0107	-0.0036	-0.0004
62	SLU 82	0.3	0.07	53.41	-0.0089	0.0262	-0.0004
62	SLU 83	0.14	0.07	51.92	-0.0097	0.015	-0.0004
62	SLU 84	0.71	0.06	53.16	-0.008	0.0449	-0.0004
62	SLE RA 1	-0.29	0.05	34.12	-0.0079	-0.0059	-0.0003
62	SLE RA 2	0.34	0.04	35.5	-0.0059	0.0272	-0.0003
62	SLE RA 3	-0.07	0.05	34.17	-0.0074	0.004	-0.0003
62	SLE RA 4	0.31	0.04	35	-0.0062	0.0239	-0.0003
62	SLE RA 5	0.62	0.04	35.33	-0.0053	0.0397	-0.0002
62	SLE RA 6	0.2	0.05	34	-0.0068	0.0164	-0.0002
62	SLE RA 7	0.58	0.04	34.83	-0.0056	0.0363	-0.0002
62	SLE RA 8	0.26	0.05	33.78	-0.0066	0.019	-0.0002
62	SLE RA 9	0.64	0.04	34.61	-0.0055	0.0388	-0.0002
62	SLE RA 10	0.38	0.04	38.67	-0.0062	0.0287	-0.0003
62	SLE RA 11	-0.03	0.05	37.34	-0.0076	0.0054	-0.0003
62	SLE RA 12	0.35	0.05	38.17	-0.0065	0.0253	-0.0003
62	SLE RA 13	0.66	0.04	38.51	-0.0055	0.0411	-0.0003
62	SLE RA 14	0.24	0.05	37.18	-0.007	0.0179	-0.0003
62	SLE RA 15	0.62	0.05	38.01	-0.0058	0.0377	-0.0003
62	SLE RA 16	0.3	0.05	36.96	-0.0069	0.0204	-0.0003
62	SLE RA 17	0.68	0.04	37.79	-0.0057	0.0403	-0.0003
62	SLE RA 18	-0.23	0.06	38.65	-0.0082	-0.0038	-0.0003
62	SLE RA 19	0.15	0.05	39.48	-0.007	0.016	-0.0003
62	SLE RA 20	0.04	0.05	38.48	-0.0076	0.0086	-0.0003
62	SLE RA 21	0.42	0.05	39.31	-0.0064	0.0285	-0.0003
62	SLE FR 1	-0.29	0.05	34.12	-0.0079	-0.0059	-0.0003
62	SLE FR 2	-0.16	0.05	34.39	-0.0075	0.0007	-0.0003
62	SLE FR 3	-0.18	0.05	34.05	-0.0076	-0.0009	-0.0003
62	SLE FR 4	-0.15	0.05	35.75	-0.0076	0.0013	-0.0003
62	SLE FR 5	-0.16	0.05	35.41	-0.0077	-0.0003	-0.0003
62	SLE FR 6	-0.26	0.05	36.38	-0.008	-0.0049	-0.0003
62	SLE QP 1	-0.29	0.05	34.12	-0.0079	-0.0059	-0.0003
62	SLE QP 2	-0.27	0.05	35.48	-0.008	-0.0053	-0.0003
62	SLD 1	6.72	0.04	33.54	-0.0057	0.3228	-0.0002
62	SLD 2	6.72	0.04	33.54	-0.0057	0.3228	-0.0002
62	SLD 3	7.91	-0.01	29.92	0.0089	0.3739	-0.0001
62	SLD 4	7.91	-0.01	29.92	0.0089	0.3739	-0.0001
62	SLD 5	0.02	0.12	40.39	-0.0294	0.0156	-0.0005
62	SLD 6	0.02	0.12	40.39	-0.0294	0.0156	-0.0005
62	SLD 7	3.99	-0.04	28.31	0.0192	0.186	0
62	SLD 8	3.99	-0.04	28.31	0.0192	0.186	0
62	SLD 9	-4.54	0.15	42.64	-0.0351	-0.1966	-0.0005
62	SLD 10	-4.54	0.15	42.64	-0.0351	-0.1966	-0.0005
62	SLD 11	-0.56	-0.02	30.56	0.0135	-0.0262	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
62	SLD 12	-0.56	-0.02	30.56	0.0135	-0.0262	-0.0001
62	SLD 13	-8.46	0.11	41.03	-0.0248	-0.3845	-0.0005
62	SLD 14	-8.46	0.11	41.03	-0.0248	-0.3845	-0.0005
62	SLD 15	-7.27	0.06	37.41	-0.0102	-0.3334	-0.0003
62	SLD 16	-7.27	0.06	37.41	-0.0102	-0.3334	-0.0003
62	SLV 1	16	0.03	30.99	-0.0032	0.7579	-0.0002
62	SLV 2	16	0.03	30.99	-0.0032	0.7579	-0.0002
62	SLV 3	18.93	-0.1	22.33	0.0328	0.8842	0.0002
62	SLV 4	18.93	-0.1	22.33	0.0328	0.8842	0.0002
62	SLV 5	0.16	0.23	47.26	-0.0611	0.0322	-0.0008
62	SLV 6	0.16	0.23	47.26	-0.0611	0.0322	-0.0008
62	SLV 7	9.93	-0.18	18.4	0.0589	0.453	0.0004
62	SLV 8	9.93	-0.18	18.4	0.0589	0.453	0.0004
62	SLV 9	-10.48	0.29	52.55	-0.0748	-0.4636	-0.0009
62	SLV 10	-10.48	0.29	52.55	-0.0748	-0.4636	-0.0009
62	SLV 11	-0.71	-0.13	23.69	0.0452	-0.0428	0.0002
62	SLV 12	-0.71	-0.13	23.69	0.0452	-0.0428	0.0002
62	SLV 13	-19.48	0.2	48.62	-0.0487	-0.8947	-0.0007
62	SLV 14	-19.48	0.2	48.62	-0.0487	-0.8947	-0.0007
62	SLV 15	-16.54	0.08	39.96	-0.0127	-0.7685	-0.0004
62	SLV 16	-16.54	0.08	39.96	-0.0127	-0.7685	-0.0004
63	SLU 1	-0.27	0.01	36.76	-0.0006	-0.0796	0
63	SLU 2	0.73	-0.01	38.87	0.0074	-0.0442	0.0002
63	SLU 3	0.02	0.01	36.98	-0.0004	-0.0688	0
63	SLU 4	0.62	0	38.25	0.0044	-0.0475	0.0001
63	SLU 5	1.1	-0.01	38.75	0.0077	-0.0294	0.0002
63	SLU 6	0.39	0.01	36.86	-0.0001	-0.0541	0
63	SLU 7	0.99	0	38.13	0.0047	-0.0328	0.0001
63	SLU 8	0.47	0.01	36.52	0	-0.0502	0
63	SLU 9	1.07	0	37.78	0.0048	-0.0289	0.0001
63	SLU 10	0.85	-0.01	44.34	0.0079	-0.049	0.0002
63	SLU 11	0.15	0.01	42.45	0.0002	-0.0736	0
63	SLU 12	0.75	0	43.72	0.005	-0.0523	0.0001
63	SLU 13	1.22	-0.01	44.22	0.0082	-0.0343	0.0002
63	SLU 14	0.52	0.01	42.33	0.0005	-0.0589	0
63	SLU 15	1.12	0	43.6	0.0052	-0.0376	0.0001
63	SLU 16	0.6	0.01	41.99	0.0005	-0.055	0
63	SLU 17	1.2	0	43.26	0.0053	-0.0337	0.0001
63	SLU 18	-0.09	0.01	44.58	0.0002	-0.0866	0
63	SLU 19	0.51	0	45.84	0.005	-0.0653	0.0001
63	SLU 20	0.28	0.01	44.46	0.0005	-0.0718	0
63	SLU 21	0.88	0	45.72	0.0053	-0.0505	0.0001
63	SLU 22	-0.15	0.01	40.89	0.0001	-0.0831	0
63	SLU 23	0.84	-0.01	43	0.008	-0.0476	0.0002
63	SLU 24	0.14	0.01	41.11	0.0003	-0.0722	0
63	SLU 25	0.74	0	42.37	0.0051	-0.0509	0.0001
63	SLU 26	1.21	-0.01	42.88	0.0083	-0.0329	0.0002
63	SLU 27	0.51	0.01	40.99	0.0006	-0.0575	0
63	SLU 28	1.1	0	42.25	0.0053	-0.0362	0.0001
63	SLU 29	0.59	0.01	40.65	0.0006	-0.0536	0
63	SLU 30	1.18	0	41.91	0.0054	-0.0323	0.0001
63	SLU 31	0.97	-0.01	48.47	0.0086	-0.0524	0.0002
63	SLU 32	0.26	0.01	46.58	0.0009	-0.0771	0
63	SLU 33	0.86	0	47.85	0.0056	-0.0558	0.0001
63	SLU 34	1.34	-0.01	48.35	0.0089	-0.0377	0.0002
63	SLU 35	0.63	0.01	46.46	0.0011	-0.0623	0
63	SLU 36	1.23	0	47.73	0.0059	-0.041	0.0001
63	SLU 37	0.71	0.01	46.12	0.0012	-0.0585	0
63	SLU 38	1.31	0	47.39	0.006	-0.0372	0.0001
63	SLU 39	0.02	0.01	48.71	0.0009	-0.09	0
63	SLU 40	0.62	0	49.97	0.0057	-0.0687	0.0001
63	SLU 41	0.39	0.01	48.59	0.0012	-0.0753	0
63	SLU 42	0.99	0	49.85	0.0059	-0.054	0.0001
63	SLU 43	-0.39	0.02	46.37	-0.001	-0.1024	0
63	SLU 44	0.61	-0.01	48.48	0.007	-0.0669	0.0002
63	SLU 45	-0.1	0.02	46.59	-0.0007	-0.0915	0
63	SLU 46	0.5	0	47.86	0.004	-0.0702	0.0001
63	SLU 47	0.98	-0.01	48.36	0.0073	-0.0521	0.0002
63	SLU 48	0.27	0.02	46.47	-0.0005	-0.0768	0
63	SLU 49	0.87	0	47.74	0.0043	-0.0555	0.0001
63	SLU 50	0.35	0.02	46.13	-0.0004	-0.0729	0
63	SLU 51	0.95	0	47.4	0.0044	-0.0516	0.0001
63	SLU 52	0.74	-0.01	53.95	0.0075	-0.0717	0.0002
63	SLU 53	0.03	0.02	52.07	-0.0002	-0.0964	0
63	SLU 54	0.63	0	53.33	0.0046	-0.0751	0.0001
63	SLU 55	1.1	-0.01	53.83	0.0078	-0.057	0.0002
63	SLU 56	0.4	0.02	51.95	0.0001	-0.0816	0
63	SLU 57	1	0	53.21	0.0048	-0.0603	0.0001
63	SLU 58	0.48	0.02	51.61	0.0002	-0.0777	0
63	SLU 59	1.08	0	52.87	0.0049	-0.0564	0.0001
63	SLU 60	-0.21	0.02	54.19	-0.0002	-0.1093	0
63	SLU 61	0.39	0	55.46	0.0046	-0.088	0.0001
63	SLU 62	0.16	0.02	54.07	0.0001	-0.0945	0
63	SLU 63	0.76	0	55.34	0.0049	-0.0732	0.0001
63	SLU 64	-0.27	0.02	50.5	-0.0003	-0.1058	0
63	SLU 65	0.72	-0.01	52.61	0.0077	-0.0703	0.0002
63	SLU 66	0.02	0.02	50.72	-0.0001	-0.095	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
63	SLU 67	0.62	0	51.99	0.0047	-0.0737	0.0001
63	SLU 68	1.09	-0.01	52.49	0.0079	-0.0556	0.0002
63	SLU 69	0.39	0.02	50.6	0.0002	-0.0802	0
63	SLU 70	0.99	0	51.87	0.005	-0.0589	0.0001
63	SLU 71	0.47	0.02	50.26	0.0003	-0.0763	0
63	SLU 72	1.07	0	51.53	0.005	-0.055	0.0001
63	SLU 73	0.85	-0.01	58.08	0.0082	-0.0751	0.0002
63	SLU 74	0.14	0.02	56.2	0.0005	-0.0998	0
63	SLU 75	0.74	0	57.46	0.0052	-0.0785	0.0001
63	SLU 76	1.22	-0.01	57.96	0.0085	-0.0604	0.0002
63	SLU 77	0.51	0.02	56.08	0.0007	-0.0851	0
63	SLU 78	1.11	0	57.34	0.0055	-0.0638	0.0001
63	SLU 79	0.59	0.02	55.73	0.0008	-0.0812	0
63	SLU 80	1.19	0	57	0.0056	-0.0599	0.0001
63	SLU 81	-0.09	0.02	58.32	0.0005	-0.1127	0
63	SLU 82	0.5	0	59.58	0.0053	-0.0914	0.0001
63	SLU 83	0.28	0.02	58.2	0.0008	-0.098	0
63	SLU 84	0.87	0	59.46	0.0055	-0.0767	0.0001
63	SLE RA 1	-0.23	0.01	37.94	-0.0004	-0.0806	0
63	SLE RA 2	0.43	0	39.34	0.0049	-0.057	0.0001
63	SLE RA 3	-0.04	0.01	38.09	-0.0002	-0.0734	0
63	SLE RA 4	0.36	0	38.93	0.0029	-0.0592	0.0001
63	SLE RA 5	0.68	0	39.26	0.0051	-0.0471	0.0001
63	SLE RA 6	0.21	0.01	38.01	-0.0001	-0.0636	0
63	SLE RA 7	0.6	0	38.85	0.0031	-0.0494	0.0001
63	SLE RA 8	0.26	0.01	37.78	0	-0.061	0
63	SLE RA 9	0.66	0	38.62	0.0032	-0.0468	0.0001
63	SLE RA 10	0.51	0	42.99	0.0053	-0.0602	0.0001
63	SLE RA 11	0.04	0.01	41.74	0.0001	-0.0766	0
63	SLE RA 12	0.44	0	42.58	0.0033	-0.0624	0.0001
63	SLE RA 13	0.76	0	42.91	0.0055	-0.0504	0.0001
63	SLE RA 14	0.29	0.01	41.66	0.0003	-0.0668	0
63	SLE RA 15	0.69	0	42.5	0.0035	-0.0526	0.0001
63	SLE RA 16	0.34	0.01	41.43	0.0004	-0.0642	0
63	SLE RA 17	0.74	0	42.27	0.0035	-0.05	0.0001
63	SLE RA 18	-0.12	0.01	43.15	0.0002	-0.0852	0
63	SLE RA 19	0.28	0	44	0.0033	-0.071	0.0001
63	SLE RA 20	0.13	0.01	43.07	0.0003	-0.0754	0
63	SLE RA 21	0.53	0	43.91	0.0035	-0.0612	0.0001
63	SLE FR 1	-0.23	0.01	37.94	-0.0004	-0.0806	0
63	SLE FR 2	-0.1	0.01	38.22	0.0007	-0.0759	0
63	SLE FR 3	-0.14	0.01	37.91	-0.0003	-0.0767	0
63	SLE FR 4	-0.07	0.01	39.78	0.0008	-0.0773	0
63	SLE FR 5	-0.1	0.01	39.47	-0.0001	-0.0781	0
63	SLE FR 6	-0.18	0.01	40.55	-0.0001	-0.0829	0
63	SLE QP 1	-0.23	0.01	37.94	-0.0004	-0.0806	0
63	SLE QP 2	-0.2	0.01	39.5	-0.0002	-0.082	0
63	SLD 1	6.13	0.01	36.44	-0.0181	0.2018	0
63	SLD 2	6.13	0.01	36.44	-0.0181	0.2018	0
63	SLD 3	7.36	0.06	33.41	-0.0012	0.255	-0.0003
63	SLD 4	7.36	0.06	33.41	-0.0012	0.255	-0.0003
63	SLD 5	-0.16	-0.06	43.19	-0.0313	-0.0775	0.0003
63	SLD 6	-0.16	-0.06	43.19	-0.0313	-0.0775	0.0003
63	SLD 7	3.93	0.11	33.07	0.0252	0.0997	-0.0004
63	SLD 8	3.93	0.11	33.07	0.0252	0.0997	-0.0004
63	SLD 9	-4.33	-0.08	45.94	-0.0256	-0.2637	0.0004
63	SLD 10	-4.33	-0.08	45.94	-0.0256	-0.2637	0.0004
63	SLD 11	-0.24	0.09	35.81	0.0308	-0.0866	-0.0003
63	SLD 12	-0.24	0.09	35.81	0.0308	-0.0866	-0.0003
63	SLD 13	-7.76	-0.04	45.6	0.0008	-0.419	0.0003
63	SLD 14	-7.76	-0.04	45.6	0.0008	-0.419	0.0003
63	SLD 15	-6.53	0.01	42.56	0.0177	-0.3659	0.0001
63	SLD 16	-6.53	0.01	42.56	0.0177	-0.3659	0.0001
63	SLV 1	14.5	0.01	32.42	-0.0437	0.577	-0.0001
63	SLV 2	14.5	0.01	32.42	-0.0437	0.577	-0.0001
63	SLV 3	17.55	0.14	25.13	-0.0018	0.7097	-0.0006
63	SLV 4	17.55	0.14	25.13	-0.0018	0.7097	-0.0006
63	SLV 5	-0.41	-0.18	48.44	-0.0769	-0.0855	0.0008
63	SLV 6	-0.41	-0.18	48.44	-0.0769	-0.0855	0.0008
63	SLV 7	9.75	0.24	24.13	0.0629	0.3567	-0.001
63	SLV 8	9.75	0.24	24.13	0.0629	0.3567	-0.001
63	SLV 9	-10.14	-0.22	54.88	-0.0633	-0.5207	0.001
63	SLV 10	-10.14	-0.22	54.88	-0.0633	-0.5207	0.001
63	SLV 11	0.01	0.2	30.57	0.0765	-0.0785	-0.0008
63	SLV 12	0.01	0.2	30.57	0.0765	-0.0785	-0.0008
63	SLV 13	-17.95	-0.11	53.88	0.0014	-0.8737	0.0006
63	SLV 14	-17.95	-0.11	53.88	0.0014	-0.8737	0.0006
63	SLV 15	-14.9	0.01	46.59	0.0433	-0.741	0.0001
63	SLV 16	-14.9	0.01	46.59	0.0433	-0.741	0.0001
64	SLU 1	0.68	-0.04	42.92	0.0116	0.0488	0.0001
64	SLU 2	1.9	-0.06	45.82	0.0185	0.1077	0.0002
64	SLU 3	0.97	-0.04	43.26	0.0117	0.0634	0.0001
64	SLU 4	1.7	-0.05	44.99	0.0158	0.0988	0.0002
64	SLU 5	2.26	-0.06	45.75	0.0185	0.1256	0.0002
64	SLU 6	1.33	-0.04	43.19	0.0117	0.0812	0.0001
64	SLU 7	2.06	-0.05	44.93	0.0159	0.1166	0.0002
64	SLU 8	1.4	-0.04	42.79	0.0117	0.0844	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
64	SLU 9	2.13	-0.05	44.53	0.0158	0.1198	0.0002
64	SLU 10	2.17	-0.06	52.38	0.0204	0.1214	0.0003
64	SLU 11	1.24	-0.05	49.82	0.0136	0.0771	0.0001
64	SLU 12	1.97	-0.06	51.55	0.0177	0.1125	0.0002
64	SLU 13	2.53	-0.06	52.31	0.0204	0.1392	0.0003
64	SLU 14	1.6	-0.05	49.75	0.0136	0.0949	0.0001
64	SLU 15	2.33	-0.06	51.49	0.0177	0.1303	0.0002
64	SLU 16	1.67	-0.05	49.36	0.0135	0.0981	0.0001
64	SLU 17	2.4	-0.06	51.09	0.0177	0.1335	0.0002
64	SLU 18	1.07	-0.05	52.3	0.0143	0.0683	0.0001
64	SLU 19	1.8	-0.06	54.03	0.0184	0.1037	0.0002
64	SLU 20	1.42	-0.05	52.23	0.0143	0.0861	0.0001
64	SLU 21	2.16	-0.06	53.97	0.0185	0.1215	0.0002
64	SLU 22	0.92	-0.05	47.91	0.0132	0.0609	0.0001
64	SLU 23	2.14	-0.06	50.8	0.0201	0.1199	0.0003
64	SLU 24	1.21	-0.05	48.24	0.0133	0.0755	0.0001
64	SLU 25	1.94	-0.06	49.97	0.0174	0.1109	0.0002
64	SLU 26	2.49	-0.06	50.73	0.0201	0.1377	0.0003
64	SLU 27	1.56	-0.05	48.17	0.0133	0.0934	0.0001
64	SLU 28	2.29	-0.05	49.91	0.0174	0.1288	0.0002
64	SLU 29	1.63	-0.05	47.78	0.0132	0.0966	0.0001
64	SLU 30	2.36	-0.05	49.51	0.0174	0.132	0.0002
64	SLU 31	2.41	-0.07	57.36	0.0219	0.1336	0.0003
64	SLU 32	1.48	-0.05	54.8	0.0152	0.0892	0.0001
64	SLU 33	2.21	-0.06	56.53	0.0193	0.1246	0.0002
64	SLU 34	2.76	-0.07	57.3	0.022	0.1514	0.0003
64	SLU 35	1.83	-0.05	54.74	0.0152	0.107	0.0001
64	SLU 36	2.56	-0.06	56.47	0.0193	0.1424	0.0002
64	SLU 37	1.9	-0.05	54.34	0.0151	0.1102	0.0001
64	SLU 38	2.63	-0.06	56.07	0.0193	0.1456	0.0002
64	SLU 39	1.3	-0.06	57.28	0.0159	0.0804	0.0001
64	SLU 40	2.03	-0.06	59.02	0.02	0.1158	0.0002
64	SLU 41	1.66	-0.05	57.22	0.0159	0.0983	0.0001
64	SLU 42	2.39	-0.06	58.95	0.02	0.1337	0.0002
64	SLU 43	0.81	-0.05	54.09	0.0146	0.0592	0.0001
64	SLU 44	2.03	-0.07	56.98	0.0214	0.1182	0.0003
64	SLU 45	1.1	-0.05	54.42	0.0147	0.0739	0.0001
64	SLU 46	1.83	-0.06	56.16	0.0188	0.1093	0.0002
64	SLU 47	2.38	-0.07	56.92	0.0214	0.136	0.0003
64	SLU 48	1.45	-0.05	54.36	0.0147	0.0917	0.0001
64	SLU 49	2.19	-0.06	56.09	0.0188	0.1271	0.0002
64	SLU 50	1.52	-0.05	53.96	0.0146	0.0949	0.0001
64	SLU 51	2.25	-0.06	55.7	0.0187	0.1303	0.0002
64	SLU 52	2.3	-0.07	63.55	0.0233	0.1319	0.0003
64	SLU 53	1.37	-0.06	60.99	0.0165	0.0875	0.0001
64	SLU 54	2.1	-0.07	62.72	0.0207	0.1229	0.0002
64	SLU 55	2.65	-0.07	63.48	0.0233	0.1497	0.0003
64	SLU 56	1.72	-0.06	60.92	0.0166	0.1054	0.0001
64	SLU 57	2.45	-0.07	62.66	0.0207	0.1408	0.0002
64	SLU 58	1.79	-0.06	60.52	0.0165	0.1086	0.0001
64	SLU 59	2.52	-0.07	62.26	0.0206	0.1439	0.0002
64	SLU 60	1.19	-0.06	63.47	0.0172	0.0787	0.0001
64	SLU 61	1.92	-0.07	65.2	0.0214	0.1141	0.0002
64	SLU 62	1.55	-0.06	63.4	0.0173	0.0966	0.0001
64	SLU 63	2.28	-0.07	65.14	0.0214	0.132	0.0002
64	SLU 64	1.04	-0.06	59.08	0.0161	0.0714	0.0001
64	SLU 65	2.26	-0.07	61.97	0.023	0.1304	0.0003
64	SLU 66	1.33	-0.06	59.41	0.0162	0.086	0.0001
64	SLU 67	2.06	-0.07	61.14	0.0204	0.1214	0.0002
64	SLU 68	2.62	-0.07	61.9	0.023	0.1482	0.0003
64	SLU 69	1.69	-0.06	59.34	0.0163	0.1038	0.0001
64	SLU 70	2.42	-0.07	61.08	0.0204	0.1392	0.0002
64	SLU 71	1.75	-0.06	58.95	0.0162	0.107	0.0001
64	SLU 72	2.49	-0.07	60.68	0.0203	0.1424	0.0002
64	SLU 73	2.53	-0.08	68.53	0.0249	0.144	0.0003
64	SLU 74	1.6	-0.06	65.97	0.0181	0.0997	0.0001
64	SLU 75	2.33	-0.07	67.7	0.0223	0.1351	0.0002
64	SLU 76	2.89	-0.08	68.46	0.0249	0.1619	0.0003
64	SLU 77	1.96	-0.06	65.9	0.0182	0.1175	0.0001
64	SLU 78	2.69	-0.07	67.64	0.0223	0.1529	0.0002
64	SLU 79	2.02	-0.06	65.51	0.0181	0.1207	0.0001
64	SLU 80	2.76	-0.07	67.24	0.0222	0.1561	0.0002
64	SLU 81	1.43	-0.07	68.45	0.0188	0.0909	0.0001
64	SLU 82	2.16	-0.08	70.18	0.023	0.1263	0.0002
64	SLU 83	1.78	-0.07	68.39	0.0189	0.1087	0.0001
64	SLU 84	2.51	-0.07	70.12	0.023	0.1441	0.0002
64	SLE RA 1	0.75	-0.04	44.35	0.0121	0.0522	0.0001
64	SLE RA 2	1.56	-0.05	46.28	0.0166	0.0916	0.0002
64	SLE RA 3	0.94	-0.04	44.57	0.0121	0.062	0.0001
64	SLE RA 4	1.43	-0.05	45.73	0.0149	0.0856	0.0002
64	SLE RA 5	1.8	-0.05	46.23	0.0167	0.1034	0.0002
64	SLE RA 6	1.18	-0.04	44.53	0.0122	0.0739	0.0001
64	SLE RA 7	1.67	-0.05	45.68	0.0149	0.0975	0.0002
64	SLE RA 8	1.23	-0.04	44.26	0.0121	0.076	0.0001
64	SLE RA 9	1.71	-0.05	45.42	0.0148	0.0996	0.0002
64	SLE RA 10	1.74	-0.06	50.65	0.0179	0.1007	0.0002
64	SLE RA 11	1.12	-0.05	48.94	0.0134	0.0711	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
64	SLE RA 12	1.61	-0.05	50.1	0.0161	0.0947	0.0002
64	SLE RA 13	1.98	-0.06	50.61	0.0179	0.1126	0.0002
64	SLE RA 14	1.36	-0.05	48.9	0.0134	0.083	0.0001
64	SLE RA 15	1.85	-0.05	50.06	0.0162	0.1066	0.0002
64	SLE RA 16	1.41	-0.05	48.64	0.0134	0.0851	0.0001
64	SLE RA 17	1.89	-0.05	49.79	0.0161	0.1087	0.0002
64	SLE RA 18	1.01	-0.05	50.6	0.0139	0.0652	0.0001
64	SLE RA 19	1.49	-0.06	51.75	0.0166	0.0888	0.0002
64	SLE RA 20	1.24	-0.05	50.55	0.0139	0.0771	0.0001
64	SLE RA 21	1.73	-0.05	51.71	0.0166	0.1007	0.0002
64	SLE FR 1	0.75	-0.04	44.35	0.0121	0.0522	0.0001
64	SLE FR 2	0.91	-0.05	44.73	0.013	0.0601	0.0001
64	SLE FR 3	0.85	-0.04	44.33	0.0121	0.057	0.0001
64	SLE FR 4	0.99	-0.05	46.61	0.0135	0.064	0.0001
64	SLE FR 5	0.92	-0.05	46.21	0.0126	0.0609	0.0001
64	SLE FR 6	0.88	-0.05	47.47	0.013	0.0587	0.0001
64	SLE QP 1	0.75	-0.04	44.35	0.0121	0.0522	0.0001
64	SLE QP 2	0.83	-0.05	46.22	0.0126	0.0561	0.0001
64	SLD 1	6.51	-0.04	41.27	0.0113	0.3449	0.0001
64	SLD 2	6.51	-0.04	41.27	0.0113	0.3449	0.0001
64	SLD 3	7.73	-0.01	37.92	-0.0011	0.3986	-0.0001
64	SLD 4	7.73	-0.01	37.92	-0.0011	0.3986	-0.0001
64	SLD 5	0.67	-0.1	49.81	0.0311	0.0614	0.0004
64	SLD 6	0.67	-0.1	49.81	0.0311	0.0614	0.0004
64	SLD 7	4.76	0.02	38.66	-0.0104	0.2402	-0.0003
64	SLD 8	4.76	0.02	38.66	-0.0104	0.2402	-0.0003
64	SLD 9	-3.11	-0.11	53.79	0.0356	-0.128	0.0005
64	SLD 10	-3.11	-0.11	53.79	0.0356	-0.128	0.0005
64	SLD 11	0.99	0.01	42.63	-0.0059	0.0509	-0.0002
64	SLD 12	0.99	0.01	42.63	-0.0059	0.0509	-0.0002
64	SLD 13	-6.08	-0.08	54.53	0.0263	-0.2863	0.0003
64	SLD 14	-6.08	-0.08	54.53	0.0263	-0.2863	0.0003
64	SLD 15	-4.85	-0.05	51.18	0.0139	-0.2327	0.0001
64	SLD 16	-4.85	-0.05	51.18	0.0139	-0.2327	0.0001
64	SLV 1	13.99	-0.04	34.72	0.0099	0.7264	0.0001
64	SLV 2	13.99	-0.04	34.72	0.0099	0.7264	0.0001
64	SLV 3	17.06	0.04	26.67	-0.0202	0.8607	-0.0004
64	SLV 4	17.06	0.04	26.67	-0.0202	0.8607	-0.0004
64	SLV 5	0.13	-0.17	54.98	0.0574	0.0535	0.0008
64	SLV 6	0.13	-0.17	54.98	0.0574	0.0535	0.0008
64	SLV 7	10.34	0.11	28.15	-0.0428	0.5012	-0.0008
64	SLV 8	10.34	0.11	28.15	-0.0428	0.5012	-0.0008
64	SLV 9	-8.69	-0.2	64.3	0.068	-0.3889	0.001
64	SLV 10	-8.69	-0.2	64.3	0.068	-0.3889	0.001
64	SLV 11	1.52	0.08	37.46	-0.0322	0.0588	-0.0006
64	SLV 12	1.52	0.08	37.46	-0.0322	0.0588	-0.0006
64	SLV 13	-15.4	-0.14	65.77	0.0454	-0.7484	0.0006
64	SLV 14	-15.4	-0.14	65.77	0.0454	-0.7484	0.0006
64	SLV 15	-12.34	-0.05	57.72	0.0153	-0.6141	0.0001
64	SLV 16	-12.34	-0.05	57.72	0.0153	-0.6141	0.0001
65	SLU 1	-4.32	-5.69	83.42	-4.2318	-0.3483	-0.0064
65	SLU 2	-3.65	-6.51	89.73	-4.569	-0.3315	-0.0047
65	SLU 3	-4.14	-5.75	83.99	-4.2679	-0.342	-0.0063
65	SLU 4	-3.74	-6.25	87.77	-4.702	-0.3319	-0.0053
65	SLU 5	-3.37	-6.53	89.48	-4.5679	-0.3191	-0.0045
65	SLU 6	-3.86	-5.77	83.74	-4.2668	-0.3297	-0.006
65	SLU 7	-3.46	-6.27	87.53	-4.4691	-0.3196	-0.005
65	SLU 8	-3.77	-5.73	82.93	-4.2296	-0.3235	-0.0059
65	SLU 9	-3.36	-6.22	86.71	-4.4319	-0.3135	-0.0049
65	SLU 10	-4.13	-7.22	102.33	-5.1563	-0.377	-0.0054
65	SLU 11	-4.62	-6.46	96.59	-4.8552	-0.3875	-0.0069
65	SLU 12	-4.22	-6.95	100.38	-5.0576	-0.3774	-0.0059
65	SLU 13	-3.85	-7.24	102.08	-5.1552	-0.3646	-0.0051
65	SLU 14	-4.34	-6.48	96.35	-4.8541	-0.3751	-0.0066
65	SLU 15	-3.94	-6.97	100.13	-5.0565	-0.3651	-0.0056
65	SLU 16	-4.25	-6.43	95.53	-4.8169	-0.369	-0.0065
65	SLU 17	-3.84	-6.93	99.32	-5.0192	-0.359	-0.0055
65	SLU 18	-5.01	-6.7	101.43	-5.0708	-0.4132	-0.0073
65	SLU 19	-4.61	-7.19	105.21	-5.2731	-0.4032	-0.0063
65	SLU 20	-4.73	-6.72	101.18	-5.0697	-0.4009	-0.007
65	SLU 21	-4.33	-7.21	104.96	-5.272	-0.3908	-0.006
65	SLU 22	-4.68	-6.23	93.04	-4.6792	-0.3834	-0.0068
65	SLU 23	-4.01	-7.06	99.35	-5.0164	-0.3667	-0.0052
65	SLU 24	-4.5	-6.3	93.61	-4.7154	-0.3772	-0.0067
65	SLU 25	-4.09	-6.79	97.4	-4.9177	-0.3671	-0.0057
65	SLU 26	-3.73	-7.08	99.1	-5.0153	-0.3543	-0.0049
65	SLU 27	-4.22	-6.31	93.37	-4.7143	-0.3648	-0.0064
65	SLU 28	-3.82	-6.81	97.15	-4.9166	-0.3548	-0.0055
65	SLU 29	-4.12	-6.27	92.55	-4.677	-0.3587	-0.0063
65	SLU 30	-3.72	-6.77	96.34	-4.8794	-0.3487	-0.0053
65	SLU 31	-4.49	-7.76	111.95	-5.6038	-0.4121	-0.0058
65	SLU 32	-4.98	-7	106.22	-5.3027	-0.4227	-0.0073
65	SLU 33	-4.57	-7.5	110	-5.505	-0.4126	-0.0063
65	SLU 34	-4.21	-7.78	111.71	-5.6027	-0.3998	-0.0055
65	SLU 35	-4.7	-7.02	105.97	-5.3016	-0.4103	-0.0071
65	SLU 36	-4.3	-7.52	109.75	-5.5039	-0.4002	-0.0061
65	SLU 37	-4.6	-6.98	105.16	-5.2644	-0.4042	-0.0069



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
65	SLU 38	-4.2	-7.47	108.94	-5.4667	-0.3941	-0.006
65	SLU 39	-5.36	-7.24	111.05	-5.5183	-0.4484	-0.0077
65	SLU 40	-4.96	-7.74	114.83	-5.7206	-0.4383	-0.0067
65	SLU 41	-5.08	-7.26	110.8	-5.5172	-0.4361	-0.0075
65	SLU 42	-4.68	-7.76	114.59	-5.7195	-0.426	-0.0065
65	SLU 43	-5.5	-7.21	105.15	-5.3479	-0.4407	-0.0081
65	SLU 44	-4.83	-8.03	111.46	-5.6851	-0.4239	-0.0065
65	SLU 45	-5.32	-7.27	105.72	-5.384	-0.4344	-0.008
65	SLU 46	-4.92	-7.77	109.5	-5.5864	-0.4244	-0.007
65	SLU 47	-4.55	-8.05	111.21	-5.684	-0.4115	-0.0062
65	SLU 48	-5.04	-7.29	105.47	-5.3829	-0.4221	-0.0078
65	SLU 49	-4.64	-7.79	109.26	-5.5853	-0.412	-0.0068
65	SLU 50	-4.94	-7.25	104.66	-5.3457	-0.416	-0.0077
65	SLU 51	-4.54	-7.74	108.44	-5.548	-0.4059	-0.0067
65	SLU 52	-5.31	-8.74	124.06	-6.2724	-0.4694	-0.0071
65	SLU 53	-5.8	-7.98	118.32	-5.9714	-0.4799	-0.0086
65	SLU 54	-5.4	-8.47	122.1	-6.1737	-0.4698	-0.0077
65	SLU 55	-5.03	-8.76	123.81	-6.2713	-0.457	-0.0069
65	SLU 56	-5.52	-8	118.07	-5.9703	-0.4675	-0.0084
65	SLU 57	-5.12	-8.49	121.86	-6.1726	-0.4575	-0.0074
65	SLU 58	-5.42	-7.95	117.26	-5.933	-0.4614	-0.0083
65	SLU 59	-5.02	-8.45	121.04	-6.1353	-0.4514	-0.0073
65	SLU 60	-6.18	-8.22	123.15	-6.1869	-0.5056	-0.009
65	SLU 61	-5.78	-8.71	126.94	-6.3893	-0.4956	-0.008
65	SLU 62	-5.9	-8.24	122.91	-6.1858	-0.4933	-0.0088
65	SLU 63	-5.5	-8.73	126.69	-6.3882	-0.4832	-0.0078
65	SLU 64	-5.85	-7.75	114.77	-5.7954	-0.4759	-0.0086
65	SLU 65	-5.18	-8.58	121.08	-6.1326	-0.4591	-0.0069
65	SLU 66	-5.67	-7.82	115.34	-5.8315	-0.4696	-0.0084
65	SLU 67	-5.27	-8.31	119.12	-6.0338	-0.4595	-0.0075
65	SLU 68	-4.9	-8.6	120.83	-6.1315	-0.4467	-0.0067
65	SLU 69	-5.39	-7.84	115.09	-5.8304	-0.4573	-0.0082
65	SLU 70	-4.99	-8.33	118.88	-6.0327	-0.4472	-0.0072
65	SLU 71	-5.3	-7.79	114.28	-5.7932	-0.4511	-0.0081
65	SLU 72	-4.89	-8.29	118.06	-5.9955	-0.4411	-0.0071
65	SLU 73	-5.66	-9.28	133.68	-6.7199	-0.5046	-0.0075
65	SLU 74	-6.15	-8.52	127.94	-6.4188	-0.5151	-0.0091
65	SLU 75	-5.75	-9.02	131.73	-6.6211	-0.505	-0.0081
65	SLU 76	-5.38	-9.3	133.43	-6.7188	-0.4922	-0.0073
65	SLU 77	-5.87	-8.54	127.7	-6.4177	-0.5027	-0.0088
65	SLU 78	-5.47	-9.04	131.48	-6.62	-0.4927	-0.0078
65	SLU 79	-5.77	-8.5	126.88	-6.3805	-0.4966	-0.0087
65	SLU 80	-5.37	-8.99	130.67	-6.5828	-0.4866	-0.0077
65	SLU 81	-6.54	-8.76	132.78	-6.6344	-0.5408	-0.0095
65	SLU 82	-6.14	-9.26	136.56	-6.8367	-0.5308	-0.0085
65	SLU 83	-6.26	-8.78	132.53	-6.6333	-0.5285	-0.0092
65	SLU 84	-5.86	-9.28	136.31	-6.8356	-0.5184	-0.0082
65	SLE RA 1	-4.42	-5.84	86.17	-4.3596	-0.3583	-0.0065
65	SLE RA 2	-3.98	-6.39	90.38	-4.5844	-0.3471	-0.0054
65	SLE RA 3	-4.3	-5.89	86.55	-4.3837	-0.3541	-0.0064
65	SLE RA 4	-4.04	-6.22	89.07	-4.5186	-0.3474	-0.0058
65	SLE RA 5	-3.79	-6.41	90.21	-4.5837	-0.3389	-0.0052
65	SLE RA 6	-4.12	-5.9	86.39	-4.383	-0.3459	-0.0063
65	SLE RA 7	-3.85	-6.23	88.91	-4.5179	-0.3392	-0.0056
65	SLE RA 8	-4.05	-5.87	85.84	-4.3582	-0.3418	-0.0062
65	SLE RA 9	-3.78	-6.2	88.37	-4.493	-0.3351	-0.0055
65	SLE RA 10	-4.3	-6.86	98.78	-4.976	-0.3774	-0.0058
65	SLE RA 11	-4.62	-6.36	94.95	-4.7753	-0.3845	-0.0068
65	SLE RA 12	-4.36	-6.69	97.47	-4.9101	-0.3778	-0.0062
65	SLE RA 13	-4.11	-6.88	98.61	-4.9752	-0.3692	-0.0057
65	SLE RA 14	-4.44	-6.37	94.79	-4.7745	-0.3762	-0.0067
65	SLE RA 15	-4.17	-6.7	97.31	-4.9094	-0.3695	-0.006
65	SLE RA 16	-4.37	-6.34	94.24	-4.7497	-0.3722	-0.0066
65	SLE RA 17	-4.1	-6.67	96.77	-4.8846	-0.3654	-0.0059
65	SLE RA 18	-4.88	-6.52	98.17	-4.919	-0.4016	-0.0071
65	SLE RA 19	-4.61	-6.85	100.7	-5.0539	-0.3949	-0.0064
65	SLE RA 20	-4.7	-6.53	98.01	-4.9183	-0.3934	-0.0069
65	SLE RA 21	-4.43	-6.86	100.53	-5.0531	-0.3867	-0.0063
65	SLE FR 1	-4.42	-5.84	86.17	-4.3596	-0.3583	-0.0065
65	SLE FR 2	-4.34	-5.95	87.01	-4.4046	-0.3561	-0.0063
65	SLE FR 3	-4.35	-5.85	86.11	-4.3593	-0.355	-0.0064
65	SLE FR 4	-4.47	-6.16	90.61	-4.5724	-0.3691	-0.0065
65	SLE FR 5	-4.49	-6.05	89.71	-4.5271	-0.368	-0.0066
65	SLE FR 6	-4.65	-6.18	92.17	-4.6393	-0.38	-0.0068
65	SLE QP 1	-4.42	-5.84	86.17	-4.3596	-0.3583	-0.0065
65	SLE QP 2	-4.56	-6.05	89.77	-4.5274	-0.3713	-0.0067
65	SLD 1	0.82	-5.72	75.03	-4.135	-0.0842	-0.0017
65	SLD 2	0.82	-5.72	75.03	-4.135	-0.0842	-0.0017
65	SLD 3	2	-4.01	67.28	-3.6129	-0.0193	0.0025
65	SLD 4	2	-4.01	67.28	-3.6129	-0.0193	0.0025
65	SLD 5	-4.74	-8.54	97.1	-5.2016	-0.3836	-0.0116
65	SLD 6	-4.74	-8.54	97.1	-5.2016	-0.3836	-0.0116
65	SLD 7	-0.8	-2.84	71.28	-3.4612	-0.1673	0.0025
65	SLD 8	-0.8	-2.84	71.28	-3.4612	-0.1673	0.0025
65	SLD 9	-8.33	-9.25	108.27	-5.5937	-0.5753	-0.0159
65	SLD 10	-8.33	-9.25	108.27	-5.5937	-0.5753	-0.0159
65	SLD 11	-4.38	-3.55	82.45	-3.8533	-0.359	-0.0017



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
65	SLD 12	-4.38	-3.55	82.45	-3.8533	-0.359	-0.0017
65	SLD 13	-11.13	-8.08	112.26	-5.4419	-0.7233	-0.0159
65	SLD 14	-11.13	-8.08	112.26	-5.4419	-0.7233	-0.0159
65	SLD 15	-9.94	-6.37	104.52	-4.9198	-0.6584	-0.0117
65	SLD 16	-9.94	-6.37	104.52	-4.9198	-0.6584	-0.0117
65	SLV 1	7.91	-5.3	55.44	-3.6122	0.2942	0.0047
65	SLV 2	7.91	-5.3	55.44	-3.6122	0.2942	0.0047
65	SLV 3	10.88	-1.26	36.92	-2.3783	0.4569	0.0151
65	SLV 4	10.88	-1.26	36.92	-2.3783	0.4569	0.0151
65	SLV 5	-5.33	-11.96	107.56	-6.1242	-0.4184	-0.0191
65	SLV 6	-5.33	-11.96	107.56	-6.1242	-0.4184	-0.0191
65	SLV 7	4.58	1.53	45.83	-2.0113	0.1239	0.0157
65	SLV 8	4.58	1.53	45.83	-2.0113	0.1239	0.0157
65	SLV 9	-13.7	-13.62	133.71	-7.0436	-0.8665	-0.0291
65	SLV 10	-13.7	-13.62	133.71	-7.0436	-0.8665	-0.0291
65	SLV 11	-3.79	-0.13	71.99	-2.9306	-0.3242	0.0058
65	SLV 12	-3.79	-0.13	71.99	-2.9306	-0.3242	0.0058
65	SLV 13	-20	-10.84	142.62	-6.6766	-1.1995	-0.0285
65	SLV 14	-20	-10.84	142.62	-6.6766	-1.1995	-0.0285
65	SLV 15	-17.03	-6.79	124.1	-5.4427	-1.0368	-0.018
65	SLV 16	-17.03	-6.79	124.1	-5.4427	-1.0368	-0.018
66	SLU 1	-8.44	-0.01	47.2	0.0099	-0.1844	0.0009
66	SLU 2	-8.47	0	50.17	0.01	-0.1727	0.0008
66	SLU 3	-8.35	-0.01	47.33	0.0103	-0.1786	0.001
66	SLU 4	-8.36	-0.01	49.11	0.0103	-0.1716	0.0009
66	SLU 5	-8.25	0	49.76	0.0104	-0.1631	0.0009
66	SLU 6	-8.12	-0.01	46.92	0.0106	-0.1689	0.001
66	SLU 7	-8.14	-0.01	48.7	0.0107	-0.1619	0.001
66	SLU 8	-8	-0.01	46.38	0.0106	-0.1651	0.001
66	SLU 9	-8.01	-0.01	48.16	0.0107	-0.1581	0.001
66	SLU 10	-9.69	0	57.49	0.0109	-0.198	0.0009
66	SLU 11	-9.57	-0.01	54.65	0.0112	-0.2039	0.001
66	SLU 12	-9.59	-0.01	56.43	0.0112	-0.1968	0.001
66	SLU 13	-9.47	0	57.08	0.0112	-0.1883	0.0009
66	SLU 14	-9.35	-0.01	54.24	0.0115	-0.1942	0.0011
66	SLU 15	-9.36	-0.01	56.02	0.0116	-0.1872	0.001
66	SLU 16	-9.22	-0.01	53.7	0.0115	-0.1904	0.0011
66	SLU 17	-9.24	-0.01	55.48	0.0115	-0.1834	0.001
66	SLU 18	-10.19	-0.01	57.66	0.0111	-0.2205	0.001
66	SLU 19	-10.21	-0.01	59.44	0.0112	-0.2135	0.0009
66	SLU 20	-9.97	-0.01	57.25	0.0115	-0.2109	0.0011
66	SLU 21	-9.99	-0.01	59.03	0.0116	-0.2039	0.001
66	SLU 22	-9.37	-0.01	52.8	0.0104	-0.2031	0.0009
66	SLU 23	-9.39	0	55.77	0.0106	-0.1913	0.0008
66	SLU 24	-9.27	-0.01	52.93	0.0108	-0.1972	0.001
66	SLU 25	-9.29	-0.01	54.71	0.0109	-0.1902	0.0009
66	SLU 26	-9.17	0	55.36	0.0109	-0.1817	0.0009
66	SLU 27	-9.05	-0.01	52.52	0.0112	-0.1875	0.0011
66	SLU 28	-9.06	-0.01	54.3	0.0113	-0.1805	0.001
66	SLU 29	-8.92	-0.01	51.98	0.0111	-0.1838	0.0011
66	SLU 30	-8.94	-0.01	53.76	0.0112	-0.1767	0.001
66	SLU 31	-10.62	0	63.09	0.0114	-0.2166	0.0009
66	SLU 32	-10.5	-0.01	60.25	0.0117	-0.2225	0.0011
66	SLU 33	-10.51	-0.01	62.03	0.0118	-0.2154	0.001
66	SLU 34	-10.39	0	62.68	0.0118	-0.2069	0.001
66	SLU 35	-10.27	-0.01	59.84	0.0121	-0.2128	0.0011
66	SLU 36	-10.29	-0.01	61.62	0.0121	-0.2058	0.0011
66	SLU 37	-10.15	-0.01	59.3	0.012	-0.209	0.0011
66	SLU 38	-10.16	-0.01	61.09	0.0121	-0.202	0.0011
66	SLU 39	-11.12	-0.01	63.26	0.0117	-0.2391	0.001
66	SLU 40	-11.13	0	65.04	0.0118	-0.2321	0.001
66	SLU 41	-10.89	-0.01	62.85	0.012	-0.2295	0.0011
66	SLU 42	-10.91	-0.01	64.63	0.0121	-0.2225	0.001
66	SLU 43	-10.66	-0.02	59.44	0.0127	-0.2334	0.0012
66	SLU 44	-10.68	-0.01	62.41	0.0128	-0.2217	0.0011
66	SLU 45	-10.56	-0.02	59.57	0.013	-0.2275	0.0012
66	SLU 46	-10.58	-0.01	61.35	0.0131	-0.2205	0.0012
66	SLU 47	-10.46	-0.01	62	0.0131	-0.212	0.0011
66	SLU 48	-10.34	-0.02	59.16	0.0134	-0.2179	0.0013
66	SLU 49	-10.35	-0.01	60.94	0.0135	-0.2109	0.0012
66	SLU 50	-10.21	-0.02	58.62	0.0134	-0.2141	0.0013
66	SLU 51	-10.23	-0.01	60.4	0.0134	-0.2071	0.0012
66	SLU 52	-11.91	-0.01	69.73	0.0137	-0.2469	0.0011
66	SLU 53	-11.79	-0.02	66.89	0.0139	-0.2528	0.0013
66	SLU 54	-11.8	-0.01	68.67	0.014	-0.2458	0.0012
66	SLU 55	-11.69	-0.01	69.32	0.014	-0.2373	0.0012
66	SLU 56	-11.56	-0.02	66.48	0.0143	-0.2432	0.0014
66	SLU 57	-11.58	-0.01	68.26	0.0144	-0.2361	0.0013
66	SLU 58	-11.44	-0.02	65.94	0.0142	-0.2394	0.0014
66	SLU 59	-11.45	-0.01	67.72	0.0143	-0.2323	0.0013
66	SLU 60	-12.41	-0.01	69.9	0.0139	-0.2695	0.0013
66	SLU 61	-12.42	-0.01	71.68	0.014	-0.2625	0.0012
66	SLU 62	-12.19	-0.02	69.49	0.0143	-0.2598	0.0013
66	SLU 63	-12.2	-0.01	71.27	0.0143	-0.2528	0.0013
66	SLU 64	-11.58	-0.01	65.04	0.0132	-0.252	0.0012
66	SLU 65	-11.61	-0.01	68.01	0.0133	-0.2403	0.0011
66	SLU 66	-11.49	-0.02	65.17	0.0136	-0.2462	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
66	SLU 67	-11.5	-0.01	66.95	0.0137	-0.2391	0.0012
66	SLU 68	-11.39	-0.01	67.6	0.0137	-0.2306	0.0012
66	SLU 69	-11.26	-0.02	64.76	0.014	-0.2365	0.0013
66	SLU 70	-11.28	-0.01	66.54	0.014	-0.2295	0.0013
66	SLU 71	-11.14	-0.02	64.22	0.0139	-0.2327	0.0013
66	SLU 72	-11.15	-0.01	66	0.014	-0.2257	0.0013
66	SLU 73	-12.83	-0.01	75.33	0.0142	-0.2655	0.0012
66	SLU 74	-12.71	-0.01	72.49	0.0145	-0.2714	0.0013
66	SLU 75	-12.73	-0.01	74.27	0.0145	-0.2644	0.0013
66	SLU 76	-12.61	-0.01	74.92	0.0146	-0.2559	0.0012
66	SLU 77	-12.49	-0.02	72.08	0.0148	-0.2618	0.0014
66	SLU 78	-12.5	-0.01	73.86	0.0149	-0.2547	0.0013
66	SLU 79	-12.36	-0.02	71.54	0.0148	-0.258	0.0014
66	SLU 80	-12.38	-0.01	73.32	0.0149	-0.2509	0.0013
66	SLU 81	-13.33	-0.01	75.5	0.0145	-0.2881	0.0013
66	SLU 82	-13.35	-0.01	77.28	0.0145	-0.2811	0.0012
66	SLU 83	-13.11	-0.01	75.09	0.0148	-0.2785	0.0013
66	SLU 84	-13.13	-0.01	76.87	0.0149	-0.2714	0.0013
66	SLE RA 1	-8.71	-0.01	48.8	0.01	-0.1898	0.0009
66	SLE RA 2	-8.72	-0.01	50.78	0.0101	-0.1819	0.0009
66	SLE RA 3	-8.64	-0.01	48.88	0.0103	-0.1859	0.001
66	SLE RA 4	-8.65	-0.01	50.07	0.0103	-0.1812	0.0009
66	SLE RA 5	-8.58	-0.01	50.51	0.0104	-0.1755	0.0009
66	SLE RA 6	-8.49	-0.01	48.61	0.0105	-0.1794	0.001
66	SLE RA 7	-8.5	-0.01	49.8	0.0106	-0.1747	0.001
66	SLE RA 8	-8.41	-0.01	48.26	0.0105	-0.1769	0.001
66	SLE RA 9	-8.42	-0.01	49.44	0.0106	-0.1722	0.001
66	SLE RA 10	-9.54	-0.01	55.66	0.0107	-0.1988	0.0009
66	SLE RA 11	-9.46	-0.01	53.77	0.0109	-0.2027	0.001
66	SLE RA 12	-9.47	-0.01	54.95	0.0109	-0.198	0.001
66	SLE RA 13	-9.39	-0.01	55.39	0.0109	-0.1924	0.0009
66	SLE RA 14	-9.31	-0.01	53.49	0.0111	-0.1963	0.001
66	SLE RA 15	-9.32	-0.01	54.68	0.0112	-0.1916	0.001
66	SLE RA 16	-9.23	-0.01	53.14	0.0111	-0.1937	0.001
66	SLE RA 17	-9.24	-0.01	54.32	0.0111	-0.189	0.001
66	SLE RA 18	-9.87	-0.01	55.77	0.0109	-0.2138	0.001
66	SLE RA 19	-9.88	-0.01	56.96	0.0109	-0.2091	0.0009
66	SLE RA 20	-9.73	-0.01	55.5	0.0111	-0.2074	0.001
66	SLE RA 21	-9.74	-0.01	56.69	0.0112	-0.2027	0.001
66	SLE FR 1	-8.71	-0.01	48.8	0.01	-0.1898	0.0009
66	SLE FR 2	-8.71	-0.01	49.2	0.0101	-0.1882	0.0009
66	SLE FR 3	-8.65	-0.01	48.69	0.0101	-0.1872	0.0009
66	SLE FR 4	-9.06	-0.01	51.29	0.0103	-0.1954	0.0009
66	SLE FR 5	-9	-0.01	50.78	0.0104	-0.1944	0.001
66	SLE FR 6	-9.29	-0.01	52.29	0.0105	-0.2018	0.001
66	SLE QP 1	-8.71	-0.01	48.8	0.01	-0.1898	0.0009
66	SLE QP 2	-9.06	-0.01	50.89	0.0103	-0.197	0.0009
66	SLD 1	-3.76	0	35.82	0.0076	0.0035	0.0005
66	SLD 2	-3.76	0	35.82	0.0076	0.0035	0.0005
66	SLD 3	-2.76	-0.06	31.91	0.0219	0.0344	0.0026
66	SLD 4	-2.76	-0.06	31.91	0.0219	0.0344	0.0026
66	SLD 5	-8.98	0.08	52.3	-0.0123	-0.1838	-0.0024
66	SLD 6	-8.98	0.08	52.3	-0.0123	-0.1838	-0.0024
66	SLD 7	-5.66	-0.11	39.27	0.0355	-0.0806	0.0046
66	SLD 8	-5.66	-0.11	39.27	0.0355	-0.0806	0.0046
66	SLD 9	-12.46	0.09	62.52	-0.0149	-0.3133	-0.0028
66	SLD 10	-12.46	0.09	62.52	-0.0149	-0.3133	-0.0028
66	SLD 11	-9.13	-0.1	49.48	0.0328	-0.2102	0.0043
66	SLD 12	-9.13	-0.1	49.48	0.0328	-0.2102	0.0043
66	SLD 13	-15.35	0.03	69.88	-0.0013	-0.4284	-0.0007
66	SLD 14	-15.35	0.03	69.88	-0.0013	-0.4284	-0.0007
66	SLD 15	-14.35	-0.02	65.97	0.013	-0.3974	0.0014
66	SLD 16	-14.35	-0.02	65.97	0.013	-0.3974	0.0014
66	SLV 1	3.28	0.02	15.76	0.0036	0.27	-0.0001
66	SLV 2	3.28	0.02	15.76	0.0036	0.27	-0.0001
66	SLV 3	5.7	-0.12	6.35	0.038	0.3455	0.0049
66	SLV 4	5.7	-0.12	6.35	0.038	0.3455	0.0049
66	SLV 5	-9.03	0.2	54.62	-0.0439	-0.1714	-0.007
66	SLV 6	-9.03	0.2	54.62	-0.0439	-0.1714	-0.007
66	SLV 7	-0.95	-0.24	23.26	0.0708	0.0803	0.0098
66	SLV 8	-0.95	-0.24	23.26	0.0708	0.0803	0.0098
66	SLV 9	-17.16	0.22	78.52	-0.0502	-0.4742	-0.0079
66	SLV 10	-17.16	0.22	78.52	-0.0502	-0.4742	-0.0079
66	SLV 11	-9.08	-0.22	47.16	0.0645	-0.2225	0.0089
66	SLV 12	-9.08	-0.22	47.16	0.0645	-0.2225	0.0089
66	SLV 13	-23.82	0.09	95.43	-0.0174	-0.7394	-0.0031
66	SLV 14	-23.82	0.09	95.43	-0.0174	-0.7394	-0.0031
66	SLV 15	-21.4	-0.04	86.02	0.017	-0.6639	0.002
66	SLV 16	-21.4	-0.04	86.02	0.017	-0.6639	0.002
67	SLU 1	-1.87	0.06	22.89	0.0341	-0.3202	0.0171
67	SLU 2	-2.34	0.07	21.75	0.0331	-0.344	0.0183
67	SLU 3	-1.76	0.05	23.83	0.0359	-0.3197	0.017
67	SLU 4	-2.04	0.06	23.14	0.0353	-0.3339	0.0177
67	SLU 5	-2.19	0.07	22.7	0.0351	-0.3402	0.018
67	SLU 6	-1.6	0.05	24.78	0.0379	-0.3159	0.0167
67	SLU 7	-1.88	0.05	24.09	0.0373	-0.3302	0.0174
67	SLU 8	-1.56	0.04	24.79	0.038	-0.3127	0.0165



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
67	SLU 9	-1.84	0.05	24.11	0.0374	-0.327	0.0172
67	SLU 10	-2.86	0.1	25.73	0.0372	-0.4175	0.0224
67	SLU 11	-2.28	0.08	27.8	0.04	-0.3931	0.0211
67	SLU 12	-2.56	0.09	27.12	0.0394	-0.4074	0.0218
67	SLU 13	-2.7	0.09	26.68	0.0392	-0.4137	0.0221
67	SLU 14	-2.12	0.07	28.75	0.042	-0.3894	0.0208
67	SLU 15	-2.4	0.08	28.07	0.0414	-0.4037	0.0215
67	SLU 16	-2.07	0.07	28.76	0.0422	-0.3862	0.0206
67	SLU 17	-2.36	0.08	28.08	0.0416	-0.4004	0.0213
67	SLU 18	-2.61	0.1	28.57	0.04	-0.4252	0.0229
67	SLU 19	-2.89	0.11	27.89	0.0394	-0.4394	0.0236
67	SLU 20	-2.45	0.09	29.52	0.042	-0.4214	0.0226
67	SLU 21	-2.74	0.1	28.84	0.0414	-0.4357	0.0234
67	SLU 22	-2.52	0.09	24.08	0.0334	-0.3751	0.0206
67	SLU 23	-2.99	0.11	22.94	0.0324	-0.3989	0.0218
67	SLU 24	-2.41	0.09	25.02	0.0352	-0.3746	0.0205
67	SLU 25	-2.69	0.1	24.33	0.0346	-0.3889	0.0212
67	SLU 26	-2.84	0.1	23.89	0.0344	-0.3951	0.0215
67	SLU 27	-2.25	0.08	25.96	0.0372	-0.3708	0.0202
67	SLU 28	-2.53	0.09	25.28	0.0366	-0.3851	0.0209
67	SLU 29	-2.21	0.08	25.98	0.0374	-0.3676	0.02
67	SLU 30	-2.49	0.09	25.29	0.0368	-0.3819	0.0207
67	SLU 31	-3.51	0.13	26.92	0.0365	-0.4724	0.0259
67	SLU 32	-2.92	0.11	28.99	0.0394	-0.4481	0.0245
67	SLU 33	-3.21	0.12	28.31	0.0388	-0.4623	0.0253
67	SLU 34	-3.35	0.12	27.87	0.0385	-0.4686	0.0256
67	SLU 35	-2.77	0.1	29.94	0.0413	-0.4443	0.0242
67	SLU 36	-3.05	0.11	29.26	0.0407	-0.4586	0.025
67	SLU 37	-2.72	0.1	29.95	0.0415	-0.4411	0.0241
67	SLU 38	-3	0.11	29.27	0.0409	-0.4553	0.0248
67	SLU 39	-3.26	0.13	29.76	0.0393	-0.4801	0.0264
67	SLU 40	-3.54	0.14	29.07	0.0387	-0.4943	0.0271
67	SLU 41	-3.1	0.12	30.71	0.0413	-0.4763	0.0261
67	SLU 42	-3.38	0.13	30.02	0.0407	-0.4906	0.0268
67	SLU 43	-2.21	0.07	29.35	0.0445	-0.3975	0.021
67	SLU 44	-2.68	0.08	28.21	0.0435	-0.4212	0.0222
67	SLU 45	-2.1	0.06	30.29	0.0463	-0.3969	0.0209
67	SLU 46	-2.38	0.07	29.6	0.0458	-0.4112	0.0216
67	SLU 47	-2.53	0.07	29.16	0.0455	-0.4175	0.0219
67	SLU 48	-1.94	0.05	31.24	0.0483	-0.3932	0.0206
67	SLU 49	-2.22	0.06	30.55	0.0477	-0.4074	0.0213
67	SLU 50	-1.9	0.05	31.25	0.0485	-0.3899	0.0205
67	SLU 51	-2.18	0.06	30.57	0.0479	-0.4042	0.0212
67	SLU 52	-3.2	0.11	32.19	0.0477	-0.4947	0.0263
67	SLU 53	-2.62	0.09	34.26	0.0505	-0.4704	0.025
67	SLU 54	-2.9	0.09	33.58	0.0499	-0.4847	0.0257
67	SLU 55	-3.04	0.1	33.14	0.0497	-0.4909	0.026
67	SLU 56	-2.46	0.08	35.21	0.0525	-0.4666	0.0247
67	SLU 57	-2.74	0.09	34.53	0.0519	-0.4809	0.0254
67	SLU 58	-2.41	0.08	35.22	0.0526	-0.4634	0.0245
67	SLU 59	-2.7	0.08	34.54	0.052	-0.4777	0.0252
67	SLU 60	-2.95	0.1	35.03	0.0504	-0.5024	0.0269
67	SLU 61	-3.23	0.11	34.35	0.0498	-0.5167	0.0276
67	SLU 62	-2.79	0.1	35.98	0.0524	-0.4987	0.0266
67	SLU 63	-3.08	0.1	35.3	0.0518	-0.5129	0.0273
67	SLU 64	-2.86	0.1	30.54	0.0439	-0.4524	0.0245
67	SLU 65	-3.33	0.12	29.4	0.0429	-0.4761	0.0257
67	SLU 66	-2.75	0.1	31.47	0.0457	-0.4518	0.0244
67	SLU 67	-3.03	0.1	30.79	0.0451	-0.4661	0.0251
67	SLU 68	-3.17	0.11	30.35	0.0448	-0.4724	0.0254
67	SLU 69	-2.59	0.09	32.42	0.0477	-0.4481	0.0241
67	SLU 70	-2.87	0.09	31.74	0.0471	-0.4623	0.0248
67	SLU 71	-2.55	0.08	32.44	0.0478	-0.4448	0.0239
67	SLU 72	-2.83	0.09	31.75	0.0472	-0.4591	0.0246
67	SLU 73	-3.85	0.14	33.38	0.047	-0.5496	0.0298
67	SLU 74	-3.26	0.12	35.45	0.0498	-0.5253	0.0285
67	SLU 75	-3.55	0.13	34.77	0.0492	-0.5396	0.0292
67	SLU 76	-3.69	0.13	34.32	0.049	-0.5459	0.0295
67	SLU 77	-3.11	0.11	36.4	0.0518	-0.5215	0.0282
67	SLU 78	-3.39	0.12	35.72	0.0512	-0.5358	0.0289
67	SLU 79	-3.06	0.11	36.41	0.0519	-0.5183	0.028
67	SLU 80	-3.34	0.12	35.73	0.0514	-0.5326	0.0287
67	SLU 81	-3.6	0.14	36.22	0.0498	-0.5573	0.0304
67	SLU 82	-3.88	0.15	35.53	0.0492	-0.5716	0.0311
67	SLU 83	-3.44	0.13	37.17	0.0517	-0.5536	0.0301
67	SLU 84	-3.72	0.14	36.48	0.0511	-0.5678	0.0308
67	SLE RA 1	-2.06	0.07	23.23	0.0339	-0.3359	0.0181
67	SLE RA 2	-2.37	0.08	22.47	0.0332	-0.3518	0.0189
67	SLE RA 3	-1.98	0.07	23.85	0.0351	-0.3355	0.018
67	SLE RA 4	-2.17	0.07	23.4	0.0347	-0.3451	0.0185
67	SLE RA 5	-2.27	0.07	23.1	0.0345	-0.3493	0.0187
67	SLE RA 6	-1.88	0.06	24.49	0.0364	-0.333	0.0178
67	SLE RA 7	-2.07	0.07	24.03	0.036	-0.3426	0.0183
67	SLE RA 8	-1.85	0.06	24.5	0.0365	-0.3309	0.0177
67	SLE RA 9	-2.04	0.06	24.04	0.0361	-0.3404	0.0182
67	SLE RA 10	-2.72	0.1	25.12	0.036	-0.4007	0.0216
67	SLE RA 11	-2.33	0.08	26.5	0.0379	-0.3845	0.0207



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
67	SLE RA 12	-2.52	0.09	26.05	0.0375	-0.394	0.0212
67	SLE RA 13	-2.61	0.09	25.75	0.0373	-0.3982	0.0214
67	SLE RA 14	-2.22	0.08	27.14	0.0392	-0.382	0.0205
67	SLE RA 15	-2.41	0.08	26.68	0.0388	-0.3915	0.021
67	SLE RA 16	-2.19	0.08	27.15	0.0393	-0.3799	0.0204
67	SLE RA 17	-2.38	0.08	26.69	0.0389	-0.3894	0.0209
67	SLE RA 18	-2.55	0.09	27.02	0.0378	-0.4059	0.022
67	SLE RA 19	-2.74	0.1	26.56	0.0374	-0.4154	0.0225
67	SLE RA 20	-2.44	0.09	27.65	0.0391	-0.4034	0.0218
67	SLE RA 21	-2.63	0.09	27.19	0.0387	-0.4129	0.0223
67	SLE FR 1	-2.06	0.07	23.23	0.0339	-0.3359	0.0181
67	SLE FR 2	-2.12	0.07	23.08	0.0337	-0.3391	0.0183
67	SLE FR 3	-2.02	0.07	23.48	0.0344	-0.3349	0.018
67	SLE FR 4	-2.27	0.08	24.21	0.0349	-0.3601	0.0194
67	SLE FR 5	-2.16	0.08	24.62	0.0356	-0.3559	0.0192
67	SLE FR 6	-2.3	0.08	25.12	0.0358	-0.3709	0.02
67	SLE QP 1	-2.06	0.07	23.23	0.0339	-0.3359	0.0181
67	SLE QP 2	-2.21	0.08	24.37	0.0351	-0.3569	0.0193
67	SLD 1	0.7	-0.14	34.3	0.0759	-0.2349	0.0144
67	SLD 2	0.7	-0.14	34.3	0.0759	-0.2349	0.0144
67	SLD 3	0.21	0	31.61	0.0491	-0.2082	0.0091
67	SLD 4	0.21	0	31.61	0.0491	-0.2082	0.0091
67	SLD 5	-0.59	-0.2	31.43	0.0879	-0.3608	0.026
67	SLD 6	-0.59	-0.2	31.43	0.0879	-0.3608	0.026
67	SLD 7	-2.23	0.27	22.46	-0.0013	-0.2718	0.0081
67	SLD 8	-2.23	0.27	22.46	-0.0013	-0.2718	0.0081
67	SLD 9	-2.18	-0.11	26.27	0.0714	-0.442	0.0305
67	SLD 10	-2.18	-0.11	26.27	0.0714	-0.442	0.0305
67	SLD 11	-3.83	0.36	17.31	-0.0178	-0.353	0.0126
67	SLD 12	-3.83	0.36	17.31	-0.0178	-0.353	0.0126
67	SLD 13	-4.62	0.16	17.12	0.021	-0.5056	0.0295
67	SLD 14	-4.62	0.16	17.12	0.021	-0.5056	0.0295
67	SLD 15	-5.11	0.3	14.43	-0.0058	-0.4788	0.0241
67	SLD 16	-5.11	0.3	14.43	-0.0058	-0.4788	0.0241
67	SLV 1	4.6	-0.45	47.6	0.1326	-0.0728	0.0078
67	SLV 2	4.6	-0.45	47.6	0.1326	-0.0728	0.0078
67	SLV 3	3.41	-0.12	41.23	0.07	-0.0087	-0.0048
67	SLV 4	3.41	-0.12	41.23	0.07	-0.0087	-0.0048
67	SLV 5	1.64	-0.59	41.01	0.1594	-0.3688	0.0349
67	SLV 6	1.64	-0.59	41.01	0.1594	-0.3688	0.0349
67	SLV 7	-2.32	0.52	19.75	-0.0495	-0.1553	-0.007
67	SLV 8	-2.32	0.52	19.75	-0.0495	-0.1553	-0.007
67	SLV 9	-2.09	-0.37	28.98	0.1196	-0.5584	0.0456
67	SLV 10	-2.09	-0.37	28.98	0.1196	-0.5584	0.0456
67	SLV 11	-6.05	0.74	7.72	-0.0892	-0.345	0.0036
67	SLV 12	-6.05	0.74	7.72	-0.0892	-0.345	0.0036
67	SLV 13	-7.82	0.27	7.51	0.0002	-0.7051	0.0433
67	SLV 14	-7.82	0.27	7.51	0.0002	-0.7051	0.0433
67	SLV 15	-9.01	0.61	1.13	-0.0625	-0.641	0.0308
67	SLV 16	-9.01	0.61	1.13	-0.0625	-0.641	0.0308
68	SLU 1	-8.55	3.1	94.49	-0.5633	-0.262	-0.0758
68	SLU 2	-8.87	2.78	95.74	-0.546	-0.2871	-0.0787
68	SLU 3	-8.66	3.34	96.42	-0.5852	-0.2611	-0.0767
68	SLU 4	-8.85	3.14	97.17	-0.5748	-0.2761	-0.0784
68	SLU 5	-8.93	3	97.2	-0.5665	-0.2831	-0.0791
68	SLU 6	-8.72	3.56	97.87	-0.6057	-0.2572	-0.0771
68	SLU 7	-8.91	3.37	98.63	-0.5953	-0.2722	-0.0789
68	SLU 8	-8.66	3.55	97.39	-0.6043	-0.2542	-0.0766
68	SLU 9	-8.85	3.35	98.15	-0.5939	-0.2692	-0.0783
68	SLU 10	-10.28	3.48	112.03	-0.6483	-0.3134	-0.0906
68	SLU 11	-10.07	4.03	112.71	-0.6876	-0.2875	-0.0886
68	SLU 12	-10.26	3.84	113.46	-0.6772	-0.3025	-0.0903
68	SLU 13	-10.33	3.7	113.49	-0.6688	-0.3095	-0.091
68	SLU 14	-10.12	4.25	114.16	-0.7081	-0.2835	-0.089
68	SLU 15	-10.32	4.06	114.92	-0.6977	-0.2985	-0.0907
68	SLU 16	-10.07	4.24	113.69	-0.7066	-0.2805	-0.0885
68	SLU 17	-10.26	4.05	114.44	-0.6963	-0.2955	-0.0902
68	SLU 18	-10.56	4.1	117.76	-0.7095	-0.2997	-0.0927
68	SLU 19	-10.75	3.9	118.51	-0.6991	-0.3147	-0.0945
68	SLU 20	-10.61	4.32	119.22	-0.73	-0.2958	-0.0932
68	SLU 21	-10.81	4.12	119.97	-0.7196	-0.3108	-0.0949
68	SLU 22	-9.62	3.52	104.12	-0.6206	-0.303	-0.0854
68	SLU 23	-9.94	3.2	105.37	-0.6033	-0.328	-0.0883
68	SLU 24	-9.73	3.75	106.05	-0.6425	-0.302	-0.0863
68	SLU 25	-9.93	3.56	106.8	-0.6321	-0.317	-0.0881
68	SLU 26	-10	3.42	106.83	-0.6238	-0.324	-0.0887
68	SLU 27	-9.79	3.98	107.5	-0.663	-0.2981	-0.0867
68	SLU 28	-9.98	3.78	108.26	-0.6526	-0.3131	-0.0885
68	SLU 29	-9.73	3.97	107.02	-0.6616	-0.2951	-0.0862
68	SLU 30	-9.93	3.77	107.78	-0.6512	-0.3101	-0.088
68	SLU 31	-11.35	3.89	121.66	-0.7056	-0.3543	-0.1002
68	SLU 32	-11.14	4.45	122.34	-0.7449	-0.3284	-0.0982
68	SLU 33	-11.33	4.26	123.09	-0.7345	-0.3434	-0.1
68	SLU 34	-11.41	4.12	123.12	-0.7261	-0.3504	-0.1006
68	SLU 35	-11.2	4.67	123.79	-0.7654	-0.3245	-0.0986
68	SLU 36	-11.39	4.48	124.55	-0.755	-0.3395	-0.1004
68	SLU 37	-11.14	4.66	123.32	-0.7639	-0.3215	-0.0981



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
68	SLU 38	-11.33	4.47	124.07	-0.7536	-0.3365	-0.0999
68	SLU 39	-11.63	4.51	127.39	-0.7668	-0.3406	-0.1024
68	SLU 40	-11.83	4.32	128.14	-0.7564	-0.3556	-0.1042
68	SLU 41	-11.69	4.74	128.85	-0.7873	-0.3367	-0.1028
68	SLU 42	-11.88	4.54	129.6	-0.7769	-0.3517	-0.1046
68	SLU 43	-10.74	3.89	119.53	-0.7126	-0.3266	-0.0952
68	SLU 44	-11.06	3.57	120.79	-0.6953	-0.3516	-0.0981
68	SLU 45	-10.85	4.12	121.46	-0.7346	-0.3257	-0.0961
68	SLU 46	-11.05	3.93	122.22	-0.7242	-0.3407	-0.0979
68	SLU 47	-11.12	3.79	122.24	-0.7158	-0.3477	-0.0985
68	SLU 48	-10.91	4.35	122.92	-0.7551	-0.3218	-0.0965
68	SLU 49	-11.1	4.15	123.67	-0.7447	-0.3368	-0.0983
68	SLU 50	-10.85	4.34	122.44	-0.7536	-0.3188	-0.096
68	SLU 51	-11.05	4.14	123.19	-0.7432	-0.3338	-0.0978
68	SLU 52	-12.47	4.26	137.08	-0.7977	-0.378	-0.11
68	SLU 53	-12.26	4.82	137.75	-0.8369	-0.3521	-0.108
68	SLU 54	-12.46	4.63	138.51	-0.8266	-0.3671	-0.1098
68	SLU 55	-12.53	4.49	138.53	-0.8182	-0.3741	-0.1104
68	SLU 56	-12.32	5.04	139.21	-0.8574	-0.3481	-0.1084
68	SLU 57	-12.51	4.85	139.96	-0.847	-0.3631	-0.1102
68	SLU 58	-12.26	5.03	138.73	-0.856	-0.3451	-0.1079
68	SLU 59	-12.46	4.84	139.48	-0.8456	-0.3601	-0.1096
68	SLU 60	-12.75	4.88	142.81	-0.8589	-0.3643	-0.1122
68	SLU 61	-12.95	4.69	143.56	-0.8485	-0.3793	-0.1139
68	SLU 62	-12.81	5.11	144.26	-0.8794	-0.3603	-0.1126
68	SLU 63	-13	4.91	145.01	-0.869	-0.3754	-0.1143
68	SLU 64	-11.82	4.31	129.16	-0.7699	-0.3675	-0.1048
68	SLU 65	-12.14	3.99	130.42	-0.7526	-0.3926	-0.1078
68	SLU 66	-11.93	4.54	131.09	-0.7919	-0.3666	-0.1058
68	SLU 67	-12.12	4.35	131.85	-0.7815	-0.3816	-0.1075
68	SLU 68	-12.19	4.21	131.87	-0.7731	-0.3886	-0.1082
68	SLU 69	-11.98	4.76	132.55	-0.8124	-0.3627	-0.1062
68	SLU 70	-12.18	4.57	133.3	-0.802	-0.3777	-0.1079
68	SLU 71	-11.93	4.75	132.07	-0.8109	-0.3597	-0.1056
68	SLU 72	-12.12	4.56	132.82	-0.8005	-0.3747	-0.1074
68	SLU 73	-13.55	4.68	146.71	-0.855	-0.4189	-0.1197
68	SLU 74	-13.34	5.24	147.39	-0.8942	-0.393	-0.1176
68	SLU 75	-13.53	5.04	148.14	-0.8839	-0.408	-0.1194
68	SLU 76	-13.6	4.9	148.16	-0.8755	-0.415	-0.1201
68	SLU 77	-13.39	5.46	148.84	-0.9147	-0.389	-0.1181
68	SLU 78	-13.59	5.27	149.59	-0.9043	-0.4041	-0.1198
68	SLU 79	-13.34	5.45	148.36	-0.9133	-0.386	-0.1175
68	SLU 80	-13.53	5.26	149.11	-0.9029	-0.401	-0.1193
68	SLU 81	-13.83	5.3	152.44	-0.9162	-0.4052	-0.1218
68	SLU 82	-14.02	5.11	153.19	-0.9058	-0.4202	-0.1236
68	SLU 83	-13.88	5.52	153.89	-0.9367	-0.4013	-0.1222
68	SLU 84	-14.08	5.33	154.64	-0.9263	-0.4163	-0.124
68	SLE RA 1	-8.85	3.22	97.24	-0.5797	-0.2737	-0.0785
68	SLE RA 2	-9.07	3.01	98.07	-0.5681	-0.2904	-0.0805
68	SLE RA 3	-8.93	3.38	98.53	-0.5943	-0.2731	-0.0791
68	SLE RA 4	-9.06	3.25	99.03	-0.5874	-0.2831	-0.0803
68	SLE RA 5	-9.11	3.16	99.04	-0.5818	-0.2878	-0.0807
68	SLE RA 6	-8.97	3.53	99.49	-0.6079	-0.2705	-0.0794
68	SLE RA 7	-9.09	3.4	100	-0.601	-0.2805	-0.0806
68	SLE RA 8	-8.93	3.52	99.18	-0.607	-0.2685	-0.0791
68	SLE RA 9	-9.06	3.39	99.68	-0.6001	-0.2785	-0.0802
68	SLE RA 10	-10.01	3.47	108.94	-0.6364	-0.308	-0.0884
68	SLE RA 11	-9.87	3.84	109.39	-0.6625	-0.2907	-0.0871
68	SLE RA 12	-10	3.71	109.89	-0.6556	-0.3007	-0.0882
68	SLE RA 13	-10.04	3.62	109.91	-0.65	-0.3054	-0.0887
68	SLE RA 14	-9.9	3.99	110.36	-0.6762	-0.2881	-0.0873
68	SLE RA 15	-10.03	3.86	110.86	-0.6693	-0.2981	-0.0885
68	SLE RA 16	-9.87	3.98	110.04	-0.6752	-0.2861	-0.087
68	SLE RA 17	-10	3.85	110.54	-0.6683	-0.2961	-0.0882
68	SLE RA 18	-10.19	3.88	112.75	-0.6772	-0.2988	-0.0898
68	SLE RA 19	-10.32	3.75	113.26	-0.6702	-0.3088	-0.091
68	SLE RA 20	-10.23	4.03	113.72	-0.6908	-0.2962	-0.0901
68	SLE RA 21	-10.36	3.9	114.23	-0.6839	-0.3062	-0.0913
68	SLE FR 1	-8.85	3.22	97.24	-0.5797	-0.2737	-0.0785
68	SLE FR 2	-8.9	3.18	97.4	-0.5773	-0.2771	-0.0789
68	SLE FR 3	-8.87	3.28	97.63	-0.5851	-0.2727	-0.0786
68	SLE FR 4	-9.3	3.38	102.06	-0.6066	-0.2846	-0.0823
68	SLE FR 5	-9.27	3.48	102.28	-0.6144	-0.2802	-0.082
68	SLE FR 6	-9.52	3.55	105	-0.6284	-0.2863	-0.0842
68	SLE QP 1	-8.85	3.22	97.24	-0.5797	-0.2737	-0.0785
68	SLE QP 2	-9.26	3.42	101.89	-0.6089	-0.2813	-0.0819
68	SLD 1	-7.89	6.8	92.2	-0.8403	-0.1579	-0.0686
68	SLD 2	-7.89	6.8	92.2	-0.8403	-0.1579	-0.0686
68	SLD 3	-7.42	3.45	85.32	-0.6365	-0.1346	-0.0622
68	SLD 4	-7.42	3.45	85.32	-0.6365	-0.1346	-0.0622
68	SLD 5	-9.57	9.51	109.41	-0.9874	-0.2796	-0.0877
68	SLD 6	-9.57	9.51	109.41	-0.9874	-0.2796	-0.0877
68	SLD 7	-7.98	-1.65	86.5	-0.3081	-0.2019	-0.0663
68	SLD 8	-7.98	-1.65	86.5	-0.3081	-0.2019	-0.0663
68	SLD 9	-10.53	8.49	117.29	-0.9097	-0.3607	-0.0976
68	SLD 10	-10.53	8.49	117.29	-0.9097	-0.3607	-0.0976
68	SLD 11	-8.94	-2.67	94.38	-0.2304	-0.2829	-0.0762



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
68	SLD 12	-8.94	-2.67	94.38	-0.2304	-0.2829	-0.0762
68	SLD 13	-11.09	3.39	118.46	-0.5813	-0.428	-0.1017
68	SLD 14	-11.09	3.39	118.46	-0.5813	-0.428	-0.1017
68	SLD 15	-10.62	0.05	111.59	-0.3775	-0.4046	-0.0953
68	SLD 16	-10.62	0.05	111.59	-0.3775	-0.4046	-0.0953
68	SLV 1	-6.08	11.34	79.23	-1.1518	0.0061	-0.0508
68	SLV 2	-6.08	11.34	79.23	-1.1518	0.0061	-0.0508
68	SLV 3	-4.94	3.49	62.95	-0.673	0.0627	-0.0356
68	SLV 4	-4.94	3.49	62.95	-0.673	0.0627	-0.0356
68	SLV 5	-10.04	17.7	119.79	-1.498	-0.2809	-0.0956
68	SLV 6	-10.04	17.7	119.79	-1.498	-0.2809	-0.0956
68	SLV 7	-6.23	-8.46	65.51	0.0981	-0.0922	-0.045
68	SLV 8	-6.23	-8.46	65.51	0.0981	-0.0922	-0.045
68	SLV 9	-12.29	15.3	138.27	-1.3159	-0.4703	-0.1189
68	SLV 10	-12.29	15.3	138.27	-1.3159	-0.4703	-0.1189
68	SLV 11	-8.47	-10.86	83.99	0.2802	-0.2816	-0.0682
68	SLV 12	-8.47	-10.86	83.99	0.2802	-0.2816	-0.0682
68	SLV 13	-13.57	3.35	140.84	-0.5448	-0.6252	-0.1282
68	SLV 14	-13.57	3.35	140.84	-0.5448	-0.6252	-0.1282
68	SLV 15	-12.43	-4.5	124.56	-0.066	-0.5686	-0.1131
68	SLV 16	-12.43	-4.5	124.56	-0.066	-0.5686	-0.1131
69	SLU 1	7.89	2.18	85.63	-0.5223	0.2423	0.0736
69	SLU 2	8.13	1.79	86.06	-0.5004	0.2609	0.0762
69	SLU 3	8.11	2.67	88.71	-0.5617	0.2456	0.0757
69	SLU 4	8.25	2.44	88.97	-0.5485	0.2568	0.0772
69	SLU 5	8.32	2.32	88.96	-0.5412	0.2627	0.0779
69	SLU 6	8.31	3.2	91.61	-0.6025	0.2474	0.0775
69	SLU 7	8.45	2.97	91.86	-0.5894	0.2586	0.079
69	SLU 8	8.28	3.24	91.43	-0.604	0.2458	0.0772
69	SLU 9	8.42	3	91.68	-0.5909	0.257	0.0787
69	SLU 10	9.55	2.27	99.63	-0.5863	0.3149	0.0897
69	SLU 11	9.54	3.15	102.28	-0.6476	0.2996	0.0893
69	SLU 12	9.68	2.92	102.53	-0.6345	0.3108	0.0908
69	SLU 13	9.74	2.8	102.52	-0.6272	0.3167	0.0915
69	SLU 14	9.73	3.68	105.17	-0.6885	0.3014	0.0911
69	SLU 15	9.87	3.45	105.43	-0.6754	0.3126	0.0926
69	SLU 16	9.7	3.72	104.99	-0.6899	0.2998	0.0908
69	SLU 17	9.84	3.49	105.25	-0.6768	0.311	0.0923
69	SLU 18	9.93	2.87	105.01	-0.645	0.3194	0.0931
69	SLU 19	10.07	2.63	105.27	-0.6319	0.3306	0.0946
69	SLU 20	10.12	3.4	107.91	-0.6859	0.3212	0.0948
69	SLU 21	10.26	3.16	108.17	-0.6728	0.3324	0.0963
69	SLU 22	8.9	2.68	94.78	-0.586	0.2809	0.0834
69	SLU 23	9.13	2.29	95.2	-0.5641	0.2995	0.0859
69	SLU 24	9.12	3.18	97.85	-0.6254	0.2843	0.0854
69	SLU 25	9.26	2.94	98.11	-0.6123	0.2954	0.0869
69	SLU 26	9.32	2.82	98.1	-0.605	0.3013	0.0877
69	SLU 27	9.31	3.71	100.75	-0.6663	0.286	0.0872
69	SLU 28	9.45	3.47	101.01	-0.6532	0.2972	0.0887
69	SLU 29	9.29	3.74	100.57	-0.6677	0.2844	0.087
69	SLU 30	9.42	3.51	100.83	-0.6546	0.2956	0.0885
69	SLU 31	10.55	2.78	108.77	-0.6501	0.3535	0.0995
69	SLU 32	10.54	3.66	111.42	-0.7114	0.3383	0.099
69	SLU 33	10.68	3.43	111.68	-0.6982	0.3494	0.1005
69	SLU 34	10.75	3.31	111.67	-0.6909	0.3553	0.1013
69	SLU 35	10.73	4.19	114.32	-0.7522	0.34	0.1008
69	SLU 36	10.87	3.96	114.57	-0.7391	0.3512	0.1023
69	SLU 37	10.71	4.23	114.14	-0.7537	0.3384	0.1006
69	SLU 38	10.85	3.99	114.39	-0.7406	0.3496	0.1021
69	SLU 39	10.93	3.37	114.15	-0.7088	0.358	0.1028
69	SLU 40	11.07	3.14	114.41	-0.6957	0.3692	0.1043
69	SLU 41	11.12	3.9	117.05	-0.7497	0.3598	0.1046
69	SLU 42	11.26	3.67	117.31	-0.7365	0.371	0.1061
69	SLU 43	9.92	2.66	108.19	-0.6571	0.3017	0.0924
69	SLU 44	10.15	2.27	108.62	-0.6352	0.3204	0.0949
69	SLU 45	10.14	3.15	111.27	-0.6965	0.3051	0.0945
69	SLU 46	10.28	2.92	111.52	-0.6833	0.3163	0.096
69	SLU 47	10.34	2.8	111.51	-0.676	0.3221	0.0967
69	SLU 48	10.33	3.68	114.16	-0.7374	0.3069	0.0962
69	SLU 49	10.47	3.45	114.42	-0.7242	0.318	0.0977
69	SLU 50	10.31	3.72	113.98	-0.7388	0.3053	0.096
69	SLU 51	10.45	3.48	114.24	-0.7257	0.3165	0.0975
69	SLU 52	11.57	2.75	122.18	-0.7211	0.3744	0.1085
69	SLU 53	11.56	3.63	124.83	-0.7824	0.3591	0.108
69	SLU 54	11.7	3.4	125.09	-0.7693	0.3703	0.1095
69	SLU 55	11.77	3.28	125.08	-0.762	0.3761	0.1103
69	SLU 56	11.75	4.16	127.73	-0.8233	0.3609	0.1098
69	SLU 57	11.89	3.93	127.98	-0.8102	0.372	0.1113
69	SLU 58	11.73	4.2	127.55	-0.8248	0.3593	0.1096
69	SLU 59	11.87	3.97	127.8	-0.8116	0.3705	0.1111
69	SLU 60	11.95	3.35	127.57	-0.7799	0.3789	0.1118
69	SLU 61	12.09	3.11	127.82	-0.7667	0.39	0.1133
69	SLU 62	12.14	3.88	130.46	-0.8207	0.3806	0.1136
69	SLU 63	12.28	3.64	130.72	-0.8076	0.3918	0.1151
69	SLU 64	10.92	3.16	117.33	-0.7208	0.3403	0.1021
69	SLU 65	11.15	2.77	117.76	-0.6989	0.359	0.1046
69	SLU 66	11.14	3.66	120.41	-0.7602	0.3437	0.1042



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
69	SLU 67	11.28	3.42	120.67	-0.7471	0.3549	0.1057
69	SLU 68	11.35	3.3	120.66	-0.7398	0.3608	0.1064
69	SLU 69	11.34	4.19	123.31	-0.8011	0.3455	0.106
69	SLU 70	11.47	3.95	123.56	-0.788	0.3567	0.1075
69	SLU 71	11.31	4.22	123.13	-0.8026	0.3439	0.1057
69	SLU 72	11.45	3.99	123.38	-0.7894	0.3551	0.1072
69	SLU 73	12.58	3.26	131.32	-0.7849	0.413	0.1182
69	SLU 74	12.56	4.14	133.97	-0.8462	0.3977	0.1178
69	SLU 75	12.7	3.91	134.23	-0.8331	0.4089	0.1193
69	SLU 76	12.77	3.79	134.22	-0.8258	0.4148	0.12
69	SLU 77	12.76	4.67	136.87	-0.8871	0.3995	0.1196
69	SLU 78	12.9	4.44	137.13	-0.8739	0.4107	0.1211
69	SLU 79	12.73	4.71	136.69	-0.8885	0.3979	0.1193
69	SLU 80	12.87	4.47	136.95	-0.8754	0.4091	0.1208
69	SLU 81	12.95	3.85	136.71	-0.8436	0.4175	0.1215
69	SLU 82	13.09	3.62	136.97	-0.8305	0.4287	0.1231
69	SLU 83	13.15	4.38	139.61	-0.8845	0.4193	0.1233
69	SLU 84	13.29	4.15	139.86	-0.8713	0.4304	0.1248
69	SLE RA 1	8.18	2.32	88.25	-0.5405	0.2533	0.0764
69	SLE RA 2	8.34	2.06	88.53	-0.5259	0.2657	0.0781
69	SLE RA 3	8.33	2.65	90.3	-0.5667	0.2555	0.0778
69	SLE RA 4	8.42	2.49	90.47	-0.558	0.263	0.0788
69	SLE RA 5	8.46	2.42	90.46	-0.5531	0.2669	0.0793
69	SLE RA 6	8.46	3	92.23	-0.594	0.2567	0.079
69	SLE RA 7	8.55	2.85	92.4	-0.5852	0.2642	0.08
69	SLE RA 8	8.44	3.03	92.11	-0.595	0.2557	0.0788
69	SLE RA 9	8.53	2.87	92.28	-0.5862	0.2631	0.0798
69	SLE RA 10	9.28	2.38	97.57	-0.5832	0.3017	0.0872
69	SLE RA 11	9.28	2.97	99.34	-0.624	0.2916	0.0869
69	SLE RA 12	9.37	2.82	99.51	-0.6153	0.299	0.0879
69	SLE RA 13	9.41	2.74	99.51	-0.6104	0.3029	0.0883
69	SLE RA 14	9.41	3.33	101.27	-0.6513	0.2927	0.088
69	SLE RA 15	9.5	3.17	101.44	-0.6425	0.3002	0.089
69	SLE RA 16	9.39	3.35	101.15	-0.6523	0.2917	0.0879
69	SLE RA 17	9.48	3.2	101.32	-0.6435	0.2991	0.0889
69	SLE RA 18	9.54	2.78	101.16	-0.6223	0.3047	0.0894
69	SLE RA 19	9.63	2.63	101.34	-0.6136	0.3122	0.0904
69	SLE RA 20	9.66	3.13	103.1	-0.6496	0.3059	0.0906
69	SLE RA 21	9.76	2.98	103.27	-0.6408	0.3134	0.0916
69	SLE FR 1	8.18	2.32	88.25	-0.5405	0.2533	0.0764
69	SLE FR 2	8.21	2.27	88.3	-0.5375	0.2558	0.0768
69	SLE FR 3	8.23	2.46	89.02	-0.5514	0.2538	0.0769
69	SLE FR 4	8.62	2.41	92.18	-0.5621	0.2712	0.0806
69	SLE FR 5	8.64	2.6	92.89	-0.5759	0.2692	0.0808
69	SLE FR 6	8.86	2.55	94.7	-0.5814	0.279	0.0829
69	SLE QP 1	8.18	2.32	88.25	-0.5405	0.2533	0.0764
69	SLE QP 2	8.59	2.46	92.12	-0.565	0.2687	0.0803
69	SLD 1	10.3	2.87	107.88	-0.5447	0.403	0.1002
69	SLD 2	10.3	2.87	107.88	-0.5447	0.403	0.1002
69	SLD 3	9.73	-0.33	100.56	-0.3613	0.3826	0.0942
69	SLD 4	9.73	-0.33	100.56	-0.3613	0.3826	0.0942
69	SLD 5	9.95	7.43	107.97	-0.837	0.3399	0.0955
69	SLD 6	9.95	7.43	107.97	-0.837	0.3399	0.0955
69	SLD 7	8.08	-3.23	83.54	-0.2259	0.272	0.0753
69	SLD 8	8.08	-3.23	83.54	-0.2259	0.272	0.0753
69	SLD 9	9.09	8.15	100.71	-0.9042	0.2655	0.0853
69	SLD 10	9.09	8.15	100.71	-0.9042	0.2655	0.0853
69	SLD 11	7.22	-2.52	76.28	-0.2931	0.1975	0.0652
69	SLD 12	7.22	-2.52	76.28	-0.2931	0.1975	0.0652
69	SLD 13	7.44	5.24	83.69	-0.7687	0.1549	0.0665
69	SLD 14	7.44	5.24	83.69	-0.7687	0.1549	0.0665
69	SLD 15	6.88	2.04	76.36	-0.5854	0.1345	0.0604
69	SLD 16	6.88	2.04	76.36	-0.5854	0.1345	0.0604
69	SLV 1	12.6	3.41	129.2	-0.517	0.5833	0.127
69	SLV 2	12.6	3.41	129.2	-0.517	0.5833	0.127
69	SLV 3	11.27	-4.07	111.89	-0.0869	0.5346	0.1127
69	SLV 4	11.27	-4.07	111.89	-0.0869	0.5346	0.1127
69	SLV 5	11.81	14.1	129.51	-1.2029	0.437	0.116
69	SLV 6	11.81	14.1	129.51	-1.2029	0.437	0.116
69	SLV 7	7.38	-10.85	71.79	0.2307	0.2746	0.0683
69	SLV 8	7.38	-10.85	71.79	0.2307	0.2746	0.0683
69	SLV 9	9.8	15.77	112.45	-1.3608	0.2629	0.0923
69	SLV 10	9.8	15.77	112.45	-1.3608	0.2629	0.0923
69	SLV 11	5.37	-9.18	54.73	0.0729	0.1005	0.0446
69	SLV 12	5.37	-9.18	54.73	0.0729	0.1005	0.0446
69	SLV 13	5.9	8.99	72.35	-1.0431	0.0029	0.0479
69	SLV 14	5.9	8.99	72.35	-1.0431	0.0029	0.0479
69	SLV 15	4.58	1.5	55.04	-0.613	-0.0458	0.0336
69	SLV 16	4.58	1.5	55.04	-0.613	-0.0458	0.0336
70	SLU 1	1.14	-0.03	23.58	0.0497	0.2358	-0.0142
70	SLU 2	1.57	-0.02	22.49	0.0494	0.2562	-0.0153
70	SLU 3	1.05	-0.04	24.76	0.052	0.2383	-0.0142
70	SLU 4	1.31	-0.04	24.1	0.0518	0.2505	-0.0149
70	SLU 5	1.46	-0.03	23.69	0.0516	0.2572	-0.0153
70	SLU 6	0.93	-0.05	25.96	0.0542	0.2393	-0.0142
70	SLU 7	1.19	-0.04	25.31	0.054	0.2515	-0.0148
70	SLU 8	0.91	-0.05	25.99	0.0541	0.2377	-0.0141



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
70	SLU 9	1.17	-0.05	25.33	0.0539	0.25	-0.0148
70	SLU 10	1.97	-0.01	25.58	0.0537	0.3009	-0.0186
70	SLU 11	1.45	-0.02	27.85	0.0563	0.283	-0.0175
70	SLU 12	1.71	-0.02	27.2	0.0561	0.2953	-0.0182
70	SLU 13	1.85	-0.01	26.79	0.0559	0.3019	-0.0185
70	SLU 14	1.33	-0.03	29.06	0.0585	0.284	-0.0174
70	SLU 15	1.59	-0.03	28.4	0.0583	0.2962	-0.0181
70	SLU 16	1.3	-0.03	29.08	0.0584	0.2824	-0.0174
70	SLU 17	1.57	-0.03	28.43	0.0582	0.2947	-0.018
70	SLU 18	1.71	-0.01	28	0.0558	0.2997	-0.0189
70	SLU 19	1.97	0	27.34	0.0556	0.3119	-0.0195
70	SLU 20	1.59	-0.02	29.2	0.058	0.3007	-0.0188
70	SLU 21	1.85	-0.01	28.55	0.0578	0.3129	-0.0195
70	SLU 22	1.6	-0.02	25.2	0.0519	0.2763	-0.017
70	SLU 23	2.04	-0.01	24.11	0.0515	0.2967	-0.0181
70	SLU 24	1.51	-0.03	26.38	0.0541	0.2788	-0.017
70	SLU 25	1.77	-0.02	25.72	0.0539	0.291	-0.0177
70	SLU 26	1.92	-0.02	25.31	0.0538	0.2976	-0.0181
70	SLU 27	1.4	-0.03	27.58	0.0563	0.2797	-0.017
70	SLU 28	1.66	-0.03	26.93	0.0561	0.292	-0.0177
70	SLU 29	1.37	-0.04	27.61	0.0563	0.2782	-0.0169
70	SLU 30	1.63	-0.03	26.96	0.0561	0.2904	-0.0176
70	SLU 31	2.43	0.01	27.2	0.0558	0.3414	-0.0214
70	SLU 32	1.91	-0.01	29.47	0.0584	0.3235	-0.0203
70	SLU 33	2.17	0	28.82	0.0582	0.3357	-0.021
70	SLU 34	2.32	0	28.41	0.058	0.3424	-0.0214
70	SLU 35	1.79	-0.02	30.68	0.0606	0.3245	-0.0203
70	SLU 36	2.05	-0.01	30.02	0.0604	0.3367	-0.0209
70	SLU 37	1.77	-0.02	30.7	0.0606	0.3229	-0.0202
70	SLU 38	2.03	-0.01	30.05	0.0604	0.3352	-0.0209
70	SLU 39	2.17	0.01	29.62	0.058	0.3402	-0.0217
70	SLU 40	2.43	0.01	28.96	0.0578	0.3524	-0.0224
70	SLU 41	2.05	0	30.82	0.0602	0.3411	-0.0216
70	SLU 42	2.31	0.01	30.17	0.06	0.3534	-0.0223
70	SLU 43	1.32	-0.05	30.09	0.0639	0.2927	-0.0175
70	SLU 44	1.76	-0.04	29	0.0636	0.3131	-0.0186
70	SLU 45	1.23	-0.06	31.27	0.0662	0.2952	-0.0175
70	SLU 46	1.49	-0.05	30.62	0.066	0.3074	-0.0182
70	SLU 47	1.64	-0.05	30.21	0.0658	0.314	-0.0185
70	SLU 48	1.12	-0.07	32.48	0.0684	0.2961	-0.0174
70	SLU 49	1.38	-0.06	31.83	0.0682	0.3084	-0.0181
70	SLU 50	1.09	-0.07	32.5	0.0683	0.2946	-0.0174
70	SLU 51	1.35	-0.06	31.85	0.0681	0.3068	-0.018
70	SLU 52	2.15	-0.02	32.1	0.0679	0.3578	-0.0219
70	SLU 53	1.63	-0.04	34.37	0.0704	0.3399	-0.0208
70	SLU 54	1.89	-0.03	33.71	0.0702	0.3521	-0.0215
70	SLU 55	2.04	-0.03	33.3	0.0701	0.3588	-0.0218
70	SLU 56	1.51	-0.05	35.57	0.0726	0.3409	-0.0207
70	SLU 57	1.77	-0.04	34.92	0.0725	0.3531	-0.0214
70	SLU 58	1.49	-0.05	35.6	0.0726	0.3393	-0.0206
70	SLU 59	1.75	-0.04	34.95	0.0724	0.3516	-0.0213
70	SLU 60	1.89	-0.02	34.51	0.07	0.3566	-0.0221
70	SLU 61	2.15	-0.02	33.86	0.0698	0.3688	-0.0228
70	SLU 62	1.77	-0.03	35.72	0.0722	0.3575	-0.0221
70	SLU 63	2.03	-0.03	35.07	0.072	0.3698	-0.0228
70	SLU 64	1.79	-0.03	31.71	0.0661	0.3331	-0.0203
70	SLU 65	2.22	-0.02	30.63	0.0657	0.3535	-0.0214
70	SLU 66	1.7	-0.04	32.89	0.0683	0.3356	-0.0203
70	SLU 67	1.96	-0.03	32.24	0.0681	0.3479	-0.021
70	SLU 68	2.1	-0.03	31.83	0.0679	0.3545	-0.0214
70	SLU 69	1.58	-0.05	34.1	0.0705	0.3366	-0.0203
70	SLU 70	1.84	-0.04	33.45	0.0703	0.3488	-0.0209
70	SLU 71	1.56	-0.05	34.13	0.0705	0.3351	-0.0202
70	SLU 72	1.82	-0.04	33.47	0.0703	0.3473	-0.0209
70	SLU 73	2.62	0	33.72	0.07	0.3983	-0.0247
70	SLU 74	2.09	-0.02	35.99	0.0726	0.3804	-0.0236
70	SLU 75	2.35	-0.02	35.34	0.0724	0.3926	-0.0243
70	SLU 76	2.5	-0.01	34.93	0.0722	0.3992	-0.0246
70	SLU 77	1.98	-0.03	37.19	0.0748	0.3813	-0.0235
70	SLU 78	2.24	-0.03	36.54	0.0746	0.3936	-0.0242
70	SLU 79	1.95	-0.03	37.22	0.0747	0.3798	-0.0235
70	SLU 80	2.21	-0.03	36.57	0.0745	0.392	-0.0241
70	SLU 81	2.35	-0.01	36.13	0.0722	0.397	-0.025
70	SLU 82	2.61	0	35.48	0.072	0.4093	-0.0256
70	SLU 83	2.24	-0.02	37.34	0.0744	0.398	-0.0249
70	SLU 84	2.5	-0.01	36.69	0.0742	0.4102	-0.0256
70	SLE RA 1	1.27	-0.03	24.04	0.0503	0.2474	-0.015
70	SLE RA 2	1.56	-0.02	23.31	0.0501	0.261	-0.0157
70	SLE RA 3	1.21	-0.03	24.83	0.0518	0.249	-0.015
70	SLE RA 4	1.39	-0.03	24.39	0.0517	0.2572	-0.0155
70	SLE RA 5	1.48	-0.03	24.12	0.0516	0.2616	-0.0157
70	SLE RA 6	1.14	-0.04	25.63	0.0533	0.2497	-0.015
70	SLE RA 7	1.31	-0.04	25.19	0.0532	0.2578	-0.0154
70	SLE RA 8	1.12	-0.04	25.65	0.0533	0.2486	-0.0149
70	SLE RA 9	1.29	-0.04	25.21	0.0531	0.2568	-0.0154
70	SLE RA 10	1.83	-0.01	25.38	0.053	0.2908	-0.0179
70	SLE RA 11	1.48	-0.02	26.89	0.0547	0.2789	-0.0172



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
70	SLE RA 12	1.65	-0.02	26.45	0.0546	0.287	-0.0176
70	SLE RA 13	1.75	-0.02	26.18	0.0544	0.2914	-0.0179
70	SLE RA 14	1.4	-0.03	27.69	0.0562	0.2795	-0.0172
70	SLE RA 15	1.57	-0.02	27.26	0.056	0.2877	-0.0176
70	SLE RA 16	1.38	-0.03	27.71	0.0561	0.2785	-0.0171
70	SLE RA 17	1.56	-0.02	27.27	0.056	0.2866	-0.0176
70	SLE RA 18	1.65	-0.01	26.99	0.0544	0.29	-0.0181
70	SLE RA 19	1.82	-0.01	26.55	0.0543	0.2981	-0.0186
70	SLE RA 20	1.57	-0.02	27.79	0.0559	0.2906	-0.0181
70	SLE RA 21	1.75	-0.01	27.35	0.0557	0.2988	-0.0185
70	SLE FR 1	1.27	-0.03	24.04	0.0503	0.2474	-0.015
70	SLE FR 2	1.33	-0.03	23.89	0.0503	0.2501	-0.0151
70	SLE FR 3	1.24	-0.03	24.36	0.0509	0.2476	-0.015
70	SLE FR 4	1.44	-0.02	24.78	0.0515	0.2629	-0.0161
70	SLE FR 5	1.35	-0.03	25.24	0.0521	0.2604	-0.0159
70	SLE FR 6	1.46	-0.02	25.51	0.0524	0.2687	-0.0165
70	SLE QP 1	1.27	-0.03	24.04	0.0503	0.2474	-0.015
70	SLE QP 2	1.39	-0.02	24.92	0.0516	0.2601	-0.0159
70	SLD 1	3.61	0.15	17.99	0.0204	0.4025	-0.0301
70	SLD 2	3.61	0.15	17.99	0.0204	0.4025	-0.0301
70	SLD 3	4.26	0.34	15.04	-0.0131	0.3645	-0.0229
70	SLD 4	4.26	0.34	15.04	-0.0131	0.3645	-0.0229
70	SLD 5	1.07	-0.25	27.31	0.0931	0.3605	-0.0312
70	SLD 6	1.07	-0.25	27.31	0.0931	0.3605	-0.0312
70	SLD 7	3.23	0.36	17.49	-0.0188	0.2338	-0.007
70	SLD 8	3.23	0.36	17.49	-0.0188	0.2338	-0.007
70	SLD 9	-0.46	-0.41	32.35	0.1219	0.2865	-0.0248
70	SLD 10	-0.46	-0.41	32.35	0.1219	0.2865	-0.0248
70	SLD 11	1.7	0.2	22.54	0.01	0.1598	-0.0007
70	SLD 12	1.7	0.2	22.54	0.01	0.1598	-0.0007
70	SLD 13	-1.49	-0.38	34.8	0.1163	0.1558	-0.0089
70	SLD 14	-1.49	-0.38	34.8	0.1163	0.1558	-0.0089
70	SLD 15	-0.84	-0.2	31.86	0.0827	0.1178	-0.0017
70	SLD 16	-0.84	-0.2	31.86	0.0827	0.1178	-0.0017
70	SLV 1	6.59	0.43	8.74	-0.0281	0.5938	-0.0503
70	SLV 2	6.59	0.43	8.74	-0.0281	0.5938	-0.0503
70	SLV 3	8.12	0.86	1.8	-0.1069	0.5039	-0.0332
70	SLV 4	8.12	0.86	1.8	-0.1069	0.5039	-0.0332
70	SLV 5	0.62	-0.54	30.6	0.1471	0.4965	-0.0521
70	SLV 6	0.62	-0.54	30.6	0.1471	0.4965	-0.0521
70	SLV 7	5.74	0.89	7.46	-0.1155	0.197	0.0047
70	SLV 8	5.74	0.89	7.46	-0.1155	0.197	0.0047
70	SLV 9	-2.96	-0.94	42.39	0.2186	0.3233	-0.0366
70	SLV 10	-2.96	-0.94	42.39	0.2186	0.3233	-0.0366
70	SLV 11	2.15	0.49	19.25	-0.044	0.0238	0.0203
70	SLV 12	2.15	0.49	19.25	-0.044	0.0238	0.0203
70	SLV 13	-5.35	-0.9	48.05	0.21	0.0164	0.0014
70	SLV 14	-5.35	-0.9	48.05	0.21	0.0164	0.0014
70	SLV 15	-3.82	-0.47	41.11	0.1313	-0.0735	0.0185
70	SLV 16	-3.82	-0.47	41.11	0.1313	-0.0735	0.0185
71	SLU 1	7.15	-0.02	39	0.0129	0.1657	-0.0012
71	SLU 2	7.25	-0.01	41.62	0.0126	0.1598	-0.001
71	SLU 3	7.24	-0.02	39.76	0.0135	0.1663	-0.0013
71	SLU 4	7.29	-0.02	41.33	0.0133	0.1627	-0.0012
71	SLU 5	7.26	-0.01	42.09	0.0131	0.1584	-0.0011
71	SLU 6	7.25	-0.02	40.23	0.014	0.1649	-0.0014
71	SLU 7	7.31	-0.02	41.8	0.0138	0.1613	-0.0013
71	SLU 8	7.18	-0.02	39.93	0.0139	0.1629	-0.0013
71	SLU 9	7.24	-0.02	41.51	0.0138	0.1593	-0.0012
71	SLU 10	8.26	-0.01	47.59	0.0145	0.1815	-0.0012
71	SLU 11	8.25	-0.02	45.73	0.0154	0.188	-0.0015
71	SLU 12	8.31	-0.02	47.3	0.0152	0.1845	-0.0014
71	SLU 13	8.28	-0.02	48.06	0.015	0.1801	-0.0013
71	SLU 14	8.27	-0.03	46.2	0.0159	0.1866	-0.0015
71	SLU 15	8.33	-0.02	47.77	0.0157	0.183	-0.0014
71	SLU 16	8.2	-0.03	45.91	0.0158	0.1846	-0.0015
71	SLU 17	8.26	-0.02	47.48	0.0157	0.1811	-0.0014
71	SLU 18	8.61	-0.02	47.53	0.0156	0.1968	-0.0015
71	SLU 19	8.66	-0.02	49.1	0.0154	0.1932	-0.0014
71	SLU 20	8.62	-0.03	48	0.0161	0.1954	-0.0015
71	SLU 21	8.68	-0.02	49.57	0.0159	0.1918	-0.0014
71	SLU 22	8.02	-0.02	43.93	0.0144	0.1855	-0.0014
71	SLU 23	8.12	-0.01	46.55	0.0141	0.1795	-0.0012
71	SLU 24	8.11	-0.02	44.69	0.0149	0.1861	-0.0014
71	SLU 25	8.17	-0.02	46.27	0.0148	0.1825	-0.0013
71	SLU 26	8.14	-0.02	47.02	0.0146	0.1781	-0.0012
71	SLU 27	8.12	-0.03	45.16	0.0155	0.1846	-0.0015
71	SLU 28	8.18	-0.02	46.74	0.0153	0.1811	-0.0014
71	SLU 29	8.06	-0.03	44.87	0.0154	0.1827	-0.0015
71	SLU 30	8.11	-0.02	46.44	0.0152	0.1791	-0.0014
71	SLU 31	9.14	-0.02	52.53	0.016	0.2013	-0.0014
71	SLU 32	9.13	-0.03	50.67	0.0168	0.2078	-0.0016
71	SLU 33	9.18	-0.02	52.24	0.0167	0.2042	-0.0015
71	SLU 34	9.15	-0.02	53	0.0165	0.1999	-0.0014
71	SLU 35	9.14	-0.03	51.14	0.0174	0.2064	-0.0017
71	SLU 36	9.2	-0.02	52.71	0.0172	0.2028	-0.0016
71	SLU 37	9.07	-0.03	50.85	0.0173	0.2044	-0.0017



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
71	SLU 38	9.13	-0.02	52.42	0.0171	0.2008	-0.0016
71	SLU 39	9.48	-0.03	52.47	0.0171	0.2165	-0.0016
71	SLU 40	9.54	-0.02	54.04	0.0169	0.213	-0.0015
71	SLU 41	9.49	-0.03	52.94	0.0176	0.2151	-0.0017
71	SLU 42	9.55	-0.02	54.51	0.0174	0.2115	-0.0016
71	SLU 43	9	-0.03	49	0.0162	0.2087	-0.0015
71	SLU 44	9.09	-0.02	51.62	0.016	0.2027	-0.0014
71	SLU 45	9.08	-0.03	49.76	0.0168	0.2092	-0.0016
71	SLU 46	9.14	-0.02	51.34	0.0167	0.2057	-0.0015
71	SLU 47	9.11	-0.02	52.09	0.0165	0.2013	-0.0014
71	SLU 48	9.1	-0.03	50.23	0.0174	0.2078	-0.0017
71	SLU 49	9.16	-0.02	51.8	0.0172	0.2042	-0.0016
71	SLU 50	9.03	-0.03	49.94	0.0173	0.2058	-0.0017
71	SLU 51	9.09	-0.02	51.51	0.0171	0.2023	-0.0016
71	SLU 52	10.11	-0.02	57.6	0.0179	0.2244	-0.0015
71	SLU 53	10.1	-0.03	55.74	0.0187	0.231	-0.0018
71	SLU 54	10.16	-0.03	57.31	0.0186	0.2274	-0.0017
71	SLU 55	10.13	-0.02	58.07	0.0184	0.223	-0.0016
71	SLU 56	10.12	-0.03	56.21	0.0192	0.2296	-0.0019
71	SLU 57	10.17	-0.03	57.78	0.0191	0.226	-0.0018
71	SLU 58	10.05	-0.03	55.91	0.0192	0.2276	-0.0018
71	SLU 59	10.1	-0.03	57.49	0.019	0.224	-0.0017
71	SLU 60	10.45	-0.03	57.54	0.0189	0.2397	-0.0018
71	SLU 61	10.51	-0.02	59.11	0.0188	0.2361	-0.0017
71	SLU 62	10.47	-0.03	58.01	0.0195	0.2383	-0.0019
71	SLU 63	10.52	-0.03	59.58	0.0193	0.2347	-0.0018
71	SLU 64	9.87	-0.03	53.94	0.0177	0.2284	-0.0017
71	SLU 65	9.97	-0.02	56.56	0.0175	0.2225	-0.0015
71	SLU 66	9.96	-0.03	54.7	0.0183	0.229	-0.0017
71	SLU 67	10.01	-0.02	56.27	0.0182	0.2254	-0.0016
71	SLU 68	9.98	-0.02	57.03	0.018	0.2211	-0.0016
71	SLU 69	9.97	-0.03	55.17	0.0188	0.2276	-0.0018
71	SLU 70	10.03	-0.03	56.74	0.0187	0.224	-0.0017
71	SLU 71	9.9	-0.03	54.88	0.0187	0.2256	-0.0018
71	SLU 72	9.96	-0.03	56.45	0.0186	0.222	-0.0017
71	SLU 73	10.98	-0.02	62.53	0.0194	0.2442	-0.0017
71	SLU 74	10.97	-0.03	60.68	0.0202	0.2507	-0.0019
71	SLU 75	11.03	-0.03	62.25	0.02	0.2472	-0.0018
71	SLU 76	11	-0.02	63	0.0199	0.2428	-0.0017
71	SLU 77	10.99	-0.03	61.14	0.0207	0.2493	-0.002
71	SLU 78	11.05	-0.03	62.72	0.0206	0.2457	-0.0019
71	SLU 79	10.92	-0.03	60.85	0.0206	0.2473	-0.002
71	SLU 80	10.98	-0.03	62.42	0.0205	0.2438	-0.0019
71	SLU 81	11.32	-0.03	62.48	0.0204	0.2595	-0.0019
71	SLU 82	11.38	-0.03	64.05	0.0203	0.2559	-0.0018
71	SLU 83	11.34	-0.03	62.94	0.0209	0.2581	-0.002
71	SLU 84	11.4	-0.03	64.52	0.0208	0.2545	-0.0019
71	SLE RA 1	7.4	-0.02	40.41	0.0133	0.1714	-0.0013
71	SLE RA 2	7.47	-0.02	42.15	0.0131	0.1674	-0.0011
71	SLE RA 3	7.46	-0.02	40.91	0.0137	0.1718	-0.0013
71	SLE RA 4	7.5	-0.02	41.96	0.0136	0.1694	-0.0012
71	SLE RA 5	7.48	-0.02	42.47	0.0135	0.1665	-0.0012
71	SLE RA 6	7.47	-0.02	41.23	0.014	0.1708	-0.0013
71	SLE RA 7	7.51	-0.02	42.27	0.0139	0.1684	-0.0013
71	SLE RA 8	7.42	-0.02	41.03	0.014	0.1695	-0.0013
71	SLE RA 9	7.46	-0.02	42.08	0.0139	0.1671	-0.0013
71	SLE RA 10	8.14	-0.02	46.14	0.0144	0.1819	-0.0013
71	SLE RA 11	8.14	-0.02	44.9	0.015	0.1862	-0.0014
71	SLE RA 12	8.17	-0.02	45.95	0.0149	0.1839	-0.0014
71	SLE RA 13	8.15	-0.02	46.45	0.0147	0.1809	-0.0013
71	SLE RA 14	8.15	-0.02	45.21	0.0153	0.1853	-0.0015
71	SLE RA 15	8.18	-0.02	46.26	0.0152	0.1829	-0.0014
71	SLE RA 16	8.1	-0.02	45.02	0.0152	0.184	-0.0015
71	SLE RA 17	8.14	-0.02	46.06	0.0152	0.1816	-0.0014
71	SLE RA 18	8.37	-0.02	46.1	0.0151	0.1921	-0.0014
71	SLE RA 19	8.41	-0.02	47.15	0.015	0.1897	-0.0014
71	SLE RA 20	8.38	-0.02	46.41	0.0154	0.1911	-0.0015
71	SLE RA 21	8.42	-0.02	47.46	0.0153	0.1887	-0.0014
71	SLE FR 1	7.4	-0.02	40.41	0.0133	0.1714	-0.0013
71	SLE FR 2	7.41	-0.02	40.76	0.0133	0.1706	-0.0012
71	SLE FR 3	7.41	-0.02	40.53	0.0134	0.171	-0.0013
71	SLE FR 4	7.71	-0.02	42.46	0.0138	0.1768	-0.0013
71	SLE FR 5	7.7	-0.02	42.24	0.014	0.1772	-0.0013
71	SLE FR 6	7.89	-0.02	43.25	0.0142	0.1817	-0.0013
71	SLE QP 1	7.4	-0.02	40.41	0.0133	0.1714	-0.0013
71	SLE QP 2	7.69	-0.02	42.11	0.0138	0.1776	-0.0013
71	SLD 1	13.9	0.06	60.72	-0.007	0.3959	0.0016
71	SLD 2	13.9	0.06	60.72	-0.007	0.3959	0.0016
71	SLD 3	12.82	-0.02	56.75	0.0132	0.363	-0.0013
71	SLD 4	12.82	-0.02	56.75	0.0132	0.363	-0.0013
71	SLD 5	11.2	0.12	53.72	-0.0231	0.2928	0.0039
71	SLD 6	11.2	0.12	53.72	-0.0231	0.2928	0.0039
71	SLD 7	7.58	-0.14	40.48	0.0444	0.1834	-0.0056
71	SLD 8	7.58	-0.14	40.48	0.0444	0.1834	-0.0056
71	SLD 9	7.8	0.1	43.75	-0.0167	0.1717	0.003
71	SLD 10	7.8	0.1	43.75	-0.0167	0.1717	0.003
71	SLD 11	4.18	-0.16	30.51	0.0508	0.0623	-0.0065



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
71	SLD 12	4.18	-0.16	30.51	0.0508	0.0623	-0.0065
71	SLD 13	2.57	-0.02	27.48	0.0144	-0.0079	-0.0013
71	SLD 14	2.57	-0.02	27.48	0.0144	-0.0079	-0.0013
71	SLD 15	1.48	-0.1	23.5	0.0347	-0.0407	-0.0042
71	SLD 16	1.48	-0.1	23.5	0.0347	-0.0407	-0.0042
71	SLV 1	22.26	0.17	85.76	-0.036	0.6893	0.0056
71	SLV 2	22.26	0.17	85.76	-0.036	0.6893	0.0056
71	SLV 3	19.63	-0.02	76.24	0.0127	0.6097	-0.0012
71	SLV 4	19.63	-0.02	76.24	0.0127	0.6097	-0.0012
71	SLV 5	16.05	0.32	69.65	-0.0749	0.4517	0.0111
71	SLV 6	16.05	0.32	69.65	-0.0749	0.4517	0.0111
71	SLV 7	7.29	-0.31	37.91	0.0873	0.1866	-0.0117
71	SLV 8	7.29	-0.31	37.91	0.0873	0.1866	-0.0117
71	SLV 9	8.1	0.27	46.32	-0.0596	0.1686	0.009
71	SLV 10	8.1	0.27	46.32	-0.0596	0.1686	0.009
71	SLV 11	-0.67	-0.37	14.58	0.1026	-0.0966	-0.0137
71	SLV 12	-0.67	-0.37	14.58	0.1026	-0.0966	-0.0137
71	SLV 13	-4.25	-0.02	7.99	0.015	-0.2546	-0.0014
71	SLV 14	-4.25	-0.02	7.99	0.015	-0.2546	-0.0014
71	SLV 15	-6.88	-0.21	-1.53	0.0636	-0.3341	-0.0082
71	SLV 16	-6.88	-0.21	-1.53	0.0636	-0.3341	-0.0082
72	SLU 1	3.87	-7.31	77.53	0.3757	0.0504	-0.0513
72	SLU 2	3.28	-8.12	83.96	0.405	0.0102	-0.0567
72	SLU 3	3.84	-7.46	79.18	0.3839	0.0463	-0.0524
72	SLU 4	3.49	-7.95	83.04	0.4015	0.0221	-0.0557
72	SLU 5	3.19	-8.24	85.1	0.4113	0.0039	-0.0576
72	SLU 6	3.75	-7.58	80.32	0.3903	0.04	-0.0533
72	SLU 7	3.4	-8.07	84.18	0.4078	0.0158	-0.0565
72	SLU 8	3.69	-7.54	79.81	0.3884	0.0379	-0.053
72	SLU 9	3.34	-8.03	83.67	0.406	0.0137	-0.0563
72	SLU 10	3.74	-9.01	95.52	0.4471	0.0162	-0.0629
72	SLU 11	4.3	-8.35	90.74	0.426	0.0524	-0.0586
72	SLU 12	3.94	-8.84	94.6	0.4436	0.0282	-0.0618
72	SLU 13	3.65	-9.13	96.66	0.4534	0.01	-0.0637
72	SLU 14	4.21	-8.47	91.88	0.4324	0.0461	-0.0595
72	SLU 15	3.85	-8.96	95.74	0.4499	0.0219	-0.0627
72	SLU 16	4.15	-8.43	91.37	0.4305	0.044	-0.0592
72	SLU 17	3.79	-8.92	95.23	0.4481	0.0198	-0.0625
72	SLU 18	4.53	-8.58	94.05	0.4358	0.0591	-0.0602
72	SLU 19	4.17	-9.06	97.91	0.4534	0.035	-0.0634
72	SLU 20	4.43	-8.69	95.19	0.4422	0.0529	-0.061
72	SLU 21	4.08	-9.18	99.05	0.4598	0.0287	-0.0642
72	SLU 22	4.3	-8.03	86.96	0.4093	0.0581	-0.0563
72	SLU 23	3.71	-8.84	93.4	0.4385	0.0178	-0.0617
72	SLU 24	4.27	-8.18	88.61	0.4175	0.0539	-0.0574
72	SLU 25	3.91	-8.67	92.47	0.435	0.0298	-0.0606
72	SLU 26	3.62	-8.96	94.54	0.4449	0.0116	-0.0625
72	SLU 27	4.17	-8.3	89.76	0.4238	0.0477	-0.0583
72	SLU 28	3.82	-8.79	93.61	0.4414	0.0235	-0.0615
72	SLU 29	4.12	-8.26	89.24	0.422	0.0456	-0.058
72	SLU 30	3.76	-8.75	93.1	0.4395	0.0214	-0.0612
72	SLU 31	4.16	-9.73	104.96	0.4806	0.0239	-0.0679
72	SLU 32	4.72	-9.07	100.18	0.4596	0.06	-0.0636
72	SLU 33	4.37	-9.56	104.04	0.4771	0.0359	-0.0668
72	SLU 34	4.07	-9.85	106.1	0.487	0.0176	-0.0687
72	SLU 35	4.63	-9.19	101.32	0.4659	0.0538	-0.0645
72	SLU 36	4.28	-9.68	105.18	0.4835	0.0296	-0.0677
72	SLU 37	4.57	-9.15	100.81	0.4641	0.0517	-0.0642
72	SLU 38	4.22	-9.64	104.67	0.4816	0.0275	-0.0674
72	SLU 39	4.95	-9.3	103.48	0.4694	0.0668	-0.0651
72	SLU 40	4.6	-9.78	107.34	0.487	0.0426	-0.0684
72	SLU 41	4.86	-9.41	104.62	0.4758	0.0605	-0.066
72	SLU 42	4.51	-9.9	108.48	0.4933	0.0364	-0.0692
72	SLU 43	4.89	-9.25	97.55	0.4769	0.0629	-0.065
72	SLU 44	4.3	-10.07	103.98	0.5062	0.0227	-0.0704
72	SLU 45	4.86	-9.41	99.2	0.4851	0.0588	-0.0661
72	SLU 46	4.5	-9.9	103.06	0.5027	0.0346	-0.0694
72	SLU 47	4.21	-10.18	105.12	0.5125	0.0164	-0.0712
72	SLU 48	4.77	-9.53	100.34	0.4915	0.0525	-0.067
72	SLU 49	4.41	-10.01	104.2	0.509	0.0283	-0.0702
72	SLU 50	4.71	-9.49	99.83	0.4896	0.0504	-0.0667
72	SLU 51	4.35	-9.98	103.69	0.5072	0.0262	-0.07
72	SLU 52	4.76	-10.95	115.55	0.5483	0.0287	-0.0766
72	SLU 53	5.31	-10.3	110.77	0.5272	0.0649	-0.0723
72	SLU 54	4.96	-10.78	114.63	0.5448	0.0407	-0.0755
72	SLU 55	4.67	-11.07	116.69	0.5546	0.0225	-0.0774
72	SLU 56	5.22	-10.41	111.91	0.5336	0.0586	-0.0732
72	SLU 57	4.87	-10.9	115.77	0.5511	0.0344	-0.0764
72	SLU 58	5.16	-10.38	111.39	0.5317	0.0565	-0.0729
72	SLU 59	4.81	-10.86	115.25	0.5493	0.0323	-0.0761
72	SLU 60	5.54	-10.52	114.07	0.537	0.0716	-0.0739
72	SLU 61	5.19	-11.01	117.93	0.5546	0.0475	-0.0771
72	SLU 62	5.45	-10.64	115.21	0.5434	0.0654	-0.0747
72	SLU 63	5.1	-11.13	119.07	0.561	0.0412	-0.0779
72	SLU 64	5.31	-9.97	106.99	0.5105	0.0706	-0.07
72	SLU 65	4.73	-10.79	113.42	0.5397	0.0303	-0.0754
72	SLU 66	5.28	-10.13	108.64	0.5187	0.0664	-0.0711



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLU 67	4.93	-10.62	112.5	0.5362	0.0423	-0.0743
72	SLU 68	4.63	-10.9	114.56	0.5461	0.0241	-0.0762
72	SLU 69	5.19	-10.25	109.78	0.525	0.0602	-0.072
72	SLU 70	4.84	-10.73	113.64	0.5426	0.036	-0.0752
72	SLU 71	5.13	-10.21	109.27	0.5232	0.0581	-0.0717
72	SLU 72	4.78	-10.7	113.13	0.5407	0.0339	-0.0749
72	SLU 73	5.18	-11.67	124.98	0.5818	0.0364	-0.0816
72	SLU 74	5.74	-11.02	120.2	0.5608	0.0725	-0.0773
72	SLU 75	5.38	-11.5	124.06	0.5783	0.0484	-0.0805
72	SLU 76	5.09	-11.79	126.12	0.5882	0.0302	-0.0824
72	SLU 77	5.65	-11.13	121.34	0.5671	0.0663	-0.0782
72	SLU 78	5.29	-11.62	125.2	0.5847	0.0421	-0.0814
72	SLU 79	5.59	-11.1	120.83	0.5653	0.0642	-0.0779
72	SLU 80	5.23	-11.58	124.69	0.5828	0.04	-0.0811
72	SLU 81	5.97	-11.24	123.5	0.5706	0.0793	-0.0788
72	SLU 82	5.61	-11.73	127.36	0.5882	0.0551	-0.0821
72	SLU 83	5.88	-11.36	124.64	0.577	0.073	-0.0797
72	SLU 84	5.52	-11.85	128.5	0.5945	0.0489	-0.0829
72	SLE RA 1	3.99	-7.51	80.22	0.3853	0.0526	-0.0527
72	SLE RA 2	3.6	-8.05	84.51	0.4048	0.0258	-0.0563
72	SLE RA 3	3.97	-7.62	81.32	0.3908	0.0499	-0.0535
72	SLE RA 4	3.74	-7.94	83.9	0.4025	0.0337	-0.0556
72	SLE RA 5	3.54	-8.13	85.27	0.409	0.0216	-0.0569
72	SLE RA 6	3.91	-7.7	82.08	0.395	0.0457	-0.0541
72	SLE RA 7	3.68	-8.02	84.66	0.4067	0.0296	-0.0562
72	SLE RA 8	3.87	-7.67	81.74	0.3938	0.0443	-0.0539
72	SLE RA 9	3.64	-8	84.32	0.4055	0.0282	-0.056
72	SLE RA 10	3.91	-8.65	92.22	0.4329	0.0298	-0.0605
72	SLE RA 11	4.28	-8.21	89.03	0.4188	0.0539	-0.0576
72	SLE RA 12	4.04	-8.53	91.61	0.4305	0.0378	-0.0598
72	SLE RA 13	3.85	-8.73	92.98	0.4371	0.0257	-0.061
72	SLE RA 14	4.22	-8.29	89.79	0.4231	0.0497	-0.0582
72	SLE RA 15	3.98	-8.61	92.37	0.4348	0.0336	-0.0603
72	SLE RA 16	4.18	-8.26	89.45	0.4218	0.0483	-0.058
72	SLE RA 17	3.94	-8.59	92.03	0.4335	0.0322	-0.0602
72	SLE RA 18	4.43	-8.36	91.24	0.4254	0.0584	-0.0586
72	SLE RA 19	4.19	-8.68	93.81	0.4371	0.0423	-0.0608
72	SLE RA 20	4.37	-8.44	92	0.4296	0.0543	-0.0592
72	SLE RA 21	4.13	-8.76	94.57	0.4413	0.0381	-0.0614
72	SLE FR 1	3.99	-7.51	80.22	0.3853	0.0526	-0.0527
72	SLE FR 2	3.92	-7.62	81.08	0.3892	0.0473	-0.0535
72	SLE FR 3	3.97	-7.54	80.53	0.387	0.051	-0.053
72	SLE FR 4	4.05	-7.87	84.38	0.4012	0.049	-0.0552
72	SLE FR 5	4.1	-7.8	83.83	0.399	0.0527	-0.0547
72	SLE FR 6	4.21	-7.94	85.73	0.4053	0.0555	-0.0557
72	SLE QP 1	3.99	-7.51	80.22	0.3853	0.0526	-0.0527
72	SLE QP 2	4.13	-7.77	83.53	0.3973	0.0544	-0.0545
72	SLD 1	10.99	-10	107.13	0.3552	0.4014	-0.0501
72	SLD 2	10.99	-10	107.13	0.3552	0.4014	-0.0501
72	SLD 3	9.8	-8.47	98.91	0.287	0.3434	-0.0404
72	SLD 4	9.8	-8.47	98.91	0.287	0.3434	-0.0404
72	SLD 5	8	-10.76	103.08	0.4881	0.2465	-0.0681
72	SLD 6	8	-10.76	103.08	0.4881	0.2465	-0.0681
72	SLD 7	4.01	-5.66	75.67	0.2608	0.053	-0.0354
72	SLD 8	4.01	-5.66	75.67	0.2608	0.053	-0.0354
72	SLD 9	4.24	-9.88	91.38	0.5339	0.0557	-0.0736
72	SLD 10	4.24	-9.88	91.38	0.5339	0.0557	-0.0736
72	SLD 11	0.25	-4.78	63.98	0.3065	-0.1378	-0.041
72	SLD 12	0.25	-4.78	63.98	0.3065	-0.1378	-0.041
72	SLD 13	-1.55	-7.07	68.14	0.5076	-0.2346	-0.0687
72	SLD 14	-1.55	-7.07	68.14	0.5076	-0.2346	-0.0687
72	SLD 15	-2.74	-5.54	59.92	0.4394	-0.2927	-0.0589
72	SLD 16	-2.74	-5.54	59.92	0.4394	-0.2927	-0.0589
72	SLV 1	20.24	-13.01	138.98	0.2987	0.8687	-0.0443
72	SLV 2	20.24	-13.01	138.98	0.2987	0.8687	-0.0443
72	SLV 3	17.31	-9.4	119.32	0.1388	0.7269	-0.0212
72	SLV 4	17.31	-9.4	119.32	0.1388	0.7269	-0.0212
72	SLV 5	13.4	-14.82	129.99	0.6102	0.5137	-0.0864
72	SLV 6	13.4	-14.82	129.99	0.6102	0.5137	-0.0864
72	SLV 7	3.64	-2.78	64.43	0.0772	0.0411	-0.0096
72	SLV 8	3.64	-2.78	64.43	0.0772	0.0411	-0.0096
72	SLV 9	4.61	-12.76	102.62	0.7174	0.0677	-0.0995
72	SLV 10	4.61	-12.76	102.62	0.7174	0.0677	-0.0995
72	SLV 11	-5.15	-0.72	37.06	0.1844	-0.405	-0.0226
72	SLV 12	-5.15	-0.72	37.06	0.1844	-0.405	-0.0226
72	SLV 13	-9.06	-6.14	47.74	0.6558	-0.6181	-0.0878
72	SLV 14	-9.06	-6.14	47.74	0.6558	-0.6181	-0.0878
72	SLV 15	-11.99	-2.53	28.07	0.496	-0.7599	-0.0647
72	SLV 16	-11.99	-2.53	28.07	0.496	-0.7599	-0.0647
73	SLU 1	-0.19	-0.07	39.05	0.0073	-0.0072	-0.0001
73	SLU 2	-1.29	-0.08	42.06	0.0137	-0.0568	-0.0002
73	SLU 3	-0.34	-0.07	39.89	0.0074	-0.0144	-0.0001
73	SLU 4	-1	-0.08	41.69	0.0112	-0.0441	-0.0002
73	SLU 5	-1.49	-0.08	42.63	0.0138	-0.0657	-0.0002
73	SLU 6	-0.53	-0.07	40.45	0.0074	-0.0233	-0.0001
73	SLU 7	-1.2	-0.08	42.26	0.0112	-0.053	-0.0002
73	SLU 8	-0.57	-0.07	40.19	0.0074	-0.0251	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
73	SLU 9	-1.24	-0.08	41.99	0.0113	-0.0548	-0.0002
73	SLU 10	-1.47	-0.09	47.87	0.0148	-0.0649	-0.0002
73	SLU 11	-0.52	-0.08	45.7	0.0084	-0.0225	-0.0001
73	SLU 12	-1.18	-0.09	47.5	0.0122	-0.0522	-0.0002
73	SLU 13	-1.67	-0.09	48.44	0.0148	-0.0738	-0.0002
73	SLU 14	-0.71	-0.08	46.26	0.0084	-0.0314	-0.0001
73	SLU 15	-1.37	-0.09	48.07	0.0123	-0.0611	-0.0002
73	SLU 16	-0.75	-0.08	46	0.0084	-0.0332	-0.0001
73	SLU 17	-1.41	-0.09	47.8	0.0123	-0.0629	-0.0002
73	SLU 18	-0.44	-0.08	47.36	0.0088	-0.0188	-0.0001
73	SLU 19	-1.1	-0.09	49.16	0.0126	-0.0485	-0.0002
73	SLU 20	-0.63	-0.08	47.92	0.0088	-0.0277	-0.0001
73	SLU 21	-1.3	-0.09	49.73	0.0127	-0.0575	-0.0002
73	SLU 22	-0.26	-0.08	43.77	0.0082	-0.0105	-0.0001
73	SLU 23	-1.37	-0.09	46.77	0.0146	-0.06	-0.0002
73	SLU 24	-0.42	-0.08	44.6	0.0082	-0.0176	-0.0001
73	SLU 25	-1.08	-0.08	46.4	0.012	-0.0473	-0.0002
73	SLU 26	-1.57	-0.09	47.34	0.0146	-0.069	-0.0002
73	SLU 27	-0.61	-0.08	45.17	0.0082	-0.0265	-0.0001
73	SLU 28	-1.28	-0.08	46.97	0.0121	-0.0563	-0.0002
73	SLU 29	-0.65	-0.08	44.9	0.0082	-0.0284	-0.0001
73	SLU 30	-1.31	-0.08	46.7	0.0121	-0.0581	-0.0002
73	SLU 31	-1.55	-0.1	52.58	0.0156	-0.0681	-0.0002
73	SLU 32	-0.59	-0.08	50.41	0.0092	-0.0257	-0.0001
73	SLU 33	-1.26	-0.09	52.21	0.013	-0.0554	-0.0002
73	SLU 34	-1.74	-0.1	53.15	0.0156	-0.0771	-0.0002
73	SLU 35	-0.79	-0.08	50.98	0.0092	-0.0347	-0.0001
73	SLU 36	-1.45	-0.09	52.78	0.0131	-0.0644	-0.0001
73	SLU 37	-0.83	-0.08	50.71	0.0092	-0.0365	-0.0001
73	SLU 38	-1.49	-0.09	52.52	0.0131	-0.0662	-0.0001
73	SLU 39	-0.52	-0.09	52.07	0.0096	-0.0221	-0.0001
73	SLU 40	-1.18	-0.1	53.87	0.0134	-0.0518	-0.0002
73	SLU 41	-0.71	-0.09	52.64	0.0096	-0.031	-0.0001
73	SLU 42	-1.38	-0.1	54.44	0.0135	-0.0607	-0.0001
73	SLU 43	-0.21	-0.09	49.16	0.0092	-0.0083	-0.0001
73	SLU 44	-1.32	-0.1	52.16	0.0156	-0.0578	-0.0002
73	SLU 45	-0.37	-0.09	49.99	0.0093	-0.0154	-0.0001
73	SLU 46	-1.03	-0.1	51.79	0.0131	-0.0451	-0.0002
73	SLU 47	-1.52	-0.1	52.73	0.0157	-0.0668	-0.0002
73	SLU 48	-0.56	-0.09	50.55	0.0093	-0.0243	-0.0001
73	SLU 49	-1.23	-0.1	52.36	0.0132	-0.0541	-0.0002
73	SLU 50	-0.6	-0.09	50.29	0.0093	-0.0262	-0.0001
73	SLU 51	-1.27	-0.1	52.09	0.0132	-0.0559	-0.0002
73	SLU 52	-1.5	-0.11	57.97	0.0167	-0.0659	-0.0002
73	SLU 53	-0.55	-0.1	55.8	0.0103	-0.0235	-0.0001
73	SLU 54	-1.21	-0.1	57.6	0.0141	-0.0532	-0.0002
73	SLU 55	-1.69	-0.11	58.54	0.0167	-0.0749	-0.0002
73	SLU 56	-0.74	-0.1	56.36	0.0103	-0.0324	-0.0001
73	SLU 57	-1.4	-0.1	58.17	0.0142	-0.0622	-0.0002
73	SLU 58	-0.78	-0.09	56.1	0.0103	-0.0343	-0.0001
73	SLU 59	-1.44	-0.1	57.9	0.0142	-0.064	-0.0002
73	SLU 60	-0.47	-0.1	57.46	0.0107	-0.0199	-0.0001
73	SLU 61	-1.13	-0.11	59.26	0.0145	-0.0496	-0.0002
73	SLU 62	-0.66	-0.1	58.02	0.0107	-0.0288	-0.0001
73	SLU 63	-1.33	-0.11	59.83	0.0146	-0.0585	-0.0002
73	SLU 64	-0.29	-0.09	53.87	0.0101	-0.0116	-0.0001
73	SLU 65	-1.4	-0.11	56.87	0.0165	-0.0611	-0.0002
73	SLU 66	-0.45	-0.09	54.7	0.0101	-0.0187	-0.0001
73	SLU 67	-1.11	-0.1	56.5	0.0139	-0.0484	-0.0002
73	SLU 68	-1.59	-0.11	57.44	0.0165	-0.07	-0.0002
73	SLU 69	-0.64	-0.09	55.27	0.0101	-0.0276	-0.0001
73	SLU 70	-1.3	-0.1	57.07	0.014	-0.0573	-0.0002
73	SLU 71	-0.68	-0.09	55	0.0101	-0.0294	-0.0001
73	SLU 72	-1.34	-0.1	56.81	0.014	-0.0591	-0.0002
73	SLU 73	-1.58	-0.12	62.68	0.0175	-0.0692	-0.0002
73	SLU 74	-0.62	-0.1	60.51	0.0111	-0.0268	-0.0001
73	SLU 75	-1.29	-0.11	62.31	0.015	-0.0565	-0.0002
73	SLU 76	-1.77	-0.12	63.25	0.0175	-0.0781	-0.0002
73	SLU 77	-0.82	-0.1	61.08	0.0111	-0.0357	-0.0001
73	SLU 78	-1.48	-0.11	62.88	0.015	-0.0654	-0.0002
73	SLU 79	-0.86	-0.1	60.81	0.0112	-0.0375	-0.0001
73	SLU 80	-1.52	-0.11	62.62	0.015	-0.0672	-0.0002
73	SLU 81	-0.55	-0.1	62.17	0.0115	-0.0231	-0.0001
73	SLU 82	-1.21	-0.11	63.97	0.0154	-0.0529	-0.0002
73	SLU 83	-0.74	-0.1	62.74	0.0115	-0.0321	-0.0001
73	SLU 84	-1.4	-0.11	64.54	0.0154	-0.0618	-0.0002
73	SLE RA 1	-0.21	-0.07	40.4	0.0076	-0.0082	-0.0001
73	SLE RA 2	-0.95	-0.08	42.4	0.0118	-0.0412	-0.0002
73	SLE RA 3	-0.31	-0.07	40.95	0.0076	-0.0129	-0.0001
73	SLE RA 4	-0.75	-0.08	42.16	0.0101	-0.0327	-0.0001
73	SLE RA 5	-1.08	-0.08	42.78	0.0119	-0.0471	-0.0002
73	SLE RA 6	-0.44	-0.07	41.33	0.0076	-0.0189	-0.0001
73	SLE RA 7	-0.88	-0.08	42.53	0.0102	-0.0387	-0.0001
73	SLE RA 8	-0.46	-0.07	41.16	0.0076	-0.0201	-0.0001
73	SLE RA 9	-0.91	-0.08	42.36	0.0102	-0.0399	-0.0001
73	SLE RA 10	-1.07	-0.09	46.28	0.0125	-0.0466	-0.0002
73	SLE RA 11	-0.43	-0.08	44.83	0.0083	-0.0183	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
73	SLE RA 12	-0.87	-0.08	46.03	0.0108	-0.0381	-0.0001
73	SLE RA 13	-1.19	-0.09	46.66	0.0125	-0.0525	-0.0002
73	SLE RA 14	-0.56	-0.08	45.21	0.0083	-0.0243	-0.0001
73	SLE RA 15	-1	-0.08	46.41	0.0108	-0.0441	-0.0001
73	SLE RA 16	-0.58	-0.08	45.03	0.0083	-0.0255	-0.0001
73	SLE RA 17	-1.03	-0.08	46.23	0.0109	-0.0453	-0.0001
73	SLE RA 18	-0.38	-0.08	45.94	0.0085	-0.0159	-0.0001
73	SLE RA 19	-0.82	-0.08	47.14	0.0111	-0.0357	-0.0001
73	SLE RA 20	-0.51	-0.08	46.31	0.0085	-0.0218	-0.0001
73	SLE RA 21	-0.95	-0.08	47.52	0.0111	-0.0417	-0.0001
73	SLE FR 1	-0.21	-0.07	40.4	0.0076	-0.0082	-0.0001
73	SLE FR 2	-0.36	-0.07	40.8	0.0084	-0.0148	-0.0001
73	SLE FR 3	-0.26	-0.07	40.55	0.0076	-0.0106	-0.0001
73	SLE FR 4	-0.41	-0.07	42.46	0.0087	-0.0171	-0.0001
73	SLE FR 5	-0.31	-0.07	42.21	0.0079	-0.0129	-0.0001
73	SLE FR 6	-0.29	-0.07	43.17	0.008	-0.012	-0.0001
73	SLE QP 1	-0.21	-0.07	40.4	0.0076	-0.0082	-0.0001
73	SLE QP 2	-0.26	-0.07	42.06	0.0078	-0.0105	-0.0001
73	SLD 1	6.77	-0.12	50.17	0.022	0.3295	-0.0001
73	SLD 2	6.77	-0.12	50.17	0.022	0.3295	-0.0001
73	SLD 3	5.41	-0.07	46.44	0.009	0.2702	0.0001
73	SLD 4	5.41	-0.07	46.44	0.009	0.2702	0.0001
73	SLD 5	3.92	-0.15	50.16	0.0318	0.1814	-0.0005
73	SLD 6	3.92	-0.15	50.16	0.0318	0.1814	-0.0005
73	SLD 7	-0.63	-0.01	37.71	-0.0116	-0.0162	0.0003
73	SLD 8	-0.63	-0.01	37.71	-0.0116	-0.0162	0.0003
73	SLD 9	0.11	-0.14	46.42	0.0273	-0.0048	-0.0005
73	SLD 10	0.11	-0.14	46.42	0.0273	-0.0048	-0.0005
73	SLD 11	-4.43	0.01	33.96	-0.0161	-0.2024	0.0003
73	SLD 12	-4.43	0.01	33.96	-0.0161	-0.2024	0.0003
73	SLD 13	-5.92	-0.07	37.69	0.0067	-0.2912	-0.0003
73	SLD 14	-5.92	-0.07	37.69	0.0067	-0.2912	-0.0003
73	SLD 15	-7.29	-0.03	33.95	-0.0063	-0.3505	-0.0001
73	SLD 16	-7.29	-0.03	33.95	-0.0063	-0.3505	-0.0001
73	SLV 1	16.22	-0.18	61.15	0.0422	0.7864	-0.0001
73	SLV 2	16.22	-0.18	61.15	0.0422	0.7864	-0.0001
73	SLV 3	12.94	-0.08	52.21	0.0105	0.6435	0.0005
73	SLV 4	12.94	-0.08	52.21	0.0105	0.6435	0.0005
73	SLV 5	9.66	-0.26	61.35	0.0663	0.4454	-0.001
73	SLV 6	9.66	-0.26	61.35	0.0663	0.4454	-0.001
73	SLV 7	-1.28	0.08	31.55	-0.0395	-0.0311	0.001
73	SLV 8	-1.28	0.08	31.55	-0.0395	-0.0311	0.001
73	SLV 9	0.76	-0.23	52.58	0.0552	0.0101	-0.0012
73	SLV 10	0.76	-0.23	52.58	0.0552	0.0101	-0.0012
73	SLV 11	-10.18	0.11	22.77	-0.0506	-0.4663	0.0008
73	SLV 12	-10.18	0.11	22.77	-0.0506	-0.4663	0.0008
73	SLV 13	-13.45	-0.07	31.91	0.0052	-0.6644	-0.0007
73	SLV 14	-13.45	-0.07	31.91	0.0052	-0.6644	-0.0007
73	SLV 15	-16.73	0.03	22.97	-0.0265	-0.8074	-0.0001
73	SLV 16	-16.73	0.03	22.97	-0.0265	-0.8074	-0.0001
74	SLU 1	0.7	0.05	35.67	-0.0145	0.0646	0.0001
74	SLU 2	-0.23	0.02	38.1	-0.0069	0.0271	-0.0001
74	SLU 3	0.56	0.05	36.37	-0.0149	0.0597	0.0001
74	SLU 4	0	0.03	37.82	-0.0103	0.0372	0
74	SLU 5	-0.42	0.02	38.53	-0.0071	0.0201	-0.0001
74	SLU 6	0.37	0.05	36.81	-0.015	0.0528	0.0001
74	SLU 7	-0.19	0.03	38.26	-0.0105	0.0303	0
74	SLU 8	0.32	0.05	36.55	-0.0148	0.0507	0.0001
74	SLU 9	-0.23	0.03	38	-0.0102	0.0282	0
74	SLU 10	-0.25	0.03	43.25	-0.0088	0.0329	-0.0001
74	SLU 11	0.54	0.06	41.53	-0.0167	0.0655	0.0001
74	SLU 12	-0.01	0.04	42.98	-0.0122	0.0431	0
74	SLU 13	-0.44	0.03	43.69	-0.0089	0.0259	-0.0001
74	SLU 14	0.36	0.06	41.96	-0.0168	0.0586	0.0001
74	SLU 15	-0.2	0.04	43.42	-0.0123	0.0361	0
74	SLU 16	0.31	0.06	41.7	-0.0166	0.0565	0.0001
74	SLU 17	-0.25	0.04	43.16	-0.0121	0.034	0
74	SLU 18	0.68	0.06	43.04	-0.0171	0.0729	0.0001
74	SLU 19	0.12	0.04	44.49	-0.0126	0.0504	0
74	SLU 20	0.49	0.06	43.48	-0.0173	0.0659	0.0001
74	SLU 21	-0.07	0.04	44.93	-0.0127	0.0434	0
74	SLU 22	0.76	0.05	39.86	-0.0161	0.072	0.0001
74	SLU 23	-0.18	0.03	42.28	-0.0085	0.0345	-0.0001
74	SLU 24	0.62	0.05	40.56	-0.0164	0.0672	0.0001
74	SLU 25	0.06	0.04	42.01	-0.0119	0.0447	0
74	SLU 26	-0.36	0.03	42.72	-0.0086	0.0276	-0.0001
74	SLU 27	0.43	0.06	40.99	-0.0166	0.0602	0.0001
74	SLU 28	-0.13	0.04	42.45	-0.012	0.0377	0
74	SLU 29	0.38	0.06	40.74	-0.0164	0.0581	0.0001
74	SLU 30	-0.18	0.04	42.19	-0.0118	0.0356	0
74	SLU 31	-0.19	0.03	47.44	-0.0103	0.0403	0
74	SLU 32	0.6	0.06	45.71	-0.0183	0.073	0.0001
74	SLU 33	0.04	0.05	47.17	-0.0137	0.0505	0
74	SLU 34	-0.38	0.03	47.87	-0.0105	0.0334	0
74	SLU 35	0.41	0.06	46.15	-0.0184	0.0661	0.0001
74	SLU 36	-0.15	0.05	47.6	-0.0139	0.0436	0
74	SLU 37	0.36	0.06	45.89	-0.0182	0.0639	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
74	SLU 38	-0.2	0.05	47.34	-0.0136	0.0414	0
74	SLU 39	0.73	0.06	47.23	-0.0187	0.0803	0.0001
74	SLU 40	0.17	0.05	48.68	-0.0141	0.0578	0
74	SLU 41	0.54	0.06	47.66	-0.0188	0.0734	0.0001
74	SLU 42	-0.02	0.05	49.12	-0.0143	0.0509	0
74	SLU 43	0.9	0.06	44.94	-0.0183	0.0814	0.0001
74	SLU 44	-0.04	0.03	47.36	-0.0107	0.0439	-0.0001
74	SLU 45	0.75	0.06	45.64	-0.0187	0.0765	0.0001
74	SLU 46	0.2	0.05	47.09	-0.0141	0.054	0
74	SLU 47	-0.23	0.03	47.8	-0.0109	0.0369	0
74	SLU 48	0.56	0.06	46.07	-0.0188	0.0696	0.0001
74	SLU 49	0.01	0.05	47.53	-0.0143	0.0471	0
74	SLU 50	0.52	0.06	45.82	-0.0186	0.0675	0.0001
74	SLU 51	-0.04	0.05	47.27	-0.0141	0.045	0
74	SLU 52	-0.05	0.04	52.52	-0.0126	0.0497	0
74	SLU 53	0.74	0.07	50.79	-0.0205	0.0824	0.0001
74	SLU 54	0.18	0.05	52.25	-0.016	0.0599	0
74	SLU 55	-0.24	0.04	52.95	-0.0127	0.0428	0
74	SLU 56	0.55	0.07	51.23	-0.0207	0.0754	0.0001
74	SLU 57	-0.01	0.05	52.68	-0.0161	0.0529	0
74	SLU 58	0.5	0.07	50.97	-0.0204	0.0733	0.0001
74	SLU 59	-0.06	0.05	52.42	-0.0159	0.0508	0
74	SLU 60	0.87	0.07	52.31	-0.0209	0.0897	0.0001
74	SLU 61	0.31	0.05	53.76	-0.0164	0.0672	0
74	SLU 62	0.68	0.07	52.74	-0.0211	0.0827	0.0001
74	SLU 63	0.12	0.05	54.2	-0.0165	0.0602	0
74	SLU 64	0.95	0.06	49.13	-0.0199	0.0888	0.0001
74	SLU 65	0.02	0.04	51.55	-0.0123	0.0513	0
74	SLU 66	0.81	0.07	49.82	-0.0203	0.084	0.0001
74	SLU 67	0.25	0.05	51.28	-0.0157	0.0615	0
74	SLU 68	-0.17	0.04	51.99	-0.0124	0.0444	0
74	SLU 69	0.62	0.07	50.26	-0.0204	0.077	0.0001
74	SLU 70	0.06	0.05	51.71	-0.0158	0.0546	0
74	SLU 71	0.57	0.07	50	-0.0202	0.0749	0.0001
74	SLU 72	0.01	0.05	51.45	-0.0156	0.0524	0
74	SLU 73	0	0.05	56.7	-0.0141	0.0572	0
74	SLU 74	0.79	0.07	54.98	-0.0221	0.0898	0.0002
74	SLU 75	0.23	0.06	56.43	-0.0175	0.0673	0
74	SLU 76	-0.19	0.05	57.14	-0.0143	0.0502	0
74	SLU 77	0.6	0.07	55.42	-0.0222	0.0829	0.0002
74	SLU 78	0.04	0.06	56.87	-0.0177	0.0604	0.0001
74	SLU 79	0.55	0.07	55.16	-0.022	0.0807	0.0002
74	SLU 80	-0.01	0.06	56.61	-0.0174	0.0583	0.0001
74	SLU 81	0.93	0.07	56.49	-0.0225	0.0971	0.0002
74	SLU 82	0.37	0.06	57.95	-0.018	0.0746	0.0001
74	SLU 83	0.74	0.08	56.93	-0.0226	0.0902	0.0002
74	SLU 84	0.18	0.06	58.38	-0.0181	0.0677	0.0001
74	SLE RA 1	0.72	0.05	36.87	-0.015	0.0667	0.0001
74	SLE RA 2	0.1	0.03	38.48	-0.0099	0.0417	0
74	SLE RA 3	0.62	0.05	37.33	-0.0152	0.0635	0.0001
74	SLE RA 4	0.25	0.04	38.3	-0.0122	0.0485	0
74	SLE RA 5	-0.03	0.03	38.78	-0.01	0.0371	0
74	SLE RA 6	0.5	0.05	37.63	-0.0153	0.0588	0.0001
74	SLE RA 7	0.12	0.04	38.59	-0.0123	0.0438	0
74	SLE RA 8	0.47	0.05	37.45	-0.0151	0.0574	0.0001
74	SLE RA 9	0.09	0.04	38.42	-0.0121	0.0424	0
74	SLE RA 10	0.09	0.04	41.92	-0.0111	0.0456	0
74	SLE RA 11	0.61	0.05	40.77	-0.0164	0.0673	0.0001
74	SLE RA 12	0.24	0.04	41.74	-0.0134	0.0524	0
74	SLE RA 13	-0.04	0.04	42.21	-0.0112	0.0409	0
74	SLE RA 14	0.49	0.05	41.06	-0.0165	0.0627	0.0001
74	SLE RA 15	0.11	0.04	42.03	-0.0135	0.0477	0
74	SLE RA 16	0.46	0.05	40.89	-0.0164	0.0613	0.0001
74	SLE RA 17	0.08	0.04	41.86	-0.0133	0.0463	0
74	SLE RA 18	0.7	0.05	41.78	-0.0167	0.0722	0.0001
74	SLE RA 19	0.33	0.04	42.75	-0.0137	0.0572	0
74	SLE RA 20	0.58	0.06	42.07	-0.0168	0.0676	0.0001
74	SLE RA 21	0.2	0.05	43.04	-0.0138	0.0526	0
74	SLE FR 1	0.72	0.05	36.87	-0.015	0.0667	0.0001
74	SLE FR 2	0.59	0.05	37.19	-0.0139	0.0617	0.0001
74	SLE FR 3	0.67	0.05	36.99	-0.015	0.0648	0.0001
74	SLE FR 4	0.59	0.05	38.67	-0.0145	0.0633	0.0001
74	SLE FR 5	0.66	0.05	38.46	-0.0155	0.0665	0.0001
74	SLE FR 6	0.71	0.05	39.33	-0.0158	0.0695	0.0001
74	SLE QP 1	0.72	0.05	36.87	-0.015	0.0667	0.0001
74	SLE QP 2	0.71	0.05	38.34	-0.0155	0.0683	0.0001
74	SLD 1	8.59	0.05	44.32	-0.0137	0.4235	-0.0001
74	SLD 2	8.59	0.05	44.32	-0.0137	0.4235	-0.0001
74	SLD 3	7.22	-0.01	40.88	0.0056	0.3673	0.0001
74	SLD 4	7.22	-0.01	40.88	0.0056	0.3673	0.0001
74	SLD 5	5.15	0.14	45.36	-0.0442	0.26	-0.0003
74	SLD 6	5.15	0.14	45.36	-0.0442	0.26	-0.0003
74	SLD 7	0.59	-0.06	33.88	0.0201	0.0729	0.0004
74	SLD 8	0.59	-0.06	33.88	0.0201	0.0729	0.0004
74	SLD 9	0.84	0.16	42.81	-0.051	0.0638	-0.0002
74	SLD 10	0.84	0.16	42.81	-0.051	0.0638	-0.0002
74	SLD 11	-3.72	-0.04	31.32	0.0132	-0.1234	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
74	SLD 12	-3.72	-0.04	31.32	0.0132	-0.1234	0.0005
74	SLD 13	-5.79	0.12	35.81	-0.0366	-0.2306	0.0001
74	SLD 14	-5.79	0.12	35.81	-0.0366	-0.2306	0.0001
74	SLD 15	-7.16	0.05	32.36	-0.0173	-0.2868	0.0004
74	SLD 16	-7.16	0.05	32.36	-0.0173	-0.2868	0.0004
74	SLV 1	19.16	0.04	52.42	-0.0114	0.9006	-0.0005
74	SLV 2	19.16	0.04	52.42	-0.0114	0.9006	-0.0005
74	SLV 3	15.88	-0.11	44.22	0.0365	0.7652	0
74	SLV 4	15.88	-0.11	44.22	0.0365	0.7652	0
74	SLV 5	11.22	0.28	55.01	-0.0869	0.5232	-0.0009
74	SLV 6	11.22	0.28	55.01	-0.0869	0.5232	-0.0009
74	SLV 7	0.29	-0.23	27.66	0.0728	0.0722	0.0009
74	SLV 8	0.29	-0.23	27.66	0.0728	0.0722	0.0009
74	SLV 9	1.14	0.33	49.02	-0.1037	0.0645	-0.0007
74	SLV 10	1.14	0.33	49.02	-0.1037	0.0645	-0.0007
74	SLV 11	-9.8	-0.18	21.68	0.056	-0.3865	0.0011
74	SLV 12	-9.8	-0.18	21.68	0.056	-0.3865	0.0011
74	SLV 13	-14.45	0.21	32.47	-0.0674	-0.6286	0.0002
74	SLV 14	-14.45	0.21	32.47	-0.0674	-0.6286	0.0002
74	SLV 15	-17.73	0.06	24.27	-0.0195	-0.7639	0.0007
74	SLV 16	-17.73	0.06	24.27	-0.0195	-0.7639	0.0007
75	SLU 1	0.83	0.12	35.07	-0.0284	0.0147	0.0004
75	SLU 2	-0.02	0.11	37.73	-0.0265	-0.0303	0.0004
75	SLU 3	0.68	0.13	35.66	-0.0287	0.0074	0.0004
75	SLU 4	0.17	0.12	37.26	-0.0276	-0.0196	0.0004
75	SLU 5	-0.22	0.11	38.04	-0.0264	-0.0395	0.0004
75	SLU 6	0.47	0.13	35.97	-0.0286	-0.0018	0.0004
75	SLU 7	-0.04	0.12	37.57	-0.0274	-0.0287	0.0004
75	SLU 8	0.42	0.12	35.68	-0.0281	-0.0037	0.0004
75	SLU 9	-0.09	0.12	37.28	-0.027	-0.0307	0.0004
75	SLU 10	0.01	0.13	42.65	-0.0302	-0.0321	0.0005
75	SLU 11	0.71	0.14	40.58	-0.0324	0.0056	0.0005
75	SLU 12	0.2	0.14	42.18	-0.0313	-0.0213	0.0005
75	SLU 13	-0.19	0.13	42.96	-0.0301	-0.0412	0.0005
75	SLU 14	0.51	0.14	40.89	-0.0322	-0.0035	0.0005
75	SLU 15	0	0.14	42.49	-0.0311	-0.0305	0.0005
75	SLU 16	0.46	0.14	40.6	-0.0318	-0.0055	0.0005
75	SLU 17	-0.05	0.13	42.2	-0.0307	-0.0324	0.0005
75	SLU 18	0.88	0.15	42.09	-0.0337	0.0121	0.0005
75	SLU 19	0.37	0.14	43.69	-0.0325	-0.0148	0.0005
75	SLU 20	0.67	0.15	42.4	-0.0335	0.003	0.0005
75	SLU 21	0.16	0.14	44	-0.0324	-0.024	0.0005
75	SLU 22	0.92	0.14	39.08	-0.0315	0.0161	0.0005
75	SLU 23	0.07	0.13	41.75	-0.0296	-0.0289	0.0005
75	SLU 24	0.77	0.14	39.68	-0.0318	0.0088	0.0005
75	SLU 25	0.26	0.13	41.28	-0.0307	-0.0182	0.0005
75	SLU 26	-0.13	0.13	42.06	-0.0295	-0.0381	0.0005
75	SLU 27	0.56	0.14	39.99	-0.0317	-0.0004	0.0005
75	SLU 28	0.05	0.13	41.59	-0.0305	-0.0274	0.0005
75	SLU 29	0.51	0.14	39.7	-0.0312	-0.0023	0.0005
75	SLU 30	0	0.13	41.3	-0.0301	-0.0293	0.0005
75	SLU 31	0.11	0.14	46.67	-0.0333	-0.0307	0.0006
75	SLU 32	0.8	0.16	44.6	-0.0355	0.007	0.0005
75	SLU 33	0.29	0.15	46.2	-0.0344	-0.02	0.0005
75	SLU 34	-0.1	0.14	46.98	-0.0332	-0.0399	0.0006
75	SLU 35	0.6	0.16	44.91	-0.0354	-0.0022	0.0005
75	SLU 36	0.09	0.15	46.51	-0.0342	-0.0291	0.0005
75	SLU 37	0.55	0.16	44.62	-0.0349	-0.0041	0.0005
75	SLU 38	0.04	0.15	46.22	-0.0338	-0.0311	0.0005
75	SLU 39	0.97	0.16	46.11	-0.0368	0.0135	0.0006
75	SLU 40	0.46	0.16	47.71	-0.0356	-0.0135	0.0006
75	SLU 41	0.76	0.16	46.42	-0.0366	0.0043	0.0006
75	SLU 42	0.25	0.16	48.02	-0.0355	-0.0226	0.0006
75	SLU 43	1.05	0.16	44.21	-0.0358	0.0186	0.0005
75	SLU 44	0.2	0.15	46.88	-0.034	-0.0264	0.0006
75	SLU 45	0.89	0.16	44.8	-0.0361	0.0113	0.0005
75	SLU 46	0.39	0.15	46.41	-0.035	-0.0156	0.0006
75	SLU 47	0	0.15	47.18	-0.0338	-0.0355	0.0006
75	SLU 48	0.69	0.16	45.11	-0.036	0.0022	0.0005
75	SLU 49	0.18	0.15	46.71	-0.0349	-0.0248	0.0005
75	SLU 50	0.64	0.16	44.82	-0.0356	0.0002	0.0005
75	SLU 51	0.13	0.15	46.42	-0.0344	-0.0267	0.0005
75	SLU 52	0.23	0.16	51.8	-0.0377	-0.0281	0.0006
75	SLU 53	0.93	0.17	49.72	-0.0398	0.0096	0.0006
75	SLU 54	0.42	0.17	51.32	-0.0387	-0.0174	0.0006
75	SLU 55	0.03	0.16	52.1	-0.0375	-0.0373	0.0006
75	SLU 56	0.72	0.17	50.03	-0.0397	0.0004	0.0006
75	SLU 57	0.21	0.17	51.63	-0.0386	-0.0266	0.0006
75	SLU 58	0.67	0.17	49.74	-0.0392	-0.0015	0.0006
75	SLU 59	0.17	0.17	51.34	-0.0381	-0.0285	0.0006
75	SLU 60	1.1	0.18	51.24	-0.0411	0.0161	0.0006
75	SLU 61	0.59	0.17	52.84	-0.04	-0.0109	0.0006
75	SLU 62	0.89	0.18	51.54	-0.041	0.0069	0.0006
75	SLU 63	0.38	0.17	53.14	-0.0398	-0.0201	0.0006
75	SLU 64	1.14	0.17	48.23	-0.039	0.02	0.0006
75	SLU 65	0.29	0.16	50.89	-0.0371	-0.025	0.0006
75	SLU 66	0.98	0.17	48.82	-0.0393	0.0127	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
75	SLU 67	0.48	0.17	50.42	-0.0381	-0.0142	0.0006
75	SLU 68	0.09	0.16	51.2	-0.0369	-0.0342	0.0006
75	SLU 69	0.78	0.17	49.13	-0.0391	0.0035	0.0006
75	SLU 70	0.27	0.17	50.73	-0.038	-0.0234	0.0006
75	SLU 71	0.73	0.17	48.84	-0.0387	0.0016	0.0006
75	SLU 72	0.22	0.16	50.44	-0.0376	-0.0253	0.0006
75	SLU 73	0.32	0.18	55.81	-0.0408	-0.0268	0.0007
75	SLU 74	1.02	0.19	53.74	-0.0429	0.0109	0.0006
75	SLU 75	0.51	0.18	55.34	-0.0418	-0.016	0.0007
75	SLU 76	0.12	0.18	56.12	-0.0406	-0.0359	0.0007
75	SLU 77	0.81	0.19	54.05	-0.0428	0.0018	0.0006
75	SLU 78	0.3	0.18	55.65	-0.0417	-0.0252	0.0007
75	SLU 79	0.76	0.19	53.76	-0.0424	-0.0002	0.0006
75	SLU 80	0.26	0.18	55.36	-0.0412	-0.0271	0.0007
75	SLU 81	1.19	0.19	55.25	-0.0442	0.0174	0.0007
75	SLU 82	0.68	0.19	56.85	-0.0431	-0.0095	0.0007
75	SLU 83	0.98	0.19	55.56	-0.0441	0.0083	0.0007
75	SLU 84	0.47	0.19	57.16	-0.043	-0.0187	0.0007
75	SLE RA 1	0.86	0.13	36.22	-0.0293	0.0151	0.0004
75	SLE RA 2	0.29	0.12	37.99	-0.028	-0.0149	0.0005
75	SLE RA 3	0.75	0.13	36.61	-0.0295	0.0102	0.0004
75	SLE RA 4	0.41	0.12	37.68	-0.0287	-0.0078	0.0004
75	SLE RA 5	0.15	0.12	38.2	-0.0279	-0.021	0.0005
75	SLE RA 6	0.62	0.13	36.82	-0.0294	0.0041	0.0004
75	SLE RA 7	0.28	0.13	37.88	-0.0286	-0.0139	0.0004
75	SLE RA 8	0.58	0.13	36.62	-0.0291	0.0028	0.0004
75	SLE RA 9	0.25	0.12	37.69	-0.0283	-0.0152	0.0004
75	SLE RA 10	0.31	0.13	41.27	-0.0305	-0.0161	0.0005
75	SLE RA 11	0.78	0.14	39.89	-0.0319	0.009	0.0005
75	SLE RA 12	0.44	0.14	40.96	-0.0312	-0.0089	0.0005
75	SLE RA 13	0.18	0.13	41.48	-0.0304	-0.0222	0.0005
75	SLE RA 14	0.64	0.14	40.1	-0.0318	0.0029	0.0005
75	SLE RA 15	0.3	0.14	41.16	-0.0311	-0.0151	0.0005
75	SLE RA 16	0.61	0.14	39.9	-0.0316	0.0016	0.0005
75	SLE RA 17	0.27	0.14	40.97	-0.0308	-0.0163	0.0005
75	SLE RA 18	0.89	0.14	40.9	-0.0328	0.0134	0.0005
75	SLE RA 19	0.55	0.14	41.97	-0.032	-0.0046	0.0005
75	SLE RA 20	0.75	0.14	41.1	-0.0327	0.0073	0.0005
75	SLE RA 21	0.41	0.14	42.17	-0.032	-0.0107	0.0005
75	SLE FR 1	0.86	0.13	36.22	-0.0293	0.0151	0.0004
75	SLE FR 2	0.74	0.13	36.57	-0.029	0.0091	0.0004
75	SLE FR 3	0.8	0.13	36.3	-0.0292	0.0126	0.0004
75	SLE FR 4	0.75	0.13	37.98	-0.0301	0.0086	0.0005
75	SLE FR 5	0.81	0.13	37.7	-0.0303	0.0121	0.0005
75	SLE FR 6	0.87	0.14	38.56	-0.031	0.0142	0.0005
75	SLE QP 1	0.86	0.13	36.22	-0.0293	0.0151	0.0004
75	SLE QP 2	0.87	0.13	37.62	-0.0303	0.0146	0.0005
75	SLD 1	9.27	0.2	43.27	-0.048	0.3976	0.0006
75	SLD 2	9.27	0.2	43.27	-0.048	0.3976	0.0006
75	SLD 3	7.89	0.14	39.14	-0.0324	0.3379	0.0004
75	SLD 4	7.89	0.14	39.14	-0.0324	0.3379	0.0004
75	SLD 5	5.49	0.23	45.58	-0.0593	0.22	0.0007
75	SLD 6	5.49	0.23	45.58	-0.0593	0.22	0.0007
75	SLD 7	0.87	0.05	31.82	-0.0073	0.021	0.0002
75	SLD 8	0.87	0.05	31.82	-0.0073	0.021	0.0002
75	SLD 9	0.86	0.21	43.43	-0.0533	0.0081	0.0007
75	SLD 10	0.86	0.21	43.43	-0.0533	0.0081	0.0007
75	SLD 11	-3.76	0.03	29.66	-0.0014	-0.1909	0.0002
75	SLD 12	-3.76	0.03	29.66	-0.0014	-0.1909	0.0002
75	SLD 13	-6.15	0.12	36.1	-0.0282	-0.3088	0.0005
75	SLD 14	-6.15	0.12	36.1	-0.0282	-0.3088	0.0005
75	SLD 15	-7.54	0.07	31.97	-0.0127	-0.3685	0.0003
75	SLD 16	-7.54	0.07	31.97	-0.0127	-0.3685	0.0003
75	SLV 1	20.54	0.29	50.94	-0.0739	0.9117	0.0008
75	SLV 2	20.54	0.29	50.94	-0.0739	0.9117	0.0008
75	SLV 3	17.25	0.15	41.18	-0.0354	0.7688	0.0004
75	SLV 4	17.25	0.15	41.18	-0.0354	0.7688	0.0004
75	SLV 5	11.77	0.38	56.42	-0.1018	0.5004	0.0011
75	SLV 6	11.77	0.38	56.42	-0.1018	0.5004	0.0011
75	SLV 7	0.78	-0.07	23.88	0.0265	0.0242	-0.0001
75	SLV 8	0.78	-0.07	23.88	0.0265	0.0242	-0.0001
75	SLV 9	0.95	0.33	51.36	-0.0872	0.005	0.001
75	SLV 10	0.95	0.33	51.36	-0.0872	0.005	0.001
75	SLV 11	-10.03	-0.12	18.82	0.0411	-0.4712	-0.0002
75	SLV 12	-10.03	-0.12	18.82	0.0411	-0.4712	-0.0002
75	SLV 13	-15.52	0.11	34.06	-0.0252	-0.7397	0.0005
75	SLV 14	-15.52	0.11	34.06	-0.0252	-0.7397	0.0005
75	SLV 15	-18.81	-0.02	24.3	0.0133	-0.8826	0.0001
75	SLV 16	-18.81	-0.02	24.3	0.0133	-0.8826	0.0001
76	SLU 1	-0.01	5.08	52.45	-0.1084	0.0241	0.0002
76	SLU 2	-1.46	6.68	57.58	-0.1739	-0.0347	0.0003
76	SLU 3	-0.14	5.08	53.2	-0.105	0.019	0.0002
76	SLU 4	-1.01	6.04	56.28	-0.1443	-0.0163	0.0003
76	SLU 5	-1.61	6.59	57.83	-0.1679	-0.0408	0.0003
76	SLU 6	-0.3	4.99	53.44	-0.099	0.0129	0.0002
76	SLU 7	-1.17	5.95	56.52	-0.1383	-0.0224	0.0003
76	SLU 8	-0.32	4.91	52.94	-0.0964	0.0118	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
76	SLU 9	-1.19	5.87	56.02	-0.1357	-0.0235	0.0003
76	SLU 10	-1.45	7.35	64.78	-0.1872	-0.0302	0.0003
76	SLU 11	-0.14	5.75	60.39	-0.1183	0.0235	0.0002
76	SLU 12	-1.01	6.71	63.47	-0.1576	-0.0118	0.0003
76	SLU 13	-1.61	7.26	65.02	-0.1812	-0.0364	0.0003
76	SLU 14	-0.29	5.66	60.63	-0.1123	0.0173	0.0002
76	SLU 15	-1.16	6.62	63.72	-0.1516	-0.0179	0.0003
76	SLU 16	-0.31	5.58	60.13	-0.1097	0.0163	0.0002
76	SLU 17	-1.18	6.54	63.22	-0.149	-0.019	0.0003
76	SLU 18	0	6.04	62.72	-0.1274	0.0305	0.0002
76	SLU 19	-0.87	7	65.8	-0.1667	-0.0048	0.0003
76	SLU 20	-0.15	5.95	62.97	-0.1214	0.0243	0.0002
76	SLU 21	-1.02	6.91	66.05	-0.1607	-0.011	0.0003
76	SLU 22	0.04	5.63	58.39	-0.1182	0.0294	0.0002
76	SLU 23	-1.41	7.23	63.53	-0.1838	-0.0294	0.0003
76	SLU 24	-0.09	5.63	59.14	-0.1148	0.0243	0.0002
76	SLU 25	-0.96	6.59	62.22	-0.1541	-0.0109	0.0003
76	SLU 26	-1.56	7.14	63.78	-0.1778	-0.0355	0.0003
76	SLU 27	-0.25	5.55	59.39	-0.1088	0.0182	0.0002
76	SLU 28	-1.12	6.5	62.47	-0.1481	-0.0171	0.0003
76	SLU 29	-0.27	5.46	58.89	-0.1062	0.0171	0.0002
76	SLU 30	-1.14	6.42	61.97	-0.1456	-0.0181	0.0003
76	SLU 31	-1.4	7.9	70.72	-0.1971	-0.0249	0.0003
76	SLU 32	-0.09	6.3	66.33	-0.1281	0.0288	0.0002
76	SLU 33	-0.96	7.26	69.42	-0.1674	-0.0065	0.0003
76	SLU 34	-1.56	7.81	70.97	-0.1911	-0.031	0.0003
76	SLU 35	-0.24	6.21	66.58	-0.1221	0.0227	0.0002
76	SLU 36	-1.11	7.17	69.66	-0.1614	-0.0126	0.0003
76	SLU 37	-0.26	6.13	66.08	-0.1195	0.0216	0.0002
76	SLU 38	-1.13	7.09	69.16	-0.1589	-0.0137	0.0003
76	SLU 39	0.05	6.59	68.67	-0.1372	0.0358	0.0002
76	SLU 40	-0.82	7.55	71.75	-0.1765	0.0005	0.0003
76	SLU 41	-0.1	6.5	68.92	-0.1312	0.0296	0.0002
76	SLU 42	-0.97	7.46	72	-0.1705	-0.0056	0.0003
76	SLU 43	-0.03	6.42	66.14	-0.1375	0.0295	0.0002
76	SLU 44	-1.48	8.01	71.28	-0.2031	-0.0293	0.0003
76	SLU 45	-0.16	6.41	66.89	-0.1341	0.0244	0.0002
76	SLU 46	-1.03	7.37	69.97	-0.1734	-0.0109	0.0003
76	SLU 47	-1.63	7.93	71.53	-0.1971	-0.0354	0.0003
76	SLU 48	-0.32	6.33	67.14	-0.1281	0.0183	0.0002
76	SLU 49	-1.19	7.29	70.22	-0.1674	-0.017	0.0003
76	SLU 50	-0.34	6.25	66.64	-0.1255	0.0172	0.0002
76	SLU 51	-1.21	7.2	69.72	-0.1648	-0.0181	0.0003
76	SLU 52	-1.47	8.68	78.47	-0.2164	-0.0248	0.0004
76	SLU 53	-0.15	7.08	74.08	-0.1474	0.0289	0.0003
76	SLU 54	-1.02	8.04	77.17	-0.1867	-0.0064	0.0003
76	SLU 55	-1.62	8.6	78.72	-0.2104	-0.031	0.0004
76	SLU 56	-0.31	7	74.33	-0.1414	0.0227	0.0003
76	SLU 57	-1.18	7.96	77.41	-0.1807	-0.0125	0.0003
76	SLU 58	-0.33	6.92	73.83	-0.1388	0.0217	0.0003
76	SLU 59	-1.2	7.87	76.91	-0.1781	-0.0136	0.0003
76	SLU 60	-0.02	7.37	76.42	-0.1565	0.0358	0.0003
76	SLU 61	-0.89	8.33	79.5	-0.1958	0.0006	0.0003
76	SLU 62	-0.17	7.29	76.66	-0.1505	0.0297	0.0003
76	SLU 63	-1.04	8.25	79.75	-0.1898	-0.0056	0.0003
76	SLU 64	0.02	6.97	72.09	-0.1473	0.0348	0.0002
76	SLU 65	-1.43	8.56	77.23	-0.2129	-0.024	0.0004
76	SLU 66	-0.11	6.97	72.84	-0.1439	0.0297	0.0003
76	SLU 67	-0.98	7.92	75.92	-0.1833	-0.0055	0.0003
76	SLU 68	-1.58	8.48	77.47	-0.2069	-0.0301	0.0004
76	SLU 69	-0.27	6.88	73.08	-0.1379	0.0236	0.0003
76	SLU 70	-1.14	7.84	76.17	-0.1773	-0.0117	0.0003
76	SLU 71	-0.29	6.8	72.58	-0.1353	0.0225	0.0003
76	SLU 72	-1.16	7.76	75.66	-0.1747	-0.0127	0.0003
76	SLU 73	-1.42	9.23	84.42	-0.2262	-0.0195	0.0004
76	SLU 74	-0.11	7.64	80.03	-0.1572	0.0342	0.0003
76	SLU 75	-0.98	8.59	83.11	-0.1966	-0.0011	0.0003
76	SLU 76	-1.58	9.15	84.67	-0.2202	-0.0257	0.0004
76	SLU 77	-0.26	7.55	80.28	-0.1512	0.028	0.0003
76	SLU 78	-1.13	8.51	83.36	-0.1906	-0.0072	0.0004
76	SLU 79	-0.28	7.47	79.78	-0.1486	0.027	0.0003
76	SLU 80	-1.15	8.43	82.86	-0.188	-0.0083	0.0004
76	SLU 81	0.03	7.93	82.36	-0.1663	0.0412	0.0003
76	SLU 82	-0.84	8.88	85.45	-0.2057	0.0059	0.0003
76	SLU 83	-0.12	7.84	82.61	-0.1603	0.035	0.0003
76	SLU 84	-0.99	8.8	85.69	-0.1997	-0.0002	0.0004
76	SLE RA 1	0.01	5.24	54.15	-0.1112	0.0256	0.0002
76	SLE RA 2	-0.96	6.3	57.57	-0.1549	-0.0136	0.0003
76	SLE RA 3	-0.08	5.24	54.64	-0.1089	0.0222	0.0002
76	SLE RA 4	-0.66	5.88	56.7	-0.1351	-0.0013	0.0002
76	SLE RA 5	-1.06	6.25	57.74	-0.1509	-0.0177	0.0003
76	SLE RA 6	-0.19	5.18	54.81	-0.1049	0.0181	0.0002
76	SLE RA 7	-0.77	5.82	56.86	-0.1311	-0.0054	0.0002
76	SLE RA 8	-0.2	5.13	54.47	-0.1032	0.0174	0.0002
76	SLE RA 9	-0.78	5.76	56.53	-0.1294	-0.0061	0.0002
76	SLE RA 10	-0.96	6.75	62.37	-0.1637	-0.0106	0.0003
76	SLE RA 11	-0.08	5.68	59.44	-0.1178	0.0252	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
76	SLE RA 12	-0.66	6.32	61.49	-0.144	0.0017	0.0002
76	SLE RA 13	-1.06	6.69	62.53	-0.1598	-0.0147	0.0003
76	SLE RA 14	-0.18	5.63	59.6	-0.1138	0.0211	0.0002
76	SLE RA 15	-0.76	6.27	61.66	-0.14	-0.0024	0.0003
76	SLE RA 16	-0.2	5.57	59.27	-0.112	0.0204	0.0002
76	SLE RA 17	-0.78	6.21	61.33	-0.1383	-0.0031	0.0003
76	SLE RA 18	0.01	5.88	61	-0.1238	0.0298	0.0002
76	SLE RA 19	-0.57	6.52	63.05	-0.1501	0.0063	0.0002
76	SLE RA 20	-0.09	5.82	61.16	-0.1198	0.0258	0.0002
76	SLE RA 21	-0.67	6.46	63.22	-0.1461	0.0022	0.0003
76	SLE FR 1	0.01	5.24	54.15	-0.1112	0.0256	0.0002
76	SLE FR 2	-0.19	5.45	54.83	-0.1199	0.0178	0.0002
76	SLE FR 3	-0.04	5.22	54.21	-0.1096	0.024	0.0002
76	SLE FR 4	-0.19	5.64	56.89	-0.1237	0.019	0.0002
76	SLE FR 5	-0.03	5.41	56.27	-0.1134	0.0252	0.0002
76	SLE FR 6	0.01	5.56	57.57	-0.1175	0.0277	0.0002
76	SLE QP 1	0.01	5.24	54.15	-0.1112	0.0256	0.0002
76	SLE QP 2	0.01	5.43	56.2	-0.115	0.0269	0.0002
76	SLD 1	7.47	7.43	65.54	-0.1976	0.3621	-0.0003
76	SLD 2	7.47	7.43	65.54	-0.1976	0.3621	-0.0003
76	SLD 3	8.7	5.47	57.54	-0.1148	0.4159	-0.0004
76	SLD 4	8.7	5.47	57.54	-0.1148	0.4159	-0.0004
76	SLD 5	0.38	9.01	71.13	-0.2653	0.0459	0.0002
76	SLD 6	0.38	9.01	71.13	-0.2653	0.0459	0.0002
76	SLD 7	4.48	2.47	44.47	0.0106	0.2251	-0.0001
76	SLD 8	4.48	2.47	44.47	0.0106	0.2251	-0.0001
76	SLD 9	-4.46	8.4	67.93	-0.2406	-0.1714	0.0005
76	SLD 10	-4.46	8.4	67.93	-0.2406	-0.1714	0.0005
76	SLD 11	-0.37	1.85	41.27	0.0354	0.0078	0.0002
76	SLD 12	-0.37	1.85	41.27	0.0354	0.0078	0.0002
76	SLD 13	-8.69	5.39	54.86	-0.1151	-0.3621	0.0008
76	SLD 14	-8.69	5.39	54.86	-0.1151	-0.3621	0.0008
76	SLD 15	-7.46	3.43	46.86	-0.0323	-0.3084	0.0007
76	SLD 16	-7.46	3.43	46.86	-0.0323	-0.3084	0.0007
76	SLV 1	17.41	10.23	78.31	-0.3138	0.8082	-0.001
76	SLV 2	17.41	10.23	78.31	-0.3138	0.8082	-0.001
76	SLV 3	20.39	5.57	59.45	-0.117	0.939	-0.0012
76	SLV 4	20.39	5.57	59.45	-0.117	0.939	-0.0012
76	SLV 5	0.7	13.94	91.45	-0.4731	0.0628	0.0002
76	SLV 6	0.7	13.94	91.45	-0.4731	0.0628	0.0002
76	SLV 7	10.65	-1.6	28.56	0.1828	0.499	-0.0006
76	SLV 8	10.65	-1.6	28.56	0.1828	0.499	-0.0006
76	SLV 9	-10.63	12.46	83.84	-0.4128	-0.4452	0.001
76	SLV 10	-10.63	12.46	83.84	-0.4128	-0.4452	0.001
76	SLV 11	-0.69	-3.08	20.95	0.2431	-0.009	0.0002
76	SLV 12	-0.69	-3.08	20.95	0.2431	-0.009	0.0002
76	SLV 13	-20.38	5.29	52.95	-0.1129	-0.8853	0.0016
76	SLV 14	-20.38	5.29	52.95	-0.1129	-0.8853	0.0016
76	SLV 15	-17.39	0.63	34.09	0.0839	-0.7544	0.0013
76	SLV 16	-17.39	0.63	34.09	0.0839	-0.7544	0.0013
77	SLU 1	-1.95	0.04	37.12	0.02	-0.0762	-0.0003
77	SLU 2	-4.11	0.02	39.08	-0.0057	-0.1626	-0.0004
77	SLU 3	-2.09	0.03	37.69	0.0215	-0.0829	-0.0003
77	SLU 4	-3.39	0.03	38.87	0.0061	-0.1347	-0.0004
77	SLU 5	-4.24	0.02	39.34	-0.0042	-0.1689	-0.0004
77	SLU 6	-2.22	0.03	37.95	0.0229	-0.0892	-0.0003
77	SLU 7	-3.52	0.02	39.13	0.0075	-0.141	-0.0004
77	SLU 8	-2.21	0.03	37.63	0.0228	-0.0888	-0.0003
77	SLU 9	-3.5	0.02	38.81	0.0074	-0.1407	-0.0004
77	SLU 10	-4.33	0.03	44.23	-0.0029	-0.1718	-0.0005
77	SLU 11	-2.31	0.04	42.84	0.0242	-0.092	-0.0004
77	SLU 12	-3.61	0.03	44.01	0.0089	-0.1439	-0.0004
77	SLU 13	-4.46	0.02	44.48	-0.0015	-0.1781	-0.0005
77	SLU 14	-2.43	0.04	43.09	0.0257	-0.0983	-0.0004
77	SLU 15	-3.73	0.03	44.27	0.0103	-0.1502	-0.0004
77	SLU 16	-2.42	0.04	42.78	0.0256	-0.098	-0.0004
77	SLU 17	-3.72	0.03	43.95	0.0102	-0.1498	-0.0004
77	SLU 18	-2.25	0.04	44.47	0.024	-0.0893	-0.0004
77	SLU 19	-3.55	0.03	45.65	0.0086	-0.1412	-0.0005
77	SLU 20	-2.38	0.04	44.72	0.0254	-0.0956	-0.0004
77	SLU 21	-3.68	0.03	45.9	0.01	-0.1475	-0.0005
77	SLU 22	-2.1	0.04	41.37	0.023	-0.0827	-0.0004
77	SLU 23	-4.27	0.03	43.33	-0.0027	-0.169	-0.0005
77	SLU 24	-2.25	0.04	41.94	0.0244	-0.0893	-0.0004
77	SLU 25	-3.54	0.03	43.12	0.0091	-0.1411	-0.0004
77	SLU 26	-4.4	0.02	43.59	-0.0013	-0.1753	-0.0005
77	SLU 27	-2.37	0.04	42.2	0.0258	-0.0956	-0.0004
77	SLU 28	-3.67	0.03	43.37	0.0105	-0.1474	-0.0004
77	SLU 29	-2.36	0.03	41.88	0.0258	-0.0952	-0.0004
77	SLU 30	-3.66	0.03	43.06	0.0104	-0.1471	-0.0004
77	SLU 31	-4.48	0.03	48.48	0.0001	-0.1782	-0.0005
77	SLU 32	-2.46	0.04	47.09	0.0272	-0.0985	-0.0004
77	SLU 33	-3.76	0.03	48.26	0.0118	-0.1503	-0.0005
77	SLU 34	-4.61	0.03	48.73	0.0015	-0.1845	-0.0005
77	SLU 35	-2.59	0.04	47.34	0.0286	-0.1048	-0.0004
77	SLU 36	-3.89	0.03	48.52	0.0132	-0.1566	-0.0005
77	SLU 37	-2.57	0.04	47.02	0.0286	-0.1044	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLU 38	-3.87	0.03	48.2	0.0132	-0.1563	-0.0005
77	SLU 39	-2.41	0.05	48.72	0.0269	-0.0958	-0.0004
77	SLU 40	-3.71	0.04	49.9	0.0115	-0.1476	-0.0005
77	SLU 41	-2.54	0.04	48.97	0.0283	-0.1021	-0.0004
77	SLU 42	-3.83	0.04	50.15	0.013	-0.1539	-0.0005
77	SLU 43	-2.48	0.05	46.8	0.025	-0.0969	-0.0004
77	SLU 44	-4.64	0.03	48.76	-0.0007	-0.1833	-0.0005
77	SLU 45	-2.62	0.04	47.37	0.0264	-0.1035	-0.0004
77	SLU 46	-3.92	0.04	48.55	0.0111	-0.1554	-0.0005
77	SLU 47	-4.77	0.03	49.02	0.0007	-0.1896	-0.0005
77	SLU 48	-2.75	0.04	47.63	0.0279	-0.1098	-0.0004
77	SLU 49	-4.05	0.03	48.8	0.0125	-0.1617	-0.0005
77	SLU 50	-2.74	0.04	47.31	0.0278	-0.1095	-0.0004
77	SLU 51	-4.04	0.03	48.49	0.0124	-0.1613	-0.0005
77	SLU 52	-4.86	0.04	53.91	0.0021	-0.1925	-0.0006
77	SLU 53	-2.84	0.05	52.52	0.0292	-0.1127	-0.0005
77	SLU 54	-4.14	0.04	53.69	0.0138	-0.1645	-0.0005
77	SLU 55	-4.99	0.03	54.16	0.0035	-0.1988	-0.0006
77	SLU 56	-2.97	0.05	52.77	0.0306	-0.119	-0.0005
77	SLU 57	-4.27	0.04	53.95	0.0152	-0.1708	-0.0005
77	SLU 58	-2.95	0.05	52.45	0.0306	-0.1187	-0.0005
77	SLU 59	-4.25	0.04	53.63	0.0152	-0.1705	-0.0005
77	SLU 60	-2.79	0.05	54.15	0.0289	-0.11	-0.0005
77	SLU 61	-4.08	0.04	55.33	0.0136	-0.1618	-0.0006
77	SLU 62	-2.91	0.05	54.4	0.0303	-0.1163	-0.0005
77	SLU 63	-4.21	0.04	55.58	0.015	-0.1681	-0.0006
77	SLU 64	-2.63	0.05	51.05	0.0279	-0.1033	-0.0005
77	SLU 65	-4.8	0.04	53.01	0.0023	-0.1897	-0.0006
77	SLU 66	-2.78	0.05	51.62	0.0294	-0.11	-0.0005
77	SLU 67	-4.08	0.04	52.8	0.014	-0.1618	-0.0005
77	SLU 68	-4.93	0.03	53.27	0.0037	-0.196	-0.0006
77	SLU 69	-2.91	0.05	51.88	0.0308	-0.1163	-0.0005
77	SLU 70	-4.21	0.04	53.05	0.0154	-0.1681	-0.0005
77	SLU 71	-2.89	0.04	51.56	0.0308	-0.1159	-0.0005
77	SLU 72	-4.19	0.04	52.74	0.0154	-0.1677	-0.0005
77	SLU 73	-5.01	0.04	58.16	0.0051	-0.1989	-0.0006
77	SLU 74	-2.99	0.05	56.77	0.0322	-0.1191	-0.0005
77	SLU 75	-4.29	0.04	57.94	0.0168	-0.171	-0.0006
77	SLU 76	-5.14	0.04	58.41	0.0065	-0.2052	-0.0006
77	SLU 77	-3.12	0.05	57.02	0.0336	-0.1254	-0.0005
77	SLU 78	-4.42	0.04	58.2	0.0182	-0.1773	-0.0006
77	SLU 79	-3.1	0.05	56.7	0.0335	-0.1251	-0.0005
77	SLU 80	-4.4	0.04	57.88	0.0181	-0.1769	-0.0006
77	SLU 81	-2.94	0.05	58.4	0.0319	-0.1164	-0.0005
77	SLU 82	-4.24	0.05	59.58	0.0165	-0.1683	-0.0006
77	SLU 83	-3.07	0.05	58.65	0.0333	-0.1227	-0.0005
77	SLU 84	-4.37	0.04	59.83	0.0179	-0.1746	-0.0006
77	SLE RA 1	-1.99	0.04	38.33	0.0208	-0.0781	-0.0004
77	SLE RA 2	-3.44	0.03	39.64	0.0037	-0.1357	-0.0004
77	SLE RA 3	-2.09	0.04	38.72	0.0218	-0.0825	-0.0004
77	SLE RA 4	-2.95	0.03	39.5	0.0116	-0.117	-0.0004
77	SLE RA 5	-3.52	0.03	39.81	0.0047	-0.1399	-0.0004
77	SLE RA 6	-2.17	0.03	38.89	0.0228	-0.0867	-0.0004
77	SLE RA 7	-3.04	0.03	39.67	0.0125	-0.1212	-0.0004
77	SLE RA 8	-2.16	0.03	38.67	0.0227	-0.0865	-0.0004
77	SLE RA 9	-3.03	0.03	39.46	0.0125	-0.121	-0.0004
77	SLE RA 10	-3.58	0.03	43.07	0.0056	-0.1418	-0.0004
77	SLE RA 11	-2.23	0.04	42.15	0.0237	-0.0886	-0.0004
77	SLE RA 12	-3.1	0.03	42.93	0.0134	-0.1232	-0.0004
77	SLE RA 13	-3.66	0.03	43.24	0.0065	-0.146	-0.0004
77	SLE RA 14	-2.32	0.04	42.32	0.0246	-0.0928	-0.0004
77	SLE RA 15	-3.18	0.03	43.1	0.0144	-0.1274	-0.0004
77	SLE RA 16	-2.31	0.04	42.1	0.0246	-0.0926	-0.0004
77	SLE RA 17	-3.17	0.03	42.89	0.0143	-0.1271	-0.0004
77	SLE RA 18	-2.2	0.04	43.23	0.0235	-0.0868	-0.0004
77	SLE RA 19	-3.06	0.04	44.02	0.0132	-0.1214	-0.0004
77	SLE RA 20	-2.28	0.04	43.4	0.0244	-0.091	-0.0004
77	SLE RA 21	-3.15	0.03	44.19	0.0142	-0.1256	-0.0004
77	SLE FR 1	-1.99	0.04	38.33	0.0208	-0.0781	-0.0004
77	SLE FR 2	-2.28	0.03	38.6	0.0174	-0.0896	-0.0004
77	SLE FR 3	-2.03	0.04	38.4	0.0212	-0.0797	-0.0004
77	SLE FR 4	-2.34	0.04	40.07	0.0182	-0.0922	-0.0004
77	SLE FR 5	-2.09	0.04	39.87	0.022	-0.0824	-0.0004
77	SLE FR 6	-2.09	0.04	40.78	0.0222	-0.0824	-0.0004
77	SLE QP 1	-1.99	0.04	38.33	0.0208	-0.0781	-0.0004
77	SLE QP 2	-2.05	0.04	39.8	0.0216	-0.0807	-0.0004
77	SLD 1	5.43	0.08	44.98	-0.0133	0.2538	-0.0005
77	SLD 2	5.43	0.08	44.98	-0.0133	0.2538	-0.0005
77	SLD 3	6.94	0.05	40.16	0.0205	0.3156	-0.0004
77	SLD 4	6.94	0.05	40.16	0.0205	0.3156	-0.0004
77	SLD 5	-2.1	0.11	48.67	-0.0402	-0.0741	-0.0005
77	SLD 6	-2.1	0.11	48.67	-0.0402	-0.0741	-0.0005
77	SLD 7	2.93	-0.02	32.59	0.0727	0.1319	-0.0003
77	SLD 8	2.93	-0.02	32.59	0.0727	0.1319	-0.0003
77	SLD 9	-7.04	0.09	47.01	-0.0294	-0.2933	-0.0005
77	SLD 10	-7.04	0.09	47.01	-0.0294	-0.2933	-0.0005
77	SLD 11	-2.01	-0.03	30.93	0.0835	-0.0873	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLD 12	-2.01	-0.03	30.93	0.0835	-0.0873	-0.0002
77	SLD 13	-11.05	0.03	39.45	0.0227	-0.477	-0.0003
77	SLD 14	-11.05	0.03	39.45	0.0227	-0.477	-0.0003
77	SLD 15	-9.54	-0.01	34.62	0.0566	-0.4152	-0.0002
77	SLD 16	-9.54	-0.01	34.62	0.0566	-0.4152	-0.0002
77	SLV 1	15.37	0.15	52.05	-0.0653	0.6983	-0.0007
77	SLV 2	15.37	0.15	52.05	-0.0653	0.6983	-0.0007
77	SLV 3	19.06	0.06	40.69	0.0209	0.8493	-0.0005
77	SLV 4	19.06	0.06	40.69	0.0209	0.8493	-0.0005
77	SLV 5	-2.42	0.21	60.71	-0.1351	-0.0761	-0.0008
77	SLV 6	-2.42	0.21	60.71	-0.1351	-0.0761	-0.0008
77	SLV 7	9.87	-0.1	22.84	0.152	0.4274	-0.0001
77	SLV 8	9.87	-0.1	22.84	0.152	0.4274	-0.0001
77	SLV 9	-13.98	0.17	56.77	-0.1088	-0.5888	-0.0006
77	SLV 10	-13.98	0.17	56.77	-0.1088	-0.5888	-0.0006
77	SLV 11	-1.69	-0.13	18.9	0.1783	-0.0853	0.0001
77	SLV 12	-1.69	-0.13	18.9	0.1783	-0.0853	0.0001
77	SLV 13	-23.16	0.02	38.91	0.0224	-1.0107	-0.0002
77	SLV 14	-23.16	0.02	38.91	0.0224	-1.0107	-0.0002
77	SLV 15	-19.47	-0.07	27.55	0.1085	-0.8596	0
77	SLV 16	-19.47	-0.07	27.55	0.1085	-0.8596	0
78	SLU 1	-2.57	-0.14	34.2	0.0808	-0.0876	-0.0003
78	SLU 2	-4.57	-0.16	34.79	0.0294	-0.1668	-0.0002
78	SLU 3	-2.73	-0.15	34.76	0.0838	-0.0937	-0.0003
78	SLU 4	-3.93	-0.16	35.11	0.053	-0.1412	-0.0003
78	SLU 5	-4.7	-0.17	35.08	0.0316	-0.172	-0.0002
78	SLU 6	-2.85	-0.15	35.05	0.086	-0.0988	-0.0004
78	SLU 7	-4.05	-0.16	35.41	0.0552	-0.1464	-0.0003
78	SLU 8	-2.83	-0.15	34.79	0.0852	-0.0979	-0.0004
78	SLU 9	-4.02	-0.16	35.14	0.0544	-0.1454	-0.0003
78	SLU 10	-4.85	-0.18	39.6	0.0403	-0.1751	-0.0002
78	SLU 11	-3	-0.17	39.56	0.0946	-0.102	-0.0004
78	SLU 12	-4.2	-0.18	39.92	0.0638	-0.1495	-0.0003
78	SLU 13	-4.97	-0.19	39.89	0.0425	-0.1802	-0.0002
78	SLU 14	-3.13	-0.17	39.86	0.0969	-0.1071	-0.0004
78	SLU 15	-4.33	-0.18	40.21	0.0661	-0.1547	-0.0003
78	SLU 16	-3.1	-0.17	39.59	0.096	-0.1062	-0.0004
78	SLU 17	-4.3	-0.18	39.95	0.0652	-0.1537	-0.0003
78	SLU 18	-2.97	-0.17	41.07	0.0962	-0.0994	-0.0004
78	SLU 19	-4.17	-0.18	41.42	0.0655	-0.147	-0.0003
78	SLU 20	-3.1	-0.18	41.36	0.0985	-0.1046	-0.0004
78	SLU 21	-4.29	-0.19	41.72	0.0677	-0.1521	-0.0003
78	SLU 22	-2.81	-0.16	38.18	0.0912	-0.0948	-0.0004
78	SLU 23	-4.8	-0.18	38.77	0.0398	-0.174	-0.0002
78	SLU 24	-2.96	-0.17	38.74	0.0942	-0.1009	-0.0004
78	SLU 25	-4.16	-0.18	39.09	0.0634	-0.1485	-0.0003
78	SLU 26	-4.93	-0.18	39.06	0.0421	-0.1792	-0.0002
78	SLU 27	-3.09	-0.17	39.03	0.0964	-0.1061	-0.0004
78	SLU 28	-4.28	-0.18	39.39	0.0656	-0.1536	-0.0003
78	SLU 29	-3.06	-0.17	38.77	0.0956	-0.1051	-0.0004
78	SLU 30	-4.26	-0.18	39.12	0.0648	-0.1527	-0.0003
78	SLU 31	-5.08	-0.2	43.58	0.0507	-0.1823	-0.0003
78	SLU 32	-3.24	-0.19	43.54	0.105	-0.1092	-0.0004
78	SLU 33	-4.44	-0.2	43.9	0.0742	-0.1567	-0.0004
78	SLU 34	-5.21	-0.2	43.87	0.0529	-0.1875	-0.0003
78	SLU 35	-3.36	-0.19	43.84	0.1073	-0.1144	-0.0005
78	SLU 36	-4.56	-0.2	44.19	0.0765	-0.1619	-0.0004
78	SLU 37	-3.34	-0.19	43.57	0.1064	-0.1134	-0.0004
78	SLU 38	-4.53	-0.2	43.93	0.0756	-0.161	-0.0004
78	SLU 39	-3.2	-0.19	45.05	0.1066	-0.1067	-0.0004
78	SLU 40	-4.4	-0.2	45.4	0.0759	-0.1542	-0.0004
78	SLU 41	-3.33	-0.19	45.34	0.1089	-0.1118	-0.0005
78	SLU 42	-4.53	-0.21	45.7	0.0781	-0.1593	-0.0004
78	SLU 43	-3.27	-0.18	43.09	0.1014	-0.1114	-0.0004
78	SLU 44	-5.26	-0.2	43.69	0.0501	-0.1906	-0.0003
78	SLU 45	-3.42	-0.19	43.65	0.1045	-0.1175	-0.0004
78	SLU 46	-4.62	-0.2	44.01	0.0737	-0.165	-0.0003
78	SLU 47	-5.39	-0.2	43.98	0.0523	-0.1957	-0.0003
78	SLU 48	-3.54	-0.19	43.95	0.1067	-0.1226	-0.0004
78	SLU 49	-4.74	-0.2	44.3	0.0759	-0.1702	-0.0004
78	SLU 50	-3.52	-0.19	43.68	0.1058	-0.1217	-0.0004
78	SLU 51	-4.72	-0.2	44.04	0.0751	-0.1692	-0.0004
78	SLU 52	-5.54	-0.22	48.49	0.0609	-0.1989	-0.0003
78	SLU 53	-3.7	-0.21	48.46	0.1153	-0.1258	-0.0005
78	SLU 54	-4.89	-0.22	48.82	0.0845	-0.1733	-0.0004
78	SLU 55	-5.67	-0.22	48.79	0.0632	-0.204	-0.0003
78	SLU 56	-3.82	-0.21	48.75	0.1175	-0.1309	-0.0005
78	SLU 57	-5.02	-0.22	49.11	0.0867	-0.1784	-0.0004
78	SLU 58	-3.79	-0.21	48.49	0.1167	-0.13	-0.0005
78	SLU 59	-4.99	-0.22	48.84	0.0859	-0.1775	-0.0004
78	SLU 60	-3.66	-0.21	49.96	0.1169	-0.1232	-0.0005
78	SLU 61	-4.86	-0.22	50.32	0.0861	-0.1707	-0.0004
78	SLU 62	-3.79	-0.21	50.25	0.1191	-0.1284	-0.0005
78	SLU 63	-4.99	-0.22	50.61	0.0883	-0.1759	-0.0004
78	SLU 64	-3.5	-0.2	47.07	0.1118	-0.1186	-0.0005
78	SLU 65	-5.5	-0.22	47.67	0.0605	-0.1978	-0.0003
78	SLU 66	-3.65	-0.2	47.63	0.1149	-0.1247	-0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
78	SLU 67	-4.85	-0.22	47.99	0.0841	-0.1722	-0.0004
78	SLU 68	-5.62	-0.22	47.96	0.0627	-0.203	-0.0003
78	SLU 69	-3.78	-0.21	47.93	0.1171	-0.1299	-0.0005
78	SLU 70	-4.98	-0.22	48.28	0.0863	-0.1774	-0.0004
78	SLU 71	-3.75	-0.21	47.66	0.1162	-0.1289	-0.0005
78	SLU 72	-4.95	-0.22	48.02	0.0855	-0.1765	-0.0004
78	SLU 73	-5.77	-0.24	52.47	0.0713	-0.2061	-0.0004
78	SLU 74	-3.93	-0.22	52.44	0.1257	-0.133	-0.0005
78	SLU 75	-5.13	-0.24	52.8	0.0949	-0.1805	-0.0004
78	SLU 76	-5.9	-0.24	52.77	0.0736	-0.2113	-0.0004
78	SLU 77	-4.06	-0.23	52.73	0.1279	-0.1382	-0.0005
78	SLU 78	-5.25	-0.24	53.09	0.0971	-0.1857	-0.0004
78	SLU 79	-4.03	-0.23	52.47	0.1271	-0.1372	-0.0005
78	SLU 80	-5.23	-0.24	52.82	0.0963	-0.1847	-0.0004
78	SLU 81	-3.89	-0.23	53.94	0.1273	-0.1305	-0.0005
78	SLU 82	-5.09	-0.24	54.3	0.0965	-0.178	-0.0004
78	SLU 83	-4.02	-0.23	54.23	0.1295	-0.1356	-0.0005
78	SLU 84	-5.22	-0.24	54.59	0.0987	-0.1831	-0.0005
78	SLE RA 1	-2.64	-0.15	35.33	0.0837	-0.0897	-0.0003
78	SLE RA 2	-3.97	-0.16	35.73	0.0495	-0.1425	-0.0002
78	SLE RA 3	-2.74	-0.15	35.71	0.0858	-0.0937	-0.0004
78	SLE RA 4	-3.54	-0.16	35.95	0.0652	-0.1254	-0.0003
78	SLE RA 5	-4.06	-0.16	35.93	0.051	-0.1459	-0.0003
78	SLE RA 6	-2.83	-0.15	35.9	0.0872	-0.0972	-0.0004
78	SLE RA 7	-3.63	-0.16	36.14	0.0667	-0.1288	-0.0003
78	SLE RA 8	-2.81	-0.15	35.73	0.0867	-0.0965	-0.0004
78	SLE RA 9	-3.61	-0.16	35.96	0.0661	-0.1282	-0.0003
78	SLE RA 10	-4.16	-0.17	38.94	0.0567	-0.148	-0.0003
78	SLE RA 11	-2.93	-0.17	38.91	0.093	-0.0992	-0.0004
78	SLE RA 12	-3.73	-0.17	39.15	0.0725	-0.1309	-0.0003
78	SLE RA 13	-4.24	-0.18	39.13	0.0582	-0.1514	-0.0003
78	SLE RA 14	-3.01	-0.17	39.11	0.0945	-0.1027	-0.0004
78	SLE RA 15	-3.81	-0.18	39.35	0.0739	-0.1344	-0.0003
78	SLE RA 16	-2.99	-0.17	38.93	0.0939	-0.1021	-0.0004
78	SLE RA 17	-3.79	-0.17	39.17	0.0734	-0.1337	-0.0003
78	SLE RA 18	-2.9	-0.17	39.91	0.0941	-0.0975	-0.0004
78	SLE RA 19	-3.7	-0.18	40.15	0.0735	-0.1292	-0.0003
78	SLE RA 20	-2.99	-0.17	40.11	0.0955	-0.101	-0.0004
78	SLE RA 21	-3.79	-0.18	40.35	0.075	-0.1327	-0.0003
78	SLE FR 1	-2.64	-0.15	35.33	0.0837	-0.0897	-0.0003
78	SLE FR 2	-2.91	-0.15	35.41	0.0769	-0.1002	-0.0003
78	SLE FR 3	-2.67	-0.15	35.41	0.0843	-0.091	-0.0004
78	SLE FR 4	-2.99	-0.16	36.79	0.08	-0.1026	-0.0003
78	SLE FR 5	-2.75	-0.16	36.79	0.0874	-0.0934	-0.0004
78	SLE FR 6	-2.77	-0.16	37.62	0.0889	-0.0936	-0.0004
78	SLE QP 1	-2.64	-0.15	35.33	0.0837	-0.0897	-0.0003
78	SLE QP 2	-2.72	-0.15	36.71	0.0868	-0.092	-0.0004
78	SLD 1	4.52	-0.13	40.29	0.0144	0.2256	-0.0004
78	SLD 2	4.52	-0.13	40.29	0.0144	0.2256	-0.0004
78	SLD 3	5.94	-0.11	36.43	0.0919	0.2842	-0.0006
78	SLD 4	5.94	-0.11	36.43	0.0919	0.2842	-0.0006
78	SLD 5	-2.69	-0.17	43.64	-0.0525	-0.0855	0
78	SLD 6	-2.69	-0.17	43.64	-0.0525	-0.0855	0
78	SLD 7	2.03	-0.12	30.77	0.2059	0.1097	-0.0008
78	SLD 8	2.03	-0.12	30.77	0.2059	0.1097	-0.0008
78	SLD 9	-7.47	-0.19	42.65	-0.0322	-0.2937	0.0001
78	SLD 10	-7.47	-0.19	42.65	-0.0322	-0.2937	0.0001
78	SLD 11	-2.74	-0.14	29.78	0.2261	-0.0985	-0.0007
78	SLD 12	-2.74	-0.14	29.78	0.2261	-0.0985	-0.0007
78	SLD 13	-11.38	-0.2	36.99	0.0818	-0.4683	-0.0001
78	SLD 14	-11.38	-0.2	36.99	0.0818	-0.4683	-0.0001
78	SLD 15	-9.96	-0.18	33.13	0.1593	-0.4097	-0.0004
78	SLD 16	-9.96	-0.18	33.13	0.1593	-0.4097	-0.0004
78	SLV 1	14.17	-0.08	45.2	-0.0942	0.6487	-0.0003
78	SLV 2	14.17	-0.08	45.2	-0.0942	0.6487	-0.0003
78	SLV 3	17.6	-0.04	36.11	0.1036	0.7905	-0.0009
78	SLV 4	17.6	-0.04	36.11	0.1036	0.7905	-0.0009
78	SLV 5	-2.85	-0.19	53.04	-0.2675	-0.0849	0.0006
78	SLV 6	-2.85	-0.19	53.04	-0.2675	-0.0849	0.0006
78	SLV 7	8.58	-0.06	22.74	0.3919	0.3878	-0.0015
78	SLV 8	8.58	-0.06	22.74	0.3919	0.3878	-0.0015
78	SLV 9	-14.01	-0.25	50.67	-0.2182	-0.5718	0.0007
78	SLV 10	-14.01	-0.25	50.67	-0.2182	-0.5718	0.0007
78	SLV 11	-2.59	-0.11	20.38	0.4412	-0.0992	-0.0013
78	SLV 12	-2.59	-0.11	20.38	0.4412	-0.0992	-0.0013
78	SLV 13	-23.03	-0.27	37.31	0.0701	-0.9745	0.0002
78	SLV 14	-23.03	-0.27	37.31	0.0701	-0.9745	0.0002
78	SLV 15	-19.61	-0.23	28.22	0.2679	-0.8327	-0.0004
78	SLV 16	-19.61	-0.23	28.22	0.2679	-0.8327	-0.0004
79	SLU 1	-3.55	-0.25	31.88	0.1273	-0.1486	-0.0008
79	SLU 2	-5.33	-0.23	31.74	0.0377	-0.2233	-0.0006
79	SLU 3	-3.72	-0.26	32.42	0.1317	-0.1564	-0.0008
79	SLU 4	-4.8	-0.24	32.33	0.0779	-0.2012	-0.0007
79	SLU 5	-5.48	-0.23	32.04	0.0406	-0.2298	-0.0006
79	SLU 6	-3.86	-0.26	32.72	0.1347	-0.1628	-0.0009
79	SLU 7	-4.94	-0.25	32.64	0.0809	-0.2077	-0.0007
79	SLU 8	-3.83	-0.26	32.49	0.1333	-0.1615	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
79	SLU 9	-4.9	-0.25	32.41	0.0795	-0.2063	-0.0007
79	SLU 10	-5.78	-0.26	36.28	0.0545	-0.2427	-0.0007
79	SLU 11	-4.16	-0.29	36.96	0.1486	-0.1758	-0.001
79	SLU 12	-5.24	-0.28	36.87	0.0948	-0.2206	-0.0008
79	SLU 13	-5.92	-0.27	36.58	0.0575	-0.2492	-0.0007
79	SLU 14	-4.3	-0.3	37.26	0.1515	-0.1822	-0.001
79	SLU 15	-5.38	-0.28	37.18	0.0977	-0.2271	-0.0008
79	SLU 16	-4.27	-0.3	37.03	0.1502	-0.1809	-0.001
79	SLU 17	-5.34	-0.28	36.95	0.0963	-0.2257	-0.0008
79	SLU 18	-4.18	-0.3	38.37	0.1514	-0.1763	-0.001
79	SLU 19	-5.25	-0.29	38.28	0.0976	-0.2212	-0.0008
79	SLU 20	-4.32	-0.3	38.67	0.1544	-0.1828	-0.001
79	SLU 21	-5.39	-0.29	38.59	0.1006	-0.2276	-0.0009
79	SLU 22	-3.93	-0.28	35.65	0.1434	-0.1653	-0.0009
79	SLU 23	-5.72	-0.26	35.5	0.0537	-0.24	-0.0007
79	SLU 24	-4.11	-0.29	36.18	0.1478	-0.173	-0.0009
79	SLU 25	-5.18	-0.28	36.09	0.094	-0.2179	-0.0008
79	SLU 26	-5.86	-0.26	35.81	0.0567	-0.2464	-0.0007
79	SLU 27	-4.25	-0.3	36.49	0.1507	-0.1795	-0.001
79	SLU 28	-5.32	-0.28	36.4	0.0969	-0.2243	-0.0008
79	SLU 29	-4.21	-0.29	36.26	0.1493	-0.1781	-0.001
79	SLU 30	-5.28	-0.28	36.17	0.0955	-0.2229	-0.0008
79	SLU 31	-6.16	-0.29	40.04	0.0706	-0.2594	-0.0008
79	SLU 32	-4.55	-0.33	40.72	0.1646	-0.1924	-0.0011
79	SLU 33	-5.62	-0.31	40.63	0.1108	-0.2373	-0.0009
79	SLU 34	-6.3	-0.3	40.35	0.0736	-0.2658	-0.0008
79	SLU 35	-4.69	-0.33	41.03	0.1676	-0.1989	-0.0011
79	SLU 36	-5.76	-0.32	40.94	0.1138	-0.2437	-0.0009
79	SLU 37	-4.65	-0.33	40.8	0.1662	-0.1975	-0.0011
79	SLU 38	-5.73	-0.31	40.71	0.1124	-0.2423	-0.0009
79	SLU 39	-4.56	-0.33	42.13	0.1675	-0.193	-0.0011
79	SLU 40	-5.63	-0.32	42.05	0.1137	-0.2378	-0.0009
79	SLU 41	-4.7	-0.34	42.44	0.1704	-0.1994	-0.0011
79	SLU 42	-5.77	-0.32	42.35	0.1166	-0.2442	-0.001
79	SLU 43	-4.48	-0.31	40.16	0.16	-0.1875	-0.001
79	SLU 44	-6.27	-0.29	40.01	0.0704	-0.2622	-0.0008
79	SLU 45	-4.65	-0.32	40.69	0.1644	-0.1953	-0.0011
79	SLU 46	-5.73	-0.31	40.61	0.1106	-0.2401	-0.0009
79	SLU 47	-6.41	-0.3	40.32	0.0733	-0.2686	-0.0008
79	SLU 48	-4.8	-0.33	41	0.1674	-0.2017	-0.0011
79	SLU 49	-5.87	-0.31	40.91	0.1136	-0.2465	-0.0009
79	SLU 50	-4.76	-0.33	40.77	0.166	-0.2004	-0.0011
79	SLU 51	-5.83	-0.31	40.68	0.1122	-0.2452	-0.0009
79	SLU 52	-6.71	-0.33	44.55	0.0872	-0.2816	-0.0009
79	SLU 53	-5.1	-0.36	45.23	0.1813	-0.2147	-0.0012
79	SLU 54	-6.17	-0.34	45.15	0.1275	-0.2595	-0.001
79	SLU 55	-6.85	-0.33	44.86	0.0902	-0.288	-0.0009
79	SLU 56	-5.24	-0.36	45.54	0.1842	-0.2211	-0.0012
79	SLU 57	-6.31	-0.35	45.45	0.1304	-0.2659	-0.001
79	SLU 58	-5.2	-0.36	45.31	0.1829	-0.2198	-0.0012
79	SLU 59	-6.28	-0.35	45.22	0.129	-0.2646	-0.001
79	SLU 60	-5.11	-0.36	46.64	0.1841	-0.2152	-0.0012
79	SLU 61	-6.18	-0.35	46.56	0.1303	-0.2601	-0.001
79	SLU 62	-5.25	-0.37	46.95	0.1871	-0.2216	-0.0012
79	SLU 63	-6.32	-0.35	46.86	0.1333	-0.2665	-0.0011
79	SLU 64	-4.86	-0.35	43.92	0.1761	-0.2042	-0.0011
79	SLU 65	-6.65	-0.32	43.78	0.0864	-0.2789	-0.0009
79	SLU 66	-5.04	-0.36	44.45	0.1805	-0.2119	-0.0012
79	SLU 67	-6.11	-0.34	44.37	0.1267	-0.2568	-0.001
79	SLU 68	-6.79	-0.33	44.08	0.0894	-0.2853	-0.0009
79	SLU 69	-5.18	-0.36	44.76	0.1834	-0.2184	-0.0012
79	SLU 70	-6.25	-0.35	44.67	0.1296	-0.2632	-0.001
79	SLU 71	-5.14	-0.36	44.53	0.182	-0.217	-0.0012
79	SLU 72	-6.22	-0.34	44.44	0.1282	-0.2618	-0.001
79	SLU 73	-7.09	-0.36	48.32	0.1033	-0.2983	-0.001
79	SLU 74	-5.48	-0.39	49	0.1973	-0.2313	-0.0013
79	SLU 75	-6.55	-0.38	48.91	0.1435	-0.2762	-0.0011
79	SLU 76	-7.23	-0.36	48.62	0.1063	-0.3047	-0.001
79	SLU 77	-5.62	-0.39	49.3	0.2003	-0.2378	-0.0013
79	SLU 78	-6.69	-0.38	49.21	0.1465	-0.2826	-0.0012
79	SLU 79	-5.58	-0.39	49.07	0.1989	-0.2364	-0.0013
79	SLU 80	-6.66	-0.38	48.98	0.1451	-0.2812	-0.0011
79	SLU 81	-5.49	-0.4	50.41	0.2002	-0.2319	-0.0013
79	SLU 82	-6.56	-0.38	50.32	0.1464	-0.2767	-0.0012
79	SLU 83	-5.63	-0.4	50.71	0.2031	-0.2383	-0.0013
79	SLU 84	-6.71	-0.39	50.62	0.1493	-0.2831	-0.0012
79	SLE RA 1	-3.65	-0.26	32.96	0.1319	-0.1534	-0.0008
79	SLE RA 2	-4.85	-0.24	32.86	0.0721	-0.2032	-0.0007
79	SLE RA 3	-3.77	-0.27	33.31	0.1348	-0.1586	-0.0009
79	SLE RA 4	-4.49	-0.26	33.26	0.099	-0.1885	-0.0008
79	SLE RA 5	-4.94	-0.25	33.06	0.0741	-0.2075	-0.0007
79	SLE RA 6	-3.87	-0.27	33.52	0.1368	-0.1629	-0.0009
79	SLE RA 7	-4.58	-0.26	33.46	0.101	-0.1927	-0.0008
79	SLE RA 8	-3.84	-0.27	33.36	0.1359	-0.1619	-0.0009
79	SLE RA 9	-4.56	-0.26	33.31	0.1	-0.1918	-0.0008
79	SLE RA 10	-5.14	-0.27	35.89	0.0834	-0.2161	-0.0008
79	SLE RA 11	-4.07	-0.29	36.34	0.1461	-0.1715	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
79	SLE RA 12	-4.78	-0.28	36.28	0.1102	-0.2014	-0.0008
79	SLE RA 13	-5.24	-0.27	36.09	0.0854	-0.2204	-0.0008
79	SLE RA 14	-4.16	-0.29	36.54	0.1481	-0.1758	-0.0009
79	SLE RA 15	-4.88	-0.28	36.49	0.1122	-0.2057	-0.0009
79	SLE RA 16	-4.14	-0.29	36.39	0.1471	-0.1749	-0.0009
79	SLE RA 17	-4.85	-0.28	36.33	0.1113	-0.2048	-0.0009
79	SLE RA 18	-4.07	-0.29	37.28	0.148	-0.1719	-0.001
79	SLE RA 19	-4.79	-0.28	37.22	0.1121	-0.2017	-0.0009
79	SLE RA 20	-4.17	-0.3	37.49	0.15	-0.1761	-0.001
79	SLE RA 21	-4.88	-0.29	37.43	0.1141	-0.206	-0.0009
79	SLE FR 1	-3.65	-0.26	32.96	0.1319	-0.1534	-0.0008
79	SLE FR 2	-3.89	-0.26	32.94	0.12	-0.1633	-0.0008
79	SLE FR 3	-3.69	-0.26	33.04	0.1327	-0.1551	-0.0008
79	SLE FR 4	-4.02	-0.27	34.24	0.1248	-0.1689	-0.0008
79	SLE FR 5	-3.82	-0.27	34.34	0.1375	-0.1606	-0.0009
79	SLE FR 6	-3.86	-0.28	35.12	0.14	-0.1626	-0.0009
79	SLE QP 1	-3.65	-0.26	32.96	0.1319	-0.1534	-0.0008
79	SLE QP 2	-3.78	-0.27	34.25	0.1367	-0.1589	-0.0009
79	SLD 1	3.35	-0.26	34.69	0.0189	0.1539	-0.0013
79	SLD 2	3.35	-0.26	34.69	0.0189	0.1539	-0.0013
79	SLD 3	4.7	-0.18	31.45	0.1539	0.2105	-0.0008
79	SLD 4	4.7	-0.18	31.45	0.1539	0.2105	-0.0008
79	SLD 5	-3.68	-0.4	39.3	-0.1034	-0.151	-0.0017
79	SLD 6	-3.68	-0.4	39.3	-0.1034	-0.151	-0.0017
79	SLD 7	0.8	-0.11	28.5	0.3467	0.0378	-0.0002
79	SLD 8	0.8	-0.11	28.5	0.3467	0.0378	-0.0002
79	SLD 9	-8.36	-0.43	40.01	-0.0732	-0.3557	-0.0016
79	SLD 10	-8.36	-0.43	40.01	-0.0732	-0.3557	-0.0016
79	SLD 11	-3.88	-0.14	29.21	0.3769	-0.1669	-0.0001
79	SLD 12	-3.88	-0.14	29.21	0.3769	-0.1669	-0.0001
79	SLD 13	-12.26	-0.36	37.06	0.1196	-0.5284	-0.0009
79	SLD 14	-12.26	-0.36	37.06	0.1196	-0.5284	-0.0009
79	SLD 15	-10.91	-0.28	33.82	0.2546	-0.4717	-0.0005
79	SLD 16	-10.91	-0.28	33.82	0.2546	-0.4717	-0.0005
79	SLV 1	12.86	-0.25	35.22	-0.1585	0.5711	-0.0019
79	SLV 2	12.86	-0.25	35.22	-0.1585	0.5711	-0.0019
79	SLV 3	16.09	-0.04	27.6	0.186	0.7071	-0.0007
79	SLV 4	16.09	-0.04	27.6	0.186	0.7071	-0.0007
79	SLV 5	-3.68	-0.59	46.1	-0.4743	-0.1462	-0.0029
79	SLV 6	-3.68	-0.59	46.1	-0.4743	-0.1462	-0.0029
79	SLV 7	7.07	0.13	20.7	0.674	0.3072	0.0009
79	SLV 8	7.07	0.13	20.7	0.674	0.3072	0.0009
79	SLV 9	-14.63	-0.67	47.81	-0.4005	-0.625	-0.0027
79	SLV 10	-14.63	-0.67	47.81	-0.4005	-0.625	-0.0027
79	SLV 11	-3.88	0.05	22.41	0.7478	-0.1717	0.0012
79	SLV 12	-3.88	0.05	22.41	0.7478	-0.1717	0.0012
79	SLV 13	-23.65	-0.5	40.91	0.0875	-1.025	-0.001
79	SLV 14	-23.65	-0.5	40.91	0.0875	-1.025	-0.001
79	SLV 15	-20.42	-0.28	33.29	0.432	-0.889	0.0001
79	SLV 16	-20.42	-0.28	33.29	0.432	-0.889	0.0001
80	SLU 1	-3.93	-0.3	29.59	0.1508	-0.1488	-0.0013
80	SLU 2	-5.37	-0.23	29.02	0.0192	-0.2084	-0.0008
80	SLU 3	-4.11	-0.31	30.09	0.1559	-0.1562	-0.0013
80	SLU 4	-4.98	-0.26	29.75	0.0769	-0.192	-0.001
80	SLU 5	-5.51	-0.23	29.32	0.0227	-0.2142	-0.0009
80	SLU 6	-4.26	-0.31	30.4	0.1593	-0.162	-0.0013
80	SLU 7	-5.12	-0.27	30.05	0.0804	-0.1977	-0.0011
80	SLU 8	-4.21	-0.31	30.2	0.1576	-0.1604	-0.0013
80	SLU 9	-5.08	-0.27	29.86	0.0787	-0.1961	-0.0011
80	SLU 10	-5.88	-0.27	33.27	0.0388	-0.2269	-0.001
80	SLU 11	-4.62	-0.35	34.35	0.1754	-0.1747	-0.0015
80	SLU 12	-5.49	-0.3	34.01	0.0965	-0.2104	-0.0012
80	SLU 13	-6.02	-0.27	33.58	0.0422	-0.2327	-0.001
80	SLU 14	-4.77	-0.35	34.66	0.1788	-0.1805	-0.0015
80	SLU 15	-5.63	-0.31	34.31	0.0999	-0.2162	-0.0012
80	SLU 16	-4.72	-0.35	34.46	0.1771	-0.1789	-0.0015
80	SLU 17	-5.59	-0.31	34.11	0.0982	-0.2146	-0.0012
80	SLU 18	-4.66	-0.35	35.67	0.1787	-0.1752	-0.0015
80	SLU 19	-5.52	-0.31	35.33	0.0998	-0.211	-0.0012
80	SLU 20	-4.8	-0.36	35.98	0.1821	-0.181	-0.0015
80	SLU 21	-5.67	-0.32	35.63	0.1032	-0.2168	-0.0013
80	SLU 22	-4.39	-0.34	33.12	0.1694	-0.1657	-0.0014
80	SLU 23	-5.83	-0.26	32.55	0.0379	-0.2253	-0.001
80	SLU 24	-4.57	-0.35	33.63	0.1746	-0.1731	-0.0015
80	SLU 25	-5.43	-0.3	33.28	0.0956	-0.2088	-0.0012
80	SLU 26	-5.97	-0.27	32.85	0.0414	-0.2311	-0.001
80	SLU 27	-4.71	-0.35	33.93	0.178	-0.1788	-0.0015
80	SLU 28	-5.57	-0.31	33.59	0.0991	-0.2146	-0.0012
80	SLU 29	-4.67	-0.35	33.73	0.1763	-0.1772	-0.0015
80	SLU 30	-5.53	-0.31	33.39	0.0974	-0.213	-0.0012
80	SLU 31	-6.34	-0.3	36.8	0.0575	-0.2438	-0.0012
80	SLU 32	-5.08	-0.39	37.88	0.1941	-0.1915	-0.0016
80	SLU 33	-5.94	-0.34	37.54	0.1152	-0.2273	-0.0014
80	SLU 34	-6.48	-0.31	37.11	0.0609	-0.2495	-0.0012
80	SLU 35	-5.22	-0.39	38.19	0.1975	-0.1973	-0.0017
80	SLU 36	-6.08	-0.35	37.84	0.1186	-0.2331	-0.0014
80	SLU 37	-5.18	-0.39	37.99	0.1958	-0.1957	-0.0016



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
80	SLU 38	-6.04	-0.35	37.64	0.1169	-0.2315	-0.0014
80	SLU 39	-5.11	-0.39	39.2	0.1974	-0.1921	-0.0017
80	SLU 40	-5.98	-0.35	38.86	0.1185	-0.2278	-0.0014
80	SLU 41	-5.26	-0.4	39.51	0.2008	-0.1979	-0.0017
80	SLU 42	-6.12	-0.36	39.16	0.1219	-0.2336	-0.0014
80	SLU 43	-4.95	-0.37	37.26	0.1896	-0.1877	-0.0016
80	SLU 44	-6.39	-0.3	36.68	0.0581	-0.2473	-0.0012
80	SLU 45	-5.14	-0.38	37.76	0.1947	-0.1951	-0.0016
80	SLU 46	-6	-0.34	37.42	0.1158	-0.2308	-0.0014
80	SLU 47	-6.54	-0.31	36.99	0.0615	-0.2531	-0.0012
80	SLU 48	-5.28	-0.39	38.07	0.1981	-0.2008	-0.0016
80	SLU 49	-6.14	-0.35	37.72	0.1192	-0.2366	-0.0014
80	SLU 50	-5.24	-0.39	37.87	0.1964	-0.1992	-0.0016
80	SLU 51	-6.1	-0.34	37.52	0.1175	-0.235	-0.0014
80	SLU 52	-6.9	-0.34	40.94	0.0776	-0.2658	-0.0013
80	SLU 53	-5.65	-0.42	42.02	0.2142	-0.2135	-0.0018
80	SLU 54	-6.51	-0.38	41.67	0.1353	-0.2493	-0.0015
80	SLU 55	-7.05	-0.35	41.25	0.081	-0.2715	-0.0014
80	SLU 56	-5.79	-0.43	42.32	0.2176	-0.2193	-0.0018
80	SLU 57	-6.65	-0.39	41.98	0.1387	-0.2551	-0.0016
80	SLU 58	-5.75	-0.43	42.12	0.2159	-0.2177	-0.0018
80	SLU 59	-6.61	-0.38	41.78	0.137	-0.2535	-0.0015
80	SLU 60	-5.68	-0.43	43.34	0.2175	-0.2141	-0.0018
80	SLU 61	-6.55	-0.39	42.99	0.1386	-0.2499	-0.0016
80	SLU 62	-5.82	-0.44	43.64	0.2209	-0.2199	-0.0018
80	SLU 63	-6.69	-0.39	43.3	0.142	-0.2556	-0.0016
80	SLU 64	-5.41	-0.41	40.79	0.2083	-0.2046	-0.0017
80	SLU 65	-6.85	-0.34	40.21	0.0768	-0.2642	-0.0013
80	SLU 66	-5.59	-0.42	41.29	0.2134	-0.2119	-0.0018
80	SLU 67	-6.46	-0.38	40.95	0.1345	-0.2477	-0.0015
80	SLU 68	-6.99	-0.35	40.52	0.0802	-0.2699	-0.0013
80	SLU 69	-5.73	-0.43	41.6	0.2168	-0.2177	-0.0018
80	SLU 70	-6.6	-0.38	41.25	0.1379	-0.2535	-0.0016
80	SLU 71	-5.69	-0.42	41.4	0.2151	-0.2161	-0.0018
80	SLU 72	-6.56	-0.38	41.05	0.1362	-0.2519	-0.0015
80	SLU 73	-7.36	-0.38	44.47	0.0963	-0.2826	-0.0015
80	SLU 74	-6.1	-0.46	45.55	0.2329	-0.2304	-0.0019
80	SLU 75	-6.97	-0.42	45.2	0.154	-0.2662	-0.0017
80	SLU 76	-7.5	-0.39	44.78	0.0997	-0.2884	-0.0015
80	SLU 77	-6.24	-0.47	45.85	0.2363	-0.2362	-0.002
80	SLU 78	-7.11	-0.43	45.51	0.1574	-0.2719	-0.0017
80	SLU 79	-6.2	-0.46	45.66	0.2346	-0.2346	-0.002
80	SLU 80	-7.07	-0.42	45.31	0.1557	-0.2703	-0.0017
80	SLU 81	-6.14	-0.47	46.87	0.2362	-0.231	-0.002
80	SLU 82	-7	-0.43	46.53	0.1573	-0.2667	-0.0017
80	SLU 83	-6.28	-0.48	47.17	0.2396	-0.2367	-0.002
80	SLU 84	-7.14	-0.43	46.83	0.1607	-0.2725	-0.0018
80	SLE RA 1	-4.06	-0.31	30.6	0.1561	-0.1536	-0.0013
80	SLE RA 2	-5.02	-0.26	30.22	0.0684	-0.1934	-0.001
80	SLE RA 3	-4.18	-0.31	30.94	0.1595	-0.1586	-0.0013
80	SLE RA 4	-4.76	-0.29	30.71	0.1069	-0.1824	-0.0012
80	SLE RA 5	-5.12	-0.26	30.42	0.0707	-0.1972	-0.001
80	SLE RA 6	-4.28	-0.32	31.14	0.1618	-0.1624	-0.0013
80	SLE RA 7	-4.85	-0.29	30.91	0.1092	-0.1862	-0.0012
80	SLE RA 8	-4.25	-0.32	31.01	0.1606	-0.1613	-0.0013
80	SLE RA 9	-4.83	-0.29	30.78	0.108	-0.1852	-0.0012
80	SLE RA 10	-5.36	-0.29	33.05	0.0815	-0.2057	-0.0011
80	SLE RA 11	-4.52	-0.34	33.77	0.1725	-0.1709	-0.0014
80	SLE RA 12	-5.1	-0.31	33.54	0.1199	-0.1947	-0.0013
80	SLE RA 13	-5.46	-0.29	33.26	0.0837	-0.2095	-0.0012
80	SLE RA 14	-4.62	-0.35	33.98	0.1748	-0.1747	-0.0015
80	SLE RA 15	-5.19	-0.32	33.75	0.1222	-0.1986	-0.0013
80	SLE RA 16	-4.59	-0.34	33.84	0.1737	-0.1737	-0.0014
80	SLE RA 17	-5.17	-0.31	33.61	0.1211	-0.1975	-0.0013
80	SLE RA 18	-4.55	-0.35	34.65	0.1747	-0.1712	-0.0015
80	SLE RA 19	-5.12	-0.32	34.42	0.1221	-0.1951	-0.0013
80	SLE RA 20	-4.64	-0.35	34.86	0.177	-0.1751	-0.0015
80	SLE RA 21	-5.22	-0.32	34.63	0.1244	-0.1989	-0.0013
80	SLE FR 1	-4.06	-0.31	30.6	0.1561	-0.1536	-0.0013
80	SLE FR 2	-4.25	-0.3	30.52	0.1386	-0.1616	-0.0012
80	SLE FR 3	-4.1	-0.31	30.68	0.157	-0.1552	-0.0013
80	SLE FR 4	-4.4	-0.31	31.74	0.1441	-0.1669	-0.0013
80	SLE FR 5	-4.24	-0.32	31.9	0.1626	-0.1605	-0.0014
80	SLE FR 6	-4.3	-0.33	32.63	0.1654	-0.1624	-0.0014
80	SLE QP 1	-4.06	-0.31	30.6	0.1561	-0.1536	-0.0013
80	SLE QP 2	-4.21	-0.32	31.82	0.1617	-0.1589	-0.0013
80	SLD 1	2.91	-0.33	31.53	-0.0011	0.1528	-0.0015
80	SLD 2	2.91	-0.33	31.53	-0.0011	0.1528	-0.0015
80	SLD 3	4.19	-0.17	28.78	0.1922	0.2067	-0.0006
80	SLD 4	4.19	-0.17	28.78	0.1922	0.2067	-0.0006
80	SLD 5	-4.02	-0.56	35.9	-0.1803	-0.1471	-0.0026
80	SLD 6	-4.02	-0.56	35.9	-0.1803	-0.1471	-0.0026
80	SLD 7	0.26	-0.04	26.73	0.464	0.0324	0.0001
80	SLD 8	0.26	-0.04	26.73	0.464	0.0324	0.0001
80	SLD 9	-8.67	-0.6	36.9	-0.1406	-0.3503	-0.0028
80	SLD 10	-8.67	-0.6	36.9	-0.1406	-0.3503	-0.0028
80	SLD 11	-4.4	-0.08	27.73	0.5037	-0.1708	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
80	SLD 12	-4.4	-0.08	27.73	0.5037	-0.1708	-0.0001
80	SLD 13	-12.61	-0.47	34.85	0.1312	-0.5245	-0.0021
80	SLD 14	-12.61	-0.47	34.85	0.1312	-0.5245	-0.0021
80	SLD 15	-11.32	-0.31	32.1	0.3245	-0.4707	-0.0012
80	SLD 16	-11.32	-0.31	32.1	0.3245	-0.4707	-0.0012
80	SLV 1	12.43	-0.36	31.12	-0.2468	0.5696	-0.0017
80	SLV 2	12.43	-0.36	31.12	-0.2468	0.5696	-0.0017
80	SLV 3	15.47	0.04	24.65	0.2463	0.6974	0.0004
80	SLV 4	15.47	0.04	24.65	0.2463	0.6974	0.0004
80	SLV 5	-3.83	-0.94	41.43	-0.7087	-0.1341	-0.0046
80	SLV 6	-3.83	-0.94	41.43	-0.7087	-0.1341	-0.0046
80	SLV 7	6.31	0.4	19.85	0.9349	0.2917	0.0023
80	SLV 8	6.31	0.4	19.85	0.9349	0.2917	0.0023
80	SLV 9	-14.72	-1.03	43.78	-0.6115	-0.6095	-0.005
80	SLV 10	-14.72	-1.03	43.78	-0.6115	-0.6095	-0.005
80	SLV 11	-4.59	0.3	22.21	1.032	-0.1838	0.0019
80	SLV 12	-4.59	0.3	22.21	1.032	-0.1838	0.0019
80	SLV 13	-23.88	-0.68	38.98	0.0771	-1.0152	-0.0031
80	SLV 14	-23.88	-0.68	38.98	0.0771	-1.0152	-0.0031
80	SLV 15	-20.84	-0.28	32.51	0.5701	-0.8875	-0.001
80	SLV 16	-20.84	-0.28	32.51	0.5701	-0.8875	-0.001
81	SLU 1	-4.38	-0.3	27.47	0.1525	-0.1854	-0.0016
81	SLU 2	-5.39	-0.18	26.76	-0.017	-0.2291	-0.0009
81	SLU 3	-4.57	-0.31	27.94	0.1577	-0.1938	-0.0016
81	SLU 4	-5.18	-0.24	27.51	0.056	-0.22	-0.0012
81	SLU 5	-5.54	-0.19	27.06	-0.0135	-0.2358	-0.0009
81	SLU 6	-4.72	-0.31	28.24	0.1612	-0.2005	-0.0017
81	SLU 7	-5.33	-0.24	27.82	0.0595	-0.2267	-0.0013
81	SLU 8	-4.68	-0.31	28.07	0.1595	-0.1988	-0.0017
81	SLU 9	-5.29	-0.24	27.64	0.0578	-0.2251	-0.0012
81	SLU 10	-6.02	-0.22	30.73	0.0021	-0.2565	-0.0011
81	SLU 11	-5.2	-0.34	31.91	0.1769	-0.2212	-0.0019
81	SLU 12	-5.81	-0.28	31.48	0.0752	-0.2474	-0.0014
81	SLU 13	-6.17	-0.23	31.03	0.0056	-0.2633	-0.0011
81	SLU 14	-5.35	-0.35	32.21	0.1804	-0.2279	-0.0019
81	SLU 15	-5.96	-0.28	31.78	0.0787	-0.2542	-0.0015
81	SLU 16	-5.31	-0.35	32.04	0.1787	-0.2263	-0.0019
81	SLU 17	-5.92	-0.28	31.61	0.077	-0.2525	-0.0015
81	SLU 18	-5.28	-0.35	33.14	0.1799	-0.2246	-0.0019
81	SLU 19	-5.88	-0.28	32.71	0.0782	-0.2508	-0.0015
81	SLU 20	-5.43	-0.36	33.44	0.1834	-0.2313	-0.0019
81	SLU 21	-6.03	-0.29	33.01	0.0817	-0.2575	-0.0015
81	SLU 22	-4.93	-0.33	30.76	0.171	-0.2094	-0.0018
81	SLU 23	-5.95	-0.22	30.06	0.0015	-0.2532	-0.0011
81	SLU 24	-5.13	-0.34	31.24	0.1763	-0.2178	-0.0019
81	SLU 25	-5.73	-0.28	30.81	0.0746	-0.2441	-0.0014
81	SLU 26	-6.1	-0.23	30.36	0.005	-0.2599	-0.0011
81	SLU 27	-5.28	-0.35	31.54	0.1798	-0.2246	-0.0019
81	SLU 28	-5.88	-0.28	31.11	0.0781	-0.2508	-0.0015
81	SLU 29	-5.23	-0.35	31.37	0.178	-0.2229	-0.0019
81	SLU 30	-5.84	-0.28	30.94	0.0763	-0.2491	-0.0014
81	SLU 31	-6.57	-0.26	34.03	0.0207	-0.2806	-0.0013
81	SLU 32	-5.75	-0.38	35.21	0.1954	-0.2453	-0.0021
81	SLU 33	-6.36	-0.31	34.78	0.0937	-0.2715	-0.0016
81	SLU 34	-6.73	-0.27	34.33	0.0242	-0.2873	-0.0013
81	SLU 35	-5.91	-0.39	35.51	0.1989	-0.252	-0.0021
81	SLU 36	-6.51	-0.32	35.08	0.0972	-0.2782	-0.0017
81	SLU 37	-5.86	-0.39	35.34	0.1972	-0.2503	-0.0021
81	SLU 38	-6.47	-0.32	34.91	0.0955	-0.2766	-0.0017
81	SLU 39	-5.83	-0.39	36.43	0.1984	-0.2486	-0.0021
81	SLU 40	-6.44	-0.32	36.01	0.0967	-0.2749	-0.0017
81	SLU 41	-5.98	-0.4	36.74	0.2019	-0.2554	-0.0021
81	SLU 42	-6.59	-0.33	36.31	0.1002	-0.2816	-0.0017
81	SLU 43	-5.5	-0.37	34.57	0.1919	-0.2328	-0.002
81	SLU 44	-6.51	-0.26	33.87	0.0224	-0.2765	-0.0013
81	SLU 45	-5.69	-0.38	35.05	0.1971	-0.2412	-0.0021
81	SLU 46	-6.3	-0.31	34.62	0.0954	-0.2674	-0.0016
81	SLU 47	-6.66	-0.27	34.17	0.0259	-0.2832	-0.0013
81	SLU 48	-5.84	-0.39	35.35	0.2006	-0.2479	-0.0021
81	SLU 49	-6.45	-0.32	34.92	0.0989	-0.2741	-0.0017
81	SLU 50	-5.8	-0.38	35.18	0.1989	-0.2462	-0.0021
81	SLU 51	-6.41	-0.32	34.75	0.0972	-0.2724	-0.0017
81	SLU 52	-7.14	-0.3	37.84	0.0415	-0.3039	-0.0015
81	SLU 53	-6.32	-0.42	39.02	0.2163	-0.2686	-0.0023
81	SLU 54	-6.93	-0.35	38.59	0.1146	-0.2948	-0.0018
81	SLU 55	-7.29	-0.3	38.14	0.045	-0.3106	-0.0015
81	SLU 56	-6.47	-0.43	39.32	0.2198	-0.2753	-0.0023
81	SLU 57	-7.08	-0.36	38.89	0.1181	-0.3015	-0.0019
81	SLU 58	-6.43	-0.42	39.15	0.2181	-0.2736	-0.0023
81	SLU 59	-7.04	-0.36	38.72	0.1163	-0.2999	-0.0019
81	SLU 60	-6.4	-0.43	40.25	0.2193	-0.2719	-0.0023
81	SLU 61	-7.01	-0.36	39.82	0.1176	-0.2982	-0.0019
81	SLU 62	-6.55	-0.43	40.55	0.2228	-0.2787	-0.0023
81	SLU 63	-7.16	-0.37	40.12	0.1211	-0.3049	-0.0019
81	SLU 64	-6.05	-0.41	37.87	0.2104	-0.2568	-0.0022
81	SLU 65	-7.07	-0.3	37.17	0.0409	-0.3005	-0.0015
81	SLU 66	-6.25	-0.42	38.35	0.2157	-0.2652	-0.0023



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
81	SLU 67	-6.86	-0.35	37.92	0.114	-0.2914	-0.0018
81	SLU 68	-7.22	-0.3	37.47	0.0444	-0.3073	-0.0015
81	SLU 69	-6.4	-0.43	38.65	0.2192	-0.2719	-0.0023
81	SLU 70	-7.01	-0.36	38.22	0.1175	-0.2982	-0.0019
81	SLU 71	-6.36	-0.42	38.48	0.2174	-0.2703	-0.0023
81	SLU 72	-6.97	-0.35	38.05	0.1157	-0.2965	-0.0019
81	SLU 73	-7.7	-0.34	41.13	0.0601	-0.328	-0.0017
81	SLU 74	-6.88	-0.46	42.32	0.2348	-0.2926	-0.0025
81	SLU 75	-7.49	-0.39	41.89	0.1331	-0.3189	-0.002
81	SLU 76	-7.85	-0.34	41.44	0.0636	-0.3347	-0.0017
81	SLU 77	-7.03	-0.46	42.62	0.2383	-0.2994	-0.0025
81	SLU 78	-7.64	-0.4	42.19	0.1366	-0.3256	-0.0021
81	SLU 79	-6.99	-0.46	42.45	0.2366	-0.2977	-0.0025
81	SLU 80	-7.59	-0.39	42.02	0.1349	-0.3239	-0.0021
81	SLU 81	-6.95	-0.47	43.54	0.2378	-0.296	-0.0025
81	SLU 82	-7.56	-0.4	43.12	0.1361	-0.3222	-0.0021
81	SLU 83	-7.1	-0.47	43.85	0.2413	-0.3027	-0.0025
81	SLU 84	-7.71	-0.4	43.42	0.1396	-0.329	-0.0021
81	SLE RA 1	-4.54	-0.31	28.41	0.1578	-0.1923	-0.0017
81	SLE RA 2	-5.21	-0.23	27.94	0.0448	-0.2214	-0.0012
81	SLE RA 3	-4.66	-0.31	28.72	0.1613	-0.1979	-0.0017
81	SLE RA 4	-5.07	-0.27	28.44	0.0935	-0.2153	-0.0014
81	SLE RA 5	-5.31	-0.24	28.14	0.0471	-0.2259	-0.0012
81	SLE RA 6	-4.77	-0.32	28.92	0.1636	-0.2023	-0.0017
81	SLE RA 7	-5.17	-0.27	28.64	0.0958	-0.2198	-0.0014
81	SLE RA 8	-4.74	-0.31	28.81	0.1625	-0.2012	-0.0017
81	SLE RA 9	-5.14	-0.27	28.53	0.0947	-0.2187	-0.0014
81	SLE RA 10	-5.63	-0.26	30.58	0.0576	-0.2397	-0.0013
81	SLE RA 11	-5.08	-0.34	31.37	0.1741	-0.2161	-0.0018
81	SLE RA 12	-5.49	-0.29	31.09	0.1063	-0.2336	-0.0015
81	SLE RA 13	-5.73	-0.26	30.78	0.0599	-0.2442	-0.0013
81	SLE RA 14	-5.18	-0.34	31.57	0.1764	-0.2206	-0.0019
81	SLE RA 15	-5.59	-0.3	31.29	0.1086	-0.2381	-0.0016
81	SLE RA 16	-5.16	-0.34	31.46	0.1752	-0.2195	-0.0018
81	SLE RA 17	-5.56	-0.3	31.17	0.1074	-0.237	-0.0016
81	SLE RA 18	-5.13	-0.34	32.19	0.1761	-0.2184	-0.0019
81	SLE RA 19	-5.54	-0.3	31.91	0.1082	-0.2359	-0.0016
81	SLE RA 20	-5.24	-0.35	32.39	0.1784	-0.2229	-0.0019
81	SLE RA 21	-5.64	-0.3	32.11	0.1106	-0.2404	-0.0016
81	SLE FR 1	-4.54	-0.31	28.41	0.1578	-0.1923	-0.0017
81	SLE FR 2	-4.67	-0.29	28.31	0.1352	-0.1981	-0.0016
81	SLE FR 3	-4.58	-0.31	28.49	0.1587	-0.1941	-0.0017
81	SLE FR 4	-4.85	-0.3	29.45	0.1407	-0.2059	-0.0016
81	SLE FR 5	-4.76	-0.32	29.62	0.1642	-0.2019	-0.0017
81	SLE FR 6	-4.84	-0.33	30.3	0.1669	-0.2053	-0.0018
81	SLE QP 1	-4.54	-0.31	28.41	0.1578	-0.1923	-0.0017
81	SLE QP 2	-4.72	-0.32	29.54	0.1633	-0.2001	-0.0017
81	SLD 1	2.51	-0.34	28.34	-0.0376	0.1127	-0.0019
81	SLD 2	2.51	-0.34	28.34	-0.0376	0.1127	-0.0019
81	SLD 3	3.72	-0.13	25.88	0.2057	0.1634	-0.0006
81	SLD 4	3.72	-0.13	25.88	0.2057	0.1634	-0.0006
81	SLD 5	-4.4	-0.65	32.92	-0.266	-0.1831	-0.0037
81	SLD 6	-4.4	-0.65	32.92	-0.266	-0.1831	-0.0037
81	SLD 7	-0.34	0.06	24.7	0.5451	-0.0143	0.0006
81	SLD 8	-0.34	0.06	24.7	0.5451	-0.0143	0.0006
81	SLD 9	-9.09	-0.7	34.38	-0.2185	-0.3859	-0.004
81	SLD 10	-9.09	-0.7	34.38	-0.2185	-0.3859	-0.004
81	SLD 11	-5.03	0.02	26.16	0.5926	-0.2171	0.0003
81	SLD 12	-5.03	0.02	26.16	0.5926	-0.2171	0.0003
81	SLD 13	-13.15	-0.51	33.21	0.1209	-0.5636	-0.0028
81	SLD 14	-13.15	-0.51	33.21	0.1209	-0.5636	-0.0028
81	SLD 15	-11.94	-0.29	30.74	0.3642	-0.5129	-0.0015
81	SLD 16	-11.94	-0.29	30.74	0.3642	-0.5129	-0.0015
81	SLV 1	12.17	-0.39	26.77	-0.3414	0.5314	-0.0023
81	SLV 2	12.17	-0.39	26.77	-0.3414	0.5314	-0.0023
81	SLV 3	15.04	0.15	20.9	0.2793	0.6509	0.001
81	SLV 4	15.04	0.15	20.9	0.2793	0.6509	0.001
81	SLV 5	-4.01	-1.17	37.61	-0.9294	-0.1619	-0.0069
81	SLV 6	-4.01	-1.17	37.61	-0.9294	-0.1619	-0.0069
81	SLV 7	5.57	0.65	18.05	1.1394	0.2364	0.0041
81	SLV 8	5.57	0.65	18.05	1.1394	0.2364	0.0041
81	SLV 9	-15	-1.28	41.04	-0.8128	-0.6366	-0.0075
81	SLV 10	-15	-1.28	41.04	-0.8128	-0.6366	-0.0075
81	SLV 11	-5.42	0.53	21.47	1.256	-0.2383	0.0034
81	SLV 12	-5.42	0.53	21.47	1.256	-0.2383	0.0034
81	SLV 13	-24.48	-0.79	38.18	0.0473	-1.0511	-0.0045
81	SLV 14	-24.48	-0.79	38.18	0.0473	-1.0511	-0.0045
81	SLV 15	-21.6	-0.24	32.31	0.668	-0.9316	-0.0012
81	SLV 16	-21.6	-0.24	32.31	0.668	-0.9316	-0.0012
82	SLU 1	-4.27	-0.26	25.53	0.1393	-0.1675	-0.0018
82	SLU 2	-4.82	-0.12	24.93	-0.06	-0.1922	-0.0007
82	SLU 3	-4.46	-0.27	25.97	0.1442	-0.1753	-0.0018
82	SLU 4	-4.79	-0.19	25.61	0.0247	-0.1901	-0.0012
82	SLU 5	-4.97	-0.12	25.22	-0.0566	-0.1983	-0.0008
82	SLU 6	-4.61	-0.28	26.26	0.1476	-0.1813	-0.0019
82	SLU 7	-4.93	-0.19	25.91	0.028	-0.1961	-0.0012
82	SLU 8	-4.57	-0.27	26.11	0.146	-0.1797	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
82	SLU 9	-4.89	-0.19	25.76	0.0264	-0.1945	-0.0012
82	SLU 10	-5.46	-0.15	28.6	-0.0433	-0.2165	-0.001
82	SLU 11	-5.1	-0.3	29.64	0.1609	-0.1996	-0.002
82	SLU 12	-5.43	-0.22	29.29	0.0414	-0.2144	-0.0014
82	SLU 13	-5.61	-0.16	28.9	-0.0399	-0.2226	-0.001
82	SLU 14	-5.25	-0.31	29.94	0.1643	-0.2056	-0.0021
82	SLU 15	-5.58	-0.22	29.58	0.0447	-0.2204	-0.0015
82	SLU 16	-5.21	-0.31	29.79	0.1626	-0.204	-0.0021
82	SLU 17	-5.54	-0.22	29.43	0.0431	-0.2188	-0.0014
82	SLU 18	-5.19	-0.31	30.77	0.1631	-0.2023	-0.0021
82	SLU 19	-5.52	-0.22	30.42	0.0436	-0.2171	-0.0015
82	SLU 20	-5.34	-0.32	31.07	0.1665	-0.2083	-0.0021
82	SLU 21	-5.66	-0.23	30.71	0.0469	-0.2231	-0.0015
82	SLU 22	-4.84	-0.3	28.59	0.1558	-0.1896	-0.002
82	SLU 23	-5.39	-0.15	27.99	-0.0435	-0.2142	-0.0009
82	SLU 24	-5.03	-0.3	29.03	0.1607	-0.1973	-0.002
82	SLU 25	-5.36	-0.22	28.68	0.0412	-0.2121	-0.0014
82	SLU 26	-5.54	-0.16	28.29	-0.0401	-0.2203	-0.001
82	SLU 27	-5.18	-0.31	29.33	0.1641	-0.2034	-0.0021
82	SLU 28	-5.5	-0.22	28.97	0.0445	-0.2182	-0.0015
82	SLU 29	-5.14	-0.31	29.18	0.1624	-0.2017	-0.002
82	SLU 30	-5.46	-0.22	28.82	0.0429	-0.2165	-0.0014
82	SLU 31	-6.03	-0.19	31.67	-0.0268	-0.2386	-0.0012
82	SLU 32	-5.67	-0.34	32.71	0.1774	-0.2216	-0.0023
82	SLU 33	-6	-0.25	32.35	0.0578	-0.2364	-0.0016
82	SLU 34	-6.18	-0.19	31.96	-0.0235	-0.2446	-0.0012
82	SLU 35	-5.82	-0.34	33	0.1807	-0.2277	-0.0023
82	SLU 36	-6.15	-0.26	32.64	0.0612	-0.2425	-0.0017
82	SLU 37	-5.78	-0.34	32.85	0.1791	-0.226	-0.0023
82	SLU 38	-6.11	-0.25	32.49	0.0596	-0.2408	-0.0017
82	SLU 39	-5.76	-0.34	33.84	0.1796	-0.2243	-0.0023
82	SLU 40	-6.09	-0.26	33.48	0.06	-0.2391	-0.0017
82	SLU 41	-5.91	-0.35	34.13	0.1829	-0.2304	-0.0023
82	SLU 42	-6.23	-0.26	33.78	0.0634	-0.2452	-0.0017
82	SLU 43	-5.36	-0.33	32.13	0.1754	-0.2103	-0.0022
82	SLU 44	-5.91	-0.19	31.54	-0.0238	-0.2349	-0.0012
82	SLU 45	-5.55	-0.34	32.58	0.1804	-0.218	-0.0023
82	SLU 46	-5.87	-0.25	32.22	0.0608	-0.2328	-0.0016
82	SLU 47	-6.05	-0.19	31.83	-0.0205	-0.241	-0.0012
82	SLU 48	-5.69	-0.34	32.87	0.1837	-0.224	-0.0023
82	SLU 49	-6.02	-0.26	32.51	0.0642	-0.2388	-0.0017
82	SLU 50	-5.65	-0.34	32.72	0.1821	-0.2224	-0.0023
82	SLU 51	-5.98	-0.26	32.36	0.0626	-0.2372	-0.0017
82	SLU 52	-6.55	-0.22	35.21	-0.0072	-0.2592	-0.0014
82	SLU 53	-6.19	-0.37	36.25	0.1971	-0.2423	-0.0025
82	SLU 54	-6.52	-0.29	35.89	0.0775	-0.2571	-0.0019
82	SLU 55	-6.69	-0.23	35.51	-0.0038	-0.2653	-0.0014
82	SLU 56	-6.33	-0.38	36.54	0.2004	-0.2483	-0.0025
82	SLU 57	-6.66	-0.29	36.19	0.0808	-0.2631	-0.0019
82	SLU 58	-6.29	-0.38	36.39	0.1988	-0.2467	-0.0025
82	SLU 59	-6.62	-0.29	36.04	0.0792	-0.2615	-0.0019
82	SLU 60	-6.28	-0.38	37.38	0.1992	-0.245	-0.0025
82	SLU 61	-6.6	-0.29	37.02	0.0797	-0.2598	-0.0019
82	SLU 62	-6.42	-0.38	37.68	0.2026	-0.251	-0.0026
82	SLU 63	-6.75	-0.3	37.32	0.083	-0.2658	-0.0019
82	SLU 64	-5.93	-0.36	35.2	0.1919	-0.2323	-0.0024
82	SLU 65	-6.48	-0.22	34.6	-0.0074	-0.257	-0.0014
82	SLU 66	-6.12	-0.37	35.64	0.1969	-0.24	-0.0025
82	SLU 67	-6.44	-0.29	35.28	0.0773	-0.2548	-0.0019
82	SLU 68	-6.62	-0.22	34.9	-0.004	-0.263	-0.0014
82	SLU 69	-6.26	-0.38	35.93	0.2002	-0.2461	-0.0025
82	SLU 70	-6.59	-0.29	35.58	0.0806	-0.2609	-0.0019
82	SLU 71	-6.22	-0.37	35.78	0.1986	-0.2444	-0.0025
82	SLU 72	-6.55	-0.29	35.43	0.079	-0.2592	-0.0019
82	SLU 73	-7.12	-0.25	38.28	0.0093	-0.2813	-0.0016
82	SLU 74	-6.76	-0.41	39.31	0.2135	-0.2643	-0.0027
82	SLU 75	-7.09	-0.32	38.96	0.094	-0.2791	-0.0021
82	SLU 76	-7.26	-0.26	38.57	0.0127	-0.2873	-0.0017
82	SLU 77	-6.9	-0.41	39.61	0.2169	-0.2704	-0.0027
82	SLU 78	-7.23	-0.32	39.25	0.0973	-0.2852	-0.0021
82	SLU 79	-6.86	-0.41	39.46	0.2153	-0.2687	-0.0027
82	SLU 80	-7.19	-0.32	39.1	0.0957	-0.2835	-0.0021
82	SLU 81	-6.85	-0.41	40.45	0.2157	-0.267	-0.0027
82	SLU 82	-7.17	-0.32	40.09	0.0962	-0.2818	-0.0021
82	SLU 83	-6.99	-0.42	40.74	0.2191	-0.2731	-0.0028
82	SLU 84	-7.32	-0.33	40.38	0.0995	-0.2879	-0.0022
82	SLE RA 1	-4.44	-0.27	26.4	0.144	-0.1738	-0.0018
82	SLE RA 2	-4.8	-0.18	26	0.0112	-0.1903	-0.0011
82	SLE RA 3	-4.56	-0.28	26.7	0.1473	-0.179	-0.0019
82	SLE RA 4	-4.78	-0.22	26.46	0.0676	-0.1889	-0.0014
82	SLE RA 5	-4.9	-0.18	26.2	0.0134	-0.1943	-0.0012
82	SLE RA 6	-4.66	-0.28	26.89	0.1495	-0.183	-0.0019
82	SLE RA 7	-4.88	-0.22	26.65	0.0698	-0.1929	-0.0015
82	SLE RA 8	-4.63	-0.28	26.79	0.1485	-0.1819	-0.0019
82	SLE RA 9	-4.85	-0.22	26.55	0.0688	-0.1918	-0.0015
82	SLE RA 10	-5.23	-0.2	28.45	0.0223	-0.2065	-0.0013
82	SLE RA 11	-4.99	-0.3	29.15	0.1584	-0.1952	-0.002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
82	SLE RA 12	-5.21	-0.24	28.91	0.0787	-0.2051	-0.0016
82	SLE RA 13	-5.33	-0.2	28.65	0.0245	-0.2105	-0.0013
82	SLE RA 14	-5.09	-0.3	29.34	0.1606	-0.1992	-0.002
82	SLE RA 15	-5.3	-0.25	29.1	0.0809	-0.2091	-0.0016
82	SLE RA 16	-5.06	-0.3	29.24	0.1596	-0.1981	-0.002
82	SLE RA 17	-5.28	-0.24	29	0.0799	-0.208	-0.0016
82	SLE RA 18	-5.05	-0.3	29.9	0.1599	-0.197	-0.002
82	SLE RA 19	-5.27	-0.25	29.66	0.0802	-0.2069	-0.0016
82	SLE RA 20	-5.14	-0.31	30.1	0.1621	-0.201	-0.0021
82	SLE RA 21	-5.36	-0.25	29.86	0.0824	-0.2109	-0.0016
82	SLE FR 1	-4.44	-0.27	26.4	0.144	-0.1738	-0.0018
82	SLE FR 2	-4.51	-0.25	26.32	0.1174	-0.1771	-0.0017
82	SLE FR 3	-4.47	-0.27	26.48	0.1449	-0.1755	-0.0018
82	SLE FR 4	-4.69	-0.26	27.37	0.1222	-0.1841	-0.0017
82	SLE FR 5	-4.66	-0.28	27.53	0.1497	-0.1824	-0.0019
82	SLE FR 6	-4.74	-0.29	28.15	0.1519	-0.1854	-0.0019
82	SLE QP 1	-4.44	-0.27	26.4	0.144	-0.1738	-0.0018
82	SLE QP 2	-4.62	-0.28	27.45	0.1488	-0.1808	-0.0019
82	SLD 1	2.92	-0.32	25.75	-0.0797	0.1509	-0.0022
82	SLD 2	2.92	-0.32	25.75	-0.0797	0.1509	-0.0022
82	SLD 3	4.12	-0.07	23.3	0.2004	0.2019	-0.0004
82	SLD 4	4.12	-0.07	23.3	0.2004	0.2019	-0.0004
82	SLD 5	-4.18	-0.68	30.65	-0.3446	-0.1586	-0.0047
82	SLD 6	-4.18	-0.68	30.65	-0.3446	-0.1586	-0.0047
82	SLD 7	-0.18	0.17	22.49	0.589	0.0113	0.0013
82	SLD 8	-0.18	0.17	22.49	0.589	0.0113	0.0013
82	SLD 9	-9.06	-0.73	32.41	-0.2915	-0.3729	-0.005
82	SLD 10	-9.06	-0.73	32.41	-0.2915	-0.3729	-0.005
82	SLD 11	-5.06	0.11	24.25	0.6421	-0.203	0.0009
82	SLD 12	-5.06	0.11	24.25	0.6421	-0.203	0.0009
82	SLD 13	-13.36	-0.5	31.6	0.0972	-0.5635	-0.0034
82	SLD 14	-13.36	-0.5	31.6	0.0972	-0.5635	-0.0034
82	SLD 15	-12.16	-0.24	29.15	0.3772	-0.5125	-0.0016
82	SLD 16	-12.16	-0.24	29.15	0.3772	-0.5125	-0.0016
82	SLV 1	13.02	-0.38	23.57	-0.4258	0.5951	-0.0027
82	SLV 2	13.02	-0.38	23.57	-0.4258	0.5951	-0.0027
82	SLV 3	15.85	0.26	17.62	0.2886	0.7153	0.0018
82	SLV 4	15.85	0.26	17.62	0.2886	0.7153	0.0018
82	SLV 5	-3.63	-1.28	35.31	-1.1071	-0.1304	-0.009
82	SLV 6	-3.63	-1.28	35.31	-1.1071	-0.1304	-0.009
82	SLV 7	5.82	0.85	15.48	1.2742	0.2704	0.0061
82	SLV 8	5.82	0.85	15.48	1.2742	0.2704	0.0061
82	SLV 9	-15.06	-1.42	39.42	-0.9766	-0.632	-0.0099
82	SLV 10	-15.06	-1.42	39.42	-0.9766	-0.632	-0.0099
82	SLV 11	-5.61	0.72	19.6	1.4046	-0.2312	0.0052
82	SLV 12	-5.61	0.72	19.6	1.4046	-0.2312	0.0052
82	SLV 13	-25.09	-0.82	37.28	0.009	-1.0769	-0.0056
82	SLV 14	-25.09	-0.82	37.28	0.009	-1.0769	-0.0056
82	SLV 15	-22.25	-0.18	31.33	0.7233	-0.9566	-0.0011
82	SLV 16	-22.25	-0.18	31.33	0.7233	-0.9566	-0.0011
83	SLU 1	-4.13	-0.22	23.98	0.1205	-0.1789	-0.0017
83	SLU 2	-4.24	-0.05	23.67	-0.0976	-0.1855	-0.0004
83	SLU 3	-4.31	-0.23	24.4	0.125	-0.1866	-0.0018
83	SLU 4	-4.37	-0.13	24.22	-0.0058	-0.1906	-0.001
83	SLU 5	-4.38	-0.06	23.96	-0.0945	-0.1918	-0.0005
83	SLU 6	-4.45	-0.23	24.69	0.1281	-0.1929	-0.0018
83	SLU 7	-4.52	-0.13	24.51	-0.0027	-0.1968	-0.0011
83	SLU 8	-4.42	-0.23	24.56	0.1267	-0.1914	-0.0018
83	SLU 9	-4.48	-0.13	24.37	-0.0041	-0.1954	-0.001
83	SLU 10	-4.92	-0.08	27.08	-0.0841	-0.2155	-0.0006
83	SLU 11	-4.99	-0.25	27.81	0.1384	-0.2166	-0.002
83	SLU 12	-5.05	-0.15	27.63	0.0076	-0.2205	-0.0012
83	SLU 13	-5.06	-0.09	27.37	-0.081	-0.2217	-0.0007
83	SLU 14	-5.13	-0.26	28.1	0.1416	-0.2228	-0.002
83	SLU 15	-5.19	-0.16	27.92	0.0107	-0.2268	-0.0013
83	SLU 16	-5.09	-0.25	27.97	0.1401	-0.2213	-0.002
83	SLU 17	-5.16	-0.16	27.78	0.0093	-0.2253	-0.0012
83	SLU 18	-5.1	-0.26	28.85	0.1397	-0.2216	-0.002
83	SLU 19	-5.17	-0.16	28.66	0.0089	-0.2256	-0.0013
83	SLU 20	-5.24	-0.26	29.14	0.1428	-0.2279	-0.0021
83	SLU 21	-5.31	-0.16	28.95	0.012	-0.2319	-0.0013
83	SLU 22	-4.72	-0.24	26.84	0.1342	-0.2048	-0.0019
83	SLU 23	-4.83	-0.08	26.53	-0.0838	-0.2115	-0.0006
83	SLU 24	-4.9	-0.25	27.26	0.1388	-0.2126	-0.002
83	SLU 25	-4.97	-0.15	27.08	0.0079	-0.2165	-0.0012
83	SLU 26	-4.97	-0.09	26.82	-0.0807	-0.2177	-0.0007
83	SLU 27	-5.04	-0.26	27.55	0.1419	-0.2188	-0.002
83	SLU 28	-5.11	-0.16	27.37	0.0111	-0.2228	-0.0013
83	SLU 29	-5.01	-0.25	27.42	0.1405	-0.2173	-0.002
83	SLU 30	-5.07	-0.16	27.23	0.0096	-0.2213	-0.0012
83	SLU 31	-5.51	-0.11	29.94	-0.0704	-0.2414	-0.0009
83	SLU 32	-5.58	-0.28	30.67	0.1522	-0.2425	-0.0022
83	SLU 33	-5.64	-0.18	30.49	0.0214	-0.2465	-0.0014
83	SLU 34	-5.65	-0.11	30.23	-0.0672	-0.2477	-0.0009
83	SLU 35	-5.72	-0.28	30.96	0.1553	-0.2488	-0.0023
83	SLU 36	-5.79	-0.19	30.78	0.0245	-0.2528	-0.0015
83	SLU 37	-5.69	-0.28	30.83	0.1539	-0.2473	-0.0022



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
83	SLU 38	-5.75	-0.18	30.64	0.0231	-0.2513	-0.0015
83	SLU 39	-5.69	-0.28	31.71	0.1535	-0.2476	-0.0022
83	SLU 40	-5.76	-0.18	31.52	0.0226	-0.2516	-0.0015
83	SLU 41	-5.84	-0.29	32	0.1566	-0.2539	-0.0023
83	SLU 42	-5.9	-0.19	31.81	0.0257	-0.2578	-0.0015
83	SLU 43	-5.17	-0.27	30.19	0.1519	-0.2236	-0.0022
83	SLU 44	-5.28	-0.11	29.88	-0.0662	-0.2303	-0.0009
83	SLU 45	-5.35	-0.28	30.61	0.1564	-0.2314	-0.0022
83	SLU 46	-5.41	-0.18	30.43	0.0256	-0.2353	-0.0015
83	SLU 47	-5.42	-0.12	30.17	-0.0631	-0.2365	-0.0009
83	SLU 48	-5.49	-0.29	30.9	0.1595	-0.2376	-0.0023
83	SLU 49	-5.55	-0.19	30.72	0.0287	-0.2416	-0.0015
83	SLU 50	-5.45	-0.28	30.77	0.1581	-0.2361	-0.0023
83	SLU 51	-5.52	-0.19	30.59	0.0273	-0.2401	-0.0015
83	SLU 52	-5.96	-0.14	33.29	-0.0527	-0.2602	-0.0011
83	SLU 53	-6.03	-0.31	34.02	0.1699	-0.2613	-0.0024
83	SLU 54	-6.09	-0.21	33.84	0.039	-0.2653	-0.0017
83	SLU 55	-6.1	-0.14	33.58	-0.0496	-0.2665	-0.0011
83	SLU 56	-6.17	-0.31	34.31	0.173	-0.2676	-0.0025
83	SLU 57	-6.23	-0.22	34.13	0.0422	-0.2716	-0.0017
83	SLU 58	-6.13	-0.31	34.18	0.1716	-0.2661	-0.0025
83	SLU 59	-6.2	-0.21	34	0.0407	-0.2701	-0.0017
83	SLU 60	-6.14	-0.31	35.06	0.1711	-0.2664	-0.0025
83	SLU 61	-6.2	-0.21	34.88	0.0403	-0.2704	-0.0017
83	SLU 62	-6.28	-0.32	35.35	0.1742	-0.2727	-0.0025
83	SLU 63	-6.35	-0.22	35.17	0.0434	-0.2767	-0.0017
83	SLU 64	-5.76	-0.3	33.05	0.1656	-0.2496	-0.0024
83	SLU 65	-5.87	-0.14	32.74	-0.0524	-0.2562	-0.0011
83	SLU 66	-5.94	-0.31	33.47	0.1702	-0.2573	-0.0024
83	SLU 67	-6	-0.21	33.29	0.0394	-0.2613	-0.0017
83	SLU 68	-6.01	-0.14	33.03	-0.0493	-0.2625	-0.0011
83	SLU 69	-6.08	-0.31	33.76	0.1733	-0.2636	-0.0025
83	SLU 70	-6.14	-0.22	33.58	0.0425	-0.2676	-0.0017
83	SLU 71	-6.04	-0.31	33.63	0.1719	-0.2621	-0.0025
83	SLU 72	-6.11	-0.21	33.45	0.0411	-0.2661	-0.0017
83	SLU 73	-6.55	-0.16	36.15	-0.0389	-0.2862	-0.0013
83	SLU 74	-6.62	-0.33	36.88	0.1836	-0.2873	-0.0027
83	SLU 75	-6.68	-0.24	36.7	0.0528	-0.2913	-0.0019
83	SLU 76	-6.69	-0.17	36.44	-0.0358	-0.2924	-0.0013
83	SLU 77	-6.76	-0.34	37.17	0.1868	-0.2935	-0.0027
83	SLU 78	-6.82	-0.24	36.99	0.0559	-0.2975	-0.0019
83	SLU 79	-6.72	-0.34	37.04	0.1853	-0.292	-0.0027
83	SLU 80	-6.79	-0.24	36.86	0.0545	-0.296	-0.0019
83	SLU 81	-6.73	-0.34	37.92	0.1849	-0.2924	-0.0027
83	SLU 82	-6.8	-0.24	37.73	0.054	-0.2963	-0.0019
83	SLU 83	-6.87	-0.34	38.21	0.188	-0.2986	-0.0027
83	SLU 84	-6.94	-0.25	38.03	0.0572	-0.3026	-0.002
83	SLE RA 1	-4.3	-0.23	24.79	0.1244	-0.1863	-0.0018
83	SLE RA 2	-4.37	-0.12	24.59	-0.021	-0.1907	-0.0009
83	SLE RA 3	-4.42	-0.23	25.08	0.1274	-0.1914	-0.0018
83	SLE RA 4	-4.46	-0.16	24.96	0.0402	-0.1941	-0.0013
83	SLE RA 5	-4.47	-0.12	24.78	-0.0189	-0.1949	-0.001
83	SLE RA 6	-4.51	-0.23	25.27	0.1295	-0.1956	-0.0019
83	SLE RA 7	-4.56	-0.17	25.15	0.0423	-0.1983	-0.0013
83	SLE RA 8	-4.49	-0.23	25.18	0.1285	-0.1946	-0.0018
83	SLE RA 9	-4.53	-0.17	25.06	0.0413	-0.1973	-0.0013
83	SLE RA 10	-4.83	-0.13	26.86	-0.012	-0.2107	-0.0011
83	SLE RA 11	-4.87	-0.25	27.35	0.1364	-0.2114	-0.002
83	SLE RA 12	-4.92	-0.18	27.23	0.0492	-0.2141	-0.0015
83	SLE RA 13	-4.92	-0.14	27.06	-0.0099	-0.2148	-0.0011
83	SLE RA 14	-4.97	-0.25	27.54	0.1385	-0.2156	-0.002
83	SLE RA 15	-5.01	-0.19	27.42	0.0512	-0.2182	-0.0015
83	SLE RA 16	-4.94	-0.25	27.45	0.1375	-0.2146	-0.002
83	SLE RA 17	-4.99	-0.18	27.33	0.0503	-0.2172	-0.0015
83	SLE RA 18	-4.95	-0.25	28.04	0.1372	-0.2148	-0.002
83	SLE RA 19	-4.99	-0.19	27.92	0.05	-0.2175	-0.0015
83	SLE RA 20	-5.04	-0.25	28.23	0.1393	-0.219	-0.002
83	SLE RA 21	-5.09	-0.19	28.11	0.0521	-0.2216	-0.0015
83	SLE FR 1	-4.3	-0.23	24.79	0.1244	-0.1863	-0.0018
83	SLE FR 2	-4.32	-0.2	24.75	0.0953	-0.1872	-0.0016
83	SLE FR 3	-4.34	-0.23	24.87	0.1252	-0.1879	-0.0018
83	SLE FR 4	-4.51	-0.21	25.73	0.0992	-0.1957	-0.0017
83	SLE FR 5	-4.53	-0.23	25.85	0.1291	-0.1965	-0.0019
83	SLE FR 6	-4.63	-0.24	26.42	0.1308	-0.2005	-0.0019
83	SLE QP 1	-4.3	-0.23	24.79	0.1244	-0.1863	-0.0018
83	SLE QP 2	-4.5	-0.23	25.77	0.1282	-0.1948	-0.0018
83	SLD 1	3.19	-0.28	24.02	-0.1161	0.1328	-0.0022
83	SLD 2	3.19	-0.28	24.02	-0.1161	0.1328	-0.0022
83	SLD 3	4.34	0	21.41	0.185	0.1797	0
83	SLD 4	4.34	0	21.41	0.185	0.1797	0
83	SLD 5	-3.93	-0.66	29.21	-0.4017	-0.1678	-0.0052
83	SLD 6	-3.93	-0.66	29.21	-0.4017	-0.1678	-0.0052
83	SLD 7	-0.1	0.25	20.5	0.6019	-0.0113	0.002
83	SLD 8	-0.1	0.25	20.5	0.6019	-0.0113	0.002
83	SLD 9	-8.89	-0.71	31.04	-0.3454	-0.3784	-0.0057
83	SLD 10	-8.89	-0.71	31.04	-0.3454	-0.3784	-0.0057
83	SLD 11	-5.06	0.19	22.33	0.6582	-0.2219	0.0015



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
83	SLD 12	-5.06	0.19	22.33	0.6582	-0.2219	0.0015
83	SLD 13	-13.34	-0.46	30.13	0.0714	-0.5694	-0.0037
83	SLD 14	-13.34	-0.46	30.13	0.0714	-0.5694	-0.0037
83	SLD 15	-12.18	-0.19	27.51	0.3725	-0.5224	-0.0015
83	SLD 16	-12.18	-0.19	27.51	0.3725	-0.5224	-0.0015
83	SLV 1	13.48	-0.35	21.85	-0.4867	0.5713	-0.0028
83	SLV 2	13.48	-0.35	21.85	-0.4867	0.5713	-0.0028
83	SLV 3	16.21	0.34	15.39	0.2813	0.6823	0.0027
83	SLV 4	16.21	0.34	15.39	0.2813	0.6823	0.0027
83	SLV 5	-3.25	-1.32	34.39	-1.221	-0.1334	-0.0104
83	SLV 6	-3.25	-1.32	34.39	-1.221	-0.1334	-0.0104
83	SLV 7	5.86	0.99	12.86	1.3389	0.2367	0.0078
83	SLV 8	5.86	0.99	12.86	1.3389	0.2367	0.0078
83	SLV 9	-14.85	-1.45	38.68	-1.0824	-0.6263	-0.0115
83	SLV 10	-14.85	-1.45	38.68	-1.0824	-0.6263	-0.0115
83	SLV 11	-5.75	0.85	17.15	1.4775	-0.2563	0.0067
83	SLV 12	-5.75	0.85	17.15	1.4775	-0.2563	0.0067
83	SLV 13	-25.2	-0.8	36.14	-0.0248	-1.072	-0.0064
83	SLV 14	-25.2	-0.8	36.14	-0.0248	-1.072	-0.0064
83	SLV 15	-22.47	-0.11	29.69	0.7431	-0.961	-0.0009
83	SLV 16	-22.47	-0.11	29.69	0.7431	-0.961	-0.0009
84	SLU 1	-3.24	-0.18	23.13	0.1052	-0.1295	-0.0017
84	SLU 2	-2.98	-0.01	23.17	-0.1192	-0.1203	-0.0002
84	SLU 3	-3.39	-0.19	23.56	0.1095	-0.1356	-0.0018
84	SLU 4	-3.23	-0.09	23.58	-0.0251	-0.13	-0.0009
84	SLU 5	-3.09	-0.02	23.47	-0.1162	-0.1252	-0.0003
84	SLU 6	-3.5	-0.19	23.86	0.1125	-0.1405	-0.0018
84	SLU 7	-3.34	-0.09	23.88	-0.0221	-0.135	-0.0009
84	SLU 8	-3.48	-0.19	23.73	0.1113	-0.1394	-0.0018
84	SLU 9	-3.32	-0.09	23.75	-0.0234	-0.1339	-0.0009
84	SLU 10	-3.54	-0.03	26.39	-0.1083	-0.1418	-0.0004
84	SLU 11	-3.95	-0.21	26.78	0.1204	-0.1571	-0.002
84	SLU 12	-3.79	-0.11	26.8	-0.0143	-0.1516	-0.0011
84	SLU 13	-3.66	-0.04	26.69	-0.1053	-0.1468	-0.0005
84	SLU 14	-4.07	-0.22	27.08	0.1234	-0.1621	-0.002
84	SLU 15	-3.91	-0.11	27.1	-0.0112	-0.1566	-0.0011
84	SLU 16	-4.04	-0.21	26.95	0.1221	-0.1609	-0.002
84	SLU 17	-3.88	-0.11	26.97	-0.0125	-0.1554	-0.0011
84	SLU 18	-4.05	-0.21	27.73	0.1208	-0.1603	-0.002
84	SLU 19	-3.89	-0.11	27.76	-0.0139	-0.1548	-0.0011
84	SLU 20	-4.17	-0.22	28.03	0.1238	-0.1652	-0.002
84	SLU 21	-4.01	-0.11	28.05	-0.0109	-0.1597	-0.0011
84	SLU 22	-3.73	-0.2	25.87	0.1169	-0.1484	-0.0019
84	SLU 23	-3.46	-0.03	25.9	-0.1075	-0.1392	-0.0004
84	SLU 24	-3.87	-0.21	26.29	0.1212	-0.1545	-0.002
84	SLU 25	-3.71	-0.11	26.32	-0.0134	-0.149	-0.0011
84	SLU 26	-3.58	-0.04	26.2	-0.1045	-0.1442	-0.0005
84	SLU 27	-3.99	-0.22	26.59	0.1242	-0.1594	-0.002
84	SLU 28	-3.83	-0.11	26.61	-0.0104	-0.1539	-0.0011
84	SLU 29	-3.96	-0.21	26.46	0.123	-0.1583	-0.002
84	SLU 30	-3.8	-0.11	26.49	-0.0117	-0.1528	-0.0011
84	SLU 31	-4.02	-0.05	29.13	-0.0966	-0.1608	-0.0006
84	SLU 32	-4.43	-0.23	29.52	0.1321	-0.176	-0.0022
84	SLU 33	-4.27	-0.13	29.54	-0.0026	-0.1705	-0.0013
84	SLU 34	-4.14	-0.06	29.42	-0.0936	-0.1657	-0.0007
84	SLU 35	-4.55	-0.24	29.81	0.1351	-0.181	-0.0022
84	SLU 36	-4.39	-0.13	29.84	0.0005	-0.1755	-0.0013
84	SLU 37	-4.53	-0.24	29.69	0.1338	-0.1799	-0.0022
84	SLU 38	-4.36	-0.13	29.71	-0.0008	-0.1744	-0.0013
84	SLU 39	-4.53	-0.23	30.47	0.1325	-0.1792	-0.0022
84	SLU 40	-4.37	-0.13	30.49	-0.0022	-0.1737	-0.0013
84	SLU 41	-4.65	-0.24	30.77	0.1355	-0.1842	-0.0022
84	SLU 42	-4.49	-0.14	30.79	0.0008	-0.1786	-0.0013
84	SLU 43	-4.05	-0.23	29.13	0.1328	-0.1618	-0.0021
84	SLU 44	-3.78	-0.06	29.17	-0.0916	-0.1526	-0.0007
84	SLU 45	-4.19	-0.24	29.56	0.1371	-0.1679	-0.0022
84	SLU 46	-4.03	-0.13	29.58	0.0024	-0.1624	-0.0013
84	SLU 47	-3.9	-0.06	29.47	-0.0886	-0.1576	-0.0007
84	SLU 48	-4.31	-0.24	29.86	0.1401	-0.1729	-0.0022
84	SLU 49	-4.15	-0.14	29.88	0.0054	-0.1673	-0.0014
84	SLU 50	-4.28	-0.24	29.73	0.1388	-0.1717	-0.0022
84	SLU 51	-4.12	-0.14	29.75	0.0042	-0.1662	-0.0013
84	SLU 52	-4.35	-0.08	32.39	-0.0807	-0.1742	-0.0009
84	SLU 53	-4.76	-0.26	32.78	0.1479	-0.1895	-0.0024
84	SLU 54	-4.6	-0.16	32.8	0.0133	-0.184	-0.0015
84	SLU 55	-4.46	-0.08	32.69	-0.0777	-0.1792	-0.0009
84	SLU 56	-4.88	-0.26	33.08	0.151	-0.1944	-0.0024
84	SLU 57	-4.71	-0.16	33.1	0.0163	-0.1889	-0.0016
84	SLU 58	-4.85	-0.26	32.95	0.1497	-0.1933	-0.0024
84	SLU 59	-4.69	-0.16	32.97	0.015	-0.1878	-0.0015
84	SLU 60	-4.86	-0.26	33.74	0.1483	-0.1926	-0.0024
84	SLU 61	-4.7	-0.16	33.76	0.0137	-0.1871	-0.0015
84	SLU 62	-4.97	-0.27	34.03	0.1513	-0.1976	-0.0025
84	SLU 63	-4.81	-0.16	34.06	0.0167	-0.1921	-0.0016
84	SLU 64	-4.53	-0.25	31.87	0.1445	-0.1807	-0.0023
84	SLU 65	-4.27	-0.08	31.9	-0.0799	-0.1716	-0.0009
84	SLU 66	-4.68	-0.26	32.3	0.1488	-0.1868	-0.0024



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
84	SLU 67	-4.52	-0.16	32.32	0.0141	-0.1813	-0.0015
84	SLU 68	-4.38	-0.09	32.2	-0.0769	-0.1765	-0.0009
84	SLU 69	-4.79	-0.26	32.59	0.1518	-0.1918	-0.0025
84	SLU 70	-4.63	-0.16	32.61	0.0171	-0.1863	-0.0016
84	SLU 71	-4.77	-0.26	32.47	0.1505	-0.1907	-0.0024
84	SLU 72	-4.61	-0.16	32.49	0.0159	-0.1851	-0.0015
84	SLU 73	-4.83	-0.1	35.13	-0.069	-0.1931	-0.0011
84	SLU 74	-5.24	-0.28	35.52	0.1597	-0.2084	-0.0026
84	SLU 75	-5.08	-0.18	35.54	0.025	-0.2029	-0.0017
84	SLU 76	-4.95	-0.11	35.43	-0.066	-0.1981	-0.0011
84	SLU 77	-5.36	-0.28	35.82	0.1627	-0.2134	-0.0026
84	SLU 78	-5.2	-0.18	35.84	0.028	-0.2078	-0.0018
84	SLU 79	-5.33	-0.28	35.69	0.1614	-0.2122	-0.0026
84	SLU 80	-5.17	-0.18	35.71	0.0267	-0.2067	-0.0017
84	SLU 81	-5.34	-0.28	36.47	0.16	-0.2116	-0.0026
84	SLU 82	-5.18	-0.18	36.49	0.0254	-0.206	-0.0017
84	SLU 83	-5.46	-0.29	36.77	0.163	-0.2165	-0.0027
84	SLU 84	-5.3	-0.18	36.79	0.0284	-0.211	-0.0018
84	SLE RA 1	-3.38	-0.19	23.91	0.1086	-0.1349	-0.0018
84	SLE RA 2	-3.2	-0.07	23.94	-0.041	-0.1287	-0.0008
84	SLE RA 3	-3.48	-0.19	24.2	0.1114	-0.1389	-0.0018
84	SLE RA 4	-3.37	-0.13	24.21	0.0217	-0.1353	-0.0012
84	SLE RA 5	-3.28	-0.08	24.14	-0.039	-0.132	-0.0008
84	SLE RA 6	-3.55	-0.2	24.4	0.1134	-0.1422	-0.0018
84	SLE RA 7	-3.45	-0.13	24.41	0.0237	-0.1386	-0.0012
84	SLE RA 8	-3.54	-0.2	24.31	0.1126	-0.1415	-0.0018
84	SLE RA 9	-3.43	-0.13	24.33	0.0228	-0.1378	-0.0012
84	SLE RA 10	-3.58	-0.09	26.09	-0.0338	-0.1431	-0.0009
84	SLE RA 11	-3.85	-0.21	26.35	0.1187	-0.1533	-0.0019
84	SLE RA 12	-3.75	-0.14	26.36	0.0289	-0.1496	-0.0013
84	SLE RA 13	-3.66	-0.09	26.28	-0.0318	-0.1464	-0.0009
84	SLE RA 14	-3.93	-0.21	26.54	0.1207	-0.1566	-0.002
84	SLE RA 15	-3.82	-0.14	26.56	0.0309	-0.1529	-0.0014
84	SLE RA 16	-3.91	-0.21	26.46	0.1198	-0.1559	-0.0019
84	SLE RA 17	-3.81	-0.14	26.47	0.0301	-0.1522	-0.0014
84	SLE RA 18	-3.92	-0.21	26.98	0.1189	-0.1554	-0.0019
84	SLE RA 19	-3.81	-0.14	27	0.0292	-0.1517	-0.0014
84	SLE RA 20	-4	-0.21	27.18	0.1209	-0.1587	-0.002
84	SLE RA 21	-3.89	-0.14	27.2	0.0312	-0.155	-0.0014
84	SLE FR 1	-3.38	-0.19	23.91	0.1086	-0.1349	-0.0018
84	SLE FR 2	-3.35	-0.17	23.92	0.0787	-0.1336	-0.0016
84	SLE FR 3	-3.41	-0.19	23.99	0.1094	-0.1362	-0.0018
84	SLE FR 4	-3.51	-0.17	24.84	0.0818	-0.1398	-0.0016
84	SLE FR 5	-3.57	-0.2	24.91	0.1125	-0.1424	-0.0018
84	SLE FR 6	-3.65	-0.2	25.45	0.1138	-0.1451	-0.0019
84	SLE QP 1	-3.38	-0.19	23.91	0.1086	-0.1349	-0.0018
84	SLE QP 2	-3.54	-0.2	24.83	0.1117	-0.141	-0.0018
84	SLD 1	4.33	0.04	23.39	-0.1369	0.2025	0.0002
84	SLD 2	4.33	0.04	23.39	-0.1369	0.2025	0.0002
84	SLD 3	5.47	-0.24	20.56	0.1686	0.2524	-0.0022
84	SLD 4	5.47	-0.24	20.56	0.1686	0.2524	-0.0022
84	SLD 5	-2.91	0.29	28.69	-0.4263	-0.1136	0.0024
84	SLD 6	-2.91	0.29	28.69	-0.4263	-0.1136	0.0024
84	SLD 7	0.89	-0.63	19.26	0.5921	0.0526	-0.0055
84	SLD 8	0.89	-0.63	19.26	0.5921	0.0526	-0.0055
84	SLD 9	-7.98	0.24	30.41	-0.3688	-0.3347	0.0019
84	SLD 10	-7.98	0.24	30.41	-0.3688	-0.3347	0.0019
84	SLD 11	-4.18	-0.68	20.98	0.6497	-0.1685	-0.006
84	SLD 12	-4.18	-0.68	20.98	0.6497	-0.1685	-0.006
84	SLD 13	-12.56	-0.15	29.11	0.0548	-0.5344	-0.0014
84	SLD 14	-12.56	-0.15	29.11	0.0548	-0.5344	-0.0014
84	SLD 15	-11.42	-0.43	26.28	0.3603	-0.4846	-0.0038
84	SLD 16	-11.42	-0.43	26.28	0.3603	-0.4846	-0.0038
84	SLV 1	14.85	0.38	21.66	-0.5145	0.6614	0.0033
84	SLV 2	14.85	0.38	21.66	-0.5145	0.6614	0.0033
84	SLV 3	17.59	-0.32	14.61	0.265	0.7812	-0.0028
84	SLV 4	17.59	-0.32	14.61	0.265	0.7812	-0.0028
84	SLV 5	-2.18	1.04	34.56	-1.2583	-0.0819	0.0089
84	SLV 6	-2.18	1.04	34.56	-1.2583	-0.0819	0.0089
84	SLV 7	6.95	-1.29	11.09	1.3398	0.3172	-0.0113
84	SLV 8	6.95	-1.29	11.09	1.3398	0.3172	-0.0113
84	SLV 9	-14.03	0.9	38.58	-1.1164	-0.5993	0.0077
84	SLV 10	-14.03	0.9	38.58	-1.1164	-0.5993	0.0077
84	SLV 11	-4.91	-1.43	15.11	1.4817	-0.2002	-0.0125
84	SLV 12	-4.91	-1.43	15.11	1.4817	-0.2002	-0.0125
84	SLV 13	-24.68	-0.07	35.05	-0.0416	-1.0632	-0.0008
84	SLV 14	-24.68	-0.07	35.05	-0.0416	-1.0632	-0.0008
84	SLV 15	-21.94	-0.77	28.01	0.7378	-0.9435	-0.0069
84	SLV 16	-21.94	-0.77	28.01	0.7378	-0.9435	-0.0069
85	SLU 1	-2.17	-0.17	23.64	0.0993	-0.1057	-0.0017
85	SLU 2	-1.57	-0.01	23.96	-0.1183	-0.081	-0.0002
85	SLU 3	-2.26	-0.18	24.11	0.1036	-0.1103	-0.0017
85	SLU 4	-1.9	-0.08	24.31	-0.0269	-0.0955	-0.0009
85	SLU 5	-1.65	-0.01	24.3	-0.1152	-0.085	-0.0003
85	SLU 6	-2.35	-0.19	24.45	0.1067	-0.1143	-0.0018
85	SLU 7	-1.98	-0.09	24.64	-0.0238	-0.0995	-0.0009
85	SLU 8	-2.33	-0.18	24.31	0.1055	-0.1137	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
85	SLU 9	-1.97	-0.08	24.51	-0.025	-0.0988	-0.0009
85	SLU 10	-2.02	-0.03	27.19	-0.1085	-0.1027	-0.0004
85	SLU 11	-2.71	-0.2	27.34	0.1134	-0.132	-0.0019
85	SLU 12	-2.35	-0.1	27.54	-0.0171	-0.1171	-0.0011
85	SLU 13	-2.1	-0.03	27.53	-0.1054	-0.1067	-0.0005
85	SLU 14	-2.8	-0.21	27.68	0.1165	-0.1359	-0.002
85	SLU 15	-2.44	-0.11	27.88	-0.014	-0.1211	-0.0011
85	SLU 16	-2.79	-0.2	27.55	0.1153	-0.1353	-0.002
85	SLU 17	-2.42	-0.1	27.74	-0.0153	-0.1205	-0.0011
85	SLU 18	-2.81	-0.2	28.26	0.1133	-0.1367	-0.0019
85	SLU 19	-2.45	-0.1	28.45	-0.0173	-0.1218	-0.0011
85	SLU 20	-2.9	-0.21	28.59	0.1164	-0.1406	-0.002
85	SLU 21	-2.54	-0.11	28.79	-0.0142	-0.1258	-0.0011
85	SLU 22	-2.52	-0.19	26.44	0.1103	-0.1231	-0.0019
85	SLU 23	-1.92	-0.03	26.76	-0.1072	-0.0984	-0.0004
85	SLU 24	-2.62	-0.2	26.91	0.1146	-0.1277	-0.0019
85	SLU 25	-2.26	-0.1	27.11	-0.0159	-0.1129	-0.0011
85	SLU 26	-2.01	-0.03	27.1	-0.1041	-0.1024	-0.0005
85	SLU 27	-2.7	-0.21	27.25	0.1177	-0.1316	-0.002
85	SLU 28	-2.34	-0.11	27.45	-0.0128	-0.1168	-0.0011
85	SLU 29	-2.69	-0.2	27.12	0.1165	-0.131	-0.002
85	SLU 30	-2.33	-0.1	27.31	-0.014	-0.1162	-0.0011
85	SLU 31	-2.37	-0.05	29.99	-0.0974	-0.1201	-0.0006
85	SLU 32	-3.07	-0.22	30.15	0.1244	-0.1493	-0.0021
85	SLU 33	-2.71	-0.12	30.34	-0.0061	-0.1345	-0.0013
85	SLU 34	-2.46	-0.05	30.33	-0.0943	-0.124	-0.0007
85	SLU 35	-3.15	-0.23	30.48	0.1275	-0.1533	-0.0022
85	SLU 36	-2.79	-0.13	30.68	-0.003	-0.1385	-0.0013
85	SLU 37	-3.14	-0.22	30.35	0.1263	-0.1527	-0.0022
85	SLU 38	-2.78	-0.12	30.54	-0.0042	-0.1379	-0.0013
85	SLU 39	-3.17	-0.22	31.06	0.1243	-0.154	-0.0021
85	SLU 40	-2.81	-0.12	31.25	-0.0062	-0.1392	-0.0013
85	SLU 41	-3.25	-0.23	31.39	0.1274	-0.158	-0.0022
85	SLU 42	-2.89	-0.13	31.59	-0.0031	-0.1432	-0.0013
85	SLU 43	-2.7	-0.22	29.77	0.1253	-0.1315	-0.0021
85	SLU 44	-2.09	-0.05	30.09	-0.0922	-0.1068	-0.0007
85	SLU 45	-2.79	-0.23	30.24	0.1296	-0.1361	-0.0022
85	SLU 46	-2.43	-0.13	30.44	-0.0009	-0.1213	-0.0013
85	SLU 47	-2.18	-0.06	30.43	-0.0892	-0.1108	-0.0007
85	SLU 48	-2.87	-0.23	30.58	0.1327	-0.14	-0.0022
85	SLU 49	-2.51	-0.13	30.78	0.0022	-0.1252	-0.0013
85	SLU 50	-2.86	-0.23	30.45	0.1315	-0.1394	-0.0022
85	SLU 51	-2.5	-0.13	30.64	0.001	-0.1246	-0.0013
85	SLU 52	-2.55	-0.07	33.33	-0.0825	-0.1284	-0.0008
85	SLU 53	-3.24	-0.25	33.48	0.1394	-0.1577	-0.0024
85	SLU 54	-2.88	-0.15	33.67	0.0089	-0.1429	-0.0015
85	SLU 55	-2.63	-0.08	33.66	-0.0794	-0.1324	-0.0009
85	SLU 56	-3.33	-0.25	33.81	0.1425	-0.1617	-0.0024
85	SLU 57	-2.96	-0.15	34.01	0.012	-0.1469	-0.0015
85	SLU 58	-3.31	-0.25	33.68	0.1413	-0.1611	-0.0024
85	SLU 59	-2.95	-0.15	33.87	0.0107	-0.1463	-0.0015
85	SLU 60	-3.34	-0.25	34.39	0.1393	-0.1624	-0.0024
85	SLU 61	-2.98	-0.15	34.58	0.0087	-0.1476	-0.0015
85	SLU 62	-3.42	-0.25	34.72	0.1424	-0.1664	-0.0024
85	SLU 63	-3.06	-0.15	34.92	0.0118	-0.1516	-0.0015
85	SLU 64	-3.05	-0.24	32.57	0.1363	-0.1489	-0.0023
85	SLU 65	-2.45	-0.07	32.9	-0.0812	-0.1242	-0.0009
85	SLU 66	-3.15	-0.25	33.05	0.1406	-0.1534	-0.0024
85	SLU 67	-2.79	-0.15	33.24	0.0101	-0.1386	-0.0015
85	SLU 68	-2.53	-0.08	33.23	-0.0781	-0.1281	-0.0009
85	SLU 69	-3.23	-0.25	33.38	0.1437	-0.1574	-0.0024
85	SLU 70	-2.87	-0.15	33.58	0.0132	-0.1426	-0.0015
85	SLU 71	-3.22	-0.25	33.25	0.1425	-0.1568	-0.0024
85	SLU 72	-2.86	-0.15	33.44	0.012	-0.142	-0.0015
85	SLU 73	-2.9	-0.09	36.13	-0.0714	-0.1458	-0.001
85	SLU 74	-3.6	-0.27	36.28	0.1504	-0.1751	-0.0026
85	SLU 75	-3.24	-0.17	36.47	0.0199	-0.1603	-0.0017
85	SLU 76	-2.99	-0.1	36.46	-0.0683	-0.1498	-0.0011
85	SLU 77	-3.68	-0.27	36.61	0.1535	-0.1791	-0.0026
85	SLU 78	-3.32	-0.17	36.81	0.023	-0.1642	-0.0017
85	SLU 79	-3.67	-0.27	36.48	0.1523	-0.1785	-0.0026
85	SLU 80	-3.31	-0.17	36.67	0.0218	-0.1636	-0.0017
85	SLU 81	-3.7	-0.27	37.19	0.1503	-0.1798	-0.0026
85	SLU 82	-3.34	-0.17	37.38	0.0198	-0.165	-0.0017
85	SLU 83	-3.78	-0.27	37.53	0.1534	-0.1838	-0.0026
85	SLU 84	-3.42	-0.17	37.72	0.0229	-0.1689	-0.0018
85	SLE RA 1	-2.27	-0.18	24.44	0.1024	-0.1107	-0.0017
85	SLE RA 2	-1.87	-0.07	24.66	-0.0426	-0.0942	-0.0008
85	SLE RA 3	-2.33	-0.18	24.76	0.1053	-0.1137	-0.0018
85	SLE RA 4	-2.09	-0.12	24.88	0.0183	-0.1039	-0.0012
85	SLE RA 5	-1.92	-0.07	24.88	-0.0405	-0.0969	-0.0008
85	SLE RA 6	-2.39	-0.19	24.98	0.1074	-0.1164	-0.0018
85	SLE RA 7	-2.15	-0.12	25.11	0.0204	-0.1065	-0.0012
85	SLE RA 8	-2.38	-0.19	24.89	0.1066	-0.116	-0.0018
85	SLE RA 9	-2.14	-0.12	25.02	0.0195	-0.1061	-0.0012
85	SLE RA 10	-2.17	-0.08	26.81	-0.0361	-0.1087	-0.0009
85	SLE RA 11	-2.63	-0.2	26.91	0.1118	-0.1282	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
85	SLE RA 12	-2.39	-0.13	27.04	0.0248	-0.1183	-0.0013
85	SLE RA 13	-2.22	-0.08	27.03	-0.034	-0.1113	-0.0009
85	SLE RA 14	-2.69	-0.2	27.13	0.1139	-0.1308	-0.0019
85	SLE RA 15	-2.45	-0.13	27.26	0.0269	-0.1209	-0.0014
85	SLE RA 16	-2.68	-0.2	27.04	0.1131	-0.1304	-0.0019
85	SLE RA 17	-2.44	-0.13	27.17	0.0261	-0.1205	-0.0013
85	SLE RA 18	-2.7	-0.2	27.52	0.1118	-0.1313	-0.0019
85	SLE RA 19	-2.46	-0.13	27.65	0.0247	-0.1214	-0.0013
85	SLE RA 20	-2.76	-0.2	27.74	0.1138	-0.134	-0.0019
85	SLE RA 21	-2.51	-0.13	27.87	0.0268	-0.1241	-0.0014
85	SLE FR 1	-2.27	-0.18	24.44	0.1024	-0.1107	-0.0017
85	SLE FR 2	-2.19	-0.16	24.48	0.0734	-0.1074	-0.0015
85	SLE FR 3	-2.29	-0.18	24.53	0.1033	-0.1117	-0.0017
85	SLE FR 4	-2.32	-0.16	25.41	0.0762	-0.1136	-0.0016
85	SLE FR 5	-2.42	-0.19	25.45	0.1061	-0.1179	-0.0018
85	SLE FR 6	-2.48	-0.19	25.98	0.1071	-0.121	-0.0018
85	SLE QP 1	-2.27	-0.18	24.44	0.1024	-0.1107	-0.0017
85	SLE QP 2	-2.4	-0.19	25.36	0.1052	-0.1169	-0.0018
85	SLD 1	5.01	0.04	24.11	-0.1369	0.1952	0.0002
85	SLD 2	5.01	0.04	24.11	-0.1369	0.1952	0.0002
85	SLD 3	6.05	-0.22	21.12	0.1565	0.2385	-0.0021
85	SLD 4	6.05	-0.22	21.12	0.1565	0.2385	-0.0021
85	SLD 5	-1.76	0.28	29.53	-0.4124	-0.0889	0.0023
85	SLD 6	-1.76	0.28	29.53	-0.4124	-0.0889	0.0023
85	SLD 7	1.72	-0.6	19.55	0.5656	0.0554	-0.0054
85	SLD 8	1.72	-0.6	19.55	0.5656	0.0554	-0.0054
85	SLD 9	-6.51	0.22	31.18	-0.3552	-0.2891	0.0018
85	SLD 10	-6.51	0.22	31.18	-0.3552	-0.2891	0.0018
85	SLD 11	-3.04	-0.65	21.2	0.6229	-0.1449	-0.0059
85	SLD 12	-3.04	-0.65	21.2	0.6229	-0.1449	-0.0059
85	SLD 13	-10.85	-0.15	29.61	0.0539	-0.4723	-0.0015
85	SLD 14	-10.85	-0.15	29.61	0.0539	-0.4723	-0.0015
85	SLD 15	-9.81	-0.41	26.61	0.3474	-0.429	-0.0038
85	SLD 16	-9.81	-0.41	26.61	0.3474	-0.429	-0.0038
85	SLV 1	14.9	0.38	22.64	-0.5044	0.6121	0.0032
85	SLV 2	14.9	0.38	22.64	-0.5044	0.6121	0.0032
85	SLV 3	17.42	-0.29	15.21	0.2443	0.7164	-0.0026
85	SLV 4	17.42	-0.29	15.21	0.2443	0.7164	-0.0026
85	SLV 5	-1.03	1	35.82	-1.2132	-0.0564	0.0086
85	SLV 6	-1.03	1	35.82	-1.2132	-0.0564	0.0086
85	SLV 7	7.36	-1.23	11.04	1.2825	0.2913	-0.0109
85	SLV 8	7.36	-1.23	11.04	1.2825	0.2913	-0.0109
85	SLV 9	-12.16	0.86	39.69	-1.0721	-0.5251	0.0073
85	SLV 10	-12.16	0.86	39.69	-1.0721	-0.5251	0.0073
85	SLV 11	-3.77	-1.37	14.9	1.4237	-0.1773	-0.0121
85	SLV 12	-3.77	-1.37	14.9	1.4237	-0.1773	-0.0121
85	SLV 13	-22.22	-0.08	35.52	-0.0339	-0.9502	-0.0009
85	SLV 14	-22.22	-0.08	35.52	-0.0339	-0.9502	-0.0009
85	SLV 15	-19.7	-0.75	28.09	0.7149	-0.8458	-0.0068
85	SLV 16	-19.7	-0.75	28.09	0.7149	-0.8458	-0.0068
86	SLU 1	-0.78	-0.19	25.81	0.101	-0.0478	-0.0015
86	SLU 2	0.17	-0.04	26.36	-0.0964	-0.0077	-0.0005
86	SLU 3	-0.82	-0.2	26.4	0.1055	-0.05	-0.0016
86	SLU 4	-0.25	-0.11	26.72	-0.0129	-0.026	-0.001
86	SLU 5	0.13	-0.05	26.78	-0.0931	-0.0099	-0.0005
86	SLU 6	-0.85	-0.2	26.82	0.1088	-0.0522	-0.0017
86	SLU 7	-0.28	-0.11	27.14	-0.0097	-0.0281	-0.001
86	SLU 8	-0.86	-0.2	26.65	0.1075	-0.0521	-0.0016
86	SLU 9	-0.29	-0.11	26.98	-0.0109	-0.0281	-0.001
86	SLU 10	-0.11	-0.06	29.82	-0.0864	-0.0207	-0.0007
86	SLU 11	-1.09	-0.22	29.86	0.1155	-0.063	-0.0018
86	SLU 12	-0.52	-0.13	30.19	-0.0029	-0.039	-0.0012
86	SLU 13	-0.15	-0.07	30.24	-0.0831	-0.0229	-0.0007
86	SLU 14	-1.13	-0.22	30.28	0.1188	-0.0651	-0.0018
86	SLU 15	-0.56	-0.13	30.61	0.0004	-0.0411	-0.0012
86	SLU 16	-1.13	-0.22	30.12	0.1176	-0.0651	-0.0018
86	SLU 17	-0.56	-0.13	30.45	-0.0008	-0.0411	-0.0012
86	SLU 18	-1.18	-0.22	30.76	0.1153	-0.0663	-0.0018
86	SLU 19	-0.61	-0.13	31.09	-0.0031	-0.0423	-0.0012
86	SLU 20	-1.21	-0.23	31.18	0.1186	-0.0685	-0.0018
86	SLU 21	-0.65	-0.14	31.51	0.0002	-0.0445	-0.0012
86	SLU 22	-0.96	-0.21	28.91	0.1125	-0.0571	-0.0017
86	SLU 23	-0.01	-0.06	29.45	-0.0849	-0.017	-0.0007
86	SLU 24	-0.99	-0.22	29.49	0.117	-0.0593	-0.0018
86	SLU 25	-0.42	-0.13	29.82	-0.0014	-0.0353	-0.0012
86	SLU 26	-0.05	-0.07	29.87	-0.0816	-0.0192	-0.0007
86	SLU 27	-1.03	-0.23	29.91	0.1203	-0.0615	-0.0018
86	SLU 28	-0.46	-0.14	30.24	0.0019	-0.0374	-0.0012
86	SLU 29	-1.03	-0.22	29.75	0.1191	-0.0614	-0.0018
86	SLU 30	-0.46	-0.13	30.07	0.0006	-0.0374	-0.0012
86	SLU 31	-0.29	-0.08	32.91	-0.0748	-0.03	-0.0009
86	SLU 32	-1.27	-0.24	32.96	0.1271	-0.0723	-0.002
86	SLU 33	-0.7	-0.15	33.28	0.0086	-0.0483	-0.0014
86	SLU 34	-0.32	-0.09	33.34	-0.0716	-0.0322	-0.0009
86	SLU 35	-1.31	-0.25	33.38	0.1304	-0.0744	-0.002
86	SLU 36	-0.74	-0.16	33.7	0.0119	-0.0504	-0.0014
86	SLU 37	-1.31	-0.24	33.21	0.1291	-0.0744	-0.002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
86	SLU 38	-0.74	-0.16	33.54	0.0107	-0.0504	-0.0014
86	SLU 39	-1.35	-0.24	33.86	0.1268	-0.0756	-0.002
86	SLU 40	-0.78	-0.15	34.18	0.0084	-0.0516	-0.0014
86	SLU 41	-1.39	-0.25	34.28	0.1301	-0.0778	-0.002
86	SLU 42	-0.82	-0.16	34.6	0.0117	-0.0538	-0.0014
86	SLU 43	-0.96	-0.24	32.5	0.1273	-0.0589	-0.0019
86	SLU 44	-0.01	-0.09	33.04	-0.0701	-0.0189	-0.0009
86	SLU 45	-0.99	-0.25	33.08	0.1318	-0.0611	-0.002
86	SLU 46	-0.42	-0.16	33.41	0.0134	-0.0371	-0.0014
86	SLU 47	-0.04	-0.09	33.46	-0.0668	-0.021	-0.0009
86	SLU 48	-1.03	-0.25	33.5	0.1351	-0.0633	-0.0021
86	SLU 49	-0.46	-0.16	33.83	0.0167	-0.0393	-0.0014
86	SLU 50	-1.03	-0.25	33.34	0.1339	-0.0632	-0.002
86	SLU 51	-0.46	-0.16	33.66	0.0154	-0.0392	-0.0014
86	SLU 52	-0.28	-0.11	36.5	-0.06	-0.0319	-0.0011
86	SLU 53	-1.27	-0.27	36.55	0.1419	-0.0741	-0.0022
86	SLU 54	-0.7	-0.18	36.87	0.0234	-0.0501	-0.0016
86	SLU 55	-0.32	-0.12	36.92	-0.0568	-0.034	-0.0011
86	SLU 56	-1.3	-0.27	36.97	0.1452	-0.0763	-0.0022
86	SLU 57	-0.73	-0.18	37.29	0.0267	-0.0523	-0.0016
86	SLU 58	-1.31	-0.27	36.8	0.1439	-0.0762	-0.0022
86	SLU 59	-0.74	-0.18	37.13	0.0255	-0.0522	-0.0016
86	SLU 60	-1.35	-0.27	37.45	0.1416	-0.0775	-0.0022
86	SLU 61	-0.78	-0.18	37.77	0.0232	-0.0535	-0.0016
86	SLU 62	-1.39	-0.27	37.87	0.1449	-0.0796	-0.0022
86	SLU 63	-0.82	-0.18	38.19	0.0265	-0.0556	-0.0016
86	SLU 64	-1.13	-0.26	35.59	0.1388	-0.0682	-0.0021
86	SLU 65	-0.18	-0.11	36.13	-0.0586	-0.0282	-0.0011
86	SLU 66	-1.17	-0.27	36.17	0.1434	-0.0704	-0.0022
86	SLU 67	-0.6	-0.18	36.5	0.0249	-0.0464	-0.0016
86	SLU 68	-0.22	-0.12	36.55	-0.0553	-0.0303	-0.0011
86	SLU 69	-1.2	-0.27	36.6	0.1466	-0.0726	-0.0022
86	SLU 70	-0.63	-0.19	36.92	0.0282	-0.0486	-0.0016
86	SLU 71	-1.21	-0.27	36.43	0.1454	-0.0725	-0.0022
86	SLU 72	-0.64	-0.18	36.76	0.027	-0.0485	-0.0016
86	SLU 73	-0.46	-0.13	39.6	-0.0485	-0.0412	-0.0013
86	SLU 74	-1.44	-0.29	39.64	0.1534	-0.0834	-0.0024
86	SLU 75	-0.87	-0.2	39.97	0.035	-0.0594	-0.0017
86	SLU 76	-0.5	-0.14	40.02	-0.0452	-0.0433	-0.0013
86	SLU 77	-1.48	-0.3	40.06	0.1567	-0.0856	-0.0024
86	SLU 78	-0.91	-0.21	40.39	0.0383	-0.0616	-0.0018
86	SLU 79	-1.48	-0.29	39.9	0.1554	-0.0855	-0.0024
86	SLU 80	-0.91	-0.2	40.22	0.037	-0.0615	-0.0018
86	SLU 81	-1.53	-0.29	40.54	0.1532	-0.0868	-0.0024
86	SLU 82	-0.96	-0.2	40.87	0.0348	-0.0628	-0.0018
86	SLU 83	-1.57	-0.3	40.96	0.1565	-0.0889	-0.0024
86	SLU 84	-1	-0.21	41.29	0.038	-0.0649	-0.0018
86	SLE RA 1	-0.83	-0.2	26.7	0.1043	-0.0504	-0.0016
86	SLE RA 2	-0.2	-0.1	27.06	-0.0273	-0.0237	-0.0009
86	SLE RA 3	-0.85	-0.2	27.09	0.1073	-0.0519	-0.0016
86	SLE RA 4	-0.48	-0.14	27.3	0.0283	-0.0359	-0.0012
86	SLE RA 5	-0.22	-0.1	27.34	-0.0251	-0.0252	-0.0009
86	SLE RA 6	-0.88	-0.2	27.37	0.1095	-0.0534	-0.0017
86	SLE RA 7	-0.5	-0.15	27.58	0.0305	-0.0373	-0.0013
86	SLE RA 8	-0.88	-0.2	27.26	0.1086	-0.0533	-0.0017
86	SLE RA 9	-0.5	-0.14	27.48	0.0297	-0.0373	-0.0012
86	SLE RA 10	-0.38	-0.11	29.37	-0.0206	-0.0324	-0.001
86	SLE RA 11	-1.04	-0.22	29.4	0.114	-0.0606	-0.0018
86	SLE RA 12	-0.66	-0.16	29.61	0.035	-0.0446	-0.0013
86	SLE RA 13	-0.41	-0.11	29.65	-0.0184	-0.0338	-0.0011
86	SLE RA 14	-1.06	-0.22	29.68	0.1162	-0.062	-0.0018
86	SLE RA 15	-0.68	-0.16	29.89	0.0372	-0.046	-0.0014
86	SLE RA 16	-1.07	-0.22	29.57	0.1153	-0.062	-0.0018
86	SLE RA 17	-0.69	-0.16	29.79	0.0364	-0.046	-0.0014
86	SLE RA 18	-1.1	-0.22	30	0.1138	-0.0628	-0.0018
86	SLE RA 19	-0.72	-0.16	30.21	0.0349	-0.0468	-0.0014
86	SLE RA 20	-1.12	-0.22	30.28	0.116	-0.0642	-0.0018
86	SLE RA 21	-0.74	-0.16	30.49	0.0371	-0.0482	-0.0014
86	SLE FR 1	-0.83	-0.2	26.7	0.1043	-0.0504	-0.0016
86	SLE FR 2	-0.71	-0.18	26.77	0.0779	-0.0451	-0.0015
86	SLE FR 3	-0.84	-0.2	26.81	0.1051	-0.051	-0.0016
86	SLE FR 4	-0.78	-0.18	27.76	0.0808	-0.0488	-0.0015
86	SLE FR 5	-0.92	-0.2	27.8	0.108	-0.0547	-0.0017
86	SLE FR 6	-0.96	-0.21	28.35	0.109	-0.0566	-0.0017
86	SLE QP 1	-0.83	-0.2	26.7	0.1043	-0.0504	-0.0016
86	SLE QP 2	-0.91	-0.2	27.69	0.1071	-0.0541	-0.0017
86	SLD 1	6.99	-0.22	26.01	-0.1178	0.299	-0.0018
86	SLD 2	6.99	-0.22	26.01	-0.1178	0.299	-0.0018
86	SLD 3	5.93	0.01	22.86	0.1472	0.2506	-0.0001
86	SLD 4	5.93	0.01	22.86	0.1472	0.2506	-0.0001
86	SLD 5	3.06	-0.56	31.97	-0.3623	0.1252	-0.0043
86	SLD 6	3.06	-0.56	31.97	-0.3623	0.1252	-0.0043
86	SLD 7	-0.46	0.22	21.45	0.5211	-0.0361	0.0014
86	SLD 8	-0.46	0.22	21.45	0.5211	-0.0361	0.0014
86	SLD 9	-1.37	-0.62	33.92	-0.3068	-0.0722	-0.0047
86	SLD 10	-1.37	-0.62	33.92	-0.3068	-0.0722	-0.0047
86	SLD 11	-4.88	0.16	23.41	0.5766	-0.2335	0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
86	SLD 12	-4.88	0.16	23.41	0.5766	-0.2335	0.001
86	SLD 13	-7.76	-0.42	32.52	0.0671	-0.3589	-0.0032
86	SLD 14	-7.76	-0.42	32.52	0.0671	-0.3589	-0.0032
86	SLD 15	-8.81	-0.18	29.36	0.3321	-0.4073	-0.0015
86	SLD 16	-8.81	-0.18	29.36	0.3321	-0.4073	-0.0015
86	SLV 1	17.63	-0.26	23.92	-0.4587	0.7751	-0.002
86	SLV 2	17.63	-0.26	23.92	-0.4587	0.7751	-0.002
86	SLV 3	15.05	0.34	16.2	0.2178	0.6562	0.0023
86	SLV 4	15.05	0.34	16.2	0.2178	0.6562	0.0023
86	SLV 5	8.56	-1.13	38.27	-1.0886	0.3749	-0.0083
86	SLV 6	8.56	-1.13	38.27	-1.0886	0.3749	-0.0083
86	SLV 7	-0.03	0.87	12.53	1.1663	-0.0213	0.0061
86	SLV 8	-0.03	0.87	12.53	1.1663	-0.0213	0.0061
86	SLV 9	-1.79	-1.27	42.84	-0.9521	-0.087	-0.0094
86	SLV 10	-1.79	-1.27	42.84	-0.9521	-0.087	-0.0094
86	SLV 11	-10.38	0.72	17.11	1.3029	-0.4832	0.005
86	SLV 12	-10.38	0.72	17.11	1.3029	-0.4832	0.005
86	SLV 13	-16.87	-0.74	39.17	-0.0036	-0.7645	-0.0056
86	SLV 14	-16.87	-0.74	39.17	-0.0036	-0.7645	-0.0056
86	SLV 15	-19.45	-0.14	31.45	0.6729	-0.8834	-0.0013
86	SLV 16	-19.45	-0.14	31.45	0.6729	-0.8834	-0.0013
87	SLU 1	0.33	-0.2	29.96	0.101	-0.0101	-0.0012
87	SLU 2	1.63	-0.09	30.7	-0.0642	0.0426	-0.0006
87	SLU 3	0.36	-0.21	30.74	0.1056	-0.01	-0.0013
87	SLU 4	1.14	-0.14	31.18	0.0064	0.0216	-0.0009
87	SLU 5	1.63	-0.09	31.27	-0.0609	0.0421	-0.0007
87	SLU 6	0.37	-0.22	31.3	0.1089	-0.0104	-0.0013
87	SLU 7	1.14	-0.15	31.75	0.0098	0.0211	-0.0009
87	SLU 8	0.35	-0.22	31.08	0.1077	-0.0111	-0.0013
87	SLU 9	1.12	-0.15	31.53	0.0085	0.0205	-0.0009
87	SLU 10	1.45	-0.11	34.67	-0.0538	0.0321	-0.0008
87	SLU 11	0.19	-0.24	34.7	0.116	-0.0204	-0.0014
87	SLU 12	0.96	-0.17	35.15	0.0169	0.0112	-0.001
87	SLU 13	1.46	-0.12	35.23	-0.0505	0.0317	-0.0008
87	SLU 14	0.2	-0.24	35.26	0.1194	-0.0209	-0.0014
87	SLU 15	0.97	-0.17	35.71	0.0202	0.0107	-0.0011
87	SLU 16	0.17	-0.24	35.05	0.1181	-0.0215	-0.0014
87	SLU 17	0.95	-0.17	35.5	0.019	0.0101	-0.0011
87	SLU 18	0.09	-0.24	35.62	0.116	-0.025	-0.0014
87	SLU 19	0.86	-0.17	36.07	0.0168	0.0066	-0.0011
87	SLU 20	0.09	-0.24	36.19	0.1193	-0.0255	-0.0014
87	SLU 21	0.87	-0.17	36.63	0.0201	0.0061	-0.0011
87	SLU 22	0.29	-0.23	33.62	0.113	-0.0152	-0.0014
87	SLU 23	1.58	-0.11	34.36	-0.0523	0.0374	-0.0008
87	SLU 24	0.32	-0.24	34.39	0.1175	-0.0151	-0.0014
87	SLU 25	1.09	-0.17	34.84	0.0184	0.0165	-0.0011
87	SLU 26	1.59	-0.12	34.93	-0.049	0.0369	-0.0008
87	SLU 27	0.32	-0.24	34.96	0.1209	-0.0156	-0.0014
87	SLU 28	1.1	-0.17	35.41	0.0217	0.016	-0.0011
87	SLU 29	0.3	-0.24	34.74	0.1196	-0.0162	-0.0014
87	SLU 30	1.08	-0.17	35.19	0.0205	0.0154	-0.0011
87	SLU 31	1.41	-0.14	38.33	-0.0418	0.027	-0.0009
87	SLU 32	0.14	-0.26	38.36	0.128	-0.0255	-0.0015
87	SLU 33	0.92	-0.19	38.81	0.0288	0.0061	-0.0012
87	SLU 34	1.42	-0.14	38.89	-0.0385	0.0265	-0.001
87	SLU 35	0.15	-0.27	38.92	0.1313	-0.026	-0.0016
87	SLU 36	0.93	-0.2	39.37	0.0322	0.0056	-0.0012
87	SLU 37	0.13	-0.27	38.71	0.1301	-0.0266	-0.0016
87	SLU 38	0.91	-0.2	39.16	0.0309	0.005	-0.0012
87	SLU 39	0.04	-0.26	39.28	0.1279	-0.0301	-0.0016
87	SLU 40	0.82	-0.19	39.73	0.0288	0.0015	-0.0012
87	SLU 41	0.05	-0.27	39.85	0.1312	-0.0306	-0.0016
87	SLU 42	0.83	-0.2	40.29	0.0321	0.001	-0.0012
87	SLU 43	0.44	-0.26	37.69	0.1272	-0.0113	-0.0015
87	SLU 44	1.74	-0.14	38.44	-0.038	0.0413	-0.0009
87	SLU 45	0.47	-0.26	38.47	0.1318	-0.0112	-0.0016
87	SLU 46	1.25	-0.19	38.92	0.0326	0.0204	-0.0012
87	SLU 47	1.75	-0.15	39	-0.0347	0.0408	-0.001
87	SLU 48	0.48	-0.27	39.03	0.1351	-0.0117	-0.0016
87	SLU 49	1.26	-0.2	39.48	0.036	0.0199	-0.0012
87	SLU 50	0.46	-0.27	38.82	0.1339	-0.0123	-0.0016
87	SLU 51	1.24	-0.2	39.27	0.0347	0.0193	-0.0012
87	SLU 52	1.57	-0.16	42.4	-0.0276	0.0309	-0.0011
87	SLU 53	0.3	-0.29	42.43	0.1423	-0.0216	-0.0017
87	SLU 54	1.08	-0.22	42.88	0.0431	0.0099	-0.0014
87	SLU 55	1.58	-0.17	42.97	-0.0242	0.0304	-0.0011
87	SLU 56	0.31	-0.29	43	0.1456	-0.0221	-0.0017
87	SLU 57	1.09	-0.22	43.44	0.0464	0.0095	-0.0014
87	SLU 58	0.29	-0.29	42.78	0.1443	-0.0227	-0.0017
87	SLU 59	1.07	-0.22	43.23	0.0452	0.0088	-0.0014
87	SLU 60	0.2	-0.29	43.35	0.1422	-0.0262	-0.0017
87	SLU 61	0.98	-0.22	43.8	0.043	0.0054	-0.0014
87	SLU 62	0.21	-0.3	43.92	0.1455	-0.0267	-0.0017
87	SLU 63	0.98	-0.23	44.37	0.0463	0.0049	-0.0014
87	SLU 64	0.4	-0.28	41.35	0.1392	-0.0165	-0.0017
87	SLU 65	1.7	-0.16	42.09	-0.0261	0.0362	-0.0011
87	SLU 66	0.43	-0.29	42.13	0.1438	-0.0164	-0.0017



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
87	SLU 67	1.21	-0.22	42.57	0.0446	0.0152	-0.0014
87	SLU 68	1.7	-0.17	42.66	-0.0228	0.0357	-0.0011
87	SLU 69	0.44	-0.3	42.69	0.1471	-0.0168	-0.0017
87	SLU 70	1.21	-0.23	43.14	0.0479	0.0147	-0.0014
87	SLU 71	0.42	-0.29	42.48	0.1458	-0.0175	-0.0017
87	SLU 72	1.19	-0.22	42.92	0.0467	0.0141	-0.0014
87	SLU 73	1.53	-0.19	46.06	-0.0156	0.0257	-0.0012
87	SLU 74	0.26	-0.31	46.09	0.1542	-0.0268	-0.0019
87	SLU 75	1.04	-0.24	46.54	0.0551	0.0048	-0.0015
87	SLU 76	1.53	-0.19	46.62	-0.0123	0.0253	-0.0013
87	SLU 77	0.27	-0.32	46.66	0.1575	-0.0273	-0.0019
87	SLU 78	1.04	-0.25	47.1	0.0584	0.0043	-0.0015
87	SLU 79	0.25	-0.32	46.44	0.1563	-0.0279	-0.0019
87	SLU 80	1.02	-0.25	46.89	0.0571	0.0037	-0.0015
87	SLU 81	0.16	-0.32	47.01	0.1541	-0.0314	-0.0019
87	SLU 82	0.93	-0.25	47.46	0.055	0.0002	-0.0015
87	SLU 83	0.16	-0.32	47.58	0.1574	-0.0319	-0.0019
87	SLU 84	0.94	-0.25	48.03	0.0583	-0.0003	-0.0016
87	SLE RA 1	0.32	-0.21	31	0.1044	-0.0115	-0.0012
87	SLE RA 2	1.18	-0.13	31.5	-0.0057	0.0236	-0.0009
87	SLE RA 3	0.34	-0.22	31.52	0.1075	-0.0115	-0.0013
87	SLE RA 4	0.85	-0.17	31.82	0.0414	0.0096	-0.001
87	SLE RA 5	1.19	-0.14	31.88	-0.0035	0.0232	-0.0009
87	SLE RA 6	0.34	-0.22	31.9	0.1097	-0.0118	-0.0013
87	SLE RA 7	0.86	-0.17	32.2	0.0436	0.0093	-0.0011
87	SLE RA 8	0.33	-0.22	31.75	0.1089	-0.0122	-0.0013
87	SLE RA 9	0.85	-0.17	32.05	0.0428	0.0089	-0.0011
87	SLE RA 10	1.07	-0.15	34.14	0.0012	0.0166	-0.001
87	SLE RA 11	0.22	-0.23	34.16	0.1145	-0.0184	-0.0014
87	SLE RA 12	0.74	-0.19	34.46	0.0483	0.0026	-0.0011
87	SLE RA 13	1.07	-0.15	34.52	0.0035	0.0163	-0.001
87	SLE RA 14	0.23	-0.24	34.54	0.1167	-0.0187	-0.0014
87	SLE RA 15	0.75	-0.19	34.84	0.0506	0.0023	-0.0012
87	SLE RA 16	0.21	-0.24	34.4	0.1158	-0.0191	-0.0014
87	SLE RA 17	0.73	-0.19	34.7	0.0497	0.0019	-0.0012
87	SLE RA 18	0.15	-0.23	34.78	0.1144	-0.0215	-0.0014
87	SLE RA 19	0.67	-0.19	35.08	0.0483	-0.0004	-0.0011
87	SLE RA 20	0.16	-0.24	35.16	0.1166	-0.0218	-0.0014
87	SLE RA 21	0.68	-0.19	35.45	0.0505	-0.0007	-0.0012
87	SLE FR 1	0.32	-0.21	31	0.1044	-0.0115	-0.0012
87	SLE FR 2	0.49	-0.2	31.1	0.0824	-0.0045	-0.0012
87	SLE FR 3	0.32	-0.21	31.15	0.1053	-0.0117	-0.0013
87	SLE FR 4	0.44	-0.2	32.24	0.0854	-0.0075	-0.0012
87	SLE FR 5	0.27	-0.22	32.29	0.1083	-0.0147	-0.0013
87	SLE FR 6	0.24	-0.22	32.89	0.1094	-0.0165	-0.0013
87	SLE QP 1	0.32	-0.21	31	0.1044	-0.0115	-0.0012
87	SLE QP 2	0.27	-0.22	32.14	0.1074	-0.0145	-0.0013
87	SLD 1	7.03	-0.21	29.12	-0.0895	0.2736	-0.0012
87	SLD 2	7.03	-0.21	29.12	-0.0895	0.2736	-0.0012
87	SLD 3	5.97	-0.02	25.55	0.132	0.2298	-0.0003
87	SLD 4	5.97	-0.02	25.55	0.132	0.2298	-0.0003
87	SLD 5	3.9	-0.51	36.65	-0.2876	0.1384	-0.0028
87	SLD 6	3.9	-0.51	36.65	-0.2876	0.1384	-0.0028
87	SLD 7	0.37	0.13	24.74	0.4507	-0.0077	0.0005
87	SLD 8	0.37	0.13	24.74	0.4507	-0.0077	0.0005
87	SLD 9	0.17	-0.57	39.53	-0.2358	-0.0214	-0.0031
87	SLD 10	0.17	-0.57	39.53	-0.2358	-0.0214	-0.0031
87	SLD 11	-3.37	0.07	27.62	0.5024	-0.1674	0.0002
87	SLD 12	-3.37	0.07	27.62	0.5024	-0.1674	0.0002
87	SLD 13	-5.43	-0.41	38.72	0.0829	-0.2588	-0.0023
87	SLD 14	-5.43	-0.41	38.72	0.0829	-0.2588	-0.0023
87	SLD 15	-6.49	-0.22	35.15	0.3043	-0.3026	-0.0013
87	SLD 16	-6.49	-0.22	35.15	0.3043	-0.3026	-0.0013
87	SLV 1	16.14	-0.22	25.18	-0.3869	0.6623	-0.0012
87	SLV 2	16.14	-0.22	25.18	-0.3869	0.6623	-0.0012
87	SLV 3	13.54	0.27	16.64	0.1787	0.5545	0.0013
87	SLV 4	13.54	0.27	16.64	0.1787	0.5545	0.0013
87	SLV 5	8.98	-0.95	43	-0.8986	0.352	-0.0051
87	SLV 6	8.98	-0.95	43	-0.8986	0.352	-0.0051
87	SLV 7	0.3	0.66	14.53	0.9866	-0.0072	0.0033
87	SLV 8	0.3	0.66	14.53	0.9866	-0.0072	0.0033
87	SLV 9	0.23	-1.1	49.74	-0.7717	-0.0218	-0.0058
87	SLV 10	0.23	-1.1	49.74	-0.7717	-0.0218	-0.0058
87	SLV 11	-8.44	0.52	21.27	1.1135	-0.381	0.0025
87	SLV 12	-8.44	0.52	21.27	1.1135	-0.381	0.0025
87	SLV 13	-13	-0.7	47.64	0.0362	-0.5836	-0.0038
87	SLV 14	-13	-0.7	47.64	0.0362	-0.5836	-0.0038
87	SLV 15	-15.6	-0.22	39.09	0.6017	-0.6913	-0.0013
87	SLV 16	-15.6	-0.22	39.09	0.6017	-0.6913	-0.0013
88	SLU 1	0.67	-0.19	35.76	0.0879	-0.0075	-0.0007
88	SLU 2	2.34	-0.11	36.81	-0.0366	0.0618	-0.0005
88	SLU 3	0.73	-0.19	36.81	0.0919	-0.0065	-0.0007
88	SLU 4	1.74	-0.15	37.44	0.0172	0.035	-0.0006
88	SLU 5	2.38	-0.12	37.57	-0.0337	0.062	-0.0005
88	SLU 6	0.77	-0.2	37.58	0.0948	-0.0062	-0.0007
88	SLU 7	1.77	-0.15	38.21	0.0201	0.0353	-0.0006
88	SLU 8	0.74	-0.2	37.29	0.0937	-0.007	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLU 9	1.75	-0.15	37.92	0.019	0.0346	-0.0006
88	SLU 10	2.17	-0.13	41.46	-0.0272	0.0505	-0.0006
88	SLU 11	0.56	-0.22	41.47	0.1013	-0.0177	-0.0008
88	SLU 12	1.57	-0.17	42.1	0.0266	0.0238	-0.0007
88	SLU 13	2.21	-0.14	42.23	-0.0243	0.0508	-0.0006
88	SLU 14	0.6	-0.22	42.23	0.1042	-0.0175	-0.0008
88	SLU 15	1.6	-0.18	42.86	0.0295	0.0241	-0.0007
88	SLU 16	0.57	-0.22	41.95	0.1031	-0.0182	-0.0008
88	SLU 17	1.58	-0.17	42.58	0.0284	0.0234	-0.0007
88	SLU 18	0.43	-0.22	42.41	0.1013	-0.0236	-0.0008
88	SLU 19	1.43	-0.17	43.04	0.0266	0.018	-0.0007
88	SLU 20	0.46	-0.22	43.18	0.1042	-0.0233	-0.0008
88	SLU 21	1.47	-0.18	43.8	0.0295	0.0183	-0.0007
88	SLU 22	0.65	-0.21	40.2	0.0986	-0.0129	-0.0008
88	SLU 23	2.33	-0.13	41.25	-0.0259	0.0564	-0.0006
88	SLU 24	0.72	-0.22	41.25	0.1026	-0.0119	-0.0008
88	SLU 25	1.72	-0.17	41.88	0.0278	0.0297	-0.0007
88	SLU 26	2.36	-0.14	42.01	-0.023	0.0566	-0.0006
88	SLU 27	0.75	-0.22	42.02	0.1054	-0.0116	-0.0008
88	SLU 28	1.76	-0.18	42.65	0.0307	0.0299	-0.0007
88	SLU 29	0.73	-0.22	41.73	0.1043	-0.0124	-0.0008
88	SLU 30	1.73	-0.18	42.36	0.0296	0.0292	-0.0007
88	SLU 31	2.16	-0.16	45.9	-0.0165	0.0451	-0.0007
88	SLU 32	0.55	-0.24	45.91	0.112	-0.0231	-0.0009
88	SLU 33	1.55	-0.19	46.54	0.0372	0.0184	-0.0008
88	SLU 34	2.19	-0.16	46.67	-0.0136	0.0454	-0.0007
88	SLU 35	0.58	-0.25	46.67	0.1148	-0.0229	-0.0009
88	SLU 36	1.59	-0.2	47.3	0.0401	0.0187	-0.0008
88	SLU 37	0.56	-0.24	46.39	0.1138	-0.0236	-0.0009
88	SLU 38	1.56	-0.2	47.01	0.039	0.018	-0.0008
88	SLU 39	0.41	-0.24	46.85	0.112	-0.0289	-0.0009
88	SLU 40	1.42	-0.2	47.48	0.0373	0.0126	-0.0008
88	SLU 41	0.45	-0.25	47.62	0.1149	-0.0287	-0.0009
88	SLU 42	1.45	-0.2	48.24	0.0402	0.0129	-0.0008
88	SLU 43	0.88	-0.23	44.97	0.1106	-0.0079	-0.0009
88	SLU 44	2.55	-0.16	46.01	-0.0139	0.0614	-0.0007
88	SLU 45	0.94	-0.24	46.02	0.1146	-0.0069	-0.0009
88	SLU 46	1.94	-0.2	46.65	0.0399	0.0346	-0.0008
88	SLU 47	2.59	-0.16	46.78	-0.011	0.0616	-0.0007
88	SLU 48	0.98	-0.25	46.78	0.1175	-0.0067	-0.0009
88	SLU 49	1.98	-0.2	47.41	0.0428	0.0349	-0.0008
88	SLU 50	0.95	-0.24	46.5	0.1164	-0.0074	-0.0009
88	SLU 51	1.95	-0.2	47.13	0.0417	0.0342	-0.0008
88	SLU 52	2.38	-0.18	50.67	-0.0045	0.0501	-0.0007
88	SLU 53	0.77	-0.26	50.67	0.124	-0.0182	-0.001
88	SLU 54	1.77	-0.22	51.3	0.0493	0.0234	-0.0009
88	SLU 55	2.42	-0.19	51.43	-0.0016	0.0504	-0.0008
88	SLU 56	0.81	-0.27	51.44	0.1269	-0.0179	-0.001
88	SLU 57	1.81	-0.22	52.07	0.0522	0.0237	-0.0009
88	SLU 58	0.78	-0.27	51.15	0.1258	-0.0186	-0.001
88	SLU 59	1.78	-0.22	51.78	0.0511	0.023	-0.0009
88	SLU 60	0.63	-0.27	51.62	0.1241	-0.024	-0.001
88	SLU 61	1.64	-0.22	52.24	0.0494	0.0176	-0.0009
88	SLU 62	0.67	-0.27	52.38	0.1269	-0.0237	-0.001
88	SLU 63	1.67	-0.23	53.01	0.0522	0.0179	-0.0009
88	SLU 64	0.86	-0.26	49.41	0.1213	-0.0133	-0.001
88	SLU 65	2.53	-0.18	50.45	-0.0032	0.056	-0.0007
88	SLU 66	0.92	-0.27	50.46	0.1253	-0.0123	-0.001
88	SLU 67	1.93	-0.22	51.09	0.0506	0.0292	-0.0009
88	SLU 68	2.57	-0.19	51.22	-0.0003	0.0562	-0.0008
88	SLU 69	0.96	-0.27	51.22	0.1281	-0.012	-0.001
88	SLU 70	1.96	-0.23	51.85	0.0534	0.0295	-0.0009
88	SLU 71	0.93	-0.27	50.94	0.1271	-0.0128	-0.001
88	SLU 72	1.94	-0.22	51.57	0.0524	0.0288	-0.0009
88	SLU 73	2.37	-0.2	55.11	0.0062	0.0447	-0.0008
88	SLU 74	0.76	-0.29	55.11	0.1347	-0.0235	-0.0011
88	SLU 75	1.76	-0.24	55.74	0.06	0.018	-0.0009
88	SLU 76	2.4	-0.21	55.87	0.0091	0.045	-0.0009
88	SLU 77	0.79	-0.29	55.88	0.1376	-0.0233	-0.0011
88	SLU 78	1.79	-0.25	56.51	0.0628	0.0183	-0.001
88	SLU 79	0.76	-0.29	55.59	0.1365	-0.024	-0.0011
88	SLU 80	1.77	-0.25	56.22	0.0618	0.0176	-0.001
88	SLU 81	0.62	-0.29	56.06	0.1347	-0.0293	-0.0011
88	SLU 82	1.62	-0.24	56.68	0.06	0.0122	-0.0009
88	SLU 83	0.65	-0.29	56.82	0.1376	-0.0291	-0.0011
88	SLU 84	1.66	-0.25	57.45	0.0629	0.0125	-0.001
88	SLE RA 1	0.67	-0.19	37.03	0.091	-0.0091	-0.0007
88	SLE RA 2	1.78	-0.14	37.73	0.008	0.0371	-0.0006
88	SLE RA 3	0.71	-0.2	37.73	0.0936	-0.0084	-0.0007
88	SLE RA 4	1.38	-0.17	38.15	0.0438	0.0193	-0.0007
88	SLE RA 5	1.8	-0.15	38.24	0.0099	0.0373	-0.0006
88	SLE RA 6	0.73	-0.2	38.24	0.0955	-0.0082	-0.0007
88	SLE RA 7	1.4	-0.17	38.66	0.0457	0.0195	-0.0007
88	SLE RA 8	0.71	-0.2	38.05	0.0948	-0.0087	-0.0007
88	SLE RA 9	1.38	-0.17	38.47	0.045	0.019	-0.0007
88	SLE RA 10	1.67	-0.16	40.83	0.0142	0.0296	-0.0006
88	SLE RA 11	0.6	-0.21	40.83	0.0999	-0.0159	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLE RA 12	1.26	-0.18	41.25	0.0501	0.0118	-0.0007
88	SLE RA 13	1.69	-0.16	41.34	0.0161	0.0298	-0.0006
88	SLE RA 14	0.62	-0.22	41.34	0.1018	-0.0157	-0.0008
88	SLE RA 15	1.29	-0.19	41.76	0.052	0.012	-0.0007
88	SLE RA 16	0.6	-0.21	41.15	0.1011	-0.0162	-0.0008
88	SLE RA 17	1.27	-0.18	41.57	0.0513	0.0115	-0.0007
88	SLE RA 18	0.5	-0.21	41.46	0.0999	-0.0197	-0.0008
88	SLE RA 19	1.17	-0.18	41.88	0.0501	0.008	-0.0007
88	SLE RA 20	0.53	-0.22	41.97	0.1018	-0.0196	-0.0008
88	SLE RA 21	1.2	-0.19	42.39	0.052	0.0081	-0.0007
88	SLE FR 1	0.67	-0.19	37.03	0.091	-0.0091	-0.0007
88	SLE FR 2	0.89	-0.18	37.17	0.0744	0.0002	-0.0007
88	SLE FR 3	0.68	-0.19	37.23	0.0917	-0.009	-0.0007
88	SLE FR 4	0.84	-0.19	38.5	0.077	-0.003	-0.0007
88	SLE FR 5	0.63	-0.2	38.56	0.0944	-0.0122	-0.0007
88	SLE FR 6	0.59	-0.2	39.25	0.0954	-0.0144	-0.0008
88	SLE QP 1	0.67	-0.19	37.03	0.091	-0.0091	-0.0007
88	SLE QP 2	0.62	-0.2	38.36	0.0937	-0.0123	-0.0007
88	SLD 1	6.8	-0.16	32.95	-0.0648	0.2731	-0.0006
88	SLD 2	6.8	-0.16	32.95	-0.0648	0.2731	-0.0006
88	SLD 3	5.6	-0.04	28.43	0.1013	0.2197	-0.0002
88	SLD 4	5.6	-0.04	28.43	0.1013	0.2197	-0.0002
88	SLD 5	4.3	-0.39	43.59	-0.2059	0.1542	-0.0013
88	SLD 6	4.3	-0.39	43.59	-0.2059	0.1542	-0.0013
88	SLD 7	0.28	0.05	28.53	0.3479	-0.0236	0
88	SLD 8	0.28	0.05	28.53	0.3479	-0.0236	0
88	SLD 9	0.95	-0.44	48.19	-0.1606	-0.0009	-0.0015
88	SLD 10	0.95	-0.44	48.19	-0.1606	-0.0009	-0.0015
88	SLD 11	-3.07	-0.01	33.13	0.3932	-0.1788	-0.0002
88	SLD 12	-3.07	-0.01	33.13	0.3932	-0.1788	-0.0002
88	SLD 13	-4.36	-0.36	48.28	0.086	-0.2442	-0.0013
88	SLD 14	-4.36	-0.36	48.28	0.086	-0.2442	-0.0013
88	SLD 15	-5.57	-0.23	43.77	0.2521	-0.2976	-0.0009
88	SLD 16	-5.57	-0.23	43.77	0.2521	-0.2976	-0.0009
88	SLV 1	15.17	-0.12	25.74	-0.3031	0.6595	-0.0004
88	SLV 2	15.17	-0.12	25.74	-0.3031	0.6595	-0.0004
88	SLV 3	12.18	0.21	15.1	0.1213	0.5264	0.0006
88	SLV 4	12.18	0.21	15.1	0.1213	0.5264	0.0006
88	SLV 5	9.5	-0.68	50.71	-0.6691	0.3911	-0.0022
88	SLV 6	9.5	-0.68	50.71	-0.6691	0.3911	-0.0022
88	SLV 7	-0.44	0.42	15.24	0.7457	-0.0525	0.0012
88	SLV 8	-0.44	0.42	15.24	0.7457	-0.0525	0.0012
88	SLV 9	1.67	-0.82	61.47	-0.5584	0.0279	-0.0027
88	SLV 10	1.67	-0.82	61.47	-0.5584	0.0279	-0.0027
88	SLV 11	-8.27	0.28	26.01	0.8564	-0.4156	0.0007
88	SLV 12	-8.27	0.28	26.01	0.8564	-0.4156	0.0007
88	SLV 13	-10.95	-0.6	61.62	0.066	-0.551	-0.0021
88	SLV 14	-10.95	-0.6	61.62	0.066	-0.551	-0.0021
88	SLV 15	-13.93	-0.27	50.98	0.4904	-0.684	-0.0011
88	SLV 16	-13.93	-0.27	50.98	0.4904	-0.684	-0.0011
89	SLU 1	0.06	-0.11	42.88	0.0546	-0.0315	-0.0003
89	SLU 2	1.95	-0.08	44.36	-0.026	0.0446	-0.0003
89	SLU 3	0.12	-0.12	44.27	0.0571	-0.0306	-0.0003
89	SLU 4	1.25	-0.1	45.16	0.0088	0.015	-0.0003
89	SLU 5	1.98	-0.08	45.38	-0.0242	0.0448	-0.0003
89	SLU 6	0.16	-0.12	45.3	0.0589	-0.0304	-0.0003
89	SLU 7	1.29	-0.1	46.18	0.0106	0.0152	-0.0003
89	SLU 8	0.13	-0.12	44.92	0.0582	-0.0311	-0.0003
89	SLU 9	1.26	-0.1	45.81	0.0099	0.0145	-0.0003
89	SLU 10	1.66	-0.1	49.85	-0.0201	0.0284	-0.0003
89	SLU 11	-0.17	-0.13	49.76	0.063	-0.0467	-0.0003
89	SLU 12	0.97	-0.11	50.65	0.0146	-0.0011	-0.0003
89	SLU 13	1.69	-0.1	50.87	-0.0183	0.0286	-0.0003
89	SLU 14	-0.13	-0.14	50.79	0.0648	-0.0465	-0.0003
89	SLU 15	1	-0.12	51.67	0.0164	-0.0009	-0.0003
89	SLU 16	-0.16	-0.13	50.41	0.0641	-0.0472	-0.0003
89	SLU 17	0.97	-0.12	51.3	0.0158	-0.0016	-0.0003
89	SLU 18	-0.35	-0.13	50.72	0.063	-0.0546	-0.0003
89	SLU 19	0.78	-0.11	51.61	0.0147	-0.0089	-0.0003
89	SLU 20	-0.32	-0.14	51.74	0.0648	-0.0544	-0.0003
89	SLU 21	0.81	-0.12	52.63	0.0165	-0.0087	-0.0003
89	SLU 22	-0.05	-0.13	48.27	0.0613	-0.0406	-0.0003
89	SLU 23	1.84	-0.1	49.75	-0.0193	0.0354	-0.0003
89	SLU 24	0.01	-0.13	49.66	0.0638	-0.0397	-0.0003
89	SLU 25	1.14	-0.11	50.55	0.0155	0.0059	-0.0003
89	SLU 26	1.87	-0.1	50.77	-0.0175	0.0356	-0.0003
89	SLU 27	0.05	-0.14	50.68	0.0656	-0.0395	-0.0003
89	SLU 28	1.18	-0.12	51.57	0.0173	0.0061	-0.0003
89	SLU 29	0.02	-0.14	50.31	0.0649	-0.0402	-0.0003
89	SLU 30	1.15	-0.12	51.2	0.0166	0.0054	-0.0003
89	SLU 31	1.55	-0.11	55.24	-0.0134	0.0193	-0.0004
89	SLU 32	-0.28	-0.15	55.15	0.0697	-0.0559	-0.0004
89	SLU 33	0.86	-0.13	56.04	0.0213	-0.0102	-0.0004
89	SLU 34	1.58	-0.11	56.26	-0.0116	0.0195	-0.0004
89	SLU 35	-0.24	-0.15	56.17	0.0715	-0.0557	-0.0004
89	SLU 36	0.89	-0.13	57.06	0.0231	-0.01	-0.0004
89	SLU 37	-0.27	-0.15	55.8	0.0708	-0.0564	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
89	SLU 38	0.86	-0.13	56.69	0.0225	-0.0107	-0.0004
89	SLU 39	-0.46	-0.15	56.11	0.0697	-0.0637	-0.0004
89	SLU 40	0.67	-0.13	57	0.0214	-0.0181	-0.0004
89	SLU 41	-0.43	-0.15	57.13	0.0715	-0.0635	-0.0004
89	SLU 42	0.71	-0.13	58.02	0.0232	-0.0179	-0.0004
89	SLU 43	0.11	-0.14	53.89	0.0687	-0.0378	-0.0003
89	SLU 44	2	-0.11	55.37	-0.0119	0.0382	-0.0004
89	SLU 45	0.18	-0.15	55.29	0.0712	-0.0369	-0.0004
89	SLU 46	1.31	-0.13	56.18	0.0229	0.0087	-0.0004
89	SLU 47	2.04	-0.11	56.4	-0.0101	0.0384	-0.0004
89	SLU 48	0.21	-0.15	56.31	0.073	-0.0367	-0.0004
89	SLU 49	1.34	-0.13	57.2	0.0247	0.0089	-0.0004
89	SLU 50	0.18	-0.15	55.93	0.0723	-0.0374	-0.0004
89	SLU 51	1.32	-0.13	56.82	0.024	0.0082	-0.0004
89	SLU 52	1.71	-0.12	60.86	-0.006	0.0221	-0.0004
89	SLU 53	-0.11	-0.16	60.78	0.0771	-0.0531	-0.0004
89	SLU 54	1.02	-0.14	61.67	0.0287	-0.0074	-0.0004
89	SLU 55	1.75	-0.13	61.89	-0.0042	0.0223	-0.0004
89	SLU 56	-0.08	-0.17	61.8	0.0789	-0.0529	-0.0004
89	SLU 57	1.06	-0.15	62.69	0.0305	-0.0072	-0.0004
89	SLU 58	-0.1	-0.16	61.42	0.0782	-0.0536	-0.0004
89	SLU 59	1.03	-0.14	62.31	0.0298	-0.0079	-0.0004
89	SLU 60	-0.3	-0.16	61.74	0.0771	-0.0609	-0.0004
89	SLU 61	0.83	-0.14	62.63	0.0287	-0.0153	-0.0004
89	SLU 62	-0.26	-0.17	62.76	0.0789	-0.0607	-0.0004
89	SLU 63	0.87	-0.15	63.65	0.0305	-0.0151	-0.0004
89	SLU 64	0	-0.16	59.28	0.0754	-0.0469	-0.0004
89	SLU 65	1.89	-0.13	60.76	-0.0052	0.0291	-0.0004
89	SLU 66	0.07	-0.16	60.68	0.0779	-0.046	-0.0004
89	SLU 67	1.2	-0.14	61.57	0.0296	-0.0004	-0.0004
89	SLU 68	1.93	-0.13	61.78	-0.0034	0.0293	-0.0004
89	SLU 69	0.1	-0.17	61.7	0.0797	-0.0458	-0.0004
89	SLU 70	1.23	-0.15	62.59	0.0314	-0.0002	-0.0004
89	SLU 71	0.08	-0.17	61.32	0.079	-0.0465	-0.0004
89	SLU 72	1.21	-0.15	62.21	0.0307	-0.0009	-0.0004
89	SLU 73	1.6	-0.14	66.25	0.0007	0.013	-0.0004
89	SLU 74	-0.22	-0.18	66.17	0.0838	-0.0622	-0.0004
89	SLU 75	0.91	-0.16	67.06	0.0354	-0.0165	-0.0004
89	SLU 76	1.64	-0.14	67.27	0.0025	0.0132	-0.0004
89	SLU 77	-0.19	-0.18	67.19	0.0856	-0.062	-0.0004
89	SLU 78	0.95	-0.16	68.08	0.0372	-0.0163	-0.0004
89	SLU 79	-0.21	-0.18	66.81	0.0849	-0.0627	-0.0004
89	SLU 80	0.92	-0.16	67.7	0.0365	-0.0171	-0.0004
89	SLU 81	-0.41	-0.18	67.13	0.0838	-0.07	-0.0004
89	SLU 82	0.73	-0.16	68.01	0.0354	-0.0244	-0.0004
89	SLU 83	-0.37	-0.18	68.15	0.0856	-0.0698	-0.0004
89	SLU 84	0.76	-0.16	69.03	0.0373	-0.0242	-0.0004
89	SLE RA 1	0.03	-0.12	44.42	0.0565	-0.0341	-0.0003
89	SLE RA 2	1.29	-0.1	45.4	0.0028	0.0166	-0.0003
89	SLE RA 3	0.07	-0.12	45.35	0.0582	-0.0335	-0.0003
89	SLE RA 4	0.82	-0.11	45.94	0.026	-0.0031	-0.0003
89	SLE RA 5	1.31	-0.1	46.09	0.004	0.0167	-0.0003
89	SLE RA 6	0.09	-0.12	46.03	0.0594	-0.0334	-0.0003
89	SLE RA 7	0.85	-0.11	46.62	0.0272	-0.0029	-0.0003
89	SLE RA 8	0.07	-0.12	45.78	0.0589	-0.0338	-0.0003
89	SLE RA 9	0.83	-0.11	46.37	0.0267	-0.0034	-0.0003
89	SLE RA 10	1.09	-0.11	49.06	0.0067	0.0058	-0.0003
89	SLE RA 11	-0.12	-0.13	49.01	0.0621	-0.0443	-0.0003
89	SLE RA 12	0.63	-0.12	49.6	0.0299	-0.0138	-0.0003
89	SLE RA 13	1.12	-0.11	49.75	0.0079	0.006	-0.0003
89	SLE RA 14	-0.1	-0.13	49.69	0.0633	-0.0441	-0.0003
89	SLE RA 15	0.66	-0.12	50.28	0.0311	-0.0137	-0.0003
89	SLE RA 16	-0.12	-0.13	49.44	0.0629	-0.0446	-0.0003
89	SLE RA 17	0.64	-0.12	50.03	0.0306	-0.0142	-0.0003
89	SLE RA 18	-0.25	-0.13	49.65	0.0621	-0.0495	-0.0003
89	SLE RA 19	0.51	-0.12	50.24	0.0299	-0.0191	-0.0003
89	SLE RA 20	-0.22	-0.13	50.33	0.0633	-0.0494	-0.0003
89	SLE RA 21	0.53	-0.12	50.92	0.0311	-0.0189	-0.0003
89	SLE FR 1	0.03	-0.12	44.42	0.0565	-0.0341	-0.0003
89	SLE FR 2	0.28	-0.11	44.61	0.0458	-0.024	-0.0003
89	SLE FR 3	0.04	-0.12	44.69	0.057	-0.034	-0.0003
89	SLE FR 4	0.2	-0.12	46.18	0.0475	-0.0286	-0.0003
89	SLE FR 5	-0.05	-0.12	46.26	0.0587	-0.0387	-0.0003
89	SLE FR 6	-0.11	-0.13	47.03	0.0593	-0.0418	-0.0003
89	SLE QP 1	0.03	-0.12	44.42	0.0565	-0.0341	-0.0003
89	SLE QP 2	-0.05	-0.12	45.99	0.0582	-0.0387	-0.0003
89	SLD 1	5.6	-0.06	37.32	-0.0528	0.2119	-0.0001
89	SLD 2	5.6	-0.06	37.32	-0.0528	0.2119	-0.0001
89	SLD 3	4.32	0	31.26	0.0528	0.1597	0
89	SLD 4	4.32	0	31.26	0.0528	0.1597	0
89	SLD 5	3.59	-0.2	52.58	-0.1353	0.1156	-0.0004
89	SLD 6	3.59	-0.2	52.58	-0.1353	0.1156	-0.0004
89	SLD 7	-0.69	0.01	32.38	0.2168	-0.0583	-0.0001
89	SLD 8	-0.69	0.01	32.38	0.2168	-0.0583	-0.0001
89	SLD 9	0.58	-0.26	59.6	-0.1004	-0.0191	-0.0005
89	SLD 10	0.58	-0.26	59.6	-0.1004	-0.0191	-0.0005
89	SLD 11	-3.69	-0.05	39.39	0.2517	-0.193	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
89	SLD 12	-3.69	-0.05	39.39	0.2517	-0.193	-0.0002
89	SLD 13	-4.43	-0.25	60.71	0.0636	-0.2371	-0.0006
89	SLD 14	-4.43	-0.25	60.71	0.0636	-0.2371	-0.0006
89	SLD 15	-5.71	-0.18	54.65	0.1692	-0.2893	-0.0005
89	SLD 16	-5.71	-0.18	54.65	0.1692	-0.2893	-0.0005
89	SLV 1	13.27	0.02	25.72	-0.2188	0.5518	0.0001
89	SLV 2	13.27	0.02	25.72	-0.2188	0.5518	0.0001
89	SLV 3	10.09	0.18	11.49	0.0512	0.4216	0.0004
89	SLV 4	10.09	0.18	11.49	0.0512	0.4216	0.0004
89	SLV 5	8.76	-0.32	61.49	-0.4344	0.3358	-0.0005
89	SLV 6	8.76	-0.32	61.49	-0.4344	0.3358	-0.0005
89	SLV 7	-1.82	0.21	14.05	0.4656	-0.098	0.0002
89	SLV 8	-1.82	0.21	14.05	0.4656	-0.098	0.0002
89	SLV 9	1.71	-0.46	77.92	-0.3491	0.0206	-0.0008
89	SLV 10	1.71	-0.46	77.92	-0.3491	0.0206	-0.0008
89	SLV 11	-8.86	0.08	30.48	0.5508	-0.4133	-0.0001
89	SLV 12	-8.86	0.08	30.48	0.5508	-0.4133	-0.0001
89	SLV 13	-10.2	-0.43	80.48	0.0653	-0.499	-0.0009
89	SLV 14	-10.2	-0.43	80.48	0.0653	-0.499	-0.0009
89	SLV 15	-13.38	-0.27	66.25	0.3352	-0.6292	-0.0007
89	SLV 16	-13.38	-0.27	66.25	0.3352	-0.6292	-0.0007
90	SLU 1	-1.77	0.05	53.36	0.0018	-0.1602	0.0004
90	SLU 2	0.15	0.06	55.38	-0.0386	-0.0835	0.0005
90	SLU 3	-1.76	0.05	55.25	0.002	-0.1636	0.0005
90	SLU 4	-0.61	0.06	56.46	-0.0223	-0.1176	0.0005
90	SLU 5	0.15	0.06	56.76	-0.0385	-0.0863	0.0005
90	SLU 6	-1.76	0.06	56.63	0.0022	-0.1665	0.0005
90	SLU 7	-0.61	0.06	57.84	-0.0221	-0.1205	0.0005
90	SLU 8	-1.77	0.05	56.13	0.0021	-0.1659	0.0005
90	SLU 9	-0.62	0.06	57.34	-0.0222	-0.1199	0.0005
90	SLU 10	-0.38	0.07	62.14	-0.0388	-0.1164	0.0005
90	SLU 11	-2.29	0.06	62.02	0.0019	-0.1965	0.0005
90	SLU 12	-1.14	0.07	63.22	-0.0224	-0.1505	0.0005
90	SLU 13	-0.38	0.07	63.53	-0.0386	-0.1192	0.0005
90	SLU 14	-2.29	0.06	63.4	0.002	-0.1994	0.0005
90	SLU 15	-1.14	0.07	64.61	-0.0222	-0.1534	0.0005
90	SLU 16	-2.3	0.06	62.9	0.002	-0.1988	0.0005
90	SLU 17	-1.15	0.07	64.1	-0.0223	-0.1528	0.0005
90	SLU 18	-2.52	0.06	63.03	0.0016	-0.2072	0.0005
90	SLU 19	-1.37	0.07	64.24	-0.0226	-0.1611	0.0005
90	SLU 20	-2.52	0.06	64.41	0.0018	-0.21	0.0005
90	SLU 21	-1.37	0.07	65.62	-0.0225	-0.164	0.0005
90	SLU 22	-2.12	0.06	60.15	0.0019	-0.1863	0.0005
90	SLU 23	-0.2	0.07	62.17	-0.0385	-0.1096	0.0005
90	SLU 24	-2.11	0.06	62.04	0.0021	-0.1897	0.0005
90	SLU 25	-0.96	0.07	63.25	-0.0221	-0.1437	0.0005
90	SLU 26	-0.2	0.07	63.55	-0.0384	-0.1124	0.0005
90	SLU 27	-2.11	0.06	63.42	0.0023	-0.1926	0.0005
90	SLU 28	-0.96	0.07	64.63	-0.022	-0.1466	0.0005
90	SLU 29	-2.12	0.06	62.92	0.0022	-0.192	0.0005
90	SLU 30	-0.97	0.07	64.13	-0.022	-0.146	0.0005
90	SLU 31	-0.73	0.08	68.93	-0.0386	-0.1425	0.0006
90	SLU 32	-2.64	0.07	68.81	0.002	-0.2226	0.0006
90	SLU 33	-1.49	0.07	70.01	-0.0222	-0.1766	0.0006
90	SLU 34	-0.73	0.08	70.32	-0.0385	-0.1453	0.0006
90	SLU 35	-2.64	0.07	70.19	0.0022	-0.2255	0.0006
90	SLU 36	-1.49	0.07	71.4	-0.0221	-0.1795	0.0006
90	SLU 37	-2.65	0.07	69.69	0.0021	-0.2249	0.0006
90	SLU 38	-1.5	0.07	70.9	-0.0221	-0.1789	0.0006
90	SLU 39	-2.87	0.07	69.82	0.0018	-0.2333	0.0006
90	SLU 40	-1.72	0.07	71.03	-0.0225	-0.1872	0.0006
90	SLU 41	-2.87	0.07	71.2	0.0019	-0.2361	0.0006
90	SLU 42	-1.72	0.08	72.41	-0.0223	-0.1901	0.0006
90	SLU 43	-2.18	0.07	67.04	0.0023	-0.1993	0.0005
90	SLU 44	-0.26	0.08	69.06	-0.0382	-0.1226	0.0006
90	SLU 45	-2.17	0.07	68.93	0.0025	-0.2027	0.0006
90	SLU 46	-1.02	0.07	70.14	-0.0218	-0.1567	0.0006
90	SLU 47	-0.26	0.08	70.44	-0.038	-0.1254	0.0006
90	SLU 48	-2.17	0.07	70.31	0.0026	-0.2056	0.0006
90	SLU 49	-1.02	0.08	71.52	-0.0216	-0.1596	0.0006
90	SLU 50	-2.18	0.07	69.81	0.0026	-0.205	0.0006
90	SLU 51	-1.03	0.07	71.02	-0.0217	-0.159	0.0006
90	SLU 52	-0.79	0.08	75.82	-0.0383	-0.1555	0.0006
90	SLU 53	-2.7	0.07	75.7	0.0024	-0.2356	0.0006
90	SLU 54	-1.55	0.08	76.9	-0.0219	-0.1896	0.0006
90	SLU 55	-0.79	0.08	77.21	-0.0381	-0.1583	0.0006
90	SLU 56	-2.7	0.07	77.08	0.0025	-0.2385	0.0006
90	SLU 57	-1.55	0.08	78.29	-0.0217	-0.1925	0.0006
90	SLU 58	-2.71	0.07	76.58	0.0025	-0.2379	0.0006
90	SLU 59	-1.56	0.08	77.79	-0.0218	-0.1919	0.0006
90	SLU 60	-2.93	0.07	76.71	0.0021	-0.2463	0.0006
90	SLU 61	-1.78	0.08	77.92	-0.0221	-0.2002	0.0006
90	SLU 62	-2.94	0.08	78.09	0.0023	-0.2491	0.0006
90	SLU 63	-1.79	0.08	79.3	-0.022	-0.2031	0.0007
90	SLU 64	-2.53	0.07	73.83	0.0024	-0.2254	0.0006
90	SLU 65	-0.61	0.08	75.85	-0.038	-0.1487	0.0006
90	SLU 66	-2.52	0.07	75.72	0.0026	-0.2288	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
90	SLU 67	-1.37	0.08	76.93	-0.0216	-0.1828	0.0006
90	SLU 68	-0.61	0.08	77.23	-0.0379	-0.1515	0.0006
90	SLU 69	-2.52	0.07	77.1	0.0028	-0.2317	0.0006
90	SLU 70	-1.37	0.08	78.31	-0.0215	-0.1857	0.0006
90	SLU 71	-2.53	0.07	76.6	0.0027	-0.2311	0.0006
90	SLU 72	-1.38	0.08	77.81	-0.0215	-0.1851	0.0006
90	SLU 73	-1.14	0.09	82.62	-0.0381	-0.1816	0.0007
90	SLU 74	-3.05	0.08	82.49	0.0025	-0.2617	0.0007
90	SLU 75	-1.9	0.09	83.69	-0.0217	-0.2157	0.0007
90	SLU 76	-1.14	0.09	84	-0.038	-0.1844	0.0007
90	SLU 77	-3.05	0.08	83.87	0.0027	-0.2646	0.0007
90	SLU 78	-1.9	0.09	85.08	-0.0216	-0.2186	0.0007
90	SLU 79	-3.06	0.08	83.37	0.0026	-0.264	0.0007
90	SLU 80	-1.91	0.09	84.58	-0.0217	-0.218	0.0007
90	SLU 81	-3.28	0.08	83.5	0.0023	-0.2724	0.0007
90	SLU 82	-2.13	0.09	84.71	-0.022	-0.2263	0.0007
90	SLU 83	-3.28	0.08	84.88	0.0024	-0.2752	0.0007
90	SLU 84	-2.13	0.09	86.09	-0.0219	-0.2292	0.0007
90	SLE RA 1	-1.87	0.05	55.3	0.0018	-0.1676	0.0005
90	SLE RA 2	-0.59	0.06	56.65	-0.0251	-0.1165	0.0005
90	SLE RA 3	-1.86	0.06	56.56	0.002	-0.1699	0.0005
90	SLE RA 4	-1.1	0.06	57.37	-0.0142	-0.1392	0.0005
90	SLE RA 5	-0.59	0.06	57.57	-0.025	-0.1184	0.0005
90	SLE RA 6	-1.86	0.06	57.48	0.0021	-0.1718	0.0005
90	SLE RA 7	-1.1	0.06	58.29	-0.0141	-0.1412	0.0005
90	SLE RA 8	-1.87	0.06	57.15	0.002	-0.1714	0.0005
90	SLE RA 9	-1.1	0.06	57.95	-0.0141	-0.1408	0.0005
90	SLE RA 10	-0.94	0.07	61.16	-0.0252	-0.1384	0.0005
90	SLE RA 11	-2.21	0.06	61.07	0.0019	-0.1919	0.0005
90	SLE RA 12	-1.45	0.06	61.88	-0.0143	-0.1612	0.0005
90	SLE RA 13	-0.94	0.07	62.08	-0.0251	-0.1403	0.0005
90	SLE RA 14	-2.22	0.06	61.99	0.002	-0.1938	0.0005
90	SLE RA 15	-1.45	0.06	62.8	-0.0142	-0.1631	0.0005
90	SLE RA 16	-2.22	0.06	61.66	0.002	-0.1934	0.0005
90	SLE RA 17	-1.46	0.06	62.46	-0.0142	-0.1627	0.0005
90	SLE RA 18	-2.37	0.06	61.75	0.0017	-0.1989	0.0005
90	SLE RA 19	-1.6	0.06	62.55	-0.0145	-0.1683	0.0005
90	SLE RA 20	-2.37	0.06	62.67	0.0018	-0.2009	0.0005
90	SLE RA 21	-1.61	0.07	63.48	-0.0144	-0.1702	0.0005
90	SLE FR 1	-1.87	0.05	55.3	0.0018	-0.1676	0.0005
90	SLE FR 2	-1.61	0.06	55.57	-0.0036	-0.1574	0.0005
90	SLE FR 3	-1.87	0.05	55.67	0.0019	-0.1684	0.0005
90	SLE FR 4	-1.76	0.06	57.5	-0.0036	-0.1668	0.0005
90	SLE FR 5	-2.02	0.06	57.61	0.0018	-0.1778	0.0005
90	SLE FR 6	-2.12	0.06	58.53	0.0018	-0.1833	0.0005
90	SLE QP 1	-1.87	0.05	55.3	0.0018	-0.1676	0.0005
90	SLE QP 2	-2.02	0.06	57.24	0.0018	-0.177	0.0005
90	SLD 1	3.77	0	43.62	-0.0545	0.1157	0.0003
90	SLD 2	3.77	0	43.62	-0.0545	0.1157	0.0003
90	SLD 3	2.35	-0.02	34.97	-0.005	0.0538	0.0003
90	SLD 4	2.35	-0.02	34.97	-0.005	0.0538	0.0003
90	SLD 5	1.86	0.08	66.28	-0.0901	0.0046	0.0005
90	SLD 6	1.86	0.08	66.28	-0.0901	0.0046	0.0005
90	SLD 7	-2.85	-0.01	37.42	0.0748	-0.2016	0.0003
90	SLD 8	-2.85	-0.01	37.42	0.0748	-0.2016	0.0003
90	SLD 9	-1.18	0.12	77.05	-0.0712	-0.1525	0.0006
90	SLD 10	-1.18	0.12	77.05	-0.0712	-0.1525	0.0006
90	SLD 11	-5.9	0.03	48.19	0.0937	-0.3586	0.0004
90	SLD 12	-5.9	0.03	48.19	0.0937	-0.3586	0.0004
90	SLD 13	-6.39	0.14	79.51	0.0086	-0.4079	0.0007
90	SLD 14	-6.39	0.14	79.51	0.0086	-0.4079	0.0007
90	SLD 15	-7.8	0.11	70.85	0.0581	-0.4697	0.0006
90	SLD 16	-7.8	0.11	70.85	0.0581	-0.4697	0.0006
90	SLV 1	11.62	-0.07	25.4	-0.1384	0.5134	0.0001
90	SLV 2	11.62	-0.07	25.4	-0.1384	0.5134	0.0001
90	SLV 3	8.11	-0.14	5.04	-0.012	0.3582	0
90	SLV 4	8.11	-0.14	5.04	-0.012	0.3582	0
90	SLV 5	7.39	0.12	78.57	-0.232	0.2655	0.0006
90	SLV 6	7.39	0.12	78.57	-0.232	0.2655	0.0006
90	SLV 7	-4.3	-0.1	10.7	0.1894	-0.2519	0.0001
90	SLV 8	-4.3	-0.1	10.7	0.1894	-0.2519	0.0001
90	SLV 9	0.26	0.21	103.78	-0.1858	-0.1022	0.0009
90	SLV 10	0.26	0.21	103.78	-0.1858	-0.1022	0.0009
90	SLV 11	-11.43	-0.01	35.91	0.2355	-0.6196	0.0003
90	SLV 12	-11.43	-0.01	35.91	0.2355	-0.6196	0.0003
90	SLV 13	-12.15	0.25	109.43	0.0155	-0.7123	0.001
90	SLV 14	-12.15	0.25	109.43	0.0155	-0.7123	0.001
90	SLV 15	-15.66	0.18	89.07	0.1419	-0.8675	0.0008
90	SLV 16	-15.66	0.18	89.07	0.1419	-0.8675	0.0008
91	SLU 1	-6.79	11.74	72.82	-0.3146	-0.1623	-0.0017
91	SLU 2	-6.09	13.01	75.7	-0.3633	-0.1208	-0.0025
91	SLU 3	-7	12.2	75.51	-0.3273	-0.167	-0.0018
91	SLU 4	-6.58	12.97	77.24	-0.3565	-0.1421	-0.0023
91	SLU 5	-6.25	13.35	77.67	-0.3725	-0.1245	-0.0026
91	SLU 6	-7.17	12.54	77.48	-0.3365	-0.1707	-0.0019
91	SLU 7	-6.75	13.3	79.21	-0.3657	-0.1458	-0.0024
91	SLU 8	-7.11	12.41	76.77	-0.333	-0.1697	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
91	SLU 9	-6.69	13.17	78.49	-0.3623	-0.1448	-0.0023
91	SLU 10	-7.11	14.4	84.92	-0.3993	-0.1481	-0.0027
91	SLU 11	-8.02	13.58	84.73	-0.3633	-0.1943	-0.0019
91	SLU 12	-7.6	14.35	86.46	-0.3925	-0.1694	-0.0024
91	SLU 13	-7.27	14.73	86.9	-0.4085	-0.1518	-0.0027
91	SLU 14	-8.18	13.92	86.7	-0.3725	-0.198	-0.002
91	SLU 15	-7.76	14.69	88.43	-0.4017	-0.1731	-0.0025
91	SLU 16	-8.13	13.79	85.99	-0.369	-0.1969	-0.002
91	SLU 17	-7.71	14.56	87.72	-0.3983	-0.172	-0.0025
91	SLU 18	-8.24	13.71	85.99	-0.366	-0.2013	-0.0019
91	SLU 19	-7.82	14.48	87.72	-0.3953	-0.1764	-0.0024
91	SLU 20	-8.41	14.05	87.97	-0.3752	-0.205	-0.002
91	SLU 21	-7.99	14.82	89.7	-0.4045	-0.1801	-0.0024
91	SLU 22	-7.73	13.2	82.17	-0.3531	-0.1861	-0.0019
91	SLU 23	-7.03	14.48	85.05	-0.4018	-0.1446	-0.0027
91	SLU 24	-7.94	13.66	84.86	-0.3658	-0.1909	-0.002
91	SLU 25	-7.52	14.43	86.59	-0.395	-0.166	-0.0025
91	SLU 26	-7.19	14.81	87.03	-0.4111	-0.1483	-0.0028
91	SLU 27	-8.11	14	86.83	-0.375	-0.1946	-0.002
91	SLU 28	-7.69	14.76	88.56	-0.4042	-0.1697	-0.0025
91	SLU 29	-8.05	13.87	86.12	-0.3715	-0.1935	-0.002
91	SLU 30	-7.63	14.64	87.85	-0.4008	-0.1686	-0.0025
91	SLU 31	-8.05	15.86	94.27	-0.4378	-0.1719	-0.0028
91	SLU 32	-8.96	15.05	94.08	-0.4018	-0.2182	-0.0021
91	SLU 33	-8.54	15.81	95.81	-0.431	-0.1933	-0.0026
91	SLU 34	-8.21	16.2	96.25	-0.447	-0.1756	-0.0029
91	SLU 35	-9.12	15.38	96.05	-0.411	-0.2218	-0.0022
91	SLU 36	-8.7	16.15	97.78	-0.4402	-0.1969	-0.0027
91	SLU 37	-9.07	15.26	95.34	-0.4075	-0.2208	-0.0021
91	SLU 38	-8.65	16.02	97.07	-0.4368	-0.1959	-0.0026
91	SLU 39	-9.18	15.18	95.34	-0.4046	-0.2251	-0.0021
91	SLU 40	-8.76	15.94	97.07	-0.4338	-0.2002	-0.0026
91	SLU 41	-9.35	15.51	97.32	-0.4138	-0.2288	-0.0021
91	SLU 42	-8.93	16.28	99.05	-0.443	-0.2039	-0.0026
91	SLU 43	-8.5	14.76	91.46	-0.3958	-0.2028	-0.0022
91	SLU 44	-7.8	16.03	94.34	-0.4445	-0.1613	-0.003
91	SLU 45	-8.72	15.22	94.15	-0.4084	-0.2076	-0.0022
91	SLU 46	-8.3	15.99	95.88	-0.4377	-0.1827	-0.0027
91	SLU 47	-7.96	16.37	96.31	-0.4537	-0.165	-0.003
91	SLU 48	-8.88	15.55	96.12	-0.4177	-0.2112	-0.0023
91	SLU 49	-8.46	16.32	97.85	-0.4469	-0.1863	-0.0028
91	SLU 50	-8.83	15.43	95.4	-0.4142	-0.2102	-0.0023
91	SLU 51	-8.41	16.19	97.13	-0.4434	-0.1853	-0.0028
91	SLU 52	-8.82	17.42	103.56	-0.4805	-0.1886	-0.0031
91	SLU 53	-9.74	16.6	103.37	-0.4444	-0.2348	-0.0024
91	SLU 54	-9.32	17.37	105.1	-0.4737	-0.2099	-0.0029
91	SLU 55	-8.98	17.75	105.54	-0.4897	-0.1923	-0.0032
91	SLU 56	-9.9	16.94	105.34	-0.4537	-0.2385	-0.0024
91	SLU 57	-9.48	17.7	107.07	-0.4829	-0.2136	-0.0029
91	SLU 58	-9.85	16.81	104.63	-0.4502	-0.2375	-0.0024
91	SLU 59	-9.43	17.58	106.36	-0.4794	-0.2126	-0.0029
91	SLU 60	-9.96	16.73	104.63	-0.4472	-0.2418	-0.0023
91	SLU 61	-9.54	17.5	106.36	-0.4764	-0.2169	-0.0028
91	SLU 62	-10.12	17.07	106.61	-0.4564	-0.2455	-0.0024
91	SLU 63	-9.7	17.84	108.33	-0.4857	-0.2206	-0.0029
91	SLU 64	-9.44	16.22	100.81	-0.4343	-0.2267	-0.0023
91	SLU 65	-8.74	17.5	103.69	-0.483	-0.1852	-0.0032
91	SLU 66	-9.66	16.68	103.5	-0.447	-0.2314	-0.0024
91	SLU 67	-9.24	17.45	105.23	-0.4762	-0.2065	-0.0029
91	SLU 68	-8.9	17.83	105.66	-0.4922	-0.1888	-0.0032
91	SLU 69	-9.82	17.02	105.47	-0.4562	-0.2351	-0.0025
91	SLU 70	-9.4	17.78	107.2	-0.4854	-0.2102	-0.003
91	SLU 71	-9.77	16.89	104.76	-0.4527	-0.234	-0.0025
91	SLU 72	-9.35	17.66	106.49	-0.482	-0.2091	-0.003
91	SLU 73	-9.76	18.88	112.91	-0.519	-0.2124	-0.0033
91	SLU 74	-10.68	18.07	112.72	-0.483	-0.2587	-0.0026
91	SLU 75	-10.26	18.83	114.45	-0.5122	-0.2338	-0.003
91	SLU 76	-9.92	19.22	114.89	-0.5282	-0.2161	-0.0034
91	SLU 77	-10.84	18.4	114.69	-0.4922	-0.2624	-0.0026
91	SLU 78	-10.42	19.17	116.42	-0.5214	-0.2375	-0.0031
91	SLU 79	-10.79	18.27	113.98	-0.4887	-0.2613	-0.0026
91	SLU 80	-10.37	19.04	115.71	-0.518	-0.2364	-0.0031
91	SLU 81	-10.9	18.2	113.98	-0.4857	-0.2656	-0.0025
91	SLU 82	-10.48	18.96	115.71	-0.515	-0.2407	-0.003
91	SLU 83	-11.06	18.53	115.96	-0.4949	-0.2693	-0.0026
91	SLU 84	-10.64	19.3	117.69	-0.5242	-0.2444	-0.0031
91	SLE RA 1	-7.06	12.15	75.49	-0.3256	-0.1691	-0.0018
91	SLE RA 2	-6.59	13.01	77.41	-0.3581	-0.1415	-0.0023
91	SLE RA 3	-7.2	12.46	77.28	-0.3341	-0.1723	-0.0018
91	SLE RA 4	-6.92	12.97	78.44	-0.3535	-0.1557	-0.0021
91	SLE RA 5	-6.7	13.23	78.73	-0.3642	-0.1439	-0.0024
91	SLE RA 6	-7.31	12.69	78.6	-0.3402	-0.1747	-0.0019
91	SLE RA 7	-7.03	13.2	79.75	-0.3597	-0.1581	-0.0022
91	SLE RA 8	-7.27	12.6	78.12	-0.3379	-0.174	-0.0018
91	SLE RA 9	-6.99	13.11	79.27	-0.3574	-0.1574	-0.0022
91	SLE RA 10	-7.27	13.93	83.56	-0.3821	-0.1596	-0.0024
91	SLE RA 11	-7.88	13.39	83.43	-0.3581	-0.1905	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
91	SLE RA 12	-7.6	13.9	84.58	-0.3775	-0.1739	-0.0022
91	SLE RA 13	-7.38	14.15	84.88	-0.3882	-0.1621	-0.0024
91	SLE RA 14	-7.99	13.61	84.75	-0.3642	-0.1929	-0.0019
91	SLE RA 15	-7.71	14.12	85.9	-0.3837	-0.1763	-0.0023
91	SLE RA 16	-7.95	13.53	84.27	-0.3619	-0.1922	-0.0019
91	SLE RA 17	-7.67	14.04	85.42	-0.3814	-0.1756	-0.0023
91	SLE RA 18	-8.03	13.47	84.27	-0.3599	-0.1951	-0.0019
91	SLE RA 19	-7.75	13.98	85.43	-0.3794	-0.1785	-0.0022
91	SLE RA 20	-8.13	13.7	85.59	-0.366	-0.1975	-0.0019
91	SLE RA 21	-7.85	14.21	86.74	-0.3855	-0.1809	-0.0023
91	SLE FR 1	-7.06	12.15	75.49	-0.3256	-0.1691	-0.0018
91	SLE FR 2	-6.96	12.33	75.87	-0.3321	-0.1636	-0.0019
91	SLE FR 3	-7.1	12.24	76.02	-0.3281	-0.1701	-0.0018
91	SLE FR 4	-7.25	12.72	78.51	-0.3424	-0.1714	-0.0019
91	SLE FR 5	-7.39	12.64	78.65	-0.3384	-0.1779	-0.0018
91	SLE FR 6	-7.54	12.81	79.88	-0.3428	-0.1821	-0.0018
91	SLE QP 1	-7.06	12.15	75.49	-0.3256	-0.1691	-0.0018
91	SLE QP 2	-7.35	12.55	78.13	-0.3359	-0.1769	-0.0018
91	SLD 1	-3.33	10.83	56.82	-0.3156	-0.0415	-0.0032
91	SLD 2	-3.33	10.83	56.82	-0.3156	-0.0415	-0.0032
91	SLD 3	-2.21	8.04	43.96	-0.2176	-0.0012	-0.0022
91	SLD 4	-2.21	8.04	43.96	-0.2176	-0.0012	-0.0022
91	SLD 5	-7.84	16.28	91.23	-0.4785	-0.1975	-0.0037
91	SLD 6	-7.84	16.28	91.23	-0.4785	-0.1975	-0.0037
91	SLD 7	-4.11	6.96	48.37	-0.1517	-0.063	-0.0005
91	SLD 8	-4.11	6.96	48.37	-0.1517	-0.063	-0.0005
91	SLD 9	-10.58	18.15	107.88	-0.5201	-0.2908	-0.0031
91	SLD 10	-10.58	18.15	107.88	-0.5201	-0.2908	-0.0031
91	SLD 11	-6.86	8.82	65.02	-0.1933	-0.1563	0.0001
91	SLD 12	-6.86	8.82	65.02	-0.1933	-0.1563	0.0001
91	SLD 13	-12.48	17.06	112.29	-0.4542	-0.3526	-0.0014
91	SLD 14	-12.48	17.06	112.29	-0.4542	-0.3526	-0.0014
91	SLD 15	-11.36	14.27	99.43	-0.3562	-0.3123	-0.0004
91	SLD 16	-11.36	14.27	99.43	-0.3562	-0.3123	-0.0004
91	SLV 1	2.01	8.54	28.3	-0.2887	0.137	-0.0051
91	SLV 2	2.01	8.54	28.3	-0.2887	0.137	-0.0051
91	SLV 3	4.72	1.98	-1.97	-0.0587	0.2379	-0.0028
91	SLV 4	4.72	1.98	-1.97	-0.0587	0.2379	-0.0028
91	SLV 5	-8.65	21.29	109.08	-0.6706	-0.2358	-0.0063
91	SLV 6	-8.65	21.29	109.08	-0.6706	-0.2358	-0.0063
91	SLV 7	0.39	-0.56	8.2	0.0961	0.1006	0.0014
91	SLV 8	0.39	-0.56	8.2	0.0961	0.1006	0.0014
91	SLV 9	-15.08	25.66	148.05	-0.7679	-0.4544	-0.005
91	SLV 10	-15.08	25.66	148.05	-0.7679	-0.4544	-0.005
91	SLV 11	-6.04	3.81	47.17	-0.0012	-0.1181	0.0027
91	SLV 12	-6.04	3.81	47.17	-0.0012	-0.1181	0.0027
91	SLV 13	-19.42	23.12	158.22	-0.6131	-0.5917	-0.0008
91	SLV 14	-19.42	23.12	158.22	-0.6131	-0.5917	-0.0008
91	SLV 15	-16.71	16.56	127.95	-0.3831	-0.4908	0.0015
91	SLV 16	-16.71	16.56	127.95	-0.3831	-0.4908	0.0015
92	SLU 1	-0.03	-0.37	2.21	0.0384	-0.0145	0.0004
92	SLU 2	-0.03	-0.38	2.16	0.0392	-0.0151	0.0004
92	SLU 3	-0.03	-0.42	1.99	0.0419	-0.0145	0.0004
92	SLU 4	-0.03	-0.43	1.97	0.0424	-0.0149	0.0004
92	SLU 5	-0.03	-0.42	2.04	0.0412	-0.015	0.0004
92	SLU 6	-0.03	-0.46	1.87	0.0439	-0.0143	0.0004
92	SLU 7	-0.03	-0.46	1.84	0.0444	-0.0147	0.0004
92	SLU 8	-0.03	-0.44	1.95	0.0424	-0.0142	0.0004
92	SLU 9	-0.03	-0.44	1.93	0.0429	-0.0146	0.0004
92	SLU 10	-0.06	-0.3	5.91	0.0307	-0.0318	0.0007
92	SLU 11	-0.06	-0.34	5.74	0.0334	-0.0311	0.0007
92	SLU 12	-0.06	-0.35	5.72	0.0339	-0.0315	0.0007
92	SLU 13	-0.06	-0.33	5.78	0.0327	-0.0316	0.0007
92	SLU 14	-0.06	-0.37	5.62	0.0354	-0.0309	0.0007
92	SLU 15	-0.06	-0.38	5.59	0.0359	-0.0313	0.0007
92	SLU 16	-0.06	-0.35	5.7	0.0339	-0.0308	0.0007
92	SLU 17	-0.06	-0.36	5.68	0.0344	-0.0312	0.0007
92	SLU 18	-0.07	-0.25	7.56	0.0262	-0.0382	0.0009
92	SLU 19	-0.07	-0.26	7.54	0.0267	-0.0386	0.0009
92	SLU 20	-0.07	-0.28	7.43	0.0283	-0.0381	0.0009
92	SLU 21	-0.07	-0.29	7.41	0.0288	-0.0385	0.0009
92	SLU 22	-0.03	-0.54	1.95	0.0497	-0.0178	0.0005
92	SLU 23	-0.03	-0.55	1.91	0.0505	-0.0184	0.0005
92	SLU 24	-0.03	-0.59	1.74	0.0531	-0.0177	0.0005
92	SLU 25	-0.03	-0.6	1.72	0.0536	-0.0182	0.0005
92	SLU 26	-0.03	-0.59	1.78	0.0525	-0.0183	0.0005
92	SLU 27	-0.03	-0.63	1.62	0.0551	-0.0176	0.0005
92	SLU 28	-0.03	-0.63	1.59	0.0556	-0.018	0.0005
92	SLU 29	-0.03	-0.61	1.7	0.0537	-0.0175	0.0005
92	SLU 30	-0.03	-0.61	1.67	0.0542	-0.0179	0.0005
92	SLU 31	-0.06	-0.47	5.66	0.042	-0.0351	0.0008
92	SLU 32	-0.06	-0.51	5.49	0.0446	-0.0344	0.0008
92	SLU 33	-0.06	-0.52	5.47	0.0451	-0.0348	0.0008
92	SLU 34	-0.06	-0.5	5.53	0.044	-0.0349	0.0008
92	SLU 35	-0.06	-0.54	5.36	0.0466	-0.0342	0.0008
92	SLU 36	-0.06	-0.55	5.34	0.0471	-0.0346	0.0008
92	SLU 37	-0.06	-0.52	5.45	0.0452	-0.0341	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLU 38	-0.06	-0.53	5.42	0.0457	-0.0345	0.0008
92	SLU 39	-0.08	-0.42	7.31	0.0375	-0.0415	0.0009
92	SLU 40	-0.08	-0.43	7.28	0.038	-0.0419	0.0009
92	SLU 41	-0.08	-0.45	7.18	0.0395	-0.0414	0.0009
92	SLU 42	-0.08	-0.46	7.16	0.04	-0.0418	0.0009
92	SLU 43	-0.03	-0.43	2.95	0.046	-0.0177	0.0005
92	SLU 44	-0.03	-0.44	2.91	0.0469	-0.0184	0.0005
92	SLU 45	-0.03	-0.48	2.74	0.0495	-0.0177	0.0005
92	SLU 46	-0.03	-0.49	2.72	0.05	-0.0181	0.0005
92	SLU 47	-0.03	-0.47	2.78	0.0489	-0.0182	0.0005
92	SLU 48	-0.03	-0.51	2.62	0.0515	-0.0175	0.0005
92	SLU 49	-0.03	-0.52	2.59	0.052	-0.0179	0.0005
92	SLU 50	-0.03	-0.49	2.7	0.0501	-0.0174	0.0005
92	SLU 51	-0.03	-0.5	2.67	0.0506	-0.0178	0.0005
92	SLU 52	-0.06	-0.35	6.66	0.0384	-0.035	0.0008
92	SLU 53	-0.06	-0.39	6.49	0.041	-0.0343	0.0008
92	SLU 54	-0.06	-0.4	6.47	0.0415	-0.0347	0.0008
92	SLU 55	-0.06	-0.39	6.53	0.0404	-0.0348	0.0008
92	SLU 56	-0.06	-0.43	6.36	0.043	-0.0341	0.0008
92	SLU 57	-0.06	-0.43	6.34	0.0435	-0.0345	0.0008
92	SLU 58	-0.06	-0.41	6.45	0.0416	-0.034	0.0008
92	SLU 59	-0.06	-0.41	6.42	0.0421	-0.0344	0.0008
92	SLU 60	-0.08	-0.3	8.31	0.0339	-0.0414	0.0009
92	SLU 61	-0.08	-0.31	8.28	0.0344	-0.0418	0.001
92	SLU 62	-0.08	-0.34	8.18	0.0359	-0.0413	0.001
92	SLU 63	-0.08	-0.34	8.16	0.0364	-0.0417	0.001
92	SLU 64	-0.04	-0.59	2.7	0.0573	-0.021	0.0006
92	SLU 65	-0.04	-0.61	2.66	0.0581	-0.0217	0.0006
92	SLU 66	-0.04	-0.65	2.49	0.0608	-0.021	0.0006
92	SLU 67	-0.04	-0.65	2.46	0.0613	-0.0214	0.0006
92	SLU 68	-0.04	-0.64	2.53	0.0602	-0.0215	0.0006
92	SLU 69	-0.04	-0.68	2.36	0.0628	-0.0208	0.0006
92	SLU 70	-0.04	-0.69	2.34	0.0633	-0.0212	0.0006
92	SLU 71	-0.04	-0.66	2.45	0.0613	-0.0207	0.0006
92	SLU 72	-0.04	-0.67	2.42	0.0618	-0.0211	0.0006
92	SLU 73	-0.07	-0.52	6.41	0.0496	-0.0383	0.0009
92	SLU 74	-0.07	-0.56	6.24	0.0523	-0.0376	0.0009
92	SLU 75	-0.07	-0.57	6.21	0.0528	-0.038	0.0009
92	SLU 76	-0.07	-0.56	6.28	0.0517	-0.0381	0.0009
92	SLU 77	-0.07	-0.59	6.11	0.0543	-0.0374	0.0009
92	SLU 78	-0.07	-0.6	6.09	0.0548	-0.0378	0.0009
92	SLU 79	-0.07	-0.57	6.2	0.0528	-0.0373	0.0009
92	SLU 80	-0.07	-0.58	6.17	0.0533	-0.0377	0.0009
92	SLU 81	-0.08	-0.47	8.06	0.0452	-0.0447	0.001
92	SLU 82	-0.08	-0.48	8.03	0.0457	-0.0451	0.001
92	SLU 83	-0.08	-0.51	7.93	0.0472	-0.0446	0.001
92	SLU 84	-0.08	-0.51	7.91	0.0477	-0.045	0.001
92	SLE RA 1	-0.03	-0.42	2.13	0.0416	-0.0154	0.0004
92	SLE RA 2	-0.03	-0.43	2.11	0.0422	-0.0159	0.0004
92	SLE RA 3	-0.03	-0.46	1.99	0.0439	-0.0154	0.0004
92	SLE RA 4	-0.03	-0.46	1.98	0.0443	-0.0157	0.0004
92	SLE RA 5	-0.03	-0.45	2.02	0.0435	-0.0158	0.0004
92	SLE RA 6	-0.03	-0.48	1.91	0.0453	-0.0153	0.0004
92	SLE RA 7	-0.03	-0.48	1.89	0.0456	-0.0156	0.0004
92	SLE RA 8	-0.03	-0.46	1.96	0.0443	-0.0152	0.0004
92	SLE RA 9	-0.03	-0.47	1.95	0.0446	-0.0155	0.0004
92	SLE RA 10	-0.05	-0.37	4.6	0.0365	-0.0269	0.0006
92	SLE RA 11	-0.05	-0.4	4.49	0.0383	-0.0265	0.0006
92	SLE RA 12	-0.05	-0.4	4.48	0.0386	-0.0267	0.0006
92	SLE RA 13	-0.05	-0.39	4.52	0.0378	-0.0268	0.0006
92	SLE RA 14	-0.05	-0.42	4.41	0.0396	-0.0264	0.0006
92	SLE RA 15	-0.05	-0.43	4.39	0.0399	-0.0266	0.0006
92	SLE RA 16	-0.05	-0.41	4.46	0.0386	-0.0263	0.0006
92	SLE RA 17	-0.05	-0.41	4.45	0.039	-0.0266	0.0006
92	SLE RA 18	-0.06	-0.34	5.7	0.0335	-0.0312	0.0007
92	SLE RA 19	-0.06	-0.34	5.69	0.0338	-0.0315	0.0007
92	SLE RA 20	-0.06	-0.36	5.62	0.0349	-0.0311	0.0007
92	SLE RA 21	-0.06	-0.37	5.6	0.0352	-0.0314	0.0007
92	SLE FR 1	-0.03	-0.42	2.13	0.0416	-0.0154	0.0004
92	SLE FR 2	-0.03	-0.42	2.13	0.0417	-0.0155	0.0004
92	SLE FR 3	-0.03	-0.43	2.1	0.0421	-0.0154	0.0004
92	SLE FR 4	-0.04	-0.4	3.2	0.0393	-0.0203	0.0005
92	SLE FR 5	-0.04	-0.4	3.17	0.0397	-0.0201	0.0005
92	SLE FR 6	-0.04	-0.38	3.92	0.0376	-0.0233	0.0006
92	SLE QP 1	-0.03	-0.42	2.13	0.0416	-0.0154	0.0004
92	SLE QP 2	-0.04	-0.4	3.21	0.0392	-0.0202	0.0005
92	SLD 1	-0.1	-0.64	2.48	0.0534	0.0002	0.0019
92	SLD 2	-0.1	-0.64	2.48	0.0534	0.0002	0.0019
92	SLD 3	-0.09	-1.96	-1.65	0.1381	0.0035	0.0017
92	SLD 4	-0.09	-1.96	-1.65	0.1381	0.0035	0.0017
92	SLD 5	-0.07	1.53	9.27	-0.085	-0.019	0.0013
92	SLD 6	-0.07	1.53	9.27	-0.085	-0.019	0.0013
92	SLD 7	-0.04	-2.87	-4.53	0.1972	-0.0081	0.0005
92	SLD 8	-0.04	-2.87	-4.53	0.1972	-0.0081	0.0005
92	SLD 9	-0.03	2.08	10.94	-0.1189	-0.0322	0.0005
92	SLD 10	-0.03	2.08	10.94	-0.1189	-0.0322	0.0005
92	SLD 11	0	-2.32	-2.86	0.1633	-0.0213	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLD 12	0	-2.32	-2.86	0.1633	-0.0213	-0.0002
92	SLD 13	0.02	1.17	8.07	-0.0597	-0.0438	-0.0007
92	SLD 14	0.02	1.17	8.07	-0.0597	-0.0438	-0.0007
92	SLD 15	0.03	-0.15	3.93	0.025	-0.0406	-0.0009
92	SLD 16	0.03	-0.15	3.93	0.025	-0.0406	-0.0009
92	SLV 1	-0.2	-0.97	1.53	0.0722	0.0307	0.0041
92	SLV 2	-0.2	-0.97	1.53	0.0722	0.0307	0.0041
92	SLV 3	-0.18	-4.06	-8.17	0.2707	0.0387	0.0035
92	SLV 4	-0.18	-4.06	-8.17	0.2707	0.0387	0.0035
92	SLV 5	-0.12	4.13	17.41	-0.2519	-0.017	0.0024
92	SLV 6	-0.12	4.13	17.41	-0.2519	-0.017	0.0024
92	SLV 7	-0.05	-6.19	-14.92	0.4097	0.0096	0.0006
92	SLV 8	-0.05	-6.19	-14.92	0.4097	0.0096	0.0006
92	SLV 9	-0.03	5.4	21.33	-0.3313	-0.0499	0.0004
92	SLV 10	-0.03	5.4	21.33	-0.3313	-0.0499	0.0004
92	SLV 11	0.05	-4.92	-11	0.3303	-0.0233	-0.0014
92	SLV 12	0.05	-4.92	-11	0.3303	-0.0233	-0.0014
92	SLV 13	0.11	3.27	14.58	-0.1923	-0.079	-0.0025
92	SLV 14	0.11	3.27	14.58	-0.1923	-0.079	-0.0025
92	SLV 15	0.13	0.18	4.88	0.0061	-0.0711	-0.003
92	SLV 16	0.13	0.18	4.88	0.0061	-0.0711	-0.003
93	SLU 1	0.03	1.45	44.59	-0.1024	0.018	0.0002
93	SLU 2	0.04	0.98	44.86	-0.0827	0.0195	0.0002
93	SLU 3	0.03	1.93	46.16	-0.1253	0.0185	0.0002
93	SLU 4	0.04	1.65	46.32	-0.1135	0.0194	0.0002
93	SLU 5	0.04	1.5	46.27	-0.1076	0.0199	0.0002
93	SLU 6	0.03	2.45	47.57	-0.1502	0.0189	0.0002
93	SLU 7	0.04	2.17	47.73	-0.1384	0.0198	0.0002
93	SLU 8	0.03	2.49	47.42	-0.1522	0.0187	0.0002
93	SLU 9	0.04	2.21	47.58	-0.1403	0.0197	0.0002
93	SLU 10	0.04	1.32	52.16	-0.1036	0.0211	0.0003
93	SLU 11	0.04	2.28	53.46	-0.1462	0.02	0.0002
93	SLU 12	0.04	1.99	53.62	-0.1344	0.021	0.0002
93	SLU 13	0.04	1.84	53.57	-0.1285	0.0214	0.0003
93	SLU 14	0.04	2.8	54.87	-0.1711	0.0204	0.0002
93	SLU 15	0.04	2.51	55.03	-0.1592	0.0213	0.0002
93	SLU 16	0.04	2.84	54.72	-0.173	0.0203	0.0002
93	SLU 17	0.04	2.55	54.88	-0.1612	0.0212	0.0002
93	SLU 18	0.04	1.94	55.02	-0.1323	0.0202	0.0002
93	SLU 19	0.04	1.66	55.18	-0.1204	0.0211	0.0003
93	SLU 20	0.04	2.46	56.44	-0.1571	0.0206	0.0002
93	SLU 21	0.04	2.18	56.6	-0.1453	0.0215	0.0003
93	SLU 22	0.04	1.82	49.53	-0.1232	0.0205	0.0002
93	SLU 23	0.04	1.35	49.79	-0.1035	0.022	0.0003
93	SLU 24	0.04	2.3	51.09	-0.1461	0.021	0.0002
93	SLU 25	0.04	2.02	51.25	-0.1343	0.0219	0.0002
93	SLU 26	0.04	1.87	51.21	-0.1284	0.0224	0.0003
93	SLU 27	0.04	2.82	52.51	-0.171	0.0214	0.0002
93	SLU 28	0.04	2.54	52.67	-0.1592	0.0223	0.0002
93	SLU 29	0.04	2.86	52.36	-0.173	0.0212	0.0002
93	SLU 30	0.04	2.58	52.52	-0.1611	0.0222	0.0002
93	SLU 31	0.05	1.69	57.09	-0.1244	0.0236	0.0003
93	SLU 32	0.04	2.64	58.39	-0.167	0.0225	0.0003
93	SLU 33	0.05	2.36	58.55	-0.1552	0.0235	0.0003
93	SLU 34	0.05	2.21	58.51	-0.1493	0.0239	0.0003
93	SLU 35	0.04	3.16	59.81	-0.1919	0.0229	0.0003
93	SLU 36	0.05	2.88	59.97	-0.1801	0.0238	0.0003
93	SLU 37	0.04	3.2	59.66	-0.1939	0.0228	0.0003
93	SLU 38	0.05	2.92	59.82	-0.182	0.0237	0.0003
93	SLU 39	0.05	2.31	59.96	-0.1531	0.0227	0.0003
93	SLU 40	0.05	2.03	60.12	-0.1412	0.0236	0.0003
93	SLU 41	0.05	2.83	61.37	-0.1779	0.0231	0.0003
93	SLU 42	0.05	2.55	61.53	-0.1661	0.024	0.0003
93	SLU 43	0.04	1.76	56.28	-0.126	0.0225	0.0002
93	SLU 44	0.04	1.29	56.54	-0.1063	0.024	0.0003
93	SLU 45	0.04	2.24	57.84	-0.1489	0.023	0.0002
93	SLU 46	0.04	1.96	58	-0.1371	0.0239	0.0002
93	SLU 47	0.04	1.81	57.96	-0.1312	0.0244	0.0003
93	SLU 48	0.04	2.76	59.26	-0.1738	0.0234	0.0002
93	SLU 49	0.04	2.48	59.42	-0.162	0.0243	0.0002
93	SLU 50	0.04	2.8	59.11	-0.1757	0.0233	0.0002
93	SLU 51	0.04	2.52	59.27	-0.1639	0.0242	0.0002
93	SLU 52	0.05	1.63	63.85	-0.1272	0.0256	0.0003
93	SLU 53	0.05	2.59	65.14	-0.1698	0.0246	0.0002
93	SLU 54	0.05	2.3	65.3	-0.158	0.0255	0.0003
93	SLU 55	0.05	2.15	65.26	-0.152	0.026	0.0003
93	SLU 56	0.05	3.11	66.56	-0.1947	0.025	0.0002
93	SLU 57	0.05	2.82	66.72	-0.1828	0.0259	0.0003
93	SLU 58	0.05	3.15	66.41	-0.1966	0.0248	0.0002
93	SLU 59	0.05	2.86	66.57	-0.1848	0.0257	0.0003
93	SLU 60	0.05	2.25	66.71	-0.1559	0.0247	0.0003
93	SLU 61	0.05	1.97	66.87	-0.144	0.0257	0.0003
93	SLU 62	0.05	2.77	68.12	-0.1807	0.0251	0.0003
93	SLU 63	0.05	2.49	68.28	-0.1689	0.026	0.0003
93	SLU 64	0.04	2.13	61.21	-0.1468	0.025	0.0003
93	SLU 65	0.05	1.66	61.48	-0.1271	0.0265	0.0003
93	SLU 66	0.04	2.61	62.78	-0.1697	0.0255	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
93	SLU 67	0.05	2.33	62.94	-0.1579	0.0264	0.0003
93	SLU 68	0.05	2.18	62.89	-0.152	0.0269	0.0003
93	SLU 69	0.05	3.13	64.19	-0.1946	0.0259	0.0002
93	SLU 70	0.05	2.85	64.35	-0.1828	0.0268	0.0003
93	SLU 71	0.04	3.17	64.04	-0.1966	0.0258	0.0002
93	SLU 72	0.05	2.89	64.2	-0.1847	0.0267	0.0003
93	SLU 73	0.06	2	68.78	-0.148	0.0281	0.0004
93	SLU 74	0.05	2.95	70.08	-0.1906	0.0271	0.0003
93	SLU 75	0.06	2.67	70.24	-0.1788	0.028	0.0003
93	SLU 76	0.06	2.52	70.19	-0.1729	0.0285	0.0003
93	SLU 77	0.05	3.47	71.49	-0.2155	0.0275	0.0003
93	SLU 78	0.06	3.19	71.65	-0.2036	0.0284	0.0003
93	SLU 79	0.05	3.51	71.34	-0.2174	0.0273	0.0003
93	SLU 80	0.06	3.23	71.5	-0.2056	0.0282	0.0003
93	SLU 81	0.05	2.62	71.64	-0.1767	0.0272	0.0003
93	SLU 82	0.06	2.34	71.8	-0.1648	0.0282	0.0003
93	SLU 83	0.05	3.14	73.06	-0.2015	0.0276	0.0003
93	SLU 84	0.06	2.86	73.22	-0.1897	0.0285	0.0003
93	SLE RA 1	0.03	1.56	46	-0.1084	0.0187	0.0002
93	SLE RA 2	0.04	1.24	46.18	-0.0952	0.0197	0.0002
93	SLE RA 3	0.03	1.88	47.05	-0.1236	0.019	0.0002
93	SLE RA 4	0.04	1.69	47.15	-0.1158	0.0196	0.0002
93	SLE RA 5	0.04	1.59	47.12	-0.1118	0.02	0.0002
93	SLE RA 6	0.03	2.23	47.99	-0.1402	0.0193	0.0002
93	SLE RA 7	0.04	2.04	48.09	-0.1323	0.0199	0.0002
93	SLE RA 8	0.03	2.25	47.89	-0.1415	0.0192	0.0002
93	SLE RA 9	0.04	2.06	47.99	-0.1336	0.0198	0.0002
93	SLE RA 10	0.04	1.47	51.05	-0.1091	0.0208	0.0002
93	SLE RA 11	0.04	2.11	51.91	-0.1376	0.0201	0.0002
93	SLE RA 12	0.04	1.92	52.02	-0.1297	0.0207	0.0002
93	SLE RA 13	0.04	1.82	51.99	-0.1257	0.021	0.0002
93	SLE RA 14	0.04	2.45	52.86	-0.1541	0.0203	0.0002
93	SLE RA 15	0.04	2.26	52.96	-0.1463	0.0209	0.0002
93	SLE RA 16	0.04	2.48	52.76	-0.1554	0.0202	0.0002
93	SLE RA 17	0.04	2.29	52.86	-0.1476	0.0208	0.0002
93	SLE RA 18	0.04	1.88	52.96	-0.1283	0.0202	0.0002
93	SLE RA 19	0.04	1.7	53.06	-0.1204	0.0208	0.0002
93	SLE RA 20	0.04	2.23	53.9	-0.1448	0.0204	0.0002
93	SLE RA 21	0.04	2.04	54.01	-0.1369	0.021	0.0002
93	SLE FR 1	0.03	1.56	46	-0.1084	0.0187	0.0002
93	SLE FR 2	0.03	1.5	46.04	-0.1057	0.0189	0.0002
93	SLE FR 3	0.03	1.7	46.38	-0.115	0.0188	0.0002
93	SLE FR 4	0.04	1.59	48.12	-0.1117	0.0193	0.0002
93	SLE FR 5	0.03	1.79	48.47	-0.121	0.0192	0.0002
93	SLE FR 6	0.04	1.72	49.48	-0.1183	0.0194	0.0002
93	SLE QP 1	0.03	1.56	46	-0.1084	0.0187	0.0002
93	SLE QP 2	0.03	1.66	48.09	-0.1143	0.0191	0.0002
93	SLD 1	0.08	2	56.3	-0.1316	0.0518	0.0004
93	SLD 2	0.08	2	56.3	-0.1316	0.0518	0.0004
93	SLD 3	0.06	-1.11	53.03	0.0141	0.0427	0.0006
93	SLD 4	0.06	-1.11	53.03	0.0141	0.0427	0.0006
93	SLD 5	0.09	6.48	55.52	-0.3404	0.0427	0
93	SLD 6	0.09	6.48	55.52	-0.3404	0.0427	0
93	SLD 7	0	-3.9	44.6	0.1451	0.0125	0.0006
93	SLD 8	0	-3.9	44.6	0.1451	0.0125	0.0006
93	SLD 9	0.07	7.21	51.57	-0.3738	0.0258	-0.0002
93	SLD 10	0.07	7.21	51.57	-0.3738	0.0258	-0.0002
93	SLD 11	-0.02	-3.17	40.66	0.1117	-0.0044	0.0004
93	SLD 12	-0.02	-3.17	40.66	0.1117	-0.0044	0.0004
93	SLD 13	0.01	4.43	43.15	-0.2427	-0.0044	-0.0002
93	SLD 14	0.01	4.43	43.15	-0.2427	-0.0044	-0.0002
93	SLD 15	-0.01	1.31	39.87	-0.0971	-0.0135	0
93	SLD 16	-0.01	1.31	39.87	-0.0971	-0.0135	0
93	SLV 1	0.15	2.46	67.41	-0.1543	0.0998	0.0006
93	SLV 2	0.15	2.46	67.41	-0.1543	0.0998	0.0006
93	SLV 3	0.09	-4.83	59.66	0.1867	0.0784	0.0011
93	SLV 4	0.09	-4.83	59.66	0.1867	0.0784	0.0011
93	SLV 5	0.16	12.95	65.62	-0.6434	0.0757	-0.0004
93	SLV 6	0.16	12.95	65.62	-0.6434	0.0757	-0.0004
93	SLV 7	-0.04	-11.35	39.82	0.4931	0.0045	0.0011
93	SLV 8	-0.04	-11.35	39.82	0.4931	0.0045	0.0011
93	SLV 9	0.11	14.66	56.36	-0.7218	0.0338	-0.0008
93	SLV 10	0.11	14.66	56.36	-0.7218	0.0338	-0.0008
93	SLV 11	-0.09	-9.64	30.55	0.4148	-0.0375	0.0007
93	SLV 12	-0.09	-9.64	30.55	0.4148	-0.0375	0.0007
93	SLV 13	-0.02	8.14	36.51	-0.4154	-0.0401	-0.0007
93	SLV 14	-0.02	8.14	36.51	-0.4154	-0.0401	-0.0007
93	SLV 15	-0.08	0.85	28.77	-0.0744	-0.0615	-0.0002
93	SLV 16	-0.08	0.85	28.77	-0.0744	-0.0615	-0.0002
94	SLU 1	0	-0.92	3.6	0.0369	-0.0017	0.0001
94	SLU 2	0	-0.94	3.57	0.0375	-0.002	0.0001
94	SLU 3	0	-0.99	3.47	0.0395	-0.0014	0.0001
94	SLU 4	0	-1	3.45	0.0399	-0.0016	0.0001
94	SLU 5	0	-0.98	3.5	0.0393	-0.0017	0.0001
94	SLU 6	0	-1.03	3.39	0.0413	-0.0011	0.0001
94	SLU 7	0	-1.05	3.38	0.0417	-0.0012	0.0001
94	SLU 8	0	-1.01	3.44	0.0404	-0.001	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
94	SLU 9	0	-1.02	3.43	0.0408	-0.0012	0.0001
94	SLU 10	-0.01	-1.15	7.03	0.046	-0.0113	0.0004
94	SLU 11	-0.01	-1.21	6.93	0.0479	-0.0107	0.0004
94	SLU 12	-0.01	-1.22	6.91	0.0484	-0.0109	0.0004
94	SLU 13	-0.01	-1.2	6.96	0.0477	-0.011	0.0004
94	SLU 14	-0.01	-1.25	6.85	0.0497	-0.0104	0.0004
94	SLU 15	-0.01	-1.26	6.84	0.0501	-0.0105	0.0004
94	SLU 16	-0.01	-1.23	6.9	0.0488	-0.0103	0.0004
94	SLU 17	-0.01	-1.24	6.89	0.0492	-0.0105	0.0004
94	SLU 18	-0.02	-1.23	8.54	0.0489	-0.015	0.0006
94	SLU 19	-0.02	-1.24	8.53	0.0493	-0.0152	0.0006
94	SLU 20	-0.02	-1.27	8.47	0.0506	-0.0147	0.0006
94	SLU 21	-0.02	-1.28	8.45	0.051	-0.0149	0.0006
94	SLU 22	0	-1.18	3.6	0.0467	-0.0029	0.0002
94	SLU 23	0	-1.2	3.57	0.0474	-0.0032	0.0002
94	SLU 24	0	-1.25	3.47	0.0494	-0.0026	0.0002
94	SLU 25	0	-1.26	3.45	0.0498	-0.0028	0.0002
94	SLU 26	0	-1.24	3.49	0.0492	-0.0029	0.0002
94	SLU 27	0	-1.29	3.39	0.0512	-0.0023	0.0002
94	SLU 28	0	-1.3	3.37	0.0516	-0.0024	0.0002
94	SLU 29	0	-1.27	3.44	0.0503	-0.0022	0.0002
94	SLU 30	0	-1.28	3.42	0.0507	-0.0024	0.0002
94	SLU 31	-0.02	-1.41	7.03	0.0558	-0.0125	0.0005
94	SLU 32	-0.01	-1.47	6.93	0.0578	-0.0119	0.0005
94	SLU 33	-0.01	-1.48	6.91	0.0582	-0.0121	0.0005
94	SLU 34	-0.01	-1.46	6.95	0.0576	-0.0122	0.0005
94	SLU 35	-0.01	-1.51	6.85	0.0596	-0.0116	0.0005
94	SLU 36	-0.01	-1.52	6.83	0.06	-0.0117	0.0005
94	SLU 37	-0.01	-1.49	6.9	0.0587	-0.0115	0.0005
94	SLU 38	-0.01	-1.5	6.88	0.0591	-0.0117	0.0005
94	SLU 39	-0.02	-1.49	8.54	0.0587	-0.0162	0.0006
94	SLU 40	-0.02	-1.5	8.52	0.0591	-0.0164	0.0006
94	SLU 41	-0.02	-1.53	8.46	0.0605	-0.0159	0.0006
94	SLU 42	-0.02	-1.54	8.45	0.0609	-0.016	0.0006
94	SLU 43	0	-1.11	4.68	0.0445	-0.0018	0.0001
94	SLU 44	0	-1.13	4.66	0.0452	-0.0021	0.0002
94	SLU 45	0	-1.18	4.55	0.0472	-0.0015	0.0001
94	SLU 46	0	-1.19	4.54	0.0476	-0.0017	0.0001
94	SLU 47	0	-1.17	4.58	0.047	-0.0018	0.0001
94	SLU 48	0	-1.22	4.47	0.049	-0.0012	0.0001
94	SLU 49	0	-1.23	4.46	0.0494	-0.0013	0.0001
94	SLU 50	0	-1.2	4.53	0.0481	-0.0011	0.0001
94	SLU 51	0	-1.21	4.51	0.0485	-0.0013	0.0001
94	SLU 52	-0.01	-1.34	8.12	0.0536	-0.0114	0.0005
94	SLU 53	-0.01	-1.39	8.01	0.0556	-0.0108	0.0005
94	SLU 54	-0.01	-1.4	8	0.056	-0.011	0.0005
94	SLU 55	-0.01	-1.39	8.04	0.0554	-0.0111	0.0005
94	SLU 56	-0.01	-1.44	7.93	0.0574	-0.0105	0.0004
94	SLU 57	-0.01	-1.45	7.92	0.0578	-0.0106	0.0005
94	SLU 58	-0.01	-1.41	7.99	0.0565	-0.0105	0.0004
94	SLU 59	-0.01	-1.42	7.97	0.0569	-0.0106	0.0005
94	SLU 60	-0.02	-1.42	9.63	0.0566	-0.0151	0.0006
94	SLU 61	-0.02	-1.43	9.61	0.057	-0.0153	0.0006
94	SLU 62	-0.02	-1.46	9.55	0.0583	-0.0148	0.0006
94	SLU 63	-0.02	-1.47	9.53	0.0587	-0.015	0.0006
94	SLU 64	0	-1.37	4.68	0.0544	-0.003	0.0002
94	SLU 65	0	-1.38	4.65	0.0551	-0.0033	0.0002
94	SLU 66	0	-1.44	4.55	0.0571	-0.0027	0.0002
94	SLU 67	0	-1.45	4.53	0.0575	-0.0029	0.0002
94	SLU 68	0	-1.43	4.57	0.0569	-0.003	0.0002
94	SLU 69	0	-1.48	4.47	0.0588	-0.0024	0.0002
94	SLU 70	0	-1.49	4.45	0.0593	-0.0025	0.0002
94	SLU 71	0	-1.46	4.52	0.0579	-0.0023	0.0002
94	SLU 72	0	-1.47	4.51	0.0583	-0.0025	0.0002
94	SLU 73	-0.02	-1.6	8.11	0.0635	-0.0126	0.0005
94	SLU 74	-0.01	-1.65	8.01	0.0655	-0.012	0.0005
94	SLU 75	-0.01	-1.66	7.99	0.0659	-0.0122	0.0005
94	SLU 76	-0.01	-1.65	8.03	0.0653	-0.0123	0.0005
94	SLU 77	-0.01	-1.7	7.93	0.0673	-0.0117	0.0005
94	SLU 78	-0.01	-1.71	7.91	0.0677	-0.0118	0.0005
94	SLU 79	-0.01	-1.67	7.98	0.0663	-0.0116	0.0005
94	SLU 80	-0.01	-1.68	7.97	0.0668	-0.0118	0.0005
94	SLU 81	-0.02	-1.68	9.62	0.0664	-0.0163	0.0006
94	SLU 82	-0.02	-1.69	9.61	0.0668	-0.0165	0.0006
94	SLU 83	-0.02	-1.72	9.54	0.0682	-0.016	0.0006
94	SLU 84	-0.02	-1.73	9.53	0.0686	-0.0162	0.0006
94	SLE RA 1	0	-0.99	3.6	0.0397	-0.0021	0.0001
94	SLE RA 2	0	-1.01	3.58	0.0401	-0.0023	0.0001
94	SLE RA 3	0	-1.04	3.51	0.0415	-0.0019	0.0001
94	SLE RA 4	0	-1.05	3.5	0.0417	-0.002	0.0001
94	SLE RA 5	0	-1.04	3.53	0.0413	-0.002	0.0001
94	SLE RA 6	0	-1.07	3.46	0.0426	-0.0016	0.0001
94	SLE RA 7	0	-1.08	3.45	0.0429	-0.0017	0.0001
94	SLE RA 8	0	-1.05	3.5	0.042	-0.0016	0.0001
94	SLE RA 9	0	-1.06	3.48	0.0423	-0.0017	0.0001
94	SLE RA 10	-0.01	-1.15	5.89	0.0457	-0.0085	0.0004
94	SLE RA 11	-0.01	-1.18	5.82	0.0471	-0.0081	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
94	SLE RA 12	-0.01	-1.19	5.81	0.0473	-0.0082	0.0003
94	SLE RA 13	-0.01	-1.18	5.84	0.0469	-0.0082	0.0003
94	SLE RA 14	-0.01	-1.21	5.77	0.0482	-0.0078	0.0003
94	SLE RA 15	-0.01	-1.22	5.76	0.0485	-0.0079	0.0003
94	SLE RA 16	-0.01	-1.2	5.8	0.0476	-0.0078	0.0003
94	SLE RA 17	-0.01	-1.21	5.79	0.0479	-0.0079	0.0003
94	SLE RA 18	-0.01	-1.2	6.9	0.0477	-0.0109	0.0004
94	SLE RA 19	-0.01	-1.21	6.88	0.048	-0.011	0.0004
94	SLE RA 20	-0.01	-1.23	6.84	0.0489	-0.0107	0.0004
94	SLE RA 21	-0.01	-1.24	6.83	0.0491	-0.0108	0.0004
94	SLE FR 1	0	-0.99	3.6	0.0397	-0.0021	0.0001
94	SLE FR 2	0	-1	3.6	0.0398	-0.0021	0.0001
94	SLE FR 3	0	-1.01	3.58	0.0402	-0.002	0.0001
94	SLE FR 4	-0.01	-1.06	4.58	0.0422	-0.0048	0.0002
94	SLE FR 5	0	-1.07	4.57	0.0426	-0.0046	0.0002
94	SLE FR 6	-0.01	-1.1	5.25	0.0437	-0.0065	0.0003
94	SLE QP 1	0	-0.99	3.6	0.0397	-0.0021	0.0001
94	SLE QP 2	0	-1.06	4.59	0.0421	-0.0047	0.0002
94	SLD 1	0.02	-1.38	4.09	0.0544	0.0229	0
94	SLD 2	0.02	-1.38	4.09	0.0544	0.0229	0
94	SLD 3	0.03	-3.21	1.65	0.123	0.0302	-0.0001
94	SLD 4	0.03	-3.21	1.65	0.123	0.0302	-0.0001
94	SLD 5	-0.01	1.62	8.15	-0.0583	-0.0076	0.0003
94	SLD 6	-0.01	1.62	8.15	-0.0583	-0.0076	0.0003
94	SLD 7	0.02	-4.48	0	0.1704	0.0169	0
94	SLD 8	0.02	-4.48	0	0.1704	0.0169	0
94	SLD 9	-0.03	2.37	9.18	-0.0863	-0.0264	0.0005
94	SLD 10	-0.03	2.37	9.18	-0.0863	-0.0264	0.0005
94	SLD 11	0	-3.73	1.03	0.1425	-0.0018	0.0001
94	SLD 12	0	-3.73	1.03	0.1425	-0.0018	0.0001
94	SLD 13	-0.04	1.1	7.53	-0.0388	-0.0397	0.0006
94	SLD 14	-0.04	1.1	7.53	-0.0388	-0.0397	0.0006
94	SLD 15	-0.03	-0.73	5.08	0.0298	-0.0323	0.0004
94	SLD 16	-0.03	-0.73	5.08	0.0298	-0.0323	0.0004
94	SLV 1	0.06	-1.82	3.44	0.0706	0.0645	-0.0003
94	SLV 2	0.06	-1.82	3.44	0.0706	0.0645	-0.0003
94	SLV 3	0.08	-6.11	-2.29	0.2316	0.0821	-0.0005
94	SLV 4	0.08	-6.11	-2.29	0.2316	0.0821	-0.0005
94	SLV 5	-0.02	5.23	12.93	-0.1935	-0.0106	0.0005
94	SLV 6	-0.02	5.23	12.93	-0.1935	-0.0106	0.0005
94	SLV 7	0.06	-9.09	-6.16	0.3431	0.0479	-0.0004
94	SLV 8	0.06	-9.09	-6.16	0.3431	0.0479	-0.0004
94	SLV 9	-0.07	6.98	15.34	-0.2589	-0.0574	0.0009
94	SLV 10	-0.07	6.98	15.34	-0.2589	-0.0574	0.0009
94	SLV 11	0.01	-7.34	-3.76	0.2777	0.0011	0
94	SLV 12	0.01	-7.34	-3.76	0.2777	0.0011	0
94	SLV 13	-0.09	4	11.47	-0.1474	-0.0915	0.001
94	SLV 14	-0.09	4	11.47	-0.1474	-0.0915	0.001
94	SLV 15	-0.07	-0.29	5.74	0.0135	-0.074	0.0007
94	SLV 16	-0.07	-0.29	5.74	0.0135	-0.074	0.0007
95	SLU 1	-0.04	2.06	20.19	-0.2648	0.0086	0
95	SLU 2	-0.03	4.57	21.41	-0.3996	0.0141	-0.0001
95	SLU 3	-0.04	1.78	20.22	-0.2541	0.009	0
95	SLU 4	-0.03	3.28	20.95	-0.335	0.0123	-0.0001
95	SLU 5	-0.03	4.2	21.22	-0.3826	0.0144	-0.0001
95	SLU 6	-0.04	1.4	20.03	-0.2371	0.0093	0
95	SLU 7	-0.03	2.91	20.77	-0.318	0.0126	0
95	SLU 8	-0.04	1.32	19.81	-0.2307	0.0092	0
95	SLU 9	-0.03	2.82	20.55	-0.3116	0.0125	0
95	SLU 10	-0.04	4.68	24.07	-0.4299	0.0157	-0.0001
95	SLU 11	-0.04	1.88	22.89	-0.2845	0.0106	0
95	SLU 12	-0.04	3.39	23.62	-0.3654	0.0139	-0.0001
95	SLU 13	-0.04	4.31	23.89	-0.4129	0.016	-0.0001
95	SLU 14	-0.04	1.51	22.7	-0.2674	0.0109	0
95	SLU 15	-0.04	3.02	23.43	-0.3483	0.0142	-0.0001
95	SLU 16	-0.04	1.42	22.48	-0.261	0.0108	0
95	SLU 17	-0.04	2.93	23.21	-0.342	0.0141	-0.0001
95	SLU 18	-0.04	2.21	23.99	-0.3081	0.0109	0
95	SLU 19	-0.04	3.72	24.73	-0.389	0.0142	-0.0001
95	SLU 20	-0.04	1.84	23.81	-0.2911	0.0112	0
95	SLU 21	-0.04	3.35	24.54	-0.372	0.0145	-0.0001
95	SLU 22	-0.04	2.02	22.25	-0.2842	0.0101	0
95	SLU 23	-0.03	4.54	23.47	-0.419	0.0156	-0.0001
95	SLU 24	-0.04	1.74	22.28	-0.2736	0.0105	0
95	SLU 25	-0.04	3.25	23.01	-0.3545	0.0138	-0.0001
95	SLU 26	-0.03	4.16	23.28	-0.402	0.0158	-0.0001
95	SLU 27	-0.04	1.37	22.09	-0.2565	0.0108	0
95	SLU 28	-0.04	2.87	22.82	-0.3375	0.0141	-0.0001
95	SLU 29	-0.04	1.28	21.87	-0.2501	0.0107	0
95	SLU 30	-0.04	2.79	22.6	-0.3311	0.014	-0.0001
95	SLU 31	-0.04	4.64	26.13	-0.4494	0.0171	-0.0001
95	SLU 32	-0.05	1.85	24.94	-0.3039	0.0121	0
95	SLU 33	-0.04	3.35	25.67	-0.3848	0.0154	-0.0001
95	SLU 34	-0.04	4.27	25.94	-0.4323	0.0174	-0.0001
95	SLU 35	-0.05	1.47	24.75	-0.2869	0.0124	0
95	SLU 36	-0.04	2.98	25.49	-0.3678	0.0156	-0.0001
95	SLU 37	-0.05	1.39	24.53	-0.2805	0.0123	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
95	SLU 38	-0.04	2.89	25.27	-0.3614	0.0155	-0.0001
95	SLU 39	-0.05	2.18	26.05	-0.3275	0.0124	-0.0001
95	SLU 40	-0.05	3.68	26.78	-0.4084	0.0156	-0.0001
95	SLU 41	-0.05	1.8	25.86	-0.3105	0.0127	-0.0001
95	SLU 42	-0.05	3.31	26.6	-0.3914	0.0159	-0.0001
95	SLU 43	-0.05	2.69	25.54	-0.3375	0.0107	-0.0001
95	SLU 44	-0.04	5.2	26.76	-0.4724	0.0162	-0.0001
95	SLU 45	-0.05	2.41	25.57	-0.3269	0.0111	0
95	SLU 46	-0.04	3.91	26.31	-0.4078	0.0144	-0.0001
95	SLU 47	-0.04	4.83	26.57	-0.4554	0.0165	-0.0001
95	SLU 48	-0.05	2.03	25.39	-0.3099	0.0114	0
95	SLU 49	-0.04	3.54	26.12	-0.3908	0.0147	-0.0001
95	SLU 50	-0.05	1.95	25.17	-0.3035	0.0113	0
95	SLU 51	-0.04	3.45	25.9	-0.3844	0.0146	-0.0001
95	SLU 52	-0.04	5.31	29.42	-0.5027	0.0178	-0.0001
95	SLU 53	-0.05	2.51	28.24	-0.3572	0.0127	-0.0001
95	SLU 54	-0.05	4.02	28.97	-0.4381	0.016	-0.0001
95	SLU 55	-0.04	4.94	29.24	-0.4857	0.0181	-0.0001
95	SLU 56	-0.05	2.14	28.05	-0.3402	0.013	-0.0001
95	SLU 57	-0.05	3.65	28.78	-0.4211	0.0163	-0.0001
95	SLU 58	-0.05	2.05	27.83	-0.3338	0.0129	-0.0001
95	SLU 59	-0.05	3.56	28.56	-0.4147	0.0162	-0.0001
95	SLU 60	-0.05	2.84	29.35	-0.3808	0.013	-0.0001
95	SLU 61	-0.05	4.35	30.08	-0.4617	0.0163	-0.0001
95	SLU 62	-0.05	2.47	29.16	-0.3638	0.0133	-0.0001
95	SLU 63	-0.05	3.98	29.89	-0.4447	0.0166	-0.0001
95	SLU 64	-0.05	2.65	27.6	-0.3569	0.0122	-0.0001
95	SLU 65	-0.04	5.17	28.82	-0.4918	0.0177	-0.0001
95	SLU 66	-0.05	2.37	27.63	-0.3463	0.0126	-0.0001
95	SLU 67	-0.05	3.88	28.36	-0.4272	0.0159	-0.0001
95	SLU 68	-0.04	4.79	28.63	-0.4748	0.0179	-0.0001
95	SLU 69	-0.05	2	27.44	-0.3293	0.0129	-0.0001
95	SLU 70	-0.05	3.51	28.17	-0.4102	0.0161	-0.0001
95	SLU 71	-0.05	1.91	27.22	-0.3229	0.0128	-0.0001
95	SLU 72	-0.05	3.42	27.95	-0.4038	0.016	-0.0001
95	SLU 73	-0.05	5.27	31.48	-0.5221	0.0192	-0.0001
95	SLU 74	-0.06	2.48	30.29	-0.3766	0.0142	-0.0001
95	SLU 75	-0.05	3.98	31.03	-0.4576	0.0174	-0.0001
95	SLU 76	-0.05	4.9	31.29	-0.5051	0.0195	-0.0001
95	SLU 77	-0.06	2.1	30.11	-0.3596	0.0145	-0.0001
95	SLU 78	-0.05	3.61	30.84	-0.4405	0.0177	-0.0001
95	SLU 79	-0.06	2.02	29.89	-0.3532	0.0144	-0.0001
95	SLU 80	-0.05	3.52	30.62	-0.4341	0.0176	-0.0001
95	SLU 81	-0.06	2.81	31.4	-0.4003	0.0145	-0.0001
95	SLU 82	-0.05	4.31	32.14	-0.4812	0.0177	-0.0001
95	SLU 83	-0.06	2.43	31.22	-0.3832	0.0148	-0.0001
95	SLU 84	-0.05	3.94	31.95	-0.4642	0.018	-0.0001
95	SLE RA 1	-0.04	2.05	20.78	-0.2703	0.0091	0
95	SLE RA 2	-0.03	3.72	21.59	-0.3602	0.0127	-0.0001
95	SLE RA 3	-0.04	1.86	20.8	-0.2632	0.0093	0
95	SLE RA 4	-0.04	2.86	21.29	-0.3172	0.0115	0
95	SLE RA 5	-0.03	3.48	21.47	-0.3489	0.0129	-0.0001
95	SLE RA 6	-0.04	1.61	20.67	-0.2519	0.0095	0
95	SLE RA 7	-0.04	2.62	21.16	-0.3058	0.0117	0
95	SLE RA 8	-0.04	1.55	20.53	-0.2476	0.0094	0
95	SLE RA 9	-0.04	2.56	21.01	-0.3016	0.0116	0
95	SLE RA 10	-0.04	3.8	23.37	-0.3804	0.0138	-0.0001
95	SLE RA 11	-0.04	1.93	22.57	-0.2834	0.0104	0
95	SLE RA 12	-0.04	2.94	23.06	-0.3374	0.0126	-0.0001
95	SLE RA 13	-0.04	3.55	23.24	-0.3691	0.014	-0.0001
95	SLE RA 14	-0.04	1.68	22.45	-0.2721	0.0106	0
95	SLE RA 15	-0.04	2.69	22.94	-0.326	0.0128	-0.0001
95	SLE RA 16	-0.04	1.62	22.3	-0.2678	0.0105	0
95	SLE RA 17	-0.04	2.63	22.79	-0.3218	0.0127	-0.0001
95	SLE RA 18	-0.04	2.15	23.31	-0.2992	0.0106	0
95	SLE RA 19	-0.04	3.16	23.8	-0.3531	0.0128	-0.0001
95	SLE RA 20	-0.04	1.9	23.19	-0.2878	0.0108	0
95	SLE RA 21	-0.04	2.91	23.68	-0.3418	0.0129	-0.0001
95	SLE FR 1	-0.04	2.05	20.78	-0.2703	0.0091	0
95	SLE FR 2	-0.04	2.38	20.94	-0.2883	0.0098	0
95	SLE FR 3	-0.04	1.95	20.73	-0.2658	0.0091	0
95	SLE FR 4	-0.04	2.41	21.7	-0.2969	0.0102	0
95	SLE FR 5	-0.04	1.98	21.49	-0.2744	0.0096	0
95	SLE FR 6	-0.04	2.1	22.05	-0.2847	0.0098	0
95	SLE QP 1	-0.04	2.05	20.78	-0.2703	0.0091	0
95	SLE QP 2	-0.04	2.08	21.54	-0.279	0.0095	0
95	SLD 1	-0.02	1.72	20.57	-0.2636	0.0246	0
95	SLD 2	-0.02	1.72	20.57	-0.2636	0.0246	0
95	SLD 3	-0.01	-1.54	18.08	-0.0994	0.0172	0
95	SLD 4	-0.01	-1.54	18.08	-0.0994	0.0172	0
95	SLD 5	-0.05	6.91	25.03	-0.5234	0.0253	-0.0001
95	SLD 6	-0.05	6.91	25.03	-0.5234	0.0253	-0.0001
95	SLD 7	-0.01	-3.95	16.72	0.0239	0.0006	0
95	SLD 8	-0.01	-3.95	16.72	0.0239	0.0006	0
95	SLD 9	-0.07	8.11	26.36	-0.5819	0.0184	-0.0001
95	SLD 10	-0.07	8.11	26.36	-0.5819	0.0184	-0.0001
95	SLD 11	-0.03	-2.75	18.04	-0.0346	-0.0062	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
95	SLD 12	-0.03	-2.75	18.04	-0.0346	-0.0062	0
95	SLD 13	-0.07	5.7	25	-0.4585	0.0019	-0.0001
95	SLD 14	-0.07	5.7	25	-0.4585	0.0019	-0.0001
95	SLD 15	-0.06	2.44	22.5	-0.2943	-0.0055	-0.0001
95	SLD 16	-0.06	2.44	22.5	-0.2943	-0.0055	-0.0001
95	SLV 1	0.01	1.17	19.29	-0.2399	0.0456	0
95	SLV 2	0.01	1.17	19.29	-0.2399	0.0456	0
95	SLV 3	0.04	-6.62	13.34	0.153	0.0268	0.0001
95	SLV 4	0.04	-6.62	13.34	0.153	0.0268	0.0001
95	SLV 5	-0.07	13.62	29.89	-0.8632	0.0487	-0.0001
95	SLV 6	-0.07	13.62	29.89	-0.8632	0.0487	-0.0001
95	SLV 7	0.03	-12.34	10.06	0.4465	-0.0137	0.0001
95	SLV 8	0.03	-12.34	10.06	0.4465	-0.0137	0.0001
95	SLV 9	-0.1	16.5	33.02	-1.0045	0.0327	-0.0002
95	SLV 10	-0.1	16.5	33.02	-1.0045	0.0327	-0.0002
95	SLV 11	-0.01	-9.46	13.19	0.3052	-0.0297	0
95	SLV 12	-0.01	-9.46	13.19	0.3052	-0.0297	0
95	SLV 13	-0.12	10.78	29.73	-0.7109	-0.0078	-0.0001
95	SLV 14	-0.12	10.78	29.73	-0.7109	-0.0078	-0.0001
95	SLV 15	-0.09	2.99	23.78	-0.318	-0.0265	-0.0001
95	SLV 16	-0.09	2.99	23.78	-0.318	-0.0265	-0.0001
96	SLU 1	-0.05	0.32	52.11	0.0182	-0.0103	0.0024
96	SLU 2	-0.05	-0.14	52.88	0.0408	-0.012	0.0024
96	SLU 3	-0.05	0.54	53.16	0.0085	-0.0102	0.0024
96	SLU 4	-0.05	0.26	53.61	0.0221	-0.0112	0.0024
96	SLU 5	-0.05	0.1	53.59	0.0299	-0.0118	0.0024
96	SLU 6	-0.05	0.78	53.88	-0.0023	-0.01	0.0024
96	SLU 7	-0.05	0.51	54.33	0.0112	-0.0111	0.0025
96	SLU 8	-0.05	0.81	53.55	-0.0035	-0.0099	0.0024
96	SLU 9	-0.05	0.53	54.01	0.01	-0.011	0.0024
96	SLU 10	-0.06	-0.09	61.91	0.0446	-0.0137	0.0029
96	SLU 11	-0.06	0.59	62.19	0.0124	-0.012	0.0029
96	SLU 12	-0.06	0.31	62.65	0.0259	-0.013	0.0029
96	SLU 13	-0.06	0.15	62.62	0.0338	-0.0136	0.0029
96	SLU 14	-0.06	0.83	62.91	0.0015	-0.0118	0.0029
96	SLU 15	-0.06	0.55	63.36	0.0151	-0.0128	0.003
96	SLU 16	-0.06	0.85	62.58	0.0003	-0.0117	0.0029
96	SLU 17	-0.06	0.58	63.04	0.0139	-0.0127	0.0029
96	SLU 18	-0.06	0.39	65.02	0.0237	-0.0128	0.0031
96	SLU 19	-0.07	0.11	65.47	0.0372	-0.0138	0.0031
96	SLU 20	-0.06	0.63	65.73	0.0128	-0.0126	0.0031
96	SLU 21	-0.07	0.35	66.19	0.0264	-0.0137	0.0031
96	SLU 22	-0.06	0.37	57.47	0.0204	-0.012	0.0027
96	SLU 23	-0.06	-0.09	58.23	0.043	-0.0137	0.0027
96	SLU 24	-0.06	0.59	58.52	0.0107	-0.0119	0.0028
96	SLU 25	-0.06	0.31	58.97	0.0243	-0.013	0.0028
96	SLU 26	-0.06	0.15	58.95	0.0321	-0.0135	0.0028
96	SLU 27	-0.06	0.83	59.23	-0.0001	-0.0118	0.0028
96	SLU 28	-0.06	0.55	59.69	0.0134	-0.0128	0.0028
96	SLU 29	-0.06	0.85	58.91	-0.0013	-0.0117	0.0027
96	SLU 30	-0.06	0.58	59.36	0.0122	-0.0127	0.0028
96	SLU 31	-0.07	-0.04	67.27	0.0468	-0.0155	0.0032
96	SLU 32	-0.07	0.63	67.55	0.0146	-0.0137	0.0033
96	SLU 33	-0.07	0.36	68	0.0281	-0.0147	0.0033
96	SLU 34	-0.07	0.2	67.98	0.036	-0.0153	0.0033
96	SLU 35	-0.07	0.88	68.27	0.0037	-0.0135	0.0033
96	SLU 36	-0.07	0.6	68.72	0.0173	-0.0146	0.0033
96	SLU 37	-0.07	0.9	67.94	0.0025	-0.0134	0.0032
96	SLU 38	-0.07	0.62	68.4	0.0161	-0.0144	0.0033
96	SLU 39	-0.07	0.44	70.38	0.0259	-0.0145	0.0034
96	SLU 40	-0.07	0.16	70.83	0.0394	-0.0155	0.0034
96	SLU 41	-0.07	0.68	71.09	0.015	-0.0143	0.0034
96	SLU 42	-0.07	0.4	71.55	0.0286	-0.0154	0.0035
96	SLU 43	-0.06	0.4	65.91	0.0229	-0.0128	0.003
96	SLU 44	-0.07	-0.06	66.67	0.0455	-0.0145	0.003
96	SLU 45	-0.06	0.62	66.95	0.0132	-0.0127	0.003
96	SLU 46	-0.06	0.34	67.41	0.0268	-0.0137	0.0031
96	SLU 47	-0.07	0.18	67.39	0.0346	-0.0143	0.003
96	SLU 48	-0.06	0.86	67.67	0.0024	-0.0125	0.0031
96	SLU 49	-0.06	0.59	68.13	0.0159	-0.0136	0.0031
96	SLU 50	-0.06	0.89	67.35	0.0012	-0.0124	0.003
96	SLU 51	-0.06	0.61	67.8	0.0147	-0.0135	0.003
96	SLU 52	-0.08	-0.01	75.7	0.0493	-0.0162	0.0035
96	SLU 53	-0.07	0.67	75.99	0.0171	-0.0145	0.0035
96	SLU 54	-0.07	0.39	76.44	0.0306	-0.0155	0.0036
96	SLU 55	-0.08	0.23	76.42	0.0385	-0.0161	0.0035
96	SLU 56	-0.07	0.91	76.7	0.0062	-0.0143	0.0036
96	SLU 57	-0.07	0.63	77.16	0.0198	-0.0153	0.0036
96	SLU 58	-0.07	0.93	76.38	0.005	-0.0142	0.0035
96	SLU 59	-0.07	0.66	76.83	0.0186	-0.0152	0.0035
96	SLU 60	-0.08	0.47	78.81	0.0284	-0.0153	0.0037
96	SLU 61	-0.08	0.19	79.27	0.0419	-0.0163	0.0037
96	SLU 62	-0.08	0.71	79.53	0.0175	-0.0151	0.0037
96	SLU 63	-0.08	0.43	79.99	0.0311	-0.0161	0.0037
96	SLU 64	-0.07	0.45	71.27	0.0251	-0.0145	0.0033
96	SLU 65	-0.07	-0.01	72.03	0.0477	-0.0162	0.0034
96	SLU 66	-0.07	0.67	72.31	0.0154	-0.0144	0.0034



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
96	SLU 67	-0.07	0.39	72.77	0.029	-0.0155	0.0034
96	SLU 68	-0.07	0.23	72.75	0.0368	-0.016	0.0034
96	SLU 69	-0.07	0.91	73.03	0.0046	-0.0143	0.0034
96	SLU 70	-0.07	0.63	73.49	0.0181	-0.0153	0.0034
96	SLU 71	-0.07	0.93	72.71	0.0034	-0.0142	0.0034
96	SLU 72	-0.07	0.66	73.16	0.0169	-0.0152	0.0034
96	SLU 73	-0.08	0.04	81.06	0.0515	-0.018	0.0039
96	SLU 74	-0.08	0.71	81.34	0.0193	-0.0162	0.0039
96	SLU 75	-0.08	0.44	81.8	0.0328	-0.0172	0.0039
96	SLU 76	-0.08	0.28	81.78	0.0407	-0.0178	0.0039
96	SLU 77	-0.08	0.96	82.06	0.0084	-0.016	0.0039
96	SLU 78	-0.08	0.68	82.52	0.022	-0.017	0.0039
96	SLU 79	-0.08	0.98	81.74	0.0072	-0.0159	0.0039
96	SLU 80	-0.08	0.7	82.19	0.0208	-0.0169	0.0039
96	SLU 81	-0.08	0.52	84.17	0.0306	-0.017	0.004
96	SLU 82	-0.09	0.24	84.63	0.0441	-0.018	0.0041
96	SLU 83	-0.08	0.76	84.89	0.0197	-0.0168	0.0041
96	SLU 84	-0.09	0.48	85.35	0.0333	-0.0179	0.0041
96	SLE RA 1	-0.05	0.34	53.65	0.0188	-0.0108	0.0025
96	SLE RA 2	-0.05	0.03	54.15	0.0339	-0.0119	0.0025
96	SLE RA 3	-0.05	0.48	54.34	0.0124	-0.0107	0.0025
96	SLE RA 4	-0.05	0.3	54.65	0.0214	-0.0114	0.0025
96	SLE RA 5	-0.05	0.19	54.63	0.0266	-0.0118	0.0025
96	SLE RA 6	-0.05	0.64	54.82	0.0051	-0.0106	0.0025
96	SLE RA 7	-0.05	0.46	55.12	0.0142	-0.0113	0.0025
96	SLE RA 8	-0.05	0.66	54.6	0.0043	-0.0105	0.0025
96	SLE RA 9	-0.05	0.47	54.91	0.0134	-0.0112	0.0025
96	SLE RA 10	-0.06	0.06	60.17	0.0364	-0.0131	0.0028
96	SLE RA 11	-0.06	0.51	60.36	0.0149	-0.0119	0.0028
96	SLE RA 12	-0.06	0.33	60.67	0.024	-0.0126	0.0029
96	SLE RA 13	-0.06	0.22	60.65	0.0292	-0.013	0.0028
96	SLE RA 14	-0.06	0.67	60.84	0.0077	-0.0118	0.0029
96	SLE RA 15	-0.06	0.49	61.14	0.0167	-0.0125	0.0029
96	SLE RA 16	-0.06	0.69	60.62	0.0069	-0.0117	0.0028
96	SLE RA 17	-0.06	0.51	60.93	0.0159	-0.0124	0.0028
96	SLE RA 18	-0.06	0.38	62.25	0.0225	-0.0124	0.003
96	SLE RA 19	-0.06	0.2	62.55	0.0315	-0.0131	0.003
96	SLE RA 20	-0.06	0.54	62.73	0.0152	-0.0123	0.003
96	SLE RA 21	-0.06	0.36	63.03	0.0243	-0.013	0.003
96	SLE FR 1	-0.05	0.34	53.65	0.0188	-0.0108	0.0025
96	SLE FR 2	-0.05	0.27	53.75	0.0218	-0.011	0.0025
96	SLE FR 3	-0.05	0.4	53.84	0.0159	-0.0107	0.0025
96	SLE FR 4	-0.05	0.29	56.33	0.0229	-0.0115	0.0026
96	SLE FR 5	-0.05	0.41	56.42	0.017	-0.0112	0.0026
96	SLE FR 6	-0.06	0.36	57.95	0.0206	-0.0116	0.0027
96	SLE QP 1	-0.05	0.34	53.65	0.0188	-0.0108	0.0025
96	SLE QP 2	-0.05	0.35	56.23	0.0199	-0.0113	0.0026
96	SLD 1	-0.04	3.79	50.32	-0.1297	-0.0005	-0.0001
96	SLD 2	-0.04	3.79	50.32	-0.1297	-0.0005	-0.0001
96	SLD 3	-0.02	-0.04	47.62	0.0407	0.0085	-0.0013
96	SLD 4	-0.02	-0.04	47.62	0.0407	0.0085	-0.0013
96	SLD 5	-0.08	7.18	58.54	-0.2835	-0.0216	0.0036
96	SLD 6	-0.08	7.18	58.54	-0.2835	-0.0216	0.0036
96	SLD 7	-0.01	-5.56	49.56	0.2847	0.0082	-0.0003
96	SLD 8	-0.01	-5.56	49.56	0.2847	0.0082	-0.0003
96	SLD 9	-0.09	6.26	62.89	-0.2449	-0.0307	0.0056
96	SLD 10	-0.09	6.26	62.89	-0.2449	-0.0307	0.0056
96	SLD 11	-0.03	-6.48	53.91	0.3234	-0.001	0.0017
96	SLD 12	-0.03	-6.48	53.91	0.3234	-0.001	0.0017
96	SLD 13	-0.09	0.73	64.83	-0.0009	-0.031	0.0066
96	SLD 14	-0.09	0.73	64.83	-0.0009	-0.031	0.0066
96	SLD 15	-0.07	-3.09	62.13	0.1696	-0.0221	0.0054
96	SLD 16	-0.07	-3.09	62.13	0.1696	-0.0221	0.0054
96	SLV 1	-0.01	8.43	42.41	-0.3321	0.0154	-0.0044
96	SLV 2	-0.01	8.43	42.41	-0.3321	0.0154	-0.0044
96	SLV 3	0.03	-0.53	36.02	0.0673	0.0363	-0.0072
96	SLV 4	0.03	-0.53	36.02	0.0673	0.0363	-0.0072
96	SLV 5	-0.11	16.36	61.77	-0.6916	-0.0351	0.0047
96	SLV 6	-0.11	16.36	61.77	-0.6916	-0.0351	0.0047
96	SLV 7	0.04	-13.51	40.47	0.64	0.0348	-0.0045
96	SLV 8	0.04	-13.51	40.47	0.64	0.0348	-0.0045
96	SLV 9	-0.15	14.2	71.98	-0.6002	-0.0573	0.0097
96	SLV 10	-0.15	14.2	71.98	-0.6002	-0.0573	0.0097
96	SLV 11	0	-15.67	50.68	0.7314	0.0125	0.0006
96	SLV 12	0	-15.67	50.68	0.7314	0.0125	0.0006
96	SLV 13	-0.14	1.23	76.43	-0.0275	-0.0589	0.0124
96	SLV 14	-0.14	1.23	76.43	-0.0275	-0.0589	0.0124
96	SLV 15	-0.09	-7.73	70.04	0.3719	-0.0379	0.0097
96	SLV 16	-0.09	-7.73	70.04	0.3719	-0.0379	0.0097
97	SLU 1	0.02	7.17	27.52	-0.4333	0.004	0
97	SLU 2	0.01	10.15	29.64	-0.5865	-0.001	0
97	SLU 3	0.02	7.15	28.05	-0.4354	0.0041	0
97	SLU 4	0.02	8.94	29.32	-0.5273	0.0011	0
97	SLU 5	0.01	10	29.91	-0.5812	-0.0009	0
97	SLU 6	0.02	7	28.31	-0.4301	0.0041	0
97	SLU 7	0.02	8.79	29.59	-0.522	0.0011	0
97	SLU 8	0.02	6.87	28.05	-0.4227	0.0041	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
97	SLU 9	0.02	8.65	29.32	-0.5146	0.0011	0
97	SLU 10	0.01	11.09	33.42	-0.644	-0.0004	0
97	SLU 11	0.02	8.09	31.83	-0.4929	0.0046	0
97	SLU 12	0.02	9.88	33.1	-0.5848	0.0016	0
97	SLU 13	0.02	10.94	33.69	-0.6387	-0.0004	0
97	SLU 14	0.02	7.94	32.09	-0.4876	0.0046	0
97	SLU 15	0.02	9.73	33.37	-0.5795	0.0016	0
97	SLU 16	0.02	7.8	31.83	-0.4802	0.0046	0
97	SLU 17	0.02	9.59	33.1	-0.5721	0.0016	0
97	SLU 18	0.02	8.51	32.92	-0.5154	0.0048	0
97	SLU 19	0.02	10.3	34.19	-0.6073	0.0018	0
97	SLU 20	0.02	8.36	33.18	-0.5101	0.0048	0
97	SLU 21	0.02	10.15	34.46	-0.602	0.0018	0
97	SLU 22	0.02	7.96	30.78	-0.4821	0.0045	0
97	SLU 23	0.01	10.94	32.91	-0.6354	-0.0005	0
97	SLU 24	0.02	7.94	31.31	-0.4843	0.0046	0
97	SLU 25	0.02	9.73	32.59	-0.5762	0.0016	0
97	SLU 26	0.02	10.79	33.17	-0.6301	-0.0004	0
97	SLU 27	0.02	7.79	31.58	-0.479	0.0046	0
97	SLU 28	0.02	9.58	32.85	-0.5709	0.0016	0
97	SLU 29	0.02	7.66	31.31	-0.4716	0.0046	0
97	SLU 30	0.02	9.45	32.59	-0.5635	0.0016	0
97	SLU 31	0.02	11.88	36.69	-0.6928	0.0001	0
97	SLU 32	0.03	8.88	35.09	-0.5417	0.0051	0
97	SLU 33	0.02	10.67	36.37	-0.6336	0.0021	0
97	SLU 34	0.02	11.73	36.95	-0.6875	0.0001	0
97	SLU 35	0.03	8.73	35.36	-0.5364	0.0051	0
97	SLU 36	0.02	10.52	36.63	-0.6284	0.0022	0
97	SLU 37	0.03	8.6	35.09	-0.529	0.0051	0
97	SLU 38	0.02	10.38	36.37	-0.621	0.0021	0
97	SLU 39	0.03	9.3	36.18	-0.5642	0.0053	0
97	SLU 40	0.02	11.09	37.46	-0.6562	0.0023	0
97	SLU 41	0.03	9.15	36.45	-0.5589	0.0053	0
97	SLU 42	0.02	10.94	37.72	-0.6509	0.0023	0
97	SLU 43	0.02	9.04	34.65	-0.5465	0.0051	0
97	SLU 44	0.02	12.03	36.78	-0.6997	0.0001	0
97	SLU 45	0.03	9.03	35.19	-0.5486	0.0051	0
97	SLU 46	0.02	10.82	36.46	-0.6406	0.0021	0
97	SLU 47	0.02	11.88	37.04	-0.6944	0.0001	0
97	SLU 48	0.03	8.88	35.45	-0.5433	0.0052	0
97	SLU 49	0.02	10.67	36.73	-0.6353	0.0022	0
97	SLU 50	0.03	8.74	35.19	-0.5359	0.0051	0
97	SLU 51	0.02	10.53	36.46	-0.6279	0.0021	0
97	SLU 52	0.02	12.97	40.56	-0.7572	0.0006	0
97	SLU 53	0.03	9.97	38.96	-0.6061	0.0057	0
97	SLU 54	0.02	11.76	40.24	-0.698	0.0027	0
97	SLU 55	0.02	12.81	40.82	-0.7519	0.0006	0
97	SLU 56	0.03	9.82	39.23	-0.6008	0.0057	0
97	SLU 57	0.02	11.61	40.51	-0.6927	0.0027	0
97	SLU 58	0.03	9.68	38.97	-0.5934	0.0056	0
97	SLU 59	0.02	11.47	40.24	-0.6853	0.0026	0
97	SLU 60	0.03	10.39	40.05	-0.6286	0.0058	0
97	SLU 61	0.02	12.18	41.33	-0.7205	0.0028	0
97	SLU 62	0.03	10.24	40.32	-0.6233	0.0058	0
97	SLU 63	0.02	12.02	41.59	-0.7152	0.0028	0
97	SLU 64	0.03	9.84	37.92	-0.5954	0.0056	0
97	SLU 65	0.02	12.82	40.04	-0.7486	0.0006	0
97	SLU 66	0.03	9.82	38.45	-0.5975	0.0056	0
97	SLU 67	0.02	11.61	39.72	-0.6894	0.0026	0
97	SLU 68	0.02	12.67	40.31	-0.7433	0.0006	0
97	SLU 69	0.03	9.67	38.72	-0.5922	0.0057	0
97	SLU 70	0.02	11.46	39.99	-0.6841	0.0027	0
97	SLU 71	0.03	9.54	38.45	-0.5848	0.0056	0
97	SLU 72	0.02	11.32	39.73	-0.6767	0.0026	0
97	SLU 73	0.02	13.76	43.82	-0.806	0.0011	0
97	SLU 74	0.03	10.76	42.23	-0.6549	0.0062	0
97	SLU 75	0.03	12.55	43.5	-0.7469	0.0032	0
97	SLU 76	0.02	13.61	44.09	-0.8008	0.0011	0
97	SLU 77	0.03	10.61	42.5	-0.6497	0.0062	0
97	SLU 78	0.03	12.4	43.77	-0.7416	0.0032	0
97	SLU 79	0.03	10.47	42.23	-0.6423	0.0061	0
97	SLU 80	0.03	12.26	43.5	-0.7342	0.0031	0
97	SLU 81	0.03	11.18	43.32	-0.6775	0.0063	0
97	SLU 82	0.03	12.97	44.59	-0.7694	0.0033	0
97	SLU 83	0.03	11.03	43.58	-0.6722	0.0063	0
97	SLU 84	0.03	12.82	44.86	-0.7641	0.0033	0
97	SLE RA 1	0.02	7.39	28.45	-0.4472	0.0042	0
97	SLE RA 2	0.02	9.38	29.87	-0.5494	0.0008	0
97	SLE RA 3	0.02	7.38	28.81	-0.4487	0.0042	0
97	SLE RA 4	0.02	8.58	29.65	-0.5099	0.0022	0
97	SLE RA 5	0.02	9.28	30.04	-0.5459	0.0009	0
97	SLE RA 6	0.02	7.28	28.98	-0.4451	0.0042	0
97	SLE RA 7	0.02	8.48	29.83	-0.5064	0.0022	0
97	SLE RA 8	0.02	7.19	28.81	-0.4402	0.0042	0
97	SLE RA 9	0.02	8.38	29.66	-0.5015	0.0022	0
97	SLE RA 10	0.02	10.01	32.39	-0.5877	0.0012	0
97	SLE RA 11	0.02	8.01	31.32	-0.487	0.0046	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
97	SLE RA 12	0.02	9.2	32.17	-0.5482	0.0026	0
97	SLE RA 13	0.02	9.91	32.56	-0.5842	0.0012	0
97	SLE RA 14	0.02	7.91	31.5	-0.4834	0.0046	0
97	SLE RA 15	0.02	9.1	32.35	-0.5447	0.0026	0
97	SLE RA 16	0.02	7.82	31.33	-0.4785	0.0045	0
97	SLE RA 17	0.02	9.01	32.17	-0.5398	0.0025	0
97	SLE RA 18	0.02	8.29	32.05	-0.502	0.0047	0
97	SLE RA 19	0.02	9.48	32.9	-0.5632	0.0027	0
97	SLE RA 20	0.02	8.19	32.23	-0.4984	0.0047	0
97	SLE RA 21	0.02	9.38	33.08	-0.5597	0.0027	0
97	SLE FR 1	0.02	7.39	28.45	-0.4472	0.0042	0
97	SLE FR 2	0.02	7.79	28.73	-0.4677	0.0035	0
97	SLE FR 3	0.02	7.35	28.52	-0.4458	0.0042	0
97	SLE FR 4	0.02	8.06	29.81	-0.4841	0.0036	0
97	SLE FR 5	0.02	7.62	29.6	-0.4622	0.0043	0
97	SLE FR 6	0.02	7.84	30.25	-0.4746	0.0044	0
97	SLE QP 1	0.02	7.39	28.45	-0.4472	0.0042	0
97	SLE QP 2	0.02	7.66	29.53	-0.4637	0.0043	0
97	SLD 1	0.06	11.01	33.68	-0.6305	0.0112	0.0001
97	SLD 2	0.06	11.01	33.68	-0.6305	0.0112	0.0001
97	SLD 3	0.04	7.58	30.43	-0.4591	0.0184	0
97	SLD 4	0.04	7.58	30.43	-0.4591	0.0184	0
97	SLD 5	0.05	13.86	35.69	-0.7736	-0.0047	0.0001
97	SLD 6	0.05	13.86	35.69	-0.7736	-0.0047	0.0001
97	SLD 7	0.01	2.44	24.89	-0.2024	0.0196	0
97	SLD 8	0.01	2.44	24.89	-0.2024	0.0196	0
97	SLD 9	0.04	12.88	34.18	-0.7249	-0.011	0
97	SLD 10	0.04	12.88	34.18	-0.7249	-0.011	0
97	SLD 11	-0.01	1.46	23.37	-0.1537	0.0133	0
97	SLD 12	-0.01	1.46	23.37	-0.1537	0.0133	0
97	SLD 13	0	7.74	28.63	-0.4682	-0.0098	0
97	SLD 14	0	7.74	28.63	-0.4682	-0.0098	0
97	SLD 15	-0.01	4.31	25.39	-0.2969	-0.0025	0
97	SLD 16	-0.01	4.31	25.39	-0.2969	-0.0025	0
97	SLV 1	0.11	15.74	39.31	-0.8659	0.0201	0.0001
97	SLV 2	0.11	15.74	39.31	-0.8659	0.0201	0.0001
97	SLV 3	0.07	7.56	31.65	-0.4566	0.0388	0.0001
97	SLV 4	0.07	7.56	31.65	-0.4566	0.0388	0.0001
97	SLV 5	0.1	22.49	44.07	-1.2052	-0.0192	0.0001
97	SLV 6	0.1	22.49	44.07	-1.2052	-0.0192	0.0001
97	SLV 7	-0.02	-4.78	18.56	0.1593	0.0429	0
97	SLV 8	-0.02	-4.78	18.56	0.1593	0.0429	0
97	SLV 9	0.06	20.1	40.5	-1.0867	-0.0343	0.0001
97	SLV 10	0.06	20.1	40.5	-1.0867	-0.0343	0.0001
97	SLV 11	-0.06	-7.17	14.99	0.2779	0.0278	-0.0001
97	SLV 12	-0.06	-7.17	14.99	0.2779	0.0278	-0.0001
97	SLV 13	-0.03	7.77	27.41	-0.4707	-0.0301	-0.0001
97	SLV 14	-0.03	7.77	27.41	-0.4707	-0.0301	-0.0001
97	SLV 15	-0.07	-0.42	19.76	-0.0614	-0.0115	-0.0001
97	SLV 16	-0.07	-0.42	19.76	-0.0614	-0.0115	-0.0001
98	SLU 1	0.05	8.31	26.27	-0.4083	-0.0129	0.0003
98	SLU 2	-0.02	9.99	25.94	-0.4733	-0.0522	0.0003
98	SLU 3	0.05	8.64	27.18	-0.4254	-0.0132	0.0003
98	SLU 4	0.01	9.65	26.99	-0.4644	-0.0367	0.0003
98	SLU 5	-0.02	10.25	26.69	-0.4867	-0.0522	0.0003
98	SLU 6	0.05	8.9	27.93	-0.4388	-0.0131	0.0003
98	SLU 7	0.01	9.91	27.73	-0.4778	-0.0367	0.0003
98	SLU 8	0.05	8.82	27.76	-0.4351	-0.0129	0.0003
98	SLU 9	0.01	9.83	27.56	-0.474	-0.0365	0.0003
98	SLU 10	-0.01	10.77	28.75	-0.5144	-0.054	0.0003
98	SLU 11	0.05	9.42	30	-0.4666	-0.015	0.0003
98	SLU 12	0.01	10.44	29.8	-0.5055	-0.0385	0.0003
98	SLU 13	-0.01	11.03	29.5	-0.5278	-0.054	0.0003
98	SLU 14	0.05	9.68	30.74	-0.4799	-0.015	0.0004
98	SLU 15	0.02	10.69	30.55	-0.5189	-0.0385	0.0003
98	SLU 16	0.05	9.6	30.57	-0.4762	-0.0147	0.0004
98	SLU 17	0.02	10.61	30.38	-0.5152	-0.0383	0.0003
98	SLU 18	0.05	9.42	30.29	-0.4671	-0.0155	0.0003
98	SLU 19	0.01	10.44	30.09	-0.5061	-0.0391	0.0003
98	SLU 20	0.05	9.68	31.03	-0.4805	-0.0155	0.0004
98	SLU 21	0.02	10.69	30.84	-0.5195	-0.0391	0.0004
98	SLU 22	0.05	9.19	29.15	-0.454	-0.0147	0.0003
98	SLU 23	-0.01	10.88	28.82	-0.519	-0.054	0.0003
98	SLU 24	0.05	9.53	30.07	-0.4711	-0.0149	0.0003
98	SLU 25	0.01	10.54	29.87	-0.5101	-0.0385	0.0003
98	SLU 26	-0.01	11.13	29.57	-0.5324	-0.054	0.0003
98	SLU 27	0.05	9.78	30.82	-0.4845	-0.0149	0.0004
98	SLU 28	0.02	10.8	30.62	-0.5235	-0.0385	0.0003
98	SLU 29	0.05	9.7	30.65	-0.4808	-0.0147	0.0004
98	SLU 30	0.02	10.71	30.45	-0.5198	-0.0382	0.0003
98	SLU 31	-0.01	11.66	31.64	-0.5602	-0.0558	0.0004
98	SLU 32	0.06	10.31	32.88	-0.5123	-0.0167	0.0004
98	SLU 33	0.02	11.32	32.68	-0.5513	-0.0403	0.0004
98	SLU 34	-0.01	11.92	32.38	-0.5735	-0.0558	0.0004
98	SLU 35	0.06	10.57	33.63	-0.5257	-0.0167	0.0004
98	SLU 36	0.02	11.58	33.43	-0.5647	-0.0403	0.0004
98	SLU 37	0.06	10.49	33.46	-0.5219	-0.0165	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
98	SLU 38	0.02	11.5	33.26	-0.5609	-0.04	0.0004
98	SLU 39	0.06	10.31	33.17	-0.5128	-0.0173	0.0004
98	SLU 40	0.02	11.32	32.97	-0.5518	-0.0408	0.0004
98	SLU 41	0.06	10.57	33.92	-0.5262	-0.0173	0.0004
98	SLU 42	0.02	11.58	33.72	-0.5652	-0.0408	0.0004
98	SLU 43	0.06	10.49	33.16	-0.5151	-0.0162	0.0004
98	SLU 44	-0.01	12.18	32.83	-0.5801	-0.0555	0.0004
98	SLU 45	0.06	10.83	34.08	-0.5322	-0.0164	0.0004
98	SLU 46	0.02	11.84	33.88	-0.5712	-0.04	0.0004
98	SLU 47	0	12.44	33.58	-0.5935	-0.0555	0.0004
98	SLU 48	0.06	11.09	34.82	-0.5456	-0.0164	0.0004
98	SLU 49	0.02	12.1	34.63	-0.5846	-0.04	0.0004
98	SLU 50	0.06	11.01	34.65	-0.5419	-0.0162	0.0004
98	SLU 51	0.02	12.02	34.46	-0.5809	-0.0398	0.0004
98	SLU 52	0	12.96	35.64	-0.6212	-0.0573	0.0004
98	SLU 53	0.06	11.61	36.89	-0.5734	-0.0183	0.0004
98	SLU 54	0.03	12.62	36.69	-0.6124	-0.0418	0.0004
98	SLU 55	0	13.22	36.39	-0.6346	-0.0573	0.0004
98	SLU 56	0.07	11.87	37.64	-0.5867	-0.0182	0.0004
98	SLU 57	0.03	12.88	37.44	-0.6257	-0.0418	0.0004
98	SLU 58	0.07	11.79	37.47	-0.583	-0.018	0.0004
98	SLU 59	0.03	12.8	37.27	-0.622	-0.0416	0.0004
98	SLU 60	0.06	11.61	37.18	-0.5739	-0.0188	0.0004
98	SLU 61	0.03	12.62	36.98	-0.6129	-0.0424	0.0004
98	SLU 62	0.07	11.87	37.92	-0.5873	-0.0188	0.0004
98	SLU 63	0.03	12.88	37.73	-0.6263	-0.0424	0.0004
98	SLU 64	0.06	11.38	36.04	-0.5608	-0.018	0.0004
98	SLU 65	0	13.07	35.71	-0.6258	-0.0573	0.0004
98	SLU 66	0.06	11.72	36.96	-0.5779	-0.0182	0.0004
98	SLU 67	0.03	12.73	36.76	-0.6169	-0.0418	0.0004
98	SLU 68	0	13.32	36.46	-0.6392	-0.0573	0.0004
98	SLU 69	0.07	11.97	37.71	-0.5913	-0.0182	0.0004
98	SLU 70	0.03	12.98	37.51	-0.6303	-0.0417	0.0004
98	SLU 71	0.07	11.89	37.54	-0.5876	-0.0179	0.0004
98	SLU 72	0.03	12.9	37.34	-0.6266	-0.0415	0.0004
98	SLU 73	0	13.85	38.53	-0.667	-0.0591	0.0004
98	SLU 74	0.07	12.5	39.77	-0.6191	-0.02	0.0005
98	SLU 75	0.03	13.51	39.58	-0.6581	-0.0436	0.0005
98	SLU 76	0.01	14.1	39.27	-0.6804	-0.0591	0.0004
98	SLU 77	0.07	12.75	40.52	-0.6325	-0.02	0.0005
98	SLU 78	0.03	13.77	40.32	-0.6715	-0.0436	0.0005
98	SLU 79	0.07	12.67	40.35	-0.6288	-0.0198	0.0005
98	SLU 80	0.03	13.68	40.15	-0.6677	-0.0433	0.0005
98	SLU 81	0.07	12.5	40.06	-0.6196	-0.0206	0.0005
98	SLU 82	0.03	13.51	39.86	-0.6586	-0.0441	0.0005
98	SLU 83	0.07	12.75	40.81	-0.633	-0.0205	0.0005
98	SLU 84	0.03	13.76	40.61	-0.672	-0.0441	0.0005
98	SLE RA 1	0.05	8.56	27.09	-0.4214	-0.0134	0.0003
98	SLE RA 2	0	9.68	26.87	-0.4647	-0.0396	0.0003
98	SLE RA 3	0.05	8.78	27.7	-0.4328	-0.0136	0.0003
98	SLE RA 4	0.02	9.46	27.57	-0.4588	-0.0293	0.0003
98	SLE RA 5	0.01	9.85	27.37	-0.4736	-0.0396	0.0003
98	SLE RA 6	0.05	8.95	28.2	-0.4417	-0.0136	0.0003
98	SLE RA 7	0.02	9.63	28.07	-0.4677	-0.0293	0.0003
98	SLE RA 8	0.05	8.9	28.09	-0.4392	-0.0134	0.0003
98	SLE RA 9	0.02	9.57	27.96	-0.4652	-0.0291	0.0003
98	SLE RA 10	0.01	10.2	28.75	-0.4921	-0.0408	0.0003
98	SLE RA 11	0.05	9.31	29.58	-0.4602	-0.0148	0.0003
98	SLE RA 12	0.03	9.98	29.45	-0.4862	-0.0305	0.0003
98	SLE RA 13	0.01	10.38	29.25	-0.501	-0.0408	0.0003
98	SLE RA 14	0.05	9.48	30.08	-0.4691	-0.0148	0.0003
98	SLE RA 15	0.03	10.15	29.94	-0.4951	-0.0305	0.0003
98	SLE RA 16	0.05	9.42	29.96	-0.4666	-0.0146	0.0003
98	SLE RA 17	0.03	10.1	29.83	-0.4926	-0.0304	0.0003
98	SLE RA 18	0.05	9.3	29.77	-0.4606	-0.0152	0.0003
98	SLE RA 19	0.03	9.98	29.64	-0.4866	-0.0309	0.0003
98	SLE RA 20	0.05	9.47	30.27	-0.4695	-0.0152	0.0003
98	SLE RA 21	0.03	10.15	30.14	-0.4955	-0.0309	0.0003
98	SLE FR 1	0.05	8.56	27.09	-0.4214	-0.0134	0.0003
98	SLE FR 2	0.04	8.78	27.05	-0.43	-0.0187	0.0003
98	SLE FR 3	0.05	8.63	27.29	-0.4249	-0.0134	0.0003
98	SLE FR 4	0.04	9.01	27.85	-0.4418	-0.0192	0.0003
98	SLE FR 5	0.05	8.85	28.1	-0.4367	-0.014	0.0003
98	SLE FR 6	0.05	8.93	28.43	-0.441	-0.0143	0.0003
98	SLE QP 1	0.05	8.56	27.09	-0.4214	-0.0134	0.0003
98	SLE QP 2	0.05	8.78	27.9	-0.4331	-0.014	0.0003
98	SLD 1	0.04	12.08	39.89	-0.5962	0.0032	0.0005
98	SLD 2	0.04	12.08	39.89	-0.5962	0.0032	0.0005
98	SLD 3	0.12	8.65	35.56	-0.4381	0.044	0.0004
98	SLD 4	0.12	8.65	35.56	-0.4381	0.044	0.0004
98	SLD 5	-0.08	14.98	38.06	-0.722	-0.0708	0.0004
98	SLD 6	-0.08	14.98	38.06	-0.722	-0.0708	0.0004
98	SLD 7	0.19	3.53	23.63	-0.1947	0.0654	0.0003
98	SLD 8	0.19	3.53	23.63	-0.1947	0.0654	0.0003
98	SLD 9	-0.1	14.03	32.16	-0.6716	-0.0933	0.0004
98	SLD 10	-0.1	14.03	32.16	-0.6716	-0.0933	0.0004
98	SLD 11	0.17	2.58	17.74	-0.1443	0.0429	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
98	SLD 12	0.17	2.58	17.74	-0.1443	0.0429	0.0002
98	SLD 13	-0.02	8.92	20.23	-0.4282	-0.0719	0.0002
98	SLD 14	-0.02	8.92	20.23	-0.4282	-0.0719	0.0002
98	SLD 15	0.06	5.49	15.91	-0.27	-0.0311	0.0002
98	SLD 16	0.06	5.49	15.91	-0.27	-0.0311	0.0002
98	SLV 1	0.03	16.51	56.01	-0.8146	0.0245	0.0007
98	SLV 2	0.03	16.51	56.01	-0.8146	0.0245	0.0007
98	SLV 3	0.23	8.52	45.73	-0.4471	0.1289	0.0005
98	SLV 4	0.23	8.52	45.73	-0.4471	0.1289	0.0005
98	SLV 5	-0.27	23.23	51.93	-1.105	-0.1608	0.0006
98	SLV 6	-0.27	23.23	51.93	-1.105	-0.1608	0.0006
98	SLV 7	0.42	-3.42	17.65	0.1201	0.1873	0.0002
98	SLV 8	0.42	-3.42	17.65	0.1201	0.1873	0.0002
98	SLV 9	-0.32	20.99	38.14	-0.9864	-0.2152	0.0004
98	SLV 10	-0.32	20.99	38.14	-0.9864	-0.2152	0.0004
98	SLV 11	0.37	-5.66	3.86	0.2388	0.1329	0
98	SLV 12	0.37	-5.66	3.86	0.2388	0.1329	0
98	SLV 13	-0.13	9.05	10.06	-0.4192	-0.1568	0.0001
98	SLV 14	-0.13	9.05	10.06	-0.4192	-0.1568	0.0001
98	SLV 15	0.07	1.06	-0.22	-0.0516	-0.0524	0
98	SLV 16	0.07	1.06	-0.22	-0.0516	-0.0524	0
99	SLU 1	-0.12	12.41	62.89	-0.6256	-0.0285	-0.0005
99	SLU 2	-0.07	14.66	66.13	-0.7282	-0.0089	-0.0005
99	SLU 3	-0.13	12.93	65.19	-0.6519	-0.0297	-0.0005
99	SLU 4	-0.11	14.28	67.13	-0.7134	-0.0073	-0.0005
99	SLU 5	-0.07	15.03	67.79	-0.7473	0.008	-0.0005
99	SLU 6	-0.13	13.3	66.85	-0.6709	-0.0306	-0.0005
99	SLU 7	-0.11	14.65	68.79	-0.7325	-0.0082	-0.0005
99	SLU 8	-0.13	13.15	66.21	-0.6637	-0.0303	-0.0005
99	SLU 9	-0.1	14.5	68.16	-0.7253	-0.0079	-0.0005
99	SLU 10	-0.08	16.06	73.85	-0.8013	0.0052	-0.0006
99	SLU 11	-0.15	14.32	72.91	-0.725	-0.0334	-0.0006
99	SLU 12	-0.11	15.67	74.85	-0.7865	-0.0109	-0.0006
99	SLU 13	-0.09	16.43	75.51	-0.8204	0.0043	-0.0006
99	SLU 14	-0.15	14.69	74.57	-0.744	-0.0343	-0.0006
99	SLU 15	-0.12	16.04	76.51	-0.8056	-0.0118	-0.0006
99	SLU 16	-0.15	14.54	73.93	-0.7368	-0.034	-0.0006
99	SLU 17	-0.11	15.9	75.88	-0.7984	-0.0116	-0.0006
99	SLU 18	-0.15	14.4	73.92	-0.7301	-0.0337	-0.0006
99	SLU 19	-0.11	15.75	75.86	-0.7916	-0.0113	-0.0006
99	SLU 20	-0.15	14.77	75.58	-0.7491	-0.0346	-0.0006
99	SLU 21	-0.12	16.12	77.52	-0.8107	-0.0122	-0.0006
99	SLU 22	-0.14	13.93	70.81	-0.7046	-0.0323	-0.0006
99	SLU 23	-0.09	16.19	74.05	-0.8072	0.0051	-0.0006
99	SLU 24	-0.15	14.45	73.11	-0.7308	-0.0335	-0.0006
99	SLU 25	-0.11	15.8	75.05	-0.7924	-0.011	-0.0006
99	SLU 26	-0.09	16.56	75.72	-0.8262	0.0042	-0.0006
99	SLU 27	-0.15	14.82	74.77	-0.7499	-0.0344	-0.0006
99	SLU 28	-0.12	16.17	76.72	-0.8114	-0.0119	-0.0006
99	SLU 29	-0.15	14.67	74.14	-0.7426	-0.0341	-0.0006
99	SLU 30	-0.11	16.03	76.08	-0.8042	-0.0117	-0.0006
99	SLU 31	-0.1	17.58	81.77	-0.8803	0.0015	-0.0007
99	SLU 32	-0.16	15.84	80.83	-0.8039	-0.0371	-0.0007
99	SLU 33	-0.13	17.19	82.77	-0.8655	-0.0147	-0.0007
99	SLU 34	-0.1	17.95	83.43	-0.8993	0.0006	-0.0007
99	SLU 35	-0.17	16.21	82.49	-0.823	-0.038	-0.0007
99	SLU 36	-0.13	17.56	84.44	-0.8845	-0.0156	-0.0007
99	SLU 37	-0.16	16.07	81.86	-0.8157	-0.0378	-0.0007
99	SLU 38	-0.13	17.42	83.8	-0.8773	-0.0153	-0.0007
99	SLU 39	-0.16	15.92	81.84	-0.809	-0.0375	-0.0007
99	SLU 40	-0.13	17.27	83.79	-0.8706	-0.0151	-0.0007
99	SLU 41	-0.17	16.29	83.5	-0.828	-0.0384	-0.0007
99	SLU 42	-0.13	17.64	85.45	-0.8896	-0.016	-0.0007
99	SLU 43	-0.16	15.61	79.04	-0.7862	-0.0358	-0.0006
99	SLU 44	-0.1	17.87	82.28	-0.8888	0.0016	-0.0007
99	SLU 45	-0.16	16.13	81.34	-0.8125	-0.037	-0.0007
99	SLU 46	-0.13	17.48	83.28	-0.8741	-0.0145	-0.0007
99	SLU 47	-0.1	18.24	83.94	-0.9079	0.0007	-0.0007
99	SLU 48	-0.17	16.5	83	-0.8315	-0.0379	-0.0007
99	SLU 49	-0.13	17.85	84.94	-0.8931	-0.0154	-0.0007
99	SLU 50	-0.16	16.35	82.36	-0.8243	-0.0376	-0.0007
99	SLU 51	-0.13	17.7	84.31	-0.8859	-0.0151	-0.0007
99	SLU 52	-0.12	19.26	90	-0.9619	-0.002	-0.0007
99	SLU 53	-0.18	17.52	89.06	-0.8856	-0.0406	-0.0007
99	SLU 54	-0.14	18.87	91	-0.9472	-0.0182	-0.0007
99	SLU 55	-0.12	19.63	91.66	-0.981	-0.0029	-0.0007
99	SLU 56	-0.18	17.89	90.72	-0.9046	-0.0415	-0.0007
99	SLU 57	-0.15	19.24	92.66	-0.9662	-0.0191	-0.0007
99	SLU 58	-0.18	17.74	90.08	-0.8974	-0.0413	-0.0007
99	SLU 59	-0.15	19.1	92.03	-0.959	-0.0188	-0.0007
99	SLU 60	-0.18	17.6	90.07	-0.8907	-0.041	-0.0007
99	SLU 61	-0.15	18.95	92.01	-0.9522	-0.0186	-0.0007
99	SLU 62	-0.18	17.97	91.73	-0.9097	-0.0419	-0.0007
99	SLU 63	-0.15	19.32	93.67	-0.9713	-0.0195	-0.0008
99	SLU 64	-0.17	17.13	86.96	-0.8652	-0.0395	-0.0007
99	SLU 65	-0.12	19.39	90.2	-0.9678	-0.0021	-0.0007
99	SLU 66	-0.18	17.65	89.26	-0.8914	-0.0407	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
99	SLU 67	-0.14	19	91.2	-0.953	-0.0183	-0.0007
99	SLU 68	-0.12	19.76	91.86	-0.9868	-0.003	-0.0007
99	SLU 69	-0.18	18.02	90.92	-0.9105	-0.0416	-0.0007
99	SLU 70	-0.15	19.37	92.87	-0.972	-0.0192	-0.0007
99	SLU 71	-0.18	17.87	90.29	-0.9033	-0.0414	-0.0007
99	SLU 72	-0.15	19.23	92.23	-0.9648	-0.0189	-0.0007
99	SLU 73	-0.13	20.78	97.92	-1.0409	-0.0058	-0.0008
99	SLU 74	-0.19	19.04	96.98	-0.9645	-0.0444	-0.0008
99	SLU 75	-0.16	20.39	98.92	-1.0261	-0.0219	-0.0008
99	SLU 76	-0.14	21.15	99.58	-1.0599	-0.0067	-0.0008
99	SLU 77	-0.2	19.41	98.64	-0.9836	-0.0453	-0.0008
99	SLU 78	-0.16	20.76	100.59	-1.0451	-0.0229	-0.0008
99	SLU 79	-0.2	19.27	98	-0.9764	-0.045	-0.0008
99	SLU 80	-0.16	20.62	99.95	-1.0379	-0.0226	-0.0008
99	SLU 81	-0.2	19.12	97.99	-0.9696	-0.0448	-0.0008
99	SLU 82	-0.16	20.47	99.93	-1.0312	-0.0223	-0.0008
99	SLU 83	-0.2	19.49	99.65	-0.9887	-0.0457	-0.0008
99	SLU 84	-0.17	20.85	101.6	-1.0502	-0.0232	-0.0008
99	SLE RA 1	-0.13	12.84	65.15	-0.6482	-0.0296	-0.0005
99	SLE RA 2	-0.09	14.35	67.31	-0.7166	-0.0046	-0.0005
99	SLE RA 3	-0.13	13.19	66.68	-0.6657	-0.0304	-0.0005
99	SLE RA 4	-0.11	14.09	67.98	-0.7067	-0.0154	-0.0005
99	SLE RA 5	-0.09	14.59	68.42	-0.7293	-0.0053	-0.0005
99	SLE RA 6	-0.14	13.44	67.79	-0.6784	-0.031	-0.0005
99	SLE RA 7	-0.11	14.34	69.09	-0.7194	-0.016	-0.0006
99	SLE RA 8	-0.13	13.34	67.37	-0.6736	-0.0308	-0.0005
99	SLE RA 9	-0.11	14.24	68.66	-0.7146	-0.0158	-0.0005
99	SLE RA 10	-0.1	15.28	72.46	-0.7653	-0.0071	-0.0006
99	SLE RA 11	-0.14	14.12	71.83	-0.7144	-0.0328	-0.0006
99	SLE RA 12	-0.12	15.02	73.13	-0.7555	-0.0179	-0.0006
99	SLE RA 13	-0.1	15.52	73.57	-0.778	-0.0077	-0.0006
99	SLE RA 14	-0.15	14.36	72.94	-0.7271	-0.0334	-0.0006
99	SLE RA 15	-0.12	15.27	74.23	-0.7681	-0.0185	-0.0006
99	SLE RA 16	-0.14	14.27	72.51	-0.7223	-0.0332	-0.0006
99	SLE RA 17	-0.12	15.17	73.81	-0.7633	-0.0183	-0.0006
99	SLE RA 18	-0.14	14.17	72.5	-0.7178	-0.0331	-0.0006
99	SLE RA 19	-0.12	15.07	73.8	-0.7588	-0.0181	-0.0006
99	SLE RA 20	-0.15	14.42	73.61	-0.7305	-0.0337	-0.0006
99	SLE RA 21	-0.12	15.32	74.91	-0.7715	-0.0187	-0.0006
99	SLE FR 1	-0.13	12.84	65.15	-0.6482	-0.0296	-0.0005
99	SLE FR 2	-0.12	13.15	65.58	-0.6619	-0.0246	-0.0005
99	SLE FR 3	-0.13	12.94	65.6	-0.6532	-0.0298	-0.0005
99	SLE FR 4	-0.13	13.54	67.79	-0.6827	-0.0256	-0.0005
99	SLE FR 5	-0.13	13.34	67.8	-0.6741	-0.0309	-0.0005
99	SLE FR 6	-0.14	13.51	68.83	-0.683	-0.0313	-0.0006
99	SLE QP 1	-0.13	12.84	65.15	-0.6482	-0.0296	-0.0005
99	SLE QP 2	-0.13	13.24	67.36	-0.6691	-0.0306	-0.0005
99	SLD 1	-0.12	12.84	50.26	-0.6191	0.0385	-0.0004
99	SLD 2	-0.12	12.84	50.26	-0.6191	0.0385	-0.0004
99	SLD 3	-0.03	8.98	40.73	-0.4362	-0.0073	-0.0003
99	SLD 4	-0.03	8.98	40.73	-0.4362	-0.0073	-0.0003
99	SLD 5	-0.26	18.98	76.68	-0.9314	0.0595	-0.0006
99	SLD 6	-0.26	18.98	76.68	-0.9314	0.0595	-0.0006
99	SLD 7	0.03	6.1	44.92	-0.3218	-0.093	-0.0003
99	SLD 8	0.03	6.1	44.92	-0.3218	-0.093	-0.0003
99	SLD 9	-0.3	20.38	89.8	-1.0163	0.0317	-0.0007
99	SLD 10	-0.3	20.38	89.8	-1.0163	0.0317	-0.0007
99	SLD 11	-0.01	7.5	58.03	-0.4067	-0.1207	-0.0005
99	SLD 12	-0.01	7.5	58.03	-0.4067	-0.1207	-0.0005
99	SLD 13	-0.24	17.51	93.99	-0.9019	-0.054	-0.0008
99	SLD 14	-0.24	17.51	93.99	-0.9019	-0.054	-0.0008
99	SLD 15	-0.15	13.65	84.46	-0.719	-0.0997	-0.0007
99	SLD 16	-0.15	13.65	84.46	-0.719	-0.0997	-0.0007
99	SLV 1	-0.1	12.32	27.38	-0.5531	0.1389	-0.0002
99	SLV 2	-0.1	12.32	27.38	-0.5531	0.1389	-0.0002
99	SLV 3	0.12	3.23	4.93	-0.1233	0.0218	0
99	SLV 4	0.12	3.23	4.93	-0.1233	0.0218	0
99	SLV 5	-0.46	26.75	89.4	-1.2862	0.1979	-0.0008
99	SLV 6	-0.46	26.75	89.4	-1.2862	0.1979	-0.0008
99	SLV 7	0.28	-3.54	14.6	0.1466	-0.1926	-0.0001
99	SLV 8	0.28	-3.54	14.6	0.1466	-0.1926	-0.0001
99	SLV 9	-0.55	30.03	120.12	-1.4847	0.1313	-0.001
99	SLV 10	-0.55	30.03	120.12	-1.4847	0.1313	-0.001
99	SLV 11	0.19	-0.26	45.32	-0.0519	-0.2591	-0.0003
99	SLV 12	0.19	-0.26	45.32	-0.0519	-0.2591	-0.0003
99	SLV 13	-0.39	23.25	129.78	-1.2148	-0.083	-0.0011
99	SLV 14	-0.39	23.25	129.78	-1.2148	-0.083	-0.0011
99	SLV 15	-0.17	14.16	107.34	-0.785	-0.2002	-0.0009
99	SLV 16	-0.17	14.16	107.34	-0.785	-0.2002	-0.0009
100	SLU 1	0.03	0.26	42.77	-0.0041	0.0207	0.0002
100	SLU 2	0.03	-0.18	42.9	0.0156	0.022	0.0003
100	SLU 3	0.03	0.68	44.26	-0.0233	0.0215	0.0002
100	SLU 4	0.03	0.42	44.34	-0.0115	0.0223	0.0002
100	SLU 5	0.03	0.28	44.2	-0.0057	0.0226	0.0003
100	SLU 6	0.03	1.15	45.57	-0.0446	0.022	0.0002
100	SLU 7	0.03	0.88	45.64	-0.0328	0.0228	0.0003
100	SLU 8	0.03	1.19	45.38	-0.0467	0.0219	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
100	SLU 9	0.03	0.92	45.45	-0.0349	0.0227	0.0003
100	SLU 10	0.03	-0.01	50.06	0.0103	0.0216	0.0003
100	SLU 11	0.03	0.85	51.43	-0.0287	0.021	0.0002
100	SLU 12	0.03	0.59	51.5	-0.0168	0.0218	0.0003
100	SLU 13	0.03	0.45	51.36	-0.011	0.0221	0.0003
100	SLU 14	0.03	1.32	52.73	-0.05	0.0216	0.0003
100	SLU 15	0.03	1.05	52.81	-0.0381	0.0224	0.0003
100	SLU 16	0.03	1.36	52.54	-0.0521	0.0214	0.0003
100	SLU 17	0.03	1.09	52.62	-0.0403	0.0222	0.0003
100	SLU 18	0.03	0.5	53.01	-0.0117	0.02	0.0002
100	SLU 19	0.03	0.23	53.08	0.0001	0.0208	0.0003
100	SLU 20	0.03	0.96	54.31	-0.0331	0.0206	0.0003
100	SLU 21	0.03	0.7	54.38	-0.0212	0.0214	0.0003
100	SLU 22	0.03	0.54	47.55	-0.0154	0.0232	0.0003
100	SLU 23	0.03	0.1	47.68	0.0043	0.0245	0.0003
100	SLU 24	0.03	0.96	49.05	-0.0346	0.0239	0.0003
100	SLU 25	0.03	0.7	49.12	-0.0228	0.0247	0.0003
100	SLU 26	0.03	0.56	48.98	-0.017	0.025	0.0003
100	SLU 27	0.03	1.43	50.35	-0.056	0.0245	0.0003
100	SLU 28	0.03	1.17	50.42	-0.0441	0.0253	0.0003
100	SLU 29	0.03	1.47	50.16	-0.0581	0.0243	0.0003
100	SLU 30	0.03	1.21	50.23	-0.0462	0.0251	0.0003
100	SLU 31	0.03	0.27	54.84	-0.001	0.024	0.0003
100	SLU 32	0.03	1.13	56.21	-0.04	0.0234	0.0003
100	SLU 33	0.03	0.87	56.29	-0.0281	0.0242	0.0003
100	SLU 34	0.03	0.73	56.15	-0.0224	0.0246	0.0003
100	SLU 35	0.03	1.6	57.51	-0.0613	0.024	0.0003
100	SLU 36	0.03	1.34	57.59	-0.0495	0.0248	0.0003
100	SLU 37	0.03	1.64	57.32	-0.0634	0.0238	0.0003
100	SLU 38	0.03	1.38	57.4	-0.0516	0.0246	0.0003
100	SLU 39	0.03	0.78	57.79	-0.0231	0.0225	0.0003
100	SLU 40	0.03	0.52	57.86	-0.0112	0.0233	0.0003
100	SLU 41	0.03	1.25	59.09	-0.0444	0.0231	0.0003
100	SLU 42	0.03	0.98	59.17	-0.0325	0.0238	0.0003
100	SLU 43	0.03	0.23	53.96	-0.0014	0.0261	0.0003
100	SLU 44	0.04	-0.2	54.09	0.0183	0.0274	0.0003
100	SLU 45	0.03	0.66	55.46	-0.0207	0.0268	0.0003
100	SLU 46	0.04	0.4	55.53	-0.0088	0.0276	0.0003
100	SLU 47	0.04	0.26	55.39	-0.003	0.028	0.0003
100	SLU 48	0.04	1.13	56.76	-0.042	0.0274	0.0003
100	SLU 49	0.04	0.86	56.83	-0.0301	0.0282	0.0003
100	SLU 50	0.04	1.17	56.57	-0.0441	0.0273	0.0003
100	SLU 51	0.04	0.9	56.64	-0.0323	0.0281	0.0003
100	SLU 52	0.04	-0.03	61.25	0.0129	0.0269	0.0003
100	SLU 53	0.03	0.83	62.62	-0.026	0.0264	0.0003
100	SLU 54	0.04	0.57	62.7	-0.0142	0.0272	0.0003
100	SLU 55	0.04	0.43	62.56	-0.0084	0.0275	0.0003
100	SLU 56	0.03	1.3	63.92	-0.0473	0.0269	0.0003
100	SLU 57	0.04	1.03	64	-0.0355	0.0277	0.0003
100	SLU 58	0.03	1.34	63.73	-0.0494	0.0268	0.0003
100	SLU 59	0.04	1.07	63.81	-0.0376	0.0276	0.0003
100	SLU 60	0.03	0.48	64.2	-0.0091	0.0254	0.0003
100	SLU 61	0.03	0.21	64.27	0.0028	0.0262	0.0003
100	SLU 62	0.03	0.94	65.5	-0.0304	0.026	0.0003
100	SLU 63	0.03	0.68	65.58	-0.0186	0.0268	0.0003
100	SLU 64	0.04	0.52	58.75	-0.0128	0.0285	0.0003
100	SLU 65	0.04	0.08	58.87	0.007	0.0298	0.0003
100	SLU 66	0.04	0.94	60.24	-0.032	0.0293	0.0003
100	SLU 67	0.04	0.68	60.31	-0.0201	0.0301	0.0003
100	SLU 68	0.04	0.54	60.17	-0.0144	0.0304	0.0003
100	SLU 69	0.04	1.41	61.54	-0.0533	0.0299	0.0003
100	SLU 70	0.04	1.15	61.62	-0.0415	0.0306	0.0003
100	SLU 71	0.04	1.45	61.35	-0.0554	0.0297	0.0003
100	SLU 72	0.04	1.19	61.43	-0.0436	0.0305	0.0003
100	SLU 73	0.04	0.25	66.04	0.0016	0.0294	0.0004
100	SLU 74	0.04	1.11	67.4	-0.0373	0.0288	0.0003
100	SLU 75	0.04	0.85	67.48	-0.0255	0.0296	0.0003
100	SLU 76	0.04	0.71	67.34	-0.0197	0.0299	0.0004
100	SLU 77	0.04	1.58	68.71	-0.0586	0.0294	0.0003
100	SLU 78	0.04	1.32	68.78	-0.0468	0.0302	0.0004
100	SLU 79	0.04	1.62	68.51	-0.0608	0.0292	0.0003
100	SLU 80	0.04	1.36	68.59	-0.0489	0.03	0.0004
100	SLU 81	0.04	0.76	68.98	-0.0204	0.0278	0.0003
100	SLU 82	0.04	0.5	69.06	-0.0086	0.0286	0.0003
100	SLU 83	0.04	1.23	70.28	-0.0417	0.0284	0.0003
100	SLU 84	0.04	0.96	70.36	-0.0299	0.0292	0.0004
100	SLE RA 1	0.03	0.34	44.14	-0.0073	0.0214	0.0002
100	SLE RA 2	0.03	0.04	44.22	0.0058	0.0223	0.0003
100	SLE RA 3	0.03	0.62	45.13	-0.0201	0.0219	0.0002
100	SLE RA 4	0.03	0.44	45.18	-0.0122	0.0224	0.0002
100	SLE RA 5	0.03	0.35	45.09	-0.0084	0.0227	0.0003
100	SLE RA 6	0.03	0.93	46	-0.0344	0.0223	0.0002
100	SLE RA 7	0.03	0.75	46.05	-0.0265	0.0228	0.0003
100	SLE RA 8	0.03	0.96	45.87	-0.0358	0.0222	0.0002
100	SLE RA 9	0.03	0.78	45.92	-0.0279	0.0227	0.0003
100	SLE RA 10	0.03	0.16	49	0.0023	0.022	0.0003
100	SLE RA 11	0.03	0.73	49.91	-0.0237	0.0216	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
100	SLE RA 12	0.03	0.56	49.96	-0.0158	0.0221	0.0003
100	SLE RA 13	0.03	0.47	49.87	-0.012	0.0224	0.0003
100	SLE RA 14	0.03	1.04	50.78	-0.0379	0.022	0.0003
100	SLE RA 15	0.03	0.87	50.83	-0.03	0.0225	0.0003
100	SLE RA 16	0.03	1.07	50.65	-0.0393	0.0219	0.0003
100	SLE RA 17	0.03	0.89	50.7	-0.0314	0.0224	0.0003
100	SLE RA 18	0.03	0.5	50.96	-0.0124	0.021	0.0002
100	SLE RA 19	0.03	0.32	51.01	-0.0045	0.0215	0.0003
100	SLE RA 20	0.03	0.81	51.83	-0.0266	0.0213	0.0003
100	SLE RA 21	0.03	0.63	51.88	-0.0187	0.0219	0.0003
100	SLE FR 1	0.03	0.34	44.14	-0.0073	0.0214	0.0002
100	SLE FR 2	0.03	0.28	44.15	-0.0047	0.0216	0.0002
100	SLE FR 3	0.03	0.46	44.48	-0.013	0.0216	0.0002
100	SLE FR 4	0.03	0.33	46.2	-0.0062	0.0215	0.0002
100	SLE FR 5	0.03	0.51	46.53	-0.0145	0.0214	0.0002
100	SLE FR 6	0.03	0.42	47.55	-0.0099	0.0212	0.0002
100	SLE QP 1	0.03	0.34	44.14	-0.0073	0.0214	0.0002
100	SLE QP 2	0.03	0.38	46.18	-0.0089	0.0213	0.0002
100	SLD 1	0.08	0.93	53.15	-0.0346	0.0943	0.0005
100	SLD 2	0.08	0.93	53.15	-0.0346	0.0943	0.0005
100	SLD 3	0.05	-2.13	50.65	0.1068	0.0784	0.0003
100	SLD 4	0.05	-2.13	50.65	0.1068	0.0784	0.0003
100	SLD 5	0.08	5.19	52.07	-0.231	0.0674	0.0006
100	SLD 6	0.08	5.19	52.07	-0.231	0.0674	0.0006
100	SLD 7	-0.01	-5.01	43.73	0.2403	0.0142	0
100	SLD 8	-0.01	-5.01	43.73	0.2403	0.0142	0
100	SLD 9	0.06	5.78	48.64	-0.258	0.0284	0.0005
100	SLD 10	0.06	5.78	48.64	-0.258	0.0284	0.0005
100	SLD 11	-0.03	-4.42	40.3	0.2133	-0.0249	-0.0001
100	SLD 12	-0.03	-4.42	40.3	0.2133	-0.0249	-0.0001
100	SLD 13	0	2.9	41.72	-0.1245	-0.0358	0.0001
100	SLD 14	0	2.9	41.72	-0.1245	-0.0358	0.0001
100	SLD 15	-0.03	-0.16	39.22	0.0169	-0.0518	0
100	SLD 16	-0.03	-0.16	39.22	0.0169	-0.0518	0
100	SLV 1	0.16	1.64	62.58	-0.0683	0.2031	0.0009
100	SLV 2	0.16	1.64	62.58	-0.0683	0.2031	0.0009
100	SLV 3	0.1	-5.52	56.66	0.2624	0.1651	0.0005
100	SLV 4	0.1	-5.52	56.66	0.2624	0.1651	0.0005
100	SLV 5	0.16	11.61	60.08	-0.5283	0.1335	0.0011
100	SLV 6	0.16	11.61	60.08	-0.5283	0.1335	0.0011
100	SLV 7	-0.05	-12.24	40.35	0.5741	0.0067	-0.0003
100	SLV 8	-0.05	-12.24	40.35	0.5741	0.0067	-0.0003
100	SLV 9	0.1	13.01	52.02	-0.5918	0.0358	0.0008
100	SLV 10	0.1	13.01	52.02	-0.5918	0.0358	0.0008
100	SLV 11	-0.11	-10.84	32.29	0.5106	-0.091	-0.0006
100	SLV 12	-0.11	-10.84	32.29	0.5106	-0.091	-0.0006
100	SLV 13	-0.04	6.28	35.71	-0.2801	-0.1225	0
100	SLV 14	-0.04	6.28	35.71	-0.2801	-0.1225	0
100	SLV 15	-0.1	-0.87	29.79	0.0506	-0.1606	-0.0005
100	SLV 16	-0.1	-0.87	29.79	0.0506	-0.1606	-0.0005
101	SLU 1	0.02	-1.02	4.38	0.0344	0.01	-0.0002
101	SLU 2	0.02	-1.04	4.36	0.035	0.0101	-0.0002
101	SLU 3	0.02	-1.09	4.29	0.0364	0.0106	-0.0002
101	SLU 4	0.02	-1.1	4.27	0.0367	0.0106	-0.0002
101	SLU 5	0.02	-1.08	4.3	0.0361	0.0106	-0.0002
101	SLU 6	0.02	-1.13	4.23	0.0375	0.0111	-0.0002
101	SLU 7	0.02	-1.14	4.22	0.0379	0.0111	-0.0002
101	SLU 8	0.02	-1.1	4.27	0.0367	0.011	-0.0002
101	SLU 9	0.02	-1.12	4.25	0.0371	0.0111	-0.0002
101	SLU 10	0.02	-1.31	7.48	0.0412	0.0078	-0.0001
101	SLU 11	0.02	-1.36	7.41	0.0426	0.0083	-0.0002
101	SLU 12	0.02	-1.37	7.39	0.0429	0.0084	-0.0002
101	SLU 13	0.02	-1.36	7.42	0.0423	0.0083	-0.0002
101	SLU 14	0.02	-1.4	7.35	0.0438	0.0088	-0.0002
101	SLU 15	0.02	-1.41	7.34	0.0441	0.0089	-0.0002
101	SLU 16	0.02	-1.38	7.39	0.0429	0.0087	-0.0002
101	SLU 17	0.02	-1.39	7.37	0.0433	0.0088	-0.0002
101	SLU 18	0.02	-1.41	8.84	0.0433	0.0068	-0.0001
101	SLU 19	0.02	-1.42	8.82	0.0436	0.0068	-0.0001
101	SLU 20	0.02	-1.45	8.78	0.0444	0.0073	-0.0001
101	SLU 21	0.02	-1.47	8.77	0.0448	0.0073	-0.0001
101	SLU 22	0.02	-1.27	4.47	0.0422	0.0108	-0.0002
101	SLU 23	0.02	-1.29	4.45	0.0427	0.0109	-0.0002
101	SLU 24	0.02	-1.34	4.38	0.0442	0.0114	-0.0002
101	SLU 25	0.02	-1.35	4.37	0.0445	0.0114	-0.0002
101	SLU 26	0.02	-1.33	4.4	0.0439	0.0114	-0.0002
101	SLU 27	0.02	-1.38	4.32	0.0453	0.0119	-0.0002
101	SLU 28	0.02	-1.39	4.31	0.0457	0.0119	-0.0002
101	SLU 29	0.02	-1.36	4.36	0.0445	0.0118	-0.0002
101	SLU 30	0.02	-1.37	4.35	0.0448	0.0118	-0.0002
101	SLU 31	0.02	-1.57	7.57	0.049	0.0086	-0.0002
101	SLU 32	0.02	-1.61	7.5	0.0504	0.0091	-0.0002
101	SLU 33	0.02	-1.62	7.49	0.0507	0.0091	-0.0002
101	SLU 34	0.02	-1.61	7.52	0.0501	0.0091	-0.0002
101	SLU 35	0.02	-1.65	7.44	0.0515	0.0096	-0.0002
101	SLU 36	0.03	-1.66	7.43	0.0519	0.0096	-0.0002
101	SLU 37	0.02	-1.63	7.48	0.0507	0.0095	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
101	SLU 38	0.02	-1.64	7.47	0.051	0.0096	-0.0002
101	SLU 39	0.02	-1.67	8.93	0.0511	0.0076	-0.0002
101	SLU 40	0.02	-1.68	8.92	0.0514	0.0076	-0.0002
101	SLU 41	0.02	-1.71	8.87	0.0522	0.0081	-0.0002
101	SLU 42	0.02	-1.72	8.86	0.0526	0.0081	-0.0002
101	SLU 43	0.02	-1.24	5.66	0.0421	0.0128	-0.0002
101	SLU 44	0.02	-1.26	5.64	0.0426	0.0128	-0.0002
101	SLU 45	0.03	-1.31	5.57	0.0441	0.0133	-0.0002
101	SLU 46	0.03	-1.32	5.56	0.0444	0.0134	-0.0002
101	SLU 47	0.03	-1.3	5.58	0.0438	0.0133	-0.0002
101	SLU 48	0.03	-1.35	5.51	0.0452	0.0138	-0.0002
101	SLU 49	0.03	-1.36	5.5	0.0455	0.0139	-0.0002
101	SLU 50	0.03	-1.32	5.55	0.0444	0.0138	-0.0002
101	SLU 51	0.03	-1.34	5.53	0.0447	0.0138	-0.0002
101	SLU 52	0.03	-1.54	8.76	0.0488	0.0106	-0.0002
101	SLU 53	0.03	-1.58	8.69	0.0503	0.0111	-0.0002
101	SLU 54	0.03	-1.59	8.68	0.0506	0.0111	-0.0002
101	SLU 55	0.03	-1.58	8.7	0.05	0.0111	-0.0002
101	SLU 56	0.03	-1.62	8.63	0.0514	0.0116	-0.0002
101	SLU 57	0.03	-1.63	8.62	0.0518	0.0116	-0.0002
101	SLU 58	0.03	-1.6	8.67	0.0506	0.0115	-0.0002
101	SLU 59	0.03	-1.61	8.65	0.0509	0.0115	-0.0002
101	SLU 60	0.03	-1.63	10.12	0.051	0.0095	-0.0002
101	SLU 61	0.03	-1.64	10.1	0.0513	0.0096	-0.0002
101	SLU 62	0.03	-1.67	10.06	0.0521	0.01	-0.0002
101	SLU 63	0.03	-1.69	10.05	0.0524	0.0101	-0.0002
101	SLU 64	0.03	-1.5	5.75	0.0499	0.0135	-0.0002
101	SLU 65	0.03	-1.51	5.73	0.0504	0.0136	-0.0002
101	SLU 66	0.03	-1.56	5.66	0.0518	0.0141	-0.0002
101	SLU 67	0.03	-1.57	5.65	0.0522	0.0141	-0.0002
101	SLU 68	0.03	-1.55	5.68	0.0516	0.0141	-0.0002
101	SLU 69	0.03	-1.6	5.6	0.053	0.0146	-0.0003
101	SLU 70	0.03	-1.61	5.59	0.0533	0.0146	-0.0003
101	SLU 71	0.03	-1.58	5.64	0.0522	0.0145	-0.0003
101	SLU 72	0.03	-1.59	5.63	0.0525	0.0146	-0.0003
101	SLU 73	0.03	-1.79	8.85	0.0566	0.0113	-0.0002
101	SLU 74	0.03	-1.83	8.78	0.058	0.0118	-0.0002
101	SLU 75	0.03	-1.84	8.77	0.0584	0.0119	-0.0002
101	SLU 76	0.03	-1.83	8.8	0.0578	0.0118	-0.0002
101	SLU 77	0.03	-1.87	8.72	0.0592	0.0123	-0.0002
101	SLU 78	0.03	-1.88	8.71	0.0595	0.0124	-0.0002
101	SLU 79	0.03	-1.85	8.76	0.0584	0.0123	-0.0002
101	SLU 80	0.03	-1.86	8.75	0.0587	0.0123	-0.0002
101	SLU 81	0.03	-1.89	10.21	0.0587	0.0103	-0.0002
101	SLU 82	0.03	-1.9	10.2	0.0591	0.0103	-0.0002
101	SLU 83	0.03	-1.93	10.15	0.0599	0.0108	-0.0002
101	SLU 84	0.03	-1.94	10.14	0.0602	0.0108	-0.0002
101	SLE RA 1	0.02	-1.09	4.4	0.0366	0.0102	-0.0002
101	SLE RA 2	0.02	-1.11	4.39	0.037	0.0103	-0.0002
101	SLE RA 3	0.02	-1.14	4.34	0.038	0.0106	-0.0002
101	SLE RA 4	0.02	-1.15	4.34	0.0382	0.0106	-0.0002
101	SLE RA 5	0.02	-1.13	4.35	0.0378	0.0106	-0.0002
101	SLE RA 6	0.02	-1.16	4.31	0.0387	0.011	-0.0002
101	SLE RA 7	0.02	-1.17	4.3	0.0389	0.011	-0.0002
101	SLE RA 8	0.02	-1.15	4.33	0.0382	0.0109	-0.0002
101	SLE RA 9	0.02	-1.16	4.32	0.0384	0.0109	-0.0002
101	SLE RA 10	0.02	-1.29	6.47	0.0411	0.0088	-0.0002
101	SLE RA 11	0.02	-1.32	6.42	0.0421	0.0091	-0.0002
101	SLE RA 12	0.02	-1.33	6.42	0.0423	0.0091	-0.0002
101	SLE RA 13	0.02	-1.32	6.43	0.0419	0.0091	-0.0002
101	SLE RA 14	0.02	-1.35	6.39	0.0429	0.0094	-0.0002
101	SLE RA 15	0.02	-1.35	6.38	0.0431	0.0095	-0.0002
101	SLE RA 16	0.02	-1.33	6.41	0.0423	0.0094	-0.0002
101	SLE RA 17	0.02	-1.34	6.4	0.0425	0.0094	-0.0002
101	SLE RA 18	0.02	-1.36	7.38	0.0426	0.0081	-0.0002
101	SLE RA 19	0.02	-1.36	7.37	0.0428	0.0081	-0.0002
101	SLE RA 20	0.02	-1.38	7.34	0.0433	0.0084	-0.0002
101	SLE RA 21	0.02	-1.39	7.33	0.0435	0.0084	-0.0002
101	SLE FR 1	0.02	-1.09	4.4	0.0366	0.0102	-0.0002
101	SLE FR 2	0.02	-1.1	4.4	0.0367	0.0103	-0.0002
101	SLE FR 3	0.02	-1.11	4.39	0.0369	0.0104	-0.0002
101	SLE FR 4	0.02	-1.18	5.29	0.0385	0.0096	-0.0002
101	SLE FR 5	0.02	-1.18	5.28	0.0387	0.0097	-0.0002
101	SLE FR 6	0.02	-1.22	5.89	0.0396	0.0092	-0.0002
101	SLE QP 1	0.02	-1.09	4.4	0.0366	0.0102	-0.0002
101	SLE QP 2	0.02	-1.17	5.3	0.0384	0.0096	-0.0002
101	SLD 1	0.1	-1.49	4.87	0.048	0.0783	-0.001
101	SLD 2	0.1	-1.49	4.87	0.048	0.0783	-0.001
101	SLD 3	0.12	-3.41	3.07	0.1064	0.0935	-0.0012
101	SLD 4	0.12	-3.41	3.07	0.1064	0.0935	-0.0012
101	SLD 5	0.01	1.64	7.89	-0.0473	0.0072	-0.0001
101	SLD 6	0.01	1.64	7.89	-0.0473	0.0072	-0.0001
101	SLD 7	0.08	-4.75	1.91	0.1474	0.0578	-0.0008
101	SLD 8	0.08	-4.75	1.91	0.1474	0.0578	-0.0008
101	SLD 9	-0.04	2.41	8.68	-0.0706	-0.0386	0.0005
101	SLD 10	-0.04	2.41	8.68	-0.0706	-0.0386	0.0005
101	SLD 11	0.03	-3.99	2.71	0.1241	0.012	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
101	SLD 12	0.03	-3.99	2.71	0.1241	0.012	-0.0003
101	SLD 13	-0.08	1.07	7.52	-0.0296	-0.0743	0.0009
101	SLD 14	-0.08	1.07	7.52	-0.0296	-0.0743	0.0009
101	SLD 15	-0.06	-0.85	5.73	0.0288	-0.0591	0.0006
101	SLD 16	-0.06	-0.85	5.73	0.0288	-0.0591	0.0006
101	SLV 1	0.22	-1.92	4.29	0.0608	0.1828	-0.0022
101	SLV 2	0.22	-1.92	4.29	0.0608	0.1828	-0.0022
101	SLV 3	0.27	-6.42	0.09	0.1978	0.2193	-0.0027
101	SLV 4	0.27	-6.42	0.09	0.1978	0.2193	-0.0027
101	SLV 5	0.01	5.43	11.38	-0.1627	0.0061	0
101	SLV 6	0.01	5.43	11.38	-0.1627	0.0061	0
101	SLV 7	0.17	-9.57	-2.65	0.294	0.128	-0.0017
101	SLV 8	0.17	-9.57	-2.65	0.294	0.128	-0.0017
101	SLV 9	-0.13	7.23	13.24	-0.2172	-0.1088	0.0014
101	SLV 10	-0.13	7.23	13.24	-0.2172	-0.1088	0.0014
101	SLV 11	0.03	-7.78	-0.78	0.2395	0.0131	-0.0003
101	SLV 12	0.03	-7.78	-0.78	0.2395	0.0131	-0.0003
101	SLV 13	-0.23	4.07	10.51	-0.121	-0.2001	0.0024
101	SLV 14	-0.23	4.07	10.51	-0.121	-0.2001	0.0024
101	SLV 15	-0.18	-0.43	6.3	0.0161	-0.1636	0.0019
101	SLV 16	-0.18	-0.43	6.3	0.0161	-0.1636	0.0019
102	SLU 1	0.03	-2.74	19.49	0.2859	0.0336	-0.0001
102	SLU 2	0.04	-0.58	20.23	0.2065	0.0431	-0.0001
102	SLU 3	0.03	-3.1	19.62	0.3048	0.0345	-0.0001
102	SLU 4	0.04	-1.8	20.06	0.2572	0.0402	-0.0001
102	SLU 5	0.04	-0.96	20.16	0.2244	0.0436	-0.0001
102	SLU 6	0.03	-3.48	19.54	0.3227	0.035	-0.0001
102	SLU 7	0.04	-2.18	19.99	0.275	0.0407	-0.0001
102	SLU 8	0.03	-3.51	19.34	0.3216	0.0345	-0.0001
102	SLU 9	0.04	-2.21	19.78	0.274	0.0402	-0.0001
102	SLU 10	0.04	-1.14	22.72	0.255	0.0489	-0.0001
102	SLU 11	0.03	-3.66	22.11	0.3533	0.0403	-0.0001
102	SLU 12	0.04	-2.36	22.55	0.3057	0.046	-0.0001
102	SLU 13	0.04	-1.53	22.65	0.2729	0.0494	-0.0001
102	SLU 14	0.03	-4.04	22.03	0.3712	0.0408	-0.0001
102	SLU 15	0.04	-2.74	22.47	0.3235	0.0465	-0.0001
102	SLU 16	0.03	-4.07	21.83	0.3701	0.0403	-0.0001
102	SLU 17	0.04	-2.77	22.27	0.3225	0.046	-0.0001
102	SLU 18	0.03	-3.55	23.05	0.3552	0.0418	-0.0001
102	SLU 19	0.04	-2.25	23.49	0.3076	0.0476	-0.0001
102	SLU 20	0.03	-3.93	22.97	0.3731	0.0423	-0.0001
102	SLU 21	0.04	-2.63	23.42	0.3254	0.048	-0.0001
102	SLU 22	0.03	-3.35	21.49	0.3332	0.0388	-0.0001
102	SLU 23	0.04	-1.19	22.23	0.2538	0.0483	-0.0001
102	SLU 24	0.03	-3.7	21.61	0.3521	0.0397	-0.0001
102	SLU 25	0.04	-2.41	22.05	0.3045	0.0454	-0.0001
102	SLU 26	0.04	-1.57	22.15	0.2717	0.0488	-0.0001
102	SLU 27	0.03	-4.08	21.54	0.3699	0.0402	-0.0001
102	SLU 28	0.04	-2.79	21.98	0.3223	0.0459	-0.0001
102	SLU 29	0.03	-4.11	21.33	0.3689	0.0397	-0.0001
102	SLU 30	0.04	-2.81	21.78	0.3213	0.0454	-0.0001
102	SLU 31	0.05	-1.75	24.72	0.3023	0.0541	-0.0002
102	SLU 32	0.04	-4.27	24.1	0.4006	0.0455	-0.0001
102	SLU 33	0.04	-2.97	24.54	0.353	0.0512	-0.0002
102	SLU 34	0.05	-2.13	24.64	0.3202	0.0546	-0.0002
102	SLU 35	0.04	-4.65	24.02	0.4184	0.046	-0.0001
102	SLU 36	0.04	-3.35	24.47	0.3708	0.0517	-0.0002
102	SLU 37	0.04	-4.67	23.82	0.4174	0.0455	-0.0001
102	SLU 38	0.04	-3.38	24.27	0.3698	0.0512	-0.0002
102	SLU 39	0.04	-4.15	25.04	0.4025	0.047	-0.0002
102	SLU 40	0.05	-2.86	25.49	0.3548	0.0527	-0.0002
102	SLU 41	0.04	-4.53	24.97	0.4203	0.0475	-0.0002
102	SLU 42	0.05	-3.24	25.41	0.3727	0.0532	-0.0002
102	SLU 43	0.03	-3.36	24.66	0.3555	0.0418	-0.0001
102	SLU 44	0.05	-1.2	25.4	0.2761	0.0514	-0.0002
102	SLU 45	0.03	-3.71	24.78	0.3744	0.0428	-0.0001
102	SLU 46	0.04	-2.42	25.23	0.3268	0.0485	-0.0002
102	SLU 47	0.05	-1.58	25.32	0.294	0.0519	-0.0002
102	SLU 48	0.03	-4.09	24.71	0.3922	0.0433	-0.0001
102	SLU 49	0.04	-2.8	25.15	0.3446	0.049	-0.0002
102	SLU 50	0.03	-4.12	24.51	0.3912	0.0428	-0.0001
102	SLU 51	0.04	-2.82	24.95	0.3436	0.0485	-0.0002
102	SLU 52	0.05	-1.76	27.89	0.3246	0.0572	-0.0002
102	SLU 53	0.04	-4.28	27.27	0.4229	0.0486	-0.0002
102	SLU 54	0.05	-2.98	27.72	0.3753	0.0543	-0.0002
102	SLU 55	0.05	-2.14	27.81	0.3425	0.0577	-0.0002
102	SLU 56	0.04	-4.66	27.2	0.4407	0.0491	-0.0002
102	SLU 57	0.05	-3.36	27.64	0.3931	0.0548	-0.0002
102	SLU 58	0.04	-4.68	27	0.4397	0.0486	-0.0002
102	SLU 59	0.05	-3.39	27.44	0.3921	0.0543	-0.0002
102	SLU 60	0.04	-4.16	28.21	0.4248	0.0501	-0.0002
102	SLU 61	0.05	-2.87	28.66	0.3772	0.0558	-0.0002
102	SLU 62	0.04	-4.54	28.14	0.4426	0.0506	-0.0002
102	SLU 63	0.05	-3.25	28.58	0.395	0.0563	-0.0002
102	SLU 64	0.04	-3.97	26.65	0.4028	0.047	-0.0002
102	SLU 65	0.05	-1.8	27.39	0.3234	0.0566	-0.0002
102	SLU 66	0.04	-4.32	26.78	0.4217	0.048	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
102	SLU 67	0.05	-3.02	27.22	0.374	0.0537	-0.0002
102	SLU 68	0.05	-2.18	27.31	0.3412	0.0571	-0.0002
102	SLU 69	0.04	-4.7	26.7	0.4395	0.0485	-0.0002
102	SLU 70	0.05	-3.4	27.14	0.3919	0.0542	-0.0002
102	SLU 71	0.04	-4.73	26.5	0.4385	0.048	-0.0002
102	SLU 72	0.05	-3.43	26.94	0.3908	0.0537	-0.0002
102	SLU 73	0.06	-2.37	29.88	0.3719	0.0624	-0.0002
102	SLU 74	0.04	-4.88	29.27	0.4702	0.0538	-0.0002
102	SLU 75	0.05	-3.58	29.71	0.4225	0.0595	-0.0002
102	SLU 76	0.06	-2.75	29.8	0.3897	0.0629	-0.0002
102	SLU 77	0.04	-5.26	29.19	0.488	0.0543	-0.0002
102	SLU 78	0.05	-3.96	29.63	0.4404	0.06	-0.0002
102	SLU 79	0.04	-5.29	28.99	0.487	0.0538	-0.0002
102	SLU 80	0.05	-3.99	29.43	0.4393	0.0595	-0.0002
102	SLU 81	0.04	-4.77	30.21	0.472	0.0553	-0.0002
102	SLU 82	0.05	-3.47	30.65	0.4244	0.061	-0.0002
102	SLU 83	0.04	-5.15	30.13	0.4899	0.0558	-0.0002
102	SLU 84	0.05	-3.85	30.58	0.4423	0.0615	-0.0002
102	SLE RA 1	0.03	-2.92	20.06	0.2994	0.035	-0.0001
102	SLE RA 2	0.04	-1.48	20.56	0.2465	0.0414	-0.0001
102	SLE RA 3	0.03	-3.15	20.15	0.312	0.0357	-0.0001
102	SLE RA 4	0.03	-2.29	20.44	0.2803	0.0395	-0.0001
102	SLE RA 5	0.04	-1.73	20.51	0.2584	0.0417	-0.0001
102	SLE RA 6	0.03	-3.41	20.1	0.3239	0.036	-0.0001
102	SLE RA 7	0.03	-2.54	20.39	0.2922	0.0398	-0.0001
102	SLE RA 8	0.03	-3.42	19.96	0.3232	0.0357	-0.0001
102	SLE RA 9	0.03	-2.56	20.26	0.2915	0.0395	-0.0001
102	SLE RA 10	0.04	-1.85	22.22	0.2788	0.0453	-0.0001
102	SLE RA 11	0.03	-3.53	21.81	0.3444	0.0395	-0.0001
102	SLE RA 12	0.04	-2.66	22.1	0.3126	0.0434	-0.0001
102	SLE RA 13	0.04	-2.1	22.16	0.2907	0.0456	-0.0001
102	SLE RA 14	0.03	-3.78	21.75	0.3563	0.0399	-0.0001
102	SLE RA 15	0.04	-2.92	22.05	0.3245	0.0437	-0.0001
102	SLE RA 16	0.03	-3.8	21.62	0.3556	0.0396	-0.0001
102	SLE RA 17	0.04	-2.93	21.92	0.3238	0.0434	-0.0001
102	SLE RA 18	0.03	-3.45	22.43	0.3456	0.0406	-0.0001
102	SLE RA 19	0.04	-2.59	22.73	0.3139	0.0444	-0.0001
102	SLE RA 20	0.03	-3.71	22.38	0.3575	0.0409	-0.0001
102	SLE RA 21	0.04	-2.84	22.68	0.3258	0.0447	-0.0001
102	SLE FR 1	0.03	-2.92	20.06	0.2994	0.035	-0.0001
102	SLE FR 2	0.03	-2.63	20.16	0.2888	0.0363	-0.0001
102	SLE FR 3	0.03	-3.02	20.04	0.3042	0.0352	-0.0001
102	SLE FR 4	0.03	-2.79	20.87	0.3027	0.038	-0.0001
102	SLE FR 5	0.03	-3.18	20.75	0.318	0.0368	-0.0001
102	SLE FR 6	0.03	-3.19	21.25	0.3225	0.0378	-0.0001
102	SLE QP 1	0.03	-2.92	20.06	0.2994	0.035	-0.0001
102	SLE QP 2	0.03	-3.08	20.77	0.3133	0.0367	-0.0001
102	SLD 1	0.03	-3.49	19.9	0.3349	0.0755	-0.0003
102	SLD 2	0.03	-3.49	19.9	0.3349	0.0755	-0.0003
102	SLD 3	0.01	-6.58	18.06	0.4658	0.0612	-0.0002
102	SLD 4	0.01	-6.58	18.06	0.4658	0.0612	-0.0002
102	SLD 5	0.05	1.48	23.31	0.1213	0.0701	-0.0002
102	SLD 6	0.05	1.48	23.31	0.1213	0.0701	-0.0002
102	SLD 7	0	-8.81	17.17	0.5575	0.0223	-0.0001
102	SLD 8	0	-8.81	17.17	0.5575	0.0223	-0.0001
102	SLD 9	0.06	2.66	24.38	0.069	0.0511	-0.0001
102	SLD 10	0.06	2.66	24.38	0.069	0.0511	-0.0001
102	SLD 11	0	-7.64	18.24	0.5053	0.0033	0
102	SLD 12	0	-7.64	18.24	0.5053	0.0033	0
102	SLD 13	0.05	0.42	23.49	0.1608	0.0122	0
102	SLD 14	0.05	0.42	23.49	0.1608	0.0122	0
102	SLD 15	0.03	-2.67	21.64	0.2917	-0.0021	0
102	SLD 16	0.03	-2.67	21.64	0.2917	-0.0021	0
102	SLV 1	0.02	-4.1	18.77	0.3669	0.1291	-0.0004
102	SLV 2	0.02	-4.1	18.77	0.3669	0.1291	-0.0004
102	SLV 3	-0.02	-11.47	14.36	0.6784	0.0932	-0.0004
102	SLV 4	-0.02	-11.47	14.36	0.6784	0.0932	-0.0004
102	SLV 5	0.1	7.79	26.86	-0.1431	0.1189	-0.0003
102	SLV 6	0.1	7.79	26.86	-0.1431	0.1189	-0.0003
102	SLV 7	-0.06	-16.78	12.16	0.8953	-0.0009	-0.0001
102	SLV 8	-0.06	-16.78	12.16	0.8953	-0.0009	-0.0001
102	SLV 9	0.11	10.62	29.39	-0.2688	0.0742	-0.0002
102	SLV 10	0.11	10.62	29.39	-0.2688	0.0742	-0.0002
102	SLV 11	-0.04	-13.95	14.69	0.7697	-0.0455	0.0001
102	SLV 12	-0.04	-13.95	14.69	0.7697	-0.0455	0.0001
102	SLV 13	0.08	5.32	27.19	-0.0519	-0.0198	0.0001
102	SLV 14	0.08	5.32	27.19	-0.0519	-0.0198	0.0001
102	SLV 15	0.04	-2.05	22.78	0.2597	-0.0557	0.0002
102	SLV 16	0.04	-2.05	22.78	0.2597	-0.0557	0.0002
103	SLU 1	-0.01	-2.24	47.45	0.1325	0.0142	-0.0043
103	SLU 2	-0.01	-2.72	48.04	0.1584	0.013	-0.0043
103	SLU 3	-0.01	-2.08	48.43	0.1244	0.0146	-0.0043
103	SLU 4	-0.01	-2.37	48.78	0.1399	0.0139	-0.0044
103	SLU 5	-0.01	-2.53	48.69	0.1482	0.0133	-0.0044
103	SLU 6	-0.01	-1.89	49.07	0.1142	0.0149	-0.0044
103	SLU 7	-0.01	-2.18	49.43	0.1297	0.0143	-0.0044
103	SLU 8	-0.01	-1.86	48.74	0.1121	0.0148	-0.0043



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
103	SLU 9	-0.01	-2.15	49.09	0.1276	0.0141	-0.0044
103	SLU 10	-0.01	-3.16	56.2	0.1842	0.0162	-0.0052
103	SLU 11	-0.01	-2.51	56.59	0.1502	0.0178	-0.0052
103	SLU 12	-0.01	-2.8	56.94	0.1657	0.0171	-0.0053
103	SLU 13	-0.01	-2.97	56.85	0.174	0.0165	-0.0052
103	SLU 14	-0.01	-2.32	57.23	0.14	0.0181	-0.0052
103	SLU 15	-0.01	-2.61	57.59	0.1555	0.0174	-0.0053
103	SLU 16	-0.01	-2.3	56.9	0.138	0.018	-0.0052
103	SLU 17	-0.01	-2.59	57.25	0.1535	0.0173	-0.0053
103	SLU 18	-0.01	-2.86	59.1	0.1694	0.0187	-0.0055
103	SLU 19	-0.01	-3.15	59.46	0.1849	0.018	-0.0055
103	SLU 20	-0.01	-2.67	59.75	0.1592	0.019	-0.0055
103	SLU 21	-0.01	-2.96	60.11	0.1747	0.0183	-0.0056
103	SLU 22	-0.01	-2.44	52.28	0.1475	0.0156	-0.0048
103	SLU 23	-0.01	-2.93	52.88	0.1734	0.0145	-0.0049
103	SLU 24	-0.01	-2.28	53.26	0.1394	0.0161	-0.0049
103	SLU 25	-0.01	-2.57	53.62	0.1549	0.0154	-0.0049
103	SLU 26	-0.01	-2.74	53.52	0.1632	0.0148	-0.0049
103	SLU 27	-0.01	-2.09	53.91	0.1292	0.0164	-0.0049
103	SLU 28	-0.01	-2.38	54.26	0.1447	0.0157	-0.005
103	SLU 29	-0.01	-2.06	53.57	0.1271	0.0163	-0.0049
103	SLU 30	-0.01	-2.35	53.93	0.1426	0.0156	-0.0049
103	SLU 31	-0.01	-3.36	61.04	0.1992	0.0177	-0.0057
103	SLU 32	-0.01	-2.72	61.42	0.1652	0.0193	-0.0057
103	SLU 33	-0.01	-3.01	61.78	0.1807	0.0186	-0.0058
103	SLU 34	-0.01	-3.17	61.68	0.189	0.018	-0.0058
103	SLU 35	-0.01	-2.53	62.07	0.155	0.0196	-0.0058
103	SLU 36	-0.01	-2.82	62.42	0.1705	0.0189	-0.0058
103	SLU 37	-0.01	-2.5	61.73	0.153	0.0195	-0.0057
103	SLU 38	-0.01	-2.79	62.09	0.1685	0.0188	-0.0058
103	SLU 39	-0.01	-3.07	63.94	0.1844	0.0202	-0.006
103	SLU 40	-0.01	-3.36	64.3	0.1999	0.0195	-0.0061
103	SLU 41	-0.01	-2.88	64.58	0.1742	0.0205	-0.0061
103	SLU 42	-0.01	-3.17	64.94	0.1897	0.0198	-0.0061
103	SLU 43	-0.01	-2.84	60.02	0.1672	0.0179	-0.0054
103	SLU 44	-0.01	-3.33	60.62	0.193	0.0167	-0.0054
103	SLU 45	-0.01	-2.68	61	0.159	0.0184	-0.0054
103	SLU 46	-0.01	-2.97	61.36	0.1745	0.0177	-0.0055
103	SLU 47	-0.01	-3.14	61.26	0.1828	0.0171	-0.0055
103	SLU 48	-0.01	-2.49	61.65	0.1488	0.0187	-0.0055
103	SLU 49	-0.01	-2.78	62	0.1643	0.018	-0.0055
103	SLU 50	-0.01	-2.46	61.31	0.1468	0.0185	-0.0054
103	SLU 51	-0.01	-2.75	61.67	0.1623	0.0178	-0.0055
103	SLU 52	-0.01	-3.76	68.78	0.2188	0.0199	-0.0063
103	SLU 53	-0.01	-3.12	69.16	0.1849	0.0216	-0.0063
103	SLU 54	-0.01	-3.41	69.52	0.2004	0.0209	-0.0064
103	SLU 55	-0.01	-3.57	69.42	0.2086	0.0203	-0.0063
103	SLU 56	-0.01	-2.93	69.81	0.1747	0.0219	-0.0063
103	SLU 57	-0.01	-3.22	70.16	0.1902	0.0212	-0.0064
103	SLU 58	-0.01	-2.9	69.47	0.1726	0.0217	-0.0063
103	SLU 59	-0.01	-3.19	69.83	0.1881	0.021	-0.0064
103	SLU 60	-0.01	-3.47	71.68	0.2041	0.0225	-0.0066
103	SLU 61	-0.01	-3.76	72.04	0.2196	0.0218	-0.0066
103	SLU 62	-0.01	-3.28	72.32	0.1939	0.0228	-0.0066
103	SLU 63	-0.01	-3.57	72.68	0.2094	0.0221	-0.0067
103	SLU 64	-0.01	-3.05	64.86	0.1822	0.0194	-0.0059
103	SLU 65	-0.01	-3.53	65.45	0.208	0.0182	-0.006
103	SLU 66	-0.01	-2.88	65.84	0.174	0.0199	-0.006
103	SLU 67	-0.01	-3.17	66.19	0.1895	0.0192	-0.006
103	SLU 68	-0.01	-3.34	66.1	0.1978	0.0185	-0.006
103	SLU 69	-0.01	-2.69	66.48	0.1638	0.0202	-0.006
103	SLU 70	-0.01	-2.98	66.84	0.1793	0.0195	-0.0061
103	SLU 71	-0.01	-2.66	66.15	0.1618	0.02	-0.006
103	SLU 72	-0.01	-2.95	66.5	0.1773	0.0193	-0.006
103	SLU 73	-0.01	-3.97	73.61	0.2338	0.0214	-0.0068
103	SLU 74	-0.01	-3.32	74	0.1999	0.023	-0.0068
103	SLU 75	-0.01	-3.61	74.35	0.2154	0.0224	-0.0069
103	SLU 76	-0.01	-3.78	74.26	0.2236	0.0217	-0.0069
103	SLU 77	-0.01	-3.13	74.64	0.1897	0.0234	-0.0069
103	SLU 78	-0.01	-3.42	75	0.2052	0.0227	-0.0069
103	SLU 79	-0.01	-3.1	74.31	0.1876	0.0232	-0.0068
103	SLU 80	-0.01	-3.39	74.67	0.2031	0.0225	-0.0069
103	SLU 81	-0.01	-3.67	76.51	0.2191	0.0239	-0.0071
103	SLU 82	-0.01	-3.96	76.87	0.2346	0.0233	-0.0072
103	SLU 83	-0.01	-3.48	77.16	0.2089	0.0243	-0.0071
103	SLU 84	-0.01	-3.77	77.52	0.2244	0.0236	-0.0072
103	SLE RA 1	-0.01	-2.3	48.83	0.1368	0.0146	-0.0044
103	SLE RA 2	-0.01	-2.62	49.22	0.154	0.0138	-0.0045
103	SLE RA 3	-0.01	-2.19	49.48	0.1314	0.0149	-0.0045
103	SLE RA 4	-0.01	-2.38	49.72	0.1417	0.0144	-0.0045
103	SLE RA 5	-0.01	-2.49	49.65	0.1472	0.014	-0.0045
103	SLE RA 6	-0.01	-2.06	49.91	0.1246	0.0151	-0.0045
103	SLE RA 7	-0.01	-2.26	50.15	0.1349	0.0146	-0.0045
103	SLE RA 8	-0.01	-2.04	49.69	0.1232	0.015	-0.0045
103	SLE RA 9	-0.01	-2.24	49.93	0.1336	0.0145	-0.0045
103	SLE RA 10	-0.01	-2.91	54.66	0.1713	0.0159	-0.005
103	SLE RA 11	-0.01	-2.48	54.92	0.1486	0.017	-0.005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
103	SLE RA 12	-0.01	-2.67	55.16	0.159	0.0166	-0.0051
103	SLE RA 13	-0.01	-2.78	55.09	0.1645	0.0162	-0.0051
103	SLE RA 14	-0.01	-2.35	55.35	0.1418	0.0172	-0.0051
103	SLE RA 15	-0.01	-2.55	55.59	0.1522	0.0168	-0.0051
103	SLE RA 16	-0.01	-2.34	55.13	0.1404	0.0171	-0.005
103	SLE RA 17	-0.01	-2.53	55.37	0.1508	0.0167	-0.0051
103	SLE RA 18	-0.01	-2.71	56.6	0.1614	0.0176	-0.0052
103	SLE RA 19	-0.01	-2.91	56.84	0.1718	0.0172	-0.0053
103	SLE RA 20	-0.01	-2.59	57.03	0.1546	0.0178	-0.0053
103	SLE RA 21	-0.01	-2.78	57.27	0.165	0.0174	-0.0053
103	SLE FR 1	-0.01	-2.3	48.83	0.1368	0.0146	-0.0044
103	SLE FR 2	-0.01	-2.36	48.91	0.1403	0.0144	-0.0044
103	SLE FR 3	-0.01	-2.25	49	0.1341	0.0147	-0.0044
103	SLE FR 4	-0.01	-2.49	51.24	0.1476	0.0153	-0.0047
103	SLE FR 5	-0.01	-2.37	51.33	0.1415	0.0156	-0.0047
103	SLE FR 6	-0.01	-2.51	52.71	0.1491	0.0161	-0.0048
103	SLE QP 1	-0.01	-2.3	48.83	0.1368	0.0146	-0.0044
103	SLE QP 2	-0.01	-2.42	51.16	0.1442	0.0155	-0.0047
103	SLD 1	-0.04	0.29	46.21	0.0006	0.0548	-0.0106
103	SLD 2	-0.04	0.29	46.21	0.0006	0.0548	-0.0106
103	SLD 3	-0.01	-3.01	44.86	0.1728	0.0707	-0.0119
103	SLD 4	-0.01	-3.01	44.86	0.1728	0.0707	-0.0119
103	SLD 5	-0.06	3.4	51.73	-0.1601	0.0031	-0.0044
103	SLD 6	-0.06	3.4	51.73	-0.1601	0.0031	-0.0044
103	SLD 7	0.03	-7.61	47.21	0.414	0.0562	-0.0088
103	SLD 8	0.03	-7.61	47.21	0.414	0.0562	-0.0088
103	SLD 9	-0.05	2.76	55.11	-0.1256	-0.0252	-0.0005
103	SLD 10	-0.05	2.76	55.11	-0.1256	-0.0252	-0.0005
103	SLD 11	0.05	-8.25	50.58	0.4485	0.0279	-0.0049
103	SLD 12	0.05	-8.25	50.58	0.4485	0.0279	-0.0049
103	SLD 13	0	-1.83	57.46	0.1156	-0.0397	0.0026
103	SLD 14	0	-1.83	57.46	0.1156	-0.0397	0.0026
103	SLD 15	0.03	-5.14	56.1	0.2878	-0.0238	0.0013
103	SLD 16	0.03	-5.14	56.1	0.2878	-0.0238	0.0013
103	SLV 1	-0.09	3.97	39.58	-0.1943	0.1148	-0.0196
103	SLV 2	-0.09	3.97	39.58	-0.1943	0.1148	-0.0196
103	SLV 3	-0.03	-3.76	36.36	0.2093	0.1526	-0.0228
103	SLV 4	-0.03	-3.76	36.36	0.2093	0.1526	-0.0228
103	SLV 5	-0.13	11.22	52.57	-0.5693	-0.0119	-0.0043
103	SLV 6	-0.13	11.22	52.57	-0.5693	-0.0119	-0.0043
103	SLV 7	0.09	-14.54	41.84	0.7757	0.1138	-0.015
103	SLV 8	0.09	-14.54	41.84	0.7757	0.1138	-0.015
103	SLV 9	-0.1	9.7	60.48	-0.4873	-0.0828	0.0057
103	SLV 10	-0.1	9.7	60.48	-0.4873	-0.0828	0.0057
103	SLV 11	0.12	-16.06	49.75	0.8577	0.0429	-0.0051
103	SLV 12	0.12	-16.06	49.75	0.8577	0.0429	-0.0051
103	SLV 13	0.01	-1.09	65.95	0.0791	-0.1216	0.0135
103	SLV 14	0.01	-1.09	65.95	0.0791	-0.1216	0.0135
103	SLV 15	0.08	-8.82	62.74	0.4827	-0.0839	0.0103
103	SLV 16	0.08	-8.82	62.74	0.4827	-0.0839	0.0103
104	SLU 1	0.01	2.44	30.2	0.0299	0.0034	0
104	SLU 2	0	4.97	32.05	-0.0668	-0.0046	0
104	SLU 3	0.02	2.3	30.9	0.0408	0.0035	0
104	SLU 4	0.01	3.82	32.01	-0.0172	-0.0013	0
104	SLU 5	0	4.74	32.46	-0.0534	-0.0046	0
104	SLU 6	0.02	2.06	31.31	0.0542	0.0036	0
104	SLU 7	0.01	3.58	32.42	-0.0038	-0.0013	0
104	SLU 8	0.02	1.98	31.01	0.0567	0.0035	0
104	SLU 9	0.01	3.49	32.12	-0.0013	-0.0013	0
104	SLU 10	0.01	5.27	36.26	-0.0606	-0.0042	0
104	SLU 11	0.02	2.6	35.11	0.0471	0.0039	0
104	SLU 12	0.01	4.12	36.22	-0.011	-0.0009	0
104	SLU 13	0.01	5.04	36.66	-0.0472	-0.0042	0
104	SLU 14	0.02	2.37	35.51	0.0605	0.004	0
104	SLU 15	0.01	3.88	36.62	0.0024	-0.0009	0
104	SLU 16	0.02	2.28	35.22	0.0629	0.0039	0
104	SLU 17	0.01	3.79	36.33	0.0049	-0.0009	0
104	SLU 18	0.02	2.87	36.21	0.0388	0.004	0
104	SLU 19	0.01	4.39	37.32	-0.0193	-0.0008	0
104	SLU 20	0.02	2.64	36.62	0.0522	0.0041	0
104	SLU 21	0.01	4.16	37.73	-0.0059	-0.0008	0
104	SLU 22	0.02	2.66	33.94	0.0386	0.0038	0
104	SLU 23	0.01	5.19	35.79	-0.0581	-0.0042	0
104	SLU 24	0.02	2.51	34.64	0.0495	0.0039	0
104	SLU 25	0.01	4.03	35.75	-0.0085	-0.0009	0
104	SLU 26	0.01	4.95	36.2	-0.0447	-0.0042	0
104	SLU 27	0.02	2.28	35.05	0.0629	0.004	0
104	SLU 28	0.01	3.8	36.16	0.0049	-0.0009	0
104	SLU 29	0.02	2.19	34.75	0.0654	0.0039	0
104	SLU 30	0.01	3.71	35.86	0.0073	-0.0009	0
104	SLU 31	0.01	5.49	40	-0.0519	-0.0038	0
104	SLU 32	0.02	2.81	38.85	0.0557	0.0043	0
104	SLU 33	0.01	4.33	39.96	-0.0023	-0.0005	0
104	SLU 34	0.01	5.25	40.4	-0.0385	-0.0038	0
104	SLU 35	0.02	2.58	39.25	0.0692	0.0044	0
104	SLU 36	0.01	4.1	40.36	0.0111	-0.0005	0
104	SLU 37	0.02	2.49	38.96	0.0716	0.0043	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
104	SLU 38	0.01	4.01	40.07	0.0136	-0.0005	0
104	SLU 39	0.02	3.09	39.95	0.0475	0.0044	0
104	SLU 40	0.01	4.6	41.06	-0.0106	-0.0004	0
104	SLU 41	0.02	2.85	40.36	0.0609	0.0045	0
104	SLU 42	0.01	4.37	41.47	0.0028	-0.0004	0
104	SLU 43	0.02	3.1	37.98	0.0358	0.0043	0
104	SLU 44	0.01	5.63	39.83	-0.0609	-0.0037	0
104	SLU 45	0.02	2.96	38.68	0.0468	0.0044	0
104	SLU 46	0.01	4.48	39.79	-0.0112	-0.0004	0
104	SLU 47	0.01	5.4	40.24	-0.0475	-0.0037	0
104	SLU 48	0.02	2.72	39.08	0.0602	0.0045	0
104	SLU 49	0.01	4.24	40.19	0.0022	-0.0004	0
104	SLU 50	0.02	2.63	38.79	0.0627	0.0044	0
104	SLU 51	0.01	4.15	39.9	0.0046	-0.0004	0
104	SLU 52	0.01	5.93	44.04	-0.0546	-0.0033	0
104	SLU 53	0.02	3.26	42.88	0.053	0.0048	0
104	SLU 54	0.01	4.78	43.99	-0.005	0	0
104	SLU 55	0.01	5.7	44.44	-0.0412	-0.0033	0
104	SLU 56	0.02	3.02	43.29	0.0664	0.0049	0
104	SLU 57	0.01	4.54	44.4	0.0084	0	0
104	SLU 58	0.02	2.94	43	0.0689	0.0048	0
104	SLU 59	0.01	4.45	44.11	0.0109	0	0
104	SLU 60	0.02	3.53	43.99	0.0447	0.0049	0
104	SLU 61	0.01	5.05	45.1	-0.0133	0.0001	0
104	SLU 62	0.02	3.3	44.4	0.0581	0.005	0.0001
104	SLU 63	0.02	4.82	45.51	0.0001	0.0001	0.0001
104	SLU 64	0.02	3.32	41.72	0.0445	0.0047	0
104	SLU 65	0.01	5.85	43.57	-0.0522	-0.0034	0
104	SLU 66	0.02	3.17	42.42	0.0555	0.0048	0
104	SLU 67	0.01	4.69	43.53	-0.0025	0	0
104	SLU 68	0.01	5.61	43.98	-0.0388	-0.0033	0
104	SLU 69	0.02	2.94	42.82	0.0689	0.0049	0
104	SLU 70	0.01	4.46	43.93	0.0109	0	0
104	SLU 71	0.02	2.85	42.53	0.0713	0.0048	0
104	SLU 72	0.01	4.37	43.64	0.0133	0	0
104	SLU 73	0.01	6.15	47.78	-0.0459	-0.0029	0.0001
104	SLU 74	0.02	3.47	46.62	0.0617	0.0052	0.0001
104	SLU 75	0.02	4.99	47.73	0.0037	0.0004	0.0001
104	SLU 76	0.01	5.91	48.18	-0.0325	-0.0029	0.0001
104	SLU 77	0.02	3.24	47.03	0.0751	0.0053	0.0001
104	SLU 78	0.02	4.76	48.14	0.0171	0.0004	0.0001
104	SLU 79	0.02	3.15	46.74	0.0776	0.0052	0.0001
104	SLU 80	0.02	4.67	47.85	0.0196	0.0004	0.0001
104	SLU 81	0.02	3.75	47.73	0.0534	0.0053	0.0001
104	SLU 82	0.02	5.26	48.84	-0.0046	0.0005	0.0001
104	SLU 83	0.02	3.51	48.14	0.0668	0.0054	0.0001
104	SLU 84	0.02	5.03	49.24	0.0088	0.0005	0.0001
104	SLE RA 1	0.02	2.5	31.27	0.0323	0.0035	0
104	SLE RA 2	0.01	4.19	32.5	-0.0321	-0.0018	0
104	SLE RA 3	0.02	2.41	31.74	0.0397	0.0036	0
104	SLE RA 4	0.01	3.42	32.48	0.001	0.0004	0
104	SLE RA 5	0.01	4.03	32.77	-0.0232	-0.0018	0
104	SLE RA 6	0.02	2.25	32.01	0.0486	0.0036	0
104	SLE RA 7	0.01	3.26	32.75	0.0099	0.0004	0
104	SLE RA 8	0.02	2.19	31.81	0.0502	0.0036	0
104	SLE RA 9	0.01	3.2	32.55	0.0115	0.0004	0
104	SLE RA 10	0.01	4.39	35.31	-0.028	-0.0016	0
104	SLE RA 11	0.02	2.61	34.54	0.0438	0.0039	0
104	SLE RA 12	0.01	3.62	35.28	0.0051	0.0006	0
104	SLE RA 13	0.01	4.24	35.58	-0.019	-0.0015	0
104	SLE RA 14	0.02	2.45	34.81	0.0527	0.0039	0
104	SLE RA 15	0.01	3.46	35.55	0.0141	0.0007	0
104	SLE RA 16	0.02	2.39	34.62	0.0544	0.0039	0
104	SLE RA 17	0.01	3.4	35.36	0.0157	0.0007	0
104	SLE RA 18	0.02	2.79	35.28	0.0383	0.0039	0
104	SLE RA 19	0.01	3.8	36.02	-0.0004	0.0007	0
104	SLE RA 20	0.02	2.63	35.55	0.0472	0.004	0
104	SLE RA 21	0.01	3.65	36.29	0.0085	0.0007	0
104	SLE FR 1	0.02	2.5	31.27	0.0323	0.0035	0
104	SLE FR 2	0.01	2.84	31.52	0.0195	0.0025	0
104	SLE FR 3	0.02	2.44	31.38	0.0359	0.0036	0
104	SLE FR 4	0.01	2.93	32.72	0.0212	0.0026	0
104	SLE FR 5	0.02	2.53	32.58	0.0377	0.0037	0
104	SLE FR 6	0.02	2.65	33.27	0.0353	0.0037	0
104	SLE QP 1	0.02	2.5	31.27	0.0323	0.0035	0
104	SLE QP 2	0.02	2.59	32.47	0.0341	0.0037	0
104	SLD 1	0.01	5.57	36.32	-0.0911	0.0245	0
104	SLD 2	0.01	5.57	36.32	-0.0911	0.0245	0
104	SLD 3	-0.01	2.45	33.51	0.0396	0.0382	-0.0001
104	SLD 4	-0.01	2.45	33.51	0.0396	0.0382	-0.0001
104	SLD 5	0.04	8.21	37.89	-0.2017	-0.0108	0.0001
104	SLD 6	0.04	8.21	37.89	-0.2017	-0.0108	0.0001
104	SLD 7	-0.02	-2.18	28.52	0.234	0.0348	0
104	SLD 8	-0.02	-2.18	28.52	0.234	0.0348	0
104	SLD 9	0.05	7.36	36.42	-0.1658	-0.0275	0.0001
104	SLD 10	0.05	7.36	36.42	-0.1658	-0.0275	0.0001
104	SLD 11	-0.01	-3.04	27.05	0.27	0.0182	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
104	SLD 12	-0.01	-3.04	27.05	0.27	0.0182	0
104	SLD 13	0.04	2.73	31.43	0.0286	-0.0309	0.0001
104	SLD 14	0.04	2.73	31.43	0.0286	-0.0309	0.0001
104	SLD 15	0.02	-0.39	28.62	0.1594	-0.0172	0.0001
104	SLD 16	0.02	-0.39	28.62	0.1594	-0.0172	0.0001
104	SLV 1	0	9.79	41.53	-0.2683	0.0536	-0.0001
104	SLV 2	0	9.79	41.53	-0.2683	0.0536	-0.0001
104	SLV 3	-0.05	2.35	34.89	0.0423	0.0886	-0.0002
104	SLV 4	-0.05	2.35	34.89	0.0423	0.0886	-0.0002
104	SLV 5	0.08	16.03	45.26	-0.5277	-0.0344	0.0001
104	SLV 6	0.08	16.03	45.26	-0.5277	-0.0344	0.0001
104	SLV 7	-0.07	-8.76	23.13	0.5076	0.0822	-0.0001
104	SLV 8	-0.07	-8.76	23.13	0.5076	0.0822	-0.0001
104	SLV 9	0.1	13.94	41.82	-0.4394	-0.0749	0.0002
104	SLV 10	0.1	13.94	41.82	-0.4394	-0.0749	0.0002
104	SLV 11	-0.05	-10.85	19.69	0.5959	0.0418	0
104	SLV 12	-0.05	-10.85	19.69	0.5959	0.0418	0
104	SLV 13	0.08	2.83	30.06	0.026	-0.0813	0.0003
104	SLV 14	0.08	2.83	30.06	0.026	-0.0813	0.0003
104	SLV 15	0.03	-4.61	23.42	0.3366	-0.0463	0.0002
104	SLV 16	0.03	-4.61	23.42	0.3366	-0.0463	0.0002
105	SLU 1	-0.06	7.9	24.11	-0.3043	-0.0563	-0.0001
105	SLU 2	-0.15	9.54	24.29	-0.3732	-0.1194	-0.0002
105	SLU 3	-0.06	8.24	24.86	-0.3176	-0.058	-0.0001
105	SLU 4	-0.11	9.22	24.97	-0.3589	-0.0958	-0.0002
105	SLU 5	-0.15	9.8	24.87	-0.3835	-0.1205	-0.0002
105	SLU 6	-0.06	8.5	25.44	-0.3279	-0.059	-0.0001
105	SLU 7	-0.11	9.48	25.55	-0.3692	-0.0969	-0.0002
105	SLU 8	-0.06	8.42	25.27	-0.3249	-0.0584	-0.0001
105	SLU 9	-0.11	9.41	25.38	-0.3662	-0.0963	-0.0002
105	SLU 10	-0.15	10.34	26.68	-0.404	-0.1272	-0.0003
105	SLU 11	-0.07	9.04	27.25	-0.3484	-0.0658	-0.0001
105	SLU 12	-0.12	10.02	27.36	-0.3897	-0.1037	-0.0002
105	SLU 13	-0.16	10.6	27.26	-0.4143	-0.1283	-0.0003
105	SLU 14	-0.07	9.3	27.83	-0.3587	-0.0668	-0.0001
105	SLU 15	-0.12	10.29	27.94	-0.4	-0.1047	-0.0002
105	SLU 16	-0.07	9.22	27.66	-0.3558	-0.0662	-0.0001
105	SLU 17	-0.12	10.21	27.77	-0.3971	-0.1041	-0.0002
105	SLU 18	-0.07	9.05	27.53	-0.3484	-0.0674	-0.0001
105	SLU 19	-0.12	10.03	27.63	-0.3897	-0.1053	-0.0002
105	SLU 20	-0.07	9.31	28.11	-0.3587	-0.0685	-0.0001
105	SLU 21	-0.12	10.29	28.21	-0.4	-0.1064	-0.0002
105	SLU 22	-0.07	8.79	26.58	-0.3387	-0.0639	-0.0001
105	SLU 23	-0.15	10.43	26.75	-0.4076	-0.127	-0.0003
105	SLU 24	-0.07	9.13	27.33	-0.352	-0.0656	-0.0001
105	SLU 25	-0.12	10.12	27.44	-0.3933	-0.1035	-0.0002
105	SLU 26	-0.16	10.7	27.33	-0.4179	-0.1281	-0.0003
105	SLU 27	-0.07	9.39	27.91	-0.3623	-0.0667	-0.0001
105	SLU 28	-0.12	10.38	28.01	-0.4036	-0.1045	-0.0002
105	SLU 29	-0.07	9.32	27.74	-0.3593	-0.066	-0.0001
105	SLU 30	-0.12	10.3	27.84	-0.4006	-0.1039	-0.0002
105	SLU 31	-0.16	11.24	29.15	-0.4384	-0.1348	-0.0003
105	SLU 32	-0.08	9.93	29.72	-0.3828	-0.0734	-0.0001
105	SLU 33	-0.13	10.92	29.83	-0.4241	-0.1113	-0.0002
105	SLU 34	-0.16	11.5	29.73	-0.4487	-0.1359	-0.0003
105	SLU 35	-0.08	10.19	30.3	-0.3931	-0.0745	-0.0001
105	SLU 36	-0.13	11.18	30.41	-0.4344	-0.1123	-0.0002
105	SLU 37	-0.08	10.12	30.13	-0.3902	-0.0738	-0.0001
105	SLU 38	-0.13	11.1	30.24	-0.4315	-0.1117	-0.0002
105	SLU 39	-0.08	9.94	29.99	-0.3828	-0.075	-0.0001
105	SLU 40	-0.13	10.92	30.1	-0.4241	-0.1129	-0.0002
105	SLU 41	-0.08	10.2	30.57	-0.3931	-0.0761	-0.0001
105	SLU 42	-0.13	11.18	30.68	-0.4344	-0.114	-0.0002
105	SLU 43	-0.07	9.97	30.5	-0.3838	-0.0705	-0.0001
105	SLU 44	-0.16	11.61	30.67	-0.4527	-0.1337	-0.0003
105	SLU 45	-0.07	10.3	31.25	-0.3971	-0.0722	-0.0001
105	SLU 46	-0.13	11.29	31.35	-0.4384	-0.1101	-0.0002
105	SLU 47	-0.16	11.87	31.25	-0.463	-0.1347	-0.0003
105	SLU 48	-0.08	10.56	31.83	-0.4074	-0.0733	-0.0001
105	SLU 49	-0.13	11.55	31.93	-0.4487	-0.1112	-0.0002
105	SLU 50	-0.08	10.49	31.66	-0.4044	-0.0727	-0.0001
105	SLU 51	-0.13	11.47	31.76	-0.4457	-0.1105	-0.0002
105	SLU 52	-0.17	12.41	33.06	-0.4835	-0.1415	-0.0003
105	SLU 53	-0.08	11.1	33.64	-0.4279	-0.08	-0.0001
105	SLU 54	-0.14	12.09	33.74	-0.4692	-0.1179	-0.0002
105	SLU 55	-0.17	12.67	33.64	-0.4938	-0.1425	-0.0003
105	SLU 56	-0.08	11.37	34.22	-0.4382	-0.0811	-0.0001
105	SLU 57	-0.14	12.35	34.32	-0.4795	-0.119	-0.0002
105	SLU 58	-0.08	11.29	34.05	-0.4353	-0.0805	-0.0001
105	SLU 59	-0.14	12.27	34.15	-0.4766	-0.1184	-0.0002
105	SLU 60	-0.09	11.11	33.91	-0.4279	-0.0817	-0.0001
105	SLU 61	-0.14	12.1	34.02	-0.4692	-0.1195	-0.0002
105	SLU 62	-0.09	11.37	34.49	-0.4382	-0.0827	-0.0001
105	SLU 63	-0.14	12.36	34.6	-0.4795	-0.1206	-0.0002
105	SLU 64	-0.08	10.86	32.96	-0.4182	-0.0781	-0.0001
105	SLU 65	-0.17	12.5	33.14	-0.4871	-0.1413	-0.0003
105	SLU 66	-0.08	11.2	33.72	-0.4315	-0.0798	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
105	SLU 67	-0.14	12.18	33.82	-0.4728	-0.1177	-0.0002
105	SLU 68	-0.17	12.76	33.72	-0.4974	-0.1423	-0.0003
105	SLU 69	-0.08	11.46	34.29	-0.4418	-0.0809	-0.0001
105	SLU 70	-0.14	12.44	34.4	-0.4831	-0.1188	-0.0002
105	SLU 71	-0.08	11.38	34.12	-0.4388	-0.0803	-0.0001
105	SLU 72	-0.14	12.36	34.23	-0.4801	-0.1182	-0.0002
105	SLU 73	-0.18	13.3	35.53	-0.5179	-0.1491	-0.0003
105	SLU 74	-0.09	12	36.11	-0.4623	-0.0877	-0.0001
105	SLU 75	-0.14	12.98	36.21	-0.5036	-0.1255	-0.0002
105	SLU 76	-0.18	13.56	36.11	-0.5282	-0.1502	-0.0003
105	SLU 77	-0.09	12.26	36.69	-0.4726	-0.0887	-0.0001
105	SLU 78	-0.15	13.24	36.79	-0.5139	-0.1266	-0.0002
105	SLU 79	-0.09	12.18	36.52	-0.4697	-0.0881	-0.0001
105	SLU 80	-0.15	13.17	36.62	-0.511	-0.126	-0.0002
105	SLU 81	-0.09	12	36.38	-0.4623	-0.0893	-0.0001
105	SLU 82	-0.15	12.99	36.49	-0.5036	-0.1272	-0.0002
105	SLU 83	-0.1	12.26	36.96	-0.4726	-0.0904	-0.0001
105	SLU 84	-0.15	13.25	37.07	-0.5139	-0.1282	-0.0002
105	SLE RA 1	-0.06	8.16	24.81	-0.3142	-0.0584	-0.0001
105	SLE RA 2	-0.12	9.25	24.93	-0.36	-0.1005	-0.0002
105	SLE RA 3	-0.06	8.38	25.32	-0.323	-0.0596	-0.0001
105	SLE RA 4	-0.1	9.04	25.39	-0.3505	-0.0848	-0.0001
105	SLE RA 5	-0.12	9.42	25.32	-0.3669	-0.1012	-0.0002
105	SLE RA 6	-0.06	8.55	25.7	-0.3298	-0.0603	-0.0001
105	SLE RA 7	-0.1	9.21	25.77	-0.3574	-0.0855	-0.0001
105	SLE RA 8	-0.06	8.5	25.59	-0.3279	-0.0599	-0.0001
105	SLE RA 9	-0.1	9.16	25.66	-0.3554	-0.0851	-0.0001
105	SLE RA 10	-0.12	9.78	26.53	-0.3806	-0.1057	-0.0002
105	SLE RA 11	-0.07	8.92	26.91	-0.3435	-0.0648	-0.0001
105	SLE RA 12	-0.1	9.57	26.98	-0.3711	-0.09	-0.0001
105	SLE RA 13	-0.13	9.96	26.91	-0.3875	-0.1064	-0.0002
105	SLE RA 14	-0.07	9.09	27.3	-0.3504	-0.0655	-0.0001
105	SLE RA 15	-0.1	9.75	27.37	-0.3779	-0.0907	-0.0001
105	SLE RA 16	-0.07	9.04	27.18	-0.3485	-0.0651	-0.0001
105	SLE RA 17	-0.1	9.69	27.25	-0.376	-0.0903	-0.0001
105	SLE RA 18	-0.07	8.92	27.09	-0.3435	-0.0659	-0.0001
105	SLE RA 19	-0.1	9.58	27.16	-0.3711	-0.0911	-0.0001
105	SLE RA 20	-0.07	9.09	27.48	-0.3504	-0.0666	-0.0001
105	SLE RA 21	-0.11	9.75	27.55	-0.3779	-0.0918	-0.0001
105	SLE FR 1	-0.06	8.16	24.81	-0.3142	-0.0584	-0.0001
105	SLE FR 2	-0.07	8.38	24.84	-0.3233	-0.0668	-0.0001
105	SLE FR 3	-0.06	8.23	24.97	-0.3169	-0.0587	-0.0001
105	SLE FR 4	-0.07	8.6	25.52	-0.3321	-0.0691	-0.0001
105	SLE FR 5	-0.06	8.46	25.65	-0.3257	-0.0609	-0.0001
105	SLE FR 6	-0.06	8.54	25.95	-0.3288	-0.0621	-0.0001
105	SLE QP 1	-0.06	8.16	24.81	-0.3142	-0.0584	-0.0001
105	SLE QP 2	-0.06	8.39	25.5	-0.323	-0.0607	-0.0001
105	SLD 1	-0.17	11.84	34.25	-0.4648	-0.018	-0.0003
105	SLD 2	-0.17	11.84	34.25	-0.4648	-0.018	-0.0003
105	SLD 3	-0.06	8.07	31.67	-0.3018	0.0461	0
105	SLD 4	-0.06	8.07	31.67	-0.3018	0.0461	0
105	SLD 5	-0.25	15.14	32.04	-0.6127	-0.1451	-0.0005
105	SLD 6	-0.25	15.14	32.04	-0.6127	-0.1451	-0.0005
105	SLD 7	0.09	2.57	23.43	-0.0695	0.0686	0.0003
105	SLD 8	0.09	2.57	23.43	-0.0695	0.0686	0.0003
105	SLD 9	-0.22	14.2	27.57	-0.5765	-0.1899	-0.0004
105	SLD 10	-0.22	14.2	27.57	-0.5765	-0.1899	-0.0004
105	SLD 11	0.13	1.63	18.95	-0.0333	0.0238	0.0003
105	SLD 12	0.13	1.63	18.95	-0.0333	0.0238	0.0003
105	SLD 13	-0.06	8.7	19.32	-0.3441	-0.1674	-0.0001
105	SLD 14	-0.06	8.7	19.32	-0.3441	-0.1674	-0.0001
105	SLD 15	0.04	4.93	16.74	-0.1811	-0.1033	0.0001
105	SLD 16	0.04	4.93	16.74	-0.1811	-0.1033	0.0001
105	SLV 1	-0.32	16.47	46.05	-0.6543	0.0374	-0.0005
105	SLV 2	-0.32	16.47	46.05	-0.6543	0.0374	-0.0005
105	SLV 3	-0.06	7.69	39.84	-0.2747	0.2011	0.0001
105	SLV 4	-0.06	7.69	39.84	-0.2747	0.2011	0.0001
105	SLV 5	-0.54	24.12	41.08	-0.9981	-0.2796	-0.0011
105	SLV 6	-0.54	24.12	41.08	-0.9981	-0.2796	-0.0011
105	SLV 7	0.34	-5.14	20.39	0.2672	0.2662	0.0009
105	SLV 8	0.34	-5.14	20.39	0.2672	0.2662	0.0009
105	SLV 9	-0.47	21.91	30.61	-0.9131	-0.3875	-0.001
105	SLV 10	-0.47	21.91	30.61	-0.9131	-0.3875	-0.001
105	SLV 11	0.42	-7.35	9.92	0.3521	0.1583	0.001
105	SLV 12	0.42	-7.35	9.92	0.3521	0.1583	0.001
105	SLV 13	-0.07	9.08	11.15	-0.3712	-0.3224	-0.0002
105	SLV 14	-0.07	9.08	11.15	-0.3712	-0.3224	-0.0002
105	SLV 15	0.2	0.3	4.95	0.0084	-0.1587	0.0004
105	SLV 16	0.2	0.3	4.95	0.0084	-0.1587	0.0004
106	SLU 1	-0.05	8.05	60.73	-0.2751	-0.013	-0.0001
106	SLU 2	0.03	9.73	64.37	-0.3349	0.0484	0.0001
106	SLU 3	-0.05	8.39	62.9	-0.2868	-0.0138	-0.0001
106	SLU 4	0	9.4	65.08	-0.3227	0.0231	0
106	SLU 5	0.03	9.97	65.91	-0.3435	0.0478	0
106	SLU 6	-0.05	8.63	64.44	-0.2954	-0.0144	-0.0001
106	SLU 7	0	9.64	66.62	-0.3313	0.0224	0
106	SLU 8	-0.05	8.54	63.81	-0.2922	-0.0142	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
106	SLU 9	0	9.55	65.99	-0.3281	0.0226	0
106	SLU 10	0.03	10.62	71.65	-0.3648	0.0471	0
106	SLU 11	-0.05	9.28	70.18	-0.3168	-0.015	-0.0001
106	SLU 12	0	10.29	72.36	-0.3526	0.0218	0
106	SLU 13	0.03	10.87	73.19	-0.3734	0.0465	0
106	SLU 14	-0.05	9.53	71.72	-0.3253	-0.0156	-0.0001
106	SLU 15	-0.01	10.54	73.9	-0.3612	0.0212	0
106	SLU 16	-0.05	9.43	71.09	-0.3221	-0.0155	-0.0001
106	SLU 17	-0.01	10.44	73.27	-0.358	0.0213	0
106	SLU 18	-0.05	9.32	71.13	-0.3178	-0.0148	-0.0001
106	SLU 19	0	10.33	73.32	-0.3537	0.022	0
106	SLU 20	-0.05	9.57	72.67	-0.3264	-0.0154	-0.0001
106	SLU 21	-0.01	10.58	74.85	-0.3623	0.0214	0
106	SLU 22	-0.05	9.02	68.25	-0.3076	-0.0146	-0.0001
106	SLU 23	0.03	10.7	71.89	-0.3675	0.0468	0
106	SLU 24	-0.05	9.36	70.42	-0.3194	-0.0153	-0.0001
106	SLU 25	-0.01	10.37	72.6	-0.3553	0.0215	0
106	SLU 26	0.03	10.95	73.43	-0.376	0.0462	0
106	SLU 27	-0.05	9.6	71.96	-0.328	-0.016	-0.0001
106	SLU 28	-0.01	10.61	74.14	-0.3639	0.0209	0
106	SLU 29	-0.05	9.51	71.33	-0.3248	-0.0158	-0.0001
106	SLU 30	-0.01	10.52	73.51	-0.3607	0.021	0
106	SLU 31	0.02	11.6	79.17	-0.3974	0.0456	0
106	SLU 32	-0.06	10.25	77.7	-0.3493	-0.0166	-0.0001
106	SLU 33	-0.01	11.26	79.88	-0.3852	0.0202	0
106	SLU 34	0.02	11.84	80.71	-0.406	0.0449	0
106	SLU 35	-0.06	10.5	79.24	-0.3579	-0.0172	-0.0001
106	SLU 36	-0.01	11.51	81.42	-0.3938	0.0196	0
106	SLU 37	-0.06	10.4	78.61	-0.3547	-0.0171	-0.0001
106	SLU 38	-0.01	11.41	80.79	-0.3906	0.0198	0
106	SLU 39	-0.06	10.3	78.65	-0.3504	-0.0164	-0.0001
106	SLU 40	-0.01	11.31	80.84	-0.3863	0.0205	0
106	SLU 41	-0.06	10.54	80.19	-0.359	-0.017	-0.0001
106	SLU 42	-0.01	11.55	82.37	-0.3948	0.0199	0
106	SLU 43	-0.06	10.12	76.37	-0.3464	-0.0164	-0.0001
106	SLU 44	0.02	11.81	80.01	-0.4062	0.045	0
106	SLU 45	-0.06	10.47	78.54	-0.3582	-0.0171	-0.0001
106	SLU 46	-0.01	11.48	80.72	-0.3941	0.0197	0
106	SLU 47	0.02	12.05	81.55	-0.4148	0.0444	0
106	SLU 48	-0.06	10.71	80.08	-0.3668	-0.0178	-0.0002
106	SLU 49	-0.01	11.72	82.26	-0.4027	0.0191	-0.0001
106	SLU 50	-0.06	10.61	79.45	-0.3636	-0.0176	-0.0001
106	SLU 51	-0.01	11.62	81.63	-0.3995	0.0192	-0.0001
106	SLU 52	0.02	12.7	87.29	-0.4361	0.0438	0
106	SLU 53	-0.06	11.36	85.82	-0.3881	-0.0184	-0.0002
106	SLU 54	-0.02	12.37	88	-0.424	0.0184	-0.0001
106	SLU 55	0.02	12.95	88.83	-0.4447	0.0431	0
106	SLU 56	-0.07	11.6	87.36	-0.3967	-0.019	-0.0002
106	SLU 57	-0.02	12.61	89.54	-0.4326	0.0178	-0.0001
106	SLU 58	-0.07	11.51	86.73	-0.3935	-0.0189	-0.0002
106	SLU 59	-0.02	12.52	88.91	-0.4294	0.018	-0.0001
106	SLU 60	-0.06	11.4	86.77	-0.3891	-0.0182	-0.0002
106	SLU 61	-0.02	12.41	88.96	-0.425	0.0187	-0.0001
106	SLU 62	-0.07	11.65	88.31	-0.3977	-0.0188	-0.0002
106	SLU 63	-0.02	12.66	90.5	-0.4336	0.0181	-0.0001
106	SLU 64	-0.06	11.1	83.89	-0.379	-0.018	-0.0002
106	SLU 65	0.02	12.78	87.53	-0.4388	0.0434	0
106	SLU 66	-0.07	11.44	86.06	-0.3908	-0.0187	-0.0002
106	SLU 67	-0.02	12.45	88.24	-0.4267	0.0181	-0.0001
106	SLU 68	0.02	13.03	89.07	-0.4474	0.0428	0
106	SLU 69	-0.07	11.68	87.6	-0.3994	-0.0193	-0.0002
106	SLU 70	-0.02	12.69	89.78	-0.4353	0.0175	-0.0001
106	SLU 71	-0.07	11.59	86.97	-0.3962	-0.0192	-0.0002
106	SLU 72	-0.02	12.6	89.15	-0.4321	0.0176	-0.0001
106	SLU 73	0.01	13.68	94.81	-0.4687	0.0422	0
106	SLU 74	-0.07	12.33	93.34	-0.4207	-0.02	-0.0002
106	SLU 75	-0.02	13.34	95.52	-0.4566	0.0169	-0.0001
106	SLU 76	0.01	13.92	96.35	-0.4773	0.0416	0
106	SLU 77	-0.07	12.58	94.88	-0.4293	-0.0206	-0.0002
106	SLU 78	-0.02	13.59	97.06	-0.4652	0.0163	-0.0001
106	SLU 79	-0.07	12.48	94.25	-0.4261	-0.0204	-0.0002
106	SLU 80	-0.02	13.49	96.43	-0.462	0.0164	-0.0001
106	SLU 81	-0.07	12.38	94.29	-0.4217	-0.0197	-0.0002
106	SLU 82	-0.02	13.39	96.48	-0.4576	0.0171	-0.0001
106	SLU 83	-0.07	12.62	95.83	-0.4303	-0.0203	-0.0002
106	SLU 84	-0.02	13.63	98.01	-0.4662	0.0165	-0.0001
106	SLE RA 1	-0.05	8.32	62.88	-0.2844	-0.0135	-0.0001
106	SLE RA 2	0.01	9.45	65.3	-0.3242	0.0275	0
106	SLE RA 3	-0.05	8.55	64.32	-0.2922	-0.014	-0.0001
106	SLE RA 4	-0.02	9.22	65.78	-0.3162	0.0106	-0.0001
106	SLE RA 5	0	9.61	66.33	-0.33	0.027	0
106	SLE RA 6	-0.05	8.71	65.35	-0.298	-0.0144	-0.0001
106	SLE RA 7	-0.02	9.39	66.81	-0.3219	0.0102	-0.0001
106	SLE RA 8	-0.05	8.65	64.93	-0.2958	-0.0143	-0.0001
106	SLE RA 9	-0.02	9.32	66.39	-0.3197	0.0103	-0.0001
106	SLE RA 10	0	10.04	70.16	-0.3442	0.0266	0
106	SLE RA 11	-0.05	9.15	69.18	-0.3122	-0.0148	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
106	SLE RA 12	-0.02	9.82	70.63	-0.3361	0.0098	-0.0001
106	SLE RA 13	0	10.21	71.18	-0.3499	0.0262	0
106	SLE RA 14	-0.05	9.31	70.2	-0.3179	-0.0152	-0.0001
106	SLE RA 15	-0.02	9.98	71.66	-0.3418	0.0093	-0.0001
106	SLE RA 16	-0.05	9.25	69.78	-0.3158	-0.0151	-0.0001
106	SLE RA 17	-0.02	9.92	71.24	-0.3397	0.0094	-0.0001
106	SLE RA 18	-0.05	9.18	69.81	-0.3129	-0.0146	-0.0001
106	SLE RA 19	-0.02	9.85	71.27	-0.3368	0.0099	-0.0001
106	SLE RA 20	-0.05	9.34	70.84	-0.3186	-0.0151	-0.0001
106	SLE RA 21	-0.02	10.01	72.29	-0.3425	0.0095	-0.0001
106	SLE FR 1	-0.05	8.32	62.88	-0.2844	-0.0135	-0.0001
106	SLE FR 2	-0.04	8.55	63.36	-0.2923	-0.0053	-0.0001
106	SLE FR 3	-0.05	8.39	63.29	-0.2867	-0.0136	-0.0001
106	SLE FR 4	-0.04	8.8	65.44	-0.3009	-0.0056	-0.0001
106	SLE FR 5	-0.05	8.64	65.37	-0.2952	-0.014	-0.0001
106	SLE FR 6	-0.05	8.75	66.35	-0.2986	-0.0141	-0.0001
106	SLE QP 1	-0.05	8.32	62.88	-0.2844	-0.0135	-0.0001
106	SLE QP 2	-0.05	8.58	64.96	-0.2929	-0.0138	-0.0001
106	SLD 1	0.07	9.08	49.65	-0.3257	0.1089	0.0001
106	SLD 2	0.07	9.08	49.65	-0.3257	0.1089	0.0001
106	SLD 3	-0.04	5.37	41.98	-0.1681	0.0355	-0.0002
106	SLD 4	-0.04	5.37	41.98	-0.1681	0.0355	-0.0002
106	SLD 5	0.16	14.35	72	-0.5418	0.1343	0.0003
106	SLD 6	0.16	14.35	72	-0.5418	0.1343	0.0003
106	SLD 7	-0.21	2	46.43	-0.0164	-0.1103	-0.0005
106	SLD 8	-0.21	2	46.43	-0.0164	-0.1103	-0.0005
106	SLD 9	0.12	15.16	83.49	-0.5694	0.0826	0.0003
106	SLD 10	0.12	15.16	83.49	-0.5694	0.0826	0.0003
106	SLD 11	-0.25	2.81	57.91	-0.044	-0.1619	-0.0006
106	SLD 12	-0.25	2.81	57.91	-0.044	-0.1619	-0.0006
106	SLD 13	-0.06	11.78	87.94	-0.4177	-0.0632	-0.0001
106	SLD 14	-0.06	11.78	87.94	-0.4177	-0.0632	-0.0001
106	SLD 15	-0.17	8.08	80.27	-0.2601	-0.1365	-0.0003
106	SLD 16	-0.17	8.08	80.27	-0.2601	-0.1365	-0.0003
106	SLV 1	0.25	9.74	29.17	-0.3687	0.2872	0.0004
106	SLV 2	0.25	9.74	29.17	-0.3687	0.2872	0.0004
106	SLV 3	-0.03	1.06	11.1	-0.0002	0.0992	-0.0002
106	SLV 4	-0.03	1.06	11.1	-0.0002	0.0992	-0.0002
106	SLV 5	0.47	22.09	81.63	-0.8744	0.3616	0.001
106	SLV 6	0.47	22.09	81.63	-0.8744	0.3616	0.001
106	SLV 7	-0.47	-6.84	21.4	0.3537	-0.265	-0.0011
106	SLV 8	-0.47	-6.84	21.4	0.3537	-0.265	-0.0011
106	SLV 9	0.38	23.99	108.52	-0.9395	0.2373	0.0009
106	SLV 10	0.38	23.99	108.52	-0.9395	0.2373	0.0009
106	SLV 11	-0.57	-4.93	48.29	0.2886	-0.3892	-0.0012
106	SLV 12	-0.57	-4.93	48.29	0.2886	-0.3892	-0.0012
106	SLV 13	-0.06	16.09	118.81	-0.5856	-0.1269	0
106	SLV 14	-0.06	16.09	118.81	-0.5856	-0.1269	0
106	SLV 15	-0.35	7.42	100.75	-0.2172	-0.3149	-0.0006
106	SLV 16	-0.35	7.42	100.75	-0.2172	-0.3149	-0.0006
107	SLU 1	0.03	-0.4	42.06	0.0089	0.0244	0.0001
107	SLU 2	0.03	-0.81	42.15	0.0277	0.0253	0.0002
107	SLU 3	0.03	0	43.49	-0.0096	0.0254	0.0002
107	SLU 4	0.03	-0.25	43.54	0.0017	0.0259	0.0002
107	SLU 5	0.03	-0.38	43.34	0.007	0.0261	0.0002
107	SLU 6	0.03	0.43	44.68	-0.0303	0.0261	0.0002
107	SLU 7	0.03	0.18	44.73	-0.019	0.0267	0.0002
107	SLU 8	0.03	0.48	44.44	-0.0325	0.0259	0.0002
107	SLU 9	0.03	0.23	44.49	-0.0212	0.0264	0.0002
107	SLU 10	0.02	-0.76	49.4	0.0253	0.0233	0.0001
107	SLU 11	0.02	0.05	50.74	-0.0121	0.0233	0.0001
107	SLU 12	0.02	-0.2	50.8	-0.0008	0.0239	0.0001
107	SLU 13	0.02	-0.32	50.6	0.0046	0.024	0.0001
107	SLU 14	0.02	0.49	51.93	-0.0327	0.0241	0.0001
107	SLU 15	0.02	0.24	51.99	-0.0214	0.0246	0.0001
107	SLU 16	0.02	0.53	51.69	-0.035	0.0239	0.0001
107	SLU 17	0.02	0.28	51.75	-0.0236	0.0244	0.0001
107	SLU 18	0.02	-0.32	52.42	0.0054	0.0215	0.0001
107	SLU 19	0.02	-0.57	52.48	0.0167	0.0221	0.0001
107	SLU 20	0.02	0.12	53.61	-0.0153	0.0223	0.0001
107	SLU 21	0.02	-0.13	53.67	-0.004	0.0228	0.0001
107	SLU 22	0.03	-0.16	46.9	-0.0021	0.027	0.0002
107	SLU 23	0.03	-0.57	46.99	0.0168	0.0279	0.0002
107	SLU 24	0.03	0.24	48.33	-0.0205	0.0279	0.0002
107	SLU 25	0.03	-0.01	48.39	-0.0092	0.0285	0.0002
107	SLU 26	0.03	-0.14	48.18	-0.0039	0.0286	0.0002
107	SLU 27	0.03	0.67	49.52	-0.0412	0.0287	0.0002
107	SLU 28	0.03	0.42	49.58	-0.0299	0.0292	0.0002
107	SLU 29	0.03	0.71	49.28	-0.0434	0.0285	0.0002
107	SLU 30	0.03	0.46	49.34	-0.0321	0.029	0.0002
107	SLU 31	0.02	-0.52	54.25	0.0143	0.0259	0.0001
107	SLU 32	0.02	0.29	55.59	-0.023	0.0259	0.0001
107	SLU 33	0.02	0.04	55.64	-0.0117	0.0265	0.0001
107	SLU 34	0.02	-0.08	55.44	-0.0064	0.0266	0.0001
107	SLU 35	0.02	0.73	56.78	-0.0437	0.0267	0.0001
107	SLU 36	0.03	0.48	56.83	-0.0324	0.0272	0.0001
107	SLU 37	0.02	0.77	56.54	-0.0459	0.0264	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
107	SLU 38	0.03	0.52	56.59	-0.0346	0.027	0.0001
107	SLU 39	0.02	-0.08	57.27	-0.0056	0.0241	0.0001
107	SLU 40	0.02	-0.33	57.32	0.0057	0.0246	0.0001
107	SLU 41	0.02	0.36	58.46	-0.0263	0.0248	0.0001
107	SLU 42	0.02	0.11	58.51	-0.015	0.0254	0.0001
107	SLU 43	0.03	-0.6	53.02	0.0153	0.0308	0.0002
107	SLU 44	0.04	-1.01	53.11	0.0342	0.0318	0.0002
107	SLU 45	0.04	-0.2	54.45	-0.0032	0.0318	0.0002
107	SLU 46	0.04	-0.45	54.5	0.0082	0.0324	0.0002
107	SLU 47	0.04	-0.58	54.3	0.0135	0.0325	0.0002
107	SLU 48	0.04	0.23	55.64	-0.0238	0.0326	0.0002
107	SLU 49	0.04	-0.02	55.69	-0.0125	0.0331	0.0002
107	SLU 50	0.04	0.28	55.4	-0.026	0.0323	0.0002
107	SLU 51	0.04	0.02	55.45	-0.0147	0.0329	0.0002
107	SLU 52	0.03	-0.96	60.36	0.0317	0.0297	0.0002
107	SLU 53	0.03	-0.15	61.7	-0.0056	0.0298	0.0002
107	SLU 54	0.03	-0.4	61.76	0.0057	0.0303	0.0002
107	SLU 55	0.03	-0.52	61.55	0.011	0.0305	0.0002
107	SLU 56	0.03	0.29	62.89	-0.0263	0.0305	0.0002
107	SLU 57	0.03	0.04	62.95	-0.015	0.0311	0.0002
107	SLU 58	0.03	0.33	62.65	-0.0285	0.0303	0.0002
107	SLU 59	0.03	0.08	62.71	-0.0172	0.0309	0.0002
107	SLU 60	0.02	-0.52	63.38	0.0118	0.0279	0.0001
107	SLU 61	0.03	-0.77	63.43	0.0231	0.0285	0.0001
107	SLU 62	0.03	-0.08	64.57	-0.0089	0.0287	0.0002
107	SLU 63	0.03	-0.33	64.63	0.0024	0.0292	0.0002
107	SLU 64	0.04	-0.36	57.86	0.0044	0.0334	0.0002
107	SLU 65	0.04	-0.77	57.95	0.0232	0.0343	0.0002
107	SLU 66	0.04	0.04	59.29	-0.0141	0.0344	0.0002
107	SLU 67	0.04	-0.21	59.34	-0.0028	0.0349	0.0002
107	SLU 68	0.04	-0.34	59.14	0.0025	0.0351	0.0002
107	SLU 69	0.04	0.47	60.48	-0.0348	0.0351	0.0002
107	SLU 70	0.04	0.22	60.53	-0.0235	0.0357	0.0002
107	SLU 71	0.04	0.51	60.24	-0.037	0.0349	0.0002
107	SLU 72	0.04	0.26	60.29	-0.0257	0.0355	0.0002
107	SLU 73	0.03	-0.72	65.2	0.0207	0.0323	0.0002
107	SLU 74	0.03	0.09	66.54	-0.0166	0.0324	0.0002
107	SLU 75	0.03	-0.16	66.6	-0.0053	0.0329	0.0002
107	SLU 76	0.03	-0.29	66.39	0	0.0331	0.0002
107	SLU 77	0.03	0.53	67.73	-0.0373	0.0331	0.0002
107	SLU 78	0.03	0.27	67.79	-0.026	0.0337	0.0002
107	SLU 79	0.03	0.57	67.49	-0.0395	0.0329	0.0002
107	SLU 80	0.03	0.32	67.55	-0.0282	0.0334	0.0002
107	SLU 81	0.03	-0.28	68.22	0.0008	0.0305	0.0002
107	SLU 82	0.03	-0.53	68.28	0.0121	0.0311	0.0002
107	SLU 83	0.03	0.16	69.41	-0.0199	0.0313	0.0002
107	SLU 84	0.03	-0.1	69.47	-0.0086	0.0318	0.0002
107	SLE RA 1	0.03	-0.33	43.44	0.0058	0.0251	0.0002
107	SLE RA 2	0.03	-0.61	43.5	0.0183	0.0258	0.0002
107	SLE RA 3	0.03	-0.06	44.4	-0.0066	0.0258	0.0002
107	SLE RA 4	0.03	-0.23	44.43	0.001	0.0262	0.0002
107	SLE RA 5	0.03	-0.32	44.3	0.0045	0.0263	0.0002
107	SLE RA 6	0.03	0.23	45.19	-0.0203	0.0263	0.0002
107	SLE RA 7	0.03	0.06	45.23	-0.0128	0.0266	0.0002
107	SLE RA 8	0.03	0.25	45.03	-0.0218	0.0261	0.0002
107	SLE RA 9	0.03	0.09	45.07	-0.0143	0.0265	0.0002
107	SLE RA 10	0.02	-0.57	48.34	0.0167	0.0244	0.0001
107	SLE RA 11	0.02	-0.03	49.23	-0.0082	0.0244	0.0001
107	SLE RA 12	0.02	-0.2	49.27	-0.0007	0.0248	0.0001
107	SLE RA 13	0.02	-0.28	49.13	0.0029	0.0249	0.0001
107	SLE RA 14	0.02	0.26	50.03	-0.022	0.0249	0.0001
107	SLE RA 15	0.03	0.09	50.06	-0.0145	0.0253	0.0001
107	SLE RA 16	0.02	0.29	49.87	-0.0235	0.0248	0.0001
107	SLE RA 17	0.03	0.12	49.9	-0.0159	0.0252	0.0001
107	SLE RA 18	0.02	-0.28	50.35	0.0034	0.0232	0.0001
107	SLE RA 19	0.02	-0.44	50.39	0.0109	0.0236	0.0001
107	SLE RA 20	0.02	0.01	51.15	-0.0104	0.0237	0.0001
107	SLE RA 21	0.02	-0.15	51.18	-0.0029	0.0241	0.0001
107	SLE FR 1	0.03	-0.33	43.44	0.0058	0.0251	0.0002
107	SLE FR 2	0.03	-0.38	43.45	0.0083	0.0253	0.0002
107	SLE FR 3	0.03	-0.21	43.76	0.0002	0.0253	0.0002
107	SLE FR 4	0.03	-0.37	45.53	0.0076	0.0247	0.0001
107	SLE FR 5	0.03	-0.2	45.83	-0.0005	0.0248	0.0001
107	SLE FR 6	0.02	-0.3	46.9	0.0046	0.0242	0.0001
107	SLE QP 1	0.03	-0.33	43.44	0.0058	0.0251	0.0002
107	SLE QP 2	0.03	-0.31	45.51	0.0051	0.0246	0.0001
107	SLD 1	0.16	0.33	51.58	-0.0241	0.1207	0.0007
107	SLD 2	0.16	0.33	51.58	-0.0241	0.1207	0.0007
107	SLD 3	0.13	-2.71	49.77	0.1174	0.1422	0.0005
107	SLD 4	0.13	-2.71	49.77	0.1174	0.1422	0.0005
107	SLD 5	0.11	4.48	50.07	-0.2183	0.0207	0.0006
107	SLD 6	0.11	4.48	50.07	-0.2183	0.0207	0.0006
107	SLD 7	0.01	-5.63	44.06	0.2533	0.0925	0
107	SLD 8	0.01	-5.63	44.06	0.2533	0.0925	0
107	SLD 9	0.04	5.01	46.97	-0.2432	-0.0434	0.0003
107	SLD 10	0.04	5.01	46.97	-0.2432	-0.0434	0.0003
107	SLD 11	-0.06	-5.11	40.96	0.2284	0.0284	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
107	SLD 12	-0.06	-5.11	40.96	0.2284	0.0284	-0.0003
107	SLD 13	-0.08	2.08	41.25	-0.1072	-0.0931	-0.0003
107	SLD 14	-0.08	2.08	41.25	-0.1072	-0.0931	-0.0003
107	SLD 15	-0.11	-0.95	39.45	0.0342	-0.0715	-0.0004
107	SLD 16	-0.11	-0.95	39.45	0.0342	-0.0715	-0.0004
107	SLV 1	0.36	1.15	59.77	-0.062	0.2665	0.0015
107	SLV 2	0.36	1.15	59.77	-0.062	0.2665	0.0015
107	SLV 3	0.28	-5.94	55.51	0.2689	0.3182	0.0012
107	SLV 4	0.28	-5.94	55.51	0.2689	0.3182	0.0012
107	SLV 5	0.24	10.89	56.25	-0.5169	0.0186	0.0012
107	SLV 6	0.24	10.89	56.25	-0.5169	0.0186	0.0012
107	SLV 7	-0.01	-12.76	42.05	0.586	0.1912	-0.0001
107	SLV 8	-0.01	-12.76	42.05	0.586	0.1912	-0.0001
107	SLV 9	0.06	12.14	48.98	-0.5759	-0.1421	0.0004
107	SLV 10	0.06	12.14	48.98	-0.5759	-0.1421	0.0004
107	SLV 11	-0.19	-11.51	34.78	0.527	0.0305	-0.0009
107	SLV 12	-0.19	-11.51	34.78	0.527	0.0305	-0.0009
107	SLV 13	-0.23	5.32	35.52	-0.2588	-0.2691	-0.0009
107	SLV 14	-0.23	5.32	35.52	-0.2588	-0.2691	-0.0009
107	SLV 15	-0.31	-1.78	31.26	0.0721	-0.2173	-0.0013
107	SLV 16	-0.31	-1.78	31.26	0.0721	-0.2173	-0.0013
108	SLU 1	0.03	-0.91	5.07	0.0249	0.0187	-0.0001
108	SLU 2	0.03	-0.93	5.06	0.0254	0.019	-0.0002
108	SLU 3	0.04	-0.97	5.01	0.0266	0.0194	-0.0002
108	SLU 4	0.04	-0.98	5	0.0269	0.0196	-0.0002
108	SLU 5	0.04	-0.97	5.02	0.0267	0.0196	-0.0002
108	SLU 6	0.04	-1.01	4.97	0.0279	0.02	-0.0002
108	SLU 7	0.04	-1.02	4.97	0.0282	0.0202	-0.0002
108	SLU 8	0.04	-0.99	5	0.0274	0.0198	-0.0002
108	SLU 9	0.04	-1.01	4.99	0.0278	0.02	-0.0002
108	SLU 10	0.05	-1.19	7.92	0.0323	0.022	-0.0002
108	SLU 11	0.05	-1.23	7.87	0.0335	0.0224	-0.0002
108	SLU 12	0.05	-1.24	7.87	0.0338	0.0226	-0.0002
108	SLU 13	0.05	-1.23	7.88	0.0336	0.0226	-0.0002
108	SLU 14	0.05	-1.27	7.84	0.0348	0.0229	-0.0002
108	SLU 15	0.05	-1.28	7.83	0.0351	0.0231	-0.0002
108	SLU 16	0.05	-1.25	7.86	0.0343	0.0228	-0.0002
108	SLU 17	0.05	-1.27	7.85	0.0347	0.023	-0.0002
108	SLU 18	0.05	-1.28	9.16	0.0347	0.0229	-0.0002
108	SLU 19	0.05	-1.29	9.15	0.035	0.0231	-0.0002
108	SLU 20	0.05	-1.32	9.12	0.036	0.0235	-0.0002
108	SLU 21	0.05	-1.33	9.11	0.0363	0.0237	-0.0002
108	SLU 22	0.04	-1.13	5.26	0.031	0.0209	-0.0002
108	SLU 23	0.04	-1.15	5.24	0.0316	0.0212	-0.0002
108	SLU 24	0.04	-1.19	5.2	0.0328	0.0216	-0.0002
108	SLU 25	0.04	-1.2	5.19	0.0331	0.0218	-0.0002
108	SLU 26	0.04	-1.19	5.2	0.0328	0.0218	-0.0002
108	SLU 27	0.04	-1.24	5.16	0.0341	0.0222	-0.0002
108	SLU 28	0.04	-1.25	5.15	0.0344	0.0224	-0.0002
108	SLU 29	0.04	-1.22	5.18	0.0336	0.022	-0.0002
108	SLU 30	0.04	-1.23	5.17	0.0339	0.0223	-0.0002
108	SLU 31	0.05	-1.41	8.1	0.0385	0.0242	-0.0002
108	SLU 32	0.05	-1.45	8.06	0.0397	0.0246	-0.0002
108	SLU 33	0.05	-1.46	8.05	0.04	0.0248	-0.0002
108	SLU 34	0.05	-1.45	8.06	0.0397	0.0248	-0.0002
108	SLU 35	0.05	-1.5	8.02	0.041	0.0252	-0.0002
108	SLU 36	0.05	-1.51	8.01	0.0413	0.0254	-0.0002
108	SLU 37	0.05	-1.48	8.04	0.0405	0.025	-0.0002
108	SLU 38	0.05	-1.49	8.03	0.0408	0.0252	-0.0002
108	SLU 39	0.05	-1.5	9.34	0.0409	0.0251	-0.0002
108	SLU 40	0.05	-1.51	9.33	0.0412	0.0253	-0.0002
108	SLU 41	0.06	-1.55	9.31	0.0422	0.0257	-0.0002
108	SLU 42	0.06	-1.56	9.3	0.0425	0.0259	-0.0002
108	SLU 43	0.04	-1.1	6.53	0.0302	0.0235	-0.0002
108	SLU 44	0.04	-1.12	6.52	0.0307	0.0238	-0.0002
108	SLU 45	0.04	-1.17	6.47	0.032	0.0242	-0.0002
108	SLU 46	0.04	-1.18	6.46	0.0323	0.0244	-0.0002
108	SLU 47	0.04	-1.17	6.48	0.032	0.0244	-0.0002
108	SLU 48	0.04	-1.21	6.43	0.0333	0.0248	-0.0002
108	SLU 49	0.05	-1.22	6.42	0.0336	0.025	-0.0002
108	SLU 50	0.04	-1.19	6.46	0.0328	0.0246	-0.0002
108	SLU 51	0.05	-1.2	6.45	0.0331	0.0248	-0.0002
108	SLU 52	0.05	-1.38	9.38	0.0376	0.0268	-0.0002
108	SLU 53	0.05	-1.43	9.33	0.0389	0.0272	-0.0002
108	SLU 54	0.06	-1.44	9.32	0.0392	0.0274	-0.0002
108	SLU 55	0.06	-1.43	9.34	0.0389	0.0274	-0.0002
108	SLU 56	0.06	-1.47	9.29	0.0402	0.0278	-0.0002
108	SLU 57	0.06	-1.48	9.29	0.0405	0.028	-0.0002
108	SLU 58	0.06	-1.45	9.32	0.0397	0.0276	-0.0002
108	SLU 59	0.06	-1.46	9.31	0.04	0.0278	-0.0002
108	SLU 60	0.06	-1.48	10.62	0.0401	0.0277	-0.0002
108	SLU 61	0.06	-1.49	10.61	0.0404	0.0279	-0.0002
108	SLU 62	0.06	-1.52	10.58	0.0414	0.0283	-0.0003
108	SLU 63	0.06	-1.53	10.57	0.0417	0.0285	-0.0003
108	SLU 64	0.05	-1.33	6.72	0.0364	0.0257	-0.0002
108	SLU 65	0.05	-1.35	6.7	0.0369	0.0261	-0.0002
108	SLU 66	0.05	-1.39	6.66	0.0381	0.0264	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
108	SLU 67	0.05	-1.4	6.65	0.0385	0.0266	-0.0002
108	SLU 68	0.05	-1.39	6.66	0.0382	0.0266	-0.0002
108	SLU 69	0.05	-1.43	6.62	0.0394	0.027	-0.0002
108	SLU 70	0.05	-1.44	6.61	0.0397	0.0272	-0.0002
108	SLU 71	0.05	-1.41	6.64	0.039	0.0269	-0.0002
108	SLU 72	0.05	-1.42	6.63	0.0393	0.0271	-0.0002
108	SLU 73	0.06	-1.61	9.56	0.0438	0.029	-0.0003
108	SLU 74	0.06	-1.65	9.52	0.045	0.0294	-0.0003
108	SLU 75	0.06	-1.66	9.51	0.0454	0.0296	-0.0003
108	SLU 76	0.06	-1.65	9.52	0.0451	0.0296	-0.0003
108	SLU 77	0.06	-1.69	9.48	0.0463	0.03	-0.0003
108	SLU 78	0.06	-1.7	9.47	0.0466	0.0302	-0.0003
108	SLU 79	0.06	-1.67	9.5	0.0458	0.0299	-0.0003
108	SLU 80	0.06	-1.68	9.49	0.0462	0.0301	-0.0003
108	SLU 81	0.06	-1.7	10.8	0.0462	0.03	-0.0003
108	SLU 82	0.06	-1.71	10.79	0.0465	0.0302	-0.0003
108	SLU 83	0.06	-1.74	10.76	0.0475	0.0306	-0.0003
108	SLU 84	0.06	-1.75	10.76	0.0478	0.0308	-0.0003
108	SLE RA 1	0.04	-0.97	5.13	0.0266	0.0193	-0.0002
108	SLE RA 2	0.04	-0.98	5.12	0.027	0.0195	-0.0002
108	SLE RA 3	0.04	-1.01	5.09	0.0278	0.0198	-0.0002
108	SLE RA 4	0.04	-1.02	5.08	0.028	0.0199	-0.0002
108	SLE RA 5	0.04	-1.01	5.09	0.0278	0.0199	-0.0002
108	SLE RA 6	0.04	-1.04	5.06	0.0287	0.0202	-0.0002
108	SLE RA 7	0.04	-1.05	5.05	0.0289	0.0203	-0.0002
108	SLE RA 8	0.04	-1.03	5.07	0.0283	0.0201	-0.0002
108	SLE RA 9	0.04	-1.04	5.07	0.0286	0.0202	-0.0002
108	SLE RA 10	0.04	-1.16	7.02	0.0316	0.0215	-0.0002
108	SLE RA 11	0.04	-1.19	6.99	0.0324	0.0218	-0.0002
108	SLE RA 12	0.04	-1.19	6.99	0.0326	0.0219	-0.0002
108	SLE RA 13	0.04	-1.19	7	0.0324	0.0219	-0.0002
108	SLE RA 14	0.04	-1.21	6.97	0.0333	0.0221	-0.0002
108	SLE RA 15	0.04	-1.22	6.96	0.0335	0.0223	-0.0002
108	SLE RA 16	0.04	-1.2	6.98	0.0329	0.0221	-0.0002
108	SLE RA 17	0.04	-1.21	6.98	0.0332	0.0222	-0.0002
108	SLE RA 18	0.05	-1.22	7.85	0.0332	0.0221	-0.0002
108	SLE RA 19	0.05	-1.23	7.84	0.0334	0.0223	-0.0002
108	SLE RA 20	0.05	-1.25	7.82	0.0341	0.0225	-0.0002
108	SLE RA 21	0.05	-1.26	7.82	0.0343	0.0227	-0.0002
108	SLE FR 1	0.04	-0.97	5.13	0.0266	0.0193	-0.0002
108	SLE FR 2	0.04	-0.97	5.12	0.0267	0.0193	-0.0002
108	SLE FR 3	0.04	-0.98	5.12	0.027	0.0194	-0.0002
108	SLE FR 4	0.04	-1.05	5.94	0.0287	0.0202	-0.0002
108	SLE FR 5	0.04	-1.06	5.93	0.0289	0.0203	-0.0002
108	SLE FR 6	0.04	-1.1	6.49	0.0299	0.0207	-0.0002
108	SLE QP 1	0.04	-0.97	5.13	0.0266	0.0193	-0.0002
108	SLE QP 2	0.04	-1.05	5.94	0.0286	0.0201	-0.0002
108	SLD 1	0.17	-1.37	5.58	0.0374	0.1231	-0.0008
108	SLD 2	0.17	-1.37	5.58	0.0374	0.1231	-0.0008
108	SLD 3	0.2	-3.49	4.13	0.0954	0.1442	-0.0009
108	SLD 4	0.2	-3.49	4.13	0.0954	0.1442	-0.0009
108	SLD 5	0.03	2.08	8.02	-0.0567	0.019	-0.0001
108	SLD 6	0.03	2.08	8.02	-0.0567	0.019	-0.0001
108	SLD 7	0.13	-5	3.22	0.1366	0.0894	-0.0006
108	SLD 8	0.13	-5	3.22	0.1366	0.0894	-0.0006
108	SLD 9	-0.05	2.91	8.67	-0.0794	-0.0491	0.0003
108	SLD 10	-0.05	2.91	8.67	-0.0794	-0.0491	0.0003
108	SLD 11	0.04	-4.17	3.87	0.1139	0.0213	-0.0002
108	SLD 12	0.04	-4.17	3.87	0.1139	0.0213	-0.0002
108	SLD 13	-0.12	1.4	7.75	-0.0382	-0.104	0.0006
108	SLD 14	-0.12	1.4	7.75	-0.0382	-0.104	0.0006
108	SLD 15	-0.09	-0.72	6.31	0.0198	-0.0828	0.0004
108	SLD 16	-0.09	-0.72	6.31	0.0198	-0.0828	0.0004
108	SLV 1	0.36	-1.79	5.09	0.0491	0.2796	-0.0017
108	SLV 2	0.36	-1.79	5.09	0.0491	0.2796	-0.0017
108	SLV 3	0.44	-6.78	1.7	0.1851	0.3307	-0.002
108	SLV 4	0.44	-6.78	1.7	0.1851	0.3307	-0.002
108	SLV 5	0.03	6.29	10.82	-0.1715	0.0205	-0.0001
108	SLV 6	0.03	6.29	10.82	-0.1715	0.0205	-0.0001
108	SLV 7	0.27	-10.32	-0.46	0.2818	0.1908	-0.0012
108	SLV 8	0.27	-10.32	-0.46	0.2818	0.1908	-0.0012
108	SLV 9	-0.19	8.23	12.35	-0.2246	-0.1505	0.0009
108	SLV 10	-0.19	8.23	12.35	-0.2246	-0.1505	0.0009
108	SLV 11	0.05	-8.38	1.07	0.2287	0.0198	-0.0002
108	SLV 12	0.05	-8.38	1.07	0.2287	0.0198	-0.0002
108	SLV 13	-0.36	4.68	10.18	-0.1279	-0.2904	0.0017
108	SLV 14	-0.36	4.68	10.18	-0.1279	-0.2904	0.0017
108	SLV 15	-0.29	-0.3	6.8	0.0081	-0.2394	0.0014
108	SLV 16	-0.29	-0.3	6.8	0.0081	-0.2394	0.0014
109	SLU 1	0.1	-0.05	18.37	-0.1609	0.062	0
109	SLU 2	0.11	2.48	18.79	-0.2941	0.0741	0
109	SLU 3	0.1	-0.35	18.56	-0.1497	0.0637	0
109	SLU 4	0.11	1.17	18.81	-0.2296	0.0709	0
109	SLU 5	0.11	2.12	18.8	-0.2775	0.0749	0
109	SLU 6	0.1	-0.72	18.57	-0.1331	0.0645	0
109	SLU 7	0.11	0.8	18.82	-0.213	0.0717	0
109	SLU 8	0.1	-0.78	18.39	-0.1278	0.0636	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
109	SLU 9	0.11	0.74	18.64	-0.2077	0.0708	0
109	SLU 10	0.13	2.36	21.07	-0.3122	0.0847	0
109	SLU 11	0.11	-0.48	20.84	-0.1678	0.0744	0
109	SLU 12	0.12	1.04	21.09	-0.2477	0.0816	0
109	SLU 13	0.13	1.99	21.08	-0.2957	0.0855	0
109	SLU 14	0.11	-0.84	20.85	-0.1513	0.0752	0
109	SLU 15	0.13	0.68	21.1	-0.2312	0.0824	0
109	SLU 16	0.11	-0.91	20.67	-0.146	0.0743	0
109	SLU 17	0.12	0.61	20.92	-0.2259	0.0815	0
109	SLU 18	0.12	-0.23	21.63	-0.1868	0.0772	0
109	SLU 19	0.13	1.29	21.88	-0.2667	0.0844	0
109	SLU 20	0.12	-0.6	21.64	-0.1703	0.078	0
109	SLU 21	0.13	0.92	21.89	-0.2502	0.0852	0
109	SLU 22	0.11	-0.28	20.25	-0.1704	0.0715	0
109	SLU 23	0.13	2.25	20.67	-0.3036	0.0836	0
109	SLU 24	0.11	-0.58	20.44	-0.1592	0.0732	0
109	SLU 25	0.12	0.94	20.69	-0.2391	0.0804	0
109	SLU 26	0.13	1.89	20.68	-0.2871	0.0844	0
109	SLU 27	0.11	-0.95	20.45	-0.1427	0.074	0
109	SLU 28	0.12	0.57	20.7	-0.2226	0.0812	0
109	SLU 29	0.11	-1.02	20.27	-0.1374	0.0731	0
109	SLU 30	0.12	0.5	20.52	-0.2173	0.0803	0
109	SLU 31	0.14	2.12	22.95	-0.3217	0.0942	0
109	SLU 32	0.13	-0.71	22.72	-0.1773	0.0839	0
109	SLU 33	0.14	0.81	22.97	-0.2572	0.0911	0
109	SLU 34	0.14	1.76	22.96	-0.3052	0.095	0
109	SLU 35	0.13	-1.08	22.73	-0.1608	0.0847	0
109	SLU 36	0.14	0.44	22.98	-0.2407	0.0919	0
109	SLU 37	0.13	-1.14	22.55	-0.1555	0.0838	0
109	SLU 38	0.14	0.38	22.8	-0.2354	0.091	0
109	SLU 39	0.13	-0.47	23.51	-0.1963	0.0867	0
109	SLU 40	0.14	1.06	23.76	-0.2762	0.0939	0
109	SLU 41	0.13	-0.83	23.52	-0.1798	0.0875	0
109	SLU 42	0.14	0.69	23.77	-0.2597	0.0947	0
109	SLU 43	0.12	0.02	23.24	-0.2059	0.0774	0
109	SLU 44	0.14	2.55	23.66	-0.3391	0.0894	0
109	SLU 45	0.12	-0.28	23.43	-0.1947	0.0791	0
109	SLU 46	0.13	1.24	23.68	-0.2746	0.0863	0
109	SLU 47	0.14	2.18	23.67	-0.3225	0.0902	0
109	SLU 48	0.12	-0.65	23.44	-0.1781	0.0799	0
109	SLU 49	0.13	0.87	23.69	-0.258	0.0871	0
109	SLU 50	0.12	-0.72	23.26	-0.1728	0.079	0
109	SLU 51	0.13	0.8	23.51	-0.2527	0.0862	0
109	SLU 52	0.15	2.42	25.94	-0.3572	0.1	0
109	SLU 53	0.14	-0.41	25.71	-0.2128	0.0897	0
109	SLU 54	0.15	1.11	25.96	-0.2927	0.0969	0
109	SLU 55	0.15	2.06	25.95	-0.3407	0.1008	0
109	SLU 56	0.14	-0.78	25.72	-0.1963	0.0905	0
109	SLU 57	0.15	0.74	25.97	-0.2762	0.0977	0
109	SLU 58	0.14	-0.85	25.54	-0.191	0.0896	0
109	SLU 59	0.15	0.68	25.79	-0.2709	0.0968	0
109	SLU 60	0.14	-0.17	26.49	-0.2318	0.0926	0
109	SLU 61	0.15	1.35	26.74	-0.3117	0.0998	0
109	SLU 62	0.14	-0.53	26.5	-0.2153	0.0934	0
109	SLU 63	0.15	0.99	26.76	-0.2952	0.1006	0
109	SLU 64	0.13	-0.22	25.12	-0.2154	0.0869	0
109	SLU 65	0.15	2.32	25.54	-0.3486	0.0989	0
109	SLU 66	0.14	-0.52	25.31	-0.2042	0.0886	0
109	SLU 67	0.15	1	25.56	-0.2841	0.0958	0
109	SLU 68	0.15	1.95	25.55	-0.3321	0.0997	0
109	SLU 69	0.14	-0.88	25.32	-0.1877	0.0894	0
109	SLU 70	0.15	0.64	25.57	-0.2676	0.0966	0
109	SLU 71	0.14	-0.95	25.14	-0.1824	0.0885	0
109	SLU 72	0.15	0.57	25.39	-0.2623	0.0957	0
109	SLU 73	0.17	2.19	27.82	-0.3667	0.1095	0
109	SLU 74	0.15	-0.64	27.59	-0.2223	0.0992	0
109	SLU 75	0.16	0.88	27.84	-0.3022	0.1064	0
109	SLU 76	0.17	1.82	27.83	-0.3502	0.1103	0
109	SLU 77	0.15	-1.01	27.6	-0.2058	0.1	0
109	SLU 78	0.16	0.51	27.85	-0.2857	0.1072	0
109	SLU 79	0.15	-1.08	27.42	-0.2005	0.0991	0
109	SLU 80	0.16	0.44	27.67	-0.2804	0.1063	0
109	SLU 81	0.16	-0.4	28.37	-0.2413	0.1021	0
109	SLU 82	0.17	1.12	28.62	-0.3212	0.1093	0
109	SLU 83	0.16	-0.77	28.38	-0.2248	0.1029	0
109	SLU 84	0.17	0.75	28.63	-0.3047	0.1101	0
109	SLE RA 1	0.1	-0.12	18.91	-0.1636	0.0647	0
109	SLE RA 2	0.11	1.57	19.19	-0.2524	0.0728	0
109	SLE RA 3	0.1	-0.32	19.04	-0.1561	0.0659	0
109	SLE RA 4	0.11	0.7	19.2	-0.2094	0.0707	0
109	SLE RA 5	0.11	1.33	19.2	-0.2414	0.0733	0
109	SLE RA 6	0.1	-0.56	19.04	-0.1451	0.0664	0
109	SLE RA 7	0.11	0.45	19.21	-0.1984	0.0712	0
109	SLE RA 8	0.1	-0.6	18.92	-0.1416	0.0658	0
109	SLE RA 9	0.11	0.41	19.09	-0.1948	0.0706	0
109	SLE RA 10	0.12	1.49	20.71	-0.2645	0.0798	0
109	SLE RA 11	0.11	-0.4	20.55	-0.1682	0.073	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
109	SLE RA 12	0.12	0.61	20.72	-0.2215	0.0778	0
109	SLE RA 13	0.12	1.24	20.71	-0.2535	0.0804	0
109	SLE RA 14	0.11	-0.65	20.56	-0.1572	0.0735	0
109	SLE RA 15	0.12	0.37	20.73	-0.2105	0.0783	0
109	SLE RA 16	0.11	-0.69	20.44	-0.1537	0.0729	0
109	SLE RA 17	0.12	0.32	20.61	-0.2069	0.0777	0
109	SLE RA 18	0.11	-0.24	21.08	-0.1809	0.0749	0
109	SLE RA 19	0.12	0.78	21.25	-0.2342	0.0797	0
109	SLE RA 20	0.12	-0.48	21.09	-0.1699	0.0754	0
109	SLE RA 21	0.12	0.53	21.25	-0.2231	0.0802	0
109	SLE FR 1	0.1	-0.12	18.91	-0.1636	0.0647	0
109	SLE FR 2	0.1	0.22	18.96	-0.1814	0.0663	0
109	SLE FR 3	0.1	-0.21	18.91	-0.1592	0.065	0
109	SLE FR 4	0.11	0.19	19.62	-0.1866	0.0694	0
109	SLE FR 5	0.1	-0.25	19.56	-0.1644	0.068	0
109	SLE FR 6	0.11	-0.18	19.99	-0.1723	0.0698	0
109	SLE QP 1	0.1	-0.12	18.91	-0.1636	0.0647	0
109	SLE QP 2	0.1	-0.15	19.56	-0.1688	0.0678	0
109	SLD 1	0.06	-0.49	18.84	-0.1558	0.1362	-0.0001
109	SLD 2	0.06	-0.49	18.84	-0.1558	0.1362	-0.0001
109	SLD 3	0.03	-3.83	17.44	0.0072	0.1156	-0.0001
109	SLD 4	0.03	-3.83	17.44	0.0072	0.1156	-0.0001
109	SLD 5	0.13	4.8	21.47	-0.4122	0.1195	-0.0001
109	SLD 6	0.13	4.8	21.47	-0.4122	0.1195	-0.0001
109	SLD 7	0.04	-6.31	16.8	0.1313	0.051	0
109	SLD 8	0.04	-6.31	16.8	0.1313	0.051	0
109	SLD 9	0.17	6	22.32	-0.4689	0.0846	0
109	SLD 10	0.17	6	22.32	-0.4689	0.0846	0
109	SLD 11	0.08	-5.1	17.65	0.0746	0.0161	0
109	SLD 12	0.08	-5.1	17.65	0.0746	0.0161	0
109	SLD 13	0.18	3.52	21.68	-0.3448	0.0199	0
109	SLD 14	0.18	3.52	21.68	-0.3448	0.0199	0
109	SLD 15	0.15	0.19	20.28	-0.1818	-0.0006	0.0001
109	SLD 16	0.15	0.19	20.28	-0.1818	-0.0006	0.0001
109	SLV 1	-0.01	-1.02	17.92	-0.1352	0.23	-0.0002
109	SLV 2	-0.01	-1.02	17.92	-0.1352	0.23	-0.0002
109	SLV 3	-0.07	-8.99	14.55	0.2552	0.179	-0.0002
109	SLV 4	-0.07	-8.99	14.55	0.2552	0.179	-0.0002
109	SLV 5	0.17	11.66	24.18	-0.7508	0.1938	-0.0001
109	SLV 6	0.17	11.66	24.18	-0.7508	0.1938	-0.0001
109	SLV 7	-0.05	-14.88	12.95	0.5505	0.0238	0
109	SLV 8	-0.05	-14.88	12.95	0.5505	0.0238	0
109	SLV 9	0.26	14.58	26.17	-0.8881	0.1118	0
109	SLV 10	0.26	14.58	26.17	-0.8881	0.1118	0
109	SLV 11	0.04	-11.97	14.94	0.4132	-0.0583	0.0001
109	SLV 12	0.04	-11.97	14.94	0.4132	-0.0583	0.0001
109	SLV 13	0.28	8.68	24.57	-0.5928	-0.0435	0.0001
109	SLV 14	0.28	8.68	24.57	-0.5928	-0.0435	0.0001
109	SLV 15	0.22	0.72	21.2	-0.2024	-0.0945	0.0002
109	SLV 16	0.22	0.72	21.2	-0.2024	-0.0945	0.0002
110	SLU 1	0.05	-2.2	46.55	0.0649	0.033	-0.0011
110	SLU 2	0.05	-2.64	47.13	0.0852	0.0325	-0.0011
110	SLU 3	0.05	-2.04	47.51	0.0567	0.0337	-0.0011
110	SLU 4	0.05	-2.31	47.86	0.0689	0.0335	-0.0011
110	SLU 5	0.05	-2.45	47.73	0.0755	0.0329	-0.0011
110	SLU 6	0.05	-1.86	48.11	0.047	0.0342	-0.0011
110	SLU 7	0.05	-2.12	48.46	0.0592	0.0339	-0.0011
110	SLU 8	0.05	-1.83	47.75	0.0454	0.0338	-0.0011
110	SLU 9	0.05	-2.09	48.1	0.0576	0.0335	-0.0011
110	SLU 10	0.06	-3.06	55.2	0.098	0.0393	-0.0013
110	SLU 11	0.06	-2.47	55.58	0.0695	0.0405	-0.0012
110	SLU 12	0.06	-2.73	55.93	0.0817	0.0402	-0.0013
110	SLU 13	0.06	-2.88	55.8	0.0882	0.0397	-0.0013
110	SLU 14	0.06	-2.28	56.18	0.0597	0.0409	-0.0013
110	SLU 15	0.06	-2.55	56.53	0.0719	0.0407	-0.0013
110	SLU 16	0.06	-2.25	55.82	0.0582	0.0406	-0.0012
110	SLU 17	0.06	-2.52	56.17	0.0703	0.0403	-0.0013
110	SLU 18	0.06	-2.81	58.08	0.0832	0.0426	-0.0013
110	SLU 19	0.06	-3.07	58.43	0.0953	0.0423	-0.0013
110	SLU 20	0.06	-2.62	58.68	0.0734	0.043	-0.0013
110	SLU 21	0.06	-2.88	59.03	0.0856	0.0428	-0.0013
110	SLU 22	0.05	-2.34	51.38	0.068	0.0368	-0.0012
110	SLU 23	0.05	-2.78	51.97	0.0883	0.0364	-0.0012
110	SLU 24	0.05	-2.18	52.35	0.0598	0.0376	-0.0012
110	SLU 25	0.05	-2.44	52.7	0.072	0.0374	-0.0012
110	SLU 26	0.05	-2.59	52.57	0.0785	0.0368	-0.0012
110	SLU 27	0.05	-1.99	52.95	0.05	0.038	-0.0012
110	SLU 28	0.05	-2.26	53.3	0.0622	0.0378	-0.0012
110	SLU 29	0.05	-1.96	52.58	0.0485	0.0377	-0.0012
110	SLU 30	0.05	-2.23	52.93	0.0606	0.0374	-0.0012
110	SLU 31	0.06	-3.2	60.04	0.101	0.0432	-0.0014
110	SLU 32	0.06	-2.6	60.42	0.0726	0.0444	-0.0014
110	SLU 33	0.06	-2.87	60.77	0.0847	0.0441	-0.0014
110	SLU 34	0.06	-3.01	60.64	0.0913	0.0436	-0.0014
110	SLU 35	0.06	-2.42	61.02	0.0628	0.0448	-0.0014
110	SLU 36	0.06	-2.68	61.37	0.075	0.0445	-0.0014
110	SLU 37	0.06	-2.39	60.65	0.0612	0.0445	-0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
110	SLU 38	0.06	-2.65	61	0.0734	0.0442	-0.0014
110	SLU 39	0.07	-2.94	62.91	0.0862	0.0465	-0.0014
110	SLU 40	0.07	-3.21	63.26	0.0984	0.0462	-0.0014
110	SLU 41	0.07	-2.76	63.51	0.0765	0.0469	-0.0014
110	SLU 42	0.07	-3.02	63.86	0.0886	0.0467	-0.0014
110	SLU 43	0.06	-2.81	58.86	0.0834	0.0415	-0.0013
110	SLU 44	0.06	-3.25	59.44	0.1037	0.0411	-0.0014
110	SLU 45	0.06	-2.66	59.82	0.0752	0.0423	-0.0014
110	SLU 46	0.06	-2.92	60.17	0.0874	0.042	-0.0014
110	SLU 47	0.06	-3.07	60.04	0.0939	0.0415	-0.0014
110	SLU 48	0.06	-2.47	60.42	0.0654	0.0427	-0.0014
110	SLU 49	0.06	-2.74	60.77	0.0776	0.0424	-0.0014
110	SLU 50	0.06	-2.44	60.05	0.0639	0.0424	-0.0013
110	SLU 51	0.06	-2.71	60.4	0.076	0.0421	-0.0014
110	SLU 52	0.07	-3.68	67.51	0.1164	0.0478	-0.0015
110	SLU 53	0.07	-3.08	67.89	0.0879	0.0491	-0.0015
110	SLU 54	0.07	-3.35	68.24	0.1001	0.0488	-0.0015
110	SLU 55	0.07	-3.49	68.11	0.1067	0.0482	-0.0015
110	SLU 56	0.07	-2.9	68.49	0.0782	0.0495	-0.0015
110	SLU 57	0.07	-3.16	68.84	0.0903	0.0492	-0.0015
110	SLU 58	0.07	-2.87	68.12	0.0766	0.0491	-0.0015
110	SLU 59	0.07	-3.13	68.47	0.0888	0.0489	-0.0015
110	SLU 60	0.07	-3.42	70.38	0.1016	0.0512	-0.0016
110	SLU 61	0.07	-3.68	70.73	0.1138	0.0509	-0.0016
110	SLU 62	0.07	-3.23	70.98	0.0918	0.0516	-0.0016
110	SLU 63	0.07	-3.5	71.33	0.104	0.0513	-0.0016
110	SLU 64	0.06	-2.95	63.69	0.0864	0.0454	-0.0014
110	SLU 65	0.06	-3.39	64.27	0.1067	0.045	-0.0015
110	SLU 66	0.06	-2.79	64.66	0.0782	0.0462	-0.0015
110	SLU 67	0.06	-3.06	65	0.0904	0.0459	-0.0015
110	SLU 68	0.06	-3.2	64.87	0.097	0.0454	-0.0015
110	SLU 69	0.07	-2.61	65.26	0.0685	0.0466	-0.0015
110	SLU 70	0.07	-2.87	65.6	0.0806	0.0463	-0.0015
110	SLU 71	0.06	-2.58	64.89	0.0669	0.0462	-0.0015
110	SLU 72	0.06	-2.84	65.24	0.0791	0.046	-0.0015
110	SLU 73	0.07	-3.81	72.34	0.1195	0.0517	-0.0016
110	SLU 74	0.07	-3.22	72.73	0.091	0.0529	-0.0016
110	SLU 75	0.07	-3.48	73.07	0.1032	0.0527	-0.0017
110	SLU 76	0.07	-3.63	72.94	0.1097	0.0521	-0.0017
110	SLU 77	0.08	-3.03	73.33	0.0812	0.0534	-0.0016
110	SLU 78	0.07	-3.3	73.67	0.0934	0.0531	-0.0017
110	SLU 79	0.07	-3	72.96	0.0797	0.053	-0.0016
110	SLU 80	0.07	-3.27	73.31	0.0918	0.0527	-0.0017
110	SLU 81	0.08	-3.56	75.22	0.1047	0.0551	-0.0017
110	SLU 82	0.08	-3.82	75.57	0.1168	0.0548	-0.0017
110	SLU 83	0.08	-3.37	75.82	0.0949	0.0555	-0.0017
110	SLU 84	0.08	-3.63	76.17	0.1071	0.0552	-0.0017
110	SLE RA 1	0.05	-2.24	47.93	0.0658	0.0341	-0.0011
110	SLE RA 2	0.05	-2.53	48.32	0.0793	0.0338	-0.0011
110	SLE RA 3	0.05	-2.13	48.57	0.0604	0.0346	-0.0011
110	SLE RA 4	0.05	-2.31	48.81	0.0685	0.0344	-0.0011
110	SLE RA 5	0.05	-2.41	48.72	0.0728	0.0341	-0.0011
110	SLE RA 6	0.05	-2.01	48.97	0.0538	0.0349	-0.0011
110	SLE RA 7	0.05	-2.19	49.21	0.062	0.0347	-0.0011
110	SLE RA 8	0.05	-1.99	48.73	0.0528	0.0346	-0.0011
110	SLE RA 9	0.05	-2.17	48.96	0.0609	0.0345	-0.0011
110	SLE RA 10	0.05	-2.82	53.7	0.0878	0.0383	-0.0012
110	SLE RA 11	0.05	-2.42	53.95	0.0689	0.0391	-0.0012
110	SLE RA 12	0.05	-2.59	54.19	0.077	0.0389	-0.0012
110	SLE RA 13	0.05	-2.69	54.1	0.0813	0.0386	-0.0012
110	SLE RA 14	0.06	-2.29	54.35	0.0623	0.0394	-0.0012
110	SLE RA 15	0.06	-2.47	54.59	0.0705	0.0392	-0.0012
110	SLE RA 16	0.05	-2.27	54.11	0.0613	0.0391	-0.0012
110	SLE RA 17	0.05	-2.45	54.34	0.0694	0.039	-0.0012
110	SLE RA 18	0.06	-2.64	55.62	0.078	0.0405	-0.0012
110	SLE RA 19	0.06	-2.82	55.85	0.0861	0.0403	-0.0013
110	SLE RA 20	0.06	-2.52	56.02	0.0715	0.0408	-0.0013
110	SLE RA 21	0.06	-2.69	56.25	0.0796	0.0406	-0.0013
110	SLE FR 1	0.05	-2.24	47.93	0.0658	0.0341	-0.0011
110	SLE FR 2	0.05	-2.3	48.01	0.0685	0.034	-0.0011
110	SLE FR 3	0.05	-2.19	48.09	0.0632	0.0342	-0.0011
110	SLE FR 4	0.05	-2.42	50.31	0.0722	0.0359	-0.0011
110	SLE FR 5	0.05	-2.31	50.4	0.0669	0.0361	-0.0011
110	SLE FR 6	0.05	-2.44	51.77	0.0719	0.0373	-0.0012
110	SLE QP 1	0.05	-2.24	47.93	0.0658	0.0341	-0.0011
110	SLE QP 2	0.05	-2.36	50.24	0.0695	0.036	-0.0011
110	SLD 1	-0.02	0.49	45.58	-0.0788	0.104	-0.0035
110	SLD 2	-0.02	0.49	45.58	-0.0788	0.104	-0.0035
110	SLD 3	0	-2.95	44.92	0.0929	0.1235	-0.0039
110	SLD 4	0	-2.95	44.92	0.0929	0.1235	-0.0039
110	SLD 5	-0.01	3.72	49.84	-0.2355	0.027	-0.0012
110	SLD 6	-0.01	3.72	49.84	-0.2355	0.027	-0.0012
110	SLD 7	0.07	-7.76	47.64	0.337	0.0917	-0.0026
110	SLD 8	0.07	-7.76	47.64	0.337	0.0917	-0.0026
110	SLD 9	0.03	3.04	52.83	-0.1981	-0.0197	0.0003
110	SLD 10	0.03	3.04	52.83	-0.1981	-0.0197	0.0003
110	SLD 11	0.11	-8.44	50.63	0.3744	0.045	-0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
110	SLD 12	0.11	-8.44	50.63	0.3744	0.045	-0.0011
110	SLD 13	0.1	-1.77	55.55	0.046	-0.0515	0.0016
110	SLD 14	0.1	-1.77	55.55	0.046	-0.0515	0.0016
110	SLD 15	0.13	-5.21	54.89	0.2178	-0.0321	0.0012
110	SLD 16	0.13	-5.21	54.89	0.2178	-0.0321	0.0012
110	SLV 1	-0.13	4.36	39.32	-0.2793	0.2081	-0.007
110	SLV 2	-0.13	4.36	39.32	-0.2793	0.2081	-0.007
110	SLV 3	-0.07	-3.7	37.76	0.123	0.2546	-0.0081
110	SLV 4	-0.07	-3.7	37.76	0.123	0.2546	-0.0081
110	SLV 5	-0.09	11.87	49.33	-0.6455	0.0172	-0.0013
110	SLV 6	-0.09	11.87	49.33	-0.6455	0.0172	-0.0013
110	SLV 7	0.1	-14.98	44.12	0.6958	0.172	-0.0048
110	SLV 8	0.1	-14.98	44.12	0.6958	0.172	-0.0048
110	SLV 9	0	10.26	56.35	-0.5569	-0.1	0.0025
110	SLV 10	0	10.26	56.35	-0.5569	-0.1	0.0025
110	SLV 11	0.2	-16.6	51.14	0.7844	0.0548	-0.001
110	SLV 12	0.2	-16.6	51.14	0.7844	0.0548	-0.001
110	SLV 13	0.18	-1.02	62.72	0.0159	-0.1826	0.0058
110	SLV 14	0.18	-1.02	62.72	0.0159	-0.1826	0.0058
110	SLV 15	0.23	-9.08	61.15	0.4183	-0.1361	0.0047
110	SLV 16	0.23	-9.08	61.15	0.4183	-0.1361	0.0047
111	SLU 1	0.01	3.03	32.06	-0.2447	0.0006	0
111	SLU 2	-0.01	5.72	33.69	-0.3831	-0.0091	0
111	SLU 3	0.01	2.91	32.89	-0.2421	0.0006	0
111	SLU 4	0	4.53	33.87	-0.3251	-0.0052	0
111	SLU 5	-0.01	5.5	34.21	-0.3749	-0.0091	0
111	SLU 6	0.01	2.69	33.41	-0.2339	0.0007	0
111	SLU 7	0	4.31	34.39	-0.317	-0.0052	0
111	SLU 8	0.01	2.6	33.09	-0.2283	0.0007	0
111	SLU 9	0	4.21	34.07	-0.3114	-0.0052	0
111	SLU 10	-0.01	6.13	38.24	-0.4162	-0.0091	0
111	SLU 11	0.01	3.32	37.44	-0.2752	0.0007	0
111	SLU 12	0	4.94	38.42	-0.3582	-0.0052	0
111	SLU 13	-0.01	5.92	38.75	-0.408	-0.0091	0
111	SLU 14	0.01	3.11	37.95	-0.267	0.0007	0
111	SLU 15	0	4.72	38.93	-0.3501	-0.0052	0
111	SLU 16	0.01	3.01	37.64	-0.2614	0.0007	0
111	SLU 17	0	4.62	38.62	-0.3445	-0.0052	0
111	SLU 18	0.01	3.62	38.56	-0.2919	0.0007	0
111	SLU 19	0	5.23	39.53	-0.375	-0.0052	0
111	SLU 20	0.01	3.4	39.07	-0.2838	0.0007	0
111	SLU 21	0	5.02	40.05	-0.3668	-0.0052	0
111	SLU 22	0.01	3.34	36.18	-0.2715	0.0007	0
111	SLU 23	-0.01	6.03	37.81	-0.4099	-0.0091	0
111	SLU 24	0.01	3.22	37.01	-0.2689	0.0007	0
111	SLU 25	0	4.84	37.99	-0.3519	-0.0052	0
111	SLU 26	-0.01	5.81	38.33	-0.4017	-0.0091	0
111	SLU 27	0.01	3	37.53	-0.2607	0.0007	0
111	SLU 28	0	4.62	38.5	-0.3438	-0.0052	0
111	SLU 29	0.01	2.91	37.21	-0.2551	0.0007	0
111	SLU 30	0	4.52	38.19	-0.3382	-0.0052	0
111	SLU 31	-0.01	6.44	42.36	-0.443	-0.0091	0
111	SLU 32	0.01	3.63	41.56	-0.302	0.0007	0
111	SLU 33	0	5.25	42.53	-0.385	-0.0052	0
111	SLU 34	0	6.23	42.87	-0.4348	-0.0091	0
111	SLU 35	0.01	3.42	42.07	-0.2938	0.0007	0
111	SLU 36	0	5.03	43.05	-0.3769	-0.0052	0
111	SLU 37	0.01	3.32	41.76	-0.2882	0.0007	0
111	SLU 38	0	4.93	42.73	-0.3713	-0.0052	0
111	SLU 39	0.01	3.93	42.67	-0.3188	0.0007	0
111	SLU 40	0	5.54	43.65	-0.4018	-0.0052	0
111	SLU 41	0.01	3.71	43.19	-0.3106	0.0007	0
111	SLU 42	0	5.33	44.17	-0.3936	-0.0052	0
111	SLU 43	0.01	3.83	40.27	-0.3089	0.0008	0
111	SLU 44	0	6.52	41.9	-0.4473	-0.0089	0
111	SLU 45	0.01	3.71	41.1	-0.3063	0.0008	0
111	SLU 46	0	5.33	42.08	-0.3893	-0.005	0
111	SLU 47	0	6.31	42.42	-0.4391	-0.0089	0
111	SLU 48	0.01	3.5	41.62	-0.2981	0.0008	0
111	SLU 49	0	5.11	42.59	-0.3812	-0.005	0
111	SLU 50	0.01	3.4	41.3	-0.2925	0.0008	0
111	SLU 51	0	5.01	42.28	-0.3756	-0.005	0
111	SLU 52	0	6.94	46.45	-0.4804	-0.0089	0
111	SLU 53	0.01	4.13	45.65	-0.3394	0.0009	0
111	SLU 54	0	5.74	46.62	-0.4224	-0.005	0
111	SLU 55	0	6.72	46.96	-0.4722	-0.0089	0
111	SLU 56	0.01	3.91	46.16	-0.3312	0.0009	0
111	SLU 57	0	5.52	47.14	-0.4143	-0.005	0
111	SLU 58	0.01	3.81	45.85	-0.3256	0.0009	0
111	SLU 59	0	5.42	46.82	-0.4087	-0.005	0
111	SLU 60	0.01	4.42	46.76	-0.3562	0.0009	0
111	SLU 61	0	6.04	47.74	-0.4392	-0.005	0
111	SLU 62	0.01	4.2	47.28	-0.348	0.0009	0
111	SLU 63	0	5.82	48.26	-0.431	-0.005	0
111	SLU 64	0.01	4.14	44.39	-0.3357	0.0008	0
111	SLU 65	0	6.84	46.02	-0.4741	-0.0089	0
111	SLU 66	0.01	4.02	45.22	-0.3331	0.0008	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
111	SLU 67	0	5.64	46.2	-0.4162	-0.005	0
111	SLU 68	0	6.62	46.53	-0.4659	-0.0089	0
111	SLU 69	0.01	3.81	45.73	-0.3249	0.0009	0
111	SLU 70	0	5.42	46.71	-0.408	-0.005	0
111	SLU 71	0.01	3.71	45.42	-0.3194	0.0009	0
111	SLU 72	0	5.32	46.4	-0.4024	-0.005	0
111	SLU 73	0	7.25	50.56	-0.5072	-0.0089	0
111	SLU 74	0.01	4.44	49.76	-0.3662	0.0009	0
111	SLU 75	0	6.05	50.74	-0.4492	-0.005	0
111	SLU 76	0	7.03	51.08	-0.499	-0.0089	0
111	SLU 77	0.01	4.22	50.28	-0.358	0.0009	0
111	SLU 78	0	5.83	51.26	-0.4411	-0.005	0
111	SLU 79	0.01	4.12	49.96	-0.3524	0.0009	0
111	SLU 80	0	5.74	50.94	-0.4355	-0.005	0
111	SLU 81	0.01	4.73	50.88	-0.383	0.0009	0
111	SLU 82	0	6.35	51.86	-0.466	-0.005	0
111	SLU 83	0.01	4.51	51.4	-0.3748	0.0009	0
111	SLU 84	0	6.13	52.37	-0.4578	-0.005	0
111	SLE RA 1	0.01	3.12	33.24	-0.2523	0.0006	0
111	SLE RA 2	0	4.91	34.33	-0.3446	-0.0059	0
111	SLE RA 3	0.01	3.04	33.79	-0.2506	0.0006	0
111	SLE RA 4	0	4.12	34.45	-0.306	-0.0033	0
111	SLE RA 5	0	4.77	34.67	-0.3392	-0.0059	0
111	SLE RA 6	0.01	2.89	34.14	-0.2452	0.0007	0
111	SLE RA 7	0	3.97	34.79	-0.3005	-0.0032	0
111	SLE RA 8	0.01	2.83	33.93	-0.2414	0.0007	0
111	SLE RA 9	0	3.91	34.58	-0.2968	-0.0032	0
111	SLE RA 10	0	5.19	37.36	-0.3667	-0.0058	0
111	SLE RA 11	0.01	3.31	36.82	-0.2727	0.0007	0
111	SLE RA 12	0	4.39	37.48	-0.328	-0.0032	0
111	SLE RA 13	0	5.04	37.7	-0.3612	-0.0058	0
111	SLE RA 14	0.01	3.17	37.17	-0.2672	0.0007	0
111	SLE RA 15	0	4.25	37.82	-0.3226	-0.0032	0
111	SLE RA 16	0.01	3.1	36.96	-0.2635	0.0007	0
111	SLE RA 17	0	4.18	37.61	-0.3189	-0.0032	0
111	SLE RA 18	0.01	3.51	37.57	-0.2838	0.0007	0
111	SLE RA 19	0	4.59	38.22	-0.3392	-0.0032	0
111	SLE RA 20	0.01	3.37	37.91	-0.2784	0.0007	0
111	SLE RA 21	0	4.44	38.56	-0.3338	-0.0032	0
111	SLE FR 1	0.01	3.12	33.24	-0.2523	0.0006	0
111	SLE FR 2	0	3.48	33.46	-0.2708	-0.0007	0
111	SLE FR 3	0.01	3.06	33.38	-0.2502	0.0006	0
111	SLE FR 4	0	3.6	34.76	-0.2802	-0.0007	0
111	SLE FR 5	0.01	3.18	34.68	-0.2596	0.0007	0
111	SLE FR 6	0.01	3.32	35.4	-0.2681	0.0007	0
111	SLE QP 1	0.01	3.12	33.24	-0.2523	0.0006	0
111	SLE QP 2	0.01	3.24	34.54	-0.2618	0.0006	0
111	SLD 1	-0.05	6.29	38.03	-0.4115	0.0431	0
111	SLD 2	-0.05	6.29	38.03	-0.4115	0.0431	0
111	SLD 3	-0.03	3.05	35.58	-0.2526	0.0629	-0.0001
111	SLD 4	-0.03	3.05	35.58	-0.2526	0.0629	-0.0001
111	SLD 5	-0.04	9.07	39.3	-0.5478	-0.0167	0
111	SLD 6	-0.04	9.07	39.3	-0.5478	-0.0167	0
111	SLD 7	0.03	-1.74	31.14	-0.0179	0.0494	0
111	SLD 8	0.03	-1.74	31.14	-0.0179	0.0494	0
111	SLD 9	-0.02	8.21	37.94	-0.5057	-0.0481	0.0001
111	SLD 10	-0.02	8.21	37.94	-0.5057	-0.0481	0.0001
111	SLD 11	0.06	-2.6	29.77	0.0243	0.018	0
111	SLD 12	0.06	-2.6	29.77	0.0243	0.018	0
111	SLD 13	0.04	3.43	33.5	-0.271	-0.0616	0.0001
111	SLD 14	0.04	3.43	33.5	-0.271	-0.0616	0.0001
111	SLD 15	0.06	0.18	31.05	-0.112	-0.0418	0.0001
111	SLD 16	0.06	0.18	31.05	-0.112	-0.0418	0.0001
111	SLV 1	-0.13	10.63	42.75	-0.6243	0.1032	-0.0001
111	SLV 2	-0.13	10.63	42.75	-0.6243	0.1032	-0.0001
111	SLV 3	-0.07	2.89	36.96	-0.2444	0.1537	-0.0001
111	SLV 4	-0.07	2.89	36.96	-0.2444	0.1537	-0.0001
111	SLV 5	-0.12	17.18	45.78	-0.9466	-0.0452	0.0001
111	SLV 6	-0.12	17.18	45.78	-0.9466	-0.0452	0.0001
111	SLV 7	0.07	-8.6	26.49	0.3195	0.1232	-0.0001
111	SLV 8	0.07	-8.6	26.49	0.3195	0.1232	-0.0001
111	SLV 9	-0.05	15.07	42.59	-0.8431	-0.1219	0.0001
111	SLV 10	-0.05	15.07	42.59	-0.8431	-0.1219	0.0001
111	SLV 11	0.13	-10.71	23.3	0.423	0.0465	0
111	SLV 12	0.13	-10.71	23.3	0.423	0.0465	0
111	SLV 13	0.08	3.58	32.12	-0.2792	-0.1524	0.0002
111	SLV 14	0.08	3.58	32.12	-0.2792	-0.1524	0.0002
111	SLV 15	0.14	-4.15	26.33	0.1007	-0.1019	0.0001
111	SLV 16	0.14	-4.15	26.33	0.1007	-0.1019	0.0001
112	SLU 1	-0.13	8.13	25.16	-0.3625	-0.0942	-0.0003
112	SLU 2	-0.22	9.58	25.68	-0.4212	-0.169	-0.0006
112	SLU 3	-0.13	8.5	25.9	-0.379	-0.0972	-0.0004
112	SLU 4	-0.19	9.37	26.21	-0.4143	-0.1421	-0.0005
112	SLU 5	-0.22	9.87	26.23	-0.4345	-0.171	-0.0006
112	SLU 6	-0.14	8.79	26.45	-0.3923	-0.0992	-0.0004
112	SLU 7	-0.19	9.66	26.76	-0.4276	-0.1441	-0.0005
112	SLU 8	-0.13	8.71	26.26	-0.3889	-0.0982	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
112	SLU 9	-0.19	9.58	26.57	-0.4242	-0.1431	-0.0005
112	SLU 10	-0.24	10.48	28.13	-0.4618	-0.1818	-0.0007
112	SLU 11	-0.15	9.4	28.35	-0.4196	-0.11	-0.0004
112	SLU 12	-0.2	10.27	28.66	-0.4549	-0.1549	-0.0006
112	SLU 13	-0.24	10.77	28.68	-0.4751	-0.1838	-0.0007
112	SLU 14	-0.15	9.69	28.9	-0.4329	-0.112	-0.0004
112	SLU 15	-0.21	10.56	29.21	-0.4681	-0.1569	-0.0006
112	SLU 16	-0.15	9.61	28.71	-0.4295	-0.1109	-0.0004
112	SLU 17	-0.21	10.48	29.02	-0.4648	-0.1558	-0.0006
112	SLU 18	-0.15	9.42	28.66	-0.4204	-0.1124	-0.0004
112	SLU 19	-0.21	10.29	28.97	-0.4557	-0.1573	-0.0006
112	SLU 20	-0.16	9.71	29.21	-0.4337	-0.1144	-0.0004
112	SLU 21	-0.21	10.58	29.52	-0.469	-0.1593	-0.0006
112	SLU 22	-0.15	9.12	27.69	-0.4068	-0.1068	-0.0004
112	SLU 23	-0.24	10.57	28.21	-0.4656	-0.1816	-0.0007
112	SLU 24	-0.15	9.48	28.43	-0.4234	-0.1098	-0.0004
112	SLU 25	-0.2	10.35	28.74	-0.4587	-0.1547	-0.0006
112	SLU 26	-0.24	10.85	28.76	-0.4788	-0.1836	-0.0007
112	SLU 27	-0.15	9.77	28.98	-0.4366	-0.1118	-0.0004
112	SLU 28	-0.21	10.64	29.29	-0.4719	-0.1567	-0.0006
112	SLU 29	-0.15	9.69	28.79	-0.4333	-0.1108	-0.0004
112	SLU 30	-0.21	10.56	29.1	-0.4685	-0.1557	-0.0006
112	SLU 31	-0.25	11.47	30.66	-0.5062	-0.1944	-0.0007
112	SLU 32	-0.17	10.38	30.88	-0.464	-0.1226	-0.0005
112	SLU 33	-0.22	11.25	31.19	-0.4992	-0.1675	-0.0006
112	SLU 34	-0.26	11.75	31.21	-0.5194	-0.1964	-0.0007
112	SLU 35	-0.17	10.67	31.43	-0.4772	-0.1246	-0.0005
112	SLU 36	-0.22	11.54	31.74	-0.5125	-0.1695	-0.0006
112	SLU 37	-0.17	10.59	31.24	-0.4739	-0.1235	-0.0005
112	SLU 38	-0.22	11.46	31.55	-0.5091	-0.1684	-0.0006
112	SLU 39	-0.17	10.4	31.19	-0.4648	-0.125	-0.0005
112	SLU 40	-0.23	11.27	31.5	-0.5001	-0.1699	-0.0006
112	SLU 41	-0.17	10.69	31.74	-0.478	-0.127	-0.0005
112	SLU 42	-0.23	11.56	32.05	-0.5133	-0.1719	-0.0006
112	SLU 43	-0.16	10.24	31.84	-0.456	-0.1182	-0.0004
112	SLU 44	-0.25	11.68	32.36	-0.5148	-0.193	-0.0007
112	SLU 45	-0.17	10.6	32.58	-0.4726	-0.1212	-0.0004
112	SLU 46	-0.22	11.47	32.89	-0.5079	-0.1661	-0.0006
112	SLU 47	-0.25	11.97	32.91	-0.528	-0.195	-0.0007
112	SLU 48	-0.17	10.89	33.13	-0.4858	-0.1232	-0.0004
112	SLU 49	-0.22	11.76	33.44	-0.5211	-0.1681	-0.0006
112	SLU 50	-0.17	10.81	32.94	-0.4825	-0.1222	-0.0004
112	SLU 51	-0.22	11.68	33.25	-0.5177	-0.167	-0.0006
112	SLU 52	-0.27	12.59	34.81	-0.5554	-0.2057	-0.0007
112	SLU 53	-0.18	11.5	35.03	-0.5132	-0.1339	-0.0005
112	SLU 54	-0.24	12.37	35.34	-0.5484	-0.1788	-0.0007
112	SLU 55	-0.27	12.87	35.36	-0.5686	-0.2077	-0.0008
112	SLU 56	-0.19	11.79	35.58	-0.5264	-0.1359	-0.0005
112	SLU 57	-0.24	12.66	35.89	-0.5617	-0.1808	-0.0007
112	SLU 58	-0.18	11.71	35.39	-0.5231	-0.1349	-0.0005
112	SLU 59	-0.24	12.58	35.7	-0.5583	-0.1798	-0.0007
112	SLU 60	-0.19	11.52	35.34	-0.514	-0.1364	-0.0005
112	SLU 61	-0.24	12.39	35.65	-0.5493	-0.1813	-0.0007
112	SLU 62	-0.19	11.81	35.89	-0.5272	-0.1384	-0.0005
112	SLU 63	-0.24	12.68	36.2	-0.5625	-0.1833	-0.0007
112	SLU 64	-0.18	11.22	34.37	-0.5003	-0.1307	-0.0005
112	SLU 65	-0.27	12.67	34.89	-0.5591	-0.2056	-0.0007
112	SLU 66	-0.18	11.58	35.11	-0.5169	-0.1338	-0.0005
112	SLU 67	-0.24	12.45	35.42	-0.5522	-0.1787	-0.0007
112	SLU 68	-0.27	12.96	35.44	-0.5724	-0.2076	-0.0008
112	SLU 69	-0.19	11.87	35.66	-0.5302	-0.1358	-0.0005
112	SLU 70	-0.24	12.74	35.97	-0.5654	-0.1807	-0.0007
112	SLU 71	-0.18	11.8	35.47	-0.5268	-0.1347	-0.0005
112	SLU 72	-0.24	12.67	35.78	-0.5621	-0.1796	-0.0007
112	SLU 73	-0.29	13.57	37.34	-0.5997	-0.2183	-0.0008
112	SLU 74	-0.2	12.48	37.56	-0.5575	-0.1465	-0.0005
112	SLU 75	-0.25	13.35	37.87	-0.5928	-0.1914	-0.0007
112	SLU 76	-0.29	13.86	37.89	-0.6129	-0.2203	-0.0008
112	SLU 77	-0.2	12.77	38.11	-0.5707	-0.1485	-0.0005
112	SLU 78	-0.26	13.64	38.42	-0.606	-0.1934	-0.0007
112	SLU 79	-0.2	12.7	37.92	-0.5674	-0.1475	-0.0005
112	SLU 80	-0.26	13.57	38.23	-0.6027	-0.1924	-0.0007
112	SLU 81	-0.2	12.5	37.87	-0.5583	-0.149	-0.0005
112	SLU 82	-0.26	13.37	38.18	-0.5936	-0.1938	-0.0007
112	SLU 83	-0.21	12.79	38.42	-0.5716	-0.1509	-0.0006
112	SLU 84	-0.26	13.66	38.73	-0.6068	-0.1958	-0.0007
112	SLE RA 1	-0.13	8.41	25.88	-0.3751	-0.0978	-0.0004
112	SLE RA 2	-0.19	9.38	26.23	-0.4143	-0.1477	-0.0005
112	SLE RA 3	-0.14	8.66	26.38	-0.3862	-0.0998	-0.0004
112	SLE RA 4	-0.17	9.24	26.58	-0.4097	-0.1298	-0.0005
112	SLE RA 5	-0.2	9.57	26.59	-0.4231	-0.149	-0.0005
112	SLE RA 6	-0.14	8.85	26.74	-0.395	-0.1012	-0.0004
112	SLE RA 7	-0.17	9.43	26.95	-0.4185	-0.1311	-0.0005
112	SLE RA 8	-0.14	8.8	26.61	-0.3928	-0.1005	-0.0004
112	SLE RA 9	-0.17	9.38	26.82	-0.4163	-0.1304	-0.0005
112	SLE RA 10	-0.2	9.98	27.86	-0.4414	-0.1562	-0.0006
112	SLE RA 11	-0.15	9.26	28.01	-0.4132	-0.1083	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
112	SLE RA 12	-0.18	9.84	28.22	-0.4368	-0.1383	-0.0005
112	SLE RA 13	-0.21	10.17	28.23	-0.4502	-0.1575	-0.0006
112	SLE RA 14	-0.15	9.45	28.38	-0.4221	-0.1097	-0.0004
112	SLE RA 15	-0.19	10.03	28.58	-0.4456	-0.1396	-0.0005
112	SLE RA 16	-0.15	9.4	28.25	-0.4198	-0.109	-0.0004
112	SLE RA 17	-0.19	9.98	28.46	-0.4433	-0.1389	-0.0005
112	SLE RA 18	-0.15	9.27	28.22	-0.4138	-0.1099	-0.0004
112	SLE RA 19	-0.19	9.85	28.42	-0.4373	-0.1399	-0.0005
112	SLE RA 20	-0.15	9.46	28.58	-0.4226	-0.1113	-0.0004
112	SLE RA 21	-0.19	10.04	28.79	-0.4461	-0.1412	-0.0005
112	SLE FR 1	-0.13	8.41	25.88	-0.3751	-0.0978	-0.0004
112	SLE FR 2	-0.15	8.61	25.95	-0.383	-0.1078	-0.0004
112	SLE FR 3	-0.13	8.49	26.03	-0.3787	-0.0983	-0.0004
112	SLE FR 4	-0.15	8.86	26.65	-0.3946	-0.1114	-0.0004
112	SLE FR 5	-0.14	8.75	26.73	-0.3903	-0.102	-0.0004
112	SLE FR 6	-0.14	8.84	27.05	-0.3945	-0.1039	-0.0004
112	SLE QP 1	-0.13	8.41	25.88	-0.3751	-0.0978	-0.0004
112	SLE QP 2	-0.14	8.67	26.58	-0.3867	-0.1014	-0.0004
112	SLD 1	-0.29	12.45	34.66	-0.5561	-0.0246	-0.0008
112	SLD 2	-0.29	12.45	34.66	-0.5561	-0.0246	-0.0008
112	SLD 3	-0.19	8.49	32.82	-0.3848	0.0494	-0.0005
112	SLD 4	-0.19	8.49	32.82	-0.3848	0.0494	-0.0005
112	SLD 5	-0.33	15.82	31.8	-0.6974	-0.1906	-0.001
112	SLD 6	-0.33	15.82	31.8	-0.6974	-0.1906	-0.001
112	SLD 7	-0.01	2.6	25.67	-0.1263	0.056	0.0001
112	SLD 8	-0.01	2.6	25.67	-0.1263	0.056	0.0001
112	SLD 9	-0.27	14.74	27.5	-0.6471	-0.2589	-0.0008
112	SLD 10	-0.27	14.74	27.5	-0.6471	-0.2589	-0.0008
112	SLD 11	0.06	1.52	21.37	-0.0761	-0.0123	0.0002
112	SLD 12	0.06	1.52	21.37	-0.0761	-0.0123	0.0002
112	SLD 13	-0.08	8.85	20.34	-0.3887	-0.2523	-0.0003
112	SLD 14	-0.08	8.85	20.34	-0.3887	-0.2523	-0.0003
112	SLD 15	0.02	4.89	18.5	-0.2173	-0.1783	0
112	SLD 16	0.02	4.89	18.5	-0.2173	-0.1783	0
112	SLV 1	-0.51	17.5	45.54	-0.782	0.0777	-0.0013
112	SLV 2	-0.51	17.5	45.54	-0.782	0.0777	-0.0013
112	SLV 3	-0.26	8.28	41.09	-0.384	0.2664	-0.0005
112	SLV 4	-0.26	8.28	41.09	-0.384	0.2664	-0.0005
112	SLV 5	-0.63	25.3	39.02	-1.109	-0.334	-0.0019
112	SLV 6	-0.63	25.3	39.02	-1.109	-0.334	-0.0019
112	SLV 7	0.2	-5.43	24.19	0.2178	0.2952	0.0008
112	SLV 8	0.2	-5.43	24.19	0.2178	0.2952	0.0008
112	SLV 9	-0.48	22.77	28.98	-0.9913	-0.4981	-0.0015
112	SLV 10	-0.48	22.77	28.98	-0.9913	-0.4981	-0.0015
112	SLV 11	0.35	-7.96	14.15	0.3356	0.1311	0.0011
112	SLV 12	0.35	-7.96	14.15	0.3356	0.1311	0.0011
112	SLV 13	-0.01	9.06	12.07	-0.3895	-0.4693	-0.0002
112	SLV 14	-0.01	9.06	12.07	-0.3895	-0.4693	-0.0002
112	SLV 15	0.24	-0.16	7.62	0.0086	-0.2806	0.0006
112	SLV 16	0.24	-0.16	7.62	0.0086	-0.2806	0.0006
113	SLU 1	-0.01	6.84	60.69	-0.3439	0.0022	-0.0001
113	SLU 2	0.07	8.34	64.48	-0.4156	0.0759	0.0002
113	SLU 3	-0.01	7.15	62.81	-0.3594	0.002	-0.0001
113	SLU 4	0.04	8.05	65.09	-0.4024	0.0462	0.0001
113	SLU 5	0.07	8.56	65.96	-0.427	0.0757	0.0002
113	SLU 6	-0.01	7.37	64.29	-0.3707	0.0018	-0.0001
113	SLU 7	0.04	8.27	66.56	-0.4138	0.046	0.0001
113	SLU 8	-0.01	7.28	63.64	-0.3666	0.0018	-0.0001
113	SLU 9	0.04	8.18	65.92	-0.4096	0.046	0.0001
113	SLU 10	0.07	9.15	71.68	-0.4572	0.0767	0.0002
113	SLU 11	-0.01	7.95	70.01	-0.401	0.0028	-0.0001
113	SLU 12	0.04	8.85	72.29	-0.444	0.047	0.0001
113	SLU 13	0.07	9.37	73.16	-0.4685	0.0764	0.0002
113	SLU 14	-0.01	8.17	71.49	-0.4123	0.0026	-0.0001
113	SLU 15	0.04	9.07	73.76	-0.4553	0.0468	0.0001
113	SLU 16	-0.01	8.09	70.84	-0.4082	0.0025	-0.0001
113	SLU 17	0.04	8.99	73.12	-0.4512	0.0467	0.0001
113	SLU 18	-0.01	8	70.98	-0.4033	0.0033	-0.0001
113	SLU 19	0.04	8.9	73.25	-0.4463	0.0475	0.0001
113	SLU 20	-0.01	8.22	72.45	-0.4146	0.0031	-0.0001
113	SLU 21	0.04	9.12	74.73	-0.4577	0.0473	0.0001
113	SLU 22	-0.01	7.71	68.13	-0.3885	0.0027	-0.0001
113	SLU 23	0.07	9.21	71.92	-0.4603	0.0763	0.0002
113	SLU 24	-0.01	8.01	70.25	-0.404	0.0025	-0.0001
113	SLU 25	0.04	8.91	72.52	-0.4471	0.0467	0.0001
113	SLU 26	0.07	9.43	73.4	-0.4716	0.0761	0.0002
113	SLU 27	-0.01	8.23	71.72	-0.4154	0.0022	-0.0001
113	SLU 28	0.04	9.13	74	-0.4584	0.0464	0.0001
113	SLU 29	-0.01	8.15	71.08	-0.4112	0.0022	-0.0001
113	SLU 30	0.04	9.05	73.36	-0.4543	0.0464	0.0001
113	SLU 31	0.07	10.02	79.12	-0.5018	0.0771	0.0002
113	SLU 32	-0.01	8.82	77.45	-0.4456	0.0032	-0.0001
113	SLU 33	0.04	9.72	79.72	-0.4886	0.0474	0.0001
113	SLU 34	0.07	10.24	80.6	-0.5132	0.0769	0.0002
113	SLU 35	-0.01	9.04	78.92	-0.4569	0.003	-0.0001
113	SLU 36	0.04	9.94	81.2	-0.5	0.0472	0.0001
113	SLU 37	-0.01	8.96	78.28	-0.4528	0.003	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
113	SLU 38	0.04	9.86	80.56	-0.4958	0.0472	0.0001
113	SLU 39	-0.01	8.86	78.41	-0.4479	0.0038	-0.0001
113	SLU 40	0.04	9.76	80.69	-0.4909	0.0048	0.0001
113	SLU 41	-0.01	9.08	79.89	-0.4593	0.0036	-0.0001
113	SLU 42	0.04	9.98	82.17	-0.5023	0.0478	0.0001
113	SLU 43	-0.01	8.6	76.35	-0.4318	0.0027	-0.0001
113	SLU 44	0.07	10.1	80.14	-0.5035	0.0764	0.0002
113	SLU 45	-0.01	8.9	78.47	-0.4473	0.0025	-0.0001
113	SLU 46	0.04	9.8	80.74	-0.4903	0.0467	0.0001
113	SLU 47	0.07	10.32	81.62	-0.5149	0.0762	0.0002
113	SLU 48	-0.01	9.12	79.94	-0.4586	0.0023	-0.0001
113	SLU 49	0.04	10.02	82.22	-0.5017	0.0465	0.0001
113	SLU 50	-0.01	9.04	79.3	-0.4545	0.0023	-0.0001
113	SLU 51	0.04	9.94	81.58	-0.4975	0.0465	0.0001
113	SLU 52	0.07	10.91	87.34	-0.5451	0.0772	0.0002
113	SLU 53	-0.01	9.71	85.67	-0.4888	0.0033	-0.0001
113	SLU 54	0.04	10.61	87.94	-0.5319	0.0475	0.0001
113	SLU 55	0.07	11.13	88.82	-0.5564	0.0769	0.0002
113	SLU 56	-0.01	9.93	87.14	-0.5002	0.0031	-0.0001
113	SLU 57	0.04	10.83	89.42	-0.5432	0.0473	0.0001
113	SLU 58	-0.01	9.85	86.5	-0.496	0.0031	-0.0001
113	SLU 59	0.04	10.75	88.78	-0.5391	0.0473	0.0001
113	SLU 60	-0.01	9.75	86.63	-0.4911	0.0039	-0.0001
113	SLU 61	0.04	10.65	88.91	-0.5342	0.0481	0.0001
113	SLU 62	-0.01	9.97	88.11	-0.5025	0.0036	-0.0001
113	SLU 63	0.04	10.87	90.39	-0.5455	0.0478	0.0001
113	SLU 64	-0.01	9.47	83.78	-0.4764	0.0032	-0.0001
113	SLU 65	0.07	10.97	87.58	-0.5481	0.0769	0.0002
113	SLU 66	-0.01	9.77	85.9	-0.4919	0.003	-0.0001
113	SLU 67	0.04	10.67	88.18	-0.5349	0.0472	0.0001
113	SLU 68	0.07	11.19	89.06	-0.5595	0.0766	0.0002
113	SLU 69	-0.01	9.99	87.38	-0.5032	0.0027	-0.0001
113	SLU 70	0.04	10.89	89.66	-0.5463	0.0469	0.0001
113	SLU 71	-0.01	9.9	86.74	-0.4991	0.0027	-0.0001
113	SLU 72	0.04	10.8	89.02	-0.5421	0.0469	0.0001
113	SLU 73	0.07	11.77	94.78	-0.5897	0.0776	0.0002
113	SLU 74	-0.01	10.58	93.1	-0.5335	0.0038	-0.0001
113	SLU 75	0.04	11.48	95.38	-0.5765	0.048	0.0001
113	SLU 76	0.07	11.99	96.26	-0.601	0.0774	0.0002
113	SLU 77	-0.01	10.8	94.58	-0.5448	0.0035	-0.0001
113	SLU 78	0.04	11.7	96.86	-0.5878	0.0477	0.0001
113	SLU 79	-0.01	10.71	93.94	-0.5407	0.0035	-0.0001
113	SLU 80	0.04	11.61	96.22	-0.5837	0.0477	0.0001
113	SLU 81	-0.01	10.62	94.07	-0.5358	0.0043	-0.0001
113	SLU 82	0.04	11.52	96.35	-0.5788	0.0485	0.0001
113	SLU 83	-0.01	10.84	95.55	-0.5471	0.0041	-0.0001
113	SLU 84	0.04	11.74	97.82	-0.5902	0.0483	0.0001
113	SLE RA 1	-0.01	7.09	62.81	-0.3567	0.0024	-0.0001
113	SLE RA 2	0.05	8.09	65.34	-0.4045	0.0515	0.0001
113	SLE RA 3	-0.01	7.29	64.23	-0.367	0.0022	-0.0001
113	SLE RA 4	0.03	7.89	65.74	-0.3957	0.0317	0
113	SLE RA 5	0.05	8.24	66.33	-0.412	0.0513	0.0001
113	SLE RA 6	-0.01	7.44	65.21	-0.3746	0.0021	-0.0001
113	SLE RA 7	0.02	8.04	66.73	-0.4032	0.0315	0
113	SLE RA 8	-0.01	7.38	64.78	-0.3718	0.0021	-0.0001
113	SLE RA 9	0.02	7.98	66.3	-0.4005	0.0315	0
113	SLE RA 10	0.05	8.63	70.14	-0.4322	0.052	0.0001
113	SLE RA 11	-0.01	7.83	69.03	-0.3947	0.0027	-0.0001
113	SLE RA 12	0.03	8.43	70.55	-0.4234	0.0322	0
113	SLE RA 13	0.05	8.78	71.13	-0.4397	0.0518	0.0001
113	SLE RA 14	-0.01	7.98	70.01	-0.4023	0.0026	-0.0001
113	SLE RA 15	0.02	8.58	71.53	-0.431	0.032	0
113	SLE RA 16	-0.01	7.92	69.58	-0.3995	0.0026	-0.0001
113	SLE RA 17	0.02	8.52	71.1	-0.4282	0.032	0
113	SLE RA 18	-0.01	7.86	69.67	-0.3962	0.0031	-0.0001
113	SLE RA 19	0.03	8.46	71.19	-0.4249	0.0326	0
113	SLE RA 20	-0.01	8.01	70.66	-0.4038	0.0029	-0.0001
113	SLE RA 21	0.03	8.61	72.17	-0.4325	0.0324	0
113	SLE FR 1	-0.01	7.09	62.81	-0.3567	0.0024	-0.0001
113	SLE FR 2	0	7.29	63.32	-0.3662	0.0122	0
113	SLE FR 3	-0.01	7.15	63.21	-0.3597	0.0023	-0.0001
113	SLE FR 4	0	7.52	65.38	-0.3781	0.0124	0
113	SLE FR 5	-0.01	7.38	65.27	-0.3716	0.0025	-0.0001
113	SLE FR 6	-0.01	7.48	66.24	-0.3764	0.0027	-0.0001
113	SLE QP 1	-0.01	7.09	62.81	-0.3567	0.0024	-0.0001
113	SLE QP 2	-0.01	7.32	64.87	-0.3685	0.0026	-0.0001
113	SLD 1	0.17	7.91	50.13	-0.3791	0.1763	0.0004
113	SLD 2	0.17	7.91	50.13	-0.3791	0.1763	0.0004
113	SLD 3	0.06	4.16	43.57	-0.2119	0.0882	0
113	SLD 4	0.06	4.16	43.57	-0.2119	0.0882	0
113	SLD 5	0.21	13.19	70.4	-0.6253	0.1882	0.0006
113	SLD 6	0.21	13.19	70.4	-0.6253	0.1882	0.0006
113	SLD 7	-0.15	0.68	48.53	-0.0679	-0.1052	-0.0005
113	SLD 8	-0.15	0.68	48.53	-0.0679	-0.1052	-0.0005
113	SLD 9	0.14	13.97	81.21	-0.6691	0.1104	0.0004
113	SLD 10	0.14	13.97	81.21	-0.6691	0.1104	0.0004
113	SLD 11	-0.22	1.45	59.35	-0.1118	-0.183	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
113	SLD 12	-0.22	1.45	59.35	-0.1118	-0.183	-0.0007
113	SLD 13	-0.07	10.49	86.17	-0.5252	-0.0831	-0.0002
113	SLD 14	-0.07	10.49	86.17	-0.5252	-0.0831	-0.0002
113	SLD 15	-0.18	6.73	79.61	-0.3579	-0.1711	-0.0005
113	SLD 16	-0.18	6.73	79.61	-0.3579	-0.1711	-0.0005
113	SLV 1	0.42	8.68	30.42	-0.393	0.4272	0.001
113	SLV 2	0.42	8.68	30.42	-0.393	0.4272	0.001
113	SLV 3	0.14	-0.1	14.96	-0.0016	0.2019	0.0002
113	SLV 4	0.14	-0.1	14.96	-0.0016	0.2019	0.0002
113	SLV 5	0.54	21.05	77.97	-0.9694	0.4717	0.0016
113	SLV 6	0.54	21.05	77.97	-0.9694	0.4717	0.0016
113	SLV 7	-0.38	-8.23	26.46	0.3351	-0.2793	-0.0013
113	SLV 8	-0.38	-8.23	26.46	0.3351	-0.2793	-0.0013
113	SLV 9	0.37	22.87	103.28	-1.0722	0.2845	0.0012
113	SLV 10	0.37	22.87	103.28	-1.0722	0.2845	0.0012
113	SLV 11	-0.55	-6.41	51.77	0.2324	-0.4665	-0.0017
113	SLV 12	-0.55	-6.41	51.77	0.2324	-0.4665	-0.0017
113	SLV 13	-0.16	14.74	114.78	-0.7354	-0.1967	-0.0003
113	SLV 14	-0.16	14.74	114.78	-0.7354	-0.1967	-0.0003
113	SLV 15	-0.43	5.96	99.33	-0.3441	-0.422	-0.0011
113	SLV 16	-0.43	5.96	99.33	-0.3441	-0.422	-0.0011
114	SLU 1	0.03	-1.06	41.74	0.0518	0.029	0.0001
114	SLU 2	0.03	-1.47	41.83	0.0705	0.0296	0.0001
114	SLU 3	0.04	-0.7	43.11	0.0349	0.0301	0.0001
114	SLU 4	0.04	-0.94	43.17	0.0462	0.0305	0.0001
114	SLU 5	0.04	-1.06	42.91	0.0512	0.0304	0.0001
114	SLU 6	0.04	-0.29	44.19	0.0156	0.0309	0.0001
114	SLU 7	0.04	-0.53	44.25	0.0269	0.0313	0.0001
114	SLU 8	0.04	-0.24	43.9	0.0132	0.0307	0.0001
114	SLU 9	0.04	-0.49	43.96	0.0244	0.031	0.0001
114	SLU 10	0.03	-1.56	49.24	0.0758	0.0274	0.0001
114	SLU 11	0.03	-0.78	50.52	0.0402	0.0279	0.0001
114	SLU 12	0.03	-1.03	50.58	0.0514	0.0283	0.0001
114	SLU 13	0.03	-1.15	50.32	0.0565	0.0282	0.0001
114	SLU 14	0.03	-0.38	51.6	0.0209	0.0287	0.0001
114	SLU 15	0.03	-0.62	51.66	0.0322	0.0291	0.0001
114	SLU 16	0.03	-0.33	51.31	0.0184	0.0284	0.0001
114	SLU 17	0.03	-0.57	51.37	0.0297	0.0288	0.0001
114	SLU 18	0.02	-1.19	52.33	0.0593	0.0258	0.0001
114	SLU 19	0.02	-1.43	52.38	0.0706	0.0262	0.0001
114	SLU 20	0.02	-0.78	53.41	0.04	0.0266	0.0001
114	SLU 21	0.02	-1.02	53.46	0.0513	0.027	0.0001
114	SLU 22	0.04	-0.88	46.72	0.0449	0.032	0.0001
114	SLU 23	0.04	-1.29	46.81	0.0636	0.0326	0.0001
114	SLU 24	0.04	-0.52	48.09	0.028	0.0332	0.0001
114	SLU 25	0.04	-0.76	48.15	0.0393	0.0335	0.0001
114	SLU 26	0.04	-0.88	47.89	0.0443	0.0335	0.0001
114	SLU 27	0.04	-0.11	49.17	0.0087	0.034	0.0001
114	SLU 28	0.04	-0.35	49.23	0.02	0.0344	0.0001
114	SLU 29	0.04	-0.06	48.88	0.0063	0.0337	0.0001
114	SLU 30	0.04	-0.31	48.94	0.0175	0.0341	0.0001
114	SLU 31	0.03	-1.37	54.22	0.0689	0.0304	0.0001
114	SLU 32	0.03	-0.6	55.5	0.0333	0.031	0.0001
114	SLU 33	0.03	-0.85	55.56	0.0445	0.0313	0.0001
114	SLU 34	0.03	-0.96	55.3	0.0496	0.0313	0.0001
114	SLU 35	0.03	-0.19	56.58	0.014	0.0318	0.0001
114	SLU 36	0.03	-0.44	56.64	0.0253	0.0322	0.0001
114	SLU 37	0.03	-0.15	56.29	0.0115	0.0315	0.0001
114	SLU 38	0.03	-0.39	56.35	0.0228	0.0319	0.0001
114	SLU 39	0.03	-1	57.31	0.0524	0.0289	0.0001
114	SLU 40	0.03	-1.25	57.36	0.0637	0.0292	0.0001
114	SLU 41	0.03	-0.59	58.39	0.0331	0.0297	0.0001
114	SLU 42	0.03	-0.84	58.44	0.0444	0.0301	0.0001
114	SLU 43	0.04	-1.44	52.56	0.0697	0.0366	0.0001
114	SLU 44	0.04	-1.85	52.65	0.0884	0.0372	0.0001
114	SLU 45	0.04	-1.08	53.93	0.0528	0.0377	0.0001
114	SLU 46	0.04	-1.33	53.98	0.0641	0.0381	0.0001
114	SLU 47	0.04	-1.44	53.73	0.0691	0.0381	0.0001
114	SLU 48	0.05	-0.67	55.01	0.0335	0.0386	0.0002
114	SLU 49	0.05	-0.92	55.06	0.0448	0.039	0.0002
114	SLU 50	0.05	-0.62	54.72	0.0311	0.0383	0.0001
114	SLU 51	0.05	-0.87	54.77	0.0423	0.0387	0.0002
114	SLU 52	0.04	-1.94	60.06	0.0937	0.035	0.0001
114	SLU 53	0.04	-1.17	61.34	0.0581	0.0355	0.0001
114	SLU 54	0.04	-1.41	61.39	0.0693	0.0359	0.0001
114	SLU 55	0.04	-1.53	61.14	0.0744	0.0358	0.0001
114	SLU 56	0.04	-0.76	62.42	0.0388	0.0364	0.0001
114	SLU 57	0.04	-1	62.47	0.0501	0.0367	0.0001
114	SLU 58	0.04	-0.71	62.13	0.0363	0.0361	0.0001
114	SLU 59	0.04	-0.95	62.18	0.0476	0.0365	0.0001
114	SLU 60	0.03	-1.57	63.15	0.0772	0.0334	0.0001
114	SLU 61	0.03	-1.81	63.2	0.0885	0.0338	0.0001
114	SLU 62	0.03	-1.16	64.22	0.0579	0.0343	0.0001
114	SLU 63	0.03	-1.4	64.28	0.0692	0.0347	0.0001
114	SLU 64	0.05	-1.26	57.54	0.0628	0.0397	0.0001
114	SLU 65	0.05	-1.67	57.63	0.0815	0.0403	0.0002
114	SLU 66	0.05	-0.9	58.91	0.0459	0.0408	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
114	SLU 67	0.05	-1.14	58.96	0.0572	0.0412	0.0002
114	SLU 68	0.05	-1.26	58.71	0.0622	0.0411	0.0002
114	SLU 69	0.05	-0.49	59.99	0.0266	0.0417	0.0002
114	SLU 70	0.05	-0.73	60.04	0.0379	0.042	0.0002
114	SLU 71	0.05	-0.44	59.7	0.0242	0.0414	0.0002
114	SLU 72	0.05	-0.69	59.75	0.0354	0.0417	0.0002
114	SLU 73	0.04	-1.76	65.04	0.0868	0.0381	0.0001
114	SLU 74	0.04	-0.98	66.32	0.0512	0.0386	0.0001
114	SLU 75	0.04	-1.23	66.37	0.0624	0.039	0.0001
114	SLU 76	0.04	-1.35	66.12	0.0675	0.0389	0.0001
114	SLU 77	0.04	-0.57	67.4	0.0319	0.0394	0.0001
114	SLU 78	0.04	-0.82	67.45	0.0432	0.0398	0.0001
114	SLU 79	0.04	-0.53	67.11	0.0294	0.0392	0.0001
114	SLU 80	0.04	-0.77	67.16	0.0407	0.0395	0.0001
114	SLU 81	0.04	-1.38	68.13	0.0703	0.0365	0.0001
114	SLU 82	0.04	-1.63	68.18	0.0816	0.0369	0.0001
114	SLU 83	0.04	-0.97	69.2	0.051	0.0374	0.0001
114	SLU 84	0.04	-1.22	69.26	0.0623	0.0377	0.0001
114	SLE RA 1	0.03	-1.01	43.17	0.0498	0.0298	0.0001
114	SLE RA 2	0.04	-1.28	43.23	0.0623	0.0302	0.0001
114	SLE RA 3	0.04	-0.77	44.08	0.0386	0.0306	0.0001
114	SLE RA 4	0.04	-0.93	44.12	0.0461	0.0308	0.0001
114	SLE RA 5	0.04	-1.01	43.95	0.0495	0.0308	0.0001
114	SLE RA 6	0.04	-0.5	44.8	0.0257	0.0312	0.0001
114	SLE RA 7	0.04	-0.66	44.84	0.0332	0.0314	0.0001
114	SLE RA 8	0.04	-0.46	44.61	0.0241	0.031	0.0001
114	SLE RA 9	0.04	-0.63	44.64	0.0316	0.0312	0.0001
114	SLE RA 10	0.03	-1.34	48.17	0.0658	0.0288	0.0001
114	SLE RA 11	0.03	-0.83	49.02	0.0421	0.0291	0.0001
114	SLE RA 12	0.03	-0.99	49.06	0.0496	0.0294	0.0001
114	SLE RA 13	0.03	-1.07	48.89	0.053	0.0293	0.0001
114	SLE RA 14	0.03	-0.55	49.74	0.0292	0.0297	0.0001
114	SLE RA 15	0.03	-0.72	49.78	0.0367	0.0299	0.0001
114	SLE RA 16	0.03	-0.52	49.55	0.0276	0.0295	0.0001
114	SLE RA 17	0.03	-0.68	49.58	0.0351	0.0297	0.0001
114	SLE RA 18	0.03	-1.09	50.22	0.0548	0.0277	0.0001
114	SLE RA 19	0.03	-1.26	50.26	0.0623	0.028	0.0001
114	SLE RA 20	0.03	-0.82	50.94	0.042	0.0283	0.0001
114	SLE RA 21	0.03	-0.98	50.98	0.0495	0.0285	0.0001
114	SLE FR 1	0.03	-1.01	43.17	0.0498	0.0298	0.0001
114	SLE FR 2	0.03	-1.07	43.18	0.0523	0.0299	0.0001
114	SLE FR 3	0.03	-0.9	43.46	0.0447	0.0301	0.0001
114	SLE FR 4	0.03	-1.09	45.3	0.0538	0.0293	0.0001
114	SLE FR 5	0.03	-0.93	45.57	0.0462	0.0294	0.0001
114	SLE FR 6	0.03	-1.05	46.7	0.0523	0.0288	0.0001
114	SLE QP 1	0.03	-1.01	43.17	0.0498	0.0298	0.0001
114	SLE QP 2	0.03	-1.04	45.28	0.0513	0.0292	0.0001
114	SLD 1	0.19	-0.33	50.57	0.019	0.1575	0.0004
114	SLD 2	0.19	-0.33	50.57	0.019	0.1575	0.0004
114	SLD 3	0.23	-3.36	49.43	0.1606	0.1823	0.0006
114	SLD 4	0.23	-3.36	49.43	0.1606	0.1823	0.0006
114	SLD 5	0.03	3.76	48.59	-0.1732	0.03	0
114	SLD 6	0.03	3.76	48.59	-0.1732	0.03	0
114	SLD 7	0.15	-6.31	44.81	0.2989	0.1128	0.0005
114	SLD 8	0.15	-6.31	44.81	0.2989	0.1128	0.0005
114	SLD 9	-0.08	4.24	45.76	-0.1963	-0.0544	-0.0002
114	SLD 10	-0.08	4.24	45.76	-0.1963	-0.0544	-0.0002
114	SLD 11	0.04	-5.83	41.98	0.2758	0.0284	0.0002
114	SLD 12	0.04	-5.83	41.98	0.2758	0.0284	0.0002
114	SLD 13	-0.16	1.28	41.14	-0.058	-0.1239	-0.0004
114	SLD 14	-0.16	1.28	41.14	-0.058	-0.1239	-0.0004
114	SLD 15	-0.13	-1.74	40	0.0836	-0.0991	-0.0002
114	SLD 16	-0.13	-1.74	40	0.0836	-0.0991	-0.0002
114	SLV 1	0.43	0.57	57.71	-0.0229	0.3519	0.001
114	SLV 2	0.43	0.57	57.71	-0.0229	0.3519	0.001
114	SLV 3	0.52	-6.49	55.02	0.3083	0.4121	0.0013
114	SLV 4	0.52	-6.49	55.02	0.3083	0.4121	0.0013
114	SLV 5	0.02	10.16	53.08	-0.4732	0.0346	-0.0001
114	SLV 6	0.02	10.16	53.08	-0.4732	0.0346	-0.0001
114	SLV 7	0.31	-13.39	44.14	0.6306	0.2354	0.0009
114	SLV 8	0.31	-13.39	44.14	0.6306	0.2354	0.0009
114	SLV 9	-0.24	11.31	46.43	-0.528	-0.177	-0.0007
114	SLV 10	-0.24	11.31	46.43	-0.528	-0.177	-0.0007
114	SLV 11	0.04	-12.23	37.49	0.5758	0.0238	0.0003
114	SLV 12	0.04	-12.23	37.49	0.5758	0.0238	0.0003
114	SLV 13	-0.45	4.42	35.54	-0.2057	-0.3537	-0.0011
114	SLV 14	-0.45	4.42	35.54	-0.2057	-0.3537	-0.0011
114	SLV 15	-0.37	-2.64	32.86	0.1255	-0.2935	-0.0008
114	SLV 16	-0.37	-2.64	32.86	0.1255	-0.2935	-0.0008
115	SLU 1	0.04	-0.63	5.9	0.022	0.0229	0.0001
115	SLU 2	0.04	-0.65	5.89	0.0225	0.0234	0.0001
115	SLU 3	0.04	-0.67	5.87	0.0232	0.0236	0.0001
115	SLU 4	0.04	-0.68	5.87	0.0234	0.0239	0.0001
115	SLU 5	0.04	-0.68	5.87	0.0231	0.0239	0.0001
115	SLU 6	0.04	-0.7	5.85	0.0238	0.0242	0.0001
115	SLU 7	0.04	-0.71	5.85	0.0241	0.0245	0.0001
115	SLU 8	0.04	-0.69	5.86	0.0232	0.024	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
115	SLU 9	0.04	-0.7	5.85	0.0235	0.0243	0.0001
115	SLU 10	0.05	-0.79	8.6	0.0257	0.0293	0.0001
115	SLU 11	0.06	-0.81	8.58	0.0264	0.0295	0.0001
115	SLU 12	0.06	-0.82	8.58	0.0266	0.0298	0.0001
115	SLU 13	0.06	-0.82	8.58	0.0263	0.0298	0.0001
115	SLU 14	0.06	-0.84	8.57	0.027	0.0301	0.0001
115	SLU 15	0.06	-0.85	8.56	0.0273	0.0304	0.0001
115	SLU 16	0.06	-0.83	8.57	0.0264	0.0299	0.0001
115	SLU 17	0.06	-0.84	8.56	0.0267	0.0302	0.0001
115	SLU 18	0.06	-0.83	9.77	0.0266	0.0313	0.0001
115	SLU 19	0.06	-0.84	9.76	0.0269	0.0316	0.0001
115	SLU 20	0.06	-0.86	9.75	0.0272	0.0318	0.0001
115	SLU 21	0.06	-0.87	9.74	0.0275	0.0322	0.0001
115	SLU 22	0.04	-0.78	6.2	0.0265	0.0258	0.0001
115	SLU 23	0.05	-0.8	6.19	0.027	0.0263	0.0001
115	SLU 24	0.05	-0.82	6.17	0.0277	0.0266	0.0001
115	SLU 25	0.05	-0.83	6.17	0.028	0.0269	0.0001
115	SLU 26	0.05	-0.83	6.17	0.0276	0.0269	0.0001
115	SLU 27	0.05	-0.85	6.16	0.0283	0.0272	0.0001
115	SLU 28	0.05	-0.86	6.15	0.0286	0.0275	0.0001
115	SLU 29	0.05	-0.84	6.16	0.0278	0.027	0.0001
115	SLU 30	0.05	-0.85	6.15	0.028	0.0273	0.0001
115	SLU 31	0.06	-0.94	8.9	0.0302	0.0322	0.0001
115	SLU 32	0.06	-0.96	8.88	0.0309	0.0325	0.0001
115	SLU 33	0.06	-0.97	8.88	0.0312	0.0328	0.0001
115	SLU 34	0.06	-0.97	8.88	0.0308	0.0328	0.0001
115	SLU 35	0.06	-0.99	8.87	0.0315	0.033	0.0001
115	SLU 36	0.06	-1	8.86	0.0318	0.0334	0.0001
115	SLU 37	0.06	-0.98	8.87	0.031	0.0329	0.0001
115	SLU 38	0.06	-0.99	8.87	0.0312	0.0332	0.0001
115	SLU 39	0.07	-0.98	10.07	0.0311	0.0342	0.0001
115	SLU 40	0.07	-0.99	10.06	0.0314	0.0346	0.0001
115	SLU 41	0.07	-1.01	10.05	0.0317	0.0348	0.0001
115	SLU 42	0.07	-1.02	10.05	0.032	0.0351	0.0001
115	SLU 43	0.05	-0.76	7.56	0.0271	0.0287	0.0001
115	SLU 44	0.05	-0.78	7.55	0.0275	0.0292	0.0001
115	SLU 45	0.05	-0.81	7.54	0.0282	0.0295	0.0001
115	SLU 46	0.05	-0.82	7.53	0.0285	0.0298	0.0001
115	SLU 47	0.05	-0.81	7.53	0.0281	0.0298	0.0001
115	SLU 48	0.05	-0.84	7.52	0.0288	0.03	0.0001
115	SLU 49	0.05	-0.85	7.51	0.0291	0.0303	0.0001
115	SLU 50	0.05	-0.82	7.53	0.0283	0.0298	0.0001
115	SLU 51	0.05	-0.84	7.52	0.0286	0.0302	0.0001
115	SLU 52	0.06	-0.92	10.26	0.0307	0.0351	0.0001
115	SLU 53	0.07	-0.95	10.25	0.0314	0.0353	0.0001
115	SLU 54	0.07	-0.96	10.24	0.0317	0.0357	0.0001
115	SLU 55	0.07	-0.95	10.24	0.0313	0.0357	0.0001
115	SLU 56	0.07	-0.98	10.23	0.032	0.0359	0.0001
115	SLU 57	0.07	-0.99	10.22	0.0323	0.0362	0.0001
115	SLU 58	0.07	-0.96	10.24	0.0315	0.0357	0.0001
115	SLU 59	0.07	-0.98	10.23	0.0318	0.036	0.0001
115	SLU 60	0.07	-0.96	11.43	0.0316	0.0371	0.0001
115	SLU 61	0.07	-0.98	11.43	0.0319	0.0374	0.0001
115	SLU 62	0.07	-0.99	11.42	0.0323	0.0377	0.0001
115	SLU 63	0.07	-1.01	11.41	0.0325	0.038	0.0001
115	SLU 64	0.05	-0.92	7.86	0.0316	0.0317	0.0001
115	SLU 65	0.06	-0.93	7.85	0.032	0.0322	0.0001
115	SLU 66	0.06	-0.96	7.84	0.0327	0.0324	0.0001
115	SLU 67	0.06	-0.97	7.83	0.033	0.0327	0.0001
115	SLU 68	0.06	-0.96	7.83	0.0326	0.0328	0.0001
115	SLU 69	0.06	-0.99	7.82	0.0333	0.033	0.0001
115	SLU 70	0.06	-1	7.81	0.0336	0.0333	0.0001
115	SLU 71	0.06	-0.98	7.83	0.0328	0.0328	0.0001
115	SLU 72	0.06	-0.99	7.82	0.0331	0.0331	0.0001
115	SLU 73	0.07	-1.07	10.56	0.0352	0.0381	0.0001
115	SLU 74	0.07	-1.1	10.55	0.0359	0.0383	0.0001
115	SLU 75	0.07	-1.11	10.54	0.0362	0.0386	0.0001
115	SLU 76	0.07	-1.1	10.55	0.0359	0.0386	0.0001
115	SLU 77	0.07	-1.13	10.53	0.0366	0.0389	0.0001
115	SLU 78	0.07	-1.14	10.53	0.0368	0.0392	0.0001
115	SLU 79	0.07	-1.12	10.54	0.036	0.0387	0.0001
115	SLU 80	0.07	-1.13	10.53	0.0363	0.039	0.0001
115	SLU 81	0.08	-1.12	11.74	0.0362	0.0401	0.0001
115	SLU 82	0.08	-1.13	11.73	0.0364	0.0404	0.0001
115	SLU 83	0.08	-1.15	11.72	0.0368	0.0407	0.0001
115	SLU 84	0.08	-1.16	11.71	0.0371	0.041	0.0001
115	SLE RA 1	0.04	-0.67	5.98	0.0233	0.0237	0.0001
115	SLE RA 2	0.04	-0.68	5.98	0.0236	0.0241	0.0001
115	SLE RA 3	0.04	-0.7	5.97	0.0241	0.0242	0.0001
115	SLE RA 4	0.04	-0.71	5.96	0.0242	0.0244	0.0001
115	SLE RA 5	0.04	-0.7	5.96	0.024	0.0244	0.0001
115	SLE RA 6	0.04	-0.72	5.95	0.0245	0.0246	0.0001
115	SLE RA 7	0.04	-0.73	5.95	0.0247	0.0248	0.0001
115	SLE RA 8	0.04	-0.71	5.96	0.0241	0.0245	0.0001
115	SLE RA 9	0.04	-0.72	5.95	0.0243	0.0247	0.0001
115	SLE RA 10	0.05	-0.78	7.78	0.0257	0.028	0.0001
115	SLE RA 11	0.05	-0.79	7.77	0.0262	0.0281	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
115	SLE RA 12	0.05	-0.8	7.77	0.0264	0.0283	0.0001
115	SLE RA 13	0.05	-0.8	7.77	0.0262	0.0284	0.0001
115	SLE RA 14	0.05	-0.81	7.76	0.0266	0.0285	0.0001
115	SLE RA 15	0.05	-0.82	7.76	0.0268	0.0287	0.0001
115	SLE RA 16	0.05	-0.8	7.77	0.0263	0.0284	0.0001
115	SLE RA 17	0.05	-0.81	7.76	0.0264	0.0286	0.0001
115	SLE RA 18	0.05	-0.8	8.56	0.0263	0.0293	0.0001
115	SLE RA 19	0.06	-0.81	8.56	0.0265	0.0295	0.0001
115	SLE RA 20	0.06	-0.82	8.55	0.0268	0.0297	0.0001
115	SLE RA 21	0.06	-0.83	8.55	0.0269	0.0299	0.0001
115	SLE FR 1	0.04	-0.67	5.98	0.0233	0.0237	0.0001
115	SLE FR 2	0.04	-0.67	5.98	0.0234	0.0238	0.0001
115	SLE FR 3	0.04	-0.68	5.98	0.0235	0.0239	0.0001
115	SLE FR 4	0.05	-0.71	6.76	0.0243	0.0255	0.0001
115	SLE FR 5	0.05	-0.72	6.75	0.0244	0.0255	0.0001
115	SLE FR 6	0.05	-0.74	7.27	0.0248	0.0265	0.0001
115	SLE QP 1	0.04	-0.67	5.98	0.0233	0.0237	0.0001
115	SLE QP 2	0.05	-0.71	6.76	0.0242	0.0254	0.0001
115	SLD 1	0.2	-0.99	6.47	0.0314	0.1521	0.0003
115	SLD 2	0.2	-0.99	6.47	0.0314	0.1521	0.0003
115	SLD 3	0.23	-3.18	5.2	0.0867	0.1766	0.0003
115	SLD 4	0.23	-3.18	5.2	0.0867	0.1766	0.0003
115	SLD 5	0.04	2.52	8.6	-0.0575	0.0262	0.0001
115	SLD 6	0.04	2.52	8.6	-0.0575	0.0262	0.0001
115	SLD 7	0.15	-4.76	4.36	0.1269	0.1079	0.0002
115	SLD 8	0.15	-4.76	4.36	0.1269	0.1079	0.0002
115	SLD 9	-0.06	3.34	9.15	-0.0784	-0.0571	-0.0001
115	SLD 10	-0.06	3.34	9.15	-0.0784	-0.0571	-0.0001
115	SLD 11	0.05	-3.94	4.91	0.1059	0.0245	0.0001
115	SLD 12	0.05	-3.94	4.91	0.1059	0.0245	0.0001
115	SLD 13	-0.14	1.75	8.31	-0.0383	-0.1258	-0.0002
115	SLD 14	-0.14	1.75	8.31	-0.0383	-0.1258	-0.0002
115	SLD 15	-0.11	-0.43	7.04	0.017	-0.1013	-0.0001
115	SLD 16	-0.11	-0.43	7.04	0.017	-0.1013	-0.0001
115	SLV 1	0.44	-1.36	6.09	0.041	0.3447	0.0006
115	SLV 2	0.44	-1.36	6.09	0.041	0.3447	0.0006
115	SLV 3	0.52	-6.49	3.1	0.1707	0.4041	0.0007
115	SLV 4	0.52	-6.49	3.1	0.1707	0.4041	0.0007
115	SLV 5	0.04	6.87	11.1	-0.1676	0.031	0.0001
115	SLV 6	0.04	6.87	11.1	-0.1676	0.031	0.0001
115	SLV 7	0.31	-10.22	1.12	0.265	0.2292	0.0004
115	SLV 8	0.31	-10.22	1.12	0.265	0.2292	0.0004
115	SLV 9	-0.22	8.79	12.4	-0.2166	-0.1784	-0.0003
115	SLV 10	-0.22	8.79	12.4	-0.2166	-0.1784	-0.0003
115	SLV 11	0.05	-8.29	2.41	0.216	0.0198	0.0001
115	SLV 12	0.05	-8.29	2.41	0.216	0.0198	0.0001
115	SLV 13	-0.43	5.07	10.41	-0.1223	-0.3533	-0.0005
115	SLV 14	-0.43	5.07	10.41	-0.1223	-0.3533	-0.0005
115	SLV 15	-0.35	-0.06	7.42	0.0075	-0.2939	-0.0004
115	SLV 16	-0.35	-0.06	7.42	0.0075	-0.2939	-0.0004
116	SLU 1	0.14	-2.8	17.75	0.2646	0.0825	0
116	SLU 2	0.15	-0.59	17.95	0.1798	0.0949	0
116	SLU 3	0.14	-3.14	18.02	0.2823	0.0848	0
116	SLU 4	0.15	-1.81	18.14	0.2315	0.0923	0
116	SLU 5	0.15	-0.96	18.05	0.1971	0.096	0
116	SLU 6	0.14	-3.5	18.12	0.2996	0.0859	0
116	SLU 7	0.15	-2.18	18.23	0.2488	0.0934	0
116	SLU 8	0.14	-3.53	17.95	0.2991	0.0847	0
116	SLU 9	0.15	-2.21	18.07	0.2482	0.0922	0
116	SLU 10	0.18	-1.06	20.13	0.2211	0.1091	0
116	SLU 11	0.16	-3.6	20.2	0.3236	0.099	0.0001
116	SLU 12	0.17	-2.28	20.31	0.2727	0.1065	0.0001
116	SLU 13	0.18	-1.43	20.23	0.2383	0.1103	0.0001
116	SLU 14	0.16	-3.97	20.3	0.3408	0.1002	0.0001
116	SLU 15	0.17	-2.64	20.41	0.29	0.1076	0.0001
116	SLU 16	0.16	-4	20.13	0.3403	0.099	0.0001
116	SLU 17	0.17	-2.67	20.25	0.2895	0.1064	0.0001
116	SLU 18	0.17	-3.47	20.87	0.3235	0.1028	0.0001
116	SLU 19	0.18	-2.15	20.98	0.2726	0.1103	0.0001
116	SLU 20	0.17	-3.83	20.96	0.3407	0.1039	0.0001
116	SLU 21	0.18	-2.51	21.08	0.2899	0.1114	0.0001
116	SLU 22	0.16	-3.33	19.61	0.3056	0.0952	0
116	SLU 23	0.17	-1.12	19.8	0.2209	0.1077	0
116	SLU 24	0.16	-3.66	19.87	0.3234	0.0975	0.0001
116	SLU 25	0.17	-2.33	19.99	0.2726	0.105	0.0001
116	SLU 26	0.17	-1.48	19.9	0.2382	0.1088	0.0001
116	SLU 27	0.16	-4.02	19.97	0.3407	0.0987	0.0001
116	SLU 28	0.17	-2.7	20.09	0.2898	0.1061	0.0001
116	SLU 29	0.16	-4.05	19.81	0.3401	0.0975	0.0001
116	SLU 30	0.17	-2.73	19.92	0.2893	0.1049	0.0001
116	SLU 31	0.2	-1.58	21.98	0.2621	0.1219	0.0001
116	SLU 32	0.18	-4.13	22.05	0.3646	0.1118	0.0001
116	SLU 33	0.19	-2.8	22.17	0.3138	0.1192	0.0001
116	SLU 34	0.2	-1.95	22.08	0.2794	0.123	0.0001
116	SLU 35	0.18	-4.49	22.15	0.3819	0.1129	0.0001
116	SLU 36	0.19	-3.16	22.27	0.3311	0.1203	0.0001
116	SLU 37	0.18	-4.52	21.98	0.3814	0.1117	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
116	SLU 38	0.19	-3.19	22.1	0.3305	0.1192	0.0001
116	SLU 39	0.19	-3.99	22.72	0.3645	0.1156	0.0001
116	SLU 40	0.2	-2.67	22.84	0.3137	0.123	0.0001
116	SLU 41	0.19	-4.36	22.82	0.3818	0.1167	0.0001
116	SLU 42	0.2	-3.03	22.94	0.3309	0.1241	0.0001
116	SLU 43	0.17	-3.47	22.44	0.3299	0.1029	0.0001
116	SLU 44	0.19	-1.26	22.64	0.2451	0.1153	0.0001
116	SLU 45	0.17	-3.8	22.71	0.3476	0.1052	0.0001
116	SLU 46	0.18	-2.47	22.83	0.2968	0.1126	0.0001
116	SLU 47	0.19	-1.62	22.74	0.2624	0.1164	0.0001
116	SLU 48	0.17	-4.16	22.81	0.3649	0.1063	0.0001
116	SLU 49	0.18	-2.84	22.92	0.3141	0.1138	0.0001
116	SLU 50	0.17	-4.19	22.64	0.3644	0.1051	0.0001
116	SLU 51	0.18	-2.87	22.76	0.3135	0.1126	0.0001
116	SLU 52	0.21	-1.72	24.82	0.2864	0.1295	0.0001
116	SLU 53	0.2	-4.27	24.89	0.3889	0.1194	0.0001
116	SLU 54	0.21	-2.94	25	0.338	0.1269	0.0001
116	SLU 55	0.21	-2.09	24.92	0.3036	0.1307	0.0001
116	SLU 56	0.2	-4.63	24.99	0.4061	0.1205	0.0001
116	SLU 57	0.21	-3.3	25.1	0.3553	0.128	0.0001
116	SLU 58	0.2	-4.66	24.82	0.4056	0.1194	0.0001
116	SLU 59	0.21	-3.34	24.94	0.3548	0.1268	0.0001
116	SLU 60	0.2	-4.13	25.56	0.3888	0.1232	0.0001
116	SLU 61	0.21	-2.81	25.67	0.3379	0.1307	0.0001
116	SLU 62	0.2	-4.5	25.65	0.406	0.1243	0.0001
116	SLU 63	0.21	-3.17	25.77	0.3552	0.1318	0.0001
116	SLU 64	0.19	-3.99	24.3	0.3709	0.1156	0.0001
116	SLU 65	0.21	-1.78	24.49	0.2862	0.128	0.0001
116	SLU 66	0.19	-4.32	24.56	0.3887	0.1179	0.0001
116	SLU 67	0.2	-3	24.68	0.3379	0.1254	0.0001
116	SLU 68	0.21	-2.14	24.59	0.3034	0.1292	0.0001
116	SLU 69	0.2	-4.68	24.66	0.406	0.1191	0.0001
116	SLU 70	0.21	-3.36	24.78	0.3551	0.1265	0.0001
116	SLU 71	0.19	-4.72	24.49	0.4054	0.1179	0.0001
116	SLU 72	0.2	-3.39	24.61	0.3546	0.1253	0.0001
116	SLU 73	0.23	-2.25	26.67	0.3274	0.1423	0.0001
116	SLU 74	0.22	-4.79	26.74	0.4299	0.1322	0.0001
116	SLU 75	0.23	-3.46	26.86	0.3791	0.1396	0.0001
116	SLU 76	0.23	-2.61	26.77	0.3447	0.1434	0.0001
116	SLU 77	0.22	-5.15	26.84	0.4472	0.1333	0.0001
116	SLU 78	0.23	-3.83	26.96	0.3963	0.1407	0.0001
116	SLU 79	0.22	-5.18	26.67	0.4467	0.1321	0.0001
116	SLU 80	0.23	-3.86	26.79	0.3958	0.1395	0.0001
116	SLU 81	0.22	-4.66	27.41	0.4298	0.1359	0.0001
116	SLU 82	0.23	-3.33	27.53	0.379	0.1434	0.0001
116	SLU 83	0.22	-5.02	27.51	0.4471	0.1371	0.0001
116	SLU 84	0.23	-3.69	27.63	0.3962	0.1445	0.0001
116	SLE RA 1	0.14	-2.95	18.28	0.2763	0.0861	0
116	SLE RA 2	0.15	-1.48	18.41	0.2198	0.0944	0
116	SLE RA 3	0.14	-3.18	18.46	0.2881	0.0877	0
116	SLE RA 4	0.15	-2.29	18.54	0.2543	0.0926	0
116	SLE RA 5	0.15	-1.72	18.48	0.2313	0.0952	0
116	SLE RA 6	0.15	-3.42	18.53	0.2997	0.0884	0
116	SLE RA 7	0.15	-2.53	18.6	0.2658	0.0934	0
116	SLE RA 8	0.14	-3.44	18.41	0.2993	0.0876	0
116	SLE RA 9	0.15	-2.55	18.49	0.2654	0.0926	0
116	SLE RA 10	0.17	-1.79	19.87	0.2473	0.1039	0
116	SLE RA 11	0.16	-3.49	19.91	0.3156	0.0972	0
116	SLE RA 12	0.17	-2.6	19.99	0.2817	0.1021	0
116	SLE RA 13	0.17	-2.03	19.93	0.2588	0.1047	0
116	SLE RA 14	0.16	-3.73	19.98	0.3271	0.0979	0.0001
116	SLE RA 15	0.17	-2.85	20.06	0.2932	0.1029	0.0001
116	SLE RA 16	0.16	-3.75	19.87	0.3268	0.0971	0.0001
116	SLE RA 17	0.17	-2.87	19.95	0.2929	0.1021	0.0001
116	SLE RA 18	0.16	-3.4	20.36	0.3156	0.0997	0
116	SLE RA 19	0.17	-2.51	20.44	0.2817	0.1047	0
116	SLE RA 20	0.16	-3.64	20.42	0.3271	0.1004	0.0001
116	SLE RA 21	0.17	-2.76	20.5	0.2932	0.1054	0.0001
116	SLE FR 1	0.14	-2.95	18.28	0.2763	0.0861	0
116	SLE FR 2	0.14	-2.66	18.31	0.265	0.0878	0
116	SLE FR 3	0.14	-3.05	18.31	0.2809	0.0864	0
116	SLE FR 4	0.15	-2.79	18.93	0.2768	0.0919	0
116	SLE FR 5	0.15	-3.18	18.93	0.2927	0.0905	0
116	SLE FR 6	0.15	-3.18	19.32	0.2959	0.0929	0
116	SLE QP 1	0.14	-2.95	18.28	0.2763	0.0861	0
116	SLE QP 2	0.15	-3.09	18.91	0.2881	0.0902	0
116	SLD 1	0.27	-3.48	18.29	0.3093	0.1835	0
116	SLD 2	0.27	-3.48	18.29	0.3093	0.1835	0
116	SLD 3	0.24	-6.66	17.23	0.4457	0.1585	0
116	SLD 4	0.24	-6.66	17.23	0.4457	0.1585	0
116	SLD 5	0.23	1.61	20.33	0.0876	0.156	0
116	SLD 6	0.23	1.61	20.33	0.0876	0.156	0
116	SLD 7	0.13	-8.97	16.79	0.5422	0.0729	0.0001
116	SLD 8	0.13	-8.97	16.79	0.5422	0.0729	0.0001
116	SLD 9	0.17	2.8	21.02	0.0339	0.1075	0
116	SLD 10	0.17	2.8	21.02	0.0339	0.1075	0
116	SLD 11	0.06	-7.78	17.48	0.4886	0.0244	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
116	SLD 12	0.06	-7.78	17.48	0.4886	0.0244	0.0001
116	SLD 13	0.06	0.48	20.58	0.1305	0.0219	0.0001
116	SLD 14	0.06	0.48	20.58	0.1305	0.0219	0.0001
116	SLD 15	0.03	-2.69	19.52	0.2669	-0.0031	0.0001
116	SLD 16	0.03	-2.69	19.52	0.2669	-0.0031	0.0001
116	SLV 1	0.43	-4.08	17.5	0.3408	0.311	0
116	SLV 2	0.43	-4.08	17.5	0.3408	0.311	0
116	SLV 3	0.35	-11.66	14.94	0.6655	0.2495	0
116	SLV 4	0.35	-11.66	14.94	0.6655	0.2495	0
116	SLV 5	0.35	8.1	22.37	-0.1886	0.2497	0
116	SLV 6	0.35	8.1	22.37	-0.1886	0.2497	0
116	SLV 7	0.09	-17.14	13.83	0.8938	0.0447	0.0001
116	SLV 8	0.09	-17.14	13.83	0.8938	0.0447	0.0001
116	SLV 9	0.2	10.97	23.99	-0.3177	0.1357	0
116	SLV 10	0.2	10.97	23.99	-0.3177	0.1357	0
116	SLV 11	-0.05	-14.27	15.44	0.7648	-0.0693	0.0001
116	SLV 12	-0.05	-14.27	15.44	0.7648	-0.0693	0.0001
116	SLV 13	-0.06	5.48	22.88	-0.0893	-0.0691	0.0001
116	SLV 14	-0.06	5.48	22.88	-0.0893	-0.0691	0.0001
116	SLV 15	-0.13	-2.09	20.31	0.2354	-0.1306	0.0001
116	SLV 16	-0.13	-2.09	20.31	0.2354	-0.1306	0.0001
117	SLU 1	0.07	-3.02	45.25	0.1267	0.0457	0
117	SLU 2	0.07	-3.46	45.84	0.1476	0.0458	-0.0001
117	SLU 3	0.07	-2.87	46.19	0.1194	0.0467	0
117	SLU 4	0.07	-3.14	46.54	0.132	0.0468	-0.0001
117	SLU 5	0.07	-3.28	46.38	0.1383	0.0463	-0.0001
117	SLU 6	0.07	-2.69	46.72	0.1101	0.0472	0
117	SLU 7	0.07	-2.96	47.08	0.1227	0.0473	0
117	SLU 8	0.07	-2.65	46.32	0.1081	0.0467	0
117	SLU 9	0.07	-2.92	46.68	0.1206	0.0468	0
117	SLU 10	0.08	-4.01	53.76	0.1712	0.055	-0.0001
117	SLU 11	0.09	-3.42	54.1	0.143	0.0559	0
117	SLU 12	0.09	-3.68	54.46	0.1555	0.0559	-0.0001
117	SLU 13	0.09	-3.82	54.29	0.1619	0.0555	-0.0001
117	SLU 14	0.09	-3.23	54.64	0.1336	0.0564	0
117	SLU 15	0.09	-3.5	54.99	0.1462	0.0564	0
117	SLU 16	0.09	-3.2	54.24	0.1316	0.0559	0
117	SLU 17	0.09	-3.46	54.59	0.1442	0.0559	0
117	SLU 18	0.09	-3.8	56.56	0.1603	0.0588	0
117	SLU 19	0.09	-4.06	56.91	0.1729	0.0589	-0.0001
117	SLU 20	0.09	-3.61	57.1	0.151	0.0593	0
117	SLU 21	0.09	-3.88	57.45	0.1636	0.0593	-0.0001
117	SLU 22	0.08	-3.2	50.09	0.135	0.0512	0
117	SLU 23	0.08	-3.65	50.68	0.156	0.0513	-0.0001
117	SLU 24	0.08	-3.06	51.02	0.1277	0.0522	0
117	SLU 25	0.08	-3.32	51.38	0.1403	0.0523	-0.0001
117	SLU 26	0.08	-3.46	51.22	0.1467	0.0518	-0.0001
117	SLU 27	0.08	-2.88	51.56	0.1184	0.0527	0
117	SLU 28	0.08	-3.14	51.92	0.131	0.0527	-0.0001
117	SLU 29	0.08	-2.84	51.16	0.1164	0.0522	0
117	SLU 30	0.08	-3.1	51.52	0.129	0.0522	-0.0001
117	SLU 31	0.09	-4.19	58.59	0.1795	0.0604	-0.0001
117	SLU 32	0.09	-3.6	58.94	0.1513	0.0613	0
117	SLU 33	0.09	-3.87	59.3	0.1639	0.0614	-0.0001
117	SLU 34	0.09	-4.01	59.13	0.1702	0.0609	-0.0001
117	SLU 35	0.09	-3.42	59.48	0.142	0.0618	0
117	SLU 36	0.09	-3.68	59.83	0.1546	0.0619	-0.0001
117	SLU 37	0.09	-3.38	59.08	0.14	0.0613	0
117	SLU 38	0.09	-3.65	59.43	0.1525	0.0614	-0.0001
117	SLU 39	0.1	-3.98	61.4	0.1687	0.0643	0
117	SLU 40	0.1	-4.25	61.75	0.1812	0.0643	-0.0001
117	SLU 41	0.1	-3.8	61.93	0.1594	0.0648	0
117	SLU 42	0.1	-4.06	62.29	0.1719	0.0648	-0.0001
117	SLU 43	0.09	-3.86	57.16	0.1618	0.0576	-0.0001
117	SLU 44	0.09	-4.31	57.75	0.1828	0.0577	-0.0001
117	SLU 45	0.09	-3.72	58.1	0.1545	0.0586	-0.0001
117	SLU 46	0.09	-3.98	58.45	0.1671	0.0586	-0.0001
117	SLU 47	0.09	-4.12	58.29	0.1735	0.0582	-0.0001
117	SLU 48	0.09	-3.53	58.64	0.1452	0.0591	0
117	SLU 49	0.09	-3.8	58.99	0.1578	0.0591	-0.0001
117	SLU 50	0.09	-3.5	58.24	0.1432	0.0586	0
117	SLU 51	0.09	-3.76	58.59	0.1558	0.0586	-0.0001
117	SLU 52	0.1	-4.85	65.67	0.2063	0.0668	-0.0001
117	SLU 53	0.1	-4.26	66.02	0.1781	0.0677	-0.0001
117	SLU 54	0.1	-4.53	66.37	0.1907	0.0678	-0.0001
117	SLU 55	0.1	-4.67	66.21	0.197	0.0673	-0.0001
117	SLU 56	0.1	-4.08	66.55	0.1688	0.0682	0
117	SLU 57	0.1	-4.34	66.91	0.1814	0.0682	-0.0001
117	SLU 58	0.1	-4.04	66.15	0.1668	0.0677	0
117	SLU 59	0.1	-4.3	66.51	0.1793	0.0678	-0.0001
117	SLU 60	0.11	-4.64	68.47	0.1955	0.0706	-0.0001
117	SLU 61	0.11	-4.9	68.83	0.208	0.0707	-0.0001
117	SLU 62	0.11	-4.45	69.01	0.1862	0.0711	-0.0001
117	SLU 63	0.11	-4.72	69.36	0.1987	0.0712	-0.0001
117	SLU 64	0.1	-4.05	62	0.1702	0.0631	-0.0001
117	SLU 65	0.1	-4.49	62.59	0.1911	0.0632	-0.0001
117	SLU 66	0.1	-3.9	62.94	0.1629	0.064	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
117	SLU 67	0.1	-4.17	63.29	0.1755	0.0641	-0.0001
117	SLU 68	0.1	-4.31	63.13	0.1818	0.0636	-0.0001
117	SLU 69	0.1	-3.72	63.48	0.1536	0.0645	-0.0001
117	SLU 70	0.1	-3.98	63.83	0.1662	0.0646	-0.0001
117	SLU 71	0.11	-3.68	63.08	0.1516	0.064	-0.0001
117	SLU 72	0.1	-3.95	63.43	0.1641	0.0641	-0.0001
117	SLU 73	0.11	-5.03	70.51	0.2147	0.0723	-0.0001
117	SLU 74	0.11	-4.44	70.86	0.1864	0.0732	-0.0001
117	SLU 75	0.11	-4.71	71.21	0.199	0.0732	-0.0001
117	SLU 76	0.11	-4.85	71.05	0.2054	0.0728	-0.0001
117	SLU 77	0.11	-4.26	71.39	0.1771	0.0737	-0.0001
117	SLU 78	0.11	-4.53	71.75	0.1897	0.0737	-0.0001
117	SLU 79	0.11	-4.22	70.99	0.1751	0.0732	-0.0001
117	SLU 80	0.11	-4.49	71.35	0.1877	0.0732	-0.0001
117	SLU 81	0.12	-4.82	73.31	0.2038	0.0761	-0.0001
117	SLU 82	0.12	-5.09	73.67	0.2164	0.0762	-0.0001
117	SLU 83	0.12	-4.64	73.85	0.1945	0.0766	-0.0001
117	SLU 84	0.12	-4.91	74.2	0.2071	0.0767	-0.0001
117	SLE RA 1	0.07	-3.07	46.63	0.1291	0.0473	0
117	SLE RA 2	0.07	-3.37	47.02	0.143	0.0474	-0.0001
117	SLE RA 3	0.07	-2.98	47.26	0.1242	0.048	0
117	SLE RA 4	0.07	-3.15	47.49	0.1326	0.048	-0.0001
117	SLE RA 5	0.07	-3.25	47.38	0.1368	0.0477	-0.0001
117	SLE RA 6	0.07	-2.85	47.61	0.118	0.0483	0
117	SLE RA 7	0.07	-3.03	47.85	0.1264	0.0483	0
117	SLE RA 8	0.07	-2.83	47.35	0.1167	0.048	0
117	SLE RA 9	0.07	-3.01	47.58	0.125	0.048	0
117	SLE RA 10	0.08	-3.73	52.3	0.1587	0.0535	-0.0001
117	SLE RA 11	0.08	-3.34	52.53	0.1399	0.0541	0
117	SLE RA 12	0.08	-3.51	52.77	0.1483	0.0541	0
117	SLE RA 13	0.08	-3.61	52.66	0.1525	0.0538	-0.0001
117	SLE RA 14	0.08	-3.22	52.89	0.1337	0.0544	0
117	SLE RA 15	0.08	-3.39	53.13	0.1421	0.0544	0
117	SLE RA 16	0.08	-3.19	52.63	0.1324	0.054	0
117	SLE RA 17	0.08	-3.37	52.86	0.1407	0.0541	0
117	SLE RA 18	0.09	-3.59	54.17	0.1515	0.056	0
117	SLE RA 19	0.09	-3.77	54.41	0.1599	0.056	-0.0001
117	SLE RA 20	0.09	-3.47	54.53	0.1453	0.0563	0
117	SLE RA 21	0.09	-3.64	54.77	0.1537	0.0564	0
117	SLE FR 1	0.07	-3.07	46.63	0.1291	0.0473	0
117	SLE FR 2	0.07	-3.13	46.71	0.1319	0.0473	0
117	SLE FR 3	0.07	-3.02	46.78	0.1266	0.0474	0
117	SLE FR 4	0.08	-3.29	48.97	0.1386	0.0499	0
117	SLE FR 5	0.08	-3.18	49.04	0.1333	0.05	0
117	SLE FR 6	0.08	-3.33	50.4	0.1403	0.0517	0
117	SLE QP 1	0.07	-3.07	46.63	0.1291	0.0473	0
117	SLE QP 2	0.08	-3.23	48.89	0.1358	0.0499	0
117	SLD 1	0.18	-0.38	43.97	-0.0063	0.1479	-0.001
117	SLD 2	0.18	-0.38	43.97	-0.0063	0.1479	-0.001
117	SLD 3	0.21	-3.84	45.02	0.1626	0.1704	-0.0013
117	SLD 4	0.21	-3.84	45.02	0.1626	0.1704	-0.0013
117	SLD 5	0.06	2.86	45.83	-0.163	0.0452	0
117	SLD 6	0.06	2.86	45.83	-0.163	0.0452	0
117	SLD 7	0.16	-8.65	49.32	0.4	0.1201	-0.0007
117	SLD 8	0.16	-8.65	49.32	0.4	0.1201	-0.0007
117	SLD 9	-0.01	2.19	48.47	-0.1284	-0.0203	0.0007
117	SLD 10	-0.01	2.19	48.47	-0.1284	-0.0203	0.0007
117	SLD 11	0.09	-9.32	51.96	0.4346	0.0546	-0.0001
117	SLD 12	0.09	-9.32	51.96	0.4346	0.0546	-0.0001
117	SLD 13	-0.05	-2.62	52.77	0.109	-0.0705	0.0012
117	SLD 14	-0.05	-2.62	52.77	0.109	-0.0705	0.0012
117	SLD 15	-0.02	-6.07	53.82	0.2779	-0.048	0.0009
117	SLD 16	-0.02	-6.07	53.82	0.2779	-0.048	0.0009
117	SLV 1	0.33	3.47	37.33	-0.1986	0.2974	-0.0025
117	SLV 2	0.33	3.47	37.33	-0.1986	0.2974	-0.0025
117	SLV 3	0.4	-4.61	39.82	0.1971	0.3518	-0.0031
117	SLV 4	0.4	-4.61	39.82	0.1971	0.3518	-0.0031
117	SLV 5	0.05	11.05	41.65	-0.5646	0.0417	0
117	SLV 6	0.05	11.05	41.65	-0.5646	0.0417	0
117	SLV 7	0.28	-15.91	49.94	0.7542	0.2229	-0.0018
117	SLV 8	0.28	-15.91	49.94	0.7542	0.2229	-0.0018
117	SLV 9	-0.13	9.45	47.85	-0.4827	-0.1231	0.0017
117	SLV 10	-0.13	9.45	47.85	-0.4827	-0.1231	0.0017
117	SLV 11	0.1	-17.5	56.13	0.8362	0.0581	-0.0001
117	SLV 12	0.1	-17.5	56.13	0.8362	0.0581	-0.0001
117	SLV 13	-0.25	-1.84	57.97	0.0745	-0.2519	0.003
117	SLV 14	-0.25	-1.84	57.97	0.0745	-0.2519	0.003
117	SLV 15	-0.18	-9.93	60.46	0.4702	-0.1976	0.0024
117	SLV 16	-0.18	-9.93	60.46	0.4702	-0.1976	0.0024
118	SLU 1	0	-0.4	33.43	0.128	-0.0018	0
118	SLU 2	-0.01	1.83	34.79	0.0397	-0.0118	0
118	SLU 3	0	-0.62	34.37	0.1416	-0.0019	0
118	SLU 4	-0.01	0.72	35.19	0.0886	-0.0079	0
118	SLU 5	-0.01	1.56	35.4	0.0547	-0.0118	0
118	SLU 6	0	-0.9	34.98	0.1567	-0.0019	0
118	SLU 7	-0.01	0.44	35.8	0.1036	-0.0079	0
118	SLU 8	0	-0.96	34.65	0.1582	-0.0019	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
118	SLU 9	-0.01	0.38	35.46	0.1051	-0.0079	0
118	SLU 10	-0.01	1.81	39.63	0.0567	-0.0121	0
118	SLU 11	0	-0.64	39.21	0.1586	-0.0022	0
118	SLU 12	-0.01	0.7	40.03	0.1056	-0.0082	0
118	SLU 13	-0.01	1.53	40.24	0.0718	-0.0121	0
118	SLU 14	0	-0.92	39.83	0.1737	-0.0022	0
118	SLU 15	-0.01	0.42	40.64	0.1207	-0.0082	0
118	SLU 16	0	-0.98	39.49	0.1752	-0.0022	0
118	SLU 17	-0.01	0.36	40.31	0.1222	-0.0082	0
118	SLU 18	0	-0.43	40.35	0.1524	-0.0023	0
118	SLU 19	-0.01	0.91	41.16	0.0993	-0.0082	0
118	SLU 20	0	-0.71	40.96	0.1674	-0.0023	0
118	SLU 21	-0.01	0.63	41.77	0.1144	-0.0083	0
118	SLU 22	0	-0.49	37.88	0.1471	-0.0021	0
118	SLU 23	-0.01	1.74	39.24	0.0588	-0.0121	0
118	SLU 24	0	-0.71	38.82	0.1607	-0.0022	0
118	SLU 25	-0.01	0.63	39.64	0.1077	-0.0082	0
118	SLU 26	-0.01	1.46	39.85	0.0738	-0.0121	0
118	SLU 27	0	-0.99	39.44	0.1758	-0.0022	0
118	SLU 28	-0.01	0.35	40.25	0.1228	-0.0082	0
118	SLU 29	0	-1.05	39.1	0.1773	-0.0022	0
118	SLU 30	-0.01	0.29	39.92	0.1243	-0.0082	0
118	SLU 31	-0.01	1.72	44.08	0.0758	-0.0124	0
118	SLU 32	0	-0.74	43.67	0.1778	-0.0025	0
118	SLU 33	-0.01	0.61	44.48	0.1247	-0.0085	0
118	SLU 34	-0.01	1.44	44.69	0.0909	-0.0124	0
118	SLU 35	0	-1.02	44.28	0.1928	-0.0025	0
118	SLU 36	-0.01	0.33	45.09	0.1398	-0.0085	0
118	SLU 37	0	-1.08	43.95	0.1943	-0.0025	0
118	SLU 38	-0.01	0.26	44.76	0.1413	-0.0085	0
118	SLU 39	0	-0.53	44.8	0.1715	-0.0026	0
118	SLU 40	-0.01	0.81	45.61	0.1185	-0.0085	0
118	SLU 41	0	-0.81	45.41	0.1866	-0.0026	0
118	SLU 42	-0.01	0.53	46.22	0.1335	-0.0086	0
118	SLU 43	0	-0.49	41.93	0.1599	-0.0022	0
118	SLU 44	-0.01	1.75	43.29	0.0715	-0.0122	0
118	SLU 45	0	-0.71	42.87	0.1734	-0.0023	0
118	SLU 46	-0.01	0.63	43.69	0.1204	-0.0083	0
118	SLU 47	-0.01	1.47	43.9	0.0866	-0.0123	0
118	SLU 48	0	-0.99	43.48	0.1885	-0.0023	0
118	SLU 49	-0.01	0.36	44.3	0.1355	-0.0083	0
118	SLU 50	0	-1.05	43.15	0.19	-0.0023	0
118	SLU 51	-0.01	0.29	43.97	0.137	-0.0083	0
118	SLU 52	-0.01	1.72	48.13	0.0885	-0.0125	0
118	SLU 53	0	-0.73	47.72	0.1905	-0.0026	0
118	SLU 54	-0.01	0.61	48.53	0.1375	-0.0086	0
118	SLU 55	-0.01	1.44	48.74	0.1036	-0.0126	0
118	SLU 56	0	-1.01	48.33	0.2055	-0.0027	0
118	SLU 57	-0.01	0.33	49.14	0.1525	-0.0086	0
118	SLU 58	0	-1.07	47.99	0.207	-0.0026	0
118	SLU 59	-0.01	0.27	48.81	0.154	-0.0086	0
118	SLU 60	0	-0.52	48.85	0.1842	-0.0027	0
118	SLU 61	-0.01	0.82	49.66	0.1312	-0.0087	0
118	SLU 62	0	-0.8	49.46	0.1993	-0.0027	0
118	SLU 63	-0.01	0.54	50.27	0.1463	-0.0087	0
118	SLU 64	0	-0.58	46.38	0.179	-0.0025	0
118	SLU 65	-0.01	1.65	47.74	0.0906	-0.0125	0
118	SLU 66	0	-0.8	47.33	0.1926	-0.0026	0
118	SLU 67	-0.01	0.54	48.14	0.1395	-0.0086	0
118	SLU 68	-0.01	1.37	48.35	0.1057	-0.0126	0
118	SLU 69	0	-1.08	47.94	0.2076	-0.0026	0
118	SLU 70	-0.01	0.26	48.75	0.1546	-0.0086	0
118	SLU 71	0	-1.14	47.6	0.2091	-0.0026	0
118	SLU 72	-0.01	0.2	48.42	0.1561	-0.0086	0
118	SLU 73	-0.01	1.63	52.58	0.1077	-0.0128	0
118	SLU 74	0	-0.82	52.17	0.2096	-0.0029	0
118	SLU 75	-0.01	0.52	52.98	0.1566	-0.0089	0
118	SLU 76	-0.01	1.35	53.19	0.1227	-0.0129	0
118	SLU 77	0	-1.1	52.78	0.2247	-0.003	0
118	SLU 78	-0.01	0.24	53.6	0.1717	-0.0089	0
118	SLU 79	0	-1.16	52.45	0.2262	-0.0029	0
118	SLU 80	-0.01	0.18	53.26	0.1732	-0.0089	0
118	SLU 81	0	-0.61	53.3	0.2033	-0.003	0
118	SLU 82	-0.01	0.73	54.11	0.1503	-0.009	0
118	SLU 83	0	-0.89	53.91	0.2184	-0.003	0
118	SLU 84	-0.01	0.45	54.73	0.1654	-0.009	0
118	SLE RA 1	0	-0.43	34.7	0.1335	-0.0019	0
118	SLE RA 2	-0.01	1.06	35.6	0.0746	-0.0085	0
118	SLE RA 3	0	-0.57	35.33	0.1425	-0.0019	0
118	SLE RA 4	0	0.32	35.87	0.1072	-0.0059	0
118	SLE RA 5	-0.01	0.88	36.01	0.0846	-0.0086	0
118	SLE RA 6	0	-0.76	35.74	0.1526	-0.002	0
118	SLE RA 7	0	0.13	36.28	0.1172	-0.0059	0
118	SLE RA 8	0	-0.8	35.51	0.1536	-0.0019	0
118	SLE RA 9	0	0.09	36.06	0.1182	-0.0059	0
118	SLE RA 10	-0.01	1.05	38.83	0.0859	-0.0088	0
118	SLE RA 11	0	-0.59	38.56	0.1539	-0.0021	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
118	SLE RA 12	0	0.31	39.1	0.1185	-0.0061	0
118	SLE RA 13	-0.01	0.86	39.24	0.096	-0.0088	0
118	SLE RA 14	0	-0.77	38.97	0.1639	-0.0022	0
118	SLE RA 15	0	0.12	39.51	0.1286	-0.0062	0
118	SLE RA 16	0	-0.81	38.74	0.1649	-0.0021	0
118	SLE RA 17	0	0.08	39.29	0.1296	-0.0061	0
118	SLE RA 18	0	-0.45	39.31	0.1497	-0.0022	0
118	SLE RA 19	0	0.45	39.85	0.1144	-0.0062	0
118	SLE RA 20	0	-0.63	39.72	0.1598	-0.0022	0
118	SLE RA 21	0	0.26	40.26	0.1244	-0.0062	0
118	SLE FR 1	0	-0.43	34.7	0.1335	-0.0019	0
118	SLE FR 2	0	-0.13	34.88	0.1217	-0.0032	0
118	SLE FR 3	0	-0.5	34.86	0.1375	-0.0019	0
118	SLE FR 4	0	-0.14	36.26	0.1266	-0.0033	0
118	SLE FR 5	0	-0.51	36.25	0.1424	-0.002	0
118	SLE FR 6	0	-0.44	37.01	0.1416	-0.002	0
118	SLE QP 1	0	-0.43	34.7	0.1335	-0.0019	0
118	SLE QP 2	0	-0.43	36.08	0.1384	-0.002	0
118	SLD 1	0.07	2.37	39.14	0.0168	0.0604	0
118	SLD 2	0.07	2.37	39.14	0.0168	0.0604	0
118	SLD 3	0.1	-0.61	37.09	0.1449	0.0853	0
118	SLD 4	0.1	-0.61	37.09	0.1449	0.0853	0
118	SLD 5	-0.02	4.92	40.11	-0.0924	-0.021	0
118	SLD 6	-0.02	4.92	40.11	-0.0924	-0.021	0
118	SLD 7	0.07	-4.99	33.27	0.3346	0.0619	0
118	SLD 8	0.07	-4.99	33.27	0.3346	0.0619	0
118	SLD 9	-0.07	4.13	38.89	-0.0579	-0.0659	0
118	SLD 10	-0.07	4.13	38.89	-0.0579	-0.0659	0
118	SLD 11	0.02	-5.78	32.06	0.3691	0.017	0
118	SLD 12	0.02	-5.78	32.06	0.3691	0.017	0
118	SLD 13	-0.1	-0.26	35.08	0.1318	-0.0893	0
118	SLD 14	-0.1	-0.26	35.08	0.1318	-0.0893	0
118	SLD 15	-0.07	-3.23	33.03	0.2599	-0.0644	0
118	SLD 16	-0.07	-3.23	33.03	0.2599	-0.0644	0
118	SLV 1	0.16	6.33	43.26	-0.1551	0.1497	-0.0001
118	SLV 2	0.16	6.33	43.26	-0.1551	0.1497	-0.0001
118	SLV 3	0.23	-0.73	38.41	0.1485	0.2127	0
118	SLV 4	0.23	-0.73	38.41	0.1485	0.2127	0
118	SLV 5	-0.06	12.31	45.59	-0.4102	-0.0521	-0.0001
118	SLV 6	-0.06	12.31	45.59	-0.4102	-0.0521	-0.0001
118	SLV 7	0.18	-11.24	29.43	0.6019	0.158	0
118	SLV 8	0.18	-11.24	29.43	0.6019	0.158	0
118	SLV 9	-0.18	10.37	42.74	-0.3252	-0.162	0
118	SLV 10	-0.18	10.37	42.74	-0.3252	-0.162	0
118	SLV 11	0.06	-13.18	26.58	0.6869	0.0481	0.0001
118	SLV 12	0.06	-13.18	26.58	0.6869	0.0481	0.0001
118	SLV 13	-0.24	-0.13	33.75	0.1282	-0.2167	0.0001
118	SLV 14	-0.24	-0.13	33.75	0.1282	-0.2167	0.0001
118	SLV 15	-0.17	-7.2	28.91	0.4318	-0.1537	0.0001
118	SLV 16	-0.17	-7.2	28.91	0.4318	-0.1537	0.0001
119	SLU 1	-0.17	7.16	26.97	-0.2734	-0.119	-0.0006
119	SLU 2	-0.25	8.45	27.7	-0.3286	-0.1951	-0.0009
119	SLU 3	-0.17	7.49	27.74	-0.2865	-0.1229	-0.0007
119	SLU 4	-0.22	8.27	28.19	-0.3196	-0.1685	-0.0008
119	SLU 5	-0.25	8.71	28.26	-0.3391	-0.1977	-0.001
119	SLU 6	-0.18	7.76	28.3	-0.2969	-0.1255	-0.0007
119	SLU 7	-0.23	8.54	28.74	-0.3301	-0.1712	-0.0009
119	SLU 8	-0.18	7.69	28.08	-0.2943	-0.1242	-0.0007
119	SLU 9	-0.22	8.47	28.52	-0.3275	-0.1698	-0.0008
119	SLU 10	-0.27	9.3	30.37	-0.3606	-0.2109	-0.001
119	SLU 11	-0.2	8.35	30.41	-0.3185	-0.1387	-0.0007
119	SLU 12	-0.24	9.12	30.85	-0.3517	-0.1844	-0.0009
119	SLU 13	-0.27	9.57	30.92	-0.3711	-0.2135	-0.001
119	SLU 14	-0.2	8.61	30.96	-0.329	-0.1413	-0.0008
119	SLU 15	-0.25	9.39	31.41	-0.3621	-0.187	-0.0009
119	SLU 16	-0.2	8.54	30.74	-0.3264	-0.14	-0.0007
119	SLU 17	-0.25	9.32	31.19	-0.3595	-0.1857	-0.0009
119	SLU 18	-0.2	8.37	30.77	-0.3192	-0.1415	-0.0007
119	SLU 19	-0.25	9.15	31.21	-0.3523	-0.1872	-0.0009
119	SLU 20	-0.2	8.64	31.33	-0.3296	-0.1441	-0.0008
119	SLU 21	-0.25	9.41	31.77	-0.3628	-0.1898	-0.001
119	SLU 22	-0.19	8.07	29.7	-0.308	-0.1347	-0.0007
119	SLU 23	-0.27	9.36	30.44	-0.3633	-0.2108	-0.001
119	SLU 24	-0.2	8.41	30.48	-0.3211	-0.1386	-0.0007
119	SLU 25	-0.24	9.18	30.92	-0.3543	-0.1843	-0.0009
119	SLU 26	-0.27	9.63	31	-0.3737	-0.2134	-0.001
119	SLU 27	-0.2	8.68	31.04	-0.3316	-0.1412	-0.0008
119	SLU 28	-0.25	9.45	31.48	-0.3647	-0.1869	-0.0009
119	SLU 29	-0.2	8.61	30.82	-0.329	-0.1399	-0.0007
119	SLU 30	-0.25	9.38	31.26	-0.3621	-0.1856	-0.0009
119	SLU 31	-0.29	10.21	33.1	-0.3953	-0.2266	-0.0011
119	SLU 32	-0.22	9.26	33.14	-0.3532	-0.1544	-0.0008
119	SLU 33	-0.27	10.03	33.59	-0.3863	-0.2001	-0.001
119	SLU 34	-0.3	10.48	33.66	-0.4058	-0.2292	-0.0011
119	SLU 35	-0.22	9.53	33.7	-0.3637	-0.157	-0.0008
119	SLU 36	-0.27	10.3	34.14	-0.3968	-0.2027	-0.001
119	SLU 37	-0.22	9.46	33.48	-0.3611	-0.1557	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
119	SLU 38	-0.27	10.23	33.92	-0.3942	-0.2014	-0.001
119	SLU 39	-0.22	9.29	33.51	-0.3538	-0.1572	-0.0008
119	SLU 40	-0.27	10.06	33.95	-0.387	-0.2029	-0.001
119	SLU 41	-0.23	9.56	34.07	-0.3643	-0.1598	-0.0008
119	SLU 42	-0.28	10.33	34.51	-0.3974	-0.2055	-0.001
119	SLU 43	-0.21	8.99	34.12	-0.3435	-0.1493	-0.0008
119	SLU 44	-0.29	10.28	34.86	-0.3987	-0.2254	-0.0011
119	SLU 45	-0.22	9.33	34.89	-0.3566	-0.1532	-0.0008
119	SLU 46	-0.26	10.1	35.34	-0.3897	-0.1988	-0.001
119	SLU 47	-0.29	10.55	35.41	-0.4092	-0.228	-0.0011
119	SLU 48	-0.22	9.6	35.45	-0.3671	-0.1558	-0.0008
119	SLU 49	-0.27	10.37	35.89	-0.4002	-0.2015	-0.001
119	SLU 50	-0.22	9.53	35.23	-0.3645	-0.1545	-0.0008
119	SLU 51	-0.27	10.3	35.67	-0.3976	-0.2001	-0.001
119	SLU 52	-0.31	11.13	37.52	-0.4308	-0.2412	-0.0012
119	SLU 53	-0.24	10.18	37.56	-0.3887	-0.169	-0.0009
119	SLU 54	-0.29	10.95	38	-0.4218	-0.2147	-0.0011
119	SLU 55	-0.32	11.4	38.08	-0.4413	-0.2438	-0.0012
119	SLU 56	-0.24	10.45	38.11	-0.3991	-0.1716	-0.0009
119	SLU 57	-0.29	11.22	38.56	-0.4323	-0.2173	-0.0011
119	SLU 58	-0.24	10.38	37.89	-0.3965	-0.1703	-0.0009
119	SLU 59	-0.29	11.15	38.34	-0.4296	-0.216	-0.0011
119	SLU 60	-0.24	10.21	37.92	-0.3893	-0.1718	-0.0009
119	SLU 61	-0.29	10.98	38.37	-0.4224	-0.2175	-0.0011
119	SLU 62	-0.25	10.47	38.48	-0.3998	-0.1744	-0.0009
119	SLU 63	-0.3	11.25	38.92	-0.4329	-0.2201	-0.0011
119	SLU 64	-0.23	9.91	36.85	-0.3782	-0.165	-0.0009
119	SLU 65	-0.31	11.19	37.59	-0.4334	-0.2411	-0.0012
119	SLU 66	-0.24	10.24	37.63	-0.3913	-0.1689	-0.0009
119	SLU 67	-0.29	11.02	38.07	-0.4244	-0.2146	-0.0011
119	SLU 68	-0.32	11.46	38.15	-0.4439	-0.2437	-0.0012
119	SLU 69	-0.24	10.51	38.19	-0.4017	-0.1715	-0.0009
119	SLU 70	-0.29	11.28	38.63	-0.4349	-0.2172	-0.0011
119	SLU 71	-0.24	10.44	37.97	-0.3991	-0.1702	-0.0009
119	SLU 72	-0.29	11.22	38.41	-0.4323	-0.2159	-0.0011
119	SLU 73	-0.34	12.05	40.26	-0.4654	-0.2569	-0.0013
119	SLU 74	-0.26	11.09	40.3	-0.4233	-0.1847	-0.001
119	SLU 75	-0.31	11.87	40.74	-0.4564	-0.2304	-0.0012
119	SLU 76	-0.34	12.31	40.81	-0.4759	-0.2595	-0.0013
119	SLU 77	-0.27	11.36	40.85	-0.4338	-0.1873	-0.001
119	SLU 78	-0.31	12.14	41.29	-0.4669	-0.233	-0.0012
119	SLU 79	-0.26	11.29	40.63	-0.4312	-0.186	-0.001
119	SLU 80	-0.31	12.07	41.07	-0.4643	-0.2317	-0.0012
119	SLU 81	-0.27	11.12	40.66	-0.424	-0.1875	-0.001
119	SLU 82	-0.31	11.89	41.1	-0.4571	-0.2332	-0.0012
119	SLU 83	-0.27	11.39	41.22	-0.4344	-0.1901	-0.001
119	SLU 84	-0.32	12.16	41.66	-0.4676	-0.2358	-0.0012
119	SLE RA 1	-0.17	7.42	27.75	-0.2833	-0.1234	-0.0007
119	SLE RA 2	-0.23	8.28	28.24	-0.3201	-0.1742	-0.0009
119	SLE RA 3	-0.18	7.64	28.27	-0.292	-0.1261	-0.0007
119	SLE RA 4	-0.21	8.16	28.56	-0.3141	-0.1565	-0.0008
119	SLE RA 5	-0.23	8.46	28.61	-0.3271	-0.1759	-0.0009
119	SLE RA 6	-0.18	7.82	28.64	-0.299	-0.1278	-0.0007
119	SLE RA 7	-0.21	8.34	28.93	-0.3211	-0.1582	-0.0008
119	SLE RA 8	-0.18	7.78	28.49	-0.2973	-0.1269	-0.0007
119	SLE RA 9	-0.21	8.29	28.78	-0.3193	-0.1574	-0.0008
119	SLE RA 10	-0.24	8.85	30.02	-0.3415	-0.1847	-0.0009
119	SLE RA 11	-0.19	8.21	30.04	-0.3134	-0.1366	-0.0007
119	SLE RA 12	-0.23	8.73	30.34	-0.3355	-0.167	-0.0008
119	SLE RA 13	-0.25	9.02	30.39	-0.3484	-0.1865	-0.0009
119	SLE RA 14	-0.2	8.39	30.41	-0.3204	-0.1383	-0.0007
119	SLE RA 15	-0.23	8.91	30.71	-0.3425	-0.1688	-0.0009
119	SLE RA 16	-0.2	8.34	30.27	-0.3186	-0.1375	-0.0007
119	SLE RA 17	-0.23	8.86	30.56	-0.3407	-0.1679	-0.0009
119	SLE RA 18	-0.2	8.23	30.29	-0.3138	-0.1385	-0.0007
119	SLE RA 19	-0.23	8.74	30.58	-0.3359	-0.169	-0.0009
119	SLE RA 20	-0.2	8.41	30.66	-0.3208	-0.1402	-0.0007
119	SLE RA 21	-0.23	8.92	30.95	-0.3429	-0.1707	-0.0009
119	SLE FR 1	-0.17	7.42	27.75	-0.2833	-0.1234	-0.0007
119	SLE FR 2	-0.19	7.59	27.85	-0.2906	-0.1336	-0.0007
119	SLE FR 3	-0.18	7.49	27.9	-0.2861	-0.1241	-0.0007
119	SLE FR 4	-0.19	7.83	28.61	-0.2998	-0.1381	-0.0007
119	SLE FR 5	-0.18	7.73	28.66	-0.2952	-0.1287	-0.0007
119	SLE FR 6	-0.19	7.82	29.02	-0.2985	-0.131	-0.0007
119	SLE QP 1	-0.17	7.42	27.75	-0.2833	-0.1234	-0.0007
119	SLE QP 2	-0.18	7.66	28.51	-0.2924	-0.128	-0.0007
119	SLD 1	-0.37	11.39	36.72	-0.4432	-0.0222	-0.0013
119	SLD 2	-0.37	11.39	36.72	-0.4432	-0.0222	-0.0013
119	SLD 3	-0.29	7.31	35.3	-0.2676	0.0537	-0.001
119	SLD 4	-0.29	7.31	35.3	-0.2676	0.0537	-0.001
119	SLD 5	-0.37	14.97	33.12	-0.604	-0.2113	-0.0014
119	SLD 6	-0.37	14.97	33.12	-0.604	-0.2113	-0.0014
119	SLD 7	-0.08	1.36	28.4	-0.0187	0.0416	-0.0003
119	SLD 8	-0.08	1.36	28.4	-0.0187	0.0416	-0.0003
119	SLD 9	-0.28	13.96	28.62	-0.5662	-0.2976	-0.0011
119	SLD 10	-0.28	13.96	28.62	-0.5662	-0.2976	-0.0011
119	SLD 11	0.01	0.35	23.9	0.0191	-0.0446	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
119	SLD 12	0.01	0.35	23.9	0.0191	-0.0446	0
119	SLD 13	-0.08	8.02	21.72	-0.3173	-0.3096	-0.0003
119	SLD 14	-0.08	8.02	21.72	-0.3173	-0.3096	-0.0003
119	SLD 15	0.01	3.93	20.3	-0.1417	-0.2337	0
119	SLD 16	0.01	3.93	20.3	-0.1417	-0.2337	0
119	SLV 1	-0.64	16.36	47.77	-0.6441	0.1203	-0.0023
119	SLV 2	-0.64	16.36	47.77	-0.6441	0.1203	-0.0023
119	SLV 3	-0.43	6.87	44.32	-0.2358	0.3136	-0.0014
119	SLV 4	-0.43	6.87	44.32	-0.2358	0.3136	-0.0014
119	SLV 5	-0.65	24.66	39.52	-1.0173	-0.3466	-0.0025
119	SLV 6	-0.65	24.66	39.52	-1.0173	-0.3466	-0.0025
119	SLV 7	0.08	-6.97	28.02	0.3439	0.2976	0.0004
119	SLV 8	0.08	-6.97	28.02	0.3439	0.2976	0.0004
119	SLV 9	-0.44	22.29	29	-0.9288	-0.5536	-0.0018
119	SLV 10	-0.44	22.29	29	-0.9288	-0.5536	-0.0018
119	SLV 11	0.29	-9.34	17.5	0.4324	0.0907	0.0011
119	SLV 12	0.29	-9.34	17.5	0.4324	0.0907	0.0011
119	SLV 13	0.06	8.46	12.7	-0.3491	-0.5695	0.0001
119	SLV 14	0.06	8.46	12.7	-0.3491	-0.5695	0.0001
119	SLV 15	0.28	-1.03	9.25	0.0593	-0.3762	0.0009
119	SLV 16	0.28	-1.03	9.25	0.0593	-0.3762	0.0009
120	SLU 1	0.01	4.12	60.7	-0.1326	0.0119	0
120	SLU 2	0.09	5.14	64.43	-0.1702	0.0877	0.0003
120	SLU 3	0.01	4.31	62.78	-0.1392	0.012	0
120	SLU 4	0.06	4.92	65.02	-0.1617	0.0575	0.0002
120	SLU 5	0.09	5.28	65.85	-0.1751	0.0877	0.0003
120	SLU 6	0.01	4.46	64.2	-0.1441	0.0121	0
120	SLU 7	0.06	5.07	66.44	-0.1666	0.0576	0.0002
120	SLU 8	0.01	4.4	63.55	-0.1424	0.0119	0
120	SLU 9	0.06	5.01	65.78	-0.165	0.0574	0.0002
120	SLU 10	0.09	5.66	71.62	-0.1867	0.0896	0.0003
120	SLU 11	0.01	4.84	69.96	-0.1557	0.0139	0
120	SLU 12	0.06	5.45	72.2	-0.1782	0.0594	0.0002
120	SLU 13	0.09	5.8	73.04	-0.1916	0.0896	0.0003
120	SLU 14	0.01	4.98	71.39	-0.1606	0.014	0
120	SLU 15	0.06	5.59	73.62	-0.1831	0.0595	0.0002
120	SLU 16	0.01	4.93	70.73	-0.159	0.0138	0
120	SLU 17	0.06	5.54	72.97	-0.1815	0.0593	0.0002
120	SLU 18	0.02	4.87	70.97	-0.1562	0.0146	0
120	SLU 19	0.06	5.48	73.21	-0.1787	0.0601	0.0002
120	SLU 20	0.02	5.01	72.39	-0.1611	0.0146	0
120	SLU 21	0.06	5.62	74.63	-0.1836	0.0601	0.0002
120	SLU 22	0.01	4.66	68.11	-0.1497	0.0135	0
120	SLU 23	0.09	5.68	71.84	-0.1873	0.0893	0.0003
120	SLU 24	0.01	4.86	70.18	-0.1563	0.0137	0
120	SLU 25	0.06	5.47	72.42	-0.1788	0.0592	0.0002
120	SLU 26	0.09	5.82	73.26	-0.1922	0.0894	0.0003
120	SLU 27	0.01	5	71.6	-0.1612	0.0137	0
120	SLU 28	0.06	5.61	73.84	-0.1837	0.0592	0.0002
120	SLU 29	0.01	4.95	70.95	-0.1595	0.0136	0
120	SLU 30	0.06	5.56	73.19	-0.1821	0.0591	0.0002
120	SLU 31	0.09	6.2	79.02	-0.2038	0.0912	0.0003
120	SLU 32	0.02	5.38	77.37	-0.1728	0.0156	0
120	SLU 33	0.06	5.99	79.6	-0.1953	0.0611	0.0002
120	SLU 34	0.09	6.35	80.44	-0.2087	0.0913	0.0003
120	SLU 35	0.02	5.52	78.79	-0.1777	0.0156	0
120	SLU 36	0.06	6.13	81.02	-0.2002	0.0611	0.0002
120	SLU 37	0.02	5.47	78.13	-0.176	0.0155	0
120	SLU 38	0.06	6.08	80.37	-0.1986	0.061	0.0002
120	SLU 39	0.02	5.41	78.37	-0.1733	0.0162	0
120	SLU 40	0.06	6.02	80.61	-0.1958	0.0617	0.0002
120	SLU 41	0.02	5.55	79.79	-0.1782	0.0163	0
120	SLU 42	0.06	6.16	82.03	-0.2007	0.0618	0.0002
120	SLU 43	0.02	5.17	76.38	-0.1666	0.0149	0
120	SLU 44	0.09	6.19	80.11	-0.2041	0.0907	0.0003
120	SLU 45	0.02	5.36	78.45	-0.1731	0.015	0
120	SLU 46	0.06	5.97	80.69	-0.1956	0.0605	0.0002
120	SLU 47	0.09	6.33	81.53	-0.209	0.0907	0.0003
120	SLU 48	0.02	5.51	79.87	-0.178	0.0151	0
120	SLU 49	0.06	6.12	82.11	-0.2005	0.0605	0.0002
120	SLU 50	0.02	5.45	79.22	-0.1764	0.0149	0
120	SLU 51	0.06	6.06	81.46	-0.1989	0.0604	0.0002
120	SLU 52	0.09	6.71	87.29	-0.2206	0.0926	0.0003
120	SLU 53	0.02	5.89	85.64	-0.1896	0.0169	0
120	SLU 54	0.06	6.5	87.88	-0.2121	0.0624	0.0002
120	SLU 55	0.09	6.85	88.71	-0.2255	0.0926	0.0003
120	SLU 56	0.02	6.03	87.06	-0.1945	0.017	0
120	SLU 57	0.06	6.64	89.3	-0.2171	0.0624	0.0002
120	SLU 58	0.02	5.98	86.4	-0.1929	0.0168	0
120	SLU 59	0.06	6.59	88.64	-0.2154	0.0623	0.0002
120	SLU 60	0.02	5.92	86.64	-0.1901	0.0176	0.0001
120	SLU 61	0.06	6.53	88.88	-0.2127	0.0631	0.0002
120	SLU 62	0.02	6.06	88.06	-0.1951	0.0176	0.0001
120	SLU 63	0.06	6.67	90.3	-0.2176	0.0631	0.0002
120	SLU 64	0.02	5.71	83.78	-0.1837	0.0165	0
120	SLU 65	0.09	6.73	87.51	-0.2212	0.0923	0.0003
120	SLU 66	0.02	5.91	85.85	-0.1902	0.0167	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
120	SLU 67	0.06	6.52	88.09	-0.2127	0.0622	0.0002
120	SLU 68	0.09	6.87	88.93	-0.2261	0.0924	0.0003
120	SLU 69	0.02	6.05	87.28	-0.1951	0.0167	0
120	SLU 70	0.06	6.66	89.51	-0.2176	0.0622	0.0002
120	SLU 71	0.02	6	86.62	-0.1935	0.0166	0
120	SLU 72	0.06	6.61	88.86	-0.216	0.0621	0.0002
120	SLU 73	0.09	7.25	94.69	-0.2377	0.0942	0.0003
120	SLU 74	0.02	6.43	93.04	-0.2067	0.0186	0.0001
120	SLU 75	0.06	7.04	95.28	-0.2292	0.0641	0.0002
120	SLU 76	0.09	7.4	96.11	-0.2426	0.0943	0.0003
120	SLU 77	0.02	6.57	94.46	-0.2116	0.0186	0.0001
120	SLU 78	0.06	7.18	96.7	-0.2341	0.0641	0.0002
120	SLU 79	0.02	6.52	93.81	-0.21	0.0185	0.0001
120	SLU 80	0.06	7.13	96.04	-0.2325	0.064	0.0002
120	SLU 81	0.02	6.46	94.04	-0.2072	0.0192	0.0001
120	SLU 82	0.06	7.07	96.28	-0.2298	0.0647	0.0002
120	SLU 83	0.02	6.6	95.47	-0.2122	0.0193	0.0001
120	SLU 84	0.06	7.21	97.7	-0.2347	0.0648	0.0002
120	SLE RA 1	0.01	4.28	62.82	-0.1375	0.0123	0
120	SLE RA 2	0.06	4.95	65.31	-0.1626	0.0629	0.0002
120	SLE RA 3	0.01	4.4	64.2	-0.1419	0.0124	0
120	SLE RA 4	0.04	4.81	65.69	-0.1569	0.0428	0.0001
120	SLE RA 5	0.06	5.05	66.25	-0.1658	0.0629	0.0002
120	SLE RA 6	0.01	4.5	65.15	-0.1452	0.0125	0
120	SLE RA 7	0.04	4.91	66.64	-0.1602	0.0428	0.0001
120	SLE RA 8	0.01	4.46	64.71	-0.1441	0.0124	0
120	SLE RA 9	0.04	4.87	66.21	-0.1591	0.0427	0.0001
120	SLE RA 10	0.06	5.3	70.1	-0.1736	0.0642	0.0002
120	SLE RA 11	0.01	4.75	68.99	-0.1529	0.0137	0
120	SLE RA 12	0.04	5.16	70.48	-0.1679	0.044	0.0002
120	SLE RA 13	0.06	5.4	71.04	-0.1768	0.0642	0.0002
120	SLE RA 14	0.01	4.85	69.94	-0.1562	0.0137	0
120	SLE RA 15	0.04	5.26	71.43	-0.1712	0.0441	0.0002
120	SLE RA 16	0.01	4.81	69.5	-0.1551	0.0137	0
120	SLE RA 17	0.04	5.22	71	-0.1701	0.044	0.0002
120	SLE RA 18	0.02	4.77	69.66	-0.1532	0.0141	0
120	SLE RA 19	0.04	5.18	71.15	-0.1683	0.0445	0.0002
120	SLE RA 20	0.02	4.87	70.61	-0.1565	0.0142	0
120	SLE RA 21	0.04	5.28	72.1	-0.1715	0.0445	0.0002
120	SLE FR 1	0.01	4.28	62.82	-0.1375	0.0123	0
120	SLE FR 2	0.02	4.41	63.32	-0.1425	0.0224	0.0001
120	SLE FR 3	0.01	4.31	63.2	-0.1388	0.0123	0
120	SLE FR 4	0.02	4.56	65.37	-0.1472	0.023	0.0001
120	SLE FR 5	0.01	4.46	65.25	-0.1436	0.0129	0
120	SLE FR 6	0.01	4.52	66.24	-0.1454	0.0132	0
120	SLE QP 1	0.01	4.28	62.82	-0.1375	0.0123	0
120	SLE QP 2	0.01	4.42	64.87	-0.1422	0.0129	0
120	SLD 1	0.23	5.35	50.34	-0.1857	0.2239	0.0008
120	SLD 2	0.23	5.35	50.34	-0.1857	0.2239	0.0008
120	SLD 3	0.13	1.62	44.74	-0.0245	0.1292	0.0004
120	SLD 4	0.13	1.62	44.74	-0.0245	0.1292	0.0004
120	SLD 5	0.23	10.36	69.01	-0.3997	0.2197	0.0009
120	SLD 6	0.23	10.36	69.01	-0.3997	0.2197	0.0009
120	SLD 7	-0.1	-2.07	50.34	0.1375	-0.0958	-0.0004
120	SLD 8	-0.1	-2.07	50.34	0.1375	-0.0958	-0.0004
120	SLD 9	0.13	10.92	79.4	-0.422	0.1215	0.0005
120	SLD 10	0.13	10.92	79.4	-0.422	0.1215	0.0005
120	SLD 11	-0.2	-1.51	60.74	0.1152	-0.194	-0.0008
120	SLD 12	-0.2	-1.51	60.74	0.1152	-0.194	-0.0008
120	SLD 13	-0.11	7.23	85	-0.26	-0.1035	-0.0003
120	SLD 14	-0.11	7.23	85	-0.26	-0.1035	-0.0003
120	SLD 15	-0.2	3.5	79.4	-0.0988	-0.1981	-0.0007
120	SLD 16	-0.2	3.5	79.4	-0.0988	-0.1981	-0.0007
120	SLV 1	0.54	6.55	30.92	-0.2418	0.5272	0.0019
120	SLV 2	0.54	6.55	30.92	-0.2418	0.5272	0.0019
120	SLV 3	0.29	-2.15	17.71	0.1335	0.2856	0.0009
120	SLV 4	0.29	-2.15	17.71	0.1335	0.2856	0.0009
120	SLV 5	0.56	18.25	74.71	-0.7414	0.5337	0.0021
120	SLV 6	0.56	18.25	74.71	-0.7414	0.5337	0.0021
120	SLV 7	-0.29	-10.73	30.7	0.5097	-0.2719	-0.0012
120	SLV 8	-0.29	-10.73	30.7	0.5097	-0.2719	-0.0012
120	SLV 9	0.32	19.58	99.05	-0.7942	0.2976	0.0013
120	SLV 10	0.32	19.58	99.05	-0.7942	0.2976	0.0013
120	SLV 11	-0.53	-9.4	55.03	0.4569	-0.508	-0.002
120	SLV 12	-0.53	-9.4	55.03	0.4569	-0.508	-0.002
120	SLV 13	-0.26	10.99	112.03	-0.418	-0.2598	-0.0008
120	SLV 14	-0.26	10.99	112.03	-0.418	-0.2598	-0.0008
120	SLV 15	-0.52	2.3	98.82	-0.0427	-0.5015	-0.0018
120	SLV 16	-0.52	2.3	98.82	-0.0427	-0.5015	-0.0018
121	SLU 1	0.04	-1.62	41.62	0.0722	0.0333	0.0001
121	SLU 2	0.04	-2.02	41.73	0.0906	0.0337	0.0001
121	SLU 3	0.04	-1.28	42.93	0.0563	0.0345	0.0001
121	SLU 4	0.04	-1.52	42.99	0.0673	0.0348	0.0001
121	SLU 5	0.04	-1.63	42.69	0.072	0.0346	0.0001
121	SLU 6	0.05	-0.89	43.9	0.0376	0.0354	0.0001
121	SLU 7	0.05	-1.13	43.96	0.0486	0.0357	0.0001
121	SLU 8	0.05	-0.84	43.55	0.0349	0.0351	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
121	SLU 9	0.05	-1.08	43.61	0.0459	0.0353	0.0001
121	SLU 10	0.04	-2.24	49.3	0.1019	0.0326	0.0001
121	SLU 11	0.04	-1.51	50.5	0.0675	0.0335	0.0001
121	SLU 12	0.04	-1.74	50.57	0.0785	0.0337	0.0001
121	SLU 13	0.04	-1.85	50.26	0.0832	0.0335	0.0001
121	SLU 14	0.04	-1.12	51.47	0.0488	0.0344	0.0001
121	SLU 15	0.04	-1.35	51.53	0.0599	0.0346	0.0001
121	SLU 16	0.04	-1.06	51.12	0.0461	0.034	0.0001
121	SLU 17	0.04	-1.3	51.18	0.0572	0.0342	0.0001
121	SLU 18	0.04	-1.94	52.44	0.0883	0.0317	0.0001
121	SLU 19	0.04	-2.18	52.5	0.0993	0.032	0.0001
121	SLU 20	0.04	-1.55	53.4	0.0696	0.0326	0.0001
121	SLU 21	0.04	-1.79	53.46	0.0806	0.0329	0.0001
121	SLU 22	0.05	-1.49	46.78	0.0673	0.037	0.0001
121	SLU 23	0.05	-1.89	46.88	0.0857	0.0374	0.0001
121	SLU 24	0.05	-1.15	48.09	0.0513	0.0383	0.0001
121	SLU 25	0.05	-1.39	48.15	0.0623	0.0385	0.0001
121	SLU 26	0.05	-1.5	47.85	0.067	0.0383	0.0001
121	SLU 27	0.05	-0.76	49.05	0.0326	0.0392	0.0001
121	SLU 28	0.05	-1	49.12	0.0437	0.0394	0.0001
121	SLU 29	0.05	-0.71	48.71	0.0299	0.0388	0.0001
121	SLU 30	0.05	-0.95	48.77	0.041	0.0391	0.0001
121	SLU 31	0.04	-2.11	54.46	0.0969	0.0364	0.0001
121	SLU 32	0.04	-1.38	55.66	0.0625	0.0372	0.0001
121	SLU 33	0.04	-1.62	55.72	0.0736	0.0375	0.0001
121	SLU 34	0.04	-1.72	55.42	0.0782	0.0373	0.0001
121	SLU 35	0.05	-0.99	56.63	0.0439	0.0381	0.0001
121	SLU 36	0.05	-1.23	56.69	0.0549	0.0383	0.0001
121	SLU 37	0.04	-0.94	56.28	0.0411	0.0377	0.0001
121	SLU 38	0.05	-1.17	56.34	0.0522	0.038	0.0001
121	SLU 39	0.04	-1.81	57.6	0.0833	0.0355	0.0001
121	SLU 40	0.04	-2.05	57.66	0.0943	0.0357	0.0001
121	SLU 41	0.04	-1.42	58.56	0.0646	0.0364	0.0001
121	SLU 42	0.04	-1.66	58.62	0.0757	0.0366	0.0001
121	SLU 43	0.05	-2.15	52.34	0.0956	0.042	0.0001
121	SLU 44	0.05	-2.55	52.44	0.114	0.0424	0.0001
121	SLU 45	0.06	-1.81	53.65	0.0797	0.0432	0.0001
121	SLU 46	0.06	-2.05	53.71	0.0907	0.0435	0.0001
121	SLU 47	0.06	-2.16	53.41	0.0953	0.0433	0.0001
121	SLU 48	0.06	-1.42	54.61	0.061	0.0441	0.0001
121	SLU 49	0.06	-1.66	54.68	0.072	0.0444	0.0001
121	SLU 50	0.06	-1.37	54.27	0.0583	0.0438	0.0001
121	SLU 51	0.06	-1.61	54.33	0.0693	0.044	0.0001
121	SLU 52	0.05	-2.77	60.01	0.1252	0.0413	0.0001
121	SLU 53	0.05	-2.04	61.22	0.0909	0.0422	0.0001
121	SLU 54	0.05	-2.27	61.28	0.1019	0.0424	0.0001
121	SLU 55	0.05	-2.38	60.98	0.1066	0.0422	0.0001
121	SLU 56	0.05	-1.65	62.18	0.0722	0.0431	0.0001
121	SLU 57	0.05	-1.89	62.25	0.0833	0.0433	0.0001
121	SLU 58	0.05	-1.59	61.84	0.0695	0.0427	0.0001
121	SLU 59	0.05	-1.83	61.9	0.0805	0.0429	0.0001
121	SLU 60	0.05	-2.47	63.15	0.1117	0.0404	0.0001
121	SLU 61	0.05	-2.71	63.22	0.1227	0.0407	0.0001
121	SLU 62	0.05	-2.08	64.12	0.093	0.0413	0.0001
121	SLU 63	0.05	-2.32	64.18	0.104	0.0416	0.0001
121	SLU 64	0.06	-2.02	57.5	0.0906	0.0457	0.0001
121	SLU 65	0.06	-2.42	57.6	0.109	0.0461	0.0001
121	SLU 66	0.06	-1.68	58.81	0.0747	0.047	0.0001
121	SLU 67	0.06	-1.92	58.87	0.0857	0.0472	0.0001
121	SLU 68	0.06	-2.03	58.57	0.0904	0.047	0.0001
121	SLU 69	0.06	-1.3	59.77	0.056	0.0479	0.0001
121	SLU 70	0.06	-1.53	59.83	0.067	0.0481	0.0001
121	SLU 71	0.06	-1.24	59.43	0.0533	0.0475	0.0001
121	SLU 72	0.06	-1.48	59.49	0.0643	0.0478	0.0001
121	SLU 73	0.05	-2.64	65.17	0.1203	0.0451	0.0001
121	SLU 74	0.06	-1.91	66.38	0.0859	0.0459	0.0001
121	SLU 75	0.06	-2.15	66.44	0.0969	0.0462	0.0001
121	SLU 76	0.06	-2.25	66.14	0.1016	0.046	0.0001
121	SLU 77	0.06	-1.52	67.34	0.0672	0.0468	0.0001
121	SLU 78	0.06	-1.76	67.41	0.0783	0.047	0.0001
121	SLU 79	0.06	-1.47	67	0.0645	0.0464	0.0001
121	SLU 80	0.06	-1.7	67.06	0.0756	0.0467	0.0001
121	SLU 81	0.05	-2.34	68.31	0.1067	0.0442	0.0001
121	SLU 82	0.05	-2.58	68.38	0.1177	0.0444	0.0001
121	SLU 83	0.05	-1.95	69.28	0.088	0.0451	0.0001
121	SLU 84	0.05	-2.19	69.34	0.099	0.0453	0.0001
121	SLE RA 1	0.04	-1.58	43.09	0.0708	0.0344	0.0001
121	SLE RA 2	0.04	-1.85	43.16	0.0831	0.0346	0.0001
121	SLE RA 3	0.04	-1.36	43.97	0.0602	0.0352	0.0001
121	SLE RA 4	0.05	-1.52	44.01	0.0675	0.0354	0.0001
121	SLE RA 5	0.04	-1.59	43.81	0.0706	0.0352	0.0001
121	SLE RA 6	0.05	-1.1	44.61	0.0477	0.0358	0.0001
121	SLE RA 7	0.05	-1.26	44.65	0.0551	0.036	0.0001
121	SLE RA 8	0.05	-1.06	44.38	0.0459	0.0356	0.0001
121	SLE RA 9	0.05	-1.22	44.42	0.0533	0.0357	0.0001
121	SLE RA 10	0.04	-2	48.21	0.0906	0.0339	0.0001
121	SLE RA 11	0.04	-1.51	49.02	0.0677	0.0345	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
121	SLE RA 12	0.04	-1.67	49.06	0.075	0.0346	0.0001
121	SLE RA 13	0.04	-1.74	48.86	0.0781	0.0345	0.0001
121	SLE RA 14	0.04	-1.25	49.66	0.0552	0.0351	0.0001
121	SLE RA 15	0.04	-1.41	49.7	0.0626	0.0352	0.0001
121	SLE RA 16	0.04	-1.21	49.43	0.0534	0.0348	0.0001
121	SLE RA 17	0.04	-1.37	49.47	0.0608	0.035	0.0001
121	SLE RA 18	0.04	-1.8	50.31	0.0815	0.0333	0.0001
121	SLE RA 19	0.04	-1.95	50.35	0.0889	0.0335	0.0001
121	SLE RA 20	0.04	-1.54	50.95	0.0691	0.0339	0.0001
121	SLE RA 21	0.04	-1.7	50.99	0.0764	0.0341	0.0001
121	SLE FR 1	0.04	-1.58	43.09	0.0708	0.0344	0.0001
121	SLE FR 2	0.04	-1.64	43.11	0.0733	0.0344	0.0001
121	SLE FR 3	0.04	-1.48	43.35	0.0658	0.0346	0.0001
121	SLE FR 4	0.04	-1.7	45.27	0.0765	0.0341	0.0001
121	SLE FR 5	0.04	-1.54	45.52	0.069	0.0343	0.0001
121	SLE FR 6	0.04	-1.69	46.7	0.0762	0.0338	0.0001
121	SLE QP 1	0.04	-1.58	43.09	0.0708	0.0344	0.0001
121	SLE QP 2	0.04	-1.65	45.26	0.074	0.034	0.0001
121	SLD 1	0.23	-0.89	49.9	0.0396	0.1812	0.0005
121	SLD 2	0.23	-0.89	49.9	0.0396	0.1812	0.0005
121	SLD 3	0.26	-3.9	49.32	0.1812	0.2065	0.0006
121	SLD 4	0.26	-3.9	49.32	0.1812	0.2065	0.0006
121	SLD 5	0.04	3.14	47.53	-0.1511	0.0399	0.0001
121	SLD 6	0.04	3.14	47.53	-0.1511	0.0399	0.0001
121	SLD 7	0.16	-6.89	45.59	0.3209	0.1241	0.0004
121	SLD 8	0.16	-6.89	45.59	0.3209	0.1241	0.0004
121	SLD 9	-0.08	3.59	44.92	-0.1729	-0.056	-0.0002
121	SLD 10	-0.08	3.59	44.92	-0.1729	-0.056	-0.0002
121	SLD 11	0.04	-6.44	42.98	0.2991	0.0282	0.0001
121	SLD 12	0.04	-6.44	42.98	0.2991	0.0282	0.0001
121	SLD 13	-0.18	0.61	41.2	-0.0331	-0.1384	-0.0004
121	SLD 14	-0.18	0.61	41.2	-0.0331	-0.1384	-0.0004
121	SLD 15	-0.14	-2.4	40.62	0.1085	-0.1131	-0.0003
121	SLD 16	-0.14	-2.4	40.62	0.1085	-0.1131	-0.0003
121	SLV 1	0.51	0.08	56.18	-0.0054	0.404	0.0012
121	SLV 2	0.51	0.08	56.18	-0.0054	0.404	0.0012
121	SLV 3	0.59	-6.95	54.8	0.3258	0.4658	0.0015
121	SLV 4	0.59	-6.95	54.8	0.3258	0.4658	0.0015
121	SLV 5	0.05	9.54	50.63	-0.452	0.0512	0.0001
121	SLV 6	0.05	9.54	50.63	-0.452	0.0512	0.0001
121	SLV 7	0.34	-13.91	46.03	0.6517	0.2574	0.0008
121	SLV 8	0.34	-13.91	46.03	0.6517	0.2574	0.0008
121	SLV 9	-0.25	10.61	44.49	-0.5037	-0.1893	-0.0006
121	SLV 10	-0.25	10.61	44.49	-0.5037	-0.1893	-0.0006
121	SLV 11	0.03	-12.84	39.89	0.6	0.0169	0.0001
121	SLV 12	0.03	-12.84	39.89	0.6	0.0169	0.0001
121	SLV 13	-0.51	3.65	35.71	-0.1777	-0.3977	-0.0013
121	SLV 14	-0.51	3.65	35.71	-0.1777	-0.3977	-0.0013
121	SLV 15	-0.42	-3.38	34.33	0.1534	-0.3359	-0.001
121	SLV 16	-0.42	-3.38	34.33	0.1534	-0.3359	-0.001
122	SLU 1	0.04	0.02	7.15	-0.0018	0.0223	0.0001
122	SLU 2	0.04	0.01	7.14	-0.0013	0.0229	0.0002
122	SLU 3	0.04	0	7.17	-0.0008	0.023	0.0002
122	SLU 4	0.04	-0.01	7.17	-0.0005	0.0233	0.0002
122	SLU 5	0.04	-0.02	7.15	-0.0002	0.0234	0.0002
122	SLU 6	0.04	-0.03	7.17	0.0002	0.0235	0.0002
122	SLU 7	0.04	-0.04	7.17	0.0005	0.0238	0.0002
122	SLU 8	0.04	-0.03	7.16	0.0003	0.0233	0.0002
122	SLU 9	0.04	-0.04	7.15	0.0006	0.0236	0.0002
122	SLU 10	0.05	0.01	9.88	-0.0013	0.0292	0.0002
122	SLU 11	0.05	0	9.91	-0.0009	0.0293	0.0002
122	SLU 12	0.05	-0.01	9.9	-0.0006	0.0296	0.0002
122	SLU 13	0.05	-0.02	9.88	-0.0003	0.0297	0.0002
122	SLU 14	0.05	-0.03	9.91	0.0002	0.0298	0.0002
122	SLU 15	0.05	-0.04	9.91	0.0005	0.0301	0.0002
122	SLU 16	0.05	-0.03	9.89	0.0003	0.0296	0.0002
122	SLU 17	0.05	-0.04	9.89	0.0006	0.0299	0.0002
122	SLU 18	0.06	0.03	11.06	-0.0018	0.0314	0.0002
122	SLU 19	0.06	0.02	11.05	-0.0015	0.0317	0.0002
122	SLU 20	0.06	0	11.06	-0.0008	0.0318	0.0002
122	SLU 21	0.06	-0.01	11.06	-0.0005	0.0322	0.0002
122	SLU 22	0.04	-0.01	7.64	-0.0006	0.0253	0.0002
122	SLU 23	0.04	-0.03	7.64	-0.0001	0.0259	0.0002
122	SLU 24	0.04	-0.04	7.67	0.0003	0.0259	0.0002
122	SLU 25	0.04	-0.05	7.66	0.0006	0.0263	0.0002
122	SLU 26	0.04	-0.06	7.64	0.001	0.0263	0.0002
122	SLU 27	0.04	-0.07	7.67	0.0014	0.0264	0.0002
122	SLU 28	0.04	-0.08	7.67	0.0017	0.0267	0.0002
122	SLU 29	0.04	-0.07	7.65	0.0015	0.0262	0.0002
122	SLU 30	0.04	-0.08	7.65	0.0018	0.0266	0.0002
122	SLU 31	0.06	-0.03	10.37	-0.0001	0.0322	0.0002
122	SLU 32	0.06	-0.04	10.4	0.0003	0.0323	0.0002
122	SLU 33	0.06	-0.05	10.4	0.0006	0.0326	0.0002
122	SLU 34	0.06	-0.06	10.38	0.0009	0.0326	0.0002
122	SLU 35	0.06	-0.06	10.41	0.0013	0.0327	0.0002
122	SLU 36	0.06	-0.08	10.4	0.0016	0.0331	0.0002
122	SLU 37	0.06	-0.07	10.39	0.0014	0.0325	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
122	SLU 38	0.06	-0.08	10.39	0.0018	0.0329	0.0002
122	SLU 39	0.06	-0.01	11.55	-0.0007	0.0343	0.0003
122	SLU 40	0.06	-0.02	11.55	-0.0004	0.0347	0.0003
122	SLU 41	0.06	-0.04	11.56	0.0004	0.0348	0.0003
122	SLU 42	0.06	-0.05	11.56	0.0007	0.0351	0.0003
122	SLU 43	0.04	0.04	9.12	-0.0027	0.028	0.0002
122	SLU 44	0.05	0.03	9.11	-0.0022	0.0286	0.0002
122	SLU 45	0.05	0.02	9.14	-0.0018	0.0287	0.0002
122	SLU 46	0.05	0.01	9.14	-0.0015	0.029	0.0002
122	SLU 47	0.05	0	9.12	-0.0011	0.0291	0.0002
122	SLU 48	0.05	-0.01	9.15	-0.0007	0.0291	0.0002
122	SLU 49	0.05	-0.02	9.14	-0.0004	0.0295	0.0002
122	SLU 50	0.05	-0.01	9.13	-0.0006	0.029	0.0002
122	SLU 51	0.05	-0.02	9.13	-0.0003	0.0293	0.0002
122	SLU 52	0.06	0.03	11.85	-0.0022	0.0349	0.0002
122	SLU 53	0.06	0.02	11.88	-0.0018	0.035	0.0003
122	SLU 54	0.06	0.01	11.88	-0.0015	0.0353	0.0003
122	SLU 55	0.06	0	11.86	-0.0012	0.0354	0.0003
122	SLU 56	0.06	-0.01	11.89	-0.0008	0.0355	0.0003
122	SLU 57	0.06	-0.02	11.88	-0.0005	0.0358	0.0003
122	SLU 58	0.06	-0.01	11.87	-0.0006	0.0353	0.0003
122	SLU 59	0.06	-0.02	11.87	-0.0003	0.0356	0.0003
122	SLU 60	0.06	0.05	13.03	-0.0028	0.0371	0.0003
122	SLU 61	0.07	0.04	13.03	-0.0025	0.0374	0.0003
122	SLU 62	0.07	0.02	13.04	-0.0017	0.0375	0.0003
122	SLU 63	0.07	0.01	13.03	-0.0014	0.0379	0.0003
122	SLU 64	0.05	0.01	9.62	-0.0015	0.031	0.0002
122	SLU 65	0.05	-0.01	9.61	-0.001	0.0315	0.0002
122	SLU 66	0.05	-0.02	9.64	-0.0006	0.0316	0.0002
122	SLU 67	0.05	-0.03	9.64	-0.0003	0.032	0.0002
122	SLU 68	0.05	-0.04	9.61	0	0.032	0.0002
122	SLU 69	0.05	-0.05	9.64	0.0004	0.0321	0.0002
122	SLU 70	0.05	-0.06	9.64	0.0007	0.0324	0.0002
122	SLU 71	0.05	-0.05	9.63	0.0006	0.0319	0.0002
122	SLU 72	0.05	-0.06	9.62	0.0009	0.0322	0.0002
122	SLU 73	0.06	-0.01	12.35	-0.0011	0.0379	0.0003
122	SLU 74	0.06	-0.02	12.38	-0.0006	0.038	0.0003
122	SLU 75	0.07	-0.03	12.37	-0.0003	0.0383	0.0003
122	SLU 76	0.07	-0.04	12.35	0	0.0383	0.0003
122	SLU 77	0.07	-0.04	12.38	0.0004	0.0384	0.0003
122	SLU 78	0.07	-0.06	12.38	0.0007	0.0388	0.0003
122	SLU 79	0.07	-0.05	12.36	0.0005	0.0382	0.0003
122	SLU 80	0.07	-0.06	12.36	0.0008	0.0386	0.0003
122	SLU 81	0.07	0.01	13.53	-0.0016	0.04	0.0003
122	SLU 82	0.07	0	13.52	-0.0013	0.0404	0.0003
122	SLU 83	0.07	-0.02	13.53	-0.0005	0.0405	0.0003
122	SLU 84	0.07	-0.03	13.53	-0.0002	0.0408	0.0003
122	SLE RA 1	0.04	0.01	7.29	-0.0014	0.0232	0.0002
122	SLE RA 2	0.04	0	7.28	-0.0011	0.0236	0.0002
122	SLE RA 3	0.04	-0.01	7.3	-0.0008	0.0236	0.0002
122	SLE RA 4	0.04	-0.01	7.3	-0.0006	0.0238	0.0002
122	SLE RA 5	0.04	-0.02	7.29	-0.0004	0.0239	0.0002
122	SLE RA 6	0.04	-0.02	7.31	-0.0001	0.0239	0.0002
122	SLE RA 7	0.04	-0.03	7.3	0.0001	0.0241	0.0002
122	SLE RA 8	0.04	-0.02	7.29	0	0.0238	0.0002
122	SLE RA 9	0.04	-0.03	7.29	0.0002	0.024	0.0002
122	SLE RA 10	0.05	0	9.11	-0.0011	0.0278	0.0002
122	SLE RA 11	0.05	0	9.13	-0.0008	0.0278	0.0002
122	SLE RA 12	0.05	-0.01	9.13	-0.0006	0.0281	0.0002
122	SLE RA 13	0.05	-0.02	9.11	-0.0004	0.0281	0.0002
122	SLE RA 14	0.05	-0.02	9.13	-0.0001	0.0281	0.0002
122	SLE RA 15	0.05	-0.03	9.13	0.0001	0.0284	0.0002
122	SLE RA 16	0.05	-0.02	9.12	-0.0001	0.028	0.0002
122	SLE RA 17	0.05	-0.03	9.12	0.0001	0.0282	0.0002
122	SLE RA 18	0.05	0.02	9.9	-0.0015	0.0292	0.0002
122	SLE RA 19	0.05	0.01	9.89	-0.0013	0.0294	0.0002
122	SLE RA 20	0.05	0	9.9	-0.0008	0.0295	0.0002
122	SLE RA 21	0.05	-0.01	9.9	-0.0006	0.0297	0.0002
122	SLE FR 1	0.04	0.01	7.29	-0.0014	0.0232	0.0002
122	SLE FR 2	0.04	0.01	7.29	-0.0014	0.0233	0.0002
122	SLE FR 3	0.04	0.01	7.29	-0.0012	0.0233	0.0002
122	SLE FR 4	0.04	0.01	8.07	-0.0014	0.0251	0.0002
122	SLE FR 5	0.04	0.01	8.07	-0.0012	0.0251	0.0002
122	SLE FR 6	0.04	0.01	8.59	-0.0015	0.0262	0.0002
122	SLE QP 1	0.04	0.01	7.29	-0.0014	0.0232	0.0002
122	SLE QP 2	0.04	0.01	8.07	-0.0014	0.025	0.0002
122	SLD 1	0.21	-0.22	7.89	0.0055	0.1624	0.0008
122	SLD 2	0.21	-0.22	7.89	0.0055	0.1624	0.0008
122	SLD 3	0.24	-2.56	6.66	0.0706	0.1875	0.001
122	SLD 4	0.24	-2.56	6.66	0.0706	0.1875	0.001
122	SLD 5	0.04	3.48	9.89	-0.0982	0.0281	0.0002
122	SLD 6	0.04	3.48	9.89	-0.0982	0.0281	0.0002
122	SLD 7	0.15	-4.3	5.78	0.119	0.1119	0.0006
122	SLD 8	0.15	-4.3	5.78	0.119	0.1119	0.0006
122	SLD 9	-0.07	4.32	10.37	-0.1219	-0.0619	-0.0003
122	SLD 10	-0.07	4.32	10.37	-0.1219	-0.0619	-0.0003
122	SLD 11	0.04	-3.46	6.25	0.0953	0.0219	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
122	SLD 12	0.04	-3.46	6.25	0.0953	0.0219	0.0002
122	SLD 13	-0.16	2.58	9.48	-0.0735	-0.1376	-0.0006
122	SLD 14	-0.16	2.58	9.48	-0.0735	-0.1376	-0.0006
122	SLD 15	-0.13	0.25	8.25	-0.0084	-0.1124	-0.0005
122	SLD 16	-0.13	0.25	8.25	-0.0084	-0.1124	-0.0005
122	SLV 1	0.47	-0.54	7.65	0.0147	0.3714	0.0018
122	SLV 2	0.47	-0.54	7.65	0.0147	0.3714	0.0018
122	SLV 3	0.55	-6.02	4.74	0.1677	0.4328	0.0021
122	SLV 4	0.55	-6.02	4.74	0.1677	0.4328	0.0021
122	SLV 5	0.05	8.16	12.36	-0.2285	0.0358	0.0002
122	SLV 6	0.05	8.16	12.36	-0.2285	0.0358	0.0002
122	SLV 7	0.31	-10.11	2.66	0.2812	0.2404	0.0012
122	SLV 8	0.31	-10.11	2.66	0.2812	0.2404	0.0012
122	SLV 9	-0.23	10.13	13.48	-0.2841	-0.1904	-0.0009
122	SLV 10	-0.23	10.13	13.48	-0.2841	-0.1904	-0.0009
122	SLV 11	0.03	-8.13	3.78	0.2257	0.0142	0.0002
122	SLV 12	0.03	-8.13	3.78	0.2257	0.0142	0.0002
122	SLV 13	-0.46	6.04	11.4	-0.1705	-0.3828	-0.0018
122	SLV 14	-0.46	6.04	11.4	-0.1705	-0.3828	-0.0018
122	SLV 15	-0.38	0.56	8.49	-0.0176	-0.3214	-0.0015
122	SLV 16	-0.38	0.56	8.49	-0.0176	-0.3214	-0.0015
123	SLU 1	0.15	0.29	17.33	-0.1347	0.0918	0.0001
123	SLU 2	0.16	2.77	17.3	-0.2623	0.103	0.0001
123	SLU 3	0.15	0.02	17.68	-0.1241	0.0945	0.0001
123	SLU 4	0.16	1.51	17.66	-0.2007	0.1012	0.0001
123	SLU 5	0.17	2.43	17.49	-0.2467	0.1044	0.0001
123	SLU 6	0.16	-0.32	17.88	-0.1085	0.0959	0.0001
123	SLU 7	0.16	1.17	17.86	-0.1851	0.1026	0.0001
123	SLU 8	0.15	-0.39	17.72	-0.1034	0.0946	0.0001
123	SLU 9	0.16	1.1	17.7	-0.18	0.1013	0.0001
123	SLU 10	0.19	2.83	19.46	-0.2823	0.119	0.0001
123	SLU 11	0.18	0.08	19.84	-0.1441	0.1105	0.0001
123	SLU 12	0.19	1.57	19.83	-0.2207	0.1172	0.0001
123	SLU 13	0.19	2.49	19.65	-0.2666	0.1204	0.0001
123	SLU 14	0.18	-0.26	20.04	-0.1284	0.1119	0.0001
123	SLU 15	0.19	1.23	20.02	-0.205	0.1186	0.0001
123	SLU 16	0.18	-0.33	19.88	-0.1233	0.1106	0.0001
123	SLU 17	0.19	1.16	19.86	-0.1999	0.1173	0.0001
123	SLU 18	0.19	0.37	20.42	-0.1631	0.1147	0.0001
123	SLU 19	0.19	1.86	20.4	-0.2397	0.1214	0.0001
123	SLU 20	0.19	0.03	20.61	-0.1475	0.1161	0.0001
123	SLU 21	0.2	1.52	20.59	-0.2241	0.1228	0.0001
123	SLU 22	0.17	0.21	19.23	-0.1458	0.1062	0.0001
123	SLU 23	0.19	2.7	19.2	-0.2735	0.1174	0.0001
123	SLU 24	0.18	-0.05	19.58	-0.1353	0.1089	0.0001
123	SLU 25	0.19	1.44	19.57	-0.2118	0.1156	0.0001
123	SLU 26	0.19	2.36	19.39	-0.2578	0.1187	0.0001
123	SLU 27	0.18	-0.39	19.78	-0.1196	0.1103	0.0001
123	SLU 28	0.19	1.1	19.76	-0.1962	0.117	0.0001
123	SLU 29	0.18	-0.46	19.62	-0.1145	0.109	0.0001
123	SLU 30	0.19	1.03	19.6	-0.1911	0.1157	0.0001
123	SLU 31	0.21	2.76	21.36	-0.2934	0.1334	0.0001
123	SLU 32	0.2	0.01	21.75	-0.1552	0.1249	0.0001
123	SLU 33	0.21	1.5	21.73	-0.2318	0.1316	0.0001
123	SLU 34	0.21	2.42	21.56	-0.2777	0.1348	0.0001
123	SLU 35	0.2	-0.33	21.94	-0.1395	0.1263	0.0001
123	SLU 36	0.21	1.16	21.92	-0.2161	0.133	0.0001
123	SLU 37	0.2	-0.41	21.79	-0.1345	0.125	0.0001
123	SLU 38	0.21	1.08	21.77	-0.211	0.1317	0.0001
123	SLU 39	0.21	0.3	22.32	-0.1742	0.1291	0.0001
123	SLU 40	0.22	1.79	22.3	-0.2508	0.1358	0.0001
123	SLU 41	0.21	-0.04	22.52	-0.1586	0.1305	0.0001
123	SLU 42	0.22	1.45	22.5	-0.2352	0.1372	0.0001
123	SLU 43	0.19	0.4	21.87	-0.1713	0.1144	0.0001
123	SLU 44	0.2	2.88	21.84	-0.2989	0.1256	0.0001
123	SLU 45	0.19	0.13	22.23	-0.1607	0.1171	0.0001
123	SLU 46	0.2	1.63	22.21	-0.2373	0.1238	0.0001
123	SLU 47	0.2	2.54	22.04	-0.2833	0.1269	0.0001
123	SLU 48	0.19	-0.2	22.42	-0.1451	0.1185	0.0001
123	SLU 49	0.2	1.29	22.4	-0.2217	0.1252	0.0001
123	SLU 50	0.19	-0.28	22.26	-0.14	0.1172	0.0001
123	SLU 51	0.2	1.21	22.24	-0.2166	0.1239	0.0001
123	SLU 52	0.23	2.94	24	-0.3189	0.1416	0.0001
123	SLU 53	0.22	0.19	24.39	-0.1807	0.1331	0.0001
123	SLU 54	0.22	1.68	24.37	-0.2573	0.1398	0.0001
123	SLU 55	0.23	2.6	24.2	-0.3032	0.143	0.0001
123	SLU 56	0.22	-0.15	24.59	-0.165	0.1345	0.0001
123	SLU 57	0.23	1.34	24.57	-0.2416	0.1412	0.0001
123	SLU 58	0.22	-0.22	24.43	-0.1599	0.1332	0.0001
123	SLU 59	0.22	1.27	24.41	-0.2365	0.1399	0.0001
123	SLU 60	0.22	0.48	24.96	-0.1997	0.1373	0.0001
123	SLU 61	0.23	1.97	24.94	-0.2763	0.144	0.0001
123	SLU 62	0.23	0.14	25.16	-0.1841	0.1387	0.0001
123	SLU 63	0.23	1.63	25.14	-0.2607	0.1454	0.0001
123	SLU 64	0.21	0.33	23.78	-0.1824	0.1288	0.0001
123	SLU 65	0.22	2.81	23.74	-0.31	0.14	0.0001
123	SLU 66	0.21	0.06	24.13	-0.1718	0.1315	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
123	SLU 67	0.22	1.55	24.11	-0.2484	0.1382	0.0001
123	SLU 68	0.23	2.47	23.94	-0.2944	0.1413	0.0001
123	SLU 69	0.22	-0.28	24.33	-0.1562	0.1329	0.0001
123	SLU 70	0.22	1.21	24.31	-0.2328	0.1396	0.0001
123	SLU 71	0.21	-0.35	24.17	-0.1511	0.1316	0.0001
123	SLU 72	0.22	1.14	24.15	-0.2277	0.1383	0.0001
123	SLU 73	0.25	2.87	25.91	-0.33	0.156	0.0001
123	SLU 74	0.24	0.12	26.29	-0.1918	0.1475	0.0001
123	SLU 75	0.25	1.61	26.27	-0.2684	0.1542	0.0001
123	SLU 76	0.25	2.53	26.1	-0.3143	0.1574	0.0001
123	SLU 77	0.24	-0.22	26.49	-0.1761	0.1489	0.0001
123	SLU 78	0.25	1.27	26.47	-0.2527	0.1556	0.0001
123	SLU 79	0.24	-0.29	26.33	-0.171	0.1476	0.0001
123	SLU 80	0.25	1.2	26.31	-0.2476	0.1543	0.0001
123	SLU 81	0.25	0.41	26.87	-0.2108	0.1517	0.0001
123	SLU 82	0.25	1.9	26.85	-0.2874	0.1584	0.0001
123	SLU 83	0.25	0.07	27.06	-0.1952	0.1531	0.0001
123	SLU 84	0.26	1.56	27.04	-0.2718	0.1598	0.0001
123	SLE RA 1	0.16	0.27	17.87	-0.1379	0.0959	0.0001
123	SLE RA 2	0.17	1.92	17.85	-0.223	0.1033	0.0001
123	SLE RA 3	0.16	0.09	18.11	-0.1308	0.0977	0.0001
123	SLE RA 4	0.16	1.08	18.09	-0.1819	0.1022	0.0001
123	SLE RA 5	0.17	1.7	17.98	-0.2125	0.1043	0.0001
123	SLE RA 6	0.16	-0.14	18.24	-0.1204	0.0986	0.0001
123	SLE RA 7	0.17	0.86	18.22	-0.1715	0.1031	0.0001
123	SLE RA 8	0.16	-0.19	18.13	-0.117	0.0978	0.0001
123	SLE RA 9	0.16	0.81	18.12	-0.1681	0.1022	0.0001
123	SLE RA 10	0.18	1.96	19.29	-0.2362	0.114	0.0001
123	SLE RA 11	0.18	0.13	19.55	-0.1441	0.1084	0.0001
123	SLE RA 12	0.18	1.12	19.54	-0.1952	0.1129	0.0001
123	SLE RA 13	0.18	1.74	19.42	-0.2258	0.115	0.0001
123	SLE RA 14	0.18	-0.1	19.68	-0.1337	0.1093	0.0001
123	SLE RA 15	0.18	0.9	19.67	-0.1848	0.1138	0.0001
123	SLE RA 16	0.18	-0.15	19.57	-0.1303	0.1084	0.0001
123	SLE RA 17	0.18	0.85	19.56	-0.1814	0.1129	0.0001
123	SLE RA 18	0.18	0.32	19.93	-0.1568	0.1112	0.0001
123	SLE RA 19	0.19	1.32	19.92	-0.2079	0.1156	0.0001
123	SLE RA 20	0.18	0.1	20.06	-0.1464	0.1121	0.0001
123	SLE RA 21	0.19	1.09	20.05	-0.1975	0.1166	0.0001
123	SLE FR 1	0.16	0.27	17.87	-0.1379	0.0959	0.0001
123	SLE FR 2	0.16	0.6	17.87	-0.1549	0.0974	0.0001
123	SLE FR 3	0.16	0.18	17.92	-0.1337	0.0963	0.0001
123	SLE FR 4	0.17	0.61	18.48	-0.1606	0.102	0.0001
123	SLE FR 5	0.16	0.19	18.54	-0.1394	0.1009	0.0001
123	SLE FR 6	0.17	0.29	18.9	-0.1473	0.1035	0.0001
123	SLE QP 1	0.16	0.27	17.87	-0.1379	0.0959	0.0001
123	SLE QP 2	0.16	0.28	18.49	-0.1435	0.1005	0.0001
123	SLD 1	0.31	-0.03	17.9	-0.1316	0.2074	0
123	SLD 2	0.31	-0.03	17.9	-0.1316	0.2074	0
123	SLD 3	0.27	-3.38	17.13	0.0303	0.1803	0.0001
123	SLD 4	0.27	-3.38	17.13	0.0303	0.1803	0.0001
123	SLD 5	0.26	5.27	19.48	-0.3856	0.1737	0
123	SLD 6	0.26	5.27	19.48	-0.3856	0.1737	0
123	SLD 7	0.14	-5.89	16.92	0.1542	0.0833	0.0001
123	SLD 8	0.14	-5.89	16.92	0.1542	0.0833	0.0001
123	SLD 9	0.18	6.46	20.06	-0.4413	0.1176	0
123	SLD 10	0.18	6.46	20.06	-0.4413	0.1176	0
123	SLD 11	0.07	-4.7	17.5	0.0985	0.0273	0.0001
123	SLD 12	0.07	-4.7	17.5	0.0985	0.0273	0.0001
123	SLD 13	0.05	3.94	19.85	-0.3174	0.0206	0.0001
123	SLD 14	0.05	3.94	19.85	-0.3174	0.0206	0.0001
123	SLD 15	0.02	0.6	19.08	-0.1554	-0.0065	0.0001
123	SLD 16	0.02	0.6	19.08	-0.1554	-0.0065	0.0001
123	SLV 1	0.5	-0.52	17.14	-0.1122	0.3534	0
123	SLV 2	0.5	-0.52	17.14	-0.1122	0.3534	0
123	SLV 3	0.42	-8.52	15.26	0.2751	0.2869	0
123	SLV 4	0.42	-8.52	15.26	0.2751	0.2869	0
123	SLV 5	0.39	12.17	20.93	-0.7215	0.2774	0
123	SLV 6	0.39	12.17	20.93	-0.7215	0.2774	0
123	SLV 7	0.11	-14.48	14.67	0.5694	0.0554	0.0001
123	SLV 8	0.11	-14.48	14.67	0.5694	0.0554	0.0001
123	SLV 9	0.21	15.05	22.3	-0.8565	0.1455	0
123	SLV 10	0.21	15.05	22.3	-0.8565	0.1455	0
123	SLV 11	-0.06	-11.6	16.05	0.4344	-0.0764	0.0001
123	SLV 12	-0.06	-11.6	16.05	0.4344	-0.0764	0.0001
123	SLV 13	-0.09	9.09	21.72	-0.5622	-0.0859	0.0001
123	SLV 14	-0.09	9.09	21.72	-0.5622	-0.0859	0.0001
123	SLV 15	-0.17	1.09	19.84	-0.1749	-0.1525	0.0001
123	SLV 16	-0.17	1.09	19.84	-0.1749	-0.1525	0.0001
124	SLU 1	0.07	-3.54	44.23	0.161	0.0494	0.0005
124	SLU 2	0.07	-4	44.83	0.184	0.0498	0.0005
124	SLU 3	0.08	-3.38	45.16	0.1529	0.0504	0.0005
124	SLU 4	0.08	-3.66	45.51	0.1667	0.0506	0.0005
124	SLU 5	0.08	-3.8	45.32	0.1734	0.0503	0.0005
124	SLU 6	0.08	-3.18	45.65	0.1424	0.0508	0.0006
124	SLU 7	0.08	-3.46	46	0.1562	0.0511	0.0006
124	SLU 8	0.08	-3.14	45.21	0.1399	0.0503	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
124	SLU 9	0.08	-3.42	45.57	0.1537	0.0505	0.0005
124	SLU 10	0.09	-4.6	52.68	0.2129	0.0597	0.0006
124	SLU 11	0.09	-3.98	53.01	0.1818	0.0602	0.0006
124	SLU 12	0.09	-4.26	53.37	0.1956	0.0605	0.0006
124	SLU 13	0.09	-4.4	53.17	0.2023	0.0601	0.0006
124	SLU 14	0.09	-3.78	53.5	0.1713	0.0607	0.0007
124	SLU 15	0.09	-4.06	53.86	0.1851	0.061	0.0007
124	SLU 16	0.09	-3.74	53.06	0.1688	0.0601	0.0007
124	SLU 17	0.09	-4.02	53.42	0.1826	0.0604	0.0006
124	SLU 18	0.09	-4.4	55.45	0.2022	0.0635	0.0007
124	SLU 19	0.09	-4.67	55.81	0.216	0.0637	0.0007
124	SLU 20	0.1	-4.2	55.94	0.1917	0.0639	0.0007
124	SLU 21	0.1	-4.47	56.3	0.2055	0.0642	0.0007
124	SLU 22	0.08	-3.73	49.15	0.1705	0.0553	0.0006
124	SLU 23	0.08	-4.19	49.75	0.1935	0.0558	0.0006
124	SLU 24	0.08	-3.57	50.08	0.1625	0.0563	0.0006
124	SLU 25	0.08	-3.85	50.44	0.1763	0.0566	0.0006
124	SLU 26	0.08	-3.99	50.24	0.183	0.0562	0.0006
124	SLU 27	0.08	-3.37	50.57	0.1519	0.0568	0.0006
124	SLU 28	0.09	-3.65	50.93	0.1657	0.057	0.0006
124	SLU 29	0.08	-3.33	50.13	0.1495	0.0562	0.0006
124	SLU 30	0.08	-3.61	50.49	0.1633	0.0565	0.0006
124	SLU 31	0.1	-4.79	57.61	0.2224	0.0656	0.0007
124	SLU 32	0.1	-4.17	57.93	0.1914	0.0662	0.0007
124	SLU 33	0.1	-4.45	58.29	0.2052	0.0665	0.0007
124	SLU 34	0.1	-4.59	58.1	0.2119	0.0661	0.0007
124	SLU 35	0.1	-3.97	58.42	0.1808	0.0666	0.0007
124	SLU 36	0.1	-4.25	58.78	0.1946	0.0669	0.0007
124	SLU 37	0.1	-3.93	57.99	0.1784	0.0661	0.0007
124	SLU 38	0.1	-4.21	58.35	0.1922	0.0664	0.0007
124	SLU 39	0.1	-4.59	60.37	0.2118	0.0694	0.0007
124	SLU 40	0.1	-4.86	60.73	0.2256	0.0697	0.0007
124	SLU 41	0.1	-4.39	60.86	0.2013	0.0699	0.0007
124	SLU 42	0.1	-4.66	61.22	0.2151	0.0701	0.0007
124	SLU 43	0.09	-4.53	55.81	0.206	0.0621	0.0007
124	SLU 44	0.09	-4.99	56.41	0.229	0.0626	0.0007
124	SLU 45	0.09	-4.38	56.74	0.1979	0.0631	0.0007
124	SLU 46	0.09	-4.65	57.1	0.2117	0.0634	0.0007
124	SLU 47	0.09	-4.79	56.9	0.2184	0.063	0.0007
124	SLU 48	0.1	-4.18	57.23	0.1874	0.0636	0.0007
124	SLU 49	0.1	-4.46	57.59	0.2012	0.0639	0.0007
124	SLU 50	0.09	-4.14	56.79	0.1849	0.063	0.0007
124	SLU 51	0.09	-4.41	57.15	0.1987	0.0633	0.0007
124	SLU 52	0.11	-5.59	64.26	0.2579	0.0724	0.0008
124	SLU 53	0.11	-4.98	64.59	0.2268	0.073	0.0008
124	SLU 54	0.11	-5.26	64.95	0.2406	0.0733	0.0008
124	SLU 55	0.11	-5.4	64.75	0.2473	0.0729	0.0008
124	SLU 56	0.11	-4.78	65.08	0.2163	0.0735	0.0008
124	SLU 57	0.11	-5.06	65.44	0.2301	0.0737	0.0008
124	SLU 58	0.11	-4.74	64.64	0.2138	0.0729	0.0008
124	SLU 59	0.11	-5.01	65	0.2276	0.0732	0.0008
124	SLU 60	0.11	-5.39	67.03	0.2473	0.0762	0.0008
124	SLU 61	0.11	-5.67	67.39	0.2611	0.0765	0.0008
124	SLU 62	0.11	-5.19	67.52	0.2367	0.0767	0.0008
124	SLU 63	0.11	-5.47	67.88	0.2505	0.077	0.0008
124	SLU 64	0.1	-4.72	60.74	0.2155	0.0681	0.0007
124	SLU 65	0.1	-5.18	61.33	0.2385	0.0685	0.0007
124	SLU 66	0.1	-4.57	61.66	0.2075	0.0691	0.0008
124	SLU 67	0.1	-4.84	62.02	0.2213	0.0694	0.0007
124	SLU 68	0.1	-4.98	61.82	0.228	0.069	0.0007
124	SLU 69	0.1	-4.37	62.15	0.197	0.0695	0.0008
124	SLU 70	0.1	-4.65	62.51	0.2108	0.0698	0.0008
124	SLU 71	0.1	-4.33	61.72	0.1945	0.069	0.0008
124	SLU 72	0.1	-4.6	62.07	0.2083	0.0693	0.0008
124	SLU 73	0.12	-5.78	69.19	0.2674	0.0784	0.0008
124	SLU 74	0.12	-5.17	69.51	0.2364	0.079	0.0008
124	SLU 75	0.12	-5.45	69.87	0.2502	0.0792	0.0008
124	SLU 76	0.12	-5.59	69.68	0.2569	0.0789	0.0008
124	SLU 77	0.12	-4.97	70	0.2259	0.0794	0.0009
124	SLU 78	0.12	-5.25	70.36	0.2397	0.0797	0.0009
124	SLU 79	0.12	-4.93	69.57	0.2234	0.0789	0.0009
124	SLU 80	0.12	-5.2	69.93	0.2372	0.0791	0.0008
124	SLU 81	0.12	-5.58	71.95	0.2568	0.0822	0.0009
124	SLU 82	0.12	-5.86	72.31	0.2706	0.0824	0.0009
124	SLU 83	0.12	-5.38	72.44	0.2463	0.0826	0.0009
124	SLU 84	0.12	-5.66	72.8	0.2601	0.0829	0.0009
124	SLE RA 1	0.08	-3.59	45.64	0.1637	0.0511	0.0006
124	SLE RA 2	0.08	-3.9	46.04	0.179	0.0514	0.0005
124	SLE RA 3	0.08	-3.49	46.25	0.1583	0.0517	0.0006
124	SLE RA 4	0.08	-3.67	46.49	0.1675	0.0519	0.0006
124	SLE RA 5	0.08	-3.77	46.36	0.172	0.0517	0.0006
124	SLE RA 6	0.08	-3.36	46.58	0.1513	0.052	0.0006
124	SLE RA 7	0.08	-3.54	46.82	0.1605	0.0522	0.0006
124	SLE RA 8	0.08	-3.33	46.29	0.1497	0.0517	0.0006
124	SLE RA 9	0.08	-3.51	46.53	0.1589	0.0518	0.0006
124	SLE RA 10	0.09	-4.3	51.27	0.1983	0.0579	0.0006
124	SLE RA 11	0.09	-3.89	51.49	0.1776	0.0583	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
124	SLE RA 12	0.09	-4.07	51.73	0.1868	0.0585	0.0006
124	SLE RA 13	0.09	-4.17	51.6	0.1913	0.0582	0.0006
124	SLE RA 14	0.09	-3.76	51.82	0.1706	0.0586	0.0006
124	SLE RA 15	0.09	-3.94	52.06	0.1798	0.0588	0.0006
124	SLE RA 16	0.09	-3.73	51.53	0.1689	0.0582	0.0006
124	SLE RA 17	0.09	-3.91	51.77	0.1781	0.0584	0.0006
124	SLE RA 18	0.09	-4.16	53.12	0.1912	0.0605	0.0006
124	SLE RA 19	0.09	-4.35	53.36	0.2004	0.0606	0.0006
124	SLE RA 20	0.09	-4.03	53.44	0.1842	0.0608	0.0007
124	SLE RA 21	0.09	-4.22	53.68	0.1934	0.0609	0.0006
124	SLE FR 1	0.08	-3.59	45.64	0.1637	0.0511	0.0006
124	SLE FR 2	0.08	-3.65	45.72	0.1668	0.0511	0.0006
124	SLE FR 3	0.08	-3.54	45.77	0.1609	0.0512	0.0006
124	SLE FR 4	0.08	-3.82	47.96	0.175	0.0539	0.0006
124	SLE FR 5	0.08	-3.71	48.01	0.1691	0.054	0.0006
124	SLE FR 6	0.08	-3.88	49.38	0.1775	0.0558	0.0006
124	SLE QP 1	0.08	-3.59	45.64	0.1637	0.0511	0.0006
124	SLE QP 2	0.08	-3.76	47.88	0.172	0.0539	0.0006
124	SLD 1	0.22	-0.78	42.8	0.0153	0.1718	0.0004
124	SLD 2	0.22	-0.78	42.8	0.0153	0.1718	0.0004
124	SLD 3	0.25	-4.34	44.72	0.1989	0.1952	0.0001
124	SLD 4	0.25	-4.34	44.72	0.1989	0.1952	0.0001
124	SLD 5	0.08	2.54	43.45	-0.1536	0.0538	0.0009
124	SLD 6	0.08	2.54	43.45	-0.1536	0.0538	0.0009
124	SLD 7	0.18	-9.34	49.84	0.4586	0.1317	0
124	SLD 8	0.18	-9.34	49.84	0.4586	0.1317	0
124	SLD 9	-0.01	1.82	45.92	-0.1147	-0.0239	0.0011
124	SLD 10	-0.01	1.82	45.92	-0.1147	-0.0239	0.0011
124	SLD 11	0.08	-10.07	52.31	0.4975	0.0539	0.0002
124	SLD 12	0.08	-10.07	52.31	0.4975	0.0539	0.0002
124	SLD 13	-0.09	-3.18	51.04	0.145	-0.0874	0.001
124	SLD 14	-0.09	-3.18	51.04	0.145	-0.0874	0.001
124	SLD 15	-0.06	-6.75	52.96	0.3286	-0.064	0.0008
124	SLD 16	-0.06	-6.75	52.96	0.3286	-0.064	0.0008
124	SLV 1	0.42	3.25	35.93	-0.1965	0.3515	0.0001
124	SLV 2	0.42	3.25	35.93	-0.1965	0.3515	0.0001
124	SLV 3	0.5	-5.09	40.48	0.234	0.4085	-0.0005
124	SLV 4	0.5	-5.09	40.48	0.234	0.4085	-0.0005
124	SLV 5	0.07	11.01	37.39	-0.5915	0.0567	0.0014
124	SLV 6	0.07	11.01	37.39	-0.5915	0.0567	0.0014
124	SLV 7	0.31	-16.83	52.56	0.8435	0.2467	-0.0007
124	SLV 8	0.31	-16.83	52.56	0.8435	0.2467	-0.0007
124	SLV 9	-0.15	9.3	43.2	-0.4995	-0.1389	0.0019
124	SLV 10	-0.15	9.3	43.2	-0.4995	-0.1389	0.0019
124	SLV 11	0.09	-18.53	58.37	0.9354	0.051	-0.0002
124	SLV 12	0.09	-18.53	58.37	0.9354	0.051	-0.0002
124	SLV 13	-0.34	-2.43	55.28	0.11	-0.3007	0.0017
124	SLV 14	-0.34	-2.43	55.28	0.11	-0.3007	0.0017
124	SLV 15	-0.26	-10.78	59.83	0.5404	-0.2437	0.001
124	SLV 16	-0.26	-10.78	59.83	0.5404	-0.2437	0.001
125	SLU 1	0	0.6	34.14	-0.1131	-0.0031	0
125	SLU 2	-0.01	2.95	35.1	-0.2346	-0.0121	0
125	SLU 3	0	0.41	35.18	-0.1067	-0.0032	0
125	SLU 4	-0.01	1.82	35.76	-0.1796	-0.0086	0
125	SLU 5	-0.01	2.69	35.8	-0.224	-0.0122	0
125	SLU 6	0	0.16	35.88	-0.0962	-0.0032	0
125	SLU 7	-0.01	1.56	36.46	-0.169	-0.0086	0
125	SLU 8	0	0.08	35.54	-0.092	-0.0031	0
125	SLU 9	-0.01	1.49	36.11	-0.1649	-0.0086	0
125	SLU 10	-0.01	3.12	40.19	-0.2532	-0.0126	0
125	SLU 11	0	0.58	40.28	-0.1253	-0.0036	0
125	SLU 12	-0.01	1.99	40.85	-0.1982	-0.0091	0
125	SLU 13	-0.01	2.86	40.89	-0.2426	-0.0127	0
125	SLU 14	0	0.32	40.98	-0.1148	-0.0037	0
125	SLU 15	-0.01	1.73	41.55	-0.1876	-0.0091	0
125	SLU 16	0	0.25	40.63	-0.1106	-0.0036	0
125	SLU 17	-0.01	1.66	41.2	-0.1835	-0.0091	0
125	SLU 18	0	0.84	41.42	-0.1397	-0.0038	0
125	SLU 19	-0.01	2.25	41.99	-0.2125	-0.0092	0
125	SLU 20	0	0.58	42.12	-0.1291	-0.0038	0
125	SLU 21	-0.01	1.99	42.69	-0.202	-0.0092	0
125	SLU 22	0	0.67	38.88	-0.1258	-0.0035	0
125	SLU 23	-0.01	3.02	39.84	-0.2472	-0.0126	0
125	SLU 24	0	0.48	39.92	-0.1194	-0.0036	0
125	SLU 25	-0.01	1.89	40.5	-0.1923	-0.009	0
125	SLU 26	-0.01	2.76	40.53	-0.2367	-0.0126	0
125	SLU 27	0	0.22	40.62	-0.1089	-0.0037	0
125	SLU 28	-0.01	1.63	41.19	-0.1817	-0.0091	0
125	SLU 29	0	0.15	40.27	-0.1047	-0.0036	0
125	SLU 30	-0.01	1.56	40.85	-0.1775	-0.009	0
125	SLU 31	-0.01	3.19	44.93	-0.2658	-0.0131	0
125	SLU 32	0	0.65	45.02	-0.138	-0.0041	0
125	SLU 33	-0.01	2.06	45.59	-0.2109	-0.0095	0
125	SLU 34	-0.01	2.93	45.63	-0.2553	-0.0131	0
125	SLU 35	0	0.39	45.71	-0.1275	-0.0041	0
125	SLU 36	-0.01	1.8	46.29	-0.2003	-0.0096	0
125	SLU 37	0	0.32	45.37	-0.1233	-0.0041	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
125	SLU 38	-0.01	1.73	45.94	-0.1961	-0.0095	0
125	SLU 39	0	0.91	46.16	-0.1524	-0.0042	0
125	SLU 40	-0.01	2.32	46.73	-0.2252	-0.0096	0
125	SLU 41	0	0.65	46.85	-0.1418	-0.0043	0
125	SLU 42	-0.01	2.06	47.43	-0.2147	-0.0097	0
125	SLU 43	0	0.76	42.76	-0.1427	-0.0038	0
125	SLU 44	-0.01	3.11	43.72	-0.2641	-0.0129	0
125	SLU 45	0	0.57	43.8	-0.1363	-0.0039	0
125	SLU 46	-0.01	1.98	44.38	-0.2092	-0.0094	0
125	SLU 47	-0.01	2.85	44.41	-0.2536	-0.0129	0
125	SLU 48	0	0.31	44.5	-0.1257	-0.004	0
125	SLU 49	-0.01	1.72	45.07	-0.1986	-0.0094	0
125	SLU 50	0	0.24	44.15	-0.1216	-0.0039	0
125	SLU 51	-0.01	1.65	44.73	-0.1944	-0.0093	0
125	SLU 52	-0.01	3.28	48.81	-0.2827	-0.0134	0
125	SLU 53	0	0.74	48.9	-0.1549	-0.0044	0
125	SLU 54	-0.01	2.15	49.47	-0.2278	-0.0098	0
125	SLU 55	-0.01	3.02	49.51	-0.2722	-0.0134	0
125	SLU 56	0	0.48	49.59	-0.1443	-0.0045	0
125	SLU 57	-0.01	1.89	50.17	-0.2172	-0.0099	0
125	SLU 58	0	0.41	49.25	-0.1402	-0.0044	0
125	SLU 59	-0.01	1.82	49.82	-0.213	-0.0098	0
125	SLU 60	0	1	50.04	-0.1692	-0.0045	0
125	SLU 61	-0.01	2.41	50.61	-0.2421	-0.01	0
125	SLU 62	0	0.74	50.73	-0.1587	-0.0046	0
125	SLU 63	-0.01	2.15	51.31	-0.2316	-0.01	0
125	SLU 64	0	0.83	47.5	-0.1554	-0.0043	0
125	SLU 65	-0.01	3.17	48.46	-0.2768	-0.0133	0
125	SLU 66	0	0.64	48.54	-0.149	-0.0044	0
125	SLU 67	-0.01	2.05	49.11	-0.2219	-0.0098	0
125	SLU 68	-0.01	2.92	49.15	-0.2663	-0.0134	0
125	SLU 69	0	0.38	49.24	-0.1384	-0.0044	0
125	SLU 70	-0.01	1.79	49.81	-0.2113	-0.0099	0
125	SLU 71	0	0.31	48.89	-0.1342	-0.0044	0
125	SLU 72	-0.01	1.72	49.47	-0.2071	-0.0098	0
125	SLU 73	-0.01	3.34	53.55	-0.2954	-0.0138	0
125	SLU 74	0	0.81	53.63	-0.1676	-0.0049	0
125	SLU 75	-0.01	2.22	54.21	-0.2405	-0.0103	0
125	SLU 76	-0.01	3.08	54.25	-0.2849	-0.0139	0
125	SLU 77	0	0.55	54.33	-0.157	-0.0049	0
125	SLU 78	-0.01	1.96	54.91	-0.2299	-0.0103	0
125	SLU 79	0	0.48	53.99	-0.1528	-0.0049	0
125	SLU 80	-0.01	1.89	54.56	-0.2257	-0.0103	0
125	SLU 81	0	1.07	54.78	-0.1819	-0.005	0
125	SLU 82	-0.01	2.48	55.35	-0.2548	-0.0104	0
125	SLU 83	0	0.81	55.47	-0.1714	-0.005	0
125	SLU 84	-0.01	2.22	56.05	-0.2443	-0.0105	0
125	SLE RA 1	0	0.62	35.5	-0.1167	-0.0032	0
125	SLE RA 2	-0.01	2.19	36.13	-0.1977	-0.0092	0
125	SLE RA 3	0	0.5	36.19	-0.1125	-0.0032	0
125	SLE RA 4	-0.01	1.44	36.57	-0.1611	-0.0069	0
125	SLE RA 5	-0.01	2.01	36.6	-0.1907	-0.0093	0
125	SLE RA 6	0	0.32	36.65	-0.1054	-0.0033	0
125	SLE RA 7	-0.01	1.26	37.04	-0.154	-0.0069	0
125	SLE RA 8	0	0.28	36.42	-0.1026	-0.0032	0
125	SLE RA 9	-0.01	1.21	36.81	-0.1512	-0.0069	0
125	SLE RA 10	-0.01	2.3	39.53	-0.2101	-0.0096	0
125	SLE RA 11	0	0.61	39.59	-0.1249	-0.0036	0
125	SLE RA 12	-0.01	1.55	39.97	-0.1735	-0.0072	0
125	SLE RA 13	-0.01	2.13	40	-0.2031	-0.0096	0
125	SLE RA 14	0	0.44	40.05	-0.1178	-0.0036	0
125	SLE RA 15	-0.01	1.37	40.43	-0.1664	-0.0072	0
125	SLE RA 16	0	0.39	39.82	-0.115	-0.0036	0
125	SLE RA 17	-0.01	1.33	40.2	-0.1636	-0.0072	0
125	SLE RA 18	0	0.78	40.35	-0.1344	-0.0036	0
125	SLE RA 19	-0.01	1.72	40.73	-0.183	-0.0073	0
125	SLE RA 20	0	0.61	40.81	-0.1274	-0.0037	0
125	SLE RA 21	-0.01	1.55	41.2	-0.176	-0.0073	0
125	SLE FR 1	0	0.62	35.5	-0.1167	-0.0032	0
125	SLE FR 2	0	0.93	35.62	-0.1329	-0.0044	0
125	SLE FR 3	0	0.55	35.68	-0.1139	-0.0032	0
125	SLE FR 4	0	0.98	37.08	-0.1382	-0.0045	0
125	SLE FR 5	0	0.6	37.14	-0.1192	-0.0033	0
125	SLE FR 6	0	0.7	37.92	-0.1256	-0.0034	0
125	SLE QP 1	0	0.62	35.5	-0.1167	-0.0032	0
125	SLE QP 2	0	0.67	36.95	-0.122	-0.0033	0
125	SLD 1	0.09	3.52	39.47	-0.2608	0.0716	0
125	SLD 2	0.09	3.52	39.47	-0.2608	0.0716	0
125	SLD 3	0.12	0.47	37.93	-0.1123	0.0991	0
125	SLD 4	0.12	0.47	37.93	-0.1123	0.0991	0
125	SLD 5	-0.02	6.14	40.05	-0.3889	-0.0226	0
125	SLD 6	-0.02	6.14	40.05	-0.3889	-0.0226	0
125	SLD 7	0.08	-4.01	34.9	0.1062	0.0691	0
125	SLD 8	0.08	-4.01	34.9	0.1062	0.0691	0
125	SLD 9	-0.09	5.35	39	-0.3502	-0.0758	0
125	SLD 10	-0.09	5.35	39	-0.3502	-0.0758	0
125	SLD 11	0.02	-4.81	33.85	0.1449	0.0159	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
125	SLD 12	0.02	-4.81	33.85	0.1449	0.0159	0
125	SLD 13	-0.12	0.86	35.97	-0.1318	-0.1058	0
125	SLD 14	-0.12	0.86	35.97	-0.1318	-0.1058	0
125	SLD 15	-0.09	-2.18	34.43	0.0167	-0.0783	0
125	SLD 16	-0.09	-2.18	34.43	0.0167	-0.0783	0
125	SLV 1	0.21	7.56	42.87	-0.4579	0.1792	-0.0001
125	SLV 2	0.21	7.56	42.87	-0.4579	0.1792	-0.0001
125	SLV 3	0.29	0.32	39.22	-0.1041	0.2488	0
125	SLV 4	0.29	0.32	39.22	-0.1041	0.2488	0
125	SLV 5	-0.06	13.72	44.27	-0.7592	-0.0541	-0.0001
125	SLV 6	-0.06	13.72	44.27	-0.7592	-0.0541	-0.0001
125	SLV 7	0.21	-10.41	32.09	0.4198	0.1779	0
125	SLV 8	0.21	-10.41	32.09	0.4198	0.1779	0
125	SLV 9	-0.21	11.75	41.81	-0.6639	-0.1845	0
125	SLV 10	-0.21	11.75	41.81	-0.6639	-0.1845	0
125	SLV 11	0.05	-12.38	29.64	0.5152	0.0475	0.0001
125	SLV 12	0.05	-12.38	29.64	0.5152	0.0475	0.0001
125	SLV 13	-0.3	1.01	34.68	-0.1399	-0.2554	0
125	SLV 14	-0.3	1.01	34.68	-0.1399	-0.2554	0
125	SLV 15	-0.22	-6.23	31.03	0.2138	-0.1858	0.0001
125	SLV 16	-0.22	-6.23	31.03	0.2138	-0.1858	0.0001
126	SLU 1	-0.18	7.01	29.11	-0.3098	-0.1288	-0.0008
126	SLU 2	-0.25	8.09	29.98	-0.3555	-0.1988	-0.0012
126	SLU 3	-0.19	7.36	29.94	-0.3254	-0.1331	-0.0009
126	SLU 4	-0.23	8.01	30.46	-0.3528	-0.1751	-0.0011
126	SLU 5	-0.25	8.37	30.56	-0.3682	-0.2017	-0.0012
126	SLU 6	-0.19	7.63	30.52	-0.3381	-0.136	-0.0009
126	SLU 7	-0.23	8.28	31.05	-0.3655	-0.178	-0.0011
126	SLU 8	-0.19	7.57	30.27	-0.3352	-0.1346	-0.0009
126	SLU 9	-0.23	8.22	30.8	-0.3626	-0.1766	-0.0011
126	SLU 10	-0.27	9.01	32.97	-0.3957	-0.2156	-0.0013
126	SLU 11	-0.21	8.27	32.93	-0.3657	-0.15	-0.001
126	SLU 12	-0.25	8.92	33.45	-0.3931	-0.1919	-0.0012
126	SLU 13	-0.28	9.29	33.55	-0.4084	-0.2185	-0.0013
126	SLU 14	-0.22	8.55	33.51	-0.3784	-0.1529	-0.001
126	SLU 15	-0.26	9.2	34.03	-0.4058	-0.1948	-0.0012
126	SLU 16	-0.22	8.48	33.26	-0.3755	-0.1514	-0.001
126	SLU 17	-0.26	9.13	33.78	-0.4028	-0.1934	-0.0012
126	SLU 18	-0.22	8.32	33.38	-0.3673	-0.1529	-0.001
126	SLU 19	-0.26	8.97	33.9	-0.3947	-0.1949	-0.0012
126	SLU 20	-0.22	8.6	33.96	-0.38	-0.1558	-0.001
126	SLU 21	-0.26	9.25	34.48	-0.4074	-0.1978	-0.0012
126	SLU 22	-0.21	7.97	32.15	-0.3525	-0.1457	-0.001
126	SLU 23	-0.27	9.06	33.02	-0.3981	-0.2156	-0.0013
126	SLU 24	-0.21	8.32	32.98	-0.3681	-0.15	-0.001
126	SLU 25	-0.25	8.97	33.51	-0.3955	-0.192	-0.0012
126	SLU 26	-0.28	9.34	33.6	-0.4108	-0.2185	-0.0013
126	SLU 27	-0.22	8.6	33.57	-0.3808	-0.1529	-0.001
126	SLU 28	-0.26	9.25	34.09	-0.4082	-0.1948	-0.0012
126	SLU 29	-0.22	8.53	33.32	-0.3779	-0.1514	-0.001
126	SLU 30	-0.26	9.18	33.84	-0.4052	-0.1934	-0.0012
126	SLU 31	-0.3	9.97	36.01	-0.4384	-0.2325	-0.0014
126	SLU 32	-0.24	9.24	35.97	-0.4083	-0.1668	-0.0011
126	SLU 33	-0.28	9.89	36.49	-0.4357	-0.2088	-0.0013
126	SLU 34	-0.3	10.25	36.59	-0.451	-0.2354	-0.0014
126	SLU 35	-0.24	9.52	36.55	-0.421	-0.1697	-0.0011
126	SLU 36	-0.28	10.17	37.08	-0.4484	-0.2117	-0.0013
126	SLU 37	-0.24	9.45	36.3	-0.4181	-0.1683	-0.0011
126	SLU 38	-0.28	10.1	36.83	-0.4455	-0.2103	-0.0013
126	SLU 39	-0.24	9.28	36.42	-0.41	-0.1698	-0.0011
126	SLU 40	-0.28	9.93	36.94	-0.4373	-0.2117	-0.0013
126	SLU 41	-0.25	9.56	37	-0.4226	-0.1726	-0.0011
126	SLU 42	-0.29	10.21	37.52	-0.45	-0.2146	-0.0013
126	SLU 43	-0.23	8.78	36.8	-0.3882	-0.1617	-0.0011
126	SLU 44	-0.29	9.86	37.67	-0.4338	-0.2317	-0.0014
126	SLU 45	-0.24	9.13	37.63	-0.4038	-0.166	-0.0011
126	SLU 46	-0.28	9.78	38.15	-0.4312	-0.208	-0.0013
126	SLU 47	-0.3	10.14	38.25	-0.4465	-0.2345	-0.0014
126	SLU 48	-0.24	9.41	38.21	-0.4165	-0.1689	-0.0011
126	SLU 49	-0.28	10.06	38.74	-0.4438	-0.2108	-0.0013
126	SLU 50	-0.24	9.34	37.96	-0.4135	-0.1675	-0.0011
126	SLU 51	-0.28	9.99	38.48	-0.4409	-0.2094	-0.0013
126	SLU 52	-0.32	10.78	40.65	-0.474	-0.2485	-0.0015
126	SLU 53	-0.26	10.04	40.62	-0.444	-0.1829	-0.0012
126	SLU 54	-0.3	10.69	41.14	-0.4714	-0.2248	-0.0014
126	SLU 55	-0.32	11.06	41.24	-0.4867	-0.2514	-0.0015
126	SLU 56	-0.26	10.32	41.2	-0.4567	-0.1857	-0.0012
126	SLU 57	-0.3	10.97	41.72	-0.4841	-0.2277	-0.0014
126	SLU 58	-0.26	10.25	40.95	-0.4538	-0.1843	-0.0012
126	SLU 59	-0.3	10.9	41.47	-0.4812	-0.2263	-0.0014
126	SLU 60	-0.26	10.09	41.06	-0.4456	-0.1858	-0.0012
126	SLU 61	-0.3	10.74	41.59	-0.473	-0.2278	-0.0014
126	SLU 62	-0.27	10.37	41.65	-0.4583	-0.1887	-0.0012
126	SLU 63	-0.31	11.02	42.17	-0.4857	-0.2306	-0.0014
126	SLU 64	-0.25	9.75	39.84	-0.4308	-0.1786	-0.0012
126	SLU 65	-0.32	10.83	40.71	-0.4764	-0.2485	-0.0015
126	SLU 66	-0.26	10.09	40.67	-0.4464	-0.1829	-0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
126	SLU 67	-0.3	10.74	41.2	-0.4738	-0.2248	-0.0014
126	SLU 68	-0.32	11.11	41.29	-0.4891	-0.2514	-0.0015
126	SLU 69	-0.27	10.37	41.26	-0.4591	-0.1857	-0.0012
126	SLU 70	-0.3	11.02	41.78	-0.4865	-0.2277	-0.0014
126	SLU 71	-0.26	10.3	41	-0.4562	-0.1843	-0.0012
126	SLU 72	-0.3	10.95	41.53	-0.4836	-0.2263	-0.0014
126	SLU 73	-0.34	11.74	43.7	-0.5167	-0.2654	-0.0016
126	SLU 74	-0.28	11.01	43.66	-0.4867	-0.1997	-0.0013
126	SLU 75	-0.32	11.66	44.18	-0.514	-0.2417	-0.0015
126	SLU 76	-0.35	12.02	44.28	-0.5294	-0.2682	-0.0016
126	SLU 77	-0.29	11.29	44.24	-0.4993	-0.2026	-0.0013
126	SLU 78	-0.33	11.94	44.77	-0.5267	-0.2446	-0.0015
126	SLU 79	-0.29	11.22	43.99	-0.4964	-0.2012	-0.0013
126	SLU 80	-0.33	11.87	44.51	-0.5238	-0.2431	-0.0015
126	SLU 81	-0.29	11.05	44.11	-0.4883	-0.2026	-0.0013
126	SLU 82	-0.33	11.7	44.63	-0.5157	-0.2446	-0.0015
126	SLU 83	-0.29	11.33	44.69	-0.501	-0.2055	-0.0014
126	SLU 84	-0.33	11.98	45.21	-0.5284	-0.2475	-0.0015
126	SLE RA 1	-0.19	7.28	29.98	-0.322	-0.1337	-0.0009
126	SLE RA 2	-0.23	8.01	30.56	-0.3524	-0.1803	-0.0011
126	SLE RA 3	-0.19	7.52	30.53	-0.3324	-0.1365	-0.0009
126	SLE RA 4	-0.22	7.95	30.88	-0.3507	-0.1645	-0.001
126	SLE RA 5	-0.24	8.19	30.95	-0.3609	-0.1822	-0.0011
126	SLE RA 6	-0.2	7.7	30.92	-0.3409	-0.1384	-0.0009
126	SLE RA 7	-0.22	8.14	31.27	-0.3591	-0.1664	-0.001
126	SLE RA 8	-0.2	7.66	30.75	-0.3389	-0.1375	-0.0009
126	SLE RA 9	-0.22	8.09	31.1	-0.3572	-0.1655	-0.001
126	SLE RA 10	-0.25	8.62	32.55	-0.3793	-0.1915	-0.0012
126	SLE RA 11	-0.21	8.13	32.52	-0.3592	-0.1478	-0.001
126	SLE RA 12	-0.24	8.56	32.87	-0.3775	-0.1757	-0.0011
126	SLE RA 13	-0.25	8.8	32.94	-0.3877	-0.1934	-0.0012
126	SLE RA 14	-0.21	8.31	32.91	-0.3677	-0.1497	-0.001
126	SLE RA 15	-0.24	8.75	33.26	-0.386	-0.1776	-0.0011
126	SLE RA 16	-0.21	8.27	32.75	-0.3658	-0.1487	-0.001
126	SLE RA 17	-0.24	8.7	33.09	-0.384	-0.1767	-0.0011
126	SLE RA 18	-0.21	8.16	32.82	-0.3603	-0.1497	-0.001
126	SLE RA 19	-0.24	8.59	33.17	-0.3786	-0.1777	-0.0011
126	SLE RA 20	-0.22	8.34	33.21	-0.3688	-0.1516	-0.001
126	SLE RA 21	-0.24	8.78	33.56	-0.3871	-0.1796	-0.0011
126	SLE FR 1	-0.19	7.28	29.98	-0.322	-0.1337	-0.0009
126	SLE FR 2	-0.2	7.43	30.09	-0.3281	-0.143	-0.0009
126	SLE FR 3	-0.19	7.36	30.13	-0.3254	-0.1344	-0.0009
126	SLE FR 4	-0.21	7.69	30.95	-0.3396	-0.1478	-0.001
126	SLE FR 5	-0.2	7.62	30.99	-0.3369	-0.1392	-0.0009
126	SLE FR 6	-0.2	7.72	31.4	-0.3412	-0.1417	-0.0009
126	SLE QP 1	-0.19	7.28	29.98	-0.322	-0.1337	-0.0009
126	SLE QP 2	-0.2	7.55	30.83	-0.3335	-0.1385	-0.0009
126	SLD 1	-0.4	11.48	39.59	-0.5074	-0.3326	-0.0018
126	SLD 2	-0.4	11.48	39.59	-0.5074	-0.3326	-0.0018
126	SLD 3	-0.33	7.33	38.45	-0.3264	-0.2581	-0.0015
126	SLD 4	-0.33	7.33	38.45	-0.3264	-0.2581	-0.0015
126	SLD 5	-0.37	15.02	35.19	-0.6602	-0.3098	-0.0017
126	SLD 6	-0.37	15.02	35.19	-0.6602	-0.3098	-0.0017
126	SLD 7	-0.12	1.19	31.38	-0.0568	-0.0613	-0.0005
126	SLD 8	-0.12	1.19	31.38	-0.0568	-0.0613	-0.0005
126	SLD 9	-0.27	13.9	30.28	-0.6102	-0.2156	-0.0013
126	SLD 10	-0.27	13.9	30.28	-0.6102	-0.2156	-0.0013
126	SLD 11	-0.02	0.07	26.47	-0.0068	0.0328	-0.0001
126	SLD 12	-0.02	0.07	26.47	-0.0068	0.0328	-0.0001
126	SLD 13	-0.07	7.76	23.21	-0.3406	-0.0189	-0.0004
126	SLD 14	-0.07	7.76	23.21	-0.3406	-0.0189	-0.0004
126	SLD 15	0.01	3.61	22.07	-0.1596	0.0557	0
126	SLD 16	0.01	3.61	22.07	-0.1596	0.0557	0
126	SLV 1	-0.69	16.71	51.38	-0.739	-0.6093	-0.0031
126	SLV 2	-0.69	16.71	51.38	-0.739	-0.6093	-0.0031
126	SLV 3	-0.5	7.07	48.58	-0.3185	-0.4197	-0.0022
126	SLV 4	-0.5	7.07	48.58	-0.3185	-0.4197	-0.0022
126	SLV 5	-0.64	24.91	41.24	-1.0928	-0.5672	-0.003
126	SLV 6	-0.64	24.91	41.24	-1.0928	-0.5672	-0.003
126	SLV 7	0	-7.21	31.91	0.3086	0.0647	0.0001
126	SLV 8	0	-7.21	31.91	0.3086	0.0647	0.0001
126	SLV 9	-0.4	22.31	29.75	-0.9756	-0.3416	-0.0019
126	SLV 10	-0.4	22.31	29.75	-0.9756	-0.3416	-0.0019
126	SLV 11	0.24	-9.82	20.42	0.4257	0.2902	0.0011
126	SLV 12	0.24	-9.82	20.42	0.4257	0.2902	0.0011
126	SLV 13	0.11	8.02	13.08	-0.3485	0.1427	0.0004
126	SLV 14	0.11	8.02	13.08	-0.3485	0.1427	0.0004
126	SLV 15	0.3	-1.62	10.28	0.0719	0.3323	0.0013
126	SLV 16	0.3	-1.62	10.28	0.0719	0.3323	0.0013
127	SLU 1	0.02	3.71	60.63	-0.1926	0.0149	0.0001
127	SLU 2	0.08	4.59	64.09	-0.2379	0.0852	0.0004
127	SLU 3	0.02	3.9	62.66	-0.2025	0.0152	0.0001
127	SLU 4	0.05	4.43	64.74	-0.2297	0.0574	0.0003
127	SLU 5	0.08	4.73	65.46	-0.2454	0.0854	0.0004
127	SLU 6	0.02	4.04	64.03	-0.21	0.0153	0.0001
127	SLU 7	0.05	4.57	66.1	-0.2371	0.0575	0.0003
127	SLU 8	0.02	3.99	63.36	-0.2075	0.0152	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
127	SLU 9	0.05	4.52	65.44	-0.2347	0.0574	0.0003
127	SLU 10	0.08	5.14	71.31	-0.2656	0.0873	0.0004
127	SLU 11	0.02	4.45	69.88	-0.2302	0.0172	0.0001
127	SLU 12	0.06	4.98	71.96	-0.2574	0.0595	0.0003
127	SLU 13	0.08	5.28	72.67	-0.2731	0.0875	0.0004
127	SLU 14	0.02	4.59	71.25	-0.2376	0.0174	0.0001
127	SLU 15	0.06	5.12	73.32	-0.2648	0.0596	0.0003
127	SLU 16	0.02	4.54	70.58	-0.2352	0.0172	0.0001
127	SLU 17	0.06	5.07	72.66	-0.2624	0.0595	0.0003
127	SLU 18	0.02	4.49	70.95	-0.2322	0.0178	0.0001
127	SLU 19	0.06	5.02	73.02	-0.2594	0.0601	0.0003
127	SLU 20	0.02	4.63	72.31	-0.2396	0.018	0.0001
127	SLU 21	0.06	5.16	74.39	-0.2668	0.0602	0.0003
127	SLU 22	0.02	4.26	68.03	-0.221	0.0168	0.0001
127	SLU 23	0.08	5.14	71.49	-0.2663	0.0872	0.0004
127	SLU 24	0.02	4.45	70.06	-0.2308	0.0171	0.0001
127	SLU 25	0.06	4.98	72.13	-0.258	0.0593	0.0003
127	SLU 26	0.08	5.28	72.85	-0.2737	0.0873	0.0004
127	SLU 27	0.02	4.59	71.43	-0.2383	0.0172	0.0001
127	SLU 28	0.06	5.12	73.5	-0.2655	0.0595	0.0003
127	SLU 29	0.02	4.54	70.76	-0.2359	0.0171	0.0001
127	SLU 30	0.06	5.07	72.83	-0.263	0.0593	0.0003
127	SLU 31	0.08	5.69	78.71	-0.2939	0.0892	0.0004
127	SLU 32	0.02	4.99	77.28	-0.2585	0.0192	0.0001
127	SLU 33	0.06	5.53	79.35	-0.2857	0.0614	0.0003
127	SLU 34	0.08	5.83	80.07	-0.3014	0.0894	0.0004
127	SLU 35	0.02	5.13	78.64	-0.266	0.0193	0.0001
127	SLU 36	0.06	5.67	80.72	-0.2931	0.0615	0.0003
127	SLU 37	0.02	5.09	77.98	-0.2635	0.0192	0.0001
127	SLU 38	0.06	5.62	80.05	-0.2907	0.0614	0.0003
127	SLU 39	0.02	5.04	78.34	-0.2605	0.0197	0.0001
127	SLU 40	0.06	5.57	80.42	-0.2877	0.062	0.0003
127	SLU 41	0.02	5.18	79.71	-0.2679	0.0199	0.0001
127	SLU 42	0.06	5.71	81.78	-0.2951	0.0621	0.0003
127	SLU 43	0.02	4.63	76.29	-0.2407	0.0187	0.0001
127	SLU 44	0.08	5.52	79.74	-0.286	0.089	0.0004
127	SLU 45	0.02	4.82	78.32	-0.2506	0.019	0.0001
127	SLU 46	0.06	5.35	80.39	-0.2778	0.0612	0.0003
127	SLU 47	0.08	5.66	81.11	-0.2935	0.0892	0.0004
127	SLU 48	0.02	4.96	79.68	-0.2581	0.0191	0.0001
127	SLU 49	0.06	5.49	81.76	-0.2852	0.0613	0.0003
127	SLU 50	0.02	4.91	79.02	-0.2556	0.019	0.0001
127	SLU 51	0.06	5.45	81.09	-0.2828	0.0612	0.0003
127	SLU 52	0.08	6.07	86.96	-0.3137	0.0911	0.0004
127	SLU 53	0.02	5.37	85.54	-0.2783	0.021	0.0001
127	SLU 54	0.06	5.9	87.61	-0.3055	0.0633	0.0003
127	SLU 55	0.08	6.21	88.33	-0.3211	0.0913	0.0004
127	SLU 56	0.02	5.51	86.9	-0.2857	0.0212	0.0001
127	SLU 57	0.06	6.04	88.98	-0.3129	0.0634	0.0003
127	SLU 58	0.02	5.46	86.24	-0.2833	0.021	0.0001
127	SLU 59	0.06	5.99	88.31	-0.3105	0.0633	0.0003
127	SLU 60	0.03	5.42	86.6	-0.2803	0.0216	0.0001
127	SLU 61	0.06	5.95	88.68	-0.3074	0.0639	0.0003
127	SLU 62	0.03	5.56	87.97	-0.2877	0.0218	0.0001
127	SLU 63	0.06	6.09	90.04	-0.3149	0.064	0.0003
127	SLU 64	0.02	5.18	83.68	-0.269	0.0206	0.0001
127	SLU 65	0.08	6.07	87.14	-0.3143	0.091	0.0004
127	SLU 66	0.02	5.37	85.71	-0.2789	0.0209	0.0001
127	SLU 67	0.06	5.9	87.79	-0.3061	0.0631	0.0003
127	SLU 68	0.08	6.21	88.51	-0.3218	0.0911	0.0004
127	SLU 69	0.02	5.51	87.08	-0.2864	0.021	0.0001
127	SLU 70	0.06	6.04	89.15	-0.3136	0.0633	0.0003
127	SLU 71	0.02	5.46	86.41	-0.2839	0.0209	0.0001
127	SLU 72	0.06	5.99	88.49	-0.3111	0.0631	0.0003
127	SLU 73	0.09	6.62	94.36	-0.342	0.093	0.0004
127	SLU 74	0.03	5.92	92.93	-0.3066	0.023	0.0001
127	SLU 75	0.06	6.45	95.01	-0.3338	0.0652	0.0003
127	SLU 76	0.09	6.76	95.73	-0.3495	0.0932	0.0004
127	SLU 77	0.03	6.06	94.3	-0.3141	0.0231	0.0001
127	SLU 78	0.06	6.59	96.37	-0.3412	0.0653	0.0003
127	SLU 79	0.03	6.01	93.63	-0.3116	0.023	0.0001
127	SLU 80	0.06	6.54	95.71	-0.3388	0.0652	0.0003
127	SLU 81	0.03	5.96	94	-0.3086	0.0235	0.0001
127	SLU 82	0.06	6.5	96.07	-0.3358	0.0658	0.0003
127	SLU 83	0.03	6.1	95.36	-0.316	0.0237	0.0001
127	SLU 84	0.06	6.64	97.44	-0.3432	0.0659	0.0003
127	SLE RA 1	0.02	3.87	62.75	-0.2007	0.0154	0.0001
127	SLE RA 2	0.06	4.46	65.05	-0.2309	0.0623	0.0003
127	SLE RA 3	0.02	3.99	64.1	-0.2073	0.0156	0.0001
127	SLE RA 4	0.04	4.35	65.48	-0.2254	0.0438	0.0002
127	SLE RA 5	0.06	4.55	65.96	-0.2359	0.0624	0.0003
127	SLE RA 6	0.02	4.09	65.01	-0.2123	0.0157	0.0001
127	SLE RA 7	0.04	4.44	66.39	-0.2304	0.0439	0.0002
127	SLE RA 8	0.02	4.05	64.57	-0.2107	0.0156	0.0001
127	SLE RA 9	0.04	4.41	65.95	-0.2288	0.0438	0.0002
127	SLE RA 10	0.06	4.82	69.86	-0.2494	0.0637	0.0003
127	SLE RA 11	0.02	4.36	68.91	-0.2258	0.017	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
127	SLE RA 12	0.04	4.71	70.3	-0.2439	0.0451	0.0002
127	SLE RA 13	0.06	4.91	70.77	-0.2543	0.0638	0.0003
127	SLE RA 14	0.02	4.45	69.82	-0.2307	0.0171	0.0001
127	SLE RA 15	0.04	4.8	71.21	-0.2489	0.0452	0.0002
127	SLE RA 16	0.02	4.42	69.38	-0.2291	0.017	0.0001
127	SLE RA 17	0.04	4.77	70.76	-0.2472	0.0451	0.0002
127	SLE RA 18	0.02	4.39	69.62	-0.2271	0.0174	0.0001
127	SLE RA 19	0.04	4.74	71.01	-0.2452	0.0455	0.0002
127	SLE RA 20	0.02	4.48	70.53	-0.2321	0.0175	0.0001
127	SLE RA 21	0.04	4.83	71.92	-0.2502	0.0456	0.0002
127	SLE FR 1	0.02	3.87	62.75	-0.2007	0.0154	0.0001
127	SLE FR 2	0.03	3.98	63.21	-0.2068	0.0248	0.0001
127	SLE FR 3	0.02	3.9	63.11	-0.2027	0.0154	0.0001
127	SLE FR 4	0.03	4.14	65.27	-0.2147	0.0254	0.0001
127	SLE FR 5	0.02	4.06	65.17	-0.2106	0.016	0.0001
127	SLE FR 6	0.02	4.13	66.19	-0.2139	0.0164	0.0001
127	SLE QP 1	0.02	3.87	62.75	-0.2007	0.0154	0.0001
127	SLE QP 2	0.02	4.02	64.81	-0.2086	0.016	0.0001
127	SLD 1	0.26	4.83	50.22	-0.2369	0.2428	0.0011
127	SLD 2	0.26	4.83	50.22	-0.2369	0.2428	0.0011
127	SLD 3	0.16	1.03	45.55	-0.068	0.1462	0.0007
127	SLD 4	0.16	1.03	45.55	-0.068	0.1462	0.0007
127	SLD 5	0.23	10.03	67.52	-0.4732	0.2305	0.0011
127	SLD 6	0.23	10.03	67.52	-0.4732	0.2305	0.0011
127	SLD 7	-0.08	-2.64	51.94	0.0896	-0.0915	-0.0004
127	SLD 8	-0.08	-2.64	51.94	0.0896	-0.0915	-0.0004
127	SLD 9	0.12	10.69	77.68	-0.5069	0.1235	0.0006
127	SLD 10	0.12	10.69	77.68	-0.5069	0.1235	0.0006
127	SLD 11	-0.2	-1.99	62.1	0.0559	-0.1985	-0.0009
127	SLD 12	-0.2	-1.99	62.1	0.0559	-0.1985	-0.0009
127	SLD 13	-0.13	7.02	84.07	-0.3492	-0.1142	-0.0005
127	SLD 14	-0.13	7.02	84.07	-0.3492	-0.1142	-0.0005
127	SLD 15	-0.22	3.21	79.4	-0.1804	-0.2108	-0.001
127	SLD 16	-0.22	3.21	79.4	-0.1804	-0.2108	-0.001
127	SLV 1	0.6	5.88	30.73	-0.2732	0.5679	0.0027
127	SLV 2	0.6	5.88	30.73	-0.2732	0.5679	0.0027
127	SLV 3	0.35	-2.98	19.7	0.1202	0.3219	0.0015
127	SLV 4	0.35	-2.98	19.7	0.1202	0.3219	0.0015
127	SLV 5	0.56	18.01	71.32	-0.8248	0.5547	0.0026
127	SLV 6	0.56	18.01	71.32	-0.8248	0.5547	0.0026
127	SLV 7	-0.25	-11.51	34.54	0.4868	-0.2654	-0.0012
127	SLV 8	-0.25	-11.51	34.54	0.4868	-0.2654	-0.0012
127	SLV 9	0.28	19.56	95.08	-0.9041	0.2974	0.0014
127	SLV 10	0.28	19.56	95.08	-0.9041	0.2974	0.0014
127	SLV 11	-0.52	-9.97	58.3	0.4075	-0.5227	-0.0024
127	SLV 12	-0.52	-9.97	58.3	0.4075	-0.5227	-0.0024
127	SLV 13	-0.32	11.03	109.92	-0.5375	-0.2899	-0.0014
127	SLV 14	-0.32	11.03	109.92	-0.5375	-0.2899	-0.0014
127	SLV 15	-0.56	2.17	98.89	-0.144	-0.5359	-0.0025
127	SLV 16	-0.56	2.17	98.89	-0.144	-0.5359	-0.0025
128	SLU 1	0.05	-2.21	41.67	0.1048	0.0359	0.0001
128	SLU 2	0.05	-2.61	41.8	0.1233	0.0362	0.0001
128	SLU 3	0.05	-1.9	42.92	0.0901	0.0372	0.0001
128	SLU 4	0.05	-2.14	43	0.1012	0.0374	0.0001
128	SLU 5	0.05	-2.24	42.65	0.1055	0.0371	0.0001
128	SLU 6	0.05	-1.53	43.77	0.0723	0.0381	0.0001
128	SLU 7	0.05	-1.77	43.85	0.0834	0.0382	0.0001
128	SLU 8	0.05	-1.47	43.37	0.0692	0.0377	0.0001
128	SLU 9	0.05	-1.71	43.44	0.0803	0.0378	0.0001
128	SLU 10	0.05	-2.95	49.55	0.1401	0.0369	0.0001
128	SLU 11	0.05	-2.24	50.67	0.1069	0.0379	0.0001
128	SLU 12	0.05	-2.48	50.75	0.118	0.0381	0.0001
128	SLU 13	0.05	-2.58	50.4	0.1223	0.0378	0.0001
128	SLU 14	0.05	-1.87	51.52	0.0891	0.0388	0.0001
128	SLU 15	0.05	-2.11	51.6	0.1002	0.0389	0.0001
128	SLU 16	0.05	-1.81	51.12	0.086	0.0384	0.0001
128	SLU 17	0.05	-2.05	51.19	0.0971	0.0385	0.0001
128	SLU 18	0.05	-2.7	52.74	0.1289	0.0369	0
128	SLU 19	0.05	-2.94	52.82	0.1399	0.0371	0
128	SLU 20	0.05	-2.33	53.59	0.1111	0.0378	0.0001
128	SLU 21	0.05	-2.57	53.67	0.1221	0.038	0.0001
128	SLU 22	0.06	-2.14	47.05	0.1032	0.0402	0.0001
128	SLU 23	0.06	-2.54	47.17	0.1217	0.0405	0.0001
128	SLU 24	0.06	-1.83	48.3	0.0885	0.0415	0.0001
128	SLU 25	0.06	-2.07	48.37	0.0996	0.0417	0.0001
128	SLU 26	0.06	-2.17	48.02	0.1039	0.0414	0.0001
128	SLU 27	0.06	-1.46	49.14	0.0707	0.0424	0.0001
128	SLU 28	0.06	-1.7	49.22	0.0818	0.0426	0.0001
128	SLU 29	0.06	-1.4	48.74	0.0676	0.042	0.0001
128	SLU 30	0.06	-1.64	48.82	0.0787	0.0421	0.0001
128	SLU 31	0.06	-2.88	54.93	0.1385	0.0412	0.0001
128	SLU 32	0.06	-2.18	56.05	0.1053	0.0422	0.0001
128	SLU 33	0.06	-2.41	56.12	0.1164	0.0424	0.0001
128	SLU 34	0.06	-2.51	55.77	0.1207	0.0421	0.0001
128	SLU 35	0.06	-1.81	56.9	0.0875	0.0431	0.0001
128	SLU 36	0.06	-2.04	56.97	0.0986	0.0433	0.0001
128	SLU 37	0.06	-1.75	56.49	0.0845	0.0427	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
128	SLU 38	0.06	-1.98	56.57	0.0955	0.0428	0.0001
128	SLU 39	0.06	-2.63	58.12	0.1273	0.0412	0.0001
128	SLU 40	0.06	-2.87	58.2	0.1384	0.0414	0.0001
128	SLU 41	0.06	-2.26	58.97	0.1095	0.0421	0.0001
128	SLU 42	0.06	-2.5	59.04	0.1206	0.0423	0.0001
128	SLU 43	0.06	-2.9	52.33	0.1368	0.0452	0.0001
128	SLU 44	0.06	-3.29	52.46	0.1553	0.0455	0.0001
128	SLU 45	0.06	-2.59	53.58	0.1221	0.0465	0.0001
128	SLU 46	0.06	-2.82	53.65	0.1332	0.0467	0.0001
128	SLU 47	0.06	-2.92	53.3	0.1375	0.0463	0.0001
128	SLU 48	0.07	-2.22	54.43	0.1043	0.0474	0.0001
128	SLU 49	0.07	-2.45	54.5	0.1153	0.0475	0.0001
128	SLU 50	0.06	-2.16	54.02	0.1012	0.047	0.0001
128	SLU 51	0.07	-2.39	54.1	0.1123	0.0471	0.0001
128	SLU 52	0.06	-3.64	60.21	0.1721	0.0462	0.0001
128	SLU 53	0.06	-2.93	61.33	0.1389	0.0472	0.0001
128	SLU 54	0.06	-3.17	61.41	0.15	0.0474	0.0001
128	SLU 55	0.06	-3.27	61.06	0.1543	0.0471	0.0001
128	SLU 56	0.07	-2.56	62.18	0.1211	0.0481	0.0001
128	SLU 57	0.07	-2.8	62.25	0.1322	0.0482	0.0001
128	SLU 58	0.07	-2.5	61.78	0.118	0.0477	0.0001
128	SLU 59	0.07	-2.74	61.85	0.1291	0.0478	0.0001
128	SLU 60	0.06	-3.39	63.4	0.1608	0.0462	0.0001
128	SLU 61	0.06	-3.62	63.48	0.1719	0.0464	0.0001
128	SLU 62	0.06	-3.02	64.25	0.143	0.0471	0.0001
128	SLU 63	0.06	-3.25	64.33	0.1541	0.0472	0.0001
128	SLU 64	0.07	-2.83	57.7	0.1352	0.0495	0.0001
128	SLU 65	0.07	-3.23	57.83	0.1537	0.0498	0.0001
128	SLU 66	0.07	-2.52	58.95	0.1205	0.0508	0.0001
128	SLU 67	0.07	-2.76	59.03	0.1316	0.051	0.0001
128	SLU 68	0.07	-2.86	58.68	0.1359	0.0507	0.0001
128	SLU 69	0.07	-2.15	59.8	0.1027	0.0517	0.0001
128	SLU 70	0.07	-2.39	59.88	0.1138	0.0519	0.0001
128	SLU 71	0.07	-2.09	59.4	0.0996	0.0513	0.0001
128	SLU 72	0.07	-2.33	59.48	0.1107	0.0514	0.0001
128	SLU 73	0.07	-3.57	65.58	0.1705	0.0505	0.0001
128	SLU 74	0.07	-2.86	66.7	0.1373	0.0515	0.0001
128	SLU 75	0.07	-3.1	66.78	0.1484	0.0517	0.0001
128	SLU 76	0.07	-3.2	66.43	0.1527	0.0514	0.0001
128	SLU 77	0.07	-2.49	67.55	0.1195	0.0524	0.0001
128	SLU 78	0.07	-2.73	67.63	0.1306	0.0526	0.0001
128	SLU 79	0.07	-2.43	67.15	0.1164	0.052	0.0001
128	SLU 80	0.07	-2.67	67.23	0.1275	0.0521	0.0001
128	SLU 81	0.07	-3.32	68.78	0.1593	0.0505	0.0001
128	SLU 82	0.07	-3.56	68.85	0.1704	0.0507	0.0001
128	SLU 83	0.07	-2.95	69.62	0.1415	0.0514	0.0001
128	SLU 84	0.07	-3.19	69.7	0.1525	0.0516	0.0001
128	SLE RA 1	0.05	-2.19	43.21	0.1044	0.0372	0.0001
128	SLE RA 2	0.05	-2.46	43.29	0.1167	0.0373	0.0001
128	SLE RA 3	0.05	-1.98	44.04	0.0945	0.038	0.0001
128	SLE RA 4	0.05	-2.14	44.09	0.1019	0.0381	0.0001
128	SLE RA 5	0.05	-2.21	43.86	0.1048	0.0379	0.0001
128	SLE RA 6	0.05	-1.74	44.6	0.0827	0.0386	0.0001
128	SLE RA 7	0.05	-1.9	44.66	0.0901	0.0387	0.0001
128	SLE RA 8	0.05	-1.7	44.34	0.0806	0.0383	0.0001
128	SLE RA 9	0.05	-1.86	44.39	0.088	0.0384	0.0001
128	SLE RA 10	0.05	-2.68	48.46	0.1279	0.0378	0.0001
128	SLE RA 11	0.05	-2.21	49.21	0.1058	0.0385	0.0001
128	SLE RA 12	0.05	-2.37	49.26	0.1132	0.0386	0.0001
128	SLE RA 13	0.05	-2.44	49.02	0.116	0.0384	0.0001
128	SLE RA 14	0.05	-1.97	49.77	0.0939	0.0391	0.0001
128	SLE RA 15	0.05	-2.12	49.82	0.1013	0.0392	0.0001
128	SLE RA 16	0.05	-1.93	49.5	0.0918	0.0388	0.0001
128	SLE RA 17	0.05	-2.09	49.56	0.0992	0.0389	0.0001
128	SLE RA 18	0.05	-2.52	50.59	0.1204	0.0378	0.0001
128	SLE RA 19	0.05	-2.68	50.64	0.1278	0.0379	0.0001
128	SLE RA 20	0.05	-2.27	51.15	0.1085	0.0384	0.0001
128	SLE RA 21	0.05	-2.43	51.2	0.1159	0.0385	0.0001
128	SLE FR 1	0.05	-2.19	43.21	0.1044	0.0372	0.0001
128	SLE FR 2	0.05	-2.24	43.22	0.1068	0.0372	0.0001
128	SLE FR 3	0.05	-2.09	43.43	0.0996	0.0374	0.0001
128	SLE FR 4	0.05	-2.34	45.44	0.1116	0.0374	0.0001
128	SLE FR 5	0.05	-2.19	45.65	0.1044	0.0376	0.0001
128	SLE FR 6	0.05	-2.36	46.9	0.1124	0.0375	0.0001
128	SLE QP 1	0.05	-2.19	43.21	0.1044	0.0372	0.0001
128	SLE QP 2	0.05	-2.29	45.42	0.1092	0.0374	0.0001
128	SLD 1	0.24	-1.5	49.17	0.0726	0.1882	0.0004
128	SLD 2	0.24	-1.5	49.17	0.0726	0.1882	0.0004
128	SLD 3	0.27	-4.5	49.83	0.2153	0.2114	0.0004
128	SLD 4	0.27	-4.5	49.83	0.2153	0.2114	0.0004
128	SLD 5	0.06	2.5	45.54	-0.1182	0.0474	0.0001
128	SLD 6	0.06	2.5	45.54	-0.1182	0.0474	0.0001
128	SLD 7	0.16	-7.51	47.75	0.3574	0.1248	0.0003
128	SLD 8	0.16	-7.51	47.75	0.3574	0.1248	0.0003
128	SLD 9	-0.06	2.93	43.1	-0.139	-0.0501	-0.0001
128	SLD 10	-0.06	2.93	43.1	-0.139	-0.0501	-0.0001
128	SLD 11	0.04	-7.09	45.3	0.3365	0.0273	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
128	SLD 12	0.04	-7.09	45.3	0.3365	0.0273	0.0001
128	SLD 13	-0.17	-0.08	41.01	0.0031	-0.1367	-0.0003
128	SLD 14	-0.17	-0.08	41.01	0.0031	-0.1367	-0.0003
128	SLD 15	-0.14	-3.08	41.67	0.1457	-0.1135	-0.0003
128	SLD 16	-0.14	-3.08	41.67	0.1457	-0.1135	-0.0003
128	SLV 1	0.52	-0.46	54.24	0.0245	0.4164	0.0009
128	SLV 2	0.52	-0.46	54.24	0.0245	0.4164	0.0009
128	SLV 3	0.6	-7.48	55.8	0.3581	0.4738	0.001
128	SLV 4	0.6	-7.48	55.8	0.3581	0.4738	0.001
128	SLV 5	0.08	8.91	45.69	-0.4222	0.064	0.0001
128	SLV 6	0.08	8.91	45.69	-0.4222	0.064	0.0001
128	SLV 7	0.33	-14.5	50.91	0.6898	0.2554	0.0006
128	SLV 8	0.33	-14.5	50.91	0.6898	0.2554	0.0006
128	SLV 9	-0.22	9.92	39.93	-0.4714	-0.1807	-0.0004
128	SLV 10	-0.22	9.92	39.93	-0.4714	-0.1807	-0.0004
128	SLV 11	0.02	-13.49	45.15	0.6405	0.0107	0
128	SLV 12	0.02	-13.49	45.15	0.6405	0.0107	0
128	SLV 13	-0.49	2.9	35.04	-0.1397	-0.3991	-0.0009
128	SLV 14	-0.49	2.9	35.04	-0.1397	-0.3991	-0.0009
128	SLV 15	-0.42	-4.12	36.6	0.1939	-0.3417	-0.0007
128	SLV 16	-0.42	-4.12	36.6	0.1939	-0.3417	-0.0007
129	SLU 1	0.03	0.65	8.93	-0.0065	0.0186	0.0001
129	SLU 2	0.03	0.64	8.93	-0.0061	0.0191	0.0001
129	SLU 3	0.03	0.66	9.02	-0.0068	0.0191	0.0001
129	SLU 4	0.03	0.65	9.02	-0.0066	0.0194	0.0001
129	SLU 5	0.03	0.64	8.97	-0.0065	0.0194	0.0001
129	SLU 6	0.03	0.66	9.07	-0.0072	0.0194	0.0001
129	SLU 7	0.03	0.65	9.07	-0.007	0.0197	0.0001
129	SLU 8	0.03	0.65	9.02	-0.0073	0.0192	0.0001
129	SLU 9	0.03	0.64	9.02	-0.007	0.0195	0.0001
129	SLU 10	0.04	0.79	11.86	-0.0094	0.0243	0.0002
129	SLU 11	0.04	0.82	11.95	-0.01	0.0243	0.0002
129	SLU 12	0.04	0.81	11.95	-0.0098	0.0246	0.0002
129	SLU 13	0.04	0.79	11.9	-0.0097	0.0246	0.0002
129	SLU 14	0.04	0.82	11.99	-0.0104	0.0246	0.0002
129	SLU 15	0.04	0.81	11.99	-0.0102	0.0249	0.0002
129	SLU 16	0.04	0.81	11.94	-0.0105	0.0244	0.0002
129	SLU 17	0.04	0.8	11.94	-0.0103	0.0247	0.0002
129	SLU 18	0.04	0.87	13.11	-0.0111	0.026	0.0002
129	SLU 19	0.04	0.86	13.11	-0.0109	0.0264	0.0002
129	SLU 20	0.04	0.87	13.15	-0.0115	0.0263	0.0002
129	SLU 21	0.04	0.86	13.15	-0.0113	0.0266	0.0002
129	SLU 22	0.03	0.75	9.72	-0.0078	0.021	0.0002
129	SLU 23	0.03	0.73	9.72	-0.0075	0.0216	0.0002
129	SLU 24	0.03	0.76	9.81	-0.0081	0.0215	0.0002
129	SLU 25	0.03	0.75	9.81	-0.0079	0.0218	0.0002
129	SLU 26	0.03	0.73	9.76	-0.0078	0.0219	0.0002
129	SLU 27	0.03	0.76	9.86	-0.0085	0.0218	0.0002
129	SLU 28	0.03	0.75	9.86	-0.0083	0.0221	0.0002
129	SLU 29	0.03	0.75	9.81	-0.0086	0.0216	0.0002
129	SLU 30	0.03	0.74	9.81	-0.0084	0.022	0.0002
129	SLU 31	0.04	0.89	12.65	-0.0107	0.0268	0.0002
129	SLU 32	0.04	0.91	12.74	-0.0113	0.0267	0.0002
129	SLU 33	0.04	0.9	12.74	-0.0111	0.027	0.0002
129	SLU 34	0.04	0.89	12.69	-0.011	0.0271	0.0002
129	SLU 35	0.04	0.91	12.78	-0.0117	0.027	0.0002
129	SLU 36	0.04	0.9	12.79	-0.0115	0.0273	0.0002
129	SLU 37	0.04	0.9	12.74	-0.0118	0.0268	0.0002
129	SLU 38	0.04	0.89	12.74	-0.0116	0.0271	0.0002
129	SLU 39	0.04	0.97	13.9	-0.0124	0.0285	0.0002
129	SLU 40	0.04	0.96	13.9	-0.0122	0.0288	0.0002
129	SLU 41	0.04	0.97	13.95	-0.0128	0.0288	0.0002
129	SLU 42	0.04	0.96	13.95	-0.0126	0.0291	0.0002
129	SLU 43	0.03	0.81	11.33	-0.008	0.0234	0.0002
129	SLU 44	0.03	0.8	11.33	-0.0077	0.0239	0.0002
129	SLU 45	0.03	0.82	11.43	-0.0083	0.0238	0.0002
129	SLU 46	0.03	0.81	11.43	-0.0081	0.0242	0.0002
129	SLU 47	0.03	0.8	11.38	-0.008	0.0242	0.0002
129	SLU 48	0.03	0.82	11.47	-0.0087	0.0241	0.0002
129	SLU 49	0.03	0.81	11.47	-0.0085	0.0245	0.0002
129	SLU 50	0.03	0.81	11.42	-0.0088	0.024	0.0002
129	SLU 51	0.03	0.8	11.42	-0.0086	0.0243	0.0002
129	SLU 52	0.04	0.95	14.26	-0.0109	0.0291	0.0002
129	SLU 53	0.04	0.98	14.35	-0.0115	0.029	0.0002
129	SLU 54	0.04	0.97	14.36	-0.0113	0.0293	0.0002
129	SLU 55	0.04	0.95	14.31	-0.0112	0.0294	0.0002
129	SLU 56	0.04	0.98	14.4	-0.0119	0.0293	0.0002
129	SLU 57	0.04	0.97	14.4	-0.0117	0.0296	0.0002
129	SLU 58	0.04	0.97	14.35	-0.012	0.0292	0.0002
129	SLU 59	0.04	0.96	14.35	-0.0118	0.0295	0.0002
129	SLU 60	0.05	1.03	15.52	-0.0126	0.0308	0.0002
129	SLU 61	0.05	1.03	15.52	-0.0124	0.0311	0.0002
129	SLU 62	0.05	1.03	15.56	-0.013	0.0311	0.0002
129	SLU 63	0.05	1.03	15.56	-0.0128	0.0314	0.0003
129	SLU 64	0.04	0.91	12.12	-0.0094	0.0258	0.0002
129	SLU 65	0.04	0.89	12.13	-0.009	0.0263	0.0002
129	SLU 66	0.04	0.92	12.22	-0.0096	0.0263	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
129	SLU 67	0.04	0.91	12.22	-0.0094	0.0266	0.0002
129	SLU 68	0.04	0.89	12.17	-0.0093	0.0266	0.0002
129	SLU 69	0.04	0.92	12.26	-0.01	0.0266	0.0002
129	SLU 70	0.04	0.91	12.26	-0.0098	0.0269	0.0002
129	SLU 71	0.04	0.91	12.21	-0.0101	0.0264	0.0002
129	SLU 72	0.04	0.9	12.21	-0.0099	0.0267	0.0002
129	SLU 73	0.05	1.05	15.05	-0.0122	0.0315	0.0002
129	SLU 74	0.05	1.07	15.15	-0.0129	0.0315	0.0002
129	SLU 75	0.05	1.07	15.15	-0.0126	0.0318	0.0003
129	SLU 76	0.05	1.05	15.1	-0.0126	0.0318	0.0003
129	SLU 77	0.05	1.07	15.19	-0.0132	0.0318	0.0002
129	SLU 78	0.05	1.07	15.19	-0.013	0.0321	0.0003
129	SLU 79	0.05	1.06	15.14	-0.0133	0.0316	0.0002
129	SLU 80	0.05	1.06	15.14	-0.0131	0.0319	0.0003
129	SLU 81	0.05	1.13	16.31	-0.014	0.0332	0.0003
129	SLU 82	0.05	1.12	16.31	-0.0137	0.0335	0.0003
129	SLU 83	0.05	1.13	16.35	-0.0143	0.0335	0.0003
129	SLU 84	0.05	1.12	16.35	-0.0141	0.0338	0.0003
129	SLE RA 1	0.03	0.68	9.15	-0.0069	0.0193	0.0001
129	SLE RA 2	0.03	0.67	9.15	-0.0067	0.0197	0.0001
129	SLE RA 3	0.03	0.68	9.22	-0.0071	0.0196	0.0001
129	SLE RA 4	0.03	0.68	9.22	-0.0069	0.0198	0.0001
129	SLE RA 5	0.03	0.67	9.18	-0.0069	0.0199	0.0001
129	SLE RA 6	0.03	0.68	9.25	-0.0073	0.0198	0.0001
129	SLE RA 7	0.03	0.68	9.25	-0.0072	0.02	0.0001
129	SLE RA 8	0.03	0.68	9.21	-0.0074	0.0197	0.0001
129	SLE RA 9	0.03	0.67	9.21	-0.0072	0.0199	0.0001
129	SLE RA 10	0.03	0.77	11.11	-0.0088	0.0231	0.0002
129	SLE RA 11	0.03	0.79	11.17	-0.0092	0.0231	0.0002
129	SLE RA 12	0.03	0.78	11.17	-0.0091	0.0233	0.0002
129	SLE RA 13	0.03	0.77	11.13	-0.009	0.0233	0.0002
129	SLE RA 14	0.03	0.79	11.2	-0.0095	0.0233	0.0002
129	SLE RA 15	0.03	0.78	11.2	-0.0093	0.0235	0.0002
129	SLE RA 16	0.03	0.78	11.16	-0.0095	0.0232	0.0002
129	SLE RA 17	0.03	0.78	11.16	-0.0094	0.0234	0.0002
129	SLE RA 18	0.04	0.83	11.94	-0.01	0.0243	0.0002
129	SLE RA 19	0.04	0.82	11.94	-0.0098	0.0245	0.0002
129	SLE RA 20	0.04	0.83	11.97	-0.0102	0.0245	0.0002
129	SLE RA 21	0.04	0.82	11.97	-0.0101	0.0247	0.0002
129	SLE FR 1	0.03	0.68	9.15	-0.0069	0.0193	0.0001
129	SLE FR 2	0.03	0.67	9.15	-0.0069	0.0194	0.0001
129	SLE FR 3	0.03	0.68	9.16	-0.007	0.0194	0.0001
129	SLE FR 4	0.03	0.72	9.99	-0.0078	0.0209	0.0002
129	SLE FR 5	0.03	0.72	10	-0.0079	0.0209	0.0002
129	SLE FR 6	0.03	0.75	10.55	-0.0084	0.0218	0.0002
129	SLE QP 1	0.03	0.68	9.15	-0.0069	0.0193	0.0001
129	SLE QP 2	0.03	0.72	9.99	-0.0078	0.0208	0.0002
129	SLD 1	0.19	0.58	9.86	-0.0037	0.1568	0.001
129	SLD 2	0.19	0.58	9.86	-0.0037	0.1568	0.001
129	SLD 3	0.21	-1.67	8.69	0.0596	0.1805	0.0012
129	SLD 4	0.21	-1.67	8.69	0.0596	0.1805	0.0012
129	SLD 5	0.03	4.09	11.74	-0.1027	0.0256	0.0002
129	SLD 6	0.03	4.09	11.74	-0.1027	0.0256	0.0002
129	SLD 7	0.13	-3.41	7.81	0.1085	0.1047	0.0007
129	SLD 8	0.13	-3.41	7.81	0.1085	0.1047	0.0007
129	SLD 9	-0.07	4.86	12.17	-0.1242	-0.0631	-0.0004
129	SLD 10	-0.07	4.86	12.17	-0.1242	-0.0631	-0.0004
129	SLD 11	0.02	-2.65	8.24	0.0871	0.016	0.0001
129	SLD 12	0.02	-2.65	8.24	0.0871	0.016	0.0001
129	SLD 13	-0.16	3.11	11.29	-0.0753	-0.1389	-0.0009
129	SLD 14	-0.16	3.11	11.29	-0.0753	-0.1389	-0.0009
129	SLD 15	-0.13	0.86	10.11	-0.0119	-0.1152	-0.0007
129	SLD 16	-0.13	0.86	10.11	-0.0119	-0.1152	-0.0007
129	SLV 1	0.42	0.39	9.68	0.0019	0.3637	0.0023
129	SLV 2	0.42	0.39	9.68	0.0019	0.3637	0.0023
129	SLV 3	0.49	-4.9	6.89	0.1506	0.422	0.0027
129	SLV 4	0.49	-4.9	6.89	0.1506	0.422	0.0027
129	SLV 5	0.04	8.64	14.12	-0.2305	0.0353	0.0002
129	SLV 6	0.04	8.64	14.12	-0.2305	0.0353	0.0002
129	SLV 7	0.27	-8.98	4.83	0.2653	0.2295	0.0015
129	SLV 8	0.27	-8.98	4.83	0.2653	0.2295	0.0015
129	SLV 9	-0.22	10.43	15.14	-0.281	-0.1879	-0.0012
129	SLV 10	-0.22	10.43	15.14	-0.281	-0.1879	-0.0012
129	SLV 11	0.02	-7.2	5.86	0.2148	0.0063	0.0001
129	SLV 12	0.02	-7.2	5.86	0.2148	0.0063	0.0001
129	SLV 13	-0.44	6.34	13.08	-0.1663	-0.3803	-0.0024
129	SLV 14	-0.44	6.34	13.08	-0.1663	-0.3803	-0.0024
129	SLV 15	-0.37	1.06	10.3	-0.0175	-0.3221	-0.002
129	SLV 16	-0.37	1.06	10.3	-0.0175	-0.3221	-0.002
130	SLU 1	0.15	-0.97	18.31	0.1563	0.0912	0
130	SLU 2	0.16	1.24	18.12	0.0666	0.1002	0
130	SLU 3	0.15	-1.23	18.79	0.1709	0.0941	0.0001
130	SLU 4	0.16	0.1	18.68	0.1171	0.0995	0.0001
130	SLU 5	0.16	0.92	18.43	0.0822	0.1017	0.0001
130	SLU 6	0.15	-1.55	19.11	0.1865	0.0956	0.0001
130	SLU 7	0.16	-0.22	18.99	0.1327	0.101	0.0001
130	SLU 8	0.15	-1.6	18.94	0.1876	0.0943	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
130	SLU 9	0.16	-0.28	18.82	0.1337	0.0997	0.0001
130	SLU 10	0.18	1.2	20.54	0.0857	0.1164	0.0001
130	SLU 11	0.18	-1.27	21.21	0.19	0.1102	0.0001
130	SLU 12	0.18	0.06	21.1	0.1362	0.1156	0.0001
130	SLU 13	0.18	0.88	20.85	0.1013	0.1179	0.0001
130	SLU 14	0.18	-1.59	21.53	0.2056	0.1118	0.0001
130	SLU 15	0.18	-0.26	21.41	0.1518	0.1172	0.0001
130	SLU 16	0.18	-1.64	21.36	0.2067	0.1105	0.0001
130	SLU 17	0.18	-0.32	21.24	0.1528	0.1159	0.0001
130	SLU 18	0.18	-1.02	21.77	0.1836	0.1143	0.0001
130	SLU 19	0.19	0.3	21.65	0.1298	0.1197	0.0001
130	SLU 20	0.18	-1.34	22.08	0.1992	0.1159	0.0001
130	SLU 21	0.19	-0.02	21.97	0.1454	0.1213	0.0001
130	SLU 22	0.17	-1.12	20.5	0.1785	0.1058	0.0001
130	SLU 23	0.18	1.09	20.3	0.0887	0.1148	0.0001
130	SLU 24	0.17	-1.38	20.98	0.193	0.1087	0.0001
130	SLU 25	0.18	-0.06	20.86	0.1392	0.1141	0.0001
130	SLU 26	0.18	0.77	20.62	0.1043	0.1163	0.0001
130	SLU 27	0.18	-1.7	21.3	0.2086	0.1102	0.0001
130	SLU 28	0.18	-0.38	21.18	0.1548	0.1156	0.0001
130	SLU 29	0.17	-1.76	21.13	0.2097	0.1089	0.0001
130	SLU 30	0.18	-0.43	21.01	0.1558	0.1143	0.0001
130	SLU 31	0.2	1.05	22.72	0.1078	0.131	0.0001
130	SLU 32	0.2	-1.42	23.4	0.2121	0.1248	0.0001
130	SLU 33	0.21	-0.1	23.28	0.1583	0.1302	0.0001
130	SLU 34	0.21	0.73	23.04	0.1234	0.1325	0.0001
130	SLU 35	0.2	-1.74	23.72	0.2277	0.1264	0.0001
130	SLU 36	0.21	-0.42	23.6	0.1739	0.1318	0.0001
130	SLU 37	0.2	-1.8	23.55	0.2288	0.1251	0.0001
130	SLU 38	0.21	-0.47	23.43	0.1749	0.1305	0.0001
130	SLU 39	0.21	-1.18	23.95	0.2058	0.1289	0.0001
130	SLU 40	0.21	0.15	23.84	0.1519	0.1343	0.0001
130	SLU 41	0.21	-1.5	24.27	0.2214	0.1305	0.0001
130	SLU 42	0.21	-0.17	24.15	0.1675	0.1359	0.0001
130	SLU 43	0.18	-1.2	23.05	0.1957	0.1135	0.0001
130	SLU 44	0.19	1	22.86	0.1059	0.1225	0.0001
130	SLU 45	0.19	-1.46	23.54	0.2102	0.1164	0.0001
130	SLU 46	0.19	-0.14	23.42	0.1564	0.1218	0.0001
130	SLU 47	0.19	0.69	23.18	0.1215	0.1241	0.0001
130	SLU 48	0.19	-1.78	23.85	0.2258	0.118	0.0001
130	SLU 49	0.19	-0.46	23.74	0.172	0.1234	0.0001
130	SLU 50	0.19	-1.84	23.68	0.2269	0.1167	0.0001
130	SLU 51	0.19	-0.52	23.57	0.173	0.1221	0.0001
130	SLU 52	0.22	0.96	25.28	0.125	0.1387	0.0001
130	SLU 53	0.21	-1.5	25.96	0.2293	0.1326	0.0001
130	SLU 54	0.22	-0.18	25.84	0.1755	0.138	0.0001
130	SLU 55	0.22	0.65	25.6	0.1406	0.1403	0.0001
130	SLU 56	0.21	-1.82	26.27	0.2449	0.1342	0.0001
130	SLU 57	0.22	-0.5	26.16	0.1911	0.1395	0.0001
130	SLU 58	0.21	-1.88	26.1	0.246	0.1329	0.0001
130	SLU 59	0.22	-0.56	25.99	0.1921	0.1382	0.0001
130	SLU 60	0.22	-1.26	26.51	0.2229	0.1367	0.0001
130	SLU 61	0.22	0.06	26.39	0.1691	0.142	0.0001
130	SLU 62	0.22	-1.58	26.83	0.2385	0.1382	0.0001
130	SLU 63	0.23	-0.25	26.71	0.1847	0.1436	0.0001
130	SLU 64	0.2	-1.36	25.24	0.2178	0.1282	0.0001
130	SLU 65	0.21	0.85	25.05	0.128	0.1371	0.0001
130	SLU 66	0.21	-1.62	25.72	0.2323	0.131	0.0001
130	SLU 67	0.22	-0.29	25.61	0.1785	0.1364	0.0001
130	SLU 68	0.22	0.53	25.36	0.1436	0.1387	0.0001
130	SLU 69	0.21	-1.94	26.04	0.248	0.1326	0.0001
130	SLU 70	0.22	-0.61	25.92	0.1941	0.138	0.0001
130	SLU 71	0.21	-1.99	25.87	0.249	0.1313	0.0001
130	SLU 72	0.22	-0.67	25.75	0.1952	0.1367	0.0001
130	SLU 73	0.24	0.81	27.47	0.1471	0.1533	0.0001
130	SLU 74	0.24	-1.66	28.14	0.2514	0.1472	0.0001
130	SLU 75	0.24	-0.33	28.03	0.1976	0.1526	0.0001
130	SLU 76	0.24	0.49	27.78	0.1627	0.1549	0.0001
130	SLU 77	0.24	-1.98	28.46	0.2671	0.1488	0.0001
130	SLU 78	0.24	-0.65	28.34	0.2132	0.1542	0.0001
130	SLU 79	0.24	-2.03	28.29	0.2681	0.1475	0.0001
130	SLU 80	0.24	-0.71	28.17	0.2143	0.1528	0.0001
130	SLU 81	0.24	-1.41	28.7	0.2451	0.1513	0.0001
130	SLU 82	0.25	-0.09	28.58	0.1912	0.1566	0.0001
130	SLU 83	0.24	-1.73	29.01	0.2607	0.1528	0.0001
130	SLU 84	0.25	-0.41	28.9	0.2068	0.1582	0.0001
130	SLE RA 1	0.15	-1.01	18.93	0.1627	0.0954	0.0001
130	SLE RA 2	0.16	0.46	18.8	0.1028	0.1014	0.0001
130	SLE RA 3	0.16	-1.18	19.26	0.1724	0.0973	0.0001
130	SLE RA 4	0.16	-0.3	19.18	0.1365	0.1009	0.0001
130	SLE RA 5	0.16	0.25	19.02	0.1132	0.1024	0.0001
130	SLE RA 6	0.16	-1.4	19.47	0.1828	0.0983	0.0001
130	SLE RA 7	0.16	-0.51	19.39	0.1469	0.1019	0.0001
130	SLE RA 8	0.16	-1.43	19.35	0.1835	0.0975	0.0001
130	SLE RA 9	0.16	-0.55	19.28	0.1476	0.101	0.0001
130	SLE RA 10	0.18	0.44	20.42	0.1156	0.1121	0.0001
130	SLE RA 11	0.17	-1.21	20.87	0.1851	0.1081	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
130	SLE RA 12	0.18	-0.33	20.79	0.1492	0.1117	0.0001
130	SLE RA 13	0.18	0.22	20.63	0.126	0.1132	0.0001
130	SLE RA 14	0.17	-1.42	21.08	0.1955	0.1091	0.0001
130	SLE RA 15	0.18	-0.54	21	0.1596	0.1127	0.0001
130	SLE RA 16	0.17	-1.46	20.97	0.1962	0.1082	0.0001
130	SLE RA 17	0.18	-0.58	20.89	0.1603	0.1118	0.0001
130	SLE RA 18	0.18	-1.05	21.24	0.1809	0.1108	0.0001
130	SLE RA 19	0.18	-0.16	21.16	0.145	0.1144	0.0001
130	SLE RA 20	0.18	-1.26	21.45	0.1913	0.1118	0.0001
130	SLE RA 21	0.18	-0.38	21.37	0.1554	0.1154	0.0001
130	SLE FR 1	0.15	-1.01	18.93	0.1627	0.0954	0.0001
130	SLE FR 2	0.15	-0.72	18.91	0.1507	0.0966	0.0001
130	SLE FR 3	0.15	-1.09	19.02	0.1668	0.0958	0.0001
130	SLE FR 4	0.16	-0.73	19.6	0.1562	0.1012	0.0001
130	SLE FR 5	0.16	-1.11	19.71	0.1723	0.1004	0.0001
130	SLE FR 6	0.16	-1.03	20.09	0.1718	0.1031	0.0001
130	SLE QP 1	0.15	-1.01	18.93	0.1627	0.0954	0.0001
130	SLE QP 2	0.16	-1.02	19.63	0.1681	0.1	0.0001
130	SLD 1	0.3	-1.36	20.86	0.1864	0.2067	0.0001
130	SLD 2	0.3	-1.36	20.86	0.1864	0.2067	0.0001
130	SLD 3	0.27	-4.54	20.27	0.3265	0.1796	0.0001
130	SLD 4	0.27	-4.54	20.27	0.3265	0.1796	0.0001
130	SLD 5	0.25	3.71	20.89	-0.0389	0.1731	0
130	SLD 6	0.25	3.71	20.89	-0.0389	0.1731	0
130	SLD 7	0.14	-6.91	18.93	0.4281	0.0828	0.0001
130	SLD 8	0.14	-6.91	18.93	0.4281	0.0828	0.0001
130	SLD 9	0.18	4.87	20.32	-0.0919	0.1172	0
130	SLD 10	0.18	4.87	20.32	-0.0919	0.1172	0
130	SLD 11	0.07	-5.75	18.36	0.3751	0.0269	0.0001
130	SLD 12	0.07	-5.75	18.36	0.3751	0.0269	0.0001
130	SLD 13	0.05	2.5	18.98	0.0097	0.0204	0
130	SLD 14	0.05	2.5	18.98	0.0097	0.0204	0
130	SLD 15	0.02	-0.68	18.39	0.1498	-0.0067	0
130	SLD 16	0.02	-0.68	18.39	0.1498	-0.0067	0
130	SLV 1	0.49	-1.88	22.57	0.2142	0.3523	0.0001
130	SLV 2	0.49	-1.88	22.57	0.2142	0.3523	0.0001
130	SLV 3	0.41	-9.48	21.1	0.5479	0.2858	0.0002
130	SLV 4	0.41	-9.48	21.1	0.5479	0.2858	0.0002
130	SLV 5	0.38	10.25	22.73	-0.3241	0.2765	0
130	SLV 6	0.38	10.25	22.73	-0.3241	0.2765	0
130	SLV 7	0.11	-15.09	17.85	0.7881	0.0549	0.0002
130	SLV 8	0.11	-15.09	17.85	0.7881	0.0549	0.0002
130	SLV 9	0.21	13.05	21.4	-0.4518	0.1451	0
130	SLV 10	0.21	13.05	21.4	-0.4518	0.1451	0
130	SLV 11	-0.06	-12.29	16.52	0.6603	-0.0765	0.0001
130	SLV 12	-0.06	-12.29	16.52	0.6603	-0.0765	0.0001
130	SLV 13	-0.09	7.44	18.15	-0.2116	-0.0858	-0.0001
130	SLV 14	-0.09	7.44	18.15	-0.2116	-0.0858	-0.0001
130	SLV 15	-0.17	-0.16	16.68	0.122	-0.1523	0
130	SLV 16	-0.17	-0.16	16.68	0.122	-0.1523	0
131	SLU 1	0.07	-3.69	43.69	0.1847	0.0461	0.0012
131	SLU 2	0.07	-4.18	44.28	0.2107	0.0467	0.0012
131	SLU 3	0.07	-3.5	44.64	0.1747	0.047	0.0012
131	SLU 4	0.07	-3.8	45	0.1903	0.0474	0.0012
131	SLU 5	0.07	-3.94	44.76	0.1978	0.0471	0.0012
131	SLU 6	0.07	-3.27	45.12	0.1619	0.0474	0.0013
131	SLU 7	0.07	-3.57	45.48	0.1775	0.0478	0.0013
131	SLU 8	0.07	-3.23	44.65	0.159	0.0468	0.0013
131	SLU 9	0.07	-3.52	45	0.1746	0.0472	0.0012
131	SLU 10	0.08	-4.78	52.18	0.2434	0.0561	0.0014
131	SLU 11	0.08	-4.11	52.54	0.2074	0.0564	0.0015
131	SLU 12	0.08	-4.55	52.89	0.223	0.0568	0.0015
131	SLU 13	0.08	-4.54	52.66	0.2305	0.0565	0.0014
131	SLU 14	0.08	-3.88	53.02	0.1945	0.0568	0.0015
131	SLU 15	0.08	-4.17	53.37	0.2102	0.0572	0.0015
131	SLU 16	0.08	-3.83	52.55	0.1917	0.0562	0.0015
131	SLU 17	0.08	-4.12	52.9	0.2073	0.0566	0.0015
131	SLU 18	0.09	-4.55	54.97	0.2313	0.0595	0.0015
131	SLU 19	0.09	-4.84	55.32	0.247	0.0599	0.0015
131	SLU 20	0.09	-4.32	55.45	0.2185	0.0599	0.0015
131	SLU 21	0.09	-4.61	55.81	0.2341	0.0603	0.0015
131	SLU 22	0.07	-3.82	48.81	0.1931	0.0517	0.0014
131	SLU 23	0.08	-4.3	49.4	0.2191	0.0523	0.0014
131	SLU 24	0.08	-3.63	49.76	0.1832	0.0526	0.0014
131	SLU 25	0.08	-3.92	50.12	0.1988	0.053	0.0014
131	SLU 26	0.08	-4.07	49.88	0.2063	0.0527	0.0014
131	SLU 27	0.08	-3.4	50.24	0.1703	0.053	0.0014
131	SLU 28	0.08	-3.69	50.6	0.1859	0.0534	0.0014
131	SLU 29	0.08	-3.36	49.77	0.1674	0.0525	0.0014
131	SLU 30	0.08	-3.65	50.12	0.1831	0.0528	0.0014
131	SLU 31	0.09	-4.91	57.3	0.2518	0.0617	0.0016
131	SLU 32	0.09	-4.24	57.66	0.2158	0.062	0.0016
131	SLU 33	0.09	-4.53	58.01	0.2315	0.0624	0.0016
131	SLU 34	0.09	-4.68	57.78	0.239	0.0621	0.0016
131	SLU 35	0.09	-4.01	58.14	0.203	0.0624	0.0016
131	SLU 36	0.09	-4.3	58.49	0.2186	0.0628	0.0016
131	SLU 37	0.09	-3.96	57.67	0.2001	0.0618	0.0016



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
131	SLU 38	0.09	-4.25	58.02	0.2157	0.0622	0.0016
131	SLU 39	0.09	-4.68	60.09	0.2398	0.0651	0.0017
131	SLU 40	0.09	-4.97	60.45	0.2554	0.0655	0.0017
131	SLU 41	0.09	-4.45	60.57	0.227	0.0655	0.0017
131	SLU 42	0.1	-4.74	60.93	0.2426	0.0659	0.0017
131	SLU 43	0.08	-4.75	55.04	0.2372	0.058	0.0015
131	SLU 44	0.08	-5.24	55.63	0.2632	0.0586	0.0015
131	SLU 45	0.08	-4.57	55.99	0.2272	0.0589	0.0016
131	SLU 46	0.09	-4.86	56.35	0.2428	0.0593	0.0016
131	SLU 47	0.09	-5.01	56.11	0.2504	0.059	0.0015
131	SLU 48	0.09	-4.34	56.47	0.2144	0.0593	0.0016
131	SLU 49	0.09	-4.63	56.83	0.23	0.0597	0.0016
131	SLU 50	0.08	-4.29	56	0.2115	0.0588	0.0016
131	SLU 51	0.09	-4.58	56.35	0.2271	0.0591	0.0016
131	SLU 52	0.1	-5.84	63.53	0.2959	0.068	0.0017
131	SLU 53	0.1	-5.17	63.89	0.2599	0.0683	0.0018
131	SLU 54	0.1	-5.46	64.24	0.2755	0.0687	0.0018
131	SLU 55	0.1	-5.61	64.01	0.283	0.0684	0.0018
131	SLU 56	0.1	-4.94	64.37	0.2471	0.0687	0.0018
131	SLU 57	0.1	-5.23	64.72	0.2627	0.0691	0.0018
131	SLU 58	0.1	-4.9	63.9	0.2442	0.0681	0.0018
131	SLU 59	0.1	-5.19	64.25	0.2598	0.0685	0.0018
131	SLU 60	0.1	-5.62	66.32	0.2838	0.0714	0.0018
131	SLU 61	0.1	-5.91	66.68	0.2995	0.0718	0.0018
131	SLU 62	0.1	-5.39	66.8	0.271	0.0718	0.0019
131	SLU 63	0.1	-5.68	67.16	0.2866	0.0722	0.0019
131	SLU 64	0.09	-4.88	60.16	0.2456	0.0636	0.0017
131	SLU 65	0.09	-5.37	60.75	0.2716	0.0642	0.0017
131	SLU 66	0.09	-4.7	61.11	0.2357	0.0645	0.0017
131	SLU 67	0.09	-4.99	61.47	0.2513	0.0649	0.0017
131	SLU 68	0.09	-5.14	61.23	0.2588	0.0646	0.0017
131	SLU 69	0.09	-4.47	61.59	0.2228	0.0649	0.0017
131	SLU 70	0.09	-4.76	61.95	0.2384	0.0653	0.0017
131	SLU 71	0.09	-4.42	61.12	0.2199	0.0644	0.0017
131	SLU 72	0.09	-4.71	61.48	0.2356	0.0647	0.0017
131	SLU 73	0.11	-5.97	68.65	0.3043	0.0736	0.0019
131	SLU 74	0.11	-5.3	69.01	0.2683	0.0739	0.0019
131	SLU 75	0.11	-5.59	69.36	0.284	0.0743	0.0019
131	SLU 76	0.11	-5.74	69.13	0.2915	0.074	0.0019
131	SLU 77	0.11	-5.07	69.49	0.2555	0.0743	0.0019
131	SLU 78	0.11	-5.36	69.85	0.2711	0.0747	0.0019
131	SLU 79	0.11	-5.02	69.02	0.2526	0.0738	0.0019
131	SLU 80	0.11	-5.32	69.37	0.2682	0.0741	0.0019
131	SLU 81	0.11	-5.74	71.44	0.2923	0.077	0.002
131	SLU 82	0.11	-6.03	71.8	0.3079	0.0774	0.002
131	SLU 83	0.11	-5.51	71.92	0.2795	0.0774	0.002
131	SLU 84	0.11	-5.8	72.28	0.2951	0.0778	0.002
131	SLE RA 1	0.07	-3.73	45.15	0.1871	0.0477	0.0013
131	SLE RA 2	0.07	-4.05	45.54	0.2044	0.0481	0.0013
131	SLE RA 3	0.07	-3.6	45.79	0.1804	0.0483	0.0013
131	SLE RA 4	0.07	-3.8	46.02	0.1909	0.0486	0.0013
131	SLE RA 5	0.07	-3.9	45.86	0.1959	0.0484	0.0013
131	SLE RA 6	0.07	-3.45	46.11	0.1719	0.0486	0.0013
131	SLE RA 7	0.07	-3.64	46.34	0.1823	0.0488	0.0013
131	SLE RA 8	0.07	-3.42	45.79	0.17	0.0482	0.0013
131	SLE RA 9	0.07	-3.61	46.03	0.1804	0.0485	0.0013
131	SLE RA 10	0.08	-4.45	50.81	0.2262	0.0544	0.0014
131	SLE RA 11	0.08	-4.01	51.05	0.2022	0.0546	0.0014
131	SLE RA 12	0.08	-4.2	51.29	0.2126	0.0548	0.0014
131	SLE RA 13	0.08	-4.3	51.13	0.2177	0.0546	0.0014
131	SLE RA 14	0.08	-3.85	51.37	0.1937	0.0548	0.0014
131	SLE RA 15	0.08	-4.05	51.61	0.2041	0.0551	0.0014
131	SLE RA 16	0.08	-3.82	51.06	0.1917	0.0545	0.0014
131	SLE RA 17	0.08	-4.02	51.29	0.2022	0.0547	0.0014
131	SLE RA 18	0.08	-4.3	52.67	0.2182	0.0566	0.0015
131	SLE RA 19	0.08	-4.5	52.91	0.2286	0.0569	0.0015
131	SLE RA 20	0.08	-4.15	52.99	0.2096	0.0569	0.0015
131	SLE RA 21	0.08	-4.34	53.23	0.2201	0.0571	0.0015
131	SLE FR 1	0.07	-3.73	45.15	0.1871	0.0477	0.0013
131	SLE FR 2	0.07	-3.79	45.23	0.1905	0.0478	0.0013
131	SLE FR 3	0.07	-3.67	45.28	0.1837	0.0478	0.0013
131	SLE FR 4	0.07	-3.96	47.49	0.1999	0.0505	0.0013
131	SLE FR 5	0.07	-3.84	47.54	0.193	0.0505	0.0013
131	SLE FR 6	0.08	-4.01	48.91	0.2026	0.0522	0.0014
131	SLE QP 1	0.07	-3.73	45.15	0.1871	0.0477	0.0013
131	SLE QP 2	0.07	-3.9	47.41	0.1964	0.0504	0.0013
131	SLD 1	0.23	-0.69	41.88	0.0154	0.174	0.0004
131	SLD 2	0.23	-0.69	41.88	0.0154	0.174	0.0004
131	SLD 3	0.25	-4.37	44.49	0.2208	0.1961	-0.0002
131	SLD 4	0.25	-4.37	44.49	0.2208	0.1961	-0.0002
131	SLD 5	0.08	2.65	41.78	-0.1694	0.0539	0.0018
131	SLD 6	0.08	2.65	41.78	-0.1694	0.0539	0.0018
131	SLD 7	0.17	-9.63	50.5	0.5153	0.1277	0.0001
131	SLD 8	0.17	-9.63	50.5	0.5153	0.1277	0.0001
131	SLD 9	-0.02	1.83	44.32	-0.1224	-0.0269	0.0026
131	SLD 10	-0.02	1.83	44.32	-0.1224	-0.0269	0.0026
131	SLD 11	0.07	-10.45	53.03	0.5623	0.0469	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
131	SLD 12	0.07	-10.45	53.03	0.5623	0.0469	0.0008
131	SLD 13	-0.11	-3.43	50.33	0.172	-0.0954	0.0028
131	SLD 14	-0.11	-3.43	50.33	0.172	-0.0954	0.0028
131	SLD 15	-0.08	-7.11	52.94	0.3774	-0.0732	0.0023
131	SLD 16	-0.08	-7.11	52.94	0.3774	-0.0732	0.0023
131	SLV 1	0.46	3.64	34.38	-0.229	0.3619	-0.0011
131	SLV 2	0.46	3.64	34.38	-0.229	0.3619	-0.0011
131	SLV 3	0.53	-4.99	40.59	0.2526	0.4163	-0.0024
131	SLV 4	0.53	-4.99	40.59	0.2526	0.4163	-0.0024
131	SLV 5	0.09	11.46	34.08	-0.6617	0.0614	0.0025
131	SLV 6	0.09	11.46	34.08	-0.6617	0.0614	0.0025
131	SLV 7	0.31	-17.32	54.78	0.9438	0.2426	-0.0017
131	SLV 8	0.31	-17.32	54.78	0.9438	0.2426	-0.0017
131	SLV 9	-0.17	9.52	40.03	-0.551	-0.1418	0.0043
131	SLV 10	-0.17	9.52	40.03	-0.551	-0.1418	0.0043
131	SLV 11	0.06	-19.25	60.74	1.0546	0.0393	0.0001
131	SLV 12	0.06	-19.25	60.74	1.0546	0.0393	0.0001
131	SLV 13	-0.38	-2.81	54.22	0.1402	-0.3156	0.005
131	SLV 14	-0.38	-2.81	54.22	0.1402	-0.3156	0.005
131	SLV 15	-0.32	-11.44	60.44	0.6219	-0.2612	0.0038
131	SLV 16	-0.32	-11.44	60.44	0.6219	-0.2612	0.0038
132	SLU 1	0	-1.43	35.28	0.1487	-0.0033	0
132	SLU 2	-0.01	0.59	35.81	0.0643	-0.0107	0
132	SLU 3	0	-1.67	36.44	0.1628	-0.0034	0
132	SLU 4	-0.01	-0.46	36.76	0.1122	-0.0078	0
132	SLU 5	-0.01	0.3	36.61	0.0797	-0.0107	0
132	SLU 6	0	-1.96	37.23	0.1782	-0.0034	0
132	SLU 7	-0.01	-0.75	37.55	0.1276	-0.0079	0
132	SLU 8	0	-2.01	36.87	0.1795	-0.0034	0
132	SLU 9	-0.01	-0.8	37.19	0.1289	-0.0078	0
132	SLU 10	-0.01	0.54	41.27	0.0799	-0.0112	0
132	SLU 11	0	-1.73	41.9	0.1784	-0.0039	0
132	SLU 12	-0.01	-0.52	42.22	0.1278	-0.0083	0
132	SLU 13	-0.01	0.24	42.07	0.0953	-0.0112	0
132	SLU 14	0	-2.02	42.69	0.1938	-0.0039	0
132	SLU 15	-0.01	-0.81	43.01	0.1432	-0.0084	0
132	SLU 16	0	-2.07	42.33	0.1951	-0.0039	0
132	SLU 17	-0.01	-0.86	42.65	0.1445	-0.0083	0
132	SLU 18	0	-1.51	43.08	0.171	-0.004	0
132	SLU 19	-0.01	-0.3	43.4	0.1204	-0.0085	0
132	SLU 20	0	-1.8	43.88	0.1864	-0.0041	0
132	SLU 21	-0.01	-0.59	44.19	0.1358	-0.0085	0
132	SLU 22	0	-1.58	40.4	0.1677	-0.0037	0
132	SLU 23	-0.01	0.44	40.93	0.0833	-0.0111	0
132	SLU 24	0	-1.82	41.56	0.1818	-0.0038	0
132	SLU 25	-0.01	-0.61	41.88	0.1312	-0.0083	0
132	SLU 26	-0.01	0.15	41.73	0.0987	-0.0112	0
132	SLU 27	0	-2.12	42.35	0.1972	-0.0039	0
132	SLU 28	-0.01	-0.9	42.67	0.1466	-0.0083	0
132	SLU 29	0	-2.16	41.99	0.1985	-0.0038	0
132	SLU 30	-0.01	-0.95	42.31	0.1479	-0.0083	0
132	SLU 31	-0.01	0.38	46.39	0.0989	-0.0117	0
132	SLU 32	0	-1.88	47.02	0.1974	-0.0044	0
132	SLU 33	-0.01	-0.67	47.34	0.1468	-0.0088	0
132	SLU 34	-0.01	0.09	47.19	0.1143	-0.0117	0
132	SLU 35	0	-2.17	47.81	0.2128	-0.0044	0
132	SLU 36	-0.01	-0.96	48.13	0.1622	-0.0089	0
132	SLU 37	0	-2.22	47.45	0.2141	-0.0044	0
132	SLU 38	-0.01	-1.01	47.77	0.1635	-0.0088	0
132	SLU 39	0	-1.66	48.2	0.19	-0.0045	0
132	SLU 40	-0.01	-0.45	48.52	0.1394	-0.0089	0
132	SLU 41	0	-1.95	49	0.2054	-0.0045	0
132	SLU 42	-0.01	-0.74	49.31	0.1548	-0.009	0
132	SLU 43	0	-1.8	44.11	0.1868	-0.0041	0
132	SLU 44	-0.01	0.22	44.64	0.1024	-0.0115	0
132	SLU 45	0	-2.05	45.27	0.2009	-0.0042	0
132	SLU 46	-0.01	-0.84	45.59	0.1503	-0.0086	0
132	SLU 47	-0.01	-0.08	45.44	0.1178	-0.0115	0
132	SLU 48	0	-2.34	46.06	0.2163	-0.0042	0
132	SLU 49	-0.01	-1.13	46.38	0.1657	-0.0087	0
132	SLU 50	0	-2.39	45.7	0.2176	-0.0042	0
132	SLU 51	-0.01	-1.18	46.02	0.167	-0.0086	0
132	SLU 52	-0.01	0.16	50.1	0.118	-0.012	0
132	SLU 53	0	-2.1	50.73	0.2165	-0.0047	0
132	SLU 54	-0.01	-0.89	51.05	0.1659	-0.0092	0
132	SLU 55	-0.01	-0.13	50.9	0.1334	-0.0121	0
132	SLU 56	0	-2.4	51.52	0.2319	-0.0048	0
132	SLU 57	-0.01	-1.19	51.84	0.1813	-0.0092	0
132	SLU 58	0	-2.45	51.16	0.2332	-0.0047	0
132	SLU 59	-0.01	-1.23	51.48	0.1826	-0.0091	0
132	SLU 60	0	-1.88	51.91	0.2091	-0.0048	0
132	SLU 61	-0.01	-0.67	52.23	0.1585	-0.0093	0
132	SLU 62	0	-2.18	52.71	0.2245	-0.0049	0
132	SLU 63	-0.01	-0.97	53.02	0.1739	-0.0093	0
132	SLU 64	0	-1.95	49.23	0.2058	-0.0045	0
132	SLU 65	-0.01	0.07	49.76	0.1214	-0.012	0
132	SLU 66	0	-2.2	50.39	0.2199	-0.0047	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
132	SLU 67	-0.01	-0.99	50.7	0.1693	-0.0091	0
132	SLU 68	-0.01	-0.23	50.55	0.1368	-0.012	0
132	SLU 69	0	-2.49	51.18	0.2353	-0.0047	0
132	SLU 70	-0.01	-1.28	51.5	0.1847	-0.0092	0
132	SLU 71	0	-2.54	50.82	0.2366	-0.0046	0
132	SLU 72	-0.01	-1.33	51.14	0.186	-0.0091	0
132	SLU 73	-0.01	0.01	55.22	0.137	-0.0125	0
132	SLU 74	0	-2.26	55.85	0.2355	-0.0052	0
132	SLU 75	-0.01	-1.04	56.16	0.1849	-0.0096	0
132	SLU 76	-0.01	-0.28	56.01	0.1524	-0.0125	0
132	SLU 77	0	-2.55	56.64	0.2509	-0.0052	0
132	SLU 78	-0.01	-1.34	56.96	0.2003	-0.0097	0
132	SLU 79	0	-2.6	56.28	0.2522	-0.0052	0
132	SLU 80	-0.01	-1.39	56.6	0.2016	-0.0096	0
132	SLU 81	0	-2.04	57.03	0.2281	-0.0053	0
132	SLU 82	-0.01	-0.82	57.35	0.1775	-0.0098	0
132	SLU 83	0	-2.33	57.83	0.2435	-0.0053	0
132	SLU 84	-0.01	-1.12	58.14	0.1929	-0.0098	0
132	SLE RA 1	0	-1.47	36.74	0.1541	-0.0034	0
132	SLE RA 2	-0.01	-0.12	37.1	0.0979	-0.0083	0
132	SLE RA 3	0	-1.63	37.52	0.1635	-0.0035	0
132	SLE RA 4	0	-0.83	37.73	0.1298	-0.0064	0
132	SLE RA 5	-0.01	-0.32	37.63	0.1081	-0.0084	0
132	SLE RA 6	0	-1.83	38.05	0.1738	-0.0035	0
132	SLE RA 7	0	-1.02	38.26	0.1401	-0.0065	0
132	SLE RA 8	0	-1.86	37.8	0.1747	-0.0035	0
132	SLE RA 9	0	-1.05	38.02	0.1409	-0.0064	0
132	SLE RA 10	-0.01	-0.16	40.74	0.1083	-0.0087	0
132	SLE RA 11	0	-1.67	41.16	0.174	-0.0038	0
132	SLE RA 12	0	-0.86	41.37	0.1402	-0.0068	0
132	SLE RA 13	-0.01	-0.36	41.27	0.1185	-0.0087	0
132	SLE RA 14	0	-1.87	41.69	0.1842	-0.0038	0
132	SLE RA 15	0	-1.06	41.9	0.1505	-0.0068	0
132	SLE RA 16	0	-1.9	41.44	0.1851	-0.0038	0
132	SLE RA 17	0	-1.09	41.66	0.1513	-0.0068	0
132	SLE RA 18	0	-1.52	41.94	0.169	-0.0039	0
132	SLE RA 19	-0.01	-0.72	42.16	0.1352	-0.0069	0
132	SLE RA 20	0	-1.72	42.47	0.1793	-0.0039	0
132	SLE RA 21	-0.01	-0.91	42.69	0.1455	-0.0069	0
132	SLE FR 1	0	-1.47	36.74	0.1541	-0.0034	0
132	SLE FR 2	0	-1.2	36.82	0.1429	-0.0044	0
132	SLE FR 3	0	-1.55	36.96	0.1582	-0.0034	0
132	SLE FR 4	0	-1.22	38.38	0.1473	-0.0045	0
132	SLE FR 5	0	-1.56	38.52	0.1627	-0.0036	0
132	SLE FR 6	0	-1.5	39.34	0.1616	-0.0036	0
132	SLE QP 1	0	-1.47	36.74	0.1541	-0.0034	0
132	SLE QP 2	0	-1.49	38.3	0.1586	-0.0035	0
132	SLD 1	0.09	1.19	40.33	0.0389	0.0735	0
132	SLD 2	0.09	1.19	40.33	0.0389	0.0735	0
132	SLD 3	0.12	-1.65	39.27	0.165	0.1006	0
132	SLD 4	0.12	-1.65	39.27	0.165	0.1006	0
132	SLD 5	-0.02	3.62	40.51	-0.0685	-0.0216	0
132	SLD 6	-0.02	3.62	40.51	-0.0685	-0.0216	0
132	SLD 7	0.08	-5.84	37	0.3517	0.0688	0
132	SLD 8	0.08	-5.84	37	0.3517	0.0688	0
132	SLD 9	-0.09	2.87	39.61	-0.0345	-0.0759	0
132	SLD 10	-0.09	2.87	39.61	-0.0345	-0.0759	0
132	SLD 11	0.02	-6.6	36.1	0.3857	0.0145	0
132	SLD 12	0.02	-6.6	36.1	0.3857	0.0145	0
132	SLD 13	-0.13	-1.32	37.33	0.1522	-0.1077	-0.0001
132	SLD 14	-0.13	-1.32	37.33	0.1522	-0.1077	-0.0001
132	SLD 15	-0.1	-4.16	36.28	0.2783	-0.0806	0
132	SLD 16	-0.1	-4.16	36.28	0.2783	-0.0806	0
132	SLV 1	0.22	4.97	43.06	-0.13	0.184	0.0001
132	SLV 2	0.22	4.97	43.06	-0.13	0.184	0.0001
132	SLV 3	0.3	-1.76	40.56	0.1681	0.2527	0.0001
132	SLV 4	0.3	-1.76	40.56	0.1681	0.2527	0.0001
132	SLV 5	-0.05	10.65	43.51	-0.38	-0.0515	0
132	SLV 6	-0.05	10.65	43.51	-0.38	-0.0515	0
132	SLV 7	0.2	-11.77	35.2	0.6135	0.1775	0.0001
132	SLV 8	0.2	-11.77	35.2	0.6135	0.1775	0.0001
132	SLV 9	-0.21	8.8	41.41	-0.2963	-0.1846	-0.0001
132	SLV 10	-0.21	8.8	41.41	-0.2963	-0.1846	-0.0001
132	SLV 11	0.05	-13.63	33.1	0.6972	0.0444	0
132	SLV 12	0.05	-13.63	33.1	0.6972	0.0444	0
132	SLV 13	-0.3	-1.21	36.04	0.1491	-0.2598	-0.0001
132	SLV 14	-0.3	-1.21	36.04	0.1491	-0.2598	-0.0001
132	SLV 15	-0.23	-7.94	33.55	0.4471	-0.1911	-0.0001
132	SLV 16	-0.23	-7.94	33.55	0.4471	-0.1911	-0.0001
133	SLU 1	-0.18	5.99	31.52	-0.2318	-0.1242	-0.001
133	SLU 2	-0.23	6.89	32.43	-0.2716	-0.1829	-0.0012
133	SLU 3	-0.18	6.3	32.43	-0.2442	-0.1283	-0.001
133	SLU 4	-0.21	6.84	32.98	-0.2681	-0.1636	-0.0012
133	SLU 5	-0.23	7.15	33.05	-0.2817	-0.1857	-0.0013
133	SLU 6	-0.19	6.55	33.05	-0.2543	-0.1311	-0.001
133	SLU 7	-0.22	7.1	33.6	-0.2782	-0.1664	-0.0012
133	SLU 8	-0.19	6.49	32.76	-0.252	-0.1298	-0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
133	SLU 9	-0.22	7.04	33.31	-0.2759	-0.165	-0.0012
133	SLU 10	-0.25	7.76	35.85	-0.3045	-0.1988	-0.0014
133	SLU 11	-0.21	7.17	35.84	-0.2772	-0.1443	-0.0011
133	SLU 12	-0.24	7.71	36.39	-0.301	-0.1795	-0.0013
133	SLU 13	-0.25	8.01	36.47	-0.3146	-0.2016	-0.0014
133	SLU 14	-0.21	7.42	36.47	-0.2873	-0.1471	-0.0011
133	SLU 15	-0.24	7.97	37.01	-0.3111	-0.1823	-0.0013
133	SLU 16	-0.21	7.36	36.18	-0.285	-0.1457	-0.0011
133	SLU 17	-0.24	7.9	36.72	-0.3088	-0.1809	-0.0013
133	SLU 18	-0.21	7.23	36.4	-0.2789	-0.1469	-0.0011
133	SLU 19	-0.24	7.77	36.95	-0.3028	-0.1822	-0.0013
133	SLU 20	-0.22	7.48	37.02	-0.289	-0.1497	-0.0012
133	SLU 21	-0.24	8.02	37.57	-0.3129	-0.185	-0.0013
133	SLU 22	-0.2	6.88	34.96	-0.2661	-0.1402	-0.0011
133	SLU 23	-0.25	7.79	35.87	-0.3058	-0.1989	-0.0014
133	SLU 24	-0.21	7.2	35.87	-0.2785	-0.1444	-0.0011
133	SLU 25	-0.24	7.74	36.41	-0.3023	-0.1796	-0.0013
133	SLU 26	-0.25	8.04	36.49	-0.3159	-0.2017	-0.0014
133	SLU 27	-0.21	7.45	36.49	-0.2885	-0.1472	-0.0011
133	SLU 28	-0.24	7.99	37.03	-0.3124	-0.1824	-0.0013
133	SLU 29	-0.21	7.39	36.2	-0.2863	-0.1458	-0.0011
133	SLU 30	-0.24	7.93	36.75	-0.3101	-0.1811	-0.0013
133	SLU 31	-0.27	8.66	39.28	-0.3388	-0.2149	-0.0015
133	SLU 32	-0.23	8.06	39.28	-0.3114	-0.1603	-0.0012
133	SLU 33	-0.26	8.61	39.83	-0.3353	-0.1956	-0.0014
133	SLU 34	-0.28	8.91	39.91	-0.3489	-0.2177	-0.0015
133	SLU 35	-0.24	8.32	39.9	-0.3215	-0.1631	-0.0013
133	SLU 36	-0.26	8.86	40.45	-0.3454	-0.1984	-0.0014
133	SLU 37	-0.23	8.26	39.61	-0.3192	-0.1618	-0.0013
133	SLU 38	-0.26	8.8	40.16	-0.3431	-0.197	-0.0014
133	SLU 39	-0.23	8.12	39.84	-0.3131	-0.163	-0.0013
133	SLU 40	-0.26	8.66	40.38	-0.337	-0.1982	-0.0014
133	SLU 41	-0.24	8.37	40.46	-0.3232	-0.1658	-0.0013
133	SLU 42	-0.27	8.92	41	-0.3471	-0.201	-0.0015
133	SLU 43	-0.22	7.48	39.8	-0.2896	-0.1559	-0.0012
133	SLU 44	-0.27	8.38	40.71	-0.3294	-0.2146	-0.0015
133	SLU 45	-0.23	7.79	40.71	-0.302	-0.1601	-0.0012
133	SLU 46	-0.26	8.33	41.26	-0.3259	-0.1953	-0.0014
133	SLU 47	-0.28	8.64	41.33	-0.3395	-0.2174	-0.0015
133	SLU 48	-0.23	8.04	41.33	-0.3121	-0.1629	-0.0013
133	SLU 49	-0.26	8.59	41.88	-0.336	-0.1981	-0.0014
133	SLU 50	-0.23	7.98	41.04	-0.3098	-0.1615	-0.0013
133	SLU 51	-0.26	8.53	41.59	-0.3337	-0.1967	-0.0014
133	SLU 52	-0.29	9.25	44.13	-0.3624	-0.2305	-0.0016
133	SLU 53	-0.25	8.66	44.12	-0.335	-0.176	-0.0014
133	SLU 54	-0.28	9.2	44.67	-0.3588	-0.2112	-0.0015
133	SLU 55	-0.3	9.5	44.75	-0.3724	-0.2334	-0.0016
133	SLU 56	-0.26	8.91	44.74	-0.3451	-0.1788	-0.0014
133	SLU 57	-0.29	9.45	45.29	-0.3689	-0.214	-0.0016
133	SLU 58	-0.25	8.85	44.46	-0.3428	-0.1775	-0.0014
133	SLU 59	-0.28	9.39	45	-0.3666	-0.2127	-0.0015
133	SLU 60	-0.26	8.72	44.68	-0.3367	-0.1787	-0.0014
133	SLU 61	-0.28	9.26	45.22	-0.3606	-0.2139	-0.0015
133	SLU 62	-0.26	8.97	45.3	-0.3468	-0.1815	-0.0014
133	SLU 63	-0.29	9.51	45.85	-0.3707	-0.2167	-0.0016
133	SLU 64	-0.25	8.37	43.24	-0.3239	-0.172	-0.0013
133	SLU 65	-0.29	9.28	44.15	-0.3636	-0.2307	-0.0016
133	SLU 66	-0.25	8.69	44.15	-0.3363	-0.1761	-0.0014
133	SLU 67	-0.28	9.23	44.69	-0.3601	-0.2114	-0.0015
133	SLU 68	-0.3	9.53	44.77	-0.3737	-0.2335	-0.0016
133	SLU 69	-0.26	8.94	44.77	-0.3464	-0.1789	-0.0014
133	SLU 70	-0.29	9.48	45.31	-0.3702	-0.2142	-0.0016
133	SLU 71	-0.26	8.88	44.48	-0.3441	-0.1776	-0.0014
133	SLU 72	-0.28	9.42	45.03	-0.3679	-0.2128	-0.0015
133	SLU 73	-0.32	10.15	47.56	-0.3966	-0.2466	-0.0017
133	SLU 74	-0.28	9.55	47.56	-0.3692	-0.1921	-0.0015
133	SLU 75	-0.3	10.1	48.11	-0.3931	-0.2273	-0.0017
133	SLU 76	-0.32	10.4	48.18	-0.4067	-0.2494	-0.0018
133	SLU 77	-0.28	9.81	48.18	-0.3793	-0.1949	-0.0015
133	SLU 78	-0.31	10.35	48.73	-0.4032	-0.2301	-0.0017
133	SLU 79	-0.28	9.75	47.89	-0.377	-0.1935	-0.0015
133	SLU 80	-0.31	10.29	48.44	-0.4009	-0.2287	-0.0017
133	SLU 81	-0.28	9.61	48.12	-0.371	-0.1947	-0.0015
133	SLU 82	-0.31	10.15	48.66	-0.3948	-0.23	-0.0017
133	SLU 83	-0.28	9.86	48.74	-0.3811	-0.1975	-0.0015
133	SLU 84	-0.31	10.41	49.28	-0.4049	-0.2328	-0.0017
133	SLE RA 1	-0.18	6.24	32.5	-0.2416	-0.1288	-0.001
133	SLE RA 2	-0.22	6.85	33.11	-0.2681	-0.1679	-0.0012
133	SLE RA 3	-0.19	6.45	33.11	-0.2499	-0.1315	-0.001
133	SLE RA 4	-0.21	6.81	33.47	-0.2658	-0.155	-0.0011
133	SLE RA 5	-0.22	7.02	33.53	-0.2748	-0.1698	-0.0012
133	SLE RA 6	-0.19	6.62	33.52	-0.2566	-0.1334	-0.001
133	SLE RA 7	-0.21	6.98	33.89	-0.2725	-0.1569	-0.0011
133	SLE RA 8	-0.19	6.58	33.33	-0.2551	-0.1325	-0.001
133	SLE RA 9	-0.21	6.94	33.7	-0.271	-0.156	-0.0011
133	SLE RA 10	-0.23	7.43	35.39	-0.2901	-0.1785	-0.0013
133	SLE RA 11	-0.2	7.03	35.39	-0.2718	-0.1422	-0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
133	SLE RA 12	-0.22	7.39	35.75	-0.2877	-0.1656	-0.0012
133	SLE RA 13	-0.23	7.59	35.8	-0.2968	-0.1804	-0.0013
133	SLE RA 14	-0.21	7.2	35.8	-0.2786	-0.144	-0.0011
133	SLE RA 15	-0.23	7.56	36.16	-0.2945	-0.1675	-0.0012
133	SLE RA 16	-0.21	7.16	35.61	-0.277	-0.1431	-0.0011
133	SLE RA 17	-0.22	7.52	35.97	-0.2929	-0.1666	-0.0012
133	SLE RA 18	-0.21	7.07	35.76	-0.273	-0.1439	-0.0011
133	SLE RA 19	-0.23	7.43	36.12	-0.2889	-0.1674	-0.0012
133	SLE RA 20	-0.21	7.24	36.17	-0.2797	-0.1458	-0.0011
133	SLE RA 21	-0.23	7.6	36.53	-0.2956	-0.1693	-0.0012
133	SLE FR 1	-0.18	6.24	32.5	-0.2416	-0.1288	-0.001
133	SLE FR 2	-0.19	6.36	32.63	-0.2469	-0.1366	-0.001
133	SLE FR 3	-0.19	6.31	32.67	-0.2443	-0.1295	-0.001
133	SLE FR 4	-0.2	6.61	33.6	-0.2563	-0.1411	-0.0011
133	SLE FR 5	-0.19	6.56	33.65	-0.2537	-0.1341	-0.001
133	SLE FR 6	-0.2	6.66	34.13	-0.2573	-0.1363	-0.0011
133	SLE QP 1	-0.18	6.24	32.5	-0.2416	-0.1288	-0.001
133	SLE QP 2	-0.19	6.49	33.48	-0.251	-0.1333	-0.001
133	SLD 1	-0.39	10.3	43.1	-0.4068	-0.32	-0.0021
133	SLD 2	-0.39	10.3	43.1	-0.4068	-0.32	-0.0021
133	SLD 3	-0.32	6.17	42.16	-0.2267	-0.2474	-0.0017
133	SLD 4	-0.32	6.17	42.16	-0.2267	-0.2474	-0.0017
133	SLD 5	-0.36	13.89	37.79	-0.571	-0.2995	-0.002
133	SLD 6	-0.36	13.89	37.79	-0.571	-0.2995	-0.002
133	SLD 7	-0.11	0.13	34.66	0.0295	-0.0573	-0.0006
133	SLD 8	-0.11	0.13	34.66	0.0295	-0.0573	-0.0006
133	SLD 9	-0.27	12.85	32.3	-0.5316	-0.2093	-0.0015
133	SLD 10	-0.27	12.85	32.3	-0.5316	-0.2093	-0.0015
133	SLD 11	-0.02	-0.91	29.17	0.0689	0.0329	-0.0001
133	SLD 12	-0.02	-0.91	29.17	0.0689	0.0329	-0.0001
133	SLD 13	-0.07	6.81	24.8	-0.2754	-0.0193	-0.0004
133	SLD 14	-0.07	6.81	24.8	-0.2754	-0.0193	-0.0004
133	SLD 15	0.01	2.68	23.86	-0.0952	0.0534	0
133	SLD 16	0.01	2.68	23.86	-0.0952	0.0534	0
133	SLV 1	-0.67	15.37	56.06	-0.6144	-0.5853	-0.0036
133	SLV 2	-0.67	15.37	56.06	-0.6144	-0.5853	-0.0036
133	SLV 3	-0.48	5.78	53.72	-0.1961	-0.4007	-0.0026
133	SLV 4	-0.48	5.78	53.72	-0.1961	-0.4007	-0.0026
133	SLV 5	-0.62	23.69	43.8	-0.9946	-0.549	-0.0034
133	SLV 6	-0.62	23.69	43.8	-0.9946	-0.549	-0.0034
133	SLV 7	0.01	-8.26	36.01	0.4	0.0666	0.0001
133	SLV 8	0.01	-8.26	36.01	0.4	0.0666	0.0001
133	SLV 9	-0.39	21.24	30.95	-0.902	-0.3332	-0.0021
133	SLV 10	-0.39	21.24	30.95	-0.902	-0.3332	-0.0021
133	SLV 11	0.24	-10.71	23.16	0.4925	0.2824	0.0013
133	SLV 12	0.24	-10.71	23.16	0.4925	0.2824	0.0013
133	SLV 13	0.1	7.2	13.24	-0.306	0.134	0.0005
133	SLV 14	0.1	7.2	13.24	-0.306	0.134	0.0005
133	SLV 15	0.29	-2.39	10.9	0.1124	0.3187	0.0015
133	SLV 16	0.29	-2.39	10.9	0.1124	0.3187	0.0015
134	SLU 1	0.01	2.13	61	-0.0659	0.0124	0.0001
134	SLU 2	0.06	2.71	64.07	-0.0895	0.0719	0.0003
134	SLU 3	0.01	2.26	63	-0.0704	0.0126	0.0001
134	SLU 4	0.04	2.61	64.85	-0.0846	0.0483	0.0002
134	SLU 5	0.06	2.81	65.4	-0.0931	0.0721	0.0003
134	SLU 6	0.01	2.36	64.32	-0.074	0.0127	0.0001
134	SLU 7	0.04	2.71	66.17	-0.0881	0.0485	0.0002
134	SLU 8	0.01	2.32	63.64	-0.0731	0.0126	0.0001
134	SLU 9	0.04	2.68	65.49	-0.0872	0.0483	0.0002
134	SLU 10	0.06	3.12	71.44	-0.103	0.0734	0.0003
134	SLU 11	0.02	2.67	70.37	-0.0839	0.0141	0.0001
134	SLU 12	0.04	3.02	72.22	-0.098	0.0498	0.0002
134	SLU 13	0.06	3.22	72.77	-0.1065	0.0735	0.0003
134	SLU 14	0.02	2.77	71.69	-0.0875	0.0142	0.0001
134	SLU 15	0.04	3.12	73.54	-0.1016	0.0499	0.0002
134	SLU 16	0.02	2.74	71.01	-0.0865	0.0141	0.0001
134	SLU 17	0.04	3.09	72.86	-0.1006	0.0498	0.0002
134	SLU 18	0.02	2.72	71.52	-0.0852	0.0145	0.0001
134	SLU 19	0.04	3.07	73.37	-0.0993	0.0502	0.0002
134	SLU 20	0.02	2.81	72.85	-0.0887	0.0146	0.0001
134	SLU 21	0.04	3.16	74.69	-0.1029	0.0503	0.0002
134	SLU 22	0.01	2.51	68.49	-0.0783	0.0138	0.0001
134	SLU 23	0.06	3.1	71.57	-0.1019	0.0733	0.0003
134	SLU 24	0.02	2.64	70.49	-0.0828	0.014	0.0001
134	SLU 25	0.04	2.99	72.34	-0.097	0.0497	0.0002
134	SLU 26	0.06	3.2	72.89	-0.1055	0.0735	0.0003
134	SLU 27	0.02	2.74	71.82	-0.0864	0.0141	0.0001
134	SLU 28	0.04	3.09	73.66	-0.1005	0.0499	0.0002
134	SLU 29	0.02	2.71	71.13	-0.0854	0.014	0.0001
134	SLU 30	0.04	3.06	72.98	-0.0996	0.0498	0.0002
134	SLU 31	0.06	3.51	78.93	-0.1154	0.0748	0.0003
134	SLU 32	0.02	3.05	77.86	-0.0963	0.0155	0.0001
134	SLU 33	0.04	3.4	79.71	-0.1104	0.0512	0.0002
134	SLU 34	0.06	3.61	80.26	-0.1189	0.075	0.0003
134	SLU 35	0.02	3.15	79.18	-0.0998	0.0156	0.0001
134	SLU 36	0.04	3.5	81.03	-0.114	0.0514	0.0002
134	SLU 37	0.02	3.12	78.5	-0.0989	0.0155	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
134	SLU 38	0.04	3.47	80.35	-0.113	0.0512	0.0002
134	SLU 39	0.02	3.1	79.01	-0.0976	0.0159	0.0001
134	SLU 40	0.04	3.45	80.86	-0.1117	0.0516	0.0002
134	SLU 41	0.02	3.2	80.34	-0.1011	0.016	0.0001
134	SLU 42	0.04	3.55	82.18	-0.1153	0.0518	0.0002
134	SLU 43	0.02	2.64	76.73	-0.0815	0.0156	0.0001
134	SLU 44	0.06	3.22	79.8	-0.105	0.0752	0.0003
134	SLU 45	0.02	2.76	78.73	-0.086	0.0158	0.0001
134	SLU 46	0.04	3.12	80.58	-0.1001	0.0516	0.0002
134	SLU 47	0.06	3.32	81.13	-0.1086	0.0753	0.0003
134	SLU 48	0.02	2.86	80.05	-0.0895	0.0159	0.0001
134	SLU 49	0.04	3.21	81.9	-0.1037	0.0517	0.0002
134	SLU 50	0.02	2.83	79.37	-0.0886	0.0158	0.0001
134	SLU 51	0.04	3.18	81.22	-0.1027	0.0516	0.0002
134	SLU 52	0.06	3.63	87.17	-0.1185	0.0766	0.0004
134	SLU 53	0.02	3.17	86.1	-0.0994	0.0173	0.0001
134	SLU 54	0.04	3.53	87.95	-0.1136	0.053	0.0003
134	SLU 55	0.06	3.73	88.5	-0.1221	0.0768	0.0004
134	SLU 56	0.02	3.27	87.42	-0.103	0.0174	0.0001
134	SLU 57	0.05	3.62	89.27	-0.1171	0.0532	0.0003
134	SLU 58	0.02	3.24	86.74	-0.102	0.0173	0.0001
134	SLU 59	0.05	3.59	88.59	-0.1162	0.053	0.0003
134	SLU 60	0.02	3.22	87.25	-0.1007	0.0177	0.0001
134	SLU 61	0.05	3.57	89.1	-0.1148	0.0535	0.0003
134	SLU 62	0.02	3.32	88.58	-0.1043	0.0178	0.0001
134	SLU 63	0.05	3.67	90.42	-0.1184	0.0536	0.0003
134	SLU 64	0.02	3.02	84.22	-0.0939	0.017	0.0001
134	SLU 65	0.06	3.61	87.3	-0.1174	0.0766	0.0004
134	SLU 66	0.02	3.15	86.22	-0.0984	0.0172	0.0001
134	SLU 67	0.04	3.5	88.07	-0.1125	0.053	0.0003
134	SLU 68	0.06	3.7	88.62	-0.121	0.0767	0.0004
134	SLU 69	0.02	3.25	87.55	-0.1019	0.0173	0.0001
134	SLU 70	0.05	3.6	89.39	-0.1161	0.0531	0.0003
134	SLU 71	0.02	3.22	86.86	-0.101	0.0172	0.0001
134	SLU 72	0.04	3.57	88.71	-0.1151	0.053	0.0003
134	SLU 73	0.06	4.02	94.66	-0.1309	0.0781	0.0004
134	SLU 74	0.02	3.56	93.59	-0.1118	0.0187	0.0001
134	SLU 75	0.05	3.91	95.44	-0.126	0.0545	0.0003
134	SLU 76	0.06	4.11	95.99	-0.1344	0.0782	0.0004
134	SLU 77	0.02	3.66	94.91	-0.1154	0.0188	0.0001
134	SLU 78	0.05	4.01	96.76	-0.1295	0.0546	0.0003
134	SLU 79	0.02	3.63	94.23	-0.1144	0.0187	0.0001
134	SLU 80	0.05	3.98	96.08	-0.1286	0.0545	0.0003
134	SLU 81	0.02	3.61	94.74	-0.1131	0.0191	0.0001
134	SLU 82	0.05	3.96	96.59	-0.1272	0.0549	0.0003
134	SLU 83	0.02	3.7	96.07	-0.1166	0.0192	0.0001
134	SLU 84	0.05	4.06	97.91	-0.1308	0.055	0.0003
134	SLE RA 1	0.01	2.24	63.14	-0.0695	0.0128	0.0001
134	SLE RA 2	0.04	2.63	65.19	-0.0852	0.0525	0.0002
134	SLE RA 3	0.01	2.32	64.47	-0.0725	0.0129	0.0001
134	SLE RA 4	0.03	2.56	65.7	-0.0819	0.0367	0.0002
134	SLE RA 5	0.04	2.69	66.07	-0.0876	0.0526	0.0002
134	SLE RA 6	0.01	2.39	65.36	-0.0748	0.013	0.0001
134	SLE RA 7	0.03	2.62	66.59	-0.0843	0.0368	0.0002
134	SLE RA 8	0.01	2.37	64.9	-0.0742	0.0129	0.0001
134	SLE RA 9	0.03	2.6	66.13	-0.0836	0.0367	0.0002
134	SLE RA 10	0.04	2.9	70.1	-0.0942	0.0535	0.0003
134	SLE RA 11	0.01	2.6	69.39	-0.0815	0.0139	0.0001
134	SLE RA 12	0.03	2.83	70.62	-0.0909	0.0377	0.0002
134	SLE RA 13	0.04	2.97	70.98	-0.0965	0.0536	0.0003
134	SLE RA 14	0.02	2.66	70.27	-0.0838	0.014	0.0001
134	SLE RA 15	0.03	2.9	71.5	-0.0932	0.0378	0.0002
134	SLE RA 16	0.02	2.64	69.81	-0.0832	0.0139	0.0001
134	SLE RA 17	0.03	2.88	71.04	-0.0926	0.0377	0.0002
134	SLE RA 18	0.02	2.63	70.15	-0.0823	0.0142	0.0001
134	SLE RA 19	0.03	2.86	71.39	-0.0917	0.038	0.0002
134	SLE RA 20	0.02	2.7	71.04	-0.0847	0.0143	0.0001
134	SLE RA 21	0.03	2.93	72.27	-0.0941	0.0381	0.0002
134	SLE FR 1	0.01	2.24	63.14	-0.0695	0.0128	0.0001
134	SLE FR 2	0.02	2.32	63.55	-0.0726	0.0207	0.0001
134	SLE FR 3	0.01	2.26	63.49	-0.0704	0.0128	0.0001
134	SLE FR 4	0.02	2.43	65.65	-0.0765	0.0211	0.0001
134	SLE FR 5	0.01	2.38	65.59	-0.0743	0.0132	0.0001
134	SLE FR 6	0.01	2.43	66.65	-0.0759	0.0135	0.0001
134	SLE QP 1	0.01	2.24	63.14	-0.0695	0.0128	0.0001
134	SLE QP 2	0.01	2.36	65.24	-0.0733	0.0132	0.0001
134	SLD 1	0.15	3.21	50.23	-0.114	0.231	0.0008
134	SLD 2	0.15	3.21	50.23	-0.114	0.231	0.0008
134	SLD 3	0.24	-0.59	46.44	0.0526	0.1358	0.0013
134	SLD 4	0.24	-0.59	46.44	0.0526	0.1358	0.0013
134	SLD 5	-0.09	8.36	66.49	-0.3382	0.2228	-0.0005
134	SLD 6	-0.09	8.36	66.49	-0.3382	0.2228	-0.0005
134	SLD 7	0.23	-4.28	53.85	0.2171	-0.0944	0.0012
134	SLD 8	0.23	-4.28	53.85	0.2171	-0.0944	0.0012
134	SLD 9	-0.2	8.99	76.63	-0.3638	0.1207	-0.0011
134	SLD 10	-0.2	8.99	76.63	-0.3638	0.1207	-0.0011
134	SLD 11	0.12	-3.65	64	0.1915	-0.1965	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
134	SLD 12	0.12	-3.65	64	0.1915	-0.1965	0.0006
134	SLD 13	-0.21	5.3	84.04	-0.1993	-0.1094	-0.0012
134	SLD 14	-0.21	5.3	84.04	-0.1993	-0.1094	-0.0012
134	SLD 15	-0.12	1.51	80.25	-0.0327	-0.2046	-0.0006
134	SLD 16	-0.12	1.51	80.25	-0.0327	-0.2046	-0.0006
134	SLV 1	0.32	4.3	30.17	-0.1662	0.5427	0.0017
134	SLV 2	0.32	4.3	30.17	-0.1662	0.5427	0.0017
134	SLV 3	0.56	-4.52	21.22	0.2212	0.3007	0.003
134	SLV 4	0.56	-4.52	21.22	0.2212	0.3007	0.003
134	SLV 5	-0.26	16.32	68.31	-0.6888	0.5391	-0.0014
134	SLV 6	-0.26	16.32	68.31	-0.6888	0.5391	-0.0014
134	SLV 7	0.55	-13.09	38.45	0.6027	-0.2676	0.0029
134	SLV 8	0.55	-13.09	38.45	0.6027	-0.2676	0.0029
134	SLV 9	-0.52	17.8	92.04	-0.7493	0.294	-0.0028
134	SLV 10	-0.52	17.8	92.04	-0.7493	0.294	-0.0028
134	SLV 11	0.29	-11.61	62.17	0.5422	-0.5127	0.0016
134	SLV 12	0.29	-11.61	62.17	0.5422	-0.5127	0.0016
134	SLV 13	-0.54	9.23	109.27	-0.3679	-0.2743	-0.0029
134	SLV 14	-0.54	9.23	109.27	-0.3679	-0.2743	-0.0029
134	SLV 15	-0.29	0.41	100.31	0.0196	-0.5163	-0.0016
134	SLV 16	-0.29	0.41	100.31	0.0196	-0.5163	-0.0016
135	SLU 1	0.05	-2.8	41.89	0.1315	0.0352	0
135	SLU 2	0.05	-3.19	42.05	0.1499	0.0354	0
135	SLU 3	0.05	-2.51	43.08	0.1179	0.0364	0
135	SLU 4	0.05	-2.75	43.18	0.1289	0.0365	0
135	SLU 5	0.05	-2.84	42.78	0.1327	0.0362	0
135	SLU 6	0.05	-2.16	43.81	0.1008	0.0372	0
135	SLU 7	0.05	-2.4	43.91	0.1117	0.0373	0
135	SLU 8	0.05	-2.1	43.35	0.0972	0.0368	0
135	SLU 9	0.05	-2.33	43.45	0.1082	0.0369	0
135	SLU 10	0.05	-3.66	50.01	0.1736	0.0376	0
135	SLU 11	0.06	-2.99	51.04	0.1417	0.0387	0
135	SLU 12	0.06	-3.22	51.14	0.1527	0.0388	0
135	SLU 13	0.06	-3.31	50.74	0.1565	0.0384	0
135	SLU 14	0.06	-2.64	51.77	0.1245	0.0395	0
135	SLU 15	0.06	-2.87	51.86	0.1355	0.0395	0
135	SLU 16	0.06	-2.57	51.31	0.121	0.039	0
135	SLU 17	0.06	-2.8	51.4	0.132	0.0391	0
135	SLU 18	0.06	-3.47	53.26	0.1655	0.0384	0
135	SLU 19	0.06	-3.71	53.36	0.1765	0.0385	0
135	SLU 20	0.06	-3.12	53.99	0.1483	0.0392	0
135	SLU 21	0.06	-3.36	54.09	0.1593	0.0393	0
135	SLU 22	0.06	-2.8	47.52	0.1332	0.0397	0
135	SLU 23	0.06	-3.19	47.68	0.1515	0.0399	0
135	SLU 24	0.06	-2.52	48.71	0.1195	0.0409	0
135	SLU 25	0.06	-2.75	48.81	0.1305	0.041	0
135	SLU 26	0.06	-2.84	48.41	0.1344	0.0407	0
135	SLU 27	0.06	-2.16	49.44	0.1024	0.0417	0
135	SLU 28	0.06	-2.4	49.54	0.1134	0.0418	0
135	SLU 29	0.06	-2.1	48.98	0.0989	0.0413	0
135	SLU 30	0.06	-2.33	49.08	0.1099	0.0414	0
135	SLU 31	0.06	-3.66	55.64	0.1753	0.0421	0
135	SLU 32	0.06	-2.99	56.67	0.1433	0.0432	0
135	SLU 33	0.06	-3.22	56.77	0.1543	0.0433	0
135	SLU 34	0.06	-3.31	56.37	0.1581	0.0429	0
135	SLU 35	0.06	-2.64	57.4	0.1262	0.044	0
135	SLU 36	0.06	-2.87	57.49	0.1372	0.044	0
135	SLU 37	0.06	-2.57	56.94	0.1227	0.0435	0
135	SLU 38	0.06	-2.8	57.03	0.1337	0.0436	0
135	SLU 39	0.06	-3.48	58.89	0.1671	0.0429	0
135	SLU 40	0.06	-3.71	58.99	0.1781	0.043	0
135	SLU 41	0.06	-3.12	59.62	0.15	0.0437	0
135	SLU 42	0.06	-3.36	59.72	0.161	0.0438	0
135	SLU 43	0.06	-3.64	52.53	0.1704	0.0443	0
135	SLU 44	0.06	-4.03	52.69	0.1887	0.0444	0
135	SLU 45	0.07	-3.35	53.72	0.1568	0.0455	0
135	SLU 46	0.07	-3.59	53.82	0.1678	0.0456	0
135	SLU 47	0.06	-3.68	53.42	0.1716	0.0452	0
135	SLU 48	0.07	-3	54.45	0.1396	0.0463	0
135	SLU 49	0.07	-3.24	54.54	0.1506	0.0464	0
135	SLU 50	0.07	-2.93	53.99	0.1361	0.0458	0
135	SLU 51	0.07	-3.17	54.08	0.1471	0.0459	0
135	SLU 52	0.07	-4.5	60.65	0.2125	0.0466	0
135	SLU 53	0.07	-3.83	61.68	0.1805	0.0477	0
135	SLU 54	0.07	-4.06	61.77	0.1915	0.0478	0
135	SLU 55	0.07	-4.15	61.38	0.1954	0.0474	0
135	SLU 56	0.07	-3.47	62.41	0.1634	0.0485	0
135	SLU 57	0.07	-3.71	62.5	0.1744	0.0486	0
135	SLU 58	0.07	-3.41	61.95	0.1599	0.0481	0
135	SLU 59	0.07	-3.64	62.04	0.1709	0.0482	0
135	SLU 60	0.07	-4.31	63.9	0.2044	0.0474	0
135	SLU 61	0.07	-4.55	64	0.2154	0.0475	0
135	SLU 62	0.07	-3.96	64.63	0.1872	0.0482	0
135	SLU 63	0.07	-4.2	64.73	0.1982	0.0483	0
135	SLU 64	0.07	-3.64	58.16	0.1721	0.0488	0
135	SLU 65	0.07	-4.03	58.32	0.1904	0.0489	0
135	SLU 66	0.07	-3.36	59.35	0.1584	0.05	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
135	SLU 67	0.07	-3.59	59.44	0.1694	0.0501	0
135	SLU 68	0.07	-3.68	59.05	0.1733	0.0497	0
135	SLU 69	0.07	-3	60.08	0.1413	0.0508	0
135	SLU 70	0.07	-3.24	60.17	0.1523	0.0509	0
135	SLU 71	0.07	-2.94	59.62	0.1378	0.0503	0
135	SLU 72	0.07	-3.17	59.71	0.1488	0.0504	0
135	SLU 73	0.07	-4.5	66.28	0.2142	0.0511	0
135	SLU 74	0.08	-3.83	67.31	0.1822	0.0522	0
135	SLU 75	0.08	-4.06	67.4	0.1932	0.0523	0
135	SLU 76	0.08	-4.15	67.01	0.197	0.0519	0
135	SLU 77	0.08	-3.48	68.04	0.1651	0.053	0
135	SLU 78	0.08	-3.71	68.13	0.1761	0.0531	0
135	SLU 79	0.08	-3.41	67.58	0.1616	0.0526	0
135	SLU 80	0.08	-3.64	67.67	0.1725	0.0527	0
135	SLU 81	0.08	-4.31	69.53	0.206	0.0519	0
135	SLU 82	0.08	-4.55	69.63	0.217	0.052	0
135	SLU 83	0.08	-3.96	70.26	0.1889	0.0527	0
135	SLU 84	0.08	-4.2	70.35	0.1999	0.0528	0
135	SLE RA 1	0.05	-2.8	43.5	0.132	0.0365	0
135	SLE RA 2	0.05	-3.06	43.61	0.1442	0.0366	0
135	SLE RA 3	0.05	-2.61	44.29	0.1229	0.0373	0
135	SLE RA 4	0.05	-2.77	44.36	0.1302	0.0374	0
135	SLE RA 5	0.05	-2.82	44.09	0.1328	0.0371	0
135	SLE RA 6	0.05	-2.38	44.78	0.1115	0.0379	0
135	SLE RA 7	0.05	-2.53	44.84	0.1188	0.0379	0
135	SLE RA 8	0.05	-2.33	44.47	0.1091	0.0376	0
135	SLE RA 9	0.05	-2.49	44.54	0.1165	0.0376	0
135	SLE RA 10	0.06	-3.37	48.91	0.1601	0.0381	0
135	SLE RA 11	0.06	-2.92	49.6	0.1388	0.0388	0
135	SLE RA 12	0.06	-3.08	49.66	0.1461	0.0389	0
135	SLE RA 13	0.06	-3.14	49.4	0.1486	0.0386	0
135	SLE RA 14	0.06	-2.69	50.09	0.1273	0.0393	0
135	SLE RA 15	0.06	-2.85	50.15	0.1347	0.0394	0
135	SLE RA 16	0.06	-2.65	49.78	0.125	0.0391	0
135	SLE RA 17	0.06	-2.8	49.84	0.1323	0.0391	0
135	SLE RA 18	0.06	-3.25	51.08	0.1546	0.0386	0
135	SLE RA 19	0.06	-3.41	51.15	0.162	0.0387	0
135	SLE RA 20	0.06	-3.01	51.57	0.1432	0.0392	0
135	SLE RA 21	0.06	-3.17	51.63	0.1505	0.0392	0
135	SLE FR 1	0.05	-2.8	43.5	0.132	0.0365	0
135	SLE FR 2	0.05	-2.85	43.52	0.1344	0.0365	0
135	SLE FR 3	0.05	-2.71	43.7	0.1274	0.0367	0
135	SLE FR 4	0.05	-2.99	45.8	0.1412	0.0372	0
135	SLE FR 5	0.05	-2.84	45.97	0.1342	0.0374	0
135	SLE FR 6	0.05	-3.02	47.29	0.1433	0.0376	0
135	SLE QP 1	0.05	-2.8	43.5	0.132	0.0365	0
135	SLE QP 2	0.05	-2.93	45.78	0.1388	0.0372	0
135	SLD 1	0.22	-2.13	49.06	0.1015	0.1773	0.0002
135	SLD 2	0.22	-2.13	49.06	0.1015	0.1773	0.0002
135	SLD 3	0.25	-5.11	50.36	0.2439	0.1969	0.0001
135	SLD 4	0.25	-5.11	50.36	0.2439	0.1969	0.0001
135	SLD 5	0.07	1.83	44.78	-0.0884	0.0493	0.0001
135	SLD 6	0.07	1.83	44.78	-0.0884	0.0493	0.0001
135	SLD 7	0.15	-8.11	49.13	0.3863	0.1149	0
135	SLD 8	0.15	-8.11	49.13	0.3863	0.1149	0
135	SLD 9	-0.04	2.24	42.42	-0.1087	-0.0406	0
135	SLD 10	-0.04	2.24	42.42	-0.1087	-0.0406	0
135	SLD 11	0.04	-7.7	46.77	0.3659	0.025	-0.0001
135	SLD 12	0.04	-7.7	46.77	0.3659	0.025	-0.0001
135	SLD 13	-0.14	-0.76	41.19	0.0337	-0.1226	-0.0001
135	SLD 14	-0.14	-0.76	41.19	0.0337	-0.1226	-0.0001
135	SLD 15	-0.11	-3.74	42.5	0.1761	-0.103	-0.0001
135	SLD 16	-0.11	-3.74	42.5	0.1761	-0.103	-0.0001
135	SLV 1	0.48	-1.07	53.47	0.0521	0.3891	0.0004
135	SLV 2	0.48	-1.07	53.47	0.0521	0.3891	0.0004
135	SLV 3	0.53	-8.04	56.55	0.3851	0.4384	0.0003
135	SLV 4	0.53	-8.04	56.55	0.3851	0.4384	0.0003
135	SLV 5	0.09	8.2	43.4	-0.3923	0.068	0.0002
135	SLV 6	0.09	8.2	43.4	-0.3923	0.068	0.0002
135	SLV 7	0.28	-15.04	53.69	0.7178	0.2322	0
135	SLV 8	0.28	-15.04	53.69	0.7178	0.2322	0
135	SLV 9	-0.18	9.17	37.86	-0.4402	-0.1579	0
135	SLV 10	-0.18	9.17	37.86	-0.4402	-0.1579	0
135	SLV 11	0.01	-14.06	48.15	0.6699	0.0063	-0.0002
135	SLV 12	0.01	-14.06	48.15	0.6699	0.0063	-0.0002
135	SLV 13	-0.43	2.17	35	-0.1076	-0.364	-0.0003
135	SLV 14	-0.43	2.17	35	-0.1076	-0.364	-0.0003
135	SLV 15	-0.37	-4.8	38.08	0.2255	-0.3148	-0.0003
135	SLV 16	-0.37	-4.8	38.08	0.2255	-0.3148	-0.0003
136	SLU 1	0.02	1.66	11.52	-0.0514	0.0138	0.0001
136	SLU 2	0.02	1.65	11.53	-0.0509	0.0142	0.0001
136	SLU 3	0.02	1.7	11.71	-0.0519	0.0141	0.0001
136	SLU 4	0.02	1.7	11.72	-0.0517	0.0143	0.0001
136	SLU 5	0.02	1.66	11.63	-0.0503	0.0144	0.0001
136	SLU 6	0.02	1.71	11.81	-0.0513	0.0142	0.0001
136	SLU 7	0.02	1.7	11.82	-0.051	0.0144	0.0001
136	SLU 8	0.02	1.67	11.71	-0.0501	0.0141	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
136	SLU 9	0.02	1.67	11.72	-0.0498	0.0143	0.0001
136	SLU 10	0.02	1.97	14.84	-0.0605	0.0178	0.0001
136	SLU 11	0.02	2.02	15.02	-0.0616	0.0177	0.0001
136	SLU 12	0.02	2.01	15.03	-0.0613	0.0179	0.0001
136	SLU 13	0.02	1.98	14.94	-0.0599	0.0179	0.0001
136	SLU 14	0.02	2.03	15.12	-0.061	0.0178	0.0001
136	SLU 15	0.02	2.02	15.13	-0.0607	0.018	0.0001
136	SLU 16	0.02	1.99	15.02	-0.0598	0.0176	0.0001
136	SLU 17	0.02	1.99	15.03	-0.0595	0.0179	0.0001
136	SLU 18	0.02	2.12	16.25	-0.0651	0.0189	0.0001
136	SLU 19	0.02	2.11	16.26	-0.0648	0.0192	0.0001
136	SLU 20	0.02	2.13	16.35	-0.0645	0.0191	0.0001
136	SLU 21	0.02	2.12	16.35	-0.0642	0.0193	0.0001
136	SLU 22	0.02	1.93	12.75	-0.0588	0.0155	0.0001
136	SLU 23	0.02	1.92	12.76	-0.0583	0.016	0.0001
136	SLU 24	0.02	1.97	12.94	-0.0593	0.0158	0.0001
136	SLU 25	0.02	1.96	12.95	-0.059	0.0161	0.0001
136	SLU 26	0.02	1.92	12.86	-0.0577	0.0161	0.0001
136	SLU 27	0.02	1.97	13.04	-0.0587	0.0159	0.0001
136	SLU 28	0.02	1.97	13.04	-0.0584	0.0162	0.0001
136	SLU 29	0.02	1.94	12.94	-0.0575	0.0158	0.0001
136	SLU 30	0.02	1.93	12.95	-0.0572	0.016	0.0001
136	SLU 31	0.02	2.24	16.07	-0.0679	0.0195	0.0001
136	SLU 32	0.02	2.29	16.25	-0.069	0.0194	0.0001
136	SLU 33	0.02	2.28	16.26	-0.0687	0.0196	0.0001
136	SLU 34	0.02	2.24	16.17	-0.0673	0.0197	0.0001
136	SLU 35	0.02	2.29	16.35	-0.0683	0.0195	0.0001
136	SLU 36	0.02	2.28	16.35	-0.0681	0.0198	0.0001
136	SLU 37	0.02	2.26	16.25	-0.0671	0.0194	0.0001
136	SLU 38	0.02	2.25	16.26	-0.0669	0.0196	0.0001
136	SLU 39	0.03	2.38	17.48	-0.0725	0.0207	0.0001
136	SLU 40	0.03	2.38	17.49	-0.0722	0.0209	0.0001
136	SLU 41	0.03	2.39	17.57	-0.0719	0.0208	0.0001
136	SLU 42	0.03	2.38	17.58	-0.0716	0.021	0.0001
136	SLU 43	0.02	2.07	14.56	-0.0643	0.0174	0.0001
136	SLU 44	0.02	2.06	14.57	-0.0638	0.0178	0.0001
136	SLU 45	0.02	2.11	14.75	-0.0648	0.0176	0.0001
136	SLU 46	0.02	2.1	14.76	-0.0646	0.0179	0.0001
136	SLU 47	0.02	2.07	14.66	-0.0632	0.0179	0.0001
136	SLU 48	0.02	2.12	14.84	-0.0642	0.0177	0.0001
136	SLU 49	0.02	2.11	14.85	-0.0639	0.018	0.0001
136	SLU 50	0.02	2.08	14.75	-0.063	0.0176	0.0001
136	SLU 51	0.02	2.08	14.76	-0.0627	0.0179	0.0001
136	SLU 52	0.03	2.38	17.88	-0.0734	0.0214	0.0001
136	SLU 53	0.03	2.43	18.06	-0.0745	0.0212	0.0001
136	SLU 54	0.03	2.42	18.07	-0.0742	0.0215	0.0001
136	SLU 55	0.03	2.39	17.97	-0.0728	0.0215	0.0001
136	SLU 56	0.03	2.44	18.15	-0.0738	0.0213	0.0001
136	SLU 57	0.03	2.43	18.16	-0.0736	0.0216	0.0001
136	SLU 58	0.03	2.4	18.06	-0.0726	0.0212	0.0001
136	SLU 59	0.03	2.39	18.07	-0.0724	0.0214	0.0001
136	SLU 60	0.03	2.53	19.29	-0.078	0.0225	0.0001
136	SLU 61	0.03	2.52	19.29	-0.0777	0.0227	0.0001
136	SLU 62	0.03	2.53	19.38	-0.0774	0.0226	0.0001
136	SLU 63	0.03	2.53	19.39	-0.0771	0.0229	0.0001
136	SLU 64	0.02	2.34	15.79	-0.0716	0.0191	0.0001
136	SLU 65	0.02	2.33	15.8	-0.0712	0.0195	0.0001
136	SLU 66	0.02	2.38	15.98	-0.0722	0.0193	0.0001
136	SLU 67	0.02	2.37	15.98	-0.0719	0.0196	0.0001
136	SLU 68	0.02	2.33	15.89	-0.0705	0.0196	0.0001
136	SLU 69	0.02	2.38	16.07	-0.0716	0.0195	0.0001
136	SLU 70	0.02	2.37	16.08	-0.0713	0.0197	0.0001
136	SLU 71	0.02	2.35	15.98	-0.0704	0.0193	0.0001
136	SLU 72	0.02	2.34	15.98	-0.0701	0.0196	0.0001
136	SLU 73	0.03	2.64	19.11	-0.0808	0.0231	0.0001
136	SLU 74	0.03	2.69	19.29	-0.0818	0.0229	0.0001
136	SLU 75	0.03	2.69	19.29	-0.0816	0.0232	0.0001
136	SLU 76	0.03	2.65	19.2	-0.0802	0.0232	0.0001
136	SLU 77	0.03	2.7	19.38	-0.0812	0.0231	0.0001
136	SLU 78	0.03	2.69	19.39	-0.0809	0.0233	0.0001
136	SLU 79	0.03	2.67	19.29	-0.08	0.0229	0.0001
136	SLU 80	0.03	2.66	19.29	-0.0797	0.0232	0.0001
136	SLU 81	0.03	2.79	20.52	-0.0854	0.0242	0.0001
136	SLU 82	0.03	2.79	20.52	-0.0851	0.0245	0.0001
136	SLU 83	0.03	2.8	20.61	-0.0848	0.0243	0.0001
136	SLU 84	0.03	2.79	20.62	-0.0845	0.0246	0.0001
136	SLE RA 1	0.02	1.74	11.87	-0.0535	0.0143	0.0001
136	SLE RA 2	0.02	1.73	11.88	-0.0532	0.0146	0.0001
136	SLE RA 3	0.02	1.76	12	-0.0539	0.0145	0.0001
136	SLE RA 4	0.02	1.76	12.01	-0.0537	0.0146	0.0001
136	SLE RA 5	0.02	1.74	11.94	-0.0528	0.0147	0.0001
136	SLE RA 6	0.02	1.77	12.06	-0.0535	0.0146	0.0001
136	SLE RA 7	0.02	1.76	12.07	-0.0533	0.0147	0.0001
136	SLE RA 8	0.02	1.75	12	-0.0527	0.0145	0.0001
136	SLE RA 9	0.02	1.74	12	-0.0525	0.0146	0.0001
136	SLE RA 10	0.02	1.94	14.09	-0.0596	0.017	0.0001
136	SLE RA 11	0.02	1.98	14.21	-0.0603	0.0169	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
136	SLE RA 12	0.02	1.97	14.21	-0.0601	0.017	0.0001
136	SLE RA 13	0.02	1.95	14.15	-0.0592	0.0171	0.0001
136	SLE RA 14	0.02	1.98	14.27	-0.0599	0.0169	0.0001
136	SLE RA 15	0.02	1.98	14.28	-0.0597	0.0171	0.0001
136	SLE RA 16	0.02	1.96	14.21	-0.0591	0.0169	0.0001
136	SLE RA 17	0.02	1.95	14.21	-0.0589	0.017	0.0001
136	SLE RA 18	0.02	2.04	15.03	-0.0627	0.0177	0.0001
136	SLE RA 19	0.02	2.04	15.03	-0.0625	0.0179	0.0001
136	SLE RA 20	0.02	2.05	15.09	-0.0622	0.0178	0.0001
136	SLE RA 21	0.02	2.04	15.09	-0.062	0.018	0.0001
136	SLE FR 1	0.02	1.74	11.87	-0.0535	0.0143	0.0001
136	SLE FR 2	0.02	1.74	11.88	-0.0534	0.0144	0.0001
136	SLE FR 3	0.02	1.74	11.9	-0.0533	0.0143	0.0001
136	SLE FR 4	0.02	1.83	12.82	-0.0562	0.0154	0.0001
136	SLE FR 5	0.02	1.83	12.84	-0.0561	0.0154	0.0001
136	SLE FR 6	0.02	1.89	13.45	-0.0581	0.016	0.0001
136	SLE QP 1	0.02	1.74	11.87	-0.0535	0.0143	0.0001
136	SLE QP 2	0.02	1.83	12.82	-0.0562	0.0153	0.0001
136	SLD 1	0.18	1.75	12.46	-0.052	0.1613	0.0006
136	SLD 2	0.18	1.75	12.46	-0.052	0.1613	0.0006
136	SLD 3	0.16	-0.55	11.33	0.0276	0.1401	0.0005
136	SLD 4	0.16	-0.55	11.33	0.0276	0.1401	0.0005
136	SLD 5	0.11	5.29	14.42	-0.1758	0.0912	0.0003
136	SLD 6	0.11	5.29	14.42	-0.1758	0.0912	0.0003
136	SLD 7	0.02	-2.37	10.66	0.0897	0.0206	0.0001
136	SLD 8	0.02	-2.37	10.66	0.0897	0.0206	0.0001
136	SLD 9	0.01	6.03	14.98	-0.2022	0.0101	0.0001
136	SLD 10	0.01	6.03	14.98	-0.2022	0.0101	0.0001
136	SLD 11	-0.07	-1.63	11.21	0.0633	-0.0606	-0.0002
136	SLD 12	-0.07	-1.63	11.21	0.0633	-0.0606	-0.0002
136	SLD 13	-0.12	4.21	14.31	-0.1401	-0.1094	-0.0004
136	SLD 14	-0.12	4.21	14.31	-0.1401	-0.1094	-0.0004
136	SLD 15	-0.15	1.91	13.18	-0.0605	-0.1306	-0.0004
136	SLD 16	-0.15	1.91	13.18	-0.0605	-0.1306	-0.0004
136	SLV 1	0.44	1.64	11.95	-0.0461	0.3822	0.0013
136	SLV 2	0.44	1.64	11.95	-0.0461	0.3822	0.0013
136	SLV 3	0.38	-3.76	9.28	0.1409	0.33	0.0012
136	SLV 4	0.38	-3.76	9.28	0.1409	0.33	0.0012
136	SLV 5	0.23	9.95	16.62	-0.3368	0.2046	0.0007
136	SLV 6	0.23	9.95	16.62	-0.3368	0.2046	0.0007
136	SLV 7	0.03	-8.03	7.7	0.2865	0.0305	0.0001
136	SLV 8	0.03	-8.03	7.7	0.2865	0.0305	0.0001
136	SLV 9	0	11.69	17.94	-0.399	0.0001	0
136	SLV 10	0	11.69	17.94	-0.399	0.0001	0
136	SLV 11	-0.2	-6.29	9.02	0.2243	-0.1739	-0.0006
136	SLV 12	-0.2	-6.29	9.02	0.2243	-0.1739	-0.0006
136	SLV 13	-0.34	7.42	16.36	-0.2534	-0.2993	-0.001
136	SLV 14	-0.34	7.42	16.36	-0.2534	-0.2993	-0.001
136	SLV 15	-0.4	2.03	13.69	-0.0664	-0.3516	-0.0012
136	SLV 16	-0.4	2.03	13.69	-0.0664	-0.3516	-0.0012
137	SLU 1	0.13	1.69	20.05	-0.1516	0.0828	0
137	SLU 2	0.14	4.03	19.61	-0.2698	0.0894	0
137	SLU 3	0.14	1.5	20.71	-0.1434	0.0855	0
137	SLU 4	0.14	2.9	20.45	-0.2143	0.0895	0
137	SLU 5	0.14	3.74	20.09	-0.2563	0.0909	0
137	SLU 6	0.14	1.22	21.18	-0.1298	0.0871	0
137	SLU 7	0.14	2.62	20.92	-0.2008	0.0911	0
137	SLU 8	0.14	1.13	20.99	-0.1245	0.0859	0
137	SLU 9	0.14	2.53	20.73	-0.1954	0.0899	0
137	SLU 10	0.16	4.46	22.48	-0.2995	0.1044	0
137	SLU 11	0.16	1.94	23.58	-0.173	0.1005	0
137	SLU 12	0.16	3.34	23.32	-0.244	0.1045	0
137	SLU 13	0.16	4.18	22.96	-0.2859	0.1059	0
137	SLU 14	0.16	1.66	24.05	-0.1595	0.1021	0.0001
137	SLU 15	0.17	3.06	23.79	-0.2304	0.106	0
137	SLU 16	0.16	1.56	23.86	-0.1541	0.1009	0.0001
137	SLU 17	0.16	2.97	23.6	-0.2251	0.1048	0
137	SLU 18	0.16	2.31	24.15	-0.1939	0.1042	0
137	SLU 19	0.17	3.72	23.89	-0.2649	0.1081	0
137	SLU 20	0.17	2.03	24.62	-0.1804	0.1058	0.0001
137	SLU 21	0.17	3.43	24.36	-0.2513	0.1097	0.0001
137	SLU 22	0.15	1.95	22.69	-0.1713	0.0964	0
137	SLU 23	0.16	4.29	22.26	-0.2896	0.1029	0
137	SLU 24	0.16	1.76	23.35	-0.1631	0.0991	0
137	SLU 25	0.16	3.16	23.09	-0.2341	0.1031	0
137	SLU 26	0.16	4	22.73	-0.276	0.1045	0
137	SLU 27	0.16	1.48	23.82	-0.1496	0.1007	0.0001
137	SLU 28	0.16	2.88	23.56	-0.2205	0.1046	0
137	SLU 29	0.16	1.39	23.63	-0.1442	0.0995	0.0001
137	SLU 30	0.16	2.79	23.37	-0.2152	0.1034	0
137	SLU 31	0.18	4.72	25.13	-0.3192	0.1179	0.0001
137	SLU 32	0.18	2.2	26.22	-0.1928	0.1141	0.0001
137	SLU 33	0.18	3.6	25.96	-0.2637	0.118	0.0001
137	SLU 34	0.18	4.44	25.6	-0.3056	0.1195	0.0001
137	SLU 35	0.18	1.92	26.69	-0.1792	0.1156	0.0001
137	SLU 36	0.19	3.32	26.43	-0.2502	0.1196	0.0001
137	SLU 37	0.18	1.83	26.5	-0.1739	0.1145	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
137	SLU 38	0.18	3.23	26.24	-0.2448	0.1184	0.0001
137	SLU 39	0.19	2.58	26.79	-0.2137	0.1177	0.0001
137	SLU 40	0.19	3.98	26.53	-0.2846	0.1217	0.0001
137	SLU 41	0.19	2.29	27.26	-0.2001	0.1193	0.0001
137	SLU 42	0.19	3.7	27	-0.2711	0.1233	0.0001
137	SLU 43	0.16	2.11	25.15	-0.1903	0.103	0.0001
137	SLU 44	0.17	4.44	24.72	-0.3085	0.1096	0
137	SLU 45	0.17	1.92	25.82	-0.1821	0.1057	0.0001
137	SLU 46	0.17	3.32	25.56	-0.253	0.1097	0.0001
137	SLU 47	0.17	4.16	25.19	-0.295	0.1111	0
137	SLU 48	0.17	1.64	26.29	-0.1686	0.1073	0.0001
137	SLU 49	0.17	3.04	26.03	-0.2395	0.1113	0.0001
137	SLU 50	0.17	1.54	26.1	-0.1632	0.1061	0.0001
137	SLU 51	0.17	2.95	25.84	-0.2341	0.1101	0.0001
137	SLU 52	0.19	4.88	27.59	-0.3382	0.1245	0.0001
137	SLU 53	0.19	2.36	28.68	-0.2117	0.1207	0.0001
137	SLU 54	0.19	3.76	28.42	-0.2827	0.1247	0.0001
137	SLU 55	0.19	4.6	28.06	-0.3246	0.1261	0.0001
137	SLU 56	0.19	2.08	29.16	-0.1982	0.1223	0.0001
137	SLU 57	0.2	3.48	28.9	-0.2691	0.1262	0.0001
137	SLU 58	0.19	1.98	28.97	-0.1928	0.1211	0.0001
137	SLU 59	0.2	3.38	28.71	-0.2638	0.125	0.0001
137	SLU 60	0.2	2.73	29.25	-0.2326	0.1244	0.0001
137	SLU 61	0.2	4.13	28.99	-0.3036	0.1283	0.0001
137	SLU 62	0.2	2.45	29.72	-0.2191	0.1259	0.0001
137	SLU 63	0.2	3.85	29.47	-0.29	0.1299	0.0001
137	SLU 64	0.18	2.37	27.8	-0.21	0.1165	0.0001
137	SLU 65	0.19	4.7	27.37	-0.3283	0.1231	0.0001
137	SLU 66	0.19	2.18	28.46	-0.2018	0.1193	0.0001
137	SLU 67	0.19	3.58	28.2	-0.2728	0.1232	0.0001
137	SLU 68	0.19	4.42	27.84	-0.3147	0.1247	0.0001
137	SLU 69	0.19	1.9	28.93	-0.1883	0.1209	0.0001
137	SLU 70	0.2	3.3	28.67	-0.2592	0.1248	0.0001
137	SLU 71	0.19	1.8	28.74	-0.1829	0.1197	0.0001
137	SLU 72	0.19	3.21	28.48	-0.2539	0.1236	0.0001
137	SLU 73	0.21	5.14	30.23	-0.3579	0.1381	0.0001
137	SLU 74	0.21	2.62	31.33	-0.2315	0.1343	0.0001
137	SLU 75	0.22	4.02	31.07	-0.3024	0.1382	0.0001
137	SLU 76	0.22	4.86	30.71	-0.3444	0.1397	0.0001
137	SLU 77	0.22	2.34	31.8	-0.2179	0.1358	0.0001
137	SLU 78	0.22	3.74	31.54	-0.2889	0.1398	0.0001
137	SLU 79	0.21	2.24	31.61	-0.2126	0.1346	0.0001
137	SLU 80	0.22	3.64	31.35	-0.2835	0.1386	0.0001
137	SLU 81	0.22	2.99	31.9	-0.2524	0.1379	0.0001
137	SLU 82	0.22	4.39	31.64	-0.3233	0.1419	0.0001
137	SLU 83	0.22	2.71	32.37	-0.2388	0.1395	0.0001
137	SLU 84	0.22	4.11	32.11	-0.3098	0.1434	0.0001
137	SLE RA 1	0.14	1.76	20.8	-0.1572	0.0867	0
137	SLE RA 2	0.14	3.32	20.51	-0.236	0.0911	0
137	SLE RA 3	0.14	1.64	21.24	-0.1518	0.0885	0
137	SLE RA 4	0.14	2.57	21.07	-0.1991	0.0911	0
137	SLE RA 5	0.14	3.13	20.83	-0.227	0.0921	0
137	SLE RA 6	0.14	1.45	21.56	-0.1427	0.0895	0
137	SLE RA 7	0.14	2.39	21.38	-0.19	0.0922	0
137	SLE RA 8	0.14	1.39	21.43	-0.1392	0.0888	0
137	SLE RA 9	0.14	2.32	21.26	-0.1864	0.0914	0
137	SLE RA 10	0.16	3.61	22.43	-0.2558	0.101	0
137	SLE RA 11	0.16	1.93	23.15	-0.1715	0.0985	0
137	SLE RA 12	0.16	2.87	22.98	-0.2188	0.1011	0
137	SLE RA 13	0.16	3.43	22.74	-0.2468	0.1021	0
137	SLE RA 14	0.16	1.74	23.47	-0.1625	0.0995	0
137	SLE RA 15	0.16	2.68	23.3	-0.2098	0.1022	0
137	SLE RA 16	0.16	1.68	23.34	-0.1589	0.0987	0
137	SLE RA 17	0.16	2.61	23.17	-0.2062	0.1014	0
137	SLE RA 18	0.16	2.18	23.53	-0.1854	0.1009	0
137	SLE RA 19	0.16	3.11	23.36	-0.2327	0.1036	0
137	SLE RA 20	0.16	1.99	23.85	-0.1764	0.102	0
137	SLE RA 21	0.16	2.93	23.68	-0.2237	0.1046	0
137	SLE FR 1	0.14	1.76	20.8	-0.1572	0.0867	0
137	SLE FR 2	0.14	2.08	20.74	-0.173	0.0875	0
137	SLE FR 3	0.14	1.69	20.93	-0.1536	0.0871	0
137	SLE FR 4	0.14	2.2	21.56	-0.1815	0.0918	0
137	SLE FR 5	0.14	1.81	21.75	-0.1621	0.0914	0
137	SLE FR 6	0.15	1.97	22.17	-0.1713	0.0938	0
137	SLE QP 1	0.14	1.76	20.8	-0.1572	0.0867	0
137	SLE QP 2	0.14	1.89	21.62	-0.1657	0.0909	0
137	SLD 1	0.26	1.62	22.6	-0.1559	0.1839	0.0001
137	SLD 2	0.26	1.62	22.6	-0.1559	0.1839	0.0001
137	SLD 3	0.23	-1.64	23.2	0.0012	0.1585	0.0001
137	SLD 4	0.23	-1.64	23.2	0.0012	0.1585	0.0001
137	SLD 5	0.23	6.75	21	-0.401	0.1573	0
137	SLD 6	0.23	6.75	21	-0.401	0.1573	0
137	SLD 7	0.12	-4.11	23.01	0.1226	0.0727	0.0001
137	SLD 8	0.12	-4.11	23.01	0.1226	0.0727	0.0001
137	SLD 9	0.17	7.89	20.23	-0.454	0.1092	0
137	SLD 10	0.17	7.89	20.23	-0.454	0.1092	0
137	SLD 11	0.06	-2.97	22.25	0.0696	0.0246	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
137	SLD 12	0.06	-2.97	22.25	0.0696	0.0246	0.0001
137	SLD 13	0.06	5.42	20.04	-0.3326	0.0234	0
137	SLD 14	0.06	5.42	20.04	-0.3326	0.0234	0
137	SLD 15	0.03	2.16	20.65	-0.1755	-0.002	0
137	SLD 16	0.03	2.16	20.65	-0.1755	-0.002	0
137	SLV 1	0.42	1.18	23.88	-0.139	0.3109	0.0002
137	SLV 2	0.42	1.18	23.88	-0.139	0.3109	0.0002
137	SLV 3	0.34	-6.6	25.4	0.2361	0.2486	0.0003
137	SLV 4	0.34	-6.6	25.4	0.2361	0.2486	0.0003
137	SLV 5	0.34	13.47	19.99	-0.7267	0.2514	0
137	SLV 6	0.34	13.47	19.99	-0.7267	0.2514	0
137	SLV 7	0.09	-12.46	25.06	0.5238	0.0437	0.0002
137	SLV 8	0.09	-12.46	25.06	0.5238	0.0437	0.0002
137	SLV 9	0.2	16.23	18.18	-0.8552	0.1382	-0.0001
137	SLV 10	0.2	16.23	18.18	-0.8552	0.1382	-0.0001
137	SLV 11	-0.05	-9.7	23.25	0.3953	-0.0695	0.0001
137	SLV 12	-0.05	-9.7	23.25	0.3953	-0.0695	0.0001
137	SLV 13	-0.06	10.38	17.85	-0.5675	-0.0667	-0.0002
137	SLV 14	-0.06	10.38	17.85	-0.5675	-0.0667	-0.0002
137	SLV 15	-0.13	2.6	19.37	-0.1924	-0.129	-0.0001
137	SLV 16	-0.13	2.6	19.37	-0.1924	-0.129	-0.0001
138	SLU 1	0.05	-3.42	44.05	0.1857	0.0382	-0.001
138	SLU 2	0.05	-3.95	44.62	0.2114	0.0388	-0.001
138	SLU 3	0.05	-3.18	45.09	0.1753	0.0389	-0.001
138	SLU 4	0.05	-3.49	45.43	0.1907	0.0393	-0.001
138	SLU 5	0.05	-3.66	45.13	0.198	0.0391	-0.001
138	SLU 6	0.05	-2.88	45.6	0.162	0.0392	-0.001
138	SLU 7	0.05	-3.2	45.94	0.1774	0.0396	-0.001
138	SLU 8	0.05	-2.84	45.08	0.159	0.0387	-0.001
138	SLU 9	0.05	-3.15	45.42	0.1744	0.0391	-0.001
138	SLU 10	0.06	-4.53	52.77	0.244	0.0468	-0.0012
138	SLU 11	0.06	-3.75	53.24	0.2079	0.0469	-0.0012
138	SLU 12	0.06	-4.07	53.58	0.2233	0.0473	-0.0012
138	SLU 13	0.06	-4.23	53.28	0.2307	0.0471	-0.0012
138	SLU 14	0.06	-3.46	53.76	0.1946	0.0472	-0.0012
138	SLU 15	0.06	-3.78	54.09	0.21	0.0476	-0.0012
138	SLU 16	0.06	-3.41	53.23	0.1916	0.0467	-0.0012
138	SLU 17	0.06	-3.73	53.57	0.207	0.0471	-0.0012
138	SLU 18	0.07	-4.24	55.7	0.2323	0.0496	-0.0013
138	SLU 19	0.07	-4.56	56.04	0.2477	0.05	-0.0013
138	SLU 20	0.07	-3.95	56.21	0.2189	0.0499	-0.0013
138	SLU 21	0.07	-4.27	56.55	0.2344	0.0503	-0.0013
138	SLU 22	0.06	-3.44	49.58	0.1927	0.0429	-0.0011
138	SLU 23	0.06	-3.97	50.14	0.2184	0.0435	-0.0011
138	SLU 24	0.06	-3.19	50.62	0.1823	0.0436	-0.0011
138	SLU 25	0.06	-3.51	50.95	0.1977	0.044	-0.0011
138	SLU 26	0.06	-3.67	50.65	0.205	0.0438	-0.0011
138	SLU 27	0.06	-2.9	51.13	0.1689	0.0439	-0.0011
138	SLU 28	0.06	-3.22	51.47	0.1843	0.0443	-0.0011
138	SLU 29	0.06	-2.85	50.6	0.166	0.0434	-0.0011
138	SLU 30	0.06	-3.17	50.94	0.1814	0.0438	-0.0011
138	SLU 31	0.07	-4.54	58.29	0.251	0.0515	-0.0013
138	SLU 32	0.07	-3.77	58.77	0.2149	0.0516	-0.0013
138	SLU 33	0.07	-4.09	59.11	0.2303	0.052	-0.0013
138	SLU 34	0.07	-4.25	58.81	0.2376	0.0518	-0.0013
138	SLU 35	0.07	-3.48	59.28	0.2015	0.0519	-0.0013
138	SLU 36	0.07	-3.8	59.62	0.217	0.0523	-0.0013
138	SLU 37	0.07	-3.43	58.76	0.1986	0.0514	-0.0013
138	SLU 38	0.07	-3.75	59.1	0.214	0.0518	-0.0013
138	SLU 39	0.07	-4.26	61.23	0.2393	0.0543	-0.0014
138	SLU 40	0.07	-4.58	61.56	0.2547	0.0547	-0.0014
138	SLU 41	0.07	-3.97	61.74	0.2259	0.0546	-0.0014
138	SLU 42	0.07	-4.29	62.08	0.2413	0.055	-0.0014
138	SLU 43	0.06	-4.44	55.37	0.239	0.048	-0.0012
138	SLU 44	0.06	-4.97	55.94	0.2647	0.0487	-0.0012
138	SLU 45	0.06	-4.2	56.41	0.2286	0.0487	-0.0012
138	SLU 46	0.06	-4.51	56.75	0.244	0.0491	-0.0012
138	SLU 47	0.06	-4.68	56.45	0.2514	0.049	-0.0012
138	SLU 48	0.06	-3.9	56.93	0.2153	0.049	-0.0012
138	SLU 49	0.06	-4.22	57.26	0.2307	0.0494	-0.0013
138	SLU 50	0.06	-3.85	56.4	0.2123	0.0486	-0.0012
138	SLU 51	0.06	-4.17	56.74	0.2277	0.049	-0.0012
138	SLU 52	0.07	-5.55	64.09	0.2973	0.0567	-0.0014
138	SLU 53	0.07	-4.77	64.57	0.2612	0.0567	-0.0014
138	SLU 54	0.08	-5.09	64.9	0.2766	0.0571	-0.0015
138	SLU 55	0.07	-5.25	64.6	0.284	0.0569	-0.0014
138	SLU 56	0.07	-4.48	65.08	0.2479	0.057	-0.0015
138	SLU 57	0.08	-4.8	65.42	0.2633	0.0574	-0.0015
138	SLU 58	0.07	-4.43	64.55	0.2449	0.0566	-0.0014
138	SLU 59	0.07	-4.75	64.89	0.2603	0.057	-0.0015
138	SLU 60	0.08	-5.26	67.02	0.2856	0.0594	-0.0015
138	SLU 61	0.08	-5.58	67.36	0.301	0.0598	-0.0015
138	SLU 62	0.08	-4.97	67.54	0.2723	0.0597	-0.0015
138	SLU 63	0.08	-5.29	67.87	0.2877	0.0601	-0.0015
138	SLU 64	0.07	-4.46	60.9	0.246	0.0527	-0.0013
138	SLU 65	0.07	-4.99	61.46	0.2717	0.0534	-0.0013
138	SLU 66	0.07	-4.21	61.94	0.2356	0.0534	-0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
138	SLU 67	0.07	-4.53	62.28	0.251	0.0538	-0.0014
138	SLU 68	0.07	-4.69	61.98	0.2583	0.0537	-0.0014
138	SLU 69	0.07	-3.92	62.45	0.2222	0.0537	-0.0014
138	SLU 70	0.07	-4.24	62.79	0.2377	0.0541	-0.0014
138	SLU 71	0.07	-3.87	61.93	0.2193	0.0533	-0.0014
138	SLU 72	0.07	-4.19	62.26	0.2347	0.0537	-0.0014
138	SLU 73	0.08	-5.56	69.62	0.3043	0.0613	-0.0016
138	SLU 74	0.08	-4.79	70.09	0.2682	0.0614	-0.0016
138	SLU 75	0.08	-5.11	70.43	0.2836	0.0618	-0.0016
138	SLU 76	0.08	-5.27	70.13	0.2909	0.0616	-0.0016
138	SLU 77	0.08	-4.5	70.6	0.2549	0.0617	-0.0016
138	SLU 78	0.08	-4.82	70.94	0.2703	0.0621	-0.0016
138	SLU 79	0.08	-4.45	70.08	0.2519	0.0613	-0.0016
138	SLU 80	0.08	-4.77	70.42	0.2673	0.0617	-0.0016
138	SLU 81	0.08	-5.28	72.55	0.2926	0.0641	-0.0016
138	SLU 82	0.09	-5.6	72.89	0.308	0.0645	-0.0016
138	SLU 83	0.08	-4.99	73.06	0.2792	0.0644	-0.0017
138	SLU 84	0.09	-5.31	73.4	0.2946	0.0648	-0.0017
138	SLE RA 1	0.05	-3.42	45.63	0.1877	0.0395	-0.001
138	SLE RA 2	0.05	-3.78	46.01	0.2048	0.0399	-0.001
138	SLE RA 3	0.05	-3.26	46.32	0.1808	0.04	-0.001
138	SLE RA 4	0.05	-3.47	46.55	0.191	0.0403	-0.001
138	SLE RA 5	0.05	-3.58	46.35	0.1959	0.0401	-0.001
138	SLE RA 6	0.05	-3.07	46.67	0.1719	0.0402	-0.001
138	SLE RA 7	0.05	-3.28	46.89	0.1821	0.0405	-0.001
138	SLE RA 8	0.05	-3.04	46.32	0.1699	0.0399	-0.001
138	SLE RA 9	0.05	-3.25	46.54	0.1802	0.0402	-0.001
138	SLE RA 10	0.06	-4.16	51.44	0.2265	0.0453	-0.0011
138	SLE RA 11	0.06	-3.65	51.76	0.2025	0.0453	-0.0012
138	SLE RA 12	0.06	-3.86	51.98	0.2128	0.0456	-0.0012
138	SLE RA 13	0.06	-3.97	51.78	0.2177	0.0455	-0.0012
138	SLE RA 14	0.06	-3.45	52.1	0.1936	0.0455	-0.0012
138	SLE RA 15	0.06	-3.66	52.33	0.2039	0.0458	-0.0012
138	SLE RA 16	0.06	-3.42	51.75	0.1916	0.0452	-0.0012
138	SLE RA 17	0.06	-3.63	51.98	0.2019	0.0455	-0.0012
138	SLE RA 18	0.06	-3.97	53.4	0.2187	0.0471	-0.0012
138	SLE RA 19	0.06	-4.19	53.62	0.229	0.0474	-0.0012
138	SLE RA 20	0.06	-3.78	53.74	0.2098	0.0473	-0.0012
138	SLE RA 21	0.06	-3.99	53.96	0.2201	0.0476	-0.0012
138	SLE FR 1	0.05	-3.42	45.63	0.1877	0.0395	-0.001
138	SLE FR 2	0.05	-3.5	45.71	0.1911	0.0396	-0.001
138	SLE FR 3	0.05	-3.35	45.77	0.1841	0.0396	-0.001
138	SLE FR 4	0.05	-3.66	48.04	0.2004	0.0419	-0.0011
138	SLE FR 5	0.05	-3.51	48.1	0.1934	0.0419	-0.0011
138	SLE FR 6	0.06	-3.7	49.51	0.2032	0.0433	-0.0011
138	SLE QP 1	0.05	-3.42	45.63	0.1877	0.0395	-0.001
138	SLE QP 2	0.05	-3.59	47.96	0.197	0.0418	-0.0011
138	SLD 1	0.19	0.16	41.6	0.0146	0.157	-0.0027
138	SLD 2	0.19	0.16	41.6	0.0146	0.157	-0.0027
138	SLD 3	0.21	-3.84	44.85	0.2159	0.1762	-0.0031
138	SLD 4	0.21	-3.84	44.85	0.2159	0.1762	-0.0031
138	SLD 5	0.06	3.6	41.13	-0.163	0.0472	-0.0009
138	SLD 6	0.06	3.6	41.13	-0.163	0.0472	-0.0009
138	SLD 7	0.14	-9.73	51.96	0.508	0.1112	-0.0023
138	SLD 8	0.14	-9.73	51.96	0.508	0.1112	-0.0023
138	SLD 9	-0.03	2.55	43.97	-0.114	-0.0277	0.0002
138	SLD 10	-0.03	2.55	43.97	-0.114	-0.0277	0.0002
138	SLD 11	0.05	-10.78	54.8	0.557	0.0363	-0.0012
138	SLD 12	0.05	-10.78	54.8	0.557	0.0363	-0.0012
138	SLD 13	-0.11	-3.34	51.07	0.178	-0.0926	0.001
138	SLD 14	-0.11	-3.34	51.07	0.178	-0.0926	0.001
138	SLD 15	-0.08	-7.34	54.32	0.3794	-0.0734	0.0006
138	SLD 16	-0.08	-7.34	54.32	0.3794	-0.0734	0.0006
138	SLV 1	0.4	5.21	32.98	-0.2315	0.3319	-0.0052
138	SLV 2	0.4	5.21	32.98	-0.2315	0.3319	-0.0052
138	SLV 3	0.46	-4.17	40.71	0.2408	0.3793	-0.0062
138	SLV 4	0.46	-4.17	40.71	0.2408	0.3793	-0.0062
138	SLV 5	0.07	13.28	31.75	-0.6478	0.057	-0.0008
138	SLV 6	0.07	13.28	31.75	-0.6478	0.057	-0.0008
138	SLV 7	0.26	-18	57.5	0.9264	0.2149	-0.0041
138	SLV 8	0.26	-18	57.5	0.9264	0.2149	-0.0041
138	SLV 9	-0.15	10.82	38.42	-0.5324	-0.1313	0.0019
138	SLV 10	-0.15	10.82	38.42	-0.5324	-0.1313	0.0019
138	SLV 11	0.03	-20.46	64.17	1.0418	0.0266	-0.0013
138	SLV 12	0.03	-20.46	64.17	1.0418	0.0266	-0.0013
138	SLV 13	-0.35	-3.01	55.22	0.1532	-0.2957	0.0041
138	SLV 14	-0.35	-3.01	55.22	0.1532	-0.2957	0.0041
138	SLV 15	-0.29	-12.39	62.94	0.6255	-0.2483	0.0031
138	SLV 16	-0.29	-12.39	62.94	0.6255	-0.2483	0.0031
139	SLU 1	0	-0.49	36.52	-0.0332	-0.0029	0
139	SLU 2	0	1.6	36.49	-0.1414	-0.0083	0
139	SLU 3	0	-0.71	37.8	-0.0246	-0.003	0
139	SLU 4	0	0.55	37.79	-0.0894	-0.0062	0
139	SLU 5	0	1.33	37.4	-0.1294	-0.0083	0
139	SLU 6	0	-0.98	38.7	-0.0126	-0.003	0
139	SLU 7	0	0.28	38.69	-0.0775	-0.0062	0
139	SLU 8	0	-1.03	38.32	-0.0094	-0.0029	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
139	SLU 9	0	0.22	38.31	-0.0742	-0.0062	0
139	SLU 10	0	1.73	42.4	-0.1532	-0.0087	0
139	SLU 11	0	-0.58	43.7	-0.0364	-0.0035	0
139	SLU 12	0	0.67	43.69	-0.1013	-0.0067	0
139	SLU 13	0	1.45	43.3	-0.1413	-0.0088	0
139	SLU 14	0	-0.85	44.6	-0.0245	-0.0035	0
139	SLU 15	0	0.4	44.59	-0.0893	-0.0067	0
139	SLU 16	0	-0.91	44.23	-0.0212	-0.0034	0
139	SLU 17	0	0.35	44.21	-0.0861	-0.0067	0
139	SLU 18	0	-0.31	44.95	-0.0502	-0.0036	0
139	SLU 19	0	0.94	44.93	-0.115	-0.0068	0
139	SLU 20	0	-0.58	45.85	-0.0382	-0.0036	0
139	SLU 21	0	0.67	45.84	-0.1031	-0.0068	0
139	SLU 22	0	-0.49	42.08	-0.0386	-0.0033	0
139	SLU 23	0	1.6	42.06	-0.1467	-0.0087	0
139	SLU 24	0	-0.7	43.37	-0.0299	-0.0034	0
139	SLU 25	0	0.55	43.35	-0.0948	-0.0066	0
139	SLU 26	0	1.33	42.97	-0.1348	-0.0087	0
139	SLU 27	0	-0.98	44.27	-0.018	-0.0034	0
139	SLU 28	0	0.28	44.26	-0.0828	-0.0067	0
139	SLU 29	0	-1.03	43.89	-0.0147	-0.0033	0
139	SLU 30	0	0.22	43.88	-0.0796	-0.0066	0
139	SLU 31	0	1.73	47.96	-0.1586	-0.0092	0
139	SLU 32	0	-0.58	49.27	-0.0417	-0.0039	0
139	SLU 33	0	0.68	49.26	-0.1066	-0.0071	0
139	SLU 34	0	1.46	48.87	-0.1466	-0.0092	0
139	SLU 35	0	-0.85	50.17	-0.0298	-0.0039	0
139	SLU 36	0	0.4	50.16	-0.0947	-0.0071	0
139	SLU 37	0	-0.91	49.79	-0.0266	-0.0038	0
139	SLU 38	0	0.35	49.78	-0.0914	-0.0071	0
139	SLU 39	0	-0.31	50.51	-0.0555	-0.004	0
139	SLU 40	0	0.94	50.5	-0.1204	-0.0072	0
139	SLU 41	0	-0.58	51.42	-0.0436	-0.004	0
139	SLU 42	0	0.67	51.41	-0.1085	-0.0073	0
139	SLU 43	0	-0.64	45.56	-0.0414	-0.0036	0
139	SLU 44	0	1.45	45.54	-0.1495	-0.009	0
139	SLU 45	0	-0.85	46.84	-0.0327	-0.0037	0
139	SLU 46	0	0.4	46.83	-0.0976	-0.0069	0
139	SLU 47	0	1.18	46.44	-0.1376	-0.009	0
139	SLU 48	0	-1.13	47.75	-0.0208	-0.0037	0
139	SLU 49	0	0.13	47.74	-0.0856	-0.0069	0
139	SLU 50	0	-1.18	47.37	-0.0175	-0.0036	0
139	SLU 51	0	0.07	47.36	-0.0824	-0.0069	0
139	SLU 52	0	1.58	51.44	-0.1614	-0.0095	0
139	SLU 53	0	-0.73	52.75	-0.0445	-0.0042	0
139	SLU 54	0	0.53	52.73	-0.1094	-0.0074	0
139	SLU 55	0	1.31	52.35	-0.1494	-0.0095	0
139	SLU 56	0	-1	53.65	-0.0326	-0.0042	0
139	SLU 57	0	0.26	53.64	-0.0975	-0.0074	0
139	SLU 58	0	-1.06	53.27	-0.0294	-0.0041	0
139	SLU 59	0	0.2	53.26	-0.0942	-0.0074	0
139	SLU 60	0	-0.46	53.99	-0.0583	-0.0043	0
139	SLU 61	0	0.79	53.98	-0.1232	-0.0075	0
139	SLU 62	0	-0.73	54.9	-0.0464	-0.0043	0
139	SLU 63	0	0.52	54.88	-0.1112	-0.0075	0
139	SLU 64	0	-0.64	51.13	-0.0467	-0.004	0
139	SLU 65	0	1.45	51.11	-0.1549	-0.0094	0
139	SLU 66	0	-0.85	52.41	-0.038	-0.0041	0
139	SLU 67	0	0.4	52.4	-0.1029	-0.0073	0
139	SLU 68	0	1.18	52.01	-0.1429	-0.0094	0
139	SLU 69	0	-1.12	53.32	-0.0261	-0.0041	0
139	SLU 70	0	0.13	53.3	-0.091	-0.0074	0
139	SLU 71	0	-1.18	52.94	-0.0229	-0.0041	0
139	SLU 72	0	0.07	52.92	-0.0877	-0.0073	0
139	SLU 73	0	1.58	57.01	-0.1667	-0.0099	0
139	SLU 74	0	-0.73	58.31	-0.0499	-0.0046	0
139	SLU 75	0	0.53	58.3	-0.1148	-0.0078	0
139	SLU 76	0	1.31	57.91	-0.1548	-0.0099	0
139	SLU 77	0	-1	59.22	-0.0379	-0.0046	0
139	SLU 78	0	0.26	59.21	-0.1028	-0.0079	0
139	SLU 79	0	-1.06	58.84	-0.0347	-0.0046	0
139	SLU 80	0	0.2	58.83	-0.0996	-0.0078	0
139	SLU 81	0	-0.46	59.56	-0.0637	-0.0047	0
139	SLU 82	0	0.8	59.55	-0.1285	-0.0079	0
139	SLU 83	0	-0.73	60.46	-0.0517	-0.0047	0
139	SLU 84	0	0.52	60.45	-0.1166	-0.008	0
139	SLE RA 1	0	-0.49	38.11	-0.0348	-0.003	0
139	SLE RA 2	0	0.9	38.09	-0.1069	-0.0066	0
139	SLE RA 3	0	-0.63	38.96	-0.029	-0.003	0
139	SLE RA 4	0	0.2	38.95	-0.0722	-0.0052	0
139	SLE RA 5	0	0.72	38.7	-0.0989	-0.0066	0
139	SLE RA 6	0	-0.82	39.56	-0.021	-0.0031	0
139	SLE RA 7	0	0.02	39.56	-0.0643	-0.0052	0
139	SLE RA 8	0	-0.85	39.31	-0.0189	-0.003	0
139	SLE RA 9	0	-0.02	39.3	-0.0621	-0.0052	0
139	SLE RA 10	0	0.99	42.03	-0.1148	-0.0069	0
139	SLE RA 11	0	-0.55	42.9	-0.0369	-0.0034	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
139	SLE RA 12	0	0.29	42.89	-0.0801	-0.0055	0
139	SLE RA 13	0	0.81	42.63	-0.1068	-0.0069	0
139	SLE RA 14	0	-0.73	43.5	-0.0289	-0.0034	0
139	SLE RA 15	0	0.11	43.49	-0.0722	-0.0056	0
139	SLE RA 16	0	-0.77	43.25	-0.0268	-0.0034	0
139	SLE RA 17	0	0.07	43.24	-0.07	-0.0055	0
139	SLE RA 18	0	-0.37	43.73	-0.0461	-0.0035	0
139	SLE RA 19	0	0.46	43.72	-0.0893	-0.0056	0
139	SLE RA 20	0	-0.55	44.33	-0.0381	-0.0035	0
139	SLE RA 21	0	0.28	44.32	-0.0813	-0.0056	0
139	SLE FR 1	0	-0.49	38.11	-0.0348	-0.003	0
139	SLE FR 2	0	-0.21	38.1	-0.0492	-0.0037	0
139	SLE FR 3	0	-0.56	38.35	-0.0316	-0.003	0
139	SLE FR 4	0	-0.18	39.79	-0.0526	-0.0038	0
139	SLE FR 5	0	-0.53	40.03	-0.035	-0.0031	0
139	SLE FR 6	0	-0.43	40.92	-0.0404	-0.0032	0
139	SLE QP 1	0	-0.49	38.11	-0.0348	-0.003	0
139	SLE QP 2	0	-0.46	39.79	-0.0382	-0.0031	0
139	SLD 1	0.08	2.22	41.35	-0.1684	0.0653	0
139	SLD 2	0.08	2.22	41.35	-0.1684	0.0653	0
139	SLD 3	0.1	-0.64	40.76	-0.0288	0.0894	0.0001
139	SLD 4	0.1	-0.64	40.76	-0.0288	0.0894	0.0001
139	SLD 5	-0.02	4.68	41.15	-0.289	-0.0191	0
139	SLD 6	-0.02	4.68	41.15	-0.289	-0.0191	0
139	SLD 7	0.07	-4.84	39.19	0.1764	0.0612	0
139	SLD 8	0.07	-4.84	39.19	0.1764	0.0612	0
139	SLD 9	-0.07	3.93	40.39	-0.2527	-0.0674	-0.0001
139	SLD 10	-0.07	3.93	40.39	-0.2527	-0.0674	-0.0001
139	SLD 11	0.01	-5.59	38.44	0.2127	0.0129	0
139	SLD 12	0.01	-5.59	38.44	0.2127	0.0129	0
139	SLD 13	-0.11	-0.27	38.82	-0.0476	-0.0957	-0.0001
139	SLD 14	-0.11	-0.27	38.82	-0.0476	-0.0957	-0.0001
139	SLD 15	-0.08	-3.13	38.24	0.0921	-0.0716	-0.0001
139	SLD 16	-0.08	-3.13	38.24	0.0921	-0.0716	-0.0001
139	SLV 1	0.19	6.01	43.49	-0.353	0.1634	0.0001
139	SLV 2	0.19	6.01	43.49	-0.353	0.1634	0.0001
139	SLV 3	0.25	-0.77	42.07	-0.0215	0.2246	0.0002
139	SLV 4	0.25	-0.77	42.07	-0.0215	0.2246	0.0002
139	SLV 5	-0.04	11.75	43.05	-0.6354	-0.046	0
139	SLV 6	-0.04	11.75	43.05	-0.6354	-0.046	0
139	SLV 7	0.17	-10.82	38.33	0.4696	0.1581	0.0001
139	SLV 8	0.17	-10.82	38.33	0.4696	0.1581	0.0001
139	SLV 9	-0.18	9.91	41.26	-0.5459	-0.1643	-0.0001
139	SLV 10	-0.18	9.91	41.26	-0.5459	-0.1643	-0.0001
139	SLV 11	0.04	-12.66	36.54	0.559	0.0398	0
139	SLV 12	0.04	-12.66	36.54	0.559	0.0398	0
139	SLV 13	-0.26	-0.15	37.51	-0.0548	-0.2309	-0.0002
139	SLV 14	-0.26	-0.15	37.51	-0.0548	-0.2309	-0.0002
139	SLV 15	-0.19	-6.92	36.09	0.2767	-0.1697	-0.0001
139	SLV 16	-0.19	-6.92	36.09	0.2767	-0.1697	-0.0001
140	SLU 1	0.04	-3.48	42.36	0.1678	0.0301	0
140	SLU 2	0.04	-3.86	42.56	0.1862	0.0301	0
140	SLU 3	0.04	-3.22	43.48	0.1555	0.0312	0
140	SLU 4	0.04	-3.45	43.6	0.1665	0.0312	0
140	SLU 5	0.04	-3.53	43.16	0.1698	0.0308	0
140	SLU 6	0.04	-2.89	44.09	0.1391	0.0318	0
140	SLU 7	0.04	-3.12	44.2	0.1501	0.0318	0
140	SLU 8	0.04	-2.81	43.56	0.135	0.0314	0
140	SLU 9	0.04	-3.04	43.68	0.146	0.0315	0
140	SLU 10	0.05	-4.45	50.78	0.2155	0.0329	0
140	SLU 11	0.05	-3.81	51.71	0.1848	0.034	0
140	SLU 12	0.05	-4.05	51.83	0.1959	0.034	0
140	SLU 13	0.05	-4.12	51.39	0.1991	0.0336	0
140	SLU 14	0.05	-3.48	52.31	0.1684	0.0346	0
140	SLU 15	0.05	-3.71	52.43	0.1795	0.0346	0
140	SLU 16	0.05	-3.4	51.79	0.1643	0.0343	0
140	SLU 17	0.05	-3.64	51.91	0.1754	0.0343	0
140	SLU 18	0.05	-4.32	54.11	0.2097	0.0341	0
140	SLU 19	0.05	-4.55	54.23	0.2207	0.0341	0
140	SLU 20	0.05	-3.99	54.71	0.1933	0.0348	0
140	SLU 21	0.05	-4.22	54.83	0.2044	0.0348	0
140	SLU 22	0.05	-3.56	48.29	0.174	0.0342	0
140	SLU 23	0.05	-3.95	48.49	0.1924	0.0342	0
140	SLU 24	0.05	-3.31	49.42	0.1617	0.0352	0
140	SLU 25	0.05	-3.54	49.53	0.1727	0.0352	0
140	SLU 26	0.05	-3.62	49.09	0.176	0.0349	0
140	SLU 27	0.05	-2.98	50.02	0.1453	0.0359	0
140	SLU 28	0.05	-3.21	50.14	0.1563	0.0359	0
140	SLU 29	0.05	-2.9	49.5	0.1412	0.0355	0
140	SLU 30	0.05	-3.13	49.61	0.1522	0.0355	0
140	SLU 31	0.05	-4.54	56.71	0.2217	0.037	0
140	SLU 32	0.05	-3.9	57.64	0.191	0.038	0
140	SLU 33	0.05	-4.13	57.76	0.2021	0.038	0
140	SLU 34	0.05	-4.21	57.32	0.2053	0.0377	0
140	SLU 35	0.05	-3.57	58.24	0.1746	0.0387	0
140	SLU 36	0.05	-3.8	58.36	0.1857	0.0387	0
140	SLU 37	0.05	-3.49	57.72	0.1705	0.0383	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
140	SLU 38	0.05	-3.72	57.84	0.1816	0.0383	0
140	SLU 39	0.05	-4.41	60.04	0.2159	0.0382	0
140	SLU 40	0.05	-4.64	60.16	0.2269	0.0382	0
140	SLU 41	0.05	-4.08	60.64	0.1995	0.0389	0
140	SLU 42	0.05	-4.31	60.76	0.2105	0.0389	0
140	SLU 43	0.05	-4.49	53.03	0.216	0.0378	0
140	SLU 44	0.05	-4.88	53.23	0.2344	0.0378	0
140	SLU 45	0.05	-4.24	54.16	0.2037	0.0388	0
140	SLU 46	0.05	-4.47	54.28	0.2147	0.0388	0
140	SLU 47	0.05	-4.54	53.83	0.218	0.0384	0
140	SLU 48	0.05	-3.9	54.76	0.1873	0.0395	0
140	SLU 49	0.05	-4.14	54.88	0.1983	0.0395	0
140	SLU 50	0.05	-3.82	54.24	0.1832	0.0391	0
140	SLU 51	0.05	-4.06	54.36	0.1943	0.0391	0
140	SLU 52	0.06	-5.47	61.46	0.2637	0.0406	0
140	SLU 53	0.06	-4.83	62.38	0.233	0.0416	0
140	SLU 54	0.06	-5.06	62.5	0.2441	0.0416	0
140	SLU 55	0.06	-5.14	62.06	0.2474	0.0412	0
140	SLU 56	0.06	-4.5	62.99	0.2167	0.0423	0
140	SLU 57	0.06	-4.73	63.1	0.2277	0.0423	0
140	SLU 58	0.06	-4.42	62.46	0.2126	0.0419	0
140	SLU 59	0.06	-4.65	62.58	0.2236	0.0419	0
140	SLU 60	0.06	-5.34	64.79	0.2579	0.0418	0
140	SLU 61	0.06	-5.57	64.9	0.269	0.0418	0
140	SLU 62	0.06	-5	65.39	0.2415	0.0424	0
140	SLU 63	0.06	-5.23	65.51	0.2526	0.0424	0
140	SLU 64	0.06	-4.58	58.97	0.2222	0.0418	0
140	SLU 65	0.06	-4.96	59.16	0.2406	0.0418	0
140	SLU 66	0.06	-4.32	60.09	0.2099	0.0429	0
140	SLU 67	0.06	-4.56	60.21	0.2209	0.0429	0
140	SLU 68	0.06	-4.63	59.77	0.2242	0.0425	0
140	SLU 69	0.06	-3.99	60.69	0.1935	0.0435	0
140	SLU 70	0.06	-4.22	60.81	0.2045	0.0435	0
140	SLU 71	0.06	-3.91	60.17	0.1894	0.0432	0
140	SLU 72	0.06	-4.14	60.29	0.2004	0.0432	0
140	SLU 73	0.06	-5.56	67.39	0.2699	0.0446	0
140	SLU 74	0.06	-4.92	68.32	0.2392	0.0457	0
140	SLU 75	0.06	-5.15	68.43	0.2503	0.0457	0
140	SLU 76	0.06	-5.22	67.99	0.2535	0.0453	0
140	SLU 77	0.06	-4.58	68.92	0.2228	0.0463	0
140	SLU 78	0.06	-4.81	69.04	0.2339	0.0463	0
140	SLU 79	0.06	-4.5	68.4	0.2187	0.046	0
140	SLU 80	0.06	-4.74	68.51	0.2298	0.046	0
140	SLU 81	0.06	-5.42	70.72	0.2641	0.0458	0
140	SLU 82	0.06	-5.65	70.84	0.2751	0.0458	0
140	SLU 83	0.07	-5.09	71.32	0.2477	0.0465	0
140	SLU 84	0.06	-5.32	71.44	0.2588	0.0465	0
140	SLE RA 1	0.04	-3.5	44.05	0.1695	0.0313	0
140	SLE RA 2	0.04	-3.76	44.19	0.1818	0.0313	0
140	SLE RA 3	0.04	-3.33	44.8	0.1613	0.032	0
140	SLE RA 4	0.04	-3.49	44.88	0.1687	0.032	0
140	SLE RA 5	0.04	-3.54	44.59	0.1709	0.0317	0
140	SLE RA 6	0.04	-3.11	45.21	0.1504	0.0324	0
140	SLE RA 7	0.04	-3.27	45.28	0.1578	0.0324	0
140	SLE RA 8	0.04	-3.06	44.86	0.1477	0.0322	0
140	SLE RA 9	0.04	-3.21	44.94	0.1551	0.0322	0
140	SLE RA 10	0.05	-4.15	49.67	0.2014	0.0332	0
140	SLE RA 11	0.05	-3.73	50.29	0.1809	0.0338	0
140	SLE RA 12	0.05	-3.88	50.37	0.1883	0.0338	0
140	SLE RA 13	0.05	-3.93	50.07	0.1905	0.0336	0
140	SLE RA 14	0.05	-3.51	50.69	0.17	0.0343	0
140	SLE RA 15	0.05	-3.66	50.77	0.1774	0.0343	0
140	SLE RA 16	0.05	-3.45	50.34	0.1673	0.034	0
140	SLE RA 17	0.05	-3.61	50.42	0.1746	0.034	0
140	SLE RA 18	0.05	-4.07	51.89	0.1975	0.034	0
140	SLE RA 19	0.05	-4.22	51.97	0.2049	0.034	0
140	SLE RA 20	0.05	-3.84	52.29	0.1866	0.0344	0
140	SLE RA 21	0.05	-4	52.37	0.1939	0.0344	0
140	SLE FR 1	0.04	-3.5	44.05	0.1695	0.0313	0
140	SLE FR 2	0.04	-3.55	44.08	0.172	0.0313	0
140	SLE FR 3	0.04	-3.41	44.22	0.1652	0.0315	0
140	SLE FR 4	0.04	-3.72	46.43	0.1804	0.0321	0
140	SLE FR 5	0.04	-3.58	46.57	0.1736	0.0323	0
140	SLE FR 6	0.04	-3.78	47.97	0.1835	0.0326	0
140	SLE QP 1	0.04	-3.5	44.05	0.1695	0.0313	0
140	SLE QP 2	0.04	-3.67	46.41	0.1779	0.0321	0
140	SLD 1	0.17	-2.88	49.3	0.1403	0.1491	0.0001
140	SLD 2	0.17	-2.88	49.3	0.1403	0.1491	0.0001
140	SLD 3	0.19	-5.84	51.4	0.2841	0.1649	0.0001
140	SLD 4	0.19	-5.84	51.4	0.2841	0.1649	0.0001
140	SLD 5	0.06	1.06	44.09	-0.0514	0.0433	0.0001
140	SLD 6	0.06	1.06	44.09	-0.0514	0.0433	0.0001
140	SLD 7	0.11	-8.81	51.09	0.4279	0.0958	0
140	SLD 8	0.11	-8.81	51.09	0.4279	0.0958	0
140	SLD 9	-0.03	1.47	41.72	-0.072	-0.0317	0
140	SLD 10	-0.03	1.47	41.72	-0.072	-0.0317	0
140	SLD 11	0.03	-8.4	48.72	0.4073	0.0209	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
140	SLD 12	0.03	-8.4	48.72	0.4073	0.0209	0
140	SLD 13	-0.1	-1.5	41.41	0.0717	-0.1007	0
140	SLD 14	-0.1	-1.5	41.41	0.0717	-0.1007	0
140	SLD 15	-0.09	-4.46	43.51	0.2155	-0.0849	0
140	SLD 16	-0.09	-4.46	43.51	0.2155	-0.0849	0
140	SLV 1	0.37	-1.83	53.17	0.0902	0.3259	0.0001
140	SLV 2	0.37	-1.83	53.17	0.0902	0.3259	0.0001
140	SLV 3	0.41	-8.76	58.13	0.4266	0.3657	0.0001
140	SLV 4	0.41	-8.76	58.13	0.4266	0.3657	0.0001
140	SLV 5	0.07	7.38	40.91	-0.3586	0.0599	0.0001
140	SLV 6	0.07	7.38	40.91	-0.3586	0.0599	0.0001
140	SLV 7	0.22	-15.7	57.45	0.7627	0.1925	0
140	SLV 8	0.22	-15.7	57.45	0.7627	0.1925	0
140	SLV 9	-0.13	8.36	35.36	-0.4069	-0.1284	0
140	SLV 10	-0.13	8.36	35.36	-0.4069	-0.1284	0
140	SLV 11	0.01	-14.72	51.9	0.7144	0.0043	-0.0001
140	SLV 12	0.01	-14.72	51.9	0.7144	0.0043	-0.0001
140	SLV 13	-0.33	1.42	34.68	-0.0707	-0.3015	-0.0001
140	SLV 14	-0.33	1.42	34.68	-0.0707	-0.3015	-0.0001
140	SLV 15	-0.28	-5.51	39.64	0.2657	-0.2617	-0.0001
140	SLV 16	-0.28	-5.51	39.64	0.2657	-0.2617	-0.0001
141	SLU 1	0.01	2.13	14.91	-0.0491	0.0091	0
141	SLU 2	0.01	2.13	14.94	-0.0489	0.0094	0
141	SLU 3	0.01	2.21	15.24	-0.0515	0.0092	0
141	SLU 4	0.01	2.21	15.25	-0.0514	0.0093	0
141	SLU 5	0.01	2.17	15.11	-0.0506	0.0094	0
141	SLU 6	0.01	2.25	15.4	-0.0533	0.0091	0
141	SLU 7	0.01	2.25	15.42	-0.0531	0.0093	0
141	SLU 8	0.01	2.21	15.25	-0.0526	0.009	0
141	SLU 9	0.01	2.21	15.26	-0.0525	0.0092	0
141	SLU 10	0.01	2.51	18.78	-0.0583	0.0115	0
141	SLU 11	0.01	2.59	19.08	-0.061	0.0113	0
141	SLU 12	0.01	2.59	19.1	-0.0608	0.0115	0
141	SLU 13	0.01	2.55	18.95	-0.0601	0.0115	0
141	SLU 14	0.01	2.63	19.25	-0.0627	0.0113	0
141	SLU 15	0.01	2.63	19.27	-0.0626	0.0115	0
141	SLU 16	0.01	2.59	19.09	-0.062	0.0112	0
141	SLU 17	0.01	2.59	19.11	-0.0619	0.0114	0
141	SLU 18	0.01	2.68	20.41	-0.0626	0.0121	0
141	SLU 19	0.01	2.67	20.42	-0.0625	0.0123	0
141	SLU 20	0.01	2.72	20.57	-0.0643	0.0121	0
141	SLU 21	0.01	2.71	20.59	-0.0642	0.0123	0
141	SLU 22	0.01	2.51	16.72	-0.0589	0.0102	0
141	SLU 23	0.01	2.51	16.75	-0.0587	0.0105	0
141	SLU 24	0.01	2.59	17.05	-0.0613	0.0102	0
141	SLU 25	0.01	2.59	17.06	-0.0612	0.0104	0
141	SLU 26	0.01	2.55	16.92	-0.0604	0.0104	0
141	SLU 27	0.01	2.63	17.21	-0.063	0.0102	0
141	SLU 28	0.01	2.63	17.23	-0.0629	0.0104	0
141	SLU 29	0.01	2.59	17.06	-0.0623	0.0101	0
141	SLU 30	0.01	2.59	17.07	-0.0622	0.0103	0
141	SLU 31	0.01	2.89	20.59	-0.0681	0.0126	0
141	SLU 32	0.01	2.97	20.89	-0.0707	0.0124	0
141	SLU 33	0.01	2.97	20.91	-0.0706	0.0125	0
141	SLU 34	0.01	2.93	20.76	-0.0698	0.0126	0
141	SLU 35	0.01	3.01	21.06	-0.0724	0.0123	0
141	SLU 36	0.01	3.01	21.08	-0.0723	0.0125	0
141	SLU 37	0.01	2.97	20.91	-0.0718	0.0122	0
141	SLU 38	0.01	2.97	20.92	-0.0716	0.0124	0
141	SLU 39	0.01	3.06	22.22	-0.0723	0.0132	0
141	SLU 40	0.01	3.05	22.23	-0.0722	0.0134	0
141	SLU 41	0.01	3.1	22.38	-0.0741	0.0132	0
141	SLU 42	0.01	3.09	22.4	-0.0739	0.0134	0
141	SLU 43	0.01	2.64	18.76	-0.0605	0.0115	0
141	SLU 44	0.01	2.64	18.79	-0.0603	0.0118	0
141	SLU 45	0.01	2.72	19.09	-0.0629	0.0115	0
141	SLU 46	0.01	2.72	19.1	-0.0628	0.0117	0
141	SLU 47	0.01	2.68	18.96	-0.062	0.0117	0
141	SLU 48	0.01	2.76	19.26	-0.0647	0.0115	0
141	SLU 49	0.01	2.76	19.27	-0.0645	0.0117	0
141	SLU 50	0.01	2.72	19.1	-0.064	0.0114	0
141	SLU 51	0.01	2.72	19.12	-0.0639	0.0116	0
141	SLU 52	0.01	3.02	22.64	-0.0697	0.0139	0
141	SLU 53	0.01	3.1	22.93	-0.0724	0.0137	0
141	SLU 54	0.01	3.1	22.95	-0.0722	0.0138	0
141	SLU 55	0.01	3.06	22.8	-0.0715	0.0139	0
141	SLU 56	0.01	3.14	23.1	-0.0741	0.0136	0
141	SLU 57	0.01	3.14	23.12	-0.074	0.0138	0
141	SLU 58	0.01	3.1	22.95	-0.0734	0.0135	0
141	SLU 59	0.01	3.1	22.96	-0.0733	0.0137	0
141	SLU 60	0.01	3.19	24.26	-0.074	0.0145	0
141	SLU 61	0.02	3.18	24.27	-0.0739	0.0147	0
141	SLU 62	0.01	3.23	24.43	-0.0757	0.0145	0
141	SLU 63	0.01	3.22	24.44	-0.0756	0.0147	0
141	SLU 64	0.01	3.02	20.57	-0.0703	0.0125	0
141	SLU 65	0.01	3.02	20.6	-0.0701	0.0128	0
141	SLU 66	0.01	3.1	20.9	-0.0727	0.0126	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
141	SLU 67	0.01	3.1	20.91	-0.0725	0.0128	0
141	SLU 68	0.01	3.06	20.77	-0.0718	0.0128	0
141	SLU 69	0.01	3.14	21.07	-0.0744	0.0126	0
141	SLU 70	0.01	3.14	21.08	-0.0743	0.0128	0
141	SLU 71	0.01	3.1	20.91	-0.0737	0.0125	0
141	SLU 72	0.01	3.1	20.93	-0.0736	0.0127	0
141	SLU 73	0.02	3.4	24.45	-0.0795	0.015	0
141	SLU 74	0.01	3.48	24.74	-0.0821	0.0147	0
141	SLU 75	0.02	3.48	24.76	-0.082	0.0149	0
141	SLU 76	0.02	3.44	24.61	-0.0812	0.0149	0
141	SLU 77	0.01	3.52	24.91	-0.0838	0.0147	0
141	SLU 78	0.01	3.52	24.93	-0.0837	0.0149	0
141	SLU 79	0.01	3.48	24.76	-0.0831	0.0146	0
141	SLU 80	0.01	3.48	24.77	-0.083	0.0148	0
141	SLU 81	0.02	3.57	26.07	-0.0837	0.0156	0
141	SLU 82	0.02	3.56	26.08	-0.0836	0.0157	0
141	SLU 83	0.02	3.61	26.24	-0.0855	0.0155	0
141	SLU 84	0.02	3.6	26.25	-0.0853	0.0157	0
141	SLE RA 1	0.01	2.24	15.43	-0.0519	0.0094	0
141	SLE RA 2	0.01	2.24	15.45	-0.0518	0.0096	0
141	SLE RA 3	0.01	2.29	15.64	-0.0535	0.0094	0
141	SLE RA 4	0.01	2.29	15.65	-0.0534	0.0096	0
141	SLE RA 5	0.01	2.27	15.56	-0.0529	0.0096	0
141	SLE RA 6	0.01	2.32	15.76	-0.0547	0.0094	0
141	SLE RA 7	0.01	2.32	15.77	-0.0546	0.0096	0
141	SLE RA 8	0.01	2.3	15.65	-0.0542	0.0094	0
141	SLE RA 9	0.01	2.29	15.66	-0.0541	0.0095	0
141	SLE RA 10	0.01	2.49	18.01	-0.0581	0.011	0
141	SLE RA 11	0.01	2.55	18.21	-0.0598	0.0109	0
141	SLE RA 12	0.01	2.55	18.22	-0.0597	0.011	0
141	SLE RA 13	0.01	2.52	18.12	-0.0592	0.011	0
141	SLE RA 14	0.01	2.57	18.32	-0.061	0.0109	0
141	SLE RA 15	0.01	2.57	18.33	-0.0609	0.011	0
141	SLE RA 16	0.01	2.55	18.22	-0.0605	0.0108	0
141	SLE RA 17	0.01	2.55	18.23	-0.0604	0.0109	0
141	SLE RA 18	0.01	2.61	19.09	-0.0609	0.0114	0
141	SLE RA 19	0.01	2.6	19.1	-0.0608	0.0115	0
141	SLE RA 20	0.01	2.63	19.2	-0.062	0.0114	0
141	SLE RA 21	0.01	2.63	19.21	-0.062	0.0115	0
141	SLE FR 1	0.01	2.24	15.43	-0.0519	0.0094	0
141	SLE FR 2	0.01	2.24	15.43	-0.0519	0.0094	0
141	SLE FR 3	0.01	2.25	15.47	-0.0524	0.0094	0
141	SLE FR 4	0.01	2.35	16.53	-0.0546	0.01	0
141	SLE FR 5	0.01	2.36	16.57	-0.0551	0.01	0
141	SLE FR 6	0.01	2.42	17.26	-0.0564	0.0104	0
141	SLE QP 1	0.01	2.24	15.43	-0.0519	0.0094	0
141	SLE QP 2	0.01	2.35	16.53	-0.0546	0.01	0
141	SLD 1	0.15	2.35	14.48	-0.0544	0.133	0.0001
141	SLD 2	0.15	2.35	14.48	-0.0544	0.133	0.0001
141	SLD 3	0.13	0.33	15.46	0.0104	0.1151	0.0001
141	SLD 4	0.13	0.33	15.46	0.0104	0.1151	0.0001
141	SLD 5	0.08	5.4	14.43	-0.1528	0.0741	0
141	SLD 6	0.08	5.4	14.43	-0.1528	0.0741	0
141	SLD 7	0.01	-1.31	17.69	0.0632	0.0144	0.0001
141	SLD 8	0.01	-1.31	17.69	0.0632	0.0144	0.0001
141	SLD 9	0.01	6.01	15.37	-0.1723	0.0056	0
141	SLD 10	0.01	6.01	15.37	-0.1723	0.0056	0
141	SLD 11	-0.06	-0.7	18.62	0.0436	-0.054	0
141	SLD 12	-0.06	-0.7	18.62	0.0436	-0.054	0
141	SLD 13	-0.11	4.37	17.6	-0.1196	-0.0951	-0.0001
141	SLD 14	-0.11	4.37	17.6	-0.1196	-0.0951	-0.0001
141	SLD 15	-0.13	2.36	18.57	-0.0548	-0.113	-0.0001
141	SLD 16	-0.13	2.36	18.57	-0.0548	-0.113	-0.0001
141	SLV 1	0.35	2.33	11.68	-0.0536	0.3194	0.0002
141	SLV 2	0.35	2.33	11.68	-0.0536	0.3194	0.0002
141	SLV 3	0.3	-2.4	14	0.0985	0.2752	0.0002
141	SLV 4	0.3	-2.4	14	0.0985	0.2752	0.0002
141	SLV 5	0.19	9.51	11.55	-0.285	0.1699	0
141	SLV 6	0.19	9.51	11.55	-0.285	0.1699	0
141	SLV 7	0.02	-6.24	19.29	0.222	0.0225	0.0001
141	SLV 8	0.02	-6.24	19.29	0.222	0.0225	0.0001
141	SLV 9	0	10.95	13.76	-0.3312	-0.0025	-0.0001
141	SLV 10	0	10.95	13.76	-0.3312	-0.0025	-0.0001
141	SLV 11	-0.17	-4.81	21.5	0.1758	-0.1498	0
141	SLV 12	-0.17	-4.81	21.5	0.1758	-0.1498	0
141	SLV 13	-0.28	7.1	19.05	-0.2077	-0.2552	-0.0002
141	SLV 14	-0.28	7.1	19.05	-0.2077	-0.2552	-0.0002
141	SLV 15	-0.33	2.37	21.37	-0.0555	-0.2994	-0.0002
141	SLV 16	-0.33	2.37	21.37	-0.0555	-0.2994	-0.0002
142	SLU 1	-0.15	5.62	34.19	-0.2402	-0.1052	-0.0009
142	SLU 2	-0.18	6.34	35.06	-0.2721	-0.1499	-0.0011
142	SLU 3	-0.16	5.93	35.19	-0.254	-0.1088	-0.001
142	SLU 4	-0.18	6.37	35.71	-0.2731	-0.1356	-0.0011
142	SLU 5	-0.19	6.59	35.73	-0.2834	-0.1523	-0.0011
142	SLU 6	-0.16	6.19	35.86	-0.2654	-0.1112	-0.001
142	SLU 7	-0.18	6.62	36.38	-0.2845	-0.138	-0.0011
142	SLU 8	-0.16	6.13	35.53	-0.263	-0.11	-0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
142	SLU 9	-0.18	6.56	36.05	-0.2821	-0.1368	-0.0011
142	SLU 10	-0.2	7.26	39.03	-0.3106	-0.163	-0.0012
142	SLU 11	-0.18	6.86	39.16	-0.2925	-0.1219	-0.0011
142	SLU 12	-0.19	7.29	39.68	-0.3117	-0.1487	-0.0012
142	SLU 13	-0.2	7.52	39.7	-0.322	-0.1654	-0.0013
142	SLU 14	-0.18	7.11	39.83	-0.3039	-0.1243	-0.0011
142	SLU 15	-0.2	7.54	40.35	-0.323	-0.1511	-0.0012
142	SLU 16	-0.18	7.05	39.5	-0.3015	-0.1232	-0.0011
142	SLU 17	-0.2	7.48	40.02	-0.3206	-0.1499	-0.0012
142	SLU 18	-0.18	6.94	39.86	-0.2952	-0.124	-0.0011
142	SLU 19	-0.2	7.37	40.38	-0.3143	-0.1508	-0.0012
142	SLU 20	-0.18	7.19	40.53	-0.3066	-0.1264	-0.0011
142	SLU 21	-0.2	7.63	41.05	-0.3257	-0.1532	-0.0012
142	SLU 22	-0.17	6.55	38.13	-0.2795	-0.1186	-0.001
142	SLU 23	-0.2	7.27	39	-0.3114	-0.1632	-0.0012
142	SLU 24	-0.18	6.87	39.13	-0.2933	-0.1222	-0.0011
142	SLU 25	-0.19	7.3	39.65	-0.3124	-0.1489	-0.0012
142	SLU 26	-0.21	7.53	39.67	-0.3228	-0.1656	-0.0013
142	SLU 27	-0.18	7.12	39.8	-0.3047	-0.1246	-0.0011
142	SLU 28	-0.2	7.55	40.32	-0.3238	-0.1513	-0.0012
142	SLU 29	-0.18	7.06	39.47	-0.3023	-0.1234	-0.0011
142	SLU 30	-0.2	7.49	39.99	-0.3214	-0.1502	-0.0012
142	SLU 31	-0.22	8.2	42.97	-0.3499	-0.1764	-0.0014
142	SLU 32	-0.2	7.79	43.1	-0.3319	-0.1353	-0.0012
142	SLU 33	-0.21	8.22	43.62	-0.351	-0.1621	-0.0013
142	SLU 34	-0.22	8.45	43.64	-0.3613	-0.1788	-0.0014
142	SLU 35	-0.2	8.04	43.76	-0.3432	-0.1377	-0.0012
142	SLU 36	-0.22	8.48	44.29	-0.3624	-0.1645	-0.0013
142	SLU 37	-0.2	7.98	43.43	-0.3408	-0.1365	-0.0012
142	SLU 38	-0.22	8.42	43.96	-0.3599	-0.1633	-0.0013
142	SLU 39	-0.2	7.87	43.8	-0.3345	-0.1374	-0.0012
142	SLU 40	-0.22	8.3	44.32	-0.3537	-0.1641	-0.0013
142	SLU 41	-0.2	8.13	44.47	-0.3459	-0.1398	-0.0012
142	SLU 42	-0.22	8.56	44.99	-0.365	-0.1665	-0.0013
142	SLU 43	-0.19	6.99	43.1	-0.2988	-0.1322	-0.0012
142	SLU 44	-0.22	7.71	43.97	-0.3306	-0.1768	-0.0014
142	SLU 45	-0.2	7.3	44.1	-0.3126	-0.1358	-0.0012
142	SLU 46	-0.21	7.73	44.62	-0.3317	-0.1626	-0.0013
142	SLU 47	-0.22	7.96	44.64	-0.342	-0.1792	-0.0014
142	SLU 48	-0.2	7.55	44.77	-0.324	-0.1382	-0.0012
142	SLU 49	-0.22	7.99	45.29	-0.3431	-0.165	-0.0013
142	SLU 50	-0.2	7.49	44.44	-0.3215	-0.137	-0.0012
142	SLU 51	-0.22	7.93	44.96	-0.3407	-0.1638	-0.0013
142	SLU 52	-0.24	8.63	47.94	-0.3692	-0.19	-0.0015
142	SLU 53	-0.22	8.22	48.07	-0.3511	-0.1489	-0.0013
142	SLU 54	-0.23	8.66	48.59	-0.3702	-0.1757	-0.0014
142	SLU 55	-0.24	8.88	48.61	-0.3805	-0.1924	-0.0015
142	SLU 56	-0.22	8.48	48.74	-0.3625	-0.1513	-0.0013
142	SLU 57	-0.24	8.91	49.26	-0.3816	-0.1781	-0.0014
142	SLU 58	-0.22	8.42	48.4	-0.3601	-0.1502	-0.0013
142	SLU 59	-0.23	8.85	48.93	-0.3792	-0.1769	-0.0014
142	SLU 60	-0.22	8.31	48.77	-0.3538	-0.151	-0.0013
142	SLU 61	-0.24	8.74	49.29	-0.3729	-0.1778	-0.0014
142	SLU 62	-0.22	8.56	49.44	-0.3652	-0.1534	-0.0013
142	SLU 63	-0.24	8.99	49.96	-0.3843	-0.1802	-0.0015
142	SLU 64	-0.21	7.92	47.04	-0.3381	-0.1456	-0.0013
142	SLU 65	-0.24	8.64	47.91	-0.37	-0.1902	-0.0015
142	SLU 66	-0.22	8.23	48.04	-0.3519	-0.1492	-0.0013
142	SLU 67	-0.23	8.66	48.56	-0.371	-0.1759	-0.0014
142	SLU 68	-0.24	8.89	48.58	-0.3813	-0.1926	-0.0015
142	SLU 69	-0.22	8.49	48.71	-0.3633	-0.1516	-0.0013
142	SLU 70	-0.24	8.92	49.23	-0.3824	-0.1783	-0.0015
142	SLU 71	-0.22	8.43	48.38	-0.3609	-0.1504	-0.0013
142	SLU 72	-0.24	8.86	48.9	-0.38	-0.1772	-0.0014
142	SLU 73	-0.26	9.56	51.88	-0.4085	-0.2033	-0.0016
142	SLU 74	-0.23	9.16	52.01	-0.3904	-0.1623	-0.0014
142	SLU 75	-0.25	9.59	52.53	-0.4095	-0.1891	-0.0015
142	SLU 76	-0.26	9.82	52.54	-0.4199	-0.2057	-0.0016
142	SLU 77	-0.24	9.41	52.67	-0.4018	-0.1647	-0.0014
142	SLU 78	-0.26	9.84	53.19	-0.4209	-0.1914	-0.0016
142	SLU 79	-0.24	9.35	52.34	-0.3994	-0.1635	-0.0014
142	SLU 80	-0.25	9.78	52.86	-0.4185	-0.1903	-0.0016
142	SLU 81	-0.24	9.24	52.71	-0.3931	-0.1644	-0.0014
142	SLU 82	-0.26	9.67	53.23	-0.4122	-0.1911	-0.0016
142	SLU 83	-0.24	9.49	53.38	-0.4045	-0.1668	-0.0015
142	SLU 84	-0.26	9.92	53.9	-0.4236	-0.1935	-0.0016
142	SLE RA 1	-0.16	5.89	35.32	-0.2514	-0.1091	-0.001
142	SLE RA 2	-0.18	6.37	35.9	-0.2727	-0.1388	-0.0011
142	SLE RA 3	-0.16	6.1	35.98	-0.2606	-0.1114	-0.001
142	SLE RA 4	-0.17	6.38	36.33	-0.2734	-0.1293	-0.0011
142	SLE RA 5	-0.18	6.53	36.34	-0.2803	-0.1404	-0.0011
142	SLE RA 6	-0.16	6.26	36.43	-0.2682	-0.113	-0.001
142	SLE RA 7	-0.18	6.55	36.78	-0.281	-0.1309	-0.0011
142	SLE RA 8	-0.16	6.22	36.21	-0.2666	-0.1123	-0.001
142	SLE RA 9	-0.17	6.51	36.56	-0.2794	-0.1301	-0.0011
142	SLE RA 10	-0.19	6.98	38.54	-0.2984	-0.1476	-0.0012
142	SLE RA 11	-0.17	6.71	38.63	-0.2863	-0.1202	-0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
142	SLE RA 12	-0.19	7	38.98	-0.2991	-0.138	-0.0011
142	SLE RA 13	-0.19	7.15	38.99	-0.3059	-0.1492	-0.0012
142	SLE RA 14	-0.18	6.88	39.07	-0.2939	-0.1218	-0.0011
142	SLE RA 15	-0.19	7.17	39.42	-0.3067	-0.1396	-0.0011
142	SLE RA 16	-0.18	6.84	38.85	-0.2923	-0.121	-0.0011
142	SLE RA 17	-0.19	7.13	39.2	-0.305	-0.1389	-0.0011
142	SLE RA 18	-0.18	6.77	39.1	-0.2881	-0.1216	-0.0011
142	SLE RA 19	-0.19	7.05	39.45	-0.3009	-0.1394	-0.0011
142	SLE RA 20	-0.18	6.94	39.54	-0.2957	-0.1232	-0.0011
142	SLE RA 21	-0.19	7.22	39.89	-0.3085	-0.141	-0.0012
142	SLE FR 1	-0.16	5.89	35.32	-0.2514	-0.1091	-0.001
142	SLE FR 2	-0.16	5.98	35.44	-0.2557	-0.115	-0.001
142	SLE FR 3	-0.16	5.95	35.5	-0.2545	-0.1097	-0.001
142	SLE FR 4	-0.17	6.25	36.57	-0.2667	-0.1188	-0.001
142	SLE FR 5	-0.16	6.22	36.63	-0.2655	-0.1135	-0.001
142	SLE FR 6	-0.17	6.33	37.21	-0.2698	-0.1153	-0.001
142	SLE QP 1	-0.16	5.89	35.32	-0.2514	-0.1091	-0.001
142	SLE QP 2	-0.16	6.15	36.45	-0.2624	-0.1128	-0.001
142	SLD 1	-0.25	10.07	47.26	-0.4328	-0.2743	-0.0016
142	SLD 2	-0.25	10.07	47.26	-0.4328	-0.2743	-0.0016
142	SLD 3	-0.34	6.02	46.48	-0.2519	-0.2035	-0.0021
142	SLD 4	-0.34	6.02	46.48	-0.2519	-0.2035	-0.0021
142	SLD 5	-0.06	13.47	40.87	-0.588	-0.2686	-0.0004
142	SLD 6	-0.06	13.47	40.87	-0.588	-0.2686	-0.0004
142	SLD 7	-0.34	-0.03	38.29	0.0152	-0.0327	-0.0021
142	SLD 8	-0.34	-0.03	38.29	0.0152	-0.0327	-0.0021
142	SLD 9	0.02	12.33	34.62	-0.5401	-0.1929	0.0001
142	SLD 10	0.02	12.33	34.62	-0.5401	-0.1929	0.0001
142	SLD 11	-0.27	-1.17	32.04	0.0631	0.043	-0.0016
142	SLD 12	-0.27	-1.17	32.04	0.0631	0.043	-0.0016
142	SLD 13	0.01	6.28	26.42	-0.273	-0.0221	0.0001
142	SLD 14	0.01	6.28	26.42	-0.273	-0.0221	0.0001
142	SLD 15	-0.07	2.23	25.65	-0.0921	0.0486	-0.0004
142	SLD 16	-0.07	2.23	25.65	-0.0921	0.0486	-0.0004
142	SLV 1	-0.36	15.28	61.81	-0.6596	-0.5036	-0.0023
142	SLV 2	-0.36	15.28	61.81	-0.6596	-0.5036	-0.0023
142	SLV 3	-0.58	5.89	59.87	-0.2398	-0.3236	-0.0036
142	SLV 4	-0.58	5.89	59.87	-0.2398	-0.3236	-0.0036
142	SLV 5	0.11	23.14	47.01	-1.0184	-0.5032	0.0006
142	SLV 6	0.11	23.14	47.01	-1.0184	-0.5032	0.0006
142	SLV 7	-0.62	-8.18	40.53	0.3811	0.0971	-0.0037
142	SLV 8	-0.62	-8.18	40.53	0.3811	0.0971	-0.0037
142	SLV 9	0.29	20.48	32.38	-0.906	-0.3227	0.0017
142	SLV 10	0.29	20.48	32.38	-0.906	-0.3227	0.0017
142	SLV 11	-0.43	-10.84	25.9	0.4935	0.2775	-0.0025
142	SLV 12	-0.43	-10.84	25.9	0.4935	0.2775	-0.0025
142	SLV 13	0.25	6.41	13.04	-0.2851	0.0979	0.0016
142	SLV 14	0.25	6.41	13.04	-0.2851	0.0979	0.0016
142	SLV 15	0.04	-2.98	11.09	0.1348	0.278	0.0003
142	SLV 16	0.04	-2.98	11.09	0.1348	0.278	0.0003
143	SLU 1	0	1.61	61.6	-0.0783	0.0061	0
143	SLU 2	0.03	2.11	64.18	-0.106	0.0518	0.0002
143	SLU 3	0	1.73	63.6	-0.0844	0.0061	0
143	SLU 4	0.02	2.03	65.15	-0.101	0.0335	0.0001
143	SLU 5	0.03	2.21	65.48	-0.111	0.0517	0.0002
143	SLU 6	0	1.83	64.89	-0.0893	0.0061	0
143	SLU 7	0.02	2.13	66.44	-0.106	0.0335	0.0001
143	SLU 8	0	1.81	64.19	-0.0882	0.0061	0
143	SLU 9	0.02	2.1	65.74	-0.1048	0.0335	0.0001
143	SLU 10	0.03	2.54	71.81	-0.1248	0.0521	0.0002
143	SLU 11	0.01	2.16	71.22	-0.1031	0.0065	0
143	SLU 12	0.02	2.46	72.77	-0.1198	0.0339	0.0001
143	SLU 13	0.03	2.63	73.1	-0.1297	0.0521	0.0002
143	SLU 14	0.01	2.26	72.52	-0.1081	0.0065	0
143	SLU 15	0.02	2.56	74.06	-0.1247	0.0339	0.0001
143	SLU 16	0.01	2.23	71.81	-0.1069	0.0065	0
143	SLU 17	0.02	2.53	73.36	-0.1236	0.0338	0.0001
143	SLU 18	0.01	2.22	72.5	-0.1051	0.0067	0
143	SLU 19	0.02	2.52	74.04	-0.1217	0.034	0.0001
143	SLU 20	0.01	2.32	73.79	-0.11	0.0066	0
143	SLU 21	0.02	2.62	75.34	-0.1266	0.034	0.0001
143	SLU 22	0.01	2	69.28	-0.0958	0.0065	0
143	SLU 23	0.03	2.49	71.86	-0.1235	0.0521	0.0002
143	SLU 24	0.01	2.12	71.27	-0.1018	0.0065	0
143	SLU 25	0.02	2.42	72.82	-0.1185	0.0339	0.0001
143	SLU 26	0.03	2.59	73.15	-0.1284	0.0521	0.0002
143	SLU 27	0.01	2.22	72.57	-0.1068	0.0065	0
143	SLU 28	0.02	2.52	74.12	-0.1234	0.0339	0.0001
143	SLU 29	0.01	2.19	71.86	-0.1057	0.0065	0
143	SLU 30	0.02	2.49	73.41	-0.1223	0.0338	0.0001
143	SLU 31	0.03	2.92	79.48	-0.1422	0.0525	0.0002
143	SLU 32	0.01	2.55	78.9	-0.1206	0.0069	0
143	SLU 33	0.02	2.85	80.45	-0.1372	0.0343	0.0001
143	SLU 34	0.03	3.02	80.78	-0.1472	0.0525	0.0002
143	SLU 35	0.01	2.64	80.19	-0.1255	0.0069	0
143	SLU 36	0.02	2.94	81.74	-0.1422	0.0342	0.0001
143	SLU 37	0.01	2.62	79.49	-0.1244	0.0068	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
143	SLU 38	0.02	2.92	81.04	-0.141	0.0342	0.0001
143	SLU 39	0.01	2.61	80.17	-0.1225	0.007	0
143	SLU 40	0.02	2.91	81.72	-0.1392	0.0344	0.0001
143	SLU 41	0.01	2.7	81.46	-0.1275	0.007	0
143	SLU 42	0.02	3	83.01	-0.1441	0.0344	0.0001
143	SLU 43	0.01	1.96	77.45	-0.0958	0.0079	0
143	SLU 44	0.03	2.46	80.03	-0.1235	0.0535	0.0002
143	SLU 45	0.01	2.08	79.45	-0.1019	0.0079	0
143	SLU 46	0.02	2.38	81	-0.1185	0.0352	0.0001
143	SLU 47	0.03	2.56	81.33	-0.1285	0.0535	0.0002
143	SLU 48	0.01	2.18	80.74	-0.1068	0.0078	0
143	SLU 49	0.02	2.48	82.29	-0.1235	0.0352	0.0001
143	SLU 50	0.01	2.16	80.04	-0.1057	0.0078	0
143	SLU 51	0.02	2.46	81.59	-0.1223	0.0352	0.0001
143	SLU 52	0.03	2.89	87.66	-0.1423	0.0538	0.0002
143	SLU 53	0.01	2.51	87.07	-0.1206	0.0082	0
143	SLU 54	0.02	2.81	88.62	-0.1373	0.0356	0.0001
143	SLU 55	0.03	2.99	88.95	-0.1472	0.0538	0.0002
143	SLU 56	0.01	2.61	88.37	-0.1256	0.0082	0
143	SLU 57	0.02	2.91	89.91	-0.1422	0.0356	0.0001
143	SLU 58	0.01	2.58	87.66	-0.1244	0.0082	0
143	SLU 59	0.02	2.88	89.21	-0.1411	0.0355	0.0001
143	SLU 60	0.01	2.57	88.35	-0.1226	0.0084	0
143	SLU 61	0.02	2.87	89.89	-0.1392	0.0357	0.0001
143	SLU 62	0.01	2.67	89.64	-0.1275	0.0083	0
143	SLU 63	0.02	2.97	91.19	-0.1441	0.0357	0.0001
143	SLU 64	0.01	2.35	85.13	-0.1133	0.0082	0
143	SLU 65	0.03	2.84	87.71	-0.141	0.0539	0.0002
143	SLU 66	0.01	2.47	87.12	-0.1194	0.0082	0
143	SLU 67	0.02	2.77	88.67	-0.136	0.0356	0.0001
143	SLU 68	0.03	2.94	89	-0.1459	0.0538	0.0002
143	SLU 69	0.01	2.57	88.42	-0.1243	0.0082	0
143	SLU 70	0.02	2.87	89.97	-0.1409	0.0356	0.0001
143	SLU 71	0.01	2.54	87.71	-0.1232	0.0082	0
143	SLU 72	0.02	2.84	89.26	-0.1398	0.0356	0.0001
143	SLU 73	0.03	3.27	95.33	-0.1597	0.0542	0.0002
143	SLU 74	0.01	2.9	94.75	-0.1381	0.0086	0
143	SLU 75	0.02	3.2	96.3	-0.1547	0.036	0.0001
143	SLU 76	0.03	3.37	96.63	-0.1647	0.0542	0.0002
143	SLU 77	0.01	3	96.04	-0.143	0.0086	0
143	SLU 78	0.02	3.29	97.59	-0.1597	0.036	0.0001
143	SLU 79	0.01	2.97	95.34	-0.1419	0.0085	0
143	SLU 80	0.02	3.27	96.89	-0.1585	0.0359	0.0001
143	SLU 81	0.01	2.96	96.02	-0.14	0.0087	0
143	SLU 82	0.02	3.26	97.57	-0.1567	0.0361	0.0001
143	SLU 83	0.01	3.06	97.31	-0.145	0.0087	0
143	SLU 84	0.02	3.35	98.86	-0.1616	0.0361	0.0001
143	SLE RA 1	0	1.72	63.8	-0.0833	0.0062	0
143	SLE RA 2	0.02	2.05	65.52	-0.1018	0.0367	0.0002
143	SLE RA 3	0	1.8	65.13	-0.0873	0.0063	0
143	SLE RA 4	0.02	2	66.16	-0.0984	0.0245	0.0001
143	SLE RA 5	0.02	2.12	66.38	-0.1051	0.0366	0.0002
143	SLE RA 6	0	1.87	65.99	-0.0906	0.0062	0
143	SLE RA 7	0.02	2.07	67.02	-0.1017	0.0245	0.0001
143	SLE RA 8	0	1.85	65.52	-0.0899	0.0062	0
143	SLE RA 9	0.02	2.05	66.55	-0.101	0.0245	0.0001
143	SLE RA 10	0.02	2.34	70.6	-0.1143	0.0369	0.0002
143	SLE RA 11	0.01	2.09	70.21	-0.0998	0.0065	0
143	SLE RA 12	0.02	2.29	71.24	-0.1109	0.0247	0.0001
143	SLE RA 13	0.02	2.4	71.46	-0.1176	0.0369	0.0002
143	SLE RA 14	0.01	2.15	71.07	-0.1031	0.0065	0
143	SLE RA 15	0.02	2.35	72.1	-0.1142	0.0247	0.0001
143	SLE RA 16	0.01	2.14	70.6	-0.1024	0.0065	0
143	SLE RA 17	0.02	2.34	71.64	-0.1135	0.0247	0.0001
143	SLE RA 18	0.01	2.13	71.06	-0.1011	0.0066	0
143	SLE RA 19	0.02	2.33	72.09	-0.1122	0.0248	0.0001
143	SLE RA 20	0.01	2.19	71.92	-0.1044	0.0066	0
143	SLE RA 21	0.02	2.39	72.95	-0.1155	0.0248	0.0001
143	SLE FR 1	0	1.72	63.8	-0.0833	0.0062	0
143	SLE FR 2	0.01	1.79	64.14	-0.087	0.0123	0.0001
143	SLE FR 3	0	1.75	64.14	-0.0846	0.0062	0
143	SLE FR 4	0.01	1.91	66.32	-0.0923	0.0124	0.0001
143	SLE FR 5	0.01	1.87	66.32	-0.09	0.0063	0
143	SLE FR 6	0.01	1.92	67.43	-0.0922	0.0064	0
143	SLE QP 1	0	1.72	63.8	-0.0833	0.0062	0
143	SLE QP 2	0.01	1.84	65.98	-0.0886	0.0063	0
143	SLD 1	0.09	2.51	50.2	-0.1193	0.1021	0.0006
143	SLD 2	0.09	2.51	50.2	-0.1193	0.1021	0.0006
143	SLD 3	0.19	-1.24	47.31	0.0501	0.1924	0.0012
143	SLD 4	0.19	-1.24	47.31	0.0501	0.1924	0.0012
143	SLD 5	-0.12	7.73	65.63	-0.3548	-0.1019	-0.0007
143	SLD 6	-0.12	7.73	65.63	-0.3548	-0.1019	-0.0007
143	SLD 7	0.22	-4.77	55.99	0.21	0.1991	0.0013
143	SLD 8	0.22	-4.77	55.99	0.21	0.1991	0.0013
143	SLD 9	-0.21	8.45	75.96	-0.3872	-0.1864	-0.0013
143	SLD 10	-0.21	8.45	75.96	-0.3872	-0.1864	-0.0013
143	SLD 11	0.13	-4.04	66.32	0.1775	0.1146	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
143	SLD 12	0.13	-4.04	66.32	0.1775	0.1146	0.0008
143	SLD 13	-0.18	4.92	84.64	-0.2274	-0.1797	-0.0012
143	SLD 14	-0.18	4.92	84.64	-0.2274	-0.1797	-0.0012
143	SLD 15	-0.08	1.18	81.75	-0.058	-0.0894	-0.0006
143	SLD 16	-0.08	1.18	81.75	-0.058	-0.0894	-0.0006
143	SLV 1	0.2	3.36	29.11	-0.1585	0.2292	0.0014
143	SLV 2	0.2	3.36	29.11	-0.1585	0.2292	0.0014
143	SLV 3	0.46	-5.36	22.27	0.2358	0.4589	0.0029
143	SLV 4	0.46	-5.36	22.27	0.2358	0.4589	0.0029
143	SLV 5	-0.33	15.52	65.29	-0.7076	-0.2751	-0.0019
143	SLV 6	-0.33	15.52	65.29	-0.7076	-0.2751	-0.0019
143	SLV 7	0.53	-13.54	42.49	0.6067	0.4904	0.0032
143	SLV 8	0.53	-13.54	42.49	0.6067	0.4904	0.0032
143	SLV 9	-0.52	17.23	89.46	-0.7839	-0.4777	-0.0032
143	SLV 10	-0.52	17.23	89.46	-0.7839	-0.4777	-0.0032
143	SLV 11	0.34	-11.84	66.66	0.5303	0.2878	0.002
143	SLV 12	0.34	-11.84	66.66	0.5303	0.2878	0.002
143	SLV 13	-0.45	9.04	109.68	-0.4131	-0.4462	-0.0028
143	SLV 14	-0.45	9.04	109.68	-0.4131	-0.4462	-0.0028
143	SLV 15	-0.19	0.32	102.84	-0.0188	-0.2165	-0.0013
143	SLV 16	-0.19	0.32	102.84	-0.0188	-0.2165	-0.0013
144	SLU 1	0.11	1.03	23.5	0.0511	0.0686	0
144	SLU 2	0.11	3.13	22.8	-0.039	0.0732	0
144	SLU 3	0.11	0.86	24.4	0.062	0.071	0
144	SLU 4	0.12	2.11	23.98	0.0079	0.0737	0
144	SLU 5	0.12	2.87	23.47	-0.0255	0.0746	0
144	SLU 6	0.12	0.6	25.08	0.0755	0.0723	0
144	SLU 7	0.12	1.86	24.66	0.0214	0.0751	0
144	SLU 8	0.11	0.51	24.85	0.0781	0.0713	0
144	SLU 9	0.12	1.77	24.43	0.024	0.0741	0
144	SLU 10	0.13	3.55	26.46	-0.042	0.086	0
144	SLU 11	0.13	1.28	28.06	0.0591	0.0837	0
144	SLU 12	0.14	2.54	27.64	0.005	0.0865	0
144	SLU 13	0.14	3.29	27.13	-0.0285	0.0873	0
144	SLU 14	0.14	1.02	28.74	0.0726	0.085	0
144	SLU 15	0.14	2.28	28.32	0.0185	0.0878	0
144	SLU 16	0.13	0.93	28.51	0.0752	0.084	0
144	SLU 17	0.14	2.19	28.09	0.0211	0.0868	0
144	SLU 18	0.14	1.63	28.72	0.0469	0.0868	0
144	SLU 19	0.14	2.89	28.3	-0.0072	0.0896	0
144	SLU 20	0.14	1.37	29.4	0.0604	0.0882	0
144	SLU 21	0.14	2.63	28.98	0.0063	0.0909	0
144	SLU 22	0.13	1.28	26.9	0.0542	0.0801	0
144	SLU 23	0.13	3.38	26.2	-0.0359	0.0847	0
144	SLU 24	0.13	1.11	27.81	0.0652	0.0825	0
144	SLU 25	0.13	2.36	27.39	0.0111	0.0852	0
144	SLU 26	0.13	3.12	26.88	-0.0224	0.0861	0
144	SLU 27	0.13	0.85	28.49	0.0787	0.0838	0
144	SLU 28	0.14	2.11	28.07	0.0246	0.0866	0
144	SLU 29	0.13	0.76	28.25	0.0813	0.0828	0
144	SLU 30	0.13	2.02	27.83	0.0272	0.0855	0
144	SLU 31	0.15	3.8	29.86	-0.0388	0.0975	0
144	SLU 32	0.15	1.53	31.47	0.0622	0.0952	0
144	SLU 33	0.15	2.79	31.05	0.0082	0.098	0
144	SLU 34	0.15	3.54	30.54	-0.0253	0.0988	0
144	SLU 35	0.16	1.27	32.14	0.0757	0.0965	0
144	SLU 36	0.16	2.53	31.73	0.0217	0.0993	0
144	SLU 37	0.15	1.18	31.91	0.0783	0.0955	0
144	SLU 38	0.16	2.44	31.49	0.0243	0.0983	0
144	SLU 39	0.16	1.88	32.13	0.05	0.0983	0
144	SLU 40	0.16	3.14	31.71	-0.004	0.1011	0
144	SLU 41	0.16	1.62	32.81	0.0636	0.0997	0
144	SLU 42	0.16	2.88	32.39	0.0095	0.1024	0
144	SLU 43	0.14	1.25	29.38	0.0653	0.0853	0
144	SLU 44	0.14	3.35	28.68	-0.0248	0.0899	0
144	SLU 45	0.14	1.08	30.28	0.0762	0.0876	0
144	SLU 46	0.14	2.34	29.87	0.0222	0.0904	0
144	SLU 47	0.14	3.09	29.35	-0.0113	0.0912	0
144	SLU 48	0.14	0.82	30.96	0.0898	0.089	0
144	SLU 49	0.14	2.08	30.54	0.0357	0.0917	0
144	SLU 50	0.14	0.74	30.73	0.0923	0.088	0
144	SLU 51	0.14	1.99	30.31	0.0383	0.0907	0
144	SLU 52	0.16	3.77	32.34	-0.0277	0.1026	0
144	SLU 53	0.16	1.5	33.94	0.0733	0.1004	0
144	SLU 54	0.16	2.76	33.52	0.0192	0.1031	0
144	SLU 55	0.16	3.51	33.01	-0.0142	0.104	0
144	SLU 56	0.16	1.24	34.62	0.0868	0.1017	0
144	SLU 57	0.16	2.5	34.2	0.0328	0.1045	0
144	SLU 58	0.16	1.16	34.39	0.0894	0.1007	0
144	SLU 59	0.16	2.42	33.97	0.0354	0.1034	0
144	SLU 60	0.17	1.85	34.6	0.0611	0.1035	0
144	SLU 61	0.17	3.11	34.19	0.0071	0.1062	0
144	SLU 62	0.17	1.6	35.28	0.0746	0.1048	0
144	SLU 63	0.17	2.85	34.86	0.0206	0.1076	0
144	SLU 64	0.15	1.5	32.78	0.0685	0.0968	0
144	SLU 65	0.16	3.6	32.08	-0.0216	0.1014	0
144	SLU 66	0.16	1.33	33.69	0.0794	0.0991	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
144	SLU 67	0.16	2.59	33.27	0.0253	0.1019	0
144	SLU 68	0.16	3.34	32.76	-0.0081	0.1027	0
144	SLU 69	0.16	1.07	34.37	0.0929	0.1005	0
144	SLU 70	0.16	2.33	33.95	0.0388	0.1032	0
144	SLU 71	0.16	0.99	34.13	0.0955	0.0994	0
144	SLU 72	0.16	2.24	33.71	0.0414	0.1022	0
144	SLU 73	0.18	4.02	35.74	-0.0246	0.1141	0
144	SLU 74	0.18	1.75	37.35	0.0765	0.1119	0
144	SLU 75	0.18	3.01	36.93	0.0224	0.1146	0
144	SLU 76	0.18	3.76	36.42	-0.0111	0.1154	0
144	SLU 77	0.18	1.49	38.03	0.09	0.1132	0
144	SLU 78	0.18	2.75	37.61	0.0359	0.1159	0
144	SLU 79	0.18	1.41	37.79	0.0926	0.1122	0
144	SLU 80	0.18	2.67	37.37	0.0385	0.1149	0
144	SLU 81	0.18	2.1	38.01	0.0643	0.115	0
144	SLU 82	0.19	3.36	37.59	0.0102	0.1177	0
144	SLU 83	0.19	1.85	38.69	0.0778	0.1163	0
144	SLU 84	0.19	3.1	38.27	0.0237	0.1191	0
144	SLE RA 1	0.12	1.1	24.47	0.052	0.0719	0
144	SLE RA 2	0.12	2.5	24	-0.0081	0.075	0
144	SLE RA 3	0.12	0.99	25.07	0.0593	0.0735	0
144	SLE RA 4	0.12	1.82	24.79	0.0232	0.0753	0
144	SLE RA 5	0.12	2.33	24.45	0.0009	0.0759	0
144	SLE RA 6	0.12	0.81	25.52	0.0683	0.0744	0
144	SLE RA 7	0.12	1.65	25.25	0.0322	0.0762	0
144	SLE RA 8	0.12	0.76	25.37	0.07	0.0737	0
144	SLE RA 9	0.12	1.6	25.09	0.034	0.0755	0
144	SLE RA 10	0.13	2.78	26.44	-0.0101	0.0835	0
144	SLE RA 11	0.13	1.27	27.51	0.0573	0.082	0
144	SLE RA 12	0.13	2.11	27.23	0.0213	0.0838	0
144	SLE RA 13	0.13	2.61	26.89	-0.001	0.0844	0
144	SLE RA 14	0.13	1.09	27.96	0.0663	0.0829	0
144	SLE RA 15	0.13	1.93	27.68	0.0303	0.0847	0
144	SLE RA 16	0.13	1.04	27.81	0.068	0.0822	0
144	SLE RA 17	0.13	1.88	27.53	0.032	0.084	0
144	SLE RA 18	0.13	1.5	27.95	0.0492	0.0841	0
144	SLE RA 19	0.14	2.34	27.67	0.0131	0.0859	0
144	SLE RA 20	0.14	1.33	28.4	0.0582	0.0849	0
144	SLE RA 21	0.14	2.17	28.13	0.0222	0.0868	0
144	SLE FR 1	0.12	1.1	24.47	0.052	0.0719	0
144	SLE FR 2	0.12	1.38	24.38	0.04	0.0725	0
144	SLE FR 3	0.12	1.03	24.65	0.0556	0.0723	0
144	SLE FR 4	0.12	1.5	25.42	0.0391	0.0762	0
144	SLE FR 5	0.12	1.15	25.69	0.0547	0.0759	0
144	SLE FR 6	0.12	1.3	26.21	0.0506	0.078	0
144	SLE QP 1	0.12	1.1	24.47	0.052	0.0719	0
144	SLE QP 2	0.12	1.22	25.51	0.0511	0.0756	0
144	SLD 1	0.2	4.68	27.28	-0.1066	0.1451	0.0001
144	SLD 2	0.2	4.68	27.28	-0.1066	0.1451	0.0001
144	SLD 3	0.17	1.58	28.17	0.0334	0.1224	0.0001
144	SLD 4	0.17	1.58	28.17	0.0334	0.1224	0.0001
144	SLD 5	0.19	6.95	24.7	-0.2086	0.1308	0
144	SLD 6	0.19	6.95	24.7	-0.2086	0.1308	0
144	SLD 7	0.09	-3.37	27.66	0.0552	0.0552	0.0001
144	SLD 8	0.09	-3.37	27.66	0.0552	0.0552	0.0001
144	SLD 9	0.15	5.81	23.37	-0.1559	0.0959	-0.0001
144	SLD 10	0.15	5.81	23.37	-0.1559	0.0959	-0.0001
144	SLD 11	0.05	-4.51	26.33	0.3109	0.0203	0
144	SLD 12	0.05	-4.51	26.33	0.3109	0.0203	0
144	SLD 13	0.08	0.86	22.86	0.0689	0.0287	-0.0001
144	SLD 14	0.08	0.86	22.86	0.0689	0.0287	-0.0001
144	SLD 15	0.04	-2.24	23.75	0.2089	0.006	-0.0001
144	SLD 16	0.04	-2.24	23.75	0.2089	0.006	-0.0001
144	SLV 1	0.3	9.52	29.62	-0.3272	0.2404	0.0002
144	SLV 2	0.3	9.52	29.62	-0.3272	0.2404	0.0002
144	SLV 3	0.23	2.13	31.81	0.0065	0.1847	0.0003
144	SLV 4	0.23	2.13	31.81	0.0065	0.1847	0.0003
144	SLV 5	0.29	14.91	23.42	-0.5685	0.2095	0
144	SLV 6	0.29	14.91	23.42	-0.5685	0.2095	0
144	SLV 7	0.04	-9.71	30.73	0.5439	0.0238	0.0002
144	SLV 8	0.04	-9.71	30.73	0.5439	0.0238	0.0002
144	SLV 9	0.2	12.15	20.3	-0.4416	0.1273	-0.0002
144	SLV 10	0.2	12.15	20.3	-0.4416	0.1273	-0.0002
144	SLV 11	-0.05	-12.47	27.61	0.6708	-0.0584	0.0001
144	SLV 12	-0.05	-12.47	27.61	0.6708	-0.0584	0.0001
144	SLV 13	0.01	0.31	19.22	0.0958	-0.0336	-0.0003
144	SLV 14	0.01	0.31	19.22	0.0958	-0.0336	-0.0003
144	SLV 15	-0.06	-7.07	21.41	0.4295	-0.0893	-0.0002
144	SLV 16	-0.06	-7.07	21.41	0.4295	-0.0893	-0.0002
145	SLU 1	0.03	-2.91	45.57	0.143	0.0265	-0.0001
145	SLU 2	0.03	-3.45	46.09	0.1654	0.0271	-0.0001
145	SLU 3	0.03	-2.63	46.75	0.1329	0.027	-0.0001
145	SLU 4	0.03	-2.96	47.06	0.1463	0.0274	-0.0001
145	SLU 5	0.03	-3.13	46.69	0.1528	0.0273	-0.0001
145	SLU 6	0.03	-2.31	47.34	0.1202	0.0272	-0.0001
145	SLU 7	0.03	-2.63	47.66	0.1337	0.0276	-0.0001
145	SLU 8	0.03	-2.27	46.76	0.1178	0.0269	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
145	SLU 9	0.03	-2.59	47.07	0.1312	0.0273	-0.0001
145	SLU 10	0.04	-3.94	54.7	0.1909	0.0328	-0.0001
145	SLU 11	0.04	-3.13	55.36	0.1583	0.0328	-0.0001
145	SLU 12	0.04	-3.45	55.67	0.1718	0.0332	-0.0001
145	SLU 13	0.04	-3.62	55.3	0.1783	0.0331	-0.0001
145	SLU 14	0.04	-2.81	55.96	0.1457	0.033	-0.0001
145	SLU 15	0.04	-3.13	56.27	0.1591	0.0334	-0.0001
145	SLU 16	0.04	-2.76	55.37	0.1432	0.0327	-0.0001
145	SLU 17	0.04	-3.08	55.68	0.1567	0.0331	-0.0001
145	SLU 18	0.04	-3.62	57.87	0.1794	0.0348	-0.0001
145	SLU 19	0.04	-3.94	58.18	0.1929	0.0351	-0.0001
145	SLU 20	0.04	-3.3	58.46	0.1668	0.035	-0.0001
145	SLU 21	0.04	-3.62	58.78	0.1802	0.0353	-0.0001
145	SLU 22	0.04	-2.83	51.69	0.1456	0.0298	-0.0001
145	SLU 23	0.04	-3.36	52.21	0.168	0.0304	-0.0001
145	SLU 24	0.04	-2.55	52.87	0.1354	0.0304	-0.0001
145	SLU 25	0.04	-2.87	53.18	0.1488	0.0307	-0.0001
145	SLU 26	0.04	-3.04	52.81	0.1553	0.0306	-0.0001
145	SLU 27	0.04	-2.22	53.46	0.1228	0.0306	-0.0001
145	SLU 28	0.04	-2.55	53.78	0.1362	0.0309	-0.0001
145	SLU 29	0.04	-2.18	52.88	0.1203	0.0303	-0.0001
145	SLU 30	0.04	-2.5	53.19	0.1338	0.0306	-0.0001
145	SLU 31	0.05	-3.86	60.82	0.1934	0.0362	-0.0001
145	SLU 32	0.05	-3.04	61.48	0.1609	0.0362	-0.0001
145	SLU 33	0.05	-3.37	61.79	0.1743	0.0365	-0.0001
145	SLU 34	0.05	-3.54	61.42	0.1808	0.0364	-0.0001
145	SLU 35	0.05	-2.72	62.08	0.1482	0.0364	-0.0001
145	SLU 36	0.05	-3.04	62.39	0.1617	0.0367	-0.0001
145	SLU 37	0.05	-2.67	61.49	0.1458	0.036	-0.0001
145	SLU 38	0.05	-3	61.8	0.1592	0.0364	-0.0001
145	SLU 39	0.05	-3.53	63.99	0.1819	0.0381	-0.0001
145	SLU 40	0.05	-3.86	64.3	0.1954	0.0384	-0.0001
145	SLU 41	0.05	-3.21	64.58	0.1693	0.0383	-0.0001
145	SLU 42	0.05	-3.53	64.9	0.1828	0.0387	-0.0001
145	SLU 43	0.04	-3.82	57.14	0.1851	0.0333	-0.0001
145	SLU 44	0.04	-4.35	57.66	0.2075	0.0339	-0.0001
145	SLU 45	0.04	-3.54	58.32	0.1749	0.0338	-0.0001
145	SLU 46	0.04	-3.86	58.63	0.1884	0.0342	-0.0001
145	SLU 47	0.04	-4.03	58.26	0.1949	0.0341	-0.0001
145	SLU 48	0.04	-3.21	58.92	0.1623	0.0341	-0.0001
145	SLU 49	0.04	-3.54	59.23	0.1757	0.0344	-0.0001
145	SLU 50	0.04	-3.17	58.33	0.1598	0.0337	-0.0001
145	SLU 51	0.04	-3.49	58.65	0.1733	0.0341	-0.0001
145	SLU 52	0.05	-4.85	66.27	0.2329	0.0397	-0.0001
145	SLU 53	0.05	-4.03	66.93	0.2004	0.0396	-0.0001
145	SLU 54	0.05	-4.36	67.25	0.2138	0.04	-0.0001
145	SLU 55	0.05	-4.52	66.87	0.2203	0.0399	-0.0001
145	SLU 56	0.05	-3.71	67.53	0.1877	0.0398	-0.0001
145	SLU 57	0.05	-4.03	67.84	0.2012	0.0402	-0.0001
145	SLU 58	0.05	-3.66	66.94	0.1853	0.0395	-0.0001
145	SLU 59	0.05	-3.99	67.26	0.1987	0.0399	-0.0001
145	SLU 60	0.05	-4.52	69.44	0.2215	0.0416	-0.0001
145	SLU 61	0.05	-4.85	69.75	0.2349	0.0419	-0.0001
145	SLU 62	0.05	-4.2	70.04	0.2088	0.0418	-0.0001
145	SLU 63	0.05	-4.52	70.35	0.2223	0.0421	-0.0001
145	SLU 64	0.05	-3.73	63.26	0.1876	0.0366	-0.0001
145	SLU 65	0.05	-4.27	63.78	0.21	0.0372	-0.0001
145	SLU 66	0.05	-3.45	64.44	0.1774	0.0372	-0.0001
145	SLU 67	0.05	-3.77	64.75	0.1909	0.0375	-0.0001
145	SLU 68	0.05	-3.94	64.38	0.1974	0.0374	-0.0001
145	SLU 69	0.05	-3.13	65.04	0.1648	0.0374	-0.0001
145	SLU 70	0.05	-3.45	65.35	0.1783	0.0377	-0.0001
145	SLU 71	0.05	-3.08	64.45	0.1624	0.0371	-0.0001
145	SLU 72	0.05	-3.4	64.76	0.1758	0.0374	-0.0001
145	SLU 73	0.05	-4.76	72.39	0.2355	0.043	-0.0001
145	SLU 74	0.05	-3.95	73.05	0.2029	0.043	-0.0001
145	SLU 75	0.05	-4.27	73.36	0.2163	0.0433	-0.0001
145	SLU 76	0.05	-4.44	72.99	0.2228	0.0432	-0.0001
145	SLU 77	0.05	-3.62	73.65	0.1903	0.0432	-0.0001
145	SLU 78	0.05	-3.95	73.96	0.2037	0.0435	-0.0001
145	SLU 79	0.05	-3.58	73.06	0.1878	0.0429	-0.0001
145	SLU 80	0.05	-3.9	73.38	0.2013	0.0432	-0.0001
145	SLU 81	0.06	-4.44	75.56	0.224	0.0449	-0.0001
145	SLU 82	0.06	-4.76	75.87	0.2374	0.0452	-0.0001
145	SLU 83	0.06	-4.11	76.16	0.2114	0.0451	-0.0001
145	SLU 84	0.06	-4.44	76.47	0.2248	0.0455	-0.0001
145	SLE RA 1	0.03	-2.89	47.32	0.1438	0.0275	-0.0001
145	SLE RA 2	0.03	-3.25	47.66	0.1587	0.0278	-0.0001
145	SLE RA 3	0.03	-2.7	48.1	0.137	0.0278	-0.0001
145	SLE RA 4	0.03	-2.92	48.31	0.1459	0.028	-0.0001
145	SLE RA 5	0.03	-3.03	48.06	0.1503	0.028	-0.0001
145	SLE RA 6	0.03	-2.49	48.5	0.1286	0.028	-0.0001
145	SLE RA 7	0.04	-2.7	48.71	0.1375	0.0282	-0.0001
145	SLE RA 8	0.03	-2.46	48.11	0.1269	0.0277	-0.0001
145	SLE RA 9	0.03	-2.67	48.32	0.1359	0.028	-0.0001
145	SLE RA 10	0.04	-3.58	53.4	0.1757	0.0317	-0.0001
145	SLE RA 11	0.04	-3.03	53.84	0.154	0.0317	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
145	SLE RA 12	0.04	-3.25	54.05	0.1629	0.0319	-0.0001
145	SLE RA 13	0.04	-3.36	53.8	0.1673	0.0318	-0.0001
145	SLE RA 14	0.04	-2.82	54.24	0.1455	0.0318	-0.0001
145	SLE RA 15	0.04	-3.03	54.45	0.1545	0.032	-0.0001
145	SLE RA 16	0.04	-2.79	53.85	0.1439	0.0316	-0.0001
145	SLE RA 17	0.04	-3	54.06	0.1529	0.0318	-0.0001
145	SLE RA 18	0.04	-3.36	55.52	0.168	0.033	-0.0001
145	SLE RA 19	0.04	-3.57	55.73	0.177	0.0332	-0.0001
145	SLE RA 20	0.04	-3.14	55.91	0.1596	0.0331	-0.0001
145	SLE RA 21	0.04	-3.36	56.12	0.1686	0.0333	-0.0001
145	SLE FR 1	0.03	-2.89	47.32	0.1438	0.0275	-0.0001
145	SLE FR 2	0.03	-2.96	47.39	0.1468	0.0275	-0.0001
145	SLE FR 3	0.03	-2.8	47.47	0.1404	0.0275	-0.0001
145	SLE FR 4	0.04	-3.1	49.85	0.154	0.0292	-0.0001
145	SLE FR 5	0.04	-2.94	49.93	0.1477	0.0292	-0.0001
145	SLE FR 6	0.04	-3.12	51.42	0.1559	0.0302	-0.0001
145	SLE QP 1	0.03	-2.89	47.32	0.1438	0.0275	-0.0001
145	SLE QP 2	0.04	-3.03	49.78	0.151	0.0291	-0.0001
145	SLD 1	0.15	0.96	42.32	-0.0143	0.1205	-0.0005
145	SLD 2	0.15	0.96	42.32	-0.0143	0.1205	-0.0005
145	SLD 3	0.16	-3.08	46.02	0.1613	0.135	-0.0003
145	SLD 4	0.16	-3.08	46.02	0.1613	0.135	-0.0003
145	SLD 5	0.04	4.3	41.93	-0.1649	0.0345	-0.0004
145	SLD 6	0.04	4.3	41.93	-0.1649	0.0345	-0.0004
145	SLD 7	0.1	-9.18	54.26	0.4205	0.0829	0.0001
145	SLD 8	0.1	-9.18	54.26	0.4205	0.0829	0.0001
145	SLD 9	-0.03	3.12	45.29	-0.1184	-0.0247	-0.0002
145	SLD 10	-0.03	3.12	45.29	-0.1184	-0.0247	-0.0002
145	SLD 11	0.03	-10.36	57.62	0.467	0.0237	0.0003
145	SLD 12	0.03	-10.36	57.62	0.467	0.0237	0.0003
145	SLD 13	-0.09	-2.98	53.54	0.1408	-0.0768	0.0002
145	SLD 14	-0.09	-2.98	53.54	0.1408	-0.0768	0.0002
145	SLD 15	-0.07	-7.02	57.23	0.3164	-0.0623	0.0003
145	SLD 16	-0.07	-7.02	57.23	0.3164	-0.0623	0.0003
145	SLV 1	0.31	6.34	32.21	-0.2374	0.2588	-0.001
145	SLV 2	0.31	6.34	32.21	-0.2374	0.2588	-0.001
145	SLV 3	0.35	-3.15	41.01	0.1748	0.2948	-0.0007
145	SLV 4	0.35	-3.15	41.01	0.1748	0.2948	-0.0007
145	SLV 5	0.06	14.18	31.16	-0.5906	0.0435	-0.0009
145	SLV 6	0.06	14.18	31.16	-0.5906	0.0435	-0.0009
145	SLV 7	0.2	-17.46	60.49	0.7833	0.1633	0.0003
145	SLV 8	0.2	-17.46	60.49	0.7833	0.1633	0.0003
145	SLV 9	-0.12	11.4	39.06	-0.4812	-0.1051	-0.0005
145	SLV 10	-0.12	11.4	39.06	-0.4812	-0.1051	-0.0005
145	SLV 11	0.02	-20.23	68.39	0.8927	0.0147	0.0008
145	SLV 12	0.02	-20.23	68.39	0.8927	0.0147	0.0008
145	SLV 13	-0.28	-2.91	58.54	0.1273	-0.2365	0.0005
145	SLV 14	-0.28	-2.91	58.54	0.1273	-0.2365	0.0005
145	SLV 15	-0.24	-12.4	67.34	0.5395	-0.2006	0.0009
145	SLV 16	-0.24	-12.4	67.34	0.5395	-0.2006	0.0009
146	SLU 1	0	-2	38.61	0.1604	-0.0023	0
146	SLU 2	0	-0.13	37.97	0.0778	-0.0057	0
146	SLU 3	0	-2.25	40.05	0.1749	-0.0024	0
146	SLU 4	0	-1.14	39.67	0.1254	-0.0044	0
146	SLU 5	0	-0.43	39.02	0.0934	-0.0057	0
146	SLU 6	0	-2.55	41.1	0.1905	-0.0024	0
146	SLU 7	0	-1.43	40.72	0.1409	-0.0044	0
146	SLU 8	0	-2.59	40.7	0.1915	-0.0023	0
146	SLU 9	0	-1.47	40.32	0.142	-0.0044	0
146	SLU 10	0	-0.19	44.5	0.0921	-0.0061	0
146	SLU 11	0	-2.31	46.58	0.1893	-0.0028	0
146	SLU 12	0	-1.19	46.2	0.1397	-0.0048	0
146	SLU 13	0	-0.49	45.55	0.1077	-0.0061	0
146	SLU 14	0	-2.61	47.63	0.2049	-0.0028	0
146	SLU 15	0	-1.49	47.25	0.1553	-0.0049	0
146	SLU 16	0	-2.65	47.23	0.2059	-0.0028	0
146	SLU 17	0	-1.53	46.84	0.1563	-0.0048	0
146	SLU 18	0	-2.08	47.93	0.1809	-0.0029	0
146	SLU 19	0	-0.96	47.55	0.1313	-0.0049	0
146	SLU 20	0	-2.37	48.98	0.1965	-0.0029	0
146	SLU 21	0	-1.26	48.6	0.1469	-0.005	0
146	SLU 22	0	-2.17	44.79	0.1794	-0.0026	0
146	SLU 23	0	-0.31	44.16	0.0968	-0.006	0
146	SLU 24	0	-2.43	46.24	0.194	-0.0027	0
146	SLU 25	0	-1.31	45.86	0.1444	-0.0047	0
146	SLU 26	0	-0.61	45.2	0.1124	-0.006	0
146	SLU 27	0	-2.73	47.28	0.2095	-0.0027	0
146	SLU 28	0	-1.61	46.9	0.16	-0.0048	0
146	SLU 29	0	-2.76	46.88	0.2106	-0.0027	0
146	SLU 30	0	-1.65	46.5	0.161	-0.0047	0
146	SLU 31	0	-0.37	50.68	0.1112	-0.0065	0
146	SLU 32	0	-2.49	52.77	0.2083	-0.0032	0
146	SLU 33	0	-1.37	52.39	0.1588	-0.0052	0
146	SLU 34	0	-0.66	51.73	0.1268	-0.0065	0
146	SLU 35	0	-2.78	53.81	0.2239	-0.0032	0
146	SLU 36	0	-1.67	53.43	0.1743	-0.0052	0
146	SLU 37	0	-2.82	53.41	0.2249	-0.0031	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
146	SLU 38	0	-1.7	53.03	0.1754	-0.0051	0
146	SLU 39	0	-2.25	54.12	0.1999	-0.0033	0
146	SLU 40	0	-1.14	53.74	0.1504	-0.0053	0
146	SLU 41	0	-2.55	55.16	0.2155	-0.0033	0
146	SLU 42	0	-1.43	54.78	0.1659	-0.0053	0
146	SLU 43	0	-2.53	48.07	0.202	-0.0028	0
146	SLU 44	0	-0.67	47.43	0.1194	-0.0062	0
146	SLU 45	0	-2.79	49.52	0.2165	-0.0029	0
146	SLU 46	0	-1.67	49.14	0.167	-0.005	0
146	SLU 47	0	-0.97	48.48	0.135	-0.0063	0
146	SLU 48	0	-3.09	50.56	0.2321	-0.0029	0
146	SLU 49	0	-1.97	50.18	0.1825	-0.005	0
146	SLU 50	0	-3.13	50.16	0.2331	-0.0029	0
146	SLU 51	0	-2.01	49.78	0.1836	-0.0049	0
146	SLU 52	0	-0.73	53.96	0.1337	-0.0067	0
146	SLU 53	0	-2.85	56.05	0.2309	-0.0034	0
146	SLU 54	0	-1.73	55.67	0.1813	-0.0054	0
146	SLU 55	0	-1.03	55.01	0.1493	-0.0067	0
146	SLU 56	0	-3.14	57.09	0.2464	-0.0034	0
146	SLU 57	0	-2.03	56.71	0.1969	-0.0054	0
146	SLU 58	0	-3.18	56.69	0.2475	-0.0033	0
146	SLU 59	0	-2.07	56.31	0.1979	-0.0054	0
146	SLU 60	0	-2.62	57.4	0.2225	-0.0035	0
146	SLU 61	0	-1.5	57.02	0.1729	-0.0055	0
146	SLU 62	0	-2.91	58.44	0.238	-0.0035	0
146	SLU 63	0	-1.79	58.06	0.1885	-0.0055	0
146	SLU 64	0	-2.71	54.25	0.221	-0.0032	0
146	SLU 65	0	-0.85	53.62	0.1384	-0.0066	0
146	SLU 66	0	-2.97	55.7	0.2355	-0.0033	0
146	SLU 67	0	-1.85	55.32	0.186	-0.0053	0
146	SLU 68	0	-1.14	54.66	0.154	-0.0066	0
146	SLU 69	0	-3.26	56.74	0.2511	-0.0033	0
146	SLU 70	0	-2.15	56.36	0.2016	-0.0053	0
146	SLU 71	0	-3.3	56.34	0.2522	-0.0032	0
146	SLU 72	0	-2.18	55.96	0.2026	-0.0053	0
146	SLU 73	0	-0.91	60.15	0.1528	-0.007	0
146	SLU 74	0	-3.03	62.23	0.2499	-0.0037	0
146	SLU 75	0	-1.91	61.85	0.2004	-0.0058	0
146	SLU 76	0	-1.2	61.19	0.1683	-0.007	0
146	SLU 77	0	-3.32	63.27	0.2655	-0.0037	0
146	SLU 78	0	-2.2	62.89	0.2159	-0.0058	0
146	SLU 79	0	-3.36	62.87	0.2665	-0.0037	0
146	SLU 80	0	-2.24	62.49	0.217	-0.0057	0
146	SLU 81	0	-2.79	63.58	0.2415	-0.0038	0
146	SLU 82	0	-1.68	63.2	0.192	-0.0059	0
146	SLU 83	0	-3.09	64.62	0.2571	-0.0038	0
146	SLU 84	0	-1.97	64.24	0.2075	-0.0059	0
146	SLE RA 1	0	-2.05	40.37	0.1658	-0.0024	0
146	SLE RA 2	0	-0.8	39.95	0.1108	-0.0046	0
146	SLE RA 3	0	-2.22	41.34	0.1755	-0.0024	0
146	SLE RA 4	0	-1.47	41.08	0.1425	-0.0038	0
146	SLE RA 5	0	-1	40.65	0.1211	-0.0047	0
146	SLE RA 6	0	-2.42	42.04	0.1859	-0.0024	0
146	SLE RA 7	0	-1.67	41.78	0.1529	-0.0038	0
146	SLE RA 8	0	-2.44	41.77	0.1866	-0.0024	0
146	SLE RA 9	0	-1.7	41.51	0.1536	-0.0038	0
146	SLE RA 10	0	-0.84	44.3	0.1203	-0.0049	0
146	SLE RA 11	0	-2.26	45.69	0.1851	-0.0027	0
146	SLE RA 12	0	-1.51	45.44	0.152	-0.0041	0
146	SLE RA 13	0	-1.04	45	0.1307	-0.0049	0
146	SLE RA 14	0	-2.45	46.39	0.1955	-0.0027	0
146	SLE RA 15	0	-1.71	46.13	0.1624	-0.0041	0
146	SLE RA 16	0	-2.48	46.12	0.1962	-0.0027	0
146	SLE RA 17	0	-1.73	45.87	0.1631	-0.0041	0
146	SLE RA 18	0	-2.1	46.59	0.1795	-0.0028	0
146	SLE RA 19	0	-1.36	46.34	0.1465	-0.0042	0
146	SLE RA 20	0	-2.3	47.29	0.1899	-0.0028	0
146	SLE RA 21	0	-1.55	47.03	0.1568	-0.0042	0
146	SLE FR 1	0	-2.05	40.37	0.1658	-0.0024	0
146	SLE FR 2	0	-1.8	40.29	0.1548	-0.0028	0
146	SLE FR 3	0	-2.13	40.65	0.17	-0.0024	0
146	SLE FR 4	0	-1.81	42.15	0.1589	-0.003	0
146	SLE FR 5	0	-2.14	42.52	0.1741	-0.0025	0
146	SLE FR 6	0	-2.07	43.48	0.1727	-0.0026	0
146	SLE QP 1	0	-2.05	40.37	0.1658	-0.0024	0
146	SLE QP 2	0	-2.06	42.24	0.1699	-0.0025	0
146	SLD 1	0.05	-1.92	43.02	0.1641	0.0494	0.0001
146	SLD 2	0.05	-1.92	43.02	0.1641	0.0494	0.0001
146	SLD 3	0.07	-4.58	43.74	0.2862	0.0692	0.0001
146	SLD 4	0.07	-4.58	43.74	0.2862	0.0692	0.0001
146	SLD 5	-0.02	2.02	41.38	-0.017	-0.017	0
146	SLD 6	-0.02	2.02	41.38	-0.017	-0.017	0
146	SLD 7	0.06	-6.86	43.78	0.39	0.0491	0.0001
146	SLD 8	0.06	-6.86	43.78	0.39	0.0491	0.0001
146	SLD 9	-0.06	2.73	40.69	-0.0502	-0.0541	-0.0001
146	SLD 10	-0.06	2.73	40.69	-0.0502	-0.0541	-0.0001
146	SLD 11	0.02	-6.15	43.1	0.3568	0.012	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
146	SLD 12	0.02	-6.15	43.1	0.3568	0.012	0
146	SLD 13	-0.07	0.45	40.73	0.0536	-0.0742	-0.0001
146	SLD 14	-0.07	0.45	40.73	0.0536	-0.0742	-0.0001
146	SLD 15	-0.05	-2.21	41.45	0.1757	-0.0544	-0.0001
146	SLD 16	-0.05	-2.21	41.45	0.1757	-0.0544	-0.0001
146	SLV 1	0.12	-1.83	44.12	0.1621	0.1233	0.0002
146	SLV 2	0.12	-1.83	44.12	0.1621	0.1233	0.0002
146	SLV 3	0.17	-8.14	45.89	0.4505	0.1738	0.0002
146	SLV 4	0.17	-8.14	45.89	0.4505	0.1738	0.0002
146	SLV 5	-0.05	7.56	40.12	-0.2698	-0.0414	0
146	SLV 6	-0.05	7.56	40.12	-0.2698	-0.0414	0
146	SLV 7	0.14	-13.44	46.02	0.6915	0.127	0.0001
146	SLV 8	0.14	-13.44	46.02	0.6915	0.127	0.0001
146	SLV 9	-0.14	9.32	38.46	-0.3517	-0.132	-0.0001
146	SLV 10	-0.14	9.32	38.46	-0.3517	-0.132	-0.0001
146	SLV 11	0.05	-11.69	44.36	0.6097	0.0364	0
146	SLV 12	0.05	-11.69	44.36	0.6097	0.0364	0
146	SLV 13	-0.18	4.01	38.58	-0.1106	-0.1788	-0.0002
146	SLV 14	-0.18	4.01	38.58	-0.1106	-0.1788	-0.0002
146	SLV 15	-0.12	-2.29	40.35	0.1777	-0.1283	-0.0002
146	SLV 16	-0.12	-2.29	40.35	0.1777	-0.1283	-0.0002
147	SLU 1	0.01	-4.31	43.18	0.2083	0.0221	0.0003
147	SLU 2	0.01	-4.69	43.43	0.2266	0.0219	0.0003
147	SLU 3	0.01	-4.09	44.23	0.1976	0.0229	0.0003
147	SLU 4	0.01	-4.32	44.38	0.2085	0.0228	0.0003
147	SLU 5	0.01	-4.38	43.89	0.211	0.0225	0.0003
147	SLU 6	0.01	-3.78	44.7	0.182	0.0235	0.0003
147	SLU 7	0.01	-4	44.85	0.193	0.0234	0.0003
147	SLU 8	0.01	-3.68	44.11	0.1773	0.0232	0.0003
147	SLU 9	0.01	-3.91	44.26	0.1882	0.0231	0.0003
147	SLU 10	0.01	-5.45	52.01	0.265	0.0244	0.0004
147	SLU 11	0.01	-4.85	52.82	0.236	0.0255	0.0004
147	SLU 12	0.01	-5.08	52.97	0.247	0.0254	0.0004
147	SLU 13	0.01	-5.13	52.48	0.2495	0.025	0.0004
147	SLU 14	0.01	-4.54	53.28	0.2205	0.0261	0.0004
147	SLU 15	0.01	-4.76	53.43	0.2315	0.0259	0.0004
147	SLU 16	0.01	-4.44	52.7	0.2157	0.0258	0.0004
147	SLU 17	0.01	-4.67	52.84	0.2267	0.0257	0.0004
147	SLU 18	0.01	-5.39	55.45	0.2633	0.0257	0.0004
147	SLU 19	0.01	-5.62	55.6	0.2742	0.0256	0.0004
147	SLU 20	0.01	-5.08	55.91	0.2478	0.0263	0.0004
147	SLU 21	0.01	-5.31	56.06	0.2587	0.0262	0.0004
147	SLU 22	0.01	-4.52	49.48	0.2205	0.0254	0.0004
147	SLU 23	0.01	-4.9	49.73	0.2388	0.0252	0.0004
147	SLU 24	0.01	-4.3	50.53	0.2098	0.0262	0.0004
147	SLU 25	0.01	-4.53	50.68	0.2207	0.0261	0.0004
147	SLU 26	0.01	-4.58	50.19	0.2233	0.0258	0.0004
147	SLU 27	0.01	-3.99	51	0.1943	0.0268	0.0004
147	SLU 28	0.01	-4.21	51.14	0.2052	0.0267	0.0004
147	SLU 29	0.01	-3.89	50.41	0.1895	0.0265	0.0003
147	SLU 30	0.01	-4.12	50.56	0.2004	0.0264	0.0004
147	SLU 31	0.01	-5.66	58.31	0.2773	0.0277	0.0004
147	SLU 32	0.01	-5.06	59.12	0.2483	0.0288	0.0004
147	SLU 33	0.01	-5.28	59.27	0.2592	0.0287	0.0004
147	SLU 34	0.01	-5.34	58.78	0.2618	0.0283	0.0004
147	SLU 35	0.01	-4.75	59.58	0.2328	0.0294	0.0004
147	SLU 36	0.01	-4.97	59.73	0.2437	0.0292	0.0004
147	SLU 37	0.01	-4.65	58.99	0.228	0.0291	0.0004
147	SLU 38	0.01	-4.88	59.14	0.2389	0.029	0.0004
147	SLU 39	0.01	-5.6	61.74	0.2755	0.029	0.0004
147	SLU 40	0.01	-5.83	61.89	0.2865	0.0289	0.0004
147	SLU 41	0.01	-5.29	62.21	0.26	0.0296	0.0004
147	SLU 42	0.01	-5.52	62.36	0.2709	0.0295	0.0004
147	SLU 43	0.01	-5.53	53.97	0.2666	0.0276	0.0004
147	SLU 44	0.01	-5.91	54.22	0.2848	0.0274	0.0004
147	SLU 45	0.01	-5.31	55.03	0.2559	0.0284	0.0004
147	SLU 46	0.01	-5.54	55.18	0.2668	0.0283	0.0004
147	SLU 47	0.01	-5.6	54.69	0.2693	0.028	0.0004
147	SLU 48	0.01	-5	55.49	0.2403	0.029	0.0004
147	SLU 49	0.01	-5.22	55.64	0.2513	0.0289	0.0004
147	SLU 50	0.01	-4.9	54.9	0.2356	0.0287	0.0004
147	SLU 51	0.01	-5.13	55.05	0.2465	0.0286	0.0004
147	SLU 52	0.01	-6.67	62.81	0.3233	0.0299	0.0004
147	SLU 53	0.01	-6.07	63.61	0.2943	0.031	0.0004
147	SLU 54	0.01	-6.3	63.76	0.3053	0.0309	0.0004
147	SLU 55	0.01	-6.35	63.27	0.3078	0.0305	0.0004
147	SLU 56	0.01	-5.76	64.08	0.2788	0.0316	0.0004
147	SLU 57	0.01	-5.98	64.23	0.2898	0.0314	0.0004
147	SLU 58	0.01	-5.66	63.49	0.274	0.0313	0.0004
147	SLU 59	0.01	-5.89	63.64	0.285	0.0312	0.0004
147	SLU 60	0.01	-6.61	66.24	0.3216	0.0312	0.0005
147	SLU 61	0.01	-6.84	66.39	0.3325	0.0311	0.0005
147	SLU 62	0.01	-6.3	66.71	0.306	0.0318	0.0005
147	SLU 63	0.01	-6.53	66.85	0.317	0.0317	0.0005
147	SLU 64	0.01	-5.74	60.27	0.2788	0.0309	0.0004
147	SLU 65	0.01	-6.12	60.52	0.2971	0.0307	0.0004
147	SLU 66	0.01	-5.52	61.33	0.2681	0.0317	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
147	SLU 67	0.01	-5.75	61.47	0.279	0.0316	0.0004
147	SLU 68	0.01	-5.8	60.98	0.2816	0.0313	0.0004
147	SLU 69	0.01	-5.21	61.79	0.2526	0.0323	0.0004
147	SLU 70	0.01	-5.43	61.94	0.2635	0.0322	0.0004
147	SLU 71	0.01	-5.11	61.2	0.2478	0.032	0.0004
147	SLU 72	0.01	-5.34	61.35	0.2587	0.0319	0.0004
147	SLU 73	0.01	-6.88	69.11	0.3356	0.0332	0.0005
147	SLU 74	0.01	-6.28	69.91	0.3066	0.0343	0.0005
147	SLU 75	0.01	-6.5	70.06	0.3175	0.0342	0.0005
147	SLU 76	0.01	-6.56	69.57	0.32	0.0338	0.0005
147	SLU 77	0.01	-5.97	70.38	0.2911	0.0349	0.0005
147	SLU 78	0.01	-6.19	70.53	0.302	0.0347	0.0005
147	SLU 79	0.01	-5.87	69.79	0.2863	0.0346	0.0005
147	SLU 80	0.01	-6.1	69.94	0.2972	0.0345	0.0005
147	SLU 81	0.01	-6.82	72.54	0.3338	0.0345	0.0005
147	SLU 82	0.01	-7.05	72.69	0.3448	0.0344	0.0005
147	SLU 83	0.01	-6.51	73	0.3183	0.0351	0.0005
147	SLU 84	0.01	-6.74	73.15	0.3292	0.035	0.0005
147	SLE RA 1	0.01	-4.37	44.98	0.2118	0.023	0.0003
147	SLE RA 2	0.01	-4.62	45.14	0.224	0.0229	0.0003
147	SLE RA 3	0.01	-4.22	45.68	0.2046	0.0236	0.0003
147	SLE RA 4	0.01	-4.37	45.78	0.2119	0.0235	0.0003
147	SLE RA 5	0.01	-4.41	45.45	0.2136	0.0233	0.0003
147	SLE RA 6	0.01	-4.01	45.99	0.1943	0.024	0.0003
147	SLE RA 7	0.01	-4.16	46.09	0.2016	0.0239	0.0003
147	SLE RA 8	0.01	-3.95	45.6	0.1911	0.0238	0.0003
147	SLE RA 9	0.01	-4.1	45.7	0.1984	0.0237	0.0003
147	SLE RA 10	0.01	-5.13	50.87	0.2496	0.0246	0.0004
147	SLE RA 11	0.01	-4.73	51.41	0.2303	0.0253	0.0004
147	SLE RA 12	0.01	-4.88	51.51	0.2376	0.0252	0.0004
147	SLE RA 13	0.01	-4.92	51.18	0.2393	0.025	0.0004
147	SLE RA 14	0.01	-4.52	51.72	0.2199	0.0257	0.0004
147	SLE RA 15	0.01	-4.67	51.81	0.2272	0.0256	0.0004
147	SLE RA 16	0.01	-4.46	51.32	0.2168	0.0255	0.0004
147	SLE RA 17	0.01	-4.61	51.42	0.2241	0.0254	0.0004
147	SLE RA 18	0.01	-5.09	53.16	0.2484	0.0255	0.0004
147	SLE RA 19	0.01	-5.24	53.26	0.2557	0.0254	0.0004
147	SLE RA 20	0.01	-4.88	53.47	0.2381	0.0259	0.0004
147	SLE RA 21	0.01	-5.03	53.57	0.2454	0.0258	0.0004
147	SLE FR 1	0.01	-4.37	44.98	0.2118	0.023	0.0003
147	SLE FR 2	0.01	-4.42	45.01	0.2142	0.023	0.0003
147	SLE FR 3	0.01	-4.28	45.1	0.2077	0.0232	0.0003
147	SLE FR 4	0.01	-4.63	47.47	0.2252	0.0237	0.0003
147	SLE FR 5	0.01	-4.5	47.56	0.2187	0.0239	0.0003
147	SLE FR 6	0.01	-4.73	49.07	0.2301	0.0243	0.0003
147	SLE QP 1	0.01	-4.37	44.98	0.2118	0.023	0.0003
147	SLE QP 2	0.01	-4.58	47.43	0.2228	0.0238	0.0003
147	SLD 1	0.1	-3.83	50.1	0.1859	0.1094	0.0004
147	SLD 2	0.1	-3.83	50.1	0.1859	0.1094	0.0004
147	SLD 3	0.09	-6.74	53.13	0.3281	0.1215	0.0004
147	SLD 4	0.09	-6.74	53.13	0.3281	0.1215	0.0004
147	SLD 5	0.06	0.07	43.64	-0.004	0.0311	0.0003
147	SLD 6	0.06	0.07	43.64	-0.004	0.0311	0.0003
147	SLD 7	0.01	-9.65	53.74	0.4701	0.0714	0.0004
147	SLD 8	0.01	-9.65	53.74	0.4701	0.0714	0.0004
147	SLD 9	0.01	0.49	41.13	-0.0245	-0.0239	0.0002
147	SLD 10	0.01	0.49	41.13	-0.0245	-0.0239	0.0002
147	SLD 11	-0.04	-9.23	51.22	0.4496	0.0164	0.0004
147	SLD 12	-0.04	-9.23	51.22	0.4496	0.0164	0.0004
147	SLD 13	-0.07	-2.42	41.73	0.1175	-0.0739	0.0003
147	SLD 14	-0.07	-2.42	41.73	0.1175	-0.0739	0.0003
147	SLD 15	-0.08	-5.34	44.76	0.2597	-0.0618	0.0003
147	SLD 16	-0.08	-5.34	44.76	0.2597	-0.0618	0.0003
147	SLV 1	0.24	-2.82	53.65	0.1366	0.2385	0.0004
147	SLV 2	0.24	-2.82	53.65	0.1366	0.2385	0.0004
147	SLV 3	0.2	-9.64	60.8	0.4694	0.269	0.0005
147	SLV 4	0.2	-9.64	60.8	0.4694	0.269	0.0005
147	SLV 5	0.13	6.29	38.45	-0.3078	0.0419	0.0002
147	SLV 6	0.13	6.29	38.45	-0.3078	0.0419	0.0002
147	SLV 7	0.01	-16.45	62.29	0.8015	0.1436	0.0005
147	SLV 8	0.01	-16.45	62.29	0.8015	0.1436	0.0005
147	SLV 9	0.01	7.28	32.57	-0.356	-0.096	0.0001
147	SLV 10	0.01	7.28	32.57	-0.356	-0.096	0.0001
147	SLV 11	-0.12	-15.45	56.41	0.7534	0.0056	0.0005
147	SLV 12	-0.12	-15.45	56.41	0.7534	0.0056	0.0005
147	SLV 13	-0.18	0.48	34.06	-0.0238	-0.2215	0.0001
147	SLV 14	-0.18	0.48	34.06	-0.0238	-0.2215	0.0001
147	SLV 15	-0.22	-6.34	41.21	0.309	-0.191	0.0002
147	SLV 16	-0.22	-6.34	41.21	0.309	-0.191	0.0002
148	SLU 1	0	2.59	19.07	-0.0845	0.005	0
148	SLU 2	0	2.59	19.11	-0.0841	0.0051	0
148	SLU 3	0	2.67	19.55	-0.0863	0.0049	0
148	SLU 4	0	2.67	19.58	-0.0861	0.005	0
148	SLU 5	0	2.61	19.37	-0.0839	0.005	0
148	SLU 6	0	2.7	19.81	-0.0861	0.0048	0
148	SLU 7	0	2.7	19.84	-0.0858	0.0049	0
148	SLU 8	0	2.65	19.58	-0.084	0.0047	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
148	SLU 9	0	2.65	19.61	-0.0838	0.0048	0
148	SLU 10	0.01	2.98	23.63	-0.0967	0.0062	0
148	SLU 11	0.01	3.07	24.07	-0.0989	0.006	0
148	SLU 12	0.01	3.07	24.1	-0.0987	0.0061	0
148	SLU 13	0.01	3.01	23.88	-0.0965	0.0061	0
148	SLU 14	0	3.1	24.32	-0.0987	0.0058	0
148	SLU 15	0	3.1	24.35	-0.0985	0.0059	0
148	SLU 16	0	3.04	24.09	-0.0966	0.0058	0
148	SLU 17	0	3.04	24.12	-0.0964	0.0059	0
148	SLU 18	0.01	3.16	25.52	-0.1025	0.0065	0
148	SLU 19	0.01	3.15	25.54	-0.1023	0.0066	0
148	SLU 20	0.01	3.19	25.77	-0.1023	0.0064	0
148	SLU 21	0.01	3.18	25.8	-0.102	0.0065	0
148	SLU 22	0	3.04	21.59	-0.098	0.0055	0
148	SLU 23	0	3.03	21.64	-0.0977	0.0057	0
148	SLU 24	0	3.12	22.08	-0.0998	0.0054	0
148	SLU 25	0	3.12	22.1	-0.0996	0.0055	0
148	SLU 26	0	3.06	21.89	-0.0974	0.0055	0
148	SLU 27	0	3.15	22.33	-0.0996	0.0053	0
148	SLU 28	0	3.15	22.36	-0.0994	0.0054	0
148	SLU 29	0	3.1	22.1	-0.0976	0.0052	0
148	SLU 30	0	3.09	22.13	-0.0974	0.0053	0
148	SLU 31	0.01	3.43	26.15	-0.1103	0.0067	0
148	SLU 32	0.01	3.52	26.59	-0.1125	0.0065	0
148	SLU 33	0.01	3.52	26.62	-0.1123	0.0066	0
148	SLU 34	0.01	3.46	26.41	-0.1101	0.0066	0
148	SLU 35	0.01	3.55	26.85	-0.1122	0.0063	0
148	SLU 36	0.01	3.55	26.88	-0.112	0.0065	0
148	SLU 37	0.01	3.49	26.62	-0.1102	0.0063	0
148	SLU 38	0.01	3.49	26.65	-0.11	0.0064	0
148	SLU 39	0.01	3.61	28.04	-0.116	0.007	0
148	SLU 40	0.01	3.6	28.07	-0.1158	0.0071	0
148	SLU 41	0.01	3.64	28.3	-0.1158	0.0069	0
148	SLU 42	0.01	3.63	28.33	-0.1156	0.007	0
148	SLU 43	0.01	3.21	23.92	-0.1052	0.0063	0
148	SLU 44	0.01	3.21	23.97	-0.1048	0.0065	0
148	SLU 45	0.01	3.3	24.41	-0.107	0.0062	0
148	SLU 46	0.01	3.29	24.43	-0.1068	0.0063	0
148	SLU 47	0.01	3.24	24.22	-0.1046	0.0063	0
148	SLU 48	0.01	3.33	24.66	-0.1067	0.0061	0
148	SLU 49	0.01	3.32	24.69	-0.1065	0.0062	0
148	SLU 50	0	3.27	24.43	-0.1047	0.006	0
148	SLU 51	0.01	3.27	24.46	-0.1045	0.0061	0
148	SLU 52	0.01	3.61	28.48	-0.1174	0.0075	0
148	SLU 53	0.01	3.69	28.92	-0.1196	0.0073	0
148	SLU 54	0.01	3.69	28.95	-0.1194	0.0074	0
148	SLU 55	0.01	3.63	28.74	-0.1172	0.0074	0
148	SLU 56	0.01	3.72	29.18	-0.1194	0.0071	0
148	SLU 57	0.01	3.72	29.21	-0.1192	0.0073	0
148	SLU 58	0.01	3.67	28.95	-0.1173	0.0071	0
148	SLU 59	0.01	3.66	28.98	-0.1171	0.0072	0
148	SLU 60	0.01	3.78	30.37	-0.1232	0.0078	0
148	SLU 61	0.01	3.78	30.4	-0.123	0.0079	0
148	SLU 62	0.01	3.81	30.63	-0.1229	0.0077	0
148	SLU 63	0.01	3.81	30.66	-0.1227	0.0078	0
148	SLU 64	0.01	3.66	26.44	-0.1187	0.0068	0
148	SLU 65	0.01	3.66	26.49	-0.1184	0.007	0
148	SLU 66	0.01	3.75	26.93	-0.1205	0.0067	0
148	SLU 67	0.01	3.74	26.96	-0.1203	0.0068	0
148	SLU 68	0.01	3.69	26.75	-0.1181	0.0068	0
148	SLU 69	0.01	3.78	27.19	-0.1203	0.0066	0
148	SLU 70	0.01	3.77	27.21	-0.1201	0.0067	0
148	SLU 71	0.01	3.72	26.96	-0.1183	0.0065	0
148	SLU 72	0.01	3.72	26.98	-0.118	0.0066	0
148	SLU 73	0.01	4.05	31.01	-0.131	0.008	0
148	SLU 74	0.01	4.14	31.45	-0.1332	0.0078	0
148	SLU 75	0.01	4.14	31.47	-0.1329	0.0079	0
148	SLU 76	0.01	4.08	31.26	-0.1308	0.0079	0
148	SLU 77	0.01	4.17	31.7	-0.1329	0.0077	0
148	SLU 78	0.01	4.17	31.73	-0.1327	0.0078	0
148	SLU 79	0.01	4.12	31.47	-0.1309	0.0076	0
148	SLU 80	0.01	4.11	31.5	-0.1307	0.0077	0
148	SLU 81	0.01	4.23	32.9	-0.1367	0.0083	0
148	SLU 82	0.01	4.23	32.92	-0.1365	0.0084	0
148	SLU 83	0.01	4.26	33.15	-0.1365	0.0082	0
148	SLU 84	0.01	4.26	33.18	-0.1363	0.0083	0
148	SLE RA 1	0	2.72	19.79	-0.0883	0.0051	0
148	SLE RA 2	0	2.72	19.82	-0.0881	0.0052	0
148	SLE RA 3	0	2.77	20.11	-0.0896	0.0051	0
148	SLE RA 4	0	2.77	20.13	-0.0894	0.0051	0
148	SLE RA 5	0	2.73	19.99	-0.088	0.0051	0
148	SLE RA 6	0	2.79	20.28	-0.0894	0.005	0
148	SLE RA 7	0	2.79	20.3	-0.0893	0.0051	0
148	SLE RA 8	0	2.76	20.13	-0.088	0.0049	0
148	SLE RA 9	0	2.76	20.15	-0.0879	0.005	0
148	SLE RA 10	0.01	2.98	22.83	-0.0965	0.0059	0
148	SLE RA 11	0	3.04	23.12	-0.098	0.0058	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
148	SLE RA 12	0.01	3.04	23.14	-0.0978	0.0058	0
148	SLE RA 13	0	3	23	-0.0964	0.0059	0
148	SLE RA 14	0	3.06	23.29	-0.0978	0.0057	0
148	SLE RA 15	0	3.06	23.31	-0.0977	0.0058	0
148	SLE RA 16	0	3.02	23.14	-0.0964	0.0056	0
148	SLE RA 17	0	3.02	23.16	-0.0963	0.0057	0
148	SLE RA 18	0.01	3.1	24.09	-0.1004	0.0061	0
148	SLE RA 19	0.01	3.09	24.11	-0.1002	0.0062	0
148	SLE RA 20	0.01	3.12	24.26	-0.1002	0.006	0
148	SLE RA 21	0.01	3.11	24.28	-0.1001	0.0061	0
148	SLE FR 1	0	2.72	19.79	-0.0883	0.0051	0
148	SLE FR 2	0	2.72	19.79	-0.0883	0.0051	0
148	SLE FR 3	0	2.73	19.86	-0.0883	0.0051	0
148	SLE FR 4	0	2.83	21.08	-0.0919	0.0054	0
148	SLE FR 5	0	2.84	21.15	-0.0919	0.0054	0
148	SLE FR 6	0	2.91	21.94	-0.0943	0.0056	0
148	SLE QP 1	0	2.72	19.79	-0.0883	0.0051	0
148	SLE QP 2	0	2.83	21.08	-0.0919	0.0054	0
148	SLD 1	0.11	2.83	18.01	-0.0899	0.098	-0.0002
148	SLD 2	0.11	2.83	18.01	-0.0899	0.098	-0.0002
148	SLD 3	0.09	0.9	19	-0.0111	0.084	-0.0002
148	SLD 4	0.09	0.9	19	-0.0111	0.084	-0.0002
148	SLD 5	0.06	5.77	18.66	-0.2107	0.0544	-0.0001
148	SLD 6	0.06	5.77	18.66	-0.2107	0.0544	-0.0001
148	SLD 7	0	-0.69	21.96	0.0517	0.0078	0
148	SLD 8	0	-0.69	21.96	0.0517	0.0078	0
148	SLD 9	0	6.35	20.2	-0.2356	0.0031	0
148	SLD 10	0	6.35	20.2	-0.2356	0.0031	0
148	SLD 11	-0.05	-0.11	23.5	0.0268	-0.0436	0.0001
148	SLD 12	-0.05	-0.11	23.5	0.0268	-0.0436	0.0001
148	SLD 13	-0.08	4.77	23.15	-0.1728	-0.0731	0.0001
148	SLD 14	-0.08	4.77	23.15	-0.1728	-0.0731	0.0001
148	SLD 15	-0.1	2.83	24.14	-0.094	-0.0871	0.0002
148	SLD 16	-0.1	2.83	24.14	-0.094	-0.0871	0.0002
148	SLV 1	0.26	2.82	13.86	-0.0863	0.2381	-0.0004
148	SLV 2	0.26	2.82	13.86	-0.0863	0.2381	-0.0004
148	SLV 3	0.22	-1.73	16.22	0.0985	0.2037	-0.0004
148	SLV 4	0.22	-1.73	16.22	0.0985	0.2037	-0.0004
148	SLV 5	0.14	9.72	15.34	-0.3706	0.1275	-0.0002
148	SLV 6	0.14	9.72	15.34	-0.3706	0.1275	-0.0002
148	SLV 7	0.01	-5.43	23.2	0.2456	0.0126	0
148	SLV 8	0.01	-5.43	23.2	0.2456	0.0126	0
148	SLV 9	0	11.1	18.96	-0.4295	-0.0018	0
148	SLV 10	0	11.1	18.96	-0.4295	-0.0018	0
148	SLV 11	-0.13	-4.06	26.82	0.1868	-0.1167	0.0002
148	SLV 12	-0.13	-4.06	26.82	0.1868	-0.1167	0.0002
148	SLV 13	-0.21	7.39	25.93	-0.2824	-0.1929	0.0003
148	SLV 14	-0.21	7.39	25.93	-0.2824	-0.1929	0.0003
148	SLV 15	-0.25	2.85	28.29	-0.0976	-0.2273	0.0004
148	SLV 16	-0.25	2.85	28.29	-0.0976	-0.2273	0.0004
149	SLU 1	-0.1	4.47	37.35	-0.1794	-0.0728	-0.0006
149	SLU 2	-0.11	5.02	38.07	-0.2048	-0.1026	-0.0008
149	SLU 3	-0.1	4.74	38.46	-0.1907	-0.0752	-0.0007
149	SLU 4	-0.11	5.07	38.89	-0.2059	-0.0931	-0.0007
149	SLU 5	-0.12	5.24	38.79	-0.214	-0.1042	-0.0008
149	SLU 6	-0.11	4.96	39.18	-0.2	-0.0769	-0.0007
149	SLU 7	-0.11	5.29	39.61	-0.2152	-0.0947	-0.0007
149	SLU 8	-0.11	4.91	38.8	-0.1979	-0.0761	-0.0007
149	SLU 9	-0.11	5.24	39.23	-0.2132	-0.094	-0.0007
149	SLU 10	-0.13	5.88	42.76	-0.2386	-0.1111	-0.0008
149	SLU 11	-0.12	5.6	43.16	-0.2245	-0.0837	-0.0007
149	SLU 12	-0.12	5.93	43.59	-0.2397	-0.1016	-0.0008
149	SLU 13	-0.13	6.1	43.49	-0.2479	-0.1127	-0.0008
149	SLU 14	-0.12	5.82	43.88	-0.2338	-0.0854	-0.0008
149	SLU 15	-0.13	6.15	44.31	-0.249	-0.1032	-0.0008
149	SLU 16	-0.12	5.77	43.49	-0.2317	-0.0846	-0.0008
149	SLU 17	-0.13	6.1	43.92	-0.247	-0.1025	-0.0008
149	SLU 18	-0.12	5.69	44.06	-0.2277	-0.0849	-0.0007
149	SLU 19	-0.13	6.02	44.49	-0.2429	-0.1028	-0.0008
149	SLU 20	-0.12	5.92	44.78	-0.237	-0.0866	-0.0008
149	SLU 21	-0.13	6.25	45.21	-0.2522	-0.1044	-0.0008
149	SLU 22	-0.11	5.31	41.94	-0.2129	-0.0816	-0.0007
149	SLU 23	-0.13	5.86	42.66	-0.2383	-0.1114	-0.0008
149	SLU 24	-0.12	5.59	43.05	-0.2242	-0.084	-0.0007
149	SLU 25	-0.12	5.92	43.48	-0.2394	-0.1019	-0.0008
149	SLU 26	-0.13	6.08	43.38	-0.2475	-0.1131	-0.0008
149	SLU 27	-0.12	5.81	43.77	-0.2334	-0.0857	-0.0008
149	SLU 28	-0.13	6.14	44.2	-0.2487	-0.1036	-0.0008
149	SLU 29	-0.12	5.76	43.39	-0.2314	-0.0849	-0.0008
149	SLU 30	-0.13	6.09	43.82	-0.2466	-0.1028	-0.0008
149	SLU 31	-0.14	6.72	47.35	-0.2721	-0.1199	-0.0009
149	SLU 32	-0.13	6.44	47.74	-0.258	-0.0925	-0.0008
149	SLU 33	-0.14	6.78	48.17	-0.2732	-0.1104	-0.0009
149	SLU 34	-0.14	6.94	48.08	-0.2813	-0.1215	-0.0009
149	SLU 35	-0.13	6.67	48.47	-0.2672	-0.0942	-0.0008
149	SLU 36	-0.14	7	48.9	-0.2825	-0.1121	-0.0009
149	SLU 37	-0.13	6.61	48.08	-0.2652	-0.0934	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
149	SLU 38	-0.14	6.94	48.51	-0.2804	-0.1113	-0.0009
149	SLU 39	-0.13	6.54	48.65	-0.2612	-0.0937	-0.0008
149	SLU 40	-0.14	6.87	49.08	-0.2764	-0.1116	-0.0009
149	SLU 41	-0.13	6.76	49.37	-0.2704	-0.0954	-0.0008
149	SLU 42	-0.14	7.09	49.8	-0.2857	-0.1133	-0.0009
149	SLU 43	-0.13	5.52	46.98	-0.2217	-0.0916	-0.0008
149	SLU 44	-0.14	6.07	47.7	-0.2471	-0.1214	-0.0009
149	SLU 45	-0.13	5.79	48.09	-0.233	-0.094	-0.0008
149	SLU 46	-0.14	6.12	48.52	-0.2483	-0.1119	-0.0009
149	SLU 47	-0.14	6.29	48.43	-0.2564	-0.123	-0.0009
149	SLU 48	-0.13	6.01	48.82	-0.2423	-0.0957	-0.0008
149	SLU 49	-0.14	6.34	49.25	-0.2575	-0.1136	-0.0009
149	SLU 50	-0.13	5.96	48.43	-0.2403	-0.0949	-0.0008
149	SLU 51	-0.14	6.29	48.86	-0.2555	-0.1128	-0.0009
149	SLU 52	-0.15	6.93	52.4	-0.2809	-0.1299	-0.001
149	SLU 53	-0.14	6.65	52.79	-0.2668	-0.1025	-0.0009
149	SLU 54	-0.15	6.98	53.22	-0.2821	-0.1204	-0.001
149	SLU 55	-0.15	7.15	53.12	-0.2902	-0.1315	-0.001
149	SLU 56	-0.14	6.87	53.51	-0.2761	-0.1042	-0.0009
149	SLU 57	-0.15	7.2	53.94	-0.2913	-0.122	-0.001
149	SLU 58	-0.14	6.82	53.13	-0.2741	-0.1034	-0.0009
149	SLU 59	-0.15	7.15	53.56	-0.2893	-0.1213	-0.001
149	SLU 60	-0.14	6.74	53.69	-0.27	-0.1037	-0.0009
149	SLU 61	-0.15	7.07	54.12	-0.2853	-0.1216	-0.001
149	SLU 62	-0.15	6.97	54.42	-0.2793	-0.1054	-0.0009
149	SLU 63	-0.15	7.3	54.85	-0.2945	-0.1232	-0.001
149	SLU 64	-0.14	6.36	51.57	-0.2552	-0.1004	-0.0009
149	SLU 65	-0.15	6.91	52.29	-0.2806	-0.1302	-0.001
149	SLU 66	-0.14	6.64	52.68	-0.2665	-0.1028	-0.0009
149	SLU 67	-0.15	6.97	53.11	-0.2817	-0.1207	-0.001
149	SLU 68	-0.15	7.13	53.01	-0.2899	-0.1319	-0.001
149	SLU 69	-0.14	6.86	53.4	-0.2758	-0.1045	-0.0009
149	SLU 70	-0.15	7.19	53.83	-0.291	-0.1224	-0.001
149	SLU 71	-0.14	6.81	53.02	-0.2737	-0.1037	-0.0009
149	SLU 72	-0.15	7.14	53.45	-0.289	-0.1216	-0.001
149	SLU 73	-0.16	7.77	56.98	-0.3144	-0.1387	-0.0011
149	SLU 74	-0.15	7.5	57.38	-0.3003	-0.1113	-0.001
149	SLU 75	-0.16	7.83	57.81	-0.3156	-0.1292	-0.0011
149	SLU 76	-0.17	7.99	57.71	-0.3237	-0.1404	-0.0011
149	SLU 77	-0.16	7.72	58.1	-0.3096	-0.113	-0.001
149	SLU 78	-0.17	8.05	58.53	-0.3248	-0.1309	-0.0011
149	SLU 79	-0.16	7.66	57.72	-0.3076	-0.1122	-0.001
149	SLU 80	-0.16	8	58.15	-0.3228	-0.1301	-0.0011
149	SLU 81	-0.16	7.59	58.28	-0.3035	-0.1125	-0.001
149	SLU 82	-0.16	7.92	58.71	-0.3187	-0.1304	-0.0011
149	SLU 83	-0.16	7.81	59	-0.3128	-0.1142	-0.001
149	SLU 84	-0.17	8.14	59.43	-0.328	-0.1321	-0.0011
149	SLE RA 1	-0.11	4.71	38.66	-0.189	-0.0753	-0.0007
149	SLE RA 2	-0.11	5.07	39.14	-0.2059	-0.0952	-0.0007
149	SLE RA 3	-0.11	4.89	39.4	-0.1965	-0.0769	-0.0007
149	SLE RA 4	-0.11	5.11	39.69	-0.2066	-0.0888	-0.0007
149	SLE RA 5	-0.11	5.22	39.62	-0.2121	-0.0963	-0.0007
149	SLE RA 6	-0.11	5.04	39.88	-0.2027	-0.078	-0.0007
149	SLE RA 7	-0.11	5.26	40.17	-0.2128	-0.0899	-0.0007
149	SLE RA 8	-0.11	5	39.63	-0.2013	-0.0775	-0.0007
149	SLE RA 9	-0.11	5.22	39.91	-0.2115	-0.0894	-0.0007
149	SLE RA 10	-0.12	5.65	42.27	-0.2284	-0.1008	-0.0008
149	SLE RA 11	-0.11	5.46	42.53	-0.219	-0.0826	-0.0007
149	SLE RA 12	-0.12	5.68	42.82	-0.2292	-0.0945	-0.0008
149	SLE RA 13	-0.12	5.8	42.75	-0.2346	-0.1019	-0.0008
149	SLE RA 14	-0.12	5.61	43.01	-0.2252	-0.0837	-0.0007
149	SLE RA 15	-0.12	5.83	43.3	-0.2354	-0.0956	-0.0008
149	SLE RA 16	-0.12	5.58	42.76	-0.2239	-0.0832	-0.0007
149	SLE RA 17	-0.12	5.8	43.04	-0.234	-0.0951	-0.0008
149	SLE RA 18	-0.12	5.53	43.13	-0.2212	-0.0834	-0.0007
149	SLE RA 19	-0.12	5.75	43.42	-0.2313	-0.0953	-0.0008
149	SLE RA 20	-0.12	5.67	43.62	-0.2273	-0.0845	-0.0007
149	SLE RA 21	-0.12	5.89	43.9	-0.2375	-0.0964	-0.0008
149	SLE FR 1	-0.11	4.71	38.66	-0.189	-0.0753	-0.0007
149	SLE FR 2	-0.11	4.78	38.76	-0.1923	-0.0793	-0.0007
149	SLE FR 3	-0.11	4.77	38.86	-0.1914	-0.0757	-0.0007
149	SLE FR 4	-0.11	5.03	40.1	-0.202	-0.0817	-0.0007
149	SLE FR 5	-0.11	5.01	40.2	-0.2011	-0.0782	-0.0007
149	SLE FR 6	-0.11	5.12	40.9	-0.2051	-0.0793	-0.0007
149	SLE QP 1	-0.11	4.71	38.66	-0.189	-0.0753	-0.0007
149	SLE QP 2	-0.11	4.95	40	-0.1986	-0.0777	-0.0007
149	SLD 1	-0.14	8.63	51.71	-0.3536	-0.1348	-0.001
149	SLD 2	-0.14	8.63	51.71	-0.3536	-0.1348	-0.001
149	SLD 3	-0.25	4.8	52.6	-0.1819	-0.2012	-0.0016
149	SLD 4	-0.25	4.8	52.6	-0.1819	-0.2012	-0.0016
149	SLD 5	0.04	11.85	42.17	-0.5055	0.0059	0.0001
149	SLD 6	0.04	11.85	42.17	-0.5055	0.0059	0.0001
149	SLD 7	-0.31	-0.89	45.13	0.0668	-0.2155	-0.0018
149	SLD 8	-0.31	-0.89	45.13	0.0668	-0.2155	-0.0018
149	SLD 9	0.09	10.79	34.88	-0.4641	0.0601	0.0004
149	SLD 10	0.09	10.79	34.88	-0.4641	0.0601	0.0004
149	SLD 11	-0.26	-1.94	37.84	0.1083	-0.1614	-0.0015



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
149	SLD 12	-0.26	-1.94	37.84	0.1083	-0.1614	-0.0015
149	SLD 13	0.03	5.1	27.41	-0.2153	0.0457	0.0002
149	SLD 14	0.03	5.1	27.41	-0.2153	0.0457	0.0002
149	SLD 15	-0.07	1.28	28.3	-0.0436	-0.0207	-0.0004
149	SLD 16	-0.07	1.28	28.3	-0.0436	-0.0207	-0.0004
149	SLV 1	-0.18	13.52	67.38	-0.5603	-0.2077	-0.0014
149	SLV 2	-0.18	13.52	67.38	-0.5603	-0.2077	-0.0014
149	SLV 3	-0.45	4.66	69.52	-0.1621	-0.3771	-0.0028
149	SLV 4	-0.45	4.66	69.52	-0.1621	-0.3771	-0.0028
149	SLV 5	0.28	20.96	44.97	-0.911	0.1401	0.0013
149	SLV 6	0.28	20.96	44.97	-0.911	0.1401	0.0013
149	SLV 7	-0.62	-8.58	52.1	0.4162	-0.4244	-0.0035
149	SLV 8	-0.62	-8.58	52.1	0.4162	-0.4244	-0.0035
149	SLV 9	0.4	18.48	27.91	-0.8135	0.2689	0.0022
149	SLV 10	0.4	18.48	27.91	-0.8135	0.2689	0.0022
149	SLV 11	-0.49	-11.06	35.04	0.5138	-0.2956	-0.0027
149	SLV 12	-0.49	-11.06	35.04	0.5138	-0.2956	-0.0027
149	SLV 13	0.23	5.25	10.49	-0.2351	0.2216	0.0015
149	SLV 14	0.23	5.25	10.49	-0.2351	0.2216	0.0015
149	SLV 15	-0.03	-3.61	12.63	0.1631	0.0523	0
149	SLV 16	-0.03	-3.61	12.63	0.1631	0.0523	0
150	SLU 1	-0.01	0	62.83	0.0071	-0.0027	-0.0001
150	SLU 2	0.01	0.3	64.84	-0.0076	0.0281	0
150	SLU 3	-0.01	0.07	64.85	0.0043	-0.003	-0.0001
150	SLU 4	0	0.25	66.06	-0.0045	0.0154	0
150	SLU 5	0.01	0.37	66.12	-0.0103	0.0278	0
150	SLU 6	-0.01	0.13	66.14	0.0017	-0.0033	-0.0001
150	SLU 7	0	0.32	67.34	-0.0072	0.0152	0
150	SLU 8	-0.01	0.13	65.4	0.0019	-0.0032	-0.0001
150	SLU 9	0	0.31	66.61	-0.007	0.0153	0
150	SLU 10	0.01	0.59	72.89	-0.0179	0.0269	0
150	SLU 11	-0.01	0.35	72.9	-0.0059	-0.0042	-0.0001
150	SLU 12	0	0.54	74.11	-0.0148	0.0142	0
150	SLU 13	0.01	0.65	74.17	-0.0205	0.0266	0
150	SLU 14	-0.01	0.42	74.19	-0.0085	-0.0045	-0.0001
150	SLU 15	0	0.6	75.39	-0.0174	0.014	0
150	SLU 16	-0.01	0.41	73.45	-0.0084	-0.0044	-0.0001
150	SLU 17	0	0.59	74.66	-0.0172	0.0141	0
150	SLU 18	-0.01	0.4	74.34	-0.0075	-0.0044	-0.0001
150	SLU 19	0	0.59	75.54	-0.0163	0.014	0
150	SLU 20	-0.01	0.47	75.62	-0.0101	-0.0047	-0.0001
150	SLU 21	0	0.65	76.82	-0.019	0.0138	0
150	SLU 22	-0.01	0.22	70.85	-0.0006	-0.0038	-0.0001
150	SLU 23	0.01	0.53	72.85	-0.0154	0.027	0
150	SLU 24	-0.01	0.29	72.87	-0.0035	-0.0041	-0.0001
150	SLU 25	0	0.48	74.07	-0.0123	0.0144	0
150	SLU 26	0.01	0.59	74.14	-0.0181	0.0267	0
150	SLU 27	-0.01	0.35	74.15	-0.0061	-0.0043	-0.0001
150	SLU 28	0	0.54	75.35	-0.015	0.0141	0
150	SLU 29	-0.01	0.35	73.42	-0.0059	-0.0043	-0.0001
150	SLU 30	0	0.53	74.62	-0.0148	0.0142	0
150	SLU 31	0	0.81	80.9	-0.0257	0.0258	0
150	SLU 32	-0.01	0.57	80.92	-0.0137	-0.0053	-0.0001
150	SLU 33	0	0.76	82.12	-0.0226	0.0132	0
150	SLU 34	0	0.87	82.19	-0.0283	0.0255	0
150	SLU 35	-0.01	0.64	82.2	-0.0163	-0.0055	-0.0001
150	SLU 36	0	0.82	83.4	-0.0252	0.0129	0
150	SLU 37	-0.01	0.63	81.47	-0.0162	-0.0055	-0.0001
150	SLU 38	0	0.81	82.67	-0.025	0.013	0
150	SLU 39	-0.01	0.63	82.35	-0.0153	-0.0055	-0.0001
150	SLU 40	0	0.81	83.55	-0.0241	0.013	0
150	SLU 41	-0.01	0.69	83.63	-0.0179	-0.0057	-0.0001
150	SLU 42	0	0.87	84.84	-0.0268	0.0127	-0.0001
150	SLU 43	-0.01	-0.08	78.94	0.012	-0.0031	-0.0001
150	SLU 44	0.01	0.23	80.94	-0.0028	0.0276	0
150	SLU 45	-0.01	-0.01	80.96	0.0091	-0.0034	-0.0001
150	SLU 46	0	0.18	82.16	0.0003	0.015	0
150	SLU 47	0.01	0.29	82.23	-0.0055	0.0274	0
150	SLU 48	-0.01	0.06	82.24	0.0065	-0.0037	-0.0001
150	SLU 49	0	0.24	83.44	-0.0024	0.0148	0
150	SLU 50	-0.01	0.05	81.51	0.0067	-0.0036	-0.0001
150	SLU 51	0	0.23	82.71	-0.0022	0.0148	0
150	SLU 52	0	0.51	88.99	-0.013	0.0264	0
150	SLU 53	-0.01	0.28	89.01	-0.0011	-0.0047	-0.0001
150	SLU 54	0	0.46	90.21	-0.01	0.0138	0
150	SLU 55	0	0.58	90.28	-0.0157	0.0262	0
150	SLU 56	-0.01	0.34	90.29	-0.0037	-0.0049	-0.0001
150	SLU 57	0	0.52	91.49	-0.0126	0.0136	-0.0001
150	SLU 58	-0.01	0.33	89.56	-0.0036	-0.0048	-0.0001
150	SLU 59	0	0.52	90.76	-0.0124	0.0136	0
150	SLU 60	-0.01	0.33	90.44	-0.0027	-0.0048	-0.0001
150	SLU 61	0	0.51	91.64	-0.0115	0.0136	-0.0001
150	SLU 62	-0.01	0.39	91.72	-0.0053	-0.0051	-0.0001
150	SLU 63	0	0.57	92.93	-0.0142	0.0134	-0.0001
150	SLU 64	-0.01	0.14	86.95	0.0042	-0.0042	-0.0001
150	SLU 65	0	0.45	88.95	-0.0106	0.0265	0
150	SLU 66	-0.01	0.21	88.97	0.0014	-0.0045	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
150	SLU 67	0	0.4	90.17	-0.0075	0.0139	0
150	SLU 68	0	0.51	90.24	-0.0133	0.0263	0
150	SLU 69	-0.01	0.28	90.25	-0.0013	-0.0048	-0.0001
150	SLU 70	0	0.46	91.46	-0.0102	0.0137	0
150	SLU 71	-0.01	0.27	89.52	-0.0011	-0.0047	-0.0001
150	SLU 72	0	0.45	90.72	-0.01	0.0137	0
150	SLU 73	0	0.73	97.01	-0.0208	0.0253	0
150	SLU 74	-0.01	0.5	97.02	-0.0089	-0.0057	-0.0001
150	SLU 75	0	0.68	98.22	-0.0177	0.0127	-0.0001
150	SLU 76	0	0.8	98.29	-0.0235	0.0251	0
150	SLU 77	-0.01	0.56	98.3	-0.0115	-0.006	-0.0001
150	SLU 78	0	0.75	99.51	-0.0204	0.0125	-0.0001
150	SLU 79	-0.01	0.55	97.57	-0.0113	-0.0059	-0.0001
150	SLU 80	0	0.74	98.77	-0.0202	0.0125	-0.0001
150	SLU 81	-0.01	0.55	98.45	-0.0104	-0.0059	-0.0001
150	SLU 82	0	0.73	99.65	-0.0193	0.0125	-0.0001
150	SLU 83	-0.01	0.61	99.74	-0.0131	-0.0062	-0.0001
150	SLU 84	0	0.8	100.94	-0.022	0.0123	-0.0001
150	SLE RA 1	-0.01	0.06	65.12	0.0049	-0.003	-0.0001
150	SLE RA 2	0	0.27	66.46	-0.0049	0.0175	0
150	SLE RA 3	-0.01	0.11	66.47	0.003	-0.0032	-0.0001
150	SLE RA 4	0	0.23	67.27	-0.0029	0.0091	0
150	SLE RA 5	0	0.31	67.32	-0.0067	0.0173	0
150	SLE RA 6	-0.01	0.15	67.33	0.0013	-0.0034	-0.0001
150	SLE RA 7	0	0.27	68.13	-0.0046	0.0089	0
150	SLE RA 8	-0.01	0.15	66.84	0.0014	-0.0033	-0.0001
150	SLE RA 9	0	0.27	67.64	-0.0045	0.009	0
150	SLE RA 10	0	0.46	71.83	-0.0118	0.0167	0
150	SLE RA 11	-0.01	0.3	71.84	-0.0038	-0.004	-0.0001
150	SLE RA 12	0	0.42	72.64	-0.0097	0.0083	0
150	SLE RA 13	0	0.5	72.68	-0.0135	0.0165	0
150	SLE RA 14	-0.01	0.34	72.69	-0.0055	-0.0042	-0.0001
150	SLE RA 15	0	0.46	73.49	-0.0115	0.0081	-0.0001
150	SLE RA 16	-0.01	0.34	72.2	-0.0054	-0.0041	-0.0001
150	SLE RA 17	0	0.46	73.01	-0.0113	0.0082	0
150	SLE RA 18	-0.01	0.33	72.79	-0.0048	-0.0041	-0.0001
150	SLE RA 19	0	0.45	73.59	-0.0107	0.0082	-0.0001
150	SLE RA 20	-0.01	0.37	73.65	-0.0066	-0.0043	-0.0001
150	SLE RA 21	0	0.5	74.45	-0.0125	0.008	-0.0001
150	SLE FR 1	-0.01	0.06	65.12	0.0049	-0.003	-0.0001
150	SLE FR 2	0	0.1	65.39	0.0029	0.0011	-0.0001
150	SLE FR 3	-0.01	0.08	65.47	0.0042	-0.0031	-0.0001
150	SLE FR 4	0	0.18	67.69	0	0.0008	-0.0001
150	SLE FR 5	-0.01	0.16	67.77	0.0013	-0.0034	-0.0001
150	SLE FR 6	-0.01	0.2	68.96	0	-0.0036	-0.0001
150	SLE QP 1	-0.01	0.06	65.12	0.0049	-0.003	-0.0001
150	SLE QP 2	-0.01	0.14	67.42	0.002	-0.0033	-0.0001
150	SLD 1	0.02	0.75	50.47	-0.0279	0.055	0.0002
150	SLD 2	0.02	0.75	50.47	-0.0279	0.055	0.0002
150	SLD 3	0.13	-2.8	48.36	0.1328	0.1354	0.0008
150	SLD 4	0.13	-2.8	48.36	0.1328	0.1354	0.0008
150	SLD 5	-0.17	5.71	65.53	-0.2508	-0.1078	-0.001
150	SLD 6	-0.17	5.71	65.53	-0.2508	-0.1078	-0.001
150	SLD 7	0.21	-6.13	58.51	0.285	0.1603	0.0012
150	SLD 8	0.21	-6.13	58.51	0.285	0.1603	0.0012
150	SLD 9	-0.22	6.41	76.33	-0.2811	-0.167	-0.0013
150	SLD 10	-0.22	6.41	76.33	-0.2811	-0.167	-0.0013
150	SLD 11	0.16	-5.42	69.32	0.2548	0.1012	0.0008
150	SLD 12	0.16	-5.42	69.32	0.2548	0.1012	0.0008
150	SLD 13	-0.14	3.09	86.49	-0.1288	-0.1421	-0.001
150	SLD 14	-0.14	3.09	86.49	-0.1288	-0.1421	-0.001
150	SLD 15	-0.03	-0.46	84.38	0.0319	-0.0617	-0.0004
150	SLD 16	-0.03	-0.46	84.38	0.0319	-0.0617	-0.0004
150	SLV 1	0.04	1.52	27.78	-0.0662	0.13	0.0005
150	SLV 2	0.04	1.52	27.78	-0.0662	0.13	0.0005
150	SLV 3	0.33	-6.74	22.81	0.3077	0.3348	0.0022
150	SLV 4	0.33	-6.74	22.81	0.3077	0.3348	0.0022
150	SLV 5	-0.44	13.08	63.08	-0.5854	-0.274	-0.0024
150	SLV 6	-0.44	13.08	63.08	-0.5854	-0.274	-0.0024
150	SLV 7	0.54	-14.45	46.49	0.6607	0.4087	0.0031
150	SLV 8	0.54	-14.45	46.49	0.6607	0.4087	0.0031
150	SLV 9	-0.55	14.73	88.36	-0.6567	-0.4154	-0.0032
150	SLV 10	-0.55	14.73	88.36	-0.6567	-0.4154	-0.0032
150	SLV 11	0.42	-12.79	71.77	0.5894	0.2673	0.0022
150	SLV 12	0.42	-12.79	71.77	0.5894	0.2673	0.0022
150	SLV 13	-0.34	7.03	112.04	-0.3037	-0.3415	-0.0023
150	SLV 14	-0.34	7.03	112.04	-0.3037	-0.3415	-0.0023
150	SLV 15	-0.05	-1.23	107.06	0.0702	-0.1367	-0.0007
150	SLV 16	-0.05	-1.23	107.06	0.0702	-0.1367	-0.0007
151	SLU 1	0.08	2.43	28.15	-0.1452	0.0483	0
151	SLU 2	0.08	4.59	27.05	-0.2545	0.052	0
151	SLU 3	0.08	2.29	29.38	-0.138	0.0499	0
151	SLU 4	0.08	3.59	28.71	-0.2036	0.0521	0
151	SLU 5	0.08	4.34	27.98	-0.2419	0.0528	0
151	SLU 6	0.08	2.04	30.31	-0.1253	0.0506	0
151	SLU 7	0.08	3.34	29.65	-0.1909	0.0528	0
151	SLU 8	0.08	1.93	30.02	-0.1198	0.0498	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
151	SLU 9	0.08	3.23	29.35	-0.1855	0.052	0
151	SLU 10	0.1	5.27	31.78	-0.2887	0.0614	0
151	SLU 11	0.1	2.97	34.11	-0.1721	0.0592	0
151	SLU 12	0.1	4.27	33.45	-0.2377	0.0614	0
151	SLU 13	0.1	5.02	32.71	-0.276	0.0621	0
151	SLU 14	0.1	2.73	35.04	-0.1594	0.06	0
151	SLU 15	0.1	4.02	34.38	-0.2251	0.0622	0
151	SLU 16	0.1	2.62	34.75	-0.154	0.0592	0
151	SLU 17	0.1	3.91	34.09	-0.2196	0.0614	0
151	SLU 18	0.1	3.4	34.91	-0.1939	0.0617	0
151	SLU 19	0.1	4.7	34.25	-0.2595	0.0639	0
151	SLU 20	0.1	3.16	35.84	-0.1813	0.0624	0
151	SLU 21	0.1	4.45	35.18	-0.2469	0.0646	0
151	SLU 22	0.09	2.9	32.58	-0.1685	0.0566	0
151	SLU 23	0.1	5.06	31.47	-0.2779	0.0603	0
151	SLU 24	0.09	2.76	33.8	-0.1613	0.0581	0
151	SLU 25	0.1	4.05	33.14	-0.2269	0.0603	0
151	SLU 26	0.1	4.81	32.4	-0.2652	0.061	0
151	SLU 27	0.1	2.51	34.73	-0.1486	0.0589	0
151	SLU 28	0.1	3.81	34.07	-0.2142	0.0611	0
151	SLU 29	0.09	2.4	34.44	-0.1432	0.0581	0
151	SLU 30	0.1	3.7	33.78	-0.2088	0.0603	0
151	SLU 31	0.11	5.74	36.2	-0.312	0.0696	0
151	SLU 32	0.11	3.44	38.53	-0.1954	0.0675	0
151	SLU 33	0.11	4.74	37.87	-0.261	0.0697	0
151	SLU 34	0.11	5.49	37.13	-0.2993	0.0704	0
151	SLU 35	0.11	3.2	39.46	-0.1827	0.0682	0
151	SLU 36	0.11	4.49	38.8	-0.2484	0.0704	0
151	SLU 37	0.11	3.09	39.17	-0.1773	0.0674	0
151	SLU 38	0.11	4.38	38.51	-0.2429	0.0696	0
151	SLU 39	0.11	3.87	39.33	-0.2172	0.0699	0
151	SLU 40	0.12	5.17	38.67	-0.2829	0.0722	0
151	SLU 41	0.11	3.63	40.27	-0.2046	0.0707	0
151	SLU 42	0.12	4.92	39.6	-0.2702	0.0729	0
151	SLU 43	0.1	3	35.08	-0.1807	0.06	0
151	SLU 44	0.1	5.16	33.98	-0.2901	0.0637	0
151	SLU 45	0.1	2.86	36.31	-0.1735	0.0615	0
151	SLU 46	0.1	4.15	35.64	-0.2392	0.0637	0
151	SLU 47	0.1	4.91	34.91	-0.2774	0.0644	0
151	SLU 48	0.1	2.61	37.24	-0.1609	0.0623	0
151	SLU 49	0.1	3.91	36.58	-0.2265	0.0645	0
151	SLU 50	0.1	2.5	36.95	-0.1554	0.0615	0
151	SLU 51	0.1	3.8	36.28	-0.221	0.0637	0
151	SLU 52	0.12	5.84	38.71	-0.3242	0.073	0
151	SLU 53	0.11	3.54	41.04	-0.2077	0.0709	0
151	SLU 54	0.12	4.84	40.38	-0.2733	0.0731	0
151	SLU 55	0.12	5.59	39.64	-0.3116	0.0738	0
151	SLU 56	0.12	3.29	41.97	-0.195	0.0716	0
151	SLU 57	0.12	4.59	41.31	-0.2606	0.0738	0
151	SLU 58	0.11	3.19	41.68	-0.1895	0.0709	0
151	SLU 59	0.12	4.48	41.01	-0.2552	0.0731	0
151	SLU 60	0.12	3.97	41.84	-0.2295	0.0734	0
151	SLU 61	0.12	5.27	41.18	-0.2951	0.0756	0
151	SLU 62	0.12	3.73	42.77	-0.2168	0.0741	0
151	SLU 63	0.12	5.02	42.11	-0.2824	0.0763	0
151	SLU 64	0.11	3.46	39.5	-0.204	0.0683	0
151	SLU 65	0.12	5.62	38.4	-0.3134	0.0719	0
151	SLU 66	0.11	3.33	40.73	-0.1968	0.0698	0
151	SLU 67	0.12	4.62	40.07	-0.2625	0.072	0
151	SLU 68	0.12	5.38	39.33	-0.3008	0.0727	0
151	SLU 69	0.11	3.08	41.66	-0.1842	0.0705	0
151	SLU 70	0.12	4.38	41	-0.2498	0.0727	0
151	SLU 71	0.11	2.97	41.37	-0.1787	0.0698	0
151	SLU 72	0.12	4.27	40.71	-0.2443	0.072	0
151	SLU 73	0.13	6.31	43.13	-0.3475	0.0813	0
151	SLU 74	0.13	4.01	45.46	-0.231	0.0791	0
151	SLU 75	0.13	5.31	44.8	-0.2966	0.0813	0
151	SLU 76	0.13	6.06	44.06	-0.3349	0.082	0
151	SLU 77	0.13	3.76	46.39	-0.2183	0.0799	0
151	SLU 78	0.13	5.06	45.73	-0.2839	0.0821	0
151	SLU 79	0.13	3.65	46.1	-0.2128	0.0791	0
151	SLU 80	0.13	4.95	45.44	-0.2785	0.0813	0
151	SLU 81	0.13	4.44	46.26	-0.2528	0.0816	0
151	SLU 82	0.14	5.74	45.6	-0.3184	0.0838	0
151	SLU 83	0.13	4.19	47.2	-0.2401	0.0824	0
151	SLU 84	0.14	5.49	46.53	-0.3058	0.0846	0
151	SLE RA 1	0.08	2.56	29.42	-0.1518	0.0507	0
151	SLE RA 2	0.09	4	28.68	-0.2247	0.0532	0
151	SLE RA 3	0.08	2.47	30.23	-0.147	0.0517	0
151	SLE RA 4	0.09	3.33	29.79	-0.1908	0.0532	0
151	SLE RA 5	0.09	3.84	29.3	-0.2163	0.0536	0
151	SLE RA 6	0.08	2.31	30.85	-0.1386	0.0522	0
151	SLE RA 7	0.09	3.17	30.41	-0.1823	0.0537	0
151	SLE RA 8	0.08	2.23	30.66	-0.1349	0.0517	0
151	SLE RA 9	0.09	3.1	30.22	-0.1787	0.0532	0
151	SLE RA 10	0.1	4.46	31.83	-0.2475	0.0594	0
151	SLE RA 11	0.09	2.93	33.39	-0.1698	0.0579	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
151	SLE RA 12	0.1	3.79	32.95	-0.2135	0.0594	0
151	SLE RA 13	0.1	4.29	32.46	-0.2391	0.0599	0
151	SLE RA 14	0.09	2.76	34.01	-0.1613	0.0584	0
151	SLE RA 15	0.1	3.62	33.57	-0.2051	0.0599	0
151	SLE RA 16	0.09	2.69	33.81	-0.1577	0.0579	0
151	SLE RA 17	0.1	3.55	33.37	-0.2014	0.0594	0
151	SLE RA 18	0.1	3.21	33.92	-0.1843	0.0596	0
151	SLE RA 19	0.1	4.08	33.48	-0.2281	0.0611	0
151	SLE RA 20	0.1	3.05	34.54	-0.1759	0.0601	0
151	SLE RA 21	0.1	3.91	34.1	-0.2196	0.0616	0
151	SLE FR 1	0.08	2.56	29.42	-0.1518	0.0507	0
151	SLE FR 2	0.08	2.85	29.27	-0.1664	0.0512	0
151	SLE FR 3	0.08	2.5	29.66	-0.1485	0.0509	0
151	SLE FR 4	0.09	3.05	30.62	-0.1762	0.0539	0
151	SLE FR 5	0.09	2.69	31.02	-0.1582	0.0536	0
151	SLE FR 6	0.09	2.89	31.67	-0.1681	0.0551	0
151	SLE QP 1	0.08	2.56	29.42	-0.1518	0.0507	0
151	SLE QP 2	0.09	2.76	30.77	-0.1616	0.0534	0
151	SLD 1	0.13	6.3	33.98	-0.326	0.097	-0.0001
151	SLD 2	0.13	6.3	33.98	-0.326	0.097	-0.0001
151	SLD 3	0.1	3.2	35.43	-0.1751	0.0776	-0.0001
151	SLD 4	0.1	3.2	35.43	-0.1751	0.0776	-0.0001
151	SLD 5	0.16	8.52	29.53	-0.4398	0.0959	-0.0001
151	SLD 6	0.16	8.52	29.53	-0.4398	0.0959	-0.0001
151	SLD 7	0.03	-1.81	34.37	0.0633	0.0312	0.0001
151	SLD 8	0.03	-1.81	34.37	0.0633	0.0312	0.0001
151	SLD 9	0.14	7.33	27.17	-0.3865	0.0756	0
151	SLD 10	0.14	7.33	27.17	-0.3865	0.0756	0
151	SLD 11	0.02	-3.01	32	0.1167	0.0108	0.0001
151	SLD 12	0.02	-3.01	32	0.1167	0.0108	0.0001
151	SLD 13	0.08	2.32	26.1	-0.1481	0.0292	0.0001
151	SLD 14	0.08	2.32	26.1	-0.1481	0.0292	0.0001
151	SLD 15	0.04	-0.79	27.55	0.0028	0.0098	0.0002
151	SLD 16	0.04	-0.79	27.55	0.0028	0.0098	0.0002
151	SLV 1	0.2	11.25	38.26	-0.5569	0.1571	-0.0003
151	SLV 2	0.2	11.25	38.26	-0.5569	0.1571	-0.0003
151	SLV 3	0.11	3.85	41.79	-0.1966	0.1094	-0.0002
151	SLV 4	0.11	3.85	41.79	-0.1966	0.1094	-0.0002
151	SLV 5	0.25	16.53	27.66	-0.8267	0.1568	-0.0002
151	SLV 6	0.25	16.53	27.66	-0.8267	0.1568	-0.0002
151	SLV 7	-0.04	-8.14	39.43	0.3744	-0.0021	0.0001
151	SLV 8	-0.04	-8.14	39.43	0.3744	-0.0021	0.0001
151	SLV 9	0.21	13.66	22.1	-0.6976	0.1088	-0.0001
151	SLV 10	0.21	13.66	22.1	-0.6976	0.1088	-0.0001
151	SLV 11	-0.08	-11.02	33.88	0.5035	-0.05	0.0003
151	SLV 12	-0.08	-11.02	33.88	0.5035	-0.05	0.0003
151	SLV 13	0.06	1.66	19.75	-0.1266	-0.0027	0.0003
151	SLV 14	0.06	1.66	19.75	-0.1266	-0.0027	0.0003
151	SLV 15	-0.02	-5.74	23.28	0.2338	-0.0504	0.0004
151	SLV 16	-0.02	-5.74	23.28	0.2338	-0.0504	0.0004
152	SLU 1	0	-3.83	48.35	0.1569	0.014	-0.0006
152	SLU 2	0	-4.39	48.85	0.179	0.0143	-0.0006
152	SLU 3	0	-3.58	49.71	0.1472	0.0143	-0.0006
152	SLU 4	0	-3.91	50.01	0.1605	0.0145	-0.0006
152	SLU 5	0	-4.07	49.55	0.1665	0.0145	-0.0006
152	SLU 6	0	-3.25	50.41	0.1346	0.0145	-0.0006
152	SLU 7	0	-3.59	50.71	0.1479	0.0147	-0.0006
152	SLU 8	0	-3.18	49.75	0.1318	0.0143	-0.0006
152	SLU 9	0	-3.52	50.05	0.1451	0.0145	-0.0006
152	SLU 10	0	-5.11	58.16	0.2085	0.0175	-0.0007
152	SLU 11	0	-4.29	59.02	0.1766	0.0175	-0.0007
152	SLU 12	0	-4.63	59.32	0.1899	0.0177	-0.0007
152	SLU 13	0	-4.78	58.86	0.196	0.0177	-0.0007
152	SLU 14	0	-3.97	59.72	0.1641	0.0177	-0.0007
152	SLU 15	0	-4.3	60.02	0.1774	0.0179	-0.0007
152	SLU 16	0	-3.9	59.06	0.1613	0.0175	-0.0007
152	SLU 17	0	-4.24	59.36	0.1746	0.0177	-0.0007
152	SLU 18	0	-4.85	61.65	0.199	0.0186	-0.0008
152	SLU 19	0	-5.19	61.95	0.2123	0.0188	-0.0008
152	SLU 20	0	-4.53	62.35	0.1864	0.0187	-0.0008
152	SLU 21	0	-4.87	62.65	0.1997	0.0189	-0.0008
152	SLU 22	0	-3.92	55.23	0.1619	0.0158	-0.0007
152	SLU 23	0	-4.49	55.73	0.1841	0.0161	-0.0007
152	SLU 24	0	-3.67	56.59	0.1522	0.0161	-0.0007
152	SLU 25	0	-4.01	56.89	0.1655	0.0163	-0.0007
152	SLU 26	0	-4.16	56.43	0.1715	0.0163	-0.0007
152	SLU 27	0	-3.35	57.29	0.1397	0.0163	-0.0007
152	SLU 28	0	-3.68	57.59	0.153	0.0165	-0.0007
152	SLU 29	0	-3.28	56.63	0.1368	0.0161	-0.0007
152	SLU 30	0	-3.62	56.93	0.1501	0.0163	-0.0007
152	SLU 31	0	-5.2	65.04	0.2135	0.0194	-0.0008
152	SLU 32	0	-4.38	65.9	0.1817	0.0194	-0.0008
152	SLU 33	0	-4.72	66.2	0.195	0.0196	-0.0008
152	SLU 34	0	-4.88	65.74	0.201	0.0195	-0.0008
152	SLU 35	0.01	-4.06	66.6	0.1691	0.0195	-0.0008
152	SLU 36	0.01	-4.4	66.9	0.1824	0.0197	-0.0008
152	SLU 37	0.01	-3.99	65.94	0.1663	0.0193	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
152	SLU 38	0.01	-4.33	66.24	0.1796	0.0195	-0.0008
152	SLU 39	0	-4.94	68.53	0.204	0.0204	-0.0008
152	SLU 40	0	-5.28	68.83	0.2173	0.0206	-0.0008
152	SLU 41	0.01	-4.62	69.23	0.1915	0.0206	-0.0008
152	SLU 42	0.01	-4.96	69.53	0.2048	0.0208	-0.0008
152	SLU 43	0	-4.95	60.49	0.2022	0.0176	-0.0008
152	SLU 44	0	-5.51	61	0.2244	0.0179	-0.0008
152	SLU 45	0	-4.69	61.85	0.1925	0.0179	-0.0008
152	SLU 46	0	-5.03	62.15	0.2058	0.0181	-0.0008
152	SLU 47	0	-5.19	61.7	0.2118	0.018	-0.0008
152	SLU 48	0	-4.37	62.55	0.18	0.018	-0.0008
152	SLU 49	0	-4.71	62.85	0.1932	0.0182	-0.0008
152	SLU 50	0	-4.3	61.89	0.1771	0.0179	-0.0007
152	SLU 51	0	-4.64	62.19	0.1904	0.0181	-0.0008
152	SLU 52	0	-6.23	70.31	0.2538	0.0211	-0.0009
152	SLU 53	0	-5.41	71.16	0.222	0.0211	-0.0009
152	SLU 54	0	-5.75	71.47	0.2353	0.0213	-0.0009
152	SLU 55	0	-5.9	71.01	0.2413	0.0213	-0.0009
152	SLU 56	0	-5.08	71.86	0.2094	0.0213	-0.0009
152	SLU 57	0	-5.42	72.16	0.2227	0.0215	-0.0009
152	SLU 58	0	-5.02	71.2	0.2066	0.0211	-0.0009
152	SLU 59	0	-5.35	71.5	0.2199	0.0213	-0.0009
152	SLU 60	0	-5.97	73.79	0.2443	0.0222	-0.0009
152	SLU 61	0	-6.31	74.1	0.2576	0.0224	-0.0009
152	SLU 62	0	-5.64	74.49	0.2318	0.0223	-0.0009
152	SLU 63	0.01	-5.98	74.8	0.2451	0.0225	-0.0009
152	SLU 64	0	-5.04	67.38	0.2072	0.0194	-0.0008
152	SLU 65	0	-5.61	67.88	0.2294	0.0197	-0.0008
152	SLU 66	0	-4.79	68.73	0.1975	0.0197	-0.0008
152	SLU 67	0	-5.13	69.04	0.2108	0.0199	-0.0008
152	SLU 68	0	-5.28	68.58	0.2169	0.0199	-0.0008
152	SLU 69	0	-4.46	69.43	0.185	0.0199	-0.0008
152	SLU 70	0	-4.8	69.73	0.1983	0.0201	-0.0008
152	SLU 71	0	-4.39	68.77	0.1822	0.0197	-0.0008
152	SLU 72	0	-4.73	69.07	0.1954	0.0199	-0.0008
152	SLU 73	0	-6.32	77.19	0.2589	0.0229	-0.0009
152	SLU 74	0.01	-5.5	78.04	0.227	0.0229	-0.0009
152	SLU 75	0.01	-5.84	78.35	0.2403	0.0231	-0.0009
152	SLU 76	0.01	-6	77.89	0.2463	0.0231	-0.0009
152	SLU 77	0.01	-5.18	78.74	0.2145	0.0231	-0.0009
152	SLU 78	0.01	-5.52	79.05	0.2278	0.0233	-0.0009
152	SLU 79	0.01	-5.11	78.08	0.2116	0.0229	-0.0009
152	SLU 80	0.01	-5.45	78.39	0.2249	0.0231	-0.0009
152	SLU 81	0.01	-6.06	80.68	0.2494	0.024	-0.001
152	SLU 82	0.01	-6.4	80.98	0.2627	0.0242	-0.001
152	SLU 83	0.01	-5.74	81.37	0.2368	0.0241	-0.001
152	SLU 84	0.01	-6.08	81.68	0.2501	0.0243	-0.001
152	SLE RA 1	0	-3.86	50.32	0.1583	0.0145	-0.0006
152	SLE RA 2	0	-4.23	50.65	0.1731	0.0147	-0.0006
152	SLE RA 3	0	-3.69	51.22	0.1518	0.0147	-0.0006
152	SLE RA 4	0	-3.91	51.42	0.1607	0.0149	-0.0006
152	SLE RA 5	0	-4.02	51.12	0.1647	0.0148	-0.0006
152	SLE RA 6	0	-3.47	51.69	0.1435	0.0148	-0.0006
152	SLE RA 7	0	-3.7	51.89	0.1523	0.015	-0.0006
152	SLE RA 8	0	-3.43	51.25	0.1416	0.0147	-0.0006
152	SLE RA 9	0	-3.65	51.45	0.1504	0.0148	-0.0006
152	SLE RA 10	0	-4.71	56.86	0.1927	0.0169	-0.0007
152	SLE RA 11	0	-4.16	57.43	0.1715	0.0169	-0.0007
152	SLE RA 12	0	-4.39	57.63	0.1804	0.017	-0.0007
152	SLE RA 13	0	-4.49	57.32	0.1844	0.017	-0.0007
152	SLE RA 14	0	-3.95	57.89	0.1631	0.017	-0.0007
152	SLE RA 15	0	-4.17	58.09	0.172	0.0171	-0.0007
152	SLE RA 16	0	-3.9	57.45	0.1612	0.0169	-0.0007
152	SLE RA 17	0	-4.13	57.65	0.1701	0.017	-0.0007
152	SLE RA 18	0	-4.54	59.18	0.1864	0.0176	-0.0007
152	SLE RA 19	0	-4.76	59.38	0.1952	0.0177	-0.0007
152	SLE RA 20	0	-4.32	59.65	0.178	0.0177	-0.0007
152	SLE RA 21	0	-4.55	59.85	0.1869	0.0178	-0.0007
152	SLE FR 1	0	-3.86	50.32	0.1583	0.0145	-0.0006
152	SLE FR 2	0	-3.93	50.38	0.1613	0.0145	-0.0006
152	SLE FR 3	0	-3.77	50.5	0.155	0.0145	-0.0006
152	SLE FR 4	0	-4.14	53.04	0.1697	0.0155	-0.0007
152	SLE FR 5	0	-3.98	53.16	0.1634	0.0155	-0.0006
152	SLE FR 6	0	-4.2	54.75	0.1723	0.016	-0.0007
152	SLE QP 1	0	-3.86	50.32	0.1583	0.0145	-0.0006
152	SLE QP 2	0	-4.06	52.98	0.1667	0.0154	-0.0007
152	SLD 1	0.02	0.18	44.18	0.0002	0.0705	0.0015
152	SLD 2	0.02	0.18	44.18	0.0002	0.0705	0.0015
152	SLD 3	0.02	-4.23	48.42	0.1746	0.0795	0.0012
152	SLD 4	0.02	-4.23	48.42	0.1746	0.0795	0.0012
152	SLD 5	0	3.9	43.91	-0.1478	0.0182	0.0005
152	SLD 6	0	3.9	43.91	-0.1478	0.0182	0.0005
152	SLD 7	0.02	-10.8	58.04	0.4336	0.0484	-0.0006
152	SLD 8	0.02	-10.8	58.04	0.4336	0.0484	-0.0006
152	SLD 9	-0.01	2.68	47.91	-0.1002	-0.0175	-0.0007
152	SLD 10	-0.01	2.68	47.91	-0.1002	-0.0175	-0.0007
152	SLD 11	0.01	-12.02	62.04	0.4812	0.0126	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
152	SLD 12	0.01	-12.02	62.04	0.4812	0.0126	-0.0018
152	SLD 13	-0.02	-3.89	57.53	0.1588	-0.0487	-0.0025
152	SLD 14	-0.02	-3.89	57.53	0.1588	-0.0487	-0.0025
152	SLD 15	-0.01	-8.3	61.77	0.3333	-0.0397	-0.0028
152	SLD 16	-0.01	-8.3	61.77	0.3333	-0.0397	-0.0028
152	SLV 1	0.04	5.9	32.27	-0.2247	0.1535	0.0049
152	SLV 2	0.04	5.9	32.27	-0.2247	0.1535	0.0049
152	SLV 3	0.05	-4.46	42.36	0.185	0.1758	0.004
152	SLV 4	0.05	-4.46	42.36	0.185	0.1758	0.004
152	SLV 5	-0.01	14.64	31.47	-0.572	0.0229	0.0022
152	SLV 6	-0.01	14.64	31.47	-0.572	0.0229	0.0022
152	SLV 7	0.04	-19.89	65.09	0.7935	0.0974	-0.0005
152	SLV 8	0.04	-19.89	65.09	0.7935	0.0974	-0.0005
152	SLV 9	-0.03	11.77	40.86	-0.46	-0.0666	-0.0008
152	SLV 10	-0.03	11.77	40.86	-0.46	-0.0666	-0.0008
152	SLV 11	0.02	-22.76	74.48	0.9054	0.0079	-0.0035
152	SLV 12	0.02	-22.76	74.48	0.9054	0.0079	-0.0035
152	SLV 13	-0.05	-3.67	63.59	0.1485	-0.145	-0.0053
152	SLV 14	-0.05	-3.67	63.59	0.1485	-0.145	-0.0053
152	SLV 15	-0.03	-14.02	73.68	0.5582	-0.1226	-0.0062
152	SLV 16	-0.03	-14.02	73.68	0.5582	-0.1226	-0.0062
153	SLU 1	0	-2.15	41.14	0.0691	-0.0018	0
153	SLU 2	0	-0.24	39.72	-0.0308	-0.0036	0
153	SLU 3	0	-2.41	42.79	0.0812	-0.0019	0
153	SLU 4	0	-1.27	41.94	0.0213	-0.003	0
153	SLU 5	0	-0.54	40.94	-0.0166	-0.0036	0
153	SLU 6	0	-2.71	44.01	0.0954	-0.0019	0
153	SLU 7	0	-1.57	43.16	0.0355	-0.003	0
153	SLU 8	0	-2.75	43.58	0.0973	-0.0019	0
153	SLU 9	0	-1.6	42.72	0.0374	-0.0029	0
153	SLU 10	0	-0.33	47	-0.0282	-0.004	0
153	SLU 11	0	-2.51	50.07	0.0838	-0.0023	0
153	SLU 12	0	-1.36	49.22	0.0239	-0.0034	0
153	SLU 13	0	-0.63	48.21	-0.0141	-0.0041	0
153	SLU 14	0	-2.81	51.29	0.0979	-0.0023	0
153	SLU 15	0	-1.66	50.43	0.038	-0.0034	0
153	SLU 16	0	-2.85	50.86	0.0999	-0.0023	0
153	SLU 17	0	-1.7	50	0.04	-0.0034	0
153	SLU 18	0	-2.29	51.54	0.0727	-0.0024	0
153	SLU 19	0	-1.14	50.69	0.0128	-0.0035	0
153	SLU 20	0	-2.59	52.76	0.0869	-0.0024	0
153	SLU 21	0	-1.44	51.9	0.0269	-0.0035	0
153	SLU 22	0	-2.37	48.06	0.078	-0.0021	0
153	SLU 23	0	-0.46	46.63	-0.0218	-0.0039	0
153	SLU 24	0	-2.64	49.71	0.0902	-0.0022	0
153	SLU 25	0	-1.49	48.85	0.0303	-0.0033	0
153	SLU 26	0	-0.76	47.85	-0.0077	-0.0039	0
153	SLU 27	0	-2.94	50.92	0.1043	-0.0022	0
153	SLU 28	0	-1.79	50.07	0.0444	-0.0033	0
153	SLU 29	0	-2.97	50.49	0.1063	-0.0022	0
153	SLU 30	0	-1.83	49.64	0.0464	-0.0032	0
153	SLU 31	0	-0.56	53.91	-0.0193	-0.0043	0
153	SLU 32	0	-2.74	56.98	0.0927	-0.0026	0
153	SLU 33	0	-1.59	56.13	0.0328	-0.0037	0
153	SLU 34	0	-0.86	55.13	-0.0052	-0.0044	0
153	SLU 35	0	-3.04	58.2	0.1069	-0.0026	0
153	SLU 36	0	-1.89	57.35	0.047	-0.0037	0
153	SLU 37	0	-3.07	57.77	0.1088	-0.0026	0
153	SLU 38	0	-1.92	56.92	0.0489	-0.0037	0
153	SLU 39	0	-2.51	58.45	0.0816	-0.0027	0
153	SLU 40	0	-1.37	57.6	0.0217	-0.0038	0
153	SLU 41	0	-2.81	59.67	0.0958	-0.0027	0
153	SLU 42	0	-1.67	58.82	0.0359	-0.0038	0
153	SLU 43	0	-2.72	51.12	0.0867	-0.0023	0
153	SLU 44	0	-0.8	49.69	-0.0131	-0.0041	0
153	SLU 45	0	-2.98	52.77	0.0989	-0.0023	0
153	SLU 46	0	-1.83	51.91	0.039	-0.0034	0
153	SLU 47	0	-1.1	50.91	0.001	-0.0041	0
153	SLU 48	0	-3.28	53.98	0.113	-0.0024	0
153	SLU 49	0	-2.13	53.13	0.0531	-0.0034	0
153	SLU 50	0	-3.31	53.55	0.115	-0.0023	0
153	SLU 51	0	-2.17	52.7	0.0551	-0.0034	0
153	SLU 52	0	-0.9	56.97	-0.0106	-0.0045	0
153	SLU 53	0	-3.08	60.04	0.1015	-0.0028	0
153	SLU 54	0	-1.93	59.19	0.0416	-0.0038	0
153	SLU 55	0	-1.2	58.19	0.0036	-0.0045	0
153	SLU 56	0	-3.38	61.26	0.1156	-0.0028	0
153	SLU 57	0	-2.23	60.41	0.0557	-0.0039	0
153	SLU 58	0	-3.41	60.83	0.1176	-0.0027	0
153	SLU 59	0	-2.27	59.97	0.0576	-0.0038	0
153	SLU 60	0	-2.86	61.51	0.0904	-0.0028	0
153	SLU 61	0	-1.71	60.66	0.0305	-0.0039	0
153	SLU 62	0	-3.16	62.73	0.1045	-0.0029	0
153	SLU 63	0	-2.01	61.88	0.0446	-0.004	0
153	SLU 64	0	-2.94	58.03	0.0957	-0.0026	0
153	SLU 65	0	-1.03	56.61	-0.0042	-0.0044	0
153	SLU 66	0	-3.21	59.68	0.1078	-0.0026	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
153	SLU 67	0	-2.06	58.83	0.0479	-0.0037	0
153	SLU 68	0	-1.33	57.82	0.01	-0.0044	0
153	SLU 69	0	-3.51	60.9	0.122	-0.0027	0
153	SLU 70	0	-2.36	60.04	0.0621	-0.0037	0
153	SLU 71	0	-3.54	60.47	0.1239	-0.0026	0
153	SLU 72	0	-2.39	59.61	0.064	-0.0037	0
153	SLU 73	0	-1.13	63.88	-0.0016	-0.0048	0
153	SLU 74	0	-3.3	66.96	0.1104	-0.0031	0
153	SLU 75	0	-2.16	66.1	0.0505	-0.0041	0
153	SLU 76	0	-1.43	65.1	0.0125	-0.0048	0
153	SLU 77	0	-3.6	68.17	0.1245	-0.0031	0
153	SLU 78	0	-2.46	67.32	0.0646	-0.0042	0
153	SLU 79	0	-3.64	67.74	0.1265	-0.003	0
153	SLU 80	0	-2.49	66.89	0.0666	-0.0041	0
153	SLU 81	0	-3.08	68.43	0.0993	-0.0032	0
153	SLU 82	0	-1.93	67.57	0.0394	-0.0042	0
153	SLU 83	0	-3.38	69.64	0.1134	-0.0032	0
153	SLU 84	0	-2.23	68.79	0.0535	-0.0043	0
153	SLE RA 1	0	-2.21	43.12	0.0716	-0.0019	0
153	SLE RA 2	0	-0.94	42.17	0.0051	-0.0031	0
153	SLE RA 3	0	-2.39	44.22	0.0797	-0.002	0
153	SLE RA 4	0	-1.62	43.65	0.0398	-0.0027	0
153	SLE RA 5	0	-1.14	42.98	0.0145	-0.0031	0
153	SLE RA 6	0	-2.59	45.03	0.0892	-0.002	0
153	SLE RA 7	0	-1.82	44.46	0.0492	-0.0027	0
153	SLE RA 8	0	-2.61	44.74	0.0905	-0.0019	0
153	SLE RA 9	0	-1.85	44.17	0.0505	-0.0026	0
153	SLE RA 10	0	-1	47.02	0.0068	-0.0034	0
153	SLE RA 11	0	-2.45	49.07	0.0814	-0.0022	0
153	SLE RA 12	0	-1.69	48.5	0.0415	-0.003	0
153	SLE RA 13	0	-1.2	47.83	0.0162	-0.0034	0
153	SLE RA 14	0	-2.65	49.88	0.0909	-0.0022	0
153	SLE RA 15	0	-1.89	49.31	0.0509	-0.003	0
153	SLE RA 16	0	-2.68	49.59	0.0922	-0.0022	0
153	SLE RA 17	0	-1.91	49.02	0.0522	-0.0029	0
153	SLE RA 18	0	-2.31	50.05	0.0741	-0.0023	0
153	SLE RA 19	0	-1.54	49.48	0.0341	-0.003	0
153	SLE RA 20	0	-2.51	50.86	0.0835	-0.0023	0
153	SLE RA 21	0	-1.74	50.29	0.0435	-0.003	0
153	SLE FR 1	0	-2.21	43.12	0.0716	-0.0019	0
153	SLE FR 2	0	-1.96	42.93	0.0583	-0.0021	0
153	SLE FR 3	0	-2.29	43.44	0.0754	-0.0019	0
153	SLE FR 4	0	-1.99	45.01	0.059	-0.0023	0
153	SLE FR 5	0	-2.32	45.52	0.0761	-0.002	0
153	SLE FR 6	0	-2.26	46.59	0.0728	-0.0021	0
153	SLE QP 1	0	-2.21	43.12	0.0716	-0.0019	0
153	SLE QP 2	0	-2.24	45.2	0.0724	-0.002	0
153	SLD 1	0.02	-2.09	45.68	-0.0509	0.0305	0.0001
153	SLD 2	0.02	-2.09	45.68	-0.0509	0.0305	0.0001
153	SLD 3	0.04	-4.72	47.16	0.0808	0.0462	0
153	SLD 4	0.04	-4.72	47.16	0.0808	0.0462	0
153	SLD 5	-0.04	1.8	43.09	-0.1645	-0.0161	0.0001
153	SLD 6	-0.04	1.8	43.09	-0.1645	-0.0161	0.0001
153	SLD 7	0.05	-6.98	48.04	0.2747	0.0362	0
153	SLD 8	0.05	-6.98	48.04	0.2747	0.0362	0
153	SLD 9	-0.05	2.5	42.36	-0.13	-0.0403	0
153	SLD 10	-0.05	2.5	42.36	-0.13	-0.0403	0
153	SLD 11	0.04	-6.28	47.3	0.3092	0.012	-0.0001
153	SLD 12	0.04	-6.28	47.3	0.3092	0.012	-0.0001
153	SLD 13	-0.04	0.24	43.24	0.0639	-0.0502	0
153	SLD 14	-0.04	0.24	43.24	0.0639	-0.0502	0
153	SLD 15	-0.02	-2.39	44.72	0.1956	-0.0345	-0.0001
153	SLD 16	-0.02	-2.39	44.72	0.1956	-0.0345	-0.0001
153	SLV 1	0.04	-2	46.45	-0.2258	0.0764	0.0002
153	SLV 2	0.04	-2	46.45	-0.2258	0.0764	0.0002
153	SLV 3	0.11	-8.24	50.04	0.0866	0.1163	0.0001
153	SLV 4	0.11	-8.24	50.04	0.0866	0.1163	0.0001
153	SLV 5	-0.09	7.3	40.14	-0.4909	-0.039	0.0001
153	SLV 6	-0.09	7.3	40.14	-0.4909	-0.039	0.0001
153	SLV 7	0.13	-13.5	52.08	0.5505	0.094	0
153	SLV 8	0.13	-13.5	52.08	0.5505	0.094	0
153	SLV 9	-0.13	9.02	38.31	-0.4058	-0.0981	0
153	SLV 10	-0.13	9.02	38.31	-0.4058	-0.0981	0
153	SLV 11	0.09	-11.78	50.26	0.6356	0.035	-0.0001
153	SLV 12	0.09	-11.78	50.26	0.6356	0.035	-0.0001
153	SLV 13	-0.11	3.76	40.36	0.0581	-0.1204	-0.0001
153	SLV 14	-0.11	3.76	40.36	0.0581	-0.1204	-0.0001
153	SLV 15	-0.04	-2.48	43.95	0.3705	-0.0805	-0.0002
153	SLV 16	-0.04	-2.48	43.95	0.3705	-0.0805	-0.0002
154	SLU 1	0.08	-5.45	44.59	0.2725	0.0276	-0.0004
154	SLU 2	0.08	-5.82	44.92	0.2909	0.0274	-0.0004
154	SLU 3	0.08	-5.28	45.56	0.2637	0.0285	-0.0004
154	SLU 4	0.08	-5.5	45.76	0.2748	0.0284	-0.0004
154	SLU 5	0.08	-5.54	45.22	0.2762	0.0279	-0.0004
154	SLU 6	0.08	-4.99	45.86	0.2491	0.029	-0.0004
154	SLU 7	0.08	-5.22	46.06	0.2601	0.0288	-0.0004
154	SLU 8	0.08	-4.88	45.2	0.2432	0.0286	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
154	SLU 9	0.08	-5.11	45.39	0.2542	0.0284	-0.0004
154	SLU 10	0.09	-6.8	54.01	0.3417	0.0323	-0.0005
154	SLU 11	0.1	-6.26	54.65	0.3146	0.0334	-0.0005
154	SLU 12	0.1	-6.49	54.85	0.3256	0.0333	-0.0005
154	SLU 13	0.09	-6.52	54.31	0.3271	0.0328	-0.0005
154	SLU 14	0.1	-5.98	54.95	0.2999	0.0339	-0.0005
154	SLU 15	0.1	-6.2	55.15	0.3109	0.0337	-0.0005
154	SLU 16	0.1	-5.87	54.28	0.294	0.0335	-0.0005
154	SLU 17	0.1	-6.09	54.48	0.3051	0.0333	-0.0005
154	SLU 18	0.1	-6.86	57.58	0.3451	0.0346	-0.0006
154	SLU 19	0.1	-7.08	57.78	0.3562	0.0345	-0.0005
154	SLU 20	0.1	-6.57	57.88	0.3305	0.0351	-0.0006
154	SLU 21	0.1	-6.8	58.08	0.3415	0.035	-0.0006
154	SLU 22	0.09	-5.85	51.34	0.2948	0.0323	-0.0005
154	SLU 23	0.09	-6.22	51.67	0.3132	0.0321	-0.0005
154	SLU 24	0.09	-5.68	52.31	0.286	0.0332	-0.0005
154	SLU 25	0.09	-5.9	52.51	0.297	0.0331	-0.0005
154	SLU 26	0.09	-5.93	51.97	0.2985	0.0325	-0.0005
154	SLU 27	0.1	-5.39	52.61	0.2714	0.0337	-0.0005
154	SLU 28	0.09	-5.62	52.81	0.2824	0.0335	-0.0005
154	SLU 29	0.09	-5.28	51.94	0.2655	0.0333	-0.0005
154	SLU 30	0.09	-5.5	52.14	0.2765	0.0331	-0.0005
154	SLU 31	0.11	-7.2	60.76	0.364	0.037	-0.0006
154	SLU 32	0.11	-6.66	61.4	0.3368	0.0381	-0.0006
154	SLU 33	0.11	-6.88	61.6	0.3479	0.038	-0.0006
154	SLU 34	0.11	-6.92	61.06	0.3493	0.0374	-0.0006
154	SLU 35	0.11	-6.38	61.7	0.3222	0.0386	-0.0006
154	SLU 36	0.11	-6.6	61.9	0.3332	0.0384	-0.0006
154	SLU 37	0.11	-6.27	61.03	0.3163	0.0382	-0.0006
154	SLU 38	0.11	-6.49	61.23	0.3273	0.038	-0.0006
154	SLU 39	0.12	-7.26	64.33	0.3674	0.0393	-0.0006
154	SLU 40	0.11	-7.48	64.53	0.3784	0.0392	-0.0006
154	SLU 41	0.12	-6.97	64.63	0.3527	0.0398	-0.0006
154	SLU 42	0.12	-7.2	64.83	0.3638	0.0397	-0.0006
154	SLU 43	0.09	-6.95	55.66	0.3466	0.0343	-0.0005
154	SLU 44	0.09	-7.32	55.99	0.365	0.034	-0.0005
154	SLU 45	0.1	-6.77	56.63	0.3379	0.0352	-0.0005
154	SLU 46	0.1	-7	56.83	0.3489	0.035	-0.0005
154	SLU 47	0.09	-7.03	56.29	0.3504	0.0345	-0.0005
154	SLU 48	0.1	-6.49	56.93	0.3232	0.0357	-0.0005
154	SLU 49	0.1	-6.71	57.13	0.3342	0.0355	-0.0005
154	SLU 50	0.1	-6.38	56.26	0.3173	0.0353	-0.0005
154	SLU 51	0.1	-6.6	56.46	0.3284	0.0351	-0.0005
154	SLU 52	0.11	-8.3	65.08	0.4158	0.0389	-0.0006
154	SLU 53	0.11	-7.76	65.72	0.3887	0.0401	-0.0006
154	SLU 54	0.11	-7.98	65.92	0.3997	0.0399	-0.0006
154	SLU 55	0.11	-8.02	65.38	0.4012	0.0394	-0.0006
154	SLU 56	0.12	-7.48	66.02	0.374	0.0406	-0.0006
154	SLU 57	0.11	-7.7	66.22	0.3851	0.0404	-0.0006
154	SLU 58	0.11	-7.37	65.35	0.3682	0.0402	-0.0006
154	SLU 59	0.11	-7.59	65.55	0.3792	0.04	-0.0006
154	SLU 60	0.12	-8.35	68.64	0.4193	0.0413	-0.0006
154	SLU 61	0.12	-8.58	68.84	0.4303	0.0412	-0.0006
154	SLU 62	0.12	-8.07	68.94	0.4046	0.0418	-0.0007
154	SLU 63	0.12	-8.29	69.14	0.4156	0.0416	-0.0007
154	SLU 64	0.11	-7.34	62.41	0.3689	0.039	-0.0006
154	SLU 65	0.11	-7.71	62.74	0.3873	0.0387	-0.0006
154	SLU 66	0.11	-7.17	63.38	0.3601	0.0399	-0.0006
154	SLU 67	0.11	-7.4	63.57	0.3712	0.0397	-0.0006
154	SLU 68	0.11	-7.43	63.04	0.3726	0.0392	-0.0006
154	SLU 69	0.11	-6.89	63.68	0.3455	0.0404	-0.0006
154	SLU 70	0.11	-7.11	63.88	0.3565	0.0402	-0.0006
154	SLU 71	0.11	-6.78	63.01	0.3396	0.04	-0.0006
154	SLU 72	0.11	-7	63.21	0.3506	0.0398	-0.0006
154	SLU 73	0.12	-8.7	71.83	0.4381	0.0436	-0.0007
154	SLU 74	0.13	-8.16	72.47	0.411	0.0448	-0.0007
154	SLU 75	0.13	-8.38	72.66	0.422	0.0446	-0.0007
154	SLU 76	0.13	-8.42	72.13	0.4234	0.0441	-0.0007
154	SLU 77	0.13	-7.88	72.77	0.3963	0.0453	-0.0007
154	SLU 78	0.13	-8.1	72.96	0.4073	0.0451	-0.0007
154	SLU 79	0.13	-7.77	72.1	0.3904	0.0449	-0.0007
154	SLU 80	0.13	-7.99	72.3	0.4014	0.0447	-0.0007
154	SLU 81	0.13	-8.75	75.39	0.4415	0.046	-0.0007
154	SLU 82	0.13	-8.98	75.59	0.4525	0.0458	-0.0007
154	SLU 83	0.13	-8.47	75.69	0.4269	0.0465	-0.0007
154	SLU 84	0.13	-8.69	75.89	0.4379	0.0463	-0.0007
154	SLE RA 1	0.08	-5.56	46.52	0.2789	0.029	-0.0004
154	SLE RA 2	0.08	-5.81	46.74	0.2911	0.0288	-0.0004
154	SLE RA 3	0.08	-5.45	47.17	0.273	0.0296	-0.0004
154	SLE RA 4	0.08	-5.6	47.3	0.2804	0.0295	-0.0004
154	SLE RA 5	0.08	-5.62	46.94	0.2814	0.0291	-0.0004
154	SLE RA 6	0.08	-5.26	47.37	0.2633	0.0299	-0.0005
154	SLE RA 7	0.08	-5.41	47.5	0.2706	0.0298	-0.0004
154	SLE RA 8	0.08	-5.19	46.92	0.2593	0.0296	-0.0004
154	SLE RA 9	0.08	-5.33	47.05	0.2667	0.0295	-0.0004
154	SLE RA 10	0.09	-6.47	52.8	0.325	0.0321	-0.0005
154	SLE RA 11	0.09	-6.11	53.23	0.3069	0.0328	-0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
154	SLE RA 12	0.09	-6.25	53.36	0.3143	0.0327	-0.0005
154	SLE RA 13	0.09	-6.28	53	0.3152	0.0324	-0.0005
154	SLE RA 14	0.09	-5.92	53.43	0.2971	0.0332	-0.0005
154	SLE RA 15	0.09	-6.07	53.56	0.3045	0.033	-0.0005
154	SLE RA 16	0.09	-5.84	52.98	0.2932	0.0329	-0.0005
154	SLE RA 17	0.09	-5.99	53.11	0.3006	0.0328	-0.0005
154	SLE RA 18	0.1	-6.5	55.18	0.3273	0.0336	-0.0005
154	SLE RA 19	0.1	-6.65	55.31	0.3346	0.0335	-0.0005
154	SLE RA 20	0.1	-6.31	55.38	0.3175	0.034	-0.0005
154	SLE RA 21	0.1	-6.46	55.51	0.3249	0.0339	-0.0005
154	SLE FR 1	0.08	-5.56	46.52	0.2789	0.029	-0.0004
154	SLE FR 2	0.08	-5.61	46.57	0.2813	0.0289	-0.0004
154	SLE FR 3	0.08	-5.49	46.6	0.275	0.0291	-0.0004
154	SLE FR 4	0.09	-5.89	49.16	0.2959	0.0303	-0.0005
154	SLE FR 5	0.09	-5.77	49.2	0.2895	0.0305	-0.0005
154	SLE FR 6	0.09	-6.03	50.85	0.3031	0.0313	-0.0005
154	SLE QP 1	0.08	-5.56	46.52	0.2789	0.029	-0.0004
154	SLE QP 2	0.09	-5.84	49.12	0.2934	0.0304	-0.0005
154	SLD 1	0.12	-5.09	51.73	0.2564	0.0837	-0.0005
154	SLD 2	0.12	-5.09	51.73	0.2564	0.0837	-0.0005
154	SLD 3	0.13	-7.96	55.93	0.4022	0.0927	-0.0006
154	SLD 4	0.13	-7.96	55.93	0.4022	0.0927	-0.0006
154	SLD 5	0.07	-1.26	43.54	0.0612	0.0327	-0.0004
154	SLD 6	0.07	-1.26	43.54	0.0612	0.0327	-0.0004
154	SLD 7	0.12	-10.83	57.53	0.5472	0.0628	-0.0006
154	SLD 8	0.12	-10.83	57.53	0.5472	0.0628	-0.0006
154	SLD 9	0.05	-0.86	40.71	0.0396	-0.002	-0.0004
154	SLD 10	0.05	-0.86	40.71	0.0396	-0.002	-0.0004
154	SLD 11	0.1	-10.43	54.7	0.5256	0.0281	-0.0005
154	SLD 12	0.1	-10.43	54.7	0.5256	0.0281	-0.0005
154	SLD 13	0.04	-3.73	42.31	0.1846	-0.032	-0.0003
154	SLD 14	0.04	-3.73	42.31	0.1846	-0.032	-0.0003
154	SLD 15	0.05	-6.6	46.5	0.3304	-0.023	-0.0004
154	SLD 16	0.05	-6.6	46.5	0.3304	-0.023	-0.0004
154	SLV 1	0.16	-4.07	55.19	0.207	0.1638	-0.0007
154	SLV 2	0.16	-4.07	55.19	0.207	0.1638	-0.0007
154	SLV 3	0.2	-10.79	65.09	0.5484	0.1864	-0.0007
154	SLV 4	0.2	-10.79	65.09	0.5484	0.1864	-0.0007
154	SLV 5	0.05	4.88	35.92	-0.2503	0.0363	-0.0004
154	SLV 6	0.05	4.88	35.92	-0.2503	0.0363	-0.0004
154	SLV 7	0.18	-17.52	68.93	0.8877	0.1113	-0.0007
154	SLV 8	0.18	-17.52	68.93	0.8877	0.1113	-0.0007
154	SLV 9	-0.01	5.84	29.31	-0.3009	-0.0506	-0.0002
154	SLV 10	-0.01	5.84	29.31	-0.3009	-0.0506	-0.0002
154	SLV 11	0.12	-16.57	62.32	0.8371	0.0245	-0.0006
154	SLV 12	0.12	-16.57	62.32	0.8371	0.0245	-0.0006
154	SLV 13	-0.03	-0.89	33.14	0.0384	-0.1256	-0.0002
154	SLV 14	-0.03	-0.89	33.14	0.0384	-0.1256	-0.0002
154	SLV 15	0.01	-7.61	43.05	0.3798	-0.1031	-0.0003
154	SLV 16	0.01	-7.61	43.05	0.3798	-0.1031	-0.0003
155	SLU 1	0	1.55	23.35	-0.0266	0.0012	0
155	SLU 2	0	1.55	23.42	-0.0265	0.0012	0
155	SLU 3	0	1.63	24.01	-0.0292	0.001	0
155	SLU 4	0	1.63	24.05	-0.0291	0.0011	0
155	SLU 5	0	1.59	23.78	-0.0287	0.0011	0
155	SLU 6	0	1.67	24.37	-0.0313	0.0008	0
155	SLU 7	0	1.67	24.41	-0.0312	0.0009	0
155	SLU 8	0	1.64	24.06	-0.0309	0.0008	0
155	SLU 9	0	1.64	24.1	-0.0308	0.0008	0
155	SLU 10	0	1.71	28.62	-0.0278	0.0016	0
155	SLU 11	0	1.79	29.22	-0.0304	0.0013	0
155	SLU 12	0	1.79	29.26	-0.0303	0.0014	0
155	SLU 13	0	1.75	28.98	-0.0299	0.0014	0
155	SLU 14	0	1.83	29.57	-0.0325	0.0011	0
155	SLU 15	0	1.83	29.61	-0.0325	0.0012	0
155	SLU 16	0	1.8	29.26	-0.0321	0.0011	0
155	SLU 17	0	1.8	29.31	-0.0321	0.0012	0
155	SLU 18	0	1.78	30.78	-0.0284	0.0016	0
155	SLU 19	0	1.78	30.83	-0.0283	0.0017	0
155	SLU 20	0	1.82	31.14	-0.0305	0.0014	0
155	SLU 21	0	1.82	31.18	-0.0305	0.0015	0
155	SLU 22	0	1.87	26.62	-0.0344	0.0012	0
155	SLU 23	0	1.87	26.69	-0.0343	0.0013	0
155	SLU 24	0	1.95	27.28	-0.037	0.001	0
155	SLU 25	0	1.95	27.33	-0.0369	0.0011	0
155	SLU 26	0	1.92	27.05	-0.0365	0.0011	0
155	SLU 27	0	1.99	27.64	-0.0391	0.0009	0
155	SLU 28	0	1.99	27.68	-0.039	0.0009	0
155	SLU 29	0	1.96	27.33	-0.0387	0.0008	0
155	SLU 30	0	1.96	27.38	-0.0386	0.0009	0
155	SLU 31	0	2.03	31.9	-0.0356	0.0016	0
155	SLU 32	0	2.11	32.49	-0.0382	0.0014	0
155	SLU 33	0	2.11	32.53	-0.0381	0.0014	0
155	SLU 34	0	2.08	32.25	-0.0377	0.0014	0
155	SLU 35	0	2.15	32.84	-0.0403	0.0012	0
155	SLU 36	0	2.15	32.88	-0.0403	0.0012	0
155	SLU 37	0	2.12	32.54	-0.0399	0.0011	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
155	SLU 38	0	2.12	32.58	-0.0399	0.0012	0
155	SLU 39	0	2.1	34.06	-0.0362	0.0017	0
155	SLU 40	0	2.1	34.1	-0.0362	0.0017	0
155	SLU 41	0	2.15	34.41	-0.0383	0.0015	0
155	SLU 42	0	2.14	34.45	-0.0383	0.0015	0
155	SLU 43	0	1.9	29.24	-0.0319	0.0015	0
155	SLU 44	0	1.9	29.3	-0.0318	0.0016	0
155	SLU 45	0	1.98	29.9	-0.0345	0.0014	0
155	SLU 46	0	1.98	29.94	-0.0344	0.0014	0
155	SLU 47	0	1.95	29.66	-0.034	0.0014	0
155	SLU 48	0	2.02	30.25	-0.0366	0.0012	0
155	SLU 49	0	2.02	30.29	-0.0365	0.0012	0
155	SLU 50	0	1.99	29.95	-0.0362	0.0011	0
155	SLU 51	0	1.99	29.99	-0.0361	0.0012	0
155	SLU 52	0	2.06	34.51	-0.0331	0.0019	0
155	SLU 53	0	2.14	35.1	-0.0357	0.0017	0
155	SLU 54	0	2.14	35.14	-0.0357	0.0017	0
155	SLU 55	0	2.11	34.86	-0.0352	0.0017	0
155	SLU 56	0	2.18	35.45	-0.0378	0.0015	0
155	SLU 57	0	2.18	35.5	-0.0378	0.0015	0
155	SLU 58	0	2.15	35.15	-0.0374	0.0015	0
155	SLU 59	0	2.15	35.19	-0.0374	0.0015	0
155	SLU 60	0	2.13	36.67	-0.0337	0.002	0
155	SLU 61	0	2.13	36.71	-0.0337	0.002	0
155	SLU 62	0	2.18	37.02	-0.0358	0.0018	0
155	SLU 63	0	2.17	37.06	-0.0358	0.0018	0
155	SLU 64	0	2.23	32.51	-0.0397	0.0015	0
155	SLU 65	0	2.23	32.58	-0.0396	0.0016	0
155	SLU 66	0	2.3	33.17	-0.0423	0.0014	0
155	SLU 67	0	2.3	33.21	-0.0422	0.0014	0
155	SLU 68	0	2.27	32.93	-0.0418	0.0014	0
155	SLU 69	0	2.35	33.52	-0.0444	0.0012	0
155	SLU 70	0	2.35	33.56	-0.0443	0.0012	0
155	SLU 71	0	2.31	33.22	-0.044	0.0012	0
155	SLU 72	0	2.31	33.26	-0.0439	0.0012	0
155	SLU 73	0	2.39	37.78	-0.0409	0.0019	0
155	SLU 74	0	2.47	38.37	-0.0435	0.0017	0
155	SLU 75	0	2.46	38.41	-0.0435	0.0017	0
155	SLU 76	0	2.43	38.13	-0.043	0.0017	0
155	SLU 77	0	2.51	38.73	-0.0456	0.0015	0
155	SLU 78	0	2.51	38.77	-0.0456	0.0016	0
155	SLU 79	0	2.47	38.42	-0.0452	0.0015	0
155	SLU 80	0	2.47	38.46	-0.0452	0.0015	0
155	SLU 81	0	2.46	39.94	-0.0415	0.002	0
155	SLU 82	0	2.46	39.98	-0.0415	0.002	0
155	SLU 83	0	2.5	40.29	-0.0436	0.0018	0
155	SLU 84	0	2.5	40.34	-0.0436	0.0019	0
155	SLE RA 1	0	1.64	24.29	-0.0288	0.0012	0
155	SLE RA 2	0	1.64	24.33	-0.0288	0.0012	0
155	SLE RA 3	0	1.69	24.73	-0.0305	0.0011	0
155	SLE RA 4	0	1.69	24.76	-0.0305	0.0011	0
155	SLE RA 5	0	1.67	24.57	-0.0302	0.0011	0
155	SLE RA 6	0	1.72	24.96	-0.032	0.001	0
155	SLE RA 7	0	1.72	24.99	-0.0319	0.001	0
155	SLE RA 8	0	1.7	24.76	-0.0317	0.0009	0
155	SLE RA 9	0	1.7	24.79	-0.0317	0.001	0
155	SLE RA 10	0	1.75	27.8	-0.0296	0.0014	0
155	SLE RA 11	0	1.8	28.2	-0.0314	0.0013	0
155	SLE RA 12	0	1.8	28.22	-0.0313	0.0013	0
155	SLE RA 13	0	1.78	28.04	-0.031	0.0013	0
155	SLE RA 14	0	1.83	28.43	-0.0328	0.0012	0
155	SLE RA 15	0	1.83	28.46	-0.0328	0.0012	0
155	SLE RA 16	0	1.81	28.23	-0.0325	0.0011	0
155	SLE RA 17	0	1.81	28.26	-0.0325	0.0012	0
155	SLE RA 18	0	1.8	29.24	-0.03	0.0015	0
155	SLE RA 19	0	1.79	29.27	-0.03	0.0015	0
155	SLE RA 20	0	1.82	29.48	-0.0315	0.0014	0
155	SLE RA 21	0	1.82	29.51	-0.0314	0.0014	0
155	SLE FR 1	0	1.64	24.29	-0.0288	0.0012	0
155	SLE FR 2	0	1.64	24.3	-0.0288	0.0012	0
155	SLE FR 3	0	1.65	24.38	-0.0294	0.0011	0
155	SLE FR 4	0	1.69	25.78	-0.0292	0.0013	0
155	SLE FR 5	0	1.7	25.87	-0.0298	0.0012	0
155	SLE FR 6	0	1.72	26.76	-0.0294	0.0013	0
155	SLE QP 1	0	1.64	24.29	-0.0288	0.0012	0
155	SLE QP 2	0	1.69	25.77	-0.0292	0.0013	0
155	SLD 1	0.07	1.73	21.06	-0.0304	0.0566	-0.0003
155	SLD 2	0.07	1.73	21.06	-0.0304	0.0566	-0.0003
155	SLD 3	0.05	0.23	22.75	0.0217	0.0473	-0.0002
155	SLD 4	0.05	0.23	22.75	0.0217	0.0473	-0.0002
155	SLD 5	0.04	3.98	21.81	-0.1085	0.032	-0.0002
155	SLD 6	0.04	3.98	21.81	-0.1085	0.032	-0.0002
155	SLD 7	0	-1.03	27.42	0.065	0.001	0
155	SLD 8	0	-1.03	27.42	0.065	0.001	0
155	SLD 9	0	4.41	24.13	-0.1234	0.0016	0
155	SLD 10	0	4.41	24.13	-0.1234	0.0016	0
155	SLD 11	-0.04	-0.6	29.74	0.0501	-0.0295	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
155	SLD 12	-0.04	-0.6	29.74	0.0501	-0.0295	0.0001
155	SLD 13	-0.05	3.15	28.8	-0.0801	-0.0448	0.0002
155	SLD 14	-0.05	3.15	28.8	-0.0801	-0.0448	0.0002
155	SLD 15	-0.06	1.65	30.48	-0.028	-0.0541	0.0003
155	SLD 16	-0.06	1.65	30.48	-0.028	-0.0541	0.0003
155	SLV 1	0.16	1.78	14.73	-0.0311	0.1398	-0.0007
155	SLV 2	0.16	1.78	14.73	-0.0311	0.1398	-0.0007
155	SLV 3	0.13	-1.75	18.69	0.0911	0.1171	-0.0006
155	SLV 4	0.13	-1.75	18.69	0.0911	0.1171	-0.0006
155	SLV 5	0.1	7.07	16.45	-0.2151	0.0772	-0.0004
155	SLV 6	0.1	7.07	16.45	-0.2151	0.0772	-0.0004
155	SLV 7	-0.01	-4.7	29.66	0.1922	0.0016	0
155	SLV 8	-0.01	-4.7	29.66	0.1922	0.0016	0
155	SLV 9	0.01	8.07	21.88	-0.2506	0.0009	0
155	SLV 10	0.01	8.07	21.88	-0.2506	0.0009	0
155	SLV 11	-0.09	-3.69	35.1	0.1567	-0.0747	0.0004
155	SLV 12	-0.09	-3.69	35.1	0.1567	-0.0747	0.0004
155	SLV 13	-0.13	5.13	32.85	-0.1495	-0.1145	0.0005
155	SLV 14	-0.13	5.13	32.85	-0.1495	-0.1145	0.0005
155	SLV 15	-0.16	1.6	36.82	-0.0273	-0.1372	0.0006
155	SLV 16	-0.16	1.6	36.82	-0.0273	-0.1372	0.0006
156	SLU 1	-0.02	3.2	40.88	-0.1018	-0.0295	-0.0001
156	SLU 2	-0.03	3.59	41.32	-0.1216	-0.0457	-0.0001
156	SLU 3	-0.02	3.44	42.12	-0.1111	-0.0304	-0.0001
156	SLU 4	-0.03	3.68	42.38	-0.1229	-0.0401	-0.0001
156	SLU 5	-0.03	3.79	42.1	-0.1296	-0.0464	-0.0001
156	SLU 6	-0.02	3.64	42.9	-0.1191	-0.031	-0.0001
156	SLU 7	-0.03	3.87	43.16	-0.131	-0.0407	-0.0001
156	SLU 8	-0.02	3.6	42.45	-0.118	-0.0307	-0.0001
156	SLU 9	-0.03	3.83	42.71	-0.1298	-0.0405	-0.0001
156	SLU 10	-0.03	4.39	46.95	-0.1466	-0.0479	-0.0001
156	SLU 11	-0.02	4.24	47.75	-0.1361	-0.0326	-0.0001
156	SLU 12	-0.03	4.47	48.01	-0.148	-0.0423	-0.0001
156	SLU 13	-0.03	4.58	47.73	-0.1547	-0.0485	-0.0001
156	SLU 14	-0.03	4.44	48.53	-0.1442	-0.0332	-0.0001
156	SLU 15	-0.03	4.67	48.8	-0.1561	-0.0429	-0.0001
156	SLU 16	-0.02	4.39	48.08	-0.143	-0.0329	-0.0001
156	SLU 17	-0.03	4.63	48.34	-0.1549	-0.0427	-0.0001
156	SLU 18	-0.02	4.34	48.93	-0.1376	-0.0326	-0.0001
156	SLU 19	-0.03	4.57	49.19	-0.1494	-0.0423	-0.0001
156	SLU 20	-0.02	4.54	49.71	-0.1457	-0.0332	-0.0001
156	SLU 21	-0.03	4.77	49.97	-0.1575	-0.043	-0.0001
156	SLU 22	-0.02	3.97	46.29	-0.1267	-0.0321	-0.0001
156	SLU 23	-0.03	4.35	46.73	-0.1464	-0.0484	-0.0001
156	SLU 24	-0.03	4.21	47.53	-0.1359	-0.033	-0.0001
156	SLU 25	-0.03	4.44	47.79	-0.1478	-0.0428	-0.0001
156	SLU 26	-0.03	4.55	47.51	-0.1545	-0.049	-0.0001
156	SLU 27	-0.03	4.4	48.31	-0.144	-0.0336	-0.0001
156	SLU 28	-0.03	4.64	48.57	-0.1559	-0.0434	-0.0001
156	SLU 29	-0.03	4.36	47.86	-0.1428	-0.0334	-0.0001
156	SLU 30	-0.03	4.59	48.12	-0.1547	-0.0431	-0.0001
156	SLU 31	-0.03	5.15	52.36	-0.1715	-0.0506	-0.0001
156	SLU 32	-0.03	5	53.16	-0.161	-0.0352	-0.0001
156	SLU 33	-0.03	5.23	53.42	-0.1728	-0.0449	-0.0001
156	SLU 34	-0.03	5.35	53.14	-0.1796	-0.0512	-0.0001
156	SLU 35	-0.03	5.2	53.95	-0.1691	-0.0358	-0.0001
156	SLU 36	-0.03	5.43	54.21	-0.1809	-0.0456	-0.0001
156	SLU 37	-0.03	5.15	53.49	-0.1679	-0.0356	-0.0001
156	SLU 38	-0.03	5.39	53.75	-0.1797	-0.0453	-0.0001
156	SLU 39	-0.03	5.1	54.34	-0.1624	-0.0352	-0.0001
156	SLU 40	-0.03	5.34	54.6	-0.1743	-0.045	-0.0001
156	SLU 41	-0.03	5.3	55.12	-0.1705	-0.0359	-0.0001
156	SLU 42	-0.03	5.53	55.38	-0.1824	-0.0456	-0.0001
156	SLU 43	-0.03	3.9	51.29	-0.1238	-0.0374	-0.0001
156	SLU 44	-0.03	4.29	51.73	-0.1436	-0.0537	-0.0002
156	SLU 45	-0.03	4.15	52.53	-0.1331	-0.0383	-0.0001
156	SLU 46	-0.03	4.38	52.79	-0.1449	-0.0481	-0.0002
156	SLU 47	-0.03	4.49	52.51	-0.1517	-0.0543	-0.0002
156	SLU 48	-0.03	4.34	53.31	-0.1412	-0.0389	-0.0001
156	SLU 49	-0.03	4.57	53.57	-0.153	-0.0487	-0.0002
156	SLU 50	-0.03	4.3	52.86	-0.14	-0.0387	-0.0001
156	SLU 51	-0.03	4.53	53.12	-0.1518	-0.0484	-0.0002
156	SLU 52	-0.03	5.09	57.36	-0.1686	-0.0559	-0.0002
156	SLU 53	-0.03	4.94	58.16	-0.1581	-0.0405	-0.0001
156	SLU 54	-0.03	5.17	58.42	-0.17	-0.0502	-0.0001
156	SLU 55	-0.03	5.28	58.14	-0.1767	-0.0565	-0.0002
156	SLU 56	-0.03	5.14	58.94	-0.1662	-0.0411	-0.0001
156	SLU 57	-0.03	5.37	59.21	-0.1781	-0.0509	-0.0002
156	SLU 58	-0.03	5.09	58.49	-0.165	-0.0409	-0.0001
156	SLU 59	-0.03	5.33	58.75	-0.1769	-0.0506	-0.0001
156	SLU 60	-0.03	5.04	59.34	-0.1596	-0.0405	-0.0001
156	SLU 61	-0.03	5.27	59.6	-0.1715	-0.0503	-0.0001
156	SLU 62	-0.03	5.24	60.12	-0.1677	-0.0412	-0.0001
156	SLU 63	-0.03	5.47	60.38	-0.1795	-0.0509	-0.0001
156	SLU 64	-0.03	4.67	56.7	-0.1487	-0.0401	-0.0001
156	SLU 65	-0.03	5.05	57.14	-0.1684	-0.0563	-0.0002
156	SLU 66	-0.03	4.91	57.94	-0.1579	-0.0409	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
156	SLU 67	-0.03	5.14	58.2	-0.1698	-0.0507	-0.0002
156	SLU 68	-0.03	5.25	57.92	-0.1765	-0.0569	-0.0002
156	SLU 69	-0.03	5.1	58.72	-0.166	-0.0416	-0.0001
156	SLU 70	-0.03	5.34	58.98	-0.1779	-0.0513	-0.0002
156	SLU 71	-0.03	5.06	58.27	-0.1648	-0.0413	-0.0001
156	SLU 72	-0.03	5.29	58.53	-0.1767	-0.0511	-0.0002
156	SLU 73	-0.03	5.85	62.77	-0.1935	-0.0585	-0.0002
156	SLU 74	-0.03	5.7	63.57	-0.183	-0.0431	-0.0001
156	SLU 75	-0.03	5.93	63.83	-0.1949	-0.0529	-0.0001
156	SLU 76	-0.04	6.05	63.55	-0.2016	-0.0591	-0.0002
156	SLU 77	-0.03	5.9	64.35	-0.1911	-0.0438	-0.0001
156	SLU 78	-0.04	6.13	64.62	-0.2029	-0.0535	-0.0002
156	SLU 79	-0.03	5.85	63.9	-0.1899	-0.0435	-0.0001
156	SLU 80	-0.03	6.09	64.16	-0.2017	-0.0532	-0.0001
156	SLU 81	-0.03	5.8	64.75	-0.1845	-0.0432	-0.0001
156	SLU 82	-0.03	6.04	65.01	-0.1963	-0.0529	-0.0001
156	SLU 83	-0.03	6	65.53	-0.1925	-0.0438	-0.0001
156	SLU 84	-0.03	6.23	65.79	-0.2044	-0.0536	-0.0001
156	SLE RA 1	-0.02	3.42	42.43	-0.1089	-0.0302	-0.0001
156	SLE RA 2	-0.03	3.68	42.72	-0.1221	-0.0411	-0.0001
156	SLE RA 3	-0.02	3.58	43.25	-0.1151	-0.0308	-0.0001
156	SLE RA 4	-0.02	3.74	43.43	-0.123	-0.0373	-0.0001
156	SLE RA 5	-0.03	3.81	43.24	-0.1275	-0.0415	-0.0001
156	SLE RA 6	-0.02	3.71	43.77	-0.1205	-0.0312	-0.0001
156	SLE RA 7	-0.03	3.87	43.95	-0.1284	-0.0377	-0.0001
156	SLE RA 8	-0.02	3.68	43.47	-0.1197	-0.0311	-0.0001
156	SLE RA 9	-0.03	3.84	43.65	-0.1276	-0.0376	-0.0001
156	SLE RA 10	-0.03	4.21	46.47	-0.1388	-0.0425	-0.0001
156	SLE RA 11	-0.02	4.11	47.01	-0.1318	-0.0323	-0.0001
156	SLE RA 12	-0.03	4.27	47.18	-0.1397	-0.0388	-0.0001
156	SLE RA 13	-0.03	4.34	47	-0.1442	-0.0429	-0.0001
156	SLE RA 14	-0.02	4.24	47.53	-0.1372	-0.0327	-0.0001
156	SLE RA 15	-0.03	4.4	47.7	-0.1451	-0.0392	-0.0001
156	SLE RA 16	-0.02	4.21	47.23	-0.1364	-0.0325	-0.0001
156	SLE RA 17	-0.03	4.37	47.4	-0.1443	-0.039	-0.0001
156	SLE RA 18	-0.02	4.18	47.79	-0.1328	-0.0323	-0.0001
156	SLE RA 19	-0.03	4.33	47.97	-0.1407	-0.0388	-0.0001
156	SLE RA 20	-0.02	4.31	48.31	-0.1381	-0.0327	-0.0001
156	SLE RA 21	-0.03	4.47	48.49	-0.1461	-0.0392	-0.0001
156	SLE FR 1	-0.02	3.42	42.43	-0.1089	-0.0302	-0.0001
156	SLE FR 2	-0.02	3.47	42.49	-0.1115	-0.0324	-0.0001
156	SLE FR 3	-0.02	3.47	42.64	-0.1111	-0.0304	-0.0001
156	SLE FR 4	-0.02	3.7	44.1	-0.1187	-0.033	-0.0001
156	SLE FR 5	-0.02	3.7	44.25	-0.1182	-0.031	-0.0001
156	SLE FR 6	-0.02	3.8	45.11	-0.1208	-0.0313	-0.0001
156	SLE QP 1	-0.02	3.42	42.43	-0.1089	-0.0302	-0.0001
156	SLE QP 2	-0.02	3.65	44.04	-0.1161	-0.0309	-0.0001
156	SLD 1	-0.02	7.12	57.65	-0.254	0.0484	0.0005
156	SLD 2	-0.02	7.12	57.65	-0.254	0.0484	0.0005
156	SLD 3	-0.14	3.62	59.42	-0.0887	-0.005	0
156	SLD 4	-0.14	3.62	59.42	-0.0887	-0.005	0
156	SLD 5	0.17	10	45.43	-0.4081	0.0739	0.0008
156	SLD 6	0.17	10	45.43	-0.4081	0.0739	0.0008
156	SLD 7	-0.25	-1.67	51.34	0.1428	-0.1041	-0.0008
156	SLD 8	-0.25	-1.67	51.34	0.1428	-0.1041	-0.0008
156	SLD 9	0.2	8.96	36.73	-0.375	0.0424	0.0006
156	SLD 10	0.2	8.96	36.73	-0.375	0.0424	0.0006
156	SLD 11	-0.22	-2.7	42.64	0.176	-0.1356	-0.001
156	SLD 12	-0.22	-2.7	42.64	0.176	-0.1356	-0.001
156	SLD 13	0.09	3.67	28.65	-0.1434	-0.0567	-0.0002
156	SLD 14	0.09	3.67	28.65	-0.1434	-0.0567	-0.0002
156	SLD 15	-0.03	0.17	30.42	0.0219	-0.1101	-0.0007
156	SLD 16	-0.03	0.17	30.42	0.0219	-0.1101	-0.0007
156	SLV 1	0	11.77	75.9	-0.4386	0.162	0.0013
156	SLV 2	0	11.77	75.9	-0.4386	0.162	0.0013
156	SLV 3	-0.31	3.66	80.03	-0.0554	0.0256	0.0001
156	SLV 4	-0.31	3.66	80.03	-0.0554	0.0256	0.0001
156	SLV 5	0.47	18.39	47.32	-0.794	0.2338	0.0021
156	SLV 6	0.47	18.39	47.32	-0.794	0.2338	0.0021
156	SLV 7	-0.6	-8.65	61.11	0.4833	-0.2208	-0.0018
156	SLV 8	-0.6	-8.65	61.11	0.4833	-0.2208	-0.0018
156	SLV 9	0.55	15.95	26.97	-0.7154	0.159	0.0016
156	SLV 10	0.55	15.95	26.97	-0.7154	0.159	0.0016
156	SLV 11	-0.52	-11.09	40.75	0.5618	-0.2956	-0.0023
156	SLV 12	-0.52	-11.09	40.75	0.5618	-0.2956	-0.0023
156	SLV 13	0.27	3.64	8.04	-0.1767	-0.0873	-0.0003
156	SLV 14	0.27	3.64	8.04	-0.1767	-0.0873	-0.0003
156	SLV 15	-0.05	-4.47	12.17	0.2064	-0.2237	-0.0015
156	SLV 16	-0.05	-4.47	12.17	0.2064	-0.2237	-0.0015
157	SLU 1	-0.02	-1.88	64.31	0.1195	-0.0155	-0.0003
157	SLU 2	-0.02	-1.67	65.61	0.1044	0.0015	-0.0003
157	SLU 3	-0.03	-1.85	66.38	0.1198	-0.0163	-0.0003
157	SLU 4	-0.02	-1.73	67.16	0.1107	-0.0061	-0.0003
157	SLU 5	-0.02	-1.63	66.9	0.1035	0.0009	-0.0003
157	SLU 6	-0.03	-1.82	67.67	0.1188	-0.0169	-0.0003
157	SLU 7	-0.02	-1.69	68.45	0.1098	-0.0067	-0.0003
157	SLU 8	-0.03	-1.8	66.9	0.1176	-0.0166	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
157	SLU 9	-0.02	-1.68	67.68	0.1086	-0.0065	-0.0003
157	SLU 10	-0.03	-1.55	74.25	0.1084	-0.0021	-0.0003
157	SLU 11	-0.03	-1.74	75.02	0.1237	-0.0199	-0.0003
157	SLU 12	-0.03	-1.61	75.8	0.1147	-0.0097	-0.0003
157	SLU 13	-0.03	-1.51	75.54	0.1075	-0.0027	-0.0003
157	SLU 14	-0.03	-1.7	76.32	0.1228	-0.0205	-0.0003
157	SLU 15	-0.03	-1.57	77.09	0.1138	-0.0103	-0.0003
157	SLU 16	-0.03	-1.68	75.54	0.1215	-0.0202	-0.0003
157	SLU 17	-0.03	-1.56	76.32	0.1125	-0.01	-0.0003
157	SLU 18	-0.03	-1.71	76.66	0.1251	-0.0206	-0.0003
157	SLU 19	-0.03	-1.59	77.43	0.1161	-0.0104	-0.0003
157	SLU 20	-0.03	-1.67	77.95	0.1242	-0.0212	-0.0003
157	SLU 21	-0.03	-1.55	78.73	0.1151	-0.011	-0.0003
157	SLU 22	-0.03	-1.84	72.8	0.1254	-0.0187	-0.0003
157	SLU 23	-0.03	-1.63	74.09	0.1104	-0.0018	-0.0003
157	SLU 24	-0.03	-1.81	74.87	0.1257	-0.0196	-0.0003
157	SLU 25	-0.03	-1.69	75.64	0.1167	-0.0094	-0.0003
157	SLU 26	-0.03	-1.59	75.38	0.1095	-0.0024	-0.0003
157	SLU 27	-0.03	-1.77	76.16	0.1248	-0.0202	-0.0003
157	SLU 28	-0.03	-1.65	76.94	0.1158	-0.01	-0.0003
157	SLU 29	-0.03	-1.76	75.39	0.1236	-0.0199	-0.0003
157	SLU 30	-0.03	-1.63	76.16	0.1146	-0.0097	-0.0003
157	SLU 31	-0.03	-1.51	82.73	0.1144	-0.0054	-0.0004
157	SLU 32	-0.03	-1.69	83.51	0.1297	-0.0232	-0.0004
157	SLU 33	-0.03	-1.57	84.28	0.1207	-0.013	-0.0004
157	SLU 34	-0.03	-1.47	84.03	0.1134	-0.0059	-0.0004
157	SLU 35	-0.04	-1.65	84.8	0.1287	-0.0237	-0.0004
157	SLU 36	-0.03	-1.53	85.58	0.1197	-0.0136	-0.0004
157	SLU 37	-0.03	-1.64	84.03	0.1275	-0.0235	-0.0004
157	SLU 38	-0.03	-1.52	84.8	0.1185	-0.0133	-0.0004
157	SLU 39	-0.04	-1.67	85.14	0.1311	-0.0239	-0.0004
157	SLU 40	-0.03	-1.54	85.92	0.1221	-0.0137	-0.0004
157	SLU 41	-0.04	-1.63	86.44	0.1301	-0.0244	-0.0004
157	SLU 42	-0.03	-1.5	87.21	0.1211	-0.0143	-0.0004
157	SLU 43	-0.03	-2.46	80.7	0.1533	-0.019	-0.0003
157	SLU 44	-0.03	-2.25	81.99	0.1382	-0.002	-0.0003
157	SLU 45	-0.03	-2.43	82.77	0.1535	-0.0198	-0.0003
157	SLU 46	-0.03	-2.31	83.54	0.1445	-0.0096	-0.0003
157	SLU 47	-0.03	-2.21	83.28	0.1373	-0.0026	-0.0003
157	SLU 48	-0.03	-2.4	84.06	0.1526	-0.0204	-0.0003
157	SLU 49	-0.03	-2.27	84.83	0.1436	-0.0102	-0.0003
157	SLU 50	-0.03	-2.38	83.29	0.1514	-0.0201	-0.0003
157	SLU 51	-0.03	-2.26	84.06	0.1424	-0.01	-0.0003
157	SLU 52	-0.03	-2.13	90.63	0.1422	-0.0056	-0.0004
157	SLU 53	-0.04	-2.32	91.41	0.1575	-0.0234	-0.0004
157	SLU 54	-0.03	-2.19	92.18	0.1485	-0.0132	-0.0004
157	SLU 55	-0.03	-2.09	91.92	0.1412	-0.0062	-0.0004
157	SLU 56	-0.04	-2.28	92.7	0.1566	-0.024	-0.0004
157	SLU 57	-0.03	-2.15	93.48	0.1475	-0.0138	-0.0004
157	SLU 58	-0.04	-2.26	91.93	0.1553	-0.0237	-0.0004
157	SLU 59	-0.03	-2.14	92.7	0.1463	-0.0135	-0.0004
157	SLU 60	-0.04	-2.29	93.04	0.1589	-0.0241	-0.0004
157	SLU 61	-0.03	-2.17	93.82	0.1499	-0.0139	-0.0004
157	SLU 62	-0.04	-2.25	94.34	0.158	-0.0247	-0.0004
157	SLU 63	-0.04	-2.13	95.11	0.1489	-0.0145	-0.0004
157	SLU 64	-0.03	-2.41	89.18	0.1592	-0.0223	-0.0004
157	SLU 65	-0.03	-2.21	90.48	0.1442	-0.0053	-0.0004
157	SLU 66	-0.04	-2.39	91.25	0.1595	-0.0231	-0.0004
157	SLU 67	-0.03	-2.26	92.03	0.1505	-0.0129	-0.0004
157	SLU 68	-0.03	-2.17	91.77	0.1433	-0.0059	-0.0004
157	SLU 69	-0.04	-2.35	92.55	0.1586	-0.0237	-0.0004
157	SLU 70	-0.03	-2.23	93.32	0.1496	-0.0135	-0.0004
157	SLU 71	-0.04	-2.34	91.77	0.1574	-0.0234	-0.0004
157	SLU 72	-0.03	-2.21	92.55	0.1484	-0.0133	-0.0004
157	SLU 73	-0.04	-2.09	99.12	0.1481	-0.0089	-0.0004
157	SLU 74	-0.04	-2.27	99.89	0.1635	-0.0267	-0.0004
157	SLU 75	-0.04	-2.15	100.67	0.1545	-0.0165	-0.0004
157	SLU 76	-0.04	-2.05	100.41	0.1472	-0.0095	-0.0004
157	SLU 77	-0.04	-2.23	101.19	0.1625	-0.0273	-0.0004
157	SLU 78	-0.04	-2.11	101.96	0.1535	-0.0171	-0.0004
157	SLU 79	-0.04	-2.22	100.41	0.1613	-0.027	-0.0004
157	SLU 80	-0.04	-2.09	101.19	0.1523	-0.0168	-0.0004
157	SLU 81	-0.04	-2.25	101.53	0.1649	-0.0274	-0.0005
157	SLU 82	-0.04	-2.12	102.3	0.1558	-0.0172	-0.0004
157	SLU 83	-0.04	-2.21	102.82	0.1639	-0.028	-0.0005
157	SLU 84	-0.04	-2.08	103.6	0.1549	-0.0178	-0.0005
157	SLE RA 1	-0.03	-1.87	66.74	0.1212	-0.0164	-0.0003
157	SLE RA 2	-0.02	-1.73	67.6	0.1112	-0.0051	-0.0003
157	SLE RA 3	-0.03	-1.85	68.12	0.1214	-0.017	-0.0003
157	SLE RA 4	-0.03	-1.77	68.63	0.1154	-0.0102	-0.0003
157	SLE RA 5	-0.02	-1.7	68.46	0.1105	-0.0055	-0.0003
157	SLE RA 6	-0.03	-1.82	68.98	0.1207	-0.0173	-0.0003
157	SLE RA 7	-0.03	-1.74	69.5	0.1147	-0.0106	-0.0003
157	SLE RA 8	-0.03	-1.82	68.46	0.1199	-0.0172	-0.0003
157	SLE RA 9	-0.03	-1.73	68.98	0.1139	-0.0104	-0.0003
157	SLE RA 10	-0.03	-1.65	73.36	0.1138	-0.0075	-0.0003
157	SLE RA 11	-0.03	-1.77	73.88	0.124	-0.0193	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
157	SLE RA 12	-0.03	-1.69	74.39	0.118	-0.0126	-0.0003
157	SLE RA 13	-0.03	-1.62	74.22	0.1132	-0.0079	-0.0003
157	SLE RA 14	-0.03	-1.75	74.74	0.1234	-0.0197	-0.0003
157	SLE RA 15	-0.03	-1.66	75.26	0.1174	-0.0129	-0.0003
157	SLE RA 16	-0.03	-1.74	74.22	0.1226	-0.0196	-0.0003
157	SLE RA 17	-0.03	-1.65	74.74	0.1165	-0.0128	-0.0003
157	SLE RA 18	-0.03	-1.76	74.97	0.1249	-0.0198	-0.0003
157	SLE RA 19	-0.03	-1.67	75.48	0.1189	-0.013	-0.0003
157	SLE RA 20	-0.03	-1.73	75.83	0.1243	-0.0202	-0.0003
157	SLE RA 21	-0.03	-1.65	76.35	0.1183	-0.0134	-0.0003
157	SLE FR 1	-0.03	-1.87	66.74	0.1212	-0.0164	-0.0003
157	SLE FR 2	-0.03	-1.84	66.91	0.1192	-0.0141	-0.0003
157	SLE FR 3	-0.03	-1.86	67.08	0.1209	-0.0166	-0.0003
157	SLE FR 4	-0.03	-1.81	69.38	0.1203	-0.0152	-0.0003
157	SLE FR 5	-0.03	-1.82	69.55	0.122	-0.0176	-0.0003
157	SLE FR 6	-0.03	-1.81	70.85	0.123	-0.0181	-0.0003
157	SLE QP 1	-0.03	-1.87	66.74	0.1212	-0.0164	-0.0003
157	SLE QP 2	-0.03	-1.83	69.21	0.1223	-0.0174	-0.0003
157	SLD 1	-0.05	-1.43	48.87	-0.0059	0.0079	-0.0002
157	SLD 2	-0.05	-1.43	48.87	-0.0059	0.0079	-0.0002
157	SLD 3	0.08	-4.68	50.97	0.15	0.0692	0.0003
157	SLD 4	0.08	-4.68	50.97	0.15	0.0692	0.0003
157	SLD 5	-0.23	3.21	59.92	-0.1525	-0.1027	-0.001
157	SLD 6	-0.23	3.21	59.92	-0.1525	-0.1027	-0.001
157	SLD 7	0.2	-7.61	66.92	0.3669	0.1014	0.0006
157	SLD 8	0.2	-7.61	66.92	0.3669	0.1014	0.0006
157	SLD 9	-0.26	3.94	71.49	-0.1223	-0.1362	-0.0012
157	SLD 10	-0.26	3.94	71.49	-0.1223	-0.1362	-0.0012
157	SLD 11	0.18	-6.88	78.5	0.3971	0.0678	0.0004
157	SLD 12	0.18	-6.88	78.5	0.3971	0.0678	0.0004
157	SLD 13	-0.14	1.01	87.45	0.0946	-0.104	-0.0009
157	SLD 14	-0.14	1.01	87.45	0.0946	-0.104	-0.0009
157	SLD 15	-0.01	-2.24	89.55	0.2505	-0.0428	-0.0004
157	SLD 16	-0.01	-2.24	89.55	0.2505	-0.0428	-0.0004
157	SLV 1	-0.08	-0.92	21.62	-0.1773	0.038	-0.0002
157	SLV 2	-0.08	-0.92	21.62	-0.1773	0.038	-0.0002
157	SLV 3	0.25	-8.47	26.55	0.1852	0.1941	0.0011
157	SLV 4	0.25	-8.47	26.55	0.1852	0.1941	0.0011
157	SLV 5	-0.55	9.89	47.46	-0.5173	-0.2376	-0.0021
157	SLV 6	-0.55	9.89	47.46	-0.5173	-0.2376	-0.0021
157	SLV 7	0.56	-15.28	63.88	0.6909	0.2828	0.002
157	SLV 8	0.56	-15.28	63.88	0.6909	0.2828	0.002
157	SLV 9	-0.61	11.61	74.53	-0.4463	-0.3177	-0.0026
157	SLV 10	-0.61	11.61	74.53	-0.4463	-0.3177	-0.0026
157	SLV 11	0.49	-13.56	90.95	0.7619	0.2027	0.0015
157	SLV 12	0.49	-13.56	90.95	0.7619	0.2027	0.0015
157	SLV 13	-0.31	4.81	111.87	0.0594	-0.229	-0.0017
157	SLV 14	-0.31	4.81	111.87	0.0594	-0.229	-0.0017
157	SLV 15	0.03	-2.74	116.79	0.4219	-0.0728	-0.0004
157	SLV 16	0.03	-2.74	116.79	0.4219	-0.0728	-0.0004
158	SLU 1	0.11	-0.13	33.8	0.0929	0.0462	-0.0066
158	SLU 2	0.14	1.87	32.06	-0.0002	0.0504	-0.0069
158	SLU 3	0.11	-0.36	35.4	0.107	0.0476	-0.0068
158	SLU 4	0.13	0.84	34.36	0.0511	0.05	-0.007
158	SLU 5	0.13	1.57	33.29	0.0163	0.0509	-0.007
158	SLU 6	0.11	-0.67	36.63	0.1236	0.0481	-0.0069
158	SLU 7	0.13	0.53	35.58	0.0677	0.0506	-0.0071
158	SLU 8	0.11	-0.75	36.26	0.1261	0.0472	-0.0068
158	SLU 9	0.12	0.46	35.22	0.0702	0.0497	-0.007
158	SLU 10	0.16	2.14	38.08	0.0028	0.0597	-0.0082
158	SLU 11	0.14	-0.09	41.41	0.11	0.0569	-0.0081
158	SLU 12	0.15	1.11	40.37	0.0542	0.0594	-0.0083
158	SLU 13	0.16	1.83	39.31	0.0194	0.0602	-0.0083
158	SLU 14	0.14	-0.4	42.64	0.1266	0.0574	-0.0082
158	SLU 15	0.15	0.8	41.6	0.0707	0.0599	-0.0084
158	SLU 16	0.14	-0.48	42.27	0.1291	0.0566	-0.0081
158	SLU 17	0.15	0.72	41.23	0.0732	0.0591	-0.0083
158	SLU 18	0.15	0.25	42.39	0.0973	0.0596	-0.0084
158	SLU 19	0.16	1.45	41.35	0.0414	0.0621	-0.0086
158	SLU 20	0.15	-0.06	43.62	0.1139	0.0601	-0.0086
158	SLU 21	0.16	1.15	42.58	0.058	0.0626	-0.0088
158	SLU 22	0.13	-0.05	39.42	0.1032	0.0542	-0.0077
158	SLU 23	0.16	1.95	37.68	0.01	0.0584	-0.008
158	SLU 24	0.13	-0.28	41.02	0.1172	0.0555	-0.008
158	SLU 25	0.15	0.92	39.97	0.0614	0.058	-0.0081
158	SLU 26	0.15	1.65	38.91	0.0266	0.0589	-0.0082
158	SLU 27	0.13	-0.59	42.25	0.1338	0.056	-0.0081
158	SLU 28	0.15	0.61	41.2	0.0779	0.0585	-0.0083
158	SLU 29	0.13	-0.67	41.88	0.1363	0.0552	-0.008
158	SLU 30	0.14	0.54	40.83	0.0804	0.0577	-0.0082
158	SLU 31	0.18	2.22	43.7	0.0131	0.0677	-0.0093
158	SLU 32	0.16	-0.01	47.03	0.1203	0.0649	-0.0093
158	SLU 33	0.17	1.19	45.99	0.0644	0.0674	-0.0095
158	SLU 34	0.18	1.91	44.93	0.0297	0.0682	-0.0095
158	SLU 35	0.16	-0.32	48.26	0.1369	0.0654	-0.0094
158	SLU 36	0.17	0.88	47.22	0.081	0.0679	-0.0096
158	SLU 37	0.16	-0.4	47.89	0.1394	0.0646	-0.0093



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
158	SLU 38	0.17	0.8	46.85	0.0835	0.0671	-0.0095
158	SLU 39	0.17	0.33	48.01	0.1075	0.0676	-0.0096
158	SLU 40	0.18	1.53	46.97	0.0517	0.0701	-0.0098
158	SLU 41	0.17	0.02	49.24	0.1241	0.0681	-0.0097
158	SLU 42	0.18	1.23	48.2	0.0682	0.0706	-0.0099
158	SLU 43	0.14	-0.2	42.01	0.1173	0.0574	-0.0081
158	SLU 44	0.16	1.81	40.28	0.0241	0.0615	-0.0085
158	SLU 45	0.14	-0.43	43.61	0.1314	0.0587	-0.0084
158	SLU 46	0.15	0.78	42.57	0.0755	0.0612	-0.0086
158	SLU 47	0.16	1.5	41.5	0.0407	0.062	-0.0086
158	SLU 48	0.14	-0.73	44.84	0.1479	0.0592	-0.0085
158	SLU 49	0.15	0.47	43.8	0.092	0.0617	-0.0087
158	SLU 50	0.14	-0.81	44.47	0.1504	0.0584	-0.0084
158	SLU 51	0.15	0.39	43.43	0.0945	0.0609	-0.0086
158	SLU 52	0.19	2.07	46.29	0.0272	0.0709	-0.0098
158	SLU 53	0.17	-0.16	49.62	0.1344	0.068	-0.0097
158	SLU 54	0.18	1.04	48.58	0.0785	0.0705	-0.0099
158	SLU 55	0.19	1.77	47.52	0.0438	0.0714	-0.0099
158	SLU 56	0.17	-0.47	50.85	0.151	0.0685	-0.0098
158	SLU 57	0.18	0.74	49.81	0.0951	0.071	-0.01
158	SLU 58	0.16	-0.55	50.49	0.1535	0.0677	-0.0097
158	SLU 59	0.18	0.66	49.44	0.0976	0.0702	-0.0099
158	SLU 60	0.18	0.18	50.6	0.1217	0.0707	-0.01
158	SLU 61	0.19	1.39	49.56	0.0658	0.0732	-0.0102
158	SLU 62	0.17	-0.12	51.83	0.1382	0.0712	-0.0101
158	SLU 63	0.19	1.08	50.79	0.0823	0.0737	-0.0103
158	SLU 64	0.16	-0.12	47.63	0.1275	0.0654	-0.0093
158	SLU 65	0.18	1.89	45.89	0.0344	0.0695	-0.0096
158	SLU 66	0.16	-0.35	49.23	0.1416	0.0667	-0.0095
158	SLU 67	0.17	0.86	48.19	0.0857	0.0692	-0.0097
158	SLU 68	0.18	1.58	47.12	0.051	0.07	-0.0097
158	SLU 69	0.16	-0.65	50.46	0.1582	0.0672	-0.0097
158	SLU 70	0.17	0.55	49.42	0.1023	0.0697	-0.0099
158	SLU 71	0.16	-0.73	50.09	0.1607	0.0664	-0.0096
158	SLU 72	0.17	0.47	49.05	0.1048	0.0689	-0.0098
158	SLU 73	0.21	2.15	51.91	0.0375	0.0788	-0.0109
158	SLU 74	0.19	-0.08	55.24	0.1447	0.076	-0.0108
158	SLU 75	0.2	1.12	54.2	0.0888	0.0785	-0.011
158	SLU 76	0.21	1.85	53.14	0.054	0.0793	-0.0111
158	SLU 77	0.19	-0.39	56.47	0.1612	0.0765	-0.011
158	SLU 78	0.2	0.82	55.43	0.1053	0.079	-0.0112
158	SLU 79	0.18	-0.47	56.1	0.1637	0.0757	-0.0109
158	SLU 80	0.2	0.74	55.06	0.1078	0.0782	-0.0111
158	SLU 81	0.2	0.26	56.22	0.1319	0.0787	-0.0112
158	SLU 82	0.21	1.47	55.18	0.076	0.0812	-0.0113
158	SLU 83	0.19	-0.04	57.45	0.1485	0.0792	-0.0113
158	SLU 84	0.21	1.16	56.41	0.0926	0.0817	-0.0115
158	SLE RA 1	0.12	-0.11	35.4	0.0958	0.0485	-0.0069
158	SLE RA 2	0.13	1.23	34.25	0.0338	0.0513	-0.0071
158	SLE RA 3	0.12	-0.26	36.47	0.1052	0.0494	-0.0071
158	SLE RA 4	0.13	0.54	35.78	0.068	0.0511	-0.0072
158	SLE RA 5	0.13	1.02	35.07	0.0448	0.0516	-0.0072
158	SLE RA 6	0.12	-0.47	37.29	0.1163	0.0497	-0.0071
158	SLE RA 7	0.13	0.34	36.59	0.079	0.0514	-0.0073
158	SLE RA 8	0.12	-0.52	37.04	0.1179	0.0492	-0.0071
158	SLE RA 9	0.13	0.28	36.35	0.0807	0.0508	-0.0072
158	SLE RA 10	0.15	1.41	38.26	0.0358	0.0575	-0.008
158	SLE RA 11	0.14	-0.08	40.48	0.1073	0.0556	-0.0079
158	SLE RA 12	0.15	0.72	39.78	0.07	0.0573	-0.0081
158	SLE RA 13	0.15	1.2	39.08	0.0468	0.0578	-0.0081
158	SLE RA 14	0.14	-0.29	41.3	0.1183	0.056	-0.008
158	SLE RA 15	0.14	0.51	40.6	0.0811	0.0576	-0.0081
158	SLE RA 16	0.13	-0.34	41.05	0.12	0.0554	-0.0079
158	SLE RA 17	0.14	0.46	40.36	0.0827	0.0571	-0.0081
158	SLE RA 18	0.14	0.15	41.13	0.0988	0.0574	-0.0081
158	SLE RA 19	0.15	0.95	40.44	0.0615	0.0591	-0.0083
158	SLE RA 20	0.14	-0.06	41.95	0.1098	0.0577	-0.0082
158	SLE RA 21	0.15	0.74	41.26	0.0726	0.0594	-0.0084
158	SLE FR 1	0.12	-0.11	35.4	0.0958	0.0485	-0.0069
158	SLE FR 2	0.12	0.16	35.17	0.0834	0.0491	-0.0069
158	SLE FR 3	0.12	-0.19	35.73	0.1003	0.0487	-0.0069
158	SLE FR 4	0.13	0.24	36.89	0.0843	0.0517	-0.0073
158	SLE FR 5	0.13	-0.11	37.45	0.1011	0.0513	-0.0073
158	SLE FR 6	0.13	0.02	38.27	0.0973	0.053	-0.0075
158	SLE QP 1	0.12	-0.11	35.4	0.0958	0.0485	-0.0069
158	SLE QP 2	0.13	-0.03	37.12	0.0967	0.0512	-0.0073
158	SLD 1	0.22	3.5	42.51	-0.0668	0.0799	-0.0095
158	SLD 2	0.22	3.5	42.51	-0.0668	0.0799	-0.0095
158	SLD 3	0.16	0.57	44.91	0.0753	0.0652	-0.009
158	SLD 4	0.16	0.57	44.91	0.0753	0.0652	-0.009
158	SLD 5	0.24	5.47	35.1	-0.1678	0.0821	-0.0088
158	SLD 6	0.24	5.47	35.1	-0.1678	0.0821	-0.0088
158	SLD 7	0.05	-4.29	43.09	0.3058	0.033	-0.0069
158	SLD 8	0.05	-4.29	43.09	0.3058	0.033	-0.0069
158	SLD 9	0.2	4.23	31.15	-0.1124	0.0693	-0.0076
158	SLD 10	0.2	4.23	31.15	-0.1124	0.0693	-0.0076
158	SLD 11	0.01	-5.53	39.14	0.3613	0.0202	-0.0057



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
158	SLD 12	0.01	-5.53	39.14	0.3613	0.0202	-0.0057
158	SLD 13	0.09	-0.63	29.34	0.1182	0.0372	-0.0055
158	SLD 14	0.09	-0.63	29.34	0.1182	0.0372	-0.0055
158	SLD 15	0.03	-3.56	31.73	0.2602	0.0225	-0.005
158	SLD 16	0.03	-3.56	31.73	0.2602	0.0225	-0.005
158	SLV 1	0.35	8.41	49.68	-0.2956	0.1193	-0.0126
158	SLV 2	0.35	8.41	49.68	-0.2956	0.1193	-0.0126
158	SLV 3	0.22	1.43	55.47	0.0433	0.0834	-0.0113
158	SLV 4	0.22	1.43	55.47	0.0433	0.0834	-0.0113
158	SLV 5	0.4	13.09	32.1	-0.535	0.1261	-0.0109
158	SLV 6	0.4	13.09	32.1	-0.535	0.1261	-0.0109
158	SLV 7	-0.05	-10.19	51.42	0.5947	0.0064	-0.0065
158	SLV 8	-0.05	-10.19	51.42	0.5947	0.0064	-0.0065
158	SLV 9	0.3	10.12	22.83	-0.4013	0.096	-0.0081
158	SLV 10	0.3	10.12	22.83	-0.4013	0.096	-0.0081
158	SLV 11	-0.15	-13.16	42.15	0.7284	-0.0237	-0.0037
158	SLV 12	-0.15	-13.16	42.15	0.7284	-0.0237	-0.0037
158	SLV 13	0.04	-1.49	18.77	0.1501	0.0189	-0.0032
158	SLV 14	0.04	-1.49	18.77	0.1501	0.0189	-0.0032
158	SLV 15	-0.1	-8.48	24.57	0.489	-0.017	-0.0019
158	SLV 16	-0.1	-8.48	24.57	0.489	-0.017	-0.0019
159	SLU 1	-0.01	-2.59	52.25	0.4277	0.0028	-0.0005
159	SLU 2	-0.01	-3.06	52.74	0.4619	0.0029	-0.0006
159	SLU 3	0	-2.3	53.84	0.4192	0.0029	-0.0005
159	SLU 4	-0.01	-2.58	54.14	0.4398	0.0029	-0.0005
159	SLU 5	-0.01	-2.74	53.58	0.4464	0.0029	-0.0005
159	SLU 6	0	-1.97	54.68	0.4037	0.0029	-0.0004
159	SLU 7	0	-2.26	54.98	0.4243	0.003	-0.0005
159	SLU 8	0	-1.94	53.93	0.3966	0.0029	-0.0004
159	SLU 9	0	-2.22	54.23	0.4172	0.0029	-0.0005
159	SLU 10	-0.01	-3.46	62.95	0.5449	0.0037	-0.0007
159	SLU 11	0	-2.69	64.05	0.5022	0.0037	-0.0006
159	SLU 12	-0.01	-2.98	64.34	0.5227	0.0037	-0.0006
159	SLU 13	-0.01	-3.14	63.79	0.5293	0.0037	-0.0006
159	SLU 14	0	-2.37	64.89	0.4866	0.0037	-0.0005
159	SLU 15	0	-2.66	65.18	0.5072	0.0038	-0.0006
159	SLU 16	0	-2.34	64.14	0.4795	0.0037	-0.0005
159	SLU 17	0	-2.62	64.43	0.5001	0.0037	-0.0005
159	SLU 18	-0.01	-3.16	66.83	0.5462	0.0039	-0.0006
159	SLU 19	-0.01	-3.44	67.12	0.5667	0.004	-0.0007
159	SLU 20	-0.01	-2.83	67.67	0.5306	0.004	-0.0006
159	SLU 21	-0.01	-3.12	67.97	0.5512	0.004	-0.0006
159	SLU 22	0	-2.35	60.14	0.4644	0.0031	-0.0005
159	SLU 23	-0.01	-2.82	60.63	0.4987	0.0032	-0.0006
159	SLU 24	0	-2.05	61.73	0.456	0.0032	-0.0005
159	SLU 25	0	-2.34	62.03	0.4766	0.0032	-0.0005
159	SLU 26	0	-2.5	61.48	0.4832	0.0032	-0.0005
159	SLU 27	0	-1.73	62.58	0.4405	0.0032	-0.0004
159	SLU 28	0	-2.02	62.87	0.461	0.0033	-0.0005
159	SLU 29	0	-1.7	61.82	0.4334	0.0032	-0.0004
159	SLU 30	0	-1.98	62.12	0.4539	0.0033	-0.0005
159	SLU 31	-0.01	-3.22	70.84	0.5817	0.004	-0.0007
159	SLU 32	0	-2.45	71.94	0.539	0.004	-0.0006
159	SLU 33	0	-2.74	72.24	0.5595	0.0041	-0.0006
159	SLU 34	-0.01	-2.89	71.68	0.5661	0.004	-0.0006
159	SLU 35	0	-2.13	72.78	0.5234	0.0041	-0.0005
159	SLU 36	0	-2.41	73.08	0.544	0.0041	-0.0006
159	SLU 37	0	-2.1	72.03	0.5163	0.004	-0.0005
159	SLU 38	0	-2.38	72.33	0.5369	0.0041	-0.0006
159	SLU 39	-0.01	-2.91	74.72	0.5829	0.0043	-0.0006
159	SLU 40	-0.01	-3.2	75.02	0.6035	0.0043	-0.0007
159	SLU 41	0	-2.59	75.56	0.5674	0.0043	-0.0006
159	SLU 42	-0.01	-2.88	75.86	0.588	0.0044	-0.0006
159	SLU 43	-0.01	-3.45	65.21	0.5433	0.0035	-0.0007
159	SLU 44	-0.01	-3.92	65.71	0.5776	0.0036	-0.0007
159	SLU 45	-0.01	-3.15	66.81	0.5349	0.0036	-0.0006
159	SLU 46	-0.01	-3.44	67.1	0.5555	0.0036	-0.0007
159	SLU 47	-0.01	-3.6	66.55	0.5621	0.0036	-0.0007
159	SLU 48	0	-2.83	67.65	0.5194	0.0036	-0.0006
159	SLU 49	-0.01	-3.12	67.95	0.5399	0.0037	-0.0006
159	SLU 50	0	-2.8	66.9	0.5123	0.0036	-0.0006
159	SLU 51	-0.01	-3.08	67.19	0.5328	0.0037	-0.0006
159	SLU 52	-0.01	-4.32	75.91	0.6606	0.0044	-0.0008
159	SLU 53	-0.01	-3.55	77.01	0.6179	0.0044	-0.0007
159	SLU 54	-0.01	-3.84	77.31	0.6384	0.0045	-0.0008
159	SLU 55	-0.01	-3.99	76.76	0.645	0.0044	-0.0008
159	SLU 56	-0.01	-3.23	77.85	0.6023	0.0045	-0.0007
159	SLU 57	-0.01	-3.51	78.15	0.6229	0.0045	-0.0007
159	SLU 58	-0.01	-3.2	77.1	0.5952	0.0044	-0.0007
159	SLU 59	-0.01	-3.48	77.4	0.6158	0.0045	-0.0007
159	SLU 60	-0.01	-4.01	79.79	0.6618	0.0047	-0.0008
159	SLU 61	-0.01	-4.3	80.09	0.6824	0.0047	-0.0008
159	SLU 62	-0.01	-3.69	80.64	0.6463	0.0047	-0.0007
159	SLU 63	-0.01	-3.98	80.93	0.6669	0.0048	-0.0008
159	SLU 64	-0.01	-3.2	73.11	0.5801	0.0038	-0.0007
159	SLU 65	-0.01	-3.68	73.6	0.6144	0.0039	-0.0007
159	SLU 66	-0.01	-2.91	74.7	0.5717	0.0039	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
159	SLU 67	-0.01	-3.2	75	0.5923	0.004	-0.0007
159	SLU 68	-0.01	-3.35	74.44	0.5989	0.004	-0.0007
159	SLU 69	0	-2.59	75.54	0.5562	0.004	-0.0006
159	SLU 70	0	-2.87	75.84	0.5767	0.004	-0.0006
159	SLU 71	0	-2.56	74.79	0.5491	0.0039	-0.0006
159	SLU 72	0	-2.84	75.09	0.5696	0.004	-0.0006
159	SLU 73	-0.01	-4.08	83.81	0.6974	0.0047	-0.0008
159	SLU 74	-0.01	-3.31	84.91	0.6546	0.0047	-0.0007
159	SLU 75	-0.01	-3.6	85.2	0.6752	0.0048	-0.0008
159	SLU 76	-0.01	-3.75	84.65	0.6818	0.0048	-0.0008
159	SLU 77	0	-2.99	85.75	0.6391	0.0048	-0.0007
159	SLU 78	-0.01	-3.27	86.05	0.6597	0.0048	-0.0007
159	SLU 79	0	-2.96	85	0.632	0.0047	-0.0007
159	SLU 80	0	-3.24	85.29	0.6526	0.0048	-0.0007
159	SLU 81	-0.01	-3.77	87.69	0.6986	0.005	-0.0008
159	SLU 82	-0.01	-4.06	87.99	0.7192	0.005	-0.0008
159	SLU 83	-0.01	-3.45	88.53	0.6831	0.005	-0.0008
159	SLU 84	-0.01	-3.73	88.83	0.7037	0.0051	-0.0008
159	SLE RA 1	-0.01	-2.52	54.5	0.4382	0.0029	-0.0005
159	SLE RA 2	-0.01	-2.83	54.83	0.461	0.0029	-0.0006
159	SLE RA 3	0	-2.32	55.56	0.4325	0.0029	-0.0005
159	SLE RA 4	-0.01	-2.51	55.76	0.4463	0.003	-0.0005
159	SLE RA 5	-0.01	-2.62	55.39	0.4507	0.003	-0.0005
159	SLE RA 6	0	-2.11	56.12	0.4222	0.003	-0.0005
159	SLE RA 7	0	-2.3	56.32	0.4359	0.003	-0.0005
159	SLE RA 8	0	-2.09	55.62	0.4175	0.0029	-0.0005
159	SLE RA 9	0	-2.28	55.82	0.4312	0.003	-0.0005
159	SLE RA 10	-0.01	-3.1	61.64	0.5163	0.0035	-0.0006
159	SLE RA 11	0	-2.59	62.37	0.4878	0.0035	-0.0006
159	SLE RA 12	-0.01	-2.78	62.57	0.5016	0.0035	-0.0006
159	SLE RA 13	-0.01	-2.88	62.2	0.506	0.0035	-0.0006
159	SLE RA 14	0	-2.37	62.93	0.4775	0.0035	-0.0005
159	SLE RA 15	0	-2.56	63.13	0.4912	0.0035	-0.0005
159	SLE RA 16	0	-2.35	62.43	0.4728	0.0035	-0.0005
159	SLE RA 17	0	-2.54	62.63	0.4865	0.0035	-0.0005
159	SLE RA 18	-0.01	-2.9	64.22	0.5172	0.0036	-0.0006
159	SLE RA 19	-0.01	-3.09	64.42	0.5309	0.0037	-0.0006
159	SLE RA 20	0	-2.68	64.78	0.5068	0.0037	-0.0006
159	SLE RA 21	-0.01	-2.87	64.98	0.5205	0.0037	-0.0006
159	SLE FR 1	-0.01	-2.52	54.5	0.4382	0.0029	-0.0005
159	SLE FR 2	-0.01	-2.58	54.57	0.4427	0.0029	-0.0005
159	SLE FR 3	0	-2.43	54.73	0.434	0.0029	-0.0005
159	SLE FR 4	-0.01	-2.69	57.48	0.4664	0.0031	-0.0005
159	SLE FR 5	-0.01	-2.55	57.64	0.4577	0.0031	-0.0005
159	SLE FR 6	-0.01	-2.71	59.36	0.4777	0.0033	-0.0006
159	SLE QP 1	-0.01	-2.52	54.5	0.4382	0.0029	-0.0005
159	SLE QP 2	-0.01	-2.63	57.42	0.4619	0.0031	-0.0005
159	SLD 1	0.03	-3.44	46.39	0.2165	0.0276	-0.003
159	SLD 2	0.03	-3.44	46.39	0.2165	0.0276	-0.003
159	SLD 3	0.01	-6.65	51.5	0.4889	0.0325	-0.0036
159	SLD 4	0.01	-6.65	51.5	0.4889	0.0325	-0.0036
159	SLD 5	0.03	2	46.35	-0.0247	0.003	-0.0004
159	SLD 6	0.03	2	46.35	-0.0247	0.003	-0.0004
159	SLD 7	-0.03	-8.72	63.4	0.883	0.0194	-0.0023
159	SLD 8	-0.03	-8.72	63.4	0.883	0.0194	-0.0023
159	SLD 9	0.02	3.45	51.44	0.0408	-0.0132	0.0012
159	SLD 10	0.02	3.45	51.44	0.0408	-0.0132	0.0012
159	SLD 11	-0.04	-7.27	68.48	0.9485	0.0032	-0.0007
159	SLD 12	-0.04	-7.27	68.48	0.9485	0.0032	-0.0007
159	SLD 13	-0.03	1.39	63.34	0.4349	-0.0263	0.0025
159	SLD 14	-0.03	1.39	63.34	0.4349	-0.0263	0.0025
159	SLD 15	-0.04	-1.83	68.45	0.7072	-0.0214	0.0019
159	SLD 16	-0.04	-1.83	68.45	0.7072	-0.0214	0.0019
159	SLV 1	0.08	-4.51	31.45	-0.1158	0.064	-0.0067
159	SLV 2	0.08	-4.51	31.45	-0.1158	0.064	-0.0067
159	SLV 3	0.04	-12.07	43.6	0.5244	0.076	-0.0081
159	SLV 4	0.04	-12.07	43.6	0.5244	0.076	-0.0081
159	SLV 5	0.09	8.26	31.21	-0.6824	0.0031	-0.0003
159	SLV 6	0.09	8.26	31.21	-0.6824	0.0031	-0.0003
159	SLV 7	-0.06	-16.92	71.69	1.4516	0.0432	-0.0049
159	SLV 8	-0.06	-16.92	71.69	1.4516	0.0432	-0.0049
159	SLV 9	0.05	11.66	43.14	-0.5279	-0.037	0.0038
159	SLV 10	0.05	11.66	43.14	-0.5279	-0.037	0.0038
159	SLV 11	-0.1	-13.53	83.63	1.6061	0.0031	-0.0008
159	SLV 12	-0.1	-13.53	83.63	1.6061	0.0031	-0.0008
159	SLV 13	-0.05	6.8	71.24	0.3993	-0.0698	0.007
159	SLV 14	-0.05	6.8	71.24	0.3993	-0.0698	0.007
159	SLV 15	-0.1	-0.75	83.38	1.0395	-0.0578	0.0057
159	SLV 16	-0.1	-0.75	83.38	1.0395	-0.0578	0.0057
160	SLU 1	0	-5.34	44.58	0.3154	-0.0016	0
160	SLU 2	0	-3.55	42.06	0.2282	-0.0024	0
160	SLU 3	0	-5.72	46.5	0.3364	-0.0017	0
160	SLU 4	0	-4.65	44.98	0.2841	-0.0022	0
160	SLU 5	0	-3.93	43.51	0.2484	-0.0025	0
160	SLU 6	0	-6.1	47.96	0.3565	-0.0018	0
160	SLU 7	0	-5.02	46.44	0.3042	-0.0023	0
160	SLU 8	0	-6.09	47.5	0.3556	-0.0017	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
160	SLU 9	0	-5.02	45.98	0.3033	-0.0022	0
160	SLU 10	0	-4.23	50.23	0.2716	-0.0029	0
160	SLU 11	0	-6.4	54.67	0.3797	-0.0022	0
160	SLU 12	0	-5.32	53.16	0.3274	-0.0027	0
160	SLU 13	0	-4.6	51.69	0.2917	-0.0029	0
160	SLU 14	0	-6.77	56.13	0.3998	-0.0022	0
160	SLU 15	0	-5.7	54.61	0.3475	-0.0027	0
160	SLU 16	0	-6.77	55.67	0.399	-0.0021	0
160	SLU 17	0	-5.69	54.15	0.3467	-0.0026	0
160	SLU 18	0	-6.31	56.26	0.3773	-0.0022	0
160	SLU 19	0	-5.23	54.74	0.325	-0.0027	0
160	SLU 20	0	-6.68	57.71	0.3974	-0.0023	0
160	SLU 21	0	-5.61	56.2	0.3451	-0.0028	0
160	SLU 22	0	-6.11	52.38	0.3624	-0.0019	0
160	SLU 23	0	-4.32	49.86	0.2753	-0.0028	0
160	SLU 24	0	-6.49	54.3	0.3834	-0.002	0
160	SLU 25	0	-5.41	52.79	0.3311	-0.0025	0
160	SLU 26	0	-4.69	51.32	0.2954	-0.0028	0
160	SLU 27	0	-6.86	55.76	0.4035	-0.0021	0
160	SLU 28	0	-5.79	54.24	0.3512	-0.0026	0
160	SLU 29	0	-6.86	55.3	0.4027	-0.002	0
160	SLU 30	0	-5.78	53.78	0.3504	-0.0025	0
160	SLU 31	0	-4.99	58.03	0.3186	-0.0032	0
160	SLU 32	0	-7.16	62.47	0.4267	-0.0025	0
160	SLU 33	0	-6.09	60.96	0.3744	-0.003	0
160	SLU 34	0	-5.37	59.49	0.3387	-0.0032	0
160	SLU 35	0	-7.54	63.93	0.4469	-0.0025	0
160	SLU 36	0	-6.47	62.42	0.3946	-0.003	0
160	SLU 37	0	-7.53	63.47	0.446	-0.0024	0
160	SLU 38	0	-6.46	61.96	0.3937	-0.0029	0
160	SLU 39	0	-7.07	64.06	0.4243	-0.0026	0
160	SLU 40	0	-6	62.54	0.372	-0.003	0
160	SLU 41	0	-7.45	65.52	0.4444	-0.0026	0
160	SLU 42	0	-6.38	64	0.3922	-0.0031	0
160	SLU 43	0	-6.68	55.28	0.3939	-0.002	0
160	SLU 44	0	-4.89	52.76	0.3067	-0.0028	0
160	SLU 45	0	-7.06	57.2	0.4148	-0.0021	0
160	SLU 46	0	-5.99	55.68	0.3626	-0.0026	0
160	SLU 47	0	-5.27	54.22	0.3268	-0.0029	0
160	SLU 48	0	-7.44	58.66	0.435	-0.0022	0
160	SLU 49	0	-6.36	57.14	0.3827	-0.0026	0
160	SLU 50	0	-7.43	58.2	0.4341	-0.0021	0
160	SLU 51	0	-6.36	56.68	0.3818	-0.0026	0
160	SLU 52	0	-5.57	60.93	0.35	-0.0033	0
160	SLU 53	0	-7.74	65.37	0.4582	-0.0026	0
160	SLU 54	0	-6.66	63.86	0.4059	-0.003	0
160	SLU 55	0	-5.94	62.39	0.3702	-0.0033	0
160	SLU 56	0	-8.11	66.83	0.4783	-0.0026	0
160	SLU 57	0	-7.04	65.31	0.426	-0.0031	0
160	SLU 58	0	-8.11	66.37	0.4775	-0.0025	0
160	SLU 59	0	-7.03	64.85	0.4252	-0.003	0
160	SLU 60	0	-7.65	66.96	0.4558	-0.0026	0
160	SLU 61	0	-6.57	65.44	0.4035	-0.0031	0
160	SLU 62	0	-8.02	68.41	0.4759	-0.0027	0
160	SLU 63	0	-6.95	66.9	0.4236	-0.0032	0
160	SLU 64	0	-7.45	63.09	0.4409	-0.0023	0
160	SLU 65	0	-5.66	60.56	0.3537	-0.0031	0
160	SLU 66	0	-7.83	65	0.4619	-0.0024	0
160	SLU 67	0	-6.75	63.49	0.4096	-0.0029	0
160	SLU 68	0	-6.03	62.02	0.3739	-0.0032	0
160	SLU 69	0	-8.2	66.46	0.482	-0.0025	0
160	SLU 70	0	-7.13	64.94	0.4297	-0.0029	0
160	SLU 71	0	-8.2	66	0.4812	-0.0024	0
160	SLU 72	0	-7.12	64.48	0.4289	-0.0029	0
160	SLU 73	0	-6.33	68.73	0.3971	-0.0036	0
160	SLU 74	0	-8.5	73.17	0.5052	-0.0029	0
160	SLU 75	0	-7.43	71.66	0.4529	-0.0033	0
160	SLU 76	0	-6.71	70.19	0.4172	-0.0036	0
160	SLU 77	0	-8.88	74.63	0.5253	-0.0029	0
160	SLU 78	0	-7.81	73.12	0.4731	-0.0034	0
160	SLU 79	0	-8.87	74.17	0.5245	-0.0028	0
160	SLU 80	0	-7.8	72.66	0.4722	-0.0033	0
160	SLU 81	0	-8.41	74.76	0.5028	-0.0029	0
160	SLU 82	0	-7.34	73.24	0.4505	-0.0034	0
160	SLU 83	0	-8.79	76.22	0.5229	-0.003	0
160	SLU 84	0	-7.71	74.7	0.4706	-0.0035	0
160	SLE RA 1	0	-5.56	46.81	0.3288	-0.0017	0
160	SLE RA 2	0	-4.37	45.13	0.2707	-0.0023	0
160	SLE RA 3	0	-5.81	48.09	0.3428	-0.0018	0
160	SLE RA 4	0	-5.1	47.08	0.3079	-0.0021	0
160	SLE RA 5	0	-4.62	46.1	0.2841	-0.0023	0
160	SLE RA 6	0	-6.06	49.06	0.3562	-0.0018	0
160	SLE RA 7	0	-5.35	48.05	0.3214	-0.0021	0
160	SLE RA 8	0	-6.06	48.75	0.3557	-0.0018	0
160	SLE RA 9	0	-5.34	47.74	0.3208	-0.0021	0
160	SLE RA 10	0	-4.82	50.58	0.2996	-0.0026	0
160	SLE RA 11	0	-6.27	53.54	0.3717	-0.0021	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
160	SLE RA 12	0	-5.55	52.53	0.3368	-0.0024	0
160	SLE RA 13	0	-5.07	51.55	0.313	-0.0026	0
160	SLE RA 14	0	-6.52	54.51	0.3851	-0.0021	0
160	SLE RA 15	0	-5.8	53.5	0.3503	-0.0024	0
160	SLE RA 16	0	-6.51	54.2	0.3845	-0.002	0
160	SLE RA 17	0	-5.8	53.19	0.3497	-0.0024	0
160	SLE RA 18	0	-6.2	54.6	0.3701	-0.0021	0
160	SLE RA 19	0	-5.49	53.59	0.3352	-0.0025	0
160	SLE RA 20	0	-6.46	55.57	0.3835	-0.0022	0
160	SLE RA 21	0	-5.74	54.56	0.3486	-0.0025	0
160	SLE FR 1	0	-5.56	46.81	0.3288	-0.0017	0
160	SLE FR 2	0	-5.32	46.48	0.3172	-0.0018	0
160	SLE FR 3	0	-5.66	47.2	0.3342	-0.0017	0
160	SLE FR 4	0	-5.51	48.81	0.3296	-0.0019	0
160	SLE FR 5	0	-5.85	49.54	0.3466	-0.0018	0
160	SLE FR 6	0	-5.88	50.7	0.3494	-0.0019	0
160	SLE QP 1	0	-5.56	46.81	0.3288	-0.0017	0
160	SLE QP 2	0	-5.75	49.15	0.3412	-0.0018	0
160	SLD 1	0.01	-5.64	49.43	0.3368	0.0146	-0.0001
160	SLD 2	0.01	-5.64	49.43	0.3368	0.0146	-0.0001
160	SLD 3	0.04	-8.11	52.15	0.4583	0.025	-0.0002
160	SLD 4	0.04	-8.11	52.15	0.4583	0.025	-0.0002
160	SLD 5	-0.05	-1.98	45.11	0.1557	-0.0127	0.0001
160	SLD 6	-0.05	-1.98	45.11	0.1557	-0.0127	0.0001
160	SLD 7	0.06	-10.2	54.17	0.5605	0.022	-0.0002
160	SLD 8	0.06	-10.2	54.17	0.5605	0.022	-0.0002
160	SLD 9	-0.06	-1.31	44.12	0.1218	-0.0257	0.0002
160	SLD 10	-0.06	-1.31	44.12	0.1218	-0.0257	0.0002
160	SLD 11	0.05	-9.53	53.19	0.5267	0.009	-0.0001
160	SLD 12	0.05	-9.53	53.19	0.5267	0.009	-0.0001
160	SLD 13	-0.05	-3.4	46.14	0.2241	-0.0287	0.0002
160	SLD 14	-0.05	-3.4	46.14	0.2241	-0.0287	0.0002
160	SLD 15	-0.01	-5.86	48.86	0.3455	-0.0183	0.0001
160	SLD 16	-0.01	-5.86	48.86	0.3455	-0.0183	0.0001
160	SLV 1	0.03	-5.62	50.03	0.3373	0.0376	-0.0003
160	SLV 2	0.03	-5.62	50.03	0.3373	0.0376	-0.0003
160	SLV 3	0.11	-11.45	56.55	0.6245	0.0638	-0.0005
160	SLV 4	0.11	-11.45	56.55	0.6245	0.0638	-0.0005
160	SLV 5	-0.12	3.13	39.52	-0.0955	-0.0299	0.0002
160	SLV 6	-0.12	3.13	39.52	-0.0955	-0.0299	0.0002
160	SLV 7	0.16	-16.31	61.26	0.8617	0.0577	-0.0005
160	SLV 8	0.16	-16.31	61.26	0.8617	0.0577	-0.0005
160	SLV 9	-0.16	4.8	37.03	-0.1794	-0.0614	0.0005
160	SLV 10	-0.16	4.8	37.03	-0.1794	-0.0614	0.0005
160	SLV 11	0.12	-14.64	58.78	0.7779	0.0262	-0.0002
160	SLV 12	0.12	-14.64	58.78	0.7779	0.0262	-0.0002
160	SLV 13	-0.11	-0.05	41.74	0.0579	-0.0675	0.0005
160	SLV 14	-0.11	-0.05	41.74	0.0579	-0.0675	0.0005
160	SLV 15	-0.03	-5.89	48.26	0.3451	-0.0413	0.0003
160	SLV 16	-0.03	-5.89	48.26	0.3451	-0.0413	0.0003
161	SLU 1	-0.24	-8.16	45.82	0.4274	-0.0478	0.0186
161	SLU 2	-0.23	-8.52	46.27	0.4459	-0.0473	0.0182
161	SLU 3	-0.25	-8.07	46.66	0.4228	-0.0496	0.0193
161	SLU 4	-0.25	-8.29	46.93	0.4339	-0.0493	0.0191
161	SLU 5	-0.24	-8.28	46.36	0.4328	-0.0484	0.0187
161	SLU 6	-0.27	-7.83	46.75	0.4098	-0.0507	0.0199
161	SLU 7	-0.26	-8.05	47.02	0.4209	-0.0504	0.0197
161	SLU 8	-0.26	-7.67	46	0.4013	-0.05	0.0196
161	SLU 9	-0.26	-7.89	46.27	0.4124	-0.0497	0.0194
161	SLU 10	-0.29	-10.09	55.84	0.5302	-0.0581	0.0224
161	SLU 11	-0.31	-9.64	56.23	0.5071	-0.0604	0.0236
161	SLU 12	-0.3	-9.85	56.5	0.5182	-0.0601	0.0233
161	SLU 13	-0.3	-9.84	55.93	0.5171	-0.0592	0.023
161	SLU 14	-0.32	-9.39	56.32	0.4941	-0.0615	0.0241
161	SLU 15	-0.32	-9.61	56.59	0.5052	-0.0612	0.0239
161	SLU 16	-0.32	-9.24	55.57	0.4856	-0.0608	0.0238
161	SLU 17	-0.31	-9.46	55.84	0.4967	-0.0605	0.0236
161	SLU 18	-0.32	-10.39	59.5	0.5478	-0.0632	0.0246
161	SLU 19	-0.32	-10.61	59.77	0.5589	-0.0629	0.0244
161	SLU 20	-0.33	-10.15	59.59	0.5348	-0.0644	0.0251
161	SLU 21	-0.33	-10.37	59.86	0.5459	-0.0641	0.0249
161	SLU 22	-0.29	-9.03	52.97	0.476	-0.0567	0.0223
161	SLU 23	-0.29	-9.39	53.41	0.4945	-0.0562	0.0219
161	SLU 24	-0.31	-8.94	53.81	0.4715	-0.0585	0.0231
161	SLU 25	-0.3	-9.16	54.07	0.4825	-0.0582	0.0228
161	SLU 26	-0.3	-9.15	53.5	0.4815	-0.0573	0.0224
161	SLU 27	-0.32	-8.7	53.89	0.4584	-0.0596	0.0236
161	SLU 28	-0.31	-8.92	54.16	0.4695	-0.0593	0.0234
161	SLU 29	-0.31	-8.54	53.15	0.45	-0.0589	0.0233
161	SLU 30	-0.31	-8.76	53.41	0.461	-0.0586	0.0231
161	SLU 31	-0.34	-10.95	62.98	0.5788	-0.067	0.0261
161	SLU 32	-0.36	-10.51	63.38	0.5558	-0.0693	0.0273
161	SLU 33	-0.36	-10.72	63.65	0.5668	-0.069	0.0271
161	SLU 34	-0.35	-10.71	63.07	0.5658	-0.0681	0.0267
161	SLU 35	-0.37	-10.26	63.47	0.5427	-0.0704	0.0278
161	SLU 36	-0.37	-10.48	63.74	0.5538	-0.0701	0.0276
161	SLU 37	-0.37	-10.11	62.72	0.5343	-0.0697	0.0275



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
161	SLU 38	-0.36	-10.33	62.99	0.5453	-0.0694	0.0273
161	SLU 39	-0.37	-11.26	66.64	0.5965	-0.0721	0.0283
161	SLU 40	-0.37	-11.48	66.91	0.6075	-0.0718	0.0281
161	SLU 41	-0.38	-11.02	66.73	0.5834	-0.0732	0.0288
161	SLU 42	-0.38	-11.24	67	0.5945	-0.0729	0.0286
161	SLU 43	-0.3	-10.31	57.12	0.539	-0.0591	0.0229
161	SLU 44	-0.29	-10.67	57.57	0.5574	-0.0586	0.0225
161	SLU 45	-0.31	-10.22	57.96	0.5344	-0.0609	0.0236
161	SLU 46	-0.3	-10.44	58.23	0.5455	-0.0606	0.0234
161	SLU 47	-0.3	-10.43	57.66	0.5444	-0.0597	0.023
161	SLU 48	-0.32	-9.98	58.05	0.5213	-0.062	0.0242
161	SLU 49	-0.32	-10.2	58.32	0.5324	-0.0617	0.024
161	SLU 50	-0.32	-9.82	57.3	0.5129	-0.0613	0.0239
161	SLU 51	-0.31	-10.04	57.57	0.524	-0.061	0.0237
161	SLU 52	-0.34	-12.24	67.14	0.6417	-0.0694	0.0267
161	SLU 53	-0.36	-11.79	67.53	0.6187	-0.0717	0.0279
161	SLU 54	-0.36	-12	67.8	0.6298	-0.0714	0.0276
161	SLU 55	-0.35	-11.99	67.23	0.6287	-0.0705	0.0273
161	SLU 56	-0.37	-11.54	67.62	0.6056	-0.0728	0.0284
161	SLU 57	-0.37	-11.76	67.89	0.6167	-0.0725	0.0282
161	SLU 58	-0.37	-11.39	66.87	0.5972	-0.0721	0.0281
161	SLU 59	-0.37	-11.61	67.14	0.6083	-0.0718	0.0279
161	SLU 60	-0.37	-12.54	70.8	0.6594	-0.0745	0.0289
161	SLU 61	-0.37	-12.76	71.06	0.6705	-0.0742	0.0287
161	SLU 62	-0.38	-12.3	70.89	0.6463	-0.0756	0.0294
161	SLU 63	-0.38	-12.52	71.15	0.6574	-0.0754	0.0292
161	SLU 64	-0.35	-11.18	64.26	0.5876	-0.068	0.0266
161	SLU 65	-0.34	-11.54	64.71	0.606	-0.0675	0.0262
161	SLU 66	-0.36	-11.09	65.1	0.583	-0.0698	0.0274
161	SLU 67	-0.36	-11.31	65.37	0.5941	-0.0695	0.0271
161	SLU 68	-0.35	-11.3	64.8	0.593	-0.0686	0.0267
161	SLU 69	-0.37	-10.85	65.19	0.57	-0.0709	0.0279
161	SLU 70	-0.37	-11.07	65.46	0.581	-0.0706	0.0277
161	SLU 71	-0.37	-10.69	64.44	0.5615	-0.0702	0.0276
161	SLU 72	-0.36	-10.91	64.71	0.5726	-0.0699	0.0274
161	SLU 73	-0.39	-13.1	74.28	0.6903	-0.0783	0.0304
161	SLU 74	-0.42	-12.66	74.68	0.6673	-0.0806	0.0316
161	SLU 75	-0.41	-12.87	74.94	0.6784	-0.0803	0.0314
161	SLU 76	-0.41	-12.86	74.37	0.6773	-0.0794	0.031
161	SLU 77	-0.43	-12.41	74.77	0.6543	-0.0817	0.0321
161	SLU 78	-0.42	-12.63	75.03	0.6653	-0.0814	0.0319
161	SLU 79	-0.42	-12.26	74.02	0.6458	-0.081	0.0318
161	SLU 80	-0.42	-12.48	74.28	0.6569	-0.0807	0.0316
161	SLU 81	-0.43	-13.41	77.94	0.708	-0.0834	0.0326
161	SLU 82	-0.42	-13.63	78.21	0.7191	-0.0831	0.0324
161	SLU 83	-0.44	-13.17	78.03	0.695	-0.0845	0.0331
161	SLU 84	-0.43	-13.39	78.3	0.706	-0.0842	0.0329
161	SLE RA 1	-0.26	-8.41	47.86	0.4413	-0.0504	0.0196
161	SLE RA 2	-0.25	-8.65	48.16	0.4536	-0.05	0.0194
161	SLE RA 3	-0.27	-8.35	48.42	0.4383	-0.0516	0.0201
161	SLE RA 4	-0.26	-8.49	48.6	0.4456	-0.0514	0.02
161	SLE RA 5	-0.26	-8.49	48.22	0.4449	-0.0508	0.0197
161	SLE RA 6	-0.27	-8.19	48.48	0.4296	-0.0523	0.0205
161	SLE RA 7	-0.27	-8.33	48.66	0.4369	-0.0521	0.0204
161	SLE RA 8	-0.27	-8.08	47.98	0.4239	-0.0518	0.0203
161	SLE RA 9	-0.27	-8.23	48.16	0.4313	-0.0516	0.0202
161	SLE RA 10	-0.29	-9.69	54.54	0.5098	-0.0572	0.0222
161	SLE RA 11	-0.3	-9.39	54.8	0.4944	-0.0588	0.023
161	SLE RA 12	-0.3	-9.54	54.98	0.5018	-0.0586	0.0228
161	SLE RA 13	-0.29	-9.53	54.6	0.5011	-0.058	0.0225
161	SLE RA 14	-0.31	-9.23	54.86	0.4858	-0.0595	0.0233
161	SLE RA 15	-0.31	-9.38	55.04	0.4931	-0.0593	0.0232
161	SLE RA 16	-0.31	-9.13	54.36	0.4801	-0.059	0.0231
161	SLE RA 17	-0.3	-9.27	54.54	0.4875	-0.0588	0.023
161	SLE RA 18	-0.31	-9.9	56.98	0.5216	-0.0606	0.0236
161	SLE RA 19	-0.31	-10.04	57.16	0.529	-0.0604	0.0235
161	SLE RA 20	-0.32	-9.74	57.04	0.5129	-0.0614	0.024
161	SLE RA 21	-0.31	-9.88	57.22	0.5203	-0.0612	0.0238
161	SLE FR 1	-0.26	-8.41	47.86	0.4413	-0.0504	0.0196
161	SLE FR 2	-0.26	-8.45	47.92	0.4438	-0.0503	0.0196
161	SLE FR 3	-0.26	-8.34	47.89	0.4378	-0.0507	0.0198
161	SLE FR 4	-0.27	-8.9	50.66	0.4678	-0.0534	0.0208
161	SLE FR 5	-0.27	-8.79	50.62	0.4619	-0.0537	0.021
161	SLE FR 6	-0.28	-9.15	52.42	0.4814	-0.0555	0.0216
161	SLE QP 1	-0.26	-8.41	47.86	0.4413	-0.0504	0.0196
161	SLE QP 2	-0.27	-8.85	50.6	0.4654	-0.0534	0.0208
161	SLD 1	-0.38	-8.19	53.47	0.4369	-0.0192	0.027
161	SLD 2	-0.38	-8.19	53.47	0.4369	-0.0192	0.027
161	SLD 3	-0.32	-11.13	59.08	0.5906	-0.0263	0.0247
161	SLD 4	-0.32	-11.13	59.08	0.5906	-0.0263	0.0247
161	SLD 5	-0.4	-4.21	42.95	0.2238	-0.0323	0.026
161	SLD 6	-0.4	-4.21	42.95	0.2238	-0.0323	0.026
161	SLD 7	-0.2	-13.98	61.66	0.736	-0.0561	0.0186
161	SLD 8	-0.2	-13.98	61.66	0.736	-0.0561	0.0186
161	SLD 9	-0.35	-3.72	39.54	0.1948	-0.0508	0.023
161	SLD 10	-0.35	-3.72	39.54	0.1948	-0.0508	0.023
161	SLD 11	-0.15	-13.5	58.25	0.7069	-0.0745	0.0156



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
161	SLD 12	-0.15	-13.5	58.25	0.7069	-0.0745	0.0156
161	SLD 13	-0.22	-6.58	42.12	0.3402	-0.0806	0.0169
161	SLD 14	-0.22	-6.58	42.12	0.3402	-0.0806	0.0169
161	SLD 15	-0.16	-9.51	47.73	0.4938	-0.0877	0.0147
161	SLD 16	-0.16	-9.51	47.73	0.4938	-0.0877	0.0147
161	SLV 1	-0.54	-7.36	57.25	0.4018	0.0322	0.0352
161	SLV 2	-0.54	-7.36	57.25	0.4018	0.0322	0.0352
161	SLV 3	-0.4	-14.24	70.48	0.7621	0.0149	0.0301
161	SLV 4	-0.4	-14.24	70.48	0.7621	0.0149	0.0301
161	SLV 5	-0.57	2.02	32.53	-0.1001	-0.0015	0.033
161	SLV 6	-0.57	2.02	32.53	-0.1001	-0.0015	0.033
161	SLV 7	-0.09	-20.9	76.63	1.1008	-0.0592	0.0158
161	SLV 8	-0.09	-20.9	76.63	1.1008	-0.0592	0.0158
161	SLV 9	-0.45	3.19	24.57	-0.17	-0.0477	0.0259
161	SLV 10	-0.45	3.19	24.57	-0.17	-0.0477	0.0259
161	SLV 11	0.03	-19.73	68.67	1.0309	-0.1054	0.0087
161	SLV 12	0.03	-19.73	68.67	1.0309	-0.1054	0.0087
161	SLV 13	-0.15	-3.47	30.72	0.1687	-0.1217	0.0116
161	SLV 14	-0.15	-3.47	30.72	0.1687	-0.1217	0.0116
161	SLV 15	0	-10.35	43.95	0.5289	-0.1391	0.0064
161	SLV 16	0	-10.35	43.95	0.5289	-0.1391	0.0064
162	SLU 1	-0.01	-0.11	27.43	0.0116	-0.0031	0
162	SLU 2	-0.01	-0.11	27.53	0.0122	-0.0031	0
162	SLU 3	-0.01	-0.1	28.26	0.0129	-0.0033	0
162	SLU 4	-0.01	-0.11	28.32	0.0133	-0.0033	0
162	SLU 5	-0.01	-0.13	27.98	0.0144	-0.0033	0
162	SLU 6	-0.01	-0.12	28.71	0.0151	-0.0035	0
162	SLU 7	-0.01	-0.12	28.77	0.0155	-0.0035	0
162	SLU 8	-0.01	-0.13	28.34	0.0159	-0.0035	0
162	SLU 9	-0.01	-0.14	28.39	0.0163	-0.0035	0
162	SLU 10	-0.01	-0.31	33.45	0.0217	-0.0034	0
162	SLU 11	-0.01	-0.3	34.18	0.0224	-0.0036	0
162	SLU 12	-0.01	-0.3	34.24	0.0228	-0.0036	0
162	SLU 13	-0.01	-0.32	33.9	0.0239	-0.0036	0
162	SLU 14	-0.01	-0.31	34.63	0.0246	-0.0038	0
162	SLU 15	-0.01	-0.32	34.69	0.025	-0.0039	0
162	SLU 16	-0.01	-0.33	34.26	0.0254	-0.0038	0
162	SLU 17	-0.01	-0.33	34.32	0.0258	-0.0038	0
162	SLU 18	-0.01	-0.38	35.89	0.0252	-0.0035	0
162	SLU 19	-0.01	-0.39	35.95	0.0255	-0.0035	0
162	SLU 20	-0.01	-0.4	36.34	0.0273	-0.0037	0
162	SLU 21	-0.01	-0.4	36.4	0.0277	-0.0037	0
162	SLU 22	-0.01	-0.06	31.4	0.0126	-0.0036	0
162	SLU 23	-0.01	-0.07	31.5	0.0132	-0.0036	0
162	SLU 24	-0.01	-0.06	32.23	0.014	-0.0038	0
162	SLU 25	-0.01	-0.07	32.29	0.0143	-0.0038	0
162	SLU 26	-0.01	-0.09	31.95	0.0154	-0.0038	0
162	SLU 27	-0.01	-0.08	32.68	0.0162	-0.004	0
162	SLU 28	-0.01	-0.08	32.74	0.0165	-0.004	0
162	SLU 29	-0.01	-0.09	32.31	0.017	-0.004	0
162	SLU 30	-0.01	-0.1	32.36	0.0173	-0.004	0
162	SLU 31	-0.01	-0.27	37.42	0.0227	-0.0039	0
162	SLU 32	-0.01	-0.26	38.15	0.0235	-0.0041	0
162	SLU 33	-0.01	-0.26	38.21	0.0238	-0.0041	0
162	SLU 34	-0.01	-0.28	37.87	0.0249	-0.0041	0
162	SLU 35	-0.01	-0.27	38.6	0.0257	-0.0043	0
162	SLU 36	-0.01	-0.28	38.66	0.026	-0.0044	0
162	SLU 37	-0.01	-0.29	38.23	0.0265	-0.0043	0
162	SLU 38	-0.01	-0.29	38.29	0.0268	-0.0043	0
162	SLU 39	-0.01	-0.34	39.86	0.0262	-0.004	0
162	SLU 40	-0.01	-0.35	39.92	0.0266	-0.004	0
162	SLU 41	-0.01	-0.35	40.31	0.0284	-0.0042	0
162	SLU 42	-0.01	-0.36	40.37	0.0287	-0.0042	0
162	SLU 43	-0.01	-0.15	34.3	0.0147	-0.0038	0
162	SLU 44	-0.01	-0.16	34.4	0.0153	-0.0039	0
162	SLU 45	-0.01	-0.15	35.13	0.016	-0.0041	0
162	SLU 46	-0.01	-0.15	35.19	0.0164	-0.0041	0
162	SLU 47	-0.01	-0.17	34.85	0.0175	-0.0041	0
162	SLU 48	-0.01	-0.16	35.58	0.0182	-0.0043	0
162	SLU 49	-0.01	-0.17	35.64	0.0186	-0.0043	0
162	SLU 50	-0.01	-0.18	35.2	0.019	-0.0042	0
162	SLU 51	-0.01	-0.18	35.26	0.0194	-0.0043	0
162	SLU 52	-0.01	-0.35	40.32	0.0248	-0.0042	0
162	SLU 53	-0.01	-0.34	41.05	0.0255	-0.0044	0
162	SLU 54	-0.01	-0.35	41.11	0.0259	-0.0044	0
162	SLU 55	-0.01	-0.37	40.77	0.027	-0.0044	0
162	SLU 56	-0.01	-0.36	41.5	0.0277	-0.0046	0
162	SLU 57	-0.01	-0.36	41.56	0.0281	-0.0046	0
162	SLU 58	-0.01	-0.37	41.12	0.0285	-0.0045	0
162	SLU 59	-0.01	-0.38	41.18	0.0289	-0.0046	0
162	SLU 60	-0.01	-0.43	42.76	0.0283	-0.0043	0
162	SLU 61	-0.01	-0.43	42.82	0.0286	-0.0043	0
162	SLU 62	-0.01	-0.44	43.21	0.0304	-0.0045	0
162	SLU 63	-0.01	-0.45	43.27	0.0308	-0.0045	0
162	SLU 64	-0.01	-0.11	38.27	0.0157	-0.0043	0
162	SLU 65	-0.01	-0.12	38.37	0.0164	-0.0044	0
162	SLU 66	-0.01	-0.11	39.1	0.0171	-0.0046	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
162	SLU 67	-0.01	-0.11	39.16	0.0175	-0.0046	0
162	SLU 68	-0.01	-0.13	38.82	0.0185	-0.0046	0
162	SLU 69	-0.01	-0.12	39.55	0.0193	-0.0048	0
162	SLU 70	-0.01	-0.13	39.61	0.0196	-0.0048	0
162	SLU 71	-0.01	-0.14	39.17	0.0201	-0.0047	0
162	SLU 72	-0.01	-0.14	39.23	0.0205	-0.0048	0
162	SLU 73	-0.01	-0.31	44.29	0.0259	-0.0047	0
162	SLU 74	-0.01	-0.3	45.02	0.0266	-0.0049	0
162	SLU 75	-0.01	-0.31	45.08	0.027	-0.0049	0
162	SLU 76	-0.01	-0.33	44.74	0.028	-0.0049	0
162	SLU 77	-0.01	-0.32	45.47	0.0288	-0.0051	0
162	SLU 78	-0.01	-0.32	45.53	0.0291	-0.0051	0
162	SLU 79	-0.01	-0.33	45.09	0.0296	-0.005	0
162	SLU 80	-0.01	-0.34	45.15	0.03	-0.0051	0
162	SLU 81	-0.01	-0.39	46.73	0.0293	-0.0048	0
162	SLU 82	-0.01	-0.39	46.79	0.0297	-0.0048	0
162	SLU 83	-0.01	-0.4	47.18	0.0315	-0.005	0
162	SLU 84	-0.01	-0.41	47.24	0.0319	-0.005	0
162	SLE RA 1	-0.01	-0.09	28.57	0.0119	-0.0032	0
162	SLE RA 2	-0.01	-0.1	28.63	0.0123	-0.0032	0
162	SLE RA 3	-0.01	-0.09	29.12	0.0128	-0.0034	0
162	SLE RA 4	-0.01	-0.1	29.16	0.013	-0.0034	0
162	SLE RA 5	-0.01	-0.11	28.93	0.0137	-0.0034	0
162	SLE RA 6	-0.01	-0.1	29.42	0.0142	-0.0035	0
162	SLE RA 7	-0.01	-0.11	29.46	0.0145	-0.0035	0
162	SLE RA 8	-0.01	-0.11	29.17	0.0148	-0.0035	0
162	SLE RA 9	-0.01	-0.12	29.21	0.015	-0.0035	0
162	SLE RA 10	-0.01	-0.23	32.58	0.0186	-0.0034	0
162	SLE RA 11	-0.01	-0.22	33.06	0.0191	-0.0036	0
162	SLE RA 12	-0.01	-0.22	33.1	0.0194	-0.0036	0
162	SLE RA 13	-0.01	-0.24	32.88	0.0201	-0.0036	0
162	SLE RA 14	-0.01	-0.23	33.37	0.0206	-0.0037	0
162	SLE RA 15	-0.01	-0.23	33.41	0.0208	-0.0037	0
162	SLE RA 16	-0.01	-0.24	33.12	0.0211	-0.0037	0
162	SLE RA 17	-0.01	-0.24	33.16	0.0214	-0.0037	0
162	SLE RA 18	-0.01	-0.28	34.21	0.0209	-0.0035	0
162	SLE RA 19	-0.01	-0.28	34.24	0.0212	-0.0035	0
162	SLE RA 20	-0.01	-0.29	34.51	0.0224	-0.0036	0
162	SLE RA 21	-0.01	-0.29	34.55	0.0226	-0.0037	0
162	SLE FR 1	-0.01	-0.09	28.57	0.0119	-0.0032	0
162	SLE FR 2	-0.01	-0.09	28.58	0.012	-0.0032	0
162	SLE FR 3	-0.01	-0.1	28.69	0.0125	-0.0033	0
162	SLE FR 4	-0.01	-0.15	30.27	0.0147	-0.0033	0
162	SLE FR 5	-0.01	-0.15	30.38	0.0152	-0.0034	0
162	SLE FR 6	-0.01	-0.19	31.39	0.0164	-0.0034	0
162	SLE QP 1	-0.01	-0.09	28.57	0.0119	-0.0032	0
162	SLE QP 2	-0.01	-0.15	30.26	0.0146	-0.0033	0
162	SLD 1	-0.05	-0.19	22.94	0.0228	0.0152	-0.0001
162	SLD 2	-0.05	-0.19	22.94	0.0228	0.0152	-0.0001
162	SLD 3	-0.05	-1.57	26.54	0.0975	0.0114	-0.0001
162	SLD 4	-0.05	-1.57	26.54	0.0975	0.0114	-0.0001
162	SLD 5	-0.01	1.94	22.61	-0.0963	0.0079	0
162	SLD 6	-0.01	1.94	22.61	-0.0963	0.0079	0
162	SLD 7	-0.03	-2.67	34.59	0.1529	-0.0045	0
162	SLD 8	-0.03	-2.67	34.59	0.1529	-0.0045	0
162	SLD 9	0.02	2.37	25.92	-0.1237	-0.0021	0
162	SLD 10	0.02	2.37	25.92	-0.1237	-0.0021	0
162	SLD 11	0	-2.23	37.9	0.1255	-0.0145	0.0001
162	SLD 12	0	-2.23	37.9	0.1255	-0.0145	0.0001
162	SLD 13	0.04	1.27	33.98	-0.0684	-0.018	0.0001
162	SLD 14	0.04	1.27	33.98	-0.0684	-0.018	0.0001
162	SLD 15	0.03	-0.11	37.57	0.0064	-0.0217	0.0001
162	SLD 16	0.03	-0.11	37.57	0.0064	-0.0217	0.0001
162	SLV 1	-0.11	-0.24	13.13	0.0344	0.0398	-0.0003
162	SLV 2	-0.11	-0.24	13.13	0.0344	0.0398	-0.0003
162	SLV 3	-0.12	-3.48	21.56	0.2098	0.0311	-0.0002
162	SLV 4	-0.12	-3.48	21.56	0.2098	0.0311	-0.0002
162	SLV 5	-0.01	4.74	12.34	-0.2455	0.0228	-0.0001
162	SLV 6	-0.01	4.74	12.34	-0.2455	0.0228	-0.0001
162	SLV 7	-0.07	-6.06	40.43	0.3392	-0.0062	0
162	SLV 8	-0.07	-6.06	40.43	0.3392	-0.0062	0
162	SLV 9	0.05	5.77	20.08	-0.31	-0.0004	0
162	SLV 10	0.05	5.77	20.08	-0.31	-0.0004	0
162	SLV 11	0	-5.04	48.18	0.2747	-0.0294	0.0002
162	SLV 12	0	-5.04	48.18	0.2747	-0.0294	0.0002
162	SLV 13	0.11	3.19	38.96	-0.1806	-0.0377	0.0002
162	SLV 14	0.11	3.19	38.96	-0.1806	-0.0377	0.0002
162	SLV 15	0.09	-0.06	47.38	-0.0052	-0.0464	0.0003
162	SLV 16	0.09	-0.06	47.38	-0.0052	-0.0464	0.0003
163	SLU 1	0.12	0.44	46.56	-0.0354	0.0203	-0.0001
163	SLU 2	0.12	0.68	46.46	-0.0493	0.017	0
163	SLU 3	0.12	0.56	47.98	-0.0424	0.0212	-0.0001
163	SLU 4	0.12	0.71	47.92	-0.0508	0.0193	-0.0001
163	SLU 5	0.12	0.79	47.31	-0.0556	0.0176	0
163	SLU 6	0.12	0.68	48.84	-0.0486	0.0218	-0.0001
163	SLU 7	0.12	0.82	48.78	-0.057	0.0199	-0.0001
163	SLU 8	0.12	0.66	48.27	-0.0479	0.0215	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
163	SLU 9	0.12	0.81	48.21	-0.0562	0.0195	-0.0001
163	SLU 10	0.14	1.07	53.56	-0.07	0.0227	-0.0001
163	SLU 11	0.14	0.95	55.08	-0.0631	0.0269	-0.0002
163	SLU 12	0.14	1.1	55.02	-0.0714	0.0249	-0.0001
163	SLU 13	0.14	1.18	54.41	-0.0762	0.0233	-0.0001
163	SLU 14	0.15	1.06	55.94	-0.0693	0.0275	-0.0002
163	SLU 15	0.15	1.21	55.87	-0.0777	0.0255	-0.0001
163	SLU 16	0.14	1.05	55.37	-0.0685	0.0271	-0.0002
163	SLU 17	0.14	1.2	55.31	-0.0769	0.0252	-0.0001
163	SLU 18	0.15	0.99	56.7	-0.065	0.0283	-0.0002
163	SLU 19	0.15	1.14	56.64	-0.0733	0.0264	-0.0001
163	SLU 20	0.15	1.1	57.56	-0.0712	0.0289	-0.0002
163	SLU 21	0.15	1.25	57.5	-0.0795	0.027	-0.0001
163	SLU 22	0.14	0.8	53.25	-0.0547	0.0252	-0.0002
163	SLU 23	0.14	1.04	53.15	-0.0686	0.022	-0.0001
163	SLU 24	0.14	0.92	54.67	-0.0617	0.0261	-0.0002
163	SLU 25	0.14	1.07	54.61	-0.0701	0.0242	-0.0001
163	SLU 26	0.14	1.15	54	-0.0749	0.0226	-0.0001
163	SLU 27	0.14	1.03	55.52	-0.0679	0.0267	-0.0002
163	SLU 28	0.14	1.18	55.46	-0.0763	0.0248	-0.0001
163	SLU 29	0.14	1.02	54.96	-0.0672	0.0264	-0.0002
163	SLU 30	0.14	1.17	54.9	-0.0755	0.0245	-0.0001
163	SLU 31	0.16	1.43	60.24	-0.0893	0.0276	-0.0001
163	SLU 32	0.16	1.31	61.77	-0.0824	0.0318	-0.0002
163	SLU 33	0.16	1.46	61.7	-0.0907	0.0299	-0.0001
163	SLU 34	0.16	1.54	61.1	-0.0955	0.0282	-0.0001
163	SLU 35	0.17	1.42	62.62	-0.0886	0.0324	-0.0002
163	SLU 36	0.17	1.57	62.56	-0.097	0.0305	-0.0001
163	SLU 37	0.17	1.41	62.06	-0.0878	0.032	-0.0002
163	SLU 38	0.17	1.55	62	-0.0962	0.0301	-0.0001
163	SLU 39	0.17	1.35	63.39	-0.0843	0.0332	-0.0002
163	SLU 40	0.17	1.5	63.33	-0.0926	0.0313	-0.0001
163	SLU 41	0.17	1.46	64.24	-0.0905	0.0338	-0.0002
163	SLU 42	0.17	1.61	64.18	-0.0988	0.0319	-0.0002
163	SLU 43	0.14	0.44	58.24	-0.0394	0.0247	-0.0002
163	SLU 44	0.14	0.68	58.14	-0.0533	0.0214	-0.0001
163	SLU 45	0.15	0.57	59.66	-0.0464	0.0256	-0.0002
163	SLU 46	0.15	0.71	59.6	-0.0548	0.0237	-0.0001
163	SLU 47	0.15	0.8	58.99	-0.0596	0.022	-0.0001
163	SLU 48	0.15	0.68	60.51	-0.0526	0.0262	-0.0002
163	SLU 49	0.15	0.83	60.45	-0.061	0.0243	-0.0001
163	SLU 50	0.15	0.67	59.95	-0.0519	0.0259	-0.0002
163	SLU 51	0.15	0.81	59.89	-0.0602	0.0239	-0.0001
163	SLU 52	0.17	1.07	65.23	-0.074	0.0271	-0.0001
163	SLU 53	0.17	0.96	66.76	-0.0671	0.0313	-0.0002
163	SLU 54	0.17	1.1	66.7	-0.0755	0.0293	-0.0001
163	SLU 55	0.17	1.19	66.09	-0.0803	0.0277	-0.0001
163	SLU 56	0.17	1.07	67.61	-0.0733	0.0319	-0.0002
163	SLU 57	0.17	1.22	67.55	-0.0817	0.0299	-0.0001
163	SLU 58	0.17	1.06	67.05	-0.0725	0.0315	-0.0002
163	SLU 59	0.17	1.2	66.99	-0.0809	0.0296	-0.0001
163	SLU 60	0.18	1	68.38	-0.069	0.0327	-0.0002
163	SLU 61	0.18	1.14	68.32	-0.0773	0.0308	-0.0002
163	SLU 62	0.18	1.11	69.24	-0.0752	0.0333	-0.0002
163	SLU 63	0.18	1.26	69.17	-0.0835	0.0314	-0.0002
163	SLU 64	0.16	0.8	64.92	-0.0587	0.0296	-0.0002
163	SLU 65	0.16	1.04	64.82	-0.0726	0.0264	-0.0001
163	SLU 66	0.17	0.93	66.34	-0.0657	0.0305	-0.0002
163	SLU 67	0.17	1.07	66.28	-0.0741	0.0286	-0.0001
163	SLU 68	0.17	1.16	65.68	-0.0789	0.027	-0.0001
163	SLU 69	0.17	1.04	67.2	-0.0719	0.0311	-0.0002
163	SLU 70	0.17	1.19	67.14	-0.0803	0.0292	-0.0001
163	SLU 71	0.17	1.03	66.64	-0.0712	0.0308	-0.0002
163	SLU 72	0.17	1.17	66.57	-0.0795	0.0288	-0.0001
163	SLU 73	0.19	1.43	71.92	-0.0933	0.032	-0.0001
163	SLU 74	0.19	1.32	73.44	-0.0864	0.0362	-0.0002
163	SLU 75	0.19	1.46	73.38	-0.0948	0.0343	-0.0002
163	SLU 76	0.19	1.55	72.78	-0.0996	0.0326	-0.0001
163	SLU 77	0.19	1.43	74.3	-0.0926	0.0368	-0.0002
163	SLU 78	0.2	1.58	74.24	-0.101	0.0349	-0.0002
163	SLU 79	0.19	1.42	73.73	-0.0918	0.0364	-0.0002
163	SLU 80	0.19	1.56	73.67	-0.1002	0.0345	-0.0002
163	SLU 81	0.2	1.36	75.07	-0.0883	0.0376	-0.0002
163	SLU 82	0.2	1.5	75	-0.0966	0.0357	-0.0002
163	SLU 83	0.2	1.47	75.92	-0.0945	0.0382	-0.0002
163	SLU 84	0.2	1.62	75.86	-0.1028	0.0363	-0.0002
163	SLE RA 1	0.12	0.54	48.47	-0.0409	0.0217	-0.0001
163	SLE RA 2	0.12	0.7	48.4	-0.0502	0.0195	-0.0001
163	SLE RA 3	0.12	0.62	49.42	-0.0456	0.0223	-0.0001
163	SLE RA 4	0.12	0.72	49.38	-0.0512	0.021	-0.0001
163	SLE RA 5	0.12	0.77	48.97	-0.0544	0.0199	-0.0001
163	SLE RA 6	0.13	0.7	49.99	-0.0497	0.0227	-0.0001
163	SLE RA 7	0.13	0.79	49.95	-0.0553	0.0214	-0.0001
163	SLE RA 8	0.13	0.69	49.61	-0.0492	0.0225	-0.0001
163	SLE RA 9	0.13	0.79	49.57	-0.0548	0.0212	-0.0001
163	SLE RA 10	0.14	0.96	53.14	-0.064	0.0233	-0.0001
163	SLE RA 11	0.14	0.88	54.15	-0.0594	0.0261	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
163	SLE RA 12	0.14	0.98	54.11	-0.0649	0.0248	-0.0001
163	SLE RA 13	0.14	1.03	53.71	-0.0681	0.0237	-0.0001
163	SLE RA 14	0.14	0.96	54.72	-0.0635	0.0265	-0.0002
163	SLE RA 15	0.14	1.05	54.68	-0.0691	0.0252	-0.0001
163	SLE RA 16	0.14	0.95	54.35	-0.063	0.0262	-0.0002
163	SLE RA 17	0.14	1.04	54.3	-0.0686	0.0249	-0.0001
163	SLE RA 18	0.14	0.91	55.23	-0.0606	0.027	-0.0002
163	SLE RA 19	0.14	1.01	55.19	-0.0662	0.0258	-0.0001
163	SLE RA 20	0.15	0.98	55.8	-0.0648	0.0274	-0.0002
163	SLE RA 21	0.15	1.08	55.76	-0.0703	0.0262	-0.0001
163	SLE FR 1	0.12	0.54	48.47	-0.0409	0.0217	-0.0001
163	SLE FR 2	0.12	0.57	48.46	-0.0428	0.0212	-0.0001
163	SLE FR 3	0.12	0.57	48.7	-0.0426	0.0218	-0.0001
163	SLE FR 4	0.13	0.68	50.49	-0.0487	0.0229	-0.0001
163	SLE FR 5	0.13	0.68	50.73	-0.0485	0.0234	-0.0001
163	SLE FR 6	0.13	0.72	51.85	-0.0508	0.0244	-0.0002
163	SLE QP 1	0.12	0.54	48.47	-0.0409	0.0217	-0.0001
163	SLE QP 2	0.13	0.65	50.5	-0.0468	0.0233	-0.0001
163	SLD 1	0.23	3.05	66.87	-0.1775	0.0554	-0.0004
163	SLD 2	0.23	3.05	66.87	-0.1775	0.0554	-0.0004
163	SLD 3	0.14	0.32	71.36	-0.0285	0.0418	-0.0005
163	SLD 4	0.14	0.32	71.36	-0.0285	0.0418	-0.0005
163	SLD 5	0.29	5.52	48.6	-0.312	0.0536	0
163	SLD 6	0.29	5.52	48.6	-0.312	0.0536	0
163	SLD 7	0	-3.6	63.57	0.1847	0.0082	-0.0005
163	SLD 8	0	-3.6	63.57	0.1847	0.0082	-0.0005
163	SLD 9	0.26	4.9	37.43	-0.2783	0.0384	0.0002
163	SLD 10	0.26	4.9	37.43	-0.2783	0.0384	0.0002
163	SLD 11	-0.04	-4.22	52.4	0.2184	-0.007	-0.0003
163	SLD 12	-0.04	-4.22	52.4	0.2184	-0.007	-0.0003
163	SLD 13	0.11	0.98	29.64	-0.0652	0.0047	0.0002
163	SLD 14	0.11	0.98	29.64	-0.0652	0.0047	0.0002
163	SLD 15	0.03	-1.75	34.13	0.0838	-0.0089	0.0001
163	SLD 16	0.03	-1.75	34.13	0.0838	-0.0089	0.0001
163	SLV 1	0.38	6.3	88.81	-0.3545	0.1	-0.0007
163	SLV 2	0.38	6.3	88.81	-0.3545	0.1	-0.0007
163	SLV 3	0.16	-0.04	99.25	-0.009	0.0652	-0.0011
163	SLV 4	0.16	-0.04	99.25	-0.009	0.0652	-0.0011
163	SLV 5	0.54	11.96	46.17	-0.663	0.099	0.0003
163	SLV 6	0.54	11.96	46.17	-0.663	0.099	0.0003
163	SLV 7	-0.2	-9.17	80.96	0.4884	-0.0169	-0.0011
163	SLV 8	-0.2	-9.17	80.96	0.4884	-0.0169	-0.0011
163	SLV 9	0.46	10.47	20.05	-0.5821	0.0634	0.0008
163	SLV 10	0.46	10.47	20.05	-0.5821	0.0634	0.0008
163	SLV 11	-0.29	-10.66	54.84	0.5693	-0.0525	-0.0006
163	SLV 12	-0.29	-10.66	54.84	0.5693	-0.0525	-0.0006
163	SLV 13	0.1	1.33	1.75	-0.0846	-0.0187	0.0008
163	SLV 14	0.1	1.33	1.75	-0.0846	-0.0187	0.0008
163	SLV 15	-0.12	-5	12.19	0.2608	-0.0535	0.0004
163	SLV 16	-0.12	-5	12.19	0.2608	-0.0535	0.0004
164	SLU 1	-0.12	-4.76	69.93	0.2087	-0.0345	0.0003
164	SLU 2	-0.12	-4.68	70.32	0.2005	-0.0315	0.0002
164	SLU 3	-0.12	-4.84	72.2	0.2113	-0.0362	0.0003
164	SLU 4	-0.12	-4.79	72.43	0.2063	-0.0344	0.0002
164	SLU 5	-0.12	-4.71	71.72	0.2009	-0.0327	0.0002
164	SLU 6	-0.13	-4.87	73.6	0.2116	-0.0373	0.0003
164	SLU 7	-0.13	-4.82	73.84	0.2067	-0.0355	0.0003
164	SLU 8	-0.12	-4.82	72.73	0.2094	-0.0368	0.0003
164	SLU 9	-0.12	-4.77	72.97	0.2045	-0.035	0.0002
164	SLU 10	-0.14	-4.99	80.3	0.2117	-0.039	0.0002
164	SLU 11	-0.15	-5.14	82.18	0.2225	-0.0436	0.0004
164	SLU 12	-0.15	-5.1	82.42	0.2176	-0.0418	0.0003
164	SLU 13	-0.14	-5.01	81.7	0.2121	-0.0401	0.0003
164	SLU 14	-0.15	-5.17	83.58	0.2229	-0.0448	0.0004
164	SLU 15	-0.15	-5.12	83.82	0.218	-0.043	0.0003
164	SLU 16	-0.15	-5.12	82.72	0.2207	-0.0443	0.0004
164	SLU 17	-0.15	-5.07	82.95	0.2158	-0.0425	0.0003
164	SLU 18	-0.15	-5.19	84.19	0.2248	-0.0451	0.0004
164	SLU 19	-0.15	-5.15	84.42	0.2199	-0.0433	0.0003
164	SLU 20	-0.15	-5.22	85.59	0.2251	-0.0463	0.0004
164	SLU 21	-0.15	-5.18	85.83	0.2202	-0.0445	0.0003
164	SLU 22	-0.14	-5.12	79.59	0.2229	-0.0413	0.0003
164	SLU 23	-0.14	-5.05	79.99	0.2147	-0.0383	0.0002
164	SLU 24	-0.14	-5.2	81.87	0.2255	-0.043	0.0003
164	SLU 25	-0.14	-5.16	82.1	0.2205	-0.0412	0.0003
164	SLU 26	-0.14	-5.08	81.39	0.2151	-0.0395	0.0003
164	SLU 27	-0.15	-5.23	83.27	0.2258	-0.0442	0.0004
164	SLU 28	-0.15	-5.18	83.5	0.2209	-0.0424	0.0003
164	SLU 29	-0.15	-5.18	82.4	0.2236	-0.0436	0.0004
164	SLU 30	-0.15	-5.13	82.63	0.2187	-0.0418	0.0003
164	SLU 31	-0.16	-5.35	89.97	0.2259	-0.0458	0.0003
164	SLU 32	-0.17	-5.5	91.85	0.2367	-0.0504	0.0004
164	SLU 33	-0.17	-5.46	92.08	0.2318	-0.0486	0.0003
164	SLU 34	-0.17	-5.38	91.37	0.2263	-0.0469	0.0003
164	SLU 35	-0.17	-5.53	93.25	0.2371	-0.0516	0.0004
164	SLU 36	-0.17	-5.49	93.49	0.2322	-0.0498	0.0004
164	SLU 37	-0.17	-5.48	92.38	0.2349	-0.0511	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
164	SLU 38	-0.17	-5.44	92.62	0.23	-0.0493	0.0003
164	SLU 39	-0.17	-5.56	93.85	0.239	-0.052	0.0004
164	SLU 40	-0.17	-5.51	94.09	0.234	-0.0502	0.0004
164	SLU 41	-0.17	-5.58	95.26	0.2393	-0.0531	0.0004
164	SLU 42	-0.18	-5.54	95.49	0.2344	-0.0513	0.0004
164	SLU 43	-0.14	-6.07	87.59	0.2664	-0.0425	0.0004
164	SLU 44	-0.15	-5.99	87.98	0.2582	-0.0395	0.0003
164	SLU 45	-0.15	-6.14	89.86	0.269	-0.0442	0.0004
164	SLU 46	-0.15	-6.1	90.1	0.2641	-0.0424	0.0003
164	SLU 47	-0.15	-6.02	89.38	0.2586	-0.0407	0.0003
164	SLU 48	-0.15	-6.17	91.26	0.2694	-0.0453	0.0004
164	SLU 49	-0.15	-6.13	91.5	0.2645	-0.0435	0.0003
164	SLU 50	-0.15	-6.12	90.4	0.2672	-0.0448	0.0004
164	SLU 51	-0.15	-6.08	90.63	0.2623	-0.043	0.0003
164	SLU 52	-0.17	-6.29	97.96	0.2695	-0.047	0.0003
164	SLU 53	-0.17	-6.45	99.84	0.2803	-0.0516	0.0004
164	SLU 54	-0.17	-6.4	100.08	0.2753	-0.0498	0.0004
164	SLU 55	-0.17	-6.32	99.37	0.2699	-0.0481	0.0003
164	SLU 56	-0.18	-6.47	101.25	0.2806	-0.0528	0.0004
164	SLU 57	-0.18	-6.43	101.48	0.2757	-0.051	0.0004
164	SLU 58	-0.17	-6.42	100.38	0.2784	-0.0523	0.0004
164	SLU 59	-0.18	-6.38	100.61	0.2735	-0.0505	0.0004
164	SLU 60	-0.18	-6.5	101.85	0.2825	-0.0532	0.0004
164	SLU 61	-0.18	-6.45	102.09	0.2776	-0.0514	0.0004
164	SLU 62	-0.18	-6.53	103.25	0.2829	-0.0543	0.0004
164	SLU 63	-0.18	-6.48	103.49	0.278	-0.0525	0.0004
164	SLU 64	-0.17	-6.43	97.26	0.2806	-0.0494	0.0004
164	SLU 65	-0.17	-6.35	97.65	0.2724	-0.0464	0.0003
164	SLU 66	-0.17	-6.51	99.53	0.2832	-0.051	0.0004
164	SLU 67	-0.17	-6.46	99.76	0.2783	-0.0492	0.0004
164	SLU 68	-0.17	-6.38	99.05	0.2728	-0.0475	0.0003
164	SLU 69	-0.17	-6.53	100.93	0.2836	-0.0522	0.0004
164	SLU 70	-0.17	-6.49	101.17	0.2787	-0.0504	0.0004
164	SLU 71	-0.17	-6.48	100.06	0.2814	-0.0517	0.0004
164	SLU 72	-0.17	-6.44	100.3	0.2765	-0.0499	0.0004
164	SLU 73	-0.19	-6.65	107.63	0.2837	-0.0538	0.0004
164	SLU 74	-0.19	-6.81	109.51	0.2945	-0.0585	0.0005
164	SLU 75	-0.19	-6.76	109.75	0.2895	-0.0567	0.0004
164	SLU 76	-0.19	-6.68	109.03	0.2841	-0.0549	0.0004
164	SLU 77	-0.2	-6.84	110.91	0.2948	-0.0596	0.0005
164	SLU 78	-0.2	-6.79	111.15	0.2899	-0.0578	0.0004
164	SLU 79	-0.2	-6.79	110.05	0.2926	-0.0591	0.0005
164	SLU 80	-0.2	-6.74	110.28	0.2877	-0.0573	0.0004
164	SLU 81	-0.2	-6.86	111.52	0.2967	-0.06	0.0005
164	SLU 82	-0.2	-6.81	111.75	0.2918	-0.0582	0.0004
164	SLU 83	-0.2	-6.89	112.92	0.2971	-0.0611	0.0005
164	SLU 84	-0.2	-6.84	113.16	0.2922	-0.0593	0.0004
164	SLE RA 1	-0.12	-4.86	72.69	0.2127	-0.0365	0.0003
164	SLE RA 2	-0.12	-4.81	72.95	0.2073	-0.0345	0.0002
164	SLE RA 3	-0.13	-4.92	74.2	0.2144	-0.0376	0.0003
164	SLE RA 4	-0.13	-4.89	74.36	0.2112	-0.0364	0.0003
164	SLE RA 5	-0.13	-4.83	73.88	0.2075	-0.0352	0.0002
164	SLE RA 6	-0.13	-4.94	75.14	0.2147	-0.0383	0.0003
164	SLE RA 7	-0.13	-4.9	75.3	0.2114	-0.0371	0.0003
164	SLE RA 8	-0.13	-4.9	74.56	0.2132	-0.038	0.0003
164	SLE RA 9	-0.13	-4.87	74.72	0.21	-0.0368	0.0003
164	SLE RA 10	-0.14	-5.01	79.6	0.2148	-0.0394	0.0003
164	SLE RA 11	-0.14	-5.12	80.86	0.222	-0.0425	0.0003
164	SLE RA 12	-0.14	-5.09	81.02	0.2187	-0.0413	0.0003
164	SLE RA 13	-0.14	-5.03	80.54	0.215	-0.0402	0.0003
164	SLE RA 14	-0.14	-5.14	81.79	0.2222	-0.0433	0.0004
164	SLE RA 15	-0.14	-5.11	81.95	0.2189	-0.0421	0.0003
164	SLE RA 16	-0.14	-5.1	81.21	0.2207	-0.043	0.0003
164	SLE RA 17	-0.14	-5.07	81.37	0.2175	-0.0418	0.0003
164	SLE RA 18	-0.15	-5.15	82.2	0.2234	-0.0436	0.0004
164	SLE RA 19	-0.15	-5.12	82.35	0.2202	-0.0424	0.0003
164	SLE RA 20	-0.15	-5.17	83.13	0.2237	-0.0443	0.0004
164	SLE RA 21	-0.15	-5.14	83.29	0.2204	-0.0431	0.0003
164	SLE FR 1	-0.12	-4.86	72.69	0.2127	-0.0365	0.0003
164	SLE FR 2	-0.12	-4.85	72.74	0.2116	-0.0361	0.0003
164	SLE FR 3	-0.12	-4.87	73.06	0.2128	-0.0368	0.0003
164	SLE FR 4	-0.13	-4.94	75.59	0.2148	-0.0382	0.0003
164	SLE FR 5	-0.13	-4.96	75.91	0.216	-0.0389	0.0003
164	SLE FR 6	-0.13	-5.01	77.44	0.2181	-0.04	0.0003
164	SLE QP 1	-0.12	-4.86	72.69	0.2127	-0.0365	0.0003
164	SLE QP 2	-0.13	-4.95	75.54	0.2159	-0.0386	0.0003
164	SLD 1	-0.12	-2.42	50.67	0.0831	-0.0192	-0.0001
164	SLD 2	-0.12	-2.42	50.67	0.0831	-0.0192	-0.0001
164	SLD 3	-0.03	-4.96	55.36	0.2227	-0.0045	0
164	SLD 4	-0.03	-4.96	55.36	0.2227	-0.0045	0
164	SLD 5	-0.26	-0.34	60.96	-0.0356	-0.055	-0.0001
164	SLD 6	-0.26	-0.34	60.96	-0.0356	-0.055	-0.0001
164	SLD 7	0.04	-8.8	76.6	0.4296	-0.0061	0.0005
164	SLD 8	0.04	-8.8	76.6	0.4296	-0.0061	0.0005
164	SLD 9	-0.3	-1.1	74.48	0.0022	-0.0711	0.0002
164	SLD 10	-0.3	-1.1	74.48	0.0022	-0.0711	0.0002
164	SLD 11	0	-9.56	90.12	0.4675	-0.0222	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
164	SLD 12	0	-9.56	90.12	0.4675	-0.0222	0.0007
164	SLD 13	-0.23	-4.95	95.72	0.2092	-0.0727	0.0006
164	SLD 14	-0.23	-4.95	95.72	0.2092	-0.0727	0.0006
164	SLD 15	-0.14	-7.48	100.41	0.3488	-0.058	0.0008
164	SLD 16	-0.14	-7.48	100.41	0.3488	-0.058	0.0008
164	SLV 1	-0.1	0.96	17.37	-0.0942	0.0054	-0.0007
164	SLV 2	-0.1	0.96	17.37	-0.0942	0.0054	-0.0007
164	SLV 3	0.12	-4.94	28.31	0.2304	0.0428	-0.0003
164	SLV 4	0.12	-4.94	28.31	0.2304	0.0428	-0.0003
164	SLV 5	-0.47	5.77	41.49	-0.3694	-0.0822	-0.0006
164	SLV 6	-0.47	5.77	41.49	-0.3694	-0.0822	-0.0006
164	SLV 7	0.29	-13.89	77.97	0.7126	0.0426	0.0007
164	SLV 8	0.29	-13.89	77.97	0.7126	0.0426	0.0007
164	SLV 9	-0.55	3.99	73.11	-0.2807	-0.1198	-0.0001
164	SLV 10	-0.55	3.99	73.11	-0.2807	-0.1198	-0.0001
164	SLV 11	0.21	-15.67	109.59	0.8013	0.005	0.0012
164	SLV 12	0.21	-15.67	109.59	0.8013	0.005	0.0012
164	SLV 13	-0.38	-4.96	122.77	0.2015	-0.12	0.001
164	SLV 14	-0.38	-4.96	122.77	0.2015	-0.12	0.001
164	SLV 15	-0.16	-10.86	133.71	0.5261	-0.0826	0.0014
164	SLV 16	-0.16	-10.86	133.71	0.5261	-0.0826	0.0014
166	SLU 1	12.55	-0.06	49.18	0.0161	0.6509	0
166	SLU 2	12.32	-0.09	48.92	0.0239	0.6392	0
166	SLU 3	13.1	-0.06	50.86	0.0164	0.6794	0
166	SLU 4	12.96	-0.08	50.7	0.0211	0.6724	0
166	SLU 5	12.67	-0.09	49.97	0.024	0.6575	0
166	SLU 6	13.45	-0.06	51.92	0.0166	0.6978	0
166	SLU 7	13.31	-0.08	51.76	0.0212	0.6908	0
166	SLU 8	13.26	-0.06	51.3	0.0164	0.6875	0
166	SLU 9	13.12	-0.08	51.14	0.021	0.6805	0
166	SLU 10	15.22	-0.1	57.66	0.0261	0.7879	0
166	SLU 11	16.01	-0.07	59.6	0.0187	0.8281	-0.0001
166	SLU 12	15.87	-0.09	59.44	0.0233	0.8211	0
166	SLU 13	15.58	-0.1	58.71	0.0262	0.8062	0
166	SLU 14	16.36	-0.07	60.66	0.0188	0.8465	-0.0001
166	SLU 15	16.22	-0.09	60.5	0.0235	0.8394	0
166	SLU 16	16.17	-0.07	60.04	0.0186	0.8362	-0.0001
166	SLU 17	16.02	-0.09	59.88	0.0233	0.8292	0
166	SLU 18	16.7	-0.07	61.67	0.0193	0.8633	-0.0001
166	SLU 19	16.56	-0.09	61.51	0.0239	0.8563	0
166	SLU 20	17.06	-0.07	62.72	0.0194	0.8816	-0.0001
166	SLU 21	16.92	-0.09	62.57	0.0241	0.8746	-0.0001
166	SLU 22	15.16	-0.07	57.25	0.0182	0.7848	-0.0001
166	SLU 23	14.93	-0.1	56.98	0.0259	0.7731	0
166	SLU 24	15.71	-0.07	58.93	0.0185	0.8134	-0.0001
166	SLU 25	15.57	-0.09	58.77	0.0232	0.8063	0
166	SLU 26	15.28	-0.1	58.04	0.0261	0.7914	0
166	SLU 27	16.06	-0.07	59.98	0.0187	0.8317	-0.0001
166	SLU 28	15.92	-0.09	59.82	0.0233	0.8247	0
166	SLU 29	15.87	-0.07	59.36	0.0185	0.8215	-0.0001
166	SLU 30	15.73	-0.09	59.2	0.0231	0.8144	0
166	SLU 31	17.83	-0.1	65.72	0.0282	0.9218	0
166	SLU 32	18.61	-0.08	67.67	0.0207	0.9621	-0.0001
166	SLU 33	18.47	-0.09	67.51	0.0254	0.955	-0.0001
166	SLU 34	18.18	-0.1	66.78	0.0283	0.9401	0
166	SLU 35	18.97	-0.08	68.72	0.0209	0.9804	-0.0001
166	SLU 36	18.83	-0.09	68.56	0.0255	0.9734	-0.0001
166	SLU 37	18.77	-0.08	68.1	0.0207	0.9702	-0.0001
166	SLU 38	18.63	-0.09	67.94	0.0253	0.9631	-0.0001
166	SLU 39	19.31	-0.08	69.73	0.0213	0.9972	-0.0001
166	SLU 40	19.17	-0.09	69.58	0.026	0.9902	-0.0001
166	SLU 41	19.66	-0.08	70.79	0.0215	1.0156	-0.0001
166	SLU 42	19.52	-0.1	70.63	0.0261	1.0085	-0.0001
166	SLU 43	15.43	-0.08	61.17	0.0202	0.8002	-0.0001
166	SLU 44	15.19	-0.1	60.91	0.028	0.7885	0
166	SLU 45	15.97	-0.08	62.85	0.0206	0.8288	-0.0001
166	SLU 46	15.83	-0.09	62.69	0.0252	0.8218	0
166	SLU 47	15.54	-0.1	61.96	0.0281	0.8069	0
166	SLU 48	16.33	-0.08	63.9	0.0207	0.8471	-0.0001
166	SLU 49	16.19	-0.1	63.75	0.0254	0.8401	0
166	SLU 50	16.13	-0.08	63.28	0.0205	0.8369	-0.0001
166	SLU 51	15.99	-0.09	63.13	0.0252	0.8299	0
166	SLU 52	18.1	-0.11	69.65	0.0302	0.9372	0
166	SLU 53	18.88	-0.08	71.59	0.0228	0.9775	-0.0001
166	SLU 54	18.74	-0.1	71.43	0.0274	0.9705	-0.0001
166	SLU 55	18.45	-0.11	70.7	0.0303	0.9556	0
166	SLU 56	19.23	-0.09	72.64	0.0229	0.9958	-0.0001
166	SLU 57	19.09	-0.1	72.49	0.0276	0.9888	-0.0001
166	SLU 58	19.04	-0.08	72.02	0.0227	0.9856	-0.0001
166	SLU 59	18.9	-0.1	71.87	0.0274	0.9786	-0.0001
166	SLU 60	19.58	-0.09	73.66	0.0234	1.0127	-0.0001
166	SLU 61	19.44	-0.1	73.5	0.028	1.0056	-0.0001
166	SLU 62	19.93	-0.09	74.71	0.0235	1.031	-0.0001
166	SLU 63	19.79	-0.1	74.55	0.0282	1.024	-0.0001
166	SLU 64	18.03	-0.08	69.24	0.0223	0.9342	-0.0001
166	SLU 65	17.8	-0.11	68.97	0.03	0.9225	0
166	SLU 66	18.58	-0.08	70.91	0.0226	0.9627	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
166	SLU 67	18.44	-0.1	70.76	0.0273	0.9557	0
166	SLU 68	18.15	-0.11	70.03	0.0302	0.9408	0
166	SLU 69	18.93	-0.09	71.97	0.0228	0.981	-0.0001
166	SLU 70	18.79	-0.1	71.81	0.0274	0.974	-0.0001
166	SLU 71	18.74	-0.08	71.35	0.0226	0.9708	-0.0001
166	SLU 72	18.6	-0.1	71.19	0.0272	0.9638	-0.0001
166	SLU 73	20.7	-0.12	77.71	0.0323	1.0712	-0.0001
166	SLU 74	21.49	-0.09	79.65	0.0248	1.1114	-0.0001
166	SLU 75	21.35	-0.11	79.5	0.0295	1.1044	-0.0001
166	SLU 76	21.06	-0.12	78.77	0.0324	1.0895	-0.0001
166	SLU 77	21.84	-0.09	80.71	0.025	1.1297	-0.0001
166	SLU 78	21.7	-0.11	80.55	0.0297	1.1227	-0.0001
166	SLU 79	21.64	-0.09	80.09	0.0248	1.1195	-0.0001
166	SLU 80	21.5	-0.11	79.93	0.0295	1.1125	-0.0001
166	SLU 81	22.18	-0.09	81.72	0.0254	1.1466	-0.0001
166	SLU 82	22.04	-0.11	81.57	0.0301	1.1396	-0.0001
166	SLU 83	22.54	-0.09	82.78	0.0256	1.1649	-0.0001
166	SLU 84	22.4	-0.11	82.62	0.0303	1.1579	-0.0001
166	SLE RA 1	13.3	-0.06	51.49	0.0167	0.6892	0
166	SLE RA 2	13.14	-0.08	51.31	0.0219	0.6814	0
166	SLE RA 3	13.66	-0.06	52.6	0.0169	0.7082	0
166	SLE RA 4	13.57	-0.07	52.5	0.02	0.7035	0
166	SLE RA 5	13.38	-0.08	52.02	0.022	0.6936	0
166	SLE RA 6	13.9	-0.06	53.31	0.017	0.7204	-0.0001
166	SLE RA 7	13.81	-0.08	53.2	0.0201	0.7157	0
166	SLE RA 8	13.77	-0.06	52.9	0.0169	0.7136	0
166	SLE RA 9	13.68	-0.07	52.79	0.02	0.7089	0
166	SLE RA 10	15.08	-0.09	57.14	0.0233	0.7805	0
166	SLE RA 11	15.6	-0.07	58.43	0.0184	0.8073	-0.0001
166	SLE RA 12	15.51	-0.08	58.33	0.0215	0.8026	0
166	SLE RA 13	15.31	-0.09	57.84	0.0234	0.7927	0
166	SLE RA 14	15.84	-0.07	59.14	0.0185	0.8195	-0.0001
166	SLE RA 15	15.74	-0.08	59.03	0.0216	0.8149	0
166	SLE RA 16	15.71	-0.07	58.72	0.0184	0.8127	-0.0001
166	SLE RA 17	15.61	-0.08	58.62	0.0215	0.808	0
166	SLE RA 18	16.07	-0.07	59.81	0.0188	0.8308	-0.0001
166	SLE RA 19	15.97	-0.08	59.71	0.0219	0.8261	-0.0001
166	SLE RA 20	16.3	-0.07	60.52	0.0189	0.843	-0.0001
166	SLE RA 21	16.21	-0.08	60.41	0.022	0.8383	-0.0001
166	SLE FR 1	13.3	-0.06	51.49	0.0167	0.6892	0
166	SLE FR 2	13.27	-0.07	51.45	0.0177	0.6876	0
166	SLE FR 3	13.39	-0.06	51.77	0.0167	0.694	0
166	SLE FR 4	14.1	-0.07	53.95	0.0184	0.7301	0
166	SLE FR 5	14.22	-0.06	54.27	0.0174	0.7365	-0.0001
166	SLE FR 6	14.68	-0.07	55.65	0.0177	0.76	-0.0001
166	SLE QP 1	13.3	-0.06	51.49	0.0167	0.6892	0
166	SLE QP 2	14.13	-0.06	53.98	0.0173	0.7316	-0.0001
166	SLD 1	21.72	-0.1	72.91	0.0131	1.1421	-0.0004
166	SLD 2	21.72	-0.1	72.91	0.0131	1.1421	-0.0004
166	SLD 3	22.49	-0.18	74.56	0.0631	1.1814	0
166	SLD 4	22.49	-0.18	74.56	0.0631	1.1814	0
166	SLD 5	15.24	0.04	57.15	-0.0598	0.7952	-0.0007
166	SLD 6	15.24	0.04	57.15	-0.0598	0.7952	-0.0007
166	SLD 7	17.8	-0.21	62.67	0.1069	0.9261	0.0005
166	SLD 8	17.8	-0.21	62.67	0.1069	0.9261	0.0005
166	SLD 9	10.46	0.08	45.3	-0.0722	0.5371	-0.0006
166	SLD 10	10.46	0.08	45.3	-0.0722	0.5371	-0.0006
166	SLD 11	13.02	-0.16	50.82	0.0944	0.6681	0.0006
166	SLD 12	13.02	-0.16	50.82	0.0944	0.6681	0.0006
166	SLD 13	5.77	0.05	33.41	-0.0284	0.2819	-0.0001
166	SLD 14	5.77	0.05	33.41	-0.0284	0.2819	-0.0001
166	SLD 15	6.54	-0.03	35.06	0.0216	0.3212	0.0002
166	SLD 16	6.54	-0.03	35.06	0.0216	0.3212	0.0002
166	SLV 1	31.91	-0.15	98.19	0.0041	1.6927	-0.0008
166	SLV 2	31.91	-0.15	98.19	0.0041	1.6927	-0.0008
166	SLV 3	33.72	-0.34	102.08	0.1315	1.7861	0.0001
166	SLV 4	33.72	-0.34	102.08	0.1315	1.7861	0.0001
166	SLV 5	16.71	0.19	61.35	-0.1798	0.8783	-0.0017
166	SLV 6	16.71	0.19	61.35	-0.1798	0.8783	-0.0017
166	SLV 7	22.76	-0.43	74.31	0.2447	1.1897	0.0014
166	SLV 8	22.76	-0.43	74.31	0.2447	1.1897	0.0014
166	SLV 9	5.49	0.3	33.66	-0.2101	0.2736	-0.0015
166	SLV 10	5.49	0.3	33.66	-0.2101	0.2736	-0.0015
166	SLV 11	11.55	-0.32	46.61	0.2144	0.585	0.0016
166	SLV 12	11.55	-0.32	46.61	0.2144	0.585	0.0016
166	SLV 13	-5.46	0.21	5.89	-0.0968	-0.3229	-0.0002
166	SLV 14	-5.46	0.21	5.89	-0.0968	-0.3229	-0.0002
166	SLV 15	-3.65	0.03	9.77	0.0305	-0.2295	0.0007
166	SLV 16	-3.65	0.03	9.77	0.0305	-0.2295	0.0007
167	SLU 1	11.41	-0.03	45.27	0.0112	0.5204	-0.0001
167	SLU 2	11.14	-0.05	45.12	0.0229	0.5078	-0.0002
167	SLU 3	11.94	-0.03	46.74	0.0115	0.5449	-0.0001
167	SLU 4	11.78	-0.04	46.65	0.0185	0.5373	-0.0001
167	SLU 5	11.48	-0.05	46.06	0.023	0.5234	-0.0002
167	SLU 6	12.28	-0.03	47.68	0.0116	0.5606	-0.0001
167	SLU 7	12.12	-0.04	47.59	0.0185	0.553	-0.0001
167	SLU 8	12.1	-0.03	47.15	0.0114	0.5518	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
167	SLU 9	11.93	-0.04	47.06	0.0184	0.5442	-0.0001
167	SLU 10	13.98	-0.05	53.02	0.0244	0.6383	-0.0002
167	SLU 11	14.78	-0.03	54.64	0.013	0.6755	-0.0001
167	SLU 12	14.62	-0.04	54.55	0.02	0.6679	-0.0001
167	SLU 13	14.32	-0.05	53.96	0.0245	0.654	-0.0002
167	SLU 14	15.12	-0.03	55.58	0.0131	0.6912	-0.0001
167	SLU 15	14.96	-0.04	55.49	0.0201	0.6836	-0.0002
167	SLU 16	14.94	-0.03	55.05	0.013	0.6824	-0.0001
167	SLU 17	14.77	-0.04	54.96	0.02	0.6748	-0.0001
167	SLU 18	15.47	-0.03	56.56	0.0135	0.7069	-0.0001
167	SLU 19	15.31	-0.04	56.47	0.0205	0.6994	-0.0002
167	SLU 20	15.81	-0.03	57.5	0.0136	0.7226	-0.0001
167	SLU 21	15.65	-0.04	57.4	0.0205	0.715	-0.0002
167	SLU 22	13.94	-0.03	52.55	0.0127	0.6365	-0.0001
167	SLU 23	13.67	-0.05	52.4	0.0243	0.6239	-0.0002
167	SLU 24	14.47	-0.03	54.02	0.0129	0.661	-0.0001
167	SLU 25	14.31	-0.04	53.93	0.0199	0.6534	-0.0001
167	SLU 26	14.01	-0.05	53.34	0.0244	0.6396	-0.0002
167	SLU 27	14.81	-0.03	54.96	0.013	0.6767	-0.0001
167	SLU 28	14.65	-0.04	54.87	0.02	0.6691	-0.0002
167	SLU 29	14.62	-0.03	54.43	0.0129	0.6679	-0.0001
167	SLU 30	14.46	-0.04	54.34	0.0198	0.6603	-0.0001
167	SLU 31	16.51	-0.05	60.3	0.0259	0.7545	-0.0002
167	SLU 32	17.31	-0.03	61.92	0.0145	0.7916	-0.0001
167	SLU 33	17.15	-0.05	61.83	0.0215	0.784	-0.0002
167	SLU 34	16.85	-0.05	61.24	0.026	0.7702	-0.0002
167	SLU 35	17.65	-0.03	62.86	0.0146	0.8073	-0.0001
167	SLU 36	17.49	-0.05	62.77	0.0215	0.7997	-0.0002
167	SLU 37	17.46	-0.03	62.33	0.0144	0.7985	-0.0001
167	SLU 38	17.3	-0.05	62.24	0.0214	0.7909	-0.0002
167	SLU 39	18	-0.03	63.83	0.0149	0.8231	-0.0001
167	SLU 40	17.83	-0.05	63.74	0.0219	0.8155	-0.0002
167	SLU 41	18.34	-0.03	64.77	0.015	0.8388	-0.0001
167	SLU 42	18.18	-0.05	64.68	0.022	0.8312	-0.0002
167	SLU 43	13.97	-0.03	56.36	0.0141	0.6367	-0.0001
167	SLU 44	13.7	-0.05	56.21	0.0258	0.6241	-0.0002
167	SLU 45	14.5	-0.03	57.83	0.0144	0.6612	-0.0001
167	SLU 46	14.34	-0.05	57.74	0.0213	0.6536	-0.0002
167	SLU 47	14.04	-0.05	57.15	0.0259	0.6398	-0.0002
167	SLU 48	14.84	-0.03	58.77	0.0144	0.6769	-0.0001
167	SLU 49	14.68	-0.05	58.67	0.0214	0.6693	-0.0002
167	SLU 50	14.65	-0.03	58.24	0.0143	0.6681	-0.0001
167	SLU 51	14.49	-0.05	58.14	0.0213	0.6605	-0.0002
167	SLU 52	16.54	-0.06	64.11	0.0273	0.7546	-0.0002
167	SLU 53	17.34	-0.04	65.73	0.0159	0.7918	-0.0001
167	SLU 54	17.18	-0.05	65.64	0.0229	0.7842	-0.0002
167	SLU 55	16.88	-0.06	65.05	0.0274	0.7703	-0.0002
167	SLU 56	17.68	-0.04	66.66	0.016	0.8075	-0.0001
167	SLU 57	17.52	-0.05	66.57	0.023	0.7999	-0.0002
167	SLU 58	17.49	-0.04	66.13	0.0159	0.7987	-0.0001
167	SLU 59	17.33	-0.05	66.04	0.0228	0.7911	-0.0002
167	SLU 60	18.03	-0.04	67.64	0.0164	0.8232	-0.0001
167	SLU 61	17.86	-0.05	67.55	0.0233	0.8157	-0.0002
167	SLU 62	18.37	-0.04	68.58	0.0164	0.8389	-0.0001
167	SLU 63	18.2	-0.05	68.49	0.0234	0.8313	-0.0002
167	SLU 64	16.49	-0.03	63.64	0.0156	0.7528	-0.0001
167	SLU 65	16.22	-0.06	63.49	0.0272	0.7402	-0.0002
167	SLU 66	17.03	-0.04	65.11	0.0158	0.7773	-0.0001
167	SLU 67	16.86	-0.05	65.01	0.0228	0.7697	-0.0002
167	SLU 68	16.57	-0.06	64.42	0.0273	0.7559	-0.0002
167	SLU 69	17.37	-0.04	66.04	0.0159	0.793	-0.0001
167	SLU 70	17.21	-0.05	65.95	0.0229	0.7854	-0.0002
167	SLU 71	17.18	-0.04	65.51	0.0157	0.7842	-0.0001
167	SLU 72	17.02	-0.05	65.42	0.0227	0.7766	-0.0002
167	SLU 73	19.06	-0.06	71.39	0.0288	0.8708	-0.0002
167	SLU 74	19.87	-0.04	73	0.0174	0.9079	-0.0001
167	SLU 75	19.7	-0.05	72.91	0.0243	0.9003	-0.0002
167	SLU 76	19.41	-0.06	72.32	0.0289	0.8865	-0.0002
167	SLU 77	20.21	-0.04	73.94	0.0174	0.9236	-0.0001
167	SLU 78	20.05	-0.05	73.85	0.0244	0.916	-0.0002
167	SLU 79	20.02	-0.04	73.41	0.0173	0.9148	-0.0001
167	SLU 80	19.86	-0.05	73.32	0.0243	0.9072	-0.0002
167	SLU 81	20.55	-0.04	74.92	0.0178	0.9394	-0.0001
167	SLU 82	20.39	-0.05	74.83	0.0248	0.9318	-0.0002
167	SLU 83	20.89	-0.04	75.86	0.0179	0.9551	-0.0002
167	SLU 84	20.73	-0.05	75.77	0.0249	0.9475	-0.0002
167	SLE RA 1	12.13	-0.03	47.35	0.0117	0.5536	-0.0001
167	SLE RA 2	11.95	-0.04	47.25	0.0194	0.5452	-0.0001
167	SLE RA 3	12.49	-0.03	48.33	0.0118	0.5699	-0.0001
167	SLE RA 4	12.38	-0.04	48.27	0.0165	0.5649	-0.0001
167	SLE RA 5	12.18	-0.04	47.88	0.0195	0.5556	-0.0001
167	SLE RA 6	12.71	-0.03	48.96	0.0119	0.5804	-0.0001
167	SLE RA 7	12.61	-0.04	48.9	0.0165	0.5753	-0.0001
167	SLE RA 8	12.59	-0.03	48.6	0.0118	0.5745	-0.0001
167	SLE RA 9	12.48	-0.04	48.54	0.0164	0.5694	-0.0001
167	SLE RA 10	13.85	-0.04	52.52	0.0205	0.6322	-0.0002
167	SLE RA 11	14.38	-0.03	53.6	0.0129	0.657	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
167	SLE RA 12	14.27	-0.04	53.54	0.0175	0.6519	-0.0001
167	SLE RA 13	14.07	-0.04	53.14	0.0205	0.6427	-0.0002
167	SLE RA 14	14.61	-0.03	54.22	0.0129	0.6674	-0.0001
167	SLE RA 15	14.5	-0.04	54.16	0.0176	0.6624	-0.0001
167	SLE RA 16	14.48	-0.03	53.87	0.0128	0.6615	-0.0001
167	SLE RA 17	14.37	-0.04	53.81	0.0175	0.6565	-0.0001
167	SLE RA 18	14.84	-0.03	54.87	0.0131	0.6779	-0.0001
167	SLE RA 19	14.73	-0.04	54.81	0.0178	0.6729	-0.0001
167	SLE RA 20	15.07	-0.03	55.5	0.0132	0.6884	-0.0001
167	SLE RA 21	14.96	-0.04	55.44	0.0179	0.6833	-0.0001
167	SLE FR 1	12.13	-0.03	47.35	0.0117	0.5536	-0.0001
167	SLE FR 2	12.1	-0.03	47.33	0.0132	0.5519	-0.0001
167	SLE FR 3	12.22	-0.03	47.6	0.0117	0.5578	-0.0001
167	SLE FR 4	12.91	-0.03	49.59	0.0137	0.5892	-0.0001
167	SLE FR 5	13.04	-0.03	49.86	0.0121	0.5951	-0.0001
167	SLE FR 6	13.49	-0.03	51.11	0.0124	0.6158	-0.0001
167	SLE QP 1	12.13	-0.03	47.35	0.0117	0.5536	-0.0001
167	SLE QP 2	12.94	-0.03	49.61	0.0121	0.5909	-0.0001
167	SLD 1	20.91	-0.11	63.19	-0.0056	0.9752	-0.0001
167	SLD 2	20.91	-0.11	63.19	-0.0056	0.9752	-0.0001
167	SLD 3	21.75	-0.06	64.31	0.0893	1.0138	-0.0004
167	SLD 4	21.75	-0.06	64.31	0.0893	1.0138	-0.0004
167	SLD 5	14.06	-0.13	51.98	-0.1373	0.6478	0.0003
167	SLD 6	14.06	-0.13	51.98	-0.1373	0.6478	0.0003
167	SLD 7	16.86	0.05	55.72	0.1793	0.7762	-0.0006
167	SLD 8	16.86	0.05	55.72	0.1793	0.7762	-0.0006
167	SLD 9	9.03	-0.1	43.5	-0.1551	0.4056	0.0004
167	SLD 10	9.03	-0.1	43.5	-0.1551	0.4056	0.0004
167	SLD 11	11.83	0.08	47.23	0.1615	0.534	-0.0005
167	SLD 12	11.83	0.08	47.23	0.1615	0.534	-0.0005
167	SLD 13	4.14	0	34.91	-0.0651	0.168	0.0002
167	SLD 14	4.14	0	34.91	-0.0651	0.168	0.0002
167	SLD 15	4.98	0.06	36.03	0.0298	0.2065	-0.0001
167	SLD 16	4.98	0.06	36.03	0.0298	0.2065	-0.0001
167	SLV 1	31.58	-0.23	81.33	-0.0364	1.4898	-0.0002
167	SLV 2	31.58	-0.23	81.33	-0.0364	1.4898	-0.0002
167	SLV 3	33.57	-0.1	83.96	0.2064	1.5811	-0.0009
167	SLV 4	33.57	-0.1	83.96	0.2064	1.5811	-0.0009
167	SLV 5	15.51	-0.29	55.13	-0.3707	0.7221	0.001
167	SLV 6	15.51	-0.29	55.13	-0.3707	0.7221	0.001
167	SLV 7	22.16	0.16	63.91	0.4386	1.0264	-0.0015
167	SLV 8	22.16	0.16	63.91	0.4386	1.0264	-0.0015
167	SLV 9	3.73	-0.21	35.31	-0.4144	0.1554	0.0013
167	SLV 10	3.73	-0.21	35.31	-0.4144	0.1554	0.0013
167	SLV 11	10.38	0.24	44.09	0.3949	0.4597	-0.0012
167	SLV 12	10.38	0.24	44.09	0.3949	0.4597	-0.0012
167	SLV 13	-7.69	0.04	15.26	-0.1822	-0.3993	0.0007
167	SLV 14	-7.69	0.04	15.26	-0.1822	-0.3993	0.0007
167	SLV 15	-5.69	0.18	17.89	0.0606	-0.308	0
167	SLV 16	-5.69	0.18	17.89	0.0606	-0.308	0
168	SLU 1	10.14	-0.01	44.96	0.008	0.4723	-0.0001
168	SLU 2	9.84	-0.03	44.82	0.0209	0.4581	-0.0002
168	SLU 3	10.64	-0.01	46.39	0.0082	0.4956	-0.0001
168	SLU 4	10.46	-0.02	46.3	0.0159	0.4871	-0.0001
168	SLU 5	10.16	-0.03	45.75	0.0209	0.4731	-0.0002
168	SLU 6	10.96	-0.01	47.31	0.0082	0.5106	-0.0001
168	SLU 7	10.78	-0.02	47.23	0.0159	0.502	-0.0001
168	SLU 8	10.79	-0.01	46.81	0.0081	0.5023	-0.0001
168	SLU 9	10.6	-0.02	46.73	0.0158	0.4937	-0.0001
168	SLU 10	12.45	-0.03	52.76	0.0221	0.5775	-0.0002
168	SLU 11	13.26	-0.01	54.32	0.0094	0.6151	-0.0001
168	SLU 12	13.07	-0.02	54.24	0.0171	0.6065	-0.0001
168	SLU 13	12.77	-0.03	53.68	0.0221	0.5925	-0.0002
168	SLU 14	13.58	-0.01	55.25	0.0094	0.6301	-0.0001
168	SLU 15	13.4	-0.02	55.16	0.0171	0.6215	-0.0001
168	SLU 16	13.4	-0.01	54.74	0.0093	0.6217	-0.0001
168	SLU 17	13.22	-0.02	54.66	0.017	0.6132	-0.0001
168	SLU 18	13.88	-0.01	56.3	0.0097	0.643	-0.0001
168	SLU 19	13.69	-0.02	56.22	0.0175	0.6344	-0.0001
168	SLU 20	14.2	-0.01	57.22	0.0098	0.658	-0.0001
168	SLU 21	14.02	-0.03	57.14	0.0175	0.6494	-0.0001
168	SLU 22	12.46	-0.01	52.23	0.0091	0.5788	-0.0001
168	SLU 23	12.16	-0.03	52.1	0.022	0.5646	-0.0002
168	SLU 24	12.96	-0.01	53.66	0.0092	0.6021	-0.0001
168	SLU 25	12.78	-0.02	53.58	0.0169	0.5936	-0.0001
168	SLU 26	12.48	-0.03	53.02	0.022	0.5796	-0.0002
168	SLU 27	13.28	-0.01	54.58	0.0092	0.6171	-0.0001
168	SLU 28	13.1	-0.02	54.5	0.0169	0.6085	-0.0001
168	SLU 29	13.11	-0.01	54.08	0.0091	0.6088	-0.0001
168	SLU 30	12.92	-0.02	54	0.0168	0.6002	-0.0001
168	SLU 31	14.77	-0.03	60.03	0.0232	0.684	-0.0002
168	SLU 32	15.58	-0.02	61.6	0.0104	0.7216	-0.0001
168	SLU 33	15.39	-0.03	61.51	0.0181	0.713	-0.0001
168	SLU 34	15.09	-0.03	60.96	0.0232	0.699	-0.0002
168	SLU 35	15.9	-0.02	62.52	0.0104	0.7366	-0.0001
168	SLU 36	15.72	-0.03	62.44	0.0182	0.728	-0.0001
168	SLU 37	15.72	-0.02	62.02	0.0103	0.7282	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
168	SLU 38	15.54	-0.03	61.93	0.018	0.7197	-0.0001
168	SLU 39	16.2	-0.02	63.57	0.0108	0.7495	-0.0001
168	SLU 40	16.01	-0.03	63.49	0.0185	0.7409	-0.0001
168	SLU 41	16.52	-0.02	64.49	0.0108	0.7645	-0.0001
168	SLU 42	16.34	-0.03	64.41	0.0185	0.7559	-0.0001
168	SLU 43	12.39	-0.01	55.96	0.0101	0.5775	-0.0001
168	SLU 44	12.08	-0.03	55.82	0.023	0.5632	-0.0002
168	SLU 45	12.89	-0.02	57.38	0.0102	0.6008	-0.0001
168	SLU 46	12.71	-0.03	57.3	0.0179	0.5922	-0.0001
168	SLU 47	12.41	-0.03	56.74	0.023	0.5782	-0.0002
168	SLU 48	13.21	-0.02	58.3	0.0102	0.6157	-0.0001
168	SLU 49	13.03	-0.03	58.22	0.0179	0.6072	-0.0001
168	SLU 50	13.03	-0.02	57.8	0.0101	0.6074	-0.0001
168	SLU 51	12.85	-0.03	57.72	0.0178	0.5989	-0.0001
168	SLU 52	14.7	-0.03	63.75	0.0242	0.6827	-0.0002
168	SLU 53	15.5	-0.02	65.32	0.0114	0.7202	-0.0001
168	SLU 54	15.32	-0.03	65.23	0.0191	0.7117	-0.0002
168	SLU 55	15.02	-0.03	64.68	0.0242	0.6977	-0.0002
168	SLU 56	15.83	-0.02	66.24	0.0114	0.7352	-0.0001
168	SLU 57	15.64	-0.03	66.16	0.0191	0.7267	-0.0002
168	SLU 58	15.65	-0.02	65.74	0.0113	0.7269	-0.0001
168	SLU 59	15.47	-0.03	65.66	0.019	0.7184	-0.0002
168	SLU 60	16.12	-0.02	67.29	0.0118	0.7481	-0.0001
168	SLU 61	15.94	-0.03	67.21	0.0195	0.7396	-0.0002
168	SLU 62	16.45	-0.02	68.21	0.0118	0.7631	-0.0001
168	SLU 63	16.26	-0.03	68.13	0.0195	0.7546	-0.0002
168	SLU 64	14.71	-0.02	63.23	0.0111	0.684	-0.0001
168	SLU 65	14.4	-0.03	63.09	0.024	0.6697	-0.0002
168	SLU 66	15.21	-0.02	64.65	0.0113	0.7073	-0.0001
168	SLU 67	15.03	-0.03	64.57	0.019	0.6987	-0.0002
168	SLU 68	14.73	-0.03	64.02	0.024	0.6847	-0.0002
168	SLU 69	15.53	-0.02	65.58	0.0113	0.7222	-0.0001
168	SLU 70	15.35	-0.03	65.5	0.019	0.7137	-0.0002
168	SLU 71	15.35	-0.02	65.08	0.0112	0.7139	-0.0001
168	SLU 72	15.17	-0.03	64.99	0.0189	0.7054	-0.0002
168	SLU 73	17.02	-0.04	71.03	0.0252	0.7892	-0.0002
168	SLU 74	17.82	-0.02	72.59	0.0125	0.8267	-0.0001
168	SLU 75	17.64	-0.03	72.51	0.0202	0.8182	-0.0002
168	SLU 76	17.34	-0.04	71.95	0.0252	0.8042	-0.0002
168	SLU 77	18.15	-0.02	73.51	0.0125	0.8417	-0.0001
168	SLU 78	17.96	-0.03	73.43	0.0202	0.8332	-0.0002
168	SLU 79	17.97	-0.02	73.01	0.0124	0.8334	-0.0001
168	SLU 80	17.79	-0.03	72.93	0.0201	0.8249	-0.0002
168	SLU 81	18.44	-0.02	74.56	0.0128	0.8546	-0.0001
168	SLU 82	18.26	-0.03	74.48	0.0206	0.8461	-0.0002
168	SLU 83	18.77	-0.02	75.49	0.0129	0.8696	-0.0001
168	SLU 84	18.58	-0.03	75.41	0.0206	0.8611	-0.0002
168	SLE RA 1	10.8	-0.01	47.04	0.0083	0.5027	-0.0001
168	SLE RA 2	10.6	-0.02	46.95	0.0169	0.4932	-0.0001
168	SLE RA 3	11.14	-0.01	47.99	0.0084	0.5182	-0.0001
168	SLE RA 4	11.02	-0.02	47.93	0.0136	0.5126	-0.0001
168	SLE RA 5	10.82	-0.02	47.56	0.0169	0.5032	-0.0001
168	SLE RA 6	11.35	-0.01	48.6	0.0084	0.5282	-0.0001
168	SLE RA 7	11.23	-0.02	48.55	0.0136	0.5226	-0.0001
168	SLE RA 8	11.23	-0.01	48.27	0.0083	0.5227	-0.0001
168	SLE RA 9	11.11	-0.02	48.22	0.0135	0.517	-0.0001
168	SLE RA 10	12.34	-0.03	52.24	0.0177	0.5729	-0.0001
168	SLE RA 11	12.88	-0.01	53.28	0.0092	0.5979	-0.0001
168	SLE RA 12	12.76	-0.02	53.22	0.0144	0.5922	-0.0001
168	SLE RA 13	12.56	-0.03	52.85	0.0177	0.5829	-0.0001
168	SLE RA 14	13.1	-0.01	53.9	0.0092	0.6079	-0.0001
168	SLE RA 15	12.97	-0.02	53.84	0.0144	0.6022	-0.0001
168	SLE RA 16	12.98	-0.01	53.56	0.0091	0.6024	-0.0001
168	SLE RA 17	12.86	-0.02	53.51	0.0143	0.5967	-0.0001
168	SLE RA 18	13.29	-0.01	54.6	0.0095	0.6165	-0.0001
168	SLE RA 19	13.17	-0.02	54.54	0.0146	0.6108	-0.0001
168	SLE RA 20	13.51	-0.01	55.21	0.0095	0.6265	-0.0001
168	SLE RA 21	13.39	-0.02	55.16	0.0146	0.6208	-0.0001
168	SLE FR 1	10.8	-0.01	47.04	0.0083	0.5027	-0.0001
168	SLE FR 2	10.76	-0.01	47.02	0.01	0.5008	-0.0001
168	SLE FR 3	10.89	-0.01	47.28	0.0083	0.5067	-0.0001
168	SLE FR 4	11.51	-0.02	49.29	0.0104	0.535	-0.0001
168	SLE FR 5	11.64	-0.01	49.55	0.0087	0.5408	-0.0001
168	SLE FR 6	12.05	-0.01	50.82	0.0089	0.5596	-0.0001
168	SLE QP 1	10.8	-0.01	47.04	0.0083	0.5027	-0.0001
168	SLE QP 2	11.55	-0.01	49.31	0.0087	0.5368	-0.0001
168	SLD 1	19.57	-0.01	60.14	-0.0297	0.9198	0
168	SLD 2	19.57	-0.01	60.14	-0.0297	0.9198	0
168	SLD 3	20.41	-0.11	60.97	0.1173	0.9586	-0.0006
168	SLD 4	20.41	-0.11	60.97	0.1173	0.9586	-0.0006
168	SLD 5	12.68	0.13	51.3	-0.2258	0.5929	0.0009
168	SLD 6	12.68	0.13	51.3	-0.2258	0.5929	0.0009
168	SLD 7	15.48	-0.18	54.06	0.2642	0.7222	-0.0012
168	SLD 8	15.48	-0.18	54.06	0.2642	0.7222	-0.0012
168	SLD 9	7.62	0.16	44.55	-0.2469	0.3515	0.001
168	SLD 10	7.62	0.16	44.55	-0.2469	0.3515	0.001
168	SLD 11	10.42	-0.15	47.31	0.2431	0.4808	-0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
168	SLD 12	10.42	-0.15	47.31	0.2431	0.4808	-0.001
168	SLD 13	2.69	0.08	37.64	-0.1	0.1151	0.0005
168	SLD 14	2.69	0.08	37.64	-0.1	0.1151	0.0005
168	SLD 15	3.53	-0.01	38.47	0.047	0.1539	-0.0001
168	SLD 16	3.53	-0.01	38.47	0.047	0.1539	-0.0001
168	SLV 1	30.34	-0.01	74.62	-0.0925	1.4344	0.0001
168	SLV 2	30.34	-0.01	74.62	-0.0925	1.4344	0.0001
168	SLV 3	32.33	-0.24	76.58	0.2838	1.5265	-0.0015
168	SLV 4	32.33	-0.24	76.58	0.2838	1.5265	-0.0015
168	SLV 5	14.16	0.35	53.93	-0.5925	0.6664	0.0024
168	SLV 6	14.16	0.35	53.93	-0.5925	0.6664	0.0024
168	SLV 7	20.81	-0.44	60.46	0.662	0.9734	-0.0029
168	SLV 8	20.81	-0.44	60.46	0.662	0.9734	-0.0029
168	SLV 9	2.29	0.42	38.15	-0.6446	0.1003	0.0028
168	SLV 10	2.29	0.42	38.15	-0.6446	0.1003	0.0028
168	SLV 11	8.94	-0.37	44.69	0.6098	0.4073	-0.0026
168	SLV 12	8.94	-0.37	44.69	0.6098	0.4073	-0.0026
168	SLV 13	-9.23	0.22	22.03	-0.2665	-0.4528	0.0013
168	SLV 14	-9.23	0.22	22.03	-0.2665	-0.4528	0.0013
168	SLV 15	-7.23	-0.02	23.99	0.1098	-0.3607	-0.0003
168	SLV 16	-7.23	-0.02	23.99	0.1098	-0.3607	-0.0003
169	SLU 1	8.83	-0.01	45.05	0.0057	0.3922	0
169	SLU 2	8.52	-0.02	44.9	0.0187	0.3789	-0.0001
169	SLU 3	9.29	-0.01	46.46	0.0058	0.413	0
169	SLU 4	9.11	-0.01	46.37	0.0135	0.405	-0.0001
169	SLU 5	8.82	-0.02	45.83	0.0186	0.3922	-0.0001
169	SLU 6	9.59	-0.01	47.39	0.0057	0.4263	0
169	SLU 7	9.41	-0.01	47.3	0.0135	0.4184	-0.0001
169	SLU 8	9.43	-0.01	46.9	0.0056	0.4189	0
169	SLU 9	9.24	-0.01	46.81	0.0134	0.4109	-0.0001
169	SLU 10	10.89	-0.02	52.97	0.0196	0.4847	-0.0001
169	SLU 11	11.66	-0.01	54.54	0.0067	0.5188	-0.0001
169	SLU 12	11.47	-0.01	54.44	0.0144	0.5108	-0.0001
169	SLU 13	11.19	-0.02	53.9	0.0195	0.4981	-0.0001
169	SLU 14	11.96	-0.01	55.46	0.0066	0.5322	-0.0001
169	SLU 15	11.77	-0.01	55.37	0.0144	0.5242	-0.0001
169	SLU 16	11.79	-0.01	54.97	0.0065	0.5247	-0.0001
169	SLU 17	11.61	-0.01	54.88	0.0143	0.5168	-0.0001
169	SLU 18	12.21	-0.01	56.59	0.007	0.5434	-0.0001
169	SLU 19	12.02	-0.02	56.49	0.0148	0.5354	-0.0001
169	SLU 20	12.51	-0.01	57.51	0.007	0.5568	-0.0001
169	SLU 21	12.32	-0.02	57.42	0.0147	0.5488	-0.0001
169	SLU 22	10.92	-0.01	52.41	0.0065	0.4858	-0.0001
169	SLU 23	10.61	-0.02	52.26	0.0194	0.4725	-0.0001
169	SLU 24	11.38	-0.01	53.82	0.0065	0.5066	-0.0001
169	SLU 25	11.2	-0.01	53.73	0.0143	0.4986	-0.0001
169	SLU 26	10.91	-0.02	53.19	0.0194	0.4858	-0.0001
169	SLU 27	11.68	-0.01	54.75	0.0064	0.5199	-0.0001
169	SLU 28	11.5	-0.01	54.66	0.0142	0.5119	-0.0001
169	SLU 29	11.52	-0.01	54.26	0.0063	0.5125	-0.0001
169	SLU 30	11.34	-0.01	54.17	0.0141	0.5045	-0.0001
169	SLU 31	12.98	-0.02	60.34	0.0203	0.5783	-0.0002
169	SLU 32	13.75	-0.01	61.9	0.0074	0.6124	-0.0001
169	SLU 33	13.56	-0.02	61.81	0.0152	0.6044	-0.0001
169	SLU 34	13.28	-0.02	61.26	0.0203	0.5917	-0.0002
169	SLU 35	14.05	-0.01	62.82	0.0073	0.6257	-0.0001
169	SLU 36	13.86	-0.02	62.73	0.0151	0.6178	-0.0001
169	SLU 37	13.88	-0.01	62.34	0.0072	0.6183	-0.0001
169	SLU 38	13.7	-0.02	62.25	0.015	0.6103	-0.0001
169	SLU 39	14.3	-0.01	63.95	0.0078	0.637	-0.0001
169	SLU 40	14.11	-0.02	63.86	0.0155	0.629	-0.0001
169	SLU 41	14.6	-0.01	64.87	0.0077	0.6503	-0.0001
169	SLU 42	14.41	-0.02	64.78	0.0155	0.6423	-0.0001
169	SLU 43	10.76	-0.01	56.04	0.0072	0.4778	-0.0001
169	SLU 44	10.45	-0.02	55.89	0.0202	0.4645	-0.0002
169	SLU 45	11.22	-0.01	57.45	0.0072	0.4986	-0.0001
169	SLU 46	11.04	-0.02	57.36	0.015	0.4906	-0.0001
169	SLU 47	10.75	-0.02	56.82	0.0201	0.4778	-0.0002
169	SLU 48	11.52	-0.01	58.38	0.0072	0.5119	-0.0001
169	SLU 49	11.34	-0.02	58.29	0.015	0.5039	-0.0001
169	SLU 50	11.36	-0.01	57.89	0.0071	0.5045	-0.0001
169	SLU 51	11.18	-0.02	57.8	0.0149	0.4965	-0.0001
169	SLU 52	12.82	-0.02	63.97	0.0211	0.5703	-0.0002
169	SLU 53	13.59	-0.01	65.53	0.0081	0.6044	-0.0001
169	SLU 54	13.4	-0.02	65.44	0.0159	0.5964	-0.0001
169	SLU 55	13.12	-0.02	64.89	0.021	0.5837	-0.0002
169	SLU 56	13.89	-0.01	66.45	0.0081	0.6178	-0.0001
169	SLU 57	13.7	-0.02	66.36	0.0158	0.6098	-0.0001
169	SLU 58	13.72	-0.01	65.97	0.008	0.6103	-0.0001
169	SLU 59	13.54	-0.02	65.88	0.0157	0.6023	-0.0001
169	SLU 60	14.14	-0.01	67.58	0.0085	0.629	-0.0001
169	SLU 61	13.95	-0.02	67.49	0.0163	0.621	-0.0001
169	SLU 62	14.44	-0.01	68.5	0.0084	0.6423	-0.0001
169	SLU 63	14.25	-0.02	68.41	0.0162	0.6344	-0.0001
169	SLU 64	12.85	-0.01	63.41	0.008	0.5714	-0.0001
169	SLU 65	12.55	-0.02	63.26	0.0209	0.5581	-0.0002
169	SLU 66	13.32	-0.01	64.82	0.008	0.5921	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
169	SLU 67	13.13	-0.02	64.73	0.0158	0.5842	-0.0001
169	SLU 68	12.85	-0.02	64.18	0.0208	0.5714	-0.0002
169	SLU 69	13.61	-0.01	65.74	0.0079	0.6055	-0.0001
169	SLU 70	13.43	-0.02	65.65	0.0157	0.5975	-0.0001
169	SLU 71	13.45	-0.01	65.26	0.0078	0.5981	-0.0001
169	SLU 72	13.27	-0.02	65.16	0.0156	0.5901	-0.0001
169	SLU 73	14.91	-0.02	71.33	0.0218	0.6639	-0.0002
169	SLU 74	15.68	-0.01	72.89	0.0089	0.698	-0.0001
169	SLU 75	15.5	-0.02	72.8	0.0166	0.69	-0.0001
169	SLU 76	15.21	-0.02	72.25	0.0217	0.6772	-0.0002
169	SLU 77	15.98	-0.01	73.81	0.0088	0.7113	-0.0001
169	SLU 78	15.8	-0.02	73.72	0.0166	0.7033	-0.0001
169	SLU 79	15.82	-0.01	73.33	0.0087	0.7039	-0.0001
169	SLU 80	15.63	-0.02	73.24	0.0165	0.6959	-0.0001
169	SLU 81	16.23	-0.01	74.94	0.0092	0.7226	-0.0001
169	SLU 82	16.05	-0.02	74.85	0.017	0.7146	-0.0001
169	SLU 83	16.53	-0.01	75.86	0.0092	0.7359	-0.0001
169	SLU 84	16.35	-0.02	75.77	0.0169	0.7279	-0.0001
169	SLE RA 1	9.43	-0.01	47.16	0.006	0.4189	0
169	SLE RA 2	9.22	-0.02	47.06	0.0146	0.4101	-0.0001
169	SLE RA 3	9.74	-0.01	48.1	0.006	0.4328	0
169	SLE RA 4	9.61	-0.01	48.04	0.0112	0.4275	-0.0001
169	SLE RA 5	9.42	-0.02	47.67	0.0145	0.419	-0.0001
169	SLE RA 6	9.94	-0.01	48.71	0.0059	0.4417	-0.0001
169	SLE RA 7	9.81	-0.01	48.65	0.0111	0.4364	-0.0001
169	SLE RA 8	9.83	-0.01	48.39	0.0059	0.4367	0
169	SLE RA 9	9.7	-0.01	48.33	0.011	0.4314	-0.0001
169	SLE RA 10	10.8	-0.02	52.44	0.0152	0.4806	-0.0001
169	SLE RA 11	11.31	-0.01	53.48	0.0066	0.5034	-0.0001
169	SLE RA 12	11.19	-0.01	53.42	0.0118	0.498	-0.0001
169	SLE RA 13	11	-0.02	53.05	0.0151	0.4895	-0.0001
169	SLE RA 14	11.51	-0.01	54.09	0.0065	0.5123	-0.0001
169	SLE RA 15	11.39	-0.01	54.03	0.0117	0.5069	-0.0001
169	SLE RA 16	11.4	-0.01	53.77	0.0065	0.5073	-0.0001
169	SLE RA 17	11.28	-0.01	53.71	0.0116	0.502	-0.0001
169	SLE RA 18	11.68	-0.01	54.85	0.0068	0.5197	-0.0001
169	SLE RA 19	11.56	-0.01	54.78	0.012	0.5144	-0.0001
169	SLE RA 20	11.88	-0.01	55.46	0.0068	0.5286	-0.0001
169	SLE RA 21	11.76	-0.01	55.4	0.0119	0.5233	-0.0001
169	SLE FR 1	9.43	-0.01	47.16	0.006	0.4189	0
169	SLE FR 2	9.39	-0.01	47.14	0.0077	0.4172	-0.0001
169	SLE FR 3	9.51	-0.01	47.4	0.0059	0.4225	0
169	SLE FR 4	10.06	-0.01	49.44	0.0079	0.4474	-0.0001
169	SLE FR 5	10.18	-0.01	49.71	0.0062	0.4527	-0.0001
169	SLE FR 6	10.55	-0.01	51	0.0064	0.4693	-0.0001
169	SLE QP 1	9.43	-0.01	47.16	0.006	0.4189	0
169	SLE QP 2	10.1	-0.01	49.46	0.0062	0.4492	-0.0001
169	SLD 1	18.13	0.03	58.06	-0.1345	0.8226	0.0002
169	SLD 2	18.13	0.03	58.06	-0.1345	0.8226	0.0002
169	SLD 3	18.96	-0.13	58.72	0.0667	0.8605	-0.0009
169	SLD 4	18.96	-0.13	58.72	0.0667	0.8605	-0.0009
169	SLD 5	11.24	0.24	51.04	-0.3412	0.5038	0.0018
169	SLD 6	11.24	0.24	51.04	-0.3412	0.5038	0.0018
169	SLD 7	14.02	-0.28	53.24	0.3295	0.63	-0.0021
169	SLD 8	14.02	-0.28	53.24	0.3295	0.63	-0.0021
169	SLD 9	6.18	0.27	45.69	-0.3171	0.2684	0.002
169	SLD 10	6.18	0.27	45.69	-0.3171	0.2684	0.002
169	SLD 11	8.96	-0.25	47.88	0.3536	0.3946	-0.0019
169	SLD 12	8.96	-0.25	47.88	0.3536	0.3946	-0.0019
169	SLD 13	1.24	0.11	40.21	-0.0542	0.0379	0.0008
169	SLD 14	1.24	0.11	40.21	-0.0542	0.0379	0.0008
169	SLD 15	2.08	-0.04	40.87	0.147	0.0758	-0.0003
169	SLD 16	2.08	-0.04	40.87	0.147	0.0758	-0.0003
169	SLV 1	28.88	0.09	69.53	-0.352	1.3224	0.0007
169	SLV 2	28.88	0.09	69.53	-0.352	1.3224	0.0007
169	SLV 3	30.86	-0.31	71.1	0.1635	1.4122	-0.0023
169	SLV 4	30.86	-0.31	71.1	0.1635	1.4122	-0.0023
169	SLV 5	12.73	0.63	53.1	-0.8831	0.5749	0.0047
169	SLV 6	12.73	0.63	53.1	-0.8831	0.5749	0.0047
169	SLV 7	19.33	-0.7	58.34	0.8352	0.8744	-0.0052
169	SLV 8	19.33	-0.7	58.34	0.8352	0.8744	-0.0052
169	SLV 9	0.87	0.69	40.59	-0.8228	0.024	0.0051
169	SLV 10	0.87	0.69	40.59	-0.8228	0.024	0.0051
169	SLV 11	7.47	-0.64	45.83	0.8955	0.3235	-0.0048
169	SLV 12	7.47	-0.64	45.83	0.8955	0.3235	-0.0048
169	SLV 13	-10.66	0.3	27.82	-0.1511	-0.5139	0.0021
169	SLV 14	-10.66	0.3	27.82	-0.1511	-0.5139	0.0021
169	SLV 15	-8.68	-0.1	29.4	0.3644	-0.424	-0.0008
169	SLV 16	-8.68	-0.1	29.4	0.3644	-0.424	-0.0008
170	SLU 1	7.94	0	45.27	0.0046	0.3685	0
170	SLU 2	7.62	-0.01	45.09	0.0169	0.3534	-0.0001
170	SLU 3	8.39	0	46.68	0.0045	0.389	0
170	SLU 4	8.19	-0.01	46.57	0.0119	0.38	-0.0001
170	SLU 5	7.91	-0.01	46.03	0.0167	0.3667	-0.0001
170	SLU 6	8.68	0	47.61	0.0044	0.4023	0
170	SLU 7	8.48	-0.01	47.5	0.0118	0.3932	-0.0001
170	SLU 8	8.52	0	47.14	0.0043	0.395	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
170	SLU 9	8.33	-0.01	47.03	0.0117	0.386	-0.0001
170	SLU 10	9.77	-0.02	53.33	0.0176	0.4511	-0.0001
170	SLU 11	10.53	0	54.91	0.0052	0.4866	0
170	SLU 12	10.34	-0.01	54.8	0.0126	0.4776	-0.0001
170	SLU 13	10.06	-0.02	54.26	0.0174	0.4644	-0.0001
170	SLU 14	10.82	0	55.84	0.0051	0.4999	0
170	SLU 15	10.63	-0.01	55.74	0.0125	0.4909	-0.0001
170	SLU 16	10.67	0	55.37	0.005	0.4927	0
170	SLU 17	10.47	-0.01	55.26	0.0124	0.4836	-0.0001
170	SLU 18	11.01	0	57.03	0.0056	0.508	0
170	SLU 19	10.82	-0.01	56.92	0.013	0.4989	-0.0001
170	SLU 20	11.3	0	57.96	0.0054	0.5212	0
170	SLU 21	11.11	-0.01	57.86	0.0128	0.5122	-0.0001
170	SLU 22	9.85	0	52.74	0.0051	0.4553	0
170	SLU 23	9.52	-0.02	52.57	0.0174	0.4403	-0.0001
170	SLU 24	10.29	0	54.15	0.0051	0.4758	0
170	SLU 25	10.1	-0.01	54.04	0.0124	0.4668	-0.0001
170	SLU 26	9.81	-0.02	53.5	0.0173	0.4536	-0.0001
170	SLU 27	10.58	0	55.08	0.0049	0.4891	0
170	SLU 28	10.38	-0.01	54.98	0.0123	0.4801	-0.0001
170	SLU 29	10.42	0	54.61	0.0048	0.4819	0
170	SLU 30	10.23	-0.01	54.51	0.0122	0.4729	-0.0001
170	SLU 31	11.67	-0.02	60.8	0.0181	0.538	-0.0001
170	SLU 32	12.44	0	62.38	0.0058	0.5735	0
170	SLU 33	12.24	-0.01	62.27	0.0132	0.5645	-0.0001
170	SLU 34	11.96	-0.02	61.73	0.018	0.5512	-0.0001
170	SLU 35	12.72	0	63.32	0.0056	0.5868	0
170	SLU 36	12.53	-0.01	63.21	0.013	0.5778	-0.0001
170	SLU 37	12.57	0	62.84	0.0056	0.5795	0
170	SLU 38	12.38	-0.01	62.74	0.0129	0.5705	-0.0001
170	SLU 39	12.91	0	64.5	0.0061	0.5948	0
170	SLU 40	12.72	-0.01	64.4	0.0135	0.5858	-0.0001
170	SLU 41	13.2	0	65.44	0.006	0.6081	0
170	SLU 42	13.01	-0.01	65.33	0.0134	0.5991	-0.0001
170	SLU 43	9.67	0	56.29	0.0057	0.4492	0
170	SLU 44	9.35	-0.02	56.11	0.018	0.4342	-0.0001
170	SLU 45	10.12	0	57.7	0.0057	0.4697	0
170	SLU 46	9.92	-0.01	57.59	0.0131	0.4607	-0.0001
170	SLU 47	9.64	-0.02	57.05	0.0179	0.4475	-0.0001
170	SLU 48	10.41	0	58.63	0.0056	0.483	0
170	SLU 49	10.21	-0.01	58.52	0.0129	0.474	-0.0001
170	SLU 50	10.25	0	58.16	0.0055	0.4758	0
170	SLU 51	10.06	-0.01	58.05	0.0128	0.4667	-0.0001
170	SLU 52	11.5	-0.02	64.34	0.0188	0.5318	-0.0001
170	SLU 53	12.27	0	65.93	0.0064	0.5674	-0.0001
170	SLU 54	12.07	-0.01	65.82	0.0138	0.5584	-0.0001
170	SLU 55	11.79	-0.02	65.28	0.0186	0.5451	-0.0001
170	SLU 56	12.55	0	66.86	0.0063	0.5807	-0.0001
170	SLU 57	12.36	-0.01	66.76	0.0137	0.5716	-0.0001
170	SLU 58	12.4	0	66.39	0.0062	0.5734	-0.0001
170	SLU 59	12.2	-0.01	66.28	0.0136	0.5644	-0.0001
170	SLU 60	12.74	0	68.05	0.0068	0.5887	-0.0001
170	SLU 61	12.55	-0.01	67.94	0.0141	0.5797	-0.0001
170	SLU 62	13.03	0	68.98	0.0066	0.602	-0.0001
170	SLU 63	12.84	-0.01	68.88	0.014	0.593	-0.0001
170	SLU 64	11.58	0	63.76	0.0063	0.5361	0
170	SLU 65	11.25	-0.02	63.59	0.0186	0.5211	-0.0001
170	SLU 66	12.02	0	65.17	0.0062	0.5566	-0.0001
170	SLU 67	11.83	-0.01	65.06	0.0136	0.5476	-0.0001
170	SLU 68	11.54	-0.02	64.52	0.0185	0.5343	-0.0001
170	SLU 69	12.31	0	66.1	0.0061	0.5699	-0.0001
170	SLU 70	12.12	-0.01	66	0.0135	0.5609	-0.0001
170	SLU 71	12.15	0	65.63	0.006	0.5626	0
170	SLU 72	11.96	-0.01	65.53	0.0134	0.5536	-0.0001
170	SLU 73	13.4	-0.02	71.82	0.0193	0.6187	-0.0001
170	SLU 74	14.17	0	73.4	0.007	0.6543	-0.0001
170	SLU 75	13.97	-0.01	73.29	0.0143	0.6452	-0.0001
170	SLU 76	13.69	-0.02	72.75	0.0192	0.632	-0.0001
170	SLU 77	14.46	0	74.33	0.0068	0.6675	-0.0001
170	SLU 78	14.26	-0.01	74.23	0.0142	0.6585	-0.0001
170	SLU 79	14.3	0	73.86	0.0067	0.6603	-0.0001
170	SLU 80	14.11	-0.01	73.76	0.0141	0.6513	-0.0001
170	SLU 81	14.64	-0.01	75.52	0.0073	0.6756	-0.0001
170	SLU 82	14.45	-0.01	75.42	0.0147	0.6666	-0.0001
170	SLU 83	14.93	-0.01	76.46	0.0072	0.6889	-0.0001
170	SLU 84	14.74	-0.01	76.35	0.0146	0.6798	-0.0001
170	SLE RA 1	8.49	0	47.41	0.0047	0.3933	0
170	SLE RA 2	8.27	-0.01	47.29	0.0129	0.3833	-0.0001
170	SLE RA 3	8.78	0	48.34	0.0047	0.407	0
170	SLE RA 4	8.65	-0.01	48.27	0.0096	0.4009	-0.0001
170	SLE RA 5	8.46	-0.01	47.91	0.0128	0.3921	-0.0001
170	SLE RA 6	8.98	0	48.97	0.0046	0.4158	0
170	SLE RA 7	8.85	-0.01	48.9	0.0095	0.4098	-0.0001
170	SLE RA 8	8.87	0	48.65	0.0045	0.411	0
170	SLE RA 9	8.74	-0.01	48.58	0.0095	0.405	-0.0001
170	SLE RA 10	9.7	-0.01	52.78	0.0134	0.4484	-0.0001
170	SLE RA 11	10.21	0	53.83	0.0052	0.4721	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
170	SLE RA 12	10.08	-0.01	53.76	0.0101	0.466	-0.0001
170	SLE RA 13	9.9	-0.01	53.4	0.0133	0.4572	-0.0001
170	SLE RA 14	10.41	0	54.45	0.0051	0.4809	0
170	SLE RA 15	10.28	-0.01	54.38	0.01	0.4749	-0.0001
170	SLE RA 16	10.3	0	54.14	0.005	0.4761	0
170	SLE RA 17	10.17	-0.01	54.07	0.0099	0.4701	-0.0001
170	SLE RA 18	10.53	0	55.25	0.0054	0.4863	0
170	SLE RA 19	10.4	-0.01	55.17	0.0103	0.4803	-0.0001
170	SLE RA 20	10.72	0	55.87	0.0053	0.4951	0
170	SLE RA 21	10.59	-0.01	55.8	0.0102	0.4891	-0.0001
170	SLE FR 1	8.49	0	47.41	0.0047	0.3933	0
170	SLE FR 2	8.44	0	47.38	0.0064	0.3913	0
170	SLE FR 3	8.56	0	47.66	0.0047	0.3968	0
170	SLE FR 4	9.06	0	49.73	0.0066	0.4192	-0.0001
170	SLE FR 5	9.18	0	50.01	0.0049	0.4247	0
170	SLE FR 6	9.51	0	51.33	0.0051	0.4398	0
170	SLE QP 1	8.49	0	47.41	0.0047	0.3933	0
170	SLE QP 2	9.1	0	49.76	0.0049	0.4212	0
170	SLD 1	17.28	0.06	56.4	-0.1642	0.806	0.0012
170	SLD 2	17.28	0.06	56.4	-0.1642	0.806	0.0012
170	SLD 3	18.12	-0.15	56.96	0.0842	0.8446	-0.0006
170	SLD 4	18.12	-0.15	56.96	0.0842	0.8446	-0.0006
170	SLD 5	10.28	0.34	50.9	-0.4226	0.478	0.0031
170	SLD 6	10.28	0.34	50.9	-0.4226	0.478	0.0031
170	SLD 7	13.08	-0.37	52.77	0.4055	0.6068	-0.003
170	SLD 8	13.08	-0.37	52.77	0.4055	0.6068	-0.003
170	SLD 9	5.12	0.37	46.74	-0.3956	0.2356	0.0029
170	SLD 10	5.12	0.37	46.74	-0.3956	0.2356	0.0029
170	SLD 11	7.92	-0.35	48.62	0.4324	0.3643	-0.0032
170	SLD 12	7.92	-0.35	48.62	0.4324	0.3643	-0.0032
170	SLD 13	0.08	0.15	42.56	-0.0744	-0.0022	0.0005
170	SLD 14	0.08	0.15	42.56	-0.0744	-0.0022	0.0005
170	SLD 15	0.92	-0.07	43.12	0.1741	0.0364	-0.0013
170	SLD 16	0.92	-0.07	43.12	0.1741	0.0364	-0.0013
170	SLV 1	28.25	0.17	65.25	-0.4269	1.3223	0.0032
170	SLV 2	28.25	0.17	65.25	-0.4269	1.3223	0.0032
170	SLV 3	30.24	-0.38	66.61	0.2098	1.4141	-0.0015
170	SLV 4	30.24	-0.38	66.61	0.2098	1.4141	-0.0015
170	SLV 5	11.82	0.88	52.34	-1.0903	0.5524	0.008
170	SLV 6	11.82	0.88	52.34	-1.0903	0.5524	0.008
170	SLV 7	18.47	-0.95	56.88	1.0321	0.8582	-0.0075
170	SLV 8	18.47	-0.95	56.88	1.0321	0.8582	-0.0075
170	SLV 9	-0.27	0.94	42.64	-1.0223	-0.0158	0.0074
170	SLV 10	-0.27	0.94	42.64	-1.0223	-0.0158	0.0074
170	SLV 11	6.38	-0.89	47.17	1.1002	0.29	-0.0081
170	SLV 12	6.38	-0.89	47.17	1.1002	0.29	-0.0081
170	SLV 13	-12.04	0.38	32.9	-0.2	-0.5717	0.0014
170	SLV 14	-12.04	0.38	32.9	-0.2	-0.5717	0.0014
170	SLV 15	-10.05	-0.17	34.26	0.4367	-0.48	-0.0033
170	SLV 16	-10.05	-0.17	34.26	0.4367	-0.48	-0.0033
171	SLU 1	6.88	0	45.52	0.004	0.304	0
171	SLU 2	6.55	-0.01	45.31	0.0152	0.2901	-0.0001
171	SLU 3	7.29	0	46.94	0.0039	0.3226	0
171	SLU 4	7.1	-0.01	46.81	0.0106	0.3143	-0.0001
171	SLU 5	6.83	-0.01	46.27	0.015	0.3022	-0.0001
171	SLU 6	7.57	0	47.89	0.0037	0.3348	0
171	SLU 7	7.38	-0.01	47.76	0.0104	0.3265	-0.0001
171	SLU 8	7.42	0	47.43	0.0036	0.3283	0
171	SLU 9	7.23	-0.01	47.3	0.0103	0.3199	-0.0001
171	SLU 10	8.46	-0.01	53.68	0.0158	0.3753	-0.0001
171	SLU 11	9.2	0	55.31	0.0045	0.4078	0
171	SLU 12	9.01	-0.01	55.18	0.0112	0.3995	-0.0001
171	SLU 13	8.74	-0.01	54.64	0.0156	0.3874	-0.0001
171	SLU 14	9.48	0	56.26	0.0043	0.42	0
171	SLU 15	9.28	-0.01	56.13	0.011	0.4116	-0.0001
171	SLU 16	9.33	0	55.8	0.0042	0.4135	0
171	SLU 17	9.14	-0.01	55.67	0.0109	0.4051	-0.0001
171	SLU 18	9.6	0	57.48	0.0049	0.4257	0
171	SLU 19	9.41	-0.01	57.36	0.0116	0.4173	-0.0001
171	SLU 20	9.87	0	58.43	0.0047	0.4378	0
171	SLU 21	9.68	-0.01	58.31	0.0114	0.4295	-0.0001
171	SLU 22	8.56	0	53.1	0.0044	0.3794	0
171	SLU 23	8.24	-0.01	52.89	0.0156	0.3655	-0.0001
171	SLU 24	8.98	0	54.51	0.0043	0.398	0
171	SLU 25	8.79	-0.01	54.38	0.011	0.3897	-0.0001
171	SLU 26	8.52	-0.01	53.84	0.0154	0.3776	-0.0001
171	SLU 27	9.26	0	55.46	0.0041	0.4102	0
171	SLU 28	9.07	-0.01	55.34	0.0109	0.4019	-0.0001
171	SLU 29	9.11	0	55	0.004	0.4037	0
171	SLU 30	8.92	-0.01	54.88	0.0107	0.3953	-0.0001
171	SLU 31	10.15	-0.01	61.26	0.0162	0.4507	-0.0001
171	SLU 32	10.89	0	62.88	0.0049	0.4832	0
171	SLU 33	10.7	-0.01	62.75	0.0117	0.4749	-0.0001
171	SLU 34	10.42	-0.01	62.21	0.0161	0.4628	-0.0001
171	SLU 35	11.17	0	63.83	0.0048	0.4954	0
171	SLU 36	10.97	-0.01	63.71	0.0115	0.487	-0.0001
171	SLU 37	11.02	0	63.37	0.0046	0.4889	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
171	SLU 38	10.83	-0.01	63.25	0.0114	0.4805	-0.0001
171	SLU 39	11.29	0	65.06	0.0053	0.5011	0
171	SLU 40	11.1	-0.01	64.93	0.012	0.4927	-0.0001
171	SLU 41	11.56	0	66.01	0.0051	0.5132	0
171	SLU 42	11.37	-0.01	65.88	0.0118	0.5049	-0.0001
171	SLU 43	8.36	0	56.59	0.005	0.3693	0
171	SLU 44	8.04	-0.01	56.37	0.0162	0.3554	-0.0001
171	SLU 45	8.78	0	58	0.0049	0.388	0
171	SLU 46	8.58	-0.01	57.87	0.0116	0.3796	-0.0001
171	SLU 47	8.31	-0.01	57.33	0.016	0.3676	-0.0001
171	SLU 48	9.05	0	58.95	0.0047	0.4001	0
171	SLU 49	8.86	-0.01	58.82	0.0114	0.3918	-0.0001
171	SLU 50	8.91	0	58.49	0.0046	0.3936	0
171	SLU 51	8.72	-0.01	58.36	0.0113	0.3853	-0.0001
171	SLU 52	9.94	-0.01	64.75	0.0168	0.4406	-0.0001
171	SLU 53	10.68	0	66.37	0.0055	0.4731	0
171	SLU 54	10.49	-0.01	66.24	0.0123	0.4648	-0.0001
171	SLU 55	10.22	-0.01	65.7	0.0166	0.4528	-0.0001
171	SLU 56	10.96	0	67.32	0.0053	0.4853	0
171	SLU 57	10.77	-0.01	67.19	0.0121	0.477	-0.0001
171	SLU 58	10.82	0	66.86	0.0052	0.4788	0
171	SLU 59	10.62	-0.01	66.73	0.012	0.4705	-0.0001
171	SLU 60	11.08	0	68.54	0.0059	0.491	0
171	SLU 61	10.89	-0.01	68.42	0.0126	0.4827	-0.0001
171	SLU 62	11.36	0	69.49	0.0057	0.5031	0
171	SLU 63	11.16	-0.01	69.37	0.0124	0.4948	-0.0001
171	SLU 64	10.05	0	64.16	0.0055	0.4447	0
171	SLU 65	9.73	-0.01	63.95	0.0167	0.4308	-0.0001
171	SLU 66	10.47	0	65.57	0.0054	0.4634	0
171	SLU 67	10.27	-0.01	65.44	0.0121	0.455	-0.0001
171	SLU 68	10	-0.01	64.9	0.0165	0.443	-0.0001
171	SLU 69	10.74	0	66.52	0.0052	0.4755	0
171	SLU 70	10.55	-0.01	66.4	0.0119	0.4672	-0.0001
171	SLU 71	10.6	0	66.06	0.0051	0.469	0
171	SLU 72	10.4	-0.01	65.94	0.0118	0.4607	-0.0001
171	SLU 73	11.63	-0.01	72.32	0.0173	0.516	-0.0001
171	SLU 74	12.37	0	73.94	0.006	0.5485	0
171	SLU 75	12.18	-0.01	73.82	0.0127	0.5402	-0.0001
171	SLU 76	11.91	-0.01	73.27	0.0171	0.5282	-0.0001
171	SLU 77	12.65	0	74.89	0.0058	0.5607	0
171	SLU 78	12.46	-0.01	74.77	0.0125	0.5524	-0.0001
171	SLU 79	12.5	0	74.43	0.0057	0.5542	0
171	SLU 80	12.31	-0.01	74.31	0.0124	0.5459	-0.0001
171	SLU 81	12.77	0	76.12	0.0063	0.5664	0
171	SLU 82	12.58	-0.01	75.99	0.0131	0.5581	-0.0001
171	SLU 83	13.05	0	77.07	0.0062	0.5785	0
171	SLU 84	12.85	-0.01	76.94	0.0129	0.5702	-0.0001
171	SLE RA 1	7.36	0	47.69	0.0041	0.3255	0
171	SLE RA 2	7.14	-0.01	47.55	0.0116	0.3162	-0.0001
171	SLE RA 3	7.64	0	48.63	0.004	0.3379	0
171	SLE RA 4	7.51	-0.01	48.55	0.0085	0.3324	-0.0001
171	SLE RA 5	7.33	-0.01	48.18	0.0114	0.3244	-0.0001
171	SLE RA 6	7.82	0	49.26	0.0039	0.346	0
171	SLE RA 7	7.69	-0.01	49.18	0.0084	0.3405	-0.0001
171	SLE RA 8	7.72	0	48.96	0.0038	0.3417	0
171	SLE RA 9	7.6	-0.01	48.87	0.0083	0.3362	-0.0001
171	SLE RA 10	8.42	-0.01	53.13	0.012	0.373	-0.0001
171	SLE RA 11	8.91	0	54.21	0.0045	0.3947	0
171	SLE RA 12	8.78	-0.01	54.13	0.0089	0.3892	-0.0001
171	SLE RA 13	8.6	-0.01	53.76	0.0119	0.3811	-0.0001
171	SLE RA 14	9.09	0	54.84	0.0043	0.4028	0
171	SLE RA 15	8.96	-0.01	54.76	0.0088	0.3973	-0.0001
171	SLE RA 16	9	0	54.54	0.0043	0.3985	0
171	SLE RA 17	8.87	-0.01	54.45	0.0087	0.3929	-0.0001
171	SLE RA 18	9.17	0	55.66	0.0047	0.4066	0
171	SLE RA 19	9.05	-0.01	55.58	0.0092	0.4011	-0.0001
171	SLE RA 20	9.36	0	56.29	0.0046	0.4147	0
171	SLE RA 21	9.23	-0.01	56.21	0.009	0.4092	-0.0001
171	SLE FR 1	7.36	0	47.69	0.0041	0.3255	0
171	SLE FR 2	7.32	0	47.66	0.0056	0.3236	0
171	SLE FR 3	7.43	0	47.94	0.004	0.3287	0
171	SLE FR 4	7.86	0	50.05	0.0058	0.348	0
171	SLE FR 5	7.98	0	50.33	0.0042	0.3531	0
171	SLE FR 6	8.27	0	51.67	0.0044	0.3661	0
171	SLE QP 1	7.36	0	47.69	0.0041	0.3255	0
171	SLE QP 2	7.9	0	50.08	0.0043	0.3498	0
171	SLD 1	16.19	0.17	54.96	-0.1855	0.7323	0.0016
171	SLD 2	16.19	0.17	54.96	-0.1855	0.7323	0.0016
171	SLD 3	17.03	-0.09	55.47	0.096	0.7704	-0.0008
171	SLD 4	17.03	-0.09	55.47	0.096	0.7704	-0.0008
171	SLD 5	9.11	0.44	50.77	-0.4796	0.4068	0.0042
171	SLD 6	9.11	0.44	50.77	-0.4796	0.4068	0.0042
171	SLD 7	11.92	-0.42	52.47	0.4588	0.5338	-0.004
171	SLD 8	11.92	-0.42	52.47	0.4588	0.5338	-0.004
171	SLD 9	3.89	0.41	47.69	-0.4502	0.1658	0.0039
171	SLD 10	3.89	0.41	47.69	-0.4502	0.1658	0.0039
171	SLD 11	6.69	-0.44	49.39	0.4882	0.2929	-0.0042



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
171	SLD 12	6.69	-0.44	49.39	0.4882	0.2929	-0.0042
171	SLD 13	-1.22	0.08	44.69	-0.0875	-0.0708	0.0008
171	SLD 14	-1.22	0.08	44.69	-0.0875	-0.0708	0.0008
171	SLD 15	-0.38	-0.18	45.2	0.194	-0.0326	-0.0017
171	SLD 16	-0.38	-0.18	45.2	0.194	-0.0326	-0.0017
171	SLV 1	27.28	0.44	61.45	-0.4811	1.2437	0.0042
171	SLV 2	27.28	0.44	61.45	-0.4811	1.2437	0.0042
171	SLV 3	29.28	-0.22	62.71	0.2406	1.3343	-0.0021
171	SLV 4	29.28	-0.22	62.71	0.2406	1.3343	-0.0021
171	SLV 5	10.69	1.13	51.58	-1.2358	0.4807	0.0107
171	SLV 6	10.69	1.13	51.58	-1.2358	0.4807	0.0107
171	SLV 7	17.34	-1.07	55.78	1.1697	0.7825	-0.0101
171	SLV 8	17.34	-1.07	55.78	1.1697	0.7825	-0.0101
171	SLV 9	-1.54	1.06	44.38	-1.1611	-0.0828	0.0101
171	SLV 10	-1.54	1.06	44.38	-1.1611	-0.0828	0.0101
171	SLV 11	5.12	-1.13	48.58	1.2444	0.219	-0.0108
171	SLV 12	5.12	-1.13	48.58	1.2444	0.219	-0.0108
171	SLV 13	-13.47	0.21	37.45	-0.232	-0.6346	0.002
171	SLV 14	-13.47	0.21	37.45	-0.232	-0.6346	0.002
171	SLV 15	-11.47	-0.44	38.71	0.4896	-0.5441	-0.0042
171	SLV 16	-11.47	-0.44	38.71	0.4896	-0.5441	-0.0042
172	SLU 1	6.19	0	45.72	0.0037	0.2889	0
172	SLU 2	5.84	-0.01	45.47	0.0135	0.273	-0.0001
172	SLU 3	6.6	0	47.15	0.0035	0.3079	0
172	SLU 4	6.39	-0.01	47	0.0094	0.2984	-0.0001
172	SLU 5	6.12	-0.01	46.45	0.0132	0.2855	-0.0001
172	SLU 6	6.87	0	48.12	0.0033	0.3204	0
172	SLU 7	6.67	-0.01	47.97	0.0092	0.3109	-0.0001
172	SLU 8	6.74	0	47.67	0.0032	0.314	0
172	SLU 9	6.53	-0.01	47.52	0.0091	0.3044	-0.0001
172	SLU 10	7.57	-0.01	53.95	0.0141	0.3519	-0.0001
172	SLU 11	8.32	0	55.62	0.0041	0.3868	0
172	SLU 12	8.11	-0.01	55.48	0.01	0.3772	-0.0001
172	SLU 13	7.84	-0.01	54.93	0.0138	0.3644	-0.0001
172	SLU 14	8.6	0	56.6	0.0039	0.3993	0
172	SLU 15	8.39	-0.01	56.45	0.0098	0.3898	-0.0001
172	SLU 16	8.46	0	56.15	0.0038	0.3928	0
172	SLU 17	8.25	-0.01	56	0.0096	0.3833	-0.0001
172	SLU 18	8.65	0	57.83	0.0045	0.4016	0
172	SLU 19	8.44	-0.01	57.68	0.0104	0.3921	-0.0001
172	SLU 20	8.92	0	58.81	0.0043	0.4141	0
172	SLU 21	8.71	-0.01	58.66	0.0101	0.4046	-0.0001
172	SLU 22	7.72	0	53.37	0.0041	0.3594	0
172	SLU 23	7.38	-0.01	53.13	0.0139	0.3435	-0.0001
172	SLU 24	8.13	0	54.8	0.0039	0.3784	0
172	SLU 25	7.93	-0.01	54.65	0.0098	0.3689	-0.0001
172	SLU 26	7.65	-0.01	54.1	0.0136	0.356	-0.0001
172	SLU 27	8.41	0	55.78	0.0037	0.3909	0
172	SLU 28	8.2	-0.01	55.63	0.0096	0.3814	-0.0001
172	SLU 29	8.27	0	55.33	0.0036	0.3845	0
172	SLU 30	8.06	-0.01	55.18	0.0095	0.3749	-0.0001
172	SLU 31	9.1	-0.01	61.6	0.0145	0.4224	-0.0001
172	SLU 32	9.85	0	63.28	0.0045	0.4573	0
172	SLU 33	9.65	-0.01	63.13	0.0104	0.4478	-0.0001
172	SLU 34	9.37	-0.01	62.58	0.0142	0.4349	-0.0001
172	SLU 35	10.13	0	64.26	0.0043	0.4698	0
172	SLU 36	9.92	-0.01	64.11	0.0102	0.4603	-0.0001
172	SLU 37	9.99	0	63.81	0.0041	0.4634	0
172	SLU 38	9.78	-0.01	63.66	0.01	0.4538	-0.0001
172	SLU 39	10.18	0	65.49	0.0049	0.4721	0
172	SLU 40	9.97	-0.01	65.34	0.0108	0.4626	-0.0001
172	SLU 41	10.45	0	66.46	0.0046	0.4847	0
172	SLU 42	10.25	-0.01	66.31	0.0105	0.4751	-0.0001
172	SLU 43	7.52	0	56.81	0.0046	0.3514	0
172	SLU 44	7.17	-0.01	56.56	0.0144	0.3355	-0.0001
172	SLU 45	7.93	0	58.24	0.0045	0.3704	0
172	SLU 46	7.72	-0.01	58.09	0.0104	0.3609	-0.0001
172	SLU 47	7.45	-0.01	57.54	0.0142	0.348	-0.0001
172	SLU 48	8.2	0	59.21	0.0042	0.3829	0
172	SLU 49	8	-0.01	59.06	0.0101	0.3734	-0.0001
172	SLU 50	8.07	0	58.76	0.0041	0.3765	0
172	SLU 51	7.86	-0.01	58.62	0.01	0.3669	-0.0001
172	SLU 52	8.9	-0.01	65.04	0.015	0.4144	-0.0001
172	SLU 53	9.65	0	66.72	0.0051	0.4493	0
172	SLU 54	9.45	-0.01	66.57	0.011	0.4397	-0.0001
172	SLU 55	9.17	-0.01	66.02	0.0148	0.4269	-0.0001
172	SLU 56	9.93	0	67.69	0.0048	0.4618	0
172	SLU 57	9.72	-0.01	67.54	0.0107	0.4523	-0.0001
172	SLU 58	9.79	0	67.24	0.0047	0.4553	0
172	SLU 59	9.58	-0.01	67.09	0.0106	0.4458	-0.0001
172	SLU 60	9.98	0	68.92	0.0055	0.4641	0
172	SLU 61	9.77	-0.01	68.78	0.0114	0.4546	-0.0001
172	SLU 62	10.25	0	69.9	0.0052	0.4766	0
172	SLU 63	10.05	-0.01	69.75	0.0111	0.4671	-0.0001
172	SLU 64	9.05	0	64.47	0.005	0.4219	0
172	SLU 65	8.71	-0.01	64.22	0.0148	0.406	-0.0001
172	SLU 66	9.46	0	65.89	0.0049	0.4409	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
172	SLU 67	9.26	-0.01	65.74	0.0108	0.4314	-0.0001
172	SLU 68	8.98	-0.01	65.19	0.0146	0.4185	-0.0001
172	SLU 69	9.74	0	66.87	0.0046	0.4534	0
172	SLU 70	9.53	-0.01	66.72	0.0105	0.4439	-0.0001
172	SLU 71	9.6	0	66.42	0.0045	0.447	0
172	SLU 72	9.39	-0.01	66.27	0.0104	0.4374	-0.0001
172	SLU 73	10.43	-0.01	72.7	0.0154	0.4849	-0.0001
172	SLU 74	11.19	0	74.37	0.0055	0.5198	0
172	SLU 75	10.98	-0.01	74.22	0.0114	0.5103	-0.0001
172	SLU 76	10.7	-0.01	73.67	0.0152	0.4974	-0.0001
172	SLU 77	11.46	0	75.35	0.0052	0.5323	0
172	SLU 78	11.25	-0.01	75.2	0.0111	0.5228	-0.0001
172	SLU 79	11.32	0	74.9	0.0051	0.5259	0
172	SLU 80	11.11	-0.01	74.75	0.011	0.5163	-0.0001
172	SLU 81	11.51	0	76.58	0.0059	0.5346	-0.0001
172	SLU 82	11.3	-0.01	76.43	0.0118	0.5251	-0.0001
172	SLU 83	11.78	0	77.55	0.0056	0.5472	-0.0001
172	SLU 84	11.58	-0.01	77.41	0.0115	0.5376	-0.0001
172	SLE RA 1	6.63	0	47.91	0.0038	0.3091	0
172	SLE RA 2	6.4	-0.01	47.74	0.0103	0.2985	-0.0001
172	SLE RA 3	6.9	0	48.86	0.0037	0.3217	0
172	SLE RA 4	6.76	-0.01	48.76	0.0076	0.3154	-0.0001
172	SLE RA 5	6.58	-0.01	48.39	0.0102	0.3068	-0.0001
172	SLE RA 6	7.08	0	49.51	0.0035	0.3301	0
172	SLE RA 7	6.95	-0.01	49.41	0.0075	0.3237	-0.0001
172	SLE RA 8	6.99	0	49.21	0.0034	0.3258	0
172	SLE RA 9	6.85	-0.01	49.11	0.0074	0.3194	-0.0001
172	SLE RA 10	7.54	-0.01	53.39	0.0107	0.3511	-0.0001
172	SLE RA 11	8.05	0	54.51	0.0041	0.3743	0
172	SLE RA 12	7.91	-0.01	54.41	0.008	0.368	-0.0001
172	SLE RA 13	7.73	-0.01	54.04	0.0105	0.3594	-0.0001
172	SLE RA 14	8.23	0	55.16	0.0039	0.3827	0
172	SLE RA 15	8.09	-0.01	55.06	0.0078	0.3763	-0.0001
172	SLE RA 16	8.14	0	54.86	0.0038	0.3784	0
172	SLE RA 17	8	-0.01	54.76	0.0078	0.372	-0.0001
172	SLE RA 18	8.27	0	55.98	0.0043	0.3842	0
172	SLE RA 19	8.13	-0.01	55.88	0.0083	0.3778	-0.0001
172	SLE RA 20	8.45	0	56.63	0.0042	0.3926	0
172	SLE RA 21	8.31	-0.01	56.53	0.0081	0.3862	-0.0001
172	SLE FR 1	6.63	0	47.91	0.0038	0.3091	0
172	SLE FR 2	6.58	0	47.87	0.0051	0.307	0
172	SLE FR 3	6.7	0	48.17	0.0037	0.3124	0
172	SLE FR 4	7.07	0	50.3	0.0053	0.3295	0
172	SLE FR 5	7.19	0	50.59	0.0039	0.335	0
172	SLE FR 6	7.45	0	51.94	0.0041	0.3466	0
172	SLE QP 1	6.63	0	47.91	0.0038	0.3091	0
172	SLE QP 2	7.12	0	50.33	0.0039	0.3316	0
172	SLD 1	15.71	0.18	53.63	-0.1958	0.7344	0.0019
172	SLD 2	15.71	0.18	53.63	-0.1958	0.7344	0.0019
172	SLD 3	16.57	-0.09	54.13	0.1002	0.7738	-0.001
172	SLD 4	16.57	-0.09	54.13	0.1002	0.7738	-0.001
172	SLD 5	8.4	0.47	50.56	-0.5049	0.3927	0.0049
172	SLD 6	8.4	0.47	50.56	-0.5049	0.3927	0.0049
172	SLD 7	11.25	-0.45	52.23	0.4817	0.5241	-0.0047
172	SLD 8	11.25	-0.45	52.23	0.4817	0.5241	-0.0047
172	SLD 9	2.99	0.44	48.43	-0.4738	0.1392	0.0046
172	SLD 10	2.99	0.44	48.43	-0.4738	0.1392	0.0046
172	SLD 11	5.84	-0.48	50.1	0.5128	0.2705	-0.005
172	SLD 12	5.84	-0.48	50.1	0.5128	0.2705	-0.005
172	SLD 13	-2.33	0.09	46.53	-0.0923	-0.1106	0.0009
172	SLD 14	-2.33	0.09	46.53	-0.0923	-0.1106	0.0009
172	SLD 15	-1.48	-0.19	47.03	0.2037	-0.0712	-0.002
172	SLD 16	-1.48	-0.19	47.03	0.2037	-0.0712	-0.002
172	SLV 1	27.22	0.47	58.01	-0.5075	1.2741	0.0049
172	SLV 2	27.22	0.47	58.01	-0.5075	1.2741	0.0049
172	SLV 3	29.25	-0.24	59.25	0.2513	1.3678	-0.0025
172	SLV 4	29.25	-0.24	59.25	0.2513	1.3678	-0.0025
172	SLV 5	10.07	1.21	50.75	-1.3002	0.4723	0.0127
172	SLV 6	10.07	1.21	50.75	-1.3002	0.4723	0.0127
172	SLV 7	16.84	-1.14	54.89	1.2288	0.7845	-0.012
172	SLV 8	16.84	-1.14	54.89	1.2288	0.7845	-0.012
172	SLV 9	-2.6	1.14	45.77	-1.221	-0.1213	0.0119
172	SLV 10	-2.6	1.14	45.77	-1.221	-0.1213	0.0119
172	SLV 11	4.17	-1.22	49.91	1.3081	0.1909	-0.0127
172	SLV 12	4.17	-1.22	49.91	1.3081	0.1909	-0.0127
172	SLV 13	-15.01	0.23	41.41	-0.2434	-0.7045	0.0024
172	SLV 14	-15.01	0.23	41.41	-0.2434	-0.7045	0.0024
172	SLV 15	-12.98	-0.48	42.65	0.5153	-0.6109	-0.005
172	SLV 16	-12.98	-0.48	42.65	0.5153	-0.6109	-0.005
173	SLU 1	5.34	0	45.97	0.0035	0.2365	0
173	SLU 2	4.99	-0.01	45.67	0.0117	0.2213	-0.0001
173	SLU 3	5.74	0	47.43	0.0033	0.2544	0
173	SLU 4	5.53	-0.01	47.25	0.0082	0.2453	-0.0001
173	SLU 5	5.26	-0.01	46.69	0.0114	0.2333	-0.0001
173	SLU 6	6.02	0	48.44	0.003	0.2664	0
173	SLU 7	5.81	-0.01	48.26	0.0079	0.2573	-0.0001
173	SLU 8	5.89	0	48	0.0029	0.2605	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
173	SLU 9	5.68	-0.01	47.82	0.0078	0.2514	-0.0001
173	SLU 10	6.51	-0.01	54.25	0.0123	0.2897	-0.0001
173	SLU 11	7.27	0	56	0.0039	0.3228	0
173	SLU 12	7.06	-0.01	55.82	0.0088	0.3137	-0.0001
173	SLU 13	6.79	-0.01	55.26	0.012	0.3017	-0.0001
173	SLU 14	7.54	0	57.02	0.0036	0.3348	0
173	SLU 15	7.33	-0.01	56.84	0.0085	0.3257	-0.0001
173	SLU 16	7.41	0	56.58	0.0034	0.3289	0
173	SLU 17	7.2	-0.01	56.4	0.0084	0.3198	-0.0001
173	SLU 18	7.52	0	58.22	0.0043	0.3343	0
173	SLU 19	7.31	-0.01	58.04	0.0092	0.3251	-0.0001
173	SLU 20	7.79	0	59.24	0.004	0.3463	0
173	SLU 21	7.58	-0.01	59.06	0.0089	0.3371	-0.0001
173	SLU 22	6.71	0	53.71	0.0038	0.2977	0
173	SLU 23	6.36	-0.01	53.41	0.0121	0.2825	-0.0001
173	SLU 24	7.11	0	55.16	0.0037	0.3156	0
173	SLU 25	6.9	-0.01	54.98	0.0086	0.3065	-0.0001
173	SLU 26	6.63	-0.01	54.42	0.0118	0.2945	-0.0001
173	SLU 27	7.38	0	56.18	0.0034	0.3276	0
173	SLU 28	7.17	-0.01	56	0.0083	0.3184	-0.0001
173	SLU 29	7.25	0	55.74	0.0032	0.3217	0
173	SLU 30	7.04	-0.01	55.56	0.0082	0.3126	-0.0001
173	SLU 31	7.88	-0.01	61.98	0.0126	0.3509	-0.0001
173	SLU 32	8.63	0	63.74	0.0042	0.384	0
173	SLU 33	8.42	-0.01	63.56	0.0092	0.3749	-0.0001
173	SLU 34	8.15	-0.01	63	0.0123	0.3629	-0.0001
173	SLU 35	8.91	0	64.75	0.0039	0.396	0
173	SLU 36	8.7	-0.01	64.57	0.0089	0.3869	-0.0001
173	SLU 37	8.78	0	64.31	0.0038	0.3901	0
173	SLU 38	8.57	-0.01	64.13	0.0087	0.381	-0.0001
173	SLU 39	8.89	0	65.96	0.0046	0.3955	-0.0001
173	SLU 40	8.67	-0.01	65.78	0.0096	0.3863	-0.0001
173	SLU 41	9.16	0	66.97	0.0043	0.4075	0
173	SLU 42	8.95	-0.01	66.79	0.0093	0.3983	-0.0001
173	SLU 43	6.48	0	57.11	0.0044	0.2865	0
173	SLU 44	6.13	-0.01	56.81	0.0126	0.2713	-0.0001
173	SLU 45	6.88	0	58.57	0.0042	0.3044	0
173	SLU 46	6.67	-0.01	58.39	0.0091	0.2953	-0.0001
173	SLU 47	6.4	-0.01	57.83	0.0123	0.2833	-0.0001
173	SLU 48	7.15	0	59.58	0.0039	0.3164	0
173	SLU 49	6.94	-0.01	59.4	0.0088	0.3072	-0.0001
173	SLU 50	7.02	0	59.14	0.0038	0.3105	0
173	SLU 51	6.81	-0.01	58.96	0.0087	0.3013	-0.0001
173	SLU 52	7.65	-0.01	65.39	0.0132	0.3397	-0.0001
173	SLU 53	8.4	0	67.14	0.0048	0.3728	-0.0001
173	SLU 54	8.19	-0.01	66.96	0.0097	0.3637	-0.0001
173	SLU 55	7.92	-0.01	66.4	0.0129	0.3517	-0.0001
173	SLU 56	8.68	0	68.16	0.0045	0.3848	-0.0001
173	SLU 57	8.46	-0.01	67.98	0.0094	0.3757	-0.0001
173	SLU 58	8.55	0	67.72	0.0043	0.3789	-0.0001
173	SLU 59	8.33	-0.01	67.54	0.0093	0.3698	-0.0001
173	SLU 60	8.65	0	69.36	0.0052	0.3843	-0.0001
173	SLU 61	8.44	-0.01	69.18	0.0101	0.3751	-0.0001
173	SLU 62	8.93	0	70.38	0.0049	0.3962	-0.0001
173	SLU 63	8.72	-0.01	70.2	0.0098	0.3871	-0.0001
173	SLU 64	7.84	0	64.85	0.0047	0.3477	-0.0001
173	SLU 65	7.49	-0.01	64.55	0.013	0.3325	-0.0001
173	SLU 66	8.24	0	66.3	0.0046	0.3656	-0.0001
173	SLU 67	8.03	-0.01	66.12	0.0095	0.3564	-0.0001
173	SLU 68	7.76	-0.01	65.56	0.0127	0.3445	-0.0001
173	SLU 69	8.52	0	67.32	0.0043	0.3776	0
173	SLU 70	8.31	-0.01	67.14	0.0092	0.3684	-0.0001
173	SLU 71	8.39	0	66.88	0.0041	0.3717	0
173	SLU 72	8.18	-0.01	66.7	0.0091	0.3625	-0.0001
173	SLU 73	9.02	-0.01	73.12	0.0135	0.4009	-0.0001
173	SLU 74	9.77	0	74.88	0.0051	0.434	-0.0001
173	SLU 75	9.56	-0.01	74.7	0.0101	0.4249	-0.0001
173	SLU 76	9.29	-0.01	74.14	0.0132	0.4129	-0.0001
173	SLU 77	10.04	0	75.89	0.0048	0.446	-0.0001
173	SLU 78	9.83	-0.01	75.71	0.0098	0.4369	-0.0001
173	SLU 79	9.91	0	75.45	0.0047	0.4401	-0.0001
173	SLU 80	9.7	-0.01	75.27	0.0096	0.431	-0.0001
173	SLU 81	10.02	0	77.1	0.0055	0.4454	-0.0001
173	SLU 82	9.81	-0.01	76.92	0.0105	0.4363	-0.0001
173	SLU 83	10.29	0	78.11	0.0052	0.4574	-0.0001
173	SLU 84	10.08	-0.01	77.93	0.0102	0.4483	-0.0001
173	SLE RA 1	5.73	0	48.18	0.0036	0.254	0
173	SLE RA 2	5.5	-0.01	47.98	0.009	0.2439	-0.0001
173	SLE RA 3	6	0	49.15	0.0034	0.2659	0
173	SLE RA 4	5.86	-0.01	49.03	0.0067	0.2598	-0.0001
173	SLE RA 5	5.68	-0.01	48.66	0.0089	0.2519	-0.0001
173	SLE RA 6	6.18	0	49.83	0.0032	0.2739	0
173	SLE RA 7	6.04	-0.01	49.71	0.0065	0.2678	-0.0001
173	SLE RA 8	6.1	0	49.54	0.0032	0.27	0
173	SLE RA 9	5.96	0	49.42	0.0065	0.2639	-0.0001
173	SLE RA 10	6.51	-0.01	53.7	0.0094	0.2895	-0.0001
173	SLE RA 11	7.02	0	54.87	0.0038	0.3115	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
173	SLE RA 12	6.88	-0.01	54.75	0.0071	0.3055	-0.0001
173	SLE RA 13	6.7	-0.01	54.38	0.0092	0.2975	-0.0001
173	SLE RA 14	7.2	0	55.55	0.0036	0.3195	0
173	SLE RA 15	7.06	-0.01	55.43	0.0069	0.3134	-0.0001
173	SLE RA 16	7.11	0	55.25	0.0035	0.3156	0
173	SLE RA 17	6.97	-0.01	55.13	0.0068	0.3095	-0.0001
173	SLE RA 18	7.18	0	56.35	0.0041	0.3192	0
173	SLE RA 19	7.04	-0.01	56.23	0.0074	0.3131	-0.0001
173	SLE RA 20	7.37	0	57.03	0.0039	0.3272	0
173	SLE RA 21	7.23	-0.01	56.91	0.0072	0.3211	-0.0001
173	SLE FR 1	5.73	0	48.18	0.0036	0.254	0
173	SLE FR 2	5.69	0	48.14	0.0047	0.252	0
173	SLE FR 3	5.81	0	48.45	0.0035	0.2572	0
173	SLE FR 4	6.12	0	50.59	0.0048	0.2715	0
173	SLE FR 5	6.24	0	50.9	0.0036	0.2768	0
173	SLE FR 6	6.46	0	52.27	0.0038	0.2866	0
173	SLE QP 1	5.73	0	48.18	0.0036	0.254	0
173	SLE QP 2	6.17	0	50.63	0.0037	0.2736	0
173	SLD 1	15.02	0.18	52.62	-0.1942	0.6819	0.002
173	SLD 2	15.02	0.18	52.62	-0.1942	0.6819	0.002
173	SLD 3	15.88	-0.09	53.14	0.0959	0.7209	-0.001
173	SLD 4	15.88	-0.09	53.14	0.0959	0.7209	-0.001
173	SLD 5	7.52	0.46	50.45	-0.4957	0.3368	0.0051
173	SLD 6	7.52	0.46	50.45	-0.4957	0.3368	0.0051
173	SLD 7	10.38	-0.44	52.17	0.4714	0.467	-0.0049
173	SLD 8	10.38	-0.44	52.17	0.4714	0.467	-0.0049
173	SLD 9	1.95	0.43	49.1	-0.464	0.0801	0.0048
173	SLD 10	1.95	0.43	49.1	-0.464	0.0801	0.0048
173	SLD 11	4.82	-0.47	50.82	0.5031	0.2103	-0.0052
173	SLD 12	4.82	-0.47	50.82	0.5031	0.2103	-0.0052
173	SLD 13	-3.54	0.08	48.13	-0.0885	-0.1738	0.0009
173	SLD 14	-3.54	0.08	48.13	-0.0885	-0.1738	0.0009
173	SLD 15	-2.68	-0.19	48.65	0.2017	-0.1347	-0.0021
173	SLD 16	-2.68	-0.19	48.65	0.2017	-0.1347	-0.0021
173	SLV 1	26.85	0.47	55.24	-0.5032	1.2275	0.0053
173	SLV 2	26.85	0.47	55.24	-0.5032	1.2275	0.0053
173	SLV 3	28.89	-0.22	56.54	0.2404	1.3204	-0.0024
173	SLV 4	28.89	-0.22	56.54	0.2404	1.3204	-0.0024
173	SLV 5	9.27	1.19	50.04	-1.2763	0.4188	0.0133
173	SLV 6	9.27	1.19	50.04	-1.2763	0.4188	0.0133
173	SLV 7	16.08	-1.12	54.38	1.2026	0.7285	-0.0125
173	SLV 8	16.08	-1.12	54.38	1.2026	0.7285	-0.0125
173	SLV 9	-3.75	1.11	46.89	-1.1952	-0.1814	0.0124
173	SLV 10	-3.75	1.11	46.89	-1.1952	-0.1814	0.0124
173	SLV 11	3.06	-1.19	51.22	1.2837	0.1283	-0.0133
173	SLV 12	3.06	-1.19	51.22	1.2837	0.1283	-0.0133
173	SLV 13	-16.56	0.22	44.73	-0.233	-0.7733	0.0024
173	SLV 14	-16.56	0.22	44.73	-0.233	-0.7733	0.0024
173	SLV 15	-14.51	-0.47	46.03	0.5107	-0.6804	-0.0053
173	SLV 16	-14.51	-0.47	46.03	0.5107	-0.6804	-0.0053
174	SLU 1	4.72	0	46.26	0.0032	0.2215	0
174	SLU 2	4.34	-0.01	45.9	0.0097	0.2041	-0.0001
174	SLU 3	5.12	0	47.76	0.003	0.2399	0
174	SLU 4	4.89	-0.01	47.54	0.0069	0.2295	-0.0001
174	SLU 5	4.62	-0.01	46.97	0.0094	0.2166	-0.0001
174	SLU 6	5.4	0	48.83	0.0026	0.2524	0
174	SLU 7	5.17	-0.01	48.61	0.0066	0.242	-0.0001
174	SLU 8	5.27	0	48.4	0.0025	0.2465	0
174	SLU 9	5.05	-0.01	48.18	0.0064	0.2361	-0.0001
174	SLU 10	5.7	-0.01	54.56	0.0103	0.2669	-0.0001
174	SLU 11	6.48	0	56.42	0.0035	0.3026	0
174	SLU 12	6.25	-0.01	56.2	0.0075	0.2922	-0.0001
174	SLU 13	5.98	-0.01	55.63	0.0099	0.2794	-0.0001
174	SLU 14	6.76	0	57.49	0.0032	0.3151	0
174	SLU 15	6.53	-0.01	57.27	0.0071	0.3047	-0.0001
174	SLU 16	6.63	0	57.06	0.003	0.3092	0
174	SLU 17	6.41	-0.01	56.84	0.007	0.2988	-0.0001
174	SLU 18	6.66	0	58.63	0.004	0.3111	-0.0001
174	SLU 19	6.43	-0.01	58.41	0.0079	0.3007	-0.0001
174	SLU 20	6.94	0	59.7	0.0036	0.3236	-0.0001
174	SLU 21	6.71	-0.01	59.48	0.0076	0.3132	-0.0001
174	SLU 22	5.95	0	54.07	0.0035	0.2785	0
174	SLU 23	5.57	-0.01	53.71	0.0101	0.2611	-0.0001
174	SLU 24	6.35	0	55.58	0.0033	0.2968	0
174	SLU 25	6.13	-0.01	55.36	0.0072	0.2864	-0.0001
174	SLU 26	5.85	-0.01	54.78	0.0097	0.2736	-0.0001
174	SLU 27	6.63	0	56.65	0.003	0.3094	0
174	SLU 28	6.41	-0.01	56.43	0.0069	0.2989	-0.0001
174	SLU 29	6.51	0	56.22	0.0028	0.3035	0
174	SLU 30	6.28	-0.01	56	0.0068	0.2931	-0.0001
174	SLU 31	6.93	-0.01	62.37	0.0106	0.3238	-0.0001
174	SLU 32	7.71	0	64.24	0.0039	0.3596	-0.0001
174	SLU 33	7.49	-0.01	64.02	0.0078	0.3492	-0.0001
174	SLU 34	7.21	-0.01	63.44	0.0103	0.3363	-0.0001
174	SLU 35	7.99	0	65.31	0.0035	0.3721	-0.0001
174	SLU 36	7.76	-0.01	65.09	0.0075	0.3617	-0.0001
174	SLU 37	7.87	0	64.88	0.0034	0.3662	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
174	SLU 38	7.64	-0.01	64.66	0.0073	0.3558	-0.0001
174	SLU 39	7.89	0	66.45	0.0043	0.3681	-0.0001
174	SLU 40	7.66	-0.01	66.23	0.0082	0.3576	-0.0001
174	SLU 41	8.17	0	67.52	0.004	0.3806	-0.0001
174	SLU 42	7.94	-0.01	67.3	0.0079	0.3702	-0.0001
174	SLU 43	5.71	0	57.45	0.004	0.2684	-0.0001
174	SLU 44	5.33	-0.01	57.09	0.0106	0.251	-0.0001
174	SLU 45	6.11	0	58.95	0.0038	0.2868	-0.0001
174	SLU 46	5.89	-0.01	58.74	0.0078	0.2764	-0.0001
174	SLU 47	5.61	-0.01	58.16	0.0102	0.2636	-0.0001
174	SLU 48	6.39	0	60.02	0.0035	0.2993	0
174	SLU 49	6.17	-0.01	59.81	0.0074	0.2889	-0.0001
174	SLU 50	6.27	0	59.59	0.0033	0.2934	0
174	SLU 51	6.04	-0.01	59.38	0.0073	0.283	-0.0001
174	SLU 52	6.69	-0.01	65.75	0.0111	0.3138	-0.0001
174	SLU 53	7.47	0	67.62	0.0044	0.3495	-0.0001
174	SLU 54	7.25	-0.01	67.4	0.0083	0.3391	-0.0001
174	SLU 55	6.97	-0.01	66.82	0.0108	0.3263	-0.0001
174	SLU 56	7.75	0	68.69	0.004	0.362	-0.0001
174	SLU 57	7.52	-0.01	68.47	0.008	0.3516	-0.0001
174	SLU 58	7.63	0	68.26	0.0039	0.3562	-0.0001
174	SLU 59	7.4	-0.01	68.04	0.0078	0.3458	-0.0001
174	SLU 60	7.65	-0.01	69.83	0.0048	0.358	-0.0001
174	SLU 61	7.42	-0.01	69.61	0.0088	0.3476	-0.0001
174	SLU 62	7.93	-0.01	70.9	0.0045	0.3705	-0.0001
174	SLU 63	7.7	-0.01	70.68	0.0084	0.3601	-0.0001
174	SLU 64	6.94	0	65.27	0.0044	0.3254	-0.0001
174	SLU 65	6.57	-0.01	64.91	0.0109	0.308	-0.0001
174	SLU 66	7.35	0	66.77	0.0042	0.3438	-0.0001
174	SLU 67	7.12	-0.01	66.55	0.0081	0.3333	-0.0001
174	SLU 68	6.84	-0.01	65.98	0.0106	0.3205	-0.0001
174	SLU 69	7.62	0	67.84	0.0038	0.3563	-0.0001
174	SLU 70	7.4	-0.01	67.62	0.0077	0.3459	-0.0001
174	SLU 71	7.5	0	67.41	0.0037	0.3504	-0.0001
174	SLU 72	7.27	-0.01	67.19	0.0076	0.34	-0.0001
174	SLU 73	7.92	-0.01	73.57	0.0115	0.3707	-0.0001
174	SLU 74	8.7	-0.01	75.43	0.0047	0.4065	-0.0001
174	SLU 75	8.48	-0.01	75.22	0.0086	0.3961	-0.0001
174	SLU 76	8.2	-0.01	74.64	0.0111	0.3833	-0.0001
174	SLU 77	8.98	-0.01	76.5	0.0044	0.419	-0.0001
174	SLU 78	8.76	-0.01	76.29	0.0083	0.4086	-0.0001
174	SLU 79	8.86	-0.01	76.07	0.0042	0.4131	-0.0001
174	SLU 80	8.63	-0.01	75.86	0.0082	0.4027	-0.0001
174	SLU 81	8.88	-0.01	77.65	0.0051	0.415	-0.0001
174	SLU 82	8.66	-0.01	77.43	0.0091	0.4046	-0.0001
174	SLU 83	9.16	-0.01	78.72	0.0048	0.4275	-0.0001
174	SLU 84	8.94	-0.01	78.5	0.0087	0.4171	-0.0001
174	SLE RA 1	5.07	0	48.49	0.0033	0.2378	0
174	SLE RA 2	4.82	-0.01	48.25	0.0076	0.2262	-0.0001
174	SLE RA 3	5.34	0	49.49	0.0031	0.25	0
174	SLE RA 4	5.19	0	49.35	0.0058	0.2431	-0.0001
174	SLE RA 5	5	-0.01	48.96	0.0074	0.2345	-0.0001
174	SLE RA 6	5.52	0	50.2	0.0029	0.2584	0
174	SLE RA 7	5.37	0	50.06	0.0055	0.2514	-0.0001
174	SLE RA 8	5.44	0	49.92	0.0028	0.2545	0
174	SLE RA 9	5.29	0	49.77	0.0054	0.2475	-0.0001
174	SLE RA 10	5.72	-0.01	54.02	0.008	0.268	-0.0001
174	SLE RA 11	6.24	0	55.27	0.0035	0.2918	0
174	SLE RA 12	6.09	-0.01	55.12	0.0061	0.2849	-0.0001
174	SLE RA 13	5.91	-0.01	54.74	0.0078	0.2764	-0.0001
174	SLE RA 14	6.43	0	55.98	0.0033	0.3002	0
174	SLE RA 15	6.28	-0.01	55.83	0.0059	0.2932	-0.0001
174	SLE RA 16	6.35	0	55.69	0.0032	0.2963	0
174	SLE RA 17	6.2	-0.01	55.55	0.0058	0.2893	-0.0001
174	SLE RA 18	6.36	0	56.74	0.0038	0.2975	-0.0001
174	SLE RA 19	6.21	-0.01	56.6	0.0064	0.2906	-0.0001
174	SLE RA 20	6.55	0	57.45	0.0036	0.3058	0
174	SLE RA 21	6.4	-0.01	57.31	0.0062	0.2989	-0.0001
174	SLE FR 1	5.07	0	48.49	0.0033	0.2378	0
174	SLE FR 2	5.02	0	48.44	0.0042	0.2354	0
174	SLE FR 3	5.14	0	48.78	0.0032	0.2411	0
174	SLE FR 4	5.41	0	50.92	0.0043	0.2534	-0.0001
174	SLE FR 5	5.53	0	51.25	0.0033	0.259	0
174	SLE FR 6	5.72	0	52.62	0.0035	0.2676	0
174	SLE QP 1	5.07	0	48.49	0.0033	0.2378	0
174	SLE QP 2	5.46	0	50.97	0.0034	0.2557	0
174	SLD 1	14.64	0.17	52.07	-0.1807	0.6865	0.0019
174	SLD 2	14.64	0.17	52.07	-0.1807	0.6865	0.0019
174	SLD 3	15.51	-0.07	52.64	0.0838	0.7269	-0.0008
174	SLD 4	15.51	-0.07	52.64	0.0838	0.7269	-0.0008
174	SLD 5	6.9	0.42	50.44	-0.4531	0.3237	0.0047
174	SLD 6	6.9	0.42	50.44	-0.4531	0.3237	0.0047
174	SLD 7	9.79	-0.39	52.32	0.4288	0.4583	-0.0044
174	SLD 8	9.79	-0.39	52.32	0.4288	0.4583	-0.0044
174	SLD 9	1.13	0.39	49.61	-0.422	0.0531	0.0043
174	SLD 10	1.13	0.39	49.61	-0.422	0.0531	0.0043
174	SLD 11	4.02	-0.42	51.49	0.46	0.1877	-0.0048



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
174	SLD 12	4.02	-0.42	51.49	0.46	0.1877	-0.0048
174	SLD 13	-4.59	0.07	49.3	-0.077	-0.2155	0.0007
174	SLD 14	-4.59	0.07	49.3	-0.077	-0.2155	0.0007
174	SLD 15	-3.72	-0.18	49.86	0.1876	-0.1752	-0.002
174	SLD 16	-3.72	-0.18	49.86	0.1876	-0.1752	-0.002
174	SLV 1	26.92	0.44	53.52	-0.4684	1.2631	0.0049
174	SLV 2	26.92	0.44	53.52	-0.4684	1.2631	0.0049
174	SLV 3	28.99	-0.19	54.96	0.2096	1.3592	-0.0021
174	SLV 4	28.99	-0.19	54.96	0.2096	1.3592	-0.0021
174	SLV 5	8.76	1.07	49.56	-1.1664	0.4122	0.0121
174	SLV 6	8.76	1.07	49.56	-1.1664	0.4122	0.0121
174	SLV 7	15.65	-1	54.34	1.0936	0.7325	-0.0113
174	SLV 8	15.65	-1	54.34	1.0936	0.7325	-0.0113
174	SLV 9	-4.74	0.99	47.59	-1.0867	-0.2211	0.0112
174	SLV 10	-4.74	0.99	47.59	-1.0867	-0.2211	0.0112
174	SLV 11	2.16	-1.08	52.37	1.1733	0.0992	-0.0121
174	SLV 12	2.16	-1.08	52.37	1.1733	0.0992	-0.0121
174	SLV 13	-18.07	0.18	46.97	-0.2028	-0.8478	0.002
174	SLV 14	-18.07	0.18	46.97	-0.2028	-0.8478	0.002
174	SLV 15	-16	-0.44	48.41	0.4753	-0.7517	-0.005
174	SLV 16	-16	-0.44	48.41	0.4753	-0.7517	-0.005
175	SLU 1	3.71	0	46.61	0.0027	0.1648	0
175	SLU 2	3.33	-0.01	46.17	0.0075	0.1483	-0.0001
175	SLU 3	4.09	0	48.18	0.0024	0.1819	0
175	SLU 4	3.87	0	47.91	0.0053	0.172	-0.0001
175	SLU 5	3.6	-0.01	47.32	0.0071	0.1603	-0.0001
175	SLU 6	4.37	0	49.32	0.002	0.1938	0
175	SLU 7	4.14	0	49.06	0.0049	0.1839	-0.0001
175	SLU 8	4.25	0	48.9	0.0019	0.1886	0
175	SLU 9	4.03	0	48.64	0.0048	0.1787	0
175	SLU 10	4.46	-0.01	54.92	0.008	0.1996	-0.0001
175	SLU 11	5.22	0	56.92	0.0029	0.2331	0
175	SLU 12	5	-0.01	56.65	0.0058	0.2233	-0.0001
175	SLU 13	4.73	-0.01	56.06	0.0076	0.2115	-0.0001
175	SLU 14	5.5	0	58.06	0.0025	0.245	0
175	SLU 15	5.27	-0.01	57.8	0.0054	0.2352	-0.0001
175	SLU 16	5.38	0	57.64	0.0024	0.2398	0
175	SLU 17	5.16	-0.01	57.38	0.0053	0.2299	-0.0001
175	SLU 18	5.32	0	59.1	0.0034	0.2379	-0.0001
175	SLU 19	5.1	-0.01	58.84	0.0063	0.2281	-0.0001
175	SLU 20	5.6	0	60.24	0.003	0.2498	0
175	SLU 21	5.37	-0.01	59.98	0.0059	0.24	-0.0001
175	SLU 22	4.75	0	54.52	0.0029	0.2117	0
175	SLU 23	4.37	-0.01	54.08	0.0078	0.1953	-0.0001
175	SLU 24	5.14	0	56.09	0.0027	0.2289	0
175	SLU 25	4.91	-0.01	55.82	0.0056	0.219	-0.0001
175	SLU 26	4.65	-0.01	55.23	0.0074	0.2072	-0.0001
175	SLU 27	5.41	0	57.23	0.0023	0.2408	0
175	SLU 28	5.18	-0.01	56.97	0.0052	0.2309	-0.0001
175	SLU 29	5.29	0	56.81	0.0021	0.2356	0
175	SLU 30	5.07	-0.01	56.55	0.005	0.2257	-0.0001
175	SLU 31	5.5	-0.01	62.83	0.0083	0.2465	-0.0001
175	SLU 32	6.27	0	64.83	0.0032	0.2801	-0.0001
175	SLU 33	6.04	-0.01	64.56	0.0061	0.2702	-0.0001
175	SLU 34	5.78	-0.01	63.97	0.0079	0.2584	-0.0001
175	SLU 35	6.54	0	65.97	0.0028	0.292	-0.0001
175	SLU 36	6.31	-0.01	65.71	0.0057	0.2821	-0.0001
175	SLU 37	6.42	0	65.55	0.0026	0.2868	0
175	SLU 38	6.2	-0.01	65.29	0.0055	0.2769	-0.0001
175	SLU 39	6.37	-0.01	67.01	0.0036	0.2849	-0.0001
175	SLU 40	6.14	-0.01	66.75	0.0065	0.275	-0.0001
175	SLU 41	6.64	-0.01	68.15	0.0033	0.2968	-0.0001
175	SLU 42	6.41	-0.01	67.89	0.0062	0.2869	-0.0001
175	SLU 43	4.47	0	57.88	0.0034	0.1981	-0.0001
175	SLU 44	4.09	-0.01	57.45	0.0082	0.1817	-0.0001
175	SLU 45	4.85	0	59.45	0.0031	0.2152	-0.0001
175	SLU 46	4.62	-0.01	59.18	0.006	0.2054	-0.0001
175	SLU 47	4.36	-0.01	58.59	0.0078	0.1936	-0.0001
175	SLU 48	5.12	0	60.59	0.0027	0.2271	0
175	SLU 49	4.9	-0.01	60.33	0.0056	0.2173	-0.0001
175	SLU 50	5.01	0	60.17	0.0026	0.2219	0
175	SLU 51	4.78	-0.01	59.91	0.0055	0.2121	-0.0001
175	SLU 52	5.22	-0.01	66.19	0.0087	0.2329	-0.0001
175	SLU 53	5.98	-0.01	68.19	0.0036	0.2664	-0.0001
175	SLU 54	5.75	-0.01	67.93	0.0065	0.2566	-0.0001
175	SLU 55	5.49	-0.01	67.33	0.0083	0.2448	-0.0001
175	SLU 56	6.25	-0.01	69.33	0.0032	0.2783	-0.0001
175	SLU 57	6.03	-0.01	69.07	0.0061	0.2685	-0.0001
175	SLU 58	6.14	-0.01	68.91	0.0031	0.2731	-0.0001
175	SLU 59	5.91	-0.01	68.65	0.006	0.2633	-0.0001
175	SLU 60	6.08	-0.01	70.37	0.0041	0.2713	-0.0001
175	SLU 61	5.85	-0.01	70.11	0.007	0.2614	-0.0001
175	SLU 62	6.35	-0.01	71.51	0.0037	0.2832	-0.0001
175	SLU 63	6.13	-0.01	71.25	0.0066	0.2733	-0.0001
175	SLU 64	5.51	-0.01	65.79	0.0036	0.2451	-0.0001
175	SLU 65	5.13	-0.01	65.36	0.0085	0.2286	-0.0001
175	SLU 66	5.89	-0.01	67.36	0.0034	0.2622	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
175	SLU 67	5.67	-0.01	67.09	0.0063	0.2523	-0.0001
175	SLU 68	5.4	-0.01	66.5	0.0081	0.2405	-0.0001
175	SLU 69	6.16	-0.01	68.5	0.003	0.2741	-0.0001
175	SLU 70	5.94	-0.01	68.24	0.0059	0.2642	-0.0001
175	SLU 71	6.05	0	68.08	0.0028	0.2689	-0.0001
175	SLU 72	5.82	-0.01	67.82	0.0057	0.259	-0.0001
175	SLU 73	6.26	-0.01	74.1	0.009	0.2799	-0.0001
175	SLU 74	7.02	-0.01	76.1	0.0039	0.3134	-0.0001
175	SLU 75	6.8	-0.01	75.84	0.0068	0.3035	-0.0001
175	SLU 76	6.53	-0.01	75.24	0.0086	0.2918	-0.0001
175	SLU 77	7.29	-0.01	77.24	0.0035	0.3253	-0.0001
175	SLU 78	7.07	-0.01	76.98	0.0064	0.3155	-0.0001
175	SLU 79	7.18	-0.01	76.82	0.0033	0.3201	-0.0001
175	SLU 80	6.95	-0.01	76.56	0.0062	0.3102	-0.0001
175	SLU 81	7.12	-0.01	78.28	0.0043	0.3182	-0.0001
175	SLU 82	6.9	-0.01	78.02	0.0073	0.3084	-0.0001
175	SLU 83	7.39	-0.01	79.42	0.004	0.3301	-0.0001
175	SLU 84	7.17	-0.01	79.16	0.0069	0.3203	-0.0001
175	SLE RA 1	4.01	0	48.87	0.0027	0.1782	0
175	SLE RA 2	3.76	-0.01	48.58	0.006	0.1672	-0.0001
175	SLE RA 3	4.26	0	49.91	0.0026	0.1896	0
175	SLE RA 4	4.11	0	49.74	0.0045	0.183	-0.0001
175	SLE RA 5	3.94	-0.01	49.34	0.0057	0.1752	-0.0001
175	SLE RA 6	4.44	0	50.68	0.0023	0.1975	0
175	SLE RA 7	4.29	0	50.5	0.0042	0.191	0
175	SLE RA 8	4.37	0	50.4	0.0022	0.1941	0
175	SLE RA 9	4.22	0	50.22	0.0041	0.1875	0
175	SLE RA 10	4.51	-0.01	54.41	0.0063	0.2014	-0.0001
175	SLE RA 11	5.02	0	55.74	0.0029	0.2237	0
175	SLE RA 12	4.87	-0.01	55.57	0.0048	0.2172	-0.0001
175	SLE RA 13	4.69	-0.01	55.17	0.006	0.2093	-0.0001
175	SLE RA 14	5.2	0	56.5	0.0026	0.2317	0
175	SLE RA 15	5.05	0	56.33	0.0046	0.2251	-0.0001
175	SLE RA 16	5.12	0	56.22	0.0025	0.2282	0
175	SLE RA 17	4.97	0	56.05	0.0045	0.2216	-0.0001
175	SLE RA 18	5.08	0	57.2	0.0032	0.227	0
175	SLE RA 19	4.93	-0.01	57.02	0.0051	0.2204	-0.0001
175	SLE RA 20	5.26	0	57.96	0.003	0.2349	0
175	SLE RA 21	5.11	-0.01	57.78	0.0049	0.2283	-0.0001
175	SLE FR 1	4.01	0	48.87	0.0027	0.1782	0
175	SLE FR 2	3.96	0	48.81	0.0034	0.176	0
175	SLE FR 3	4.08	0	49.18	0.0026	0.1814	0
175	SLE FR 4	4.28	0	51.31	0.0035	0.1906	0
175	SLE FR 5	4.4	0	51.67	0.0028	0.196	0
175	SLE FR 6	4.55	0	53.03	0.003	0.2026	0
175	SLE QP 1	4.01	0	48.87	0.0027	0.1782	0
175	SLE QP 2	4.33	0	51.37	0.0029	0.1928	0
175	SLD 1	13.55	0.15	49.46	-0.1566	0.6222	0.0016
175	SLD 2	13.55	0.15	49.46	-0.1566	0.6222	0.0016
175	SLD 3	14.4	-0.05	50.11	0.0651	0.6611	-0.0006
175	SLD 4	14.4	-0.05	50.11	0.0651	0.6611	-0.0006
175	SLD 5	5.81	0.34	49.81	-0.3813	0.2626	0.0037
175	SLD 6	5.81	0.34	49.81	-0.3813	0.2626	0.0037
175	SLD 7	8.63	-0.32	51.98	0.3579	0.3924	-0.0034
175	SLD 8	8.63	-0.32	51.98	0.3579	0.3924	-0.0034
175	SLD 9	0.03	0.31	50.76	-0.3521	-0.0067	0.0033
175	SLD 10	0.03	0.31	50.76	-0.3521	-0.0067	0.0033
175	SLD 11	2.85	-0.35	52.93	0.387	0.1231	-0.0037
175	SLD 12	2.85	-0.35	52.93	0.387	0.1231	-0.0037
175	SLD 13	-5.74	0.04	52.63	-0.0594	-0.2755	0.0005
175	SLD 14	-5.74	0.04	52.63	-0.0594	-0.2755	0.0005
175	SLD 15	-4.89	-0.15	53.28	0.1624	-0.2365	-0.0017
175	SLD 16	-4.89	-0.15	53.28	0.1624	-0.2365	-0.0017
175	SLV 1	25.87	0.38	46.8	-0.4056	1.1957	0.0041
175	SLV 2	25.87	0.38	46.8	-0.4056	1.1957	0.0041
175	SLV 3	27.89	-0.13	48.45	0.1623	1.2884	-0.0013
175	SLV 4	27.89	-0.13	48.45	0.1623	1.2884	-0.0013
175	SLV 5	7.73	0.88	47.49	-0.9811	0.3531	0.0094
175	SLV 6	7.73	0.88	47.49	-0.9811	0.3531	0.0094
175	SLV 7	14.46	-0.81	53	0.9121	0.6621	-0.0087
175	SLV 8	14.46	-0.81	53	0.9121	0.6621	-0.0087
175	SLV 9	-5.79	0.8	49.74	-0.9064	-0.2764	0.0086
175	SLV 10	-5.79	0.8	49.74	-0.9064	-0.2764	0.0086
175	SLV 11	0.93	-0.89	55.25	0.9868	0.0325	-0.0095
175	SLV 12	0.93	-0.89	55.25	0.9868	0.0325	-0.0095
175	SLV 13	-19.23	0.12	54.29	-0.1566	-0.9028	0.0012
175	SLV 14	-19.23	0.12	54.29	-0.1566	-0.9028	0.0012
175	SLV 15	-17.21	-0.39	55.94	0.4114	-0.8101	-0.0042
175	SLV 16	-17.21	-0.39	55.94	0.4114	-0.8101	-0.0042
176	SLU 1	2.41	0	46.78	0.0016	0.1167	0
176	SLU 2	2.05	0	46.28	0.0047	0.0997	0
176	SLU 3	2.76	0	48.4	0.0013	0.1323	0
176	SLU 4	2.54	0	48.1	0.0032	0.1221	0
176	SLU 5	2.29	0	47.5	0.0043	0.1106	0
176	SLU 6	3	0	49.62	0.0009	0.1432	0
176	SLU 7	2.78	0	49.32	0.0027	0.133	0
176	SLU 8	2.9	0	49.22	0.0007	0.1385	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
176	SLU 9	2.68	0	48.92	0.0026	0.1283	0
176	SLU 10	2.88	0	55.04	0.0051	0.1389	0
176	SLU 11	3.59	0	57.16	0.0017	0.1716	0
176	SLU 12	3.37	0	56.86	0.0036	0.1614	0
176	SLU 13	3.12	0	56.26	0.0046	0.1498	0
176	SLU 14	3.83	0	58.38	0.0013	0.1825	0
176	SLU 15	3.61	0	58.08	0.0031	0.1723	0
176	SLU 16	3.73	0	57.98	0.0011	0.1777	0
176	SLU 17	3.51	0	57.68	0.0029	0.1675	0
176	SLU 18	3.6	0	59.29	0.0021	0.1728	0
176	SLU 19	3.38	0	58.99	0.004	0.1626	0
176	SLU 20	3.84	0	60.51	0.0017	0.1837	0
176	SLU 21	3.63	0	60.21	0.0036	0.1735	0
176	SLU 22	3.2	0	54.74	0.0017	0.1535	0
176	SLU 23	2.83	0	54.24	0.0048	0.1365	0
176	SLU 24	3.54	0	56.36	0.0015	0.1692	0
176	SLU 25	3.32	0	56.06	0.0033	0.159	0
176	SLU 26	3.08	0	55.46	0.0044	0.1474	0
176	SLU 27	3.78	0	57.58	0.001	0.1801	0
176	SLU 28	3.56	0	57.28	0.0029	0.1699	0
176	SLU 29	3.69	0	57.18	0.0008	0.1753	0
176	SLU 30	3.47	0	56.88	0.0027	0.1651	0
176	SLU 31	3.66	-0.01	63	0.0052	0.1758	0
176	SLU 32	4.37	0	65.12	0.0018	0.2084	0
176	SLU 33	4.15	0	64.82	0.0037	0.1982	0
176	SLU 34	3.91	-0.01	64.22	0.0048	0.1867	0
176	SLU 35	4.61	0	66.34	0.0014	0.2193	0
176	SLU 36	4.4	0	66.04	0.0032	0.2091	0
176	SLU 37	4.52	0	65.94	0.0012	0.2146	0
176	SLU 38	4.3	0	65.64	0.0031	0.2044	0
176	SLU 39	4.39	0	67.25	0.0023	0.2096	0
176	SLU 40	4.17	-0.01	66.95	0.0041	0.1994	0
176	SLU 41	4.63	0	68.47	0.0018	0.2205	0
176	SLU 42	4.41	-0.01	68.17	0.0037	0.2103	0
176	SLU 43	2.87	0	58.08	0.0021	0.139	0
176	SLU 44	2.5	0	57.58	0.0051	0.122	0
176	SLU 45	3.21	0	59.71	0.0018	0.1547	0
176	SLU 46	2.99	0	59.41	0.0036	0.1445	0
176	SLU 47	2.75	0	58.8	0.0047	0.1329	0
176	SLU 48	3.46	0	60.93	0.0013	0.1656	0
176	SLU 49	3.24	0	60.63	0.0032	0.1554	0
176	SLU 50	3.36	0	60.53	0.0012	0.1608	0
176	SLU 51	3.14	0	60.23	0.003	0.1506	0
176	SLU 52	3.33	-0.01	66.34	0.0055	0.1613	-0.0001
176	SLU 53	4.04	0	68.47	0.0021	0.194	0
176	SLU 54	3.82	-0.01	68.17	0.004	0.1838	0
176	SLU 55	3.58	-0.01	67.56	0.0051	0.1722	0
176	SLU 56	4.29	0	69.69	0.0017	0.2048	0
176	SLU 57	4.07	0	69.39	0.0035	0.1946	0
176	SLU 58	4.19	0	69.29	0.0015	0.2001	0
176	SLU 59	3.97	0	68.99	0.0034	0.1899	0
176	SLU 60	4.06	-0.01	70.6	0.0026	0.1951	0
176	SLU 61	3.84	-0.01	70.3	0.0044	0.1849	-0.0001
176	SLU 62	4.3	0	71.82	0.0021	0.206	0
176	SLU 63	4.08	-0.01	71.52	0.004	0.1958	0
176	SLU 64	3.65	0	66.04	0.0022	0.1759	0
176	SLU 65	3.29	-0.01	65.54	0.0053	0.1589	0
176	SLU 66	4	0	67.67	0.0019	0.1915	0
176	SLU 67	3.78	-0.01	67.37	0.0037	0.1813	0
176	SLU 68	3.53	-0.01	66.76	0.0048	0.1698	0
176	SLU 69	4.24	0	68.89	0.0014	0.2024	0
176	SLU 70	4.02	0	68.59	0.0033	0.1922	0
176	SLU 71	4.14	0	68.49	0.0013	0.1977	0
176	SLU 72	3.92	0	68.19	0.0031	0.1875	0
176	SLU 73	4.12	-0.01	74.3	0.0056	0.1981	-0.0001
176	SLU 74	4.83	-0.01	76.43	0.0023	0.2308	0
176	SLU 75	4.61	-0.01	76.13	0.0041	0.2206	-0.0001
176	SLU 76	4.36	-0.01	75.52	0.0052	0.209	-0.0001
176	SLU 77	5.07	-0.01	77.65	0.0018	0.2417	0
176	SLU 78	4.85	-0.01	77.35	0.0037	0.2315	0
176	SLU 79	4.97	0	77.25	0.0017	0.2369	0
176	SLU 80	4.75	-0.01	76.95	0.0035	0.2267	0
176	SLU 81	4.84	-0.01	78.56	0.0027	0.232	0
176	SLU 82	4.62	-0.01	78.26	0.0046	0.2218	-0.0001
176	SLU 83	5.08	-0.01	79.78	0.0023	0.2429	0
176	SLU 84	4.86	-0.01	79.48	0.0041	0.2327	-0.0001
176	SLE RA 1	2.64	0	49.05	0.0016	0.1272	0
176	SLE RA 2	2.39	0	48.72	0.0037	0.1159	0
176	SLE RA 3	2.87	0	50.14	0.0015	0.1376	0
176	SLE RA 4	2.72	0	49.94	0.0027	0.1308	0
176	SLE RA 5	2.56	0	49.53	0.0034	0.1231	0
176	SLE RA 6	3.03	0	50.95	0.0012	0.1449	0
176	SLE RA 7	2.88	0	50.75	0.0024	0.1381	0
176	SLE RA 8	2.96	0	50.68	0.001	0.1417	0
176	SLE RA 9	2.82	0	50.48	0.0023	0.1349	0
176	SLE RA 10	2.95	0	54.56	0.004	0.142	0
176	SLE RA 11	3.42	0	55.98	0.0017	0.1638	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
176	SLE RA 12	3.27	0	55.78	0.0029	0.157	0
176	SLE RA 13	3.11	0	55.37	0.0037	0.1493	0
176	SLE RA 14	3.58	0	56.79	0.0014	0.1711	0
176	SLE RA 15	3.44	0	56.59	0.0026	0.1643	0
176	SLE RA 16	3.52	0	56.52	0.0013	0.1679	0
176	SLE RA 17	3.37	0	56.32	0.0025	0.1611	0
176	SLE RA 18	3.43	0	57.4	0.002	0.1646	0
176	SLE RA 19	3.28	0	57.2	0.0032	0.1578	0
176	SLE RA 20	3.59	0	58.21	0.0017	0.1719	0
176	SLE RA 21	3.45	0	58.01	0.0029	0.1651	0
176	SLE FR 1	2.64	0	49.05	0.0016	0.1272	0
176	SLE FR 2	2.59	0	48.99	0.0021	0.1249	0
176	SLE FR 3	2.7	0	49.38	0.0015	0.1301	0
176	SLE FR 4	2.83	0	51.49	0.0022	0.1361	0
176	SLE FR 5	2.94	0	51.88	0.0016	0.1413	0
176	SLE FR 6	3.03	0	53.22	0.0018	0.1459	0
176	SLE QP 1	2.64	0	49.05	0.0016	0.1272	0
176	SLE QP 2	2.88	0	51.56	0.0018	0.1384	0
176	SLD 1	11.84	0.12	48.82	-0.1228	0.5691	0.0011
176	SLD 2	11.84	0.12	48.82	-0.1228	0.5691	0.0011
176	SLD 3	12.65	-0.03	48.04	0.0414	0.6077	-0.0002
176	SLD 4	12.65	-0.03	48.04	0.0414	0.6077	-0.0002
176	SLD 5	4.35	0.25	51.92	-0.2846	0.2091	0.0024
176	SLD 6	4.35	0.25	51.92	-0.2846	0.2091	0.0024
176	SLD 7	7.03	-0.23	49.32	0.2627	0.3377	-0.0021
176	SLD 8	7.03	-0.23	49.32	0.2627	0.3377	-0.0021
176	SLD 9	-1.28	0.22	53.8	-0.2592	-0.0608	0.0021
176	SLD 10	-1.28	0.22	53.8	-0.2592	-0.0608	0.0021
176	SLD 11	1.41	-0.26	51.19	0.2881	0.0677	-0.0024
176	SLD 12	1.41	-0.26	51.19	0.2881	0.0677	-0.0024
176	SLD 13	-6.9	0.02	55.07	-0.0379	-0.3308	0.0002
176	SLD 14	-6.9	0.02	55.07	-0.0379	-0.3308	0.0002
176	SLD 15	-6.09	-0.13	54.29	0.1263	-0.2923	-0.0012
176	SLD 16	-6.09	-0.13	54.29	0.1263	-0.2923	-0.0012
176	SLV 1	23.84	0.31	45.2	-0.3171	1.1453	0.0029
176	SLV 2	23.84	0.31	45.2	-0.3171	1.1453	0.0029
176	SLV 3	25.75	-0.06	43.23	0.103	1.237	-0.0006
176	SLV 4	25.75	-0.06	43.23	0.103	1.237	-0.0006
176	SLV 5	6.26	0.65	52.63	-0.731	0.3013	0.006
176	SLV 6	6.26	0.65	52.63	-0.731	0.3013	0.006
176	SLV 7	12.65	-0.58	46.07	0.6692	0.6071	-0.0054
176	SLV 8	12.65	-0.58	46.07	0.6692	0.6071	-0.0054
176	SLV 9	-6.9	0.58	57.04	-0.6657	-0.3303	0.0053
176	SLV 10	-6.9	0.58	57.04	-0.6657	-0.3303	0.0053
176	SLV 11	-0.51	-0.66	50.48	0.7345	-0.0245	-0.0061
176	SLV 12	-0.51	-0.66	50.48	0.7345	-0.0245	-0.0061
176	SLV 13	-20	0.05	59.88	-0.0994	-0.9602	0.0005
176	SLV 14	-20	0.05	59.88	-0.0994	-0.9602	0.0005
176	SLV 15	-18.09	-0.32	57.91	0.3206	-0.8685	-0.0029
176	SLV 16	-18.09	-0.32	57.91	0.3206	-0.8685	-0.0029
177	SLU 1	0.15	0	46.37	-0.0003	0.0108	0
177	SLU 2	-0.16	0	45.85	0.0009	-0.0031	0
177	SLU 3	0.39	0	48.01	-0.0006	0.0222	0
177	SLU 4	0.2	0	47.7	0.0001	0.0138	0
177	SLU 5	0.01	0	47.12	0.0004	0.0048	0
177	SLU 6	0.56	0	49.28	-0.0012	0.0301	0
177	SLU 7	0.38	0	48.97	-0.0004	0.0218	0
177	SLU 8	0.49	0	48.92	-0.0013	0.0267	0
177	SLU 9	0.31	0	48.61	-0.0006	0.0183	0
177	SLU 10	0.19	0	54.47	0.001	0.0146	0
177	SLU 11	0.73	0	56.63	-0.0005	0.0399	0
177	SLU 12	0.55	0	56.32	0.0002	0.0315	0
177	SLU 13	0.36	0	55.74	0.0005	0.0225	0
177	SLU 14	0.9	0	57.9	-0.001	0.0478	0
177	SLU 15	0.72	0	57.59	-0.0003	0.0395	0
177	SLU 16	0.84	0	57.54	-0.0012	0.0444	0
177	SLU 17	0.65	0	57.22	-0.0005	0.036	0
177	SLU 18	0.64	0	58.68	-0.0001	0.0361	0
177	SLU 19	0.46	0	58.37	0.0006	0.0277	0
177	SLU 20	0.81	0	59.95	-0.0006	0.044	0
177	SLU 21	0.63	0	59.64	0.0001	0.0357	0
177	SLU 22	0.49	0	54.24	-0.0004	0.0282	0
177	SLU 23	0.19	0	53.72	0.0008	0.0143	0
177	SLU 24	0.74	0	55.88	-0.0008	0.0396	0
177	SLU 25	0.55	0	55.57	-0.0001	0.0313	0
177	SLU 26	0.36	0	55	0.0003	0.0222	0
177	SLU 27	0.91	0	57.16	-0.0013	0.0476	0
177	SLU 28	0.73	0	56.85	-0.0006	0.0392	0
177	SLU 29	0.84	0	56.79	-0.0014	0.0441	0
177	SLU 30	0.66	0	56.48	-0.0007	0.0357	0
177	SLU 31	0.54	0	62.34	0.0009	0.032	0
177	SLU 32	1.08	0	64.5	-0.0007	0.0573	0
177	SLU 33	0.9	0	64.19	0	0.049	0
177	SLU 34	0.71	0	63.62	0.0004	0.0399	0
177	SLU 35	1.25	0	65.78	-0.0012	0.0653	0
177	SLU 36	1.07	0	65.47	-0.0005	0.0569	0
177	SLU 37	1.18	0	65.41	-0.0013	0.0618	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
177	SLU 38	1	0	65.1	-0.0006	0.0534	0
177	SLU 39	0.99	0	66.55	-0.0003	0.0535	0
177	SLU 40	0.81	0	66.24	0.0005	0.0452	0
177	SLU 41	1.16	0	67.83	-0.0008	0.0615	0
177	SLU 42	0.98	0	67.52	-0.0001	0.0531	0
177	SLU 43	0.07	0	57.58	-0.0003	0.0081	0
177	SLU 44	-0.23	0	57.06	0.0009	-0.0059	0
177	SLU 45	0.31	0	59.22	-0.0007	0.0195	0
177	SLU 46	0.13	0	58.91	0.0001	0.0111	0
177	SLU 47	-0.06	0	58.33	0.0004	0.0021	0
177	SLU 48	0.48	0	60.5	-0.0012	0.0274	0
177	SLU 49	0.3	0	60.18	-0.0005	0.019	0
177	SLU 50	0.41	0	60.13	-0.0013	0.0239	0
177	SLU 51	0.23	0	59.82	-0.0006	0.0156	0
177	SLU 52	0.11	0	65.68	0.001	0.0118	0
177	SLU 53	0.66	0	67.84	-0.0006	0.0372	0
177	SLU 54	0.47	0	67.53	0.0002	0.0288	0
177	SLU 55	0.28	0	66.95	0.0005	0.0198	0
177	SLU 56	0.83	0	69.11	-0.0011	0.0451	0
177	SLU 57	0.65	0	68.8	-0.0004	0.0367	0
177	SLU 58	0.76	0	68.75	-0.0012	0.0416	0
177	SLU 59	0.58	0	68.43	-0.0005	0.0333	0
177	SLU 60	0.56	0	69.89	-0.0002	0.0334	0
177	SLU 61	0.38	0	69.58	0.0006	0.025	0
177	SLU 62	0.74	0	71.16	-0.0007	0.0413	0
177	SLU 63	0.55	0	70.85	0	0.0329	0
177	SLU 64	0.42	0	65.45	-0.0005	0.0255	0
177	SLU 65	0.11	0	64.93	0.0007	0.0116	0
177	SLU 66	0.66	0	67.09	-0.0008	0.0369	0
177	SLU 67	0.48	0	66.78	-0.0001	0.0285	0
177	SLU 68	0.29	0	66.21	0.0002	0.0195	0
177	SLU 69	0.83	0	68.37	-0.0013	0.0448	0
177	SLU 70	0.65	0	68.06	-0.0006	0.0365	0
177	SLU 71	0.76	0	68	-0.0015	0.0414	0
177	SLU 72	0.58	0	67.69	-0.0008	0.033	0
177	SLU 73	0.46	0	73.55	0.0009	0.0293	0
177	SLU 74	1	0	75.71	-0.0007	0.0546	0
177	SLU 75	0.82	0	75.4	0	0.0462	0
177	SLU 76	0.63	0	74.83	0.0003	0.0372	0
177	SLU 77	1.18	0	76.99	-0.0012	0.0625	0
177	SLU 78	1	0	76.68	-0.0005	0.0542	0
177	SLU 79	1.11	0	76.62	-0.0014	0.0591	0
177	SLU 80	0.93	0	76.31	-0.0007	0.0507	0
177	SLU 81	0.91	0	77.76	-0.0003	0.0508	0
177	SLU 82	0.73	0	77.45	0.0004	0.0424	0
177	SLU 83	1.08	0	79.04	-0.0008	0.0587	0
177	SLU 84	0.9	0	78.73	-0.0001	0.0504	0
177	SLE RA 1	0.24	0	48.62	-0.0003	0.0158	0
177	SLE RA 2	0.04	0	48.27	0.0005	0.0065	0
177	SLE RA 3	0.41	0	49.71	-0.0006	0.0234	0
177	SLE RA 4	0.28	0	49.5	-0.0001	0.0178	0
177	SLE RA 5	0.16	0	49.12	0.0001	0.0118	0
177	SLE RA 6	0.52	0	50.56	-0.0009	0.0287	0
177	SLE RA 7	0.4	0	50.35	-0.0004	0.0231	0
177	SLE RA 8	0.47	0	50.32	-0.001	0.0264	0
177	SLE RA 9	0.35	0	50.11	-0.0005	0.0208	0
177	SLE RA 10	0.27	0	54.02	0.0006	0.0183	0
177	SLE RA 11	0.64	0	55.46	-0.0005	0.0352	0
177	SLE RA 12	0.51	0	55.25	0	0.0296	0
177	SLE RA 13	0.39	0	54.87	0.0002	0.0236	0
177	SLE RA 14	0.75	0	56.31	-0.0008	0.0405	0
177	SLE RA 15	0.63	0	56.1	-0.0003	0.0349	0
177	SLE RA 16	0.7	0	56.06	-0.0009	0.0382	0
177	SLE RA 17	0.58	0	55.85	-0.0005	0.0326	0
177	SLE RA 18	0.57	0	56.82	-0.0002	0.0326	0
177	SLE RA 19	0.45	0	56.62	0.0003	0.0271	0
177	SLE RA 20	0.69	0	57.67	-0.0006	0.0379	0
177	SLE RA 21	0.57	0	57.47	-0.0001	0.0324	0
177	SLE FR 1	0.24	0	48.62	-0.0003	0.0158	0
177	SLE FR 2	0.2	0	48.55	-0.0002	0.0139	0
177	SLE FR 3	0.29	0	48.96	-0.0005	0.0179	0
177	SLE FR 4	0.3	0	51.01	-0.0001	0.019	0
177	SLE FR 5	0.39	0	51.42	-0.0004	0.023	0
177	SLE FR 6	0.41	0	52.72	-0.0003	0.0242	0
177	SLE QP 1	0.24	0	48.62	-0.0003	0.0158	0
177	SLE QP 2	0.34	0	51.08	-0.0003	0.0208	0
177	SLD 1	8.46	0.08	45.22	-0.0785	0.4221	0.0006
177	SLD 2	8.46	0.08	45.22	-0.0785	0.4221	0.0006
177	SLD 3	9.17	0	44.23	0.0129	0.4567	0
177	SLD 4	9.17	0	44.23	0.0129	0.4567	0
177	SLD 5	1.71	0.15	50.83	-0.1624	0.0888	0.0011
177	SLD 6	1.71	0.15	50.83	-0.1624	0.0888	0.0011
177	SLD 7	4.06	-0.12	47.51	0.1423	0.204	-0.001
177	SLD 8	4.06	-0.12	47.51	0.1423	0.204	-0.001
177	SLD 9	-3.38	0.12	54.64	-0.1429	-0.1623	0.001
177	SLD 10	-3.38	0.12	54.64	-0.1429	-0.1623	0.001
177	SLD 11	-1.02	-0.15	51.33	0.1618	-0.0471	-0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
177	SLD 12	-1.02	-0.15	51.33	0.1618	-0.0471	-0.0012
177	SLD 13	-8.48	-0.01	57.93	-0.0135	-0.415	0
177	SLD 14	-8.48	-0.01	57.93	-0.0135	-0.415	0
177	SLD 15	-7.77	-0.09	56.93	0.0779	-0.3804	-0.0006
177	SLD 16	-7.77	-0.09	56.93	0.0779	-0.3804	-0.0006
177	SLV 1	19.31	0.21	37.43	-0.1999	0.9582	0.0016
177	SLV 2	19.31	0.21	37.43	-0.1999	0.9582	0.0016
177	SLV 3	20.99	0.01	34.97	0.0329	1.0403	0
177	SLV 4	20.99	0.01	34.97	0.0329	1.0403	0
177	SLV 5	3.49	0.37	50.71	-0.4133	0.1776	0.0029
177	SLV 6	3.49	0.37	50.71	-0.4133	0.1776	0.0029
177	SLV 7	9.08	-0.31	42.51	0.3628	0.4511	-0.0024
177	SLV 8	9.08	-0.31	42.51	0.3628	0.4511	-0.0024
177	SLV 9	-8.4	0.31	59.64	-0.3633	-0.4094	0.0024
177	SLV 10	-8.4	0.31	59.64	-0.3633	-0.4094	0.0024
177	SLV 11	-2.8	-0.38	51.44	0.4127	-0.136	-0.0029
177	SLV 12	-2.8	-0.38	51.44	0.4127	-0.136	-0.0029
177	SLV 13	-20.3	-0.01	67.19	-0.0335	-0.9986	0
177	SLV 14	-20.3	-0.01	67.19	-0.0335	-0.9986	0
177	SLV 15	-18.62	-0.22	64.73	0.1994	-0.9165	-0.0016
177	SLV 16	-18.62	-0.22	64.73	0.1994	-0.9165	-0.0016
178	SLU 1	-2.82	0.01	45.73	-0.0033	-0.1412	0
178	SLU 2	-3.01	0.01	45.35	-0.0045	-0.152	0
178	SLU 3	-2.75	0.01	47.27	-0.0038	-0.1372	0
178	SLU 4	-2.87	0.01	47.04	-0.0045	-0.1437	0
178	SLU 5	-2.97	0.01	46.6	-0.005	-0.1499	0
178	SLU 6	-2.71	0.01	48.53	-0.0043	-0.1351	0
178	SLU 7	-2.83	0.01	48.3	-0.005	-0.1416	0
178	SLU 8	-2.74	0.01	48.23	-0.0045	-0.137	0
178	SLU 9	-2.85	0.01	48	-0.0052	-0.1435	0
178	SLU 10	-3.32	0.01	53.64	-0.0048	-0.1661	0
178	SLU 11	-3.06	0.01	55.57	-0.0041	-0.1514	0
178	SLU 12	-3.18	0.01	55.34	-0.0048	-0.1578	0
178	SLU 13	-3.28	0.01	54.89	-0.0054	-0.164	0
178	SLU 14	-3.02	0.01	56.82	-0.0047	-0.1493	0
178	SLU 15	-3.13	0.01	56.59	-0.0054	-0.1558	0
178	SLU 16	-3.05	0.01	56.53	-0.0048	-0.1512	0
178	SLU 17	-3.16	0.01	56.3	-0.0055	-0.1576	0
178	SLU 18	-3.26	0.01	57.58	-0.0038	-0.1614	0
178	SLU 19	-3.38	0.01	57.35	-0.0045	-0.1679	0
178	SLU 20	-3.22	0.01	58.83	-0.0044	-0.1593	0
178	SLU 21	-3.33	0.01	58.6	-0.0051	-0.1658	0
178	SLU 22	-3.08	0.01	53.34	-0.0039	-0.1531	0
178	SLU 23	-3.27	0.01	52.96	-0.0051	-0.1639	0
178	SLU 24	-3.01	0.01	54.89	-0.0043	-0.1492	0
178	SLU 25	-3.12	0.01	54.66	-0.005	-0.1556	0
178	SLU 26	-3.23	0.01	54.21	-0.0056	-0.1618	0
178	SLU 27	-2.97	0.01	56.14	-0.0049	-0.1471	0
178	SLU 28	-3.08	0.01	55.91	-0.0056	-0.1536	0
178	SLU 29	-2.99	0.01	55.85	-0.005	-0.149	0
178	SLU 30	-3.11	0.01	55.62	-0.0057	-0.1554	0
178	SLU 31	-3.58	0.01	61.25	-0.0054	-0.1781	0
178	SLU 32	-3.32	0.01	63.18	-0.0047	-0.1633	0
178	SLU 33	-3.43	0.01	62.95	-0.0054	-0.1698	0
178	SLU 34	-3.54	0.01	62.5	-0.006	-0.176	0
178	SLU 35	-3.28	0.01	64.43	-0.0053	-0.1612	0
178	SLU 36	-3.39	0.01	64.2	-0.006	-0.1677	0
178	SLU 37	-3.3	0.01	64.14	-0.0054	-0.1631	0
178	SLU 38	-3.42	0.01	63.91	-0.0061	-0.1696	0
178	SLU 39	-3.52	0.01	65.19	-0.0044	-0.1733	0
178	SLU 40	-3.63	0.01	64.96	-0.0051	-0.1798	0
178	SLU 41	-3.48	0.01	66.44	-0.005	-0.1713	0
178	SLU 42	-3.59	0.01	66.21	-0.0057	-0.1777	0
178	SLU 43	-3.58	0.01	56.84	-0.0041	-0.1795	0
178	SLU 44	-3.77	0.01	56.45	-0.0053	-0.1902	0
178	SLU 45	-3.51	0.01	58.38	-0.0046	-0.1755	0
178	SLU 46	-3.63	0.01	58.15	-0.0053	-0.182	0
178	SLU 47	-3.73	0.01	57.71	-0.0058	-0.1882	0
178	SLU 48	-3.47	0.01	59.64	-0.0051	-0.1734	0
178	SLU 49	-3.58	0.01	59.41	-0.0058	-0.1799	0
178	SLU 50	-3.5	0.01	59.34	-0.0053	-0.1753	0
178	SLU 51	-3.61	0.01	59.11	-0.006	-0.1818	0
178	SLU 52	-4.08	0.01	64.75	-0.0056	-0.2044	0
178	SLU 53	-3.82	0.01	66.68	-0.0049	-0.1896	0
178	SLU 54	-3.93	0.01	66.45	-0.0056	-0.1961	0
178	SLU 55	-4.04	0.01	66	-0.0062	-0.2023	0
178	SLU 56	-3.78	0.01	67.93	-0.0055	-0.1876	0
178	SLU 57	-3.89	0.01	67.7	-0.0062	-0.194	0
178	SLU 58	-3.81	0.01	67.64	-0.0056	-0.1894	0
178	SLU 59	-3.92	0.01	67.41	-0.0063	-0.1959	0
178	SLU 60	-4.02	0.01	68.69	-0.0046	-0.1997	0
178	SLU 61	-4.14	0.01	68.46	-0.0053	-0.2061	0
178	SLU 62	-3.98	0.01	69.94	-0.0052	-0.1976	0
178	SLU 63	-4.09	0.01	69.71	-0.0059	-0.204	0
178	SLU 64	-3.84	0.01	64.45	-0.0047	-0.1914	0
178	SLU 65	-4.03	0.01	64.07	-0.0059	-0.2022	0
178	SLU 66	-3.77	0.01	65.99	-0.0051	-0.1874	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
178	SLU 67	-3.88	0.01	65.76	-0.0058	-0.1939	0
178	SLU 68	-3.99	0.01	65.32	-0.0064	-0.2001	0
178	SLU 69	-3.73	0.01	67.25	-0.0057	-0.1854	0
178	SLU 70	-3.84	0.01	67.02	-0.0064	-0.1918	0
178	SLU 71	-3.75	0.01	66.95	-0.0058	-0.1872	0
178	SLU 72	-3.87	0.01	66.72	-0.0065	-0.1937	0
178	SLU 73	-4.34	0.01	72.36	-0.0062	-0.2163	0
178	SLU 74	-4.08	0.01	74.29	-0.0055	-0.2016	0
178	SLU 75	-4.19	0.01	74.06	-0.0062	-0.2081	0
178	SLU 76	-4.29	0.01	73.61	-0.0068	-0.2142	0
178	SLU 77	-4.03	0.01	75.54	-0.0061	-0.1995	0
178	SLU 78	-4.15	0.01	75.31	-0.0068	-0.206	0
178	SLU 79	-4.06	0.01	75.25	-0.0062	-0.2014	0
178	SLU 80	-4.18	0.01	75.02	-0.0069	-0.2078	0
178	SLU 81	-4.28	0.01	76.3	-0.0052	-0.2116	0
178	SLU 82	-4.39	0.01	76.07	-0.0059	-0.2181	0
178	SLU 83	-4.24	0.01	77.55	-0.0058	-0.2095	0
178	SLU 84	-4.35	0.01	77.32	-0.0065	-0.216	0
178	SLE RA 1	-2.9	0.01	47.9	-0.0035	-0.1446	0
178	SLE RA 2	-3.02	0.01	47.65	-0.0043	-0.1518	0
178	SLE RA 3	-2.85	0.01	48.93	-0.0038	-0.142	0
178	SLE RA 4	-2.93	0.01	48.78	-0.0042	-0.1463	0
178	SLE RA 5	-3	0.01	48.48	-0.0046	-0.1504	0
178	SLE RA 6	-2.82	0.01	49.77	-0.0042	-0.1406	0
178	SLE RA 7	-2.9	0.01	49.62	-0.0046	-0.1449	0
178	SLE RA 8	-2.84	0.01	49.57	-0.0042	-0.1418	0
178	SLE RA 9	-2.92	0.01	49.42	-0.0047	-0.1461	0
178	SLE RA 10	-3.23	0.01	53.18	-0.0045	-0.1612	0
178	SLE RA 11	-3.06	0.01	54.46	-0.004	-0.1514	0
178	SLE RA 12	-3.13	0.01	54.31	-0.0045	-0.1557	0
178	SLE RA 13	-3.2	0.01	54.01	-0.0049	-0.1598	0
178	SLE RA 14	-3.03	0.01	55.3	-0.0044	-0.15	0
178	SLE RA 15	-3.1	0.01	55.14	-0.0049	-0.1543	0
178	SLE RA 16	-3.04	0.01	55.1	-0.0045	-0.1513	0
178	SLE RA 17	-3.12	0.01	54.95	-0.0049	-0.1556	0
178	SLE RA 18	-3.19	0.01	55.8	-0.0038	-0.1581	0
178	SLE RA 19	-3.27	0.01	55.65	-0.0043	-0.1624	0
178	SLE RA 20	-3.16	0.01	56.64	-0.0042	-0.1567	0
178	SLE RA 21	-3.24	0.01	56.48	-0.0047	-0.161	0
178	SLE FR 1	-2.9	0.01	47.9	-0.0035	-0.1446	0
178	SLE FR 2	-2.92	0.01	47.85	-0.0036	-0.146	0
178	SLE FR 3	-2.89	0.01	48.24	-0.0036	-0.144	0
178	SLE FR 4	-3.01	0.01	50.22	-0.0037	-0.1501	0
178	SLE FR 5	-2.97	0.01	50.61	-0.0037	-0.1481	0
178	SLE FR 6	-3.04	0.01	51.85	-0.0037	-0.1513	0
178	SLE QP 1	-2.9	0.01	47.9	-0.0035	-0.1446	0
178	SLE QP 2	-2.98	0.01	50.27	-0.0036	-0.1486	0
178	SLD 1	3.38	-0.01	36.65	-0.0354	0.2295	0
178	SLD 2	3.38	-0.01	36.65	-0.0354	0.2295	0
178	SLD 3	3.92	0.09	35.15	-0.0095	0.2621	0.0004
178	SLD 4	3.92	0.09	35.15	-0.0095	0.2621	0.0004
178	SLD 5	-1.9	-0.16	48.46	-0.0525	-0.0846	-0.0006
178	SLD 6	-1.9	-0.16	48.46	-0.0525	-0.0846	-0.0006
178	SLD 7	-0.09	0.19	43.46	0.034	0.024	0.0008
178	SLD 8	-0.09	0.19	43.46	0.034	0.024	0.0008
178	SLD 9	-5.88	-0.17	57.08	-0.0412	-0.3213	-0.0008
178	SLD 10	-5.88	-0.17	57.08	-0.0412	-0.3213	-0.0008
178	SLD 11	-4.07	0.17	52.09	0.0453	-0.2127	0.0007
178	SLD 12	-4.07	0.17	52.09	0.0453	-0.2127	0.0007
178	SLD 13	-9.89	-0.08	65.4	0.0023	-0.5594	-0.0004
178	SLD 14	-9.89	-0.08	65.4	0.0023	-0.5594	-0.0004
178	SLD 15	-9.35	0.03	63.9	0.0282	-0.5268	0
178	SLD 16	-9.35	0.03	63.9	0.0282	-0.5268	0
178	SLV 1	11.89	-0.05	18.44	-0.0828	0.7358	0
178	SLV 2	11.89	-0.05	18.44	-0.0828	0.7358	0
178	SLV 3	13.18	0.21	14.85	-0.0203	0.8128	0.0011
178	SLV 4	13.18	0.21	14.85	-0.0203	0.8128	0.0011
178	SLV 5	-0.47	-0.41	46.18	-0.1221	-0.0001	-0.0016
178	SLV 6	-0.47	-0.41	46.18	-0.1221	-0.0001	-0.0016
178	SLV 7	3.82	0.46	34.19	0.0861	0.2565	0.002
178	SLV 8	3.82	0.46	34.19	0.0861	0.2565	0.002
178	SLV 9	-9.79	-0.45	66.36	-0.0933	-0.5538	-0.002
178	SLV 10	-9.79	-0.45	66.36	-0.0933	-0.5538	-0.002
178	SLV 11	-5.5	0.42	54.37	0.1149	-0.2972	0.0017
178	SLV 12	-5.5	0.42	54.37	0.1149	-0.2972	0.0017
178	SLV 13	-19.15	-0.2	85.7	0.0131	-1.11	-0.0011
178	SLV 14	-19.15	-0.2	85.7	0.0131	-1.11	-0.0011
178	SLV 15	-17.86	0.06	82.1	0.0756	-1.0331	0
178	SLV 16	-17.86	0.06	82.1	0.0756	-1.0331	0
179	SLU 1	-6.31	0.01	25.13	-0.0031	-0.1112	-0.0006
179	SLU 2	-6.36	0.02	25.08	-0.0047	-0.1151	-0.001
179	SLU 3	-6.44	0.01	25.87	-0.0033	-0.111	-0.0007
179	SLU 4	-6.47	0.02	25.84	-0.0043	-0.1133	-0.0009
179	SLU 5	-6.48	0.02	25.71	-0.005	-0.1154	-0.001
179	SLU 6	-6.56	0.01	26.5	-0.0036	-0.1113	-0.0007
179	SLU 7	-6.59	0.02	26.47	-0.0046	-0.1137	-0.0009
179	SLU 8	-6.54	0.01	26.39	-0.0036	-0.1118	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
179	SLU 9	-6.57	0.02	26.36	-0.0046	-0.1141	-0.0009
179	SLU 10	-7.4	0.03	29.46	-0.0051	-0.1303	-0.0011
179	SLU 11	-7.48	0.02	30.25	-0.0037	-0.1262	-0.0007
179	SLU 12	-7.51	0.02	30.22	-0.0047	-0.1286	-0.001
179	SLU 13	-7.52	0.03	30.09	-0.0054	-0.1306	-0.0011
179	SLU 14	-7.6	0.02	30.88	-0.004	-0.1265	-0.0008
179	SLU 15	-7.63	0.02	30.85	-0.005	-0.1289	-0.001
179	SLU 16	-7.58	0.02	30.77	-0.004	-0.127	-0.0008
179	SLU 17	-7.62	0.02	30.74	-0.005	-0.1294	-0.001
179	SLU 18	-7.8	0.02	31.4	-0.0036	-0.1329	-0.0007
179	SLU 19	-7.83	0.02	31.36	-0.0046	-0.1352	-0.001
179	SLU 20	-7.91	0.02	32.02	-0.0039	-0.1332	-0.0008
179	SLU 21	-7.95	0.02	31.99	-0.0049	-0.1356	-0.001
179	SLU 22	-7.25	0.02	29.16	-0.0035	-0.1246	-0.0007
179	SLU 23	-7.31	0.03	29.1	-0.0052	-0.1285	-0.0011
179	SLU 24	-7.38	0.02	29.89	-0.0038	-0.1244	-0.0008
179	SLU 25	-7.42	0.02	29.86	-0.0048	-0.1267	-0.001
179	SLU 26	-7.42	0.03	29.73	-0.0055	-0.1288	-0.0011
179	SLU 27	-7.5	0.02	30.52	-0.0041	-0.1247	-0.0008
179	SLU 28	-7.53	0.02	30.49	-0.0051	-0.1271	-0.001
179	SLU 29	-7.49	0.02	30.41	-0.0041	-0.1252	-0.0008
179	SLU 30	-7.52	0.02	30.38	-0.0051	-0.1275	-0.001
179	SLU 31	-8.35	0.03	33.49	-0.0056	-0.1437	-0.0012
179	SLU 32	-8.43	0.02	34.28	-0.0042	-0.1396	-0.0008
179	SLU 33	-8.46	0.02	34.25	-0.0052	-0.142	-0.0011
179	SLU 34	-8.47	0.03	34.11	-0.0059	-0.144	-0.0012
179	SLU 35	-8.54	0.02	34.9	-0.0045	-0.1399	-0.0009
179	SLU 36	-8.58	0.02	34.87	-0.0055	-0.1423	-0.0011
179	SLU 37	-8.53	0.02	34.79	-0.0045	-0.1404	-0.0009
179	SLU 38	-8.56	0.02	34.76	-0.0055	-0.1428	-0.0011
179	SLU 39	-8.74	0.02	35.42	-0.0041	-0.1463	-0.0008
179	SLU 40	-8.77	0.02	35.39	-0.0051	-0.1487	-0.0011
179	SLU 41	-8.86	0.02	36.05	-0.0044	-0.1466	-0.0009
179	SLU 42	-8.89	0.02	36.01	-0.0054	-0.149	-0.0011
179	SLU 43	-7.87	0.02	31.3	-0.0038	-0.1399	-0.0008
179	SLU 44	-7.93	0.03	31.24	-0.0055	-0.1438	-0.0011
179	SLU 45	-8.01	0.02	32.03	-0.0041	-0.1398	-0.0008
179	SLU 46	-8.04	0.02	32	-0.0051	-0.1421	-0.001
179	SLU 47	-8.05	0.03	31.87	-0.0058	-0.1441	-0.0012
179	SLU 48	-8.12	0.02	32.66	-0.0043	-0.1401	-0.0009
179	SLU 49	-8.16	0.02	32.63	-0.0053	-0.1424	-0.0011
179	SLU 50	-8.11	0.02	32.55	-0.0044	-0.1406	-0.0009
179	SLU 51	-8.14	0.02	32.52	-0.0054	-0.1429	-0.0011
179	SLU 52	-8.97	0.03	35.63	-0.0059	-0.159	-0.0012
179	SLU 53	-9.05	0.02	36.42	-0.0045	-0.155	-0.0009
179	SLU 54	-9.08	0.03	36.38	-0.0055	-0.1573	-0.0011
179	SLU 55	-9.09	0.03	36.25	-0.0062	-0.1594	-0.0013
179	SLU 56	-9.17	0.02	37.04	-0.0047	-0.1553	-0.001
179	SLU 57	-9.2	0.03	37.01	-0.0057	-0.1576	-0.0012
179	SLU 58	-9.15	0.02	36.93	-0.0048	-0.1558	-0.001
179	SLU 59	-9.18	0.03	36.9	-0.0058	-0.1581	-0.0012
179	SLU 60	-9.36	0.02	37.56	-0.0044	-0.1617	-0.0009
179	SLU 61	-9.39	0.03	37.53	-0.0054	-0.164	-0.0011
179	SLU 62	-9.48	0.02	38.18	-0.0047	-0.162	-0.0009
179	SLU 63	-9.51	0.03	38.15	-0.0057	-0.1643	-0.0012
179	SLU 64	-8.82	0.02	35.32	-0.0043	-0.1533	-0.0009
179	SLU 65	-8.87	0.03	35.27	-0.006	-0.1572	-0.0012
179	SLU 66	-8.95	0.02	36.06	-0.0045	-0.1532	-0.0009
179	SLU 67	-8.98	0.03	36.02	-0.0055	-0.1555	-0.0011
179	SLU 68	-8.99	0.03	35.89	-0.0062	-0.1575	-0.0013
179	SLU 69	-9.07	0.02	36.68	-0.0048	-0.1535	-0.001
179	SLU 70	-9.1	0.03	36.65	-0.0058	-0.1558	-0.0012
179	SLU 71	-9.06	0.02	36.57	-0.0049	-0.154	-0.001
179	SLU 72	-9.09	0.03	36.54	-0.0059	-0.1563	-0.0012
179	SLU 73	-9.92	0.03	39.65	-0.0064	-0.1724	-0.0013
179	SLU 74	-9.99	0.02	40.44	-0.0049	-0.1684	-0.001
179	SLU 75	-10.03	0.03	40.41	-0.0059	-0.1707	-0.0012
179	SLU 76	-10.03	0.03	40.28	-0.0066	-0.1728	-0.0014
179	SLU 77	-10.11	0.02	41.07	-0.0052	-0.1687	-0.0011
179	SLU 78	-10.14	0.03	41.03	-0.0062	-0.171	-0.0013
179	SLU 79	-10.1	0.02	40.96	-0.0053	-0.1692	-0.0011
179	SLU 80	-10.13	0.03	40.92	-0.0063	-0.1715	-0.0013
179	SLU 81	-10.31	0.02	41.58	-0.0049	-0.1751	-0.001
179	SLU 82	-10.34	0.03	41.55	-0.0059	-0.1774	-0.0012
179	SLU 83	-10.43	0.02	42.21	-0.0051	-0.1754	-0.001
179	SLU 84	-10.46	0.03	42.17	-0.0061	-0.1777	-0.0013
179	SLE RA 1	-6.58	0.01	26.28	-0.0032	-0.115	-0.0006
179	SLE RA 2	-6.61	0.02	26.25	-0.0043	-0.1176	-0.0009
179	SLE RA 3	-6.66	0.01	26.78	-0.0034	-0.1149	-0.0007
179	SLE RA 4	-6.69	0.02	26.75	-0.004	-0.1164	-0.0008
179	SLE RA 5	-6.69	0.02	26.67	-0.0045	-0.1178	-0.0009
179	SLE RA 6	-6.74	0.01	27.19	-0.0036	-0.1151	-0.0007
179	SLE RA 7	-6.76	0.02	27.17	-0.0042	-0.1167	-0.0009
179	SLE RA 8	-6.73	0.01	27.12	-0.0036	-0.1154	-0.0007
179	SLE RA 9	-6.76	0.02	27.1	-0.0042	-0.117	-0.0009
179	SLE RA 10	-7.31	0.02	29.17	-0.0046	-0.1277	-0.0009
179	SLE RA 11	-7.36	0.02	29.7	-0.0036	-0.125	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
179	SLE RA 12	-7.38	0.02	29.68	-0.0043	-0.1266	-0.0009
179	SLE RA 13	-7.39	0.02	29.59	-0.0048	-0.128	-0.001
179	SLE RA 14	-7.44	0.02	30.12	-0.0038	-0.1253	-0.0008
179	SLE RA 15	-7.46	0.02	30.09	-0.0045	-0.1268	-0.0009
179	SLE RA 16	-7.43	0.02	30.04	-0.0038	-0.1256	-0.0008
179	SLE RA 17	-7.45	0.02	30.02	-0.0045	-0.1271	-0.0009
179	SLE RA 18	-7.57	0.02	30.46	-0.0036	-0.1295	-0.0007
179	SLE RA 19	-7.59	0.02	30.44	-0.0042	-0.1311	-0.0009
179	SLE RA 20	-7.65	0.02	30.88	-0.0038	-0.1297	-0.0008
179	SLE RA 21	-7.67	0.02	30.86	-0.0044	-0.1313	-0.0009
179	SLE FR 1	-6.58	0.01	26.28	-0.0032	-0.115	-0.0006
179	SLE FR 2	-6.58	0.02	26.28	-0.0034	-0.1155	-0.0007
179	SLE FR 3	-6.61	0.01	26.45	-0.0033	-0.1151	-0.0007
179	SLE FR 4	-6.88	0.02	27.53	-0.0035	-0.1199	-0.0007
179	SLE FR 5	-6.91	0.01	27.7	-0.0034	-0.1194	-0.0007
179	SLE FR 6	-7.07	0.01	28.37	-0.0034	-0.1223	-0.0007
179	SLE QP 1	-6.58	0.01	26.28	-0.0032	-0.115	-0.0006
179	SLE QP 2	-6.87	0.01	27.54	-0.0033	-0.1194	-0.0007
179	SLD 1	-1.76	-0.28	13.98	0.0336	0.058	0.0075
179	SLD 2	-1.76	-0.28	13.98	0.0336	0.058	0.0075
179	SLD 3	-1.32	0.14	12.72	-0.021	0.0728	-0.0048
179	SLD 4	-1.32	0.14	12.72	-0.021	0.0728	-0.0048
179	SLD 5	-6.01	-0.72	25.39	0.0906	-0.0886	0.0204
179	SLD 6	-6.01	-0.72	25.39	0.0906	-0.0886	0.0204
179	SLD 7	-4.54	0.7	21.18	-0.0915	-0.0392	-0.0206
179	SLD 8	-4.54	0.7	21.18	-0.0915	-0.0392	-0.0206
179	SLD 9	-9.21	-0.67	33.9	0.0848	-0.1995	0.0192
179	SLD 10	-9.21	-0.67	33.9	0.0848	-0.1995	0.0192
179	SLD 11	-7.74	0.75	29.69	-0.0972	-0.1501	-0.0218
179	SLD 12	-7.74	0.75	29.69	-0.0972	-0.1501	-0.0218
179	SLD 13	-12.43	-0.11	42.35	0.0144	-0.3115	0.0034
179	SLD 14	-12.43	-0.11	42.35	0.0144	-0.3115	0.0034
179	SLD 15	-11.99	0.31	41.09	-0.0402	-0.2967	-0.0089
179	SLD 16	-11.99	0.31	41.09	-0.0402	-0.2967	-0.0089
179	SLV 1	5.07	-0.75	-4.15	0.0909	0.2951	0.0203
179	SLV 2	5.07	-0.75	-4.15	0.0909	0.2951	0.0203
179	SLV 3	6.11	0.34	-7.13	-0.0488	0.33	-0.0112
179	SLV 4	6.11	0.34	-7.13	-0.0488	0.33	-0.0112
179	SLV 5	-4.87	-1.88	22.56	0.2369	-0.048	0.0534
179	SLV 6	-4.87	-1.88	22.56	0.2369	-0.048	0.0534
179	SLV 7	-1.4	1.78	12.61	-0.2289	0.0684	-0.0516
179	SLV 8	-1.4	1.78	12.61	-0.2289	0.0684	-0.0516
179	SLV 9	-12.35	-1.75	42.47	0.2223	-0.3071	0.0502
179	SLV 10	-12.35	-1.75	42.47	0.2223	-0.3071	0.0502
179	SLV 11	-8.88	1.91	32.51	-0.2435	-0.1907	-0.0547
179	SLV 12	-8.88	1.91	32.51	-0.2435	-0.1907	-0.0547
179	SLV 13	-19.86	-0.32	62.2	0.0422	-0.5687	0.0098
179	SLV 14	-19.86	-0.32	62.2	0.0422	-0.5687	0.0098
179	SLV 15	-18.82	0.78	59.22	-0.0976	-0.5338	-0.0217
179	SLV 16	-18.82	0.78	59.22	-0.0976	-0.5338	-0.0217
180	SLU 1	10.45	-0.12	34.22	0.018	0.2586	-0.004
180	SLU 2	9.93	-0.13	32.33	0.0164	0.2484	-0.0039
180	SLU 3	10.9	-0.12	35.82	0.019	0.2685	-0.0042
180	SLU 4	10.59	-0.12	34.68	0.018	0.2624	-0.0041
180	SLU 5	10.23	-0.13	33.46	0.0172	0.2536	-0.004
180	SLU 6	11.2	-0.12	36.94	0.0198	0.2737	-0.0043
180	SLU 7	10.89	-0.13	35.81	0.0188	0.2676	-0.0043
180	SLU 8	11.04	-0.12	36.47	0.0196	0.269	-0.0043
180	SLU 9	10.73	-0.12	35.34	0.0186	0.2629	-0.0042
180	SLU 10	12.04	-0.15	39.01	0.0198	0.3029	-0.0047
180	SLU 11	13.01	-0.14	42.49	0.0224	0.3229	-0.005
180	SLU 12	12.7	-0.15	41.36	0.0214	0.3168	-0.0049
180	SLU 13	12.33	-0.15	40.13	0.0206	0.3081	-0.0048
180	SLU 14	13.3	-0.14	43.62	0.0231	0.3282	-0.0051
180	SLU 15	12.99	-0.15	42.48	0.0222	0.322	-0.005
180	SLU 16	13.14	-0.14	43.15	0.0229	0.3235	-0.005
180	SLU 17	12.83	-0.15	42.01	0.022	0.3174	-0.005
180	SLU 18	13.45	-0.15	43.76	0.0229	0.3364	-0.0051
180	SLU 19	13.14	-0.15	42.62	0.0219	0.3303	-0.0051
180	SLU 20	13.75	-0.15	44.88	0.0236	0.3416	-0.0052
180	SLU 21	13.44	-0.16	43.75	0.0227	0.3355	-0.0052
180	SLU 22	12.27	-0.14	40.19	0.0212	0.3033	-0.0047
180	SLU 23	11.75	-0.15	38.3	0.0196	0.2931	-0.0046
180	SLU 24	12.72	-0.14	41.78	0.0222	0.3132	-0.0049
180	SLU 25	12.41	-0.15	40.65	0.0212	0.3071	-0.0048
180	SLU 26	12.05	-0.15	39.42	0.0204	0.2984	-0.0048
180	SLU 27	13.02	-0.14	42.91	0.0229	0.3184	-0.005
180	SLU 28	12.71	-0.15	41.77	0.022	0.3123	-0.005
180	SLU 29	12.86	-0.14	42.44	0.0228	0.3137	-0.005
180	SLU 30	12.55	-0.15	41.3	0.0218	0.3076	-0.0049
180	SLU 31	13.85	-0.17	44.97	0.023	0.3476	-0.0054
180	SLU 32	14.83	-0.16	48.46	0.0255	0.3676	-0.0057
180	SLU 33	14.52	-0.17	47.32	0.0246	0.3615	-0.0056
180	SLU 34	14.15	-0.17	46.09	0.0238	0.3528	-0.0055
180	SLU 35	15.12	-0.16	49.58	0.0263	0.3729	-0.0058
180	SLU 36	14.81	-0.17	48.45	0.0253	0.3668	-0.0057
180	SLU 37	14.96	-0.16	49.11	0.0261	0.3682	-0.0057



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
180	SLU 38	14.65	-0.17	47.98	0.0252	0.3621	-0.0057
180	SLU 39	15.27	-0.17	49.72	0.026	0.3811	-0.0058
180	SLU 40	14.96	-0.18	48.59	0.0251	0.375	-0.0058
180	SLU 41	15.57	-0.17	50.85	0.0268	0.3863	-0.006
180	SLU 42	15.26	-0.18	49.71	0.0258	0.3802	-0.0059
180	SLU 43	12.96	-0.14	42.45	0.0224	0.3209	-0.005
180	SLU 44	12.44	-0.15	40.55	0.0208	0.3107	-0.0049
180	SLU 45	13.41	-0.15	44.04	0.0233	0.3308	-0.0051
180	SLU 46	13.1	-0.15	42.91	0.0224	0.3247	-0.0051
180	SLU 47	12.74	-0.15	41.68	0.0215	0.3159	-0.005
180	SLU 48	13.71	-0.15	45.17	0.0241	0.336	-0.0053
180	SLU 49	13.4	-0.15	44.03	0.0231	0.3299	-0.0052
180	SLU 50	13.55	-0.15	44.69	0.0239	0.3313	-0.0052
180	SLU 51	13.24	-0.15	43.56	0.0229	0.3252	-0.0052
180	SLU 52	14.55	-0.18	47.23	0.0241	0.3651	-0.0056
180	SLU 53	15.52	-0.17	50.72	0.0267	0.3852	-0.0059
180	SLU 54	15.21	-0.18	49.58	0.0257	0.3791	-0.0059
180	SLU 55	14.84	-0.18	48.35	0.0249	0.3703	-0.0058
180	SLU 56	15.81	-0.17	51.84	0.0274	0.3904	-0.0061
180	SLU 57	15.5	-0.18	50.71	0.0265	0.3843	-0.006
180	SLU 58	15.65	-0.17	51.37	0.0273	0.3857	-0.006
180	SLU 59	15.34	-0.18	50.24	0.0263	0.3796	-0.0059
180	SLU 60	15.96	-0.18	51.98	0.0272	0.3986	-0.0061
180	SLU 61	15.65	-0.18	50.85	0.0262	0.3925	-0.006
180	SLU 62	16.26	-0.18	53.11	0.0279	0.4038	-0.0062
180	SLU 63	15.95	-0.18	51.97	0.027	0.3977	-0.0061
180	SLU 64	14.78	-0.16	48.41	0.0255	0.3656	-0.0057
180	SLU 65	14.26	-0.17	46.52	0.0239	0.3554	-0.0056
180	SLU 66	15.23	-0.17	50.01	0.0265	0.3755	-0.0059
180	SLU 67	14.92	-0.17	48.87	0.0255	0.3694	-0.0058
180	SLU 68	14.56	-0.18	47.64	0.0247	0.3606	-0.0057
180	SLU 69	15.53	-0.17	51.13	0.0273	0.3807	-0.006
180	SLU 70	15.22	-0.17	49.99	0.0263	0.3746	-0.0059
180	SLU 71	15.37	-0.17	50.66	0.0271	0.376	-0.0059
180	SLU 72	15.06	-0.17	49.52	0.0261	0.3699	-0.0059
180	SLU 73	16.37	-0.2	53.19	0.0273	0.4098	-0.0064
180	SLU 74	17.34	-0.19	56.68	0.0299	0.4299	-0.0066
180	SLU 75	17.03	-0.2	55.55	0.0289	0.4238	-0.0066
180	SLU 76	16.66	-0.2	54.32	0.0281	0.415	-0.0065
180	SLU 77	17.63	-0.19	57.8	0.0306	0.4351	-0.0068
180	SLU 78	17.32	-0.2	56.67	0.0297	0.429	-0.0067
180	SLU 79	17.47	-0.19	57.33	0.0304	0.4304	-0.0067
180	SLU 80	17.16	-0.2	56.2	0.0295	0.4243	-0.0067
180	SLU 81	17.78	-0.2	57.95	0.0304	0.4433	-0.0068
180	SLU 82	17.47	-0.2	56.81	0.0294	0.4372	-0.0067
180	SLU 83	18.08	-0.2	59.07	0.0311	0.4485	-0.0069
180	SLU 84	17.77	-0.2	57.94	0.0302	0.4424	-0.0069
180	SLE RA 1	10.97	-0.12	35.93	0.019	0.2714	-0.0042
180	SLE RA 2	10.62	-0.13	34.67	0.0179	0.2646	-0.0041
180	SLE RA 3	11.27	-0.12	36.99	0.0196	0.278	-0.0043
180	SLE RA 4	11.07	-0.13	36.23	0.0189	0.2739	-0.0043
180	SLE RA 5	10.82	-0.13	35.42	0.0184	0.2681	-0.0042
180	SLE RA 6	11.47	-0.12	37.74	0.0201	0.2815	-0.0044
180	SLE RA 7	11.26	-0.13	36.98	0.0195	0.2774	-0.0044
180	SLE RA 8	11.36	-0.12	37.43	0.02	0.2783	-0.0044
180	SLE RA 9	11.16	-0.13	36.67	0.0193	0.2743	-0.0043
180	SLE RA 10	12.03	-0.14	39.12	0.0201	0.3009	-0.0047
180	SLE RA 11	12.67	-0.14	41.44	0.0218	0.3143	-0.0048
180	SLE RA 12	12.47	-0.14	40.68	0.0212	0.3102	-0.0048
180	SLE RA 13	12.22	-0.14	39.87	0.0206	0.3044	-0.0047
180	SLE RA 14	12.87	-0.14	42.19	0.0223	0.3177	-0.0049
180	SLE RA 15	12.66	-0.14	41.43	0.0217	0.3137	-0.0049
180	SLE RA 16	12.76	-0.14	41.88	0.0222	0.3146	-0.0049
180	SLE RA 17	12.56	-0.14	41.12	0.0216	0.3105	-0.0049
180	SLE RA 18	12.97	-0.14	42.29	0.0222	0.3232	-0.005
180	SLE RA 19	12.76	-0.15	41.53	0.0215	0.3192	-0.0049
180	SLE RA 20	13.17	-0.14	43.03	0.0227	0.3267	-0.005
180	SLE RA 21	12.96	-0.15	42.28	0.022	0.3226	-0.005
180	SLE FR 1	10.97	-0.12	35.93	0.019	0.2714	-0.0042
180	SLE FR 2	10.9	-0.12	35.68	0.0187	0.27	-0.0042
180	SLE FR 3	11.05	-0.12	36.23	0.0192	0.2728	-0.0042
180	SLE FR 4	11.5	-0.13	37.58	0.0197	0.2856	-0.0044
180	SLE FR 5	11.65	-0.13	38.13	0.0201	0.2883	-0.0045
180	SLE FR 6	11.97	-0.13	39.11	0.0206	0.2973	-0.0046
180	SLE QP 1	10.97	-0.12	35.93	0.019	0.2714	-0.0042
180	SLE QP 2	11.57	-0.13	37.83	0.0199	0.2869	-0.0044
180	SLD 1	17.24	-0.31	52.54	0.0253	0.4914	-0.0099
180	SLD 2	17.24	-0.31	52.54	0.0253	0.4914	-0.0099
180	SLD 3	18.29	-0.16	55.86	0.0428	0.5195	-0.0056
180	SLD 4	18.29	-0.16	55.86	0.0428	0.5195	-0.0056
180	SLD 5	11.68	-0.4	37.21	-0.0049	0.3055	-0.0125
180	SLD 6	11.68	-0.4	37.21	-0.0049	0.3055	-0.0125
180	SLD 7	15.18	0.08	48.28	0.0532	0.3994	0.0017
180	SLD 8	15.18	0.08	48.28	0.0532	0.3994	0.0017
180	SLD 9	7.96	-0.34	27.39	-0.0134	0.1744	-0.0106
180	SLD 10	7.96	-0.34	27.39	-0.0134	0.1744	-0.0106
180	SLD 11	11.46	0.15	38.46	0.0448	0.2683	0.0037



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
180	SLD 12	11.46	0.15	38.46	0.0448	0.2683	0.0037
180	SLD 13	4.85	-0.09	19.81	-0.0029	0.0544	-0.0033
180	SLD 14	4.85	-0.09	19.81	-0.0029	0.0544	-0.0033
180	SLD 15	5.9	0.05	23.13	0.0145	0.0825	0.001
180	SLD 16	5.9	0.05	23.13	0.0145	0.0825	0.001
180	SLV 1	24.79	-0.56	72.11	0.0323	0.7642	-0.0175
180	SLV 2	24.79	-0.56	72.11	0.0323	0.7642	-0.0175
180	SLV 3	27.31	-0.2	80.1	0.0749	0.8314	-0.0071
180	SLV 4	27.31	-0.2	80.1	0.0749	0.8314	-0.0071
180	SLV 5	11.72	-0.79	36	-0.041	0.3281	-0.0242
180	SLV 6	11.72	-0.79	36	-0.041	0.3281	-0.0242
180	SLV 7	20.11	0.39	62.63	0.101	0.5523	0.0106
180	SLV 8	20.11	0.39	62.63	0.101	0.5523	0.0106
180	SLV 9	3.03	-0.64	13.04	-0.0612	0.0216	-0.0194
180	SLV 10	3.03	-0.64	13.04	-0.0612	0.0216	-0.0194
180	SLV 11	11.42	0.54	39.67	0.0808	0.2457	0.0153
180	SLV 12	11.42	0.54	39.67	0.0808	0.2457	0.0153
180	SLV 13	-4.17	-0.05	-4.43	-0.0351	-0.2576	-0.0018
180	SLV 14	-4.17	-0.05	-4.43	-0.0351	-0.2576	-0.0018
180	SLV 15	-1.65	0.3	3.56	0.0075	-0.1903	0.0087
180	SLV 16	-1.65	0.3	3.56	0.0075	-0.1903	0.0087
181	SLU 1	9.75	-3.59	82.18	0.0452	0.512	-0.0075
181	SLU 2	9.8	-2.28	76.54	-0.0179	0.5149	-0.005
181	SLU 3	10.05	-3.9	86.29	0.055	0.5277	-0.0081
181	SLU 4	10.08	-3.11	82.91	0.0172	0.5294	-0.0066
181	SLU 5	9.9	-2.59	79.7	-0.0064	0.5199	-0.0056
181	SLU 6	10.14	-4.21	89.46	0.0665	0.5327	-0.0087
181	SLU 7	10.17	-3.42	86.07	0.0287	0.5344	-0.0072
181	SLU 8	9.95	-4.21	88.51	0.0682	0.522	-0.0087
181	SLU 9	9.98	-3.42	85.12	0.0303	0.5237	-0.0072
181	SLU 10	11.94	-2.81	91.86	-0.0148	0.6287	-0.0061
181	SLU 11	12.18	-4.43	101.61	0.0581	0.6414	-0.0092
181	SLU 12	12.21	-3.64	98.23	0.0203	0.6432	-0.0077
181	SLU 13	12.03	-3.12	95.02	-0.0033	0.6337	-0.0067
181	SLU 14	12.28	-4.74	104.78	0.0696	0.6464	-0.0098
181	SLU 15	12.31	-3.95	101.39	0.0317	0.6482	-0.0083
181	SLU 16	12.08	-4.74	103.83	0.0713	0.6358	-0.0098
181	SLU 17	12.11	-3.95	100.44	0.0334	0.6375	-0.0083
181	SLU 18	12.8	-4.34	104.06	0.0496	0.6745	-0.0091
181	SLU 19	12.83	-3.56	100.68	0.0118	0.6763	-0.0076
181	SLU 20	12.9	-4.66	107.23	0.0611	0.6795	-0.0097
181	SLU 21	12.93	-3.87	103.84	0.0232	0.6813	-0.0082
181	SLU 22	11.43	-4.18	96.36	0.0531	0.6014	-0.0087
181	SLU 23	11.48	-2.87	90.72	-0.01	0.6044	-0.0062
181	SLU 24	11.73	-4.49	100.48	0.0629	0.6171	-0.0093
181	SLU 25	11.76	-3.7	97.09	0.0251	0.6189	-0.0078
181	SLU 26	11.58	-3.18	93.89	0.0015	0.6094	-0.0068
181	SLU 27	11.83	-4.8	103.64	0.0744	0.6221	-0.0099
181	SLU 28	11.86	-4.01	100.26	0.0366	0.6239	-0.0084
181	SLU 29	11.63	-4.8	102.69	0.0761	0.6115	-0.0099
181	SLU 30	11.66	-4.01	99.31	0.0382	0.6132	-0.0084
181	SLU 31	13.62	-3.4	106.04	-0.0069	0.7181	-0.0073
181	SLU 32	13.87	-5.02	115.8	0.066	0.7309	-0.0104
181	SLU 33	13.89	-4.23	112.41	0.0282	0.7327	-0.0089
181	SLU 34	13.72	-3.71	109.21	0.0046	0.7231	-0.0079
181	SLU 35	13.96	-5.33	118.96	0.0775	0.7359	-0.0111
181	SLU 36	13.99	-4.54	115.58	0.0396	0.7377	-0.0096
181	SLU 37	13.77	-5.33	118.01	0.0792	0.7252	-0.0111
181	SLU 38	13.79	-4.54	114.63	0.0413	0.727	-0.0096
181	SLU 39	14.49	-4.94	118.25	0.0575	0.764	-0.0103
181	SLU 40	14.51	-4.15	114.86	0.0197	0.7657	-0.0088
181	SLU 41	14.58	-5.25	121.41	0.069	0.769	-0.0109
181	SLU 42	14.61	-4.46	118.03	0.0312	0.7707	-0.0094
181	SLU 43	12.1	-4.46	101.97	0.0561	0.6349	-0.0093
181	SLU 44	12.15	-3.15	96.33	-0.007	0.6378	-0.0068
181	SLU 45	12.39	-4.77	106.08	0.0659	0.6506	-0.0099
181	SLU 46	12.42	-3.98	102.7	0.028	0.6523	-0.0084
181	SLU 47	12.25	-3.46	99.49	0.0045	0.6428	-0.0074
181	SLU 48	12.49	-5.08	109.25	0.0774	0.6556	-0.0105
181	SLU 49	12.52	-4.29	105.86	0.0395	0.6573	-0.009
181	SLU 50	12.29	-5.08	108.3	0.079	0.6449	-0.0105
181	SLU 51	12.32	-4.3	104.91	0.0412	0.6466	-0.009
181	SLU 52	14.28	-3.68	111.65	-0.0039	0.7516	-0.0079
181	SLU 53	14.53	-5.3	121.4	0.069	0.7644	-0.011
181	SLU 54	14.56	-4.51	118.02	0.0311	0.7661	-0.0095
181	SLU 55	14.38	-3.99	114.81	0.0075	0.7566	-0.0085
181	SLU 56	14.63	-5.61	124.57	0.0805	0.7694	-0.0116
181	SLU 57	14.66	-4.82	121.18	0.0426	0.7711	-0.0101
181	SLU 58	14.43	-5.61	123.62	0.0821	0.7587	-0.0116
181	SLU 59	14.46	-4.83	120.23	0.0443	0.7604	-0.0101
181	SLU 60	15.15	-5.22	123.85	0.0605	0.7974	-0.0109
181	SLU 61	15.18	-4.43	120.47	0.0226	0.7992	-0.0094
181	SLU 62	15.25	-5.53	127.02	0.072	0.8024	-0.0115
181	SLU 63	15.28	-4.74	123.63	0.0341	0.8042	-0.01
181	SLU 64	13.78	-5.05	116.15	0.064	0.7244	-0.0105
181	SLU 65	13.83	-3.74	110.51	0.0009	0.7273	-0.008
181	SLU 66	14.08	-5.36	120.27	0.0738	0.74	-0.0111



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
181	SLU 67	14.11	-4.57	116.88	0.0359	0.7418	-0.0096
181	SLU 68	13.93	-4.05	113.68	0.0124	0.7323	-0.0086
181	SLU 69	14.17	-5.67	123.43	0.0853	0.745	-0.0117
181	SLU 70	14.2	-4.88	120.05	0.0474	0.7468	-0.0103
181	SLU 71	13.98	-5.67	122.48	0.0869	0.7344	-0.0117
181	SLU 72	14.01	-4.89	119.1	0.0491	0.7361	-0.0103
181	SLU 73	15.97	-4.27	125.83	0.004	0.841	-0.0091
181	SLU 74	16.21	-5.89	135.59	0.0769	0.8538	-0.0122
181	SLU 75	16.24	-5.1	132.2	0.039	0.8556	-0.0107
181	SLU 76	16.06	-4.58	129	0.0154	0.8461	-0.0098
181	SLU 77	16.31	-6.2	138.75	0.0884	0.8588	-0.0129
181	SLU 78	16.34	-5.42	135.37	0.0505	0.8606	-0.0114
181	SLU 79	16.11	-6.2	137.8	0.09	0.8482	-0.0129
181	SLU 80	16.14	-5.42	134.42	0.0522	0.8499	-0.0114
181	SLU 81	16.83	-5.81	138.04	0.0684	0.8869	-0.0121
181	SLU 82	16.86	-5.02	134.65	0.0305	0.8887	-0.0106
181	SLU 83	16.93	-6.12	141.2	0.0799	0.8919	-0.0127
181	SLU 84	16.96	-5.33	137.82	0.042	0.8937	-0.0112
181	SLE RA 1	10.23	-3.75	86.23	0.0475	0.5375	-0.0078
181	SLE RA 2	10.26	-2.88	82.47	0.0054	0.5395	-0.0061
181	SLE RA 3	10.43	-3.96	88.97	0.054	0.548	-0.0082
181	SLE RA 4	10.45	-3.44	86.72	0.0288	0.5492	-0.0072
181	SLE RA 5	10.33	-3.09	84.58	0.0131	0.5428	-0.0066
181	SLE RA 6	10.49	-4.17	91.08	0.0617	0.5513	-0.0086
181	SLE RA 7	10.51	-3.64	88.83	0.0364	0.5525	-0.0076
181	SLE RA 8	10.36	-4.17	90.45	0.0628	0.5442	-0.0086
181	SLE RA 9	10.38	-3.65	88.2	0.0375	0.5454	-0.0076
181	SLE RA 10	11.69	-3.24	92.68	0.0075	0.6153	-0.0069
181	SLE RA 11	11.85	-4.31	99.19	0.0561	0.6238	-0.009
181	SLE RA 12	11.87	-3.79	96.93	0.0308	0.625	-0.008
181	SLE RA 13	11.75	-3.44	94.79	0.0151	0.6187	-0.0073
181	SLE RA 14	11.92	-4.52	101.3	0.0637	0.6272	-0.0094
181	SLE RA 15	11.94	-4	99.04	0.0385	0.6283	-0.0084
181	SLE RA 16	11.79	-4.52	100.66	0.0648	0.6201	-0.0094
181	SLE RA 17	11.81	-4	98.41	0.0396	0.6212	-0.0084
181	SLE RA 18	12.27	-4.26	100.82	0.0504	0.6459	-0.0089
181	SLE RA 19	12.29	-3.74	98.56	0.0252	0.6471	-0.0079
181	SLE RA 20	12.33	-4.47	102.93	0.0581	0.6492	-0.0093
181	SLE RA 21	12.35	-3.94	100.68	0.0328	0.6504	-0.0083
181	SLE FR 1	10.23	-3.75	86.23	0.0475	0.5375	-0.0078
181	SLE FR 2	10.24	-3.58	85.48	0.0391	0.5379	-0.0075
181	SLE FR 3	10.26	-3.84	87.07	0.0505	0.5389	-0.008
181	SLE FR 4	10.85	-3.73	89.86	0.0399	0.5704	-0.0078
181	SLE FR 5	10.87	-3.99	91.45	0.0514	0.5714	-0.0083
181	SLE FR 6	11.25	-4.01	93.52	0.0489	0.5917	-0.0083
181	SLE QP 1	10.23	-3.75	86.23	0.0475	0.5375	-0.0078
181	SLE QP 2	10.84	-3.91	90.61	0.0484	0.57	-0.0081
181	SLD 1	19.05	-4.11	109.62	0.0557	1.0425	-0.0084
181	SLD 2	19.05	-4.11	109.62	0.0557	1.0425	-0.0084
181	SLD 3	19.81	-5.95	118.1	0.1429	1.0846	-0.012
181	SLD 4	19.81	-5.95	118.1	0.1429	1.0846	-0.012
181	SLD 5	12.16	-1.17	83.46	-0.0818	0.648	-0.0028
181	SLD 6	12.16	-1.17	83.46	-0.0818	0.648	-0.0028
181	SLD 7	14.67	-7.32	111.71	0.2091	0.7882	-0.0147
181	SLD 8	14.67	-7.32	111.71	0.2091	0.7882	-0.0147
181	SLD 9	7.01	-0.49	69.51	-0.1123	0.3519	-0.0016
181	SLD 10	7.01	-0.49	69.51	-0.1123	0.3519	-0.0016
181	SLD 11	9.52	-6.65	97.76	0.1785	0.4921	-0.0135
181	SLD 12	9.52	-6.65	97.76	0.1785	0.4921	-0.0135
181	SLD 13	1.88	-1.86	63.12	-0.0462	0.0555	-0.0043
181	SLD 14	1.88	-1.86	63.12	-0.0462	0.0555	-0.0043
181	SLD 15	2.63	-3.7	71.59	0.041	0.0975	-0.0079
181	SLD 16	2.63	-3.7	71.59	0.041	0.0975	-0.0079
181	SLV 1	30.03	-4.43	134.84	0.068	1.6742	-0.0088
181	SLV 2	30.03	-4.43	134.84	0.068	1.6742	-0.0088
181	SLV 3	31.82	-8.84	155.27	0.2763	1.7741	-0.0174
181	SLV 4	31.82	-8.84	155.27	0.2763	1.7741	-0.0174
181	SLV 5	13.88	2.63	72.91	-0.2616	0.7497	0.0046
181	SLV 6	13.88	2.63	72.91	-0.2616	0.7497	0.0046
181	SLV 7	19.85	-12.08	140.98	0.4326	1.0828	-0.0239
181	SLV 8	19.85	-12.08	140.98	0.4326	1.0828	-0.0239
181	SLV 9	1.83	4.27	40.24	-0.3359	0.0573	0.0076
181	SLV 10	1.83	4.27	40.24	-0.3359	0.0573	0.0076
181	SLV 11	7.8	-10.44	108.31	0.3583	0.3904	-0.0209
181	SLV 12	7.8	-10.44	108.31	0.3583	0.3904	-0.0209
181	SLV 13	-10.14	1.03	25.95	-0.1795	-0.634	0.0012
181	SLV 14	-10.14	1.03	25.95	-0.1795	-0.634	0.0012
181	SLV 15	-8.35	-3.38	46.37	0.0287	-0.5341	-0.0074
181	SLV 16	-8.35	-3.38	46.37	0.0287	-0.5341	-0.0074
182	SLU 1	8.52	0.07	67.71	-0.0115	0.3646	0.0001
182	SLU 2	9.08	0.1	64.53	-0.0214	0.3834	0
182	SLU 3	8.63	0.07	70.95	-0.0108	0.3693	0.0001
182	SLU 4	8.97	0.09	69.05	-0.0167	0.3806	0
182	SLU 5	8.96	0.1	67.01	-0.0201	0.3775	0
182	SLU 6	8.51	0.06	73.43	-0.0095	0.3634	0.0001
182	SLU 7	8.85	0.08	71.52	-0.0154	0.3747	0.0001
182	SLU 8	8.27	0.06	72.66	-0.009	0.3527	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
182	SLU 9	8.61	0.08	70.75	-0.0149	0.364	0.0001
182	SLU 10	11.17	0.12	77.12	-0.0247	0.4739	0
182	SLU 11	10.72	0.08	83.55	-0.0141	0.4598	0.0001
182	SLU 12	11.06	0.1	81.64	-0.02	0.4711	0.0001
182	SLU 13	11.04	0.11	79.6	-0.0234	0.468	0
182	SLU 14	10.59	0.08	86.03	-0.0128	0.4539	0.0001
182	SLU 15	10.93	0.1	84.12	-0.0187	0.4652	0.0001
182	SLU 16	10.36	0.08	85.26	-0.0123	0.4432	0.0001
182	SLU 17	10.69	0.1	83.35	-0.0182	0.4545	0.0001
182	SLU 18	11.5	0.09	85.7	-0.0163	0.4939	0.0001
182	SLU 19	11.84	0.11	83.79	-0.0221	0.5052	0
182	SLU 20	11.38	0.09	88.18	-0.015	0.4879	0.0001
182	SLU 21	11.71	0.11	86.27	-0.0209	0.4992	0.0001
182	SLU 22	9.97	0.08	79.37	-0.0137	0.4264	0.0001
182	SLU 23	10.53	0.11	76.19	-0.0236	0.4453	0
182	SLU 24	10.08	0.08	82.62	-0.0129	0.4312	0.0001
182	SLU 25	10.42	0.1	80.71	-0.0188	0.4425	0.0001
182	SLU 26	10.41	0.11	78.67	-0.0223	0.4394	0
182	SLU 27	9.96	0.08	85.1	-0.0117	0.4253	0.0001
182	SLU 28	10.29	0.1	83.19	-0.0176	0.4366	0.0001
182	SLU 29	9.72	0.08	84.33	-0.0112	0.4146	0.0001
182	SLU 30	10.06	0.09	82.42	-0.0171	0.4259	0.0001
182	SLU 31	12.62	0.13	88.79	-0.0268	0.5358	0
182	SLU 32	12.17	0.1	95.21	-0.0162	0.5217	0.0001
182	SLU 33	12.51	0.12	93.31	-0.0221	0.533	0.0001
182	SLU 34	12.49	0.13	91.27	-0.0256	0.5299	0
182	SLU 35	12.04	0.09	97.69	-0.015	0.5158	0.0001
182	SLU 36	12.38	0.11	95.78	-0.0209	0.5271	0.0001
182	SLU 37	11.8	0.09	96.92	-0.0145	0.5051	0.0001
182	SLU 38	12.14	0.11	95.01	-0.0204	0.5164	0.0001
182	SLU 39	12.95	0.1	97.37	-0.0184	0.5557	0.0001
182	SLU 40	13.29	0.12	95.46	-0.0243	0.567	0.0001
182	SLU 41	12.83	0.1	99.84	-0.0172	0.5498	0.0001
182	SLU 42	13.16	0.12	97.94	-0.0231	0.5611	0.0001
182	SLU 43	10.58	0.08	84.02	-0.0143	0.4527	0.0001
182	SLU 44	11.14	0.11	80.84	-0.0241	0.4716	0
182	SLU 45	10.69	0.08	87.27	-0.0135	0.4575	0.0001
182	SLU 46	11.03	0.1	85.36	-0.0194	0.4688	0.0001
182	SLU 47	11.02	0.11	83.32	-0.0228	0.4656	0
182	SLU 48	10.57	0.08	89.74	-0.0122	0.4516	0.0001
182	SLU 49	10.91	0.1	87.84	-0.0181	0.4629	0.0001
182	SLU 50	10.33	0.08	88.97	-0.0117	0.4409	0.0001
182	SLU 51	10.67	0.1	87.07	-0.0176	0.4522	0.0001
182	SLU 52	13.23	0.13	93.44	-0.0274	0.5621	0
182	SLU 53	12.78	0.1	99.86	-0.0168	0.548	0.0001
182	SLU 54	13.12	0.12	97.96	-0.0227	0.5593	0.0001
182	SLU 55	13.1	0.13	95.91	-0.0261	0.5562	0
182	SLU 56	12.66	0.1	102.34	-0.0155	0.5421	0.0001
182	SLU 57	12.99	0.12	100.43	-0.0214	0.5534	0.0001
182	SLU 58	12.42	0.1	101.57	-0.015	0.5314	0.0001
182	SLU 59	12.75	0.11	99.66	-0.0209	0.5427	0.0001
182	SLU 60	13.56	0.11	102.01	-0.019	0.582	0.0001
182	SLU 61	13.9	0.13	100.11	-0.0249	0.5933	0.0001
182	SLU 62	13.44	0.11	104.49	-0.0177	0.5761	0.0001
182	SLU 63	13.77	0.12	102.58	-0.0236	0.5874	0.0001
182	SLU 64	12.03	0.1	95.69	-0.0164	0.5146	0.0001
182	SLU 65	12.59	0.13	92.51	-0.0263	0.5334	0
182	SLU 66	12.14	0.1	98.93	-0.0157	0.5193	0.0001
182	SLU 67	12.48	0.11	97.03	-0.0216	0.5307	0.0001
182	SLU 68	12.47	0.12	94.98	-0.025	0.5275	0.0001
182	SLU 69	12.02	0.09	101.41	-0.0144	0.5134	0.0001
182	SLU 70	12.35	0.11	99.5	-0.0203	0.5247	0.0001
182	SLU 71	11.78	0.09	100.64	-0.0139	0.5028	0.0001
182	SLU 72	12.12	0.11	98.73	-0.0198	0.5141	0.0001
182	SLU 73	14.68	0.14	105.1	-0.0296	0.6239	0
182	SLU 74	14.23	0.11	111.53	-0.019	0.6099	0.0001
182	SLU 75	14.57	0.13	109.62	-0.0249	0.6212	0.0001
182	SLU 76	14.55	0.14	107.58	-0.0283	0.618	0.0001
182	SLU 77	14.1	0.11	114	-0.0177	0.6039	0.0001
182	SLU 78	14.44	0.13	112.1	-0.0236	0.6152	0.0001
182	SLU 79	13.86	0.11	113.23	-0.0172	0.5933	0.0001
182	SLU 80	14.2	0.13	111.33	-0.0231	0.6046	0.0001
182	SLU 81	15.01	0.12	113.68	-0.0212	0.6439	0.0001
182	SLU 82	15.35	0.14	111.77	-0.027	0.6552	0.0001
182	SLU 83	14.89	0.12	116.15	-0.0199	0.638	0.0001
182	SLU 84	15.22	0.14	114.25	-0.0258	0.6493	0.0001
182	SLE RA 1	8.94	0.07	71.04	-0.0122	0.3822	0.0001
182	SLE RA 2	9.31	0.09	68.92	-0.0187	0.3948	0
182	SLE RA 3	9.01	0.07	73.21	-0.0116	0.3854	0.0001
182	SLE RA 4	9.24	0.08	71.93	-0.0156	0.3929	0.0001
182	SLE RA 5	9.23	0.09	70.57	-0.0179	0.3909	0
182	SLE RA 6	8.93	0.07	74.86	-0.0108	0.3815	0.0001
182	SLE RA 7	9.15	0.08	73.59	-0.0147	0.389	0.0001
182	SLE RA 8	8.77	0.07	74.34	-0.0105	0.3744	0.0001
182	SLE RA 9	8.99	0.08	73.07	-0.0144	0.3819	0.0001
182	SLE RA 10	10.7	0.1	77.32	-0.0209	0.4551	0
182	SLE RA 11	10.4	0.08	81.6	-0.0138	0.4457	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
182	SLE RA 12	10.63	0.09	80.33	-0.0178	0.4533	0.0001
182	SLE RA 13	10.62	0.1	78.97	-0.0201	0.4512	0
182	SLE RA 14	10.32	0.08	83.25	-0.013	0.4418	0.0001
182	SLE RA 15	10.54	0.09	81.98	-0.0169	0.4493	0.0001
182	SLE RA 16	10.16	0.08	82.74	-0.0127	0.4347	0.0001
182	SLE RA 17	10.38	0.09	81.47	-0.0166	0.4422	0.0001
182	SLE RA 18	10.92	0.09	83.04	-0.0153	0.4684	0.0001
182	SLE RA 19	11.15	0.1	81.76	-0.0192	0.476	0.0001
182	SLE RA 20	10.84	0.09	84.69	-0.0145	0.4645	0.0001
182	SLE RA 21	11.06	0.1	83.42	-0.0184	0.472	0.0001
182	SLE FR 1	8.94	0.07	71.04	-0.0122	0.3822	0.0001
182	SLE FR 2	9.01	0.08	70.62	-0.0135	0.3848	0.0001
182	SLE FR 3	8.9	0.07	71.7	-0.0118	0.3807	0.0001
182	SLE FR 4	9.61	0.08	74.22	-0.0144	0.4106	0.0001
182	SLE FR 5	9.5	0.08	75.3	-0.0128	0.4065	0.0001
182	SLE FR 6	9.93	0.08	77.04	-0.0137	0.4253	0.0001
182	SLE QP 1	8.94	0.07	71.04	-0.0122	0.3822	0.0001
182	SLE QP 2	9.53	0.08	74.64	-0.0131	0.4081	0.0001
182	SLD 1	21.46	0.2	82.08	-0.0756	0.9965	-0.0001
182	SLD 2	21.46	0.2	82.08	-0.0756	0.9965	-0.0001
182	SLD 3	22.44	0.1	86.82	-0.0193	1.0431	0.0001
182	SLD 4	22.44	0.1	86.82	-0.0193	1.0431	0.0001
182	SLD 5	11.63	0.25	69.68	-0.1172	0.514	-0.0002
182	SLD 6	11.63	0.25	69.68	-0.1172	0.514	-0.0002
182	SLD 7	14.89	-0.05	85.49	0.0704	0.6692	0.0003
182	SLD 8	14.89	-0.05	85.49	0.0704	0.6692	0.0003
182	SLD 9	4.18	0.21	63.79	-0.0966	0.147	-0.0001
182	SLD 10	4.18	0.21	63.79	-0.0966	0.147	-0.0001
182	SLD 11	7.44	-0.1	79.6	0.0909	0.3022	0.0003
182	SLD 12	7.44	-0.1	79.6	0.0909	0.3022	0.0003
182	SLD 13	-3.37	0.05	62.45	-0.0069	-0.2269	0.0001
182	SLD 14	-3.37	0.05	62.45	-0.0069	-0.2269	0.0001
182	SLD 15	-2.39	-0.04	67.2	0.0493	-0.1803	0.0002
182	SLD 16	-2.39	-0.04	67.2	0.0493	-0.1803	0.0002
182	SLV 1	37.41	0.36	91.92	-0.1633	1.7834	-0.0003
182	SLV 2	37.41	0.36	91.92	-0.1633	1.7834	-0.0003
182	SLV 3	39.74	0.14	103.43	-0.0266	1.894	0
182	SLV 4	39.74	0.14	103.43	-0.0266	1.894	0
182	SLV 5	14.37	0.5	62.37	-0.2655	0.653	-0.0005
182	SLV 6	14.37	0.5	62.37	-0.2655	0.653	-0.0005
182	SLV 7	22.12	-0.24	100.73	0.1902	1.0215	0.0006
182	SLV 8	22.12	-0.24	100.73	0.1902	1.0215	0.0006
182	SLV 9	-3.06	0.39	48.55	-0.2164	-0.2053	-0.0004
182	SLV 10	-3.06	0.39	48.55	-0.2164	-0.2053	-0.0004
182	SLV 11	4.7	-0.34	86.91	0.2393	0.1632	0.0007
182	SLV 12	4.7	-0.34	86.91	0.2393	0.1632	0.0007
182	SLV 13	-20.67	0.01	45.85	0.0004	-1.0778	0.0001
182	SLV 14	-20.67	0.01	45.85	0.0004	-1.0778	0.0001
182	SLV 15	-18.34	-0.21	57.36	0.1371	-0.9672	0.0005
182	SLV 16	-18.34	-0.21	57.36	0.1371	-0.9672	0.0005
183	SLU 1	6.2	0.06	69.56	-0.0152	0.2873	-0.0001
183	SLU 2	6.7	0.07	67.36	-0.0221	0.3059	-0.0001
183	SLU 3	6.2	0.06	72.73	-0.0148	0.2883	-0.0001
183	SLU 4	6.5	0.06	71.41	-0.0189	0.2994	-0.0001
183	SLU 5	6.48	0.07	69.72	-0.0213	0.2968	-0.0001
183	SLU 6	5.97	0.06	75.1	-0.0139	0.2793	-0.0001
183	SLU 7	6.28	0.06	73.78	-0.0181	0.2904	-0.0001
183	SLU 8	5.75	0.06	74.29	-0.0135	0.2692	-0.0001
183	SLU 9	6.05	0.06	72.97	-0.0176	0.2804	-0.0001
183	SLU 10	8.39	0.08	80.34	-0.0259	0.3835	-0.0001
183	SLU 11	7.89	0.07	85.72	-0.0186	0.366	-0.0002
183	SLU 12	8.19	0.08	84.4	-0.0227	0.3771	-0.0001
183	SLU 13	8.17	0.08	82.71	-0.0251	0.3745	-0.0001
183	SLU 14	7.66	0.07	88.08	-0.0177	0.3569	-0.0002
183	SLU 15	7.96	0.08	86.76	-0.0219	0.368	-0.0001
183	SLU 16	7.44	0.07	87.28	-0.0173	0.3469	-0.0002
183	SLU 17	7.74	0.07	85.96	-0.0214	0.358	-0.0001
183	SLU 18	8.61	0.07	88.11	-0.0206	0.3983	-0.0002
183	SLU 19	8.91	0.08	86.79	-0.0248	0.4094	-0.0001
183	SLU 20	8.39	0.07	90.48	-0.0198	0.3892	-0.0002
183	SLU 21	8.69	0.08	89.15	-0.0239	0.4004	-0.0001
183	SLU 22	7.24	0.07	81.47	-0.018	0.336	-0.0002
183	SLU 23	7.74	0.08	79.27	-0.0249	0.3546	-0.0001
183	SLU 24	7.23	0.07	84.65	-0.0176	0.337	-0.0002
183	SLU 25	7.53	0.07	83.33	-0.0217	0.3481	-0.0001
183	SLU 26	7.52	0.08	81.64	-0.024	0.3455	-0.0001
183	SLU 27	7.01	0.07	87.02	-0.0167	0.3279	-0.0002
183	SLU 28	7.31	0.07	85.7	-0.0209	0.3391	-0.0001
183	SLU 29	6.79	0.07	86.21	-0.0163	0.3179	-0.0002
183	SLU 30	7.09	0.07	84.89	-0.0204	0.329	-0.0001
183	SLU 31	9.43	0.09	92.26	-0.0287	0.4322	-0.0001
183	SLU 32	8.92	0.08	97.63	-0.0214	0.4146	-0.0002
183	SLU 33	9.22	0.09	96.31	-0.0255	0.4258	-0.0002
183	SLU 34	9.2	0.09	94.63	-0.0278	0.4232	-0.0001
183	SLU 35	8.7	0.08	100	-0.0205	0.4056	-0.0002
183	SLU 36	9	0.09	98.68	-0.0247	0.4167	-0.0002
183	SLU 37	8.48	0.08	99.2	-0.0201	0.3956	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
183	SLU 38	8.78	0.09	97.88	-0.0242	0.4067	-0.0002
183	SLU 39	9.65	0.08	100.03	-0.0234	0.447	-0.0002
183	SLU 40	9.95	0.09	98.7	-0.0276	0.4581	-0.0002
183	SLU 41	9.42	0.08	102.39	-0.0226	0.4379	-0.0002
183	SLU 42	9.72	0.09	101.07	-0.0267	0.449	-0.0002
183	SLU 43	7.71	0.07	86.34	-0.0188	0.3569	-0.0002
183	SLU 44	8.21	0.08	84.14	-0.0257	0.3754	-0.0001
183	SLU 45	7.7	0.07	89.51	-0.0184	0.3578	-0.0002
183	SLU 46	8	0.08	88.19	-0.0225	0.3689	-0.0002
183	SLU 47	7.99	0.08	86.5	-0.0249	0.3663	-0.0001
183	SLU 48	7.48	0.07	91.88	-0.0175	0.3488	-0.0002
183	SLU 49	7.78	0.08	90.56	-0.0217	0.3599	-0.0002
183	SLU 50	7.26	0.07	91.07	-0.0171	0.3388	-0.0002
183	SLU 51	7.56	0.08	89.75	-0.0212	0.3499	-0.0002
183	SLU 52	9.9	0.09	97.12	-0.0295	0.4531	-0.0001
183	SLU 53	9.39	0.08	102.5	-0.0222	0.4355	-0.0002
183	SLU 54	9.69	0.09	101.18	-0.0264	0.4466	-0.0002
183	SLU 55	9.67	0.09	99.49	-0.0287	0.444	-0.0002
183	SLU 56	9.17	0.08	104.87	-0.0213	0.4264	-0.0002
183	SLU 57	9.47	0.09	103.54	-0.0255	0.4376	-0.0002
183	SLU 58	8.95	0.08	104.06	-0.0209	0.4164	-0.0002
183	SLU 59	9.25	0.09	102.74	-0.025	0.4275	-0.0002
183	SLU 60	10.12	0.09	104.89	-0.0242	0.4678	-0.0002
183	SLU 61	10.42	0.09	103.57	-0.0284	0.4789	-0.0002
183	SLU 62	9.89	0.09	107.26	-0.0234	0.4588	-0.0002
183	SLU 63	10.19	0.09	105.94	-0.0275	0.4699	-0.0002
183	SLU 64	8.74	0.08	98.26	-0.0216	0.4055	-0.0002
183	SLU 65	9.24	0.09	96.05	-0.0285	0.4241	-0.0002
183	SLU 66	8.74	0.08	101.43	-0.0212	0.4065	-0.0002
183	SLU 67	9.04	0.09	100.11	-0.0253	0.4176	-0.0002
183	SLU 68	9.02	0.09	98.42	-0.0276	0.415	-0.0002
183	SLU 69	8.51	0.08	103.8	-0.0203	0.3974	-0.0002
183	SLU 70	8.82	0.09	102.48	-0.0245	0.4086	-0.0002
183	SLU 71	8.29	0.08	102.99	-0.0199	0.3874	-0.0002
183	SLU 72	8.6	0.09	101.67	-0.024	0.3986	-0.0002
183	SLU 73	10.93	0.1	109.04	-0.0323	0.5017	-0.0002
183	SLU 74	10.43	0.09	114.42	-0.025	0.4842	-0.0002
183	SLU 75	10.73	0.1	113.09	-0.0291	0.4953	-0.0002
183	SLU 76	10.71	0.1	111.41	-0.0315	0.4927	-0.0002
183	SLU 77	10.2	0.09	116.78	-0.0241	0.4751	-0.0002
183	SLU 78	10.5	0.1	115.46	-0.0283	0.4862	-0.0002
183	SLU 79	9.98	0.09	115.98	-0.0237	0.4651	-0.0002
183	SLU 80	10.28	0.1	114.66	-0.0278	0.4762	-0.0002
183	SLU 81	11.15	0.1	116.81	-0.027	0.5165	-0.0002
183	SLU 82	11.45	0.1	115.49	-0.0312	0.5276	-0.0002
183	SLU 83	10.93	0.1	119.17	-0.0262	0.5074	-0.0002
183	SLU 84	11.23	0.1	117.85	-0.0303	0.5186	-0.0002
183	SLE RA 1	6.5	0.06	72.96	-0.016	0.3013	-0.0001
183	SLE RA 2	6.83	0.07	71.49	-0.0206	0.3136	-0.0001
183	SLE RA 3	6.49	0.06	75.08	-0.0157	0.3019	-0.0001
183	SLE RA 4	6.7	0.06	74.2	-0.0185	0.3093	-0.0001
183	SLE RA 5	6.68	0.07	73.07	-0.02	0.3076	-0.0001
183	SLE RA 6	6.34	0.06	76.66	-0.0151	0.2959	-0.0001
183	SLE RA 7	6.55	0.06	75.78	-0.0179	0.3033	-0.0001
183	SLE RA 8	6.2	0.06	76.12	-0.0148	0.2892	-0.0001
183	SLE RA 9	6.4	0.06	75.24	-0.0176	0.2966	-0.0001
183	SLE RA 10	7.96	0.07	80.15	-0.0231	0.3654	-0.0001
183	SLE RA 11	7.62	0.07	83.74	-0.0183	0.3537	-0.0002
183	SLE RA 12	7.82	0.07	82.85	-0.021	0.3611	-0.0001
183	SLE RA 13	7.81	0.07	81.73	-0.0226	0.3594	-0.0001
183	SLE RA 14	7.47	0.07	85.31	-0.0177	0.3476	-0.0002
183	SLE RA 15	7.67	0.07	84.43	-0.0205	0.3551	-0.0001
183	SLE RA 16	7.32	0.07	84.78	-0.0174	0.341	-0.0002
183	SLE RA 17	7.52	0.07	83.9	-0.0202	0.3484	-0.0001
183	SLE RA 18	8.1	0.07	85.33	-0.0196	0.3752	-0.0002
183	SLE RA 19	8.31	0.07	84.45	-0.0224	0.3826	-0.0001
183	SLE RA 20	7.95	0.07	86.91	-0.019	0.3692	-0.0002
183	SLE RA 21	8.16	0.07	86.03	-0.0218	0.3766	-0.0001
183	SLE FR 1	6.5	0.06	72.96	-0.016	0.3013	-0.0001
183	SLE FR 2	6.56	0.06	72.67	-0.0169	0.3037	-0.0001
183	SLE FR 3	6.44	0.06	73.59	-0.0158	0.2988	-0.0001
183	SLE FR 4	7.05	0.06	76.38	-0.018	0.3259	-0.0001
183	SLE FR 5	6.92	0.06	77.3	-0.0168	0.321	-0.0001
183	SLE FR 6	7.3	0.06	79.15	-0.0178	0.3382	-0.0001
183	SLE QP 1	6.5	0.06	72.96	-0.016	0.3013	-0.0001
183	SLE QP 2	6.98	0.06	76.67	-0.0171	0.3234	-0.0001
183	SLD 1	19.94	0.19	79.65	-0.125	0.9342	0.0002
183	SLD 2	19.94	0.19	79.65	-0.125	0.9342	0.0002
183	SLD 3	20.99	0.09	83.15	-0.0284	0.9837	-0.0001
183	SLD 4	20.99	0.09	83.15	-0.0284	0.9837	-0.0001
183	SLD 5	9.28	0.26	72.26	-0.196	0.4317	0.0004
183	SLD 6	9.28	0.26	72.26	-0.196	0.4317	0.0004
183	SLD 7	12.77	-0.09	83.92	0.1261	0.5965	-0.0006
183	SLD 8	12.77	-0.09	83.92	0.1261	0.5965	-0.0006
183	SLD 9	1.19	0.21	69.43	-0.1602	0.0504	0.0003
183	SLD 10	1.19	0.21	69.43	-0.1602	0.0504	0.0003
183	SLD 11	4.67	-0.13	81.08	0.1618	0.2152	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
183	SLD 12	4.67	-0.13	81.08	0.1618	0.2152	-0.0007
183	SLD 13	-7.03	0.04	70.2	-0.0058	-0.3368	-0.0002
183	SLD 14	-7.03	0.04	70.2	-0.0058	-0.3368	-0.0002
183	SLD 15	-5.99	-0.07	73.69	0.0908	-0.2873	-0.0004
183	SLD 16	-5.99	-0.07	73.69	0.0908	-0.2873	-0.0004
183	SLV 1	37.28	0.37	83.59	-0.2763	1.7511	0.0006
183	SLV 2	37.28	0.37	83.59	-0.2763	1.7511	0.0006
183	SLV 3	39.77	0.12	92.13	-0.0417	1.8685	-0.0001
183	SLV 4	39.77	0.12	92.13	-0.0417	1.8685	-0.0001
183	SLV 5	12.3	0.54	65.8	-0.4507	0.5737	0.0011
183	SLV 6	12.3	0.54	65.8	-0.4507	0.5737	0.0011
183	SLV 7	20.58	-0.31	94.26	0.3314	0.965	-0.0012
183	SLV 8	20.58	-0.31	94.26	0.3314	0.965	-0.0012
183	SLV 9	-6.63	0.43	59.09	-0.3656	-0.3181	0.0009
183	SLV 10	-6.63	0.43	59.09	-0.3656	-0.3181	0.0009
183	SLV 11	1.66	-0.42	87.54	0.4166	0.0732	-0.0014
183	SLV 12	1.66	-0.42	87.54	0.4166	0.0732	-0.0014
183	SLV 13	-25.81	0.01	61.22	0.0075	-1.2216	-0.0002
183	SLV 14	-25.81	0.01	61.22	0.0075	-1.2216	-0.0002
183	SLV 15	-23.32	-0.25	69.75	0.2422	-1.1042	-0.0009
183	SLV 16	-23.32	-0.25	69.75	0.2422	-1.1042	-0.0009
184	SLU 1	3.98	0.02	71.44	-0.0068	0.1599	0
184	SLU 2	4.45	0.02	69.78	-0.0117	0.1794	0
184	SLU 3	3.87	0.02	74.58	-0.006	0.1543	0
184	SLU 4	4.15	0.02	73.59	-0.009	0.166	0
184	SLU 5	4.14	0.02	72.08	-0.0106	0.1651	0
184	SLU 6	3.56	0.02	76.88	-0.0049	0.1401	0
184	SLU 7	3.84	0.02	75.88	-0.0079	0.1518	0
184	SLU 8	3.36	0.02	76.04	-0.0046	0.1313	0
184	SLU 9	3.64	0.02	75.04	-0.0076	0.143	0
184	SLU 10	5.73	0.03	83.19	-0.0139	0.2334	0
184	SLU 11	5.15	0.02	87.99	-0.0081	0.2084	0
184	SLU 12	5.43	0.03	86.99	-0.0111	0.2201	0
184	SLU 13	5.42	0.03	85.48	-0.0128	0.2191	0
184	SLU 14	4.84	0.02	90.29	-0.007	0.1941	0
184	SLU 15	5.13	0.03	89.29	-0.01	0.2058	0
184	SLU 16	4.64	0.02	89.44	-0.0067	0.1853	0
184	SLU 17	4.93	0.02	88.45	-0.0097	0.197	0
184	SLU 18	5.81	0.02	90.6	-0.0098	0.237	0
184	SLU 19	6.09	0.03	89.6	-0.0128	0.2487	0
184	SLU 20	5.5	0.02	92.89	-0.0087	0.2228	0
184	SLU 21	5.79	0.03	91.9	-0.0117	0.2345	0
184	SLU 22	4.61	0.02	83.62	-0.008	0.1853	0
184	SLU 23	5.08	0.03	81.96	-0.013	0.2048	0
184	SLU 24	4.5	0.02	86.77	-0.0072	0.1798	0
184	SLU 25	4.79	0.02	85.77	-0.0102	0.1914	0
184	SLU 26	4.78	0.03	84.26	-0.0119	0.1905	0
184	SLU 27	4.2	0.02	89.06	-0.0061	0.1655	0
184	SLU 28	4.48	0.02	88.06	-0.0091	0.1772	0
184	SLU 29	4	0.02	88.22	-0.0058	0.1567	0
184	SLU 30	4.28	0.02	87.22	-0.0088	0.1684	0
184	SLU 31	6.37	0.03	95.37	-0.0151	0.2588	0
184	SLU 32	5.79	0.03	100.17	-0.0093	0.2338	0
184	SLU 33	6.07	0.03	99.18	-0.0123	0.2455	0
184	SLU 34	6.06	0.03	97.67	-0.014	0.2445	0
184	SLU 35	5.48	0.03	102.47	-0.0083	0.2195	0
184	SLU 36	5.76	0.03	101.47	-0.0112	0.2312	0
184	SLU 37	5.28	0.03	101.63	-0.0079	0.2107	0
184	SLU 38	5.56	0.03	100.63	-0.0109	0.2224	0
184	SLU 39	6.45	0.03	102.78	-0.011	0.2624	0
184	SLU 40	6.73	0.03	101.78	-0.014	0.2741	0
184	SLU 41	6.14	0.03	105.08	-0.0099	0.2482	0
184	SLU 42	6.42	0.03	104.08	-0.0129	0.2599	0
184	SLU 43	4.95	0.02	88.7	-0.0084	0.1991	0
184	SLU 44	5.42	0.03	87.04	-0.0133	0.2186	0
184	SLU 45	4.84	0.02	91.84	-0.0076	0.1936	0
184	SLU 46	5.12	0.03	90.84	-0.0106	0.2053	0
184	SLU 47	5.11	0.03	89.33	-0.0123	0.2044	0
184	SLU 48	4.53	0.02	94.14	-0.0065	0.1793	0
184	SLU 49	4.82	0.02	93.14	-0.0095	0.191	0
184	SLU 50	4.34	0.02	93.29	-0.0062	0.1706	0
184	SLU 51	4.62	0.02	92.29	-0.0092	0.1823	0
184	SLU 52	6.71	0.03	100.44	-0.0155	0.2726	0
184	SLU 53	6.13	0.03	105.25	-0.0097	0.2476	0
184	SLU 54	6.41	0.03	104.25	-0.0127	0.2593	0
184	SLU 55	6.4	0.03	102.74	-0.0144	0.2584	0
184	SLU 56	5.82	0.03	107.55	-0.0086	0.2333	0
184	SLU 57	6.1	0.03	106.55	-0.0116	0.245	0
184	SLU 58	5.62	0.03	106.7	-0.0083	0.2246	0
184	SLU 59	5.9	0.03	105.7	-0.0113	0.2363	0
184	SLU 60	6.78	0.03	107.85	-0.0114	0.2763	0
184	SLU 61	7.07	0.03	106.86	-0.0144	0.288	0
184	SLU 62	6.48	0.03	110.15	-0.0103	0.262	0
184	SLU 63	6.76	0.03	109.15	-0.0133	0.2737	0
184	SLU 64	5.59	0.03	100.88	-0.0096	0.2245	0
184	SLU 65	6.06	0.03	99.22	-0.0146	0.244	0
184	SLU 66	5.48	0.03	104.02	-0.0088	0.219	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
184	SLU 67	5.76	0.03	103.02	-0.0118	0.2307	0
184	SLU 68	5.75	0.03	101.51	-0.0135	0.2298	0
184	SLU 69	5.17	0.03	106.32	-0.0077	0.2047	0
184	SLU 70	5.45	0.03	105.32	-0.0107	0.2164	0
184	SLU 71	4.97	0.03	105.47	-0.0074	0.196	0
184	SLU 72	5.26	0.03	104.48	-0.0104	0.2077	0
184	SLU 73	7.34	0.03	112.63	-0.0167	0.298	0
184	SLU 74	6.76	0.03	117.43	-0.011	0.273	0
184	SLU 75	7.05	0.03	116.43	-0.0139	0.2847	0
184	SLU 76	7.03	0.03	114.92	-0.0156	0.2838	0
184	SLU 77	6.46	0.03	119.73	-0.0099	0.2587	0
184	SLU 78	6.74	0.03	118.73	-0.0128	0.2704	0
184	SLU 79	6.26	0.03	118.88	-0.0096	0.25	0
184	SLU 80	6.54	0.03	117.88	-0.0125	0.2617	0
184	SLU 81	7.42	0.03	120.04	-0.0126	0.3017	0
184	SLU 82	7.7	0.03	119.04	-0.0156	0.3134	0
184	SLU 83	7.11	0.03	122.33	-0.0116	0.2874	0
184	SLU 84	7.4	0.03	121.33	-0.0145	0.2991	0
184	SLE RA 1	4.16	0.02	74.92	-0.0071	0.1671	0
184	SLE RA 2	4.47	0.02	73.81	-0.0104	0.1801	0
184	SLE RA 3	4.09	0.02	77.02	-0.0066	0.1634	0
184	SLE RA 4	4.27	0.02	76.35	-0.0086	0.1712	0
184	SLE RA 5	4.27	0.02	75.35	-0.0097	0.1706	0
184	SLE RA 6	3.88	0.02	78.55	-0.0059	0.1539	0
184	SLE RA 7	4.07	0.02	77.88	-0.0079	0.1617	0
184	SLE RA 8	3.75	0.02	77.99	-0.0057	0.1481	0
184	SLE RA 9	3.94	0.02	77.32	-0.0077	0.1559	0
184	SLE RA 10	5.33	0.02	82.75	-0.0118	0.2161	0
184	SLE RA 11	4.94	0.02	85.96	-0.008	0.1995	0
184	SLE RA 12	5.13	0.02	85.29	-0.01	0.2073	0
184	SLE RA 13	5.12	0.02	84.28	-0.0111	0.2066	0
184	SLE RA 14	4.74	0.02	87.49	-0.0073	0.1899	0
184	SLE RA 15	4.92	0.02	86.82	-0.0093	0.1977	0
184	SLE RA 16	4.6	0.02	86.92	-0.0071	0.1841	0
184	SLE RA 17	4.79	0.02	86.26	-0.0091	0.1919	0
184	SLE RA 18	5.38	0.02	87.69	-0.0091	0.2186	0
184	SLE RA 19	5.57	0.02	87.03	-0.0111	0.2264	0
184	SLE RA 20	5.18	0.02	89.22	-0.0084	0.2091	0
184	SLE RA 21	5.36	0.02	88.56	-0.0104	0.2169	0
184	SLE FR 1	4.16	0.02	74.92	-0.0071	0.1671	0
184	SLE FR 2	4.22	0.02	74.7	-0.0078	0.1697	0
184	SLE FR 3	4.08	0.02	75.54	-0.0068	0.1633	0
184	SLE FR 4	4.59	0.02	78.53	-0.0084	0.1852	0
184	SLE FR 5	4.44	0.02	79.37	-0.0074	0.1788	0
184	SLE FR 6	4.77	0.02	81.31	-0.0081	0.1929	0
184	SLE QP 1	4.16	0.02	74.92	-0.0071	0.1671	0
184	SLE QP 2	4.53	0.02	78.75	-0.0077	0.1826	0
184	SLD 1	17.97	0.19	75.37	-0.1538	0.8171	0.0003
184	SLD 2	17.97	0.19	75.37	-0.1538	0.8171	0.0003
184	SLD 3	19.05	0.04	78.38	-0.0234	0.8669	0
184	SLD 4	19.05	0.04	78.38	-0.0234	0.8669	0
184	SLD 5	6.93	0.3	73.17	-0.2493	0.2974	0.0006
184	SLD 6	6.93	0.3	73.17	-0.2493	0.2974	0.0006
184	SLD 7	10.51	-0.21	83.22	0.1853	0.4634	-0.0004
184	SLD 8	10.51	-0.21	83.22	0.1853	0.4634	-0.0004
184	SLD 9	-1.46	0.25	74.29	-0.2008	-0.0983	0.0005
184	SLD 10	-1.46	0.25	74.29	-0.2008	-0.0983	0.0005
184	SLD 11	2.12	-0.26	84.34	0.2338	0.0678	-0.0006
184	SLD 12	2.12	-0.26	84.34	0.2338	0.0678	-0.0006
184	SLD 13	-10	0	79.12	0.0079	-0.5018	0
184	SLD 14	-10	0	79.12	0.0079	-0.5018	0
184	SLD 15	-8.92	-0.15	82.14	0.1383	-0.452	-0.0003
184	SLD 16	-8.92	-0.15	82.14	0.1383	-0.452	-0.0003
184	SLV 1	35.95	0.44	70.34	-0.358	1.6657	0.0008
184	SLV 2	35.95	0.44	70.34	-0.358	1.6657	0.0008
184	SLV 3	38.51	0.07	77.72	-0.0417	1.7841	0.0001
184	SLV 4	38.51	0.07	77.72	-0.0417	1.7841	0.0001
184	SLV 5	10.07	0.71	65.04	-0.5926	0.4479	0.0014
184	SLV 6	10.07	0.71	65.04	-0.5926	0.4479	0.0014
184	SLV 7	18.6	-0.53	89.64	0.4619	0.8426	-0.0011
184	SLV 8	18.6	-0.53	89.64	0.4619	0.8426	-0.0011
184	SLV 9	-9.55	0.57	67.87	-0.4774	-0.4775	0.0011
184	SLV 10	-9.55	0.57	67.87	-0.4774	-0.4775	0.0011
184	SLV 11	-1.02	-0.66	92.47	0.5772	-0.0828	-0.0014
184	SLV 12	-1.02	-0.66	92.47	0.5772	-0.0828	-0.0014
184	SLV 13	-29.46	-0.03	79.79	0.0262	-1.4189	-0.0001
184	SLV 14	-29.46	-0.03	79.79	0.0262	-1.4189	-0.0001
184	SLV 15	-26.9	-0.4	87.17	0.3426	-1.3005	-0.0008
184	SLV 16	-26.9	-0.4	87.17	0.3426	-1.3005	-0.0008
185	SLU 1	2.46	0	73.33	-0.0001	0.1124	0
185	SLU 2	2.88	0	72.05	-0.0037	0.1297	0
185	SLU 3	2.3	0	76.46	0.0012	0.1054	0
185	SLU 4	2.55	0	75.69	-0.001	0.1158	0
185	SLU 5	2.54	0	74.3	-0.0022	0.1147	0
185	SLU 6	1.95	0	78.7	0.0027	0.0904	0
185	SLU 7	2.21	0	77.94	0.0005	0.1007	0
185	SLU 8	1.78	0	77.82	0.003	0.0824	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
185	SLU 9	2.03	0	77.05	0.0008	0.0927	0
185	SLU 10	3.88	0	85.9	-0.0046	0.175	0
185	SLU 11	3.29	0	90.31	0.0003	0.1507	0
185	SLU 12	3.55	0	89.54	-0.0018	0.161	0
185	SLU 13	3.54	0	88.14	-0.003	0.1599	0
185	SLU 14	2.95	0	92.55	0.0019	0.1356	0
185	SLU 15	3.21	0	91.78	-0.0003	0.146	0
185	SLU 16	2.77	0	91.66	0.0021	0.1276	0
185	SLU 17	3.03	0	90.9	-0.0001	0.138	0
185	SLU 18	3.89	0	93.11	-0.0013	0.1771	0
185	SLU 19	4.14	0	92.34	-0.0035	0.1874	0
185	SLU 20	3.54	0	95.35	0.0002	0.1621	0
185	SLU 21	3.8	0	94.59	-0.0019	0.1724	0
185	SLU 22	2.84	0	85.79	-0.0001	0.1301	0
185	SLU 23	3.26	0	84.51	-0.0037	0.1474	0
185	SLU 24	2.67	0	88.92	0.0012	0.1231	0
185	SLU 25	2.93	0	88.15	-0.001	0.1335	0
185	SLU 26	2.92	0	86.75	-0.0022	0.1324	0
185	SLU 27	2.33	0	91.16	0.0028	0.1081	0
185	SLU 28	2.59	0	90.39	0.0006	0.1185	0
185	SLU 29	2.16	0	90.27	0.003	0.1001	0
185	SLU 30	2.41	0	89.51	0.0008	0.1105	0
185	SLU 31	4.26	0	98.36	-0.0045	0.1927	0
185	SLU 32	3.67	0	102.76	0.0004	0.1684	0
185	SLU 33	3.93	0	102	-0.0018	0.1788	0
185	SLU 34	3.92	0	100.6	-0.003	0.1777	0
185	SLU 35	3.33	0	105.01	0.0019	0.1534	0
185	SLU 36	3.59	0	104.24	-0.0003	0.1638	0
185	SLU 37	3.15	0	104.12	0.0022	0.1454	0
185	SLU 38	3.41	0	103.36	0	0.1558	0
185	SLU 39	4.27	0	105.57	-0.0013	0.1948	0
185	SLU 40	4.52	0	104.8	-0.0034	0.2052	0
185	SLU 41	3.92	0	107.81	0.0003	0.1798	0
185	SLU 42	4.18	0	107.05	-0.0019	0.1902	0
185	SLU 43	3.07	0	91.06	-0.0002	0.14	0
185	SLU 44	3.49	0	89.78	-0.0038	0.1573	0
185	SLU 45	2.9	0	94.18	0.0011	0.133	0
185	SLU 46	3.16	0	93.42	-0.001	0.1434	0
185	SLU 47	3.15	0	92.02	-0.0022	0.1423	0
185	SLU 48	2.56	0	96.43	0.0027	0.118	0
185	SLU 49	2.82	0	95.66	0.0005	0.1284	0
185	SLU 50	2.38	0	95.54	0.0029	0.11	0
185	SLU 51	2.64	0	94.78	0.0007	0.1204	0
185	SLU 52	4.49	0	103.63	-0.0046	0.2026	0
185	SLU 53	3.9	0	108.03	0.0003	0.1783	0
185	SLU 54	4.16	0	107.27	-0.0019	0.1887	0
185	SLU 55	4.15	0	105.87	-0.0031	0.1876	0
185	SLU 56	3.56	0	110.28	0.0018	0.1633	0
185	SLU 57	3.81	0	109.51	-0.0004	0.1737	0
185	SLU 58	3.38	0	109.39	0.0021	0.1553	0
185	SLU 59	3.64	0	108.62	-0.0001	0.1656	0
185	SLU 60	4.49	0	110.84	-0.0014	0.2047	0
185	SLU 61	4.75	0	110.07	-0.0035	0.2151	0
185	SLU 62	4.15	0	113.08	0.0002	0.1897	0
185	SLU 63	4.41	0	112.32	-0.002	0.2001	0
185	SLU 64	3.45	0	103.51	-0.0001	0.1577	0
185	SLU 65	3.87	0	102.24	-0.0037	0.175	0
185	SLU 66	3.28	0	106.64	0.0012	0.1507	0
185	SLU 67	3.54	0	105.88	-0.001	0.1611	0
185	SLU 68	3.53	0	104.48	-0.0022	0.16	0
185	SLU 69	2.94	0	108.89	0.0027	0.1357	0
185	SLU 70	3.2	0	108.12	0.0005	0.1461	0
185	SLU 71	2.76	0	108	0.003	0.1277	0
185	SLU 72	3.02	0	107.24	0.0008	0.1381	0
185	SLU 73	4.87	0	116.08	-0.0046	0.2203	0
185	SLU 74	4.28	0	120.49	0.0003	0.196	0
185	SLU 75	4.54	0	119.72	-0.0018	0.2064	0
185	SLU 76	4.53	0	118.33	-0.003	0.2053	0
185	SLU 77	3.94	0	122.73	0.0019	0.181	0
185	SLU 78	4.19	0	121.97	-0.0003	0.1914	0
185	SLU 79	3.76	0	121.85	0.0021	0.173	0
185	SLU 80	4.02	0	121.08	-0.0001	0.1834	0
185	SLU 81	4.87	0	123.3	-0.0013	0.2224	0
185	SLU 82	5.13	0	122.53	-0.0035	0.2328	0
185	SLU 83	4.53	0	125.54	0.0002	0.2074	0
185	SLU 84	4.79	0	124.77	-0.002	0.2178	0
185	SLE RA 1	2.57	0	76.89	-0.0001	0.1174	0
185	SLE RA 2	2.85	0	76.04	-0.0025	0.129	0
185	SLE RA 3	2.46	0	78.97	0.0008	0.1128	0
185	SLE RA 4	2.63	0	78.46	-0.0007	0.1197	0
185	SLE RA 5	2.62	0	77.53	-0.0015	0.119	0
185	SLE RA 6	2.23	0	80.47	0.0018	0.1028	0
185	SLE RA 7	2.4	0	79.96	0.0003	0.1097	0
185	SLE RA 8	2.11	0	79.88	0.002	0.0974	0
185	SLE RA 9	2.28	0	79.37	0.0005	0.1043	0
185	SLE RA 10	3.52	0	85.27	-0.0031	0.1592	0
185	SLE RA 11	3.12	0	88.21	0.0002	0.143	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
185	SLE RA 12	3.29	0	87.69	-0.0013	0.1499	0
185	SLE RA 13	3.29	0	86.76	-0.002	0.1492	0
185	SLE RA 14	2.9	0	89.7	0.0012	0.133	0
185	SLE RA 15	3.07	0	89.19	-0.0002	0.1399	0
185	SLE RA 16	2.78	0	89.11	0.0014	0.1276	0
185	SLE RA 17	2.95	0	88.6	-0.0001	0.1345	0
185	SLE RA 18	3.52	0	90.08	-0.0009	0.1606	0
185	SLE RA 19	3.69	0	89.57	-0.0023	0.1675	0
185	SLE RA 20	3.29	0	91.57	0.0001	0.1506	0
185	SLE RA 21	3.46	0	91.06	-0.0013	0.1575	0
185	SLE FR 1	2.57	0	76.89	-0.0001	0.1174	0
185	SLE FR 2	2.63	0	76.72	-0.0006	0.1198	0
185	SLE FR 3	2.48	0	77.49	0.0003	0.1134	0
185	SLE FR 4	2.91	0	80.67	-0.0008	0.1327	0
185	SLE FR 5	2.76	0	81.44	0.0001	0.1264	0
185	SLE FR 6	3.04	0	83.48	-0.0005	0.139	0
185	SLE QP 1	2.57	0	76.89	-0.0001	0.1174	0
185	SLE QP 2	2.85	0	80.84	-0.0003	0.1304	0
185	SLD 1	16.12	0.21	75.99	-0.1668	0.7566	0.0003
185	SLD 2	16.12	0.21	75.99	-0.1668	0.7566	0.0003
185	SLD 3	17.19	0.03	78.8	-0.0202	0.807	0.0001
185	SLD 4	17.19	0.03	78.8	-0.0202	0.807	0.0001
185	SLD 5	5.21	0.34	75.12	-0.2725	0.2418	0.0005
185	SLD 6	5.21	0.34	75.12	-0.2725	0.2418	0.0005
185	SLD 7	8.78	-0.27	84.5	0.2159	0.4098	-0.0003
185	SLD 8	8.78	-0.27	84.5	0.2159	0.4098	-0.0003
185	SLD 9	-3.07	0.27	77.19	-0.2166	-0.149	0.0004
185	SLD 10	-3.07	0.27	77.19	-0.2166	-0.149	0.0004
185	SLD 11	0.5	-0.34	86.57	0.2719	0.019	-0.0004
185	SLD 12	0.5	-0.34	86.57	0.2719	0.019	-0.0004
185	SLD 13	-11.48	-0.03	82.88	0.0196	-0.5462	0
185	SLD 14	-11.48	-0.03	82.88	0.0196	-0.5462	0
185	SLD 15	-10.41	-0.21	85.7	0.1661	-0.4958	-0.0003
185	SLD 16	-10.41	-0.21	85.7	0.1661	-0.4958	-0.0003
185	SLV 1	33.86	0.5	69.13	-0.3991	1.5942	0.0007
185	SLV 2	33.86	0.5	69.13	-0.3991	1.5942	0.0007
185	SLV 3	36.4	0.06	76.02	-0.0437	1.7138	0.0001
185	SLV 4	36.4	0.06	76.02	-0.0437	1.7138	0.0001
185	SLV 5	8.29	0.82	66.88	-0.659	0.388	0.0011
185	SLV 6	8.29	0.82	66.88	-0.659	0.388	0.0011
185	SLV 7	16.78	-0.65	89.85	0.5257	0.7869	-0.0008
185	SLV 8	16.78	-0.65	89.85	0.5257	0.7869	-0.0008
185	SLV 9	-11.07	0.65	71.84	-0.5264	-0.5261	0.0009
185	SLV 10	-11.07	0.65	71.84	-0.5264	-0.5261	0.0009
185	SLV 11	-2.59	-0.82	94.81	0.6584	-0.1273	-0.001
185	SLV 12	-2.59	-0.82	94.81	0.6584	-0.1273	-0.001
185	SLV 13	-30.7	-0.06	85.67	0.043	-1.4531	-0.0001
185	SLV 14	-30.7	-0.06	85.67	0.043	-1.4531	-0.0001
185	SLV 15	-28.15	-0.5	92.56	0.3985	-1.3334	-0.0006
185	SLV 16	-28.15	-0.5	92.56	0.3985	-1.3334	-0.0006
186	SLU 1	0.28	0	75.46	0.0024	-0.0097	0
186	SLU 2	0.67	0	74.46	-0.0001	0.0071	0
186	SLU 3	0.04	0	78.62	0.0042	-0.0215	0
186	SLU 4	0.28	0	78.02	0.0027	-0.0115	0
186	SLU 5	0.29	0	76.7	0.002	-0.011	0
186	SLU 6	-0.34	-0.01	80.86	0.0063	-0.0395	0
186	SLU 7	-0.11	0	80.26	0.0048	-0.0295	0
186	SLU 8	-0.48	-0.01	79.93	0.0066	-0.0457	0
186	SLU 9	-0.25	0	79.34	0.0051	-0.0356	0
186	SLU 10	1.23	0	88.78	-0.0005	0.0277	0
186	SLU 11	0.6	0	92.94	0.0038	-0.0009	0
186	SLU 12	0.83	0	92.34	0.0023	0.0091	0
186	SLU 13	0.84	0	91.02	0.0016	0.0097	0
186	SLU 14	0.21	-0.01	95.18	0.0059	-0.0189	0
186	SLU 15	0.45	0	94.58	0.0044	-0.0089	0
186	SLU 16	0.07	-0.01	94.26	0.0062	-0.0251	0
186	SLU 17	0.31	0	93.66	0.0047	-0.015	0
186	SLU 18	1.07	0	95.92	0.0019	0.0198	0
186	SLU 19	1.31	0	95.32	0.0003	0.0298	0
186	SLU 20	0.69	0	98.16	0.0039	0.0018	0
186	SLU 21	0.93	0	97.56	0.0024	0.0118	0
186	SLU 22	0.29	0	88.26	0.003	-0.0134	0
186	SLU 23	0.68	0	87.26	0.0005	0.0033	0
186	SLU 24	0.05	0	91.42	0.0048	-0.0252	0
186	SLU 25	0.28	0	90.82	0.0033	-0.0152	0
186	SLU 26	0.3	0	89.5	0.0026	-0.0147	0
186	SLU 27	-0.34	-0.01	93.66	0.0069	-0.0433	0
186	SLU 28	-0.1	-0.01	93.06	0.0054	-0.0332	0
186	SLU 29	-0.48	-0.01	92.74	0.0072	-0.0494	0
186	SLU 30	-0.24	-0.01	92.14	0.0057	-0.0394	0
186	SLU 31	1.23	0	101.59	0.0001	0.0239	0
186	SLU 32	0.6	0	105.74	0.0044	-0.0046	0
186	SLU 33	0.83	0	105.14	0.0029	0.0054	0
186	SLU 34	0.85	0	103.82	0.0022	0.0059	0
186	SLU 35	0.22	-0.01	107.98	0.0065	-0.0226	0
186	SLU 36	0.45	-0.01	107.38	0.005	-0.0126	0
186	SLU 37	0.08	-0.01	107.06	0.0068	-0.0288	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
186	SLU 38	0.31	-0.01	106.46	0.0053	-0.0188	0
186	SLU 39	1.08	0	108.72	0.0025	0.016	0
186	SLU 40	1.31	0	108.12	0.001	0.0261	0
186	SLU 41	0.7	0	110.96	0.0046	-0.002	0
186	SLU 42	0.93	0	110.36	0.003	0.0081	0
186	SLU 43	0.36	0	93.7	0.0029	-0.0113	0
186	SLU 44	0.76	0	92.71	0.0004	0.0054	0
186	SLU 45	0.12	-0.01	96.87	0.0047	-0.0231	0
186	SLU 46	0.36	0	96.27	0.0032	-0.0131	0
186	SLU 47	0.37	0	94.95	0.0025	-0.0126	0
186	SLU 48	-0.26	-0.01	99.1	0.0068	-0.0411	0
186	SLU 49	-0.02	-0.01	98.51	0.0053	-0.0311	0
186	SLU 50	-0.4	-0.01	98.18	0.0071	-0.0473	0
186	SLU 51	-0.17	-0.01	97.59	0.0056	-0.0373	0
186	SLU 52	1.31	0	107.03	0	0.026	0
186	SLU 53	0.68	0	111.19	0.0043	-0.0025	0
186	SLU 54	0.91	0	110.59	0.0028	0.0075	0
186	SLU 55	0.93	0	109.27	0.0021	0.008	0
186	SLU 56	0.3	-0.01	113.43	0.0064	-0.0205	0
186	SLU 57	0.53	-0.01	112.83	0.0049	-0.0105	0
186	SLU 58	0.15	-0.01	112.51	0.0067	-0.0267	0
186	SLU 59	0.39	-0.01	111.91	0.0052	-0.0167	0
186	SLU 60	1.16	0	114.17	0.0024	0.0182	0
186	SLU 61	1.39	0	113.57	0.0009	0.0282	0
186	SLU 62	0.77	0	116.41	0.0044	0.0002	0
186	SLU 63	1.01	0	115.81	0.0029	0.0102	0
186	SLU 64	0.37	0	106.5	0.0035	-0.015	0
186	SLU 65	0.76	0	105.51	0.001	0.0017	0
186	SLU 66	0.13	-0.01	109.67	0.0053	-0.0269	0
186	SLU 67	0.36	0	109.07	0.0038	-0.0168	0
186	SLU 68	0.38	0	107.75	0.0031	-0.0163	0
186	SLU 69	-0.25	-0.01	111.9	0.0074	-0.0449	0
186	SLU 70	-0.02	-0.01	111.31	0.0059	-0.0348	0
186	SLU 71	-0.39	-0.01	110.98	0.0077	-0.051	0
186	SLU 72	-0.16	-0.01	110.39	0.0062	-0.041	0
186	SLU 73	1.31	0	119.83	0.0006	0.0223	0
186	SLU 74	0.68	-0.01	123.99	0.0049	-0.0063	0
186	SLU 75	0.92	0	123.39	0.0034	0.0038	0
186	SLU 76	0.93	0	122.07	0.0027	0.0043	0
186	SLU 77	0.3	-0.01	126.23	0.007	-0.0243	0
186	SLU 78	0.54	-0.01	125.63	0.0055	-0.0142	0
186	SLU 79	0.16	-0.01	125.31	0.0073	-0.0304	0
186	SLU 80	0.39	-0.01	124.71	0.0058	-0.0204	0
186	SLU 81	1.16	0	126.97	0.003	0.0144	0
186	SLU 82	1.4	0	126.37	0.0015	0.0245	0
186	SLU 83	0.78	-0.01	129.21	0.0051	-0.0036	0
186	SLU 84	1.01	0	128.61	0.0036	0.0064	0
186	SLE RA 1	0.28	0	79.11	0.0026	-0.0107	0
186	SLE RA 2	0.54	0	78.45	0.0009	0.0004	0
186	SLE RA 3	0.12	0	81.22	0.0038	-0.0186	0
186	SLE RA 4	0.28	0	80.82	0.0028	-0.0119	0
186	SLE RA 5	0.29	0	79.94	0.0023	-0.0116	0
186	SLE RA 6	-0.13	-0.01	82.71	0.0052	-0.0306	0
186	SLE RA 7	0.02	0	82.32	0.0042	-0.0239	0
186	SLE RA 8	-0.23	-0.01	82.1	0.0054	-0.0347	0
186	SLE RA 9	-0.07	0	81.7	0.0044	-0.0281	0
186	SLE RA 10	0.91	0	88	0.0007	0.0142	0
186	SLE RA 11	0.49	0	90.77	0.0035	-0.0049	0
186	SLE RA 12	0.65	0	90.37	0.0025	0.0018	0
186	SLE RA 13	0.66	0	89.49	0.002	0.0021	0
186	SLE RA 14	0.24	0	92.26	0.0049	-0.0169	0
186	SLE RA 15	0.39	0	91.86	0.0039	-0.0102	0
186	SLE RA 16	0.14	-0.01	91.65	0.0051	-0.021	0
186	SLE RA 17	0.3	0	91.25	0.0041	-0.0143	0
186	SLE RA 18	0.81	0	92.75	0.0022	0.0089	0
186	SLE RA 19	0.97	0	92.36	0.0012	0.0156	0
186	SLE RA 20	0.56	0	94.25	0.0036	-0.0031	0
186	SLE RA 21	0.71	0	93.85	0.0026	0.0036	0
186	SLE FR 1	0.28	0	79.11	0.0026	-0.0107	0
186	SLE FR 2	0.34	0	78.98	0.0023	-0.0085	0
186	SLE FR 3	0.18	0	79.71	0.0031	-0.0155	0
186	SLE FR 4	0.49	0	83.07	0.0021	-0.0026	0
186	SLE FR 5	0.34	0	83.8	0.003	-0.0096	0
186	SLE FR 6	0.55	0	85.93	0.0024	-0.0009	0
186	SLE QP 1	0.28	0	79.11	0.0026	-0.0107	0
186	SLE QP 2	0.44	0	83.21	0.0025	-0.0048	0
186	SLD 1	12.97	0.21	73.98	-0.1568	0.5969	0.0002
186	SLD 2	12.97	0.21	73.98	-0.1568	0.5969	0.0002
186	SLD 3	13.97	0.03	76.77	-0.0198	0.6433	0.0001
186	SLD 4	13.97	0.03	76.77	-0.0198	0.6433	0.0001
186	SLD 5	2.69	0.33	76.22	-0.2532	0.1053	0.0003
186	SLD 6	2.69	0.33	76.22	-0.2532	0.1053	0.0003
186	SLD 7	6.01	-0.26	85.5	0.2037	0.2599	-0.0002
186	SLD 8	6.01	-0.26	85.5	0.2037	0.2599	-0.0002
186	SLD 9	-5.12	0.25	80.91	-0.1987	-0.2696	0.0002
186	SLD 10	-5.12	0.25	80.91	-0.1987	-0.2696	0.0002
186	SLD 11	-1.81	-0.33	90.2	0.2581	-0.115	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
186	SLD 12	-1.81	-0.33	90.2	0.2581	-0.115	-0.0003
186	SLD 13	-13.08	-0.04	89.64	0.0247	-0.653	0
186	SLD 14	-13.08	-0.04	89.64	0.0247	-0.653	0
186	SLD 15	-12.09	-0.21	92.43	0.1618	-0.6066	-0.0002
186	SLD 16	-12.09	-0.21	92.43	0.1618	-0.6066	-0.0002
186	SLV 1	29.73	0.5	61.37	-0.3788	1.4018	0.0005
186	SLV 2	29.73	0.5	61.37	-0.3788	1.4018	0.0005
186	SLV 3	32.1	0.07	68.17	-0.0464	1.512	0.0001
186	SLV 4	32.1	0.07	68.17	-0.0464	1.512	0.0001
186	SLV 5	5.64	0.79	66.34	-0.616	0.2501	0.0007
186	SLV 6	5.64	0.79	66.34	-0.616	0.2501	0.0007
186	SLV 7	13.52	-0.63	89.01	0.4919	0.6173	-0.0005
186	SLV 8	13.52	-0.63	89.01	0.4919	0.6173	-0.0005
186	SLV 9	-12.64	0.62	77.4	-0.487	-0.627	0.0005
186	SLV 10	-12.64	0.62	77.4	-0.487	-0.627	0.0005
186	SLV 11	-4.76	-0.8	100.07	0.621	-0.2597	-0.0006
186	SLV 12	-4.76	-0.8	100.07	0.621	-0.2597	-0.0006
186	SLV 13	-31.21	-0.08	98.24	0.0514	-1.5217	-0.0001
186	SLV 14	-31.21	-0.08	98.24	0.0514	-1.5217	-0.0001
186	SLV 15	-28.85	-0.5	105.04	0.3837	-1.4115	-0.0004
186	SLV 16	-28.85	-0.5	105.04	0.3837	-1.4115	-0.0004
187	SLU 1	-2.71	0	77.42	0.0024	-0.1191	0
187	SLU 2	-2.36	0	76.63	0.001	-0.1039	0
187	SLU 3	-3.04	0	80.65	0.0048	-0.1343	0
187	SLU 4	-2.83	0	80.18	0.004	-0.1252	0
187	SLU 5	-2.78	0	78.92	0.0038	-0.1233	0
187	SLU 6	-3.46	-0.01	82.95	0.0076	-0.1536	0
187	SLU 7	-3.25	-0.01	82.48	0.0067	-0.1445	0
187	SLU 8	-3.55	-0.01	82.01	0.008	-0.1578	0
187	SLU 9	-3.34	-0.01	81.54	0.0071	-0.1487	0
187	SLU 10	-2.44	0	91.34	0.0006	-0.1062	0
187	SLU 11	-3.12	0	95.37	0.0044	-0.1365	0
187	SLU 12	-2.91	0	94.89	0.0035	-0.1274	0
187	SLU 13	-2.86	0	93.64	0.0034	-0.1255	0
187	SLU 14	-3.54	-0.01	97.67	0.0071	-0.1559	0
187	SLU 15	-3.33	-0.01	97.19	0.0063	-0.1468	0
187	SLU 16	-3.63	-0.01	96.73	0.0075	-0.1601	0
187	SLU 17	-3.42	-0.01	96.25	0.0067	-0.151	0
187	SLU 18	-2.82	0	98.44	0.0018	-0.1223	0
187	SLU 19	-2.61	0	97.96	0.001	-0.1132	0
187	SLU 20	-3.24	0	100.74	0.0046	-0.1417	0
187	SLU 21	-3.03	0	100.26	0.0037	-0.1326	0
187	SLU 22	-3.21	0	90.56	0.0032	-0.1412	0
187	SLU 23	-2.86	0	89.77	0.0018	-0.126	0
187	SLU 24	-3.54	-0.01	93.79	0.0056	-0.1563	0
187	SLU 25	-3.33	0	93.32	0.0048	-0.1472	0
187	SLU 26	-3.28	0	92.06	0.0046	-0.1454	0
187	SLU 27	-3.96	-0.01	96.09	0.0084	-0.1757	0
187	SLU 28	-3.75	-0.01	95.62	0.0075	-0.1666	0
187	SLU 29	-4.05	-0.01	95.15	0.0088	-0.1799	0
187	SLU 30	-3.84	-0.01	94.68	0.0079	-0.1708	0
187	SLU 31	-2.94	0	104.48	0.0014	-0.1282	0
187	SLU 32	-3.62	0	108.51	0.0052	-0.1586	0
187	SLU 33	-3.41	0	108.03	0.0043	-0.1495	0
187	SLU 34	-3.36	0	106.78	0.0042	-0.1476	0
187	SLU 35	-4.04	-0.01	110.81	0.0079	-0.1779	0
187	SLU 36	-3.83	-0.01	110.33	0.0071	-0.1688	0
187	SLU 37	-4.13	-0.01	109.87	0.0083	-0.1821	0
187	SLU 38	-3.92	-0.01	109.39	0.0075	-0.173	0
187	SLU 39	-3.32	0	111.58	0.0026	-0.1443	0
187	SLU 40	-3.11	0	111.1	0.0018	-0.1352	0
187	SLU 41	-3.74	0	113.88	0.0054	-0.1637	0
187	SLU 42	-3.53	0	113.4	0.0045	-0.1546	0
187	SLU 43	-3.35	0	96.14	0.0029	-0.1473	0
187	SLU 44	-3	0	95.35	0.0015	-0.1321	0
187	SLU 45	-3.68	0	99.38	0.0053	-0.1624	0
187	SLU 46	-3.47	0	98.9	0.0044	-0.1533	0
187	SLU 47	-3.42	0	97.64	0.0043	-0.1515	0
187	SLU 48	-4.1	-0.01	101.67	0.008	-0.1818	0
187	SLU 49	-3.89	-0.01	101.2	0.0072	-0.1727	0
187	SLU 50	-4.19	-0.01	100.74	0.0084	-0.186	0
187	SLU 51	-3.98	-0.01	100.26	0.0076	-0.1769	0
187	SLU 52	-3.08	0	110.06	0.001	-0.1343	0
187	SLU 53	-3.76	0	114.09	0.0048	-0.1646	0
187	SLU 54	-3.55	0	113.61	0.004	-0.1556	0
187	SLU 55	-3.5	0	112.36	0.0038	-0.1537	0
187	SLU 56	-4.18	-0.01	116.39	0.0076	-0.184	0
187	SLU 57	-3.97	-0.01	115.91	0.0068	-0.1749	0
187	SLU 58	-4.27	-0.01	115.45	0.008	-0.1882	0
187	SLU 59	-4.06	-0.01	114.97	0.0071	-0.1791	0
187	SLU 60	-3.46	0	117.16	0.0022	-0.1504	0
187	SLU 61	-3.25	0	116.68	0.0014	-0.1413	0
187	SLU 62	-3.88	0	119.46	0.005	-0.1698	0
187	SLU 63	-3.67	0	118.98	0.0042	-0.1607	0
187	SLU 64	-3.85	0	109.28	0.0037	-0.1693	0
187	SLU 65	-3.5	0	108.49	0.0023	-0.1542	0
187	SLU 66	-4.18	-0.01	112.52	0.0061	-0.1845	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
187	SLU 67	-3.97	-0.01	112.04	0.0052	-0.1754	0
187	SLU 68	-3.92	-0.01	110.78	0.0051	-0.1735	0
187	SLU 69	-4.6	-0.01	114.81	0.0088	-0.2039	0
187	SLU 70	-4.39	-0.01	114.34	0.008	-0.1948	0
187	SLU 71	-4.69	-0.01	113.88	0.0092	-0.2081	0
187	SLU 72	-4.48	-0.01	113.4	0.0084	-0.199	0
187	SLU 73	-3.58	0	123.2	0.0018	-0.1564	0
187	SLU 74	-4.26	-0.01	127.23	0.0056	-0.1867	0
187	SLU 75	-4.05	0	126.75	0.0048	-0.1776	0
187	SLU 76	-4	0	125.5	0.0046	-0.1758	0
187	SLU 77	-4.68	-0.01	129.53	0.0084	-0.2061	0
187	SLU 78	-4.47	-0.01	129.05	0.0076	-0.197	0
187	SLU 79	-4.77	-0.01	128.59	0.0088	-0.2103	0
187	SLU 80	-4.56	-0.01	128.11	0.0079	-0.2012	0
187	SLU 81	-3.96	0	130.3	0.003	-0.1725	0
187	SLU 82	-3.75	0	129.82	0.0022	-0.1634	0
187	SLU 83	-4.38	-0.01	132.6	0.0058	-0.1919	0
187	SLU 84	-4.17	0	132.12	0.005	-0.1828	0
187	SLE RA 1	-2.85	0	81.17	0.0027	-0.1254	0
187	SLE RA 2	-2.62	0	80.64	0.0017	-0.1153	0
187	SLE RA 3	-3.07	0	83.33	0.0042	-0.1355	0
187	SLE RA 4	-2.93	0	83.01	0.0037	-0.1294	0
187	SLE RA 5	-2.9	0	82.18	0.0036	-0.1282	0
187	SLE RA 6	-3.35	-0.01	84.86	0.0061	-0.1484	0
187	SLE RA 7	-3.21	-0.01	84.54	0.0055	-0.1424	0
187	SLE RA 8	-3.41	-0.01	84.24	0.0064	-0.1512	0
187	SLE RA 9	-3.27	-0.01	83.92	0.0058	-0.1452	0
187	SLE RA 10	-2.67	0	90.45	0.0014	-0.1168	0
187	SLE RA 11	-3.13	0	93.14	0.0039	-0.137	0
187	SLE RA 12	-2.99	0	92.82	0.0034	-0.1309	0
187	SLE RA 13	-2.95	0	91.99	0.0033	-0.1297	0
187	SLE RA 14	-3.41	-0.01	94.67	0.0058	-0.1499	0
187	SLE RA 15	-3.27	0	94.35	0.0052	-0.1438	0
187	SLE RA 16	-3.46	-0.01	94.05	0.0061	-0.1527	0
187	SLE RA 17	-3.32	-0.01	93.73	0.0055	-0.1466	0
187	SLE RA 18	-2.93	0	95.19	0.0022	-0.1275	0
187	SLE RA 19	-2.79	0	94.87	0.0017	-0.1215	0
187	SLE RA 20	-3.21	0	96.72	0.0041	-0.1404	0
187	SLE RA 21	-3.07	0	96.4	0.0035	-0.1344	0
187	SLE FR 1	-2.85	0	81.17	0.0027	-0.1254	0
187	SLE FR 2	-2.81	0	81.07	0.0025	-0.1234	0
187	SLE FR 3	-2.96	0	81.79	0.0034	-0.1306	0
187	SLE FR 4	-2.83	0	85.27	0.0023	-0.124	0
187	SLE FR 5	-2.99	0	85.99	0.0033	-0.1312	0
187	SLE FR 6	-2.89	0	88.18	0.0024	-0.1265	0
187	SLE QP 1	-2.85	0	81.17	0.0027	-0.1254	0
187	SLE QP 2	-2.87	0	85.38	0.0025	-0.126	0
187	SLD 1	8.49	0.17	69.23	-0.1187	0.445	0.0002
187	SLD 2	8.49	0.17	69.23	-0.1187	0.445	0.0002
187	SLD 3	9.37	0.03	72.09	-0.0185	0.4885	0
187	SLD 4	9.37	0.03	72.09	-0.0185	0.4885	0
187	SLD 5	-0.8	0.25	76.21	-0.1859	-0.0208	0.0003
187	SLD 6	-0.8	0.25	76.21	-0.1859	-0.0208	0.0003
187	SLD 7	2.13	-0.2	85.72	0.1483	0.1244	-0.0002
187	SLD 8	2.13	-0.2	85.72	0.1483	0.1244	-0.0002
187	SLD 9	-7.88	0.19	85.04	-0.1432	-0.3765	0.0003
187	SLD 10	-7.88	0.19	85.04	-0.1432	-0.3765	0.0003
187	SLD 11	-4.95	-0.26	94.55	0.1909	-0.2313	-0.0003
187	SLD 12	-4.95	-0.26	94.55	0.1909	-0.2313	-0.0003
187	SLD 13	-15.12	-0.04	98.67	0.0235	-0.7406	0
187	SLD 14	-15.12	-0.04	98.67	0.0235	-0.7406	0
187	SLD 15	-14.24	-0.17	101.52	0.1238	-0.697	-0.0002
187	SLD 16	-14.24	-0.17	101.52	0.1238	-0.697	-0.0002
187	SLV 1	23.7	0.4	47.39	-0.2871	1.2089	0.0005
187	SLV 2	23.7	0.4	47.39	-0.2871	1.2089	0.0005
187	SLV 3	25.8	0.07	54.33	-0.0443	1.3122	0.0001
187	SLV 4	25.8	0.07	54.33	-0.0443	1.3122	0.0001
187	SLV 5	1.93	0.61	63.45	-0.4527	0.1177	0.0008
187	SLV 6	1.93	0.61	63.45	-0.4527	0.1177	0.0008
187	SLV 7	8.9	-0.47	86.6	0.3568	0.4622	-0.0006
187	SLV 8	8.9	-0.47	86.6	0.3568	0.4622	-0.0006
187	SLV 9	-14.65	0.47	84.16	-0.3518	-0.7143	0.0006
187	SLV 10	-14.65	0.47	84.16	-0.3518	-0.7143	0.0006
187	SLV 11	-7.67	-0.62	107.31	0.4578	-0.3698	-0.0008
187	SLV 12	-7.67	-0.62	107.31	0.4578	-0.3698	-0.0008
187	SLV 13	-31.55	-0.08	116.42	0.0493	-1.5643	-0.0001
187	SLV 14	-31.55	-0.08	116.42	0.0493	-1.5643	-0.0001
187	SLV 15	-29.45	-0.41	123.37	0.2922	-1.461	-0.0005
187	SLV 16	-29.45	-0.41	123.37	0.2922	-1.461	-0.0005
188	SLU 1	-7.36	0	81.16	0.0013	-0.407	0
188	SLU 2	-7.07	0	80.4	0.0012	-0.3923	0
188	SLU 3	-7.83	0	84.67	0.0044	-0.4327	0
188	SLU 4	-7.65	-0.01	84.21	0.0043	-0.4239	0
188	SLU 5	-7.53	-0.01	82.99	0.0049	-0.4177	0
188	SLU 6	-8.3	-0.01	87.26	0.008	-0.4581	0
188	SLU 7	-8.12	-0.01	86.8	0.008	-0.4493	0
188	SLU 8	-8.3	-0.01	86.35	0.0086	-0.4578	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
188	SLU 9	-8.12	-0.01	85.89	0.0085	-0.449	0
188	SLU 10	-8.16	0	95.65	0.0005	-0.454	0
188	SLU 11	-8.93	0	99.91	0.0036	-0.4944	0
188	SLU 12	-8.75	0	99.46	0.0036	-0.4856	0
188	SLU 13	-8.63	0	98.24	0.0041	-0.4794	0
188	SLU 14	-9.4	-0.01	102.51	0.0073	-0.5198	0
188	SLU 15	-9.22	-0.01	102.05	0.0073	-0.511	0
188	SLU 16	-9.39	-0.01	101.59	0.0078	-0.5195	0
188	SLU 17	-9.21	-0.01	101.13	0.0078	-0.5107	0
188	SLU 18	-8.93	0	102.94	0.0002	-0.4951	0
188	SLU 19	-8.75	0	102.48	0.0002	-0.4863	0
188	SLU 20	-9.4	0	105.53	0.0039	-0.5206	0
188	SLU 21	-9.22	0	105.08	0.0038	-0.5118	0
188	SLU 22	-8.66	0	94.99	0.0021	-0.4787	0
188	SLU 23	-8.36	0	94.23	0.002	-0.464	0
188	SLU 24	-9.12	-0.01	98.5	0.0052	-0.5044	0
188	SLU 25	-8.95	-0.01	98.04	0.0051	-0.4956	0
188	SLU 26	-8.82	-0.01	96.82	0.0057	-0.4894	0
188	SLU 27	-9.59	-0.01	101.09	0.0088	-0.5298	0
188	SLU 28	-9.41	-0.01	100.64	0.0088	-0.521	0
188	SLU 29	-9.59	-0.01	100.18	0.0094	-0.5295	0
188	SLU 30	-9.41	-0.01	99.72	0.0093	-0.5207	0
188	SLU 31	-9.45	0	109.48	0.0013	-0.5257	0
188	SLU 32	-10.22	0	113.75	0.0044	-0.5661	0
188	SLU 33	-10.04	0	113.29	0.0044	-0.5573	0
188	SLU 34	-9.92	-0.01	112.07	0.0049	-0.5512	0
188	SLU 35	-10.69	-0.01	116.34	0.0081	-0.5915	0
188	SLU 36	-10.51	-0.01	115.88	0.0081	-0.5827	0
188	SLU 37	-10.68	-0.01	115.42	0.0086	-0.5912	0
188	SLU 38	-10.51	-0.01	114.97	0.0086	-0.5824	0
188	SLU 39	-10.22	0	116.77	0.001	-0.5669	0
188	SLU 40	-10.04	0	116.31	0.001	-0.5581	0
188	SLU 41	-10.69	0	119.36	0.0047	-0.5923	0
188	SLU 42	-10.51	0	118.91	0.0047	-0.5835	0
188	SLU 43	-9.13	0	100.77	0.0014	-0.5045	0
188	SLU 44	-8.83	0	100.01	0.0013	-0.4898	0
188	SLU 45	-9.6	0	104.27	0.0045	-0.5302	0
188	SLU 46	-9.42	0	103.82	0.0044	-0.5214	0
188	SLU 47	-9.3	-0.01	102.6	0.005	-0.5152	0
188	SLU 48	-10.06	-0.01	106.87	0.0081	-0.5556	0
188	SLU 49	-9.89	-0.01	106.41	0.0081	-0.5468	0
188	SLU 50	-10.06	-0.01	105.95	0.0087	-0.5553	0
188	SLU 51	-9.88	-0.01	105.5	0.0086	-0.5465	0
188	SLU 52	-9.93	0	115.25	0.0006	-0.5515	0
188	SLU 53	-10.7	0	119.52	0.0037	-0.5919	0
188	SLU 54	-10.52	0	119.06	0.0037	-0.5831	0
188	SLU 55	-10.4	0	117.84	0.0042	-0.5769	0
188	SLU 56	-11.16	-0.01	122.11	0.0074	-0.6173	0
188	SLU 57	-10.98	-0.01	121.66	0.0074	-0.6085	0
188	SLU 58	-11.16	-0.01	121.2	0.0079	-0.617	0
188	SLU 59	-10.98	-0.01	120.74	0.0079	-0.6082	0
188	SLU 60	-10.7	0	122.55	0.0003	-0.5927	0
188	SLU 61	-10.52	0	122.09	0.0003	-0.5839	0
188	SLU 62	-11.16	0	125.14	0.004	-0.6181	0
188	SLU 63	-10.98	0	124.68	0.004	-0.6093	0
188	SLU 64	-10.42	0	114.6	0.0022	-0.5762	0
188	SLU 65	-10.12	0	113.84	0.0021	-0.5615	0
188	SLU 66	-10.89	-0.01	118.11	0.0053	-0.6019	0
188	SLU 67	-10.71	-0.01	117.65	0.0053	-0.5931	0
188	SLU 68	-10.59	-0.01	116.43	0.0058	-0.5869	0
188	SLU 69	-11.36	-0.01	120.7	0.0089	-0.6273	0
188	SLU 70	-11.18	-0.01	120.24	0.0089	-0.6185	0
188	SLU 71	-11.35	-0.01	119.78	0.0095	-0.627	0
188	SLU 72	-11.18	-0.01	119.33	0.0094	-0.6182	0
188	SLU 73	-11.22	0	129.08	0.0014	-0.6233	0
188	SLU 74	-11.99	0	133.35	0.0046	-0.6636	0
188	SLU 75	-11.81	0	132.89	0.0045	-0.6548	0
188	SLU 76	-11.69	-0.01	131.67	0.0051	-0.6487	0
188	SLU 77	-12.45	-0.01	135.94	0.0082	-0.689	0
188	SLU 78	-12.28	-0.01	135.49	0.0082	-0.6802	0
188	SLU 79	-12.45	-0.01	135.03	0.0087	-0.6887	0
188	SLU 80	-12.27	-0.01	134.57	0.0087	-0.6799	0
188	SLU 81	-11.99	0	136.38	0.0011	-0.6644	0
188	SLU 82	-11.81	0	135.92	0.0011	-0.6556	0
188	SLU 83	-12.46	0	138.97	0.0048	-0.6898	0
188	SLU 84	-12.28	0	138.51	0.0048	-0.681	0
188	SLE RA 1	-7.73	0	85.11	0.0015	-0.4275	0
188	SLE RA 2	-7.53	0	84.6	0.0015	-0.4177	0
188	SLE RA 3	-8.05	0	87.45	0.0036	-0.4446	0
188	SLE RA 4	-7.93	0	87.15	0.0035	-0.4387	0
188	SLE RA 5	-7.84	0	86.33	0.0039	-0.4346	0
188	SLE RA 6	-8.36	-0.01	89.18	0.006	-0.4616	0
188	SLE RA 7	-8.24	-0.01	88.87	0.006	-0.4557	0
188	SLE RA 8	-8.35	-0.01	88.57	0.0064	-0.4614	0
188	SLE RA 9	-8.24	-0.01	88.26	0.0063	-0.4555	0
188	SLE RA 10	-8.27	0	94.77	0.001	-0.4588	0
188	SLE RA 11	-8.78	0	97.61	0.0031	-0.4858	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
188	SLE RA 12	-8.66	0	97.31	0.0031	-0.4799	0
188	SLE RA 13	-8.58	0	96.5	0.0034	-0.4758	0
188	SLE RA 14	-9.09	-0.01	99.34	0.0055	-0.5027	0
188	SLE RA 15	-8.97	-0.01	99.04	0.0055	-0.4968	0
188	SLE RA 16	-9.09	-0.01	98.73	0.0059	-0.5025	0
188	SLE RA 17	-8.97	-0.01	98.43	0.0059	-0.4966	0
188	SLE RA 18	-8.78	0	99.63	0.0008	-0.4862	0
188	SLE RA 19	-8.66	0	99.33	0.0008	-0.4804	0
188	SLE RA 20	-9.09	0	101.36	0.0032	-0.5032	0
188	SLE RA 21	-8.97	0	101.06	0.0032	-0.4973	0
188	SLE FR 1	-7.73	0	85.11	0.0015	-0.4275	0
188	SLE FR 2	-7.69	0	85.01	0.0015	-0.4255	0
188	SLE FR 3	-7.86	0	85.8	0.0025	-0.4342	0
188	SLE FR 4	-8.01	0	89.37	0.0013	-0.4431	0
188	SLE FR 5	-8.17	0	90.16	0.0023	-0.4519	0
188	SLE FR 6	-8.26	0	92.37	0.0012	-0.4569	0
188	SLE QP 1	-7.73	0	85.11	0.0015	-0.4275	0
188	SLE QP 2	-8.05	0	89.47	0.0013	-0.4451	0
188	SLD 1	1.36	0.06	59.15	-0.0507	0.1009	0.0002
188	SLD 2	1.36	0.06	59.15	-0.0507	0.1009	0.0002
188	SLD 3	2.06	0.02	62.32	-0.0124	0.1403	0
188	SLD 4	2.06	0.02	62.32	-0.0124	0.1403	0
188	SLD 5	-6.28	0.08	75.55	-0.0723	-0.3411	0.0003
188	SLD 6	-6.28	0.08	75.55	-0.0723	-0.3411	0.0003
188	SLD 7	-3.96	-0.06	86.14	0.0552	-0.2096	-0.0002
188	SLD 8	-3.96	-0.06	86.14	0.0552	-0.2096	-0.0002
188	SLD 9	-12.14	0.06	92.79	-0.0526	-0.6806	0.0002
188	SLD 10	-12.14	0.06	92.79	-0.0526	-0.6806	0.0002
188	SLD 11	-9.81	-0.08	103.38	0.0749	-0.5491	-0.0003
188	SLD 12	-9.81	-0.08	103.38	0.0749	-0.5491	-0.0003
188	SLD 13	-18.15	-0.02	116.61	0.015	-1.0306	0
188	SLD 14	-18.15	-0.02	116.61	0.015	-1.0306	0
188	SLD 15	-17.46	-0.06	119.79	0.0533	-0.9911	-0.0002
188	SLD 16	-17.46	-0.06	119.79	0.0533	-0.9911	-0.0002
188	SLV 1	13.95	0.15	18.34	-0.1215	0.8316	0.0004
188	SLV 2	13.95	0.15	18.34	-0.1215	0.8316	0.0004
188	SLV 3	15.62	0.05	26.02	-0.0305	0.9254	0
188	SLV 4	15.62	0.05	26.02	-0.0305	0.9254	0
188	SLV 5	-3.97	0.19	56.49	-0.1735	-0.2045	0.0007
188	SLV 6	-3.97	0.19	56.49	-0.1735	-0.2045	0.0007
188	SLV 7	1.58	-0.13	82.08	0.1297	0.1084	-0.0005
188	SLV 8	1.58	-0.13	82.08	0.1297	0.1084	-0.0005
188	SLV 9	-17.67	0.13	96.86	-0.1271	-0.9986	0.0005
188	SLV 10	-17.67	0.13	96.86	-0.1271	-0.9986	0.0005
188	SLV 11	-12.12	-0.19	122.45	0.1761	-0.6858	-0.0007
188	SLV 12	-12.12	-0.19	122.45	0.1761	-0.6858	-0.0007
188	SLV 13	-31.71	-0.05	152.92	0.0331	-1.8156	0
188	SLV 14	-31.71	-0.05	152.92	0.0331	-1.8156	0
188	SLV 15	-30.05	-0.15	160.6	0.1241	-1.7218	-0.0004
188	SLV 16	-30.05	-0.15	160.6	0.1241	-1.7218	-0.0004
189	SLU 1	-11.8	0	47.75	0	-0.2941	0
189	SLU 2	-11.59	0	47.21	0.0006	-0.2867	0.0001
189	SLU 3	-12.39	0	49.93	0.0017	-0.3105	0.0002
189	SLU 4	-12.27	0	49.61	0.0021	-0.3061	0.0003
189	SLU 5	-12.09	0	48.93	0.0026	-0.3018	0.0004
189	SLU 6	-12.89	0	51.65	0.0038	-0.3257	0.0006
189	SLU 7	-12.77	0	51.33	0.0042	-0.3213	0.0006
189	SLU 8	-12.8	0	51.17	0.0041	-0.3243	0.0006
189	SLU 9	-12.67	0	50.85	0.0045	-0.3199	0.0007
189	SLU 10	-13.67	0	55.98	0.0001	-0.3352	0
189	SLU 11	-14.47	0	58.7	0.0012	-0.359	0.0002
189	SLU 12	-14.35	0	58.38	0.0016	-0.3546	0.0002
189	SLU 13	-14.17	0	57.7	0.0022	-0.3503	0.0003
189	SLU 14	-14.97	0	60.42	0.0033	-0.3742	0.0005
189	SLU 15	-14.85	0	60.1	0.0037	-0.3697	0.0006
189	SLU 16	-14.88	0	59.94	0.0036	-0.3728	0.0005
189	SLU 17	-14.75	0	59.62	0.004	-0.3684	0.0006
189	SLU 18	-14.77	0.01	60.27	-0.0007	-0.3633	-0.0001
189	SLU 19	-14.65	0	59.95	-0.0003	-0.3589	-0.0001
189	SLU 20	-15.27	0	61.99	0.0014	-0.3785	0.0002
189	SLU 21	-15.15	0	61.67	0.0017	-0.3741	0.0003
189	SLU 22	-13.84	0	55.93	0.0003	-0.3454	0
189	SLU 23	-13.63	0	55.4	0.0009	-0.338	0.0001
189	SLU 24	-14.43	0	58.12	0.0021	-0.3619	0.0003
189	SLU 25	-14.31	0	57.8	0.0024	-0.3574	0.0004
189	SLU 26	-14.13	0	57.12	0.003	-0.3532	0.0005
189	SLU 27	-14.93	0	59.83	0.0041	-0.377	0.0006
189	SLU 28	-14.81	0	59.52	0.0045	-0.3726	0.0007
189	SLU 29	-14.84	0	59.36	0.0045	-0.3757	0.0007
189	SLU 30	-14.72	0	59.04	0.0048	-0.3713	0.0007
189	SLU 31	-15.71	0	64.17	0.0005	-0.3865	0.0001
189	SLU 32	-16.51	0	66.89	0.0016	-0.4103	0.0002
189	SLU 33	-16.39	0	66.57	0.002	-0.4059	0.0003
189	SLU 34	-16.21	0	65.88	0.0025	-0.4017	0.0004
189	SLU 35	-17.01	0	68.6	0.0037	-0.4255	0.0005
189	SLU 36	-16.89	0	68.28	0.004	-0.4211	0.0006
189	SLU 37	-16.92	0	68.13	0.004	-0.4242	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
189	SLU 38	-16.8	0	67.81	0.0043	-0.4197	0.0007
189	SLU 39	-16.81	0.01	68.46	-0.0004	-0.4147	-0.0001
189	SLU 40	-16.69	0	68.14	0	-0.4102	0
189	SLU 41	-17.31	0	70.17	0.0017	-0.4298	0.0002
189	SLU 42	-17.19	0	69.86	0.0021	-0.4254	0.0003
189	SLU 43	-14.64	0.01	59.26	-0.0001	-0.3647	-0.0001
189	SLU 44	-14.43	0	58.73	0.0005	-0.3573	0.0001
189	SLU 45	-15.23	0	61.45	0.0016	-0.3811	0.0002
189	SLU 46	-15.1	0	61.13	0.002	-0.3767	0.0003
189	SLU 47	-14.93	0	60.44	0.0025	-0.3725	0.0004
189	SLU 48	-15.73	0	63.16	0.0037	-0.3963	0.0005
189	SLU 49	-15.6	0	62.84	0.004	-0.3919	0.0006
189	SLU 50	-15.64	0	62.69	0.004	-0.395	0.0006
189	SLU 51	-15.51	0	62.37	0.0044	-0.3905	0.0007
189	SLU 52	-16.51	0	67.5	0	-0.4058	0
189	SLU 53	-17.31	0	70.22	0.0011	-0.4296	0.0001
189	SLU 54	-17.19	0	69.9	0.0015	-0.4252	0.0002
189	SLU 55	-17.01	0	69.21	0.002	-0.4209	0.0003
189	SLU 56	-17.81	0	71.93	0.0032	-0.4448	0.0005
189	SLU 57	-17.69	0	71.61	0.0035	-0.4404	0.0005
189	SLU 58	-17.72	0	71.46	0.0035	-0.4434	0.0005
189	SLU 59	-17.59	0	71.14	0.0039	-0.439	0.0006
189	SLU 60	-17.61	0.01	71.79	-0.0008	-0.4339	-0.0002
189	SLU 61	-17.49	0	71.47	-0.0005	-0.4295	-0.0001
189	SLU 62	-18.11	0	73.5	0.0012	-0.4491	0.0002
189	SLU 63	-17.99	0	73.18	0.0016	-0.4447	0.0002
189	SLU 64	-16.68	0.01	67.45	0.0002	-0.416	0
189	SLU 65	-16.47	0	66.92	0.0008	-0.4086	0.0001
189	SLU 66	-17.27	0	69.64	0.002	-0.4325	0.0003
189	SLU 67	-17.15	0	69.32	0.0023	-0.4281	0.0003
189	SLU 68	-16.97	0	68.63	0.0029	-0.4238	0.0004
189	SLU 69	-17.77	0	71.35	0.004	-0.4476	0.0006
189	SLU 70	-17.65	0	71.03	0.0044	-0.4432	0.0007
189	SLU 71	-17.68	0	70.88	0.0043	-0.4463	0.0006
189	SLU 72	-17.56	0	70.56	0.0047	-0.4419	0.0007
189	SLU 73	-18.55	0	75.69	0.0003	-0.4571	0
189	SLU 74	-19.35	0	78.41	0.0015	-0.481	0.0002
189	SLU 75	-19.23	0	78.09	0.0018	-0.4765	0.0003
189	SLU 76	-19.05	0	77.4	0.0024	-0.4723	0.0004
189	SLU 77	-19.85	0	80.12	0.0035	-0.4961	0.0005
189	SLU 78	-19.73	0	79.8	0.0039	-0.4917	0.0006
189	SLU 79	-19.76	0	79.65	0.0039	-0.4948	0.0006
189	SLU 80	-19.64	0	79.33	0.0042	-0.4904	0.0006
189	SLU 81	-19.65	0.01	79.98	-0.0005	-0.4853	-0.0001
189	SLU 82	-19.53	0	79.66	-0.0001	-0.4809	0
189	SLU 83	-20.15	0	81.69	0.0016	-0.5004	0.0002
189	SLU 84	-20.03	0	81.37	0.0019	-0.496	0.0003
189	SLE RA 1	-12.38	0	50.08	0.0001	-0.3087	0
189	SLE RA 2	-12.24	0	49.73	0.0005	-0.3038	0.0001
189	SLE RA 3	-12.78	0	51.54	0.0012	-0.3197	0.0002
189	SLE RA 4	-12.69	0	51.33	0.0015	-0.3168	0.0002
189	SLE RA 5	-12.58	0	50.87	0.0019	-0.3139	0.0003
189	SLE RA 6	-13.11	0	52.69	0.0026	-0.3298	0.0004
189	SLE RA 7	-13.03	0	52.47	0.0029	-0.3269	0.0004
189	SLE RA 8	-13.05	0	52.37	0.0028	-0.3289	0.0004
189	SLE RA 9	-12.97	0	52.16	0.0031	-0.326	0.0005
189	SLE RA 10	-13.63	0	55.58	0.0002	-0.3361	0
189	SLE RA 11	-14.16	0	57.39	0.0009	-0.352	0.0001
189	SLE RA 12	-14.08	0	57.18	0.0012	-0.3491	0.0002
189	SLE RA 13	-13.96	0	56.72	0.0015	-0.3462	0.0002
189	SLE RA 14	-14.5	0	58.53	0.0023	-0.3621	0.0003
189	SLE RA 15	-14.41	0	58.32	0.0025	-0.3592	0.0004
189	SLE RA 16	-14.44	0	58.22	0.0025	-0.3612	0.0004
189	SLE RA 17	-14.35	0	58	0.0028	-0.3583	0.0004
189	SLE RA 18	-14.36	0.01	58.44	-0.0004	-0.3549	-0.0001
189	SLE RA 19	-14.28	0	58.22	-0.0001	-0.352	0
189	SLE RA 20	-14.7	0	59.58	0.001	-0.365	0.0001
189	SLE RA 21	-14.61	0	59.37	0.0012	-0.3621	0.0002
189	SLE FR 1	-12.38	0	50.08	0.0001	-0.3087	0
189	SLE FR 2	-12.36	0	50.01	0.0002	-0.3077	0
189	SLE FR 3	-12.52	0	50.54	0.0006	-0.3128	0.0001
189	SLE FR 4	-12.95	0	52.52	0	-0.3216	0
189	SLE FR 5	-13.11	0	53.05	0.0005	-0.3266	0.0001
189	SLE FR 6	-13.37	0	54.26	-0.0001	-0.3318	0
189	SLE QP 1	-12.38	0	50.08	0.0001	-0.3087	0
189	SLE QP 2	-12.98	0	52.59	-0.0001	-0.3226	0
189	SLD 1	-4.05	-0.25	25.8	-0.0258	-0.0178	-0.0056
189	SLD 2	-4.05	-0.25	25.8	-0.0258	-0.0178	-0.0056
189	SLD 3	-4.68	-0.02	27.93	0.0008	0.004	0
189	SLD 4	-4.68	-0.02	27.93	0.0008	0.004	0
189	SLD 5	-9.33	-0.43	41.31	-0.0481	-0.2642	-0.0103
189	SLD 6	-9.33	-0.43	41.31	-0.0481	-0.2642	-0.0103
189	SLD 7	-11.45	0.36	48.43	0.0406	-0.1916	0.0086
189	SLD 8	-11.45	0.36	48.43	0.0406	-0.1916	0.0086
189	SLD 9	-14.5	-0.35	56.75	-0.0407	-0.4536	-0.0086
189	SLD 10	-14.5	-0.35	56.75	-0.0407	-0.4536	-0.0086
189	SLD 11	-16.62	0.44	63.87	0.048	-0.381	0.0102



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
189	SLD 12	-16.62	0.44	63.87	0.048	-0.381	0.0102
189	SLD 13	-21.27	0.03	77.25	-0.0009	-0.6492	-0.0001
189	SLD 14	-21.27	0.03	77.25	-0.0009	-0.6492	-0.0001
189	SLD 15	-21.91	0.26	79.38	0.0257	-0.6274	0.0056
189	SLD 16	-21.91	0.26	79.38	0.0257	-0.6274	0.0056
189	SLV 1	7.94	-0.62	-10.19	-0.0618	0.3902	-0.0135
189	SLV 2	7.94	-0.62	-10.19	-0.0618	0.3902	-0.0135
189	SLV 3	6.42	-0.04	-5.07	0.0023	0.442	0.0002
189	SLV 4	6.42	-0.04	-5.07	0.0023	0.442	0.0002
189	SLV 5	-4.4	-1.06	25.98	-0.1159	-0.1873	-0.0248
189	SLV 6	-4.4	-1.06	25.98	-0.1159	-0.1873	-0.0248
189	SLV 7	-9.46	0.87	43.06	0.098	-0.0146	0.0208
189	SLV 8	-9.46	0.87	43.06	0.098	-0.0146	0.0208
189	SLV 9	-16.49	-0.86	62.12	-0.0981	-0.6305	-0.0209
189	SLV 10	-16.49	-0.86	62.12	-0.0981	-0.6305	-0.0209
189	SLV 11	-21.56	1.07	79.2	0.1158	-0.4579	0.0248
189	SLV 12	-21.56	1.07	79.2	0.1158	-0.4579	0.0248
189	SLV 13	-32.38	0.05	110.25	-0.0024	-1.0872	-0.0003
189	SLV 14	-32.38	0.05	110.25	-0.0024	-1.0872	-0.0003
189	SLV 15	-33.9	0.62	115.37	0.0617	-1.0354	0.0134
189	SLV 16	-33.9	0.62	115.37	0.0617	-1.0354	0.0134
190	SLU 1	7.49	-0.11	33.97	0.0219	0.025	-0.0047
190	SLU 2	7.62	-0.11	34.38	0.0228	0.0276	-0.0049
190	SLU 3	7.67	-0.11	34.88	0.0222	0.0231	-0.0048
190	SLU 4	7.74	-0.11	35.13	0.0228	0.0246	-0.0049
190	SLU 5	7.66	-0.11	34.71	0.0229	0.0245	-0.0049
190	SLU 6	7.7	-0.11	35.21	0.0222	0.02	-0.0048
190	SLU 7	7.78	-0.12	35.46	0.0228	0.0215	-0.005
190	SLU 8	7.57	-0.11	34.63	0.0219	0.0188	-0.0048
190	SLU 9	7.65	-0.11	34.88	0.0225	0.0204	-0.0049
190	SLU 10	9.14	-0.13	41.26	0.0273	0.0335	-0.0059
190	SLU 11	9.19	-0.13	41.76	0.0267	0.0289	-0.0058
190	SLU 12	9.26	-0.14	42	0.0273	0.0305	-0.0059
190	SLU 13	9.18	-0.14	41.59	0.0274	0.0304	-0.0059
190	SLU 14	9.23	-0.14	42.09	0.0268	0.0258	-0.0058
190	SLU 15	9.3	-0.14	42.33	0.0273	0.0274	-0.0059
190	SLU 16	9.09	-0.13	41.51	0.0264	0.0247	-0.0058
190	SLU 17	9.17	-0.14	41.75	0.027	0.0262	-0.0059
190	SLU 18	9.67	-0.14	43.79	0.0283	0.0334	-0.0061
190	SLU 19	9.74	-0.14	44.04	0.0289	0.0349	-0.0062
190	SLU 20	9.71	-0.14	44.12	0.0283	0.0303	-0.0062
190	SLU 21	9.78	-0.14	44.37	0.0289	0.0318	-0.0063
190	SLU 22	8.6	-0.12	39.15	0.0247	0.0253	-0.0053
190	SLU 23	8.72	-0.13	39.56	0.0256	0.0278	-0.0055
190	SLU 24	8.77	-0.13	40.05	0.025	0.0233	-0.0054
190	SLU 25	8.84	-0.13	40.3	0.0256	0.0248	-0.0056
190	SLU 26	8.76	-0.13	39.89	0.0257	0.0247	-0.0056
190	SLU 27	8.81	-0.13	40.38	0.0251	0.0202	-0.0055
190	SLU 28	8.88	-0.13	40.63	0.0256	0.0218	-0.0056
190	SLU 29	8.67	-0.13	39.81	0.0248	0.0191	-0.0054
190	SLU 30	8.75	-0.13	40.05	0.0253	0.0206	-0.0055
190	SLU 31	10.24	-0.15	46.43	0.0301	0.0337	-0.0065
190	SLU 32	10.29	-0.15	46.93	0.0295	0.0291	-0.0064
190	SLU 33	10.36	-0.15	47.17	0.0301	0.0307	-0.0065
190	SLU 34	10.28	-0.15	46.76	0.0302	0.0306	-0.0066
190	SLU 35	10.33	-0.15	47.26	0.0296	0.026	-0.0065
190	SLU 36	10.4	-0.15	47.5	0.0301	0.0276	-0.0066
190	SLU 37	10.19	-0.15	46.68	0.0293	0.0249	-0.0064
190	SLU 38	10.27	-0.15	46.93	0.0298	0.0264	-0.0065
190	SLU 39	10.77	-0.16	48.97	0.0311	0.0336	-0.0067
190	SLU 40	10.85	-0.16	49.21	0.0317	0.0351	-0.0069
190	SLU 41	10.81	-0.16	49.3	0.0312	0.0305	-0.0068
190	SLU 42	10.88	-0.16	49.54	0.0317	0.032	-0.0069
190	SLU 43	9.36	-0.13	42.39	0.0275	0.0325	-0.0059
190	SLU 44	9.49	-0.14	42.8	0.0284	0.0351	-0.0061
190	SLU 45	9.54	-0.14	43.3	0.0278	0.0305	-0.006
190	SLU 46	9.61	-0.14	43.55	0.0284	0.0321	-0.0061
190	SLU 47	9.53	-0.14	43.13	0.0285	0.032	-0.0061
190	SLU 48	9.57	-0.14	43.63	0.0278	0.0274	-0.006
190	SLU 49	9.65	-0.14	43.88	0.0284	0.029	-0.0062
190	SLU 50	9.44	-0.14	43.05	0.0275	0.0263	-0.006
190	SLU 51	9.52	-0.14	43.3	0.0281	0.0278	-0.0061
190	SLU 52	11.01	-0.16	49.68	0.0329	0.0409	-0.0071
190	SLU 53	11.06	-0.16	50.17	0.0323	0.0363	-0.007
190	SLU 54	11.13	-0.16	50.42	0.0329	0.0379	-0.0071
190	SLU 55	11.05	-0.16	50.01	0.033	0.0378	-0.0071
190	SLU 56	11.1	-0.16	50.5	0.0323	0.0332	-0.007
190	SLU 57	11.17	-0.16	50.75	0.0329	0.0348	-0.0071
190	SLU 58	10.96	-0.16	49.93	0.032	0.0321	-0.007
190	SLU 59	11.04	-0.16	50.17	0.0326	0.0337	-0.0071
190	SLU 60	11.54	-0.17	52.21	0.0339	0.0408	-0.0073
190	SLU 61	11.61	-0.17	52.46	0.0345	0.0424	-0.0074
190	SLU 62	11.58	-0.17	52.54	0.0339	0.0377	-0.0074
190	SLU 63	11.65	-0.17	52.79	0.0345	0.0393	-0.0075
190	SLU 64	10.47	-0.15	47.57	0.0303	0.0327	-0.0065
190	SLU 65	10.59	-0.15	47.98	0.0312	0.0353	-0.0067
190	SLU 66	10.64	-0.15	48.47	0.0306	0.0307	-0.0066



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
190	SLU 67	10.71	-0.15	48.72	0.0312	0.0323	-0.0068
190	SLU 68	10.63	-0.16	48.31	0.0313	0.0322	-0.0068
190	SLU 69	10.68	-0.16	48.8	0.0307	0.0276	-0.0067
190	SLU 70	10.75	-0.16	49.05	0.0312	0.0292	-0.0068
190	SLU 71	10.54	-0.15	48.23	0.0304	0.0265	-0.0066
190	SLU 72	10.62	-0.16	48.47	0.0309	0.028	-0.0067
190	SLU 73	12.11	-0.18	54.85	0.0357	0.0411	-0.0077
190	SLU 74	12.16	-0.18	55.35	0.0351	0.0366	-0.0076
190	SLU 75	12.23	-0.18	55.59	0.0357	0.0381	-0.0077
190	SLU 76	12.15	-0.18	55.18	0.0358	0.038	-0.0078
190	SLU 77	12.2	-0.18	55.68	0.0352	0.0335	-0.0077
190	SLU 78	12.27	-0.18	55.92	0.0357	0.035	-0.0078
190	SLU 79	12.07	-0.18	55.1	0.0349	0.0323	-0.0076
190	SLU 80	12.14	-0.18	55.35	0.0354	0.0339	-0.0077
190	SLU 81	12.64	-0.18	57.38	0.0367	0.041	-0.008
190	SLU 82	12.72	-0.18	57.63	0.0373	0.0426	-0.0081
190	SLU 83	12.68	-0.18	57.71	0.0367	0.0379	-0.008
190	SLU 84	12.75	-0.19	57.96	0.0373	0.0395	-0.0081
190	SLE RA 1	7.81	-0.11	35.45	0.0227	0.0251	-0.0049
190	SLE RA 2	7.89	-0.11	35.73	0.0233	0.0268	-0.005
190	SLE RA 3	7.92	-0.11	36.06	0.0229	0.0238	-0.005
190	SLE RA 4	7.97	-0.12	36.22	0.0233	0.0248	-0.005
190	SLE RA 5	7.92	-0.12	35.95	0.0233	0.0248	-0.005
190	SLE RA 6	7.95	-0.12	36.28	0.0229	0.0217	-0.005
190	SLE RA 7	8	-0.12	36.44	0.0233	0.0228	-0.0051
190	SLE RA 8	7.86	-0.11	35.89	0.0227	0.021	-0.0049
190	SLE RA 9	7.91	-0.12	36.06	0.0231	0.022	-0.005
190	SLE RA 10	8.91	-0.13	40.31	0.0263	0.0307	-0.0057
190	SLE RA 11	8.94	-0.13	40.64	0.0259	0.0277	-0.0056
190	SLE RA 12	8.99	-0.13	40.8	0.0263	0.0287	-0.0057
190	SLE RA 13	8.93	-0.13	40.53	0.0263	0.0286	-0.0057
190	SLE RA 14	8.96	-0.13	40.86	0.0259	0.0256	-0.0056
190	SLE RA 15	9.01	-0.13	41.02	0.0263	0.0267	-0.0057
190	SLE RA 16	8.87	-0.13	40.47	0.0257	0.0249	-0.0056
190	SLE RA 17	8.92	-0.13	40.64	0.0261	0.0259	-0.0057
190	SLE RA 18	9.26	-0.13	42	0.027	0.0307	-0.0058
190	SLE RA 19	9.31	-0.13	42.16	0.0273	0.0317	-0.0059
190	SLE RA 20	9.28	-0.13	42.22	0.027	0.0286	-0.0059
190	SLE RA 21	9.33	-0.14	42.38	0.0274	0.0296	-0.0059
190	SLE FR 1	7.81	-0.11	35.45	0.0227	0.0251	-0.0049
190	SLE FR 2	7.83	-0.11	35.51	0.0228	0.0254	-0.0049
190	SLE FR 3	7.82	-0.11	35.54	0.0227	0.0243	-0.0049
190	SLE FR 4	8.26	-0.12	37.47	0.0241	0.0271	-0.0052
190	SLE FR 5	8.25	-0.12	37.5	0.024	0.0259	-0.0052
190	SLE FR 6	8.53	-0.12	38.73	0.0248	0.0279	-0.0054
190	SLE QP 1	7.81	-0.11	35.45	0.0227	0.0251	-0.0049
190	SLE QP 2	8.24	-0.12	37.42	0.024	0.0268	-0.0052
190	SLD 1	9.27	-0.39	30.56	0.0506	0.1166	-0.0126
190	SLD 2	9.27	-0.39	30.56	0.0506	0.1166	-0.0126
190	SLD 3	10.4	-0.46	34.64	0.0613	0.1333	-0.0151
190	SLD 4	10.4	-0.46	34.64	0.0613	0.1333	-0.0151
190	SLD 5	6.84	-0.09	29.18	0.0157	0.0283	-0.0036
190	SLD 6	6.84	-0.09	29.18	0.0157	0.0283	-0.0036
190	SLD 7	10.6	-0.32	42.77	0.0514	0.0841	-0.0119
190	SLD 8	10.6	-0.32	42.77	0.0514	0.0841	-0.0119
190	SLD 9	5.88	0.09	32.07	-0.0035	-0.0306	0.0016
190	SLD 10	5.88	0.09	32.07	-0.0035	-0.0306	0.0016
190	SLD 11	9.65	-0.14	45.66	0.0322	0.0252	-0.0067
190	SLD 12	9.65	-0.14	45.66	0.0322	0.0252	-0.0067
190	SLD 13	6.09	0.22	40.19	-0.0134	-0.0798	0.0047
190	SLD 14	6.09	0.22	40.19	-0.0134	-0.0798	0.0047
190	SLD 15	7.22	0.15	44.27	-0.0027	-0.0631	0.0022
190	SLD 16	7.22	0.15	44.27	-0.0027	-0.0631	0.0022
190	SLV 1	10.62	-0.79	21.33	0.0911	0.2366	-0.0239
190	SLV 2	10.62	-0.79	21.33	0.0911	0.2366	-0.0239
190	SLV 3	13.29	-0.96	31	0.1166	0.2761	-0.0298
190	SLV 4	13.29	-0.96	31	0.1166	0.2761	-0.0298
190	SLV 5	4.9	-0.07	17.91	0.0055	0.0298	-0.0017
190	SLV 6	4.9	-0.07	17.91	0.0055	0.0298	-0.0017
190	SLV 7	13.82	-0.62	50.17	0.0903	0.1615	-0.0216
190	SLV 8	13.82	-0.62	50.17	0.0903	0.1615	-0.0216
190	SLV 9	2.67	0.39	24.66	-0.0424	-0.1079	0.0113
190	SLV 10	2.67	0.39	24.66	-0.0424	-0.1079	0.0113
190	SLV 11	11.59	-0.17	56.92	0.0424	0.0237	-0.0086
190	SLV 12	11.59	-0.17	56.92	0.0424	0.0237	-0.0086
190	SLV 13	3.19	0.72	43.83	-0.0686	-0.2226	0.0195
190	SLV 14	3.19	0.72	43.83	-0.0686	-0.2226	0.0195
190	SLV 15	5.87	0.55	53.51	-0.0432	-0.1831	0.0135
190	SLV 16	5.87	0.55	53.51	-0.0432	-0.1831	0.0135
191	SLU 1	0.26	-13.91	91.03	0.278	-0.0503	-0.0018
191	SLU 2	0.29	-14.31	92.12	0.2938	-0.049	-0.0019
191	SLU 3	0.26	-14.17	93.77	0.2773	-0.0548	-0.0019
191	SLU 4	0.28	-14.41	94.43	0.2868	-0.054	-0.0019
191	SLU 5	0.29	-14.35	93.47	0.2885	-0.0535	-0.0019
191	SLU 6	0.26	-14.21	95.11	0.272	-0.0593	-0.0019
191	SLU 7	0.28	-14.45	95.77	0.2815	-0.0585	-0.0019
191	SLU 8	0.26	-13.99	93.72	0.2674	-0.0594	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
191	SLU 9	0.28	-14.23	94.38	0.2769	-0.0586	-0.0019
191	SLU 10	0.33	-17.09	110.28	0.3489	-0.0579	-0.0022
191	SLU 11	0.3	-16.95	111.93	0.3323	-0.0637	-0.0022
191	SLU 12	0.32	-17.19	112.58	0.3419	-0.0629	-0.0023
191	SLU 13	0.33	-17.13	111.63	0.3436	-0.0625	-0.0023
191	SLU 14	0.3	-16.99	113.27	0.327	-0.0682	-0.0022
191	SLU 15	0.32	-17.23	113.93	0.3366	-0.0674	-0.0023
191	SLU 16	0.3	-16.77	111.88	0.3224	-0.0683	-0.0022
191	SLU 17	0.32	-17.01	112.54	0.3319	-0.0675	-0.0022
191	SLU 18	0.32	-17.88	116.97	0.3566	-0.0631	-0.0023
191	SLU 19	0.33	-18.12	117.63	0.3661	-0.0623	-0.0024
191	SLU 20	0.32	-17.92	118.32	0.3513	-0.0676	-0.0024
191	SLU 21	0.33	-18.16	118.97	0.3608	-0.0668	-0.0024
191	SLU 22	0.28	-15.88	105.24	0.3091	-0.0618	-0.0021
191	SLU 23	0.31	-16.28	106.33	0.325	-0.0605	-0.0021
191	SLU 24	0.29	-16.14	107.98	0.3084	-0.0662	-0.0021
191	SLU 25	0.3	-16.38	108.64	0.318	-0.0655	-0.0021
191	SLU 26	0.31	-16.32	107.68	0.3197	-0.065	-0.0021
191	SLU 27	0.28	-16.18	109.33	0.3032	-0.0708	-0.0021
191	SLU 28	0.3	-16.42	109.98	0.3127	-0.07	-0.0021
191	SLU 29	0.28	-15.96	107.93	0.2985	-0.0709	-0.0021
191	SLU 30	0.3	-16.2	108.59	0.308	-0.0701	-0.0021
191	SLU 31	0.35	-19.06	124.49	0.38	-0.0694	-0.0025
191	SLU 32	0.32	-18.92	126.14	0.3635	-0.0752	-0.0025
191	SLU 33	0.34	-19.16	126.8	0.373	-0.0744	-0.0025
191	SLU 34	0.35	-19.1	125.84	0.3747	-0.0739	-0.0025
191	SLU 35	0.32	-18.96	127.49	0.3582	-0.0797	-0.0025
191	SLU 36	0.34	-19.2	128.14	0.3677	-0.0789	-0.0025
191	SLU 37	0.32	-18.74	126.09	0.3536	-0.0798	-0.0025
191	SLU 38	0.34	-18.98	126.75	0.3631	-0.079	-0.0025
191	SLU 39	0.34	-19.85	131.18	0.3878	-0.0746	-0.0026
191	SLU 40	0.36	-20.09	131.84	0.3973	-0.0738	-0.0026
191	SLU 41	0.34	-19.89	132.53	0.3825	-0.0791	-0.0026
191	SLU 42	0.35	-20.13	133.18	0.392	-0.0783	-0.0026
191	SLU 43	0.33	-17.41	113.46	0.3507	-0.0615	-0.0023
191	SLU 44	0.36	-17.81	114.56	0.3665	-0.0602	-0.0023
191	SLU 45	0.33	-17.67	116.2	0.35	-0.0659	-0.0023
191	SLU 46	0.35	-17.91	116.86	0.3595	-0.0651	-0.0023
191	SLU 47	0.36	-17.85	115.9	0.3612	-0.0647	-0.0023
191	SLU 48	0.33	-17.71	117.55	0.3447	-0.0704	-0.0023
191	SLU 49	0.35	-17.95	118.21	0.3542	-0.0697	-0.0024
191	SLU 50	0.33	-17.49	116.16	0.3401	-0.0706	-0.0023
191	SLU 51	0.35	-17.73	116.81	0.3496	-0.0698	-0.0023
191	SLU 52	0.4	-20.59	132.72	0.4216	-0.0691	-0.0027
191	SLU 53	0.37	-20.45	134.36	0.4051	-0.0748	-0.0027
191	SLU 54	0.39	-20.69	135.02	0.4146	-0.074	-0.0027
191	SLU 55	0.4	-20.63	134.06	0.4163	-0.0736	-0.0027
191	SLU 56	0.37	-20.49	135.71	0.3998	-0.0794	-0.0027
191	SLU 57	0.39	-20.73	136.37	0.4093	-0.0786	-0.0027
191	SLU 58	0.37	-20.27	134.32	0.3951	-0.0795	-0.0027
191	SLU 59	0.39	-20.51	134.97	0.4047	-0.0787	-0.0027
191	SLU 60	0.39	-21.38	139.41	0.4293	-0.0742	-0.0028
191	SLU 61	0.4	-21.62	140.06	0.4388	-0.0735	-0.0028
191	SLU 62	0.39	-21.42	140.75	0.424	-0.0788	-0.0028
191	SLU 63	0.4	-21.66	141.41	0.4335	-0.078	-0.0029
191	SLU 64	0.36	-19.38	127.68	0.3818	-0.073	-0.0025
191	SLU 65	0.38	-19.78	128.77	0.3977	-0.0717	-0.0026
191	SLU 66	0.36	-19.64	130.42	0.3812	-0.0774	-0.0026
191	SLU 67	0.37	-19.88	131.07	0.3907	-0.0766	-0.0026
191	SLU 68	0.38	-19.82	130.12	0.3924	-0.0762	-0.0026
191	SLU 69	0.36	-19.68	131.76	0.3759	-0.0819	-0.0026
191	SLU 70	0.37	-19.92	132.42	0.3854	-0.0811	-0.0026
191	SLU 71	0.35	-19.46	130.37	0.3712	-0.082	-0.0026
191	SLU 72	0.37	-19.7	131.02	0.3808	-0.0812	-0.0026
191	SLU 73	0.42	-22.56	146.93	0.4527	-0.0806	-0.0029
191	SLU 74	0.39	-22.42	148.58	0.4362	-0.0863	-0.0029
191	SLU 75	0.41	-22.66	149.23	0.4457	-0.0855	-0.003
191	SLU 76	0.42	-22.6	148.28	0.4475	-0.0851	-0.003
191	SLU 77	0.39	-22.46	149.92	0.4309	-0.0909	-0.0029
191	SLU 78	0.41	-22.7	150.58	0.4404	-0.0901	-0.003
191	SLU 79	0.39	-22.24	148.53	0.4263	-0.091	-0.0029
191	SLU 80	0.41	-22.48	149.18	0.4358	-0.0902	-0.003
191	SLU 81	0.41	-23.35	153.62	0.4605	-0.0857	-0.0031
191	SLU 82	0.43	-23.59	154.27	0.47	-0.0849	-0.0031
191	SLU 83	0.41	-23.39	154.96	0.4552	-0.0903	-0.0031
191	SLU 84	0.43	-23.63	155.62	0.4647	-0.0895	-0.0031
191	SLE RA 1	0.27	-14.48	95.09	0.2869	-0.0536	-0.0019
191	SLE RA 2	0.29	-14.74	95.82	0.2974	-0.0527	-0.0019
191	SLE RA 3	0.27	-14.65	96.92	0.2864	-0.0566	-0.0019
191	SLE RA 4	0.28	-14.81	97.35	0.2928	-0.056	-0.0019
191	SLE RA 5	0.29	-14.77	96.72	0.2939	-0.0558	-0.0019
191	SLE RA 6	0.27	-14.67	97.81	0.2829	-0.0596	-0.0019
191	SLE RA 7	0.28	-14.83	98.25	0.2892	-0.0591	-0.0019
191	SLE RA 8	0.27	-14.53	96.88	0.2798	-0.0597	-0.0019
191	SLE RA 9	0.28	-14.69	97.32	0.2862	-0.0591	-0.0019
191	SLE RA 10	0.31	-16.59	107.92	0.3341	-0.0587	-0.0022
191	SLE RA 11	0.29	-16.5	109.02	0.3231	-0.0625	-0.0022



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
191	SLE RA 12	0.31	-16.66	109.46	0.3295	-0.062	-0.0022
191	SLE RA 13	0.31	-16.62	108.82	0.3306	-0.0617	-0.0022
191	SLE RA 14	0.29	-16.53	109.92	0.3196	-0.0655	-0.0022
191	SLE RA 15	0.31	-16.69	110.36	0.3259	-0.065	-0.0022
191	SLE RA 16	0.29	-16.38	108.99	0.3165	-0.0656	-0.0022
191	SLE RA 17	0.3	-16.54	109.43	0.3229	-0.0651	-0.0022
191	SLE RA 18	0.3	-17.12	112.38	0.3393	-0.0621	-0.0022
191	SLE RA 19	0.32	-17.28	112.82	0.3456	-0.0616	-0.0023
191	SLE RA 20	0.3	-17.15	113.28	0.3358	-0.0651	-0.0023
191	SLE RA 21	0.32	-17.31	113.72	0.3421	-0.0646	-0.0023
191	SLE FR 1	0.27	-14.48	95.09	0.2869	-0.0536	-0.0019
191	SLE FR 2	0.27	-14.53	95.23	0.289	-0.0534	-0.0019
191	SLE FR 3	0.27	-14.49	95.45	0.2855	-0.0548	-0.0019
191	SLE FR 4	0.28	-15.32	100.42	0.3047	-0.056	-0.002
191	SLE FR 5	0.28	-15.28	100.64	0.3012	-0.0574	-0.002
191	SLE FR 6	0.29	-15.8	103.74	0.3131	-0.0579	-0.0021
191	SLE QP 1	0.27	-14.48	95.09	0.2869	-0.0536	-0.0019
191	SLE QP 2	0.28	-15.27	100.28	0.3026	-0.0562	-0.002
191	SLD 1	-0.66	-11.45	79.77	0.1877	0.0688	0.0001
191	SLD 2	-0.66	-11.45	79.77	0.1877	0.0688	0.0001
191	SLD 3	-0.42	-15.04	91.66	0.3182	0.0767	-0.0004
191	SLD 4	-0.42	-15.04	91.66	0.3182	0.0767	-0.0004
191	SLD 5	-0.36	-8.69	76.09	0.0703	-0.0306	-0.0007
191	SLD 6	-0.36	-8.69	76.09	0.0703	-0.0306	-0.0007
191	SLD 7	0.43	-20.64	115.72	0.5052	-0.0044	-0.0022
191	SLD 8	0.43	-20.64	115.72	0.5052	-0.0044	-0.0022
191	SLD 9	0.13	-9.9	84.83	0.1	-0.1079	-0.0018
191	SLD 10	0.13	-9.9	84.83	0.1	-0.1079	-0.0018
191	SLD 11	0.92	-21.85	124.46	0.5349	-0.0818	-0.0033
191	SLD 12	0.92	-21.85	124.46	0.5349	-0.0818	-0.0033
191	SLD 13	0.98	-15.5	108.9	0.287	-0.189	-0.0036
191	SLD 14	0.98	-15.5	108.9	0.287	-0.189	-0.0036
191	SLD 15	1.22	-19.09	120.79	0.4175	-0.1812	-0.0041
191	SLD 16	1.22	-19.09	120.79	0.4175	-0.1812	-0.0041
191	SLV 1	-1.92	-6.27	51.97	0.0312	0.2361	0.0032
191	SLV 2	-1.92	-6.27	51.97	0.0312	0.2361	0.0032
191	SLV 3	-1.36	-14.72	80.13	0.3381	0.2546	0.0021
191	SLV 4	-1.36	-14.72	80.13	0.3381	0.2546	0.0021
191	SLV 5	-1.22	0.25	43.09	-0.2442	0.0035	0.0013
191	SLV 6	-1.22	0.25	43.09	-0.2442	0.0035	0.0013
191	SLV 7	0.63	-27.92	136.93	0.7787	0.0651	-0.0025
191	SLV 8	0.63	-27.92	136.93	0.7787	0.0651	-0.0025
191	SLV 9	-0.07	-2.62	63.62	-0.1735	-0.1775	-0.0015
191	SLV 10	-0.07	-2.62	63.62	-0.1735	-0.1775	-0.0015
191	SLV 11	1.78	-30.79	157.47	0.8494	-0.1158	-0.0053
191	SLV 12	1.78	-30.79	157.47	0.8494	-0.1158	-0.0053
191	SLV 13	1.92	-15.82	120.43	0.2671	-0.367	-0.0061
191	SLV 14	1.92	-15.82	120.43	0.2671	-0.367	-0.0061
191	SLV 15	2.48	-24.27	148.58	0.574	-0.3485	-0.0072
191	SLV 16	2.48	-24.27	148.58	0.574	-0.3485	-0.0072
192	SLU 1	-8.97	0.02	24.09	0.0071	-0.0644	0.002
192	SLU 2	-9.05	0.02	24.3	0.0076	-0.065	0.0022
192	SLU 3	-9.28	0.02	24.92	0.007	-0.0668	0.002
192	SLU 4	-9.33	0.02	25.05	0.0073	-0.0672	0.0021
192	SLU 5	-9.24	0.02	24.8	0.0073	-0.0667	0.0021
192	SLU 6	-9.46	0.03	25.42	0.0067	-0.0685	0.0019
192	SLU 7	-9.51	0.03	25.55	0.007	-0.0689	0.002
192	SLU 8	-9.34	0.03	25.09	0.0065	-0.0678	0.0018
192	SLU 9	-9.39	0.03	25.22	0.0068	-0.0681	0.0019
192	SLU 10	-10.83	0.03	29.05	0.009	-0.0774	0.0026
192	SLU 11	-11.05	0.03	29.67	0.0083	-0.0793	0.0024
192	SLU 12	-11.1	0.03	29.8	0.0086	-0.0797	0.0024
192	SLU 13	-11.01	0.03	29.55	0.0087	-0.0792	0.0025
192	SLU 14	-11.24	0.03	30.17	0.008	-0.081	0.0023
192	SLU 15	-11.29	0.03	30.3	0.0083	-0.0814	0.0023
192	SLU 16	-11.11	0.03	29.84	0.0079	-0.0803	0.0022
192	SLU 17	-11.16	0.03	29.97	0.0082	-0.0806	0.0023
192	SLU 18	-11.51	0.03	30.87	0.009	-0.0822	0.0026
192	SLU 19	-11.56	0.03	31	0.0093	-0.0826	0.0027
192	SLU 20	-11.69	0.03	31.37	0.0087	-0.0839	0.0025
192	SLU 21	-11.74	0.03	31.5	0.009	-0.0843	0.0026
192	SLU 22	-10.42	0.03	27.97	0.0078	-0.0751	0.0022
192	SLU 23	-10.5	0.02	28.19	0.0083	-0.0756	0.0024
192	SLU 24	-10.73	0.03	28.81	0.0077	-0.0775	0.0022
192	SLU 25	-10.78	0.03	28.94	0.008	-0.0779	0.0023
192	SLU 26	-10.68	0.03	28.69	0.008	-0.0774	0.0023
192	SLU 27	-10.91	0.03	29.31	0.0074	-0.0792	0.0021
192	SLU 28	-10.96	0.03	29.44	0.0077	-0.0796	0.0022
192	SLU 29	-10.78	0.03	28.98	0.0072	-0.0785	0.002
192	SLU 30	-10.83	0.03	29.1	0.0075	-0.0788	0.0021
192	SLU 31	-12.28	0.03	32.94	0.0096	-0.0881	0.0028
192	SLU 32	-12.5	0.03	33.56	0.009	-0.09	0.0025
192	SLU 33	-12.55	0.03	33.69	0.0093	-0.0903	0.0026
192	SLU 34	-12.46	0.03	33.44	0.0093	-0.0898	0.0026
192	SLU 35	-12.68	0.04	34.06	0.0087	-0.0917	0.0024
192	SLU 36	-12.74	0.04	34.19	0.009	-0.0921	0.0025
192	SLU 37	-12.56	0.04	33.72	0.0085	-0.091	0.0024



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
192	SLU 38	-12.61	0.04	33.85	0.0088	-0.0913	0.0025
192	SLU 39	-12.95	0.03	34.76	0.0097	-0.0929	0.0028
192	SLU 40	-13	0.03	34.88	0.01	-0.0933	0.0029
192	SLU 41	-13.14	0.04	35.26	0.0094	-0.0946	0.0027
192	SLU 42	-13.19	0.04	35.39	0.0097	-0.095	0.0027
192	SLU 43	-11.16	0.02	29.98	0.0091	-0.08	0.0026
192	SLU 44	-11.25	0.02	30.19	0.0095	-0.0806	0.0027
192	SLU 45	-11.47	0.03	30.81	0.0089	-0.0825	0.0025
192	SLU 46	-11.52	0.03	30.94	0.0092	-0.0828	0.0026
192	SLU 47	-11.43	0.03	30.69	0.0092	-0.0823	0.0026
192	SLU 48	-11.66	0.03	31.32	0.0086	-0.0842	0.0024
192	SLU 49	-11.71	0.03	31.44	0.0089	-0.0845	0.0025
192	SLU 50	-11.53	0.03	30.98	0.0084	-0.0834	0.0024
192	SLU 51	-11.58	0.03	31.11	0.0087	-0.0838	0.0025
192	SLU 52	-13.02	0.03	34.94	0.0109	-0.0931	0.0031
192	SLU 53	-13.25	0.03	35.56	0.0102	-0.095	0.0029
192	SLU 54	-13.3	0.03	35.69	0.0105	-0.0953	0.003
192	SLU 55	-13.21	0.03	35.44	0.0106	-0.0948	0.003
192	SLU 56	-13.43	0.04	36.07	0.0099	-0.0967	0.0028
192	SLU 57	-13.48	0.04	36.19	0.0102	-0.097	0.0029
192	SLU 58	-13.31	0.04	35.73	0.0098	-0.0959	0.0028
192	SLU 59	-13.36	0.04	35.86	0.0101	-0.0963	0.0029
192	SLU 60	-13.7	0.03	36.76	0.0109	-0.0979	0.0031
192	SLU 61	-13.75	0.03	36.89	0.0112	-0.0982	0.0032
192	SLU 62	-13.88	0.04	37.26	0.0106	-0.0996	0.003
192	SLU 63	-13.93	0.04	37.39	0.0109	-0.0999	0.0031
192	SLU 64	-12.61	0.03	33.87	0.0097	-0.0907	0.0028
192	SLU 65	-12.7	0.03	34.08	0.0102	-0.0913	0.0029
192	SLU 66	-12.92	0.03	34.7	0.0096	-0.0931	0.0027
192	SLU 67	-12.97	0.03	34.83	0.0099	-0.0935	0.0028
192	SLU 68	-12.88	0.03	34.58	0.0099	-0.093	0.0028
192	SLU 69	-13.1	0.04	35.2	0.0093	-0.0949	0.0026
192	SLU 70	-13.15	0.03	35.33	0.0096	-0.0952	0.0027
192	SLU 71	-12.98	0.04	34.87	0.0091	-0.0941	0.0026
192	SLU 72	-13.03	0.03	35	0.0094	-0.0945	0.0027
192	SLU 73	-14.47	0.03	38.83	0.0116	-0.1038	0.0033
192	SLU 74	-14.7	0.04	39.45	0.0109	-0.1056	0.0031
192	SLU 75	-14.75	0.04	39.58	0.0112	-0.106	0.0032
192	SLU 76	-14.65	0.04	39.33	0.0112	-0.1055	0.0032
192	SLU 77	-14.88	0.04	39.95	0.0106	-0.1073	0.003
192	SLU 78	-14.93	0.04	40.08	0.0109	-0.1077	0.0031
192	SLU 79	-14.75	0.04	39.62	0.0105	-0.1066	0.0029
192	SLU 80	-14.8	0.04	39.75	0.0107	-0.107	0.003
192	SLU 81	-15.15	0.04	40.65	0.0116	-0.1085	0.0033
192	SLU 82	-15.2	0.04	40.78	0.0119	-0.1089	0.0034
192	SLU 83	-15.33	0.04	41.15	0.0113	-0.1103	0.0032
192	SLU 84	-15.38	0.04	41.28	0.0116	-0.1106	0.0033
192	SLE RA 1	-9.38	0.02	25.2	0.0073	-0.0674	0.0021
192	SLE RA 2	-9.44	0.02	25.34	0.0077	-0.0678	0.0022
192	SLE RA 3	-9.59	0.02	25.75	0.0072	-0.0691	0.0021
192	SLE RA 4	-9.62	0.02	25.84	0.0074	-0.0693	0.0021
192	SLE RA 5	-9.56	0.02	25.67	0.0075	-0.069	0.0021
192	SLE RA 6	-9.71	0.03	26.09	0.007	-0.0702	0.002
192	SLE RA 7	-9.74	0.03	26.17	0.0072	-0.0704	0.0021
192	SLE RA 8	-9.63	0.03	25.86	0.0069	-0.0697	0.002
192	SLE RA 9	-9.66	0.03	25.95	0.0071	-0.0699	0.002
192	SLE RA 10	-10.62	0.03	28.5	0.0086	-0.0761	0.0024
192	SLE RA 11	-10.77	0.03	28.92	0.0081	-0.0774	0.0023
192	SLE RA 12	-10.81	0.03	29.01	0.0083	-0.0776	0.0024
192	SLE RA 13	-10.74	0.03	28.84	0.0083	-0.0773	0.0024
192	SLE RA 14	-10.89	0.03	29.25	0.0079	-0.0785	0.0022
192	SLE RA 15	-10.93	0.03	29.34	0.0081	-0.0788	0.0023
192	SLE RA 16	-10.81	0.03	29.03	0.0078	-0.078	0.0022
192	SLE RA 17	-10.84	0.03	29.12	0.008	-0.0783	0.0023
192	SLE RA 18	-11.07	0.03	29.72	0.0086	-0.0793	0.0025
192	SLE RA 19	-11.11	0.03	29.8	0.0088	-0.0796	0.0025
192	SLE RA 20	-11.2	0.03	30.05	0.0084	-0.0805	0.0024
192	SLE RA 21	-11.23	0.03	30.14	0.0086	-0.0807	0.0024
192	SLE FR 1	-9.38	0.02	25.2	0.0073	-0.0674	0.0021
192	SLE FR 2	-9.39	0.02	25.22	0.0074	-0.0675	0.0021
192	SLE FR 3	-9.43	0.02	25.33	0.0073	-0.0679	0.0021
192	SLE FR 4	-9.9	0.02	26.58	0.0078	-0.0711	0.0022
192	SLE FR 5	-9.94	0.02	26.69	0.0076	-0.0714	0.0022
192	SLE FR 6	-10.23	0.02	27.46	0.008	-0.0734	0.0023
192	SLE QP 1	-9.38	0.02	25.2	0.0073	-0.0674	0.0021
192	SLE QP 2	-9.89	0.02	26.55	0.0077	-0.071	0.0022
192	SLD 1	-6.27	0.31	16.6	-0.0094	-0.0253	-0.0041
192	SLD 2	-6.27	0.31	16.6	-0.0094	-0.0253	-0.0041
192	SLD 3	-7.34	0.26	19.38	-0.0046	-0.034	-0.0025
192	SLD 4	-7.34	0.26	19.38	-0.0046	-0.034	-0.0025
192	SLD 5	-7.19	0.19	19.34	-0.0046	-0.044	-0.0021
192	SLD 6	-7.19	0.19	19.34	-0.0046	-0.044	-0.0021
192	SLD 7	-10.74	0.02	28.63	0.0112	-0.0732	0.0032
192	SLD 8	-10.74	0.02	28.63	0.0112	-0.0732	0.0032
192	SLD 9	-9.04	0.03	24.47	0.0042	-0.0688	0.0012
192	SLD 10	-9.04	0.03	24.47	0.0042	-0.0688	0.0012
192	SLD 11	-12.59	-0.14	33.77	0.0201	-0.098	0.0065



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
192	SLD 12	-12.59	-0.14	33.77	0.0201	-0.098	0.0065
192	SLD 13	-12.44	-0.21	33.72	0.02	-0.108	0.0069
192	SLD 14	-12.44	-0.21	33.72	0.02	-0.108	0.0069
192	SLD 15	-13.51	-0.26	36.51	0.0248	-0.1167	0.0085
192	SLD 16	-13.51	-0.26	36.51	0.0248	-0.1167	0.0085
192	SLV 1	-1.4	0.74	3.19	-0.0346	0.0361	-0.0134
192	SLV 2	-1.4	0.74	3.19	-0.0346	0.0361	-0.0134
192	SLV 3	-3.93	0.61	9.79	-0.0231	0.0155	-0.0096
192	SLV 4	-3.93	0.61	9.79	-0.0231	0.0155	-0.0096
192	SLV 5	-3.51	0.43	9.52	-0.0224	-0.0075	-0.0083
192	SLV 6	-3.51	0.43	9.52	-0.0224	-0.0075	-0.0083
192	SLV 7	-11.93	0.01	31.54	0.0159	-0.0764	0.0045
192	SLV 8	-11.93	0.01	31.54	0.0159	-0.0764	0.0045
192	SLV 9	-7.85	0.04	21.56	-0.0005	-0.0656	-0.0001
192	SLV 10	-7.85	0.04	21.56	-0.0005	-0.0656	-0.0001
192	SLV 11	-16.27	-0.38	43.58	0.0378	-0.1344	0.0127
192	SLV 12	-16.27	-0.38	43.58	0.0378	-0.1344	0.0127
192	SLV 13	-15.85	-0.56	43.31	0.0386	-0.1575	0.014
192	SLV 14	-15.85	-0.56	43.31	0.0386	-0.1575	0.014
192	SLV 15	-18.38	-0.69	49.92	0.05	-0.1781	0.0178
192	SLV 16	-18.38	-0.69	49.92	0.05	-0.1781	0.0178
193	SLU 1	5.66	0.01	42.24	-0.0045	-0.2301	0.0008
193	SLU 2	5.68	0.01	42.38	-0.0046	-0.231	0.0008
193	SLU 3	5.82	0.01	43.54	-0.0047	-0.2405	0.0008
193	SLU 4	5.83	0.01	43.62	-0.0047	-0.2411	0.0008
193	SLU 5	5.75	0.01	43	-0.0046	-0.2378	0.0008
193	SLU 6	5.9	0.01	44.16	-0.0047	-0.2473	0.0008
193	SLU 7	5.91	0.01	44.24	-0.0048	-0.2479	0.0008
193	SLU 8	5.81	0.01	43.49	-0.0046	-0.2437	0.0008
193	SLU 9	5.82	0.01	43.57	-0.0046	-0.2443	0.0008
193	SLU 10	6.82	0.01	50.91	-0.0055	-0.2769	0.0009
193	SLU 11	6.97	0.01	52.07	-0.0056	-0.2864	0.001
193	SLU 12	6.98	0.01	52.15	-0.0056	-0.287	0.001
193	SLU 13	6.9	0.01	51.53	-0.0056	-0.2837	0.001
193	SLU 14	7.04	0.01	52.69	-0.0056	-0.2932	0.001
193	SLU 15	7.05	0.01	52.77	-0.0057	-0.2938	0.001
193	SLU 16	6.95	0.01	52.02	-0.0055	-0.2896	0.001
193	SLU 17	6.96	0.01	52.1	-0.0056	-0.2902	0.001
193	SLU 18	7.3	0.01	54.43	-0.0058	-0.2956	0.001
193	SLU 19	7.31	0.01	54.51	-0.0059	-0.2962	0.001
193	SLU 20	7.37	0.01	55.05	-0.0059	-0.3024	0.001
193	SLU 21	7.38	0.01	55.13	-0.0059	-0.303	0.001
193	SLU 22	6.54	0.01	48.93	-0.0053	-0.2701	0.0009
193	SLU 23	6.56	0.01	49.07	-0.0054	-0.2711	0.0009
193	SLU 24	6.71	0.01	50.23	-0.0055	-0.2805	0.0009
193	SLU 25	6.72	0.01	50.31	-0.0055	-0.2811	0.001
193	SLU 26	6.63	0.01	49.69	-0.0055	-0.2779	0.0009
193	SLU 27	6.78	0.01	50.85	-0.0055	-0.2874	0.001
193	SLU 28	6.79	0.01	50.93	-0.0056	-0.2879	0.001
193	SLU 29	6.69	0.01	50.18	-0.0054	-0.2837	0.0009
193	SLU 30	6.7	0.01	50.26	-0.0055	-0.2843	0.001
193	SLU 31	7.71	0.01	57.6	-0.0064	-0.317	0.0011
193	SLU 32	7.85	0.01	58.76	-0.0064	-0.3264	0.0011
193	SLU 33	7.86	0.01	58.84	-0.0065	-0.327	0.0011
193	SLU 34	7.78	0.01	58.22	-0.0064	-0.3238	0.0011
193	SLU 35	7.93	0.01	59.38	-0.0065	-0.3332	0.0011
193	SLU 36	7.94	0.01	59.47	-0.0065	-0.3338	0.0011
193	SLU 37	7.84	0.01	58.71	-0.0064	-0.3296	0.0011
193	SLU 38	7.85	0.01	58.79	-0.0064	-0.3302	0.0011
193	SLU 39	8.18	0.01	61.12	-0.0067	-0.3357	0.0012
193	SLU 40	8.19	0.01	61.2	-0.0067	-0.3362	0.0012
193	SLU 41	8.25	0.01	61.75	-0.0067	-0.3425	0.0012
193	SLU 42	8.26	0.01	61.83	-0.0068	-0.3431	0.0012
193	SLU 43	7.05	0.01	52.62	-0.0056	-0.2854	0.0009
193	SLU 44	7.07	0.01	52.75	-0.0057	-0.2863	0.001
193	SLU 45	7.22	0.01	53.91	-0.0057	-0.2958	0.001
193	SLU 46	7.23	0.01	53.99	-0.0058	-0.2964	0.001
193	SLU 47	7.14	0.01	53.38	-0.0057	-0.2931	0.001
193	SLU 48	7.29	0.01	54.54	-0.0058	-0.3026	0.001
193	SLU 49	7.3	0.01	54.62	-0.0058	-0.3032	0.001
193	SLU 50	7.2	0.01	53.86	-0.0057	-0.299	0.001
193	SLU 51	7.21	0.01	53.94	-0.0057	-0.2996	0.001
193	SLU 52	8.22	0.01	61.28	-0.0066	-0.3322	0.0011
193	SLU 53	8.36	0.01	62.45	-0.0067	-0.3417	0.0011
193	SLU 54	8.37	0.01	62.53	-0.0067	-0.3423	0.0011
193	SLU 55	8.29	0.01	61.91	-0.0066	-0.339	0.0011
193	SLU 56	8.44	0.01	63.07	-0.0067	-0.3485	0.0011
193	SLU 57	8.45	0.01	63.15	-0.0068	-0.3491	0.0012
193	SLU 58	8.35	0.01	62.4	-0.0066	-0.3449	0.0011
193	SLU 59	8.36	0.01	62.48	-0.0066	-0.3455	0.0011
193	SLU 60	8.69	0.01	64.81	-0.0069	-0.3509	0.0012
193	SLU 61	8.7	0.01	64.89	-0.007	-0.3515	0.0012
193	SLU 62	8.76	0.01	65.43	-0.007	-0.3577	0.0012
193	SLU 63	8.77	0.01	65.51	-0.007	-0.3583	0.0012
193	SLU 64	7.94	0.01	59.31	-0.0064	-0.3254	0.0011
193	SLU 65	7.95	0.01	59.45	-0.0065	-0.3264	0.0011
193	SLU 66	8.1	0.01	60.61	-0.0066	-0.3358	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
193	SLU 67	8.11	0.01	60.69	-0.0066	-0.3364	0.0011
193	SLU 68	8.03	0.01	60.07	-0.0065	-0.3332	0.0011
193	SLU 69	8.17	0.01	61.23	-0.0066	-0.3427	0.0011
193	SLU 70	8.18	0.01	61.31	-0.0066	-0.3432	0.0011
193	SLU 71	8.08	0.01	60.56	-0.0065	-0.339	0.0011
193	SLU 72	8.1	0.01	60.64	-0.0065	-0.3396	0.0011
193	SLU 73	9.1	0.01	67.98	-0.0074	-0.3723	0.0013
193	SLU 74	9.25	0.01	69.14	-0.0075	-0.3817	0.0013
193	SLU 75	9.26	0.01	69.22	-0.0075	-0.3823	0.0013
193	SLU 76	9.17	0.01	68.6	-0.0075	-0.3791	0.0013
193	SLU 77	9.32	0.01	69.76	-0.0075	-0.3885	0.0013
193	SLU 78	9.33	0.01	69.84	-0.0076	-0.3891	0.0013
193	SLU 79	9.23	0.01	69.09	-0.0074	-0.3849	0.0013
193	SLU 80	9.24	0.01	69.17	-0.0075	-0.3855	0.0013
193	SLU 81	9.57	0.01	71.5	-0.0077	-0.391	0.0013
193	SLU 82	9.58	0.01	71.58	-0.0078	-0.3915	0.0013
193	SLU 83	9.65	0.01	72.12	-0.0078	-0.3978	0.0013
193	SLU 84	9.66	0.01	72.2	-0.0078	-0.3984	0.0014
193	SLE RA 1	5.91	0.01	44.15	-0.0047	-0.2415	0.0008
193	SLE RA 2	5.92	0.01	44.24	-0.0048	-0.2422	0.0008
193	SLE RA 3	6.02	0.01	45.02	-0.0048	-0.2485	0.0008
193	SLE RA 4	6.03	0.01	45.07	-0.0049	-0.2488	0.0008
193	SLE RA 5	5.97	0.01	44.66	-0.0048	-0.2467	0.0008
193	SLE RA 6	6.07	0.01	45.43	-0.0049	-0.253	0.0008
193	SLE RA 7	6.08	0.01	45.49	-0.0049	-0.2534	0.0008
193	SLE RA 8	6.01	0.01	44.98	-0.0048	-0.2506	0.0008
193	SLE RA 9	6.02	0.01	45.04	-0.0048	-0.251	0.0008
193	SLE RA 10	6.69	0.01	49.93	-0.0054	-0.2727	0.0009
193	SLE RA 11	6.78	0.01	50.7	-0.0055	-0.2791	0.0009
193	SLE RA 12	6.79	0.01	50.76	-0.0055	-0.2794	0.0009
193	SLE RA 13	6.74	0.01	50.35	-0.0055	-0.2773	0.0009
193	SLE RA 14	6.83	0.01	51.12	-0.0055	-0.2836	0.0009
193	SLE RA 15	6.84	0.01	51.17	-0.0055	-0.284	0.001
193	SLE RA 16	6.77	0.01	50.67	-0.0054	-0.2812	0.0009
193	SLE RA 17	6.78	0.01	50.73	-0.0055	-0.2816	0.0009
193	SLE RA 18	7	0.01	52.28	-0.0056	-0.2852	0.001
193	SLE RA 19	7.01	0.01	52.33	-0.0057	-0.2856	0.001
193	SLE RA 20	7.05	0.01	52.69	-0.0057	-0.2898	0.001
193	SLE RA 21	7.06	0.01	52.75	-0.0057	-0.2901	0.001
193	SLE FR 1	5.91	0.01	44.15	-0.0047	-0.2415	0.0008
193	SLE FR 2	5.91	0.01	44.17	-0.0048	-0.2416	0.0008
193	SLE FR 3	5.93	0.01	44.32	-0.0048	-0.2433	0.0008
193	SLE FR 4	6.24	0.01	46.61	-0.005	-0.2548	0.0009
193	SLE FR 5	6.26	0.01	46.76	-0.005	-0.2564	0.0009
193	SLE FR 6	6.46	0.01	48.22	-0.0052	-0.2634	0.0009
193	SLE QP 1	5.91	0.01	44.15	-0.0047	-0.2415	0.0008
193	SLE QP 2	6.24	0.01	46.59	-0.005	-0.2546	0.0008
193	SLD 1	5.6	0.04	41.54	-0.0042	-0.0997	0.0012
193	SLD 2	5.6	0.04	41.54	-0.0042	-0.0997	0.0012
193	SLD 3	6	0.17	44	-0.02	-0.1133	0.0051
193	SLD 4	6	0.17	44	-0.02	-0.1133	0.0051
193	SLD 5	5.44	-0.19	41.33	0.0192	-0.1876	-0.0049
193	SLD 6	5.44	-0.19	41.33	0.0192	-0.1876	-0.0049
193	SLD 7	6.77	0.26	49.56	-0.0334	-0.2328	0.008
193	SLD 8	6.77	0.26	49.56	-0.0334	-0.2328	0.008
193	SLD 9	5.7	-0.25	43.62	0.0234	-0.2764	-0.0063
193	SLD 10	5.7	-0.25	43.62	0.0234	-0.2764	-0.0063
193	SLD 11	7.03	0.2	51.85	-0.0292	-0.3217	0.0066
193	SLD 12	7.03	0.2	51.85	-0.0292	-0.3217	0.0066
193	SLD 13	6.48	-0.16	49.18	0.01	-0.396	-0.0034
193	SLD 14	6.48	-0.16	49.18	0.01	-0.396	-0.0034
193	SLD 15	6.88	-0.02	51.65	-0.0058	-0.4096	0.0005
193	SLD 16	6.88	-0.02	51.65	-0.0058	-0.4096	0.0005
193	SLV 1	4.74	0.08	34.72	-0.0035	0.1087	0.0017
193	SLV 2	4.74	0.08	34.72	-0.0035	0.1087	0.0017
193	SLV 3	5.69	0.4	40.59	-0.0404	0.0758	0.0108
193	SLV 4	5.69	0.4	40.59	-0.0404	0.0758	0.0108
193	SLV 5	4.36	-0.45	34.12	0.0514	-0.0958	-0.0127
193	SLV 6	4.36	-0.45	34.12	0.0514	-0.0958	-0.0127
193	SLV 7	7.5	0.61	53.7	-0.0716	-0.2053	0.0176
193	SLV 8	7.5	0.61	53.7	-0.0716	-0.2053	0.0176
193	SLV 9	4.97	-0.59	39.48	0.0616	-0.3039	-0.0159
193	SLV 10	4.97	-0.59	39.48	0.0616	-0.3039	-0.0159
193	SLV 11	8.12	0.47	59.06	-0.0614	-0.4135	0.0144
193	SLV 12	8.12	0.47	59.06	-0.0614	-0.4135	0.0144
193	SLV 13	6.79	-0.38	52.59	0.0304	-0.5851	-0.0091
193	SLV 14	6.79	-0.38	52.59	0.0304	-0.5851	-0.0091
193	SLV 15	7.73	-0.06	58.46	-0.0065	-0.618	0
193	SLV 16	7.73	-0.06	58.46	-0.0065	-0.618	0
195	SLU 1	-6.82	-3.32	63.08	0.0629	3.7466	0.7483
195	SLU 2	-6.85	-3.34	63.33	0.0631	3.7618	0.7517
195	SLU 3	-7.07	-3.41	65.25	0.0639	3.8594	0.7687
195	SLU 4	-7.09	-3.42	65.4	0.064	3.8684	0.7707
195	SLU 5	-7	-3.39	64.55	0.0632	3.8227	0.7623
195	SLU 6	-7.22	-3.46	66.47	0.0639	3.9203	0.7793
195	SLU 7	-7.24	-3.47	66.62	0.0641	3.9294	0.7813
195	SLU 8	-7.12	-3.42	65.52	0.063	3.8686	0.7695



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
195	SLU 9	-7.13	-3.43	65.67	0.0631	3.8776	0.7715
195	SLU 10	-8.19	-4.12	76.14	0.0786	4.5782	0.9271
195	SLU 11	-8.42	-4.19	78.06	0.0793	4.6758	0.9441
195	SLU 12	-8.43	-4.2	78.21	0.0795	4.6849	0.9461
195	SLU 13	-8.34	-4.16	77.36	0.0786	4.6391	0.9377
195	SLU 14	-8.56	-4.24	79.28	0.0794	4.7368	0.9547
195	SLU 15	-8.58	-4.25	79.43	0.0795	4.7458	0.9567
195	SLU 16	-8.46	-4.2	78.34	0.0784	4.685	0.9449
195	SLU 17	-8.48	-4.21	78.48	0.0786	4.6941	0.9469
195	SLU 18	-8.74	-4.44	81.39	0.0849	4.913	0.9988
195	SLU 19	-8.75	-4.44	81.54	0.0851	4.922	1.0009
195	SLU 20	-8.89	-4.48	82.61	0.085	4.9739	1.0094
195	SLU 21	-8.9	-4.49	82.76	0.0852	4.983	1.0115
195	SLU 22	-7.9	-3.78	72.92	0.0703	4.2957	0.851
195	SLU 23	-7.93	-3.8	73.16	0.0706	4.3108	0.8544
195	SLU 24	-8.15	-3.87	75.08	0.0713	4.4085	0.8715
195	SLU 25	-8.17	-3.88	75.23	0.0715	4.4175	0.8735
195	SLU 26	-8.08	-3.84	74.38	0.0707	4.3718	0.865
195	SLU 27	-8.3	-3.92	76.3	0.0714	4.4694	0.8821
195	SLU 28	-8.32	-3.93	76.45	0.0716	4.4785	0.8841
195	SLU 29	-8.2	-3.87	75.36	0.0704	4.4176	0.8722
195	SLU 30	-8.21	-3.88	75.51	0.0706	4.4267	0.8743
195	SLU 31	-9.27	-4.57	85.98	0.0861	5.1273	1.0298
195	SLU 32	-9.49	-4.65	87.9	0.0868	5.2249	1.0469
195	SLU 33	-9.51	-4.66	88.05	0.087	5.234	1.0489
195	SLU 34	-9.42	-4.62	87.2	0.0861	5.1882	1.0404
195	SLU 35	-9.64	-4.7	89.12	0.0868	5.2858	1.0575
195	SLU 36	-9.66	-4.71	89.27	0.087	5.2949	1.0595
195	SLU 37	-9.54	-4.65	88.17	0.0859	5.2341	1.0476
195	SLU 38	-9.55	-4.66	88.32	0.0861	5.2431	1.0497
195	SLU 39	-9.82	-4.89	91.23	0.0924	5.462	1.1016
195	SLU 40	-9.83	-4.9	91.37	0.0926	5.4711	1.1037
195	SLU 41	-9.97	-4.94	92.45	0.0925	5.523	1.1122
195	SLU 42	-9.98	-4.95	92.59	0.0926	5.5321	1.1142
195	SLU 43	-8.5	-4.16	78.63	0.0792	4.6824	0.9375
195	SLU 44	-8.53	-4.18	78.88	0.0794	4.6975	0.9409
195	SLU 45	-8.75	-4.25	80.8	0.0802	4.7951	0.9579
195	SLU 46	-8.77	-4.26	80.95	0.0803	4.8042	0.96
195	SLU 47	-8.67	-4.23	80.1	0.0795	4.7585	0.9515
195	SLU 48	-8.9	-4.3	82.02	0.0802	4.8561	0.9685
195	SLU 49	-8.91	-4.31	82.17	0.0804	4.8651	0.9706
195	SLU 50	-8.79	-4.26	81.07	0.0792	4.8043	0.9587
195	SLU 51	-8.81	-4.27	81.22	0.0794	4.8134	0.9607
195	SLU 52	-9.87	-4.96	91.7	0.0949	5.5139	1.1163
195	SLU 53	-10.09	-5.03	93.62	0.0956	5.6115	1.1333
195	SLU 54	-10.11	-5.04	93.76	0.0958	5.6206	1.1354
195	SLU 55	-10.02	-5	92.92	0.0949	5.5749	1.1269
195	SLU 56	-10.24	-5.08	94.84	0.0957	5.6725	1.1439
195	SLU 57	-10.26	-5.09	94.98	0.0958	5.6816	1.146
195	SLU 58	-10.14	-5.04	93.89	0.0947	5.6207	1.1341
195	SLU 59	-10.15	-5.05	94.04	0.0949	5.6298	1.1361
195	SLU 60	-10.42	-5.28	96.94	0.1012	5.8487	1.1881
195	SLU 61	-10.43	-5.28	97.09	0.1014	5.8578	1.1901
195	SLU 62	-10.56	-5.32	98.16	0.1013	5.9096	1.1987
195	SLU 63	-10.58	-5.33	98.31	0.1014	5.9187	1.2007
195	SLU 64	-9.58	-4.62	88.47	0.0866	5.2314	1.0403
195	SLU 65	-9.61	-4.63	88.72	0.0869	5.2466	1.0437
195	SLU 66	-9.83	-4.71	90.64	0.0876	5.3442	1.0607
195	SLU 67	-9.85	-4.72	90.78	0.0878	5.3533	1.0627
195	SLU 68	-9.75	-4.68	89.94	0.087	5.3075	1.0543
195	SLU 69	-9.98	-4.76	91.86	0.0877	5.4051	1.0713
195	SLU 70	-9.99	-4.77	92	0.0879	5.4142	1.0733
195	SLU 71	-9.87	-4.71	90.91	0.0867	5.3534	1.0615
195	SLU 72	-9.89	-4.72	91.06	0.0869	5.3624	1.0635
195	SLU 73	-10.95	-5.41	101.53	0.1024	6.063	1.2191
195	SLU 74	-11.17	-5.49	103.45	0.1031	6.1606	1.2361
195	SLU 75	-11.19	-5.5	103.6	0.1033	6.1697	1.2381
195	SLU 76	-11.09	-5.46	102.75	0.1024	6.124	1.2297
195	SLU 77	-11.32	-5.54	104.67	0.1031	6.2216	1.2467
195	SLU 78	-11.34	-5.55	104.82	0.1033	6.2307	1.2487
195	SLU 79	-11.21	-5.49	103.73	0.1022	6.1698	1.2369
195	SLU 80	-11.23	-5.5	103.87	0.1023	6.1789	1.2389
195	SLU 81	-11.49	-5.73	106.78	0.1087	6.3978	1.2909
195	SLU 82	-11.51	-5.74	106.93	0.1089	6.4068	1.2929
195	SLU 83	-11.64	-5.78	108	0.1088	6.4587	1.3015
195	SLU 84	-11.66	-5.79	108.15	0.1089	6.4678	1.3035
195	SLE RA 1	-7.13	-3.45	65.89	0.065	3.9035	0.7776
195	SLE RA 2	-7.15	-3.46	66.06	0.0652	3.9136	0.7799
195	SLE RA 3	-7.3	-3.51	67.34	0.0657	3.9787	0.7912
195	SLE RA 4	-7.31	-3.52	67.44	0.0658	3.9847	0.7926
195	SLE RA 5	-7.25	-3.49	66.87	0.0652	3.9542	0.787
195	SLE RA 6	-7.4	-3.55	68.15	0.0657	4.0193	0.7983
195	SLE RA 7	-7.41	-3.55	68.25	0.0658	4.0254	0.7997
195	SLE RA 8	-7.33	-3.52	67.52	0.0651	3.9848	0.7918
195	SLE RA 9	-7.34	-3.52	67.62	0.0652	3.9908	0.7931
195	SLE RA 10	-8.04	-3.98	74.6	0.0755	4.4579	0.8968
195	SLE RA 11	-8.19	-4.03	75.88	0.076	4.523	0.9082



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
195	SLE RA 12	-8.2	-4.04	75.98	0.0761	4.529	0.9095
195	SLE RA 13	-8.14	-4.01	75.41	0.0755	4.4985	0.9039
195	SLE RA 14	-8.29	-4.06	76.69	0.076	4.5636	0.9152
195	SLE RA 15	-8.3	-4.07	76.79	0.0761	4.5696	0.9166
195	SLE RA 16	-8.22	-4.04	76.06	0.0754	4.5291	0.9087
195	SLE RA 17	-8.23	-4.04	76.16	0.0755	4.5351	0.91
195	SLE RA 18	-8.41	-4.19	78.1	0.0797	4.6811	0.9447
195	SLE RA 19	-8.42	-4.2	78.2	0.0798	4.6871	0.946
195	SLE RA 20	-8.51	-4.23	78.91	0.0797	4.7217	0.9517
195	SLE RA 21	-8.52	-4.23	79.01	0.0799	4.7278	0.9531
195	SLE FR 1	-7.13	-3.45	65.89	0.065	3.9035	0.7776
195	SLE FR 2	-7.13	-3.45	65.93	0.065	3.9055	0.7781
195	SLE FR 3	-7.17	-3.47	66.22	0.065	3.9198	0.7805
195	SLE FR 4	-7.52	-3.68	69.59	0.0694	4.1388	0.8282
195	SLE FR 5	-7.55	-3.69	69.88	0.0694	4.153	0.8306
195	SLE FR 6	-7.77	-3.82	72	0.0724	4.2923	0.8612
195	SLE QP 1	-7.13	-3.45	65.89	0.065	3.9035	0.7776
195	SLE QP 2	-7.51	-3.68	69.55	0.0694	4.1368	0.8278
195	SLD 1	-4.94	-2.16	49.19	0.0706	3.0034	0.5111
195	SLD 2	-4.94	-2.16	49.19	0.0706	3.0034	0.5111
195	SLD 3	-5.39	-3.3	55.07	0.1108	3.7504	0.7488
195	SLD 4	-5.39	-3.3	55.07	0.1108	3.7504	0.7488
195	SLD 5	-6.06	-1.5	54.52	0.0087	2.6639	0.3722
195	SLD 6	-6.06	-1.5	54.52	0.0087	2.6639	0.3722
195	SLD 7	-7.56	-5.29	74.14	0.1429	5.1537	1.1646
195	SLD 8	-7.56	-5.29	74.14	0.1429	5.1537	1.1646
195	SLD 9	-7.46	-2.06	64.97	-0.004	3.1198	0.4909
195	SLD 10	-7.46	-2.06	64.97	-0.004	3.1198	0.4909
195	SLD 11	-8.97	-5.85	84.59	0.1301	5.6096	1.2833
195	SLD 12	-8.97	-5.85	84.59	0.1301	5.6096	1.2833
195	SLD 13	-9.63	-4.05	84.03	0.028	4.5232	0.9067
195	SLD 14	-9.63	-4.05	84.03	0.028	4.5232	0.9067
195	SLD 15	-10.09	-5.19	89.92	0.0682	5.2701	1.1444
195	SLD 16	-10.09	-5.19	89.92	0.0682	5.2701	1.1444
195	SLV 1	-1.48	-0.14	21.83	0.0725	1.4856	0.0867
195	SLV 2	-1.48	-0.14	21.83	0.0725	1.4856	0.0867
195	SLV 3	-2.56	-2.8	35.7	0.1668	3.2365	0.6436
195	SLV 4	-2.56	-2.8	35.7	0.1668	3.2365	0.6436
195	SLV 5	-4.08	1.43	34.21	-0.0726	0.686	-0.2392
195	SLV 6	-4.08	1.43	34.21	-0.0726	0.686	-0.2392
195	SLV 7	-7.66	-7.46	80.42	0.2415	6.5221	1.6172
195	SLV 8	-7.66	-7.46	80.42	0.2415	6.5221	1.6172
195	SLV 9	-7.37	0.11	58.69	-0.1027	1.7514	0.0383
195	SLV 10	-7.37	0.11	58.69	-0.1027	1.7514	0.0383
195	SLV 11	-10.95	-8.78	104.9	0.2114	7.5876	1.8947
195	SLV 12	-10.95	-8.78	104.9	0.2114	7.5876	1.8947
195	SLV 13	-12.47	-4.55	103.41	-0.0279	5.0371	1.0119
195	SLV 14	-12.47	-4.55	103.41	-0.0279	5.0371	1.0119
195	SLV 15	-13.54	-7.21	117.28	0.0663	6.7879	1.5688
195	SLV 16	-13.54	-7.21	117.28	0.0663	6.7879	1.5688
196	SLU 1	8.69	-0.19	26.43	0.024	0.0728	-0.0068
196	SLU 2	8.77	-0.19	26.64	0.0244	0.0736	-0.0069
196	SLU 3	8.79	-0.19	26.76	0.0242	0.0729	-0.0069
196	SLU 4	8.84	-0.19	26.88	0.0245	0.0734	-0.007
196	SLU 5	8.72	-0.19	26.51	0.0242	0.0723	-0.0069
196	SLU 6	8.74	-0.19	26.62	0.024	0.0717	-0.0069
196	SLU 7	8.79	-0.19	26.75	0.0243	0.0721	-0.007
196	SLU 8	8.59	-0.19	26.16	0.0236	0.0703	-0.0068
196	SLU 9	8.63	-0.19	26.28	0.0239	0.0708	-0.0068
196	SLU 10	10.66	-0.22	32.39	0.0291	0.0895	-0.0083
196	SLU 11	10.69	-0.23	32.51	0.0289	0.0889	-0.0083
196	SLU 12	10.73	-0.23	32.63	0.0292	0.0893	-0.0083
196	SLU 13	10.61	-0.22	32.26	0.0289	0.0883	-0.0082
196	SLU 14	10.64	-0.23	32.37	0.0287	0.0876	-0.0082
196	SLU 15	10.68	-0.23	32.5	0.029	0.0881	-0.0083
196	SLU 16	10.48	-0.23	31.91	0.0283	0.0863	-0.0081
196	SLU 17	10.53	-0.23	32.03	0.0285	0.0868	-0.0082
196	SLU 18	11.4	-0.24	34.65	0.0306	0.0956	-0.0087
196	SLU 19	11.44	-0.24	34.77	0.0309	0.0961	-0.0088
196	SLU 20	11.35	-0.24	34.51	0.0305	0.0944	-0.0087
196	SLU 21	11.39	-0.24	34.64	0.0307	0.0949	-0.0088
196	SLU 22	10.14	-0.22	30.83	0.0274	0.0848	-0.0079
196	SLU 23	10.21	-0.22	31.04	0.0279	0.0856	-0.008
196	SLU 24	10.24	-0.22	31.16	0.0277	0.0849	-0.0079
196	SLU 25	10.28	-0.22	31.28	0.0279	0.0854	-0.008
196	SLU 26	10.16	-0.22	30.91	0.0277	0.0843	-0.0079
196	SLU 27	10.19	-0.22	31.02	0.0275	0.0837	-0.0079
196	SLU 28	10.23	-0.22	31.15	0.0277	0.0841	-0.008
196	SLU 29	10.03	-0.22	30.56	0.027	0.0823	-0.0078
196	SLU 30	10.08	-0.22	30.68	0.0273	0.0828	-0.0078
196	SLU 31	12.11	-0.25	36.79	0.0325	0.1016	-0.0093
196	SLU 32	12.13	-0.26	36.91	0.0323	0.1009	-0.0093
196	SLU 33	12.18	-0.26	37.03	0.0326	0.1014	-0.0093
196	SLU 34	12.06	-0.25	36.66	0.0323	0.1003	-0.0092
196	SLU 35	12.08	-0.26	36.77	0.0321	0.0997	-0.0092
196	SLU 36	12.13	-0.26	36.9	0.0324	0.1001	-0.0093
196	SLU 37	11.93	-0.25	36.31	0.0317	0.0983	-0.0091



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
196	SLU 38	11.97	-0.25	36.43	0.032	0.0988	-0.0092
196	SLU 39	12.84	-0.27	39.05	0.0341	0.1076	-0.0097
196	SLU 40	12.89	-0.27	39.17	0.0344	0.1081	-0.0098
196	SLU 41	12.79	-0.27	38.91	0.0339	0.1064	-0.0097
196	SLU 42	12.84	-0.27	39.04	0.0342	0.1069	-0.0098
196	SLU 43	10.8	-0.23	32.85	0.03	0.0905	-0.0085
196	SLU 44	10.88	-0.23	33.06	0.0304	0.0913	-0.0087
196	SLU 45	10.9	-0.24	33.18	0.0302	0.0906	-0.0086
196	SLU 46	10.95	-0.24	33.31	0.0305	0.0911	-0.0087
196	SLU 47	10.83	-0.24	32.93	0.0302	0.09	-0.0086
196	SLU 48	10.85	-0.24	33.04	0.03	0.0894	-0.0086
196	SLU 49	10.9	-0.24	33.17	0.0303	0.0898	-0.0087
196	SLU 50	10.7	-0.24	32.58	0.0296	0.088	-0.0085
196	SLU 51	10.75	-0.24	32.7	0.0299	0.0885	-0.0085
196	SLU 52	12.77	-0.27	38.81	0.0351	0.1073	-0.01
196	SLU 53	12.8	-0.27	38.93	0.0349	0.1066	-0.01
196	SLU 54	12.85	-0.27	39.06	0.0352	0.1071	-0.01
196	SLU 55	12.72	-0.27	38.68	0.0349	0.106	-0.0099
196	SLU 56	12.75	-0.27	38.79	0.0347	0.1054	-0.0099
196	SLU 57	12.79	-0.27	38.92	0.035	0.1058	-0.01
196	SLU 58	12.59	-0.27	38.33	0.0343	0.104	-0.0098
196	SLU 59	12.64	-0.27	38.46	0.0345	0.1045	-0.0099
196	SLU 60	13.51	-0.28	41.07	0.0367	0.1133	-0.0104
196	SLU 61	13.56	-0.28	41.19	0.0369	0.1138	-0.0105
196	SLU 62	13.46	-0.28	40.93	0.0365	0.1121	-0.0104
196	SLU 63	13.5	-0.29	41.06	0.0367	0.1126	-0.0105
196	SLU 64	12.25	-0.26	37.25	0.0334	0.1025	-0.0096
196	SLU 65	12.32	-0.26	37.46	0.0339	0.1033	-0.0097
196	SLU 66	12.35	-0.27	37.58	0.0337	0.1026	-0.0096
196	SLU 67	12.39	-0.27	37.71	0.0339	0.1031	-0.0097
196	SLU 68	12.27	-0.26	37.33	0.0337	0.1021	-0.0096
196	SLU 69	12.3	-0.27	37.44	0.0335	0.1014	-0.0096
196	SLU 70	12.34	-0.27	37.57	0.0338	0.1019	-0.0097
196	SLU 71	12.14	-0.27	36.98	0.0331	0.1	-0.0095
196	SLU 72	12.19	-0.27	37.1	0.0333	0.1005	-0.0096
196	SLU 73	14.22	-0.3	43.21	0.0386	0.1193	-0.011
196	SLU 74	14.24	-0.3	43.33	0.0383	0.1186	-0.011
196	SLU 75	14.29	-0.3	43.46	0.0386	0.1191	-0.011
196	SLU 76	14.17	-0.3	43.08	0.0384	0.118	-0.011
196	SLU 77	14.19	-0.3	43.19	0.0382	0.1174	-0.0109
196	SLU 78	14.24	-0.3	43.32	0.0384	0.1178	-0.011
196	SLU 79	14.04	-0.3	42.73	0.0377	0.116	-0.0108
196	SLU 80	14.08	-0.3	42.86	0.038	0.1165	-0.0109
196	SLU 81	14.95	-0.31	45.47	0.0401	0.1253	-0.0115
196	SLU 82	15	-0.31	45.6	0.0404	0.1258	-0.0115
196	SLU 83	14.9	-0.31	45.33	0.0399	0.1241	-0.0114
196	SLU 84	14.95	-0.31	45.46	0.0402	0.1246	-0.0115
196	SLE RA 1	9.1	-0.2	27.69	0.025	0.0762	-0.0071
196	SLE RA 2	9.15	-0.2	27.83	0.0253	0.0767	-0.0072
196	SLE RA 3	9.17	-0.2	27.91	0.0251	0.0763	-0.0072
196	SLE RA 4	9.2	-0.2	27.99	0.0253	0.0766	-0.0072
196	SLE RA 5	9.12	-0.2	27.74	0.0251	0.0759	-0.0072
196	SLE RA 6	9.14	-0.2	27.81	0.025	0.0755	-0.0072
196	SLE RA 7	9.17	-0.2	27.9	0.0252	0.0758	-0.0072
196	SLE RA 8	9.03	-0.2	27.51	0.0247	0.0746	-0.0071
196	SLE RA 9	9.07	-0.2	27.59	0.0249	0.0749	-0.0071
196	SLE RA 10	10.42	-0.22	31.66	0.0284	0.0874	-0.0081
196	SLE RA 11	10.43	-0.22	31.74	0.0282	0.0869	-0.0081
196	SLE RA 12	10.47	-0.22	31.82	0.0284	0.0873	-0.0081
196	SLE RA 13	10.38	-0.22	31.57	0.0282	0.0866	-0.0081
196	SLE RA 14	10.4	-0.22	31.65	0.0281	0.0861	-0.0081
196	SLE RA 15	10.43	-0.22	31.73	0.0283	0.0864	-0.0081
196	SLE RA 16	10.3	-0.22	31.34	0.0278	0.0852	-0.008
196	SLE RA 17	10.33	-0.22	31.42	0.028	0.0855	-0.008
196	SLE RA 18	10.91	-0.23	33.17	0.0294	0.0914	-0.0084
196	SLE RA 19	10.94	-0.23	33.25	0.0296	0.0917	-0.0084
196	SLE RA 20	10.87	-0.23	33.07	0.0293	0.0906	-0.0084
196	SLE RA 21	10.9	-0.23	33.16	0.0295	0.0909	-0.0084
196	SLE FR 1	9.1	-0.2	27.69	0.025	0.0762	-0.0071
196	SLE FR 2	9.11	-0.2	27.72	0.025	0.0763	-0.0071
196	SLE FR 3	9.09	-0.2	27.65	0.0249	0.0759	-0.0071
196	SLE FR 4	9.66	-0.21	29.36	0.0264	0.0809	-0.0075
196	SLE FR 5	9.63	-0.21	29.3	0.0262	0.0804	-0.0075
196	SLE FR 6	10.01	-0.21	30.43	0.0272	0.0838	-0.0078
196	SLE QP 1	9.1	-0.2	27.69	0.025	0.0762	-0.0071
196	SLE QP 2	9.64	-0.21	29.33	0.0263	0.0808	-0.0075
196	SLD 1	12.88	-0.47	39.28	0.045	0.1357	-0.0138
196	SLD 2	12.88	-0.47	39.28	0.045	0.1357	-0.0138
196	SLD 3	14.2	-0.55	43.12	0.0527	0.1498	-0.0161
196	SLD 4	14.2	-0.55	43.12	0.0527	0.1498	-0.0161
196	SLD 5	8.62	-0.17	26.48	0.0203	0.0758	-0.0059
196	SLD 6	8.62	-0.17	26.48	0.0203	0.0758	-0.0059
196	SLD 7	13	-0.43	39.31	0.0459	0.1229	-0.0136
196	SLD 8	13	-0.43	39.31	0.0459	0.1229	-0.0136
196	SLD 9	6.29	0.01	19.36	0.0067	0.0387	-0.0014
196	SLD 10	6.29	0.01	19.36	0.0067	0.0387	-0.0014
196	SLD 11	10.67	-0.24	32.19	0.0323	0.0857	-0.0092



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
196	SLD 12	10.67	-0.24	32.19	0.0323	0.0857	-0.0092
196	SLD 13	5.09	0.14	15.54	-0.0001	0.0117	0.0011
196	SLD 14	5.09	0.14	15.54	-0.0001	0.0117	0.0011
196	SLD 15	6.41	0.06	19.39	0.0076	0.0259	-0.0012
196	SLD 16	6.41	0.06	19.39	0.0076	0.0259	-0.0012
196	SLV 1	17.21	-0.87	52.58	0.0736	0.2092	-0.0233
196	SLV 2	17.21	-0.87	52.58	0.0736	0.2092	-0.0233
196	SLV 3	20.31	-1.06	61.65	0.092	0.2424	-0.0289
196	SLV 4	20.31	-1.06	61.65	0.092	0.2424	-0.0289
196	SLV 5	7.22	-0.12	22.55	0.0125	0.0689	-0.0037
196	SLV 6	7.22	-0.12	22.55	0.0125	0.0689	-0.0037
196	SLV 7	17.54	-0.75	52.79	0.074	0.1797	-0.0225
196	SLV 8	17.54	-0.75	52.79	0.074	0.1797	-0.0225
196	SLV 9	1.75	0.34	5.88	-0.0214	-0.0181	0.0074
196	SLV 10	1.75	0.34	5.88	-0.0214	-0.0181	0.0074
196	SLV 11	12.07	-0.29	36.12	0.0401	0.0926	-0.0113
196	SLV 12	12.07	-0.29	36.12	0.0401	0.0926	-0.0113
196	SLV 13	-1.02	0.65	-2.98	-0.0394	-0.0809	0.0139
196	SLV 14	-1.02	0.65	-2.98	-0.0394	-0.0809	0.0139
196	SLV 15	2.08	0.46	6.09	-0.021	-0.0477	0.0083
196	SLV 16	2.08	0.46	6.09	-0.021	-0.0477	0.0083
197	SLU 1	-0.58	-9.47	82.35	0.2954	0.2492	0.0623
197	SLU 2	-0.61	-9.71	83.39	0.3056	0.2486	0.0639
197	SLU 3	-0.56	-9.52	83.58	0.2945	0.2521	0.0626
197	SLU 4	-0.58	-9.66	84.21	0.3006	0.2518	0.0635
197	SLU 5	-0.57	-9.58	83.18	0.299	0.2475	0.063
197	SLU 6	-0.53	-9.39	83.37	0.2879	0.2509	0.0617
197	SLU 7	-0.54	-9.53	84	0.294	0.2506	0.0627
197	SLU 8	-0.51	-9.22	81.92	0.2823	0.2469	0.0606
197	SLU 9	-0.53	-9.36	82.55	0.2884	0.2466	0.0615
197	SLU 10	-0.72	-11.65	100.86	0.3649	0.3046	0.0766
197	SLU 11	-0.67	-11.45	101.04	0.3538	0.3081	0.0753
197	SLU 12	-0.69	-11.6	101.67	0.3599	0.3078	0.0763
197	SLU 13	-0.69	-11.52	100.65	0.3583	0.3035	0.0757
197	SLU 14	-0.64	-11.33	100.83	0.3473	0.3069	0.0744
197	SLU 15	-0.65	-11.47	101.46	0.3533	0.3066	0.0754
197	SLU 16	-0.63	-11.15	99.39	0.3416	0.3029	0.0733
197	SLU 17	-0.64	-11.3	100.01	0.3477	0.3026	0.0743
197	SLU 18	-0.74	-12.24	107.29	0.3801	0.3292	0.0805
197	SLU 19	-0.76	-12.38	107.92	0.3862	0.3289	0.0814
197	SLU 20	-0.71	-12.11	107.08	0.3736	0.328	0.0796
197	SLU 21	-0.72	-12.25	107.71	0.3797	0.3277	0.0806
197	SLU 22	-0.64	-10.78	95.37	0.3329	0.294	0.0709
197	SLU 23	-0.67	-11.02	96.42	0.343	0.2935	0.0725
197	SLU 24	-0.62	-10.83	96.61	0.332	0.2969	0.0712
197	SLU 25	-0.63	-10.97	97.24	0.3381	0.2966	0.0721
197	SLU 26	-0.63	-10.89	96.21	0.3364	0.2923	0.0716
197	SLU 27	-0.59	-10.7	96.4	0.3254	0.2958	0.0703
197	SLU 28	-0.6	-10.84	97.03	0.3315	0.2955	0.0713
197	SLU 29	-0.57	-10.53	94.95	0.3197	0.2917	0.0692
197	SLU 30	-0.59	-10.67	95.58	0.3258	0.2914	0.0701
197	SLU 31	-0.78	-12.95	113.89	0.4023	0.3495	0.0852
197	SLU 32	-0.73	-12.76	114.07	0.3913	0.3529	0.0839
197	SLU 33	-0.75	-12.9	114.7	0.3974	0.3526	0.0848
197	SLU 34	-0.74	-12.83	113.68	0.3958	0.3483	0.0843
197	SLU 35	-0.7	-12.63	113.86	0.3847	0.3518	0.083
197	SLU 36	-0.71	-12.78	114.49	0.3908	0.3515	0.084
197	SLU 37	-0.69	-12.46	112.41	0.379	0.3477	0.0819
197	SLU 38	-0.7	-12.6	113.04	0.3851	0.3474	0.0829
197	SLU 39	-0.8	-13.54	120.32	0.4176	0.374	0.0891
197	SLU 40	-0.82	-13.69	120.95	0.4237	0.3737	0.09
197	SLU 41	-0.77	-13.42	120.11	0.411	0.3729	0.0882
197	SLU 42	-0.78	-13.56	120.74	0.4171	0.3726	0.0892
197	SLU 43	-0.74	-11.87	102.58	0.3712	0.3085	0.0781
197	SLU 44	-0.76	-12.1	103.63	0.3814	0.308	0.0796
197	SLU 45	-0.71	-11.91	103.82	0.3703	0.3115	0.0783
197	SLU 46	-0.73	-12.05	104.45	0.3764	0.3111	0.0793
197	SLU 47	-0.73	-11.98	103.42	0.3748	0.3069	0.0788
197	SLU 48	-0.68	-11.78	103.61	0.3637	0.3103	0.0775
197	SLU 49	-0.7	-11.93	104.24	0.3698	0.31	0.0784
197	SLU 50	-0.67	-11.61	102.16	0.3581	0.3062	0.0763
197	SLU 51	-0.68	-11.76	102.79	0.3642	0.3059	0.0773
197	SLU 52	-0.87	-14.04	121.09	0.4407	0.364	0.0924
197	SLU 53	-0.83	-13.85	121.28	0.4296	0.3675	0.0911
197	SLU 54	-0.84	-13.99	121.91	0.4357	0.3672	0.092
197	SLU 55	-0.84	-13.91	120.88	0.4341	0.3629	0.0915
197	SLU 56	-0.79	-13.72	121.07	0.423	0.3663	0.0902
197	SLU 57	-0.81	-13.86	121.7	0.4291	0.366	0.0911
197	SLU 58	-0.78	-13.55	119.62	0.4174	0.3623	0.0891
197	SLU 59	-0.8	-13.69	120.25	0.4235	0.3619	0.09
197	SLU 60	-0.9	-14.63	127.53	0.4559	0.3885	0.0962
197	SLU 61	-0.91	-14.77	128.16	0.462	0.3882	0.0972
197	SLU 62	-0.86	-14.5	127.32	0.4494	0.3874	0.0954
197	SLU 63	-0.88	-14.65	127.95	0.4555	0.3871	0.0963
197	SLU 64	-0.79	-13.17	115.61	0.4086	0.3534	0.0866
197	SLU 65	-0.82	-13.41	116.66	0.4188	0.3529	0.0882
197	SLU 66	-0.77	-13.22	116.85	0.4077	0.3563	0.0869



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
197	SLU 67	-0.79	-13.36	117.48	0.4138	0.356	0.0879
197	SLU 68	-0.79	-13.29	116.45	0.4122	0.3517	0.0874
197	SLU 69	-0.74	-13.09	116.64	0.4012	0.3552	0.0861
197	SLU 70	-0.76	-13.24	117.27	0.4073	0.3548	0.087
197	SLU 71	-0.73	-12.92	115.19	0.3955	0.3511	0.0849
197	SLU 72	-0.74	-13.06	115.82	0.4016	0.3508	0.0859
197	SLU 73	-0.93	-15.35	134.12	0.4781	0.4089	0.1009
197	SLU 74	-0.89	-15.15	134.31	0.4671	0.4123	0.0996
197	SLU 75	-0.9	-15.3	134.94	0.4731	0.412	0.1006
197	SLU 76	-0.9	-15.22	133.91	0.4715	0.4077	0.1001
197	SLU 77	-0.85	-15.03	134.1	0.4605	0.4112	0.0988
197	SLU 78	-0.87	-15.17	134.73	0.4666	0.4108	0.0997
197	SLU 79	-0.84	-14.85	132.65	0.4548	0.4071	0.0977
197	SLU 80	-0.85	-15	133.28	0.4609	0.4068	0.0986
197	SLU 81	-0.96	-15.94	140.56	0.4934	0.4334	0.1048
197	SLU 82	-0.97	-16.08	141.19	0.4995	0.4331	0.1058
197	SLU 83	-0.92	-15.81	140.35	0.4868	0.4322	0.104
197	SLU 84	-0.94	-15.95	140.98	0.4929	0.4319	0.1049
197	SLE RA 1	-0.6	-9.85	86.07	0.3061	0.262	0.0648
197	SLE RA 2	-0.62	-10.01	86.77	0.3129	0.2616	0.0658
197	SLE RA 3	-0.58	-9.88	86.89	0.3055	0.2639	0.065
197	SLE RA 4	-0.59	-9.97	87.31	0.3096	0.2637	0.0656
197	SLE RA 5	-0.59	-9.92	86.63	0.3085	0.2609	0.0652
197	SLE RA 6	-0.56	-9.79	86.75	0.3011	0.2632	0.0644
197	SLE RA 7	-0.57	-9.89	87.17	0.3052	0.2629	0.065
197	SLE RA 8	-0.55	-9.68	85.79	0.2973	0.2604	0.0636
197	SLE RA 9	-0.56	-9.77	86.21	0.3014	0.2602	0.0643
197	SLE RA 10	-0.69	-11.29	98.41	0.3524	0.299	0.0743
197	SLE RA 11	-0.66	-11.17	98.53	0.3451	0.3013	0.0734
197	SLE RA 12	-0.67	-11.26	98.95	0.3491	0.301	0.0741
197	SLE RA 13	-0.67	-11.21	98.27	0.348	0.2982	0.0737
197	SLE RA 14	-0.64	-11.08	98.39	0.3407	0.3005	0.0729
197	SLE RA 15	-0.65	-11.18	98.81	0.3447	0.3003	0.0735
197	SLE RA 16	-0.63	-10.97	97.43	0.3369	0.2978	0.0721
197	SLE RA 17	-0.64	-11.06	97.85	0.341	0.2976	0.0727
197	SLE RA 18	-0.71	-11.69	102.7	0.3626	0.3153	0.0769
197	SLE RA 19	-0.72	-11.78	103.12	0.3667	0.3151	0.0775
197	SLE RA 20	-0.68	-11.6	102.56	0.3582	0.3145	0.0763
197	SLE RA 21	-0.69	-11.7	102.98	0.3623	0.3143	0.0769
197	SLE FR 1	-0.6	-9.85	86.07	0.3061	0.262	0.0648
197	SLE FR 2	-0.6	-9.88	86.21	0.3075	0.2619	0.065
197	SLE FR 3	-0.59	-9.81	86.01	0.3044	0.2617	0.0645
197	SLE FR 4	-0.63	-10.43	91.2	0.3244	0.2779	0.0686
197	SLE FR 5	-0.62	-10.36	91	0.3213	0.2777	0.0682
197	SLE FR 6	-0.65	-10.77	94.38	0.3344	0.2886	0.0708
197	SLE QP 1	-0.6	-9.85	86.07	0.3061	0.262	0.0648
197	SLE QP 2	-0.63	-10.4	91.06	0.3231	0.278	0.0684
197	SLD 1	-1.28	-10.37	94.93	0.3102	0.4927	0.0689
197	SLD 2	-1.28	-10.37	94.93	0.3102	0.4927	0.0689
197	SLD 3	-1.53	-12.57	107.62	0.3977	0.5224	0.0835
197	SLD 4	-1.53	-12.57	107.62	0.3977	0.5224	0.0835
197	SLD 5	-0.45	-7.06	72.98	0.1866	0.2974	0.0464
197	SLD 6	-0.45	-7.06	72.98	0.1866	0.2974	0.0464
197	SLD 7	-1.27	-14.38	115.26	0.4781	0.3963	0.0951
197	SLD 8	-1.27	-14.38	115.26	0.4781	0.3963	0.0951
197	SLD 9	0.01	-6.41	66.85	0.168	0.1597	0.0417
197	SLD 10	0.01	-6.41	66.85	0.168	0.1597	0.0417
197	SLD 11	-0.81	-13.74	109.13	0.4596	0.2585	0.0904
197	SLD 12	-0.81	-13.74	109.13	0.4596	0.2585	0.0904
197	SLD 13	0.27	-8.23	74.5	0.2484	0.0336	0.0533
197	SLD 14	0.27	-8.23	74.5	0.2484	0.0336	0.0533
197	SLD 15	0.02	-10.43	87.18	0.3359	0.0632	0.0679
197	SLD 16	0.02	-10.43	87.18	0.3359	0.0632	0.0679
197	SLV 1	-2.17	-10.37	100.16	0.2938	0.7801	0.0698
197	SLV 2	-2.17	-10.37	100.16	0.2938	0.7801	0.0698
197	SLV 3	-2.75	-15.53	130.04	0.499	0.8501	0.1041
197	SLV 4	-2.75	-15.53	130.04	0.499	0.8501	0.1041
197	SLV 5	-0.21	-2.56	48.46	0.0031	0.3225	0.0168
197	SLV 6	-0.21	-2.56	48.46	0.0031	0.3225	0.0168
197	SLV 7	-2.15	-19.77	148.08	0.687	0.5557	0.1311
197	SLV 8	-2.15	-19.77	148.08	0.687	0.5557	0.1311
197	SLV 9	0.88	-1.03	34.03	-0.0409	0.0002	0.0057
197	SLV 10	0.88	-1.03	34.03	-0.0409	0.0002	0.0057
197	SLV 11	-1.05	-18.24	133.66	0.643	0.2334	0.12
197	SLV 12	-1.05	-18.24	133.66	0.643	0.2334	0.12
197	SLV 13	1.49	-5.27	52.07	0.1471	-0.2942	0.0327
197	SLV 14	1.49	-5.27	52.07	0.1471	-0.2942	0.0327
197	SLV 15	0.91	-10.43	81.96	0.3523	-0.2242	0.067
197	SLV 16	0.91	-10.43	81.96	0.3523	-0.2242	0.067
198	SLU 1	-7.23	0.07	32.61	0.0074	-0.0569	0.0003
198	SLU 2	-7.38	0.07	33.14	0.0082	-0.06	0.0005
198	SLU 3	-7.36	0.07	33.22	0.007	-0.0584	0.0002
198	SLU 4	-7.45	0.07	33.54	0.0074	-0.0603	0.0003
198	SLU 5	-7.37	0.07	33.17	0.0076	-0.0604	0.0003
198	SLU 6	-7.35	0.08	33.26	0.0063	-0.0587	0
198	SLU 7	-7.44	0.08	33.58	0.0068	-0.0606	0.0001
198	SLU 8	-7.21	0.08	32.68	0.0061	-0.0575	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
198	SLU 9	-7.3	0.07	33	0.0066	-0.0594	0.0001
198	SLU 10	-8.87	0.08	39.94	0.0101	-0.07	0.0006
198	SLU 11	-8.85	0.09	40.03	0.0089	-0.0683	0.0004
198	SLU 12	-8.94	0.08	40.35	0.0094	-0.0702	0.0005
198	SLU 13	-8.87	0.08	39.98	0.0095	-0.0703	0.0005
198	SLU 14	-8.84	0.09	40.06	0.0082	-0.0686	0.0002
198	SLU 15	-8.93	0.09	40.38	0.0087	-0.0706	0.0003
198	SLU 16	-8.71	0.09	39.48	0.008	-0.0675	0.0002
198	SLU 17	-8.8	0.09	39.8	0.0085	-0.0694	0.0003
198	SLU 18	-9.36	0.09	42.33	0.0102	-0.0711	0.0006
198	SLU 19	-9.45	0.08	42.65	0.0107	-0.073	0.0007
198	SLU 20	-9.35	0.09	42.37	0.0095	-0.0714	0.0004
198	SLU 21	-9.44	0.09	42.68	0.01	-0.0733	0.0005
198	SLU 22	-8.3	0.08	37.62	0.008	-0.0621	0.0002
198	SLU 23	-8.45	0.08	38.15	0.0088	-0.0653	0.0004
198	SLU 24	-8.42	0.09	38.24	0.0075	-0.0636	0.0001
198	SLU 25	-8.51	0.09	38.55	0.008	-0.0655	0.0002
198	SLU 26	-8.44	0.08	38.19	0.0081	-0.0656	0.0002
198	SLU 27	-8.41	0.09	38.27	0.0069	-0.064	0
198	SLU 28	-8.5	0.09	38.59	0.0073	-0.0659	0.0001
198	SLU 29	-8.28	0.09	37.69	0.0067	-0.0628	-0.0001
198	SLU 30	-8.37	0.09	38.01	0.0071	-0.0647	0
198	SLU 31	-9.94	0.09	44.96	0.0107	-0.0753	0.0006
198	SLU 32	-9.91	0.1	45.04	0.0094	-0.0736	0.0003
198	SLU 33	-10	0.1	45.36	0.0099	-0.0755	0.0004
198	SLU 34	-9.93	0.1	44.99	0.01	-0.0756	0.0004
198	SLU 35	-9.9	0.1	45.08	0.0088	-0.0739	0.0001
198	SLU 36	-9.99	0.1	45.4	0.0093	-0.0758	0.0002
198	SLU 37	-9.77	0.1	44.5	0.0086	-0.0727	0.0001
198	SLU 38	-9.86	0.1	44.82	0.0091	-0.0747	0.0002
198	SLU 39	-10.43	0.1	47.34	0.0107	-0.0764	0.0005
198	SLU 40	-10.52	0.1	47.66	0.0112	-0.0783	0.0006
198	SLU 41	-10.42	0.1	47.38	0.0101	-0.0767	0.0003
198	SLU 42	-10.51	0.1	47.7	0.0105	-0.0786	0.0004
198	SLU 43	-9.04	0.09	40.67	0.0095	-0.0721	0.0004
198	SLU 44	-9.19	0.08	41.2	0.0103	-0.0753	0.0006
198	SLU 45	-9.16	0.09	41.29	0.009	-0.0736	0.0003
198	SLU 46	-9.25	0.09	41.6	0.0095	-0.0755	0.0004
198	SLU 47	-9.18	0.09	41.24	0.0096	-0.0756	0.0005
198	SLU 48	-9.15	0.09	41.32	0.0084	-0.0739	0.0002
198	SLU 49	-9.24	0.09	41.64	0.0088	-0.0758	0.0003
198	SLU 50	-9.02	0.09	40.74	0.0082	-0.0728	0.0001
198	SLU 51	-9.11	0.09	41.06	0.0086	-0.0747	0.0002
198	SLU 52	-10.68	0.09	48.01	0.0122	-0.0852	0.0008
198	SLU 53	-10.65	0.1	48.09	0.0109	-0.0836	0.0005
198	SLU 54	-10.74	0.1	48.41	0.0114	-0.0855	0.0006
198	SLU 55	-10.67	0.1	48.04	0.0115	-0.0856	0.0006
198	SLU 56	-10.64	0.1	48.13	0.0103	-0.0839	0.0003
198	SLU 57	-10.73	0.1	48.44	0.0108	-0.0858	0.0004
198	SLU 58	-10.51	0.1	47.55	0.0101	-0.0827	0.0003
198	SLU 59	-10.6	0.1	47.86	0.0106	-0.0846	0.0004
198	SLU 60	-11.17	0.1	50.39	0.0122	-0.0863	0.0007
198	SLU 61	-11.26	0.1	50.71	0.0127	-0.0882	0.0008
198	SLU 62	-11.16	0.11	50.43	0.0116	-0.0867	0.0005
198	SLU 63	-11.25	0.1	50.75	0.012	-0.0886	0.0006
198	SLU 64	-10.1	0.1	45.69	0.01	-0.0774	0.0004
198	SLU 65	-10.25	0.1	46.22	0.0108	-0.0806	0.0005
198	SLU 66	-10.22	0.1	46.3	0.0096	-0.0789	0.0002
198	SLU 67	-10.32	0.1	46.62	0.01	-0.0808	0.0003
198	SLU 68	-10.24	0.1	46.25	0.0101	-0.0809	0.0004
198	SLU 69	-10.22	0.11	46.33	0.0089	-0.0792	0.0001
198	SLU 70	-10.31	0.11	46.65	0.0094	-0.0811	0.0002
198	SLU 71	-10.08	0.11	45.75	0.0087	-0.078	0.0001
198	SLU 72	-10.17	0.1	46.07	0.0092	-0.0799	0.0002
198	SLU 73	-11.74	0.11	53.02	0.0127	-0.0905	0.0007
198	SLU 74	-11.72	0.12	53.11	0.0115	-0.0888	0.0004
198	SLU 75	-11.81	0.11	53.42	0.012	-0.0907	0.0005
198	SLU 76	-11.73	0.11	53.06	0.0121	-0.0909	0.0005
198	SLU 77	-11.71	0.12	53.14	0.0108	-0.0892	0.0003
198	SLU 78	-11.8	0.12	53.46	0.0113	-0.0911	0.0003
198	SLU 79	-11.58	0.12	52.56	0.0106	-0.088	0.0002
198	SLU 80	-11.67	0.12	52.88	0.0111	-0.0899	0.0003
198	SLU 81	-12.23	0.12	55.41	0.0128	-0.0916	0.0006
198	SLU 82	-12.32	0.11	55.73	0.0132	-0.0935	0.0007
198	SLU 83	-12.22	0.12	55.44	0.0121	-0.0919	0.0005
198	SLU 84	-12.31	0.12	55.76	0.0126	-0.0938	0.0005
198	SLE RA 1	-7.54	0.07	34.04	0.0076	-0.0584	0.0003
198	SLE RA 2	-7.64	0.07	34.39	0.0081	-0.0605	0.0004
198	SLE RA 3	-7.62	0.08	34.45	0.0073	-0.0594	0.0002
198	SLE RA 4	-7.68	0.08	34.66	0.0076	-0.0606	0.0003
198	SLE RA 5	-7.63	0.07	34.42	0.0077	-0.0607	0.0003
198	SLE RA 6	-7.61	0.08	34.47	0.0068	-0.0596	0.0001
198	SLE RA 7	-7.67	0.08	34.69	0.0072	-0.0609	0.0002
198	SLE RA 8	-7.52	0.08	34.09	0.0067	-0.0588	0.0001
198	SLE RA 9	-7.58	0.08	34.3	0.007	-0.0601	0.0002
198	SLE RA 10	-8.63	0.08	38.93	0.0094	-0.0671	0.0005
198	SLE RA 11	-8.61	0.08	38.99	0.0086	-0.066	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
198	SLE RA 12	-8.67	0.08	39.2	0.0089	-0.0673	0.0004
198	SLE RA 13	-8.63	0.08	38.95	0.009	-0.0673	0.0004
198	SLE RA 14	-8.61	0.09	39.01	0.0081	-0.0662	0.0002
198	SLE RA 15	-8.67	0.09	39.22	0.0084	-0.0675	0.0003
198	SLE RA 16	-8.52	0.09	38.62	0.008	-0.0654	0.0002
198	SLE RA 17	-8.58	0.08	38.84	0.0083	-0.0667	0.0003
198	SLE RA 18	-8.96	0.08	40.52	0.0094	-0.0678	0.0005
198	SLE RA 19	-9.02	0.08	40.73	0.0097	-0.0691	0.0005
198	SLE RA 20	-8.95	0.09	40.55	0.009	-0.0681	0.0004
198	SLE RA 21	-9.01	0.09	40.76	0.0093	-0.0693	0.0004
198	SLE FR 1	-7.54	0.07	34.04	0.0076	-0.0584	0.0003
198	SLE FR 2	-7.56	0.07	34.11	0.0077	-0.0588	0.0003
198	SLE FR 3	-7.53	0.08	34.05	0.0074	-0.0584	0.0002
198	SLE FR 4	-7.98	0.08	36.06	0.0082	-0.0616	0.0004
198	SLE FR 5	-7.96	0.08	35.99	0.008	-0.0613	0.0003
198	SLE FR 6	-8.25	0.08	37.28	0.0085	-0.0631	0.0004
198	SLE QP 1	-7.54	0.07	34.04	0.0076	-0.0584	0.0003
198	SLE QP 2	-7.96	0.08	35.99	0.0081	-0.0612	0.0003
198	SLD 1	-4.8	0.38	25.54	-0.034	0.079	-0.0108
198	SLD 2	-4.8	0.38	25.54	-0.034	0.079	-0.0108
198	SLD 3	-6.15	0.47	30.78	-0.0244	0.0593	-0.0084
198	SLD 4	-6.15	0.47	30.78	-0.0244	0.0593	-0.0084
198	SLD 5	-4.97	0.05	24.9	-0.019	0.0107	-0.0067
198	SLD 6	-4.97	0.05	24.9	-0.019	0.0107	-0.0067
198	SLD 7	-9.46	0.32	42.37	0.0129	-0.0549	0.0014
198	SLD 8	-9.46	0.32	42.37	0.0129	-0.0549	0.0014
198	SLD 9	-6.46	-0.16	29.6	0.0033	-0.0675	-0.0007
198	SLD 10	-6.46	-0.16	29.6	0.0033	-0.0675	-0.0007
198	SLD 11	-10.95	0.11	47.07	0.0353	-0.1331	0.0073
198	SLD 12	-10.95	0.11	47.07	0.0353	-0.1331	0.0073
198	SLD 13	-9.77	-0.31	41.19	0.0407	-0.1817	0.0091
198	SLD 14	-9.77	-0.31	41.19	0.0407	-0.1817	0.0091
198	SLD 15	-11.12	-0.23	46.43	0.0502	-0.2014	0.0115
198	SLD 16	-11.12	-0.23	46.43	0.0502	-0.2014	0.0115
198	SLV 1	-0.55	0.85	11.46	-0.0969	0.267	-0.0275
198	SLV 2	-0.55	0.85	11.46	-0.0969	0.267	-0.0275
198	SLV 3	-3.72	1.05	23.81	-0.0735	0.2207	-0.0215
198	SLV 4	-3.72	1.05	23.81	-0.0735	0.2207	-0.0215
198	SLV 5	-0.93	0.01	9.9	-0.0588	0.1075	-0.017
198	SLV 6	-0.93	0.01	9.9	-0.0588	0.1075	-0.017
198	SLV 7	-11.5	0.67	51.06	0.019	-0.0468	0.0028
198	SLV 8	-11.5	0.67	51.06	0.019	-0.0468	0.0028
198	SLV 9	-4.43	-0.52	20.91	-0.0028	-0.0756	-0.0021
198	SLV 10	-4.43	-0.52	20.91	-0.0028	-0.0756	-0.0021
198	SLV 11	-14.99	0.15	62.07	0.075	-0.2299	0.0177
198	SLV 12	-14.99	0.15	62.07	0.075	-0.2299	0.0177
198	SLV 13	-12.2	-0.89	48.16	0.0898	-0.3431	0.0222
198	SLV 14	-12.2	-0.89	48.16	0.0898	-0.3431	0.0222
198	SLV 15	-15.37	-0.69	60.51	0.1131	-0.3894	0.0281
198	SLV 16	-15.37	-0.69	60.51	0.1131	-0.3894	0.0281
199	SLU 1	8.91	0	35.48	0.0024	0.1884	-0.0004
199	SLU 2	8.58	-0.01	34.63	0.0027	0.1768	-0.0005
199	SLU 3	9.15	-0.01	36.39	0.0043	0.1932	-0.0008
199	SLU 4	8.95	-0.01	35.87	0.0046	0.1863	-0.0008
199	SLU 5	8.74	-0.01	35.13	0.0051	0.1807	-0.0009
199	SLU 6	9.3	-0.01	36.89	0.0067	0.1972	-0.0012
199	SLU 7	9.1	-0.01	36.38	0.0069	0.1902	-0.0012
199	SLU 8	9.22	-0.01	36.49	0.007	0.1962	-0.0012
199	SLU 9	9.02	-0.01	35.98	0.0072	0.1892	-0.0013
199	SLU 10	10.36	-0.01	41.88	0.0026	0.2123	-0.0005
199	SLU 11	10.92	-0.01	43.65	0.0042	0.2288	-0.0007
199	SLU 12	10.73	-0.01	43.13	0.0045	0.2218	-0.0008
199	SLU 13	10.51	-0.01	42.39	0.005	0.2162	-0.0009
199	SLU 14	11.08	-0.01	44.15	0.0066	0.2327	-0.0011
199	SLU 15	10.88	-0.01	43.64	0.0068	0.2257	-0.0012
199	SLU 16	10.99	-0.01	43.75	0.0069	0.2317	-0.0012
199	SLU 17	10.8	-0.01	43.24	0.0071	0.2247	-0.0013
199	SLU 18	11.45	0	45.85	0.0022	0.2391	-0.0004
199	SLU 19	11.25	-0.01	45.34	0.0024	0.2321	-0.0004
199	SLU 20	11.6	-0.01	46.36	0.0045	0.243	-0.0008
199	SLU 21	11.4	-0.01	45.84	0.0048	0.2361	-0.0008
199	SLU 22	10.58	-0.01	42	0.0036	0.225	-0.0006
199	SLU 23	10.25	-0.01	41.14	0.004	0.2134	-0.0007
199	SLU 24	10.82	-0.01	42.91	0.0056	0.2299	-0.001
199	SLU 25	10.62	-0.01	42.39	0.0058	0.2229	-0.001
199	SLU 26	10.41	-0.01	41.65	0.0063	0.2173	-0.0011
199	SLU 27	10.97	-0.01	43.41	0.0079	0.2338	-0.0014
199	SLU 28	10.77	-0.02	42.9	0.0082	0.2268	-0.0014
199	SLU 29	10.89	-0.01	43.01	0.0083	0.2328	-0.0014
199	SLU 30	10.69	-0.02	42.5	0.0085	0.2258	-0.0015
199	SLU 31	12.03	-0.01	48.4	0.0039	0.2489	-0.0007
199	SLU 32	12.59	-0.01	50.16	0.0055	0.2654	-0.001
199	SLU 33	12.4	-0.01	49.65	0.0057	0.2584	-0.001
199	SLU 34	12.18	-0.01	48.91	0.0062	0.2528	-0.0011
199	SLU 35	12.75	-0.01	50.67	0.0078	0.2693	-0.0014
199	SLU 36	12.55	-0.02	50.16	0.0081	0.2623	-0.0014
199	SLU 37	12.66	-0.01	50.27	0.0082	0.2683	-0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
199	SLU 38	12.47	-0.02	49.76	0.0084	0.2614	-0.0015
199	SLU 39	13.12	-0.01	52.37	0.0035	0.2757	-0.0006
199	SLU 40	12.92	-0.01	51.86	0.0037	0.2688	-0.0007
199	SLU 41	13.27	-0.01	52.87	0.0058	0.2796	-0.001
199	SLU 42	13.07	-0.01	52.36	0.006	0.2727	-0.0011
199	SLU 43	11.01	0	43.89	0.0026	0.2323	-0.0005
199	SLU 44	10.68	-0.01	43.04	0.003	0.2207	-0.0005
199	SLU 45	11.25	-0.01	44.8	0.0046	0.2372	-0.0008
199	SLU 46	11.05	-0.01	44.29	0.0048	0.2302	-0.0009
199	SLU 47	10.83	-0.01	43.54	0.0053	0.2246	-0.001
199	SLU 48	11.4	-0.01	45.3	0.0069	0.2411	-0.0012
199	SLU 49	11.2	-0.01	44.79	0.0072	0.2341	-0.0013
199	SLU 50	11.32	-0.01	44.9	0.0073	0.2401	-0.0013
199	SLU 51	11.12	-0.01	44.39	0.0075	0.2332	-0.0013
199	SLU 52	12.46	-0.01	50.29	0.0029	0.2562	-0.0005
199	SLU 53	13.02	-0.01	52.06	0.0045	0.2727	-0.0008
199	SLU 54	12.82	-0.01	51.54	0.0047	0.2658	-0.0008
199	SLU 55	12.61	-0.01	50.8	0.0052	0.2601	-0.0009
199	SLU 56	13.18	-0.01	52.56	0.0068	0.2766	-0.0012
199	SLU 57	12.98	-0.01	52.05	0.0071	0.2697	-0.0012
199	SLU 58	13.09	-0.01	52.16	0.0072	0.2757	-0.0013
199	SLU 59	12.9	-0.01	51.65	0.0074	0.2687	-0.0013
199	SLU 60	13.55	0	54.26	0.0025	0.2831	-0.0004
199	SLU 61	13.35	-0.01	53.75	0.0027	0.2761	-0.0005
199	SLU 62	13.7	-0.01	54.77	0.0048	0.287	-0.0008
199	SLU 63	13.5	-0.01	54.25	0.005	0.28	-0.0009
199	SLU 64	12.68	-0.01	50.41	0.0039	0.2689	-0.0007
199	SLU 65	12.35	-0.01	49.55	0.0043	0.2573	-0.0008
199	SLU 66	12.92	-0.01	51.32	0.0059	0.2738	-0.001
199	SLU 67	12.72	-0.01	50.8	0.0061	0.2669	-0.0011
199	SLU 68	12.51	-0.01	50.06	0.0066	0.2612	-0.0012
199	SLU 69	13.07	-0.01	51.82	0.0082	0.2777	-0.0014
199	SLU 70	12.87	-0.02	51.31	0.0084	0.2708	-0.0015
199	SLU 71	12.99	-0.01	51.42	0.0086	0.2768	-0.0015
199	SLU 72	12.79	-0.02	50.91	0.0088	0.2698	-0.0015
199	SLU 73	14.13	-0.01	56.81	0.0042	0.2929	-0.0008
199	SLU 74	14.69	-0.01	58.57	0.0058	0.3093	-0.001
199	SLU 75	14.5	-0.01	58.06	0.006	0.3024	-0.0011
199	SLU 76	14.28	-0.01	57.32	0.0065	0.2968	-0.0012
199	SLU 77	14.85	-0.01	59.08	0.0081	0.3133	-0.0014
199	SLU 78	14.65	-0.02	58.57	0.0083	0.3063	-0.0015
199	SLU 79	14.76	-0.01	58.68	0.0085	0.3123	-0.0015
199	SLU 80	14.57	-0.02	58.17	0.0087	0.3053	-0.0015
199	SLU 81	15.22	-0.01	60.78	0.0038	0.3197	-0.0007
199	SLU 82	15.02	-0.01	60.27	0.004	0.3127	-0.0007
199	SLU 83	15.37	-0.01	61.28	0.0061	0.3236	-0.0011
199	SLU 84	15.17	-0.01	60.77	0.0063	0.3166	-0.0011
199	SLE RA 1	9.39	0	37.35	0.0027	0.1988	-0.0005
199	SLE RA 2	9.17	-0.01	36.77	0.003	0.1911	-0.0005
199	SLE RA 3	9.54	-0.01	37.95	0.004	0.2021	-0.0007
199	SLE RA 4	9.41	-0.01	37.61	0.0042	0.1974	-0.0007
199	SLE RA 5	9.27	-0.01	37.11	0.0045	0.1937	-0.0008
199	SLE RA 6	9.65	-0.01	38.29	0.0056	0.2047	-0.001
199	SLE RA 7	9.52	-0.01	37.94	0.0057	0.2	-0.001
199	SLE RA 8	9.59	-0.01	38.02	0.0058	0.204	-0.001
199	SLE RA 9	9.46	-0.01	37.68	0.006	0.1994	-0.001
199	SLE RA 10	10.35	-0.01	41.61	0.0029	0.2148	-0.0005
199	SLE RA 11	10.73	-0.01	42.79	0.004	0.2258	-0.0007
199	SLE RA 12	10.6	-0.01	42.44	0.0041	0.2211	-0.0007
199	SLE RA 13	10.45	-0.01	41.95	0.0045	0.2174	-0.0008
199	SLE RA 14	10.83	-0.01	43.12	0.0055	0.2284	-0.001
199	SLE RA 15	10.7	-0.01	42.78	0.0057	0.2237	-0.001
199	SLE RA 16	10.78	-0.01	42.86	0.0058	0.2277	-0.001
199	SLE RA 17	10.64	-0.01	42.52	0.0059	0.2231	-0.001
199	SLE RA 18	11.08	0	44.26	0.0026	0.2327	-0.0005
199	SLE RA 19	10.95	-0.01	43.91	0.0028	0.228	-0.0005
199	SLE RA 20	11.18	-0.01	44.59	0.0042	0.2353	-0.0007
199	SLE RA 21	11.05	-0.01	44.25	0.0043	0.2306	-0.0008
199	SLE FR 1	9.39	0	37.35	0.0027	0.1988	-0.0005
199	SLE FR 2	9.34	-0.01	37.23	0.0028	0.1973	-0.0005
199	SLE FR 3	9.43	-0.01	37.48	0.0033	0.1999	-0.0006
199	SLE FR 4	9.85	-0.01	39.3	0.0027	0.2074	-0.0005
199	SLE FR 5	9.94	-0.01	39.55	0.0033	0.21	-0.0006
199	SLE FR 6	10.23	0	40.8	0.0027	0.2157	-0.0005
199	SLE QP 1	9.39	0	37.35	0.0027	0.1988	-0.0005
199	SLE QP 2	9.89	0	39.42	0.0027	0.209	-0.0005
199	SLD 1	18.49	0.02	64.38	0.0041	0.5332	-0.0009
199	SLD 2	18.49	0.02	64.38	0.0041	0.5332	-0.0009
199	SLD 3	19.08	0.27	66.38	0.0316	0.512	-0.0071
199	SLD 4	19.08	0.27	66.38	0.0316	0.512	-0.0071
199	SLD 5	11.58	-0.38	43.87	-0.0385	0.3383	0.0088
199	SLD 6	11.58	-0.38	43.87	-0.0385	0.3383	0.0088
199	SLD 7	13.54	0.46	50.54	0.053	0.2678	-0.0119
199	SLD 8	13.54	0.46	50.54	0.053	0.2678	-0.0119
199	SLD 9	6.25	-0.47	28.3	-0.0476	0.1502	0.0109
199	SLD 10	6.25	-0.47	28.3	-0.0476	0.1502	0.0109
199	SLD 11	8.21	0.37	34.96	0.0439	0.0796	-0.0098



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
199	SLD 12	8.21	0.37	34.96	0.0439	0.0796	-0.0098
199	SLD 13	0.71	-0.28	12.46	-0.0262	-0.0941	0.0061
199	SLD 14	0.71	-0.28	12.46	-0.0262	-0.0941	0.0061
199	SLD 15	1.3	-0.03	14.46	0.0013	-0.1153	-0.0001
199	SLD 16	1.3	-0.03	14.46	0.0013	-0.1153	-0.0001
199	SLV 1	30.01	0.04	97.8	0.005	0.9683	-0.0011
199	SLV 2	30.01	0.04	97.8	0.005	0.9683	-0.0011
199	SLV 3	31.4	0.66	102.55	0.0722	0.9182	-0.0164
199	SLV 4	31.4	0.66	102.55	0.0722	0.9182	-0.0164
199	SLV 5	13.82	-0.92	49.74	-0.0985	0.5127	0.0225
199	SLV 6	13.82	-0.92	49.74	-0.0985	0.5127	0.0225
199	SLV 7	18.46	1.13	65.55	0.1254	0.3458	-0.0284
199	SLV 8	18.46	1.13	65.55	0.1254	0.3458	-0.0284
199	SLV 9	1.33	-1.14	13.29	-0.12	0.0721	0.0274
199	SLV 10	1.33	-1.14	13.29	-0.12	0.0721	0.0274
199	SLV 11	5.97	0.91	29.1	0.1039	-0.0947	-0.0234
199	SLV 12	5.97	0.91	29.1	0.1039	-0.0947	-0.0234
199	SLV 13	-11.61	-0.67	-23.71	-0.0668	-0.5003	0.0154
199	SLV 14	-11.61	-0.67	-23.71	-0.0668	-0.5003	0.0154
199	SLV 15	-10.22	-0.05	-18.97	0.0004	-0.5503	0.0002
199	SLV 16	-10.22	-0.05	-18.97	0.0004	-0.5503	0.0002
200	SLU 1	4.53	-0.01	63.95	0.0041	0.2292	0
200	SLU 2	4.12	-0.01	62.87	0.004	0.2072	0
200	SLU 3	4.68	-0.01	65.68	0.0076	0.2354	0
200	SLU 4	4.43	-0.01	65.03	0.0075	0.2222	0
200	SLU 5	4.26	-0.01	63.8	0.0082	0.2136	0
200	SLU 6	4.82	-0.02	66.61	0.0117	0.2418	0
200	SLU 7	4.57	-0.02	65.96	0.0117	0.2286	0
200	SLU 8	4.82	-0.02	65.81	0.0124	0.242	0
200	SLU 9	4.57	-0.02	65.16	0.0123	0.2288	0
200	SLU 10	4.89	-0.01	76.1	0.0038	0.2461	0
200	SLU 11	5.45	-0.01	78.92	0.0074	0.2744	0
200	SLU 12	5.2	-0.01	78.27	0.0073	0.2612	0
200	SLU 13	5.03	-0.01	77.03	0.0079	0.2525	0
200	SLU 14	5.59	-0.02	79.84	0.0115	0.2808	0
200	SLU 15	5.34	-0.02	79.19	0.0115	0.2676	0
200	SLU 16	5.59	-0.02	79.04	0.0121	0.281	0
200	SLU 17	5.34	-0.02	78.39	0.0121	0.2678	0
200	SLU 18	5.64	0	82.85	0.0037	0.2848	0
200	SLU 19	5.39	-0.01	82.2	0.0037	0.2716	0
200	SLU 20	5.78	-0.01	83.78	0.0079	0.2912	0
200	SLU 21	5.53	-0.01	83.13	0.0079	0.278	0
200	SLU 22	5.44	-0.01	75.54	0.0063	0.2754	0
200	SLU 23	5.02	-0.01	74.46	0.0062	0.2534	0
200	SLU 24	5.58	-0.01	77.27	0.0098	0.2816	0
200	SLU 25	5.33	-0.01	76.62	0.0098	0.2684	0
200	SLU 26	5.16	-0.01	75.38	0.0104	0.2598	0
200	SLU 27	5.72	-0.02	78.2	0.0139	0.2881	0.0001
200	SLU 28	5.47	-0.02	77.55	0.0139	0.2749	0.0001
200	SLU 29	5.72	-0.02	77.4	0.0146	0.2883	0.0001
200	SLU 30	5.47	-0.02	76.75	0.0146	0.2751	0.0001
200	SLU 31	5.79	-0.01	87.69	0.006	0.2923	0
200	SLU 32	6.35	-0.01	90.51	0.0096	0.3206	0
200	SLU 33	6.1	-0.01	89.86	0.0095	0.3074	0
200	SLU 34	5.94	-0.01	88.62	0.0102	0.2988	0
200	SLU 35	6.49	-0.02	91.43	0.0137	0.327	0.0001
200	SLU 36	6.25	-0.02	90.78	0.0137	0.3138	0.0001
200	SLU 37	6.49	-0.02	90.63	0.0144	0.3272	0.0001
200	SLU 38	6.24	-0.02	89.98	0.0143	0.314	0.0001
200	SLU 39	6.54	-0.01	94.44	0.006	0.331	0
200	SLU 40	6.29	-0.01	93.79	0.0059	0.3178	0
200	SLU 41	6.68	-0.01	95.37	0.0101	0.3375	0
200	SLU 42	6.43	-0.01	94.72	0.0101	0.3243	0
200	SLU 43	5.58	-0.01	79.16	0.0045	0.2821	0
200	SLU 44	5.17	-0.01	78.08	0.0045	0.2601	0
200	SLU 45	5.73	-0.01	80.89	0.008	0.2883	0
200	SLU 46	5.48	-0.01	80.25	0.008	0.2751	0
200	SLU 47	5.31	-0.01	79.01	0.0086	0.2665	0
200	SLU 48	5.87	-0.02	81.82	0.0122	0.2947	0
200	SLU 49	5.62	-0.02	81.17	0.0122	0.2815	0
200	SLU 50	5.87	-0.02	81.02	0.0128	0.2949	0.0001
200	SLU 51	5.62	-0.02	80.37	0.0128	0.2817	0.0001
200	SLU 52	5.94	-0.01	91.31	0.0043	0.299	0
200	SLU 53	6.5	-0.01	94.13	0.0078	0.3273	0
200	SLU 54	6.25	-0.01	93.48	0.0078	0.3141	0
200	SLU 55	6.08	-0.01	92.24	0.0084	0.3054	0
200	SLU 56	6.64	-0.02	95.06	0.012	0.3337	0
200	SLU 57	6.39	-0.02	94.41	0.0119	0.3205	0
200	SLU 58	6.64	-0.02	94.25	0.0126	0.3339	0.0001
200	SLU 59	6.39	-0.02	93.6	0.0126	0.3207	0.0001
200	SLU 60	6.69	-0.01	98.07	0.0042	0.3377	0
200	SLU 61	6.44	-0.01	97.42	0.0042	0.3245	0
200	SLU 62	6.83	-0.01	98.99	0.0083	0.3441	0
200	SLU 63	6.58	-0.01	98.34	0.0083	0.3309	0
200	SLU 64	6.49	-0.01	90.75	0.0067	0.3283	0
200	SLU 65	6.07	-0.01	89.67	0.0067	0.3063	0
200	SLU 66	6.63	-0.01	92.48	0.0103	0.3345	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
200	SLU 67	6.38	-0.01	91.83	0.0102	0.3213	0
200	SLU 68	6.21	-0.02	90.6	0.0108	0.3127	0
200	SLU 69	6.77	-0.02	93.41	0.0144	0.341	0.0001
200	SLU 70	6.52	-0.02	92.76	0.0144	0.3278	0.0001
200	SLU 71	6.77	-0.02	92.61	0.015	0.3412	0.0001
200	SLU 72	6.52	-0.02	91.96	0.015	0.328	0.0001
200	SLU 73	6.84	-0.01	102.9	0.0065	0.3452	0
200	SLU 74	7.4	-0.01	105.72	0.01	0.3735	0
200	SLU 75	7.15	-0.01	105.07	0.01	0.3603	0
200	SLU 76	6.99	-0.01	103.83	0.0106	0.3517	0
200	SLU 77	7.54	-0.02	106.65	0.0142	0.3799	0.0001
200	SLU 78	7.3	-0.02	106	0.0142	0.3667	0.0001
200	SLU 79	7.54	-0.02	105.84	0.0148	0.3801	0.0001
200	SLU 80	7.29	-0.02	105.19	0.0148	0.3669	0.0001
200	SLU 81	7.59	-0.01	109.66	0.0064	0.3839	0
200	SLU 82	7.34	-0.01	109.01	0.0064	0.3707	0
200	SLU 83	7.73	-0.01	110.58	0.0106	0.3904	0
200	SLU 84	7.48	-0.01	109.93	0.0105	0.3772	0
200	SLE RA 1	4.79	-0.01	67.26	0.0047	0.2424	0
200	SLE RA 2	4.52	-0.01	66.54	0.0047	0.2277	0
200	SLE RA 3	4.89	-0.01	68.42	0.007	0.2465	0
200	SLE RA 4	4.72	-0.01	67.98	0.007	0.2377	0
200	SLE RA 5	4.61	-0.01	67.16	0.0074	0.232	0
200	SLE RA 6	4.98	-0.01	69.04	0.0098	0.2508	0
200	SLE RA 7	4.82	-0.01	68.6	0.0098	0.242	0
200	SLE RA 8	4.98	-0.01	68.5	0.0102	0.2509	0
200	SLE RA 9	4.81	-0.01	68.07	0.0102	0.2421	0
200	SLE RA 10	5.03	-0.01	75.36	0.0045	0.2537	0
200	SLE RA 11	5.4	-0.01	77.24	0.0069	0.2725	0
200	SLE RA 12	5.24	-0.01	76.81	0.0069	0.2637	0
200	SLE RA 13	5.12	-0.01	75.98	0.0073	0.258	0
200	SLE RA 14	5.5	-0.01	77.86	0.0097	0.2768	0
200	SLE RA 15	5.33	-0.01	77.42	0.0096	0.268	0
200	SLE RA 16	5.5	-0.01	77.32	0.0101	0.2769	0
200	SLE RA 17	5.33	-0.01	76.89	0.0101	0.2681	0
200	SLE RA 18	5.53	-0.01	79.86	0.0045	0.2795	0
200	SLE RA 19	5.36	-0.01	79.43	0.0045	0.2707	0
200	SLE RA 20	5.62	-0.01	80.48	0.0072	0.2838	0
200	SLE RA 21	5.46	-0.01	80.05	0.0072	0.275	0
200	SLE FR 1	4.79	-0.01	67.26	0.0047	0.2424	0
200	SLE FR 2	4.74	-0.01	67.12	0.0047	0.2394	0
200	SLE FR 3	4.83	-0.01	67.51	0.0058	0.2441	0
200	SLE FR 4	4.96	-0.01	70.9	0.0046	0.2506	0
200	SLE FR 5	5.05	-0.01	71.29	0.0057	0.2552	0
200	SLE FR 6	5.16	-0.01	73.56	0.0046	0.2609	0
200	SLE QP 1	4.79	-0.01	67.26	0.0047	0.2424	0
200	SLE QP 2	5.01	-0.01	71.04	0.0046	0.2535	0
200	SLD 1	14.84	-0.02	97.9	0.0106	0.8452	-0.0001
200	SLD 2	14.84	-0.02	97.9	0.0106	0.8452	-0.0001
200	SLD 3	14.15	-0.06	101.28	0.0398	0.8041	0
200	SLD 4	14.15	-0.06	101.28	0.0398	0.8041	0
200	SLD 5	9.01	0.05	73.99	-0.0379	0.4933	-0.0002
200	SLD 6	9.01	0.05	73.99	-0.0379	0.4933	-0.0002
200	SLD 7	6.7	-0.08	85.23	0.0595	0.3564	0.0002
200	SLD 8	6.7	-0.08	85.23	0.0595	0.3564	0.0002
200	SLD 9	3.32	0.07	56.86	-0.0503	0.1506	-0.0001
200	SLD 10	3.32	0.07	56.86	-0.0503	0.1506	-0.0001
200	SLD 11	1.01	-0.06	68.1	0.0472	0.0137	0.0002
200	SLD 12	1.01	-0.06	68.1	0.0472	0.0137	0.0002
200	SLD 13	-4.12	0.04	40.81	-0.0306	-0.2971	0
200	SLD 14	-4.12	0.04	40.81	-0.0306	-0.2971	0
200	SLD 15	-4.82	0	44.18	-0.0013	-0.3382	0.0001
200	SLD 16	-4.82	0	44.18	-0.0013	-0.3382	0.0001
200	SLV 1	28.03	-0.03	133.86	0.0188	1.6393	-0.0002
200	SLV 2	28.03	-0.03	133.86	0.0188	1.6393	-0.0002
200	SLV 3	26.39	-0.12	141.86	0.0878	1.5422	0
200	SLV 4	26.39	-0.12	141.86	0.0878	1.5422	0
200	SLV 5	14.41	0.13	77.74	-0.0958	0.8165	-0.0004
200	SLV 6	14.41	0.13	77.74	-0.0958	0.8165	-0.0004
200	SLV 7	8.94	-0.19	104.43	0.1342	0.4929	0.0004
200	SLV 8	8.94	-0.19	104.43	0.1342	0.4929	0.0004
200	SLV 9	1.08	0.17	37.65	-0.125	0.0141	-0.0004
200	SLV 10	1.08	0.17	37.65	-0.125	0.0141	-0.0004
200	SLV 11	-4.38	-0.14	64.34	0.1051	-0.3095	0.0005
200	SLV 12	-4.38	-0.14	64.34	0.1051	-0.3095	0.0005
200	SLV 13	-16.37	0.11	0.22	-0.0785	-1.0352	0
200	SLV 14	-16.37	0.11	0.22	-0.0785	-1.0352	0
200	SLV 15	-18.01	0.02	8.23	-0.0095	-1.1323	0.0003
200	SLV 16	-18.01	0.02	8.23	-0.0095	-1.1323	0.0003
201	SLU 1	0.41	0	65.03	0.0031	0.0054	0
201	SLU 2	-0.07	0	64.16	0.0022	-0.0175	0
201	SLU 3	0.44	0	66.96	0.0059	0.0053	0
201	SLU 4	0.15	0	66.44	0.0053	-0.0084	0
201	SLU 5	0.03	0	65.22	0.0055	-0.0138	0
201	SLU 6	0.54	-0.01	68.02	0.0091	0.0091	0
201	SLU 7	0.25	-0.01	67.5	0.0086	-0.0047	0
201	SLU 8	0.62	-0.01	67.15	0.0096	0.0128	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
201	SLU 9	0.33	-0.01	66.63	0.0091	-0.0009	0
201	SLU 10	-0.23	0	77.65	0.002	-0.0274	0
201	SLU 11	0.29	0	80.46	0.0056	-0.0045	0
201	SLU 12	0	0	79.93	0.0051	-0.0183	0
201	SLU 13	-0.12	0	78.71	0.0053	-0.0237	0
201	SLU 14	0.39	-0.01	81.52	0.0089	-0.0008	0
201	SLU 15	0.1	-0.01	80.99	0.0084	-0.0146	0
201	SLU 16	0.46	-0.01	80.65	0.0094	0.003	0
201	SLU 17	0.17	-0.01	80.12	0.0089	-0.0108	0
201	SLU 18	0.19	0	84.32	0.0028	-0.0087	0
201	SLU 19	-0.1	0	83.79	0.0023	-0.0225	0
201	SLU 20	0.3	0	85.38	0.0061	-0.005	0
201	SLU 21	0	0	84.85	0.0055	-0.0187	0
201	SLU 22	0.6	0	76.73	0.0048	0.0118	0
201	SLU 23	0.11	0	75.85	0.0039	-0.0111	0
201	SLU 24	0.63	-0.01	78.66	0.0076	0.0118	0
201	SLU 25	0.34	-0.01	78.13	0.007	-0.002	0
201	SLU 26	0.22	-0.01	76.91	0.0072	-0.0074	0
201	SLU 27	0.73	-0.01	79.72	0.0108	0.0155	0
201	SLU 28	0.44	-0.01	79.19	0.0103	0.0017	0
201	SLU 29	0.8	-0.01	78.85	0.0113	0.0193	0
201	SLU 30	0.51	-0.01	78.33	0.0108	0.0055	0
201	SLU 31	-0.04	0	89.35	0.0037	-0.021	0
201	SLU 32	0.47	-0.01	92.16	0.0074	0.0019	0
201	SLU 33	0.18	-0.01	91.63	0.0068	-0.0118	0
201	SLU 34	0.06	-0.01	90.41	0.007	-0.0172	0
201	SLU 35	0.57	-0.01	93.22	0.0106	0.0056	0
201	SLU 36	0.28	-0.01	92.69	0.0101	-0.0081	0
201	SLU 37	0.65	-0.01	92.35	0.0111	0.0094	0
201	SLU 38	0.36	-0.01	91.82	0.0106	-0.0044	0
201	SLU 39	0.38	0	96.01	0.0045	-0.0023	0
201	SLU 40	0.09	0	95.49	0.004	-0.016	0
201	SLU 41	0.48	-0.01	97.07	0.0078	0.0015	0
201	SLU 42	0.19	-0.01	96.55	0.0072	-0.0123	0
201	SLU 43	0.47	0	80.53	0.0035	0.0048	0
201	SLU 44	-0.01	0	79.65	0.0026	-0.0181	0
201	SLU 45	0.5	0	82.46	0.0062	0.0048	0
201	SLU 46	0.21	0	81.94	0.0057	-0.009	0
201	SLU 47	0.09	0	80.71	0.0058	-0.0144	0
201	SLU 48	0.6	-0.01	83.52	0.0094	0.0085	0
201	SLU 49	0.31	-0.01	83	0.0089	-0.0053	0
201	SLU 50	0.68	-0.01	82.65	0.01	0.0122	0
201	SLU 51	0.39	-0.01	82.13	0.0094	-0.0015	0
201	SLU 52	-0.16	0	93.15	0.0024	-0.028	0
201	SLU 53	0.35	0	95.96	0.006	-0.0051	0
201	SLU 54	0.06	0	95.43	0.0055	-0.0189	0
201	SLU 55	-0.06	0	94.21	0.0056	-0.0243	0
201	SLU 56	0.45	-0.01	97.02	0.0092	-0.0014	0
201	SLU 57	0.16	-0.01	96.49	0.0087	-0.0152	0
201	SLU 58	0.52	-0.01	96.15	0.0097	0.0024	0
201	SLU 59	0.23	-0.01	95.62	0.0092	-0.0114	0
201	SLU 60	0.25	0	99.82	0.0032	-0.0093	0
201	SLU 61	-0.04	0	99.29	0.0026	-0.023	0
201	SLU 62	0.36	0	100.88	0.0064	-0.0056	0
201	SLU 63	0.07	0	100.35	0.0059	-0.0193	0
201	SLU 64	0.66	0	92.23	0.0052	0.0113	0
201	SLU 65	0.17	0	91.35	0.0043	-0.0117	0
201	SLU 66	0.69	-0.01	94.16	0.0079	0.0112	0
201	SLU 67	0.4	-0.01	93.63	0.0074	-0.0026	0
201	SLU 68	0.28	-0.01	92.41	0.0075	-0.008	0
201	SLU 69	0.79	-0.01	95.22	0.0112	0.0149	0
201	SLU 70	0.5	-0.01	94.69	0.0106	0.0012	0
201	SLU 71	0.86	-0.01	94.35	0.0117	0.0187	0
201	SLU 72	0.57	-0.01	93.82	0.0111	0.0049	0
201	SLU 73	0.02	0	104.85	0.0041	-0.0215	0
201	SLU 74	0.53	-0.01	107.66	0.0077	0.0013	0
201	SLU 75	0.24	-0.01	107.13	0.0072	-0.0124	0
201	SLU 76	0.12	-0.01	105.91	0.0073	-0.0178	0
201	SLU 77	0.64	-0.01	108.72	0.011	0.005	0
201	SLU 78	0.34	-0.01	108.19	0.0104	-0.0087	0
201	SLU 79	0.71	-0.01	107.85	0.0115	0.0088	0
201	SLU 80	0.42	-0.01	107.32	0.0109	-0.005	0
201	SLU 81	0.44	0	111.51	0.0049	-0.0028	0
201	SLU 82	0.15	0	110.99	0.0043	-0.0166	0
201	SLU 83	0.54	-0.01	112.57	0.0081	0.0009	0
201	SLU 84	0.25	-0.01	112.05	0.0076	-0.0129	0
201	SLE RA 1	0.47	0	68.38	0.0036	0.0072	0
201	SLE RA 2	0.14	0	67.79	0.003	-0.008	0
201	SLE RA 3	0.49	0	69.66	0.0054	0.0072	0
201	SLE RA 4	0.29	0	69.31	0.0051	-0.002	0
201	SLE RA 5	0.21	0	68.5	0.0052	-0.0056	0
201	SLE RA 6	0.55	-0.01	70.37	0.0076	0.0097	0
201	SLE RA 7	0.36	-0.01	70.02	0.0072	0.0005	0
201	SLE RA 8	0.6	-0.01	69.79	0.0079	0.0122	0
201	SLE RA 9	0.41	-0.01	69.44	0.0076	0.003	0
201	SLE RA 10	0.04	0	76.79	0.0029	-0.0146	0
201	SLE RA 11	0.38	0	78.66	0.0053	0.0006	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
201	SLE RA 12	0.19	0	78.31	0.0049	-0.0085	0
201	SLE RA 13	0.11	0	77.5	0.005	-0.0121	0
201	SLE RA 14	0.45	-0.01	79.37	0.0075	0.0031	0
201	SLE RA 15	0.26	-0.01	79.02	0.0071	-0.0061	0
201	SLE RA 16	0.5	-0.01	78.79	0.0078	0.0056	0
201	SLE RA 17	0.31	-0.01	78.44	0.0074	-0.0036	0
201	SLE RA 18	0.32	0	81.23	0.0034	-0.0022	0
201	SLE RA 19	0.13	0	80.88	0.003	-0.0113	0
201	SLE RA 20	0.39	0	81.94	0.0056	0.0003	0
201	SLE RA 21	0.19	0	81.59	0.0052	-0.0089	0
201	SLE FR 1	0.47	0	68.38	0.0036	0.0072	0
201	SLE FR 2	0.4	0	68.26	0.0035	0.0042	0
201	SLE FR 3	0.49	0	68.66	0.0045	0.0082	0
201	SLE FR 4	0.36	0	72.12	0.0034	0.0014	0
201	SLE FR 5	0.45	0	72.52	0.0044	0.0054	0
201	SLE FR 6	0.39	0	74.8	0.0035	0.0025	0
201	SLE QP 1	0.47	0	68.38	0.0036	0.0072	0
201	SLE QP 2	0.42	0	72.23	0.0035	0.0044	0
201	SLD 1	12.3	-0.02	83.7	0.0168	0.6245	0
201	SLD 2	12.3	-0.02	83.7	0.0168	0.6245	0
201	SLD 3	11.27	-0.12	87.22	0.0992	0.5716	0.0001
201	SLD 4	11.27	-0.12	87.22	0.0992	0.5716	0.0001
201	SLD 5	5.55	0.15	70.33	-0.1175	0.2706	-0.0001
201	SLD 6	5.55	0.15	70.33	-0.1175	0.2706	-0.0001
201	SLD 7	2.11	-0.19	82.07	0.1572	0.0944	0.0002
201	SLD 8	2.11	-0.19	82.07	0.1572	0.0944	0.0002
201	SLD 9	-1.26	0.19	62.4	-0.1502	-0.0856	-0.0002
201	SLD 10	-1.26	0.19	62.4	-0.1502	-0.0856	-0.0002
201	SLD 11	-4.71	-0.15	74.13	0.1246	-0.2618	0.0001
201	SLD 12	-4.71	-0.15	74.13	0.1246	-0.2618	0.0001
201	SLD 13	-10.42	0.12	57.25	-0.0921	-0.5628	-0.0001
201	SLD 14	-10.42	0.12	57.25	-0.0921	-0.5628	-0.0001
201	SLD 15	-11.46	0.02	60.77	-0.0097	-0.6156	0
201	SLD 16	-11.46	0.02	60.77	-0.0097	-0.6156	0
201	SLV 1	28.24	-0.04	99	0.0325	1.4568	0
201	SLV 2	28.24	-0.04	99	0.0325	1.4568	0
201	SLV 3	25.8	-0.29	107.36	0.2339	1.332	0.0002
201	SLV 4	25.8	-0.29	107.36	0.2339	1.332	0.0002
201	SLV 5	12.47	0.36	67.58	-0.2933	0.6293	-0.0003
201	SLV 6	12.47	0.36	67.58	-0.2933	0.6293	-0.0003
201	SLV 7	4.33	-0.47	95.46	0.3782	0.2136	0.0004
201	SLV 8	4.33	-0.47	95.46	0.3782	0.2136	0.0004
201	SLV 9	-3.49	0.46	49.01	-0.3711	-0.2047	-0.0004
201	SLV 10	-3.49	0.46	49.01	-0.3711	-0.2047	-0.0004
201	SLV 11	-11.63	-0.37	76.89	0.3003	-0.6204	0.0003
201	SLV 12	-11.63	-0.37	76.89	0.3003	-0.6204	0.0003
201	SLV 13	-24.96	0.29	37.1	-0.2268	-1.3232	-0.0002
201	SLV 14	-24.96	0.29	37.1	-0.2268	-1.3232	-0.0002
201	SLV 15	-27.4	0.04	45.47	-0.0254	-1.4479	0
201	SLV 16	-27.4	0.04	45.47	-0.0254	-1.4479	0
202	SLU 1	-3.18	0	66.82	0.0026	-0.1577	0
202	SLU 2	-3.64	0	65.92	0.001	-0.1787	0
202	SLU 3	-3.26	0	68.96	0.0047	-0.1627	0
202	SLU 4	-3.54	0	68.42	0.0037	-0.1753	0
202	SLU 5	-3.6	0	67.16	0.0035	-0.1777	0
202	SLU 6	-3.21	0	70.2	0.0072	-0.1617	0
202	SLU 7	-3.49	0	69.66	0.0062	-0.1743	0
202	SLU 8	-3.09	-0.01	69.29	0.0076	-0.1556	0
202	SLU 9	-3.37	0	68.75	0.0066	-0.1682	0
202	SLU 10	-4.57	0	79.75	0.0009	-0.2233	0
202	SLU 11	-4.18	0	82.79	0.0046	-0.2073	0
202	SLU 12	-4.46	0	82.26	0.0036	-0.2199	0
202	SLU 13	-4.52	0	80.99	0.0034	-0.2223	0
202	SLU 14	-4.13	0	84.03	0.007	-0.2063	0
202	SLU 15	-4.41	0	83.49	0.0061	-0.2189	0
202	SLU 16	-4.01	0	83.12	0.0074	-0.2002	0
202	SLU 17	-4.29	0	82.58	0.0065	-0.2128	0
202	SLU 18	-4.49	0	86.58	0.0024	-0.2215	0
202	SLU 19	-4.77	0	86.04	0.0015	-0.234	0
202	SLU 20	-4.45	0	87.81	0.0049	-0.2204	0
202	SLU 21	-4.73	0	87.27	0.0039	-0.233	0
202	SLU 22	-3.64	0	78.83	0.0039	-0.1811	0
202	SLU 23	-4.1	0	77.93	0.0024	-0.202	0
202	SLU 24	-3.72	0	80.97	0.006	-0.1861	0
202	SLU 25	-4	0	80.43	0.0051	-0.1987	0
202	SLU 26	-4.06	0	79.17	0.0048	-0.201	0
202	SLU 27	-3.67	-0.01	82.2	0.0085	-0.185	0
202	SLU 28	-3.95	-0.01	81.67	0.0076	-0.1976	0
202	SLU 29	-3.55	-0.01	81.29	0.0089	-0.179	0
202	SLU 30	-3.83	-0.01	80.76	0.008	-0.1916	0
202	SLU 31	-5.02	0	91.76	0.0022	-0.2467	0
202	SLU 32	-4.64	0	94.8	0.0059	-0.2307	0
202	SLU 33	-4.92	0	94.26	0.005	-0.2433	0
202	SLU 34	-4.98	0	93	0.0047	-0.2456	0
202	SLU 35	-4.59	-0.01	96.04	0.0084	-0.2296	0
202	SLU 36	-4.87	0	95.5	0.0074	-0.2422	0
202	SLU 37	-4.47	-0.01	95.13	0.0088	-0.2236	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
202	SLU 38	-4.75	0	94.59	0.0078	-0.2362	0
202	SLU 39	-4.95	0	98.59	0.0038	-0.2448	0
202	SLU 40	-5.23	0	98.05	0.0028	-0.2574	0
202	SLU 41	-4.91	0	99.82	0.0062	-0.2437	0
202	SLU 42	-5.19	0	99.28	0.0053	-0.2563	0
202	SLU 43	-3.97	0	82.74	0.0029	-0.197	0
202	SLU 44	-4.44	0	81.85	0.0013	-0.218	0
202	SLU 45	-4.05	0	84.89	0.005	-0.202	0
202	SLU 46	-4.33	0	84.35	0.0041	-0.2146	0
202	SLU 47	-4.39	0	83.08	0.0038	-0.217	0
202	SLU 48	-4.01	0	86.12	0.0075	-0.201	0
202	SLU 49	-4.29	0	85.59	0.0065	-0.2136	0
202	SLU 50	-3.88	-0.01	85.21	0.0079	-0.1949	0
202	SLU 51	-4.16	0	84.68	0.0069	-0.2075	0
202	SLU 52	-5.36	0	95.68	0.0012	-0.2626	0
202	SLU 53	-4.98	0	98.72	0.0049	-0.2467	0
202	SLU 54	-5.26	0	98.18	0.0039	-0.2592	0
202	SLU 55	-5.32	0	96.92	0.0037	-0.2616	0
202	SLU 56	-4.93	0	99.96	0.0074	-0.2456	0
202	SLU 57	-5.21	0	99.42	0.0064	-0.2582	0
202	SLU 58	-4.8	0	99.05	0.0077	-0.2396	0
202	SLU 59	-5.08	0	98.51	0.0068	-0.2521	0
202	SLU 60	-5.29	0	102.51	0.0027	-0.2608	0
202	SLU 61	-5.57	0	101.97	0.0018	-0.2734	0
202	SLU 62	-5.24	0	103.74	0.0052	-0.2597	0
202	SLU 63	-5.52	0	103.2	0.0043	-0.2723	0
202	SLU 64	-4.43	0	94.75	0.0043	-0.2204	0
202	SLU 65	-4.9	0	93.86	0.0027	-0.2414	0
202	SLU 66	-4.51	0	96.9	0.0064	-0.2254	0
202	SLU 67	-4.79	0	96.36	0.0054	-0.238	0
202	SLU 68	-4.85	0	95.09	0.0052	-0.2403	0
202	SLU 69	-4.47	-0.01	98.13	0.0088	-0.2243	0
202	SLU 70	-4.75	-0.01	97.59	0.0079	-0.2369	0
202	SLU 71	-4.34	-0.01	97.22	0.0092	-0.2183	0
202	SLU 72	-4.62	-0.01	96.69	0.0083	-0.2309	0
202	SLU 73	-5.82	0	107.69	0.0025	-0.286	0
202	SLU 74	-5.43	0	110.73	0.0062	-0.27	0
202	SLU 75	-5.71	0	110.19	0.0053	-0.2826	0
202	SLU 76	-5.77	0	108.93	0.005	-0.2849	0
202	SLU 77	-5.39	-0.01	111.96	0.0087	-0.2689	0
202	SLU 78	-5.67	0	111.43	0.0078	-0.2815	0
202	SLU 79	-5.26	-0.01	111.05	0.0091	-0.2629	0
202	SLU 80	-5.54	0	110.52	0.0081	-0.2755	0
202	SLU 81	-5.75	0	114.51	0.0041	-0.2841	0
202	SLU 82	-6.03	0	113.98	0.0031	-0.2967	0
202	SLU 83	-5.7	0	115.75	0.0066	-0.2831	0
202	SLU 84	-5.98	0	115.21	0.0056	-0.2957	0
202	SLE RA 1	-3.31	0	70.25	0.003	-0.1644	0
202	SLE RA 2	-3.62	0	69.65	0.0019	-0.1784	0
202	SLE RA 3	-3.36	0	71.68	0.0044	-0.1677	0
202	SLE RA 4	-3.55	0	71.32	0.0037	-0.1761	0
202	SLE RA 5	-3.59	0	70.47	0.0036	-0.1777	0
202	SLE RA 6	-3.33	0	72.5	0.006	-0.167	0
202	SLE RA 7	-3.52	0	72.14	0.0054	-0.1754	0
202	SLE RA 8	-3.25	0	71.89	0.0063	-0.163	0
202	SLE RA 9	-3.43	0	71.54	0.0057	-0.1714	0
202	SLE RA 10	-4.23	0	78.87	0.0018	-0.2081	0
202	SLE RA 11	-3.98	0	80.9	0.0043	-0.1975	0
202	SLE RA 12	-4.16	0	80.54	0.0037	-0.2059	0
202	SLE RA 13	-4.2	0	79.7	0.0035	-0.2074	0
202	SLE RA 14	-3.95	0	81.72	0.0059	-0.1968	0
202	SLE RA 15	-4.13	0	81.36	0.0053	-0.2052	0
202	SLE RA 16	-3.86	0	81.12	0.0062	-0.1927	0
202	SLE RA 17	-4.05	0	80.76	0.0056	-0.2011	0
202	SLE RA 18	-4.19	0	83.42	0.0029	-0.2069	0
202	SLE RA 19	-4.37	0	83.06	0.0022	-0.2153	0
202	SLE RA 20	-4.16	0	84.24	0.0045	-0.2062	0
202	SLE RA 21	-4.34	0	83.89	0.0039	-0.2146	0
202	SLE FR 1	-3.31	0	70.25	0.003	-0.1644	0
202	SLE FR 2	-3.37	0	70.13	0.0028	-0.1672	0
202	SLE FR 3	-3.3	0	70.58	0.0036	-0.1641	0
202	SLE FR 4	-3.63	0	74.08	0.0027	-0.1799	0
202	SLE FR 5	-3.56	0	74.53	0.0036	-0.1769	0
202	SLE FR 6	-3.75	0	76.83	0.0029	-0.1856	0
202	SLE QP 1	-3.31	0	70.25	0.003	-0.1644	0
202	SLE QP 2	-3.57	0	74.2	0.0029	-0.1771	0
202	SLD 1	8.68	-0.02	76.55	0.0216	0.4339	0
202	SLD 2	8.68	-0.02	76.55	0.0216	0.4339	0
202	SLD 3	7.46	-0.16	80.26	0.1445	0.3751	0
202	SLD 4	7.46	-0.16	80.26	0.1445	0.3751	0
202	SLD 5	1.96	0.21	69.29	-0.1777	0.0953	0
202	SLD 6	1.96	0.21	69.29	-0.1777	0.0953	0
202	SLD 7	-2.12	-0.26	81.63	0.2317	-0.1006	0.0001
202	SLD 8	-2.12	-0.26	81.63	0.2317	-0.1006	0.0001
202	SLD 9	-5.03	0.26	66.77	-0.2258	-0.2537	-0.0001
202	SLD 10	-5.03	0.26	66.77	-0.2258	-0.2537	-0.0001
202	SLD 11	-9.1	-0.21	79.11	0.1836	-0.4496	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
202	SLD 12	-9.1	-0.21	79.11	0.1836	-0.4496	0
202	SLD 13	-14.6	0.16	68.14	-0.1386	-0.7294	0
202	SLD 14	-14.6	0.16	68.14	-0.1386	-0.7294	0
202	SLD 15	-15.83	0.02	71.85	-0.0158	-0.7881	0
202	SLD 16	-15.83	0.02	71.85	-0.0158	-0.7881	0
202	SLV 1	25.14	-0.05	79.65	0.0432	1.2541	0
202	SLV 2	25.14	-0.05	79.65	0.0432	1.2541	0
202	SLV 3	22.25	-0.39	88.45	0.344	1.1154	0.0001
202	SLV 4	22.25	-0.39	88.45	0.344	1.1154	0.0001
202	SLV 5	9.42	0.51	62.49	-0.4412	0.4627	-0.0001
202	SLV 6	9.42	0.51	62.49	-0.4412	0.4627	-0.0001
202	SLV 7	-0.2	-0.64	91.82	0.5615	0.0002	0.0001
202	SLV 8	-0.2	-0.64	91.82	0.5615	0.0002	0.0001
202	SLV 9	-6.94	0.64	56.58	-0.5556	-0.3545	-0.0001
202	SLV 10	-6.94	0.64	56.58	-0.5556	-0.3545	-0.0001
202	SLV 11	-16.56	-0.51	85.91	0.4471	-0.8169	0.0001
202	SLV 12	-16.56	-0.51	85.91	0.4471	-0.8169	0.0001
202	SLV 13	-29.4	0.39	59.95	-0.3381	-1.4696	-0.0001
202	SLV 14	-29.4	0.39	59.95	-0.3381	-1.4696	-0.0001
202	SLV 15	-32.28	0.05	68.75	-0.0373	-1.6084	0
202	SLV 16	-32.28	0.05	68.75	-0.0373	-1.6084	0
203	SLU 1	-6.36	0	68.39	0.0026	-0.2996	0
203	SLU 2	-6.76	0	67.48	0.0003	-0.3186	0
203	SLU 3	-6.55	0	70.74	0.0042	-0.3096	0
203	SLU 4	-6.79	0	70.2	0.0028	-0.321	0
203	SLU 5	-6.78	0	68.89	0.0022	-0.3207	0
203	SLU 6	-6.58	0	72.15	0.0061	-0.3117	0
203	SLU 7	-6.82	0	71.61	0.0047	-0.3231	0
203	SLU 8	-6.41	0	71.2	0.0064	-0.3038	0
203	SLU 9	-6.65	0	70.66	0.005	-0.3152	0
203	SLU 10	-8.32	0	81.62	0.0003	-0.3924	0
203	SLU 11	-8.12	0	84.89	0.0042	-0.3834	0
203	SLU 12	-8.36	0	84.34	0.0028	-0.3948	0
203	SLU 13	-8.35	0	83.03	0.0022	-0.3944	0
203	SLU 14	-8.15	0	86.3	0.0061	-0.3854	0
203	SLU 15	-8.38	0	85.75	0.0047	-0.3968	0
203	SLU 16	-7.98	0	85.35	0.0064	-0.3775	0
203	SLU 17	-8.22	0	84.8	0.005	-0.3889	0
203	SLU 18	-8.6	0	88.59	0.0027	-0.405	0
203	SLU 19	-8.84	0	88.05	0.0013	-0.4164	0
203	SLU 20	-8.63	0	90	0.0045	-0.4071	0
203	SLU 21	-8.86	0	89.46	0.0031	-0.4185	0
203	SLU 22	-7.4	0	80.69	0.0038	-0.3487	0
203	SLU 23	-7.8	0	79.78	0.0015	-0.3677	0
203	SLU 24	-7.59	0	83.04	0.0054	-0.3587	0
203	SLU 25	-7.83	0	82.5	0.004	-0.3701	0
203	SLU 26	-7.82	0	81.19	0.0033	-0.3698	0
203	SLU 27	-7.62	0	84.45	0.0072	-0.3608	0
203	SLU 28	-7.86	0	83.91	0.0058	-0.3722	0
203	SLU 29	-7.46	0	83.5	0.0075	-0.3529	0
203	SLU 30	-7.69	0	82.96	0.0061	-0.3642	0
203	SLU 31	-9.36	0	93.93	0.0015	-0.4415	0
203	SLU 32	-9.16	0	97.19	0.0054	-0.4325	0
203	SLU 33	-9.4	0	96.65	0.004	-0.4438	0
203	SLU 34	-9.39	0	95.34	0.0034	-0.4435	0
203	SLU 35	-9.19	0	98.6	0.0073	-0.4345	0
203	SLU 36	-9.42	0	98.05	0.0059	-0.4459	0
203	SLU 37	-9.02	0	97.65	0.0075	-0.4266	0
203	SLU 38	-9.26	0	97.11	0.0062	-0.438	0
203	SLU 39	-9.64	0	100.9	0.0038	-0.4541	0
203	SLU 40	-9.88	0	100.35	0.0024	-0.4655	0
203	SLU 41	-9.67	0	102.31	0.0057	-0.4561	0
203	SLU 42	-9.9	0	101.76	0.0043	-0.4675	0
203	SLU 43	-7.91	0	84.68	0.003	-0.3727	0
203	SLU 44	-8.31	0	83.78	0.0007	-0.3917	0
203	SLU 45	-8.1	0	87.04	0.0046	-0.3827	0
203	SLU 46	-8.34	0	86.49	0.0032	-0.3941	0
203	SLU 47	-8.33	0	85.18	0.0026	-0.3938	0
203	SLU 48	-8.13	0	88.45	0.0065	-0.3848	0
203	SLU 49	-8.37	0	87.9	0.0051	-0.3961	0
203	SLU 50	-7.97	0	87.5	0.0068	-0.3768	0
203	SLU 51	-8.2	0	86.95	0.0054	-0.3882	0
203	SLU 52	-9.87	0	97.92	0.0007	-0.4654	0
203	SLU 53	-9.67	0	101.19	0.0046	-0.4564	0
203	SLU 54	-9.91	0	100.64	0.0032	-0.4678	0
203	SLU 55	-9.9	0	99.33	0.0026	-0.4675	0
203	SLU 56	-9.7	0	102.59	0.0065	-0.4585	0
203	SLU 57	-9.93	0	102.05	0.0051	-0.4699	0
203	SLU 58	-9.53	0	101.65	0.0068	-0.4506	0
203	SLU 59	-9.77	0	101.1	0.0054	-0.462	0
203	SLU 60	-10.15	0	104.89	0.0031	-0.4781	0
203	SLU 61	-10.39	0	104.35	0.0017	-0.4895	0
203	SLU 62	-10.18	0	106.3	0.0049	-0.4801	0
203	SLU 63	-10.41	0	105.76	0.0035	-0.4915	0
203	SLU 64	-8.95	0	96.99	0.0042	-0.4218	0
203	SLU 65	-9.35	0	96.08	0.0018	-0.4408	0
203	SLU 66	-9.15	0	99.34	0.0058	-0.4318	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
203	SLU 67	-9.38	0	98.8	0.0044	-0.4432	0
203	SLU 68	-9.38	0	97.49	0.0037	-0.4428	0
203	SLU 69	-9.17	0	100.75	0.0076	-0.4338	0
203	SLU 70	-9.41	0	100.21	0.0062	-0.4452	0
203	SLU 71	-9.01	-0.01	99.8	0.0079	-0.4259	0
203	SLU 72	-9.24	0	99.26	0.0065	-0.4373	0
203	SLU 73	-10.92	0	110.23	0.0019	-0.5145	0
203	SLU 74	-10.71	0	113.49	0.0058	-0.5055	0
203	SLU 75	-10.95	0	112.94	0.0044	-0.5169	0
203	SLU 76	-10.94	0	111.63	0.0037	-0.5166	0
203	SLU 77	-10.74	0	114.9	0.0077	-0.5076	0
203	SLU 78	-10.98	0	114.35	0.0063	-0.519	0
203	SLU 79	-10.57	0	113.95	0.0079	-0.4997	0
203	SLU 80	-10.81	0	113.4	0.0065	-0.5111	0
203	SLU 81	-11.19	0	117.2	0.0042	-0.5271	0
203	SLU 82	-11.43	0	116.65	0.0028	-0.5385	0
203	SLU 83	-11.22	0	118.6	0.0061	-0.5292	0
203	SLU 84	-11.46	0	118.06	0.0047	-0.5406	0
203	SLE RA 1	-6.66	0	71.9	0.003	-0.3137	0
203	SLE RA 2	-6.92	0	71.3	0.0014	-0.3263	0
203	SLE RA 3	-6.79	0	73.47	0.004	-0.3203	0
203	SLE RA 4	-6.94	0	73.11	0.0031	-0.3279	0
203	SLE RA 5	-6.94	0	72.23	0.0027	-0.3277	0
203	SLE RA 6	-6.8	0	74.41	0.0053	-0.3217	0
203	SLE RA 7	-6.96	0	74.05	0.0043	-0.3293	0
203	SLE RA 8	-6.69	0	73.78	0.0054	-0.3164	0
203	SLE RA 9	-6.85	0	73.41	0.0045	-0.324	0
203	SLE RA 10	-7.97	0	80.73	0.0014	-0.3755	0
203	SLE RA 11	-7.83	0	82.9	0.004	-0.3695	0
203	SLE RA 12	-7.99	0	82.54	0.0031	-0.3771	0
203	SLE RA 13	-7.98	0	81.67	0.0027	-0.3769	0
203	SLE RA 14	-7.85	0	83.84	0.0053	-0.3709	0
203	SLE RA 15	-8.01	0	83.48	0.0043	-0.3785	0
203	SLE RA 16	-7.74	0	83.21	0.0055	-0.3656	0
203	SLE RA 17	-7.9	0	82.85	0.0045	-0.3732	0
203	SLE RA 18	-8.15	0	85.37	0.003	-0.3839	0
203	SLE RA 19	-8.31	0	85.01	0.0021	-0.3915	0
203	SLE RA 20	-8.17	0	86.31	0.0042	-0.3853	0
203	SLE RA 21	-8.33	0	85.95	0.0033	-0.3929	0
203	SLE FR 1	-6.66	0	71.9	0.003	-0.3137	0
203	SLE FR 2	-6.71	0	71.78	0.0026	-0.3162	0
203	SLE FR 3	-6.67	0	72.28	0.0035	-0.3142	0
203	SLE FR 4	-7.16	0	75.82	0.0026	-0.3373	0
203	SLE FR 5	-7.11	0	76.32	0.0035	-0.3353	0
203	SLE FR 6	-7.4	0	78.64	0.003	-0.3488	0
203	SLE QP 1	-6.66	0	71.9	0.003	-0.3137	0
203	SLE QP 2	-7.11	0	75.94	0.003	-0.3347	0
203	SLD 1	4.65	-0.03	68.33	0.027	0.2774	0.0001
203	SLD 2	4.65	-0.03	68.33	0.027	0.2774	0.0001
203	SLD 3	3.34	-0.2	72.3	0.1755	0.213	0
203	SLD 4	3.34	-0.2	72.3	0.1755	0.213	0
203	SLD 5	-1.6	0.25	67.64	-0.215	-0.0534	0.0001
203	SLD 6	-1.6	0.25	67.64	-0.215	-0.0534	0.0001
203	SLD 7	-5.95	-0.31	80.87	0.2799	-0.2681	-0.0001
203	SLD 8	-5.95	-0.31	80.87	0.2799	-0.2681	-0.0001
203	SLD 9	-8.26	0.31	71.02	-0.274	-0.4014	0.0001
203	SLD 10	-8.26	0.31	71.02	-0.274	-0.4014	0.0001
203	SLD 11	-12.61	-0.25	84.24	0.221	-0.616	-0.0001
203	SLD 12	-12.61	-0.25	84.24	0.221	-0.616	-0.0001
203	SLD 13	-17.56	0.19	79.58	-0.1696	-0.8825	0
203	SLD 14	-17.56	0.19	79.58	-0.1696	-0.8825	0
203	SLD 15	-18.86	0.03	83.55	-0.0211	-0.9469	-0.0001
203	SLD 16	-18.86	0.03	83.55	-0.0211	-0.9469	-0.0001
203	SLV 1	20.43	-0.06	58.06	0.0551	1.099	0.0002
203	SLV 2	20.43	-0.06	58.06	0.0551	1.099	0.0002
203	SLV 3	17.35	-0.47	67.49	0.4186	0.9471	0
203	SLV 4	17.35	-0.47	67.49	0.4186	0.9471	0
203	SLV 5	5.83	0.6	56.28	-0.5327	0.3259	0.0002
203	SLV 6	5.83	0.6	56.28	-0.5327	0.3259	0.0002
203	SLV 7	-4.44	-0.77	87.7	0.679	-0.1806	-0.0002
203	SLV 8	-4.44	-0.77	87.7	0.679	-0.1806	-0.0002
203	SLV 9	-9.77	0.76	64.18	-0.673	-0.4888	0.0002
203	SLV 10	-9.77	0.76	64.18	-0.673	-0.4888	0.0002
203	SLV 11	-20.04	-0.61	95.6	0.5386	-0.9953	-0.0002
203	SLV 12	-20.04	-0.61	95.6	0.5386	-0.9953	-0.0002
203	SLV 13	-31.56	0.47	84.4	-0.4127	-1.6166	0
203	SLV 14	-31.56	0.47	84.4	-0.4127	-1.6166	0
203	SLV 15	-34.64	0.06	93.82	-0.0492	-1.7685	-0.0002
203	SLV 16	-34.64	0.06	93.82	-0.0492	-1.7685	-0.0002
204	SLU 1	-9.37	0	73.65	0.003	-0.5186	0
204	SLU 2	-9.6	0	72.9	0	-0.5304	0
204	SLU 3	-9.68	0	76.36	0.0041	-0.5368	0
204	SLU 4	-9.81	0	75.9	0.0023	-0.5439	0
204	SLU 5	-9.72	0	74.52	0.0012	-0.5382	0
204	SLU 6	-9.8	-0.01	77.98	0.0054	-0.5446	0
204	SLU 7	-9.93	0	77.53	0.0035	-0.5517	0
204	SLU 8	-9.61	-0.01	76.91	0.0056	-0.5342	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
204	SLU 9	-9.74	0	76.46	0.0037	-0.5413	0
204	SLU 10	-11.73	0	88.26	0.0002	-0.6485	0
204	SLU 11	-11.81	0	91.72	0.0044	-0.6549	0
204	SLU 12	-11.95	0	91.27	0.0025	-0.662	0
204	SLU 13	-11.85	0	89.89	0.0015	-0.6563	0
204	SLU 14	-11.93	-0.01	93.35	0.0056	-0.6627	0
204	SLU 15	-12.07	0	92.89	0.0038	-0.6698	0
204	SLU 16	-11.74	-0.01	92.27	0.0058	-0.6523	0
204	SLU 17	-11.88	0	91.82	0.004	-0.6594	0
204	SLU 18	-12.42	0	95.6	0.0034	-0.6873	0
204	SLU 19	-12.55	0	95.14	0.0016	-0.6944	0
204	SLU 20	-12.54	0	97.23	0.0047	-0.6951	0
204	SLU 21	-12.67	0	96.77	0.0028	-0.7022	0
204	SLU 22	-10.99	0	86.9	0.0041	-0.6088	0
204	SLU 23	-11.21	0	86.14	0.001	-0.6206	0
204	SLU 24	-11.29	0	89.6	0.0051	-0.627	0
204	SLU 25	-11.43	0	89.15	0.0033	-0.6341	0
204	SLU 26	-11.33	0	87.77	0.0022	-0.6284	0
204	SLU 27	-11.41	-0.01	91.23	0.0064	-0.6348	0
204	SLU 28	-11.55	0	90.78	0.0045	-0.6418	0
204	SLU 29	-11.23	-0.01	90.15	0.0066	-0.6243	0
204	SLU 30	-11.36	0	89.7	0.0047	-0.6314	0
204	SLU 31	-13.35	0	101.5	0.0012	-0.7387	0
204	SLU 32	-13.43	-0.01	104.96	0.0054	-0.7451	0
204	SLU 33	-13.56	0	104.51	0.0036	-0.7522	0
204	SLU 34	-13.47	0	103.13	0.0025	-0.7465	0
204	SLU 35	-13.55	-0.01	106.59	0.0067	-0.7528	0
204	SLU 36	-13.68	0	106.14	0.0048	-0.7599	0
204	SLU 37	-13.36	-0.01	105.52	0.0068	-0.7424	0
204	SLU 38	-13.5	0	105.06	0.005	-0.7495	0
204	SLU 39	-14.03	0	108.84	0.0044	-0.7775	0
204	SLU 40	-14.17	0	108.39	0.0026	-0.7846	0
204	SLU 41	-14.15	-0.01	110.47	0.0057	-0.7852	0
204	SLU 42	-14.29	0	110.02	0.0038	-0.7923	0
204	SLU 43	-11.62	0	91.2	0.0036	-0.6433	0
204	SLU 44	-11.85	0	90.45	0.0005	-0.6551	0
204	SLU 45	-11.93	0	93.91	0.0047	-0.6615	0
204	SLU 46	-12.07	0	93.46	0.0029	-0.6686	0
204	SLU 47	-11.97	0	92.08	0.0018	-0.6629	0
204	SLU 48	-12.05	-0.01	95.54	0.006	-0.6693	0
204	SLU 49	-12.19	0	95.09	0.0041	-0.6763	0
204	SLU 50	-11.86	-0.01	94.46	0.0061	-0.6588	0
204	SLU 51	-12	0	94.01	0.0043	-0.6659	0
204	SLU 52	-13.98	0	105.81	0.0008	-0.7732	0
204	SLU 53	-14.06	0	109.27	0.005	-0.7796	0
204	SLU 54	-14.2	0	108.82	0.0031	-0.7867	0
204	SLU 55	-14.1	0	107.44	0.0021	-0.781	0
204	SLU 56	-14.18	-0.01	110.9	0.0062	-0.7873	0
204	SLU 57	-14.32	0	110.45	0.0044	-0.7944	0
204	SLU 58	-14	-0.01	109.83	0.0064	-0.7769	0
204	SLU 59	-14.13	0	109.37	0.0045	-0.784	0
204	SLU 60	-14.67	0	113.15	0.004	-0.812	0
204	SLU 61	-14.81	0	112.7	0.0021	-0.8191	0
204	SLU 62	-14.79	-0.01	114.78	0.0052	-0.8198	0
204	SLU 63	-14.93	0	114.33	0.0034	-0.8268	0
204	SLU 64	-13.24	0	104.45	0.0046	-0.7334	0
204	SLU 65	-13.47	0	103.69	0.0016	-0.7453	0
204	SLU 66	-13.55	-0.01	107.16	0.0057	-0.7516	0
204	SLU 67	-13.69	0	106.7	0.0039	-0.7587	0
204	SLU 68	-13.59	0	105.32	0.0028	-0.753	0
204	SLU 69	-13.67	-0.01	108.78	0.007	-0.7594	0
204	SLU 70	-13.81	0	108.33	0.0051	-0.7665	0
204	SLU 71	-13.48	-0.01	107.71	0.0071	-0.749	0
204	SLU 72	-13.62	0	107.25	0.0053	-0.7561	0
204	SLU 73	-15.6	0	119.06	0.0018	-0.8633	0
204	SLU 74	-15.68	-0.01	122.52	0.006	-0.8697	0
204	SLU 75	-15.82	0	122.06	0.0041	-0.8768	0
204	SLU 76	-15.72	0	120.69	0.0031	-0.8711	0
204	SLU 77	-15.8	-0.01	124.15	0.0072	-0.8775	0
204	SLU 78	-15.94	0	123.69	0.0054	-0.8846	0
204	SLU 79	-15.62	-0.01	123.07	0.0074	-0.8671	0
204	SLU 80	-15.75	0	122.62	0.0055	-0.8742	0
204	SLU 81	-16.29	0	126.4	0.005	-0.9021	0
204	SLU 82	-16.43	0	125.94	0.0032	-0.9092	0
204	SLU 83	-16.41	-0.01	128.03	0.0063	-0.9099	0
204	SLU 84	-16.55	0	127.57	0.0044	-0.917	0
204	SLE RA 1	-9.83	0	77.44	0.0033	-0.5444	0
204	SLE RA 2	-9.98	0	76.93	0.0013	-0.5522	0
204	SLE RA 3	-10.04	0	79.24	0.0041	-0.5565	0
204	SLE RA 4	-10.13	0	78.94	0.0028	-0.5612	0
204	SLE RA 5	-10.06	0	78.02	0.0021	-0.5574	0
204	SLE RA 6	-10.12	0	80.32	0.0049	-0.5617	0
204	SLE RA 7	-10.21	0	80.02	0.0037	-0.5664	0
204	SLE RA 8	-9.99	0	79.61	0.005	-0.5547	0
204	SLE RA 9	-10.08	0	79.3	0.0038	-0.5595	0
204	SLE RA 10	-11.4	0	87.17	0.0015	-0.631	0
204	SLE RA 11	-11.46	0	89.48	0.0042	-0.6352	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
204	SLE RA 12	-11.55	0	89.18	0.003	-0.64	0
204	SLE RA 13	-11.48	0	88.26	0.0023	-0.6362	0
204	SLE RA 14	-11.54	0	90.57	0.0051	-0.6404	0
204	SLE RA 15	-11.63	0	90.26	0.0038	-0.6451	0
204	SLE RA 16	-11.41	0	89.85	0.0052	-0.6335	0
204	SLE RA 17	-11.5	0	89.55	0.004	-0.6382	0
204	SLE RA 18	-11.86	0	92.07	0.0036	-0.6568	0
204	SLE RA 19	-11.95	0	91.76	0.0024	-0.6616	0
204	SLE RA 20	-11.94	0	93.15	0.0044	-0.662	0
204	SLE RA 21	-12.03	0	92.85	0.0032	-0.6667	0
204	SLE FR 1	-9.83	0	77.44	0.0033	-0.5444	0
204	SLE FR 2	-9.86	0	77.33	0.0029	-0.5459	0
204	SLE FR 3	-9.86	0	77.87	0.0037	-0.5464	0
204	SLE FR 4	-10.47	0	81.72	0.003	-0.5797	0
204	SLE FR 5	-10.47	0	82.26	0.0037	-0.5802	0
204	SLE FR 6	-10.85	0	84.75	0.0035	-0.6006	0
204	SLE QP 1	-9.83	0	77.44	0.0033	-0.5444	0
204	SLE QP 2	-10.44	0	81.82	0.0034	-0.5781	0
204	SLD 1	-0.96	-0.04	58.98	0.0329	-0.0047	-0.0001
204	SLD 2	-0.96	-0.04	58.98	0.0329	-0.0047	-0.0001
204	SLD 3	-2.18	-0.25	63.9	0.19	-0.0741	-0.0006
204	SLD 4	-2.18	-0.25	63.9	0.19	-0.0741	-0.0006
204	SLD 5	-5.74	0.3	67.52	-0.2259	-0.3008	0.0007
204	SLD 6	-5.74	0.3	67.52	-0.2259	-0.3008	0.0007
204	SLD 7	-9.82	-0.39	83.89	0.2976	-0.5322	-0.0009
204	SLD 8	-9.82	-0.39	83.89	0.2976	-0.5322	-0.0009
204	SLD 9	-11.06	0.38	79.76	-0.2908	-0.624	0.0009
204	SLD 10	-11.06	0.38	79.76	-0.2908	-0.624	0.0009
204	SLD 11	-15.14	-0.3	96.12	0.2328	-0.8554	-0.0007
204	SLD 12	-15.14	-0.3	96.12	0.2328	-0.8554	-0.0007
204	SLD 13	-18.7	0.24	99.75	-0.1832	-1.0821	0.0006
204	SLD 14	-18.7	0.24	99.75	-0.1832	-1.0821	0.0006
204	SLD 15	-19.92	0.04	104.66	-0.0261	-1.1515	0.0001
204	SLD 16	-19.92	0.04	104.66	-0.0261	-1.1515	0.0001
204	SLV 1	11.78	-0.1	28.29	0.0686	0.7652	-0.0002
204	SLV 2	11.78	-0.1	28.29	0.0686	0.7652	-0.0002
204	SLV 3	8.89	-0.6	39.94	0.4523	0.6012	-0.0014
204	SLV 4	8.89	-0.6	39.94	0.4523	0.6012	-0.0014
204	SLV 5	0.61	0.73	48.1	-0.559	0.0737	0.0017
204	SLV 6	0.61	0.73	48.1	-0.559	0.0737	0.0017
204	SLV 7	-9.03	-0.94	86.93	0.72	-0.4731	-0.0022
204	SLV 8	-9.03	-0.94	86.93	0.72	-0.4731	-0.0022
204	SLV 9	-11.85	0.94	76.72	-0.7132	-0.6831	0.0022
204	SLV 10	-11.85	0.94	76.72	-0.7132	-0.6831	0.0022
204	SLV 11	-21.49	-0.74	115.55	0.5658	-1.2299	-0.0017
204	SLV 12	-21.49	-0.74	115.55	0.5658	-1.2299	-0.0017
204	SLV 13	-29.77	0.59	123.71	-0.4455	-1.7574	0.0014
204	SLV 14	-29.77	0.59	123.71	-0.4455	-1.7574	0.0014
204	SLV 15	-32.66	0.09	135.36	-0.0618	-1.9214	0.0002
204	SLV 16	-32.66	0.09	135.36	-0.0618	-1.9214	0.0002
205	SLU 1	-12.7	0	45.51	0.0017	-0.3265	0.0003
205	SLU 2	-12.74	0	45.29	-0.0001	-0.3314	0
205	SLU 3	-13.17	0	47.23	0.002	-0.3384	0.0003
205	SLU 4	-13.19	0	47.1	0.0009	-0.3413	0.0001
205	SLU 5	-12.99	0	46.3	0.0003	-0.3372	0
205	SLU 6	-13.42	0	48.24	0.0023	-0.3442	0.0004
205	SLU 7	-13.44	0	48.11	0.0012	-0.3471	0.0002
205	SLU 8	-13.21	0	47.53	0.0023	-0.3381	0.0004
205	SLU 9	-13.23	0	47.4	0.0013	-0.341	0.0002
205	SLU 10	-15.49	0	54.93	0.0002	-0.404	0
205	SLU 11	-15.92	0	56.87	0.0022	-0.4111	0.0004
205	SLU 12	-15.94	0	56.74	0.0011	-0.414	0.0002
205	SLU 13	-15.75	0	55.94	0.0005	-0.4098	0.0001
205	SLU 14	-16.17	0	57.88	0.0025	-0.4169	0.0004
205	SLU 15	-16.2	0	57.75	0.0015	-0.4198	0.0002
205	SLU 16	-15.96	0	57.17	0.0025	-0.4108	0.0004
205	SLU 17	-15.98	0	57.04	0.0015	-0.4137	0.0002
205	SLU 18	-16.63	0	59.29	0.002	-0.4303	0.0004
205	SLU 19	-16.66	0	59.15	0.0009	-0.4332	0.0002
205	SLU 20	-16.89	0	60.29	0.0023	-0.4361	0.0004
205	SLU 21	-16.91	0	60.16	0.0013	-0.439	0.0002
205	SLU 22	-14.96	0	53.67	0.0021	-0.3839	0.0004
205	SLU 23	-15	0	53.45	0.0004	-0.3888	0.0001
205	SLU 24	-15.43	0	55.4	0.0024	-0.3958	0.0004
205	SLU 25	-15.45	0	55.26	0.0013	-0.3987	0.0002
205	SLU 26	-15.26	0	54.46	0.0007	-0.3945	0.0001
205	SLU 27	-15.68	0	56.4	0.0027	-0.4016	0.0004
205	SLU 28	-15.71	0	56.27	0.0017	-0.4045	0.0003
205	SLU 29	-15.47	0	55.69	0.0027	-0.3955	0.0004
205	SLU 30	-15.49	0	55.56	0.0017	-0.3984	0.0003
205	SLU 31	-17.76	0	63.09	0.0006	-0.4614	0.0001
205	SLU 32	-18.18	0	65.04	0.0026	-0.4685	0.0004
205	SLU 33	-18.21	0	64.9	0.0016	-0.4714	0.0003
205	SLU 34	-18.01	0	64.1	0.0009	-0.4672	0.0001
205	SLU 35	-18.44	0	66.04	0.0029	-0.4743	0.0005
205	SLU 36	-18.46	0	65.91	0.0019	-0.4772	0.0003
205	SLU 37	-18.22	0	65.33	0.003	-0.4681	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
205	SLU 38	-18.24	0	65.2	0.0019	-0.4711	0.0003
205	SLU 39	-18.9	0	67.45	0.0024	-0.4877	0.0004
205	SLU 40	-18.92	0	67.31	0.0014	-0.4906	0.0002
205	SLU 41	-19.15	0	68.46	0.0027	-0.4935	0.0005
205	SLU 42	-19.17	0	68.32	0.0017	-0.4964	0.0003
205	SLU 43	-15.74	0	56.37	0.002	-0.4048	0.0004
205	SLU 44	-15.78	0	56.14	0.0003	-0.4096	0.0001
205	SLU 45	-16.2	0	58.09	0.0023	-0.4167	0.0004
205	SLU 46	-16.23	0	57.95	0.0013	-0.4196	0.0002
205	SLU 47	-16.03	0	57.15	0.0006	-0.4154	0.0001
205	SLU 48	-16.45	0	59.1	0.0026	-0.4225	0.0004
205	SLU 49	-16.48	0	58.96	0.0016	-0.4254	0.0002
205	SLU 50	-16.24	0	58.39	0.0027	-0.4164	0.0004
205	SLU 51	-16.26	0	58.25	0.0016	-0.4193	0.0002
205	SLU 52	-18.53	0	65.78	0.0005	-0.4823	0.0001
205	SLU 53	-18.96	0	67.73	0.0025	-0.4894	0.0004
205	SLU 54	-18.98	0	67.6	0.0015	-0.4923	0.0003
205	SLU 55	-18.78	0	66.79	0.0008	-0.4881	0.0001
205	SLU 56	-19.21	0	68.74	0.0029	-0.4952	0.0005
205	SLU 57	-19.23	0	68.6	0.0018	-0.4981	0.0003
205	SLU 58	-18.99	0	68.03	0.0029	-0.489	0.0005
205	SLU 59	-19.02	0	67.89	0.0018	-0.4919	0.0003
205	SLU 60	-19.67	0	70.14	0.0023	-0.5086	0.0004
205	SLU 61	-19.69	0	70.01	0.0013	-0.5115	0.0002
205	SLU 62	-19.92	0	71.15	0.0027	-0.5144	0.0005
205	SLU 63	-19.94	0	71.02	0.0016	-0.5173	0.0003
205	SLU 64	-18	0	64.53	0.0024	-0.4622	0.0004
205	SLU 65	-18.04	0	64.31	0.0007	-0.467	0.0001
205	SLU 66	-18.47	0	66.25	0.0027	-0.4741	0.0005
205	SLU 67	-18.49	0	66.12	0.0017	-0.477	0.0003
205	SLU 68	-18.29	0	65.31	0.001	-0.4728	0.0002
205	SLU 69	-18.72	0	67.26	0.0031	-0.4799	0.0005
205	SLU 70	-18.74	0	67.12	0.002	-0.4828	0.0003
205	SLU 71	-18.5	0	66.55	0.0031	-0.4738	0.0005
205	SLU 72	-18.53	0	66.41	0.002	-0.4767	0.0003
205	SLU 73	-20.79	0	73.95	0.0009	-0.5397	0.0002
205	SLU 74	-21.22	0	75.89	0.0029	-0.5468	0.0005
205	SLU 75	-21.24	0	75.76	0.0019	-0.5497	0.0003
205	SLU 76	-21.04	0	74.96	0.0013	-0.5455	0.0002
205	SLU 77	-21.47	0	76.9	0.0033	-0.5525	0.0005
205	SLU 78	-21.49	0	76.77	0.0022	-0.5555	0.0004
205	SLU 79	-21.26	0	76.19	0.0033	-0.5464	0.0005
205	SLU 80	-21.28	0	76.05	0.0023	-0.5493	0.0004
205	SLU 81	-21.93	0	78.3	0.0028	-0.566	0.0005
205	SLU 82	-21.96	0	78.17	0.0017	-0.5689	0.0003
205	SLU 83	-22.18	0	79.31	0.0031	-0.5718	0.0005
205	SLU 84	-22.21	0	79.18	0.002	-0.5747	0.0003
205	SLE RA 1	-13.35	0	47.85	0.0018	-0.3429	0.0003
205	SLE RA 2	-13.37	0	47.7	0.0006	-0.3461	0.0001
205	SLE RA 3	-13.66	0	48.99	0.002	-0.3508	0.0003
205	SLE RA 4	-13.67	0	48.9	0.0013	-0.3528	0.0002
205	SLE RA 5	-13.54	0	48.37	0.0008	-0.35	0.0001
205	SLE RA 6	-13.83	0	49.66	0.0022	-0.3547	0.0004
205	SLE RA 7	-13.84	0	49.57	0.0015	-0.3566	0.0002
205	SLE RA 8	-13.68	0	49.19	0.0022	-0.3506	0.0004
205	SLE RA 9	-13.7	0	49.1	0.0015	-0.3526	0.0002
205	SLE RA 10	-15.21	0	54.12	0.0008	-0.3946	0.0001
205	SLE RA 11	-15.49	0	55.42	0.0021	-0.3993	0.0004
205	SLE RA 12	-15.51	0	55.33	0.0014	-0.4012	0.0002
205	SLE RA 13	-15.38	0	54.79	0.001	-0.3985	0.0002
205	SLE RA 14	-15.66	0	56.09	0.0023	-0.4032	0.0004
205	SLE RA 15	-15.68	0	56	0.0016	-0.4051	0.0003
205	SLE RA 16	-15.52	0	55.62	0.0024	-0.3991	0.0004
205	SLE RA 17	-15.54	0	55.53	0.0017	-0.401	0.0003
205	SLE RA 18	-15.97	0	57.03	0.002	-0.4121	0.0004
205	SLE RA 19	-15.99	0	56.94	0.0013	-0.4141	0.0002
205	SLE RA 20	-16.14	0	57.7	0.0022	-0.416	0.0004
205	SLE RA 21	-16.15	0	57.61	0.0015	-0.4179	0.0003
205	SLE FR 1	-13.35	0	47.85	0.0018	-0.3429	0.0003
205	SLE FR 2	-13.35	0	47.82	0.0015	-0.3436	0.0003
205	SLE FR 3	-13.42	0	48.11	0.0019	-0.3445	0.0003
205	SLE FR 4	-14.14	0	50.57	0.0016	-0.3643	0.0003
205	SLE FR 5	-14.2	0	50.87	0.0019	-0.3652	0.0003
205	SLE FR 6	-14.66	0	52.44	0.0019	-0.3775	0.0003
205	SLE QP 1	-13.35	0	47.85	0.0018	-0.3429	0.0003
205	SLE QP 2	-14.13	0	50.6	0.0018	-0.3637	0.0003
205	SLD 1	-5.88	0.02	27.64	0.0179	-0.0611	0.0031
205	SLD 2	-5.88	0.02	27.64	0.0179	-0.0611	0.0031
205	SLD 3	-7.07	0.05	31.24	0.0904	-0.0989	0.015
205	SLD 4	-7.07	0.05	31.24	0.0904	-0.0989	0.015
205	SLD 5	-9.87	-0.05	38.25	-0.1033	-0.2156	-0.0169
205	SLD 6	-9.87	-0.05	38.25	-0.1033	-0.2156	-0.0169
205	SLD 7	-13.81	0.07	50.25	0.1383	-0.3415	0.0228
205	SLD 8	-13.81	0.07	50.25	0.1383	-0.3415	0.0228
205	SLD 9	-14.46	-0.08	50.95	-0.1347	-0.3858	-0.0222
205	SLD 10	-14.46	-0.08	50.95	-0.1347	-0.3858	-0.0222
205	SLD 11	-18.4	0.05	62.95	0.1069	-0.5117	0.0176



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
205	SLD 12	-18.4	0.05	62.95	0.1069	-0.5117	0.0176
205	SLD 13	-21.2	-0.06	69.96	-0.0867	-0.6285	-0.0144
205	SLD 14	-21.2	-0.06	69.96	-0.0867	-0.6285	-0.0144
205	SLD 15	-22.39	-0.02	73.56	-0.0142	-0.6662	-0.0025
205	SLD 16	-22.39	-0.02	73.56	-0.0142	-0.6662	-0.0025
205	SLV 1	5.2	0.04	-3.19	0.038	0.345	0.0066
205	SLV 2	5.2	0.04	-3.19	0.038	0.345	0.0066
205	SLV 3	2.4	0.13	5.33	0.2147	0.2558	0.0356
205	SLV 4	2.4	0.13	5.33	0.2147	0.2558	0.0356
205	SLV 5	-4.09	-0.13	21.53	-0.2552	-0.0158	-0.0418
205	SLV 6	-4.09	-0.13	21.53	-0.2552	-0.0158	-0.0418
205	SLV 7	-13.42	0.18	49.95	0.3336	-0.3131	0.0549
205	SLV 8	-13.42	0.18	49.95	0.3336	-0.3131	0.0549
205	SLV 9	-14.85	-0.18	51.25	-0.3299	-0.4143	-0.0543
205	SLV 10	-14.85	-0.18	51.25	-0.3299	-0.4143	-0.0543
205	SLV 11	-24.18	0.12	79.67	0.2589	-0.7115	0.0424
205	SLV 12	-24.18	0.12	79.67	0.2589	-0.7115	0.0424
205	SLV 13	-30.67	-0.14	95.87	-0.211	-0.9831	-0.035
205	SLV 14	-30.67	-0.14	95.87	-0.211	-0.9831	-0.035
205	SLV 15	-33.47	-0.05	104.39	-0.0343	-1.0723	-0.006
205	SLV 16	-33.47	-0.05	104.39	-0.0343	-1.0723	-0.006
206	SLU 1	6.67	-0.04	24.56	0.0127	0.0478	-0.0029
206	SLU 2	6.01	-0.02	22.38	0.0088	0.0391	-0.002
206	SLU 3	6.96	-0.04	25.62	0.0135	0.0496	-0.0031
206	SLU 4	6.57	-0.03	24.31	0.0112	0.0444	-0.0026
206	SLU 5	6.26	-0.03	23.24	0.0096	0.0411	-0.0022
206	SLU 6	7.2	-0.05	26.48	0.0143	0.0516	-0.0033
206	SLU 7	6.81	-0.04	25.17	0.012	0.0464	-0.0027
206	SLU 8	7.15	-0.05	26.29	0.0143	0.0517	-0.0033
206	SLU 9	6.76	-0.04	24.98	0.0119	0.0465	-0.0027
206	SLU 10	7.21	-0.03	26.84	0.011	0.0458	-0.0025
206	SLU 11	8.16	-0.05	30.08	0.0157	0.0563	-0.0036
206	SLU 12	7.77	-0.04	28.77	0.0133	0.0511	-0.0031
206	SLU 13	7.46	-0.03	27.7	0.0117	0.0478	-0.0027
206	SLU 14	8.4	-0.05	30.94	0.0164	0.0582	-0.0038
206	SLU 15	8.01	-0.04	29.63	0.0141	0.053	-0.0032
206	SLU 16	8.35	-0.05	30.75	0.0164	0.0584	-0.0038
206	SLU 17	7.96	-0.04	29.44	0.0141	0.0532	-0.0032
206	SLU 18	8.38	-0.05	30.93	0.0158	0.0573	-0.0036
206	SLU 19	7.99	-0.04	29.62	0.0134	0.0521	-0.0031
206	SLU 20	8.63	-0.05	31.79	0.0165	0.0593	-0.0038
206	SLU 21	8.23	-0.04	30.49	0.0142	0.0541	-0.0032
206	SLU 22	7.86	-0.05	28.97	0.0149	0.0557	-0.0034
206	SLU 23	7.21	-0.03	26.79	0.011	0.0471	-0.0025
206	SLU 24	8.16	-0.05	30.02	0.0157	0.0576	-0.0036
206	SLU 25	7.76	-0.04	28.71	0.0134	0.0524	-0.0031
206	SLU 26	7.45	-0.03	27.65	0.0118	0.0491	-0.0027
206	SLU 27	8.4	-0.05	30.88	0.0165	0.0596	-0.0038
206	SLU 28	8.01	-0.04	29.58	0.0142	0.0544	-0.0032
206	SLU 29	8.35	-0.05	30.69	0.0165	0.0597	-0.0038
206	SLU 30	7.96	-0.04	29.38	0.0141	0.0545	-0.0032
206	SLU 31	8.41	-0.04	31.25	0.0132	0.0537	-0.003
206	SLU 32	9.36	-0.06	34.48	0.0179	0.0642	-0.0041
206	SLU 33	8.96	-0.05	33.17	0.0155	0.059	-0.0036
206	SLU 34	8.65	-0.04	32.11	0.0139	0.0557	-0.0032
206	SLU 35	9.6	-0.06	35.34	0.0186	0.0662	-0.0043
206	SLU 36	9.21	-0.05	34.04	0.0163	0.061	-0.0037
206	SLU 37	9.55	-0.06	35.15	0.0186	0.0664	-0.0043
206	SLU 38	9.16	-0.05	33.84	0.0163	0.0612	-0.0037
206	SLU 39	9.58	-0.06	35.34	0.018	0.0652	-0.0041
206	SLU 40	9.19	-0.05	34.03	0.0156	0.0601	-0.0036
206	SLU 41	9.82	-0.06	36.2	0.0187	0.0672	-0.0043
206	SLU 42	9.43	-0.05	34.89	0.0164	0.062	-0.0038
206	SLU 43	8.26	-0.05	30.42	0.0158	0.0594	-0.0036
206	SLU 44	7.6	-0.03	28.24	0.0119	0.0507	-0.0027
206	SLU 45	8.55	-0.05	31.48	0.0166	0.0612	-0.0038
206	SLU 46	8.16	-0.04	30.17	0.0143	0.056	-0.0033
206	SLU 47	7.85	-0.04	29.1	0.0127	0.0527	-0.0029
206	SLU 48	8.79	-0.06	32.34	0.0174	0.0632	-0.004
206	SLU 49	8.4	-0.05	31.03	0.015	0.058	-0.0034
206	SLU 50	8.75	-0.06	32.15	0.0173	0.0633	-0.004
206	SLU 51	8.35	-0.05	30.84	0.015	0.0581	-0.0034
206	SLU 52	8.8	-0.04	32.7	0.014	0.0574	-0.0032
206	SLU 53	9.75	-0.06	35.93	0.0187	0.0679	-0.0043
206	SLU 54	9.36	-0.05	34.63	0.0164	0.0627	-0.0038
206	SLU 55	9.05	-0.04	33.56	0.0148	0.0594	-0.0034
206	SLU 56	9.99	-0.06	36.8	0.0195	0.0698	-0.0045
206	SLU 57	9.6	-0.05	35.49	0.0172	0.0646	-0.0039
206	SLU 58	9.95	-0.06	36.6	0.0194	0.07	-0.0045
206	SLU 59	9.55	-0.05	35.3	0.0171	0.0648	-0.0039
206	SLU 60	9.97	-0.06	36.79	0.0188	0.0689	-0.0043
206	SLU 61	9.58	-0.05	35.48	0.0165	0.0637	-0.0038
206	SLU 62	10.22	-0.06	37.65	0.0196	0.0709	-0.0045
206	SLU 63	9.82	-0.05	36.35	0.0173	0.0657	-0.004
206	SLU 64	9.45	-0.06	34.82	0.018	0.0673	-0.0041
206	SLU 65	8.8	-0.04	32.64	0.0141	0.0587	-0.0032
206	SLU 66	9.75	-0.06	35.88	0.0188	0.0692	-0.0043



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
206	SLU 67	9.35	-0.05	34.57	0.0165	0.064	-0.0038
206	SLU 68	9.04	-0.04	33.51	0.0149	0.0607	-0.0034
206	SLU 69	9.99	-0.06	36.74	0.0196	0.0711	-0.0045
206	SLU 70	9.6	-0.05	35.43	0.0172	0.066	-0.0039
206	SLU 71	9.94	-0.06	36.55	0.0195	0.0713	-0.0045
206	SLU 72	9.55	-0.05	35.24	0.0172	0.0661	-0.0039
206	SLU 73	10	-0.05	37.1	0.0162	0.0653	-0.0037
206	SLU 74	10.95	-0.07	40.34	0.0209	0.0758	-0.0048
206	SLU 75	10.55	-0.06	39.03	0.0186	0.0706	-0.0043
206	SLU 76	10.24	-0.05	37.97	0.017	0.0673	-0.0039
206	SLU 77	11.19	-0.07	41.2	0.0217	0.0778	-0.005
206	SLU 78	10.8	-0.06	39.89	0.0194	0.0726	-0.0044
206	SLU 79	11.14	-0.07	41.01	0.0216	0.078	-0.005
206	SLU 80	10.75	-0.06	39.7	0.0193	0.0728	-0.0044
206	SLU 81	11.17	-0.07	41.2	0.021	0.0768	-0.0048
206	SLU 82	10.78	-0.06	39.89	0.0187	0.0717	-0.0043
206	SLU 83	11.41	-0.07	42.06	0.0218	0.0788	-0.005
206	SLU 84	11.02	-0.06	40.75	0.0195	0.0736	-0.0045
206	SLE RA 1	7.01	-0.04	25.82	0.0133	0.05	-0.0031
206	SLE RA 2	6.57	-0.03	24.37	0.0108	0.0443	-0.0025
206	SLE RA 3	7.2	-0.05	26.52	0.0139	0.0513	-0.0032
206	SLE RA 4	6.94	-0.04	25.65	0.0123	0.0478	-0.0028
206	SLE RA 5	6.74	-0.03	24.94	0.0113	0.0456	-0.0026
206	SLE RA 6	7.37	-0.05	27.1	0.0144	0.0526	-0.0033
206	SLE RA 7	7.11	-0.04	26.23	0.0129	0.0491	-0.0029
206	SLE RA 8	7.33	-0.05	26.97	0.0144	0.0527	-0.0033
206	SLE RA 9	7.07	-0.04	26.1	0.0128	0.0492	-0.0029
206	SLE RA 10	7.37	-0.04	27.34	0.0122	0.0487	-0.0028
206	SLE RA 11	8	-0.05	29.5	0.0153	0.0557	-0.0035
206	SLE RA 12	7.74	-0.04	28.62	0.0138	0.0522	-0.0032
206	SLE RA 13	7.54	-0.04	27.91	0.0127	0.05	-0.0029
206	SLE RA 14	8.17	-0.05	30.07	0.0158	0.057	-0.0036
206	SLE RA 15	7.91	-0.04	29.2	0.0143	0.0536	-0.0033
206	SLE RA 16	8.13	-0.05	29.94	0.0158	0.0571	-0.0036
206	SLE RA 17	7.87	-0.04	29.07	0.0142	0.0537	-0.0033
206	SLE RA 18	8.15	-0.05	30.07	0.0154	0.0564	-0.0035
206	SLE RA 19	7.89	-0.04	29.2	0.0138	0.0529	-0.0032
206	SLE RA 20	8.31	-0.05	30.64	0.0159	0.0577	-0.0036
206	SLE RA 21	8.05	-0.05	29.77	0.0143	0.0542	-0.0033
206	SLE FR 1	7.01	-0.04	25.82	0.0133	0.05	-0.0031
206	SLE FR 2	6.92	-0.04	25.53	0.0128	0.0489	-0.0029
206	SLE FR 3	7.07	-0.04	26.05	0.0135	0.0506	-0.0031
206	SLE FR 4	7.27	-0.04	26.8	0.0134	0.0508	-0.0031
206	SLE FR 5	7.42	-0.05	27.32	0.0142	0.0525	-0.0033
206	SLE FR 6	7.58	-0.05	27.94	0.0144	0.0532	-0.0033
206	SLE QP 1	7.01	-0.04	25.82	0.0133	0.05	-0.0031
206	SLE QP 2	7.35	-0.05	27.09	0.014	0.0519	-0.0032
206	SLD 1	9.29	-0.18	33.62	0.025	0.1165	-0.0066
206	SLD 2	9.29	-0.18	33.62	0.025	0.1165	-0.0066
206	SLD 3	9.84	-0.32	35.45	0.039	0.1235	-0.0107
206	SLD 4	9.84	-0.32	35.45	0.039	0.1235	-0.0107
206	SLD 5	7.11	0.13	26.29	-0.0039	0.0606	0.002
206	SLD 6	7.11	0.13	26.29	-0.0039	0.0606	0.002
206	SLD 7	8.93	-0.34	32.36	0.0427	0.0841	-0.0117
206	SLD 8	8.93	-0.34	32.36	0.0427	0.0841	-0.0117
206	SLD 9	5.78	0.25	21.82	-0.0148	0.0198	0.0053
206	SLD 10	5.78	0.25	21.82	-0.0148	0.0198	0.0053
206	SLD 11	7.6	-0.22	27.9	0.0318	0.0433	-0.0084
206	SLD 12	7.6	-0.22	27.9	0.0318	0.0433	-0.0084
206	SLD 13	4.86	0.23	18.74	-0.0111	-0.0196	0.0043
206	SLD 14	4.86	0.23	18.74	-0.0111	-0.0196	0.0043
206	SLD 15	5.41	0.09	20.56	0.0029	-0.0126	0.0002
206	SLD 16	5.41	0.09	20.56	0.0029	-0.0126	0.0002
206	SLV 1	11.9	-0.37	42.39	0.0409	0.2029	-0.0114
206	SLV 2	11.9	-0.37	42.39	0.0409	0.2029	-0.0114
206	SLV 3	13.22	-0.72	46.79	0.076	0.2198	-0.0218
206	SLV 4	13.22	-0.72	46.79	0.076	0.2198	-0.0218
206	SLV 5	6.72	0.39	25.02	-0.0312	0.0716	0.01
206	SLV 6	6.72	0.39	25.02	-0.0312	0.0716	0.01
206	SLV 7	11.11	-0.78	39.67	0.0858	0.1279	-0.0245
206	SLV 8	11.11	-0.78	39.67	0.0858	0.1279	-0.0245
206	SLV 9	3.6	0.69	14.52	-0.0579	-0.024	0.0181
206	SLV 10	3.6	0.69	14.52	-0.0579	-0.024	0.0181
206	SLV 11	7.98	-0.48	29.17	0.0591	0.0323	-0.0164
206	SLV 12	7.98	-0.48	29.17	0.0591	0.0323	-0.0164
206	SLV 13	1.49	0.63	7.4	-0.0481	-0.1159	0.0154
206	SLV 14	1.49	0.63	7.4	-0.0481	-0.1159	0.0154
206	SLV 15	2.8	0.28	11.8	-0.013	-0.099	0.005
206	SLV 16	2.8	0.28	11.8	-0.013	-0.099	0.005
207	SLU 1	0.15	-7.42	77.82	0.1984	-0.0376	-0.0002
207	SLU 2	0.17	-6.1	71.36	0.1394	-0.0381	-0.0002
207	SLU 3	0.16	-7.83	81.42	0.2118	-0.0407	-0.0002
207	SLU 4	0.17	-7.04	77.55	0.1764	-0.041	-0.0002
207	SLU 5	0.18	-6.46	74.19	0.1521	-0.0397	-0.0002
207	SLU 6	0.17	-8.19	84.25	0.2244	-0.0424	-0.0002
207	SLU 7	0.18	-7.4	80.38	0.189	-0.0427	-0.0002
207	SLU 8	0.17	-8.14	83.48	0.2237	-0.0409	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
207	SLU 9	0.18	-7.35	79.6	0.1883	-0.0412	-0.0002
207	SLU 10	0.21	-7.36	85.94	0.171	-0.0488	-0.0002
207	SLU 11	0.2	-9.08	96	0.2434	-0.0515	-0.0002
207	SLU 12	0.21	-8.3	92.13	0.208	-0.0518	-0.0002
207	SLU 13	0.21	-7.72	88.77	0.1836	-0.0505	-0.0002
207	SLU 14	0.21	-9.44	98.83	0.256	-0.0532	-0.0002
207	SLU 15	0.22	-8.66	94.95	0.2206	-0.0535	-0.0002
207	SLU 16	0.2	-9.39	98.05	0.2552	-0.0517	-0.0002
207	SLU 17	0.21	-8.6	94.18	0.2198	-0.052	-0.0002
207	SLU 18	0.2	-9.21	98.64	0.2435	-0.0529	-0.0002
207	SLU 19	0.21	-8.42	94.77	0.2081	-0.0532	-0.0002
207	SLU 20	0.21	-9.57	101.47	0.2562	-0.0546	-0.0002
207	SLU 21	0.22	-8.78	97.6	0.2208	-0.0549	-0.0002
207	SLU 22	0.18	-8.68	91.83	0.232	-0.0453	-0.0002
207	SLU 23	0.2	-7.37	85.38	0.173	-0.0458	-0.0002
207	SLU 24	0.19	-9.09	95.44	0.2453	-0.0484	-0.0002
207	SLU 25	0.21	-8.3	91.56	0.2099	-0.0487	-0.0002
207	SLU 26	0.21	-7.73	88.2	0.1856	-0.0475	-0.0002
207	SLU 27	0.2	-9.45	98.26	0.258	-0.0501	-0.0002
207	SLU 28	0.21	-8.66	94.39	0.2226	-0.0504	-0.0002
207	SLU 29	0.2	-9.4	97.49	0.2572	-0.0486	-0.0002
207	SLU 30	0.21	-8.61	93.62	0.2218	-0.0489	-0.0002
207	SLU 31	0.24	-8.62	99.95	0.2046	-0.0565	-0.0002
207	SLU 32	0.23	-10.35	110.01	0.2769	-0.0592	-0.0002
207	SLU 33	0.24	-9.56	106.14	0.2415	-0.0595	-0.0002
207	SLU 34	0.25	-8.98	102.78	0.2172	-0.0582	-0.0002
207	SLU 35	0.24	-10.71	112.84	0.2895	-0.0609	-0.0002
207	SLU 36	0.25	-9.92	108.97	0.2541	-0.0612	-0.0002
207	SLU 37	0.23	-10.66	112.07	0.2888	-0.0594	-0.0002
207	SLU 38	0.25	-9.87	108.19	0.2534	-0.0597	-0.0002
207	SLU 39	0.23	-10.47	112.66	0.2771	-0.0606	-0.0002
207	SLU 40	0.25	-9.68	108.78	0.2417	-0.0609	-0.0002
207	SLU 41	0.24	-10.83	115.49	0.2897	-0.0623	-0.0002
207	SLU 42	0.25	-10.04	111.61	0.2543	-0.0626	-0.0003
207	SLU 43	0.18	-9.21	96.36	0.2465	-0.0462	-0.0002
207	SLU 44	0.2	-7.9	89.9	0.1875	-0.0467	-0.0002
207	SLU 45	0.2	-9.62	99.96	0.2598	-0.0494	-0.0002
207	SLU 46	0.21	-8.83	96.09	0.2244	-0.0497	-0.0002
207	SLU 47	0.21	-8.26	92.73	0.2001	-0.0484	-0.0002
207	SLU 48	0.2	-9.98	102.79	0.2724	-0.051	-0.0002
207	SLU 49	0.22	-9.19	98.92	0.237	-0.0513	-0.0002
207	SLU 50	0.2	-9.93	102.02	0.2717	-0.0495	-0.0002
207	SLU 51	0.21	-9.14	98.14	0.2363	-0.0498	-0.0002
207	SLU 52	0.24	-9.15	104.48	0.219	-0.0574	-0.0002
207	SLU 53	0.23	-10.88	114.54	0.2914	-0.0601	-0.0002
207	SLU 54	0.24	-10.09	110.67	0.256	-0.0604	-0.0002
207	SLU 55	0.25	-9.51	107.31	0.2317	-0.0591	-0.0002
207	SLU 56	0.24	-11.24	117.37	0.304	-0.0618	-0.0002
207	SLU 57	0.25	-10.45	113.49	0.2686	-0.0621	-0.0003
207	SLU 58	0.24	-11.19	116.6	0.3033	-0.0603	-0.0002
207	SLU 59	0.25	-10.4	112.72	0.2679	-0.0606	-0.0002
207	SLU 60	0.24	-11	117.19	0.2916	-0.0616	-0.0002
207	SLU 61	0.25	-10.21	113.31	0.2562	-0.0619	-0.0003
207	SLU 62	0.24	-11.36	120.01	0.3042	-0.0632	-0.0003
207	SLU 63	0.26	-10.57	116.14	0.2688	-0.0635	-0.0003
207	SLU 64	0.22	-10.47	110.37	0.28	-0.0539	-0.0002
207	SLU 65	0.24	-9.16	103.92	0.221	-0.0544	-0.0002
207	SLU 66	0.23	-10.88	113.98	0.2934	-0.0571	-0.0002
207	SLU 67	0.24	-10.1	110.1	0.258	-0.0574	-0.0002
207	SLU 68	0.24	-9.52	106.75	0.2336	-0.0561	-0.0002
207	SLU 69	0.24	-11.25	116.8	0.306	-0.0588	-0.0002
207	SLU 70	0.25	-10.46	112.93	0.2706	-0.059	-0.0002
207	SLU 71	0.23	-11.19	116.03	0.3052	-0.0573	-0.0002
207	SLU 72	0.24	-10.41	112.16	0.2698	-0.0576	-0.0002
207	SLU 73	0.27	-10.41	118.49	0.2526	-0.0652	-0.0003
207	SLU 74	0.26	-12.14	128.55	0.3249	-0.0678	-0.0003
207	SLU 75	0.28	-11.35	124.68	0.2896	-0.0681	-0.0003
207	SLU 76	0.28	-10.77	121.32	0.2652	-0.0668	-0.0003
207	SLU 77	0.27	-12.5	131.38	0.3376	-0.0695	-0.0003
207	SLU 78	0.28	-11.71	127.51	0.3022	-0.0698	-0.0003
207	SLU 79	0.27	-12.45	130.61	0.3368	-0.068	-0.0003
207	SLU 80	0.28	-11.66	126.74	0.3014	-0.0683	-0.0003
207	SLU 81	0.27	-12.26	131.2	0.3251	-0.0693	-0.0003
207	SLU 82	0.28	-11.48	127.33	0.2897	-0.0696	-0.0003
207	SLU 83	0.28	-12.62	134.03	0.3377	-0.0709	-0.0003
207	SLU 84	0.29	-11.84	130.15	0.3023	-0.0712	-0.0003
207	SLE RA 1	0.16	-7.78	81.82	0.208	-0.0398	-0.0002
207	SLE RA 2	0.17	-6.9	77.52	0.1687	-0.0401	-0.0002
207	SLE RA 3	0.17	-8.05	84.22	0.2169	-0.0419	-0.0002
207	SLE RA 4	0.17	-7.53	81.64	0.1933	-0.0421	-0.0002
207	SLE RA 5	0.18	-7.14	79.4	0.1771	-0.0412	-0.0002
207	SLE RA 6	0.17	-8.29	86.11	0.2253	-0.043	-0.0002
207	SLE RA 7	0.18	-7.77	83.53	0.2017	-0.0432	-0.0002
207	SLE RA 8	0.17	-8.26	85.59	0.2248	-0.042	-0.0002
207	SLE RA 9	0.18	-7.73	83.01	0.2012	-0.0422	-0.0002
207	SLE RA 10	0.2	-7.74	87.24	0.1897	-0.0473	-0.0002
207	SLE RA 11	0.19	-8.89	93.94	0.238	-0.0491	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
207	SLE RA 12	0.2	-8.36	91.36	0.2144	-0.0493	-0.0002
207	SLE RA 13	0.2	-7.98	89.12	0.1981	-0.0484	-0.0002
207	SLE RA 14	0.2	-9.13	95.83	0.2464	-0.0502	-0.0002
207	SLE RA 15	0.2	-8.6	93.25	0.2228	-0.0504	-0.0002
207	SLE RA 16	0.19	-9.1	95.31	0.2459	-0.0492	-0.0002
207	SLE RA 17	0.2	-8.57	92.73	0.2223	-0.0494	-0.0002
207	SLE RA 18	0.19	-8.97	95.71	0.2381	-0.05	-0.0002
207	SLE RA 19	0.2	-8.45	93.12	0.2145	-0.0502	-0.0002
207	SLE RA 20	0.2	-9.21	97.59	0.2465	-0.0511	-0.0002
207	SLE RA 21	0.21	-8.69	95.01	0.2229	-0.0513	-0.0002
207	SLE FR 1	0.16	-7.78	81.82	0.208	-0.0398	-0.0002
207	SLE FR 2	0.16	-7.6	80.96	0.2001	-0.0398	-0.0002
207	SLE FR 3	0.16	-7.87	82.58	0.2114	-0.0402	-0.0002
207	SLE FR 4	0.17	-7.96	85.13	0.2092	-0.0429	-0.0002
207	SLE FR 5	0.17	-8.23	86.74	0.2204	-0.0433	-0.0002
207	SLE FR 6	0.18	-8.38	88.76	0.223	-0.0449	-0.0002
207	SLE QP 1	0.16	-7.78	81.82	0.208	-0.0398	-0.0002
207	SLE QP 2	0.17	-8.14	85.99	0.217	-0.0428	-0.0002
207	SLD 1	-0.28	-8.09	86.17	0.1452	0.1106	0.0005
207	SLD 2	-0.28	-8.09	86.17	0.1452	0.1106	0.0005
207	SLD 3	-0.32	-9.74	93.41	0.2205	0.09	0.0004
207	SLD 4	-0.32	-9.74	93.41	0.2205	0.09	0.0004
207	SLD 5	0.11	-5.61	75.06	0.0813	0.0345	0.0002
207	SLD 6	0.11	-5.61	75.06	0.0813	0.0345	0.0002
207	SLD 7	-0.05	-11.13	99.2	0.3322	-0.0343	-0.0002
207	SLD 8	-0.05	-11.13	99.2	0.3322	-0.0343	-0.0002
207	SLD 9	0.39	-5.15	72.77	0.1018	-0.0514	-0.0001
207	SLD 10	0.39	-5.15	72.77	0.1018	-0.0514	-0.0001
207	SLD 11	0.23	-10.66	96.92	0.3527	-0.1202	-0.0006
207	SLD 12	0.23	-10.66	96.92	0.3527	-0.1202	-0.0006
207	SLD 13	0.66	-6.53	78.56	0.2136	-0.1757	-0.0007
207	SLD 14	0.66	-6.53	78.56	0.2136	-0.1757	-0.0007
207	SLD 15	0.61	-8.19	85.81	0.2888	-0.1963	-0.0008
207	SLD 16	0.61	-8.19	85.81	0.2888	-0.1963	-0.0008
207	SLV 1	-0.87	-8.11	86.92	0.0428	0.3168	0.0014
207	SLV 2	-0.87	-8.11	86.92	0.0428	0.3168	0.0014
207	SLV 3	-0.99	-12.04	104.23	0.2214	0.2679	0.0011
207	SLV 4	-0.99	-12.04	104.23	0.2214	0.2679	0.0011
207	SLV 5	0.04	-2.17	60.01	-0.1061	0.1392	0.0008
207	SLV 6	0.04	-2.17	60.01	-0.1061	0.1392	0.0008
207	SLV 7	-0.36	-15.26	117.72	0.4892	-0.0238	-0.0003
207	SLV 8	-0.36	-15.26	117.72	0.4892	-0.0238	-0.0003
207	SLV 9	0.7	-1.01	54.26	-0.0551	-0.0619	0
207	SLV 10	0.7	-1.01	54.26	-0.0551	-0.0619	0
207	SLV 11	0.3	-14.1	111.96	0.5401	-0.2249	-0.0012
207	SLV 12	0.3	-14.1	111.96	0.5401	-0.2249	-0.0012
207	SLV 13	1.33	-4.23	67.74	0.2127	-0.3536	-0.0014
207	SLV 14	1.33	-4.23	67.74	0.2127	-0.3536	-0.0014
207	SLV 15	1.21	-8.16	85.05	0.3913	-0.4025	-0.0017
207	SLV 16	1.21	-8.16	85.05	0.3913	-0.4025	-0.0017
208	SLU 1	-7.96	-0.04	30.93	0.0131	-0.0924	0.0028
208	SLU 2	-7.32	-0.04	28.69	0.011	-0.0837	0.0024
208	SLU 3	-8.36	-0.04	32.44	0.0139	-0.0978	0.0029
208	SLU 4	-7.98	-0.04	31.1	0.0126	-0.0926	0.0027
208	SLU 5	-7.62	-0.04	29.83	0.0117	-0.0877	0.0026
208	SLU 6	-8.67	-0.04	33.58	0.0146	-0.1018	0.0031
208	SLU 7	-8.28	-0.04	32.24	0.0133	-0.0966	0.0029
208	SLU 8	-8.57	-0.04	33.21	0.0145	-0.1004	0.003
208	SLU 9	-8.18	-0.04	31.86	0.0133	-0.0951	0.0028
208	SLU 10	-8.88	-0.05	34.75	0.0132	-0.1027	0.0029
208	SLU 11	-9.92	-0.05	38.5	0.016	-0.1168	0.0034
208	SLU 12	-9.54	-0.05	37.15	0.0148	-0.1116	0.0032
208	SLU 13	-9.18	-0.05	35.88	0.0139	-0.1067	0.003
208	SLU 14	-10.23	-0.05	39.63	0.0167	-0.1208	0.0035
208	SLU 15	-9.84	-0.05	38.29	0.0155	-0.1156	0.0033
208	SLU 16	-10.13	-0.05	39.26	0.0166	-0.1194	0.0035
208	SLU 17	-9.74	-0.05	37.92	0.0154	-0.1141	0.0033
208	SLU 18	-10.19	-0.05	39.58	0.0162	-0.1195	0.0034
208	SLU 19	-9.81	-0.05	38.24	0.0149	-0.1143	0.0032
208	SLU 20	-10.5	-0.05	40.72	0.0169	-0.1235	0.0035
208	SLU 21	-10.11	-0.05	39.37	0.0156	-0.1183	0.0033
208	SLU 22	-9.43	-0.05	36.61	0.0153	-0.1095	0.0032
208	SLU 23	-8.78	-0.05	34.36	0.0132	-0.1008	0.0029
208	SLU 24	-9.83	-0.05	38.11	0.0161	-0.1149	0.0034
208	SLU 25	-9.44	-0.05	36.77	0.0148	-0.1097	0.0032
208	SLU 26	-9.09	-0.05	35.5	0.0139	-0.1048	0.003
208	SLU 27	-10.13	-0.05	39.25	0.0168	-0.1189	0.0035
208	SLU 28	-9.74	-0.05	37.91	0.0155	-0.1137	0.0033
208	SLU 29	-10.03	-0.05	38.88	0.0167	-0.1175	0.0035
208	SLU 30	-9.65	-0.05	37.53	0.0154	-0.1122	0.0033
208	SLU 31	-10.34	-0.05	40.42	0.0153	-0.1198	0.0033
208	SLU 32	-11.39	-0.05	44.17	0.0182	-0.1339	0.0038
208	SLU 33	-11	-0.06	42.82	0.017	-0.1287	0.0036
208	SLU 34	-10.65	-0.06	41.55	0.016	-0.1238	0.0035
208	SLU 35	-11.69	-0.05	45.31	0.0189	-0.1379	0.004
208	SLU 36	-11.3	-0.06	43.96	0.0176	-0.1327	0.0038
208	SLU 37	-11.59	-0.05	44.93	0.0188	-0.1365	0.0039



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
208	SLU 38	-11.21	-0.06	43.59	0.0176	-0.1312	0.0037
208	SLU 39	-11.66	-0.05	45.25	0.0183	-0.1366	0.0038
208	SLU 40	-11.27	-0.06	43.91	0.0171	-0.1314	0.0036
208	SLU 41	-11.96	-0.06	46.39	0.019	-0.1406	0.004
208	SLU 42	-11.57	-0.06	45.05	0.0178	-0.1354	0.0038
208	SLU 43	-9.85	-0.05	38.27	0.0163	-0.1143	0.0034
208	SLU 44	-9.21	-0.05	36.03	0.0142	-0.1056	0.0031
208	SLU 45	-10.25	-0.05	39.78	0.0171	-0.1197	0.0036
208	SLU 46	-9.87	-0.05	38.44	0.0158	-0.1145	0.0034
208	SLU 47	-9.51	-0.05	37.17	0.0149	-0.1095	0.0032
208	SLU 48	-10.55	-0.05	40.92	0.0178	-0.1237	0.0037
208	SLU 49	-10.17	-0.05	39.57	0.0165	-0.1185	0.0035
208	SLU 50	-10.46	-0.05	40.55	0.0177	-0.1222	0.0037
208	SLU 51	-10.07	-0.05	39.2	0.0165	-0.117	0.0035
208	SLU 52	-10.77	-0.06	42.08	0.0164	-0.1246	0.0035
208	SLU 53	-11.81	-0.06	45.83	0.0192	-0.1387	0.004
208	SLU 54	-11.43	-0.06	44.49	0.018	-0.1335	0.0038
208	SLU 55	-11.07	-0.06	43.22	0.017	-0.1285	0.0037
208	SLU 56	-12.12	-0.06	46.97	0.0199	-0.1427	0.0042
208	SLU 57	-11.73	-0.06	45.63	0.0186	-0.1375	0.004
208	SLU 58	-12.02	-0.06	46.6	0.0198	-0.1412	0.0042
208	SLU 59	-11.63	-0.06	45.25	0.0186	-0.136	0.004
208	SLU 60	-12.08	-0.06	46.92	0.0194	-0.1414	0.0041
208	SLU 61	-11.7	-0.06	45.57	0.0181	-0.1362	0.0039
208	SLU 62	-12.38	-0.06	48.06	0.02	-0.1454	0.0042
208	SLU 63	-12	-0.06	46.71	0.0188	-0.1402	0.004
208	SLU 64	-11.31	-0.06	43.94	0.0185	-0.1313	0.0039
208	SLU 65	-10.67	-0.06	41.7	0.0164	-0.1227	0.0036
208	SLU 66	-11.71	-0.06	45.45	0.0193	-0.1368	0.004
208	SLU 67	-11.33	-0.06	44.11	0.018	-0.1316	0.0038
208	SLU 68	-10.97	-0.06	42.84	0.0171	-0.1266	0.0037
208	SLU 69	-12.02	-0.06	46.59	0.02	-0.1408	0.0042
208	SLU 70	-11.63	-0.06	45.24	0.0187	-0.1356	0.004
208	SLU 71	-11.92	-0.06	46.22	0.0199	-0.1393	0.0042
208	SLU 72	-11.53	-0.06	44.87	0.0186	-0.1341	0.004
208	SLU 73	-12.23	-0.06	47.75	0.0185	-0.1417	0.004
208	SLU 74	-13.27	-0.06	51.5	0.0214	-0.1558	0.0045
208	SLU 75	-12.89	-0.06	50.16	0.0201	-0.1506	0.0043
208	SLU 76	-12.53	-0.07	48.89	0.0192	-0.1456	0.0041
208	SLU 77	-13.58	-0.06	52.64	0.0221	-0.1598	0.0046
208	SLU 78	-13.19	-0.07	51.3	0.0208	-0.1546	0.0044
208	SLU 79	-13.48	-0.06	52.27	0.022	-0.1583	0.0046
208	SLU 80	-13.09	-0.07	50.92	0.0208	-0.1531	0.0044
208	SLU 81	-13.54	-0.06	52.59	0.0215	-0.1585	0.0045
208	SLU 82	-13.16	-0.07	51.24	0.0203	-0.1533	0.0043
208	SLU 83	-13.85	-0.07	53.73	0.0222	-0.1625	0.0047
208	SLU 84	-13.46	-0.07	52.38	0.021	-0.1573	0.0045
208	SLE RA 1	-8.38	-0.04	32.55	0.0138	-0.0973	0.0029
208	SLE RA 2	-7.95	-0.04	31.06	0.0124	-0.0915	0.0027
208	SLE RA 3	-8.65	-0.04	33.56	0.0143	-0.1009	0.003
208	SLE RA 4	-8.39	-0.04	32.67	0.0134	-0.0974	0.0029
208	SLE RA 5	-8.15	-0.04	31.82	0.0128	-0.0941	0.0028
208	SLE RA 6	-8.85	-0.04	34.32	0.0147	-0.1036	0.0031
208	SLE RA 7	-8.59	-0.04	33.42	0.0139	-0.1001	0.003
208	SLE RA 8	-8.79	-0.04	34.07	0.0147	-0.1026	0.0031
208	SLE RA 9	-8.53	-0.04	33.17	0.0138	-0.0991	0.0029
208	SLE RA 10	-8.99	-0.05	35.1	0.0138	-0.1042	0.003
208	SLE RA 11	-9.69	-0.05	37.6	0.0157	-0.1136	0.0033
208	SLE RA 12	-9.43	-0.05	36.7	0.0148	-0.1101	0.0032
208	SLE RA 13	-9.2	-0.05	35.85	0.0142	-0.1068	0.0031
208	SLE RA 14	-9.89	-0.05	38.35	0.0161	-0.1162	0.0034
208	SLE RA 15	-9.63	-0.05	37.46	0.0153	-0.1128	0.0032
208	SLE RA 16	-9.83	-0.05	38.11	0.0161	-0.1153	0.0034
208	SLE RA 17	-9.57	-0.05	37.21	0.0153	-0.1118	0.0032
208	SLE RA 18	-9.87	-0.05	38.32	0.0158	-0.1154	0.0033
208	SLE RA 19	-9.61	-0.05	37.42	0.0149	-0.1119	0.0032
208	SLE RA 20	-10.07	-0.05	39.08	0.0162	-0.118	0.0034
208	SLE RA 21	-9.81	-0.05	38.18	0.0154	-0.1146	0.0033
208	SLE FR 1	-8.38	-0.04	32.55	0.0138	-0.0973	0.0029
208	SLE FR 2	-8.3	-0.04	32.26	0.0135	-0.0961	0.0028
208	SLE FR 3	-8.46	-0.04	32.86	0.0139	-0.0983	0.0029
208	SLE FR 4	-8.74	-0.04	33.99	0.0141	-0.1015	0.003
208	SLE FR 5	-8.91	-0.04	34.59	0.0145	-0.1038	0.0031
208	SLE FR 6	-9.13	-0.04	35.44	0.0148	-0.1063	0.0031
208	SLE QP 1	-8.38	-0.04	32.55	0.0138	-0.0973	0.0029
208	SLE QP 2	-8.83	-0.04	34.28	0.0144	-0.1027	0.003
208	SLD 1	-6.04	0.1	24.6	-0.0127	-0.0165	-0.0046
208	SLD 2	-6.04	0.1	24.6	-0.0127	-0.0165	-0.0046
208	SLD 3	-7.02	0.23	27.92	0.0002	-0.0358	-0.0009
208	SLD 4	-7.02	0.23	27.92	0.0002	-0.0358	-0.0009
208	SLD 5	-6.5	-0.21	26.34	-0.0133	-0.0476	-0.0048
208	SLD 6	-6.5	-0.21	26.34	-0.0133	-0.0476	-0.0048
208	SLD 7	-9.78	0.25	37.41	0.0297	-0.1118	0.0074
208	SLD 8	-9.78	0.25	37.41	0.0297	-0.1118	0.0074
208	SLD 9	-7.88	-0.33	31.16	-0.001	-0.0936	-0.0014
208	SLD 10	-7.88	-0.33	31.16	-0.001	-0.0936	-0.0014
208	SLD 11	-11.15	0.12	42.23	0.0421	-0.1578	0.0109



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
208	SLD 12	-11.15	0.12	42.23	0.0421	-0.1578	0.0109
208	SLD 13	-10.63	-0.32	40.65	0.0285	-0.1696	0.007
208	SLD 14	-10.63	-0.32	40.65	0.0285	-0.1696	0.007
208	SLD 15	-11.62	-0.18	43.97	0.0414	-0.1889	0.0106
208	SLD 16	-11.62	-0.18	43.97	0.0414	-0.1889	0.0106
208	SLV 1	-2.28	0.3	11.54	-0.0526	0.0992	-0.0159
208	SLV 2	-2.28	0.3	11.54	-0.0526	0.0992	-0.0159
208	SLV 3	-4.62	0.64	19.45	-0.0202	0.0535	-0.0066
208	SLV 4	-4.62	0.64	19.45	-0.0202	0.0535	-0.0066
208	SLV 5	-3.32	-0.46	15.47	-0.0549	0.027	-0.0167
208	SLV 6	-3.32	-0.46	15.47	-0.0549	0.027	-0.0167
208	SLV 7	-11.11	0.69	41.83	0.0532	-0.125	0.0142
208	SLV 8	-11.11	0.69	41.83	0.0532	-0.125	0.0142
208	SLV 9	-6.54	-0.77	26.74	-0.0245	-0.0804	-0.0081
208	SLV 10	-6.54	-0.77	26.74	-0.0245	-0.0804	-0.0081
208	SLV 11	-14.34	0.38	53.1	0.0836	-0.2325	0.0227
208	SLV 12	-14.34	0.38	53.1	0.0836	-0.2325	0.0227
208	SLV 13	-13.03	-0.73	49.12	0.0489	-0.2589	0.0126
208	SLV 14	-13.03	-0.73	49.12	0.0489	-0.2589	0.0126
208	SLV 15	-15.37	-0.38	57.03	0.0813	-0.3046	0.0219
208	SLV 16	-15.37	-0.38	57.03	0.0813	-0.3046	0.0219
209	SLU 1	5.88	0.01	25.21	-0.0053	0.0904	0.0009
209	SLU 2	6	0.03	25.25	-0.0078	0.0975	0.0014
209	SLU 3	5.84	0.01	25.44	-0.0056	0.0845	0.001
209	SLU 4	5.91	0.02	25.46	-0.007	0.0888	0.0013
209	SLU 5	5.95	0.03	25.37	-0.008	0.0924	0.0015
209	SLU 6	5.78	0.01	25.55	-0.0057	0.0793	0.001
209	SLU 7	5.86	0.02	25.58	-0.0072	0.0836	0.0013
209	SLU 8	5.77	0.01	25.43	-0.0057	0.0801	0.001
209	SLU 9	5.85	0.02	25.46	-0.0072	0.0844	0.0013
209	SLU 10	6.86	0.03	29.46	-0.0088	0.1043	0.0016
209	SLU 11	6.7	0.01	29.65	-0.0065	0.0913	0.0011
209	SLU 12	6.77	0.02	29.67	-0.008	0.0955	0.0014
209	SLU 13	6.81	0.03	29.58	-0.0089	0.0992	0.0016
209	SLU 14	6.64	0.01	29.76	-0.0067	0.0861	0.0012
209	SLU 15	6.72	0.02	29.79	-0.0082	0.0904	0.0015
209	SLU 16	6.63	0.01	29.65	-0.0067	0.0869	0.0011
209	SLU 17	6.7	0.02	29.67	-0.0081	0.0912	0.0015
209	SLU 18	7.11	0.01	31.22	-0.0067	0.1001	0.0012
209	SLU 19	7.18	0.02	31.25	-0.0082	0.1044	0.0015
209	SLU 20	7.05	0.01	31.34	-0.0069	0.0949	0.0012
209	SLU 21	7.13	0.02	31.37	-0.0084	0.0992	0.0015
209	SLU 22	6.64	0.01	29.02	-0.0063	0.0956	0.0011
209	SLU 23	6.77	0.03	29.07	-0.0087	0.1027	0.0016
209	SLU 24	6.6	0.01	29.25	-0.0065	0.0897	0.0011
209	SLU 25	6.68	0.02	29.28	-0.008	0.094	0.0014
209	SLU 26	6.71	0.03	29.18	-0.0089	0.0976	0.0016
209	SLU 27	6.55	0.01	29.36	-0.0067	0.0846	0.0011
209	SLU 28	6.62	0.02	29.39	-0.0081	0.0889	0.0015
209	SLU 29	6.54	0.01	29.25	-0.0066	0.0853	0.0011
209	SLU 30	6.61	0.02	29.28	-0.0081	0.0896	0.0014
209	SLU 31	7.63	0.03	33.28	-0.0097	0.1095	0.0018
209	SLU 32	7.46	0.02	33.46	-0.0075	0.0965	0.0013
209	SLU 33	7.53	0.03	33.49	-0.0089	0.1008	0.0016
209	SLU 34	7.57	0.03	33.39	-0.0099	0.1044	0.0018
209	SLU 35	7.41	0.02	33.58	-0.0076	0.0914	0.0013
209	SLU 36	7.48	0.03	33.6	-0.0091	0.0956	0.0016
209	SLU 37	7.39	0.02	33.46	-0.0076	0.0921	0.0013
209	SLU 38	7.47	0.03	33.49	-0.0091	0.0964	0.0016
209	SLU 39	7.87	0.02	35.04	-0.0077	0.1053	0.0013
209	SLU 40	7.94	0.03	35.07	-0.0091	0.1096	0.0016
209	SLU 41	7.82	0.02	35.15	-0.0078	0.1002	0.0013
209	SLU 42	7.89	0.03	35.18	-0.0093	0.1044	0.0017
209	SLU 43	7.38	0.01	31.46	-0.0066	0.1157	0.0011
209	SLU 44	7.51	0.03	31.51	-0.0091	0.1228	0.0017
209	SLU 45	7.34	0.01	31.69	-0.0068	0.1098	0.0012
209	SLU 46	7.41	0.02	31.72	-0.0083	0.1141	0.0015
209	SLU 47	7.45	0.03	31.62	-0.0093	0.1177	0.0017
209	SLU 48	7.29	0.01	31.8	-0.007	0.1047	0.0012
209	SLU 49	7.36	0.02	31.83	-0.0085	0.109	0.0015
209	SLU 50	7.28	0.01	31.69	-0.007	0.1054	0.0012
209	SLU 51	7.35	0.02	31.72	-0.0084	0.1097	0.0015
209	SLU 52	8.36	0.03	35.72	-0.01	0.1296	0.0018
209	SLU 53	8.2	0.02	35.9	-0.0078	0.1166	0.0013
209	SLU 54	8.27	0.03	35.93	-0.0093	0.1209	0.0016
209	SLU 55	8.31	0.03	35.83	-0.0102	0.1245	0.0018
209	SLU 56	8.14	0.02	36.01	-0.008	0.1115	0.0014
209	SLU 57	8.22	0.03	36.04	-0.0095	0.1157	0.0017
209	SLU 58	8.13	0.02	35.9	-0.0079	0.1122	0.0014
209	SLU 59	8.21	0.03	35.93	-0.0094	0.1165	0.0017
209	SLU 60	8.61	0.02	37.48	-0.008	0.1254	0.0014
209	SLU 61	8.68	0.03	37.51	-0.0095	0.1297	0.0017
209	SLU 62	8.55	0.02	37.59	-0.0082	0.1203	0.0014
209	SLU 63	8.63	0.03	37.62	-0.0096	0.1245	0.0017
209	SLU 64	8.15	0.02	35.28	-0.0076	0.1209	0.0013
209	SLU 65	8.27	0.03	35.32	-0.01	0.1281	0.0018
209	SLU 66	8.1	0.02	35.5	-0.0078	0.115	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
209	SLU 67	8.18	0.03	35.53	-0.0092	0.1193	0.0016
209	SLU 68	8.22	0.03	35.43	-0.0102	0.1229	0.0018
209	SLU 69	8.05	0.02	35.62	-0.008	0.1099	0.0014
209	SLU 70	8.12	0.03	35.64	-0.0094	0.1142	0.0017
209	SLU 71	8.04	0.02	35.5	-0.0079	0.1107	0.0014
209	SLU 72	8.11	0.03	35.53	-0.0094	0.1149	0.0017
209	SLU 73	9.13	0.03	39.53	-0.011	0.1348	0.002
209	SLU 74	8.96	0.02	39.72	-0.0087	0.1218	0.0015
209	SLU 75	9.04	0.03	39.74	-0.0102	0.1261	0.0018
209	SLU 76	9.07	0.03	39.65	-0.0112	0.1297	0.002
209	SLU 77	8.91	0.02	39.83	-0.0089	0.1167	0.0015
209	SLU 78	8.98	0.03	39.86	-0.0104	0.121	0.0018
209	SLU 79	8.9	0.02	39.71	-0.0089	0.1174	0.0015
209	SLU 80	8.97	0.03	39.74	-0.0104	0.1217	0.0018
209	SLU 81	9.37	0.02	41.29	-0.0089	0.1306	0.0015
209	SLU 82	9.45	0.03	41.32	-0.0104	0.1349	0.0018
209	SLU 83	9.32	0.02	41.41	-0.0091	0.1255	0.0016
209	SLU 84	9.39	0.03	41.43	-0.0106	0.1298	0.0019
209	SLE RA 1	6.1	0.01	26.3	-0.0056	0.0919	0.001
209	SLE RA 2	6.18	0.02	26.33	-0.0072	0.0966	0.0013
209	SLE RA 3	6.07	0.01	26.45	-0.0058	0.0879	0.001
209	SLE RA 4	6.12	0.02	26.47	-0.0067	0.0908	0.0012
209	SLE RA 5	6.15	0.02	26.4	-0.0074	0.0932	0.0013
209	SLE RA 6	6.03	0.01	26.52	-0.0059	0.0845	0.001
209	SLE RA 7	6.08	0.02	26.54	-0.0069	0.0874	0.0012
209	SLE RA 8	6.03	0.01	26.45	-0.0058	0.085	0.001
209	SLE RA 9	6.08	0.02	26.47	-0.0068	0.0879	0.0012
209	SLE RA 10	6.75	0.02	29.14	-0.0079	0.1011	0.0014
209	SLE RA 11	6.64	0.01	29.26	-0.0064	0.0925	0.0011
209	SLE RA 12	6.69	0.02	29.28	-0.0074	0.0953	0.0013
209	SLE RA 13	6.72	0.02	29.21	-0.008	0.0977	0.0014
209	SLE RA 14	6.61	0.01	29.33	-0.0065	0.089	0.0011
209	SLE RA 15	6.66	0.02	29.35	-0.0075	0.0919	0.0013
209	SLE RA 16	6.6	0.01	29.26	-0.0065	0.0896	0.0011
209	SLE RA 17	6.65	0.02	29.27	-0.0075	0.0924	0.0013
209	SLE RA 18	6.92	0.01	30.31	-0.0065	0.0983	0.0011
209	SLE RA 19	6.97	0.02	30.33	-0.0075	0.1012	0.0013
209	SLE RA 20	6.88	0.01	30.38	-0.0066	0.0949	0.0011
209	SLE RA 21	6.93	0.02	30.4	-0.0076	0.0978	0.0013
209	SLE FR 1	6.1	0.01	26.3	-0.0056	0.0919	0.001
209	SLE FR 2	6.12	0.01	26.3	-0.0059	0.0928	0.001
209	SLE FR 3	6.09	0.01	26.33	-0.0057	0.0905	0.001
209	SLE FR 4	6.36	0.01	27.51	-0.0062	0.0948	0.0011
209	SLE FR 5	6.33	0.01	27.53	-0.0059	0.0924	0.001
209	SLE FR 6	6.51	0.01	28.3	-0.0061	0.0951	0.001
209	SLE QP 1	6.1	0.01	26.3	-0.0056	0.0919	0.001
209	SLE QP 2	6.34	0.01	27.5	-0.0059	0.0938	0.001
209	SLD 1	12.94	-0.11	46.12	0.0368	0.3266	-0.0078
209	SLD 2	12.94	-0.11	46.12	0.0368	0.3266	-0.0078
209	SLD 3	12.41	0.34	44.55	-0.0169	0.3087	0.0042
209	SLD 4	12.41	0.34	44.55	-0.0169	0.3087	0.0042
209	SLD 5	9.12	-0.72	35.46	0.0883	0.1908	-0.0198
209	SLD 6	9.12	-0.72	35.46	0.0883	0.1908	-0.0198
209	SLD 7	7.36	0.81	30.24	-0.0906	0.1311	0.0202
209	SLD 8	7.36	0.81	30.24	-0.0906	0.1311	0.0202
209	SLD 9	5.33	-0.78	24.76	0.0788	0.0565	-0.0181
209	SLD 10	5.33	-0.78	24.76	0.0788	0.0565	-0.0181
209	SLD 11	3.57	0.74	19.54	-0.1001	-0.0032	0.0218
209	SLD 12	3.57	0.74	19.54	-0.1001	-0.0032	0.0218
209	SLD 13	0.28	-0.32	10.45	0.0051	-0.1211	-0.0022
209	SLD 14	0.28	-0.32	10.45	0.0051	-0.1211	-0.0022
209	SLD 15	-0.25	0.14	8.88	-0.0486	-0.139	0.0098
209	SLD 16	-0.25	0.14	8.88	-0.0486	-0.139	0.0098
209	SLV 1	21.78	-0.31	71.11	0.1028	0.6386	-0.0214
209	SLV 2	21.78	-0.31	71.11	0.1028	0.6386	-0.0214
209	SLV 3	20.53	0.86	67.4	-0.0343	0.5963	0.0093
209	SLV 4	20.53	0.86	67.4	-0.0343	0.5963	0.0093
209	SLV 5	12.86	-1.86	46.19	0.2347	0.3213	-0.0522
209	SLV 6	12.86	-1.86	46.19	0.2347	0.3213	-0.0522
209	SLV 7	8.71	2.05	33.86	-0.2224	0.1804	0.05
209	SLV 8	8.71	2.05	33.86	-0.2224	0.1804	0.05
209	SLV 9	3.98	-2.02	21.14	0.2106	0.0072	-0.048
209	SLV 10	3.98	-2.02	21.14	0.2106	0.0072	-0.048
209	SLV 11	-0.17	1.89	8.81	-0.2465	-0.1337	0.0542
209	SLV 12	-0.17	1.89	8.81	-0.2465	-0.1337	0.0542
209	SLV 13	-7.84	-0.84	-12.4	0.0225	-0.4087	-0.0073
209	SLV 14	-7.84	-0.84	-12.4	0.0225	-0.4087	-0.0073
209	SLV 15	-9.09	0.34	-16.1	-0.1146	-0.451	0.0234
209	SLV 16	-9.09	0.34	-16.1	-0.1146	-0.451	0.0234
210	SLU 1	2.51	0.01	47.67	-0.0088	0.1331	-0.0001
210	SLU 2	2.82	0.02	47.37	-0.01	0.1486	-0.0001
210	SLU 3	2.28	0.01	48.58	-0.0092	0.1206	-0.0001
210	SLU 4	2.47	0.02	48.41	-0.0099	0.1299	-0.0001
210	SLU 5	2.62	0.02	47.97	-0.0103	0.1378	-0.0001
210	SLU 6	2.08	0.01	49.18	-0.0095	0.1098	-0.0001
210	SLU 7	2.27	0.02	49	-0.0102	0.1191	-0.0001
210	SLU 8	2.11	0.01	48.86	-0.0094	0.1115	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
210	SLU 9	2.3	0.02	48.68	-0.0102	0.1208	-0.0001
210	SLU 10	2.88	0.02	55.87	-0.0116	0.1516	-0.0001
210	SLU 11	2.34	0.02	57.08	-0.0108	0.1236	-0.0001
210	SLU 12	2.53	0.02	56.91	-0.0115	0.1329	-0.0001
210	SLU 13	2.68	0.02	56.47	-0.0119	0.1408	-0.0001
210	SLU 14	2.14	0.02	57.68	-0.0111	0.1128	-0.0001
210	SLU 15	2.33	0.02	57.5	-0.0118	0.1221	-0.0001
210	SLU 16	2.17	0.02	57.36	-0.011	0.1145	-0.0001
210	SLU 17	2.35	0.02	57.18	-0.0118	0.1238	-0.0001
210	SLU 18	2.59	0.02	59.81	-0.0111	0.1374	-0.0001
210	SLU 19	2.78	0.02	59.63	-0.0118	0.1467	-0.0001
210	SLU 20	2.39	0.02	60.41	-0.0114	0.1266	-0.0001
210	SLU 21	2.58	0.02	60.23	-0.0121	0.1359	-0.0001
210	SLU 22	2.54	0.02	55.4	-0.0104	0.1346	-0.0001
210	SLU 23	2.84	0.02	55.11	-0.0116	0.1502	-0.0001
210	SLU 24	2.31	0.02	56.31	-0.0107	0.1221	-0.0001
210	SLU 25	2.49	0.02	56.14	-0.0115	0.1314	-0.0001
210	SLU 26	2.64	0.02	55.7	-0.0119	0.1394	-0.0001
210	SLU 27	2.11	0.02	56.91	-0.011	0.1113	-0.0001
210	SLU 28	2.29	0.02	56.74	-0.0118	0.1206	-0.0001
210	SLU 29	2.14	0.02	56.59	-0.011	0.113	-0.0001
210	SLU 30	2.32	0.02	56.42	-0.0117	0.1224	-0.0001
210	SLU 31	2.9	0.02	63.61	-0.0132	0.1532	-0.0001
210	SLU 32	2.36	0.02	64.81	-0.0123	0.1251	-0.0001
210	SLU 33	2.55	0.02	64.64	-0.0131	0.1344	-0.0001
210	SLU 34	2.7	0.02	64.2	-0.0135	0.1424	-0.0001
210	SLU 35	2.16	0.02	65.41	-0.0126	0.1143	-0.0001
210	SLU 36	2.35	0.02	65.24	-0.0134	0.1236	-0.0001
210	SLU 37	2.19	0.02	65.09	-0.0126	0.116	-0.0001
210	SLU 38	2.38	0.02	64.92	-0.0133	0.1254	-0.0001
210	SLU 39	2.62	0.02	67.54	-0.0127	0.1389	-0.0001
210	SLU 40	2.8	0.02	67.37	-0.0134	0.1482	-0.0001
210	SLU 41	2.42	0.02	68.14	-0.013	0.1281	-0.0001
210	SLU 42	2.6	0.02	67.96	-0.0137	0.1374	-0.0001
210	SLU 43	3.26	0.02	59.31	-0.0109	0.1725	-0.0001
210	SLU 44	3.57	0.02	59.02	-0.0121	0.188	-0.0001
210	SLU 45	3.03	0.02	60.23	-0.0113	0.1599	-0.0001
210	SLU 46	3.22	0.02	60.05	-0.012	0.1693	-0.0001
210	SLU 47	3.37	0.02	59.62	-0.0124	0.1772	-0.0001
210	SLU 48	2.83	0.02	60.83	-0.0116	0.1492	-0.0001
210	SLU 49	3.02	0.02	60.65	-0.0123	0.1585	-0.0001
210	SLU 50	2.86	0.02	60.51	-0.0115	0.1509	-0.0001
210	SLU 51	3.04	0.02	60.33	-0.0123	0.1602	-0.0001
210	SLU 52	3.62	0.02	67.52	-0.0137	0.191	-0.0001
210	SLU 53	3.09	0.02	68.73	-0.0129	0.1629	-0.0001
210	SLU 54	3.27	0.02	68.56	-0.0136	0.1723	-0.0001
210	SLU 55	3.42	0.02	68.12	-0.014	0.1802	-0.0001
210	SLU 56	2.89	0.02	69.33	-0.0132	0.1522	-0.0001
210	SLU 57	3.07	0.02	69.15	-0.0139	0.1615	-0.0001
210	SLU 58	2.92	0.02	69.01	-0.0131	0.1539	-0.0001
210	SLU 59	3.1	0.02	68.83	-0.0139	0.1632	-0.0001
210	SLU 60	3.34	0.02	71.46	-0.0132	0.1767	-0.0001
210	SLU 61	3.52	0.02	71.28	-0.0139	0.1861	-0.0001
210	SLU 62	3.14	0.02	72.05	-0.0135	0.166	-0.0001
210	SLU 63	3.32	0.02	71.88	-0.0142	0.1753	-0.0001
210	SLU 64	3.28	0.02	67.05	-0.0125	0.174	-0.0001
210	SLU 65	3.59	0.02	66.76	-0.0137	0.1896	-0.0001
210	SLU 66	3.05	0.02	67.96	-0.0128	0.1615	-0.0001
210	SLU 67	3.24	0.02	67.79	-0.0136	0.1708	-0.0001
210	SLU 68	3.39	0.02	67.35	-0.014	0.1788	-0.0001
210	SLU 69	2.85	0.02	68.56	-0.0131	0.1507	-0.0001
210	SLU 70	3.04	0.02	68.38	-0.0139	0.16	-0.0001
210	SLU 71	2.88	0.02	68.24	-0.0131	0.1524	-0.0001
210	SLU 72	3.07	0.02	68.07	-0.0138	0.1618	-0.0001
210	SLU 73	3.64	0.03	75.26	-0.0153	0.1926	-0.0001
210	SLU 74	3.11	0.02	76.46	-0.0144	0.1645	-0.0001
210	SLU 75	3.29	0.02	76.29	-0.0152	0.1738	-0.0001
210	SLU 76	3.44	0.03	75.85	-0.0156	0.1818	-0.0001
210	SLU 77	2.91	0.02	77.06	-0.0147	0.1537	-0.0001
210	SLU 78	3.09	0.03	76.88	-0.0155	0.163	-0.0001
210	SLU 79	2.94	0.02	76.74	-0.0147	0.1554	-0.0001
210	SLU 80	3.12	0.03	76.57	-0.0154	0.1648	-0.0001
210	SLU 81	3.36	0.02	79.19	-0.0147	0.1783	-0.0001
210	SLU 82	3.55	0.03	79.02	-0.0155	0.1876	-0.0001
210	SLU 83	3.16	0.02	79.79	-0.0151	0.1675	-0.0001
210	SLU 84	3.35	0.03	79.61	-0.0158	0.1768	-0.0001
210	SLE RA 1	2.52	0.01	49.87	-0.0092	0.1335	-0.0001
210	SLE RA 2	2.72	0.02	49.68	-0.0101	0.1439	-0.0001
210	SLE RA 3	2.37	0.01	50.49	-0.0095	0.1252	-0.0001
210	SLE RA 4	2.49	0.02	50.37	-0.01	0.1314	-0.0001
210	SLE RA 5	2.59	0.02	50.08	-0.0103	0.1367	-0.0001
210	SLE RA 6	2.23	0.01	50.88	-0.0097	0.118	-0.0001
210	SLE RA 7	2.36	0.02	50.77	-0.0102	0.1242	-0.0001
210	SLE RA 8	2.25	0.01	50.67	-0.0097	0.1191	-0.0001
210	SLE RA 9	2.38	0.02	50.55	-0.0102	0.1254	-0.0001
210	SLE RA 10	2.76	0.02	55.35	-0.0111	0.1459	-0.0001
210	SLE RA 11	2.4	0.02	56.15	-0.0106	0.1272	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
210	SLE RA 12	2.53	0.02	56.04	-0.011	0.1334	-0.0001
210	SLE RA 13	2.63	0.02	55.75	-0.0113	0.1387	-0.0001
210	SLE RA 14	2.27	0.02	56.55	-0.0108	0.12	-0.0001
210	SLE RA 15	2.39	0.02	56.43	-0.0113	0.1262	-0.0001
210	SLE RA 16	2.29	0.02	56.34	-0.0107	0.1211	-0.0001
210	SLE RA 17	2.41	0.02	56.22	-0.0112	0.1274	-0.0001
210	SLE RA 18	2.57	0.02	57.97	-0.0108	0.1364	-0.0001
210	SLE RA 19	2.7	0.02	57.85	-0.0113	0.1426	-0.0001
210	SLE RA 20	2.44	0.02	58.37	-0.011	0.1292	-0.0001
210	SLE RA 21	2.56	0.02	58.25	-0.0115	0.1354	-0.0001
210	SLE FR 1	2.52	0.01	49.87	-0.0092	0.1335	-0.0001
210	SLE FR 2	2.56	0.01	49.84	-0.0094	0.1356	-0.0001
210	SLE FR 3	2.47	0.01	50.03	-0.0093	0.1306	-0.0001
210	SLE FR 4	2.58	0.02	52.26	-0.0099	0.1364	-0.0001
210	SLE FR 5	2.48	0.01	52.46	-0.0098	0.1315	-0.0001
210	SLE FR 6	2.55	0.01	53.92	-0.01	0.1349	-0.0001
210	SLE QP 1	2.52	0.01	49.87	-0.0092	0.1335	-0.0001
210	SLE QP 2	2.54	0.01	52.3	-0.0097	0.1344	-0.0001
210	SLD 1	10.26	-0.08	72.42	0.0153	0.5884	0.0003
210	SLD 2	10.26	-0.08	72.42	0.0153	0.5884	0.0003
210	SLD 3	9.61	0	70.63	0.0397	0.5484	0.0001
210	SLD 4	9.61	0	70.63	0.0397	0.5484	0.0001
210	SLD 5	5.84	-0.14	61.05	-0.0392	0.3314	0.0004
210	SLD 6	5.84	-0.14	61.05	-0.0392	0.3314	0.0004
210	SLD 7	3.67	0.13	55.09	0.0421	0.1978	-0.0004
210	SLD 8	3.67	0.13	55.09	0.0421	0.1978	-0.0004
210	SLD 9	1.4	-0.1	49.52	-0.0615	0.0709	0.0002
210	SLD 10	1.4	-0.1	49.52	-0.0615	0.0709	0.0002
210	SLD 11	-0.77	0.17	43.56	0.0198	-0.0626	-0.0005
210	SLD 12	-0.77	0.17	43.56	0.0198	-0.0626	-0.0005
210	SLD 13	-4.54	0.03	33.98	-0.0591	-0.2797	-0.0002
210	SLD 14	-4.54	0.03	33.98	-0.0591	-0.2797	-0.0002
210	SLD 15	-5.19	0.11	32.19	-0.0347	-0.3197	-0.0005
210	SLD 16	-5.19	0.11	32.19	-0.0347	-0.3197	-0.0005
210	SLV 1	20.63	-0.23	99.44	0.0563	1.1981	0.001
210	SLV 2	20.63	-0.23	99.44	0.0563	1.1981	0.001
210	SLV 3	19.09	-0.03	95.2	0.1142	1.1029	0.0004
210	SLV 4	19.09	-0.03	95.2	0.1142	1.1029	0.0004
210	SLV 5	10.3	-0.37	72.87	-0.0777	0.5979	0.0011
210	SLV 6	10.3	-0.37	72.87	-0.0777	0.5979	0.0011
210	SLV 7	5.17	0.31	58.74	0.1153	0.2805	-0.0008
210	SLV 8	5.17	0.31	58.74	0.1153	0.2805	-0.0008
210	SLV 9	-0.1	-0.29	45.86	-0.1347	-0.0118	0.0007
210	SLV 10	-0.1	-0.29	45.86	-0.1347	-0.0118	0.0007
210	SLV 11	-5.23	0.4	31.73	0.0583	-0.3292	-0.0013
210	SLV 12	-5.23	0.4	31.73	0.0583	-0.3292	-0.0013
210	SLV 13	-14.02	0.05	9.4	-0.1336	-0.8342	-0.0005
210	SLV 14	-14.02	0.05	9.4	-0.1336	-0.8342	-0.0005
210	SLV 15	-15.56	0.26	5.17	-0.0757	-0.9294	-0.0011
210	SLV 16	-15.56	0.26	5.17	-0.0757	-0.9294	-0.0011
211	SLU 1	-1.28	0.01	49.98	-0.0061	-0.0867	0
211	SLU 2	-0.82	0.01	49.58	-0.0033	-0.0655	0
211	SLU 3	-1.72	0.01	51.22	-0.0063	-0.1084	0
211	SLU 4	-1.44	0.01	50.98	-0.0047	-0.0957	0
211	SLU 5	-1.18	0.01	50.41	-0.0036	-0.083	0
211	SLU 6	-2.08	0.01	52.06	-0.0066	-0.1259	0
211	SLU 7	-1.8	0.01	51.82	-0.0049	-0.1132	0
211	SLU 8	-2	0.01	51.64	-0.0066	-0.1217	0
211	SLU 9	-1.72	0.01	51.41	-0.0049	-0.109	0
211	SLU 10	-1.64	0.01	58.74	-0.0045	-0.1085	0
211	SLU 11	-2.54	0.01	60.38	-0.0075	-0.1513	0
211	SLU 12	-2.26	0.01	60.15	-0.0058	-0.1386	0
211	SLU 13	-2	0.01	59.58	-0.0047	-0.126	0
211	SLU 14	-2.9	0.01	61.22	-0.0077	-0.1688	0
211	SLU 15	-2.62	0.01	60.98	-0.006	-0.1561	0
211	SLU 16	-2.82	0.01	60.81	-0.0077	-0.1647	0
211	SLU 17	-2.54	0.01	60.57	-0.006	-0.1519	0
211	SLU 18	-2.45	0.01	63.07	-0.0077	-0.1481	0
211	SLU 19	-2.17	0.01	62.83	-0.006	-0.1354	0
211	SLU 20	-2.81	0.01	63.9	-0.0079	-0.1656	0
211	SLU 21	-2.53	0.01	63.66	-0.0063	-0.1529	0
211	SLU 22	-2.07	0.01	58.31	-0.0072	-0.1278	0
211	SLU 23	-1.61	0.01	57.92	-0.0045	-0.1066	0
211	SLU 24	-2.5	0.01	59.56	-0.0075	-0.1494	0
211	SLU 25	-2.23	0.01	59.32	-0.0058	-0.1367	0
211	SLU 26	-1.96	0.01	58.75	-0.0047	-0.1241	0
211	SLU 27	-2.86	0.01	60.39	-0.0077	-0.1669	0
211	SLU 28	-2.58	0.01	60.15	-0.0061	-0.1542	0
211	SLU 29	-2.78	0.01	59.98	-0.0077	-0.1628	0
211	SLU 30	-2.51	0.01	59.74	-0.006	-0.15	0
211	SLU 31	-2.42	0.01	67.08	-0.0056	-0.1495	0
211	SLU 32	-3.32	0.01	68.72	-0.0086	-0.1923	0
211	SLU 33	-3.04	0.01	68.48	-0.0069	-0.1796	0
211	SLU 34	-2.78	0.01	67.91	-0.0058	-0.167	0
211	SLU 35	-3.68	0.01	69.56	-0.0088	-0.2098	0
211	SLU 36	-3.4	0.01	69.32	-0.0072	-0.1971	0
211	SLU 37	-3.6	0.01	69.15	-0.0088	-0.2057	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
211	SLU 38	-3.32	0.01	68.91	-0.0072	-0.193	0
211	SLU 39	-3.23	0.01	71.41	-0.0088	-0.1891	0
211	SLU 40	-2.96	0.01	71.17	-0.0072	-0.1764	0
211	SLU 41	-3.59	0.01	72.24	-0.009	-0.2066	0
211	SLU 42	-3.31	0.01	72	-0.0074	-0.1939	0
211	SLU 43	-1.4	0.01	62.11	-0.0075	-0.0987	0
211	SLU 44	-0.94	0.01	61.71	-0.0048	-0.0775	0
211	SLU 45	-1.84	0.01	63.36	-0.0078	-0.1203	0
211	SLU 46	-1.56	0.01	63.12	-0.0061	-0.1076	0
211	SLU 47	-1.3	0.01	62.55	-0.005	-0.095	0
211	SLU 48	-2.2	0.01	64.19	-0.008	-0.1378	0
211	SLU 49	-1.92	0.01	63.95	-0.0064	-0.1251	0
211	SLU 50	-2.12	0.01	63.78	-0.008	-0.1337	0
211	SLU 51	-1.84	0.01	63.54	-0.0063	-0.121	0
211	SLU 52	-1.76	0.01	70.88	-0.0059	-0.1204	0
211	SLU 53	-2.65	0.01	72.52	-0.0089	-0.1633	0
211	SLU 54	-2.38	0.01	72.28	-0.0072	-0.1505	0
211	SLU 55	-2.11	0.01	71.71	-0.0061	-0.1379	0
211	SLU 56	-3.01	0.01	73.35	-0.0091	-0.1808	0
211	SLU 57	-2.73	0.01	73.11	-0.0075	-0.168	0
211	SLU 58	-2.93	0.01	72.94	-0.0091	-0.1766	0
211	SLU 59	-2.66	0.01	72.7	-0.0075	-0.1639	0
211	SLU 60	-2.57	0.01	75.2	-0.0091	-0.16	0
211	SLU 61	-2.29	0.01	74.96	-0.0075	-0.1473	0
211	SLU 62	-2.93	0.01	76.03	-0.0094	-0.1775	0
211	SLU 63	-2.65	0.01	75.8	-0.0077	-0.1648	0
211	SLU 64	-2.18	0.01	70.45	-0.0086	-0.1397	0
211	SLU 65	-1.72	0.01	70.05	-0.0059	-0.1185	0
211	SLU 66	-2.62	0.01	71.69	-0.0089	-0.1614	0
211	SLU 67	-2.34	0.01	71.45	-0.0073	-0.1486	0
211	SLU 68	-2.08	0.01	70.88	-0.0061	-0.136	0
211	SLU 69	-2.98	0.01	72.53	-0.0091	-0.1789	0
211	SLU 70	-2.7	0.01	72.29	-0.0075	-0.1661	0
211	SLU 71	-2.9	0.01	72.12	-0.0091	-0.1747	0
211	SLU 72	-2.62	0.01	71.88	-0.0075	-0.162	0
211	SLU 73	-2.54	0.01	79.21	-0.007	-0.1615	0
211	SLU 74	-3.44	0.01	80.86	-0.01	-0.2043	0
211	SLU 75	-3.16	0.01	80.62	-0.0084	-0.1916	0
211	SLU 76	-2.9	0.01	80.05	-0.0073	-0.179	0
211	SLU 77	-3.8	0.01	81.69	-0.0103	-0.2218	0
211	SLU 78	-3.52	0.01	81.45	-0.0086	-0.2091	0
211	SLU 79	-3.72	0.01	81.28	-0.0102	-0.2176	0
211	SLU 80	-3.44	0.01	81.04	-0.0086	-0.2049	0
211	SLU 81	-3.35	0.01	83.54	-0.0102	-0.2011	0
211	SLU 82	-3.07	0.01	83.3	-0.0086	-0.1883	0
211	SLU 83	-3.71	0.01	84.37	-0.0105	-0.2185	0
211	SLU 84	-3.43	0.01	84.13	-0.0088	-0.2058	0
211	SLE RA 1	-1.51	0.01	52.36	-0.0064	-0.0984	0
211	SLE RA 2	-1.2	0.01	52.09	-0.0046	-0.0843	0
211	SLE RA 3	-1.8	0.01	53.19	-0.0066	-0.1129	0
211	SLE RA 4	-1.61	0.01	53.03	-0.0055	-0.1044	0
211	SLE RA 5	-1.44	0.01	52.65	-0.0047	-0.096	0
211	SLE RA 6	-2.04	0.01	53.74	-0.0067	-0.1245	0
211	SLE RA 7	-1.85	0.01	53.59	-0.0056	-0.1161	0
211	SLE RA 8	-1.99	0.01	53.47	-0.0067	-0.1218	0
211	SLE RA 9	-1.8	0.01	53.31	-0.0056	-0.1133	0
211	SLE RA 10	-1.74	0.01	58.2	-0.0053	-0.113	0
211	SLE RA 11	-2.34	0.01	59.3	-0.0073	-0.1415	0
211	SLE RA 12	-2.16	0.01	59.14	-0.0062	-0.133	0
211	SLE RA 13	-1.98	0.01	58.76	-0.0055	-0.1246	0
211	SLE RA 14	-2.58	0.01	59.85	-0.0075	-0.1532	0
211	SLE RA 15	-2.4	0.01	59.69	-0.0064	-0.1447	0
211	SLE RA 16	-2.53	0.01	59.58	-0.0075	-0.1504	0
211	SLE RA 17	-2.34	0.01	59.42	-0.0064	-0.1419	0
211	SLE RA 18	-2.29	0.01	61.09	-0.0075	-0.1393	0
211	SLE RA 19	-2.1	0.01	60.93	-0.0064	-0.1309	0
211	SLE RA 20	-2.52	0.01	61.64	-0.0076	-0.151	0
211	SLE RA 21	-2.34	0.01	61.48	-0.0065	-0.1425	0
211	SLE FR 1	-1.51	0.01	52.36	-0.0064	-0.0984	0
211	SLE FR 2	-1.45	0.01	52.31	-0.006	-0.0956	0
211	SLE FR 3	-1.6	0.01	52.58	-0.0065	-0.1031	0
211	SLE FR 4	-1.68	0.01	54.92	-0.0064	-0.1079	0
211	SLE FR 5	-1.84	0.01	55.2	-0.0068	-0.1154	0
211	SLE FR 6	-1.9	0.01	56.72	-0.0069	-0.1189	0
211	SLE QP 1	-1.51	0.01	52.36	-0.0064	-0.0984	0
211	SLE QP 2	-1.74	0.01	54.98	-0.0067	-0.1107	0
211	SLD 1	7.86	0	64.9	-0.0168	0.3622	-0.0001
211	SLD 2	7.86	0	64.9	-0.0168	0.3622	-0.0001
211	SLD 3	7.06	-0.12	63.87	0.1101	0.3237	0.0005
211	SLD 4	7.06	-0.12	63.87	0.1101	0.3237	0.0005
211	SLD 5	2.35	0.19	59.53	-0.2022	0.0896	-0.0009
211	SLD 6	2.35	0.19	59.53	-0.2022	0.0896	-0.0009
211	SLD 7	-0.32	-0.21	56.07	0.2208	-0.0388	0.001
211	SLD 8	-0.32	-0.21	56.07	0.2208	-0.0388	0.001
211	SLD 9	-3.17	0.23	53.88	-0.2343	-0.1826	-0.001
211	SLD 10	-3.17	0.23	53.88	-0.2343	-0.1826	-0.001
211	SLD 11	-5.84	-0.17	50.43	0.1888	-0.311	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
211	SLD 12	-5.84	-0.17	50.43	0.1888	-0.311	0.0008
211	SLD 13	-10.54	0.14	46.09	-0.1236	-0.5451	-0.0005
211	SLD 14	-10.54	0.14	46.09	-0.1236	-0.5451	-0.0005
211	SLD 15	-11.34	0.02	45.05	0.0033	-0.5837	0
211	SLD 16	-11.34	0.02	45.05	0.0033	-0.5837	0
211	SLV 1	20.73	-0.02	78.29	-0.0321	0.9962	-0.0001
211	SLV 2	20.73	-0.02	78.29	-0.0321	0.9962	-0.0001
211	SLV 3	18.83	-0.32	75.79	0.2922	0.9048	0.0013
211	SLV 4	18.83	-0.32	75.79	0.2922	0.9048	0.0013
211	SLV 5	7.88	0.46	65.75	-0.5063	0.36	-0.0022
211	SLV 6	7.88	0.46	65.75	-0.5063	0.36	-0.0022
211	SLV 7	1.55	-0.56	57.44	0.5749	0.0553	0.0026
211	SLV 8	1.55	-0.56	57.44	0.5749	0.0553	0.0026
211	SLV 9	-5.03	0.57	52.52	-0.5884	-0.2767	-0.0026
211	SLV 10	-5.03	0.57	52.52	-0.5884	-0.2767	-0.0026
211	SLV 11	-11.37	-0.45	44.2	0.4928	-0.5814	0.0022
211	SLV 12	-11.37	-0.45	44.2	0.4928	-0.5814	0.0022
211	SLV 13	-22.31	0.34	34.16	-0.3057	-1.1262	-0.0013
211	SLV 14	-22.31	0.34	34.16	-0.3057	-1.1262	-0.0013
211	SLV 15	-24.21	0.03	31.67	0.0187	-1.2176	0.0001
211	SLV 16	-24.21	0.03	31.67	0.0187	-1.2176	0.0001
212	SLU 1	-3.55	0	51.37	-0.004	-0.1552	0
212	SLU 2	-3.03	0	51.08	0.0019	-0.1329	0
212	SLU 3	-4.08	0	52.71	-0.0042	-0.1792	0
212	SLU 4	-3.77	0	52.54	-0.0006	-0.1658	0
212	SLU 5	-3.46	0	51.97	0.0017	-0.152	0
212	SLU 6	-4.51	0	53.6	-0.0043	-0.1983	0
212	SLU 7	-4.2	0	53.42	-0.0008	-0.1849	0
212	SLU 8	-4.4	0	53.14	-0.0043	-0.1934	0
212	SLU 9	-4.09	0	52.97	-0.0008	-0.18	0
212	SLU 10	-4.37	0	60.48	0.0012	-0.1919	0
212	SLU 11	-5.42	0	62.11	-0.0049	-0.2382	0
212	SLU 12	-5.11	0	61.94	-0.0014	-0.2248	0
212	SLU 13	-4.8	0	61.36	0.001	-0.211	0
212	SLU 14	-5.84	0	63	-0.0051	-0.2573	0
212	SLU 15	-5.54	0	62.82	-0.0015	-0.2439	0
212	SLU 16	-5.74	0	62.54	-0.0051	-0.2524	0
212	SLU 17	-5.43	0	62.37	-0.0015	-0.239	0
212	SLU 18	-5.46	0	64.8	-0.005	-0.2395	0
212	SLU 19	-5.15	0	64.62	-0.0015	-0.2262	0
212	SLU 20	-5.88	0	65.68	-0.0052	-0.2586	0
212	SLU 21	-5.57	0	65.51	-0.0017	-0.2452	0
212	SLU 22	-4.79	0	59.91	-0.0047	-0.2101	0
212	SLU 23	-4.28	0	59.62	0.0012	-0.1878	0
212	SLU 24	-5.33	0	61.25	-0.0049	-0.2341	0
212	SLU 25	-5.02	0	61.08	-0.0014	-0.2207	0
212	SLU 26	-4.71	0	60.5	0.001	-0.2069	0
212	SLU 27	-5.75	0	62.14	-0.0051	-0.2532	0
212	SLU 28	-5.45	0	61.96	-0.0016	-0.2398	0
212	SLU 29	-5.65	0	61.68	-0.0051	-0.2483	0
212	SLU 30	-5.34	0	61.51	-0.0016	-0.2349	0
212	SLU 31	-5.62	0	69.02	0.0004	-0.2468	0
212	SLU 32	-6.66	0	70.65	-0.0057	-0.2931	0
212	SLU 33	-6.35	0	70.48	-0.0021	-0.2797	0
212	SLU 34	-6.04	0	69.9	0.0002	-0.2659	0
212	SLU 35	-7.09	0	71.54	-0.0058	-0.3122	0
212	SLU 36	-6.78	0	71.36	-0.0023	-0.2988	0
212	SLU 37	-6.98	0	71.08	-0.0058	-0.3073	0
212	SLU 38	-6.67	0	70.9	-0.0023	-0.2939	0
212	SLU 39	-6.7	0	73.34	-0.0058	-0.2944	0
212	SLU 40	-6.39	0	73.16	-0.0023	-0.281	0
212	SLU 41	-7.13	0	74.22	-0.006	-0.3135	0
212	SLU 42	-6.82	0	74.05	-0.0024	-0.3001	0
212	SLU 43	-4.18	0	63.85	-0.0049	-0.183	0
212	SLU 44	-3.67	0	63.56	0.001	-0.1607	0
212	SLU 45	-4.72	0	65.2	-0.0051	-0.207	0
212	SLU 46	-4.41	0	65.02	-0.0015	-0.1936	0
212	SLU 47	-4.1	0	64.45	0.0008	-0.1797	0
212	SLU 48	-5.14	0	66.08	-0.0053	-0.226	0
212	SLU 49	-4.84	0	65.91	-0.0017	-0.2127	0
212	SLU 50	-5.04	0	65.63	-0.0052	-0.2211	0
212	SLU 51	-4.73	0	65.45	-0.0017	-0.2077	0
212	SLU 52	-5.01	0	72.96	0.0003	-0.2197	0
212	SLU 53	-6.05	0	74.59	-0.0058	-0.266	0
212	SLU 54	-5.75	0	74.42	-0.0023	-0.2526	0
212	SLU 55	-5.43	0	73.85	0.0001	-0.2388	0
212	SLU 56	-6.48	0	75.48	-0.006	-0.2851	0
212	SLU 57	-6.17	0	75.31	-0.0025	-0.2717	0
212	SLU 58	-6.37	0	75.02	-0.006	-0.2802	0
212	SLU 59	-6.07	0	74.85	-0.0025	-0.2668	0
212	SLU 60	-6.09	0	77.28	-0.006	-0.2673	0
212	SLU 61	-5.79	0	77.11	-0.0024	-0.2539	0
212	SLU 62	-6.52	0	78.17	-0.0061	-0.2864	0
212	SLU 63	-6.21	0	77.99	-0.0026	-0.273	0
212	SLU 64	-5.43	0	72.39	-0.0057	-0.2379	0
212	SLU 65	-4.92	0	72.1	0.0002	-0.2156	0
212	SLU 66	-5.96	0	73.73	-0.0059	-0.2619	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
212	SLU 67	-5.66	0	73.56	-0.0023	-0.2485	0
212	SLU 68	-5.34	0	72.99	0	-0.2346	0
212	SLU 69	-6.39	0	74.62	-0.006	-0.2809	0
212	SLU 70	-6.08	0	74.45	-0.0025	-0.2676	0
212	SLU 71	-6.28	0	74.16	-0.006	-0.276	0
212	SLU 72	-5.98	0	73.99	-0.0025	-0.2626	0
212	SLU 73	-6.25	0	81.5	-0.0005	-0.2746	0
212	SLU 74	-7.3	0.01	83.13	-0.0066	-0.3209	0
212	SLU 75	-6.99	0	82.96	-0.0031	-0.3075	0
212	SLU 76	-6.68	0	82.39	-0.0007	-0.2937	0
212	SLU 77	-7.73	0.01	84.02	-0.0068	-0.34	0
212	SLU 78	-7.42	0	83.84	-0.0032	-0.3266	0
212	SLU 79	-7.62	0.01	83.56	-0.0068	-0.3351	0
212	SLU 80	-7.31	0	83.39	-0.0032	-0.3217	0
212	SLU 81	-7.34	0.01	85.82	-0.0067	-0.3222	0
212	SLU 82	-7.03	0	85.65	-0.0032	-0.3088	0
212	SLU 83	-7.77	0.01	86.71	-0.0069	-0.3413	0
212	SLU 84	-7.46	0	86.53	-0.0034	-0.3279	0
212	SLE RA 1	-3.9	0	53.81	-0.0042	-0.1709	0
212	SLE RA 2	-3.56	0	53.62	-0.0003	-0.156	0
212	SLE RA 3	-4.26	0	54.7	-0.0043	-0.1869	0
212	SLE RA 4	-4.05	0	54.59	-0.002	-0.178	0
212	SLE RA 5	-3.85	0	54.21	-0.0004	-0.1688	0
212	SLE RA 6	-4.54	0	55.3	-0.0044	-0.1996	0
212	SLE RA 7	-4.34	0	55.18	-0.0021	-0.1907	0
212	SLE RA 8	-4.47	0	54.99	-0.0044	-0.1964	0
212	SLE RA 9	-4.27	0	54.87	-0.0021	-0.1874	0
212	SLE RA 10	-4.45	0	59.88	-0.0008	-0.1954	0
212	SLE RA 11	-5.15	0	60.97	-0.0048	-0.2263	0
212	SLE RA 12	-4.94	0	60.85	-0.0024	-0.2173	0
212	SLE RA 13	-4.74	0	60.47	-0.0009	-0.2081	0
212	SLE RA 14	-5.43	0	61.56	-0.0049	-0.239	0
212	SLE RA 15	-5.23	0	61.44	-0.0026	-0.23	0
212	SLE RA 16	-5.36	0	61.26	-0.0049	-0.2357	0
212	SLE RA 17	-5.16	0	61.14	-0.0026	-0.2268	0
212	SLE RA 18	-5.18	0	62.76	-0.0049	-0.2271	0
212	SLE RA 19	-4.97	0	62.65	-0.0025	-0.2182	0
212	SLE RA 20	-5.46	0	63.35	-0.005	-0.2398	0
212	SLE RA 21	-5.25	0	63.24	-0.0027	-0.2309	0
212	SLE FR 1	-3.9	0	53.81	-0.0042	-0.1709	0
212	SLE FR 2	-3.84	0	53.77	-0.0034	-0.1679	0
212	SLE FR 3	-4.02	0	54.05	-0.0042	-0.176	0
212	SLE FR 4	-4.22	0	56.46	-0.0036	-0.1848	0
212	SLE FR 5	-4.4	0	56.73	-0.0045	-0.1929	0
212	SLE FR 6	-4.54	0	58.29	-0.0045	-0.199	0
212	SLE QP 1	-3.9	0	53.81	-0.0042	-0.1709	0
212	SLE QP 2	-4.29	0	56.5	-0.0044	-0.1878	0
212	SLD 1	6.29	0.03	61.15	-0.0448	0.3127	-0.0001
212	SLD 2	6.29	0.03	61.15	-0.0448	0.3127	-0.0001
212	SLD 3	5.36	-0.17	61.86	0.1653	0.2678	0.0008
212	SLD 4	5.36	-0.17	61.86	0.1653	0.2678	0.0008
212	SLD 5	0.3	0.31	56.81	-0.3352	0.0304	-0.0014
212	SLD 6	0.3	0.31	56.81	-0.3352	0.0304	-0.0014
212	SLD 7	-2.8	-0.34	59.19	0.3652	-0.1191	0.0016
212	SLD 8	-2.8	-0.34	59.19	0.3652	-0.1191	0.0016
212	SLD 9	-5.77	0.35	53.81	-0.374	-0.2564	-0.0016
212	SLD 10	-5.77	0.35	53.81	-0.374	-0.2564	-0.0016
212	SLD 11	-8.87	-0.3	56.18	0.3264	-0.4059	0.0014
212	SLD 12	-8.87	-0.3	56.18	0.3264	-0.4059	0.0014
212	SLD 13	-13.93	0.17	51.13	-0.1741	-0.6434	-0.0008
212	SLD 14	-13.93	0.17	51.13	-0.1741	-0.6434	-0.0008
212	SLD 15	-14.86	-0.02	51.84	0.036	-0.6882	0.0001
212	SLD 16	-14.86	-0.02	51.84	0.036	-0.6882	0.0001
212	SLV 1	20.48	0.06	67.4	-0.1078	0.9842	-0.0003
212	SLV 2	20.48	0.06	67.4	-0.1078	0.9842	-0.0003
212	SLV 3	18.27	-0.44	69.13	0.4302	0.8775	0.002
212	SLV 4	18.27	-0.44	69.13	0.4302	0.8775	0.002
212	SLV 5	6.5	0.78	57.13	-0.8512	0.3258	-0.0035
212	SLV 6	6.5	0.78	57.13	-0.8512	0.3258	-0.0035
212	SLV 7	-0.88	-0.89	62.92	0.9418	-0.0302	0.004
212	SLV 8	-0.88	-0.89	62.92	0.9418	-0.0302	0.004
212	SLV 9	-7.69	0.89	50.07	-0.9506	-0.3454	-0.0041
212	SLV 10	-7.69	0.89	50.07	-0.9506	-0.3454	-0.0041
212	SLV 11	-15.07	-0.77	55.86	0.8424	-0.7014	0.0035
212	SLV 12	-15.07	-0.77	55.86	0.8424	-0.7014	0.0035
212	SLV 13	-26.84	0.44	43.86	-0.439	-1.253	-0.002
212	SLV 14	-26.84	0.44	43.86	-0.439	-1.253	-0.002
212	SLV 15	-29.05	-0.06	45.6	0.0989	-1.3598	0.0002
212	SLV 16	-29.05	-0.06	45.6	0.0989	-1.3598	0.0002
213	SLU 1	-5.19	0	51.97	-0.0024	-0.2441	0
213	SLU 2	-4.68	0	51.83	0.0064	-0.2219	0
213	SLU 3	-5.78	0	53.33	-0.0025	-0.2709	0
213	SLU 4	-5.47	0	53.25	0.0027	-0.2575	0
213	SLU 5	-5.14	0	52.72	0.0062	-0.2427	0
213	SLU 6	-6.24	0	54.22	-0.0027	-0.2917	0
213	SLU 7	-5.93	0	54.13	0.0026	-0.2783	0
213	SLU 8	-6.12	0	53.74	-0.0027	-0.2858	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
213	SLU 9	-5.81	0	53.65	0.0026	-0.2724	0
213	SLU 10	-6.39	0	61.24	0.0059	-0.3	0
213	SLU 11	-7.49	0	62.74	-0.003	-0.349	0
213	SLU 12	-7.18	0	62.66	0.0023	-0.3357	0
213	SLU 13	-6.85	0	62.12	0.0058	-0.3209	0
213	SLU 14	-7.95	0	63.62	-0.0031	-0.3699	0
213	SLU 15	-7.64	0	63.54	0.0021	-0.3565	0
213	SLU 16	-7.83	0	63.14	-0.0031	-0.364	0
213	SLU 17	-7.52	0	63.06	0.0021	-0.3506	0
213	SLU 18	-7.64	0	65.4	-0.0031	-0.3558	0
213	SLU 19	-7.33	0	65.32	0.0022	-0.3425	0
213	SLU 20	-8.1	0	66.29	-0.0032	-0.3766	0
213	SLU 21	-7.79	0	66.2	0.0021	-0.3633	0
213	SLU 22	-6.77	0	60.51	-0.0029	-0.3162	0
213	SLU 23	-6.26	0	60.37	0.0059	-0.2939	0
213	SLU 24	-7.36	0	61.87	-0.003	-0.3429	0
213	SLU 25	-7.05	0	61.79	0.0022	-0.3295	0
213	SLU 26	-6.72	0	61.25	0.0057	-0.3147	0
213	SLU 27	-7.82	0	62.75	-0.0032	-0.3637	0
213	SLU 28	-7.51	0	62.67	0.0021	-0.3504	0
213	SLU 29	-7.69	0	62.27	-0.0032	-0.3578	0
213	SLU 30	-7.38	0	62.19	0.0021	-0.3445	0
213	SLU 31	-7.97	0	69.77	0.0054	-0.3721	0
213	SLU 32	-9.07	0	71.27	-0.0035	-0.4211	0
213	SLU 33	-8.76	0	71.19	0.0018	-0.4077	0
213	SLU 34	-8.43	0	70.66	0.0052	-0.3929	0
213	SLU 35	-9.53	0	72.16	-0.0036	-0.4419	0
213	SLU 36	-9.22	0	72.08	0.0016	-0.4285	0
213	SLU 37	-9.4	0	71.68	-0.0037	-0.436	0
213	SLU 38	-9.09	0	71.59	0.0016	-0.4226	0
213	SLU 39	-9.21	0	73.94	-0.0036	-0.4278	0
213	SLU 40	-8.91	0	73.86	0.0017	-0.4145	0
213	SLU 41	-9.68	0	74.82	-0.0037	-0.4487	0
213	SLU 42	-9.37	0	74.74	0.0015	-0.4353	0
213	SLU 43	-6.21	0	64.63	-0.0029	-0.2927	0
213	SLU 44	-5.7	0	64.5	0.0058	-0.2704	0
213	SLU 45	-6.8	0	66	-0.0031	-0.3194	0
213	SLU 46	-6.49	0	65.92	0.0022	-0.306	0
213	SLU 47	-6.16	0	65.38	0.0057	-0.2913	0
213	SLU 48	-7.26	0	66.88	-0.0032	-0.3402	0
213	SLU 49	-6.95	0	66.8	0.0021	-0.3269	0
213	SLU 50	-7.13	0	66.4	-0.0032	-0.3344	0
213	SLU 51	-6.82	0	66.32	0.002	-0.321	0
213	SLU 52	-7.41	0	73.9	0.0054	-0.3486	0
213	SLU 53	-8.51	0	75.4	-0.0035	-0.3976	0
213	SLU 54	-8.2	0	75.32	0.0017	-0.3842	0
213	SLU 55	-7.87	0	74.78	0.0052	-0.3694	0
213	SLU 56	-8.97	0	76.28	-0.0037	-0.4184	0
213	SLU 57	-8.66	0	76.2	0.0016	-0.4051	0
213	SLU 58	-8.84	0	75.8	-0.0037	-0.4125	0
213	SLU 59	-8.54	0	75.72	0.0016	-0.3992	0
213	SLU 60	-8.66	0	78.07	-0.0036	-0.4044	0
213	SLU 61	-8.35	0	77.98	0.0016	-0.391	0
213	SLU 62	-9.12	0	78.95	-0.0038	-0.4252	0
213	SLU 63	-8.81	0	78.87	0.0015	-0.4118	0
213	SLU 64	-7.79	0	73.17	-0.0035	-0.3647	0
213	SLU 65	-7.27	0	73.03	0.0053	-0.3424	0
213	SLU 66	-8.37	0	74.54	-0.0036	-0.3914	0
213	SLU 67	-8.07	0	74.45	0.0017	-0.3781	0
213	SLU 68	-7.73	0	73.92	0.0052	-0.3633	0
213	SLU 69	-8.83	0	75.42	-0.0037	-0.4123	0
213	SLU 70	-8.53	0	75.34	0.0015	-0.3989	0
213	SLU 71	-8.71	0	74.94	-0.0037	-0.4064	0
213	SLU 72	-8.4	0	74.85	0.0015	-0.393	0
213	SLU 73	-8.99	0	82.44	0.0048	-0.4206	0
213	SLU 74	-10.09	0	83.94	-0.0041	-0.4696	0
213	SLU 75	-9.78	0	83.86	0.0012	-0.4562	0
213	SLU 76	-9.45	0	83.32	0.0047	-0.4414	0
213	SLU 77	-10.55	0	84.82	-0.0042	-0.4904	0
213	SLU 78	-10.24	0	84.74	0.0011	-0.4771	0
213	SLU 79	-10.42	0	84.34	-0.0042	-0.4846	0
213	SLU 80	-10.11	0	84.26	0.0011	-0.4712	0
213	SLU 81	-10.23	0	86.6	-0.0041	-0.4764	0
213	SLU 82	-9.92	0	86.52	0.0011	-0.463	0
213	SLU 83	-10.69	0	87.49	-0.0043	-0.4972	0
213	SLU 84	-10.39	0	87.4	0.001	-0.4839	0
213	SLE RA 1	-5.64	0	54.41	-0.0026	-0.2647	0
213	SLE RA 2	-5.3	0	54.32	0.0033	-0.2499	0
213	SLE RA 3	-6.04	0	55.32	-0.0026	-0.2825	0
213	SLE RA 4	-5.83	0	55.26	0.0009	-0.2736	0
213	SLE RA 5	-5.61	0	54.91	0.0032	-0.2638	0
213	SLE RA 6	-6.34	0	55.91	-0.0027	-0.2964	0
213	SLE RA 7	-6.14	0	55.85	0.0008	-0.2875	0
213	SLE RA 8	-6.26	0	55.59	-0.0027	-0.2925	0
213	SLE RA 9	-6.05	0	55.53	0.0008	-0.2836	0
213	SLE RA 10	-6.44	0	60.59	0.003	-0.302	0
213	SLE RA 11	-7.18	0	61.59	-0.0029	-0.3346	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
213	SLE RA 12	-6.97	0	61.53	0.0006	-0.3257	0
213	SLE RA 13	-6.75	0	61.17	0.0029	-0.3159	0
213	SLE RA 14	-7.48	0	62.18	-0.003	-0.3485	0
213	SLE RA 15	-7.28	0	62.12	0.0005	-0.3396	0
213	SLE RA 16	-7.4	0	61.85	-0.003	-0.3446	0
213	SLE RA 17	-7.19	0	61.8	0.0005	-0.3357	0
213	SLE RA 18	-7.27	0	63.36	-0.003	-0.3392	0
213	SLE RA 19	-7.07	0	63.31	0.0005	-0.3303	0
213	SLE RA 20	-7.58	0	63.95	-0.0031	-0.3531	0
213	SLE RA 21	-7.38	0	63.9	0.0004	-0.3441	0
213	SLE FR 1	-5.64	0	54.41	-0.0026	-0.2647	0
213	SLE FR 2	-5.58	0	54.39	-0.0014	-0.2617	0
213	SLE FR 3	-5.77	0	54.64	-0.0026	-0.2703	0
213	SLE FR 4	-6.06	0	57.08	-0.0015	-0.2841	0
213	SLE FR 5	-6.26	0	57.33	-0.0027	-0.2926	0
213	SLE FR 6	-6.46	0	58.89	-0.0028	-0.3019	0
213	SLE QP 1	-5.64	0	54.41	-0.0026	-0.2647	0
213	SLE QP 2	-6.13	0	57.1	-0.0027	-0.287	0
213	SLD 1	4.82	0.05	59.21	-0.0674	0.2152	-0.0003
213	SLD 2	4.82	0.05	59.21	-0.0674	0.2152	-0.0003
213	SLD 3	3.84	-0.2	59.75	0.2049	0.1714	0.001
213	SLD 4	3.84	-0.2	59.75	0.2049	0.1714	0.001
213	SLD 5	-1.37	0.4	56.9	-0.4352	-0.07	-0.0021
213	SLD 6	-1.37	0.4	56.9	-0.4352	-0.07	-0.0021
213	SLD 7	-4.62	-0.45	58.72	0.4727	-0.2159	0.0023
213	SLD 8	-4.62	-0.45	58.72	0.4727	-0.2159	0.0023
213	SLD 9	-7.65	0.45	55.47	-0.4781	-0.3582	-0.0023
213	SLD 10	-7.65	0.45	55.47	-0.4781	-0.3582	-0.0023
213	SLD 11	-10.9	-0.4	57.29	0.4298	-0.5041	0.0021
213	SLD 12	-10.9	-0.4	57.29	0.4298	-0.5041	0.0021
213	SLD 13	-16.11	0.2	54.44	-0.2103	-0.7455	-0.0011
213	SLD 14	-16.11	0.2	54.44	-0.2103	-0.7455	-0.0011
213	SLD 15	-17.08	-0.05	54.98	0.062	-0.7893	0.0003
213	SLD 16	-17.08	-0.05	54.98	0.062	-0.7893	0.0003
213	SLV 1	19.5	0.14	62.06	-0.1685	0.8885	-0.0007
213	SLV 2	19.5	0.14	62.06	-0.1685	0.8885	-0.0007
213	SLV 3	17.19	-0.52	63.4	0.5291	0.7845	0.0027
213	SLV 4	17.19	-0.52	63.4	0.5291	0.7845	0.0027
213	SLV 5	5.07	1.03	56.55	-1.1104	0.2233	-0.0054
213	SLV 6	5.07	1.03	56.55	-1.1104	0.2233	-0.0054
213	SLV 7	-2.65	-1.14	61.02	1.2148	-0.1233	0.006
213	SLV 8	-2.65	-1.14	61.02	1.2148	-0.1233	0.006
213	SLV 9	-9.62	1.15	53.17	-1.2201	-0.4508	-0.006
213	SLV 10	-9.62	1.15	53.17	-1.2201	-0.4508	-0.006
213	SLV 11	-17.34	-1.03	57.64	1.105	-0.7974	0.0054
213	SLV 12	-17.34	-1.03	57.64	1.105	-0.7974	0.0054
213	SLV 13	-29.45	0.52	50.79	-0.5344	-1.3586	-0.0027
213	SLV 14	-29.45	0.52	50.79	-0.5344	-1.3586	-0.0027
213	SLV 15	-31.77	-0.13	52.13	0.1631	-1.4626	0.0007
213	SLV 16	-31.77	-0.13	52.13	0.1631	-1.4626	0.0007
214	SLU 1	-6.02	0	52.36	-0.0012	-0.2665	0
214	SLU 2	-5.54	-0.01	52.37	0.0103	-0.2456	0
214	SLU 3	-6.62	0	53.73	-0.0013	-0.2931	0
214	SLU 4	-6.33	0	53.74	0.0056	-0.2805	0
214	SLU 5	-6	-0.01	53.24	0.0102	-0.2661	0
214	SLU 6	-7.08	0	54.6	-0.0014	-0.3136	0
214	SLU 7	-6.79	0	54.61	0.0055	-0.301	0
214	SLU 8	-6.94	0	54.1	-0.0014	-0.3075	0
214	SLU 9	-6.65	0	54.1	0.0055	-0.295	0
214	SLU 10	-7.45	-0.01	61.69	0.01	-0.33	0
214	SLU 11	-8.53	0	63.05	-0.0015	-0.3775	0
214	SLU 12	-8.24	0	63.06	0.0054	-0.365	0
214	SLU 13	-7.92	-0.01	62.56	0.0099	-0.3505	0
214	SLU 14	-8.99	0	63.92	-0.0016	-0.398	0
214	SLU 15	-8.7	0	63.93	0.0053	-0.3855	0
214	SLU 16	-8.86	0	63.42	-0.0017	-0.3919	0
214	SLU 17	-8.57	0	63.43	0.0052	-0.3794	0
214	SLU 18	-8.76	0	65.68	-0.0016	-0.3871	0
214	SLU 19	-8.47	0	65.68	0.0053	-0.3746	0
214	SLU 20	-9.22	0	66.55	-0.0017	-0.4076	0
214	SLU 21	-8.93	0	66.55	0.0052	-0.3951	0
214	SLU 22	-7.76	0	60.83	-0.0015	-0.3434	0
214	SLU 23	-7.28	-0.01	60.84	0.01	-0.3225	0
214	SLU 24	-8.36	0	62.2	-0.0016	-0.3699	0
214	SLU 25	-8.07	0	62.21	0.0053	-0.3574	0
214	SLU 26	-7.74	-0.01	61.71	0.0099	-0.343	0
214	SLU 27	-8.82	0	63.07	-0.0017	-0.3904	0
214	SLU 28	-8.53	0	63.08	0.0052	-0.3779	0
214	SLU 29	-8.69	0	62.57	-0.0017	-0.3843	0
214	SLU 30	-8.4	0	62.58	0.0052	-0.3718	0
214	SLU 31	-9.2	-0.01	70.16	0.0097	-0.4069	0
214	SLU 32	-10.28	0	71.53	-0.0018	-0.4543	0
214	SLU 33	-9.99	0	71.53	0.0051	-0.4418	0
214	SLU 34	-9.66	-0.01	71.03	0.0096	-0.4274	0
214	SLU 35	-10.74	0	72.4	-0.0019	-0.4748	0
214	SLU 36	-10.45	0	72.4	0.005	-0.4623	0
214	SLU 37	-10.6	0	71.89	-0.002	-0.4688	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
214	SLU 38	-10.32	0	71.9	0.0049	-0.4562	0
214	SLU 39	-10.5	0	74.15	-0.0019	-0.464	0
214	SLU 40	-10.21	0	74.16	0.005	-0.4514	0
214	SLU 41	-10.97	0	75.02	-0.002	-0.4845	0
214	SLU 42	-10.68	0	75.03	0.0049	-0.4719	0
214	SLU 43	-7.23	0	65.16	-0.0014	-0.3201	0
214	SLU 44	-6.74	-0.01	65.17	0.0101	-0.2992	0
214	SLU 45	-7.82	0	66.53	-0.0015	-0.3467	0
214	SLU 46	-7.53	0	66.54	0.0054	-0.3341	0
214	SLU 47	-7.21	-0.01	66.04	0.01	-0.3197	0
214	SLU 48	-8.28	0	67.4	-0.0016	-0.3672	0
214	SLU 49	-7.99	0	67.41	0.0053	-0.3546	0
214	SLU 50	-8.15	0	66.9	-0.0016	-0.3611	0
214	SLU 51	-7.86	0	66.91	0.0053	-0.3486	0
214	SLU 52	-8.66	-0.01	74.49	0.0098	-0.3836	0
214	SLU 53	-9.74	0	75.85	-0.0018	-0.4311	0
214	SLU 54	-9.45	0	75.86	0.0051	-0.4186	0
214	SLU 55	-9.12	-0.01	75.36	0.0097	-0.4041	0
214	SLU 56	-10.2	0	76.73	-0.0019	-0.4516	0
214	SLU 57	-9.91	0	76.73	0.005	-0.4391	0
214	SLU 58	-10.07	0	76.22	-0.0019	-0.4455	0
214	SLU 59	-9.78	0	76.23	0.005	-0.433	0
214	SLU 60	-9.97	0	78.48	-0.0018	-0.4407	0
214	SLU 61	-9.68	0	78.49	0.0051	-0.4282	0
214	SLU 62	-10.43	0	79.35	-0.0019	-0.4612	0
214	SLU 63	-10.14	0	79.36	0.005	-0.4487	0
214	SLU 64	-8.97	0	73.63	-0.0018	-0.397	0
214	SLU 65	-8.49	-0.01	73.64	0.0097	-0.3761	0
214	SLU 66	-9.57	0	75	-0.0018	-0.4235	0
214	SLU 67	-9.28	0	75.01	0.0051	-0.411	0
214	SLU 68	-8.95	-0.01	74.51	0.0096	-0.3966	0
214	SLU 69	-10.03	0	75.87	-0.0019	-0.444	0
214	SLU 70	-9.74	0	75.88	0.005	-0.4315	0
214	SLU 71	-9.89	0	75.37	-0.002	-0.4379	0
214	SLU 72	-9.6	0	75.38	0.0049	-0.4254	0
214	SLU 73	-10.41	-0.01	82.97	0.0095	-0.4605	0
214	SLU 74	-11.49	0	84.33	-0.0021	-0.508	0
214	SLU 75	-11.2	0	84.33	0.0048	-0.4954	0
214	SLU 76	-10.87	-0.01	83.84	0.0094	-0.481	0
214	SLU 77	-11.95	0	85.2	-0.0022	-0.5284	0
214	SLU 78	-11.66	0	85.2	0.0047	-0.5159	0
214	SLU 79	-11.81	0	84.7	-0.0022	-0.5224	0
214	SLU 80	-11.52	0	84.7	0.0047	-0.5098	0
214	SLU 81	-11.71	0	86.95	-0.0021	-0.5176	0
214	SLU 82	-11.42	0	86.96	0.0048	-0.505	0
214	SLU 83	-12.17	0	87.82	-0.0022	-0.5381	0
214	SLU 84	-11.88	0	87.83	0.0047	-0.5255	0
214	SLE RA 1	-6.52	0	54.78	-0.0013	-0.2885	0
214	SLE RA 2	-6.2	0	54.79	0.0064	-0.2745	0
214	SLE RA 3	-6.92	0	55.69	-0.0013	-0.3062	0
214	SLE RA 4	-6.72	0	55.7	0.0033	-0.2978	0
214	SLE RA 5	-6.5	0	55.37	0.0063	-0.2882	0
214	SLE RA 6	-7.22	0	56.27	-0.0014	-0.3198	0
214	SLE RA 7	-7.03	0	56.28	0.0032	-0.3115	0
214	SLE RA 8	-7.13	0	55.94	-0.0014	-0.3158	0
214	SLE RA 9	-6.94	0	55.94	0.0032	-0.3074	0
214	SLE RA 10	-7.47	0	61	0.0062	-0.3308	0
214	SLE RA 11	-8.19	0	61.91	-0.0015	-0.3625	0
214	SLE RA 12	-8	0	61.91	0.0031	-0.3541	0
214	SLE RA 13	-7.78	0	61.58	0.0061	-0.3445	0
214	SLE RA 14	-8.5	0	62.49	-0.0016	-0.3761	0
214	SLE RA 15	-8.31	0	62.49	0.003	-0.3678	0
214	SLE RA 16	-8.41	0	62.15	-0.0016	-0.3721	0
214	SLE RA 17	-8.22	0	62.16	0.003	-0.3637	0
214	SLE RA 18	-8.34	0	63.66	-0.0015	-0.3689	0
214	SLE RA 19	-8.15	0	63.66	0.0031	-0.3605	0
214	SLE RA 20	-8.65	0	64.24	-0.0016	-0.3825	0
214	SLE RA 21	-8.46	0	64.24	0.003	-0.3742	0
214	SLE FR 1	-6.52	0	54.78	-0.0013	-0.2885	0
214	SLE FR 2	-6.45	0	54.78	0.0003	-0.2857	0
214	SLE FR 3	-6.64	0	55.01	-0.0013	-0.2939	0
214	SLE FR 4	-7	0	57.44	0.0002	-0.3098	0
214	SLE FR 5	-7.19	0	57.67	-0.0014	-0.3181	0
214	SLE FR 6	-7.43	0	59.22	-0.0014	-0.3287	0
214	SLE QP 1	-6.52	0	54.78	-0.0013	-0.2885	0
214	SLE QP 2	-7.07	0	57.44	-0.0014	-0.3126	0
214	SLD 1	3.92	0.08	58.21	-0.0838	0.1914	-0.0004
214	SLD 2	3.92	0.08	58.21	-0.0838	0.1914	-0.0004
214	SLD 3	2.91	-0.22	58.67	0.2299	0.1448	0.0013
214	SLD 4	2.91	-0.22	58.67	0.2299	0.1448	0.0013
214	SLD 5	-2.23	0.48	56.98	-0.5019	-0.0906	-0.0026
214	SLD 6	-2.23	0.48	56.98	-0.5019	-0.0906	-0.0026
214	SLD 7	-5.61	-0.52	58.51	0.5438	-0.2462	0.0029
214	SLD 8	-5.61	-0.52	58.51	0.5438	-0.2462	0.0029
214	SLD 9	-8.52	0.52	56.37	-0.5465	-0.379	-0.0029
214	SLD 10	-8.52	0.52	56.37	-0.5465	-0.379	-0.0029
214	SLD 11	-11.9	-0.47	57.91	0.4992	-0.5346	0.0026



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
214	SLD 12	-11.9	-0.47	57.91	0.4992	-0.5346	0.0026
214	SLD 13	-17.04	0.22	56.21	-0.2327	-0.7699	-0.0013
214	SLD 14	-17.04	0.22	56.21	-0.2327	-0.7699	-0.0013
214	SLD 15	-18.05	-0.07	56.67	0.0811	-0.8166	0.0004
214	SLD 16	-18.05	-0.07	56.67	0.0811	-0.8166	0.0004
214	SLV 1	18.66	0.19	59.28	-0.2126	0.8676	-0.001
214	SLV 2	18.66	0.19	59.28	-0.2126	0.8676	-0.001
214	SLV 3	16.25	-0.57	60.41	0.5909	0.7566	0.0032
214	SLV 4	16.25	-0.57	60.41	0.5909	0.7566	0.0032
214	SLV 5	4.31	1.22	56.27	-1.2834	0.2097	-0.0067
214	SLV 6	4.31	1.22	56.27	-1.2834	0.2097	-0.0067
214	SLV 7	-3.73	-1.33	60.05	1.395	-0.1601	0.0074
214	SLV 8	-3.73	-1.33	60.05	1.395	-0.1601	0.0074
214	SLV 9	-10.4	1.33	54.83	-1.3977	-0.4651	-0.0074
214	SLV 10	-10.4	1.33	54.83	-1.3977	-0.4651	-0.0074
214	SLV 11	-18.44	-1.21	58.61	1.2807	-0.8349	0.0067
214	SLV 12	-18.44	-1.21	58.61	1.2807	-0.8349	0.0067
214	SLV 13	-30.38	0.57	54.47	-0.5937	-1.3818	-0.0032
214	SLV 14	-30.38	0.57	54.47	-0.5937	-1.3818	-0.0032
214	SLV 15	-32.79	-0.19	55.61	0.2099	-1.4927	0.001
214	SLV 16	-32.79	-0.19	55.61	0.2099	-1.4927	0.001
215	SLU 1	-6.84	0	52.88	-0.0002	-0.3133	0
215	SLU 2	-6.4	-0.01	53.01	0.0138	-0.2944	0.0001
215	SLU 3	-7.44	0	54.27	-0.0003	-0.3403	0
215	SLU 4	-7.17	-0.01	54.35	0.0081	-0.3289	0
215	SLU 5	-6.86	-0.01	53.88	0.0137	-0.3149	0.0001
215	SLU 6	-7.89	0	55.14	-0.0003	-0.3608	0
215	SLU 7	-7.63	-0.01	55.22	0.0081	-0.3494	0
215	SLU 8	-7.75	0	54.62	-0.0003	-0.3543	0
215	SLU 9	-7.49	-0.01	54.7	0.008	-0.3429	0
215	SLU 10	-8.51	-0.01	62.25	0.0137	-0.389	0.0001
215	SLU 11	-9.55	0	63.51	-0.0003	-0.4349	0
215	SLU 12	-9.28	-0.01	63.59	0.008	-0.4236	0
215	SLU 13	-8.97	-0.01	63.12	0.0136	-0.4095	0.0001
215	SLU 14	-10	0	64.38	-0.0004	-0.4554	0
215	SLU 15	-9.74	-0.01	64.46	0.008	-0.444	0
215	SLU 16	-9.86	0	63.86	-0.0004	-0.4489	0
215	SLU 17	-9.6	-0.01	63.94	0.0079	-0.4375	0
215	SLU 18	-9.86	0	66.08	-0.0003	-0.4485	0
215	SLU 19	-9.59	-0.01	66.16	0.008	-0.4372	0
215	SLU 20	-10.31	0	66.95	-0.0004	-0.469	0
215	SLU 21	-10.05	-0.01	67.03	0.008	-0.4576	0
215	SLU 22	-8.75	0	61.3	-0.0003	-0.399	0
215	SLU 23	-8.31	-0.01	61.43	0.0136	-0.3801	0.0001
215	SLU 24	-9.34	0	62.69	-0.0004	-0.4259	0
215	SLU 25	-9.08	-0.01	62.77	0.008	-0.4146	0
215	SLU 26	-8.76	-0.01	62.3	0.0135	-0.4006	0.0001
215	SLU 27	-9.8	0	63.56	-0.0005	-0.4464	0
215	SLU 28	-9.54	-0.01	63.64	0.0079	-0.4351	0
215	SLU 29	-9.66	0	63.04	-0.0005	-0.4399	0
215	SLU 30	-9.39	-0.01	63.12	0.0079	-0.4286	0
215	SLU 31	-10.42	-0.01	70.67	0.0135	-0.4747	0.0001
215	SLU 32	-11.46	0	71.94	-0.0005	-0.5206	0
215	SLU 33	-11.19	-0.01	72.01	0.0079	-0.5092	0
215	SLU 34	-10.87	-0.01	71.54	0.0135	-0.4952	0.0001
215	SLU 35	-11.91	0	72.81	-0.0006	-0.541	0
215	SLU 36	-11.65	-0.01	72.88	0.0078	-0.5297	0
215	SLU 37	-11.77	0	72.29	-0.0006	-0.5346	0
215	SLU 38	-11.51	-0.01	72.36	0.0078	-0.5232	0
215	SLU 39	-11.76	0	74.5	-0.0005	-0.5342	0
215	SLU 40	-11.5	-0.01	74.58	0.0079	-0.5228	0
215	SLU 41	-12.22	0	75.38	-0.0005	-0.5546	0
215	SLU 42	-11.95	-0.01	75.45	0.0078	-0.5433	0
215	SLU 43	-8.24	0	65.85	-0.0002	-0.378	0
215	SLU 44	-7.8	-0.01	65.98	0.0137	-0.359	0.0001
215	SLU 45	-8.83	0	67.24	-0.0003	-0.4049	0
215	SLU 46	-8.57	-0.01	67.32	0.0081	-0.3936	0
215	SLU 47	-8.25	-0.01	66.85	0.0137	-0.3795	0.0001
215	SLU 48	-9.29	0	68.12	-0.0003	-0.4254	0
215	SLU 49	-9.03	-0.01	68.19	0.008	-0.414	0
215	SLU 50	-9.15	0	67.6	-0.0004	-0.4189	0
215	SLU 51	-8.89	-0.01	67.67	0.008	-0.4076	0
215	SLU 52	-9.91	-0.01	75.23	0.0137	-0.4537	0.0001
215	SLU 53	-10.95	0	76.49	-0.0004	-0.4995	0
215	SLU 54	-10.68	-0.01	76.57	0.008	-0.4882	0
215	SLU 55	-10.37	-0.01	76.1	0.0136	-0.4741	0.0001
215	SLU 56	-11.4	0	77.36	-0.0004	-0.52	0
215	SLU 57	-11.14	-0.01	77.44	0.008	-0.5087	0
215	SLU 58	-11.26	0	76.84	-0.0004	-0.5135	0
215	SLU 59	-11	-0.01	76.92	0.0079	-0.5022	0
215	SLU 60	-11.25	0	79.06	-0.0003	-0.5131	0
215	SLU 61	-10.99	-0.01	79.14	0.008	-0.5018	0
215	SLU 62	-11.71	0	79.93	-0.0004	-0.5336	0
215	SLU 63	-11.45	-0.01	80.01	0.008	-0.5223	0
215	SLU 64	-10.14	0	74.27	-0.0004	-0.4636	0
215	SLU 65	-9.7	-0.01	74.4	0.0136	-0.4447	0.0001
215	SLU 66	-10.74	0	75.67	-0.0004	-0.4906	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
215	SLU 67	-10.48	-0.01	75.74	0.008	-0.4792	0
215	SLU 68	-10.16	-0.01	75.28	0.0135	-0.4652	0.0001
215	SLU 69	-11.2	0	76.54	-0.0005	-0.5111	0
215	SLU 70	-10.93	-0.01	76.62	0.0079	-0.4997	0
215	SLU 71	-11.06	0	76.02	-0.0005	-0.5046	0
215	SLU 72	-10.79	-0.01	76.1	0.0079	-0.4932	0
215	SLU 73	-11.82	-0.01	83.65	0.0135	-0.5393	0.0001
215	SLU 74	-12.85	0	84.91	-0.0005	-0.5852	0
215	SLU 75	-12.59	-0.01	84.99	0.0079	-0.5738	0
215	SLU 76	-12.27	-0.01	84.52	0.0134	-0.5598	0.0001
215	SLU 77	-13.31	0	85.78	-0.0006	-0.6057	0
215	SLU 78	-13.05	-0.01	85.86	0.0078	-0.5943	0
215	SLU 79	-13.17	0	85.26	-0.0006	-0.5992	0
215	SLU 80	-12.9	-0.01	85.34	0.0078	-0.5878	0
215	SLU 81	-13.16	0	87.48	-0.0005	-0.5988	0
215	SLU 82	-12.9	-0.01	87.56	0.0079	-0.5874	0
215	SLU 83	-13.62	0	88.35	-0.0006	-0.6193	0
215	SLU 84	-13.35	-0.01	88.43	0.0078	-0.6079	0
215	SLE RA 1	-7.38	0	55.28	-0.0002	-0.3378	0
215	SLE RA 2	-7.09	-0.01	55.37	0.0091	-0.3252	0
215	SLE RA 3	-7.78	0	56.21	-0.0003	-0.3558	0
215	SLE RA 4	-7.61	0	56.26	0.0053	-0.3482	0
215	SLE RA 5	-7.4	-0.01	55.95	0.009	-0.3388	0
215	SLE RA 6	-8.09	0	56.79	-0.0003	-0.3694	0
215	SLE RA 7	-7.91	0	56.84	0.0053	-0.3619	0
215	SLE RA 8	-7.99	0	56.45	-0.0003	-0.3651	0
215	SLE RA 9	-7.82	0	56.5	0.0052	-0.3575	0
215	SLE RA 10	-8.5	-0.01	61.53	0.009	-0.3883	0
215	SLE RA 11	-9.19	0	62.37	-0.0003	-0.4189	0
215	SLE RA 12	-9.01	0	62.43	0.0052	-0.4113	0
215	SLE RA 13	-8.8	-0.01	62.11	0.009	-0.4019	0
215	SLE RA 14	-9.49	0	62.95	-0.0004	-0.4325	0
215	SLE RA 15	-9.32	0	63.01	0.0052	-0.4249	0
215	SLE RA 16	-9.4	0	62.61	-0.0004	-0.4282	0
215	SLE RA 17	-9.22	0	62.66	0.0052	-0.4206	0
215	SLE RA 18	-9.39	0	64.09	-0.0003	-0.4279	0
215	SLE RA 19	-9.22	0	64.14	0.0053	-0.4204	0
215	SLE RA 20	-9.7	0	64.67	-0.0004	-0.4416	0
215	SLE RA 21	-9.52	0	64.72	0.0052	-0.434	0
215	SLE FR 1	-7.38	0	55.28	-0.0002	-0.3378	0
215	SLE FR 2	-7.33	0	55.3	0.0016	-0.3353	0
215	SLE FR 3	-7.51	0	55.52	-0.0003	-0.3433	0
215	SLE FR 4	-7.93	0	57.94	0.0016	-0.3623	0
215	SLE FR 5	-8.11	0	58.16	-0.0003	-0.3703	0
215	SLE FR 6	-8.39	0	59.69	-0.0003	-0.3829	0
215	SLE QP 1	-7.38	0	55.28	-0.0002	-0.3378	0
215	SLE QP 2	-7.99	0	57.92	-0.0003	-0.3648	0
215	SLD 1	2.68	0.09	55.78	-0.0925	0.1182	-0.0004
215	SLD 2	2.68	0.09	55.78	-0.0925	0.1182	-0.0004
215	SLD 3	1.69	-0.23	56.21	0.2386	0.0742	0.0013
215	SLD 4	1.69	-0.23	56.21	0.2386	0.0742	0.0013
215	SLD 5	-3.28	0.51	56.63	-0.5302	-0.1531	-0.0028
215	SLD 6	-3.28	0.51	56.63	-0.5302	-0.1531	-0.0028
215	SLD 7	-6.59	-0.55	58.06	0.5737	-0.3	0.003
215	SLD 8	-6.59	-0.55	58.06	0.5737	-0.3	0.003
215	SLD 9	-9.38	0.55	57.79	-0.5742	-0.4297	-0.003
215	SLD 10	-9.38	0.55	57.79	-0.5742	-0.4297	-0.003
215	SLD 11	-12.69	-0.51	59.22	0.5297	-0.5766	0.0028
215	SLD 12	-12.69	-0.51	59.22	0.5297	-0.5766	0.0028
215	SLD 13	-17.66	0.23	59.64	-0.2392	-0.8038	-0.0013
215	SLD 14	-17.66	0.23	59.64	-0.2392	-0.8038	-0.0013
215	SLD 15	-18.66	-0.09	60.07	0.092	-0.8479	0.0004
215	SLD 16	-18.66	-0.09	60.07	0.092	-0.8479	0.0004
215	SLV 1	16.99	0.22	52.87	-0.2368	0.7658	-0.0011
215	SLV 2	16.99	0.22	52.87	-0.2368	0.7658	-0.0011
215	SLV 3	14.63	-0.59	53.93	0.6115	0.6612	0.0033
215	SLV 4	14.63	-0.59	53.93	0.6115	0.6612	0.0033
215	SLV 5	3.08	1.29	54.81	-1.3578	0.1329	-0.0071
215	SLV 6	3.08	1.29	54.81	-1.3578	0.1329	-0.0071
215	SLV 7	-4.78	-1.41	58.33	1.4698	-0.2156	0.0077
215	SLV 8	-4.78	-1.41	58.33	1.4698	-0.2156	0.0077
215	SLV 9	-11.19	1.4	57.52	-1.4703	-0.5141	-0.0077
215	SLV 10	-11.19	1.4	57.52	-1.4703	-0.5141	-0.0077
215	SLV 11	-19.06	-1.29	61.04	1.3572	-0.8626	0.0071
215	SLV 12	-19.06	-1.29	61.04	1.3572	-0.8626	0.0071
215	SLV 13	-30.6	0.59	61.92	-0.612	-1.3909	-0.0033
215	SLV 14	-30.6	0.59	61.92	-0.612	-1.3909	-0.0033
215	SLV 15	-32.96	-0.22	62.98	0.2363	-1.4955	0.0011
215	SLV 16	-32.96	-0.22	62.98	0.2363	-1.4955	0.0011
216	SLU 1	-7.49	0	53.57	0.0007	-0.335	0
216	SLU 2	-7.09	-0.01	53.79	0.0166	-0.3176	0.0001
216	SLU 3	-8.09	0	55	0.0007	-0.3618	0
216	SLU 4	-7.85	-0.01	55.14	0.0102	-0.3513	0
216	SLU 5	-7.54	-0.01	54.68	0.0166	-0.3377	0.0001
216	SLU 6	-8.54	0	55.89	0.0006	-0.3819	0
216	SLU 7	-8.3	-0.01	56.03	0.0102	-0.3715	0
216	SLU 8	-8.39	0	55.35	0.0006	-0.3753	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
216	SLU 9	-8.15	-0.01	55.48	0.0102	-0.3648	0
216	SLU 10	-9.36	-0.01	62.97	0.0167	-0.4179	0.0001
216	SLU 11	-10.36	0	64.18	0.0007	-0.4621	0
216	SLU 12	-10.12	-0.01	64.31	0.0103	-0.4516	0
216	SLU 13	-9.81	-0.01	63.86	0.0167	-0.438	0.0001
216	SLU 14	-10.81	0	65.07	0.0007	-0.4822	0
216	SLU 15	-10.57	-0.01	65.2	0.0103	-0.4718	0
216	SLU 16	-10.66	0	64.52	0.0006	-0.4756	0
216	SLU 17	-10.42	-0.01	64.66	0.0102	-0.4651	0
216	SLU 18	-10.73	0	66.68	0.0008	-0.4783	0
216	SLU 19	-10.49	-0.01	66.81	0.0104	-0.4678	0
216	SLU 20	-11.18	0	67.57	0.0007	-0.4984	0
216	SLU 21	-10.94	-0.01	67.7	0.0103	-0.488	0
216	SLU 22	-9.53	0	61.97	0.0007	-0.4253	0
216	SLU 23	-9.13	-0.01	62.19	0.0167	-0.4079	0.0001
216	SLU 24	-10.13	0	63.4	0.0007	-0.4521	0
216	SLU 25	-9.89	-0.01	63.53	0.0102	-0.4416	0
216	SLU 26	-9.58	-0.01	63.08	0.0166	-0.428	0.0001
216	SLU 27	-10.58	0	64.29	0.0006	-0.4722	0
216	SLU 28	-10.34	-0.01	64.42	0.0102	-0.4618	0
216	SLU 29	-10.43	0	63.74	0.0006	-0.4656	0
216	SLU 30	-10.19	-0.01	63.88	0.0102	-0.4551	0
216	SLU 31	-11.4	-0.01	71.36	0.0167	-0.5081	0.0001
216	SLU 32	-12.4	0	72.57	0.0007	-0.5524	0
216	SLU 33	-12.16	-0.01	72.71	0.0103	-0.5419	0
216	SLU 34	-11.85	-0.01	72.25	0.0167	-0.5283	0.0001
216	SLU 35	-12.85	0	73.46	0.0007	-0.5725	0
216	SLU 36	-12.61	-0.01	73.59	0.0103	-0.562	0
216	SLU 37	-12.7	0	72.92	0.0006	-0.5659	0
216	SLU 38	-12.46	-0.01	73.05	0.0102	-0.5554	0
216	SLU 39	-12.77	0	75.07	0.0008	-0.5686	0
216	SLU 40	-12.53	-0.01	75.21	0.0104	-0.5581	0
216	SLU 41	-13.22	0	75.96	0.0007	-0.5887	0
216	SLU 42	-12.98	-0.01	76.1	0.0103	-0.5782	0
216	SLU 43	-9.04	0	66.77	0.0009	-0.4046	0
216	SLU 44	-8.64	-0.01	66.99	0.0168	-0.3871	0.0001
216	SLU 45	-9.63	0	68.2	0.0009	-0.4313	0
216	SLU 46	-9.39	-0.01	68.33	0.0104	-0.4209	0
216	SLU 47	-9.09	-0.01	67.88	0.0168	-0.4073	0.0001
216	SLU 48	-10.08	0	69.09	0.0008	-0.4515	0
216	SLU 49	-9.84	-0.01	69.22	0.0104	-0.441	0
216	SLU 50	-9.94	0	68.54	0.0008	-0.4449	0
216	SLU 51	-9.7	-0.01	68.68	0.0104	-0.4344	0
216	SLU 52	-10.91	-0.01	76.16	0.0169	-0.4874	0.0001
216	SLU 53	-11.9	0	77.37	0.0009	-0.5316	0
216	SLU 54	-11.66	-0.01	77.5	0.0105	-0.5212	0
216	SLU 55	-11.36	-0.01	77.05	0.0169	-0.5076	0.0001
216	SLU 56	-12.35	0	78.26	0.0009	-0.5518	0
216	SLU 57	-12.11	-0.01	78.39	0.0105	-0.5413	0
216	SLU 58	-12.21	0	77.72	0.0008	-0.5452	0
216	SLU 59	-11.97	-0.01	77.85	0.0104	-0.5347	0
216	SLU 60	-12.28	0	79.87	0.001	-0.5478	0
216	SLU 61	-12.04	-0.01	80.01	0.0106	-0.5374	0
216	SLU 62	-12.73	0	80.76	0.0009	-0.568	0
216	SLU 63	-12.49	-0.01	80.89	0.0105	-0.5575	0
216	SLU 64	-11.08	0	75.16	0.0009	-0.4949	0
216	SLU 65	-10.68	-0.01	75.38	0.0169	-0.4774	0.0001
216	SLU 66	-11.67	0	76.59	0.0009	-0.5216	0
216	SLU 67	-11.43	-0.01	76.72	0.0104	-0.5112	0
216	SLU 68	-11.13	-0.01	76.27	0.0168	-0.4976	0.0001
216	SLU 69	-12.12	0	77.48	0.0008	-0.5418	0
216	SLU 70	-11.88	-0.01	77.61	0.0104	-0.5313	0
216	SLU 71	-11.98	0	76.94	0.0008	-0.5352	0
216	SLU 72	-11.74	-0.01	77.07	0.0104	-0.5247	0
216	SLU 73	-12.95	-0.01	84.56	0.0169	-0.5777	0.0001
216	SLU 74	-13.94	0	85.77	0.0009	-0.6219	0
216	SLU 75	-13.7	-0.01	85.9	0.0105	-0.6114	0
216	SLU 76	-13.4	-0.01	85.45	0.0169	-0.5978	0.0001
216	SLU 77	-14.39	0	86.65	0.0009	-0.6421	0
216	SLU 78	-14.15	-0.01	86.79	0.0105	-0.6316	0
216	SLU 79	-14.25	0	86.11	0.0008	-0.6354	0
216	SLU 80	-14.01	-0.01	86.25	0.0104	-0.625	0
216	SLU 81	-14.32	0	88.27	0.001	-0.6381	0
216	SLU 82	-14.08	-0.01	88.4	0.0106	-0.6276	0
216	SLU 83	-14.77	0	89.16	0.0009	-0.6583	0
216	SLU 84	-14.53	-0.01	89.29	0.0105	-0.6478	0
216	SLE RA 1	-8.07	0	55.97	0.0007	-0.3608	0
216	SLE RA 2	-7.81	-0.01	56.12	0.0113	-0.3492	0
216	SLE RA 3	-8.47	0	56.92	0.0007	-0.3787	0
216	SLE RA 4	-8.31	-0.01	57.01	0.0071	-0.3717	0
216	SLE RA 5	-8.11	-0.01	56.71	0.0113	-0.3626	0
216	SLE RA 6	-8.77	0	57.52	0.0006	-0.3921	0
216	SLE RA 7	-8.61	-0.01	57.61	0.007	-0.3851	0
216	SLE RA 8	-8.67	0	57.16	0.0006	-0.3877	0
216	SLE RA 9	-8.51	-0.01	57.24	0.007	-0.3807	0
216	SLE RA 10	-9.32	-0.01	62.24	0.0114	-0.416	0
216	SLE RA 11	-9.98	0	63.04	0.0007	-0.4455	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
216	SLE RA 12	-9.82	-0.01	63.13	0.0071	-0.4385	0
216	SLE RA 13	-9.62	-0.01	62.83	0.0113	-0.4295	0
216	SLE RA 14	-10.28	0	63.63	0.0007	-0.4589	0
216	SLE RA 15	-10.12	-0.01	63.72	0.0071	-0.452	0
216	SLE RA 16	-10.19	0	63.27	0.0007	-0.4545	0
216	SLE RA 17	-10.03	-0.01	63.36	0.007	-0.4476	0
216	SLE RA 18	-10.23	0	64.71	0.0007	-0.4563	0
216	SLE RA 19	-10.08	-0.01	64.8	0.0071	-0.4493	0
216	SLE RA 20	-10.53	0	65.3	0.0007	-0.4698	0
216	SLE RA 21	-10.37	-0.01	65.39	0.0071	-0.4628	0
216	SLE FR 1	-8.07	0	55.97	0.0007	-0.3608	0
216	SLE FR 2	-8.02	0	56	0.0028	-0.3585	0
216	SLE FR 3	-8.19	0	56.21	0.0007	-0.3662	0
216	SLE FR 4	-8.67	0	58.62	0.0028	-0.3871	0
216	SLE FR 5	-8.84	0	58.83	0.0007	-0.3948	0
216	SLE FR 6	-9.15	0	60.34	0.0007	-0.4086	0
216	SLE QP 1	-8.07	0	55.97	0.0007	-0.3608	0
216	SLE QP 2	-8.72	0	58.59	0.0007	-0.3895	0
216	SLD 1	1.63	0.09	54.63	-0.0931	0.0841	-0.0004
216	SLD 2	1.63	0.09	54.63	-0.0931	0.0841	-0.0004
216	SLD 3	0.65	-0.22	55.08	0.2301	0.0395	0.0011
216	SLD 4	0.65	-0.22	55.08	0.2301	0.0395	0.0011
216	SLD 5	-4.13	0.49	56.72	-0.5177	-0.1798	-0.0025
216	SLD 6	-4.13	0.49	56.72	-0.5177	-0.1798	-0.0025
216	SLD 7	-7.4	-0.53	58.22	0.5597	-0.3284	0.0027
216	SLD 8	-7.4	-0.53	58.22	0.5597	-0.3284	0.0027
216	SLD 9	-10.05	0.53	58.96	-0.5584	-0.4505	-0.0027
216	SLD 10	-10.05	0.53	58.96	-0.5584	-0.4505	-0.0027
216	SLD 11	-13.31	-0.49	60.47	0.5191	-0.5991	0.0025
216	SLD 12	-13.31	-0.49	60.47	0.5191	-0.5991	0.0025
216	SLD 13	-18.09	0.22	62.1	-0.2287	-0.8184	-0.0011
216	SLD 14	-18.09	0.22	62.1	-0.2287	-0.8184	-0.0011
216	SLD 15	-19.07	-0.09	62.56	0.0945	-0.863	0.0004
216	SLD 16	-19.07	-0.09	62.56	0.0945	-0.863	0.0004
216	SLV 1	15.52	0.23	49.3	-0.2398	0.7192	-0.0011
216	SLV 2	15.52	0.23	49.3	-0.2398	0.7192	-0.0011
216	SLV 3	13.19	-0.55	50.4	0.5882	0.6133	0.0029
216	SLV 4	13.19	-0.55	50.4	0.5882	0.6133	0.0029
216	SLV 5	2.08	1.25	54.14	-1.3272	0.1038	-0.0064
216	SLV 6	2.08	1.25	54.14	-1.3272	0.1038	-0.0064
216	SLV 7	-5.68	-1.35	57.8	1.4327	-0.2493	0.007
216	SLV 8	-5.68	-1.35	57.8	1.4327	-0.2493	0.007
216	SLV 9	-11.76	1.35	59.38	-1.4313	-0.5296	-0.007
216	SLV 10	-11.76	1.35	59.38	-1.4313	-0.5296	-0.007
216	SLV 11	-19.52	-1.25	63.04	1.3286	-0.8827	0.0064
216	SLV 12	-19.52	-1.25	63.04	1.3286	-0.8827	0.0064
216	SLV 13	-30.63	0.55	66.78	-0.5868	-1.3922	-0.0029
216	SLV 14	-30.63	0.55	66.78	-0.5868	-1.3922	-0.0029
216	SLV 15	-32.96	-0.23	67.88	0.2412	-1.4982	0.0011
216	SLV 16	-32.96	-0.23	67.88	0.2412	-1.4982	0.0011
217	SLU 1	-8.36	0	54.49	0.0015	-0.3811	0
217	SLU 2	-8	-0.02	54.78	0.0189	-0.3657	0.0001
217	SLU 3	-8.96	0	55.98	0.0016	-0.4083	0
217	SLU 4	-8.74	-0.01	56.15	0.012	-0.3991	0
217	SLU 5	-8.45	-0.02	55.7	0.0189	-0.3859	0.0001
217	SLU 6	-9.41	0	56.9	0.0015	-0.4286	0
217	SLU 7	-9.19	-0.01	57.07	0.0119	-0.4193	0
217	SLU 8	-9.25	0	56.33	0.0015	-0.4216	0
217	SLU 9	-9.04	-0.01	56.51	0.0119	-0.4123	0
217	SLU 10	-10.46	-0.02	63.9	0.0191	-0.4755	0.0001
217	SLU 11	-11.42	0	65.1	0.0018	-0.5181	0
217	SLU 12	-11.2	-0.01	65.28	0.0122	-0.5089	0.0001
217	SLU 13	-10.91	-0.02	64.82	0.0191	-0.4957	0.0001
217	SLU 14	-11.86	0	66.03	0.0018	-0.5383	0
217	SLU 15	-11.65	-0.01	66.2	0.0122	-0.5291	0.0001
217	SLU 16	-11.71	0	65.46	0.0017	-0.5314	0
217	SLU 17	-11.5	-0.01	65.63	0.0121	-0.5221	0.0001
217	SLU 18	-11.87	0	67.52	0.0019	-0.5379	0
217	SLU 19	-11.65	-0.01	67.7	0.0123	-0.5287	0.0001
217	SLU 20	-12.32	0	68.45	0.0018	-0.5582	0
217	SLU 21	-12.1	-0.01	68.62	0.0123	-0.5489	0.0001
217	SLU 22	-10.56	0	62.88	0.0017	-0.4797	0
217	SLU 23	-10.2	-0.02	63.17	0.0191	-0.4643	0.0001
217	SLU 24	-11.16	0	64.37	0.0017	-0.507	0
217	SLU 25	-10.95	-0.01	64.55	0.0121	-0.4977	0
217	SLU 26	-10.65	-0.02	64.1	0.019	-0.4845	0.0001
217	SLU 27	-11.61	0	65.3	0.0017	-0.5272	0
217	SLU 28	-11.39	-0.01	65.47	0.0121	-0.5179	0
217	SLU 29	-11.46	0	64.73	0.0017	-0.5202	0
217	SLU 30	-11.24	-0.01	64.9	0.0121	-0.511	0
217	SLU 31	-12.66	-0.02	72.3	0.0193	-0.5741	0.0001
217	SLU 32	-13.62	0	73.5	0.0019	-0.6167	0
217	SLU 33	-13.4	-0.01	73.67	0.0124	-0.6075	0.0001
217	SLU 34	-13.11	-0.02	73.22	0.0193	-0.5943	0.0001
217	SLU 35	-14.07	0	74.42	0.0019	-0.637	0
217	SLU 36	-13.85	-0.01	74.6	0.0123	-0.6277	0.0001
217	SLU 37	-13.91	0	73.85	0.0019	-0.63	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
217	SLU 38	-13.7	-0.01	74.03	0.0123	-0.6207	0.0001
217	SLU 39	-14.07	0	75.92	0.002	-0.6366	0
217	SLU 40	-13.85	-0.01	76.09	0.0124	-0.6273	0.0001
217	SLU 41	-14.52	0	76.84	0.002	-0.6568	0
217	SLU 42	-14.3	-0.01	77.02	0.0124	-0.6475	0.0001
217	SLU 43	-10.11	0	67.96	0.002	-0.4616	0
217	SLU 44	-9.75	-0.02	68.24	0.0193	-0.4462	0.0001
217	SLU 45	-10.71	0	69.45	0.002	-0.4888	0
217	SLU 46	-10.5	-0.01	69.62	0.0124	-0.4796	0.0001
217	SLU 47	-10.2	-0.02	69.17	0.0193	-0.4664	0.0001
217	SLU 48	-11.16	0	70.37	0.0019	-0.5091	0
217	SLU 49	-10.95	-0.01	70.54	0.0124	-0.4998	0.0001
217	SLU 50	-11.01	0	69.8	0.0019	-0.5021	0
217	SLU 51	-10.79	-0.01	69.97	0.0123	-0.4928	0.0001
217	SLU 52	-12.21	-0.02	77.37	0.0195	-0.556	0.0001
217	SLU 53	-13.17	0	78.57	0.0022	-0.5986	0
217	SLU 54	-12.95	-0.01	78.74	0.0126	-0.5894	0.0001
217	SLU 55	-12.66	-0.02	78.29	0.0195	-0.5762	0.0001
217	SLU 56	-13.62	0	79.49	0.0022	-0.6189	0
217	SLU 57	-13.4	-0.01	79.67	0.0126	-0.6096	0.0001
217	SLU 58	-13.46	0	78.92	0.0021	-0.6119	0
217	SLU 59	-13.25	-0.01	79.1	0.0125	-0.6026	0.0001
217	SLU 60	-13.62	0	80.99	0.0023	-0.6184	0
217	SLU 61	-13.41	-0.01	81.16	0.0127	-0.6092	0.0001
217	SLU 62	-14.07	0	81.91	0.0023	-0.6387	0
217	SLU 63	-13.85	-0.01	82.09	0.0127	-0.6294	0.0001
217	SLU 64	-12.31	0	76.35	0.0021	-0.5602	0
217	SLU 65	-11.95	-0.02	76.64	0.0195	-0.5448	0.0001
217	SLU 66	-12.91	0	77.84	0.0021	-0.5875	0
217	SLU 67	-12.7	-0.01	78.02	0.0125	-0.5782	0.0001
217	SLU 68	-12.4	-0.02	77.56	0.0194	-0.5651	0.0001
217	SLU 69	-13.36	0	78.76	0.0021	-0.6077	0
217	SLU 70	-13.15	-0.01	78.94	0.0125	-0.5985	0.0001
217	SLU 71	-13.21	0	78.2	0.0021	-0.6007	0
217	SLU 72	-12.99	-0.01	78.37	0.0125	-0.5915	0.0001
217	SLU 73	-14.41	-0.02	85.77	0.0197	-0.6546	0.0001
217	SLU 74	-15.37	0	86.97	0.0024	-0.6973	0
217	SLU 75	-15.16	-0.01	87.14	0.0128	-0.688	0.0001
217	SLU 76	-14.86	-0.02	86.69	0.0197	-0.6748	0.0001
217	SLU 77	-15.82	0	87.89	0.0023	-0.7175	0
217	SLU 78	-15.6	-0.01	88.06	0.0127	-0.7082	0.0001
217	SLU 79	-15.67	0	87.32	0.0023	-0.7105	0
217	SLU 80	-15.45	-0.01	87.49	0.0127	-0.7012	0.0001
217	SLU 81	-15.82	0	89.39	0.0024	-0.7171	0
217	SLU 82	-15.61	-0.01	89.56	0.0129	-0.7078	0.0001
217	SLU 83	-16.27	0	90.31	0.0024	-0.7373	0
217	SLU 84	-16.06	-0.01	90.48	0.0128	-0.7281	0.0001
217	SLE RA 1	-8.99	0	56.89	0.0016	-0.4093	0
217	SLE RA 2	-8.75	-0.01	57.08	0.0132	-0.399	0.0001
217	SLE RA 3	-9.39	0	57.88	0.0016	-0.4274	0
217	SLE RA 4	-9.24	-0.01	58	0.0085	-0.4213	0
217	SLE RA 5	-9.05	-0.01	57.69	0.0131	-0.4125	0.0001
217	SLE RA 6	-9.69	0	58.5	0.0016	-0.4409	0
217	SLE RA 7	-9.54	-0.01	58.61	0.0085	-0.4348	0
217	SLE RA 8	-9.58	0	58.12	0.0016	-0.4363	0
217	SLE RA 9	-9.44	-0.01	58.23	0.0085	-0.4301	0
217	SLE RA 10	-10.39	-0.01	63.16	0.0133	-0.4722	0.0001
217	SLE RA 11	-11.03	0	63.96	0.0018	-0.5006	0
217	SLE RA 12	-10.88	-0.01	64.08	0.0087	-0.4945	0
217	SLE RA 13	-10.69	-0.01	63.78	0.0133	-0.4857	0.0001
217	SLE RA 14	-11.32	0	64.58	0.0017	-0.5141	0
217	SLE RA 15	-11.18	-0.01	64.69	0.0087	-0.5079	0
217	SLE RA 16	-11.22	0	64.2	0.0017	-0.5095	0
217	SLE RA 17	-11.08	-0.01	64.32	0.0087	-0.5033	0
217	SLE RA 18	-11.33	0	65.58	0.0018	-0.5138	0
217	SLE RA 19	-11.18	-0.01	65.69	0.0088	-0.5077	0
217	SLE RA 20	-11.63	0	66.19	0.0018	-0.5273	0
217	SLE RA 21	-11.48	-0.01	66.31	0.0087	-0.5212	0
217	SLE FR 1	-8.99	0	56.89	0.0016	-0.4093	0
217	SLE FR 2	-8.94	0	56.93	0.0039	-0.4072	0
217	SLE FR 3	-9.11	0	57.13	0.0016	-0.4147	0
217	SLE FR 4	-9.64	0	59.53	0.004	-0.4386	0
217	SLE FR 5	-9.81	0	59.74	0.0017	-0.446	0
217	SLE FR 6	-10.16	0	61.23	0.0017	-0.4616	0
217	SLE QP 1	-8.99	0	56.89	0.0016	-0.4093	0
217	SLE QP 2	-9.69	0	59.49	0.0017	-0.4406	0
217	SLD 1	0.26	0.18	53.37	-0.0855	0.0122	-0.0009
217	SLD 2	0.26	0.18	53.37	-0.0855	0.0122	-0.0009
217	SLD 3	-0.67	-0.08	53.9	0.206	-0.0295	0.0004
217	SLD 4	-0.67	-0.08	53.9	0.206	-0.0295	0.0004
217	SLD 5	-5.29	0.45	56.86	-0.4666	-0.2415	-0.0021
217	SLD 6	-5.29	0.45	56.86	-0.4666	-0.2415	-0.0021
217	SLD 7	-8.4	-0.43	58.61	0.505	-0.3806	0.002
217	SLD 8	-8.4	-0.43	58.61	0.505	-0.3806	0.002
217	SLD 9	-10.97	0.42	60.37	-0.5017	-0.5007	-0.002
217	SLD 10	-10.97	0.42	60.37	-0.5017	-0.5007	-0.002
217	SLD 11	-14.09	-0.46	62.13	0.4699	-0.6398	0.0022



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
217	SLD 12	-14.09	-0.46	62.13	0.4699	-0.6398	0.0022
217	SLD 13	-18.7	0.08	65.09	-0.2026	-0.8518	-0.0004
217	SLD 14	-18.7	0.08	65.09	-0.2026	-0.8518	-0.0004
217	SLD 15	-19.64	-0.19	65.61	0.0888	-0.8935	0.0009
217	SLD 16	-19.64	-0.19	65.61	0.0888	-0.8935	0.0009
217	SLV 1	13.6	0.47	45.17	-0.2217	0.6192	-0.0022
217	SLV 2	13.6	0.47	45.17	-0.2217	0.6192	-0.0022
217	SLV 3	11.38	-0.2	46.43	0.5249	0.5202	0.001
217	SLV 4	11.38	-0.2	46.43	0.5249	0.5202	0.001
217	SLV 5	0.66	1.17	53.28	-1.1976	0.0274	-0.0055
217	SLV 6	0.66	1.17	53.28	-1.1976	0.0274	-0.0055
217	SLV 7	-6.73	-1.09	57.49	1.2909	-0.3025	0.0051
217	SLV 8	-6.73	-1.09	57.49	1.2909	-0.3025	0.0051
217	SLV 9	-12.64	1.09	61.5	-1.2876	-0.5788	-0.0051
217	SLV 10	-12.64	1.09	61.5	-1.2876	-0.5788	-0.0051
217	SLV 11	-20.04	-1.17	65.71	1.201	-0.9087	0.0055
217	SLV 12	-20.04	-1.17	65.71	1.201	-0.9087	0.0055
217	SLV 13	-30.75	0.2	72.56	-0.5216	-1.4015	-0.001
217	SLV 14	-30.75	0.2	72.56	-0.5216	-1.4015	-0.001
217	SLV 15	-32.97	-0.47	73.82	0.225	-1.5005	0.0022
217	SLV 16	-32.97	-0.47	73.82	0.225	-1.5005	0.0022
218	SLU 1	-9.25	0	55.67	0.0026	-0.4191	0
218	SLU 2	-8.94	-0.02	56.01	0.0205	-0.4048	0.0001
218	SLU 3	-9.87	0	57.25	0.0026	-0.4469	0
218	SLU 4	-9.67	-0.01	57.45	0.0134	-0.4383	0.0001
218	SLU 5	-9.39	-0.02	56.98	0.0205	-0.4253	0.0001
218	SLU 6	-10.32	0	58.22	0.0026	-0.4674	0
218	SLU 7	-10.13	-0.01	58.42	0.0134	-0.4588	0.0001
218	SLU 8	-10.16	0	57.62	0.0026	-0.46	0
218	SLU 9	-9.97	-0.01	57.82	0.0133	-0.4515	0.0001
218	SLU 10	-11.57	-0.02	65.12	0.0209	-0.5223	0.0001
218	SLU 11	-12.5	0	66.36	0.003	-0.5644	0
218	SLU 12	-12.31	-0.01	66.56	0.0138	-0.5558	0.0001
218	SLU 13	-12.02	-0.02	66.09	0.0209	-0.5428	0.0001
218	SLU 14	-12.95	0	67.33	0.003	-0.5848	0
218	SLU 15	-12.76	-0.01	67.53	0.0138	-0.5763	0.0001
218	SLU 16	-12.79	0	66.73	0.003	-0.5775	0
218	SLU 17	-12.6	-0.01	66.93	0.0137	-0.569	0.0001
218	SLU 18	-13.02	0	68.69	0.0032	-0.5869	0
218	SLU 19	-12.83	-0.01	68.89	0.0139	-0.5784	0.0001
218	SLU 20	-13.47	0	69.66	0.0031	-0.6074	0
218	SLU 21	-13.28	-0.01	69.86	0.0139	-0.5988	0.0001
218	SLU 22	-11.61	0	64.11	0.0029	-0.5245	0
218	SLU 23	-11.29	-0.02	64.45	0.0208	-0.5102	0.0001
218	SLU 24	-12.22	0	65.69	0.003	-0.5523	0
218	SLU 25	-12.03	-0.01	65.89	0.0137	-0.5437	0.0001
218	SLU 26	-11.74	-0.02	65.42	0.0208	-0.5307	0.0001
218	SLU 27	-12.67	0	66.66	0.003	-0.5728	0
218	SLU 28	-12.48	-0.01	66.86	0.0137	-0.5642	0.0001
218	SLU 29	-12.51	0	66.06	0.0029	-0.5655	0
218	SLU 30	-12.32	-0.01	66.26	0.0136	-0.5569	0.0001
218	SLU 31	-13.93	-0.02	73.56	0.0212	-0.6277	0.0001
218	SLU 32	-14.86	0	74.79	0.0034	-0.6698	0
218	SLU 33	-14.67	-0.01	75	0.0141	-0.6612	0.0001
218	SLU 34	-14.38	-0.02	74.53	0.0212	-0.6482	0.0001
218	SLU 35	-15.31	0	75.77	0.0034	-0.6903	0
218	SLU 36	-15.12	-0.01	75.97	0.0141	-0.6817	0.0001
218	SLU 37	-15.15	0	75.17	0.0033	-0.6829	0
218	SLU 38	-14.96	-0.01	75.37	0.014	-0.6744	0.0001
218	SLU 39	-15.38	0	77.13	0.0035	-0.6923	0
218	SLU 40	-15.18	-0.01	77.33	0.0142	-0.6838	0.0001
218	SLU 41	-15.83	0	78.1	0.0035	-0.7128	0
218	SLU 42	-15.63	-0.01	78.3	0.0142	-0.7043	0.0001
218	SLU 43	-11.22	0	69.48	0.0032	-0.5087	0
218	SLU 44	-10.9	-0.02	69.82	0.0211	-0.4944	0.0001
218	SLU 45	-11.83	0	71.06	0.0033	-0.5365	0
218	SLU 46	-11.64	-0.01	71.26	0.014	-0.5279	0.0001
218	SLU 47	-11.36	-0.02	70.79	0.0211	-0.5149	0.0001
218	SLU 48	-12.28	0	72.03	0.0033	-0.5569	0
218	SLU 49	-12.09	-0.01	72.23	0.014	-0.5484	0.0001
218	SLU 50	-12.13	0	71.43	0.0032	-0.5496	0
218	SLU 51	-11.93	-0.01	71.63	0.014	-0.5411	0.0001
218	SLU 52	-13.54	-0.02	78.93	0.0215	-0.6119	0.0001
218	SLU 53	-14.47	0	80.17	0.0037	-0.6539	0
218	SLU 54	-14.28	-0.01	80.37	0.0144	-0.6454	0.0001
218	SLU 55	-13.99	-0.02	79.9	0.0215	-0.6324	0.0001
218	SLU 56	-14.92	0	81.14	0.0037	-0.6744	0
218	SLU 57	-14.73	-0.01	81.34	0.0144	-0.6659	0.0001
218	SLU 58	-14.76	0	80.54	0.0036	-0.6671	0
218	SLU 59	-14.57	-0.01	80.74	0.0144	-0.6586	0.0001
218	SLU 60	-14.99	0	82.5	0.0038	-0.6765	0
218	SLU 61	-14.8	-0.01	82.7	0.0145	-0.6679	0.0001
218	SLU 62	-15.44	0	83.47	0.0038	-0.697	0
218	SLU 63	-15.25	-0.01	83.67	0.0145	-0.6884	0.0001
218	SLU 64	-13.58	0	77.92	0.0036	-0.6141	0
218	SLU 65	-13.26	-0.02	78.26	0.0215	-0.5998	0.0001
218	SLU 66	-14.19	0	79.49	0.0036	-0.6419	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
218	SLU 67	-14	-0.01	79.7	0.0143	-0.6333	0.0001
218	SLU 68	-13.71	-0.02	79.23	0.0215	-0.6203	0.0001
218	SLU 69	-14.64	0	80.47	0.0036	-0.6624	0
218	SLU 70	-14.45	-0.01	80.67	0.0143	-0.6538	0.0001
218	SLU 71	-14.48	0	79.87	0.0036	-0.655	0
218	SLU 72	-14.29	-0.01	80.07	0.0143	-0.6465	0.0001
218	SLU 73	-15.9	-0.02	87.37	0.0219	-0.7173	0.0001
218	SLU 74	-16.83	0	88.6	0.004	-0.7594	0
218	SLU 75	-16.63	-0.01	88.8	0.0147	-0.7508	0.0001
218	SLU 76	-16.35	-0.02	88.34	0.0219	-0.7378	0.0001
218	SLU 77	-17.28	0	89.58	0.004	-0.7798	0
218	SLU 78	-17.08	-0.01	89.78	0.0147	-0.7713	0.0001
218	SLU 79	-17.12	0	88.98	0.004	-0.7725	0
218	SLU 80	-16.93	-0.01	89.18	0.0147	-0.764	0.0001
218	SLU 81	-17.34	0	90.93	0.0041	-0.7819	0
218	SLU 82	-17.15	-0.01	91.14	0.0149	-0.7734	0.0001
218	SLU 83	-17.79	0	91.91	0.0041	-0.8024	0
218	SLU 84	-17.6	-0.01	92.11	0.0149	-0.7938	0.0001
218	SLE RA 1	-9.93	0	58.08	0.0027	-0.4492	0
218	SLE RA 2	-9.72	-0.01	58.31	0.0146	-0.4397	0.0001
218	SLE RA 3	-10.34	0	59.13	0.0027	-0.4677	0
218	SLE RA 4	-10.21	-0.01	59.27	0.0099	-0.462	0
218	SLE RA 5	-10.02	-0.01	58.96	0.0146	-0.4533	0.0001
218	SLE RA 6	-10.64	0	59.78	0.0027	-0.4814	0
218	SLE RA 7	-10.51	-0.01	59.92	0.0099	-0.4757	0
218	SLE RA 8	-10.53	0	59.38	0.0027	-0.4765	0
218	SLE RA 9	-10.4	-0.01	59.52	0.0098	-0.4708	0
218	SLE RA 10	-11.47	-0.01	64.38	0.0149	-0.518	0.0001
218	SLE RA 11	-12.09	0	65.21	0.003	-0.5461	0
218	SLE RA 12	-11.96	-0.01	65.34	0.0101	-0.5404	0
218	SLE RA 13	-11.77	-0.01	65.03	0.0149	-0.5317	0.0001
218	SLE RA 14	-12.39	0	65.86	0.003	-0.5597	0
218	SLE RA 15	-12.26	-0.01	65.99	0.0101	-0.554	0
218	SLE RA 16	-12.29	0	65.45	0.0029	-0.5548	0
218	SLE RA 17	-12.16	-0.01	65.59	0.0101	-0.5491	0
218	SLE RA 18	-12.44	0	66.76	0.0031	-0.5611	0
218	SLE RA 19	-12.31	-0.01	66.89	0.0102	-0.5554	0
218	SLE RA 20	-12.74	0	67.41	0.0031	-0.5748	0
218	SLE RA 21	-12.61	-0.01	67.54	0.0102	-0.569	0
218	SLE FR 1	-9.93	0	58.08	0.0027	-0.4492	0
218	SLE FR 2	-9.89	0	58.13	0.0051	-0.4473	0
218	SLE FR 3	-10.05	0	58.34	0.0027	-0.4547	0
218	SLE FR 4	-10.64	0	60.73	0.0052	-0.4809	0
218	SLE FR 5	-10.8	0	60.95	0.0028	-0.4882	0
218	SLE FR 6	-11.18	0	62.42	0.0029	-0.5052	0
218	SLE QP 1	-9.93	0	58.08	0.0027	-0.4492	0
218	SLE QP 2	-10.68	0	60.69	0.0028	-0.4828	0
218	SLD 1	-1.05	0.14	52.03	-0.1648	-0.037	-0.0006
218	SLD 2	-1.05	0.14	52.03	-0.1648	-0.037	-0.0006
218	SLD 3	-1.95	-0.06	52.7	0.076	-0.0781	0.0003
218	SLD 4	-1.95	-0.06	52.7	0.076	-0.0781	0.0003
218	SLD 5	-6.43	0.35	57.08	-0.4127	-0.2867	-0.0015
218	SLD 6	-6.43	0.35	57.08	-0.4127	-0.2867	-0.0015
218	SLD 7	-9.42	-0.33	59.3	0.39	-0.4237	0.0014
218	SLD 8	-9.42	-0.33	59.3	0.39	-0.4237	0.0014
218	SLD 9	-11.94	0.32	62.07	-0.3844	-0.5418	-0.0014
218	SLD 10	-11.94	0.32	62.07	-0.3844	-0.5418	-0.0014
218	SLD 11	-14.93	-0.35	64.29	0.4183	-0.6789	0.0015
218	SLD 12	-14.93	-0.35	64.29	0.4183	-0.6789	0.0015
218	SLD 13	-19.42	0.06	68.67	-0.0704	-0.8875	-0.0002
218	SLD 14	-19.42	0.06	68.67	-0.0704	-0.8875	-0.0002
218	SLD 15	-20.31	-0.14	69.34	0.1704	-0.9286	0.0006
218	SLD 16	-20.31	-0.14	69.34	0.1704	-0.9286	0.0006
218	SLV 1	11.87	0.36	40.44	-0.4263	0.5609	-0.0015
218	SLV 2	11.87	0.36	40.44	-0.4263	0.5609	-0.0015
218	SLV 3	9.73	-0.16	42.03	0.1904	0.4631	0.0007
218	SLV 4	9.73	-0.16	42.03	0.1904	0.4631	0.0007
218	SLV 5	-0.68	0.89	52.21	-1.0613	-0.0214	-0.0038
218	SLV 6	-0.68	0.89	52.21	-1.0613	-0.0214	-0.0038
218	SLV 7	-7.79	-0.83	57.5	0.9944	-0.3473	0.0035
218	SLV 8	-7.79	-0.83	57.5	0.9944	-0.3473	0.0035
218	SLV 9	-13.57	0.83	63.88	-0.9888	-0.6182	-0.0035
218	SLV 10	-13.57	0.83	63.88	-0.9888	-0.6182	-0.0035
218	SLV 11	-20.68	-0.89	69.17	1.0669	-0.9442	0.0038
218	SLV 12	-20.68	-0.89	69.17	1.0669	-0.9442	0.0038
218	SLV 13	-31.1	0.15	79.35	-0.1848	-1.4287	-0.0007
218	SLV 14	-31.1	0.15	79.35	-0.1848	-1.4287	-0.0007
218	SLV 15	-33.23	-0.36	80.93	0.4319	-1.5264	0.0015
218	SLV 16	-33.23	-0.36	80.93	0.4319	-1.5264	0.0015
219	SLU 1	-10.46	0	57.36	0.0042	-0.482	0
219	SLU 2	-10.2	-0.02	57.71	0.0215	-0.4704	0.0001
219	SLU 3	-11.09	0	59.05	0.0043	-0.5109	0
219	SLU 4	-10.93	-0.02	59.26	0.0147	-0.5039	0.0001
219	SLU 5	-10.65	-0.02	58.76	0.0215	-0.4914	0.0001
219	SLU 6	-11.55	0	60.1	0.0043	-0.5318	0
219	SLU 7	-11.39	-0.02	60.31	0.0147	-0.5249	0.0001
219	SLU 8	-11.38	0	59.45	0.0042	-0.524	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
219	SLU 9	-11.22	-0.02	59.66	0.0146	-0.517	0.0001
219	SLU 10	-13.03	-0.03	66.9	0.0221	-0.5984	0.0001
219	SLU 11	-13.92	0	68.24	0.0049	-0.6388	0
219	SLU 12	-13.76	-0.02	68.45	0.0153	-0.6318	0.0001
219	SLU 13	-13.48	-0.03	67.95	0.0222	-0.6193	0.0001
219	SLU 14	-14.38	0	69.29	0.0049	-0.6598	0
219	SLU 15	-14.22	-0.02	69.5	0.0153	-0.6528	0.0001
219	SLU 16	-14.21	0	68.64	0.0049	-0.6519	0
219	SLU 17	-14.05	-0.02	68.85	0.0153	-0.6449	0.0001
219	SLU 18	-14.51	0	70.48	0.0051	-0.6648	0
219	SLU 19	-14.35	-0.02	70.7	0.0155	-0.6578	0.0001
219	SLU 20	-14.96	0	71.53	0.0051	-0.6858	0
219	SLU 21	-14.8	-0.02	71.74	0.0155	-0.6788	0.0001
219	SLU 22	-13	0	65.93	0.0048	-0.597	0
219	SLU 23	-12.73	-0.03	66.28	0.0221	-0.5854	0.0001
219	SLU 24	-13.62	0	67.62	0.0048	-0.6258	0
219	SLU 25	-13.46	-0.02	67.84	0.0152	-0.6189	0.0001
219	SLU 26	-13.19	-0.03	67.33	0.0221	-0.6063	0.0001
219	SLU 27	-14.08	0	68.67	0.0049	-0.6468	0
219	SLU 28	-13.92	-0.02	68.88	0.0153	-0.6398	0.0001
219	SLU 29	-13.91	0	68.03	0.0048	-0.6389	0
219	SLU 30	-13.75	-0.02	68.24	0.0152	-0.632	0.0001
219	SLU 31	-15.56	-0.03	75.47	0.0227	-0.7133	0.0001
219	SLU 32	-16.45	0	76.81	0.0055	-0.7538	0
219	SLU 33	-16.29	-0.02	77.03	0.0159	-0.7468	0.0001
219	SLU 34	-16.02	-0.03	76.52	0.0227	-0.7343	0.0001
219	SLU 35	-16.91	0	77.86	0.0055	-0.7748	0
219	SLU 36	-16.75	-0.02	78.07	0.0159	-0.7678	0.0001
219	SLU 37	-16.74	0	77.22	0.0055	-0.7669	0
219	SLU 38	-16.58	-0.02	77.43	0.0158	-0.7599	0.0001
219	SLU 39	-17.04	-0.01	79.06	0.0057	-0.7798	0
219	SLU 40	-16.88	-0.02	79.27	0.016	-0.7728	0.0001
219	SLU 41	-17.5	-0.01	80.11	0.0057	-0.8007	0
219	SLU 42	-17.34	-0.02	80.32	0.0161	-0.7938	0.0001
219	SLU 43	-12.73	0	71.62	0.0052	-0.5872	0
219	SLU 44	-12.47	-0.03	71.97	0.0226	-0.5756	0.0001
219	SLU 45	-13.36	0	73.32	0.0053	-0.6161	0
219	SLU 46	-13.2	-0.02	73.53	0.0157	-0.6091	0.0001
219	SLU 47	-12.92	-0.03	73.02	0.0226	-0.5966	0.0001
219	SLU 48	-13.82	0	74.36	0.0054	-0.637	0
219	SLU 49	-13.66	-0.02	74.57	0.0158	-0.6301	0.0001
219	SLU 50	-13.65	0	73.72	0.0053	-0.6291	0
219	SLU 51	-13.49	-0.02	73.93	0.0157	-0.6222	0.0001
219	SLU 52	-15.3	-0.03	81.16	0.0232	-0.7035	0.0001
219	SLU 53	-16.19	-0.01	82.5	0.006	-0.744	0
219	SLU 54	-16.03	-0.02	82.72	0.0164	-0.737	0.0001
219	SLU 55	-15.75	-0.03	82.21	0.0232	-0.7245	0.0001
219	SLU 56	-16.65	-0.01	83.55	0.006	-0.765	0
219	SLU 57	-16.49	-0.02	83.76	0.0164	-0.758	0.0001
219	SLU 58	-16.48	-0.01	82.91	0.0059	-0.7571	0
219	SLU 59	-16.32	-0.02	83.12	0.0163	-0.7501	0.0001
219	SLU 60	-16.78	-0.01	84.75	0.0061	-0.77	0
219	SLU 61	-16.62	-0.02	84.96	0.0165	-0.763	0.0001
219	SLU 62	-17.23	-0.01	85.8	0.0062	-0.791	0
219	SLU 63	-17.07	-0.02	86.01	0.0166	-0.784	0.0001
219	SLU 64	-15.27	0	80.2	0.0058	-0.7022	0
219	SLU 65	-15	-0.03	80.55	0.0231	-0.6906	0.0001
219	SLU 66	-15.89	-0.01	81.89	0.0059	-0.731	0
219	SLU 67	-15.73	-0.02	82.1	0.0163	-0.7241	0.0001
219	SLU 68	-15.46	-0.03	81.6	0.0232	-0.7115	0.0001
219	SLU 69	-16.35	-0.01	82.94	0.0059	-0.752	0
219	SLU 70	-16.19	-0.02	83.15	0.0163	-0.745	0.0001
219	SLU 71	-16.18	-0.01	82.3	0.0059	-0.7441	0
219	SLU 72	-16.02	-0.02	82.51	0.0163	-0.7371	0.0001
219	SLU 73	-17.83	-0.03	89.74	0.0238	-0.8185	0.0001
219	SLU 74	-18.72	-0.01	91.08	0.0065	-0.859	0
219	SLU 75	-18.56	-0.02	91.29	0.0169	-0.852	0.0001
219	SLU 76	-18.29	-0.03	90.79	0.0238	-0.8395	0.0001
219	SLU 77	-19.18	-0.01	92.13	0.0066	-0.8799	0
219	SLU 78	-19.02	-0.02	92.34	0.017	-0.873	0.0001
219	SLU 79	-19.01	-0.01	91.49	0.0065	-0.8721	0
219	SLU 80	-18.85	-0.02	91.7	0.0169	-0.8651	0.0001
219	SLU 81	-19.31	-0.01	93.33	0.0067	-0.885	0
219	SLU 82	-19.15	-0.02	93.54	0.0171	-0.878	0.0001
219	SLU 83	-19.77	-0.01	94.38	0.0068	-0.9059	0
219	SLU 84	-19.61	-0.02	94.59	0.0171	-0.899	0.0001
219	SLE RA 1	-11.19	0	59.81	0.0043	-0.5149	0
219	SLE RA 2	-11.01	-0.02	60.04	0.0159	-0.5071	0.0001
219	SLE RA 3	-11.6	0	60.94	0.0044	-0.5341	0
219	SLE RA 4	-11.5	-0.01	61.08	0.0113	-0.5295	0.0001
219	SLE RA 5	-11.31	-0.02	60.74	0.0159	-0.5211	0.0001
219	SLE RA 6	-11.91	0	61.63	0.0044	-0.5481	0
219	SLE RA 7	-11.8	-0.01	61.77	0.0114	-0.5434	0.0001
219	SLE RA 8	-11.8	0	61.21	0.0044	-0.5428	0
219	SLE RA 9	-11.69	-0.01	61.35	0.0113	-0.5382	0.0001
219	SLE RA 10	-12.9	-0.02	66.17	0.0163	-0.5924	0.0001
219	SLE RA 11	-13.49	0	67.06	0.0048	-0.6194	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
219	SLE RA 12	-13.38	-0.01	67.2	0.0118	-0.6148	0.0001
219	SLE RA 13	-13.2	-0.02	66.87	0.0163	-0.6064	0.0001
219	SLE RA 14	-13.79	0	67.76	0.0049	-0.6334	0
219	SLE RA 15	-13.69	-0.01	67.9	0.0118	-0.6287	0.0001
219	SLE RA 16	-13.68	0	67.33	0.0048	-0.6281	0
219	SLE RA 17	-13.58	-0.01	67.47	0.0117	-0.6235	0.0001
219	SLE RA 18	-13.88	0	68.56	0.005	-0.6367	0
219	SLE RA 19	-13.77	-0.01	68.7	0.0119	-0.6321	0.0001
219	SLE RA 20	-14.19	0	69.26	0.005	-0.6507	0
219	SLE RA 21	-14.08	-0.01	69.4	0.0119	-0.6461	0.0001
219	SLE FR 1	-11.19	0	59.81	0.0043	-0.5149	0
219	SLE FR 2	-11.15	-0.01	59.85	0.0067	-0.5133	0
219	SLE FR 3	-11.31	0	60.09	0.0044	-0.5205	0
219	SLE FR 4	-11.96	-0.01	62.48	0.0068	-0.5499	0
219	SLE FR 5	-12.12	0	62.71	0.0045	-0.557	0
219	SLE FR 6	-12.53	0	64.18	0.0046	-0.5758	0
219	SLE QP 1	-11.19	0	59.81	0.0043	-0.5149	0
219	SLE QP 2	-11.99	0	62.43	0.0045	-0.5514	0
219	SLD 1	-2.71	0.1	50.7	-0.1217	-0.1194	-0.0004
219	SLD 2	-2.71	0.1	50.7	-0.1217	-0.1194	-0.0004
219	SLD 3	-3.55	-0.03	51.61	0.0577	-0.1578	0.0002
219	SLD 4	-3.55	-0.03	51.61	0.0577	-0.1578	0.0002
219	SLD 5	-7.94	0.23	57.54	-0.3054	-0.3636	-0.0009
219	SLD 6	-7.94	0.23	57.54	-0.3054	-0.3636	-0.0009
219	SLD 7	-10.73	-0.21	60.56	0.2925	-0.4915	0.0009
219	SLD 8	-10.73	-0.21	60.56	0.2925	-0.4915	0.0009
219	SLD 9	-13.26	0.2	64.31	-0.2835	-0.6113	-0.0008
219	SLD 10	-13.26	0.2	64.31	-0.2835	-0.6113	-0.0008
219	SLD 11	-16.05	-0.24	67.33	0.3144	-0.7392	0.0009
219	SLD 12	-16.05	-0.24	67.33	0.3144	-0.7392	0.0009
219	SLD 13	-20.44	0.02	73.26	-0.0487	-0.945	-0.0001
219	SLD 14	-20.44	0.02	73.26	-0.0487	-0.945	-0.0001
219	SLD 15	-21.27	-0.11	74.16	0.1307	-0.9834	0.0004
219	SLD 16	-21.27	-0.11	74.16	0.1307	-0.9834	0.0004
219	SLV 1	9.73	0.26	34.98	-0.3178	0.4596	-0.001
219	SLV 2	9.73	0.26	34.98	-0.3178	0.4596	-0.001
219	SLV 3	7.74	-0.07	37.13	0.1413	0.3685	0.0004
219	SLV 4	7.74	-0.07	37.13	0.1413	0.3685	0.0004
219	SLV 5	-2.46	0.59	50.95	-0.7885	-0.1099	-0.0023
219	SLV 6	-2.46	0.59	50.95	-0.7885	-0.1099	-0.0023
219	SLV 7	-9.09	-0.53	58.09	0.7419	-0.4137	0.0022
219	SLV 8	-9.09	-0.53	58.09	0.7419	-0.4137	0.0022
219	SLV 9	-14.9	0.53	66.77	-0.7328	-0.6892	-0.0021
219	SLV 10	-14.9	0.53	66.77	-0.7328	-0.6892	-0.0021
219	SLV 11	-21.53	-0.59	73.92	0.7976	-0.993	0.0024
219	SLV 12	-21.53	-0.59	73.92	0.7976	-0.993	0.0024
219	SLV 13	-31.73	0.06	87.74	-0.1322	-1.4714	-0.0003
219	SLV 14	-31.73	0.06	87.74	-0.1322	-1.4714	-0.0003
219	SLV 15	-33.72	-0.27	89.88	0.3269	-1.5625	0.001
219	SLV 16	-33.72	-0.27	89.88	0.3269	-1.5625	0.001
220	SLU 1	-12.16	-0.01	59.75	0.0072	-0.5656	0.0001
220	SLU 2	-11.95	-0.03	60.07	0.0225	-0.5552	0.0001
220	SLU 3	-12.82	-0.01	61.61	0.0074	-0.5965	0.0001
220	SLU 4	-12.69	-0.02	61.81	0.0165	-0.5903	0.0001
220	SLU 5	-12.42	-0.03	61.23	0.0225	-0.5774	0.0001
220	SLU 6	-13.29	-0.01	62.77	0.0074	-0.6187	0.0001
220	SLU 7	-13.16	-0.02	62.97	0.0166	-0.6125	0.0001
220	SLU 8	-13.1	-0.01	62.07	0.0073	-0.6099	0.0001
220	SLU 9	-12.98	-0.02	62.27	0.0165	-0.6037	0.0001
220	SLU 10	-15.01	-0.03	69.52	0.0234	-0.6958	0.0002
220	SLU 11	-15.87	-0.01	71.06	0.0083	-0.7371	0.0001
220	SLU 12	-15.75	-0.02	71.25	0.0175	-0.7309	0.0001
220	SLU 13	-15.48	-0.03	70.68	0.0235	-0.718	0.0002
220	SLU 14	-16.35	-0.01	72.22	0.0084	-0.7593	0.0001
220	SLU 15	-16.22	-0.02	72.41	0.0176	-0.7531	0.0001
220	SLU 16	-16.16	-0.01	71.52	0.0083	-0.7505	0.0001
220	SLU 17	-16.04	-0.02	71.71	0.0175	-0.7443	0.0001
220	SLU 18	-16.53	-0.01	73.25	0.0086	-0.7664	0.0001
220	SLU 19	-16.4	-0.02	73.44	0.0178	-0.7602	0.0001
220	SLU 20	-17	-0.01	74.41	0.0087	-0.7886	0.0001
220	SLU 21	-16.87	-0.02	74.6	0.0178	-0.7824	0.0001
220	SLU 22	-14.91	-0.01	68.63	0.0081	-0.6924	0.0001
220	SLU 23	-14.7	-0.03	68.95	0.0234	-0.6821	0.0002
220	SLU 24	-15.57	-0.01	70.5	0.0083	-0.7234	0.0001
220	SLU 25	-15.44	-0.02	70.69	0.0174	-0.7171	0.0001
220	SLU 26	-15.17	-0.03	70.11	0.0235	-0.7042	0.0002
220	SLU 27	-16.04	-0.01	71.66	0.0084	-0.7455	0.0001
220	SLU 28	-15.91	-0.02	71.85	0.0175	-0.7393	0.0001
220	SLU 29	-15.85	-0.01	70.96	0.0083	-0.7368	0.0001
220	SLU 30	-15.73	-0.02	71.15	0.0174	-0.7306	0.0001
220	SLU 31	-17.76	-0.03	78.4	0.0244	-0.8227	0.0002
220	SLU 32	-18.62	-0.01	79.94	0.0093	-0.864	0.0001
220	SLU 33	-18.5	-0.02	80.13	0.0184	-0.8577	0.0002
220	SLU 34	-18.23	-0.03	79.56	0.0244	-0.8448	0.0002
220	SLU 35	-19.09	-0.01	81.1	0.0094	-0.8861	0.0001
220	SLU 36	-18.97	-0.02	81.3	0.0185	-0.8799	0.0002
220	SLU 37	-18.91	-0.01	80.4	0.0093	-0.8774	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
220	SLU 38	-18.78	-0.02	80.6	0.0184	-0.8712	0.0002
220	SLU 39	-19.28	-0.01	82.13	0.0095	-0.8933	0.0001
220	SLU 40	-19.15	-0.02	82.32	0.0187	-0.8871	0.0002
220	SLU 41	-19.75	-0.01	83.29	0.0096	-0.9155	0.0001
220	SLU 42	-19.62	-0.02	83.48	0.0188	-0.9092	0.0002
220	SLU 43	-14.86	-0.01	74.63	0.009	-0.6918	0.0001
220	SLU 44	-14.66	-0.03	74.95	0.0243	-0.6814	0.0002
220	SLU 45	-15.52	-0.01	76.49	0.0092	-0.7227	0.0001
220	SLU 46	-15.4	-0.02	76.69	0.0184	-0.7165	0.0002
220	SLU 47	-15.13	-0.03	76.11	0.0244	-0.7036	0.0002
220	SLU 48	-15.99	-0.01	77.65	0.0093	-0.7449	0.0001
220	SLU 49	-15.87	-0.02	77.85	0.0184	-0.7386	0.0002
220	SLU 50	-15.81	-0.01	76.95	0.0092	-0.7361	0.0001
220	SLU 51	-15.68	-0.02	77.15	0.0183	-0.7299	0.0002
220	SLU 52	-17.72	-0.03	84.4	0.0253	-0.822	0.0002
220	SLU 53	-18.58	-0.01	85.94	0.0102	-0.8633	0.0001
220	SLU 54	-18.45	-0.02	86.13	0.0193	-0.8571	0.0002
220	SLU 55	-18.19	-0.03	85.56	0.0254	-0.8442	0.0002
220	SLU 56	-19.05	-0.01	87.1	0.0103	-0.8855	0.0001
220	SLU 57	-18.93	-0.02	87.29	0.0194	-0.8792	0.0002
220	SLU 58	-18.87	-0.01	86.4	0.0102	-0.8767	0.0001
220	SLU 59	-18.74	-0.02	86.59	0.0193	-0.8705	0.0002
220	SLU 60	-19.23	-0.01	88.13	0.0104	-0.8926	0.0001
220	SLU 61	-19.11	-0.02	88.32	0.0196	-0.8864	0.0002
220	SLU 62	-19.7	-0.01	89.29	0.0105	-0.9148	0.0001
220	SLU 63	-19.58	-0.02	89.48	0.0197	-0.9086	0.0002
220	SLU 64	-17.61	-0.01	83.51	0.01	-0.8186	0.0001
220	SLU 65	-17.41	-0.03	83.83	0.0252	-0.8082	0.0002
220	SLU 66	-18.27	-0.01	85.38	0.0101	-0.8496	0.0001
220	SLU 67	-18.15	-0.02	85.57	0.0193	-0.8433	0.0002
220	SLU 68	-17.88	-0.03	84.99	0.0253	-0.8304	0.0002
220	SLU 69	-18.74	-0.01	86.54	0.0102	-0.8717	0.0001
220	SLU 70	-18.62	-0.02	86.73	0.0194	-0.8655	0.0002
220	SLU 71	-18.56	-0.01	85.84	0.0101	-0.863	0.0001
220	SLU 72	-18.43	-0.02	86.03	0.0193	-0.8567	0.0002
220	SLU 73	-20.46	-0.03	93.28	0.0262	-0.9488	0.0002
220	SLU 74	-21.33	-0.01	94.82	0.0111	-0.9902	0.0002
220	SLU 75	-21.2	-0.02	95.01	0.0203	-0.9839	0.0002
220	SLU 76	-20.94	-0.03	94.44	0.0263	-0.971	0.0002
220	SLU 77	-21.8	-0.01	95.98	0.0112	-1.0123	0.0002
220	SLU 78	-21.68	-0.02	96.18	0.0203	-1.0061	0.0002
220	SLU 79	-21.61	-0.01	95.28	0.0111	-1.0036	0.0002
220	SLU 80	-21.49	-0.02	95.48	0.0203	-0.9973	0.0002
220	SLU 81	-21.98	-0.01	97.01	0.0114	-1.0195	0.0002
220	SLU 82	-21.86	-0.02	97.2	0.0205	-1.0132	0.0002
220	SLU 83	-22.45	-0.01	98.17	0.0114	-1.0416	0.0002
220	SLU 84	-22.33	-0.02	98.36	0.0206	-1.0354	0.0002
220	SLE RA 1	-12.94	-0.01	62.29	0.0075	-0.6018	0.0001
220	SLE RA 2	-12.81	-0.02	62.5	0.0176	-0.5949	0.0001
220	SLE RA 3	-13.38	-0.01	63.53	0.0076	-0.6225	0.0001
220	SLE RA 4	-13.3	-0.02	63.66	0.0137	-0.6183	0.0001
220	SLE RA 5	-13.12	-0.02	63.28	0.0177	-0.6097	0.0001
220	SLE RA 6	-13.7	-0.01	64.3	0.0076	-0.6372	0.0001
220	SLE RA 7	-13.61	-0.02	64.43	0.0137	-0.6331	0.0001
220	SLE RA 8	-13.57	-0.01	63.84	0.0076	-0.6314	0.0001
220	SLE RA 9	-13.49	-0.02	63.97	0.0137	-0.6272	0.0001
220	SLE RA 10	-14.84	-0.02	68.8	0.0183	-0.6886	0.0001
220	SLE RA 11	-15.42	-0.01	69.83	0.0082	-0.7162	0.0001
220	SLE RA 12	-15.34	-0.02	69.96	0.0143	-0.712	0.0001
220	SLE RA 13	-15.16	-0.02	69.57	0.0183	-0.7034	0.0001
220	SLE RA 14	-15.74	-0.01	70.6	0.0083	-0.731	0.0001
220	SLE RA 15	-15.65	-0.02	70.73	0.0144	-0.7268	0.0001
220	SLE RA 16	-15.61	-0.01	70.14	0.0082	-0.7251	0.0001
220	SLE RA 17	-15.53	-0.02	70.26	0.0143	-0.721	0.0001
220	SLE RA 18	-15.86	-0.01	71.29	0.0084	-0.7357	0.0001
220	SLE RA 19	-15.77	-0.02	71.41	0.0145	-0.7316	0.0001
220	SLE RA 20	-16.17	-0.01	72.06	0.0084	-0.7505	0.0001
220	SLE RA 21	-16.09	-0.02	72.19	0.0145	-0.7464	0.0001
220	SLE FR 1	-12.94	-0.01	62.29	0.0075	-0.6018	0.0001
220	SLE FR 2	-12.92	-0.01	62.33	0.0095	-0.6004	0.0001
220	SLE FR 3	-13.07	-0.01	62.6	0.0075	-0.6077	0.0001
220	SLE FR 4	-13.79	-0.01	65.03	0.0098	-0.6406	0.0001
220	SLE FR 5	-13.94	-0.01	65.3	0.0078	-0.6479	0.0001
220	SLE FR 6	-14.4	-0.01	66.79	0.0079	-0.6688	0.0001
220	SLE QP 1	-12.94	-0.01	62.29	0.0075	-0.6018	0.0001
220	SLE QP 2	-13.82	-0.01	64.99	0.0077	-0.642	0.0001
220	SLD 1	-4.71	-0.02	49.34	-0.0799	-0.2037	-0.0001
220	SLD 2	-4.71	-0.02	49.34	-0.0799	-0.2037	-0.0001
220	SLD 3	-5.51	-0.1	50.66	0.0378	-0.241	0.0002
220	SLD 4	-5.51	-0.1	50.66	0.0378	-0.241	0.0002
220	SLD 5	-9.88	0.11	58.29	-0.1972	-0.4539	-0.0004
220	SLD 6	-9.88	0.11	58.29	-0.1972	-0.4539	-0.0004
220	SLD 7	-12.53	-0.16	62.69	0.1954	-0.5784	0.0006
220	SLD 8	-12.53	-0.16	62.69	0.1954	-0.5784	0.0006
220	SLD 9	-15.11	0.15	67.28	-0.1799	-0.7056	-0.0004
220	SLD 10	-15.11	0.15	67.28	-0.1799	-0.7056	-0.0004
220	SLD 11	-17.75	-0.13	71.69	0.2127	-0.8301	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
220	SLD 12	-17.75	-0.13	71.69	0.2127	-0.8301	0.0006
220	SLD 13	-22.13	0.09	79.32	-0.0224	-1.043	0.0001
220	SLD 14	-22.13	0.09	79.32	-0.0224	-1.043	0.0001
220	SLD 15	-22.92	0.01	80.64	0.0954	-1.0803	0.0003
220	SLD 16	-22.92	0.01	80.64	0.0954	-1.0803	0.0003
220	SLV 1	7.5	-0.04	28.38	-0.2149	0.3841	-0.0005
220	SLV 2	7.5	-0.04	28.38	-0.2149	0.3841	-0.0005
220	SLV 3	5.61	-0.24	31.48	0.0862	0.2952	0.0002
220	SLV 4	5.61	-0.24	31.48	0.0862	0.2952	0.0002
220	SLV 5	-4.56	0.3	49.3	-0.5157	-0.1993	-0.0012
220	SLV 6	-4.56	0.3	49.3	-0.5157	-0.1993	-0.0012
220	SLV 7	-10.85	-0.39	59.65	0.4879	-0.4957	0.0013
220	SLV 8	-10.85	-0.39	59.65	0.4879	-0.4957	0.0013
220	SLV 9	-16.78	0.38	70.33	-0.4725	-0.7883	-0.0011
220	SLV 10	-16.78	0.38	70.33	-0.4725	-0.7883	-0.0011
220	SLV 11	-23.08	-0.31	80.68	0.5312	-1.0847	0.0014
220	SLV 12	-23.08	-0.31	80.68	0.5312	-1.0847	0.0014
220	SLV 13	-33.24	0.23	98.49	-0.0707	-1.5792	0
220	SLV 14	-33.24	0.23	98.49	-0.0707	-1.5792	0
220	SLV 15	-35.13	0.03	101.6	0.2304	-1.6681	0.0007
220	SLV 16	-35.13	0.03	101.6	0.2304	-1.6681	0.0007
221	SLU 1	-14.01	-0.04	66.46	0.018	-0.7193	0.0001
221	SLU 2	-13.89	-0.07	66.64	0.0282	-0.7138	0.0001
221	SLU 3	-14.68	-0.04	68.72	0.0185	-0.7541	0.0001
221	SLU 4	-14.61	-0.06	68.83	0.0246	-0.7509	0.0001
221	SLU 5	-14.36	-0.07	68.08	0.0285	-0.7382	0.0001
221	SLU 6	-15.15	-0.04	70.16	0.0188	-0.7785	0.0001
221	SLU 7	-15.08	-0.06	70.27	0.0249	-0.7753	0.0001
221	SLU 8	-14.95	-0.04	69.33	0.0185	-0.768	0.0001
221	SLU 9	-14.88	-0.06	69.44	0.0247	-0.7648	0.0001
221	SLU 10	-17.06	-0.08	77.37	0.0306	-0.875	0.0001
221	SLU 11	-17.86	-0.05	79.44	0.0209	-0.9153	0.0001
221	SLU 12	-17.78	-0.07	79.56	0.027	-0.912	0.0001
221	SLU 13	-17.53	-0.08	78.8	0.0309	-0.8994	0.0001
221	SLU 14	-18.33	-0.05	80.88	0.0212	-0.9397	0.0002
221	SLU 15	-18.25	-0.07	80.99	0.0273	-0.9364	0.0001
221	SLU 16	-18.13	-0.05	80.05	0.0209	-0.9292	0.0002
221	SLU 17	-18.05	-0.07	80.17	0.0271	-0.926	0.0001
221	SLU 18	-18.54	-0.05	81.78	0.0214	-0.9495	0.0002
221	SLU 19	-18.47	-0.07	81.89	0.0276	-0.9462	0.0001
221	SLU 20	-19.01	-0.05	83.22	0.0217	-0.9739	0.0002
221	SLU 21	-18.94	-0.07	83.33	0.0278	-0.9706	0.0001
221	SLU 22	-16.89	-0.04	76.58	0.0204	-0.866	0.0001
221	SLU 23	-16.77	-0.08	76.76	0.0306	-0.8606	0.0001
221	SLU 24	-17.56	-0.05	78.84	0.0208	-0.9009	0.0001
221	SLU 25	-17.49	-0.07	78.95	0.027	-0.8976	0.0001
221	SLU 26	-17.24	-0.08	78.2	0.0308	-0.885	0.0001
221	SLU 27	-18.03	-0.05	80.27	0.0211	-0.9253	0.0002
221	SLU 28	-17.96	-0.07	80.38	0.0272	-0.922	0.0001
221	SLU 29	-17.83	-0.05	79.45	0.0209	-0.9148	0.0001
221	SLU 30	-17.76	-0.07	79.56	0.027	-0.9115	0.0001
221	SLU 31	-19.94	-0.08	87.49	0.033	-1.0217	0.0001
221	SLU 32	-20.73	-0.05	89.56	0.0233	-1.062	0.0002
221	SLU 33	-20.66	-0.07	89.67	0.0294	-1.0588	0.0001
221	SLU 34	-20.41	-0.08	88.92	0.0332	-1.0461	0.0001
221	SLU 35	-21.21	-0.05	91	0.0235	-1.0864	0.0002
221	SLU 36	-21.13	-0.07	91.11	0.0296	-1.0832	0.0001
221	SLU 37	-21.01	-0.05	90.17	0.0233	-1.076	0.0002
221	SLU 38	-20.93	-0.07	90.28	0.0294	-1.0727	0.0001
221	SLU 39	-21.42	-0.05	91.9	0.0238	-1.0962	0.0002
221	SLU 40	-21.35	-0.07	92.01	0.0299	-1.093	0.0001
221	SLU 41	-21.89	-0.05	93.33	0.0241	-1.1206	0.0002
221	SLU 42	-21.82	-0.07	93.44	0.0302	-1.1174	0.0001
221	SLU 43	-17.23	-0.05	82.93	0.0226	-0.8847	0.0001
221	SLU 44	-17.1	-0.08	83.11	0.0328	-0.8793	0.0001
221	SLU 45	-17.9	-0.05	85.19	0.0231	-0.9196	0.0001
221	SLU 46	-17.83	-0.07	85.3	0.0292	-0.9163	0.0001
221	SLU 47	-17.58	-0.08	84.55	0.0331	-0.9037	0.0001
221	SLU 48	-18.37	-0.05	86.62	0.0234	-0.944	0.0002
221	SLU 49	-18.3	-0.07	86.73	0.0295	-0.9407	0.0001
221	SLU 50	-18.17	-0.05	85.8	0.0231	-0.9335	0.0002
221	SLU 51	-18.1	-0.07	85.91	0.0293	-0.9303	0.0001
221	SLU 52	-20.28	-0.09	93.84	0.0352	-1.0405	0.0001
221	SLU 53	-21.07	-0.06	95.91	0.0255	-1.0808	0.0002
221	SLU 54	-21	-0.08	96.02	0.0316	-1.0775	0.0001
221	SLU 55	-20.75	-0.09	95.27	0.0355	-1.0649	0.0001
221	SLU 56	-21.54	-0.06	97.35	0.0258	-1.1052	0.0002
221	SLU 57	-21.47	-0.08	97.46	0.0319	-1.1019	0.0001
221	SLU 58	-21.34	-0.06	96.52	0.0255	-1.0947	0.0002
221	SLU 59	-21.27	-0.08	96.63	0.0317	-1.0914	0.0001
221	SLU 60	-21.76	-0.06	98.25	0.026	-1.115	0.0002
221	SLU 61	-21.69	-0.08	98.36	0.0322	-1.1117	0.0001
221	SLU 62	-22.23	-0.06	99.68	0.0263	-1.1394	0.0002
221	SLU 63	-22.16	-0.08	99.79	0.0324	-1.1361	0.0001
221	SLU 64	-20.11	-0.06	93.05	0.0249	-1.0315	0.0002
221	SLU 65	-19.98	-0.09	93.23	0.0352	-1.026	0.0001
221	SLU 66	-20.78	-0.06	95.31	0.0254	-1.0663	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
221	SLU 67	-20.7	-0.08	95.42	0.0316	-1.0631	0.0001
221	SLU 68	-20.46	-0.09	94.67	0.0354	-1.0504	0.0001
221	SLU 69	-21.25	-0.06	96.74	0.0257	-1.0907	0.0002
221	SLU 70	-21.18	-0.08	96.85	0.0318	-1.0875	0.0001
221	SLU 71	-21.05	-0.06	95.92	0.0255	-1.0803	0.0002
221	SLU 72	-20.98	-0.08	96.03	0.0316	-1.077	0.0001
221	SLU 73	-23.16	-0.09	103.96	0.0376	-1.1872	0.0001
221	SLU 74	-23.95	-0.06	106.03	0.0279	-1.2275	0.0002
221	SLU 75	-23.88	-0.08	106.14	0.034	-1.2243	0.0002
221	SLU 76	-23.63	-0.09	105.39	0.0378	-1.2116	0.0001
221	SLU 77	-24.42	-0.06	107.47	0.0281	-1.2519	0.0002
221	SLU 78	-24.35	-0.08	107.58	0.0342	-1.2486	0.0002
221	SLU 79	-24.22	-0.06	106.64	0.0279	-1.2414	0.0002
221	SLU 80	-24.15	-0.08	106.75	0.034	-1.2382	0.0002
221	SLU 81	-24.64	-0.06	108.37	0.0284	-1.2617	0.0002
221	SLU 82	-24.57	-0.08	108.48	0.0345	-1.2584	0.0002
221	SLU 83	-25.11	-0.06	109.8	0.0287	-1.2861	0.0002
221	SLU 84	-25.04	-0.08	109.91	0.0348	-1.2828	0.0002
221	SLE RA 1	-14.83	-0.04	69.35	0.0187	-0.7612	0.0001
221	SLE RA 2	-14.75	-0.06	69.47	0.0255	-0.7576	0.0001
221	SLE RA 3	-15.28	-0.04	70.86	0.019	-0.7844	0.0001
221	SLE RA 4	-15.23	-0.06	70.93	0.0231	-0.7823	0.0001
221	SLE RA 5	-15.07	-0.06	70.43	0.0257	-0.7738	0.0001
221	SLE RA 6	-15.6	-0.04	71.81	0.0192	-0.8007	0.0001
221	SLE RA 7	-15.55	-0.06	71.89	0.0233	-0.7985	0.0001
221	SLE RA 8	-15.46	-0.04	71.26	0.019	-0.7937	0.0001
221	SLE RA 9	-15.41	-0.06	71.34	0.0231	-0.7915	0.0001
221	SLE RA 10	-16.87	-0.07	76.62	0.0271	-0.865	0.0001
221	SLE RA 11	-17.4	-0.05	78.01	0.0206	-0.8919	0.0001
221	SLE RA 12	-17.35	-0.06	78.08	0.0247	-0.8897	0.0001
221	SLE RA 13	-17.18	-0.07	77.58	0.0273	-0.8813	0.0001
221	SLE RA 14	-17.71	-0.05	78.96	0.0208	-0.9081	0.0001
221	SLE RA 15	-17.66	-0.06	79.04	0.0249	-0.906	0.0001
221	SLE RA 16	-17.58	-0.05	78.41	0.0206	-0.9012	0.0001
221	SLE RA 17	-17.53	-0.06	78.49	0.0247	-0.899	0.0001
221	SLE RA 18	-17.85	-0.05	79.56	0.021	-0.9147	0.0001
221	SLE RA 19	-17.81	-0.06	79.64	0.0251	-0.9125	0.0001
221	SLE RA 20	-18.17	-0.05	80.52	0.0211	-0.9309	0.0002
221	SLE RA 21	-18.12	-0.06	80.59	0.0252	-0.9288	0.0001
221	SLE FR 1	-14.83	-0.04	69.35	0.0187	-0.7612	0.0001
221	SLE FR 2	-14.82	-0.05	69.37	0.02	-0.7605	0.0001
221	SLE FR 3	-14.96	-0.04	69.73	0.0187	-0.7677	0.0001
221	SLE FR 4	-15.72	-0.05	72.44	0.0207	-0.8065	0.0001
221	SLE FR 5	-15.86	-0.04	72.8	0.0194	-0.8137	0.0001
221	SLE FR 6	-16.34	-0.04	74.46	0.0198	-0.8379	0.0001
221	SLE QP 1	-14.83	-0.04	69.35	0.0187	-0.7612	0.0001
221	SLE QP 2	-15.74	-0.04	72.41	0.0194	-0.8072	0.0001
221	SLD 1	-7.17	0.08	49.72	-0.0321	-0.3526	0.0002
221	SLD 2	-7.17	0.08	49.72	-0.0321	-0.3526	0.0002
221	SLD 3	-7.87	-0.01	51.84	0.0302	-0.3901	-0.0003
221	SLD 4	-7.87	-0.01	51.84	0.0302	-0.3901	-0.0003
221	SLD 5	-12.11	0.14	62.39	-0.0906	-0.614	0.0008
221	SLD 6	-12.11	0.14	62.39	-0.0906	-0.614	0.0008
221	SLD 7	-14.44	-0.18	69.46	0.1171	-0.739	-0.0007
221	SLD 8	-14.44	-0.18	69.46	0.1171	-0.739	-0.0007
221	SLD 9	-17.04	0.09	75.37	-0.0784	-0.8755	0.001
221	SLD 10	-17.04	0.09	75.37	-0.0784	-0.8755	0.001
221	SLD 11	-19.37	-0.23	82.44	0.1293	-1.0005	-0.0006
221	SLD 12	-19.37	-0.23	82.44	0.1293	-1.0005	-0.0006
221	SLD 13	-23.61	-0.07	92.98	0.0085	-1.2244	0.0006
221	SLD 14	-23.61	-0.07	92.98	0.0085	-1.2244	0.0006
221	SLD 15	-24.31	-0.17	95.1	0.0709	-1.2619	0.0001
221	SLD 16	-24.31	-0.17	95.1	0.0709	-1.2619	0.0001
221	SLV 1	4.33	0.27	19.32	-0.1103	0.2571	0.0003
221	SLV 2	4.33	0.27	19.32	-0.1103	0.2571	0.0003
221	SLV 3	2.67	0.03	24.3	0.0487	0.1677	-0.0009
221	SLV 4	2.67	0.03	24.3	0.0487	0.1677	-0.0009
221	SLV 5	-7.2	0.42	48.94	-0.2606	-0.3523	0.002
221	SLV 6	-7.2	0.42	48.94	-0.2606	-0.3523	0.002
221	SLV 7	-12.74	-0.39	65.52	0.2693	-0.6504	-0.002
221	SLV 8	-12.74	-0.39	65.52	0.2693	-0.6504	-0.002
221	SLV 9	-18.74	0.3	79.31	-0.2305	-0.9641	0.0022
221	SLV 10	-18.74	0.3	79.31	-0.2305	-0.9641	0.0022
221	SLV 11	-24.28	-0.5	95.88	0.2994	-1.2622	-0.0017
221	SLV 12	-24.28	-0.5	95.88	0.2994	-1.2622	-0.0017
221	SLV 13	-34.14	-0.11	120.53	-0.01	-1.7821	0.0012
221	SLV 14	-34.14	-0.11	120.53	-0.01	-1.7821	0.0012
221	SLV 15	-35.8	-0.35	125.51	0.149	-1.8716	0
221	SLV 16	-35.8	-0.35	125.51	0.149	-1.8716	0
222	SLU 1	-14.41	-11.11	84.96	9.777	-0.4552	0.023
222	SLU 2	-14.41	-11.01	84.75	9.7255	-0.455	0.0356
222	SLU 3	-15.01	-11.45	87.91	10.0912	-0.4759	0.0241
222	SLU 4	-15.01	-11.4	87.79	10.0603	-0.4758	0.0316
222	SLU 5	-14.81	-11.22	86.61	9.9161	-0.4693	0.0363
222	SLU 6	-15.42	-11.66	89.77	10.2817	-0.4902	0.0248
222	SLU 7	-15.42	-11.6	89.65	10.2508	-0.4901	0.0323
222	SLU 8	-15.22	-11.52	88.68	10.1581	-0.4838	0.0245



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
222	SLU 9	-15.22	-11.46	88.56	10.1272	-0.4837	0.032
222	SLU 10	-17.2	-12.56	98.22	11.1452	-0.5505	0.0405
222	SLU 11	-17.8	-13	101.38	11.5109	-0.5715	0.0291
222	SLU 12	-17.8	-12.94	101.26	11.48	-0.5714	0.0366
222	SLU 13	-17.6	-12.77	100.08	11.3358	-0.5648	0.0413
222	SLU 14	-18.21	-13.2	103.24	11.7015	-0.5858	0.0298
222	SLU 15	-18.21	-13.15	103.12	11.6706	-0.5857	0.0373
222	SLU 16	-18.01	-13.07	102.15	11.5778	-0.5793	0.0294
222	SLU 17	-18.01	-13.01	102.03	11.5469	-0.5792	0.037
222	SLU 18	-18.4	-13.32	104.2	11.8052	-0.5916	0.0301
222	SLU 19	-18.4	-13.26	104.07	11.7743	-0.5915	0.0377
222	SLU 20	-18.8	-13.52	106.06	11.9957	-0.606	0.0309
222	SLU 21	-18.8	-13.47	105.94	11.9648	-0.6058	0.0384
222	SLU 22	-16.99	-12.61	97.76	11.1464	-0.5428	0.0276
222	SLU 23	-16.99	-12.52	97.55	11.0949	-0.5426	0.0401
222	SLU 24	-17.59	-12.96	100.72	11.4606	-0.5636	0.0286
222	SLU 25	-17.59	-12.9	100.59	11.4297	-0.5635	0.0361
222	SLU 26	-17.39	-12.73	99.41	11.2855	-0.5569	0.0408
222	SLU 27	-18	-13.17	102.58	11.6512	-0.5779	0.0293
222	SLU 28	-18	-13.11	102.45	11.6203	-0.5778	0.0368
222	SLU 29	-17.8	-13.03	101.49	11.5275	-0.5714	0.029
222	SLU 30	-17.8	-12.97	101.36	11.4966	-0.5713	0.0365
222	SLU 31	-19.78	-14.07	111.02	12.5146	-0.6381	0.045
222	SLU 32	-20.39	-14.5	114.19	12.8803	-0.6591	0.0336
222	SLU 33	-20.38	-14.45	114.06	12.8494	-0.659	0.0411
222	SLU 34	-20.19	-14.27	112.88	12.7052	-0.6525	0.0458
222	SLU 35	-20.79	-14.71	116.05	13.0709	-0.6734	0.0343
222	SLU 36	-20.79	-14.65	115.92	13.04	-0.6733	0.0418
222	SLU 37	-20.6	-14.57	114.96	12.9472	-0.667	0.034
222	SLU 38	-20.59	-14.52	114.83	12.9163	-0.6668	0.0415
222	SLU 39	-20.98	-14.82	117	13.1746	-0.6793	0.0346
222	SLU 40	-20.98	-14.77	116.88	13.1437	-0.6792	0.0422
222	SLU 41	-21.39	-15.03	118.87	13.3651	-0.6936	0.0354
222	SLU 42	-21.38	-14.97	118.74	13.3342	-0.6935	0.0429
222	SLU 43	-17.85	-13.92	106.05	12.2406	-0.5617	0.0284
222	SLU 44	-17.84	-13.83	105.84	12.1891	-0.5615	0.0409
222	SLU 45	-18.45	-14.27	109.01	12.5548	-0.5824	0.0294
222	SLU 46	-18.45	-14.21	108.88	12.5239	-0.5823	0.037
222	SLU 47	-18.25	-14.04	107.71	12.3796	-0.5758	0.0417
222	SLU 48	-18.86	-14.47	110.87	12.7453	-0.5967	0.0302
222	SLU 49	-18.85	-14.42	110.75	12.7144	-0.5966	0.0377
222	SLU 50	-18.66	-14.34	109.78	12.6217	-0.5903	0.0298
222	SLU 51	-18.66	-14.28	109.65	12.5908	-0.5902	0.0374
222	SLU 52	-20.64	-15.38	119.31	13.6088	-0.657	0.0459
222	SLU 53	-21.24	-15.81	122.48	13.9745	-0.678	0.0344
222	SLU 54	-21.24	-15.76	122.35	13.9436	-0.6779	0.0419
222	SLU 55	-21.04	-15.58	121.18	13.7994	-0.6713	0.0466
222	SLU 56	-21.65	-16.02	124.34	14.165	-0.6923	0.0351
222	SLU 57	-21.65	-15.96	124.22	14.1341	-0.6922	0.0427
222	SLU 58	-21.45	-15.88	123.25	14.0414	-0.6858	0.0348
222	SLU 59	-21.45	-15.83	123.12	14.0105	-0.6857	0.0423
222	SLU 60	-21.84	-16.13	125.29	14.2687	-0.6981	0.0355
222	SLU 61	-21.83	-16.08	125.17	14.2378	-0.698	0.043
222	SLU 62	-22.24	-16.34	127.16	14.4593	-0.7125	0.0362
222	SLU 63	-22.24	-16.28	127.03	14.4284	-0.7123	0.0437
222	SLU 64	-20.43	-15.43	118.86	13.61	-0.6493	0.0329
222	SLU 65	-20.43	-15.34	118.65	13.5585	-0.6491	0.0454
222	SLU 66	-21.03	-15.77	121.81	13.9242	-0.6701	0.034
222	SLU 67	-21.03	-15.72	121.69	13.8933	-0.67	0.0415
222	SLU 68	-20.83	-15.54	120.51	13.7491	-0.6634	0.0462
222	SLU 69	-21.44	-15.98	123.68	14.1147	-0.6844	0.0347
222	SLU 70	-21.43	-15.92	123.55	14.0839	-0.6843	0.0422
222	SLU 71	-21.24	-15.84	122.58	13.9911	-0.6779	0.0344
222	SLU 72	-21.24	-15.79	122.46	13.9602	-0.6778	0.0419
222	SLU 73	-23.22	-16.88	132.12	14.9782	-0.7446	0.0504
222	SLU 74	-23.82	-17.32	135.28	15.3439	-0.7656	0.0389
222	SLU 75	-23.82	-17.26	135.16	15.313	-0.7655	0.0464
222	SLU 76	-23.62	-17.09	133.98	15.1688	-0.759	0.0511
222	SLU 77	-24.23	-17.53	137.15	15.5345	-0.7799	0.0397
222	SLU 78	-24.23	-17.47	137.02	15.5036	-0.7798	0.0472
222	SLU 79	-24.03	-17.39	136.05	15.4108	-0.7735	0.0393
222	SLU 80	-24.03	-17.33	135.93	15.3799	-0.7733	0.0468
222	SLU 81	-24.42	-17.64	138.1	15.6382	-0.7858	0.04
222	SLU 82	-24.42	-17.58	137.97	15.6073	-0.7857	0.0475
222	SLU 83	-24.82	-17.84	139.96	15.8287	-0.8001	0.0407
222	SLU 84	-24.82	-17.79	139.84	15.7978	-0.8	0.0483
222	SLE RA 1	-15.15	-11.54	88.61	10.1683	-0.4802	0.0243
222	SLE RA 2	-15.14	-11.48	88.47	10.1339	-0.4801	0.0327
222	SLE RA 3	-15.55	-11.77	90.58	10.3777	-0.494	0.025
222	SLE RA 4	-15.55	-11.73	90.5	10.3571	-0.494	0.03
222	SLE RA 5	-15.42	-11.61	89.72	10.261	-0.4896	0.0332
222	SLE RA 6	-15.82	-11.91	91.83	10.5048	-0.5036	0.0255
222	SLE RA 7	-15.82	-11.87	91.74	10.4842	-0.5035	0.0305
222	SLE RA 8	-15.69	-11.81	91.1	10.4223	-0.4993	0.0253
222	SLE RA 9	-15.69	-11.78	91.01	10.4017	-0.4992	0.0303
222	SLE RA 10	-17.01	-12.51	97.45	11.0804	-0.5438	0.036
222	SLE RA 11	-17.41	-12.8	99.56	11.3242	-0.5577	0.0283



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
222	SLE RA 12	-17.41	-12.76	99.48	11.3036	-0.5577	0.0333
222	SLE RA 13	-17.28	-12.64	98.7	11.2074	-0.5533	0.0365
222	SLE RA 14	-17.68	-12.94	100.81	11.4512	-0.5673	0.0288
222	SLE RA 15	-17.68	-12.9	100.72	11.4306	-0.5672	0.0338
222	SLE RA 16	-17.55	-12.84	100.08	11.3688	-0.563	0.0286
222	SLE RA 17	-17.55	-12.81	99.99	11.3482	-0.5629	0.0336
222	SLE RA 18	-17.81	-13.01	101.44	11.5204	-0.5712	0.0291
222	SLE RA 19	-17.81	-12.97	101.36	11.4998	-0.5711	0.0341
222	SLE RA 20	-18.08	-13.15	102.68	11.6474	-0.5807	0.0295
222	SLE RA 21	-18.08	-13.11	102.6	11.6268	-0.5807	0.0346
222	SLE FR 1	-15.15	-11.54	88.61	10.1683	-0.4802	0.0243
222	SLE FR 2	-15.15	-11.53	88.59	10.1614	-0.4802	0.026
222	SLE FR 3	-15.26	-11.59	89.11	10.2191	-0.484	0.0245
222	SLE FR 4	-15.94	-11.97	92.43	10.567	-0.5075	0.0274
222	SLE FR 5	-16.05	-12.03	92.96	10.6247	-0.5113	0.0259
222	SLE FR 6	-16.48	-12.27	95.03	10.8443	-0.5257	0.0267
222	SLE QP 1	-15.15	-11.54	88.61	10.1683	-0.4802	0.0243
222	SLE QP 2	-15.95	-11.98	92.46	10.5739	-0.5075	0.0257
222	SLD 1	-8.84	-7.46	58.46	6.7506	-0.2447	-0.0305
222	SLD 2	-8.84	-7.46	58.46	6.7506	-0.2447	-0.0305
222	SLD 3	-9.45	-9.36	64.77	7.9231	-0.2705	0.0294
222	SLD 4	-9.45	-9.36	64.77	7.9231	-0.2705	0.0294
222	SLD 5	-12.88	-7.75	72.68	7.6485	-0.3895	-0.0819
222	SLD 6	-12.88	-7.75	72.68	7.6485	-0.3895	-0.0819
222	SLD 7	-14.93	-14.06	93.73	11.557	-0.4755	0.1176
222	SLD 8	-14.93	-14.06	93.73	11.557	-0.4755	0.1176
222	SLD 9	-16.96	-9.9	91.19	9.5908	-0.5394	-0.0661
222	SLD 10	-16.96	-9.9	91.19	9.5908	-0.5394	-0.0661
222	SLD 11	-19.01	-16.2	112.24	13.4993	-0.6255	0.1334
222	SLD 12	-19.01	-16.2	112.24	13.4993	-0.6255	0.1334
222	SLD 13	-22.44	-14.6	120.15	13.2247	-0.7445	0.0221
222	SLD 14	-22.44	-14.6	120.15	13.2247	-0.7445	0.0221
222	SLD 15	-23.05	-16.5	126.47	14.3972	-0.7703	0.082
222	SLD 16	-23.05	-16.5	126.47	14.3972	-0.7703	0.082
222	SLV 1	0.71	-1.43	12.92	1.6332	0.1087	-0.115
222	SLV 2	0.71	-1.43	12.92	1.6332	0.1087	-0.115
222	SLV 3	-0.77	-5.83	27.65	4.3654	0.0456	0.0379
222	SLV 4	-0.77	-5.83	27.65	4.3654	0.0456	0.0379
222	SLV 5	-8.71	-2.14	46.24	3.7479	-0.227	-0.2484
222	SLV 6	-8.71	-2.14	46.24	3.7479	-0.227	-0.2484
222	SLV 7	-13.64	-16.81	95.37	12.8552	-0.4372	0.2613
222	SLV 8	-13.64	-16.81	95.37	12.8552	-0.4372	0.2613
222	SLV 9	-18.25	-7.15	89.55	8.2926	-0.5778	-0.2098
222	SLV 10	-18.25	-7.15	89.55	8.2926	-0.5778	-0.2098
222	SLV 11	-23.18	-21.82	138.68	17.3999	-0.788	0.2999
222	SLV 12	-23.18	-21.82	138.68	17.3999	-0.788	0.2999
222	SLV 13	-31.12	-18.13	157.27	16.7824	-1.0606	0.0136
222	SLV 14	-31.12	-18.13	157.27	16.7824	-1.0606	0.0136
222	SLV 15	-32.6	-22.53	172.01	19.5146	-1.1237	0.1665
222	SLV 16	-32.6	-22.53	172.01	19.5146	-1.1237	0.1665
223	SLU 1	11.84	-6.13	59.41	-7.0717	0.3795	2.6261
223	SLU 2	11.73	-5.93	58.75	-7.0206	0.3762	2.591
223	SLU 3	12.31	-6.28	61.37	-7.3318	0.3955	2.7304
223	SLU 4	12.24	-6.16	60.98	-7.3011	0.3936	2.7094
223	SLU 5	12.03	-6	59.93	-7.1848	0.3864	2.6573
223	SLU 6	12.61	-6.35	62.55	-7.496	0.4058	2.7967
223	SLU 7	12.54	-6.23	62.16	-7.4653	0.4038	2.7757
223	SLU 8	12.44	-6.27	61.77	-7.4001	0.4	2.7587
223	SLU 9	12.37	-6.16	61.37	-7.3694	0.398	2.7377
223	SLU 10	14.19	-6.85	69.1	-8.3539	0.461	3.1374
223	SLU 11	14.77	-7.2	71.72	-8.6651	0.4804	3.2768
223	SLU 12	14.7	-7.08	71.33	-8.6344	0.4784	3.2557
223	SLU 13	14.49	-6.93	70.28	-8.5181	0.4713	3.2037
223	SLU 14	15.07	-7.27	72.9	-8.8293	0.4906	3.3431
223	SLU 15	15	-7.15	72.51	-8.7986	0.4886	3.3221
223	SLU 16	14.9	-7.19	72.12	-8.7334	0.4848	3.3051
223	SLU 17	14.83	-7.08	71.72	-8.7028	0.4828	3.284
223	SLU 18	15.35	-7.45	74.19	-8.9765	0.5007	3.4066
223	SLU 19	15.29	-7.33	73.8	-8.9458	0.4987	3.3856
223	SLU 20	15.65	-7.52	75.37	-9.1407	0.5109	3.4729
223	SLU 21	15.59	-7.4	74.98	-9.11	0.5089	3.4519
223	SLU 22	14.07	-6.98	68.97	-8.2972	0.4559	3.1222
223	SLU 23	13.97	-6.78	68.31	-8.2461	0.4526	3.0872
223	SLU 24	14.54	-7.13	70.93	-8.5572	0.472	3.2266
223	SLU 25	14.48	-7.01	70.54	-8.5265	0.47	3.2055
223	SLU 26	14.26	-6.86	69.49	-8.4102	0.4629	3.1535
223	SLU 27	14.84	-7.2	72.11	-8.7214	0.4822	3.2929
223	SLU 28	14.78	-7.09	71.72	-8.6907	0.4802	3.2718
223	SLU 29	14.67	-7.13	71.33	-8.6256	0.4764	3.2549
223	SLU 30	14.61	-7.01	70.94	-8.5949	0.4744	3.2338
223	SLU 31	16.42	-7.71	78.66	-9.5794	0.5375	3.6335
223	SLU 32	17	-8.05	81.28	-9.8906	0.5568	3.7729
223	SLU 33	16.94	-7.93	80.89	-9.8599	0.5548	3.7519
223	SLU 34	16.72	-7.78	79.84	-9.7436	0.5477	3.6999
223	SLU 35	17.3	-8.12	82.46	-10.0547	0.5671	3.8393
223	SLU 36	17.24	-8.01	82.07	-10.0241	0.5651	3.8182
223	SLU 37	17.13	-8.05	81.68	-9.9589	0.5612	3.8013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
223	SLU 38	17.07	-7.93	81.29	-9.9282	0.5593	3.7802
223	SLU 39	17.59	-8.3	83.76	-10.2019	0.5771	3.9028
223	SLU 40	17.52	-8.18	83.36	-10.1713	0.5751	3.8817
223	SLU 41	17.89	-8.37	84.94	-10.3661	0.5873	3.9691
223	SLU 42	17.82	-8.25	84.54	-10.3355	0.5854	3.9481
223	SLU 43	14.63	-7.68	73.95	-8.7731	0.4671	3.2438
223	SLU 44	14.52	-7.48	73.29	-8.722	0.4638	3.2087
223	SLU 45	15.1	-7.83	75.91	-9.0331	0.4832	3.3481
223	SLU 46	15.03	-7.71	75.52	-9.0025	0.4812	3.3271
223	SLU 47	14.82	-7.55	74.47	-8.8862	0.4741	3.275
223	SLU 48	15.39	-7.9	77.09	-9.1973	0.4934	3.4144
223	SLU 49	15.33	-7.78	76.7	-9.1666	0.4915	3.3934
223	SLU 50	15.22	-7.82	76.31	-9.1015	0.4876	3.3764
223	SLU 51	15.16	-7.7	75.92	-9.0708	0.4856	3.3554
223	SLU 52	16.98	-8.4	83.64	-10.0553	0.5487	3.7551
223	SLU 53	17.55	-8.75	86.26	-10.3665	0.568	3.8945
223	SLU 54	17.49	-8.63	85.87	-10.3358	0.566	3.8734
223	SLU 55	17.28	-8.47	84.82	-10.2195	0.5589	3.8214
223	SLU 56	17.85	-8.82	87.44	-10.5307	0.5783	3.9608
223	SLU 57	17.79	-8.7	87.05	-10.5	0.5763	3.9398
223	SLU 58	17.68	-8.74	86.66	-10.4348	0.5724	3.9228
223	SLU 59	17.62	-8.62	86.27	-10.4041	0.5705	3.9017
223	SLU 60	18.14	-8.99	88.74	-10.6779	0.5883	4.0243
223	SLU 61	18.07	-8.87	88.34	-10.6472	0.5863	4.0033
223	SLU 62	18.44	-9.06	89.92	-10.842	0.5986	4.0906
223	SLU 63	18.37	-8.95	89.52	-10.8114	0.5966	4.0696
223	SLU 64	16.86	-8.53	83.51	-9.9986	0.5436	3.7399
223	SLU 65	16.75	-8.33	82.86	-9.9474	0.5403	3.7049
223	SLU 66	17.33	-8.68	85.48	-10.2586	0.5596	3.8443
223	SLU 67	17.26	-8.56	85.08	-10.2279	0.5576	3.8232
223	SLU 68	17.05	-8.4	84.04	-10.1116	0.5505	3.7712
223	SLU 69	17.63	-8.75	86.66	-10.4228	0.5699	3.9106
223	SLU 70	17.56	-8.63	86.26	-10.3921	0.5679	3.8896
223	SLU 71	17.46	-8.67	85.87	-10.3269	0.564	3.8726
223	SLU 72	17.39	-8.55	85.48	-10.2962	0.5621	3.8515
223	SLU 73	19.21	-9.25	93.21	-11.2808	0.6251	4.2513
223	SLU 74	19.79	-9.6	95.83	-11.5919	0.6444	4.3907
223	SLU 75	19.72	-9.48	95.43	-11.5612	0.6425	4.3696
223	SLU 76	19.51	-9.32	94.39	-11.4449	0.6353	4.3176
223	SLU 77	20.09	-9.67	97.01	-11.7561	0.6547	4.457
223	SLU 78	20.02	-9.55	96.61	-11.7254	0.6527	4.4359
223	SLU 79	19.92	-9.59	96.22	-11.6603	0.6489	4.419
223	SLU 80	19.85	-9.47	95.83	-11.6296	0.6469	4.3979
223	SLU 81	20.37	-9.84	98.3	-11.9033	0.6647	4.5205
223	SLU 82	20.31	-9.73	97.91	-11.8726	0.6628	4.4994
223	SLU 83	20.67	-9.92	99.48	-12.0675	0.675	4.5868
223	SLU 84	20.61	-9.8	99.09	-12.0368	0.673	4.5658
223	SLE RA 1	12.48	-6.37	62.14	-7.4219	0.4013	2.7678
223	SLE RA 2	12.41	-6.24	61.7	-7.3878	0.3991	2.7445
223	SLE RA 3	12.79	-6.47	63.45	-7.5952	0.412	2.8374
223	SLE RA 4	12.75	-6.39	63.19	-7.5748	0.4107	2.8234
223	SLE RA 5	12.61	-6.29	62.49	-7.4972	0.406	2.7887
223	SLE RA 6	12.99	-6.52	64.23	-7.7047	0.4189	2.8816
223	SLE RA 7	12.95	-6.44	63.97	-7.6842	0.4175	2.8676
223	SLE RA 8	12.88	-6.47	63.71	-7.6408	0.415	2.8563
223	SLE RA 9	12.83	-6.39	63.45	-7.6203	0.4137	2.8422
223	SLE RA 10	14.05	-6.86	68.6	-8.2767	0.4557	3.1087
223	SLE RA 11	14.43	-7.09	70.35	-8.4841	0.4686	3.2016
223	SLE RA 12	14.39	-7.01	70.09	-8.4637	0.4673	3.1876
223	SLE RA 13	14.24	-6.9	69.39	-8.3861	0.4625	3.1529
223	SLE RA 14	14.63	-7.13	71.13	-8.5936	0.4754	3.2459
223	SLE RA 15	14.59	-7.06	70.87	-8.5731	0.4741	3.2318
223	SLE RA 16	14.52	-7.08	70.61	-8.5297	0.4715	3.2205
223	SLE RA 17	14.47	-7	70.35	-8.5092	0.4702	3.2065
223	SLE RA 18	14.82	-7.25	72	-8.6917	0.4821	3.2882
223	SLE RA 19	14.78	-7.17	71.73	-8.6712	0.4808	3.2742
223	SLE RA 20	15.02	-7.3	72.78	-8.8012	0.4889	3.3324
223	SLE RA 21	14.98	-7.22	72.52	-8.7807	0.4876	3.3184
223	SLE FR 1	12.48	-6.37	62.14	-7.4219	0.4013	2.7678
223	SLE FR 2	12.46	-6.35	62.05	-7.415	0.4009	2.7632
223	SLE FR 3	12.56	-6.39	62.45	-7.4656	0.4041	2.7855
223	SLE FR 4	13.17	-6.61	65.01	-7.796	0.4251	2.9193
223	SLE FR 5	13.26	-6.66	65.41	-7.8466	0.4283	2.9416
223	SLE FR 6	13.65	-6.81	67.07	-8.0568	0.4417	3.028
223	SLE QP 1	12.48	-6.37	62.14	-7.4219	0.4013	2.7678
223	SLE QP 2	13.18	-6.64	65.1	-7.8028	0.4256	2.9239
223	SLD 1	19.42	-8.38	89.44	-11.1144	0.6511	4.3267
223	SLD 2	19.42	-8.38	89.44	-11.1144	0.6511	4.3267
223	SLD 3	19.95	-10.3	95.09	-11.3479	0.6748	4.4305
223	SLD 4	19.95	-10.3	95.09	-11.3479	0.6748	4.4305
223	SLD 5	14.24	-4.25	63.83	-8.442	0.4573	3.1874
223	SLD 6	14.24	-4.25	63.83	-8.442	0.4573	3.1874
223	SLD 7	16.02	-10.64	82.66	-9.2206	0.5362	3.5332
223	SLD 8	16.02	-10.64	82.66	-9.2206	0.5362	3.5332
223	SLD 9	10.34	-2.63	47.53	-6.385	0.3149	2.3146
223	SLD 10	10.34	-2.63	47.53	-6.385	0.3149	2.3146
223	SLD 11	12.12	-9.02	66.36	-7.1636	0.3938	2.6604



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
223	SLD 12	12.12	-9.02	66.36	-7.1636	0.3938	2.6604
223	SLD 13	6.41	-2.98	35.1	-4.2577	0.1763	1.4174
223	SLD 14	6.41	-2.98	35.1	-4.2577	0.1763	1.4174
223	SLD 15	6.94	-4.89	40.75	-4.4913	0.2	1.5211
223	SLD 16	6.94	-4.89	40.75	-4.4913	0.2	1.5211
223	SLV 1	27.76	-10.73	122.01	-15.5384	0.9519	6.2024
223	SLV 2	27.76	-10.73	122.01	-15.5384	0.9519	6.2024
223	SLV 3	29.04	-15.18	135.15	-16.0918	1.0094	6.4487
223	SLV 4	29.04	-15.18	135.15	-16.0918	1.0094	6.4487
223	SLV 5	15.6	-1.12	62.25	-9.2842	0.4962	3.5339
223	SLV 6	15.6	-1.12	62.25	-9.2842	0.4962	3.5339
223	SLV 7	19.89	-15.94	106.03	-11.1288	0.688	4.355
223	SLV 8	19.89	-15.94	106.03	-11.1288	0.688	4.355
223	SLV 9	6.47	2.67	24.16	-4.4768	0.1632	1.4929
223	SLV 10	6.47	2.67	24.16	-4.4768	0.1632	1.4929
223	SLV 11	10.76	-12.15	67.95	-6.3214	0.3549	2.314
223	SLV 12	10.76	-12.15	67.95	-6.3214	0.3549	2.314
223	SLV 13	-2.68	1.91	-4.95	0.4862	-0.1583	-0.6008
223	SLV 14	-2.68	1.91	-4.95	0.4862	-0.1583	-0.6008
223	SLV 15	-1.39	-2.54	8.18	-0.0672	-0.1008	-0.3545
223	SLV 16	-1.39	-2.54	8.18	-0.0672	-0.1008	-0.3545
225	SLU 1	0	7.54	27.89	-0.205	0.0006	-0.0001
225	SLU 2	0	7.48	27.6	-0.2038	0.0004	-0.0001
225	SLU 3	0	7.94	29.34	-0.2169	0.0007	-0.0001
225	SLU 4	0	7.91	29.17	-0.2162	0.0006	-0.0001
225	SLU 5	0	7.86	28.92	-0.2154	0.0004	-0.0001
225	SLU 6	0	8.32	30.66	-0.2285	0.0008	-0.0001
225	SLU 7	0	8.28	30.48	-0.2278	0.0006	-0.0001
225	SLU 8	0	8.29	30.52	-0.2283	0.0008	-0.0001
225	SLU 9	0	8.26	30.35	-0.2275	0.0006	-0.0001
225	SLU 10	0	8.7	32.28	-0.2359	0.0005	-0.0001
225	SLU 11	0	9.16	34.02	-0.249	0.0009	-0.0001
225	SLU 12	0	9.13	33.85	-0.2483	0.0007	-0.0001
225	SLU 13	0	9.08	33.6	-0.2475	0.0006	-0.0001
225	SLU 14	0	9.54	35.34	-0.2607	0.0009	-0.0002
225	SLU 15	0	9.5	35.16	-0.2599	0.0008	-0.0001
225	SLU 16	0	9.51	35.2	-0.2604	0.0009	-0.0002
225	SLU 17	0	9.48	35.03	-0.2596	0.0008	-0.0001
225	SLU 18	0	9.29	34.57	-0.2508	0.0009	-0.0002
225	SLU 19	0	9.25	34.4	-0.2501	0.0007	-0.0001
225	SLU 20	0	9.66	35.89	-0.2625	0.0009	-0.0002
225	SLU 21	0	9.63	35.72	-0.2618	0.0008	-0.0001
225	SLU 22	0	8.79	32.58	-0.2387	0.0008	-0.0001
225	SLU 23	0	8.73	32.29	-0.2375	0.0005	-0.0001
225	SLU 24	0	9.19	34.03	-0.2506	0.0009	-0.0001
225	SLU 25	0	9.15	33.86	-0.2499	0.0007	-0.0001
225	SLU 26	0	9.1	33.61	-0.2491	0.0006	-0.0001
225	SLU 27	0	9.56	35.35	-0.2623	0.0009	-0.0002
225	SLU 28	0	9.53	35.18	-0.2615	0.0008	-0.0001
225	SLU 29	0	9.54	35.22	-0.262	0.0009	-0.0002
225	SLU 30	0	9.5	35.04	-0.2612	0.0008	-0.0001
225	SLU 31	0	9.95	36.97	-0.2696	0.0007	-0.0001
225	SLU 32	0	10.41	38.71	-0.2827	0.001	-0.0002
225	SLU 33	0	10.38	38.54	-0.282	0.0009	-0.0002
225	SLU 34	0	10.32	38.29	-0.2812	0.0008	-0.0001
225	SLU 35	0	10.79	40.03	-0.2944	0.0011	-0.0002
225	SLU 36	0	10.75	39.86	-0.2936	0.0009	-0.0002
225	SLU 37	0	10.76	39.9	-0.2941	0.0011	-0.0002
225	SLU 38	0	10.72	39.72	-0.2934	0.0009	-0.0002
225	SLU 39	0	10.53	39.27	-0.2846	0.001	-0.0002
225	SLU 40	0	10.5	39.09	-0.2838	0.0009	-0.0002
225	SLU 41	0	10.91	40.58	-0.2962	0.0011	-0.0002
225	SLU 42	0	10.87	40.41	-0.2955	0.0009	-0.0002
225	SLU 43	0	9.38	34.64	-0.2549	0.0008	-0.0001
225	SLU 44	0	9.32	34.36	-0.2537	0.0005	-0.0001
225	SLU 45	0	9.78	36.1	-0.2668	0.0008	-0.0001
225	SLU 46	0	9.74	35.92	-0.2661	0.0007	-0.0001
225	SLU 47	0	9.69	35.67	-0.2653	0.0006	-0.0001
225	SLU 48	0	10.15	37.41	-0.2785	0.0009	-0.0002
225	SLU 49	0	10.12	37.24	-0.2777	0.0007	-0.0001
225	SLU 50	0	10.13	37.28	-0.2782	0.0009	-0.0002
225	SLU 51	0	10.09	37.11	-0.2775	0.0007	-0.0001
225	SLU 52	0	10.54	39.04	-0.2858	0.0007	-0.0001
225	SLU 53	0	11	40.78	-0.2989	0.001	-0.0002
225	SLU 54	0	10.96	40.6	-0.2982	0.0008	-0.0001
225	SLU 55	0	10.91	40.35	-0.2974	0.0007	-0.0001
225	SLU 56	0	11.37	42.09	-0.3106	0.0011	-0.0002
225	SLU 57	0	11.34	41.92	-0.3099	0.0009	-0.0002
225	SLU 58	0	11.35	41.96	-0.3103	0.0011	-0.0002
225	SLU 59	0	11.31	41.79	-0.3096	0.0009	-0.0002
225	SLU 60	0	11.12	41.33	-0.3008	0.001	-0.0002
225	SLU 61	0	11.09	41.16	-0.3	0.0008	-0.0001
225	SLU 62	0	11.5	42.65	-0.3124	0.0011	-0.0002
225	SLU 63	0	11.46	42.47	-0.3117	0.0009	-0.0002
225	SLU 64	0	10.62	39.34	-0.2886	0.0009	-0.0002
225	SLU 65	0	10.56	39.05	-0.2874	0.0007	-0.0001
225	SLU 66	0	11.02	40.79	-0.3005	0.001	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
225	SLU 67	0	10.99	40.62	-0.2998	0.0008	-0.0001
225	SLU 68	0	10.94	40.37	-0.299	0.0007	-0.0001
225	SLU 69	0	11.4	42.11	-0.3122	0.0011	-0.0002
225	SLU 70	0	11.36	41.94	-0.3115	0.0009	-0.0002
225	SLU 71	0	11.37	41.97	-0.3119	0.0011	-0.0002
225	SLU 72	0	11.34	41.8	-0.3112	0.0009	-0.0002
225	SLU 73	0	11.78	43.73	-0.3195	0.0008	-0.0001
225	SLU 74	0	12.25	45.47	-0.3327	0.0012	-0.0002
225	SLU 75	0	12.21	45.3	-0.3319	0.001	-0.0002
225	SLU 76	0	12.16	45.05	-0.3312	0.0009	-0.0002
225	SLU 77	0	12.62	46.79	-0.3443	0.0012	-0.0002
225	SLU 78	0	12.59	46.62	-0.3436	0.0011	-0.0002
225	SLU 79	0	12.59	46.65	-0.344	0.0012	-0.0002
225	SLU 80	0	12.56	46.48	-0.3433	0.0011	-0.0002
225	SLU 81	0	12.37	46.02	-0.3345	0.0012	-0.0002
225	SLU 82	0	12.33	45.85	-0.3338	0.001	-0.0002
225	SLU 83	0	12.74	47.34	-0.3461	0.0012	-0.0002
225	SLU 84	0	12.71	47.17	-0.3454	0.0011	-0.0002
225	SLE RA 1	0	7.9	29.23	-0.2146	0.0007	-0.0001
225	SLE RA 2	0	7.86	29.04	-0.2138	0.0005	-0.0001
225	SLE RA 3	0	8.16	30.2	-0.2226	0.0007	-0.0001
225	SLE RA 4	0	8.14	30.08	-0.2221	0.0006	-0.0001
225	SLE RA 5	0	8.11	29.91	-0.2216	0.0006	-0.0001
225	SLE RA 6	0	8.41	31.07	-0.2303	0.0008	-0.0001
225	SLE RA 7	0	8.39	30.96	-0.2298	0.0007	-0.0001
225	SLE RA 8	0	8.4	30.98	-0.2301	0.0008	-0.0001
225	SLE RA 9	0	8.37	30.87	-0.2296	0.0007	-0.0001
225	SLE RA 10	0	8.67	32.16	-0.2352	0.0006	-0.0001
225	SLE RA 11	0	8.98	33.32	-0.244	0.0008	-0.0001
225	SLE RA 12	0	8.96	33.2	-0.2435	0.0007	-0.0001
225	SLE RA 13	0	8.92	33.03	-0.243	0.0007	-0.0001
225	SLE RA 14	0	9.23	34.19	-0.2517	0.0009	-0.0001
225	SLE RA 15	0	9.21	34.08	-0.2512	0.0008	-0.0001
225	SLE RA 16	0	9.21	34.1	-0.2515	0.0009	-0.0001
225	SLE RA 17	0	9.19	33.99	-0.2511	0.0008	-0.0001
225	SLE RA 18	0	9.06	33.69	-0.2452	0.0008	-0.0001
225	SLE RA 19	0	9.04	33.57	-0.2447	0.0007	-0.0001
225	SLE RA 20	0	9.31	34.56	-0.2529	0.0009	-0.0002
225	SLE RA 21	0	9.29	34.45	-0.2525	0.0008	-0.0001
225	SLE FR 1	0	7.9	29.23	-0.2146	0.0007	-0.0001
225	SLE FR 2	0	7.89	29.19	-0.2144	0.0006	-0.0001
225	SLE FR 3	0	8	29.58	-0.2177	0.0007	-0.0001
225	SLE FR 4	0	8.24	30.53	-0.2236	0.0007	-0.0001
225	SLE FR 5	0	8.35	30.92	-0.2269	0.0007	-0.0001
225	SLE FR 6	0	8.48	31.46	-0.2299	0.0008	-0.0001
225	SLE QP 1	0	7.9	29.23	-0.2146	0.0007	-0.0001
225	SLE QP 2	0	8.25	30.57	-0.2238	0.0007	-0.0001
225	SLD 1	-0.27	8.47	31.48	-0.2312	0.042	-0.0045
225	SLD 2	-0.27	8.47	31.48	-0.2312	0.042	-0.0045
225	SLD 3	-0.32	5.73	23.85	-0.1301	0.0306	-0.0027
225	SLD 4	-0.32	5.73	23.85	-0.1301	0.0306	-0.0027
225	SLD 5	0	12.46	42.41	-0.3794	0.0304	-0.0042
225	SLD 6	0	12.46	42.41	-0.3794	0.0304	-0.0042
225	SLD 7	-0.17	3.34	16.98	-0.0423	-0.0076	0.0019
225	SLD 8	-0.17	3.34	16.98	-0.0423	-0.0076	0.0019
225	SLD 9	0.17	13.15	44.15	-0.4053	0.0091	-0.0021
225	SLD 10	0.17	13.15	44.15	-0.4053	0.0091	-0.0021
225	SLD 11	0.01	4.03	18.72	-0.0682	-0.0289	0.004
225	SLD 12	0.01	4.03	18.72	-0.0682	-0.0289	0.004
225	SLD 13	0.32	10.76	37.29	-0.3175	-0.0291	0.0025
225	SLD 14	0.32	10.76	37.29	-0.3175	-0.0291	0.0025
225	SLD 15	0.27	8.02	29.66	-0.2163	-0.0405	0.0043
225	SLD 16	0.27	8.02	29.66	-0.2163	-0.0405	0.0043
225	SLV 1	-0.69	8.73	32.56	-0.24	0.106	-0.0113
225	SLV 2	-0.69	8.73	32.56	-0.24	0.106	-0.0113
225	SLV 3	-0.82	2.28	14.56	-0.0016	0.0769	-0.0066
225	SLV 4	-0.82	2.28	14.56	-0.0016	0.0769	-0.0066
225	SLV 5	-0.01	18.17	58.47	-0.5902	0.0764	-0.0105
225	SLV 6	-0.01	18.17	58.47	-0.5902	0.0764	-0.0105
225	SLV 7	-0.44	-3.32	-1.54	0.2044	-0.0205	0.005
225	SLV 8	-0.44	-3.32	-1.54	0.2044	-0.0205	0.005
225	SLV 9	0.44	19.81	62.67	-0.6519	0.022	-0.0052
225	SLV 10	0.44	19.81	62.67	-0.6519	0.022	-0.0052
225	SLV 11	0.01	-1.68	2.66	0.1426	-0.075	0.0103
225	SLV 12	0.01	-1.68	2.66	0.1426	-0.075	0.0103
225	SLV 13	0.82	14.21	46.57	-0.4459	-0.0755	0.0064
225	SLV 14	0.82	14.21	46.57	-0.4459	-0.0755	0.0064
225	SLV 15	0.69	7.76	28.57	-0.2076	-0.1046	0.011
225	SLV 16	0.69	7.76	28.57	-0.2076	-0.1046	0.011
226	SLU 1	0	7.1	25.59	-0.2128	-0.0011	0.0002
226	SLU 2	0	7.06	25.33	-0.2124	-0.0008	0.0001
226	SLU 3	0	7.39	26.63	-0.2214	-0.0012	0.0002
226	SLU 4	0	7.36	26.47	-0.2212	-0.001	0.0002
226	SLU 5	0	7.3	26.18	-0.2198	-0.0008	0.0001
226	SLU 6	0	7.63	27.48	-0.2287	-0.0013	0.0002
226	SLU 7	0	7.6	27.33	-0.2285	-0.0011	0.0002
226	SLU 8	0	7.58	27.3	-0.2275	-0.0013	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
226	SLU 9	0	7.56	27.14	-0.2273	-0.0011	0.0002
226	SLU 10	0	8.26	29.79	-0.2474	-0.001	0.0002
226	SLU 11	0	8.59	31.09	-0.2563	-0.0015	0.0002
226	SLU 12	0	8.56	30.93	-0.2561	-0.0013	0.0002
226	SLU 13	0	8.5	30.65	-0.2547	-0.0011	0.0002
226	SLU 14	0	8.83	31.94	-0.2637	-0.0016	0.0002
226	SLU 15	0	8.81	31.79	-0.2635	-0.0013	0.0002
226	SLU 16	0	8.79	31.76	-0.2625	-0.0016	0.0002
226	SLU 17	0	8.76	31.61	-0.2622	-0.0013	0.0002
226	SLU 18	0	8.82	31.96	-0.2627	-0.0015	0.0002
226	SLU 19	0	8.79	31.81	-0.2625	-0.0013	0.0002
226	SLU 20	0	9.06	32.82	-0.2701	-0.0016	0.0002
226	SLU 21	0	9.03	32.66	-0.2698	-0.0014	0.0002
226	SLU 22	0	8.27	29.91	-0.247	-0.0014	0.0002
226	SLU 23	0	8.23	29.65	-0.2467	-0.001	0.0002
226	SLU 24	0	8.56	30.95	-0.2556	-0.0015	0.0002
226	SLU 25	0	8.53	30.79	-0.2554	-0.0013	0.0002
226	SLU 26	0	8.47	30.5	-0.254	-0.0011	0.0002
226	SLU 27	0	8.8	31.8	-0.263	-0.0016	0.0002
226	SLU 28	0	8.77	31.65	-0.2628	-0.0013	0.0002
226	SLU 29	0	8.76	31.62	-0.2618	-0.0016	0.0002
226	SLU 30	0	8.73	31.46	-0.2616	-0.0013	0.0002
226	SLU 31	0	9.43	34.11	-0.2816	-0.0013	0.0002
226	SLU 32	0	9.76	35.41	-0.2905	-0.0018	0.0003
226	SLU 33	0	9.73	35.25	-0.2903	-0.0015	0.0002
226	SLU 34	0	9.67	34.97	-0.289	-0.0014	0.0002
226	SLU 35	0	10	36.26	-0.2979	-0.0018	0.0003
226	SLU 36	0	9.98	36.11	-0.2977	-0.0016	0.0002
226	SLU 37	0	9.96	36.08	-0.2967	-0.0018	0.0003
226	SLU 38	0	9.93	35.93	-0.2965	-0.0016	0.0002
226	SLU 39	0	9.99	36.28	-0.2969	-0.0018	0.0003
226	SLU 40	0	9.96	36.13	-0.2967	-0.0015	0.0002
226	SLU 41	0	10.23	37.14	-0.3043	-0.0019	0.0003
226	SLU 42	0	10.2	36.98	-0.3041	-0.0016	0.0002
226	SLU 43	0	8.83	31.78	-0.2649	-0.0014	0.0002
226	SLU 44	0	8.78	31.52	-0.2645	-0.001	0.0002
226	SLU 45	0	9.12	32.82	-0.2735	-0.0015	0.0002
226	SLU 46	0	9.09	32.67	-0.2732	-0.0013	0.0002
226	SLU 47	0	9.03	32.38	-0.2719	-0.0011	0.0002
226	SLU 48	0	9.36	33.68	-0.2808	-0.0016	0.0002
226	SLU 49	0	9.33	33.52	-0.2806	-0.0013	0.0002
226	SLU 50	0	9.31	33.49	-0.2796	-0.0016	0.0002
226	SLU 51	0	9.29	33.34	-0.2794	-0.0013	0.0002
226	SLU 52	0	9.99	35.99	-0.2995	-0.0013	0.0002
226	SLU 53	0	10.32	37.28	-0.3084	-0.0018	0.0003
226	SLU 54	0	10.29	37.13	-0.3082	-0.0015	0.0002
226	SLU 55	0	10.23	36.84	-0.3068	-0.0014	0.0002
226	SLU 56	0	10.56	38.14	-0.3158	-0.0018	0.0003
226	SLU 57	0	10.53	37.98	-0.3156	-0.0016	0.0002
226	SLU 58	0	10.52	37.96	-0.3146	-0.0018	0.0003
226	SLU 59	0	10.49	37.8	-0.3143	-0.0016	0.0002
226	SLU 60	0	10.54	38.16	-0.3148	-0.0018	0.0003
226	SLU 61	0	10.52	38	-0.3146	-0.0015	0.0002
226	SLU 62	0	10.79	39.02	-0.3222	-0.0019	0.0003
226	SLU 63	0	10.76	38.86	-0.3219	-0.0016	0.0002
226	SLU 64	0	10	36.1	-0.2991	-0.0017	0.0003
226	SLU 65	0	9.95	35.84	-0.2988	-0.0013	0.0002
226	SLU 66	0	10.29	37.14	-0.3077	-0.0018	0.0003
226	SLU 67	0	10.26	36.99	-0.3075	-0.0015	0.0002
226	SLU 68	0	10.2	36.7	-0.3061	-0.0014	0.0002
226	SLU 69	0	10.53	38	-0.3151	-0.0018	0.0003
226	SLU 70	0	10.5	37.84	-0.3149	-0.0016	0.0002
226	SLU 71	0	10.48	37.81	-0.3139	-0.0018	0.0003
226	SLU 72	0	10.46	37.66	-0.3136	-0.0016	0.0002
226	SLU 73	0	11.16	40.31	-0.3337	-0.0015	0.0002
226	SLU 74	0	11.49	41.6	-0.3426	-0.002	0.0003
226	SLU 75	0	11.46	41.45	-0.3424	-0.0018	0.0003
226	SLU 76	0	11.4	41.16	-0.3411	-0.0016	0.0002
226	SLU 77	0	11.73	42.46	-0.35	-0.0021	0.0003
226	SLU 78	0	11.71	42.3	-0.3498	-0.0019	0.0003
226	SLU 79	0	11.69	42.28	-0.3488	-0.0021	0.0003
226	SLU 80	0	11.66	42.12	-0.3486	-0.0018	0.0003
226	SLU 81	0	11.71	42.48	-0.349	-0.002	0.0003
226	SLU 82	0	11.69	42.32	-0.3488	-0.0018	0.0003
226	SLU 83	0	11.96	43.34	-0.3564	-0.0021	0.0003
226	SLU 84	0	11.93	43.18	-0.3562	-0.0019	0.0003
226	SLE RA 1	0	7.43	26.82	-0.2226	-0.0012	0.0002
226	SLE RA 2	0	7.4	26.65	-0.2223	-0.001	0.0001
226	SLE RA 3	0	7.63	27.51	-0.2283	-0.0013	0.0002
226	SLE RA 4	0	7.61	27.41	-0.2281	-0.0011	0.0002
226	SLE RA 5	0	7.57	27.22	-0.2272	-0.001	0.0002
226	SLE RA 6	0	7.79	28.08	-0.2332	-0.0013	0.0002
226	SLE RA 7	0	7.77	27.98	-0.2331	-0.0012	0.0002
226	SLE RA 8	0	7.76	27.96	-0.2324	-0.0013	0.0002
226	SLE RA 9	0	7.74	27.86	-0.2323	-0.0012	0.0002
226	SLE RA 10	0	8.21	29.63	-0.2456	-0.0011	0.0002
226	SLE RA 11	0	8.43	30.49	-0.2516	-0.0015	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
226	SLE RA 12	0	8.41	30.39	-0.2514	-0.0013	0.0002
226	SLE RA 13	0	8.37	30.2	-0.2505	-0.0012	0.0002
226	SLE RA 14	0	8.59	31.06	-0.2565	-0.0015	0.0002
226	SLE RA 15	0	8.57	30.96	-0.2564	-0.0014	0.0002
226	SLE RA 16	0	8.56	30.94	-0.2557	-0.0015	0.0002
226	SLE RA 17	0	8.54	30.83	-0.2555	-0.0013	0.0002
226	SLE RA 18	0	8.58	31.07	-0.2558	-0.0015	0.0002
226	SLE RA 19	0	8.56	30.97	-0.2557	-0.0013	0.0002
226	SLE RA 20	0	8.74	31.64	-0.2608	-0.0015	0.0002
226	SLE RA 21	0	8.72	31.54	-0.2606	-0.0014	0.0002
226	SLE FR 1	0	7.43	26.82	-0.2226	-0.0012	0.0002
226	SLE FR 2	0	7.43	26.79	-0.2225	-0.0012	0.0002
226	SLE FR 3	0	7.5	27.05	-0.2245	-0.0012	0.0002
226	SLE FR 4	0	7.77	28.06	-0.2325	-0.0012	0.0002
226	SLE FR 5	0	7.84	28.33	-0.2345	-0.0013	0.0002
226	SLE FR 6	0	8.01	28.95	-0.2392	-0.0013	0.0002
226	SLE QP 1	0	7.43	26.82	-0.2226	-0.0012	0.0002
226	SLE QP 2	0	7.78	28.1	-0.2326	-0.0013	0.0002
226	SLD 1	-0.33	9.82	33.53	-0.3139	0.024	-0.002
226	SLD 2	-0.33	9.82	33.53	-0.3139	0.024	-0.002
226	SLD 3	-0.25	7.54	27.58	-0.2217	0.0385	-0.0043
226	SLD 4	-0.25	7.54	27.58	-0.2217	0.0385	-0.0043
226	SLD 5	-0.21	11.83	38.75	-0.3967	-0.0157	0.003
226	SLD 6	-0.21	11.83	38.75	-0.3967	-0.0157	0.003
226	SLD 7	0.04	4.26	18.92	-0.0895	0.0327	-0.0046
226	SLD 8	0.04	4.26	18.92	-0.0895	0.0327	-0.0046
226	SLD 9	-0.04	11.29	37.28	-0.3756	-0.0353	0.005
226	SLD 10	-0.04	11.29	37.28	-0.3756	-0.0353	0.005
226	SLD 11	0.22	3.72	17.44	-0.0684	0.0132	-0.0026
226	SLD 12	0.22	3.72	17.44	-0.0684	0.0132	-0.0026
226	SLD 13	0.26	8.01	28.61	-0.2434	-0.0411	0.0047
226	SLD 14	0.26	8.01	28.61	-0.2434	-0.0411	0.0047
226	SLD 15	0.33	5.74	22.66	-0.1512	-0.0266	0.0024
226	SLD 16	0.33	5.74	22.66	-0.1512	-0.0266	0.0024
226	SLV 1	-0.85	12.62	41.03	-0.4255	0.0625	-0.0052
226	SLV 2	-0.85	12.62	41.03	-0.4255	0.0625	-0.0052
226	SLV 3	-0.65	7.27	27.01	-0.2086	0.0995	-0.0111
226	SLV 4	-0.65	7.27	27.01	-0.2086	0.0995	-0.0111
226	SLV 5	-0.55	17.34	53.23	-0.6195	-0.0383	0.0074
226	SLV 6	-0.55	17.34	53.23	-0.6195	-0.0383	0.0074
226	SLV 7	0.1	-0.48	6.52	0.1036	0.0851	-0.0121
226	SLV 8	0.1	-0.48	6.52	0.1036	0.0851	-0.0121
226	SLV 9	-0.1	16.04	49.68	-0.5687	-0.0877	0.0125
226	SLV 10	-0.1	16.04	49.68	-0.5687	-0.0877	0.0125
226	SLV 11	0.55	-1.79	2.96	0.1543	0.0357	-0.007
226	SLV 12	0.55	-1.79	2.96	0.1543	0.0357	-0.007
226	SLV 13	0.65	8.28	29.18	-0.2565	-0.1021	0.0115
226	SLV 14	0.65	8.28	29.18	-0.2565	-0.1021	0.0115
226	SLV 15	0.85	2.93	15.17	-0.0396	-0.0651	0.0056
226	SLV 16	0.85	2.93	15.17	-0.0396	-0.0651	0.0056
227	SLU 1	0	5.71	19.47	-0.1475	-0.0002	0
227	SLU 2	0	5.71	19.46	-0.1475	-0.0002	0
227	SLU 3	0	5.35	18.17	-0.1369	-0.0002	0
227	SLU 4	0	5.35	18.17	-0.1368	-0.0001	0
227	SLU 5	0	5.17	17.54	-0.1319	0	0
227	SLU 6	0	4.81	16.25	-0.1213	-0.0001	0
227	SLU 7	0	4.81	16.25	-0.1213	0	0
227	SLU 8	0	4.63	15.62	-0.1164	0	0
227	SLU 9	0	4.63	15.61	-0.1163	0	0
227	SLU 10	0	6.78	23.08	-0.1756	0.0001	0
227	SLU 11	0	6.42	21.8	-0.165	0.0001	0
227	SLU 12	0	6.42	21.8	-0.165	0.0001	0
227	SLU 13	0	6.24	21.16	-0.16	0.0002	0
227	SLU 14	0	5.88	19.87	-0.1494	0.0002	0
227	SLU 15	0	5.88	19.87	-0.1494	0.0003	0
227	SLU 16	0	5.7	19.24	-0.1445	0.0002	0
227	SLU 17	0	5.7	19.24	-0.1445	0.0003	0
227	SLU 18	0	7.24	24.64	-0.1877	0.0001	0
227	SLU 19	0	7.24	24.64	-0.1877	0.0002	0
227	SLU 20	0	6.7	22.72	-0.1722	0.0003	0
227	SLU 21	0	6.7	22.72	-0.1721	0.0003	0
227	SLU 22	0	6.44	21.91	-0.1661	-0.0001	0
227	SLU 23	0	6.44	21.9	-0.166	0	0
227	SLU 24	0	6.08	20.62	-0.1554	0	0
227	SLU 25	0	6.08	20.61	-0.1554	0	0
227	SLU 26	0	5.9	19.98	-0.1504	0.0001	0
227	SLU 27	0	5.54	18.69	-0.1399	0.0001	0
227	SLU 28	0	5.54	18.69	-0.1398	0.0002	0
227	SLU 29	0	5.36	18.06	-0.1349	0.0002	0
227	SLU 30	0	5.36	18.06	-0.1349	0.0002	0
227	SLU 31	0	7.51	25.53	-0.1942	0.0003	0
227	SLU 32	0	7.15	24.24	-0.1836	0.0003	0
227	SLU 33	0	7.15	24.24	-0.1835	0.0003	0
227	SLU 34	0	6.97	23.6	-0.1786	0.0004	-0.0001
227	SLU 35	0	6.62	22.32	-0.168	0.0004	0
227	SLU 36	0	6.62	22.31	-0.168	0.0004	-0.0001
227	SLU 37	0	6.44	21.69	-0.1631	0.0004	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
227	SLU 38	0	6.44	21.68	-0.163	0.0005	-0.0001
227	SLU 39	0	7.97	27.09	-0.2063	0.0003	0
227	SLU 40	0	7.97	27.08	-0.2062	0.0004	0
227	SLU 41	0	7.43	25.16	-0.1907	0.0004	-0.0001
227	SLU 42	0	7.43	25.16	-0.1907	0.0005	-0.0001
227	SLU 43	0	7.17	24.47	-0.1854	-0.0004	0.0001
227	SLU 44	0	7.17	24.46	-0.1854	-0.0003	0.0001
227	SLU 45	0	6.81	23.18	-0.1748	-0.0003	0.0001
227	SLU 46	0	6.81	23.17	-0.1747	-0.0003	0.0001
227	SLU 47	0	6.63	22.54	-0.1698	-0.0002	0
227	SLU 48	0	6.27	21.25	-0.1592	-0.0002	0
227	SLU 49	0	6.27	21.25	-0.1592	-0.0001	0
227	SLU 50	0	6.09	20.62	-0.1543	-0.0002	0
227	SLU 51	0	6.09	20.62	-0.1542	-0.0001	0
227	SLU 52	0	8.24	28.09	-0.2135	0	0
227	SLU 53	0	7.88	26.8	-0.2029	0	0
227	SLU 54	0	7.88	26.8	-0.2029	0	0
227	SLU 55	0	7.7	26.16	-0.1979	0.0001	0
227	SLU 56	0	7.35	24.88	-0.1873	0.0001	0
227	SLU 57	0	7.34	24.87	-0.1873	0.0001	0
227	SLU 58	0	7.17	24.24	-0.1824	0.0001	0
227	SLU 59	0	7.16	24.24	-0.1824	0.0002	0
227	SLU 60	0	8.7	29.65	-0.2256	0	0
227	SLU 61	0	8.7	29.64	-0.2256	0.0001	0
227	SLU 62	0	8.16	27.72	-0.2101	0.0001	0
227	SLU 63	0	8.16	27.72	-0.21	0.0002	0
227	SLU 64	0	7.9	26.91	-0.204	-0.0002	0
227	SLU 65	0	7.9	26.9	-0.2039	-0.0001	0
227	SLU 66	0	7.54	25.62	-0.1933	-0.0001	0
227	SLU 67	0	7.54	25.62	-0.1933	-0.0001	0
227	SLU 68	0	7.36	24.98	-0.1883	0	0
227	SLU 69	0	7.01	23.69	-0.1778	0	0
227	SLU 70	0	7	23.69	-0.1777	0	0
227	SLU 71	0	6.83	23.06	-0.1728	0	0
227	SLU 72	0	6.82	23.06	-0.1728	0.0001	0
227	SLU 73	0	8.97	30.53	-0.2321	0.0002	0
227	SLU 74	0	8.62	29.24	-0.2215	0.0001	0
227	SLU 75	0	8.61	29.24	-0.2214	0.0002	0
227	SLU 76	0	8.43	28.61	-0.2165	0.0003	0
227	SLU 77	0	8.08	27.32	-0.2059	0.0002	0
227	SLU 78	0	8.08	27.32	-0.2059	0.0003	0
227	SLU 79	0	7.9	26.69	-0.201	0.0003	0
227	SLU 80	0	7.9	26.68	-0.2009	0.0003	0
227	SLU 81	0	9.43	32.09	-0.2442	0.0002	0
227	SLU 82	0	9.43	32.09	-0.2441	0.0002	0
227	SLU 83	0	8.9	30.17	-0.2286	0.0003	0
227	SLU 84	0	8.89	30.16	-0.2286	0.0003	0
227	SLE RA 1	0	5.92	20.16	-0.1528	-0.0002	0
227	SLE RA 2	0	5.92	20.16	-0.1528	-0.0001	0
227	SLE RA 3	0	5.68	19.3	-0.1457	-0.0002	0
227	SLE RA 4	0	5.68	19.3	-0.1457	-0.0001	0
227	SLE RA 5	0	5.56	18.88	-0.1424	-0.0001	0
227	SLE RA 6	0	5.32	18.02	-0.1353	-0.0001	0
227	SLE RA 7	0	5.32	18.02	-0.1353	0	0
227	SLE RA 8	0	5.2	17.6	-0.1321	0	0
227	SLE RA 9	0	5.2	17.6	-0.132	0	0
227	SLE RA 10	0	6.63	22.58	-0.1715	0	0
227	SLE RA 11	0	6.39	21.72	-0.1645	0	0
227	SLE RA 12	0	6.39	21.72	-0.1645	0.0001	0
227	SLE RA 13	0	6.27	21.29	-0.1612	0.0001	0
227	SLE RA 14	0	6.04	20.44	-0.1541	0.0001	0
227	SLE RA 15	0	6.03	20.43	-0.1541	0.0001	0
227	SLE RA 16	0	5.91	20.02	-0.1508	0.0001	0
227	SLE RA 17	0	5.91	20.01	-0.1508	0.0002	0
227	SLE RA 18	0	6.94	23.62	-0.1796	0.0001	0
227	SLE RA 19	0	6.94	23.61	-0.1796	0.0001	0
227	SLE RA 20	0	6.58	22.33	-0.1692	0.0001	0
227	SLE RA 21	0	6.58	22.33	-0.1692	0.0002	0
227	SLE FR 1	0	5.92	20.16	-0.1528	-0.0002	0
227	SLE FR 2	0	5.92	20.16	-0.1528	-0.0002	0
227	SLE FR 3	0	5.77	19.65	-0.1487	-0.0002	0
227	SLE FR 4	0	6.22	21.2	-0.1609	-0.0001	0
227	SLE FR 5	0	6.08	20.69	-0.1567	-0.0001	0
227	SLE FR 6	0	6.43	21.89	-0.1662	-0.0001	0
227	SLE QP 1	0	5.92	20.16	-0.1528	-0.0002	0
227	SLE QP 2	0	6.22	21.2	-0.1609	-0.0001	0
227	SLD 1	-0.05	8.81	29.64	-0.2438	-0.0193	0.0037
227	SLD 2	-0.05	8.81	29.64	-0.2438	-0.0193	0.0037
227	SLD 3	-0.1	5.93	20.49	-0.149	-0.0358	0.0067
227	SLD 4	-0.1	5.93	20.49	-0.149	-0.0358	0.0067
227	SLD 5	0.05	11.36	37.6	-0.3297	0.0192	-0.0036
227	SLD 6	0.05	11.36	37.6	-0.3297	0.0192	-0.0036
227	SLD 7	-0.1	1.77	7.11	-0.0134	-0.0359	0.0067
227	SLD 8	-0.1	1.77	7.11	-0.0134	-0.0359	0.0067
227	SLD 9	0.09	10.68	35.29	-0.3084	0.0356	-0.0067
227	SLD 10	0.09	10.68	35.29	-0.3084	0.0356	-0.0067
227	SLD 11	-0.05	1.08	4.79	0.0079	-0.0194	0.0036



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
227	SLD 12	-0.05	1.08	4.79	0.0079	-0.0194	0.0036
227	SLD 13	0.09	6.51	21.91	-0.1728	0.0356	-0.0067
227	SLD 14	0.09	6.51	21.91	-0.1728	0.0356	-0.0067
227	SLD 15	0.05	3.64	12.76	-0.0779	0.0191	-0.0036
227	SLD 16	0.05	3.64	12.76	-0.0779	0.0191	-0.0036
227	SLV 1	-0.13	12.36	41.24	-0.3574	-0.0455	0.0086
227	SLV 2	-0.13	12.36	41.24	-0.3574	-0.0455	0.0086
227	SLV 3	-0.23	5.51	19.41	-0.132	-0.0873	0.0164
227	SLV 4	-0.23	5.51	19.41	-0.132	-0.0873	0.0164
227	SLV 5	0.13	18.46	60.33	-0.5617	0.0496	-0.0093
227	SLV 6	0.13	18.46	60.33	-0.5617	0.0496	-0.0093
227	SLV 7	-0.24	-4.38	-12.45	0.1896	-0.0896	0.0168
227	SLV 8	-0.24	-4.38	-12.45	0.1896	-0.0896	0.0168
227	SLV 9	0.23	16.83	54.85	-0.5114	0.0894	-0.0168
227	SLV 10	0.23	16.83	54.85	-0.5114	0.0894	-0.0168
227	SLV 11	-0.13	-6.01	-17.93	0.2399	-0.0498	0.0093
227	SLV 12	-0.13	-6.01	-17.93	0.2399	-0.0498	0.0093
227	SLV 13	0.23	6.94	22.99	-0.1897	0.0871	-0.0163
227	SLV 14	0.23	6.94	22.99	-0.1897	0.0871	-0.0163
227	SLV 15	0.12	0.09	1.16	0.0357	0.0453	-0.0085
227	SLV 16	0.12	0.09	1.16	0.0357	0.0453	-0.0085
228	SLU 1	0	4.47	15.27	-0.0978	0.0004	-0.0001
228	SLU 2	0	4.5	15.37	-0.0987	0.0004	-0.0001
228	SLU 3	0	3.98	13.46	-0.0824	0.0004	-0.0001
228	SLU 4	0	3.99	13.52	-0.0829	0.0004	-0.0001
228	SLU 5	0	3.81	12.89	-0.0782	0.0004	-0.0001
228	SLU 6	0	3.29	10.97	-0.062	0.0004	-0.0001
228	SLU 7	0	3.31	11.03	-0.0625	0.0004	-0.0001
228	SLU 8	0	3.1	10.3	-0.057	0.0004	-0.0001
228	SLU 9	0	3.12	10.36	-0.0575	0.0004	-0.0001
228	SLU 10	0	5.38	18.41	-0.1186	0.0004	-0.0001
228	SLU 11	0	4.85	16.49	-0.1024	0.0005	-0.0001
228	SLU 12	0	4.87	16.55	-0.1028	0.0004	-0.0001
228	SLU 13	0	4.69	15.92	-0.0981	0.0004	-0.0001
228	SLU 14	0	4.17	14.01	-0.0819	0.0005	-0.0001
228	SLU 15	0	4.19	14.07	-0.0824	0.0004	-0.0001
228	SLU 16	0	3.98	13.33	-0.0769	0.0005	-0.0001
228	SLU 17	0	4	13.39	-0.0774	0.0004	-0.0001
228	SLU 18	0	5.72	19.6	-0.1263	0.0005	-0.0001
228	SLU 19	0	5.74	19.67	-0.1268	0.0005	-0.0001
228	SLU 20	0	5.04	17.12	-0.1059	0.0005	-0.0001
228	SLU 21	0	5.06	17.18	-0.1064	0.0005	-0.0001
228	SLU 22	0	4.84	16.45	-0.1039	0.0005	-0.0001
228	SLU 23	0	4.87	16.56	-0.1047	0.0004	-0.0001
228	SLU 24	0	4.35	14.64	-0.0885	0.0005	-0.0001
228	SLU 25	0	4.36	14.71	-0.089	0.0005	-0.0001
228	SLU 26	0	4.18	14.07	-0.0842	0.0004	-0.0001
228	SLU 27	0	3.66	12.16	-0.068	0.0005	-0.0001
228	SLU 28	0	3.68	12.22	-0.0685	0.0004	-0.0001
228	SLU 29	0	3.47	11.48	-0.063	0.0005	-0.0001
228	SLU 30	0	3.49	11.54	-0.0635	0.0004	-0.0001
228	SLU 31	0	5.75	19.59	-0.1246	0.0005	-0.0001
228	SLU 32	0	5.23	17.68	-0.1084	0.0006	-0.0001
228	SLU 33	0	5.24	17.74	-0.1089	0.0005	-0.0001
228	SLU 34	0	5.06	17.1	-0.1042	0.0005	-0.0001
228	SLU 35	0	4.54	15.19	-0.0879	0.0005	-0.0001
228	SLU 36	0	4.56	15.25	-0.0884	0.0005	-0.0001
228	SLU 37	0	4.35	14.51	-0.0829	0.0005	-0.0001
228	SLU 38	0	4.37	14.58	-0.0834	0.0005	-0.0001
228	SLU 39	0	6.1	20.79	-0.1323	0.0006	-0.0001
228	SLU 40	0	6.11	20.85	-0.1328	0.0005	-0.0001
228	SLU 41	0	5.41	18.3	-0.1119	0.0006	-0.0001
228	SLU 42	0	5.43	18.36	-0.1124	0.0005	-0.0001
228	SLU 43	0	5.68	19.45	-0.1251	0.0006	-0.0001
228	SLU 44	0	5.71	19.55	-0.126	0.0005	-0.0001
228	SLU 45	0	5.19	17.63	-0.1097	0.0006	-0.0001
228	SLU 46	0	5.2	17.7	-0.1102	0.0005	-0.0001
228	SLU 47	0	5.03	17.06	-0.1055	0.0005	-0.0001
228	SLU 48	0	4.5	15.15	-0.0893	0.0005	-0.0001
228	SLU 49	0	4.52	15.21	-0.0898	0.0005	-0.0001
228	SLU 50	0	4.31	14.47	-0.0843	0.0005	-0.0001
228	SLU 51	0	4.33	14.53	-0.0848	0.0005	-0.0001
228	SLU 52	0	6.59	22.58	-0.1459	0.0005	-0.0001
228	SLU 53	0	6.07	20.67	-0.1297	0.0006	-0.0001
228	SLU 54	0	6.08	20.73	-0.1301	0.0006	-0.0001
228	SLU 55	0	5.9	20.09	-0.1254	0.0005	-0.0001
228	SLU 56	0	5.38	18.18	-0.1092	0.0006	-0.0001
228	SLU 57	0	5.4	18.24	-0.1097	0.0005	-0.0001
228	SLU 58	0	5.19	17.51	-0.1042	0.0006	-0.0001
228	SLU 59	0	5.21	17.57	-0.1047	0.0005	-0.0001
228	SLU 60	0	6.94	23.78	-0.1536	0.0006	-0.0001
228	SLU 61	0	6.95	23.84	-0.1541	0.0006	-0.0001
228	SLU 62	0	6.25	21.29	-0.1332	0.0006	-0.0001
228	SLU 63	0	6.27	21.35	-0.1336	0.0006	-0.0001
228	SLU 64	0	6.05	20.63	-0.1312	0.0006	-0.0001
228	SLU 65	0	6.08	20.73	-0.132	0.0005	-0.0001
228	SLU 66	0	5.56	18.82	-0.1158	0.0006	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
228	SLU 67	0	5.58	18.88	-0.1162	0.0006	-0.0001
228	SLU 68	0	5.4	18.25	-0.1115	0.0005	-0.0001
228	SLU 69	0	4.88	16.33	-0.0953	0.0006	-0.0001
228	SLU 70	0	4.89	16.39	-0.0958	0.0006	-0.0001
228	SLU 71	0	4.69	15.66	-0.0903	0.0006	-0.0001
228	SLU 72	0	4.7	15.72	-0.0908	0.0005	-0.0001
228	SLU 73	0	6.96	23.77	-0.1519	0.0006	-0.0001
228	SLU 74	0	6.44	21.85	-0.1357	0.0007	-0.0001
228	SLU 75	0	6.45	21.91	-0.1362	0.0006	-0.0001
228	SLU 76	0	6.28	21.28	-0.1315	0.0006	-0.0001
228	SLU 77	0	5.75	19.37	-0.1152	0.0007	-0.0001
228	SLU 78	0	5.77	19.43	-0.1157	0.0006	-0.0001
228	SLU 79	0	5.56	18.69	-0.1102	0.0006	-0.0001
228	SLU 80	0	5.58	18.75	-0.1107	0.0006	-0.0001
228	SLU 81	0	7.31	24.96	-0.1596	0.0007	-0.0002
228	SLU 82	0	7.33	25.02	-0.1601	0.0006	-0.0001
228	SLU 83	0	6.63	22.48	-0.1392	0.0007	-0.0002
228	SLU 84	0	6.64	22.54	-0.1397	0.0006	-0.0001
228	SLE RA 1	0	4.58	15.61	-0.0996	0.0005	-0.0001
228	SLE RA 2	0	4.59	15.68	-0.1001	0.0004	-0.0001
228	SLE RA 3	0	4.25	14.4	-0.0893	0.0005	-0.0001
228	SLE RA 4	0	4.26	14.44	-0.0896	0.0004	-0.0001
228	SLE RA 5	0	4.14	14.02	-0.0865	0.0004	-0.0001
228	SLE RA 6	0	3.79	12.74	-0.0757	0.0005	-0.0001
228	SLE RA 7	0	3.8	12.78	-0.076	0.0004	-0.0001
228	SLE RA 8	0	3.66	12.29	-0.0723	0.0004	-0.0001
228	SLE RA 9	0	3.67	12.33	-0.0727	0.0004	-0.0001
228	SLE RA 10	0	5.18	17.7	-0.1134	0.0004	-0.0001
228	SLE RA 11	0	4.83	16.42	-0.1026	0.0005	-0.0001
228	SLE RA 12	0	4.84	16.46	-0.1029	0.0005	-0.0001
228	SLE RA 13	0	4.72	16.04	-0.0998	0.0004	-0.0001
228	SLE RA 14	0	4.38	14.77	-0.089	0.0005	-0.0001
228	SLE RA 15	0	4.39	14.81	-0.0893	0.0005	-0.0001
228	SLE RA 16	0	4.25	14.32	-0.0856	0.0005	-0.0001
228	SLE RA 17	0	4.26	14.36	-0.0859	0.0004	-0.0001
228	SLE RA 18	0	5.41	18.5	-0.1185	0.0005	-0.0001
228	SLE RA 19	0	5.42	18.54	-0.1189	0.0005	-0.0001
228	SLE RA 20	0	4.96	16.84	-0.1049	0.0005	-0.0001
228	SLE RA 21	0	4.97	16.88	-0.1052	0.0005	-0.0001
228	SLE FR 1	0	4.58	15.61	-0.0996	0.0005	-0.0001
228	SLE FR 2	0	4.58	15.62	-0.0997	0.0005	-0.0001
228	SLE FR 3	0	4.39	14.95	-0.0941	0.0005	-0.0001
228	SLE FR 4	0	4.83	16.49	-0.1054	0.0005	-0.0001
228	SLE FR 5	0	4.64	15.81	-0.0998	0.0005	-0.0001
228	SLE FR 6	0	4.99	17.05	-0.1091	0.0005	-0.0001
228	SLE QP 1	0	4.58	15.61	-0.0996	0.0005	-0.0001
228	SLE QP 2	0	4.83	16.48	-0.1053	0.0005	-0.0001
228	SLD 1	-0.09	5.25	17.84	-0.1205	-0.0353	0.0065
228	SLD 2	-0.09	5.25	17.84	-0.1205	-0.0353	0.0065
228	SLD 3	-0.04	2.64	9.61	-0.0327	-0.0145	0.0027
228	SLD 4	-0.04	2.64	9.61	-0.0327	-0.0145	0.0027
228	SLD 5	-0.11	8.91	29.37	-0.2431	-0.0419	0.0078
228	SLD 6	-0.11	8.91	29.37	-0.2431	-0.0419	0.0078
228	SLD 7	0.08	0.21	1.93	0.0497	0.0276	-0.0051
228	SLD 8	0.08	0.21	1.93	0.0497	0.0276	-0.0051
228	SLD 9	-0.07	9.44	31.02	-0.2602	-0.0267	0.0049
228	SLD 10	-0.07	9.44	31.02	-0.2602	-0.0267	0.0049
228	SLD 11	0.12	0.74	3.58	0.0325	0.0428	-0.008
228	SLD 12	0.12	0.74	3.58	0.0325	0.0428	-0.008
228	SLD 13	0.04	7.01	23.35	-0.1778	0.0154	-0.0029
228	SLD 14	0.04	7.01	23.35	-0.1778	0.0154	-0.0029
228	SLD 15	0.1	4.4	15.11	-0.09	0.0362	-0.0068
228	SLD 16	0.1	4.4	15.11	-0.09	0.0362	-0.0068
228	SLV 1	-0.24	5.84	19.73	-0.1417	-0.0877	0.0163
228	SLV 2	-0.24	5.84	19.73	-0.1417	-0.0877	0.0163
228	SLV 3	-0.09	-0.36	0.14	0.0664	-0.0354	0.0065
228	SLV 4	-0.09	-0.36	0.14	0.0664	-0.0354	0.0065
228	SLV 5	-0.28	14.53	47.17	-0.4318	-0.1054	0.0195
228	SLV 6	-0.28	14.53	47.17	-0.4318	-0.1054	0.0195
228	SLV 7	0.19	-6.13	-18.14	0.2619	0.0691	-0.0129
228	SLV 8	0.19	-6.13	-18.14	0.2619	0.0691	-0.0129
228	SLV 9	-0.18	15.78	51.1	-0.4724	-0.0682	0.0126
228	SLV 10	-0.18	15.78	51.1	-0.4724	-0.0682	0.0126
228	SLV 11	0.29	-4.88	-14.22	0.2213	0.1063	-0.0198
228	SLV 12	0.29	-4.88	-14.22	0.2213	0.1063	-0.0198
228	SLV 13	0.1	10.01	32.81	-0.2769	0.0363	-0.0068
228	SLV 14	0.1	10.01	32.81	-0.2769	0.0363	-0.0068
228	SLV 15	0.24	3.81	13.22	-0.0688	0.0887	-0.0165
228	SLV 16	0.24	3.81	13.22	-0.0688	0.0887	-0.0165
229	SLU 1	-0.08	2.04	13.02	-0.0007	-0.0669	0.0106
229	SLU 2	-0.08	2.48	14.17	-0.0176	-0.0589	0.0094
229	SLU 3	-0.08	2.11	13.42	-0.0015	-0.0692	0.011
229	SLU 4	-0.08	2.37	14.11	-0.0116	-0.0644	0.0103
229	SLU 5	-0.08	2.55	14.52	-0.0193	-0.0604	0.0096
229	SLU 6	-0.08	2.19	13.77	-0.0032	-0.0707	0.0112
229	SLU 7	-0.08	2.45	14.46	-0.0134	-0.0659	0.0105
229	SLU 8	-0.08	2.19	13.72	-0.0042	-0.0699	0.0111



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
229	SLU 9	-0.08	2.46	14.41	-0.0143	-0.0651	0.0104
229	SLU 10	-0.08	2.52	15.03	-0.0119	-0.067	0.0107
229	SLU 11	-0.09	2.15	14.28	0.0042	-0.0772	0.0123
229	SLU 12	-0.09	2.41	14.97	-0.0059	-0.0725	0.0115
229	SLU 13	-0.09	2.6	15.38	-0.0136	-0.0685	0.0109
229	SLU 14	-0.09	2.23	14.63	0.0025	-0.0787	0.0125
229	SLU 15	-0.09	2.49	15.32	-0.0077	-0.0739	0.0118
229	SLU 16	-0.09	2.23	14.57	0.0015	-0.0779	0.0124
229	SLU 17	-0.09	2.5	15.26	-0.0086	-0.0731	0.0116
229	SLU 18	-0.09	2.1	14.25	0.0074	-0.0784	0.0124
229	SLU 19	-0.09	2.36	14.94	-0.0027	-0.0736	0.0117
229	SLU 20	-0.09	2.17	14.59	0.0057	-0.0799	0.0127
229	SLU 21	-0.09	2.44	15.29	-0.0044	-0.0751	0.0119
229	SLU 22	-0.08	2.12	14	0.0038	-0.0753	0.012
229	SLU 23	-0.09	2.55	15.15	-0.0131	-0.0673	0.0107
229	SLU 24	-0.09	2.19	14.4	0.003	-0.0776	0.0123
229	SLU 25	-0.09	2.45	15.09	-0.0071	-0.0728	0.0116
229	SLU 26	-0.09	2.63	15.49	-0.0148	-0.0688	0.011
229	SLU 27	-0.09	2.26	14.74	0.0013	-0.0791	0.0126
229	SLU 28	-0.09	2.53	15.43	-0.0089	-0.0743	0.0118
229	SLU 29	-0.09	2.27	14.69	0.0003	-0.0783	0.0124
229	SLU 30	-0.09	2.53	15.38	-0.0098	-0.0735	0.0117
229	SLU 31	-0.09	2.59	16	-0.0074	-0.0754	0.012
229	SLU 32	-0.1	2.23	15.25	0.0087	-0.0856	0.0136
229	SLU 33	-0.1	2.49	15.94	-0.0014	-0.0809	0.0129
229	SLU 34	-0.1	2.67	16.35	-0.0091	-0.0769	0.0122
229	SLU 35	-0.1	2.3	15.6	0.007	-0.0871	0.0138
229	SLU 36	-0.1	2.57	16.29	-0.0032	-0.0823	0.0131
229	SLU 37	-0.1	2.31	15.55	0.006	-0.0863	0.0137
229	SLU 38	-0.1	2.57	16.24	-0.0041	-0.0815	0.013
229	SLU 39	-0.1	2.17	15.22	0.0119	-0.0868	0.0138
229	SLU 40	-0.1	2.44	15.91	0.0018	-0.082	0.013
229	SLU 41	-0.1	2.25	15.57	0.0102	-0.0883	0.014
229	SLU 42	-0.1	2.51	16.26	0.0001	-0.0835	0.0133
229	SLU 43	-0.1	2.62	16.6	-0.0025	-0.0841	0.0134
229	SLU 44	-0.1	3.06	17.75	-0.0193	-0.0761	0.0121
229	SLU 45	-0.1	2.7	17	-0.0032	-0.0864	0.0137
229	SLU 46	-0.1	2.96	17.69	-0.0134	-0.0816	0.013
229	SLU 47	-0.1	3.14	18.09	-0.0211	-0.0776	0.0124
229	SLU 48	-0.1	2.77	17.34	-0.005	-0.0879	0.014
229	SLU 49	-0.1	3.04	18.03	-0.0151	-0.0831	0.0132
229	SLU 50	-0.1	2.78	17.29	-0.0059	-0.0871	0.0138
229	SLU 51	-0.1	3.04	17.98	-0.0161	-0.0823	0.0131
229	SLU 52	-0.1	3.1	18.61	-0.0136	-0.0842	0.0134
229	SLU 53	-0.11	2.74	17.85	0.0024	-0.0944	0.015
229	SLU 54	-0.11	3	18.54	-0.0077	-0.0896	0.0142
229	SLU 55	-0.11	3.18	18.95	-0.0154	-0.0857	0.0136
229	SLU 56	-0.11	2.81	18.2	0.0007	-0.0959	0.0152
229	SLU 57	-0.11	3.08	18.89	-0.0094	-0.0911	0.0145
229	SLU 58	-0.11	2.82	18.15	-0.0002	-0.0951	0.0151
229	SLU 59	-0.11	3.08	18.84	-0.0104	-0.0903	0.0144
229	SLU 60	-0.11	2.68	17.82	0.0057	-0.0956	0.0152
229	SLU 61	-0.11	2.95	18.51	-0.0045	-0.0908	0.0144
229	SLU 62	-0.11	2.76	18.17	0.0039	-0.0971	0.0154
229	SLU 63	-0.11	3.02	18.86	-0.0062	-0.0923	0.0147
229	SLU 64	-0.1	2.7	17.57	0.0021	-0.0925	0.0147
229	SLU 65	-0.11	3.14	18.72	-0.0148	-0.0845	0.0135
229	SLU 66	-0.11	2.77	17.97	0.0013	-0.0948	0.0151
229	SLU 67	-0.11	3.03	18.66	-0.0089	-0.09	0.0143
229	SLU 68	-0.11	3.22	19.07	-0.0166	-0.086	0.0137
229	SLU 69	-0.11	2.85	18.32	-0.0005	-0.0963	0.0153
229	SLU 70	-0.11	3.11	19.01	-0.0106	-0.0915	0.0146
229	SLU 71	-0.11	2.86	18.26	-0.0014	-0.0955	0.0152
229	SLU 72	-0.11	3.12	18.95	-0.0116	-0.0907	0.0144
229	SLU 73	-0.11	3.18	19.58	-0.0091	-0.0926	0.0147
229	SLU 74	-0.12	2.81	18.83	0.007	-0.1028	0.0163
229	SLU 75	-0.12	3.08	19.52	-0.0032	-0.098	0.0156
229	SLU 76	-0.12	3.26	19.92	-0.0109	-0.0941	0.015
229	SLU 77	-0.12	2.89	19.17	0.0052	-0.1043	0.0166
229	SLU 78	-0.12	3.15	19.86	-0.0049	-0.0995	0.0158
229	SLU 79	-0.12	2.9	19.12	0.0043	-0.1035	0.0164
229	SLU 80	-0.12	3.16	19.81	-0.0059	-0.0987	0.0157
229	SLU 81	-0.12	2.76	18.8	0.0102	-0.104	0.0165
229	SLU 82	-0.12	3.02	19.49	0.0001	-0.0992	0.0158
229	SLU 83	-0.12	2.84	19.14	0.0084	-0.1055	0.0167
229	SLU 84	-0.12	3.1	19.83	-0.0017	-0.1007	0.016
229	SLE RA 1	-0.08	2.06	13.3	0.0006	-0.0693	0.011
229	SLE RA 2	-0.08	2.35	14.07	-0.0107	-0.064	0.0102
229	SLE RA 3	-0.08	2.11	13.57	0.0001	-0.0708	0.0112
229	SLE RA 4	-0.08	2.28	14.03	-0.0067	-0.0676	0.0108
229	SLE RA 5	-0.08	2.4	14.3	-0.0118	-0.065	0.0103
229	SLE RA 6	-0.08	2.16	13.8	-0.0011	-0.0718	0.0114
229	SLE RA 7	-0.08	2.34	14.26	-0.0079	-0.0686	0.0109
229	SLE RA 8	-0.08	2.16	13.76	-0.0017	-0.0713	0.0113
229	SLE RA 9	-0.08	2.34	14.22	-0.0085	-0.0681	0.0108
229	SLE RA 10	-0.08	2.38	14.64	-0.0069	-0.0694	0.011
229	SLE RA 11	-0.09	2.14	14.14	0.0039	-0.0762	0.0121



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
229	SLE RA 12	-0.09	2.31	14.6	-0.0029	-0.073	0.0116
229	SLE RA 13	-0.09	2.43	14.87	-0.008	-0.0703	0.0112
229	SLE RA 14	-0.09	2.19	14.37	0.0027	-0.0772	0.0123
229	SLE RA 15	-0.09	2.36	14.83	-0.0041	-0.074	0.0118
229	SLE RA 16	-0.09	2.19	14.34	0.0021	-0.0767	0.0122
229	SLE RA 17	-0.09	2.37	14.8	-0.0047	-0.0735	0.0117
229	SLE RA 18	-0.09	2.1	14.12	0.006	-0.077	0.0122
229	SLE RA 19	-0.09	2.27	14.58	-0.0007	-0.0738	0.0117
229	SLE RA 20	-0.09	2.15	14.35	0.0049	-0.078	0.0124
229	SLE RA 21	-0.09	2.33	14.81	-0.0019	-0.0748	0.0119
229	SLE FR 1	-0.08	2.06	13.3	0.0006	-0.0693	0.011
229	SLE FR 2	-0.08	2.12	13.46	-0.0017	-0.0682	0.0108
229	SLE FR 3	-0.08	2.08	13.39	0.0001	-0.0697	0.0111
229	SLE FR 4	-0.08	2.13	13.7	0	-0.0705	0.0112
229	SLE FR 5	-0.08	2.09	13.64	0.0018	-0.072	0.0114
229	SLE FR 6	-0.08	2.08	13.71	0.0033	-0.0731	0.0116
229	SLE QP 1	-0.08	2.06	13.3	0.0006	-0.0693	0.011
229	SLE QP 2	-0.08	2.07	13.55	0.0022	-0.0716	0.0114
229	SLD 1	-0.34	3.68	19.56	-0.0165	-0.1333	0.0208
229	SLD 2	-0.34	3.68	19.56	-0.0165	-0.1333	0.0208
229	SLD 3	-0.25	1.68	14.08	0.0578	-0.0964	0.0148
229	SLD 4	-0.25	1.68	14.08	0.0578	-0.0964	0.0148
229	SLD 5	-0.3	5.6	23.68	-0.1161	-0.1461	0.0233
229	SLD 6	-0.3	5.6	23.68	-0.1161	-0.1461	0.0233
229	SLD 7	0	-1.09	5.38	0.1316	-0.0231	0.0033
229	SLD 8	0	-1.09	5.38	0.1316	-0.0231	0.0033
229	SLD 9	-0.17	5.23	21.71	-0.1272	-0.1201	0.0194
229	SLD 10	-0.17	5.23	21.71	-0.1272	-0.1201	0.0194
229	SLD 11	0.13	-1.45	3.42	0.1205	0.0029	-0.0005
229	SLD 12	0.13	-1.45	3.42	0.1205	0.0029	-0.0005
229	SLD 13	0.09	2.47	13.02	-0.0534	-0.0468	0.0079
229	SLD 14	0.09	2.47	13.02	-0.0534	-0.0468	0.0079
229	SLD 15	0.18	0.46	7.53	0.0209	-0.0099	0.002
229	SLD 16	0.18	0.46	7.53	0.0209	-0.0099	0.002
229	SLV 1	-0.73	5.84	27.64	-0.0402	-0.2209	0.0343
229	SLV 2	-0.73	5.84	27.64	-0.0402	-0.2209	0.0343
229	SLV 3	-0.5	1.18	14.91	0.1324	-0.1272	0.019
229	SLV 4	-0.5	1.18	14.91	0.1324	-0.1272	0.019
229	SLV 5	-0.62	10.26	37.08	-0.2723	-0.2586	0.0413
229	SLV 6	-0.62	10.26	37.08	-0.2723	-0.2586	0.0413
229	SLV 7	0.14	-5.26	-5.35	0.3031	0.0539	-0.0094
229	SLV 8	0.14	-5.26	-5.35	0.3031	0.0539	-0.0094
229	SLV 9	-0.3	9.4	32.45	-0.2986	-0.1971	0.0321
229	SLV 10	-0.3	9.4	32.45	-0.2986	-0.1971	0.0321
229	SLV 11	0.46	-6.12	-9.99	0.2767	0.1154	-0.0186
229	SLV 12	0.46	-6.12	-9.99	0.2767	0.1154	-0.0186
229	SLV 13	0.34	2.96	12.19	-0.1279	-0.016	0.0037
229	SLV 14	0.34	2.96	12.19	-0.1279	-0.016	0.0037
229	SLV 15	0.57	-1.69	-0.54	0.0447	0.0777	-0.0115
229	SLV 16	0.57	-1.69	-0.54	0.0447	0.0777	-0.0115
230	SLU 1	-0.04	7.86	31.32	-0.2055	-0.0039	0.0008
230	SLU 2	-0.03	8.17	32.16	-0.218	-0.0106	0.0018
230	SLU 3	-0.04	8.02	32.04	-0.2094	-0.0041	0.0009
230	SLU 4	-0.03	8.21	32.54	-0.2169	-0.0081	0.0015
230	SLU 5	-0.03	8.25	32.52	-0.2198	-0.0107	0.0018
230	SLU 6	-0.04	8.1	32.41	-0.2111	-0.0043	0.0009
230	SLU 7	-0.03	8.29	32.91	-0.2186	-0.0083	0.0015
230	SLU 8	-0.04	8.01	32.05	-0.209	-0.0042	0.0009
230	SLU 9	-0.03	8.2	32.55	-0.2165	-0.0082	0.0015
230	SLU 10	-0.04	9	35.58	-0.2383	-0.0114	0.002
230	SLU 11	-0.04	8.84	35.46	-0.2296	-0.0049	0.001
230	SLU 12	-0.04	9.03	35.96	-0.2371	-0.0089	0.0016
230	SLU 13	-0.04	9.07	35.94	-0.24	-0.0115	0.002
230	SLU 14	-0.04	8.92	35.83	-0.2314	-0.0051	0.001
230	SLU 15	-0.04	9.11	36.33	-0.2389	-0.0091	0.0016
230	SLU 16	-0.04	8.84	35.47	-0.2292	-0.005	0.001
230	SLU 17	-0.04	9.03	35.97	-0.2367	-0.009	0.0016
230	SLU 18	-0.04	9.03	36.2	-0.2344	-0.005	0.001
230	SLU 19	-0.04	9.22	36.71	-0.242	-0.009	0.0016
230	SLU 20	-0.04	9.11	36.57	-0.2362	-0.0052	0.0011
230	SLU 21	-0.04	9.3	37.07	-0.2437	-0.0092	0.0017
230	SLU 22	-0.04	8.66	34.68	-0.2253	-0.0047	0.001
230	SLU 23	-0.04	8.98	35.52	-0.2378	-0.0113	0.002
230	SLU 24	-0.04	8.83	35.41	-0.2292	-0.0049	0.001
230	SLU 25	-0.04	9.02	35.91	-0.2367	-0.0089	0.0016
230	SLU 26	-0.04	9.06	35.89	-0.2396	-0.0115	0.002
230	SLU 27	-0.04	8.91	35.77	-0.2309	-0.005	0.001
230	SLU 28	-0.04	9.1	36.28	-0.2384	-0.009	0.0016
230	SLU 29	-0.04	8.82	35.42	-0.2288	-0.005	0.001
230	SLU 30	-0.04	9.01	35.92	-0.2363	-0.009	0.0016
230	SLU 31	-0.04	9.8	38.94	-0.2581	-0.0121	0.0021
230	SLU 32	-0.05	9.65	38.83	-0.2494	-0.0057	0.0012
230	SLU 33	-0.04	9.84	39.33	-0.257	-0.0097	0.0017
230	SLU 34	-0.04	9.88	39.31	-0.2598	-0.0123	0.0021
230	SLU 35	-0.05	9.73	39.19	-0.2512	-0.0058	0.0012
230	SLU 36	-0.05	9.92	39.7	-0.2587	-0.0098	0.0018
230	SLU 37	-0.05	9.64	38.84	-0.249	-0.0057	0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
230	SLU 38	-0.05	9.83	39.34	-0.2566	-0.0097	0.0018
230	SLU 39	-0.05	9.84	39.57	-0.2543	-0.0058	0.0012
230	SLU 40	-0.05	10.03	40.07	-0.2618	-0.0098	0.0018
230	SLU 41	-0.05	9.92	39.94	-0.256	-0.0059	0.0012
230	SLU 42	-0.05	10.11	40.44	-0.2635	-0.0099	0.0018
230	SLU 43	-0.05	9.94	39.56	-0.2603	-0.0049	0.001
230	SLU 44	-0.04	10.26	40.4	-0.2729	-0.0115	0.002
230	SLU 45	-0.05	10.1	40.28	-0.2642	-0.0051	0.0011
230	SLU 46	-0.04	10.29	40.78	-0.2717	-0.0091	0.0016
230	SLU 47	-0.04	10.33	40.76	-0.2746	-0.0117	0.002
230	SLU 48	-0.05	10.18	40.65	-0.266	-0.0052	0.0011
230	SLU 49	-0.04	10.37	41.15	-0.2735	-0.0092	0.0017
230	SLU 50	-0.05	10.09	40.29	-0.2638	-0.0052	0.0011
230	SLU 51	-0.04	10.28	40.79	-0.2713	-0.0092	0.0017
230	SLU 52	-0.04	11.08	43.82	-0.2931	-0.0123	0.0022
230	SLU 53	-0.05	10.93	43.7	-0.2845	-0.0059	0.0012
230	SLU 54	-0.05	11.12	44.2	-0.292	-0.0099	0.0018
230	SLU 55	-0.05	11.16	44.18	-0.2949	-0.0125	0.0022
230	SLU 56	-0.05	11	44.07	-0.2862	-0.006	0.0012
230	SLU 57	-0.05	11.19	44.57	-0.2937	-0.01	0.0018
230	SLU 58	-0.05	10.92	43.71	-0.2841	-0.0059	0.0012
230	SLU 59	-0.05	11.11	44.21	-0.2916	-0.0099	0.0018
230	SLU 60	-0.05	11.11	44.44	-0.2893	-0.006	0.0012
230	SLU 61	-0.05	11.3	44.95	-0.2968	-0.01	0.0018
230	SLU 62	-0.05	11.19	44.81	-0.291	-0.0061	0.0013
230	SLU 63	-0.05	11.38	45.31	-0.2986	-0.0101	0.0019
230	SLU 64	-0.05	10.75	42.92	-0.2802	-0.0056	0.0012
230	SLU 65	-0.04	11.06	43.76	-0.2927	-0.0123	0.0021
230	SLU 66	-0.05	10.91	43.65	-0.284	-0.0058	0.0012
230	SLU 67	-0.05	11.1	44.15	-0.2915	-0.0098	0.0018
230	SLU 68	-0.05	11.14	44.13	-0.2944	-0.0124	0.0022
230	SLU 69	-0.05	10.99	44.02	-0.2858	-0.006	0.0012
230	SLU 70	-0.05	11.18	44.52	-0.2933	-0.01	0.0018
230	SLU 71	-0.05	10.9	43.66	-0.2836	-0.0059	0.0012
230	SLU 72	-0.05	11.09	44.16	-0.2911	-0.0099	0.0018
230	SLU 73	-0.05	11.88	47.18	-0.313	-0.013	0.0023
230	SLU 74	-0.06	11.73	47.07	-0.3043	-0.0066	0.0013
230	SLU 75	-0.05	11.92	47.57	-0.3118	-0.0106	0.0019
230	SLU 76	-0.05	11.96	47.55	-0.3147	-0.0132	0.0023
230	SLU 77	-0.06	11.81	47.43	-0.306	-0.0067	0.0014
230	SLU 78	-0.05	12	47.94	-0.3135	-0.0107	0.002
230	SLU 79	-0.06	11.72	47.08	-0.3039	-0.0067	0.0014
230	SLU 80	-0.05	11.91	47.58	-0.3114	-0.0107	0.002
230	SLU 81	-0.06	11.92	47.81	-0.3091	-0.0067	0.0014
230	SLU 82	-0.05	12.11	48.31	-0.3166	-0.0107	0.002
230	SLU 83	-0.06	12	48.18	-0.3108	-0.0069	0.0014
230	SLU 84	-0.06	12.19	48.68	-0.3184	-0.0109	0.002
230	SLE RA 1	-0.04	8.09	32.28	-0.2112	-0.0041	0.0009
230	SLE RA 2	-0.03	8.3	32.84	-0.2195	-0.0086	0.0015
230	SLE RA 3	-0.04	8.2	32.76	-0.2137	-0.0043	0.0009
230	SLE RA 4	-0.04	8.32	33.1	-0.2187	-0.0069	0.0013
230	SLE RA 5	-0.03	8.35	33.08	-0.2207	-0.0087	0.0015
230	SLE RA 6	-0.04	8.25	33.01	-0.2149	-0.0044	0.0009
230	SLE RA 7	-0.04	8.38	33.34	-0.2199	-0.007	0.0013
230	SLE RA 8	-0.04	8.19	32.77	-0.2135	-0.0043	0.0009
230	SLE RA 9	-0.04	8.32	33.1	-0.2185	-0.007	0.0013
230	SLE RA 10	-0.04	8.85	35.12	-0.233	-0.0091	0.0016
230	SLE RA 11	-0.04	8.75	35.04	-0.2272	-0.0048	0.001
230	SLE RA 12	-0.04	8.87	35.38	-0.2323	-0.0075	0.0014
230	SLE RA 13	-0.04	8.9	35.36	-0.2342	-0.0092	0.0016
230	SLE RA 14	-0.04	8.8	35.29	-0.2284	-0.0049	0.001
230	SLE RA 15	-0.04	8.92	35.62	-0.2334	-0.0076	0.0014
230	SLE RA 16	-0.04	8.74	35.05	-0.227	-0.0049	0.001
230	SLE RA 17	-0.04	8.87	35.38	-0.232	-0.0075	0.0014
230	SLE RA 18	-0.04	8.87	35.54	-0.2305	-0.0049	0.001
230	SLE RA 19	-0.04	9	35.87	-0.2355	-0.0076	0.0014
230	SLE RA 20	-0.04	8.92	35.78	-0.2316	-0.005	0.001
230	SLE RA 21	-0.04	9.05	36.12	-0.2366	-0.0077	0.0014
230	SLE FR 1	-0.04	8.09	32.28	-0.2112	-0.0041	0.0009
230	SLE FR 2	-0.04	8.13	32.39	-0.2128	-0.005	0.001
230	SLE FR 3	-0.04	8.11	32.38	-0.2116	-0.0042	0.0009
230	SLE FR 4	-0.04	8.37	33.37	-0.2186	-0.0053	0.001
230	SLE FR 5	-0.04	8.34	33.35	-0.2174	-0.0044	0.0009
230	SLE FR 6	-0.04	8.48	33.91	-0.2208	-0.0045	0.0009
230	SLE QP 1	-0.04	8.09	32.28	-0.2112	-0.0041	0.0009
230	SLE QP 2	-0.04	8.32	33.26	-0.2169	-0.0044	0.0009
230	SLD 1	-0.24	7.05	27.31	-0.1917	0.0697	-0.0092
230	SLD 2	-0.24	7.05	27.31	-0.1917	0.0697	-0.0092
230	SLD 3	-0.32	5.24	22.69	-0.1218	0.0261	-0.0026
230	SLD 4	-0.32	5.24	22.69	-0.1218	0.0261	-0.0026
230	SLD 5	0.03	10.7	38.47	-0.3154	0.084	-0.0122
230	SLD 6	0.03	10.7	38.47	-0.3154	0.084	-0.0122
230	SLD 7	-0.25	4.64	23.08	-0.0824	-0.0614	0.0099
230	SLD 8	-0.25	4.64	23.08	-0.0824	-0.0614	0.0099
230	SLD 9	0.17	12.01	43.43	-0.3515	0.0527	-0.0081
230	SLD 10	0.17	12.01	43.43	-0.3515	0.0527	-0.0081
230	SLD 11	-0.11	5.95	28.04	-0.1185	-0.0928	0.014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
230	SLD 12	-0.11	5.95	28.04	-0.1185	-0.0928	0.014
230	SLD 13	0.24	11.41	43.82	-0.312	-0.0348	0.0044
230	SLD 14	0.24	11.41	43.82	-0.312	-0.0348	0.0044
230	SLD 15	0.16	9.59	39.2	-0.2421	-0.0784	0.011
230	SLD 16	0.16	9.59	39.2	-0.2421	-0.0784	0.011
230	SLV 1	-0.52	5.34	19.31	-0.1574	0.1757	-0.0236
230	SLV 2	-0.52	5.34	19.31	-0.1574	0.1757	-0.0236
230	SLV 3	-0.74	1.12	8.58	0.005	0.0648	-0.0068
230	SLV 4	-0.74	1.12	8.58	0.005	0.0648	-0.0068
230	SLV 5	0.14	13.83	45.34	-0.4455	0.2177	-0.032
230	SLV 6	0.14	13.83	45.34	-0.4455	0.2177	-0.032
230	SLV 7	-0.58	-0.24	9.59	0.0961	-0.1517	0.0242
230	SLV 8	-0.58	-0.24	9.59	0.0961	-0.1517	0.0242
230	SLV 9	0.5	16.89	56.92	-0.5299	0.1429	-0.0224
230	SLV 10	0.5	16.89	56.92	-0.5299	0.1429	-0.0224
230	SLV 11	-0.22	2.81	21.17	0.0116	-0.2264	0.0338
230	SLV 12	-0.22	2.81	21.17	0.0116	-0.2264	0.0338
230	SLV 13	0.66	15.53	57.93	-0.4389	-0.0736	0.0086
230	SLV 14	0.66	15.53	57.93	-0.4389	-0.0736	0.0086
230	SLV 15	0.44	11.31	47.2	-0.2765	-0.1844	0.0254
230	SLV 16	0.44	11.31	47.2	-0.2765	-0.1844	0.0254
231	SLU 1	0	5.16	43.72	-0.2486	-0.0025	0
231	SLU 2	0	5.17	43.2	-0.2494	-0.0018	0
231	SLU 3	0	5.37	45.56	-0.2574	-0.0027	0
231	SLU 4	0	5.38	45.24	-0.2579	-0.0022	0
231	SLU 5	0	5.35	44.7	-0.2572	-0.0019	0
231	SLU 6	0	5.56	47.06	-0.2653	-0.0029	0
231	SLU 7	0	5.57	46.75	-0.2658	-0.0024	0
231	SLU 8	0	5.54	46.73	-0.2643	-0.0028	0
231	SLU 9	0	5.54	46.42	-0.2648	-0.0023	0
231	SLU 10	0	5.96	50.86	-0.288	-0.0023	0
231	SLU 11	0	6.17	53.22	-0.2961	-0.0032	0
231	SLU 12	0	6.17	52.91	-0.2966	-0.0028	0
231	SLU 13	0	6.15	52.37	-0.2959	-0.0024	0
231	SLU 14	0	6.36	54.73	-0.304	-0.0034	0.0001
231	SLU 15	0	6.36	54.41	-0.3044	-0.0029	0
231	SLU 16	0	6.33	54.4	-0.303	-0.0033	0.0001
231	SLU 17	0	6.34	54.08	-0.3035	-0.0029	0
231	SLU 18	0	6.3	54.67	-0.3039	-0.0033	0
231	SLU 19	0	6.3	54.36	-0.3043	-0.0028	0
231	SLU 20	0	6.49	56.18	-0.3117	-0.0034	0.0001
231	SLU 21	0	6.49	55.86	-0.3122	-0.003	0
231	SLU 22	0	5.95	51.16	-0.286	-0.0031	0
231	SLU 23	0	5.95	50.64	-0.2867	-0.0023	0
231	SLU 24	0	6.16	53	-0.2948	-0.0032	0
231	SLU 25	0	6.17	52.68	-0.2953	-0.0028	0
231	SLU 26	0	6.14	52.14	-0.2946	-0.0024	0
231	SLU 27	0	6.35	54.5	-0.3027	-0.0034	0.0001
231	SLU 28	0	6.35	54.19	-0.3031	-0.0029	0
231	SLU 29	0	6.33	54.17	-0.3017	-0.0033	0.0001
231	SLU 30	0	6.33	53.86	-0.3021	-0.0029	0
231	SLU 31	0	6.75	58.3	-0.3254	-0.0028	0
231	SLU 32	0	6.96	60.66	-0.3335	-0.0038	0.0001
231	SLU 33	0	6.96	60.35	-0.3339	-0.0033	0
231	SLU 34	0	6.94	59.81	-0.3333	-0.0029	0
231	SLU 35	0	7.15	62.17	-0.3413	-0.0039	0.0001
231	SLU 36	0	7.15	61.85	-0.3418	-0.0034	0.0001
231	SLU 37	0	7.12	61.84	-0.3404	-0.0039	0.0001
231	SLU 38	0	7.13	61.52	-0.3408	-0.0034	0.0001
231	SLU 39	0	7.09	62.11	-0.3412	-0.0038	0.0001
231	SLU 40	0	7.09	61.8	-0.3417	-0.0033	0
231	SLU 41	0	7.27	63.62	-0.3491	-0.0039	0.0001
231	SLU 42	0	7.28	63.3	-0.3495	-0.0035	0.0001
231	SLU 43	0	6.44	54.29	-0.3104	-0.0031	0
231	SLU 44	0	6.44	53.76	-0.3111	-0.0023	0
231	SLU 45	0	6.65	56.13	-0.3192	-0.0033	0
231	SLU 46	0	6.66	55.81	-0.3197	-0.0028	0
231	SLU 47	0	6.63	55.27	-0.319	-0.0025	0
231	SLU 48	0	6.84	57.63	-0.3271	-0.0034	0.0001
231	SLU 49	0	6.84	57.32	-0.3275	-0.003	0
231	SLU 50	0	6.82	57.3	-0.3261	-0.0034	0
231	SLU 51	0	6.82	56.99	-0.3265	-0.0029	0
231	SLU 52	0	7.24	61.43	-0.3498	-0.0029	0
231	SLU 53	0	7.45	63.79	-0.3579	-0.0038	0.0001
231	SLU 54	0	7.45	63.48	-0.3584	-0.0034	0
231	SLU 55	0	7.43	62.93	-0.3577	-0.003	0
231	SLU 56	0	7.64	65.3	-0.3658	-0.004	0.0001
231	SLU 57	0	7.64	64.98	-0.3662	-0.0035	0.0001
231	SLU 58	0	7.61	64.97	-0.3648	-0.0039	0.0001
231	SLU 59	0	7.62	64.65	-0.3652	-0.0034	0.0001
231	SLU 60	0	7.58	65.24	-0.3657	-0.0039	0.0001
231	SLU 61	0	7.58	64.92	-0.3661	-0.0034	0
231	SLU 62	0	7.76	66.74	-0.3735	-0.004	0.0001
231	SLU 63	0	7.77	66.43	-0.374	-0.0035	0.0001
231	SLU 64	0	7.23	61.73	-0.3477	-0.0036	0.0001
231	SLU 65	0	7.23	61.2	-0.3485	-0.0029	0
231	SLU 66	0	7.44	63.57	-0.3566	-0.0038	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
231	SLU 67	0	7.44	63.25	-0.357	-0.0033	0
231	SLU 68	0	7.42	62.71	-0.3563	-0.003	0
231	SLU 69	0	7.63	65.07	-0.3644	-0.004	0.0001
231	SLU 70	0	7.63	64.76	-0.3649	-0.0035	0.0001
231	SLU 71	0	7.6	64.74	-0.3635	-0.0039	0.0001
231	SLU 72	0	7.61	64.43	-0.3639	-0.0034	0.0001
231	SLU 73	0	8.03	68.87	-0.3872	-0.0034	0
231	SLU 74	0	8.24	71.23	-0.3953	-0.0044	0.0001
231	SLU 75	0	8.24	70.91	-0.3957	-0.0039	0.0001
231	SLU 76	0	8.22	70.37	-0.395	-0.0035	0.0001
231	SLU 77	-0.01	8.43	72.74	-0.4031	-0.0045	0.0001
231	SLU 78	0	8.43	72.42	-0.4036	-0.004	0.0001
231	SLU 79	0	8.4	72.41	-0.4021	-0.0044	0.0001
231	SLU 80	0	8.4	72.09	-0.4026	-0.004	0.0001
231	SLU 81	0	8.36	72.68	-0.403	-0.0044	0.0001
231	SLU 82	0	8.37	72.36	-0.4035	-0.0039	0.0001
231	SLU 83	-0.01	8.55	74.18	-0.4109	-0.0045	0.0001
231	SLU 84	0	8.56	73.87	-0.4113	-0.0041	0.0001
231	SLE RA 1	0	5.38	45.85	-0.2593	-0.0027	0
231	SLE RA 2	0	5.39	45.5	-0.2598	-0.0022	0
231	SLE RA 3	0	5.53	47.07	-0.2652	-0.0028	0
231	SLE RA 4	0	5.53	46.86	-0.2655	-0.0025	0
231	SLE RA 5	0	5.51	46.5	-0.265	-0.0023	0
231	SLE RA 6	0	5.65	48.08	-0.2704	-0.0029	0
231	SLE RA 7	0	5.66	47.87	-0.2707	-0.0026	0
231	SLE RA 8	0	5.64	47.86	-0.2698	-0.0029	0
231	SLE RA 9	0	5.64	47.65	-0.2701	-0.0026	0
231	SLE RA 10	0	5.92	50.61	-0.2856	-0.0025	0
231	SLE RA 11	0	6.06	52.18	-0.291	-0.0032	0
231	SLE RA 12	0	6.06	51.97	-0.2913	-0.0028	0
231	SLE RA 13	0	6.05	51.61	-0.2908	-0.0026	0
231	SLE RA 14	0	6.18	53.19	-0.2962	-0.0032	0
231	SLE RA 15	0	6.19	52.98	-0.2965	-0.0029	0
231	SLE RA 16	0	6.17	52.97	-0.2956	-0.0032	0
231	SLE RA 17	0	6.17	52.76	-0.2958	-0.0029	0
231	SLE RA 18	0	6.14	53.15	-0.2961	-0.0032	0
231	SLE RA 19	0	6.15	52.94	-0.2964	-0.0029	0
231	SLE RA 20	0	6.27	54.15	-0.3014	-0.0033	0
231	SLE RA 21	0	6.27	53.94	-0.3017	-0.003	0
231	SLE FR 1	0	5.38	45.85	-0.2593	-0.0027	0
231	SLE FR 2	0	5.39	45.78	-0.2594	-0.0026	0
231	SLE FR 3	0	5.44	46.25	-0.2614	-0.0027	0
231	SLE FR 4	0	5.61	47.97	-0.2704	-0.0027	0
231	SLE FR 5	0	5.66	48.44	-0.2724	-0.0029	0
231	SLE FR 6	0	5.76	49.5	-0.2777	-0.0029	0
231	SLE QP 1	0	5.38	45.85	-0.2593	-0.0027	0
231	SLE QP 2	0	5.61	48.04	-0.2703	-0.0028	0
231	SLD 1	0.11	7.52	54.27	-0.3995	0.1214	-0.0005
231	SLD 2	0.11	7.52	54.27	-0.3995	0.1214	-0.0005
231	SLD 3	0.15	5.42	47.63	-0.2578	0.1566	-0.001
231	SLD 4	0.15	5.42	47.63	-0.2578	0.1566	-0.001
231	SLD 5	-0.03	9.38	59.96	-0.524	-0.0189	0.0006
231	SLD 6	-0.03	9.38	59.96	-0.524	-0.0189	0.0006
231	SLD 7	0.1	2.36	37.86	-0.0517	0.0983	-0.001
231	SLD 8	0.1	2.36	37.86	-0.0517	0.0983	-0.001
231	SLD 9	-0.11	8.87	58.22	-0.489	-0.104	0.0011
231	SLD 10	-0.11	8.87	58.22	-0.489	-0.104	0.0011
231	SLD 11	0.02	1.84	36.11	-0.0167	0.0132	-0.0005
231	SLD 12	0.02	1.84	36.11	-0.0167	0.0132	-0.0005
231	SLD 13	-0.16	5.81	48.44	-0.2828	-0.1622	0.0011
231	SLD 14	-0.16	5.81	48.44	-0.2828	-0.1622	0.0011
231	SLD 15	-0.12	3.7	41.81	-0.1411	-0.1271	0.0006
231	SLD 16	-0.12	3.7	41.81	-0.1411	-0.1271	0.0006
231	SLV 1	0.29	10.15	62.88	-0.577	0.315	-0.0014
231	SLV 2	0.29	10.15	62.88	-0.577	0.315	-0.0014
231	SLV 3	0.39	5.2	47.27	-0.2437	0.405	-0.0027
231	SLV 4	0.39	5.2	47.27	-0.2437	0.405	-0.0027
231	SLV 5	-0.06	14.48	76.17	-0.8679	-0.044	0.0015
231	SLV 6	-0.06	14.48	76.17	-0.8679	-0.044	0.0015
231	SLV 7	0.26	-2.02	24.13	0.2432	0.256	-0.0027
231	SLV 8	0.26	-2.02	24.13	0.2432	0.256	-0.0027
231	SLV 9	-0.27	13.24	71.95	-0.7838	-0.2617	0.0028
231	SLV 10	-0.27	13.24	71.95	-0.7838	-0.2617	0.0028
231	SLV 11	0.06	-3.26	19.9	0.3272	0.0383	-0.0014
231	SLV 12	0.06	-3.26	19.9	0.3272	0.0383	-0.0014
231	SLV 13	-0.4	6.03	48.81	-0.297	-0.4107	0.0028
231	SLV 14	-0.4	6.03	48.81	-0.297	-0.4107	0.0028
231	SLV 15	-0.3	1.08	33.19	0.0363	-0.3207	0.0015
231	SLV 16	-0.3	1.08	33.19	0.0363	-0.3207	0.0015
232	SLU 1	0	5.22	46.65	-0.2429	0.0009	0
232	SLU 2	0	5.22	46.14	-0.2429	0.0003	0
232	SLU 3	0	5.49	48.93	-0.2557	0.001	0
232	SLU 4	0	5.5	48.63	-0.2557	0.0007	0
232	SLU 5	0	5.5	48.12	-0.2561	0.0005	0
232	SLU 6	0	5.77	50.92	-0.2688	0.0012	0
232	SLU 7	0	5.77	50.61	-0.2688	0.0008	0
232	SLU 8	0	5.77	50.61	-0.2692	0.0012	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
232	SLU 9	0	5.77	50.3	-0.2692	0.0008	0
232	SLU 10	0	5.95	54.12	-0.2762	0.0005	0
232	SLU 11	0	6.23	56.92	-0.289	0.0012	0
232	SLU 12	0	6.23	56.61	-0.289	0.0009	0
232	SLU 13	0	6.23	56.1	-0.2893	0.0007	0
232	SLU 14	0	6.5	58.9	-0.3021	0.0014	0
232	SLU 15	0	6.5	58.59	-0.3021	0.0011	0
232	SLU 16	0	6.5	58.59	-0.3024	0.0014	0
232	SLU 17	0	6.5	58.29	-0.3024	0.0011	0
232	SLU 18	0	6.27	58.05	-0.2904	0.0012	0
232	SLU 19	0	6.27	57.74	-0.2904	0.0009	0
232	SLU 20	0	6.54	60.03	-0.3035	0.0013	0
232	SLU 21	0	6.54	59.72	-0.3035	0.001	0
232	SLU 22	0	6	54.52	-0.2787	0.0011	0
232	SLU 23	0	6	54.01	-0.2787	0.0006	0
232	SLU 24	0	6.27	56.81	-0.2915	0.0013	0
232	SLU 25	0	6.27	56.51	-0.2915	0.0009	0
232	SLU 26	0	6.27	56	-0.2918	0.0007	0
232	SLU 27	0	6.54	58.8	-0.3046	0.0014	0
232	SLU 28	0	6.55	58.49	-0.3046	0.0011	0
232	SLU 29	0	6.54	58.49	-0.3049	0.0014	0
232	SLU 30	0	6.54	58.18	-0.3049	0.0011	0
232	SLU 31	0	6.73	62	-0.3119	0.0008	0
232	SLU 32	0	7	64.8	-0.3247	0.0015	0
232	SLU 33	0	7	64.49	-0.3247	0.0012	0
232	SLU 34	0	7	63.98	-0.3251	0.0009	0
232	SLU 35	0	7.28	66.78	-0.3378	0.0016	0
232	SLU 36	0	7.28	66.47	-0.3378	0.0013	0
232	SLU 37	0	7.27	66.47	-0.3382	0.0016	0
232	SLU 38	0	7.28	66.17	-0.3382	0.0013	0
232	SLU 39	0	7.05	65.93	-0.3262	0.0014	0
232	SLU 40	0	7.05	65.62	-0.3262	0.0011	0
232	SLU 41	0	7.32	67.91	-0.3393	0.0016	0
232	SLU 42	0	7.32	67.6	-0.3393	0.0012	0
232	SLU 43	0	6.52	57.94	-0.3035	0.0011	0
232	SLU 44	0	6.52	57.43	-0.3036	0.0005	0
232	SLU 45	0	6.79	60.23	-0.3163	0.0012	0
232	SLU 46	0	6.8	59.92	-0.3163	0.0009	0
232	SLU 47	0	6.79	59.41	-0.3167	0.0007	0
232	SLU 48	0	7.07	62.21	-0.3295	0.0013	0
232	SLU 49	0	7.07	61.9	-0.3295	0.001	0
232	SLU 50	0	7.06	61.9	-0.3298	0.0013	0
232	SLU 51	0	7.07	61.6	-0.3298	0.001	0
232	SLU 52	0	7.25	65.41	-0.3368	0.0007	0
232	SLU 53	0	7.52	68.21	-0.3496	0.0014	0
232	SLU 54	0	7.53	67.9	-0.3496	0.0011	0
232	SLU 55	0	7.53	67.39	-0.3499	0.0009	0
232	SLU 56	0	7.8	70.19	-0.3627	0.0016	0
232	SLU 57	0	7.8	69.88	-0.3627	0.0012	0
232	SLU 58	0	7.8	69.88	-0.363	0.0016	0
232	SLU 59	0	7.8	69.58	-0.363	0.0012	0
232	SLU 60	0	7.57	69.34	-0.351	0.0014	0
232	SLU 61	0	7.57	69.03	-0.351	0.001	0
232	SLU 62	0	7.84	71.32	-0.3641	0.0015	0
232	SLU 63	0	7.84	71.02	-0.3641	0.0012	0
232	SLU 64	0	7.3	65.82	-0.3393	0.0013	0
232	SLU 65	0	7.3	65.31	-0.3393	0.0008	0
232	SLU 66	0	7.57	68.11	-0.3521	0.0014	0
232	SLU 67	0	7.57	67.8	-0.3521	0.0011	0
232	SLU 68	0	7.57	67.29	-0.3524	0.0009	0
232	SLU 69	0	7.84	70.09	-0.3652	0.0016	0
232	SLU 70	0	7.85	69.78	-0.3652	0.0013	0
232	SLU 71	0	7.84	69.78	-0.3655	0.0016	0
232	SLU 72	0	7.84	69.48	-0.3655	0.0013	0
232	SLU 73	0	8.03	73.29	-0.3726	0.001	0
232	SLU 74	0	8.3	76.09	-0.3853	0.0017	0
232	SLU 75	0	8.3	75.78	-0.3853	0.0013	0
232	SLU 76	0	8.3	75.27	-0.3857	0.0011	0
232	SLU 77	0	8.57	78.07	-0.3985	0.0018	0
232	SLU 78	0	8.58	77.76	-0.3985	0.0015	0
232	SLU 79	0	8.57	77.76	-0.3988	0.0018	0
232	SLU 80	0	8.57	77.46	-0.3988	0.0015	0
232	SLU 81	0	8.35	77.22	-0.3868	0.0016	0
232	SLU 82	0	8.35	76.91	-0.3868	0.0013	0
232	SLU 83	0	8.62	79.2	-0.3999	0.0017	0
232	SLU 84	0	8.62	78.9	-0.3999	0.0014	0
232	SLE RA 1	0	5.45	48.9	-0.2531	0.0009	0
232	SLE RA 2	0	5.45	48.56	-0.2532	0.0006	0
232	SLE RA 3	0	5.63	50.42	-0.2617	0.001	0
232	SLE RA 4	0	5.63	50.22	-0.2617	0.0008	0
232	SLE RA 5	0	5.63	49.88	-0.2619	0.0007	0
232	SLE RA 6	0	5.81	51.74	-0.2704	0.0011	0
232	SLE RA 7	0	5.81	51.54	-0.2704	0.0009	0
232	SLE RA 8	0	5.81	51.54	-0.2706	0.0011	0
232	SLE RA 9	0	5.81	51.34	-0.2706	0.0009	0
232	SLE RA 10	0	5.93	53.88	-0.2753	0.0007	0
232	SLE RA 11	0	6.11	55.74	-0.2838	0.0012	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
232	SLE RA 12	0	6.11	55.54	-0.2838	0.001	0
232	SLE RA 13	0	6.11	55.2	-0.2841	0.0008	0
232	SLE RA 14	0	6.29	57.07	-0.2926	0.0013	0
232	SLE RA 15	0	6.29	56.86	-0.2926	0.0011	0
232	SLE RA 16	0	6.29	56.86	-0.2928	0.0013	0
232	SLE RA 17	0	6.29	56.66	-0.2928	0.0011	0
232	SLE RA 18	0	6.14	56.5	-0.2848	0.0011	0
232	SLE RA 19	0	6.14	56.29	-0.2848	0.0009	0
232	SLE RA 20	0	6.32	57.82	-0.2935	0.0012	0
232	SLE RA 21	0	6.32	57.62	-0.2935	0.001	0
232	SLE FR 1	0	5.45	48.9	-0.2531	0.0009	0
232	SLE FR 2	0	5.45	48.83	-0.2531	0.0009	0
232	SLE FR 3	0	5.52	49.43	-0.2566	0.001	0
232	SLE FR 4	0	5.65	51.11	-0.2626	0.0009	0
232	SLE FR 5	0	5.73	51.71	-0.2661	0.001	0
232	SLE FR 6	0	5.79	52.7	-0.269	0.001	0
232	SLE QP 1	0	5.45	48.9	-0.2531	0.0009	0
232	SLE QP 2	0	5.65	51.18	-0.2626	0.001	0
232	SLD 1	0.16	5.64	57.66	-0.2595	0.1716	0.0005
232	SLD 2	0.16	5.64	57.66	-0.2595	0.1716	0.0005
232	SLD 3	0.14	2.43	49.96	-0.0848	0.1454	0.0004
232	SLD 4	0.14	2.43	49.96	-0.0848	0.1454	0.0004
232	SLD 5	0.09	10.51	64.79	-0.5268	0.092	0.0003
232	SLD 6	0.09	10.51	64.79	-0.5268	0.092	0.0003
232	SLD 7	0	-0.17	39.14	0.0558	0.0045	0
232	SLD 8	0	-0.17	39.14	0.0558	0.0045	0
232	SLD 9	0.01	11.48	63.21	-0.5811	-0.0025	0
232	SLD 10	0.01	11.48	63.21	-0.5811	-0.0025	0
232	SLD 11	-0.09	0.8	37.56	0.0015	-0.09	-0.0003
232	SLD 12	-0.09	0.8	37.56	0.0015	-0.09	-0.0003
232	SLD 13	-0.13	8.88	52.39	-0.4405	-0.1434	-0.0004
232	SLD 14	-0.13	8.88	52.39	-0.4405	-0.1434	-0.0004
232	SLD 15	-0.16	5.67	44.7	-0.2658	-0.1696	-0.0005
232	SLD 16	-0.16	5.67	44.7	-0.2658	-0.1696	-0.0005
232	SLV 1	0.42	5.59	66.71	-0.2541	0.4383	0.0013
232	SLV 2	0.42	5.59	66.71	-0.2541	0.4383	0.0013
232	SLV 3	0.34	-1.97	48.54	0.1582	0.3711	0.0011
232	SLV 4	0.34	-1.97	48.54	0.1582	0.3711	0.0011
232	SLV 5	0.24	17.1	83.38	-0.8855	0.2341	0.0008
232	SLV 6	0.24	17.1	83.38	-0.8855	0.2341	0.0008
232	SLV 7	-0.01	-8.1	22.84	0.489	0.0101	0
232	SLV 8	-0.01	-8.1	22.84	0.489	0.0101	0
232	SLV 9	0.01	19.4	79.51	-1.0143	-0.0081	0
232	SLV 10	0.01	19.4	79.51	-1.0143	-0.0081	0
232	SLV 11	-0.24	-5.79	18.97	0.3602	-0.2321	-0.0008
232	SLV 12	-0.24	-5.79	18.97	0.3602	-0.2321	-0.0008
232	SLV 13	-0.34	13.28	53.81	-0.6835	-0.3691	-0.0011
232	SLV 14	-0.34	13.28	53.81	-0.6835	-0.3691	-0.0011
232	SLV 15	-0.42	5.72	35.65	-0.2712	-0.4363	-0.0013
232	SLV 16	-0.42	5.72	35.65	-0.2712	-0.4363	-0.0013
233	SLU 1	0	4.76	32.02	-0.2861	-0.0002	0
233	SLU 2	0	4.75	32.01	-0.2859	0	0
233	SLU 3	0	4.54	30.21	-0.2712	0	0
233	SLU 4	0	4.54	30.21	-0.2711	0.0001	0
233	SLU 5	0	4.41	29.24	-0.2626	0.0002	0
233	SLU 6	0	4.19	27.44	-0.2479	0.0003	0
233	SLU 7	0	4.19	27.44	-0.2478	0.0004	0
233	SLU 8	0	4.06	26.48	-0.2395	0.0004	0
233	SLU 9	0	4.06	26.47	-0.2394	0.0005	0
233	SLU 10	0	5.65	37.9	-0.3401	0.0007	0
233	SLU 11	0	5.44	36.1	-0.3254	0.0007	0
233	SLU 12	0	5.44	36.09	-0.3253	0.0008	0
233	SLU 13	0	5.3	35.12	-0.3168	0.001	0
233	SLU 14	0	5.09	33.33	-0.3021	0.001	0
233	SLU 15	0	5.09	33.32	-0.302	0.0011	0
233	SLU 16	0	4.96	32.36	-0.2937	0.0011	0
233	SLU 17	0	4.96	32.36	-0.2936	0.0012	0
233	SLU 18	0	6.04	40.43	-0.3635	0.0009	0
233	SLU 19	0	6.04	40.42	-0.3634	0.001	0
233	SLU 20	0	5.69	37.65	-0.3402	0.0012	0
233	SLU 21	0	5.69	37.65	-0.3401	0.0012	0
233	SLU 22	0	5.4	36.12	-0.3244	0.0003	0
233	SLU 23	0	5.4	36.12	-0.3242	0.0005	0
233	SLU 24	0	5.19	34.32	-0.3095	0.0005	0
233	SLU 25	0	5.19	34.31	-0.3094	0.0006	0
233	SLU 26	0	5.05	33.34	-0.3009	0.0007	0
233	SLU 27	0	4.84	31.55	-0.2862	0.0008	0
233	SLU 28	0	4.84	31.54	-0.2861	0.0009	0
233	SLU 29	0	4.71	30.58	-0.2778	0.0009	0
233	SLU 30	0	4.71	30.58	-0.2777	0.001	0
233	SLU 31	0	6.3	42	-0.3784	0.0012	0
233	SLU 32	0	6.08	40.2	-0.3637	0.0012	0
233	SLU 33	0	6.08	40.2	-0.3636	0.0013	0
233	SLU 34	0	5.95	39.23	-0.3551	0.0015	0
233	SLU 35	0	5.74	37.43	-0.3404	0.0015	0
233	SLU 36	0	5.74	37.43	-0.3403	0.0016	0
233	SLU 37	0	5.61	36.47	-0.332	0.0016	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
233	SLU 38	0	5.61	36.46	-0.3319	0.0017	0
233	SLU 39	0	6.68	44.53	-0.4018	0.0014	0
233	SLU 40	0	6.68	44.53	-0.4017	0.0015	0
233	SLU 41	0	6.34	41.76	-0.3785	0.0017	0
233	SLU 42	0	6.34	41.75	-0.3784	0.0017	0
233	SLU 43	0	5.96	40.22	-0.3587	-0.0004	0
233	SLU 44	0	5.96	40.21	-0.3586	-0.0003	0
233	SLU 45	0	5.75	38.41	-0.3439	-0.0002	0
233	SLU 46	0	5.75	38.41	-0.3438	-0.0001	0
233	SLU 47	0	5.61	37.44	-0.3353	0	0
233	SLU 48	0	5.4	35.64	-0.3206	0.0001	0
233	SLU 49	0	5.4	35.64	-0.3205	0.0001	0
233	SLU 50	0	5.27	34.68	-0.3122	0.0002	0
233	SLU 51	0	5.27	34.67	-0.3121	0.0002	0
233	SLU 52	0	6.86	46.09	-0.4127	0.0005	0
233	SLU 53	0	6.64	44.3	-0.3981	0.0005	0
233	SLU 54	0	6.64	44.29	-0.398	0.0006	0
233	SLU 55	0	6.51	43.32	-0.3895	0.0007	0
233	SLU 56	0	6.3	41.52	-0.3748	0.0008	0
233	SLU 57	0	6.3	41.52	-0.3747	0.0009	0
233	SLU 58	0	6.17	40.56	-0.3664	0.0009	0
233	SLU 59	0	6.16	40.56	-0.3662	0.001	0
233	SLU 60	0	7.24	48.62	-0.4361	0.0007	0
233	SLU 61	0	7.24	48.62	-0.436	0.0007	0
233	SLU 62	0	6.9	45.85	-0.4129	0.0009	0
233	SLU 63	0	6.9	45.85	-0.4128	0.001	0
233	SLU 64	0	6.61	44.32	-0.397	0.0001	0
233	SLU 65	0	6.61	44.31	-0.3969	0.0003	0
233	SLU 66	0	6.39	42.52	-0.3822	0.0003	0
233	SLU 67	0	6.39	42.51	-0.3821	0.0004	0
233	SLU 68	0	6.26	41.54	-0.3736	0.0005	0
233	SLU 69	0	6.05	39.74	-0.3589	0.0006	0
233	SLU 70	0	6.04	39.74	-0.3588	0.0006	0
233	SLU 71	0	5.92	38.78	-0.3505	0.0007	0
233	SLU 72	0	5.91	38.78	-0.3504	0.0008	0
233	SLU 73	0	7.5	50.2	-0.4511	0.001	0
233	SLU 74	0	7.29	48.4	-0.4364	0.001	0
233	SLU 75	0	7.29	48.4	-0.4363	0.0011	0
233	SLU 76	0	7.16	47.43	-0.4278	0.0013	0
233	SLU 77	0	6.94	45.63	-0.4131	0.0013	0
233	SLU 78	0	6.94	45.62	-0.413	0.0014	0
233	SLU 79	0	6.81	44.66	-0.4047	0.0014	0
233	SLU 80	0	6.81	44.66	-0.4046	0.0015	0
233	SLU 81	0	7.89	52.73	-0.4745	0.0012	0
233	SLU 82	0	7.89	52.72	-0.4744	0.0012	0
233	SLU 83	0	7.54	49.96	-0.4512	0.0014	0
233	SLU 84	0	7.54	49.95	-0.4511	0.0015	0
233	SLE RA 1	0	4.94	33.19	-0.297	0	0
233	SLE RA 2	0	4.94	33.19	-0.2969	0.0001	0
233	SLE RA 3	0	4.8	31.99	-0.2871	0.0001	0
233	SLE RA 4	0	4.8	31.98	-0.287	0.0001	0
233	SLE RA 5	0	4.71	31.34	-0.2814	0.0003	0
233	SLE RA 6	0	4.57	30.14	-0.2716	0.0003	0
233	SLE RA 7	0	4.57	30.14	-0.2715	0.0003	0
233	SLE RA 8	0	4.48	29.5	-0.266	0.0004	0
233	SLE RA 9	0	4.48	29.49	-0.2659	0.0004	0
233	SLE RA 10	0	5.54	37.11	-0.333	0.0006	0
233	SLE RA 11	0	5.4	35.91	-0.3232	0.0006	0
233	SLE RA 12	0	5.39	35.91	-0.3232	0.0006	0
233	SLE RA 13	0	5.31	35.26	-0.3175	0.0007	0
233	SLE RA 14	0	5.16	34.06	-0.3077	0.0008	0
233	SLE RA 15	0	5.16	34.06	-0.3076	0.0008	0
233	SLE RA 16	0	5.08	33.42	-0.3021	0.0008	0
233	SLE RA 17	0	5.08	33.42	-0.302	0.0009	0
233	SLE RA 18	0	5.8	38.8	-0.3486	0.0007	0
233	SLE RA 19	0	5.8	38.79	-0.3485	0.0007	0
233	SLE RA 20	0	5.57	36.95	-0.3331	0.0009	0
233	SLE RA 21	0	5.56	36.95	-0.333	0.0009	0
233	SLE FR 1	0	4.94	33.19	-0.297	0	0
233	SLE FR 2	0	4.94	33.19	-0.297	0	0
233	SLE FR 3	0	4.85	32.45	-0.2908	0.0001	0
233	SLE FR 4	0	5.2	34.87	-0.3125	0.0002	0
233	SLE FR 5	0	5.11	34.13	-0.3063	0.0003	0
233	SLE FR 6	0	5.37	35.99	-0.3228	0.0003	0
233	SLE QP 1	0	4.94	33.19	-0.297	0	0
233	SLE QP 2	0	5.2	34.87	-0.3125	0.0002	0
233	SLD 1	-0.04	7.4	46.15	-0.4538	-0.0276	0.0004
233	SLD 2	-0.04	7.4	46.15	-0.4538	-0.0276	0.0004
233	SLD 3	-0.08	4.81	34.28	-0.2889	-0.0523	0.0003
233	SLD 4	-0.08	4.81	34.28	-0.2889	-0.0523	0.0003
233	SLD 5	0.04	9.78	56.24	-0.605	0.0294	0.0004
233	SLD 6	0.04	9.78	56.24	-0.605	0.0294	0.0004
233	SLD 7	-0.08	1.15	16.71	-0.0553	-0.0531	-0.0002
233	SLD 8	-0.08	1.15	16.71	-0.0553	-0.0531	-0.0002
233	SLD 9	0.08	9.24	53.04	-0.5696	0.0535	0.0002
233	SLD 10	0.08	9.24	53.04	-0.5696	0.0535	0.0002
233	SLD 11	-0.05	0.61	13.5	-0.02	-0.029	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
233	SLD 12	-0.05	0.61	13.5	-0.02	-0.029	-0.0004
233	SLD 13	0.08	5.59	35.46	-0.3361	0.0527	-0.0002
233	SLD 14	0.08	5.59	35.46	-0.3361	0.0527	-0.0002
233	SLD 15	0.04	3	23.6	-0.1712	0.028	-0.0004
233	SLD 16	0.04	3	23.6	-0.1712	0.028	-0.0004
233	SLV 1	-0.1	10.4	61.68	-0.6471	-0.0662	0.0011
233	SLV 2	-0.1	10.4	61.68	-0.6471	-0.0662	0.0011
233	SLV 3	-0.2	4.27	33.29	-0.2562	-0.1289	0.0006
233	SLV 4	-0.2	4.27	33.29	-0.2562	-0.1289	0.0006
233	SLV 5	0.12	16.06	85.96	-1.0056	0.0754	0.001
233	SLV 6	0.12	16.06	85.96	-1.0056	0.0754	0.001
233	SLV 7	-0.21	-4.38	-8.65	0.2971	-0.1336	-0.0005
233	SLV 8	-0.21	-4.38	-8.65	0.2971	-0.1336	-0.0005
233	SLV 9	0.2	14.78	78.4	-0.9221	0.134	0.0005
233	SLV 10	0.2	14.78	78.4	-0.9221	0.134	0.0005
233	SLV 11	-0.12	-5.66	-16.22	0.3806	-0.075	-0.001
233	SLV 12	-0.12	-5.66	-16.22	0.3806	-0.075	-0.001
233	SLV 13	0.2	6.13	36.45	-0.3687	0.1293	-0.0006
233	SLV 14	0.2	6.13	36.45	-0.3687	0.1293	-0.0006
233	SLV 15	0.1	0	8.07	0.0221	0.0666	-0.0011
233	SLV 16	0.1	0	8.07	0.0221	0.0666	-0.0011
234	SLU 1	0	4.51	25.24	-0.3382	0.0001	0
234	SLU 2	0	4.52	25.4	-0.3388	0	0
234	SLU 3	0	4.28	22.65	-0.3238	0.0001	0
234	SLU 4	0	4.28	22.74	-0.3242	0	0
234	SLU 5	0	4.15	21.78	-0.3145	0	0
234	SLU 6	0	3.91	19.04	-0.2995	0.0001	0
234	SLU 7	0	3.91	19.13	-0.2999	0	0
234	SLU 8	0	3.77	18.01	-0.2896	0.0001	0
234	SLU 9	0	3.78	18.1	-0.29	0	0
234	SLU 10	0	5.34	30.31	-0.4003	-0.0001	0
234	SLU 11	0	5.09	27.57	-0.3853	0	0
234	SLU 12	0	5.1	27.66	-0.3857	0	0
234	SLU 13	0	4.97	26.69	-0.3761	-0.0001	0
234	SLU 14	0	4.72	23.95	-0.361	0	0
234	SLU 15	0	4.73	24.04	-0.3614	0	0
234	SLU 16	0	4.59	22.93	-0.3511	0	0
234	SLU 17	0	4.59	23.02	-0.3515	0	0
234	SLU 18	0	5.68	32.26	-0.4261	0	0
234	SLU 19	0	5.68	32.35	-0.4265	-0.0001	0
234	SLU 20	0	5.31	28.65	-0.4018	0	0
234	SLU 21	0	5.31	28.74	-0.4022	-0.0001	0
234	SLU 22	0	5.02	27.34	-0.3786	0.0001	0
234	SLU 23	0	5.03	27.49	-0.3792	0	0
234	SLU 24	0	4.79	24.75	-0.3642	0.0001	0
234	SLU 25	0	4.79	24.84	-0.3645	0	0
234	SLU 26	0	4.66	23.88	-0.3549	0	0
234	SLU 27	0	4.42	21.14	-0.3399	0.0001	0
234	SLU 28	0	4.42	21.23	-0.3403	0	0
234	SLU 29	0	4.28	20.11	-0.33	0.0001	0
234	SLU 30	0	4.29	20.2	-0.3304	0	0
234	SLU 31	0	5.85	32.41	-0.4407	-0.0001	0
234	SLU 32	0	5.6	29.66	-0.4257	0	0
234	SLU 33	0	5.61	29.75	-0.4261	0	0
234	SLU 34	0	5.48	28.79	-0.4164	-0.0001	0
234	SLU 35	0	5.24	26.05	-0.4014	0	0
234	SLU 36	0	5.24	26.14	-0.4018	0	0
234	SLU 37	0	5.1	25.02	-0.3915	0	0
234	SLU 38	0	5.11	25.11	-0.3919	0	0
234	SLU 39	0	6.19	34.36	-0.4664	0	0
234	SLU 40	0	6.19	34.45	-0.4668	-0.0001	0
234	SLU 41	0	5.82	30.74	-0.4422	0	0
234	SLU 42	0	5.82	30.84	-0.4425	-0.0001	0
234	SLU 43	0	5.69	32.1	-0.4258	0.0001	0
234	SLU 44	0	5.7	32.25	-0.4264	0	0
234	SLU 45	0	5.46	29.51	-0.4114	0.0001	0
234	SLU 46	0	5.46	29.6	-0.4118	0	0
234	SLU 47	0	5.33	28.63	-0.4021	0	0
234	SLU 48	0	5.09	25.89	-0.3871	0.0001	0
234	SLU 49	0	5.09	25.98	-0.3875	0	0
234	SLU 50	0	4.95	24.87	-0.3772	0.0001	0
234	SLU 51	0	4.96	24.96	-0.3776	0	0
234	SLU 52	0	6.52	37.16	-0.488	-0.0001	0
234	SLU 53	0	6.27	34.42	-0.4729	0	0
234	SLU 54	0	6.28	34.51	-0.4733	0	0
234	SLU 55	0	6.15	33.55	-0.4637	-0.0001	0
234	SLU 56	0	5.9	30.8	-0.4486	0	0
234	SLU 57	0	5.91	30.89	-0.449	0	0
234	SLU 58	0	5.77	29.78	-0.4387	0	0
234	SLU 59	0	5.77	29.87	-0.4391	0	0
234	SLU 60	0	6.86	39.12	-0.5137	0	0
234	SLU 61	0	6.86	39.21	-0.5141	-0.0001	0
234	SLU 62	0	6.49	35.5	-0.4894	0	0
234	SLU 63	0	6.49	35.59	-0.4898	-0.0001	0
234	SLU 64	0	6.2	34.2	-0.4662	0.0001	0
234	SLU 65	0	6.21	34.35	-0.4668	0	0
234	SLU 66	0	5.97	31.61	-0.4518	0.0001	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
234	SLU 67	0	5.97	31.7	-0.4522	0	0
234	SLU 68	0	5.84	30.73	-0.4425	0	0
234	SLU 69	0	5.6	27.99	-0.4275	0.0001	0
234	SLU 70	0	5.6	28.08	-0.4279	0.0001	0
234	SLU 71	0	5.46	26.97	-0.4176	0.0001	0
234	SLU 72	0	5.47	27.06	-0.418	0	0
234	SLU 73	0	7.03	39.26	-0.5283	-0.0001	0
234	SLU 74	0	6.78	36.52	-0.5133	0	0
234	SLU 75	0	6.79	36.61	-0.5137	0	0
234	SLU 76	0	6.66	35.64	-0.504	-0.0001	0
234	SLU 77	0	6.41	32.9	-0.489	0.0001	0
234	SLU 78	0	6.42	32.99	-0.4894	0	0
234	SLU 79	0	6.28	31.88	-0.4791	0	0
234	SLU 80	0	6.28	31.97	-0.4795	0	0
234	SLU 81	0	7.37	41.21	-0.5541	0	0
234	SLU 82	0	7.37	41.3	-0.5544	-0.0001	0
234	SLU 83	0	7	37.6	-0.5298	0	0
234	SLU 84	0	7	37.69	-0.5301	0	0
234	SLE RA 1	0	4.66	25.84	-0.3497	0.0001	0
234	SLE RA 2	0	4.66	25.95	-0.3502	0	0
234	SLE RA 3	0	4.5	24.12	-0.3401	0.0001	0
234	SLE RA 4	0	4.51	24.18	-0.3404	0	0
234	SLE RA 5	0	4.42	23.53	-0.334	0	0
234	SLE RA 6	0	4.25	21.71	-0.3239	0.0001	0
234	SLE RA 7	0	4.26	21.77	-0.3242	0	0
234	SLE RA 8	0	4.16	21.02	-0.3173	0.0001	0
234	SLE RA 9	0	4.17	21.08	-0.3176	0	0
234	SLE RA 10	0	5.21	29.22	-0.3912	0	0
234	SLE RA 11	0	5.05	27.39	-0.3811	0	0
234	SLE RA 12	0	5.05	27.45	-0.3814	0	0
234	SLE RA 13	0	4.96	26.81	-0.375	0	0
234	SLE RA 14	0	4.8	24.98	-0.3649	0	0
234	SLE RA 15	0	4.8	25.04	-0.3652	0	0
234	SLE RA 16	0	4.71	24.3	-0.3583	0	0
234	SLE RA 17	0	4.71	24.36	-0.3586	0	0
234	SLE RA 18	0	5.43	30.52	-0.4083	0	0
234	SLE RA 19	0	5.44	30.58	-0.4086	0	0
234	SLE RA 20	0	5.19	28.11	-0.3921	0	0
234	SLE RA 21	0	5.19	28.17	-0.3924	0	0
234	SLE FR 1	0	4.66	25.84	-0.3497	0.0001	0
234	SLE FR 2	0	4.66	25.86	-0.3498	0	0
234	SLE FR 3	0	4.56	24.88	-0.3432	0.0001	0
234	SLE FR 4	0	4.89	27.27	-0.3674	0	0
234	SLE FR 5	0	4.79	26.28	-0.3608	0	0
234	SLE FR 6	0	5.05	28.18	-0.379	0	0
234	SLE QP 1	0	4.66	25.84	-0.3497	0.0001	0
234	SLE QP 2	0	4.89	27.25	-0.3673	0	0
234	SLD 1	-0.07	5.21	28.68	-0.3918	-0.0514	-0.0003
234	SLD 2	-0.07	5.21	28.68	-0.3918	-0.0514	-0.0003
234	SLD 3	-0.03	2.92	18.04	-0.242	-0.0211	-0.0004
234	SLD 4	-0.03	2.92	18.04	-0.242	-0.0211	-0.0004
234	SLD 5	-0.09	8.44	43.82	-0.6019	-0.0613	0
234	SLD 6	-0.09	8.44	43.82	-0.6019	-0.0613	0
234	SLD 7	0.06	0.84	8.34	-0.1024	0.0396	-0.0002
234	SLD 8	0.06	0.84	8.34	-0.1024	0.0396	-0.0002
234	SLD 9	-0.05	8.94	46.15	-0.6321	-0.0395	0.0002
234	SLD 10	-0.05	8.94	46.15	-0.6321	-0.0395	0.0002
234	SLD 11	0.09	1.34	10.68	-0.1327	0.0614	-0.0001
234	SLD 12	0.09	1.34	10.68	-0.1327	0.0614	-0.0001
234	SLD 13	0.03	6.86	36.46	-0.4926	0.0212	0.0003
234	SLD 14	0.03	6.86	36.46	-0.4926	0.0212	0.0003
234	SLD 15	0.07	4.57	25.82	-0.3427	0.0515	0.0002
234	SLD 16	0.07	4.57	25.82	-0.3427	0.0515	0.0002
234	SLV 1	-0.18	5.64	30.72	-0.4251	-0.1276	-0.0006
234	SLV 2	-0.18	5.64	30.72	-0.4251	-0.1276	-0.0006
234	SLV 3	-0.07	0.26	5.32	-0.0717	-0.0515	-0.0008
234	SLV 4	-0.07	0.26	5.32	-0.0717	-0.0515	-0.0008
234	SLV 5	-0.22	13.28	66.81	-0.9205	-0.1537	0.0001
234	SLV 6	-0.22	13.28	66.81	-0.9205	-0.1537	0.0001
234	SLV 7	0.14	-4.66	-17.85	0.2573	0.1001	-0.0006
234	SLV 8	0.14	-4.66	-17.85	0.2573	0.1001	-0.0006
234	SLV 9	-0.14	14.44	72.35	-0.9919	-0.1	0.0005
234	SLV 10	-0.14	14.44	72.35	-0.9919	-0.1	0.0005
234	SLV 11	0.22	-3.5	-12.31	0.1859	0.1538	-0.0002
234	SLV 12	0.22	-3.5	-12.31	0.1859	0.1538	-0.0002
234	SLV 13	0.08	9.52	49.17	-0.6629	0.0516	0.0008
234	SLV 14	0.08	9.52	49.17	-0.6629	0.0516	0.0008
234	SLV 15	0.19	4.14	23.77	-0.3095	0.1277	0.0006
234	SLV 16	0.19	4.14	23.77	-0.3095	0.1277	0.0006
235	SLU 1	0	4.58	55.11	-0.2343	0.0005	0.0002
235	SLU 2	-0.02	4.83	55.76	-0.2592	-0.0152	0.0004
235	SLU 3	0	4.64	56.39	-0.2372	0.0004	0.0002
235	SLU 4	-0.01	4.78	56.78	-0.2521	-0.009	0.0003
235	SLU 5	-0.02	4.84	56.4	-0.2598	-0.0152	0.0004
235	SLU 6	-0.01	4.64	57.03	-0.2378	0.0004	0.0002
235	SLU 7	-0.01	4.79	57.42	-0.2527	-0.009	0.0003
235	SLU 8	0	4.6	56.39	-0.2356	0.0004	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
235	SLU 9	-0.01	4.75	56.78	-0.2506	-0.009	0.0003
235	SLU 10	-0.02	5.24	61.92	-0.2784	-0.0155	0.0004
235	SLU 11	-0.01	5.05	62.55	-0.2564	0.0001	0.0002
235	SLU 12	-0.02	5.2	62.94	-0.2713	-0.0093	0.0003
235	SLU 13	-0.02	5.25	62.56	-0.2791	-0.0155	0.0004
235	SLU 14	-0.01	5.05	63.19	-0.257	0	0.0002
235	SLU 15	-0.02	5.2	63.58	-0.272	-0.0094	0.0003
235	SLU 16	-0.01	5.01	62.55	-0.2548	0.0001	0.0002
235	SLU 17	-0.02	5.16	62.94	-0.2698	-0.0093	0.0003
235	SLU 18	-0.01	5.17	63.91	-0.2618	0	0.0002
235	SLU 19	-0.02	5.32	64.3	-0.2767	-0.0094	0.0003
235	SLU 20	-0.01	5.18	64.55	-0.2624	0	0.0002
235	SLU 21	-0.02	5.33	64.94	-0.2773	-0.0094	0.0003
235	SLU 22	-0.01	4.97	61.15	-0.2529	0.0003	0.0002
235	SLU 23	-0.02	5.22	61.8	-0.2778	-0.0154	0.0004
235	SLU 24	-0.01	5.03	62.44	-0.2558	0.0002	0.0002
235	SLU 25	-0.02	5.18	62.83	-0.2707	-0.0092	0.0003
235	SLU 26	-0.02	5.23	62.44	-0.2785	-0.0154	0.0004
235	SLU 27	-0.01	5.03	63.08	-0.2565	0.0002	0.0002
235	SLU 28	-0.02	5.18	63.47	-0.2714	-0.0092	0.0003
235	SLU 29	-0.01	4.99	62.43	-0.2543	0.0002	0.0002
235	SLU 30	-0.02	5.14	62.82	-0.2692	-0.0092	0.0003
235	SLU 31	-0.02	5.63	67.96	-0.297	-0.0157	0.0004
235	SLU 32	-0.01	5.44	68.6	-0.275	-0.0001	0.0003
235	SLU 33	-0.02	5.59	68.99	-0.2899	-0.0095	0.0004
235	SLU 34	-0.02	5.64	68.6	-0.2977	-0.0158	0.0004
235	SLU 35	-0.01	5.44	69.23	-0.2757	-0.0002	0.0003
235	SLU 36	-0.02	5.59	69.62	-0.2906	-0.0096	0.0004
235	SLU 37	-0.01	5.4	68.59	-0.2735	-0.0001	0.0003
235	SLU 38	-0.02	5.55	68.98	-0.2884	-0.0095	0.0004
235	SLU 39	-0.01	5.56	69.95	-0.2804	-0.0002	0.0003
235	SLU 40	-0.02	5.71	70.34	-0.2953	-0.0096	0.0004
235	SLU 41	-0.01	5.57	70.59	-0.281	-0.0002	0.0003
235	SLU 42	-0.02	5.72	70.98	-0.296	-0.0096	0.0004
235	SLU 43	-0.01	5.82	69.57	-0.2982	0.0007	0.0002
235	SLU 44	-0.02	6.07	70.22	-0.3231	-0.015	0.0004
235	SLU 45	-0.01	5.88	70.86	-0.3011	0.0006	0.0002
235	SLU 46	-0.02	6.03	71.24	-0.316	-0.0088	0.0004
235	SLU 47	-0.02	6.08	70.86	-0.3237	-0.015	0.0004
235	SLU 48	-0.01	5.88	71.49	-0.3017	0.0006	0.0002
235	SLU 49	-0.02	6.03	71.88	-0.3166	-0.0088	0.0004
235	SLU 50	-0.01	5.84	70.85	-0.2995	0.0006	0.0002
235	SLU 51	-0.02	5.99	71.24	-0.3145	-0.0088	0.0004
235	SLU 52	-0.02	6.48	76.38	-0.3423	-0.0153	0.0004
235	SLU 53	-0.01	6.29	77.01	-0.3203	0.0003	0.0003
235	SLU 54	-0.02	6.44	77.4	-0.3352	-0.0091	0.0004
235	SLU 55	-0.02	6.49	77.02	-0.343	-0.0153	0.0005
235	SLU 56	-0.01	6.29	77.65	-0.3209	0.0003	0.0003
235	SLU 57	-0.02	6.44	78.04	-0.3359	-0.0091	0.0004
235	SLU 58	-0.01	6.25	77.01	-0.3187	0.0003	0.0003
235	SLU 59	-0.02	6.4	77.4	-0.3337	-0.0091	0.0004
235	SLU 60	-0.01	6.41	78.37	-0.3257	0.0002	0.0003
235	SLU 61	-0.02	6.56	78.76	-0.3406	-0.0092	0.0004
235	SLU 62	-0.01	6.42	79.01	-0.3263	0.0002	0.0003
235	SLU 63	-0.02	6.57	79.4	-0.3412	-0.0092	0.0004
235	SLU 64	-0.01	6.21	75.61	-0.3168	0.0005	0.0003
235	SLU 65	-0.02	6.46	76.26	-0.3417	-0.0152	0.0004
235	SLU 66	-0.01	6.27	76.9	-0.3197	0.0004	0.0003
235	SLU 67	-0.02	6.42	77.29	-0.3346	-0.009	0.0004
235	SLU 68	-0.02	6.47	76.9	-0.3424	-0.0152	0.0005
235	SLU 69	-0.01	6.27	77.54	-0.3204	0.0004	0.0003
235	SLU 70	-0.02	6.42	77.93	-0.3353	-0.009	0.0004
235	SLU 71	-0.01	6.23	76.89	-0.3182	0.0004	0.0003
235	SLU 72	-0.02	6.38	77.28	-0.3331	-0.009	0.0004
235	SLU 73	-0.02	6.87	82.42	-0.3609	-0.0155	0.0005
235	SLU 74	-0.01	6.68	83.06	-0.3389	0.0001	0.0003
235	SLU 75	-0.02	6.83	83.45	-0.3538	-0.0093	0.0004
235	SLU 76	-0.02	6.88	83.06	-0.3616	-0.0155	0.0005
235	SLU 77	-0.01	6.69	83.7	-0.3396	0	0.0003
235	SLU 78	-0.02	6.84	84.09	-0.3545	-0.0093	0.0004
235	SLU 79	-0.01	6.64	83.05	-0.3374	0.0001	0.0003
235	SLU 80	-0.02	6.79	83.44	-0.3523	-0.0093	0.0004
235	SLU 81	-0.01	6.8	84.41	-0.3443	0	0.0003
235	SLU 82	-0.02	6.95	84.8	-0.3592	-0.0094	0.0004
235	SLU 83	-0.01	6.81	85.05	-0.345	0	0.0003
235	SLU 84	-0.02	6.96	85.44	-0.3599	-0.0094	0.0004
235	SLE RA 1	0	4.69	56.84	-0.2396	0.0004	0.0002
235	SLE RA 2	-0.02	4.86	57.27	-0.2562	-0.01	0.0003
235	SLE RA 3	-0.01	4.73	57.69	-0.2415	0.0004	0.0002
235	SLE RA 4	-0.01	4.83	57.95	-0.2515	-0.0059	0.0003
235	SLE RA 5	-0.02	4.86	57.7	-0.2567	-0.01	0.0003
235	SLE RA 6	-0.01	4.73	58.12	-0.242	0.0003	0.0002
235	SLE RA 7	-0.01	4.83	58.38	-0.2519	-0.0059	0.0003
235	SLE RA 8	-0.01	4.7	57.69	-0.2405	0.0004	0.0002
235	SLE RA 9	-0.01	4.8	57.95	-0.2505	-0.0059	0.0003
235	SLE RA 10	-0.02	5.13	61.37	-0.269	-0.0102	0.0003
235	SLE RA 11	-0.01	5	61.8	-0.2543	0.0002	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
235	SLE RA 12	-0.01	5.1	62.06	-0.2643	-0.0061	0.0003
235	SLE RA 13	-0.02	5.14	61.8	-0.2695	-0.0103	0.0003
235	SLE RA 14	-0.01	5.01	62.22	-0.2548	0.0001	0.0002
235	SLE RA 15	-0.01	5.11	62.48	-0.2647	-0.0061	0.0003
235	SLE RA 16	-0.01	4.98	61.79	-0.2533	0.0001	0.0002
235	SLE RA 17	-0.01	5.08	62.05	-0.2633	-0.0061	0.0003
235	SLE RA 18	-0.01	5.09	62.7	-0.2579	0.0001	0.0002
235	SLE RA 19	-0.01	5.19	62.96	-0.2679	-0.0062	0.0003
235	SLE RA 20	-0.01	5.09	63.13	-0.2584	0.0001	0.0002
235	SLE RA 21	-0.01	5.19	63.39	-0.2683	-0.0062	0.0003
235	SLE FR 1	0	4.69	56.84	-0.2396	0.0004	0.0002
235	SLE FR 2	-0.01	4.73	56.92	-0.2429	-0.0017	0.0002
235	SLE FR 3	0	4.7	57.01	-0.2398	0.0004	0.0002
235	SLE FR 4	-0.01	4.84	58.68	-0.2484	-0.0018	0.0002
235	SLE FR 5	-0.01	4.81	58.77	-0.2453	0.0003	0.0002
235	SLE FR 6	-0.01	4.89	59.77	-0.2488	0.0003	0.0002
235	SLE QP 1	0	4.69	56.84	-0.2396	0.0004	0.0002
235	SLE QP 2	-0.01	4.81	58.6	-0.2451	0.0003	0.0002
235	SLD 1	0.24	4.31	46.8	-0.236	0.212	-0.002
235	SLD 2	0.24	4.31	46.8	-0.236	0.212	-0.002
235	SLD 3	0.12	2.44	41.79	-0.0994	0.1157	-0.0006
235	SLD 4	0.12	2.44	41.79	-0.0994	0.1157	-0.0006
235	SLD 5	0.24	7.49	62.66	-0.4497	0.21	-0.0025
235	SLD 6	0.24	7.49	62.66	-0.4497	0.21	-0.0025
235	SLD 7	-0.14	1.27	45.95	0.0059	-0.1112	0.002
235	SLD 8	-0.14	1.27	45.95	0.0059	-0.1112	0.002
235	SLD 9	0.13	8.35	71.24	-0.4961	0.1119	-0.0016
235	SLD 10	0.13	8.35	71.24	-0.4961	0.1119	-0.0016
235	SLD 11	-0.25	2.13	54.54	-0.0405	-0.2093	0.0029
235	SLD 12	-0.25	2.13	54.54	-0.0405	-0.2093	0.0029
235	SLD 13	-0.13	7.18	75.4	-0.3909	-0.115	0.0011
235	SLD 14	-0.13	7.18	75.4	-0.3909	-0.115	0.0011
235	SLD 15	-0.25	5.32	70.39	-0.2542	-0.2114	0.0024
235	SLD 16	-0.25	5.32	70.39	-0.2542	-0.2114	0.0024
235	SLV 1	0.58	3.61	30.97	-0.2226	0.5176	-0.0051
235	SLV 2	0.58	3.61	30.97	-0.2226	0.5176	-0.0051
235	SLV 3	0.29	-0.72	19.32	0.0951	0.2728	-0.0017
235	SLV 4	0.29	-0.72	19.32	0.0951	0.2728	-0.0017
235	SLV 5	0.61	11.02	67.98	-0.7203	0.5267	-0.0066
235	SLV 6	0.61	11.02	67.98	-0.7203	0.5267	-0.0066
235	SLV 7	-0.35	-3.42	29.15	0.3389	-0.2891	0.0048
235	SLV 8	-0.35	-3.42	29.15	0.3389	-0.2891	0.0048
235	SLV 9	0.34	13.04	88.04	-0.8291	0.2898	-0.0044
235	SLV 10	0.34	13.04	88.04	-0.8291	0.2898	-0.0044
235	SLV 11	-0.62	-1.4	49.21	0.2301	-0.526	0.007
235	SLV 12	-0.62	-1.4	49.21	0.2301	-0.526	0.007
235	SLV 13	-0.3	10.34	97.87	-0.5853	-0.2722	0.0021
235	SLV 14	-0.3	10.34	97.87	-0.5853	-0.2722	0.0021
235	SLV 15	-0.59	6.01	86.22	-0.2676	-0.5169	0.0055
235	SLV 16	-0.59	6.01	86.22	-0.2676	-0.5169	0.0055
236	SLU 1	-0.2	-1.13	27.06	0.0472	-0.1335	-0.0001
236	SLU 2	-0.18	-0.57	28.14	0.0162	-0.116	0
236	SLU 3	-0.21	-1.16	27.83	0.0483	-0.138	-0.0001
236	SLU 4	-0.2	-0.82	28.47	0.0297	-0.1275	0
236	SLU 5	-0.18	-0.56	28.73	0.0152	-0.1189	0
236	SLU 6	-0.21	-1.14	28.42	0.0472	-0.1408	-0.0001
236	SLU 7	-0.2	-0.81	29.07	0.0286	-0.1303	0
236	SLU 8	-0.21	-1.1	28.25	0.045	-0.1393	-0.0001
236	SLU 9	-0.2	-0.76	28.9	0.0265	-0.1288	0
236	SLU 10	-0.2	-0.92	30.34	0.0337	-0.1324	0
236	SLU 11	-0.23	-1.51	30.03	0.0657	-0.1543	-0.0001
236	SLU 12	-0.22	-1.17	30.68	0.0472	-0.1438	0
236	SLU 13	-0.21	-0.9	30.94	0.0326	-0.1353	0
236	SLU 14	-0.24	-1.49	30.63	0.0647	-0.1572	-0.0001
236	SLU 15	-0.22	-1.15	31.28	0.0461	-0.1467	0
236	SLU 16	-0.23	-1.44	30.45	0.0625	-0.1557	-0.0001
236	SLU 17	-0.22	-1.11	31.1	0.0439	-0.1452	0
236	SLU 18	-0.23	-1.63	30.21	0.0721	-0.157	-0.0001
236	SLU 19	-0.22	-1.29	30.85	0.0536	-0.1465	0
236	SLU 20	-0.24	-1.61	30.8	0.0711	-0.1598	-0.0001
236	SLU 21	-0.23	-1.27	31.45	0.0525	-0.1493	0
236	SLU 22	-0.23	-1.45	29.41	0.0627	-0.1504	-0.0001
236	SLU 23	-0.21	-0.89	30.49	0.0318	-0.1329	0
236	SLU 24	-0.23	-1.47	30.18	0.0638	-0.1548	-0.0001
236	SLU 25	-0.22	-1.14	30.83	0.0453	-0.1443	0
236	SLU 26	-0.21	-0.87	31.09	0.0307	-0.1358	0
236	SLU 27	-0.24	-1.45	30.78	0.0627	-0.1577	-0.0001
236	SLU 28	-0.22	-1.12	31.43	0.0442	-0.1472	0
236	SLU 29	-0.23	-1.41	30.6	0.0606	-0.1561	-0.0001
236	SLU 30	-0.22	-1.07	31.25	0.042	-0.1456	0
236	SLU 31	-0.23	-1.23	32.69	0.0492	-0.1493	0
236	SLU 32	-0.26	-1.82	32.39	0.0813	-0.1712	-0.0001
236	SLU 33	-0.24	-1.48	33.03	0.0627	-0.1607	-0.0001
236	SLU 34	-0.23	-1.21	33.29	0.0482	-0.1522	0
236	SLU 35	-0.26	-1.8	32.98	0.0802	-0.1741	-0.0001
236	SLU 36	-0.25	-1.46	33.63	0.0616	-0.1636	-0.0001
236	SLU 37	-0.26	-1.75	32.81	0.078	-0.1725	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
236	SLU 38	-0.25	-1.42	33.46	0.0595	-0.162	-0.0001
236	SLU 39	-0.26	-1.94	32.56	0.0877	-0.1738	-0.0001
236	SLU 40	-0.25	-1.6	33.21	0.0691	-0.1633	-0.0001
236	SLU 41	-0.26	-1.92	33.16	0.0866	-0.1767	-0.0001
236	SLU 42	-0.25	-1.58	33.8	0.068	-0.1662	-0.0001
236	SLU 43	-0.25	-1.37	34.36	0.056	-0.1678	-0.0001
236	SLU 44	-0.23	-0.81	35.44	0.0251	-0.1503	0
236	SLU 45	-0.26	-1.39	35.14	0.0571	-0.1722	-0.0001
236	SLU 46	-0.25	-1.06	35.78	0.0385	-0.1617	-0.0001
236	SLU 47	-0.24	-0.79	36.04	0.024	-0.1532	0
236	SLU 48	-0.26	-1.38	35.73	0.056	-0.1751	-0.0001
236	SLU 49	-0.25	-1.04	36.38	0.0375	-0.1646	-0.0001
236	SLU 50	-0.26	-1.33	35.56	0.0539	-0.1736	-0.0001
236	SLU 51	-0.25	-1	36.21	0.0353	-0.1631	-0.0001
236	SLU 52	-0.26	-1.15	37.65	0.0425	-0.1667	0
236	SLU 53	-0.28	-1.74	37.34	0.0746	-0.1886	-0.0001
236	SLU 54	-0.27	-1.4	37.99	0.056	-0.1781	-0.0001
236	SLU 55	-0.26	-1.14	38.25	0.0415	-0.1696	0
236	SLU 56	-0.29	-1.72	37.94	0.0735	-0.1915	-0.0001
236	SLU 57	-0.28	-1.39	38.59	0.0549	-0.181	-0.0001
236	SLU 58	-0.28	-1.68	37.76	0.0713	-0.19	-0.0001
236	SLU 59	-0.27	-1.34	38.41	0.0528	-0.1795	-0.0001
236	SLU 60	-0.29	-1.86	37.52	0.081	-0.1913	-0.0001
236	SLU 61	-0.27	-1.53	38.16	0.0624	-0.1807	-0.0001
236	SLU 62	-0.29	-1.84	38.11	0.0799	-0.1941	-0.0001
236	SLU 63	-0.28	-1.51	38.76	0.0613	-0.1836	-0.0001
236	SLU 64	-0.28	-1.68	36.72	0.0715	-0.1847	-0.0001
236	SLU 65	-0.26	-1.12	37.8	0.0406	-0.1672	0
236	SLU 66	-0.28	-1.7	37.49	0.0726	-0.1891	-0.0001
236	SLU 67	-0.27	-1.37	38.14	0.0541	-0.1786	-0.0001
236	SLU 68	-0.26	-1.1	38.4	0.0395	-0.1701	0
236	SLU 69	-0.29	-1.69	38.09	0.0716	-0.192	-0.0001
236	SLU 70	-0.28	-1.35	38.73	0.053	-0.1815	-0.0001
236	SLU 71	-0.29	-1.64	37.91	0.0694	-0.1904	-0.0001
236	SLU 72	-0.27	-1.31	38.56	0.0508	-0.1799	-0.0001
236	SLU 73	-0.28	-1.46	40	0.0581	-0.1836	0
236	SLU 74	-0.31	-2.05	39.7	0.0901	-0.2055	-0.0001
236	SLU 75	-0.3	-1.71	40.34	0.0715	-0.195	-0.0001
236	SLU 76	-0.29	-1.45	40.6	0.057	-0.1864	-0.0001
236	SLU 77	-0.31	-2.03	40.29	0.089	-0.2084	-0.0001
236	SLU 78	-0.3	-1.7	40.94	0.0705	-0.1979	-0.0001
236	SLU 79	-0.31	-1.99	40.12	0.0869	-0.2068	-0.0001
236	SLU 80	-0.3	-1.65	40.77	0.0683	-0.1963	-0.0001
236	SLU 81	-0.31	-2.17	39.87	0.0965	-0.2081	-0.0001
236	SLU 82	-0.3	-1.84	40.52	0.0779	-0.1976	-0.0001
236	SLU 83	-0.32	-2.15	40.47	0.0954	-0.211	-0.0001
236	SLU 84	-0.3	-1.82	41.11	0.0769	-0.2005	-0.0001
236	SLE RA 1	-0.21	-1.22	27.73	0.0516	-0.1384	-0.0001
236	SLE RA 2	-0.19	-0.85	28.45	0.031	-0.1267	0
236	SLE RA 3	-0.21	-1.24	28.24	0.0524	-0.1413	-0.0001
236	SLE RA 4	-0.2	-1.02	28.67	0.04	-0.1343	0
236	SLE RA 5	-0.2	-0.84	28.85	0.0303	-0.1286	0
236	SLE RA 6	-0.21	-1.23	28.64	0.0516	-0.1432	-0.0001
236	SLE RA 7	-0.21	-1	29.07	0.0393	-0.1362	0
236	SLE RA 8	-0.21	-1.2	28.52	0.0502	-0.1422	-0.0001
236	SLE RA 9	-0.21	-0.98	28.96	0.0378	-0.1352	0
236	SLE RA 10	-0.21	-1.08	29.92	0.0426	-0.1376	0
236	SLE RA 11	-0.23	-1.47	29.71	0.064	-0.1522	-0.0001
236	SLE RA 12	-0.22	-1.25	30.14	0.0516	-0.1452	-0.0001
236	SLE RA 13	-0.21	-1.07	30.32	0.0419	-0.1395	0
236	SLE RA 14	-0.23	-1.46	30.11	0.0633	-0.1541	-0.0001
236	SLE RA 15	-0.22	-1.23	30.54	0.0509	-0.1471	-0.0001
236	SLE RA 16	-0.23	-1.43	29.99	0.0618	-0.1531	-0.0001
236	SLE RA 17	-0.22	-1.21	30.43	0.0495	-0.1461	-0.0001
236	SLE RA 18	-0.23	-1.55	29.83	0.0683	-0.154	-0.0001
236	SLE RA 19	-0.22	-1.33	30.26	0.0559	-0.147	-0.0001
236	SLE RA 20	-0.23	-1.54	30.23	0.0675	-0.1559	-0.0001
236	SLE RA 21	-0.23	-1.32	30.66	0.0552	-0.1489	-0.0001
236	SLE FR 1	-0.21	-1.22	27.73	0.0516	-0.1384	-0.0001
236	SLE FR 2	-0.2	-1.15	27.87	0.0475	-0.136	-0.0001
236	SLE FR 3	-0.21	-1.22	27.89	0.0513	-0.1391	-0.0001
236	SLE FR 4	-0.21	-1.25	28.5	0.0525	-0.1407	-0.0001
236	SLE FR 5	-0.22	-1.32	28.52	0.0563	-0.1438	-0.0001
236	SLE FR 6	-0.22	-1.39	28.78	0.0599	-0.1462	-0.0001
236	SLE QP 1	-0.21	-1.22	27.73	0.0516	-0.1384	-0.0001
236	SLE QP 2	-0.21	-1.32	28.36	0.0566	-0.143	-0.0001
236	SLD 1	-0.4	-0.86	37.97	0.0279	-0.2299	0
236	SLD 2	-0.4	-0.86	37.97	0.0279	-0.2299	0
236	SLD 3	-0.31	-3.36	32.26	0.1671	-0.3054	0.0002
236	SLD 4	-0.31	-3.36	32.26	0.1671	-0.3054	0.0002
236	SLD 5	-0.41	2.61	39.89	-0.1631	-0.0545	-0.0002
236	SLD 6	-0.41	2.61	39.89	-0.1631	-0.0545	-0.0002
236	SLD 7	-0.11	-5.73	20.88	0.3008	-0.3063	0.0002
236	SLD 8	-0.11	-5.73	20.88	0.3008	-0.3063	0.0002
236	SLD 9	-0.32	3.09	35.84	-0.1876	0.0203	-0.0003
236	SLD 10	-0.32	3.09	35.84	-0.1876	0.0203	-0.0003
236	SLD 11	-0.02	-5.26	16.83	0.2763	-0.2316	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
236	SLD 12	-0.02	-5.26	16.83	0.2763	-0.2316	0.0001
236	SLD 13	-0.12	0.72	24.45	-0.0539	0.0193	-0.0003
236	SLD 14	-0.12	0.72	24.45	-0.0539	0.0193	-0.0003
236	SLD 15	-0.03	-1.79	18.75	0.0853	-0.0562	-0.0002
236	SLD 16	-0.03	-1.79	18.75	0.0853	-0.0562	-0.0002
236	SLV 1	-0.66	-0.27	50.85	-0.0085	-0.3455	0.0002
236	SLV 2	-0.66	-0.27	50.85	-0.0085	-0.3455	0.0002
236	SLV 3	-0.44	-6.09	37.62	0.3153	-0.5366	0.0006
236	SLV 4	-0.44	-6.09	37.62	0.3153	-0.5366	0.0006
236	SLV 5	-0.69	7.83	55.18	-0.4539	0.0861	-0.0005
236	SLV 6	-0.69	7.83	55.18	-0.4539	0.0861	-0.0005
236	SLV 7	0.06	-11.59	11.06	0.6252	-0.551	0.0007
236	SLV 8	0.06	-11.59	11.06	0.6252	-0.551	0.0007
236	SLV 9	-0.49	8.94	45.66	-0.512	0.2649	-0.0008
236	SLV 10	-0.49	8.94	45.66	-0.512	0.2649	-0.0008
236	SLV 11	0.26	-10.47	1.53	0.5671	-0.3722	0.0004
236	SLV 12	0.26	-10.47	1.53	0.5671	-0.3722	0.0004
236	SLV 13	0.01	3.45	19.1	-0.202	0.2505	-0.0007
236	SLV 14	0.01	3.45	19.1	-0.202	0.2505	-0.0007
236	SLV 15	0.23	-2.38	5.86	0.1217	0.0594	-0.0003
236	SLV 16	0.23	-2.38	5.86	0.1217	0.0594	-0.0003
237	SLU 1	0	3.34	42.86	-0.128	-0.0024	0
237	SLU 2	0	3.41	42.3	-0.1308	-0.0017	0
237	SLU 3	0	3.46	44.76	-0.1326	-0.0025	0
237	SLU 4	0	3.51	44.42	-0.1343	-0.0021	0
237	SLU 5	0	3.53	43.86	-0.1353	-0.0018	0
237	SLU 6	0	3.59	46.32	-0.1371	-0.0026	0
237	SLU 7	0	3.63	45.98	-0.1388	-0.0022	0
237	SLU 8	0	3.58	45.98	-0.137	-0.0026	0
237	SLU 9	0	3.63	45.64	-0.1387	-0.0022	0
237	SLU 10	0	3.83	49.78	-0.1473	-0.0021	0
237	SLU 11	0	3.88	52.24	-0.1491	-0.003	0.0001
237	SLU 12	0	3.93	51.9	-0.1508	-0.0026	0
237	SLU 13	0	3.95	51.34	-0.1518	-0.0022	0
237	SLU 14	0	4	53.8	-0.1536	-0.0031	0.0001
237	SLU 15	0	4.05	53.46	-0.1553	-0.0027	0
237	SLU 16	0	4	53.46	-0.1535	-0.0031	0.0001
237	SLU 17	0	4.05	53.12	-0.1552	-0.0026	0
237	SLU 18	0	3.94	53.55	-0.1515	-0.0031	0.0001
237	SLU 19	0	3.98	53.21	-0.1532	-0.0026	0
237	SLU 20	0	4.06	55.11	-0.1561	-0.0032	0.0001
237	SLU 21	0	4.1	54.77	-0.1577	-0.0027	0
237	SLU 22	0	3.77	50.17	-0.1447	-0.0029	0.0001
237	SLU 23	0	3.84	49.61	-0.1475	-0.0021	0
237	SLU 24	0	3.89	52.07	-0.1494	-0.003	0.0001
237	SLU 25	0	3.94	51.73	-0.151	-0.0026	0
237	SLU 26	0	3.96	51.17	-0.1521	-0.0022	0
237	SLU 27	0	4.01	53.62	-0.1539	-0.0031	0.0001
237	SLU 28	0	4.06	53.29	-0.1556	-0.0027	0
237	SLU 29	0	4.01	53.29	-0.1538	-0.003	0.0001
237	SLU 30	0	4.05	52.95	-0.1554	-0.0026	0
237	SLU 31	0	4.26	57.09	-0.164	-0.0026	0
237	SLU 32	0	4.31	59.54	-0.1658	-0.0034	0.0001
237	SLU 33	0	4.35	59.21	-0.1675	-0.003	0.0001
237	SLU 34	0	4.38	58.65	-0.1685	-0.0027	0
237	SLU 35	0	4.43	61.1	-0.1704	-0.0035	0.0001
237	SLU 36	0	4.47	60.77	-0.1721	-0.0031	0.0001
237	SLU 37	0	4.43	60.77	-0.1702	-0.0035	0.0001
237	SLU 38	0	4.47	60.43	-0.1719	-0.0031	0.0001
237	SLU 39	0	4.37	60.85	-0.1683	-0.0035	0.0001
237	SLU 40	0	4.41	60.52	-0.17	-0.0031	0.0001
237	SLU 41	0	4.49	62.41	-0.1728	-0.0036	0.0001
237	SLU 42	0	4.53	62.08	-0.1745	-0.0032	0.0001
237	SLU 43	0	4.2	53.22	-0.1606	-0.003	0.0001
237	SLU 44	0	4.27	52.66	-0.1634	-0.0023	0
237	SLU 45	0	4.32	55.11	-0.1653	-0.0031	0.0001
237	SLU 46	0	4.36	54.78	-0.167	-0.0027	0
237	SLU 47	0	4.39	54.22	-0.168	-0.0023	0
237	SLU 48	0	4.44	56.67	-0.1698	-0.0032	0.0001
237	SLU 49	0	4.48	56.34	-0.1715	-0.0028	0.0001
237	SLU 50	0	4.44	56.33	-0.1697	-0.0032	0.0001
237	SLU 51	0	4.48	56	-0.1714	-0.0027	0
237	SLU 52	0	4.69	60.14	-0.1799	-0.0027	0
237	SLU 53	0	4.74	62.59	-0.1818	-0.0036	0.0001
237	SLU 54	0	4.78	62.26	-0.1834	-0.0031	0.0001
237	SLU 55	0	4.81	61.7	-0.1845	-0.0028	0.0001
237	SLU 56	0	4.86	64.15	-0.1863	-0.0037	0.0001
237	SLU 57	0	4.9	63.82	-0.188	-0.0032	0.0001
237	SLU 58	0	4.86	63.81	-0.1862	-0.0036	0.0001
237	SLU 59	0	4.9	63.48	-0.1879	-0.0032	0.0001
237	SLU 60	0	4.8	63.9	-0.1842	-0.0036	0.0001
237	SLU 61	0	4.84	63.57	-0.1859	-0.0032	0.0001
237	SLU 62	0	4.92	65.46	-0.1887	-0.0037	0.0001
237	SLU 63	0	4.96	65.12	-0.1904	-0.0033	0.0001
237	SLU 64	0	4.62	60.52	-0.1774	-0.0034	0.0001
237	SLU 65	0	4.7	59.96	-0.1802	-0.0027	0
237	SLU 66	0	4.75	62.42	-0.182	-0.0036	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
237	SLU 67	0	4.79	62.08	-0.1837	-0.0031	0.0001
237	SLU 68	0	4.82	61.52	-0.1847	-0.0028	0.0001
237	SLU 69	0	4.87	63.98	-0.1865	-0.0037	0.0001
237	SLU 70	0	4.91	63.64	-0.1882	-0.0032	0.0001
237	SLU 71	0	4.87	63.64	-0.1864	-0.0036	0.0001
237	SLU 72	0	4.91	63.3	-0.1881	-0.0032	0.0001
237	SLU 73	0	5.12	67.44	-0.1967	-0.0032	0.0001
237	SLU 74	0	5.17	69.9	-0.1985	-0.004	0.0001
237	SLU 75	0	5.21	69.56	-0.2002	-0.0036	0.0001
237	SLU 76	0	5.24	69	-0.2012	-0.0033	0.0001
237	SLU 77	0	5.29	71.46	-0.203	-0.0041	0.0001
237	SLU 78	0	5.33	71.12	-0.2047	-0.0037	0.0001
237	SLU 79	0	5.28	71.12	-0.2029	-0.0041	0.0001
237	SLU 80	0	5.33	70.78	-0.2046	-0.0036	0.0001
237	SLU 81	0	5.22	71.21	-0.2009	-0.0041	0.0001
237	SLU 82	0	5.27	70.87	-0.2026	-0.0036	0.0001
237	SLU 83	0	5.34	72.77	-0.2054	-0.0042	0.0001
237	SLU 84	0	5.39	72.43	-0.2071	-0.0037	0.0001
237	SLE RA 1	0	3.46	44.95	-0.1328	-0.0025	0
237	SLE RA 2	0	3.51	44.58	-0.1346	-0.0021	0
237	SLE RA 3	0	3.55	46.21	-0.1359	-0.0026	0
237	SLE RA 4	0	3.57	45.99	-0.137	-0.0023	0
237	SLE RA 5	0	3.59	45.62	-0.1377	-0.0021	0
237	SLE RA 6	0	3.63	47.25	-0.1389	-0.0027	0
237	SLE RA 7	0	3.65	47.03	-0.14	-0.0024	0
237	SLE RA 8	0	3.62	47.03	-0.1388	-0.0027	0
237	SLE RA 9	0	3.65	46.81	-0.1399	-0.0024	0
237	SLE RA 10	0	3.79	49.56	-0.1456	-0.0024	0
237	SLE RA 11	0	3.82	51.2	-0.1468	-0.0029	0.0001
237	SLE RA 12	0	3.85	50.98	-0.148	-0.0026	0
237	SLE RA 13	0	3.87	50.6	-0.1486	-0.0024	0
237	SLE RA 14	0	3.91	52.24	-0.1499	-0.003	0.0001
237	SLE RA 15	0	3.93	52.02	-0.151	-0.0027	0
237	SLE RA 16	0	3.9	52.01	-0.1498	-0.003	0.0001
237	SLE RA 17	0	3.93	51.79	-0.1509	-0.0027	0
237	SLE RA 18	0	3.86	52.07	-0.1485	-0.003	0.0001
237	SLE RA 19	0	3.89	51.85	-0.1496	-0.0027	0
237	SLE RA 20	0	3.94	53.11	-0.1515	-0.003	0.0001
237	SLE RA 21	0	3.97	52.89	-0.1526	-0.0027	0.0001
237	SLE FR 1	0	3.46	44.95	-0.1328	-0.0025	0
237	SLE FR 2	0	3.47	44.88	-0.1331	-0.0024	0
237	SLE FR 3	0	3.5	45.37	-0.134	-0.0026	0
237	SLE FR 4	0	3.59	47.01	-0.1378	-0.0026	0
237	SLE FR 5	0	3.61	47.5	-0.1387	-0.0027	0
237	SLE FR 6	0	3.66	48.51	-0.1406	-0.0028	0.0001
237	SLE QP 1	0	3.46	44.95	-0.1328	-0.0025	0
237	SLE QP 2	0	3.58	47.09	-0.1375	-0.0027	0
237	SLD 1	0.19	6.41	50.3	-0.2539	0.1829	-0.0033
237	SLD 2	0.19	6.41	50.3	-0.2539	0.1829	-0.0033
237	SLD 3	0.24	3.19	47.32	-0.1203	0.2285	-0.0041
237	SLD 4	0.24	3.19	47.32	-0.1203	0.2285	-0.0041
237	SLD 5	-0.01	9.32	52.56	-0.3749	-0.0161	0.0003
237	SLD 6	-0.01	9.32	52.56	-0.3749	-0.0161	0.0003
237	SLD 7	0.14	-1.43	42.65	0.0702	0.1358	-0.0025
237	SLD 8	0.14	-1.43	42.65	0.0702	0.1358	-0.0025
237	SLD 9	-0.15	8.59	51.52	-0.3451	-0.1411	0.0026
237	SLD 10	-0.15	8.59	51.52	-0.3451	-0.1411	0.0026
237	SLD 11	0.01	-2.16	41.62	0.0999	0.0108	-0.0002
237	SLD 12	0.01	-2.16	41.62	0.0999	0.0108	-0.0002
237	SLD 13	-0.24	3.98	46.85	-0.1546	-0.2338	0.0042
237	SLD 14	-0.24	3.98	46.85	-0.1546	-0.2338	0.0042
237	SLD 15	-0.2	0.75	43.88	-0.0211	-0.1882	0.0034
237	SLD 16	-0.2	0.75	43.88	-0.0211	-0.1882	0.0034
237	SLV 1	0.5	10.29	54.76	-0.4133	0.4727	-0.0085
237	SLV 2	0.5	10.29	54.76	-0.4133	0.4727	-0.0085
237	SLV 3	0.62	2.71	47.77	-0.0991	0.5895	-0.0107
237	SLV 4	0.62	2.71	47.77	-0.0991	0.5895	-0.0107
237	SLV 5	-0.03	17.1	59.99	-0.6967	-0.0373	0.0007
237	SLV 6	-0.03	17.1	59.99	-0.6967	-0.0373	0.0007
237	SLV 7	0.37	-8.19	36.7	0.3505	0.3522	-0.0064
237	SLV 8	0.37	-8.19	36.7	0.3505	0.3522	-0.0064
237	SLV 9	-0.37	15.35	57.48	-0.6254	-0.3576	0.0065
237	SLV 10	-0.37	15.35	57.48	-0.6254	-0.3576	0.0065
237	SLV 11	0.03	-9.94	34.19	0.4217	0.032	-0.0006
237	SLV 12	0.03	-9.94	34.19	0.4217	0.032	-0.0006
237	SLV 13	-0.62	4.46	46.4	-0.1758	-0.5949	0.0108
237	SLV 14	-0.62	4.46	46.4	-0.1758	-0.5949	0.0108
237	SLV 15	-0.5	-3.13	39.42	0.1383	-0.478	0.0086
237	SLV 16	-0.5	-3.13	39.42	0.1383	-0.478	0.0086
238	SLU 1	0	3.56	44.89	-0.1691	0.0003	0
238	SLU 2	0	3.6	44.43	-0.1703	-0.0002	0
238	SLU 3	0	3.79	46.93	-0.1811	0.0004	0
238	SLU 4	0	3.81	46.65	-0.1818	0.0001	0
238	SLU 5	0	3.86	46.09	-0.1838	0	0
238	SLU 6	0	4.04	48.59	-0.1946	0.0006	0
238	SLU 7	0	4.06	48.31	-0.1953	0.0003	0
238	SLU 8	0	4.07	48.22	-0.1962	0.0006	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
238	SLU 9	0	4.09	47.94	-0.1969	0.0003	0
238	SLU 10	0	3.98	52.16	-0.1898	-0.0001	0
238	SLU 11	0	4.17	54.66	-0.2005	0.0005	0
238	SLU 12	0	4.19	54.38	-0.2012	0.0002	0
238	SLU 13	0	4.24	53.82	-0.2033	0	0
238	SLU 14	0	4.42	56.32	-0.2141	0.0007	0
238	SLU 15	0	4.44	56.04	-0.2148	0.0004	0
238	SLU 16	0	4.45	55.95	-0.2157	0.0007	0
238	SLU 17	0	4.47	55.67	-0.2164	0.0004	0
238	SLU 18	0	4.11	55.94	-0.1969	0.0004	0
238	SLU 19	0	4.13	55.66	-0.1976	0.0001	0
238	SLU 20	0	4.36	57.6	-0.2105	0.0005	0
238	SLU 21	0	4.38	57.32	-0.2112	0.0002	0
238	SLU 22	0	4.04	52.42	-0.1933	0.0004	0
238	SLU 23	0	4.07	51.95	-0.1945	-0.0001	0
238	SLU 24	0	4.26	54.45	-0.2052	0.0006	0
238	SLU 25	0	4.28	54.17	-0.2059	0.0003	0
238	SLU 26	0	4.33	53.61	-0.208	0.0001	0
238	SLU 27	0	4.51	56.11	-0.2188	0.0007	0
238	SLU 28	0	4.54	55.83	-0.2195	0.0004	0
238	SLU 29	0	4.54	55.74	-0.2204	0.0007	0
238	SLU 30	0	4.57	55.46	-0.2211	0.0004	0
238	SLU 31	0	4.46	59.69	-0.2139	0	0
238	SLU 32	0	4.64	62.18	-0.2247	0.0006	0
238	SLU 33	0	4.66	61.9	-0.2254	0.0003	0
238	SLU 34	0	4.71	61.35	-0.2275	0.0001	0
238	SLU 35	0	4.89	63.85	-0.2382	0.0008	0
238	SLU 36	0	4.92	63.57	-0.239	0.0005	0
238	SLU 37	0	4.92	63.48	-0.2398	0.0008	0
238	SLU 38	0	4.95	63.2	-0.2405	0.0005	0
238	SLU 39	0	4.58	63.47	-0.2211	0.0005	0
238	SLU 40	0	4.6	63.19	-0.2218	0.0002	0
238	SLU 41	0	4.83	65.13	-0.2346	0.0007	0
238	SLU 42	0	4.86	64.85	-0.2353	0.0004	0
238	SLU 43	0	4.47	55.78	-0.2115	0.0004	0
238	SLU 44	0	4.51	55.31	-0.2127	-0.0001	0
238	SLU 45	0	4.69	57.81	-0.2235	0.0005	0
238	SLU 46	0	4.72	57.53	-0.2242	0.0002	0
238	SLU 47	0	4.76	56.98	-0.2263	0	0
238	SLU 48	0	4.95	59.48	-0.2371	0.0006	0
238	SLU 49	0	4.97	59.2	-0.2378	0.0004	0
238	SLU 50	0	4.98	59.11	-0.2386	0.0007	0
238	SLU 51	0	5	58.83	-0.2394	0.0004	0
238	SLU 52	0	4.89	63.05	-0.2322	-0.0001	0
238	SLU 53	0	5.07	65.55	-0.243	0.0006	0
238	SLU 54	0	5.1	65.27	-0.2437	0.0003	0
238	SLU 55	0	5.14	64.71	-0.2457	0.0001	0
238	SLU 56	0	5.33	67.21	-0.2565	0.0007	0
238	SLU 57	0	5.35	66.93	-0.2572	0.0004	0
238	SLU 58	0	5.36	66.84	-0.2581	0.0007	0
238	SLU 59	0	5.38	66.56	-0.2588	0.0004	0
238	SLU 60	0	5.01	66.83	-0.2393	0.0004	0
238	SLU 61	0	5.04	66.55	-0.2401	0.0001	0
238	SLU 62	0	5.27	68.49	-0.2529	0.0006	0
238	SLU 63	0	5.29	68.21	-0.2536	0.0003	0
238	SLU 64	0	4.94	63.31	-0.2357	0.0005	0
238	SLU 65	0	4.98	62.84	-0.2369	0	0
238	SLU 66	0	5.17	65.34	-0.2477	0.0006	0
238	SLU 67	0	5.19	65.06	-0.2484	0.0003	0
238	SLU 68	0	5.23	64.5	-0.2505	0.0001	0
238	SLU 69	0	5.42	67	-0.2612	0.0008	0
238	SLU 70	0	5.44	66.72	-0.2619	0.0005	0
238	SLU 71	0	5.45	66.63	-0.2628	0.0008	0
238	SLU 72	0	5.47	66.35	-0.2635	0.0005	0
238	SLU 73	0	5.36	70.57	-0.2564	0	0
238	SLU 74	0	5.55	73.07	-0.2671	0.0007	0
238	SLU 75	0	5.57	72.79	-0.2679	0.0004	0
238	SLU 76	0	5.62	72.24	-0.2699	0.0002	0
238	SLU 77	0	5.8	74.73	-0.2807	0.0008	0
238	SLU 78	0	5.82	74.45	-0.2814	0.0005	0
238	SLU 79	0	5.83	74.36	-0.2823	0.0008	0
238	SLU 80	0	5.85	74.08	-0.283	0.0005	0
238	SLU 81	0	5.49	74.35	-0.2635	0.0006	0
238	SLU 82	0	5.51	74.07	-0.2642	0.0003	0
238	SLU 83	0	5.74	76.02	-0.2771	0.0007	0
238	SLU 84	0	5.76	75.74	-0.2778	0.0004	0
238	SLE RA 1	0	3.7	47.04	-0.176	0.0003	0
238	SLE RA 2	0	3.72	46.73	-0.1768	0	0
238	SLE RA 3	0	3.85	48.4	-0.184	0.0004	0
238	SLE RA 4	0	3.86	48.21	-0.1845	0.0002	0
238	SLE RA 5	0	3.89	47.84	-0.1858	0.0001	0
238	SLE RA 6	0	4.02	49.51	-0.193	0.0005	0
238	SLE RA 7	0	4.03	49.32	-0.1935	0.0003	0
238	SLE RA 8	0	4.04	49.26	-0.1941	0.0005	0
238	SLE RA 9	0	4.05	49.07	-0.1945	0.0003	0
238	SLE RA 10	0	3.98	51.89	-0.1898	0	0
238	SLE RA 11	0	4.1	53.55	-0.197	0.0005	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
238	SLE RA 12	0	4.12	53.37	-0.1974	0.0003	0
238	SLE RA 13	0	4.15	53	-0.1988	0.0001	0
238	SLE RA 14	0	4.27	54.66	-0.206	0.0006	0
238	SLE RA 15	0	4.29	54.48	-0.2065	0.0004	0
238	SLE RA 16	0	4.29	54.42	-0.207	0.0006	0
238	SLE RA 17	0	4.31	54.23	-0.2075	0.0004	0
238	SLE RA 18	0	4.06	54.41	-0.1945	0.0004	0
238	SLE RA 19	0	4.08	54.22	-0.195	0.0002	0
238	SLE RA 20	0	4.23	55.52	-0.2036	0.0005	0
238	SLE RA 21	0	4.25	55.33	-0.204	0.0003	0
238	SLE FR 1	0	3.7	47.04	-0.176	0.0003	0
238	SLE FR 2	0	3.7	46.98	-0.1762	0.0003	0
238	SLE FR 3	0	3.77	47.49	-0.1796	0.0004	0
238	SLE FR 4	0	3.81	49.19	-0.1817	0.0003	0
238	SLE FR 5	0	3.87	49.7	-0.1852	0.0004	0
238	SLE FR 6	0	3.88	50.73	-0.1853	0.0004	0
238	SLE QP 1	0	3.7	47.04	-0.176	0.0003	0
238	SLE QP 2	0	3.81	49.25	-0.1816	0.0004	0
238	SLD 1	0.25	3.73	52.33	-0.1835	0.2415	0
238	SLD 2	0.25	3.73	52.33	-0.1835	0.2415	0
238	SLD 3	0.22	-0.35	49.39	0.0161	0.2094	0.0001
238	SLD 4	0.22	-0.35	49.39	0.0161	0.2094	0.0001
238	SLD 5	0.13	9.98	54.64	-0.485	0.1213	0
238	SLD 6	0.13	9.98	54.64	-0.485	0.1213	0
238	SLD 7	0.02	-3.64	44.84	0.1806	0.0144	0
238	SLD 8	0.02	-3.64	44.84	0.1806	0.0144	0
238	SLD 9	-0.02	11.25	53.67	-0.5437	-0.0137	0
238	SLD 10	-0.02	11.25	53.67	-0.5437	-0.0137	0
238	SLD 11	-0.12	-2.37	43.87	0.1219	-0.1206	0
238	SLD 12	-0.12	-2.37	43.87	0.1219	-0.1206	0
238	SLD 13	-0.22	7.97	49.11	-0.3793	-0.2087	-0.0001
238	SLD 14	-0.22	7.97	49.11	-0.3793	-0.2087	-0.0001
238	SLD 15	-0.25	3.88	46.17	-0.1796	-0.2408	0
238	SLD 16	-0.25	3.88	46.17	-0.1796	-0.2408	0
238	SLV 1	0.64	3.6	56.62	-0.1846	0.6186	0.0001
238	SLV 2	0.64	3.6	56.62	-0.1846	0.6186	0.0001
238	SLV 3	0.56	-6.03	49.67	0.2859	0.5363	0.0002
238	SLV 4	0.56	-6.03	49.67	0.2859	0.5363	0.0002
238	SLV 5	0.32	18.36	62.01	-0.8961	0.3106	0
238	SLV 6	0.32	18.36	62.01	-0.8961	0.3106	0
238	SLV 7	0.04	-13.75	38.83	0.6723	0.0364	0.0001
238	SLV 8	0.04	-13.75	38.83	0.6723	0.0364	0.0001
238	SLV 9	-0.04	21.37	59.68	-1.0354	-0.0357	-0.0001
238	SLV 10	-0.04	21.37	59.68	-1.0354	-0.0357	-0.0001
238	SLV 11	-0.32	-10.74	36.49	0.533	-0.3099	0
238	SLV 12	-0.32	-10.74	36.49	0.533	-0.3099	0
238	SLV 13	-0.56	13.64	48.84	-0.649	-0.5356	-0.0002
238	SLV 14	-0.56	13.64	48.84	-0.649	-0.5356	-0.0002
238	SLV 15	-0.64	4.01	41.88	-0.1785	-0.6179	-0.0001
238	SLV 16	-0.64	4.01	41.88	-0.1785	-0.6179	-0.0001
239	SLU 1	0	3.55	30.92	-0.1376	0.0009	0
239	SLU 2	0	3.55	30.92	-0.1375	0.0009	0
239	SLU 3	0	3.36	29.7	-0.1262	0.0011	0
239	SLU 4	0	3.36	29.7	-0.1261	0.0011	-0.0001
239	SLU 5	0	3.26	28.89	-0.1213	0.0012	-0.0001
239	SLU 6	0	3.08	27.68	-0.11	0.0013	-0.0001
239	SLU 7	0	3.07	27.68	-0.11	0.0014	-0.0001
239	SLU 8	0	2.98	26.88	-0.1053	0.0015	-0.0001
239	SLU 9	0	2.98	26.87	-0.1052	0.0015	-0.0001
239	SLU 10	0.01	4.25	36.58	-0.1649	0.002	-0.0001
239	SLU 11	0.01	4.07	35.36	-0.1537	0.0021	-0.0001
239	SLU 12	0.01	4.07	35.36	-0.1536	0.0021	-0.0001
239	SLU 13	0.01	3.97	34.55	-0.1488	0.0022	-0.0001
239	SLU 14	0.01	3.78	33.34	-0.1375	0.0024	-0.0001
239	SLU 15	0.01	3.78	33.34	-0.1374	0.0024	-0.0001
239	SLU 16	0.01	3.68	32.54	-0.1328	0.0025	-0.0001
239	SLU 17	0.01	3.68	32.53	-0.1327	0.0025	-0.0001
239	SLU 18	0.01	4.56	39.01	-0.1768	0.0023	-0.0001
239	SLU 19	0.01	4.56	39.01	-0.1768	0.0024	-0.0001
239	SLU 20	0.01	4.27	36.99	-0.1607	0.0026	-0.0001
239	SLU 21	0.01	4.27	36.98	-0.1606	0.0027	-0.0001
239	SLU 22	0.01	4.04	35.1	-0.1549	0.0016	-0.0001
239	SLU 23	0.01	4.04	35.09	-0.1547	0.0017	-0.0001
239	SLU 24	0.01	3.85	33.88	-0.1434	0.0018	-0.0001
239	SLU 25	0.01	3.85	33.88	-0.1434	0.0018	-0.0001
239	SLU 26	0.01	3.75	33.07	-0.1386	0.002	-0.0001
239	SLU 27	0.01	3.56	31.86	-0.1273	0.0021	-0.0001
239	SLU 28	0.01	3.56	31.85	-0.1272	0.0021	-0.0001
239	SLU 29	0.01	3.47	31.05	-0.1225	0.0022	-0.0001
239	SLU 30	0.01	3.46	31.05	-0.1225	0.0022	-0.0001
239	SLU 31	0.01	4.74	40.75	-0.1822	0.0027	-0.0001
239	SLU 32	0.01	4.56	39.54	-0.1709	0.0028	-0.0001
239	SLU 33	0.01	4.56	39.54	-0.1708	0.0029	-0.0001
239	SLU 34	0.01	4.46	38.73	-0.166	0.003	-0.0001
239	SLU 35	0.01	4.27	37.52	-0.1548	0.0031	-0.0001
239	SLU 36	0.01	4.27	37.51	-0.1547	0.0032	-0.0001
239	SLU 37	0.01	4.17	36.71	-0.15	0.0032	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
239	SLU 38	0.01	4.17	36.71	-0.1499	0.0033	-0.0001
239	SLU 39	0.01	5.05	43.19	-0.1941	0.0031	-0.0001
239	SLU 40	0.01	5.05	43.18	-0.194	0.0031	-0.0001
239	SLU 41	0.01	4.76	41.16	-0.1779	0.0034	-0.0001
239	SLU 42	0.01	4.76	41.16	-0.1779	0.0034	-0.0001
239	SLU 43	0	4.45	38.77	-0.173	0.0009	-0.0001
239	SLU 44	0	4.45	38.76	-0.1729	0.0009	-0.0001
239	SLU 45	0	4.26	37.55	-0.1616	0.0011	-0.0001
239	SLU 46	0	4.26	37.54	-0.1615	0.0011	-0.0001
239	SLU 47	0.01	4.16	36.74	-0.1567	0.0012	-0.0001
239	SLU 48	0.01	3.97	35.52	-0.1454	0.0014	-0.0001
239	SLU 49	0.01	3.97	35.52	-0.1453	0.0014	-0.0001
239	SLU 50	0.01	3.88	34.72	-0.1407	0.0015	-0.0001
239	SLU 51	0.01	3.87	34.72	-0.1406	0.0015	-0.0001
239	SLU 52	0.01	5.15	44.42	-0.2003	0.002	-0.0001
239	SLU 53	0.01	4.97	43.21	-0.189	0.0021	-0.0001
239	SLU 54	0.01	4.96	43.2	-0.189	0.0021	-0.0001
239	SLU 55	0.01	4.86	42.4	-0.1842	0.0023	-0.0001
239	SLU 56	0.01	4.68	41.19	-0.1729	0.0024	-0.0001
239	SLU 57	0.01	4.68	41.18	-0.1728	0.0024	-0.0001
239	SLU 58	0.01	4.58	40.38	-0.1681	0.0025	-0.0001
239	SLU 59	0.01	4.58	40.38	-0.1681	0.0025	-0.0001
239	SLU 60	0.01	5.46	46.86	-0.2122	0.0024	-0.0001
239	SLU 61	0.01	5.46	46.85	-0.2121	0.0024	-0.0001
239	SLU 62	0.01	5.17	44.83	-0.196	0.0026	-0.0001
239	SLU 63	0.01	5.17	44.83	-0.196	0.0027	-0.0001
239	SLU 64	0.01	4.94	42.95	-0.1902	0.0016	-0.0001
239	SLU 65	0.01	4.94	42.94	-0.1901	0.0017	-0.0001
239	SLU 66	0.01	4.75	41.73	-0.1788	0.0018	-0.0001
239	SLU 67	0.01	4.75	41.72	-0.1787	0.0019	-0.0001
239	SLU 68	0.01	4.65	40.91	-0.1739	0.002	-0.0001
239	SLU 69	0.01	4.46	39.7	-0.1627	0.0021	-0.0001
239	SLU 70	0.01	4.46	39.7	-0.1626	0.0021	-0.0001
239	SLU 71	0.01	4.36	38.9	-0.1579	0.0022	-0.0001
239	SLU 72	0.01	4.36	38.89	-0.1578	0.0022	-0.0001
239	SLU 73	0.01	5.64	48.6	-0.2176	0.0027	-0.0001
239	SLU 74	0.01	5.46	47.39	-0.2063	0.0028	-0.0001
239	SLU 75	0.01	5.45	47.38	-0.2062	0.0029	-0.0001
239	SLU 76	0.01	5.35	46.57	-0.2014	0.003	-0.0001
239	SLU 77	0.01	5.17	45.36	-0.1901	0.0031	-0.0001
239	SLU 78	0.01	5.17	45.36	-0.19	0.0032	-0.0001
239	SLU 79	0.01	5.07	44.56	-0.1854	0.0032	-0.0001
239	SLU 80	0.01	5.07	44.55	-0.1853	0.0033	-0.0001
239	SLU 81	0.01	5.95	51.03	-0.2295	0.0031	-0.0001
239	SLU 82	0.01	5.94	51.03	-0.2294	0.0031	-0.0001
239	SLU 83	0.01	5.66	49.01	-0.2133	0.0034	-0.0001
239	SLU 84	0.01	5.66	49	-0.2132	0.0034	-0.0001
239	SLE RA 1	0	3.69	32.12	-0.1425	0.0011	-0.0001
239	SLE RA 2	0	3.69	32.11	-0.1425	0.0011	-0.0001
239	SLE RA 3	0	3.57	31.3	-0.1349	0.0012	-0.0001
239	SLE RA 4	0	3.57	31.3	-0.1349	0.0012	-0.0001
239	SLE RA 5	0	3.5	30.76	-0.1317	0.0013	-0.0001
239	SLE RA 6	0	3.37	29.95	-0.1242	0.0014	-0.0001
239	SLE RA 7	0	3.37	29.95	-0.1241	0.0014	-0.0001
239	SLE RA 8	0.01	3.31	29.42	-0.121	0.0015	-0.0001
239	SLE RA 9	0.01	3.31	29.42	-0.1209	0.0015	-0.0001
239	SLE RA 10	0.01	4.16	35.89	-0.1608	0.0018	-0.0001
239	SLE RA 11	0.01	4.04	35.08	-0.1532	0.0019	-0.0001
239	SLE RA 12	0.01	4.03	35.07	-0.1532	0.0019	-0.0001
239	SLE RA 13	0.01	3.97	34.54	-0.15	0.002	-0.0001
239	SLE RA 14	0.01	3.84	33.73	-0.1425	0.0021	-0.0001
239	SLE RA 15	0.01	3.84	33.73	-0.1424	0.0021	-0.0001
239	SLE RA 16	0.01	3.78	33.19	-0.1393	0.0022	-0.0001
239	SLE RA 17	0.01	3.78	33.19	-0.1393	0.0022	-0.0001
239	SLE RA 18	0.01	4.36	37.51	-0.1687	0.0021	-0.0001
239	SLE RA 19	0.01	4.36	37.51	-0.1686	0.0021	-0.0001
239	SLE RA 20	0.01	4.17	36.16	-0.1579	0.0023	-0.0001
239	SLE RA 21	0.01	4.17	36.16	-0.1579	0.0023	-0.0001
239	SLE FR 1	0	3.69	32.12	-0.1425	0.0011	-0.0001
239	SLE FR 2	0	3.69	32.12	-0.1425	0.0011	-0.0001
239	SLE FR 3	0	3.62	31.58	-0.1382	0.0012	-0.0001
239	SLE FR 4	0.01	3.89	33.73	-0.1504	0.0014	-0.0001
239	SLE FR 5	0.01	3.82	33.19	-0.1461	0.0015	-0.0001
239	SLE FR 6	0.01	4.03	34.81	-0.1556	0.0016	-0.0001
239	SLE QP 1	0	3.69	32.12	-0.1425	0.0011	-0.0001
239	SLE QP 2	0.01	3.89	33.73	-0.1504	0.0014	-0.0001
239	SLD 1	0.03	6.31	41.42	-0.2707	-0.0256	0.0002
239	SLD 2	0.03	6.31	41.42	-0.2707	-0.0256	0.0002
239	SLD 3	0.05	3.34	33.78	-0.1247	-0.0127	0.0004
239	SLD 4	0.05	3.34	33.78	-0.1247	-0.0127	0.0004
239	SLD 5	-0.02	9.13	47.63	-0.4079	-0.0263	-0.0003
239	SLD 6	-0.02	9.13	47.63	-0.4079	-0.0263	-0.0003
239	SLD 7	0.05	-0.78	22.16	0.0787	0.0167	0.0004
239	SLD 8	0.05	-0.78	22.16	0.0787	0.0167	0.0004
239	SLD 9	-0.04	8.57	45.31	-0.3795	-0.0139	-0.0005
239	SLD 10	-0.04	8.57	45.31	-0.3795	-0.0139	-0.0005
239	SLD 11	0.03	-1.34	19.84	0.1071	0.029	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
239	SLD 12	0.03	-1.34	19.84	0.1071	0.029	0.0002
239	SLD 13	-0.04	4.45	33.69	-0.1761	0.0155	-0.0005
239	SLD 14	-0.04	4.45	33.69	-0.1761	0.0155	-0.0005
239	SLD 15	-0.02	1.48	26.04	-0.0301	0.0284	-0.0003
239	SLD 16	-0.02	1.48	26.04	-0.0301	0.0284	-0.0003
239	SLV 1	0.07	9.6	52.05	-0.4344	-0.0657	0.0005
239	SLV 2	0.07	9.6	52.05	-0.4344	-0.0657	0.0005
239	SLV 3	0.13	2.58	33.69	-0.0895	-0.0329	0.0011
239	SLV 4	0.13	2.58	33.69	-0.0895	-0.0329	0.0011
239	SLV 5	-0.06	16.25	67.07	-0.7588	-0.0684	-0.0007
239	SLV 6	-0.06	16.25	67.07	-0.7588	-0.0684	-0.0007
239	SLV 7	0.12	-7.15	5.88	0.3911	0.0408	0.0011
239	SLV 8	0.12	-7.15	5.88	0.3911	0.0408	0.0011
239	SLV 9	-0.11	14.94	61.59	-0.6919	-0.038	-0.0012
239	SLV 10	-0.11	14.94	61.59	-0.6919	-0.038	-0.0012
239	SLV 11	0.07	-8.46	0.4	0.4581	0.0712	0.0006
239	SLV 12	0.07	-8.46	0.4	0.4581	0.0712	0.0006
239	SLV 13	-0.12	5.21	33.78	-0.2113	0.0357	-0.0012
239	SLV 14	-0.12	5.21	33.78	-0.2113	0.0357	-0.0012
239	SLV 15	-0.06	-1.81	15.42	0.1337	0.0685	-0.0006
239	SLV 16	-0.06	-1.81	15.42	0.1337	0.0685	-0.0006
240	SLU 1	-0.01	2.97	24.73	-0.0611	-0.0022	0.0001
240	SLU 2	-0.01	2.98	24.84	-0.062	-0.0022	0.0001
240	SLU 3	-0.01	2.74	22.92	-0.0426	-0.0021	0.0001
240	SLU 4	-0.01	2.74	22.98	-0.0431	-0.0022	0.0001
240	SLU 5	-0.01	2.65	22.19	-0.0388	-0.0021	0.0001
240	SLU 6	-0.01	2.4	20.27	-0.0194	-0.002	0.0001
240	SLU 7	-0.01	2.41	20.33	-0.0199	-0.0021	0.0001
240	SLU 8	-0.01	2.3	19.43	-0.0147	-0.002	0.0001
240	SLU 9	-0.01	2.31	19.5	-0.0152	-0.002	0.0001
240	SLU 10	-0.01	3.52	29.47	-0.0752	-0.0027	0.0001
240	SLU 11	-0.01	3.27	27.55	-0.0558	-0.0026	0.0001
240	SLU 12	-0.01	3.28	27.62	-0.0563	-0.0026	0.0001
240	SLU 13	-0.01	3.18	26.83	-0.052	-0.0026	0.0001
240	SLU 14	-0.01	2.94	24.91	-0.0326	-0.0025	0.0001
240	SLU 15	-0.01	2.94	24.97	-0.0331	-0.0025	0.0001
240	SLU 16	-0.01	2.84	24.07	-0.0279	-0.0025	0.0001
240	SLU 17	-0.01	2.84	24.13	-0.0284	-0.0025	0.0001
240	SLU 18	-0.01	3.74	31.35	-0.08	-0.0029	0.0001
240	SLU 19	-0.01	3.74	31.42	-0.0805	-0.0029	0.0001
240	SLU 20	-0.01	3.4	28.7	-0.0568	-0.0028	0.0001
240	SLU 21	-0.01	3.41	28.77	-0.0573	-0.0028	0.0001
240	SLU 22	-0.01	3.28	27.09	-0.0611	-0.0025	0.0001
240	SLU 23	-0.01	3.29	27.2	-0.0619	-0.0025	0.0001
240	SLU 24	-0.01	3.04	25.28	-0.0426	-0.0024	0.0001
240	SLU 25	-0.01	3.05	25.35	-0.0431	-0.0025	0.0001
240	SLU 26	-0.01	2.95	24.55	-0.0387	-0.0024	0.0001
240	SLU 27	-0.01	2.71	22.63	-0.0194	-0.0023	0.0001
240	SLU 28	-0.01	2.71	22.7	-0.0199	-0.0023	0.0001
240	SLU 29	-0.01	2.61	21.79	-0.0147	-0.0023	0.0001
240	SLU 30	-0.01	2.61	21.86	-0.0152	-0.0023	0.0001
240	SLU 31	-0.01	3.82	31.84	-0.0751	-0.003	0.0001
240	SLU 32	-0.01	3.58	29.92	-0.0558	-0.0029	0.0001
240	SLU 33	-0.01	3.59	29.99	-0.0563	-0.0029	0.0001
240	SLU 34	-0.01	3.49	29.19	-0.0519	-0.0029	0.0001
240	SLU 35	-0.01	3.24	27.27	-0.0326	-0.0028	0.0001
240	SLU 36	-0.01	3.25	27.34	-0.0331	-0.0028	0.0001
240	SLU 37	-0.01	3.14	26.43	-0.0279	-0.0027	0.0001
240	SLU 38	-0.01	3.15	26.5	-0.0284	-0.0028	0.0001
240	SLU 39	-0.01	4.04	33.72	-0.0799	-0.0032	0.0001
240	SLU 40	-0.01	4.05	33.78	-0.0805	-0.0032	0.0001
240	SLU 41	-0.01	3.71	31.07	-0.0567	-0.003	0.0001
240	SLU 42	-0.01	3.71	31.13	-0.0572	-0.0031	0.0001
240	SLU 43	-0.01	3.76	31.33	-0.0795	-0.0028	0.0001
240	SLU 44	-0.01	3.77	31.44	-0.0803	-0.0028	0.0001
240	SLU 45	-0.01	3.53	29.52	-0.061	-0.0027	0.0001
240	SLU 46	-0.01	3.53	29.59	-0.0615	-0.0027	0.0001
240	SLU 47	-0.01	3.43	28.8	-0.0571	-0.0027	0.0001
240	SLU 48	-0.01	3.19	26.88	-0.0378	-0.0026	0.0001
240	SLU 49	-0.01	3.2	26.94	-0.0383	-0.0026	0.0001
240	SLU 50	-0.01	3.09	26.04	-0.033	-0.0026	0.0001
240	SLU 51	-0.01	3.09	26.1	-0.0336	-0.0026	0.0001
240	SLU 52	-0.01	4.3	36.08	-0.0935	-0.0033	0.0001
240	SLU 53	-0.01	4.06	34.16	-0.0742	-0.0032	0.0001
240	SLU 54	-0.01	4.07	34.23	-0.0747	-0.0032	0.0001
240	SLU 55	-0.01	3.97	33.43	-0.0703	-0.0032	0.0001
240	SLU 56	-0.01	3.73	31.51	-0.051	-0.0031	0.0001
240	SLU 57	-0.01	3.73	31.58	-0.0515	-0.0031	0.0001
240	SLU 58	-0.01	3.62	30.67	-0.0463	-0.003	0.0001
240	SLU 59	-0.01	3.63	30.74	-0.0468	-0.003	0.0001
240	SLU 60	-0.01	4.52	37.96	-0.0983	-0.0034	0.0001
240	SLU 61	-0.01	4.53	38.02	-0.0988	-0.0035	0.0001
240	SLU 62	-0.01	4.19	35.31	-0.0751	-0.0033	0.0001
240	SLU 63	-0.01	4.2	35.38	-0.0756	-0.0033	0.0001
240	SLU 64	-0.01	4.06	33.7	-0.0794	-0.0031	0.0001
240	SLU 65	-0.01	4.07	33.81	-0.0803	-0.0031	0.0001
240	SLU 66	-0.01	3.83	31.89	-0.0609	-0.003	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
240	SLU 67	-0.01	3.84	31.96	-0.0615	-0.003	0.0001
240	SLU 68	-0.01	3.74	31.16	-0.0571	-0.003	0.0001
240	SLU 69	-0.01	3.5	29.24	-0.0377	-0.0029	0.0001
240	SLU 70	-0.01	3.5	29.31	-0.0382	-0.0029	0.0001
240	SLU 71	-0.01	3.39	28.4	-0.033	-0.0028	0.0001
240	SLU 72	-0.01	3.4	28.47	-0.0335	-0.0029	0.0001
240	SLU 73	-0.01	4.61	38.45	-0.0935	-0.0036	0.0001
240	SLU 74	-0.01	4.37	36.53	-0.0742	-0.0035	0.0001
240	SLU 75	-0.01	4.37	36.59	-0.0747	-0.0035	0.0001
240	SLU 76	-0.01	4.27	35.8	-0.0703	-0.0035	0.0001
240	SLU 77	-0.01	4.03	33.88	-0.0509	-0.0033	0.0001
240	SLU 78	-0.01	4.04	33.94	-0.0515	-0.0034	0.0001
240	SLU 79	-0.01	3.93	33.04	-0.0462	-0.0033	0.0001
240	SLU 80	-0.01	3.93	33.1	-0.0467	-0.0033	0.0001
240	SLU 81	-0.01	4.83	40.32	-0.0983	-0.0037	0.0001
240	SLU 82	-0.01	4.84	40.39	-0.0988	-0.0037	0.0001
240	SLU 83	-0.01	4.49	37.68	-0.0751	-0.0036	0.0001
240	SLU 84	-0.01	4.5	37.74	-0.0756	-0.0036	0.0001
240	SLE RA 1	-0.01	3.06	25.4	-0.0611	-0.0023	0.0001
240	SLE RA 2	-0.01	3.07	25.48	-0.0617	-0.0023	0.0001
240	SLE RA 3	-0.01	2.9	24.2	-0.0488	-0.0022	0.0001
240	SLE RA 4	-0.01	2.91	24.24	-0.0491	-0.0023	0.0001
240	SLE RA 5	-0.01	2.84	23.71	-0.0462	-0.0022	0.0001
240	SLE RA 6	-0.01	2.68	22.43	-0.0333	-0.0022	0.0001
240	SLE RA 7	-0.01	2.68	22.47	-0.0337	-0.0022	0.0001
240	SLE RA 8	-0.01	2.61	21.87	-0.0302	-0.0021	0.0001
240	SLE RA 9	-0.01	2.62	21.92	-0.0305	-0.0022	0.0001
240	SLE RA 10	-0.01	3.42	28.57	-0.0705	-0.0026	0.0001
240	SLE RA 11	-0.01	3.26	27.29	-0.0576	-0.0026	0.0001
240	SLE RA 12	-0.01	3.26	27.33	-0.0579	-0.0026	0.0001
240	SLE RA 13	-0.01	3.2	26.8	-0.055	-0.0026	0.0001
240	SLE RA 14	-0.01	3.04	25.52	-0.0421	-0.0025	0.0001
240	SLE RA 15	-0.01	3.04	25.57	-0.0425	-0.0025	0.0001
240	SLE RA 16	-0.01	2.97	24.96	-0.039	-0.0025	0.0001
240	SLE RA 17	-0.01	2.97	25.01	-0.0393	-0.0025	0.0001
240	SLE RA 18	-0.01	3.57	29.82	-0.0737	-0.0027	0.0001
240	SLE RA 19	-0.01	3.57	29.86	-0.074	-0.0027	0.0001
240	SLE RA 20	-0.01	3.35	28.05	-0.0582	-0.0027	0.0001
240	SLE RA 21	-0.01	3.35	28.1	-0.0586	-0.0027	0.0001
240	SLE FR 1	-0.01	3.06	25.4	-0.0611	-0.0023	0.0001
240	SLE FR 2	-0.01	3.06	25.42	-0.0612	-0.0023	0.0001
240	SLE FR 3	-0.01	2.97	24.7	-0.0549	-0.0023	0.0001
240	SLE FR 4	-0.01	3.21	26.74	-0.065	-0.0024	0.0001
240	SLE FR 5	-0.01	3.12	26.02	-0.0587	-0.0024	0.0001
240	SLE FR 6	-0.01	3.31	27.61	-0.0674	-0.0025	0.0001
240	SLE QP 1	-0.01	3.06	25.4	-0.0611	-0.0023	0.0001
240	SLE QP 2	-0.01	3.21	26.73	-0.0649	-0.0024	0.0001
240	SLD 1	0.01	3.59	26.69	-0.0911	-0.0273	0
240	SLD 2	0.01	3.59	26.69	-0.0911	-0.0273	0
240	SLD 3	0.03	0.87	19.93	0.0546	-0.0128	-0.0002
240	SLD 4	0.03	0.87	19.93	0.0546	-0.0128	-0.0002
240	SLD 5	-0.02	7.45	36.97	-0.2937	-0.0319	0.0003
240	SLD 6	-0.02	7.45	36.97	-0.2937	-0.0319	0.0003
240	SLD 7	0.02	-1.62	14.43	0.192	0.0165	-0.0002
240	SLD 8	0.02	-1.62	14.43	0.192	0.0165	-0.0002
240	SLD 9	-0.04	8.04	39.02	-0.3217	-0.0213	0.0004
240	SLD 10	-0.04	8.04	39.02	-0.3217	-0.0213	0.0004
240	SLD 11	0	-1.03	16.49	0.164	0.027	-0.0001
240	SLD 12	0	-1.03	16.49	0.164	0.027	-0.0001
240	SLD 13	-0.04	5.56	33.53	-0.1844	0.0079	0.0004
240	SLD 14	-0.04	5.56	33.53	-0.1844	0.0079	0.0004
240	SLD 15	-0.03	2.83	26.77	-0.0387	0.0224	0.0002
240	SLD 16	-0.03	2.83	26.77	-0.0387	0.0224	0.0002
240	SLV 1	0.04	4.11	26.78	-0.1271	-0.0645	-0.0002
240	SLV 2	0.04	4.11	26.78	-0.1271	-0.0645	-0.0002
240	SLV 3	0.08	-2.29	10.59	0.2166	-0.028	-0.0006
240	SLV 4	0.08	-2.29	10.59	0.2166	-0.028	-0.0006
240	SLV 5	-0.04	13.2	51.3	-0.6048	-0.0765	0.0005
240	SLV 6	-0.04	13.2	51.3	-0.6048	-0.0765	0.0005
240	SLV 7	0.07	-8.15	-2.67	0.5409	0.0453	-0.0006
240	SLV 8	0.07	-8.15	-2.67	0.5409	0.0453	-0.0006
240	SLV 9	-0.08	14.58	56.13	-0.6706	-0.0502	0.0008
240	SLV 10	-0.08	14.58	56.13	-0.6706	-0.0502	0.0008
240	SLV 11	0.02	-6.77	2.15	0.4751	0.0716	-0.0004
240	SLV 12	0.02	-6.77	2.15	0.4751	0.0716	-0.0004
240	SLV 13	-0.09	8.72	42.87	-0.3464	0.0232	0.0008
240	SLV 14	-0.09	8.72	42.87	-0.3464	0.0232	0.0008
240	SLV 15	-0.06	2.31	26.67	-0.0027	0.0597	0.0004
240	SLV 16	-0.06	2.31	26.67	-0.0027	0.0597	0.0004
241	SLU 1	0.01	0.87	54.24	-0.0262	0.0092	-0.0001
241	SLU 2	0	1.35	53.92	-0.0464	-0.0068	0.0002
241	SLU 3	0.01	0.82	55.47	-0.0244	0.0095	-0.0001
241	SLU 4	0	1.11	55.28	-0.0366	-0.0001	0.0001
241	SLU 5	0	1.3	54.5	-0.045	-0.0066	0.0002
241	SLU 6	0.01	0.78	56.04	-0.0231	0.0098	-0.0001
241	SLU 7	0	1.06	55.85	-0.0352	0.0001	0.0001
241	SLU 8	0.01	0.78	55.39	-0.0234	0.0097	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
241	SLU 9	0	1.07	55.2	-0.0355	0.0001	0.0001
241	SLU 10	0	1.27	60.1	-0.0431	-0.0058	0.0002
241	SLU 11	0.01	0.75	61.64	-0.0211	0.0105	-0.0001
241	SLU 12	0	1.03	61.45	-0.0333	0.0009	0.0001
241	SLU 13	0	1.23	60.67	-0.0417	-0.0056	0.0002
241	SLU 14	0.01	0.7	62.21	-0.0197	0.0108	-0.0001
241	SLU 15	0	0.99	62.02	-0.0319	0.0011	0.0001
241	SLU 16	0.01	0.71	61.56	-0.02	0.0107	-0.0001
241	SLU 17	0	0.99	61.37	-0.0322	0.0011	0.0001
241	SLU 18	0.01	0.76	63.06	-0.0214	0.0107	-0.0001
241	SLU 19	0	1.05	62.87	-0.0335	0.001	0.0001
241	SLU 20	0.01	0.72	63.63	-0.02	0.0109	-0.0001
241	SLU 21	0	1.01	63.44	-0.0321	0.0013	0.0001
241	SLU 22	0.01	0.79	60.26	-0.0225	0.0104	-0.0001
241	SLU 23	0	1.26	59.94	-0.0428	-0.0057	0.0002
241	SLU 24	0.01	0.74	61.48	-0.0208	0.0107	-0.0001
241	SLU 25	0	1.02	61.29	-0.033	0.001	0.0001
241	SLU 26	0	1.22	60.52	-0.0414	-0.0055	0.0002
241	SLU 27	0.01	0.69	62.06	-0.0194	0.0109	-0.0001
241	SLU 28	0	0.98	61.87	-0.0316	0.0013	0.0001
241	SLU 29	0.01	0.7	61.4	-0.0198	0.0108	-0.0001
241	SLU 30	0	0.98	61.22	-0.0319	0.0012	0.0001
241	SLU 31	0	1.19	66.11	-0.0395	-0.0047	0.0002
241	SLU 32	0.01	0.66	67.66	-0.0175	0.0117	-0.0001
241	SLU 33	0.01	0.95	67.47	-0.0296	0.002	0.0001
241	SLU 34	0	1.15	66.69	-0.0381	-0.0045	0.0002
241	SLU 35	0.01	0.62	68.23	-0.0161	0.0119	-0.0001
241	SLU 36	0.01	0.91	68.04	-0.0283	0.0023	0.0001
241	SLU 37	0.01	0.63	67.58	-0.0164	0.0118	-0.0001
241	SLU 38	0.01	0.91	67.39	-0.0286	0.0022	0.0001
241	SLU 39	0.01	0.68	69.07	-0.0178	0.0118	-0.0001
241	SLU 40	0.01	0.97	68.89	-0.0299	0.0022	0.0001
241	SLU 41	0.01	0.64	69.65	-0.0164	0.012	-0.0001
241	SLU 42	0.01	0.92	69.46	-0.0285	0.0024	0.0001
241	SLU 43	0.01	1.16	68.45	-0.0352	0.0116	-0.0001
241	SLU 44	0	1.63	68.13	-0.0555	-0.0045	0.0002
241	SLU 45	0.01	1.11	69.68	-0.0335	0.0119	-0.0001
241	SLU 46	0.01	1.39	69.49	-0.0457	0.0023	0
241	SLU 47	0	1.59	68.71	-0.0541	-0.0042	0.0002
241	SLU 48	0.01	1.07	70.25	-0.0321	0.0121	-0.0001
241	SLU 49	0.01	1.35	70.06	-0.0443	0.0025	0
241	SLU 50	0.01	1.07	69.6	-0.0325	0.0121	-0.0001
241	SLU 51	0.01	1.36	69.41	-0.0446	0.0024	0
241	SLU 52	0	1.56	74.31	-0.0522	-0.0035	0.0001
241	SLU 53	0.01	1.04	75.85	-0.0302	0.0129	-0.0001
241	SLU 54	0.01	1.32	75.66	-0.0423	0.0033	0
241	SLU 55	0	1.52	74.88	-0.0508	-0.0032	0.0001
241	SLU 56	0.01	0.99	76.42	-0.0288	0.0131	-0.0001
241	SLU 57	0.01	1.28	76.23	-0.041	0.0035	0
241	SLU 58	0.01	1	75.77	-0.0291	0.0131	-0.0001
241	SLU 59	0.01	1.28	75.58	-0.0413	0.0034	0
241	SLU 60	0.01	1.05	77.27	-0.0305	0.013	-0.0001
241	SLU 61	0.01	1.34	77.08	-0.0426	0.0034	0
241	SLU 62	0.01	1.01	77.84	-0.0291	0.0133	-0.0001
241	SLU 63	0.01	1.3	77.65	-0.0412	0.0036	0
241	SLU 64	0.01	1.07	74.47	-0.0316	0.0127	-0.0001
241	SLU 65	0	1.55	74.15	-0.0519	-0.0033	0.0001
241	SLU 66	0.01	1.03	75.69	-0.0299	0.013	-0.0001
241	SLU 67	0.01	1.31	75.5	-0.0421	0.0034	0
241	SLU 68	0	1.51	74.72	-0.0505	-0.0031	0.0001
241	SLU 69	0.01	0.98	76.27	-0.0285	0.0133	-0.0001
241	SLU 70	0.01	1.27	76.08	-0.0407	0.0036	0
241	SLU 71	0.01	0.99	75.61	-0.0289	0.0132	-0.0001
241	SLU 72	0.01	1.27	75.42	-0.041	0.0036	0
241	SLU 73	0	1.48	80.32	-0.0486	-0.0023	0.0001
241	SLU 74	0.02	0.95	81.87	-0.0266	0.0141	-0.0001
241	SLU 75	0.01	1.24	81.68	-0.0387	0.0044	0
241	SLU 76	0	1.43	80.9	-0.0472	-0.0021	0.0001
241	SLU 77	0.02	0.91	82.44	-0.0252	0.0143	-0.0001
241	SLU 78	0.01	1.19	82.25	-0.0373	0.0046	0
241	SLU 79	0.02	0.91	81.79	-0.0255	0.0142	-0.0001
241	SLU 80	0.01	1.2	81.6	-0.0377	0.0046	0
241	SLU 81	0.02	0.97	83.28	-0.0268	0.0142	-0.0001
241	SLU 82	0.01	1.26	83.09	-0.039	0.0045	0
241	SLU 83	0.02	0.93	83.86	-0.0255	0.0144	-0.0001
241	SLU 84	0.01	1.21	83.67	-0.0376	0.0048	0
241	SLE RA 1	0.01	0.84	55.96	-0.0251	0.0095	-0.0001
241	SLE RA 2	0	1.16	55.75	-0.0386	-0.0012	0.0001
241	SLE RA 3	0.01	0.81	56.78	-0.024	0.0097	-0.0001
241	SLE RA 4	0.01	1	56.65	-0.0321	0.0033	0
241	SLE RA 5	0	1.13	56.13	-0.0377	-0.001	0.0001
241	SLE RA 6	0.01	0.78	57.16	-0.0231	0.0099	-0.0001
241	SLE RA 7	0.01	0.97	57.03	-0.0312	0.0035	0
241	SLE RA 8	0.01	0.79	56.72	-0.0233	0.0099	-0.0001
241	SLE RA 9	0.01	0.98	56.6	-0.0314	0.0034	0
241	SLE RA 10	0	1.11	59.86	-0.0364	-0.0005	0.0001
241	SLE RA 11	0.01	0.76	60.89	-0.0217	0.0104	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
241	SLE RA 12	0.01	0.95	60.77	-0.0299	0.004	0
241	SLE RA 13	0	1.08	60.25	-0.0355	-0.0003	0.0001
241	SLE RA 14	0.01	0.73	61.28	-0.0208	0.0106	-0.0001
241	SLE RA 15	0.01	0.93	61.15	-0.0289	0.0042	0
241	SLE RA 16	0.01	0.74	60.84	-0.021	0.0105	-0.0001
241	SLE RA 17	0.01	0.93	60.71	-0.0291	0.0041	0
241	SLE RA 18	0.01	0.78	61.84	-0.0219	0.0105	-0.0001
241	SLE RA 19	0.01	0.97	61.71	-0.03	0.0041	0
241	SLE RA 20	0.01	0.75	62.22	-0.021	0.0107	-0.0001
241	SLE RA 21	0.01	0.94	62.09	-0.0291	0.0042	0
241	SLE FR 1	0.01	0.84	55.96	-0.0251	0.0095	-0.0001
241	SLE FR 2	0.01	0.91	55.92	-0.0278	0.0074	-0.0001
241	SLE FR 3	0.01	0.83	56.11	-0.0248	0.0096	-0.0001
241	SLE FR 4	0.01	0.89	57.68	-0.0269	0.0077	-0.0001
241	SLE FR 5	0.01	0.81	57.88	-0.0238	0.0099	-0.0001
241	SLE FR 6	0.01	0.81	58.9	-0.0235	0.01	-0.0001
241	SLE QP 1	0.01	0.84	55.96	-0.0251	0.0095	-0.0001
241	SLE QP 2	0.01	0.82	57.72	-0.0242	0.0098	-0.0001
241	SLD 1	0.29	1.33	42.15	-0.0455	0.2723	-0.0056
241	SLD 2	0.29	1.33	42.15	-0.0455	0.2723	-0.0056
241	SLD 3	0.2	-1.44	45.16	0.0652	0.173	-0.0036
241	SLD 4	0.2	-1.44	45.16	0.0652	0.173	-0.0036
241	SLD 5	0.24	5.18	48.49	-0.1985	0.2393	-0.0049
241	SLD 6	0.24	5.18	48.49	-0.1985	0.2393	-0.0049
241	SLD 7	-0.08	-4.06	58.52	0.1705	-0.092	0.002
241	SLD 8	-0.08	-4.06	58.52	0.1705	-0.092	0.002
241	SLD 9	0.1	5.71	56.93	-0.2189	0.1116	-0.0022
241	SLD 10	0.1	5.71	56.93	-0.2189	0.1116	-0.0022
241	SLD 11	-0.22	-3.54	66.96	0.1501	-0.2197	0.0047
241	SLD 12	-0.22	-3.54	66.96	0.1501	-0.2197	0.0047
241	SLD 13	-0.18	3.09	70.28	-0.1135	-0.1533	0.0034
241	SLD 14	-0.18	3.09	70.28	-0.1135	-0.1533	0.0034
241	SLD 15	-0.27	0.32	73.29	-0.0028	-0.2527	0.0055
241	SLD 16	-0.27	0.32	73.29	-0.0028	-0.2527	0.0055
241	SLV 1	0.7	1.98	21.3	-0.0729	0.6533	-0.0136
241	SLV 2	0.7	1.98	21.3	-0.0729	0.6533	-0.0136
241	SLV 3	0.46	-4.48	28.37	0.1847	0.4007	-0.0083
241	SLV 4	0.46	-4.48	28.37	0.1847	0.4007	-0.0083
241	SLV 5	0.59	10.96	36.06	-0.4294	0.586	-0.0121
241	SLV 6	0.59	10.96	36.06	-0.4294	0.586	-0.0121
241	SLV 7	-0.23	-10.55	59.65	0.4291	-0.256	0.0055
241	SLV 8	-0.23	-10.55	59.65	0.4291	-0.256	0.0055
241	SLV 9	0.25	12.2	55.79	-0.4774	0.2756	-0.0056
241	SLV 10	0.25	12.2	55.79	-0.4774	0.2756	-0.0056
241	SLV 11	-0.57	-9.31	79.39	0.381	-0.5663	0.012
241	SLV 12	-0.57	-9.31	79.39	0.381	-0.5663	0.012
241	SLV 13	-0.43	6.12	87.07	-0.233	-0.3811	0.0081
241	SLV 14	-0.43	6.12	87.07	-0.233	-0.3811	0.0081
241	SLV 15	-0.68	-0.33	94.15	0.0245	-0.6336	0.0134
241	SLV 16	-0.68	-0.33	94.15	0.0245	-0.6336	0.0134
242	SLU 1	-0.16	-4.42	28.46	0.2131	-0.1241	0.0006
242	SLU 2	-0.14	-3.69	28.79	0.1773	-0.1072	0.0006
242	SLU 3	-0.16	-4.53	29.22	0.2176	-0.1281	0.0006
242	SLU 4	-0.15	-4.09	29.42	0.1962	-0.1179	0.0006
242	SLU 5	-0.14	-3.71	29.34	0.178	-0.1098	0.0006
242	SLU 6	-0.16	-4.55	29.76	0.2183	-0.1306	0.0006
242	SLU 7	-0.16	-4.11	29.96	0.1968	-0.1205	0.0006
242	SLU 8	-0.16	-4.47	29.54	0.2143	-0.1293	0.0006
242	SLU 9	-0.15	-4.03	29.74	0.1929	-0.1191	0.0006
242	SLU 10	-0.16	-4.41	31.32	0.2109	-0.1227	0.0006
242	SLU 11	-0.18	-5.25	31.75	0.2512	-0.1436	0.0007
242	SLU 12	-0.17	-4.81	31.95	0.2298	-0.1334	0.0007
242	SLU 13	-0.16	-4.43	31.86	0.2115	-0.1253	0.0006
242	SLU 14	-0.18	-5.28	32.29	0.2518	-0.1461	0.0007
242	SLU 15	-0.17	-4.83	32.49	0.2304	-0.136	0.0007
242	SLU 16	-0.18	-5.19	32.07	0.2479	-0.1448	0.0007
242	SLU 17	-0.17	-4.75	32.27	0.2264	-0.1346	0.0007
242	SLU 18	-0.18	-5.45	32.07	0.261	-0.1463	0.0007
242	SLU 19	-0.17	-5.01	32.27	0.2395	-0.1361	0.0007
242	SLU 20	-0.19	-5.48	32.61	0.2616	-0.1488	0.0007
242	SLU 21	-0.18	-5.04	32.81	0.2402	-0.1387	0.0007
242	SLU 22	-0.18	-5.11	31.09	0.2448	-0.1398	0.0007
242	SLU 23	-0.16	-4.37	31.42	0.2091	-0.1229	0.0006
242	SLU 24	-0.18	-5.22	31.85	0.2494	-0.1438	0.0007
242	SLU 25	-0.17	-4.77	32.05	0.2279	-0.1336	0.0007
242	SLU 26	-0.16	-4.4	31.96	0.2097	-0.1255	0.0006
242	SLU 27	-0.18	-5.24	32.39	0.25	-0.1463	0.0007
242	SLU 28	-0.18	-4.8	32.59	0.2286	-0.1362	0.0007
242	SLU 29	-0.18	-5.16	32.17	0.2461	-0.145	0.0007
242	SLU 30	-0.17	-4.71	32.37	0.2246	-0.1348	0.0007
242	SLU 31	-0.18	-5.09	33.95	0.2426	-0.1385	0.0007
242	SLU 32	-0.2	-5.94	34.38	0.2829	-0.1593	0.0008
242	SLU 33	-0.19	-5.5	34.58	0.2615	-0.1492	0.0007
242	SLU 34	-0.18	-5.12	34.49	0.2432	-0.141	0.0007
242	SLU 35	-0.2	-5.96	34.92	0.2835	-0.1619	0.0008
242	SLU 36	-0.19	-5.52	35.12	0.2621	-0.1517	0.0008
242	SLU 37	-0.2	-5.88	34.7	0.2796	-0.1605	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
242	SLU 38	-0.19	-5.44	34.9	0.2582	-0.1504	0.0008
242	SLU 39	-0.2	-6.14	34.7	0.2927	-0.162	0.0008
242	SLU 40	-0.19	-5.7	34.9	0.2713	-0.1519	0.0008
242	SLU 41	-0.21	-6.16	35.24	0.2933	-0.1646	0.0008
242	SLU 42	-0.2	-5.72	35.44	0.2719	-0.1544	0.0008
242	SLU 43	-0.2	-5.52	36.09	0.2661	-0.1559	0.0008
242	SLU 44	-0.18	-4.78	36.43	0.2304	-0.1391	0.0007
242	SLU 45	-0.2	-5.62	36.86	0.2707	-0.1599	0.0008
242	SLU 46	-0.19	-5.18	37.06	0.2493	-0.1498	0.0008
242	SLU 47	-0.18	-4.81	36.97	0.231	-0.1416	0.0007
242	SLU 48	-0.2	-5.65	37.4	0.2713	-0.1625	0.0008
242	SLU 49	-0.2	-5.21	37.6	0.2499	-0.1523	0.0008
242	SLU 50	-0.2	-5.56	37.18	0.2674	-0.1611	0.0008
242	SLU 51	-0.19	-5.12	37.38	0.2459	-0.151	0.0008
242	SLU 52	-0.2	-5.5	38.96	0.2639	-0.1546	0.0008
242	SLU 53	-0.22	-6.34	39.39	0.3042	-0.1754	0.0009
242	SLU 54	-0.21	-5.9	39.59	0.2828	-0.1653	0.0008
242	SLU 55	-0.2	-5.53	39.5	0.2646	-0.1572	0.0008
242	SLU 56	-0.22	-6.37	39.93	0.3049	-0.178	0.0009
242	SLU 57	-0.21	-5.93	40.13	0.2834	-0.1679	0.0008
242	SLU 58	-0.22	-6.28	39.71	0.3009	-0.1766	0.0009
242	SLU 59	-0.21	-5.84	39.91	0.2795	-0.1665	0.0008
242	SLU 60	-0.22	-6.55	39.71	0.314	-0.1781	0.0009
242	SLU 61	-0.21	-6.11	39.91	0.2926	-0.168	0.0008
242	SLU 62	-0.23	-6.57	40.25	0.3147	-0.1807	0.0009
242	SLU 63	-0.22	-6.13	40.45	0.2932	-0.1706	0.0009
242	SLU 64	-0.22	-6.2	38.72	0.2978	-0.1717	0.0008
242	SLU 65	-0.2	-5.47	39.06	0.2621	-0.1548	0.0008
242	SLU 66	-0.22	-6.31	39.49	0.3024	-0.1756	0.0009
242	SLU 67	-0.21	-5.87	39.69	0.281	-0.1655	0.0008
242	SLU 68	-0.2	-5.49	39.6	0.2627	-0.1574	0.0008
242	SLU 69	-0.22	-6.33	40.03	0.303	-0.1782	0.0009
242	SLU 70	-0.22	-5.89	40.23	0.2816	-0.1681	0.0008
242	SLU 71	-0.22	-6.25	39.81	0.2991	-0.1768	0.0009
242	SLU 72	-0.21	-5.81	40.01	0.2777	-0.1667	0.0008
242	SLU 73	-0.22	-6.19	41.59	0.2957	-0.1703	0.0009
242	SLU 74	-0.24	-7.03	42.02	0.336	-0.1911	0.0009
242	SLU 75	-0.23	-6.59	42.22	0.3145	-0.181	0.0009
242	SLU 76	-0.22	-6.21	42.13	0.2963	-0.1729	0.0009
242	SLU 77	-0.24	-7.05	42.56	0.3366	-0.1937	0.0009
242	SLU 78	-0.23	-6.61	42.76	0.3152	-0.1836	0.0009
242	SLU 79	-0.24	-6.97	42.34	0.3326	-0.1923	0.0009
242	SLU 80	-0.23	-6.53	42.54	0.3112	-0.1822	0.0009
242	SLU 81	-0.24	-7.23	42.34	0.3458	-0.1938	0.0009
242	SLU 82	-0.23	-6.79	42.54	0.3243	-0.1837	0.0009
242	SLU 83	-0.25	-7.26	42.88	0.3464	-0.1964	0.001
242	SLU 84	-0.24	-6.81	43.08	0.3249	-0.1863	0.0009
242	SLE RA 1	-0.16	-4.62	29.21	0.2221	-0.1286	0.0006
242	SLE RA 2	-0.15	-4.13	29.43	0.1983	-0.1173	0.0006
242	SLE RA 3	-0.16	-4.69	29.72	0.2252	-0.1312	0.0006
242	SLE RA 4	-0.16	-4.4	29.85	0.2109	-0.1245	0.0006
242	SLE RA 5	-0.15	-4.15	29.79	0.1987	-0.1191	0.0006
242	SLE RA 6	-0.17	-4.71	30.08	0.2256	-0.1329	0.0007
242	SLE RA 7	-0.16	-4.41	30.21	0.2113	-0.1262	0.0006
242	SLE RA 8	-0.17	-4.65	29.93	0.223	-0.132	0.0006
242	SLE RA 9	-0.16	-4.36	30.07	0.2087	-0.1253	0.0006
242	SLE RA 10	-0.16	-4.61	31.12	0.2207	-0.1277	0.0006
242	SLE RA 11	-0.18	-5.17	31.4	0.2475	-0.1416	0.0007
242	SLE RA 12	-0.17	-4.88	31.54	0.2333	-0.1348	0.0007
242	SLE RA 13	-0.17	-4.63	31.48	0.2211	-0.1294	0.0007
242	SLE RA 14	-0.18	-5.19	31.77	0.248	-0.1433	0.0007
242	SLE RA 15	-0.17	-4.89	31.9	0.2337	-0.1365	0.0007
242	SLE RA 16	-0.18	-5.13	31.62	0.2453	-0.1424	0.0007
242	SLE RA 17	-0.17	-4.84	31.75	0.231	-0.1356	0.0007
242	SLE RA 18	-0.18	-5.31	31.62	0.2541	-0.1434	0.0007
242	SLE RA 19	-0.17	-5.01	31.75	0.2398	-0.1366	0.0007
242	SLE RA 20	-0.18	-5.32	31.98	0.2545	-0.1451	0.0007
242	SLE RA 21	-0.18	-5.03	32.11	0.2402	-0.1383	0.0007
242	SLE FR 1	-0.16	-4.62	29.21	0.2221	-0.1286	0.0006
242	SLE FR 2	-0.16	-4.52	29.25	0.2174	-0.1263	0.0006
242	SLE FR 3	-0.16	-4.63	29.35	0.2223	-0.1293	0.0006
242	SLE FR 4	-0.17	-4.73	29.98	0.227	-0.1308	0.0006
242	SLE FR 5	-0.17	-4.83	30.08	0.2319	-0.1337	0.0007
242	SLE FR 6	-0.17	-4.96	30.41	0.2381	-0.136	0.0007
242	SLE QP 1	-0.16	-4.62	29.21	0.2221	-0.1286	0.0006
242	SLE QP 2	-0.17	-4.83	29.93	0.2317	-0.133	0.0007
242	SLD 1	-0.3	-4.87	38.45	0.2337	0.0667	0.001
242	SLD 2	-0.3	-4.87	38.45	0.2337	0.0667	0.001
242	SLD 3	-0.38	-8.03	35.77	0.3842	-0.0098	0.0012
242	SLD 4	-0.38	-8.03	35.77	0.3842	-0.0098	0.0012
242	SLD 5	-0.1	-0.04	36.56	0.004	0.0428	0.0004
242	SLD 6	-0.1	-0.04	36.56	0.004	0.0428	0.0004
242	SLD 7	-0.34	-10.59	27.61	0.5057	-0.212	0.0012
242	SLD 8	-0.34	-10.59	27.61	0.5057	-0.212	0.0012
242	SLD 9	0.01	0.93	32.26	-0.0423	-0.0541	0.0001
242	SLD 10	0.01	0.93	32.26	-0.0423	-0.0541	0.0001
242	SLD 11	-0.24	-9.61	23.3	0.4594	-0.3088	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
242	SLD 12	-0.24	-9.61	23.3	0.4594	-0.3088	0.0009
242	SLD 13	0.04	-1.62	24.1	0.0792	-0.2563	0.0001
242	SLD 14	0.04	-1.62	24.1	0.0792	-0.2563	0.0001
242	SLD 15	-0.03	-4.78	21.41	0.2298	-0.3327	0.0003
242	SLD 16	-0.03	-4.78	21.41	0.2298	-0.3327	0.0003
242	SLV 1	-0.49	-4.97	49.89	0.2382	0.3532	0.0015
242	SLV 2	-0.49	-4.97	49.89	0.2382	0.3532	0.0015
242	SLV 3	-0.67	-12.33	43.61	0.5884	0.1609	0.0021
242	SLV 4	-0.67	-12.33	43.61	0.5884	0.1609	0.0021
242	SLV 5	0.01	6.3	45.45	-0.2975	0.3046	0.0001
242	SLV 6	0.01	6.3	45.45	-0.2975	0.3046	0.0001
242	SLV 7	-0.59	-18.25	24.51	0.8699	-0.3366	0.0019
242	SLV 8	-0.59	-18.25	24.51	0.8699	-0.3366	0.0019
242	SLV 9	0.26	8.59	35.36	-0.4064	0.0706	-0.0006
242	SLV 10	0.26	8.59	35.36	-0.4064	0.0706	-0.0006
242	SLV 11	-0.34	-15.95	14.41	0.7609	-0.5707	0.0012
242	SLV 12	-0.34	-15.95	14.41	0.7609	-0.5707	0.0012
242	SLV 13	0.34	2.68	16.25	-0.125	-0.4269	-0.0008
242	SLV 14	0.34	2.68	16.25	-0.125	-0.4269	-0.0008
242	SLV 15	0.16	-4.68	9.97	0.2252	-0.6193	-0.0002
242	SLV 16	0.16	-4.68	9.97	0.2252	-0.6193	-0.0002
243	SLU 1	0	1.93	43.77	-0.0533	-0.0018	0
243	SLU 2	0	2.04	43.22	-0.0566	-0.0012	0
243	SLU 3	0	1.99	45.78	-0.0546	-0.0019	0
243	SLU 4	0	2.05	45.45	-0.0565	-0.0016	0
243	SLU 5	0	2.11	44.89	-0.0583	-0.0013	0
243	SLU 6	0	2.06	47.45	-0.0562	-0.002	0
243	SLU 7	0	2.13	47.12	-0.0582	-0.0016	0
243	SLU 8	0	2.07	47.11	-0.0566	-0.0019	0
243	SLU 9	0	2.14	46.78	-0.0586	-0.0016	0
243	SLU 10	0	2.18	50.74	-0.0603	-0.0016	0
243	SLU 11	0	2.14	53.3	-0.0582	-0.0023	0
243	SLU 12	0	2.2	52.97	-0.0602	-0.0019	0
243	SLU 13	0	2.25	52.41	-0.0619	-0.0016	0
243	SLU 14	0	2.21	54.97	-0.0598	-0.0023	0
243	SLU 15	0	2.27	54.65	-0.0618	-0.0019	0
243	SLU 16	0	2.22	54.63	-0.0602	-0.0023	0
243	SLU 17	0	2.28	54.3	-0.0622	-0.0019	0
243	SLU 18	0	2.15	54.51	-0.0585	-0.0023	0
243	SLU 19	0	2.21	54.18	-0.0605	-0.002	0
243	SLU 20	0	2.22	56.18	-0.0602	-0.0024	0
243	SLU 21	0	2.28	55.85	-0.0622	-0.002	0
243	SLU 22	0	2.1	51.17	-0.0572	-0.0022	0
243	SLU 23	0	2.2	50.62	-0.0605	-0.0016	0
243	SLU 24	0	2.16	53.19	-0.0584	-0.0022	0
243	SLU 25	0	2.22	52.86	-0.0604	-0.0019	0
243	SLU 26	0	2.27	52.29	-0.0622	-0.0016	0
243	SLU 27	0	2.23	54.86	-0.0601	-0.0023	0
243	SLU 28	0	2.29	54.53	-0.0621	-0.0019	0
243	SLU 29	0	2.24	54.51	-0.0605	-0.0023	0
243	SLU 30	0	2.3	54.18	-0.0625	-0.0019	0
243	SLU 31	0	2.35	58.14	-0.0642	-0.0019	0
243	SLU 32	0	2.3	60.71	-0.0621	-0.0026	0
243	SLU 33	0	2.37	60.38	-0.0641	-0.0022	0
243	SLU 34	0	2.42	59.81	-0.0658	-0.0019	0
243	SLU 35	0	2.37	62.38	-0.0637	-0.0026	0
243	SLU 36	0	2.44	62.05	-0.0657	-0.0023	0
243	SLU 37	0	2.39	62.03	-0.0641	-0.0026	0
243	SLU 38	0	2.45	61.7	-0.0661	-0.0022	0
243	SLU 39	0	2.31	61.91	-0.0624	-0.0026	0
243	SLU 40	0	2.37	61.58	-0.0644	-0.0023	0
243	SLU 41	0	2.38	63.58	-0.0641	-0.0027	0
243	SLU 42	0	2.44	63.26	-0.066	-0.0023	0
243	SLU 43	0	2.46	54.36	-0.068	-0.0023	0
243	SLU 44	0	2.56	53.81	-0.0713	-0.0017	0
243	SLU 45	0	2.52	56.37	-0.0692	-0.0024	0
243	SLU 46	0	2.58	56.05	-0.0712	-0.002	0
243	SLU 47	0	2.63	55.48	-0.0729	-0.0017	0
243	SLU 48	0	2.59	58.05	-0.0709	-0.0024	0
243	SLU 49	0	2.65	57.72	-0.0729	-0.0021	0
243	SLU 50	0	2.6	57.7	-0.0713	-0.0024	0
243	SLU 51	0	2.66	57.37	-0.0733	-0.002	0
243	SLU 52	0	2.71	61.33	-0.0749	-0.002	0
243	SLU 53	0	2.67	63.9	-0.0729	-0.0027	0
243	SLU 54	0	2.73	63.57	-0.0749	-0.0023	0
243	SLU 55	0	2.78	63	-0.0766	-0.0021	0
243	SLU 56	0	2.74	65.57	-0.0745	-0.0027	0
243	SLU 57	0	2.8	65.24	-0.0765	-0.0024	0
243	SLU 58	0	2.75	65.22	-0.0749	-0.0027	0
243	SLU 59	0	2.81	64.89	-0.0769	-0.0023	0
243	SLU 60	0	2.67	65.1	-0.0732	-0.0028	0
243	SLU 61	0	2.73	64.77	-0.0752	-0.0024	0
243	SLU 62	0	2.74	66.77	-0.0748	-0.0028	0
243	SLU 63	0	2.8	66.45	-0.0768	-0.0024	0
243	SLU 64	0	2.62	61.76	-0.0719	-0.0026	0
243	SLU 65	0	2.72	61.21	-0.0752	-0.002	0
243	SLU 66	0	2.68	63.78	-0.0731	-0.0027	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
243	SLU 67	0	2.74	63.45	-0.0751	-0.0023	0
243	SLU 68	0	2.79	62.88	-0.0768	-0.0021	0
243	SLU 69	0	2.75	65.45	-0.0748	-0.0027	0
243	SLU 70	0	2.81	65.12	-0.0767	-0.0024	0
243	SLU 71	0	2.76	65.1	-0.0752	-0.0027	0
243	SLU 72	0	2.82	64.77	-0.0771	-0.0023	0
243	SLU 73	0	2.87	68.73	-0.0788	-0.0023	0
243	SLU 74	0	2.83	71.3	-0.0768	-0.003	0
243	SLU 75	0	2.89	70.97	-0.0787	-0.0027	0
243	SLU 76	0	2.94	70.41	-0.0805	-0.0024	0
243	SLU 77	0	2.9	72.97	-0.0784	-0.0031	0
243	SLU 78	0	2.96	72.64	-0.0804	-0.0027	0
243	SLU 79	0	2.91	72.62	-0.0788	-0.003	0
243	SLU 80	0	2.97	72.3	-0.0808	-0.0027	0
243	SLU 81	0	2.83	72.51	-0.0771	-0.0031	0
243	SLU 82	0	2.89	72.18	-0.0791	-0.0027	0
243	SLU 83	0	2.9	74.18	-0.0787	-0.0031	0
243	SLU 84	0	2.96	73.85	-0.0807	-0.0028	0
243	SLE RA 1	0	1.98	45.88	-0.0544	-0.0019	0
243	SLE RA 2	0	2.05	45.52	-0.0566	-0.0015	0
243	SLE RA 3	0	2.02	47.23	-0.0553	-0.002	0
243	SLE RA 4	0	2.06	47.01	-0.0566	-0.0018	0
243	SLE RA 5	0	2.1	46.63	-0.0577	-0.0016	0
243	SLE RA 6	0	2.07	48.34	-0.0564	-0.002	0
243	SLE RA 7	0	2.11	48.12	-0.0577	-0.0018	0
243	SLE RA 8	0	2.07	48.11	-0.0566	-0.002	0
243	SLE RA 9	0	2.11	47.89	-0.0579	-0.0018	0
243	SLE RA 10	0	2.15	50.53	-0.0591	-0.0018	0
243	SLE RA 11	0	2.12	52.24	-0.0577	-0.0022	0
243	SLE RA 12	0	2.16	52.02	-0.059	-0.002	0
243	SLE RA 13	0	2.19	51.64	-0.0602	-0.0018	0
243	SLE RA 14	0	2.17	53.35	-0.0588	-0.0022	0
243	SLE RA 15	0	2.21	53.13	-0.0601	-0.002	0
243	SLE RA 16	0	2.17	53.12	-0.0591	-0.0022	0
243	SLE RA 17	0	2.21	52.9	-0.0604	-0.002	0
243	SLE RA 18	0	2.12	53.04	-0.0579	-0.0023	0
243	SLE RA 19	0	2.16	52.83	-0.0592	-0.002	0
243	SLE RA 20	0	2.17	54.16	-0.059	-0.0023	0
243	SLE RA 21	0	2.21	53.94	-0.0603	-0.002	0
243	SLE FR 1	0	1.98	45.88	-0.0544	-0.0019	0
243	SLE FR 2	0	1.99	45.81	-0.0549	-0.0019	0
243	SLE FR 3	0	2	46.33	-0.0549	-0.0019	0
243	SLE FR 4	0	2.04	47.96	-0.0559	-0.002	0
243	SLE FR 5	0	2.04	48.48	-0.0559	-0.002	0
243	SLE FR 6	0	2.05	49.46	-0.0562	-0.0021	0
243	SLE QP 1	0	1.98	45.88	-0.0544	-0.0019	0
243	SLE QP 2	0	2.02	48.03	-0.0555	-0.002	0
243	SLD 1	0.21	4.98	48.7	-0.1515	0.211	-0.0023
243	SLD 2	0.21	4.98	48.7	-0.1515	0.211	-0.0023
243	SLD 3	0.26	1.6	50.56	-0.0421	0.2627	-0.0028
243	SLD 4	0.26	1.6	50.56	-0.0421	0.2627	-0.0028
243	SLD 5	-0.02	8.03	45.41	-0.2502	-0.0167	0.0002
243	SLD 6	-0.02	8.03	45.41	-0.2502	-0.0167	0.0002
243	SLD 7	0.16	-3.22	51.61	0.1145	0.1559	-0.0017
243	SLD 8	0.16	-3.22	51.61	0.1145	0.1559	-0.0017
243	SLD 9	-0.16	7.27	44.45	-0.2255	-0.16	0.0017
243	SLD 10	-0.16	7.27	44.45	-0.2255	-0.16	0.0017
243	SLD 11	0.01	-3.98	50.65	0.1393	0.0126	-0.0001
243	SLD 12	0.01	-3.98	50.65	0.1393	0.0126	-0.0001
243	SLD 13	-0.27	2.44	45.5	-0.0689	-0.2668	0.0029
243	SLD 14	-0.27	2.44	45.5	-0.0689	-0.2668	0.0029
243	SLD 15	-0.21	-0.93	47.36	0.0405	-0.215	0.0023
243	SLD 16	-0.21	-0.93	47.36	0.0405	-0.215	0.0023
243	SLV 1	0.54	9.02	49.67	-0.283	0.5437	-0.0059
243	SLV 2	0.54	9.02	49.67	-0.283	0.5437	-0.0059
243	SLV 3	0.68	1.08	54.05	-0.0257	0.6764	-0.0073
243	SLV 4	0.68	1.08	54.05	-0.0257	0.6764	-0.0073
243	SLV 5	-0.04	16.16	41.88	-0.514	-0.0396	0.0004
243	SLV 6	-0.04	16.16	41.88	-0.514	-0.0396	0.0004
243	SLV 7	0.4	-10.29	56.48	0.3438	0.4028	-0.0043
243	SLV 8	0.4	-10.29	56.48	0.3438	0.4028	-0.0043
243	SLV 9	-0.41	14.34	39.58	-0.4547	-0.4068	0.0043
243	SLV 10	-0.41	14.34	39.58	-0.4547	-0.4068	0.0043
243	SLV 11	0.04	-12.11	54.18	0.4031	0.0355	-0.0004
243	SLV 12	0.04	-12.11	54.18	0.4031	0.0355	-0.0004
243	SLV 13	-0.68	2.96	42.01	-0.0853	-0.6805	0.0073
243	SLV 14	-0.68	2.96	42.01	-0.0853	-0.6805	0.0073
243	SLV 15	-0.55	-4.97	46.39	0.172	-0.5478	0.0059
243	SLV 16	-0.55	-4.97	46.39	0.172	-0.5478	0.0059
244	SLU 1	0	1.57	45.14	-0.0558	-0.0003	0
244	SLU 2	0	1.64	44.73	-0.0587	-0.0007	0
244	SLU 3	0	1.7	47.05	-0.0606	-0.0002	0
244	SLU 4	0	1.74	46.81	-0.0624	-0.0004	0
244	SLU 5	0	1.82	46.23	-0.066	-0.0006	0
244	SLU 6	0	1.88	48.56	-0.0678	0	0
244	SLU 7	0	1.92	48.31	-0.0696	-0.0003	0
244	SLU 8	0	1.93	48.14	-0.0703	0	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
244	SLU 9	0	1.97	47.9	-0.0721	-0.0003	0
244	SLU 10	0	1.64	52.45	-0.0564	-0.0008	0
244	SLU 11	0	1.7	54.78	-0.0582	-0.0003	0
244	SLU 12	0	1.74	54.54	-0.06	-0.0005	0
244	SLU 13	0	1.82	53.96	-0.0636	-0.0007	0
244	SLU 14	0	1.88	56.28	-0.0654	-0.0001	0
244	SLU 15	0	1.92	56.04	-0.0672	-0.0004	0
244	SLU 16	0	1.93	55.87	-0.0679	-0.0001	0
244	SLU 17	0	1.97	55.62	-0.0697	-0.0004	0
244	SLU 18	0	1.57	56.17	-0.0523	-0.0004	0
244	SLU 19	0	1.61	55.93	-0.0541	-0.0007	0
244	SLU 20	0	1.75	57.68	-0.0596	-0.0003	0
244	SLU 21	0	1.79	57.43	-0.0614	-0.0005	0
244	SLU 22	0	1.68	52.61	-0.0581	-0.0003	0
244	SLU 23	0	1.75	52.2	-0.0611	-0.0007	0
244	SLU 24	0	1.81	54.52	-0.0629	-0.0002	0
244	SLU 25	0	1.85	54.28	-0.0647	-0.0004	0
244	SLU 26	0	1.93	53.7	-0.0683	-0.0006	0
244	SLU 27	0	1.99	56.03	-0.0701	0	0
244	SLU 28	0	2.03	55.78	-0.0719	-0.0003	0
244	SLU 29	0	2.04	55.61	-0.0726	0	0
244	SLU 30	0	2.08	55.36	-0.0744	-0.0003	0
244	SLU 31	0	1.74	59.92	-0.0587	-0.0008	0
244	SLU 32	0	1.8	62.25	-0.0605	-0.0003	0
244	SLU 33	0	1.84	62	-0.0623	-0.0005	0
244	SLU 34	0	1.92	61.43	-0.0659	-0.0007	0
244	SLU 35	0	1.98	63.75	-0.0677	-0.0001	0
244	SLU 36	0	2.02	63.51	-0.0695	-0.0004	0
244	SLU 37	0	2.03	63.34	-0.0702	-0.0001	0
244	SLU 38	0	2.08	63.09	-0.072	-0.0004	0
244	SLU 39	0	1.67	63.64	-0.0547	-0.0004	0
244	SLU 40	0	1.71	63.4	-0.0564	-0.0007	0
244	SLU 41	0	1.85	65.15	-0.0619	-0.0003	0
244	SLU 42	0	1.89	64.9	-0.0637	-0.0005	0
244	SLU 43	0	2.01	56.12	-0.0717	-0.0004	0
244	SLU 44	0	2.08	55.71	-0.0747	-0.0008	0
244	SLU 45	0	2.14	58.03	-0.0765	-0.0003	0
244	SLU 46	0	2.18	57.79	-0.0783	-0.0005	0
244	SLU 47	0	2.26	57.21	-0.0819	-0.0007	0
244	SLU 48	0	2.32	59.54	-0.0838	-0.0001	0
244	SLU 49	0	2.36	59.29	-0.0856	-0.0004	0
244	SLU 50	0	2.37	59.12	-0.0862	-0.0001	0
244	SLU 51	0	2.41	58.88	-0.088	-0.0003	0
244	SLU 52	0	2.07	63.43	-0.0723	-0.0009	0
244	SLU 53	0	2.13	65.76	-0.0741	-0.0003	0
244	SLU 54	0	2.17	65.52	-0.0759	-0.0006	0
244	SLU 55	0	2.25	64.94	-0.0795	-0.0008	0
244	SLU 56	0	2.31	67.26	-0.0814	-0.0002	0
244	SLU 57	0	2.35	67.02	-0.0832	-0.0005	0
244	SLU 58	0	2.36	66.85	-0.0838	-0.0002	0
244	SLU 59	0	2.4	66.6	-0.0856	-0.0004	0
244	SLU 60	0	2	67.16	-0.0683	-0.0005	0
244	SLU 61	0	2.04	66.91	-0.0701	-0.0008	0
244	SLU 62	0	2.18	68.66	-0.0755	-0.0004	0
244	SLU 63	0	2.22	68.41	-0.0773	-0.0006	0
244	SLU 64	0	2.11	63.59	-0.074	-0.0004	0
244	SLU 65	0	2.18	63.18	-0.077	-0.0008	0
244	SLU 66	0	2.24	65.5	-0.0788	-0.0003	0
244	SLU 67	0	2.28	65.26	-0.0806	-0.0005	0
244	SLU 68	0	2.36	64.68	-0.0842	-0.0007	0
244	SLU 69	0	2.42	67.01	-0.0861	-0.0001	0
244	SLU 70	0	2.46	66.76	-0.0879	-0.0004	0
244	SLU 71	0	2.47	66.59	-0.0885	-0.0001	0
244	SLU 72	0	2.51	66.34	-0.0903	-0.0004	0
244	SLU 73	0	2.18	70.9	-0.0746	-0.0009	0
244	SLU 74	0	2.24	73.23	-0.0764	-0.0004	0
244	SLU 75	0	2.28	72.98	-0.0782	-0.0006	0
244	SLU 76	0	2.36	72.41	-0.0819	-0.0008	0
244	SLU 77	0	2.42	74.73	-0.0837	-0.0002	0
244	SLU 78	0	2.46	74.49	-0.0855	-0.0005	0
244	SLU 79	0	2.47	74.32	-0.0861	-0.0002	0
244	SLU 80	0	2.51	74.07	-0.0879	-0.0005	0
244	SLU 81	0	2.11	74.62	-0.0706	-0.0005	0
244	SLU 82	0	2.15	74.38	-0.0724	-0.0008	0
244	SLU 83	0	2.29	76.13	-0.0778	-0.0004	0
244	SLU 84	0	2.33	75.88	-0.0796	-0.0006	0
244	SLE RA 1	0	1.6	47.27	-0.0564	-0.0003	0
244	SLE RA 2	0	1.65	47	-0.0584	-0.0006	0
244	SLE RA 3	0	1.69	48.55	-0.0596	-0.0002	0
244	SLE RA 4	0	1.72	48.39	-0.0608	-0.0004	0
244	SLE RA 5	0	1.77	48	-0.0632	-0.0005	0
244	SLE RA 6	0	1.81	49.55	-0.0645	-0.0001	0
244	SLE RA 7	0	1.84	49.39	-0.0657	-0.0003	0
244	SLE RA 8	0	1.84	49.27	-0.0661	-0.0001	0
244	SLE RA 9	0	1.87	49.11	-0.0673	-0.0003	0
244	SLE RA 10	0	1.65	52.15	-0.0568	-0.0006	0
244	SLE RA 11	0	1.69	53.7	-0.058	-0.0003	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
244	SLE RA 12	0	1.71	53.54	-0.0592	-0.0004	0
244	SLE RA 13	0	1.77	53.15	-0.0617	-0.0005	0
244	SLE RA 14	0	1.8	54.7	-0.0629	-0.0002	0
244	SLE RA 15	0	1.83	54.54	-0.0641	-0.0004	0
244	SLE RA 16	0	1.84	54.43	-0.0645	-0.0002	0
244	SLE RA 17	0	1.87	54.26	-0.0657	-0.0003	0
244	SLE RA 18	0	1.6	54.63	-0.0541	-0.0004	0
244	SLE RA 19	0	1.63	54.47	-0.0553	-0.0006	0
244	SLE RA 20	0	1.72	55.63	-0.059	-0.0003	0
244	SLE RA 21	0	1.75	55.47	-0.0602	-0.0005	0
244	SLE FR 1	0	1.6	47.27	-0.0564	-0.0003	0
244	SLE FR 2	0	1.61	47.22	-0.0568	-0.0003	0
244	SLE FR 3	0	1.65	47.67	-0.0584	-0.0003	0
244	SLE FR 4	0	1.61	49.42	-0.0561	-0.0004	0
244	SLE FR 5	0	1.65	49.88	-0.0577	-0.0003	0
244	SLE FR 6	0	1.6	50.95	-0.0553	-0.0003	0
244	SLE QP 1	0	1.6	47.27	-0.0564	-0.0003	0
244	SLE QP 2	0	1.6	49.48	-0.0557	-0.0003	0
244	SLD 1	0.27	1.36	50.83	-0.0439	0.2678	-0.0001
244	SLD 2	0.27	1.36	50.83	-0.0439	0.2678	-0.0001
244	SLD 3	0.24	-3.01	51.99	0.1545	0.2328	-0.0001
244	SLD 4	0.24	-3.01	51.99	0.1545	0.2328	-0.0001
244	SLD 5	0.13	8.17	48.12	-0.3531	0.1333	-0.0001
244	SLD 6	0.13	8.17	48.12	-0.3531	0.1333	-0.0001
244	SLD 7	0.02	-6.42	52	0.3082	0.0165	0
244	SLD 8	0.02	-6.42	52	0.3082	0.0165	0
244	SLD 9	-0.02	9.63	46.96	-0.4197	-0.0171	0
244	SLD 10	-0.02	9.63	46.96	-0.4197	-0.0171	0
244	SLD 11	-0.13	-4.97	50.84	0.2416	-0.1339	0.0001
244	SLD 12	-0.13	-4.97	50.84	0.2416	-0.1339	0.0001
244	SLD 13	-0.24	6.22	46.96	-0.266	-0.2334	0.0001
244	SLD 14	-0.24	6.22	46.96	-0.266	-0.2334	0.0001
244	SLD 15	-0.27	1.84	48.13	-0.0676	-0.2684	0.0001
244	SLD 16	-0.27	1.84	48.13	-0.0676	-0.2684	0.0001
244	SLV 1	0.69	1.03	52.63	-0.0273	0.6871	-0.0003
244	SLV 2	0.69	1.03	52.63	-0.0273	0.6871	-0.0003
244	SLV 3	0.6	-9.3	55.42	0.4408	0.5973	-0.0003
244	SLV 4	0.6	-9.3	55.42	0.4408	0.5973	-0.0003
244	SLV 5	0.34	17.09	46.19	-0.7571	0.3422	-0.0002
244	SLV 6	0.34	17.09	46.19	-0.7571	0.3422	-0.0002
244	SLV 7	0.04	-17.32	55.5	0.8031	0.0427	0
244	SLV 8	0.04	-17.32	55.5	0.8031	0.0427	0
244	SLV 9	-0.04	20.53	43.46	-0.9146	-0.0433	0
244	SLV 10	-0.04	20.53	43.46	-0.9146	-0.0433	0
244	SLV 11	-0.34	-13.88	52.77	0.6456	-0.3428	0.0002
244	SLV 12	-0.34	-13.88	52.77	0.6456	-0.3428	0.0002
244	SLV 13	-0.6	12.5	43.53	-0.5523	-0.5979	0.0002
244	SLV 14	-0.6	12.5	43.53	-0.5523	-0.5979	0.0002
244	SLV 15	-0.69	2.17	46.33	-0.0842	-0.6878	0.0003
244	SLV 16	-0.69	2.17	46.33	-0.0842	-0.6878	0.0003
245	SLU 1	2.12	2.87	44.03	-0.1241	0.0089	0.0002
245	SLU 2	2.12	2.87	44.02	-0.124	0.0089	0.0002
245	SLU 3	2.08	2.69	42.88	-0.1159	0.0104	0.0002
245	SLU 4	2.08	2.69	42.88	-0.1158	0.0104	0.0002
245	SLU 5	2.03	2.6	41.85	-0.1115	0.0113	0.0002
245	SLU 6	1.99	2.42	40.71	-0.1034	0.0128	0.0002
245	SLU 7	1.99	2.42	40.7	-0.1033	0.0128	0.0002
245	SLU 8	1.95	2.32	39.69	-0.0992	0.0137	0.0001
245	SLU 9	1.95	2.32	39.68	-0.0991	0.0137	0.0001
245	SLU 10	2.55	3.38	51.83	-0.1465	0.0178	0.0003
245	SLU 11	2.5	3.2	50.69	-0.1384	0.0193	0.0002
245	SLU 12	2.5	3.2	50.68	-0.1383	0.0193	0.0002
245	SLU 13	2.46	3.1	49.65	-0.1341	0.0202	0.0002
245	SLU 14	2.41	2.92	48.51	-0.1259	0.0217	0.0002
245	SLU 15	2.41	2.92	48.51	-0.1259	0.0217	0.0002
245	SLU 16	2.37	2.83	47.49	-0.1217	0.0226	0.0002
245	SLU 17	2.37	2.83	47.48	-0.1217	0.0226	0.0002
245	SLU 18	2.73	3.6	55.18	-0.1564	0.0216	0.0003
245	SLU 19	2.73	3.59	55.17	-0.1563	0.0216	0.0003
245	SLU 20	2.64	3.32	53.01	-0.1439	0.024	0.0002
245	SLU 21	2.64	3.32	53	-0.1438	0.024	0.0002
245	SLU 22	2.45	3.21	50.07	-0.1391	0.0156	0.0002
245	SLU 23	2.45	3.21	50.06	-0.139	0.0156	0.0002
245	SLU 24	2.4	3.03	48.92	-0.1309	0.0171	0.0002
245	SLU 25	2.4	3.03	48.91	-0.1308	0.0171	0.0002
245	SLU 26	2.36	2.94	47.89	-0.1265	0.018	0.0002
245	SLU 27	2.32	2.76	46.75	-0.1184	0.0195	0.0002
245	SLU 28	2.32	2.76	46.74	-0.1183	0.0195	0.0002
245	SLU 29	2.27	2.66	45.72	-0.1142	0.0204	0.0002
245	SLU 30	2.27	2.66	45.72	-0.1141	0.0204	0.0002
245	SLU 31	2.87	3.72	57.86	-0.1615	0.0245	0.0003
245	SLU 32	2.83	3.54	56.73	-0.1534	0.026	0.0003
245	SLU 33	2.83	3.54	56.72	-0.1533	0.026	0.0003
245	SLU 34	2.79	3.44	55.69	-0.1491	0.0269	0.0002
245	SLU 35	2.74	3.26	54.55	-0.1409	0.0284	0.0002
245	SLU 36	2.74	3.26	54.55	-0.1408	0.0284	0.0002
245	SLU 37	2.7	3.17	53.53	-0.1367	0.0293	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
245	SLU 38	2.7	3.17	53.52	-0.1367	0.0293	0.0002
245	SLU 39	3.05	3.94	61.22	-0.1713	0.0283	0.0003
245	SLU 40	3.05	3.93	61.21	-0.1713	0.0283	0.0003
245	SLU 41	2.97	3.66	59.05	-0.1589	0.0307	0.0003
245	SLU 42	2.97	3.66	59.04	-0.1588	0.0307	0.0003
245	SLU 43	2.65	3.62	55.17	-0.1562	0.0093	0.0003
245	SLU 44	2.65	3.62	55.16	-0.1561	0.0093	0.0003
245	SLU 45	2.6	3.44	54.02	-0.148	0.0108	0.0003
245	SLU 46	2.6	3.44	54.01	-0.1479	0.0108	0.0003
245	SLU 47	2.56	3.34	52.99	-0.1436	0.0117	0.0002
245	SLU 48	2.52	3.16	51.85	-0.1355	0.0132	0.0002
245	SLU 49	2.51	3.16	51.84	-0.1354	0.0132	0.0002
245	SLU 50	2.47	3.07	50.83	-0.1313	0.014	0.0002
245	SLU 51	2.47	3.07	50.82	-0.1312	0.014	0.0002
245	SLU 52	3.07	4.12	62.96	-0.1786	0.0182	0.0003
245	SLU 53	3.03	3.94	61.83	-0.1705	0.0197	0.0003
245	SLU 54	3.03	3.94	61.82	-0.1704	0.0197	0.0003
245	SLU 55	2.98	3.85	60.79	-0.1662	0.0206	0.0003
245	SLU 56	2.94	3.67	59.65	-0.158	0.0221	0.0003
245	SLU 57	2.94	3.67	59.65	-0.158	0.0221	0.0003
245	SLU 58	2.9	3.58	58.63	-0.1538	0.0229	0.0002
245	SLU 59	2.9	3.57	58.62	-0.1538	0.0229	0.0002
245	SLU 60	3.25	4.34	66.32	-0.1885	0.022	0.0003
245	SLU 61	3.25	4.34	66.31	-0.1884	0.022	0.0003
245	SLU 62	3.17	4.07	64.15	-0.176	0.0244	0.0003
245	SLU 63	3.17	4.07	64.14	-0.1759	0.0244	0.0003
245	SLU 64	2.97	3.96	61.21	-0.1712	0.016	0.0003
245	SLU 65	2.97	3.96	61.2	-0.1711	0.016	0.0003
245	SLU 66	2.93	3.78	60.06	-0.163	0.0175	0.0003
245	SLU 67	2.93	3.78	60.05	-0.1629	0.0175	0.0003
245	SLU 68	2.89	3.68	59.02	-0.1586	0.0184	0.0003
245	SLU 69	2.84	3.5	57.89	-0.1505	0.0198	0.0002
245	SLU 70	2.84	3.5	57.88	-0.1504	0.0199	0.0002
245	SLU 71	2.8	3.41	56.86	-0.1463	0.0207	0.0002
245	SLU 72	2.8	3.41	56.86	-0.1462	0.0207	0.0002
245	SLU 73	3.4	4.46	69	-0.1936	0.0249	0.0003
245	SLU 74	3.35	4.28	67.86	-0.1855	0.0264	0.0003
245	SLU 75	3.35	4.28	67.86	-0.1854	0.0264	0.0003
245	SLU 76	3.31	4.19	66.83	-0.1812	0.0273	0.0003
245	SLU 77	3.27	4.01	65.69	-0.173	0.0287	0.0003
245	SLU 78	3.27	4.01	65.68	-0.1729	0.0288	0.0003
245	SLU 79	3.22	3.92	64.67	-0.1688	0.0296	0.0003
245	SLU 80	3.22	3.91	64.66	-0.1688	0.0296	0.0003
245	SLU 81	3.58	4.68	72.36	-0.2034	0.0287	0.0004
245	SLU 82	3.58	4.68	72.35	-0.2034	0.0287	0.0004
245	SLU 83	3.49	4.41	70.19	-0.191	0.0311	0.0003
245	SLU 84	3.49	4.41	70.18	-0.1909	0.0311	0.0003
245	SLE RA 1	2.22	2.97	45.76	-0.1284	0.0108	0.0002
245	SLE RA 2	2.22	2.97	45.75	-0.1283	0.0108	0.0002
245	SLE RA 3	2.19	2.85	44.99	-0.1229	0.0118	0.0002
245	SLE RA 4	2.19	2.85	44.99	-0.1228	0.0118	0.0002
245	SLE RA 5	2.16	2.79	44.3	-0.12	0.0124	0.0002
245	SLE RA 6	2.13	2.67	43.54	-0.1146	0.0134	0.0002
245	SLE RA 7	2.13	2.67	43.54	-0.1145	0.0134	0.0002
245	SLE RA 8	2.1	2.6	42.86	-0.1118	0.014	0.0002
245	SLE RA 9	2.1	2.6	42.85	-0.1117	0.014	0.0002
245	SLE RA 10	2.5	3.31	50.95	-0.1434	0.0168	0.0002
245	SLE RA 11	2.47	3.19	50.19	-0.1379	0.0177	0.0002
245	SLE RA 12	2.47	3.19	50.19	-0.1379	0.0178	0.0002
245	SLE RA 13	2.44	3.12	49.5	-0.135	0.0183	0.0002
245	SLE RA 14	2.41	3	48.75	-0.1296	0.0193	0.0002
245	SLE RA 15	2.41	3	48.74	-0.1296	0.0193	0.0002
245	SLE RA 16	2.38	2.94	48.06	-0.1268	0.0199	0.0002
245	SLE RA 17	2.38	2.94	48.06	-0.1268	0.0199	0.0002
245	SLE RA 18	2.62	3.45	53.19	-0.1499	0.0193	0.0003
245	SLE RA 19	2.62	3.45	53.19	-0.1498	0.0193	0.0003
245	SLE RA 20	2.56	3.27	51.74	-0.1416	0.0209	0.0002
245	SLE RA 21	2.56	3.27	51.74	-0.1415	0.0209	0.0002
245	SLE FR 1	2.22	2.97	45.76	-0.1284	0.0108	0.0002
245	SLE FR 2	2.22	2.97	45.76	-0.1284	0.0108	0.0002
245	SLE FR 3	2.19	2.9	45.18	-0.1251	0.0114	0.0002
245	SLE FR 4	2.34	3.12	47.99	-0.1348	0.0134	0.0002
245	SLE FR 5	2.31	3.04	47.41	-0.1315	0.014	0.0002
245	SLE FR 6	2.42	3.21	49.47	-0.1392	0.0151	0.0002
245	SLE QP 1	2.22	2.97	45.76	-0.1284	0.0108	0.0002
245	SLE QP 2	2.34	3.12	47.99	-0.1349	0.0134	0.0002
245	SLD 1	2.27	5.86	55.61	-0.2494	-0.0244	0.0006
245	SLD 2	2.27	5.86	55.61	-0.2494	-0.0244	0.0006
245	SLD 3	2	2.55	48.34	-0.1115	-0.0154	0.0002
245	SLD 4	2	2.55	48.34	-0.1115	-0.0154	0.0002
245	SLD 5	2.72	8.97	61.3	-0.3784	-0.0117	0.0009
245	SLD 6	2.72	8.97	61.3	-0.3784	-0.0117	0.0009
245	SLD 7	1.83	-2.08	37.07	0.0813	0.0185	-0.0003
245	SLD 8	1.83	-2.08	37.07	0.0813	0.0185	-0.0003
245	SLD 9	2.84	8.32	58.9	-0.3511	0.0082	0.0008
245	SLD 10	2.84	8.32	58.9	-0.3511	0.0082	0.0008
245	SLD 11	1.95	-2.74	34.68	0.1087	0.0384	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
245	SLD 12	1.95	-2.74	34.68	0.1087	0.0384	-0.0004
245	SLD 13	2.67	3.69	47.63	-0.1582	0.0421	0.0002
245	SLD 14	2.67	3.69	47.63	-0.1582	0.0421	0.0002
245	SLD 15	2.41	0.37	40.36	-0.0203	0.0511	-0.0001
245	SLD 16	2.41	0.37	40.36	-0.0203	0.0511	-0.0001
245	SLV 1	2.18	9.59	66.17	-0.4049	-0.075	0.0011
245	SLV 2	2.18	9.59	66.17	-0.4049	-0.075	0.0011
245	SLV 3	1.54	1.77	48.65	-0.0795	-0.0535	0.0002
245	SLV 4	1.54	1.77	48.65	-0.0795	-0.0535	0.0002
245	SLV 5	3.27	16.91	80.01	-0.7093	-0.0458	0.0018
245	SLV 6	3.27	16.91	80.01	-0.7093	-0.0458	0.0018
245	SLV 7	1.12	-9.14	21.62	0.3752	0.026	-0.0011
245	SLV 8	1.12	-9.14	21.62	0.3752	0.026	-0.0011
245	SLV 9	3.55	15.37	74.35	-0.6449	0.0007	0.0015
245	SLV 10	3.55	15.37	74.35	-0.6449	0.0007	0.0015
245	SLV 11	1.41	-10.67	15.97	0.4396	0.0725	-0.0013
245	SLV 12	1.41	-10.67	15.97	0.4396	0.0725	-0.0013
245	SLV 13	3.14	4.46	47.32	-0.1902	0.0802	0.0002
245	SLV 14	3.14	4.46	47.32	-0.1902	0.0802	0.0002
245	SLV 15	2.49	-3.35	29.81	0.1351	0.1017	-0.0006
245	SLV 16	2.49	-3.35	29.81	0.1351	0.1017	-0.0006
246	SLU 1	-2.25	0	12.43	-0.0011	-0.0134	-0.0002
246	SLU 2	-2.25	0	12.43	-0.0011	-0.0134	-0.0002
246	SLU 3	-2.14	0	11.96	-0.001	-0.0113	-0.0001
246	SLU 4	-2.14	0	11.96	-0.001	-0.0113	-0.0001
246	SLU 5	-2.06	0	11.57	-0.0009	-0.0098	-0.0001
246	SLU 6	-1.96	0	11.1	-0.0008	-0.0076	-0.0001
246	SLU 7	-1.96	0	11.1	-0.0008	-0.0076	-0.0001
246	SLU 8	-1.87	0	10.71	-0.0008	-0.0061	-0.0001
246	SLU 9	-1.87	0	10.71	-0.0008	-0.0061	-0.0001
246	SLU 10	-2.45	0	13.98	-0.0013	-0.0078	-0.0002
246	SLU 11	-2.34	0	13.5	-0.0012	-0.0057	-0.0002
246	SLU 12	-2.34	0	13.5	-0.0012	-0.0057	-0.0002
246	SLU 13	-2.26	0	13.11	-0.0011	-0.0041	-0.0002
246	SLU 14	-2.16	0	12.64	-0.001	-0.002	-0.0001
246	SLU 15	-2.16	0	12.64	-0.001	-0.002	-0.0001
246	SLU 16	-2.07	0	12.26	-0.001	-0.0005	-0.0001
246	SLU 17	-2.07	0	12.26	-0.001	-0.0005	-0.0001
246	SLU 18	-2.53	0	14.64	-0.0014	-0.0054	-0.0002
246	SLU 19	-2.53	0	14.64	-0.0014	-0.0054	-0.0002
246	SLU 20	-2.35	0	13.78	-0.0012	-0.0017	-0.0002
246	SLU 21	-2.35	0	13.78	-0.0012	-0.0017	-0.0002
246	SLU 22	-2.41	0	13.65	-0.0012	-0.0094	-0.0002
246	SLU 23	-2.41	0	13.65	-0.0012	-0.0094	-0.0002
246	SLU 24	-2.31	0	13.17	-0.0011	-0.0073	-0.0002
246	SLU 25	-2.31	0	13.17	-0.0011	-0.0073	-0.0002
246	SLU 26	-2.22	0	12.78	-0.001	-0.0057	-0.0002
246	SLU 27	-2.12	0	12.31	-0.0009	-0.0036	-0.0001
246	SLU 28	-2.12	0	12.31	-0.0009	-0.0036	-0.0001
246	SLU 29	-2.04	0	11.93	-0.0009	-0.0021	-0.0001
246	SLU 30	-2.03	0	11.93	-0.0009	-0.0021	-0.0001
246	SLU 31	-2.61	0	15.19	-0.0014	-0.0038	-0.0002
246	SLU 32	-2.5	0	14.72	-0.0013	-0.0017	-0.0002
246	SLU 33	-2.5	0	14.72	-0.0013	-0.0017	-0.0002
246	SLU 34	-2.42	0	14.33	-0.0013	-0.0001	-0.0002
246	SLU 35	-2.32	0	13.86	-0.0011	0.002	-0.0002
246	SLU 36	-2.32	0	13.86	-0.0012	0.002	-0.0002
246	SLU 37	-2.23	0	13.47	-0.0011	0.0036	-0.0002
246	SLU 38	-2.23	0	13.47	-0.0011	0.0036	-0.0002
246	SLU 39	-2.69	0	15.86	-0.0015	-0.0014	-0.0002
246	SLU 40	-2.69	0	15.85	-0.0015	-0.0014	-0.0002
246	SLU 41	-2.51	0	15	-0.0013	0.0023	-0.0002
246	SLU 42	-2.51	0	14.99	-0.0013	0.0023	-0.0002
246	SLU 43	-2.87	0	15.75	-0.0013	-0.0188	-0.0002
246	SLU 44	-2.87	0	15.74	-0.0013	-0.0188	-0.0002
246	SLU 45	-2.76	0	15.27	-0.0012	-0.0167	-0.0002
246	SLU 46	-2.76	0	15.27	-0.0012	-0.0167	-0.0002
246	SLU 47	-2.68	0	14.88	-0.0012	-0.0152	-0.0002
246	SLU 48	-2.58	0	14.41	-0.0011	-0.0131	-0.0002
246	SLU 49	-2.58	0	14.41	-0.0011	-0.0131	-0.0002
246	SLU 50	-2.49	0	14.02	-0.001	-0.0115	-0.0001
246	SLU 51	-2.49	0	14.02	-0.001	-0.0115	-0.0001
246	SLU 52	-3.07	0	17.29	-0.0016	-0.0132	-0.0002
246	SLU 53	-2.96	0	16.82	-0.0014	-0.0111	-0.0002
246	SLU 54	-2.96	0	16.82	-0.0015	-0.0111	-0.0002
246	SLU 55	-2.88	0	16.43	-0.0014	-0.0095	-0.0002
246	SLU 56	-2.78	0	15.96	-0.0013	-0.0074	-0.0002
246	SLU 57	-2.77	0	15.96	-0.0013	-0.0074	-0.0002
246	SLU 58	-2.69	0	15.57	-0.0013	-0.0059	-0.0002
246	SLU 59	-2.69	0	15.57	-0.0013	-0.0059	-0.0002
246	SLU 60	-3.15	0	17.95	-0.0016	-0.0108	-0.0002
246	SLU 61	-3.15	0	17.95	-0.0016	-0.0108	-0.0002
246	SLU 62	-2.96	0	17.09	-0.0015	-0.0071	-0.0002
246	SLU 63	-2.96	0	17.09	-0.0015	-0.0071	-0.0002
246	SLU 64	-3.03	0	16.96	-0.0015	-0.0148	-0.0002
246	SLU 65	-3.03	0	16.96	-0.0015	-0.0148	-0.0002
246	SLU 66	-2.92	0	16.49	-0.0014	-0.0127	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
246	SLU 67	-2.92	0	16.49	-0.0014	-0.0127	-0.0002
246	SLU 68	-2.84	0	16.1	-0.0013	-0.0111	-0.0002
246	SLU 69	-2.74	0	15.63	-0.0012	-0.009	-0.0002
246	SLU 70	-2.74	0	15.63	-0.0012	-0.009	-0.0002
246	SLU 71	-2.65	0	15.24	-0.0012	-0.0075	-0.0002
246	SLU 72	-2.65	0	15.24	-0.0012	-0.0075	-0.0002
246	SLU 73	-3.23	0	18.5	-0.0017	-0.0092	-0.0002
246	SLU 74	-3.12	0	18.03	-0.0016	-0.0071	-0.0002
246	SLU 75	-3.12	0	18.03	-0.0016	-0.0071	-0.0002
246	SLU 76	-3.04	0	17.64	-0.0015	-0.0055	-0.0002
246	SLU 77	-2.94	0	17.17	-0.0014	-0.0034	-0.0002
246	SLU 78	-2.94	0	17.17	-0.0014	-0.0034	-0.0002
246	SLU 79	-2.85	0	16.79	-0.0014	-0.0018	-0.0002
246	SLU 80	-2.85	0	16.78	-0.0014	-0.0018	-0.0002
246	SLU 81	-3.31	0	19.17	-0.0018	-0.0068	-0.0003
246	SLU 82	-3.31	0	19.17	-0.0018	-0.0068	-0.0003
246	SLU 83	-3.13	0	18.31	-0.0016	-0.0031	-0.0002
246	SLU 84	-3.13	0	18.31	-0.0016	-0.0031	-0.0002
246	SLE RA 1	-2.29	0	12.78	-0.0011	-0.0123	-0.0002
246	SLE RA 2	-2.29	0	12.78	-0.0011	-0.0123	-0.0002
246	SLE RA 3	-2.23	0	12.46	-0.001	-0.0109	-0.0001
246	SLE RA 4	-2.22	0	12.46	-0.001	-0.0109	-0.0001
246	SLE RA 5	-2.17	0	12.2	-0.001	-0.0098	-0.0001
246	SLE RA 6	-2.1	0	11.89	-0.0009	-0.0084	-0.0001
246	SLE RA 7	-2.1	0	11.89	-0.0009	-0.0084	-0.0001
246	SLE RA 8	-2.04	0	11.63	-0.0009	-0.0074	-0.0001
246	SLE RA 9	-2.04	0	11.63	-0.0009	-0.0074	-0.0001
246	SLE RA 10	-2.43	0	13.81	-0.0012	-0.0085	-0.0002
246	SLE RA 11	-2.36	0	13.49	-0.0012	-0.0071	-0.0002
246	SLE RA 12	-2.36	0	13.49	-0.0012	-0.0071	-0.0002
246	SLE RA 13	-2.3	0	13.23	-0.0011	-0.0061	-0.0002
246	SLE RA 14	-2.23	0	12.92	-0.0011	-0.0047	-0.0002
246	SLE RA 15	-2.23	0	12.92	-0.0011	-0.0047	-0.0002
246	SLE RA 16	-2.18	0	12.66	-0.001	-0.0036	-0.0001
246	SLE RA 17	-2.18	0	12.66	-0.001	-0.0036	-0.0001
246	SLE RA 18	-2.48	0	14.25	-0.0013	-0.0069	-0.0002
246	SLE RA 19	-2.48	0	14.25	-0.0013	-0.0069	-0.0002
246	SLE RA 20	-2.36	0	13.68	-0.0012	-0.0045	-0.0002
246	SLE RA 21	-2.36	0	13.68	-0.0012	-0.0045	-0.0002
246	SLE FR 1	-2.29	0	12.78	-0.0011	-0.0123	-0.0002
246	SLE FR 2	-2.29	0	12.78	-0.0011	-0.0123	-0.0002
246	SLE FR 3	-2.24	0	12.55	-0.0011	-0.0113	-0.0002
246	SLE FR 4	-2.35	0	13.22	-0.0012	-0.0107	-0.0002
246	SLE FR 5	-2.3	0	12.99	-0.0011	-0.0097	-0.0002
246	SLE FR 6	-2.39	0	13.52	-0.0012	-0.0096	-0.0002
246	SLE QP 1	-2.29	0	12.78	-0.0011	-0.0123	-0.0002
246	SLE QP 2	-2.35	0	13.22	-0.0012	-0.0107	-0.0002
246	SLD 1	-3.55	-0.04	17.87	0.0038	-0.0499	0.001
246	SLD 2	-3.55	-0.04	17.87	0.0038	-0.0499	0.001
246	SLD 3	-2.93	-0.08	15.12	0.0087	-0.0379	0.0021
246	SLD 4	-2.93	-0.08	15.12	0.0087	-0.0379	0.0021
246	SLD 5	-3.64	0.05	18.79	-0.007	-0.0407	-0.0015
246	SLD 6	-3.64	0.05	18.79	-0.007	-0.0407	-0.0015
246	SLD 7	-1.6	-0.08	9.62	0.0092	-0.0006	0.0022
246	SLD 8	-1.6	-0.08	9.62	0.0092	-0.0006	0.0022
246	SLD 9	-3.1	0.09	16.82	-0.0115	-0.0208	-0.0025
246	SLD 10	-3.1	0.09	16.82	-0.0115	-0.0208	-0.0025
246	SLD 11	-1.07	-0.04	7.66	0.0047	0.0194	0.0011
246	SLD 12	-1.07	-0.04	7.66	0.0047	0.0194	0.0011
246	SLD 13	-1.77	0.08	11.32	-0.011	0.0165	-0.0024
246	SLD 14	-1.77	0.08	11.32	-0.011	0.0165	-0.0024
246	SLD 15	-1.16	0.05	8.57	-0.0061	0.0286	-0.0013
246	SLD 16	-1.16	0.05	8.57	-0.0061	0.0286	-0.0013
246	SLV 1	-5.16	-0.1	24.18	0.0111	-0.1025	0.0027
246	SLV 2	-5.16	-0.1	24.18	0.0111	-0.1025	0.0027
246	SLV 3	-3.69	-0.2	17.57	0.0234	-0.0737	0.0055
246	SLV 4	-3.69	-0.2	17.57	0.0234	-0.0737	0.0055
246	SLV 5	-5.42	0.12	26.54	-0.0162	-0.082	-0.0035
246	SLV 6	-5.42	0.12	26.54	-0.0162	-0.082	-0.0035
246	SLV 7	-0.52	-0.21	4.5	0.0249	0.0142	0.0057
246	SLV 8	-0.52	-0.21	4.5	0.0249	0.0142	0.0057
246	SLV 9	-4.18	0.21	21.95	-0.0272	-0.0355	-0.0061
246	SLV 10	-4.18	0.21	21.95	-0.0272	-0.0355	-0.0061
246	SLV 11	0.72	-0.12	-0.1	0.0139	0.0607	0.0032
246	SLV 12	0.72	-0.12	-0.1	0.0139	0.0607	0.0032
246	SLV 13	-1.01	0.21	8.87	-0.0257	0.0524	-0.0058
246	SLV 14	-1.01	0.21	8.87	-0.0257	0.0524	-0.0058
246	SLV 15	0.46	0.11	2.26	-0.0134	0.0812	-0.0031
246	SLV 16	0.46	0.11	2.26	-0.0134	0.0812	-0.0031
247	SLU 1	4.01	0.01	14.23	0.0058	0.1262	-0.0008
247	SLU 2	4.01	0.01	14.25	0.0059	0.1264	-0.0008
247	SLU 3	4.05	0.01	14.37	0.006	0.1278	-0.0008
247	SLU 4	4.06	0.01	14.38	0.006	0.128	-0.0008
247	SLU 5	4	0.01	14.21	0.0059	0.1262	-0.0008
247	SLU 6	4.04	0.01	14.32	0.0061	0.1276	-0.0008
247	SLU 7	4.05	0.01	14.33	0.0061	0.1277	-0.0008
247	SLU 8	3.99	0.01	14.15	0.0059	0.1257	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
247	SLU 9	3.99	0.01	14.16	0.0059	0.1258	-0.0008
247	SLU 10	4.86	0.01	17.38	0.0069	0.1524	-0.0009
247	SLU 11	4.9	0.01	17.49	0.0071	0.1538	-0.0009
247	SLU 12	4.91	0.01	17.51	0.0071	0.1539	-0.0009
247	SLU 13	4.85	0.01	17.34	0.007	0.1521	-0.0009
247	SLU 14	4.89	0.01	17.45	0.0071	0.1535	-0.0009
247	SLU 15	4.89	0.01	17.46	0.0071	0.1536	-0.0009
247	SLU 16	4.84	0.01	17.28	0.007	0.1516	-0.0009
247	SLU 17	4.84	0.01	17.29	0.007	0.1518	-0.0009
247	SLU 18	5.22	0.01	18.7	0.0073	0.1633	-0.001
247	SLU 19	5.23	0.01	18.72	0.0074	0.1634	-0.001
247	SLU 20	5.21	0.01	18.66	0.0074	0.163	-0.001
247	SLU 21	5.21	0.01	18.67	0.0074	0.1631	-0.001
247	SLU 22	4.68	0.01	16.7	0.0068	0.1471	-0.0009
247	SLU 23	4.69	0.01	16.71	0.0068	0.1474	-0.0009
247	SLU 24	4.73	0.01	16.83	0.0069	0.1488	-0.0009
247	SLU 25	4.73	0.01	16.84	0.007	0.1489	-0.0009
247	SLU 26	4.68	0.01	16.67	0.0068	0.1471	-0.0009
247	SLU 27	4.72	0.01	16.78	0.007	0.1485	-0.0009
247	SLU 28	4.72	0.01	16.79	0.007	0.1486	-0.0009
247	SLU 29	4.66	0.01	16.61	0.0068	0.1466	-0.0009
247	SLU 30	4.67	0.01	16.62	0.0069	0.1468	-0.0009
247	SLU 31	5.54	0.01	19.84	0.0078	0.1733	-0.001
247	SLU 32	5.58	0.01	19.95	0.008	0.1747	-0.001
247	SLU 33	5.58	0.01	19.97	0.008	0.1748	-0.001
247	SLU 34	5.53	0.01	19.8	0.0079	0.173	-0.001
247	SLU 35	5.57	0.01	19.91	0.008	0.1744	-0.001
247	SLU 36	5.57	0.01	19.92	0.008	0.1746	-0.0011
247	SLU 37	5.51	0.01	19.74	0.0079	0.1726	-0.001
247	SLU 38	5.52	0.01	19.75	0.0079	0.1727	-0.001
247	SLU 39	5.9	0.01	21.16	0.0083	0.1842	-0.0011
247	SLU 40	5.9	0.01	21.18	0.0083	0.1843	-0.0011
247	SLU 41	5.89	0.01	21.12	0.0083	0.1839	-0.0011
247	SLU 42	5.89	0.01	21.13	0.0083	0.1841	-0.0011
247	SLU 43	4.98	0.01	17.66	0.0073	0.1569	-0.0009
247	SLU 44	4.98	0.01	17.68	0.0073	0.1571	-0.001
247	SLU 45	5.02	0.01	17.79	0.0074	0.1585	-0.001
247	SLU 46	5.03	0.01	17.8	0.0075	0.1587	-0.001
247	SLU 47	4.97	0.01	17.64	0.0074	0.1569	-0.001
247	SLU 48	5.01	0.01	17.75	0.0075	0.1583	-0.001
247	SLU 49	5.02	0.01	17.76	0.0075	0.1584	-0.001
247	SLU 50	4.96	0.01	17.58	0.0073	0.1564	-0.001
247	SLU 51	4.96	0.01	17.59	0.0074	0.1565	-0.001
247	SLU 52	5.83	0.01	20.81	0.0084	0.183	-0.0011
247	SLU 53	5.87	0.01	20.92	0.0085	0.1845	-0.0011
247	SLU 54	5.88	0.01	20.93	0.0085	0.1846	-0.0011
247	SLU 55	5.82	0.01	20.77	0.0084	0.1828	-0.0011
247	SLU 56	5.86	0.01	20.88	0.0085	0.1842	-0.0011
247	SLU 57	5.87	0.01	20.89	0.0086	0.1843	-0.0011
247	SLU 58	5.81	0.01	20.7	0.0084	0.1823	-0.0011
247	SLU 59	5.81	0.01	20.72	0.0084	0.1825	-0.0011
247	SLU 60	6.19	0.01	22.13	0.0088	0.1939	-0.0011
247	SLU 61	6.2	0.01	22.14	0.0088	0.1941	-0.0011
247	SLU 62	6.18	0.01	22.09	0.0088	0.1937	-0.0011
247	SLU 63	6.18	0.01	22.1	0.0088	0.1938	-0.0012
247	SLU 64	5.65	0.01	20.12	0.0082	0.1778	-0.0011
247	SLU 65	5.66	0.01	20.14	0.0082	0.178	-0.0011
247	SLU 66	5.7	0.01	20.25	0.0084	0.1795	-0.0011
247	SLU 67	5.7	0.01	20.26	0.0084	0.1796	-0.0011
247	SLU 68	5.65	0.01	20.1	0.0083	0.1778	-0.0011
247	SLU 69	5.69	0.01	20.21	0.0084	0.1792	-0.0011
247	SLU 70	5.69	0.01	20.22	0.0084	0.1793	-0.0011
247	SLU 71	5.63	0.01	20.04	0.0083	0.1773	-0.0011
247	SLU 72	5.64	0.01	20.05	0.0083	0.1775	-0.0011
247	SLU 73	6.51	0.01	23.27	0.0093	0.204	-0.0012
247	SLU 74	6.55	0.01	23.38	0.0094	0.2054	-0.0012
247	SLU 75	6.55	0.01	23.39	0.0094	0.2055	-0.0012
247	SLU 76	6.5	0.01	23.23	0.0093	0.2037	-0.0012
247	SLU 77	6.54	0.01	23.34	0.0095	0.2051	-0.0012
247	SLU 78	6.54	0.01	23.35	0.0095	0.2053	-0.0012
247	SLU 79	6.48	0.01	23.17	0.0093	0.2033	-0.0012
247	SLU 80	6.49	0.01	23.18	0.0093	0.2034	-0.0012
247	SLU 81	6.87	0.01	24.59	0.0097	0.2149	-0.0013
247	SLU 82	6.87	0.01	24.6	0.0097	0.215	-0.0013
247	SLU 83	6.86	0.01	24.55	0.0097	0.2146	-0.0013
247	SLU 84	6.86	0.01	24.56	0.0098	0.2147	-0.0013
247	SLE RA 1	4.2	0.01	14.94	0.0061	0.1322	-0.0008
247	SLE RA 2	4.21	0.01	14.95	0.0061	0.1323	-0.0008
247	SLE RA 3	4.23	0.01	15.02	0.0062	0.1333	-0.0008
247	SLE RA 4	4.23	0.01	15.03	0.0062	0.1334	-0.0008
247	SLE RA 5	4.2	0.01	14.92	0.0062	0.1322	-0.0008
247	SLE RA 6	4.22	0.01	15	0.0062	0.1331	-0.0008
247	SLE RA 7	4.23	0.01	15	0.0063	0.1332	-0.0008
247	SLE RA 8	4.19	0.01	14.88	0.0062	0.1319	-0.0008
247	SLE RA 9	4.19	0.01	14.89	0.0062	0.1319	-0.0008
247	SLE RA 10	4.77	0.01	17.04	0.0068	0.1496	-0.0009
247	SLE RA 11	4.8	0.01	17.11	0.0069	0.1506	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
247	SLE RA 12	4.8	0.01	17.12	0.0069	0.1506	-0.0009
247	SLE RA 13	4.76	0.01	17.01	0.0068	0.1495	-0.0009
247	SLE RA 14	4.79	0.01	17.08	0.0069	0.1504	-0.0009
247	SLE RA 15	4.79	0.01	17.09	0.007	0.1505	-0.0009
247	SLE RA 16	4.75	0.01	16.97	0.0068	0.1491	-0.0009
247	SLE RA 17	4.76	0.01	16.97	0.0069	0.1492	-0.0009
247	SLE RA 18	5.01	0.01	17.92	0.0071	0.1569	-0.0009
247	SLE RA 19	5.01	0.01	17.92	0.0071	0.157	-0.0009
247	SLE RA 20	5	0.01	17.89	0.0071	0.1567	-0.0009
247	SLE RA 21	5.01	0.01	17.9	0.0071	0.1568	-0.0009
247	SLE FR 1	4.2	0.01	14.94	0.0061	0.1322	-0.0008
247	SLE FR 2	4.2	0.01	14.94	0.0061	0.1322	-0.0008
247	SLE FR 3	4.2	0.01	14.93	0.0061	0.1321	-0.0008
247	SLE FR 4	4.44	0.01	15.83	0.0064	0.1396	-0.0008
247	SLE FR 5	4.44	0.01	15.82	0.0064	0.1395	-0.0008
247	SLE FR 6	4.61	0.01	16.43	0.0066	0.1445	-0.0009
247	SLE QP 1	4.2	0.01	14.94	0.0061	0.1322	-0.0008
247	SLE QP 2	4.44	0.01	15.83	0.0064	0.1396	-0.0008
247	SLD 1	6.86	0.11	22.67	-0.0389	0.2304	0.0068
247	SLD 2	6.86	0.11	22.67	-0.0389	0.2304	0.0068
247	SLD 3	7.54	0.04	24.72	-0.0148	0.2545	0.0025
247	SLD 4	7.54	0.04	24.72	-0.0148	0.2545	0.0025
247	SLD 5	4.14	0.14	14.77	-0.0438	0.1302	0.0079
247	SLD 6	4.14	0.14	14.77	-0.0438	0.1302	0.0079
247	SLD 7	6.4	-0.08	21.61	0.0366	0.2107	-0.0063
247	SLD 8	6.4	-0.08	21.61	0.0366	0.2107	-0.0063
247	SLD 9	2.48	0.1	10.05	-0.0238	0.0685	0.0046
247	SLD 10	2.48	0.1	10.05	-0.0238	0.0685	0.0046
247	SLD 11	4.75	-0.12	16.9	0.0566	0.149	-0.0096
247	SLD 12	4.75	-0.12	16.9	0.0566	0.149	-0.0096
247	SLD 13	1.35	-0.02	6.94	0.0276	0.0247	-0.0042
247	SLD 14	1.35	-0.02	6.94	0.0276	0.0247	-0.0042
247	SLD 15	2.03	-0.09	9	0.0517	0.0488	-0.0085
247	SLD 16	2.03	-0.09	9	0.0517	0.0488	-0.0085
247	SLV 1	10.08	0.27	31.77	-0.1096	0.3514	0.0187
247	SLV 2	10.08	0.27	31.77	-0.1096	0.3514	0.0187
247	SLV 3	11.68	0.1	36.61	-0.0482	0.4081	0.0078
247	SLV 4	11.68	0.1	36.61	-0.0482	0.4081	0.0078
247	SLV 5	3.71	0.35	13.29	-0.1215	0.1171	0.0215
247	SLV 6	3.71	0.35	13.29	-0.1215	0.1171	0.0215
247	SLV 7	9.04	-0.23	29.39	0.0831	0.3062	-0.0147
247	SLV 8	9.04	-0.23	29.39	0.0831	0.3062	-0.0147
247	SLV 9	-0.15	0.25	2.27	-0.0703	-0.027	0.013
247	SLV 10	-0.15	0.25	2.27	-0.0703	-0.027	0.013
247	SLV 11	5.18	-0.33	18.38	0.1343	0.1621	-0.0231
247	SLV 12	5.18	-0.33	18.38	0.1343	0.1621	-0.0231
247	SLV 13	-2.79	-0.08	-4.94	0.061	-0.1289	-0.0095
247	SLV 14	-2.79	-0.08	-4.94	0.061	-0.1289	-0.0095
247	SLV 15	-1.19	-0.25	-0.11	0.1224	-0.0722	-0.0203
247	SLV 16	-1.19	-0.25	-0.11	0.1224	-0.0722	-0.0203
248	SLU 1	2.84	-0.02	23.59	0.0164	0.1498	-0.0002
248	SLU 2	2.85	-0.02	23.62	0.0166	0.1501	-0.0002
248	SLU 3	2.88	-0.02	23.73	0.0169	0.153	-0.0002
248	SLU 4	2.88	-0.02	23.75	0.017	0.1531	-0.0002
248	SLU 5	2.84	-0.02	23.47	0.0166	0.1512	-0.0002
248	SLU 6	2.87	-0.02	23.59	0.017	0.1541	-0.0002
248	SLU 7	2.87	-0.02	23.61	0.017	0.1542	-0.0002
248	SLU 8	2.82	-0.02	23.3	0.0166	0.152	-0.0002
248	SLU 9	2.83	-0.02	23.32	0.0166	0.1522	-0.0002
248	SLU 10	3.37	-0.03	28.76	0.0195	0.1798	-0.0002
248	SLU 11	3.41	-0.03	28.87	0.0198	0.1828	-0.0002
248	SLU 12	3.41	-0.03	28.89	0.0199	0.1829	-0.0002
248	SLU 13	3.36	-0.03	28.61	0.0196	0.181	-0.0002
248	SLU 14	3.4	-0.03	28.73	0.0199	0.1839	-0.0002
248	SLU 15	3.4	-0.03	28.75	0.02	0.184	-0.0002
248	SLU 16	3.35	-0.03	28.44	0.0195	0.1818	-0.0002
248	SLU 17	3.35	-0.03	28.46	0.0196	0.182	-0.0002
248	SLU 18	3.59	-0.03	30.93	0.0207	0.1924	-0.0003
248	SLU 19	3.6	-0.03	30.95	0.0207	0.1925	-0.0003
248	SLU 20	3.58	-0.03	30.79	0.0207	0.1935	-0.0003
248	SLU 21	3.59	-0.03	30.8	0.0208	0.1936	-0.0003
248	SLU 22	3.27	-0.03	27.58	0.019	0.1747	-0.0002
248	SLU 23	3.28	-0.03	27.61	0.0191	0.1749	-0.0002
248	SLU 24	3.31	-0.03	27.73	0.0195	0.1779	-0.0002
248	SLU 25	3.31	-0.03	27.75	0.0195	0.178	-0.0002
248	SLU 26	3.27	-0.03	27.47	0.0192	0.176	-0.0002
248	SLU 27	3.3	-0.03	27.59	0.0195	0.179	-0.0002
248	SLU 28	3.3	-0.03	27.6	0.0196	0.1791	-0.0002
248	SLU 29	3.25	-0.03	27.29	0.0191	0.1769	-0.0002
248	SLU 30	3.26	-0.03	27.31	0.0192	0.177	-0.0002
248	SLU 31	3.8	-0.03	32.75	0.0221	0.2047	-0.0003
248	SLU 32	3.83	-0.03	32.87	0.0224	0.2076	-0.0003
248	SLU 33	3.84	-0.03	32.89	0.0225	0.2078	-0.0003
248	SLU 34	3.79	-0.03	32.61	0.0222	0.2058	-0.0003
248	SLU 35	3.83	-0.03	32.73	0.0225	0.2088	-0.0003
248	SLU 36	3.83	-0.03	32.74	0.0226	0.2089	-0.0003
248	SLU 37	3.78	-0.03	32.43	0.0221	0.2067	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
248	SLU 38	3.78	-0.03	32.45	0.0222	0.2068	-0.0003
248	SLU 39	4.02	-0.03	34.92	0.0232	0.2172	-0.0003
248	SLU 40	4.03	-0.03	34.94	0.0233	0.2174	-0.0003
248	SLU 41	4.01	-0.03	34.78	0.0233	0.2183	-0.0003
248	SLU 42	4.02	-0.03	34.8	0.0234	0.2185	-0.0003
248	SLU 43	3.55	-0.03	29.29	0.0205	0.1862	-0.0003
248	SLU 44	3.55	-0.03	29.32	0.0206	0.1865	-0.0003
248	SLU 45	3.59	-0.03	29.44	0.0209	0.1894	-0.0003
248	SLU 46	3.59	-0.03	29.46	0.021	0.1895	-0.0003
248	SLU 47	3.54	-0.03	29.18	0.0207	0.1876	-0.0003
248	SLU 48	3.58	-0.03	29.3	0.021	0.1905	-0.0003
248	SLU 49	3.58	-0.03	29.32	0.0211	0.1906	-0.0003
248	SLU 50	3.53	-0.03	29.01	0.0206	0.1884	-0.0003
248	SLU 51	3.53	-0.03	29.03	0.0207	0.1886	-0.0003
248	SLU 52	4.08	-0.03	34.46	0.0236	0.2163	-0.0003
248	SLU 53	4.11	-0.03	34.58	0.0239	0.2192	-0.0003
248	SLU 54	4.12	-0.03	34.6	0.024	0.2193	-0.0003
248	SLU 55	4.07	-0.03	34.32	0.0236	0.2174	-0.0003
248	SLU 56	4.1	-0.03	34.44	0.0239	0.2203	-0.0003
248	SLU 57	4.11	-0.03	34.46	0.024	0.2204	-0.0003
248	SLU 58	4.06	-0.03	34.15	0.0236	0.2182	-0.0003
248	SLU 59	4.06	-0.03	34.17	0.0236	0.2184	-0.0003
248	SLU 60	4.3	-0.04	36.63	0.0247	0.2288	-0.0003
248	SLU 61	4.3	-0.04	36.65	0.0248	0.2289	-0.0003
248	SLU 62	4.29	-0.04	36.49	0.0248	0.2299	-0.0003
248	SLU 63	4.29	-0.04	36.51	0.0248	0.23	-0.0003
248	SLU 64	3.98	-0.03	33.29	0.0231	0.2111	-0.0003
248	SLU 65	3.98	-0.03	33.32	0.0232	0.2113	-0.0003
248	SLU 66	4.01	-0.03	33.43	0.0235	0.2143	-0.0003
248	SLU 67	4.02	-0.03	33.45	0.0236	0.2144	-0.0003
248	SLU 68	3.97	-0.03	33.18	0.0232	0.2125	-0.0003
248	SLU 69	4	-0.03	33.29	0.0236	0.2154	-0.0003
248	SLU 70	4.01	-0.03	33.31	0.0237	0.2155	-0.0003
248	SLU 71	3.96	-0.03	33	0.0232	0.2133	-0.0003
248	SLU 72	3.96	-0.03	33.02	0.0233	0.2135	-0.0003
248	SLU 73	4.51	-0.04	38.46	0.0261	0.2411	-0.0003
248	SLU 74	4.54	-0.04	38.57	0.0265	0.2441	-0.0003
248	SLU 75	4.54	-0.04	38.59	0.0265	0.2442	-0.0003
248	SLU 76	4.5	-0.04	38.31	0.0262	0.2422	-0.0003
248	SLU 77	4.53	-0.04	38.43	0.0265	0.2452	-0.0003
248	SLU 78	4.53	-0.04	38.45	0.0266	0.2453	-0.0003
248	SLU 79	4.48	-0.04	38.14	0.0261	0.2431	-0.0003
248	SLU 80	4.49	-0.04	38.16	0.0262	0.2432	-0.0003
248	SLU 81	4.73	-0.04	40.63	0.0273	0.2536	-0.0003
248	SLU 82	4.73	-0.04	40.65	0.0274	0.2538	-0.0003
248	SLU 83	4.72	-0.04	40.49	0.0273	0.2548	-0.0003
248	SLU 84	4.72	-0.04	40.5	0.0274	0.2549	-0.0003
248	SLE RA 1	2.96	-0.02	24.73	0.0172	0.1569	-0.0002
248	SLE RA 2	2.97	-0.02	24.75	0.0173	0.1571	-0.0002
248	SLE RA 3	2.99	-0.02	24.83	0.0175	0.159	-0.0002
248	SLE RA 4	2.99	-0.02	24.84	0.0175	0.1591	-0.0002
248	SLE RA 5	2.96	-0.02	24.65	0.0173	0.1578	-0.0002
248	SLE RA 6	2.98	-0.02	24.73	0.0175	0.1598	-0.0002
248	SLE RA 7	2.99	-0.02	24.74	0.0176	0.1599	-0.0002
248	SLE RA 8	2.95	-0.02	24.54	0.0173	0.1584	-0.0002
248	SLE RA 9	2.95	-0.02	24.55	0.0173	0.1585	-0.0002
248	SLE RA 10	3.32	-0.03	28.17	0.0192	0.1769	-0.0002
248	SLE RA 11	3.34	-0.03	28.25	0.0194	0.1789	-0.0002
248	SLE RA 12	3.34	-0.03	28.26	0.0195	0.179	-0.0002
248	SLE RA 13	3.31	-0.03	28.08	0.0193	0.1777	-0.0002
248	SLE RA 14	3.33	-0.03	28.16	0.0195	0.1796	-0.0002
248	SLE RA 15	3.34	-0.03	28.17	0.0195	0.1797	-0.0002
248	SLE RA 16	3.3	-0.03	27.96	0.0192	0.1782	-0.0002
248	SLE RA 17	3.31	-0.03	27.98	0.0193	0.1783	-0.0002
248	SLE RA 18	3.47	-0.03	29.62	0.02	0.1853	-0.0002
248	SLE RA 19	3.47	-0.03	29.63	0.02	0.1854	-0.0002
248	SLE RA 20	3.46	-0.03	29.53	0.02	0.186	-0.0002
248	SLE RA 21	3.46	-0.03	29.54	0.0201	0.1861	-0.0002
248	SLE FR 1	2.96	-0.02	24.73	0.0172	0.1569	-0.0002
248	SLE FR 2	2.97	-0.02	24.73	0.0172	0.1569	-0.0002
248	SLE FR 3	2.96	-0.02	24.69	0.0172	0.1572	-0.0002
248	SLE FR 4	3.12	-0.03	26.2	0.018	0.1655	-0.0002
248	SLE FR 5	3.11	-0.03	26.16	0.018	0.1657	-0.0002
248	SLE FR 6	3.22	-0.03	27.17	0.0186	0.1711	-0.0002
248	SLE QP 1	2.96	-0.02	24.73	0.0172	0.1569	-0.0002
248	SLE QP 2	3.12	-0.03	26.19	0.018	0.1654	-0.0002
248	SLD 1	5.39	0.07	34.47	-0.0528	0.3279	0.0014
248	SLD 2	5.39	0.07	34.47	-0.0528	0.3279	0.0014
248	SLD 3	6	0.03	37.4	-0.0208	0.3667	0.0008
248	SLD 4	6	0.03	37.4	-0.0208	0.3667	0.0008
248	SLD 5	2.88	0.05	24.23	-0.0518	0.1554	0.0012
248	SLD 6	2.88	0.05	24.23	-0.0518	0.1554	0.0012
248	SLD 7	4.9	-0.06	34.01	0.055	0.2846	-0.0008
248	SLD 8	4.9	-0.06	34.01	0.055	0.2846	-0.0008
248	SLD 9	1.33	0.01	18.38	-0.019	0.0462	0.0004
248	SLD 10	1.33	0.01	18.38	-0.019	0.0462	0.0004
248	SLD 11	3.35	-0.1	28.16	0.0879	0.1755	-0.0016



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
248	SLD 12	3.35	-0.1	28.16	0.0879	0.1755	-0.0016
248	SLD 13	0.23	-0.08	14.99	0.0568	-0.0358	-0.0012
248	SLD 14	0.23	-0.08	14.99	0.0568	-0.0358	-0.0012
248	SLD 15	0.84	-0.12	17.92	0.0888	0.0029	-0.0018
248	SLD 16	0.84	-0.12	17.92	0.0888	0.0029	-0.0018
248	SLV 1	8.43	0.21	45.49	-0.1628	0.5444	0.0039
248	SLV 2	8.43	0.21	45.49	-0.1628	0.5444	0.0039
248	SLV 3	9.85	0.12	52.4	-0.0818	0.6355	0.0023
248	SLV 4	9.85	0.12	52.4	-0.0818	0.6355	0.0023
248	SLV 5	2.55	0.17	21.51	-0.1591	0.141	0.0033
248	SLV 6	2.55	0.17	21.51	-0.1591	0.141	0.0033
248	SLV 7	7.29	-0.11	44.54	0.1109	0.4445	-0.0017
248	SLV 8	7.29	-0.11	44.54	0.1109	0.4445	-0.0017
248	SLV 9	-1.06	0.06	7.85	-0.0749	-0.1137	0.0013
248	SLV 10	-1.06	0.06	7.85	-0.0749	-0.1137	0.0013
248	SLV 11	3.68	-0.22	30.88	0.1951	0.1898	-0.0037
248	SLV 12	3.68	-0.22	30.88	0.1951	0.1898	-0.0037
248	SLV 13	-3.62	-0.18	-0.01	0.1179	-0.3047	-0.0028
248	SLV 14	-3.62	-0.18	-0.01	0.1179	-0.3047	-0.0028
248	SLV 15	-2.2	-0.26	6.9	0.1988	-0.2136	-0.0043
248	SLV 16	-2.2	-0.26	6.9	0.1988	-0.2136	-0.0043
249	SLU 1	1.88	-0.03	22.24	0.0206	0.0707	-0.0006
249	SLU 2	1.89	-0.03	22.27	0.0207	0.0709	-0.0006
249	SLU 3	1.93	-0.03	22.3	0.0211	0.0726	-0.0006
249	SLU 4	1.93	-0.03	22.32	0.0212	0.0727	-0.0006
249	SLU 5	1.9	-0.03	22.04	0.0208	0.0715	-0.0006
249	SLU 6	1.95	-0.03	22.06	0.0212	0.0733	-0.0006
249	SLU 7	1.95	-0.03	22.08	0.0212	0.0734	-0.0006
249	SLU 8	1.91	-0.03	21.77	0.0207	0.072	-0.0006
249	SLU 9	1.91	-0.03	21.79	0.0208	0.0721	-0.0006
249	SLU 10	2.19	-0.04	26.97	0.0244	0.0827	-0.0007
249	SLU 11	2.23	-0.04	27	0.0248	0.0845	-0.0007
249	SLU 12	2.23	-0.04	27.02	0.0249	0.0846	-0.0007
249	SLU 13	2.2	-0.03	26.73	0.0245	0.0834	-0.0007
249	SLU 14	2.24	-0.04	26.76	0.0249	0.0851	-0.0007
249	SLU 15	2.25	-0.04	26.78	0.025	0.0852	-0.0007
249	SLU 16	2.21	-0.03	26.46	0.0244	0.0839	-0.0007
249	SLU 17	2.21	-0.03	26.48	0.0245	0.0839	-0.0007
249	SLU 18	2.31	-0.04	28.95	0.0259	0.0876	-0.0008
249	SLU 19	2.31	-0.04	28.97	0.026	0.0877	-0.0008
249	SLU 20	2.32	-0.04	28.71	0.0259	0.0883	-0.0008
249	SLU 21	2.33	-0.04	28.73	0.026	0.0884	-0.0008
249	SLU 22	2.15	-0.03	25.84	0.0238	0.0813	-0.0007
249	SLU 23	2.15	-0.03	25.87	0.024	0.0814	-0.0007
249	SLU 24	2.2	-0.03	25.9	0.0243	0.0832	-0.0007
249	SLU 25	2.2	-0.03	25.92	0.0244	0.0833	-0.0007
249	SLU 26	2.17	-0.03	25.64	0.024	0.0821	-0.0007
249	SLU 27	2.21	-0.03	25.67	0.0244	0.0838	-0.0007
249	SLU 28	2.21	-0.03	25.69	0.0245	0.0839	-0.0007
249	SLU 29	2.18	-0.03	25.37	0.0239	0.0826	-0.0007
249	SLU 30	2.18	-0.03	25.39	0.024	0.0826	-0.0007
249	SLU 31	2.45	-0.04	30.57	0.0277	0.0932	-0.0008
249	SLU 32	2.5	-0.04	30.6	0.028	0.095	-0.0008
249	SLU 33	2.5	-0.04	30.62	0.0281	0.0951	-0.0008
249	SLU 34	2.47	-0.04	30.34	0.0277	0.0939	-0.0008
249	SLU 35	2.51	-0.04	30.37	0.0281	0.0957	-0.0008
249	SLU 36	2.51	-0.04	30.39	0.0282	0.0957	-0.0008
249	SLU 37	2.47	-0.04	30.07	0.0276	0.0944	-0.0008
249	SLU 38	2.48	-0.04	30.09	0.0277	0.0945	-0.0008
249	SLU 39	2.58	-0.04	32.55	0.0291	0.0982	-0.0009
249	SLU 40	2.58	-0.04	32.57	0.0292	0.0983	-0.0009
249	SLU 41	2.59	-0.04	32.32	0.0291	0.0988	-0.0009
249	SLU 42	2.59	-0.04	32.34	0.0292	0.0989	-0.0009
249	SLU 43	2.36	-0.04	27.67	0.0257	0.0883	-0.0008
249	SLU 44	2.36	-0.04	27.71	0.0258	0.0885	-0.0008
249	SLU 45	2.41	-0.04	27.74	0.0262	0.0903	-0.0008
249	SLU 46	2.41	-0.04	27.76	0.0263	0.0903	-0.0008
249	SLU 47	2.38	-0.04	27.47	0.0258	0.0891	-0.0008
249	SLU 48	2.42	-0.04	27.5	0.0262	0.0909	-0.0008
249	SLU 49	2.42	-0.04	27.52	0.0263	0.091	-0.0008
249	SLU 50	2.39	-0.04	27.2	0.0257	0.0896	-0.0008
249	SLU 51	2.39	-0.04	27.22	0.0258	0.0897	-0.0008
249	SLU 52	2.66	-0.04	32.41	0.0295	0.1003	-0.0009
249	SLU 53	2.71	-0.04	32.44	0.0299	0.1021	-0.0009
249	SLU 54	2.71	-0.04	32.46	0.03	0.1022	-0.0009
249	SLU 55	2.68	-0.04	32.17	0.0296	0.101	-0.0009
249	SLU 56	2.72	-0.04	32.2	0.0299	0.1027	-0.0009
249	SLU 57	2.72	-0.04	32.22	0.03	0.1028	-0.0009
249	SLU 58	2.68	-0.04	31.9	0.0294	0.1015	-0.0009
249	SLU 59	2.69	-0.04	31.92	0.0295	0.1016	-0.0009
249	SLU 60	2.79	-0.04	34.39	0.0309	0.1052	-0.0009
249	SLU 61	2.79	-0.04	34.41	0.031	0.1053	-0.0009
249	SLU 62	2.8	-0.04	34.15	0.031	0.1059	-0.0009
249	SLU 63	2.8	-0.04	34.17	0.0311	0.106	-0.0009
249	SLU 64	2.62	-0.04	31.28	0.0289	0.0989	-0.0009
249	SLU 65	2.63	-0.04	31.31	0.029	0.099	-0.0009
249	SLU 66	2.67	-0.04	31.34	0.0294	0.1008	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
249	SLU 67	2.67	-0.04	31.36	0.0295	0.1009	-0.0009
249	SLU 68	2.64	-0.04	31.07	0.0291	0.0997	-0.0009
249	SLU 69	2.68	-0.04	31.1	0.0294	0.1014	-0.0009
249	SLU 70	2.69	-0.04	31.12	0.0295	0.1015	-0.0009
249	SLU 71	2.65	-0.04	30.8	0.029	0.1002	-0.0009
249	SLU 72	2.65	-0.04	30.82	0.029	0.1003	-0.0009
249	SLU 73	2.93	-0.05	36.01	0.0327	0.1109	-0.001
249	SLU 74	2.97	-0.05	36.04	0.0331	0.1126	-0.001
249	SLU 75	2.97	-0.05	36.06	0.0332	0.1127	-0.001
249	SLU 76	2.94	-0.05	35.77	0.0328	0.1115	-0.001
249	SLU 77	2.98	-0.05	35.8	0.0332	0.1133	-0.001
249	SLU 78	2.99	-0.05	35.82	0.0332	0.1134	-0.001
249	SLU 79	2.95	-0.05	35.5	0.0327	0.112	-0.001
249	SLU 80	2.95	-0.05	35.52	0.0328	0.1121	-0.001
249	SLU 81	3.05	-0.05	37.99	0.0342	0.1158	-0.001
249	SLU 82	3.05	-0.05	38.01	0.0343	0.1159	-0.001
249	SLU 83	3.06	-0.05	37.75	0.0342	0.1164	-0.001
249	SLU 84	3.07	-0.05	37.77	0.0343	0.1165	-0.001
249	SLE RA 1	1.96	-0.03	23.27	0.0215	0.0737	-0.0006
249	SLE RA 2	1.96	-0.03	23.29	0.0216	0.0738	-0.0006
249	SLE RA 3	1.99	-0.03	23.31	0.0219	0.075	-0.0006
249	SLE RA 4	1.99	-0.03	23.32	0.0219	0.0751	-0.0007
249	SLE RA 5	1.97	-0.03	23.13	0.0216	0.0743	-0.0006
249	SLE RA 6	2	-0.03	23.15	0.0219	0.0754	-0.0006
249	SLE RA 7	2	-0.03	23.17	0.0219	0.0755	-0.0007
249	SLE RA 8	1.98	-0.03	22.95	0.0216	0.0746	-0.0006
249	SLE RA 9	1.98	-0.03	22.97	0.0216	0.0747	-0.0006
249	SLE RA 10	2.16	-0.03	26.42	0.0241	0.0817	-0.0007
249	SLE RA 11	2.19	-0.03	26.44	0.0243	0.0829	-0.0007
249	SLE RA 12	2.19	-0.03	26.46	0.0244	0.083	-0.0007
249	SLE RA 13	2.17	-0.03	26.26	0.0241	0.0822	-0.0007
249	SLE RA 14	2.2	-0.03	26.28	0.0244	0.0833	-0.0007
249	SLE RA 15	2.2	-0.03	26.3	0.0244	0.0834	-0.0007
249	SLE RA 16	2.18	-0.03	26.08	0.024	0.0825	-0.0007
249	SLE RA 17	2.18	-0.03	26.1	0.0241	0.0826	-0.0007
249	SLE RA 18	2.24	-0.04	27.74	0.025	0.085	-0.0007
249	SLE RA 19	2.25	-0.04	27.76	0.0251	0.0851	-0.0007
249	SLE RA 20	2.25	-0.04	27.59	0.0251	0.0854	-0.0007
249	SLE RA 21	2.26	-0.04	27.6	0.0251	0.0855	-0.0007
249	SLE FR 1	1.96	-0.03	23.27	0.0215	0.0737	-0.0006
249	SLE FR 2	1.96	-0.03	23.27	0.0215	0.0738	-0.0006
249	SLE FR 3	1.96	-0.03	23.2	0.0215	0.0739	-0.0006
249	SLE FR 4	2.05	-0.03	24.61	0.0226	0.0771	-0.0007
249	SLE FR 5	2.05	-0.03	24.55	0.0226	0.0773	-0.0007
249	SLE FR 6	2.1	-0.03	25.51	0.0233	0.0794	-0.0007
249	SLE QP 1	1.96	-0.03	23.27	0.0215	0.0737	-0.0006
249	SLE QP 2	2.05	-0.03	24.61	0.0226	0.0771	-0.0007
249	SLD 1	5.16	-0.04	29.26	0.0477	0.1987	-0.0011
249	SLD 2	5.16	-0.04	29.26	0.0477	0.1987	-0.0011
249	SLD 3	5.78	-0.1	31.67	0.067	0.2225	-0.0021
249	SLD 4	5.78	-0.1	31.67	0.067	0.2225	-0.0021
249	SLD 5	2.04	0.06	22.35	0.0008	0.0775	0.0007
249	SLD 6	2.04	0.06	22.35	0.0008	0.0775	0.0007
249	SLD 7	4.11	-0.15	30.38	0.0652	0.1568	-0.0026
249	SLD 8	4.11	-0.15	30.38	0.0652	0.1568	-0.0026
249	SLD 9	-0.01	0.08	18.84	-0.02	-0.0026	0.0013
249	SLD 10	-0.01	0.08	18.84	-0.02	-0.0026	0.0013
249	SLD 11	2.05	-0.12	26.87	0.0443	0.0767	-0.0021
249	SLD 12	2.05	-0.12	26.87	0.0443	0.0767	-0.0021
249	SLD 13	-1.69	0.04	17.55	-0.0218	-0.0683	0.0008
249	SLD 14	-1.69	0.04	17.55	-0.0218	-0.0683	0.0008
249	SLD 15	-1.07	-0.02	19.96	-0.0025	-0.0445	-0.0002
249	SLD 16	-1.07	-0.02	19.96	-0.0025	-0.0445	-0.0002
249	SLV 1	9.31	-0.06	35.47	0.0875	0.3608	-0.0018
249	SLV 2	9.31	-0.06	35.47	0.0875	0.3608	-0.0018
249	SLV 3	10.77	-0.21	41.15	0.1343	0.4167	-0.0043
249	SLV 4	10.77	-0.21	41.15	0.1343	0.4167	-0.0043
249	SLV 5	2.02	0.19	19.24	-0.029	0.0774	0.0027
249	SLV 6	2.02	0.19	19.24	-0.029	0.0774	0.0027
249	SLV 7	6.87	-0.32	38.2	0.1271	0.2639	-0.0055
249	SLV 8	6.87	-0.32	38.2	0.1271	0.2639	-0.0055
249	SLV 9	-2.78	0.25	11.02	-0.082	-0.1096	0.0042
249	SLV 10	-2.78	0.25	11.02	-0.082	-0.1096	0.0042
249	SLV 11	2.07	-0.26	29.98	0.0741	0.0769	-0.0041
249	SLV 12	2.07	-0.26	29.98	0.0741	0.0769	-0.0041
249	SLV 13	-6.68	0.14	8.07	-0.0892	-0.2625	0.003
249	SLV 14	-6.68	0.14	8.07	-0.0892	-0.2625	0.003
249	SLV 15	-5.22	-0.01	13.75	-0.0423	-0.2065	0.0005
249	SLV 16	-5.22	-0.01	13.75	-0.0423	-0.2065	0.0005
250	SLU 1	0.65	-0.03	22.03	0.0225	0.0207	-0.0003
250	SLU 2	0.65	-0.03	22.07	0.0227	0.0208	-0.0003
250	SLU 3	0.69	-0.03	22.04	0.0231	0.0221	-0.0003
250	SLU 4	0.69	-0.03	22.06	0.0232	0.0221	-0.0003
250	SLU 5	0.68	-0.03	21.75	0.0227	0.0218	-0.0003
250	SLU 6	0.71	-0.03	21.72	0.0231	0.0231	-0.0003
250	SLU 7	0.71	-0.03	21.75	0.0232	0.0231	-0.0003
250	SLU 8	0.7	-0.03	21.4	0.0225	0.0228	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
250	SLU 9	0.7	-0.03	21.42	0.0226	0.0228	-0.0003
250	SLU 10	0.71	-0.04	26.55	0.0267	0.0233	-0.0004
250	SLU 11	0.74	-0.04	26.52	0.0271	0.0245	-0.0004
250	SLU 12	0.75	-0.04	26.54	0.0272	0.0245	-0.0004
250	SLU 13	0.74	-0.04	26.23	0.0267	0.0243	-0.0004
250	SLU 14	0.77	-0.04	26.2	0.0271	0.0255	-0.0004
250	SLU 15	0.77	-0.04	26.22	0.0272	0.0256	-0.0004
250	SLU 16	0.76	-0.04	25.88	0.0266	0.0253	-0.0004
250	SLU 17	0.76	-0.04	25.9	0.0267	0.0253	-0.0004
250	SLU 18	0.73	-0.04	28.43	0.0283	0.0243	-0.0004
250	SLU 19	0.73	-0.04	28.45	0.0284	0.0243	-0.0004
250	SLU 20	0.76	-0.04	28.11	0.0283	0.0253	-0.0004
250	SLU 21	0.76	-0.04	28.14	0.0284	0.0253	-0.0004
250	SLU 22	0.72	-0.04	25.44	0.026	0.0236	-0.0004
250	SLU 23	0.72	-0.04	25.47	0.0262	0.0237	-0.0004
250	SLU 24	0.76	-0.04	25.44	0.0266	0.0249	-0.0004
250	SLU 25	0.76	-0.04	25.47	0.0267	0.0249	-0.0004
250	SLU 26	0.75	-0.04	25.16	0.0262	0.0247	-0.0004
250	SLU 27	0.79	-0.04	25.13	0.0266	0.0259	-0.0004
250	SLU 28	0.79	-0.04	25.15	0.0267	0.026	-0.0004
250	SLU 29	0.78	-0.04	24.8	0.026	0.0257	-0.0004
250	SLU 30	0.78	-0.04	24.82	0.0261	0.0257	-0.0004
250	SLU 31	0.78	-0.04	29.95	0.0302	0.0261	-0.0005
250	SLU 32	0.82	-0.04	29.92	0.0306	0.0274	-0.0005
250	SLU 33	0.82	-0.04	29.94	0.0307	0.0274	-0.0005
250	SLU 34	0.81	-0.04	29.63	0.0302	0.0271	-0.0005
250	SLU 35	0.84	-0.04	29.61	0.0306	0.0284	-0.0005
250	SLU 36	0.85	-0.04	29.63	0.0307	0.0284	-0.0005
250	SLU 37	0.83	-0.04	29.28	0.0301	0.0281	-0.0004
250	SLU 38	0.84	-0.04	29.3	0.0302	0.0282	-0.0005
250	SLU 39	0.81	-0.04	31.83	0.0318	0.0271	-0.0005
250	SLU 40	0.81	-0.04	31.86	0.0319	0.0272	-0.0005
250	SLU 41	0.83	-0.04	31.52	0.0318	0.0282	-0.0005
250	SLU 42	0.83	-0.04	31.54	0.0319	0.0282	-0.0005
250	SLU 43	0.82	-0.04	27.47	0.0281	0.026	-0.0004
250	SLU 44	0.82	-0.04	27.51	0.0282	0.026	-0.0004
250	SLU 45	0.86	-0.04	27.48	0.0286	0.0273	-0.0004
250	SLU 46	0.86	-0.04	27.5	0.0287	0.0273	-0.0004
250	SLU 47	0.85	-0.04	27.19	0.0282	0.027	-0.0004
250	SLU 48	0.88	-0.04	27.17	0.0286	0.0283	-0.0004
250	SLU 49	0.88	-0.04	27.19	0.0287	0.0283	-0.0004
250	SLU 50	0.87	-0.04	26.84	0.0281	0.028	-0.0004
250	SLU 51	0.87	-0.04	26.86	0.0282	0.028	-0.0004
250	SLU 52	0.88	-0.04	31.99	0.0323	0.0285	-0.0005
250	SLU 53	0.91	-0.05	31.96	0.0327	0.0298	-0.0005
250	SLU 54	0.92	-0.05	31.98	0.0328	0.0298	-0.0005
250	SLU 55	0.91	-0.04	31.67	0.0323	0.0295	-0.0005
250	SLU 56	0.94	-0.04	31.64	0.0327	0.0308	-0.0005
250	SLU 57	0.94	-0.05	31.67	0.0328	0.0308	-0.0005
250	SLU 58	0.93	-0.04	31.32	0.0321	0.0305	-0.0005
250	SLU 59	0.93	-0.04	31.34	0.0322	0.0305	-0.0005
250	SLU 60	0.9	-0.05	33.87	0.0338	0.0295	-0.0005
250	SLU 61	0.9	-0.05	33.89	0.0339	0.0295	-0.0005
250	SLU 62	0.93	-0.05	33.56	0.0339	0.0305	-0.0005
250	SLU 63	0.93	-0.05	33.58	0.034	0.0306	-0.0005
250	SLU 64	0.89	-0.04	30.88	0.0316	0.0288	-0.0005
250	SLU 65	0.89	-0.04	30.91	0.0317	0.0289	-0.0005
250	SLU 66	0.93	-0.04	30.89	0.0321	0.0302	-0.0005
250	SLU 67	0.93	-0.04	30.91	0.0322	0.0302	-0.0005
250	SLU 68	0.92	-0.04	30.6	0.0317	0.0299	-0.0005
250	SLU 69	0.96	-0.04	30.57	0.0321	0.0312	-0.0005
250	SLU 70	0.96	-0.04	30.59	0.0322	0.0312	-0.0005
250	SLU 71	0.94	-0.04	30.24	0.0316	0.0309	-0.0005
250	SLU 72	0.95	-0.04	30.27	0.0317	0.0309	-0.0005
250	SLU 73	0.95	-0.05	35.39	0.0358	0.0314	-0.0005
250	SLU 74	0.99	-0.05	35.36	0.0362	0.0326	-0.0005
250	SLU 75	0.99	-0.05	35.39	0.0363	0.0327	-0.0005
250	SLU 76	0.98	-0.05	35.08	0.0358	0.0324	-0.0005
250	SLU 77	1.01	-0.05	35.05	0.0362	0.0337	-0.0005
250	SLU 78	1.02	-0.05	35.07	0.0363	0.0337	-0.0005
250	SLU 79	1	-0.05	34.72	0.0356	0.0334	-0.0005
250	SLU 80	1	-0.05	34.75	0.0357	0.0334	-0.0005
250	SLU 81	0.98	-0.05	37.28	0.0373	0.0324	-0.0006
250	SLU 82	0.98	-0.05	37.3	0.0374	0.0324	-0.0006
250	SLU 83	1	-0.05	36.96	0.0374	0.0334	-0.0006
250	SLU 84	1	-0.05	36.98	0.0375	0.0334	-0.0006
250	SLE RA 1	0.67	-0.03	23	0.0235	0.0216	-0.0004
250	SLE RA 2	0.67	-0.03	23.03	0.0236	0.0216	-0.0004
250	SLE RA 3	0.69	-0.03	23.01	0.0239	0.0224	-0.0004
250	SLE RA 4	0.7	-0.03	23.02	0.0239	0.0225	-0.0004
250	SLE RA 5	0.69	-0.03	22.82	0.0236	0.0223	-0.0004
250	SLE RA 6	0.71	-0.03	22.8	0.0239	0.0231	-0.0004
250	SLE RA 7	0.71	-0.03	22.81	0.024	0.0231	-0.0004
250	SLE RA 8	0.71	-0.03	22.58	0.0235	0.0229	-0.0004
250	SLE RA 9	0.71	-0.03	22.6	0.0236	0.0229	-0.0004
250	SLE RA 10	0.71	-0.04	26.01	0.0263	0.0232	-0.0004
250	SLE RA 11	0.73	-0.04	26	0.0266	0.0241	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
250	SLE RA 12	0.73	-0.04	26.01	0.0266	0.0241	-0.0004
250	SLE RA 13	0.73	-0.04	25.8	0.0263	0.0239	-0.0004
250	SLE RA 14	0.75	-0.04	25.78	0.0266	0.0248	-0.0004
250	SLE RA 15	0.75	-0.04	25.8	0.0267	0.0248	-0.0004
250	SLE RA 16	0.74	-0.04	25.57	0.0262	0.0246	-0.0004
250	SLE RA 17	0.75	-0.04	25.58	0.0263	0.0246	-0.0004
250	SLE RA 18	0.73	-0.04	27.27	0.0274	0.0239	-0.0004
250	SLE RA 19	0.73	-0.04	27.28	0.0274	0.0239	-0.0004
250	SLE RA 20	0.74	-0.04	27.06	0.0274	0.0246	-0.0004
250	SLE RA 21	0.74	-0.04	27.07	0.0274	0.0246	-0.0004
250	SLE FR 1	0.67	-0.03	23	0.0235	0.0216	-0.0004
250	SLE FR 2	0.67	-0.03	23.01	0.0235	0.0216	-0.0004
250	SLE FR 3	0.68	-0.03	22.92	0.0235	0.0218	-0.0004
250	SLE FR 4	0.69	-0.03	24.29	0.0247	0.0223	-0.0004
250	SLE FR 5	0.69	-0.03	24.2	0.0247	0.0225	-0.0004
250	SLE FR 6	0.7	-0.04	25.14	0.0254	0.0227	-0.0004
250	SLE QP 1	0.67	-0.03	23	0.0235	0.0216	-0.0004
250	SLE QP 2	0.69	-0.03	24.28	0.0247	0.0223	-0.0004
250	SLD 1	3.95	-0.1	27.36	0.0298	0.1245	-0.0003
250	SLD 2	3.95	-0.1	27.36	0.0298	0.1245	-0.0003
250	SLD 3	4.42	-0.02	29.6	0.0514	0.1398	-0.001
250	SLD 4	4.42	-0.02	29.6	0.0514	0.1398	-0.001
250	SLD 5	0.96	-0.17	21.8	-0.0064	0.0298	0.0007
250	SLD 6	0.96	-0.17	21.8	-0.0064	0.0298	0.0007
250	SLD 7	2.51	0.09	29.29	0.0653	0.0807	-0.0016
250	SLD 8	2.51	0.09	29.29	0.0653	0.0807	-0.0016
250	SLD 9	-1.14	-0.16	19.28	-0.016	-0.0361	0.0008
250	SLD 10	-1.14	-0.16	19.28	-0.016	-0.0361	0.0008
250	SLD 11	0.41	0.1	26.77	0.0558	0.0147	-0.0014
250	SLD 12	0.41	0.1	26.77	0.0558	0.0147	-0.0014
250	SLD 13	-3.04	-0.05	18.96	-0.002	-0.0953	0.0002
250	SLD 14	-3.04	-0.05	18.96	-0.002	-0.0953	0.0002
250	SLD 15	-2.58	0.03	21.21	0.0195	-0.08	-0.0005
250	SLD 16	-2.58	0.03	21.21	0.0195	-0.08	-0.0005
250	SLV 1	8.3	-0.19	31.46	0.037	0.2607	-0.0001
250	SLV 2	8.3	-0.19	31.46	0.037	0.2607	-0.0001
250	SLV 3	9.4	0.01	36.77	0.0892	0.2966	-0.0018
250	SLV 4	9.4	0.01	36.77	0.0892	0.2966	-0.0018
250	SLV 5	1.31	-0.38	18.38	-0.0509	0.0394	0.0023
250	SLV 6	1.31	-0.38	18.38	-0.0509	0.0394	0.0023
250	SLV 7	4.96	0.28	36.09	0.1233	0.159	-0.0034
250	SLV 8	4.96	0.28	36.09	0.1233	0.159	-0.0034
250	SLV 9	-3.59	-0.34	12.48	-0.0739	-0.1144	0.0027
250	SLV 10	-3.59	-0.34	12.48	-0.0739	-0.1144	0.0027
250	SLV 11	0.06	0.31	30.19	0.1002	0.0051	-0.003
250	SLV 12	0.06	0.31	30.19	0.1002	0.0051	-0.003
250	SLV 13	-8.02	-0.07	11.79	-0.0399	-0.2521	0.0011
250	SLV 14	-8.02	-0.07	11.79	-0.0399	-0.2521	0.0011
250	SLV 15	-6.93	0.12	17.11	0.0123	-0.2162	-0.0006
250	SLV 16	-6.93	0.12	17.11	0.0123	-0.2162	-0.0006
251	SLU 1	-0.29	-0.03	21.44	0.0216	-0.0065	0
251	SLU 2	-0.29	-0.03	21.48	0.0218	-0.0065	0
251	SLU 3	-0.27	-0.03	21.39	0.0221	-0.0059	0
251	SLU 4	-0.27	-0.03	21.41	0.0222	-0.0059	0
251	SLU 5	-0.26	-0.03	21.09	0.0218	-0.0056	0
251	SLU 6	-0.25	-0.03	21	0.0222	-0.0049	0
251	SLU 7	-0.25	-0.03	21.02	0.0223	-0.005	0
251	SLU 8	-0.23	-0.03	20.66	0.0217	-0.0046	0
251	SLU 9	-0.24	-0.03	20.69	0.0217	-0.0047	0
251	SLU 10	-0.38	-0.04	25.71	0.0256	-0.0085	0
251	SLU 11	-0.37	-0.04	25.62	0.026	-0.0079	0
251	SLU 12	-0.37	-0.04	25.64	0.0261	-0.0079	0
251	SLU 13	-0.36	-0.04	25.32	0.0257	-0.0076	0
251	SLU 14	-0.34	-0.04	25.23	0.026	-0.0069	0
251	SLU 15	-0.34	-0.04	25.25	0.0261	-0.007	0
251	SLU 16	-0.33	-0.04	24.89	0.0255	-0.0066	0
251	SLU 17	-0.33	-0.04	24.92	0.0256	-0.0067	0
251	SLU 18	-0.42	-0.04	27.48	0.0271	-0.0093	0
251	SLU 19	-0.43	-0.04	27.51	0.0272	-0.0093	0
251	SLU 20	-0.4	-0.04	27.09	0.0272	-0.0084	0
251	SLU 21	-0.4	-0.04	27.12	0.0273	-0.0084	0
251	SLU 22	-0.35	-0.04	24.62	0.025	-0.0075	0
251	SLU 23	-0.35	-0.04	24.65	0.0251	-0.0076	0
251	SLU 24	-0.33	-0.04	24.56	0.0255	-0.0069	0
251	SLU 25	-0.33	-0.04	24.59	0.0256	-0.0069	0
251	SLU 26	-0.32	-0.04	24.27	0.0251	-0.0067	0
251	SLU 27	-0.31	-0.04	24.17	0.0255	-0.006	0
251	SLU 28	-0.31	-0.04	24.2	0.0256	-0.006	0
251	SLU 29	-0.3	-0.04	23.84	0.025	-0.0057	0
251	SLU 30	-0.3	-0.04	23.86	0.0251	-0.0057	0
251	SLU 31	-0.45	-0.04	28.88	0.029	-0.0096	0
251	SLU 32	-0.43	-0.04	28.79	0.0294	-0.0089	0
251	SLU 33	-0.43	-0.04	28.82	0.0295	-0.009	0
251	SLU 34	-0.42	-0.04	28.5	0.029	-0.0087	0
251	SLU 35	-0.4	-0.04	28.4	0.0294	-0.008	0
251	SLU 36	-0.4	-0.04	28.43	0.0295	-0.008	0
251	SLU 37	-0.39	-0.04	28.07	0.0289	-0.0077	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
251	SLU 38	-0.39	-0.04	28.09	0.029	-0.0077	0
251	SLU 39	-0.48	-0.04	30.66	0.0305	-0.0104	0
251	SLU 40	-0.49	-0.04	30.68	0.0306	-0.0104	0
251	SLU 41	-0.46	-0.04	30.27	0.0305	-0.0095	0
251	SLU 42	-0.46	-0.04	30.29	0.0306	-0.0095	0
251	SLU 43	-0.35	-0.04	26.78	0.0269	-0.008	0
251	SLU 44	-0.35	-0.04	26.82	0.0271	-0.0081	0
251	SLU 45	-0.34	-0.04	26.73	0.0275	-0.0074	0
251	SLU 46	-0.34	-0.04	26.76	0.0276	-0.0075	0
251	SLU 47	-0.33	-0.04	26.43	0.0271	-0.0072	0
251	SLU 48	-0.31	-0.04	26.34	0.0275	-0.0065	0
251	SLU 49	-0.31	-0.04	26.37	0.0276	-0.0065	0
251	SLU 50	-0.3	-0.04	26.01	0.027	-0.0062	0
251	SLU 51	-0.3	-0.04	26.03	0.0271	-0.0062	0
251	SLU 52	-0.45	-0.04	31.05	0.031	-0.0101	0
251	SLU 53	-0.43	-0.05	30.96	0.0314	-0.0094	0
251	SLU 54	-0.43	-0.05	30.98	0.0314	-0.0095	0
251	SLU 55	-0.42	-0.04	30.66	0.031	-0.0092	0
251	SLU 56	-0.41	-0.05	30.57	0.0314	-0.0085	0
251	SLU 57	-0.41	-0.05	30.6	0.0315	-0.0085	0
251	SLU 58	-0.4	-0.04	30.24	0.0309	-0.0082	0
251	SLU 59	-0.4	-0.04	30.26	0.0309	-0.0082	0
251	SLU 60	-0.49	-0.05	32.83	0.0325	-0.0109	0
251	SLU 61	-0.49	-0.05	32.85	0.0326	-0.0109	0
251	SLU 62	-0.46	-0.05	32.44	0.0325	-0.01	0
251	SLU 63	-0.46	-0.05	32.46	0.0326	-0.01	0
251	SLU 64	-0.41	-0.04	29.96	0.0303	-0.0091	0
251	SLU 65	-0.41	-0.04	30	0.0304	-0.0091	0
251	SLU 66	-0.4	-0.04	29.91	0.0308	-0.0085	0
251	SLU 67	-0.4	-0.04	29.93	0.0309	-0.0085	0
251	SLU 68	-0.39	-0.04	29.61	0.0305	-0.0082	0
251	SLU 69	-0.37	-0.04	29.52	0.0309	-0.0076	0
251	SLU 70	-0.37	-0.04	29.54	0.0309	-0.0076	0
251	SLU 71	-0.36	-0.04	29.18	0.0303	-0.0073	0
251	SLU 72	-0.36	-0.04	29.21	0.0304	-0.0073	0
251	SLU 73	-0.51	-0.05	34.23	0.0343	-0.0111	0
251	SLU 74	-0.49	-0.05	34.14	0.0347	-0.0105	0
251	SLU 75	-0.49	-0.05	34.16	0.0348	-0.0105	0
251	SLU 76	-0.48	-0.05	33.84	0.0343	-0.0102	0
251	SLU 77	-0.47	-0.05	33.75	0.0347	-0.0096	0
251	SLU 78	-0.47	-0.05	33.77	0.0348	-0.0096	0
251	SLU 79	-0.46	-0.05	33.41	0.0342	-0.0093	0
251	SLU 80	-0.46	-0.05	33.43	0.0343	-0.0093	0
251	SLU 81	-0.55	-0.05	36	0.0358	-0.012	0
251	SLU 82	-0.55	-0.05	36.02	0.0359	-0.012	0
251	SLU 83	-0.52	-0.05	35.61	0.0359	-0.011	0
251	SLU 84	-0.53	-0.05	35.64	0.0359	-0.0111	0
251	SLE RA 1	-0.3	-0.03	22.35	0.0226	-0.0068	0
251	SLE RA 2	-0.31	-0.03	22.37	0.0227	-0.0068	0
251	SLE RA 3	-0.29	-0.03	22.31	0.0229	-0.0064	0
251	SLE RA 4	-0.29	-0.03	22.33	0.023	-0.0064	0
251	SLE RA 5	-0.29	-0.03	22.11	0.0227	-0.0062	0
251	SLE RA 6	-0.28	-0.03	22.05	0.0229	-0.0058	0
251	SLE RA 7	-0.28	-0.03	22.07	0.023	-0.0058	0
251	SLE RA 8	-0.27	-0.03	21.83	0.0226	-0.0055	0
251	SLE RA 9	-0.27	-0.03	21.85	0.0227	-0.0056	0
251	SLE RA 10	-0.37	-0.04	25.19	0.0252	-0.0081	0
251	SLE RA 11	-0.36	-0.04	25.13	0.0255	-0.0077	0
251	SLE RA 12	-0.36	-0.04	25.15	0.0256	-0.0077	0
251	SLE RA 13	-0.35	-0.04	24.93	0.0253	-0.0075	0
251	SLE RA 14	-0.34	-0.04	24.87	0.0255	-0.0071	0
251	SLE RA 15	-0.34	-0.04	24.89	0.0256	-0.0071	0
251	SLE RA 16	-0.33	-0.04	24.65	0.0252	-0.0069	0
251	SLE RA 17	-0.33	-0.04	24.66	0.0252	-0.0069	0
251	SLE RA 18	-0.4	-0.04	26.38	0.0263	-0.0087	0
251	SLE RA 19	-0.4	-0.04	26.39	0.0263	-0.0087	0
251	SLE RA 20	-0.38	-0.04	26.12	0.0263	-0.0081	0
251	SLE RA 21	-0.38	-0.04	26.13	0.0263	-0.0081	0
251	SLE FR 1	-0.3	-0.03	22.35	0.0226	-0.0068	0
251	SLE FR 2	-0.3	-0.03	22.35	0.0226	-0.0068	0
251	SLE FR 3	-0.3	-0.03	22.24	0.0226	-0.0065	0
251	SLE FR 4	-0.33	-0.03	23.56	0.0237	-0.0073	0
251	SLE FR 5	-0.32	-0.03	23.45	0.0237	-0.0071	0
251	SLE FR 6	-0.35	-0.04	24.36	0.0244	-0.0077	0
251	SLE QP 1	-0.3	-0.03	22.35	0.0226	-0.0068	0
251	SLE QP 2	-0.33	-0.03	23.56	0.0237	-0.0073	0
251	SLD 1	3.13	-0.1	25.65	0.0332	0.0887	0.0001
251	SLD 2	3.13	-0.1	25.65	0.0332	0.0887	0.0001
251	SLD 3	3.53	-0.04	27.62	0.0529	0.0997	0
251	SLD 4	3.53	-0.04	27.62	0.0529	0.0997	0
251	SLD 5	0.1	-0.16	21.19	-0.0034	0.0047	0.0002
251	SLD 6	0.1	-0.16	21.19	-0.0034	0.0047	0.0002
251	SLD 7	1.44	0.07	27.76	0.0623	0.0416	-0.0001
251	SLD 8	1.44	0.07	27.76	0.0623	0.0416	-0.0001
251	SLD 9	-2.1	-0.14	19.35	-0.015	-0.0562	0.0002
251	SLD 10	-2.1	-0.14	19.35	-0.015	-0.0562	0.0002
251	SLD 11	-0.76	0.09	25.92	0.0507	-0.0194	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
251	SLD 12	-0.76	0.09	25.92	0.0507	-0.0194	-0.0002
251	SLD 13	-4.2	-0.03	19.5	-0.0055	-0.1144	0
251	SLD 14	-4.2	-0.03	19.5	-0.0055	-0.1144	0
251	SLD 15	-3.79	0.04	21.47	0.0142	-0.1033	-0.0001
251	SLD 16	-3.79	0.04	21.47	0.0142	-0.1033	-0.0001
251	SLV 1	7.74	-0.21	28.43	0.0476	0.2164	0.0003
251	SLV 2	7.74	-0.21	28.43	0.0476	0.2164	0.0003
251	SLV 3	8.68	-0.04	33.11	0.0951	0.2425	0.0001
251	SLV 4	8.68	-0.04	33.11	0.0951	0.2425	0.0001
251	SLV 5	0.66	-0.35	17.92	-0.0412	0.0203	0.0005
251	SLV 6	0.66	-0.35	17.92	-0.0412	0.0203	0.0005
251	SLV 7	3.81	0.23	33.52	0.1172	0.1071	-0.0004
251	SLV 8	3.81	0.23	33.52	0.1172	0.1071	-0.0004
251	SLV 9	-4.47	-0.29	13.59	-0.0698	-0.1218	0.0004
251	SLV 10	-4.47	-0.29	13.59	-0.0698	-0.1218	0.0004
251	SLV 11	-1.32	0.28	29.19	0.0886	-0.0349	-0.0005
251	SLV 12	-1.32	0.28	29.19	0.0886	-0.0349	-0.0005
251	SLV 13	-9.35	-0.03	14	-0.0478	-0.2572	0
251	SLV 14	-9.35	-0.03	14	-0.0478	-0.2572	0
251	SLV 15	-8.4	0.14	18.68	-0.0002	-0.2311	-0.0003
251	SLV 16	-8.4	0.14	18.68	-0.0002	-0.2311	-0.0003
252	SLU 1	-0.8	-0.02	20.77	0.0179	-0.0163	0.0002
252	SLU 2	-0.8	-0.02	20.81	0.018	-0.0164	0.0002
252	SLU 3	-0.81	-0.02	20.63	0.0184	-0.0165	0.0002
252	SLU 4	-0.81	-0.02	20.65	0.0184	-0.0166	0.0002
252	SLU 5	-0.8	-0.02	20.33	0.018	-0.0163	0.0002
252	SLU 6	-0.81	-0.02	20.15	0.0184	-0.0164	0.0002
252	SLU 7	-0.81	-0.02	20.17	0.0185	-0.0165	0.0002
252	SLU 8	-0.8	-0.02	19.8	0.018	-0.0161	0.0002
252	SLU 9	-0.8	-0.02	19.83	0.0181	-0.0161	0.0002
252	SLU 10	-0.98	-0.03	24.81	0.0212	-0.0202	0.0002
252	SLU 11	-0.99	-0.03	24.63	0.0216	-0.0204	0.0002
252	SLU 12	-0.99	-0.03	24.66	0.0216	-0.0204	0.0002
252	SLU 13	-0.98	-0.03	24.33	0.0212	-0.0201	0.0002
252	SLU 14	-0.99	-0.03	24.15	0.0216	-0.0203	0.0002
252	SLU 15	-0.99	-0.03	24.18	0.0217	-0.0203	0.0002
252	SLU 16	-0.97	-0.03	23.81	0.0212	-0.0199	0.0002
252	SLU 17	-0.98	-0.03	23.83	0.0213	-0.02	0.0002
252	SLU 18	-1.05	-0.03	26.48	0.0225	-0.0218	0.0002
252	SLU 19	-1.05	-0.03	26.51	0.0225	-0.0219	0.0002
252	SLU 20	-1.05	-0.03	26	0.0225	-0.0217	0.0002
252	SLU 21	-1.05	-0.03	26.03	0.0226	-0.0217	0.0002
252	SLU 22	-0.94	-0.03	23.71	0.0207	-0.0194	0.0002
252	SLU 23	-0.94	-0.03	23.75	0.0208	-0.0194	0.0002
252	SLU 24	-0.96	-0.03	23.58	0.0211	-0.0196	0.0002
252	SLU 25	-0.96	-0.03	23.6	0.0212	-0.0196	0.0002
252	SLU 26	-0.94	-0.03	23.27	0.0208	-0.0193	0.0002
252	SLU 27	-0.96	-0.03	23.1	0.0212	-0.0195	0.0002
252	SLU 28	-0.96	-0.03	23.12	0.0213	-0.0195	0.0002
252	SLU 29	-0.94	-0.03	22.75	0.0208	-0.0191	0.0002
252	SLU 30	-0.94	-0.03	22.77	0.0208	-0.0191	0.0002
252	SLU 31	-1.12	-0.03	27.76	0.024	-0.0233	0.0003
252	SLU 32	-1.14	-0.03	27.58	0.0243	-0.0234	0.0003
252	SLU 33	-1.14	-0.03	27.6	0.0244	-0.0235	0.0003
252	SLU 34	-1.12	-0.03	27.27	0.024	-0.0231	0.0003
252	SLU 35	-1.14	-0.03	27.1	0.0244	-0.0233	0.0003
252	SLU 36	-1.14	-0.03	27.12	0.0245	-0.0233	0.0003
252	SLU 37	-1.12	-0.03	26.75	0.024	-0.023	0.0002
252	SLU 38	-1.12	-0.03	26.78	0.024	-0.023	0.0002
252	SLU 39	-1.2	-0.03	29.43	0.0252	-0.0249	0.0003
252	SLU 40	-1.2	-0.03	29.45	0.0253	-0.0249	0.0003
252	SLU 41	-1.2	-0.03	28.95	0.0253	-0.0247	0.0003
252	SLU 42	-1.2	-0.03	28.97	0.0254	-0.0248	0.0003
252	SLU 43	-0.98	-0.03	25.99	0.0223	-0.0202	0.0002
252	SLU 44	-0.99	-0.03	26.03	0.0224	-0.0202	0.0002
252	SLU 45	-1	-0.03	25.85	0.0228	-0.0204	0.0002
252	SLU 46	-1	-0.03	25.87	0.0228	-0.0204	0.0002
252	SLU 47	-0.99	-0.03	25.55	0.0225	-0.0201	0.0002
252	SLU 48	-1	-0.03	25.37	0.0228	-0.0203	0.0002
252	SLU 49	-1	-0.03	25.39	0.0229	-0.0203	0.0002
252	SLU 50	-0.98	-0.03	25.02	0.0224	-0.0199	0.0002
252	SLU 51	-0.99	-0.03	25.05	0.0225	-0.02	0.0002
252	SLU 52	-1.16	-0.03	30.03	0.0256	-0.0241	0.0003
252	SLU 53	-1.18	-0.03	29.85	0.026	-0.0243	0.0003
252	SLU 54	-1.18	-0.03	29.88	0.026	-0.0243	0.0003
252	SLU 55	-1.17	-0.03	29.55	0.0257	-0.024	0.0003
252	SLU 56	-1.18	-0.03	29.37	0.026	-0.0241	0.0003
252	SLU 57	-1.18	-0.03	29.4	0.0261	-0.0242	0.0003
252	SLU 58	-1.16	-0.03	29.03	0.0256	-0.0238	0.0003
252	SLU 59	-1.16	-0.03	29.05	0.0257	-0.0238	0.0003
252	SLU 60	-1.24	-0.03	31.7	0.0269	-0.0257	0.0003
252	SLU 61	-1.24	-0.03	31.73	0.0269	-0.0257	0.0003
252	SLU 62	-1.24	-0.03	31.22	0.0269	-0.0256	0.0003
252	SLU 63	-1.24	-0.03	31.25	0.027	-0.0256	0.0003
252	SLU 64	-1.13	-0.03	28.93	0.0251	-0.0232	0.0003
252	SLU 65	-1.13	-0.03	28.97	0.0252	-0.0233	0.0003
252	SLU 66	-1.15	-0.03	28.8	0.0256	-0.0234	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
252	SLU 67	-1.15	-0.03	28.82	0.0256	-0.0235	0.0003
252	SLU 68	-1.13	-0.03	28.49	0.0252	-0.0231	0.0003
252	SLU 69	-1.15	-0.03	28.32	0.0256	-0.0233	0.0003
252	SLU 70	-1.15	-0.03	28.34	0.0257	-0.0233	0.0003
252	SLU 71	-1.13	-0.03	27.97	0.0252	-0.023	0.0003
252	SLU 72	-1.13	-0.03	27.99	0.0253	-0.023	0.0003
252	SLU 73	-1.31	-0.04	32.98	0.0284	-0.0271	0.0003
252	SLU 74	-1.33	-0.04	32.8	0.0288	-0.0273	0.0003
252	SLU 75	-1.33	-0.04	32.82	0.0288	-0.0273	0.0003
252	SLU 76	-1.31	-0.04	32.49	0.0284	-0.027	0.0003
252	SLU 77	-1.33	-0.04	32.32	0.0288	-0.0272	0.0003
252	SLU 78	-1.33	-0.04	32.34	0.0289	-0.0272	0.0003
252	SLU 79	-1.31	-0.04	31.97	0.0284	-0.0268	0.0003
252	SLU 80	-1.31	-0.04	32	0.0285	-0.0269	0.0003
252	SLU 81	-1.39	-0.04	34.65	0.0297	-0.0287	0.0003
252	SLU 82	-1.39	-0.04	34.67	0.0297	-0.0288	0.0003
252	SLU 83	-1.39	-0.04	34.17	0.0297	-0.0286	0.0003
252	SLU 84	-1.39	-0.04	34.19	0.0298	-0.0286	0.0003
252	SLE RA 1	-0.84	-0.02	21.61	0.0187	-0.0172	0.0002
252	SLE RA 2	-0.84	-0.02	21.63	0.0188	-0.0172	0.0002
252	SLE RA 3	-0.85	-0.02	21.52	0.019	-0.0173	0.0002
252	SLE RA 4	-0.85	-0.02	21.53	0.019	-0.0174	0.0002
252	SLE RA 5	-0.84	-0.02	21.31	0.0188	-0.0171	0.0002
252	SLE RA 6	-0.85	-0.02	21.2	0.019	-0.0173	0.0002
252	SLE RA 7	-0.85	-0.02	21.21	0.0191	-0.0173	0.0002
252	SLE RA 8	-0.84	-0.02	20.97	0.0188	-0.017	0.0002
252	SLE RA 9	-0.84	-0.02	20.98	0.0188	-0.0171	0.0002
252	SLE RA 10	-0.96	-0.03	24.3	0.0209	-0.0198	0.0002
252	SLE RA 11	-0.97	-0.03	24.19	0.0211	-0.0199	0.0002
252	SLE RA 12	-0.97	-0.03	24.2	0.0212	-0.0199	0.0002
252	SLE RA 13	-0.96	-0.03	23.98	0.0209	-0.0197	0.0002
252	SLE RA 14	-0.97	-0.03	23.87	0.0212	-0.0198	0.0002
252	SLE RA 15	-0.97	-0.03	23.88	0.0212	-0.0198	0.0002
252	SLE RA 16	-0.96	-0.03	23.64	0.0209	-0.0196	0.0002
252	SLE RA 17	-0.96	-0.03	23.65	0.0209	-0.0196	0.0002
252	SLE RA 18	-1.01	-0.03	25.42	0.0217	-0.0209	0.0002
252	SLE RA 19	-1.01	-0.03	25.44	0.0218	-0.0209	0.0002
252	SLE RA 20	-1.01	-0.03	25.1	0.0218	-0.0208	0.0002
252	SLE RA 21	-1.01	-0.03	25.12	0.0218	-0.0208	0.0002
252	SLE FR 1	-0.84	-0.02	21.61	0.0187	-0.0172	0.0002
252	SLE FR 2	-0.84	-0.02	21.61	0.0187	-0.0172	0.0002
252	SLE FR 3	-0.84	-0.02	21.48	0.0187	-0.0172	0.0002
252	SLE FR 4	-0.89	-0.02	22.76	0.0196	-0.0183	0.0002
252	SLE FR 5	-0.89	-0.02	22.62	0.0196	-0.0183	0.0002
252	SLE FR 6	-0.92	-0.03	23.51	0.0202	-0.019	0.0002
252	SLE QP 1	-0.84	-0.02	21.61	0.0187	-0.0172	0.0002
252	SLE QP 2	-0.89	-0.02	22.75	0.0196	-0.0183	0.0002
252	SLD 1	3.08	-0.06	25.78	0.0443	0.0934	0.0007
252	SLD 2	3.08	-0.06	25.78	0.0443	0.0934	0.0007
252	SLD 3	2.58	-0.1	24.23	0.0624	0.0805	0.0004
252	SLD 4	2.58	-0.1	24.23	0.0624	0.0805	0.0004
252	SLD 5	1.07	0.02	26.01	-0.0005	0.0347	0.0009
252	SLD 6	1.07	0.02	26.01	-0.0005	0.0347	0.0009
252	SLD 7	-0.61	-0.1	20.84	0.06	-0.0082	-0.0003
252	SLD 8	-0.61	-0.1	20.84	0.06	-0.0082	-0.0003
252	SLD 9	-1.16	0.05	24.66	-0.0208	-0.0284	0.0007
252	SLD 10	-1.16	0.05	24.66	-0.0208	-0.0284	0.0007
252	SLD 11	-2.84	-0.07	19.49	0.0397	-0.0713	-0.0005
252	SLD 12	-2.84	-0.07	19.49	0.0397	-0.0713	-0.0005
252	SLD 13	-4.35	0.05	21.27	-0.0232	-0.1171	0
252	SLD 14	-4.35	0.05	21.27	-0.0232	-0.1171	0
252	SLD 15	-4.86	0.01	19.72	-0.0051	-0.13	-0.0003
252	SLD 16	-4.86	0.01	19.72	-0.0051	-0.13	-0.0003
252	SLV 1	8.37	-0.11	29.91	0.0838	0.2423	0.0015
252	SLV 2	8.37	-0.11	29.91	0.0838	0.2423	0.0015
252	SLV 3	7.18	-0.2	26.19	0.1269	0.2119	0.0006
252	SLV 4	7.18	-0.2	26.19	0.1269	0.2119	0.0006
252	SLV 5	3.69	0.09	30.54	-0.0266	0.1059	0.0019
252	SLV 6	3.69	0.09	30.54	-0.0266	0.1059	0.0019
252	SLV 7	-0.27	-0.22	18.14	0.1173	0.0047	-0.0009
252	SLV 8	-0.27	-0.22	18.14	0.1173	0.0047	-0.0009
252	SLV 9	-1.51	0.17	27.36	-0.0781	-0.0413	0.0013
252	SLV 10	-1.51	0.17	27.36	-0.0781	-0.0413	0.0013
252	SLV 11	-5.46	-0.14	14.96	0.0658	-0.1425	-0.0014
252	SLV 12	-5.46	-0.14	14.96	0.0658	-0.1425	-0.0014
252	SLV 13	-8.96	0.15	19.31	-0.0877	-0.2485	-0.0002
252	SLV 14	-8.96	0.15	19.31	-0.0877	-0.2485	-0.0002
252	SLV 15	-10.14	0.06	15.59	-0.0446	-0.2789	-0.0011
252	SLV 16	-10.14	0.06	15.59	-0.0446	-0.2789	-0.0011
253	SLU 1	-1.06	-0.01	20.18	0.0129	-0.0352	0.0002
253	SLU 2	-1.07	-0.01	20.23	0.013	-0.0353	0.0002
253	SLU 3	-1.12	-0.01	19.93	0.0133	-0.0363	0.0002
253	SLU 4	-1.12	-0.01	19.95	0.0133	-0.0364	0.0002
253	SLU 5	-1.11	-0.01	19.61	0.0131	-0.0357	0.0002
253	SLU 6	-1.16	-0.01	19.31	0.0134	-0.0368	0.0002
253	SLU 7	-1.16	-0.01	19.34	0.0134	-0.0368	0.0002
253	SLU 8	-1.14	-0.01	18.95	0.0131	-0.0361	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
253	SLU 9	-1.14	-0.01	18.98	0.0132	-0.0362	0.0002
253	SLU 10	-1.29	-0.02	24.05	0.0153	-0.0422	0.0002
253	SLU 11	-1.34	-0.02	23.75	0.0156	-0.0432	0.0002
253	SLU 12	-1.34	-0.02	23.78	0.0156	-0.0433	0.0002
253	SLU 13	-1.33	-0.02	23.43	0.0154	-0.0426	0.0002
253	SLU 14	-1.38	-0.02	23.14	0.0157	-0.0437	0.0002
253	SLU 15	-1.38	-0.02	23.16	0.0157	-0.0437	0.0002
253	SLU 16	-1.36	-0.02	22.78	0.0154	-0.043	0.0002
253	SLU 17	-1.36	-0.02	22.8	0.0154	-0.0431	0.0002
253	SLU 18	-1.38	-0.02	25.65	0.0162	-0.045	0.0002
253	SLU 19	-1.38	-0.02	25.67	0.0162	-0.0451	0.0002
253	SLU 20	-1.42	-0.02	25.03	0.0163	-0.0455	0.0002
253	SLU 21	-1.42	-0.02	25.06	0.0163	-0.0455	0.0002
253	SLU 22	-1.27	-0.02	22.91	0.0149	-0.0412	0.0002
253	SLU 23	-1.27	-0.02	22.96	0.015	-0.0413	0.0002
253	SLU 24	-1.32	-0.02	22.66	0.0153	-0.0423	0.0002
253	SLU 25	-1.32	-0.02	22.68	0.0154	-0.0424	0.0002
253	SLU 26	-1.31	-0.02	22.34	0.0151	-0.0417	0.0002
253	SLU 27	-1.36	-0.02	22.04	0.0154	-0.0428	0.0002
253	SLU 28	-1.36	-0.02	22.07	0.0155	-0.0428	0.0002
253	SLU 29	-1.35	-0.02	21.68	0.0151	-0.0421	0.0002
253	SLU 30	-1.35	-0.02	21.71	0.0152	-0.0421	0.0002
253	SLU 31	-1.49	-0.02	26.78	0.0173	-0.0482	0.0002
253	SLU 32	-1.54	-0.02	26.48	0.0176	-0.0492	0.0002
253	SLU 33	-1.54	-0.02	26.51	0.0177	-0.0493	0.0002
253	SLU 34	-1.53	-0.02	26.16	0.0174	-0.0486	0.0002
253	SLU 35	-1.58	-0.02	25.87	0.0177	-0.0497	0.0002
253	SLU 36	-1.58	-0.02	25.89	0.0178	-0.0497	0.0002
253	SLU 37	-1.57	-0.02	25.51	0.0174	-0.049	0.0002
253	SLU 38	-1.57	-0.02	25.53	0.0175	-0.049	0.0002
253	SLU 39	-1.58	-0.02	28.38	0.0182	-0.051	0.0003
253	SLU 40	-1.58	-0.02	28.4	0.0182	-0.0511	0.0003
253	SLU 41	-1.62	-0.02	27.76	0.0183	-0.0515	0.0003
253	SLU 42	-1.62	-0.02	27.79	0.0183	-0.0515	0.0003
253	SLU 43	-1.31	-0.02	25.3	0.0161	-0.0437	0.0002
253	SLU 44	-1.31	-0.02	25.35	0.0161	-0.0438	0.0002
253	SLU 45	-1.37	-0.02	25.05	0.0165	-0.0448	0.0002
253	SLU 46	-1.37	-0.02	25.07	0.0165	-0.0449	0.0002
253	SLU 47	-1.35	-0.02	24.73	0.0162	-0.0442	0.0002
253	SLU 48	-1.41	-0.02	24.43	0.0166	-0.0453	0.0002
253	SLU 49	-1.41	-0.02	24.46	0.0166	-0.0453	0.0002
253	SLU 50	-1.39	-0.02	24.07	0.0163	-0.0446	0.0002
253	SLU 51	-1.39	-0.02	24.1	0.0163	-0.0446	0.0002
253	SLU 52	-1.54	-0.02	29.17	0.0184	-0.0507	0.0003
253	SLU 53	-1.59	-0.02	28.87	0.0188	-0.0517	0.0003
253	SLU 54	-1.59	-0.02	28.9	0.0188	-0.0518	0.0003
253	SLU 55	-1.58	-0.02	28.55	0.0185	-0.0511	0.0003
253	SLU 56	-1.63	-0.02	28.26	0.0189	-0.0522	0.0003
253	SLU 57	-1.63	-0.02	28.28	0.0189	-0.0522	0.0003
253	SLU 58	-1.61	-0.02	27.9	0.0186	-0.0515	0.0003
253	SLU 59	-1.61	-0.02	27.92	0.0186	-0.0515	0.0003
253	SLU 60	-1.63	-0.02	30.77	0.0194	-0.0535	0.0003
253	SLU 61	-1.63	-0.02	30.79	0.0194	-0.0536	0.0003
253	SLU 62	-1.67	-0.02	30.15	0.0195	-0.054	0.0003
253	SLU 63	-1.67	-0.02	30.18	0.0195	-0.054	0.0003
253	SLU 64	-1.52	-0.02	28.03	0.0181	-0.0497	0.0003
253	SLU 65	-1.52	-0.02	28.07	0.0182	-0.0498	0.0003
253	SLU 66	-1.57	-0.02	27.78	0.0185	-0.0508	0.0003
253	SLU 67	-1.57	-0.02	27.8	0.0185	-0.0509	0.0003
253	SLU 68	-1.56	-0.02	27.46	0.0183	-0.0502	0.0003
253	SLU 69	-1.61	-0.02	27.16	0.0186	-0.0513	0.0003
253	SLU 70	-1.61	-0.02	27.19	0.0186	-0.0513	0.0003
253	SLU 71	-1.59	-0.02	26.8	0.0183	-0.0506	0.0003
253	SLU 72	-1.6	-0.02	26.83	0.0184	-0.0506	0.0003
253	SLU 73	-1.74	-0.02	31.9	0.0205	-0.0567	0.0003
253	SLU 74	-1.79	-0.02	31.6	0.0208	-0.0577	0.0003
253	SLU 75	-1.79	-0.02	31.63	0.0208	-0.0578	0.0003
253	SLU 76	-1.78	-0.02	31.28	0.0206	-0.0571	0.0003
253	SLU 77	-1.83	-0.02	30.98	0.0209	-0.0582	0.0003
253	SLU 78	-1.83	-0.02	31.01	0.0209	-0.0582	0.0003
253	SLU 79	-1.82	-0.02	30.63	0.0206	-0.0575	0.0003
253	SLU 80	-1.82	-0.02	30.65	0.0206	-0.0575	0.0003
253	SLU 81	-1.83	-0.02	33.5	0.0214	-0.0595	0.0003
253	SLU 82	-1.83	-0.02	33.52	0.0214	-0.0596	0.0003
253	SLU 83	-1.87	-0.02	32.88	0.0215	-0.06	0.0003
253	SLU 84	-1.87	-0.02	32.91	0.0215	-0.06	0.0003
253	SLE RA 1	-1.12	-0.02	20.96	0.0135	-0.0369	0.0002
253	SLE RA 2	-1.12	-0.02	20.99	0.0135	-0.0369	0.0002
253	SLE RA 3	-1.16	-0.02	20.79	0.0138	-0.0376	0.0002
253	SLE RA 4	-1.16	-0.02	20.81	0.0138	-0.0377	0.0002
253	SLE RA 5	-1.15	-0.02	20.58	0.0136	-0.0373	0.0002
253	SLE RA 6	-1.18	-0.02	20.38	0.0138	-0.0379	0.0002
253	SLE RA 7	-1.18	-0.02	20.4	0.0138	-0.038	0.0002
253	SLE RA 8	-1.17	-0.02	20.14	0.0136	-0.0375	0.0002
253	SLE RA 9	-1.17	-0.02	20.16	0.0136	-0.0375	0.0002
253	SLE RA 10	-1.27	-0.02	23.54	0.0151	-0.0415	0.0002
253	SLE RA 11	-1.3	-0.02	23.34	0.0153	-0.0422	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
253	SLE RA 12	-1.31	-0.02	23.36	0.0153	-0.0423	0.0002
253	SLE RA 13	-1.3	-0.02	23.13	0.0151	-0.0419	0.0002
253	SLE RA 14	-1.33	-0.02	22.93	0.0153	-0.0425	0.0002
253	SLE RA 15	-1.33	-0.02	22.95	0.0154	-0.0426	0.0002
253	SLE RA 16	-1.32	-0.02	22.69	0.0152	-0.0421	0.0002
253	SLE RA 17	-1.32	-0.02	22.71	0.0152	-0.0421	0.0002
253	SLE RA 18	-1.33	-0.02	24.61	0.0157	-0.0435	0.0002
253	SLE RA 19	-1.33	-0.02	24.62	0.0157	-0.0435	0.0002
253	SLE RA 20	-1.36	-0.02	24.2	0.0157	-0.0438	0.0002
253	SLE RA 21	-1.36	-0.02	24.21	0.0158	-0.0438	0.0002
253	SLE FR 1	-1.12	-0.02	20.96	0.0135	-0.0369	0.0002
253	SLE FR 2	-1.12	-0.02	20.97	0.0135	-0.0369	0.0002
253	SLE FR 3	-1.13	-0.02	20.8	0.0135	-0.037	0.0002
253	SLE FR 4	-1.18	-0.02	22.06	0.0141	-0.0389	0.0002
253	SLE FR 5	-1.19	-0.02	21.89	0.0142	-0.039	0.0002
253	SLE FR 6	-1.23	-0.02	22.79	0.0146	-0.0402	0.0002
253	SLE QP 1	-1.12	-0.02	20.96	0.0135	-0.0369	0.0002
253	SLE QP 2	-1.18	-0.02	22.06	0.0141	-0.0389	0.0002
253	SLD 1	2.92	-0.06	24.17	0.0428	0.0829	0.0007
253	SLD 2	2.92	-0.06	24.17	0.0428	0.0829	0.0007
253	SLD 3	2.22	-0.09	23.09	0.0684	0.0634	0.001
253	SLD 4	2.22	-0.09	23.09	0.0684	0.0634	0.001
253	SLD 5	1.1	0.02	24.33	-0.0162	0.0273	-0.0001
253	SLD 6	1.1	0.02	24.33	-0.0162	0.0273	-0.0001
253	SLD 7	-1.22	-0.09	20.73	0.0694	-0.0378	0.0009
253	SLD 8	-1.22	-0.09	20.73	0.0694	-0.0378	0.0009
253	SLD 9	-1.15	0.05	23.39	-0.0411	-0.0399	-0.0005
253	SLD 10	-1.15	0.05	23.39	-0.0411	-0.0399	-0.0005
253	SLD 11	-3.47	-0.05	19.78	0.0445	-0.105	0.0005
253	SLD 12	-3.47	-0.05	19.78	0.0445	-0.105	0.0005
253	SLD 13	-4.59	0.06	21.02	-0.0402	-0.1411	-0.0006
253	SLD 14	-4.59	0.06	21.02	-0.0402	-0.1411	-0.0006
253	SLD 15	-5.28	0.03	19.94	-0.0145	-0.1606	-0.0003
253	SLD 16	-5.28	0.03	19.94	-0.0145	-0.1606	-0.0003
253	SLV 1	8.38	-0.13	27.12	0.0886	0.2451	0.0015
253	SLV 2	8.38	-0.13	27.12	0.0886	0.2451	0.0015
253	SLV 3	6.74	-0.21	24.43	0.1516	0.1992	0.0022
253	SLV 4	6.74	-0.21	24.43	0.1516	0.1992	0.0022
253	SLV 5	4.17	0.06	27.65	-0.059	0.116	-0.0006
253	SLV 6	4.17	0.06	27.65	-0.059	0.116	-0.0006
253	SLV 7	-1.29	-0.19	18.69	0.1509	-0.0371	0.0019
253	SLV 8	-1.29	-0.19	18.69	0.1509	-0.0371	0.0019
253	SLV 9	-1.08	0.15	25.42	-0.1226	-0.0406	-0.0015
253	SLV 10	-1.08	0.15	25.42	-0.1226	-0.0406	-0.0015
253	SLV 11	-6.54	-0.09	16.46	0.0873	-0.1937	0.001
253	SLV 12	-6.54	-0.09	16.46	0.0873	-0.1937	0.001
253	SLV 13	-9.11	0.18	19.68	-0.1233	-0.2769	-0.0018
253	SLV 14	-9.11	0.18	19.68	-0.1233	-0.2769	-0.0018
253	SLV 15	-10.75	0.1	16.99	-0.0603	-0.3228	-0.0011
253	SLV 16	-10.75	0.1	16.99	-0.0603	-0.3228	-0.0011
254	SLU 1	-0.83	-0.01	20.31	0.0077	-0.0199	0.0001
254	SLU 2	-0.83	-0.01	20.36	0.0077	-0.0199	0.0001
254	SLU 3	-0.91	-0.01	19.89	0.008	-0.022	0.0001
254	SLU 4	-0.91	-0.01	19.91	0.008	-0.022	0.0001
254	SLU 5	-0.92	-0.01	19.53	0.0079	-0.0222	0.0001
254	SLU 6	-1	-0.01	19.06	0.0082	-0.0243	0.0001
254	SLU 7	-1	-0.01	19.09	0.0082	-0.0243	0.0001
254	SLU 8	-1.01	-0.01	18.66	0.008	-0.0245	0.0001
254	SLU 9	-1.01	-0.01	18.69	0.008	-0.0245	0.0001
254	SLU 10	-1.01	-0.01	24.14	0.009	-0.0248	0.0001
254	SLU 11	-1.1	-0.01	23.67	0.0094	-0.0269	0.0001
254	SLU 12	-1.1	-0.01	23.7	0.0094	-0.0269	0.0001
254	SLU 13	-1.11	-0.01	23.32	0.0092	-0.0271	0.0001
254	SLU 14	-1.19	-0.01	22.85	0.0095	-0.0292	0.0001
254	SLU 15	-1.19	-0.01	22.88	0.0095	-0.0292	0.0001
254	SLU 16	-1.2	-0.01	22.45	0.0094	-0.0294	0.0001
254	SLU 17	-1.2	-0.01	22.47	0.0094	-0.0294	0.0001
254	SLU 18	-1.09	-0.01	25.72	0.0096	-0.0269	0.0002
254	SLU 19	-1.1	-0.01	25.74	0.0096	-0.0269	0.0002
254	SLU 20	-1.19	-0.01	24.89	0.0098	-0.0292	0.0002
254	SLU 21	-1.19	-0.01	24.92	0.0098	-0.0292	0.0002
254	SLU 22	-1.02	-0.01	22.9	0.0089	-0.0249	0.0001
254	SLU 23	-1.02	-0.01	22.95	0.0089	-0.0249	0.0001
254	SLU 24	-1.11	-0.01	22.48	0.0093	-0.027	0.0001
254	SLU 25	-1.11	-0.01	22.5	0.0093	-0.027	0.0001
254	SLU 26	-1.11	-0.01	22.12	0.0091	-0.0272	0.0001
254	SLU 27	-1.2	-0.01	21.65	0.0094	-0.0293	0.0001
254	SLU 28	-1.2	-0.01	21.68	0.0094	-0.0293	0.0001
254	SLU 29	-1.2	-0.01	21.25	0.0093	-0.0295	0.0001
254	SLU 30	-1.2	-0.01	21.28	0.0093	-0.0295	0.0001
254	SLU 31	-1.21	-0.01	26.73	0.0103	-0.0298	0.0002
254	SLU 32	-1.3	-0.01	26.26	0.0106	-0.0319	0.0002
254	SLU 33	-1.3	-0.01	26.29	0.0106	-0.0319	0.0002
254	SLU 34	-1.3	-0.01	25.91	0.0104	-0.0321	0.0002
254	SLU 35	-1.39	-0.01	25.44	0.0108	-0.0342	0.0002
254	SLU 36	-1.39	-0.01	25.47	0.0108	-0.0342	0.0002
254	SLU 37	-1.39	-0.01	25.04	0.0106	-0.0344	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
254	SLU 38	-1.39	-0.01	25.07	0.0106	-0.0344	0.0002
254	SLU 39	-1.29	-0.01	28.31	0.0109	-0.0319	0.0002
254	SLU 40	-1.29	-0.01	28.33	0.0109	-0.0319	0.0002
254	SLU 41	-1.38	-0.01	27.48	0.011	-0.0342	0.0002
254	SLU 42	-1.38	-0.01	27.51	0.011	-0.0342	0.0002
254	SLU 43	-1.01	-0.01	25.51	0.0096	-0.0242	0.0002
254	SLU 44	-1.01	-0.01	25.56	0.0096	-0.0242	0.0002
254	SLU 45	-1.09	-0.01	25.09	0.0099	-0.0263	0.0002
254	SLU 46	-1.09	-0.01	25.12	0.0099	-0.0263	0.0002
254	SLU 47	-1.1	-0.01	24.74	0.0097	-0.0265	0.0002
254	SLU 48	-1.18	-0.01	24.27	0.0101	-0.0286	0.0002
254	SLU 49	-1.18	-0.01	24.29	0.0101	-0.0286	0.0002
254	SLU 50	-1.19	-0.01	23.87	0.0099	-0.0288	0.0002
254	SLU 51	-1.19	-0.01	23.89	0.0099	-0.0288	0.0002
254	SLU 52	-1.2	-0.01	29.34	0.0109	-0.0291	0.0002
254	SLU 53	-1.28	-0.01	28.88	0.0112	-0.0312	0.0002
254	SLU 54	-1.28	-0.01	28.9	0.0112	-0.0312	0.0002
254	SLU 55	-1.29	-0.01	28.52	0.0111	-0.0314	0.0002
254	SLU 56	-1.37	-0.01	28.05	0.0114	-0.0335	0.0002
254	SLU 57	-1.37	-0.01	28.08	0.0114	-0.0335	0.0002
254	SLU 58	-1.38	-0.01	27.65	0.0112	-0.0337	0.0002
254	SLU 59	-1.38	-0.01	27.68	0.0112	-0.0337	0.0002
254	SLU 60	-1.28	-0.01	30.92	0.0115	-0.0312	0.0002
254	SLU 61	-1.28	-0.01	30.95	0.0115	-0.0312	0.0002
254	SLU 62	-1.37	-0.01	30.1	0.0117	-0.0335	0.0002
254	SLU 63	-1.37	-0.01	30.13	0.0117	-0.0335	0.0002
254	SLU 64	-1.2	-0.01	28.1	0.0108	-0.0291	0.0002
254	SLU 65	-1.2	-0.01	28.15	0.0108	-0.0292	0.0002
254	SLU 66	-1.29	-0.01	27.68	0.0111	-0.0313	0.0002
254	SLU 67	-1.29	-0.01	27.71	0.0111	-0.0313	0.0002
254	SLU 68	-1.29	-0.01	27.33	0.011	-0.0314	0.0002
254	SLU 69	-1.38	-0.01	26.86	0.0113	-0.0336	0.0002
254	SLU 70	-1.38	-0.01	26.89	0.0113	-0.0336	0.0002
254	SLU 71	-1.38	-0.01	26.46	0.0111	-0.0337	0.0002
254	SLU 72	-1.38	-0.01	26.48	0.0111	-0.0337	0.0002
254	SLU 73	-1.39	-0.01	31.94	0.0122	-0.0341	0.0002
254	SLU 74	-1.48	-0.01	31.47	0.0125	-0.0362	0.0002
254	SLU 75	-1.48	-0.01	31.49	0.0125	-0.0362	0.0002
254	SLU 76	-1.48	-0.01	31.11	0.0123	-0.0364	0.0002
254	SLU 77	-1.57	-0.01	30.64	0.0126	-0.0385	0.0002
254	SLU 78	-1.57	-0.01	30.67	0.0126	-0.0385	0.0002
254	SLU 79	-1.57	-0.01	30.24	0.0125	-0.0386	0.0002
254	SLU 80	-1.57	-0.01	30.27	0.0125	-0.0386	0.0002
254	SLU 81	-1.47	-0.01	33.51	0.0127	-0.0362	0.0002
254	SLU 82	-1.47	-0.01	33.54	0.0127	-0.0362	0.0002
254	SLU 83	-1.56	-0.01	32.69	0.0129	-0.0384	0.0002
254	SLU 84	-1.56	-0.01	32.72	0.0129	-0.0385	0.0002
254	SLE RA 1	-0.88	-0.01	21.05	0.008	-0.0213	0.0001
254	SLE RA 2	-0.88	-0.01	21.08	0.0081	-0.0213	0.0001
254	SLE RA 3	-0.94	-0.01	20.77	0.0083	-0.0227	0.0001
254	SLE RA 4	-0.94	-0.01	20.79	0.0083	-0.0227	0.0001
254	SLE RA 5	-0.94	-0.01	20.53	0.0082	-0.0229	0.0001
254	SLE RA 6	-1	-0.01	20.22	0.0084	-0.0243	0.0001
254	SLE RA 7	-1	-0.01	20.24	0.0084	-0.0243	0.0001
254	SLE RA 8	-1	-0.01	19.95	0.0083	-0.0244	0.0001
254	SLE RA 9	-1	-0.01	19.97	0.0083	-0.0244	0.0001
254	SLE RA 10	-1.01	-0.01	23.6	0.0089	-0.0246	0.0001
254	SLE RA 11	-1.06	-0.01	23.29	0.0092	-0.026	0.0001
254	SLE RA 12	-1.07	-0.01	23.31	0.0092	-0.026	0.0001
254	SLE RA 13	-1.07	-0.01	23.05	0.0091	-0.0261	0.0001
254	SLE RA 14	-1.13	-0.01	22.74	0.0093	-0.0275	0.0001
254	SLE RA 15	-1.13	-0.01	22.76	0.0093	-0.0275	0.0001
254	SLE RA 16	-1.13	-0.01	22.47	0.0092	-0.0277	0.0001
254	SLE RA 17	-1.13	-0.01	22.49	0.0092	-0.0277	0.0001
254	SLE RA 18	-1.06	-0.01	24.65	0.0093	-0.026	0.0001
254	SLE RA 19	-1.06	-0.01	24.67	0.0093	-0.026	0.0001
254	SLE RA 20	-1.12	-0.01	24.11	0.0094	-0.0275	0.0001
254	SLE RA 21	-1.12	-0.01	24.12	0.0094	-0.0275	0.0001
254	SLE FR 1	-0.88	-0.01	21.05	0.008	-0.0213	0.0001
254	SLE FR 2	-0.88	-0.01	21.06	0.008	-0.0213	0.0001
254	SLE FR 3	-0.91	-0.01	20.83	0.0081	-0.0219	0.0001
254	SLE FR 4	-0.94	-0.01	22.14	0.0084	-0.0227	0.0001
254	SLE FR 5	-0.96	-0.01	21.91	0.0085	-0.0233	0.0001
254	SLE FR 6	-0.97	-0.01	22.85	0.0087	-0.0237	0.0001
254	SLE QP 1	-0.88	-0.01	21.05	0.008	-0.0213	0.0001
254	SLE QP 2	-0.94	-0.01	22.13	0.0084	-0.0227	0.0001
254	SLD 1	3.23	-0.04	23.86	0.0333	0.1101	0.0007
254	SLD 2	3.23	-0.04	23.86	0.0333	0.1101	0.0007
254	SLD 3	2.44	-0.08	22.77	0.0633	0.0889	0.0013
254	SLD 4	2.44	-0.08	22.77	0.0633	0.0889	0.0013
254	SLD 5	1.51	0.04	24.31	-0.0296	0.0493	-0.0005
254	SLD 6	1.51	0.04	24.31	-0.0296	0.0493	-0.0005
254	SLD 7	-1.11	-0.09	20.66	0.0704	-0.0214	0.0013
254	SLD 8	-1.11	-0.09	20.66	0.0704	-0.0214	0.0013
254	SLD 9	-0.76	0.08	23.6	-0.0535	-0.0241	-0.0011
254	SLD 10	-0.76	0.08	23.6	-0.0535	-0.0241	-0.0011
254	SLD 11	-3.38	-0.06	19.95	0.0465	-0.0947	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
254	SLD 12	-3.38	-0.06	19.95	0.0465	-0.0947	0.0008
254	SLD 13	-4.32	0.07	21.5	-0.0464	-0.1343	-0.001
254	SLD 14	-4.32	0.07	21.5	-0.0464	-0.1343	-0.001
254	SLD 15	-5.1	0.03	20.4	-0.0164	-0.1556	-0.0005
254	SLD 16	-5.1	0.03	20.4	-0.0164	-0.1556	-0.0005
254	SLV 1	8.79	-0.1	26.32	0.0728	0.2873	0.0017
254	SLV 2	8.79	-0.1	26.32	0.0728	0.2873	0.0017
254	SLV 3	6.94	-0.2	23.54	0.1474	0.2373	0.0031
254	SLV 4	6.94	-0.2	23.54	0.1474	0.2373	0.0031
254	SLV 5	4.79	0.11	27.61	-0.0853	0.1461	-0.0015
254	SLV 6	4.79	0.11	27.61	-0.0853	0.1461	-0.0015
254	SLV 7	-1.38	-0.21	18.33	0.1632	-0.0206	0.0031
254	SLV 8	-1.38	-0.21	18.33	0.1632	-0.0206	0.0031
254	SLV 9	-0.49	0.2	25.93	-0.1463	-0.0249	-0.0029
254	SLV 10	-0.49	0.2	25.93	-0.1463	-0.0249	-0.0029
254	SLV 11	-6.66	-0.13	16.65	0.1022	-0.1916	0.0018
254	SLV 12	-6.66	-0.13	16.65	0.1022	-0.1916	0.0018
254	SLV 13	-8.81	0.19	20.72	-0.1305	-0.2827	-0.0028
254	SLV 14	-8.81	0.19	20.72	-0.1305	-0.2827	-0.0028
254	SLV 15	-10.66	0.09	17.94	-0.056	-0.3328	-0.0014
254	SLV 16	-10.66	0.09	17.94	-0.056	-0.3328	-0.0014
255	SLU 1	-1.14	0	21.14	0.0032	-0.0529	0
255	SLU 2	-1.14	0	21.19	0.0032	-0.053	0
255	SLU 3	-1.24	0	20.5	0.0035	-0.0561	0
255	SLU 4	-1.24	0	20.53	0.0035	-0.0561	0
255	SLU 5	-1.24	0	20.08	0.0035	-0.0559	0
255	SLU 6	-1.34	0	19.39	0.0038	-0.059	0
255	SLU 7	-1.34	0	19.42	0.0037	-0.059	0
255	SLU 8	-1.35	0	18.91	0.0037	-0.0587	0
255	SLU 9	-1.35	0	18.95	0.0037	-0.0588	0
255	SLU 10	-1.39	0	25.08	0.0038	-0.064	0
255	SLU 11	-1.49	0	24.38	0.0041	-0.0671	0
255	SLU 12	-1.49	0	24.42	0.004	-0.0672	0
255	SLU 13	-1.5	0	23.96	0.004	-0.067	0
255	SLU 14	-1.6	0	23.27	0.0043	-0.07	0
255	SLU 15	-1.6	0	23.3	0.0043	-0.0701	0
255	SLU 16	-1.6	0	22.8	0.0043	-0.0698	0
255	SLU 17	-1.6	0	22.83	0.0042	-0.0698	0
255	SLU 18	-1.5	0	26.69	0.004	-0.0687	0
255	SLU 19	-1.5	0	26.72	0.004	-0.0687	0
255	SLU 20	-1.6	0	25.57	0.0042	-0.0716	0
255	SLU 21	-1.6	0	25.61	0.0042	-0.0717	0
255	SLU 22	-1.39	0	23.67	0.0038	-0.0632	0
255	SLU 23	-1.39	0	23.72	0.0038	-0.0633	0
255	SLU 24	-1.49	0	23.03	0.0041	-0.0664	0
255	SLU 25	-1.49	0	23.06	0.0041	-0.0664	0
255	SLU 26	-1.5	0	22.61	0.004	-0.0662	0
255	SLU 27	-1.59	0	21.91	0.0043	-0.0693	0
255	SLU 28	-1.6	0	21.94	0.0043	-0.0693	0
255	SLU 29	-1.6	0	21.44	0.0043	-0.0691	0
255	SLU 30	-1.6	0	21.47	0.0043	-0.0691	0
255	SLU 31	-1.64	0	27.6	0.0043	-0.0744	0
255	SLU 32	-1.74	0	26.91	0.0046	-0.0775	0
255	SLU 33	-1.74	0	26.94	0.0046	-0.0775	0
255	SLU 34	-1.75	0	26.49	0.0046	-0.0773	0
255	SLU 35	-1.85	0	25.79	0.0049	-0.0804	0
255	SLU 36	-1.85	0	25.83	0.0049	-0.0804	0
255	SLU 37	-1.85	0	25.32	0.0048	-0.0801	0
255	SLU 38	-1.85	0	25.35	0.0048	-0.0802	0
255	SLU 39	-1.75	0	29.21	0.0046	-0.079	0
255	SLU 40	-1.75	0	29.24	0.0046	-0.0791	0
255	SLU 41	-1.85	0	28.1	0.0048	-0.0819	0
255	SLU 42	-1.85	0	28.13	0.0048	-0.082	0
255	SLU 43	-1.39	0	26.62	0.004	-0.0652	0
255	SLU 44	-1.39	0	26.67	0.004	-0.0653	0
255	SLU 45	-1.49	0	25.98	0.0043	-0.0684	0
255	SLU 46	-1.49	0	26.01	0.0043	-0.0684	0
255	SLU 47	-1.5	0	25.56	0.0042	-0.0682	0
255	SLU 48	-1.6	0	24.86	0.0045	-0.0713	0
255	SLU 49	-1.6	0	24.9	0.0045	-0.0713	0
255	SLU 50	-1.61	0	24.39	0.0045	-0.0711	0
255	SLU 51	-1.61	0	24.42	0.0045	-0.0711	0
255	SLU 52	-1.65	0	30.55	0.0045	-0.0764	0
255	SLU 53	-1.74	0	29.86	0.0048	-0.0795	0
255	SLU 54	-1.75	0	29.89	0.0048	-0.0795	0
255	SLU 55	-1.75	0	29.44	0.0048	-0.0793	0
255	SLU 56	-1.85	0	28.75	0.0051	-0.0824	0
255	SLU 57	-1.85	0	28.78	0.0051	-0.0824	0
255	SLU 58	-1.86	0	28.27	0.005	-0.0821	0
255	SLU 59	-1.86	0	28.31	0.005	-0.0822	0
255	SLU 60	-1.75	0	32.16	0.0048	-0.081	0
255	SLU 61	-1.75	0	32.2	0.0048	-0.0811	0
255	SLU 62	-1.86	0	31.05	0.005	-0.0839	0
255	SLU 63	-1.86	0	31.08	0.005	-0.084	0
255	SLU 64	-1.64	0	29.14	0.0046	-0.0755	0
255	SLU 65	-1.64	0	29.2	0.0046	-0.0756	0
255	SLU 66	-1.74	0	28.5	0.0049	-0.0787	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
255	SLU 67	-1.74	0	28.53	0.0049	-0.0788	0
255	SLU 68	-1.75	0	28.08	0.0048	-0.0785	0
255	SLU 69	-1.85	0	27.39	0.0051	-0.0816	0
255	SLU 70	-1.85	0	27.42	0.0051	-0.0817	0
255	SLU 71	-1.86	0	26.92	0.0051	-0.0814	0
255	SLU 72	-1.86	0	26.95	0.0051	-0.0814	0
255	SLU 73	-1.9	0	33.08	0.0051	-0.0867	0
255	SLU 74	-2	0	32.38	0.0054	-0.0898	0
255	SLU 75	-2	0	32.42	0.0054	-0.0898	0
255	SLU 76	-2	0	31.97	0.0054	-0.0896	0
255	SLU 77	-2.1	0	31.27	0.0056	-0.0927	0
255	SLU 78	-2.1	0	31.3	0.0056	-0.0927	0
255	SLU 79	-2.11	0	30.8	0.0056	-0.0924	0
255	SLU 80	-2.11	0	30.83	0.0056	-0.0925	0
255	SLU 81	-2	0	34.69	0.0054	-0.0913	0
255	SLU 82	-2	0	34.72	0.0054	-0.0914	0
255	SLU 83	-2.11	0	33.58	0.0056	-0.0943	0
255	SLU 84	-2.11	0	33.61	0.0056	-0.0943	0
255	SLE RA 1	-1.21	0	21.86	0.0034	-0.0558	0
255	SLE RA 2	-1.21	0	21.9	0.0034	-0.0559	0
255	SLE RA 3	-1.28	0	21.44	0.0036	-0.0579	0
255	SLE RA 4	-1.28	0	21.46	0.0036	-0.058	0
255	SLE RA 5	-1.28	0	21.16	0.0036	-0.0578	0
255	SLE RA 6	-1.35	0	20.69	0.0038	-0.0599	0
255	SLE RA 7	-1.35	0	20.71	0.0037	-0.0599	0
255	SLE RA 8	-1.35	0	20.38	0.0037	-0.0597	0
255	SLE RA 9	-1.35	0	20.4	0.0037	-0.0598	0
255	SLE RA 10	-1.38	0	24.49	0.0038	-0.0633	0
255	SLE RA 11	-1.44	0	24.02	0.004	-0.0653	0
255	SLE RA 12	-1.44	0	24.05	0.0039	-0.0654	0
255	SLE RA 13	-1.45	0	23.74	0.0039	-0.0652	0
255	SLE RA 14	-1.51	0	23.28	0.0041	-0.0673	0
255	SLE RA 15	-1.51	0	23.3	0.0041	-0.0673	0
255	SLE RA 16	-1.52	0	22.97	0.0041	-0.0671	0
255	SLE RA 17	-1.52	0	22.99	0.0041	-0.0671	0
255	SLE RA 18	-1.45	0	25.56	0.0039	-0.0664	0
255	SLE RA 19	-1.45	0	25.58	0.0039	-0.0664	0
255	SLE RA 20	-1.52	0	24.82	0.0041	-0.0683	0
255	SLE RA 21	-1.52	0	24.84	0.0041	-0.0684	0
255	SLE FR 1	-1.21	0	21.86	0.0034	-0.0558	0
255	SLE FR 2	-1.21	0	21.87	0.0034	-0.0558	0
255	SLE FR 3	-1.24	0	21.57	0.0035	-0.0566	0
255	SLE FR 4	-1.28	0	22.98	0.0036	-0.059	0
255	SLE FR 5	-1.31	0	22.67	0.0036	-0.0598	0
255	SLE FR 6	-1.33	0	23.71	0.0037	-0.0611	0
255	SLE QP 1	-1.21	0	21.86	0.0034	-0.0558	0
255	SLE QP 2	-1.28	0	22.97	0.0036	-0.059	0
255	SLD 1	2.93	0.06	22.53	0.0214	-0.188	-0.0012
255	SLD 2	2.93	0.06	22.53	0.0214	-0.188	-0.0012
255	SLD 3	2.06	0.03	20.69	0.0456	-0.2203	-0.0006
255	SLD 4	2.06	0.03	20.69	0.0456	-0.2203	-0.0006
255	SLD 5	1.3	0.06	25.63	-0.0278	-0.0486	-0.0012
255	SLD 6	1.3	0.06	25.63	-0.0278	-0.0486	-0.0012
255	SLD 7	-1.6	-0.04	19.5	0.0529	-0.1565	0.0007
255	SLD 8	-1.6	-0.04	19.5	0.0529	-0.1565	0.0007
255	SLD 9	-0.96	0.04	26.44	-0.0457	0.0385	-0.0007
255	SLD 10	-0.96	0.04	26.44	-0.0457	0.0385	-0.0007
255	SLD 11	-3.87	-0.06	20.32	0.0349	-0.0694	0.0012
255	SLD 12	-3.87	-0.06	20.32	0.0349	-0.0694	0.0012
255	SLD 13	-4.62	-0.03	25.25	-0.0385	0.1023	0.0007
255	SLD 14	-4.62	-0.03	25.25	-0.0385	0.1023	0.0007
255	SLD 15	-5.49	-0.06	23.41	-0.0143	0.07	0.0012
255	SLD 16	-5.49	-0.06	23.41	-0.0143	0.07	0.0012
255	SLV 1	8.55	0.16	22.03	0.0494	-0.3592	-0.0031
255	SLV 2	8.55	0.16	22.03	0.0494	-0.3592	-0.0031
255	SLV 3	6.5	0.08	17.51	0.1098	-0.4353	-0.0016
255	SLV 4	6.5	0.08	17.51	0.1098	-0.4353	-0.0016
255	SLV 5	4.78	0.16	29.54	-0.0744	-0.0337	-0.0031
255	SLV 6	4.78	0.16	29.54	-0.0744	-0.0337	-0.0031
255	SLV 7	-2.06	-0.09	14.48	0.1271	-0.2873	0.0017
255	SLV 8	-2.06	-0.09	14.48	0.1271	-0.2873	0.0017
255	SLV 9	-0.5	0.09	31.46	-0.12	0.1693	-0.0016
255	SLV 10	-0.5	0.09	31.46	-0.12	0.1693	-0.0016
255	SLV 11	-7.34	-0.16	16.4	0.0815	-0.0843	0.0031
255	SLV 12	-7.34	-0.16	16.4	0.0815	-0.0843	0.0031
255	SLV 13	-9.06	-0.08	28.43	-0.1027	0.3173	0.0017
255	SLV 14	-9.06	-0.08	28.43	-0.1027	0.3173	0.0017
255	SLV 15	-11.11	-0.16	23.91	-0.0423	0.2413	0.0031
255	SLV 16	-11.11	-0.16	23.91	-0.0423	0.2413	0.0031
256	SLU 1	-1.84	0.01	23.1	-0.0005	-0.0907	-0.0004
256	SLU 2	-1.84	0.01	23.16	-0.0006	-0.0908	-0.0004
256	SLU 3	-1.9	0.01	22.21	-0.0002	-0.0913	-0.0004
256	SLU 4	-1.9	0.01	22.25	-0.0003	-0.0914	-0.0004
256	SLU 5	-1.9	0.01	21.69	-0.0002	-0.0907	-0.0004
256	SLU 6	-1.96	0.01	20.74	0.0001	-0.0912	-0.0004
256	SLU 7	-1.96	0.01	20.78	0.0001	-0.0913	-0.0004
256	SLU 8	-1.95	0.01	20.17	0.0002	-0.0904	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
256	SLU 9	-1.95	0.01	20.2	0.0002	-0.0905	-0.0004
256	SLU 10	-2.23	0.01	27.35	-0.0007	-0.1102	-0.0005
256	SLU 11	-2.29	0.01	26.4	-0.0004	-0.1107	-0.0005
256	SLU 12	-2.29	0.01	26.44	-0.0004	-0.1108	-0.0005
256	SLU 13	-2.29	0.01	25.88	-0.0003	-0.11	-0.0005
256	SLU 14	-2.35	0.01	24.93	0	-0.1106	-0.0005
256	SLU 15	-2.35	0.01	24.97	0	-0.1106	-0.0005
256	SLU 16	-2.35	0.01	24.35	0	-0.1098	-0.0005
256	SLU 17	-2.35	0.01	24.39	0	-0.1098	-0.0005
256	SLU 18	-2.4	0.01	29.08	-0.0007	-0.1183	-0.0005
256	SLU 19	-2.4	0.01	29.12	-0.0008	-0.1184	-0.0005
256	SLU 20	-2.46	0.01	27.61	-0.0004	-0.1182	-0.0005
256	SLU 21	-2.46	0.01	27.65	-0.0004	-0.1183	-0.0005
256	SLU 22	-2.17	0.01	25.7	-0.0005	-0.1054	-0.0005
256	SLU 23	-2.17	0.01	25.76	-0.0005	-0.1055	-0.0005
256	SLU 24	-2.23	0.01	24.81	-0.0002	-0.106	-0.0005
256	SLU 25	-2.23	0.01	24.85	-0.0002	-0.1061	-0.0005
256	SLU 26	-2.23	0.01	24.3	-0.0002	-0.1054	-0.0005
256	SLU 27	-2.29	0.01	23.35	0.0002	-0.1059	-0.0005
256	SLU 28	-2.29	0.01	23.39	0.0002	-0.106	-0.0005
256	SLU 29	-2.28	0.01	22.77	0.0002	-0.1051	-0.0005
256	SLU 30	-2.28	0.01	22.81	0.0002	-0.1052	-0.0005
256	SLU 31	-2.56	0.01	29.95	-0.0007	-0.1249	-0.0005
256	SLU 32	-2.62	0.01	29	-0.0003	-0.1254	-0.0005
256	SLU 33	-2.62	0.01	29.04	-0.0003	-0.1255	-0.0005
256	SLU 34	-2.62	0.01	28.48	-0.0003	-0.1247	-0.0005
256	SLU 35	-2.68	0.01	27.53	0	-0.1253	-0.0005
256	SLU 36	-2.68	0.01	27.57	0	-0.1253	-0.0005
256	SLU 37	-2.68	0.01	26.95	0.0001	-0.1245	-0.0005
256	SLU 38	-2.68	0.01	26.99	0.0001	-0.1245	-0.0005
256	SLU 39	-2.73	0.01	31.68	-0.0007	-0.133	-0.0006
256	SLU 40	-2.73	0.01	31.72	-0.0007	-0.1331	-0.0006
256	SLU 41	-2.79	0.01	30.21	-0.0003	-0.1329	-0.0006
256	SLU 42	-2.79	0.01	30.25	-0.0003	-0.133	-0.0006
256	SLU 43	-2.27	0.01	29.13	-0.0007	-0.1128	-0.0005
256	SLU 44	-2.27	0.01	29.2	-0.0008	-0.1129	-0.0005
256	SLU 45	-2.34	0.01	28.25	-0.0004	-0.1135	-0.0005
256	SLU 46	-2.34	0.01	28.29	-0.0004	-0.1136	-0.0005
256	SLU 47	-2.33	0.01	27.73	-0.0004	-0.1128	-0.0005
256	SLU 48	-2.39	0.01	26.78	-0.0001	-0.1134	-0.0005
256	SLU 49	-2.4	0.01	26.82	-0.0001	-0.1134	-0.0005
256	SLU 50	-2.39	0.01	26.2	0	-0.1126	-0.0005
256	SLU 51	-2.39	0.01	26.24	0	-0.1126	-0.0005
256	SLU 52	-2.67	0.01	33.38	-0.0009	-0.1323	-0.0006
256	SLU 53	-2.73	0.01	32.43	-0.0006	-0.1329	-0.0006
256	SLU 54	-2.73	0.01	32.47	-0.0006	-0.1329	-0.0006
256	SLU 55	-2.73	0.01	31.92	-0.0005	-0.1322	-0.0006
256	SLU 56	-2.79	0.01	30.97	-0.0002	-0.1327	-0.0006
256	SLU 57	-2.79	0.01	31.01	-0.0002	-0.1328	-0.0006
256	SLU 58	-2.78	0.01	30.39	-0.0001	-0.1319	-0.0006
256	SLU 59	-2.78	0.01	30.43	-0.0002	-0.132	-0.0006
256	SLU 60	-2.84	0.01	35.12	-0.0009	-0.1405	-0.0006
256	SLU 61	-2.84	0.01	35.15	-0.0009	-0.1406	-0.0006
256	SLU 62	-2.89	0.01	33.65	-0.0006	-0.1404	-0.0006
256	SLU 63	-2.9	0.01	33.69	-0.0006	-0.1404	-0.0006
256	SLU 64	-2.6	0.01	31.74	-0.0007	-0.1275	-0.0006
256	SLU 65	-2.61	0.01	31.8	-0.0007	-0.1277	-0.0006
256	SLU 66	-2.67	0.01	30.85	-0.0004	-0.1282	-0.0006
256	SLU 67	-2.67	0.01	30.89	-0.0004	-0.1283	-0.0006
256	SLU 68	-2.66	0.01	30.33	-0.0003	-0.1275	-0.0006
256	SLU 69	-2.72	0.01	29.38	0	-0.1281	-0.0006
256	SLU 70	-2.73	0.01	29.42	0	-0.1281	-0.0006
256	SLU 71	-2.72	0.01	28.8	0	-0.1273	-0.0006
256	SLU 72	-2.72	0.01	28.84	0	-0.1273	-0.0006
256	SLU 73	-3	0.01	35.99	-0.0008	-0.147	-0.0006
256	SLU 74	-3.06	0.01	35.04	-0.0005	-0.1476	-0.0006
256	SLU 75	-3.06	0.01	35.08	-0.0005	-0.1476	-0.0006
256	SLU 76	-3.06	0.01	34.52	-0.0005	-0.1469	-0.0006
256	SLU 77	-3.12	0.01	33.57	-0.0001	-0.1474	-0.0006
256	SLU 78	-3.12	0.01	33.61	-0.0002	-0.1475	-0.0006
256	SLU 79	-3.11	0.01	32.99	-0.0001	-0.1466	-0.0006
256	SLU 80	-3.12	0.01	33.03	-0.0001	-0.1467	-0.0006
256	SLU 81	-3.17	0.01	37.72	-0.0009	-0.1552	-0.0007
256	SLU 82	-3.17	0.01	37.76	-0.0009	-0.1553	-0.0007
256	SLU 83	-3.22	0.01	36.25	-0.0005	-0.1551	-0.0007
256	SLU 84	-3.23	0.01	36.29	-0.0005	-0.1551	-0.0007
256	SLE RA 1	-1.93	0.01	23.84	-0.0005	-0.0949	-0.0004
256	SLE RA 2	-1.93	0.01	23.88	-0.0005	-0.095	-0.0004
256	SLE RA 3	-1.97	0.01	23.25	-0.0003	-0.0953	-0.0004
256	SLE RA 4	-1.97	0.01	23.27	-0.0003	-0.0954	-0.0004
256	SLE RA 5	-1.97	0.01	22.91	-0.0003	-0.0949	-0.0004
256	SLE RA 6	-2.01	0.01	22.27	-0.0001	-0.0952	-0.0004
256	SLE RA 7	-2.01	0.01	22.3	-0.0001	-0.0953	-0.0004
256	SLE RA 8	-2.01	0.01	21.89	0	-0.0947	-0.0004
256	SLE RA 9	-2.01	0.01	21.91	-0.0001	-0.0947	-0.0004
256	SLE RA 10	-2.19	0.01	26.67	-0.0006	-0.1079	-0.0005
256	SLE RA 11	-2.23	0.01	26.04	-0.0004	-0.1082	-0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
256	SLE RA 12	-2.24	0.01	26.07	-0.0004	-0.1083	-0.0005
256	SLE RA 13	-2.23	0.01	25.7	-0.0004	-0.1078	-0.0005
256	SLE RA 14	-2.27	0.01	25.06	-0.0002	-0.1081	-0.0005
256	SLE RA 15	-2.27	0.01	25.09	-0.0002	-0.1082	-0.0005
256	SLE RA 16	-2.27	0.01	24.68	-0.0001	-0.1076	-0.0005
256	SLE RA 17	-2.27	0.01	24.7	-0.0001	-0.1076	-0.0005
256	SLE RA 18	-2.31	0.01	27.83	-0.0007	-0.1133	-0.0005
256	SLE RA 19	-2.31	0.01	27.85	-0.0007	-0.1134	-0.0005
256	SLE RA 20	-2.34	0.01	26.85	-0.0004	-0.1132	-0.0005
256	SLE RA 21	-2.35	0.01	26.88	-0.0004	-0.1133	-0.0005
256	SLE FR 1	-1.93	0.01	23.84	-0.0005	-0.0949	-0.0004
256	SLE FR 2	-1.93	0.01	23.85	-0.0005	-0.0949	-0.0004
256	SLE FR 3	-1.95	0.01	23.45	-0.0004	-0.0948	-0.0004
256	SLE FR 4	-2.04	0.01	25.05	-0.0006	-0.1004	-0.0004
256	SLE FR 5	-2.06	0.01	24.65	-0.0005	-0.1004	-0.0004
256	SLE FR 6	-2.12	0.01	25.83	-0.0006	-0.1041	-0.0005
256	SLE QP 1	-1.93	0.01	23.84	-0.0005	-0.0949	-0.0004
256	SLE QP 2	-2.04	0.01	25.04	-0.0006	-0.1004	-0.0004
256	SLD 1	1.77	0.05	23.99	-0.0244	0.094	-0.0012
256	SLD 2	1.77	0.05	23.99	-0.0244	0.094	-0.0012
256	SLD 3	1.06	0.03	21.13	-0.0107	0.0695	-0.0018
256	SLD 4	1.06	0.03	21.13	-0.0107	0.0695	-0.0018
256	SLD 5	0.19	0.04	29.06	-0.0284	-0.0049	0.0003
256	SLD 6	0.19	0.04	29.06	-0.0284	-0.0049	0.0003
256	SLD 7	-2.2	-0.01	19.52	0.0171	-0.0866	-0.0018
256	SLD 8	-2.2	-0.01	19.52	0.0171	-0.0866	-0.0018
256	SLD 9	-1.89	0.02	30.55	-0.0182	-0.1142	0.0009
256	SLD 10	-1.89	0.02	30.55	-0.0182	-0.1142	0.0009
256	SLD 11	-4.27	-0.03	21.01	0.0273	-0.1959	-0.0011
256	SLD 12	-4.27	-0.03	21.01	0.0273	-0.1959	-0.0011
256	SLD 13	-5.14	-0.02	28.94	0.0096	-0.2703	0.0009
256	SLD 14	-5.14	-0.02	28.94	0.0096	-0.2703	0.0009
256	SLD 15	-5.86	-0.03	26.08	0.0232	-0.2948	0.0003
256	SLD 16	-5.86	-0.03	26.08	0.0232	-0.2948	0.0003
256	SLV 1	6.86	0.11	22.72	-0.0605	0.3533	-0.0023
256	SLV 2	6.86	0.11	22.72	-0.0605	0.3533	-0.0023
256	SLV 3	5.18	0.07	15.79	-0.0263	0.2954	-0.0039
256	SLV 4	5.18	0.07	15.79	-0.0263	0.2954	-0.0039
256	SLV 5	3.19	0.1	34.86	-0.0704	0.1235	0.0013
256	SLV 6	3.19	0.1	34.86	-0.0704	0.1235	0.0013
256	SLV 7	-2.43	-0.03	11.75	0.0436	-0.0695	-0.0038
256	SLV 8	-2.43	-0.03	11.75	0.0436	-0.0695	-0.0038
256	SLV 9	-1.65	0.05	38.33	-0.0447	-0.1313	0.0029
256	SLV 10	-1.65	0.05	38.33	-0.0447	-0.1313	0.0029
256	SLV 11	-7.27	-0.09	15.22	0.0693	-0.3243	-0.0022
256	SLV 12	-7.27	-0.09	15.22	0.0693	-0.3243	-0.0022
256	SLV 13	-9.26	-0.06	34.29	0.0251	-0.4962	0.003
256	SLV 14	-9.26	-0.06	34.29	0.0251	-0.4962	0.003
256	SLV 15	-10.95	-0.1	27.35	0.0593	-0.5541	0.0015
256	SLV 16	-10.95	-0.1	27.35	0.0593	-0.5541	0.0015
257	SLU 1	-3.32	4.2	41.06	-0.2558	-0.0958	-0.0004
257	SLU 2	-3.33	4.2	41.18	-0.2558	-0.096	-0.0004
257	SLU 3	-3.25	4.05	39.27	-0.2514	-0.0946	-0.0003
257	SLU 4	-3.25	4.05	39.34	-0.2514	-0.0948	-0.0003
257	SLU 5	-3.19	3.94	38.27	-0.2451	-0.0931	-0.0003
257	SLU 6	-3.1	3.79	36.36	-0.2407	-0.0918	-0.0003
257	SLU 7	-3.11	3.79	36.43	-0.2407	-0.0919	-0.0003
257	SLU 8	-3.03	3.68	35.24	-0.2344	-0.0901	-0.0003
257	SLU 9	-3.04	3.68	35.31	-0.2343	-0.0902	-0.0003
257	SLU 10	-3.97	4.91	48.61	-0.2997	-0.1147	-0.0004
257	SLU 11	-3.88	4.77	46.7	-0.2953	-0.1133	-0.0004
257	SLU 12	-3.89	4.77	46.77	-0.2953	-0.1135	-0.0004
257	SLU 13	-3.82	4.65	45.7	-0.2889	-0.1118	-0.0004
257	SLU 14	-3.74	4.51	43.79	-0.2846	-0.1105	-0.0004
257	SLU 15	-3.74	4.51	43.86	-0.2845	-0.1106	-0.0004
257	SLU 16	-3.67	4.39	42.67	-0.2782	-0.1088	-0.0004
257	SLU 17	-3.67	4.39	42.74	-0.2782	-0.1089	-0.0004
257	SLU 18	-4.23	5.22	51.68	-0.3185	-0.1225	-0.0005
257	SLU 19	-4.24	5.22	51.75	-0.3185	-0.1226	-0.0005
257	SLU 20	-4.09	4.96	48.77	-0.3077	-0.1196	-0.0004
257	SLU 21	-4.09	4.96	48.84	-0.3077	-0.1198	-0.0004
257	SLU 22	-3.75	4.72	45.56	-0.2899	-0.109	-0.0004
257	SLU 23	-3.76	4.72	45.68	-0.2899	-0.1093	-0.0004
257	SLU 24	-3.68	4.57	43.77	-0.2855	-0.1079	-0.0004
257	SLU 25	-3.68	4.58	43.84	-0.2855	-0.108	-0.0004
257	SLU 26	-3.61	4.46	42.77	-0.2791	-0.1064	-0.0004
257	SLU 27	-3.53	4.31	40.86	-0.2748	-0.1051	-0.0004
257	SLU 28	-3.53	4.31	40.93	-0.2748	-0.1052	-0.0004
257	SLU 29	-3.46	4.2	39.74	-0.2684	-0.1033	-0.0003
257	SLU 30	-3.46	4.2	39.81	-0.2684	-0.1035	-0.0003
257	SLU 31	-4.4	5.44	53.11	-0.3337	-0.128	-0.0005
257	SLU 32	-4.31	5.29	51.2	-0.3294	-0.1266	-0.0004
257	SLU 33	-4.32	5.29	51.27	-0.3293	-0.1267	-0.0004
257	SLU 34	-4.25	5.17	50.2	-0.323	-0.1251	-0.0004
257	SLU 35	-4.17	5.03	48.29	-0.3186	-0.1238	-0.0004
257	SLU 36	-4.17	5.03	48.36	-0.3186	-0.1239	-0.0004
257	SLU 37	-4.1	4.91	47.17	-0.3123	-0.122	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
257	SLU 38	-4.1	4.91	47.24	-0.3123	-0.1222	-0.0004
257	SLU 39	-4.66	5.74	56.18	-0.3525	-0.1357	-0.0005
257	SLU 40	-4.67	5.74	56.25	-0.3525	-0.1359	-0.0005
257	SLU 41	-4.51	5.48	53.27	-0.3418	-0.1329	-0.0005
257	SLU 42	-4.52	5.48	53.34	-0.3418	-0.133	-0.0005
257	SLU 43	-4.18	5.28	51.84	-0.3209	-0.1199	-0.0005
257	SLU 44	-4.18	5.28	51.96	-0.3209	-0.1202	-0.0005
257	SLU 45	-4.1	5.13	50.05	-0.3165	-0.1188	-0.0004
257	SLU 46	-4.1	5.14	50.12	-0.3165	-0.1189	-0.0004
257	SLU 47	-4.04	5.02	49.05	-0.3102	-0.1173	-0.0004
257	SLU 48	-3.95	4.87	47.14	-0.3058	-0.116	-0.0004
257	SLU 49	-3.96	4.87	47.21	-0.3058	-0.1161	-0.0004
257	SLU 50	-3.88	4.76	46.02	-0.2994	-0.1142	-0.0004
257	SLU 51	-3.89	4.76	46.09	-0.2994	-0.1144	-0.0004
257	SLU 52	-4.82	5.99	59.39	-0.3647	-0.1389	-0.0005
257	SLU 53	-4.73	5.85	57.48	-0.3604	-0.1375	-0.0005
257	SLU 54	-4.74	5.85	57.55	-0.3604	-0.1376	-0.0005
257	SLU 55	-4.67	5.73	56.48	-0.354	-0.136	-0.0005
257	SLU 56	-4.59	5.59	54.57	-0.3496	-0.1347	-0.0005
257	SLU 57	-4.59	5.59	54.64	-0.3496	-0.1348	-0.0005
257	SLU 58	-4.52	5.47	53.45	-0.3433	-0.1329	-0.0005
257	SLU 59	-4.52	5.47	53.52	-0.3433	-0.1331	-0.0005
257	SLU 60	-5.08	6.3	62.46	-0.3836	-0.1466	-0.0005
257	SLU 61	-5.09	6.3	62.53	-0.3835	-0.1468	-0.0005
257	SLU 62	-4.94	6.04	59.55	-0.3728	-0.1438	-0.0005
257	SLU 63	-4.94	6.04	59.62	-0.3728	-0.1439	-0.0005
257	SLU 64	-4.6	5.8	56.34	-0.355	-0.1332	-0.0005
257	SLU 65	-4.61	5.8	56.46	-0.355	-0.1334	-0.0005
257	SLU 66	-4.53	5.66	54.54	-0.3506	-0.1321	-0.0005
257	SLU 67	-4.53	5.66	54.62	-0.3506	-0.1322	-0.0005
257	SLU 68	-4.47	5.54	53.55	-0.3442	-0.1306	-0.0005
257	SLU 69	-4.38	5.39	51.63	-0.3398	-0.1292	-0.0004
257	SLU 70	-4.38	5.4	51.71	-0.3398	-0.1294	-0.0004
257	SLU 71	-4.31	5.28	50.52	-0.3335	-0.1275	-0.0004
257	SLU 72	-4.31	5.28	50.59	-0.3335	-0.1277	-0.0004
257	SLU 73	-5.25	6.52	63.89	-0.3988	-0.1521	-0.0006
257	SLU 74	-5.16	6.37	61.98	-0.3944	-0.1508	-0.0005
257	SLU 75	-5.17	6.37	62.05	-0.3944	-0.1509	-0.0005
257	SLU 76	-5.1	6.25	60.98	-0.3881	-0.1493	-0.0005
257	SLU 77	-5.02	6.11	59.07	-0.3837	-0.1479	-0.0005
257	SLU 78	-5.02	6.11	59.14	-0.3837	-0.1481	-0.0005
257	SLU 79	-4.95	5.99	57.95	-0.3773	-0.1462	-0.0005
257	SLU 80	-4.95	5.99	58.02	-0.3773	-0.1463	-0.0005
257	SLU 81	-5.51	6.82	66.96	-0.4176	-0.1599	-0.0006
257	SLU 82	-5.52	6.82	67.03	-0.4176	-0.1601	-0.0006
257	SLU 83	-5.37	6.56	64.04	-0.4069	-0.1571	-0.0006
257	SLU 84	-5.37	6.56	64.12	-0.4069	-0.1572	-0.0006
257	SLE RA 1	-3.45	4.35	42.35	-0.2656	-0.0996	-0.0004
257	SLE RA 2	-3.45	4.35	42.43	-0.2656	-0.0997	-0.0004
257	SLE RA 3	-3.4	4.25	41.15	-0.2626	-0.0988	-0.0004
257	SLE RA 4	-3.4	4.25	41.2	-0.2626	-0.0989	-0.0004
257	SLE RA 5	-3.35	4.17	40.49	-0.2584	-0.0978	-0.0004
257	SLE RA 6	-3.3	4.08	39.21	-0.2555	-0.0969	-0.0003
257	SLE RA 7	-3.3	4.08	39.26	-0.2555	-0.097	-0.0003
257	SLE RA 8	-3.25	4	38.47	-0.2512	-0.0958	-0.0003
257	SLE RA 9	-3.25	4	38.51	-0.2512	-0.0958	-0.0003
257	SLE RA 10	-3.88	4.82	47.38	-0.2948	-0.1122	-0.0004
257	SLE RA 11	-3.82	4.73	46.11	-0.2919	-0.1113	-0.0004
257	SLE RA 12	-3.82	4.73	46.16	-0.2919	-0.1114	-0.0004
257	SLE RA 13	-3.78	4.65	45.44	-0.2876	-0.1103	-0.0004
257	SLE RA 14	-3.72	4.55	44.17	-0.2847	-0.1094	-0.0004
257	SLE RA 15	-3.73	4.55	44.21	-0.2847	-0.1095	-0.0004
257	SLE RA 16	-3.68	4.47	43.42	-0.2805	-0.1082	-0.0004
257	SLE RA 17	-3.68	4.48	43.47	-0.2805	-0.1083	-0.0004
257	SLE RA 18	-4.05	5.03	49.43	-0.3073	-0.1174	-0.0004
257	SLE RA 19	-4.06	5.03	49.47	-0.3073	-0.1174	-0.0004
257	SLE RA 20	-3.95	4.85	47.49	-0.3002	-0.1155	-0.0004
257	SLE RA 21	-3.96	4.85	47.53	-0.3002	-0.1155	-0.0004
257	SLE FR 1	-3.45	4.35	42.35	-0.2656	-0.0996	-0.0004
257	SLE FR 2	-3.45	4.35	42.36	-0.2656	-0.0996	-0.0004
257	SLE FR 3	-3.41	4.28	41.57	-0.2627	-0.0988	-0.0004
257	SLE FR 4	-3.63	4.55	44.49	-0.2781	-0.1049	-0.0004
257	SLE FR 5	-3.59	4.48	43.7	-0.2752	-0.1041	-0.0004
257	SLE FR 6	-3.75	4.69	45.89	-0.2864	-0.1085	-0.0004
257	SLE QP 1	-3.45	4.35	42.35	-0.2656	-0.0996	-0.0004
257	SLE QP 2	-3.63	4.55	44.47	-0.2781	-0.1049	-0.0004
257	SLD 1	-1.6	5.31	41.25	-0.3093	-0.0175	-0.0004
257	SLD 2	-1.6	5.31	41.25	-0.3093	-0.0175	-0.0004
257	SLD 3	-1.32	2.12	34.92	-0.1676	-0.0049	0
257	SLD 4	-1.32	2.12	34.92	-0.1676	-0.0049	0
257	SLD 5	-3.45	9.62	53.1	-0.5024	-0.0978	-0.0009
257	SLD 6	-3.45	9.62	53.1	-0.5024	-0.0978	-0.0009
257	SLD 7	-2.51	-1.02	32.01	-0.03	-0.0557	0.0002
257	SLD 8	-2.51	-1.02	32.01	-0.03	-0.0557	0.0002
257	SLD 9	-4.75	10.12	56.93	-0.5262	-0.1541	-0.001
257	SLD 10	-4.75	10.12	56.93	-0.5262	-0.1541	-0.001
257	SLD 11	-3.81	-0.52	35.84	-0.0538	-0.1119	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
257	SLD 12	-3.81	-0.52	35.84	-0.0538	-0.1119	0.0001
257	SLD 13	-5.94	6.98	54.02	-0.3886	-0.2049	-0.0007
257	SLD 14	-5.94	6.98	54.02	-0.3886	-0.2049	-0.0007
257	SLD 15	-5.66	3.79	47.69	-0.2468	-0.1923	-0.0004
257	SLD 16	-5.66	3.79	47.69	-0.2468	-0.1923	-0.0004
257	SLV 1	1.09	6.32	37.2	-0.3503	0.0984	-0.0004
257	SLV 2	1.09	6.32	37.2	-0.3503	0.0984	-0.0004
257	SLV 3	1.77	-1.18	21.96	-0.0176	0.1284	0.0005
257	SLV 4	1.77	-1.18	21.96	-0.0176	0.1284	0.0005
257	SLV 5	-3.25	16.46	65.4	-0.8044	-0.0893	-0.0016
257	SLV 6	-3.25	16.46	65.4	-0.8044	-0.0893	-0.0016
257	SLV 7	-0.97	-8.54	14.6	0.3047	0.0105	0.0011
257	SLV 8	-0.97	-8.54	14.6	0.3047	0.0105	0.0011
257	SLV 9	-6.29	17.64	74.34	-0.8609	-0.2203	-0.0019
257	SLV 10	-6.29	17.64	74.34	-0.8609	-0.2203	-0.0019
257	SLV 11	-4	-7.35	23.54	0.2482	-0.1204	0.0009
257	SLV 12	-4	-7.35	23.54	0.2482	-0.1204	0.0009
257	SLV 13	-9.03	10.28	66.98	-0.5386	-0.3382	-0.0012
257	SLV 14	-9.03	10.28	66.98	-0.5386	-0.3382	-0.0012
257	SLV 15	-8.35	2.78	51.75	-0.2058	-0.3082	-0.0004
257	SLV 16	-8.35	2.78	51.75	-0.2058	-0.3082	-0.0004
258	SLU 1	0.02	-1.54	53.91	0.0454	0.0154	-0.0002
258	SLU 2	0.01	-1	52.97	0.027	0.0007	-0.0001
258	SLU 3	0.02	-1.65	55.06	0.0489	0.016	-0.0002
258	SLU 4	0.01	-1.33	54.5	0.0378	0.0072	-0.0001
258	SLU 5	0.01	-1.08	53.46	0.0294	0.0011	-0.0001
258	SLU 6	0.02	-1.73	55.56	0.0512	0.0164	-0.0002
258	SLU 7	0.01	-1.41	54.99	0.0402	0.0076	-0.0001
258	SLU 8	0.02	-1.69	54.9	0.0501	0.0163	-0.0002
258	SLU 9	0.01	-1.37	54.33	0.0391	0.0075	-0.0001
258	SLU 10	0.01	-1.36	59.12	0.0382	0.0027	-0.0001
258	SLU 11	0.02	-2.01	61.21	0.0601	0.018	-0.0002
258	SLU 12	0.01	-1.69	60.64	0.049	0.0092	-0.0001
258	SLU 13	0.01	-1.44	59.61	0.0405	0.0031	-0.0001
258	SLU 14	0.02	-2.09	61.7	0.0624	0.0184	-0.0002
258	SLU 15	0.01	-1.77	61.14	0.0513	0.0096	-0.0001
258	SLU 16	0.02	-2.06	61.05	0.0613	0.0183	-0.0002
258	SLU 17	0.01	-1.73	60.48	0.0503	0.0095	-0.0001
258	SLU 18	0.02	-2.06	62.69	0.0614	0.0183	-0.0002
258	SLU 19	0.01	-1.73	62.13	0.0504	0.0094	-0.0001
258	SLU 20	0.02	-2.13	63.19	0.0638	0.0187	-0.0002
258	SLU 21	0.02	-1.81	62.62	0.0527	0.0099	-0.0001
258	SLU 22	0.02	-1.91	59.86	0.0568	0.0175	-0.0002
258	SLU 23	0.01	-1.37	58.92	0.0383	0.0028	-0.0001
258	SLU 24	0.02	-2.02	61.01	0.0602	0.0181	-0.0002
258	SLU 25	0.01	-1.7	60.45	0.0491	0.0093	-0.0001
258	SLU 26	0.01	-1.45	59.41	0.0407	0.0033	-0.0001
258	SLU 27	0.02	-2.1	61.51	0.0625	0.0186	-0.0002
258	SLU 28	0.01	-1.78	60.94	0.0515	0.0097	-0.0001
258	SLU 29	0.02	-2.06	60.85	0.0615	0.0184	-0.0002
258	SLU 30	0.01	-1.74	60.28	0.0504	0.0096	-0.0001
258	SLU 31	0.01	-1.73	65.07	0.0495	0.0048	-0.0001
258	SLU 32	0.02	-2.38	67.16	0.0714	0.0201	-0.0002
258	SLU 33	0.02	-2.06	66.6	0.0603	0.0113	-0.0002
258	SLU 34	0.01	-1.81	65.56	0.0519	0.0053	-0.0001
258	SLU 35	0.02	-2.46	67.66	0.0737	0.0206	-0.0002
258	SLU 36	0.02	-2.14	67.09	0.0627	0.0117	-0.0002
258	SLU 37	0.02	-2.43	67	0.0726	0.0204	-0.0002
258	SLU 38	0.02	-2.1	66.43	0.0616	0.0116	-0.0002
258	SLU 39	0.02	-2.43	68.64	0.0727	0.0204	-0.0002
258	SLU 40	0.02	-2.1	68.08	0.0617	0.0116	-0.0002
258	SLU 41	0.02	-2.5	69.14	0.0751	0.0208	-0.0003
258	SLU 42	0.02	-2.18	68.57	0.064	0.012	-0.0002
258	SLU 43	0.02	-1.87	68.04	0.0552	0.0193	-0.0002
258	SLU 44	0.01	-1.33	67.1	0.0368	0.0046	-0.0001
258	SLU 45	0.02	-1.99	69.19	0.0586	0.0199	-0.0002
258	SLU 46	0.02	-1.66	68.63	0.0476	0.011	-0.0002
258	SLU 47	0.01	-1.41	67.59	0.0391	0.005	-0.0001
258	SLU 48	0.02	-2.06	69.69	0.061	0.0203	-0.0002
258	SLU 49	0.02	-1.74	69.12	0.0499	0.0115	-0.0002
258	SLU 50	0.02	-2.03	69.03	0.0599	0.0202	-0.0002
258	SLU 51	0.02	-1.7	68.47	0.0488	0.0114	-0.0002
258	SLU 52	0.01	-1.7	73.25	0.048	0.0066	-0.0001
258	SLU 53	0.02	-2.35	75.34	0.0698	0.0219	-0.0003
258	SLU 54	0.02	-2.03	74.78	0.0588	0.013	-0.0002
258	SLU 55	0.01	-1.77	73.74	0.0503	0.007	-0.0001
258	SLU 56	0.03	-2.43	75.84	0.0721	0.0223	-0.0003
258	SLU 57	0.02	-2.1	75.27	0.0611	0.0135	-0.0002
258	SLU 58	0.02	-2.39	75.18	0.0711	0.0222	-0.0003
258	SLU 59	0.02	-2.07	74.61	0.06	0.0134	-0.0002
258	SLU 60	0.02	-2.39	76.82	0.0712	0.0221	-0.0003
258	SLU 61	0.02	-2.07	76.26	0.0601	0.0133	-0.0002
258	SLU 62	0.03	-2.47	77.32	0.0735	0.0226	-0.0003
258	SLU 63	0.02	-2.14	76.75	0.0625	0.0138	-0.0002
258	SLU 64	0.02	-2.24	73.99	0.0665	0.0214	-0.0003
258	SLU 65	0.01	-1.7	73.05	0.0481	0.0067	-0.0001
258	SLU 66	0.02	-2.36	75.15	0.0699	0.022	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
258	SLU 67	0.02	-2.03	74.58	0.0589	0.0132	-0.0002
258	SLU 68	0.01	-1.78	73.55	0.0504	0.0072	-0.0001
258	SLU 69	0.03	-2.43	75.64	0.0723	0.0224	-0.0003
258	SLU 70	0.02	-2.11	75.08	0.0612	0.0136	-0.0002
258	SLU 71	0.02	-2.4	74.98	0.0712	0.0223	-0.0003
258	SLU 72	0.02	-2.07	74.42	0.0601	0.0135	-0.0002
258	SLU 73	0.02	-2.07	79.2	0.0593	0.0087	-0.0002
258	SLU 74	0.03	-2.72	81.29	0.0811	0.024	-0.0003
258	SLU 75	0.02	-2.4	80.73	0.0701	0.0152	-0.0002
258	SLU 76	0.02	-2.14	79.69	0.0616	0.0092	-0.0002
258	SLU 77	0.03	-2.8	81.79	0.0835	0.0244	-0.0003
258	SLU 78	0.02	-2.47	81.22	0.0724	0.0156	-0.0002
258	SLU 79	0.03	-2.76	81.13	0.0824	0.0243	-0.0003
258	SLU 80	0.02	-2.44	80.57	0.0713	0.0155	-0.0002
258	SLU 81	0.03	-2.76	82.78	0.0825	0.0243	-0.0003
258	SLU 82	0.02	-2.44	82.21	0.0714	0.0154	-0.0002
258	SLU 83	0.03	-2.84	83.27	0.0848	0.0247	-0.0003
258	SLU 84	0.02	-2.51	82.71	0.0738	0.0159	-0.0002
258	SLE RA 1	0.02	-1.64	55.61	0.0487	0.016	-0.0002
258	SLE RA 2	0.01	-1.28	54.98	0.0364	0.0062	-0.0001
258	SLE RA 3	0.02	-1.72	56.38	0.051	0.0164	-0.0002
258	SLE RA 4	0.01	-1.5	56	0.0436	0.0105	-0.0001
258	SLE RA 5	0.01	-1.34	55.31	0.038	0.0065	-0.0001
258	SLE RA 6	0.02	-1.77	56.71	0.0525	0.0167	-0.0002
258	SLE RA 7	0.01	-1.56	56.33	0.0452	0.0108	-0.0001
258	SLE RA 8	0.02	-1.75	56.27	0.0518	0.0166	-0.0002
258	SLE RA 9	0.01	-1.53	55.89	0.0444	0.0107	-0.0001
258	SLE RA 10	0.01	-1.53	59.08	0.0439	0.0075	-0.0001
258	SLE RA 11	0.02	-1.96	60.48	0.0584	0.0177	-0.0002
258	SLE RA 12	0.02	-1.75	60.1	0.0511	0.0118	-0.0002
258	SLE RA 13	0.01	-1.58	59.41	0.0454	0.0078	-0.0001
258	SLE RA 14	0.02	-2.01	60.81	0.06	0.018	-0.0002
258	SLE RA 15	0.02	-1.8	60.43	0.0526	0.0121	-0.0002
258	SLE RA 16	0.02	-1.99	60.37	0.0593	0.0179	-0.0002
258	SLE RA 17	0.02	-1.77	59.99	0.0519	0.0121	-0.0002
258	SLE RA 18	0.02	-1.99	61.46	0.0593	0.0179	-0.0002
258	SLE RA 19	0.02	-1.77	61.09	0.052	0.012	-0.0002
258	SLE RA 20	0.02	-2.04	61.79	0.0609	0.0182	-0.0002
258	SLE RA 21	0.02	-1.83	61.42	0.0535	0.0123	-0.0002
258	SLE FR 1	0.02	-1.64	55.61	0.0487	0.016	-0.0002
258	SLE FR 2	0.02	-1.57	55.48	0.0462	0.014	-0.0002
258	SLE FR 3	0.02	-1.66	55.74	0.0493	0.0161	-0.0002
258	SLE FR 4	0.02	-1.67	57.24	0.0494	0.0146	-0.0002
258	SLE FR 5	0.02	-1.77	57.5	0.0525	0.0167	-0.0002
258	SLE FR 6	0.02	-1.82	58.54	0.054	0.017	-0.0002
258	SLE QP 1	0.02	-1.64	55.61	0.0487	0.016	-0.0002
258	SLE QP 2	0.02	-1.75	57.37	0.0519	0.0166	-0.0002
258	SLD 1	0.22	0.6	41.59	-0.0244	0.2015	-0.0026
258	SLD 2	0.22	0.6	41.59	-0.0244	0.2015	-0.0026
258	SLD 3	0.3	-2.4	44.98	0.0737	0.2979	-0.0037
258	SLD 4	0.3	-2.4	44.98	0.0737	0.2979	-0.0037
258	SLD 5	-0.05	3.51	47.49	-0.1198	-0.0741	0.0008
258	SLD 6	-0.05	3.51	47.49	-0.1198	-0.0741	0.0008
258	SLD 7	0.23	-6.49	58.79	0.2072	0.2471	-0.0029
258	SLD 8	0.23	-6.49	58.79	0.2072	0.2471	-0.0029
258	SLD 9	-0.2	3	55.94	-0.1034	-0.214	0.0025
258	SLD 10	-0.2	3	55.94	-0.1034	-0.214	0.0025
258	SLD 11	0.09	-7	67.24	0.2235	0.1072	-0.0012
258	SLD 12	0.09	-7	67.24	0.2235	0.1072	-0.0012
258	SLD 13	-0.27	-1.1	69.75	0.0301	-0.2647	0.0033
258	SLD 14	-0.27	-1.1	69.75	0.0301	-0.2647	0.0033
258	SLD 15	-0.18	-4.1	73.14	0.1282	-0.1684	0.0022
258	SLD 16	-0.18	-4.1	73.14	0.1282	-0.1684	0.0022
258	SLV 1	0.5	3.75	20.42	-0.1267	0.4621	-0.006
258	SLV 2	0.5	3.75	20.42	-0.1267	0.4621	-0.006
258	SLV 3	0.72	-3.23	28.44	0.1017	0.7073	-0.0088
258	SLV 4	0.72	-3.23	28.44	0.1017	0.7073	-0.0088
258	SLV 5	-0.17	10.48	34.11	-0.348	-0.2216	0.0023
258	SLV 6	-0.17	10.48	34.11	-0.348	-0.2216	0.0023
258	SLV 7	0.56	-12.77	60.86	0.4131	0.5956	-0.007
258	SLV 8	0.56	-12.77	60.86	0.4131	0.5956	-0.007
258	SLV 9	-0.52	9.28	53.87	-0.3094	-0.5625	0.0067
258	SLV 10	-0.52	9.28	53.87	-0.3094	-0.5625	0.0067
258	SLV 11	0.21	-13.98	80.62	0.4517	0.2548	-0.0027
258	SLV 12	0.21	-13.98	80.62	0.4517	0.2548	-0.0027
258	SLV 13	-0.68	-0.26	86.29	0.0021	-0.6741	0.0084
258	SLV 14	-0.68	-0.26	86.29	0.0021	-0.6741	0.0084
258	SLV 15	-0.46	-7.24	94.31	0.2304	-0.4289	0.0056
258	SLV 16	-0.46	-7.24	94.31	0.2304	-0.4289	0.0056
259	SLU 1	-0.15	-6.2	27.91	0.2482	-0.1141	0.0006
259	SLU 2	-0.13	-5.37	27.9	0.2117	-0.0991	0.0006
259	SLU 3	-0.15	-6.36	28.62	0.2547	-0.1177	0.0007
259	SLU 4	-0.14	-5.86	28.61	0.2328	-0.1087	0.0006
259	SLU 5	-0.14	-5.43	28.39	0.2139	-0.1014	0.0006
259	SLU 6	-0.15	-6.41	29.11	0.2569	-0.12	0.0007
259	SLU 7	-0.15	-5.92	29.1	0.235	-0.111	0.0007
259	SLU 8	-0.15	-6.31	28.89	0.2526	-0.1188	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
259	SLU 9	-0.15	-5.81	28.88	0.2307	-0.1098	0.0006
259	SLU 10	-0.15	-6.3	30.41	0.2505	-0.1135	0.0007
259	SLU 11	-0.17	-7.29	31.13	0.2935	-0.1321	0.0008
259	SLU 12	-0.16	-6.79	31.13	0.2716	-0.1231	0.0007
259	SLU 13	-0.16	-6.36	30.9	0.2527	-0.1158	0.0007
259	SLU 14	-0.17	-7.34	31.62	0.2958	-0.1344	0.0008
259	SLU 15	-0.16	-6.85	31.62	0.2739	-0.1254	0.0007
259	SLU 16	-0.17	-7.24	31.4	0.2915	-0.1332	0.0008
259	SLU 17	-0.16	-6.74	31.39	0.2696	-0.1242	0.0007
259	SLU 18	-0.17	-7.53	31.5	0.3037	-0.1347	0.0008
259	SLU 19	-0.17	-7.03	31.49	0.2818	-0.1257	0.0007
259	SLU 20	-0.18	-7.58	31.99	0.3059	-0.137	0.0008
259	SLU 21	-0.17	-7.09	31.98	0.284	-0.128	0.0007
259	SLU 22	-0.16	-7.09	30.5	0.2854	-0.1286	0.0007
259	SLU 23	-0.15	-6.27	30.48	0.2489	-0.1136	0.0007
259	SLU 24	-0.17	-7.25	31.21	0.2919	-0.1321	0.0008
259	SLU 25	-0.16	-6.76	31.2	0.27	-0.1231	0.0007
259	SLU 26	-0.16	-6.32	30.97	0.2511	-0.1159	0.0007
259	SLU 27	-0.17	-7.31	31.7	0.2941	-0.1345	0.0008
259	SLU 28	-0.17	-6.81	31.69	0.2722	-0.1254	0.0007
259	SLU 29	-0.17	-7.2	31.48	0.2899	-0.1332	0.0008
259	SLU 30	-0.16	-6.71	31.47	0.268	-0.1242	0.0007
259	SLU 31	-0.17	-7.2	33	0.2877	-0.128	0.0008
259	SLU 32	-0.19	-8.18	33.72	0.3308	-0.1465	0.0008
259	SLU 33	-0.18	-7.69	33.71	0.3089	-0.1375	0.0008
259	SLU 34	-0.17	-7.25	33.49	0.29	-0.1303	0.0008
259	SLU 35	-0.19	-8.24	34.21	0.333	-0.1489	0.0008
259	SLU 36	-0.18	-7.74	34.2	0.3111	-0.1398	0.0008
259	SLU 37	-0.19	-8.13	33.99	0.3287	-0.1476	0.0008
259	SLU 38	-0.18	-7.64	33.98	0.3068	-0.1386	0.0008
259	SLU 39	-0.19	-8.42	34.08	0.3409	-0.1492	0.0008
259	SLU 40	-0.18	-7.93	34.08	0.319	-0.1402	0.0008
259	SLU 41	-0.19	-8.48	34.57	0.3431	-0.1515	0.0009
259	SLU 42	-0.19	-7.98	34.57	0.3212	-0.1425	0.0008
259	SLU 43	-0.18	-7.75	35.4	0.3099	-0.1434	0.0008
259	SLU 44	-0.17	-6.93	35.38	0.2734	-0.1284	0.0008
259	SLU 45	-0.19	-7.91	36.11	0.3164	-0.147	0.0008
259	SLU 46	-0.18	-7.42	36.1	0.2945	-0.1379	0.0008
259	SLU 47	-0.17	-6.98	35.87	0.2756	-0.1307	0.0008
259	SLU 48	-0.19	-7.97	36.6	0.3186	-0.1493	0.0009
259	SLU 49	-0.18	-7.47	36.59	0.2967	-0.1403	0.0008
259	SLU 50	-0.19	-7.86	36.37	0.3144	-0.1481	0.0008
259	SLU 51	-0.18	-7.37	36.37	0.2924	-0.139	0.0008
259	SLU 52	-0.19	-7.86	37.89	0.3122	-0.1428	0.0008
259	SLU 53	-0.21	-8.84	38.62	0.3553	-0.1614	0.0009
259	SLU 54	-0.2	-8.34	38.61	0.3334	-0.1523	0.0009
259	SLU 55	-0.19	-7.91	38.38	0.3145	-0.1451	0.0009
259	SLU 56	-0.21	-8.89	39.11	0.3575	-0.1637	0.0009
259	SLU 57	-0.2	-8.4	39.1	0.3356	-0.1547	0.0009
259	SLU 58	-0.21	-8.79	38.89	0.3532	-0.1625	0.0009
259	SLU 59	-0.2	-8.3	38.88	0.3313	-0.1534	0.0009
259	SLU 60	-0.21	-9.08	38.98	0.3654	-0.164	0.0009
259	SLU 61	-0.2	-8.58	38.98	0.3435	-0.155	0.0009
259	SLU 62	-0.21	-9.13	39.47	0.3676	-0.1663	0.0009
259	SLU 63	-0.21	-8.64	39.47	0.3457	-0.1573	0.0009
259	SLU 64	-0.2	-8.65	37.98	0.3471	-0.1579	0.0009
259	SLU 65	-0.19	-7.82	37.97	0.3106	-0.1428	0.0008
259	SLU 66	-0.21	-8.8	38.69	0.3536	-0.1614	0.0009
259	SLU 67	-0.2	-8.31	38.69	0.3317	-0.1524	0.0009
259	SLU 68	-0.19	-7.88	38.46	0.3128	-0.1452	0.0009
259	SLU 69	-0.21	-8.86	39.18	0.3559	-0.1637	0.0009
259	SLU 70	-0.2	-8.36	39.18	0.334	-0.1547	0.0009
259	SLU 71	-0.21	-8.76	38.96	0.3516	-0.1625	0.0009
259	SLU 72	-0.2	-8.26	38.95	0.3297	-0.1535	0.0009
259	SLU 73	-0.21	-8.75	40.48	0.3495	-0.1572	0.0009
259	SLU 74	-0.22	-9.73	41.21	0.3925	-0.1758	0.001
259	SLU 75	-0.22	-9.24	41.2	0.3706	-0.1668	0.001
259	SLU 76	-0.21	-8.81	40.97	0.3517	-0.1596	0.0009
259	SLU 77	-0.23	-9.79	41.7	0.3947	-0.1781	0.001
259	SLU 78	-0.22	-9.29	41.69	0.3728	-0.1691	0.001
259	SLU 79	-0.23	-9.68	41.47	0.3904	-0.1769	0.001
259	SLU 80	-0.22	-9.19	41.47	0.3685	-0.1679	0.001
259	SLU 81	-0.23	-9.97	41.57	0.4026	-0.1784	0.001
259	SLU 82	-0.22	-9.48	41.56	0.3807	-0.1694	0.001
259	SLU 83	-0.23	-10.03	42.06	0.4048	-0.1808	0.001
259	SLU 84	-0.22	-9.53	42.05	0.3829	-0.1718	0.001
259	SLE RA 1	-0.15	-6.45	28.65	0.2588	-0.1183	0.0007
259	SLE RA 2	-0.14	-5.9	28.64	0.2345	-0.1082	0.0006
259	SLE RA 3	-0.15	-6.56	29.12	0.2632	-0.1206	0.0007
259	SLE RA 4	-0.15	-6.23	29.12	0.2486	-0.1146	0.0007
259	SLE RA 5	-0.15	-5.94	28.97	0.236	-0.1098	0.0006
259	SLE RA 6	-0.16	-6.6	29.45	0.2647	-0.1222	0.0007
259	SLE RA 7	-0.15	-6.27	29.45	0.2501	-0.1162	0.0007
259	SLE RA 8	-0.16	-6.53	29.3	0.2618	-0.1214	0.0007
259	SLE RA 9	-0.15	-6.2	29.3	0.2472	-0.1153	0.0007
259	SLE RA 10	-0.16	-6.52	30.31	0.2604	-0.1178	0.0007
259	SLE RA 11	-0.17	-7.18	30.8	0.2891	-0.1302	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
259	SLE RA 12	-0.16	-6.85	30.79	0.2745	-0.1242	0.0007
259	SLE RA 13	-0.16	-6.56	30.64	0.2619	-0.1194	0.0007
259	SLE RA 14	-0.17	-7.22	31.12	0.2905	-0.1318	0.0007
259	SLE RA 15	-0.16	-6.89	31.12	0.2759	-0.1258	0.0007
259	SLE RA 16	-0.17	-7.15	30.98	0.2877	-0.131	0.0007
259	SLE RA 17	-0.16	-6.82	30.97	0.2731	-0.125	0.0007
259	SLE RA 18	-0.17	-7.34	31.04	0.2958	-0.132	0.0007
259	SLE RA 19	-0.16	-7.01	31.04	0.2812	-0.126	0.0007
259	SLE RA 20	-0.17	-7.38	31.37	0.2973	-0.1335	0.0008
259	SLE RA 21	-0.17	-7.05	31.36	0.2827	-0.1275	0.0007
259	SLE FR 1	-0.15	-6.45	28.65	0.2588	-0.1183	0.0007
259	SLE FR 2	-0.15	-6.34	28.65	0.254	-0.1163	0.0007
259	SLE FR 3	-0.15	-6.47	28.78	0.2594	-0.1189	0.0007
259	SLE FR 4	-0.15	-6.61	29.36	0.2651	-0.1204	0.0007
259	SLE FR 5	-0.16	-6.73	29.5	0.2705	-0.123	0.0007
259	SLE FR 6	-0.16	-6.9	29.84	0.2773	-0.1251	0.0007
259	SLE QP 1	-0.15	-6.45	28.65	0.2588	-0.1183	0.0007
259	SLE QP 2	-0.16	-6.72	29.37	0.2699	-0.1224	0.0007
259	SLD 1	0.06	-7.05	35.63	0.2772	0.0899	0.0012
259	SLD 2	0.06	-7.05	35.63	0.2772	0.0899	0.0012
259	SLD 3	-0.01	-10.59	37.21	0.4366	0.0127	0.0015
259	SLD 4	-0.01	-10.59	37.21	0.4366	0.0127	0.0015
259	SLD 5	0.02	-1.44	28.86	0.0304	0.0584	0.0004
259	SLD 6	0.02	-1.44	28.86	0.0304	0.0584	0.0004
259	SLD 7	-0.22	-13.26	34.11	0.5617	-0.1989	0.0014
259	SLD 8	-0.22	-13.26	34.11	0.5617	-0.1989	0.0014
259	SLD 9	-0.09	-0.18	24.62	-0.0218	-0.0458	0
259	SLD 10	-0.09	-0.18	24.62	-0.0218	-0.0458	0
259	SLD 11	-0.33	-12	29.88	0.5095	-0.3031	0.001
259	SLD 12	-0.33	-12	29.88	0.5095	-0.3031	0.001
259	SLD 13	-0.3	-2.85	21.52	0.1032	-0.2575	-0.0001
259	SLD 14	-0.3	-2.85	21.52	0.1032	-0.2575	-0.0001
259	SLD 15	-0.37	-6.39	23.1	0.2626	-0.3346	0.0002
259	SLD 16	-0.37	-6.39	23.1	0.2626	-0.3346	0.0002
259	SLV 1	0.36	-7.52	43.99	0.2884	0.3958	0.002
259	SLV 2	0.36	-7.52	43.99	0.2884	0.3958	0.002
259	SLV 3	0.18	-15.78	47.76	0.6598	0.2022	0.0027
259	SLV 4	0.18	-15.78	47.76	0.6598	0.2022	0.0027
259	SLV 5	0.28	5.57	28.03	-0.2878	0.3268	0
259	SLV 6	0.28	5.57	28.03	-0.2878	0.3268	0
259	SLV 7	-0.33	-21.96	40.61	0.9502	-0.3187	0.0024
259	SLV 8	-0.33	-21.96	40.61	0.9502	-0.3187	0.0024
259	SLV 9	0.02	8.53	18.13	-0.4103	0.074	-0.001
259	SLV 10	0.02	8.53	18.13	-0.4103	0.074	-0.001
259	SLV 11	-0.59	-19.01	30.7	0.8277	-0.5716	0.0014
259	SLV 12	-0.59	-19.01	30.7	0.8277	-0.5716	0.0014
259	SLV 13	-0.5	2.34	10.97	-0.1199	-0.4469	-0.0013
259	SLV 14	-0.5	2.34	10.97	-0.1199	-0.4469	-0.0013
259	SLV 15	-0.68	-5.92	14.74	0.2515	-0.6406	-0.0006
259	SLV 16	-0.68	-5.92	14.74	0.2515	-0.6406	-0.0006
260	SLU 1	0	1.59	44.87	-0.0467	-0.0009	0
260	SLU 2	0	1.7	44.35	-0.0499	-0.0004	0
260	SLU 3	0	1.63	47.01	-0.0478	-0.0009	0
260	SLU 4	0	1.7	46.7	-0.0497	-0.0006	0
260	SLU 5	0	1.76	46.14	-0.0515	-0.0004	0
260	SLU 6	0	1.69	48.8	-0.0493	-0.0009	0
260	SLU 7	0	1.76	48.49	-0.0513	-0.0006	0
260	SLU 8	0	1.71	48.45	-0.0497	-0.0009	0
260	SLU 9	0	1.77	48.14	-0.0517	-0.0006	0
260	SLU 10	0	1.77	51.93	-0.0523	-0.0006	0
260	SLU 11	0	1.71	54.59	-0.0502	-0.0011	0
260	SLU 12	0	1.77	54.28	-0.0521	-0.0008	0
260	SLU 13	0	1.83	53.72	-0.0538	-0.0006	0
260	SLU 14	0	1.77	56.38	-0.0517	-0.0011	0
260	SLU 15	0	1.83	56.07	-0.0536	-0.0008	0
260	SLU 16	0	1.78	56.03	-0.0521	-0.001	0
260	SLU 17	0	1.85	55.72	-0.0541	-0.0007	0
260	SLU 18	0	1.69	55.7	-0.0501	-0.0011	0
260	SLU 19	0	1.76	55.39	-0.052	-0.0008	0
260	SLU 20	0	1.75	57.49	-0.0516	-0.0011	0
260	SLU 21	0	1.82	57.18	-0.0536	-0.0008	0
260	SLU 22	0	1.68	52.39	-0.0496	-0.0011	0
260	SLU 23	0	1.79	51.87	-0.0529	-0.0006	0
260	SLU 24	0	1.73	54.53	-0.0507	-0.0011	0
260	SLU 25	0	1.8	54.22	-0.0527	-0.0008	0
260	SLU 26	0	1.85	53.66	-0.0544	-0.0006	0
260	SLU 27	0	1.79	56.32	-0.0522	-0.001	0
260	SLU 28	0	1.86	56.01	-0.0542	-0.0008	0
260	SLU 29	0	1.8	55.97	-0.0527	-0.001	0
260	SLU 30	0	1.87	55.66	-0.0546	-0.0007	0
260	SLU 31	0	1.87	59.45	-0.0553	-0.0007	0
260	SLU 32	0	1.8	62.11	-0.0531	-0.0012	0
260	SLU 33	0	1.87	61.8	-0.0551	-0.0009	0
260	SLU 34	0	1.93	61.24	-0.0568	-0.0007	0
260	SLU 35	0	1.86	63.9	-0.0546	-0.0012	0
260	SLU 36	0	1.93	63.59	-0.0566	-0.0009	0
260	SLU 37	0	1.88	63.55	-0.055	-0.0012	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
260	SLU 38	0	1.94	63.24	-0.057	-0.0009	0
260	SLU 39	0	1.79	63.22	-0.053	-0.0013	0
260	SLU 40	0	1.85	62.91	-0.055	-0.001	0
260	SLU 41	0	1.85	65.01	-0.0545	-0.0013	0
260	SLU 42	0	1.91	64.7	-0.0565	-0.001	0
260	SLU 43	0	2.03	55.76	-0.0597	-0.0011	0
260	SLU 44	0	2.14	55.23	-0.0629	-0.0007	0
260	SLU 45	0	2.08	57.9	-0.0608	-0.0011	0
260	SLU 46	0	2.14	57.58	-0.0627	-0.0009	0
260	SLU 47	0	2.2	57.02	-0.0645	-0.0006	0
260	SLU 48	0	2.14	59.69	-0.0623	-0.0011	0
260	SLU 49	0	2.2	59.37	-0.0643	-0.0008	0
260	SLU 50	0	2.15	59.34	-0.0627	-0.0011	0
260	SLU 51	0	2.21	59.02	-0.0647	-0.0008	0
260	SLU 52	0	2.21	62.81	-0.0653	-0.0008	0
260	SLU 53	0	2.15	65.48	-0.0632	-0.0013	0
260	SLU 54	0	2.22	65.16	-0.0651	-0.001	0
260	SLU 55	0	2.27	64.6	-0.0668	-0.0008	0
260	SLU 56	0	2.21	67.27	-0.0647	-0.0013	0
260	SLU 57	0	2.28	66.95	-0.0666	-0.001	0
260	SLU 58	0	2.22	66.92	-0.0651	-0.0013	0
260	SLU 59	0	2.29	66.6	-0.067	-0.001	0
260	SLU 60	0	2.13	66.58	-0.0631	-0.0014	0
260	SLU 61	0	2.2	66.27	-0.065	-0.0011	0
260	SLU 62	0	2.19	68.37	-0.0646	-0.0013	0
260	SLU 63	0	2.26	68.06	-0.0666	-0.0011	0
260	SLU 64	0	2.12	63.28	-0.0626	-0.0013	0
260	SLU 65	0	2.24	62.75	-0.0659	-0.0008	0
260	SLU 66	0	2.17	65.42	-0.0637	-0.0013	0
260	SLU 67	0	2.24	65.1	-0.0657	-0.001	0
260	SLU 68	0	2.3	64.54	-0.0674	-0.0008	0
260	SLU 69	0	2.23	67.21	-0.0652	-0.0013	0
260	SLU 70	0	2.3	66.89	-0.0672	-0.001	0
260	SLU 71	0	2.25	66.86	-0.0656	-0.0012	0
260	SLU 72	0	2.31	66.54	-0.0676	-0.001	0
260	SLU 73	0	2.31	70.33	-0.0683	-0.001	0
260	SLU 74	0	2.25	73	-0.0661	-0.0014	0
260	SLU 75	0	2.31	72.68	-0.0681	-0.0012	0
260	SLU 76	0	2.37	72.12	-0.0698	-0.0009	0
260	SLU 77	0	2.31	74.79	-0.0676	-0.0014	0
260	SLU 78	0	2.37	74.47	-0.0696	-0.0011	0
260	SLU 79	0	2.32	74.44	-0.068	-0.0014	0
260	SLU 80	0	2.39	74.12	-0.07	-0.0011	0
260	SLU 81	0	2.23	74.1	-0.066	-0.0015	0
260	SLU 82	0	2.3	73.79	-0.068	-0.0012	0
260	SLU 83	0	2.29	75.89	-0.0675	-0.0015	0
260	SLU 84	0	2.36	75.58	-0.0695	-0.0012	0
260	SLE RA 1	0	1.61	47.02	-0.0475	-0.0009	0
260	SLE RA 2	0	1.69	46.67	-0.0497	-0.0006	0
260	SLE RA 3	0	1.64	48.45	-0.0483	-0.001	0
260	SLE RA 4	0	1.69	48.24	-0.0496	-0.0008	0
260	SLE RA 5	0	1.73	47.86	-0.0507	-0.0006	0
260	SLE RA 6	0	1.68	49.64	-0.0493	-0.0009	0
260	SLE RA 7	0	1.73	49.43	-0.0506	-0.0008	0
260	SLE RA 8	0	1.69	49.41	-0.0495	-0.0009	0
260	SLE RA 9	0	1.74	49.2	-0.0508	-0.0007	0
260	SLE RA 10	0	1.74	51.72	-0.0513	-0.0007	0
260	SLE RA 11	0	1.69	53.5	-0.0498	-0.0011	0
260	SLE RA 12	0	1.74	53.29	-0.0512	-0.0009	0
260	SLE RA 13	0	1.78	52.92	-0.0523	-0.0007	0
260	SLE RA 14	0	1.73	54.69	-0.0509	-0.0011	0
260	SLE RA 15	0	1.78	54.48	-0.0522	-0.0009	0
260	SLE RA 16	0	1.74	54.46	-0.0511	-0.001	0
260	SLE RA 17	0	1.79	54.25	-0.0524	-0.0008	0
260	SLE RA 18	0	1.68	54.24	-0.0498	-0.0011	0
260	SLE RA 19	0	1.73	54.03	-0.0511	-0.0009	0
260	SLE RA 20	0	1.72	55.43	-0.0508	-0.0011	0
260	SLE RA 21	0	1.77	55.22	-0.0521	-0.0009	0
260	SLE FR 1	0	1.61	47.02	-0.0475	-0.0009	0
260	SLE FR 2	0	1.63	46.95	-0.048	-0.0009	0
260	SLE FR 3	0	1.63	47.5	-0.0479	-0.0009	0
260	SLE FR 4	0	1.65	49.12	-0.0486	-0.0009	0
260	SLE FR 5	0	1.65	49.66	-0.0486	-0.001	0
260	SLE FR 6	0	1.65	50.63	-0.0487	-0.001	0
260	SLE QP 1	0	1.61	47.02	-0.0475	-0.0009	0
260	SLE QP 2	0	1.63	49.19	-0.0482	-0.001	0
260	SLD 1	0.25	4.82	50.05	-0.1519	0.2112	-0.0011
260	SLD 2	0.25	4.82	50.05	-0.1519	0.2112	-0.0011
260	SLD 3	0.2	1.16	52.02	-0.0321	0.2635	-0.0013
260	SLD 4	0.2	1.16	52.02	-0.0321	0.2635	-0.0013
260	SLD 5	0.15	8.14	46.45	-0.261	-0.0167	0.0001
260	SLD 6	0.15	8.14	46.45	-0.261	-0.0167	0.0001
260	SLD 7	-0.02	-4.06	53.03	0.1383	0.1578	-0.0008
260	SLD 8	-0.02	-4.06	53.03	0.1383	0.1578	-0.0008
260	SLD 9	0.02	7.33	45.34	-0.2347	-0.1597	0.0008
260	SLD 10	0.02	7.33	45.34	-0.2347	-0.1597	0.0008
260	SLD 11	-0.15	-4.87	51.92	0.1646	0.0147	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
260	SLD 12	-0.15	-4.87	51.92	0.1646	0.0147	-0.0001
260	SLD 13	-0.2	2.11	46.35	-0.0643	-0.2655	0.0013
260	SLD 14	-0.2	2.11	46.35	-0.0643	-0.2655	0.0013
260	SLD 15	-0.25	-1.55	48.33	0.0555	-0.2132	0.0011
260	SLD 16	-0.25	-1.55	48.33	0.0555	-0.2132	0.0011
260	SLV 1	0.65	9.17	51.22	-0.2939	0.5427	-0.0027
260	SLV 2	0.65	9.17	51.22	-0.2939	0.5427	-0.0027
260	SLV 3	0.52	0.57	55.89	-0.0121	0.6767	-0.0034
260	SLV 4	0.52	0.57	55.89	-0.0121	0.6767	-0.0034
260	SLV 5	0.39	16.94	42.72	-0.5494	-0.0412	0.0002
260	SLV 6	0.39	16.94	42.72	-0.5494	-0.0412	0.0002
260	SLV 7	-0.04	-11.74	58.28	0.3901	0.4056	-0.0021
260	SLV 8	-0.04	-11.74	58.28	0.3901	0.4056	-0.0021
260	SLV 9	0.04	15	40.09	-0.4865	-0.4076	0.0021
260	SLV 10	0.04	15	40.09	-0.4865	-0.4076	0.0021
260	SLV 11	-0.39	-13.68	55.66	0.453	0.0392	-0.0002
260	SLV 12	-0.39	-13.68	55.66	0.453	0.0392	-0.0002
260	SLV 13	-0.52	2.7	42.48	-0.0843	-0.6787	0.0034
260	SLV 14	-0.52	2.7	42.48	-0.0843	-0.6787	0.0034
260	SLV 15	-0.65	-5.9	47.15	0.1975	-0.5446	0.0027
260	SLV 16	-0.65	-5.9	47.15	0.1975	-0.5446	0.0027
261	SLU 1	0	0.32	45.49	-0.0178	-0.001	0
261	SLU 2	0	0.4	45.14	-0.0205	-0.0014	0
261	SLU 3	0	0.42	47.31	-0.0233	-0.001	0
261	SLU 4	0	0.46	47.1	-0.025	-0.0012	0
261	SLU 5	0	0.56	46.51	-0.0293	-0.0013	0
261	SLU 6	0	0.58	48.68	-0.0321	-0.0008	0
261	SLU 7	0	0.63	48.48	-0.0337	-0.0011	0
261	SLU 8	0	0.65	48.23	-0.0352	-0.0008	0
261	SLU 9	0	0.69	48.02	-0.0369	-0.001	0
261	SLU 10	0	0.19	52.86	-0.0126	-0.0017	0
261	SLU 11	0	0.2	55.03	-0.0154	-0.0012	0
261	SLU 12	0	0.25	54.82	-0.0171	-0.0014	0
261	SLU 13	0	0.35	54.23	-0.0213	-0.0015	0
261	SLU 14	0	0.37	56.4	-0.0241	-0.0011	0
261	SLU 15	0	0.41	56.19	-0.0258	-0.0013	0
261	SLU 16	0	0.43	55.95	-0.0273	-0.0011	0
261	SLU 17	0	0.48	55.74	-0.029	-0.0013	0
261	SLU 18	0	0.02	56.51	-0.0065	-0.0014	0
261	SLU 19	0	0.06	56.31	-0.0081	-0.0016	0
261	SLU 20	0	0.18	57.89	-0.0152	-0.0013	0
261	SLU 21	0	0.23	57.68	-0.0168	-0.0015	0
261	SLU 22	0	0.24	52.92	-0.0158	-0.0012	0
261	SLU 23	0	0.31	52.57	-0.0186	-0.0016	0
261	SLU 24	0	0.33	54.74	-0.0214	-0.0011	0
261	SLU 25	0	0.38	54.53	-0.023	-0.0013	0
261	SLU 26	0	0.48	53.94	-0.0273	-0.0014	0
261	SLU 27	0	0.49	56.11	-0.0301	-0.001	0
261	SLU 28	0	0.54	55.9	-0.0318	-0.0012	0
261	SLU 29	0	0.56	55.66	-0.0333	-0.001	0
261	SLU 30	0	0.61	55.45	-0.0349	-0.0012	0
261	SLU 31	0	0.1	60.29	-0.0107	-0.0018	0
261	SLU 32	0	0.12	62.46	-0.0135	-0.0014	0
261	SLU 33	0	0.16	62.25	-0.0151	-0.0016	0
261	SLU 34	0	0.26	61.66	-0.0194	-0.0017	0
261	SLU 35	0	0.28	63.83	-0.0222	-0.0013	0
261	SLU 36	0	0.33	63.62	-0.0238	-0.0015	0
261	SLU 37	0	0.35	63.38	-0.0253	-0.0012	0
261	SLU 38	0	0.39	63.17	-0.027	-0.0014	0
261	SLU 39	0	-0.07	63.94	-0.0045	-0.0016	0
261	SLU 40	0	-0.02	63.73	-0.0062	-0.0018	0
261	SLU 41	0	0.09	65.31	-0.0132	-0.0014	0
261	SLU 42	0	0.14	65.1	-0.0149	-0.0017	0
261	SLU 43	0	0.45	56.59	-0.0238	-0.0013	0
261	SLU 44	0	0.53	56.24	-0.0266	-0.0017	0
261	SLU 45	0	0.55	58.41	-0.0293	-0.0012	0
261	SLU 46	0	0.59	58.2	-0.031	-0.0014	0
261	SLU 47	0	0.69	57.61	-0.0353	-0.0015	0
261	SLU 48	0	0.71	59.78	-0.0381	-0.0011	0
261	SLU 49	0	0.75	59.57	-0.0397	-0.0013	0
261	SLU 50	0	0.77	59.33	-0.0412	-0.0011	0
261	SLU 51	0	0.82	59.12	-0.0429	-0.0013	0
261	SLU 52	0	0.31	63.96	-0.0186	-0.0019	0
261	SLU 53	0	0.33	66.13	-0.0214	-0.0015	0
261	SLU 54	0	0.38	65.92	-0.0231	-0.0017	0
261	SLU 55	0	0.47	65.33	-0.0274	-0.0018	0
261	SLU 56	0	0.49	67.5	-0.0301	-0.0014	0
261	SLU 57	0	0.54	67.29	-0.0318	-0.0016	0
261	SLU 58	0	0.56	67.05	-0.0333	-0.0013	0
261	SLU 59	0	0.61	66.84	-0.035	-0.0015	0
261	SLU 60	0	0.14	67.61	-0.0125	-0.0017	0
261	SLU 61	0	0.19	67.41	-0.0141	-0.0019	0
261	SLU 62	0	0.31	68.99	-0.0212	-0.0015	0
261	SLU 63	0	0.35	68.78	-0.0229	-0.0018	0
261	SLU 64	0	0.36	64.01	-0.0218	-0.0015	0
261	SLU 65	0	0.44	63.67	-0.0246	-0.0018	0
261	SLU 66	0	0.46	65.84	-0.0274	-0.0014	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
261	SLU 67	0	0.5	65.63	-0.029	-0.0016	0
261	SLU 68	0	0.6	65.04	-0.0333	-0.0017	0
261	SLU 69	0	0.62	67.21	-0.0361	-0.0013	0
261	SLU 70	0	0.67	67	-0.0378	-0.0015	0
261	SLU 71	0	0.69	66.76	-0.0393	-0.0012	0
261	SLU 72	0	0.73	66.55	-0.0409	-0.0014	0
261	SLU 73	0	0.23	71.39	-0.0167	-0.0021	0
261	SLU 74	0	0.24	73.56	-0.0195	-0.0016	0
261	SLU 75	0	0.29	73.35	-0.0211	-0.0018	0
261	SLU 76	0	0.39	72.76	-0.0254	-0.002	0
261	SLU 77	0	0.41	74.93	-0.0282	-0.0015	0
261	SLU 78	0	0.45	74.72	-0.0298	-0.0017	0
261	SLU 79	0	0.47	74.47	-0.0313	-0.0015	0
261	SLU 80	0	0.52	74.27	-0.033	-0.0017	0
261	SLU 81	0	0.06	75.04	-0.0105	-0.0018	0
261	SLU 82	0	0.1	74.83	-0.0122	-0.002	0
261	SLU 83	0	0.22	76.41	-0.0192	-0.0017	0
261	SLU 84	0	0.27	76.2	-0.0209	-0.0019	0
261	SLE RA 1	0	0.3	47.61	-0.0172	-0.0011	0
261	SLE RA 2	0	0.35	47.38	-0.0191	-0.0013	0
261	SLE RA 3	0	0.36	48.83	-0.0209	-0.001	0
261	SLE RA 4	0	0.39	48.69	-0.022	-0.0012	0
261	SLE RA 5	0	0.46	48.29	-0.0249	-0.0012	0
261	SLE RA 6	0	0.47	49.74	-0.0267	-0.001	0
261	SLE RA 7	0	0.5	49.6	-0.0278	-0.0011	0
261	SLE RA 8	0	0.51	49.44	-0.0288	-0.0009	0
261	SLE RA 9	0	0.55	49.3	-0.03	-0.0011	0
261	SLE RA 10	0	0.21	52.52	-0.0138	-0.0015	0
261	SLE RA 11	0	0.22	53.97	-0.0156	-0.0012	0
261	SLE RA 12	0	0.25	53.83	-0.0167	-0.0013	0
261	SLE RA 13	0	0.31	53.44	-0.0196	-0.0014	0
261	SLE RA 14	0	0.33	54.89	-0.0215	-0.0011	0
261	SLE RA 15	0	0.36	54.75	-0.0226	-0.0013	0
261	SLE RA 16	0	0.37	54.58	-0.0236	-0.0011	0
261	SLE RA 17	0	0.4	54.44	-0.0247	-0.0012	0
261	SLE RA 18	0	0.09	54.96	-0.0097	-0.0013	0
261	SLE RA 19	0	0.12	54.82	-0.0108	-0.0015	0
261	SLE RA 20	0	0.2	55.87	-0.0155	-0.0013	0
261	SLE RA 21	0	0.23	55.74	-0.0166	-0.0014	0
261	SLE FR 1	0	0.3	47.61	-0.0172	-0.0011	0
261	SLE FR 2	0	0.31	47.56	-0.0176	-0.0011	0
261	SLE FR 3	0	0.34	47.98	-0.0195	-0.0011	0
261	SLE FR 4	0	0.25	49.77	-0.0153	-0.0012	0
261	SLE FR 5	0	0.28	50.18	-0.0173	-0.0011	0
261	SLE FR 6	0	0.2	51.29	-0.0134	-0.0012	0
261	SLE QP 1	0	0.3	47.61	-0.0172	-0.0011	0
261	SLE QP 2	0	0.24	49.82	-0.015	-0.0012	0
261	SLD 1	0.27	0.02	51.02	-0.0103	0.2633	-0.0001
261	SLD 2	0.27	0.02	51.02	-0.0103	0.2633	-0.0001
261	SLD 3	0.23	-4.47	53.45	0.1991	0.2284	-0.0001
261	SLD 4	0.23	-4.47	53.45	0.1991	0.2284	-0.0001
261	SLD 5	0.13	6.99	46.5	-0.3311	0.1311	-0.0001
261	SLD 6	0.13	6.99	46.5	-0.3311	0.1311	-0.0001
261	SLD 7	0.01	-7.99	54.58	0.3668	0.0148	0
261	SLD 8	0.01	-7.99	54.58	0.3668	0.0148	0
261	SLD 9	-0.02	8.47	45.05	-0.3967	-0.0171	0
261	SLD 10	-0.02	8.47	45.05	-0.3967	-0.0171	0
261	SLD 11	-0.13	-6.51	53.13	0.3012	-0.1334	0.0001
261	SLD 12	-0.13	-6.51	53.13	0.3012	-0.1334	0.0001
261	SLD 13	-0.23	4.95	46.19	-0.229	-0.2308	0.0001
261	SLD 14	-0.23	4.95	46.19	-0.229	-0.2308	0.0001
261	SLD 15	-0.27	0.45	48.61	-0.0196	-0.2657	0.0001
261	SLD 16	-0.27	0.45	48.61	-0.0196	-0.2657	0.0001
261	SLV 1	0.68	-0.29	52.61	-0.003	0.677	-0.0003
261	SLV 2	0.68	-0.29	52.61	-0.003	0.677	-0.0003
261	SLV 3	0.59	-10.88	58.36	0.4906	0.5876	-0.0002
261	SLV 4	0.59	-10.88	58.36	0.4906	0.5876	-0.0002
261	SLV 5	0.34	16.15	41.93	-0.76	0.3379	-0.0001
261	SLV 6	0.34	16.15	41.93	-0.76	0.3379	-0.0001
261	SLV 7	0.04	-19.17	61.1	0.8853	0.0398	0
261	SLV 8	0.04	-19.17	61.1	0.8853	0.0398	0
261	SLV 9	-0.04	19.64	38.53	-0.9152	-0.0421	0
261	SLV 10	-0.04	19.64	38.53	-0.9152	-0.0421	0
261	SLV 11	-0.34	-15.68	57.7	0.7301	-0.3403	0.0001
261	SLV 12	-0.34	-15.68	57.7	0.7301	-0.3403	0.0001
261	SLV 13	-0.59	11.36	41.27	-0.5205	-0.5899	0.0002
261	SLV 14	-0.59	11.36	41.27	-0.5205	-0.5899	0.0002
261	SLV 15	-0.68	0.76	47.02	-0.0269	-0.6793	0.0003
261	SLV 16	-0.68	0.76	47.02	-0.0269	-0.6793	0.0003
262	SLU 1	0.01	1.75	32.85	-0.0424	0.001	0
262	SLU 2	0.01	1.75	32.83	-0.0423	0.001	0
262	SLU 3	0.01	1.55	32.36	-0.0327	0.0012	0
262	SLU 4	0.01	1.55	32.35	-0.0326	0.0011	0
262	SLU 5	0.01	1.46	31.67	-0.0296	0.0012	0
262	SLU 6	0.01	1.27	31.19	-0.02	0.0014	0
262	SLU 7	0.01	1.26	31.19	-0.0199	0.0014	0
262	SLU 8	0.01	1.18	30.51	-0.017	0.0015	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
262	SLU 9	0.01	1.18	30.5	-0.0169	0.0015	0
262	SLU 10	0.01	1.99	38.57	-0.0487	0.0019	0
262	SLU 11	0.01	1.79	38.09	-0.0391	0.0021	0
262	SLU 12	0.01	1.79	38.09	-0.039	0.0021	0
262	SLU 13	0.01	1.71	37.4	-0.036	0.0022	0
262	SLU 14	0.01	1.51	36.93	-0.0264	0.0024	0
262	SLU 15	0.01	1.51	36.92	-0.0263	0.0023	0
262	SLU 16	0.01	1.43	36.24	-0.0234	0.0024	0
262	SLU 17	0.01	1.42	36.24	-0.0233	0.0024	0
262	SLU 18	0.01	2.1	41.03	-0.0515	0.0024	0
262	SLU 19	0.01	2.1	41.03	-0.0515	0.0024	0
262	SLU 20	0.01	1.81	39.87	-0.0388	0.0026	0
262	SLU 21	0.01	1.81	39.86	-0.0388	0.0026	0
262	SLU 22	0.01	1.87	37.46	-0.0433	0.0017	0
262	SLU 23	0.01	1.87	37.44	-0.0432	0.0017	0
262	SLU 24	0.01	1.67	36.97	-0.0336	0.0019	0
262	SLU 25	0.01	1.67	36.96	-0.0335	0.0019	0
262	SLU 26	0.01	1.58	36.28	-0.0305	0.0019	0
262	SLU 27	0.01	1.39	35.8	-0.0209	0.0021	0
262	SLU 28	0.01	1.38	35.8	-0.0208	0.0021	0
262	SLU 29	0.01	1.3	35.12	-0.0179	0.0022	0
262	SLU 30	0.01	1.3	35.11	-0.0178	0.0022	0
262	SLU 31	0.01	2.11	43.18	-0.0495	0.0027	0
262	SLU 32	0.01	1.91	42.7	-0.04	0.0028	0
262	SLU 33	0.01	1.91	42.7	-0.0399	0.0028	0
262	SLU 34	0.01	1.82	42.01	-0.0368	0.0029	0
262	SLU 35	0.01	1.63	41.54	-0.0273	0.0031	0
262	SLU 36	0.01	1.63	41.53	-0.0272	0.003	0
262	SLU 37	0.01	1.54	40.85	-0.0243	0.0032	0
262	SLU 38	0.01	1.54	40.85	-0.0242	0.0031	0
262	SLU 39	0.01	2.22	45.64	-0.0524	0.0031	0
262	SLU 40	0.01	2.21	45.64	-0.0523	0.0031	0
262	SLU 41	0.01	1.93	44.48	-0.0397	0.0033	0
262	SLU 42	0.01	1.93	44.47	-0.0396	0.0033	0
262	SLU 43	0.01	2.24	41.12	-0.0549	0.0011	0
262	SLU 44	0.01	2.23	41.11	-0.0547	0.001	0
262	SLU 45	0.01	2.04	40.63	-0.0452	0.0012	0
262	SLU 46	0.01	2.03	40.63	-0.0451	0.0012	0
262	SLU 47	0.01	1.95	39.94	-0.042	0.0013	0
262	SLU 48	0.01	1.75	39.47	-0.0325	0.0015	0
262	SLU 49	0.01	1.75	39.46	-0.0324	0.0014	0
262	SLU 50	0.01	1.67	38.78	-0.0295	0.0015	0
262	SLU 51	0.01	1.67	38.78	-0.0294	0.0015	0
262	SLU 52	0.01	2.47	46.84	-0.0611	0.002	0
262	SLU 53	0.01	2.28	46.37	-0.0515	0.0022	0
262	SLU 54	0.01	2.28	46.36	-0.0515	0.0022	0
262	SLU 55	0.01	2.19	45.67	-0.0484	0.0022	0
262	SLU 56	0.01	1.99	45.2	-0.0388	0.0024	0
262	SLU 57	0.01	1.99	45.19	-0.0388	0.0024	0
262	SLU 58	0.01	1.91	44.52	-0.0358	0.0025	0
262	SLU 59	0.01	1.91	44.51	-0.0358	0.0025	0
262	SLU 60	0.01	2.58	49.31	-0.064	0.0024	0.0001
262	SLU 61	0.01	2.58	49.3	-0.0639	0.0024	0.0001
262	SLU 62	0.01	2.3	48.14	-0.0513	0.0027	0.0001
262	SLU 63	0.01	2.3	48.13	-0.0512	0.0027	0.0001
262	SLU 64	0.01	2.36	45.73	-0.0557	0.0018	0
262	SLU 65	0.01	2.35	45.72	-0.0556	0.0018	0
262	SLU 66	0.01	2.15	45.24	-0.046	0.0019	0
262	SLU 67	0.01	2.15	45.24	-0.0459	0.0019	0
262	SLU 68	0.01	2.07	44.55	-0.0429	0.002	0
262	SLU 69	0.01	1.87	44.08	-0.0333	0.0022	0
262	SLU 70	0.01	1.87	44.07	-0.0332	0.0022	0
262	SLU 71	0.01	1.79	43.39	-0.0303	0.0023	0
262	SLU 72	0.01	1.78	43.39	-0.0302	0.0022	0
262	SLU 73	0.01	2.59	51.45	-0.062	0.0027	0.0001
262	SLU 74	0.01	2.4	50.98	-0.0524	0.0029	0.0001
262	SLU 75	0.01	2.39	50.97	-0.0523	0.0029	0.0001
262	SLU 76	0.01	2.31	50.28	-0.0493	0.003	0.0001
262	SLU 77	0.01	2.11	49.81	-0.0397	0.0031	0.0001
262	SLU 78	0.01	2.11	49.8	-0.0396	0.0031	0.0001
262	SLU 79	0.01	2.03	49.13	-0.0367	0.0032	0.0001
262	SLU 80	0.01	2.03	49.12	-0.0366	0.0032	0.0001
262	SLU 81	0.01	2.7	53.92	-0.0648	0.0032	0.0001
262	SLU 82	0.01	2.7	53.91	-0.0648	0.0031	0.0001
262	SLU 83	0.01	2.42	52.75	-0.0521	0.0034	0.0001
262	SLU 84	0.01	2.41	52.74	-0.0521	0.0034	0.0001
262	SLE RA 1	0.01	1.79	34.16	-0.0427	0.0012	0
262	SLE RA 2	0.01	1.78	34.16	-0.0426	0.0012	0
262	SLE RA 3	0.01	1.65	33.84	-0.0362	0.0013	0
262	SLE RA 4	0.01	1.65	33.84	-0.0362	0.0013	0
262	SLE RA 5	0.01	1.59	33.38	-0.0341	0.0014	0
262	SLE RA 6	0.01	1.46	33.06	-0.0277	0.0015	0
262	SLE RA 7	0.01	1.46	33.06	-0.0277	0.0015	0
262	SLE RA 8	0.01	1.41	32.61	-0.0257	0.0015	0
262	SLE RA 9	0.01	1.41	32.6	-0.0257	0.0015	0
262	SLE RA 10	0.01	1.94	37.98	-0.0468	0.0018	0
262	SLE RA 11	0.01	1.81	37.66	-0.0405	0.002	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
262	SLE RA 12	0.01	1.81	37.66	-0.0404	0.0019	0
262	SLE RA 13	0.01	1.75	37.2	-0.0384	0.002	0
262	SLE RA 14	0.01	1.62	36.88	-0.032	0.0021	0
262	SLE RA 15	0.01	1.62	36.88	-0.0319	0.0021	0
262	SLE RA 16	0.01	1.57	36.43	-0.03	0.0022	0
262	SLE RA 17	0.01	1.57	36.42	-0.0299	0.0022	0
262	SLE RA 18	0.01	2.02	39.62	-0.0488	0.0021	0
262	SLE RA 19	0.01	2.01	39.62	-0.0487	0.0021	0
262	SLE RA 20	0.01	1.83	38.84	-0.0403	0.0023	0
262	SLE RA 21	0.01	1.83	38.84	-0.0402	0.0023	0
262	SLE FR 1	0.01	1.79	34.16	-0.0427	0.0012	0
262	SLE FR 2	0.01	1.79	34.16	-0.0427	0.0012	0
262	SLE FR 3	0.01	1.71	33.85	-0.0393	0.0013	0
262	SLE FR 4	0.01	1.85	35.8	-0.0445	0.0015	0
262	SLE FR 5	0.01	1.78	35.49	-0.0411	0.0016	0
262	SLE FR 6	0.01	1.9	36.89	-0.0457	0.0017	0
262	SLE QP 1	0.01	1.79	34.16	-0.0427	0.0012	0
262	SLE QP 2	0.01	1.85	35.8	-0.0445	0.0015	0
262	SLD 1	0.03	4.95	40	-0.1677	-0.0228	0.0001
262	SLD 2	0.03	4.95	40	-0.1677	-0.0228	0.0001
262	SLD 3	0.06	1.38	36.4	-0.0227	-0.0115	0.0001
262	SLD 4	0.06	1.38	36.4	-0.0227	-0.0115	0.0001
262	SLD 5	-0.03	8.19	42.51	-0.3014	-0.0228	0.0001
262	SLD 6	-0.03	8.19	42.51	-0.3014	-0.0228	0.0001
262	SLD 7	0.07	-3.7	30.53	0.182	0.0146	0
262	SLD 8	0.07	-3.7	30.53	0.182	0.0146	0
262	SLD 9	-0.06	7.41	41.07	-0.271	-0.0116	0.0001
262	SLD 10	-0.06	7.41	41.07	-0.271	-0.0116	0.0001
262	SLD 11	0.04	-4.48	29.09	0.2124	0.0258	0
262	SLD 12	0.04	-4.48	29.09	0.2124	0.0258	0
262	SLD 13	-0.05	2.33	35.2	-0.0663	0.0145	0
262	SLD 14	-0.05	2.33	35.2	-0.0663	0.0145	0
262	SLD 15	-0.02	-1.24	31.6	0.0787	0.0258	0
262	SLD 16	-0.02	-1.24	31.6	0.0787	0.0258	0
262	SLV 1	0.07	9.12	45.81	-0.3345	-0.0592	0.0002
262	SLV 2	0.07	9.12	45.81	-0.3345	-0.0592	0.0002
262	SLV 3	0.14	0.72	37.11	0.0075	-0.0305	0.0001
262	SLV 4	0.14	0.72	37.11	0.0075	-0.0305	0.0001
262	SLV 5	-0.09	16.79	52	-0.6502	-0.0602	0.0002
262	SLV 6	-0.09	16.79	52	-0.6502	-0.0602	0.0002
262	SLV 7	0.16	-11.24	23	0.4898	0.0354	0
262	SLV 8	0.16	-11.24	23	0.4898	0.0354	0
262	SLV 9	-0.15	14.95	48.6	-0.5788	-0.0324	0.0001
262	SLV 10	-0.15	14.95	48.6	-0.5788	-0.0324	0.0001
262	SLV 11	0.1	-13.08	19.6	0.5612	0.0632	-0.0001
262	SLV 12	0.1	-13.08	19.6	0.5612	0.0632	-0.0001
262	SLV 13	-0.13	2.99	34.49	-0.0965	0.0335	-0.0001
262	SLV 14	-0.13	2.99	34.49	-0.0965	0.0335	-0.0001
262	SLV 15	-0.05	-5.41	25.79	0.2455	0.0622	-0.0001
262	SLV 16	-0.05	-5.41	25.79	0.2455	0.0622	-0.0001
263	SLU 1	-0.01	1.78	30.41	0.0622	-0.0038	-0.0001
263	SLU 2	-0.01	1.79	30.46	0.0614	-0.0038	-0.0001
263	SLU 3	-0.01	1.51	29.61	0.0826	-0.0037	-0.0001
263	SLU 4	-0.01	1.51	29.64	0.0821	-0.0037	-0.0001
263	SLU 5	-0.01	1.42	28.93	0.0844	-0.0036	-0.0001
263	SLU 6	-0.01	1.14	28.08	0.1056	-0.0036	-0.0001
263	SLU 7	-0.01	1.14	28.11	0.1051	-0.0036	-0.0001
263	SLU 8	-0.01	1.05	27.35	0.1083	-0.0035	-0.0001
263	SLU 9	-0.01	1.05	27.38	0.1078	-0.0035	-0.0001
263	SLU 10	-0.02	2.1	35.75	0.07	-0.0045	-0.0001
263	SLU 11	-0.02	1.82	34.9	0.0912	-0.0045	-0.0001
263	SLU 12	-0.02	1.82	34.93	0.0907	-0.0044	-0.0001
263	SLU 13	-0.02	1.73	34.22	0.093	-0.0044	-0.0001
263	SLU 14	-0.02	1.45	33.37	0.1142	-0.0043	-0.0001
263	SLU 15	-0.02	1.46	33.4	0.1137	-0.0043	-0.0001
263	SLU 16	-0.02	1.36	32.63	0.1169	-0.0042	-0.0001
263	SLU 17	-0.02	1.36	32.67	0.1164	-0.0042	-0.0001
263	SLU 18	-0.02	2.23	37.96	0.0745	-0.0048	-0.0001
263	SLU 19	-0.02	2.23	37.99	0.074	-0.0048	-0.0001
263	SLU 20	-0.02	1.86	36.43	0.0976	-0.0047	-0.0001
263	SLU 21	-0.02	1.86	36.46	0.0971	-0.0047	-0.0001
263	SLU 22	-0.02	1.91	33.94	0.0799	-0.0043	-0.0001
263	SLU 23	-0.02	1.92	33.99	0.0791	-0.0043	-0.0001
263	SLU 24	-0.02	1.64	33.14	0.1003	-0.0042	-0.0001
263	SLU 25	-0.02	1.64	33.17	0.0997	-0.0042	-0.0001
263	SLU 26	-0.02	1.55	32.46	0.1021	-0.0041	-0.0001
263	SLU 27	-0.02	1.27	31.61	0.1233	-0.0041	-0.0001
263	SLU 28	-0.02	1.27	31.64	0.1228	-0.0041	-0.0001
263	SLU 29	-0.02	1.17	30.88	0.1259	-0.004	-0.0001
263	SLU 30	-0.01	1.18	30.91	0.1254	-0.004	-0.0001
263	SLU 31	-0.02	2.23	39.28	0.0877	-0.005	-0.0001
263	SLU 32	-0.02	1.95	38.43	0.1089	-0.005	-0.0001
263	SLU 33	-0.02	1.95	38.46	0.1084	-0.005	-0.0001
263	SLU 34	-0.02	1.86	37.75	0.1107	-0.0049	-0.0001
263	SLU 35	-0.02	1.58	36.9	0.1319	-0.0048	-0.0001
263	SLU 36	-0.02	1.58	36.93	0.1314	-0.0048	-0.0001
263	SLU 37	-0.02	1.49	36.17	0.1346	-0.0047	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
263	SLU 38	-0.02	1.49	36.2	0.1341	-0.0047	-0.0001
263	SLU 39	-0.02	2.36	41.49	0.0922	-0.0053	-0.0001
263	SLU 40	-0.02	2.36	41.52	0.0917	-0.0053	-0.0001
263	SLU 41	-0.02	1.99	39.96	0.1152	-0.0052	-0.0001
263	SLU 42	-0.02	1.99	39.99	0.1147	-0.0052	-0.0001
263	SLU 43	-0.02	2.28	38.32	0.0748	-0.0048	-0.0001
263	SLU 44	-0.02	2.28	38.37	0.074	-0.0048	-0.0001
263	SLU 45	-0.02	2	37.52	0.0952	-0.0047	-0.0001
263	SLU 46	-0.02	2.01	37.55	0.0947	-0.0047	-0.0001
263	SLU 47	-0.02	1.92	36.84	0.097	-0.0046	-0.0001
263	SLU 48	-0.02	1.63	35.99	0.1182	-0.0045	-0.0001
263	SLU 49	-0.02	1.64	36.02	0.1177	-0.0045	-0.0001
263	SLU 50	-0.02	1.54	35.26	0.1209	-0.0045	-0.0001
263	SLU 51	-0.02	1.54	35.29	0.1204	-0.0045	-0.0001
263	SLU 52	-0.02	2.59	43.66	0.0826	-0.0055	-0.0001
263	SLU 53	-0.02	2.31	42.81	0.1038	-0.0054	-0.0001
263	SLU 54	-0.02	2.32	42.84	0.1033	-0.0054	-0.0001
263	SLU 55	-0.02	2.23	42.13	0.1056	-0.0053	-0.0001
263	SLU 56	-0.02	1.94	41.28	0.1268	-0.0053	-0.0001
263	SLU 57	-0.02	1.95	41.31	0.1263	-0.0053	-0.0001
263	SLU 58	-0.02	1.85	40.55	0.1295	-0.0052	-0.0001
263	SLU 59	-0.02	1.85	40.58	0.129	-0.0052	-0.0001
263	SLU 60	-0.02	2.72	45.87	0.0872	-0.0058	-0.0001
263	SLU 61	-0.02	2.72	45.9	0.0866	-0.0058	-0.0001
263	SLU 62	-0.02	2.35	44.34	0.1102	-0.0056	-0.0001
263	SLU 63	-0.02	2.36	44.37	0.1097	-0.0056	-0.0001
263	SLU 64	-0.02	2.4	41.85	0.0925	-0.0053	-0.0001
263	SLU 65	-0.02	2.41	41.9	0.0917	-0.0053	-0.0001
263	SLU 66	-0.02	2.13	41.05	0.1129	-0.0052	-0.0001
263	SLU 67	-0.02	2.13	41.08	0.1124	-0.0052	-0.0001
263	SLU 68	-0.02	2.04	40.37	0.1147	-0.0051	-0.0001
263	SLU 69	-0.02	1.76	39.52	0.1359	-0.0051	-0.0001
263	SLU 70	-0.02	1.76	39.55	0.1354	-0.005	-0.0001
263	SLU 71	-0.02	1.67	38.79	0.1386	-0.005	-0.0001
263	SLU 72	-0.02	1.67	38.82	0.138	-0.005	-0.0001
263	SLU 73	-0.02	2.72	47.19	0.1003	-0.006	-0.0001
263	SLU 74	-0.02	2.44	46.34	0.1215	-0.0059	-0.0001
263	SLU 75	-0.02	2.44	46.37	0.121	-0.0059	-0.0001
263	SLU 76	-0.02	2.35	45.66	0.1233	-0.0058	-0.0001
263	SLU 77	-0.02	2.07	44.81	0.1445	-0.0058	-0.0001
263	SLU 78	-0.02	2.07	44.84	0.144	-0.0058	-0.0001
263	SLU 79	-0.02	1.98	44.08	0.1472	-0.0057	-0.0001
263	SLU 80	-0.02	1.98	44.11	0.1467	-0.0057	-0.0001
263	SLU 81	-0.02	2.85	49.4	0.1048	-0.0063	-0.0001
263	SLU 82	-0.02	2.85	49.43	0.1043	-0.0063	-0.0001
263	SLU 83	-0.02	2.48	47.87	0.1279	-0.0062	-0.0001
263	SLU 84	-0.02	2.48	47.91	0.1273	-0.0061	-0.0001
263	SLE RA 1	-0.01	1.82	31.42	0.0673	-0.0039	-0.0001
263	SLE RA 2	-0.01	1.83	31.45	0.0667	-0.0039	-0.0001
263	SLE RA 3	-0.01	1.64	30.88	0.0808	-0.0039	-0.0001
263	SLE RA 4	-0.01	1.64	30.91	0.0805	-0.0039	-0.0001
263	SLE RA 5	-0.01	1.58	30.43	0.0821	-0.0038	-0.0001
263	SLE RA 6	-0.01	1.39	29.86	0.0962	-0.0038	-0.0001
263	SLE RA 7	-0.01	1.39	29.89	0.0958	-0.0038	-0.0001
263	SLE RA 8	-0.01	1.33	29.38	0.098	-0.0037	-0.0001
263	SLE RA 9	-0.01	1.33	29.4	0.0976	-0.0037	-0.0001
263	SLE RA 10	-0.02	2.03	34.98	0.0725	-0.0044	-0.0001
263	SLE RA 11	-0.02	1.84	34.41	0.0866	-0.0044	-0.0001
263	SLE RA 12	-0.02	1.85	34.43	0.0863	-0.0044	-0.0001
263	SLE RA 13	-0.02	1.79	33.96	0.0878	-0.0043	-0.0001
263	SLE RA 14	-0.02	1.6	33.39	0.1019	-0.0043	-0.0001
263	SLE RA 15	-0.02	1.6	33.41	0.1016	-0.0043	-0.0001
263	SLE RA 16	-0.02	1.54	32.9	0.1037	-0.0042	-0.0001
263	SLE RA 17	-0.02	1.54	32.92	0.1034	-0.0042	-0.0001
263	SLE RA 18	-0.02	2.12	36.45	0.0755	-0.0046	-0.0001
263	SLE RA 19	-0.02	2.12	36.47	0.0752	-0.0046	-0.0001
263	SLE RA 20	-0.02	1.87	35.43	0.0908	-0.0045	-0.0001
263	SLE RA 21	-0.02	1.87	35.45	0.0905	-0.0045	-0.0001
263	SLE FR 1	-0.01	1.82	31.42	0.0673	-0.0039	-0.0001
263	SLE FR 2	-0.01	1.82	31.42	0.0672	-0.0039	-0.0001
263	SLE FR 3	-0.01	1.72	31.01	0.0734	-0.0039	-0.0001
263	SLE FR 4	-0.02	1.91	32.93	0.0696	-0.0042	-0.0001
263	SLE FR 5	-0.02	1.81	32.52	0.0759	-0.0041	-0.0001
263	SLE FR 6	-0.02	1.97	33.93	0.0714	-0.0043	-0.0001
263	SLE QP 1	-0.01	1.82	31.42	0.0673	-0.0039	-0.0001
263	SLE QP 2	-0.02	1.91	32.93	0.0697	-0.0042	-0.0001
263	SLD 1	0.04	2.78	31.9	0.026	-0.0163	0
263	SLD 2	0.04	2.78	31.9	0.026	-0.0163	0
263	SLD 3	0	-0.94	28.73	0.1911	-0.0291	0
263	SLD 4	0	-0.94	28.73	0.1911	-0.0291	0
263	SLD 5	0.06	7.82	37.43	-0.1938	0.0115	-0.0001
263	SLD 6	0.06	7.82	37.43	-0.1938	0.0115	-0.0001
263	SLD 7	-0.07	-4.59	26.85	0.3566	-0.031	0
263	SLD 8	-0.07	-4.59	26.85	0.3566	-0.031	0
263	SLD 9	0.04	8.41	39	-0.2171	0.0227	-0.0001
263	SLD 10	0.04	8.41	39	-0.2171	0.0227	-0.0001
263	SLD 11	-0.09	-4	28.42	0.3333	-0.0198	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
263	SLD 12	-0.09	-4	28.42	0.3333	-0.0198	0
263	SLD 13	-0.03	4.76	37.12	-0.0516	0.0208	-0.0001
263	SLD 14	-0.03	4.76	37.12	-0.0516	0.0208	-0.0001
263	SLD 15	-0.07	1.04	33.95	0.1135	0.008	-0.0001
263	SLD 16	-0.07	1.04	33.95	0.1135	0.008	-0.0001
263	SLV 1	0.12	3.93	30.64	-0.0323	-0.0347	0
263	SLV 2	0.12	3.93	30.64	-0.0323	-0.0347	0
263	SLV 3	0.03	-4.82	22.98	0.357	-0.067	0.0001
263	SLV 4	0.03	-4.82	22.98	0.357	-0.067	0.0001
263	SLV 5	0.17	15.79	43.85	-0.5513	0.0356	-0.0002
263	SLV 6	0.17	15.79	43.85	-0.5513	0.0356	-0.0002
263	SLV 7	-0.14	-13.39	18.33	0.7464	-0.072	0.0001
263	SLV 8	-0.14	-13.39	18.33	0.7464	-0.072	0.0001
263	SLV 9	0.11	17.21	47.52	-0.6069	0.0637	-0.0002
263	SLV 10	0.11	17.21	47.52	-0.6069	0.0637	-0.0002
263	SLV 11	-0.2	-11.97	22	0.6908	-0.0439	0.0001
263	SLV 12	-0.2	-11.97	22	0.6908	-0.0439	0.0001
263	SLV 13	-0.06	8.64	42.87	-0.2175	0.0587	-0.0002
263	SLV 14	-0.06	8.64	42.87	-0.2175	0.0587	-0.0002
263	SLV 15	-0.15	-0.11	35.21	0.1718	0.0264	-0.0001
263	SLV 16	-0.15	-0.11	35.21	0.1718	0.0264	-0.0001
264	SLU 1	0.02	-3.21	53.26	0.0953	0.0185	-0.0001
264	SLU 2	0.01	-2.6	51.8	0.0749	0.0059	-0.0001
264	SLU 3	0.02	-3.36	54.33	0.0993	0.0192	-0.0001
264	SLU 4	0.02	-2.99	53.45	0.0871	0.0117	-0.0001
264	SLU 5	0.01	-2.69	52.21	0.0772	0.0065	-0.0001
264	SLU 6	0.02	-3.45	54.74	0.1015	0.0198	-0.0001
264	SLU 7	0.02	-3.08	53.86	0.0893	0.0123	-0.0001
264	SLU 8	0.02	-3.39	54.08	0.0997	0.0196	-0.0001
264	SLU 9	0.02	-3.02	53.2	0.0875	0.0121	-0.0001
264	SLU 10	0.02	-3.14	57.87	0.091	0.0085	-0.0001
264	SLU 11	0.02	-3.91	60.4	0.1153	0.0218	-0.0002
264	SLU 12	0.02	-3.54	59.52	0.1031	0.0142	-0.0001
264	SLU 13	0.02	-3.23	58.28	0.0932	0.009	-0.0001
264	SLU 14	0.02	-4	60.81	0.1175	0.0223	-0.0002
264	SLU 15	0.02	-3.63	59.93	0.1054	0.0148	-0.0001
264	SLU 16	0.02	-3.94	60.15	0.1158	0.0222	-0.0002
264	SLU 17	0.02	-3.57	59.27	0.1036	0.0146	-0.0001
264	SLU 18	0.02	-3.99	61.93	0.1182	0.0221	-0.0002
264	SLU 19	0.02	-3.62	61.05	0.106	0.0146	-0.0001
264	SLU 20	0.03	-4.08	62.34	0.1204	0.0227	-0.0002
264	SLU 21	0.02	-3.71	61.46	0.1082	0.0151	-0.0001
264	SLU 22	0.02	-3.76	59.1	0.1113	0.0211	-0.0002
264	SLU 23	0.02	-3.15	57.63	0.091	0.0086	-0.0001
264	SLU 24	0.02	-3.91	60.16	0.1153	0.0219	-0.0002
264	SLU 25	0.02	-3.54	59.28	0.1031	0.0144	-0.0001
264	SLU 26	0.02	-3.24	58.04	0.0932	0.0092	-0.0001
264	SLU 27	0.02	-4	60.57	0.1175	0.0225	-0.0002
264	SLU 28	0.02	-3.63	59.69	0.1053	0.0149	-0.0001
264	SLU 29	0.02	-3.94	59.91	0.1157	0.0223	-0.0002
264	SLU 30	0.02	-3.57	59.03	0.1035	0.0148	-0.0001
264	SLU 31	0.02	-3.69	63.7	0.107	0.0111	-0.0001
264	SLU 32	0.03	-4.46	66.23	0.1313	0.0244	-0.0002
264	SLU 33	0.02	-4.09	65.35	0.1191	0.0169	-0.0002
264	SLU 34	0.02	-3.78	64.11	0.1092	0.0117	-0.0001
264	SLU 35	0.03	-4.55	66.64	0.1335	0.025	-0.0002
264	SLU 36	0.02	-4.18	65.76	0.1214	0.0175	-0.0002
264	SLU 37	0.03	-4.49	65.98	0.1318	0.0248	-0.0002
264	SLU 38	0.02	-4.12	65.1	0.1196	0.0173	-0.0002
264	SLU 39	0.03	-4.54	67.77	0.1342	0.0248	-0.0002
264	SLU 40	0.02	-4.17	66.89	0.122	0.0172	-0.0002
264	SLU 41	0.03	-4.63	68.17	0.1364	0.0253	-0.0002
264	SLU 42	0.02	-4.26	67.3	0.1242	0.0178	-0.0002
264	SLU 43	0.03	-3.99	67.24	0.1183	0.0231	-0.0002
264	SLU 44	0.02	-3.38	65.78	0.098	0.0105	-0.0001
264	SLU 45	0.03	-4.14	68.31	0.1223	0.0238	-0.0002
264	SLU 46	0.02	-3.77	67.43	0.1102	0.0163	-0.0001
264	SLU 47	0.02	-3.47	66.18	0.1003	0.0111	-0.0001
264	SLU 48	0.03	-4.23	68.72	0.1246	0.0244	-0.0002
264	SLU 49	0.02	-3.86	67.84	0.1124	0.0169	-0.0002
264	SLU 50	0.03	-4.17	68.06	0.1228	0.0243	-0.0002
264	SLU 51	0.02	-3.8	67.18	0.1106	0.0167	-0.0002
264	SLU 52	0.02	-3.92	71.84	0.1141	0.0131	-0.0001
264	SLU 53	0.03	-4.68	74.38	0.1384	0.0264	-0.0002
264	SLU 54	0.02	-4.31	73.5	0.1262	0.0189	-0.0002
264	SLU 55	0.02	-4.01	72.25	0.1163	0.0137	-0.0001
264	SLU 56	0.03	-4.77	74.79	0.1406	0.027	-0.0002
264	SLU 57	0.03	-4.4	73.91	0.1284	0.0194	-0.0002
264	SLU 58	0.03	-4.71	74.13	0.1388	0.0268	-0.0002
264	SLU 59	0.02	-4.34	73.25	0.1267	0.0193	-0.0002
264	SLU 60	0.03	-4.77	75.91	0.1413	0.0267	-0.0002
264	SLU 61	0.02	-4.4	75.03	0.1291	0.0192	-0.0002
264	SLU 62	0.03	-4.86	76.32	0.1435	0.0273	-0.0002
264	SLU 63	0.03	-4.49	75.44	0.1313	0.0198	-0.0002
264	SLU 64	0.03	-4.54	73.07	0.1343	0.0258	-0.0002
264	SLU 65	0.02	-3.93	71.61	0.114	0.0132	-0.0001
264	SLU 66	0.03	-4.69	74.14	0.1384	0.0265	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
264	SLU 67	0.02	-4.32	73.26	0.1262	0.019	-0.0002
264	SLU 68	0.02	-4.01	72.02	0.1163	0.0138	-0.0001
264	SLU 69	0.03	-4.78	74.55	0.1406	0.0271	-0.0002
264	SLU 70	0.03	-4.41	73.67	0.1284	0.0196	-0.0002
264	SLU 71	0.03	-4.72	73.89	0.1388	0.0269	-0.0002
264	SLU 72	0.02	-4.35	73.01	0.1266	0.0194	-0.0002
264	SLU 73	0.02	-4.47	77.68	0.1301	0.0157	-0.0002
264	SLU 74	0.03	-5.23	80.21	0.1544	0.029	-0.0002
264	SLU 75	0.03	-4.86	79.33	0.1422	0.0215	-0.0002
264	SLU 76	0.02	-4.56	78.09	0.1323	0.0163	-0.0002
264	SLU 77	0.03	-5.32	80.62	0.1566	0.0296	-0.0002
264	SLU 78	0.03	-4.95	79.74	0.1444	0.0221	-0.0002
264	SLU 79	0.03	-5.26	79.96	0.1548	0.0295	-0.0002
264	SLU 80	0.03	-4.89	79.08	0.1427	0.0219	-0.0002
264	SLU 81	0.03	-5.32	81.74	0.1573	0.0294	-0.0002
264	SLU 82	0.03	-4.95	80.86	0.1451	0.0219	-0.0002
264	SLU 83	0.03	-5.41	82.15	0.1595	0.03	-0.0002
264	SLU 84	0.03	-5.04	81.27	0.1473	0.0224	-0.0002
264	SLE RA 1	0.02	-3.37	54.93	0.0998	0.0192	-0.0001
264	SLE RA 2	0.02	-2.96	53.95	0.0863	0.0109	-0.0001
264	SLE RA 3	0.02	-3.47	55.64	0.1025	0.0197	-0.0001
264	SLE RA 4	0.02	-3.22	55.05	0.0944	0.0147	-0.0001
264	SLE RA 5	0.02	-3.02	54.22	0.0878	0.0112	-0.0001
264	SLE RA 6	0.02	-3.53	55.91	0.104	0.0201	-0.0002
264	SLE RA 7	0.02	-3.28	55.33	0.0959	0.0151	-0.0001
264	SLE RA 8	0.02	-3.49	55.47	0.1028	0.02	-0.0002
264	SLE RA 9	0.02	-3.24	54.89	0.0947	0.015	-0.0001
264	SLE RA 10	0.02	-3.32	58	0.097	0.0126	-0.0001
264	SLE RA 11	0.02	-3.83	59.69	0.1132	0.0214	-0.0002
264	SLE RA 12	0.02	-3.59	59.1	0.1051	0.0164	-0.0001
264	SLE RA 13	0.02	-3.38	58.27	0.0985	0.0129	-0.0001
264	SLE RA 14	0.02	-3.89	59.96	0.1147	0.0218	-0.0002
264	SLE RA 15	0.02	-3.65	59.37	0.1066	0.0168	-0.0001
264	SLE RA 16	0.02	-3.85	59.52	0.1135	0.0217	-0.0002
264	SLE RA 17	0.02	-3.61	58.93	0.1054	0.0167	-0.0001
264	SLE RA 18	0.02	-3.89	60.71	0.1151	0.0216	-0.0002
264	SLE RA 19	0.02	-3.64	60.12	0.107	0.0166	-0.0001
264	SLE RA 20	0.02	-3.95	60.98	0.1166	0.022	-0.0002
264	SLE RA 21	0.02	-3.7	60.4	0.1085	0.017	-0.0001
264	SLE FR 1	0.02	-3.37	54.93	0.0998	0.0192	-0.0001
264	SLE FR 2	0.02	-3.29	54.73	0.0971	0.0175	-0.0001
264	SLE FR 3	0.02	-3.4	55.04	0.1004	0.0194	-0.0001
264	SLE FR 4	0.02	-3.44	56.47	0.1017	0.0183	-0.0001
264	SLE FR 5	0.02	-3.55	56.77	0.105	0.0201	-0.0002
264	SLE FR 6	0.02	-3.63	57.82	0.1075	0.0204	-0.0002
264	SLE QP 1	0.02	-3.37	54.93	0.0998	0.0192	-0.0001
264	SLE QP 2	0.02	-3.53	56.66	0.1044	0.0199	-0.0002
264	SLD 1	0.21	-0.89	40.48	0.0231	0.2027	-0.0015
264	SLD 2	0.21	-0.89	40.48	0.0231	0.2027	-0.0015
264	SLD 3	0.29	-4.07	44.7	0.1216	0.2932	-0.0021
264	SLD 4	0.29	-4.07	44.7	0.1216	0.2932	-0.0021
264	SLD 5	-0.05	2.1	45.4	-0.0694	-0.0624	0.0003
264	SLD 6	-0.05	2.1	45.4	-0.0694	-0.0624	0.0003
264	SLD 7	0.23	-8.52	59.48	0.259	0.2391	-0.0016
264	SLD 8	0.23	-8.52	59.48	0.259	0.2391	-0.0016
264	SLD 9	-0.18	1.47	53.85	-0.0502	-0.1992	0.0013
264	SLD 10	-0.18	1.47	53.85	-0.0502	-0.1992	0.0013
264	SLD 11	0.09	-9.15	67.92	0.2782	0.1023	-0.0006
264	SLD 12	0.09	-9.15	67.92	0.2782	0.1023	-0.0006
264	SLD 13	-0.25	-2.98	68.62	0.0872	-0.2533	0.0018
264	SLD 14	-0.25	-2.98	68.62	0.0872	-0.2533	0.0018
264	SLD 15	-0.17	-6.17	72.84	0.1857	-0.1628	0.0012
264	SLD 16	-0.17	-6.17	72.84	0.1857	-0.1628	0.0012
264	SLV 1	0.48	2.65	18.75	-0.0859	0.461	-0.0033
264	SLV 2	0.48	2.65	18.75	-0.0859	0.461	-0.0033
264	SLV 3	0.69	-4.77	28.75	0.1436	0.6915	-0.0048
264	SLV 4	0.69	-4.77	28.75	0.1436	0.6915	-0.0048
264	SLV 5	-0.16	9.58	30.13	-0.3008	-0.1973	0.0012
264	SLV 6	-0.16	9.58	30.13	-0.3008	-0.1973	0.0012
264	SLV 7	0.54	-15.15	63.45	0.4643	0.5709	-0.0038
264	SLV 8	0.54	-15.15	63.45	0.4643	0.5709	-0.0038
264	SLV 9	-0.5	8.1	49.87	-0.2555	-0.531	0.0035
264	SLV 10	-0.5	8.1	49.87	-0.2555	-0.531	0.0035
264	SLV 11	0.2	-16.63	83.2	0.5096	0.2372	-0.0015
264	SLV 12	0.2	-16.63	83.2	0.5096	0.2372	-0.0015
264	SLV 13	-0.64	-2.29	84.58	0.0652	-0.6516	0.0045
264	SLV 14	-0.64	-2.29	84.58	0.0652	-0.6516	0.0045
264	SLV 15	-0.43	-9.71	94.57	0.2947	-0.4211	0.003
264	SLV 16	-0.43	-9.71	94.57	0.2947	-0.4211	0.003
265	SLU 1	-0.14	-7.84	26.38	0.3462	-0.1026	0.0006
265	SLU 2	-0.13	-6.93	26.15	0.305	-0.09	0.0006
265	SLU 3	-0.14	-8.03	27.02	0.3541	-0.1058	0.0006
265	SLU 4	-0.14	-7.49	26.88	0.3294	-0.0982	0.0006
265	SLU 5	-0.13	-7	26.58	0.3076	-0.0921	0.0006
265	SLU 6	-0.14	-8.1	27.45	0.3567	-0.1078	0.0006
265	SLU 7	-0.14	-7.56	27.31	0.332	-0.1003	0.0006
265	SLU 8	-0.14	-7.98	27.24	0.3514	-0.1068	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
265	SLU 9	-0.14	-7.43	27.1	0.3267	-0.0992	0.0006
265	SLU 10	-0.14	-8.01	28.5	0.3518	-0.103	0.0006
265	SLU 11	-0.16	-9.11	29.37	0.4009	-0.1188	0.0007
265	SLU 12	-0.15	-8.56	29.24	0.3762	-0.1112	0.0007
265	SLU 13	-0.15	-8.08	28.93	0.3544	-0.1051	0.0006
265	SLU 14	-0.16	-9.18	29.8	0.4036	-0.1208	0.0007
265	SLU 15	-0.16	-8.63	29.67	0.3789	-0.1133	0.0007
265	SLU 16	-0.16	-9.06	29.59	0.3982	-0.1198	0.0007
265	SLU 17	-0.15	-8.51	29.46	0.3735	-0.1122	0.0007
265	SLU 18	-0.16	-9.38	29.74	0.4131	-0.1212	0.0007
265	SLU 19	-0.16	-8.83	29.61	0.3883	-0.1136	0.0007
265	SLU 20	-0.16	-9.45	30.17	0.4157	-0.1233	0.0007
265	SLU 21	-0.16	-8.9	30.04	0.391	-0.1157	0.0007
265	SLU 22	-0.15	-8.89	28.79	0.3915	-0.1156	0.0007
265	SLU 23	-0.15	-7.97	28.56	0.3503	-0.103	0.0006
265	SLU 24	-0.16	-9.08	29.43	0.3994	-0.1188	0.0007
265	SLU 25	-0.15	-8.53	29.29	0.3747	-0.1112	0.0007
265	SLU 26	-0.15	-8.04	28.99	0.3529	-0.1051	0.0006
265	SLU 27	-0.16	-9.15	29.86	0.402	-0.1208	0.0007
265	SLU 28	-0.16	-8.6	29.72	0.3773	-0.1133	0.0007
265	SLU 29	-0.16	-9.03	29.65	0.3967	-0.1198	0.0007
265	SLU 30	-0.15	-8.48	29.51	0.372	-0.1122	0.0007
265	SLU 31	-0.16	-9.05	30.92	0.3971	-0.116	0.0007
265	SLU 32	-0.18	-10.15	31.79	0.4462	-0.1318	0.0008
265	SLU 33	-0.17	-9.61	31.65	0.4215	-0.1242	0.0007
265	SLU 34	-0.17	-9.12	31.35	0.3997	-0.1181	0.0007
265	SLU 35	-0.18	-10.22	32.22	0.4489	-0.1338	0.0008
265	SLU 36	-0.17	-9.68	32.08	0.4242	-0.1263	0.0008
265	SLU 37	-0.18	-10.1	32.01	0.4435	-0.1328	0.0008
265	SLU 38	-0.17	-9.55	31.87	0.4188	-0.1252	0.0007
265	SLU 39	-0.18	-10.42	32.16	0.4583	-0.1342	0.0008
265	SLU 40	-0.17	-9.88	32.02	0.4336	-0.1266	0.0008
265	SLU 41	-0.18	-10.49	32.59	0.461	-0.1363	0.0008
265	SLU 42	-0.18	-9.95	32.45	0.4363	-0.1287	0.0008
265	SLU 43	-0.17	-9.84	33.46	0.4345	-0.129	0.0007
265	SLU 44	-0.16	-8.92	33.23	0.3933	-0.1164	0.0007
265	SLU 45	-0.18	-10.03	34.1	0.4424	-0.1321	0.0008
265	SLU 46	-0.17	-9.48	33.96	0.4177	-0.1245	0.0007
265	SLU 47	-0.17	-8.99	33.66	0.3959	-0.1184	0.0007
265	SLU 48	-0.18	-10.1	34.53	0.4451	-0.1342	0.0008
265	SLU 49	-0.17	-9.55	34.39	0.4204	-0.1266	0.0008
265	SLU 50	-0.18	-9.98	34.32	0.4397	-0.1331	0.0008
265	SLU 51	-0.17	-9.43	34.18	0.415	-0.1255	0.0008
265	SLU 52	-0.18	-10	35.59	0.4401	-0.1294	0.0008
265	SLU 53	-0.19	-11.1	36.46	0.4893	-0.1451	0.0008
265	SLU 54	-0.19	-10.56	36.32	0.4646	-0.1375	0.0008
265	SLU 55	-0.18	-10.07	36.02	0.4428	-0.1314	0.0008
265	SLU 56	-0.2	-11.17	36.89	0.4919	-0.1472	0.0009
265	SLU 57	-0.19	-10.63	36.75	0.4672	-0.1396	0.0008
265	SLU 58	-0.2	-11.05	36.68	0.4866	-0.1461	0.0008
265	SLU 59	-0.19	-10.51	36.54	0.4618	-0.1385	0.0008
265	SLU 60	-0.2	-11.37	36.83	0.5014	-0.1475	0.0009
265	SLU 61	-0.19	-10.83	36.69	0.4767	-0.14	0.0008
265	SLU 62	-0.2	-11.44	37.26	0.504	-0.1496	0.0009
265	SLU 63	-0.19	-10.9	37.12	0.4793	-0.142	0.0008
265	SLU 64	-0.19	-10.88	35.87	0.4798	-0.142	0.0008
265	SLU 65	-0.18	-9.97	35.65	0.4386	-0.1294	0.0008
265	SLU 66	-0.19	-11.07	36.52	0.4877	-0.1451	0.0008
265	SLU 67	-0.19	-10.52	36.38	0.463	-0.1375	0.0008
265	SLU 68	-0.18	-10.04	36.08	0.4412	-0.1314	0.0008
265	SLU 69	-0.2	-11.14	36.95	0.4904	-0.1472	0.0009
265	SLU 70	-0.19	-10.59	36.81	0.4657	-0.1396	0.0008
265	SLU 71	-0.2	-11.02	36.74	0.485	-0.1461	0.0008
265	SLU 72	-0.19	-10.47	36.6	0.4603	-0.1385	0.0008
265	SLU 73	-0.2	-11.04	38	0.4854	-0.1424	0.0009
265	SLU 74	-0.21	-12.15	38.87	0.5346	-0.1581	0.0009
265	SLU 75	-0.21	-11.6	38.74	0.5098	-0.1505	0.0009
265	SLU 76	-0.2	-11.11	38.43	0.488	-0.1444	0.0009
265	SLU 77	-0.21	-12.22	39.3	0.5372	-0.1602	0.0009
265	SLU 78	-0.21	-11.67	39.17	0.5125	-0.1526	0.0009
265	SLU 79	-0.21	-12.1	39.09	0.5319	-0.1591	0.0009
265	SLU 80	-0.21	-11.55	38.95	0.5071	-0.1515	0.0009
265	SLU 81	-0.21	-12.42	39.24	0.5467	-0.1605	0.0009
265	SLU 82	-0.21	-11.87	39.1	0.522	-0.153	0.0009
265	SLU 83	-0.22	-12.49	39.67	0.5493	-0.1626	0.0009
265	SLU 84	-0.21	-11.94	39.53	0.5246	-0.155	0.0009
265	SLE RA 1	-0.14	-8.14	27.07	0.3591	-0.1063	0.0006
265	SLE RA 2	-0.14	-7.53	26.91	0.3317	-0.0979	0.0006
265	SLE RA 3	-0.14	-8.27	27.49	0.3644	-0.1084	0.0006
265	SLE RA 4	-0.14	-7.9	27.4	0.3479	-0.1034	0.0006
265	SLE RA 5	-0.14	-7.58	27.2	0.3334	-0.0993	0.0006
265	SLE RA 6	-0.15	-8.31	27.78	0.3662	-0.1098	0.0006
265	SLE RA 7	-0.14	-7.95	27.69	0.3497	-0.1048	0.0006
265	SLE RA 8	-0.15	-8.23	27.64	0.3626	-0.1091	0.0006
265	SLE RA 9	-0.14	-7.87	27.55	0.3461	-0.1041	0.0006
265	SLE RA 10	-0.15	-8.25	28.48	0.3629	-0.1066	0.0006
265	SLE RA 11	-0.16	-8.99	29.06	0.3956	-0.1171	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
265	SLE RA 12	-0.15	-8.62	28.97	0.3792	-0.1121	0.0007
265	SLE RA 13	-0.15	-8.3	28.77	0.3646	-0.108	0.0006
265	SLE RA 14	-0.16	-9.03	29.35	0.3974	-0.1185	0.0007
265	SLE RA 15	-0.15	-8.67	29.26	0.3809	-0.1134	0.0007
265	SLE RA 16	-0.16	-8.95	29.21	0.3938	-0.1178	0.0007
265	SLE RA 17	-0.15	-8.59	29.12	0.3773	-0.1127	0.0007
265	SLE RA 18	-0.16	-9.17	29.31	0.4037	-0.1187	0.0007
265	SLE RA 19	-0.15	-8.8	29.22	0.3872	-0.1137	0.0007
265	SLE RA 20	-0.16	-9.21	29.6	0.4054	-0.1201	0.0007
265	SLE RA 21	-0.16	-8.85	29.51	0.389	-0.1151	0.0007
265	SLE FR 1	-0.14	-8.14	27.07	0.3591	-0.1063	0.0006
265	SLE FR 2	-0.14	-8.02	27.03	0.3536	-0.1047	0.0006
265	SLE FR 3	-0.14	-8.16	27.18	0.3598	-0.1069	0.0006
265	SLE FR 4	-0.15	-8.33	27.71	0.367	-0.1084	0.0006
265	SLE FR 5	-0.15	-8.47	27.85	0.3732	-0.1106	0.0006
265	SLE FR 6	-0.15	-8.65	28.19	0.3814	-0.1125	0.0007
265	SLE QP 1	-0.14	-8.14	27.07	0.3591	-0.1063	0.0006
265	SLE QP 2	-0.15	-8.45	27.74	0.3725	-0.1101	0.0006
265	SLD 1	0.06	-9.05	33.76	0.3991	0.0955	0.0011
265	SLD 2	0.06	-9.05	33.76	0.3991	0.0955	0.0011
265	SLD 3	-0.02	-12.82	35.03	0.5652	0.0171	0.0014
265	SLD 4	-0.02	-12.82	35.03	0.5652	0.0171	0.0014
265	SLD 5	0.03	-2.9	27.61	0.1285	0.0705	0.0003
265	SLD 6	0.03	-2.9	27.61	0.1285	0.0705	0.0003
265	SLD 7	-0.23	-15.48	31.86	0.6822	-0.1908	0.0014
265	SLD 8	-0.23	-15.48	31.86	0.6822	-0.1908	0.0014
265	SLD 9	-0.06	-1.41	23.61	0.0627	-0.0293	-0.0001
265	SLD 10	-0.06	-1.41	23.61	0.0627	-0.0293	-0.0001
265	SLD 11	-0.33	-13.99	27.87	0.6164	-0.2906	0.001
265	SLD 12	-0.33	-13.99	27.87	0.6164	-0.2906	0.001
265	SLD 13	-0.27	-4.08	20.44	0.1798	-0.2372	-0.0002
265	SLD 14	-0.27	-4.08	20.44	0.1798	-0.2372	-0.0002
265	SLD 15	-0.35	-7.85	21.72	0.3459	-0.3156	0.0002
265	SLD 16	-0.35	-7.85	21.72	0.3459	-0.3156	0.0002
265	SLV 1	0.35	-9.89	41.75	0.4366	0.3924	0.0017
265	SLV 2	0.35	-9.89	41.75	0.4366	0.3924	0.0017
265	SLV 3	0.15	-18.68	44.87	0.8231	0.1961	0.0025
265	SLV 4	0.15	-18.68	44.87	0.8231	0.1961	0.0025
265	SLV 5	0.3	4.45	27.2	-0.1945	0.3384	-0.0003
265	SLV 6	0.3	4.45	27.2	-0.1945	0.3384	-0.0003
265	SLV 7	-0.36	-24.85	37.62	1.0939	-0.3159	0.0025
265	SLV 8	-0.36	-24.85	37.62	1.0939	-0.3159	0.0025
265	SLV 9	0.06	7.95	17.86	-0.349	0.0958	-0.0012
265	SLV 10	0.06	7.95	17.86	-0.349	0.0958	-0.0012
265	SLV 11	-0.6	-21.35	28.28	0.9395	-0.5585	0.0016
265	SLV 12	-0.6	-21.35	28.28	0.9395	-0.5585	0.0016
265	SLV 13	-0.44	1.78	10.6	-0.0782	-0.4163	-0.0013
265	SLV 14	-0.44	1.78	10.6	-0.0782	-0.4163	-0.0013
265	SLV 15	-0.64	-7.01	13.73	0.3084	-0.6125	-0.0005
265	SLV 16	-0.64	-7.01	13.73	0.3084	-0.6125	-0.0005
266	SLU 1	0	1.45	46.77	-0.0387	0.0005	0
266	SLU 2	0	1.56	46.27	-0.0421	0.0008	0
266	SLU 3	0	1.5	49.08	-0.0396	0.0005	0
266	SLU 4	0	1.56	48.77	-0.0416	0.0007	0
266	SLU 5	0	1.62	48.21	-0.0434	0.0009	0
266	SLU 6	0	1.55	51.02	-0.0408	0.0006	0
266	SLU 7	0	1.62	50.72	-0.0428	0.0008	0
266	SLU 8	0	1.56	50.66	-0.0412	0.0007	0
266	SLU 9	0	1.63	50.36	-0.0432	0.0009	0
266	SLU 10	0	1.61	54.03	-0.0431	0.0009	0
266	SLU 11	0	1.54	56.84	-0.0406	0.0006	0
266	SLU 12	0	1.61	56.54	-0.0426	0.0008	0
266	SLU 13	0	1.67	55.98	-0.0444	0.001	0
266	SLU 14	0	1.6	58.79	-0.0418	0.0007	0
266	SLU 15	0	1.67	58.49	-0.0438	0.0009	0
266	SLU 16	0	1.61	58.43	-0.0422	0.0007	0
266	SLU 17	0	1.68	58.13	-0.0443	0.0009	0
266	SLU 18	0	1.52	57.86	-0.0402	0.0006	0
266	SLU 19	0	1.59	57.56	-0.0422	0.0008	0
266	SLU 20	0	1.58	59.81	-0.0414	0.0006	0
266	SLU 21	0	1.64	59.51	-0.0434	0.0009	0
266	SLU 22	0	1.52	54.54	-0.0401	0.0006	0
266	SLU 23	0	1.63	54.04	-0.0435	0.0009	0
266	SLU 24	0	1.56	56.85	-0.0409	0.0006	0
266	SLU 25	0	1.63	56.54	-0.043	0.0008	0
266	SLU 26	0	1.69	55.98	-0.0447	0.001	0
266	SLU 27	0	1.62	58.79	-0.0422	0.0007	0
266	SLU 28	0	1.69	58.49	-0.0442	0.0009	0
266	SLU 29	0	1.63	58.43	-0.0426	0.0007	0
266	SLU 30	0	1.7	58.13	-0.0446	0.001	0
266	SLU 31	0	1.68	61.8	-0.0445	0.001	0
266	SLU 32	0	1.61	64.61	-0.0419	0.0007	0
266	SLU 33	0	1.68	64.31	-0.044	0.0009	0
266	SLU 34	0	1.74	63.75	-0.0457	0.0011	0
266	SLU 35	0	1.67	66.56	-0.0432	0.0008	0
266	SLU 36	0	1.74	66.26	-0.0452	0.001	0
266	SLU 37	0	1.68	66.2	-0.0436	0.0008	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
266	SLU 38	0	1.75	65.9	-0.0456	0.001	0
266	SLU 39	0	1.59	65.63	-0.0415	0.0006	0
266	SLU 40	0	1.66	65.33	-0.0436	0.0009	0
266	SLU 41	0	1.64	67.58	-0.0428	0.0007	0
266	SLU 42	0	1.71	67.28	-0.0448	0.0009	0
266	SLU 43	0	1.86	58.14	-0.0499	0.0006	0
266	SLU 44	0	1.97	57.63	-0.0533	0.0009	0
266	SLU 45	0	1.91	60.44	-0.0507	0.0006	0
266	SLU 46	0	1.97	60.14	-0.0528	0.0009	0
266	SLU 47	0	2.03	59.58	-0.0545	0.001	0
266	SLU 48	0	1.96	62.39	-0.052	0.0007	0
266	SLU 49	0	2.03	62.09	-0.054	0.0009	0
266	SLU 50	0	1.98	62.03	-0.0524	0.0008	0
266	SLU 51	0	2.04	61.73	-0.0544	0.001	0
266	SLU 52	0	2.02	65.4	-0.0543	0.001	0
266	SLU 53	0	1.95	68.21	-0.0517	0.0007	0
266	SLU 54	0	2.02	67.91	-0.0538	0.0009	0
266	SLU 55	0	2.08	67.35	-0.0555	0.0011	0
266	SLU 56	0	2.01	70.16	-0.053	0.0008	0
266	SLU 57	0	2.08	69.86	-0.055	0.001	0
266	SLU 58	0	2.02	69.8	-0.0534	0.0008	0
266	SLU 59	0	2.09	69.5	-0.0554	0.001	0
266	SLU 60	0	1.93	69.23	-0.0513	0.0007	0
266	SLU 61	0	2	68.93	-0.0534	0.0009	0
266	SLU 62	0	1.99	71.18	-0.0526	0.0008	0
266	SLU 63	0	2.05	70.88	-0.0546	0.001	0
266	SLU 64	0	1.93	65.91	-0.0513	0.0007	0
266	SLU 65	0	2.04	65.4	-0.0546	0.001	0
266	SLU 66	0	1.98	68.21	-0.0521	0.0007	0
266	SLU 67	0	2.04	67.91	-0.0541	0.0009	0
266	SLU 68	0	2.1	67.35	-0.0559	0.0011	0
266	SLU 69	0	2.03	70.16	-0.0533	0.0008	0
266	SLU 70	0	2.1	69.86	-0.0554	0.001	0
266	SLU 71	0	2.05	69.8	-0.0537	0.0008	0
266	SLU 72	0	2.11	69.5	-0.0558	0.0011	0
266	SLU 73	0	2.09	73.17	-0.0557	0.0011	0
266	SLU 74	0	2.02	75.98	-0.0531	0.0008	0
266	SLU 75	0	2.09	75.68	-0.0551	0.001	0
266	SLU 76	0	2.15	75.12	-0.0569	0.0012	0
266	SLU 77	0	2.08	77.93	-0.0543	0.0009	0
266	SLU 78	0	2.15	77.63	-0.0564	0.0011	0
266	SLU 79	0	2.09	77.57	-0.0547	0.0009	0
266	SLU 80	0	2.16	77.26	-0.0568	0.0011	0
266	SLU 81	0	2	77	-0.0527	0.0007	0
266	SLU 82	0	2.07	76.7	-0.0547	0.001	0
266	SLU 83	0	2.06	78.95	-0.0539	0.0008	0
266	SLU 84	0	2.12	78.65	-0.056	0.0011	0
266	SLE RA 1	0	1.47	48.99	-0.0391	0.0005	0
266	SLE RA 2	0	1.55	48.65	-0.0414	0.0007	0
266	SLE RA 3	0	1.5	50.53	-0.0397	0.0005	0
266	SLE RA 4	0	1.55	50.33	-0.041	0.0007	0
266	SLE RA 5	0	1.58	49.95	-0.0422	0.0008	0
266	SLE RA 6	0	1.54	51.83	-0.0405	0.0006	0
266	SLE RA 7	0	1.58	51.62	-0.0419	0.0007	0
266	SLE RA 8	0	1.55	51.59	-0.0408	0.0006	0
266	SLE RA 9	0	1.59	51.38	-0.0421	0.0008	0
266	SLE RA 10	0	1.58	53.83	-0.0421	0.0008	0
266	SLE RA 11	0	1.53	55.71	-0.0404	0.0006	0
266	SLE RA 12	0	1.58	55.5	-0.0417	0.0007	0
266	SLE RA 13	0	1.61	55.13	-0.0429	0.0008	0
266	SLE RA 14	0	1.57	57	-0.0412	0.0006	0
266	SLE RA 15	0	1.61	56.8	-0.0425	0.0008	0
266	SLE RA 16	0	1.58	56.76	-0.0414	0.0007	0
266	SLE RA 17	0	1.62	56.56	-0.0428	0.0008	0
266	SLE RA 18	0	1.52	56.39	-0.0401	0.0005	0
266	SLE RA 19	0	1.56	56.18	-0.0414	0.0007	0
266	SLE RA 20	0	1.55	57.68	-0.0409	0.0006	0
266	SLE RA 21	0	1.6	57.48	-0.0423	0.0008	0
266	SLE FR 1	0	1.47	48.99	-0.0391	0.0005	0
266	SLE FR 2	0	1.49	48.92	-0.0396	0.0005	0
266	SLE FR 3	0	1.49	49.51	-0.0395	0.0005	0
266	SLE FR 4	0	1.5	51.14	-0.0399	0.0006	0
266	SLE FR 5	0	1.5	51.73	-0.0397	0.0005	0
266	SLE FR 6	0	1.49	52.69	-0.0396	0.0005	0
266	SLE QP 1	0	1.47	48.99	-0.0391	0.0005	0
266	SLE QP 2	0	1.48	51.21	-0.0394	0.0005	0
266	SLD 1	0.22	4.68	52.18	-0.1367	0.1917	-0.0006
266	SLD 2	0.22	4.68	52.18	-0.1367	0.1917	-0.0006
266	SLD 3	0.17	1.01	54.8	-0.025	0.24	-0.0004
266	SLD 4	0.17	1.01	54.8	-0.025	0.24	-0.0004
266	SLD 5	0.13	8.01	47.53	-0.238	-0.0153	-0.0004
266	SLD 6	0.13	8.01	47.53	-0.238	-0.0153	-0.0004
266	SLD 7	-0.02	-4.23	56.26	0.1343	0.1455	0
266	SLD 8	-0.02	-4.23	56.26	0.1343	0.1455	0
266	SLD 9	0.02	7.2	46.16	-0.2131	-0.1445	0
266	SLD 10	0.02	7.2	46.16	-0.2131	-0.1445	0
266	SLD 11	-0.13	-5.04	54.89	0.1591	0.0163	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
266	SLD 12	-0.13	-5.04	54.89	0.1591	0.0163	0.0003
266	SLD 13	-0.17	1.96	47.62	-0.0538	-0.239	0.0004
266	SLD 14	-0.17	1.96	47.62	-0.0538	-0.239	0.0004
266	SLD 15	-0.21	-1.71	50.24	0.0578	-0.1907	0.0006
266	SLD 16	-0.21	-1.71	50.24	0.0578	-0.1907	0.0006
266	SLV 1	0.55	9.06	53.48	-0.27	0.4902	-0.0014
266	SLV 2	0.55	9.06	53.48	-0.27	0.4902	-0.0014
266	SLV 3	0.43	0.42	59.69	-0.0074	0.6136	-0.0011
266	SLV 4	0.43	0.42	59.69	-0.0074	0.6136	-0.0011
266	SLV 5	0.34	16.86	42.47	-0.5068	-0.0397	-0.0009
266	SLV 6	0.34	16.86	42.47	-0.5068	-0.0397	-0.0009
266	SLV 7	-0.04	-11.93	63.17	0.3685	0.3715	0.0001
266	SLV 8	-0.04	-11.93	63.17	0.3685	0.3715	0.0001
266	SLV 9	0.05	14.9	39.25	-0.4473	-0.3705	-0.0001
266	SLV 10	0.05	14.9	39.25	-0.4473	-0.3705	-0.0001
266	SLV 11	-0.34	-13.89	59.94	0.428	0.0407	0.0009
266	SLV 12	-0.34	-13.89	59.94	0.428	0.0407	0.0009
266	SLV 13	-0.43	2.55	42.73	-0.0714	-0.6126	0.0011
266	SLV 14	-0.43	2.55	42.73	-0.0714	-0.6126	0.0011
266	SLV 15	-0.55	-6.09	48.94	0.1911	-0.4892	0.0014
266	SLV 16	-0.55	-6.09	48.94	0.1911	-0.4892	0.0014
267	SLU 1	0	-1.7	46.05	0.0766	-0.0021	0
267	SLU 2	0	-1.61	45.76	0.073	-0.0024	0
267	SLU 3	0	-1.7	47.8	0.0768	-0.0021	0
267	SLU 4	0	-1.64	47.63	0.0746	-0.0023	0
267	SLU 5	0	-1.53	47.01	0.0695	-0.0023	0
267	SLU 6	0	-1.62	49.05	0.0733	-0.002	0
267	SLU 7	0	-1.56	48.87	0.0712	-0.0022	0
267	SLU 8	0	-1.54	48.55	0.0697	-0.0019	0
267	SLU 9	0	-1.48	48.37	0.0675	-0.0021	0
267	SLU 10	0	-2.15	53.53	0.0974	-0.0029	0
267	SLU 11	0	-2.24	55.57	0.1013	-0.0025	0
267	SLU 12	0	-2.19	55.4	0.0991	-0.0027	0
267	SLU 13	0	-2.07	54.78	0.094	-0.0028	0
267	SLU 14	0	-2.16	56.82	0.0978	-0.0025	0
267	SLU 15	0	-2.11	56.65	0.0956	-0.0026	0
267	SLU 16	0	-2.08	56.32	0.0941	-0.0024	0
267	SLU 17	0	-2.03	56.14	0.092	-0.0026	0
267	SLU 18	0	-2.47	57.15	0.1115	-0.0028	0
267	SLU 19	0	-2.42	56.98	0.1094	-0.0029	0
267	SLU 20	0	-2.39	58.4	0.1081	-0.0027	0
267	SLU 21	0	-2.34	58.23	0.1059	-0.0029	0
267	SLU 22	0	-2.11	53.5	0.0955	-0.0025	0
267	SLU 23	0	-2.03	53.21	0.0919	-0.0028	0
267	SLU 24	0	-2.11	55.25	0.0957	-0.0024	0
267	SLU 25	0	-2.06	55.07	0.0935	-0.0026	0
267	SLU 26	0	-1.95	54.45	0.0884	-0.0027	0
267	SLU 27	0	-2.03	56.49	0.0922	-0.0023	0
267	SLU 28	0	-1.98	56.32	0.0901	-0.0025	0
267	SLU 29	0	-1.95	55.99	0.0886	-0.0023	0
267	SLU 30	0	-1.9	55.82	0.0864	-0.0025	0
267	SLU 31	0	-2.57	60.98	0.1163	-0.0032	0
267	SLU 32	0	-2.65	63.02	0.1202	-0.0029	0
267	SLU 33	0	-2.6	62.84	0.118	-0.0031	0
267	SLU 34	0	-2.49	62.22	0.1129	-0.0031	0
267	SLU 35	0	-2.57	64.26	0.1167	-0.0028	0
267	SLU 36	0	-2.52	64.09	0.1145	-0.003	0
267	SLU 37	0	-2.49	63.76	0.113	-0.0028	0
267	SLU 38	0	-2.44	63.59	0.1109	-0.0029	0
267	SLU 39	0	-2.89	64.6	0.1304	-0.0031	0
267	SLU 40	0	-2.84	64.42	0.1283	-0.0033	0
267	SLU 41	0	-2.81	65.85	0.127	-0.003	0
267	SLU 42	0	-2.76	65.67	0.1248	-0.0032	0
267	SLU 43	0	-2.06	57.32	0.0931	-0.0026	0
267	SLU 44	0	-1.98	57.02	0.0895	-0.0029	0
267	SLU 45	0	-2.06	59.06	0.0933	-0.0026	0
267	SLU 46	0	-2.01	58.89	0.0911	-0.0028	0
267	SLU 47	0	-1.9	58.27	0.086	-0.0028	0
267	SLU 48	0	-1.98	60.31	0.0898	-0.0025	0
267	SLU 49	0	-1.93	60.14	0.0877	-0.0027	0
267	SLU 50	0	-1.9	59.81	0.0862	-0.0025	0
267	SLU 51	0	-1.85	59.64	0.084	-0.0026	0
267	SLU 52	0	-2.52	64.8	0.1139	-0.0034	0
267	SLU 53	0	-2.6	66.84	0.1178	-0.0031	0
267	SLU 54	0	-2.55	66.66	0.1156	-0.0032	0
267	SLU 55	0	-2.44	66.04	0.1105	-0.0033	0
267	SLU 56	0	-2.52	68.08	0.1143	-0.003	0
267	SLU 57	0	-2.47	67.91	0.1121	-0.0031	0
267	SLU 58	0	-2.44	67.58	0.1106	-0.0029	0
267	SLU 59	0	-2.39	67.41	0.1085	-0.0031	0
267	SLU 60	0	-2.84	68.42	0.128	-0.0033	0
267	SLU 61	0	-2.79	68.24	0.1259	-0.0035	0
267	SLU 62	0	-2.76	69.67	0.1246	-0.0032	0
267	SLU 63	0	-2.71	69.49	0.1224	-0.0034	0
267	SLU 64	0	-2.48	64.76	0.112	-0.003	0
267	SLU 65	0	-2.39	64.47	0.1084	-0.0033	0
267	SLU 66	0	-2.48	66.51	0.1122	-0.003	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
267	SLU 67	0	-2.43	66.33	0.11	-0.0031	0
267	SLU 68	0	-2.31	65.72	0.1049	-0.0032	0
267	SLU 69	0	-2.4	67.76	0.1087	-0.0029	0
267	SLU 70	0	-2.35	67.58	0.1066	-0.003	0
267	SLU 71	0	-2.32	67.26	0.1051	-0.0028	0
267	SLU 72	0	-2.27	67.08	0.1029	-0.003	0
267	SLU 73	0	-2.94	72.24	0.1328	-0.0037	0
267	SLU 74	0	-3.02	74.28	0.1367	-0.0034	0
267	SLU 75	0	-2.97	74.1	0.1345	-0.0036	0
267	SLU 76	0	-2.86	73.49	0.1294	-0.0036	0
267	SLU 77	0	-2.94	75.53	0.1332	-0.0033	0
267	SLU 78	0	-2.89	75.35	0.131	-0.0035	0
267	SLU 79	0	-2.86	75.03	0.1295	-0.0033	0
267	SLU 80	0	-2.81	74.85	0.1274	-0.0034	0
267	SLU 81	0	-3.25	75.86	0.1469	-0.0037	0
267	SLU 82	0	-3.2	75.69	0.1448	-0.0038	0
267	SLU 83	0	-3.17	77.11	0.1435	-0.0036	0
267	SLU 84	0	-3.12	76.94	0.1413	-0.0037	0
267	SLE RA 1	0	-1.81	48.18	0.082	-0.0022	0
267	SLE RA 2	0	-1.76	47.99	0.0796	-0.0024	0
267	SLE RA 3	0	-1.81	49.35	0.0821	-0.0022	0
267	SLE RA 4	0	-1.78	49.23	0.0807	-0.0023	0
267	SLE RA 5	0	-1.7	48.82	0.0773	-0.0023	0
267	SLE RA 6	0	-1.76	50.18	0.0798	-0.0021	0
267	SLE RA 7	0	-1.73	50.06	0.0784	-0.0022	0
267	SLE RA 8	0	-1.71	49.84	0.0774	-0.0021	0
267	SLE RA 9	0	-1.67	49.73	0.0759	-0.0022	0
267	SLE RA 10	0	-2.12	53.17	0.0959	-0.0027	0
267	SLE RA 11	0	-2.18	54.53	0.0984	-0.0025	0
267	SLE RA 12	0	-2.14	54.41	0.097	-0.0026	0
267	SLE RA 13	0	-2.07	54	0.0936	-0.0027	0
267	SLE RA 14	0	-2.12	55.36	0.0961	-0.0024	0
267	SLE RA 15	0	-2.09	55.24	0.0947	-0.0026	0
267	SLE RA 16	0	-2.07	55.02	0.0937	-0.0024	0
267	SLE RA 17	0	-2.04	54.91	0.0922	-0.0025	0
267	SLE RA 18	0	-2.33	55.58	0.1053	-0.0027	0
267	SLE RA 19	0	-2.3	55.46	0.1038	-0.0028	0
267	SLE RA 20	0	-2.28	56.41	0.103	-0.0026	0
267	SLE RA 21	0	-2.24	56.3	0.1015	-0.0027	0
267	SLE FR 1	0	-1.81	48.18	0.082	-0.0022	0
267	SLE FR 2	0	-1.8	48.14	0.0815	-0.0023	0
267	SLE FR 3	0	-1.79	48.51	0.0811	-0.0022	0
267	SLE FR 4	0	-1.96	50.36	0.0885	-0.0024	0
267	SLE FR 5	0	-1.95	50.73	0.0881	-0.0023	0
267	SLE FR 6	0	-2.07	51.88	0.0936	-0.0024	0
267	SLE QP 1	0	-1.81	48.18	0.082	-0.0022	0
267	SLE QP 2	0	-1.97	50.4	0.089	-0.0024	0
267	SLD 1	0.24	-2.25	44.82	0.1015	0.2283	-0.0002
267	SLD 2	0.24	-2.25	44.82	0.1015	0.2283	-0.0002
267	SLD 3	0.2	-6.44	49.63	0.2991	0.1972	-0.0002
267	SLD 4	0.2	-6.44	49.63	0.2991	0.1972	-0.0002
267	SLD 5	0.12	4.31	41.42	-0.207	0.1141	-0.0001
267	SLD 6	0.12	4.31	41.42	-0.207	0.1141	-0.0001
267	SLD 7	0.01	-9.67	57.47	0.4517	0.0103	0
267	SLD 8	0.01	-9.67	57.47	0.4517	0.0103	0
267	SLD 9	-0.01	5.74	43.33	-0.2738	-0.015	0
267	SLD 10	-0.01	5.74	43.33	-0.2738	-0.015	0
267	SLD 11	-0.12	-8.25	59.38	0.3849	-0.1188	0.0001
267	SLD 12	-0.12	-8.25	59.38	0.3849	-0.1188	0.0001
267	SLD 13	-0.21	2.5	51.17	-0.1211	-0.2019	0.0002
267	SLD 14	-0.21	2.5	51.17	-0.1211	-0.2019	0.0002
267	SLD 15	-0.24	-1.69	55.98	0.0765	-0.233	0.0002
267	SLD 16	-0.24	-1.69	55.98	0.0765	-0.233	0.0002
267	SLV 1	0.61	-2.63	37.24	0.1188	0.5891	-0.0006
267	SLV 2	0.61	-2.63	37.24	0.1188	0.5891	-0.0006
267	SLV 3	0.53	-12.52	48.63	0.5851	0.5094	-0.0005
267	SLV 4	0.53	-12.52	48.63	0.5851	0.5094	-0.0005
267	SLV 5	0.31	12.84	29.18	-0.6093	0.296	-0.0003
267	SLV 6	0.31	12.84	29.18	-0.6093	0.296	-0.0003
267	SLV 7	0.03	-20.14	67.15	0.945	0.0302	0
267	SLV 8	0.03	-20.14	67.15	0.945	0.0302	0
267	SLV 9	-0.03	16.21	33.65	-0.7671	-0.0349	0
267	SLV 10	-0.03	16.21	33.65	-0.7671	-0.0349	0
267	SLV 11	-0.31	-16.78	71.62	0.7873	-0.3007	0.0003
267	SLV 12	-0.31	-16.78	71.62	0.7873	-0.3007	0.0003
267	SLV 13	-0.53	8.58	52.17	-0.4071	-0.5141	0.0005
267	SLV 14	-0.53	8.58	52.17	-0.4071	-0.5141	0.0005
267	SLV 15	-0.61	-1.31	63.56	0.0592	-0.5938	0.0006
267	SLV 16	-0.61	-1.31	63.56	0.0592	-0.5938	0.0006
268	SLU 1	0	1.51	34.17	-0.0777	-0.0002	0
268	SLU 2	0	1.5	34.16	-0.0775	-0.0003	0
268	SLU 3	0	1.33	33.96	-0.0699	-0.0001	0
268	SLU 4	0	1.32	33.96	-0.0698	-0.0002	0
268	SLU 5	0	1.25	33.29	-0.0663	-0.0001	0
268	SLU 6	0	1.07	33.09	-0.0587	0.0001	0
268	SLU 7	0	1.07	33.09	-0.0586	0	0
268	SLU 8	0	1	32.43	-0.0554	0.0002	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
268	SLU 9	0	1	32.42	-0.0553	0.0001	0
268	SLU 10	0	1.74	39.87	-0.0911	0.0003	0
268	SLU 11	0	1.56	39.68	-0.0835	0.0004	0
268	SLU 12	0	1.56	39.67	-0.0833	0.0004	0
268	SLU 13	0	1.49	39	-0.0799	0.0005	0
268	SLU 14	0	1.31	38.81	-0.0723	0.0006	0
268	SLU 15	0	1.31	38.8	-0.0722	0.0006	0
268	SLU 16	0	1.24	38.14	-0.0689	0.0007	0
268	SLU 17	0	1.24	38.13	-0.0688	0.0007	0
268	SLU 18	0	1.85	42.33	-0.0971	0.0005	0
268	SLU 19	0	1.85	42.32	-0.097	0.0005	0
268	SLU 20	0	1.6	41.46	-0.0859	0.0007	0
268	SLU 21	0	1.59	41.45	-0.0858	0.0007	0
268	SLU 22	0	1.62	38.94	-0.0853	0.0002	0
268	SLU 23	0	1.62	38.92	-0.0851	0.0001	0
268	SLU 24	0	1.44	38.73	-0.0775	0.0003	0
268	SLU 25	0	1.44	38.72	-0.0773	0.0002	0
268	SLU 26	0	1.36	38.05	-0.0739	0.0003	0
268	SLU 27	0	1.18	37.86	-0.0663	0.0005	0
268	SLU 28	0	1.18	37.85	-0.0662	0.0004	0
268	SLU 29	0	1.11	37.19	-0.0629	0.0006	0
268	SLU 30	0	1.11	37.19	-0.0628	0.0005	0
268	SLU 31	0	1.86	44.64	-0.0986	0.0006	0
268	SLU 32	0	1.68	44.44	-0.091	0.0008	0
268	SLU 33	0	1.68	44.44	-0.0909	0.0008	0
268	SLU 34	0	1.6	43.77	-0.0875	0.0009	0
268	SLU 35	0	1.42	43.57	-0.0798	0.001	0
268	SLU 36	0	1.42	43.56	-0.0797	0.001	0
268	SLU 37	0	1.35	42.91	-0.0765	0.0011	0
268	SLU 38	0	1.35	42.9	-0.0764	0.0011	0
268	SLU 39	0	1.96	47.1	-0.1046	0.0009	0
268	SLU 40	0	1.96	47.09	-0.1045	0.0009	0
268	SLU 41	0	1.71	46.23	-0.0935	0.0011	0
268	SLU 42	0	1.71	46.22	-0.0933	0.0011	0
268	SLU 43	0	1.92	42.79	-0.0984	-0.0005	0
268	SLU 44	0	1.92	42.77	-0.0982	-0.0005	0
268	SLU 45	0	1.74	42.58	-0.0906	-0.0003	0
268	SLU 46	0	1.74	42.57	-0.0905	-0.0004	0
268	SLU 47	0	1.66	41.9	-0.0871	-0.0003	0
268	SLU 48	0	1.48	41.71	-0.0795	-0.0001	0
268	SLU 49	0	1.48	41.7	-0.0794	-0.0002	0
268	SLU 50	0	1.41	41.05	-0.0761	0	0
268	SLU 51	0	1.41	41.04	-0.076	-0.0001	0
268	SLU 52	0	2.16	48.49	-0.1118	0	0
268	SLU 53	0	1.98	48.29	-0.1042	0.0002	0
268	SLU 54	0	1.98	48.29	-0.1041	0.0002	0
268	SLU 55	0	1.9	47.62	-0.1006	0.0002	0
268	SLU 56	0	1.72	47.42	-0.093	0.0004	0
268	SLU 57	0	1.72	47.42	-0.0929	0.0004	0
268	SLU 58	0	1.65	46.76	-0.0897	0.0005	0
268	SLU 59	0	1.65	46.75	-0.0895	0.0005	0
268	SLU 60	0	2.26	50.95	-0.1178	0.0003	0
268	SLU 61	0	2.26	50.94	-0.1177	0.0003	0
268	SLU 62	0	2.01	50.08	-0.1066	0.0005	0
268	SLU 63	0	2.01	50.07	-0.1065	0.0005	0
268	SLU 64	0	2.03	47.55	-0.106	-0.0001	0
268	SLU 65	0	2.03	47.54	-0.1058	-0.0001	0
268	SLU 66	0	1.85	47.35	-0.0982	0.0001	0
268	SLU 67	0	1.85	47.34	-0.0981	0	0
268	SLU 68	0	1.77	46.67	-0.0946	0.0001	0
268	SLU 69	0	1.6	46.48	-0.087	0.0003	0
268	SLU 70	0	1.59	46.47	-0.0869	0.0002	0
268	SLU 71	0	1.53	45.81	-0.0837	0.0003	0
268	SLU 72	0	1.52	45.8	-0.0835	0.0003	0
268	SLU 73	0	2.27	53.25	-0.1193	0.0004	0
268	SLU 74	0	2.09	53.06	-0.1117	0.0006	0
268	SLU 75	0	2.09	53.05	-0.1116	0.0006	0
268	SLU 76	0	2.01	52.38	-0.1082	0.0006	0
268	SLU 77	0	1.84	52.19	-0.1006	0.0008	0
268	SLU 78	0	1.83	52.18	-0.1005	0.0008	0
268	SLU 79	0	1.76	51.52	-0.0972	0.0009	0
268	SLU 80	0	1.76	51.52	-0.0971	0.0009	0
268	SLU 81	0	2.38	55.71	-0.1254	0.0007	0
268	SLU 82	0	2.37	55.71	-0.1252	0.0007	0
268	SLU 83	0	2.12	54.84	-0.1142	0.0009	0
268	SLU 84	0	2.12	54.84	-0.1141	0.0009	0
268	SLE RA 1	0	1.54	35.53	-0.0799	-0.0001	0
268	SLE RA 2	0	1.54	35.52	-0.0797	-0.0002	0
268	SLE RA 3	0	1.42	35.39	-0.0747	-0.0001	0
268	SLE RA 4	0	1.42	35.39	-0.0746	-0.0001	0
268	SLE RA 5	0	1.37	34.94	-0.0723	0	0
268	SLE RA 6	0	1.25	34.81	-0.0672	0.0001	0
268	SLE RA 7	0	1.25	34.81	-0.0671	0.0001	0
268	SLE RA 8	0	1.2	34.37	-0.065	0.0001	0
268	SLE RA 9	0	1.2	34.37	-0.0649	0.0001	0
268	SLE RA 10	0	1.7	39.33	-0.0888	0.0002	0
268	SLE RA 11	0	1.58	39.2	-0.0837	0.0003	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
268	SLE RA 12	0	1.58	39.2	-0.0836	0.0003	0
268	SLE RA 13	0	1.53	38.75	-0.0813	0.0003	0
268	SLE RA 14	0	1.41	38.62	-0.0763	0.0004	0
268	SLE RA 15	0	1.41	38.62	-0.0762	0.0004	0
268	SLE RA 16	0	1.36	38.18	-0.074	0.0005	0
268	SLE RA 17	0	1.36	38.17	-0.0739	0.0005	0
268	SLE RA 18	0	1.77	40.97	-0.0928	0.0004	0
268	SLE RA 19	0	1.77	40.97	-0.0927	0.0004	0
268	SLE RA 20	0	1.6	40.39	-0.0853	0.0005	0
268	SLE RA 21	0	1.6	40.39	-0.0853	0.0005	0
268	SLE FR 1	0	1.54	35.53	-0.0799	-0.0001	0
268	SLE FR 2	0	1.54	35.53	-0.0798	-0.0001	0
268	SLE FR 3	0	1.47	35.3	-0.0769	-0.0001	0
268	SLE FR 4	0	1.61	37.16	-0.0837	0	0
268	SLE FR 5	0	1.54	36.93	-0.0808	0.0001	0
268	SLE FR 6	0	1.65	38.25	-0.0863	0.0001	0
268	SLE QP 1	0	1.54	35.53	-0.0799	-0.0001	0
268	SLE QP 2	0	1.61	37.16	-0.0837	0	0
268	SLD 1	-0.06	4.73	40.12	-0.2108	-0.0407	0
268	SLD 2	-0.06	4.73	40.12	-0.2108	-0.0407	0
268	SLD 3	-0.03	1.04	37.74	-0.0599	-0.0228	0.0001
268	SLD 4	-0.03	1.04	37.74	-0.0599	-0.0228	0.0001
268	SLD 5	-0.07	8.15	41.65	-0.3507	-0.0393	0
268	SLD 6	-0.07	8.15	41.65	-0.3507	-0.0393	0
268	SLD 7	0.04	-4.17	33.74	0.1523	0.0203	0.0001
268	SLD 8	0.04	-4.17	33.74	0.1523	0.0203	0.0001
268	SLD 9	-0.04	7.39	40.59	-0.3198	-0.0203	-0.0001
268	SLD 10	-0.04	7.39	40.59	-0.3198	-0.0203	-0.0001
268	SLD 11	0.07	-4.94	32.68	0.1832	0.0394	0
268	SLD 12	0.07	-4.94	32.68	0.1832	0.0394	0
268	SLD 13	0.03	2.18	36.58	-0.1076	0.0228	-0.0001
268	SLD 14	0.03	2.18	36.58	-0.1076	0.0228	-0.0001
268	SLD 15	0.06	-1.52	34.21	0.0433	0.0407	-0.0001
268	SLD 16	0.06	-1.52	34.21	0.0433	0.0407	-0.0001
268	SLV 1	-0.16	8.96	44.23	-0.3827	-0.1029	0.0001
268	SLV 2	-0.16	8.96	44.23	-0.3827	-0.1029	0.0001
268	SLV 3	-0.07	0.25	38.46	-0.0273	-0.0572	0.0002
268	SLV 4	-0.07	0.25	38.46	-0.0273	-0.0572	0.0002
268	SLV 5	-0.18	17.02	48.04	-0.7124	-0.1001	-0.0001
268	SLV 6	-0.18	17.02	48.04	-0.7124	-0.1001	-0.0001
268	SLV 7	0.11	-12	28.79	0.4722	0.0521	0.0002
268	SLV 8	0.11	-12	28.79	0.4722	0.0521	0.0002
268	SLV 9	-0.11	15.22	45.54	-0.6397	-0.0521	-0.0002
268	SLV 10	-0.11	15.22	45.54	-0.6397	-0.0521	-0.0002
268	SLV 11	0.18	-13.8	26.29	0.5449	0.1002	0.0001
268	SLV 12	0.18	-13.8	26.29	0.5449	0.1002	0.0001
268	SLV 13	0.07	2.96	35.87	-0.1402	0.0573	-0.0002
268	SLV 14	0.07	2.96	35.87	-0.1402	0.0573	-0.0002
268	SLV 15	0.16	-5.74	30.1	0.2152	0.103	-0.0001
268	SLV 16	0.16	-5.74	30.1	0.2152	0.103	-0.0001
269	SLU 1	0	4.05	33.56	-0.3083	-0.0016	0
269	SLU 2	0	4.05	33.59	-0.3079	-0.0016	0
269	SLU 3	0	3.92	33.25	-0.3085	-0.0016	0
269	SLU 4	0	3.92	33.26	-0.3083	-0.0016	0
269	SLU 5	0	3.8	32.57	-0.3014	-0.0015	0
269	SLU 6	0	3.67	32.23	-0.302	-0.0015	0
269	SLU 7	0	3.67	32.24	-0.3017	-0.0015	0
269	SLU 8	0	3.55	31.53	-0.2953	-0.0015	0
269	SLU 9	0	3.55	31.54	-0.295	-0.0014	0
269	SLU 10	0	4.74	39.25	-0.3601	-0.0019	0
269	SLU 11	0	4.61	38.91	-0.3607	-0.0019	0
269	SLU 12	0	4.61	38.92	-0.3605	-0.0019	0
269	SLU 13	0	4.49	38.23	-0.3536	-0.0018	0
269	SLU 14	0	4.36	37.89	-0.3542	-0.0018	0
269	SLU 15	0	4.36	37.9	-0.354	-0.0018	0
269	SLU 16	0	4.24	37.19	-0.3475	-0.0017	0
269	SLU 17	0	4.24	37.2	-0.3472	-0.0017	0
269	SLU 18	0	5.04	41.65	-0.3829	-0.0021	0
269	SLU 19	0	5.04	41.66	-0.3827	-0.002	0
269	SLU 20	0	4.79	40.63	-0.3764	-0.002	0
269	SLU 21	0	4.79	40.65	-0.3762	-0.0019	0
269	SLU 22	0	4.58	37.71	-0.3528	-0.0018	0
269	SLU 23	0	4.58	37.74	-0.3524	-0.0018	0
269	SLU 24	0	4.45	37.4	-0.353	-0.0018	0
269	SLU 25	0	4.45	37.41	-0.3527	-0.0018	0
269	SLU 26	0	4.33	36.72	-0.3458	-0.0017	0
269	SLU 27	0	4.2	36.38	-0.3464	-0.0017	0
269	SLU 28	0	4.2	36.39	-0.3462	-0.0017	0
269	SLU 29	0	4.08	35.68	-0.3397	-0.0017	0
269	SLU 30	0	4.08	35.69	-0.3395	-0.0016	0
269	SLU 31	0	5.27	43.4	-0.4046	-0.0021	0
269	SLU 32	0	5.14	43.06	-0.4052	-0.0021	0
269	SLU 33	0	5.14	43.07	-0.405	-0.0021	0
269	SLU 34	0	5.02	42.38	-0.3981	-0.002	0
269	SLU 35	0	4.89	42.04	-0.3987	-0.002	0
269	SLU 36	0	4.89	42.05	-0.3984	-0.002	0
269	SLU 37	0	4.77	41.34	-0.3919	-0.002	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
269	SLU 38	0	4.77	41.35	-0.3917	-0.0019	0
269	SLU 39	0	5.57	45.8	-0.4274	-0.0023	0
269	SLU 40	0	5.57	45.81	-0.4271	-0.0022	0
269	SLU 41	0	5.32	44.78	-0.4209	-0.0022	0
269	SLU 42	0	5.32	44.8	-0.4206	-0.0022	0
269	SLU 43	0	5.09	42.21	-0.3856	-0.002	0
269	SLU 44	0	5.09	42.24	-0.3852	-0.002	0
269	SLU 45	0	4.95	41.89	-0.3858	-0.002	0
269	SLU 46	0	4.95	41.91	-0.3855	-0.002	0
269	SLU 47	0	4.84	41.22	-0.3786	-0.0019	0
269	SLU 48	0	4.7	40.87	-0.3792	-0.0019	0
269	SLU 49	0	4.7	40.89	-0.379	-0.0019	0
269	SLU 50	0	4.59	40.17	-0.3725	-0.0019	0
269	SLU 51	0	4.59	40.19	-0.3723	-0.0019	0
269	SLU 52	0	5.78	47.9	-0.4374	-0.0023	0
269	SLU 53	0	5.64	47.55	-0.438	-0.0023	0
269	SLU 54	0	5.64	47.57	-0.4378	-0.0023	0
269	SLU 55	0	5.53	46.88	-0.4309	-0.0022	0
269	SLU 56	0	5.39	46.53	-0.4315	-0.0022	0
269	SLU 57	0	5.39	46.55	-0.4312	-0.0022	0
269	SLU 58	0	5.28	45.83	-0.4247	-0.0022	0
269	SLU 59	0	5.28	45.85	-0.4245	-0.0021	0
269	SLU 60	0	6.07	50.29	-0.4602	-0.0025	0
269	SLU 61	0	6.07	50.31	-0.4599	-0.0025	0
269	SLU 62	0	5.82	49.28	-0.4537	-0.0024	0
269	SLU 63	0	5.82	49.29	-0.4534	-0.0024	0
269	SLU 64	0	5.62	46.36	-0.43	-0.0023	0
269	SLU 65	0	5.61	46.39	-0.4296	-0.0022	0
269	SLU 66	0	5.48	46.04	-0.4302	-0.0022	0
269	SLU 67	0	5.48	46.06	-0.43	-0.0022	0
269	SLU 68	0	5.36	45.37	-0.4231	-0.0021	0
269	SLU 69	0	5.23	45.02	-0.4237	-0.0021	0
269	SLU 70	0	5.23	45.04	-0.4234	-0.0021	0
269	SLU 71	0	5.12	44.32	-0.417	-0.0021	0
269	SLU 72	0	5.12	44.34	-0.4167	-0.0021	0
269	SLU 73	0	6.31	52.05	-0.4819	-0.0025	0
269	SLU 74	0	6.17	51.7	-0.4825	-0.0025	0
269	SLU 75	0	6.17	51.72	-0.4822	-0.0025	0
269	SLU 76	0	6.06	51.03	-0.4753	-0.0024	0
269	SLU 77	0	5.92	50.68	-0.4759	-0.0024	0
269	SLU 78	0	5.92	50.7	-0.4757	-0.0024	0
269	SLU 79	0	5.81	49.98	-0.4692	-0.0024	0
269	SLU 80	0	5.81	50	-0.4689	-0.0024	0
269	SLU 81	0	6.6	54.44	-0.5046	-0.0027	0
269	SLU 82	0	6.6	54.46	-0.5044	-0.0027	0
269	SLU 83	0	6.35	53.43	-0.4981	-0.0026	0
269	SLU 84	0	6.35	53.44	-0.4979	-0.0026	0
269	SLE RA 1	0	4.2	34.75	-0.321	-0.0017	0
269	SLE RA 2	0	4.2	34.77	-0.3208	-0.0017	0
269	SLE RA 3	0	4.11	34.54	-0.3212	-0.0017	0
269	SLE RA 4	0	4.11	34.55	-0.321	-0.0016	0
269	SLE RA 5	0	4.04	34.09	-0.3164	-0.0016	0
269	SLE RA 6	0	3.95	33.86	-0.3168	-0.0016	0
269	SLE RA 7	0	3.95	33.87	-0.3166	-0.0016	0
269	SLE RA 8	0	3.87	33.39	-0.3123	-0.0016	0
269	SLE RA 9	0	3.87	33.4	-0.3122	-0.0016	0
269	SLE RA 10	0	4.66	38.54	-0.3556	-0.0019	0
269	SLE RA 11	0	4.57	38.31	-0.356	-0.0019	0
269	SLE RA 12	0	4.57	38.32	-0.3558	-0.0018	0
269	SLE RA 13	0	4.5	37.86	-0.3512	-0.0018	0
269	SLE RA 14	0	4.41	37.63	-0.3516	-0.0018	0
269	SLE RA 15	0	4.41	37.64	-0.3515	-0.0018	0
269	SLE RA 16	0	4.33	37.17	-0.3471	-0.0018	0
269	SLE RA 17	0	4.33	37.18	-0.347	-0.0018	0
269	SLE RA 18	0	4.86	40.14	-0.3708	-0.002	0
269	SLE RA 19	0	4.86	40.15	-0.3706	-0.002	0
269	SLE RA 20	0	4.7	39.46	-0.3664	-0.0019	0
269	SLE RA 21	0	4.69	39.47	-0.3662	-0.0019	0
269	SLE FR 1	0	4.2	34.75	-0.321	-0.0017	0
269	SLE FR 2	0	4.2	34.75	-0.321	-0.0017	0
269	SLE FR 3	0	4.14	34.48	-0.3193	-0.0017	0
269	SLE FR 4	0	4.4	36.37	-0.3359	-0.0018	0
269	SLE FR 5	0	4.33	36.09	-0.3342	-0.0017	0
269	SLE FR 6	0	4.53	37.44	-0.3459	-0.0018	0
269	SLE QP 1	0	4.2	34.75	-0.321	-0.0017	0
269	SLE QP 2	0	4.4	36.37	-0.336	-0.0018	0
269	SLD 1	-0.02	5.29	35.55	-0.3687	-0.0277	0.0001
269	SLD 2	-0.02	5.29	35.55	-0.3687	-0.0277	0.0001
269	SLD 3	-0.07	1.46	33.65	-0.2089	-0.0465	0.0001
269	SLD 4	-0.07	1.46	33.65	-0.2089	-0.0465	0.0001
269	SLD 5	0.05	10.47	39.01	-0.5881	0.019	0.0001
269	SLD 6	0.05	10.47	39.01	-0.5881	0.019	0.0001
269	SLD 7	-0.09	-2.28	32.67	-0.0555	-0.0437	0
269	SLD 8	-0.09	-2.28	32.67	-0.0555	-0.0437	0
269	SLD 9	0.08	11.09	40.07	-0.6164	0.0402	0.0001
269	SLD 10	0.08	11.09	40.07	-0.6164	0.0402	0.0001
269	SLD 11	-0.06	-1.67	33.73	-0.0838	-0.0225	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
269	SLD 12	-0.06	-1.67	33.73	-0.0838	-0.0225	-0.0001
269	SLD 13	0.06	7.34	39.08	-0.463	0.043	-0.0001
269	SLD 14	0.06	7.34	39.08	-0.463	0.043	-0.0001
269	SLD 15	0.02	3.51	37.18	-0.3032	0.0242	-0.0001
269	SLD 16	0.02	3.51	37.18	-0.3032	0.0242	-0.0001
269	SLV 1	-0.05	6.45	34.51	-0.4111	-0.0676	0.0003
269	SLV 2	-0.05	6.45	34.51	-0.4111	-0.0676	0.0003
269	SLV 3	-0.16	-2.53	29.9	-0.0366	-0.1155	0.0002
269	SLV 4	-0.16	-2.53	29.9	-0.0366	-0.1155	0.0002
269	SLV 5	0.14	18.64	42.81	-0.9265	0.0513	0.0003
269	SLV 6	0.14	18.64	42.81	-0.9265	0.0513	0.0003
269	SLV 7	-0.21	-11.3	27.43	0.3219	-0.1087	-0.0001
269	SLV 8	-0.21	-11.3	27.43	0.3219	-0.1087	-0.0001
269	SLV 9	0.21	20.11	45.31	-0.9938	0.1051	0.0001
269	SLV 10	0.21	20.11	45.31	-0.9938	0.1051	0.0001
269	SLV 11	-0.15	-9.84	29.92	0.2546	-0.0548	-0.0003
269	SLV 12	-0.15	-9.84	29.92	0.2546	-0.0548	-0.0003
269	SLV 13	0.15	11.34	42.83	-0.6353	0.112	-0.0002
269	SLV 14	0.15	11.34	42.83	-0.6353	0.112	-0.0002
269	SLV 15	0.05	2.35	38.22	-0.2608	0.064	-0.0003
269	SLV 16	0.05	2.35	38.22	-0.2608	0.064	-0.0003
270	SLU 1	0.02	-4.41	52.57	0.1225	0.0185	-0.0001
270	SLU 2	0.02	-3.75	50.62	0.1023	0.0086	-0.0001
270	SLU 3	0.02	-4.58	53.55	0.1274	0.0193	-0.0001
270	SLU 4	0.02	-4.19	52.38	0.1152	0.0134	-0.0001
270	SLU 5	0.02	-3.85	50.95	0.1051	0.0093	-0.0001
270	SLU 6	0.02	-4.68	53.87	0.1301	0.0199	-0.0001
270	SLU 7	0.02	-4.29	52.7	0.118	0.014	-0.0001
270	SLU 8	0.02	-4.61	53.21	0.1281	0.0198	-0.0001
270	SLU 9	0.02	-4.21	52.05	0.116	0.0139	-0.0001
270	SLU 10	0.02	-4.41	56.62	0.121	0.0113	-0.0001
270	SLU 11	0.02	-5.25	59.54	0.1461	0.0219	-0.0001
270	SLU 12	0.02	-4.85	58.37	0.134	0.016	-0.0001
270	SLU 13	0.02	-4.51	56.94	0.1238	0.0119	-0.0001
270	SLU 14	0.03	-5.35	59.86	0.1489	0.0226	-0.0001
270	SLU 15	0.02	-4.95	58.7	0.1367	0.0167	-0.0001
270	SLU 16	0.02	-5.27	59.21	0.1468	0.0224	-0.0001
270	SLU 17	0.02	-4.88	58.04	0.1347	0.0165	-0.0001
270	SLU 18	0.02	-5.36	61.13	0.1493	0.0223	-0.0001
270	SLU 19	0.02	-4.96	59.96	0.1372	0.0164	-0.0001
270	SLU 20	0.03	-5.46	61.45	0.1521	0.0229	-0.0001
270	SLU 21	0.02	-5.06	60.29	0.1399	0.017	-0.0001
270	SLU 22	0.02	-5.08	58.28	0.1413	0.0213	-0.0001
270	SLU 23	0.02	-4.42	56.34	0.1211	0.0114	-0.0001
270	SLU 24	0.02	-5.25	59.26	0.1462	0.0221	-0.0001
270	SLU 25	0.02	-4.86	58.1	0.1341	0.0162	-0.0001
270	SLU 26	0.02	-4.52	56.66	0.1239	0.0121	-0.0001
270	SLU 27	0.03	-5.35	59.59	0.149	0.0227	-0.0001
270	SLU 28	0.02	-4.96	58.42	0.1368	0.0168	-0.0001
270	SLU 29	0.02	-5.28	58.93	0.1469	0.0226	-0.0001
270	SLU 30	0.02	-4.88	57.76	0.1348	0.0166	-0.0001
270	SLU 31	0.02	-5.08	62.33	0.1399	0.0141	-0.0001
270	SLU 32	0.03	-5.92	65.25	0.1649	0.0247	-0.0001
270	SLU 33	0.02	-5.52	64.09	0.1528	0.0188	-0.0001
270	SLU 34	0.02	-5.18	62.66	0.1427	0.0147	-0.0001
270	SLU 35	0.03	-6.02	65.58	0.1677	0.0254	-0.0001
270	SLU 36	0.03	-5.62	64.41	0.1556	0.0195	-0.0001
270	SLU 37	0.03	-5.94	64.92	0.1657	0.0252	-0.0001
270	SLU 38	0.03	-5.55	63.76	0.1535	0.0193	-0.0001
270	SLU 39	0.03	-6.03	66.84	0.1681	0.025	-0.0001
270	SLU 40	0.03	-5.63	65.68	0.156	0.0191	-0.0001
270	SLU 41	0.03	-6.13	67.17	0.1709	0.0257	-0.0001
270	SLU 42	0.03	-5.73	66	0.1588	0.0198	-0.0001
270	SLU 43	0.03	-5.5	66.38	0.1528	0.0231	-0.0001
270	SLU 44	0.02	-4.84	64.43	0.1326	0.0132	-0.0001
270	SLU 45	0.03	-5.68	67.36	0.1576	0.0239	-0.0001
270	SLU 46	0.02	-5.28	66.19	0.1455	0.018	-0.0001
270	SLU 47	0.02	-4.94	64.76	0.1354	0.0139	-0.0001
270	SLU 48	0.03	-5.78	67.68	0.1604	0.0245	-0.0001
270	SLU 49	0.02	-5.38	66.51	0.1483	0.0186	-0.0001
270	SLU 50	0.03	-5.7	67.03	0.1584	0.0244	-0.0001
270	SLU 51	0.02	-5.31	65.86	0.1463	0.0185	-0.0001
270	SLU 52	0.02	-5.51	70.43	0.1513	0.0159	-0.0001
270	SLU 53	0.03	-6.34	73.35	0.1764	0.0265	-0.0001
270	SLU 54	0.03	-5.94	72.18	0.1643	0.0206	-0.0001
270	SLU 55	0.02	-5.61	70.75	0.1541	0.0165	-0.0001
270	SLU 56	0.03	-6.44	73.67	0.1792	0.0272	-0.0001
270	SLU 57	0.03	-6.04	72.51	0.167	0.0213	-0.0001
270	SLU 58	0.03	-6.37	73.02	0.1771	0.027	-0.0001
270	SLU 59	0.03	-5.97	71.85	0.165	0.0211	-0.0001
270	SLU 60	0.03	-6.45	74.94	0.1796	0.0269	-0.0001
270	SLU 61	0.03	-6.06	73.77	0.1675	0.0209	-0.0001
270	SLU 62	0.03	-6.55	75.26	0.1824	0.0275	-0.0001
270	SLU 63	0.03	-6.15	74.1	0.1702	0.0216	-0.0001
270	SLU 64	0.03	-6.17	72.09	0.1716	0.0258	-0.0001
270	SLU 65	0.02	-5.51	70.15	0.1514	0.016	-0.0001
270	SLU 66	0.03	-6.35	73.07	0.1765	0.0267	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
270	SLU 67	0.03	-5.95	71.91	0.1644	0.0207	-0.0001
270	SLU 68	0.02	-5.61	70.47	0.1542	0.0166	-0.0001
270	SLU 69	0.03	-6.45	73.4	0.1793	0.0273	-0.0001
270	SLU 70	0.03	-6.05	72.23	0.1671	0.0214	-0.0001
270	SLU 71	0.03	-6.37	72.74	0.1772	0.0271	-0.0001
270	SLU 72	0.03	-5.98	71.57	0.1651	0.0212	-0.0001
270	SLU 73	0.03	-6.17	76.14	0.1702	0.0186	-0.0001
270	SLU 74	0.03	-7.01	79.07	0.1952	0.0293	-0.0001
270	SLU 75	0.03	-6.61	77.9	0.1831	0.0234	-0.0001
270	SLU 76	0.03	-6.27	76.47	0.173	0.0193	-0.0001
270	SLU 77	0.03	-7.11	79.39	0.198	0.03	-0.0001
270	SLU 78	0.03	-6.71	78.22	0.1859	0.024	-0.0001
270	SLU 79	0.03	-7.04	78.73	0.196	0.0298	-0.0001
270	SLU 80	0.03	-6.64	77.57	0.1838	0.0239	-0.0001
270	SLU 81	0.03	-7.12	80.65	0.1984	0.0296	-0.0001
270	SLU 82	0.03	-6.72	79.49	0.1863	0.0237	-0.0001
270	SLU 83	0.03	-7.22	80.98	0.2012	0.0303	-0.0001
270	SLU 84	0.03	-6.82	79.81	0.1891	0.0244	-0.0001
270	SLE RA 1	0.02	-4.6	54.2	0.1279	0.0193	-0.0001
270	SLE RA 2	0.02	-4.16	52.9	0.1144	0.0127	-0.0001
270	SLE RA 3	0.02	-4.72	54.85	0.1311	0.0198	-0.0001
270	SLE RA 4	0.02	-4.45	54.08	0.123	0.0159	-0.0001
270	SLE RA 5	0.02	-4.23	53.12	0.1163	0.0131	-0.0001
270	SLE RA 6	0.02	-4.78	55.07	0.133	0.0202	-0.0001
270	SLE RA 7	0.02	-4.52	54.29	0.1249	0.0163	-0.0001
270	SLE RA 8	0.02	-4.74	54.63	0.1316	0.0201	-0.0001
270	SLE RA 9	0.02	-4.47	53.85	0.1235	0.0162	-0.0001
270	SLE RA 10	0.02	-4.6	56.9	0.1269	0.0145	-0.0001
270	SLE RA 11	0.02	-5.16	58.85	0.1436	0.0216	-0.0001
270	SLE RA 12	0.02	-4.89	58.07	0.1355	0.0176	-0.0001
270	SLE RA 13	0.02	-4.67	57.12	0.1288	0.0149	-0.0001
270	SLE RA 14	0.02	-5.23	59.06	0.1455	0.022	-0.0001
270	SLE RA 15	0.02	-4.96	58.29	0.1374	0.0181	-0.0001
270	SLE RA 16	0.02	-5.18	58.63	0.1441	0.0219	-0.0001
270	SLE RA 17	0.02	-4.91	57.85	0.136	0.018	-0.0001
270	SLE RA 18	0.02	-5.23	59.91	0.1457	0.0218	-0.0001
270	SLE RA 19	0.02	-4.97	59.13	0.1377	0.0179	-0.0001
270	SLE RA 20	0.02	-5.3	60.12	0.1476	0.0222	-0.0001
270	SLE RA 21	0.02	-5.04	59.35	0.1395	0.0183	-0.0001
270	SLE FR 1	0.02	-4.6	54.2	0.1279	0.0193	-0.0001
270	SLE FR 2	0.02	-4.51	53.94	0.1252	0.018	-0.0001
270	SLE FR 3	0.02	-4.63	54.29	0.1286	0.0194	-0.0001
270	SLE FR 4	0.02	-4.7	55.65	0.1306	0.0187	-0.0001
270	SLE FR 5	0.02	-4.82	56	0.134	0.0202	-0.0001
270	SLE FR 6	0.02	-4.92	57.05	0.1368	0.0205	-0.0001
270	SLE QP 1	0.02	-4.6	54.2	0.1279	0.0193	-0.0001
270	SLE QP 2	0.02	-4.79	55.91	0.1332	0.02	-0.0001
270	SLD 1	0.18	-1.95	39.21	0.0505	0.1809	-0.0007
270	SLD 2	0.18	-1.95	39.21	0.0505	0.1809	-0.0007
270	SLD 3	0.26	-5.21	44.34	0.1467	0.2637	-0.001
270	SLD 4	0.26	-5.21	44.34	0.1467	0.2637	-0.001
270	SLD 5	-0.05	0.99	43.12	-0.0376	-0.0573	0.0002
270	SLD 6	-0.05	0.99	43.12	-0.0376	-0.0573	0.0002
270	SLD 7	0.21	-9.85	60.22	0.2833	0.2187	-0.0008
270	SLD 8	0.21	-9.85	60.22	0.2833	0.2187	-0.0008
270	SLD 9	-0.17	0.27	51.61	-0.0168	-0.1786	0.0007
270	SLD 10	-0.17	0.27	51.61	-0.0168	-0.1786	0.0007
270	SLD 11	0.1	-10.58	68.7	0.3041	0.0974	-0.0004
270	SLD 12	0.1	-10.58	68.7	0.3041	0.0974	-0.0004
270	SLD 13	-0.21	-4.38	67.49	0.1198	-0.2236	0.0008
270	SLD 14	-0.21	-4.38	67.49	0.1198	-0.2236	0.0008
270	SLD 15	-0.13	-7.63	72.61	0.216	-0.1408	0.0005
270	SLD 16	-0.13	-7.63	72.61	0.216	-0.1408	0.0005
270	SLV 1	0.39	1.86	16.77	-0.0605	0.4084	-0.0015
270	SLV 2	0.39	1.86	16.77	-0.0605	0.4084	-0.0015
270	SLV 3	0.6	-5.73	28.9	0.1639	0.6194	-0.0023
270	SLV 4	0.6	-5.73	28.9	0.1639	0.6194	-0.0023
270	SLV 5	-0.18	8.71	25.78	-0.2653	-0.1835	0.0007
270	SLV 6	-0.18	8.71	25.78	-0.2653	-0.1835	0.0007
270	SLV 7	0.5	-16.58	66.2	0.4828	0.5199	-0.002
270	SLV 8	0.5	-16.58	66.2	0.4828	0.5199	-0.002
270	SLV 9	-0.46	6.99	45.62	-0.2163	-0.4799	0.0018
270	SLV 10	-0.46	6.99	45.62	-0.2163	-0.4799	0.0018
270	SLV 11	0.22	-18.29	86.05	0.5317	0.2236	-0.0009
270	SLV 12	0.22	-18.29	86.05	0.5317	0.2236	-0.0009
270	SLV 13	-0.55	-3.85	82.93	0.1026	-0.5794	0.0021
270	SLV 14	-0.55	-3.85	82.93	0.1026	-0.5794	0.0021
270	SLV 15	-0.35	-11.44	95.05	0.327	-0.3683	0.0013
270	SLV 16	-0.35	-11.44	95.05	0.327	-0.3683	0.0013
271	SLU 1	-0.12	-8.35	24.54	0.3283	-0.0856	0.0004
271	SLU 2	-0.11	-7.42	24.15	0.2885	-0.0759	0.0004
271	SLU 3	-0.12	-8.56	25.11	0.3365	-0.0882	0.0005
271	SLU 4	-0.12	-8	24.87	0.3126	-0.0824	0.0004
271	SLU 5	-0.11	-7.5	24.52	0.2916	-0.0776	0.0004
271	SLU 6	-0.12	-8.64	25.48	0.3397	-0.0899	0.0005
271	SLU 7	-0.12	-8.08	25.25	0.3158	-0.0841	0.0005
271	SLU 8	-0.12	-8.51	25.29	0.3346	-0.0891	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
271	SLU 9	-0.12	-7.95	25.06	0.3107	-0.0832	0.0004
271	SLU 10	-0.12	-8.52	26.33	0.3331	-0.0868	0.0005
271	SLU 11	-0.13	-9.66	27.29	0.3812	-0.0991	0.0005
271	SLU 12	-0.13	-9.1	27.06	0.3573	-0.0933	0.0005
271	SLU 13	-0.13	-8.6	26.71	0.3363	-0.0885	0.0005
271	SLU 14	-0.14	-9.74	27.67	0.3843	-0.1008	0.0005
271	SLU 15	-0.13	-9.18	27.43	0.3604	-0.095	0.0005
271	SLU 16	-0.14	-9.61	27.47	0.3793	-0.0999	0.0005
271	SLU 17	-0.13	-9.05	27.24	0.3554	-0.0941	0.0005
271	SLU 18	-0.14	-9.93	27.66	0.3921	-0.1012	0.0005
271	SLU 19	-0.13	-9.36	27.42	0.3682	-0.0953	0.0005
271	SLU 20	-0.14	-10.01	28.03	0.3952	-0.1029	0.0005
271	SLU 21	-0.14	-9.44	27.8	0.3713	-0.0971	0.0005
271	SLU 22	-0.13	-9.43	26.76	0.3718	-0.0965	0.0005
271	SLU 23	-0.12	-8.49	26.37	0.332	-0.0868	0.0005
271	SLU 24	-0.13	-9.63	27.33	0.38	-0.099	0.0005
271	SLU 25	-0.13	-9.07	27.1	0.3561	-0.0932	0.0005
271	SLU 26	-0.13	-8.57	26.75	0.3351	-0.0885	0.0005
271	SLU 27	-0.14	-9.71	27.71	0.3832	-0.1008	0.0005
271	SLU 28	-0.13	-9.15	27.47	0.3593	-0.0949	0.0005
271	SLU 29	-0.14	-9.59	27.51	0.3781	-0.0999	0.0005
271	SLU 30	-0.13	-9.03	27.28	0.3542	-0.0941	0.0005
271	SLU 31	-0.14	-9.59	28.55	0.3766	-0.0976	0.0005
271	SLU 32	-0.15	-10.74	29.51	0.4247	-0.1099	0.0006
271	SLU 33	-0.15	-10.17	29.28	0.4008	-0.1041	0.0006
271	SLU 34	-0.14	-9.67	28.93	0.3798	-0.0993	0.0005
271	SLU 35	-0.15	-10.82	29.89	0.4278	-0.1116	0.0006
271	SLU 36	-0.15	-10.25	29.65	0.4039	-0.1058	0.0006
271	SLU 37	-0.15	-10.69	29.69	0.4228	-0.1108	0.0006
271	SLU 38	-0.15	-10.13	29.46	0.3989	-0.1049	0.0006
271	SLU 39	-0.15	-11	29.88	0.4355	-0.112	0.0006
271	SLU 40	-0.15	-10.44	29.64	0.4116	-0.1062	0.0006
271	SLU 41	-0.15	-11.08	30.25	0.4387	-0.1137	0.0006
271	SLU 42	-0.15	-10.52	30.02	0.4148	-0.1079	0.0006
271	SLU 43	-0.15	-10.49	31.14	0.4119	-0.1076	0.0006
271	SLU 44	-0.14	-9.55	30.75	0.372	-0.0979	0.0005
271	SLU 45	-0.15	-10.69	31.71	0.4201	-0.1102	0.0006
271	SLU 46	-0.15	-10.13	31.47	0.3962	-0.1044	0.0006
271	SLU 47	-0.14	-9.63	31.12	0.3752	-0.0996	0.0005
271	SLU 48	-0.15	-10.77	32.08	0.4233	-0.1119	0.0006
271	SLU 49	-0.15	-10.21	31.85	0.3994	-0.1061	0.0006
271	SLU 50	-0.15	-10.65	31.89	0.4182	-0.1111	0.0006
271	SLU 51	-0.15	-10.09	31.66	0.3943	-0.1052	0.0006
271	SLU 52	-0.15	-10.65	32.93	0.4167	-0.1088	0.0006
271	SLU 53	-0.16	-11.8	33.89	0.4647	-0.1211	0.0006
271	SLU 54	-0.16	-11.23	33.66	0.4408	-0.1152	0.0006
271	SLU 55	-0.16	-10.73	33.31	0.4198	-0.1105	0.0006
271	SLU 56	-0.17	-11.88	34.27	0.4679	-0.1228	0.0006
271	SLU 57	-0.16	-11.31	34.03	0.444	-0.117	0.0006
271	SLU 58	-0.17	-11.75	34.07	0.4628	-0.1219	0.0006
271	SLU 59	-0.16	-11.19	33.84	0.4389	-0.1161	0.0006
271	SLU 60	-0.17	-12.06	34.26	0.4756	-0.1231	0.0006
271	SLU 61	-0.16	-11.5	34.02	0.4517	-0.1173	0.0006
271	SLU 62	-0.17	-12.14	34.63	0.4788	-0.1249	0.0006
271	SLU 63	-0.17	-11.58	34.4	0.4549	-0.119	0.0006
271	SLU 64	-0.16	-11.57	33.36	0.4554	-0.1184	0.0006
271	SLU 65	-0.15	-10.63	32.97	0.4155	-0.1087	0.0006
271	SLU 66	-0.16	-11.77	33.93	0.4636	-0.121	0.0006
271	SLU 67	-0.16	-11.21	33.7	0.4397	-0.1152	0.0006
271	SLU 68	-0.16	-10.71	33.35	0.4187	-0.1105	0.0006
271	SLU 69	-0.17	-11.85	34.31	0.4668	-0.1227	0.0006
271	SLU 70	-0.16	-11.29	34.07	0.4429	-0.1169	0.0006
271	SLU 71	-0.17	-11.73	34.11	0.4617	-0.1219	0.0006
271	SLU 72	-0.16	-11.16	33.88	0.4378	-0.1161	0.0006
271	SLU 73	-0.17	-11.73	35.15	0.4602	-0.1196	0.0006
271	SLU 74	-0.18	-12.87	36.11	0.5082	-0.1319	0.0007
271	SLU 75	-0.18	-12.31	35.88	0.4843	-0.1261	0.0007
271	SLU 76	-0.17	-11.81	35.53	0.4633	-0.1213	0.0007
271	SLU 77	-0.18	-12.95	36.49	0.5114	-0.1336	0.0007
271	SLU 78	-0.18	-12.39	36.25	0.4875	-0.1278	0.0007
271	SLU 79	-0.18	-12.83	36.29	0.5063	-0.1327	0.0007
271	SLU 80	-0.18	-12.27	36.06	0.4824	-0.1269	0.0007
271	SLU 81	-0.18	-13.14	36.48	0.5191	-0.134	0.0007
271	SLU 82	-0.18	-12.58	36.24	0.4952	-0.1281	0.0007
271	SLU 83	-0.18	-13.22	36.85	0.5223	-0.1357	0.0007
271	SLU 84	-0.18	-12.66	36.62	0.4984	-0.1299	0.0007
271	SLE RA 1	-0.12	-8.66	25.17	0.3407	-0.0887	0.0005
271	SLE RA 2	-0.12	-8.04	24.91	0.3142	-0.0823	0.0004
271	SLE RA 3	-0.12	-8.8	25.55	0.3462	-0.0905	0.0005
271	SLE RA 4	-0.12	-8.42	25.4	0.3303	-0.0866	0.0005
271	SLE RA 5	-0.12	-8.09	25.16	0.3163	-0.0834	0.0005
271	SLE RA 6	-0.12	-8.85	25.8	0.3483	-0.0916	0.0005
271	SLE RA 7	-0.12	-8.48	25.65	0.3324	-0.0877	0.0005
271	SLE RA 8	-0.12	-8.77	25.67	0.3449	-0.091	0.0005
271	SLE RA 9	-0.12	-8.39	25.52	0.329	-0.0871	0.0005
271	SLE RA 10	-0.13	-8.77	26.37	0.3439	-0.0895	0.0005
271	SLE RA 11	-0.13	-9.53	27.01	0.376	-0.0977	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
271	SLE RA 12	-0.13	-9.16	26.85	0.36	-0.0938	0.0005
271	SLE RA 13	-0.13	-8.82	26.62	0.346	-0.0906	0.0005
271	SLE RA 14	-0.13	-9.59	27.26	0.3781	-0.0988	0.0005
271	SLE RA 15	-0.13	-9.21	27.1	0.3621	-0.095	0.0005
271	SLE RA 16	-0.13	-9.5	27.13	0.3747	-0.0983	0.0005
271	SLE RA 17	-0.13	-9.13	26.97	0.3588	-0.0944	0.0005
271	SLE RA 18	-0.13	-9.71	27.25	0.3832	-0.0991	0.0005
271	SLE RA 19	-0.13	-9.33	27.1	0.3673	-0.0952	0.0005
271	SLE RA 20	-0.14	-9.76	27.5	0.3853	-0.1002	0.0005
271	SLE RA 21	-0.13	-9.39	27.35	0.3694	-0.0963	0.0005
271	SLE FR 1	-0.12	-8.66	25.17	0.3407	-0.0887	0.0005
271	SLE FR 2	-0.12	-8.54	25.12	0.3354	-0.0874	0.0005
271	SLE FR 3	-0.12	-8.68	25.27	0.3416	-0.0892	0.0005
271	SLE FR 4	-0.12	-8.85	25.75	0.3482	-0.0905	0.0005
271	SLE FR 5	-0.13	-9	25.9	0.3543	-0.0923	0.0005
271	SLE FR 6	-0.13	-9.18	26.21	0.362	-0.0939	0.0005
271	SLE QP 1	-0.12	-8.66	25.17	0.3407	-0.0887	0.0005
271	SLE QP 2	-0.12	-8.97	25.8	0.3535	-0.0918	0.0005
271	SLD 1	0.05	-9.58	31.32	0.3711	0.0899	0.0007
271	SLD 2	0.05	-9.58	31.32	0.3711	0.0899	0.0007
271	SLD 3	-0.04	-13.44	32.76	0.5391	0.0105	0.0011
271	SLD 4	-0.04	-13.44	32.76	0.5391	0.0105	0.0011
271	SLD 5	0.07	-3.29	25.26	0.104	0.0831	0
271	SLD 6	0.07	-3.29	25.26	0.104	0.0831	0
271	SLD 7	-0.24	-16.18	30.08	0.6639	-0.1815	0.0012
271	SLD 8	-0.24	-16.18	30.08	0.6639	-0.1815	0.0012
271	SLD 9	-0.01	-1.77	21.51	0.043	-0.0022	-0.0003
271	SLD 10	-0.01	-1.77	21.51	0.043	-0.0022	-0.0003
271	SLD 11	-0.32	-14.66	26.34	0.6029	-0.2667	0.001
271	SLD 12	-0.32	-14.66	26.34	0.6029	-0.2667	0.001
271	SLD 13	-0.21	-4.51	18.83	0.1678	-0.1942	-0.0001
271	SLD 14	-0.21	-4.51	18.83	0.1678	-0.1942	-0.0001
271	SLD 15	-0.3	-8.37	20.28	0.3358	-0.2736	0.0002
271	SLD 16	-0.3	-8.37	20.28	0.3358	-0.2736	0.0002
271	SLV 1	0.3	-10.41	38.63	0.3961	0.353	0.001
271	SLV 2	0.3	-10.41	38.63	0.3961	0.353	0.001
271	SLV 3	0.07	-19.42	42.17	0.7877	0.155	0.002
271	SLV 4	0.07	-19.42	42.17	0.7877	0.155	0.002
271	SLV 5	0.35	4.25	24.28	-0.2276	0.342	-0.0008
271	SLV 6	0.35	4.25	24.28	-0.2276	0.342	-0.0008
271	SLV 7	-0.41	-25.77	36.08	1.0776	-0.3182	0.0023
271	SLV 8	-0.41	-25.77	36.08	1.0776	-0.3182	0.0023
271	SLV 9	0.16	7.82	15.52	-0.3707	0.1345	-0.0014
271	SLV 10	0.16	7.82	15.52	-0.3707	0.1345	-0.0014
271	SLV 11	-0.6	-22.2	27.32	0.9346	-0.5257	0.0017
271	SLV 12	-0.6	-22.2	27.32	0.9346	-0.5257	0.0017
271	SLV 13	-0.32	1.47	9.43	-0.0807	-0.3386	-0.001
271	SLV 14	-0.32	1.47	9.43	-0.0807	-0.3386	-0.001
271	SLV 15	-0.55	-7.54	12.97	0.3108	-0.5367	-0.0001
271	SLV 16	-0.55	-7.54	12.97	0.3108	-0.5367	-0.0001
272	SLU 1	0	1.23	49.25	-0.021	0.0022	0
272	SLU 2	0	1.34	48.76	-0.024	0.0024	0
272	SLU 3	0	1.27	51.76	-0.021	0.0024	0
272	SLU 4	0	1.33	51.46	-0.0228	0.0025	0
272	SLU 5	0	1.38	50.89	-0.0245	0.0026	0
272	SLU 6	0	1.32	53.89	-0.0214	0.0026	0
272	SLU 7	0	1.38	53.6	-0.0232	0.0027	0
272	SLU 8	0	1.33	53.52	-0.0219	0.0026	0
272	SLU 9	0	1.39	53.22	-0.0237	0.0027	0
272	SLU 10	0	1.35	56.81	-0.0221	0.0028	0
272	SLU 11	0.01	1.28	59.81	-0.019	0.0027	0
272	SLU 12	0.01	1.34	59.51	-0.0208	0.0029	0
272	SLU 13	0.01	1.4	58.94	-0.0225	0.003	0
272	SLU 14	0.01	1.33	61.94	-0.0194	0.0029	0
272	SLU 15	0.01	1.39	61.65	-0.0213	0.0031	0
272	SLU 16	0.01	1.34	61.57	-0.0199	0.0029	0
272	SLU 17	0.01	1.4	61.27	-0.0217	0.0031	0
272	SLU 18	0.01	1.25	60.75	-0.0182	0.0027	0
272	SLU 19	0.01	1.31	60.46	-0.02	0.0028	0
272	SLU 20	0.01	1.3	62.88	-0.0186	0.0029	0
272	SLU 21	0.01	1.36	62.59	-0.0205	0.003	0
272	SLU 22	0	1.27	57.37	-0.0196	0.0026	0
272	SLU 23	0	1.37	56.88	-0.0227	0.0028	0
272	SLU 24	0.01	1.31	59.88	-0.0196	0.0028	0
272	SLU 25	0.01	1.37	59.59	-0.0214	0.0029	0
272	SLU 26	0.01	1.42	59.01	-0.0231	0.003	0
272	SLU 27	0.01	1.35	62.01	-0.02	0.003	0
272	SLU 28	0.01	1.41	61.72	-0.0219	0.0031	0
272	SLU 29	0.01	1.36	61.64	-0.0205	0.003	0
272	SLU 30	0.01	1.43	61.34	-0.0223	0.0031	0
272	SLU 31	0.01	1.39	64.93	-0.0207	0.0032	0
272	SLU 32	0.01	1.32	67.93	-0.0176	0.0031	0
272	SLU 33	0.01	1.38	67.64	-0.0195	0.0032	0
272	SLU 34	0.01	1.43	67.06	-0.0212	0.0033	0
272	SLU 35	0.01	1.37	70.06	-0.0181	0.0033	0
272	SLU 36	0.01	1.43	69.77	-0.0199	0.0034	0
272	SLU 37	0.01	1.38	69.69	-0.0185	0.0033	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
272	SLU 38	0.01	1.44	69.39	-0.0204	0.0034	0
272	SLU 39	0.01	1.29	68.87	-0.0168	0.0031	0
272	SLU 40	0.01	1.35	68.58	-0.0187	0.0032	0
272	SLU 41	0.01	1.34	71	-0.0173	0.0033	0
272	SLU 42	0.01	1.4	70.71	-0.0191	0.0034	0
272	SLU 43	0.01	1.59	61.24	-0.0278	0.0028	0
272	SLU 44	0.01	1.69	60.75	-0.0308	0.003	0
272	SLU 45	0.01	1.63	63.75	-0.0277	0.0029	0
272	SLU 46	0.01	1.69	63.46	-0.0296	0.0031	0
272	SLU 47	0.01	1.74	62.88	-0.0313	0.0032	0
272	SLU 48	0.01	1.67	65.88	-0.0282	0.0031	0
272	SLU 49	0.01	1.73	65.59	-0.03	0.0033	0
272	SLU 50	0.01	1.68	65.51	-0.0287	0.0031	0
272	SLU 51	0.01	1.75	65.21	-0.0305	0.0033	0
272	SLU 52	0.01	1.71	68.8	-0.0289	0.0033	0
272	SLU 53	0.01	1.64	71.8	-0.0258	0.0033	0
272	SLU 54	0.01	1.7	71.51	-0.0276	0.0034	0
272	SLU 55	0.01	1.75	70.93	-0.0293	0.0035	0
272	SLU 56	0.01	1.69	73.93	-0.0262	0.0035	0
272	SLU 57	0.01	1.75	73.64	-0.028	0.0036	0
272	SLU 58	0.01	1.7	73.56	-0.0267	0.0035	0
272	SLU 59	0.01	1.76	73.26	-0.0285	0.0036	0
272	SLU 60	0.01	1.61	72.74	-0.025	0.0032	0
272	SLU 61	0.01	1.67	72.45	-0.0268	0.0034	0
272	SLU 62	0.01	1.66	74.87	-0.0254	0.0034	0
272	SLU 63	0.01	1.72	74.58	-0.0272	0.0036	0
272	SLU 64	0.01	1.63	69.36	-0.0264	0.0031	0
272	SLU 65	0.01	1.73	68.87	-0.0294	0.0034	0
272	SLU 66	0.01	1.66	71.87	-0.0264	0.0033	0
272	SLU 67	0.01	1.72	71.58	-0.0282	0.0034	0
272	SLU 68	0.01	1.78	71	-0.0299	0.0035	0
272	SLU 69	0.01	1.71	74	-0.0268	0.0035	0
272	SLU 70	0.01	1.77	73.71	-0.0286	0.0036	0
272	SLU 71	0.01	1.72	73.63	-0.0273	0.0035	0
272	SLU 72	0.01	1.78	73.33	-0.0291	0.0036	0
272	SLU 73	0.01	1.74	76.92	-0.0275	0.0037	0
272	SLU 74	0.01	1.68	79.92	-0.0244	0.0037	0
272	SLU 75	0.01	1.74	79.63	-0.0262	0.0038	0
272	SLU 76	0.01	1.79	79.05	-0.0279	0.0039	0
272	SLU 77	0.01	1.72	82.05	-0.0248	0.0038	0
272	SLU 78	0.01	1.79	81.76	-0.0267	0.004	0
272	SLU 79	0.01	1.73	81.68	-0.0253	0.0038	0
272	SLU 80	0.01	1.8	81.38	-0.0271	0.004	0
272	SLU 81	0.01	1.65	80.86	-0.0236	0.0036	0
272	SLU 82	0.01	1.71	80.57	-0.0254	0.0037	0
272	SLU 83	0.01	1.69	82.99	-0.024	0.0038	0
272	SLU 84	0.01	1.76	82.7	-0.0259	0.0039	0
272	SLE RA 1	0	1.24	51.57	-0.0206	0.0023	0
272	SLE RA 2	0	1.31	51.24	-0.0226	0.0025	0
272	SLE RA 3	0	1.27	53.24	-0.0206	0.0025	0
272	SLE RA 4	0	1.31	53.05	-0.0218	0.0025	0
272	SLE RA 5	0	1.34	52.67	-0.0229	0.0026	0
272	SLE RA 6	0	1.3	54.66	-0.0209	0.0026	0
272	SLE RA 7	0	1.34	54.47	-0.0221	0.0027	0
272	SLE RA 8	0	1.31	54.41	-0.0212	0.0026	0
272	SLE RA 9	0	1.35	54.22	-0.0224	0.0027	0
272	SLE RA 10	0	1.32	56.61	-0.0213	0.0027	0
272	SLE RA 11	0.01	1.28	58.61	-0.0193	0.0027	0
272	SLE RA 12	0.01	1.32	58.41	-0.0205	0.0028	0
272	SLE RA 13	0.01	1.35	58.03	-0.0216	0.0028	0
272	SLE RA 14	0.01	1.31	60.03	-0.0196	0.0028	0
272	SLE RA 15	0.01	1.35	59.84	-0.0208	0.0029	0
272	SLE RA 16	0.01	1.32	59.78	-0.0199	0.0028	0
272	SLE RA 17	0.01	1.36	59.58	-0.0211	0.0029	0
272	SLE RA 18	0.01	1.26	59.24	-0.0187	0.0027	0
272	SLE RA 19	0.01	1.3	59.04	-0.02	0.0027	0
272	SLE RA 20	0.01	1.29	60.66	-0.019	0.0028	0
272	SLE RA 21	0.01	1.33	60.46	-0.0203	0.0029	0
272	SLE FR 1	0	1.24	51.57	-0.0206	0.0023	0
272	SLE FR 2	0	1.26	51.5	-0.021	0.0024	0
272	SLE FR 3	0	1.26	52.14	-0.0207	0.0024	0
272	SLE FR 4	0	1.26	53.8	-0.0205	0.0025	0
272	SLE FR 5	0	1.26	54.44	-0.0202	0.0025	0
272	SLE FR 6	0	1.25	55.4	-0.0197	0.0025	0
272	SLE QP 1	0	1.24	51.57	-0.0206	0.0023	0
272	SLE QP 2	0	1.25	53.87	-0.02	0.0024	0
272	SLD 1	0.17	4.47	54.96	-0.1194	0.1993	0.0001
272	SLD 2	0.17	4.47	54.96	-0.1194	0.1993	0.0001
272	SLD 3	0.13	0.75	58.36	-0.004	0.1589	0
272	SLD 4	0.13	0.75	58.36	-0.004	0.1589	0
272	SLD 5	0.11	7.86	49.03	-0.225	0.1229	0
272	SLD 6	0.11	7.86	49.03	-0.225	0.1229	0
272	SLD 7	-0.01	-4.55	60.38	0.1599	-0.012	0
272	SLD 8	-0.01	-4.55	60.38	0.1599	-0.012	0
272	SLD 9	0.02	7.04	47.36	-0.2	0.0169	0
272	SLD 10	0.02	7.04	47.36	-0.2	0.0169	0
272	SLD 11	-0.1	-5.37	58.71	0.1849	-0.118	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
272	SLD 12	-0.1	-5.37	58.71	0.1849	-0.118	0
272	SLD 13	-0.12	1.75	49.38	-0.0361	-0.154	-0.0001
272	SLD 14	-0.12	1.75	49.38	-0.0361	-0.154	-0.0001
272	SLD 15	-0.16	-1.98	52.78	0.0794	-0.1945	-0.0001
272	SLD 16	-0.16	-1.98	52.78	0.0794	-0.1945	-0.0001
272	SLV 1	0.42	8.89	56.38	-0.2557	0.5056	0.0001
272	SLV 2	0.42	8.89	56.38	-0.2557	0.5056	0.0001
272	SLV 3	0.33	0.13	64.47	0.0161	0.4024	0.0001
272	SLV 4	0.33	0.13	64.47	0.0161	0.4024	0.0001
272	SLV 5	0.27	16.82	42.36	-0.503	0.31	0.0001
272	SLV 6	0.27	16.82	42.36	-0.503	0.31	0.0001
272	SLV 7	-0.04	-12.37	69.31	0.403	-0.0342	0
272	SLV 8	-0.04	-12.37	69.31	0.403	-0.0342	0
272	SLV 9	0.05	14.86	38.43	-0.4431	0.0391	0
272	SLV 10	0.05	14.86	38.43	-0.4431	0.0391	0
272	SLV 11	-0.26	-14.33	65.38	0.4629	-0.3051	-0.0001
272	SLV 12	-0.26	-14.33	65.38	0.4629	-0.3051	-0.0001
272	SLV 13	-0.32	2.36	43.27	-0.0562	-0.3975	-0.0001
272	SLV 14	-0.32	2.36	43.27	-0.0562	-0.3975	-0.0001
272	SLV 15	-0.41	-6.39	51.35	0.2156	-0.5008	-0.0001
272	SLV 16	-0.41	-6.39	51.35	0.2156	-0.5008	-0.0001
273	SLU 1	-0.01	-4.29	47.68	0.2189	-0.0036	0
273	SLU 2	-0.01	-4.21	47.41	0.2156	-0.0038	0
273	SLU 3	-0.01	-4.39	49.36	0.2229	-0.0037	0
273	SLU 4	-0.01	-4.34	49.2	0.2209	-0.0037	0
273	SLU 5	-0.01	-4.21	48.5	0.2143	-0.0037	0
273	SLU 6	-0.01	-4.39	50.44	0.2216	-0.0036	0
273	SLU 7	-0.01	-4.34	50.28	0.2196	-0.0037	0
273	SLU 8	-0.01	-4.29	49.85	0.2163	-0.0035	0
273	SLU 9	-0.01	-4.25	49.69	0.2143	-0.0036	0
273	SLU 10	-0.01	-5.12	55.54	0.2616	-0.0045	0
273	SLU 11	-0.01	-5.3	57.48	0.2689	-0.0044	0
273	SLU 12	-0.01	-5.25	57.32	0.2669	-0.0045	0
273	SLU 13	-0.01	-5.13	56.62	0.2603	-0.0045	0
273	SLU 14	-0.01	-5.3	58.56	0.2676	-0.0044	0
273	SLU 15	-0.01	-5.26	58.4	0.2656	-0.0044	0
273	SLU 16	-0.01	-5.21	57.97	0.2623	-0.0043	0
273	SLU 17	-0.01	-5.16	57.81	0.2603	-0.0044	0
273	SLU 18	-0.01	-5.59	59.29	0.2847	-0.0047	0
273	SLU 19	-0.01	-5.54	59.13	0.2827	-0.0048	0
273	SLU 20	-0.01	-5.59	60.37	0.2834	-0.0046	0
273	SLU 21	-0.01	-5.55	60.21	0.2814	-0.0047	0
273	SLU 22	-0.01	-5.08	55.38	0.2583	-0.0042	0
273	SLU 23	-0.01	-5	55.11	0.255	-0.0044	0
273	SLU 24	-0.01	-5.18	57.06	0.2623	-0.0043	0
273	SLU 25	-0.01	-5.13	56.89	0.2603	-0.0044	0
273	SLU 26	-0.01	-5	56.2	0.2537	-0.0043	0
273	SLU 27	-0.01	-5.18	58.14	0.261	-0.0042	0
273	SLU 28	-0.01	-5.13	57.98	0.259	-0.0043	0
273	SLU 29	-0.01	-5.08	57.55	0.2557	-0.0042	0
273	SLU 30	-0.01	-5.04	57.39	0.2537	-0.0042	0
273	SLU 31	-0.01	-5.91	63.24	0.301	-0.0051	0
273	SLU 32	-0.01	-6.09	65.18	0.3083	-0.005	0
273	SLU 33	-0.01	-6.04	65.02	0.3063	-0.0051	0
273	SLU 34	-0.01	-5.92	64.32	0.2997	-0.0051	0
273	SLU 35	-0.01	-6.09	66.26	0.307	-0.005	0
273	SLU 36	-0.01	-6.05	66.1	0.305	-0.0051	0
273	SLU 37	-0.01	-6	65.67	0.3017	-0.0049	0
273	SLU 38	-0.01	-5.95	65.51	0.2997	-0.005	0
273	SLU 39	-0.01	-6.38	66.99	0.324	-0.0053	0
273	SLU 40	-0.01	-6.33	66.83	0.322	-0.0054	0
273	SLU 41	-0.01	-6.38	68.07	0.3227	-0.0052	0
273	SLU 42	-0.01	-6.34	67.91	0.3207	-0.0053	0
273	SLU 43	-0.01	-5.3	59.35	0.2711	-0.0045	0
273	SLU 44	-0.01	-5.23	59.08	0.2678	-0.0046	0
273	SLU 45	-0.01	-5.4	61.02	0.2751	-0.0045	0
273	SLU 46	-0.01	-5.36	60.86	0.2731	-0.0046	0
273	SLU 47	-0.01	-5.23	60.16	0.2665	-0.0046	0
273	SLU 48	-0.01	-5.41	62.11	0.2738	-0.0045	0
273	SLU 49	-0.01	-5.36	61.94	0.2718	-0.0046	0
273	SLU 50	-0.01	-5.31	61.51	0.2685	-0.0044	0
273	SLU 51	-0.01	-5.26	61.35	0.2665	-0.0045	0
273	SLU 52	-0.01	-6.14	67.2	0.3138	-0.0054	0
273	SLU 53	-0.01	-6.31	69.15	0.3211	-0.0053	0
273	SLU 54	-0.01	-6.27	68.98	0.3191	-0.0054	0
273	SLU 55	-0.01	-6.14	68.29	0.3125	-0.0053	0
273	SLU 56	-0.01	-6.32	70.23	0.3198	-0.0052	0
273	SLU 57	-0.01	-6.27	70.07	0.3178	-0.0053	0
273	SLU 58	-0.01	-6.22	69.64	0.3145	-0.0052	0
273	SLU 59	-0.01	-6.18	69.48	0.3125	-0.0052	0
273	SLU 60	-0.01	-6.61	70.95	0.3368	-0.0055	0
273	SLU 61	-0.01	-6.56	70.79	0.3349	-0.0056	0
273	SLU 62	-0.01	-6.61	72.04	0.3355	-0.0055	0
273	SLU 63	-0.01	-6.56	71.88	0.3335	-0.0056	0
273	SLU 64	-0.01	-6.09	67.05	0.3105	-0.0051	0
273	SLU 65	-0.01	-6.02	66.78	0.3072	-0.0053	0
273	SLU 66	-0.01	-6.19	68.72	0.3144	-0.0052	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
273	SLU 67	-0.01	-6.15	68.56	0.3125	-0.0052	0
273	SLU 68	-0.01	-6.02	67.86	0.3059	-0.0052	0
273	SLU 69	-0.01	-6.2	69.8	0.3131	-0.0051	0
273	SLU 70	-0.01	-6.15	69.64	0.3111	-0.0052	0
273	SLU 71	-0.01	-6.1	69.21	0.3079	-0.005	0
273	SLU 72	-0.01	-6.05	69.05	0.3059	-0.0051	0
273	SLU 73	-0.01	-6.93	74.9	0.3532	-0.006	0
273	SLU 74	-0.01	-7.1	76.84	0.3604	-0.0059	0
273	SLU 75	-0.01	-7.06	76.68	0.3585	-0.006	0
273	SLU 76	-0.01	-6.93	75.99	0.3519	-0.006	0
273	SLU 77	-0.01	-7.11	77.93	0.3591	-0.0058	0
273	SLU 78	-0.01	-7.06	77.77	0.3571	-0.0059	0
273	SLU 79	-0.01	-7.01	77.34	0.3539	-0.0058	0
273	SLU 80	-0.01	-6.97	77.18	0.3519	-0.0059	0
273	SLU 81	-0.01	-7.39	78.65	0.3762	-0.0062	0
273	SLU 82	-0.01	-7.35	78.49	0.3742	-0.0062	0
273	SLU 83	-0.01	-7.4	79.74	0.3749	-0.0061	0
273	SLU 84	-0.01	-7.35	79.57	0.3729	-0.0062	0
273	SLE RA 1	-0.01	-4.51	49.88	0.2302	-0.0038	0
273	SLE RA 2	-0.01	-4.46	49.7	0.228	-0.0039	0
273	SLE RA 3	-0.01	-4.58	51	0.2328	-0.0038	0
273	SLE RA 4	-0.01	-4.55	50.89	0.2315	-0.0039	0
273	SLE RA 5	-0.01	-4.46	50.43	0.2271	-0.0039	0
273	SLE RA 6	-0.01	-4.58	51.72	0.232	-0.0038	0
273	SLE RA 7	-0.01	-4.55	51.61	0.2306	-0.0039	0
273	SLE RA 8	-0.01	-4.52	51.33	0.2284	-0.0037	0
273	SLE RA 9	-0.01	-4.49	51.22	0.2271	-0.0038	0
273	SLE RA 10	-0.01	-5.07	55.12	0.2586	-0.0044	0
273	SLE RA 11	-0.01	-5.19	56.41	0.2635	-0.0043	0
273	SLE RA 12	-0.01	-5.16	56.31	0.2622	-0.0044	0
273	SLE RA 13	-0.01	-5.07	55.84	0.2578	-0.0044	0
273	SLE RA 14	-0.01	-5.19	57.14	0.2626	-0.0043	0
273	SLE RA 15	-0.01	-5.16	57.03	0.2613	-0.0043	0
273	SLE RA 16	-0.01	-5.13	56.74	0.2591	-0.0042	0
273	SLE RA 17	-0.01	-5.09	56.64	0.2578	-0.0043	0
273	SLE RA 18	-0.01	-5.38	57.62	0.274	-0.0045	0
273	SLE RA 19	-0.01	-5.35	57.51	0.2727	-0.0046	0
273	SLE RA 20	-0.01	-5.38	58.34	0.2731	-0.0045	0
273	SLE RA 21	-0.01	-5.35	58.23	0.2718	-0.0045	0
273	SLE FR 1	-0.01	-4.51	49.88	0.2302	-0.0038	0
273	SLE FR 2	-0.01	-4.5	49.85	0.2297	-0.0038	0
273	SLE FR 3	-0.01	-4.51	50.17	0.2298	-0.0038	0
273	SLE FR 4	-0.01	-4.76	52.17	0.2429	-0.004	0
273	SLE FR 5	-0.01	-4.77	52.49	0.243	-0.004	0
273	SLE FR 6	-0.01	-4.95	53.75	0.2521	-0.0041	0
273	SLE QP 1	-0.01	-4.51	49.88	0.2302	-0.0038	0
273	SLE QP 2	-0.01	-4.77	52.2	0.2433	-0.004	0
273	SLD 1	0.14	-4.97	52.57	0.249	0.1505	-0.0005
273	SLD 2	0.14	-4.97	52.57	0.249	0.1505	-0.0005
273	SLD 3	0.11	-8.5	62.17	0.4457	0.1283	-0.0004
273	SLD 4	0.11	-8.5	62.17	0.4457	0.1283	-0.0004
273	SLD 5	0.07	0.52	37.75	-0.0534	0.076	-0.0002
273	SLD 6	0.07	0.52	37.75	-0.0534	0.076	-0.0002
273	SLD 7	-0.01	-11.24	69.75	0.6025	0.002	0
273	SLD 8	-0.01	-11.24	69.75	0.6025	0.002	0
273	SLD 9	-0.01	1.7	34.65	-0.1158	-0.01	0
273	SLD 10	-0.01	1.7	34.65	-0.1158	-0.01	0
273	SLD 11	-0.08	-10.06	66.65	0.5401	-0.084	0.0003
273	SLD 12	-0.08	-10.06	66.65	0.5401	-0.084	0.0003
273	SLD 13	-0.12	-1.05	42.24	0.0409	-0.1363	0.0004
273	SLD 14	-0.12	-1.05	42.24	0.0409	-0.1363	0.0004
273	SLD 15	-0.15	-4.57	51.84	0.2377	-0.1585	0.0005
273	SLD 16	-0.15	-4.57	51.84	0.2377	-0.1585	0.0005
273	SLV 1	0.35	-5.24	53.03	0.257	0.3916	-0.0012
273	SLV 2	0.35	-5.24	53.03	0.257	0.3916	-0.0012
273	SLV 3	0.3	-13.57	75.72	0.7211	0.3349	-0.001
273	SLV 4	0.3	-13.57	75.72	0.7211	0.3349	-0.001
273	SLV 5	0.19	7.71	18.05	-0.4564	0.2007	-0.0006
273	SLV 6	0.19	7.71	18.05	-0.4564	0.2007	-0.0006
273	SLV 7	0	-20.03	93.66	1.0905	0.0117	0
273	SLV 8	0	-20.03	93.66	1.0905	0.0117	0
273	SLV 9	-0.01	10.49	10.74	-0.6039	-0.0197	0
273	SLV 10	-0.01	10.49	10.74	-0.6039	-0.0197	0
273	SLV 11	-0.2	-17.25	86.36	0.9431	-0.2087	0.0007
273	SLV 12	-0.2	-17.25	86.36	0.9431	-0.2087	0.0007
273	SLV 13	-0.31	4.02	28.69	-0.2345	-0.343	0.0011
273	SLV 14	-0.31	4.02	28.69	-0.2345	-0.343	0.0011
273	SLV 15	-0.37	-4.3	51.37	0.2296	-0.3997	0.0013
273	SLV 16	-0.37	-4.3	51.37	0.2296	-0.3997	0.0013
274	SLU 1	0	0	35.38	0.0321	-0.0009	0
274	SLU 2	0	-0.01	35.36	0.0322	-0.001	0
274	SLU 3	0	-0.21	35.45	0.0425	-0.0009	0
274	SLU 4	0	-0.21	35.44	0.0426	-0.0009	0
274	SLU 5	0	-0.26	34.8	0.0441	-0.0008	0
274	SLU 6	0	-0.46	34.88	0.0544	-0.0007	0
274	SLU 7	0	-0.46	34.87	0.0545	-0.0007	0
274	SLU 8	0	-0.51	34.25	0.056	-0.0007	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
274	SLU 9	0	-0.51	34.24	0.056	-0.0007	0
274	SLU 10	0	0	41.13	0.0367	-0.0007	0
274	SLU 11	0	-0.2	41.22	0.047	-0.0006	0
274	SLU 12	0	-0.2	41.21	0.0471	-0.0006	0
274	SLU 13	0	-0.25	40.57	0.0486	-0.0006	0
274	SLU 14	0	-0.45	40.65	0.0589	-0.0005	0
274	SLU 15	0	-0.45	40.64	0.059	-0.0005	0
274	SLU 16	0	-0.5	40.02	0.0604	-0.0004	0
274	SLU 17	0	-0.5	40.01	0.0605	-0.0004	0
274	SLU 18	0	0.01	43.62	0.0385	-0.0006	0
274	SLU 19	0	0.01	43.61	0.0385	-0.0006	0
274	SLU 20	0	-0.24	43.05	0.0504	-0.0005	0
274	SLU 21	0	-0.24	43.04	0.0505	-0.0005	0
274	SLU 22	0	-0.11	40.34	0.0415	-0.0008	0
274	SLU 23	0	-0.11	40.33	0.0416	-0.0008	0
274	SLU 24	0	-0.31	40.41	0.0519	-0.0007	0
274	SLU 25	0	-0.32	40.4	0.052	-0.0007	0
274	SLU 26	0	-0.36	39.76	0.0536	-0.0007	0
274	SLU 27	0	-0.57	39.85	0.0639	-0.0006	0
274	SLU 28	0	-0.57	39.84	0.064	-0.0006	0
274	SLU 29	0	-0.61	39.21	0.0654	-0.0005	0
274	SLU 30	0	-0.61	39.2	0.0655	-0.0005	0
274	SLU 31	0	-0.1	46.09	0.0461	-0.0006	0
274	SLU 32	0	-0.3	46.18	0.0564	-0.0005	0
274	SLU 33	0	-0.31	46.17	0.0565	-0.0005	0
274	SLU 34	0	-0.35	45.53	0.0581	-0.0004	0
274	SLU 35	0	-0.55	45.62	0.0684	-0.0003	0
274	SLU 36	0	-0.56	45.61	0.0684	-0.0004	0
274	SLU 37	0	-0.6	44.98	0.0699	-0.0003	0
274	SLU 38	0	-0.6	44.97	0.07	-0.0003	0
274	SLU 39	0	-0.09	48.58	0.0479	-0.0004	0
274	SLU 40	0	-0.09	48.57	0.048	-0.0005	0
274	SLU 41	0	-0.34	48.02	0.0598	-0.0003	0
274	SLU 42	0	-0.34	48.01	0.0599	-0.0003	0
274	SLU 43	0	0.03	44.29	0.0384	-0.0012	0
274	SLU 44	0	0.03	44.27	0.0386	-0.0013	0
274	SLU 45	0	-0.18	44.36	0.0489	-0.0012	0
274	SLU 46	0	-0.18	44.35	0.049	-0.0012	0
274	SLU 47	0	-0.22	43.71	0.0505	-0.0012	0
274	SLU 48	0	-0.43	43.8	0.0608	-0.001	0
274	SLU 49	0	-0.43	43.79	0.0609	-0.0011	0
274	SLU 50	0	-0.47	43.16	0.0623	-0.001	0
274	SLU 51	0	-0.47	43.15	0.0624	-0.001	0
274	SLU 52	0	0.04	50.04	0.0431	-0.0011	0
274	SLU 53	0	-0.16	50.13	0.0534	-0.0009	0
274	SLU 54	0	-0.17	50.12	0.0534	-0.001	0
274	SLU 55	0	-0.21	49.48	0.055	-0.0009	0
274	SLU 56	0	-0.42	49.56	0.0653	-0.0008	0
274	SLU 57	0	-0.42	49.55	0.0654	-0.0008	0
274	SLU 58	0	-0.46	48.93	0.0668	-0.0007	0
274	SLU 59	0	-0.46	48.92	0.0669	-0.0008	0
274	SLU 60	0	0.05	52.53	0.0448	-0.0009	0
274	SLU 61	0	0.05	52.52	0.0449	-0.0009	0
274	SLU 62	0	-0.2	51.96	0.0568	-0.0008	0
274	SLU 63	0	-0.21	51.96	0.0569	-0.0008	0
274	SLU 64	0	-0.07	49.25	0.0479	-0.0011	0
274	SLU 65	0	-0.08	49.24	0.048	-0.0011	0
274	SLU 66	0	-0.28	49.32	0.0583	-0.001	0
274	SLU 67	0	-0.28	49.31	0.0584	-0.0011	0
274	SLU 68	0	-0.33	48.67	0.06	-0.001	0
274	SLU 69	0	-0.53	48.76	0.0703	-0.0009	0
274	SLU 70	0	-0.53	48.75	0.0703	-0.0009	0
274	SLU 71	0	-0.57	48.12	0.0718	-0.0008	0
274	SLU 72	0	-0.58	48.11	0.0719	-0.0009	0
274	SLU 73	0	-0.06	55.01	0.0525	-0.0009	0
274	SLU 74	0	-0.27	55.09	0.0628	-0.0008	0
274	SLU 75	0	-0.27	55.08	0.0629	-0.0008	0
274	SLU 76	0	-0.32	54.44	0.0644	-0.0008	0
274	SLU 77	0	-0.52	54.53	0.0747	-0.0007	0
274	SLU 78	0	-0.52	54.52	0.0748	-0.0007	0
274	SLU 79	0	-0.56	53.89	0.0763	-0.0006	0
274	SLU 80	0	-0.57	53.88	0.0763	-0.0006	0
274	SLU 81	0	-0.06	57.49	0.0543	-0.0008	0
274	SLU 82	0	-0.06	57.48	0.0544	-0.0008	0
274	SLU 83	0	-0.31	56.93	0.0662	-0.0006	0
274	SLU 84	0	-0.31	56.92	0.0663	-0.0007	0
274	SLE RA 1	0	-0.03	36.8	0.0347	-0.0009	0
274	SLE RA 2	0	-0.04	36.79	0.0348	-0.0009	0
274	SLE RA 3	0	-0.17	36.84	0.0417	-0.0008	0
274	SLE RA 4	0	-0.17	36.84	0.0418	-0.0008	0
274	SLE RA 5	0	-0.2	36.41	0.0428	-0.0008	0
274	SLE RA 6	0	-0.34	36.47	0.0497	-0.0007	0
274	SLE RA 7	0	-0.34	36.46	0.0497	-0.0008	0
274	SLE RA 8	0	-0.37	36.04	0.0507	-0.0007	0
274	SLE RA 9	0	-0.37	36.04	0.0507	-0.0007	0
274	SLE RA 10	0	-0.03	40.63	0.0378	-0.0007	0
274	SLE RA 11	0	-0.16	40.69	0.0447	-0.0007	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
274	SLE RA 12	0	-0.16	40.68	0.0448	-0.0007	0
274	SLE RA 13	0	-0.2	40.25	0.0458	-0.0007	0
274	SLE RA 14	0	-0.33	40.31	0.0527	-0.0006	0
274	SLE RA 15	0	-0.33	40.31	0.0527	-0.0006	0
274	SLE RA 16	0	-0.36	39.89	0.0537	-0.0005	0
274	SLE RA 17	0	-0.36	39.88	0.0537	-0.0006	0
274	SLE RA 18	0	-0.02	42.29	0.039	-0.0007	0
274	SLE RA 19	0	-0.02	42.28	0.0391	-0.0007	0
274	SLE RA 20	0	-0.19	41.91	0.047	-0.0006	0
274	SLE RA 21	0	-0.19	41.91	0.047	-0.0006	0
274	SLE FR 1	0	-0.03	36.8	0.0347	-0.0009	0
274	SLE FR 2	0	-0.03	36.79	0.0348	-0.0009	0
274	SLE FR 3	0	-0.1	36.64	0.0379	-0.0008	0
274	SLE FR 4	0	-0.03	38.44	0.036	-0.0008	0
274	SLE FR 5	0	-0.1	38.29	0.0392	-0.0008	0
274	SLE FR 6	0	-0.03	39.54	0.0369	-0.0008	0
274	SLE QP 1	0	-0.03	36.8	0.0347	-0.0009	0
274	SLE QP 2	0	-0.03	38.44	0.036	-0.0008	0
274	SLD 1	-0.07	0.62	40.33	0.009	-0.0523	-0.0001
274	SLD 2	-0.07	0.62	40.33	0.009	-0.0523	-0.0001
274	SLD 3	-0.04	-3.17	39.1	0.1652	-0.0311	0
274	SLD 4	-0.04	-3.17	39.1	0.1652	-0.0311	0
274	SLD 5	-0.07	5.91	40.87	-0.209	-0.0484	-0.0001
274	SLD 6	-0.07	5.91	40.87	-0.209	-0.0484	-0.0001
274	SLD 7	0.04	-6.72	36.78	0.3117	0.0223	0
274	SLD 8	0.04	-6.72	36.78	0.3117	0.0223	0
274	SLD 9	-0.04	6.66	40.11	-0.2396	-0.0239	0
274	SLD 10	-0.04	6.66	40.11	-0.2396	-0.0239	0
274	SLD 11	0.07	-5.97	36.01	0.2811	0.0468	0.0001
274	SLD 12	0.07	-5.97	36.01	0.2811	0.0468	0.0001
274	SLD 13	0.03	3.12	37.79	-0.0931	0.0295	0
274	SLD 14	0.03	3.12	37.79	-0.0931	0.0295	0
274	SLD 15	0.07	-0.68	36.56	0.0631	0.0507	0.0001
274	SLD 16	0.07	-0.68	36.56	0.0631	0.0507	0.0001
274	SLV 1	-0.17	1.5	42.98	-0.0281	-0.1316	-0.0002
274	SLV 2	-0.17	1.5	42.98	-0.0281	-0.1316	-0.0002
274	SLV 3	-0.09	-7.42	39.94	0.34	-0.0777	-0.0001
274	SLV 4	-0.09	-7.42	39.94	0.34	-0.0777	-0.0001
274	SLV 5	-0.17	13.97	44.42	-0.5416	-0.1219	-0.0002
274	SLV 6	-0.17	13.97	44.42	-0.5416	-0.1219	-0.0002
274	SLV 7	0.09	-15.79	34.28	0.6856	0.0579	0.0001
274	SLV 8	0.09	-15.79	34.28	0.6856	0.0579	0.0001
274	SLV 9	-0.1	15.73	42.61	-0.6135	-0.0596	-0.0001
274	SLV 10	-0.1	15.73	42.61	-0.6135	-0.0596	-0.0001
274	SLV 11	0.17	-14.03	32.47	0.6136	0.1203	0.0002
274	SLV 12	0.17	-14.03	32.47	0.6136	0.1203	0.0002
274	SLV 13	0.09	7.37	36.95	-0.268	0.0761	0.0001
274	SLV 14	0.09	7.37	36.95	-0.268	0.0761	0.0001
274	SLV 15	0.17	-1.56	33.91	0.1002	0.13	0.0002
274	SLV 16	0.17	-1.56	33.91	0.1002	0.13	0.0002
275	SLU 1	0	-0.66	35.8	0.224	-0.0004	0
275	SLU 2	0	-0.65	35.81	0.223	-0.0003	0
275	SLU 3	0	-1	35.9	0.2501	-0.0003	0
275	SLU 4	0	-0.99	35.9	0.2494	-0.0003	0
275	SLU 5	0	-1.04	35.24	0.2492	-0.0003	0
275	SLU 6	0	-1.39	35.33	0.2764	-0.0002	0
275	SLU 7	0	-1.39	35.34	0.2757	-0.0002	0
275	SLU 8	0	-1.44	34.67	0.2766	-0.0002	0
275	SLU 9	0	-1.44	34.68	0.276	-0.0002	0
275	SLU 10	0	-0.72	41.71	0.2577	-0.0004	0
275	SLU 11	0	-1.07	41.8	0.2848	-0.0004	0
275	SLU 12	0	-1.07	41.81	0.2842	-0.0003	0
275	SLU 13	0	-1.12	41.15	0.284	-0.0003	0
275	SLU 14	0	-1.47	41.24	0.3111	-0.0003	0
275	SLU 15	0	-1.46	41.24	0.3105	-0.0003	0
275	SLU 16	0	-1.52	40.58	0.3114	-0.0003	0
275	SLU 17	0	-1.52	40.58	0.3107	-0.0002	0
275	SLU 18	0	-0.76	44.24	0.2737	-0.0004	0
275	SLU 19	0	-0.76	44.24	0.273	-0.0004	0
275	SLU 20	0	-1.16	43.68	0.3	-0.0004	0
275	SLU 21	0	-1.15	43.68	0.2993	-0.0003	0
275	SLU 22	0	-0.87	40.43	0.2657	-0.0004	0
275	SLU 23	0	-0.86	40.43	0.2647	-0.0004	0
275	SLU 24	0	-1.21	40.52	0.2918	-0.0003	0
275	SLU 25	0	-1.2	40.53	0.2911	-0.0003	0
275	SLU 26	0	-1.25	39.87	0.2909	-0.0003	0
275	SLU 27	0	-1.6	39.96	0.3181	-0.0002	0
275	SLU 28	0	-1.6	39.96	0.3174	-0.0002	0
275	SLU 29	0	-1.66	39.3	0.3183	-0.0002	0
275	SLU 30	0	-1.65	39.3	0.3177	-0.0002	0
275	SLU 31	0	-0.93	46.34	0.2994	-0.0004	0
275	SLU 32	0	-1.28	46.43	0.3265	-0.0004	0
275	SLU 33	0	-1.28	46.43	0.3259	-0.0004	0
275	SLU 34	0	-1.33	45.77	0.3257	-0.0003	0
275	SLU 35	0	-1.68	45.87	0.3528	-0.0003	0
275	SLU 36	0	-1.67	45.87	0.3522	-0.0003	0
275	SLU 37	0	-1.73	45.21	0.3531	-0.0003	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
275	SLU 38	0	-1.73	45.21	0.3524	-0.0003	0
275	SLU 39	0	-0.97	48.87	0.3154	-0.0004	0
275	SLU 40	0	-0.97	48.87	0.3147	-0.0004	0
275	SLU 41	0	-1.37	48.3	0.3417	-0.0004	0
275	SLU 42	0	-1.36	48.3	0.341	-0.0004	0
275	SLU 43	0	-0.78	44.96	0.277	-0.0005	0
275	SLU 44	0	-0.77	44.96	0.2759	-0.0004	0
275	SLU 45	0	-1.12	45.05	0.303	-0.0004	0
275	SLU 46	0	-1.12	45.05	0.3023	-0.0004	0
275	SLU 47	0	-1.17	44.4	0.3022	-0.0004	0
275	SLU 48	0	-1.52	44.49	0.3293	-0.0003	0
275	SLU 49	0	-1.51	44.49	0.3286	-0.0003	0
275	SLU 50	0	-1.57	43.83	0.3295	-0.0003	0
275	SLU 51	0	-1.56	43.83	0.3289	-0.0003	0
275	SLU 52	0	-0.85	50.87	0.3106	-0.0005	0
275	SLU 53	0	-1.2	50.96	0.3377	-0.0005	0
275	SLU 54	0	-1.19	50.96	0.3371	-0.0004	0
275	SLU 55	0	-1.24	50.3	0.3369	-0.0004	0
275	SLU 56	0	-1.59	50.39	0.364	-0.0004	0
275	SLU 57	0	-1.59	50.4	0.3634	-0.0004	0
275	SLU 58	0	-1.65	49.74	0.3643	-0.0004	0
275	SLU 59	0	-1.64	49.74	0.3636	-0.0003	0
275	SLU 60	0	-0.89	53.4	0.3266	-0.0005	0
275	SLU 61	0	-0.88	53.4	0.3259	-0.0005	0
275	SLU 62	0	-1.28	52.83	0.3529	-0.0005	0
275	SLU 63	0	-1.28	52.83	0.3522	-0.0004	0
275	SLU 64	0	-0.99	49.58	0.3187	-0.0005	0
275	SLU 65	0	-0.98	49.59	0.3176	-0.0005	0
275	SLU 66	0	-1.33	49.68	0.3447	-0.0004	0
275	SLU 67	0	-1.33	49.68	0.344	-0.0004	0
275	SLU 68	0	-1.38	49.02	0.3439	-0.0004	0
275	SLU 69	0	-1.73	49.11	0.371	-0.0004	0
275	SLU 70	0	-1.72	49.12	0.3703	-0.0003	0
275	SLU 71	0	-1.78	48.45	0.3712	-0.0003	0
275	SLU 72	0	-1.77	48.46	0.3706	-0.0003	0
275	SLU 73	0	-1.06	55.49	0.3523	-0.0005	0
275	SLU 74	0	-1.41	55.58	0.3794	-0.0005	0
275	SLU 75	0	-1.4	55.59	0.3788	-0.0005	0
275	SLU 76	0	-1.45	54.93	0.3786	-0.0004	0
275	SLU 77	0	-1.8	55.02	0.4057	-0.0004	0
275	SLU 78	0	-1.8	55.02	0.4051	-0.0004	0
275	SLU 79	0	-1.86	54.36	0.406	-0.0004	0
275	SLU 80	0	-1.85	54.36	0.4053	-0.0004	0
275	SLU 81	0	-1.1	58.02	0.3683	-0.0006	0
275	SLU 82	0	-1.09	58.02	0.3676	-0.0005	0
275	SLU 83	0	-1.49	57.46	0.3946	-0.0005	0
275	SLU 84	0	-1.49	57.46	0.3939	-0.0005	0
275	SLE RA 1	0	-0.72	37.12	0.236	-0.0004	0
275	SLE RA 2	0	-0.71	37.13	0.2352	-0.0004	0
275	SLE RA 3	0	-0.94	37.19	0.2533	-0.0003	0
275	SLE RA 4	0	-0.94	37.19	0.2529	-0.0003	0
275	SLE RA 5	0	-0.97	36.75	0.2528	-0.0003	0
275	SLE RA 6	0	-1.21	36.81	0.2708	-0.0003	0
275	SLE RA 7	0	-1.2	36.81	0.2704	-0.0003	0
275	SLE RA 8	0	-1.24	36.37	0.271	-0.0003	0
275	SLE RA 9	0	-1.24	36.37	0.2706	-0.0003	0
275	SLE RA 10	0	-0.76	41.06	0.2584	-0.0004	0
275	SLE RA 11	0	-0.99	41.13	0.2765	-0.0004	0
275	SLE RA 12	0	-0.99	41.13	0.276	-0.0004	0
275	SLE RA 13	0	-1.02	40.69	0.2759	-0.0003	0
275	SLE RA 14	0	-1.26	40.75	0.294	-0.0003	0
275	SLE RA 15	0	-1.25	40.75	0.2936	-0.0003	0
275	SLE RA 16	0	-1.29	40.31	0.2942	-0.0003	0
275	SLE RA 17	0	-1.29	40.31	0.2937	-0.0003	0
275	SLE RA 18	0	-0.79	42.75	0.2691	-0.0004	0
275	SLE RA 19	0	-0.78	42.75	0.2686	-0.0004	0
275	SLE RA 20	0	-1.05	42.37	0.2866	-0.0004	0
275	SLE RA 21	0	-1.05	42.37	0.2861	-0.0004	0
275	SLE FR 1	0	-0.72	37.12	0.236	-0.0004	0
275	SLE FR 2	0	-0.71	37.13	0.2358	-0.0004	0
275	SLE FR 3	0	-0.82	36.97	0.243	-0.0004	0
275	SLE FR 4	0	-0.74	38.81	0.2457	-0.0004	0
275	SLE FR 5	0	-0.84	38.66	0.2529	-0.0004	0
275	SLE FR 6	0	-0.75	39.94	0.2525	-0.0004	0
275	SLE QP 1	0	-0.72	37.12	0.236	-0.0004	0
275	SLE QP 2	0	-0.74	38.81	0.2459	-0.0004	0
275	SLD 1	-0.04	0.35	37.61	0.1988	-0.0398	0.0001
275	SLD 2	-0.04	0.35	37.61	0.1988	-0.0398	0.0001
275	SLD 3	-0.07	-3.7	36.74	0.3797	-0.0601	0
275	SLD 4	-0.07	-3.7	36.74	0.3797	-0.0601	0
275	SLD 5	0.04	5.74	39.76	-0.0426	0.0185	0.0001
275	SLD 6	0.04	5.74	39.76	-0.0426	0.0185	0.0001
275	SLD 7	-0.07	-7.78	36.88	0.5603	-0.049	-0.0001
275	SLD 8	-0.07	-7.78	36.88	0.5603	-0.049	-0.0001
275	SLD 9	0.07	6.3	40.75	-0.0686	0.0482	0.0001
275	SLD 10	0.07	6.3	40.75	-0.0686	0.0482	0.0001
275	SLD 11	-0.04	-7.21	37.86	0.5343	-0.0192	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
275	SLD 12	-0.04	-7.21	37.86	0.5343	-0.0192	-0.0001
275	SLD 13	0.07	2.23	40.89	0.1121	0.0593	0
275	SLD 14	0.07	2.23	40.89	0.1121	0.0593	0
275	SLD 15	0.04	-1.83	40.02	0.293	0.0391	-0.0001
275	SLD 16	0.04	-1.83	40.02	0.293	0.0391	-0.0001
275	SLV 1	-0.1	1.8	36.02	0.1353	-0.1006	0.0002
275	SLV 2	-0.1	1.8	36.02	0.1353	-0.1006	0.0002
275	SLV 3	-0.18	-7.74	33.88	0.5622	-0.1524	0.0001
275	SLV 4	-0.18	-7.74	33.88	0.5622	-0.1524	0.0001
275	SLV 5	0.09	14.49	41.23	-0.4348	0.0481	0.0002
275	SLV 6	0.09	14.49	41.23	-0.4348	0.0481	0.0002
275	SLV 7	-0.18	-17.31	34.08	0.9882	-0.1245	-0.0001
275	SLV 8	-0.18	-17.31	34.08	0.9882	-0.1245	-0.0001
275	SLV 9	0.18	15.83	43.54	-0.4965	0.1237	0.0001
275	SLV 10	0.18	15.83	43.54	-0.4965	0.1237	0.0001
275	SLV 11	-0.09	-15.97	36.4	0.9265	-0.0488	-0.0002
275	SLV 12	-0.09	-15.97	36.4	0.9265	-0.0488	-0.0002
275	SLV 13	0.18	6.27	43.75	-0.0704	0.1516	-0.0001
275	SLV 14	0.18	6.27	43.75	-0.0704	0.1516	-0.0001
275	SLV 15	0.1	-3.28	41.6	0.3565	0.0999	-0.0002
275	SLV 16	0.1	-3.28	41.6	0.3565	0.0999	-0.0002
276	SLU 1	0.02	-5.67	51.95	0.1662	0.0147	0
276	SLU 2	0.01	-4.92	49.54	0.1431	0.0079	0
276	SLU 3	0.02	-5.85	52.85	0.1713	0.0155	0
276	SLU 4	0.02	-5.41	51.4	0.1574	0.0114	0
276	SLU 5	0.01	-5.02	49.78	0.1455	0.0086	0
276	SLU 6	0.02	-5.95	53.09	0.1737	0.0161	0
276	SLU 7	0.02	-5.5	51.64	0.1598	0.012	0
276	SLU 8	0.02	-5.86	52.43	0.171	0.016	0
276	SLU 9	0.02	-5.41	50.98	0.1571	0.0119	0
276	SLU 10	0.02	-5.7	55.49	0.1659	0.0102	0
276	SLU 11	0.02	-6.63	58.79	0.1942	0.0177	0
276	SLU 12	0.02	-6.18	57.35	0.1803	0.0136	0
276	SLU 13	0.02	-5.8	55.73	0.1683	0.0108	0
276	SLU 14	0.02	-6.72	59.03	0.1966	0.0183	0
276	SLU 15	0.02	-6.28	57.59	0.1827	0.0143	0
276	SLU 16	0.02	-6.63	58.38	0.1939	0.0182	0
276	SLU 17	0.02	-6.19	56.93	0.18	0.0141	0
276	SLU 18	0.02	-6.78	60.45	0.1989	0.0179	0
276	SLU 19	0.02	-6.33	59	0.185	0.0139	0
276	SLU 20	0.02	-6.87	60.69	0.2013	0.0186	0
276	SLU 21	0.02	-6.43	59.24	0.1874	0.0145	0
276	SLU 22	0.02	-6.44	57.57	0.1889	0.0171	0
276	SLU 23	0.02	-5.7	55.16	0.1658	0.0103	0
276	SLU 24	0.02	-6.63	58.47	0.194	0.0178	0
276	SLU 25	0.02	-6.19	57.02	0.1801	0.0138	0
276	SLU 26	0.02	-5.8	55.4	0.1682	0.0109	0
276	SLU 27	0.02	-6.73	58.71	0.1964	0.0185	0
276	SLU 28	0.02	-6.28	57.26	0.1825	0.0144	0
276	SLU 29	0.02	-6.64	58.05	0.1937	0.0184	0
276	SLU 30	0.02	-6.19	56.61	0.1798	0.0143	0
276	SLU 31	0.02	-6.48	61.11	0.1886	0.0125	0
276	SLU 32	0.02	-7.41	64.42	0.2169	0.0201	0
276	SLU 33	0.02	-6.96	62.97	0.203	0.016	0
276	SLU 34	0.02	-6.58	61.35	0.191	0.0132	0
276	SLU 35	0.02	-7.5	64.66	0.2193	0.0207	0
276	SLU 36	0.02	-7.06	63.21	0.2054	0.0166	0
276	SLU 37	0.02	-7.41	64	0.2166	0.0206	0
276	SLU 38	0.02	-6.97	62.55	0.2027	0.0165	0
276	SLU 39	0.02	-7.56	66.07	0.2216	0.0203	0
276	SLU 40	0.02	-7.11	64.62	0.2077	0.0162	0
276	SLU 41	0.02	-7.65	66.31	0.224	0.0209	0
276	SLU 42	0.02	-7.21	64.86	0.2101	0.0168	0
276	SLU 43	0.02	-7.1	65.61	0.2083	0.0184	0
276	SLU 44	0.02	-6.36	63.2	0.1851	0.0115	0
276	SLU 45	0.02	-7.28	66.5	0.2134	0.0191	0
276	SLU 46	0.02	-6.84	65.06	0.1995	0.015	0
276	SLU 47	0.02	-6.45	63.44	0.1875	0.0122	0
276	SLU 48	0.02	-7.38	66.74	0.2158	0.0197	0
276	SLU 49	0.02	-6.93	65.3	0.2019	0.0156	0
276	SLU 50	0.02	-7.29	66.09	0.2131	0.0196	0
276	SLU 51	0.02	-6.84	64.64	0.1992	0.0155	0
276	SLU 52	0.02	-7.13	69.14	0.208	0.0138	0
276	SLU 53	0.02	-8.06	72.45	0.2363	0.0213	0
276	SLU 54	0.02	-7.62	71	0.2224	0.0172	0
276	SLU 55	0.02	-7.23	69.38	0.2104	0.0144	0
276	SLU 56	0.02	-8.16	72.69	0.2387	0.022	0
276	SLU 57	0.02	-7.71	71.24	0.2248	0.0179	0
276	SLU 58	0.02	-8.07	72.04	0.236	0.0218	0
276	SLU 59	0.02	-7.62	70.59	0.2221	0.0178	0
276	SLU 60	0.02	-8.21	74.1	0.241	0.0216	0
276	SLU 61	0.02	-7.76	72.66	0.2271	0.0175	0
276	SLU 62	0.02	-8.3	74.34	0.2434	0.0222	0
276	SLU 63	0.02	-7.86	72.9	0.2295	0.0181	0
276	SLU 64	0.02	-7.88	71.23	0.231	0.0207	0
276	SLU 65	0.02	-7.14	68.82	0.2078	0.0139	0
276	SLU 66	0.02	-8.06	72.13	0.2361	0.0215	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
276	SLU 67	0.02	-7.62	70.68	0.2222	0.0174	0
276	SLU 68	0.02	-7.23	69.06	0.2102	0.0145	0
276	SLU 69	0.02	-8.16	72.37	0.2385	0.0221	0
276	SLU 70	0.02	-7.71	70.92	0.2246	0.018	0
276	SLU 71	0.02	-8.07	71.71	0.2358	0.022	0
276	SLU 72	0.02	-7.62	70.26	0.2219	0.0179	0
276	SLU 73	0.02	-7.91	74.77	0.2307	0.0161	0
276	SLU 74	0.03	-8.84	78.07	0.259	0.0237	0
276	SLU 75	0.02	-8.4	76.63	0.2451	0.0196	0
276	SLU 76	0.02	-8.01	75.01	0.2331	0.0168	0
276	SLU 77	0.03	-8.94	78.31	0.2614	0.0243	0
276	SLU 78	0.02	-8.49	76.87	0.2475	0.0202	0
276	SLU 79	0.03	-8.85	77.66	0.2587	0.0242	0
276	SLU 80	0.02	-8.4	76.21	0.2448	0.0201	0
276	SLU 81	0.03	-8.99	79.73	0.2637	0.0239	0
276	SLU 82	0.02	-8.54	78.28	0.2498	0.0198	0
276	SLU 83	0.03	-9.08	79.97	0.2661	0.0245	0
276	SLU 84	0.03	-8.64	78.52	0.2522	0.0205	0
276	SLE RA 1	0.02	-5.89	53.56	0.1727	0.0154	0
276	SLE RA 2	0.02	-5.39	51.95	0.1573	0.0109	0
276	SLE RA 3	0.02	-6.01	54.15	0.1761	0.0159	0
276	SLE RA 4	0.02	-5.72	53.19	0.1668	0.0132	0
276	SLE RA 5	0.02	-5.46	52.11	0.1589	0.0113	0
276	SLE RA 6	0.02	-6.08	54.31	0.1777	0.0163	0
276	SLE RA 7	0.02	-5.78	53.35	0.1684	0.0136	0
276	SLE RA 8	0.02	-6.02	53.88	0.1759	0.0163	0
276	SLE RA 9	0.02	-5.72	52.91	0.1667	0.0135	0
276	SLE RA 10	0.02	-5.91	55.91	0.1725	0.0124	0
276	SLE RA 11	0.02	-6.53	58.12	0.1913	0.0174	0
276	SLE RA 12	0.02	-6.23	57.15	0.1821	0.0147	0
276	SLE RA 13	0.02	-5.98	56.07	0.1741	0.0128	0
276	SLE RA 14	0.02	-6.59	58.28	0.1929	0.0178	0
276	SLE RA 15	0.02	-6.3	57.31	0.1837	0.0151	0
276	SLE RA 16	0.02	-6.53	57.84	0.1912	0.0177	0
276	SLE RA 17	0.02	-6.24	56.88	0.1819	0.015	0
276	SLE RA 18	0.02	-6.63	59.22	0.1945	0.0175	0
276	SLE RA 19	0.02	-6.33	58.26	0.1852	0.0148	0
276	SLE RA 20	0.02	-6.69	59.38	0.1961	0.018	0
276	SLE RA 21	0.02	-6.4	58.42	0.1868	0.0152	0
276	SLE FR 1	0.02	-5.89	53.56	0.1727	0.0154	0
276	SLE FR 2	0.02	-5.79	53.24	0.1696	0.0145	0
276	SLE FR 3	0.02	-5.91	53.62	0.1733	0.0156	0
276	SLE FR 4	0.02	-6.01	54.94	0.1761	0.0151	0
276	SLE FR 5	0.02	-6.14	55.32	0.1799	0.0162	0
276	SLE FR 6	0.02	-6.26	56.39	0.1836	0.0165	0
276	SLE QP 1	0.02	-5.89	53.56	0.1727	0.0154	0
276	SLE QP 2	0.02	-6.11	55.26	0.1792	0.0161	0
276	SLD 1	0.11	-3.05	37.89	0.0877	0.1394	0.0001
276	SLD 2	0.11	-3.05	37.89	0.0877	0.1394	0.0001
276	SLD 3	0.2	-6.34	43.97	0.1858	0.214	0.0001
276	SLD 4	0.2	-6.34	43.97	0.1858	0.214	0.0001
276	SLD 5	-0.09	-0.2	40.83	0.003	-0.0601	0.0001
276	SLD 6	-0.09	-0.2	40.83	0.003	-0.0601	0.0001
276	SLD 7	0.21	-11.17	61.09	0.3299	0.1886	0
276	SLD 8	0.21	-11.17	61.09	0.3299	0.1886	0
276	SLD 9	-0.17	-1.05	49.42	0.0285	-0.1565	0
276	SLD 10	-0.17	-1.05	49.42	0.0285	-0.1565	0
276	SLD 11	0.12	-12.02	69.68	0.3554	0.0922	-0.0001
276	SLD 12	0.12	-12.02	69.68	0.3554	0.0922	-0.0001
276	SLD 13	-0.17	-5.88	66.54	0.1727	-0.1819	-0.0001
276	SLD 14	-0.17	-5.88	66.54	0.1727	-0.1819	-0.0001
276	SLD 15	-0.08	-9.17	72.62	0.2708	-0.1073	-0.0001
276	SLD 16	-0.08	-9.17	72.62	0.2708	-0.1073	-0.0001
276	SLV 1	0.25	1.06	14.56	-0.0351	0.3139	0.0003
276	SLV 2	0.25	1.06	14.56	-0.0351	0.3139	0.0003
276	SLV 3	0.47	-6.62	28.91	0.1938	0.5038	0.0002
276	SLV 4	0.47	-6.62	28.91	0.1938	0.5038	0.0002
276	SLV 5	-0.25	7.69	21.27	-0.2324	-0.1826	0.0002
276	SLV 6	-0.25	7.69	21.27	-0.2324	-0.1826	0.0002
276	SLV 7	0.49	-17.91	69.13	0.5309	0.4504	-0.0001
276	SLV 8	0.49	-17.91	69.13	0.5309	0.4504	-0.0001
276	SLV 9	-0.45	5.69	41.38	-0.1725	-0.4183	0.0001
276	SLV 10	-0.45	5.69	41.38	-0.1725	-0.4183	0.0001
276	SLV 11	0.28	-19.91	89.24	0.5909	0.2147	-0.0002
276	SLV 12	0.28	-19.91	89.24	0.5909	0.2147	-0.0002
276	SLV 13	-0.43	-5.6	81.6	0.1646	-0.4717	-0.0002
276	SLV 14	-0.43	-5.6	81.6	0.1646	-0.4717	-0.0002
276	SLV 15	-0.21	-13.28	95.96	0.3936	-0.2818	-0.0003
276	SLV 16	-0.21	-13.28	95.96	0.3936	-0.2818	-0.0003
277	SLU 1	-0.08	-9.33	22.77	0.4099	-0.0612	0.0002
277	SLU 2	-0.07	-8.35	22.22	0.3664	-0.0546	0.0002
277	SLU 3	-0.08	-9.55	23.27	0.4192	-0.063	0.0002
277	SLU 4	-0.08	-8.96	22.94	0.3931	-0.0591	0.0002
277	SLU 5	-0.08	-8.44	22.55	0.3698	-0.0558	0.0002
277	SLU 6	-0.08	-9.63	23.6	0.4226	-0.0642	0.0002
277	SLU 7	-0.08	-9.05	23.27	0.3965	-0.0603	0.0002
277	SLU 8	-0.08	-9.5	23.42	0.4168	-0.0636	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
277	SLU 9	-0.08	-8.91	23.09	0.3907	-0.0597	0.0002
277	SLU 10	-0.08	-9.5	24.27	0.4166	-0.0624	0.0002
277	SLU 11	-0.09	-10.69	25.32	0.4694	-0.0708	0.0002
277	SLU 12	-0.09	-10.11	24.99	0.4433	-0.0669	0.0002
277	SLU 13	-0.09	-9.58	24.59	0.4201	-0.0636	0.0002
277	SLU 14	-0.09	-10.78	25.64	0.4729	-0.072	0.0002
277	SLU 15	-0.09	-10.19	25.31	0.4467	-0.0681	0.0002
277	SLU 16	-0.09	-10.65	25.46	0.467	-0.0714	0.0002
277	SLU 17	-0.09	-10.06	25.14	0.4409	-0.0675	0.0002
277	SLU 18	-0.09	-10.97	25.69	0.4816	-0.0723	0.0002
277	SLU 19	-0.09	-10.38	25.36	0.4555	-0.0684	0.0002
277	SLU 20	-0.09	-11.05	26.01	0.4851	-0.0736	0.0003
277	SLU 21	-0.09	-10.47	25.69	0.459	-0.0696	0.0003
277	SLU 22	-0.09	-10.46	24.83	0.4591	-0.0689	0.0002
277	SLU 23	-0.08	-9.48	24.29	0.4156	-0.0623	0.0002
277	SLU 24	-0.09	-10.68	25.34	0.4684	-0.0707	0.0002
277	SLU 25	-0.09	-10.09	25.01	0.4423	-0.0668	0.0002
277	SLU 26	-0.09	-9.56	24.61	0.4191	-0.0636	0.0002
277	SLU 27	-0.09	-10.76	25.66	0.4719	-0.0719	0.0002
277	SLU 28	-0.09	-10.17	25.33	0.4458	-0.068	0.0002
277	SLU 29	-0.09	-10.63	25.48	0.466	-0.0713	0.0002
277	SLU 30	-0.09	-10.04	25.16	0.4399	-0.0674	0.0002
277	SLU 31	-0.09	-10.63	26.33	0.4658	-0.0701	0.0003
277	SLU 32	-0.1	-11.82	27.38	0.5186	-0.0785	0.0003
277	SLU 33	-0.1	-11.24	27.05	0.4925	-0.0746	0.0003
277	SLU 34	-0.1	-10.71	26.66	0.4693	-0.0714	0.0003
277	SLU 35	-0.1	-11.91	27.71	0.5221	-0.0797	0.0003
277	SLU 36	-0.1	-11.32	27.38	0.496	-0.0758	0.0003
277	SLU 37	-0.1	-11.77	27.53	0.5162	-0.0791	0.0003
277	SLU 38	-0.1	-11.19	27.2	0.4901	-0.0752	0.0003
277	SLU 39	-0.1	-12.09	27.75	0.5309	-0.0801	0.0003
277	SLU 40	-0.1	-11.51	27.43	0.5048	-0.0761	0.0003
277	SLU 41	-0.1	-12.18	28.08	0.5343	-0.0813	0.0003
277	SLU 42	-0.1	-11.59	27.75	0.5082	-0.0773	0.0003
277	SLU 43	-0.1	-11.74	28.89	0.516	-0.0769	0.0003
277	SLU 44	-0.09	-10.76	28.35	0.4725	-0.0703	0.0003
277	SLU 45	-0.1	-11.96	29.39	0.5253	-0.0787	0.0003
277	SLU 46	-0.1	-11.37	29.07	0.4992	-0.0748	0.0003
277	SLU 47	-0.1	-10.85	28.67	0.4759	-0.0715	0.0003
277	SLU 48	-0.1	-12.05	29.72	0.5287	-0.0799	0.0003
277	SLU 49	-0.1	-11.46	29.39	0.5026	-0.076	0.0003
277	SLU 50	-0.1	-11.91	29.54	0.5229	-0.0793	0.0003
277	SLU 51	-0.1	-11.33	29.21	0.4968	-0.0754	0.0003
277	SLU 52	-0.1	-11.91	30.39	0.5227	-0.0781	0.0003
277	SLU 53	-0.11	-13.11	31.44	0.5755	-0.0865	0.0003
277	SLU 54	-0.11	-12.52	31.11	0.5494	-0.0826	0.0003
277	SLU 55	-0.11	-12	30.72	0.5262	-0.0793	0.0003
277	SLU 56	-0.11	-13.19	31.76	0.5789	-0.0877	0.0003
277	SLU 57	-0.11	-12.61	31.44	0.5528	-0.0838	0.0003
277	SLU 58	-0.11	-13.06	31.59	0.5731	-0.0871	0.0003
277	SLU 59	-0.11	-12.47	31.26	0.547	-0.0832	0.0003
277	SLU 60	-0.11	-13.38	31.81	0.5877	-0.0888	0.0003
277	SLU 61	-0.11	-12.79	31.48	0.5616	-0.0841	0.0003
277	SLU 62	-0.11	-13.46	32.14	0.5912	-0.0893	0.0003
277	SLU 63	-0.11	-12.88	31.81	0.5651	-0.0853	0.0003
277	SLU 64	-0.11	-12.87	30.95	0.5652	-0.0846	0.0003
277	SLU 65	-0.1	-11.89	30.41	0.5217	-0.0781	0.0003
277	SLU 66	-0.11	-13.09	31.46	0.5745	-0.0864	0.0003
277	SLU 67	-0.11	-12.5	31.13	0.5484	-0.0825	0.0003
277	SLU 68	-0.11	-11.98	30.73	0.5252	-0.0793	0.0003
277	SLU 69	-0.11	-13.17	31.78	0.578	-0.0876	0.0003
277	SLU 70	-0.11	-12.59	31.46	0.5519	-0.0837	0.0003
277	SLU 71	-0.11	-13.04	31.61	0.5721	-0.0871	0.0003
277	SLU 72	-0.11	-12.45	31.28	0.546	-0.0831	0.0003
277	SLU 73	-0.11	-13.04	32.45	0.5719	-0.0858	0.0003
277	SLU 74	-0.12	-14.23	33.5	0.6247	-0.0942	0.0003
277	SLU 75	-0.12	-13.65	33.18	0.5986	-0.0903	0.0003
277	SLU 76	-0.11	-13.12	32.78	0.5754	-0.0871	0.0003
277	SLU 77	-0.12	-14.32	33.83	0.6282	-0.0954	0.0003
277	SLU 78	-0.12	-13.73	33.5	0.6021	-0.0915	0.0003
277	SLU 79	-0.12	-14.19	33.65	0.6223	-0.0949	0.0003
277	SLU 80	-0.12	-13.6	33.32	0.5962	-0.0909	0.0003
277	SLU 81	-0.12	-14.51	33.88	0.637	-0.0958	0.0003
277	SLU 82	-0.12	-13.92	33.55	0.6109	-0.0918	0.0003
277	SLU 83	-0.12	-14.59	34.2	0.6404	-0.097	0.0003
277	SLU 84	-0.12	-14	33.87	0.6143	-0.093	0.0003
277	SLE RA 1	-0.08	-9.65	23.36	0.424	-0.0634	0.0002
277	SLE RA 2	-0.08	-9	22.99	0.395	-0.059	0.0002
277	SLE RA 3	-0.08	-9.8	23.69	0.4302	-0.0646	0.0002
277	SLE RA 4	-0.08	-9.41	23.48	0.4128	-0.062	0.0002
277	SLE RA 5	-0.08	-9.06	23.21	0.3973	-0.0598	0.0002
277	SLE RA 6	-0.08	-9.85	23.91	0.4325	-0.0654	0.0002
277	SLE RA 7	-0.08	-9.46	23.69	0.4151	-0.0628	0.0002
277	SLE RA 8	-0.08	-9.76	23.79	0.4286	-0.065	0.0002
277	SLE RA 9	-0.08	-9.37	23.57	0.4112	-0.0624	0.0002
277	SLE RA 10	-0.08	-9.76	24.36	0.4284	-0.0642	0.0002
277	SLE RA 11	-0.09	-10.56	25.06	0.4636	-0.0698	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
277	SLE RA 12	-0.09	-10.17	24.84	0.4462	-0.0672	0.0002
277	SLE RA 13	-0.09	-9.82	24.57	0.4307	-0.065	0.0002
277	SLE RA 14	-0.09	-10.62	25.27	0.4659	-0.0706	0.0002
277	SLE RA 15	-0.09	-10.23	25.06	0.4485	-0.068	0.0002
277	SLE RA 16	-0.09	-10.53	25.15	0.462	-0.0702	0.0002
277	SLE RA 17	-0.09	-10.14	24.94	0.4446	-0.0676	0.0002
277	SLE RA 18	-0.09	-10.74	25.31	0.4718	-0.0708	0.0002
277	SLE RA 19	-0.09	-10.35	25.09	0.4544	-0.0682	0.0002
277	SLE RA 20	-0.09	-10.8	25.52	0.4741	-0.0716	0.0002
277	SLE RA 21	-0.09	-10.41	25.3	0.4567	-0.069	0.0002
277	SLE FR 1	-0.08	-9.65	23.36	0.424	-0.0634	0.0002
277	SLE FR 2	-0.08	-9.52	23.29	0.4182	-0.0625	0.0002
277	SLE FR 3	-0.08	-9.67	23.44	0.4249	-0.0637	0.0002
277	SLE FR 4	-0.08	-9.85	23.87	0.4325	-0.0648	0.0002
277	SLE FR 5	-0.08	-10	24.03	0.4392	-0.066	0.0002
277	SLE FR 6	-0.08	-10.2	24.33	0.4479	-0.0671	0.0002
277	SLE QP 1	-0.08	-9.65	23.36	0.424	-0.0634	0.0002
277	SLE QP 2	-0.08	-9.98	23.94	0.4383	-0.0656	0.0002
277	SLD 1	-0.11	-10.73	29.02	0.4743	0.0793	0.0002
277	SLD 2	-0.11	-10.73	29.02	0.4743	0.0793	0.0002
277	SLD 3	-0.22	-14.54	30.87	0.6393	0.0014	0.0006
277	SLD 4	-0.22	-14.54	30.87	0.6393	0.0014	0.0006
277	SLD 5	0.08	-4.42	22.66	0.1989	0.0959	-0.0004
277	SLD 6	0.08	-4.42	22.66	0.1989	0.0959	-0.0004
277	SLD 7	-0.29	-17.13	28.82	0.7489	-0.1636	0.0009
277	SLD 8	-0.29	-17.13	28.82	0.7489	-0.1636	0.0009
277	SLD 9	0.13	-2.83	19.06	0.1278	0.0324	-0.0005
277	SLD 10	0.13	-2.83	19.06	0.1278	0.0324	-0.0005
277	SLD 11	-0.24	-15.54	25.22	0.6778	-0.2272	0.0008
277	SLD 12	-0.24	-15.54	25.22	0.6778	-0.2272	0.0008
277	SLD 13	0.05	-5.42	17.02	0.2373	-0.1327	-0.0002
277	SLD 14	0.05	-5.42	17.02	0.2373	-0.1327	-0.0002
277	SLD 15	-0.06	-9.23	18.86	0.4023	-0.2105	0.0002
277	SLD 16	-0.06	-9.23	18.86	0.4023	-0.2105	0.0002
277	SLV 1	-0.14	-11.77	35.75	0.5246	0.2896	0.0002
277	SLV 2	-0.14	-11.77	35.75	0.5246	0.2896	0.0002
277	SLV 3	-0.41	-20.65	40.21	0.9084	0.0961	0.0012
277	SLV 4	-0.41	-20.65	40.21	0.9084	0.0961	0.0012
277	SLV 5	0.31	2.95	20.72	-0.1178	0.3344	-0.0012
277	SLV 6	0.31	2.95	20.72	-0.1178	0.3344	-0.0012
277	SLV 7	-0.59	-26.65	35.59	1.1614	-0.3106	0.0019
277	SLV 8	-0.59	-26.65	35.59	1.1614	-0.3106	0.0019
277	SLV 9	0.43	6.69	12.3	-0.2847	0.1793	-0.0015
277	SLV 10	0.43	6.69	12.3	-0.2847	0.1793	-0.0015
277	SLV 11	-0.48	-22.9	27.17	0.9945	-0.4656	0.0016
277	SLV 12	-0.48	-22.9	27.17	0.9945	-0.4656	0.0016
277	SLV 13	0.25	0.7	7.68	-0.0318	-0.2273	-0.0007
277	SLV 14	0.25	0.7	7.68	-0.0318	-0.2273	-0.0007
277	SLV 15	-0.02	-8.18	12.14	0.352	-0.4208	0.0002
277	SLV 16	-0.02	-8.18	12.14	0.352	-0.4208	0.0002
278	SLU 1	0.01	1.24	52.72	-0.0411	0.0041	0
278	SLU 2	0.01	1.34	52.23	-0.044	0.0041	0
278	SLU 3	0.01	1.28	55.49	-0.0423	0.0043	0
278	SLU 4	0.01	1.34	55.19	-0.0441	0.0044	0
278	SLU 5	0.01	1.39	54.6	-0.0454	0.0044	0
278	SLU 6	0.01	1.33	57.86	-0.0437	0.0046	0
278	SLU 7	0.01	1.39	57.56	-0.0455	0.0047	0
278	SLU 8	0.01	1.34	57.46	-0.0439	0.0046	0
278	SLU 9	0.01	1.39	57.16	-0.0456	0.0046	0
278	SLU 10	0.01	1.36	60.73	-0.0459	0.0047	0
278	SLU 11	0.01	1.31	63.99	-0.0442	0.0049	0
278	SLU 12	0.01	1.36	63.69	-0.046	0.005	0
278	SLU 13	0.01	1.41	63.1	-0.0473	0.005	0
278	SLU 14	0.01	1.36	66.36	-0.0456	0.0052	0
278	SLU 15	0.01	1.41	66.06	-0.0474	0.0053	0
278	SLU 16	0.01	1.36	65.96	-0.0458	0.0052	0
278	SLU 17	0.01	1.42	65.66	-0.0475	0.0052	0
278	SLU 18	0.01	1.28	64.86	-0.0438	0.0049	0
278	SLU 19	0.01	1.34	64.57	-0.0456	0.005	0
278	SLU 20	0.01	1.33	67.23	-0.0452	0.0052	0
278	SLU 21	0.01	1.38	66.93	-0.047	0.0052	0
278	SLU 22	0.01	1.29	61.36	-0.0433	0.0047	0
278	SLU 23	0.01	1.38	60.87	-0.0462	0.0048	0
278	SLU 24	0.01	1.33	64.13	-0.0445	0.005	0
278	SLU 25	0.01	1.39	63.84	-0.0463	0.0051	0
278	SLU 26	0.01	1.43	63.24	-0.0476	0.0051	0
278	SLU 27	0.01	1.38	66.5	-0.0459	0.0053	0
278	SLU 28	0.01	1.43	66.21	-0.0477	0.0053	0
278	SLU 29	0.01	1.38	66.1	-0.0461	0.0053	0
278	SLU 30	0.01	1.44	65.81	-0.0479	0.0053	0
278	SLU 31	0.01	1.41	69.37	-0.0482	0.0054	0
278	SLU 32	0.01	1.35	72.63	-0.0464	0.0056	0
278	SLU 33	0.01	1.41	72.34	-0.0482	0.0057	0
278	SLU 34	0.01	1.46	71.74	-0.0495	0.0057	0
278	SLU 35	0.01	1.4	75	-0.0478	0.0059	0
278	SLU 36	0.01	1.46	74.71	-0.0496	0.0059	0
278	SLU 37	0.01	1.41	74.6	-0.048	0.0059	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
278	SLU 38	0.01	1.47	74.31	-0.0498	0.0059	0
278	SLU 39	0.01	1.32	73.5	-0.046	0.0056	0
278	SLU 40	0.01	1.38	73.21	-0.0478	0.0056	0
278	SLU 41	0.01	1.37	75.87	-0.0474	0.0059	0
278	SLU 42	0.01	1.43	75.58	-0.0492	0.0059	0
278	SLU 43	0.01	1.6	65.57	-0.0527	0.005	0
278	SLU 44	0.01	1.69	65.08	-0.0556	0.0051	0
278	SLU 45	0.01	1.64	68.34	-0.0539	0.0053	0
278	SLU 46	0.01	1.7	68.04	-0.0556	0.0054	0
278	SLU 47	0.01	1.74	67.45	-0.057	0.0054	0
278	SLU 48	0.01	1.69	70.71	-0.0553	0.0056	0
278	SLU 49	0.01	1.74	70.41	-0.057	0.0056	0
278	SLU 50	0.01	1.69	70.31	-0.0554	0.0056	0
278	SLU 51	0.01	1.75	70.01	-0.0572	0.0056	0
278	SLU 52	0.01	1.72	73.58	-0.0575	0.0057	0
278	SLU 53	0.01	1.66	76.84	-0.0558	0.0059	0
278	SLU 54	0.01	1.72	76.54	-0.0575	0.006	0
278	SLU 55	0.01	1.77	75.95	-0.0589	0.006	0
278	SLU 56	0.01	1.71	79.21	-0.0572	0.0062	0
278	SLU 57	0.01	1.77	78.91	-0.0589	0.0062	0
278	SLU 58	0.01	1.72	78.81	-0.0573	0.0062	0
278	SLU 59	0.01	1.78	78.51	-0.0591	0.0062	0
278	SLU 60	0.01	1.63	77.71	-0.0554	0.0059	0
278	SLU 61	0.01	1.69	77.42	-0.0571	0.006	0
278	SLU 62	0.01	1.68	80.08	-0.0568	0.0062	0
278	SLU 63	0.01	1.74	79.79	-0.0585	0.0062	0
278	SLU 64	0.01	1.64	74.21	-0.0549	0.0057	0
278	SLU 65	0.01	1.74	73.72	-0.0578	0.0058	0
278	SLU 66	0.01	1.68	76.98	-0.0561	0.006	0
278	SLU 67	0.01	1.74	76.69	-0.0579	0.006	0
278	SLU 68	0.01	1.79	76.09	-0.0592	0.0061	0
278	SLU 69	0.01	1.73	79.35	-0.0575	0.0063	0
278	SLU 70	0.01	1.79	79.06	-0.0593	0.0063	0
278	SLU 71	0.01	1.74	78.95	-0.0577	0.0062	0
278	SLU 72	0.01	1.8	78.66	-0.0594	0.0063	0
278	SLU 73	0.01	1.77	82.22	-0.0597	0.0064	0
278	SLU 74	0.01	1.71	85.48	-0.058	0.0066	0
278	SLU 75	0.01	1.77	85.19	-0.0598	0.0067	0
278	SLU 76	0.01	1.81	84.59	-0.0611	0.0067	0
278	SLU 77	0.01	1.76	87.85	-0.0594	0.0069	0
278	SLU 78	0.01	1.82	87.56	-0.0612	0.0069	0
278	SLU 79	0.01	1.77	87.45	-0.0596	0.0069	0
278	SLU 80	0.01	1.82	87.16	-0.0613	0.0069	0
278	SLU 81	0.01	1.68	86.36	-0.0576	0.0066	0
278	SLU 82	0.01	1.74	86.06	-0.0594	0.0066	0
278	SLU 83	0.01	1.73	88.72	-0.059	0.0069	0
278	SLU 84	0.01	1.79	88.43	-0.0608	0.0069	0
278	SLE RA 1	0.01	1.25	55.19	-0.0417	0.0042	0
278	SLE RA 2	0.01	1.32	54.86	-0.0437	0.0043	0
278	SLE RA 3	0.01	1.28	57.03	-0.0425	0.0044	0
278	SLE RA 4	0.01	1.32	56.84	-0.0437	0.0045	0
278	SLE RA 5	0.01	1.35	56.44	-0.0446	0.0045	0
278	SLE RA 6	0.01	1.31	58.61	-0.0435	0.0046	0
278	SLE RA 7	0.01	1.35	58.42	-0.0446	0.0046	0
278	SLE RA 8	0.01	1.32	58.35	-0.0436	0.0046	0
278	SLE RA 9	0.01	1.36	58.15	-0.0448	0.0046	0
278	SLE RA 10	0.01	1.34	60.53	-0.0449	0.0047	0
278	SLE RA 11	0.01	1.3	62.7	-0.0438	0.0048	0
278	SLE RA 12	0.01	1.34	62.5	-0.045	0.0049	0
278	SLE RA 13	0.01	1.37	62.11	-0.0459	0.0049	0
278	SLE RA 14	0.01	1.33	64.28	-0.0447	0.005	0
278	SLE RA 15	0.01	1.37	64.08	-0.0459	0.0051	0
278	SLE RA 16	0.01	1.34	64.01	-0.0449	0.005	0
278	SLE RA 17	0.01	1.37	63.82	-0.046	0.005	0
278	SLE RA 18	0.01	1.28	63.28	-0.0435	0.0048	0
278	SLE RA 19	0.01	1.32	63.09	-0.0447	0.0049	0
278	SLE RA 20	0.01	1.31	64.86	-0.0445	0.005	0
278	SLE RA 21	0.01	1.35	64.67	-0.0456	0.005	0
278	SLE FR 1	0.01	1.25	55.19	-0.0417	0.0042	0
278	SLE FR 2	0.01	1.27	55.12	-0.0421	0.0043	0
278	SLE FR 3	0.01	1.27	55.82	-0.0421	0.0043	0
278	SLE FR 4	0.01	1.27	57.55	-0.0427	0.0044	0
278	SLE FR 5	0.01	1.27	58.25	-0.0426	0.0045	0
278	SLE FR 6	0.01	1.27	59.23	-0.0426	0.0045	0
278	SLE QP 1	0.01	1.25	55.19	-0.0417	0.0042	0
278	SLE QP 2	0.01	1.26	57.62	-0.0423	0.0044	0
278	SLD 1	0.11	4.37	58.87	-0.1381	0.1195	0.0002
278	SLD 2	0.11	4.37	58.87	-0.1381	0.1195	0.0002
278	SLD 3	0.09	0.81	63.19	-0.0289	0.1498	0.0001
278	SLD 4	0.09	0.81	63.19	-0.0289	0.1498	0.0001
278	SLD 5	0.08	7.6	51.45	-0.2366	-0.007	0.0001
278	SLD 6	0.08	7.6	51.45	-0.2366	-0.007	0.0001
278	SLD 7	0	-4.28	65.83	0.1273	0.094	0
278	SLD 8	0	-4.28	65.83	0.1273	0.094	0
278	SLD 9	0.02	6.8	49.4	-0.2119	-0.0851	0
278	SLD 10	0.02	6.8	49.4	-0.2119	-0.0851	0
278	SLD 11	-0.06	-5.08	63.78	0.1521	0.0158	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
278	SLD 12	-0.06	-5.08	63.78	0.1521	0.0158	-0.0001
278	SLD 13	-0.07	1.72	52.04	-0.0556	-0.141	-0.0001
278	SLD 14	-0.07	1.72	52.04	-0.0556	-0.141	-0.0001
278	SLD 15	-0.09	-1.85	56.36	0.0536	-0.1107	-0.0002
278	SLD 16	-0.09	-1.85	56.36	0.0536	-0.1107	-0.0002
278	SLV 1	0.27	8.63	60.51	-0.2694	0.2972	0.0004
278	SLV 2	0.27	8.63	60.51	-0.2694	0.2972	0.0004
278	SLV 3	0.2	0.25	70.75	-0.0127	0.3742	0.0003
278	SLV 4	0.2	0.25	70.75	-0.0127	0.3742	0.0003
278	SLV 5	0.18	16.18	42.95	-0.4997	-0.0245	0.0003
278	SLV 6	0.18	16.18	42.95	-0.4997	-0.0245	0.0003
278	SLV 7	-0.03	-11.75	77.1	0.3559	0.2321	0
278	SLV 8	-0.03	-11.75	77.1	0.3559	0.2321	0
278	SLV 9	0.04	14.28	38.14	-0.4404	-0.2233	0.0001
278	SLV 10	0.04	14.28	38.14	-0.4404	-0.2233	0.0001
278	SLV 11	-0.16	-13.66	72.29	0.4152	0.0333	-0.0003
278	SLV 12	-0.16	-13.66	72.29	0.4152	0.0333	-0.0003
278	SLV 13	-0.19	2.27	44.48	-0.0718	-0.3653	-0.0003
278	SLV 14	-0.19	2.27	44.48	-0.0718	-0.3653	-0.0003
278	SLV 15	-0.25	-6.11	54.72	0.1848	-0.2884	-0.0004
278	SLV 16	-0.25	-6.11	54.72	0.1848	-0.2884	-0.0004
279	SLU 1	0	-0.55	36.48	0.0012	-0.0014	0
279	SLU 2	0	-0.55	36.46	0.0014	-0.0014	0
279	SLU 3	0	-0.75	36.82	0.0101	-0.0013	0
279	SLU 4	0	-0.76	36.81	0.0103	-0.0014	0
279	SLU 5	0	-0.79	36.2	0.0123	-0.0013	0
279	SLU 6	0	-0.99	36.56	0.021	-0.0013	0
279	SLU 7	0	-1	36.55	0.0211	-0.0013	0
279	SLU 8	0	-1.03	35.96	0.0229	-0.0012	0
279	SLU 9	0	-1.03	35.95	0.023	-0.0012	0
279	SLU 10	0	-0.61	42.3	-0.0004	-0.0014	0
279	SLU 11	0	-0.81	42.66	0.0083	-0.0014	0
279	SLU 12	0	-0.82	42.65	0.0084	-0.0014	0
279	SLU 13	0	-0.85	42.04	0.0104	-0.0013	0
279	SLU 14	0	-1.05	42.4	0.0191	-0.0013	0
279	SLU 15	0	-1.05	42.39	0.0192	-0.0013	0
279	SLU 16	0	-1.08	41.8	0.021	-0.0012	0
279	SLU 17	0	-1.09	41.79	0.0211	-0.0013	0
279	SLU 18	0	-0.63	44.82	-0.0014	-0.0014	0
279	SLU 19	0	-0.63	44.81	-0.0013	-0.0014	0
279	SLU 20	0	-0.87	44.56	0.0094	-0.0013	0
279	SLU 21	0	-0.87	44.55	0.0095	-0.0013	0
279	SLU 22	0	-0.72	41.64	0.0048	-0.0014	0
279	SLU 23	0	-0.72	41.63	0.005	-0.0014	0
279	SLU 24	0	-0.92	41.99	0.0137	-0.0014	0
279	SLU 25	0	-0.93	41.98	0.0138	-0.0014	0
279	SLU 26	0	-0.96	41.37	0.0158	-0.0014	0
279	SLU 27	0	-1.16	41.73	0.0245	-0.0013	0
279	SLU 28	0	-1.17	41.72	0.0247	-0.0013	0
279	SLU 29	0	-1.2	41.12	0.0264	-0.0013	0
279	SLU 30	0	-1.2	41.11	0.0266	-0.0013	0
279	SLU 31	0	-0.78	47.47	0.0032	-0.0015	0
279	SLU 32	0	-0.98	47.83	0.0119	-0.0014	0
279	SLU 33	0	-0.98	47.82	0.012	-0.0014	0
279	SLU 34	0	-1.02	47.21	0.014	-0.0014	0
279	SLU 35	0	-1.22	47.57	0.0227	-0.0013	0
279	SLU 36	0	-1.22	47.56	0.0228	-0.0014	0
279	SLU 37	0	-1.25	46.96	0.0246	-0.0013	0
279	SLU 38	0	-1.26	46.95	0.0247	-0.0013	0
279	SLU 39	0	-0.8	49.99	0.0021	-0.0014	0
279	SLU 40	0	-0.8	49.98	0.0023	-0.0015	0
279	SLU 41	0	-1.04	49.73	0.013	-0.0014	0
279	SLU 42	0	-1.04	49.71	0.0131	-0.0014	0
279	SLU 43	0	-0.66	45.65	0.0004	-0.0018	0
279	SLU 44	0	-0.66	45.64	0.0006	-0.0018	0
279	SLU 45	0	-0.86	46	0.0093	-0.0017	0
279	SLU 46	0	-0.86	45.99	0.0094	-0.0018	0
279	SLU 47	0	-0.9	45.38	0.0114	-0.0017	0
279	SLU 48	0	-1.1	45.74	0.0201	-0.0017	0
279	SLU 49	0	-1.1	45.73	0.0202	-0.0017	0
279	SLU 50	0	-1.13	45.13	0.022	-0.0016	0
279	SLU 51	0	-1.14	45.12	0.0221	-0.0016	0
279	SLU 52	0	-0.72	51.48	-0.0013	-0.0018	0
279	SLU 53	0	-0.92	51.84	0.0074	-0.0018	0
279	SLU 54	0	-0.92	51.83	0.0075	-0.0018	0
279	SLU 55	0	-0.96	51.22	0.0095	-0.0017	0
279	SLU 56	0	-1.16	51.58	0.0182	-0.0017	0
279	SLU 57	0	-1.16	51.57	0.0184	-0.0017	0
279	SLU 58	0	-1.19	50.97	0.0201	-0.0016	0
279	SLU 59	0	-1.19	50.96	0.0203	-0.0017	0
279	SLU 60	0	-0.74	53.99	-0.0023	-0.0018	0
279	SLU 61	0	-0.74	53.98	-0.0022	-0.0018	0
279	SLU 62	0	-0.98	53.73	0.0085	-0.0017	0
279	SLU 63	0	-0.98	53.72	0.0086	-0.0017	0
279	SLU 64	0	-0.82	50.82	0.004	-0.0018	0
279	SLU 65	0	-0.83	50.8	0.0042	-0.0018	0
279	SLU 66	0	-1.03	51.16	0.0129	-0.0018	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
279	SLU 67	0	-1.03	51.15	0.013	-0.0018	0
279	SLU 68	0	-1.07	50.54	0.015	-0.0018	0
279	SLU 69	0	-1.27	50.9	0.0237	-0.0017	0
279	SLU 70	0	-1.27	50.89	0.0238	-0.0017	0
279	SLU 71	0	-1.3	50.3	0.0256	-0.0017	0
279	SLU 72	0	-1.3	50.29	0.0257	-0.0017	0
279	SLU 73	0	-0.89	56.64	0.0023	-0.0019	0
279	SLU 74	0	-1.09	57	0.011	-0.0018	0
279	SLU 75	0	-1.09	56.99	0.0111	-0.0018	0
279	SLU 76	0	-1.13	56.38	0.0131	-0.0018	0
279	SLU 77	0	-1.33	56.74	0.0218	-0.0017	0
279	SLU 78	0	-1.33	56.73	0.0219	-0.0018	0
279	SLU 79	0	-1.36	56.14	0.0237	-0.0017	0
279	SLU 80	0	-1.36	56.13	0.0238	-0.0017	0
279	SLU 81	0	-0.91	59.16	0.0013	-0.0018	0
279	SLU 82	0	-0.91	59.15	0.0014	-0.0018	0
279	SLU 83	0	-1.14	58.9	0.0121	-0.0018	0
279	SLU 84	0	-1.15	58.89	0.0122	-0.0018	0
279	SLE RA 1	0	-0.6	37.96	0.0023	-0.0014	0
279	SLE RA 2	0	-0.6	37.94	0.0024	-0.0014	0
279	SLE RA 3	0	-0.73	38.18	0.0082	-0.0014	0
279	SLE RA 4	0	-0.74	38.18	0.0083	-0.0014	0
279	SLE RA 5	0	-0.76	37.77	0.0096	-0.0014	0
279	SLE RA 6	0	-0.89	38.01	0.0154	-0.0013	0
279	SLE RA 7	0	-0.9	38	0.0155	-0.0013	0
279	SLE RA 8	0	-0.92	37.61	0.0167	-0.0013	0
279	SLE RA 9	0	-0.92	37.6	0.0168	-0.0013	0
279	SLE RA 10	0	-0.64	41.84	0.0012	-0.0014	0
279	SLE RA 11	0	-0.77	42.08	0.007	-0.0014	0
279	SLE RA 12	0	-0.77	42.07	0.007	-0.0014	0
279	SLE RA 13	0	-0.8	41.66	0.0084	-0.0014	0
279	SLE RA 14	0	-0.93	41.9	0.0142	-0.0013	0
279	SLE RA 15	0	-0.93	41.9	0.0142	-0.0013	0
279	SLE RA 16	0	-0.95	41.5	0.0154	-0.0013	0
279	SLE RA 17	0	-0.96	41.49	0.0155	-0.0013	0
279	SLE RA 18	0	-0.65	43.52	0.0005	-0.0014	0
279	SLE RA 19	0	-0.65	43.51	0.0006	-0.0014	0
279	SLE RA 20	0	-0.81	43.34	0.0077	-0.0013	0
279	SLE RA 21	0	-0.81	43.34	0.0078	-0.0014	0
279	SLE FR 1	0	-0.6	37.96	0.0023	-0.0014	0
279	SLE FR 2	0	-0.6	37.95	0.0023	-0.0014	0
279	SLE FR 3	0	-0.66	37.89	0.0051	-0.0014	0
279	SLE FR 4	0	-0.61	39.62	0.0018	-0.0014	0
279	SLE FR 5	0	-0.68	39.55	0.0046	-0.0014	0
279	SLE FR 6	0	-0.62	40.74	0.0014	-0.0014	0
279	SLE QP 1	0	-0.6	37.96	0.0023	-0.0014	0
279	SLE QP 2	0	-0.61	39.62	0.0017	-0.0014	0
279	SLD 1	-0.07	0.07	40.75	-0.0264	-0.0552	0
279	SLD 2	-0.07	0.07	40.75	-0.0264	-0.0552	0
279	SLD 3	-0.04	-3.76	40.24	0.134	-0.0332	0
279	SLD 4	-0.04	-3.76	40.24	0.134	-0.0332	0
279	SLD 5	-0.07	5.4	40.74	-0.2501	-0.0509	0
279	SLD 6	-0.07	5.4	40.74	-0.2501	-0.0509	0
279	SLD 7	0.03	-7.36	39.04	0.2848	0.0224	0
279	SLD 8	0.03	-7.36	39.04	0.2848	0.0224	0
279	SLD 9	-0.03	6.14	40.21	-0.2813	-0.0252	0
279	SLD 10	-0.03	6.14	40.21	-0.2813	-0.0252	0
279	SLD 11	0.06	-6.62	38.51	0.2535	0.0481	0.0001
279	SLD 12	0.06	-6.62	38.51	0.2535	0.0481	0.0001
279	SLD 13	0.04	2.53	39	-0.1306	0.0305	0
279	SLD 14	0.04	2.53	39	-0.1306	0.0305	0
279	SLD 15	0.06	-1.29	38.49	0.0299	0.0524	0
279	SLD 16	0.06	-1.29	38.49	0.0299	0.0524	0
279	SLV 1	-0.17	0.99	42.34	-0.0648	-0.138	-0.0001
279	SLV 2	-0.17	0.99	42.34	-0.0648	-0.138	-0.0001
279	SLV 3	-0.1	-8.02	41.07	0.3131	-0.0826	0
279	SLV 4	-0.1	-8.02	41.07	0.3131	-0.0826	0
279	SLV 5	-0.16	13.54	42.36	-0.5913	-0.1265	-0.0001
279	SLV 6	-0.16	13.54	42.36	-0.5913	-0.1265	-0.0001
279	SLV 7	0.08	-16.5	38.13	0.6682	0.0584	0.0001
279	SLV 8	0.08	-16.5	38.13	0.6682	0.0584	0.0001
279	SLV 9	-0.08	15.28	41.11	-0.6647	-0.0611	-0.0001
279	SLV 10	-0.08	15.28	41.11	-0.6647	-0.0611	-0.0001
279	SLV 11	0.16	-14.76	36.89	0.5947	0.1237	0.0001
279	SLV 12	0.16	-14.76	36.89	0.5947	0.1237	0.0001
279	SLV 13	0.09	6.79	38.17	-0.3096	0.0798	0
279	SLV 14	0.09	6.79	38.17	-0.3096	0.0798	0
279	SLV 15	0.17	-2.22	36.91	0.0682	0.1352	0.0001
279	SLV 16	0.17	-2.22	36.91	0.0682	0.1352	0.0001
280	SLU 1	-0.01	-6.97	27.87	0.1628	-0.0024	-0.0004
280	SLU 2	-0.01	-6.91	27.7	0.1608	-0.0024	-0.0004
280	SLU 3	-0.01	-7.19	28.77	0.1677	-0.0024	-0.0004
280	SLU 4	-0.01	-7.15	28.67	0.1664	-0.0024	-0.0004
280	SLU 5	-0.01	-7.02	28.21	0.1626	-0.0024	-0.0004
280	SLU 6	-0.01	-7.29	29.28	0.1694	-0.0024	-0.0004
280	SLU 7	-0.01	-7.26	29.18	0.1682	-0.0024	-0.0004
280	SLU 8	-0.01	-7.18	28.89	0.1663	-0.0024	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
280	SLU 9	-0.01	-7.15	28.79	0.1651	-0.0024	-0.0004
280	SLU 10	-0.01	-8.2	32.57	0.193	-0.0028	-0.0005
280	SLU 11	-0.01	-8.48	33.65	0.1998	-0.0029	-0.0005
280	SLU 12	-0.01	-8.44	33.54	0.1986	-0.0029	-0.0005
280	SLU 13	-0.01	-8.3	33.08	0.1948	-0.0029	-0.0005
280	SLU 14	-0.01	-8.58	34.16	0.2016	-0.0029	-0.0005
280	SLU 15	-0.01	-8.54	34.06	0.2004	-0.0029	-0.0005
280	SLU 16	-0.01	-8.47	33.76	0.1985	-0.0029	-0.0005
280	SLU 17	-0.01	-8.43	33.66	0.1973	-0.0029	-0.0005
280	SLU 18	-0.01	-8.81	34.83	0.2088	-0.003	-0.0005
280	SLU 19	-0.01	-8.77	34.73	0.2076	-0.003	-0.0005
280	SLU 20	-0.01	-8.92	35.34	0.2106	-0.0031	-0.0005
280	SLU 21	-0.01	-8.88	35.24	0.2094	-0.0031	-0.0005
280	SLU 22	-0.01	-8.15	32.42	0.1918	-0.0028	-0.0005
280	SLU 23	-0.01	-8.09	32.25	0.1897	-0.0028	-0.0005
280	SLU 24	-0.01	-8.37	33.32	0.1966	-0.0028	-0.0005
280	SLU 25	-0.01	-8.33	33.22	0.1954	-0.0028	-0.0005
280	SLU 26	-0.01	-8.2	32.76	0.1915	-0.0028	-0.0005
280	SLU 27	-0.01	-8.48	33.84	0.1983	-0.0029	-0.0005
280	SLU 28	-0.01	-8.44	33.73	0.1971	-0.0029	-0.0005
280	SLU 29	-0.01	-8.36	33.44	0.1953	-0.0028	-0.0005
280	SLU 30	-0.01	-8.33	33.34	0.194	-0.0028	-0.0005
280	SLU 31	-0.01	-9.38	37.12	0.2219	-0.0033	-0.0005
280	SLU 32	-0.01	-9.66	38.2	0.2288	-0.0033	-0.0006
280	SLU 33	-0.01	-9.62	38.1	0.2275	-0.0033	-0.0006
280	SLU 34	-0.01	-9.48	37.64	0.2237	-0.0033	-0.0005
280	SLU 35	-0.01	-9.76	38.71	0.2305	-0.0033	-0.0006
280	SLU 36	-0.01	-9.72	38.61	0.2293	-0.0033	-0.0006
280	SLU 37	-0.01	-9.65	38.32	0.2274	-0.0033	-0.0006
280	SLU 38	-0.01	-9.61	38.21	0.2262	-0.0033	-0.0006
280	SLU 39	-0.01	-9.99	39.38	0.2377	-0.0035	-0.0006
280	SLU 40	-0.01	-9.95	39.28	0.2365	-0.0035	-0.0006
280	SLU 41	-0.01	-10.1	39.89	0.2395	-0.0035	-0.0006
280	SLU 42	-0.01	-10.06	39.79	0.2383	-0.0035	-0.0006
280	SLU 43	-0.01	-8.66	34.66	0.2018	-0.003	-0.0005
280	SLU 44	-0.01	-8.6	34.49	0.1998	-0.003	-0.0005
280	SLU 45	-0.01	-8.88	35.57	0.2066	-0.003	-0.0005
280	SLU 46	-0.01	-8.84	35.47	0.2054	-0.003	-0.0005
280	SLU 47	-0.01	-8.7	35.01	0.2015	-0.003	-0.0005
280	SLU 48	-0.01	-8.98	36.08	0.2083	-0.003	-0.0005
280	SLU 49	-0.01	-8.94	35.98	0.2071	-0.003	-0.0005
280	SLU 50	-0.01	-8.87	35.69	0.2053	-0.003	-0.0005
280	SLU 51	-0.01	-8.83	35.58	0.2041	-0.003	-0.0005
280	SLU 52	-0.01	-9.88	39.37	0.2319	-0.0034	-0.0006
280	SLU 53	-0.01	-10.16	40.44	0.2388	-0.0035	-0.0006
280	SLU 54	-0.01	-10.13	40.34	0.2376	-0.0035	-0.0006
280	SLU 55	-0.01	-9.99	39.88	0.2337	-0.0034	-0.0006
280	SLU 56	-0.01	-10.27	40.96	0.2405	-0.0035	-0.0006
280	SLU 57	-0.01	-10.23	40.85	0.2393	-0.0035	-0.0006
280	SLU 58	-0.01	-10.16	40.56	0.2375	-0.0034	-0.0006
280	SLU 59	-0.01	-10.12	40.46	0.2362	-0.0034	-0.0006
280	SLU 60	-0.01	-10.5	41.63	0.2478	-0.0036	-0.0006
280	SLU 61	-0.01	-10.46	41.53	0.2465	-0.0036	-0.0006
280	SLU 62	-0.01	-10.6	42.14	0.2495	-0.0036	-0.0006
280	SLU 63	-0.01	-10.57	42.04	0.2483	-0.0036	-0.0006
280	SLU 64	-0.01	-9.84	39.22	0.2307	-0.0034	-0.0006
280	SLU 65	-0.01	-9.78	39.05	0.2287	-0.0034	-0.0006
280	SLU 66	-0.01	-10.06	40.12	0.2355	-0.0034	-0.0006
280	SLU 67	-0.01	-10.02	40.02	0.2343	-0.0034	-0.0006
280	SLU 68	-0.01	-9.88	39.56	0.2304	-0.0034	-0.0006
280	SLU 69	-0.01	-10.16	40.63	0.2373	-0.0034	-0.0006
280	SLU 70	-0.01	-10.12	40.53	0.236	-0.0034	-0.0006
280	SLU 71	-0.01	-10.05	40.24	0.2342	-0.0034	-0.0006
280	SLU 72	-0.01	-10.01	40.14	0.233	-0.0034	-0.0006
280	SLU 73	-0.01	-11.06	43.92	0.2609	-0.0038	-0.0006
280	SLU 74	-0.01	-11.34	45	0.2677	-0.0039	-0.0007
280	SLU 75	-0.01	-11.31	44.9	0.2665	-0.0039	-0.0007
280	SLU 76	-0.01	-11.17	44.43	0.2626	-0.0038	-0.0006
280	SLU 77	-0.01	-11.45	45.51	0.2694	-0.0039	-0.0007
280	SLU 78	-0.01	-11.41	45.41	0.2682	-0.0039	-0.0007
280	SLU 79	-0.01	-11.34	45.11	0.2664	-0.0038	-0.0007
280	SLU 80	-0.01	-11.3	45.01	0.2652	-0.0038	-0.0006
280	SLU 81	-0.01	-11.68	46.18	0.2767	-0.004	-0.0007
280	SLU 82	-0.01	-11.64	46.08	0.2755	-0.004	-0.0007
280	SLU 83	-0.01	-11.78	46.69	0.2784	-0.004	-0.0007
280	SLU 84	-0.01	-11.75	46.59	0.2772	-0.004	-0.0007
280	SLE RA 1	-0.01	-7.31	29.17	0.1711	-0.0025	-0.0004
280	SLE RA 2	-0.01	-7.27	29.05	0.1698	-0.0025	-0.0004
280	SLE RA 3	-0.01	-7.45	29.77	0.1743	-0.0025	-0.0004
280	SLE RA 4	-0.01	-7.43	29.7	0.1735	-0.0025	-0.0004
280	SLE RA 5	-0.01	-7.34	29.39	0.1709	-0.0025	-0.0004
280	SLE RA 6	-0.01	-7.52	30.11	0.1755	-0.0025	-0.0004
280	SLE RA 7	-0.01	-7.5	30.04	0.1747	-0.0025	-0.0004
280	SLE RA 8	-0.01	-7.45	29.85	0.1734	-0.0025	-0.0004
280	SLE RA 9	-0.01	-7.43	29.78	0.1726	-0.0025	-0.0004
280	SLE RA 10	-0.01	-8.13	32.3	0.1912	-0.0028	-0.0005
280	SLE RA 11	-0.01	-8.31	33.02	0.1958	-0.0028	-0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
280	SLE RA 12	-0.01	-8.29	32.95	0.195	-0.0028	-0.0005
280	SLE RA 13	-0.01	-8.2	32.64	0.1924	-0.0028	-0.0005
280	SLE RA 14	-0.01	-8.38	33.36	0.1969	-0.0028	-0.0005
280	SLE RA 15	-0.01	-8.36	33.29	0.1961	-0.0028	-0.0005
280	SLE RA 16	-0.01	-8.31	33.1	0.1949	-0.0028	-0.0005
280	SLE RA 17	-0.01	-8.28	33.03	0.1941	-0.0028	-0.0005
280	SLE RA 18	-0.01	-8.53	33.81	0.2018	-0.0029	-0.0005
280	SLE RA 19	-0.01	-8.51	33.74	0.2009	-0.0029	-0.0005
280	SLE RA 20	-0.01	-8.61	34.15	0.2029	-0.0029	-0.0005
280	SLE RA 21	-0.01	-8.58	34.08	0.2021	-0.0029	-0.0005
280	SLE FR 1	-0.01	-7.31	29.17	0.1711	-0.0025	-0.0004
280	SLE FR 2	-0.01	-7.3	29.14	0.1708	-0.0025	-0.0004
280	SLE FR 3	-0.01	-7.34	29.3	0.1716	-0.0025	-0.0004
280	SLE FR 4	-0.01	-7.67	30.54	0.18	-0.0026	-0.0004
280	SLE FR 5	-0.01	-7.7	30.7	0.1808	-0.0026	-0.0004
280	SLE FR 6	-0.01	-7.92	31.49	0.1864	-0.0027	-0.0005
280	SLE QP 1	-0.01	-7.31	29.17	0.1711	-0.0025	-0.0004
280	SLE QP 2	-0.01	-7.68	30.56	0.1803	-0.0026	-0.0004
280	SLD 1	-0.33	-7.79	30.7	0.1851	0.0304	0.0031
280	SLD 2	-0.33	-7.79	30.7	0.1851	0.0304	0.0031
280	SLD 3	-0.29	-10.8	39.46	0.2889	0.0239	0.0022
280	SLD 4	-0.29	-10.8	39.46	0.2889	0.0239	0.0022
280	SLD 5	-0.17	-3.14	17.32	0.0243	0.0172	0.002
280	SLD 6	-0.17	-3.14	17.32	0.0243	0.0172	0.002
280	SLD 7	-0.02	-13.18	46.51	0.3703	-0.0046	-0.0011
280	SLD 8	-0.02	-13.18	46.51	0.3703	-0.0046	-0.0011
280	SLD 9	0.01	-2.17	14.61	-0.0097	-0.0006	0.0002
280	SLD 10	0.01	-2.17	14.61	-0.0097	-0.0006	0.0002
280	SLD 11	0.16	-12.21	43.79	0.3362	-0.0225	-0.0029
280	SLD 12	0.16	-12.21	43.79	0.3362	-0.0225	-0.0029
280	SLD 13	0.28	-4.56	21.66	0.0717	-0.0291	-0.0031
280	SLD 14	0.28	-4.56	21.66	0.0717	-0.0291	-0.0031
280	SLD 15	0.32	-7.57	30.42	0.1755	-0.0357	-0.004
280	SLD 16	0.32	-7.57	30.42	0.1755	-0.0357	-0.004
280	SLV 1	-0.85	-7.93	30.9	0.1917	0.0807	0.0082
280	SLV 2	-0.85	-7.93	30.9	0.1917	0.0807	0.0082
280	SLV 3	-0.73	-15.04	51.57	0.4367	0.0642	0.0059
280	SLV 4	-0.73	-15.04	51.57	0.4367	0.0642	0.0059
280	SLV 5	-0.43	3.03	-0.7	-0.1879	0.0474	0.0057
280	SLV 6	-0.43	3.03	-0.7	-0.1879	0.0474	0.0057
280	SLV 7	-0.05	-20.67	68.22	0.6288	-0.0076	-0.002
280	SLV 8	-0.05	-20.67	68.22	0.6288	-0.0076	-0.002
280	SLV 9	0.04	5.31	-7.11	-0.2682	0.0024	0.0011
280	SLV 10	0.04	5.31	-7.11	-0.2682	0.0024	0.0011
280	SLV 11	0.42	-18.38	61.82	0.5485	-0.0527	-0.0065
280	SLV 12	0.42	-18.38	61.82	0.5485	-0.0527	-0.0065
280	SLV 13	0.72	-0.31	9.54	-0.0761	-0.0695	-0.0068
280	SLV 14	0.72	-0.31	9.54	-0.0761	-0.0695	-0.0068
280	SLV 15	0.83	-7.42	30.22	0.1689	-0.086	-0.0091
280	SLV 16	0.83	-7.42	30.22	0.1689	-0.086	-0.0091
281	SLU 1	0	-6.76	51.67	0.1968	0.0065	-0.0001
281	SLU 2	0	-5.96	48.77	0.1715	0.0028	-0.0001
281	SLU 3	0	-6.96	52.5	0.2026	0.007	-0.0001
281	SLU 4	0	-6.48	50.75	0.1874	0.0048	-0.0001
281	SLU 5	0	-6.05	48.93	0.1742	0.0033	-0.0001
281	SLU 6	0	-7.05	52.66	0.2053	0.0075	-0.0001
281	SLU 7	0	-6.57	50.91	0.1901	0.0053	-0.0001
281	SLU 8	0	-6.95	52	0.2023	0.0075	-0.0001
281	SLU 9	0	-6.47	50.25	0.187	0.0053	-0.0001
281	SLU 10	0	-6.83	54.74	0.197	0.0039	-0.0001
281	SLU 11	0	-7.83	58.47	0.2282	0.0082	-0.0001
281	SLU 12	0	-7.35	56.73	0.2129	0.006	-0.0001
281	SLU 13	0	-6.92	54.9	0.1997	0.0045	-0.0001
281	SLU 14	0	-7.92	58.63	0.2309	0.0087	-0.0001
281	SLU 15	0	-7.44	56.89	0.2156	0.0065	-0.0001
281	SLU 16	0	-7.82	57.97	0.2278	0.0087	-0.0001
281	SLU 17	0	-7.34	56.23	0.2126	0.0064	-0.0001
281	SLU 18	0	-8	60.21	0.2334	0.0082	-0.0001
281	SLU 19	0	-7.52	58.47	0.2181	0.0059	-0.0001
281	SLU 20	0	-8.1	60.37	0.2361	0.0087	-0.0001
281	SLU 21	0	-7.62	58.63	0.2208	0.0064	-0.0001
281	SLU 22	0	-7.63	57.27	0.2224	0.0078	-0.0001
281	SLU 23	0	-6.83	54.36	0.197	0.0041	-0.0001
281	SLU 24	0	-7.83	58.09	0.2281	0.0083	-0.0001
281	SLU 25	0	-7.35	56.35	0.2129	0.0061	-0.0001
281	SLU 26	0	-6.92	54.53	0.1997	0.0046	-0.0001
281	SLU 27	0	-7.92	58.26	0.2308	0.0088	-0.0001
281	SLU 28	0	-7.44	56.51	0.2156	0.0066	-0.0001
281	SLU 29	0	-7.82	57.6	0.2278	0.0088	-0.0001
281	SLU 30	0	-7.34	55.85	0.2126	0.0066	-0.0001
281	SLU 31	0	-7.7	60.34	0.2225	0.0052	-0.0001
281	SLU 32	0	-8.7	64.07	0.2537	0.0095	-0.0001
281	SLU 33	0	-8.22	62.32	0.2385	0.0072	-0.0001
281	SLU 34	0	-7.79	60.5	0.2253	0.0057	-0.0001
281	SLU 35	0	-8.79	64.23	0.2564	0.01	-0.0001
281	SLU 36	0	-8.31	62.49	0.2412	0.0078	-0.0001
281	SLU 37	0	-8.69	63.57	0.2533	0.01	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
281	SLU 38	0	-8.21	61.83	0.2381	0.0077	-0.0001
281	SLU 39	0	-8.87	65.81	0.2589	0.0095	-0.0001
281	SLU 40	0	-8.39	64.06	0.2437	0.0072	-0.0001
281	SLU 41	0	-8.97	65.97	0.2616	0.01	-0.0001
281	SLU 42	0	-8.49	64.23	0.2464	0.0077	-0.0001
281	SLU 43	0	-8.49	65.26	0.2471	0.008	-0.0001
281	SLU 44	0	-7.69	62.35	0.2218	0.0043	-0.0001
281	SLU 45	0	-8.68	66.08	0.2529	0.0085	-0.0001
281	SLU 46	0	-8.2	64.33	0.2377	0.0063	-0.0001
281	SLU 47	0	-7.78	62.51	0.2245	0.0048	-0.0001
281	SLU 48	0	-8.78	66.24	0.2556	0.009	-0.0001
281	SLU 49	0	-8.3	64.5	0.2404	0.0068	-0.0001
281	SLU 50	0	-8.68	65.58	0.2526	0.009	-0.0001
281	SLU 51	0	-8.2	63.84	0.2373	0.0068	-0.0001
281	SLU 52	0	-8.56	68.32	0.2473	0.0055	-0.0001
281	SLU 53	0	-9.56	72.05	0.2785	0.0097	-0.0001
281	SLU 54	0	-9.08	70.31	0.2632	0.0075	-0.0001
281	SLU 55	0	-8.65	68.49	0.25	0.006	-0.0001
281	SLU 56	0	-9.65	72.22	0.2812	0.0102	-0.0001
281	SLU 57	0	-9.17	70.47	0.2659	0.008	-0.0001
281	SLU 58	0	-9.55	71.56	0.2781	0.0102	-0.0001
281	SLU 59	0	-9.07	69.81	0.2629	0.008	-0.0001
281	SLU 60	0	-9.73	73.79	0.2837	0.0097	-0.0001
281	SLU 61	0	-9.25	72.05	0.2684	0.0074	-0.0001
281	SLU 62	0	-9.83	73.96	0.2864	0.0102	-0.0001
281	SLU 63	0	-9.35	72.21	0.2711	0.008	-0.0001
281	SLU 64	0	-9.36	70.85	0.2727	0.0093	-0.0001
281	SLU 65	0	-8.56	67.95	0.2473	0.0056	-0.0001
281	SLU 66	0	-9.56	71.68	0.2784	0.0098	-0.0001
281	SLU 67	0	-9.07	69.93	0.2632	0.0076	-0.0001
281	SLU 68	0	-8.65	68.11	0.25	0.0061	-0.0001
281	SLU 69	0	-9.65	71.84	0.2811	0.0103	-0.0001
281	SLU 70	0	-9.17	70.09	0.2659	0.0081	-0.0001
281	SLU 71	0	-9.55	71.18	0.2781	0.0103	-0.0001
281	SLU 72	0	-9.07	69.43	0.2629	0.0081	-0.0001
281	SLU 73	0	-9.43	73.92	0.2729	0.0068	-0.0001
281	SLU 74	0	-10.43	77.65	0.304	0.011	-0.0001
281	SLU 75	0	-9.95	75.91	0.2888	0.0088	-0.0001
281	SLU 76	0	-9.52	74.08	0.2756	0.0073	-0.0001
281	SLU 77	0	-10.52	77.81	0.3067	0.0115	-0.0001
281	SLU 78	0	-10.04	76.07	0.2915	0.0093	-0.0001
281	SLU 79	0	-10.42	77.15	0.3036	0.0115	-0.0001
281	SLU 80	0	-9.94	75.41	0.2884	0.0093	-0.0001
281	SLU 81	0	-10.6	79.39	0.3092	0.011	-0.0001
281	SLU 82	0	-10.12	77.65	0.294	0.0087	-0.0001
281	SLU 83	0	-10.7	79.55	0.3119	0.0115	-0.0001
281	SLU 84	0	-10.22	77.81	0.2967	0.0092	-0.0001
281	SLE RA 1	0	-7.01	53.27	0.2041	0.0069	-0.0001
281	SLE RA 2	0	-6.47	51.33	0.1872	0.0044	-0.0001
281	SLE RA 3	0	-7.14	53.82	0.208	0.0072	-0.0001
281	SLE RA 4	0	-6.82	52.66	0.1978	0.0057	-0.0001
281	SLE RA 5	0	-6.54	51.44	0.189	0.0047	-0.0001
281	SLE RA 6	0	-7.2	53.93	0.2098	0.0076	-0.0001
281	SLE RA 7	0	-6.88	52.77	0.1996	0.0061	-0.0001
281	SLE RA 8	0	-7.13	53.49	0.2077	0.0076	-0.0001
281	SLE RA 9	0	-6.81	52.33	0.1976	0.0061	-0.0001
281	SLE RA 10	0	-7.05	55.32	0.2043	0.0052	-0.0001
281	SLE RA 11	0	-7.72	57.8	0.225	0.008	-0.0001
281	SLE RA 12	0	-7.4	56.64	0.2149	0.0065	-0.0001
281	SLE RA 13	0	-7.12	55.43	0.2061	0.0055	-0.0001
281	SLE RA 14	0	-7.78	57.91	0.2268	0.0083	-0.0001
281	SLE RA 15	0	-7.46	56.75	0.2167	0.0068	-0.0001
281	SLE RA 16	0	-7.71	57.47	0.2248	0.0083	-0.0001
281	SLE RA 17	0	-7.39	56.31	0.2146	0.0068	-0.0001
281	SLE RA 18	0	-7.84	58.96	0.2285	0.008	-0.0001
281	SLE RA 19	0	-7.52	57.8	0.2183	0.0065	-0.0001
281	SLE RA 20	0	-7.9	59.07	0.2303	0.0083	-0.0001
281	SLE RA 21	0	-7.58	57.91	0.2201	0.0068	-0.0001
281	SLE FR 1	0	-7.01	53.27	0.2041	0.0069	-0.0001
281	SLE FR 2	0	-6.9	52.88	0.2008	0.0064	-0.0001
281	SLE FR 3	0	-7.03	53.32	0.2049	0.007	-0.0001
281	SLE FR 4	0	-7.15	54.59	0.2081	0.0067	-0.0001
281	SLE FR 5	0	-7.28	55.02	0.2122	0.0074	-0.0001
281	SLE FR 6	0	-7.42	56.12	0.2163	0.0074	-0.0001
281	SLE QP 1	0	-7.01	53.27	0.2041	0.0069	-0.0001
281	SLE QP 2	0	-7.26	54.98	0.2114	0.0072	-0.0001
281	SLD 1	0.03	-4.05	36.64	0.1142	0.0843	0.0002
281	SLD 2	0.03	-4.05	36.64	0.1142	0.0843	0.0002
281	SLD 3	0.13	-7.28	43.81	0.2143	0.1494	0.0009
281	SLD 4	0.13	-7.28	43.81	0.2143	0.1494	0.0009
281	SLD 5	-0.15	-1.39	38.61	0.0303	-0.0684	-0.001
281	SLD 6	-0.15	-1.39	38.61	0.0303	-0.0684	-0.001
281	SLD 7	0.19	-12.17	62.49	0.3642	0.1486	0.0013
281	SLD 8	0.19	-12.17	62.49	0.3642	0.1486	0.0013
281	SLD 9	-0.19	-2.34	47.47	0.0586	-0.1342	-0.0014
281	SLD 10	-0.19	-2.34	47.47	0.0586	-0.1342	-0.0014
281	SLD 11	0.15	-13.12	71.34	0.3926	0.0828	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
281	SLD 12	0.15	-13.12	71.34	0.3926	0.0828	0.0009
281	SLD 13	-0.13	-7.23	66.15	0.2085	-0.135	-0.0011
281	SLD 14	-0.13	-7.23	66.15	0.2085	-0.135	-0.0011
281	SLD 15	-0.02	-10.46	73.32	0.3087	-0.0699	-0.0004
281	SLD 16	-0.02	-10.46	73.32	0.3087	-0.0699	-0.0004
281	SLV 1	0.06	0.26	11.99	-0.0165	0.1931	0.0006
281	SLV 2	0.06	0.26	11.99	-0.0165	0.1931	0.0006
281	SLV 3	0.31	-7.3	28.89	0.2176	0.3581	0.0024
281	SLV 4	0.31	-7.3	28.89	0.2176	0.3581	0.0024
281	SLV 5	-0.37	6.47	16.45	-0.2121	-0.1873	-0.0025
281	SLV 6	-0.37	6.47	16.45	-0.2121	-0.1873	-0.0025
281	SLV 7	0.48	-18.74	72.79	0.5685	0.3628	0.0033
281	SLV 8	0.48	-18.74	72.79	0.5685	0.3628	0.0033
281	SLV 9	-0.48	4.23	37.17	-0.1456	-0.3483	-0.0035
281	SLV 10	-0.48	4.23	37.17	-0.1456	-0.3483	-0.0035
281	SLV 11	0.37	-20.98	93.51	0.635	0.2017	0.0024
281	SLV 12	0.37	-20.98	93.51	0.635	0.2017	0.0024
281	SLV 13	-0.31	-7.21	81.06	0.2052	-0.3437	-0.0025
281	SLV 14	-0.31	-7.21	81.06	0.2052	-0.3437	-0.0025
281	SLV 15	-0.06	-14.77	97.97	0.4394	-0.1787	-0.0008
281	SLV 16	-0.06	-14.77	97.97	0.4394	-0.1787	-0.0008
282	SLU 1	0	1.91	38.32	-0.2896	0.0005	0
282	SLU 2	0	1.91	38.29	-0.2889	0.0005	0
282	SLU 3	0	1.75	38.85	-0.2922	0.0005	0
282	SLU 4	0	1.75	38.83	-0.2918	0.0006	0
282	SLU 5	0	1.67	38.2	-0.2857	0.0006	0
282	SLU 6	0	1.51	38.75	-0.2891	0.0006	0
282	SLU 7	0	1.51	38.74	-0.2887	0.0006	0
282	SLU 8	0	1.44	38.13	-0.2833	0.0006	0
282	SLU 9	0	1.44	38.12	-0.2828	0.0007	0
282	SLU 10	0	2.25	44.5	-0.338	0.0006	0
282	SLU 11	0	2.09	45.05	-0.3413	0.0007	0
282	SLU 12	0	2.09	45.04	-0.3409	0.0007	0
282	SLU 13	0	2.02	44.41	-0.3348	0.0007	0
282	SLU 14	0	1.85	44.96	-0.3382	0.0007	0
282	SLU 15	0	1.85	44.94	-0.3378	0.0008	0
282	SLU 16	0	1.78	44.34	-0.3323	0.0008	0
282	SLU 17	0	1.78	44.32	-0.3319	0.0008	0
282	SLU 18	0	2.4	47.18	-0.3597	0.0006	0
282	SLU 19	0	2.4	47.17	-0.3593	0.0006	0
282	SLU 20	0	2.17	47.09	-0.3565	0.0007	0
282	SLU 21	0	2.16	47.08	-0.3561	0.0007	0
282	SLU 22	0	2.16	43.48	-0.3337	0.0006	0
282	SLU 23	0	2.16	43.45	-0.333	0.0006	0
282	SLU 24	0	2	44	-0.3364	0.0007	0
282	SLU 25	0	1.99	43.99	-0.336	0.0007	0
282	SLU 26	0	1.92	43.36	-0.3299	0.0007	0
282	SLU 27	0	1.76	43.91	-0.3332	0.0008	0
282	SLU 28	0	1.76	43.9	-0.3328	0.0008	0
282	SLU 29	0	1.68	43.29	-0.3274	0.0008	0
282	SLU 30	0	1.68	43.28	-0.327	0.0008	0
282	SLU 31	0	2.5	49.66	-0.3821	0.0007	0
282	SLU 32	0	2.34	50.21	-0.3855	0.0008	0
282	SLU 33	0	2.34	50.19	-0.3851	0.0008	0
282	SLU 34	0	2.26	49.56	-0.379	0.0008	0
282	SLU 35	0	2.1	50.12	-0.3823	0.0009	0
282	SLU 36	0	2.1	50.1	-0.3819	0.0009	0
282	SLU 37	0	2.03	49.5	-0.3765	0.0009	0
282	SLU 38	0	2.02	49.48	-0.3761	0.0009	0
282	SLU 39	0	2.65	52.34	-0.4038	0.0008	0
282	SLU 40	0	2.65	52.33	-0.4034	0.0008	0
282	SLU 41	0	2.41	52.25	-0.4007	0.0008	0
282	SLU 42	0	2.41	52.23	-0.4003	0.0009	0
282	SLU 43	0	2.4	48.05	-0.3613	0.0006	0
282	SLU 44	0	2.4	48.02	-0.3606	0.0006	0
282	SLU 45	0	2.24	48.57	-0.364	0.0006	0
282	SLU 46	0	2.24	48.56	-0.3636	0.0006	0
282	SLU 47	0	2.16	47.93	-0.3575	0.0007	0
282	SLU 48	0	2	48.48	-0.3608	0.0007	0
282	SLU 49	0	2	48.47	-0.3604	0.0007	0
282	SLU 50	0	1.93	47.86	-0.355	0.0007	0
282	SLU 51	0	1.93	47.85	-0.3546	0.0008	0
282	SLU 52	0	2.75	54.23	-0.4097	0.0007	0
282	SLU 53	0	2.58	54.78	-0.4131	0.0008	0
282	SLU 54	0	2.58	54.76	-0.4127	0.0008	0
282	SLU 55	0	2.51	54.13	-0.4066	0.0008	0
282	SLU 56	0	2.34	54.69	-0.4099	0.0008	0
282	SLU 57	0	2.34	54.67	-0.4095	0.0009	0
282	SLU 58	0	2.27	54.07	-0.4041	0.0009	0
282	SLU 59	0	2.27	54.05	-0.4037	0.0009	0
282	SLU 60	0	2.89	56.91	-0.4314	0.0007	0
282	SLU 61	0	2.89	56.9	-0.431	0.0007	0
282	SLU 62	0	2.66	56.82	-0.4283	0.0008	0
282	SLU 63	0	2.65	56.8	-0.4279	0.0008	0
282	SLU 64	0	2.65	53.2	-0.4054	0.0007	0
282	SLU 65	0	2.65	53.18	-0.4047	0.0007	0
282	SLU 66	0	2.49	53.73	-0.4081	0.0008	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
282	SLU 67	0	2.48	53.72	-0.4077	0.0008	0
282	SLU 68	0	2.41	53.09	-0.4016	0.0008	0
282	SLU 69	0	2.25	53.64	-0.405	0.0009	0
282	SLU 70	0	2.25	53.62	-0.4045	0.0009	0
282	SLU 71	0	2.17	53.02	-0.3991	0.0009	0
282	SLU 72	0	2.17	53	-0.3987	0.0009	0
282	SLU 73	0	2.99	59.38	-0.4538	0.0008	0
282	SLU 74	0	2.83	59.94	-0.4572	0.0009	0
282	SLU 75	0	2.83	59.92	-0.4568	0.0009	0
282	SLU 76	0	2.75	59.29	-0.4507	0.0009	0
282	SLU 77	0	2.59	59.84	-0.4541	0.001	0
282	SLU 78	0	2.59	59.83	-0.4536	0.001	0
282	SLU 79	0	2.52	59.22	-0.4482	0.001	0
282	SLU 80	0	2.51	59.21	-0.4478	0.001	0
282	SLU 81	0	3.14	62.07	-0.4756	0.0009	0
282	SLU 82	0	3.14	62.05	-0.4752	0.0009	0
282	SLU 83	0	2.9	61.97	-0.4724	0.0009	0
282	SLU 84	0	2.9	61.96	-0.472	0.001	0
282	SLE RA 1	0	1.98	39.79	-0.3022	0.0005	0
282	SLE RA 2	0	1.98	39.78	-0.3017	0.0005	0
282	SLE RA 3	0	1.87	40.14	-0.304	0.0006	0
282	SLE RA 4	0	1.87	40.13	-0.3037	0.0006	0
282	SLE RA 5	0	1.82	39.71	-0.2996	0.0006	0
282	SLE RA 6	0	1.72	40.08	-0.3019	0.0006	0
282	SLE RA 7	0	1.71	40.07	-0.3016	0.0006	0
282	SLE RA 8	0	1.67	39.67	-0.298	0.0006	0
282	SLE RA 9	0	1.67	39.66	-0.2977	0.0006	0
282	SLE RA 10	0	2.21	43.91	-0.3344	0.0006	0
282	SLE RA 11	0	2.1	44.28	-0.3367	0.0006	0
282	SLE RA 12	0	2.1	44.27	-0.3364	0.0006	0
282	SLE RA 13	0	2.05	43.85	-0.3323	0.0007	0
282	SLE RA 14	0	1.94	44.22	-0.3346	0.0007	0
282	SLE RA 15	0	1.94	44.21	-0.3343	0.0007	0
282	SLE RA 16	0	1.9	43.81	-0.3307	0.0007	0
282	SLE RA 17	0	1.89	43.8	-0.3304	0.0007	0
282	SLE RA 18	0	2.31	45.7	-0.3489	0.0006	0
282	SLE RA 19	0	2.31	45.69	-0.3487	0.0006	0
282	SLE RA 20	0	2.15	45.64	-0.3468	0.0007	0
282	SLE RA 21	0	2.15	45.63	-0.3466	0.0007	0
282	SLE FR 1	0	1.98	39.79	-0.3022	0.0005	0
282	SLE FR 2	0	1.98	39.79	-0.3021	0.0005	0
282	SLE FR 3	0	1.92	39.77	-0.3013	0.0005	0
282	SLE FR 4	0	2.08	41.56	-0.3161	0.0005	0
282	SLE FR 5	0	2.02	41.54	-0.3154	0.0006	0
282	SLE FR 6	0	2.15	42.75	-0.3255	0.0006	0
282	SLE QP 1	0	1.98	39.79	-0.3022	0.0005	0
282	SLE QP 2	0	2.08	41.56	-0.3162	0.0005	0
282	SLD 1	-0.05	3.14	39.44	-0.3538	-0.0431	0
282	SLD 2	-0.05	3.14	39.44	-0.3538	-0.0431	0
282	SLD 3	-0.07	-0.86	40.08	-0.1889	-0.0632	0
282	SLD 4	-0.07	-0.86	40.08	-0.1889	-0.0632	0
282	SLD 5	0.02	8.46	39.96	-0.5777	0.0181	0
282	SLD 6	0.02	8.46	39.96	-0.5777	0.0181	0
282	SLD 7	-0.06	-4.86	42.09	-0.0278	-0.0492	0
282	SLD 8	-0.06	-4.86	42.09	-0.0278	-0.0492	0
282	SLD 9	0.06	9.03	41.04	-0.6046	0.0503	0
282	SLD 10	0.06	9.03	41.04	-0.6046	0.0503	0
282	SLD 11	-0.02	-4.29	43.17	-0.0547	-0.017	0
282	SLD 12	-0.02	-4.29	43.17	-0.0547	-0.017	0
282	SLD 13	0.08	5.02	43.05	-0.4435	0.0643	0
282	SLD 14	0.08	5.02	43.05	-0.4435	0.0643	0
282	SLD 15	0.05	1.03	43.69	-0.2786	0.0441	0
282	SLD 16	0.05	1.03	43.69	-0.2786	0.0441	0
282	SLV 1	-0.13	4.53	36.57	-0.4029	-0.1104	0
282	SLV 2	-0.13	4.53	36.57	-0.4029	-0.1104	0
282	SLV 3	-0.19	-4.86	38.1	-0.0165	-0.1617	-0.0001
282	SLV 4	-0.19	-4.86	38.1	-0.0165	-0.1617	-0.0001
282	SLV 5	0.06	17.05	37.74	-0.9282	0.0451	0.0001
282	SLV 6	0.06	17.05	37.74	-0.9282	0.0451	0.0001
282	SLV 7	-0.15	-14.23	42.85	0.3597	-0.126	-0.0001
282	SLV 8	-0.15	-14.23	42.85	0.3597	-0.126	-0.0001
282	SLV 9	0.16	18.39	40.28	-0.9921	0.127	0.0001
282	SLV 10	0.16	18.39	40.28	-0.9921	0.127	0.0001
282	SLV 11	-0.06	-12.88	45.39	0.2959	-0.044	-0.0001
282	SLV 12	-0.06	-12.88	45.39	0.2959	-0.044	-0.0001
282	SLV 13	0.2	9.02	45.03	-0.6159	0.1628	0.0001
282	SLV 14	0.2	9.02	45.03	-0.6159	0.1628	0.0001
282	SLV 15	0.13	-0.36	46.56	-0.2295	0.1114	0
282	SLV 16	0.13	-0.36	46.56	-0.2295	0.1114	0
283	SLU 1	-0.01	-9.21	21.55	0.3618	-0.0308	0
283	SLU 2	-0.02	-8.26	20.8	0.3219	-0.0272	0
283	SLU 3	-0.02	-9.42	22	0.3705	-0.0316	0
283	SLU 4	-0.02	-8.86	21.55	0.3465	-0.0295	0
283	SLU 5	-0.02	-8.35	21.08	0.3253	-0.0278	0
283	SLU 6	-0.02	-9.51	22.29	0.3739	-0.0322	0
283	SLU 7	-0.02	-8.94	21.84	0.3499	-0.0301	0
283	SLU 8	-0.02	-9.38	22.12	0.3686	-0.0319	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
283	SLU 9	-0.02	-8.81	21.67	0.3446	-0.0298	0
283	SLU 10	-0.02	-9.34	22.82	0.3656	-0.0312	0
283	SLU 11	-0.02	-10.5	24.03	0.4142	-0.0356	0
283	SLU 12	-0.02	-9.93	23.58	0.3902	-0.0334	0
283	SLU 13	-0.02	-9.43	23.11	0.369	-0.0317	0
283	SLU 14	-0.02	-10.59	24.32	0.4176	-0.0361	0
283	SLU 15	-0.02	-10.02	23.87	0.3936	-0.034	0
283	SLU 16	-0.02	-10.46	24.15	0.4123	-0.0359	0
283	SLU 17	-0.02	-9.89	23.7	0.3884	-0.0337	0
283	SLU 18	-0.02	-10.75	24.44	0.4243	-0.0364	0
283	SLU 19	-0.02	-10.18	23.99	0.4003	-0.0343	0
283	SLU 20	-0.02	-10.83	24.73	0.4277	-0.037	0
283	SLU 21	-0.02	-10.27	24.28	0.4037	-0.0348	0
283	SLU 22	-0.02	-10.28	23.56	0.405	-0.0346	0
283	SLU 23	-0.02	-9.33	22.81	0.3651	-0.0311	0
283	SLU 24	-0.02	-10.49	24.02	0.4137	-0.0355	0
283	SLU 25	-0.02	-9.92	23.57	0.3897	-0.0333	0
283	SLU 26	-0.02	-9.42	23.1	0.3685	-0.0316	0
283	SLU 27	-0.02	-10.58	24.31	0.417	-0.0361	0
283	SLU 28	-0.02	-10.01	23.86	0.3931	-0.0339	0
283	SLU 29	-0.02	-10.45	24.14	0.4118	-0.0358	0
283	SLU 30	-0.02	-9.88	23.69	0.3878	-0.0337	0
283	SLU 31	-0.02	-10.41	24.84	0.4088	-0.035	0
283	SLU 32	-0.02	-11.57	26.05	0.4574	-0.0394	0
283	SLU 33	-0.02	-11	25.6	0.4334	-0.0373	0
283	SLU 34	-0.02	-10.49	25.13	0.4122	-0.0356	0
283	SLU 35	-0.02	-11.66	26.34	0.4608	-0.04	0
283	SLU 36	-0.02	-11.09	25.89	0.4368	-0.0379	0
283	SLU 37	-0.02	-11.53	26.17	0.4555	-0.0397	0
283	SLU 38	-0.02	-10.96	25.72	0.4316	-0.0376	0
283	SLU 39	-0.02	-11.82	26.46	0.4675	-0.0402	0
283	SLU 40	-0.02	-11.25	26.01	0.4435	-0.0381	0
283	SLU 41	-0.02	-11.9	26.75	0.4709	-0.0408	0
283	SLU 42	-0.02	-11.33	26.3	0.4469	-0.0387	0
283	SLU 43	-0.02	-11.6	27.32	0.4556	-0.0387	0
283	SLU 44	-0.02	-10.66	26.57	0.4156	-0.0351	0
283	SLU 45	-0.02	-11.82	27.77	0.4642	-0.0395	0
283	SLU 46	-0.02	-11.25	27.32	0.4402	-0.0374	0
283	SLU 47	-0.02	-10.74	26.86	0.419	-0.0357	0
283	SLU 48	-0.02	-11.9	28.06	0.4676	-0.0401	0
283	SLU 49	-0.02	-11.34	27.61	0.4436	-0.038	0
283	SLU 50	-0.02	-11.77	27.89	0.4624	-0.0399	0
283	SLU 51	-0.02	-11.21	27.44	0.4384	-0.0377	0
283	SLU 52	-0.02	-11.74	28.6	0.4594	-0.0391	0
283	SLU 53	-0.02	-12.9	29.8	0.5079	-0.0435	0
283	SLU 54	-0.02	-12.33	29.35	0.484	-0.0413	0
283	SLU 55	-0.02	-11.82	28.88	0.4627	-0.0396	0
283	SLU 56	-0.02	-12.98	30.09	0.5113	-0.0441	0
283	SLU 57	-0.02	-12.42	29.64	0.4873	-0.0419	0
283	SLU 58	-0.02	-12.85	29.92	0.5061	-0.0438	0
283	SLU 59	-0.02	-12.29	29.47	0.4821	-0.0417	0
283	SLU 60	-0.02	-13.14	30.21	0.518	-0.0443	0
283	SLU 61	-0.02	-12.58	29.76	0.4941	-0.0422	0
283	SLU 62	-0.02	-13.23	30.5	0.5214	-0.0449	0
283	SLU 63	-0.02	-12.66	30.05	0.4975	-0.0428	0
283	SLU 64	-0.02	-12.67	29.34	0.4988	-0.0425	0
283	SLU 65	-0.02	-11.73	28.59	0.4588	-0.039	0
283	SLU 66	-0.02	-12.89	29.79	0.5074	-0.0434	0
283	SLU 67	-0.02	-12.32	29.34	0.4834	-0.0413	0
283	SLU 68	-0.02	-11.81	28.87	0.4622	-0.0396	0
283	SLU 69	-0.02	-12.97	30.08	0.5108	-0.044	0
283	SLU 70	-0.02	-12.41	29.63	0.4868	-0.0418	0
283	SLU 71	-0.02	-12.84	29.91	0.5056	-0.0437	0
283	SLU 72	-0.02	-12.28	29.46	0.4816	-0.0416	0
283	SLU 73	-0.02	-12.8	30.61	0.5026	-0.0429	0
283	SLU 74	-0.02	-13.97	31.82	0.5511	-0.0473	0
283	SLU 75	-0.02	-13.4	31.37	0.5272	-0.0452	0
283	SLU 76	-0.02	-12.89	30.9	0.5059	-0.0435	0
283	SLU 77	-0.02	-14.05	32.11	0.5545	-0.0479	-0.0001
283	SLU 78	-0.02	-13.48	31.66	0.5305	-0.0458	0
283	SLU 79	-0.02	-13.92	31.94	0.5493	-0.0476	0
283	SLU 80	-0.02	-13.35	31.49	0.5253	-0.0455	0
283	SLU 81	-0.02	-14.21	32.23	0.5612	-0.0482	0
283	SLU 82	-0.02	-13.64	31.78	0.5373	-0.046	0
283	SLU 83	-0.02	-14.3	32.52	0.5646	-0.0487	0
283	SLU 84	-0.02	-13.73	32.07	0.5407	-0.0466	0
283	SLE RA 1	-0.02	-9.51	22.12	0.3742	-0.0319	0
283	SLE RA 2	-0.02	-8.88	21.62	0.3476	-0.0295	0
283	SLE RA 3	-0.02	-9.66	22.43	0.3799	-0.0324	0
283	SLE RA 4	-0.02	-9.28	22.13	0.364	-0.031	0
283	SLE RA 5	-0.02	-8.94	21.81	0.3498	-0.0299	0
283	SLE RA 6	-0.02	-9.71	22.62	0.3822	-0.0328	0
283	SLE RA 7	-0.02	-9.34	22.32	0.3662	-0.0314	0
283	SLE RA 8	-0.02	-9.63	22.51	0.3787	-0.0326	0
283	SLE RA 9	-0.02	-9.25	22.21	0.3627	-0.0312	0
283	SLE RA 10	-0.02	-9.6	22.97	0.3767	-0.0321	0
283	SLE RA 11	-0.02	-10.38	23.78	0.4091	-0.0351	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
283	SLE RA 12	-0.02	-10	23.48	0.3931	-0.0336	0
283	SLE RA 13	-0.02	-9.66	23.17	0.379	-0.0325	0
283	SLE RA 14	-0.02	-10.43	23.97	0.4113	-0.0355	0
283	SLE RA 15	-0.02	-10.05	23.67	0.3954	-0.034	0
283	SLE RA 16	-0.02	-10.35	23.86	0.4078	-0.0353	0
283	SLE RA 17	-0.02	-9.97	23.56	0.3919	-0.0339	0
283	SLE RA 18	-0.02	-10.54	24.05	0.4158	-0.0356	0
283	SLE RA 19	-0.02	-10.16	23.75	0.3998	-0.0342	0
283	SLE RA 20	-0.02	-10.6	24.25	0.4181	-0.036	0
283	SLE RA 21	-0.02	-10.22	23.95	0.4021	-0.0346	0
283	SLE FR 1	-0.02	-9.51	22.12	0.3742	-0.0319	0
283	SLE FR 2	-0.02	-9.39	22.02	0.3689	-0.0314	0
283	SLE FR 3	-0.02	-9.54	22.2	0.3751	-0.032	0
283	SLE FR 4	-0.02	-9.69	22.6	0.3814	-0.0325	0
283	SLE FR 5	-0.02	-9.84	22.78	0.3876	-0.0332	0
283	SLE FR 6	-0.02	-10.03	23.09	0.395	-0.0337	0
283	SLE QP 1	-0.02	-9.51	22.12	0.3742	-0.0319	0
283	SLE QP 2	-0.02	-9.82	22.7	0.3867	-0.033	0
283	SLD 1	0.01	-10.42	27.74	0.4044	0.0673	-0.0001
283	SLD 2	0.01	-10.42	27.74	0.4044	0.0673	-0.0001
283	SLD 3	-0.11	-14.1	30.26	0.5651	-0.001	0.0002
283	SLD 4	-0.11	-14.1	30.26	0.5651	-0.001	0.0002
283	SLD 5	0.18	-4.42	20.39	0.1482	0.1007	-0.0005
283	SLD 6	0.18	-4.42	20.39	0.1482	0.1007	-0.0005
283	SLD 7	-0.23	-16.68	28.79	0.684	-0.127	0.0005
283	SLD 8	-0.23	-16.68	28.79	0.684	-0.127	0.0005
283	SLD 9	0.2	-2.96	16.61	0.0894	0.061	-0.0006
283	SLD 10	0.2	-2.96	16.61	0.0894	0.061	-0.0006
283	SLD 11	-0.21	-15.22	25.02	0.6251	-0.1667	0.0005
283	SLD 12	-0.21	-15.22	25.02	0.6251	-0.1667	0.0005
283	SLD 13	0.08	-5.54	15.15	0.2082	-0.065	-0.0002
283	SLD 14	0.08	-5.54	15.15	0.2082	-0.065	-0.0002
283	SLD 15	-0.04	-9.22	17.67	0.3689	-0.1333	0.0001
283	SLD 16	-0.04	-9.22	17.67	0.3689	-0.1333	0.0001
283	SLV 1	0.05	-11.26	34.4	0.4296	0.2132	-0.0003
283	SLV 2	0.05	-11.26	34.4	0.4296	0.2132	-0.0003
283	SLV 3	-0.25	-19.83	40.42	0.8044	0.0442	0.0005
283	SLV 4	-0.25	-19.83	40.42	0.8044	0.0442	0.0005
283	SLV 5	0.45	2.74	17.09	-0.1689	0.2971	-0.0012
283	SLV 6	0.45	2.74	17.09	-0.1689	0.2971	-0.0012
283	SLV 7	-0.54	-25.82	37.14	1.0804	-0.2661	0.0013
283	SLV 8	-0.54	-25.82	37.14	1.0804	-0.2661	0.0013
283	SLV 9	0.5	6.18	8.27	-0.3071	0.2001	-0.0013
283	SLV 10	0.5	6.18	8.27	-0.3071	0.2001	-0.0013
283	SLV 11	-0.49	-22.39	28.31	0.9422	-0.3631	0.0012
283	SLV 12	-0.49	-22.39	28.31	0.9422	-0.3631	0.0012
283	SLV 13	0.22	0.19	4.99	-0.031	-0.1102	-0.0006
283	SLV 14	0.22	0.19	4.99	-0.031	-0.1102	-0.0006
283	SLV 15	-0.08	-8.38	11	0.3438	-0.2792	0.0002
283	SLV 16	-0.08	-8.38	11	0.3438	-0.2792	0.0002
284	SLU 1	0	-2.71	37.28	0.1339	-0.0014	0
284	SLU 2	0	-2.71	37.26	0.134	-0.0014	0
284	SLU 3	0	-2.97	37.89	0.1464	-0.0014	0
284	SLU 4	0	-2.97	37.88	0.1465	-0.0014	0
284	SLU 5	0	-2.97	37.3	0.1463	-0.0014	0
284	SLU 6	0	-3.23	37.93	0.1587	-0.0014	0
284	SLU 7	0	-3.23	37.92	0.1587	-0.0014	0
284	SLU 8	0	-3.23	37.37	0.1585	-0.0014	0
284	SLU 9	0	-3.23	37.36	0.1585	-0.0014	0
284	SLU 10	0	-3.12	43.13	0.1543	-0.0016	0
284	SLU 11	0	-3.38	43.76	0.1666	-0.0016	0
284	SLU 12	0	-3.38	43.75	0.1667	-0.0016	0
284	SLU 13	0	-3.38	43.18	0.1665	-0.0016	0
284	SLU 14	0	-3.64	43.81	0.1789	-0.0015	0
284	SLU 15	0	-3.64	43.8	0.179	-0.0016	0
284	SLU 16	0	-3.64	43.24	0.1787	-0.0015	0
284	SLU 17	0	-3.64	43.23	0.1788	-0.0015	0
284	SLU 18	0	-3.29	45.67	0.1628	-0.0016	0
284	SLU 19	0	-3.3	45.66	0.1629	-0.0017	0
284	SLU 20	0	-3.55	45.72	0.1751	-0.0016	0
284	SLU 21	0	-3.55	45.7	0.1752	-0.0016	0
284	SLU 22	0	-3.21	42.61	0.1583	-0.0016	0
284	SLU 23	0	-3.21	42.59	0.1584	-0.0016	0
284	SLU 24	0	-3.47	43.22	0.1708	-0.0016	0
284	SLU 25	0	-3.47	43.2	0.1708	-0.0016	0
284	SLU 26	0	-3.47	42.63	0.1707	-0.0016	0
284	SLU 27	0	-3.73	43.26	0.183	-0.0015	0
284	SLU 28	0	-3.73	43.25	0.1831	-0.0016	0
284	SLU 29	0	-3.73	42.69	0.1828	-0.0015	0
284	SLU 30	0	-3.73	42.68	0.1829	-0.0015	0
284	SLU 31	0	-3.62	48.46	0.1786	-0.0018	0
284	SLU 32	0	-3.88	49.09	0.191	-0.0017	0
284	SLU 33	0	-3.88	49.08	0.1911	-0.0017	0
284	SLU 34	0	-3.88	48.51	0.1909	-0.0017	0
284	SLU 35	0	-4.14	49.13	0.2033	-0.0017	0
284	SLU 36	0	-4.14	49.12	0.2034	-0.0017	0
284	SLU 37	0	-4.13	48.57	0.2031	-0.0017	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
284	SLU 38	0	-4.14	48.56	0.2032	-0.0017	0
284	SLU 39	0	-3.79	51	0.1872	-0.0018	0
284	SLU 40	0	-3.79	50.99	0.1873	-0.0018	0
284	SLU 41	0	-4.05	51.04	0.1995	-0.0018	0
284	SLU 42	0	-4.05	51.03	0.1995	-0.0018	0
284	SLU 43	0	-3.35	46.64	0.1657	-0.0018	0
284	SLU 44	0	-3.36	46.62	0.1658	-0.0018	0
284	SLU 45	0	-3.61	47.25	0.1782	-0.0018	0
284	SLU 46	0	-3.62	47.24	0.1783	-0.0018	0
284	SLU 47	0	-3.62	46.66	0.1781	-0.0018	0
284	SLU 48	0	-3.87	47.29	0.1905	-0.0018	0
284	SLU 49	0	-3.87	47.28	0.1906	-0.0018	0
284	SLU 50	0	-3.87	46.72	0.1903	-0.0017	0
284	SLU 51	0	-3.87	46.71	0.1903	-0.0017	0
284	SLU 52	0	-3.76	52.49	0.1861	-0.002	0
284	SLU 53	0	-4.02	53.12	0.1984	-0.0019	0
284	SLU 54	0	-4.02	53.11	0.1985	-0.002	0
284	SLU 55	0	-4.02	52.54	0.1984	-0.0019	0
284	SLU 56	0	-4.28	53.16	0.2107	-0.0019	0
284	SLU 57	0	-4.28	53.15	0.2108	-0.0019	0
284	SLU 58	0	-4.28	52.6	0.2105	-0.0019	0
284	SLU 59	0	-4.28	52.59	0.2106	-0.0019	0
284	SLU 60	0	-3.94	55.03	0.1946	-0.002	0
284	SLU 61	0	-3.94	55.02	0.1947	-0.002	0
284	SLU 62	0	-4.19	55.07	0.2069	-0.002	0
284	SLU 63	0	-4.2	55.06	0.207	-0.002	0
284	SLU 64	0	-3.85	51.96	0.1901	-0.0019	0
284	SLU 65	0	-3.86	51.94	0.1902	-0.002	0
284	SLU 66	0	-4.11	52.57	0.2026	-0.0019	0
284	SLU 67	0	-4.12	52.56	0.2026	-0.002	0
284	SLU 68	0	-4.11	51.99	0.2025	-0.0019	0
284	SLU 69	0	-4.37	52.62	0.2148	-0.0019	0
284	SLU 70	0	-4.37	52.61	0.2149	-0.0019	0
284	SLU 71	0	-4.37	52.05	0.2146	-0.0019	0
284	SLU 72	0	-4.37	52.04	0.2147	-0.0019	0
284	SLU 73	0	-4.26	57.82	0.2104	-0.0021	0
284	SLU 74	0	-4.52	58.45	0.2228	-0.0021	0
284	SLU 75	0	-4.52	58.44	0.2229	-0.0021	0
284	SLU 76	0	-4.52	57.86	0.2227	-0.0021	0
284	SLU 77	0	-4.78	58.49	0.2351	-0.0021	0
284	SLU 78	0	-4.78	58.48	0.2352	-0.0021	0
284	SLU 79	0	-4.78	57.93	0.2349	-0.002	0
284	SLU 80	0	-4.78	57.91	0.235	-0.0021	0
284	SLU 81	0	-4.43	60.36	0.219	-0.0022	0
284	SLU 82	0	-4.44	60.34	0.2191	-0.0022	0
284	SLU 83	0	-4.69	60.4	0.2313	-0.0021	0
284	SLU 84	0	-4.7	60.39	0.2314	-0.0021	0
284	SLE RA 1	0	-2.85	38.8	0.1409	-0.0015	0
284	SLE RA 2	0	-2.86	38.79	0.1409	-0.0015	0
284	SLE RA 3	0	-3.03	39.21	0.1492	-0.0015	0
284	SLE RA 4	0	-3.03	39.2	0.1492	-0.0015	0
284	SLE RA 5	0	-3.03	38.82	0.1491	-0.0015	0
284	SLE RA 6	0	-3.2	39.24	0.1574	-0.0014	0
284	SLE RA 7	0	-3.2	39.23	0.1574	-0.0015	0
284	SLE RA 8	0	-3.2	38.86	0.1572	-0.0014	0
284	SLE RA 9	0	-3.2	38.85	0.1573	-0.0014	0
284	SLE RA 10	0	-3.13	42.7	0.1544	-0.0016	0
284	SLE RA 11	0	-3.3	43.12	0.1627	-0.0016	0
284	SLE RA 12	0	-3.3	43.12	0.1627	-0.0016	0
284	SLE RA 13	0	-3.3	42.73	0.1626	-0.0016	0
284	SLE RA 14	0	-3.47	43.15	0.1709	-0.0015	0
284	SLE RA 15	0	-3.47	43.15	0.1709	-0.0016	0
284	SLE RA 16	0	-3.47	42.78	0.1707	-0.0015	0
284	SLE RA 17	0	-3.47	42.77	0.1708	-0.0015	0
284	SLE RA 18	0	-3.24	44.4	0.1601	-0.0016	0
284	SLE RA 19	0	-3.24	44.39	0.1602	-0.0016	0
284	SLE RA 20	0	-3.41	44.43	0.1683	-0.0016	0
284	SLE RA 21	0	-3.42	44.42	0.1684	-0.0016	0
284	SLE FR 1	0	-2.85	38.8	0.1409	-0.0015	0
284	SLE FR 2	0	-2.85	38.8	0.1409	-0.0015	0
284	SLE FR 3	0	-2.92	38.81	0.1441	-0.0015	0
284	SLE FR 4	0	-2.97	40.48	0.1467	-0.0015	0
284	SLE FR 5	0	-3.04	40.49	0.1499	-0.0015	0
284	SLE FR 6	0	-3.05	41.6	0.1505	-0.0015	0
284	SLE QP 1	0	-2.85	38.8	0.1409	-0.0015	0
284	SLE QP 2	0	-2.97	40.48	0.1466	-0.0015	0
284	SLD 1	-0.02	-2.25	40.48	0.1168	-0.047	-0.0001
284	SLD 2	-0.02	-2.25	40.48	0.1168	-0.047	-0.0001
284	SLD 3	-0.05	-6.1	41.82	0.2771	-0.0268	0
284	SLD 4	-0.05	-6.1	41.82	0.2771	-0.0268	0
284	SLD 5	0.03	3.08	38.46	-0.1054	-0.0457	-0.0001
284	SLD 6	0.03	3.08	38.46	-0.1054	-0.0457	-0.0001
284	SLD 7	-0.05	-9.74	42.9	0.4288	0.0215	0
284	SLD 8	-0.05	-9.74	42.9	0.4288	0.0215	0
284	SLD 9	0.05	3.8	38.06	-0.1356	-0.0245	0
284	SLD 10	0.05	3.8	38.06	-0.1356	-0.0245	0
284	SLD 11	-0.03	-9.02	42.5	0.3987	0.0427	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
284	SLD 12	-0.03	-9.02	42.5	0.3987	0.0427	0.0001
284	SLD 13	0.04	0.16	39.14	0.0162	0.0238	0.0001
284	SLD 14	0.04	0.16	39.14	0.0162	0.0238	0.0001
284	SLD 15	0.02	-3.69	40.48	0.1765	0.0439	0.0001
284	SLD 16	0.02	-3.69	40.48	0.1765	0.0439	0.0001
284	SLV 1	-0.06	-1.28	40.5	0.0759	-0.1165	-0.0002
284	SLV 2	-0.06	-1.28	40.5	0.0759	-0.1165	-0.0002
284	SLV 3	-0.12	-10.34	43.64	0.4538	-0.0662	-0.0001
284	SLV 4	-0.12	-10.34	43.64	0.4538	-0.0662	-0.0001
284	SLV 5	0.07	11.28	35.73	-0.4477	-0.1124	-0.0001
284	SLV 6	0.07	11.28	35.73	-0.4477	-0.1124	-0.0001
284	SLV 7	-0.13	-18.93	46.18	0.8119	0.0555	0.0001
284	SLV 8	-0.13	-18.93	46.18	0.8119	0.0555	0.0001
284	SLV 9	0.13	12.99	34.78	-0.5186	-0.0585	-0.0001
284	SLV 10	0.13	12.99	34.78	-0.5186	-0.0585	-0.0001
284	SLV 11	-0.08	-17.22	45.23	0.741	0.1093	0.0002
284	SLV 12	-0.08	-17.22	45.23	0.741	0.1093	0.0002
284	SLV 13	0.11	4.4	37.32	-0.1605	0.0631	0.0001
284	SLV 14	0.11	4.4	37.32	-0.1605	0.0631	0.0001
284	SLV 15	0.05	-4.66	40.46	0.2174	0.1135	0.0002
284	SLV 16	0.05	-4.66	40.46	0.2174	0.1135	0.0002
285	SLU 1	0.01	-0.02	56.52	0.0381	0.0054	0
285	SLU 2	0.01	0.07	56.02	0.0351	0.0053	0
285	SLU 3	0.01	-0.04	59.58	0.0414	0.0057	0
285	SLU 4	0.01	0.01	59.28	0.0396	0.0057	0
285	SLU 5	0.01	0.06	58.65	0.0376	0.0056	0
285	SLU 6	0.01	-0.06	62.21	0.0438	0.006	0
285	SLU 7	0.01	0	61.91	0.042	0.006	0
285	SLU 8	0.01	-0.04	61.77	0.043	0.006	0
285	SLU 9	0.01	0.01	61.47	0.0412	0.006	0
285	SLU 10	0.01	-0.1	65.03	0.0466	0.0061	0
285	SLU 11	0.01	-0.22	68.59	0.0528	0.0065	0
285	SLU 12	0.01	-0.16	68.29	0.051	0.0065	0
285	SLU 13	0.01	-0.11	67.65	0.049	0.0064	0
285	SLU 14	0.01	-0.23	71.21	0.0553	0.0068	0
285	SLU 15	0.01	-0.18	70.91	0.0535	0.0068	0
285	SLU 16	0.01	-0.22	70.78	0.0545	0.0068	0
285	SLU 17	0.01	-0.16	70.48	0.0527	0.0068	0
285	SLU 18	0.01	-0.27	69.39	0.0544	0.0065	0
285	SLU 19	0.01	-0.21	69.09	0.0526	0.0065	0
285	SLU 20	0.01	-0.28	72.02	0.0569	0.0068	0
285	SLU 21	0.01	-0.22	71.71	0.0551	0.0068	0
285	SLU 22	0.01	-0.17	65.75	0.0492	0.0062	0
285	SLU 23	0.01	-0.08	65.25	0.0462	0.0062	0
285	SLU 24	0.01	-0.2	68.81	0.0525	0.0066	0
285	SLU 25	0.01	-0.15	68.51	0.0507	0.0065	0
285	SLU 26	0.01	-0.09	67.88	0.0487	0.0065	0
285	SLU 27	0.01	-0.21	71.44	0.0549	0.0069	0
285	SLU 28	0.01	-0.16	71.14	0.0531	0.0069	0
285	SLU 29	0.01	-0.2	71.01	0.0541	0.0069	0
285	SLU 30	0.01	-0.14	70.71	0.0524	0.0068	0
285	SLU 31	0.01	-0.26	74.26	0.0577	0.007	0
285	SLU 32	0.02	-0.38	77.82	0.0639	0.0074	0
285	SLU 33	0.02	-0.32	77.52	0.0621	0.0073	0
285	SLU 34	0.02	-0.27	76.89	0.0601	0.0073	0
285	SLU 35	0.02	-0.39	80.45	0.0664	0.0077	0
285	SLU 36	0.02	-0.33	80.15	0.0646	0.0076	0
285	SLU 37	0.02	-0.37	80.02	0.0656	0.0076	0
285	SLU 38	0.02	-0.32	79.71	0.0638	0.0076	0
285	SLU 39	0.02	-0.42	78.62	0.0656	0.0074	0
285	SLU 40	0.02	-0.37	78.32	0.0638	0.0073	0
285	SLU 41	0.02	-0.44	81.25	0.068	0.0077	0
285	SLU 42	0.02	-0.38	80.95	0.0662	0.0076	0
285	SLU 43	0.01	0.03	70.31	0.0457	0.0067	0
285	SLU 44	0.01	0.12	69.81	0.0427	0.0066	0
285	SLU 45	0.01	0	73.37	0.049	0.007	0
285	SLU 46	0.01	0.06	73.07	0.0472	0.007	0
285	SLU 47	0.01	0.11	72.44	0.0452	0.0069	0
285	SLU 48	0.02	-0.01	76	0.0514	0.0073	0
285	SLU 49	0.02	0.05	75.7	0.0496	0.0073	0
285	SLU 50	0.02	0.01	75.57	0.0506	0.0073	0
285	SLU 51	0.02	0.06	75.27	0.0488	0.0073	0
285	SLU 52	0.02	-0.05	78.82	0.0542	0.0074	0
285	SLU 53	0.02	-0.17	82.38	0.0604	0.0078	0
285	SLU 54	0.02	-0.12	82.08	0.0586	0.0078	0
285	SLU 55	0.02	-0.06	81.45	0.0566	0.0077	0
285	SLU 56	0.02	-0.18	85	0.0629	0.0081	0
285	SLU 57	0.02	-0.13	84.7	0.0611	0.0081	0
285	SLU 58	0.02	-0.17	84.57	0.0621	0.0081	0
285	SLU 59	0.02	-0.11	84.27	0.0603	0.0081	0
285	SLU 60	0.02	-0.22	83.18	0.062	0.0078	0
285	SLU 61	0.02	-0.16	82.88	0.0603	0.0078	0
285	SLU 62	0.02	-0.23	85.81	0.0645	0.0081	0
285	SLU 63	0.02	-0.18	85.51	0.0627	0.0081	0
285	SLU 64	0.02	-0.13	79.55	0.0568	0.0075	0
285	SLU 65	0.02	-0.03	79.04	0.0539	0.0075	0
285	SLU 66	0.02	-0.15	82.6	0.0601	0.0079	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
285	SLU 67	0.02	-0.1	82.3	0.0583	0.0078	0
285	SLU 68	0.02	-0.05	81.67	0.0563	0.0078	0
285	SLU 69	0.02	-0.16	85.23	0.0625	0.0082	0
285	SLU 70	0.02	-0.11	84.93	0.0608	0.0082	0
285	SLU 71	0.02	-0.15	84.8	0.0618	0.0082	0
285	SLU 72	0.02	-0.09	84.5	0.06	0.0081	0
285	SLU 73	0.02	-0.21	88.05	0.0653	0.0083	0
285	SLU 74	0.02	-0.33	91.61	0.0715	0.0087	0
285	SLU 75	0.02	-0.27	91.31	0.0697	0.0086	0
285	SLU 76	0.02	-0.22	90.68	0.0678	0.0086	0
285	SLU 77	0.02	-0.34	94.24	0.074	0.009	0
285	SLU 78	0.02	-0.28	93.94	0.0722	0.009	0
285	SLU 79	0.02	-0.33	93.81	0.0732	0.009	0
285	SLU 80	0.02	-0.27	93.51	0.0714	0.0089	0
285	SLU 81	0.02	-0.38	92.41	0.0732	0.0087	0
285	SLU 82	0.02	-0.32	92.11	0.0714	0.0086	0
285	SLU 83	0.02	-0.39	95.04	0.0756	0.009	0
285	SLU 84	0.02	-0.33	94.74	0.0738	0.009	0
285	SLE RA 1	0.01	-0.06	59.16	0.0413	0.0056	0
285	SLE RA 2	0.01	0	58.83	0.0393	0.0056	0
285	SLE RA 3	0.01	-0.08	61.2	0.0434	0.0058	0
285	SLE RA 4	0.01	-0.04	61	0.0423	0.0058	0
285	SLE RA 5	0.01	-0.01	60.58	0.0409	0.0058	0
285	SLE RA 6	0.01	-0.09	62.95	0.0451	0.006	0
285	SLE RA 7	0.01	-0.05	62.75	0.0439	0.006	0
285	SLE RA 8	0.01	-0.08	62.66	0.0446	0.006	0
285	SLE RA 9	0.01	-0.04	62.46	0.0434	0.006	0
285	SLE RA 10	0.01	-0.12	64.83	0.0469	0.0061	0
285	SLE RA 11	0.01	-0.2	67.2	0.0511	0.0064	0
285	SLE RA 12	0.01	-0.16	67	0.0499	0.0063	0
285	SLE RA 13	0.01	-0.13	66.58	0.0486	0.0063	0
285	SLE RA 14	0.01	-0.21	68.95	0.0527	0.0066	0
285	SLE RA 15	0.01	-0.17	68.75	0.0515	0.0066	0
285	SLE RA 16	0.01	-0.2	68.67	0.0522	0.0066	0
285	SLE RA 17	0.01	-0.16	68.47	0.051	0.0065	0
285	SLE RA 18	0.01	-0.23	67.74	0.0522	0.0064	0
285	SLE RA 19	0.01	-0.19	67.54	0.051	0.0063	0
285	SLE RA 20	0.01	-0.24	69.49	0.0538	0.0066	0
285	SLE RA 21	0.01	-0.2	69.29	0.0526	0.0065	0
285	SLE FR 1	0.01	-0.06	59.16	0.0413	0.0056	0
285	SLE FR 2	0.01	-0.05	59.09	0.0409	0.0056	0
285	SLE FR 3	0.01	-0.07	59.86	0.0419	0.0057	0
285	SLE FR 4	0.01	-0.1	61.67	0.0441	0.0058	0
285	SLE FR 5	0.01	-0.12	62.43	0.0452	0.0059	0
285	SLE FR 6	0.01	-0.15	63.45	0.0467	0.006	0
285	SLE QP 1	0.01	-0.06	59.16	0.0413	0.0056	0
285	SLE QP 2	0.01	-0.11	61.73	0.0445	0.0058	0
285	SLD 1	0.07	2.83	63.08	-0.0498	0.0825	0.0002
285	SLD 2	0.07	2.83	63.08	-0.0498	0.0825	0.0002
285	SLD 3	0.08	-0.61	68.46	0.0613	0.102	0.0003
285	SLD 4	0.08	-0.61	68.46	0.0613	0.102	0.0003
285	SLD 5	0.01	5.98	53.98	-0.1523	-0.0009	0
285	SLD 6	0.01	5.98	53.98	-0.1523	-0.0009	0
285	SLD 7	0.06	-5.47	71.91	0.2181	0.0644	0.0002
285	SLD 8	0.06	-5.47	71.91	0.2181	0.0644	0.0002
285	SLD 9	-0.03	5.24	51.56	-0.1291	-0.0527	-0.0001
285	SLD 10	-0.03	5.24	51.56	-0.1291	-0.0527	-0.0001
285	SLD 11	0.02	-6.2	69.49	0.2414	0.0125	0.0001
285	SLD 12	0.02	-6.2	69.49	0.2414	0.0125	0.0001
285	SLD 13	-0.06	0.38	55.01	0.0277	-0.0904	-0.0002
285	SLD 14	-0.06	0.38	55.01	0.0277	-0.0904	-0.0002
285	SLD 15	-0.04	-3.05	60.38	0.1389	-0.0708	-0.0002
285	SLD 16	-0.04	-3.05	60.38	0.1389	-0.0708	-0.0002
285	SLV 1	0.14	6.86	64.82	-0.1793	0.1976	0.0005
285	SLV 2	0.14	6.86	64.82	-0.1793	0.1976	0.0005
285	SLV 3	0.18	-1.22	77.6	0.0825	0.2471	0.0006
285	SLV 4	0.18	-1.22	77.6	0.0825	0.2471	0.0006
285	SLV 5	0	14.23	43.28	-0.4197	-0.0116	0
285	SLV 6	0	14.23	43.28	-0.4197	-0.0116	0
285	SLV 7	0.12	-12.7	85.87	0.453	0.1532	0.0004
285	SLV 8	0.12	-12.7	85.87	0.453	0.1532	0.0004
285	SLV 9	-0.09	12.47	37.6	-0.3639	-0.1415	-0.0004
285	SLV 10	-0.09	12.47	37.6	-0.3639	-0.1415	-0.0004
285	SLV 11	0.03	-14.46	80.18	0.5087	0.0233	0.0001
285	SLV 12	0.03	-14.46	80.18	0.5087	0.0233	0.0001
285	SLV 13	-0.16	0.99	45.87	0.0065	-0.2354	-0.0006
285	SLV 14	-0.16	0.99	45.87	0.0065	-0.2354	-0.0006
285	SLV 15	-0.12	-7.09	58.64	0.2683	-0.186	-0.0004
285	SLV 16	-0.12	-7.09	58.64	0.2683	-0.186	-0.0004
286	SLU 1	-0.04	-8.63	51.68	0.3098	-0.0053	-0.0006
286	SLU 2	-0.03	-7.7	48.21	0.2751	-0.0064	-0.0005
286	SLU 3	-0.04	-8.85	52.44	0.3172	-0.0051	-0.0006
286	SLU 4	-0.04	-8.29	50.36	0.2964	-0.0058	-0.0005
286	SLU 5	-0.03	-7.79	48.3	0.2779	-0.0061	-0.0005
286	SLU 6	-0.04	-8.93	52.53	0.32	-0.0048	-0.0006
286	SLU 7	-0.04	-8.38	50.45	0.2992	-0.0055	-0.0005
286	SLU 8	-0.04	-8.81	51.86	0.3154	-0.0047	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
286	SLU 9	-0.04	-8.25	49.78	0.2946	-0.0054	-0.0005
286	SLU 10	-0.04	-8.77	54.29	0.3139	-0.0069	-0.0006
286	SLU 11	-0.04	-9.91	58.52	0.356	-0.0057	-0.0006
286	SLU 12	-0.04	-9.35	56.44	0.3352	-0.0063	-0.0006
286	SLU 13	-0.04	-8.85	54.38	0.3168	-0.0066	-0.0006
286	SLU 14	-0.04	-10	58.61	0.3589	-0.0054	-0.0006
286	SLU 15	-0.04	-9.44	56.53	0.3381	-0.006	-0.0006
286	SLU 16	-0.04	-9.87	57.93	0.3542	-0.0053	-0.0006
286	SLU 17	-0.04	-9.31	55.86	0.3334	-0.0059	-0.0006
286	SLU 18	-0.05	-10.15	60.36	0.3652	-0.0061	-0.0007
286	SLU 19	-0.04	-9.59	58.28	0.3444	-0.0067	-0.0006
286	SLU 20	-0.05	-10.24	60.45	0.3681	-0.0058	-0.0007
286	SLU 21	-0.04	-9.68	58.37	0.3473	-0.0064	-0.0006
286	SLU 22	-0.04	-9.68	57.31	0.3477	-0.0056	-0.0006
286	SLU 23	-0.04	-8.75	53.85	0.3131	-0.0067	-0.0005
286	SLU 24	-0.04	-9.89	58.07	0.3552	-0.0055	-0.0006
286	SLU 25	-0.04	-9.34	56	0.3344	-0.0061	-0.0006
286	SLU 26	-0.04	-8.84	53.94	0.3159	-0.0064	-0.0005
286	SLU 27	-0.04	-9.98	58.16	0.358	-0.0052	-0.0006
286	SLU 28	-0.04	-9.42	56.09	0.3372	-0.0058	-0.0006
286	SLU 29	-0.04	-9.85	57.49	0.3534	-0.0051	-0.0006
286	SLU 30	-0.04	-9.3	55.42	0.3326	-0.0057	-0.0006
286	SLU 31	-0.04	-9.81	59.93	0.3519	-0.0073	-0.0006
286	SLU 32	-0.05	-10.96	64.15	0.394	-0.006	-0.0007
286	SLU 33	-0.05	-10.4	62.08	0.3732	-0.0067	-0.0007
286	SLU 34	-0.04	-9.9	60.02	0.3547	-0.007	-0.0006
286	SLU 35	-0.05	-11.04	64.24	0.3968	-0.0057	-0.0007
286	SLU 36	-0.05	-10.48	62.17	0.376	-0.0064	-0.0006
286	SLU 37	-0.05	-10.91	63.57	0.3922	-0.0056	-0.0007
286	SLU 38	-0.04	-10.36	61.49	0.3714	-0.0063	-0.0006
286	SLU 39	-0.05	-11.2	66	0.4032	-0.0064	-0.0007
286	SLU 40	-0.05	-10.64	63.92	0.3824	-0.0071	-0.0007
286	SLU 41	-0.05	-11.28	66.09	0.406	-0.0061	-0.0007
286	SLU 42	-0.05	-10.72	64.01	0.3852	-0.0068	-0.0007
286	SLU 43	-0.05	-10.87	65.25	0.3897	-0.0067	-0.0007
286	SLU 44	-0.04	-9.94	61.78	0.3551	-0.0078	-0.0006
286	SLU 45	-0.05	-11.08	66.01	0.3972	-0.0066	-0.0007
286	SLU 46	-0.05	-10.52	63.93	0.3764	-0.0072	-0.0007
286	SLU 47	-0.04	-10.02	61.87	0.3579	-0.0075	-0.0006
286	SLU 48	-0.05	-11.17	66.1	0.4	-0.0063	-0.0007
286	SLU 49	-0.05	-10.61	64.02	0.3792	-0.007	-0.0007
286	SLU 50	-0.05	-11.04	65.43	0.3953	-0.0062	-0.0007
286	SLU 51	-0.05	-10.48	63.35	0.3745	-0.0068	-0.0007
286	SLU 52	-0.05	-11	67.86	0.3939	-0.0084	-0.0007
286	SLU 53	-0.05	-12.14	72.09	0.436	-0.0071	-0.0008
286	SLU 54	-0.05	-11.58	70.01	0.4152	-0.0078	-0.0007
286	SLU 55	-0.05	-11.08	67.95	0.3967	-0.0081	-0.0007
286	SLU 56	-0.05	-12.23	72.18	0.4388	-0.0068	-0.0008
286	SLU 57	-0.05	-11.67	70.1	0.418	-0.0075	-0.0007
286	SLU 58	-0.05	-12.1	71.5	0.4342	-0.0067	-0.0008
286	SLU 59	-0.05	-11.54	69.43	0.4134	-0.0074	-0.0007
286	SLU 60	-0.06	-12.38	73.93	0.4452	-0.0075	-0.0008
286	SLU 61	-0.05	-11.82	71.85	0.4244	-0.0082	-0.0008
286	SLU 62	-0.06	-12.47	74.02	0.448	-0.0072	-0.0008
286	SLU 63	-0.05	-11.91	71.94	0.4272	-0.0079	-0.0008
286	SLU 64	-0.05	-11.91	70.88	0.4277	-0.0071	-0.0008
286	SLU 65	-0.05	-10.98	67.42	0.393	-0.0082	-0.0007
286	SLU 66	-0.05	-12.13	71.64	0.4351	-0.0069	-0.0008
286	SLU 67	-0.05	-11.57	69.57	0.4143	-0.0076	-0.0007
286	SLU 68	-0.05	-11.07	67.51	0.3958	-0.0079	-0.0007
286	SLU 69	-0.05	-12.21	71.73	0.4379	-0.0067	-0.0008
286	SLU 70	-0.05	-11.65	69.66	0.4171	-0.0073	-0.0007
286	SLU 71	-0.05	-12.08	71.06	0.4333	-0.0065	-0.0008
286	SLU 72	-0.05	-11.53	68.99	0.4125	-0.0072	-0.0007
286	SLU 73	-0.05	-12.04	73.5	0.4318	-0.0087	-0.0008
286	SLU 74	-0.06	-13.19	77.72	0.4739	-0.0075	-0.0008
286	SLU 75	-0.06	-12.63	75.65	0.4531	-0.0081	-0.0008
286	SLU 76	-0.05	-12.13	73.59	0.4346	-0.0084	-0.0008
286	SLU 77	-0.06	-13.27	77.81	0.4767	-0.0072	-0.0008
286	SLU 78	-0.06	-12.72	75.74	0.4559	-0.0079	-0.0008
286	SLU 79	-0.06	-13.15	77.14	0.4721	-0.0071	-0.0008
286	SLU 80	-0.05	-12.59	75.06	0.4513	-0.0077	-0.0008
286	SLU 81	-0.06	-13.43	79.57	0.4831	-0.0079	-0.0009
286	SLU 82	-0.06	-12.87	77.49	0.4623	-0.0085	-0.0008
286	SLU 83	-0.06	-13.51	79.66	0.4859	-0.0076	-0.0009
286	SLU 84	-0.06	-12.96	77.58	0.4651	-0.0082	-0.0008
286	SLE RA 1	-0.04	-8.93	53.29	0.3206	-0.0054	-0.0006
286	SLE RA 2	-0.04	-8.31	50.98	0.2975	-0.0061	-0.0005
286	SLE RA 3	-0.04	-9.08	53.79	0.3256	-0.0053	-0.0006
286	SLE RA 4	-0.04	-8.7	52.41	0.3117	-0.0057	-0.0005
286	SLE RA 5	-0.04	-8.37	51.04	0.2994	-0.0059	-0.0005
286	SLE RA 6	-0.04	-9.13	53.85	0.3275	-0.0051	-0.0006
286	SLE RA 7	-0.04	-8.76	52.47	0.3136	-0.0055	-0.0005
286	SLE RA 8	-0.04	-9.05	53.41	0.3244	-0.005	-0.0006
286	SLE RA 9	-0.04	-8.68	52.02	0.3105	-0.0054	-0.0005
286	SLE RA 10	-0.04	-9.02	55.03	0.3234	-0.0065	-0.0006
286	SLE RA 11	-0.04	-9.78	57.85	0.3515	-0.0056	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
286	SLE RA 12	-0.04	-9.41	56.46	0.3376	-0.0061	-0.0006
286	SLE RA 13	-0.04	-9.08	55.09	0.3253	-0.0063	-0.0006
286	SLE RA 14	-0.04	-9.84	57.91	0.3533	-0.0055	-0.0006
286	SLE RA 15	-0.04	-9.47	56.52	0.3395	-0.0059	-0.0006
286	SLE RA 16	-0.04	-9.76	57.46	0.3503	-0.0054	-0.0006
286	SLE RA 17	-0.04	-9.38	56.07	0.3364	-0.0058	-0.0006
286	SLE RA 18	-0.04	-9.94	59.07	0.3576	-0.0059	-0.0006
286	SLE RA 19	-0.04	-9.57	57.69	0.3437	-0.0063	-0.0006
286	SLE RA 20	-0.04	-10	59.14	0.3595	-0.0057	-0.0006
286	SLE RA 21	-0.04	-9.63	57.75	0.3456	-0.0061	-0.0006
286	SLE FR 1	-0.04	-8.93	53.29	0.3206	-0.0054	-0.0006
286	SLE FR 2	-0.04	-8.81	52.82	0.316	-0.0055	-0.0006
286	SLE FR 3	-0.04	-8.96	53.31	0.3214	-0.0053	-0.0006
286	SLE FR 4	-0.04	-9.11	54.56	0.3271	-0.0057	-0.0006
286	SLE FR 5	-0.04	-9.26	55.05	0.3325	-0.0055	-0.0006
286	SLE FR 6	-0.04	-9.44	56.18	0.3391	-0.0056	-0.0006
286	SLE QP 1	-0.04	-8.93	53.29	0.3206	-0.0054	-0.0006
286	SLE QP 2	-0.04	-9.24	55.02	0.3317	-0.0055	-0.0006
286	SLD 1	-0.06	-5.62	35.36	0.1976	0.0288	-0.0007
286	SLD 2	-0.06	-5.62	35.36	0.1976	0.0288	-0.0007
286	SLD 3	0.06	-8.89	43.87	0.3184	0.0778	0.0008
286	SLD 4	0.06	-8.89	43.87	0.3184	0.0778	0.0008
286	SLD 5	-0.24	-3.19	36.23	0.1083	-0.0696	-0.0028
286	SLD 6	-0.24	-3.19	36.23	0.1083	-0.0696	-0.0028
286	SLD 7	0.18	-14.1	64.57	0.511	0.0938	0.002
286	SLD 8	0.18	-14.1	64.57	0.511	0.0938	0.002
286	SLD 9	-0.26	-4.37	45.47	0.1525	-0.1048	-0.0032
286	SLD 10	-0.26	-4.37	45.47	0.1525	-0.1048	-0.0032
286	SLD 11	0.16	-15.29	73.82	0.5552	0.0585	0.0016
286	SLD 12	0.16	-15.29	73.82	0.5552	0.0585	0.0016
286	SLD 13	-0.15	-9.58	66.18	0.345	-0.0888	-0.002
286	SLD 14	-0.15	-9.58	66.18	0.345	-0.0888	-0.002
286	SLD 15	-0.02	-12.85	74.68	0.4658	-0.0398	-0.0005
286	SLD 16	-0.02	-12.85	74.68	0.4658	-0.0398	-0.0005
286	SLV 1	-0.1	-0.76	8.93	0.0174	0.0769	-0.0008
286	SLV 2	-0.1	-0.76	8.93	0.0174	0.0769	-0.0008
286	SLV 3	0.22	-8.42	28.97	0.3004	0.2004	0.0028
286	SLV 4	0.22	-8.42	28.97	0.3004	0.2004	0.0028
286	SLV 5	-0.54	4.94	10.8	-0.1916	-0.1681	-0.0062
286	SLV 6	-0.54	4.94	10.8	-0.1916	-0.1681	-0.0062
286	SLV 7	0.51	-20.62	77.6	0.7514	0.2436	0.0059
286	SLV 8	0.51	-20.62	77.6	0.7514	0.2436	0.0059
286	SLV 9	-0.6	2.15	32.44	-0.0879	-0.2546	-0.0071
286	SLV 10	-0.6	2.15	32.44	-0.0879	-0.2546	-0.0071
286	SLV 11	0.45	-23.41	99.24	0.8551	0.1571	0.005
286	SLV 12	0.45	-23.41	99.24	0.8551	0.1571	0.005
286	SLV 13	-0.3	-10.05	81.08	0.3631	-0.2115	-0.004
286	SLV 14	-0.3	-10.05	81.08	0.3631	-0.2115	-0.004
286	SLV 15	0.01	-17.72	101.12	0.646	-0.088	-0.0003
286	SLV 16	0.01	-17.72	101.12	0.646	-0.088	-0.0003
287	SLU 1	0	-5.39	38.91	0.4736	0.0008	0
287	SLU 2	0	-5.37	38.87	0.472	0.0009	0
287	SLU 3	0	-5.89	39.78	0.5094	0.0009	0
287	SLU 4	0	-5.88	39.76	0.5085	0.0009	0
287	SLU 5	0	-5.86	39.18	0.5047	0.001	0
287	SLU 6	0	-6.38	40.1	0.542	0.001	0
287	SLU 7	0	-6.37	40.07	0.5411	0.001	0
287	SLU 8	0	-6.37	39.54	0.5389	0.001	0
287	SLU 9	0	-6.36	39.52	0.5379	0.0011	0
287	SLU 10	0	-6.22	45.06	0.5477	0.0011	0
287	SLU 11	0	-6.75	45.98	0.585	0.0011	0
287	SLU 12	0	-6.74	45.95	0.5841	0.0011	0
287	SLU 13	0	-6.71	45.38	0.5803	0.0012	0
287	SLU 14	0	-7.24	46.29	0.6177	0.0012	0
287	SLU 15	0	-7.23	46.26	0.6167	0.0012	0
287	SLU 16	0	-7.22	45.73	0.6145	0.0012	0
287	SLU 17	0	-7.21	45.71	0.6135	0.0012	0
287	SLU 18	0	-6.61	47.76	0.5817	0.0011	0
287	SLU 19	0	-6.6	47.73	0.5807	0.0011	0
287	SLU 20	0	-7.1	48.07	0.6143	0.0012	0
287	SLU 21	0	-7.09	48.05	0.6133	0.0012	0
287	SLU 22	0	-6.31	44.3	0.5538	0.001	0
287	SLU 23	0	-6.3	44.25	0.5522	0.0011	0
287	SLU 24	0	-6.82	45.17	0.5896	0.0011	0
287	SLU 25	0	-6.81	45.14	0.5886	0.0011	0
287	SLU 26	0	-6.79	44.57	0.5849	0.0012	0
287	SLU 27	0	-7.31	45.48	0.6222	0.0012	0
287	SLU 28	0	-7.3	45.46	0.6213	0.0012	0
287	SLU 29	0	-7.29	44.93	0.6191	0.0012	0
287	SLU 30	0	-7.28	44.9	0.6181	0.0013	0
287	SLU 31	0	-7.15	50.44	0.6279	0.0012	0
287	SLU 32	0	-7.67	51.36	0.6652	0.0013	0
287	SLU 33	0	-7.66	51.33	0.6643	0.0013	0
287	SLU 34	0	-7.64	50.76	0.6605	0.0014	0
287	SLU 35	0	-8.16	51.67	0.6978	0.0014	0
287	SLU 36	0	-8.15	51.65	0.6969	0.0014	0
287	SLU 37	0	-8.15	51.12	0.6947	0.0014	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
287	SLU 38	0	-8.14	51.09	0.6937	0.0014	0
287	SLU 39	0	-7.53	53.14	0.6619	0.0013	0
287	SLU 40	0	-7.52	53.11	0.6609	0.0013	0
287	SLU 41	0	-8.02	53.46	0.6945	0.0014	0
287	SLU 42	0	-8.01	53.43	0.6935	0.0014	0
287	SLU 43	0	-6.69	48.74	0.5882	0.001	0
287	SLU 44	0	-6.67	48.7	0.5866	0.001	0
287	SLU 45	0	-7.19	49.61	0.624	0.0011	0
287	SLU 46	0	-7.18	49.59	0.623	0.0011	0
287	SLU 47	0	-7.16	49.01	0.6193	0.0011	0
287	SLU 48	0	-7.68	49.93	0.6566	0.0012	0
287	SLU 49	0	-7.67	49.9	0.6557	0.0012	0
287	SLU 50	0	-7.67	49.37	0.6535	0.0012	0
287	SLU 51	0	-7.66	49.35	0.6525	0.0012	0
287	SLU 52	0	-7.52	54.89	0.6623	0.0012	0
287	SLU 53	0	-8.05	55.8	0.6996	0.0013	0
287	SLU 54	0	-8.04	55.78	0.6987	0.0013	0
287	SLU 55	0	-8.01	55.2	0.6949	0.0013	0
287	SLU 56	0	-8.54	56.12	0.7322	0.0014	0
287	SLU 57	0	-8.53	56.09	0.7313	0.0014	0
287	SLU 58	0	-8.52	55.56	0.7291	0.0014	0
287	SLU 59	0	-8.51	55.54	0.7281	0.0014	0
287	SLU 60	0	-7.91	57.59	0.6963	0.0013	0
287	SLU 61	0	-7.9	57.56	0.6953	0.0013	0
287	SLU 62	0	-8.4	57.9	0.7289	0.0014	0
287	SLU 63	0	-8.39	57.88	0.7279	0.0014	0
287	SLU 64	0	-7.61	54.13	0.6684	0.0012	0
287	SLU 65	0	-7.6	54.08	0.6668	0.0012	0
287	SLU 66	0	-8.12	55	0.7042	0.0013	0
287	SLU 67	0	-8.11	54.97	0.7032	0.0013	0
287	SLU 68	0	-8.09	54.4	0.6994	0.0013	0
287	SLU 69	0	-8.61	55.31	0.7368	0.0014	0
287	SLU 70	0	-8.6	55.28	0.7359	0.0014	0
287	SLU 71	0	-8.59	54.75	0.7336	0.0014	0
287	SLU 72	0	-8.58	54.73	0.7327	0.0014	0
287	SLU 73	0	-8.45	60.27	0.7425	0.0014	0
287	SLU 74	0	-8.97	61.19	0.7798	0.0015	0
287	SLU 75	0	-8.96	61.16	0.7789	0.0015	0
287	SLU 76	0	-8.94	60.59	0.7751	0.0015	0
287	SLU 77	0	-9.46	61.5	0.8124	0.0016	0
287	SLU 78	0	-9.45	61.47	0.8115	0.0016	0
287	SLU 79	0	-9.45	60.95	0.8093	0.0016	0
287	SLU 80	0	-9.44	60.92	0.8083	0.0016	0
287	SLU 81	0	-8.83	62.97	0.7765	0.0015	0
287	SLU 82	0	-8.82	62.94	0.7755	0.0015	0
287	SLU 83	0	-9.32	63.28	0.8091	0.0016	0
287	SLU 84	0	-9.31	63.26	0.8081	0.0016	0
287	SLE RA 1	0	-5.65	40.45	0.4965	0.0009	0
287	SLE RA 2	0	-5.64	40.42	0.4955	0.0009	0
287	SLE RA 3	0	-5.99	41.03	0.5204	0.001	0
287	SLE RA 4	0	-5.98	41.01	0.5198	0.001	0
287	SLE RA 5	0	-5.97	40.63	0.5172	0.001	0
287	SLE RA 6	0	-6.32	41.24	0.5421	0.001	0
287	SLE RA 7	0	-6.31	41.22	0.5415	0.001	0
287	SLE RA 8	0	-6.31	40.87	0.54	0.001	0
287	SLE RA 9	0	-6.3	40.85	0.5394	0.001	0
287	SLE RA 10	0	-6.21	44.55	0.5459	0.001	0
287	SLE RA 11	0	-6.56	45.16	0.5708	0.0011	0
287	SLE RA 12	0	-6.55	45.14	0.5702	0.0011	0
287	SLE RA 13	0	-6.54	44.76	0.5676	0.0011	0
287	SLE RA 14	0	-6.89	45.37	0.5926	0.0012	0
287	SLE RA 15	0	-6.88	45.35	0.5919	0.0012	0
287	SLE RA 16	0	-6.87	45	0.5905	0.0012	0
287	SLE RA 17	0	-6.87	44.98	0.5898	0.0012	0
287	SLE RA 18	0	-6.46	46.35	0.5686	0.0011	0
287	SLE RA 19	0	-6.46	46.33	0.5679	0.0011	0
287	SLE RA 20	0	-6.79	46.56	0.5903	0.0012	0
287	SLE RA 21	0	-6.78	46.54	0.5897	0.0012	0
287	SLE FR 1	0	-5.65	40.45	0.4965	0.0009	0
287	SLE FR 2	0	-5.65	40.45	0.4963	0.0009	0
287	SLE FR 3	0	-5.78	40.54	0.5052	0.0009	0
287	SLE FR 4	0	-5.89	42.21	0.5179	0.001	0
287	SLE FR 5	0	-6.03	42.3	0.5268	0.001	0
287	SLE FR 6	0	-6.06	43.4	0.5326	0.001	0
287	SLE QP 1	0	-5.65	40.45	0.4965	0.0009	0
287	SLE QP 2	0	-5.9	42.22	0.5181	0.001	0
287	SLD 1	-0.05	-2.76	39.56	0.3662	-0.034	-0.0001
287	SLD 2	-0.05	-2.76	39.56	0.3662	-0.034	-0.0001
287	SLD 3	-0.03	-6.98	41	0.5595	-0.0522	-0.0001
287	SLD 4	-0.03	-6.98	41	0.5595	-0.0522	-0.0001
287	SLD 5	-0.05	1.46	39.25	0.1795	0.0181	0
287	SLD 6	-0.05	1.46	39.25	0.1795	0.0181	0
287	SLD 7	0.03	-12.64	44.02	0.8236	-0.0427	-0.0001
287	SLD 8	0.03	-12.64	44.02	0.8236	-0.0427	-0.0001
287	SLD 9	-0.02	0.84	40.42	0.2127	0.0446	0.0001
287	SLD 10	-0.02	0.84	40.42	0.2127	0.0446	0.0001
287	SLD 11	0.05	-13.25	45.19	0.8568	-0.0162	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
287	SLD 12	0.05	-13.25	45.19	0.8568	-0.0162	0
287	SLD 13	0.03	-4.81	43.45	0.4768	0.0541	0.0001
287	SLD 14	0.03	-4.81	43.45	0.4768	0.0541	0.0001
287	SLD 15	0.06	-9.04	44.88	0.6701	0.0359	0.0001
287	SLD 16	0.06	-9.04	44.88	0.6701	0.0359	0.0001
287	SLV 1	-0.13	1.52	35.98	0.1593	-0.088	-0.0002
287	SLV 2	-0.13	1.52	35.98	0.1593	-0.088	-0.0002
287	SLV 3	-0.08	-8.45	39.37	0.6163	-0.1338	-0.0002
287	SLV 4	-0.08	-8.45	39.37	0.6163	-0.1338	-0.0002
287	SLV 5	-0.12	11.45	35.21	-0.2827	0.0437	0
287	SLV 6	-0.12	11.45	35.21	-0.2827	0.0437	0
287	SLV 7	0.06	-21.78	46.5	1.2408	-0.1089	-0.0002
287	SLV 8	0.06	-21.78	46.5	1.2408	-0.1089	-0.0002
287	SLV 9	-0.06	9.99	37.94	-0.2045	0.1108	0.0001
287	SLV 10	-0.06	9.99	37.94	-0.2045	0.1108	0.0001
287	SLV 11	0.13	-23.24	49.23	1.319	-0.0418	0
287	SLV 12	0.13	-23.24	49.23	1.319	-0.0418	0
287	SLV 13	0.08	-3.34	45.07	0.42	0.1357	0.0002
287	SLV 14	0.08	-3.34	45.07	0.42	0.1357	0.0002
287	SLV 15	0.14	-13.31	48.46	0.877	0.0899	0.0001
287	SLV 16	0.14	-13.31	48.46	0.877	0.0899	0.0001
288	SLU 1	0.06	-9.61	22.95	0.4556	-0.0029	-0.0002
288	SLU 2	0.06	-8.68	21.76	0.4115	-0.0018	-0.0002
288	SLU 3	0.06	-9.82	23.43	0.4656	-0.003	-0.0003
288	SLU 4	0.06	-9.27	22.71	0.4391	-0.0023	-0.0002
288	SLU 5	0.06	-8.77	22.05	0.4155	-0.0018	-0.0002
288	SLU 6	0.06	-9.91	23.72	0.4695	-0.003	-0.0003
288	SLU 7	0.06	-9.35	23.01	0.4431	-0.0023	-0.0003
288	SLU 8	0.06	-9.78	23.53	0.4635	-0.0029	-0.0003
288	SLU 9	0.06	-9.22	22.82	0.4371	-0.0022	-0.0002
288	SLU 10	0.06	-9.73	24.18	0.4626	-0.002	-0.0003
288	SLU 11	0.07	-10.87	25.85	0.5166	-0.0032	-0.0003
288	SLU 12	0.07	-10.31	25.13	0.4902	-0.0025	-0.0003
288	SLU 13	0.07	-9.81	24.47	0.4665	-0.002	-0.0003
288	SLU 14	0.07	-10.95	26.14	0.5206	-0.0032	-0.0003
288	SLU 15	0.07	-10.4	25.43	0.4941	-0.0025	-0.0003
288	SLU 16	0.07	-10.82	25.95	0.5145	-0.0032	-0.0003
288	SLU 17	0.07	-10.26	25.24	0.4881	-0.0025	-0.0003
288	SLU 18	0.07	-11.1	26.4	0.5285	-0.0033	-0.0003
288	SLU 19	0.07	-10.54	25.69	0.5021	-0.0026	-0.0003
288	SLU 20	0.07	-11.18	26.7	0.5325	-0.0033	-0.0003
288	SLU 21	0.07	-10.63	25.98	0.506	-0.0026	-0.0003
288	SLU 22	0.07	-10.65	25.31	0.5061	-0.0031	-0.0003
288	SLU 23	0.06	-9.72	24.13	0.462	-0.002	-0.0003
288	SLU 24	0.07	-10.86	25.79	0.5161	-0.0032	-0.0003
288	SLU 25	0.07	-10.31	25.08	0.4896	-0.0025	-0.0003
288	SLU 26	0.07	-9.81	24.42	0.466	-0.002	-0.0003
288	SLU 27	0.07	-10.95	26.08	0.52	-0.0032	-0.0003
288	SLU 28	0.07	-10.39	25.37	0.4936	-0.0025	-0.0003
288	SLU 29	0.07	-10.82	25.9	0.514	-0.0031	-0.0003
288	SLU 30	0.07	-10.26	25.18	0.4875	-0.0024	-0.0003
288	SLU 31	0.07	-10.77	26.54	0.5131	-0.0022	-0.0003
288	SLU 32	0.08	-11.91	28.21	0.5671	-0.0034	-0.0003
288	SLU 33	0.07	-11.35	27.5	0.5407	-0.0027	-0.0003
288	SLU 34	0.07	-10.85	26.84	0.517	-0.0022	-0.0003
288	SLU 35	0.08	-11.99	28.5	0.5711	-0.0034	-0.0003
288	SLU 36	0.08	-11.44	27.79	0.5446	-0.0027	-0.0003
288	SLU 37	0.08	-11.86	28.31	0.565	-0.0034	-0.0003
288	SLU 38	0.08	-11.3	27.6	0.5386	-0.0027	-0.0003
288	SLU 39	0.08	-12.14	28.77	0.579	-0.0035	-0.0003
288	SLU 40	0.08	-11.59	28.06	0.5526	-0.0028	-0.0003
288	SLU 41	0.08	-12.22	29.06	0.5829	-0.0035	-0.0003
288	SLU 42	0.08	-11.67	28.35	0.5565	-0.0028	-0.0003
288	SLU 43	0.08	-12.13	29.02	0.5749	-0.0038	-0.0003
288	SLU 44	0.07	-11.21	27.84	0.5309	-0.0026	-0.0003
288	SLU 45	0.08	-12.35	29.5	0.5849	-0.0038	-0.0003
288	SLU 46	0.07	-11.79	28.79	0.5585	-0.0031	-0.0003
288	SLU 47	0.07	-11.29	28.13	0.5349	-0.0026	-0.0003
288	SLU 48	0.08	-12.43	29.79	0.5889	-0.0038	-0.0003
288	SLU 49	0.08	-11.88	29.08	0.5625	-0.0031	-0.0003
288	SLU 50	0.08	-12.3	29.61	0.5828	-0.0038	-0.0003
288	SLU 51	0.08	-11.75	28.89	0.5564	-0.0031	-0.0003
288	SLU 52	0.08	-12.25	30.26	0.582	-0.0028	-0.0003
288	SLU 53	0.08	-13.39	31.92	0.636	-0.004	-0.0003
288	SLU 54	0.08	-12.84	31.21	0.6096	-0.0033	-0.0003
288	SLU 55	0.08	-12.34	30.55	0.5859	-0.0028	-0.0003
288	SLU 56	0.09	-13.48	32.21	0.6399	-0.004	-0.0004
288	SLU 57	0.08	-12.92	31.5	0.6135	-0.0033	-0.0003
288	SLU 58	0.09	-13.34	32.03	0.6339	-0.004	-0.0004
288	SLU 59	0.08	-12.79	31.31	0.6075	-0.0033	-0.0003
288	SLU 60	0.09	-13.63	32.48	0.6479	-0.0041	-0.0004
288	SLU 61	0.08	-13.07	31.77	0.6215	-0.0034	-0.0003
288	SLU 62	0.09	-13.71	32.77	0.6518	-0.0041	-0.0004
288	SLU 63	0.09	-13.15	32.06	0.6254	-0.0034	-0.0004
288	SLU 64	0.08	-13.17	31.39	0.6254	-0.004	-0.0003
288	SLU 65	0.08	-12.25	30.2	0.5814	-0.0028	-0.0003
288	SLU 66	0.08	-13.39	31.86	0.6354	-0.004	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
288	SLU 67	0.08	-12.83	31.15	0.609	-0.0033	-0.0003
288	SLU 68	0.08	-12.33	30.49	0.5853	-0.0028	-0.0003
288	SLU 69	0.09	-13.47	32.16	0.6394	-0.004	-0.0004
288	SLU 70	0.08	-12.92	31.44	0.6129	-0.0033	-0.0003
288	SLU 71	0.09	-13.34	31.97	0.6333	-0.004	-0.0004
288	SLU 72	0.08	-12.79	31.26	0.6069	-0.0033	-0.0003
288	SLU 73	0.09	-13.29	32.62	0.6324	-0.003	-0.0004
288	SLU 74	0.09	-14.43	34.28	0.6865	-0.0042	-0.0004
288	SLU 75	0.09	-13.88	33.57	0.66	-0.0035	-0.0004
288	SLU 76	0.09	-13.38	32.91	0.6364	-0.003	-0.0004
288	SLU 77	0.09	-14.52	34.57	0.6904	-0.0042	-0.0004
288	SLU 78	0.09	-13.96	33.86	0.664	-0.0035	-0.0004
288	SLU 79	0.09	-14.39	34.39	0.6844	-0.0042	-0.0004
288	SLU 80	0.09	-13.83	33.68	0.658	-0.0035	-0.0004
288	SLU 81	0.09	-14.67	34.84	0.6984	-0.0043	-0.0004
288	SLU 82	0.09	-14.11	34.13	0.6719	-0.0036	-0.0004
288	SLU 83	0.09	-14.75	35.13	0.7023	-0.0043	-0.0004
288	SLU 84	0.09	-14.19	34.42	0.6759	-0.0036	-0.0004
288	SLE RA 1	0.06	-9.91	23.62	0.47	-0.003	-0.0003
288	SLE RA 2	0.06	-9.29	22.83	0.4406	-0.0022	-0.0002
288	SLE RA 3	0.06	-10.05	23.94	0.4767	-0.003	-0.0003
288	SLE RA 4	0.06	-9.68	23.47	0.459	-0.0026	-0.0003
288	SLE RA 5	0.06	-9.34	23.03	0.4433	-0.0022	-0.0003
288	SLE RA 6	0.06	-10.1	24.14	0.4793	-0.003	-0.0003
288	SLE RA 7	0.06	-9.73	23.66	0.4617	-0.0026	-0.0003
288	SLE RA 8	0.06	-10.02	24.01	0.4753	-0.003	-0.0003
288	SLE RA 9	0.06	-9.65	23.54	0.4577	-0.0025	-0.0003
288	SLE RA 10	0.06	-9.99	24.45	0.4747	-0.0024	-0.0003
288	SLE RA 11	0.07	-10.74	25.56	0.5107	-0.0032	-0.0003
288	SLE RA 12	0.07	-10.37	25.08	0.4931	-0.0027	-0.0003
288	SLE RA 13	0.07	-10.04	24.64	0.4773	-0.0024	-0.0003
288	SLE RA 14	0.07	-10.8	25.75	0.5133	-0.0032	-0.0003
288	SLE RA 15	0.07	-10.43	25.27	0.4957	-0.0027	-0.0003
288	SLE RA 16	0.07	-10.71	25.63	0.5093	-0.0031	-0.0003
288	SLE RA 17	0.07	-10.34	25.15	0.4917	-0.0027	-0.0003
288	SLE RA 18	0.07	-10.9	25.93	0.5186	-0.0032	-0.0003
288	SLE RA 19	0.07	-10.53	25.45	0.501	-0.0027	-0.0003
288	SLE RA 20	0.07	-10.96	26.12	0.5213	-0.0032	-0.0003
288	SLE RA 21	0.07	-10.59	25.65	0.5036	-0.0027	-0.0003
288	SLE FR 1	0.06	-9.91	23.62	0.47	-0.003	-0.0003
288	SLE FR 2	0.06	-9.78	23.47	0.4641	-0.0028	-0.0003
288	SLE FR 3	0.06	-9.93	23.7	0.4711	-0.003	-0.0003
288	SLE FR 4	0.06	-10.08	24.16	0.4787	-0.0029	-0.0003
288	SLE FR 5	0.06	-10.23	24.39	0.4856	-0.0031	-0.0003
288	SLE FR 6	0.07	-10.4	24.78	0.4943	-0.0031	-0.0003
288	SLE QP 1	0.06	-9.91	23.62	0.47	-0.003	-0.0003
288	SLE QP 2	0.06	-10.2	24.32	0.4846	-0.0031	-0.0003
288	SLD 1	0.05	-10.87	30.66	0.5264	0.051	-0.0004
288	SLD 2	0.05	-10.87	30.66	0.5264	0.051	-0.0004
288	SLD 3	0.14	-14.24	34.63	0.6824	0.008	-0.0004
288	SLD 4	0.14	-14.24	34.63	0.6824	0.008	-0.0004
288	SLD 5	-0.08	-5.29	20.19	0.2605	0.0785	-0.0002
288	SLD 6	-0.08	-5.29	20.19	0.2605	0.0785	-0.0002
288	SLD 7	0.23	-16.53	33.44	0.7806	-0.0651	-0.0004
288	SLD 8	0.23	-16.53	33.44	0.7806	-0.0651	-0.0004
288	SLD 9	-0.1	-3.88	15.19	0.1886	0.0589	-0.0002
288	SLD 10	-0.1	-3.88	15.19	0.1886	0.0589	-0.0002
288	SLD 11	0.21	-15.12	28.44	0.7087	-0.0846	-0.0003
288	SLD 12	0.21	-15.12	28.44	0.7087	-0.0846	-0.0003
288	SLD 13	-0.02	-6.17	14	0.2868	-0.0141	-0.0001
288	SLD 14	-0.02	-6.17	14	0.2868	-0.0141	-0.0001
288	SLD 15	0.08	-9.54	17.97	0.4428	-0.0571	-0.0002
288	SLD 16	0.08	-9.54	17.97	0.4428	-0.0571	-0.0002
288	SLV 1	0.03	-11.82	39.09	0.5851	0.1295	-0.0005
288	SLV 2	0.03	-11.82	39.09	0.5851	0.1295	-0.0005
288	SLV 3	0.26	-19.66	48.44	0.9476	0.0233	-0.0006
288	SLV 4	0.26	-19.66	48.44	0.9476	0.0233	-0.0006
288	SLV 5	-0.29	1.2	14.57	-0.035	0.1978	-0.0002
288	SLV 6	-0.29	1.2	14.57	-0.035	0.1978	-0.0002
288	SLV 7	0.47	-24.93	45.73	1.1733	-0.1562	-0.0005
288	SLV 8	0.47	-24.93	45.73	1.1733	-0.1562	-0.0005
288	SLV 9	-0.34	4.52	2.9	-0.2041	0.1501	0
288	SLV 10	-0.34	4.52	2.9	-0.2041	0.1501	0
288	SLV 11	0.42	-21.61	34.06	1.0042	-0.2039	-0.0004
288	SLV 12	0.42	-21.61	34.06	1.0042	-0.2039	-0.0004
288	SLV 13	-0.13	-0.75	0.19	0.0216	-0.0294	0.0001
288	SLV 14	-0.13	-0.75	0.19	0.0216	-0.0294	0.0001
288	SLV 15	0.1	-8.59	9.54	0.3841	-0.1357	-0.0001
288	SLV 16	0.1	-8.59	9.54	0.3841	-0.1357	-0.0001
289	SLU 1	0	-4.2	37.44	0.1713	-0.0009	0
289	SLU 2	0	-4.2	37.42	0.1714	-0.0009	0
289	SLU 3	0	-4.49	38.3	0.1852	-0.0008	0
289	SLU 4	0	-4.49	38.29	0.1853	-0.0009	0
289	SLU 5	0	-4.47	37.77	0.1848	-0.0009	0
289	SLU 6	0	-4.76	38.65	0.1985	-0.0008	0
289	SLU 7	0	-4.77	38.64	0.1986	-0.0008	0
289	SLU 8	0	-4.74	38.14	0.198	-0.0008	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
289	SLU 9	0	-4.74	38.12	0.1981	-0.0008	0
289	SLU 10	0	-4.84	43.22	0.1967	-0.001	0
289	SLU 11	0	-5.13	44.11	0.2104	-0.001	0
289	SLU 12	0	-5.13	44.1	0.2105	-0.001	0
289	SLU 13	0	-5.11	43.57	0.21	-0.001	0
289	SLU 14	0	-5.4	44.46	0.2237	-0.001	0
289	SLU 15	0	-5.4	44.45	0.2238	-0.001	0
289	SLU 16	0	-5.38	43.94	0.2232	-0.0009	0
289	SLU 17	0	-5.38	43.93	0.2233	-0.001	0
289	SLU 18	0	-5.11	45.73	0.2074	-0.001	0
289	SLU 19	0	-5.11	45.72	0.2074	-0.0011	0
289	SLU 20	0	-5.38	46.08	0.2207	-0.001	0
289	SLU 21	0	-5.38	46.07	0.2208	-0.001	0
289	SLU 22	0	-4.91	42.83	0.2008	-0.001	0
289	SLU 23	0	-4.92	42.81	0.201	-0.001	0
289	SLU 24	0	-5.21	43.7	0.2147	-0.001	0
289	SLU 25	0	-5.21	43.69	0.2148	-0.001	0
289	SLU 26	0	-5.19	43.16	0.2143	-0.001	0
289	SLU 27	0	-5.48	44.05	0.2281	-0.0009	0
289	SLU 28	0	-5.48	44.04	0.2281	-0.001	0
289	SLU 29	0	-5.46	43.53	0.2275	-0.0009	0
289	SLU 30	0	-5.46	43.52	0.2276	-0.0009	0
289	SLU 31	0	-5.55	48.62	0.2262	-0.0011	0
289	SLU 32	0	-5.85	49.5	0.24	-0.0011	0
289	SLU 33	0	-5.85	49.49	0.24	-0.0011	0
289	SLU 34	0	-5.83	48.97	0.2396	-0.0011	0
289	SLU 35	0	-6.12	49.85	0.2533	-0.0011	0
289	SLU 36	0	-6.12	49.84	0.2534	-0.0011	0
289	SLU 37	0	-6.09	49.34	0.2528	-0.0011	0
289	SLU 38	0	-6.1	49.33	0.2528	-0.0011	0
289	SLU 39	0	-5.82	51.13	0.2369	-0.0012	0
289	SLU 40	0	-5.83	51.12	0.237	-0.0012	0
289	SLU 41	0	-6.1	51.48	0.2502	-0.0011	0
289	SLU 42	0	-6.1	51.47	0.2503	-0.0012	0
289	SLU 43	0	-5.21	46.82	0.2126	-0.0011	0
289	SLU 44	0	-5.21	46.8	0.2127	-0.0011	0
289	SLU 45	0	-5.5	47.68	0.2264	-0.0011	0
289	SLU 46	0	-5.51	47.67	0.2265	-0.0011	0
289	SLU 47	0	-5.48	47.15	0.226	-0.0011	0
289	SLU 48	0	-5.78	48.03	0.2398	-0.001	0
289	SLU 49	0	-5.78	48.02	0.2398	-0.0011	0
289	SLU 50	0	-5.75	47.52	0.2392	-0.001	0
289	SLU 51	0	-5.75	47.51	0.2393	-0.001	0
289	SLU 52	0	-5.85	52.6	0.2379	-0.0012	0
289	SLU 53	0	-6.14	53.49	0.2517	-0.0012	0
289	SLU 54	0	-6.14	53.48	0.2518	-0.0012	0
289	SLU 55	0	-6.12	52.95	0.2513	-0.0012	0
289	SLU 56	0	-6.41	53.84	0.265	-0.0012	0
289	SLU 57	0	-6.42	53.83	0.2651	-0.0012	0
289	SLU 58	0	-6.39	53.32	0.2645	-0.0012	0
289	SLU 59	0	-6.39	53.31	0.2646	-0.0012	0
289	SLU 60	0	-6.12	55.11	0.2486	-0.0013	0
289	SLU 61	0	-6.12	55.1	0.2487	-0.0013	0
289	SLU 62	0	-6.39	55.46	0.262	-0.0012	0
289	SLU 63	0	-6.4	55.45	0.262	-0.0013	0
289	SLU 64	0	-5.93	52.21	0.2421	-0.0012	0
289	SLU 65	0	-5.93	52.19	0.2422	-0.0012	0
289	SLU 66	0	-6.22	53.08	0.256	-0.0012	0
289	SLU 67	0	-6.22	53.07	0.2561	-0.0012	0
289	SLU 68	0	-6.2	52.54	0.2556	-0.0012	0
289	SLU 69	0	-6.49	53.43	0.2693	-0.0012	0
289	SLU 70	0	-6.49	53.42	0.2694	-0.0012	0
289	SLU 71	0	-6.47	52.91	0.2688	-0.0011	0
289	SLU 72	0	-6.47	52.9	0.2689	-0.0012	0
289	SLU 73	0	-6.57	58	0.2675	-0.0013	0
289	SLU 74	0	-6.86	58.89	0.2812	-0.0013	0
289	SLU 75	0	-6.86	58.87	0.2813	-0.0013	0
289	SLU 76	0	-6.84	58.35	0.2808	-0.0013	0
289	SLU 77	0	-7.13	59.24	0.2946	-0.0013	0
289	SLU 78	0	-7.13	59.22	0.2946	-0.0013	0
289	SLU 79	0	-7.11	58.72	0.294	-0.0013	0
289	SLU 80	0	-7.11	58.71	0.2941	-0.0013	0
289	SLU 81	0	-6.84	60.51	0.2782	-0.0014	0
289	SLU 82	0	-6.84	60.5	0.2782	-0.0014	0
289	SLU 83	0	-7.11	60.86	0.2915	-0.0014	0
289	SLU 84	0	-7.11	60.85	0.2916	-0.0014	0
289	SLE RA 1	0	-4.4	38.98	0.1797	-0.0009	0
289	SLE RA 2	0	-4.4	38.97	0.1798	-0.0009	0
289	SLE RA 3	0	-4.6	39.56	0.189	-0.0009	0
289	SLE RA 4	0	-4.6	39.55	0.189	-0.0009	0
289	SLE RA 5	0	-4.58	39.2	0.1887	-0.0009	0
289	SLE RA 6	0	-4.78	39.79	0.1979	-0.0009	0
289	SLE RA 7	0	-4.78	39.78	0.1979	-0.0009	0
289	SLE RA 8	0	-4.76	39.45	0.1975	-0.0009	0
289	SLE RA 9	0	-4.76	39.44	0.1976	-0.0009	0
289	SLE RA 10	0	-4.83	42.84	0.1967	-0.001	0
289	SLE RA 11	0	-5.02	43.43	0.2058	-0.001	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
289	SLE RA 12	0	-5.02	43.42	0.2059	-0.001	0
289	SLE RA 13	0	-5.01	43.07	0.2056	-0.001	0
289	SLE RA 14	0	-5.2	43.66	0.2147	-0.001	0
289	SLE RA 15	0	-5.21	43.65	0.2148	-0.001	0
289	SLE RA 16	0	-5.19	43.32	0.2143	-0.0009	0
289	SLE RA 17	0	-5.19	43.31	0.2144	-0.001	0
289	SLE RA 18	0	-5.01	44.51	0.2038	-0.001	0
289	SLE RA 19	0	-5.01	44.5	0.2038	-0.001	0
289	SLE RA 20	0	-5.19	44.74	0.2127	-0.001	0
289	SLE RA 21	0	-5.19	44.73	0.2127	-0.001	0
289	SLE FR 1	0	-4.4	38.98	0.1797	-0.0009	0
289	SLE FR 2	0	-4.4	38.98	0.1798	-0.0009	0
289	SLE FR 3	0	-4.47	39.07	0.1833	-0.0009	0
289	SLE FR 4	0	-4.58	40.63	0.187	-0.0009	0
289	SLE FR 5	0	-4.66	40.73	0.1905	-0.0009	0
289	SLE FR 6	0	-4.7	41.74	0.1918	-0.001	0
289	SLE QP 1	0	-4.4	38.98	0.1797	-0.0009	0
289	SLE QP 2	0	-4.58	40.64	0.187	-0.0009	0
289	SLD 1	0	-3.86	40.17	0.1546	-0.0145	-0.0001
289	SLD 2	0	-3.86	40.17	0.1546	-0.0145	-0.0001
289	SLD 3	-0.02	-7.69	42.76	0.3289	-0.0308	-0.0001
289	SLD 4	-0.02	-7.69	42.76	0.3289	-0.0308	-0.0001
289	SLD 5	0.03	1.45	36.58	-0.0871	0.0197	-0.0001
289	SLD 6	0.03	1.45	36.58	-0.0871	0.0197	-0.0001
289	SLD 7	-0.04	-11.33	45.19	0.4938	-0.0346	0
289	SLD 8	-0.04	-11.33	45.19	0.4938	-0.0346	0
289	SLD 9	0.04	2.17	36.08	-0.1199	0.0327	0
289	SLD 10	0.04	2.17	36.08	-0.1199	0.0327	0
289	SLD 11	-0.04	-10.62	44.69	0.461	-0.0216	0.0001
289	SLD 12	-0.04	-10.62	44.69	0.461	-0.0216	0.0001
289	SLD 13	0.02	-1.47	38.52	0.045	0.0289	0.0001
289	SLD 14	0.02	-1.47	38.52	0.045	0.0289	0.0001
289	SLD 15	0	-5.31	41.1	0.2193	0.0126	0.0001
289	SLD 16	0	-5.31	41.1	0.2193	0.0126	0.0001
289	SLV 1	0.01	-2.87	39.53	0.1102	-0.0359	-0.0002
289	SLV 2	0.01	-2.87	39.53	0.1102	-0.0359	-0.0002
289	SLV 3	-0.05	-11.91	45.64	0.5211	-0.076	-0.0002
289	SLV 4	-0.05	-11.91	45.64	0.5211	-0.076	-0.0002
289	SLV 5	0.08	9.64	31.05	-0.4592	0.0495	-0.0002
289	SLV 6	0.08	9.64	31.05	-0.4592	0.0495	-0.0002
289	SLV 7	-0.1	-20.49	51.39	0.9104	-0.0843	0.0001
289	SLV 8	-0.1	-20.49	51.39	0.9104	-0.0843	0.0001
289	SLV 9	0.09	11.32	29.88	-0.5365	0.0825	-0.0001
289	SLV 10	0.09	11.32	29.88	-0.5365	0.0825	-0.0001
289	SLV 11	-0.08	-18.81	50.23	0.8331	-0.0513	0.0002
289	SLV 12	-0.08	-18.81	50.23	0.8331	-0.0513	0.0002
289	SLV 13	0.04	2.74	35.64	-0.1472	0.0741	0.0002
289	SLV 14	0.04	2.74	35.64	-0.1472	0.0741	0.0002
289	SLV 15	-0.01	-6.3	41.74	0.2637	0.034	0.0002
289	SLV 16	-0.01	-6.3	41.74	0.2637	0.034	0.0002
290	SLU 1	0.01	-0.73	61.24	0.0043	0.0052	0.0001
290	SLU 2	0.01	-0.64	60.71	0.0014	0.0051	0.0001
290	SLU 3	0.01	-0.79	64.65	0.0055	0.0056	0.0001
290	SLU 4	0.01	-0.73	64.33	0.0037	0.0055	0.0001
290	SLU 5	0.01	-0.68	63.65	0.0022	0.0054	0.0001
290	SLU 6	0.01	-0.83	67.58	0.0062	0.0059	0.0001
290	SLU 7	0.01	-0.78	67.27	0.0045	0.0058	0.0001
290	SLU 8	0.01	-0.82	67.11	0.0059	0.0058	0.0001
290	SLU 9	0.01	-0.76	66.8	0.0042	0.0058	0.0001
290	SLU 10	0.01	-0.9	70.39	0.0063	0.0059	0.0001
290	SLU 11	0.02	-1.05	74.32	0.0103	0.0063	0.0001
290	SLU 12	0.02	-1	74.01	0.0085	0.0062	0.0001
290	SLU 13	0.02	-0.95	73.32	0.0071	0.0062	0.0001
290	SLU 14	0.02	-1.1	77.26	0.0111	0.0066	0.0001
290	SLU 15	0.02	-1.04	76.94	0.0093	0.0065	0.0001
290	SLU 16	0.02	-1.08	76.79	0.0108	0.0066	0.0001
290	SLU 17	0.02	-1.03	76.47	0.009	0.0065	0.0001
290	SLU 18	0.02	-1.11	75.06	0.0112	0.0063	0.0001
290	SLU 19	0.02	-1.05	74.74	0.0095	0.0062	0.0001
290	SLU 20	0.02	-1.15	78	0.012	0.0066	0.0001
290	SLU 21	0.02	-1.1	77.68	0.0103	0.0065	0.0001
290	SLU 22	0.02	-0.98	71.23	0.0091	0.0061	0.0001
290	SLU 23	0.01	-0.89	70.7	0.0062	0.0059	0.0001
290	SLU 24	0.02	-1.04	74.64	0.0102	0.0064	0.0001
290	SLU 25	0.02	-0.99	74.32	0.0085	0.0063	0.0001
290	SLU 26	0.02	-0.94	73.64	0.007	0.0062	0.0001
290	SLU 27	0.02	-1.09	77.58	0.011	0.0067	0.0001
290	SLU 28	0.02	-1.03	77.26	0.0093	0.0066	0.0001
290	SLU 29	0.02	-1.07	77.11	0.0107	0.0067	0.0001
290	SLU 30	0.02	-1.02	76.79	0.009	0.0066	0.0001
290	SLU 31	0.02	-1.16	80.38	0.011	0.0067	0.0001
290	SLU 32	0.02	-1.31	84.31	0.0151	0.0072	0.0001
290	SLU 33	0.02	-1.25	84	0.0133	0.0071	0.0001
290	SLU 34	0.02	-1.2	83.32	0.0118	0.007	0.0001
290	SLU 35	0.02	-1.35	87.25	0.0159	0.0074	0.0001
290	SLU 36	0.02	-1.3	86.93	0.0141	0.0074	0.0001
290	SLU 37	0.02	-1.34	86.78	0.0155	0.0074	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
290	SLU 38	0.02	-1.28	86.46	0.0138	0.0073	0.0001
290	SLU 39	0.02	-1.36	85.05	0.016	0.0072	0.0001
290	SLU 40	0.02	-1.31	84.73	0.0143	0.0071	0.0001
290	SLU 41	0.02	-1.41	87.99	0.0168	0.0075	0.0001
290	SLU 42	0.02	-1.35	87.67	0.0151	0.0074	0.0001
290	SLU 43	0.02	-0.86	76.19	0.004	0.0065	0.0001
290	SLU 44	0.02	-0.77	75.66	0.0011	0.0064	0.0001
290	SLU 45	0.02	-0.92	79.59	0.0051	0.0069	0.0001
290	SLU 46	0.02	-0.86	79.28	0.0034	0.0068	0.0001
290	SLU 47	0.02	-0.81	78.6	0.0019	0.0067	0.0001
290	SLU 48	0.02	-0.96	82.53	0.0059	0.0071	0.0001
290	SLU 49	0.02	-0.91	82.22	0.0042	0.0071	0.0001
290	SLU 50	0.02	-0.95	82.06	0.0056	0.0071	0.0001
290	SLU 51	0.02	-0.89	81.75	0.0038	0.007	0.0001
290	SLU 52	0.02	-1.03	85.33	0.0059	0.0072	0.0001
290	SLU 53	0.02	-1.18	89.27	0.0099	0.0076	0.0001
290	SLU 54	0.02	-1.13	88.95	0.0082	0.0075	0.0001
290	SLU 55	0.02	-1.08	88.27	0.0067	0.0074	0.0001
290	SLU 56	0.02	-1.23	92.2	0.0107	0.0079	0.0001
290	SLU 57	0.02	-1.18	91.89	0.009	0.0078	0.0001
290	SLU 58	0.02	-1.21	91.73	0.0104	0.0079	0.0001
290	SLU 59	0.02	-1.16	91.42	0.0087	0.0078	0.0001
290	SLU 60	0.02	-1.24	90.01	0.0109	0.0076	0.0001
290	SLU 61	0.02	-1.18	89.69	0.0092	0.0075	0.0001
290	SLU 62	0.02	-1.28	92.94	0.0117	0.0079	0.0001
290	SLU 63	0.02	-1.23	92.63	0.01	0.0078	0.0001
290	SLU 64	0.02	-1.11	86.18	0.0088	0.0074	0.0001
290	SLU 65	0.02	-1.02	85.65	0.0059	0.0072	0.0001
290	SLU 66	0.02	-1.17	89.58	0.0099	0.0077	0.0001
290	SLU 67	0.02	-1.12	89.27	0.0082	0.0076	0.0001
290	SLU 68	0.02	-1.07	88.59	0.0067	0.0075	0.0001
290	SLU 69	0.02	-1.22	92.52	0.0107	0.008	0.0001
290	SLU 70	0.02	-1.17	92.21	0.0089	0.0079	0.0001
290	SLU 71	0.02	-1.2	92.05	0.0104	0.008	0.0001
290	SLU 72	0.02	-1.15	91.74	0.0086	0.0079	0.0001
290	SLU 73	0.02	-1.29	95.32	0.0107	0.008	0.0001
290	SLU 74	0.02	-1.44	99.26	0.0147	0.0084	0.0001
290	SLU 75	0.02	-1.38	98.94	0.013	0.0084	0.0001
290	SLU 76	0.02	-1.33	98.26	0.0115	0.0083	0.0001
290	SLU 77	0.02	-1.48	102.2	0.0155	0.0087	0.0001
290	SLU 78	0.02	-1.43	101.88	0.0138	0.0087	0.0001
290	SLU 79	0.02	-1.47	101.73	0.0152	0.0087	0.0001
290	SLU 80	0.02	-1.41	101.41	0.0135	0.0086	0.0001
290	SLU 81	0.02	-1.49	100	0.0157	0.0084	0.0001
290	SLU 82	0.02	-1.44	99.68	0.0139	0.0084	0.0001
290	SLU 83	0.02	-1.54	102.93	0.0165	0.0087	0.0001
290	SLU 84	0.02	-1.48	102.62	0.0147	0.0087	0.0001
290	SLE RA 1	0.01	-0.8	64.09	0.0057	0.0055	0.0001
290	SLE RA 2	0.01	-0.74	63.74	0.0038	0.0054	0.0001
290	SLE RA 3	0.01	-0.84	66.37	0.0064	0.0057	0.0001
290	SLE RA 4	0.01	-0.8	66.16	0.0053	0.0056	0.0001
290	SLE RA 5	0.01	-0.77	65.7	0.0043	0.0056	0.0001
290	SLE RA 6	0.01	-0.87	68.32	0.007	0.0059	0.0001
290	SLE RA 7	0.01	-0.83	68.11	0.0058	0.0058	0.0001
290	SLE RA 8	0.01	-0.86	68.01	0.0068	0.0059	0.0001
290	SLE RA 9	0.01	-0.82	67.8	0.0056	0.0058	0.0001
290	SLE RA 10	0.01	-0.92	70.19	0.007	0.0059	0.0001
290	SLE RA 11	0.02	-1.02	72.82	0.0097	0.0062	0.0001
290	SLE RA 12	0.02	-0.98	72.6	0.0085	0.0061	0.0001
290	SLE RA 13	0.02	-0.95	72.15	0.0075	0.0061	0.0001
290	SLE RA 14	0.02	-1.05	74.77	0.0102	0.0064	0.0001
290	SLE RA 15	0.02	-1.01	74.56	0.009	0.0063	0.0001
290	SLE RA 16	0.02	-1.04	74.46	0.01	0.0064	0.0001
290	SLE RA 17	0.02	-1	74.25	0.0088	0.0063	0.0001
290	SLE RA 18	0.02	-1.05	73.31	0.0103	0.0062	0.0001
290	SLE RA 19	0.02	-1.02	73.1	0.0091	0.0061	0.0001
290	SLE RA 20	0.02	-1.08	75.27	0.0108	0.0064	0.0001
290	SLE RA 21	0.02	-1.05	75.06	0.0097	0.0063	0.0001
290	SLE FR 1	0.01	-0.8	64.09	0.0057	0.0055	0.0001
290	SLE FR 2	0.01	-0.79	64.02	0.0053	0.0055	0.0001
290	SLE FR 3	0.01	-0.81	64.88	0.0059	0.0056	0.0001
290	SLE FR 4	0.01	-0.86	66.79	0.0067	0.0057	0.0001
290	SLE FR 5	0.01	-0.89	67.64	0.0073	0.0058	0.0001
290	SLE FR 6	0.01	-0.93	68.7	0.008	0.0058	0.0001
290	SLE QP 1	0.01	-0.8	64.09	0.0057	0.0055	0.0001
290	SLE QP 2	0.01	-0.88	66.86	0.0071	0.0057	0.0001
290	SLD 1	-0.06	1.86	68.25	-0.006	0.057	-0.0005
290	SLD 2	-0.06	1.86	68.25	-0.006	0.057	-0.0005
290	SLD 3	-0.05	-1.34	75	0.1001	0.0671	-0.0004
290	SLD 4	-0.05	-1.34	75	0.1001	0.0671	-0.0004
290	SLD 5	-0.03	4.8	57.04	-0.1578	0.0058	-0.0002
290	SLD 6	-0.03	4.8	57.04	-0.1578	0.0058	-0.0002
290	SLD 7	0.01	-5.87	79.53	0.1959	0.0395	0.0001
290	SLD 8	0.01	-5.87	79.53	0.1959	0.0395	0.0001
290	SLD 9	0.01	4.12	54.18	-0.1818	-0.0281	0.0001
290	SLD 10	0.01	4.12	54.18	-0.1818	-0.0281	0.0001
290	SLD 11	0.06	-6.55	76.67	0.1719	0.0056	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
290	SLD 12	0.06	-6.55	76.67	0.1719	0.0056	0.0004
290	SLD 13	0.08	-0.41	58.72	-0.086	-0.0557	0.0006
290	SLD 14	0.08	-0.41	58.72	-0.086	-0.0557	0.0006
290	SLD 15	0.09	-3.61	65.47	0.0201	-0.0456	0.0007
290	SLD 16	0.09	-3.61	65.47	0.0201	-0.0456	0.0007
290	SLV 1	-0.16	5.62	70.03	-0.0219	0.1285	-0.0014
290	SLV 2	-0.16	5.62	70.03	-0.0219	0.1285	-0.0014
290	SLV 3	-0.13	-1.92	86.05	0.2276	0.1537	-0.0011
290	SLV 4	-0.13	-1.92	86.05	0.2276	0.1537	-0.0011
290	SLV 5	-0.09	12.49	43.51	-0.38	0.0043	-0.0007
290	SLV 6	-0.09	12.49	43.51	-0.38	0.0043	-0.0007
290	SLV 7	0.01	-12.61	96.92	0.4516	0.0883	0.0001
290	SLV 8	0.01	-12.61	96.92	0.4516	0.0883	0.0001
290	SLV 9	0.01	10.86	36.8	-0.4374	-0.0769	0.0001
290	SLV 10	0.01	10.86	36.8	-0.4374	-0.0769	0.0001
290	SLV 11	0.11	-14.25	90.21	0.3941	0.0071	0.0009
290	SLV 12	0.11	-14.25	90.21	0.3941	0.0071	0.0009
290	SLV 13	0.16	0.16	47.66	-0.2135	-0.1423	0.0013
290	SLV 14	0.16	0.16	47.66	-0.2135	-0.1423	0.0013
290	SLV 15	0.19	-7.37	63.68	0.036	-0.1171	0.0015
290	SLV 16	0.19	-7.37	63.68	0.036	-0.1171	0.0015
291	SLU 1	-0.07	3.46	24.79	-0.0312	-0.0057	0.002
291	SLU 2	-0.07	3.46	24.79	-0.0315	-0.0057	0.002
291	SLU 3	-0.08	3.56	25.57	-0.0317	-0.0059	0.0021
291	SLU 4	-0.08	3.56	25.56	-0.0319	-0.0059	0.0021
291	SLU 5	-0.07	3.53	25.31	-0.0321	-0.0058	0.0021
291	SLU 6	-0.08	3.63	26.09	-0.0323	-0.0059	0.0021
291	SLU 7	-0.08	3.63	26.08	-0.0325	-0.006	0.0021
291	SLU 8	-0.08	3.59	25.84	-0.0324	-0.0059	0.0021
291	SLU 9	-0.08	3.6	25.83	-0.0326	-0.0059	0.0021
291	SLU 10	-0.08	3.97	28.53	-0.0345	-0.0067	0.0024
291	SLU 11	-0.09	4.07	29.31	-0.0347	-0.0069	0.0024
291	SLU 12	-0.09	4.07	29.3	-0.0349	-0.0069	0.0024
291	SLU 13	-0.09	4.04	29.05	-0.0351	-0.0068	0.0024
291	SLU 14	-0.09	4.13	29.83	-0.0353	-0.007	0.0025
291	SLU 15	-0.09	4.14	29.82	-0.0355	-0.007	0.0025
291	SLU 16	-0.09	4.1	29.58	-0.0354	-0.0069	0.0024
291	SLU 17	-0.09	4.1	29.57	-0.0356	-0.0069	0.0024
291	SLU 18	-0.09	4.18	30.14	-0.0355	-0.0072	0.0025
291	SLU 19	-0.09	4.19	30.13	-0.0357	-0.0072	0.0025
291	SLU 20	-0.09	4.25	30.66	-0.0361	-0.0072	0.0025
291	SLU 21	-0.09	4.25	30.65	-0.0363	-0.0073	0.0025
291	SLU 22	-0.08	3.94	28.38	-0.034	-0.0067	0.0024
291	SLU 23	-0.08	3.95	28.37	-0.0343	-0.0067	0.0024
291	SLU 24	-0.09	4.04	29.15	-0.0345	-0.0068	0.0024
291	SLU 25	-0.09	4.04	29.15	-0.0347	-0.0068	0.0024
291	SLU 26	-0.09	4.01	28.89	-0.0348	-0.0067	0.0024
291	SLU 27	-0.09	4.11	29.67	-0.0351	-0.0069	0.0025
291	SLU 28	-0.09	4.11	29.67	-0.0353	-0.0069	0.0025
291	SLU 29	-0.09	4.08	29.42	-0.0351	-0.0068	0.0024
291	SLU 30	-0.09	4.08	29.42	-0.0353	-0.0068	0.0024
291	SLU 31	-0.1	4.45	32.11	-0.0372	-0.0077	0.0027
291	SLU 32	-0.1	4.55	32.89	-0.0375	-0.0078	0.0027
291	SLU 33	-0.1	4.55	32.88	-0.0377	-0.0078	0.0027
291	SLU 34	-0.1	4.52	32.63	-0.0378	-0.0078	0.0027
291	SLU 35	-0.1	4.62	33.41	-0.0381	-0.0079	0.0028
291	SLU 36	-0.1	4.62	33.41	-0.0382	-0.0079	0.0028
291	SLU 37	-0.1	4.58	33.16	-0.0381	-0.0078	0.0028
291	SLU 38	-0.1	4.58	33.16	-0.0383	-0.0078	0.0028
291	SLU 39	-0.1	4.67	33.72	-0.0382	-0.0081	0.0028
291	SLU 40	-0.1	4.67	33.72	-0.0384	-0.0081	0.0028
291	SLU 41	-0.1	4.73	34.24	-0.0388	-0.0082	0.0029
291	SLU 42	-0.1	4.73	34.24	-0.039	-0.0082	0.0029
291	SLU 43	-0.09	4.33	31	-0.0396	-0.0071	0.0025
291	SLU 44	-0.09	4.34	31	-0.0399	-0.0071	0.0025
291	SLU 45	-0.09	4.43	31.78	-0.0401	-0.0073	0.0026
291	SLU 46	-0.09	4.44	31.77	-0.0403	-0.0073	0.0026
291	SLU 47	-0.09	4.4	31.52	-0.0405	-0.0072	0.0026
291	SLU 48	-0.09	4.5	32.3	-0.0407	-0.0073	0.0026
291	SLU 49	-0.09	4.5	32.29	-0.0409	-0.0073	0.0026
291	SLU 50	-0.09	4.47	32.05	-0.0408	-0.0073	0.0026
291	SLU 51	-0.09	4.47	32.04	-0.041	-0.0073	0.0026
291	SLU 52	-0.1	4.84	34.73	-0.0429	-0.0081	0.0029
291	SLU 53	-0.1	4.94	35.51	-0.0431	-0.0083	0.0029
291	SLU 54	-0.1	4.94	35.51	-0.0433	-0.0083	0.0029
291	SLU 55	-0.1	4.91	35.26	-0.0435	-0.0082	0.0029
291	SLU 56	-0.11	5.01	36.04	-0.0437	-0.0083	0.003
291	SLU 57	-0.11	5.01	36.03	-0.0439	-0.0084	0.003
291	SLU 58	-0.11	4.97	35.79	-0.0438	-0.0083	0.0029
291	SLU 59	-0.11	4.98	35.78	-0.044	-0.0083	0.0029
291	SLU 60	-0.11	5.06	36.35	-0.0439	-0.0086	0.003
291	SLU 61	-0.11	5.06	36.34	-0.0441	-0.0086	0.003
291	SLU 62	-0.11	5.12	36.87	-0.0445	-0.0086	0.0031
291	SLU 63	-0.11	5.13	36.86	-0.0447	-0.0086	0.0031
291	SLU 64	-0.1	4.82	34.59	-0.0424	-0.008	0.0029
291	SLU 65	-0.1	4.82	34.58	-0.0427	-0.0081	0.0029
291	SLU 66	-0.1	4.91	35.36	-0.0429	-0.0082	0.0029



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
291	SLU 67	-0.1	4.92	35.35	-0.0431	-0.0082	0.0029
291	SLU 68	-0.1	4.89	35.1	-0.0433	-0.0081	0.0029
291	SLU 69	-0.11	4.98	35.88	-0.0435	-0.0083	0.003
291	SLU 70	-0.11	4.98	35.88	-0.0437	-0.0083	0.003
291	SLU 71	-0.1	4.95	35.63	-0.0436	-0.0082	0.0029
291	SLU 72	-0.1	4.95	35.63	-0.0437	-0.0082	0.0029
291	SLU 73	-0.11	5.33	38.32	-0.0457	-0.0091	0.0032
291	SLU 74	-0.12	5.42	39.1	-0.0459	-0.0092	0.0033
291	SLU 75	-0.12	5.42	39.09	-0.0461	-0.0092	0.0033
291	SLU 76	-0.12	5.39	38.84	-0.0463	-0.0092	0.0032
291	SLU 77	-0.12	5.49	39.62	-0.0465	-0.0093	0.0033
291	SLU 78	-0.12	5.49	39.62	-0.0467	-0.0093	0.0033
291	SLU 79	-0.12	5.46	39.37	-0.0466	-0.0092	0.0033
291	SLU 80	-0.12	5.46	39.37	-0.0467	-0.0092	0.0033
291	SLU 81	-0.12	5.54	39.93	-0.0466	-0.0095	0.0033
291	SLU 82	-0.12	5.54	39.92	-0.0468	-0.0095	0.0033
291	SLU 83	-0.12	5.61	40.45	-0.0472	-0.0096	0.0034
291	SLU 84	-0.12	5.61	40.45	-0.0474	-0.0096	0.0034
291	SLE RA 1	-0.08	3.6	25.82	-0.032	-0.006	0.0021
291	SLE RA 2	-0.08	3.6	25.81	-0.0322	-0.006	0.0021
291	SLE RA 3	-0.08	3.66	26.33	-0.0323	-0.0061	0.0022
291	SLE RA 4	-0.08	3.67	26.33	-0.0325	-0.0061	0.0022
291	SLE RA 5	-0.08	3.64	26.16	-0.0326	-0.006	0.0022
291	SLE RA 6	-0.08	3.71	26.68	-0.0327	-0.0061	0.0022
291	SLE RA 7	-0.08	3.71	26.68	-0.0329	-0.0061	0.0022
291	SLE RA 8	-0.08	3.69	26.51	-0.0328	-0.0061	0.0022
291	SLE RA 9	-0.08	3.69	26.51	-0.0329	-0.0061	0.0022
291	SLE RA 10	-0.08	3.94	28.31	-0.0342	-0.0067	0.0024
291	SLE RA 11	-0.09	4	28.83	-0.0343	-0.0068	0.0024
291	SLE RA 12	-0.09	4	28.82	-0.0345	-0.0068	0.0024
291	SLE RA 13	-0.08	3.98	28.65	-0.0346	-0.0067	0.0024
291	SLE RA 14	-0.09	4.05	29.17	-0.0347	-0.0068	0.0024
291	SLE RA 15	-0.09	4.05	29.17	-0.0349	-0.0068	0.0024
291	SLE RA 16	-0.09	4.03	29.01	-0.0348	-0.0068	0.0024
291	SLE RA 17	-0.09	4.03	29	-0.0349	-0.0068	0.0024
291	SLE RA 18	-0.09	4.08	29.38	-0.0348	-0.0069	0.0024
291	SLE RA 19	-0.09	4.08	29.38	-0.035	-0.007	0.0024
291	SLE RA 20	-0.09	4.13	29.73	-0.0352	-0.007	0.0025
291	SLE RA 21	-0.09	4.13	29.72	-0.0354	-0.007	0.0025
291	SLE FR 1	-0.08	3.6	25.82	-0.032	-0.006	0.0021
291	SLE FR 2	-0.08	3.6	25.82	-0.032	-0.006	0.0021
291	SLE FR 3	-0.08	3.62	25.96	-0.0321	-0.006	0.0021
291	SLE FR 4	-0.08	3.74	26.89	-0.0329	-0.0063	0.0022
291	SLE FR 5	-0.08	3.76	27.03	-0.033	-0.0063	0.0022
291	SLE FR 6	-0.08	3.84	27.6	-0.0334	-0.0065	0.0023
291	SLE QP 1	-0.08	3.6	25.82	-0.032	-0.006	0.0021
291	SLE QP 2	-0.08	3.74	26.89	-0.0328	-0.0063	0.0022
291	SLD 1	-0.05	3.67	25.96	-0.0801	-0.0034	0.0016
291	SLD 2	-0.05	3.67	25.96	-0.0801	-0.0034	0.0016
291	SLD 3	-0.08	2.92	23.36	-0.026	-0.0059	0.0021
291	SLD 4	-0.08	2.92	23.36	-0.026	-0.0059	0.0021
291	SLD 5	-0.04	4.85	30.56	-0.129	-0.0017	0.0011
291	SLD 6	-0.04	4.85	30.56	-0.129	-0.0017	0.0011
291	SLD 7	-0.11	2.36	21.88	0.0512	-0.0098	0.0031
291	SLD 8	-0.11	2.36	21.88	0.0512	-0.0098	0.0031
291	SLD 9	-0.05	5.12	31.89	-0.1169	-0.0027	0.0014
291	SLD 10	-0.05	5.12	31.89	-0.1169	-0.0027	0.0014
291	SLD 11	-0.12	2.63	23.21	0.0634	-0.0108	0.0033
291	SLD 12	-0.12	2.63	23.21	0.0634	-0.0108	0.0033
291	SLD 13	-0.08	4.56	30.42	-0.0397	-0.0067	0.0023
291	SLD 14	-0.08	4.56	30.42	-0.0397	-0.0067	0.0023
291	SLD 15	-0.1	3.82	27.81	0.0144	-0.0091	0.0029
291	SLD 16	-0.1	3.82	27.81	0.0144	-0.0091	0.0029
291	SLV 1	-0.02	3.56	24.72	-0.1451	0.0005	0.0006
291	SLV 2	-0.02	3.56	24.72	-0.1451	0.0005	0.0006
291	SLV 3	-0.07	1.79	18.49	-0.0174	-0.0054	0.002
291	SLV 4	-0.07	1.79	18.49	-0.0174	-0.0054	0.002
291	SLV 5	0.02	6.38	35.69	-0.2603	0.0047	-0.0004
291	SLV 6	0.02	6.38	35.69	-0.2603	0.0047	-0.0004
291	SLV 7	-0.15	0.47	14.91	0.1655	-0.015	0.0043
291	SLV 8	-0.15	0.47	14.91	0.1655	-0.015	0.0043
291	SLV 9	0	7.02	38.86	-0.2312	0.0024	0.0002
291	SLV 10	0	7.02	38.86	-0.2312	0.0024	0.0002
291	SLV 11	-0.17	1.11	18.08	0.1946	-0.0173	0.0048
291	SLV 12	-0.17	1.11	18.08	0.1946	-0.0173	0.0048
291	SLV 13	-0.09	5.7	35.29	-0.0483	-0.0071	0.0024
291	SLV 14	-0.09	5.7	35.29	-0.0483	-0.0071	0.0024
291	SLV 15	-0.14	3.92	29.05	0.0795	-0.013	0.0039
291	SLV 16	-0.14	3.92	29.05	0.0795	-0.013	0.0039
292	SLU 1	-0.08	-9.37	56.3	0.4705	-0.009	-0.0007
292	SLU 2	-0.07	-8.5	51.83	0.4153	-0.0088	-0.0005
292	SLU 3	-0.08	-9.58	57.09	0.4807	-0.009	-0.0007
292	SLU 4	-0.08	-9.05	54.41	0.4476	-0.0089	-0.0006
292	SLU 5	-0.08	-8.57	51.88	0.4186	-0.0086	-0.0005
292	SLU 6	-0.08	-9.65	57.14	0.484	-0.0089	-0.0007
292	SLU 7	-0.08	-9.12	54.46	0.4509	-0.0087	-0.0006
292	SLU 8	-0.08	-9.51	56.39	0.477	-0.0087	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
292	SLU 9	-0.08	-8.99	53.71	0.4439	-0.0086	-0.0006
292	SLU 10	-0.09	-9.61	58.67	0.4705	-0.0104	-0.0006
292	SLU 11	-0.09	-10.69	63.93	0.5359	-0.0106	-0.0008
292	SLU 12	-0.09	-10.16	61.25	0.5028	-0.0104	-0.0007
292	SLU 13	-0.09	-9.68	58.72	0.4737	-0.0102	-0.0006
292	SLU 14	-0.09	-10.76	63.98	0.5391	-0.0104	-0.0008
292	SLU 15	-0.09	-10.23	61.3	0.506	-0.0103	-0.0007
292	SLU 16	-0.09	-10.62	63.23	0.5322	-0.0103	-0.0008
292	SLU 17	-0.09	-10.1	60.55	0.4991	-0.0102	-0.0007
292	SLU 18	-0.1	-10.96	66.07	0.5493	-0.0113	-0.0008
292	SLU 19	-0.09	-10.44	63.39	0.5162	-0.0111	-0.0007
292	SLU 20	-0.1	-11.03	66.12	0.5526	-0.0111	-0.0008
292	SLU 21	-0.09	-10.51	63.44	0.5195	-0.011	-0.0007
292	SLU 22	-0.09	-10.46	62.59	0.5247	-0.0102	-0.0008
292	SLU 23	-0.08	-9.58	58.12	0.4695	-0.01	-0.0006
292	SLU 24	-0.09	-10.66	63.38	0.5349	-0.0102	-0.0008
292	SLU 25	-0.09	-10.14	60.7	0.5018	-0.0101	-0.0007
292	SLU 26	-0.09	-9.65	58.16	0.4728	-0.0099	-0.0006
292	SLU 27	-0.09	-10.73	63.43	0.5382	-0.0101	-0.0008
292	SLU 28	-0.09	-10.21	60.75	0.5051	-0.01	-0.0007
292	SLU 29	-0.09	-10.6	62.68	0.5312	-0.01	-0.0008
292	SLU 30	-0.09	-10.07	60	0.4981	-0.0098	-0.0007
292	SLU 31	-0.1	-10.69	64.96	0.5247	-0.0116	-0.0007
292	SLU 32	-0.1	-11.77	70.22	0.5901	-0.0118	-0.0009
292	SLU 33	-0.1	-11.25	67.54	0.557	-0.0117	-0.0008
292	SLU 34	-0.1	-10.76	65.01	0.5279	-0.0115	-0.0007
292	SLU 35	-0.1	-11.84	70.27	0.5933	-0.0117	-0.0009
292	SLU 36	-0.1	-11.32	67.59	0.5602	-0.0115	-0.0008
292	SLU 37	-0.1	-11.71	69.52	0.5864	-0.0115	-0.0009
292	SLU 38	-0.1	-11.18	66.84	0.5533	-0.0114	-0.0008
292	SLU 39	-0.11	-12.04	72.36	0.6035	-0.0125	-0.0009
292	SLU 40	-0.1	-11.52	69.68	0.5704	-0.0124	-0.0008
292	SLU 41	-0.11	-12.11	72.4	0.6068	-0.0124	-0.0009
292	SLU 42	-0.1	-11.59	69.72	0.5737	-0.0122	-0.0008
292	SLU 43	-0.1	-11.81	71.03	0.5931	-0.0113	-0.0008
292	SLU 44	-0.1	-10.94	66.57	0.5379	-0.0111	-0.0007
292	SLU 45	-0.1	-12.02	71.83	0.6033	-0.0113	-0.0009
292	SLU 46	-0.1	-11.49	69.15	0.5702	-0.0111	-0.0008
292	SLU 47	-0.1	-11.01	66.61	0.5411	-0.0109	-0.0007
292	SLU 48	-0.1	-12.09	71.87	0.6065	-0.0111	-0.0009
292	SLU 49	-0.1	-11.56	69.19	0.5734	-0.011	-0.0008
292	SLU 50	-0.1	-11.95	71.12	0.5996	-0.011	-0.0009
292	SLU 51	-0.1	-11.43	68.44	0.5665	-0.0109	-0.0008
292	SLU 52	-0.11	-12.05	73.41	0.5931	-0.0126	-0.0008
292	SLU 53	-0.11	-13.13	78.67	0.6585	-0.0128	-0.001
292	SLU 54	-0.11	-12.6	75.99	0.6253	-0.0127	-0.0009
292	SLU 55	-0.11	-12.12	73.45	0.5963	-0.0125	-0.0008
292	SLU 56	-0.11	-13.2	78.71	0.6617	-0.0127	-0.001
292	SLU 57	-0.11	-12.67	76.03	0.6286	-0.0126	-0.0009
292	SLU 58	-0.11	-13.07	77.96	0.6547	-0.0126	-0.001
292	SLU 59	-0.11	-12.54	75.28	0.6216	-0.0124	-0.0009
292	SLU 60	-0.12	-13.4	80.81	0.6719	-0.0135	-0.001
292	SLU 61	-0.11	-12.88	78.13	0.6388	-0.0134	-0.0009
292	SLU 62	-0.12	-13.47	80.85	0.6751	-0.0134	-0.001
292	SLU 63	-0.11	-12.95	78.17	0.642	-0.0133	-0.0009
292	SLU 64	-0.11	-12.9	77.32	0.6473	-0.0125	-0.0009
292	SLU 65	-0.11	-12.02	72.85	0.5921	-0.0123	-0.0008
292	SLU 66	-0.11	-13.1	78.11	0.6575	-0.0125	-0.001
292	SLU 67	-0.11	-12.58	75.43	0.6244	-0.0124	-0.0009
292	SLU 68	-0.11	-12.09	72.9	0.5954	-0.0122	-0.0008
292	SLU 69	-0.11	-13.17	78.16	0.6607	-0.0124	-0.001
292	SLU 70	-0.11	-12.65	75.48	0.6276	-0.0122	-0.0009
292	SLU 71	-0.11	-13.04	77.41	0.6538	-0.0122	-0.001
292	SLU 72	-0.11	-12.51	74.73	0.6207	-0.0121	-0.0009
292	SLU 73	-0.12	-13.13	79.69	0.6473	-0.0139	-0.0009
292	SLU 74	-0.12	-14.21	84.96	0.7127	-0.0141	-0.0011
292	SLU 75	-0.12	-13.69	82.28	0.6796	-0.0139	-0.001
292	SLU 76	-0.12	-13.2	79.74	0.6505	-0.0137	-0.0009
292	SLU 77	-0.12	-14.28	85	0.7159	-0.0139	-0.0011
292	SLU 78	-0.12	-13.76	82.32	0.6828	-0.0138	-0.001
292	SLU 79	-0.12	-14.15	84.25	0.7089	-0.0138	-0.0011
292	SLU 80	-0.12	-13.62	81.57	0.6758	-0.0137	-0.001
292	SLU 81	-0.13	-14.48	87.09	0.7261	-0.0148	-0.0011
292	SLU 82	-0.12	-13.96	84.41	0.693	-0.0146	-0.001
292	SLU 83	-0.13	-14.55	87.14	0.7293	-0.0146	-0.0011
292	SLU 84	-0.12	-14.03	84.46	0.6962	-0.0145	-0.001
292	SLE RA 1	-0.08	-9.68	58.1	0.486	-0.0094	-0.0007
292	SLE RA 2	-0.08	-9.1	55.12	0.4492	-0.0092	-0.0006
292	SLE RA 3	-0.08	-9.82	58.63	0.4928	-0.0094	-0.0007
292	SLE RA 4	-0.08	-9.47	56.84	0.4707	-0.0093	-0.0007
292	SLE RA 5	-0.08	-9.15	55.15	0.4514	-0.0091	-0.0006
292	SLE RA 6	-0.08	-9.86	58.65	0.495	-0.0093	-0.0007
292	SLE RA 7	-0.08	-9.52	56.87	0.4729	-0.0092	-0.0007
292	SLE RA 8	-0.08	-9.78	58.16	0.4903	-0.0092	-0.0007
292	SLE RA 9	-0.08	-9.43	56.37	0.4682	-0.0091	-0.0007
292	SLE RA 10	-0.09	-9.84	59.68	0.486	-0.0103	-0.0007
292	SLE RA 11	-0.09	-10.56	63.19	0.5296	-0.0104	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
292	SLE RA 12	-0.09	-10.21	61.4	0.5075	-0.0103	-0.0007
292	SLE RA 13	-0.09	-9.89	59.71	0.4882	-0.0102	-0.0007
292	SLE RA 14	-0.09	-10.61	63.22	0.5317	-0.0103	-0.0008
292	SLE RA 15	-0.09	-10.26	61.43	0.5097	-0.0102	-0.0007
292	SLE RA 16	-0.09	-10.52	62.72	0.5271	-0.0102	-0.0008
292	SLE RA 17	-0.09	-10.17	60.93	0.505	-0.0101	-0.0007
292	SLE RA 18	-0.09	-10.74	64.61	0.5385	-0.0109	-0.0008
292	SLE RA 19	-0.09	-10.39	62.82	0.5165	-0.0108	-0.0007
292	SLE RA 20	-0.09	-10.79	64.64	0.5407	-0.0108	-0.0008
292	SLE RA 21	-0.09	-10.44	62.85	0.5186	-0.0107	-0.0007
292	SLE FR 1	-0.08	-9.68	58.1	0.486	-0.0094	-0.0007
292	SLE FR 2	-0.08	-9.57	57.5	0.4786	-0.0093	-0.0007
292	SLE FR 3	-0.08	-9.7	58.11	0.4869	-0.0093	-0.0007
292	SLE FR 4	-0.09	-9.88	59.45	0.4944	-0.0098	-0.0007
292	SLE FR 5	-0.09	-10.02	60.06	0.5026	-0.0098	-0.0007
292	SLE FR 6	-0.09	-10.21	61.35	0.5123	-0.0101	-0.0007
292	SLE QP 1	-0.08	-9.68	58.1	0.486	-0.0094	-0.0007
292	SLE QP 2	-0.09	-10	60.05	0.5018	-0.0098	-0.0007
292	SLD 1	0	-6.52	36.55	0.3117	0.0116	-0.003
292	SLD 2	0	-6.52	36.55	0.3117	0.0116	-0.003
292	SLD 3	-0.07	-9.18	47.92	0.4781	0.0016	-0.004
292	SLD 4	-0.07	-9.18	47.92	0.4781	0.0016	-0.004
292	SLD 5	0.05	-4.92	35.77	0.1923	0.0119	0.0002
292	SLD 6	0.05	-4.92	35.77	0.1923	0.0119	0.0002
292	SLD 7	-0.19	-13.79	73.64	0.7471	-0.0217	-0.0033
292	SLD 8	-0.19	-13.79	73.64	0.7471	-0.0217	-0.0033
292	SLD 9	0.02	-6.21	46.46	0.2564	0.0021	0.0019
292	SLD 10	0.02	-6.21	46.46	0.2564	0.0021	0.0019
292	SLD 11	-0.22	-15.08	84.33	0.8112	-0.0315	-0.0017
292	SLD 12	-0.22	-15.08	84.33	0.8112	-0.0315	-0.0017
292	SLD 13	-0.1	-10.82	72.18	0.5254	-0.0212	0.0026
292	SLD 14	-0.1	-10.82	72.18	0.5254	-0.0212	0.0026
292	SLD 15	-0.17	-13.48	83.55	0.6918	-0.0313	0.0015
292	SLD 16	-0.17	-13.48	83.55	0.6918	-0.0313	0.0015
292	SLV 1	0.11	-1.84	4.97	0.0563	0.0417	-0.0061
292	SLV 2	0.11	-1.84	4.97	0.0563	0.0417	-0.0061
292	SLV 3	-0.06	-8.08	31.7	0.4464	0.0165	-0.0088
292	SLV 4	-0.06	-8.08	31.7	0.4464	0.0165	-0.0088
292	SLV 5	0.24	1.91	2.98	-0.2235	0.0438	0.0018
292	SLV 6	0.24	1.91	2.98	-0.2235	0.0438	0.0018
292	SLV 7	-0.34	-18.88	92.09	1.0768	-0.0401	-0.0073
292	SLV 8	-0.34	-18.88	92.09	1.0768	-0.0401	-0.0073
292	SLV 9	0.17	-1.12	28.01	-0.0733	0.0205	0.0058
292	SLV 10	0.17	-1.12	28.01	-0.0733	0.0205	0.0058
292	SLV 11	-0.41	-21.91	117.12	1.227	-0.0634	-0.0032
292	SLV 12	-0.41	-21.91	117.12	1.227	-0.0634	-0.0032
292	SLV 13	-0.11	-11.92	88.4	0.5571	-0.0362	0.0074
292	SLV 14	-0.11	-11.92	88.4	0.5571	-0.0362	0.0074
292	SLV 15	-0.29	-18.16	115.13	0.9472	-0.0613	0.0047
292	SLV 16	-0.29	-18.16	115.13	0.9472	-0.0613	0.0047
293	SLU 1	0	-2.62	38.74	-0.1664	0.0005	0
293	SLU 2	0	-2.62	38.67	-0.1658	0.0005	0
293	SLU 3	0	-2.94	39.93	-0.1659	0.0006	0
293	SLU 4	0	-2.94	39.89	-0.1655	0.0006	0
293	SLU 5	0	-2.95	39.38	-0.1613	0.0006	0
293	SLU 6	0	-3.28	40.64	-0.1614	0.0007	0
293	SLU 7	0	-3.27	40.6	-0.161	0.0007	0
293	SLU 8	0	-3.29	40.16	-0.1574	0.0007	0
293	SLU 9	0	-3.28	40.12	-0.157	0.0007	0
293	SLU 10	0	-3.02	44.72	-0.1945	0.0007	0
293	SLU 11	0	-3.35	45.97	-0.1946	0.0008	0
293	SLU 12	0	-3.34	45.93	-0.1942	0.0008	0
293	SLU 13	0	-3.35	45.43	-0.19	0.0008	0
293	SLU 14	0	-3.68	46.68	-0.1901	0.0009	0
293	SLU 15	0	-3.68	46.64	-0.1897	0.0009	0
293	SLU 16	0	-3.69	46.2	-0.1861	0.0009	0
293	SLU 17	0	-3.69	46.16	-0.1857	0.0009	0
293	SLU 18	0	-3.2	47.37	-0.2074	0.0007	0
293	SLU 19	0	-3.2	47.33	-0.207	0.0007	0
293	SLU 20	0	-3.53	48.08	-0.2029	0.0008	0
293	SLU 21	0	-3.53	48.04	-0.2025	0.0008	0
293	SLU 22	0	-3.06	44.22	-0.1926	0.0007	0
293	SLU 23	0	-3.06	44.16	-0.1921	0.0007	0
293	SLU 24	0	-3.38	45.41	-0.1921	0.0008	0
293	SLU 25	0	-3.38	45.38	-0.1918	0.0008	0
293	SLU 26	0	-3.39	44.87	-0.1876	0.0008	0
293	SLU 27	0	-3.72	46.13	-0.1877	0.0009	0
293	SLU 28	0	-3.71	46.09	-0.1873	0.0009	0
293	SLU 29	0	-3.73	45.65	-0.1836	0.0009	0
293	SLU 30	0	-3.73	45.61	-0.1833	0.0009	0
293	SLU 31	0	-3.46	50.2	-0.2208	0.0008	0
293	SLU 32	0	-3.79	51.46	-0.2208	0.0009	0
293	SLU 33	0	-3.79	51.42	-0.2205	0.0009	0
293	SLU 34	0	-3.8	50.92	-0.2163	0.0009	0
293	SLU 35	0	-4.12	52.17	-0.2164	0.001	0
293	SLU 36	0	-4.12	52.13	-0.216	0.001	0
293	SLU 37	0	-4.13	51.69	-0.2123	0.001	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
293	SLU 38	0	-4.13	51.65	-0.212	0.001	0
293	SLU 39	0	-3.64	52.86	-0.2336	0.0009	0
293	SLU 40	0	-3.64	52.82	-0.2333	0.0009	0
293	SLU 41	0	-3.97	53.57	-0.2291	0.001	0
293	SLU 42	0	-3.97	53.53	-0.2288	0.001	0
293	SLU 43	0	-3.26	48.47	-0.2073	0.0007	0
293	SLU 44	0	-3.25	48.41	-0.2067	0.0007	0
293	SLU 45	0	-3.58	49.66	-0.2068	0.0007	0
293	SLU 46	0	-3.58	49.63	-0.2064	0.0007	0
293	SLU 47	0	-3.59	49.12	-0.2022	0.0008	0
293	SLU 48	0	-3.91	50.38	-0.2023	0.0008	0
293	SLU 49	0	-3.91	50.34	-0.2019	0.0008	0
293	SLU 50	0	-3.92	49.9	-0.1983	0.0009	0
293	SLU 51	0	-3.92	49.86	-0.1979	0.0008	0
293	SLU 52	0	-3.66	54.45	-0.2354	0.0008	0
293	SLU 53	0	-3.98	55.71	-0.2355	0.0009	0
293	SLU 54	0	-3.98	55.67	-0.2351	0.0009	0
293	SLU 55	0	-3.99	55.17	-0.2309	0.0009	0
293	SLU 56	0	-4.32	56.42	-0.231	0.001	0
293	SLU 57	0	-4.31	56.38	-0.2306	0.001	0
293	SLU 58	0	-4.33	55.94	-0.227	0.001	0
293	SLU 59	0	-4.32	55.9	-0.2266	0.001	0
293	SLU 60	0	-3.84	57.11	-0.2483	0.0009	0
293	SLU 61	0	-3.83	57.07	-0.2479	0.0009	0
293	SLU 62	0	-4.17	57.82	-0.2438	0.001	0
293	SLU 63	0	-4.17	57.78	-0.2434	0.001	0
293	SLU 64	0	-3.7	53.96	-0.2335	0.0008	0
293	SLU 65	0	-3.7	53.9	-0.233	0.0008	0
293	SLU 66	0	-4.02	55.15	-0.233	0.0009	0
293	SLU 67	0	-4.02	55.11	-0.2327	0.0009	0
293	SLU 68	0	-4.03	54.61	-0.2285	0.0009	0
293	SLU 69	0	-4.35	55.86	-0.2286	0.001	0
293	SLU 70	0	-4.35	55.83	-0.2282	0.001	0
293	SLU 71	0	-4.36	55.38	-0.2245	0.001	0
293	SLU 72	0	-4.36	55.35	-0.2242	0.001	0
293	SLU 73	0	-4.1	59.94	-0.2617	0.0009	0
293	SLU 74	0	-4.42	61.2	-0.2617	0.001	0
293	SLU 75	0	-4.42	61.16	-0.2614	0.001	0
293	SLU 76	0	-4.43	60.65	-0.2572	0.001	0
293	SLU 77	0	-4.76	61.91	-0.2573	0.0011	0
293	SLU 78	0	-4.75	61.87	-0.2569	0.0011	0
293	SLU 79	0	-4.77	61.43	-0.2532	0.0011	0
293	SLU 80	0	-4.77	61.39	-0.2529	0.0011	0
293	SLU 81	0	-4.28	62.6	-0.2745	0.001	0
293	SLU 82	0	-4.27	62.56	-0.2742	0.001	0
293	SLU 83	0	-4.61	63.31	-0.27	0.0011	0
293	SLU 84	0	-4.61	63.27	-0.2697	0.0011	0
293	SLE RA 1	0	-2.75	40.3	-0.1739	0.0006	0
293	SLE RA 2	0	-2.75	40.26	-0.1735	0.0006	0
293	SLE RA 3	0	-2.96	41.1	-0.1735	0.0006	0
293	SLE RA 4	0	-2.96	41.07	-0.1733	0.0006	0
293	SLE RA 5	0	-2.97	40.73	-0.1705	0.0007	0
293	SLE RA 6	0	-3.18	41.57	-0.1705	0.0007	0
293	SLE RA 7	0	-3.18	41.55	-0.1703	0.0007	0
293	SLE RA 8	0	-3.19	41.25	-0.1679	0.0007	0
293	SLE RA 9	0	-3.19	41.23	-0.1676	0.0007	0
293	SLE RA 10	0	-3.02	44.29	-0.1926	0.0007	0
293	SLE RA 11	0	-3.23	45.13	-0.1927	0.0007	0
293	SLE RA 12	0	-3.23	45.1	-0.1924	0.0007	0
293	SLE RA 13	0	-3.24	44.76	-0.1896	0.0007	0
293	SLE RA 14	0	-3.45	45.6	-0.1897	0.0008	0
293	SLE RA 15	0	-3.45	45.58	-0.1895	0.0008	0
293	SLE RA 16	0	-3.46	45.28	-0.187	0.0008	0
293	SLE RA 17	0	-3.46	45.26	-0.1868	0.0008	0
293	SLE RA 18	0	-3.13	46.06	-0.2012	0.0007	0
293	SLE RA 19	0	-3.13	46.03	-0.201	0.0007	0
293	SLE RA 20	0	-3.36	46.53	-0.1982	0.0008	0
293	SLE RA 21	0	-3.35	46.51	-0.198	0.0008	0
293	SLE FR 1	0	-2.75	40.3	-0.1739	0.0006	0
293	SLE FR 2	0	-2.75	40.29	-0.1738	0.0006	0
293	SLE FR 3	0	-2.84	40.49	-0.1727	0.0006	0
293	SLE FR 4	0	-2.86	42.02	-0.182	0.0006	0
293	SLE FR 5	0	-2.95	42.22	-0.1809	0.0007	0
293	SLE FR 6	0	-2.94	43.18	-0.1875	0.0007	0
293	SLE QP 1	0	-2.75	40.3	-0.1739	0.0006	0
293	SLE QP 2	0	-2.86	42.03	-0.1821	0.0006	0
293	SLD 1	-0.02	-1.79	38.79	-0.2239	-0.0317	-0.0001
293	SLD 2	-0.02	-1.79	38.79	-0.2239	-0.0317	-0.0001
293	SLD 3	0	-5.82	41.15	-0.0597	-0.0179	-0.0001
293	SLD 4	0	-5.82	41.15	-0.0597	-0.0179	-0.0001
293	SLD 5	-0.03	3.58	37.49	-0.4436	-0.0301	0
293	SLD 6	-0.03	3.58	37.49	-0.4436	-0.0301	0
293	SLD 7	0.03	-9.87	45.33	0.1037	0.0161	-0.0001
293	SLD 8	0.03	-9.87	45.33	0.1037	0.0161	-0.0001
293	SLD 9	-0.03	4.14	38.73	-0.4678	-0.0148	0.0001
293	SLD 10	-0.03	4.14	38.73	-0.4678	-0.0148	0.0001
293	SLD 11	0.04	-9.31	46.57	0.0795	0.0313	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
293	SLD 12	0.04	-9.31	46.57	0.0795	0.0313	0
293	SLD 13	0	0.09	42.91	-0.3045	0.0191	0.0001
293	SLD 14	0	0.09	42.91	-0.3045	0.0191	0.0001
293	SLD 15	0.02	-3.94	45.27	-0.1402	0.033	0.0001
293	SLD 16	0.02	-3.94	45.27	-0.1402	0.033	0.0001
293	SLV 1	-0.04	-0.35	34.42	-0.2788	-0.0808	-0.0002
293	SLV 2	-0.04	-0.35	34.42	-0.2788	-0.0808	-0.0002
293	SLV 3	0.01	-9.84	40	0.1061	-0.0465	-0.0003
293	SLV 4	0.01	-9.84	40	0.1061	-0.0465	-0.0003
293	SLV 5	-0.08	12.29	31.29	-0.7948	-0.0758	0.0001
293	SLV 6	-0.08	12.29	31.29	-0.7948	-0.0758	0.0001
293	SLV 7	0.08	-19.35	49.88	0.4882	0.0384	-0.0002
293	SLV 8	0.08	-19.35	49.88	0.4882	0.0384	-0.0002
293	SLV 9	-0.07	13.62	34.18	-0.8523	-0.0372	0.0002
293	SLV 10	-0.07	13.62	34.18	-0.8523	-0.0372	0.0002
293	SLV 11	0.09	-18.02	52.77	0.4307	0.077	-0.0001
293	SLV 12	0.09	-18.02	52.77	0.4307	0.077	-0.0001
293	SLV 13	0	4.11	44.06	-0.4702	0.0478	0.0003
293	SLV 14	0	4.11	44.06	-0.4702	0.0478	0.0003
293	SLV 15	0.05	-5.38	49.64	-0.0853	0.0821	0.0002
293	SLV 16	0.05	-5.38	49.64	-0.0853	0.0821	0.0002
294	SLU 1	2.19	-6.78	27.93	0.2222	0.0079	-0.0015
294	SLU 2	2.14	-6.19	26.1	0.2	0.0107	-0.0013
294	SLU 3	2.24	-6.93	28.52	0.2272	0.0083	-0.0016
294	SLU 4	2.21	-6.57	27.42	0.2139	0.01	-0.0014
294	SLU 5	2.18	-6.25	26.45	0.2021	0.0117	-0.0013
294	SLU 6	2.29	-7	28.87	0.2293	0.0093	-0.0016
294	SLU 7	2.25	-6.64	27.77	0.216	0.011	-0.0014
294	SLU 8	2.28	-6.91	28.63	0.2263	0.01	-0.0015
294	SLU 9	2.25	-6.56	27.53	0.213	0.0116	-0.0014
294	SLU 10	2.5	-6.94	29.42	0.225	0.0156	-0.0014
294	SLU 11	2.6	-7.68	31.84	0.2522	0.0132	-0.0017
294	SLU 12	2.57	-7.32	30.74	0.2389	0.0148	-0.0016
294	SLU 13	2.55	-7	29.77	0.2271	0.0166	-0.0014
294	SLU 14	2.65	-7.75	32.19	0.2543	0.0142	-0.0017
294	SLU 15	2.62	-7.39	31.09	0.241	0.0158	-0.0016
294	SLU 16	2.65	-7.66	31.95	0.2513	0.0148	-0.0017
294	SLU 17	2.61	-7.31	30.85	0.238	0.0165	-0.0015
294	SLU 18	2.71	-7.85	32.68	0.2579	0.0149	-0.0017
294	SLU 19	2.68	-7.49	31.58	0.2446	0.0165	-0.0016
294	SLU 20	2.75	-7.92	33.03	0.26	0.0159	-0.0017
294	SLU 21	2.72	-7.56	31.93	0.2467	0.0176	-0.0016
294	SLU 22	2.52	-7.52	31.14	0.2469	0.0119	-0.0017
294	SLU 23	2.47	-6.93	29.31	0.2248	0.0147	-0.0015
294	SLU 24	2.57	-7.67	31.73	0.2519	0.0123	-0.0017
294	SLU 25	2.54	-7.31	30.63	0.2387	0.014	-0.0016
294	SLU 26	2.52	-6.99	29.66	0.2269	0.0157	-0.0015
294	SLU 27	2.62	-7.74	32.08	0.254	0.0133	-0.0017
294	SLU 28	2.59	-7.38	30.98	0.2407	0.015	-0.0016
294	SLU 29	2.61	-7.65	31.84	0.2511	0.0139	-0.0017
294	SLU 30	2.58	-7.3	30.74	0.2378	0.0156	-0.0015
294	SLU 31	2.83	-7.68	32.63	0.2498	0.0195	-0.0016
294	SLU 32	2.93	-8.42	35.05	0.2769	0.0172	-0.0018
294	SLU 33	2.9	-8.06	33.95	0.2637	0.0188	-0.0017
294	SLU 34	2.88	-7.74	32.98	0.2519	0.0206	-0.0016
294	SLU 35	2.98	-8.49	35.4	0.279	0.0182	-0.0018
294	SLU 36	2.95	-8.13	34.3	0.2657	0.0198	-0.0017
294	SLU 37	2.98	-8.4	35.16	0.2761	0.0188	-0.0018
294	SLU 38	2.95	-8.05	34.06	0.2628	0.0205	-0.0017
294	SLU 39	3.04	-8.59	35.89	0.2827	0.0189	-0.0018
294	SLU 40	3.01	-8.23	34.79	0.2694	0.0205	-0.0017
294	SLU 41	3.09	-8.66	36.23	0.2847	0.0199	-0.0018
294	SLU 42	3.06	-8.3	35.13	0.2714	0.0215	-0.0017
294	SLU 43	2.73	-8.56	35.21	0.2804	0.009	-0.002
294	SLU 44	2.68	-7.97	33.38	0.2582	0.0117	-0.0017
294	SLU 45	2.78	-8.71	35.8	0.2854	0.0093	-0.002
294	SLU 46	2.75	-8.35	34.7	0.2721	0.011	-0.0019
294	SLU 47	2.73	-8.03	33.73	0.2603	0.0127	-0.0017
294	SLU 48	2.83	-8.78	36.15	0.2874	0.0103	-0.002
294	SLU 49	2.8	-8.42	35.05	0.2741	0.012	-0.0019
294	SLU 50	2.82	-8.69	35.91	0.2845	0.011	-0.002
294	SLU 51	2.79	-8.34	34.81	0.2712	0.0126	-0.0018
294	SLU 52	3.04	-8.72	36.7	0.2832	0.0166	-0.0019
294	SLU 53	3.14	-9.46	39.12	0.3104	0.0142	-0.0021
294	SLU 54	3.11	-9.1	38.02	0.2971	0.0159	-0.002
294	SLU 55	3.09	-8.78	37.05	0.2853	0.0176	-0.0019
294	SLU 56	3.19	-9.53	39.47	0.3124	0.0152	-0.0021
294	SLU 57	3.16	-9.17	38.37	0.2991	0.0169	-0.002
294	SLU 58	3.19	-9.44	39.23	0.3095	0.0158	-0.0021
294	SLU 59	3.16	-9.09	38.13	0.2962	0.0175	-0.0019
294	SLU 60	3.25	-9.63	39.96	0.3161	0.0159	-0.0021
294	SLU 61	3.22	-9.27	38.86	0.3028	0.0176	-0.002
294	SLU 62	3.3	-9.7	40.31	0.3181	0.0169	-0.0021
294	SLU 63	3.26	-9.34	39.21	0.3049	0.0186	-0.002
294	SLU 64	3.06	-9.3	38.42	0.3051	0.0129	-0.0021
294	SLU 65	3.01	-8.71	36.59	0.283	0.0157	-0.0019
294	SLU 66	3.11	-9.45	39.01	0.3101	0.0133	-0.0021



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
294	SLU 67	3.08	-9.09	37.91	0.2968	0.015	-0.002
294	SLU 68	3.06	-8.77	36.94	0.285	0.0167	-0.0019
294	SLU 69	3.16	-9.52	39.36	0.3122	0.0143	-0.0021
294	SLU 70	3.13	-9.16	38.26	0.2989	0.016	-0.002
294	SLU 71	3.16	-9.43	39.12	0.3092	0.015	-0.0021
294	SLU 72	3.13	-9.08	38.02	0.296	0.0166	-0.002
294	SLU 73	3.37	-9.46	39.91	0.308	0.0206	-0.002
294	SLU 74	3.48	-10.2	42.33	0.3351	0.0182	-0.0022
294	SLU 75	3.44	-9.84	41.23	0.3218	0.0198	-0.0021
294	SLU 76	3.42	-9.52	40.26	0.31	0.0216	-0.002
294	SLU 77	3.52	-10.27	42.68	0.3372	0.0192	-0.0022
294	SLU 78	3.49	-9.91	41.58	0.3239	0.0208	-0.0021
294	SLU 79	3.52	-10.18	42.44	0.3343	0.0198	-0.0022
294	SLU 80	3.49	-9.83	41.34	0.321	0.0215	-0.0021
294	SLU 81	3.58	-10.37	43.17	0.3408	0.0199	-0.0023
294	SLU 82	3.55	-10.01	42.07	0.3275	0.0215	-0.0021
294	SLU 83	3.63	-10.44	43.51	0.3429	0.0209	-0.0023
294	SLU 84	3.6	-10.08	42.41	0.3296	0.0225	-0.0021
294	SLE RA 1	2.28	-6.99	28.85	0.2293	0.0091	-0.0016
294	SLE RA 2	2.25	-6.6	27.63	0.2145	0.0109	-0.0014
294	SLE RA 3	2.32	-7.09	29.24	0.2326	0.0093	-0.0016
294	SLE RA 4	2.3	-6.85	28.51	0.2237	0.0104	-0.0015
294	SLE RA 5	2.28	-6.64	27.86	0.2159	0.0116	-0.0014
294	SLE RA 6	2.35	-7.14	29.47	0.234	0.01	-0.0016
294	SLE RA 7	2.33	-6.9	28.74	0.2251	0.0111	-0.0015
294	SLE RA 8	2.35	-7.08	29.31	0.232	0.0104	-0.0016
294	SLE RA 9	2.33	-6.84	28.58	0.2232	0.0115	-0.0015
294	SLE RA 10	2.49	-7.09	29.84	0.2312	0.0142	-0.0015
294	SLE RA 11	2.56	-7.59	31.46	0.2493	0.0126	-0.0017
294	SLE RA 12	2.54	-7.35	30.72	0.2404	0.0137	-0.0016
294	SLE RA 13	2.52	-7.14	30.07	0.2325	0.0148	-0.0015
294	SLE RA 14	2.59	-7.64	31.69	0.2506	0.0132	-0.0017
294	SLE RA 15	2.57	-7.4	30.95	0.2418	0.0143	-0.0016
294	SLE RA 16	2.59	-7.58	31.53	0.2487	0.0137	-0.0017
294	SLE RA 17	2.57	-7.34	30.8	0.2398	0.0148	-0.0016
294	SLE RA 18	2.63	-7.7	32.01	0.2531	0.0137	-0.0017
294	SLE RA 19	2.61	-7.47	31.28	0.2442	0.0148	-0.0016
294	SLE RA 20	2.66	-7.75	32.25	0.2545	0.0144	-0.0017
294	SLE RA 21	2.64	-7.51	31.51	0.2456	0.0155	-0.0016
294	SLE FR 1	2.28	-6.99	28.85	0.2293	0.0091	-0.0016
294	SLE FR 2	2.28	-6.91	28.6	0.2263	0.0094	-0.0015
294	SLE FR 3	2.29	-7.01	28.94	0.2298	0.0093	-0.0016
294	SLE FR 4	2.38	-7.13	29.55	0.2335	0.0108	-0.0016
294	SLE FR 5	2.4	-7.22	29.89	0.237	0.0107	-0.0016
294	SLE FR 6	2.46	-7.35	30.43	0.2412	0.0114	-0.0016
294	SLE QP 1	2.28	-6.99	28.85	0.2293	0.0091	-0.0016
294	SLE QP 2	2.39	-7.21	29.8	0.2364	0.0105	-0.0016
294	SLD 1	4.67	-7.97	38.7	0.2512	0.1114	-0.0003
294	SLD 2	4.67	-7.97	38.7	0.2512	0.1114	-0.0003
294	SLD 3	5.07	-10.07	44.87	0.3346	0.0906	-0.0011
294	SLD 4	5.07	-10.07	44.87	0.3346	0.0906	-0.0011
294	SLD 5	2.47	-4.26	23.1	0.1144	0.0723	0.0001
294	SLD 6	2.47	-4.26	23.1	0.1144	0.0723	0.0001
294	SLD 7	3.79	-11.24	43.69	0.3923	0.003	-0.0028
294	SLD 8	3.79	-11.24	43.69	0.3923	0.003	-0.0028
294	SLD 9	0.98	-3.17	15.91	0.0805	0.018	-0.0005
294	SLD 10	0.98	-3.17	15.91	0.0805	0.018	-0.0005
294	SLD 11	2.3	-10.15	36.5	0.3584	-0.0514	-0.0033
294	SLD 12	2.3	-10.15	36.5	0.3584	-0.0514	-0.0033
294	SLD 13	-0.3	-4.34	14.72	0.1382	-0.0697	-0.0021
294	SLD 14	-0.3	-4.34	14.72	0.1382	-0.0697	-0.0021
294	SLD 15	0.1	-6.44	20.9	0.2216	-0.0905	-0.0029
294	SLD 16	0.1	-6.44	20.9	0.2216	-0.0905	-0.0029
294	SLV 1	7.72	-9.03	50.58	0.2721	0.2475	0.0015
294	SLV 2	7.72	-9.03	50.58	0.2721	0.2475	0.0015
294	SLV 3	8.67	-13.89	64.99	0.4662	0.1974	-0.0005
294	SLV 4	8.67	-13.89	64.99	0.4662	0.1974	-0.0005
294	SLV 5	2.54	-0.37	14.18	-0.0473	0.1575	0.0023
294	SLV 6	2.54	-0.37	14.18	-0.0473	0.1575	0.0023
294	SLV 7	5.71	-16.59	62.21	0.5997	-0.0094	-0.0043
294	SLV 8	5.71	-16.59	62.21	0.5997	-0.0094	-0.0043
294	SLV 9	-0.94	2.18	-2.61	-0.1269	0.0303	0.0011
294	SLV 10	-0.94	2.18	-2.61	-0.1269	0.0303	0.0011
294	SLV 11	2.23	-14.04	45.42	0.5201	-0.1366	-0.0055
294	SLV 12	2.23	-14.04	45.42	0.5201	-0.1366	-0.0055
294	SLV 13	-3.89	-0.52	-5.39	0.0066	-0.1765	-0.0027
294	SLV 14	-3.89	-0.52	-5.39	0.0066	-0.1765	-0.0027
294	SLV 15	-2.94	-5.38	9.02	0.2007	-0.2265	-0.0047
294	SLV 16	-2.94	-5.38	9.02	0.2007	-0.2265	-0.0047
295	SLU 1	1	-0.08	18.47	0.0134	0.1285	0.0002
295	SLU 2	1.14	-0.07	17.45	0.0108	0.129	0.0002
295	SLU 3	1.03	-0.08	18.81	0.0136	0.1325	0.0002
295	SLU 4	1.12	-0.08	18.2	0.012	0.1328	0.0002
295	SLU 5	1.19	-0.07	17.65	0.0109	0.133	0.0002
295	SLU 6	1.09	-0.08	19.02	0.0136	0.1365	0.0002
295	SLU 7	1.18	-0.08	18.4	0.012	0.1368	0.0002
295	SLU 8	1.11	-0.08	18.88	0.0135	0.1364	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
295	SLU 9	1.2	-0.08	18.26	0.0119	0.1367	0.0002
295	SLU 10	1.47	-0.08	19.67	0.0126	0.1551	0.0002
295	SLU 11	1.37	-0.09	21.03	0.0154	0.1586	0.0002
295	SLU 12	1.45	-0.09	20.42	0.0138	0.1589	0.0002
295	SLU 13	1.53	-0.08	19.87	0.0127	0.1591	0.0002
295	SLU 14	1.43	-0.09	21.23	0.0154	0.1626	0.0003
295	SLU 15	1.51	-0.09	20.62	0.0138	0.1629	0.0002
295	SLU 16	1.45	-0.09	21.1	0.0153	0.1625	0.0002
295	SLU 17	1.53	-0.09	20.48	0.0137	0.1628	0.0002
295	SLU 18	1.48	-0.09	21.64	0.016	0.1657	0.0003
295	SLU 19	1.56	-0.09	21.03	0.0144	0.1661	0.0002
295	SLU 20	1.53	-0.09	21.84	0.016	0.1697	0.0003
295	SLU 21	1.62	-0.09	21.23	0.0145	0.17	0.0003
295	SLU 22	1.28	-0.09	20.6	0.015	0.1521	0.0002
295	SLU 23	1.43	-0.08	19.58	0.0124	0.1527	0.0002
295	SLU 24	1.32	-0.09	20.94	0.0151	0.1562	0.0002
295	SLU 25	1.41	-0.09	20.33	0.0136	0.1565	0.0002
295	SLU 26	1.48	-0.08	19.78	0.0124	0.1567	0.0002
295	SLU 27	1.38	-0.09	21.14	0.0152	0.1602	0.0003
295	SLU 28	1.47	-0.09	20.53	0.0136	0.1605	0.0002
295	SLU 29	1.4	-0.09	21	0.015	0.1601	0.0002
295	SLU 30	1.48	-0.09	20.39	0.0135	0.1604	0.0002
295	SLU 31	1.76	-0.09	21.8	0.0142	0.1788	0.0003
295	SLU 32	1.66	-0.1	23.16	0.0169	0.1823	0.0003
295	SLU 33	1.74	-0.1	22.55	0.0154	0.1826	0.0003
295	SLU 34	1.82	-0.09	22	0.0142	0.1827	0.0003
295	SLU 35	1.72	-0.1	23.36	0.0169	0.1863	0.0003
295	SLU 36	1.8	-0.1	22.75	0.0154	0.1866	0.0003
295	SLU 37	1.74	-0.1	23.22	0.0168	0.1862	0.0003
295	SLU 38	1.82	-0.1	22.61	0.0153	0.1865	0.0003
295	SLU 39	1.77	-0.1	23.77	0.0176	0.1894	0.0003
295	SLU 40	1.85	-0.1	23.16	0.016	0.1897	0.0003
295	SLU 41	1.82	-0.1	23.97	0.0176	0.1934	0.0003
295	SLU 42	1.91	-0.1	23.36	0.016	0.1937	0.0003
295	SLU 43	1.19	-0.1	23.29	0.0169	0.1589	0.0003
295	SLU 44	1.34	-0.09	22.26	0.0143	0.1594	0.0003
295	SLU 45	1.23	-0.1	23.63	0.0171	0.1629	0.0003
295	SLU 46	1.32	-0.1	23.01	0.0155	0.1632	0.0003
295	SLU 47	1.39	-0.09	22.47	0.0144	0.1634	0.0003
295	SLU 48	1.29	-0.1	23.83	0.0171	0.1669	0.0003
295	SLU 49	1.37	-0.1	23.22	0.0155	0.1672	0.0003
295	SLU 50	1.31	-0.1	23.69	0.017	0.1668	0.0003
295	SLU 51	1.39	-0.1	23.08	0.0154	0.1671	0.0003
295	SLU 52	1.67	-0.1	24.48	0.0161	0.1855	0.0003
295	SLU 53	1.57	-0.11	25.84	0.0188	0.189	0.0003
295	SLU 54	1.65	-0.11	25.23	0.0173	0.1893	0.0003
295	SLU 55	1.73	-0.1	24.68	0.0161	0.1895	0.0003
295	SLU 56	1.63	-0.11	26.05	0.0189	0.193	0.0003
295	SLU 57	1.71	-0.11	25.43	0.0173	0.1933	0.0003
295	SLU 58	1.65	-0.11	25.91	0.0187	0.1929	0.0003
295	SLU 59	1.73	-0.11	25.29	0.0172	0.1932	0.0003
295	SLU 60	1.68	-0.11	26.45	0.0195	0.1961	0.0003
295	SLU 61	1.76	-0.11	25.84	0.0179	0.1965	0.0003
295	SLU 62	1.73	-0.11	26.66	0.0195	0.2001	0.0003
295	SLU 63	1.82	-0.11	26.04	0.0179	0.2004	0.0003
295	SLU 64	1.48	-0.11	25.41	0.0185	0.1826	0.0003
295	SLU 65	1.63	-0.1	24.39	0.0159	0.1831	0.0003
295	SLU 66	1.52	-0.11	25.75	0.0186	0.1866	0.0003
295	SLU 67	1.61	-0.11	25.14	0.0171	0.1869	0.0003
295	SLU 68	1.68	-0.1	24.59	0.0159	0.1871	0.0003
295	SLU 69	1.58	-0.11	25.96	0.0187	0.1906	0.0003
295	SLU 70	1.66	-0.11	25.34	0.0171	0.1909	0.0003
295	SLU 71	1.6	-0.11	25.82	0.0185	0.1905	0.0003
295	SLU 72	1.68	-0.11	25.2	0.017	0.1908	0.0003
295	SLU 73	1.96	-0.11	26.61	0.0177	0.2092	0.0003
295	SLU 74	1.86	-0.12	27.97	0.0204	0.2127	0.0003
295	SLU 75	1.94	-0.12	27.36	0.0189	0.213	0.0003
295	SLU 76	2.02	-0.11	26.81	0.0177	0.2132	0.0003
295	SLU 77	1.92	-0.12	28.17	0.0204	0.2167	0.0003
295	SLU 78	2	-0.12	27.56	0.0189	0.217	0.0003
295	SLU 79	1.94	-0.12	28.03	0.0203	0.2166	0.0003
295	SLU 80	2.02	-0.12	27.42	0.0188	0.2169	0.0003
295	SLU 81	1.97	-0.12	28.58	0.021	0.2198	0.0003
295	SLU 82	2.05	-0.12	27.97	0.0195	0.2202	0.0003
295	SLU 83	2.02	-0.12	28.78	0.0211	0.2238	0.0003
295	SLU 84	2.11	-0.12	28.17	0.0195	0.2241	0.0003
295	SLE RA 1	1.08	-0.08	19.08	0.0139	0.1352	0.0002
295	SLE RA 2	1.17	-0.08	18.4	0.0122	0.1356	0.0002
295	SLE RA 3	1.1	-0.08	19.31	0.014	0.1379	0.0002
295	SLE RA 4	1.16	-0.08	18.9	0.0129	0.1381	0.0002
295	SLE RA 5	1.21	-0.08	18.53	0.0122	0.1382	0.0002
295	SLE RA 6	1.14	-0.08	19.44	0.014	0.1406	0.0002
295	SLE RA 7	1.2	-0.08	19.03	0.013	0.1408	0.0002
295	SLE RA 8	1.15	-0.08	19.35	0.0139	0.1405	0.0002
295	SLE RA 9	1.21	-0.08	18.94	0.0129	0.1407	0.0002
295	SLE RA 10	1.4	-0.08	19.88	0.0133	0.153	0.0002
295	SLE RA 11	1.33	-0.09	20.79	0.0152	0.1553	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
295	SLE RA 12	1.38	-0.09	20.38	0.0141	0.1555	0.0002
295	SLE RA 13	1.44	-0.09	20.01	0.0134	0.1556	0.0002
295	SLE RA 14	1.37	-0.09	20.92	0.0152	0.158	0.0002
295	SLE RA 15	1.42	-0.09	20.51	0.0141	0.1582	0.0002
295	SLE RA 16	1.38	-0.09	20.83	0.0151	0.1579	0.0002
295	SLE RA 17	1.44	-0.09	20.42	0.0141	0.1581	0.0002
295	SLE RA 18	1.4	-0.09	21.19	0.0156	0.1601	0.0002
295	SLE RA 19	1.46	-0.09	20.78	0.0145	0.1603	0.0002
295	SLE RA 20	1.44	-0.09	21.33	0.0156	0.1627	0.0003
295	SLE RA 21	1.49	-0.09	20.92	0.0146	0.1629	0.0002
295	SLE FR 1	1.08	-0.08	19.08	0.0139	0.1352	0.0002
295	SLE FR 2	1.1	-0.08	18.94	0.0135	0.1353	0.0002
295	SLE FR 3	1.09	-0.08	19.13	0.0139	0.1363	0.0002
295	SLE FR 4	1.19	-0.08	19.58	0.014	0.1428	0.0002
295	SLE FR 5	1.19	-0.09	19.77	0.0144	0.1437	0.0002
295	SLE FR 6	1.24	-0.09	20.14	0.0147	0.1476	0.0002
295	SLE QP 1	1.08	-0.08	19.08	0.0139	0.1352	0.0002
295	SLE QP 2	1.17	-0.08	19.71	0.0144	0.1427	0.0002
295	SLD 1	4.97	-0.12	24.22	0.0158	0.3044	0.0003
295	SLD 2	4.97	-0.12	24.22	0.0158	0.3044	0.0003
295	SLD 3	4.12	-0.14	27.57	0.0516	0.3372	0.0004
295	SLD 4	4.12	-0.14	27.57	0.0516	0.3372	0.0004
295	SLD 5	3.6	-0.06	15.98	-0.0395	0.1414	0.0002
295	SLD 6	3.6	-0.06	15.98	-0.0395	0.1414	0.0002
295	SLD 7	0.77	-0.14	27.16	0.0798	0.2508	0.0003
295	SLD 8	0.77	-0.14	27.16	0.0798	0.2508	0.0003
295	SLD 9	1.58	-0.03	12.27	-0.0511	0.0346	0.0001
295	SLD 10	1.58	-0.03	12.27	-0.0511	0.0346	0.0001
295	SLD 11	-1.25	-0.11	23.45	0.0683	0.1439	0.0003
295	SLD 12	-1.25	-0.11	23.45	0.0683	0.1439	0.0003
295	SLD 13	-1.77	-0.03	11.85	-0.0228	-0.0519	0.0001
295	SLD 14	-1.77	-0.03	11.85	-0.0228	-0.0519	0.0001
295	SLD 15	-2.62	-0.05	15.21	0.013	-0.0191	0.0001
295	SLD 16	-2.62	-0.05	15.21	0.013	-0.0191	0.0001
295	SLV 1	10.04	-0.17	30.24	0.0184	0.52	0.0004
295	SLV 2	10.04	-0.17	30.24	0.0184	0.52	0.0004
295	SLV 3	8.06	-0.22	38.06	0.1064	0.5974	0.0005
295	SLV 4	8.06	-0.22	38.06	0.1064	0.5974	0.0005
295	SLV 5	6.85	-0.03	11.02	-0.1178	0.1385	0.0001
295	SLV 6	6.85	-0.03	11.02	-0.1178	0.1385	0.0001
295	SLV 7	0.23	-0.21	37.07	0.1754	0.3964	0.0005
295	SLV 8	0.23	-0.21	37.07	0.1754	0.3964	0.0005
295	SLV 9	2.12	0.04	2.35	-0.1466	-0.1111	0
295	SLV 10	2.12	0.04	2.35	-0.1466	-0.1111	0
295	SLV 11	-4.5	-0.14	28.41	0.1466	0.1468	0.0003
295	SLV 12	-4.5	-0.14	28.41	0.1466	0.1468	0.0003
295	SLV 13	-5.71	0.05	1.37	-0.0776	-0.312	-0.0001
295	SLV 14	-5.71	0.05	1.37	-0.0776	-0.312	-0.0001
295	SLV 15	-7.69	0	9.19	0.0104	-0.2346	0
295	SLV 16	-7.69	0	9.19	0.0104	-0.2346	0
296	SLU 1	0.2	-0.01	15.63	-0.0088	-0.0371	0
296	SLU 2	0.32	0	15.01	-0.0111	-0.031	0
296	SLU 3	0.22	-0.01	15.87	-0.0095	-0.037	0
296	SLU 4	0.3	-0.01	15.5	-0.0108	-0.0334	0
296	SLU 5	0.37	0	15.15	-0.0115	-0.0295	0
296	SLU 6	0.27	-0.01	16.02	-0.0099	-0.0355	0
296	SLU 7	0.35	-0.01	15.64	-0.0112	-0.0319	0
296	SLU 8	0.3	-0.01	15.92	-0.0097	-0.034	0
296	SLU 9	0.37	-0.01	15.55	-0.011	-0.0304	0
296	SLU 10	0.54	-0.01	16.94	-0.0117	-0.0283	0
296	SLU 11	0.45	-0.01	17.8	-0.0101	-0.0343	0
296	SLU 12	0.52	-0.01	17.43	-0.0114	-0.0307	0
296	SLU 13	0.59	-0.01	17.08	-0.0121	-0.0268	0
296	SLU 14	0.5	-0.01	17.95	-0.0105	-0.0328	0
296	SLU 15	0.57	-0.01	17.57	-0.0119	-0.0292	0
296	SLU 16	0.52	-0.01	17.85	-0.0103	-0.0313	0
296	SLU 17	0.59	-0.01	17.47	-0.0117	-0.0277	0
296	SLU 18	0.51	-0.01	18.38	-0.0097	-0.0332	0
296	SLU 19	0.59	-0.01	18.01	-0.0111	-0.0296	0
296	SLU 20	0.56	-0.01	18.53	-0.0102	-0.0317	0
296	SLU 21	0.64	-0.01	18.16	-0.0115	-0.0281	0
296	SLU 22	0.38	-0.01	17.45	-0.0099	-0.0356	0
296	SLU 23	0.51	-0.01	16.83	-0.0121	-0.0296	0
296	SLU 24	0.41	-0.01	17.69	-0.0105	-0.0356	0
296	SLU 25	0.48	-0.01	17.32	-0.0119	-0.032	0
296	SLU 26	0.56	-0.01	16.97	-0.0125	-0.028	0
296	SLU 27	0.46	-0.01	17.84	-0.0109	-0.0341	0
296	SLU 28	0.53	-0.01	17.46	-0.0123	-0.0304	0
296	SLU 29	0.48	-0.01	17.74	-0.0107	-0.0326	0
296	SLU 30	0.56	-0.01	17.37	-0.0121	-0.0289	0
296	SLU 31	0.73	-0.01	18.75	-0.0128	-0.0269	0
296	SLU 32	0.63	-0.01	19.62	-0.0112	-0.0329	0
296	SLU 33	0.7	-0.01	19.25	-0.0125	-0.0293	0
296	SLU 34	0.78	-0.01	18.9	-0.0132	-0.0253	0
296	SLU 35	0.68	-0.01	19.76	-0.0116	-0.0314	0
296	SLU 36	0.75	-0.01	19.39	-0.0129	-0.0277	0
296	SLU 37	0.7	-0.01	19.67	-0.0114	-0.0299	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
296	SLU 38	0.78	-0.01	19.29	-0.0127	-0.0263	0
296	SLU 39	0.7	-0.01	20.2	-0.0108	-0.0318	0
296	SLU 40	0.77	-0.01	19.83	-0.0121	-0.0281	0
296	SLU 41	0.75	-0.01	20.35	-0.0112	-0.0303	0
296	SLU 42	0.82	-0.01	19.98	-0.0126	-0.0266	0
296	SLU 43	0.19	-0.01	19.69	-0.0111	-0.0487	0
296	SLU 44	0.32	-0.01	19.07	-0.0133	-0.0426	0
296	SLU 45	0.22	-0.01	19.94	-0.0117	-0.0487	0
296	SLU 46	0.29	-0.01	19.56	-0.0131	-0.045	0
296	SLU 47	0.37	-0.01	19.22	-0.0138	-0.0411	0
296	SLU 48	0.27	-0.01	20.08	-0.0122	-0.0471	0
296	SLU 49	0.34	-0.01	19.71	-0.0135	-0.0435	0
296	SLU 50	0.29	-0.01	19.98	-0.012	-0.0456	0
296	SLU 51	0.37	-0.01	19.61	-0.0133	-0.042	0
296	SLU 52	0.54	-0.01	21	-0.014	-0.0399	0
296	SLU 53	0.44	-0.01	21.87	-0.0124	-0.046	0
296	SLU 54	0.52	-0.01	21.49	-0.0137	-0.0423	0
296	SLU 55	0.59	-0.01	21.15	-0.0144	-0.0384	0
296	SLU 56	0.49	-0.01	22.01	-0.0128	-0.0444	0
296	SLU 57	0.57	-0.01	21.64	-0.0142	-0.0408	0
296	SLU 58	0.52	-0.01	21.91	-0.0126	-0.043	0
296	SLU 59	0.59	-0.01	21.54	-0.014	-0.0393	0
296	SLU 60	0.51	-0.01	22.45	-0.012	-0.0448	0
296	SLU 61	0.58	-0.01	22.08	-0.0134	-0.0412	0
296	SLU 62	0.56	-0.01	22.59	-0.0125	-0.0433	0
296	SLU 63	0.63	-0.01	22.22	-0.0138	-0.0397	0
296	SLU 64	0.38	-0.01	21.51	-0.0122	-0.0472	0
296	SLU 65	0.5	-0.01	20.89	-0.0144	-0.0412	0
296	SLU 66	0.4	-0.01	21.76	-0.0128	-0.0472	0
296	SLU 67	0.48	-0.01	21.38	-0.0141	-0.0436	0
296	SLU 68	0.55	-0.01	21.04	-0.0148	-0.0397	0
296	SLU 69	0.45	-0.01	21.9	-0.0132	-0.0457	0
296	SLU 70	0.53	-0.01	21.53	-0.0146	-0.0421	0
296	SLU 71	0.48	-0.01	21.8	-0.013	-0.0442	0
296	SLU 72	0.55	-0.01	21.43	-0.0144	-0.0406	0
296	SLU 73	0.72	-0.01	22.82	-0.015	-0.0385	0
296	SLU 74	0.62	-0.01	23.68	-0.0134	-0.0445	0
296	SLU 75	0.7	-0.01	23.31	-0.0148	-0.0409	0
296	SLU 76	0.77	-0.01	22.97	-0.0155	-0.037	0
296	SLU 77	0.68	-0.01	23.83	-0.0139	-0.043	0
296	SLU 78	0.75	-0.01	23.46	-0.0152	-0.0394	0
296	SLU 79	0.7	-0.01	23.73	-0.0137	-0.0415	0
296	SLU 80	0.77	-0.01	23.36	-0.015	-0.0379	0
296	SLU 81	0.69	-0.01	24.27	-0.0131	-0.0434	0
296	SLU 82	0.77	-0.01	23.9	-0.0144	-0.0398	0
296	SLU 83	0.74	-0.01	24.41	-0.0135	-0.0419	0
296	SLU 84	0.82	-0.01	24.04	-0.0149	-0.0382	0
296	SLE RA 1	0.25	-0.01	16.15	-0.0091	-0.0366	0
296	SLE RA 2	0.33	-0.01	15.73	-0.0106	-0.0326	0
296	SLE RA 3	0.27	-0.01	16.31	-0.0095	-0.0366	0
296	SLE RA 4	0.32	-0.01	16.06	-0.0104	-0.0342	0
296	SLE RA 5	0.37	-0.01	15.83	-0.0109	-0.0316	0
296	SLE RA 6	0.3	-0.01	16.41	-0.0098	-0.0356	0
296	SLE RA 7	0.35	-0.01	16.16	-0.0107	-0.0332	0
296	SLE RA 8	0.32	-0.01	16.34	-0.0097	-0.0346	0
296	SLE RA 9	0.37	-0.01	16.09	-0.0106	-0.0322	0
296	SLE RA 10	0.48	-0.01	17.02	-0.011	-0.0308	0
296	SLE RA 11	0.41	-0.01	17.6	-0.01	-0.0348	0
296	SLE RA 12	0.46	-0.01	17.35	-0.0109	-0.0324	0
296	SLE RA 13	0.51	-0.01	17.12	-0.0113	-0.0298	0
296	SLE RA 14	0.45	-0.01	17.69	-0.0103	-0.0338	0
296	SLE RA 15	0.5	-0.01	17.44	-0.0112	-0.0314	0
296	SLE RA 16	0.46	-0.01	17.63	-0.0101	-0.0328	0
296	SLE RA 17	0.51	-0.01	17.38	-0.011	-0.0304	0
296	SLE RA 18	0.46	-0.01	17.99	-0.0097	-0.0341	0
296	SLE RA 19	0.51	-0.01	17.74	-0.0106	-0.0317	0
296	SLE RA 20	0.49	-0.01	18.08	-0.01	-0.0331	0
296	SLE RA 21	0.54	-0.01	17.83	-0.0109	-0.0307	0
296	SLE FR 1	0.25	-0.01	16.15	-0.0091	-0.0366	0
296	SLE FR 2	0.27	-0.01	16.07	-0.0094	-0.0358	0
296	SLE FR 3	0.26	-0.01	16.19	-0.0092	-0.0362	0
296	SLE FR 4	0.33	-0.01	16.62	-0.0096	-0.0351	0
296	SLE FR 5	0.33	-0.01	16.74	-0.0094	-0.0355	0
296	SLE FR 6	0.35	-0.01	17.07	-0.0094	-0.0354	0
296	SLE QP 1	0.25	-0.01	16.15	-0.0091	-0.0366	0
296	SLE QP 2	0.31	-0.01	16.7	-0.0093	-0.0359	0
296	SLD 1	4.43	0.07	18.91	-0.0788	0.151	0.0002
296	SLD 2	4.43	0.07	18.91	-0.0788	0.151	0.0002
296	SLD 3	3.69	0.03	20.87	-0.0034	0.1204	0.0001
296	SLD 4	3.69	0.03	20.87	-0.0034	0.1204	0.0001
296	SLD 5	2.67	0.08	14.38	-0.1444	0.0665	0.0002
296	SLD 6	2.67	0.08	14.38	-0.1444	0.0665	0.0002
296	SLD 7	0.2	-0.06	20.93	0.1067	-0.0353	0
296	SLD 8	0.2	-0.06	20.93	0.1067	-0.0353	0
296	SLD 9	0.43	0.04	12.47	-0.1253	-0.0364	0.0001
296	SLD 10	0.43	0.04	12.47	-0.1253	-0.0364	0.0001
296	SLD 11	-2.05	-0.1	19.02	0.1258	-0.1383	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
296	SLD 12	-2.05	-0.1	19.02	0.1258	-0.1383	-0.0001
296	SLD 13	-3.06	-0.05	12.53	-0.0152	-0.1922	-0.0001
296	SLD 14	-3.06	-0.05	12.53	-0.0152	-0.1922	-0.0001
296	SLD 15	-3.81	-0.09	14.49	0.0602	-0.2227	-0.0001
296	SLD 16	-3.81	-0.09	14.49	0.0602	-0.2227	-0.0001
296	SLV 1	9.94	0.19	21.87	-0.1817	0.4012	0.0004
296	SLV 2	9.94	0.19	21.87	-0.1817	0.4012	0.0004
296	SLV 3	8.21	0.09	26.44	0.0035	0.3296	0.0003
296	SLV 4	8.21	0.09	26.44	0.0035	0.3296	0.0003
296	SLV 5	5.83	0.2	11.32	-0.3419	0.2039	0.0003
296	SLV 6	5.83	0.2	11.32	-0.3419	0.2039	0.0003
296	SLV 7	0.05	-0.13	26.56	0.2754	-0.0349	-0.0001
296	SLV 8	0.05	-0.13	26.56	0.2754	-0.0349	-0.0001
296	SLV 9	0.57	0.12	6.84	-0.294	-0.0369	0.0002
296	SLV 10	0.57	0.12	6.84	-0.294	-0.0369	0.0002
296	SLV 11	-5.21	-0.22	22.08	0.3233	-0.2756	-0.0003
296	SLV 12	-5.21	-0.22	22.08	0.3233	-0.2756	-0.0003
296	SLV 13	-7.58	-0.1	6.96	-0.0221	-0.4013	-0.0002
296	SLV 14	-7.58	-0.1	6.96	-0.0221	-0.4013	-0.0002
296	SLV 15	-9.32	-0.21	11.53	0.1631	-0.473	-0.0004
296	SLV 16	-9.32	-0.21	11.53	0.1631	-0.473	-0.0004
297	SLU 1	0.95	0.04	14.92	-0.0313	0.0973	-0.0001
297	SLU 2	1.01	0.04	14.49	-0.0333	0.097	-0.0001
297	SLU 3	1.01	0.04	15.12	-0.0328	0.1016	-0.0001
297	SLU 4	1.05	0.04	14.87	-0.034	0.1014	-0.0001
297	SLU 5	1.08	0.04	14.62	-0.0342	0.1011	-0.0001
297	SLU 6	1.08	0.04	15.24	-0.0338	0.1058	-0.0001
297	SLU 7	1.12	0.04	14.99	-0.0349	0.1056	-0.0001
297	SLU 8	1.1	0.04	15.16	-0.0333	0.1056	-0.0001
297	SLU 9	1.13	0.04	14.91	-0.0344	0.1054	-0.0001
297	SLU 10	1.31	0.05	16.41	-0.0365	0.118	-0.0001
297	SLU 11	1.32	0.05	17.04	-0.036	0.1226	-0.0001
297	SLU 12	1.35	0.05	16.79	-0.0372	0.1225	-0.0001
297	SLU 13	1.39	0.05	16.54	-0.0374	0.1222	-0.0001
297	SLU 14	1.39	0.05	17.17	-0.037	0.1268	-0.0001
297	SLU 15	1.42	0.05	16.91	-0.0382	0.1266	-0.0001
297	SLU 16	1.4	0.05	17.08	-0.0365	0.1266	-0.0001
297	SLU 17	1.44	0.05	16.83	-0.0376	0.1265	-0.0001
297	SLU 18	1.39	0.05	17.66	-0.0359	0.1273	-0.0001
297	SLU 19	1.42	0.05	17.41	-0.0371	0.1271	-0.0001
297	SLU 20	1.46	0.05	17.78	-0.0369	0.1315	-0.0001
297	SLU 21	1.5	0.05	17.53	-0.038	0.1313	-0.0001
297	SLU 22	1.23	0.04	16.7	-0.0352	0.1169	-0.0001
297	SLU 23	1.29	0.05	16.28	-0.0371	0.1166	-0.0001
297	SLU 24	1.29	0.05	16.9	-0.0367	0.1212	-0.0001
297	SLU 25	1.32	0.05	16.65	-0.0378	0.121	-0.0001
297	SLU 26	1.36	0.05	16.4	-0.0381	0.1208	-0.0001
297	SLU 27	1.36	0.05	17.03	-0.0376	0.1254	-0.0001
297	SLU 28	1.4	0.05	16.77	-0.0388	0.1252	-0.0001
297	SLU 29	1.37	0.05	16.95	-0.0371	0.1252	-0.0001
297	SLU 30	1.41	0.05	16.69	-0.0383	0.1251	-0.0001
297	SLU 31	1.59	0.05	18.2	-0.0403	0.1376	-0.0001
297	SLU 32	1.6	0.05	18.83	-0.0399	0.1423	-0.0001
297	SLU 33	1.63	0.05	18.57	-0.041	0.1421	-0.0002
297	SLU 34	1.66	0.05	18.32	-0.0413	0.1418	-0.0002
297	SLU 35	1.67	0.05	18.95	-0.0408	0.1464	-0.0001
297	SLU 36	1.7	0.05	18.7	-0.042	0.1462	-0.0002
297	SLU 37	1.68	0.05	18.87	-0.0403	0.1463	-0.0001
297	SLU 38	1.71	0.05	18.61	-0.0415	0.1461	-0.0002
297	SLU 39	1.67	0.05	19.44	-0.0398	0.1469	-0.0001
297	SLU 40	1.7	0.05	19.19	-0.0409	0.1468	-0.0002
297	SLU 41	1.74	0.05	19.57	-0.0407	0.1511	-0.0001
297	SLU 42	1.77	0.05	19.31	-0.0419	0.1509	-0.0002
297	SLU 43	1.14	0.05	18.78	-0.0394	0.1197	-0.0001
297	SLU 44	1.2	0.05	18.36	-0.0414	0.1194	-0.0002
297	SLU 45	1.2	0.05	18.98	-0.0409	0.1241	-0.0002
297	SLU 46	1.24	0.05	18.73	-0.0421	0.1239	-0.0002
297	SLU 47	1.27	0.05	18.48	-0.0423	0.1236	-0.0002
297	SLU 48	1.28	0.05	19.11	-0.0419	0.1282	-0.0002
297	SLU 49	1.31	0.05	18.85	-0.043	0.128	-0.0002
297	SLU 50	1.29	0.05	19.03	-0.0414	0.1281	-0.0002
297	SLU 51	1.32	0.05	18.77	-0.0425	0.1279	-0.0002
297	SLU 52	1.51	0.06	20.28	-0.0446	0.1405	-0.0002
297	SLU 53	1.51	0.06	20.91	-0.0441	0.1451	-0.0002
297	SLU 54	1.54	0.06	20.65	-0.0453	0.1449	-0.0002
297	SLU 55	1.58	0.06	20.4	-0.0455	0.1446	-0.0002
297	SLU 56	1.58	0.06	21.03	-0.0451	0.1493	-0.0002
297	SLU 57	1.62	0.06	20.78	-0.0462	0.1491	-0.0002
297	SLU 58	1.59	0.06	20.95	-0.0446	0.1491	-0.0002
297	SLU 59	1.63	0.06	20.69	-0.0457	0.1489	-0.0002
297	SLU 60	1.58	0.06	21.52	-0.044	0.1498	-0.0002
297	SLU 61	1.61	0.06	21.27	-0.0452	0.1496	-0.0002
297	SLU 62	1.65	0.06	21.65	-0.045	0.1539	-0.0002
297	SLU 63	1.69	0.06	21.39	-0.0461	0.1538	-0.0002
297	SLU 64	1.42	0.05	20.56	-0.0433	0.1394	-0.0002
297	SLU 65	1.48	0.06	20.14	-0.0452	0.139	-0.0002
297	SLU 66	1.48	0.06	20.77	-0.0448	0.1437	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
297	SLU 67	1.51	0.06	20.51	-0.0459	0.1435	-0.0002
297	SLU 68	1.55	0.06	20.26	-0.0462	0.1432	-0.0002
297	SLU 69	1.55	0.06	20.89	-0.0457	0.1479	-0.0002
297	SLU 70	1.59	0.06	20.64	-0.0469	0.1477	-0.0002
297	SLU 71	1.56	0.06	20.81	-0.0452	0.1477	-0.0002
297	SLU 72	1.6	0.06	20.56	-0.0463	0.1475	-0.0002
297	SLU 73	1.78	0.06	22.06	-0.0484	0.1601	-0.0002
297	SLU 74	1.79	0.06	22.69	-0.048	0.1647	-0.0002
297	SLU 75	1.82	0.06	22.44	-0.0491	0.1645	-0.0002
297	SLU 76	1.85	0.06	22.19	-0.0494	0.1642	-0.0002
297	SLU 77	1.86	0.06	22.81	-0.0489	0.1689	-0.0002
297	SLU 78	1.89	0.06	22.56	-0.0501	0.1687	-0.0002
297	SLU 79	1.87	0.06	22.73	-0.0484	0.1687	-0.0002
297	SLU 80	1.9	0.06	22.48	-0.0496	0.1685	-0.0002
297	SLU 81	1.86	0.06	23.31	-0.0479	0.1694	-0.0002
297	SLU 82	1.89	0.06	23.05	-0.049	0.1692	-0.0002
297	SLU 83	1.93	0.06	23.43	-0.0488	0.1736	-0.0002
297	SLU 84	1.96	0.06	23.18	-0.05	0.1734	-0.0002
297	SLE RA 1	1.03	0.04	15.43	-0.0324	0.1029	-0.0001
297	SLE RA 2	1.07	0.04	15.14	-0.0337	0.1027	-0.0001
297	SLE RA 3	1.07	0.04	15.56	-0.0334	0.1058	-0.0001
297	SLE RA 4	1.09	0.04	15.39	-0.0342	0.1056	-0.0001
297	SLE RA 5	1.12	0.04	15.23	-0.0344	0.1055	-0.0001
297	SLE RA 6	1.12	0.04	15.64	-0.0341	0.1085	-0.0001
297	SLE RA 7	1.14	0.04	15.48	-0.0348	0.1084	-0.0001
297	SLE RA 8	1.13	0.04	15.59	-0.0337	0.1084	-0.0001
297	SLE RA 9	1.15	0.04	15.42	-0.0345	0.1083	-0.0001
297	SLE RA 10	1.27	0.04	16.42	-0.0359	0.1167	-0.0001
297	SLE RA 11	1.28	0.04	16.84	-0.0356	0.1198	-0.0001
297	SLE RA 12	1.3	0.05	16.67	-0.0363	0.1197	-0.0001
297	SLE RA 13	1.32	0.05	16.51	-0.0365	0.1195	-0.0001
297	SLE RA 14	1.32	0.05	16.93	-0.0362	0.1226	-0.0001
297	SLE RA 15	1.35	0.05	16.76	-0.037	0.1224	-0.0001
297	SLE RA 16	1.33	0.04	16.87	-0.0359	0.1225	-0.0001
297	SLE RA 17	1.35	0.05	16.7	-0.0366	0.1223	-0.0001
297	SLE RA 18	1.32	0.04	17.26	-0.0355	0.1229	-0.0001
297	SLE RA 19	1.35	0.05	17.09	-0.0363	0.1228	-0.0001
297	SLE RA 20	1.37	0.05	17.34	-0.0361	0.1257	-0.0001
297	SLE RA 21	1.39	0.05	17.17	-0.0369	0.1256	-0.0001
297	SLE FR 1	1.03	0.04	15.43	-0.0324	0.1029	-0.0001
297	SLE FR 2	1.04	0.04	15.37	-0.0327	0.1028	-0.0001
297	SLE FR 3	1.05	0.04	15.46	-0.0327	0.104	-0.0001
297	SLE FR 4	1.13	0.04	15.92	-0.0336	0.1089	-0.0001
297	SLE FR 5	1.14	0.04	16.01	-0.0336	0.11	-0.0001
297	SLE FR 6	1.18	0.04	16.34	-0.034	0.1129	-0.0001
297	SLE QP 1	1.03	0.04	15.43	-0.0324	0.1029	-0.0001
297	SLE QP 2	1.12	0.04	15.97	-0.0334	0.1089	-0.0001
297	SLD 1	4.97	0.15	16.82	-0.1329	0.2919	-0.0004
297	SLD 2	4.97	0.15	16.82	-0.1329	0.2919	-0.0004
297	SLD 3	5.7	0.05	18.57	-0.0135	0.3245	-0.0002
297	SLD 4	5.7	0.05	18.57	-0.0135	0.3245	-0.0002
297	SLD 5	1.18	0.22	13.58	-0.2443	0.1143	-0.0005
297	SLD 6	1.18	0.22	13.58	-0.2443	0.1143	-0.0005
297	SLD 7	3.59	-0.1	19.4	0.1536	0.223	0.0001
297	SLD 8	3.59	-0.1	19.4	0.1536	0.223	0.0001
297	SLD 9	-1.35	0.18	12.54	-0.2204	-0.0052	-0.0004
297	SLD 10	-1.35	0.18	12.54	-0.2204	-0.0052	-0.0004
297	SLD 11	1.06	-0.13	18.37	0.1776	0.1034	0.0003
297	SLD 12	1.06	-0.13	18.37	0.1776	0.1034	0.0003
297	SLD 13	-3.46	0.03	13.38	-0.0532	-0.1067	0
297	SLD 14	-3.46	0.03	13.38	-0.0532	-0.1067	0
297	SLD 15	-2.73	-0.06	15.13	0.0662	-0.0741	0.0002
297	SLD 16	-2.73	-0.06	15.13	0.0662	-0.0741	0.0002
297	SLV 1	10.11	0.3	17.95	-0.2803	0.5358	-0.0008
297	SLV 2	10.11	0.3	17.95	-0.2803	0.5358	-0.0008
297	SLV 3	11.82	0.07	22.11	0.0127	0.6128	-0.0004
297	SLV 4	11.82	0.07	22.11	0.0127	0.6128	-0.0004
297	SLV 5	1.24	0.47	10.26	-0.5519	0.1202	-0.001
297	SLV 6	1.24	0.47	10.26	-0.5519	0.1202	-0.001
297	SLV 7	6.91	-0.3	24.12	0.4249	0.3768	0.0005
297	SLV 8	6.91	-0.3	24.12	0.4249	0.3768	0.0005
297	SLV 9	-4.67	0.38	7.83	-0.4917	-0.159	-0.0008
297	SLV 10	-4.67	0.38	7.83	-0.4917	-0.159	-0.0008
297	SLV 11	1	-0.39	21.69	0.4852	0.0976	0.0008
297	SLV 12	1	-0.39	21.69	0.4852	0.0976	0.0008
297	SLV 13	-9.58	0.01	9.84	-0.0794	-0.395	0.0001
297	SLV 14	-9.58	0.01	9.84	-0.0794	-0.395	0.0001
297	SLV 15	-7.88	-0.22	14	0.2136	-0.318	0.0006
297	SLV 16	-7.88	-0.22	14	0.2136	-0.318	0.0006
298	SLU 1	-0.05	0.07	14.66	-0.0517	-0.0533	-0.0003
298	SLU 2	0.01	0.07	14.36	-0.0532	-0.0496	-0.0003
298	SLU 3	0	0.08	14.85	-0.0539	-0.0527	-0.0003
298	SLU 4	0.03	0.08	14.67	-0.0549	-0.0504	-0.0003
298	SLU 5	0.07	0.08	14.48	-0.0547	-0.0477	-0.0003
298	SLU 6	0.06	0.08	14.96	-0.0554	-0.0507	-0.0003
298	SLU 7	0.1	0.08	14.78	-0.0563	-0.0485	-0.0003
298	SLU 8	0.08	0.08	14.89	-0.0546	-0.0493	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
298	SLU 9	0.12	0.08	14.71	-0.0555	-0.0471	-0.0003
298	SLU 10	0.14	0.08	16.32	-0.0588	-0.0517	-0.0004
298	SLU 11	0.13	0.08	16.8	-0.0595	-0.0547	-0.0004
298	SLU 12	0.16	0.08	16.63	-0.0605	-0.0525	-0.0004
298	SLU 13	0.2	0.08	16.43	-0.0603	-0.0497	-0.0004
298	SLU 14	0.19	0.08	16.92	-0.061	-0.0527	-0.0004
298	SLU 15	0.23	0.09	16.74	-0.0619	-0.0505	-0.0004
298	SLU 16	0.21	0.08	16.84	-0.0602	-0.0514	-0.0004
298	SLU 17	0.25	0.08	16.67	-0.0611	-0.0492	-0.0004
298	SLU 18	0.14	0.08	17.45	-0.0597	-0.0563	-0.0004
298	SLU 19	0.17	0.08	17.28	-0.0606	-0.0541	-0.0004
298	SLU 20	0.2	0.09	17.57	-0.0611	-0.0543	-0.0004
298	SLU 21	0.24	0.09	17.39	-0.062	-0.0521	-0.0004
298	SLU 22	0.08	0.08	16.46	-0.0581	-0.0552	-0.0004
298	SLU 23	0.13	0.08	16.16	-0.0596	-0.0516	-0.0004
298	SLU 24	0.12	0.08	16.64	-0.0603	-0.0546	-0.0004
298	SLU 25	0.16	0.08	16.47	-0.0613	-0.0524	-0.0004
298	SLU 26	0.2	0.08	16.28	-0.0611	-0.0496	-0.0004
298	SLU 27	0.19	0.09	16.76	-0.0618	-0.0526	-0.0004
298	SLU 28	0.22	0.09	16.58	-0.0627	-0.0504	-0.0004
298	SLU 29	0.21	0.09	16.69	-0.061	-0.0513	-0.0004
298	SLU 30	0.24	0.09	16.51	-0.0619	-0.0491	-0.0004
298	SLU 31	0.26	0.09	18.12	-0.0652	-0.0536	-0.0004
298	SLU 32	0.25	0.09	18.6	-0.0659	-0.0567	-0.0004
298	SLU 33	0.29	0.09	18.42	-0.0669	-0.0544	-0.0004
298	SLU 34	0.33	0.09	18.23	-0.0667	-0.0517	-0.0004
298	SLU 35	0.32	0.09	18.72	-0.0674	-0.0547	-0.0004
298	SLU 36	0.35	0.09	18.54	-0.0683	-0.0525	-0.0004
298	SLU 37	0.33	0.09	18.64	-0.0666	-0.0533	-0.0004
298	SLU 38	0.37	0.09	18.47	-0.0675	-0.0511	-0.0004
298	SLU 39	0.26	0.09	19.25	-0.0661	-0.0582	-0.0004
298	SLU 40	0.29	0.09	19.07	-0.067	-0.056	-0.0004
298	SLU 41	0.33	0.09	19.37	-0.0675	-0.0562	-0.0004
298	SLU 42	0.36	0.09	19.19	-0.0685	-0.054	-0.0004
298	SLU 43	-0.11	0.09	18.44	-0.0649	-0.0686	-0.0004
298	SLU 44	-0.05	0.09	18.14	-0.0665	-0.065	-0.0004
298	SLU 45	-0.06	0.09	18.63	-0.0672	-0.068	-0.0004
298	SLU 46	-0.02	0.09	18.45	-0.0682	-0.0658	-0.0004
298	SLU 47	0.02	0.09	18.26	-0.068	-0.063	-0.0004
298	SLU 48	0.01	0.1	18.74	-0.0687	-0.066	-0.0004
298	SLU 49	0.04	0.1	18.57	-0.0696	-0.0638	-0.0004
298	SLU 50	0.02	0.09	18.67	-0.0679	-0.0647	-0.0004
298	SLU 51	0.06	0.1	18.49	-0.0688	-0.0625	-0.0004
298	SLU 52	0.08	0.1	20.1	-0.0721	-0.067	-0.0004
298	SLU 53	0.07	0.1	20.58	-0.0728	-0.0701	-0.0004
298	SLU 54	0.11	0.1	20.41	-0.0738	-0.0679	-0.0004
298	SLU 55	0.15	0.1	20.22	-0.0736	-0.0651	-0.0004
298	SLU 56	0.14	0.1	20.7	-0.0743	-0.0681	-0.0004
298	SLU 57	0.17	0.1	20.52	-0.0752	-0.0659	-0.0005
298	SLU 58	0.15	0.1	20.63	-0.0735	-0.0667	-0.0004
298	SLU 59	0.19	0.1	20.45	-0.0744	-0.0645	-0.0004
298	SLU 60	0.08	0.1	21.23	-0.0729	-0.0716	-0.0004
298	SLU 61	0.11	0.1	21.06	-0.0739	-0.0694	-0.0004
298	SLU 62	0.14	0.1	21.35	-0.0744	-0.0696	-0.0004
298	SLU 63	0.18	0.1	21.17	-0.0753	-0.0674	-0.0005
298	SLU 64	0.02	0.1	20.24	-0.0714	-0.0706	-0.0004
298	SLU 65	0.08	0.1	19.94	-0.0729	-0.0669	-0.0004
298	SLU 66	0.07	0.1	20.42	-0.0736	-0.0699	-0.0004
298	SLU 67	0.1	0.1	20.25	-0.0746	-0.0677	-0.0004
298	SLU 68	0.14	0.1	20.06	-0.0744	-0.0649	-0.0004
298	SLU 69	0.13	0.1	20.54	-0.0751	-0.0679	-0.0005
298	SLU 70	0.17	0.11	20.36	-0.076	-0.0657	-0.0005
298	SLU 71	0.15	0.1	20.47	-0.0743	-0.0666	-0.0004
298	SLU 72	0.18	0.1	20.29	-0.0752	-0.0644	-0.0005
298	SLU 73	0.21	0.11	21.9	-0.0785	-0.069	-0.0005
298	SLU 74	0.2	0.11	22.38	-0.0792	-0.072	-0.0005
298	SLU 75	0.23	0.11	22.2	-0.0802	-0.0698	-0.0005
298	SLU 76	0.27	0.11	22.01	-0.08	-0.067	-0.0005
298	SLU 77	0.26	0.11	22.5	-0.0807	-0.07	-0.0005
298	SLU 78	0.29	0.11	22.32	-0.0816	-0.0678	-0.0005
298	SLU 79	0.28	0.11	22.42	-0.0799	-0.0687	-0.0005
298	SLU 80	0.31	0.11	22.25	-0.0808	-0.0665	-0.0005
298	SLU 81	0.2	0.11	23.03	-0.0794	-0.0735	-0.0005
298	SLU 82	0.24	0.11	22.85	-0.0803	-0.0713	-0.0005
298	SLU 83	0.27	0.11	23.15	-0.0808	-0.0715	-0.0005
298	SLU 84	0.3	0.11	22.97	-0.0818	-0.0693	-0.0005
298	SLE RA 1	-0.01	0.07	15.17	-0.0535	-0.0539	-0.0003
298	SLE RA 2	0.03	0.08	14.97	-0.0545	-0.0514	-0.0003
298	SLE RA 3	0.02	0.08	15.3	-0.055	-0.0534	-0.0003
298	SLE RA 4	0.04	0.08	15.18	-0.0556	-0.052	-0.0003
298	SLE RA 5	0.07	0.08	15.05	-0.0555	-0.0501	-0.0003
298	SLE RA 6	0.06	0.08	15.37	-0.056	-0.0521	-0.0003
298	SLE RA 7	0.09	0.08	15.26	-0.0566	-0.0506	-0.0003
298	SLE RA 8	0.07	0.08	15.33	-0.0554	-0.0512	-0.0003
298	SLE RA 9	0.1	0.08	15.21	-0.0561	-0.0497	-0.0003
298	SLE RA 10	0.11	0.08	16.28	-0.0583	-0.0528	-0.0003
298	SLE RA 11	0.1	0.08	16.6	-0.0587	-0.0548	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
298	SLE RA 12	0.13	0.08	16.48	-0.0594	-0.0533	-0.0004
298	SLE RA 13	0.15	0.08	16.36	-0.0592	-0.0515	-0.0004
298	SLE RA 14	0.15	0.08	16.68	-0.0597	-0.0535	-0.0004
298	SLE RA 15	0.17	0.08	16.56	-0.0603	-0.052	-0.0004
298	SLE RA 16	0.16	0.08	16.63	-0.0592	-0.0526	-0.0004
298	SLE RA 17	0.18	0.08	16.51	-0.0598	-0.0511	-0.0004
298	SLE RA 18	0.11	0.08	17.03	-0.0588	-0.0558	-0.0004
298	SLE RA 19	0.13	0.08	16.92	-0.0594	-0.0544	-0.0004
298	SLE RA 20	0.15	0.08	17.11	-0.0598	-0.0545	-0.0004
298	SLE RA 21	0.18	0.08	16.99	-0.0604	-0.053	-0.0004
298	SLE FR 1	-0.01	0.07	15.17	-0.0535	-0.0539	-0.0003
298	SLE FR 2	-0.01	0.07	15.13	-0.0537	-0.0534	-0.0003
298	SLE FR 3	0	0.08	15.2	-0.0539	-0.0533	-0.0003
298	SLE FR 4	0.03	0.08	15.69	-0.0553	-0.054	-0.0003
298	SLE FR 5	0.04	0.08	15.76	-0.0555	-0.0539	-0.0003
298	SLE FR 6	0.05	0.08	16.1	-0.0561	-0.0549	-0.0003
298	SLE QP 1	-0.01	0.07	15.17	-0.0535	-0.0539	-0.0003
298	SLE QP 2	0.02	0.08	15.73	-0.0551	-0.0545	-0.0003
298	SLD 1	4.22	0.21	15.69	-0.1811	0.1329	-0.0008
298	SLD 2	4.22	0.21	15.69	-0.1811	0.1329	-0.0008
298	SLD 3	4.93	0.06	17.85	-0.0197	0.1617	-0.0003
298	SLD 4	4.93	0.06	17.85	-0.0197	0.1617	-0.0003
298	SLD 5	0.2	0.34	12.43	-0.3377	-0.0419	-0.0012
298	SLD 6	0.2	0.34	12.43	-0.3377	-0.0419	-0.0012
298	SLD 7	2.57	-0.15	19.66	0.2003	0.0541	0.0004
298	SLD 8	2.57	-0.15	19.66	0.2003	0.0541	0.0004
298	SLD 9	-2.52	0.31	11.8	-0.3105	-0.163	-0.0011
298	SLD 10	-2.52	0.31	11.8	-0.3105	-0.163	-0.0011
298	SLD 11	-0.16	-0.19	19.03	0.2275	-0.067	0.0006
298	SLD 12	-0.16	-0.19	19.03	0.2275	-0.067	0.0006
298	SLD 13	-4.88	0.1	13.61	-0.0905	-0.2706	-0.0004
298	SLD 14	-4.88	0.1	13.61	-0.0905	-0.2706	-0.0004
298	SLD 15	-4.17	-0.05	15.78	0.0709	-0.2418	0.0001
298	SLD 16	-4.17	-0.05	15.78	0.0709	-0.2418	0.0001
298	SLV 1	9.81	0.4	15.62	-0.3672	0.3832	-0.0015
298	SLV 2	9.81	0.4	15.62	-0.3672	0.3832	-0.0015
298	SLV 3	11.49	0.03	20.88	0.0287	0.451	-0.0003
298	SLV 4	11.49	0.03	20.88	0.0287	0.451	-0.0003
298	SLV 5	0.42	0.72	7.73	-0.7491	-0.026	-0.0026
298	SLV 6	0.42	0.72	7.73	-0.7491	-0.026	-0.0026
298	SLV 7	6.01	-0.49	25.25	0.5705	0.2	0.0016
298	SLV 8	6.01	-0.49	25.25	0.5705	0.2	0.0016
298	SLV 9	-5.96	0.64	6.21	-0.6806	-0.3089	-0.0023
298	SLV 10	-5.96	0.64	6.21	-0.6806	-0.3089	-0.0023
298	SLV 11	-0.37	-0.57	23.73	0.639	-0.083	0.0019
298	SLV 12	-0.37	-0.57	23.73	0.639	-0.083	0.0019
298	SLV 13	-11.44	0.12	10.58	-0.1389	-0.5599	-0.0004
298	SLV 14	-11.44	0.12	10.58	-0.1389	-0.5599	-0.0004
298	SLV 15	-9.76	-0.24	15.84	0.257	-0.4921	0.0009
298	SLV 16	-9.76	-0.24	15.84	0.257	-0.4921	0.0009
299	SLU 1	0.83	0.09	14.76	-0.0693	0.0874	-0.0005
299	SLU 2	0.84	0.09	14.55	-0.0706	0.0858	-0.0005
299	SLU 3	0.92	0.1	14.95	-0.0723	0.093	-0.0005
299	SLU 4	0.92	0.1	14.83	-0.073	0.092	-0.0005
299	SLU 5	0.93	0.1	14.68	-0.0725	0.0909	-0.0005
299	SLU 6	1.01	0.1	15.08	-0.0742	0.098	-0.0005
299	SLU 7	1.02	0.1	14.95	-0.075	0.097	-0.0005
299	SLU 8	1.02	0.1	15.01	-0.0732	0.0976	-0.0005
299	SLU 9	1.02	0.1	14.88	-0.0739	0.0966	-0.0005
299	SLU 10	1.06	0.1	16.58	-0.0784	0.1031	-0.0006
299	SLU 11	1.15	0.11	16.98	-0.0802	0.1103	-0.0006
299	SLU 12	1.15	0.11	16.85	-0.0809	0.1093	-0.0006
299	SLU 13	1.16	0.11	16.7	-0.0803	0.1082	-0.0006
299	SLU 14	1.24	0.11	17.1	-0.0821	0.1154	-0.0006
299	SLU 15	1.24	0.11	16.98	-0.0828	0.1144	-0.0006
299	SLU 16	1.24	0.11	17.03	-0.081	0.1149	-0.0006
299	SLU 17	1.25	0.11	16.91	-0.0817	0.1139	-0.0006
299	SLU 18	1.15	0.11	17.65	-0.0806	0.1122	-0.0006
299	SLU 19	1.16	0.11	17.53	-0.0813	0.1112	-0.0006
299	SLU 20	1.25	0.11	17.77	-0.0825	0.1173	-0.0006
299	SLU 21	1.25	0.11	17.65	-0.0832	0.1163	-0.0006
299	SLU 22	1.07	0.1	16.61	-0.0781	0.105	-0.0006
299	SLU 23	1.07	0.11	16.41	-0.0794	0.1034	-0.0006
299	SLU 24	1.16	0.11	16.81	-0.0811	0.1105	-0.0006
299	SLU 25	1.16	0.11	16.68	-0.0818	0.1095	-0.0006
299	SLU 26	1.16	0.11	16.53	-0.0813	0.1084	-0.0006
299	SLU 27	1.25	0.11	16.93	-0.083	0.1156	-0.0006
299	SLU 28	1.25	0.11	16.81	-0.0837	0.1146	-0.0006
299	SLU 29	1.25	0.11	16.86	-0.0819	0.1151	-0.0006
299	SLU 30	1.26	0.11	16.74	-0.0827	0.1142	-0.0006
299	SLU 31	1.3	0.12	18.43	-0.0872	0.1207	-0.0006
299	SLU 32	1.38	0.12	18.83	-0.089	0.1279	-0.0006
299	SLU 33	1.39	0.12	18.71	-0.0897	0.1269	-0.0007
299	SLU 34	1.39	0.12	18.55	-0.0891	0.1258	-0.0006
299	SLU 35	1.47	0.12	18.95	-0.0909	0.133	-0.0007
299	SLU 36	1.48	0.12	18.83	-0.0916	0.132	-0.0007
299	SLU 37	1.48	0.12	18.88	-0.0898	0.1325	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
299	SLU 38	1.48	0.12	18.76	-0.0905	0.1315	-0.0007
299	SLU 39	1.39	0.12	19.51	-0.0894	0.1298	-0.0007
299	SLU 40	1.39	0.12	19.38	-0.0901	0.1288	-0.0007
299	SLU 41	1.48	0.12	19.63	-0.0913	0.1349	-0.0007
299	SLU 42	1.49	0.12	19.5	-0.092	0.1339	-0.0007
299	SLU 43	1	0.12	18.55	-0.0871	0.1076	-0.0006
299	SLU 44	1	0.12	18.35	-0.0884	0.106	-0.0006
299	SLU 45	1.09	0.12	18.75	-0.0901	0.1132	-0.0007
299	SLU 46	1.09	0.12	18.62	-0.0908	0.1122	-0.0007
299	SLU 47	1.1	0.12	18.47	-0.0903	0.1111	-0.0007
299	SLU 48	1.18	0.12	18.87	-0.092	0.1182	-0.0007
299	SLU 49	1.19	0.12	18.74	-0.0927	0.1173	-0.0007
299	SLU 50	1.19	0.12	18.8	-0.0909	0.1178	-0.0007
299	SLU 51	1.19	0.12	18.67	-0.0917	0.1168	-0.0007
299	SLU 52	1.23	0.13	20.37	-0.0962	0.1233	-0.0007
299	SLU 53	1.32	0.13	20.77	-0.0979	0.1305	-0.0007
299	SLU 54	1.32	0.13	20.65	-0.0987	0.1295	-0.0007
299	SLU 55	1.32	0.13	20.49	-0.0981	0.1284	-0.0007
299	SLU 56	1.41	0.13	20.89	-0.0999	0.1356	-0.0007
299	SLU 57	1.41	0.13	20.77	-0.1006	0.1346	-0.0007
299	SLU 58	1.41	0.13	20.82	-0.0988	0.1351	-0.0007
299	SLU 59	1.41	0.13	20.7	-0.0995	0.1341	-0.0007
299	SLU 60	1.32	0.13	21.44	-0.0984	0.1324	-0.0007
299	SLU 61	1.33	0.13	21.32	-0.0991	0.1314	-0.0007
299	SLU 62	1.41	0.13	21.57	-0.1003	0.1375	-0.0007
299	SLU 63	1.42	0.13	21.44	-0.101	0.1365	-0.0007
299	SLU 64	1.23	0.13	20.41	-0.0959	0.1252	-0.0007
299	SLU 65	1.24	0.13	20.2	-0.0972	0.1236	-0.0007
299	SLU 66	1.32	0.13	20.6	-0.0989	0.1307	-0.0007
299	SLU 67	1.33	0.13	20.48	-0.0996	0.1297	-0.0007
299	SLU 68	1.33	0.13	20.32	-0.0991	0.1286	-0.0007
299	SLU 69	1.42	0.14	20.72	-0.1008	0.1358	-0.0007
299	SLU 70	1.42	0.14	20.6	-0.1015	0.1348	-0.0007
299	SLU 71	1.42	0.13	20.65	-0.0997	0.1353	-0.0007
299	SLU 72	1.42	0.13	20.53	-0.1005	0.1344	-0.0007
299	SLU 73	1.47	0.14	22.22	-0.105	0.1409	-0.0008
299	SLU 74	1.55	0.14	22.62	-0.1067	0.1481	-0.0008
299	SLU 75	1.55	0.14	22.5	-0.1075	0.1471	-0.0008
299	SLU 76	1.56	0.14	22.35	-0.1069	0.146	-0.0008
299	SLU 77	1.64	0.15	22.75	-0.1086	0.1532	-0.0008
299	SLU 78	1.65	0.15	22.62	-0.1094	0.1522	-0.0008
299	SLU 79	1.65	0.14	22.68	-0.1076	0.1527	-0.0008
299	SLU 80	1.65	0.14	22.55	-0.1083	0.1517	-0.0008
299	SLU 81	1.56	0.14	23.3	-0.1071	0.15	-0.0008
299	SLU 82	1.56	0.14	23.17	-0.1079	0.149	-0.0008
299	SLU 83	1.65	0.15	23.42	-0.109	0.1551	-0.0008
299	SLU 84	1.65	0.15	23.3	-0.1098	0.1541	-0.0008
299	SLE RA 1	0.9	0.1	15.29	-0.0719	0.0924	-0.0005
299	SLE RA 2	0.9	0.1	15.15	-0.0727	0.0913	-0.0005
299	SLE RA 3	0.96	0.1	15.42	-0.0738	0.0961	-0.0005
299	SLE RA 4	0.96	0.1	15.34	-0.0743	0.0955	-0.0005
299	SLE RA 5	0.96	0.1	15.23	-0.074	0.0947	-0.0005
299	SLE RA 6	1.02	0.1	15.5	-0.0751	0.0995	-0.0005
299	SLE RA 7	1.02	0.1	15.42	-0.0756	0.0989	-0.0006
299	SLE RA 8	1.02	0.1	15.45	-0.0744	0.0992	-0.0005
299	SLE RA 9	1.02	0.1	15.37	-0.0749	0.0986	-0.0005
299	SLE RA 10	1.05	0.1	16.5	-0.0779	0.1029	-0.0006
299	SLE RA 11	1.11	0.11	16.77	-0.0791	0.1077	-0.0006
299	SLE RA 12	1.11	0.11	16.69	-0.0796	0.107	-0.0006
299	SLE RA 13	1.11	0.11	16.58	-0.0792	0.1063	-0.0006
299	SLE RA 14	1.17	0.11	16.85	-0.0803	0.1111	-0.0006
299	SLE RA 15	1.17	0.11	16.77	-0.0808	0.1104	-0.0006
299	SLE RA 16	1.17	0.11	16.8	-0.0796	0.1108	-0.0006
299	SLE RA 17	1.17	0.11	16.72	-0.0801	0.1101	-0.0006
299	SLE RA 18	1.11	0.11	17.22	-0.0793	0.109	-0.0006
299	SLE RA 19	1.12	0.11	17.13	-0.0798	0.1083	-0.0006
299	SLE RA 20	1.18	0.11	17.3	-0.0806	0.1124	-0.0006
299	SLE RA 21	1.18	0.11	17.22	-0.0811	0.1117	-0.0006
299	SLE FR 1	0.9	0.1	15.29	-0.0719	0.0924	-0.0005
299	SLE FR 2	0.9	0.1	15.26	-0.072	0.0922	-0.0005
299	SLE FR 3	0.92	0.1	15.32	-0.0724	0.0938	-0.0005
299	SLE FR 4	0.96	0.1	15.84	-0.0743	0.0972	-0.0005
299	SLE FR 5	0.99	0.1	15.9	-0.0746	0.0988	-0.0005
299	SLE FR 6	1.01	0.1	16.25	-0.0756	0.1007	-0.0006
299	SLE QP 1	0.9	0.1	15.29	-0.0719	0.0924	-0.0005
299	SLE QP 2	0.96	0.1	15.87	-0.0741	0.0974	-0.0005
299	SLD 1	5.63	0.25	13.63	-0.2216	0.3132	-0.0013
299	SLD 2	5.63	0.25	13.63	-0.2216	0.3132	-0.0013
299	SLD 3	6.41	0.06	16.31	-0.0257	0.3499	-0.0003
299	SLD 4	6.41	0.06	16.31	-0.0257	0.3499	-0.0003
299	SLD 5	1.19	0.44	11.13	-0.4155	0.1064	-0.0022
299	SLD 6	1.19	0.44	11.13	-0.4155	0.1064	-0.0022
299	SLD 7	3.77	-0.21	20.07	0.2375	0.2289	0.0009
299	SLD 8	3.77	-0.21	20.07	0.2375	0.2289	0.0009
299	SLD 9	-1.84	0.4	11.67	-0.3857	-0.0341	-0.002
299	SLD 10	-1.84	0.4	11.67	-0.3857	-0.0341	-0.002
299	SLD 11	0.73	-0.24	20.61	0.2672	0.0884	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
299	SLD 12	0.73	-0.24	20.61	0.2672	0.0884	0.0011
299	SLD 13	-4.48	0.14	15.43	-0.1225	-0.1551	-0.0007
299	SLD 14	-4.48	0.14	15.43	-0.1225	-0.1551	-0.0007
299	SLD 15	-3.71	-0.05	18.11	0.0734	-0.1184	0.0002
299	SLD 16	-3.71	-0.05	18.11	0.0734	-0.1184	0.0002
299	SLV 1	11.86	0.47	10.37	-0.4384	0.6006	-0.0023
299	SLV 2	11.86	0.47	10.37	-0.4384	0.6006	-0.0023
299	SLV 3	13.69	0	16.9	0.0417	0.688	-0.0001
299	SLV 4	13.69	0	16.9	0.0417	0.688	-0.0001
299	SLV 5	1.45	0.93	4.31	-0.9116	0.1158	-0.0045
299	SLV 6	1.45	0.93	4.31	-0.9116	0.1158	-0.0045
299	SLV 7	7.57	-0.65	26.09	0.6889	0.4071	0.003
299	SLV 8	7.57	-0.65	26.09	0.6889	0.4071	0.003
299	SLV 9	-5.64	0.85	5.65	-0.8371	-0.2123	-0.0041
299	SLV 10	-5.64	0.85	5.65	-0.8371	-0.2123	-0.0041
299	SLV 11	0.48	-0.73	27.42	0.7634	0.079	0.0034
299	SLV 12	0.48	-0.73	27.42	0.7634	0.079	0.0034
299	SLV 13	-11.77	0.2	14.83	-0.1899	-0.4932	-0.001
299	SLV 14	-11.77	0.2	14.83	-0.1899	-0.4932	-0.001
299	SLV 15	-9.93	-0.27	21.36	0.2902	-0.4058	0.0013
299	SLV 16	-9.93	-0.27	21.36	0.2902	-0.4058	0.0013
300	SLU 1	0.28	0.11	15.23	-0.086	-0.0437	-0.0007
300	SLU 2	0.29	0.11	15.09	-0.0869	-0.0423	-0.0007
300	SLU 3	0.37	0.12	15.45	-0.0896	-0.0416	-0.0007
300	SLU 4	0.37	0.12	15.36	-0.0902	-0.0408	-0.0007
300	SLU 5	0.38	0.11	15.23	-0.0893	-0.0393	-0.0007
300	SLU 6	0.46	0.12	15.6	-0.0919	-0.0386	-0.0007
300	SLU 7	0.47	0.12	15.51	-0.0925	-0.0378	-0.0007
300	SLU 8	0.47	0.12	15.52	-0.0907	-0.0377	-0.0007
300	SLU 9	0.47	0.12	15.43	-0.0912	-0.0369	-0.0007
300	SLU 10	0.41	0.12	17.22	-0.0971	-0.0456	-0.0008
300	SLU 11	0.49	0.13	17.58	-0.0998	-0.0449	-0.0008
300	SLU 12	0.5	0.13	17.49	-0.1004	-0.0441	-0.0008
300	SLU 13	0.51	0.13	17.36	-0.0995	-0.0426	-0.0008
300	SLU 14	0.58	0.13	17.73	-0.1021	-0.0419	-0.0008
300	SLU 15	0.59	0.13	17.64	-0.1027	-0.0411	-0.0008
300	SLU 16	0.59	0.13	17.66	-0.1009	-0.041	-0.0008
300	SLU 17	0.6	0.13	17.57	-0.1014	-0.0401	-0.0008
300	SLU 18	0.46	0.13	18.28	-0.1005	-0.0484	-0.0008
300	SLU 19	0.46	0.13	18.19	-0.1011	-0.0475	-0.0008
300	SLU 20	0.55	0.13	18.42	-0.1029	-0.0454	-0.0008
300	SLU 21	0.56	0.13	18.33	-0.1034	-0.0445	-0.0008
300	SLU 22	0.43	0.13	17.19	-0.0972	-0.0455	-0.0008
300	SLU 23	0.44	0.13	17.04	-0.0981	-0.0441	-0.0008
300	SLU 24	0.52	0.13	17.41	-0.1008	-0.0434	-0.0008
300	SLU 25	0.52	0.13	17.32	-0.1014	-0.0426	-0.0008
300	SLU 26	0.53	0.13	17.19	-0.1005	-0.0411	-0.0008
300	SLU 27	0.61	0.13	17.56	-0.1031	-0.0404	-0.0008
300	SLU 28	0.62	0.13	17.47	-0.1037	-0.0396	-0.0008
300	SLU 29	0.62	0.13	17.48	-0.1019	-0.0395	-0.0008
300	SLU 30	0.62	0.13	17.39	-0.1024	-0.0386	-0.0008
300	SLU 31	0.56	0.14	19.18	-0.1083	-0.0474	-0.0008
300	SLU 32	0.64	0.14	19.54	-0.111	-0.0467	-0.0009
300	SLU 33	0.65	0.14	19.45	-0.1116	-0.0458	-0.0009
300	SLU 34	0.66	0.14	19.32	-0.1107	-0.0444	-0.0009
300	SLU 35	0.73	0.15	19.69	-0.1133	-0.0437	-0.0009
300	SLU 36	0.74	0.15	19.6	-0.1139	-0.0428	-0.0009
300	SLU 37	0.74	0.14	19.61	-0.1121	-0.0427	-0.0009
300	SLU 38	0.75	0.14	19.52	-0.1126	-0.0419	-0.0009
300	SLU 39	0.61	0.14	20.24	-0.1117	-0.0501	-0.0009
300	SLU 40	0.61	0.14	20.15	-0.1123	-0.0493	-0.0009
300	SLU 41	0.7	0.15	20.38	-0.1141	-0.0471	-0.0009
300	SLU 42	0.71	0.15	20.29	-0.1147	-0.0463	-0.0009
300	SLU 43	0.31	0.14	19.13	-0.1079	-0.0562	-0.0009
300	SLU 44	0.32	0.14	18.98	-0.1089	-0.0548	-0.0009
300	SLU 45	0.4	0.14	19.35	-0.1115	-0.0541	-0.0009
300	SLU 46	0.41	0.14	19.26	-0.1121	-0.0533	-0.0009
300	SLU 47	0.42	0.14	19.13	-0.1112	-0.0518	-0.0009
300	SLU 48	0.5	0.15	19.5	-0.1139	-0.0511	-0.0009
300	SLU 49	0.5	0.15	19.41	-0.1144	-0.0503	-0.0009
300	SLU 50	0.5	0.15	19.42	-0.1126	-0.0502	-0.0009
300	SLU 51	0.51	0.15	19.33	-0.1132	-0.0494	-0.0009
300	SLU 52	0.45	0.15	21.12	-0.1191	-0.0581	-0.0009
300	SLU 53	0.52	0.16	21.48	-0.1217	-0.0574	-0.001
300	SLU 54	0.53	0.16	21.39	-0.1223	-0.0566	-0.001
300	SLU 55	0.54	0.16	21.26	-0.1214	-0.0551	-0.0009
300	SLU 56	0.62	0.16	21.63	-0.1241	-0.0544	-0.001
300	SLU 57	0.62	0.16	21.54	-0.1246	-0.0536	-0.001
300	SLU 58	0.62	0.16	21.55	-0.1228	-0.0535	-0.001
300	SLU 59	0.63	0.16	21.46	-0.1234	-0.0526	-0.001
300	SLU 60	0.49	0.16	22.18	-0.1225	-0.0609	-0.001
300	SLU 61	0.5	0.16	22.09	-0.123	-0.0601	-0.001
300	SLU 62	0.58	0.16	22.32	-0.1248	-0.0579	-0.001
300	SLU 63	0.59	0.16	22.23	-0.1254	-0.0571	-0.001
300	SLU 64	0.46	0.15	21.09	-0.1191	-0.058	-0.0009
300	SLU 65	0.47	0.15	20.94	-0.1201	-0.0566	-0.0009
300	SLU 66	0.55	0.16	21.31	-0.1227	-0.0559	-0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
300	SLU 67	0.56	0.16	21.22	-0.1233	-0.0551	-0.001
300	SLU 68	0.57	0.16	21.09	-0.1224	-0.0536	-0.001
300	SLU 69	0.64	0.16	21.45	-0.1251	-0.0529	-0.001
300	SLU 70	0.65	0.16	21.37	-0.1257	-0.0521	-0.001
300	SLU 71	0.65	0.16	21.38	-0.1238	-0.052	-0.001
300	SLU 72	0.66	0.16	21.29	-0.1244	-0.0511	-0.001
300	SLU 73	0.6	0.17	23.07	-0.1303	-0.0599	-0.001
300	SLU 74	0.67	0.17	23.44	-0.1329	-0.0592	-0.001
300	SLU 75	0.68	0.17	23.35	-0.1335	-0.0583	-0.001
300	SLU 76	0.69	0.17	23.22	-0.1326	-0.0569	-0.001
300	SLU 77	0.77	0.17	23.59	-0.1353	-0.0562	-0.0011
300	SLU 78	0.77	0.17	23.5	-0.1359	-0.0553	-0.0011
300	SLU 79	0.77	0.17	23.51	-0.134	-0.0552	-0.0011
300	SLU 80	0.78	0.17	23.42	-0.1346	-0.0544	-0.0011
300	SLU 81	0.64	0.17	24.14	-0.1337	-0.0627	-0.001
300	SLU 82	0.64	0.17	24.05	-0.1343	-0.0618	-0.001
300	SLU 83	0.73	0.18	24.28	-0.136	-0.0596	-0.0011
300	SLU 84	0.74	0.18	24.19	-0.1366	-0.0588	-0.0011
300	SLE RA 1	0.32	0.12	15.79	-0.0892	-0.0442	-0.0007
300	SLE RA 2	0.33	0.12	15.69	-0.0898	-0.0433	-0.0007
300	SLE RA 3	0.38	0.12	15.94	-0.0916	-0.0428	-0.0007
300	SLE RA 4	0.39	0.12	15.88	-0.092	-0.0423	-0.0007
300	SLE RA 5	0.39	0.12	15.79	-0.0914	-0.0413	-0.0007
300	SLE RA 6	0.44	0.12	16.04	-0.0931	-0.0408	-0.0007
300	SLE RA 7	0.45	0.12	15.98	-0.0935	-0.0403	-0.0007
300	SLE RA 8	0.45	0.12	15.99	-0.0923	-0.0402	-0.0007
300	SLE RA 9	0.45	0.12	15.93	-0.0927	-0.0397	-0.0007
300	SLE RA 10	0.41	0.12	17.12	-0.0966	-0.0455	-0.0008
300	SLE RA 11	0.46	0.13	17.36	-0.0984	-0.045	-0.0008
300	SLE RA 12	0.47	0.13	17.3	-0.0988	-0.0445	-0.0008
300	SLE RA 13	0.47	0.13	17.21	-0.0982	-0.0435	-0.0008
300	SLE RA 14	0.53	0.13	17.46	-0.0999	-0.043	-0.0008
300	SLE RA 15	0.53	0.13	17.4	-0.1003	-0.0424	-0.0008
300	SLE RA 16	0.53	0.13	17.41	-0.0991	-0.0424	-0.0008
300	SLE RA 17	0.53	0.13	17.35	-0.0995	-0.0418	-0.0008
300	SLE RA 18	0.44	0.13	17.82	-0.0989	-0.0473	-0.0008
300	SLE RA 19	0.44	0.13	17.76	-0.0993	-0.0468	-0.0008
300	SLE RA 20	0.5	0.13	17.92	-0.1004	-0.0453	-0.0008
300	SLE RA 21	0.51	0.13	17.86	-0.1008	-0.0448	-0.0008
300	SLE FR 1	0.32	0.12	15.79	-0.0892	-0.0442	-0.0007
300	SLE FR 2	0.33	0.12	15.77	-0.0893	-0.044	-0.0007
300	SLE FR 3	0.35	0.12	15.83	-0.0898	-0.0434	-0.0007
300	SLE FR 4	0.36	0.12	16.38	-0.0922	-0.045	-0.0007
300	SLE FR 5	0.38	0.12	16.44	-0.0927	-0.0443	-0.0007
300	SLE FR 6	0.38	0.12	16.81	-0.094	-0.0458	-0.0007
300	SLE QP 1	0.32	0.12	15.79	-0.0892	-0.0442	-0.0007
300	SLE QP 2	0.36	0.12	16.4	-0.0921	-0.0452	-0.0007
300	SLD 1	5.27	0.29	13.99	-0.2546	0.1729	-0.0017
300	SLD 2	5.27	0.29	13.99	-0.2546	0.1729	-0.0017
300	SLD 3	6.04	0.06	17.05	-0.0355	0.2043	-0.0004
300	SLD 4	6.04	0.06	17.05	-0.0355	0.2043	-0.0004
300	SLD 5	0.66	0.51	11.05	-0.4731	-0.0273	-0.0029
300	SLD 6	0.66	0.51	11.05	-0.4731	-0.0273	-0.0029
300	SLD 7	3.23	-0.24	21.23	0.2572	0.0773	0.0013
300	SLD 8	3.23	-0.24	21.23	0.2572	0.0773	0.0013
300	SLD 9	-2.51	0.47	11.58	-0.4414	-0.1676	-0.0027
300	SLD 10	-2.51	0.47	11.58	-0.4414	-0.1676	-0.0027
300	SLD 11	0.05	-0.27	21.76	0.289	-0.063	0.0014
300	SLD 12	0.05	-0.27	21.76	0.289	-0.063	0.0014
300	SLD 13	-5.32	0.17	15.76	-0.1487	-0.2946	-0.001
300	SLD 14	-5.32	0.17	15.76	-0.1487	-0.2946	-0.001
300	SLD 15	-4.55	-0.05	18.81	0.0704	-0.2632	0.0002
300	SLD 16	-4.55	-0.05	18.81	0.0704	-0.2632	0.0002
300	SLV 1	11.82	0.53	10.48	-0.492	0.4635	-0.003
300	SLV 2	11.82	0.53	10.48	-0.492	0.4635	-0.003
300	SLV 3	13.65	-0.01	17.93	0.0448	0.5382	0
300	SLV 4	13.65	-0.01	17.93	0.0448	0.5382	0
300	SLV 5	1.01	1.07	3.33	-1.0263	-0.0058	-0.0061
300	SLV 6	1.01	1.07	3.33	-1.0263	-0.0058	-0.0061
300	SLV 7	7.13	-0.75	28.16	0.7632	0.2431	0.0041
300	SLV 8	7.13	-0.75	28.16	0.7632	0.2431	0.0041
300	SLV 9	-6.41	0.99	4.65	-0.9474	-0.3334	-0.0056
300	SLV 10	-6.41	0.99	4.65	-0.9474	-0.3334	-0.0056
300	SLV 11	-0.29	-0.83	29.48	0.8421	-0.0845	0.0046
300	SLV 12	-0.29	-0.83	29.48	0.8421	-0.0845	0.0046
300	SLV 13	-12.93	0.25	14.87	-0.229	-0.6285	-0.0015
300	SLV 14	-12.93	0.25	14.87	-0.229	-0.6285	-0.0015
300	SLV 15	-11.1	-0.29	22.32	0.3079	-0.5538	0.0016
300	SLV 16	-11.1	-0.29	22.32	0.3079	-0.5538	0.0016
301	SLU 1	1.61	0.13	16.41	-0.1032	0.1184	-0.0008
301	SLU 2	1.58	0.13	16.31	-0.1039	0.1161	-0.0008
301	SLU 3	1.75	0.14	16.69	-0.1075	0.1262	-0.0008
301	SLU 4	1.73	0.14	16.62	-0.1079	0.1248	-0.0008
301	SLU 5	1.71	0.14	16.49	-0.1067	0.1227	-0.0008
301	SLU 6	1.88	0.14	16.88	-0.1103	0.1328	-0.0009
301	SLU 7	1.86	0.14	16.81	-0.1107	0.1314	-0.0009
301	SLU 8	1.86	0.14	16.79	-0.1088	0.1317	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
301	SLU 9	1.85	0.14	16.72	-0.1092	0.1303	-0.0008
301	SLU 10	1.89	0.15	18.66	-0.1167	0.1371	-0.0009
301	SLU 11	2.06	0.16	19.04	-0.1204	0.1472	-0.0009
301	SLU 12	2.04	0.16	18.97	-0.1208	0.1458	-0.0009
301	SLU 13	2.02	0.16	18.84	-0.1196	0.1437	-0.0009
301	SLU 14	2.19	0.16	19.22	-0.1232	0.1538	-0.001
301	SLU 15	2.17	0.16	19.16	-0.1236	0.1524	-0.001
301	SLU 16	2.17	0.16	19.14	-0.1217	0.1526	-0.0009
301	SLU 17	2.16	0.16	19.07	-0.1221	0.1512	-0.0009
301	SLU 18	2.05	0.16	19.77	-0.1216	0.1483	-0.0009
301	SLU 19	2.04	0.16	19.71	-0.122	0.147	-0.0009
301	SLU 20	2.18	0.16	19.96	-0.1244	0.155	-0.001
301	SLU 21	2.16	0.16	19.89	-0.1248	0.1536	-0.001
301	SLU 22	1.95	0.15	18.59	-0.1171	0.1406	-0.0009
301	SLU 23	1.92	0.15	18.48	-0.1178	0.1383	-0.0009
301	SLU 24	2.09	0.16	18.86	-0.1214	0.1483	-0.0009
301	SLU 25	2.08	0.16	18.8	-0.1218	0.147	-0.0009
301	SLU 26	2.05	0.16	18.67	-0.1206	0.1449	-0.0009
301	SLU 27	2.22	0.16	19.05	-0.1242	0.155	-0.001
301	SLU 28	2.2	0.16	18.98	-0.1246	0.1536	-0.001
301	SLU 29	2.2	0.16	18.96	-0.1227	0.1538	-0.001
301	SLU 30	2.19	0.16	18.9	-0.1231	0.1524	-0.001
301	SLU 31	2.24	0.17	20.83	-0.1306	0.1592	-0.001
301	SLU 32	2.4	0.18	21.21	-0.1343	0.1693	-0.001
301	SLU 33	2.39	0.18	21.14	-0.1347	0.1679	-0.001
301	SLU 34	2.36	0.17	21.02	-0.1335	0.1658	-0.001
301	SLU 35	2.53	0.18	21.4	-0.1371	0.1759	-0.0011
301	SLU 36	2.51	0.18	21.33	-0.1375	0.1746	-0.0011
301	SLU 37	2.51	0.18	21.31	-0.1356	0.1748	-0.0011
301	SLU 38	2.5	0.18	21.25	-0.136	0.1734	-0.0011
301	SLU 39	2.39	0.18	21.94	-0.1355	0.1705	-0.0011
301	SLU 40	2.38	0.18	21.88	-0.1359	0.1691	-0.0011
301	SLU 41	2.52	0.18	22.13	-0.1383	0.1771	-0.0011
301	SLU 42	2.51	0.18	22.06	-0.1387	0.1757	-0.0011
301	SLU 43	1.97	0.17	20.59	-0.1293	0.1463	-0.001
301	SLU 44	1.95	0.17	20.49	-0.13	0.144	-0.001
301	SLU 45	2.11	0.17	20.87	-0.1337	0.1541	-0.001
301	SLU 46	2.1	0.17	20.8	-0.1341	0.1527	-0.001
301	SLU 47	2.08	0.17	20.67	-0.1329	0.1507	-0.001
301	SLU 48	2.24	0.18	21.05	-0.1365	0.1608	-0.0011
301	SLU 49	2.23	0.18	20.99	-0.1369	0.1594	-0.0011
301	SLU 50	2.23	0.18	20.97	-0.135	0.1596	-0.0011
301	SLU 51	2.21	0.18	20.9	-0.1354	0.1582	-0.0011
301	SLU 52	2.26	0.19	22.83	-0.1429	0.165	-0.0011
301	SLU 53	2.42	0.19	23.22	-0.1465	0.1751	-0.0011
301	SLU 54	2.41	0.19	23.15	-0.147	0.1737	-0.0011
301	SLU 55	2.39	0.19	23.02	-0.1457	0.1716	-0.0011
301	SLU 56	2.55	0.2	23.4	-0.1494	0.1817	-0.0012
301	SLU 57	2.54	0.2	23.34	-0.1498	0.1803	-0.0012
301	SLU 58	2.54	0.19	23.32	-0.1479	0.1805	-0.0012
301	SLU 59	2.52	0.19	23.25	-0.1483	0.1792	-0.0012
301	SLU 60	2.42	0.19	23.95	-0.1477	0.1763	-0.0011
301	SLU 61	2.4	0.19	23.88	-0.1482	0.1749	-0.0011
301	SLU 62	2.54	0.2	24.14	-0.1506	0.1829	-0.0012
301	SLU 63	2.53	0.2	24.07	-0.151	0.1815	-0.0012
301	SLU 64	2.31	0.19	22.77	-0.1432	0.1685	-0.0011
301	SLU 65	2.29	0.19	22.66	-0.1439	0.1662	-0.0011
301	SLU 66	2.45	0.19	23.04	-0.1476	0.1763	-0.0011
301	SLU 67	2.44	0.19	22.97	-0.148	0.1749	-0.0011
301	SLU 68	2.42	0.19	22.85	-0.1468	0.1728	-0.0011
301	SLU 69	2.58	0.2	23.23	-0.1504	0.1829	-0.0012
301	SLU 70	2.57	0.2	23.16	-0.1508	0.1815	-0.0012
301	SLU 71	2.57	0.19	23.14	-0.1489	0.1817	-0.0012
301	SLU 72	2.55	0.19	23.08	-0.1493	0.1804	-0.0012
301	SLU 73	2.6	0.2	25.01	-0.1568	0.1871	-0.0012
301	SLU 74	2.77	0.21	25.39	-0.1604	0.1972	-0.0012
301	SLU 75	2.75	0.21	25.32	-0.1609	0.1959	-0.0012
301	SLU 76	2.73	0.21	25.19	-0.1596	0.1938	-0.0012
301	SLU 77	2.89	0.21	25.58	-0.1633	0.2039	-0.0013
301	SLU 78	2.88	0.21	25.51	-0.1637	0.2025	-0.0013
301	SLU 79	2.88	0.21	25.49	-0.1618	0.2027	-0.0013
301	SLU 80	2.87	0.21	25.43	-0.1622	0.2013	-0.0013
301	SLU 81	2.76	0.21	26.12	-0.1616	0.1984	-0.0013
301	SLU 82	2.74	0.21	26.06	-0.1621	0.197	-0.0013
301	SLU 83	2.89	0.21	26.31	-0.1645	0.205	-0.0013
301	SLU 84	2.87	0.21	26.24	-0.1649	0.2037	-0.0013
301	SLE RA 1	1.71	0.14	17.03	-0.1071	0.1247	-0.0008
301	SLE RA 2	1.69	0.14	16.96	-0.1076	0.1232	-0.0008
301	SLE RA 3	1.8	0.14	17.22	-0.11	0.1299	-0.0009
301	SLE RA 4	1.79	0.14	17.17	-0.1103	0.129	-0.0009
301	SLE RA 5	1.77	0.14	17.09	-0.1095	0.1276	-0.0008
301	SLE RA 6	1.88	0.15	17.34	-0.1119	0.1343	-0.0009
301	SLE RA 7	1.87	0.15	17.3	-0.1122	0.1334	-0.0009
301	SLE RA 8	1.87	0.15	17.28	-0.1109	0.1336	-0.0009
301	SLE RA 9	1.87	0.15	17.24	-0.1112	0.1326	-0.0009
301	SLE RA 10	1.9	0.15	18.53	-0.1162	0.1372	-0.0009
301	SLE RA 11	2.01	0.15	18.78	-0.1186	0.1439	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
301	SLE RA 12	2	0.15	18.74	-0.1189	0.143	-0.0009
301	SLE RA 13	1.98	0.15	18.65	-0.1181	0.1416	-0.0009
301	SLE RA 14	2.09	0.16	18.91	-0.1205	0.1483	-0.0009
301	SLE RA 15	2.08	0.16	18.87	-0.1208	0.1474	-0.0009
301	SLE RA 16	2.08	0.16	18.85	-0.1195	0.1475	-0.0009
301	SLE RA 17	2.07	0.16	18.81	-0.1198	0.1466	-0.0009
301	SLE RA 18	2	0.16	19.27	-0.1194	0.1447	-0.0009
301	SLE RA 19	1.99	0.16	19.23	-0.1197	0.1438	-0.0009
301	SLE RA 20	2.09	0.16	19.4	-0.1213	0.1491	-0.0009
301	SLE RA 21	2.08	0.16	19.35	-0.1216	0.1482	-0.0009
301	SLE FR 1	1.71	0.14	17.03	-0.1071	0.1247	-0.0008
301	SLE FR 2	1.7	0.14	17.02	-0.1072	0.1244	-0.0008
301	SLE FR 3	1.74	0.14	17.08	-0.1079	0.1265	-0.0008
301	SLE FR 4	1.79	0.14	17.69	-0.1109	0.1304	-0.0009
301	SLE FR 5	1.83	0.15	17.76	-0.1116	0.1325	-0.0009
301	SLE FR 6	1.85	0.15	18.15	-0.1133	0.1347	-0.0009
301	SLE QP 1	1.71	0.14	17.03	-0.1071	0.1247	-0.0008
301	SLE QP 2	1.79	0.14	17.71	-0.1108	0.1307	-0.0009
301	SLD 1	6.91	0.32	17.07	-0.2803	0.3637	-0.0019
301	SLD 2	6.91	0.32	17.07	-0.2803	0.3637	-0.0019
301	SLD 3	7.75	0.09	20.25	-0.0514	0.4052	-0.0006
301	SLD 4	7.75	0.09	20.25	-0.0514	0.4052	-0.0006
301	SLD 5	2.06	0.56	12.69	-0.5088	0.1376	-0.0032
301	SLD 6	2.06	0.56	12.69	-0.5088	0.1376	-0.0032
301	SLD 7	4.85	-0.23	23.3	0.2542	0.2761	0.0012
301	SLD 8	4.85	-0.23	23.3	0.2542	0.2761	0.0012
301	SLD 9	-1.27	0.52	12.12	-0.4758	-0.0147	-0.0029
301	SLD 10	-1.27	0.52	12.12	-0.4758	-0.0147	-0.0029
301	SLD 11	1.53	-0.27	22.72	0.2872	0.1239	0.0014
301	SLD 12	1.53	-0.27	22.72	0.2872	0.1239	0.0014
301	SLD 13	-4.17	0.2	15.16	-0.1702	-0.1438	-0.0012
301	SLD 14	-4.17	0.2	15.16	-0.1702	-0.1438	-0.0012
301	SLD 15	-3.33	-0.03	18.34	0.0587	-0.1022	0.0001
301	SLD 16	-3.33	-0.03	18.34	0.0587	-0.1022	0.0001
301	SLV 1	13.73	0.58	16.17	-0.5266	0.6735	-0.0033
301	SLV 2	13.73	0.58	16.17	-0.5266	0.6735	-0.0033
301	SLV 3	15.73	0	23.93	0.0341	0.7727	-0.0001
301	SLV 4	15.73	0	23.93	0.0341	0.7727	-0.0001
301	SLV 5	2.34	1.15	5.48	-1.0859	0.1431	-0.0065
301	SLV 6	2.34	1.15	5.48	-1.0859	0.1431	-0.0065
301	SLV 7	9.01	-0.78	31.33	0.783	0.4738	0.0042
301	SLV 8	9.01	-0.78	31.33	0.783	0.4738	0.0042
301	SLV 9	-5.42	1.06	4.08	-1.0046	-0.2123	-0.0059
301	SLV 10	-5.42	1.06	4.08	-1.0046	-0.2123	-0.0059
301	SLV 11	1.25	-0.86	29.93	0.8642	0.1183	0.0047
301	SLV 12	1.25	-0.86	29.93	0.8642	0.1183	0.0047
301	SLV 13	-12.14	0.29	11.49	-0.2557	-0.5113	-0.0016
301	SLV 14	-12.14	0.29	11.49	-0.2557	-0.5113	-0.0016
301	SLV 15	-10.14	-0.29	19.24	0.305	-0.4121	0.0016
301	SLV 16	-10.14	-0.29	19.24	0.305	-0.4121	0.0016
302	SLU 1	1.41	0.17	18.29	-0.1208	-0.007	-0.0009
302	SLU 2	1.39	0.17	18.21	-0.1212	-0.0073	-0.0009
302	SLU 3	1.55	0.17	18.65	-0.1258	-0.0032	-0.001
302	SLU 4	1.54	0.17	18.6	-0.1261	-0.0033	-0.001
302	SLU 5	1.52	0.17	18.46	-0.1245	-0.0032	-0.001
302	SLU 6	1.68	0.18	18.89	-0.1291	0.0009	-0.001
302	SLU 7	1.67	0.18	18.84	-0.1294	0.0007	-0.001
302	SLU 8	1.67	0.18	18.78	-0.1274	0.0012	-0.001
302	SLU 9	1.65	0.18	18.73	-0.1276	0.001	-0.001
302	SLU 10	1.66	0.19	20.88	-0.1371	-0.0066	-0.001
302	SLU 11	1.82	0.2	21.32	-0.1416	-0.0025	-0.0011
302	SLU 12	1.81	0.2	21.27	-0.1419	-0.0027	-0.0011
302	SLU 13	1.78	0.19	21.13	-0.1404	-0.0025	-0.0011
302	SLU 14	1.95	0.2	21.57	-0.1449	0.0016	-0.0011
302	SLU 15	1.93	0.2	21.52	-0.1452	0.0014	-0.0011
302	SLU 16	1.93	0.2	21.46	-0.1432	0.0018	-0.0011
302	SLU 17	1.92	0.2	21.41	-0.1435	0.0016	-0.0011
302	SLU 18	1.79	0.2	22.11	-0.1434	-0.006	-0.0011
302	SLU 19	1.78	0.2	22.06	-0.1437	-0.0062	-0.0011
302	SLU 20	1.92	0.2	22.36	-0.1467	-0.002	-0.0011
302	SLU 21	1.91	0.2	22.31	-0.147	-0.0022	-0.0011
302	SLU 22	1.72	0.19	20.78	-0.1375	-0.0042	-0.0011
302	SLU 23	1.7	0.19	20.7	-0.138	-0.0045	-0.0011
302	SLU 24	1.86	0.2	21.14	-0.1426	-0.0004	-0.0011
302	SLU 25	1.85	0.2	21.09	-0.1428	-0.0006	-0.0011
302	SLU 26	1.82	0.19	20.95	-0.1413	-0.0005	-0.0011
302	SLU 27	1.99	0.2	21.38	-0.1459	0.0036	-0.0011
302	SLU 28	1.97	0.2	21.33	-0.1461	0.0035	-0.0011
302	SLU 29	1.97	0.2	21.28	-0.1441	0.0039	-0.0011
302	SLU 30	1.96	0.2	21.23	-0.1444	0.0037	-0.0011
302	SLU 31	1.96	0.21	23.38	-0.1538	-0.0039	-0.0012
302	SLU 32	2.12	0.22	23.81	-0.1584	0.0002	-0.0012
302	SLU 33	2.11	0.22	23.76	-0.1587	0.0001	-0.0012
302	SLU 34	2.09	0.22	23.62	-0.1571	0.0002	-0.0012
302	SLU 35	2.25	0.22	24.06	-0.1617	0.0043	-0.0012
302	SLU 36	2.24	0.22	24.01	-0.162	0.0041	-0.0012
302	SLU 37	2.24	0.22	23.95	-0.16	0.0045	-0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
302	SLU 38	2.22	0.22	23.9	-0.1603	0.0044	-0.0012
302	SLU 39	2.1	0.22	24.6	-0.1602	-0.0033	-0.0012
302	SLU 40	2.08	0.22	24.56	-0.1604	-0.0035	-0.0012
302	SLU 41	2.22	0.23	24.85	-0.1635	0.0008	-0.0013
302	SLU 42	2.21	0.23	24.8	-0.1637	0.0006	-0.0013
302	SLU 43	1.73	0.21	22.92	-0.1512	-0.01	-0.0012
302	SLU 44	1.71	0.21	22.84	-0.1517	-0.0103	-0.0012
302	SLU 45	1.87	0.22	23.28	-0.1563	-0.0062	-0.0012
302	SLU 46	1.86	0.22	23.23	-0.1565	-0.0064	-0.0012
302	SLU 47	1.84	0.21	23.09	-0.155	-0.0062	-0.0012
302	SLU 48	2	0.22	23.53	-0.1596	-0.0021	-0.0012
302	SLU 49	1.99	0.22	23.48	-0.1598	-0.0023	-0.0012
302	SLU 50	1.99	0.22	23.42	-0.1578	-0.0019	-0.0012
302	SLU 51	1.97	0.22	23.37	-0.1581	-0.0021	-0.0012
302	SLU 52	1.98	0.23	25.52	-0.1675	-0.0096	-0.0013
302	SLU 53	2.14	0.24	25.95	-0.1721	-0.0055	-0.0013
302	SLU 54	2.13	0.24	25.91	-0.1724	-0.0057	-0.0013
302	SLU 55	2.1	0.24	25.76	-0.1708	-0.0056	-0.0013
302	SLU 56	2.27	0.24	26.2	-0.1754	-0.0015	-0.0013
302	SLU 57	2.25	0.24	26.15	-0.1757	-0.0016	-0.0013
302	SLU 58	2.25	0.24	26.09	-0.1737	-0.0012	-0.0013
302	SLU 59	2.24	0.24	26.04	-0.1739	-0.0014	-0.0013
302	SLU 60	2.11	0.24	26.75	-0.1739	-0.0091	-0.0013
302	SLU 61	2.1	0.24	26.7	-0.1741	-0.0092	-0.0013
302	SLU 62	2.24	0.25	26.99	-0.1771	-0.005	-0.0014
302	SLU 63	2.23	0.24	26.94	-0.1774	-0.0052	-0.0014
302	SLU 64	2.04	0.23	25.42	-0.168	-0.0073	-0.0013
302	SLU 65	2.02	0.23	25.33	-0.1685	-0.0076	-0.0013
302	SLU 66	2.18	0.24	25.77	-0.173	-0.0035	-0.0013
302	SLU 67	2.17	0.24	25.72	-0.1733	-0.0036	-0.0013
302	SLU 68	2.14	0.24	25.58	-0.1718	-0.0035	-0.0013
302	SLU 69	2.3	0.24	26.02	-0.1763	0.0006	-0.0014
302	SLU 70	2.29	0.24	25.97	-0.1766	0.0004	-0.0014
302	SLU 71	2.29	0.24	25.91	-0.1746	0.0009	-0.0013
302	SLU 72	2.28	0.24	25.86	-0.1749	0.0007	-0.0013
302	SLU 73	2.28	0.25	28.01	-0.1843	-0.0069	-0.0014
302	SLU 74	2.44	0.26	28.45	-0.1889	-0.0028	-0.0015
302	SLU 75	2.43	0.26	28.4	-0.1892	-0.003	-0.0015
302	SLU 76	2.41	0.26	28.26	-0.1876	-0.0028	-0.0014
302	SLU 77	2.57	0.27	28.69	-0.1922	0.0013	-0.0015
302	SLU 78	2.56	0.27	28.64	-0.1925	0.0011	-0.0015
302	SLU 79	2.56	0.26	28.58	-0.1904	0.0015	-0.0015
302	SLU 80	2.54	0.26	28.53	-0.1907	0.0013	-0.0015
302	SLU 81	2.42	0.26	29.24	-0.1906	-0.0063	-0.0015
302	SLU 82	2.4	0.26	29.19	-0.1909	-0.0065	-0.0015
302	SLU 83	2.54	0.27	29.48	-0.1939	-0.0023	-0.0015
302	SLU 84	2.53	0.27	29.44	-0.1942	-0.0024	-0.0015
302	SLE RA 1	1.5	0.17	19	-0.1256	-0.0062	-0.001
302	SLE RA 2	1.49	0.17	18.95	-0.1259	-0.0064	-0.001
302	SLE RA 3	1.59	0.18	19.24	-0.1289	-0.0036	-0.001
302	SLE RA 4	1.59	0.18	19.21	-0.1291	-0.0038	-0.001
302	SLE RA 5	1.57	0.18	19.11	-0.1281	-0.0037	-0.001
302	SLE RA 6	1.68	0.18	19.4	-0.1311	-0.0009	-0.001
302	SLE RA 7	1.67	0.18	19.37	-0.1313	-0.0011	-0.001
302	SLE RA 8	1.67	0.18	19.33	-0.13	-0.0008	-0.001
302	SLE RA 9	1.66	0.18	19.3	-0.1301	-0.0009	-0.001
302	SLE RA 10	1.66	0.19	20.73	-0.1364	-0.006	-0.001
302	SLE RA 11	1.77	0.19	21.02	-0.1395	-0.0032	-0.0011
302	SLE RA 12	1.76	0.19	20.99	-0.1396	-0.0033	-0.0011
302	SLE RA 13	1.75	0.19	20.9	-0.1386	-0.0032	-0.0011
302	SLE RA 14	1.86	0.2	21.19	-0.1417	-0.0005	-0.0011
302	SLE RA 15	1.85	0.2	21.15	-0.1418	-0.0006	-0.0011
302	SLE RA 16	1.85	0.19	21.12	-0.1405	-0.0003	-0.0011
302	SLE RA 17	1.84	0.19	21.08	-0.1407	-0.0005	-0.0011
302	SLE RA 18	1.75	0.19	21.55	-0.1406	-0.0056	-0.0011
302	SLE RA 19	1.75	0.19	21.52	-0.1408	-0.0057	-0.0011
302	SLE RA 20	1.84	0.2	21.72	-0.1428	-0.0029	-0.0011
302	SLE RA 21	1.83	0.2	21.68	-0.143	-0.003	-0.0011
302	SLE FR 1	1.5	0.17	19	-0.1256	-0.0062	-0.001
302	SLE FR 2	1.5	0.17	18.99	-0.1256	-0.0062	-0.001
302	SLE FR 3	1.53	0.17	19.07	-0.1264	-0.0051	-0.001
302	SLE FR 4	1.57	0.18	19.76	-0.1301	-0.006	-0.001
302	SLE FR 5	1.61	0.18	19.83	-0.131	-0.0049	-0.001
302	SLE FR 6	1.63	0.18	20.28	-0.1331	-0.0059	-0.001
302	SLE QP 1	1.5	0.17	19	-0.1256	-0.0062	-0.001
302	SLE QP 2	1.58	0.18	19.77	-0.1301	-0.006	-0.001
302	SLD 1	6.62	0.13	19.45	-0.2975	0.2185	-0.0007
302	SLD 2	6.62	0.13	19.45	-0.2975	0.2185	-0.0007
302	SLD 3	7.42	0.36	22.48	-0.0735	0.2513	-0.002
302	SLD 4	7.42	0.36	22.48	-0.0735	0.2513	-0.002
302	SLD 5	1.87	-0.19	15.08	-0.5201	0.0117	0.001
302	SLD 6	1.87	-0.19	15.08	-0.5201	0.0117	0.001
302	SLD 7	4.54	0.58	25.17	0.2267	0.1208	-0.0032
302	SLD 8	4.54	0.58	25.17	0.2267	0.1208	-0.0032
302	SLD 9	-1.39	-0.22	14.36	-0.4868	-0.1328	0.0012
302	SLD 10	-1.39	-0.22	14.36	-0.4868	-0.1328	0.0012
302	SLD 11	1.28	0.55	24.46	0.2599	-0.0237	-0.003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
302	SLD 12	1.28	0.55	24.46	0.2599	-0.0237	-0.003
302	SLD 13	-4.27	0	17.06	-0.1866	-0.2633	0
302	SLD 14	-4.27	0	17.06	-0.1866	-0.2633	0
302	SLD 15	-3.46	0.23	20.09	0.0374	-0.2306	-0.0013
302	SLD 16	-3.46	0.23	20.09	0.0374	-0.2306	-0.0013
302	SLV 1	13.32	0.05	18.94	-0.5396	0.5172	-0.0003
302	SLV 2	13.32	0.05	18.94	-0.5396	0.5172	-0.0003
302	SLV 3	15.24	0.61	26.31	0.009	0.5956	-0.0034
302	SLV 4	15.24	0.61	26.31	0.009	0.5956	-0.0034
302	SLV 5	2.2	-0.72	8.34	-1.085	0.0321	0.004
302	SLV 6	2.2	-0.72	8.34	-1.085	0.0321	0.004
302	SLV 7	8.58	1.17	32.91	0.7437	0.2933	-0.0065
302	SLV 8	8.58	1.17	32.91	0.7437	0.2933	-0.0065
302	SLV 9	-5.43	-0.81	6.63	-1.0039	-0.3053	0.0045
302	SLV 10	-5.43	-0.81	6.63	-1.0039	-0.3053	0.0045
302	SLV 11	0.96	1.08	31.19	0.8248	-0.0441	-0.006
302	SLV 12	0.96	1.08	31.19	0.8248	-0.0441	-0.006
302	SLV 13	-12.08	-0.25	13.22	-0.2692	-0.6076	0.0014
302	SLV 14	-12.08	-0.25	13.22	-0.2692	-0.6076	0.0014
302	SLV 15	-10.17	0.31	20.59	0.2794	-0.5293	-0.0017
302	SLV 16	-10.17	0.31	20.59	0.2794	-0.5293	-0.0017
303	SLU 1	2.97	0.2	21.22	-0.1359	0.1744	-0.001
303	SLU 2	2.93	0.2	21.16	-0.1361	0.1718	-0.001
303	SLU 3	3.17	0.21	21.69	-0.1415	0.1848	-0.001
303	SLU 4	3.14	0.21	21.65	-0.1416	0.1832	-0.001
303	SLU 5	3.09	0.21	21.48	-0.1398	0.1799	-0.001
303	SLU 6	3.33	0.22	22.02	-0.1452	0.1929	-0.001
303	SLU 7	3.3	0.22	21.98	-0.1453	0.1914	-0.001
303	SLU 8	3.29	0.21	21.88	-0.1433	0.1907	-0.001
303	SLU 9	3.27	0.21	21.84	-0.1434	0.1892	-0.001
303	SLU 10	3.42	0.23	24.32	-0.1547	0.2	-0.0011
303	SLU 11	3.66	0.24	24.86	-0.16	0.213	-0.0011
303	SLU 12	3.63	0.24	24.82	-0.1602	0.2114	-0.0011
303	SLU 13	3.58	0.23	24.65	-0.1584	0.2081	-0.0011
303	SLU 14	3.82	0.24	25.19	-0.1637	0.2212	-0.0012
303	SLU 15	3.79	0.24	25.15	-0.1639	0.2196	-0.0012
303	SLU 16	3.78	0.24	25.04	-0.1618	0.2189	-0.0011
303	SLU 17	3.75	0.24	25	-0.162	0.2174	-0.0011
303	SLU 18	3.67	0.24	25.75	-0.1624	0.2147	-0.0011
303	SLU 19	3.64	0.24	25.71	-0.1625	0.2131	-0.0011
303	SLU 20	3.83	0.25	26.07	-0.1661	0.2229	-0.0012
303	SLU 21	3.8	0.25	26.03	-0.1662	0.2213	-0.0012
303	SLU 22	3.5	0.23	24.19	-0.1553	0.2044	-0.0011
303	SLU 23	3.46	0.23	24.13	-0.1555	0.2018	-0.0011
303	SLU 24	3.7	0.24	24.66	-0.1609	0.2148	-0.0011
303	SLU 25	3.67	0.24	24.62	-0.161	0.2132	-0.0011
303	SLU 26	3.62	0.24	24.45	-0.1592	0.2099	-0.0011
303	SLU 27	3.86	0.24	24.99	-0.1646	0.2229	-0.0012
303	SLU 28	3.83	0.24	24.95	-0.1647	0.2214	-0.0012
303	SLU 29	3.82	0.24	24.85	-0.1627	0.2207	-0.0011
303	SLU 30	3.79	0.24	24.81	-0.1628	0.2191	-0.0011
303	SLU 31	3.95	0.26	27.29	-0.1741	0.23	-0.0012
303	SLU 32	4.18	0.27	27.83	-0.1794	0.243	-0.0013
303	SLU 33	4.16	0.27	27.79	-0.1796	0.2414	-0.0013
303	SLU 34	4.11	0.26	27.62	-0.1778	0.2381	-0.0012
303	SLU 35	4.35	0.27	28.16	-0.1831	0.2511	-0.0013
303	SLU 36	4.32	0.27	28.12	-0.1833	0.2496	-0.0013
303	SLU 37	4.31	0.27	28.01	-0.1812	0.2489	-0.0013
303	SLU 38	4.28	0.27	27.97	-0.1814	0.2474	-0.0013
303	SLU 39	4.2	0.27	28.72	-0.1818	0.2447	-0.0013
303	SLU 40	4.17	0.27	28.68	-0.1819	0.2431	-0.0013
303	SLU 41	4.36	0.28	29.04	-0.1855	0.2529	-0.0013
303	SLU 42	4.33	0.28	29	-0.1856	0.2513	-0.0013
303	SLU 43	3.68	0.25	26.57	-0.17	0.2165	-0.0012
303	SLU 44	3.64	0.25	26.5	-0.1702	0.2138	-0.0012
303	SLU 45	3.88	0.26	27.04	-0.1756	0.2268	-0.0012
303	SLU 46	3.85	0.26	27	-0.1757	0.2252	-0.0012
303	SLU 47	3.8	0.26	26.83	-0.1739	0.222	-0.0012
303	SLU 48	4.04	0.27	27.37	-0.1793	0.235	-0.0013
303	SLU 49	4.01	0.27	27.33	-0.1794	0.2334	-0.0013
303	SLU 50	4	0.26	27.22	-0.1774	0.2328	-0.0012
303	SLU 51	3.97	0.26	27.18	-0.1775	0.2312	-0.0012
303	SLU 52	4.13	0.28	29.67	-0.1888	0.242	-0.0013
303	SLU 53	4.36	0.29	30.21	-0.1941	0.255	-0.0014
303	SLU 54	4.34	0.29	30.17	-0.1943	0.2534	-0.0014
303	SLU 55	4.29	0.29	30	-0.1925	0.2502	-0.0014
303	SLU 56	4.53	0.29	30.53	-0.1978	0.2632	-0.0014
303	SLU 57	4.5	0.29	30.49	-0.198	0.2616	-0.0014
303	SLU 58	4.49	0.29	30.39	-0.1959	0.261	-0.0014
303	SLU 59	4.46	0.29	30.35	-0.1961	0.2594	-0.0014
303	SLU 60	4.38	0.29	31.09	-0.1965	0.2567	-0.0014
303	SLU 61	4.35	0.29	31.05	-0.1966	0.2552	-0.0014
303	SLU 62	4.54	0.3	31.42	-0.2002	0.2649	-0.0014
303	SLU 63	4.51	0.3	31.38	-0.2003	0.2633	-0.0014
303	SLU 64	4.21	0.28	29.54	-0.1894	0.2465	-0.0013
303	SLU 65	4.17	0.28	29.47	-0.1896	0.2438	-0.0013
303	SLU 66	4.41	0.29	30.01	-0.195	0.2568	-0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
303	SLU 67	4.38	0.29	29.97	-0.1951	0.2552	-0.0014
303	SLU 68	4.33	0.29	29.8	-0.1933	0.252	-0.0014
303	SLU 69	4.57	0.3	30.34	-0.1987	0.265	-0.0014
303	SLU 70	4.54	0.3	30.3	-0.1988	0.2634	-0.0014
303	SLU 71	4.53	0.29	30.19	-0.1968	0.2628	-0.0014
303	SLU 72	4.5	0.29	30.16	-0.1969	0.2612	-0.0014
303	SLU 73	4.65	0.31	32.64	-0.2082	0.272	-0.0015
303	SLU 74	4.89	0.32	33.18	-0.2135	0.285	-0.0015
303	SLU 75	4.87	0.32	33.14	-0.2137	0.2834	-0.0015
303	SLU 76	4.82	0.31	32.97	-0.2119	0.2802	-0.0015
303	SLU 77	5.05	0.32	33.5	-0.2172	0.2932	-0.0015
303	SLU 78	5.03	0.32	33.47	-0.2174	0.2916	-0.0015
303	SLU 79	5.02	0.32	33.36	-0.2153	0.291	-0.0015
303	SLU 80	4.99	0.32	33.32	-0.2155	0.2894	-0.0015
303	SLU 81	4.91	0.32	34.06	-0.2159	0.2867	-0.0015
303	SLU 82	4.88	0.32	34.02	-0.216	0.2852	-0.0015
303	SLU 83	5.07	0.33	34.39	-0.2196	0.2949	-0.0015
303	SLU 84	5.04	0.33	34.35	-0.2197	0.2933	-0.0015
303	SLE RA 1	3.12	0.21	22.07	-0.1414	0.183	-0.001
303	SLE RA 2	3.09	0.21	22.03	-0.1416	0.1812	-0.001
303	SLE RA 3	3.25	0.22	22.38	-0.1451	0.1899	-0.001
303	SLE RA 4	3.24	0.22	22.36	-0.1452	0.1888	-0.001
303	SLE RA 5	3.2	0.21	22.25	-0.144	0.1867	-0.001
303	SLE RA 6	3.36	0.22	22.6	-0.1476	0.1953	-0.001
303	SLE RA 7	3.34	0.22	22.58	-0.1477	0.1943	-0.001
303	SLE RA 8	3.33	0.22	22.51	-0.1463	0.1939	-0.001
303	SLE RA 9	3.32	0.22	22.48	-0.1464	0.1928	-0.001
303	SLE RA 10	3.42	0.23	24.14	-0.1539	0.2	-0.0011
303	SLE RA 11	3.58	0.23	24.49	-0.1575	0.2087	-0.0011
303	SLE RA 12	3.56	0.23	24.47	-0.1576	0.2076	-0.0011
303	SLE RA 13	3.53	0.23	24.36	-0.1564	0.2055	-0.0011
303	SLE RA 14	3.69	0.24	24.71	-0.16	0.2141	-0.0011
303	SLE RA 15	3.67	0.24	24.69	-0.1601	0.2131	-0.0011
303	SLE RA 16	3.66	0.24	24.62	-0.1587	0.2127	-0.0011
303	SLE RA 17	3.64	0.24	24.59	-0.1588	0.2116	-0.0011
303	SLE RA 18	3.59	0.24	25.09	-0.1591	0.2098	-0.0011
303	SLE RA 19	3.57	0.24	25.06	-0.1592	0.2088	-0.0011
303	SLE RA 20	3.69	0.24	25.3	-0.1615	0.2153	-0.0011
303	SLE RA 21	3.68	0.24	25.28	-0.1616	0.2142	-0.0011
303	SLE FR 1	3.12	0.21	22.07	-0.1414	0.183	-0.001
303	SLE FR 2	3.11	0.21	22.06	-0.1414	0.1826	-0.001
303	SLE FR 3	3.16	0.21	22.16	-0.1424	0.1852	-0.001
303	SLE FR 4	3.25	0.22	22.97	-0.1467	0.1907	-0.001
303	SLE FR 5	3.3	0.22	23.06	-0.1477	0.1932	-0.001
303	SLE FR 6	3.35	0.22	23.58	-0.1502	0.1964	-0.0011
303	SLE QP 1	3.12	0.21	22.07	-0.1414	0.183	-0.001
303	SLE QP 2	3.26	0.22	22.97	-0.1467	0.191	-0.001
303	SLD 1	8.13	0.18	23.11	-0.3027	0.4131	-0.0008
303	SLD 2	8.13	0.18	23.11	-0.3027	0.4131	-0.0008
303	SLD 3	9.01	0.38	25.76	-0.0981	0.4585	-0.0018
303	SLD 4	9.01	0.38	25.76	-0.0981	0.4585	-0.0018
303	SLD 5	3.4	-0.11	19	-0.5038	0.1888	0.0006
303	SLD 6	3.4	-0.11	19	-0.5038	0.1888	0.0006
303	SLD 7	6.31	0.58	27.83	0.1782	0.3401	-0.0028
303	SLD 8	6.31	0.58	27.83	0.1782	0.3401	-0.0028
303	SLD 9	0.21	-0.14	18.12	-0.4716	0.042	0.0008
303	SLD 10	0.21	-0.14	18.12	-0.4716	0.042	0.0008
303	SLD 11	3.12	0.54	26.95	0.2104	0.1933	-0.0027
303	SLD 12	3.12	0.54	26.95	0.2104	0.1933	-0.0027
303	SLD 13	-2.49	0.05	20.19	-0.1953	-0.0764	-0.0002
303	SLD 14	-2.49	0.05	20.19	-0.1953	-0.0764	-0.0002
303	SLD 15	-1.61	0.26	22.83	0.0093	-0.031	-0.0013
303	SLD 16	-1.61	0.26	22.83	0.0093	-0.031	-0.0013
303	SLV 1	14.61	0.12	23.23	-0.5269	0.7079	-0.0005
303	SLV 2	14.61	0.12	23.23	-0.5269	0.7079	-0.0005
303	SLV 3	16.69	0.62	29.65	-0.026	0.8165	-0.003
303	SLV 4	16.69	0.62	29.65	-0.026	0.8165	-0.003
303	SLV 5	3.5	-0.57	13.31	-1.0204	0.1814	0.003
303	SLV 6	3.5	-0.57	13.31	-1.0204	0.1814	0.003
303	SLV 7	10.46	1.1	34.72	0.6492	0.5434	-0.0055
303	SLV 8	10.46	1.1	34.72	0.6492	0.5434	-0.0055
303	SLV 9	-3.94	-0.66	11.23	-0.9426	-0.1613	0.0034
303	SLV 10	-3.94	-0.66	11.23	-0.9426	-0.1613	0.0034
303	SLV 11	3.02	1.01	32.64	0.727	0.2007	-0.005
303	SLV 12	3.02	1.01	32.64	0.727	0.2007	-0.005
303	SLV 13	-10.17	-0.18	16.3	-0.2674	-0.4344	0.0009
303	SLV 14	-10.17	-0.18	16.3	-0.2674	-0.4344	0.0009
303	SLV 15	-8.09	0.32	22.72	0.2335	-0.3258	-0.0016
303	SLV 16	-8.09	0.32	22.72	0.2335	-0.3258	-0.0016
304	SLU 1	2.48	0.23	24.9	-0.1435	0.0266	-0.001
304	SLU 2	2.44	0.23	24.84	-0.1435	0.0254	-0.001
304	SLU 3	2.66	0.24	25.51	-0.1493	0.0317	-0.001
304	SLU 4	2.64	0.24	25.47	-0.1494	0.031	-0.001
304	SLU 5	2.59	0.23	25.26	-0.1474	0.0301	-0.001
304	SLU 6	2.8	0.24	25.93	-0.1532	0.0363	-0.001
304	SLU 7	2.78	0.24	25.89	-0.1532	0.0356	-0.001
304	SLU 8	2.77	0.24	25.74	-0.1512	0.0359	-0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
304	SLU 9	2.75	0.24	25.71	-0.1513	0.0352	-0.001
304	SLU 10	2.82	0.26	28.61	-0.1638	0.0294	-0.0011
304	SLU 11	3.04	0.27	29.27	-0.1696	0.0356	-0.0011
304	SLU 12	3.02	0.27	29.24	-0.1696	0.0349	-0.0011
304	SLU 13	2.97	0.26	29.03	-0.1677	0.034	-0.0011
304	SLU 14	3.19	0.27	29.69	-0.1735	0.0403	-0.0012
304	SLU 15	3.17	0.27	29.66	-0.1735	0.0396	-0.0012
304	SLU 16	3.15	0.27	29.51	-0.1715	0.0398	-0.0012
304	SLU 17	3.13	0.27	29.47	-0.1715	0.0391	-0.0012
304	SLU 18	3.02	0.27	30.28	-0.1724	0.0323	-0.0012
304	SLU 19	3	0.27	30.25	-0.1725	0.0315	-0.0012
304	SLU 20	3.17	0.28	30.7	-0.1763	0.0369	-0.0012
304	SLU 21	3.15	0.28	30.67	-0.1763	0.0362	-0.0012
304	SLU 22	2.91	0.26	28.45	-0.1644	0.033	-0.0011
304	SLU 23	2.87	0.26	28.4	-0.1644	0.0318	-0.0011
304	SLU 24	3.09	0.27	29.06	-0.1702	0.0381	-0.0012
304	SLU 25	3.07	0.27	29.03	-0.1703	0.0374	-0.0012
304	SLU 26	3.02	0.27	28.82	-0.1683	0.0365	-0.0011
304	SLU 27	3.24	0.28	29.48	-0.1741	0.0427	-0.0012
304	SLU 28	3.22	0.28	29.45	-0.1742	0.042	-0.0012
304	SLU 29	3.2	0.27	29.29	-0.1721	0.0423	-0.0012
304	SLU 30	3.18	0.27	29.26	-0.1722	0.0416	-0.0012
304	SLU 31	3.26	0.29	32.17	-0.1847	0.0358	-0.0012
304	SLU 32	3.48	0.3	32.83	-0.1905	0.0421	-0.0013
304	SLU 33	3.45	0.3	32.8	-0.1905	0.0413	-0.0013
304	SLU 34	3.4	0.3	32.59	-0.1886	0.0404	-0.0013
304	SLU 35	3.62	0.31	33.25	-0.1944	0.0467	-0.0013
304	SLU 36	3.6	0.31	33.22	-0.1944	0.046	-0.0013
304	SLU 37	3.59	0.31	33.06	-0.1924	0.0462	-0.0013
304	SLU 38	3.57	0.3	33.03	-0.1924	0.0455	-0.0013
304	SLU 39	3.46	0.31	33.83	-0.1933	0.0387	-0.0013
304	SLU 40	3.44	0.31	33.8	-0.1934	0.038	-0.0013
304	SLU 41	3.61	0.31	34.25	-0.1972	0.0433	-0.0013
304	SLU 42	3.58	0.31	34.22	-0.1972	0.0426	-0.0013
304	SLU 43	3.07	0.28	31.15	-0.1793	0.0324	-0.0012
304	SLU 44	3.03	0.28	31.09	-0.1794	0.0312	-0.0012
304	SLU 45	3.25	0.29	31.76	-0.1852	0.0375	-0.0013
304	SLU 46	3.23	0.29	31.72	-0.1852	0.0368	-0.0013
304	SLU 47	3.18	0.29	31.51	-0.1833	0.0358	-0.0012
304	SLU 48	3.4	0.3	32.18	-0.1891	0.0421	-0.0013
304	SLU 49	3.38	0.3	32.14	-0.1891	0.0414	-0.0013
304	SLU 50	3.36	0.3	31.99	-0.1871	0.0417	-0.0013
304	SLU 51	3.34	0.3	31.96	-0.1871	0.0409	-0.0013
304	SLU 52	3.42	0.32	34.86	-0.1997	0.0352	-0.0013
304	SLU 53	3.64	0.33	35.52	-0.2055	0.0414	-0.0014
304	SLU 54	3.61	0.32	35.49	-0.2055	0.0407	-0.0014
304	SLU 55	3.56	0.32	35.28	-0.2035	0.0398	-0.0014
304	SLU 56	3.78	0.33	35.94	-0.2093	0.0461	-0.0014
304	SLU 57	3.76	0.33	35.91	-0.2094	0.0453	-0.0014
304	SLU 58	3.75	0.33	35.76	-0.2074	0.0456	-0.0014
304	SLU 59	3.73	0.33	35.72	-0.2074	0.0449	-0.0014
304	SLU 60	3.62	0.33	36.53	-0.2083	0.038	-0.0014
304	SLU 61	3.6	0.33	36.5	-0.2083	0.0373	-0.0014
304	SLU 62	3.77	0.34	36.95	-0.2122	0.0427	-0.0014
304	SLU 63	3.74	0.34	36.92	-0.2122	0.042	-0.0014
304	SLU 64	3.5	0.32	34.7	-0.2003	0.0388	-0.0014
304	SLU 65	3.47	0.32	34.65	-0.2003	0.0376	-0.0014
304	SLU 66	3.69	0.33	35.31	-0.2061	0.0439	-0.0014
304	SLU 67	3.66	0.33	35.28	-0.2061	0.0432	-0.0014
304	SLU 68	3.61	0.32	35.07	-0.2042	0.0423	-0.0014
304	SLU 69	3.83	0.33	35.73	-0.21	0.0485	-0.0014
304	SLU 70	3.81	0.33	35.7	-0.21	0.0478	-0.0014
304	SLU 71	3.8	0.33	35.54	-0.208	0.0481	-0.0014
304	SLU 72	3.78	0.33	35.51	-0.208	0.0474	-0.0014
304	SLU 73	3.85	0.35	38.42	-0.2206	0.0416	-0.0015
304	SLU 74	4.07	0.36	39.08	-0.2264	0.0478	-0.0015
304	SLU 75	4.05	0.36	39.05	-0.2264	0.0471	-0.0015
304	SLU 76	4	0.35	38.84	-0.2245	0.0462	-0.0015
304	SLU 77	4.22	0.37	39.5	-0.2303	0.0525	-0.0016
304	SLU 78	4.19	0.36	39.47	-0.2303	0.0518	-0.0016
304	SLU 79	4.18	0.36	39.31	-0.2283	0.052	-0.0015
304	SLU 80	4.16	0.36	39.28	-0.2283	0.0513	-0.0015
304	SLU 81	4.05	0.36	40.08	-0.2292	0.0445	-0.0016
304	SLU 82	4.03	0.36	40.05	-0.2292	0.0437	-0.0016
304	SLU 83	4.2	0.37	40.5	-0.2331	0.0491	-0.0016
304	SLU 84	4.18	0.37	40.47	-0.2331	0.0484	-0.0016
304	SLE RA 1	2.6	0.24	25.91	-0.1495	0.0285	-0.001
304	SLE RA 2	2.57	0.24	25.88	-0.1495	0.0277	-0.001
304	SLE RA 3	2.72	0.24	26.32	-0.1534	0.0318	-0.001
304	SLE RA 4	2.71	0.24	26.3	-0.1534	0.0314	-0.001
304	SLE RA 5	2.67	0.24	26.16	-0.1521	0.0307	-0.001
304	SLE RA 6	2.82	0.25	26.6	-0.1559	0.0349	-0.0011
304	SLE RA 7	2.8	0.25	26.58	-0.156	0.0345	-0.0011
304	SLE RA 8	2.8	0.24	26.47	-0.1546	0.0346	-0.001
304	SLE RA 9	2.78	0.24	26.45	-0.1546	0.0341	-0.001
304	SLE RA 10	2.83	0.26	28.39	-0.163	0.0303	-0.0011
304	SLE RA 11	2.98	0.26	28.83	-0.1669	0.0345	-0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
304	SLE RA 12	2.96	0.26	28.81	-0.1669	0.034	-0.0011
304	SLE RA 13	2.93	0.26	28.67	-0.1656	0.0334	-0.0011
304	SLE RA 14	3.07	0.27	29.11	-0.1694	0.0376	-0.0011
304	SLE RA 15	3.06	0.27	29.09	-0.1695	0.0371	-0.0011
304	SLE RA 16	3.05	0.27	28.98	-0.1681	0.0372	-0.0011
304	SLE RA 17	3.04	0.27	28.96	-0.1681	0.0368	-0.0011
304	SLE RA 18	2.97	0.27	29.5	-0.1688	0.0322	-0.0011
304	SLE RA 19	2.95	0.27	29.48	-0.1688	0.0317	-0.0011
304	SLE RA 20	3.06	0.27	29.78	-0.1713	0.0353	-0.0012
304	SLE RA 21	3.05	0.27	29.76	-0.1714	0.0348	-0.0012
304	SLE FR 1	2.6	0.24	25.91	-0.1495	0.0285	-0.001
304	SLE FR 2	2.59	0.24	25.91	-0.1495	0.0283	-0.001
304	SLE FR 3	2.64	0.24	26.02	-0.1505	0.0297	-0.001
304	SLE FR 4	2.7	0.25	26.98	-0.1552	0.0294	-0.0011
304	SLE FR 5	2.75	0.25	27.1	-0.1563	0.0308	-0.0011
304	SLE FR 6	2.78	0.25	27.71	-0.1591	0.0303	-0.0011
304	SLE QP 1	2.6	0.24	25.91	-0.1495	0.0285	-0.001
304	SLE QP 2	2.71	0.25	26.99	-0.1552	0.0296	-0.0011
304	SLD 1	7.26	0.23	27.56	-0.1183	0.2347	-0.0004
304	SLD 2	7.26	0.23	27.56	-0.1183	0.2347	-0.0004
304	SLD 3	8.06	0.39	29.65	-0.2906	0.2676	-0.0012
304	SLD 4	8.06	0.39	29.65	-0.2906	0.2676	-0.0012
304	SLD 5	2.86	0	23.98	0.1171	0.0412	0.0004
304	SLD 6	2.86	0	23.98	0.1171	0.0412	0.0004
304	SLD 7	5.53	0.53	30.97	-0.4571	0.1509	-0.0023
304	SLD 8	5.53	0.53	30.97	-0.4571	0.1509	-0.0023
304	SLD 9	-0.11	-0.04	23.01	0.1467	-0.0917	0.0002
304	SLD 10	-0.11	-0.04	23.01	0.1467	-0.0917	0.0002
304	SLD 11	2.56	0.5	30	-0.4276	0.018	-0.0025
304	SLD 12	2.56	0.5	30	-0.4276	0.018	-0.0025
304	SLD 13	-2.64	0.1	24.33	-0.0199	-0.2084	-0.0009
304	SLD 14	-2.64	0.1	24.33	-0.0199	-0.2084	-0.0009
304	SLD 15	-1.84	0.27	26.42	-0.1921	-0.1755	-0.0017
304	SLD 16	-1.84	0.27	26.42	-0.1921	-0.1755	-0.0017
304	SLV 1	13.3	0.19	28.27	-0.0625	0.507	0.0006
304	SLV 2	13.3	0.19	28.27	-0.0625	0.507	0.0006
304	SLV 3	15.22	0.59	33.32	-0.4842	0.5861	-0.0014
304	SLV 4	15.22	0.59	33.32	-0.4842	0.5861	-0.0014
304	SLV 5	2.97	-0.37	19.72	0.5121	0.0528	0.0025
304	SLV 6	2.97	-0.37	19.72	0.5121	0.0528	0.0025
304	SLV 7	9.38	0.94	36.54	-0.8934	0.3166	-0.0042
304	SLV 8	9.38	0.94	36.54	-0.8934	0.3166	-0.0042
304	SLV 9	-3.96	-0.45	17.44	0.583	-0.2574	0.0021
304	SLV 10	-3.96	-0.45	17.44	0.583	-0.2574	0.0021
304	SLV 11	2.45	0.86	34.26	-0.8226	0.0064	-0.0046
304	SLV 12	2.45	0.86	34.26	-0.8226	0.0064	-0.0046
304	SLV 13	-9.8	-0.1	20.66	0.1737	-0.5269	-0.0007
304	SLV 14	-9.8	-0.1	20.66	0.1737	-0.5269	-0.0007
304	SLV 15	-7.88	0.3	25.71	-0.248	-0.4478	-0.0027
304	SLV 16	-7.88	0.3	25.71	-0.248	-0.4478	-0.0027
305	SLU 1	3.65	0.23	29.52	-0.1385	0.1976	-0.0008
305	SLU 2	3.61	0.23	29.47	-0.1384	0.1949	-0.0008
305	SLU 3	3.88	0.24	30.3	-0.1441	0.2092	-0.0009
305	SLU 4	3.85	0.24	30.27	-0.144	0.2076	-0.0009
305	SLU 5	3.78	0.23	30	-0.1421	0.2036	-0.0009
305	SLU 6	4.06	0.24	30.83	-0.1478	0.2179	-0.0009
305	SLU 7	4.03	0.24	30.8	-0.1477	0.2163	-0.0009
305	SLU 8	4	0.24	30.58	-0.1459	0.215	-0.0009
305	SLU 9	3.97	0.24	30.55	-0.1458	0.2134	-0.0009
305	SLU 10	4.14	0.26	33.97	-0.1585	0.2242	-0.001
305	SLU 11	4.42	0.27	34.8	-0.1642	0.2385	-0.001
305	SLU 12	4.39	0.27	34.77	-0.1641	0.2369	-0.001
305	SLU 13	4.32	0.27	34.51	-0.1622	0.2329	-0.001
305	SLU 14	4.59	0.28	35.33	-0.1679	0.2472	-0.001
305	SLU 15	4.56	0.28	35.3	-0.1678	0.2456	-0.001
305	SLU 16	4.54	0.27	35.08	-0.166	0.2443	-0.001
305	SLU 17	4.51	0.27	35.05	-0.1659	0.2426	-0.001
305	SLU 18	4.42	0.28	35.95	-0.1672	0.2394	-0.001
305	SLU 19	4.39	0.28	35.92	-0.1672	0.2378	-0.001
305	SLU 20	4.59	0.28	36.48	-0.1709	0.2481	-0.001
305	SLU 21	4.56	0.28	36.45	-0.1709	0.2465	-0.001
305	SLU 22	4.25	0.26	33.79	-0.159	0.2296	-0.001
305	SLU 23	4.2	0.26	33.74	-0.1589	0.2269	-0.001
305	SLU 24	4.48	0.27	34.57	-0.1646	0.2412	-0.001
305	SLU 25	4.45	0.27	34.54	-0.1646	0.2396	-0.001
305	SLU 26	4.37	0.27	34.27	-0.1626	0.2356	-0.001
305	SLU 27	4.65	0.28	35.1	-0.1683	0.2499	-0.001
305	SLU 28	4.62	0.28	35.07	-0.1682	0.2483	-0.001
305	SLU 29	4.6	0.27	34.85	-0.1664	0.247	-0.001
305	SLU 30	4.57	0.27	34.82	-0.1663	0.2454	-0.001
305	SLU 31	4.74	0.3	38.24	-0.1791	0.2561	-0.0011
305	SLU 32	5.01	0.31	39.07	-0.1847	0.2705	-0.0011
305	SLU 33	4.98	0.3	39.04	-0.1847	0.2688	-0.0011
305	SLU 34	4.91	0.3	38.77	-0.1827	0.2648	-0.0011
305	SLU 35	5.19	0.31	39.6	-0.1884	0.2791	-0.0011
305	SLU 36	5.16	0.31	39.57	-0.1883	0.2775	-0.0011
305	SLU 37	5.13	0.31	39.35	-0.1865	0.2762	-0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
305	SLU 38	5.1	0.31	39.32	-0.1865	0.2746	-0.0011
305	SLU 39	5.01	0.31	40.22	-0.1878	0.2713	-0.0011
305	SLU 40	4.99	0.31	40.19	-0.1877	0.2697	-0.0011
305	SLU 41	5.19	0.32	40.75	-0.1914	0.28	-0.0012
305	SLU 42	5.16	0.32	40.72	-0.1914	0.2784	-0.0012
305	SLU 43	4.55	0.28	36.91	-0.173	0.2459	-0.001
305	SLU 44	4.5	0.28	36.86	-0.1729	0.2432	-0.001
305	SLU 45	4.78	0.29	37.69	-0.1786	0.2576	-0.0011
305	SLU 46	4.75	0.29	37.66	-0.1785	0.256	-0.0011
305	SLU 47	4.67	0.29	37.4	-0.1766	0.2519	-0.0011
305	SLU 48	4.95	0.3	38.22	-0.1823	0.2663	-0.0011
305	SLU 49	4.92	0.3	38.19	-0.1822	0.2647	-0.0011
305	SLU 50	4.9	0.3	37.97	-0.1804	0.2633	-0.0011
305	SLU 51	4.87	0.3	37.95	-0.1803	0.2617	-0.0011
305	SLU 52	5.03	0.32	41.37	-0.193	0.2725	-0.0012
305	SLU 53	5.31	0.33	42.19	-0.1987	0.2868	-0.0012
305	SLU 54	5.28	0.33	42.16	-0.1986	0.2852	-0.0012
305	SLU 55	5.21	0.32	41.9	-0.1967	0.2812	-0.0012
305	SLU 56	5.49	0.33	42.72	-0.2024	0.2955	-0.0012
305	SLU 57	5.46	0.33	42.69	-0.2023	0.2939	-0.0012
305	SLU 58	5.43	0.33	42.47	-0.2005	0.2926	-0.0012
305	SLU 59	5.4	0.33	42.45	-0.2004	0.291	-0.0012
305	SLU 60	5.31	0.33	43.34	-0.2017	0.2877	-0.0012
305	SLU 61	5.28	0.33	43.31	-0.2017	0.2861	-0.0012
305	SLU 62	5.49	0.34	43.87	-0.2054	0.2964	-0.0012
305	SLU 63	5.46	0.34	43.84	-0.2054	0.2948	-0.0012
305	SLU 64	5.14	0.32	41.18	-0.1935	0.2779	-0.0012
305	SLU 65	5.09	0.32	41.13	-0.1935	0.2752	-0.0012
305	SLU 66	5.37	0.33	41.96	-0.1991	0.2895	-0.0012
305	SLU 67	5.34	0.33	41.93	-0.1991	0.2879	-0.0012
305	SLU 68	5.27	0.32	41.67	-0.1971	0.2839	-0.0012
305	SLU 69	5.54	0.33	42.49	-0.2028	0.2982	-0.0012
305	SLU 70	5.52	0.33	42.46	-0.2027	0.2966	-0.0012
305	SLU 71	5.49	0.33	42.24	-0.2009	0.2953	-0.0012
305	SLU 72	5.46	0.33	42.21	-0.2009	0.2937	-0.0012
305	SLU 73	5.63	0.35	45.63	-0.2136	0.3045	-0.0013
305	SLU 74	5.91	0.36	46.46	-0.2192	0.3188	-0.0013
305	SLU 75	5.88	0.36	46.43	-0.2192	0.3172	-0.0013
305	SLU 76	5.8	0.36	46.17	-0.2173	0.3131	-0.0013
305	SLU 77	6.08	0.37	46.99	-0.2229	0.3275	-0.0013
305	SLU 78	6.05	0.37	46.96	-0.2229	0.3259	-0.0013
305	SLU 79	6.03	0.37	46.74	-0.221	0.3245	-0.0013
305	SLU 80	6	0.36	46.72	-0.221	0.3229	-0.0013
305	SLU 81	5.91	0.37	47.61	-0.2223	0.3197	-0.0013
305	SLU 82	5.88	0.37	47.58	-0.2222	0.3181	-0.0013
305	SLU 83	6.08	0.37	48.14	-0.226	0.3284	-0.0014
305	SLU 84	6.05	0.37	48.11	-0.2259	0.3268	-0.0014
305	SLE RA 1	3.82	0.24	30.74	-0.1444	0.2067	-0.0009
305	SLE RA 2	3.79	0.24	30.71	-0.1443	0.2049	-0.0009
305	SLE RA 3	3.98	0.24	31.26	-0.1481	0.2145	-0.0009
305	SLE RA 4	3.96	0.24	31.24	-0.148	0.2134	-0.0009
305	SLE RA 5	3.91	0.24	31.06	-0.1468	0.2107	-0.0009
305	SLE RA 6	4.09	0.25	31.61	-0.1505	0.2203	-0.0009
305	SLE RA 7	4.07	0.25	31.59	-0.1505	0.2192	-0.0009
305	SLE RA 8	4.06	0.25	31.45	-0.1493	0.2183	-0.0009
305	SLE RA 9	4.04	0.25	31.43	-0.1492	0.2173	-0.0009
305	SLE RA 10	4.15	0.26	33.71	-0.1577	0.2244	-0.001
305	SLE RA 11	4.33	0.27	34.26	-0.1615	0.234	-0.001
305	SLE RA 12	4.31	0.27	34.24	-0.1615	0.2329	-0.001
305	SLE RA 13	4.27	0.26	34.06	-0.1602	0.2302	-0.001
305	SLE RA 14	4.45	0.27	34.61	-0.1639	0.2398	-0.001
305	SLE RA 15	4.43	0.27	34.59	-0.1639	0.2387	-0.001
305	SLE RA 16	4.41	0.27	34.45	-0.1627	0.2378	-0.001
305	SLE RA 17	4.39	0.27	34.43	-0.1626	0.2368	-0.001
305	SLE RA 18	4.33	0.27	35.02	-0.1635	0.2346	-0.001
305	SLE RA 19	4.32	0.27	35.01	-0.1635	0.2335	-0.001
305	SLE RA 20	4.45	0.27	35.38	-0.166	0.2404	-0.001
305	SLE RA 21	4.43	0.27	35.36	-0.1659	0.2393	-0.001
305	SLE FR 1	3.82	0.24	30.74	-0.1444	0.2067	-0.0009
305	SLE FR 2	3.82	0.24	30.73	-0.1444	0.2064	-0.0009
305	SLE FR 3	3.87	0.24	30.88	-0.1453	0.2091	-0.0009
305	SLE FR 4	3.97	0.25	32.02	-0.1501	0.2147	-0.0009
305	SLE FR 5	4.02	0.25	32.17	-0.1511	0.2174	-0.0009
305	SLE FR 6	4.08	0.25	32.88	-0.1539	0.2207	-0.0009
305	SLE QP 1	3.82	0.24	30.74	-0.1444	0.2067	-0.0009
305	SLE QP 2	3.98	0.25	32.02	-0.1501	0.2151	-0.0009
305	SLD 1	8.25	0.25	29.53	-0.1268	0.4108	-0.0004
305	SLD 2	8.25	0.25	29.53	-0.1268	0.4108	-0.0004
305	SLD 3	9.14	0.35	31.13	-0.2574	0.4597	-0.001
305	SLD 4	9.14	0.35	31.13	-0.2574	0.4597	-0.001
305	SLD 5	3.9	0.1	28.84	0.0548	0.1997	0
305	SLD 6	3.9	0.1	28.84	0.0548	0.1997	0
305	SLD 7	6.89	0.43	34.19	-0.3802	0.3626	-0.0017
305	SLD 8	6.89	0.43	34.19	-0.3802	0.3626	-0.0017
305	SLD 9	1.07	0.06	29.86	0.08	0.0676	-0.0001
305	SLD 10	1.07	0.06	29.86	0.08	0.0676	-0.0001
305	SLD 11	4.05	0.4	35.21	-0.355	0.2305	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
305	SLD 12	4.05	0.4	35.21	-0.355	0.2305	-0.0019
305	SLD 13	-1.19	0.14	32.92	-0.0429	-0.0295	-0.0008
305	SLD 14	-1.19	0.14	32.92	-0.0429	-0.0295	-0.0008
305	SLD 15	-0.29	0.24	34.52	-0.1734	0.0194	-0.0014
305	SLD 16	-0.29	0.24	34.52	-0.1734	0.0194	-0.0014
305	SLV 1	13.91	0.25	26.12	-0.0904	0.6697	0.0002
305	SLV 2	13.91	0.25	26.12	-0.0904	0.6697	0.0002
305	SLV 3	16.06	0.5	29.93	-0.4098	0.7874	-0.0011
305	SLV 4	16.06	0.5	29.93	-0.4098	0.7874	-0.0011
305	SLV 5	3.7	-0.12	24.47	0.3521	0.1731	0.0014
305	SLV 6	3.7	-0.12	24.47	0.3521	0.1731	0.0014
305	SLV 7	10.86	0.7	37.18	-0.7124	0.5652	-0.003
305	SLV 8	10.86	0.7	37.18	-0.7124	0.5652	-0.003
305	SLV 9	-2.91	-0.2	26.87	0.4121	-0.135	0.0011
305	SLV 10	-2.91	-0.2	26.87	0.4121	-0.135	0.0011
305	SLV 11	4.26	0.62	39.58	-0.6524	0.2571	-0.0032
305	SLV 12	4.26	0.62	39.58	-0.6524	0.2571	-0.0032
305	SLV 13	-8.11	0	34.11	0.1096	-0.3572	-0.0007
305	SLV 14	-8.11	0	34.11	0.1096	-0.3572	-0.0007
305	SLV 15	-5.96	0.24	37.93	-0.2098	-0.2396	-0.002
305	SLV 16	-5.96	0.24	37.93	-0.2098	-0.2396	-0.002
306	SLU 1	2.18	0.2	34.71	-0.1186	0.0053	-0.0006
306	SLU 2	2.14	0.2	34.67	-0.1184	0.0038	-0.0006
306	SLU 3	2.36	0.2	35.67	-0.1232	0.0099	-0.0007
306	SLU 4	2.34	0.2	35.65	-0.1232	0.0089	-0.0006
306	SLU 5	2.28	0.2	35.32	-0.1215	0.0078	-0.0006
306	SLU 6	2.5	0.21	36.32	-0.1263	0.0139	-0.0007
306	SLU 7	2.47	0.21	36.3	-0.1262	0.013	-0.0007
306	SLU 8	2.46	0.21	36.01	-0.1247	0.0133	-0.0007
306	SLU 9	2.43	0.21	35.98	-0.1246	0.0124	-0.0007
306	SLU 10	2.42	0.23	39.97	-0.136	0.0018	-0.0007
306	SLU 11	2.64	0.23	40.98	-0.1409	0.0079	-0.0007
306	SLU 12	2.61	0.23	40.96	-0.1408	0.007	-0.0007
306	SLU 13	2.56	0.23	40.62	-0.1391	0.0058	-0.0007
306	SLU 14	2.78	0.24	41.63	-0.1439	0.0119	-0.0008
306	SLU 15	2.75	0.24	41.61	-0.1439	0.011	-0.0008
306	SLU 16	2.74	0.24	41.31	-0.1423	0.0113	-0.0008
306	SLU 17	2.71	0.24	41.29	-0.1423	0.0104	-0.0008
306	SLU 18	2.58	0.24	42.29	-0.1437	0.0024	-0.0008
306	SLU 19	2.55	0.24	42.26	-0.1437	0.0015	-0.0008
306	SLU 20	2.72	0.24	42.94	-0.1468	0.0065	-0.0008
306	SLU 21	2.69	0.24	42.91	-0.1467	0.0055	-0.0008
306	SLU 22	2.53	0.23	39.76	-0.1364	0.0066	-0.0007
306	SLU 23	2.49	0.23	39.72	-0.1362	0.0051	-0.0007
306	SLU 24	2.71	0.23	40.73	-0.141	0.0112	-0.0007
306	SLU 25	2.68	0.23	40.7	-0.141	0.0103	-0.0007
306	SLU 26	2.63	0.23	40.37	-0.1393	0.0091	-0.0007
306	SLU 27	2.85	0.24	41.38	-0.1441	0.0152	-0.0008
306	SLU 28	2.82	0.24	41.36	-0.144	0.0143	-0.0008
306	SLU 29	2.81	0.24	41.06	-0.1425	0.0146	-0.0008
306	SLU 30	2.78	0.24	41.04	-0.1424	0.0137	-0.0008
306	SLU 31	2.77	0.26	45.03	-0.1538	0.0031	-0.0008
306	SLU 32	2.99	0.26	46.03	-0.1587	0.0092	-0.0008
306	SLU 33	2.96	0.26	46.01	-0.1586	0.0083	-0.0008
306	SLU 34	2.9	0.26	45.68	-0.1569	0.0071	-0.0008
306	SLU 35	3.12	0.27	46.68	-0.1617	0.0132	-0.0009
306	SLU 36	3.1	0.27	46.66	-0.1617	0.0123	-0.0009
306	SLU 37	3.08	0.27	46.37	-0.1601	0.0127	-0.0008
306	SLU 38	3.06	0.27	46.34	-0.1601	0.0117	-0.0008
306	SLU 39	2.93	0.27	47.34	-0.1615	0.0038	-0.0009
306	SLU 40	2.9	0.27	47.32	-0.1615	0.0029	-0.0009
306	SLU 41	3.06	0.28	47.99	-0.1646	0.0078	-0.0009
306	SLU 42	3.04	0.27	47.97	-0.1645	0.0069	-0.0009
306	SLU 43	2.72	0.25	43.38	-0.148	0.0064	-0.0008
306	SLU 44	2.68	0.24	43.35	-0.1479	0.0049	-0.0008
306	SLU 45	2.9	0.25	44.35	-0.1527	0.011	-0.0008
306	SLU 46	2.87	0.25	44.33	-0.1526	0.0101	-0.0008
306	SLU 47	2.81	0.25	44	-0.151	0.0089	-0.0008
306	SLU 48	3.03	0.26	45	-0.1558	0.015	-0.0008
306	SLU 49	3.01	0.26	44.98	-0.1557	0.0141	-0.0008
306	SLU 50	2.99	0.26	44.69	-0.1542	0.0144	-0.0008
306	SLU 51	2.97	0.25	44.66	-0.1541	0.0135	-0.0008
306	SLU 52	2.95	0.27	48.65	-0.1655	0.0029	-0.0009
306	SLU 53	3.17	0.28	49.66	-0.1703	0.009	-0.0009
306	SLU 54	3.15	0.28	49.63	-0.1702	0.0081	-0.0009
306	SLU 55	3.09	0.28	49.3	-0.1686	0.0069	-0.0009
306	SLU 56	3.31	0.29	50.31	-0.1734	0.013	-0.0009
306	SLU 57	3.29	0.29	50.28	-0.1733	0.0121	-0.0009
306	SLU 58	3.27	0.29	49.99	-0.1718	0.0124	-0.0009
306	SLU 59	3.25	0.29	49.97	-0.1717	0.0115	-0.0009
306	SLU 60	3.11	0.29	50.96	-0.1732	0.0036	-0.0009
306	SLU 61	3.09	0.29	50.94	-0.1731	0.0027	-0.0009
306	SLU 62	3.25	0.29	51.61	-0.1763	0.0076	-0.0009
306	SLU 63	3.23	0.29	51.59	-0.1762	0.0067	-0.0009
306	SLU 64	3.06	0.28	48.44	-0.1658	0.0077	-0.0009
306	SLU 65	3.02	0.27	48.4	-0.1657	0.0062	-0.0009
306	SLU 66	3.24	0.28	49.41	-0.1705	0.0123	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
306	SLU 67	3.22	0.28	49.38	-0.1704	0.0114	-0.0009
306	SLU 68	3.16	0.28	49.05	-0.1688	0.0102	-0.0009
306	SLU 69	3.38	0.29	50.06	-0.1736	0.0163	-0.0009
306	SLU 70	3.36	0.29	50.03	-0.1735	0.0154	-0.0009
306	SLU 71	3.34	0.29	49.74	-0.172	0.0158	-0.0009
306	SLU 72	3.32	0.29	49.72	-0.1719	0.0148	-0.0009
306	SLU 73	3.3	0.3	53.71	-0.1833	0.0042	-0.001
306	SLU 74	3.52	0.31	54.71	-0.1881	0.0103	-0.001
306	SLU 75	3.5	0.31	54.69	-0.188	0.0094	-0.001
306	SLU 76	3.44	0.31	54.36	-0.1864	0.0082	-0.001
306	SLU 77	3.66	0.32	55.36	-0.1912	0.0144	-0.001
306	SLU 78	3.63	0.32	55.34	-0.1911	0.0134	-0.001
306	SLU 79	3.62	0.32	55.05	-0.1896	0.0138	-0.001
306	SLU 80	3.59	0.32	55.02	-0.1895	0.0129	-0.001
306	SLU 81	3.46	0.32	56.02	-0.191	0.0049	-0.001
306	SLU 82	3.44	0.32	56	-0.1909	0.004	-0.001
306	SLU 83	3.6	0.32	56.67	-0.1941	0.0089	-0.001
306	SLU 84	3.58	0.32	56.65	-0.194	0.008	-0.001
306	SLE RA 1	2.28	0.21	36.15	-0.1236	0.0057	-0.0007
306	SLE RA 2	2.25	0.2	36.12	-0.1236	0.0046	-0.0007
306	SLE RA 3	2.4	0.21	36.79	-0.1268	0.0087	-0.0007
306	SLE RA 4	2.38	0.21	36.78	-0.1267	0.0081	-0.0007
306	SLE RA 5	2.35	0.21	36.56	-0.1256	0.0073	-0.0007
306	SLE RA 6	2.49	0.21	37.23	-0.1288	0.0114	-0.0007
306	SLE RA 7	2.48	0.21	37.21	-0.1288	0.0108	-0.0007
306	SLE RA 8	2.47	0.21	37.02	-0.1277	0.011	-0.0007
306	SLE RA 9	2.45	0.21	37	-0.1277	0.0104	-0.0007
306	SLE RA 10	2.44	0.22	39.66	-0.1353	0.0033	-0.0007
306	SLE RA 11	2.59	0.23	40.33	-0.1385	0.0074	-0.0007
306	SLE RA 12	2.57	0.23	40.32	-0.1385	0.0068	-0.0007
306	SLE RA 13	2.53	0.23	40.1	-0.1374	0.006	-0.0007
306	SLE RA 14	2.68	0.23	40.77	-0.1406	0.0101	-0.0007
306	SLE RA 15	2.66	0.23	40.75	-0.1405	0.0095	-0.0007
306	SLE RA 16	2.65	0.23	40.55	-0.1395	0.0097	-0.0007
306	SLE RA 17	2.63	0.23	40.54	-0.1394	0.0091	-0.0007
306	SLE RA 18	2.55	0.23	41.2	-0.1404	0.0038	-0.0007
306	SLE RA 19	2.53	0.23	41.19	-0.1404	0.0032	-0.0007
306	SLE RA 20	2.64	0.24	41.64	-0.1425	0.0064	-0.0008
306	SLE RA 21	2.62	0.24	41.62	-0.1424	0.0058	-0.0008
306	SLE FR 1	2.28	0.21	36.15	-0.1236	0.0057	-0.0007
306	SLE FR 2	2.28	0.21	36.14	-0.1236	0.0055	-0.0007
306	SLE FR 3	2.32	0.21	36.32	-0.1245	0.0067	-0.0007
306	SLE FR 4	2.36	0.21	37.66	-0.1287	0.0049	-0.0007
306	SLE FR 5	2.4	0.22	37.84	-0.1295	0.0062	-0.0007
306	SLE FR 6	2.41	0.22	38.68	-0.132	0.0047	-0.0007
306	SLE QP 1	2.28	0.21	36.15	-0.1236	0.0057	-0.0007
306	SLE QP 2	2.36	0.21	37.67	-0.1287	0.0051	-0.0007
306	SLD 1	6.31	0.24	35	-0.1185	0.1859	-0.0004
306	SLD 2	6.31	0.24	35	-0.1185	0.1859	-0.0004
306	SLD 3	7.13	0.27	36.54	-0.2038	0.222	-0.0007
306	SLD 4	7.13	0.27	36.54	-0.2038	0.222	-0.0007
306	SLD 5	2.3	0.17	34.52	0.0037	0.0045	-0.0002
306	SLD 6	2.3	0.17	34.52	0.0037	0.0045	-0.0002
306	SLD 7	5.04	0.29	39.67	-0.2805	0.1249	-0.0011
306	SLD 8	5.04	0.29	39.67	-0.2805	0.1249	-0.0011
306	SLD 9	-0.31	0.14	35.66	0.0232	-0.1148	-0.0002
306	SLD 10	-0.31	0.14	35.66	0.0232	-0.1148	-0.0002
306	SLD 11	2.42	0.26	40.81	-0.2611	0.0056	-0.0012
306	SLD 12	2.42	0.26	40.81	-0.2611	0.0056	-0.0012
306	SLD 13	-2.41	0.15	38.79	-0.0536	-0.2118	-0.0007
306	SLD 14	-2.41	0.15	38.79	-0.0536	-0.2118	-0.0007
306	SLD 15	-1.59	0.19	40.34	-0.1389	-0.1757	-0.001
306	SLD 16	-1.59	0.19	40.34	-0.1389	-0.1757	-0.001
306	SLV 1	11.54	0.27	31.35	-0.1013	0.4251	0
306	SLV 2	11.54	0.27	31.35	-0.1013	0.4251	0
306	SLV 3	13.52	0.36	35.01	-0.3098	0.5122	-0.0007
306	SLV 4	13.52	0.36	35.01	-0.3098	0.5122	-0.0007
306	SLV 5	2.12	0.1	30.22	0.1959	-0.0011	0.0006
306	SLV 6	2.12	0.1	30.22	0.1959	-0.0011	0.0006
306	SLV 7	8.7	0.39	42.43	-0.4994	0.2894	-0.0018
306	SLV 8	8.7	0.39	42.43	-0.4994	0.2894	-0.0018
306	SLV 9	-3.98	0.04	32.9	0.242	-0.2792	0.0004
306	SLV 10	-3.98	0.04	32.9	0.242	-0.2792	0.0004
306	SLV 11	2.6	0.33	45.12	-0.4532	0.0113	-0.002
306	SLV 12	2.6	0.33	45.12	-0.4532	0.0113	-0.002
306	SLV 13	-8.8	0.07	40.32	0.0525	-0.502	-0.0006
306	SLV 14	-8.8	0.07	40.32	0.0525	-0.502	-0.0006
306	SLV 15	-6.82	0.16	43.98	-0.1561	-0.4149	-0.0013
306	SLV 16	-6.82	0.16	43.98	-0.1561	-0.4149	-0.0013
307	SLU 1	1.82	0.15	40.2	-0.0868	0.1079	-0.0004
307	SLU 2	1.78	0.15	40.17	-0.0867	0.1055	-0.0004
307	SLU 3	2	0.15	41.37	-0.0901	0.1169	-0.0004
307	SLU 4	1.97	0.15	41.35	-0.0901	0.1155	-0.0004
307	SLU 5	1.91	0.15	40.95	-0.0889	0.1123	-0.0004
307	SLU 6	2.13	0.16	42.14	-0.0923	0.1237	-0.0004
307	SLU 7	2.1	0.16	42.12	-0.0922	0.1222	-0.0004
307	SLU 8	2.09	0.16	41.75	-0.0911	0.1214	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
307	SLU 9	2.06	0.16	41.73	-0.0911	0.12	-0.0004
307	SLU 10	1.97	0.17	46.32	-0.0998	0.1187	-0.0004
307	SLU 11	2.19	0.18	47.51	-0.1032	0.1301	-0.0004
307	SLU 12	2.17	0.18	47.49	-0.1032	0.1287	-0.0004
307	SLU 13	2.11	0.18	47.09	-0.102	0.1255	-0.0004
307	SLU 14	2.33	0.18	48.28	-0.1054	0.1369	-0.0004
307	SLU 15	2.3	0.18	48.27	-0.1053	0.1354	-0.0004
307	SLU 16	2.28	0.18	47.89	-0.1043	0.1346	-0.0004
307	SLU 17	2.26	0.18	47.88	-0.1042	0.1332	-0.0004
307	SLU 18	2.1	0.18	48.98	-0.1055	0.1268	-0.0004
307	SLU 19	2.08	0.18	48.96	-0.1055	0.1253	-0.0004
307	SLU 20	2.24	0.19	49.75	-0.1077	0.1335	-0.0004
307	SLU 21	2.21	0.19	49.73	-0.1076	0.1321	-0.0004
307	SLU 22	2.1	0.17	46.07	-0.0999	0.125	-0.0004
307	SLU 23	2.06	0.17	46.05	-0.0998	0.1226	-0.0004
307	SLU 24	2.28	0.18	47.24	-0.1032	0.134	-0.0004
307	SLU 25	2.25	0.18	47.22	-0.1031	0.1326	-0.0004
307	SLU 26	2.19	0.18	46.82	-0.1019	0.1294	-0.0004
307	SLU 27	2.41	0.18	48.01	-0.1054	0.1408	-0.0004
307	SLU 28	2.38	0.18	47.99	-0.1053	0.1393	-0.0004
307	SLU 29	2.37	0.18	47.62	-0.1042	0.1385	-0.0004
307	SLU 30	2.34	0.18	47.6	-0.1042	0.1371	-0.0004
307	SLU 31	2.25	0.2	52.19	-0.1129	0.1358	-0.0005
307	SLU 32	2.47	0.2	53.38	-0.1163	0.1472	-0.0005
307	SLU 33	2.45	0.2	53.36	-0.1163	0.1458	-0.0005
307	SLU 34	2.39	0.2	52.96	-0.1151	0.1426	-0.0005
307	SLU 35	2.61	0.21	54.15	-0.1185	0.154	-0.0005
307	SLU 36	2.58	0.2	54.14	-0.1184	0.1525	-0.0005
307	SLU 37	2.56	0.2	53.76	-0.1173	0.1517	-0.0005
307	SLU 38	2.54	0.2	53.75	-0.1173	0.1503	-0.0005
307	SLU 39	2.38	0.21	54.85	-0.1186	0.1439	-0.0005
307	SLU 40	2.36	0.21	54.83	-0.1186	0.1424	-0.0005
307	SLU 41	2.52	0.21	55.62	-0.1208	0.1506	-0.0005
307	SLU 42	2.49	0.21	55.61	-0.1207	0.1492	-0.0005
307	SLU 43	2.27	0.19	50.25	-0.1084	0.1344	-0.0004
307	SLU 44	2.23	0.19	50.22	-0.1083	0.132	-0.0004
307	SLU 45	2.45	0.19	51.41	-0.1117	0.1435	-0.0005
307	SLU 46	2.42	0.19	51.4	-0.1116	0.142	-0.0005
307	SLU 47	2.36	0.19	51	-0.1104	0.1388	-0.0004
307	SLU 48	2.58	0.19	52.19	-0.1138	0.1502	-0.0005
307	SLU 49	2.55	0.19	52.17	-0.1138	0.1488	-0.0005
307	SLU 50	2.54	0.19	51.8	-0.1127	0.1479	-0.0005
307	SLU 51	2.51	0.19	51.78	-0.1126	0.1465	-0.0005
307	SLU 52	2.43	0.21	56.37	-0.1214	0.1452	-0.0005
307	SLU 53	2.64	0.22	57.56	-0.1248	0.1567	-0.0005
307	SLU 54	2.62	0.21	57.54	-0.1247	0.1552	-0.0005
307	SLU 55	2.56	0.21	57.14	-0.1235	0.152	-0.0005
307	SLU 56	2.78	0.22	58.33	-0.127	0.1634	-0.0005
307	SLU 57	2.75	0.22	58.31	-0.1269	0.162	-0.0005
307	SLU 58	2.74	0.22	57.94	-0.1258	0.1611	-0.0005
307	SLU 59	2.71	0.22	57.92	-0.1257	0.1597	-0.0005
307	SLU 60	2.55	0.22	59.03	-0.1271	0.1533	-0.0005
307	SLU 61	2.53	0.22	59.01	-0.127	0.1519	-0.0005
307	SLU 62	2.69	0.22	59.8	-0.1293	0.16	-0.0005
307	SLU 63	2.66	0.22	59.78	-0.1292	0.1586	-0.0005
307	SLU 64	2.55	0.21	56.12	-0.1215	0.1515	-0.0005
307	SLU 65	2.51	0.21	56.09	-0.1213	0.1491	-0.0005
307	SLU 66	2.73	0.21	57.28	-0.1248	0.1606	-0.0005
307	SLU 67	2.7	0.21	57.27	-0.1247	0.1591	-0.0005
307	SLU 68	2.64	0.21	56.87	-0.1235	0.1559	-0.0005
307	SLU 69	2.86	0.22	58.06	-0.1269	0.1673	-0.0005
307	SLU 70	2.83	0.22	58.04	-0.1269	0.1659	-0.0005
307	SLU 71	2.82	0.22	57.67	-0.1258	0.165	-0.0005
307	SLU 72	2.79	0.22	57.65	-0.1257	0.1636	-0.0005
307	SLU 73	2.71	0.23	62.24	-0.1345	0.1623	-0.0005
307	SLU 74	2.92	0.24	63.43	-0.1379	0.1738	-0.0006
307	SLU 75	2.9	0.24	63.41	-0.1378	0.1723	-0.0006
307	SLU 76	2.84	0.24	63.01	-0.1366	0.1691	-0.0006
307	SLU 77	3.06	0.24	64.2	-0.14	0.1805	-0.0006
307	SLU 78	3.03	0.24	64.18	-0.14	0.1791	-0.0006
307	SLU 79	3.02	0.24	63.81	-0.1389	0.1782	-0.0006
307	SLU 80	2.99	0.24	63.79	-0.1388	0.1768	-0.0006
307	SLU 81	2.83	0.24	64.9	-0.1402	0.1704	-0.0006
307	SLU 82	2.81	0.24	64.88	-0.1401	0.169	-0.0006
307	SLU 83	2.97	0.25	65.67	-0.1424	0.1771	-0.0006
307	SLU 84	2.94	0.25	65.65	-0.1423	0.1757	-0.0006
307	SLE RA 1	1.9	0.16	41.88	-0.0905	0.1128	-0.0004
307	SLE RA 2	1.87	0.16	41.86	-0.0905	0.1112	-0.0004
307	SLE RA 3	2.02	0.16	42.66	-0.0928	0.1188	-0.0004
307	SLE RA 4	2	0.16	42.64	-0.0927	0.1179	-0.0004
307	SLE RA 5	1.96	0.16	42.38	-0.0919	0.1157	-0.0004
307	SLE RA 6	2.11	0.16	43.17	-0.0942	0.1233	-0.0004
307	SLE RA 7	2.09	0.16	43.16	-0.0942	0.1224	-0.0004
307	SLE RA 8	2.08	0.16	42.91	-0.0934	0.1218	-0.0004
307	SLE RA 9	2.06	0.16	42.9	-0.0934	0.1208	-0.0004
307	SLE RA 10	2	0.17	45.96	-0.0992	0.12	-0.0004
307	SLE RA 11	2.15	0.18	46.75	-0.1015	0.1276	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
307	SLE RA 12	2.13	0.18	46.74	-0.1015	0.1267	-0.0004
307	SLE RA 13	2.09	0.17	46.47	-0.1007	0.1245	-0.0004
307	SLE RA 14	2.24	0.18	47.27	-0.1029	0.1321	-0.0004
307	SLE RA 15	2.22	0.18	47.26	-0.1029	0.1312	-0.0004
307	SLE RA 16	2.21	0.18	47.01	-0.1022	0.1306	-0.0004
307	SLE RA 17	2.19	0.18	47	-0.1021	0.1296	-0.0004
307	SLE RA 18	2.09	0.18	47.73	-0.103	0.1254	-0.0004
307	SLE RA 19	2.07	0.18	47.72	-0.103	0.1244	-0.0004
307	SLE RA 20	2.18	0.18	48.25	-0.1045	0.1299	-0.0004
307	SLE RA 21	2.16	0.18	48.23	-0.1044	0.1289	-0.0004
307	SLE FR 1	1.9	0.16	41.88	-0.0905	0.1128	-0.0004
307	SLE FR 2	1.9	0.16	41.88	-0.0905	0.1125	-0.0004
307	SLE FR 3	1.94	0.16	42.09	-0.0911	0.1146	-0.0004
307	SLE FR 4	1.95	0.16	43.63	-0.0943	0.1163	-0.0004
307	SLE FR 5	1.99	0.16	43.84	-0.0949	0.1184	-0.0004
307	SLE FR 6	2	0.17	44.8	-0.0968	0.1191	-0.0004
307	SLE QP 1	1.9	0.16	41.88	-0.0905	0.1128	-0.0004
307	SLE QP 2	1.96	0.16	43.63	-0.0943	0.1166	-0.0004
307	SLD 1	5.72	0.18	39.98	-0.0939	0.2884	-0.0002
307	SLD 2	5.72	0.18	39.98	-0.0939	0.2884	-0.0002
307	SLD 3	6.65	0.21	42.25	-0.139	0.341	-0.0004
307	SLD 4	6.65	0.21	42.25	-0.139	0.341	-0.0004
307	SLD 5	1.69	0.12	39.09	-0.0257	0.0884	-0.0001
307	SLD 6	1.69	0.12	39.09	-0.0257	0.0884	-0.0001
307	SLD 7	4.76	0.22	46.66	-0.1762	0.2636	-0.0006
307	SLD 8	4.76	0.22	46.66	-0.1762	0.2636	-0.0006
307	SLD 9	-0.85	0.1	40.61	-0.0124	-0.0305	-0.0002
307	SLD 10	-0.85	0.1	40.61	-0.0124	-0.0305	-0.0002
307	SLD 11	2.23	0.2	48.18	-0.1629	0.1448	-0.0007
307	SLD 12	2.23	0.2	48.18	-0.1629	0.1448	-0.0007
307	SLD 13	-2.73	0.11	45.02	-0.0496	-0.1079	-0.0004
307	SLD 14	-2.73	0.11	45.02	-0.0496	-0.1079	-0.0004
307	SLD 15	-1.81	0.15	47.29	-0.0947	-0.0553	-0.0005
307	SLD 16	-1.81	0.15	47.29	-0.0947	-0.0553	-0.0005
307	SLV 1	10.7	0.2	34.92	-0.0915	0.5147	0
307	SLV 2	10.7	0.2	34.92	-0.0915	0.5147	0
307	SLV 3	12.92	0.28	40.42	-0.2018	0.6423	-0.0004
307	SLV 4	12.92	0.28	40.42	-0.2018	0.6423	-0.0004
307	SLV 5	1.22	0.06	32.69	0.074	0.0425	0.0003
307	SLV 6	1.22	0.06	32.69	0.074	0.0425	0.0003
307	SLV 7	8.61	0.31	51	-0.294	0.4678	-0.0009
307	SLV 8	8.61	0.31	51	-0.294	0.4678	-0.0009
307	SLV 9	-4.69	0.01	36.27	0.1054	-0.2346	0.0002
307	SLV 10	-4.69	0.01	36.27	0.1054	-0.2346	0.0002
307	SLV 11	2.7	0.27	54.58	-0.2626	0.1906	-0.0011
307	SLV 12	2.7	0.27	54.58	-0.2626	0.1906	-0.0011
307	SLV 13	-9	0.05	46.85	0.0132	-0.4091	-0.0004
307	SLV 14	-9	0.05	46.85	0.0132	-0.4091	-0.0004
307	SLV 15	-6.79	0.12	52.35	-0.0971	-0.2816	-0.0008
307	SLV 16	-6.79	0.12	52.35	-0.0971	-0.2816	-0.0008
308	SLU 1	-1.66	0.16	46.7	-0.0446	-0.1802	0.0007
308	SLU 2	-1.69	0.16	46.7	-0.0446	-0.1816	0.0007
308	SLU 3	-1.61	0.16	48.07	-0.0462	-0.1815	0.0007
308	SLU 4	-1.63	0.16	48.07	-0.0462	-0.1823	0.0007
308	SLU 5	-1.64	0.16	47.6	-0.0456	-0.1816	0.0007
308	SLU 6	-1.57	0.17	48.97	-0.0473	-0.1815	0.0007
308	SLU 7	-1.59	0.17	48.97	-0.0473	-0.1823	0.0007
308	SLU 8	-1.57	0.16	48.5	-0.0468	-0.1801	0.0007
308	SLU 9	-1.59	0.16	48.5	-0.0467	-0.181	0.0007
308	SLU 10	-2.04	0.18	53.82	-0.0512	-0.2144	0.0007
308	SLU 11	-1.96	0.19	55.2	-0.0529	-0.2142	0.0008
308	SLU 12	-1.98	0.19	55.19	-0.0528	-0.2151	0.0008
308	SLU 13	-2	0.18	54.72	-0.0523	-0.2143	0.0008
308	SLU 14	-1.92	0.19	56.1	-0.0539	-0.2142	0.0008
308	SLU 15	-1.94	0.19	56.09	-0.0539	-0.2151	0.0008
308	SLU 16	-1.92	0.19	55.63	-0.0534	-0.2129	0.0008
308	SLU 17	-1.94	0.19	55.62	-0.0534	-0.2138	0.0008
308	SLU 18	-2.16	0.19	56.88	-0.0541	-0.2269	0.0008
308	SLU 19	-2.18	0.19	56.88	-0.054	-0.2278	0.0008
308	SLU 20	-2.11	0.19	57.78	-0.0552	-0.2269	0.0008
308	SLU 21	-2.13	0.19	57.78	-0.0551	-0.2278	0.0008
308	SLU 22	-1.92	0.18	53.51	-0.0512	-0.2082	0.0007
308	SLU 23	-1.95	0.18	53.5	-0.0511	-0.2097	0.0007
308	SLU 24	-1.87	0.18	54.88	-0.0528	-0.2095	0.0008
308	SLU 25	-1.89	0.18	54.87	-0.0528	-0.2104	0.0008
308	SLU 26	-1.91	0.18	54.4	-0.0522	-0.2096	0.0008
308	SLU 27	-1.83	0.19	55.78	-0.0539	-0.2095	0.0008
308	SLU 28	-1.85	0.19	55.77	-0.0539	-0.2104	0.0008
308	SLU 29	-1.83	0.19	55.31	-0.0533	-0.2082	0.0008
308	SLU 30	-1.85	0.19	55.3	-0.0533	-0.209	0.0008
308	SLU 31	-2.3	0.2	60.63	-0.0577	-0.2424	0.0008
308	SLU 32	-2.23	0.21	62	-0.0594	-0.2422	0.0009
308	SLU 33	-2.25	0.21	62	-0.0594	-0.2431	0.0009
308	SLU 34	-2.26	0.21	61.53	-0.0588	-0.2424	0.0008
308	SLU 35	-2.18	0.21	62.9	-0.0605	-0.2422	0.0009
308	SLU 36	-2.2	0.21	62.9	-0.0605	-0.2431	0.0009
308	SLU 37	-2.18	0.21	62.43	-0.0599	-0.2409	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
308	SLU 38	-2.2	0.21	62.43	-0.0599	-0.2418	0.0009
308	SLU 39	-2.42	0.21	63.69	-0.0606	-0.255	0.0009
308	SLU 40	-2.44	0.21	63.68	-0.0606	-0.2558	0.0009
308	SLU 41	-2.38	0.22	64.59	-0.0617	-0.255	0.0009
308	SLU 42	-2.4	0.22	64.58	-0.0617	-0.2558	0.0009
308	SLU 43	-2.07	0.2	58.38	-0.0557	-0.2246	0.0008
308	SLU 44	-2.1	0.2	58.38	-0.0557	-0.2261	0.0008
308	SLU 45	-2.02	0.2	59.75	-0.0574	-0.2259	0.0008
308	SLU 46	-2.04	0.2	59.75	-0.0573	-0.2268	0.0008
308	SLU 47	-2.05	0.2	59.28	-0.0568	-0.226	0.0008
308	SLU 48	-1.97	0.2	60.65	-0.0584	-0.2259	0.0009
308	SLU 49	-1.99	0.2	60.65	-0.0584	-0.2268	0.0009
308	SLU 50	-1.97	0.2	60.18	-0.0579	-0.2246	0.0008
308	SLU 51	-1.99	0.2	60.18	-0.0579	-0.2254	0.0008
308	SLU 52	-2.45	0.22	65.5	-0.0623	-0.2588	0.0009
308	SLU 53	-2.37	0.23	66.88	-0.064	-0.2587	0.0009
308	SLU 54	-2.39	0.23	66.87	-0.064	-0.2595	0.0009
308	SLU 55	-2.4	0.22	66.4	-0.0634	-0.2588	0.0009
308	SLU 56	-2.33	0.23	67.77	-0.0651	-0.2586	0.0009
308	SLU 57	-2.34	0.23	67.77	-0.0651	-0.2595	0.0009
308	SLU 58	-2.33	0.23	67.31	-0.0645	-0.2573	0.0009
308	SLU 59	-2.34	0.23	67.3	-0.0645	-0.2582	0.0009
308	SLU 60	-2.57	0.23	68.56	-0.0652	-0.2714	0.0009
308	SLU 61	-2.59	0.23	68.56	-0.0652	-0.2723	0.0009
308	SLU 62	-2.52	0.23	69.46	-0.0663	-0.2714	0.001
308	SLU 63	-2.54	0.23	69.46	-0.0663	-0.2722	0.001
308	SLU 64	-2.33	0.22	65.19	-0.0623	-0.2526	0.0009
308	SLU 65	-2.36	0.22	65.18	-0.0623	-0.2541	0.0009
308	SLU 66	-2.28	0.22	66.56	-0.0639	-0.2539	0.0009
308	SLU 67	-2.3	0.22	66.55	-0.0639	-0.2548	0.0009
308	SLU 68	-2.31	0.22	66.08	-0.0633	-0.2541	0.0009
308	SLU 69	-2.24	0.23	67.45	-0.065	-0.2539	0.0009
308	SLU 70	-2.25	0.23	67.45	-0.065	-0.2548	0.0009
308	SLU 71	-2.24	0.23	66.98	-0.0644	-0.2526	0.0009
308	SLU 72	-2.26	0.23	66.98	-0.0644	-0.2535	0.0009
308	SLU 73	-2.71	0.24	72.31	-0.0689	-0.2868	0.001
308	SLU 74	-2.63	0.25	73.68	-0.0705	-0.2867	0.001
308	SLU 75	-2.65	0.25	73.68	-0.0705	-0.2876	0.001
308	SLU 76	-2.67	0.25	73.21	-0.07	-0.2868	0.001
308	SLU 77	-2.59	0.25	74.58	-0.0716	-0.2867	0.001
308	SLU 78	-2.61	0.25	74.58	-0.0716	-0.2875	0.001
308	SLU 79	-2.59	0.25	74.11	-0.0711	-0.2854	0.001
308	SLU 80	-2.61	0.25	74.11	-0.0711	-0.2862	0.001
308	SLU 81	-2.83	0.25	75.37	-0.0718	-0.2994	0.001
308	SLU 82	-2.85	0.25	75.36	-0.0717	-0.3003	0.001
308	SLU 83	-2.78	0.26	76.26	-0.0728	-0.2994	0.0011
308	SLU 84	-2.8	0.26	76.26	-0.0728	-0.3003	0.0011
308	SLE RA 1	-1.73	0.16	48.65	-0.0465	-0.1882	0.0007
308	SLE RA 2	-1.75	0.16	48.65	-0.0464	-0.1891	0.0007
308	SLE RA 3	-1.7	0.17	49.56	-0.0476	-0.189	0.0007
308	SLE RA 4	-1.71	0.17	49.56	-0.0475	-0.1896	0.0007
308	SLE RA 5	-1.72	0.17	49.24	-0.0472	-0.1891	0.0007
308	SLE RA 6	-1.67	0.17	50.16	-0.0483	-0.189	0.0007
308	SLE RA 7	-1.68	0.17	50.16	-0.0483	-0.1896	0.0007
308	SLE RA 8	-1.67	0.17	49.85	-0.0479	-0.1882	0.0007
308	SLE RA 9	-1.68	0.17	49.84	-0.0479	-0.1887	0.0007
308	SLE RA 10	-1.99	0.18	53.4	-0.0509	-0.211	0.0007
308	SLE RA 11	-1.94	0.18	54.31	-0.052	-0.2109	0.0008
308	SLE RA 12	-1.95	0.18	54.31	-0.052	-0.2115	0.0008
308	SLE RA 13	-1.96	0.18	53.99	-0.0516	-0.211	0.0007
308	SLE RA 14	-1.91	0.19	54.91	-0.0527	-0.2109	0.0008
308	SLE RA 15	-1.92	0.19	54.91	-0.0527	-0.2114	0.0008
308	SLE RA 16	-1.91	0.18	54.6	-0.0523	-0.21	0.0008
308	SLE RA 17	-1.92	0.18	54.59	-0.0523	-0.2106	0.0008
308	SLE RA 18	-2.07	0.19	55.43	-0.0528	-0.2194	0.0008
308	SLE RA 19	-2.08	0.19	55.43	-0.0528	-0.2199	0.0008
308	SLE RA 20	-2.04	0.19	56.03	-0.0535	-0.2194	0.0008
308	SLE RA 21	-2.05	0.19	56.03	-0.0535	-0.2199	0.0008
308	SLE FR 1	-1.73	0.16	48.65	-0.0465	-0.1882	0.0007
308	SLE FR 2	-1.74	0.16	48.65	-0.0465	-0.1884	0.0007
308	SLE FR 3	-1.72	0.16	48.89	-0.0468	-0.1882	0.0007
308	SLE FR 4	-1.84	0.17	50.68	-0.0484	-0.1977	0.0007
308	SLE FR 5	-1.82	0.17	50.92	-0.0487	-0.1975	0.0007
308	SLE FR 6	-1.9	0.18	52.04	-0.0496	-0.2038	0.0007
308	SLE QP 1	-1.73	0.16	48.65	-0.0465	-0.1882	0.0007
308	SLE QP 2	-1.83	0.17	50.68	-0.0484	-0.1975	0.0007
308	SLD 1	1.39	0.23	48.64	-0.0705	0.0181	0.001
308	SLD 2	1.39	0.23	48.64	-0.0705	0.0181	0.001
308	SLD 3	2.31	0.19	44.53	-0.0514	-0.0319	0.0007
308	SLD 4	2.31	0.19	44.53	-0.0514	-0.0319	0.0007
308	SLD 5	-2.26	0.25	56.3	-0.0839	-0.057	0.0011
308	SLD 6	-2.26	0.25	56.3	-0.0839	-0.057	0.0011
308	SLD 7	0.8	0.12	42.61	-0.0204	-0.2237	0.0004
308	SLD 8	0.8	0.12	42.61	-0.0204	-0.2237	0.0004
308	SLD 9	-4.47	0.22	58.76	-0.0763	-0.1714	0.001
308	SLD 10	-4.47	0.22	58.76	-0.0763	-0.1714	0.001
308	SLD 11	-1.41	0.09	45.06	-0.0128	-0.3381	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
308	SLD 12	-1.41	0.09	45.06	-0.0128	-0.3381	0.0003
308	SLD 13	-5.98	0.15	56.84	-0.0453	-0.3631	0.0007
308	SLD 14	-5.98	0.15	56.84	-0.0453	-0.3631	0.0007
308	SLD 15	-5.06	0.11	52.73	-0.0263	-0.4132	0.0004
308	SLD 16	-5.06	0.11	52.73	-0.0263	-0.4132	0.0004
308	SLV 1	5.65	0.31	46.01	-0.1011	0.3066	0.0013
308	SLV 2	5.65	0.31	46.01	-0.1011	0.3066	0.0013
308	SLV 3	7.84	0.22	36	-0.055	0.1868	0.0008
308	SLV 4	7.84	0.22	36	-0.055	0.1868	0.0008
308	SLV 5	-2.91	0.35	64.46	-0.1342	0.1353	0.0017
308	SLV 6	-2.91	0.35	64.46	-0.1342	0.1353	0.0017
308	SLV 7	4.39	0.04	31.1	0.0197	-0.2639	-0.0001
308	SLV 8	4.39	0.04	31.1	0.0197	-0.2639	-0.0001
308	SLV 9	-8.06	0.3	70.27	-0.1164	-0.1312	0.0015
308	SLV 10	-8.06	0.3	70.27	-0.1164	-0.1312	0.0015
308	SLV 11	-0.76	-0.01	36.91	0.0375	-0.5304	-0.0003
308	SLV 12	-0.76	-0.01	36.91	0.0375	-0.5304	-0.0003
308	SLV 13	-11.51	0.12	65.37	-0.0418	-0.5819	0.0006
308	SLV 14	-11.51	0.12	65.37	-0.0418	-0.5819	0.0006
308	SLV 15	-9.32	0.03	55.36	0.0044	-0.7016	0.0001
308	SLV 16	-9.32	0.03	55.36	0.0044	-0.7016	0.0001
310	SLU 1	-6.34	1.67	73.37	6.0395	1.3156	-0.4491
310	SLU 2	-6.35	1.67	73.38	6.0358	1.3151	-0.4492
310	SLU 3	-6.48	1.71	75.55	6.2271	1.3572	-0.4632
310	SLU 4	-6.49	1.72	75.55	6.2249	1.3569	-0.4633
310	SLU 5	-6.44	1.7	74.78	6.1556	1.3423	-0.4584
310	SLU 6	-6.56	1.74	76.95	6.347	1.3845	-0.4725
310	SLU 7	-6.57	1.75	76.96	6.3447	1.3842	-0.4725
310	SLU 8	-6.51	1.73	76.18	6.2793	1.3701	-0.4675
310	SLU 9	-6.52	1.73	76.18	6.277	1.3698	-0.4676
310	SLU 10	-7.37	1.84	84.6	6.978	1.5088	-0.5134
310	SLU 11	-7.49	1.88	86.77	7.1694	1.5509	-0.5275
310	SLU 12	-7.5	1.88	86.77	7.1671	1.5506	-0.5275
310	SLU 13	-7.45	1.87	86	7.0979	1.536	-0.5226
310	SLU 14	-7.57	1.91	88.17	7.2892	1.5782	-0.5367
310	SLU 15	-7.59	1.91	88.18	7.287	1.5779	-0.5367
310	SLU 16	-7.52	1.89	87.4	7.2215	1.5638	-0.5317
310	SLU 17	-7.53	1.9	87.4	7.2193	1.5635	-0.5318
310	SLU 18	-7.78	1.9	89.39	7.3856	1.5923	-0.5408
310	SLU 19	-7.79	1.9	89.4	7.3834	1.592	-0.5409
310	SLU 20	-7.87	1.93	90.8	7.5055	1.6196	-0.55
310	SLU 21	-7.88	1.93	90.8	7.5032	1.6193	-0.5501
310	SLU 22	-7.26	1.83	84.06	6.9399	1.5026	-0.5112
310	SLU 23	-7.28	1.83	84.07	6.9362	1.5021	-0.5113
310	SLU 24	-7.41	1.87	86.24	7.1275	1.5443	-0.5254
310	SLU 25	-7.42	1.88	86.24	7.1253	1.544	-0.5255
310	SLU 26	-7.37	1.87	85.47	7.056	1.5294	-0.5205
310	SLU 27	-7.49	1.91	87.64	7.2474	1.5715	-0.5346
310	SLU 28	-7.5	1.91	87.65	7.2451	1.5712	-0.5347
310	SLU 29	-7.43	1.89	86.87	7.1796	1.5571	-0.5296
310	SLU 30	-7.45	1.9	86.87	7.1774	1.5568	-0.5297
310	SLU 31	-8.3	2	95.29	7.8784	1.6958	-0.5755
310	SLU 32	-8.42	2.04	97.45	8.0698	1.738	-0.5896
310	SLU 33	-8.43	2.04	97.46	8.0675	1.7377	-0.5897
310	SLU 34	-8.38	2.03	96.69	7.9983	1.7231	-0.5848
310	SLU 35	-8.5	2.07	98.86	8.1896	1.7652	-0.5988
310	SLU 36	-8.51	2.07	98.87	8.1874	1.7649	-0.5989
310	SLU 37	-8.45	2.05	98.08	8.1219	1.7508	-0.5939
310	SLU 38	-8.46	2.06	98.09	8.1196	1.7505	-0.5939
310	SLU 39	-8.71	2.06	100.08	8.286	1.7794	-0.6029
310	SLU 40	-8.72	2.06	100.09	8.2838	1.7791	-0.603
310	SLU 41	-8.8	2.09	101.49	8.4059	1.8066	-0.6122
310	SLU 42	-8.81	2.1	101.49	8.4036	1.8063	-0.6122
310	SLU 43	-7.92	2.11	91.71	7.5427	1.6461	-0.5625
310	SLU 44	-7.94	2.12	91.72	7.5389	1.6456	-0.5626
310	SLU 45	-8.06	2.16	93.89	7.7303	1.6878	-0.5766
310	SLU 46	-8.07	2.16	93.9	7.728	1.6875	-0.5767
310	SLU 47	-8.02	2.15	93.13	7.6588	1.6729	-0.5718
310	SLU 48	-8.14	2.19	95.3	7.8501	1.715	-0.5859
310	SLU 49	-8.16	2.19	95.3	7.8479	1.7147	-0.5859
310	SLU 50	-8.09	2.17	94.52	7.7824	1.7006	-0.5809
310	SLU 51	-8.1	2.18	94.53	7.7802	1.7003	-0.581
310	SLU 52	-8.95	2.28	102.94	8.4812	1.8393	-0.6268
310	SLU 53	-9.07	2.32	105.11	8.6725	1.8815	-0.6409
310	SLU 54	-9.08	2.32	105.12	8.6703	1.8812	-0.6409
310	SLU 55	-9.03	2.31	104.35	8.6011	1.8666	-0.636
310	SLU 56	-9.16	2.35	106.52	8.7924	1.9087	-0.6501
310	SLU 57	-9.17	2.36	106.52	8.7901	1.9084	-0.6502
310	SLU 58	-9.1	2.34	105.74	8.7247	1.8943	-0.6451
310	SLU 59	-9.11	2.34	105.75	8.7224	1.894	-0.6452
310	SLU 60	-9.37	2.34	107.74	8.8888	1.9229	-0.6542
310	SLU 61	-9.38	2.35	107.75	8.8865	1.9226	-0.6543
310	SLU 62	-9.45	2.37	109.14	9.0086	1.9501	-0.6634
310	SLU 63	-9.46	2.38	109.15	9.0064	1.9498	-0.6635
310	SLU 64	-8.85	2.27	102.4	8.4431	1.8332	-0.6246
310	SLU 65	-8.87	2.28	102.41	8.4393	1.8327	-0.6247
310	SLU 66	-8.99	2.32	104.58	8.6307	1.8748	-0.6388



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
310	SLU 67	-9	2.32	104.59	8.6284	1.8745	-0.6389
310	SLU 68	-8.95	2.31	103.82	8.5592	1.8599	-0.6339
310	SLU 69	-9.07	2.35	105.99	8.7505	1.9021	-0.648
310	SLU 70	-9.08	2.35	105.99	8.7483	1.9018	-0.6481
310	SLU 71	-9.02	2.34	105.21	8.6828	1.8877	-0.643
310	SLU 72	-9.03	2.34	105.22	8.6805	1.8874	-0.6431
310	SLU 73	-9.88	2.44	113.63	9.3816	2.0264	-0.689
310	SLU 74	-10	2.48	115.8	9.5729	2.0685	-0.703
310	SLU 75	-10.01	2.49	115.81	9.5707	2.0682	-0.7031
310	SLU 76	-9.96	2.47	115.04	9.5014	2.0536	-0.6982
310	SLU 77	-10.09	2.51	117.2	9.6928	2.0958	-0.7122
310	SLU 78	-10.1	2.52	117.21	9.6905	2.0955	-0.7123
310	SLU 79	-10.03	2.5	116.43	9.6251	2.0814	-0.7073
310	SLU 80	-10.04	2.5	116.44	9.6228	2.0811	-0.7073
310	SLU 81	-10.29	2.5	118.43	9.7892	2.1099	-0.7164
310	SLU 82	-10.31	2.51	118.43	9.7869	2.1096	-0.7164
310	SLU 83	-10.38	2.54	119.83	9.909	2.1371	-0.7256
310	SLU 84	-10.39	2.54	119.84	9.9068	2.1368	-0.7256
310	SLE RA 1	-6.6	1.71	76.42	6.2968	1.369	-0.4668
310	SLE RA 2	-6.61	1.72	76.43	6.2943	1.3687	-0.4669
310	SLE RA 3	-6.7	1.74	77.88	6.4219	1.3968	-0.4763
310	SLE RA 4	-6.7	1.75	77.88	6.4204	1.3966	-0.4763
310	SLE RA 5	-6.67	1.74	77.37	6.3742	1.3869	-0.473
310	SLE RA 6	-6.75	1.76	78.81	6.5018	1.415	-0.4824
310	SLE RA 7	-6.76	1.77	78.82	6.5003	1.4148	-0.4825
310	SLE RA 8	-6.71	1.75	78.3	6.4566	1.4054	-0.4791
310	SLE RA 9	-6.72	1.76	78.3	6.4551	1.4052	-0.4791
310	SLE RA 10	-7.29	1.83	83.91	6.9225	1.4978	-0.5097
310	SLE RA 11	-7.37	1.85	85.35	7.05	1.5259	-0.5191
310	SLE RA 12	-7.38	1.85	85.36	7.0485	1.5257	-0.5191
310	SLE RA 13	-7.35	1.85	84.84	7.0024	1.516	-0.5158
310	SLE RA 14	-7.43	1.87	86.29	7.1299	1.5441	-0.5252
310	SLE RA 15	-7.43	1.88	86.29	7.1284	1.5439	-0.5253
310	SLE RA 16	-7.39	1.86	85.77	7.0848	1.5345	-0.5219
310	SLE RA 17	-7.4	1.87	85.78	7.0833	1.5343	-0.522
310	SLE RA 18	-7.57	1.87	87.11	7.1942	1.5535	-0.528
310	SLE RA 19	-7.57	1.87	87.11	7.1927	1.5533	-0.528
310	SLE RA 20	-7.62	1.89	88.04	7.2741	1.5717	-0.5341
310	SLE RA 21	-7.63	1.89	88.05	7.2726	1.5715	-0.5342
310	SLE FR 1	-6.6	1.71	76.42	6.2968	1.369	-0.4668
310	SLE FR 2	-6.6	1.71	76.42	6.2963	1.369	-0.4668
310	SLE FR 3	-6.62	1.72	76.8	6.3288	1.3763	-0.4693
310	SLE FR 4	-6.89	1.76	79.63	6.5655	1.4243	-0.4852
310	SLE FR 5	-6.91	1.77	80	6.598	1.4316	-0.4876
310	SLE FR 6	-7.08	1.79	81.76	6.7455	1.4613	-0.4974
310	SLE QP 1	-6.6	1.71	76.42	6.2968	1.369	-0.4668
310	SLE QP 2	-6.89	1.76	79.63	6.566	1.4244	-0.4852
310	SLD 1	-5.27	4.13	68.97	5.7853	1.6874	-0.6389
310	SLD 2	-5.27	4.13	68.97	5.7853	1.6874	-0.6389
310	SLD 3	-4.3	2.38	75.77	6.3393	1.521	-0.5344
310	SLD 4	-4.3	2.38	75.77	6.3393	1.521	-0.5344
310	SLD 5	-7.87	5.13	66.12	5.4914	1.7556	-0.6899
310	SLD 6	-7.87	5.13	66.12	5.4914	1.7556	-0.6899
310	SLD 7	-4.65	-0.71	88.78	7.3383	1.201	-0.3413
310	SLD 8	-4.65	-0.71	88.78	7.3383	1.201	-0.3413
310	SLD 9	-9.14	4.23	70.47	5.7937	1.6478	-0.629
310	SLD 10	-9.14	4.23	70.47	5.7937	1.6478	-0.629
310	SLD 11	-5.91	-1.61	93.14	7.6406	1.0931	-0.2805
310	SLD 12	-5.91	-1.61	93.14	7.6406	1.0931	-0.2805
310	SLD 13	-9.48	1.14	83.48	6.7927	1.3278	-0.436
310	SLD 14	-9.48	1.14	83.48	6.7927	1.3278	-0.436
310	SLD 15	-8.51	-0.61	90.28	7.3467	1.1614	-0.3314
310	SLD 16	-8.51	-0.61	90.28	7.3467	1.1614	-0.3314
310	SLV 1	-3.16	7.32	54.21	4.7217	2.0453	-0.8472
310	SLV 2	-3.16	7.32	54.21	4.7217	2.0453	-0.8472
310	SLV 3	-0.78	3.2	70.8	6.0409	1.6475	-0.5987
310	SLV 4	-0.78	3.2	70.8	6.0409	1.6475	-0.5987
310	SLV 5	-9.38	9.68	46.84	4.0119	2.214	-0.9705
310	SLV 6	-9.38	9.68	46.84	4.0119	2.214	-0.9705
310	SLV 7	-1.44	-4.07	102.14	8.4093	0.8879	-0.1425
310	SLV 8	-1.44	-4.07	102.14	8.4093	0.8879	-0.1425
310	SLV 9	-12.34	7.58	57.11	4.7227	1.9608	-0.8278
310	SLV 10	-12.34	7.58	57.11	4.7227	1.9608	-0.8278
310	SLV 11	-4.4	-6.17	112.41	9.1201	0.6347	0.0002
310	SLV 12	-4.4	-6.17	112.41	9.1201	0.6347	0.0002
310	SLV 13	-13.01	0.32	88.46	7.0911	1.2013	-0.3716
310	SLV 14	-13.01	0.32	88.46	7.0911	1.2013	-0.3716
310	SLV 15	-10.62	-3.8	105.05	8.4103	0.8035	-0.1232
310	SLV 16	-10.62	-3.8	105.05	8.4103	0.8035	-0.1232
311	SLU 1	3.4	0.37	13.19	-0.2182	0.0804	0.0353
311	SLU 2	3.42	0.36	13.29	-0.2141	0.0811	0.0346
311	SLU 3	3.55	0.39	13.78	-0.2305	0.0839	0.0373
311	SLU 4	3.56	0.39	13.84	-0.2281	0.0843	0.0369
311	SLU 5	3.58	0.38	13.91	-0.2244	0.085	0.0363
311	SLU 6	3.71	0.41	14.4	-0.2408	0.0878	0.0389
311	SLU 7	3.72	0.41	14.46	-0.2383	0.0882	0.0385
311	SLU 8	3.72	0.41	14.43	-0.2387	0.0881	0.0386



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
311	SLU 9	3.73	0.4	14.49	-0.2363	0.0886	0.0382
311	SLU 10	4.01	0.42	15.48	-0.2472	0.0956	0.04
311	SLU 11	4.13	0.45	15.97	-0.2636	0.0984	0.0426
311	SLU 12	4.15	0.45	16.03	-0.2612	0.0988	0.0423
311	SLU 13	4.17	0.44	16.1	-0.2575	0.0995	0.0417
311	SLU 14	4.3	0.47	16.59	-0.2739	0.1023	0.0443
311	SLU 15	4.31	0.46	16.65	-0.2714	0.1027	0.0439
311	SLU 16	4.31	0.46	16.62	-0.2718	0.1026	0.044
311	SLU 17	4.32	0.46	16.68	-0.2694	0.103	0.0436
311	SLU 18	4.24	0.45	16.32	-0.2655	0.1011	0.043
311	SLU 19	4.25	0.45	16.38	-0.263	0.1015	0.0426
311	SLU 20	4.4	0.47	16.94	-0.2757	0.105	0.0446
311	SLU 21	4.41	0.47	17	-0.2733	0.1054	0.0442
311	SLU 22	3.93	0.43	15.22	-0.2534	0.0935	0.041
311	SLU 23	3.96	0.43	15.33	-0.2493	0.0942	0.0403
311	SLU 24	4.08	0.45	15.82	-0.2657	0.097	0.043
311	SLU 25	4.1	0.45	15.88	-0.2633	0.0974	0.0426
311	SLU 26	4.12	0.44	15.95	-0.2596	0.0981	0.042
311	SLU 27	4.25	0.47	16.44	-0.276	0.1009	0.0446
311	SLU 28	4.26	0.47	16.5	-0.2735	0.1013	0.0442
311	SLU 29	4.26	0.47	16.47	-0.2739	0.1012	0.0443
311	SLU 30	4.27	0.46	16.53	-0.2715	0.1017	0.0439
311	SLU 31	4.55	0.48	17.52	-0.2824	0.1087	0.0457
311	SLU 32	4.67	0.51	18.01	-0.2988	0.1115	0.0483
311	SLU 33	4.69	0.51	18.07	-0.2964	0.1119	0.048
311	SLU 34	4.71	0.5	18.14	-0.2927	0.1125	0.0474
311	SLU 35	4.83	0.53	18.63	-0.3091	0.1154	0.05
311	SLU 36	4.85	0.52	18.69	-0.3066	0.1158	0.0496
311	SLU 37	4.84	0.53	18.66	-0.307	0.1157	0.0497
311	SLU 38	4.86	0.52	18.72	-0.3046	0.1161	0.0493
311	SLU 39	4.77	0.52	18.36	-0.3007	0.1142	0.0487
311	SLU 40	4.79	0.51	18.42	-0.2982	0.1146	0.0483
311	SLU 41	4.94	0.53	18.98	-0.3109	0.118	0.0503
311	SLU 42	4.95	0.53	19.04	-0.3085	0.1185	0.0499
311	SLU 43	4.23	0.46	16.44	-0.2716	0.1	0.0439
311	SLU 44	4.25	0.46	16.55	-0.2675	0.1007	0.0433
311	SLU 45	4.38	0.48	17.03	-0.2839	0.1035	0.0459
311	SLU 46	4.39	0.48	17.1	-0.2815	0.104	0.0455
311	SLU 47	4.41	0.47	17.17	-0.2778	0.1046	0.0449
311	SLU 48	4.54	0.5	17.65	-0.2942	0.1074	0.0476
311	SLU 49	4.56	0.5	17.72	-0.2917	0.1078	0.0472
311	SLU 50	4.55	0.5	17.68	-0.2921	0.1078	0.0472
311	SLU 51	4.57	0.49	17.75	-0.2897	0.1082	0.0468
311	SLU 52	4.84	0.51	18.74	-0.3006	0.1152	0.0486
311	SLU 53	4.97	0.54	19.23	-0.317	0.118	0.0513
311	SLU 54	4.98	0.54	19.29	-0.3146	0.1184	0.0509
311	SLU 55	5	0.53	19.36	-0.3109	0.1191	0.0503
311	SLU 56	5.13	0.56	19.85	-0.3273	0.1219	0.0529
311	SLU 57	5.14	0.55	19.91	-0.3248	0.1223	0.0525
311	SLU 58	5.14	0.56	19.88	-0.3252	0.1223	0.0526
311	SLU 59	5.15	0.55	19.94	-0.3228	0.1227	0.0522
311	SLU 60	5.07	0.55	19.58	-0.3189	0.1207	0.0516
311	SLU 61	5.08	0.54	19.64	-0.3164	0.1211	0.0512
311	SLU 62	5.23	0.56	20.2	-0.3291	0.1246	0.0532
311	SLU 63	5.25	0.56	20.26	-0.3267	0.125	0.0529
311	SLU 64	4.77	0.52	18.48	-0.3068	0.1131	0.0496
311	SLU 65	4.79	0.52	18.59	-0.3027	0.1138	0.049
311	SLU 66	4.92	0.54	19.07	-0.3191	0.1166	0.0516
311	SLU 67	4.93	0.54	19.13	-0.3166	0.117	0.0512
311	SLU 68	4.95	0.53	19.21	-0.313	0.1177	0.0506
311	SLU 69	5.08	0.56	19.69	-0.3293	0.1205	0.0533
311	SLU 70	5.09	0.56	19.76	-0.3269	0.1209	0.0529
311	SLU 71	5.09	0.56	19.72	-0.3273	0.1209	0.0529
311	SLU 72	5.1	0.55	19.78	-0.3249	0.1213	0.0525
311	SLU 73	5.38	0.57	20.78	-0.3358	0.1283	0.0543
311	SLU 74	5.51	0.6	21.27	-0.3522	0.1311	0.057
311	SLU 75	5.52	0.6	21.33	-0.3498	0.1315	0.0566
311	SLU 76	5.54	0.59	21.4	-0.3461	0.1322	0.056
311	SLU 77	5.67	0.62	21.89	-0.3625	0.135	0.0586
311	SLU 78	5.68	0.62	21.95	-0.36	0.1354	0.0582
311	SLU 79	5.68	0.62	21.92	-0.3604	0.1353	0.0583
311	SLU 80	5.69	0.61	21.98	-0.358	0.1358	0.0579
311	SLU 81	5.61	0.61	21.62	-0.3541	0.1338	0.0573
311	SLU 82	5.62	0.6	21.68	-0.3516	0.1342	0.0569
311	SLU 83	5.77	0.62	22.24	-0.3643	0.1377	0.0589
311	SLU 84	5.78	0.62	22.3	-0.3619	0.1381	0.0586
311	SLE RA 1	3.55	0.39	13.77	-0.2282	0.0841	0.0369
311	SLE RA 2	3.57	0.38	13.84	-0.2255	0.0846	0.0365
311	SLE RA 3	3.65	0.4	14.16	-0.2365	0.0865	0.0382
311	SLE RA 4	3.66	0.4	14.2	-0.2348	0.0868	0.038
311	SLE RA 5	3.67	0.4	14.25	-0.2324	0.0872	0.0376
311	SLE RA 6	3.76	0.41	14.58	-0.2433	0.0891	0.0394
311	SLE RA 7	3.77	0.41	14.62	-0.2417	0.0893	0.0391
311	SLE RA 8	3.76	0.41	14.6	-0.2419	0.0893	0.0391
311	SLE RA 9	3.77	0.41	14.64	-0.2403	0.0896	0.0389
311	SLE RA 10	3.96	0.42	15.3	-0.2476	0.0943	0.0401
311	SLE RA 11	4.04	0.44	15.63	-0.2585	0.0961	0.0418



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
311	SLE RA 12	4.05	0.44	15.67	-0.2569	0.0964	0.0416
311	SLE RA 13	4.06	0.43	15.71	-0.2544	0.0968	0.0412
311	SLE RA 14	4.15	0.45	16.04	-0.2654	0.0987	0.0429
311	SLE RA 15	4.16	0.45	16.08	-0.2637	0.099	0.0427
311	SLE RA 16	4.16	0.45	16.06	-0.264	0.099	0.0427
311	SLE RA 17	4.17	0.45	16.1	-0.2624	0.0992	0.0424
311	SLE RA 18	4.11	0.44	15.86	-0.2598	0.0979	0.042
311	SLE RA 19	4.12	0.44	15.9	-0.2581	0.0982	0.0418
311	SLE RA 20	4.22	0.46	16.27	-0.2666	0.1005	0.0431
311	SLE RA 21	4.23	0.45	16.31	-0.265	0.1008	0.0429
311	SLE FR 1	3.55	0.39	13.77	-0.2282	0.0841	0.0369
311	SLE FR 2	3.55	0.39	13.78	-0.2277	0.0842	0.0368
311	SLE FR 3	3.59	0.39	13.93	-0.231	0.0852	0.0374
311	SLE FR 4	3.72	0.41	14.41	-0.2372	0.0884	0.0384
311	SLE FR 5	3.76	0.41	14.56	-0.2404	0.0893	0.0389
311	SLE FR 6	3.83	0.42	14.81	-0.244	0.091	0.0395
311	SLE QP 1	3.55	0.39	13.77	-0.2282	0.0841	0.0369
311	SLE QP 2	3.72	0.41	14.4	-0.2377	0.0883	0.0385
311	SLD 1	7.76	0.12	28.43	-0.1656	0.2036	0.0261
311	SLD 2	7.76	0.12	28.43	-0.1656	0.2036	0.0261
311	SLD 3	6.54	0.48	23.16	-0.2067	0.1726	0.0344
311	SLD 4	6.54	0.48	23.16	-0.2067	0.1726	0.0344
311	SLD 5	6.77	-0.23	26.6	-0.1538	0.1699	0.0221
311	SLD 6	6.77	-0.23	26.6	-0.1538	0.1699	0.0221
311	SLD 7	2.72	0.98	9.03	-0.2907	0.0665	0.0498
311	SLD 8	2.72	0.98	9.03	-0.2907	0.0665	0.0498
311	SLD 9	4.71	-0.16	19.76	-0.1847	0.11	0.0271
311	SLD 10	4.71	-0.16	19.76	-0.1847	0.11	0.0271
311	SLD 11	0.67	1.04	2.19	-0.3216	0.0066	0.0548
311	SLD 12	0.67	1.04	2.19	-0.3216	0.0066	0.0548
311	SLD 13	0.89	0.33	5.63	-0.2687	0.0039	0.0425
311	SLD 14	0.89	0.33	5.63	-0.2687	0.0039	0.0425
311	SLD 15	-0.32	0.69	0.36	-0.3098	-0.0271	0.0508
311	SLD 16	-0.32	0.69	0.36	-0.3098	-0.0271	0.0508
311	SLV 1	13.23	-0.3	47.58	-0.0665	0.3595	0.0089
311	SLV 2	13.23	-0.3	47.58	-0.0665	0.3595	0.0089
311	SLV 3	10.25	0.6	34.54	-0.1668	0.284	0.0294
311	SLV 4	10.25	0.6	34.54	-0.1668	0.284	0.0294
311	SLV 5	11.09	-1.17	44.13	-0.0342	0.2842	-0.0015
311	SLV 6	11.09	-1.17	44.13	-0.0342	0.2842	-0.0015
311	SLV 7	1.16	1.83	0.66	-0.3686	0.0325	0.0668
311	SLV 8	1.16	1.83	0.66	-0.3686	0.0325	0.0668
311	SLV 9	6.27	-1.02	28.13	-0.1068	0.1441	0.0101
311	SLV 10	6.27	-1.02	28.13	-0.1068	0.1441	0.0101
311	SLV 11	-3.65	1.99	-15.34	-0.4413	-0.1076	0.0784
311	SLV 12	-3.65	1.99	-15.34	-0.4413	-0.1076	0.0784
311	SLV 13	-2.82	0.21	-5.75	-0.3086	-0.1074	0.0475
311	SLV 14	-2.82	0.21	-5.75	-0.3086	-0.1074	0.0475
311	SLV 15	-5.8	1.11	-18.79	-0.4089	-0.1829	0.068
311	SLV 16	-5.8	1.11	-18.79	-0.4089	-0.1829	0.068
312	SLU 1	2.17	0.6	22.95	-0.3937	0.1018	-0.0013
312	SLU 2	2.17	0.59	23.04	-0.3865	0.1027	-0.0013
312	SLU 3	2.26	0.63	23.9	-0.416	0.1071	-0.0014
312	SLU 4	2.26	0.63	23.95	-0.4116	0.1076	-0.0014
312	SLU 5	2.28	0.62	24	-0.405	0.1092	-0.0014
312	SLU 6	2.37	0.66	24.85	-0.4345	0.1137	-0.0014
312	SLU 7	2.37	0.65	24.91	-0.4302	0.1142	-0.0014
312	SLU 8	2.39	0.66	24.86	-0.4308	0.1149	-0.0014
312	SLU 9	2.39	0.65	24.91	-0.4265	0.1154	-0.0014
312	SLU 10	2.58	0.68	26.72	-0.4457	0.1223	-0.0015
312	SLU 11	2.67	0.72	27.58	-0.4752	0.1268	-0.0016
312	SLU 12	2.67	0.72	27.64	-0.4709	0.1273	-0.0016
312	SLU 13	2.69	0.71	27.68	-0.4643	0.1289	-0.0015
312	SLU 14	2.78	0.75	28.53	-0.4937	0.1334	-0.0016
312	SLU 15	2.78	0.74	28.59	-0.4894	0.1339	-0.0016
312	SLU 16	2.79	0.75	28.54	-0.49	0.1346	-0.0016
312	SLU 17	2.79	0.74	28.59	-0.4857	0.1351	-0.0016
312	SLU 18	2.75	0.73	28.21	-0.4783	0.1299	-0.0016
312	SLU 19	2.75	0.72	28.26	-0.474	0.1304	-0.0016
312	SLU 20	2.86	0.76	29.16	-0.4968	0.1365	-0.0017
312	SLU 21	2.86	0.75	29.22	-0.4925	0.137	-0.0016
312	SLU 22	2.53	0.7	26.37	-0.4568	0.1195	-0.0015
312	SLU 23	2.53	0.68	26.46	-0.4496	0.1203	-0.0015
312	SLU 24	2.62	0.73	27.32	-0.4791	0.1248	-0.0016
312	SLU 25	2.62	0.72	27.37	-0.4748	0.1253	-0.0016
312	SLU 26	2.64	0.71	27.41	-0.4681	0.1269	-0.0016
312	SLU 27	2.73	0.76	28.27	-0.4976	0.1313	-0.0017
312	SLU 28	2.73	0.75	28.33	-0.4933	0.1319	-0.0016
312	SLU 29	2.74	0.75	28.28	-0.4939	0.1326	-0.0016
312	SLU 30	2.75	0.74	28.33	-0.4896	0.1331	-0.0016
312	SLU 31	2.93	0.77	30.14	-0.5088	0.14	-0.0017
312	SLU 32	3.02	0.82	31	-0.5383	0.1445	-0.0018
312	SLU 33	3.02	0.81	31.05	-0.534	0.145	-0.0018
312	SLU 34	3.04	0.8	31.1	-0.5274	0.1466	-0.0018
312	SLU 35	3.13	0.85	31.95	-0.5569	0.151	-0.0019
312	SLU 36	3.13	0.84	32.01	-0.5525	0.1516	-0.0018
312	SLU 37	3.15	0.84	31.96	-0.5531	0.1523	-0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
312	SLU 38	3.15	0.84	32.01	-0.5488	0.1528	-0.0018
312	SLU 39	3.1	0.82	31.63	-0.5414	0.1476	-0.0018
312	SLU 40	3.11	0.82	31.68	-0.5371	0.1481	-0.0018
312	SLU 41	3.21	0.85	32.58	-0.56	0.1542	-0.0019
312	SLU 42	3.22	0.85	32.64	-0.5556	0.1547	-0.0019
312	SLU 43	2.7	0.75	28.66	-0.4902	0.1263	-0.0016
312	SLU 44	2.7	0.73	28.76	-0.4829	0.1271	-0.0016
312	SLU 45	2.79	0.78	29.61	-0.5124	0.1316	-0.0017
312	SLU 46	2.79	0.77	29.67	-0.5081	0.1321	-0.0017
312	SLU 47	2.81	0.76	29.71	-0.5015	0.1337	-0.0017
312	SLU 48	2.9	0.81	30.57	-0.531	0.1381	-0.0018
312	SLU 49	2.9	0.8	30.62	-0.5267	0.1387	-0.0018
312	SLU 50	2.92	0.8	30.57	-0.5273	0.1394	-0.0018
312	SLU 51	2.92	0.8	30.62	-0.5229	0.1399	-0.0017
312	SLU 52	3.11	0.83	32.44	-0.5422	0.1468	-0.0018
312	SLU 53	3.19	0.87	33.29	-0.5717	0.1513	-0.0019
312	SLU 54	3.2	0.86	33.35	-0.5673	0.1518	-0.0019
312	SLU 55	3.21	0.85	33.39	-0.5607	0.1534	-0.0019
312	SLU 56	3.3	0.9	34.25	-0.5902	0.1578	-0.002
312	SLU 57	3.31	0.89	34.3	-0.5859	0.1584	-0.002
312	SLU 58	3.32	0.89	34.25	-0.5865	0.159	-0.002
312	SLU 59	3.32	0.89	34.31	-0.5822	0.1596	-0.0019
312	SLU 60	3.27	0.88	33.92	-0.5748	0.1544	-0.0019
312	SLU 61	3.28	0.87	33.98	-0.5704	0.1549	-0.0019
312	SLU 62	3.38	0.9	34.88	-0.5933	0.161	-0.002
312	SLU 63	3.39	0.9	34.93	-0.589	0.1615	-0.002
312	SLU 64	3.05	0.84	32.08	-0.5533	0.144	-0.0018
312	SLU 65	3.06	0.83	32.18	-0.5461	0.1448	-0.0018
312	SLU 66	3.15	0.88	33.03	-0.5755	0.1493	-0.0019
312	SLU 67	3.15	0.87	33.09	-0.5712	0.1498	-0.0019
312	SLU 68	3.17	0.86	33.13	-0.5646	0.1513	-0.0019
312	SLU 69	3.26	0.9	33.98	-0.5941	0.1558	-0.002
312	SLU 70	3.26	0.9	34.04	-0.5898	0.1563	-0.002
312	SLU 71	3.27	0.9	33.99	-0.5904	0.157	-0.002
312	SLU 72	3.28	0.89	34.04	-0.586	0.1575	-0.002
312	SLU 73	3.46	0.92	35.86	-0.6053	0.1645	-0.002
312	SLU 74	3.55	0.97	36.71	-0.6348	0.169	-0.0021
312	SLU 75	3.55	0.96	36.77	-0.6304	0.1695	-0.0021
312	SLU 76	3.57	0.95	36.81	-0.6238	0.171	-0.0021
312	SLU 77	3.66	0.99	37.66	-0.6533	0.1755	-0.0022
312	SLU 78	3.66	0.99	37.72	-0.649	0.176	-0.0022
312	SLU 79	3.68	0.99	37.67	-0.6496	0.1767	-0.0022
312	SLU 80	3.68	0.98	37.72	-0.6453	0.1772	-0.0022
312	SLU 81	3.63	0.97	37.34	-0.6379	0.1721	-0.0021
312	SLU 82	3.63	0.96	37.4	-0.6336	0.1726	-0.0021
312	SLU 83	3.74	1	38.29	-0.6564	0.1786	-0.0022
312	SLU 84	3.74	0.99	38.35	-0.6521	0.1791	-0.0022
312	SLE RA 1	2.27	0.63	23.93	-0.4117	0.1068	-0.0014
312	SLE RA 2	2.27	0.62	23.99	-0.4069	0.1074	-0.0014
312	SLE RA 3	2.33	0.65	24.56	-0.4266	0.1104	-0.0014
312	SLE RA 4	2.33	0.64	24.6	-0.4237	0.1107	-0.0014
312	SLE RA 5	2.35	0.64	24.62	-0.4193	0.1118	-0.0014
312	SLE RA 6	2.41	0.67	25.2	-0.4389	0.1148	-0.0015
312	SLE RA 7	2.41	0.66	25.23	-0.4361	0.1151	-0.0015
312	SLE RA 8	2.42	0.66	25.2	-0.4365	0.1156	-0.0015
312	SLE RA 9	2.42	0.66	25.24	-0.4336	0.1159	-0.0014
312	SLE RA 10	2.54	0.68	26.44	-0.4464	0.1205	-0.0015
312	SLE RA 11	2.6	0.71	27.01	-0.4661	0.1235	-0.0016
312	SLE RA 12	2.6	0.7	27.05	-0.4632	0.1239	-0.0015
312	SLE RA 13	2.62	0.7	27.08	-0.4588	0.1249	-0.0015
312	SLE RA 14	2.68	0.73	27.65	-0.4784	0.1279	-0.0016
312	SLE RA 15	2.68	0.72	27.69	-0.4755	0.1282	-0.0016
312	SLE RA 16	2.69	0.72	27.65	-0.4759	0.1287	-0.0016
312	SLE RA 17	2.69	0.72	27.69	-0.4731	0.129	-0.0016
312	SLE RA 18	2.66	0.71	27.43	-0.4681	0.1256	-0.0016
312	SLE RA 19	2.66	0.71	27.47	-0.4652	0.1259	-0.0016
312	SLE RA 20	2.73	0.73	28.07	-0.4805	0.13	-0.0016
312	SLE RA 21	2.73	0.73	28.11	-0.4776	0.1303	-0.0016
312	SLE FR 1	2.27	0.63	23.93	-0.4117	0.1068	-0.0014
312	SLE FR 2	2.27	0.63	23.94	-0.4108	0.107	-0.0014
312	SLE FR 3	2.3	0.63	24.18	-0.4167	0.1086	-0.0014
312	SLE FR 4	2.39	0.65	24.99	-0.4277	0.1126	-0.0014
312	SLE FR 5	2.42	0.66	25.23	-0.4336	0.1142	-0.0014
312	SLE FR 6	2.46	0.67	25.68	-0.4399	0.1162	-0.0015
312	SLE QP 1	2.27	0.63	23.93	-0.4117	0.1068	-0.0014
312	SLE QP 2	2.39	0.65	24.98	-0.4286	0.1125	-0.0014
312	SLD 1	6.19	0.46	42.42	-0.2954	0.341	-0.001
312	SLD 2	6.19	0.46	42.42	-0.2954	0.341	-0.001
312	SLD 3	5.39	0.54	35.22	-0.3582	0.2924	-0.0012
312	SLD 4	5.39	0.54	35.22	-0.3582	0.2924	-0.0012
312	SLD 5	4.74	0.47	41.14	-0.2934	0.2548	-0.001
312	SLD 6	4.74	0.47	41.14	-0.2934	0.2548	-0.001
312	SLD 7	2.07	0.74	17.13	-0.5027	0.0927	-0.0017
312	SLD 8	2.07	0.74	17.13	-0.5027	0.0927	-0.0017
312	SLD 9	2.7	0.56	32.83	-0.3545	0.1323	-0.0012
312	SLD 10	2.7	0.56	32.83	-0.3545	0.1323	-0.0012
312	SLD 11	0.03	0.83	8.82	-0.5638	-0.0298	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
312	SLD 12	0.03	0.83	8.82	-0.5638	-0.0298	-0.0019
312	SLD 13	-0.62	0.76	14.74	-0.4991	-0.0674	-0.0017
312	SLD 14	-0.62	0.76	14.74	-0.4991	-0.0674	-0.0017
312	SLD 15	-1.42	0.84	7.54	-0.5619	-0.116	-0.0019
312	SLD 16	-1.42	0.84	7.54	-0.5619	-0.116	-0.0019
312	SLV 1	11.31	0.21	66.3	-0.1154	0.6488	-0.0004
312	SLV 2	11.31	0.21	66.3	-0.1154	0.6488	-0.0004
312	SLV 3	9.4	0.4	48.44	-0.2653	0.5323	-0.0009
312	SLV 4	9.4	0.4	48.44	-0.2653	0.5323	-0.0009
312	SLV 5	7.95	0.23	64.45	-0.1074	0.4501	-0.0003
312	SLV 6	7.95	0.23	64.45	-0.1074	0.4501	-0.0003
312	SLV 7	1.6	0.86	4.94	-0.6069	0.0617	-0.0021
312	SLV 8	1.6	0.86	4.94	-0.6069	0.0617	-0.0021
312	SLV 9	3.17	0.44	45.02	-0.2504	0.1632	-0.0008
312	SLV 10	3.17	0.44	45.02	-0.2504	0.1632	-0.0008
312	SLV 11	-3.18	1.07	-14.49	-0.7499	-0.2251	-0.0026
312	SLV 12	-3.18	1.07	-14.49	-0.7499	-0.2251	-0.0026
312	SLV 13	-4.63	0.91	1.52	-0.592	-0.3074	-0.002
312	SLV 14	-4.63	0.91	1.52	-0.592	-0.3074	-0.002
312	SLV 15	-6.54	1.1	-16.34	-0.7419	-0.4239	-0.0025
312	SLV 16	-6.54	1.1	-16.34	-0.7419	-0.4239	-0.0025
313	SLU 1	0.88	0.37	22.78	-0.3188	0.0367	0.0006
313	SLU 2	0.89	0.36	22.75	-0.313	0.0375	0.0006
313	SLU 3	0.92	0.39	23.62	-0.3369	0.0384	0.0007
313	SLU 4	0.92	0.38	23.6	-0.3334	0.0389	0.0007
313	SLU 5	0.95	0.38	23.54	-0.328	0.0403	0.0007
313	SLU 6	0.98	0.4	24.41	-0.3519	0.0412	0.0007
313	SLU 7	0.98	0.4	24.39	-0.3484	0.0417	0.0007
313	SLU 8	1	0.4	24.36	-0.3488	0.0423	0.0007
313	SLU 9	1.01	0.4	24.34	-0.3454	0.0428	0.0007
313	SLU 10	1.09	0.41	26.3	-0.3603	0.0463	0.0007
313	SLU 11	1.12	0.44	27.17	-0.3841	0.0471	0.0008
313	SLU 12	1.12	0.44	27.15	-0.3806	0.0476	0.0008
313	SLU 13	1.15	0.43	27.09	-0.3753	0.0491	0.0008
313	SLU 14	1.18	0.46	27.96	-0.3991	0.0499	0.0008
313	SLU 15	1.18	0.45	27.94	-0.3956	0.0504	0.0008
313	SLU 16	1.21	0.45	27.92	-0.3961	0.051	0.0008
313	SLU 17	1.21	0.45	27.9	-0.3926	0.0515	0.0008
313	SLU 18	1.17	0.44	27.86	-0.3863	0.0492	0.0008
313	SLU 19	1.17	0.44	27.84	-0.3828	0.0497	0.0008
313	SLU 20	1.23	0.46	28.65	-0.4013	0.052	0.0008
313	SLU 21	1.23	0.46	28.63	-0.3978	0.0525	0.0008
313	SLU 22	1.04	0.42	26.06	-0.3694	0.0437	0.0008
313	SLU 23	1.05	0.42	26.02	-0.3636	0.0446	0.0007
313	SLU 24	1.08	0.44	26.89	-0.3874	0.0454	0.0008
313	SLU 25	1.08	0.44	26.87	-0.384	0.046	0.0008
313	SLU 26	1.11	0.43	26.81	-0.3786	0.0474	0.0008
313	SLU 27	1.14	0.46	27.68	-0.4024	0.0482	0.0008
313	SLU 28	1.14	0.46	27.66	-0.399	0.0488	0.0008
313	SLU 29	1.17	0.46	27.64	-0.3994	0.0493	0.0008
313	SLU 30	1.17	0.45	27.62	-0.3959	0.0498	0.0008
313	SLU 31	1.25	0.47	29.58	-0.4108	0.0533	0.0008
313	SLU 32	1.28	0.5	30.44	-0.4347	0.0542	0.0009
313	SLU 33	1.28	0.49	30.42	-0.4312	0.0547	0.0009
313	SLU 34	1.31	0.49	30.37	-0.4258	0.0561	0.0009
313	SLU 35	1.34	0.51	31.23	-0.4497	0.057	0.0009
313	SLU 36	1.35	0.51	31.21	-0.4462	0.0575	0.0009
313	SLU 37	1.37	0.51	31.19	-0.4466	0.0581	0.0009
313	SLU 38	1.37	0.51	31.17	-0.4431	0.0586	0.0009
313	SLU 39	1.33	0.5	31.13	-0.4369	0.0562	0.0009
313	SLU 40	1.33	0.5	31.11	-0.4334	0.0567	0.0009
313	SLU 41	1.39	0.52	31.92	-0.4519	0.059	0.0009
313	SLU 42	1.39	0.51	31.9	-0.4484	0.0595	0.0009
313	SLU 43	1.09	0.45	28.5	-0.3972	0.0453	0.0008
313	SLU 44	1.09	0.45	28.46	-0.3914	0.0461	0.0008
313	SLU 45	1.13	0.48	29.33	-0.4152	0.047	0.0008
313	SLU 46	1.13	0.47	29.31	-0.4117	0.0475	0.0008
313	SLU 47	1.16	0.46	29.25	-0.4063	0.0489	0.0008
313	SLU 48	1.19	0.49	30.12	-0.4302	0.0498	0.0009
313	SLU 49	1.19	0.49	30.1	-0.4267	0.0503	0.0009
313	SLU 50	1.21	0.49	30.07	-0.4271	0.0509	0.0009
313	SLU 51	1.22	0.48	30.05	-0.4237	0.0514	0.0009
313	SLU 52	1.3	0.5	32.02	-0.4386	0.0549	0.0009
313	SLU 53	1.33	0.53	32.88	-0.4624	0.0557	0.0009
313	SLU 54	1.33	0.53	32.86	-0.4589	0.0562	0.0009
313	SLU 55	1.36	0.52	32.8	-0.4536	0.0577	0.0009
313	SLU 56	1.39	0.55	33.67	-0.4774	0.0585	0.001
313	SLU 57	1.39	0.54	33.65	-0.4739	0.059	0.001
313	SLU 58	1.41	0.54	33.63	-0.4744	0.0596	0.001
313	SLU 59	1.42	0.54	33.61	-0.4709	0.0601	0.001
313	SLU 60	1.38	0.53	33.57	-0.4646	0.0578	0.0009
313	SLU 61	1.38	0.53	33.55	-0.4611	0.0583	0.0009
313	SLU 62	1.44	0.55	34.36	-0.4796	0.0606	0.001
313	SLU 63	1.44	0.54	34.34	-0.4761	0.0611	0.001
313	SLU 64	1.25	0.51	31.77	-0.4477	0.0523	0.0009
313	SLU 65	1.26	0.51	31.74	-0.4419	0.0532	0.0009
313	SLU 66	1.29	0.53	32.6	-0.4658	0.054	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
314	SLU 9	-0.28	0.32	24.27	-0.2802	-0.0099	0.0008
314	SLU 10	-0.37	0.33	26.39	-0.2917	-0.0154	0.0008
314	SLU 11	-0.37	0.35	27.28	-0.3111	-0.0152	0.0009
314	SLU 12	-0.37	0.35	27.2	-0.3082	-0.0148	0.0008
314	SLU 13	-0.33	0.34	27.07	-0.3038	-0.0127	0.0008
314	SLU 14	-0.33	0.37	27.96	-0.3232	-0.0125	0.0009
314	SLU 15	-0.33	0.36	27.88	-0.3203	-0.0121	0.0009
314	SLU 16	-0.3	0.36	27.89	-0.3207	-0.0107	0.0009
314	SLU 17	-0.3	0.36	27.8	-0.3178	-0.0103	0.0009
314	SLU 18	-0.38	0.35	28.05	-0.3127	-0.0163	0.0009
314	SLU 19	-0.38	0.35	27.96	-0.3098	-0.0159	0.0008
314	SLU 20	-0.34	0.37	28.72	-0.3247	-0.0135	0.0009
314	SLU 21	-0.34	0.36	28.64	-0.3218	-0.0132	0.0009
314	SLU 22	-0.39	0.34	26.22	-0.2995	-0.0165	0.0008
314	SLU 23	-0.39	0.33	26.08	-0.2946	-0.0159	0.0008
314	SLU 24	-0.39	0.36	26.97	-0.314	-0.0157	0.0009
314	SLU 25	-0.39	0.35	26.89	-0.3111	-0.0153	0.0009
314	SLU 26	-0.35	0.35	26.76	-0.3067	-0.0132	0.0008
314	SLU 27	-0.35	0.37	27.65	-0.3261	-0.013	0.0009
314	SLU 28	-0.35	0.37	27.57	-0.3232	-0.0126	0.0009
314	SLU 29	-0.32	0.37	27.58	-0.3236	-0.0111	0.0009
314	SLU 30	-0.31	0.36	27.49	-0.3207	-0.0107	0.0009
314	SLU 31	-0.4	0.38	29.61	-0.3321	-0.0163	0.0009
314	SLU 32	-0.41	0.4	30.51	-0.3516	-0.0161	0.001
314	SLU 33	-0.4	0.4	30.42	-0.3486	-0.0157	0.001
314	SLU 34	-0.36	0.39	30.29	-0.3442	-0.0136	0.0009
314	SLU 35	-0.37	0.41	31.19	-0.3636	-0.0134	0.001
314	SLU 36	-0.36	0.41	31.1	-0.3607	-0.013	0.001
314	SLU 37	-0.33	0.41	31.11	-0.3611	-0.0115	0.001
314	SLU 38	-0.33	0.41	31.03	-0.3582	-0.0112	0.001
314	SLU 39	-0.41	0.4	31.27	-0.3531	-0.0171	0.001
314	SLU 40	-0.41	0.4	31.19	-0.3502	-0.0168	0.001
314	SLU 41	-0.38	0.41	31.95	-0.3651	-0.0144	0.001
314	SLU 42	-0.37	0.41	31.87	-0.3622	-0.0141	0.001
314	SLU 43	-0.46	0.37	28.79	-0.3229	-0.02	0.0009
314	SLU 44	-0.45	0.36	28.65	-0.3181	-0.0194	0.0009
314	SLU 45	-0.45	0.38	29.54	-0.3375	-0.0192	0.0009
314	SLU 46	-0.45	0.38	29.46	-0.3346	-0.0188	0.0009
314	SLU 47	-0.41	0.37	29.33	-0.3301	-0.0167	0.0009
314	SLU 48	-0.42	0.4	30.22	-0.3495	-0.0165	0.001
314	SLU 49	-0.41	0.39	30.14	-0.3466	-0.0161	0.0009
314	SLU 50	-0.38	0.39	30.14	-0.347	-0.0146	0.001
314	SLU 51	-0.38	0.39	30.06	-0.3441	-0.0142	0.0009
314	SLU 52	-0.47	0.4	32.18	-0.3556	-0.0198	0.001
314	SLU 53	-0.47	0.43	33.08	-0.375	-0.0196	0.001
314	SLU 54	-0.47	0.42	32.99	-0.3721	-0.0192	0.001
314	SLU 55	-0.43	0.42	32.86	-0.3676	-0.0171	0.001
314	SLU 56	-0.43	0.44	33.76	-0.3871	-0.0169	0.0011
314	SLU 57	-0.43	0.44	33.67	-0.3841	-0.0165	0.0011
314	SLU 58	-0.39	0.44	33.68	-0.3845	-0.015	0.0011
314	SLU 59	-0.39	0.43	33.6	-0.3816	-0.0147	0.001
314	SLU 60	-0.48	0.43	33.84	-0.3765	-0.0206	0.001
314	SLU 61	-0.47	0.42	33.75	-0.3736	-0.0203	0.001
314	SLU 62	-0.44	0.44	34.52	-0.3886	-0.0179	0.0011
314	SLU 63	-0.44	0.44	34.43	-0.3857	-0.0176	0.0011
314	SLU 64	-0.49	0.41	32.01	-0.3633	-0.0209	0.001
314	SLU 65	-0.48	0.41	31.87	-0.3585	-0.0203	0.001
314	SLU 66	-0.49	0.43	32.77	-0.3779	-0.0201	0.001
314	SLU 67	-0.48	0.43	32.68	-0.375	-0.0197	0.001
314	SLU 68	-0.45	0.42	32.55	-0.3705	-0.0176	0.001
314	SLU 69	-0.45	0.44	33.44	-0.3899	-0.0173	0.0011
314	SLU 70	-0.45	0.44	33.36	-0.387	-0.017	0.0011
314	SLU 71	-0.41	0.44	33.37	-0.3874	-0.0155	0.0011
314	SLU 72	-0.41	0.44	33.28	-0.3845	-0.0151	0.0011
314	SLU 73	-0.5	0.45	35.41	-0.396	-0.0207	0.0011
314	SLU 74	-0.5	0.47	36.3	-0.4154	-0.0205	0.0011
314	SLU 75	-0.5	0.47	36.22	-0.4125	-0.0201	0.0011
314	SLU 76	-0.46	0.46	36.09	-0.4081	-0.018	0.0011
314	SLU 77	-0.46	0.49	36.98	-0.4275	-0.0178	0.0012
314	SLU 78	-0.46	0.48	36.9	-0.4246	-0.0174	0.0012
314	SLU 79	-0.43	0.48	36.91	-0.425	-0.0159	0.0012
314	SLU 80	-0.42	0.48	36.82	-0.422	-0.0156	0.0012
314	SLU 81	-0.51	0.47	37.06	-0.4169	-0.0215	0.0011
314	SLU 82	-0.51	0.47	36.98	-0.414	-0.0212	0.0011
314	SLU 83	-0.47	0.49	37.74	-0.429	-0.0188	0.0012
314	SLU 84	-0.47	0.48	37.66	-0.4261	-0.0185	0.0012
314	SLE RA 1	-0.37	0.31	23.92	-0.2706	-0.0159	0.0007
314	SLE RA 2	-0.37	0.3	23.82	-0.2674	-0.0155	0.0007
314	SLE RA 3	-0.37	0.32	24.42	-0.2803	-0.0153	0.0008
314	SLE RA 4	-0.37	0.32	24.36	-0.2784	-0.0151	0.0008
314	SLE RA 5	-0.34	0.31	24.27	-0.2754	-0.0137	0.0008
314	SLE RA 6	-0.34	0.33	24.87	-0.2883	-0.0135	0.0008
314	SLE RA 7	-0.34	0.32	24.81	-0.2864	-0.0133	0.0008
314	SLE RA 8	-0.32	0.33	24.82	-0.2867	-0.0123	0.0008
314	SLE RA 9	-0.32	0.32	24.76	-0.2847	-0.012	0.0008
314	SLE RA 10	-0.38	0.33	26.18	-0.2924	-0.0158	0.0008
314	SLE RA 11	-0.38	0.35	26.78	-0.3053	-0.0156	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
315	SLU 38	-1.63	0.34	30.32	-0.2923	-0.0674	0.0009
315	SLU 39	-1.73	0.34	30.79	-0.2883	-0.0719	0.0009
315	SLU 40	-1.73	0.33	30.65	-0.2858	-0.0716	0.0009
315	SLU 41	-1.72	0.35	31.37	-0.298	-0.0715	0.0009
315	SLU 42	-1.72	0.35	31.23	-0.2954	-0.0711	0.0009
315	SLU 43	-1.58	0.31	28.51	-0.266	-0.0665	0.0008
315	SLU 44	-1.58	0.31	28.28	-0.2617	-0.0658	0.0008
315	SLU 45	-1.61	0.33	29.18	-0.2778	-0.0678	0.0009
315	SLU 46	-1.61	0.32	29.04	-0.2752	-0.0675	0.0009
315	SLU 47	-1.57	0.32	28.85	-0.2714	-0.0654	0.0008
315	SLU 48	-1.6	0.34	29.76	-0.2875	-0.0674	0.0009
315	SLU 49	-1.6	0.33	29.61	-0.2849	-0.067	0.0009
315	SLU 50	-1.56	0.33	29.66	-0.2853	-0.0656	0.0009
315	SLU 51	-1.56	0.33	29.52	-0.2828	-0.0652	0.0009
315	SLU 52	-1.77	0.34	31.73	-0.2916	-0.0735	0.0009
315	SLU 53	-1.8	0.36	32.63	-0.3077	-0.0755	0.001
315	SLU 54	-1.8	0.36	32.49	-0.3051	-0.0751	0.001
315	SLU 55	-1.76	0.35	32.3	-0.3013	-0.073	0.0009
315	SLU 56	-1.79	0.37	33.21	-0.3174	-0.0751	0.001
315	SLU 57	-1.79	0.37	33.06	-0.3148	-0.0747	0.001
315	SLU 58	-1.75	0.37	33.11	-0.3153	-0.0732	0.001
315	SLU 59	-1.75	0.37	32.97	-0.3127	-0.0729	0.001
315	SLU 60	-1.85	0.36	33.44	-0.3088	-0.0774	0.001
315	SLU 61	-1.85	0.36	33.3	-0.3062	-0.077	0.001
315	SLU 62	-1.84	0.37	34.01	-0.3184	-0.077	0.001
315	SLU 63	-1.84	0.37	33.87	-0.3158	-0.0766	0.001
315	SLU 64	-1.77	0.35	31.63	-0.2985	-0.0743	0.0009
315	SLU 65	-1.77	0.34	31.39	-0.2941	-0.0736	0.0009
315	SLU 66	-1.8	0.36	32.29	-0.3102	-0.0756	0.001
315	SLU 67	-1.8	0.36	32.15	-0.3077	-0.0752	0.001
315	SLU 68	-1.76	0.36	31.96	-0.3038	-0.0732	0.0009
315	SLU 69	-1.79	0.37	32.87	-0.3199	-0.0752	0.001
315	SLU 70	-1.79	0.37	32.73	-0.3173	-0.0748	0.001
315	SLU 71	-1.75	0.37	32.77	-0.3178	-0.0734	0.001
315	SLU 72	-1.75	0.37	32.63	-0.3152	-0.073	0.001
315	SLU 73	-1.96	0.38	34.84	-0.3241	-0.0813	0.001
315	SLU 74	-1.99	0.4	35.74	-0.3401	-0.0833	0.0011
315	SLU 75	-1.99	0.4	35.6	-0.3376	-0.0829	0.0011
315	SLU 76	-1.95	0.39	35.41	-0.3337	-0.0808	0.001
315	SLU 77	-1.98	0.41	36.32	-0.3498	-0.0829	0.0011
315	SLU 78	-1.98	0.41	36.18	-0.3472	-0.0825	0.0011
315	SLU 79	-1.94	0.41	36.22	-0.3477	-0.081	0.0011
315	SLU 80	-1.94	0.4	36.08	-0.3451	-0.0806	0.0011
315	SLU 81	-2.04	0.4	36.55	-0.3412	-0.0852	0.0011
315	SLU 82	-2.04	0.4	36.41	-0.3386	-0.0848	0.0011
315	SLU 83	-2.03	0.41	37.13	-0.3508	-0.0848	0.0011
315	SLU 84	-2.03	0.41	36.98	-0.3483	-0.0844	0.0011
315	SLE RA 1	-1.32	0.26	23.64	-0.2225	-0.0554	0.0007
315	SLE RA 2	-1.32	0.26	23.49	-0.2196	-0.055	0.0007
315	SLE RA 3	-1.34	0.27	24.09	-0.2303	-0.0563	0.0007
315	SLE RA 4	-1.34	0.27	23.99	-0.2286	-0.0561	0.0007
315	SLE RA 5	-1.31	0.26	23.87	-0.226	-0.0547	0.0007
315	SLE RA 6	-1.33	0.28	24.47	-0.2367	-0.056	0.0007
315	SLE RA 7	-1.33	0.28	24.38	-0.235	-0.0558	0.0007
315	SLE RA 8	-1.31	0.28	24.41	-0.2353	-0.0548	0.0007
315	SLE RA 9	-1.31	0.27	24.31	-0.2336	-0.0546	0.0007
315	SLE RA 10	-1.45	0.28	25.78	-0.2395	-0.0601	0.0007
315	SLE RA 11	-1.47	0.29	26.39	-0.2502	-0.0614	0.0008
315	SLE RA 12	-1.47	0.29	26.29	-0.2485	-0.0612	0.0008
315	SLE RA 13	-1.44	0.29	26.17	-0.246	-0.0598	0.0008
315	SLE RA 14	-1.46	0.3	26.77	-0.2567	-0.0611	0.0008
315	SLE RA 15	-1.46	0.3	26.68	-0.255	-0.0609	0.0008
315	SLE RA 16	-1.43	0.3	26.71	-0.2553	-0.0599	0.0008
315	SLE RA 17	-1.43	0.3	26.61	-0.2535	-0.0597	0.0008
315	SLE RA 18	-1.5	0.29	26.93	-0.2509	-0.0627	0.0008
315	SLE RA 19	-1.5	0.29	26.83	-0.2492	-0.0625	0.0008
315	SLE RA 20	-1.49	0.3	27.31	-0.2574	-0.0624	0.0008
315	SLE RA 21	-1.49	0.3	27.22	-0.2557	-0.0622	0.0008
315	SLE FR 1	-1.32	0.26	23.64	-0.2225	-0.0554	0.0007
315	SLE FR 2	-1.32	0.26	23.61	-0.2219	-0.0553	0.0007
315	SLE FR 3	-1.32	0.26	23.8	-0.225	-0.0553	0.0007
315	SLE FR 4	-1.37	0.27	24.6	-0.2304	-0.0575	0.0007
315	SLE FR 5	-1.37	0.27	24.78	-0.2336	-0.0575	0.0007
315	SLE FR 6	-1.41	0.28	25.29	-0.2367	-0.0591	0.0007
315	SLE QP 1	-1.32	0.26	23.64	-0.2225	-0.0554	0.0007
315	SLE QP 2	-1.37	0.27	24.63	-0.231	-0.0576	0.0007
315	SLD 1	4.28	0.05	25.6	-0.0181	0.1929	0.0001
315	SLD 2	4.28	0.05	25.6	-0.0181	0.1929	0.0001
315	SLD 3	3.12	0.29	27.28	-0.2564	0.1415	0.0008
315	SLD 4	3.12	0.29	27.28	-0.2564	0.1415	0.0008
315	SLD 5	2.1	-0.16	22.37	0.1944	0.0955	-0.0005
315	SLD 6	2.1	-0.16	22.37	0.1944	0.0955	-0.0005
315	SLD 7	-1.8	0.64	27.98	-0.6001	-0.0758	0.0018
315	SLD 8	-1.8	0.64	27.98	-0.6001	-0.0758	0.0018
315	SLD 9	-0.95	-0.1	21.28	0.1381	-0.0394	-0.0003
315	SLD 10	-0.95	-0.1	21.28	0.1381	-0.0394	-0.0003
315	SLD 11	-4.84	0.7	26.89	-0.6564	-0.2107	0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
315	SLD 12	-4.84	0.7	26.89	-0.6564	-0.2107	0.0019
315	SLD 13	-5.86	0.25	21.98	-0.2056	-0.2568	0.0006
315	SLD 14	-5.86	0.25	21.98	-0.2056	-0.2568	0.0006
315	SLD 15	-7.03	0.49	23.66	-0.4439	-0.3081	0.0013
315	SLD 16	-7.03	0.49	23.66	-0.4439	-0.3081	0.0013
315	SLV 1	11.89	-0.27	26.88	0.2911	0.5292	-0.0007
315	SLV 2	11.89	-0.27	26.88	0.2911	0.5292	-0.0007
315	SLV 3	9.11	0.33	30.91	-0.3026	0.4073	0.001
315	SLV 4	9.11	0.33	30.91	-0.3026	0.4073	0.001
315	SLV 5	6.81	-0.8	19.19	0.8261	0.3034	-0.0022
315	SLV 6	6.81	-0.8	19.19	0.8261	0.3034	-0.0022
315	SLV 7	-2.44	1.2	32.63	-1.1529	-0.1031	0.0033
315	SLV 8	-2.44	1.2	32.63	-1.1529	-0.1031	0.0033
315	SLV 9	-0.31	-0.66	16.63	0.6909	-0.0121	-0.0019
315	SLV 10	-0.31	-0.66	16.63	0.6909	-0.0121	-0.0019
315	SLV 11	-9.56	1.34	30.07	-1.288	-0.4187	0.0036
315	SLV 12	-9.56	1.34	30.07	-1.288	-0.4187	0.0036
315	SLV 13	-11.86	0.21	18.35	-0.1594	-0.5225	0.0005
315	SLV 14	-11.86	0.21	18.35	-0.1594	-0.5225	0.0005
315	SLV 15	-14.63	0.81	22.38	-0.7531	-0.6445	0.0021
315	SLV 16	-14.63	0.81	22.38	-0.7531	-0.6445	0.0021
316	SLU 1	-1.72	0.21	22.31	-0.1756	-0.0728	0.0006
316	SLU 2	-1.74	0.2	21.97	-0.1716	-0.0734	0.0005
316	SLU 3	-1.76	0.22	22.9	-0.185	-0.0737	0.0006
316	SLU 4	-1.77	0.22	22.69	-0.1826	-0.074	0.0006
316	SLU 5	-1.73	0.21	22.45	-0.1791	-0.0719	0.0006
316	SLU 6	-1.75	0.23	23.37	-0.1925	-0.0722	0.0006
316	SLU 7	-1.76	0.22	23.17	-0.1901	-0.0725	0.0006
316	SLU 8	-1.7	0.23	23.26	-0.1907	-0.0699	0.0006
316	SLU 9	-1.71	0.22	23.06	-0.1883	-0.0702	0.0006
316	SLU 10	-2.05	0.23	25.29	-0.1951	-0.0859	0.0006
316	SLU 11	-2.06	0.25	26.21	-0.2086	-0.0862	0.0007
316	SLU 12	-2.07	0.24	26.01	-0.2061	-0.0866	0.0007
316	SLU 13	-2.04	0.24	25.77	-0.2027	-0.0845	0.0006
316	SLU 14	-2.05	0.26	26.69	-0.2161	-0.0848	0.0007
316	SLU 15	-2.06	0.25	26.48	-0.2137	-0.0851	0.0007
316	SLU 16	-2	0.25	26.58	-0.2143	-0.0824	0.0007
316	SLU 17	-2.02	0.25	26.38	-0.2118	-0.0828	0.0007
316	SLU 18	-2.15	0.25	27.05	-0.2093	-0.0908	0.0007
316	SLU 19	-2.17	0.24	26.85	-0.2069	-0.0911	0.0007
316	SLU 20	-2.14	0.26	27.52	-0.2168	-0.0893	0.0007
316	SLU 21	-2.16	0.25	27.32	-0.2144	-0.0896	0.0007
316	SLU 22	-2	0.24	25.28	-0.2014	-0.0842	0.0006
316	SLU 23	-2.03	0.23	24.94	-0.1973	-0.0848	0.0006
316	SLU 24	-2.04	0.25	25.86	-0.2107	-0.085	0.0007
316	SLU 25	-2.05	0.25	25.66	-0.2083	-0.0854	0.0007
316	SLU 26	-2.01	0.24	25.41	-0.2048	-0.0833	0.0006
316	SLU 27	-2.03	0.26	26.33	-0.2183	-0.0836	0.0007
316	SLU 28	-2.04	0.26	26.13	-0.2158	-0.0839	0.0007
316	SLU 29	-1.98	0.26	26.23	-0.2164	-0.0812	0.0007
316	SLU 30	-2	0.25	26.02	-0.214	-0.0816	0.0007
316	SLU 31	-2.33	0.26	28.25	-0.2209	-0.0973	0.0007
316	SLU 32	-2.34	0.28	29.18	-0.2343	-0.0976	0.0007
316	SLU 33	-2.36	0.27	28.97	-0.2319	-0.0979	0.0007
316	SLU 34	-2.32	0.27	28.73	-0.2284	-0.0958	0.0007
316	SLU 35	-2.33	0.29	29.65	-0.2418	-0.0961	0.0008
316	SLU 36	-2.35	0.28	29.45	-0.2394	-0.0965	0.0008
316	SLU 37	-2.28	0.28	29.54	-0.24	-0.0938	0.0008
316	SLU 38	-2.3	0.28	29.34	-0.2376	-0.0941	0.0008
316	SLU 39	-2.43	0.28	30.01	-0.235	-0.1022	0.0007
316	SLU 40	-2.45	0.27	29.81	-0.2326	-0.1025	0.0007
316	SLU 41	-2.42	0.29	30.49	-0.2426	-0.1007	0.0008
316	SLU 42	-2.44	0.28	30.29	-0.2401	-0.101	0.0008
316	SLU 43	-2.14	0.26	27.99	-0.2195	-0.0908	0.0007
316	SLU 44	-2.16	0.25	27.65	-0.2154	-0.0913	0.0007
316	SLU 45	-2.18	0.27	28.57	-0.2289	-0.0916	0.0007
316	SLU 46	-2.19	0.27	28.37	-0.2264	-0.0919	0.0007
316	SLU 47	-2.15	0.26	28.13	-0.223	-0.0898	0.0007
316	SLU 48	-2.17	0.28	29.05	-0.2364	-0.0901	0.0007
316	SLU 49	-2.18	0.28	28.85	-0.234	-0.0905	0.0007
316	SLU 50	-2.12	0.28	28.94	-0.2346	-0.0878	0.0007
316	SLU 51	-2.13	0.27	28.74	-0.2321	-0.0881	0.0007
316	SLU 52	-2.47	0.28	30.97	-0.239	-0.1039	0.0008
316	SLU 53	-2.48	0.3	31.89	-0.2524	-0.1042	0.0008
316	SLU 54	-2.5	0.3	31.69	-0.25	-0.1045	0.0008
316	SLU 55	-2.46	0.29	31.44	-0.2465	-0.1024	0.0008
316	SLU 56	-2.47	0.31	32.37	-0.26	-0.1027	0.0008
316	SLU 57	-2.48	0.3	32.16	-0.2575	-0.103	0.0008
316	SLU 58	-2.42	0.31	32.26	-0.2581	-0.1004	0.0008
316	SLU 59	-2.44	0.3	32.05	-0.2557	-0.1007	0.0008
316	SLU 60	-2.57	0.3	32.73	-0.2531	-0.1087	0.0008
316	SLU 61	-2.59	0.3	32.52	-0.2507	-0.1091	0.0008
316	SLU 62	-2.56	0.31	33.2	-0.2607	-0.1073	0.0008
316	SLU 63	-2.58	0.31	33	-0.2583	-0.1076	0.0008
316	SLU 64	-2.42	0.29	30.95	-0.2452	-0.1022	0.0008
316	SLU 65	-2.45	0.29	30.61	-0.2412	-0.1027	0.0008
316	SLU 66	-2.46	0.3	31.54	-0.2546	-0.103	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
316	SLU 67	-2.47	0.3	31.33	-0.2522	-0.1033	0.0008
316	SLU 68	-2.43	0.29	31.09	-0.2487	-0.1012	0.0008
316	SLU 69	-2.45	0.31	32.01	-0.2621	-0.1015	0.0008
316	SLU 70	-2.46	0.31	31.81	-0.2597	-0.1018	0.0008
316	SLU 71	-2.4	0.31	31.9	-0.2603	-0.0992	0.0008
316	SLU 72	-2.42	0.3	31.7	-0.2579	-0.0995	0.0008
316	SLU 73	-2.75	0.31	33.93	-0.2647	-0.1153	0.0008
316	SLU 74	-2.76	0.33	34.85	-0.2782	-0.1156	0.0009
316	SLU 75	-2.78	0.33	34.65	-0.2757	-0.1159	0.0009
316	SLU 76	-2.74	0.32	34.41	-0.2723	-0.1138	0.0009
316	SLU 77	-2.75	0.34	35.33	-0.2857	-0.1141	0.0009
316	SLU 78	-2.77	0.33	35.13	-0.2833	-0.1144	0.0009
316	SLU 79	-2.7	0.34	35.22	-0.2839	-0.1118	0.0009
316	SLU 80	-2.72	0.33	35.02	-0.2814	-0.1121	0.0009
316	SLU 81	-2.85	0.33	35.69	-0.2789	-0.1201	0.0009
316	SLU 82	-2.87	0.33	35.49	-0.2765	-0.1204	0.0009
316	SLU 83	-2.84	0.34	36.17	-0.2864	-0.1186	0.0009
316	SLU 84	-2.86	0.34	35.96	-0.284	-0.119	0.0009
316	SLE RA 1	-1.8	0.22	23.16	-0.183	-0.0761	0.0006
316	SLE RA 2	-1.82	0.21	22.93	-0.1803	-0.0764	0.0006
316	SLE RA 3	-1.83	0.22	23.55	-0.1892	-0.0766	0.0006
316	SLE RA 4	-1.84	0.22	23.41	-0.1876	-0.0769	0.0006
316	SLE RA 5	-1.81	0.22	23.25	-0.1853	-0.0755	0.0006
316	SLE RA 6	-1.82	0.23	23.86	-0.1943	-0.0757	0.0006
316	SLE RA 7	-1.83	0.23	23.73	-0.1926	-0.0759	0.0006
316	SLE RA 8	-1.79	0.23	23.79	-0.193	-0.0741	0.0006
316	SLE RA 9	-1.8	0.23	23.66	-0.1914	-0.0743	0.0006
316	SLE RA 10	-2.02	0.23	25.14	-0.196	-0.0848	0.0006
316	SLE RA 11	-2.03	0.24	25.76	-0.2049	-0.085	0.0006
316	SLE RA 12	-2.04	0.24	25.62	-0.2033	-0.0852	0.0006
316	SLE RA 13	-2.01	0.24	25.46	-0.201	-0.0838	0.0006
316	SLE RA 14	-2.02	0.25	26.08	-0.21	-0.084	0.0007
316	SLE RA 15	-2.03	0.25	25.94	-0.2083	-0.0842	0.0007
316	SLE RA 16	-1.99	0.25	26	-0.2087	-0.0825	0.0007
316	SLE RA 17	-2	0.24	25.87	-0.2071	-0.0827	0.0007
316	SLE RA 18	-2.09	0.24	26.32	-0.2054	-0.0881	0.0007
316	SLE RA 19	-2.1	0.24	26.18	-0.2038	-0.0883	0.0006
316	SLE RA 20	-2.08	0.25	26.63	-0.2104	-0.0871	0.0007
316	SLE RA 21	-2.09	0.25	26.5	-0.2088	-0.0873	0.0007
316	SLE FR 1	-1.8	0.22	23.16	-0.183	-0.0761	0.0006
316	SLE FR 2	-1.81	0.22	23.11	-0.1824	-0.0762	0.0006
316	SLE FR 3	-1.8	0.22	23.29	-0.185	-0.0757	0.0006
316	SLE FR 4	-1.89	0.22	24.06	-0.1892	-0.0798	0.0006
316	SLE FR 5	-1.89	0.23	24.23	-0.1917	-0.0793	0.0006
316	SLE FR 6	-1.95	0.23	24.74	-0.1942	-0.0821	0.0006
316	SLE QP 1	-1.8	0.22	23.16	-0.183	-0.0761	0.0006
316	SLE QP 2	-1.89	0.22	24.11	-0.1897	-0.0797	0.0006
316	SLD 1	4.65	-0.01	23.85	0.0367	0.2205	0
316	SLD 2	4.65	-0.01	23.85	0.0367	0.2205	0
316	SLD 3	3.37	0.26	26.55	-0.2305	0.1622	0.0007
316	SLD 4	3.37	0.26	26.55	-0.2305	0.1622	0.0007
316	SLD 5	2	-0.25	19.93	0.2834	0.0987	-0.0006
316	SLD 6	2	-0.25	19.93	0.2834	0.0987	-0.0006
316	SLD 7	-2.24	0.64	28.93	-0.6072	-0.0955	0.0017
316	SLD 8	-2.24	0.64	28.93	-0.6072	-0.0955	0.0017
316	SLD 9	-1.54	-0.19	19.28	0.2277	-0.0639	-0.0005
316	SLD 10	-1.54	-0.19	19.28	0.2277	-0.0639	-0.0005
316	SLD 11	-5.78	0.7	28.28	-0.6629	-0.2581	0.0018
316	SLD 12	-5.78	0.7	28.28	-0.6629	-0.2581	0.0018
316	SLD 13	-7.15	0.19	21.66	-0.1489	-0.3216	0.0005
316	SLD 14	-7.15	0.19	21.66	-0.1489	-0.3216	0.0005
316	SLD 15	-8.42	0.46	24.36	-0.4161	-0.3798	0.0012
316	SLD 16	-8.42	0.46	24.36	-0.4161	-0.3798	0.0012
316	SLV 1	13.42	-0.34	23.41	0.3684	0.6238	-0.0008
316	SLV 2	13.42	-0.34	23.41	0.3684	0.6238	-0.0008
316	SLV 3	10.4	0.33	30.06	-0.2974	0.4856	0.0009
316	SLV 4	10.4	0.33	30.06	-0.2974	0.4856	0.0009
316	SLV 5	7.28	-0.96	13.82	0.9875	0.341	-0.0024
316	SLV 6	7.28	-0.96	13.82	0.9875	0.341	-0.0024
316	SLV 7	-2.78	1.27	35.97	-1.2318	-0.1197	0.0033
316	SLV 8	-2.78	1.27	35.97	-1.2318	-0.1197	0.0033
316	SLV 9	-1	-0.82	12.24	0.8524	-0.0396	-0.0021
316	SLV 10	-1	-0.82	12.24	0.8524	-0.0396	-0.0021
316	SLV 11	-11.06	1.41	34.39	-1.3669	-0.5004	0.0036
316	SLV 12	-11.06	1.41	34.39	-1.3669	-0.5004	0.0036
316	SLV 13	-14.18	0.12	18.15	-0.082	-0.645	0.0003
316	SLV 14	-14.18	0.12	18.15	-0.082	-0.645	0.0003
316	SLV 15	-17.2	0.79	24.8	-0.7478	-0.7832	0.002
316	SLV 16	-17.2	0.79	24.8	-0.7478	-0.7832	0.002
317	SLU 1	-1.66	0.18	22.08	-0.1463	-0.0724	0.0005
317	SLU 2	-1.72	0.17	21.62	-0.1423	-0.0742	0.0005
317	SLU 3	-1.7	0.18	22.59	-0.1536	-0.0743	0.0005
317	SLU 4	-1.74	0.18	22.31	-0.1512	-0.0754	0.0005
317	SLU 5	-1.72	0.18	22	-0.1479	-0.0742	0.0005
317	SLU 6	-1.7	0.19	22.98	-0.1593	-0.0744	0.0005
317	SLU 7	-1.74	0.19	22.7	-0.1569	-0.0755	0.0005
317	SLU 8	-1.65	0.19	22.86	-0.1577	-0.0724	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
317	SLU 9	-1.69	0.18	22.58	-0.1553	-0.0735	0.0005
317	SLU 10	-2.04	0.19	24.83	-0.1608	-0.0877	0.0005
317	SLU 11	-2.02	0.21	25.8	-0.1722	-0.0878	0.0006
317	SLU 12	-2.06	0.2	25.52	-0.1698	-0.0889	0.0006
317	SLU 13	-2.04	0.2	25.21	-0.1665	-0.0877	0.0005
317	SLU 14	-2.02	0.21	26.19	-0.1779	-0.0878	0.0006
317	SLU 15	-2.06	0.21	25.91	-0.1754	-0.0889	0.0006
317	SLU 16	-1.98	0.21	26.06	-0.1762	-0.0859	0.0006
317	SLU 17	-2.01	0.21	25.79	-0.1738	-0.087	0.0006
317	SLU 18	-2.12	0.21	26.66	-0.1728	-0.0916	0.0006
317	SLU 19	-2.15	0.2	26.39	-0.1704	-0.0927	0.0006
317	SLU 20	-2.11	0.21	27.05	-0.1785	-0.0916	0.0006
317	SLU 21	-2.15	0.21	26.77	-0.1761	-0.0927	0.0006
317	SLU 22	-1.95	0.2	24.92	-0.1667	-0.0848	0.0005
317	SLU 23	-2.01	0.19	24.46	-0.1626	-0.0867	0.0005
317	SLU 24	-1.99	0.21	25.43	-0.174	-0.0868	0.0006
317	SLU 25	-2.03	0.2	25.15	-0.1716	-0.0879	0.0006
317	SLU 26	-2.01	0.2	24.84	-0.1683	-0.0867	0.0005
317	SLU 27	-1.99	0.21	25.82	-0.1797	-0.0868	0.0006
317	SLU 28	-2.03	0.21	25.54	-0.1773	-0.0879	0.0006
317	SLU 29	-1.95	0.21	25.7	-0.1781	-0.0849	0.0006
317	SLU 30	-1.99	0.21	25.42	-0.1756	-0.086	0.0006
317	SLU 31	-2.33	0.22	27.66	-0.1812	-0.1001	0.0006
317	SLU 32	-2.32	0.23	28.64	-0.1926	-0.1003	0.0006
317	SLU 33	-2.35	0.23	28.36	-0.1901	-0.1014	0.0006
317	SLU 34	-2.33	0.22	28.05	-0.1869	-0.1002	0.0006
317	SLU 35	-2.32	0.24	29.02	-0.1983	-0.1003	0.0006
317	SLU 36	-2.35	0.23	28.75	-0.1958	-0.1014	0.0006
317	SLU 37	-2.27	0.23	28.9	-0.1966	-0.0984	0.0006
317	SLU 38	-2.31	0.23	28.62	-0.1942	-0.0995	0.0006
317	SLU 39	-2.41	0.23	29.5	-0.1932	-0.1041	0.0006
317	SLU 40	-2.45	0.23	29.23	-0.1908	-0.1052	0.0006
317	SLU 41	-2.41	0.24	29.89	-0.1989	-0.1041	0.0006
317	SLU 42	-2.45	0.23	29.61	-0.1965	-0.1052	0.0006
317	SLU 43	-2.05	0.22	27.73	-0.1832	-0.0898	0.0006
317	SLU 44	-2.11	0.21	27.27	-0.1792	-0.0917	0.0006
317	SLU 45	-2.09	0.23	28.24	-0.1905	-0.0918	0.0006
317	SLU 46	-2.13	0.22	27.96	-0.1881	-0.0929	0.0006
317	SLU 47	-2.11	0.22	27.66	-0.1848	-0.0917	0.0006
317	SLU 48	-2.09	0.23	28.63	-0.1962	-0.0918	0.0006
317	SLU 49	-2.13	0.23	28.35	-0.1938	-0.0929	0.0006
317	SLU 50	-2.05	0.23	28.51	-0.1946	-0.0899	0.0006
317	SLU 51	-2.09	0.23	28.23	-0.1922	-0.091	0.0006
317	SLU 52	-2.43	0.24	30.48	-0.1977	-0.1051	0.0006
317	SLU 53	-2.42	0.25	31.45	-0.2091	-0.1052	0.0007
317	SLU 54	-2.45	0.25	31.17	-0.2067	-0.1063	0.0007
317	SLU 55	-2.43	0.24	30.86	-0.2034	-0.1051	0.0007
317	SLU 56	-2.42	0.26	31.84	-0.2148	-0.1053	0.0007
317	SLU 57	-2.45	0.25	31.56	-0.2123	-0.1064	0.0007
317	SLU 58	-2.37	0.25	31.72	-0.2131	-0.1033	0.0007
317	SLU 59	-2.41	0.25	31.44	-0.2107	-0.1044	0.0007
317	SLU 60	-2.51	0.25	32.32	-0.2097	-0.109	0.0007
317	SLU 61	-2.55	0.25	32.04	-0.2073	-0.1101	0.0007
317	SLU 62	-2.51	0.26	32.7	-0.2154	-0.1091	0.0007
317	SLU 63	-2.55	0.25	32.42	-0.213	-0.1102	0.0007
317	SLU 64	-2.35	0.24	30.57	-0.2036	-0.1023	0.0007
317	SLU 65	-2.41	0.24	30.11	-0.1995	-0.1041	0.0006
317	SLU 66	-2.39	0.25	31.08	-0.2109	-0.1042	0.0007
317	SLU 67	-2.43	0.25	30.8	-0.2085	-0.1053	0.0007
317	SLU 68	-2.41	0.24	30.5	-0.2052	-0.1042	0.0007
317	SLU 69	-2.39	0.26	31.47	-0.2166	-0.1043	0.0007
317	SLU 70	-2.43	0.26	31.19	-0.2142	-0.1054	0.0007
317	SLU 71	-2.34	0.26	31.35	-0.215	-0.1023	0.0007
317	SLU 72	-2.38	0.25	31.07	-0.2125	-0.1034	0.0007
317	SLU 73	-2.73	0.26	33.32	-0.2181	-0.1176	0.0007
317	SLU 74	-2.71	0.27	34.29	-0.2295	-0.1177	0.0007
317	SLU 75	-2.75	0.27	34.01	-0.227	-0.1188	0.0007
317	SLU 76	-2.73	0.27	33.7	-0.2238	-0.1176	0.0007
317	SLU 77	-2.71	0.28	34.68	-0.2352	-0.1177	0.0008
317	SLU 78	-2.75	0.28	34.4	-0.2327	-0.1188	0.0008
317	SLU 79	-2.67	0.28	34.55	-0.2335	-0.1158	0.0008
317	SLU 80	-2.7	0.27	34.28	-0.2311	-0.1169	0.0007
317	SLU 81	-2.81	0.27	35.16	-0.2301	-0.1215	0.0008
317	SLU 82	-2.84	0.27	34.88	-0.2277	-0.1226	0.0007
317	SLU 83	-2.8	0.28	35.54	-0.2358	-0.1215	0.0008
317	SLU 84	-2.84	0.28	35.26	-0.2334	-0.1226	0.0008
317	SLE RA 1	-1.74	0.18	22.89	-0.1521	-0.0759	0.0005
317	SLE RA 2	-1.78	0.18	22.58	-0.1494	-0.0772	0.0005
317	SLE RA 3	-1.77	0.19	23.23	-0.157	-0.0772	0.0005
317	SLE RA 4	-1.79	0.19	23.05	-0.1554	-0.078	0.0005
317	SLE RA 5	-1.78	0.18	22.84	-0.1532	-0.0772	0.0005
317	SLE RA 6	-1.77	0.19	23.49	-0.1608	-0.0773	0.0005
317	SLE RA 7	-1.79	0.19	23.3	-0.1592	-0.078	0.0005
317	SLE RA 8	-1.74	0.19	23.41	-0.1597	-0.076	0.0005
317	SLE RA 9	-1.76	0.19	23.22	-0.1581	-0.0767	0.0005
317	SLE RA 10	-2	0.19	24.72	-0.1618	-0.0861	0.0005
317	SLE RA 11	-1.98	0.2	25.37	-0.1694	-0.0862	0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
317	SLE RA 12	-2.01	0.2	25.18	-0.1678	-0.0869	0.0005
317	SLE RA 13	-1.99	0.2	24.98	-0.1656	-0.0862	0.0005
317	SLE RA 14	-1.98	0.21	25.63	-0.1732	-0.0862	0.0006
317	SLE RA 15	-2.01	0.2	25.44	-0.1716	-0.087	0.0006
317	SLE RA 16	-1.95	0.21	25.55	-0.1721	-0.0849	0.0006
317	SLE RA 17	-1.98	0.2	25.36	-0.1705	-0.0857	0.0006
317	SLE RA 18	-2.05	0.2	25.95	-0.1698	-0.0888	0.0006
317	SLE RA 19	-2.07	0.2	25.76	-0.1682	-0.0895	0.0005
317	SLE RA 20	-2.05	0.21	26.21	-0.1736	-0.0888	0.0006
317	SLE RA 21	-2.07	0.2	26.02	-0.172	-0.0895	0.0006
317	SLE FR 1	-1.74	0.18	22.89	-0.1521	-0.0759	0.0005
317	SLE FR 2	-1.75	0.18	22.83	-0.1516	-0.0762	0.0005
317	SLE FR 3	-1.74	0.18	23	-0.1536	-0.0759	0.0005
317	SLE FR 4	-1.84	0.19	23.75	-0.1569	-0.08	0.0005
317	SLE FR 5	-1.83	0.19	23.91	-0.159	-0.0798	0.0005
317	SLE FR 6	-1.89	0.19	24.42	-0.161	-0.0823	0.0005
317	SLE QP 1	-1.74	0.18	22.89	-0.1521	-0.0759	0.0005
317	SLE QP 2	-1.83	0.19	23.81	-0.1574	-0.0798	0.0005
317	SLD 1	5.08	-0.04	20.62	-0.2059	0.2216	-0.0001
317	SLD 2	5.08	-0.04	20.62	-0.2059	0.2216	-0.0001
317	SLD 3	3.73	0.24	24.07	0.0732	0.161	0.0006
317	SLD 4	3.73	0.24	24.07	0.0732	0.161	0.0006
317	SLD 5	2.28	-0.31	17.61	-0.5954	0.1027	-0.0007
317	SLD 6	2.28	-0.31	17.61	-0.5954	0.1027	-0.0007
317	SLD 7	-2.2	0.63	29.13	0.3351	-0.0996	0.0016
317	SLD 8	-2.2	0.63	29.13	0.3351	-0.0996	0.0016
317	SLD 9	-1.46	-0.25	18.49	-0.65	-0.06	-0.0005
317	SLD 10	-1.46	-0.25	18.49	-0.65	-0.06	-0.0005
317	SLD 11	-5.94	0.68	30.01	0.2805	-0.2622	0.0017
317	SLD 12	-5.94	0.68	30.01	0.2805	-0.2622	0.0017
317	SLD 13	-7.4	0.14	23.55	-0.3881	-0.3205	0.0004
317	SLD 14	-7.4	0.14	23.55	-0.3881	-0.3205	0.0004
317	SLD 15	-8.74	0.42	27	-0.1089	-0.3812	0.0011
317	SLD 16	-8.74	0.42	27	-0.1089	-0.3812	0.0011
317	SLV 1	14.36	-0.39	16.03	-0.2825	0.6265	-0.0009
317	SLV 2	14.36	-0.39	16.03	-0.2825	0.6265	-0.0009
317	SLV 3	11.16	0.31	24.58	0.4132	0.4818	0.0008
317	SLV 4	11.16	0.31	24.58	0.4132	0.4818	0.0008
317	SLV 5	7.87	-1.04	8.51	-1.2501	0.3515	-0.0025
317	SLV 6	7.87	-1.04	8.51	-1.2501	0.3515	-0.0025
317	SLV 7	-2.78	1.28	37.01	1.0689	-0.1307	0.0031
317	SLV 8	-2.78	1.28	37.01	1.0689	-0.1307	0.0031
317	SLV 9	-0.88	-0.9	10.61	-1.3838	-0.0289	-0.0021
317	SLV 10	-0.88	-0.9	10.61	-1.3838	-0.0289	-0.0021
317	SLV 11	-11.54	1.42	39.11	0.9352	-0.5111	0.0035
317	SLV 12	-11.54	1.42	39.11	0.9352	-0.5111	0.0035
317	SLV 13	-14.82	0.07	23.04	-0.7281	-0.6414	0.0002
317	SLV 14	-14.82	0.07	23.04	-0.7281	-0.6414	0.0002
317	SLV 15	-18.02	0.76	31.59	-0.0324	-0.7861	0.0019
317	SLV 16	-18.02	0.76	31.59	-0.0324	-0.7861	0.0019
318	SLU 1	-1.12	0.16	22.59	-0.1258	-0.0539	0.0004
318	SLU 2	-1.24	0.15	21.95	-0.1216	-0.0584	0.0004
318	SLU 3	-1.14	0.17	23.04	-0.1315	-0.0541	0.0004
318	SLU 4	-1.22	0.16	22.66	-0.1289	-0.0569	0.0004
318	SLU 5	-1.23	0.16	22.26	-0.1258	-0.0568	0.0004
318	SLU 6	-1.12	0.17	23.36	-0.1357	-0.0525	0.0004
318	SLU 7	-1.2	0.17	22.97	-0.1331	-0.0552	0.0004
318	SLU 8	-1.09	0.17	23.21	-0.1342	-0.0506	0.0004
318	SLU 9	-1.16	0.16	22.83	-0.1316	-0.0533	0.0004
318	SLU 10	-1.52	0.17	25.16	-0.1366	-0.071	0.0004
318	SLU 11	-1.42	0.18	26.25	-0.1465	-0.0667	0.0005
318	SLU 12	-1.49	0.18	25.87	-0.144	-0.0695	0.0004
318	SLU 13	-1.5	0.18	25.47	-0.1408	-0.0694	0.0004
318	SLU 14	-1.4	0.19	26.56	-0.1507	-0.0651	0.0005
318	SLU 15	-1.48	0.19	26.18	-0.1482	-0.0678	0.0005
318	SLU 16	-1.36	0.19	26.42	-0.1492	-0.0632	0.0005
318	SLU 17	-1.44	0.18	26.04	-0.1467	-0.0659	0.0004
318	SLU 18	-1.51	0.19	27.17	-0.1473	-0.0719	0.0005
318	SLU 19	-1.59	0.18	26.79	-0.1448	-0.0746	0.0004
318	SLU 20	-1.5	0.19	27.48	-0.1515	-0.0703	0.0005
318	SLU 21	-1.57	0.19	27.1	-0.149	-0.073	0.0005
318	SLU 22	-1.36	0.18	25.41	-0.1423	-0.0644	0.0004
318	SLU 23	-1.48	0.17	24.77	-0.1381	-0.069	0.0004
318	SLU 24	-1.38	0.19	25.86	-0.148	-0.0647	0.0005
318	SLU 25	-1.45	0.18	25.48	-0.1455	-0.0674	0.0004
318	SLU 26	-1.47	0.18	25.08	-0.1423	-0.0673	0.0004
318	SLU 27	-1.36	0.19	26.17	-0.1522	-0.063	0.0005
318	SLU 28	-1.44	0.19	25.79	-0.1497	-0.0658	0.0005
318	SLU 29	-1.32	0.19	26.03	-0.1507	-0.0611	0.0005
318	SLU 30	-1.4	0.18	25.65	-0.1482	-0.0639	0.0004
318	SLU 31	-1.76	0.19	27.97	-0.1531	-0.0816	0.0005
318	SLU 32	-1.65	0.2	29.07	-0.1631	-0.0773	0.0005
318	SLU 33	-1.73	0.2	28.68	-0.1605	-0.08	0.0005
318	SLU 34	-1.74	0.2	28.28	-0.1573	-0.0799	0.0005
318	SLU 35	-1.64	0.21	29.38	-0.1673	-0.0756	0.0005
318	SLU 36	-1.71	0.21	28.99	-0.1647	-0.0784	0.0005
318	SLU 37	-1.6	0.21	29.24	-0.1658	-0.0738	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
318	SLU 38	-1.68	0.2	28.85	-0.1632	-0.0765	0.0005
318	SLU 39	-1.75	0.21	29.99	-0.1638	-0.0824	0.0005
318	SLU 40	-1.83	0.2	29.6	-0.1613	-0.0852	0.0005
318	SLU 41	-1.73	0.21	30.3	-0.168	-0.0808	0.0005
318	SLU 42	-1.81	0.21	29.91	-0.1655	-0.0835	0.0005
318	SLU 43	-1.37	0.2	28.4	-0.1578	-0.0664	0.0005
318	SLU 44	-1.5	0.19	27.76	-0.1536	-0.071	0.0005
318	SLU 45	-1.39	0.21	28.86	-0.1635	-0.0667	0.0005
318	SLU 46	-1.47	0.2	28.47	-0.161	-0.0694	0.0005
318	SLU 47	-1.48	0.2	28.07	-0.1578	-0.0693	0.0005
318	SLU 48	-1.38	0.21	29.17	-0.1677	-0.065	0.0005
318	SLU 49	-1.45	0.21	28.78	-0.1652	-0.0678	0.0005
318	SLU 50	-1.34	0.21	29.03	-0.1662	-0.0632	0.0005
318	SLU 51	-1.42	0.21	28.64	-0.1637	-0.0659	0.0005
318	SLU 52	-1.77	0.21	30.97	-0.1687	-0.0836	0.0005
318	SLU 53	-1.67	0.23	32.06	-0.1786	-0.0793	0.0006
318	SLU 54	-1.75	0.22	31.68	-0.1761	-0.082	0.0005
318	SLU 55	-1.76	0.22	31.28	-0.1729	-0.082	0.0005
318	SLU 56	-1.65	0.23	32.37	-0.1828	-0.0777	0.0006
318	SLU 57	-1.73	0.23	31.99	-0.1803	-0.0804	0.0006
318	SLU 58	-1.62	0.23	32.23	-0.1813	-0.0758	0.0006
318	SLU 59	-1.69	0.22	31.85	-0.1788	-0.0785	0.0005
318	SLU 60	-1.77	0.23	32.98	-0.1793	-0.0844	0.0006
318	SLU 61	-1.84	0.22	32.6	-0.1768	-0.0872	0.0005
318	SLU 62	-1.75	0.23	33.29	-0.1835	-0.0828	0.0006
318	SLU 63	-1.83	0.23	32.91	-0.181	-0.0855	0.0006
318	SLU 64	-1.61	0.22	31.22	-0.1744	-0.077	0.0005
318	SLU 65	-1.74	0.21	30.58	-0.1702	-0.0815	0.0005
318	SLU 66	-1.63	0.23	31.67	-0.1801	-0.0772	0.0006
318	SLU 67	-1.71	0.22	31.29	-0.1775	-0.08	0.0005
318	SLU 68	-1.72	0.22	30.89	-0.1744	-0.0799	0.0005
318	SLU 69	-1.62	0.23	31.98	-0.1843	-0.0756	0.0006
318	SLU 70	-1.69	0.23	31.6	-0.1817	-0.0783	0.0006
318	SLU 71	-1.58	0.23	31.84	-0.1828	-0.0737	0.0006
318	SLU 72	-1.65	0.23	31.46	-0.1802	-0.0764	0.0005
318	SLU 73	-2.01	0.23	33.78	-0.1852	-0.0941	0.0006
318	SLU 74	-1.91	0.25	34.88	-0.1951	-0.0898	0.0006
318	SLU 75	-1.98	0.24	34.49	-0.1926	-0.0926	0.0006
318	SLU 76	-2	0.24	34.1	-0.1894	-0.0925	0.0006
318	SLU 77	-1.89	0.25	35.19	-0.1993	-0.0882	0.0006
318	SLU 78	-1.97	0.25	34.81	-0.1968	-0.0909	0.0006
318	SLU 79	-1.85	0.25	35.05	-0.1978	-0.0863	0.0006
318	SLU 80	-1.93	0.24	34.66	-0.1953	-0.089	0.0006
318	SLU 81	-2.01	0.25	35.8	-0.1959	-0.095	0.0006
318	SLU 82	-2.08	0.24	35.41	-0.1934	-0.0977	0.0006
318	SLU 83	-1.99	0.25	36.11	-0.2001	-0.0933	0.0006
318	SLU 84	-2.06	0.25	35.73	-0.1975	-0.0961	0.0006
318	SLE RA 1	-1.19	0.17	23.4	-0.1305	-0.0569	0.0004
318	SLE RA 2	-1.27	0.16	22.97	-0.1277	-0.0599	0.0004
318	SLE RA 3	-1.2	0.17	23.7	-0.1343	-0.0571	0.0004
318	SLE RA 4	-1.25	0.17	23.44	-0.1326	-0.0589	0.0004
318	SLE RA 5	-1.26	0.16	23.18	-0.1305	-0.0588	0.0004
318	SLE RA 6	-1.19	0.17	23.91	-0.1371	-0.056	0.0004
318	SLE RA 7	-1.24	0.17	23.65	-0.1354	-0.0578	0.0004
318	SLE RA 8	-1.17	0.17	23.81	-0.1361	-0.0547	0.0004
318	SLE RA 9	-1.22	0.17	23.56	-0.1344	-0.0565	0.0004
318	SLE RA 10	-1.45	0.17	25.11	-0.1377	-0.0683	0.0004
318	SLE RA 11	-1.39	0.18	25.84	-0.1443	-0.0655	0.0004
318	SLE RA 12	-1.44	0.18	25.58	-0.1427	-0.0673	0.0004
318	SLE RA 13	-1.44	0.18	25.31	-0.1405	-0.0672	0.0004
318	SLE RA 14	-1.37	0.19	26.04	-0.1471	-0.0644	0.0005
318	SLE RA 15	-1.42	0.18	25.79	-0.1454	-0.0662	0.0004
318	SLE RA 16	-1.35	0.18	25.95	-0.1461	-0.0631	0.0004
318	SLE RA 17	-1.4	0.18	25.69	-0.1444	-0.0649	0.0004
318	SLE RA 18	-1.45	0.18	26.45	-0.1448	-0.0689	0.0004
318	SLE RA 19	-1.5	0.18	26.19	-0.1432	-0.0707	0.0004
318	SLE RA 20	-1.44	0.19	26.66	-0.1476	-0.0678	0.0005
318	SLE RA 21	-1.49	0.18	26.4	-0.1459	-0.0696	0.0004
318	SLE FR 1	-1.19	0.17	23.4	-0.1305	-0.0569	0.0004
318	SLE FR 2	-1.2	0.16	23.31	-0.1299	-0.0575	0.0004
318	SLE FR 3	-1.18	0.17	23.48	-0.1316	-0.0564	0.0004
318	SLE FR 4	-1.28	0.17	24.23	-0.1342	-0.0611	0.0004
318	SLE FR 5	-1.26	0.17	24.4	-0.1359	-0.0601	0.0004
318	SLE FR 6	-1.32	0.17	24.92	-0.1377	-0.0629	0.0004
318	SLE QP 1	-1.19	0.17	23.4	-0.1305	-0.0569	0.0004
318	SLE QP 2	-1.27	0.17	24.31	-0.1348	-0.0605	0.0004
318	SLD 1	5.8	-0.06	20.5	-0.1837	0.2578	0
318	SLD 2	5.8	-0.06	20.5	-0.1837	0.2578	0
318	SLD 3	4.43	0.22	24.26	0.0896	0.1969	0.0005
318	SLD 4	4.43	0.22	24.26	0.0896	0.1969	0.0005
318	SLD 5	2.93	-0.31	17.46	-0.5639	0.1273	-0.0006
318	SLD 6	2.93	-0.31	17.46	-0.5639	0.1273	-0.0006
318	SLD 7	-1.63	0.6	30.01	0.347	-0.0755	0.0013
318	SLD 8	-1.63	0.6	30.01	0.347	-0.0755	0.0013
318	SLD 9	-0.9	-0.26	18.62	-0.6166	-0.0454	-0.0004
318	SLD 10	-0.9	-0.26	18.62	-0.6166	-0.0454	-0.0004
318	SLD 11	-5.46	0.65	31.17	0.2943	-0.2482	0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
318	SLD 12	-5.46	0.65	31.17	0.2943	-0.2482	0.0014
318	SLD 13	-6.97	0.12	24.36	-0.3592	-0.3179	0.0003
318	SLD 14	-6.97	0.12	24.36	-0.3592	-0.3179	0.0003
318	SLD 15	-8.33	0.4	28.13	-0.0859	-0.3788	0.0009
318	SLD 16	-8.33	0.4	28.13	-0.0859	-0.3788	0.0009
318	SLV 1	15.3	-0.39	15.08	-0.2593	0.6855	-0.0007
318	SLV 2	15.3	-0.39	15.08	-0.2593	0.6855	-0.0007
318	SLV 3	12.03	0.29	24.38	0.4218	0.5406	0.0006
318	SLV 4	12.03	0.29	24.38	0.4218	0.5406	0.0006
318	SLV 5	8.66	-1.02	7.43	-1.2051	0.3832	-0.002
318	SLV 6	8.66	-1.02	7.43	-1.2051	0.3832	-0.002
318	SLV 7	-2.23	1.23	38.44	1.0652	-0.1	0.0025
318	SLV 8	-2.23	1.23	38.44	1.0652	-0.1	0.0025
318	SLV 9	-0.3	-0.89	10.18	-1.3348	-0.021	-0.0017
318	SLV 10	-0.3	-0.89	10.18	-1.3348	-0.021	-0.0017
318	SLV 11	-11.19	1.36	41.19	0.9355	-0.5041	0.0028
318	SLV 12	-11.19	1.36	41.19	0.9355	-0.5041	0.0028
318	SLV 13	-14.57	0.05	24.24	-0.6914	-0.6615	0.0002
318	SLV 14	-14.57	0.05	24.24	-0.6914	-0.6615	0.0002
318	SLV 15	-17.83	0.73	33.55	-0.0103	-0.8065	0.0016
318	SLV 16	-17.83	0.73	33.55	-0.0103	-0.8065	0.0016
319	SLU 1	-0.46	0.16	24.17	-0.1113	-0.0342	0.0003
319	SLU 2	-0.66	0.15	23.29	-0.1071	-0.0409	0.0003
319	SLU 3	-0.48	0.16	24.6	-0.1158	-0.0352	0.0004
319	SLU 4	-0.59	0.16	24.06	-0.1133	-0.0392	0.0003
319	SLU 5	-0.65	0.15	23.54	-0.1101	-0.0408	0.0003
319	SLU 6	-0.47	0.17	24.85	-0.1189	-0.035	0.0004
319	SLU 7	-0.58	0.16	24.31	-0.1163	-0.0391	0.0004
319	SLU 8	-0.44	0.16	24.67	-0.1175	-0.0339	0.0004
319	SLU 9	-0.56	0.16	24.14	-0.1149	-0.038	0.0003
319	SLU 10	-0.87	0.17	26.65	-0.1198	-0.0516	0.0004
319	SLU 11	-0.69	0.18	27.96	-0.1286	-0.0458	0.0004
319	SLU 12	-0.8	0.18	27.42	-0.126	-0.0499	0.0004
319	SLU 13	-0.86	0.17	26.9	-0.1229	-0.0515	0.0004
319	SLU 14	-0.68	0.18	28.2	-0.1317	-0.0457	0.0004
319	SLU 15	-0.79	0.18	27.67	-0.1291	-0.0497	0.0004
319	SLU 16	-0.65	0.18	28.03	-0.1303	-0.0446	0.0004
319	SLU 17	-0.77	0.18	27.5	-0.1277	-0.0486	0.0004
319	SLU 18	-0.76	0.18	28.97	-0.1296	-0.0494	0.0004
319	SLU 19	-0.88	0.18	28.44	-0.127	-0.0535	0.0004
319	SLU 20	-0.75	0.19	29.22	-0.1326	-0.0493	0.0004
319	SLU 21	-0.87	0.18	28.69	-0.1301	-0.0533	0.0004
319	SLU 22	-0.63	0.18	27.11	-0.1252	-0.0431	0.0004
319	SLU 23	-0.83	0.17	26.23	-0.121	-0.0499	0.0004
319	SLU 24	-0.65	0.18	27.54	-0.1297	-0.0441	0.0004
319	SLU 25	-0.76	0.18	27	-0.1272	-0.0482	0.0004
319	SLU 26	-0.82	0.17	26.47	-0.124	-0.0498	0.0004
319	SLU 27	-0.64	0.19	27.78	-0.1328	-0.044	0.0004
319	SLU 28	-0.75	0.18	27.25	-0.1303	-0.0481	0.0004
319	SLU 29	-0.61	0.18	27.61	-0.1314	-0.0429	0.0004
319	SLU 30	-0.73	0.18	27.08	-0.1288	-0.0469	0.0004
319	SLU 31	-1.04	0.19	29.59	-0.1337	-0.0606	0.0004
319	SLU 32	-0.86	0.2	30.89	-0.1425	-0.0548	0.0004
319	SLU 33	-0.97	0.2	30.36	-0.1399	-0.0589	0.0004
319	SLU 34	-1.03	0.19	29.83	-0.1368	-0.0604	0.0004
319	SLU 35	-0.85	0.2	31.14	-0.1456	-0.0547	0.0004
319	SLU 36	-0.96	0.2	30.61	-0.143	-0.0587	0.0004
319	SLU 37	-0.82	0.2	30.97	-0.1442	-0.0535	0.0004
319	SLU 38	-0.94	0.2	30.44	-0.1416	-0.0576	0.0004
319	SLU 39	-0.93	0.2	31.91	-0.1435	-0.0584	0.0004
319	SLU 40	-1.05	0.2	31.38	-0.1409	-0.0624	0.0004
319	SLU 41	-0.92	0.21	32.16	-0.1466	-0.0582	0.0005
319	SLU 42	-1.04	0.2	31.63	-0.144	-0.0623	0.0004
319	SLU 43	-0.54	0.2	30.42	-0.14	-0.0413	0.0004
319	SLU 44	-0.74	0.19	29.53	-0.1357	-0.0481	0.0004
319	SLU 45	-0.56	0.2	30.84	-0.1445	-0.0423	0.0004
319	SLU 46	-0.67	0.2	30.31	-0.1419	-0.0464	0.0004
319	SLU 47	-0.73	0.19	29.78	-0.1388	-0.048	0.0004
319	SLU 48	-0.55	0.21	31.09	-0.1475	-0.0422	0.0005
319	SLU 49	-0.66	0.2	30.56	-0.145	-0.0463	0.0004
319	SLU 50	-0.52	0.21	30.92	-0.1461	-0.0411	0.0004
319	SLU 51	-0.64	0.2	30.38	-0.1436	-0.0451	0.0004
319	SLU 52	-0.95	0.21	32.89	-0.1485	-0.0588	0.0005
319	SLU 53	-0.77	0.22	34.2	-0.1572	-0.053	0.0005
319	SLU 54	-0.88	0.22	33.67	-0.1547	-0.0571	0.0005
319	SLU 55	-0.94	0.21	33.14	-0.1515	-0.0586	0.0005
319	SLU 56	-0.76	0.23	34.45	-0.1603	-0.0529	0.0005
319	SLU 57	-0.87	0.22	33.92	-0.1577	-0.0569	0.0005
319	SLU 58	-0.73	0.22	34.28	-0.1589	-0.0517	0.0005
319	SLU 59	-0.85	0.22	33.74	-0.1563	-0.0558	0.0005
319	SLU 60	-0.84	0.22	35.22	-0.1582	-0.0566	0.0005
319	SLU 61	-0.96	0.22	34.69	-0.1556	-0.0606	0.0005
319	SLU 62	-0.83	0.23	35.47	-0.1613	-0.0564	0.0005
319	SLU 63	-0.95	0.22	34.93	-0.1587	-0.0605	0.0005
319	SLU 64	-0.71	0.22	33.36	-0.1539	-0.0503	0.0005
319	SLU 65	-0.91	0.21	32.47	-0.1496	-0.0571	0.0005
319	SLU 66	-0.73	0.22	33.78	-0.1584	-0.0513	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
319	SLU 67	-0.84	0.22	33.25	-0.1558	-0.0554	0.0005
319	SLU 68	-0.9	0.21	32.72	-0.1527	-0.057	0.0005
319	SLU 69	-0.72	0.23	34.03	-0.1615	-0.0512	0.0005
319	SLU 70	-0.83	0.22	33.5	-0.1589	-0.0552	0.0005
319	SLU 71	-0.69	0.22	33.86	-0.16	-0.05	0.0005
319	SLU 72	-0.81	0.22	33.32	-0.1575	-0.0541	0.0005
319	SLU 73	-1.12	0.23	35.83	-0.1624	-0.0677	0.0005
319	SLU 74	-0.94	0.24	37.14	-0.1711	-0.062	0.0005
319	SLU 75	-1.05	0.24	36.61	-0.1686	-0.066	0.0005
319	SLU 76	-1.11	0.23	36.08	-0.1654	-0.0676	0.0005
319	SLU 77	-0.93	0.24	37.39	-0.1742	-0.0618	0.0005
319	SLU 78	-1.04	0.24	36.86	-0.1716	-0.0659	0.0005
319	SLU 79	-0.9	0.24	37.21	-0.1728	-0.0607	0.0005
319	SLU 80	-1.02	0.24	36.68	-0.1702	-0.0648	0.0005
319	SLU 81	-1.01	0.24	38.16	-0.1721	-0.0655	0.0005
319	SLU 82	-1.13	0.24	37.62	-0.1695	-0.0696	0.0005
319	SLU 83	-1	0.25	38.41	-0.1752	-0.0654	0.0005
319	SLU 84	-1.12	0.24	37.87	-0.1726	-0.0695	0.0005
319	SLE RA 1	-0.51	0.16	25.01	-0.1153	-0.0367	0.0004
319	SLE RA 2	-0.64	0.16	24.42	-0.1125	-0.0412	0.0003
319	SLE RA 3	-0.52	0.17	25.3	-0.1183	-0.0374	0.0004
319	SLE RA 4	-0.6	0.16	24.94	-0.1166	-0.0401	0.0004
319	SLE RA 5	-0.63	0.16	24.59	-0.1145	-0.0412	0.0003
319	SLE RA 6	-0.51	0.17	25.46	-0.1204	-0.0373	0.0004
319	SLE RA 7	-0.59	0.17	25.11	-0.1187	-0.04	0.0004
319	SLE RA 8	-0.5	0.17	25.35	-0.1194	-0.0365	0.0004
319	SLE RA 9	-0.58	0.16	24.99	-0.1177	-0.0393	0.0004
319	SLE RA 10	-0.78	0.17	26.66	-0.121	-0.0484	0.0004
319	SLE RA 11	-0.66	0.18	27.54	-0.1268	-0.0445	0.0004
319	SLE RA 12	-0.74	0.18	27.18	-0.1251	-0.0472	0.0004
319	SLE RA 13	-0.77	0.17	26.83	-0.123	-0.0483	0.0004
319	SLE RA 14	-0.65	0.18	27.7	-0.1289	-0.0444	0.0004
319	SLE RA 15	-0.73	0.18	27.35	-0.1272	-0.0471	0.0004
319	SLE RA 16	-0.64	0.18	27.59	-0.1279	-0.0437	0.0004
319	SLE RA 17	-0.72	0.18	27.23	-0.1262	-0.0464	0.0004
319	SLE RA 18	-0.71	0.18	28.21	-0.1275	-0.0469	0.0004
319	SLE RA 19	-0.79	0.18	27.86	-0.1258	-0.0496	0.0004
319	SLE RA 20	-0.71	0.18	28.38	-0.1295	-0.0468	0.0004
319	SLE RA 21	-0.78	0.18	28.02	-0.1278	-0.0495	0.0004
319	SLE FR 1	-0.51	0.16	25.01	-0.1153	-0.0367	0.0004
319	SLE FR 2	-0.54	0.16	24.9	-0.1147	-0.0376	0.0004
319	SLE FR 3	-0.51	0.16	25.08	-0.1161	-0.0367	0.0004
319	SLE FR 4	-0.6	0.17	25.86	-0.1184	-0.0407	0.0004
319	SLE FR 5	-0.57	0.17	26.04	-0.1198	-0.0397	0.0004
319	SLE FR 6	-0.61	0.17	26.61	-0.1214	-0.0418	0.0004
319	SLE QP 1	-0.51	0.16	25.01	-0.1153	-0.0367	0.0004
319	SLE QP 2	-0.57	0.17	25.97	-0.119	-0.0398	0.0004
319	SLD 1	6.06	-0.04	21.45	-0.1616	0.2512	0
319	SLD 2	6.06	-0.04	21.45	-0.1616	0.2512	0
319	SLD 3	4.72	0.2	25.2	0.0882	0.1922	0.0004
319	SLD 4	4.72	0.2	25.2	0.0882	0.1922	0.0004
319	SLD 5	3.45	-0.26	18.92	-0.5107	0.1371	-0.0003
319	SLD 6	3.45	-0.26	18.92	-0.5107	0.1371	-0.0003
319	SLD 7	-1.02	0.55	31.43	0.3221	-0.0597	0.001
319	SLD 8	-1.02	0.55	31.43	0.3221	-0.0597	0.001
319	SLD 9	-0.12	-0.21	20.51	-0.56	-0.0198	-0.0002
319	SLD 10	-0.12	-0.21	20.51	-0.56	-0.0198	-0.0002
319	SLD 11	-4.59	0.6	33.02	0.2728	-0.2166	0.0011
319	SLD 12	-4.59	0.6	33.02	0.2728	-0.2166	0.0011
319	SLD 13	-5.86	0.13	26.75	-0.3261	-0.2718	0.0003
319	SLD 14	-5.86	0.13	26.75	-0.3261	-0.2718	0.0003
319	SLD 15	-7.2	0.38	30.5	-0.0763	-0.3308	0.0007
319	SLD 16	-7.2	0.38	30.5	-0.0763	-0.3308	0.0007
319	SLV 1	14.97	-0.35	15.14	-0.2267	0.6425	-0.0005
319	SLV 2	14.97	-0.35	15.14	-0.2267	0.6425	-0.0005
319	SLV 3	11.75	0.26	24.35	0.3961	0.5007	0.0005
319	SLV 4	11.75	0.26	24.35	0.3961	0.5007	0.0005
319	SLV 5	8.97	-0.91	8.76	-1.0959	0.3799	-0.0013
319	SLV 6	8.97	-0.91	8.76	-1.0959	0.3799	-0.0013
319	SLV 7	-1.76	1.12	39.45	0.9802	-0.0926	0.0019
319	SLV 8	-1.76	1.12	39.45	0.9802	-0.0926	0.0019
319	SLV 9	0.62	-0.78	12.49	-1.2181	0.0131	-0.0011
319	SLV 10	0.62	-0.78	12.49	-1.2181	0.0131	-0.0011
319	SLV 11	-10.12	1.24	43.19	0.858	-0.4594	0.0021
319	SLV 12	-10.12	1.24	43.19	0.858	-0.4594	0.0021
319	SLV 13	-12.89	0.08	27.6	-0.634	-0.5803	0.0002
319	SLV 14	-12.89	0.08	27.6	-0.634	-0.5803	0.0002
319	SLV 15	-16.11	0.68	36.81	-0.0112	-0.722	0.0012
319	SLV 16	-16.11	0.68	36.81	-0.0112	-0.722	0.0012
320	SLU 1	0.08	0.15	26.94	-0.0966	-0.0122	0.0002
320	SLU 2	-0.18	0.15	25.72	-0.0927	-0.0217	0.0002
320	SLU 3	0.09	0.16	27.36	-0.1001	-0.0113	0.0002
320	SLU 4	-0.06	0.15	26.63	-0.0978	-0.017	0.0002
320	SLU 5	-0.16	0.15	25.91	-0.0949	-0.0199	0.0002
320	SLU 6	0.11	0.16	27.55	-0.1023	-0.0095	0.0002
320	SLU 7	-0.04	0.16	26.82	-0.1	-0.0151	0.0002
320	SLU 8	0.12	0.16	27.32	-0.101	-0.0086	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
320	SLU 9	-0.03	0.15	26.59	-0.0987	-0.0143	0.0002
320	SLU 10	-0.35	0.16	29.4	-0.1035	-0.031	0.0002
320	SLU 11	-0.08	0.18	31.03	-0.1109	-0.0206	0.0003
320	SLU 12	-0.24	0.17	30.3	-0.1086	-0.0263	0.0002
320	SLU 13	-0.33	0.17	29.59	-0.1058	-0.0291	0.0002
320	SLU 14	-0.06	0.18	31.22	-0.1131	-0.0187	0.0003
320	SLU 15	-0.21	0.17	30.49	-0.1108	-0.0244	0.0003
320	SLU 16	-0.05	0.18	31	-0.1118	-0.0179	0.0003
320	SLU 17	-0.2	0.17	30.27	-0.1095	-0.0235	0.0003
320	SLU 18	-0.17	0.18	32.19	-0.112	-0.0255	0.0003
320	SLU 19	-0.32	0.17	31.46	-0.1097	-0.0312	0.0003
320	SLU 20	-0.14	0.18	32.38	-0.1142	-0.0237	0.0003
320	SLU 21	-0.3	0.18	31.65	-0.1119	-0.0293	0.0003
320	SLU 22	-0.04	0.17	30.15	-0.1082	-0.0186	0.0002
320	SLU 23	-0.29	0.16	28.94	-0.1044	-0.0281	0.0002
320	SLU 24	-0.02	0.18	30.57	-0.1117	-0.0177	0.0003
320	SLU 25	-0.18	0.17	29.84	-0.1094	-0.0233	0.0002
320	SLU 26	-0.27	0.17	29.13	-0.1066	-0.0262	0.0002
320	SLU 27	0	0.18	30.76	-0.114	-0.0158	0.0003
320	SLU 28	-0.16	0.18	30.03	-0.1116	-0.0215	0.0003
320	SLU 29	0.01	0.18	30.54	-0.1127	-0.0149	0.0003
320	SLU 30	-0.15	0.17	29.81	-0.1104	-0.0206	0.0003
320	SLU 31	-0.47	0.18	32.61	-0.1152	-0.0373	0.0003
320	SLU 32	-0.2	0.19	34.24	-0.1225	-0.0269	0.0003
320	SLU 33	-0.35	0.19	33.51	-0.1202	-0.0326	0.0003
320	SLU 34	-0.44	0.18	32.8	-0.1174	-0.0355	0.0003
320	SLU 35	-0.17	0.2	34.44	-0.1248	-0.0251	0.0003
320	SLU 36	-0.33	0.19	33.71	-0.1225	-0.0308	0.0003
320	SLU 37	-0.16	0.2	34.21	-0.1235	-0.0242	0.0003
320	SLU 38	-0.32	0.19	33.48	-0.1212	-0.0299	0.0003
320	SLU 39	-0.28	0.2	35.4	-0.1236	-0.0319	0.0003
320	SLU 40	-0.44	0.19	34.67	-0.1213	-0.0375	0.0003
320	SLU 41	-0.26	0.2	35.59	-0.1259	-0.03	0.0003
320	SLU 42	-0.41	0.2	34.86	-0.1236	-0.0357	0.0003
320	SLU 43	0.14	0.19	33.92	-0.1215	-0.0137	0.0003
320	SLU 44	-0.12	0.19	32.7	-0.1177	-0.0232	0.0003
320	SLU 45	0.15	0.2	34.34	-0.125	-0.0128	0.0003
320	SLU 46	0	0.19	33.61	-0.1227	-0.0185	0.0003
320	SLU 47	-0.09	0.19	32.89	-0.1199	-0.0213	0.0003
320	SLU 48	0.18	0.2	34.53	-0.1273	-0.011	0.0003
320	SLU 49	0.02	0.2	33.8	-0.125	-0.0166	0.0003
320	SLU 50	0.19	0.2	34.3	-0.126	-0.0101	0.0003
320	SLU 51	0.03	0.19	33.57	-0.1237	-0.0157	0.0003
320	SLU 52	-0.29	0.2	36.37	-0.1285	-0.0325	0.0003
320	SLU 53	-0.02	0.22	38.01	-0.1359	-0.0221	0.0003
320	SLU 54	-0.17	0.21	37.28	-0.1335	-0.0277	0.0003
320	SLU 55	-0.27	0.21	36.57	-0.1307	-0.0306	0.0003
320	SLU 56	0	0.22	38.2	-0.1381	-0.0202	0.0003
320	SLU 57	-0.15	0.21	37.47	-0.1358	-0.0259	0.0003
320	SLU 58	0.01	0.22	37.98	-0.1368	-0.0193	0.0003
320	SLU 59	-0.14	0.21	37.25	-0.1345	-0.025	0.0003
320	SLU 60	-0.1	0.22	39.17	-0.137	-0.027	0.0003
320	SLU 61	-0.26	0.21	38.44	-0.1347	-0.0326	0.0003
320	SLU 62	-0.08	0.22	39.36	-0.1392	-0.0251	0.0003
320	SLU 63	-0.24	0.22	38.63	-0.1369	-0.0308	0.0003
320	SLU 64	0.03	0.21	37.13	-0.1332	-0.0201	0.0003
320	SLU 65	-0.23	0.2	35.92	-0.1293	-0.0295	0.0003
320	SLU 66	0.04	0.22	37.55	-0.1367	-0.0191	0.0003
320	SLU 67	-0.12	0.21	36.82	-0.1344	-0.0248	0.0003
320	SLU 68	-0.21	0.21	36.11	-0.1316	-0.0277	0.0003
320	SLU 69	0.06	0.22	37.74	-0.1389	-0.0173	0.0003
320	SLU 70	-0.09	0.21	37.01	-0.1366	-0.023	0.0003
320	SLU 71	0.07	0.22	37.52	-0.1376	-0.0164	0.0003
320	SLU 72	-0.08	0.21	36.79	-0.1353	-0.0221	0.0003
320	SLU 73	-0.4	0.22	39.59	-0.1401	-0.0388	0.0003
320	SLU 74	-0.13	0.23	41.22	-0.1475	-0.0284	0.0003
320	SLU 75	-0.29	0.23	40.49	-0.1452	-0.0341	0.0003
320	SLU 76	-0.38	0.22	39.78	-0.1424	-0.037	0.0003
320	SLU 77	-0.11	0.24	41.41	-0.1497	-0.0266	0.0003
320	SLU 78	-0.27	0.23	40.68	-0.1474	-0.0323	0.0003
320	SLU 79	-0.1	0.24	41.19	-0.1485	-0.0257	0.0003
320	SLU 80	-0.25	0.23	40.46	-0.1461	-0.0314	0.0003
320	SLU 81	-0.22	0.24	42.38	-0.1486	-0.0333	0.0003
320	SLU 82	-0.37	0.23	41.65	-0.1463	-0.039	0.0003
320	SLU 83	-0.2	0.24	42.57	-0.1509	-0.0315	0.0003
320	SLU 84	-0.35	0.24	41.84	-0.1485	-0.0372	0.0003
320	SLE RA 1	0.05	0.16	27.86	-0.0999	-0.014	0.0002
320	SLE RA 2	-0.13	0.15	27.05	-0.0973	-0.0204	0.0002
320	SLE RA 3	0.05	0.16	28.14	-0.1022	-0.0134	0.0002
320	SLE RA 4	-0.05	0.16	27.65	-0.1007	-0.0172	0.0002
320	SLE RA 5	-0.11	0.16	27.17	-0.0988	-0.0191	0.0002
320	SLE RA 6	0.07	0.16	28.26	-0.1037	-0.0122	0.0002
320	SLE RA 7	-0.03	0.16	27.78	-0.1022	-0.016	0.0002
320	SLE RA 8	0.08	0.16	28.11	-0.1029	-0.0116	0.0002
320	SLE RA 9	-0.03	0.16	27.63	-0.1013	-0.0154	0.0002
320	SLE RA 10	-0.24	0.17	29.49	-0.1045	-0.0265	0.0002
320	SLE RA 11	-0.06	0.17	30.58	-0.1094	-0.0196	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
320	SLE RA 12	-0.16	0.17	30.1	-0.1079	-0.0234	0.0002
320	SLE RA 13	-0.23	0.17	29.62	-0.106	-0.0253	0.0002
320	SLE RA 14	-0.05	0.18	30.71	-0.1109	-0.0184	0.0003
320	SLE RA 15	-0.15	0.17	30.23	-0.1094	-0.0222	0.0002
320	SLE RA 16	-0.04	0.17	30.56	-0.1101	-0.0178	0.0003
320	SLE RA 17	-0.14	0.17	30.07	-0.1085	-0.0216	0.0002
320	SLE RA 18	-0.12	0.18	31.36	-0.1102	-0.0229	0.0003
320	SLE RA 19	-0.22	0.17	30.87	-0.1086	-0.0267	0.0002
320	SLE RA 20	-0.1	0.18	31.48	-0.1117	-0.0217	0.0003
320	SLE RA 21	-0.21	0.17	31	-0.1101	-0.0255	0.0003
320	SLE FR 1	0.05	0.16	27.86	-0.0999	-0.014	0.0002
320	SLE FR 2	0.01	0.16	27.69	-0.0994	-0.0153	0.0002
320	SLE FR 3	0.05	0.16	27.91	-0.1005	-0.0136	0.0002
320	SLE FR 4	-0.04	0.16	28.74	-0.1025	-0.018	0.0002
320	SLE FR 5	0	0.16	28.96	-0.1036	-0.0162	0.0002
320	SLE FR 6	-0.04	0.17	29.61	-0.105	-0.0185	0.0002
320	SLE QP 1	0.05	0.16	27.86	-0.0999	-0.014	0.0002
320	SLE QP 2	0	0.16	28.91	-0.103	-0.0167	0.0002
320	SLD 1	6.07	-0.02	23	-0.134	0.2606	0.0001
320	SLD 2	6.07	-0.02	23	-0.134	0.2606	0.0001
320	SLD 3	4.84	0.18	26.74	0.0769	0.208	0.0002
320	SLD 4	4.84	0.18	26.74	0.0769	0.208	0.0002
320	SLD 5	3.68	-0.19	21.46	-0.4322	0.1463	0
320	SLD 6	3.68	-0.19	21.46	-0.4322	0.1463	0
320	SLD 7	-0.42	0.47	33.93	0.2709	-0.0291	0.0004
320	SLD 8	-0.42	0.47	33.93	0.2709	-0.0291	0.0004
320	SLD 9	0.41	-0.14	23.88	-0.4769	-0.0043	0
320	SLD 10	0.41	-0.14	23.88	-0.4769	-0.0043	0
320	SLD 11	-3.69	0.52	36.35	0.2263	-0.1797	0.0005
320	SLD 12	-3.69	0.52	36.35	0.2263	-0.1797	0.0005
320	SLD 13	-4.84	0.15	31.07	-0.2829	-0.2414	0.0003
320	SLD 14	-4.84	0.15	31.07	-0.2829	-0.2414	0.0003
320	SLD 15	-6.07	0.35	34.81	-0.0719	-0.294	0.0004
320	SLD 16	-6.07	0.35	34.81	-0.0719	-0.294	0.0004
320	SLV 1	14.23	-0.29	14.94	-0.1809	0.6334	-0.0001
320	SLV 2	14.23	-0.29	14.94	-0.1809	0.6334	-0.0001
320	SLV 3	11.27	0.21	23.97	0.3452	0.5075	0.0002
320	SLV 4	11.27	0.21	23.97	0.3452	0.5075	0.0002
320	SLV 5	8.75	-0.72	11.02	-0.9242	0.3692	-0.0004
320	SLV 6	8.75	-0.72	11.02	-0.9242	0.3692	-0.0004
320	SLV 7	-1.11	0.92	41.12	0.8293	-0.0503	0.0007
320	SLV 8	-1.11	0.92	41.12	0.8293	-0.0503	0.0007
320	SLV 9	1.1	-0.59	16.69	-1.0353	0.0169	-0.0002
320	SLV 10	1.1	-0.59	16.69	-1.0353	0.0169	-0.0002
320	SLV 11	-8.76	1.04	46.79	0.7182	-0.4026	0.0008
320	SLV 12	-8.76	1.04	46.79	0.7182	-0.4026	0.0008
320	SLV 13	-11.27	0.12	33.84	-0.5511	-0.5409	0.0003
320	SLV 14	-11.27	0.12	33.84	-0.5511	-0.5409	0.0003
320	SLV 15	-14.23	0.61	42.87	-0.0251	-0.6668	0.0006
320	SLV 16	-14.23	0.61	42.87	-0.0251	-0.6668	0.0006
321	SLU 1	0.02	0.13	30.7	-0.0744	-0.0248	0.0001
321	SLU 2	-0.27	0.12	29.07	-0.0718	-0.0345	0.0001
321	SLU 3	0.02	0.13	31.13	-0.0769	-0.0252	0.0001
321	SLU 4	-0.15	0.13	30.15	-0.0754	-0.031	0.0001
321	SLU 5	-0.26	0.12	29.2	-0.0733	-0.0345	0.0001
321	SLU 6	0.03	0.13	31.26	-0.0785	-0.0252	0.0001
321	SLU 7	-0.14	0.13	30.29	-0.0769	-0.031	0.0001
321	SLU 8	0.03	0.13	30.97	-0.0774	-0.0248	0.0001
321	SLU 9	-0.14	0.13	29.99	-0.0759	-0.0306	0.0001
321	SLU 10	-0.49	0.14	33.18	-0.08	-0.047	0.0001
321	SLU 11	-0.2	0.14	35.23	-0.0852	-0.0377	0.0001
321	SLU 12	-0.37	0.14	34.26	-0.0836	-0.0436	0.0001
321	SLU 13	-0.48	0.14	33.31	-0.0815	-0.047	0.0001
321	SLU 14	-0.19	0.15	35.37	-0.0867	-0.0377	0.0001
321	SLU 15	-0.36	0.14	34.39	-0.0851	-0.0435	0.0001
321	SLU 16	-0.19	0.14	35.07	-0.0856	-0.0373	0.0001
321	SLU 17	-0.36	0.14	34.1	-0.0841	-0.0431	0.0001
321	SLU 18	-0.3	0.15	36.56	-0.0862	-0.0427	0.0001
321	SLU 19	-0.47	0.14	35.59	-0.0846	-0.0485	0.0001
321	SLU 20	-0.29	0.15	36.7	-0.0877	-0.0427	0.0001
321	SLU 21	-0.46	0.15	35.72	-0.0861	-0.0485	0.0001
321	SLU 22	-0.13	0.14	34.3	-0.0832	-0.0342	0.0001
321	SLU 23	-0.42	0.14	32.67	-0.0806	-0.0438	0.0001
321	SLU 24	-0.13	0.15	34.73	-0.0857	-0.0346	0.0001
321	SLU 25	-0.3	0.14	33.76	-0.0842	-0.0404	0.0001
321	SLU 26	-0.41	0.14	32.81	-0.0821	-0.0438	0.0001
321	SLU 27	-0.12	0.15	34.87	-0.0872	-0.0346	0.0001
321	SLU 28	-0.29	0.14	33.89	-0.0857	-0.0404	0.0001
321	SLU 29	-0.12	0.15	34.57	-0.0862	-0.0342	0.0001
321	SLU 30	-0.29	0.14	33.6	-0.0846	-0.04	0.0001
321	SLU 31	-0.63	0.15	36.78	-0.0888	-0.0564	0.0001
321	SLU 32	-0.35	0.16	38.84	-0.0939	-0.0471	0.0001
321	SLU 33	-0.52	0.16	37.86	-0.0924	-0.0529	0.0001
321	SLU 34	-0.63	0.15	36.92	-0.0903	-0.0564	0.0001
321	SLU 35	-0.34	0.16	38.98	-0.0954	-0.0471	0.0001
321	SLU 36	-0.51	0.16	38	-0.0939	-0.0529	0.0001
321	SLU 37	-0.34	0.16	38.68	-0.0944	-0.0467	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
321	SLU 38	-0.51	0.16	37.7	-0.0929	-0.0525	0.0001
321	SLU 39	-0.45	0.16	40.17	-0.0949	-0.0521	0.0001
321	SLU 40	-0.62	0.16	39.19	-0.0934	-0.0579	0.0001
321	SLU 41	-0.44	0.16	40.3	-0.0964	-0.0521	0.0001
321	SLU 42	-0.61	0.16	39.33	-0.0949	-0.0579	0.0001
321	SLU 43	0.07	0.16	38.67	-0.0937	-0.029	0.0001
321	SLU 44	-0.21	0.15	37.04	-0.0911	-0.0387	0.0001
321	SLU 45	0.08	0.16	39.1	-0.0963	-0.0294	0.0001
321	SLU 46	-0.09	0.16	38.12	-0.0947	-0.0352	0.0001
321	SLU 47	-0.21	0.16	37.18	-0.0926	-0.0387	0.0001
321	SLU 48	0.08	0.16	39.23	-0.0978	-0.0294	0.0001
321	SLU 49	-0.09	0.16	38.26	-0.0962	-0.0352	0.0001
321	SLU 50	0.08	0.16	38.94	-0.0968	-0.029	0.0001
321	SLU 51	-0.09	0.16	37.96	-0.0952	-0.0348	0.0001
321	SLU 52	-0.43	0.17	41.15	-0.0993	-0.0513	0.0001
321	SLU 53	-0.14	0.18	43.21	-0.1045	-0.042	0.0001
321	SLU 54	-0.31	0.17	42.23	-0.1029	-0.0478	0.0001
321	SLU 55	-0.43	0.17	41.28	-0.1009	-0.0513	0.0001
321	SLU 56	-0.14	0.18	43.34	-0.106	-0.042	0.0001
321	SLU 57	-0.31	0.18	42.37	-0.1044	-0.0478	0.0001
321	SLU 58	-0.14	0.18	43.05	-0.105	-0.0416	0.0001
321	SLU 59	-0.31	0.17	42.07	-0.1034	-0.0474	0.0001
321	SLU 60	-0.24	0.18	44.53	-0.1055	-0.047	0.0001
321	SLU 61	-0.41	0.18	43.56	-0.1039	-0.0528	0.0001
321	SLU 62	-0.24	0.18	44.67	-0.107	-0.047	0.0001
321	SLU 63	-0.41	0.18	43.69	-0.1054	-0.0528	0.0001
321	SLU 64	-0.08	0.17	42.27	-0.1025	-0.0384	0.0001
321	SLU 65	-0.36	0.17	40.65	-0.0999	-0.0481	0.0001
321	SLU 66	-0.07	0.18	42.71	-0.105	-0.0388	0.0001
321	SLU 67	-0.24	0.17	41.73	-0.1035	-0.0446	0.0001
321	SLU 68	-0.35	0.17	40.78	-0.1014	-0.0481	0.0001
321	SLU 69	-0.06	0.18	42.84	-0.1065	-0.0388	0.0001
321	SLU 70	-0.23	0.18	41.86	-0.105	-0.0446	0.0001
321	SLU 71	-0.06	0.18	42.54	-0.1055	-0.0384	0.0001
321	SLU 72	-0.23	0.17	41.57	-0.104	-0.0442	0.0001
321	SLU 73	-0.58	0.18	44.75	-0.1081	-0.0606	0.0001
321	SLU 74	-0.29	0.19	46.81	-0.1132	-0.0513	0.0001
321	SLU 75	-0.46	0.19	45.84	-0.1117	-0.0571	0.0001
321	SLU 76	-0.57	0.18	44.89	-0.1096	-0.0606	0.0001
321	SLU 77	-0.28	0.19	46.95	-0.1148	-0.0513	0.0001
321	SLU 78	-0.45	0.19	45.97	-0.1132	-0.0571	0.0001
321	SLU 79	-0.28	0.19	46.65	-0.1137	-0.0509	0.0001
321	SLU 80	-0.45	0.19	45.68	-0.1122	-0.0567	0.0001
321	SLU 81	-0.39	0.19	48.14	-0.1142	-0.0563	0.0001
321	SLU 82	-0.56	0.19	47.16	-0.1127	-0.0621	0.0001
321	SLU 83	-0.38	0.2	48.28	-0.1158	-0.0563	0.0001
321	SLU 84	-0.55	0.19	47.3	-0.1142	-0.0621	0.0001
321	SLE RA 1	-0.03	0.13	31.73	-0.0769	-0.0275	0.0001
321	SLE RA 2	-0.22	0.13	30.64	-0.0752	-0.0339	0.0001
321	SLE RA 3	-0.02	0.13	32.01	-0.0786	-0.0277	0.0001
321	SLE RA 4	-0.14	0.13	31.36	-0.0776	-0.0316	0.0001
321	SLE RA 5	-0.21	0.13	30.73	-0.0762	-0.0339	0.0001
321	SLE RA 6	-0.02	0.13	32.1	-0.0796	-0.0277	0.0001
321	SLE RA 7	-0.13	0.13	31.45	-0.0786	-0.0316	0.0001
321	SLE RA 8	-0.02	0.13	31.91	-0.0789	-0.0275	0.0001
321	SLE RA 9	-0.13	0.13	31.26	-0.0779	-0.0313	0.0001
321	SLE RA 10	-0.36	0.14	33.38	-0.0807	-0.0423	0.0001
321	SLE RA 11	-0.17	0.14	34.75	-0.0841	-0.0361	0.0001
321	SLE RA 12	-0.28	0.14	34.1	-0.083	-0.04	0.0001
321	SLE RA 13	-0.36	0.14	33.47	-0.0817	-0.0423	0.0001
321	SLE RA 14	-0.16	0.14	34.84	-0.0851	-0.0361	0.0001
321	SLE RA 15	-0.28	0.14	34.19	-0.084	-0.04	0.0001
321	SLE RA 16	-0.16	0.14	34.64	-0.0844	-0.0358	0.0001
321	SLE RA 17	-0.28	0.14	33.99	-0.0834	-0.0397	0.0001
321	SLE RA 18	-0.24	0.14	35.64	-0.0848	-0.0394	0.0001
321	SLE RA 19	-0.35	0.14	34.99	-0.0837	-0.0433	0.0001
321	SLE RA 20	-0.23	0.15	35.73	-0.0858	-0.0394	0.0001
321	SLE RA 21	-0.34	0.14	35.08	-0.0847	-0.0433	0.0001
321	SLE FR 1	-0.03	0.13	31.73	-0.0769	-0.0275	0.0001
321	SLE FR 2	-0.06	0.13	31.51	-0.0766	-0.0288	0.0001
321	SLE FR 3	-0.02	0.13	31.76	-0.0773	-0.0275	0.0001
321	SLE FR 4	-0.13	0.13	32.68	-0.0789	-0.0324	0.0001
321	SLE FR 5	-0.09	0.14	32.94	-0.0797	-0.0311	0.0001
321	SLE FR 6	-0.13	0.14	33.68	-0.0808	-0.0335	0.0001
321	SLE QP 1	-0.03	0.13	31.73	-0.0769	-0.0275	0.0001
321	SLE QP 2	-0.09	0.13	32.9	-0.0793	-0.0311	0.0001
321	SLD 1	4.15	-0.02	24.47	-0.0952	0.2104	0.0001
321	SLD 2	4.15	-0.02	24.47	-0.0952	0.2104	0.0001
321	SLD 3	5.25	0.12	28.64	0.0657	0.1632	0.0002
321	SLD 4	5.25	0.12	28.64	0.0657	0.1632	0.0002
321	SLD 5	-0.49	-0.12	24.03	-0.3281	0.113	0
321	SLD 6	-0.49	-0.12	24.03	-0.3281	0.113	0
321	SLD 7	3.19	0.34	37.96	0.2083	-0.0444	0.0002
321	SLD 8	3.19	0.34	37.96	0.2083	-0.0444	0.0002
321	SLD 9	-3.37	-0.07	27.84	-0.3668	-0.0177	0
321	SLD 10	-3.37	-0.07	27.84	-0.3668	-0.0177	0
321	SLD 11	0.31	0.39	41.76	0.1696	-0.1751	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
321	SLD 12	0.31	0.39	41.76	0.1696	-0.1751	0.0002
321	SLD 13	-5.43	0.15	37.16	-0.2242	-0.2253	0
321	SLD 14	-5.43	0.15	37.16	-0.2242	-0.2253	0
321	SLD 15	-4.33	0.29	41.33	-0.0633	-0.2725	0.0001
321	SLD 16	-4.33	0.29	41.33	-0.0633	-0.2725	0.0001
321	SLV 1	9.78	-0.24	13.1	-0.1189	0.5348	0.0002
321	SLV 2	9.78	-0.24	13.1	-0.1189	0.5348	0.0002
321	SLV 3	12.44	0.1	23.01	0.2826	0.4212	0.0003
321	SLV 4	12.44	0.1	23.01	0.2826	0.4212	0.0003
321	SLV 5	-1.17	-0.5	11.94	-0.7002	0.3109	-0.0001
321	SLV 6	-1.17	-0.5	11.94	-0.7002	0.3109	-0.0001
321	SLV 7	7.71	0.64	44.96	0.6383	-0.0676	0.0004
321	SLV 8	7.71	0.64	44.96	0.6383	-0.0676	0.0004
321	SLV 9	-7.89	-0.37	20.84	-0.7968	0.0055	-0.0002
321	SLV 10	-7.89	-0.37	20.84	-0.7968	0.0055	-0.0002
321	SLV 11	0.99	0.77	53.86	0.5416	-0.373	0.0003
321	SLV 12	0.99	0.77	53.86	0.5416	-0.373	0.0003
321	SLV 13	-12.62	0.17	42.79	-0.4412	-0.4834	-0.0002
321	SLV 14	-12.62	0.17	42.79	-0.4412	-0.4834	-0.0002
321	SLV 15	-9.96	0.51	52.7	-0.0396	-0.5969	0
321	SLV 16	-9.96	0.51	52.7	-0.0396	-0.5969	0
322	SLU 1	-0.76	0.07	35.17	-0.042	-0.0549	0
322	SLU 2	-1.01	0.07	33.07	-0.0415	-0.0635	0
322	SLU 3	-0.75	0.07	35.63	-0.0434	-0.0542	0
322	SLU 4	-0.9	0.07	34.37	-0.0431	-0.0594	0
322	SLU 5	-1	0.07	33.14	-0.0423	-0.062	0
322	SLU 6	-0.73	0.07	35.7	-0.0442	-0.0527	0
322	SLU 7	-0.89	0.07	34.44	-0.0439	-0.0579	0
322	SLU 8	-0.73	0.07	35.32	-0.0437	-0.0519	0
322	SLU 9	-0.88	0.07	34.06	-0.0433	-0.0571	0
322	SLU 10	-1.36	0.07	37.69	-0.046	-0.081	0
322	SLU 11	-1.09	0.08	40.26	-0.0479	-0.0717	0
322	SLU 12	-1.25	0.08	38.99	-0.0476	-0.0769	0
322	SLU 13	-1.34	0.07	37.77	-0.0468	-0.0795	0
322	SLU 14	-1.08	0.08	40.33	-0.0487	-0.0702	0
322	SLU 15	-1.23	0.08	39.07	-0.0484	-0.0754	0
322	SLU 16	-1.07	0.08	39.95	-0.0481	-0.0694	0
322	SLU 17	-1.23	0.08	38.68	-0.0478	-0.0746	0
322	SLU 18	-1.25	0.08	41.78	-0.0484	-0.0799	0
322	SLU 19	-1.41	0.08	40.52	-0.0481	-0.0851	0
322	SLU 20	-1.24	0.08	41.86	-0.0492	-0.0784	0
322	SLU 21	-1.39	0.08	40.59	-0.0489	-0.0836	0
322	SLU 22	-1	0.07	39.26	-0.0469	-0.0675	0
322	SLU 23	-1.26	0.07	37.15	-0.0463	-0.0762	0
322	SLU 24	-0.99	0.08	39.71	-0.0482	-0.0669	0
322	SLU 25	-1.14	0.08	38.45	-0.0479	-0.072	0
322	SLU 26	-1.24	0.07	37.22	-0.0471	-0.0747	0
322	SLU 27	-0.98	0.08	39.79	-0.0491	-0.0654	0
322	SLU 28	-1.13	0.08	38.52	-0.0487	-0.0706	0
322	SLU 29	-0.97	0.08	39.4	-0.0485	-0.0646	0
322	SLU 30	-1.12	0.08	38.14	-0.0481	-0.0697	0
322	SLU 31	-1.6	0.08	41.78	-0.0508	-0.0937	0
322	SLU 32	-1.34	0.08	44.34	-0.0527	-0.0844	0.0001
322	SLU 33	-1.49	0.08	43.08	-0.0524	-0.0895	0.0001
322	SLU 34	-1.59	0.08	41.85	-0.0516	-0.0922	0
322	SLU 35	-1.33	0.08	44.41	-0.0535	-0.0829	0.0001
322	SLU 36	-1.48	0.08	43.15	-0.0532	-0.0881	0.0001
322	SLU 37	-1.32	0.08	44.03	-0.0529	-0.0821	0.0001
322	SLU 38	-1.47	0.08	42.77	-0.0526	-0.0872	0
322	SLU 39	-1.5	0.09	45.87	-0.0532	-0.0925	0.0001
322	SLU 40	-1.65	0.08	44.6	-0.0529	-0.0977	0.0001
322	SLU 41	-1.48	0.09	45.94	-0.054	-0.091	0.0001
322	SLU 42	-1.64	0.09	44.68	-0.0537	-0.0962	0.0001
322	SLU 43	-0.9	0.08	44.33	-0.053	-0.067	0.0001
322	SLU 44	-1.15	0.08	42.22	-0.0525	-0.0756	0.0001
322	SLU 45	-0.89	0.09	44.78	-0.0544	-0.0663	0.0001
322	SLU 46	-1.04	0.09	43.52	-0.0541	-0.0715	0.0001
322	SLU 47	-1.14	0.08	42.29	-0.0533	-0.0742	0.0001
322	SLU 48	-0.88	0.09	44.86	-0.0552	-0.0649	0.0001
322	SLU 49	-1.03	0.09	43.59	-0.0549	-0.07	0.0001
322	SLU 50	-0.87	0.09	44.47	-0.0546	-0.064	0.0001
322	SLU 51	-1.02	0.08	43.21	-0.0543	-0.0692	0.0001
322	SLU 52	-1.5	0.09	46.84	-0.0569	-0.0931	0.0001
322	SLU 53	-1.24	0.09	49.41	-0.0589	-0.0838	0.0001
322	SLU 54	-1.39	0.09	48.14	-0.0585	-0.089	0.0001
322	SLU 55	-1.49	0.09	46.92	-0.0577	-0.0916	0.0001
322	SLU 56	-1.22	0.09	49.48	-0.0597	-0.0823	0.0001
322	SLU 57	-1.38	0.09	48.22	-0.0593	-0.0875	0.0001
322	SLU 58	-1.22	0.09	49.1	-0.0591	-0.0815	0.0001
322	SLU 59	-1.37	0.09	47.83	-0.0588	-0.0867	0.0001
322	SLU 60	-1.39	0.09	50.93	-0.0594	-0.092	0.0001
322	SLU 61	-1.55	0.09	49.67	-0.0591	-0.0972	0.0001
322	SLU 62	-1.38	0.1	51.01	-0.0602	-0.0905	0.0001
322	SLU 63	-1.53	0.09	49.74	-0.0599	-0.0957	0.0001
322	SLU 64	-1.14	0.09	48.41	-0.0578	-0.0797	0.0001
322	SLU 65	-1.4	0.09	46.3	-0.0573	-0.0883	0.0001
322	SLU 66	-1.13	0.09	48.87	-0.0592	-0.079	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
322	SLU 67	-1.29	0.09	47.6	-0.0589	-0.0842	0.0001
322	SLU 68	-1.38	0.09	46.38	-0.0581	-0.0868	0.0001
322	SLU 69	-1.12	0.09	48.94	-0.06	-0.0775	0.0001
322	SLU 70	-1.27	0.09	47.68	-0.0597	-0.0827	0.0001
322	SLU 71	-1.11	0.09	48.56	-0.0594	-0.0767	0.0001
322	SLU 72	-1.27	0.09	47.29	-0.0591	-0.0819	0.0001
322	SLU 73	-1.75	0.1	50.93	-0.0617	-0.1058	0.0001
322	SLU 74	-1.48	0.1	53.49	-0.0637	-0.0965	0.0001
322	SLU 75	-1.64	0.1	52.23	-0.0633	-0.1017	0.0001
322	SLU 76	-1.73	0.1	51	-0.0625	-0.1043	0.0001
322	SLU 77	-1.47	0.1	53.57	-0.0645	-0.095	0.0001
322	SLU 78	-1.62	0.1	52.3	-0.0642	-0.1002	0.0001
322	SLU 79	-1.46	0.1	53.18	-0.0639	-0.0942	0.0001
322	SLU 80	-1.62	0.1	51.92	-0.0636	-0.0994	0.0001
322	SLU 81	-1.64	0.1	55.02	-0.0642	-0.1047	0.0001
322	SLU 82	-1.79	0.1	53.75	-0.0639	-0.1098	0.0001
322	SLU 83	-1.63	0.1	55.09	-0.065	-0.1032	0.0001
322	SLU 84	-1.78	0.1	53.83	-0.0647	-0.1083	0.0001
322	SLE RA 1	-0.82	0.07	36.34	-0.0434	-0.0585	0
322	SLE RA 2	-1	0.07	34.94	-0.0431	-0.0643	0
322	SLE RA 3	-0.82	0.07	36.65	-0.0443	-0.0581	0
322	SLE RA 4	-0.92	0.07	35.8	-0.0441	-0.0615	0
322	SLE RA 5	-0.99	0.07	34.98	-0.0436	-0.0633	0
322	SLE RA 6	-0.81	0.07	36.69	-0.0449	-0.0571	0
322	SLE RA 7	-0.91	0.07	35.85	-0.0447	-0.0605	0
322	SLE RA 8	-0.81	0.07	36.44	-0.0445	-0.0565	0
322	SLE RA 9	-0.91	0.07	35.6	-0.0443	-0.06	0
322	SLE RA 10	-1.23	0.07	38.02	-0.046	-0.0759	0
322	SLE RA 11	-1.05	0.07	39.73	-0.0473	-0.0697	0
322	SLE RA 12	-1.15	0.07	38.89	-0.0471	-0.0732	0
322	SLE RA 13	-1.22	0.07	38.07	-0.0466	-0.0749	0
322	SLE RA 14	-1.04	0.08	39.78	-0.0479	-0.0687	0
322	SLE RA 15	-1.14	0.08	38.94	-0.0476	-0.0722	0
322	SLE RA 16	-1.04	0.07	39.52	-0.0475	-0.0682	0
322	SLE RA 17	-1.14	0.07	38.68	-0.0473	-0.0716	0
322	SLE RA 18	-1.16	0.08	40.75	-0.0477	-0.0752	0
322	SLE RA 19	-1.26	0.08	39.9	-0.0475	-0.0786	0
322	SLE RA 20	-1.15	0.08	40.8	-0.0482	-0.0742	0
322	SLE RA 21	-1.25	0.08	39.95	-0.048	-0.0776	0
322	SLE FR 1	-0.82	0.07	36.34	-0.0434	-0.0585	0
322	SLE FR 2	-0.86	0.07	36.06	-0.0433	-0.0597	0
322	SLE FR 3	-0.82	0.07	36.36	-0.0436	-0.0581	0
322	SLE FR 4	-0.96	0.07	37.38	-0.0446	-0.0647	0
322	SLE FR 5	-0.92	0.07	37.68	-0.0449	-0.0631	0
322	SLE FR 6	-0.99	0.07	38.54	-0.0455	-0.0668	0
322	SLE QP 1	-0.82	0.07	36.34	-0.0434	-0.0585	0
322	SLE QP 2	-0.92	0.07	37.66	-0.0447	-0.0635	0
322	SLD 1	3.07	-0.06	25.35	-0.0458	0.1706	0.0001
322	SLD 2	3.07	-0.06	25.35	-0.0458	0.1706	0.0001
322	SLD 3	4	0.02	30.64	0.0614	0.1308	0.0002
322	SLD 4	4	0.02	30.64	0.0614	0.1308	0.0002
322	SLD 5	-1.14	-0.09	25.95	-0.2076	0.067	-0.0001
322	SLD 6	-1.14	-0.09	25.95	-0.2076	0.067	-0.0001
322	SLD 7	1.97	0.18	43.58	0.1497	-0.0655	0.0003
322	SLD 8	1.97	0.18	43.58	0.1497	-0.0655	0.0003
322	SLD 9	-3.81	-0.04	31.75	-0.2391	-0.0615	-0.0002
322	SLD 10	-3.81	-0.04	31.75	-0.2391	-0.0615	-0.0002
322	SLD 11	-0.71	0.23	49.38	0.1182	-0.194	0.0002
322	SLD 12	-0.71	0.23	49.38	0.1182	-0.194	0.0002
322	SLD 13	-5.85	0.12	44.69	-0.1508	-0.2578	-0.0001
322	SLD 14	-5.85	0.12	44.69	-0.1508	-0.2578	-0.0001
322	SLD 15	-4.92	0.2	49.98	-0.0436	-0.2976	0
322	SLD 16	-4.92	0.2	49.98	-0.0436	-0.2976	0
322	SLV 1	8.38	-0.26	8.8	-0.0471	0.4848	0.0001
322	SLV 2	8.38	-0.26	8.8	-0.0471	0.4848	0.0001
322	SLV 3	10.62	-0.06	21.25	0.2208	0.3903	0.0004
322	SLV 4	10.62	-0.06	21.25	0.2208	0.3903	0.0004
322	SLV 5	-1.53	-0.33	10.12	-0.4516	0.2443	-0.0004
322	SLV 6	-1.53	-0.33	10.12	-0.4516	0.2443	-0.0004
322	SLV 7	5.93	0.34	51.62	0.4412	-0.0707	0.0006
322	SLV 8	5.93	0.34	51.62	0.4412	-0.0707	0.0006
322	SLV 9	-7.78	-0.2	23.7	-0.5306	-0.0563	-0.0005
322	SLV 10	-7.78	-0.2	23.7	-0.5306	-0.0563	-0.0005
322	SLV 11	-0.32	0.48	65.2	0.3623	-0.3714	0.0005
322	SLV 12	-0.32	0.48	65.2	0.3623	-0.3714	0.0005
322	SLV 13	-12.47	0.2	54.07	-0.3101	-0.5173	-0.0003
322	SLV 14	-12.47	0.2	54.07	-0.3101	-0.5173	-0.0003
322	SLV 15	-10.23	0.4	66.52	-0.0423	-0.6118	0
322	SLV 16	-10.23	0.4	66.52	-0.0423	-0.6118	0
323	SLU 1	-2.74	-0.04	41.16	0.0006	-0.1651	0
323	SLU 2	-2.85	-0.03	38.49	-0.0016	-0.1658	0
323	SLU 3	-2.77	-0.04	41.66	0.0004	-0.167	0
323	SLU 4	-2.83	-0.04	40.06	-0.0009	-0.1674	0
323	SLU 5	-2.85	-0.03	38.5	-0.0018	-0.1659	0
323	SLU 6	-2.76	-0.04	41.67	0.0002	-0.1671	0
323	SLU 7	-2.83	-0.04	40.07	-0.0011	-0.1675	0
323	SLU 8	-2.74	-0.04	41.17	0.0002	-0.1653	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
323	SLU 9	-2.8	-0.04	39.57	-0.0011	-0.1657	0
323	SLU 10	-3.45	-0.04	43.89	-0.001	-0.1982	0
323	SLU 11	-3.36	-0.05	47.06	0.0009	-0.1994	0
323	SLU 12	-3.43	-0.04	45.46	-0.0004	-0.1998	0
323	SLU 13	-3.44	-0.04	43.9	-0.0012	-0.1983	0
323	SLU 14	-3.36	-0.05	47.06	0.0007	-0.1995	0
323	SLU 15	-3.42	-0.04	45.47	-0.0006	-0.1999	0
323	SLU 16	-3.34	-0.05	46.57	0.0007	-0.1977	0
323	SLU 17	-3.4	-0.04	44.97	-0.0006	-0.1981	0
323	SLU 18	-3.6	-0.05	48.87	0.0013	-0.2114	0
323	SLU 19	-3.66	-0.04	47.27	0.0001	-0.2118	0
323	SLU 20	-3.59	-0.05	48.87	0.0011	-0.2115	0
323	SLU 21	-3.66	-0.04	47.28	-0.0002	-0.2119	0
323	SLU 22	-3.21	-0.05	45.94	0.0008	-0.1915	0
323	SLU 23	-3.32	-0.04	43.27	-0.0013	-0.1922	0
323	SLU 24	-3.24	-0.05	46.44	0.0006	-0.1934	0
323	SLU 25	-3.3	-0.04	44.84	-0.0007	-0.1938	0
323	SLU 26	-3.32	-0.04	43.28	-0.0015	-0.1923	0
323	SLU 27	-3.23	-0.05	46.45	0.0004	-0.1935	0
323	SLU 28	-3.3	-0.04	44.85	-0.0009	-0.1939	0
323	SLU 29	-3.21	-0.05	45.95	0.0004	-0.1917	0
323	SLU 30	-3.27	-0.04	44.35	-0.0009	-0.1921	0
323	SLU 31	-3.92	-0.04	48.67	-0.0008	-0.2246	0
323	SLU 32	-3.83	-0.05	51.84	0.0012	-0.2258	0
323	SLU 33	-3.9	-0.05	50.24	-0.0001	-0.2262	0
323	SLU 34	-3.91	-0.04	48.68	-0.001	-0.2247	0
323	SLU 35	-3.83	-0.05	51.84	0.001	-0.2259	0
323	SLU 36	-3.89	-0.05	50.25	-0.0003	-0.2263	0
323	SLU 37	-3.81	-0.05	51.35	0.001	-0.2241	0
323	SLU 38	-3.87	-0.05	49.75	-0.0003	-0.2245	0
323	SLU 39	-4.07	-0.05	53.65	0.0016	-0.2378	0
323	SLU 40	-4.13	-0.05	52.05	0.0003	-0.2382	0
323	SLU 41	-4.06	-0.06	53.65	0.0014	-0.2379	0
323	SLU 42	-4.13	-0.05	52.06	0.0001	-0.2383	0
323	SLU 43	-3.4	-0.05	51.87	0.0007	-0.2056	0
323	SLU 44	-3.51	-0.04	49.2	-0.0015	-0.2063	0
323	SLU 45	-3.43	-0.05	52.37	0.0005	-0.2075	0
323	SLU 46	-3.49	-0.05	50.77	-0.0008	-0.2079	0
323	SLU 47	-3.51	-0.04	49.21	-0.0017	-0.2064	0
323	SLU 48	-3.43	-0.05	52.37	0.0003	-0.2076	0
323	SLU 49	-3.49	-0.05	50.78	-0.001	-0.208	0
323	SLU 50	-3.4	-0.05	51.88	0.0003	-0.2058	0
323	SLU 51	-3.46	-0.05	50.28	-0.001	-0.2062	0
323	SLU 52	-4.11	-0.05	54.6	-0.0009	-0.2387	0
323	SLU 53	-4.02	-0.06	57.77	0.001	-0.2399	0
323	SLU 54	-4.09	-0.05	56.17	-0.0003	-0.2403	0
323	SLU 55	-4.1	-0.05	54.61	-0.0012	-0.2388	0
323	SLU 56	-4.02	-0.06	57.77	0.0008	-0.24	0
323	SLU 57	-4.09	-0.05	56.17	-0.0005	-0.2404	0
323	SLU 58	-4	-0.06	57.28	0.0008	-0.2382	0
323	SLU 59	-4.06	-0.05	55.68	-0.0005	-0.2386	0
323	SLU 60	-4.26	-0.06	59.58	0.0014	-0.2519	0
323	SLU 61	-4.32	-0.05	57.98	0.0001	-0.2523	0
323	SLU 62	-4.26	-0.06	59.58	0.0012	-0.252	0
323	SLU 63	-4.32	-0.06	57.98	-0.0001	-0.2524	0
323	SLU 64	-3.87	-0.06	56.65	0.0009	-0.232	0
323	SLU 65	-3.98	-0.05	53.98	-0.0012	-0.2327	0
323	SLU 66	-3.9	-0.06	57.15	0.0007	-0.2339	0
323	SLU 67	-3.96	-0.05	55.55	-0.0006	-0.2343	0
323	SLU 68	-3.98	-0.05	53.99	-0.0014	-0.2328	0
323	SLU 69	-3.9	-0.06	57.16	0.0005	-0.234	0
323	SLU 70	-3.96	-0.05	55.56	-0.0008	-0.2344	0
323	SLU 71	-3.87	-0.06	56.66	0.0005	-0.2322	0
323	SLU 72	-3.93	-0.05	55.06	-0.0008	-0.2326	0
323	SLU 73	-4.58	-0.05	59.38	-0.0007	-0.2651	0
323	SLU 74	-4.49	-0.06	62.55	0.0013	-0.2663	0
323	SLU 75	-4.56	-0.06	60.95	0	-0.2667	0
323	SLU 76	-4.58	-0.05	59.39	-0.0009	-0.2652	0
323	SLU 77	-4.49	-0.06	62.55	0.0011	-0.2664	0
323	SLU 78	-4.56	-0.06	60.95	-0.0002	-0.2668	0
323	SLU 79	-4.47	-0.06	62.06	0.001	-0.2646	0
323	SLU 80	-4.53	-0.06	60.46	-0.0002	-0.265	0
323	SLU 81	-4.73	-0.07	64.36	0.0017	-0.2783	0
323	SLU 82	-4.79	-0.06	62.76	0.0004	-0.2787	0
323	SLU 83	-4.73	-0.07	64.36	0.0015	-0.2784	0
323	SLU 84	-4.79	-0.06	62.76	0.0002	-0.2788	0
323	SLE RA 1	-2.88	-0.04	42.52	0.0007	-0.1727	0
323	SLE RA 2	-2.95	-0.04	40.75	-0.0008	-0.1731	0
323	SLE RA 3	-2.89	-0.04	42.86	0.0005	-0.1739	0
323	SLE RA 4	-2.93	-0.04	41.79	-0.0003	-0.1742	0
323	SLE RA 5	-2.95	-0.04	40.75	-0.0009	-0.1732	0
323	SLE RA 6	-2.89	-0.04	42.86	0.0004	-0.174	0
323	SLE RA 7	-2.93	-0.04	41.8	-0.0005	-0.1742	0
323	SLE RA 8	-2.87	-0.04	42.53	0.0004	-0.1728	0
323	SLE RA 9	-2.92	-0.04	41.47	-0.0005	-0.1731	0
323	SLE RA 10	-3.35	-0.04	44.34	-0.0004	-0.1947	0
323	SLE RA 11	-3.29	-0.05	46.46	0.0009	-0.1955	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
323	SLE RA 12	-3.33	-0.04	45.39	0	-0.1958	0
323	SLE RA 13	-3.34	-0.04	44.35	-0.0006	-0.1948	0
323	SLE RA 14	-3.29	-0.05	46.46	0.0007	-0.1956	0
323	SLE RA 15	-3.33	-0.04	45.39	-0.0001	-0.1959	0
323	SLE RA 16	-3.27	-0.05	46.13	0.0007	-0.1944	0
323	SLE RA 17	-3.31	-0.04	45.06	-0.0001	-0.1947	0
323	SLE RA 18	-3.45	-0.05	47.66	0.0012	-0.2035	0
323	SLE RA 19	-3.49	-0.04	46.6	0.0003	-0.2038	0
323	SLE RA 20	-3.44	-0.05	47.67	0.001	-0.2036	0
323	SLE RA 21	-3.49	-0.05	46.6	0.0002	-0.2039	0
323	SLE FR 1	-2.88	-0.04	42.52	0.0007	-0.1727	0
323	SLE FR 2	-2.89	-0.04	42.17	0.0004	-0.1728	0
323	SLE FR 3	-2.88	-0.04	42.52	0.0006	-0.1727	0
323	SLE FR 4	-3.06	-0.04	43.71	0.0005	-0.182	0
323	SLE FR 5	-3.05	-0.04	44.07	0.0008	-0.1819	0
323	SLE FR 6	-3.16	-0.05	45.09	0.0009	-0.1881	0
323	SLE QP 1	-2.88	-0.04	42.52	0.0007	-0.1727	0
323	SLE QP 2	-3.05	-0.04	44.07	0.0008	-0.1819	0
323	SLD 1	1.54	-0.12	25.62	0.0062	0.0555	-0.0002
323	SLD 2	1.54	-0.12	25.62	0.0062	0.0555	-0.0002
323	SLD 3	0.78	-0.2	32.77	0.0627	0.0129	-0.0006
323	SLD 4	0.78	-0.2	32.77	0.0627	0.0129	-0.0006
323	SLD 5	-0.51	0.06	27.69	-0.0834	-0.0461	0.0006
323	SLD 6	-0.51	0.06	27.69	-0.0834	-0.0461	0.0006
323	SLD 7	-3.06	-0.22	51.52	0.1052	-0.188	-0.0009
323	SLD 8	-3.06	-0.22	51.52	0.1052	-0.188	-0.0009
323	SLD 9	-3.04	0.13	36.61	-0.1036	-0.1758	0.0009
323	SLD 10	-3.04	0.13	36.61	-0.1036	-0.1758	0.0009
323	SLD 11	-5.58	-0.15	60.44	0.085	-0.3177	-0.0007
323	SLD 12	-5.58	-0.15	60.44	0.085	-0.3177	-0.0007
323	SLD 13	-6.87	0.11	55.36	-0.0611	-0.3768	0.0006
323	SLD 14	-6.87	0.11	55.36	-0.0611	-0.3768	0.0006
323	SLD 15	-7.64	0.03	62.51	-0.0045	-0.4194	0.0001
323	SLD 16	-7.64	0.03	62.51	-0.0045	-0.4194	0.0001
323	SLV 1	7.7	-0.22	0.82	0.0144	0.3739	-0.0004
323	SLV 2	7.7	-0.22	0.82	0.0144	0.3739	-0.0004
323	SLV 3	5.88	-0.43	17.66	0.156	0.2726	-0.0015
323	SLV 4	5.88	-0.43	17.66	0.156	0.2726	-0.0015
323	SLV 5	2.94	0.22	5.56	-0.2098	0.1385	0.0016
323	SLV 6	2.94	0.22	5.56	-0.2098	0.1385	0.0016
323	SLV 7	-3.13	-0.48	61.68	0.2621	-0.1993	-0.0022
323	SLV 8	-3.13	-0.48	61.68	0.2621	-0.1993	-0.0022
323	SLV 9	-2.97	0.39	26.45	-0.2605	-0.1646	0.0022
323	SLV 10	-2.97	0.39	26.45	-0.2605	-0.1646	0.0022
323	SLV 11	-9.03	-0.31	82.57	0.2114	-0.5024	-0.0017
323	SLV 12	-9.03	-0.31	82.57	0.2114	-0.5024	-0.0017
323	SLV 13	-11.97	0.34	70.47	-0.1544	-0.6364	0.0015
323	SLV 14	-11.97	0.34	70.47	-0.1544	-0.6364	0.0015
323	SLV 15	-13.79	0.13	87.31	-0.0128	-0.7377	0.0003
323	SLV 16	-13.79	0.13	87.31	-0.0128	-0.7377	0.0003
325	SLU 1	0	-7.14	38.44	0.2797	0.0004	0
325	SLU 2	0	-7.14	38.42	0.2798	0.0004	0
325	SLU 3	0	-7.52	39.63	0.2959	0.0005	0
325	SLU 4	0	-7.52	39.62	0.2959	0.0005	0
325	SLU 5	0	-7.46	39.14	0.2937	0.0005	0
325	SLU 6	0	-7.85	40.36	0.3098	0.0005	0
325	SLU 7	0	-7.85	40.35	0.3099	0.0005	0
325	SLU 8	0	-7.78	39.89	0.3076	0.0005	0
325	SLU 9	0	-7.78	39.88	0.3076	0.0005	0
325	SLU 10	0	-8.25	44.28	0.3229	0.0005	0
325	SLU 11	0	-8.63	45.49	0.339	0.0006	0
325	SLU 12	0	-8.63	45.48	0.339	0.0006	0
325	SLU 13	0	-8.57	45.01	0.3368	0.0005	0
325	SLU 14	0	-8.95	46.22	0.3529	0.0006	0
325	SLU 15	0	-8.95	46.21	0.353	0.0006	0
325	SLU 16	0	-8.89	45.75	0.3507	0.0006	0
325	SLU 17	0	-8.89	45.74	0.3507	0.0006	0
325	SLU 18	0	-8.72	46.81	0.3413	0.0006	0
325	SLU 19	0	-8.72	46.8	0.3413	0.0006	0
325	SLU 20	0	-9.04	47.54	0.3552	0.0006	0
325	SLU 21	0	-9.04	47.53	0.3553	0.0006	0
325	SLU 22	0	-8.3	44.05	0.3256	0.0005	0
325	SLU 23	0	-8.3	44.03	0.3256	0.0005	0
325	SLU 24	0	-8.69	45.24	0.3417	0.0006	0
325	SLU 25	0	-8.69	45.23	0.3418	0.0006	0
325	SLU 26	0	-8.62	44.76	0.3395	0.0005	0
325	SLU 27	0	-9.01	45.97	0.3557	0.0006	0
325	SLU 28	0	-9.01	45.96	0.3557	0.0006	0
325	SLU 29	0	-8.95	45.5	0.3534	0.0006	0
325	SLU 30	0	-8.95	45.49	0.3534	0.0006	0
325	SLU 31	0	-9.41	49.89	0.3687	0.0006	0
325	SLU 32	0	-9.8	51.11	0.3848	0.0007	0
325	SLU 33	0	-9.8	51.09	0.3849	0.0006	0
325	SLU 34	0	-9.73	50.62	0.3826	0.0006	0
325	SLU 35	0.01	-10.12	51.83	0.3988	0.0007	0
325	SLU 36	0.01	-10.12	51.82	0.3988	0.0007	0
325	SLU 37	0.01	-10.05	51.36	0.3965	0.0007	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
325	SLU 38	0.01	-10.05	51.35	0.3965	0.0007	0
325	SLU 39	0	-9.89	52.42	0.3871	0.0007	0
325	SLU 40	0	-9.89	52.41	0.3872	0.0006	0
325	SLU 41	0.01	-10.21	53.15	0.4011	0.0007	0
325	SLU 42	0.01	-10.21	53.14	0.4011	0.0007	0
325	SLU 43	0	-8.88	48.04	0.348	0.0006	0
325	SLU 44	0	-8.88	48.02	0.348	0.0005	0
325	SLU 45	0	-9.27	49.24	0.3641	0.0006	0
325	SLU 46	0	-9.27	49.23	0.3642	0.0006	0
325	SLU 47	0	-9.2	48.75	0.3619	0.0006	0
325	SLU 48	0	-9.59	49.97	0.3781	0.0006	0
325	SLU 49	0	-9.59	49.95	0.3781	0.0006	0
325	SLU 50	0	-9.52	49.5	0.3758	0.0006	0
325	SLU 51	0	-9.53	49.49	0.3758	0.0006	0
325	SLU 52	0.01	-9.99	53.89	0.3911	0.0006	0
325	SLU 53	0.01	-10.38	55.1	0.4072	0.0007	0
325	SLU 54	0.01	-10.38	55.09	0.4073	0.0007	0
325	SLU 55	0.01	-10.31	54.61	0.405	0.0007	0
325	SLU 56	0.01	-10.7	55.83	0.4212	0.0007	0
325	SLU 57	0.01	-10.7	55.81	0.4212	0.0007	0
325	SLU 58	0.01	-10.63	55.36	0.4189	0.0007	0
325	SLU 59	0.01	-10.63	55.35	0.4189	0.0007	0
325	SLU 60	0.01	-10.47	56.42	0.4095	0.0007	0
325	SLU 61	0.01	-10.47	56.41	0.4096	0.0007	0
325	SLU 62	0.01	-10.79	57.15	0.4235	0.0007	0
325	SLU 63	0.01	-10.79	57.13	0.4235	0.0007	0
325	SLU 64	0.01	-10.05	53.66	0.3938	0.0006	0
325	SLU 65	0.01	-10.05	53.64	0.3938	0.0006	0
325	SLU 66	0.01	-10.43	54.85	0.41	0.0007	0
325	SLU 67	0.01	-10.43	54.84	0.41	0.0007	0
325	SLU 68	0.01	-10.37	54.36	0.4077	0.0007	0
325	SLU 69	0.01	-10.75	55.58	0.4239	0.0007	0
325	SLU 70	0.01	-10.75	55.56	0.4239	0.0007	0
325	SLU 71	0.01	-10.69	55.11	0.4216	0.0007	0
325	SLU 72	0.01	-10.69	55.1	0.4216	0.0007	0
325	SLU 73	0.01	-11.15	59.5	0.4369	0.0007	0
325	SLU 74	0.01	-11.54	60.71	0.4531	0.0008	0
325	SLU 75	0.01	-11.54	60.7	0.4531	0.0008	0
325	SLU 76	0.01	-11.48	60.22	0.4508	0.0007	0
325	SLU 77	0.01	-11.86	61.44	0.467	0.0008	0
325	SLU 78	0.01	-11.86	61.43	0.467	0.0008	0
325	SLU 79	0.01	-11.8	60.97	0.4647	0.0008	0
325	SLU 80	0.01	-11.8	60.96	0.4647	0.0008	0
325	SLU 81	0.01	-11.63	62.03	0.4554	0.0008	0
325	SLU 82	0.01	-11.63	62.02	0.4554	0.0007	0
325	SLU 83	0.01	-11.95	62.76	0.4693	0.0008	0
325	SLU 84	0.01	-11.95	62.75	0.4693	0.0008	0
325	SLE RA 1	0	-7.47	40.04	0.2928	0.0005	0
325	SLE RA 2	0	-7.47	40.03	0.2929	0.0005	0
325	SLE RA 3	0	-7.73	40.84	0.3036	0.0005	0
325	SLE RA 4	0	-7.73	40.83	0.3036	0.0005	0
325	SLE RA 5	0	-7.69	40.51	0.3021	0.0005	0
325	SLE RA 6	0	-7.94	41.32	0.3129	0.0005	0
325	SLE RA 7	0	-7.94	41.31	0.3129	0.0005	0
325	SLE RA 8	0	-7.9	41.01	0.3114	0.0005	0
325	SLE RA 9	0	-7.9	41	0.3114	0.0005	0
325	SLE RA 10	0	-8.21	43.94	0.3216	0.0005	0
325	SLE RA 11	0	-8.47	44.74	0.3324	0.0006	0
325	SLE RA 12	0	-8.47	44.74	0.3324	0.0005	0
325	SLE RA 13	0	-8.43	44.42	0.3309	0.0005	0
325	SLE RA 14	0	-8.68	45.23	0.3416	0.0006	0
325	SLE RA 15	0	-8.68	45.22	0.3416	0.0006	0
325	SLE RA 16	0	-8.64	44.92	0.3401	0.0006	0
325	SLE RA 17	0	-8.64	44.91	0.3401	0.0006	0
325	SLE RA 18	0	-8.53	45.62	0.3339	0.0006	0
325	SLE RA 19	0	-8.53	45.62	0.3339	0.0005	0
325	SLE RA 20	0	-8.74	46.11	0.3432	0.0006	0
325	SLE RA 21	0	-8.74	46.1	0.3432	0.0006	0
325	SLE FR 1	0	-7.47	40.04	0.2928	0.0005	0
325	SLE FR 2	0	-7.47	40.04	0.2928	0.0005	0
325	SLE FR 3	0	-7.56	40.23	0.2965	0.0005	0
325	SLE FR 4	0	-7.79	41.71	0.3052	0.0005	0
325	SLE FR 5	0	-7.87	41.91	0.3089	0.0005	0
325	SLE FR 6	0	-8	42.83	0.3134	0.0005	0
325	SLE QP 1	0	-7.47	40.04	0.2928	0.0005	0
325	SLE QP 2	0	-7.79	41.72	0.3052	0.0005	0
325	SLD 1	0.03	-7.06	40.82	0.2757	-0.0035	0
325	SLD 2	0.03	-7.06	40.82	0.2757	-0.0035	0
325	SLD 3	0.01	-10.87	45.54	0.4308	-0.0148	0
325	SLD 4	0.01	-10.87	45.54	0.4308	-0.0148	0
325	SLD 5	0.04	-1.78	34.29	0.061	0.0166	0
325	SLD 6	0.04	-1.78	34.29	0.061	0.0166	0
325	SLD 7	-0.02	-14.51	50.02	0.5782	-0.0214	0
325	SLD 8	-0.02	-14.51	50.02	0.5782	-0.0214	0
325	SLD 9	0.03	-1.07	33.41	0.0321	0.0223	0
325	SLD 10	0.03	-1.07	33.41	0.0321	0.0223	0
325	SLD 11	-0.03	-13.8	49.14	0.5493	-0.0156	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
325	SLD 12	-0.03	-13.8	49.14	0.5493	-0.0156	0
325	SLD 13	0	-4.7	37.89	0.1795	0.0158	0
325	SLD 14	0	-4.7	37.89	0.1795	0.0158	0
325	SLD 15	-0.02	-8.52	42.61	0.3346	0.0044	0
325	SLD 16	-0.02	-8.52	42.61	0.3346	0.0044	0
325	SLV 1	0.07	-6.05	39.57	0.235	-0.0099	0
325	SLV 2	0.07	-6.05	39.57	0.235	-0.0099	0
325	SLV 3	0.03	-15.06	50.74	0.6014	-0.0377	-0.0001
325	SLV 4	0.03	-15.06	50.74	0.6014	-0.0377	-0.0001
325	SLV 5	0.1	6.41	24.13	-0.2715	0.0395	0
325	SLV 6	0.1	6.41	24.13	-0.2715	0.0395	0
325	SLV 7	-0.06	-23.64	61.36	0.9496	-0.0531	-0.0001
325	SLV 8	-0.06	-23.64	61.36	0.9496	-0.0531	-0.0001
325	SLV 9	0.07	8.07	22.07	-0.3393	0.0541	0.0001
325	SLV 10	0.07	8.07	22.07	-0.3393	0.0541	0.0001
325	SLV 11	-0.09	-21.98	59.3	0.8818	-0.0385	-0.0001
325	SLV 12	-0.09	-21.98	59.3	0.8818	-0.0385	-0.0001
325	SLV 13	-0.02	-0.52	32.69	0.0089	0.0387	0
325	SLV 14	-0.02	-0.52	32.69	0.0089	0.0387	0
325	SLV 15	-0.07	-9.53	43.86	0.3753	0.0109	0
325	SLV 16	-0.07	-9.53	43.86	0.3753	0.0109	0
326	SLU 1	0.01	-4.39	65.77	0.2073	0.0027	0.0001
326	SLU 2	0.01	-4.28	65.2	0.2031	0.0025	0.0001
326	SLU 3	0.01	-4.66	69.52	0.2202	0.0028	0.0001
326	SLU 4	0.01	-4.59	69.19	0.2178	0.0027	0.0001
326	SLU 5	0.01	-4.51	68.45	0.214	0.0026	0.0001
326	SLU 6	0.01	-4.88	72.77	0.2311	0.003	0.0001
326	SLU 7	0.01	-4.82	72.44	0.2287	0.0029	0.0001
326	SLU 8	0.01	-4.84	72.27	0.2291	0.003	0.0001
326	SLU 9	0.01	-4.77	71.93	0.2266	0.0028	0.0001
326	SLU 10	0.01	-5.12	75.52	0.2419	0.0028	0.0001
326	SLU 11	0.01	-5.5	79.84	0.259	0.0032	0.0001
326	SLU 12	0.01	-5.44	79.5	0.2565	0.003	0.0001
326	SLU 13	0.01	-5.35	78.77	0.2528	0.003	0.0001
326	SLU 14	0.01	-5.72	83.09	0.2699	0.0033	0.0001
326	SLU 15	0.01	-5.66	82.75	0.2674	0.0032	0.0001
326	SLU 16	0.01	-5.68	82.58	0.2678	0.0033	0.0001
326	SLU 17	0.01	-5.62	82.25	0.2654	0.0032	0.0001
326	SLU 18	0.01	-5.59	80.51	0.2627	0.0032	0.0001
326	SLU 19	0.01	-5.53	80.17	0.2602	0.003	0.0001
326	SLU 20	0.01	-5.82	83.76	0.2736	0.0033	0.0001
326	SLU 21	0.01	-5.75	83.42	0.2711	0.0032	0.0001
326	SLU 22	0.01	-5.24	76.5	0.2467	0.0031	0.0001
326	SLU 23	0.01	-5.13	75.93	0.2425	0.0029	0.0001
326	SLU 24	0.01	-5.51	80.26	0.2596	0.0032	0.0001
326	SLU 25	0.01	-5.44	79.92	0.2572	0.0031	0.0001
326	SLU 26	0.01	-5.36	79.19	0.2534	0.003	0.0001
326	SLU 27	0.01	-5.73	83.51	0.2705	0.0034	0.0001
326	SLU 28	0.01	-5.67	83.17	0.2681	0.0032	0.0001
326	SLU 29	0.01	-5.69	83	0.2685	0.0034	0.0001
326	SLU 30	0.01	-5.63	82.66	0.266	0.0032	0.0001
326	SLU 31	0.01	-5.97	86.25	0.2813	0.0032	0.0001
326	SLU 32	0.01	-6.35	90.58	0.2984	0.0036	0.0001
326	SLU 33	0.01	-6.29	90.24	0.2959	0.0034	0.0001
326	SLU 34	0.01	-6.2	89.5	0.2922	0.0034	0.0001
326	SLU 35	0.01	-6.58	93.83	0.3093	0.0037	0.0001
326	SLU 36	0.01	-6.51	93.49	0.3068	0.0036	0.0001
326	SLU 37	0.01	-6.53	93.32	0.3072	0.0037	0.0001
326	SLU 38	0.01	-6.47	92.98	0.3048	0.0036	0.0001
326	SLU 39	0.01	-6.44	91.24	0.3021	0.0036	0.0001
326	SLU 40	0.01	-6.38	90.9	0.2996	0.0034	0.0001
326	SLU 41	0.01	-6.67	94.49	0.313	0.0037	0.0001
326	SLU 42	0.01	-6.6	94.15	0.3105	0.0036	0.0001
326	SLU 43	0.01	-5.41	81.81	0.2559	0.0033	0.0001
326	SLU 44	0.01	-5.31	81.25	0.2518	0.0032	0.0001
326	SLU 45	0.01	-5.68	85.57	0.2689	0.0035	0.0001
326	SLU 46	0.01	-5.62	85.23	0.2664	0.0034	0.0001
326	SLU 47	0.01	-5.53	84.5	0.2627	0.0033	0.0001
326	SLU 48	0.01	-5.91	88.82	0.2798	0.0036	0.0001
326	SLU 49	0.01	-5.84	88.49	0.2773	0.0035	0.0001
326	SLU 50	0.01	-5.86	88.32	0.2777	0.0036	0.0001
326	SLU 51	0.01	-5.8	87.98	0.2753	0.0035	0.0001
326	SLU 52	0.01	-6.15	91.57	0.2906	0.0035	0.0001
326	SLU 53	0.01	-6.52	95.89	0.3077	0.0038	0.0001
326	SLU 54	0.01	-6.46	95.55	0.3052	0.0037	0.0001
326	SLU 55	0.01	-6.37	94.82	0.3015	0.0036	0.0001
326	SLU 56	0.02	-6.75	99.14	0.3186	0.004	0.0002
326	SLU 57	0.02	-6.69	98.8	0.3161	0.0039	0.0002
326	SLU 58	0.02	-6.7	98.63	0.3165	0.004	0.0002
326	SLU 59	0.02	-6.64	98.29	0.314	0.0039	0.0001
326	SLU 60	0.01	-6.61	96.55	0.3113	0.0038	0.0002
326	SLU 61	0.01	-6.55	96.22	0.3088	0.0037	0.0001
326	SLU 62	0.02	-6.84	99.81	0.3222	0.004	0.0002
326	SLU 63	0.02	-6.78	99.47	0.3198	0.0039	0.0002
326	SLU 64	0.01	-6.26	92.55	0.2953	0.0037	0.0001
326	SLU 65	0.01	-6.16	91.98	0.2912	0.0035	0.0001
326	SLU 66	0.02	-6.53	96.31	0.3083	0.0039	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
326	SLU 67	0.01	-6.47	95.97	0.3058	0.0038	0.0001
326	SLU 68	0.01	-6.38	95.23	0.3021	0.0037	0.0001
326	SLU 69	0.02	-6.76	99.56	0.3192	0.004	0.0002
326	SLU 70	0.02	-6.69	99.22	0.3167	0.0039	0.0002
326	SLU 71	0.02	-6.71	99.05	0.3171	0.004	0.0002
326	SLU 72	0.02	-6.65	98.71	0.3147	0.0039	0.0002
326	SLU 73	0.02	-7	102.3	0.33	0.0039	0.0002
326	SLU 74	0.02	-7.37	106.63	0.3471	0.0042	0.0002
326	SLU 75	0.02	-7.31	106.29	0.3446	0.0041	0.0002
326	SLU 76	0.02	-7.22	105.55	0.3409	0.004	0.0002
326	SLU 77	0.02	-7.6	109.88	0.358	0.0044	0.0002
326	SLU 78	0.02	-7.54	109.54	0.3555	0.0043	0.0002
326	SLU 79	0.02	-7.56	109.37	0.3559	0.0044	0.0002
326	SLU 80	0.02	-7.49	109.03	0.3534	0.0043	0.0002
326	SLU 81	0.02	-7.46	107.29	0.3507	0.0042	0.0002
326	SLU 82	0.02	-7.4	106.95	0.3482	0.0041	0.0002
326	SLU 83	0.02	-7.69	110.54	0.3616	0.0044	0.0002
326	SLU 84	0.02	-7.63	110.2	0.3592	0.0043	0.0002
326	SLE RA 1	0.01	-4.63	68.83	0.2185	0.0028	0.0001
326	SLE RA 2	0.01	-4.56	68.46	0.2158	0.0027	0.0001
326	SLE RA 3	0.01	-4.81	71.34	0.2272	0.0029	0.0001
326	SLE RA 4	0.01	-4.77	71.11	0.2255	0.0028	0.0001
326	SLE RA 5	0.01	-4.71	70.62	0.223	0.0028	0.0001
326	SLE RA 6	0.01	-4.96	73.51	0.2344	0.003	0.0001
326	SLE RA 7	0.01	-4.92	73.28	0.2328	0.0029	0.0001
326	SLE RA 8	0.01	-4.93	73.17	0.2331	0.003	0.0001
326	SLE RA 9	0.01	-4.89	72.94	0.2314	0.0029	0.0001
326	SLE RA 10	0.01	-5.12	75.33	0.2416	0.0029	0.0001
326	SLE RA 11	0.01	-5.37	78.22	0.253	0.0031	0.0001
326	SLE RA 12	0.01	-5.33	77.99	0.2514	0.003	0.0001
326	SLE RA 13	0.01	-5.27	77.5	0.2489	0.003	0.0001
326	SLE RA 14	0.01	-5.52	80.38	0.2603	0.0032	0.0001
326	SLE RA 15	0.01	-5.48	80.16	0.2586	0.0031	0.0001
326	SLE RA 16	0.01	-5.49	80.04	0.2589	0.0032	0.0001
326	SLE RA 17	0.01	-5.45	79.82	0.2573	0.0031	0.0001
326	SLE RA 18	0.01	-5.43	78.66	0.2555	0.0031	0.0001
326	SLE RA 19	0.01	-5.39	78.43	0.2538	0.003	0.0001
326	SLE RA 20	0.01	-5.58	80.83	0.2627	0.0032	0.0001
326	SLE RA 21	0.01	-5.54	80.6	0.2611	0.0031	0.0001
326	SLE FR 1	0.01	-4.63	68.83	0.2185	0.0028	0.0001
326	SLE FR 2	0.01	-4.62	68.76	0.218	0.0028	0.0001
326	SLE FR 3	0.01	-4.69	69.7	0.2214	0.0028	0.0001
326	SLE FR 4	0.01	-4.86	71.7	0.229	0.0029	0.0001
326	SLE FR 5	0.01	-4.93	72.65	0.2325	0.0029	0.0001
326	SLE FR 6	0.01	-5.03	73.75	0.237	0.003	0.0001
326	SLE QP 1	0.01	-4.63	68.83	0.2185	0.0028	0.0001
326	SLE QP 2	0.01	-4.87	71.78	0.2296	0.0029	0.0001
326	SLD 1	-0.09	-2.31	72.9	0.1265	-0.0527	-0.0017
326	SLD 2	-0.09	-2.31	72.9	0.1265	-0.0527	-0.0017
326	SLD 3	-0.08	-5.42	81.44	0.2486	-0.0471	-0.0014
326	SLD 4	-0.08	-5.42	81.44	0.2486	-0.0471	-0.0014
326	SLD 5	-0.04	0.6	59.17	0.0135	-0.0223	-0.0008
326	SLD 6	-0.04	0.6	59.17	0.0135	-0.0223	-0.0008
326	SLD 7	0.01	-9.74	87.62	0.4205	-0.0036	0.0001
326	SLD 8	0.01	-9.74	87.62	0.4205	-0.0036	0.0001
326	SLD 9	0.01	0	55.94	0.0387	0.0094	0.0002
326	SLD 10	0.01	0	55.94	0.0387	0.0094	0.0002
326	SLD 11	0.07	-10.34	84.39	0.4457	0.028	0.0011
326	SLD 12	0.07	-10.34	84.39	0.4457	0.028	0.0011
326	SLD 13	0.1	-4.32	62.12	0.2106	0.0529	0.0016
326	SLD 14	0.1	-4.32	62.12	0.2106	0.0529	0.0016
326	SLD 15	0.11	-7.43	70.66	0.3327	0.0585	0.0019
326	SLD 16	0.11	-7.43	70.66	0.3327	0.0585	0.0019
326	SLV 1	-0.24	1.2	74.3	-0.0148	-0.1279	-0.0043
326	SLV 2	-0.24	1.2	74.3	-0.0148	-0.1279	-0.0043
326	SLV 3	-0.2	-6.12	94.57	0.2734	-0.1141	-0.0036
326	SLV 4	-0.2	-6.12	94.57	0.2734	-0.1141	-0.0036
326	SLV 5	-0.13	8.05	41.8	-0.2807	-0.0574	-0.0022
326	SLV 6	-0.13	8.05	41.8	-0.2807	-0.0574	-0.0022
326	SLV 7	0.01	-16.34	109.36	0.6798	-0.0112	0
326	SLV 8	0.01	-16.34	109.36	0.6798	-0.0112	0
326	SLV 9	0.01	6.6	34.2	-0.2206	0.017	0.0002
326	SLV 10	0.01	6.6	34.2	-0.2206	0.017	0.0002
326	SLV 11	0.15	-17.79	101.76	0.7399	0.0631	0.0025
326	SLV 12	0.15	-17.79	101.76	0.7399	0.0631	0.0025
326	SLV 13	0.22	-3.62	48.99	0.1858	0.1199	0.0038
326	SLV 14	0.22	-3.62	48.99	0.1858	0.1199	0.0038
326	SLV 15	0.26	-10.94	69.26	0.474	0.1337	0.0045
326	SLV 16	0.26	-10.94	69.26	0.474	0.1337	0.0045
328	SLU 1	-5.97	-11.09	60.9	-5.3378	-1.3383	-1.3501
328	SLU 2	-5.7	-10.08	56.15	-5.0063	-1.1347	-1.2902
328	SLU 3	-6.03	-11.28	61.72	-5.3977	-1.1392	-1.364
328	SLU 4	-5.87	-10.67	58.87	-5.1988	-1.1371	-1.3281
328	SLU 5	-5.69	-10.12	56.16	-4.9993	-1.1339	-1.2876
328	SLU 6	-6.02	-11.31	61.73	-5.3907	-1.1384	-1.3614
328	SLU 7	-5.86	-10.71	58.87	-5.1918	-1.1363	-1.3255
328	SLU 8	-5.94	-11.15	60.92	-5.3238	-1.1367	-1.3449



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
328	SLU 9	-5.78	-10.55	58.07	-5.1249	-0.1345	-1.309
328	SLU 10	-6.61	-11.47	63.97	-5.7275	-0.1581	-1.4942
328	SLU 11	-6.93	-12.66	69.54	-6.119	-0.1627	-1.5679
328	SLU 12	-6.77	-12.05	66.68	-5.9201	-0.1605	-1.532
328	SLU 13	-6.59	-11.5	63.98	-5.7205	-0.1573	-1.4916
328	SLU 14	-6.92	-12.69	69.55	-6.112	-0.1619	-1.5653
328	SLU 15	-6.76	-12.09	66.69	-5.9131	-0.1597	-1.5294
328	SLU 16	-6.85	-12.54	68.74	-6.0451	-0.1601	-1.5488
328	SLU 17	-6.69	-11.93	65.89	-5.8462	-0.158	-1.5129
328	SLU 18	-7.26	-13.06	72.07	-6.3682	-0.1717	-1.6414
328	SLU 19	-7.1	-12.46	69.22	-6.1692	-0.1696	-1.6055
328	SLU 20	-7.25	-13.09	72.08	-6.3612	-0.171	-1.6388
328	SLU 21	-7.09	-12.49	69.23	-6.1623	-0.1688	-1.6029
328	SLU 22	-6.74	-12.38	67.96	-5.9709	-0.1576	-1.5241
328	SLU 23	-6.47	-11.37	63.21	-5.6393	-0.1539	-1.4642
328	SLU 24	-6.8	-12.56	68.78	-6.0308	-0.1585	-1.538
328	SLU 25	-6.64	-11.96	65.93	-5.8319	-0.1563	-1.5021
328	SLU 26	-6.46	-11.41	63.22	-5.6324	-0.1532	-1.4616
328	SLU 27	-6.79	-12.6	68.79	-6.0238	-0.1577	-1.5354
328	SLU 28	-6.63	-12	65.93	-5.8249	-0.1556	-1.4995
328	SLU 29	-6.72	-12.44	67.98	-5.9569	-0.156	-1.5189
328	SLU 30	-6.55	-11.84	65.13	-5.758	-0.1538	-1.483
328	SLU 31	-7.38	-12.76	71.03	-6.3606	-0.1774	-1.6682
328	SLU 32	-7.71	-13.95	76.6	-6.7521	-0.1819	-1.7419
328	SLU 33	-7.55	-13.34	73.74	-6.5531	-0.1798	-1.706
328	SLU 34	-7.37	-12.79	71.04	-6.3536	-0.1766	-1.6656
328	SLU 35	-7.69	-13.98	76.61	-6.7451	-0.1812	-1.7393
328	SLU 36	-7.53	-13.38	73.75	-6.5462	-0.179	-1.7034
328	SLU 37	-7.62	-13.82	75.8	-6.6782	-0.1794	-1.7228
328	SLU 38	-7.46	-13.22	72.95	-6.4793	-0.1773	-1.6869
328	SLU 39	-8.03	-14.35	79.13	-7.0013	-0.191	-1.8154
328	SLU 40	-7.87	-13.75	76.28	-6.8023	-0.1889	-1.7795
328	SLU 41	-8.02	-14.38	79.14	-6.9943	-0.1903	-1.8128
328	SLU 42	-7.86	-13.78	76.29	-6.7953	-0.1881	-1.7769
328	SLU 43	-7.49	-13.97	76.75	-6.7221	-0.1731	-1.6954
328	SLU 44	-7.23	-12.97	72	-6.3905	-0.1695	-1.6356
328	SLU 45	-7.55	-14.16	77.57	-6.782	-0.1741	-1.7093
328	SLU 46	-7.39	-13.56	74.72	-6.5831	-0.1719	-1.6734
328	SLU 47	-7.21	-13	72.01	-6.3836	-0.1687	-1.633
328	SLU 48	-7.54	-14.19	77.58	-6.775	-0.1733	-1.7068
328	SLU 49	-7.38	-13.59	74.73	-6.5761	-0.1711	-1.6709
328	SLU 50	-7.47	-14.04	76.77	-6.7081	-0.1716	-1.6902
328	SLU 51	-7.31	-13.44	73.92	-6.5092	-0.1694	-1.6543
328	SLU 52	-8.13	-14.35	79.82	-7.1118	-0.1929	-1.8395
328	SLU 53	-8.46	-15.54	85.39	-7.5033	-0.1975	-1.9133
328	SLU 54	-8.3	-14.94	82.54	-7.3043	-0.1953	-1.8774
328	SLU 55	-8.12	-14.38	79.83	-7.1048	-0.1922	-1.8369
328	SLU 56	-8.45	-15.57	85.4	-7.4963	-0.1967	-1.9107
328	SLU 57	-8.29	-14.97	82.54	-7.2974	-0.1946	-1.8748
328	SLU 58	-8.38	-15.42	84.59	-7.4294	-0.195	-1.8942
328	SLU 59	-8.21	-14.82	81.74	-7.2304	-0.1928	-1.8583
328	SLU 60	-8.79	-15.95	87.92	-7.7524	-0.2066	-1.9868
328	SLU 61	-8.63	-15.34	85.07	-7.5535	-0.2044	-1.9509
328	SLU 62	-8.78	-15.98	87.93	-7.7455	-0.2058	-1.9842
328	SLU 63	-8.62	-15.38	85.08	-7.5465	-0.2037	-1.9483
328	SLU 64	-8.26	-15.26	83.81	-7.3552	-0.1924	-1.8694
328	SLU 65	-8	-14.26	79.06	-7.0236	-0.1888	-1.8096
328	SLU 66	-8.33	-15.45	84.63	-7.4151	-0.1934	-1.8833
328	SLU 67	-8.17	-14.85	81.78	-7.2162	-0.1912	-1.8474
328	SLU 68	-7.99	-14.29	79.07	-7.0166	-0.188	-1.807
328	SLU 69	-8.31	-15.48	84.64	-7.4081	-0.1926	-1.8807
328	SLU 70	-8.15	-14.88	81.79	-7.2092	-0.1904	-1.8448
328	SLU 71	-8.24	-15.33	83.83	-7.3412	-0.1909	-1.8642
328	SLU 72	-8.08	-14.73	80.98	-7.1423	-0.1887	-1.8283
328	SLU 73	-8.9	-15.64	86.88	-7.7449	-0.2122	-2.0135
328	SLU 74	-9.23	-16.83	92.45	-8.1363	-0.2168	-2.0873
328	SLU 75	-9.07	-16.23	89.6	-7.9374	-0.2146	-2.0514
328	SLU 76	-8.89	-15.67	86.89	-7.7379	-0.2115	-2.0109
328	SLU 77	-9.22	-16.86	92.46	-8.1294	-0.216	-2.0847
328	SLU 78	-9.06	-16.26	89.6	-7.9304	-0.2139	-2.0488
328	SLU 79	-9.15	-16.71	91.65	-8.0624	-0.2143	-2.0682
328	SLU 80	-8.99	-16.11	88.8	-7.8635	-0.2121	-2.0323
328	SLU 81	-9.56	-17.24	94.98	-8.3855	-0.2259	-2.1608
328	SLU 82	-9.4	-16.63	92.13	-8.1866	-0.2237	-2.1249
328	SLU 83	-9.55	-17.27	94.99	-8.3785	-0.2251	-2.1582
328	SLU 84	-9.39	-16.67	92.14	-8.1796	-0.2229	-2.1223
328	SLE RA 1	-6.19	-11.46	62.92	-5.5187	-0.1438	-1.3998
328	SLE RA 2	-6.01	-10.79	59.75	-5.2977	-0.1414	-1.3599
328	SLE RA 3	-6.23	-11.58	63.46	-5.5586	-0.1444	-1.4091
328	SLE RA 4	-6.12	-11.18	61.56	-5.426	-0.143	-1.3851
328	SLE RA 5	-6	-10.81	59.76	-5.293	-0.1409	-1.3582
328	SLE RA 6	-6.22	-11.6	63.47	-5.554	-0.1439	-1.4073
328	SLE RA 7	-6.11	-11.2	61.57	-5.4214	-0.1425	-1.3834
328	SLE RA 8	-6.17	-11.5	62.93	-5.5094	-0.1428	-1.3963
328	SLE RA 9	-6.07	-11.1	61.03	-5.3767	-0.1413	-1.3724
328	SLE RA 10	-6.61	-11.71	64.97	-5.7785	-0.157	-1.4959
328	SLE RA 11	-6.83	-12.5	68.68	-6.0395	-0.16	-1.545



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
328	SLE RA 12	-6.73	-12.1	66.78	-5.9068	-0.1586	-1.5211
328	SLE RA 13	-6.61	-11.73	64.97	-5.7738	-0.1565	-1.4941
328	SLE RA 14	-6.82	-12.52	68.68	-6.0348	-0.1595	-1.5433
328	SLE RA 15	-6.72	-12.12	66.78	-5.9022	-0.1581	-1.5194
328	SLE RA 16	-6.78	-12.42	68.15	-5.9902	-0.1584	-1.5323
328	SLE RA 17	-6.67	-12.02	66.24	-5.8576	-0.1569	-1.5083
328	SLE RA 18	-7.05	-12.77	70.37	-6.2056	-0.1661	-1.594
328	SLE RA 19	-6.94	-12.37	68.47	-6.073	-0.1647	-1.5701
328	SLE RA 20	-7.04	-12.79	70.37	-6.2009	-0.1656	-1.5923
328	SLE RA 21	-6.94	-12.39	68.47	-6.0683	-0.1641	-1.5683
328	SLE FR 1	-6.19	-11.46	62.92	-5.5187	-0.1438	-1.3998
328	SLE FR 2	-6.15	-11.32	62.29	-5.4745	-0.1433	-1.3918
328	SLE FR 3	-6.18	-11.47	62.92	-5.5168	-0.1436	-1.3991
328	SLE FR 4	-6.41	-11.72	64.52	-5.6805	-0.15	-1.4501
328	SLE FR 5	-6.44	-11.86	65.16	-5.7229	-0.1503	-1.4574
328	SLE FR 6	-6.62	-12.11	66.64	-5.8621	-0.1549	-1.4969
328	SLE QP 1	-6.19	-11.46	62.92	-5.5187	-0.1438	-1.3998
328	SLE QP 2	-6.45	-11.85	65.16	-5.7247	-0.1505	-1.458
328	SLD 1	-2	-7.15	36.21	-2.7585	-0.0055	-0.443
328	SLD 2	-2	-7.15	36.21	-2.7585	-0.0055	-0.443
328	SLD 3	-3.09	-9.95	49.07	-3.7439	-0.0347	-0.6949
328	SLD 4	-3.09	-9.95	49.07	-3.7439	-0.0347	-0.6949
328	SLD 5	-3.45	-6.2	36.96	-3.3404	-0.0626	-0.7714
328	SLD 6	-3.45	-6.2	36.96	-3.3404	-0.0626	-0.7714
328	SLD 7	-7.1	-15.52	79.84	-6.625	-0.1601	-1.6112
328	SLD 8	-7.1	-15.52	79.84	-6.625	-0.1601	-1.6112
328	SLD 9	-5.79	-8.18	50.47	-4.8245	-0.1408	-1.3049
328	SLD 10	-5.79	-8.18	50.47	-4.8245	-0.1408	-1.3049
328	SLD 11	-9.45	-17.5	93.35	-8.1091	-0.2384	-2.1447
328	SLD 12	-9.45	-17.5	93.35	-8.1091	-0.2384	-2.1447
328	SLD 13	-9.8	-13.75	81.24	-7.7056	-0.2662	-2.2212
328	SLD 14	-9.8	-13.75	81.24	-7.7056	-0.2662	-2.2212
328	SLD 15	-10.9	-16.55	94.1	-8.6909	-0.2955	-2.4731
328	SLD 16	-10.9	-16.55	94.1	-8.6909	-0.2955	-2.4731
328	SLV 1	3.98	-0.84	-2.71	1.2296	0.1891	0.921
328	SLV 2	3.98	-0.84	-2.71	1.2296	0.1891	0.921
328	SLV 3	1.39	-7.4	27.55	-1.0941	0.1197	0.3265
328	SLV 4	1.39	-7.4	27.55	-1.0941	0.1197	0.3265
328	SLV 5	0.61	1.4	-1.08	-0.1141	0.0566	0.1574
328	SLV 6	0.61	1.4	-1.08	-0.1141	0.0566	0.1574
328	SLV 7	-8.03	-20.47	99.75	-7.8599	-0.1746	-1.8244
328	SLV 8	-8.03	-20.47	99.75	-7.8599	-0.1746	-1.8244
328	SLV 9	-4.87	-3.23	30.56	-3.5896	-0.1263	-1.0917
328	SLV 10	-4.87	-3.23	30.56	-3.5896	-0.1263	-1.0917
328	SLV 11	-13.5	-25.11	131.4	-11.3354	-0.3576	-3.0735
328	SLV 12	-13.5	-25.11	131.4	-11.3354	-0.3576	-3.0735
328	SLV 13	-14.28	-16.3	102.76	-10.3554	-0.4207	-3.2426
328	SLV 14	-14.28	-16.3	102.76	-10.3554	-0.4207	-3.2426
328	SLV 15	-16.87	-22.86	133.02	-12.6791	-0.49	-3.8371
328	SLV 16	-16.87	-22.86	133.02	-12.6791	-0.49	-3.8371
329	SLU 1	0.19	-0.03	35.53	-0.0309	0.0186	0.0002
329	SLU 2	0.19	-0.03	35.52	-0.0312	0.0185	0.0002
329	SLU 3	0.2	-0.03	36.58	-0.0322	0.0194	0.0002
329	SLU 4	0.2	-0.03	36.57	-0.0324	0.0194	0.0002
329	SLU 5	0.2	-0.03	36.17	-0.0324	0.019	0.0002
329	SLU 6	0.21	-0.03	37.23	-0.0333	0.0199	0.0002
329	SLU 7	0.21	-0.03	37.23	-0.0335	0.0199	0.0002
329	SLU 8	0.2	-0.03	36.83	-0.0331	0.0196	0.0002
329	SLU 9	0.2	-0.03	36.83	-0.0334	0.0196	0.0002
329	SLU 10	0.22	-0.15	40.89	-0.0304	0.0213	0.0003
329	SLU 11	0.23	-0.15	41.94	-0.0313	0.0221	0.0003
329	SLU 12	0.23	-0.15	41.94	-0.0316	0.0221	0.0003
329	SLU 13	0.23	-0.14	41.54	-0.0315	0.0218	0.0003
329	SLU 14	0.23	-0.15	42.59	-0.0325	0.0226	0.0003
329	SLU 15	0.23	-0.15	42.59	-0.0327	0.0226	0.0003
329	SLU 16	0.23	-0.15	42.19	-0.0323	0.0224	0.0003
329	SLU 17	0.23	-0.15	42.19	-0.0325	0.0223	0.0003
329	SLU 18	0.23	-0.2	43.18	-0.0297	0.0225	0.0003
329	SLU 19	0.23	-0.2	43.18	-0.0299	0.0225	0.0003
329	SLU 20	0.24	-0.2	43.84	-0.0308	0.023	0.0003
329	SLU 21	0.24	-0.2	43.83	-0.031	0.023	0.0003
329	SLU 22	0.22	-0.13	40.64	-0.0309	0.0214	0.0003
329	SLU 23	0.22	-0.13	40.64	-0.0313	0.0213	0.0003
329	SLU 24	0.23	-0.13	41.69	-0.0322	0.0222	0.0003
329	SLU 25	0.23	-0.13	41.69	-0.0324	0.0221	0.0003
329	SLU 26	0.23	-0.13	41.29	-0.0324	0.0218	0.0003
329	SLU 27	0.23	-0.13	42.34	-0.0333	0.0227	0.0003
329	SLU 28	0.23	-0.13	42.34	-0.0336	0.0226	0.0003
329	SLU 29	0.23	-0.13	41.94	-0.0332	0.0224	0.0003
329	SLU 30	0.23	-0.13	41.94	-0.0334	0.0224	0.0003
329	SLU 31	0.25	-0.25	46	-0.0305	0.0241	0.0003
329	SLU 32	0.26	-0.25	47.05	-0.0314	0.0249	0.0003
329	SLU 33	0.26	-0.25	47.05	-0.0316	0.0249	0.0003
329	SLU 34	0.26	-0.25	46.65	-0.0316	0.0246	0.0003
329	SLU 35	0.26	-0.25	47.7	-0.0325	0.0254	0.0003
329	SLU 36	0.26	-0.25	47.7	-0.0327	0.0254	0.0003
329	SLU 37	0.26	-0.25	47.3	-0.0323	0.0251	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
329	SLU 38	0.26	-0.25	47.3	-0.0326	0.0251	0.0003
329	SLU 39	0.26	-0.3	48.3	-0.0297	0.0253	0.0003
329	SLU 40	0.26	-0.3	48.3	-0.0299	0.0253	0.0003
329	SLU 41	0.27	-0.3	48.95	-0.0308	0.0258	0.0003
329	SLU 42	0.27	-0.3	48.95	-0.0311	0.0258	0.0003
329	SLU 43	0.24	-0.01	44.43	-0.0401	0.0232	0.0003
329	SLU 44	0.24	0	44.43	-0.0405	0.0232	0.0003
329	SLU 45	0.25	-0.01	45.48	-0.0414	0.024	0.0003
329	SLU 46	0.25	0	45.48	-0.0416	0.024	0.0003
329	SLU 47	0.25	0	45.08	-0.0416	0.0237	0.0003
329	SLU 48	0.25	-0.01	46.13	-0.0425	0.0245	0.0003
329	SLU 49	0.25	0	46.13	-0.0428	0.0245	0.0003
329	SLU 50	0.25	-0.01	45.73	-0.0424	0.0242	0.0003
329	SLU 51	0.25	0	45.73	-0.0426	0.0242	0.0003
329	SLU 52	0.27	-0.12	49.79	-0.0396	0.0259	0.0003
329	SLU 53	0.28	-0.12	50.84	-0.0406	0.0268	0.0003
329	SLU 54	0.28	-0.12	50.84	-0.0408	0.0267	0.0003
329	SLU 55	0.27	-0.12	50.44	-0.0408	0.0264	0.0003
329	SLU 56	0.28	-0.12	51.49	-0.0417	0.0273	0.0003
329	SLU 57	0.28	-0.12	51.49	-0.0419	0.0272	0.0003
329	SLU 58	0.28	-0.12	51.09	-0.0415	0.027	0.0003
329	SLU 59	0.28	-0.12	51.09	-0.0418	0.0269	0.0003
329	SLU 60	0.28	-0.18	52.09	-0.0389	0.0272	0.0003
329	SLU 61	0.28	-0.17	52.09	-0.0391	0.0271	0.0003
329	SLU 62	0.29	-0.18	52.74	-0.04	0.0277	0.0003
329	SLU 63	0.29	-0.17	52.74	-0.0403	0.0276	0.0003
329	SLU 64	0.27	-0.11	49.54	-0.0402	0.026	0.0003
329	SLU 65	0.27	-0.1	49.54	-0.0405	0.026	0.0003
329	SLU 66	0.28	-0.11	50.59	-0.0415	0.0268	0.0003
329	SLU 67	0.28	-0.1	50.59	-0.0417	0.0268	0.0003
329	SLU 68	0.27	-0.1	50.19	-0.0417	0.0265	0.0003
329	SLU 69	0.28	-0.11	51.24	-0.0426	0.0273	0.0003
329	SLU 70	0.28	-0.1	51.24	-0.0428	0.0273	0.0003
329	SLU 71	0.28	-0.11	50.84	-0.0424	0.027	0.0003
329	SLU 72	0.28	-0.1	50.84	-0.0426	0.027	0.0003
329	SLU 73	0.3	-0.22	54.9	-0.0397	0.0287	0.0004
329	SLU 74	0.31	-0.23	55.95	-0.0406	0.0296	0.0004
329	SLU 75	0.31	-0.22	55.95	-0.0408	0.0295	0.0004
329	SLU 76	0.3	-0.22	55.55	-0.0408	0.0292	0.0004
329	SLU 77	0.31	-0.22	56.6	-0.0418	0.0301	0.0004
329	SLU 78	0.31	-0.22	56.6	-0.042	0.03	0.0004
329	SLU 79	0.31	-0.22	56.2	-0.0416	0.0298	0.0004
329	SLU 80	0.31	-0.22	56.2	-0.0418	0.0297	0.0004
329	SLU 81	0.31	-0.28	57.2	-0.039	0.03	0.0004
329	SLU 82	0.31	-0.27	57.2	-0.0392	0.0299	0.0004
329	SLU 83	0.32	-0.28	57.85	-0.0401	0.0304	0.0004
329	SLU 84	0.32	-0.27	57.85	-0.0403	0.0304	0.0004
329	SLE RA 1	0.2	-0.06	36.99	-0.0309	0.0194	0.0002
329	SLE RA 2	0.2	-0.06	36.99	-0.0311	0.0194	0.0002
329	SLE RA 3	0.21	-0.06	37.69	-0.0317	0.0199	0.0002
329	SLE RA 4	0.21	-0.06	37.69	-0.0319	0.0199	0.0002
329	SLE RA 5	0.2	-0.06	37.42	-0.0319	0.0197	0.0002
329	SLE RA 6	0.21	-0.06	38.12	-0.0325	0.0203	0.0003
329	SLE RA 7	0.21	-0.06	38.12	-0.0327	0.0202	0.0003
329	SLE RA 8	0.21	-0.06	37.85	-0.0324	0.0201	0.0002
329	SLE RA 9	0.21	-0.06	37.85	-0.0325	0.02	0.0002
329	SLE RA 10	0.22	-0.14	40.56	-0.0306	0.0212	0.0003
329	SLE RA 11	0.23	-0.14	41.26	-0.0312	0.0218	0.0003
329	SLE RA 12	0.23	-0.14	41.26	-0.0313	0.0217	0.0003
329	SLE RA 13	0.22	-0.14	40.99	-0.0313	0.0215	0.0003
329	SLE RA 14	0.23	-0.14	41.69	-0.0319	0.0221	0.0003
329	SLE RA 15	0.23	-0.14	41.69	-0.0321	0.0221	0.0003
329	SLE RA 16	0.23	-0.14	41.43	-0.0318	0.0219	0.0003
329	SLE RA 17	0.23	-0.14	41.43	-0.032	0.0219	0.0003
329	SLE RA 18	0.23	-0.17	42.09	-0.0301	0.022	0.0003
329	SLE RA 19	0.23	-0.17	42.09	-0.0302	0.022	0.0003
329	SLE RA 20	0.23	-0.17	42.53	-0.0308	0.0224	0.0003
329	SLE RA 21	0.23	-0.17	42.53	-0.031	0.0223	0.0003
329	SLE FR 1	0.2	-0.06	36.99	-0.0309	0.0194	0.0002
329	SLE FR 2	0.2	-0.06	36.99	-0.0309	0.0194	0.0002
329	SLE FR 3	0.2	-0.06	37.16	-0.0312	0.0195	0.0002
329	SLE FR 4	0.21	-0.09	38.52	-0.0307	0.0202	0.0003
329	SLE FR 5	0.21	-0.09	38.69	-0.0309	0.0203	0.0003
329	SLE FR 6	0.22	-0.12	39.54	-0.0305	0.0207	0.0003
329	SLE QP 1	0.2	-0.06	36.99	-0.0309	0.0194	0.0002
329	SLE QP 2	0.21	-0.1	38.52	-0.0306	0.0202	0.0003
329	SLD 1	0.24	2.86	34.13	-0.1801	0.029	0.0004
329	SLD 2	0.24	2.86	34.13	-0.1801	0.029	0.0004
329	SLD 3	0.29	1.01	36.51	-0.0593	0.0324	0.0003
329	SLD 4	0.29	1.01	36.51	-0.0593	0.0324	0.0003
329	SLD 5	0.15	3.6	33.6	-0.2587	0.0177	0.0004
329	SLD 6	0.15	3.6	33.6	-0.2587	0.0177	0.0004
329	SLD 7	0.3	-2.57	41.52	0.144	0.0289	0.0001
329	SLD 8	0.3	-2.57	41.52	0.144	0.0289	0.0001
329	SLD 9	0.12	2.38	35.52	-0.2053	0.0114	0.0004
329	SLD 10	0.12	2.38	35.52	-0.2053	0.0114	0.0004
329	SLD 11	0.27	-3.79	43.44	0.1974	0.0226	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
329	SLD 12	0.27	-3.79	43.44	0.1974	0.0226	0.0001
329	SLD 13	0.13	-1.2	40.53	-0.002	0.008	0.0002
329	SLD 14	0.13	-1.2	40.53	-0.002	0.008	0.0002
329	SLD 15	0.17	-3.05	42.9	0.1188	0.0114	0.0001
329	SLD 16	0.17	-3.05	42.9	0.1188	0.0114	0.0001
329	SLV 1	0.29	6.82	28.11	-0.3813	0.0407	0.0005
329	SLV 2	0.29	6.82	28.11	-0.3813	0.0407	0.0005
329	SLV 3	0.4	2.47	33.84	-0.0966	0.0488	0.0003
329	SLV 4	0.4	2.47	33.84	-0.0966	0.0488	0.0003
329	SLV 5	0.07	8.57	26.7	-0.5675	0.014	0.0007
329	SLV 6	0.07	8.57	26.7	-0.5675	0.014	0.0007
329	SLV 7	0.43	-5.92	45.81	0.3813	0.0411	-0.0001
329	SLV 8	0.43	-5.92	45.81	0.3813	0.0411	-0.0001
329	SLV 9	-0.01	5.72	31.23	-0.4425	-0.0007	0.0006
329	SLV 10	-0.01	5.72	31.23	-0.4425	-0.0007	0.0006
329	SLV 11	0.35	-8.76	50.33	0.5062	0.0263	-0.0002
329	SLV 12	0.35	-8.76	50.33	0.5062	0.0263	-0.0002
329	SLV 13	0.02	-2.66	43.19	0.0353	-0.0084	0.0002
329	SLV 14	0.02	-2.66	43.19	0.0353	-0.0084	0.0002
329	SLV 15	0.13	-7.01	48.93	0.32	-0.0003	0
329	SLV 16	0.13	-7.01	48.93	0.32	-0.0003	0
330	SLU 1	0	-11.95	37	0.7662	-0.0006	0
330	SLU 2	0	-11.92	36.92	0.7639	-0.0006	0
330	SLU 3	0	-12.72	38.46	0.8145	-0.0006	0
330	SLU 4	0	-12.7	38.41	0.8131	-0.0006	0
330	SLU 5	0	-12.6	38	0.8057	-0.0006	0
330	SLU 6	0	-13.4	39.53	0.8562	-0.0005	0
330	SLU 7	0	-13.38	39.49	0.8549	-0.0006	0
330	SLU 8	0	-13.31	39.15	0.8497	-0.0005	0
330	SLU 9	0	-13.29	39.1	0.8483	-0.0005	0
330	SLU 10	0	-13.83	42.56	0.8866	-0.0007	0
330	SLU 11	0	-14.63	44.09	0.9372	-0.0007	0
330	SLU 12	0	-14.61	44.05	0.9359	-0.0007	0
330	SLU 13	0	-14.51	43.63	0.9284	-0.0007	0
330	SLU 14	0	-15.31	45.17	0.979	-0.0007	0
330	SLU 15	0	-15.29	45.12	0.9776	-0.0007	0
330	SLU 16	0	-15.22	44.79	0.9724	-0.0006	0
330	SLU 17	0	-15.2	44.74	0.971	-0.0006	0
330	SLU 18	0	-14.68	45.05	0.9415	-0.0008	0
330	SLU 19	0	-14.66	45	0.9402	-0.0008	0
330	SLU 20	0	-15.36	46.13	0.9833	-0.0007	0
330	SLU 21	0	-15.34	46.08	0.9819	-0.0007	0
330	SLU 22	0	-13.88	42.34	0.8917	-0.0007	0
330	SLU 23	0	-13.85	42.26	0.8894	-0.0007	0
330	SLU 24	0	-14.66	43.8	0.94	-0.0007	0
330	SLU 25	0	-14.64	43.75	0.9386	-0.0007	0
330	SLU 26	0	-14.53	43.34	0.9311	-0.0007	0
330	SLU 27	0	-15.34	44.88	0.9817	-0.0006	0
330	SLU 28	0	-15.32	44.83	0.9803	-0.0006	0
330	SLU 29	0	-15.24	44.5	0.9752	-0.0006	0
330	SLU 30	0	-15.22	44.45	0.9738	-0.0006	0
330	SLU 31	0	-15.76	47.9	1.0121	-0.0008	0
330	SLU 32	0	-16.57	49.44	1.0627	-0.0008	0
330	SLU 33	0	-16.55	49.39	1.0613	-0.0008	0
330	SLU 34	0	-16.44	48.98	1.0539	-0.0008	0
330	SLU 35	0	-17.25	50.52	1.1044	-0.0007	0
330	SLU 36	0	-17.23	50.47	1.1031	-0.0008	0
330	SLU 37	0	-17.16	50.13	1.0979	-0.0007	0
330	SLU 38	0	-17.14	50.09	1.0965	-0.0007	0
330	SLU 39	0	-16.62	50.4	1.067	-0.0009	0
330	SLU 40	0	-16.6	50.35	1.0656	-0.0009	0
330	SLU 41	0	-17.29	51.47	1.1087	-0.0008	0
330	SLU 42	0	-17.28	51.43	1.1074	-0.0008	0
330	SLU 43	0	-14.87	46.27	0.9531	-0.0008	0
330	SLU 44	0	-14.84	46.19	0.9508	-0.0008	0
330	SLU 45	0	-15.64	47.72	1.0013	-0.0007	0
330	SLU 46	0	-15.62	47.68	1	-0.0007	0
330	SLU 47	0	-15.52	47.26	0.9925	-0.0007	0
330	SLU 48	0	-16.32	48.8	1.0431	-0.0007	0
330	SLU 49	0	-16.3	48.75	1.0417	-0.0007	0
330	SLU 50	0	-16.23	48.42	1.0365	-0.0007	0
330	SLU 51	0	-16.21	48.37	1.0352	-0.0007	0
330	SLU 52	0	-16.75	51.82	1.0735	-0.0009	0
330	SLU 53	0	-17.55	53.36	1.1241	-0.0009	0
330	SLU 54	0	-17.53	53.31	1.1227	-0.0009	0
330	SLU 55	0	-17.43	52.9	1.1152	-0.0008	0
330	SLU 56	0	-18.23	54.44	1.1658	-0.0008	0
330	SLU 57	0	-18.21	54.39	1.1644	-0.0008	0
330	SLU 58	0	-18.14	54.06	1.1593	-0.0008	0
330	SLU 59	0	-18.12	54.01	1.1579	-0.0008	0
330	SLU 60	0	-17.6	54.32	1.1284	-0.0009	0
330	SLU 61	0	-17.58	54.27	1.127	-0.0009	0
330	SLU 62	0	-18.28	55.4	1.1701	-0.0009	0
330	SLU 63	0	-18.26	55.35	1.1687	-0.0009	0
330	SLU 64	0	-16.8	51.61	1.0785	-0.0008	0
330	SLU 65	0	-16.77	51.53	1.0762	-0.0009	0
330	SLU 66	0	-17.58	53.07	1.1268	-0.0008	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
330	SLU 67	0	-17.56	53.02	1.1254	-0.0008	0
330	SLU 68	0	-17.45	52.61	1.118	-0.0008	0
330	SLU 69	0	-18.26	54.15	1.1686	-0.0008	0
330	SLU 70	0	-18.24	54.1	1.1672	-0.0008	0
330	SLU 71	0	-18.16	53.77	1.162	-0.0008	0
330	SLU 72	0	-18.14	53.72	1.1606	-0.0008	0
330	SLU 73	0	-18.68	57.17	1.199	-0.001	0
330	SLU 74	0	-19.49	58.71	1.2495	-0.0009	0
330	SLU 75	0	-19.47	58.66	1.2482	-0.0009	0
330	SLU 76	0	-19.36	58.24	1.2407	-0.0009	0
330	SLU 77	0	-20.17	59.78	1.2913	-0.0009	0
330	SLU 78	0	-20.15	59.73	1.2899	-0.0009	0
330	SLU 79	0	-20.08	59.4	1.2847	-0.0009	0
330	SLU 80	0	-20.06	59.35	1.2834	-0.0009	0
330	SLU 81	0	-19.54	59.66	1.2538	-0.001	0
330	SLU 82	0	-19.52	59.62	1.2525	-0.001	0
330	SLU 83	0	-20.22	60.74	1.2956	-0.001	0
330	SLU 84	0	-20.2	60.69	1.2942	-0.001	0
330	SLE RA 1	0	-12.5	38.53	0.8021	-0.0006	0
330	SLE RA 2	0	-12.48	38.47	0.8005	-0.0006	0
330	SLE RA 3	0	-13.02	39.5	0.8343	-0.0006	0
330	SLE RA 4	0	-13	39.47	0.8333	-0.0006	0
330	SLE RA 5	0	-12.93	39.19	0.8284	-0.0006	0
330	SLE RA 6	0	-13.47	40.22	0.8621	-0.0006	0
330	SLE RA 7	0	-13.46	40.18	0.8612	-0.0006	0
330	SLE RA 8	0	-13.41	39.96	0.8577	-0.0006	0
330	SLE RA 9	0	-13.39	39.93	0.8568	-0.0006	0
330	SLE RA 10	0	-13.75	42.23	0.8823	-0.0007	0
330	SLE RA 11	0	-14.29	43.26	0.9161	-0.0007	0
330	SLE RA 12	0	-14.28	43.22	0.9152	-0.0007	0
330	SLE RA 13	0	-14.21	42.95	0.9102	-0.0007	0
330	SLE RA 14	0	-14.74	43.97	0.9439	-0.0007	0
330	SLE RA 15	0	-14.73	43.94	0.943	-0.0007	0
330	SLE RA 16	0	-14.68	43.72	0.9395	-0.0007	0
330	SLE RA 17	0	-14.67	43.69	0.9386	-0.0007	0
330	SLE RA 18	0	-14.32	43.89	0.9189	-0.0007	0
330	SLE RA 19	0	-14.31	43.86	0.918	-0.0007	0
330	SLE RA 20	0	-14.78	44.61	0.9468	-0.0007	0
330	SLE RA 21	0	-14.76	44.58	0.9459	-0.0007	0
330	SLE FR 1	0	-12.5	38.53	0.8021	-0.0006	0
330	SLE FR 2	0	-12.5	38.52	0.8018	-0.0006	0
330	SLE FR 3	0	-12.68	38.81	0.8132	-0.0006	0
330	SLE FR 4	0	-13.04	40.13	0.8368	-0.0007	0
330	SLE FR 5	0	-13.23	40.42	0.8483	-0.0007	0
330	SLE FR 6	0	-13.41	41.21	0.8605	-0.0007	0
330	SLE QP 1	0	-12.5	38.53	0.8021	-0.0006	0
330	SLE QP 2	0	-13.05	40.14	0.8371	-0.0007	0
330	SLD 1	0.01	-9.6	36.3	0.662	-0.0136	0
330	SLD 2	0.01	-9.6	36.3	0.662	-0.0136	0
330	SLD 3	0.03	-13.92	39.75	0.8688	-0.0058	0
330	SLD 4	0.03	-13.92	39.75	0.8688	-0.0058	0
330	SLD 5	-0.02	-5.46	33.76	0.471	-0.0163	0
330	SLD 6	-0.02	-5.46	33.76	0.471	-0.0163	0
330	SLD 7	0.03	-19.86	45.25	1.1602	0.0096	0
330	SLD 8	0.03	-19.86	45.25	1.1602	0.0096	0
330	SLD 9	-0.04	-6.23	35.02	0.514	-0.0109	0
330	SLD 10	-0.04	-6.23	35.02	0.514	-0.0109	0
330	SLD 11	0.02	-20.64	46.52	1.2033	0.015	0.0001
330	SLD 12	0.02	-20.64	46.52	1.2033	0.015	0.0001
330	SLD 13	-0.04	-12.17	40.53	0.8055	0.0045	0
330	SLD 14	-0.04	-12.17	40.53	0.8055	0.0045	0
330	SLD 15	-0.02	-16.49	43.97	1.0123	0.0122	0.0001
330	SLD 16	-0.02	-16.49	43.97	1.0123	0.0122	0.0001
330	SLV 1	0.04	-4.92	31.1	0.4237	-0.0327	-0.0001
330	SLV 2	0.04	-4.92	31.1	0.4237	-0.0327	-0.0001
330	SLV 3	0.08	-15.13	39.28	0.9138	-0.0136	0
330	SLV 4	0.08	-15.13	39.28	0.9138	-0.0136	0
330	SLV 5	-0.05	4.88	25.03	-0.0302	-0.0392	-0.0001
330	SLV 6	-0.05	4.88	25.03	-0.0302	-0.0392	-0.0001
330	SLV 7	0.08	-29.16	52.28	1.6034	0.0243	0.0001
330	SLV 8	0.08	-29.16	52.28	1.6034	0.0243	0.0001
330	SLV 9	-0.09	3.07	27.99	0.0708	-0.0257	0
330	SLV 10	-0.09	3.07	27.99	0.0708	-0.0257	0
330	SLV 11	0.05	-30.98	55.25	1.7045	0.0378	0.0001
330	SLV 12	0.05	-30.98	55.25	1.7045	0.0378	0.0001
330	SLV 13	-0.09	-10.96	40.99	0.7605	0.0123	0.0001
330	SLV 14	-0.09	-10.96	40.99	0.7605	0.0123	0.0001
330	SLV 15	-0.04	-21.18	49.17	1.2506	0.0314	0.0001
330	SLV 16	-0.04	-21.18	49.17	1.2506	0.0314	0.0001
331	SLU 1	0.18	-3.03	36.55	0.2204	0.029	-0.0001
331	SLU 2	0.18	-3.02	36.54	0.2199	0.0289	-0.0001
331	SLU 3	0.18	-3.13	37.61	0.2277	0.0299	-0.0001
331	SLU 4	0.18	-3.13	37.6	0.2274	0.0299	-0.0001
331	SLU 5	0.18	-3.09	37.15	0.224	0.0295	-0.0001
331	SLU 6	0.19	-3.2	38.22	0.2318	0.0305	-0.0001
331	SLU 7	0.19	-3.19	38.21	0.2315	0.0305	-0.0001
331	SLU 8	0.19	-3.16	37.77	0.2286	0.0301	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
331	SLU 9	0.19	-3.15	37.76	0.2283	0.0301	-0.0001
331	SLU 10	0.21	-3.61	42.08	0.2598	0.0333	-0.0001
331	SLU 11	0.21	-3.72	43.15	0.2676	0.0343	-0.0001
331	SLU 12	0.21	-3.71	43.14	0.2672	0.0343	-0.0001
331	SLU 13	0.21	-3.67	42.69	0.2639	0.0339	-0.0001
331	SLU 14	0.22	-3.78	43.76	0.2717	0.0349	-0.0001
331	SLU 15	0.22	-3.78	43.75	0.2713	0.0349	-0.0001
331	SLU 16	0.21	-3.75	43.31	0.2685	0.0345	-0.0001
331	SLU 17	0.21	-3.74	43.31	0.2682	0.0345	-0.0001
331	SLU 18	0.22	-3.87	44.47	0.2774	0.0352	-0.0001
331	SLU 19	0.22	-3.86	44.46	0.2771	0.0352	-0.0001
331	SLU 20	0.22	-3.93	45.08	0.2815	0.0358	-0.0001
331	SLU 21	0.22	-3.93	45.07	0.2812	0.0357	-0.0001
331	SLU 22	0.21	-3.59	41.82	0.2585	0.0332	-0.0001
331	SLU 23	0.21	-3.58	41.81	0.258	0.0332	-0.0001
331	SLU 24	0.21	-3.69	42.88	0.2658	0.0342	-0.0001
331	SLU 25	0.21	-3.68	42.87	0.2654	0.0342	-0.0001
331	SLU 26	0.21	-3.64	42.42	0.2621	0.0337	-0.0001
331	SLU 27	0.21	-3.75	43.49	0.2699	0.0348	-0.0001
331	SLU 28	0.21	-3.75	43.48	0.2695	0.0347	-0.0001
331	SLU 29	0.21	-3.72	43.04	0.2667	0.0343	-0.0001
331	SLU 30	0.21	-3.71	43.03	0.2664	0.0343	-0.0001
331	SLU 31	0.23	-4.16	47.35	0.2978	0.0375	-0.0001
331	SLU 32	0.24	-4.28	48.42	0.3056	0.0385	-0.0001
331	SLU 33	0.24	-4.27	48.41	0.3053	0.0385	-0.0001
331	SLU 34	0.24	-4.23	47.96	0.3019	0.0381	-0.0001
331	SLU 35	0.24	-4.34	49.03	0.3097	0.0391	-0.0001
331	SLU 36	0.24	-4.33	49.02	0.3094	0.0391	-0.0001
331	SLU 37	0.24	-4.3	48.58	0.3066	0.0387	-0.0001
331	SLU 38	0.24	-4.3	48.57	0.3063	0.0387	-0.0001
331	SLU 39	0.24	-4.43	49.74	0.3155	0.0394	-0.0001
331	SLU 40	0.24	-4.42	49.73	0.3151	0.0394	-0.0001
331	SLU 41	0.25	-4.49	50.35	0.3196	0.04	-0.0001
331	SLU 42	0.25	-4.48	50.34	0.3192	0.04	-0.0001
331	SLU 43	0.22	-3.75	45.71	0.2735	0.0362	-0.0001
331	SLU 44	0.22	-3.74	45.7	0.273	0.0362	-0.0001
331	SLU 45	0.23	-3.85	46.77	0.2808	0.0372	-0.0001
331	SLU 46	0.23	-3.85	46.76	0.2804	0.0371	-0.0001
331	SLU 47	0.23	-3.8	46.31	0.2771	0.0367	-0.0001
331	SLU 48	0.23	-3.92	47.38	0.2849	0.0377	-0.0001
331	SLU 49	0.23	-3.91	47.37	0.2845	0.0377	-0.0001
331	SLU 50	0.23	-3.88	46.93	0.2817	0.0373	-0.0001
331	SLU 51	0.23	-3.87	46.92	0.2814	0.0373	-0.0001
331	SLU 52	0.25	-4.33	51.24	0.3128	0.0405	-0.0001
331	SLU 53	0.26	-4.44	52.31	0.3206	0.0415	-0.0001
331	SLU 54	0.26	-4.43	52.3	0.3203	0.0415	-0.0001
331	SLU 55	0.25	-4.39	51.85	0.3169	0.0411	-0.0001
331	SLU 56	0.26	-4.5	52.92	0.3247	0.0421	-0.0001
331	SLU 57	0.26	-4.5	52.91	0.3244	0.0421	-0.0001
331	SLU 58	0.26	-4.46	52.47	0.3216	0.0417	-0.0001
331	SLU 59	0.26	-4.46	52.47	0.3213	0.0417	-0.0001
331	SLU 60	0.26	-4.59	53.63	0.3305	0.0424	-0.0001
331	SLU 61	0.26	-4.58	53.62	0.3301	0.0424	-0.0001
331	SLU 62	0.27	-4.65	54.24	0.3346	0.043	-0.0001
331	SLU 63	0.27	-4.65	54.23	0.3342	0.043	-0.0001
331	SLU 64	0.25	-4.31	50.98	0.3116	0.0404	-0.0001
331	SLU 65	0.25	-4.3	50.97	0.311	0.0404	-0.0001
331	SLU 66	0.26	-4.41	52.04	0.3188	0.0414	-0.0001
331	SLU 67	0.26	-4.4	52.03	0.3185	0.0414	-0.0001
331	SLU 68	0.25	-4.36	51.58	0.3151	0.041	-0.0001
331	SLU 69	0.26	-4.47	52.65	0.3229	0.042	-0.0001
331	SLU 70	0.26	-4.47	52.64	0.3226	0.042	-0.0001
331	SLU 71	0.26	-4.43	52.2	0.3198	0.0416	-0.0001
331	SLU 72	0.26	-4.43	52.19	0.3195	0.0416	-0.0001
331	SLU 73	0.28	-4.88	56.51	0.3509	0.0448	-0.0001
331	SLU 74	0.28	-5	57.58	0.3587	0.0458	-0.0001
331	SLU 75	0.28	-4.99	57.57	0.3584	0.0458	-0.0001
331	SLU 76	0.28	-4.95	57.12	0.355	0.0453	-0.0001
331	SLU 77	0.29	-5.06	58.19	0.3628	0.0464	-0.0001
331	SLU 78	0.29	-5.05	58.18	0.3625	0.0463	-0.0001
331	SLU 79	0.28	-5.02	57.74	0.3597	0.0459	-0.0001
331	SLU 80	0.28	-5.01	57.73	0.3593	0.0459	-0.0001
331	SLU 81	0.29	-5.14	58.9	0.3685	0.0467	-0.0001
331	SLU 82	0.29	-5.14	58.89	0.3682	0.0466	-0.0001
331	SLU 83	0.29	-5.21	59.51	0.3726	0.0472	-0.0001
331	SLU 84	0.29	-5.2	59.5	0.3723	0.0472	-0.0001
331	SLE RA 1	0.19	-3.19	38.06	0.2313	0.0302	-0.0001
331	SLE RA 2	0.19	-3.18	38.05	0.2309	0.0301	-0.0001
331	SLE RA 3	0.19	-3.26	38.76	0.2361	0.0308	-0.0001
331	SLE RA 4	0.19	-3.25	38.76	0.2359	0.0308	-0.0001
331	SLE RA 5	0.19	-3.23	38.45	0.2337	0.0305	-0.0001
331	SLE RA 6	0.19	-3.3	39.17	0.2389	0.0312	-0.0001
331	SLE RA 7	0.19	-3.3	39.16	0.2387	0.0312	-0.0001
331	SLE RA 8	0.19	-3.28	38.87	0.2368	0.0309	-0.0001
331	SLE RA 9	0.19	-3.27	38.87	0.2366	0.0309	-0.0001
331	SLE RA 10	0.2	-3.57	41.74	0.2575	0.0331	-0.0001
331	SLE RA 11	0.21	-3.65	42.46	0.2627	0.0337	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
331	SLE RA 12	0.21	-3.65	42.45	0.2625	0.0337	-0.0001
331	SLE RA 13	0.21	-3.62	42.15	0.2603	0.0334	-0.0001
331	SLE RA 14	0.21	-3.69	42.86	0.2655	0.0341	-0.0001
331	SLE RA 15	0.21	-3.69	42.86	0.2652	0.0341	-0.0001
331	SLE RA 16	0.21	-3.67	42.56	0.2634	0.0338	-0.0001
331	SLE RA 17	0.21	-3.66	42.56	0.2631	0.0338	-0.0001
331	SLE RA 18	0.21	-3.75	43.33	0.2693	0.0343	-0.0001
331	SLE RA 19	0.21	-3.74	43.33	0.2691	0.0343	-0.0001
331	SLE RA 20	0.21	-3.79	43.74	0.272	0.0347	-0.0001
331	SLE RA 21	0.21	-3.79	43.74	0.2718	0.0347	-0.0001
331	SLE FR 1	0.19	-3.19	38.06	0.2313	0.0302	-0.0001
331	SLE FR 2	0.19	-3.19	38.05	0.2312	0.0302	-0.0001
331	SLE FR 3	0.19	-3.21	38.22	0.2324	0.0303	-0.0001
331	SLE FR 4	0.19	-3.36	39.64	0.2426	0.0314	-0.0001
331	SLE FR 5	0.2	-3.37	39.8	0.2438	0.0316	-0.0001
331	SLE FR 6	0.2	-3.47	40.7	0.2503	0.0322	-0.0001
331	SLE QP 1	0.19	-3.19	38.06	0.2313	0.0302	-0.0001
331	SLE QP 2	0.19	-3.36	39.64	0.2427	0.0314	-0.0001
331	SLD 1	0.22	-0.26	33.23	0.0902	0.0404	-0.0001
331	SLD 2	0.22	-0.26	33.23	0.0902	0.0404	-0.0001
331	SLD 3	0.24	-2.47	37.99	0.2321	0.0439	-0.0002
331	SLD 4	0.24	-2.47	37.99	0.2321	0.0439	-0.0002
331	SLD 5	0.17	0.92	30.5	-0.0183	0.0287	0.0001
331	SLD 6	0.17	0.92	30.5	-0.0183	0.0287	0.0001
331	SLD 7	0.24	-6.44	46.37	0.4547	0.0405	-0.0003
331	SLD 8	0.24	-6.44	46.37	0.4547	0.0405	-0.0003
331	SLD 9	0.15	-0.28	32.91	0.0307	0.0223	0.0001
331	SLD 10	0.15	-0.28	32.91	0.0307	0.0223	0.0001
331	SLD 11	0.22	-7.64	48.78	0.5037	0.0341	-0.0002
331	SLD 12	0.22	-7.64	48.78	0.5037	0.0341	-0.0002
331	SLD 13	0.14	-4.25	41.29	0.2533	0.0189	0
331	SLD 14	0.14	-4.25	41.29	0.2533	0.0189	0
331	SLD 15	0.17	-6.45	46.05	0.3952	0.0225	-0.0001
331	SLD 16	0.17	-6.45	46.05	0.3952	0.0225	-0.0001
331	SLV 1	0.26	3.89	24.56	-0.1157	0.0522	0
331	SLV 2	0.26	3.89	24.56	-0.1157	0.0522	0
331	SLV 3	0.31	-1.31	35.8	0.2192	0.0607	-0.0003
331	SLV 4	0.31	-1.31	35.8	0.2192	0.0607	-0.0003
331	SLV 5	0.13	6.7	18.06	-0.3727	0.0246	0.0003
331	SLV 6	0.13	6.7	18.06	-0.3727	0.0246	0.0003
331	SLV 7	0.31	-10.62	55.54	0.7435	0.0532	-0.0005
331	SLV 8	0.31	-10.62	55.54	0.7435	0.0532	-0.0005
331	SLV 9	0.08	3.91	23.74	-0.2581	0.0096	0.0004
331	SLV 10	0.08	3.91	23.74	-0.2581	0.0096	0.0004
331	SLV 11	0.26	-13.41	61.22	0.8581	0.0382	-0.0005
331	SLV 12	0.26	-13.41	61.22	0.8581	0.0382	-0.0005
331	SLV 13	0.08	-5.41	43.48	0.2662	0.0021	0.0002
331	SLV 14	0.08	-5.41	43.48	0.2662	0.0021	0.0002
331	SLV 15	0.13	-10.6	54.72	0.6011	0.0107	-0.0001
331	SLV 16	0.13	-10.6	54.72	0.6011	0.0107	-0.0001
333	SLU 1	0	-6.43	73.81	0.2861	-0.0023	-0.0001
333	SLU 2	0	-6.32	73.14	0.2804	-0.0025	-0.0001
333	SLU 3	0	-6.81	78.15	0.3039	-0.0024	-0.0001
333	SLU 4	0	-6.74	77.75	0.3006	-0.0026	-0.0001
333	SLU 5	0	-6.65	76.9	0.2959	-0.0026	-0.0001
333	SLU 6	0	-7.13	81.91	0.3194	-0.0026	-0.0001
333	SLU 7	0	-7.07	81.51	0.316	-0.0027	-0.0001
333	SLU 8	0	-7.07	81.33	0.317	-0.0025	-0.0001
333	SLU 9	0	-7.01	80.93	0.3136	-0.0026	-0.0001
333	SLU 10	0	-7.43	84.74	0.329	-0.0029	-0.0001
333	SLU 11	0	-7.91	89.74	0.3525	-0.0029	-0.0001
333	SLU 12	0	-7.85	89.34	0.3491	-0.003	-0.0001
333	SLU 13	0	-7.75	88.49	0.3445	-0.003	-0.0001
333	SLU 14	0	-8.24	93.5	0.368	-0.003	-0.0001
333	SLU 15	0	-8.17	93.1	0.3646	-0.0031	-0.0001
333	SLU 16	0	-8.18	92.92	0.3656	-0.003	-0.0001
333	SLU 17	0	-8.12	92.52	0.3622	-0.0031	-0.0001
333	SLU 18	0	-8.01	90.37	0.3554	-0.0029	-0.0001
333	SLU 19	0	-7.95	89.97	0.3521	-0.003	-0.0001
333	SLU 20	0	-8.33	94.13	0.3709	-0.003	-0.0001
333	SLU 21	0	-8.27	93.73	0.3675	-0.0031	-0.0001
333	SLU 22	0	-7.57	85.94	0.337	-0.0027	-0.0001
333	SLU 23	0	-7.46	85.27	0.3314	-0.0029	-0.0001
333	SLU 24	0	-7.94	90.28	0.3548	-0.0029	-0.0001
333	SLU 25	0	-7.88	89.88	0.3515	-0.003	-0.0001
333	SLU 26	0	-7.78	89.03	0.3468	-0.003	-0.0001
333	SLU 27	0	-8.27	94.04	0.3703	-0.003	-0.0001
333	SLU 28	0	-8.2	93.64	0.3669	-0.0031	-0.0001
333	SLU 29	0	-8.21	93.46	0.3679	-0.0029	-0.0001
333	SLU 30	0	-8.15	93.06	0.3645	-0.0031	-0.0001
333	SLU 31	0	-8.57	96.87	0.3799	-0.0033	-0.0001
333	SLU 32	0	-9.05	101.87	0.4034	-0.0033	-0.0001
333	SLU 33	0	-8.99	101.47	0.4	-0.0034	-0.0001
333	SLU 34	0	-8.89	100.62	0.3954	-0.0035	-0.0001
333	SLU 35	0	-9.37	105.63	0.4189	-0.0034	-0.0001
333	SLU 36	0	-9.31	105.23	0.4155	-0.0035	-0.0001
333	SLU 37	0	-9.32	105.05	0.4165	-0.0034	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
333	SLU 38	0	-9.25	104.65	0.4131	-0.0035	-0.0001
333	SLU 39	0	-9.15	102.5	0.4063	-0.0033	-0.0001
333	SLU 40	0	-9.08	102.1	0.403	-0.0034	-0.0001
333	SLU 41	0	-9.47	106.26	0.4218	-0.0034	-0.0001
333	SLU 42	0	-9.41	105.86	0.4184	-0.0036	-0.0001
333	SLU 43	0	-7.97	91.79	0.3545	-0.0028	-0.0001
333	SLU 44	0	-7.86	91.13	0.3488	-0.003	-0.0001
333	SLU 45	0	-8.35	96.13	0.3723	-0.003	-0.0001
333	SLU 46	0	-8.28	95.73	0.3689	-0.0031	-0.0001
333	SLU 47	0	-8.19	94.89	0.3643	-0.0031	-0.0001
333	SLU 48	0	-8.67	99.89	0.3878	-0.0031	-0.0001
333	SLU 49	0	-8.61	99.49	0.3844	-0.0032	-0.0001
333	SLU 50	0	-8.61	99.31	0.3854	-0.003	-0.0001
333	SLU 51	0	-8.55	98.91	0.382	-0.0032	-0.0001
333	SLU 52	0	-8.97	102.72	0.3974	-0.0034	-0.0001
333	SLU 53	0	-9.45	107.72	0.4209	-0.0034	-0.0001
333	SLU 54	0	-9.39	107.32	0.4175	-0.0035	-0.0001
333	SLU 55	0	-9.29	106.48	0.4128	-0.0036	-0.0001
333	SLU 56	0	-9.78	111.48	0.4363	-0.0035	-0.0001
333	SLU 57	0	-9.71	111.08	0.4329	-0.0036	-0.0001
333	SLU 58	0	-9.72	110.9	0.4339	-0.0035	-0.0001
333	SLU 59	0	-9.66	110.5	0.4305	-0.0036	-0.0001
333	SLU 60	0	-9.55	108.35	0.4238	-0.0034	-0.0001
333	SLU 61	0	-9.49	107.95	0.4204	-0.0035	-0.0001
333	SLU 62	0	-9.87	112.11	0.4393	-0.0035	-0.0001
333	SLU 63	0	-9.81	111.71	0.4359	-0.0037	-0.0001
333	SLU 64	0	-9.11	103.92	0.4054	-0.0032	-0.0001
333	SLU 65	0	-9	103.26	0.3997	-0.0034	-0.0001
333	SLU 66	0	-9.48	108.26	0.4232	-0.0034	-0.0001
333	SLU 67	0	-9.42	107.86	0.4198	-0.0035	-0.0001
333	SLU 68	0	-9.32	107.02	0.4152	-0.0036	-0.0001
333	SLU 69	0	-9.8	112.02	0.4387	-0.0035	-0.0001
333	SLU 70	0	-9.74	111.62	0.4353	-0.0036	-0.0001
333	SLU 71	0	-9.75	111.44	0.4363	-0.0035	-0.0001
333	SLU 72	0	-9.69	111.04	0.4329	-0.0036	-0.0001
333	SLU 73	0	-10.11	114.85	0.4483	-0.0039	-0.0001
333	SLU 74	0	-10.59	119.85	0.4718	-0.0038	-0.0001
333	SLU 75	0	-10.53	119.46	0.4684	-0.0039	-0.0001
333	SLU 76	0	-10.43	118.61	0.4637	-0.004	-0.0001
333	SLU 77	0	-10.91	123.61	0.4872	-0.0039	-0.0001
333	SLU 78	0	-10.85	123.21	0.4839	-0.0041	-0.0001
333	SLU 79	0	-10.86	123.03	0.4848	-0.0039	-0.0001
333	SLU 80	0	-10.79	122.63	0.4815	-0.004	-0.0001
333	SLU 81	0	-10.69	120.48	0.4747	-0.0038	-0.0001
333	SLU 82	0	-10.62	120.08	0.4713	-0.004	-0.0001
333	SLU 83	0	-11.01	124.24	0.4902	-0.004	-0.0001
333	SLU 84	0	-10.95	123.84	0.4868	-0.0041	-0.0001
333	SLE RA 1	0	-6.75	77.28	0.3006	-0.0024	-0.0001
333	SLE RA 2	0	-6.68	76.83	0.2969	-0.0025	-0.0001
333	SLE RA 3	0	-7.01	80.17	0.3125	-0.0025	-0.0001
333	SLE RA 4	0	-6.96	79.9	0.3103	-0.0026	-0.0001
333	SLE RA 5	0	-6.9	79.34	0.3072	-0.0026	-0.0001
333	SLE RA 6	0	-7.22	82.67	0.3228	-0.0026	-0.0001
333	SLE RA 7	0	-7.18	82.41	0.3206	-0.0027	-0.0001
333	SLE RA 8	0	-7.18	82.29	0.3212	-0.0026	-0.0001
333	SLE RA 9	0	-7.14	82.02	0.319	-0.0026	-0.0001
333	SLE RA 10	0	-7.42	84.56	0.3292	-0.0028	-0.0001
333	SLE RA 11	0	-7.74	87.9	0.3449	-0.0028	-0.0001
333	SLE RA 12	0	-7.7	87.63	0.3426	-0.0029	-0.0001
333	SLE RA 13	0	-7.64	87.07	0.3395	-0.0029	-0.0001
333	SLE RA 14	0	-7.96	90.4	0.3552	-0.0029	-0.0001
333	SLE RA 15	0	-7.92	90.14	0.353	-0.003	-0.0001
333	SLE RA 16	0	-7.92	90.02	0.3536	-0.0028	-0.0001
333	SLE RA 17	0	-7.88	89.75	0.3514	-0.0029	-0.0001
333	SLE RA 18	0	-7.81	88.32	0.3469	-0.0028	-0.0001
333	SLE RA 19	0	-7.77	88.05	0.3446	-0.0029	-0.0001
333	SLE RA 20	0	-8.02	90.82	0.3572	-0.0029	-0.0001
333	SLE RA 21	0	-7.98	90.55	0.3549	-0.003	-0.0001
333	SLE FR 1	0	-6.75	77.28	0.3006	-0.0024	-0.0001
333	SLE FR 2	0	-6.74	77.19	0.2999	-0.0024	-0.0001
333	SLE FR 3	0	-6.84	78.28	0.3047	-0.0024	-0.0001
333	SLE FR 4	0	-7.06	80.5	0.3137	-0.0025	-0.0001
333	SLE FR 5	0	-7.16	81.59	0.3186	-0.0025	-0.0001
333	SLE FR 6	0	-7.28	82.8	0.3237	-0.0026	-0.0001
333	SLE QP 1	0	-6.75	77.28	0.3006	-0.0024	-0.0001
333	SLE QP 2	0	-7.07	80.59	0.3145	-0.0025	-0.0001
333	SLD 1	-0.14	-6.57	80.94	0.2835	-0.0755	-0.0013
333	SLD 2	-0.14	-6.57	80.94	0.2835	-0.0755	-0.0013
333	SLD 3	-0.12	-9.1	92.98	0.4413	-0.0655	-0.001
333	SLD 4	-0.12	-9.1	92.98	0.4413	-0.0655	-0.001
333	SLD 5	-0.08	-3.08	62.44	0.0658	-0.0394	-0.0008
333	SLD 6	-0.08	-3.08	62.44	0.0658	-0.0394	-0.0008
333	SLD 7	0	-11.52	102.56	0.5919	-0.0064	0
333	SLD 8	0	-11.52	102.56	0.5919	-0.0064	0
333	SLD 9	0	-2.62	58.62	0.037	0.0014	-0.0001
333	SLD 10	0	-2.62	58.62	0.037	0.0014	-0.0001
333	SLD 11	0.08	-11.06	98.73	0.5632	0.0344	0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
333	SLD 12	0.08	-11.06	98.73	0.5632	0.0344	0.0007
333	SLD 13	0.12	-5.04	68.2	0.1877	0.0605	0.0009
333	SLD 14	0.12	-5.04	68.2	0.1877	0.0605	0.0009
333	SLD 15	0.14	-7.57	80.23	0.3455	0.0704	0.0012
333	SLD 16	0.14	-7.57	80.23	0.3455	0.0704	0.0012
333	SLV 1	-0.35	-5.92	81.29	0.2435	-0.1794	-0.0031
333	SLV 2	-0.35	-5.92	81.29	0.2435	-0.1794	-0.0031
333	SLV 3	-0.29	-11.9	109.85	0.6157	-0.1541	-0.0025
333	SLV 4	-0.29	-11.9	109.85	0.6157	-0.1541	-0.0025
333	SLV 5	-0.19	2.34	37.49	-0.2712	-0.0939	-0.0019
333	SLV 6	-0.19	2.34	37.49	-0.2712	-0.0939	-0.0019
333	SLV 7	0	-17.59	132.68	0.9692	-0.0097	0.0001
333	SLV 8	0	-17.59	132.68	0.9692	-0.0097	0.0001
333	SLV 9	0	3.44	28.49	-0.3403	0.0046	-0.0002
333	SLV 10	0	3.44	28.49	-0.3403	0.0046	-0.0002
333	SLV 11	0.19	-16.48	123.69	0.9002	0.0889	0.0018
333	SLV 12	0.19	-16.48	123.69	0.9002	0.0889	0.0018
333	SLV 13	0.29	-2.24	51.32	0.0133	0.1491	0.0024
333	SLV 14	0.29	-2.24	51.32	0.0133	0.1491	0.0024
333	SLV 15	0.35	-8.22	79.88	0.3854	0.1744	0.003
333	SLV 16	0.35	-8.22	79.88	0.3854	0.1744	0.003
334	SLU 1	7.87	-6.35	50.83	0.0591	0.237	0.0001
334	SLU 2	7.87	-6.34	50.81	0.0588	0.2371	0.0001
334	SLU 3	8.09	-6.53	52.26	0.0606	0.2437	0.0001
334	SLU 4	8.09	-6.53	52.25	0.0604	0.2437	0.0001
334	SLU 5	7.99	-6.45	51.58	0.0595	0.2406	0.0001
334	SLU 6	8.2	-6.64	53.04	0.0613	0.2472	0.0001
334	SLU 7	8.2	-6.63	53.02	0.0611	0.2473	0.0001
334	SLU 8	8.1	-6.55	52.38	0.0605	0.2441	0.0001
334	SLU 9	8.1	-6.55	52.36	0.0603	0.2441	0.0001
334	SLU 10	9	-7.38	58.5	0.0708	0.2708	0.0001
334	SLU 11	9.21	-7.57	59.95	0.0725	0.2774	0.0001
334	SLU 12	9.21	-7.56	59.94	0.0724	0.2774	0.0001
334	SLU 13	9.11	-7.48	59.27	0.0715	0.2743	0.0001
334	SLU 14	9.32	-7.67	60.73	0.0732	0.2809	0.0001
334	SLU 15	9.32	-7.67	60.71	0.0731	0.281	0.0001
334	SLU 16	9.22	-7.59	60.07	0.0724	0.2778	0.0001
334	SLU 17	9.22	-7.58	60.06	0.0723	0.2778	0.0001
334	SLU 18	9.48	-7.83	61.82	0.0761	0.2851	0
334	SLU 19	9.48	-7.82	61.8	0.076	0.2852	0
334	SLU 20	9.59	-7.93	62.59	0.0768	0.2887	0
334	SLU 21	9.59	-7.92	62.58	0.0767	0.2887	0
334	SLU 22	8.94	-7.33	58.12	0.07	0.269	0.0001
334	SLU 23	8.94	-7.32	58.1	0.0697	0.2691	0.0001
334	SLU 24	9.15	-7.51	59.55	0.0714	0.2757	0.0001
334	SLU 25	9.15	-7.51	59.54	0.0713	0.2758	0.0001
334	SLU 26	9.05	-7.42	58.87	0.0704	0.2727	0.0001
334	SLU 27	9.26	-7.61	60.33	0.0721	0.2793	0.0001
334	SLU 28	9.26	-7.61	60.31	0.072	0.2794	0.0001
334	SLU 29	9.16	-7.53	59.67	0.0714	0.2761	0.0001
334	SLU 30	9.16	-7.53	59.65	0.0712	0.2762	0.0001
334	SLU 31	10.06	-8.35	65.79	0.0816	0.3028	0
334	SLU 32	10.27	-8.54	67.24	0.0834	0.3094	0
334	SLU 33	10.28	-8.54	67.23	0.0832	0.3095	0
334	SLU 34	10.17	-8.45	66.56	0.0823	0.3064	0
334	SLU 35	10.39	-8.65	68.02	0.0841	0.313	0
334	SLU 36	10.39	-8.64	68	0.0839	0.3131	0
334	SLU 37	10.28	-8.56	67.36	0.0833	0.3098	0
334	SLU 38	10.29	-8.56	67.35	0.0831	0.3099	0
334	SLU 39	10.54	-8.8	69.11	0.087	0.3172	0
334	SLU 40	10.54	-8.8	69.09	0.0868	0.3172	0
334	SLU 41	10.65	-8.9	69.88	0.0877	0.3207	0
334	SLU 42	10.66	-8.9	69.87	0.0875	0.3208	0
334	SLU 43	9.87	-7.92	63.58	0.0731	0.297	0.0002
334	SLU 44	9.87	-7.91	63.56	0.0728	0.2972	0.0002
334	SLU 45	10.08	-8.11	65.01	0.0746	0.3038	0.0002
334	SLU 46	10.09	-8.1	65	0.0744	0.3038	0.0002
334	SLU 47	9.98	-8.02	64.33	0.0735	0.3007	0.0002
334	SLU 48	10.2	-8.21	65.79	0.0753	0.3073	0.0001
334	SLU 49	10.2	-8.2	65.77	0.0751	0.3074	0.0002
334	SLU 50	10.09	-8.13	65.13	0.0745	0.3042	0.0002
334	SLU 51	10.1	-8.12	65.11	0.0744	0.3042	0.0002
334	SLU 52	11	-8.95	71.25	0.0848	0.3309	0.0001
334	SLU 53	11.21	-9.14	72.7	0.0865	0.3375	0.0001
334	SLU 54	11.21	-9.13	72.69	0.0864	0.3375	0.0001
334	SLU 55	11.11	-9.05	72.02	0.0855	0.3344	0.0001
334	SLU 56	11.32	-9.24	73.48	0.0872	0.341	0.0001
334	SLU 57	11.32	-9.24	73.46	0.0871	0.3411	0.0001
334	SLU 58	11.22	-9.16	72.82	0.0864	0.3379	0.0001
334	SLU 59	11.22	-9.15	72.81	0.0863	0.3379	0.0001
334	SLU 60	11.48	-9.4	74.57	0.0901	0.3452	0.0001
334	SLU 61	11.48	-9.39	74.55	0.09	0.3453	0.0001
334	SLU 62	11.59	-9.5	75.34	0.0908	0.3488	0.0001
334	SLU 63	11.59	-9.49	75.33	0.0907	0.3488	0.0001
334	SLU 64	10.93	-8.9	70.87	0.084	0.3291	0.0001
334	SLU 65	10.94	-8.89	70.85	0.0837	0.3292	0.0001
334	SLU 66	11.15	-9.08	72.3	0.0854	0.3358	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
334	SLU 67	11.15	-9.08	72.29	0.0853	0.3359	0.0001
334	SLU 68	11.05	-8.99	71.62	0.0844	0.3328	0.0001
334	SLU 69	11.26	-9.18	73.07	0.0861	0.3394	0.0001
334	SLU 70	11.26	-9.18	73.06	0.086	0.3395	0.0001
334	SLU 71	11.16	-9.1	72.42	0.0854	0.3362	0.0001
334	SLU 72	11.16	-9.1	72.4	0.0852	0.3363	0.0001
334	SLU 73	12.06	-9.92	78.54	0.0956	0.3629	0.0001
334	SLU 74	12.27	-10.11	79.99	0.0974	0.3695	0.0001
334	SLU 75	12.27	-10.11	79.98	0.0972	0.3696	0.0001
334	SLU 76	12.17	-10.02	79.31	0.0963	0.3665	0.0001
334	SLU 77	12.38	-10.22	80.77	0.0981	0.3731	0.0001
334	SLU 78	12.38	-10.21	80.75	0.0979	0.3732	0.0001
334	SLU 79	12.28	-10.13	80.11	0.0973	0.3699	0.0001
334	SLU 80	12.28	-10.13	80.1	0.0971	0.37	0.0001
334	SLU 81	12.54	-10.37	81.86	0.101	0.3772	0
334	SLU 82	12.54	-10.37	81.84	0.1008	0.3773	0
334	SLU 83	12.65	-10.47	82.63	0.1017	0.3808	0
334	SLU 84	12.65	-10.47	82.62	0.1015	0.3809	0
334	SLE RA 1	8.18	-6.63	52.91	0.0622	0.2461	0.0001
334	SLE RA 2	8.18	-6.62	52.9	0.062	0.2462	0.0001
334	SLE RA 3	8.32	-6.75	53.87	0.0632	0.2506	0.0001
334	SLE RA 4	8.32	-6.75	53.86	0.0631	0.2506	0.0001
334	SLE RA 5	8.25	-6.69	53.41	0.0625	0.2486	0.0001
334	SLE RA 6	8.39	-6.82	54.38	0.0637	0.253	0.0001
334	SLE RA 7	8.39	-6.82	54.37	0.0636	0.253	0.0001
334	SLE RA 8	8.33	-6.77	53.95	0.0631	0.2509	0.0001
334	SLE RA 9	8.33	-6.76	53.94	0.063	0.2509	0.0001
334	SLE RA 10	8.93	-7.31	58.02	0.07	0.2687	0.0001
334	SLE RA 11	9.07	-7.44	58.99	0.0711	0.2731	0.0001
334	SLE RA 12	9.07	-7.44	58.99	0.071	0.2731	0.0001
334	SLE RA 13	9	-7.38	58.54	0.0704	0.271	0.0001
334	SLE RA 14	9.14	-7.51	59.51	0.0716	0.2754	0.0001
334	SLE RA 15	9.14	-7.51	59.5	0.0715	0.2755	0.0001
334	SLE RA 16	9.08	-7.45	59.07	0.0711	0.2733	0.0001
334	SLE RA 17	9.08	-7.45	59.06	0.071	0.2734	0.0001
334	SLE RA 18	9.25	-7.61	60.24	0.0735	0.2782	0
334	SLE RA 19	9.25	-7.61	60.23	0.0734	0.2783	0.0001
334	SLE RA 20	9.32	-7.68	60.75	0.074	0.2806	0
334	SLE RA 21	9.32	-7.68	60.75	0.0739	0.2806	0
334	SLE FR 1	8.18	-6.63	52.91	0.0622	0.2461	0.0001
334	SLE FR 2	8.18	-6.63	52.91	0.0622	0.2461	0.0001
334	SLE FR 3	8.21	-6.66	53.12	0.0624	0.2471	0.0001
334	SLE FR 4	8.5	-6.92	55.11	0.0656	0.2558	0.0001
334	SLE FR 5	8.53	-6.95	55.32	0.0658	0.2567	0.0001
334	SLE FR 6	8.71	-7.12	56.58	0.0679	0.2622	0.0001
334	SLE QP 1	8.18	-6.63	52.91	0.0622	0.2461	0.0001
334	SLE QP 2	8.5	-6.92	55.11	0.0656	0.2557	0.0001
334	SLD 1	10.85	-5.13	57.05	-0.0157	0.3512	0.0023
334	SLD 2	10.85	-5.13	57.05	-0.0157	0.3512	0.0023
334	SLD 3	11.58	-7.35	67.66	0.0568	0.3696	0.0009
334	SLD 4	11.58	-7.35	67.66	0.0568	0.3696	0.0009
334	SLD 5	8.09	-3.02	39.59	-0.0689	0.2564	0.0028
334	SLD 6	8.09	-3.02	39.59	-0.0689	0.2564	0.0028
334	SLD 7	10.54	-10.42	74.98	0.173	0.3179	-0.0017
334	SLD 8	10.54	-10.42	74.98	0.173	0.3179	-0.0017
334	SLD 9	6.46	-3.42	35.24	-0.0418	0.1936	0.0019
334	SLD 10	6.46	-3.42	35.24	-0.0418	0.1936	0.0019
334	SLD 11	8.91	-10.83	70.63	0.2001	0.2551	-0.0026
334	SLD 12	8.91	-10.83	70.63	0.2001	0.2551	-0.0026
334	SLD 13	5.41	-6.5	42.56	0.0744	0.1419	-0.0008
334	SLD 14	5.41	-6.5	42.56	0.0744	0.1419	-0.0008
334	SLD 15	6.15	-8.72	53.18	0.1469	0.1603	-0.0021
334	SLD 16	6.15	-8.72	53.18	0.1469	0.1603	-0.0021
334	SLV 1	13.97	-2.68	59.56	-0.1254	0.4779	0.0052
334	SLV 2	13.97	-2.68	59.56	-0.1254	0.4779	0.0052
334	SLV 3	15.71	-7.93	84.67	0.0457	0.5216	0.0021
334	SLV 4	15.71	-7.93	84.67	0.0457	0.5216	0.0021
334	SLV 5	7.5	2.3	18.36	-0.2512	0.2561	0.0064
334	SLV 6	7.5	2.3	18.36	-0.2512	0.2561	0.0064
334	SLV 7	13.3	-15.18	102.06	0.3191	0.4018	-0.0041
334	SLV 8	13.3	-15.18	102.06	0.3191	0.4018	-0.0041
334	SLV 9	3.7	1.33	8.16	-0.1879	0.1097	0.0043
334	SLV 10	3.7	1.33	8.16	-0.1879	0.1097	0.0043
334	SLV 11	9.5	-16.15	91.86	0.3824	0.2553	-0.0063
334	SLV 12	9.5	-16.15	91.86	0.3824	0.2553	-0.0063
334	SLV 13	1.29	-5.92	25.55	0.0855	-0.0101	-0.0019
334	SLV 14	1.29	-5.92	25.55	0.0855	-0.0101	-0.0019
334	SLV 15	3.03	-11.17	50.66	0.2566	0.0335	-0.0051
334	SLV 16	3.03	-11.17	50.66	0.2566	0.0335	-0.0051
335	SLU 1	2.99	-0.06	47.43	-0.0307	0.115	0.0002
335	SLU 2	3	-0.06	47.41	-0.0307	0.1153	0.0002
335	SLU 3	3.04	-0.06	48.76	-0.0321	0.116	0.0002
335	SLU 4	3.05	-0.06	48.75	-0.0321	0.1162	0.0002
335	SLU 5	3.01	-0.06	48.15	-0.0316	0.1149	0.0002
335	SLU 6	3.06	-0.06	49.49	-0.033	0.1156	0.0002
335	SLU 7	3.06	-0.06	49.48	-0.033	0.1158	0.0002
335	SLU 8	3.02	-0.06	48.9	-0.0326	0.1142	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
335	SLU 9	3.03	-0.06	48.89	-0.0326	0.1144	0.0002
335	SLU 10	3.31	-0.07	54.32	-0.0355	0.1279	0.0002
335	SLU 11	3.36	-0.07	55.67	-0.0368	0.1287	0.0002
335	SLU 12	3.36	-0.07	55.66	-0.0368	0.1289	0.0002
335	SLU 13	3.33	-0.07	55.06	-0.0364	0.1275	0.0002
335	SLU 14	3.37	-0.07	56.41	-0.0378	0.1283	0.0002
335	SLU 15	3.38	-0.07	56.4	-0.0378	0.1285	0.0002
335	SLU 16	3.34	-0.07	55.82	-0.0373	0.1269	0.0002
335	SLU 17	3.34	-0.07	55.8	-0.0373	0.127	0.0002
335	SLU 18	3.44	-0.07	57.3	-0.0376	0.1331	0.0002
335	SLU 19	3.45	-0.07	57.29	-0.0376	0.1332	0.0002
335	SLU 20	3.46	-0.07	58.04	-0.0385	0.1327	0.0002
335	SLU 21	3.46	-0.07	58.03	-0.0385	0.1328	0.0002
335	SLU 22	3.27	-0.06	54.02	-0.0356	0.1253	0.0002
335	SLU 23	3.28	-0.06	54	-0.0356	0.1256	0.0002
335	SLU 24	3.32	-0.07	55.35	-0.0369	0.1263	0.0002
335	SLU 25	3.33	-0.07	55.34	-0.0369	0.1265	0.0002
335	SLU 26	3.29	-0.07	54.73	-0.0365	0.1252	0.0002
335	SLU 27	3.34	-0.07	56.08	-0.0378	0.1259	0.0002
335	SLU 28	3.34	-0.07	56.07	-0.0378	0.1261	0.0002
335	SLU 29	3.3	-0.07	55.49	-0.0374	0.1245	0.0002
335	SLU 30	3.31	-0.07	55.48	-0.0374	0.1247	0.0002
335	SLU 31	3.59	-0.07	60.91	-0.0403	0.1382	0.0002
335	SLU 32	3.64	-0.08	62.26	-0.0417	0.139	0.0002
335	SLU 33	3.64	-0.08	62.25	-0.0417	0.1392	0.0002
335	SLU 34	3.61	-0.07	61.65	-0.0413	0.1378	0.0002
335	SLU 35	3.65	-0.08	63	-0.0426	0.1386	0.0002
335	SLU 36	3.66	-0.08	62.99	-0.0426	0.1388	0.0002
335	SLU 37	3.62	-0.08	62.4	-0.0422	0.1372	0.0002
335	SLU 38	3.62	-0.08	62.39	-0.0422	0.1373	0.0002
335	SLU 39	3.72	-0.08	63.89	-0.0424	0.1434	0.0002
335	SLU 40	3.73	-0.08	63.88	-0.0424	0.1436	0.0002
335	SLU 41	3.74	-0.08	64.63	-0.0433	0.143	0.0002
335	SLU 42	3.74	-0.08	64.62	-0.0433	0.1432	0.0002
335	SLU 43	3.79	-0.07	59.39	-0.0383	0.146	0.0002
335	SLU 44	3.8	-0.07	59.38	-0.0383	0.1462	0.0002
335	SLU 45	3.84	-0.07	60.73	-0.0396	0.147	0.0002
335	SLU 46	3.85	-0.07	60.71	-0.0396	0.1472	0.0002
335	SLU 47	3.82	-0.07	60.11	-0.0392	0.1458	0.0002
335	SLU 48	3.86	-0.07	61.46	-0.0405	0.1466	0.0002
335	SLU 49	3.86	-0.07	61.45	-0.0405	0.1468	0.0002
335	SLU 50	3.82	-0.07	60.87	-0.0401	0.1452	0.0002
335	SLU 51	3.83	-0.07	60.86	-0.0401	0.1453	0.0002
335	SLU 52	4.12	-0.08	66.29	-0.0431	0.1589	0.0003
335	SLU 53	4.16	-0.08	67.64	-0.0444	0.1597	0.0003
335	SLU 54	4.16	-0.08	67.63	-0.0444	0.1598	0.0003
335	SLU 55	4.13	-0.08	67.03	-0.044	0.1585	0.0003
335	SLU 56	4.18	-0.08	68.38	-0.0453	0.1593	0.0003
335	SLU 57	4.18	-0.08	68.37	-0.0453	0.1594	0.0003
335	SLU 58	4.14	-0.08	67.78	-0.0449	0.1578	0.0003
335	SLU 59	4.14	-0.08	67.77	-0.0449	0.158	0.0003
335	SLU 60	4.24	-0.08	69.27	-0.0451	0.1641	0.0003
335	SLU 61	4.25	-0.08	69.26	-0.0451	0.1642	0.0003
335	SLU 62	4.26	-0.08	70.01	-0.046	0.1637	0.0003
335	SLU 63	4.26	-0.08	70	-0.046	0.1638	0.0003
335	SLU 64	4.07	-0.08	65.98	-0.0431	0.1563	0.0002
335	SLU 65	4.08	-0.08	65.97	-0.0431	0.1565	0.0002
335	SLU 66	4.12	-0.08	67.32	-0.0445	0.1573	0.0003
335	SLU 67	4.13	-0.08	67.3	-0.0445	0.1575	0.0003
335	SLU 68	4.09	-0.08	66.7	-0.044	0.1561	0.0003
335	SLU 69	4.14	-0.08	68.05	-0.0454	0.1569	0.0003
335	SLU 70	4.14	-0.08	68.04	-0.0454	0.1571	0.0003
335	SLU 71	4.1	-0.08	67.46	-0.045	0.1555	0.0003
335	SLU 72	4.11	-0.08	67.45	-0.045	0.1556	0.0003
335	SLU 73	4.39	-0.09	72.88	-0.0479	0.1692	0.0003
335	SLU 74	4.44	-0.09	74.23	-0.0492	0.17	0.0003
335	SLU 75	4.44	-0.09	74.22	-0.0492	0.1701	0.0003
335	SLU 76	4.41	-0.09	73.62	-0.0488	0.1688	0.0003
335	SLU 77	4.45	-0.09	74.97	-0.0502	0.1696	0.0003
335	SLU 78	4.46	-0.09	74.96	-0.0502	0.1697	0.0003
335	SLU 79	4.42	-0.09	74.37	-0.0497	0.1681	0.0003
335	SLU 80	4.42	-0.09	74.36	-0.0497	0.1683	0.0003
335	SLU 81	4.52	-0.09	75.86	-0.05	0.1744	0.0003
335	SLU 82	4.53	-0.09	75.85	-0.05	0.1745	0.0003
335	SLU 83	4.54	-0.09	76.6	-0.0509	0.174	0.0003
335	SLU 84	4.54	-0.09	76.59	-0.0509	0.1741	0.0003
335	SLE RA 1	3.07	-0.06	49.31	-0.0321	0.1179	0.0002
335	SLE RA 2	3.08	-0.06	49.3	-0.0321	0.1181	0.0002
335	SLE RA 3	3.11	-0.06	50.2	-0.033	0.1186	0.0002
335	SLE RA 4	3.11	-0.06	50.19	-0.033	0.1187	0.0002
335	SLE RA 5	3.09	-0.06	49.79	-0.0327	0.1179	0.0002
335	SLE RA 6	3.12	-0.06	50.69	-0.0336	0.1184	0.0002
335	SLE RA 7	3.12	-0.06	50.68	-0.0336	0.1185	0.0002
335	SLE RA 8	3.09	-0.06	50.29	-0.0333	0.1174	0.0002
335	SLE RA 9	3.09	-0.06	50.28	-0.0333	0.1175	0.0002
335	SLE RA 10	3.29	-0.06	53.91	-0.0353	0.1266	0.0002
335	SLE RA 11	3.32	-0.07	54.81	-0.0362	0.1271	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
335	SLE RA 12	3.32	-0.07	54.8	-0.0362	0.1272	0.0002
335	SLE RA 13	3.3	-0.06	54.4	-0.0359	0.1263	0.0002
335	SLE RA 14	3.33	-0.07	55.3	-0.0368	0.1268	0.0002
335	SLE RA 15	3.33	-0.07	55.29	-0.0368	0.1269	0.0002
335	SLE RA 16	3.3	-0.07	54.9	-0.0365	0.1259	0.0002
335	SLE RA 17	3.3	-0.07	54.89	-0.0365	0.126	0.0002
335	SLE RA 18	3.37	-0.07	55.89	-0.0367	0.13	0.0002
335	SLE RA 19	3.37	-0.07	55.89	-0.0367	0.1301	0.0002
335	SLE RA 20	3.38	-0.07	56.39	-0.0373	0.1297	0.0002
335	SLE RA 21	3.38	-0.07	56.38	-0.0373	0.1298	0.0002
335	SLE FR 1	3.07	-0.06	49.31	-0.0321	0.1179	0.0002
335	SLE FR 2	3.07	-0.06	49.31	-0.0321	0.118	0.0002
335	SLE FR 3	3.08	-0.06	49.51	-0.0324	0.1178	0.0002
335	SLE FR 4	3.16	-0.06	51.28	-0.0335	0.1216	0.0002
335	SLE FR 5	3.17	-0.06	51.48	-0.0337	0.1215	0.0002
335	SLE FR 6	3.22	-0.06	52.6	-0.0344	0.124	0.0002
335	SLE QP 1	3.07	-0.06	49.31	-0.0321	0.1179	0.0002
335	SLE QP 2	3.16	-0.06	51.28	-0.0335	0.1216	0.0002
335	SLD 1	7.68	-0.03	52.9	-0.0489	0.3202	0.0002
335	SLD 2	7.68	-0.03	52.9	-0.0489	0.3202	0.0002
335	SLD 3	6.45	-0.06	61.51	-0.0348	0.2853	0.0003
335	SLD 4	6.45	-0.06	61.51	-0.0348	0.2853	0.0003
335	SLD 5	6.39	0	38.7	-0.0594	0.2342	0.0001
335	SLD 6	6.39	0	38.7	-0.0594	0.2342	0.0001
335	SLD 7	2.28	-0.11	67.42	-0.0125	0.1176	0.0003
335	SLD 8	2.28	-0.11	67.42	-0.0125	0.1176	0.0003
335	SLD 9	4.05	-0.01	35.15	-0.0544	0.1255	0.0001
335	SLD 10	4.05	-0.01	35.15	-0.0544	0.1255	0.0001
335	SLD 11	-0.07	-0.12	63.87	-0.0075	0.0089	0.0003
335	SLD 12	-0.07	-0.12	63.87	-0.0075	0.0089	0.0003
335	SLD 13	-0.13	-0.06	41.06	-0.0321	-0.0421	0.0001
335	SLD 14	-0.13	-0.06	41.06	-0.0321	-0.0421	0.0001
335	SLD 15	-1.36	-0.09	49.67	-0.0181	-0.0771	0.0002
335	SLD 16	-1.36	-0.09	49.67	-0.0181	-0.0771	0.0002
335	SLV 1	13.73	0.01	54.98	-0.0698	0.5855	0.0002
335	SLV 2	13.73	0.01	54.98	-0.0698	0.5855	0.0002
335	SLV 3	10.8	-0.07	75.39	-0.0366	0.5021	0.0004
335	SLV 4	10.8	-0.07	75.39	-0.0366	0.5021	0.0004
335	SLV 5	10.77	0.08	21.45	-0.0947	0.3872	0
335	SLV 6	10.77	0.08	21.45	-0.0947	0.3872	0
335	SLV 7	1.01	-0.18	89.46	0.0159	0.1092	0.0005
335	SLV 8	1.01	-0.18	89.46	0.0159	0.1092	0.0005
335	SLV 9	5.31	0.06	13.11	-0.0829	0.1339	-0.0001
335	SLV 10	5.31	0.06	13.11	-0.0829	0.1339	-0.0001
335	SLV 11	-4.45	-0.2	81.12	0.0278	-0.1441	0.0004
335	SLV 12	-4.45	-0.2	81.12	0.0278	-0.1441	0.0004
335	SLV 13	-4.47	-0.05	27.18	-0.0303	-0.259	0
335	SLV 14	-4.47	-0.05	27.18	-0.0303	-0.259	0
335	SLV 15	-7.4	-0.13	47.58	0.0029	-0.3424	0.0001
335	SLV 16	-7.4	-0.13	47.58	0.0029	-0.3424	0.0001
336	SLU 1	2.81	0.1	39.62	-0.099	0.2335	0.0003
336	SLU 2	2.82	0.1	39.61	-0.099	0.2337	0.0003
336	SLU 3	2.87	0.11	40.73	-0.1028	0.24	0.0003
336	SLU 4	2.88	0.11	40.72	-0.1028	0.2401	0.0003
336	SLU 5	2.84	0.1	40.25	-0.1014	0.2369	0.0003
336	SLU 6	2.89	0.11	41.37	-0.1053	0.2432	0.0004
336	SLU 7	2.9	0.11	41.36	-0.1052	0.2433	0.0004
336	SLU 8	2.86	0.11	40.9	-0.1039	0.2399	0.0003
336	SLU 9	2.86	0.11	40.89	-0.1039	0.24	0.0003
336	SLU 10	3.16	0.12	45.1	-0.1149	0.2668	0.0004
336	SLU 11	3.22	0.12	46.22	-0.1188	0.2732	0.0004
336	SLU 12	3.22	0.12	46.21	-0.1188	0.2733	0.0004
336	SLU 13	3.18	0.12	45.74	-0.1174	0.27	0.0004
336	SLU 14	3.24	0.12	46.86	-0.1212	0.2764	0.0004
336	SLU 15	3.24	0.12	46.85	-0.1212	0.2765	0.0004
336	SLU 16	3.2	0.12	46.39	-0.1198	0.273	0.0004
336	SLU 17	3.2	0.12	46.38	-0.1198	0.2732	0.0004
336	SLU 18	3.3	0.12	47.47	-0.1218	0.2809	0.0004
336	SLU 19	3.31	0.12	47.46	-0.1218	0.281	0.0004
336	SLU 20	3.32	0.13	48.11	-0.1242	0.2841	0.0004
336	SLU 21	3.33	0.13	48.1	-0.1242	0.2842	0.0004
336	SLU 22	3.12	0.12	44.89	-0.1147	0.2647	0.0004
336	SLU 23	3.13	0.12	44.88	-0.1147	0.2649	0.0004
336	SLU 24	3.18	0.12	46	-0.1186	0.2712	0.0004
336	SLU 25	3.18	0.12	45.99	-0.1185	0.2713	0.0004
336	SLU 26	3.15	0.12	45.52	-0.1171	0.2681	0.0004
336	SLU 27	3.2	0.12	46.64	-0.121	0.2744	0.0004
336	SLU 28	3.21	0.12	46.63	-0.121	0.2745	0.0004
336	SLU 29	3.16	0.12	46.17	-0.1196	0.2711	0.0004
336	SLU 30	3.17	0.12	46.16	-0.1196	0.2712	0.0004
336	SLU 31	3.47	0.13	50.37	-0.1307	0.298	0.0004
336	SLU 32	3.52	0.14	51.49	-0.1345	0.3044	0.0005
336	SLU 33	3.53	0.14	51.49	-0.1345	0.3045	0.0005
336	SLU 34	3.49	0.14	51.01	-0.1331	0.3012	0.0004
336	SLU 35	3.55	0.14	52.13	-0.137	0.3076	0.0005
336	SLU 36	3.55	0.14	52.13	-0.1369	0.3077	0.0005
336	SLU 37	3.51	0.14	51.67	-0.1356	0.3042	0.0005



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
336	SLU 38	3.51	0.14	51.66	-0.1355	0.3044	0.0005
336	SLU 39	3.61	0.14	52.74	-0.1375	0.3121	0.0005
336	SLU 40	3.61	0.14	52.73	-0.1375	0.3122	0.0005
336	SLU 41	3.63	0.14	53.38	-0.14	0.3153	0.0005
336	SLU 42	3.64	0.14	53.37	-0.1399	0.3154	0.0005
336	SLU 43	3.55	0.13	49.7	-0.1233	0.2928	0.0004
336	SLU 44	3.56	0.13	49.69	-0.1233	0.293	0.0004
336	SLU 45	3.61	0.13	50.81	-0.1271	0.2993	0.0004
336	SLU 46	3.62	0.13	50.8	-0.1271	0.2995	0.0004
336	SLU 47	3.58	0.13	50.32	-0.1257	0.2962	0.0004
336	SLU 48	3.63	0.13	51.44	-0.1296	0.3025	0.0004
336	SLU 49	3.64	0.13	51.44	-0.1295	0.3027	0.0004
336	SLU 50	3.59	0.13	50.98	-0.1282	0.2992	0.0004
336	SLU 51	3.6	0.13	50.97	-0.1282	0.2993	0.0004
336	SLU 52	3.9	0.14	55.18	-0.1392	0.3262	0.0005
336	SLU 53	3.96	0.15	56.3	-0.1431	0.3325	0.0005
336	SLU 54	3.96	0.15	56.29	-0.1431	0.3326	0.0005
336	SLU 55	3.92	0.14	55.82	-0.1417	0.3294	0.0005
336	SLU 56	3.98	0.15	56.94	-0.1455	0.3357	0.0005
336	SLU 57	3.98	0.15	56.93	-0.1455	0.3358	0.0005
336	SLU 58	3.94	0.15	56.47	-0.1441	0.3324	0.0005
336	SLU 59	3.94	0.15	56.46	-0.1441	0.3325	0.0005
336	SLU 60	4.04	0.15	57.55	-0.1461	0.3402	0.0005
336	SLU 61	4.05	0.15	57.54	-0.1461	0.3403	0.0005
336	SLU 62	4.06	0.15	58.19	-0.1485	0.3434	0.0005
336	SLU 63	4.07	0.15	58.18	-0.1485	0.3435	0.0005
336	SLU 64	3.86	0.14	54.97	-0.139	0.324	0.0005
336	SLU 65	3.87	0.14	54.96	-0.139	0.3242	0.0005
336	SLU 66	3.92	0.15	56.08	-0.1429	0.3305	0.0005
336	SLU 67	3.92	0.15	56.07	-0.1428	0.3307	0.0005
336	SLU 68	3.89	0.14	55.6	-0.1414	0.3274	0.0005
336	SLU 69	3.94	0.15	56.72	-0.1453	0.3337	0.0005
336	SLU 70	3.94	0.15	56.71	-0.1453	0.3339	0.0005
336	SLU 71	3.9	0.15	56.25	-0.1439	0.3304	0.0005
336	SLU 72	3.91	0.15	56.24	-0.1439	0.3305	0.0005
336	SLU 73	4.21	0.16	60.45	-0.155	0.3574	0.0005
336	SLU 74	4.26	0.16	61.57	-0.1588	0.3637	0.0005
336	SLU 75	4.27	0.16	61.56	-0.1588	0.3638	0.0005
336	SLU 76	4.23	0.16	61.09	-0.1574	0.3606	0.0005
336	SLU 77	4.28	0.16	62.21	-0.1613	0.3669	0.0005
336	SLU 78	4.29	0.16	62.2	-0.1612	0.367	0.0005
336	SLU 79	4.25	0.16	61.74	-0.1599	0.3636	0.0005
336	SLU 80	4.25	0.16	61.74	-0.1599	0.3637	0.0005
336	SLU 81	4.35	0.17	62.82	-0.1618	0.3714	0.0005
336	SLU 82	4.35	0.17	62.81	-0.1618	0.3715	0.0005
336	SLU 83	4.37	0.17	63.46	-0.1643	0.3746	0.0006
336	SLU 84	4.37	0.17	63.45	-0.1643	0.3747	0.0006
336	SLE RA 1	2.9	0.11	41.13	-0.1035	0.2424	0.0003
336	SLE RA 2	2.91	0.11	41.12	-0.1035	0.2425	0.0003
336	SLE RA 3	2.94	0.11	41.86	-0.106	0.2467	0.0004
336	SLE RA 4	2.94	0.11	41.86	-0.106	0.2468	0.0004
336	SLE RA 5	2.92	0.11	41.54	-0.1051	0.2446	0.0004
336	SLE RA 6	2.96	0.11	42.29	-0.1077	0.2489	0.0004
336	SLE RA 7	2.96	0.11	42.29	-0.1077	0.2489	0.0004
336	SLE RA 8	2.93	0.11	41.98	-0.1067	0.2466	0.0004
336	SLE RA 9	2.93	0.11	41.97	-0.1067	0.2467	0.0004
336	SLE RA 10	3.13	0.12	44.78	-0.1141	0.2646	0.0004
336	SLE RA 11	3.17	0.12	45.53	-0.1167	0.2689	0.0004
336	SLE RA 12	3.17	0.12	45.52	-0.1167	0.2689	0.0004
336	SLE RA 13	3.15	0.12	45.21	-0.1157	0.2668	0.0004
336	SLE RA 14	3.18	0.12	45.95	-0.1183	0.271	0.0004
336	SLE RA 15	3.19	0.12	45.95	-0.1183	0.2711	0.0004
336	SLE RA 16	3.16	0.12	45.64	-0.1174	0.2688	0.0004
336	SLE RA 17	3.16	0.12	45.64	-0.1174	0.2688	0.0004
336	SLE RA 18	3.23	0.12	46.36	-0.1187	0.274	0.0004
336	SLE RA 19	3.23	0.12	46.35	-0.1187	0.2741	0.0004
336	SLE RA 20	3.24	0.12	46.79	-0.1203	0.2761	0.0004
336	SLE RA 21	3.24	0.12	46.78	-0.1203	0.2762	0.0004
336	SLE FR 1	2.9	0.11	41.13	-0.1035	0.2424	0.0003
336	SLE FR 2	2.9	0.11	41.13	-0.1035	0.2424	0.0003
336	SLE FR 3	2.91	0.11	41.3	-0.1041	0.2432	0.0004
336	SLE FR 4	3	0.11	42.7	-0.1081	0.2519	0.0004
336	SLE FR 5	3.01	0.11	42.87	-0.1087	0.2527	0.0004
336	SLE FR 6	3.07	0.11	43.74	-0.1111	0.2582	0.0004
336	SLE QP 1	2.9	0.11	41.13	-0.1035	0.2424	0.0003
336	SLE QP 2	3	0.11	42.7	-0.1081	0.2519	0.0004
336	SLD 1	7.44	0.11	36	-0.0852	0.4533	0.0004
336	SLD 2	7.44	0.11	36	-0.0852	0.4533	0.0004
336	SLD 3	6.51	0.14	41.82	-0.0986	0.4206	0.0005
336	SLD 4	6.51	0.14	41.82	-0.0986	0.4206	0.0005
336	SLD 5	5.75	0.08	31.86	-0.0809	0.3618	0.0003
336	SLD 6	5.75	0.08	31.86	-0.0809	0.3618	0.0003
336	SLD 7	2.63	0.15	51.26	-0.1256	0.2529	0.0005
336	SLD 8	2.63	0.15	51.26	-0.1256	0.2529	0.0005
336	SLD 9	3.37	0.07	34.14	-0.0905	0.2508	0.0002
336	SLD 10	3.37	0.07	34.14	-0.0905	0.2508	0.0002
336	SLD 11	0.25	0.14	53.53	-0.1353	0.1419	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
336	SLD 12	0.25	0.14	53.53	-0.1353	0.1419	0.0004
336	SLD 13	-0.51	0.09	43.58	-0.1175	0.0831	0.0002
336	SLD 14	-0.51	0.09	43.58	-0.1175	0.0831	0.0002
336	SLD 15	-1.44	0.11	49.39	-0.1309	0.0505	0.0003
336	SLD 16	-1.44	0.11	49.39	-0.1309	0.0505	0.0003
336	SLV 1	13.38	0.12	26.9	-0.0543	0.7222	0.0005
336	SLV 2	13.38	0.12	26.9	-0.0543	0.7222	0.0005
336	SLV 3	11.14	0.17	40.67	-0.0857	0.6442	0.0007
336	SLV 4	11.14	0.17	40.67	-0.0857	0.6442	0.0007
336	SLV 5	9.5	0.03	17.07	-0.0443	0.5112	0.0002
336	SLV 6	9.5	0.03	17.07	-0.0443	0.5112	0.0002
336	SLV 7	2.05	0.21	62.97	-0.149	0.2513	0.0007
336	SLV 8	2.05	0.21	62.97	-0.149	0.2513	0.0007
336	SLV 9	3.95	0.01	22.42	-0.0671	0.2524	0
336	SLV 10	3.95	0.01	22.42	-0.0671	0.2524	0
336	SLV 11	-3.5	0.19	68.32	-0.1718	-0.0075	0.0006
336	SLV 12	-3.5	0.19	68.32	-0.1718	-0.0075	0.0006
336	SLV 13	-5.14	0.05	44.72	-0.1304	-0.1404	0
336	SLV 14	-5.14	0.05	44.72	-0.1304	-0.1404	0
336	SLV 15	-7.38	0.1	58.49	-0.1618	-0.2184	0.0002
336	SLV 16	-7.38	0.1	58.49	-0.1618	-0.2184	0.0002
337	SLU 1	0.7	0.23	34.26	-0.1627	-0.0141	0.0008
337	SLU 2	0.71	0.23	34.24	-0.1627	-0.0139	0.0008
337	SLU 3	0.69	0.23	35.21	-0.1689	-0.0165	0.0008
337	SLU 4	0.69	0.23	35.2	-0.1689	-0.0164	0.0008
337	SLU 5	0.68	0.23	34.81	-0.1666	-0.0164	0.0008
337	SLU 6	0.67	0.24	35.78	-0.1728	-0.019	0.0008
337	SLU 7	0.67	0.24	35.77	-0.1728	-0.0189	0.0008
337	SLU 8	0.65	0.24	35.4	-0.1705	-0.019	0.0008
337	SLU 9	0.65	0.24	35.39	-0.1705	-0.0189	0.0008
337	SLU 10	0.77	0.26	38.76	-0.189	-0.0173	0.0009
337	SLU 11	0.76	0.27	39.73	-0.1953	-0.02	0.0009
337	SLU 12	0.76	0.27	39.72	-0.1952	-0.0198	0.0009
337	SLU 13	0.75	0.27	39.33	-0.1929	-0.0198	0.0009
337	SLU 14	0.73	0.28	40.3	-0.1992	-0.0224	0.0009
337	SLU 15	0.74	0.28	40.29	-0.1991	-0.0223	0.0009
337	SLU 16	0.72	0.27	39.91	-0.1969	-0.0225	0.0009
337	SLU 17	0.72	0.27	39.91	-0.1969	-0.0223	0.0009
337	SLU 18	0.8	0.28	40.71	-0.2004	-0.019	0.0009
337	SLU 19	0.8	0.28	40.71	-0.2004	-0.0189	0.0009
337	SLU 20	0.77	0.28	41.28	-0.2043	-0.0215	0.001
337	SLU 21	0.78	0.28	41.27	-0.2043	-0.0213	0.001
337	SLU 22	0.73	0.26	38.62	-0.1886	-0.0196	0.0009
337	SLU 23	0.74	0.26	38.61	-0.1886	-0.0193	0.0009
337	SLU 24	0.72	0.27	39.57	-0.1948	-0.022	0.0009
337	SLU 25	0.72	0.27	39.57	-0.1948	-0.0219	0.0009
337	SLU 26	0.71	0.27	39.18	-0.1925	-0.0218	0.0009
337	SLU 27	0.7	0.28	40.14	-0.1987	-0.0244	0.0009
337	SLU 28	0.7	0.28	40.13	-0.1986	-0.0243	0.0009
337	SLU 29	0.68	0.27	39.76	-0.1964	-0.0245	0.0009
337	SLU 30	0.68	0.27	39.75	-0.1964	-0.0243	0.0009
337	SLU 31	0.8	0.3	43.13	-0.2149	-0.0228	0.001
337	SLU 32	0.79	0.31	44.09	-0.2212	-0.0254	0.001
337	SLU 33	0.79	0.31	44.08	-0.2211	-0.0253	0.001
337	SLU 34	0.78	0.3	43.7	-0.2188	-0.0252	0.001
337	SLU 35	0.76	0.31	44.66	-0.2251	-0.0279	0.0011
337	SLU 36	0.77	0.31	44.65	-0.225	-0.0277	0.0011
337	SLU 37	0.75	0.31	44.28	-0.2228	-0.0279	0.001
337	SLU 38	0.75	0.31	44.27	-0.2228	-0.0278	0.001
337	SLU 39	0.83	0.31	45.08	-0.2263	-0.0244	0.0011
337	SLU 40	0.83	0.31	45.07	-0.2263	-0.0243	0.0011
337	SLU 41	0.8	0.32	45.65	-0.2302	-0.0269	0.0011
337	SLU 42	0.81	0.32	45.64	-0.2302	-0.0268	0.0011
337	SLU 43	0.9	0.28	43.04	-0.2027	-0.0165	0.0009
337	SLU 44	0.91	0.28	43.02	-0.2026	-0.0163	0.0009
337	SLU 45	0.89	0.29	43.99	-0.2088	-0.0189	0.001
337	SLU 46	0.89	0.29	43.98	-0.2088	-0.0188	0.001
337	SLU 47	0.88	0.29	43.59	-0.2065	-0.0187	0.001
337	SLU 48	0.87	0.3	44.56	-0.2127	-0.0214	0.001
337	SLU 49	0.87	0.3	44.55	-0.2127	-0.0213	0.001
337	SLU 50	0.85	0.29	44.18	-0.2105	-0.0214	0.001
337	SLU 51	0.86	0.29	44.17	-0.2104	-0.0213	0.001
337	SLU 52	0.97	0.32	47.54	-0.229	-0.0197	0.0011
337	SLU 53	0.96	0.33	48.51	-0.2352	-0.0223	0.0011
337	SLU 54	0.96	0.33	48.5	-0.2352	-0.0222	0.0011
337	SLU 55	0.95	0.32	48.11	-0.2329	-0.0222	0.0011
337	SLU 56	0.93	0.33	49.08	-0.2391	-0.0248	0.0011
337	SLU 57	0.94	0.33	49.07	-0.2391	-0.0247	0.0011
337	SLU 58	0.92	0.33	48.7	-0.2368	-0.0248	0.0011
337	SLU 59	0.92	0.33	48.69	-0.2368	-0.0247	0.0011
337	SLU 60	1	0.33	49.49	-0.2403	-0.0214	0.0011
337	SLU 61	1	0.33	49.49	-0.2403	-0.0212	0.0011
337	SLU 62	0.97	0.34	50.06	-0.2442	-0.0238	0.0011
337	SLU 63	0.98	0.34	50.05	-0.2442	-0.0237	0.0011
337	SLU 64	0.93	0.32	47.4	-0.2286	-0.0219	0.0011
337	SLU 65	0.94	0.32	47.39	-0.2285	-0.0217	0.0011
337	SLU 66	0.92	0.33	48.35	-0.2347	-0.0244	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
337	SLU 67	0.92	0.33	48.35	-0.2347	-0.0242	0.0011
337	SLU 68	0.91	0.32	47.96	-0.2324	-0.0242	0.0011
337	SLU 69	0.9	0.33	48.92	-0.2386	-0.0268	0.0011
337	SLU 70	0.9	0.33	48.91	-0.2386	-0.0267	0.0011
337	SLU 71	0.88	0.33	48.54	-0.2363	-0.0268	0.0011
337	SLU 72	0.88	0.33	48.53	-0.2363	-0.0267	0.0011
337	SLU 73	1	0.35	51.91	-0.2549	-0.0251	0.0012
337	SLU 74	0.99	0.36	52.87	-0.2611	-0.0278	0.0012
337	SLU 75	0.99	0.36	52.86	-0.2611	-0.0276	0.0012
337	SLU 76	0.98	0.36	52.48	-0.2588	-0.0276	0.0012
337	SLU 77	0.96	0.37	53.44	-0.265	-0.0302	0.0012
337	SLU 78	0.97	0.37	53.43	-0.265	-0.0301	0.0012
337	SLU 79	0.95	0.36	53.06	-0.2627	-0.0303	0.0012
337	SLU 80	0.95	0.36	53.05	-0.2627	-0.0301	0.0012
337	SLU 81	1.03	0.37	53.86	-0.2662	-0.0268	0.0012
337	SLU 82	1.03	0.37	53.85	-0.2662	-0.0267	0.0012
337	SLU 83	1	0.38	54.43	-0.2701	-0.0293	0.0013
337	SLU 84	1.01	0.38	54.42	-0.2701	-0.0291	0.0013
337	SLE RA 1	0.71	0.24	35.5	-0.1701	-0.0157	0.0008
337	SLE RA 2	0.71	0.24	35.5	-0.1701	-0.0155	0.0008
337	SLE RA 3	0.7	0.24	36.14	-0.1742	-0.0173	0.0008
337	SLE RA 4	0.7	0.24	36.13	-0.1742	-0.0172	0.0008
337	SLE RA 5	0.7	0.24	35.88	-0.1727	-0.0172	0.0008
337	SLE RA 6	0.69	0.25	36.52	-0.1768	-0.0189	0.0008
337	SLE RA 7	0.69	0.25	36.51	-0.1768	-0.0188	0.0008
337	SLE RA 8	0.68	0.24	36.26	-0.1753	-0.019	0.0008
337	SLE RA 9	0.68	0.24	36.26	-0.1753	-0.0189	0.0008
337	SLE RA 10	0.76	0.26	38.51	-0.1877	-0.0178	0.0009
337	SLE RA 11	0.75	0.27	39.15	-0.1918	-0.0196	0.0009
337	SLE RA 12	0.75	0.27	39.15	-0.1918	-0.0195	0.0009
337	SLE RA 13	0.74	0.26	38.89	-0.1903	-0.0194	0.0009
337	SLE RA 14	0.73	0.27	39.53	-0.1944	-0.0212	0.0009
337	SLE RA 15	0.73	0.27	39.52	-0.1944	-0.0211	0.0009
337	SLE RA 16	0.72	0.27	39.28	-0.1929	-0.0212	0.0009
337	SLE RA 17	0.72	0.27	39.27	-0.1929	-0.0211	0.0009
337	SLE RA 18	0.77	0.27	39.81	-0.1952	-0.0189	0.0009
337	SLE RA 19	0.78	0.27	39.8	-0.1952	-0.0188	0.0009
337	SLE RA 20	0.76	0.27	40.19	-0.1978	-0.0206	0.0009
337	SLE RA 21	0.76	0.27	40.18	-0.1978	-0.0205	0.0009
337	SLE FR 1	0.71	0.24	35.5	-0.1701	-0.0157	0.0008
337	SLE FR 2	0.71	0.24	35.5	-0.1701	-0.0156	0.0008
337	SLE FR 3	0.7	0.24	35.66	-0.1712	-0.0163	0.0008
337	SLE FR 4	0.73	0.25	36.79	-0.1776	-0.0166	0.0008
337	SLE FR 5	0.72	0.25	36.95	-0.1787	-0.0173	0.0008
337	SLE FR 6	0.74	0.25	37.66	-0.1827	-0.0173	0.0009
337	SLE QP 1	0.71	0.24	35.5	-0.1701	-0.0157	0.0008
337	SLE QP 2	0.73	0.25	36.8	-0.1777	-0.0166	0.0008
337	SLD 1	5.24	0.21	32.25	-0.1429	0.1838	0.0009
337	SLD 2	5.24	0.21	32.25	-0.1429	0.1838	0.0009
337	SLD 3	4.45	0.23	36.63	-0.1613	0.1516	0.001
337	SLD 4	4.45	0.23	36.63	-0.1613	0.1516	0.001
337	SLD 5	3.29	0.21	28.79	-0.1393	0.0923	0.0008
337	SLD 6	3.29	0.21	28.79	-0.1393	0.0923	0.0008
337	SLD 7	0.64	0.27	43.38	-0.2007	-0.015	0.001
337	SLD 8	0.64	0.27	43.38	-0.2007	-0.015	0.001
337	SLD 9	0.82	0.23	30.21	-0.1546	-0.0183	0.0007
337	SLD 10	0.82	0.23	30.21	-0.1546	-0.0183	0.0007
337	SLD 11	-1.83	0.28	44.8	-0.216	-0.1256	0.0009
337	SLD 12	-1.83	0.28	44.8	-0.216	-0.1256	0.0009
337	SLD 13	-2.99	0.27	36.96	-0.194	-0.1849	0.0007
337	SLD 14	-2.99	0.27	36.96	-0.194	-0.1849	0.0007
337	SLD 15	-3.79	0.28	41.34	-0.2124	-0.2171	0.0007
337	SLD 16	-3.79	0.28	41.34	-0.2124	-0.2171	0.0007
337	SLV 1	11.28	0.16	26.07	-0.0957	0.4515	0.0011
337	SLV 2	11.28	0.16	26.07	-0.0957	0.4515	0.0011
337	SLV 3	9.37	0.2	36.41	-0.139	0.3742	0.0013
337	SLV 4	9.37	0.2	36.41	-0.139	0.3742	0.0013
337	SLV 5	6.79	0.16	17.89	-0.0874	0.241	0.0007
337	SLV 6	6.79	0.16	17.89	-0.0874	0.241	0.0007
337	SLV 7	0.43	0.29	52.37	-0.2317	-0.0166	0.0012
337	SLV 8	0.43	0.29	52.37	-0.2317	-0.0166	0.0012
337	SLV 9	1.03	0.2	21.22	-0.1236	-0.0167	0.0005
337	SLV 10	1.03	0.2	21.22	-0.1236	-0.0167	0.0005
337	SLV 11	-5.33	0.33	55.7	-0.2679	-0.2743	0.001
337	SLV 12	-5.33	0.33	55.7	-0.2679	-0.2743	0.001
337	SLV 13	-7.91	0.29	37.18	-0.2163	-0.4075	0.0004
337	SLV 14	-7.91	0.29	37.18	-0.2163	-0.4075	0.0004
337	SLV 15	-9.82	0.33	47.52	-0.2596	-0.4848	0.0006
337	SLV 16	-9.82	0.33	47.52	-0.2596	-0.4848	0.0006
338	SLU 1	2.49	0.3	29.61	-0.2083	0.2004	0.0011
338	SLU 2	2.5	0.3	29.6	-0.2082	0.2005	0.0011
338	SLU 3	2.55	0.31	30.42	-0.2162	0.2062	0.0012
338	SLU 4	2.55	0.31	30.42	-0.2161	0.2063	0.0012
338	SLU 5	2.51	0.3	30.1	-0.2132	0.2032	0.0012
338	SLU 6	2.57	0.32	30.93	-0.2212	0.2089	0.0012
338	SLU 7	2.57	0.32	30.92	-0.2211	0.209	0.0012
338	SLU 8	2.53	0.31	30.62	-0.2183	0.2058	0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
338	SLU 9	2.53	0.31	30.61	-0.2182	0.2058	0.0012
338	SLU 10	2.9	0.35	33.3	-0.2421	0.2328	0.0013
338	SLU 11	2.95	0.36	34.13	-0.2501	0.2385	0.0014
338	SLU 12	2.96	0.36	34.12	-0.25	0.2386	0.0014
338	SLU 13	2.92	0.35	33.81	-0.2471	0.2355	0.0014
338	SLU 14	2.97	0.36	34.63	-0.255	0.2412	0.0014
338	SLU 15	2.97	0.36	34.63	-0.255	0.2413	0.0014
338	SLU 16	2.93	0.36	34.33	-0.2521	0.238	0.0014
338	SLU 17	2.93	0.36	34.32	-0.2521	0.2381	0.0014
338	SLU 18	3.07	0.37	34.9	-0.2567	0.2465	0.0014
338	SLU 19	3.07	0.37	34.89	-0.2566	0.2466	0.0014
338	SLU 20	3.08	0.37	35.41	-0.2617	0.2492	0.0014
338	SLU 21	3.09	0.37	35.4	-0.2616	0.2493	0.0014
338	SLU 22	2.84	0.34	33.21	-0.2415	0.2301	0.0013
338	SLU 23	2.85	0.34	33.2	-0.2414	0.2302	0.0013
338	SLU 24	2.9	0.36	34.02	-0.2494	0.236	0.0014
338	SLU 25	2.9	0.36	34.02	-0.2493	0.236	0.0014
338	SLU 26	2.86	0.35	33.7	-0.2464	0.2329	0.0013
338	SLU 27	2.92	0.36	34.53	-0.2544	0.2386	0.0014
338	SLU 28	2.92	0.36	34.52	-0.2543	0.2387	0.0014
338	SLU 29	2.88	0.36	34.22	-0.2515	0.2355	0.0014
338	SLU 30	2.88	0.36	34.21	-0.2514	0.2355	0.0014
338	SLU 31	3.25	0.39	36.9	-0.2753	0.2625	0.0015
338	SLU 32	3.31	0.4	37.73	-0.2833	0.2682	0.0016
338	SLU 33	3.31	0.4	37.72	-0.2832	0.2683	0.0016
338	SLU 34	3.27	0.4	37.41	-0.2803	0.2652	0.0015
338	SLU 35	3.32	0.41	38.23	-0.2883	0.2709	0.0016
338	SLU 36	3.32	0.41	38.23	-0.2882	0.271	0.0016
338	SLU 37	3.28	0.41	37.93	-0.2854	0.2677	0.0016
338	SLU 38	3.28	0.41	37.92	-0.2853	0.2678	0.0016
338	SLU 39	3.42	0.41	38.5	-0.2899	0.2762	0.0016
338	SLU 40	3.42	0.41	38.49	-0.2898	0.2763	0.0016
338	SLU 41	3.44	0.42	39.01	-0.2949	0.2789	0.0016
338	SLU 42	3.44	0.42	39	-0.2948	0.279	0.0016
338	SLU 43	3.12	0.37	37.26	-0.2594	0.2503	0.0014
338	SLU 44	3.12	0.37	37.25	-0.2593	0.2505	0.0014
338	SLU 45	3.18	0.38	38.07	-0.2673	0.2562	0.0015
338	SLU 46	3.18	0.38	38.06	-0.2672	0.2563	0.0015
338	SLU 47	3.14	0.38	37.75	-0.2643	0.2531	0.0014
338	SLU 48	3.2	0.39	38.58	-0.2723	0.2589	0.0015
338	SLU 49	3.2	0.39	38.57	-0.2722	0.2589	0.0015
338	SLU 50	3.15	0.38	38.27	-0.2694	0.2557	0.0015
338	SLU 51	3.16	0.38	38.26	-0.2693	0.2558	0.0015
338	SLU 52	3.53	0.42	40.95	-0.2932	0.2827	0.0016
338	SLU 53	3.58	0.43	41.78	-0.3012	0.2884	0.0017
338	SLU 54	3.58	0.43	41.77	-0.3011	0.2885	0.0017
338	SLU 55	3.54	0.43	41.46	-0.2982	0.2854	0.0016
338	SLU 56	3.6	0.44	42.28	-0.3061	0.2911	0.0017
338	SLU 57	3.6	0.44	42.27	-0.3061	0.2912	0.0017
338	SLU 58	3.56	0.43	41.97	-0.3033	0.288	0.0017
338	SLU 59	3.56	0.43	41.97	-0.3032	0.288	0.0017
338	SLU 60	3.69	0.44	42.55	-0.3078	0.2964	0.0017
338	SLU 61	3.7	0.44	42.54	-0.3077	0.2965	0.0017
338	SLU 62	3.71	0.45	43.06	-0.3128	0.2991	0.0017
338	SLU 63	3.71	0.45	43.05	-0.3127	0.2992	0.0017
338	SLU 64	3.47	0.42	40.86	-0.2926	0.28	0.0016
338	SLU 65	3.47	0.42	40.85	-0.2925	0.2802	0.0016
338	SLU 66	3.53	0.43	41.67	-0.3005	0.2859	0.0016
338	SLU 67	3.53	0.43	41.66	-0.3004	0.286	0.0016
338	SLU 68	3.49	0.42	41.35	-0.2975	0.2829	0.0016
338	SLU 69	3.55	0.44	42.18	-0.3055	0.2886	0.0017
338	SLU 70	3.55	0.44	42.17	-0.3054	0.2887	0.0017
338	SLU 71	3.51	0.43	41.87	-0.3026	0.2854	0.0017
338	SLU 72	3.51	0.43	41.86	-0.3025	0.2855	0.0017
338	SLU 73	3.88	0.47	44.55	-0.3264	0.3124	0.0018
338	SLU 74	3.93	0.48	45.38	-0.3344	0.3182	0.0018
338	SLU 75	3.93	0.48	45.37	-0.3343	0.3182	0.0018
338	SLU 76	3.89	0.47	45.06	-0.3314	0.3151	0.0018
338	SLU 77	3.95	0.48	45.88	-0.3394	0.3208	0.0019
338	SLU 78	3.95	0.48	45.87	-0.3393	0.3209	0.0019
338	SLU 79	3.91	0.48	45.57	-0.3365	0.3177	0.0018
338	SLU 80	3.91	0.48	45.57	-0.3364	0.3178	0.0018
338	SLU 81	4.04	0.49	46.15	-0.341	0.3261	0.0019
338	SLU 82	4.05	0.49	46.14	-0.3409	0.3262	0.0019
338	SLU 83	4.06	0.49	46.66	-0.346	0.3288	0.0019
338	SLU 84	4.06	0.49	46.65	-0.3459	0.3289	0.0019
338	SLE RA 1	2.59	0.31	30.64	-0.2178	0.2089	0.0012
338	SLE RA 2	2.59	0.31	30.63	-0.2177	0.209	0.0012
338	SLE RA 3	2.63	0.32	31.18	-0.223	0.2128	0.0012
338	SLE RA 4	2.63	0.32	31.18	-0.223	0.2128	0.0012
338	SLE RA 5	2.61	0.32	30.97	-0.221	0.2108	0.0012
338	SLE RA 6	2.64	0.32	31.52	-0.2264	0.2146	0.0012
338	SLE RA 7	2.65	0.32	31.51	-0.2263	0.2146	0.0012
338	SLE RA 8	2.62	0.32	31.31	-0.2244	0.2125	0.0012
338	SLE RA 9	2.62	0.32	31.31	-0.2244	0.2125	0.0012
338	SLE RA 10	2.86	0.34	33.1	-0.2403	0.2305	0.0013
338	SLE RA 11	2.9	0.35	33.65	-0.2456	0.2343	0.0013



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
338	SLE RA 12	2.9	0.35	33.65	-0.2456	0.2344	0.0013
338	SLE RA 13	2.87	0.35	33.44	-0.2436	0.2323	0.0013
338	SLE RA 14	2.91	0.36	33.99	-0.2489	0.2361	0.0014
338	SLE RA 15	2.91	0.35	33.98	-0.2489	0.2361	0.0014
338	SLE RA 16	2.88	0.35	33.78	-0.247	0.234	0.0014
338	SLE RA 17	2.89	0.35	33.78	-0.247	0.234	0.0014
338	SLE RA 18	2.98	0.36	34.17	-0.25	0.2396	0.0014
338	SLE RA 19	2.98	0.36	34.16	-0.25	0.2397	0.0014
338	SLE RA 20	2.99	0.36	34.5	-0.2534	0.2414	0.0014
338	SLE RA 21	2.99	0.36	34.5	-0.2533	0.2415	0.0014
338	SLE FR 1	2.59	0.31	30.64	-0.2178	0.2089	0.0012
338	SLE FR 2	2.59	0.31	30.64	-0.2178	0.2089	0.0012
338	SLE FR 3	2.6	0.31	30.77	-0.2191	0.2096	0.0012
338	SLE FR 4	2.71	0.32	31.69	-0.2274	0.2181	0.0012
338	SLE FR 5	2.71	0.33	31.83	-0.2288	0.2188	0.0013
338	SLE FR 6	2.78	0.33	32.4	-0.2339	0.2242	0.0013
338	SLE QP 1	2.59	0.31	30.64	-0.2178	0.2089	0.0012
338	SLE QP 2	2.71	0.32	31.7	-0.2275	0.2181	0.0012
338	SLD 1	7.59	0.27	28.59	-0.1803	0.4127	0.001
338	SLD 2	7.59	0.27	28.59	-0.1803	0.4127	0.001
338	SLD 3	6.94	0.29	32.02	-0.207	0.4414	0.0011
338	SLD 4	6.94	0.29	32.02	-0.207	0.4414	0.0011
338	SLD 5	5.15	0.28	25.57	-0.1729	0.233	0.001
338	SLD 6	5.15	0.28	25.57	-0.1729	0.233	0.001
338	SLD 7	3	0.35	36.99	-0.2617	0.3285	0.0014
338	SLD 8	3	0.35	36.99	-0.2617	0.3285	0.0014
338	SLD 9	2.41	0.3	26.4	-0.1932	0.1077	0.0011
338	SLD 10	2.41	0.3	26.4	-0.1932	0.1077	0.0011
338	SLD 11	0.27	0.37	37.83	-0.282	0.2031	0.0015
338	SLD 12	0.27	0.37	37.83	-0.282	0.2031	0.0015
338	SLD 13	-1.53	0.35	31.37	-0.2479	-0.0052	0.0014
338	SLD 14	-1.53	0.35	31.37	-0.2479	-0.0052	0.0014
338	SLD 15	-2.17	0.38	34.8	-0.2746	0.0235	0.0015
338	SLD 16	-2.17	0.38	34.8	-0.2746	0.0235	0.0015
338	SLV 1	14.1	0.2	24.36	-0.1161	0.6708	0.0007
338	SLV 2	14.1	0.2	24.36	-0.1161	0.6708	0.0007
338	SLV 3	12.55	0.25	32.44	-0.1792	0.7394	0.0009
338	SLV 4	12.55	0.25	32.44	-0.1792	0.7394	0.0009
338	SLV 5	8.48	0.21	17.23	-0.0984	0.2498	0.0007
338	SLV 6	8.48	0.21	17.23	-0.0984	0.2498	0.0007
338	SLV 7	3.31	0.38	44.18	-0.3086	0.4785	0.0015
338	SLV 8	3.31	0.38	44.18	-0.3086	0.4785	0.0015
338	SLV 9	2.1	0.27	19.21	-0.1463	-0.0423	0.001
338	SLV 10	2.1	0.27	19.21	-0.1463	-0.0423	0.001
338	SLV 11	-3.06	0.44	46.16	-0.3565	0.1863	0.0018
338	SLV 12	-3.06	0.44	46.16	-0.3565	0.1863	0.0018
338	SLV 13	-7.14	0.39	30.95	-0.2757	-0.3032	0.0016
338	SLV 14	-7.14	0.39	30.95	-0.2757	-0.3032	0.0016
338	SLV 15	-8.69	0.45	39.04	-0.3388	-0.2346	0.0018
338	SLV 16	-8.69	0.45	39.04	-0.3388	-0.2346	0.0018
339	SLU 1	2.65	0.32	26.69	-0.2328	0.07	0.0013
339	SLU 2	2.65	0.32	26.68	-0.2327	0.0701	0.0013
339	SLU 3	2.71	0.33	27.43	-0.2417	0.0709	0.0014
339	SLU 4	2.72	0.33	27.42	-0.2416	0.071	0.0014
339	SLU 5	2.67	0.33	27.15	-0.2384	0.0697	0.0014
339	SLU 6	2.73	0.34	27.9	-0.2473	0.0705	0.0014
339	SLU 7	2.74	0.34	27.89	-0.2473	0.0706	0.0014
339	SLU 8	2.69	0.34	27.64	-0.2441	0.0691	0.0014
339	SLU 9	2.69	0.34	27.63	-0.244	0.0692	0.0014
339	SLU 10	3.13	0.37	29.88	-0.2707	0.084	0.0015
339	SLU 11	3.19	0.39	30.63	-0.2797	0.0848	0.0016
339	SLU 12	3.19	0.39	30.62	-0.2796	0.0849	0.0016
339	SLU 13	3.15	0.38	30.35	-0.2764	0.0836	0.0016
339	SLU 14	3.21	0.39	31.1	-0.2853	0.0844	0.0016
339	SLU 15	3.21	0.39	31.09	-0.2853	0.0845	0.0016
339	SLU 16	3.17	0.39	30.84	-0.2821	0.083	0.0016
339	SLU 17	3.17	0.39	30.83	-0.282	0.0831	0.0016
339	SLU 18	3.33	0.4	31.26	-0.2871	0.0898	0.0016
339	SLU 19	3.33	0.4	31.26	-0.2871	0.0899	0.0016
339	SLU 20	3.35	0.4	31.74	-0.2927	0.0894	0.0017
339	SLU 21	3.35	0.4	31.73	-0.2927	0.0895	0.0017
339	SLU 22	3.06	0.37	29.82	-0.27	0.0808	0.0015
339	SLU 23	3.06	0.37	29.81	-0.2699	0.081	0.0015
339	SLU 24	3.13	0.38	30.56	-0.2789	0.0818	0.0016
339	SLU 25	3.13	0.38	30.55	-0.2788	0.0819	0.0016
339	SLU 26	3.08	0.38	30.28	-0.2756	0.0806	0.0016
339	SLU 27	3.15	0.39	31.03	-0.2845	0.0814	0.0016
339	SLU 28	3.15	0.39	31.02	-0.2844	0.0815	0.0016
339	SLU 29	3.1	0.39	30.77	-0.2813	0.08	0.0016
339	SLU 30	3.1	0.39	30.76	-0.2812	0.0801	0.0016
339	SLU 31	3.54	0.42	33.01	-0.3079	0.0949	0.0018
339	SLU 32	3.6	0.44	33.76	-0.3169	0.0957	0.0018
339	SLU 33	3.6	0.44	33.75	-0.3168	0.0958	0.0018
339	SLU 34	3.56	0.43	33.48	-0.3136	0.0945	0.0018
339	SLU 35	3.62	0.44	34.23	-0.3225	0.0953	0.0018
339	SLU 36	3.62	0.44	34.22	-0.3224	0.0954	0.0018
339	SLU 37	3.58	0.44	33.97	-0.3193	0.0939	0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
339	SLU 38	3.58	0.44	33.96	-0.3192	0.094	0.0018
339	SLU 39	3.74	0.45	34.39	-0.3243	0.1007	0.0018
339	SLU 40	3.74	0.45	34.38	-0.3243	0.1008	0.0018
339	SLU 41	3.76	0.45	34.87	-0.3299	0.1003	0.0019
339	SLU 42	3.76	0.45	34.86	-0.3299	0.1004	0.0019
339	SLU 43	3.3	0.4	33.63	-0.2899	0.0872	0.0017
339	SLU 44	3.3	0.4	33.61	-0.2898	0.0874	0.0017
339	SLU 45	3.37	0.41	34.36	-0.2988	0.0882	0.0017
339	SLU 46	3.37	0.41	34.35	-0.2987	0.0883	0.0017
339	SLU 47	3.32	0.41	34.08	-0.2955	0.0869	0.0017
339	SLU 48	3.39	0.42	34.83	-0.3044	0.0878	0.0017
339	SLU 49	3.39	0.42	34.83	-0.3044	0.0879	0.0017
339	SLU 50	3.34	0.42	34.57	-0.3012	0.0864	0.0017
339	SLU 51	3.34	0.42	34.56	-0.3011	0.0864	0.0017
339	SLU 52	3.78	0.45	36.81	-0.3278	0.1013	0.0019
339	SLU 53	3.84	0.46	37.56	-0.3368	0.1021	0.0019
339	SLU 54	3.85	0.46	37.55	-0.3367	0.1022	0.0019
339	SLU 55	3.8	0.46	37.29	-0.3335	0.1008	0.0019
339	SLU 56	3.86	0.47	38.04	-0.3424	0.1017	0.0019
339	SLU 57	3.87	0.47	38.03	-0.3423	0.1018	0.0019
339	SLU 58	3.82	0.47	37.77	-0.3392	0.1003	0.0019
339	SLU 59	3.82	0.47	37.76	-0.3391	0.1004	0.0019
339	SLU 60	3.98	0.47	38.2	-0.3442	0.1071	0.002
339	SLU 61	3.98	0.47	38.19	-0.3442	0.1072	0.002
339	SLU 62	4	0.48	38.67	-0.3498	0.1067	0.002
339	SLU 63	4	0.48	38.66	-0.3498	0.1067	0.002
339	SLU 64	3.71	0.45	36.75	-0.3271	0.0981	0.0019
339	SLU 65	3.72	0.45	36.74	-0.327	0.0982	0.0019
339	SLU 66	3.78	0.46	37.49	-0.336	0.0991	0.0019
339	SLU 67	3.78	0.46	37.48	-0.3359	0.0992	0.0019
339	SLU 68	3.74	0.46	37.21	-0.3327	0.0978	0.0019
339	SLU 69	3.8	0.47	37.96	-0.3416	0.0986	0.0019
339	SLU 70	3.8	0.47	37.96	-0.3415	0.0987	0.0019
339	SLU 71	3.75	0.47	37.7	-0.3384	0.0972	0.0019
339	SLU 72	3.75	0.47	37.69	-0.3383	0.0973	0.0019
339	SLU 73	4.19	0.5	39.94	-0.365	0.1122	0.0021
339	SLU 74	4.26	0.52	40.69	-0.374	0.113	0.0021
339	SLU 75	4.26	0.52	40.68	-0.3739	0.1131	0.0021
339	SLU 76	4.21	0.51	40.42	-0.3707	0.1117	0.0021
339	SLU 77	4.28	0.52	41.16	-0.3796	0.1126	0.0022
339	SLU 78	4.28	0.52	41.16	-0.3795	0.1126	0.0022
339	SLU 79	4.23	0.52	40.9	-0.3764	0.1111	0.0021
339	SLU 80	4.23	0.52	40.89	-0.3763	0.1112	0.0021
339	SLU 81	4.39	0.53	41.33	-0.3814	0.118	0.0022
339	SLU 82	4.4	0.53	41.32	-0.3814	0.1181	0.0022
339	SLU 83	4.41	0.53	41.8	-0.387	0.1175	0.0022
339	SLU 84	4.42	0.53	41.79	-0.387	0.1176	0.0022
339	SLE RA 1	2.76	0.34	27.58	-0.2435	0.0731	0.0014
339	SLE RA 2	2.77	0.34	27.58	-0.2434	0.0732	0.0014
339	SLE RA 3	2.81	0.34	28.08	-0.2494	0.0737	0.0014
339	SLE RA 4	2.81	0.34	28.07	-0.2493	0.0738	0.0014
339	SLE RA 5	2.78	0.34	27.89	-0.2472	0.0729	0.0014
339	SLE RA 6	2.82	0.35	28.39	-0.2531	0.0734	0.0014
339	SLE RA 7	2.82	0.35	28.39	-0.2531	0.0735	0.0014
339	SLE RA 8	2.79	0.35	28.22	-0.251	0.0725	0.0014
339	SLE RA 9	2.79	0.35	28.21	-0.2509	0.0726	0.0014
339	SLE RA 10	3.09	0.37	29.71	-0.2687	0.0824	0.0015
339	SLE RA 11	3.13	0.38	30.21	-0.2747	0.083	0.0016
339	SLE RA 12	3.13	0.38	30.2	-0.2747	0.0831	0.0016
339	SLE RA 13	3.1	0.38	30.03	-0.2725	0.0822	0.0016
339	SLE RA 14	3.14	0.38	30.52	-0.2784	0.0827	0.0016
339	SLE RA 15	3.14	0.38	30.52	-0.2784	0.0828	0.0016
339	SLE RA 16	3.11	0.38	30.35	-0.2763	0.0818	0.0016
339	SLE RA 17	3.11	0.38	30.34	-0.2763	0.0818	0.0016
339	SLE RA 18	3.22	0.39	30.63	-0.2797	0.0863	0.0016
339	SLE RA 19	3.22	0.39	30.63	-0.2796	0.0864	0.0016
339	SLE RA 20	3.23	0.39	30.95	-0.2834	0.086	0.0016
339	SLE RA 21	3.23	0.39	30.94	-0.2834	0.0861	0.0016
339	SLE FR 1	2.76	0.34	27.58	-0.2435	0.0731	0.0014
339	SLE FR 2	2.77	0.34	27.58	-0.2435	0.0731	0.0014
339	SLE FR 3	2.77	0.34	27.71	-0.245	0.073	0.0014
339	SLE FR 4	2.9	0.35	28.5	-0.2543	0.0771	0.0014
339	SLE FR 5	2.91	0.35	28.63	-0.2558	0.0769	0.0015
339	SLE FR 6	2.99	0.36	29.11	-0.2616	0.0797	0.0015
339	SLE QP 1	2.76	0.34	27.58	-0.2435	0.0731	0.0014
339	SLE QP 2	2.9	0.35	28.5	-0.2543	0.077	0.0014
339	SLD 1	8.17	0.29	26.12	-0.1974	0.3076	0.0012
339	SLD 2	8.17	0.29	26.12	-0.1974	0.3076	0.0012
339	SLD 3	7.54	0.32	29	-0.2322	0.2823	0.0013
339	SLD 4	7.54	0.32	29	-0.2322	0.2823	0.0013
339	SLD 5	5.43	0.28	23.41	-0.1844	0.1846	0.0011
339	SLD 6	5.43	0.28	23.41	-0.1844	0.1846	0.0011
339	SLD 7	3.34	0.39	33.02	-0.3005	0.1002	0.0016
339	SLD 8	3.34	0.39	33.02	-0.3005	0.1002	0.0016
339	SLD 9	2.46	0.31	23.98	-0.2081	0.0539	0.0013
339	SLD 10	2.46	0.31	23.98	-0.2081	0.0539	0.0013
339	SLD 11	0.37	0.42	33.59	-0.3243	-0.0305	0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
339	SLD 12	0.37	0.42	33.59	-0.3243	-0.0305	0.0018
339	SLD 13	-1.73	0.38	28	-0.2764	-0.1282	0.0016
339	SLD 14	-1.73	0.38	28	-0.2764	-0.1282	0.0016
339	SLD 15	-2.36	0.42	30.88	-0.3113	-0.1535	0.0017
339	SLD 16	-2.36	0.42	30.88	-0.3113	-0.1535	0.0017
339	SLV 1	15.19	0.2	22.86	-0.1193	0.6153	0.0007
339	SLV 2	15.19	0.2	22.86	-0.1193	0.6153	0.0007
339	SLV 3	13.68	0.28	29.65	-0.2022	0.5543	0.0011
339	SLV 4	13.68	0.28	29.65	-0.2022	0.5543	0.0011
339	SLV 5	8.88	0.18	16.51	-0.0881	0.3311	0.0007
339	SLV 6	8.88	0.18	16.51	-0.0881	0.3311	0.0007
339	SLV 7	3.84	0.45	39.15	-0.3644	0.1277	0.0019
339	SLV 8	3.84	0.45	39.15	-0.3644	0.1277	0.0019
339	SLV 9	1.96	0.25	17.85	-0.1442	0.0264	0.001
339	SLV 10	1.96	0.25	17.85	-0.1442	0.0264	0.001
339	SLV 11	-3.08	0.52	40.49	-0.4206	-0.177	0.0022
339	SLV 12	-3.08	0.52	40.49	-0.4206	-0.177	0.0022
339	SLV 13	-7.88	0.42	27.35	-0.3064	-0.4002	0.0018
339	SLV 14	-7.88	0.42	27.35	-0.3064	-0.4002	0.0018
339	SLV 15	-9.39	0.51	34.14	-0.3893	-0.4613	0.0021
339	SLV 16	-9.39	0.51	34.14	-0.3893	-0.4613	0.0021
340	SLU 1	5.3	0.32	25.23	-0.2398	0.2908	0.0015
340	SLU 2	5.3	0.32	25.21	-0.2397	0.2909	0.0015
340	SLU 3	5.47	0.33	25.93	-0.2489	0.3002	0.0015
340	SLU 4	5.47	0.33	25.93	-0.2489	0.3002	0.0015
340	SLU 5	5.39	0.33	25.68	-0.2455	0.2958	0.0015
340	SLU 6	5.55	0.34	26.4	-0.2548	0.305	0.0016
340	SLU 7	5.55	0.34	26.39	-0.2547	0.3051	0.0016
340	SLU 8	5.47	0.33	26.16	-0.2514	0.3005	0.0015
340	SLU 9	5.47	0.33	26.15	-0.2514	0.3006	0.0015
340	SLU 10	6.24	0.37	28.18	-0.2789	0.3413	0.0017
340	SLU 11	6.41	0.38	28.9	-0.2882	0.3505	0.0018
340	SLU 12	6.41	0.38	28.89	-0.2881	0.3506	0.0018
340	SLU 13	6.33	0.38	28.64	-0.2848	0.3461	0.0017
340	SLU 14	6.49	0.39	29.36	-0.294	0.3554	0.0018
340	SLU 15	6.49	0.39	29.36	-0.294	0.3554	0.0018
340	SLU 16	6.41	0.39	29.13	-0.2907	0.3509	0.0018
340	SLU 17	6.41	0.39	29.12	-0.2906	0.3509	0.0018
340	SLU 18	6.64	0.39	29.46	-0.2959	0.3628	0.0018
340	SLU 19	6.65	0.39	29.45	-0.2958	0.3628	0.0018
340	SLU 20	6.73	0.4	29.93	-0.3017	0.3676	0.0018
340	SLU 21	6.73	0.4	29.92	-0.3016	0.3677	0.0018
340	SLU 22	6.16	0.37	28.13	-0.2782	0.3374	0.0017
340	SLU 23	6.16	0.37	28.12	-0.2781	0.3375	0.0017
340	SLU 24	6.33	0.38	28.84	-0.2873	0.3468	0.0018
340	SLU 25	6.33	0.38	28.83	-0.2872	0.3468	0.0018
340	SLU 26	6.24	0.38	28.59	-0.2839	0.3423	0.0017
340	SLU 27	6.41	0.39	29.31	-0.2931	0.3516	0.0018
340	SLU 28	6.41	0.39	29.3	-0.2931	0.3517	0.0018
340	SLU 29	6.32	0.38	29.07	-0.2898	0.3471	0.0018
340	SLU 30	6.33	0.38	29.06	-0.2898	0.3471	0.0018
340	SLU 31	7.1	0.42	31.08	-0.3173	0.3879	0.0019
340	SLU 32	7.27	0.43	31.8	-0.3266	0.3971	0.002
340	SLU 33	7.27	0.43	31.79	-0.3265	0.3972	0.002
340	SLU 34	7.18	0.43	31.55	-0.3232	0.3927	0.002
340	SLU 35	7.35	0.44	32.27	-0.3324	0.402	0.002
340	SLU 36	7.35	0.44	32.26	-0.3323	0.402	0.002
340	SLU 37	7.26	0.44	32.03	-0.3291	0.3974	0.002
340	SLU 38	7.27	0.44	32.02	-0.329	0.3975	0.002
340	SLU 39	7.5	0.44	32.37	-0.3343	0.4094	0.002
340	SLU 40	7.5	0.44	32.36	-0.3342	0.4094	0.002
340	SLU 41	7.58	0.45	32.83	-0.3401	0.4142	0.0021
340	SLU 42	7.58	0.45	32.83	-0.34	0.4142	0.0021
340	SLU 43	6.6	0.4	31.8	-0.2985	0.3621	0.0018
340	SLU 44	6.6	0.4	31.79	-0.2984	0.3622	0.0018
340	SLU 45	6.77	0.41	32.51	-0.3077	0.3715	0.0019
340	SLU 46	6.77	0.41	32.5	-0.3076	0.3715	0.0019
340	SLU 47	6.68	0.4	32.25	-0.3043	0.367	0.0019
340	SLU 48	6.85	0.42	32.97	-0.3135	0.3763	0.0019
340	SLU 49	6.85	0.42	32.97	-0.3135	0.3764	0.0019
340	SLU 50	6.77	0.41	32.74	-0.3102	0.3718	0.0019
340	SLU 51	6.77	0.41	32.73	-0.3101	0.3718	0.0019
340	SLU 52	7.54	0.45	34.75	-0.3377	0.4126	0.0021
340	SLU 53	7.71	0.46	35.47	-0.3469	0.4218	0.0021
340	SLU 54	7.71	0.46	35.46	-0.3469	0.4219	0.0021
340	SLU 55	7.62	0.46	35.22	-0.3435	0.4174	0.0021
340	SLU 56	7.79	0.47	35.94	-0.3528	0.4267	0.0022
340	SLU 57	7.79	0.47	35.93	-0.3527	0.4267	0.0022
340	SLU 58	7.7	0.46	35.7	-0.3495	0.4221	0.0021
340	SLU 59	7.71	0.46	35.69	-0.3494	0.4222	0.0021
340	SLU 60	7.94	0.47	36.04	-0.3546	0.434	0.0022
340	SLU 61	7.94	0.47	36.03	-0.3546	0.4341	0.0022
340	SLU 62	8.02	0.48	36.5	-0.3605	0.4389	0.0022
340	SLU 63	8.03	0.48	36.49	-0.3604	0.4389	0.0022
340	SLU 64	7.46	0.45	34.71	-0.3369	0.4087	0.0021
340	SLU 65	7.46	0.45	34.69	-0.3368	0.4088	0.0021
340	SLU 66	7.62	0.46	35.41	-0.3461	0.4181	0.0021



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
340	SLU 67	7.62	0.46	35.4	-0.346	0.4181	0.0021
340	SLU 68	7.54	0.45	35.16	-0.3427	0.4136	0.0021
340	SLU 69	7.71	0.47	35.88	-0.3519	0.4229	0.0021
340	SLU 70	7.71	0.47	35.87	-0.3518	0.4229	0.0021
340	SLU 71	7.62	0.46	35.64	-0.3486	0.4184	0.0021
340	SLU 72	7.62	0.46	35.63	-0.3485	0.4184	0.0021
340	SLU 73	8.4	0.5	37.66	-0.3761	0.4591	0.0023
340	SLU 74	8.56	0.51	38.38	-0.3853	0.4684	0.0024
340	SLU 75	8.56	0.51	38.37	-0.3853	0.4685	0.0024
340	SLU 76	8.48	0.51	38.12	-0.3819	0.464	0.0023
340	SLU 77	8.64	0.52	38.84	-0.3912	0.4732	0.0024
340	SLU 78	8.65	0.52	38.83	-0.3911	0.4733	0.0024
340	SLU 79	8.56	0.51	38.6	-0.3879	0.4687	0.0024
340	SLU 80	8.56	0.51	38.6	-0.3878	0.4688	0.0024
340	SLU 81	8.8	0.52	38.94	-0.393	0.4806	0.0024
340	SLU 82	8.8	0.52	38.93	-0.393	0.4807	0.0024
340	SLU 83	8.88	0.53	39.41	-0.3989	0.4855	0.0024
340	SLU 84	8.88	0.53	39.4	-0.3988	0.4855	0.0024
340	SLE RA 1	5.55	0.33	26.06	-0.2507	0.3041	0.0015
340	SLE RA 2	5.55	0.33	26.05	-0.2507	0.3042	0.0015
340	SLE RA 3	5.66	0.34	26.53	-0.2568	0.3104	0.0016
340	SLE RA 4	5.66	0.34	26.52	-0.2568	0.3104	0.0016
340	SLE RA 5	5.6	0.34	26.36	-0.2546	0.3074	0.0016
340	SLE RA 6	5.71	0.35	26.84	-0.2607	0.3136	0.0016
340	SLE RA 7	5.71	0.35	26.83	-0.2607	0.3136	0.0016
340	SLE RA 8	5.66	0.34	26.68	-0.2585	0.3106	0.0016
340	SLE RA 9	5.66	0.34	26.68	-0.2585	0.3106	0.0016
340	SLE RA 10	6.17	0.37	28.03	-0.2768	0.3378	0.0017
340	SLE RA 11	6.28	0.38	28.51	-0.283	0.344	0.0017
340	SLE RA 12	6.29	0.38	28.5	-0.283	0.344	0.0017
340	SLE RA 13	6.23	0.37	28.34	-0.2807	0.341	0.0017
340	SLE RA 14	6.34	0.38	28.82	-0.2869	0.3472	0.0018
340	SLE RA 15	6.34	0.38	28.81	-0.2869	0.3472	0.0018
340	SLE RA 16	6.28	0.38	28.66	-0.2847	0.3442	0.0017
340	SLE RA 17	6.28	0.38	28.65	-0.2847	0.3442	0.0017
340	SLE RA 18	6.44	0.38	28.88	-0.2881	0.3521	0.0018
340	SLE RA 19	6.44	0.38	28.88	-0.2881	0.3521	0.0018
340	SLE RA 20	6.5	0.39	29.19	-0.292	0.3553	0.0018
340	SLE RA 21	6.5	0.39	29.19	-0.292	0.3554	0.0018
340	SLE FR 1	5.55	0.33	26.06	-0.2507	0.3041	0.0015
340	SLE FR 2	5.55	0.33	26.06	-0.2507	0.3042	0.0015
340	SLE FR 3	5.57	0.33	26.18	-0.2523	0.3054	0.0015
340	SLE FR 4	5.82	0.35	26.9	-0.2619	0.3185	0.0016
340	SLE FR 5	5.84	0.35	27.03	-0.2635	0.3198	0.0016
340	SLE FR 6	5.99	0.36	27.47	-0.2694	0.3281	0.0016
340	SLE QP 1	5.55	0.33	26.06	-0.2507	0.3041	0.0015
340	SLE QP 2	5.82	0.35	26.91	-0.262	0.3185	0.0016
340	SLD 1	10.83	0.27	24.71	-0.1989	0.5418	0.0013
340	SLD 2	10.83	0.27	24.71	-0.1989	0.5418	0.0013
340	SLD 3	11.61	0.32	27.32	-0.24	0.5796	0.0015
340	SLD 4	11.61	0.32	27.32	-0.24	0.5796	0.0015
340	SLD 5	6.13	0.26	22.28	-0.1807	0.3282	0.0012
340	SLD 6	6.13	0.26	22.28	-0.1807	0.3282	0.0012
340	SLD 7	8.74	0.4	31	-0.3177	0.4541	0.0019
340	SLD 8	8.74	0.4	31	-0.3177	0.4541	0.0019
340	SLD 9	2.89	0.29	22.81	-0.2062	0.1829	0.0013
340	SLD 10	2.89	0.29	22.81	-0.2062	0.1829	0.0013
340	SLD 11	5.5	0.43	31.53	-0.3432	0.3088	0.002
340	SLD 12	5.5	0.43	31.53	-0.3432	0.3088	0.002
340	SLD 13	0.02	0.38	26.49	-0.2839	0.0575	0.0017
340	SLD 14	0.02	0.38	26.49	-0.2839	0.0575	0.0017
340	SLD 15	0.8	0.42	29.1	-0.325	0.0953	0.0019
340	SLD 16	0.8	0.42	29.1	-0.325	0.0953	0.0019
340	SLV 1	17.48	0.17	21.71	-0.1119	0.838	0.0008
340	SLV 2	17.48	0.17	21.71	-0.1119	0.838	0.0008
340	SLV 3	19.35	0.28	27.86	-0.2101	0.9281	0.0013
340	SLV 4	19.35	0.28	27.86	-0.2101	0.9281	0.0013
340	SLV 5	6.47	0.14	16.01	-0.0681	0.3378	0.0006
340	SLV 6	6.47	0.14	16.01	-0.0681	0.3378	0.0006
340	SLV 7	12.72	0.48	36.53	-0.3952	0.638	0.0022
340	SLV 8	12.72	0.48	36.53	-0.3952	0.638	0.0022
340	SLV 9	-1.09	0.21	17.28	-0.1287	-0.0009	0.001
340	SLV 10	-1.09	0.21	17.28	-0.1287	-0.0009	0.001
340	SLV 11	5.16	0.56	37.8	-0.4558	0.2993	0.0026
340	SLV 12	5.16	0.56	37.8	-0.4558	0.2993	0.0026
340	SLV 13	-7.72	0.42	25.95	-0.3138	-0.291	0.0019
340	SLV 14	-7.72	0.42	25.95	-0.3138	-0.291	0.0019
340	SLV 15	-5.84	0.52	32.11	-0.412	-0.2009	0.0024
340	SLV 16	-5.84	0.52	32.11	-0.412	-0.2009	0.0024
341	SLU 1	6.3	0.31	25.91	-0.2334	0.2306	0.0014
341	SLU 2	6.3	0.31	25.89	-0.2333	0.2306	0.0014
341	SLU 3	6.51	0.32	26.66	-0.2424	0.2377	0.0015
341	SLU 4	6.51	0.32	26.65	-0.2423	0.2378	0.0015
341	SLU 5	6.41	0.31	26.4	-0.239	0.2342	0.0015
341	SLU 6	6.62	0.32	27.17	-0.2481	0.2413	0.0015
341	SLU 7	6.62	0.32	27.16	-0.248	0.2413	0.0015
341	SLU 8	6.52	0.32	26.92	-0.2448	0.2377	0.0015



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
341	SLU 9	6.52	0.32	26.91	-0.2448	0.2377	0.0015
341	SLU 10	7.43	0.36	28.98	-0.2717	0.273	0.0017
341	SLU 11	7.64	0.37	29.75	-0.2807	0.2801	0.0017
341	SLU 12	7.64	0.37	29.74	-0.2807	0.2802	0.0017
341	SLU 13	7.54	0.36	29.49	-0.2774	0.2766	0.0017
341	SLU 14	7.75	0.37	30.26	-0.2864	0.2837	0.0017
341	SLU 15	7.75	0.37	30.25	-0.2864	0.2837	0.0017
341	SLU 16	7.65	0.37	30.01	-0.2832	0.2801	0.0017
341	SLU 17	7.65	0.37	30	-0.2832	0.2801	0.0017
341	SLU 18	7.92	0.38	30.32	-0.2883	0.2911	0.0018
341	SLU 19	7.92	0.38	30.31	-0.2882	0.2911	0.0018
341	SLU 20	8.03	0.38	30.83	-0.294	0.2947	0.0018
341	SLU 21	8.03	0.38	30.82	-0.2939	0.2947	0.0018
341	SLU 22	7.34	0.35	28.94	-0.2709	0.2688	0.0016
341	SLU 23	7.34	0.35	28.92	-0.2708	0.2688	0.0016
341	SLU 24	7.54	0.37	29.69	-0.2798	0.276	0.0017
341	SLU 25	7.54	0.37	29.68	-0.2798	0.276	0.0017
341	SLU 26	7.45	0.36	29.43	-0.2765	0.2724	0.0017
341	SLU 27	7.65	0.37	30.2	-0.2855	0.2795	0.0017
341	SLU 28	7.65	0.37	30.19	-0.2855	0.2796	0.0017
341	SLU 29	7.56	0.37	29.95	-0.2823	0.2759	0.0017
341	SLU 30	7.56	0.37	29.94	-0.2822	0.276	0.0017
341	SLU 31	8.47	0.4	32.01	-0.3092	0.3112	0.0019
341	SLU 32	8.68	0.42	32.78	-0.3182	0.3183	0.0019
341	SLU 33	8.68	0.42	32.77	-0.3181	0.3184	0.0019
341	SLU 34	8.58	0.41	32.52	-0.3149	0.3148	0.0019
341	SLU 35	8.79	0.42	33.29	-0.3239	0.3219	0.002
341	SLU 36	8.79	0.42	33.28	-0.3238	0.3219	0.002
341	SLU 37	8.69	0.42	33.04	-0.3207	0.3183	0.0019
341	SLU 38	8.69	0.42	33.03	-0.3206	0.3183	0.0019
341	SLU 39	8.96	0.43	33.35	-0.3257	0.3293	0.002
341	SLU 40	8.96	0.43	33.34	-0.3257	0.3294	0.002
341	SLU 41	9.07	0.43	33.86	-0.3314	0.3329	0.002
341	SLU 42	9.07	0.43	33.85	-0.3314	0.3329	0.002
341	SLU 43	7.84	0.38	32.64	-0.2906	0.2866	0.0018
341	SLU 44	7.84	0.38	32.63	-0.2905	0.2867	0.0018
341	SLU 45	8.04	0.39	33.39	-0.2996	0.2938	0.0018
341	SLU 46	8.04	0.39	33.38	-0.2995	0.2938	0.0018
341	SLU 47	7.95	0.39	33.13	-0.2962	0.2903	0.0018
341	SLU 48	8.15	0.4	33.9	-0.3053	0.2974	0.0019
341	SLU 49	8.15	0.4	33.89	-0.3052	0.2974	0.0019
341	SLU 50	8.06	0.4	33.65	-0.302	0.2938	0.0018
341	SLU 51	8.06	0.4	33.64	-0.302	0.2938	0.0018
341	SLU 52	8.97	0.43	35.72	-0.3289	0.3291	0.002
341	SLU 53	9.17	0.44	36.48	-0.3379	0.3362	0.0021
341	SLU 54	9.17	0.44	36.47	-0.3379	0.3362	0.0021
341	SLU 55	9.08	0.44	36.22	-0.3346	0.3326	0.002
341	SLU 56	9.28	0.45	36.99	-0.3436	0.3398	0.0021
341	SLU 57	9.28	0.45	36.98	-0.3436	0.3398	0.0021
341	SLU 58	9.19	0.45	36.74	-0.3404	0.3362	0.0021
341	SLU 59	9.19	0.45	36.73	-0.3403	0.3362	0.0021
341	SLU 60	9.45	0.45	37.06	-0.3455	0.3472	0.0021
341	SLU 61	9.45	0.45	37.05	-0.3454	0.3472	0.0021
341	SLU 62	9.56	0.46	37.56	-0.3512	0.3507	0.0021
341	SLU 63	9.56	0.46	37.55	-0.3511	0.3508	0.0021
341	SLU 64	8.87	0.43	35.67	-0.3281	0.3249	0.002
341	SLU 65	8.87	0.43	35.66	-0.328	0.3249	0.002
341	SLU 66	9.08	0.44	36.42	-0.337	0.332	0.002
341	SLU 67	9.08	0.44	36.41	-0.337	0.3321	0.002
341	SLU 68	8.98	0.44	36.16	-0.3337	0.3285	0.002
341	SLU 69	9.19	0.45	36.93	-0.3427	0.3356	0.0021
341	SLU 70	9.19	0.45	36.92	-0.3427	0.3356	0.0021
341	SLU 71	9.09	0.44	36.68	-0.3395	0.332	0.0021
341	SLU 72	9.09	0.44	36.67	-0.3394	0.332	0.0021
341	SLU 73	10.01	0.48	38.75	-0.3664	0.3673	0.0022
341	SLU 74	10.21	0.49	39.51	-0.3754	0.3744	0.0023
341	SLU 75	10.21	0.49	39.5	-0.3753	0.3744	0.0023
341	SLU 76	10.12	0.49	39.25	-0.3721	0.3709	0.0023
341	SLU 77	10.32	0.5	40.02	-0.3811	0.378	0.0023
341	SLU 78	10.32	0.5	40.01	-0.381	0.378	0.0023
341	SLU 79	10.22	0.49	39.77	-0.3779	0.3744	0.0023
341	SLU 80	10.22	0.49	39.76	-0.3778	0.3744	0.0023
341	SLU 81	10.49	0.5	40.09	-0.3829	0.3854	0.0023
341	SLU 82	10.49	0.5	40.08	-0.3829	0.3854	0.0023
341	SLU 83	10.6	0.51	40.59	-0.3886	0.389	0.0024
341	SLU 84	10.6	0.51	40.58	-0.3886	0.389	0.0024
341	SLE RA 1	6.6	0.32	26.77	-0.2441	0.2415	0.0015
341	SLE RA 2	6.6	0.32	26.76	-0.2441	0.2415	0.0015
341	SLE RA 3	6.73	0.33	27.28	-0.2501	0.2463	0.0015
341	SLE RA 4	6.74	0.33	27.27	-0.2501	0.2463	0.0015
341	SLE RA 5	6.67	0.32	27.1	-0.2479	0.2439	0.0015
341	SLE RA 6	6.81	0.33	27.61	-0.2539	0.2486	0.0015
341	SLE RA 7	6.81	0.33	27.61	-0.2539	0.2487	0.0015
341	SLE RA 8	6.74	0.33	27.45	-0.2518	0.2462	0.0015
341	SLE RA 9	6.74	0.33	27.44	-0.2517	0.2463	0.0015
341	SLE RA 10	7.35	0.35	28.82	-0.2697	0.2698	0.0016
341	SLE RA 11	7.49	0.36	29.34	-0.2757	0.2745	0.0017



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
341	SLE RA 12	7.49	0.36	29.33	-0.2756	0.2745	0.0017
341	SLE RA 13	7.43	0.36	29.16	-0.2735	0.2722	0.0017
341	SLE RA 14	7.56	0.37	29.67	-0.2795	0.2769	0.0017
341	SLE RA 15	7.56	0.37	29.67	-0.2794	0.2769	0.0017
341	SLE RA 16	7.5	0.36	29.51	-0.2773	0.2745	0.0017
341	SLE RA 17	7.5	0.36	29.5	-0.2773	0.2745	0.0017
341	SLE RA 18	7.68	0.37	29.72	-0.2807	0.2818	0.0017
341	SLE RA 19	7.68	0.37	29.71	-0.2807	0.2819	0.0017
341	SLE RA 20	7.75	0.37	30.05	-0.2845	0.2842	0.0017
341	SLE RA 21	7.75	0.37	30.05	-0.2845	0.2843	0.0017
341	SLE FR 1	6.6	0.32	26.77	-0.2441	0.2415	0.0015
341	SLE FR 2	6.6	0.32	26.77	-0.2441	0.2415	0.0015
341	SLE FR 3	6.63	0.32	26.91	-0.2457	0.2424	0.0015
341	SLE FR 4	6.92	0.33	27.66	-0.2551	0.2536	0.0015
341	SLE FR 5	6.95	0.34	27.79	-0.2566	0.2545	0.0016
341	SLE FR 6	7.14	0.34	28.25	-0.2624	0.2617	0.0016
341	SLE QP 1	6.6	0.32	26.77	-0.2441	0.2415	0.0015
341	SLE QP 2	6.92	0.33	27.66	-0.2551	0.2536	0.0015
341	SLD 1	12.04	0.26	25.12	-0.1899	0.4781	0.0012
341	SLD 2	12.04	0.26	25.12	-0.1899	0.4781	0.0012
341	SLD 3	12.94	0.31	27.74	-0.2343	0.5141	0.0014
341	SLD 4	12.94	0.31	27.74	-0.2343	0.5141	0.0014
341	SLD 5	7.1	0.24	22.92	-0.1681	0.2665	0.0011
341	SLD 6	7.1	0.24	22.92	-0.1681	0.2665	0.0011
341	SLD 7	10.08	0.4	31.66	-0.3163	0.3862	0.0018
341	SLD 8	10.08	0.4	31.66	-0.3163	0.3862	0.0018
341	SLD 9	3.76	0.27	23.65	-0.1939	0.121	0.0013
341	SLD 10	3.76	0.27	23.65	-0.1939	0.121	0.0013
341	SLD 11	6.74	0.43	32.4	-0.3421	0.2407	0.002
341	SLD 12	6.74	0.43	32.4	-0.3421	0.2407	0.002
341	SLD 13	0.91	0.36	27.57	-0.2759	-0.0069	0.0017
341	SLD 14	0.91	0.36	27.57	-0.2759	-0.0069	0.0017
341	SLD 15	1.8	0.41	30.19	-0.3204	0.0291	0.0019
341	SLD 16	1.8	0.41	30.19	-0.3204	0.0291	0.0019
341	SLV 1	18.83	0.15	21.67	-0.099	0.776	0.0007
341	SLV 2	18.83	0.15	21.67	-0.099	0.776	0.0007
341	SLV 3	20.97	0.27	27.85	-0.2057	0.8618	0.0013
341	SLV 4	20.97	0.27	27.85	-0.2057	0.8618	0.0013
341	SLV 5	7.25	0.1	16.49	-0.0464	0.2802	0.0005
341	SLV 6	7.25	0.1	16.49	-0.0464	0.2802	0.0005
341	SLV 7	14.38	0.49	37.09	-0.4022	0.5662	0.0023
341	SLV 8	14.38	0.49	37.09	-0.4022	0.5662	0.0023
341	SLV 9	-0.53	0.18	18.23	-0.1081	-0.059	0.0008
341	SLV 10	-0.53	0.18	18.23	-0.1081	-0.059	0.0008
341	SLV 11	6.59	0.56	38.83	-0.4638	0.227	0.0026
341	SLV 12	6.59	0.56	38.83	-0.4638	0.227	0.0026
341	SLV 13	-7.13	0.4	27.46	-0.3045	-0.3546	0.0018
341	SLV 14	-7.13	0.4	27.46	-0.3045	-0.3546	0.0018
341	SLV 15	-4.99	0.51	33.64	-0.4112	-0.2688	0.0024
341	SLV 16	-4.99	0.51	33.64	-0.4112	-0.2688	0.0024
342	SLU 1	8.27	0.29	28.01	-0.2144	0.383	0.0013
342	SLU 2	8.27	0.29	27.99	-0.2143	0.383	0.0013
342	SLU 3	8.56	0.3	28.86	-0.2226	0.3961	0.0013
342	SLU 4	8.56	0.3	28.85	-0.2225	0.3961	0.0013
342	SLU 5	8.43	0.29	28.57	-0.2195	0.3904	0.0013
342	SLU 6	8.72	0.3	29.43	-0.2278	0.4036	0.0014
342	SLU 7	8.72	0.3	29.42	-0.2277	0.4036	0.0014
342	SLU 8	8.6	0.3	29.16	-0.2248	0.3979	0.0014
342	SLU 9	8.6	0.3	29.15	-0.2248	0.3979	0.0014
342	SLU 10	9.74	0.33	31.45	-0.2497	0.4504	0.0015
342	SLU 11	10.03	0.34	32.32	-0.258	0.4636	0.0016
342	SLU 12	10.03	0.34	32.31	-0.2579	0.4636	0.0016
342	SLU 13	9.91	0.34	32.03	-0.2549	0.4579	0.0015
342	SLU 14	10.19	0.35	32.89	-0.2632	0.4711	0.0016
342	SLU 15	10.19	0.35	32.88	-0.2631	0.4711	0.0016
342	SLU 16	10.07	0.35	32.62	-0.2602	0.4654	0.0016
342	SLU 17	10.07	0.35	32.61	-0.2602	0.4654	0.0016
342	SLU 18	10.37	0.35	32.95	-0.265	0.4794	0.0016
342	SLU 19	10.37	0.35	32.94	-0.2649	0.4794	0.0016
342	SLU 20	10.54	0.36	33.53	-0.2702	0.4869	0.0016
342	SLU 21	10.54	0.36	33.52	-0.2701	0.4869	0.0016
342	SLU 22	9.64	0.33	31.4	-0.2489	0.4459	0.0015
342	SLU 23	9.64	0.33	31.38	-0.2488	0.4459	0.0015
342	SLU 24	9.92	0.34	32.24	-0.2571	0.459	0.0016
342	SLU 25	9.92	0.34	32.23	-0.257	0.459	0.0016
342	SLU 26	9.8	0.34	31.96	-0.254	0.4533	0.0015
342	SLU 27	10.09	0.35	32.82	-0.2623	0.4665	0.0016
342	SLU 28	10.08	0.35	32.81	-0.2622	0.4665	0.0016
342	SLU 29	9.96	0.35	32.55	-0.2593	0.4608	0.0016
342	SLU 30	9.96	0.35	32.54	-0.2592	0.4608	0.0016
342	SLU 31	11.11	0.38	34.84	-0.2842	0.5133	0.0017
342	SLU 32	11.39	0.39	35.71	-0.2925	0.5265	0.0018
342	SLU 33	11.39	0.39	35.69	-0.2924	0.5265	0.0018
342	SLU 34	11.27	0.39	35.42	-0.2894	0.5208	0.0018
342	SLU 35	11.56	0.4	36.28	-0.2977	0.534	0.0018
342	SLU 36	11.56	0.4	36.27	-0.2976	0.534	0.0018
342	SLU 37	11.43	0.39	36.01	-0.2947	0.5283	0.0018



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
342	SLU 38	11.43	0.39	36	-0.2946	0.5283	0.0018
342	SLU 39	11.74	0.4	36.34	-0.2995	0.5423	0.0018
342	SLU 40	11.74	0.4	36.33	-0.2994	0.5423	0.0018
342	SLU 41	11.9	0.41	36.92	-0.3047	0.5498	0.0018
342	SLU 42	11.9	0.41	36.91	-0.3046	0.5498	0.0018
342	SLU 43	10.29	0.36	35.25	-0.2669	0.4763	0.0016
342	SLU 44	10.29	0.36	35.23	-0.2668	0.4763	0.0016
342	SLU 45	10.57	0.37	36.1	-0.2751	0.4894	0.0017
342	SLU 46	10.57	0.37	36.09	-0.275	0.4894	0.0017
342	SLU 47	10.45	0.36	35.81	-0.272	0.4838	0.0016
342	SLU 48	10.73	0.37	36.67	-0.2803	0.4969	0.0017
342	SLU 49	10.73	0.37	36.66	-0.2802	0.4969	0.0017
342	SLU 50	10.61	0.37	36.4	-0.2773	0.4913	0.0017
342	SLU 51	10.61	0.37	36.39	-0.2773	0.4913	0.0017
342	SLU 52	11.76	0.4	38.69	-0.3022	0.5438	0.0018
342	SLU 53	12.04	0.41	39.56	-0.3105	0.5569	0.0019
342	SLU 54	12.04	0.41	39.55	-0.3104	0.5569	0.0019
342	SLU 55	11.92	0.41	39.27	-0.3074	0.5513	0.0019
342	SLU 56	12.2	0.42	40.14	-0.3157	0.5644	0.0019
342	SLU 57	12.2	0.42	40.12	-0.3156	0.5644	0.0019
342	SLU 58	12.08	0.42	39.87	-0.3127	0.5587	0.0019
342	SLU 59	12.08	0.42	39.85	-0.3127	0.5587	0.0019
342	SLU 60	12.39	0.42	40.19	-0.3175	0.5727	0.0019
342	SLU 61	12.39	0.42	40.18	-0.3174	0.5727	0.0019
342	SLU 62	12.55	0.43	40.77	-0.3227	0.5802	0.002
342	SLU 63	12.55	0.43	40.76	-0.3226	0.5802	0.002
342	SLU 64	11.65	0.4	38.64	-0.3014	0.5392	0.0018
342	SLU 65	11.65	0.4	38.62	-0.3013	0.5392	0.0018
342	SLU 66	11.94	0.41	39.49	-0.3096	0.5523	0.0019
342	SLU 67	11.94	0.41	39.47	-0.3095	0.5523	0.0019
342	SLU 68	11.81	0.41	39.2	-0.3065	0.5467	0.0019
342	SLU 69	12.1	0.42	40.06	-0.3148	0.5598	0.0019
342	SLU 70	12.1	0.42	40.05	-0.3147	0.5598	0.0019
342	SLU 71	11.98	0.42	39.79	-0.3118	0.5542	0.0019
342	SLU 72	11.98	0.42	39.78	-0.3117	0.5542	0.0019
342	SLU 73	13.12	0.45	42.08	-0.3367	0.6067	0.002
342	SLU 74	13.41	0.46	42.95	-0.345	0.6198	0.0021
342	SLU 75	13.41	0.46	42.94	-0.3449	0.6198	0.0021
342	SLU 76	13.28	0.46	42.66	-0.3419	0.6142	0.0021
342	SLU 77	13.57	0.47	43.52	-0.3502	0.6273	0.0021
342	SLU 78	13.57	0.47	43.51	-0.3501	0.6273	0.0021
342	SLU 79	13.45	0.46	43.25	-0.3472	0.6217	0.0021
342	SLU 80	13.45	0.46	43.24	-0.3471	0.6216	0.0021
342	SLU 81	13.75	0.47	43.58	-0.352	0.6356	0.0021
342	SLU 82	13.75	0.47	43.57	-0.3519	0.6356	0.0021
342	SLU 83	13.92	0.48	44.16	-0.3572	0.6431	0.0022
342	SLU 84	13.91	0.48	44.15	-0.3571	0.6431	0.0022
342	SLE RA 1	8.66	0.3	28.98	-0.2243	0.4009	0.0014
342	SLE RA 2	8.66	0.3	28.96	-0.2242	0.4009	0.0014
342	SLE RA 3	8.85	0.31	29.54	-0.2297	0.4097	0.0014
342	SLE RA 4	8.85	0.31	29.53	-0.2297	0.4097	0.0014
342	SLE RA 5	8.77	0.3	29.35	-0.2277	0.4059	0.0014
342	SLE RA 6	8.96	0.31	29.93	-0.2332	0.4147	0.0014
342	SLE RA 7	8.96	0.31	29.92	-0.2331	0.4147	0.0014
342	SLE RA 8	8.88	0.31	29.75	-0.2312	0.4109	0.0014
342	SLE RA 9	8.88	0.31	29.74	-0.2312	0.4109	0.0014
342	SLE RA 10	9.64	0.33	31.27	-0.2478	0.4459	0.0015
342	SLE RA 11	9.83	0.34	31.85	-0.2533	0.4547	0.0015
342	SLE RA 12	9.83	0.34	31.84	-0.2533	0.4547	0.0015
342	SLE RA 13	9.75	0.33	31.66	-0.2513	0.4509	0.0015
342	SLE RA 14	9.94	0.34	32.23	-0.2568	0.4597	0.0016
342	SLE RA 15	9.94	0.34	32.23	-0.2567	0.4597	0.0016
342	SLE RA 16	9.86	0.34	32.05	-0.2548	0.4559	0.0015
342	SLE RA 17	9.86	0.34	32.05	-0.2548	0.4559	0.0015
342	SLE RA 18	10.06	0.34	32.27	-0.258	0.4652	0.0016
342	SLE RA 19	10.06	0.34	32.27	-0.2579	0.4652	0.0016
342	SLE RA 20	10.17	0.35	32.66	-0.2614	0.4702	0.0016
342	SLE RA 21	10.17	0.35	32.65	-0.2614	0.4702	0.0016
342	SLE FR 1	8.66	0.3	28.98	-0.2243	0.4009	0.0014
342	SLE FR 2	8.66	0.3	28.97	-0.2243	0.4009	0.0014
342	SLE FR 3	8.71	0.3	29.13	-0.2257	0.4029	0.0014
342	SLE FR 4	9.08	0.31	29.96	-0.2344	0.4202	0.0014
342	SLE FR 5	9.13	0.31	30.12	-0.2358	0.4222	0.0014
342	SLE FR 6	9.36	0.32	30.62	-0.2411	0.4331	0.0015
342	SLE QP 1	8.66	0.3	28.98	-0.2243	0.4009	0.0014
342	SLE QP 2	9.08	0.31	29.96	-0.2344	0.4202	0.0014
342	SLD 1	14.13	0.24	30.27	-0.1702	0.6427	0.0011
342	SLD 2	14.13	0.24	30.27	-0.1702	0.6427	0.0011
342	SLD 3	15.19	0.29	33.07	-0.2155	0.6908	0.0013
342	SLD 4	15.19	0.29	33.07	-0.2155	0.6908	0.0013
342	SLD 5	8.98	0.21	25.81	-0.1464	0.414	0.001
342	SLD 6	8.98	0.21	25.81	-0.1464	0.414	0.001
342	SLD 7	12.53	0.38	35.14	-0.2974	0.5744	0.0017
342	SLD 8	12.53	0.38	35.14	-0.2974	0.5744	0.0017
342	SLD 9	5.63	0.24	24.79	-0.1714	0.2661	0.0011
342	SLD 10	5.63	0.24	24.79	-0.1714	0.2661	0.0011
342	SLD 11	9.19	0.41	34.12	-0.3224	0.4265	0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
342	SLD 12	9.19	0.41	34.12	-0.3224	0.4265	0.0019
342	SLD 13	2.97	0.34	26.86	-0.2533	0.1497	0.0015
342	SLD 14	2.97	0.34	26.86	-0.2533	0.1497	0.0015
342	SLD 15	4.04	0.39	29.66	-0.2986	0.1978	0.0018
342	SLD 16	4.04	0.39	29.66	-0.2986	0.1978	0.0018
342	SLV 1	20.81	0.13	30.68	-0.0796	0.9376	0.0006
342	SLV 2	20.81	0.13	30.68	-0.0796	0.9376	0.0006
342	SLV 3	23.35	0.26	37.28	-0.189	1.0521	0.0012
342	SLV 4	23.35	0.26	37.28	-0.189	1.0521	0.0012
342	SLV 5	8.75	0.07	20.17	-0.0221	0.4018	0.0003
342	SLV 6	8.75	0.07	20.17	-0.0221	0.4018	0.0003
342	SLV 7	17.22	0.48	42.17	-0.3866	0.7835	0.0022
342	SLV 8	17.22	0.48	42.17	-0.3866	0.7835	0.0022
342	SLV 9	0.95	0.14	17.76	-0.0821	0.057	0.0006
342	SLV 10	0.95	0.14	17.76	-0.0821	0.057	0.0006
342	SLV 11	9.42	0.56	39.76	-0.4467	0.4387	0.0026
342	SLV 12	9.42	0.56	39.76	-0.4467	0.4387	0.0026
342	SLV 13	-5.19	0.37	22.65	-0.2798	-0.2117	0.0017
342	SLV 14	-5.19	0.37	22.65	-0.2798	-0.2117	0.0017
342	SLV 15	-2.65	0.49	29.25	-0.3892	-0.0972	0.0023
342	SLV 16	-2.65	0.49	29.25	-0.3892	-0.0972	0.0023
343	SLU 1	8.5	0.24	31.52	-0.1792	0.3311	0.0009
343	SLU 2	8.5	0.24	31.5	-0.1791	0.331	0.0009
343	SLU 3	8.8	0.25	32.52	-0.1859	0.3424	0.0009
343	SLU 4	8.8	0.25	32.5	-0.1858	0.3424	0.0009
343	SLU 5	8.68	0.25	32.18	-0.1833	0.3376	0.0009
343	SLU 6	8.98	0.25	33.21	-0.1901	0.349	0.0009
343	SLU 7	8.98	0.25	33.19	-0.1901	0.349	0.0009
343	SLU 8	8.86	0.25	32.89	-0.1876	0.3443	0.0009
343	SLU 9	8.86	0.25	32.88	-0.1876	0.3442	0.0009
343	SLU 10	10.03	0.28	35.56	-0.2088	0.3912	0.001
343	SLU 11	10.33	0.29	36.59	-0.2156	0.4026	0.001
343	SLU 12	10.33	0.29	36.57	-0.2156	0.4026	0.001
343	SLU 13	10.21	0.29	36.25	-0.213	0.3978	0.001
343	SLU 14	10.51	0.29	37.27	-0.2198	0.4092	0.0011
343	SLU 15	10.51	0.29	37.26	-0.2198	0.4092	0.0011
343	SLU 16	10.39	0.29	36.96	-0.2173	0.4045	0.001
343	SLU 17	10.39	0.29	36.95	-0.2173	0.4045	0.001
343	SLU 18	10.69	0.3	37.33	-0.2216	0.4171	0.0011
343	SLU 19	10.69	0.3	37.32	-0.2216	0.4171	0.0011
343	SLU 20	10.87	0.3	38.02	-0.2258	0.4237	0.0011
343	SLU 21	10.86	0.3	38.01	-0.2258	0.4237	0.0011
343	SLU 22	9.92	0.28	35.49	-0.208	0.3866	0.001
343	SLU 23	9.92	0.28	35.47	-0.2079	0.3866	0.001
343	SLU 24	10.22	0.29	36.49	-0.2147	0.398	0.001
343	SLU 25	10.22	0.29	36.48	-0.2147	0.3979	0.001
343	SLU 26	10.1	0.28	36.16	-0.2122	0.3932	0.001
343	SLU 27	10.4	0.29	37.18	-0.219	0.4046	0.0011
343	SLU 28	10.4	0.29	37.17	-0.2189	0.4045	0.0011
343	SLU 29	10.28	0.29	36.87	-0.2165	0.3998	0.001
343	SLU 30	10.28	0.29	36.86	-0.2164	0.3998	0.001
343	SLU 31	11.45	0.32	39.54	-0.2376	0.4468	0.0011
343	SLU 32	11.75	0.33	40.56	-0.2444	0.4582	0.0012
343	SLU 33	11.75	0.33	40.55	-0.2444	0.4581	0.0012
343	SLU 34	11.63	0.32	40.23	-0.2419	0.4534	0.0012
343	SLU 35	11.93	0.33	41.25	-0.2487	0.4648	0.0012
343	SLU 36	11.93	0.33	41.24	-0.2486	0.4647	0.0012
343	SLU 37	11.81	0.33	40.94	-0.2462	0.46	0.0012
343	SLU 38	11.81	0.33	40.93	-0.2461	0.46	0.0012
343	SLU 39	12.11	0.34	41.31	-0.2504	0.4726	0.0012
343	SLU 40	12.11	0.34	41.29	-0.2504	0.4726	0.0012
343	SLU 41	12.29	0.34	42	-0.2547	0.4792	0.0012
343	SLU 42	12.28	0.34	41.98	-0.2546	0.4792	0.0012
343	SLU 43	10.57	0.3	39.61	-0.223	0.4114	0.0011
343	SLU 44	10.57	0.3	39.59	-0.223	0.4113	0.0011
343	SLU 45	10.87	0.31	40.61	-0.2298	0.4227	0.0011
343	SLU 46	10.87	0.31	40.6	-0.2297	0.4227	0.0011
343	SLU 47	10.74	0.3	40.27	-0.2272	0.4179	0.0011
343	SLU 48	11.04	0.31	41.3	-0.234	0.4293	0.0011
343	SLU 49	11.04	0.31	41.28	-0.2339	0.4293	0.0011
343	SLU 50	10.92	0.31	40.98	-0.2315	0.4246	0.0011
343	SLU 51	10.92	0.31	40.97	-0.2315	0.4245	0.0011
343	SLU 52	12.09	0.34	43.66	-0.2527	0.4715	0.0012
343	SLU 53	12.4	0.35	44.68	-0.2595	0.4829	0.0012
343	SLU 54	12.39	0.35	44.67	-0.2594	0.4829	0.0012
343	SLU 55	12.27	0.34	44.34	-0.2569	0.4781	0.0012
343	SLU 56	12.57	0.35	45.37	-0.2637	0.4895	0.0013
343	SLU 57	12.57	0.35	45.35	-0.2637	0.4895	0.0013
343	SLU 58	12.45	0.35	45.05	-0.2612	0.4848	0.0013
343	SLU 59	12.45	0.35	45.04	-0.2612	0.4847	0.0013
343	SLU 60	12.75	0.36	45.42	-0.2655	0.4974	0.0013
343	SLU 61	12.75	0.36	45.41	-0.2654	0.4973	0.0013
343	SLU 62	12.93	0.36	46.11	-0.2697	0.504	0.0013
343	SLU 63	12.93	0.36	46.1	-0.2697	0.5039	0.0013
343	SLU 64	11.99	0.34	43.59	-0.2519	0.4669	0.0012
343	SLU 65	11.99	0.34	43.56	-0.2518	0.4668	0.0012
343	SLU 66	12.29	0.35	44.59	-0.2586	0.4783	0.0012



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
343	SLU 67	12.29	0.35	44.57	-0.2586	0.4782	0.0012
343	SLU 68	12.16	0.34	44.25	-0.256	0.4734	0.0012
343	SLU 69	12.46	0.35	45.27	-0.2628	0.4849	0.0013
343	SLU 70	12.46	0.35	45.26	-0.2628	0.4848	0.0013
343	SLU 71	12.34	0.35	44.96	-0.2603	0.4801	0.0013
343	SLU 72	12.34	0.35	44.95	-0.2603	0.4801	0.0013
343	SLU 73	13.52	0.38	47.63	-0.2815	0.5271	0.0014
343	SLU 74	13.82	0.39	48.66	-0.2883	0.5385	0.0014
343	SLU 75	13.81	0.39	48.64	-0.2883	0.5384	0.0014
343	SLU 76	13.69	0.38	48.32	-0.2857	0.5337	0.0014
343	SLU 77	13.99	0.39	49.34	-0.2925	0.5451	0.0014
343	SLU 78	13.99	0.39	49.33	-0.2925	0.545	0.0014
343	SLU 79	13.87	0.39	49.03	-0.29	0.5403	0.0014
343	SLU 80	13.87	0.39	49.02	-0.29	0.5403	0.0014
343	SLU 81	14.17	0.39	49.4	-0.2943	0.5529	0.0014
343	SLU 82	14.17	0.39	49.39	-0.2943	0.5529	0.0014
343	SLU 83	14.35	0.4	50.09	-0.2985	0.5595	0.0014
343	SLU 84	14.35	0.4	50.07	-0.2985	0.5595	0.0014
343	SLE RA 1	8.91	0.25	32.65	-0.1874	0.3469	0.0009
343	SLE RA 2	8.91	0.25	32.64	-0.1874	0.3469	0.0009
343	SLE RA 3	9.11	0.26	33.32	-0.1919	0.3545	0.0009
343	SLE RA 4	9.11	0.26	33.31	-0.1919	0.3545	0.0009
343	SLE RA 5	9.03	0.25	33.1	-0.1902	0.3513	0.0009
343	SLE RA 6	9.23	0.26	33.78	-0.1947	0.3589	0.0009
343	SLE RA 7	9.23	0.26	33.77	-0.1947	0.3589	0.0009
343	SLE RA 8	9.15	0.26	33.57	-0.1931	0.3557	0.0009
343	SLE RA 9	9.15	0.26	33.56	-0.193	0.3557	0.0009
343	SLE RA 10	9.93	0.28	35.35	-0.2072	0.387	0.001
343	SLE RA 11	10.13	0.28	36.03	-0.2117	0.3947	0.001
343	SLE RA 12	10.13	0.28	36.02	-0.2117	0.3946	0.001
343	SLE RA 13	10.05	0.28	35.81	-0.21	0.3914	0.001
343	SLE RA 14	10.25	0.29	36.49	-0.2145	0.3991	0.001
343	SLE RA 15	10.25	0.29	36.48	-0.2145	0.399	0.001
343	SLE RA 16	10.17	0.29	36.28	-0.2129	0.3959	0.001
343	SLE RA 17	10.16	0.29	36.27	-0.2128	0.3959	0.001
343	SLE RA 18	10.37	0.29	36.53	-0.2157	0.4043	0.001
343	SLE RA 19	10.36	0.29	36.52	-0.2157	0.4043	0.001
343	SLE RA 20	10.48	0.29	36.99	-0.2185	0.4087	0.0011
343	SLE RA 21	10.48	0.29	36.98	-0.2185	0.4087	0.0011
343	SLE FR 1	8.91	0.25	32.65	-0.1874	0.3469	0.0009
343	SLE FR 2	8.91	0.25	32.65	-0.1874	0.3469	0.0009
343	SLE FR 3	8.96	0.25	32.84	-0.1885	0.3487	0.0009
343	SLE FR 4	9.35	0.26	33.81	-0.1959	0.3641	0.0009
343	SLE FR 5	9.39	0.26	34	-0.197	0.3659	0.0009
343	SLE FR 6	9.64	0.27	34.59	-0.2016	0.3756	0.001
343	SLE QP 1	8.91	0.25	32.65	-0.1874	0.3469	0.0009
343	SLE QP 2	9.35	0.26	33.82	-0.1959	0.3641	0.0009
343	SLD 1	14.13	0.19	34.36	-0.1352	0.5752	0.001
343	SLD 2	14.13	0.19	34.36	-0.1352	0.5752	0.001
343	SLD 3	15.24	0.24	37.48	-0.1795	0.6206	0.0012
343	SLD 4	15.24	0.24	37.48	-0.1795	0.6206	0.0012
343	SLD 5	9.09	0.15	29.25	-0.1106	0.3587	0.0006
343	SLD 6	9.09	0.15	29.25	-0.1106	0.3587	0.0006
343	SLD 7	12.8	0.34	39.65	-0.2581	0.5099	0.0014
343	SLD 8	12.8	0.34	39.65	-0.2581	0.5099	0.0014
343	SLD 9	5.89	0.18	27.98	-0.1337	0.2184	0.0005
343	SLD 10	5.89	0.18	27.98	-0.1337	0.2184	0.0005
343	SLD 11	9.6	0.37	38.38	-0.2812	0.3696	0.0012
343	SLD 12	9.6	0.37	38.38	-0.2812	0.3696	0.0012
343	SLD 13	3.45	0.28	30.15	-0.2123	0.1077	0.0006
343	SLD 14	3.45	0.28	30.15	-0.2123	0.1077	0.0006
343	SLD 15	4.56	0.34	33.27	-0.2566	0.1531	0.0009
343	SLD 16	4.56	0.34	33.27	-0.2566	0.1531	0.0009
343	SLV 1	20.47	0.08	35.08	-0.0485	0.8551	0.0011
343	SLV 2	20.47	0.08	35.08	-0.0485	0.8551	0.0011
343	SLV 3	23.11	0.21	42.44	-0.1559	0.9631	0.0017
343	SLV 4	23.11	0.21	42.44	-0.1559	0.9631	0.0017
343	SLV 5	8.67	0	23.02	0.0112	0.3478	0.0002
343	SLV 6	8.67	0	23.02	0.0112	0.3478	0.0002
343	SLV 7	17.48	0.46	47.58	-0.3467	0.7075	0.002
343	SLV 8	17.48	0.46	47.58	-0.3467	0.7075	0.002
343	SLV 9	1.21	0.07	20.05	-0.0451	0.0208	-0.0001
343	SLV 10	1.21	0.07	20.05	-0.0451	0.0208	-0.0001
343	SLV 11	10.02	0.53	44.62	-0.403	0.3805	0.0017
343	SLV 12	10.02	0.53	44.62	-0.403	0.3805	0.0017
343	SLV 13	-4.42	0.31	25.19	-0.2359	-0.2348	0.0002
343	SLV 14	-4.42	0.31	25.19	-0.2359	-0.2348	0.0002
343	SLV 15	-1.77	0.45	32.56	-0.3433	-0.1268	0.0007
343	SLV 16	-1.77	0.45	32.56	-0.3433	-0.1268	0.0007
344	SLU 1	8.61	0.15	35.39	-0.1247	0.3728	0.0003
344	SLU 2	8.61	0.15	35.36	-0.1247	0.3727	0.0003
344	SLU 3	8.92	0.15	36.56	-0.1292	0.386	0.0003
344	SLU 4	8.92	0.15	36.54	-0.1292	0.3859	0.0003
344	SLU 5	8.8	0.15	36.18	-0.1274	0.3806	0.0003
344	SLU 6	9.11	0.15	37.37	-0.132	0.3939	0.0003
344	SLU 7	9.11	0.15	37.36	-0.1319	0.3939	0.0003
344	SLU 8	8.99	0.15	37.01	-0.1302	0.3887	0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
344	SLU 9	8.99	0.15	37	-0.1302	0.3886	0.0003
344	SLU 10	10.17	0.17	40.11	-0.1455	0.44	0.0004
344	SLU 11	10.48	0.17	41.31	-0.1501	0.4533	0.0004
344	SLU 12	10.48	0.17	41.29	-0.1501	0.4532	0.0004
344	SLU 13	10.36	0.17	40.92	-0.1483	0.448	0.0004
344	SLU 14	10.67	0.18	42.12	-0.1528	0.4613	0.0004
344	SLU 15	10.67	0.18	42.1	-0.1528	0.4612	0.0004
344	SLU 16	10.55	0.18	41.76	-0.151	0.456	0.0004
344	SLU 17	10.55	0.18	41.75	-0.151	0.456	0.0004
344	SLU 18	10.84	0.18	42.17	-0.1545	0.469	0.0004
344	SLU 19	10.84	0.18	42.15	-0.1545	0.4689	0.0004
344	SLU 20	11.03	0.18	42.98	-0.1572	0.4769	0.0004
344	SLU 21	11.03	0.18	42.97	-0.1572	0.4769	0.0004
344	SLU 22	10.07	0.17	40.02	-0.1448	0.4355	0.0004
344	SLU 23	10.06	0.17	40	-0.1448	0.4354	0.0004
344	SLU 24	10.37	0.17	41.19	-0.1493	0.4486	0.0004
344	SLU 25	10.37	0.17	41.18	-0.1493	0.4486	0.0004
344	SLU 26	10.25	0.17	40.81	-0.1475	0.4433	0.0004
344	SLU 27	10.56	0.18	42.01	-0.1521	0.4566	0.0004
344	SLU 28	10.56	0.18	41.99	-0.152	0.4566	0.0004
344	SLU 29	10.44	0.18	41.65	-0.1503	0.4514	0.0004
344	SLU 30	10.44	0.18	41.63	-0.1503	0.4513	0.0004
344	SLU 31	11.63	0.19	44.74	-0.1656	0.5027	0.0004
344	SLU 32	11.94	0.2	45.94	-0.1702	0.516	0.0004
344	SLU 33	11.93	0.2	45.93	-0.1701	0.5159	0.0004
344	SLU 34	11.81	0.2	45.56	-0.1683	0.5107	0.0004
344	SLU 35	12.12	0.2	46.75	-0.1729	0.524	0.0004
344	SLU 36	12.12	0.2	46.74	-0.1729	0.5239	0.0004
344	SLU 37	12.01	0.2	46.4	-0.1711	0.5187	0.0004
344	SLU 38	12	0.2	46.38	-0.1711	0.5187	0.0004
344	SLU 39	12.3	0.2	46.8	-0.1746	0.5317	0.0005
344	SLU 40	12.3	0.2	46.79	-0.1746	0.5316	0.0005
344	SLU 41	12.49	0.21	47.62	-0.1773	0.5396	0.0005
344	SLU 42	12.49	0.21	47.6	-0.1773	0.5396	0.0005
344	SLU 43	10.7	0.18	44.41	-0.1553	0.4631	0.0004
344	SLU 44	10.69	0.18	44.39	-0.1552	0.463	0.0004
344	SLU 45	11	0.19	45.59	-0.1598	0.4763	0.0004
344	SLU 46	11	0.19	45.57	-0.1597	0.4762	0.0004
344	SLU 47	10.88	0.18	45.2	-0.158	0.471	0.0004
344	SLU 48	11.19	0.19	46.4	-0.1625	0.4843	0.0004
344	SLU 49	11.19	0.19	46.38	-0.1625	0.4842	0.0004
344	SLU 50	11.07	0.19	46.04	-0.1607	0.479	0.0004
344	SLU 51	11.07	0.19	46.03	-0.1607	0.479	0.0004
344	SLU 52	12.26	0.21	49.14	-0.1761	0.5304	0.0005
344	SLU 53	12.57	0.21	50.33	-0.1806	0.5436	0.0005
344	SLU 54	12.57	0.21	50.32	-0.1806	0.5436	0.0005
344	SLU 55	12.44	0.21	49.95	-0.1788	0.5383	0.0005
344	SLU 56	12.76	0.21	51.15	-0.1833	0.5516	0.0005
344	SLU 57	12.75	0.21	51.13	-0.1833	0.5515	0.0005
344	SLU 58	12.64	0.21	50.79	-0.1816	0.5464	0.0005
344	SLU 59	12.63	0.21	50.77	-0.1815	0.5463	0.0005
344	SLU 60	12.93	0.22	51.2	-0.185	0.5593	0.0005
344	SLU 61	12.93	0.22	51.18	-0.185	0.5593	0.0005
344	SLU 62	13.12	0.22	52.01	-0.1878	0.5673	0.0005
344	SLU 63	13.12	0.22	51.99	-0.1877	0.5672	0.0005
344	SLU 64	12.15	0.2	49.05	-0.1754	0.5258	0.0005
344	SLU 65	12.15	0.2	49.02	-0.1753	0.5257	0.0005
344	SLU 66	12.46	0.21	50.22	-0.1799	0.539	0.0005
344	SLU 67	12.46	0.21	50.2	-0.1798	0.5389	0.0005
344	SLU 68	12.34	0.21	49.84	-0.178	0.5337	0.0005
344	SLU 69	12.65	0.21	51.03	-0.1826	0.5469	0.0005
344	SLU 70	12.65	0.21	51.02	-0.1826	0.5469	0.0005
344	SLU 71	12.53	0.21	50.68	-0.1808	0.5417	0.0005
344	SLU 72	12.53	0.21	50.66	-0.1808	0.5417	0.0005
344	SLU 73	13.71	0.23	53.77	-0.1962	0.5931	0.0005
344	SLU 74	14.02	0.23	54.97	-0.2007	0.6063	0.0005
344	SLU 75	14.02	0.23	54.95	-0.2007	0.6063	0.0005
344	SLU 76	13.9	0.23	54.58	-0.1989	0.601	0.0005
344	SLU 77	14.21	0.24	55.78	-0.2034	0.6143	0.0005
344	SLU 78	14.21	0.24	55.77	-0.2034	0.6142	0.0005
344	SLU 79	14.09	0.24	55.42	-0.2017	0.6091	0.0005
344	SLU 80	14.09	0.24	55.41	-0.2016	0.609	0.0005
344	SLU 81	14.38	0.24	55.83	-0.2051	0.622	0.0005
344	SLU 82	14.38	0.24	55.82	-0.2051	0.622	0.0005
344	SLU 83	14.57	0.24	56.64	-0.2079	0.63	0.0005
344	SLU 84	14.57	0.24	56.63	-0.2078	0.6299	0.0005
344	SLE RA 1	9.03	0.15	36.71	-0.1305	0.3907	0.0003
344	SLE RA 2	9.02	0.15	36.69	-0.1304	0.3906	0.0003
344	SLE RA 3	9.23	0.16	37.49	-0.1335	0.3995	0.0003
344	SLE RA 4	9.23	0.16	37.48	-0.1335	0.3994	0.0003
344	SLE RA 5	9.15	0.15	37.24	-0.1323	0.3959	0.0003
344	SLE RA 6	9.36	0.16	38.03	-0.1353	0.4048	0.0003
344	SLE RA 7	9.36	0.16	38.02	-0.1353	0.4047	0.0003
344	SLE RA 8	9.28	0.16	37.8	-0.1341	0.4013	0.0003
344	SLE RA 9	9.28	0.16	37.79	-0.1341	0.4013	0.0003
344	SLE RA 10	10.07	0.17	39.86	-0.1443	0.4355	0.0004
344	SLE RA 11	10.27	0.17	40.66	-0.1474	0.4444	0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
344	SLE RA 12	10.27	0.17	40.65	-0.1474	0.4443	0.0004
344	SLE RA 13	10.19	0.17	40.4	-0.1462	0.4408	0.0004
344	SLE RA 14	10.4	0.17	41.2	-0.1492	0.4497	0.0004
344	SLE RA 15	10.4	0.17	41.19	-0.1492	0.4496	0.0004
344	SLE RA 16	10.32	0.17	40.96	-0.148	0.4462	0.0004
344	SLE RA 17	10.32	0.17	40.95	-0.148	0.4462	0.0004
344	SLE RA 18	10.52	0.18	41.23	-0.1503	0.4548	0.0004
344	SLE RA 19	10.51	0.18	41.22	-0.1503	0.4548	0.0004
344	SLE RA 20	10.64	0.18	41.77	-0.1521	0.4601	0.0004
344	SLE RA 21	10.64	0.18	41.76	-0.1521	0.4601	0.0004
344	SLE FR 1	9.03	0.15	36.71	-0.1305	0.3907	0.0003
344	SLE FR 2	9.03	0.15	36.71	-0.1305	0.3907	0.0003
344	SLE FR 3	9.08	0.15	36.93	-0.1312	0.3928	0.0003
344	SLE FR 4	9.47	0.16	38.06	-0.1364	0.4099	0.0004
344	SLE FR 5	9.52	0.16	38.28	-0.1372	0.412	0.0004
344	SLE FR 6	9.77	0.16	38.97	-0.1404	0.4228	0.0004
344	SLE QP 1	9.03	0.15	36.71	-0.1305	0.3907	0.0003
344	SLE QP 2	9.47	0.16	38.07	-0.1364	0.4099	0.0004
344	SLD 1	13.95	0.18	38.56	-0.0822	0.6076	0.0004
344	SLD 2	13.95	0.18	38.56	-0.0822	0.6076	0.0004
344	SLD 3	15.09	0.24	42.07	-0.1234	0.6566	0.0006
344	SLD 4	15.09	0.24	42.07	-0.1234	0.6566	0.0006
344	SLD 5	9.09	0.07	32.89	-0.0577	0.3949	0.0001
344	SLD 6	9.09	0.07	32.89	-0.0577	0.3949	0.0001
344	SLD 7	12.88	0.28	44.6	-0.195	0.5583	0.0007
344	SLD 8	12.88	0.28	44.6	-0.195	0.5583	0.0007
344	SLD 9	6.07	0.04	31.54	-0.0779	0.2616	0
344	SLD 10	6.07	0.04	31.54	-0.0779	0.2616	0
344	SLD 11	9.85	0.25	43.25	-0.2152	0.425	0.0006
344	SLD 12	9.85	0.25	43.25	-0.2152	0.425	0.0006
344	SLD 13	3.86	0.08	34.06	-0.1495	0.1633	0.0001
344	SLD 14	3.86	0.08	34.06	-0.1495	0.1633	0.0001
344	SLD 15	5	0.14	37.57	-0.1907	0.2123	0.0003
344	SLD 16	5	0.14	37.57	-0.1907	0.2123	0.0003
344	SLV 1	19.88	0.2	39.18	-0.0035	0.8695	0.0005
344	SLV 2	19.88	0.2	39.18	-0.0035	0.8695	0.0005
344	SLV 3	22.58	0.35	47.49	-0.1036	0.9859	0.001
344	SLV 4	22.58	0.35	47.49	-0.1036	0.9859	0.001
344	SLV 5	8.5	-0.06	25.81	0.0552	0.3713	-0.0003
344	SLV 6	8.5	-0.06	25.81	0.0552	0.3713	-0.0003
344	SLV 7	17.5	0.45	53.49	-0.2784	0.7593	0.0013
344	SLV 8	17.5	0.45	53.49	-0.2784	0.7593	0.0013
344	SLV 9	1.45	-0.13	22.65	0.0055	0.0606	-0.0006
344	SLV 10	1.45	-0.13	22.65	0.0055	0.0606	-0.0006
344	SLV 11	10.44	0.38	50.33	-0.3281	0.4486	0.001
344	SLV 12	10.44	0.38	50.33	-0.3281	0.4486	0.001
344	SLV 13	-3.64	-0.04	28.65	-0.1693	-0.1661	-0.0003
344	SLV 14	-3.64	-0.04	28.65	-0.1693	-0.1661	-0.0003
344	SLV 15	-0.94	0.12	36.95	-0.2694	-0.0497	0.0002
344	SLV 16	-0.94	0.12	36.95	-0.2694	-0.0497	0.0002
345	SLU 1	7.36	0	39.3	-0.057	0.2895	-0.0001
345	SLU 2	7.36	0	39.27	-0.057	0.2894	-0.0001
345	SLU 3	7.62	0	40.65	-0.0588	0.2996	-0.0001
345	SLU 4	7.62	0	40.63	-0.0588	0.2995	-0.0001
345	SLU 5	7.52	0	40.22	-0.0579	0.2955	-0.0001
345	SLU 6	7.79	0	41.6	-0.0597	0.3058	-0.0001
345	SLU 7	7.79	0	41.58	-0.0597	0.3057	-0.0001
345	SLU 8	7.69	0	41.2	-0.0588	0.3018	-0.0001
345	SLU 9	7.69	0	41.18	-0.0588	0.3017	-0.0001
345	SLU 10	8.73	0	44.71	-0.0668	0.3441	-0.0001
345	SLU 11	9	0	46.09	-0.0686	0.3544	-0.0001
345	SLU 12	9	0	46.08	-0.0686	0.3543	-0.0001
345	SLU 13	8.9	0	45.66	-0.0677	0.3503	-0.0001
345	SLU 14	9.17	0	47.04	-0.0694	0.3605	-0.0001
345	SLU 15	9.16	0	47.03	-0.0694	0.3604	-0.0001
345	SLU 16	9.07	0	46.64	-0.0686	0.3565	-0.0001
345	SLU 17	9.07	0	46.63	-0.0686	0.3565	-0.0001
345	SLU 18	9.33	0	47.07	-0.071	0.3677	-0.0001
345	SLU 19	9.33	0	47.06	-0.071	0.3677	-0.0001
345	SLU 20	9.49	0	48.03	-0.0719	0.3739	-0.0001
345	SLU 21	9.49	0	48.01	-0.0719	0.3738	-0.0001
345	SLU 22	8.63	0	44.61	-0.0662	0.3397	-0.0001
345	SLU 23	8.63	0	44.58	-0.0662	0.3396	-0.0001
345	SLU 24	8.89	0	45.96	-0.068	0.3498	-0.0001
345	SLU 25	8.89	0	45.94	-0.068	0.3497	-0.0001
345	SLU 26	8.79	0	45.53	-0.0671	0.3457	-0.0001
345	SLU 27	9.06	0	46.91	-0.0689	0.3559	-0.0001
345	SLU 28	9.06	0	46.89	-0.0689	0.3558	-0.0001
345	SLU 29	8.96	0	46.51	-0.068	0.3519	-0.0001
345	SLU 30	8.96	0	46.49	-0.068	0.3519	-0.0001
345	SLU 31	10.01	0	50.02	-0.076	0.3943	-0.0001
345	SLU 32	10.27	0	51.4	-0.0778	0.4045	-0.0001
345	SLU 33	10.27	0	51.39	-0.0778	0.4045	-0.0001
345	SLU 34	10.17	0	50.98	-0.0769	0.4004	-0.0001
345	SLU 35	10.44	0	52.36	-0.0786	0.4107	-0.0001
345	SLU 36	10.44	0	52.34	-0.0786	0.4106	-0.0001
345	SLU 37	10.34	0	51.96	-0.0778	0.4067	-0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
345	SLU 38	10.34	0	51.94	-0.0778	0.4066	-0.0001
345	SLU 39	10.6	0	52.39	-0.0802	0.4179	-0.0001
345	SLU 40	10.6	0	52.37	-0.0802	0.4178	-0.0001
345	SLU 41	10.76	0	53.34	-0.0811	0.424	-0.0001
345	SLU 42	10.76	0	53.32	-0.0811	0.424	-0.0001
345	SLU 43	9.13	0	49.27	-0.071	0.3592	-0.0001
345	SLU 44	9.13	0	49.24	-0.071	0.359	-0.0001
345	SLU 45	9.4	0	50.62	-0.0727	0.3693	-0.0001
345	SLU 46	9.39	0	50.6	-0.0727	0.3692	-0.0001
345	SLU 47	9.29	0	50.19	-0.0719	0.3652	-0.0001
345	SLU 48	9.56	0	51.57	-0.0736	0.3754	-0.0001
345	SLU 49	9.56	0	51.55	-0.0736	0.3753	-0.0001
345	SLU 50	9.46	0	51.17	-0.0727	0.3714	-0.0001
345	SLU 51	9.46	0	51.15	-0.0727	0.3714	-0.0001
345	SLU 52	10.51	0	54.68	-0.0808	0.4138	-0.0001
345	SLU 53	10.77	0	56.06	-0.0825	0.424	-0.0001
345	SLU 54	10.77	0	56.04	-0.0825	0.424	-0.0001
345	SLU 55	10.67	0	55.63	-0.0816	0.4199	-0.0001
345	SLU 56	10.94	0	57.01	-0.0834	0.4302	-0.0001
345	SLU 57	10.94	0	56.99	-0.0834	0.4301	-0.0001
345	SLU 58	10.84	0	56.61	-0.0825	0.4262	-0.0001
345	SLU 59	10.84	0	56.59	-0.0825	0.4261	-0.0001
345	SLU 60	11.1	0	57.04	-0.085	0.4374	-0.0001
345	SLU 61	11.1	0	57.02	-0.085	0.4373	-0.0001
345	SLU 62	11.26	0	57.99	-0.0858	0.4435	-0.0001
345	SLU 63	11.26	0	57.98	-0.0858	0.4434	-0.0001
345	SLU 64	10.4	0	54.58	-0.0802	0.4093	-0.0001
345	SLU 65	10.4	0	54.55	-0.0802	0.4092	-0.0001
345	SLU 66	10.67	0	55.93	-0.0819	0.4194	-0.0001
345	SLU 67	10.66	0	55.91	-0.0819	0.4194	-0.0001
345	SLU 68	10.56	0	55.5	-0.0811	0.4153	-0.0001
345	SLU 69	10.83	0	56.88	-0.0828	0.4256	-0.0001
345	SLU 70	10.83	0	56.86	-0.0828	0.4255	-0.0001
345	SLU 71	10.73	0	56.48	-0.0819	0.4216	-0.0001
345	SLU 72	10.73	0	56.46	-0.0819	0.4215	-0.0001
345	SLU 73	11.78	0	59.99	-0.09	0.464	-0.0001
345	SLU 74	12.04	0	61.37	-0.0917	0.4742	-0.0001
345	SLU 75	12.04	0	61.36	-0.0917	0.4741	-0.0001
345	SLU 76	11.94	0	60.94	-0.0908	0.4701	-0.0001
345	SLU 77	12.21	0	62.32	-0.0926	0.4803	-0.0001
345	SLU 78	12.21	0	62.31	-0.0926	0.4803	-0.0001
345	SLU 79	12.11	0	61.92	-0.0917	0.4764	-0.0001
345	SLU 80	12.11	0	61.91	-0.0917	0.4763	-0.0001
345	SLU 81	12.37	0	62.35	-0.0942	0.4875	-0.0001
345	SLU 82	12.37	0	62.34	-0.0942	0.4875	-0.0001
345	SLU 83	12.54	0	63.31	-0.095	0.4937	-0.0001
345	SLU 84	12.53	0	63.29	-0.095	0.4936	-0.0001
345	SLE RA 1	7.72	0	40.82	-0.0597	0.3038	-0.0001
345	SLE RA 2	7.72	0	40.8	-0.0597	0.3038	-0.0001
345	SLE RA 3	7.9	0	41.72	-0.0608	0.3106	-0.0001
345	SLE RA 4	7.9	0	41.7	-0.0608	0.3105	-0.0001
345	SLE RA 5	7.83	0	41.43	-0.0602	0.3079	-0.0001
345	SLE RA 6	8.01	0	42.35	-0.0614	0.3147	-0.0001
345	SLE RA 7	8.01	0	42.34	-0.0614	0.3146	-0.0001
345	SLE RA 8	7.94	0	42.08	-0.0608	0.312	-0.0001
345	SLE RA 9	7.94	0	42.07	-0.0608	0.312	-0.0001
345	SLE RA 10	8.64	0	44.42	-0.0662	0.3403	-0.0001
345	SLE RA 11	8.82	0	45.35	-0.0674	0.3471	-0.0001
345	SLE RA 12	8.82	0	45.33	-0.0674	0.347	-0.0001
345	SLE RA 13	8.75	0	45.06	-0.0668	0.3444	-0.0001
345	SLE RA 14	8.93	0	45.98	-0.0679	0.3512	-0.0001
345	SLE RA 15	8.93	0	45.97	-0.0679	0.3511	-0.0001
345	SLE RA 16	8.86	0	45.71	-0.0673	0.3485	-0.0001
345	SLE RA 17	8.86	0	45.7	-0.0673	0.3485	-0.0001
345	SLE RA 18	9.03	0	46	-0.069	0.356	-0.0001
345	SLE RA 19	9.03	0	45.99	-0.069	0.3559	-0.0001
345	SLE RA 20	9.14	0	46.63	-0.0696	0.3601	-0.0001
345	SLE RA 21	9.14	0	46.62	-0.0696	0.36	-0.0001
345	SLE FR 1	7.72	0	40.82	-0.0597	0.3038	-0.0001
345	SLE FR 2	7.72	0	40.81	-0.0597	0.3038	-0.0001
345	SLE FR 3	7.77	0	41.07	-0.0599	0.3055	-0.0001
345	SLE FR 4	8.12	0	42.37	-0.0625	0.3195	-0.0001
345	SLE FR 5	8.16	0	42.62	-0.0627	0.3211	-0.0001
345	SLE FR 6	8.38	0	43.41	-0.0643	0.3299	-0.0001
345	SLE QP 1	7.72	0	40.82	-0.0597	0.3038	-0.0001
345	SLE QP 2	8.12	0	42.37	-0.0625	0.3195	-0.0001
345	SLD 1	12.36	0.01	42.54	-0.0192	0.5079	0
345	SLD 2	12.36	0.01	42.54	-0.0192	0.5079	0
345	SLD 3	13.42	0.07	46.54	-0.0536	0.5504	0.0001
345	SLD 4	13.42	0.07	46.54	-0.0536	0.5504	0.0001
345	SLD 5	7.78	-0.09	36.36	0.0026	0.3115	-0.0003
345	SLD 6	7.78	-0.09	36.36	0.0026	0.3115	-0.0003
345	SLD 7	11.31	0.12	49.68	-0.1119	0.4532	0.0002
345	SLD 8	11.31	0.12	49.68	-0.1119	0.4532	0.0002
345	SLD 9	4.92	-0.12	35.06	-0.013	0.1857	-0.0004
345	SLD 10	4.92	-0.12	35.06	-0.013	0.1857	-0.0004
345	SLD 11	8.45	0.09	48.38	-0.1275	0.3274	0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
345	SLD 12	8.45	0.09	48.38	-0.1275	0.3274	0.0002
345	SLD 13	2.82	-0.08	38.2	-0.0714	0.0885	-0.0002
345	SLD 14	2.82	-0.08	38.2	-0.0714	0.0885	-0.0002
345	SLD 15	3.87	-0.01	42.2	-0.1057	0.131	-0.0001
345	SLD 16	3.87	-0.01	42.2	-0.1057	0.131	-0.0001
345	SLV 1	17.98	0.03	42.73	0.044	0.7578	0
345	SLV 2	17.98	0.03	42.73	0.044	0.7578	0
345	SLV 3	20.49	0.19	52.18	-0.0393	0.8586	0.0004
345	SLV 4	20.49	0.19	52.18	-0.0393	0.8586	0.0004
345	SLV 5	7.27	-0.22	28.14	0.0958	0.298	-0.0006
345	SLV 6	7.27	-0.22	28.14	0.0958	0.298	-0.0006
345	SLV 7	15.63	0.29	59.65	-0.1818	0.6342	0.0006
345	SLV 8	15.63	0.29	59.65	-0.1818	0.6342	0.0006
345	SLV 9	0.6	-0.29	25.09	0.0569	0.0048	-0.0008
345	SLV 10	0.6	-0.29	25.09	0.0569	0.0048	-0.0008
345	SLV 11	8.96	0.22	56.6	-0.2207	0.341	0.0005
345	SLV 12	8.96	0.22	56.6	-0.2207	0.341	0.0005
345	SLV 13	-4.26	-0.19	32.56	-0.0856	-0.2197	-0.0005
345	SLV 14	-4.26	-0.19	32.56	-0.0856	-0.2197	-0.0005
345	SLV 15	-1.75	-0.03	42.01	-0.1689	-0.1188	-0.0001
345	SLV 16	-1.75	-0.03	42.01	-0.1689	-0.1188	-0.0001
346	SLU 1	5.85	-0.19	42.87	0.0093	0.2407	-0.0004
346	SLU 2	5.85	-0.19	42.84	0.0093	0.2406	-0.0004
346	SLU 3	6.06	-0.2	44.4	0.0103	0.2488	-0.0004
346	SLU 4	6.06	-0.2	44.39	0.0103	0.2488	-0.0004
346	SLU 5	5.98	-0.19	43.94	0.0103	0.2455	-0.0004
346	SLU 6	6.19	-0.2	45.5	0.0113	0.2537	-0.0005
346	SLU 7	6.18	-0.2	45.48	0.0113	0.2537	-0.0005
346	SLU 8	6.11	-0.2	45.07	0.0114	0.2505	-0.0005
346	SLU 9	6.11	-0.2	45.05	0.0114	0.2504	-0.0005
346	SLU 10	6.99	-0.22	48.93	0.0103	0.2875	-0.0005
346	SLU 11	7.2	-0.23	50.5	0.0113	0.2958	-0.0005
346	SLU 12	7.2	-0.23	50.48	0.0113	0.2957	-0.0005
346	SLU 13	7.12	-0.22	50.03	0.0113	0.2924	-0.0005
346	SLU 14	7.33	-0.23	51.6	0.0124	0.3007	-0.0005
346	SLU 15	7.33	-0.23	51.58	0.0123	0.3007	-0.0005
346	SLU 16	7.25	-0.23	51.16	0.0124	0.2974	-0.0005
346	SLU 17	7.25	-0.23	51.15	0.0124	0.2974	-0.0005
346	SLU 18	7.48	-0.23	51.58	0.0107	0.3077	-0.0005
346	SLU 19	7.48	-0.23	51.56	0.0107	0.3077	-0.0005
346	SLU 20	7.61	-0.24	52.68	0.0118	0.3127	-0.0005
346	SLU 21	7.61	-0.24	52.66	0.0118	0.3126	-0.0005
346	SLU 22	6.89	-0.22	48.82	0.0107	0.2832	-0.0005
346	SLU 23	6.89	-0.22	48.79	0.0107	0.2832	-0.0005
346	SLU 24	7.1	-0.23	50.36	0.0117	0.2914	-0.0005
346	SLU 25	7.1	-0.23	50.34	0.0117	0.2914	-0.0005
346	SLU 26	7.02	-0.22	49.89	0.0118	0.2881	-0.0005
346	SLU 27	7.23	-0.23	51.45	0.0128	0.2963	-0.0005
346	SLU 28	7.23	-0.23	51.44	0.0128	0.2963	-0.0005
346	SLU 29	7.15	-0.23	51.02	0.0128	0.2931	-0.0005
346	SLU 30	7.15	-0.23	51	0.0128	0.293	-0.0005
346	SLU 31	8.03	-0.25	54.89	0.0117	0.3301	-0.0006
346	SLU 32	8.24	-0.26	56.45	0.0128	0.3384	-0.0006
346	SLU 33	8.24	-0.26	56.43	0.0127	0.3383	-0.0006
346	SLU 34	8.16	-0.25	55.98	0.0128	0.335	-0.0006
346	SLU 35	8.37	-0.26	57.55	0.0138	0.3433	-0.0006
346	SLU 36	8.37	-0.26	57.53	0.0138	0.3432	-0.0006
346	SLU 37	8.29	-0.26	57.12	0.0138	0.34	-0.0006
346	SLU 38	8.29	-0.26	57.1	0.0138	0.34	-0.0006
346	SLU 39	8.53	-0.26	57.53	0.0122	0.3503	-0.0006
346	SLU 40	8.52	-0.26	57.51	0.0122	0.3503	-0.0006
346	SLU 41	8.65	-0.27	58.63	0.0132	0.3552	-0.0006
346	SLU 42	8.65	-0.27	58.61	0.0132	0.3552	-0.0006
346	SLU 43	7.25	-0.23	53.69	0.0116	0.2983	-0.0005
346	SLU 44	7.25	-0.23	53.66	0.0116	0.2982	-0.0005
346	SLU 45	7.46	-0.24	55.23	0.0126	0.3064	-0.0005
346	SLU 46	7.46	-0.24	55.21	0.0126	0.3064	-0.0005
346	SLU 47	7.38	-0.24	54.76	0.0126	0.3031	-0.0005
346	SLU 48	7.59	-0.25	56.32	0.0136	0.3113	-0.0006
346	SLU 49	7.58	-0.25	56.31	0.0136	0.3113	-0.0006
346	SLU 50	7.51	-0.25	55.89	0.0137	0.3081	-0.0006
346	SLU 51	7.51	-0.25	55.87	0.0137	0.308	-0.0006
346	SLU 52	8.39	-0.26	59.76	0.0126	0.3451	-0.0006
346	SLU 53	8.6	-0.27	61.32	0.0136	0.3534	-0.0006
346	SLU 54	8.6	-0.27	61.3	0.0136	0.3533	-0.0006
346	SLU 55	8.52	-0.27	60.85	0.0136	0.35	-0.0006
346	SLU 56	8.73	-0.28	62.42	0.0146	0.3583	-0.0006
346	SLU 57	8.73	-0.28	62.4	0.0146	0.3583	-0.0006
346	SLU 58	8.65	-0.28	61.99	0.0147	0.355	-0.0006
346	SLU 59	8.65	-0.28	61.97	0.0147	0.355	-0.0006
346	SLU 60	8.88	-0.28	62.4	0.013	0.3653	-0.0006
346	SLU 61	8.88	-0.28	62.38	0.013	0.3653	-0.0006
346	SLU 62	9.01	-0.28	63.5	0.0141	0.3703	-0.0006
346	SLU 63	9.01	-0.28	63.48	0.0141	0.3702	-0.0006
346	SLU 64	8.29	-0.26	59.64	0.013	0.3408	-0.0006
346	SLU 65	8.29	-0.26	59.61	0.013	0.3407	-0.0006
346	SLU 66	8.5	-0.27	61.18	0.014	0.349	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
346	SLU 67	8.5	-0.27	61.16	0.014	0.349	-0.0006
346	SLU 68	8.42	-0.27	60.71	0.0141	0.3457	-0.0006
346	SLU 69	8.63	-0.28	62.28	0.0151	0.3539	-0.0006
346	SLU 70	8.62	-0.28	62.26	0.0151	0.3539	-0.0006
346	SLU 71	8.55	-0.28	61.84	0.0151	0.3507	-0.0006
346	SLU 72	8.55	-0.28	61.82	0.0151	0.3506	-0.0006
346	SLU 73	9.43	-0.29	65.71	0.014	0.3877	-0.0007
346	SLU 74	9.64	-0.3	67.27	0.015	0.396	-0.0007
346	SLU 75	9.64	-0.3	67.25	0.015	0.3959	-0.0007
346	SLU 76	9.56	-0.3	66.81	0.0151	0.3926	-0.0007
346	SLU 77	9.77	-0.31	68.37	0.0161	0.4009	-0.0007
346	SLU 78	9.77	-0.31	68.35	0.0161	0.4008	-0.0007
346	SLU 79	9.69	-0.31	67.94	0.0161	0.3976	-0.0007
346	SLU 80	9.69	-0.31	67.92	0.0161	0.3976	-0.0007
346	SLU 81	9.92	-0.31	68.35	0.0145	0.4079	-0.0007
346	SLU 82	9.92	-0.31	68.33	0.0145	0.4079	-0.0007
346	SLU 83	10.05	-0.31	69.45	0.0155	0.4128	-0.0007
346	SLU 84	10.05	-0.31	69.43	0.0155	0.4128	-0.0007
346	SLE RA 1	6.15	-0.2	44.57	0.0097	0.2528	-0.0004
346	SLE RA 2	6.15	-0.2	44.55	0.0097	0.2528	-0.0004
346	SLE RA 3	6.29	-0.2	45.59	0.0104	0.2583	-0.0005
346	SLE RA 4	6.29	-0.2	45.58	0.0104	0.2582	-0.0005
346	SLE RA 5	6.23	-0.2	45.28	0.0104	0.256	-0.0005
346	SLE RA 6	6.37	-0.21	46.33	0.0111	0.2615	-0.0005
346	SLE RA 7	6.37	-0.21	46.31	0.0111	0.2615	-0.0005
346	SLE RA 8	6.32	-0.21	46.04	0.0111	0.2594	-0.0005
346	SLE RA 9	6.32	-0.21	46.02	0.0111	0.2593	-0.0005
346	SLE RA 10	6.91	-0.22	48.61	0.0104	0.2841	-0.0005
346	SLE RA 11	7.05	-0.22	49.66	0.011	0.2896	-0.0005
346	SLE RA 12	7.05	-0.22	49.64	0.011	0.2895	-0.0005
346	SLE RA 13	7	-0.22	49.35	0.0111	0.2873	-0.0005
346	SLE RA 14	7.13	-0.23	50.39	0.0117	0.2929	-0.0005
346	SLE RA 15	7.13	-0.23	50.38	0.0117	0.2928	-0.0005
346	SLE RA 16	7.08	-0.23	50.1	0.0118	0.2907	-0.0005
346	SLE RA 17	7.08	-0.22	50.09	0.0118	0.2906	-0.0005
346	SLE RA 18	7.24	-0.22	50.38	0.0107	0.2975	-0.0005
346	SLE RA 19	7.24	-0.22	50.36	0.0107	0.2975	-0.0005
346	SLE RA 20	7.32	-0.23	51.11	0.0114	0.3008	-0.0005
346	SLE RA 21	7.32	-0.23	51.1	0.0114	0.3008	-0.0005
346	SLE FR 1	6.15	-0.2	44.57	0.0097	0.2528	-0.0004
346	SLE FR 2	6.15	-0.2	44.57	0.0097	0.2528	-0.0004
346	SLE FR 3	6.18	-0.2	44.87	0.01	0.2541	-0.0004
346	SLE FR 4	6.48	-0.2	46.31	0.01	0.2662	-0.0005
346	SLE FR 5	6.51	-0.21	46.61	0.0103	0.2675	-0.0005
346	SLE FR 6	6.69	-0.21	47.47	0.0102	0.2752	-0.0005
346	SLE QP 1	6.15	-0.2	44.57	0.0097	0.2528	-0.0004
346	SLE QP 2	6.48	-0.21	46.31	0.01	0.2662	-0.0005
346	SLD 1	10.57	-0.15	45.98	-0.0168	0.4473	-0.0003
346	SLD 2	10.57	-0.15	45.98	-0.0168	0.4473	-0.0003
346	SLD 3	11.53	-0.2	50.7	0.0069	0.4858	-0.0004
346	SLD 4	11.53	-0.2	50.7	0.0069	0.4858	-0.0004
346	SLD 5	6.26	-0.11	39.06	-0.034	0.2622	-0.0002
346	SLD 6	6.26	-0.11	39.06	-0.034	0.2622	-0.0002
346	SLD 7	9.44	-0.29	54.79	0.045	0.3905	-0.0007
346	SLD 8	9.44	-0.29	54.79	0.045	0.3905	-0.0007
346	SLD 9	3.51	-0.12	37.84	-0.025	0.142	-0.0002
346	SLD 10	3.51	-0.12	37.84	-0.025	0.142	-0.0002
346	SLD 11	6.69	-0.3	53.57	0.054	0.2703	-0.0008
346	SLD 12	6.69	-0.3	53.57	0.054	0.2703	-0.0008
346	SLD 13	1.42	-0.21	41.92	0.0131	0.0466	-0.0005
346	SLD 14	1.42	-0.21	41.92	0.0131	0.0466	-0.0005
346	SLD 15	2.38	-0.26	46.64	0.0368	0.0851	-0.0007
346	SLD 16	2.38	-0.26	46.64	0.0368	0.0851	-0.0007
346	SLV 1	16.01	-0.07	45.48	-0.0553	0.6876	0
346	SLV 2	16.01	-0.07	45.48	-0.0553	0.6876	0
346	SLV 3	18.27	-0.2	56.65	0.0011	0.7788	-0.0004
346	SLV 4	18.27	-0.2	56.65	0.0011	0.7788	-0.0004
346	SLV 5	5.91	0.03	29.12	-0.0952	0.2543	0.0003
346	SLV 6	5.91	0.03	29.12	-0.0952	0.2543	0.0003
346	SLV 7	13.43	-0.4	66.36	0.0929	0.5583	-0.001
346	SLV 8	13.43	-0.4	66.36	0.0929	0.5583	-0.001
346	SLV 9	-0.48	-0.01	26.27	-0.0729	-0.0258	0.0001
346	SLV 10	-0.48	-0.01	26.27	-0.0729	-0.0258	0.0001
346	SLV 11	7.04	-0.44	63.51	0.1152	0.2782	-0.0012
346	SLV 12	7.04	-0.44	63.51	0.1152	0.2782	-0.0012
346	SLV 13	-5.32	-0.21	35.97	0.0188	-0.2463	-0.0005
346	SLV 14	-5.32	-0.21	35.97	0.0188	-0.2463	-0.0005
346	SLV 15	-3.06	-0.34	47.15	0.0753	-0.1551	-0.0009
346	SLV 16	-3.06	-0.34	47.15	0.0753	-0.1551	-0.0009
347	SLU 1	2.86	-8.95	69.02	-4.6587	0.1189	0.0016
347	SLU 2	2.85	-8.94	68.97	-4.6563	0.1188	0.0016
347	SLU 3	2.92	-9.37	71.57	-4.8298	0.1214	0.0016
347	SLU 4	2.92	-9.37	71.55	-4.8283	0.1214	0.0016
347	SLU 5	2.87	-9.28	70.82	-4.7762	0.1196	0.0016
347	SLU 6	2.94	-9.7	73.42	-4.9497	0.1222	0.0017
347	SLU 7	2.93	-9.7	73.39	-4.9483	0.1222	0.0017
347	SLU 8	2.89	-9.61	72.71	-4.8985	0.1205	0.0016



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
347	SLU 9	2.89	-9.61	72.69	-4.8971	0.1204	0.0016
347	SLU 10	3.53	-10.32	79.11	-5.3587	0.1467	0.0019
347	SLU 11	3.59	-10.74	81.72	-5.5322	0.1493	0.002
347	SLU 12	3.59	-10.74	81.69	-5.5307	0.1493	0.002
347	SLU 13	3.55	-10.65	80.96	-5.4786	0.1475	0.002
347	SLU 14	3.61	-11.08	83.56	-5.6521	0.1501	0.002
347	SLU 15	3.61	-11.08	83.54	-5.6507	0.1501	0.002
347	SLU 16	3.57	-10.99	82.86	-5.6009	0.1484	0.002
347	SLU 17	3.57	-10.99	82.83	-5.5995	0.1483	0.002
347	SLU 18	3.82	-10.91	83.51	-5.6621	0.1587	0.0021
347	SLU 19	3.82	-10.91	83.48	-5.6607	0.1587	0.0021
347	SLU 20	3.84	-11.24	85.36	-5.7821	0.1595	0.0021
347	SLU 21	3.84	-11.24	85.33	-5.7806	0.1595	0.0021
347	SLU 22	3.41	-10.35	78.94	-5.346	0.142	0.0019
347	SLU 23	3.41	-10.35	78.89	-5.3436	0.142	0.0019
347	SLU 24	3.48	-10.77	81.49	-5.5171	0.1446	0.0019
347	SLU 25	3.47	-10.77	81.47	-5.5157	0.1445	0.0019
347	SLU 26	3.43	-10.68	80.74	-5.4636	0.1427	0.0019
347	SLU 27	3.49	-11.1	83.34	-5.6371	0.1454	0.002
347	SLU 28	3.49	-11.1	83.31	-5.6356	0.1453	0.002
347	SLU 29	3.45	-11.02	82.63	-5.5859	0.1436	0.0019
347	SLU 30	3.45	-11.02	82.61	-5.5844	0.1436	0.0019
347	SLU 31	4.09	-11.72	89.03	-6.046	0.1699	0.0022
347	SLU 32	4.15	-12.14	91.64	-6.2195	0.1725	0.0023
347	SLU 33	4.15	-12.14	91.61	-6.2181	0.1724	0.0023
347	SLU 34	4.11	-12.06	90.88	-6.166	0.1707	0.0023
347	SLU 35	4.17	-12.48	93.49	-6.3395	0.1733	0.0023
347	SLU 36	4.17	-12.48	93.46	-6.338	0.1732	0.0023
347	SLU 37	4.13	-12.39	92.78	-6.2883	0.1715	0.0023
347	SLU 38	4.13	-12.39	92.75	-6.2869	0.1715	0.0023
347	SLU 39	4.38	-12.31	93.43	-6.3495	0.1819	0.0024
347	SLU 40	4.38	-12.31	93.4	-6.348	0.1818	0.0024
347	SLU 41	4.4	-12.65	95.28	-6.4694	0.1827	0.0024
347	SLU 42	4.4	-12.65	95.25	-6.468	0.1826	0.0024
347	SLU 43	3.52	-11.15	86.32	-5.8206	0.1466	0.002
347	SLU 44	3.52	-11.15	86.27	-5.8182	0.1465	0.002
347	SLU 45	3.58	-11.57	88.88	-5.9917	0.1491	0.002
347	SLU 46	3.58	-11.57	88.85	-5.9903	0.1491	0.002
347	SLU 47	3.54	-11.48	88.12	-5.9381	0.1473	0.002
347	SLU 48	3.6	-11.91	90.73	-6.1116	0.1499	0.002
347	SLU 49	3.6	-11.9	90.7	-6.1102	0.1499	0.002
347	SLU 50	3.56	-11.82	90.02	-6.0605	0.1482	0.002
347	SLU 51	3.56	-11.82	89.99	-6.059	0.1482	0.002
347	SLU 52	4.19	-12.52	96.42	-6.5206	0.1744	0.0023
347	SLU 53	4.25	-12.95	99.02	-6.6941	0.1771	0.0024
347	SLU 54	4.25	-12.94	98.99	-6.6927	0.177	0.0024
347	SLU 55	4.21	-12.86	98.27	-6.6406	0.1752	0.0023
347	SLU 56	4.27	-13.28	100.87	-6.814	0.1778	0.0024
347	SLU 57	4.27	-13.28	100.84	-6.8126	0.1778	0.0024
347	SLU 58	4.23	-13.19	100.16	-6.7629	0.1761	0.0024
347	SLU 59	4.23	-13.19	100.13	-6.7614	0.1761	0.0024
347	SLU 60	4.48	-13.11	100.81	-6.8241	0.1865	0.0025
347	SLU 61	4.48	-13.11	100.78	-6.8226	0.1864	0.0025
347	SLU 62	4.5	-13.45	102.66	-6.944	0.1873	0.0025
347	SLU 63	4.5	-13.45	102.63	-6.9425	0.1872	0.0025
347	SLU 64	4.08	-12.55	96.24	-6.508	0.1698	0.0023
347	SLU 65	4.08	-12.55	96.2	-6.5056	0.1697	0.0023
347	SLU 66	4.14	-12.97	98.8	-6.6791	0.1723	0.0023
347	SLU 67	4.14	-12.97	98.77	-6.6776	0.1722	0.0023
347	SLU 68	4.1	-12.88	98.04	-6.6255	0.1705	0.0023
347	SLU 69	4.16	-13.31	100.65	-6.799	0.1731	0.0023
347	SLU 70	4.16	-13.31	100.62	-6.7976	0.173	0.0023
347	SLU 71	4.12	-13.22	99.94	-6.7478	0.1713	0.0023
347	SLU 72	4.12	-13.22	99.91	-6.7464	0.1713	0.0023
347	SLU 73	4.75	-13.92	106.34	-7.208	0.1976	0.0026
347	SLU 74	4.81	-14.35	108.94	-7.3815	0.2002	0.0027
347	SLU 75	4.81	-14.35	108.91	-7.38	0.2002	0.0027
347	SLU 76	4.77	-14.26	108.19	-7.3279	0.1984	0.0026
347	SLU 77	4.83	-14.68	110.79	-7.5014	0.201	0.0027
347	SLU 78	4.83	-14.68	110.76	-7.5	0.2009	0.0027
347	SLU 79	4.79	-14.59	110.08	-7.4502	0.1993	0.0027
347	SLU 80	4.79	-14.59	110.05	-7.4488	0.1992	0.0027
347	SLU 81	5.04	-14.52	110.73	-7.5114	0.2096	0.0028
347	SLU 82	5.04	-14.51	110.7	-7.51	0.2096	0.0028
347	SLU 83	5.06	-14.85	112.58	-7.6313	0.2104	0.0028
347	SLU 84	5.06	-14.85	112.55	-7.6299	0.2104	0.0028
347	SLE RA 1	3.01	-9.35	71.85	-4.8551	0.1255	0.0017
347	SLE RA 2	3.01	-9.35	71.82	-4.8535	0.1254	0.0017
347	SLE RA 3	3.06	-9.63	73.56	-4.9691	0.1272	0.0017
347	SLE RA 4	3.05	-9.63	73.54	-4.9682	0.1272	0.0017
347	SLE RA 5	3.03	-9.57	73.05	-4.9334	0.126	0.0017
347	SLE RA 6	3.07	-9.85	74.79	-5.0491	0.1277	0.0017
347	SLE RA 7	3.07	-9.85	74.77	-5.0481	0.1277	0.0017
347	SLE RA 8	3.04	-9.79	74.32	-5.015	0.1266	0.0017
347	SLE RA 9	3.04	-9.79	74.3	-5.014	0.1265	0.0017
347	SLE RA 10	3.46	-10.26	78.58	-5.3217	0.144	0.0019
347	SLE RA 11	3.5	-10.54	80.32	-5.4374	0.1458	0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
347	SLE RA 12	3.5	-10.54	80.3	-5.4364	0.1458	0.0019
347	SLE RA 13	3.48	-10.48	79.82	-5.4017	0.1446	0.0019
347	SLE RA 14	3.52	-10.77	81.55	-5.5174	0.1463	0.002
347	SLE RA 15	3.52	-10.77	81.53	-5.5164	0.1463	0.002
347	SLE RA 16	3.49	-10.71	81.08	-5.4832	0.1452	0.0019
347	SLE RA 17	3.49	-10.71	81.06	-5.4823	0.1451	0.0019
347	SLE RA 18	3.66	-10.66	81.51	-5.524	0.1521	0.002
347	SLE RA 19	3.66	-10.66	81.49	-5.5231	0.152	0.002
347	SLE RA 20	3.67	-10.88	82.74	-5.604	0.1526	0.002
347	SLE RA 21	3.67	-10.88	82.73	-5.603	0.1526	0.002
347	SLE FR 1	3.01	-9.35	71.85	-4.8551	0.1255	0.0017
347	SLE FR 2	3.01	-9.35	71.85	-4.8547	0.1255	0.0017
347	SLE FR 3	3.02	-9.44	72.34	-4.887	0.1257	0.0017
347	SLE FR 4	3.21	-9.74	74.74	-5.0554	0.1335	0.0018
347	SLE FR 5	3.21	-9.83	75.24	-5.0877	0.1337	0.0018
347	SLE FR 6	3.34	-10	76.68	-5.1895	0.1388	0.0018
347	SLE QP 1	3.01	-9.35	71.85	-4.8551	0.1255	0.0017
347	SLE QP 2	3.21	-9.74	74.75	-5.0558	0.1335	0.0018
347	SLD 1	7.56	-9.14	73.19	-4.9061	0.3234	0.0028
347	SLD 2	7.56	-9.14	73.19	-4.9061	0.3234	0.0028
347	SLD 3	8.13	-12.31	82.87	-5.7116	0.3503	0.0049
347	SLD 4	8.13	-12.31	82.87	-5.7116	0.3503	0.0049
347	SLD 5	3.66	-4.75	59.59	-3.7892	0.1497	-0.0011
347	SLD 6	3.66	-4.75	59.59	-3.7892	0.1497	-0.0011
347	SLD 7	5.54	-15.32	91.88	-6.4741	0.2392	0.0059
347	SLD 8	5.54	-15.32	91.88	-6.4741	0.2392	0.0059
347	SLD 9	0.88	-4.16	57.62	-3.6374	0.0277	-0.0023
347	SLD 10	0.88	-4.16	57.62	-3.6374	0.0277	-0.0023
347	SLD 11	2.75	-14.73	89.91	-6.3223	0.1172	0.0046
347	SLD 12	2.75	-14.73	89.91	-6.3223	0.1172	0.0046
347	SLD 13	-1.71	-7.17	66.63	-4.4	-0.0833	-0.0014
347	SLD 14	-1.71	-7.17	66.63	-4.4	-0.0833	-0.0014
347	SLD 15	-1.15	-10.34	76.31	-5.2054	-0.0565	0.0007
347	SLD 16	-1.15	-10.34	76.31	-5.2054	-0.0565	0.0007
347	SLV 1	13.34	-8.3	70.99	-4.6971	0.575	0.0042
347	SLV 2	13.34	-8.3	70.99	-4.6971	0.575	0.0042
347	SLV 3	14.69	-15.8	93.92	-6.6035	0.6398	0.0092
347	SLV 4	14.69	-15.8	93.92	-6.6035	0.6398	0.0092
347	SLV 5	4.19	2.06	38.84	-2.0568	0.1678	-0.0052
347	SLV 6	4.19	2.06	38.84	-2.0568	0.1678	-0.0052
347	SLV 7	8.71	-22.93	115.29	-8.4115	0.3835	0.0117
347	SLV 8	8.71	-22.93	115.29	-8.4115	0.3835	0.0117
347	SLV 9	-2.29	3.45	34.21	-1.7001	-0.1166	-0.0081
347	SLV 10	-2.29	3.45	34.21	-1.7001	-0.1166	-0.0081
347	SLV 11	2.22	-21.54	110.66	-8.0547	0.0992	0.0087
347	SLV 12	2.22	-21.54	110.66	-8.0547	0.0992	0.0087
347	SLV 13	-8.28	-3.68	55.58	-3.508	-0.3728	-0.0057
347	SLV 14	-8.28	-3.68	55.58	-3.508	-0.3728	-0.0057
347	SLV 15	-6.92	-11.18	78.51	-5.4144	-0.3081	-0.0006
347	SLV 16	-6.92	-11.18	78.51	-5.4144	-0.3081	-0.0006
348	SLU 1	-0.15	-0.19	46.34	0.007	0.0153	0.0006
348	SLU 2	-0.15	-0.19	46.3	0.007	0.0153	0.0006
348	SLU 3	-0.23	-0.2	47.98	0.0076	0.0129	0.0006
348	SLU 4	-0.23	-0.2	47.96	0.0077	0.0129	0.0006
348	SLU 5	-0.24	-0.2	47.48	0.0078	0.0124	0.0006
348	SLU 6	-0.32	-0.21	49.17	0.0084	0.01	0.0006
348	SLU 7	-0.32	-0.21	49.15	0.0084	0.01	0.0006
348	SLU 8	-0.32	-0.2	48.71	0.0085	0.0095	0.0006
348	SLU 9	-0.32	-0.2	48.69	0.0085	0.0095	0.0006
348	SLU 10	0.04	-0.22	53.09	0.0081	0.026	0.0006
348	SLU 11	-0.04	-0.23	54.78	0.0087	0.0237	0.0007
348	SLU 12	-0.04	-0.23	54.75	0.0087	0.0237	0.0007
348	SLU 13	-0.05	-0.23	54.28	0.0089	0.0231	0.0007
348	SLU 14	-0.13	-0.24	55.96	0.0095	0.0208	0.0007
348	SLU 15	-0.13	-0.24	55.94	0.0095	0.0208	0.0007
348	SLU 16	-0.14	-0.23	55.51	0.0095	0.0203	0.0007
348	SLU 17	-0.14	-0.23	55.48	0.0096	0.0202	0.0007
348	SLU 18	0.12	-0.23	56.04	0.0085	0.0307	0.0007
348	SLU 19	0.12	-0.23	56.02	0.0085	0.0306	0.0007
348	SLU 20	0.03	-0.24	57.23	0.0092	0.0278	0.0007
348	SLU 21	0.03	-0.24	57.21	0.0093	0.0278	0.0007
348	SLU 22	-0.08	-0.22	52.9	0.0082	0.0213	0.0006
348	SLU 23	-0.08	-0.22	52.86	0.0083	0.0213	0.0006
348	SLU 24	-0.16	-0.23	54.55	0.0089	0.019	0.0007
348	SLU 25	-0.16	-0.23	54.53	0.009	0.0189	0.0007
348	SLU 26	-0.17	-0.23	54.05	0.0091	0.0184	0.0007
348	SLU 27	-0.25	-0.24	55.74	0.0097	0.0161	0.0007
348	SLU 28	-0.25	-0.24	55.71	0.0097	0.016	0.0007
348	SLU 29	-0.26	-0.23	55.28	0.0098	0.0155	0.0007
348	SLU 30	-0.26	-0.23	55.25	0.0098	0.0155	0.0007
348	SLU 31	0.11	-0.25	59.66	0.0094	0.032	0.0007
348	SLU 32	0.03	-0.26	61.34	0.01	0.0297	0.0008
348	SLU 33	0.03	-0.26	61.32	0.01	0.0297	0.0008
348	SLU 34	0.02	-0.26	60.85	0.0101	0.0292	0.0007
348	SLU 35	-0.06	-0.27	62.53	0.0107	0.0268	0.0008
348	SLU 36	-0.06	-0.27	62.51	0.0108	0.0268	0.0008
348	SLU 37	-0.07	-0.26	62.07	0.0108	0.0263	0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
348	SLU 38	-0.07	-0.26	62.05	0.0109	0.0263	0.0008
348	SLU 39	0.19	-0.26	62.61	0.0098	0.0367	0.0008
348	SLU 40	0.19	-0.26	62.59	0.0098	0.0367	0.0008
348	SLU 41	0.1	-0.27	63.8	0.0105	0.0338	0.0008
348	SLU 42	-0.1	-0.27	63.78	0.0106	0.0338	0.0008
348	SLU 43	-0.21	-0.24	57.98	0.0086	0.0178	0.0007
348	SLU 44	-0.21	-0.24	57.95	0.0087	0.0178	0.0007
348	SLU 45	-0.29	-0.25	59.63	0.0093	0.0155	0.0007
348	SLU 46	-0.3	-0.25	59.61	0.0093	0.0154	0.0007
348	SLU 47	-0.3	-0.24	59.13	0.0094	0.0149	0.0007
348	SLU 48	-0.38	-0.25	60.82	0.0101	0.0126	0.0007
348	SLU 49	-0.38	-0.25	60.79	0.0101	0.0125	0.0007
348	SLU 50	-0.39	-0.25	60.36	0.0101	0.012	0.0007
348	SLU 51	-0.39	-0.25	60.34	0.0102	0.012	0.0007
348	SLU 52	-0.03	-0.27	64.74	0.0097	0.0285	0.0008
348	SLU 53	-0.11	-0.28	66.43	0.0104	0.0262	0.0008
348	SLU 54	-0.11	-0.28	66.4	0.0104	0.0262	0.0008
348	SLU 55	-0.12	-0.27	65.93	0.0105	0.0256	0.0008
348	SLU 56	-0.2	-0.28	67.61	0.0111	0.0233	0.0008
348	SLU 57	-0.2	-0.28	67.59	0.0112	0.0233	0.0008
348	SLU 58	-0.2	-0.28	67.15	0.0112	0.0228	0.0008
348	SLU 59	-0.2	-0.28	67.13	0.0112	0.0228	0.0008
348	SLU 60	0.05	-0.28	67.69	0.0101	0.0332	0.0008
348	SLU 61	0.05	-0.28	67.67	0.0102	0.0332	0.0008
348	SLU 62	-0.03	-0.29	68.88	0.0109	0.0303	0.0008
348	SLU 63	-0.04	-0.29	68.86	0.0109	0.0303	0.0008
348	SLU 64	-0.15	-0.27	64.55	0.0099	0.0238	0.0008
348	SLU 65	-0.15	-0.27	64.51	0.01	0.0238	0.0008
348	SLU 66	-0.23	-0.28	66.2	0.0106	0.0215	0.0008
348	SLU 67	-0.23	-0.28	66.17	0.0106	0.0215	0.0008
348	SLU 68	-0.24	-0.27	65.7	0.0107	0.0209	0.0008
348	SLU 69	-0.32	-0.28	67.39	0.0113	0.0186	0.0008
348	SLU 70	-0.32	-0.28	67.36	0.0114	0.0186	0.0008
348	SLU 71	-0.32	-0.28	66.93	0.0114	0.0181	0.0008
348	SLU 72	-0.32	-0.28	66.9	0.0115	0.018	0.0008
348	SLU 73	0.04	-0.3	71.31	0.011	0.0346	0.0009
348	SLU 74	-0.04	-0.31	72.99	0.0116	0.0323	0.0009
348	SLU 75	-0.04	-0.31	72.97	0.0117	0.0322	0.0009
348	SLU 76	-0.05	-0.3	72.5	0.0118	0.0317	0.0009
348	SLU 77	-0.13	-0.31	74.18	0.0124	0.0294	0.0009
348	SLU 78	-0.13	-0.31	74.16	0.0124	0.0293	0.0009
348	SLU 79	-0.14	-0.31	73.72	0.0125	0.0288	0.0009
348	SLU 80	-0.14	-0.31	73.7	0.0125	0.0288	0.0009
348	SLU 81	0.12	-0.31	74.26	0.0114	0.0392	0.0009
348	SLU 82	0.12	-0.31	74.24	0.0115	0.0392	0.0009
348	SLU 83	0.03	-0.32	75.45	0.0122	0.0363	0.0009
348	SLU 84	0.03	-0.32	75.42	0.0122	0.0363	0.0009
348	SLE RA 1	-0.13	-0.2	48.21	0.0073	0.017	0.0006
348	SLE RA 2	-0.13	-0.2	48.19	0.0074	0.017	0.0006
348	SLE RA 3	-0.18	-0.2	49.31	0.0078	0.0154	0.0006
348	SLE RA 4	-0.18	-0.2	49.29	0.0078	0.0154	0.0006
348	SLE RA 5	-0.19	-0.2	48.98	0.0079	0.0151	0.0006
348	SLE RA 6	-0.24	-0.21	50.1	0.0083	0.0135	0.0006
348	SLE RA 7	-0.24	-0.21	50.09	0.0083	0.0135	0.0006
348	SLE RA 8	-0.24	-0.21	49.79	0.0083	0.0132	0.0006
348	SLE RA 9	-0.25	-0.21	49.78	0.0084	0.0131	0.0006
348	SLE RA 10	0	-0.22	52.72	0.0081	0.0242	0.0006
348	SLE RA 11	-0.06	-0.22	53.84	0.0085	0.0226	0.0007
348	SLE RA 12	-0.06	-0.22	53.82	0.0085	0.0226	0.0007
348	SLE RA 13	-0.06	-0.22	53.51	0.0086	0.0222	0.0006
348	SLE RA 14	-0.12	-0.23	54.63	0.009	0.0207	0.0007
348	SLE RA 15	-0.12	-0.23	54.62	0.009	0.0207	0.0007
348	SLE RA 16	-0.12	-0.23	54.33	0.009	0.0203	0.0007
348	SLE RA 17	-0.12	-0.23	54.31	0.0091	0.0203	0.0007
348	SLE RA 18	0.05	-0.23	54.68	0.0083	0.0273	0.0007
348	SLE RA 19	0.05	-0.23	54.67	0.0084	0.0273	0.0007
348	SLE RA 20	-0.01	-0.23	55.48	0.0088	0.0253	0.0007
348	SLE RA 21	-0.01	-0.23	55.46	0.0089	0.0253	0.0007
348	SLE FR 1	-0.13	-0.2	48.21	0.0073	0.017	0.0006
348	SLE FR 2	-0.13	-0.2	48.21	0.0073	0.017	0.0006
348	SLE FR 3	-0.15	-0.2	48.53	0.0075	0.0162	0.0006
348	SLE FR 4	-0.07	-0.21	50.15	0.0076	0.0201	0.0006
348	SLE FR 5	-0.1	-0.21	50.47	0.0078	0.0193	0.0006
348	SLE FR 6	-0.04	-0.21	51.45	0.0078	0.0221	0.0006
348	SLE QP 1	-0.13	-0.2	48.21	0.0073	0.017	0.0006
348	SLE QP 2	-0.07	-0.21	50.15	0.0076	0.0201	0.0006
348	SLD 1	5.02	-0.23	46.03	0.0088	0.2371	0.0006
348	SLD 2	5.02	-0.23	46.03	0.0088	0.2371	0.0006
348	SLD 3	4.25	-0.26	50.89	0.0399	0.2076	0.0008
348	SLD 4	4.25	-0.26	50.89	0.0399	0.2076	0.0008
348	SLD 5	2.62	-0.16	41.55	-0.0391	0.1298	0.0003
348	SLD 6	2.62	-0.16	41.55	-0.0391	0.1298	0.0003
348	SLD 7	0.06	-0.28	57.74	0.0644	0.0317	0.0009
348	SLD 8	0.06	-0.28	57.74	0.0644	0.0317	0.0009
348	SLD 9	-0.21	-0.14	42.57	-0.0492	0.0085	0.0003
348	SLD 10	-0.21	-0.14	42.57	-0.0492	0.0085	0.0003
348	SLD 11	-2.77	-0.26	58.76	0.0544	-0.0897	0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
348	SLD 12	-2.77	-0.26	58.76	0.0544	-0.0897	0.0009
348	SLD 13	-4.4	-0.15	49.42	-0.0246	-0.1674	0.0004
348	SLD 14	-4.4	-0.15	49.42	-0.0246	-0.1674	0.0004
348	SLD 15	-5.17	-0.19	54.27	0.0065	-0.1969	0.0006
348	SLD 16	-5.17	-0.19	54.27	0.0065	-0.1969	0.0006
348	SLV 1	11.83	-0.26	40.41	0.0117	0.5271	0.0006
348	SLV 2	11.83	-0.26	40.41	0.0117	0.5271	0.0006
348	SLV 3	9.97	-0.34	51.92	0.0875	0.4555	0.001
348	SLV 4	9.97	-0.34	51.92	0.0875	0.4555	0.001
348	SLV 5	6.32	-0.09	29.77	-0.106	0.2808	0
348	SLV 6	6.32	-0.09	29.77	-0.106	0.2808	0
348	SLV 7	0.12	-0.38	68.15	0.1464	0.0421	0.0013
348	SLV 8	0.12	-0.38	68.15	0.1464	0.0421	0.0013
348	SLV 9	-0.26	-0.04	32.16	-0.1312	-0.0019	-0.0001
348	SLV 10	-0.26	-0.04	32.16	-0.1312	-0.0019	-0.0001
348	SLV 11	-6.47	-0.32	70.54	0.1213	-0.2406	0.0012
348	SLV 12	-6.47	-0.32	70.54	0.1213	-0.2406	0.0012
348	SLV 13	-10.12	-0.07	48.39	-0.0722	-0.4153	0.0002
348	SLV 14	-10.12	-0.07	48.39	-0.0722	-0.4153	0.0002
348	SLV 15	-11.98	-0.16	59.9	0.0035	-0.4869	0.0006
348	SLV 16	-11.98	-0.16	59.9	0.0035	-0.4869	0.0006
349	SLU 1	-2.05	0.03	43.03	-0.0699	-0.0701	0
349	SLU 2	-2.05	0.03	42.99	-0.0697	-0.0701	0
349	SLU 3	-2.2	0.03	44.49	-0.0727	-0.0756	0
349	SLU 4	-2.2	0.03	44.47	-0.0726	-0.0757	0
349	SLU 5	-2.18	0.03	44.03	-0.0715	-0.075	0
349	SLU 6	-2.33	0.03	45.53	-0.0744	-0.0806	0
349	SLU 7	-2.33	0.03	45.51	-0.0743	-0.0806	0
349	SLU 8	-2.31	0.03	45.12	-0.0734	-0.0799	0
349	SLU 9	-2.31	0.03	45.09	-0.0733	-0.0799	0
349	SLU 10	-2.19	0.04	49.35	-0.0808	-0.0739	0.0001
349	SLU 11	-2.34	0.04	50.85	-0.0837	-0.0794	0.0001
349	SLU 12	-2.34	0.04	50.83	-0.0836	-0.0794	0.0001
349	SLU 13	-2.32	0.04	50.39	-0.0825	-0.0788	0.0001
349	SLU 14	-2.47	0.04	51.89	-0.0855	-0.0843	0.0001
349	SLU 15	-2.47	0.04	51.87	-0.0853	-0.0843	0.0001
349	SLU 16	-2.45	0.04	51.48	-0.0844	-0.0837	0.0001
349	SLU 17	-2.45	0.04	51.45	-0.0843	-0.0837	0.0001
349	SLU 18	-2.25	0.04	52.11	-0.0857	-0.0754	0.0001
349	SLU 19	-2.25	0.04	52.09	-0.0856	-0.0755	0.0001
349	SLU 20	-2.38	0.04	53.16	-0.0874	-0.0804	0.0001
349	SLU 21	-2.38	0.04	53.13	-0.0873	-0.0804	0.0001
349	SLU 22	-2.29	0.04	49.11	-0.0808	-0.078	0.0001
349	SLU 23	-2.29	0.04	49.07	-0.0806	-0.0781	0.0001
349	SLU 24	-2.44	0.04	50.57	-0.0836	-0.0836	0.0001
349	SLU 25	-2.44	0.04	50.55	-0.0835	-0.0836	0.0001
349	SLU 26	-2.42	0.04	50.11	-0.0824	-0.083	0.0001
349	SLU 27	-2.58	0.04	51.61	-0.0853	-0.0885	0.0001
349	SLU 28	-2.58	0.04	51.59	-0.0852	-0.0886	0.0001
349	SLU 29	-2.56	0.04	51.2	-0.0843	-0.0879	0.0001
349	SLU 30	-2.56	0.04	51.17	-0.0842	-0.0879	0.0001
349	SLU 31	-2.44	0.04	55.43	-0.0917	-0.0818	0.0001
349	SLU 32	-2.59	0.04	56.93	-0.0946	-0.0874	0.0001
349	SLU 33	-2.59	0.04	56.9	-0.0945	-0.0874	0.0001
349	SLU 34	-2.57	0.04	56.47	-0.0934	-0.0867	0.0001
349	SLU 35	-2.72	0.04	57.97	-0.0964	-0.0923	0.0001
349	SLU 36	-2.72	0.04	57.95	-0.0963	-0.0923	0.0001
349	SLU 37	-2.7	0.04	57.56	-0.0953	-0.0916	0.0001
349	SLU 38	-2.7	0.04	57.53	-0.0952	-0.0917	0.0001
349	SLU 39	-2.5	0.04	58.19	-0.0966	-0.0834	0.0001
349	SLU 40	-2.5	0.04	58.17	-0.0965	-0.0834	0.0001
349	SLU 41	-2.63	0.04	59.24	-0.0983	-0.0883	0.0001
349	SLU 42	-2.63	0.04	59.21	-0.0982	-0.0883	0.0001
349	SLU 43	-2.57	0.04	53.85	-0.0872	-0.0884	0.0001
349	SLU 44	-2.57	0.04	53.81	-0.087	-0.0884	0.0001
349	SLU 45	-2.73	0.04	55.31	-0.0899	-0.0939	0.0001
349	SLU 46	-2.73	0.04	55.29	-0.0898	-0.094	0.0001
349	SLU 47	-2.71	0.04	54.85	-0.0887	-0.0933	0.0001
349	SLU 48	-2.86	0.04	56.36	-0.0917	-0.0989	0.0001
349	SLU 49	-2.86	0.04	56.33	-0.0915	-0.0989	0.0001
349	SLU 50	-2.84	0.04	55.94	-0.0906	-0.0982	0.0001
349	SLU 51	-2.84	0.04	55.92	-0.0905	-0.0982	0.0001
349	SLU 52	-2.72	0.04	60.17	-0.098	-0.0921	0.0001
349	SLU 53	-2.87	0.05	61.67	-0.101	-0.0977	0.0001
349	SLU 54	-2.87	0.05	61.65	-0.1009	-0.0977	0.0001
349	SLU 55	-2.85	0.04	61.21	-0.0998	-0.0971	0.0001
349	SLU 56	-3	0.05	62.72	-0.1027	-0.1026	0.0001
349	SLU 57	-3	0.05	62.69	-0.1026	-0.1026	0.0001
349	SLU 58	-2.98	0.05	62.3	-0.1017	-0.102	0.0001
349	SLU 59	-2.98	0.05	62.28	-0.1015	-0.102	0.0001
349	SLU 60	-2.78	0.05	62.93	-0.103	-0.0937	0.0001
349	SLU 61	-2.78	0.05	62.91	-0.1028	-0.0937	0.0001
349	SLU 62	-2.91	0.05	63.98	-0.1047	-0.0986	0.0001
349	SLU 63	-2.91	0.05	63.96	-0.1046	-0.0987	0.0001
349	SLU 64	-2.82	0.04	59.93	-0.0981	-0.0963	0.0001
349	SLU 65	-2.82	0.04	59.89	-0.0979	-0.0964	0.0001
349	SLU 66	-2.97	0.05	61.39	-0.1008	-0.1019	0.0001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
349	SLU 67	-2.97	0.04	61.37	-0.1007	-0.1019	0.0001
349	SLU 68	-2.95	0.04	60.93	-0.0996	-0.1013	0.0001
349	SLU 69	-3.1	0.05	62.44	-0.1026	-0.1068	0.0001
349	SLU 70	-3.1	0.05	62.41	-0.1024	-0.1068	0.0001
349	SLU 71	-3.08	0.05	62.02	-0.1015	-0.1062	0.0001
349	SLU 72	-3.08	0.05	62	-0.1014	-0.1062	0.0001
349	SLU 73	-2.97	0.05	66.25	-0.1089	-0.1001	0.0001
349	SLU 74	-3.12	0.05	67.75	-0.1119	-0.1057	0.0001
349	SLU 75	-3.12	0.05	67.73	-0.1118	-0.1057	0.0001
349	SLU 76	-3.1	0.05	67.29	-0.1107	-0.105	0.0001
349	SLU 77	-3.25	0.05	68.8	-0.1136	-0.1106	0.0001
349	SLU 78	-3.25	0.05	68.77	-0.1135	-0.1106	0.0001
349	SLU 79	-3.23	0.05	68.38	-0.1126	-0.1099	0.0001
349	SLU 80	-3.23	0.05	68.36	-0.1124	-0.1099	0.0001
349	SLU 81	-3.03	0.05	69.01	-0.1139	-0.1017	0.0001
349	SLU 82	-3.03	0.05	68.99	-0.1137	-0.1017	0.0001
349	SLU 83	-3.16	0.05	70.06	-0.1156	-0.1066	0.0001
349	SLU 84	-3.16	0.05	70.04	-0.1155	-0.1066	0.0001
349	SLE RA 1	-2.12	0.03	44.76	-0.073	-0.0723	0
349	SLE RA 2	-2.12	0.03	44.74	-0.0729	-0.0724	0
349	SLE RA 3	-2.22	0.03	45.74	-0.0749	-0.0761	0
349	SLE RA 4	-2.22	0.03	45.72	-0.0748	-0.0761	0
349	SLE RA 5	-2.2	0.03	45.43	-0.0741	-0.0756	0
349	SLE RA 6	-2.3	0.03	46.44	-0.076	-0.0793	0
349	SLE RA 7	-2.3	0.03	46.42	-0.076	-0.0794	0
349	SLE RA 8	-2.29	0.03	46.16	-0.0753	-0.0789	0
349	SLE RA 9	-2.29	0.03	46.14	-0.0753	-0.0789	0
349	SLE RA 10	-2.21	0.04	48.98	-0.0803	-0.0749	0.0001
349	SLE RA 11	-2.31	0.04	49.98	-0.0823	-0.0786	0.0001
349	SLE RA 12	-2.31	0.04	49.96	-0.0822	-0.0786	0.0001
349	SLE RA 13	-2.3	0.04	49.67	-0.0814	-0.0782	0.0001
349	SLE RA 14	-2.4	0.04	50.67	-0.0834	-0.0819	0.0001
349	SLE RA 15	-2.4	0.04	50.66	-0.0833	-0.0819	0.0001
349	SLE RA 16	-2.39	0.04	50.4	-0.0827	-0.0814	0.0001
349	SLE RA 17	-2.39	0.04	50.38	-0.0826	-0.0814	0.0001
349	SLE RA 18	-2.25	0.04	50.82	-0.0836	-0.0759	0.0001
349	SLE RA 19	-2.25	0.04	50.8	-0.0835	-0.0759	0.0001
349	SLE RA 20	-2.34	0.04	51.52	-0.0847	-0.0792	0.0001
349	SLE RA 21	-2.34	0.04	51.5	-0.0846	-0.0792	0.0001
349	SLE FR 1	-2.12	0.03	44.76	-0.073	-0.0723	0
349	SLE FR 2	-2.12	0.03	44.76	-0.073	-0.0723	0
349	SLE FR 3	-2.15	0.03	45.04	-0.0735	-0.0737	0
349	SLE FR 4	-2.16	0.03	46.57	-0.0762	-0.0734	0.0001
349	SLE FR 5	-2.19	0.03	46.86	-0.0767	-0.0747	0.0001
349	SLE FR 6	-2.18	0.03	47.79	-0.0783	-0.0741	0.0001
349	SLE QP 1	-2.12	0.03	44.76	-0.073	-0.0723	0
349	SLE QP 2	-2.16	0.03	46.58	-0.0762	-0.0734	0.0001
349	SLD 1	2.97	-0.03	43.18	-0.0194	0.1491	0.0002
349	SLD 2	2.97	-0.03	43.18	-0.0194	0.1491	0.0002
349	SLD 3	2.23	0	47.13	-0.0788	0.1204	0.0001
349	SLD 4	2.23	0	47.13	-0.0788	0.1204	0.0001
349	SLD 5	0.5	-0.04	39.57	0.0309	0.0369	0.0003
349	SLD 6	0.5	-0.04	39.57	0.0309	0.0369	0.0003
349	SLD 7	-1.96	0.08	52.74	-0.1671	-0.0588	-0.0001
349	SLD 8	-1.96	0.08	52.74	-0.1671	-0.0588	-0.0001
349	SLD 9	-2.35	-0.01	40.42	0.0146	-0.088	0.0002
349	SLD 10	-2.35	-0.01	40.42	0.0146	-0.088	0.0002
349	SLD 11	-4.82	0.11	53.59	-0.1833	-0.1837	-0.0002
349	SLD 12	-4.82	0.11	53.59	-0.1833	-0.1837	-0.0002
349	SLD 13	-6.54	0.07	46.03	-0.0736	-0.2673	0
349	SLD 14	-6.54	0.07	46.03	-0.0736	-0.2673	0
349	SLD 15	-7.28	0.1	49.98	-0.133	-0.296	-0.0001
349	SLD 16	-7.28	0.1	49.98	-0.133	-0.296	-0.0001
349	SLV 1	9.82	-0.13	38.52	0.064	0.4466	0.0005
349	SLV 2	9.82	-0.13	38.52	0.064	0.4466	0.0005
349	SLV 3	8.03	-0.05	47.89	-0.0804	0.3768	0.0002
349	SLV 4	8.03	-0.05	47.89	-0.0804	0.3768	0.0002
349	SLV 5	4.15	-0.15	29.95	0.1848	0.1883	0.0006
349	SLV 6	4.15	-0.15	29.95	0.1848	0.1883	0.0006
349	SLV 7	-1.82	0.14	61.18	-0.2964	-0.0441	-0.0003
349	SLV 8	-1.82	0.14	61.18	-0.2964	-0.0441	-0.0003
349	SLV 9	-2.5	-0.07	31.98	0.1439	-0.1028	0.0004
349	SLV 10	-2.5	-0.07	31.98	0.1439	-0.1028	0.0004
349	SLV 11	-8.47	0.22	63.21	-0.3372	-0.3351	-0.0005
349	SLV 12	-8.47	0.22	63.21	-0.3372	-0.3351	-0.0005
349	SLV 13	-12.34	0.11	45.27	-0.072	-0.5237	-0.0001
349	SLV 14	-12.34	0.11	45.27	-0.072	-0.5237	-0.0001
349	SLV 15	-14.13	0.2	54.64	-0.2164	-0.5934	-0.0004
349	SLV 16	-14.13	0.2	54.64	-0.2164	-0.5934	-0.0004
350	SLU 1	-3.25	0.2	39.3	-0.147	-0.1207	-0.0006
350	SLU 2	-3.25	0.2	39.26	-0.1467	-0.1208	-0.0006
350	SLU 3	-3.44	0.21	40.59	-0.1532	-0.1278	-0.0006
350	SLU 4	-3.44	0.21	40.56	-0.153	-0.1278	-0.0006
350	SLU 5	-3.4	0.21	40.18	-0.1508	-0.1265	-0.0006
350	SLU 6	-3.58	0.22	41.5	-0.1573	-0.1335	-0.0006
350	SLU 7	-3.59	0.22	41.48	-0.1571	-0.1335	-0.0006
350	SLU 8	-3.55	0.21	41.13	-0.1552	-0.1322	-0.0006



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
350	SLU 9	-3.55	0.21	41.11	-0.155	-0.1322	-0.0006
350	SLU 10	-3.63	0.23	45.1	-0.1699	-0.1344	-0.0007
350	SLU 11	-3.82	0.24	46.42	-0.1764	-0.1414	-0.0007
350	SLU 12	-3.82	0.24	46.4	-0.1762	-0.1414	-0.0007
350	SLU 13	-3.78	0.24	46.01	-0.174	-0.1401	-0.0007
350	SLU 14	-3.96	0.25	47.34	-0.1805	-0.1471	-0.0007
350	SLU 15	-3.96	0.25	47.31	-0.1803	-0.1471	-0.0007
350	SLU 16	-3.93	0.25	46.97	-0.1785	-0.1458	-0.0007
350	SLU 17	-3.93	0.25	46.94	-0.1783	-0.1458	-0.0007
350	SLU 18	-3.79	0.25	47.63	-0.1802	-0.1402	-0.0007
350	SLU 19	-3.79	0.25	47.61	-0.18	-0.1402	-0.0007
350	SLU 20	-3.94	0.25	48.55	-0.1843	-0.1459	-0.0007
350	SLU 21	-3.94	0.25	48.53	-0.1841	-0.1459	-0.0007
350	SLU 22	-3.71	0.23	44.82	-0.1701	-0.1375	-0.0007
350	SLU 23	-3.71	0.23	44.78	-0.1698	-0.1375	-0.0007
350	SLU 24	-3.89	0.24	46.11	-0.1763	-0.1446	-0.0007
350	SLU 25	-3.89	0.24	46.08	-0.1761	-0.1446	-0.0007
350	SLU 26	-3.86	0.24	45.7	-0.1739	-0.1433	-0.0007
350	SLU 27	-4.04	0.25	47.02	-0.1804	-0.1503	-0.0007
350	SLU 28	-4.04	0.25	47	-0.1802	-0.1503	-0.0007
350	SLU 29	-4	0.25	46.65	-0.1784	-0.149	-0.0007
350	SLU 30	-4	0.25	46.63	-0.1782	-0.149	-0.0007
350	SLU 31	-4.09	0.27	50.62	-0.1931	-0.1511	-0.0007
350	SLU 32	-4.27	0.27	51.94	-0.1996	-0.1582	-0.0008
350	SLU 33	-4.27	0.27	51.92	-0.1994	-0.1582	-0.0008
350	SLU 34	-4.24	0.27	51.53	-0.1972	-0.1569	-0.0008
350	SLU 35	-4.42	0.28	52.86	-0.2037	-0.1639	-0.0008
350	SLU 36	-4.42	0.28	52.83	-0.2035	-0.1639	-0.0008
350	SLU 37	-4.38	0.28	52.49	-0.2016	-0.1626	-0.0008
350	SLU 38	-4.38	0.28	52.46	-0.2014	-0.1626	-0.0008
350	SLU 39	-4.25	0.28	53.16	-0.2033	-0.1569	-0.0008
350	SLU 40	-4.25	0.28	53.13	-0.2032	-0.157	-0.0008
350	SLU 41	-4.4	0.29	54.07	-0.2075	-0.1627	-0.0008
350	SLU 42	-4.4	0.29	54.05	-0.2073	-0.1627	-0.0008
350	SLU 43	-4.07	0.25	49.2	-0.1832	-0.1512	-0.0007
350	SLU 44	-4.07	0.25	49.16	-0.1829	-0.1512	-0.0007
350	SLU 45	-4.26	0.26	50.48	-0.1893	-0.1582	-0.0007
350	SLU 46	-4.26	0.26	50.46	-0.1892	-0.1583	-0.0007
350	SLU 47	-4.22	0.26	50.08	-0.187	-0.1569	-0.0007
350	SLU 48	-4.4	0.27	51.4	-0.1935	-0.164	-0.0007
350	SLU 49	-4.4	0.27	51.38	-0.1933	-0.164	-0.0007
350	SLU 50	-4.37	0.26	51.03	-0.1914	-0.1626	-0.0007
350	SLU 51	-4.37	0.26	51.01	-0.1912	-0.1627	-0.0007
350	SLU 52	-4.45	0.28	54.99	-0.2061	-0.1648	-0.0008
350	SLU 53	-4.63	0.29	56.32	-0.2126	-0.1718	-0.0008
350	SLU 54	-4.63	0.29	56.29	-0.2124	-0.1719	-0.0008
350	SLU 55	-4.6	0.29	55.91	-0.2102	-0.1706	-0.0008
350	SLU 56	-4.78	0.3	57.23	-0.2167	-0.1776	-0.0008
350	SLU 57	-4.78	0.3	57.21	-0.2165	-0.1776	-0.0008
350	SLU 58	-4.75	0.3	56.86	-0.2146	-0.1762	-0.0008
350	SLU 59	-4.75	0.29	56.84	-0.2145	-0.1763	-0.0008
350	SLU 60	-4.61	0.3	57.53	-0.2164	-0.1706	-0.0008
350	SLU 61	-4.61	0.3	57.51	-0.2162	-0.1706	-0.0008
350	SLU 62	-4.76	0.3	58.45	-0.2205	-0.1763	-0.0008
350	SLU 63	-4.76	0.3	58.42	-0.2203	-0.1764	-0.0008
350	SLU 64	-4.53	0.28	54.72	-0.2063	-0.168	-0.0008
350	SLU 65	-4.53	0.28	54.68	-0.206	-0.168	-0.0008
350	SLU 66	-4.71	0.29	56.01	-0.2125	-0.175	-0.0008
350	SLU 67	-4.71	0.29	55.98	-0.2123	-0.175	-0.0008
350	SLU 68	-4.68	0.29	55.6	-0.2101	-0.1737	-0.0008
350	SLU 69	-4.86	0.3	56.92	-0.2166	-0.1807	-0.0008
350	SLU 70	-4.86	0.3	56.9	-0.2164	-0.1808	-0.0008
350	SLU 71	-4.82	0.29	56.55	-0.2145	-0.1794	-0.0008
350	SLU 72	-4.82	0.29	56.53	-0.2143	-0.1794	-0.0008
350	SLU 73	-4.91	0.32	60.51	-0.2292	-0.1816	-0.0009
350	SLU 74	-5.09	0.32	61.84	-0.2357	-0.1886	-0.0009
350	SLU 75	-5.09	0.32	61.82	-0.2355	-0.1886	-0.0009
350	SLU 76	-5.06	0.32	61.43	-0.2334	-0.1873	-0.0009
350	SLU 77	-5.24	0.33	62.75	-0.2398	-0.1943	-0.0009
350	SLU 78	-5.24	0.33	62.73	-0.2396	-0.1944	-0.0009
350	SLU 79	-5.2	0.33	62.38	-0.2378	-0.193	-0.0009
350	SLU 80	-5.2	0.33	62.36	-0.2376	-0.193	-0.0009
350	SLU 81	-5.07	0.33	63.05	-0.2395	-0.1874	-0.0009
350	SLU 82	-5.07	0.33	63.03	-0.2393	-0.1874	-0.0009
350	SLU 83	-5.22	0.33	63.97	-0.2436	-0.1931	-0.0009
350	SLU 84	-5.22	0.33	63.95	-0.2434	-0.1931	-0.0009
350	SLE RA 1	-3.38	0.21	40.88	-0.1536	-0.1255	-0.0006
350	SLE RA 2	-3.38	0.21	40.85	-0.1534	-0.1255	-0.0006
350	SLE RA 3	-3.51	0.22	41.74	-0.1577	-0.1302	-0.0006
350	SLE RA 4	-3.51	0.22	41.72	-0.1576	-0.1302	-0.0006
350	SLE RA 5	-3.48	0.21	41.46	-0.1561	-0.1294	-0.0006
350	SLE RA 6	-3.6	0.22	42.35	-0.1605	-0.134	-0.0006
350	SLE RA 7	-3.6	0.22	42.33	-0.1603	-0.134	-0.0006
350	SLE RA 8	-3.58	0.22	42.1	-0.1591	-0.1332	-0.0006
350	SLE RA 9	-3.58	0.22	42.08	-0.159	-0.1332	-0.0006
350	SLE RA 10	-3.64	0.23	44.74	-0.1689	-0.1346	-0.0006
350	SLE RA 11	-3.76	0.24	45.62	-0.1732	-0.1393	-0.0007



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
350	SLE RA 12	-3.76	0.24	45.61	-0.1731	-0.1393	-0.0007
350	SLE RA 13	-3.73	0.24	45.35	-0.1716	-0.1384	-0.0007
350	SLE RA 14	-3.86	0.24	46.24	-0.176	-0.1431	-0.0007
350	SLE RA 15	-3.86	0.24	46.22	-0.1758	-0.1431	-0.0007
350	SLE RA 16	-3.83	0.24	45.99	-0.1746	-0.1422	-0.0007
350	SLE RA 17	-3.83	0.24	45.97	-0.1745	-0.1422	-0.0007
350	SLE RA 18	-3.74	0.24	46.43	-0.1758	-0.1385	-0.0007
350	SLE RA 19	-3.74	0.24	46.42	-0.1756	-0.1385	-0.0007
350	SLE RA 20	-3.84	0.25	47.05	-0.1785	-0.1423	-0.0007
350	SLE RA 21	-3.84	0.25	47.03	-0.1784	-0.1423	-0.0007
350	SLE FR 1	-3.38	0.21	40.88	-0.1536	-0.1255	-0.0006
350	SLE FR 2	-3.38	0.21	40.87	-0.1536	-0.1255	-0.0006
350	SLE FR 3	-3.42	0.21	41.12	-0.1547	-0.127	-0.0006
350	SLE FR 4	-3.49	0.22	42.54	-0.1602	-0.1294	-0.0006
350	SLE FR 5	-3.53	0.22	42.79	-0.1614	-0.1309	-0.0006
350	SLE FR 6	-3.56	0.23	43.66	-0.1647	-0.132	-0.0006
350	SLE QP 1	-3.38	0.21	40.88	-0.1536	-0.1255	-0.0006
350	SLE QP 2	-3.49	0.22	42.55	-0.1603	-0.1294	-0.0006
350	SLD 1	1.69	0.13	39.4	-0.0801	0.0931	-0.0003
350	SLD 2	1.69	0.13	39.4	-0.0801	0.0931	-0.0003
350	SLD 3	0.99	0.21	42.8	-0.1751	0.0645	-0.0005
350	SLD 4	0.99	0.21	42.8	-0.1751	0.0645	-0.0005
350	SLD 5	-0.88	0.08	36.44	0.0079	-0.0192	-0.0003
350	SLD 6	-0.88	0.08	36.44	0.0079	-0.0192	-0.0003
350	SLD 7	-3.2	0.33	47.78	-0.3088	-0.1147	-0.0009
350	SLD 8	-3.2	0.33	47.78	-0.3088	-0.1147	-0.0009
350	SLD 9	-3.78	0.11	37.31	-0.0117	-0.1441	-0.0004
350	SLD 10	-3.78	0.11	37.31	-0.0117	-0.1441	-0.0004
350	SLD 11	-6.1	0.36	48.65	-0.3284	-0.2396	-0.001
350	SLD 12	-6.1	0.36	48.65	-0.3284	-0.2396	-0.001
350	SLD 13	-7.97	0.23	42.29	-0.1454	-0.3233	-0.0007
350	SLD 14	-7.97	0.23	42.29	-0.1454	-0.3233	-0.0007
350	SLD 15	-8.67	0.31	45.69	-0.2404	-0.3519	-0.0009
350	SLD 16	-8.67	0.31	45.69	-0.2404	-0.3519	-0.0009
350	SLV 1	8.61	0.01	35.07	0.0361	0.3905	0.0001
350	SLV 2	8.61	0.01	35.07	0.0361	0.3905	0.0001
350	SLV 3	6.92	0.19	43.15	-0.194	0.3208	-0.0004
350	SLV 4	6.92	0.19	43.15	-0.194	0.3208	-0.0004
350	SLV 5	2.7	-0.12	28.05	0.2477	0.1321	0.0003
350	SLV 6	2.7	-0.12	28.05	0.2477	0.1321	0.0003
350	SLV 7	-2.93	0.48	54.98	-0.5194	-0.0999	-0.0012
350	SLV 8	-2.93	0.48	54.98	-0.5194	-0.0999	-0.0012
350	SLV 9	-4.06	-0.04	30.11	0.1989	-0.1589	0
350	SLV 10	-4.06	-0.04	30.11	0.1989	-0.1589	0
350	SLV 11	-9.68	0.56	57.04	-0.5682	-0.3909	-0.0015
350	SLV 12	-9.68	0.56	57.04	-0.5682	-0.3909	-0.0015
350	SLV 13	-13.9	0.25	41.94	-0.1265	-0.5797	-0.0009
350	SLV 14	-13.9	0.25	41.94	-0.1265	-0.5797	-0.0009
350	SLV 15	-15.59	0.43	50.02	-0.3566	-0.6493	-0.0013
350	SLV 16	-15.59	0.43	50.02	-0.3566	-0.6493	-0.0013
351	SLU 1	-3.52	0.3	35.42	-0.2043	-0.1287	-0.0014
351	SLU 2	-3.53	0.3	35.38	-0.2039	-0.1288	-0.0014
351	SLU 3	-3.7	0.31	36.53	-0.2131	-0.1354	-0.0014
351	SLU 4	-3.7	0.31	36.51	-0.2128	-0.1355	-0.0014
351	SLU 5	-3.66	0.31	36.18	-0.2098	-0.134	-0.0014
351	SLU 6	-3.84	0.32	37.33	-0.219	-0.1406	-0.0015
351	SLU 7	-3.84	0.32	37.31	-0.2188	-0.1406	-0.0015
351	SLU 8	-3.8	0.32	37.01	-0.2162	-0.1391	-0.0014
351	SLU 9	-3.8	0.32	36.99	-0.216	-0.1391	-0.0014
351	SLU 10	-3.99	0.35	40.63	-0.2361	-0.1451	-0.0016
351	SLU 11	-4.16	0.36	41.78	-0.2453	-0.1517	-0.0016
351	SLU 12	-4.17	0.36	41.76	-0.2451	-0.1517	-0.0016
351	SLU 13	-4.12	0.36	41.43	-0.2421	-0.1503	-0.0016
351	SLU 14	-4.3	0.37	42.58	-0.2513	-0.1569	-0.0017
351	SLU 15	-4.3	0.37	42.56	-0.251	-0.1569	-0.0017
351	SLU 16	-4.26	0.37	42.26	-0.2485	-0.1554	-0.0017
351	SLU 17	-4.26	0.37	42.24	-0.2482	-0.1554	-0.0017
351	SLU 18	-4.19	0.37	42.92	-0.2504	-0.152	-0.0017
351	SLU 19	-4.19	0.37	42.9	-0.2501	-0.152	-0.0017
351	SLU 20	-4.32	0.38	43.72	-0.2563	-0.1572	-0.0017
351	SLU 21	-4.32	0.38	43.69	-0.2561	-0.1572	-0.0017
351	SLU 22	-4.04	0.35	40.34	-0.2365	-0.1474	-0.0016
351	SLU 23	-4.04	0.35	40.31	-0.2361	-0.1475	-0.0016
351	SLU 24	-4.22	0.36	41.46	-0.2453	-0.1541	-0.0016
351	SLU 25	-4.22	0.36	41.44	-0.245	-0.1541	-0.0016
351	SLU 26	-4.18	0.36	41.1	-0.242	-0.1527	-0.0016
351	SLU 27	-4.35	0.37	42.26	-0.2513	-0.1592	-0.0017
351	SLU 28	-4.36	0.37	42.23	-0.251	-0.1593	-0.0017
351	SLU 29	-4.31	0.37	41.94	-0.2485	-0.1577	-0.0017
351	SLU 30	-4.31	0.37	41.92	-0.2482	-0.1578	-0.0017
351	SLU 31	-4.51	0.4	45.56	-0.2683	-0.1638	-0.0018
351	SLU 32	-4.68	0.41	46.71	-0.2775	-0.1704	-0.0018
351	SLU 33	-4.68	0.41	46.69	-0.2773	-0.1704	-0.0018
351	SLU 34	-4.64	0.41	46.36	-0.2743	-0.169	-0.0018
351	SLU 35	-4.82	0.42	47.51	-0.2835	-0.1755	-0.0019
351	SLU 36	-4.82	0.42	47.48	-0.2833	-0.1756	-0.0019
351	SLU 37	-4.78	0.42	47.19	-0.2807	-0.174	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
351	SLU 38	-4.78	0.41	47.17	-0.2805	-0.1741	-0.0019
351	SLU 39	-4.7	0.42	47.85	-0.2826	-0.1707	-0.0019
351	SLU 40	-4.7	0.42	47.82	-0.2823	-0.1707	-0.0019
351	SLU 41	-4.84	0.43	48.64	-0.2886	-0.1758	-0.0019
351	SLU 42	-4.84	0.43	48.62	-0.2883	-0.1759	-0.0019
351	SLU 43	-4.4	0.38	44.35	-0.2545	-0.1609	-0.0017
351	SLU 44	-4.41	0.38	44.32	-0.2541	-0.161	-0.0017
351	SLU 45	-4.58	0.39	45.47	-0.2633	-0.1676	-0.0018
351	SLU 46	-4.58	0.39	45.45	-0.263	-0.1677	-0.0017
351	SLU 47	-4.54	0.38	45.11	-0.2601	-0.1662	-0.0017
351	SLU 48	-4.72	0.4	46.27	-0.2693	-0.1728	-0.0018
351	SLU 49	-4.72	0.4	46.24	-0.269	-0.1728	-0.0018
351	SLU 50	-4.68	0.39	45.95	-0.2665	-0.1713	-0.0018
351	SLU 51	-4.68	0.39	45.92	-0.2662	-0.1713	-0.0018
351	SLU 52	-4.87	0.42	49.57	-0.2863	-0.1773	-0.0019
351	SLU 53	-5.04	0.44	50.72	-0.2956	-0.1839	-0.002
351	SLU 54	-5.05	0.44	50.7	-0.2953	-0.184	-0.002
351	SLU 55	-5.01	0.43	50.37	-0.2923	-0.1825	-0.0019
351	SLU 56	-5.18	0.45	51.52	-0.3015	-0.1891	-0.002
351	SLU 57	-5.18	0.45	51.49	-0.3013	-0.1891	-0.002
351	SLU 58	-5.14	0.44	51.2	-0.2987	-0.1876	-0.002
351	SLU 59	-5.14	0.44	51.18	-0.2985	-0.1876	-0.002
351	SLU 60	-5.07	0.44	51.86	-0.3006	-0.1842	-0.002
351	SLU 61	-5.07	0.44	51.83	-0.3003	-0.1843	-0.002
351	SLU 62	-5.2	0.45	52.65	-0.3066	-0.1894	-0.002
351	SLU 63	-5.2	0.45	52.63	-0.3063	-0.1894	-0.002
351	SLU 64	-4.92	0.42	49.28	-0.2867	-0.1796	-0.0019
351	SLU 65	-4.92	0.42	49.24	-0.2863	-0.1797	-0.0019
351	SLU 66	-5.1	0.44	50.4	-0.2955	-0.1863	-0.002
351	SLU 67	-5.1	0.44	50.37	-0.2953	-0.1863	-0.002
351	SLU 68	-5.06	0.43	50.04	-0.2923	-0.1849	-0.0019
351	SLU 69	-5.23	0.45	51.19	-0.3015	-0.1915	-0.002
351	SLU 70	-5.24	0.45	51.17	-0.3012	-0.1915	-0.002
351	SLU 71	-5.19	0.44	50.87	-0.2987	-0.1899	-0.002
351	SLU 72	-5.19	0.44	50.85	-0.2984	-0.19	-0.002
351	SLU 73	-5.39	0.47	54.49	-0.3186	-0.196	-0.0021
351	SLU 74	-5.56	0.48	55.65	-0.3278	-0.2026	-0.0022
351	SLU 75	-5.56	0.48	55.62	-0.3275	-0.2026	-0.0022
351	SLU 76	-5.52	0.48	55.29	-0.3245	-0.2012	-0.0022
351	SLU 77	-5.7	0.49	56.44	-0.3337	-0.2077	-0.0022
351	SLU 78	-5.7	0.49	56.42	-0.3335	-0.2078	-0.0022
351	SLU 79	-5.66	0.49	56.13	-0.3309	-0.2062	-0.0022
351	SLU 80	-5.66	0.49	56.1	-0.3307	-0.2063	-0.0022
351	SLU 81	-5.58	0.49	56.78	-0.3328	-0.2029	-0.0022
351	SLU 82	-5.58	0.49	56.76	-0.3326	-0.2029	-0.0022
351	SLU 83	-5.72	0.5	57.58	-0.3388	-0.208	-0.0023
351	SLU 84	-5.72	0.5	57.56	-0.3385	-0.2081	-0.0023
351	SLE RA 1	-3.67	0.32	36.83	-0.2135	-0.134	-0.0014
351	SLE RA 2	-3.67	0.32	36.8	-0.2132	-0.1341	-0.0014
351	SLE RA 3	-3.79	0.32	37.57	-0.2193	-0.1385	-0.0015
351	SLE RA 4	-3.79	0.32	37.55	-0.2192	-0.1385	-0.0015
351	SLE RA 5	-3.76	0.32	37.33	-0.2172	-0.1376	-0.0014
351	SLE RA 6	-3.88	0.33	38.1	-0.2233	-0.1419	-0.0015
351	SLE RA 7	-3.88	0.33	38.08	-0.2232	-0.142	-0.0015
351	SLE RA 8	-3.85	0.33	37.89	-0.2215	-0.1409	-0.0015
351	SLE RA 9	-3.85	0.33	37.87	-0.2213	-0.141	-0.0015
351	SLE RA 10	-3.98	0.35	40.3	-0.2347	-0.145	-0.0016
351	SLE RA 11	-4.1	0.36	41.07	-0.2408	-0.1494	-0.0016
351	SLE RA 12	-4.1	0.36	41.05	-0.2407	-0.1494	-0.0016
351	SLE RA 13	-4.07	0.35	40.83	-0.2387	-0.1484	-0.0016
351	SLE RA 14	-4.19	0.36	41.6	-0.2448	-0.1528	-0.0016
351	SLE RA 15	-4.19	0.36	41.59	-0.2447	-0.1529	-0.0016
351	SLE RA 16	-4.16	0.36	41.39	-0.243	-0.1518	-0.0016
351	SLE RA 17	-4.16	0.36	41.37	-0.2428	-0.1519	-0.0016
351	SLE RA 18	-4.11	0.36	41.83	-0.2442	-0.1496	-0.0016
351	SLE RA 19	-4.11	0.36	41.81	-0.244	-0.1496	-0.0016
351	SLE RA 20	-4.2	0.37	42.36	-0.2482	-0.153	-0.0017
351	SLE RA 21	-4.2	0.37	42.34	-0.248	-0.1531	-0.0017
351	SLE FR 1	-3.67	0.32	36.83	-0.2135	-0.134	-0.0014
351	SLE FR 2	-3.67	0.32	36.82	-0.2134	-0.1341	-0.0014
351	SLE FR 3	-3.71	0.32	37.04	-0.2151	-0.1354	-0.0014
351	SLE FR 4	-3.8	0.33	38.32	-0.2226	-0.1387	-0.0015
351	SLE FR 5	-3.84	0.33	38.54	-0.2243	-0.1401	-0.0015
351	SLE FR 6	-3.89	0.34	39.33	-0.2288	-0.1418	-0.0015
351	SLE QP 1	-3.67	0.32	36.83	-0.2135	-0.134	-0.0014
351	SLE QP 2	-3.8	0.33	38.33	-0.2227	-0.1387	-0.0015
351	SLD 1	1.62	0.22	35.24	-0.193	0.098	-0.001
351	SLD 2	1.62	0.22	35.24	-0.193	0.098	-0.001
351	SLD 3	1.01	0.34	38.33	-0.3228	0.0737	-0.0015
351	SLD 4	1.01	0.34	38.33	-0.3228	0.0737	-0.0015
351	SLD 5	-1.25	0.12	32.71	-0.0169	-0.0307	-0.0007
351	SLD 6	-1.25	0.12	32.71	-0.0169	-0.0307	-0.0007
351	SLD 7	-3.29	0.51	43.02	-0.4496	-0.1119	-0.0022
351	SLD 8	-3.29	0.51	43.02	-0.4496	-0.1119	-0.0022
351	SLD 9	-4.32	0.15	33.63	0.0042	-0.1655	-0.0008
351	SLD 10	-4.32	0.15	33.63	0.0042	-0.1655	-0.0008
351	SLD 11	-6.36	0.54	43.95	-0.4285	-0.2466	-0.0023



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
351	SLD 12	-6.36	0.54	43.95	-0.4285	-0.2466	-0.0023
351	SLD 13	-8.62	0.32	38.32	-0.1226	-0.3511	-0.0015
351	SLD 14	-8.62	0.32	38.32	-0.1226	-0.3511	-0.0015
351	SLD 15	-9.23	0.43	41.41	-0.2524	-0.3754	-0.0019
351	SLD 16	-9.23	0.43	41.41	-0.2524	-0.3754	-0.0019
351	SLV 1	8.85	0.08	31	-0.1526	0.4139	-0.0004
351	SLV 2	8.85	0.08	31	-0.1526	0.4139	-0.0004
351	SLV 3	7.39	0.36	38.37	-0.4664	0.3554	-0.0014
351	SLV 4	7.39	0.36	38.37	-0.4664	0.3554	-0.0014
351	SLV 5	2.22	-0.17	24.96	0.2743	0.1157	0.0005
351	SLV 6	2.22	-0.17	24.96	0.2743	0.1157	0.0005
351	SLV 7	-2.67	0.76	49.51	-0.7717	-0.0791	-0.0031
351	SLV 8	-2.67	0.76	49.51	-0.7717	-0.0791	-0.0031
351	SLV 9	-4.94	-0.1	27.14	0.3263	-0.1983	0.0001
351	SLV 10	-4.94	-0.1	27.14	0.3263	-0.1983	0.0001
351	SLV 11	-9.83	0.83	51.69	-0.7197	-0.3931	-0.0035
351	SLV 12	-9.83	0.83	51.69	-0.7197	-0.3931	-0.0035
351	SLV 13	-15	0.3	38.28	0.021	-0.6328	-0.0015
351	SLV 14	-15	0.3	38.28	0.021	-0.6328	-0.0015
351	SLV 15	-16.46	0.58	45.65	-0.2928	-0.6912	-0.0026
351	SLV 16	-16.46	0.58	45.65	-0.2928	-0.6912	-0.0026
352	SLU 1	-3.06	0.33	31.89	-0.2355	-0.1208	-0.002
352	SLU 2	-3.06	0.33	31.85	-0.235	-0.121	-0.002
352	SLU 3	-3.19	0.35	32.86	-0.2459	-0.1263	-0.0021
352	SLU 4	-3.2	0.35	32.84	-0.2456	-0.1264	-0.0021
352	SLU 5	-3.16	0.34	32.55	-0.2422	-0.125	-0.0021
352	SLU 6	-3.29	0.36	33.56	-0.253	-0.1304	-0.0022
352	SLU 7	-3.3	0.36	33.54	-0.2527	-0.1305	-0.0022
352	SLU 8	-3.26	0.35	33.29	-0.2498	-0.1289	-0.0021
352	SLU 9	-3.26	0.35	33.27	-0.2495	-0.129	-0.0021
352	SLU 10	-3.48	0.38	36.55	-0.2721	-0.1376	-0.0023
352	SLU 11	-3.62	0.4	37.57	-0.283	-0.1429	-0.0024
352	SLU 12	-3.62	0.4	37.54	-0.2826	-0.143	-0.0024
352	SLU 13	-3.59	0.39	37.26	-0.2793	-0.1416	-0.0024
352	SLU 14	-3.72	0.41	38.27	-0.2901	-0.1469	-0.0025
352	SLU 15	-3.72	0.41	38.24	-0.2898	-0.147	-0.0025
352	SLU 16	-3.68	0.4	38	-0.2869	-0.1455	-0.0025
352	SLU 17	-3.68	0.4	37.97	-0.2866	-0.1456	-0.0025
352	SLU 18	-3.66	0.41	38.61	-0.2885	-0.1444	-0.0025
352	SLU 19	-3.66	0.41	38.59	-0.2882	-0.1446	-0.0025
352	SLU 20	-3.76	0.42	39.31	-0.2957	-0.1485	-0.0025
352	SLU 21	-3.76	0.42	39.29	-0.2953	-0.1486	-0.0025
352	SLU 22	-3.51	0.38	36.27	-0.2727	-0.1388	-0.0023
352	SLU 23	-3.52	0.38	36.23	-0.2722	-0.139	-0.0023
352	SLU 24	-3.65	0.4	37.24	-0.283	-0.1443	-0.0024
352	SLU 25	-3.65	0.4	37.22	-0.2827	-0.1444	-0.0024
352	SLU 26	-3.62	0.39	36.93	-0.2793	-0.1431	-0.0024
352	SLU 27	-3.75	0.41	37.94	-0.2902	-0.1484	-0.0025
352	SLU 28	-3.75	0.41	37.92	-0.2899	-0.1485	-0.0025
352	SLU 29	-3.71	0.4	37.67	-0.287	-0.1469	-0.0025
352	SLU 30	-3.72	0.4	37.65	-0.2867	-0.147	-0.0025
352	SLU 31	-3.94	0.44	40.93	-0.3093	-0.1556	-0.0026
352	SLU 32	-4.08	0.45	41.94	-0.3201	-0.1609	-0.0027
352	SLU 33	-4.08	0.45	41.92	-0.3198	-0.161	-0.0027
352	SLU 34	-4.04	0.45	41.64	-0.3164	-0.1596	-0.0027
352	SLU 35	-4.18	0.46	42.65	-0.3273	-0.1649	-0.0028
352	SLU 36	-4.18	0.46	42.62	-0.327	-0.1651	-0.0028
352	SLU 37	-4.14	0.46	42.38	-0.3241	-0.1635	-0.0028
352	SLU 38	-4.14	0.46	42.35	-0.3238	-0.1636	-0.0028
352	SLU 39	-4.12	0.46	42.99	-0.3257	-0.1625	-0.0028
352	SLU 40	-4.12	0.46	42.96	-0.3254	-0.1626	-0.0028
352	SLU 41	-4.22	0.47	43.69	-0.3328	-0.1665	-0.0028
352	SLU 42	-4.22	0.47	43.67	-0.3325	-0.1667	-0.0028
352	SLU 43	-3.82	0.41	39.95	-0.2935	-0.1508	-0.0025
352	SLU 44	-3.82	0.41	39.92	-0.2929	-0.151	-0.0025
352	SLU 45	-3.95	0.43	40.93	-0.3038	-0.1563	-0.0026
352	SLU 46	-3.96	0.43	40.9	-0.3035	-0.1565	-0.0026
352	SLU 47	-3.92	0.42	40.62	-0.3001	-0.1551	-0.0026
352	SLU 48	-4.05	0.44	41.63	-0.311	-0.1604	-0.0027
352	SLU 49	-4.06	0.44	41.61	-0.3106	-0.1605	-0.0027
352	SLU 50	-4.02	0.43	41.36	-0.3078	-0.1589	-0.0026
352	SLU 51	-4.02	0.43	41.34	-0.3075	-0.1591	-0.0026
352	SLU 52	-4.24	0.47	44.62	-0.33	-0.1676	-0.0028
352	SLU 53	-4.38	0.48	45.63	-0.3409	-0.1729	-0.0029
352	SLU 54	-4.38	0.48	45.61	-0.3406	-0.173	-0.0029
352	SLU 55	-4.34	0.48	45.32	-0.3372	-0.1717	-0.0029
352	SLU 56	-4.48	0.49	46.33	-0.348	-0.177	-0.003
352	SLU 57	-4.48	0.49	46.31	-0.3477	-0.1771	-0.003
352	SLU 58	-4.44	0.49	46.06	-0.3448	-0.1755	-0.0029
352	SLU 59	-4.44	0.49	46.04	-0.3445	-0.1756	-0.0029
352	SLU 60	-4.42	0.49	46.67	-0.3464	-0.1745	-0.003
352	SLU 61	-4.42	0.49	46.65	-0.3461	-0.1746	-0.003
352	SLU 62	-4.52	0.5	47.38	-0.3536	-0.1785	-0.003
352	SLU 63	-4.52	0.5	47.35	-0.3533	-0.1787	-0.003
352	SLU 64	-4.27	0.47	44.33	-0.3306	-0.1688	-0.0028
352	SLU 65	-4.28	0.47	44.29	-0.3301	-0.1691	-0.0028
352	SLU 66	-4.41	0.48	45.31	-0.341	-0.1744	-0.0029



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
352	SLU 67	-4.41	0.48	45.28	-0.3407	-0.1745	-0.0029
352	SLU 68	-4.38	0.48	45	-0.3373	-0.1731	-0.0029
352	SLU 69	-4.51	0.49	46.01	-0.3481	-0.1784	-0.003
352	SLU 70	-4.51	0.49	45.98	-0.3478	-0.1786	-0.003
352	SLU 71	-4.47	0.49	45.74	-0.3449	-0.177	-0.0029
352	SLU 72	-4.48	0.49	45.71	-0.3446	-0.1771	-0.0029
352	SLU 73	-4.7	0.52	49	-0.3672	-0.1856	-0.0031
352	SLU 74	-4.83	0.53	50.01	-0.378	-0.1909	-0.0032
352	SLU 75	-4.84	0.53	49.99	-0.3777	-0.1911	-0.0032
352	SLU 76	-4.8	0.53	49.7	-0.3743	-0.1897	-0.0032
352	SLU 77	-4.94	0.54	50.71	-0.3852	-0.195	-0.0033
352	SLU 78	-4.94	0.54	50.69	-0.3849	-0.1951	-0.0033
352	SLU 79	-4.9	0.54	50.44	-0.382	-0.1935	-0.0033
352	SLU 80	-4.9	0.54	50.42	-0.3817	-0.1937	-0.0033
352	SLU 81	-4.88	0.54	51.05	-0.3836	-0.1925	-0.0033
352	SLU 82	-4.88	0.54	51.03	-0.3833	-0.1926	-0.0033
352	SLU 83	-4.98	0.55	51.76	-0.3907	-0.1966	-0.0033
352	SLU 84	-4.98	0.55	51.73	-0.3904	-0.1967	-0.0033
352	SLE RA 1	-3.19	0.35	33.14	-0.2462	-0.1259	-0.0021
352	SLE RA 2	-3.19	0.35	33.11	-0.2458	-0.1261	-0.0021
352	SLE RA 3	-3.28	0.36	33.79	-0.2531	-0.1296	-0.0022
352	SLE RA 4	-3.28	0.36	33.77	-0.2528	-0.1297	-0.0022
352	SLE RA 5	-3.26	0.35	33.58	-0.2506	-0.1288	-0.0021
352	SLE RA 6	-3.35	0.36	34.26	-0.2578	-0.1323	-0.0022
352	SLE RA 7	-3.35	0.36	34.24	-0.2576	-0.1324	-0.0022
352	SLE RA 8	-3.32	0.36	34.08	-0.2557	-0.1313	-0.0022
352	SLE RA 9	-3.32	0.36	34.06	-0.2555	-0.1314	-0.0022
352	SLE RA 10	-3.47	0.38	36.25	-0.2705	-0.1371	-0.0023
352	SLE RA 11	-3.56	0.39	36.92	-0.2778	-0.1406	-0.0024
352	SLE RA 12	-3.56	0.39	36.91	-0.2776	-0.1407	-0.0024
352	SLE RA 13	-3.54	0.39	36.72	-0.2753	-0.1398	-0.0024
352	SLE RA 14	-3.63	0.4	37.39	-0.2825	-0.1434	-0.0024
352	SLE RA 15	-3.63	0.4	37.38	-0.2823	-0.1434	-0.0024
352	SLE RA 16	-3.6	0.4	37.21	-0.2804	-0.1424	-0.0024
352	SLE RA 17	-3.6	0.4	37.2	-0.2802	-0.1425	-0.0024
352	SLE RA 18	-3.59	0.4	37.62	-0.2815	-0.1417	-0.0024
352	SLE RA 19	-3.59	0.4	37.6	-0.2813	-0.1418	-0.0024
352	SLE RA 20	-3.66	0.4	38.09	-0.2862	-0.1444	-0.0024
352	SLE RA 21	-3.66	0.4	38.07	-0.286	-0.1445	-0.0024
352	SLE FR 1	-3.19	0.35	33.14	-0.2462	-0.1259	-0.0021
352	SLE FR 2	-3.19	0.35	33.14	-0.2461	-0.1259	-0.0021
352	SLE FR 3	-3.21	0.35	33.33	-0.2481	-0.127	-0.0021
352	SLE FR 4	-3.31	0.36	34.48	-0.2567	-0.1307	-0.0022
352	SLE FR 5	-3.33	0.36	34.67	-0.2587	-0.1317	-0.0022
352	SLE FR 6	-3.39	0.37	35.38	-0.2638	-0.1338	-0.0023
352	SLE QP 1	-3.19	0.35	33.14	-0.2462	-0.1259	-0.0021
352	SLE QP 2	-3.31	0.36	34.48	-0.2567	-0.1307	-0.0022
352	SLD 1	2.35	0.24	31.55	-0.1413	0.1131	-0.0015
352	SLD 2	2.35	0.24	31.55	-0.1413	0.1131	-0.0015
352	SLD 3	1.84	0.39	34.52	-0.2999	0.0913	-0.0023
352	SLD 4	1.84	0.39	34.52	-0.2999	0.0913	-0.0023
352	SLD 5	-0.84	0.1	29.1	0.0184	-0.0244	-0.0008
352	SLD 6	-0.84	0.1	29.1	0.0184	-0.0244	-0.0008
352	SLD 7	-2.53	0.6	39	-0.5102	-0.0972	-0.0035
352	SLD 8	-2.53	0.6	39	-0.5102	-0.0972	-0.0035
352	SLD 9	-4.08	0.12	29.97	-0.0033	-0.1641	-0.0009
352	SLD 10	-4.08	0.12	29.97	-0.0033	-0.1641	-0.0009
352	SLD 11	-5.78	0.63	39.86	-0.5319	-0.2369	-0.0036
352	SLD 12	-5.78	0.63	39.86	-0.5319	-0.2369	-0.0036
352	SLD 13	-8.46	0.33	34.45	-0.2136	-0.3526	-0.0021
352	SLD 14	-8.46	0.33	34.45	-0.2136	-0.3526	-0.0021
352	SLD 15	-8.97	0.48	37.42	-0.3722	-0.3744	-0.0029
352	SLD 16	-8.97	0.48	37.42	-0.3722	-0.3744	-0.0029
352	SLV 1	9.9	0.08	27.53	0.023	0.4383	-0.0005
352	SLV 2	9.9	0.08	27.53	0.023	0.4383	-0.0005
352	SLV 3	8.68	0.44	34.61	-0.3599	0.3856	-0.0025
352	SLV 4	8.68	0.44	34.61	-0.3599	0.3856	-0.0025
352	SLV 5	2.5	-0.28	21.66	0.408	0.1199	0.0013
352	SLV 6	2.5	-0.28	21.66	0.408	0.1199	0.0013
352	SLV 7	-1.56	0.94	45.26	-0.8685	-0.0557	-0.0052
352	SLV 8	-1.56	0.94	45.26	-0.8685	-0.0557	-0.0052
352	SLV 9	-5.06	-0.21	23.71	0.355	-0.2056	0.0008
352	SLV 10	-5.06	-0.21	23.71	0.355	-0.2056	0.0008
352	SLV 11	-9.12	1	47.31	-0.9215	-0.3812	-0.0056
352	SLV 12	-9.12	1	47.31	-0.9215	-0.3812	-0.0056
352	SLV 13	-15.3	0.29	34.36	-0.1536	-0.6469	-0.0019
352	SLV 14	-15.3	0.29	34.36	-0.1536	-0.6469	-0.0019
352	SLV 15	-16.52	0.65	41.44	-0.5365	-0.6996	-0.0038
352	SLV 16	-16.52	0.65	41.44	-0.5365	-0.6996	-0.0038
353	SLU 1	-1.65	0.33	29.43	-0.2479	-0.0583	-0.0024
353	SLU 2	-1.66	0.33	29.39	-0.2473	-0.0587	-0.0024
353	SLU 3	-1.71	0.34	30.32	-0.259	-0.0605	-0.0026
353	SLU 4	-1.72	0.34	30.29	-0.2587	-0.0607	-0.0025
353	SLU 5	-1.7	0.34	30.04	-0.2552	-0.0601	-0.0025
353	SLU 6	-1.75	0.35	30.97	-0.2669	-0.0619	-0.0026
353	SLU 7	-1.76	0.35	30.95	-0.2665	-0.0621	-0.0026
353	SLU 8	-1.73	0.35	30.73	-0.2636	-0.0611	-0.0026



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
353	SLU 9	-1.73	0.35	30.71	-0.2632	-0.0613	-0.0026
353	SLU 10	-1.89	0.38	33.71	-0.2862	-0.0663	-0.0028
353	SLU 11	-1.94	0.39	34.63	-0.2979	-0.0681	-0.0029
353	SLU 12	-1.94	0.39	34.61	-0.2976	-0.0683	-0.0029
353	SLU 13	-1.92	0.39	34.36	-0.2941	-0.0677	-0.0029
353	SLU 14	-1.97	0.4	35.28	-0.3058	-0.0695	-0.003
353	SLU 15	-1.98	0.4	35.26	-0.3054	-0.0697	-0.003
353	SLU 16	-1.95	0.4	35.05	-0.3025	-0.0687	-0.003
353	SLU 17	-1.96	0.4	35.02	-0.3021	-0.069	-0.003
353	SLU 18	-1.97	0.4	35.6	-0.3035	-0.0692	-0.003
353	SLU 19	-1.98	0.4	35.57	-0.3031	-0.0694	-0.003
353	SLU 20	-2.01	0.41	36.25	-0.3113	-0.0706	-0.0031
353	SLU 21	-2.02	0.41	36.22	-0.311	-0.0708	-0.0031
353	SLU 22	-1.9	0.38	33.43	-0.287	-0.0668	-0.0028
353	SLU 23	-1.91	0.38	33.39	-0.2865	-0.0672	-0.0028
353	SLU 24	-1.96	0.39	34.32	-0.2982	-0.069	-0.0029
353	SLU 25	-1.96	0.39	34.29	-0.2978	-0.0693	-0.0029
353	SLU 26	-1.94	0.39	34.04	-0.2943	-0.0686	-0.0029
353	SLU 27	-1.99	0.4	34.97	-0.306	-0.0704	-0.003
353	SLU 28	-2	0.4	34.94	-0.3057	-0.0707	-0.003
353	SLU 29	-1.97	0.4	34.73	-0.3027	-0.0697	-0.003
353	SLU 30	-1.98	0.4	34.71	-0.3024	-0.0699	-0.003
353	SLU 31	-2.13	0.43	37.7	-0.3254	-0.0749	-0.0032
353	SLU 32	-2.18	0.45	38.63	-0.3371	-0.0766	-0.0033
353	SLU 33	-2.19	0.44	38.61	-0.3367	-0.0769	-0.0033
353	SLU 34	-2.17	0.44	38.35	-0.3332	-0.0763	-0.0033
353	SLU 35	-2.22	0.46	39.28	-0.3449	-0.078	-0.0034
353	SLU 36	-2.22	0.46	39.26	-0.3446	-0.0783	-0.0034
353	SLU 37	-2.2	0.45	39.04	-0.3416	-0.0773	-0.0034
353	SLU 38	-2.2	0.45	39.02	-0.3413	-0.0775	-0.0034
353	SLU 39	-2.22	0.45	39.59	-0.3426	-0.0777	-0.0034
353	SLU 40	-2.22	0.45	39.57	-0.3423	-0.078	-0.0034
353	SLU 41	-2.25	0.46	40.24	-0.3505	-0.0791	-0.0035
353	SLU 42	-2.26	0.46	40.22	-0.3501	-0.0794	-0.0035
353	SLU 43	-2.06	0.41	36.89	-0.3088	-0.0729	-0.003
353	SLU 44	-2.07	0.41	36.85	-0.3083	-0.0733	-0.003
353	SLU 45	-2.12	0.42	37.78	-0.32	-0.075	-0.0032
353	SLU 46	-2.13	0.42	37.75	-0.3196	-0.0753	-0.0031
353	SLU 47	-2.11	0.42	37.5	-0.3161	-0.0747	-0.0031
353	SLU 48	-2.16	0.43	38.43	-0.3278	-0.0764	-0.0032
353	SLU 49	-2.17	0.43	38.41	-0.3275	-0.0767	-0.0032
353	SLU 50	-2.14	0.43	38.19	-0.3245	-0.0757	-0.0032
353	SLU 51	-2.15	0.43	38.17	-0.3242	-0.0759	-0.0032
353	SLU 52	-2.3	0.46	41.17	-0.3472	-0.0809	-0.0034
353	SLU 53	-2.35	0.47	42.09	-0.3589	-0.0827	-0.0035
353	SLU 54	-2.35	0.47	42.07	-0.3586	-0.0829	-0.0035
353	SLU 55	-2.34	0.47	41.82	-0.355	-0.0823	-0.0035
353	SLU 56	-2.39	0.48	42.74	-0.3667	-0.0841	-0.0036
353	SLU 57	-2.39	0.48	42.72	-0.3664	-0.0843	-0.0036
353	SLU 58	-2.36	0.48	42.51	-0.3634	-0.0833	-0.0036
353	SLU 59	-2.37	0.48	42.48	-0.3631	-0.0835	-0.0036
353	SLU 60	-2.38	0.48	43.06	-0.3644	-0.0837	-0.0036
353	SLU 61	-2.39	0.48	43.03	-0.3641	-0.084	-0.0036
353	SLU 62	-2.42	0.49	43.71	-0.3723	-0.0851	-0.0037
353	SLU 63	-2.43	0.49	43.68	-0.3719	-0.0854	-0.0037
353	SLU 64	-2.31	0.46	40.89	-0.348	-0.0814	-0.0034
353	SLU 65	-2.32	0.46	40.85	-0.3474	-0.0818	-0.0034
353	SLU 66	-2.37	0.47	41.78	-0.3591	-0.0836	-0.0035
353	SLU 67	-2.37	0.47	41.75	-0.3588	-0.0838	-0.0035
353	SLU 68	-2.36	0.47	41.5	-0.3552	-0.0832	-0.0035
353	SLU 69	-2.41	0.48	42.43	-0.367	-0.085	-0.0036
353	SLU 70	-2.41	0.48	42.4	-0.3666	-0.0852	-0.0036
353	SLU 71	-2.38	0.48	42.19	-0.3636	-0.0842	-0.0036
353	SLU 72	-2.39	0.48	42.17	-0.3633	-0.0844	-0.0036
353	SLU 73	-2.54	0.51	45.16	-0.3863	-0.0894	-0.0038
353	SLU 74	-2.59	0.53	46.09	-0.398	-0.0912	-0.0039
353	SLU 75	-2.6	0.53	46.07	-0.3977	-0.0914	-0.0039
353	SLU 76	-2.58	0.52	45.81	-0.3942	-0.0908	-0.0039
353	SLU 77	-2.63	0.54	46.74	-0.4059	-0.0926	-0.004
353	SLU 78	-2.64	0.54	46.72	-0.4055	-0.0928	-0.004
353	SLU 79	-2.61	0.53	46.5	-0.4026	-0.0918	-0.004
353	SLU 80	-2.61	0.53	46.48	-0.4022	-0.0921	-0.004
353	SLU 81	-2.63	0.53	47.05	-0.4036	-0.0923	-0.004
353	SLU 82	-2.63	0.53	47.03	-0.4032	-0.0925	-0.004
353	SLU 83	-2.67	0.54	47.7	-0.4114	-0.0937	-0.0041
353	SLU 84	-2.67	0.54	47.68	-0.4111	-0.0939	-0.0041
353	SLE RA 1	-1.72	0.34	30.57	-0.2591	-0.0607	-0.0026
353	SLE RA 2	-1.73	0.34	30.55	-0.2587	-0.061	-0.0025
353	SLE RA 3	-1.76	0.35	31.17	-0.2665	-0.0622	-0.0026
353	SLE RA 4	-1.77	0.35	31.15	-0.2663	-0.0624	-0.0026
353	SLE RA 5	-1.75	0.35	30.98	-0.2639	-0.0619	-0.0026
353	SLE RA 6	-1.79	0.36	31.6	-0.2717	-0.0631	-0.0027
353	SLE RA 7	-1.79	0.36	31.58	-0.2715	-0.0633	-0.0027
353	SLE RA 8	-1.77	0.36	31.44	-0.2695	-0.0626	-0.0027
353	SLE RA 9	-1.78	0.36	31.43	-0.2693	-0.0628	-0.0027
353	SLE RA 10	-1.88	0.38	33.42	-0.2846	-0.0661	-0.0028
353	SLE RA 11	-1.91	0.39	34.04	-0.2924	-0.0673	-0.0029



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
353	SLE RA 12	-1.92	0.39	34.03	-0.2922	-0.0674	-0.0029
353	SLE RA 13	-1.9	0.38	33.86	-0.2899	-0.067	-0.0029
353	SLE RA 14	-1.94	0.39	34.48	-0.2977	-0.0682	-0.0029
353	SLE RA 15	-1.94	0.39	34.46	-0.2974	-0.0684	-0.0029
353	SLE RA 16	-1.92	0.39	34.32	-0.2955	-0.0677	-0.0029
353	SLE RA 17	-1.93	0.39	34.3	-0.2952	-0.0678	-0.0029
353	SLE RA 18	-1.93	0.39	34.68	-0.2961	-0.068	-0.0029
353	SLE RA 19	-1.94	0.39	34.67	-0.2959	-0.0682	-0.0029
353	SLE RA 20	-1.96	0.4	35.12	-0.3014	-0.0689	-0.003
353	SLE RA 21	-1.96	0.4	35.1	-0.3011	-0.0691	-0.003
353	SLE FR 1	-1.72	0.34	30.57	-0.2591	-0.0607	-0.0026
353	SLE FR 2	-1.72	0.34	30.57	-0.259	-0.0608	-0.0026
353	SLE FR 3	-1.73	0.34	30.75	-0.2612	-0.0611	-0.0026
353	SLE FR 4	-1.79	0.36	31.8	-0.2701	-0.063	-0.0027
353	SLE FR 5	-1.8	0.36	31.98	-0.2723	-0.0633	-0.0027
353	SLE FR 6	-1.83	0.37	32.63	-0.2776	-0.0644	-0.0027
353	SLE QP 1	-1.72	0.34	30.57	-0.2591	-0.0607	-0.0026
353	SLE QP 2	-1.79	0.36	31.81	-0.2702	-0.0629	-0.0027
353	SLD 1	4.15	0.23	29.25	-0.1454	0.1963	-0.0018
353	SLD 2	4.15	0.23	29.25	-0.1454	0.1963	-0.0018
353	SLD 3	3.75	0.4	32.21	-0.323	0.1795	-0.003
353	SLD 4	3.75	0.4	32.21	-0.323	0.1795	-0.003
353	SLD 5	0.59	0.05	26.55	0.0367	0.0403	-0.0006
353	SLD 6	0.59	0.05	26.55	0.0367	0.0403	-0.0006
353	SLD 7	-0.72	0.64	36.41	-0.5555	-0.0157	-0.0046
353	SLD 8	-0.72	0.64	36.41	-0.5555	-0.0157	-0.0046
353	SLD 9	-2.85	0.08	27.2	0.0151	-0.1102	-0.0008
353	SLD 10	-2.85	0.08	27.2	0.0151	-0.1102	-0.0008
353	SLD 11	-4.16	0.66	37.06	-0.5771	-0.1662	-0.0048
353	SLD 12	-4.16	0.66	37.06	-0.5771	-0.1662	-0.0048
353	SLD 13	-7.32	0.31	31.4	-0.2174	-0.3054	-0.0024
353	SLD 14	-7.32	0.31	31.4	-0.2174	-0.3054	-0.0024
353	SLD 15	-7.72	0.48	34.36	-0.395	-0.3222	-0.0036
353	SLD 16	-7.72	0.48	34.36	-0.395	-0.3222	-0.0036
353	SLV 1	12.04	0.05	25.73	0.0315	0.5415	-0.0005
353	SLV 2	12.04	0.05	25.73	0.0315	0.5415	-0.0005
353	SLV 3	11.11	0.47	32.8	-0.3973	0.5019	-0.0034
353	SLV 4	11.11	0.47	32.8	-0.3973	0.5019	-0.0034
353	SLV 5	3.78	-0.37	19.26	0.4707	0.1785	0.0024
353	SLV 6	3.78	-0.37	19.26	0.4707	0.1785	0.0024
353	SLV 7	0.67	1.03	42.83	-0.9587	0.0464	-0.0073
353	SLV 8	0.67	1.03	42.83	-0.9587	0.0464	-0.0073
353	SLV 9	-4.24	-0.31	20.79	0.4183	-0.1723	0.0019
353	SLV 10	-4.24	-0.31	20.79	0.4183	-0.1723	0.0019
353	SLV 11	-7.35	1.09	44.35	-1.0111	-0.3043	-0.0077
353	SLV 12	-7.35	1.09	44.35	-1.0111	-0.3043	-0.0077
353	SLV 13	-14.68	0.24	30.81	-0.1431	-0.6277	-0.0019
353	SLV 14	-14.68	0.24	30.81	-0.1431	-0.6277	-0.0019
353	SLV 15	-15.62	0.66	37.88	-0.5719	-0.6674	-0.0048
353	SLV 16	-15.62	0.66	37.88	-0.5719	-0.6674	-0.0048
354	SLU 1	-0.04	0.32	28.49	-0.2515	-0.0043	-0.0026
354	SLU 2	-0.05	0.32	28.45	-0.2508	-0.0049	-0.0026
354	SLU 3	-0.01	0.34	29.37	-0.263	-0.0035	-0.0027
354	SLU 4	-0.02	0.34	29.34	-0.2627	-0.0039	-0.0027
354	SLU 5	-0.02	0.33	29.1	-0.2591	-0.0038	-0.0027
354	SLU 6	0.02	0.35	30.02	-0.2713	-0.0025	-0.0028
354	SLU 7	0.01	0.35	29.99	-0.2709	-0.0028	-0.0028
354	SLU 8	0.02	0.34	29.8	-0.268	-0.0022	-0.0028
354	SLU 9	0.01	0.34	29.77	-0.2676	-0.0026	-0.0028
354	SLU 10	-0.04	0.37	32.61	-0.2903	-0.0045	-0.003
354	SLU 11	0	0.39	33.53	-0.3025	-0.0031	-0.0031
354	SLU 12	-0.01	0.39	33.51	-0.3021	-0.0034	-0.0031
354	SLU 13	-0.01	0.38	33.27	-0.2985	-0.0034	-0.0031
354	SLU 14	0.03	0.4	34.19	-0.3107	-0.002	-0.0032
354	SLU 15	0.03	0.4	34.16	-0.3103	-0.0024	-0.0032
354	SLU 16	0.04	0.4	33.97	-0.3074	-0.0018	-0.0032
354	SLU 17	0.03	0.39	33.94	-0.307	-0.0021	-0.0032
354	SLU 18	-0.01	0.39	34.45	-0.3078	-0.0037	-0.0032
354	SLU 19	-0.02	0.39	34.42	-0.3074	-0.0041	-0.0032
354	SLU 20	0.02	0.41	35.1	-0.316	-0.0027	-0.0033
354	SLU 21	0.01	0.41	35.07	-0.3157	-0.003	-0.0033
354	SLU 22	-0.03	0.37	32.35	-0.2912	-0.0044	-0.003
354	SLU 23	-0.05	0.37	32.3	-0.2906	-0.005	-0.003
354	SLU 24	-0.01	0.39	33.22	-0.3028	-0.0036	-0.0031
354	SLU 25	-0.02	0.39	33.2	-0.3024	-0.0039	-0.0031
354	SLU 26	-0.02	0.38	32.96	-0.2989	-0.0039	-0.0031
354	SLU 27	0.02	0.4	33.88	-0.3111	-0.0025	-0.0032
354	SLU 28	0.02	0.4	33.85	-0.3107	-0.0029	-0.0032
354	SLU 29	0.03	0.4	33.66	-0.3078	-0.0023	-0.0032
354	SLU 30	0.02	0.4	33.63	-0.3074	-0.0026	-0.0032
354	SLU 31	-0.03	0.42	36.47	-0.3301	-0.0045	-0.0034
354	SLU 32	0.01	0.44	37.39	-0.3422	-0.0032	-0.0036
354	SLU 33	0	0.44	37.36	-0.3419	-0.0035	-0.0036
354	SLU 34	0	0.43	37.13	-0.3383	-0.0035	-0.0035
354	SLU 35	0.04	0.45	38.05	-0.3505	-0.0021	-0.0036
354	SLU 36	0.03	0.45	38.02	-0.3501	-0.0024	-0.0036
354	SLU 37	0.05	0.45	37.83	-0.3472	-0.0019	-0.0036



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
354	SLU 38	0.04	0.45	37.8	-0.3468	-0.0022	-0.0036
354	SLU 39	-0.01	0.45	38.3	-0.3476	-0.0038	-0.0036
354	SLU 40	-0.01	0.45	38.28	-0.3472	-0.0041	-0.0036
354	SLU 41	0.02	0.46	38.96	-0.3558	-0.0027	-0.0037
354	SLU 42	0.02	0.46	38.93	-0.3555	-0.0031	-0.0037
354	SLU 43	-0.06	0.4	35.72	-0.3133	-0.0056	-0.0032
354	SLU 44	-0.07	0.4	35.67	-0.3126	-0.0062	-0.0032
354	SLU 45	-0.03	0.42	36.59	-0.3248	-0.0048	-0.0034
354	SLU 46	-0.04	0.42	36.56	-0.3245	-0.0051	-0.0034
354	SLU 47	-0.04	0.41	36.33	-0.3209	-0.0051	-0.0033
354	SLU 48	0	0.43	37.25	-0.3331	-0.0037	-0.0035
354	SLU 49	-0.01	0.43	37.22	-0.3327	-0.0041	-0.0035
354	SLU 50	0.01	0.42	37.03	-0.3298	-0.0035	-0.0034
354	SLU 51	0	0.42	37	-0.3294	-0.0038	-0.0034
354	SLU 52	-0.05	0.45	39.84	-0.3521	-0.0057	-0.0037
354	SLU 53	-0.01	0.47	40.76	-0.3643	-0.0044	-0.0038
354	SLU 54	-0.02	0.47	40.73	-0.3639	-0.0047	-0.0038
354	SLU 55	-0.02	0.46	40.49	-0.3603	-0.0047	-0.0037
354	SLU 56	0.02	0.48	41.41	-0.3725	-0.0033	-0.0039
354	SLU 57	0.01	0.48	41.39	-0.3721	-0.0036	-0.0039
354	SLU 58	0.02	0.47	41.2	-0.3692	-0.0031	-0.0038
354	SLU 59	0.02	0.47	41.17	-0.3688	-0.0034	-0.0038
354	SLU 60	-0.03	0.47	41.67	-0.3696	-0.005	-0.0038
354	SLU 61	-0.04	0.47	41.64	-0.3692	-0.0053	-0.0038
354	SLU 62	0	0.49	42.33	-0.3779	-0.0039	-0.0039
354	SLU 63	-0.01	0.48	42.3	-0.3775	-0.0043	-0.0039
354	SLU 64	-0.05	0.45	39.57	-0.353	-0.0057	-0.0037
354	SLU 65	-0.06	0.45	39.53	-0.3524	-0.0062	-0.0037
354	SLU 66	-0.02	0.47	40.45	-0.3646	-0.0049	-0.0038
354	SLU 67	-0.03	0.47	40.42	-0.3642	-0.0052	-0.0038
354	SLU 68	-0.03	0.46	40.18	-0.3607	-0.0052	-0.0037
354	SLU 69	0.01	0.48	41.1	-0.3729	-0.0038	-0.0039
354	SLU 70	0	0.48	41.08	-0.3725	-0.0041	-0.0039
354	SLU 71	0.01	0.47	40.88	-0.3696	-0.0036	-0.0038
354	SLU 72	0.01	0.47	40.86	-0.3692	-0.0039	-0.0038
354	SLU 73	-0.04	0.5	43.7	-0.3919	-0.0058	-0.0041
354	SLU 74	0	0.52	44.62	-0.404	-0.0044	-0.0042
354	SLU 75	-0.01	0.52	44.59	-0.4037	-0.0048	-0.0042
354	SLU 76	-0.01	0.51	44.35	-0.4001	-0.0048	-0.0042
354	SLU 77	0.03	0.53	45.27	-0.4123	-0.0034	-0.0043
354	SLU 78	0.02	0.53	45.24	-0.4119	-0.0037	-0.0043
354	SLU 79	0.03	0.53	45.05	-0.409	-0.0031	-0.0042
354	SLU 80	0.02	0.53	45.03	-0.4086	-0.0035	-0.0042
354	SLU 81	-0.02	0.53	45.53	-0.4094	-0.0051	-0.0042
354	SLU 82	-0.03	0.52	45.5	-0.409	-0.0054	-0.0042
354	SLU 83	0.01	0.54	46.18	-0.4176	-0.004	-0.0043
354	SLU 84	0	0.54	46.16	-0.4173	-0.0043	-0.0043
354	SLE RA 1	-0.04	0.34	29.59	-0.2628	-0.0044	-0.0027
354	SLE RA 2	-0.05	0.34	29.56	-0.2624	-0.0047	-0.0027
354	SLE RA 3	-0.02	0.35	30.18	-0.2705	-0.0038	-0.0028
354	SLE RA 4	-0.03	0.35	30.16	-0.2703	-0.004	-0.0028
354	SLE RA 5	-0.03	0.34	30	-0.2679	-0.004	-0.0028
354	SLE RA 6	0	0.35	30.61	-0.276	-0.0031	-0.0029
354	SLE RA 7	-0.01	0.35	30.59	-0.2758	-0.0033	-0.0029
354	SLE RA 8	0	0.35	30.47	-0.2738	-0.0029	-0.0028
354	SLE RA 9	0	0.35	30.45	-0.2736	-0.0032	-0.0028
354	SLE RA 10	-0.04	0.37	32.34	-0.2887	-0.0044	-0.003
354	SLE RA 11	-0.01	0.38	32.95	-0.2968	-0.0035	-0.0031
354	SLE RA 12	-0.01	0.38	32.94	-0.2966	-0.0037	-0.0031
354	SLE RA 13	-0.01	0.38	32.78	-0.2942	-0.0037	-0.0031
354	SLE RA 14	0.01	0.39	33.39	-0.3023	-0.0028	-0.0031
354	SLE RA 15	0.01	0.39	33.37	-0.3021	-0.003	-0.0031
354	SLE RA 16	0.01	0.39	33.25	-0.3001	-0.0027	-0.0031
354	SLE RA 17	0.01	0.39	33.23	-0.2999	-0.0029	-0.0031
354	SLE RA 18	-0.02	0.39	33.56	-0.3004	-0.0039	-0.0031
354	SLE RA 19	-0.03	0.39	33.54	-0.3001	-0.0042	-0.0031
354	SLE RA 20	0	0.39	34	-0.3059	-0.0032	-0.0032
354	SLE RA 21	-0.01	0.39	33.98	-0.3056	-0.0035	-0.0032
354	SLE FR 1	-0.04	0.34	29.59	-0.2628	-0.0044	-0.0027
354	SLE FR 2	-0.04	0.34	29.59	-0.2628	-0.0044	-0.0027
354	SLE FR 3	-0.03	0.34	29.77	-0.265	-0.0041	-0.0027
354	SLE FR 4	-0.03	0.35	30.78	-0.274	-0.0043	-0.0028
354	SLE FR 5	-0.02	0.35	30.96	-0.2763	-0.0039	-0.0029
354	SLE FR 6	-0.03	0.36	31.58	-0.2816	-0.0041	-0.0029
354	SLE QP 1	-0.04	0.34	29.59	-0.2628	-0.0044	-0.0027
354	SLE QP 2	-0.03	0.35	30.78	-0.2741	-0.0042	-0.0028
354	SLD 1	5.57	0.22	28.66	-0.1467	0.2361	-0.0018
354	SLD 2	5.57	0.22	28.66	-0.1467	0.2361	-0.0018
354	SLD 3	5.94	0.41	31.61	-0.3314	0.2523	-0.0033
354	SLD 4	5.94	0.41	31.61	-0.3314	0.2523	-0.0033
354	SLD 5	1.09	0.03	25.67	0.0443	0.0433	-0.0004
354	SLD 6	1.09	0.03	25.67	0.0443	0.0433	-0.0004
354	SLD 7	2.31	0.65	35.51	-0.5715	0.0973	-0.0051
354	SLD 8	2.31	0.65	35.51	-0.5715	0.0973	-0.0051
354	SLD 9	-2.38	0.06	26.06	0.0233	-0.1057	-0.0006
354	SLD 10	-2.38	0.06	26.06	0.0233	-0.1057	-0.0006
354	SLD 11	-1.16	0.67	35.89	-0.5925	-0.0518	-0.0053



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
354	SLD 12	-1.16	0.67	35.89	-0.5925	-0.0518	-0.0053
354	SLD 13	-6	0.3	29.95	-0.2168	-0.2608	-0.0024
354	SLD 14	-6	0.3	29.95	-0.2168	-0.2608	-0.0024
354	SLD 15	-5.63	0.48	32.9	-0.4015	-0.2446	-0.0038
354	SLD 16	-5.63	0.48	32.9	-0.4015	-0.2446	-0.0038
354	SLV 1	13.01	0.04	25.72	0.0333	0.5555	-0.0004
354	SLV 2	13.01	0.04	25.72	0.0333	0.5555	-0.0004
354	SLV 3	13.88	0.48	32.78	-0.4126	0.594	-0.0039
354	SLV 4	13.88	0.48	32.78	-0.4126	0.594	-0.0039
354	SLV 5	2.56	-0.41	18.57	0.4943	0.1052	0.0031
354	SLV 6	2.56	-0.41	18.57	0.4943	0.1052	0.0031
354	SLV 7	5.46	1.06	42.08	-0.9918	0.2337	-0.0083
354	SLV 8	5.46	1.06	42.08	-0.9918	0.2337	-0.0083
354	SLV 9	-5.53	-0.36	19.49	0.4436	-0.2421	0.0027
354	SLV 10	-5.53	-0.36	19.49	0.4436	-0.2421	0.0027
354	SLV 11	-2.63	1.12	43	-1.0424	-0.1137	-0.0088
354	SLV 12	-2.63	1.12	43	-1.0424	-0.1137	-0.0088
354	SLV 13	-13.95	0.22	28.79	-0.1356	-0.6024	-0.0018
354	SLV 14	-13.95	0.22	28.79	-0.1356	-0.6024	-0.0018
354	SLV 15	-13.08	0.66	35.85	-0.5815	-0.5639	-0.0053
354	SLV 16	-13.08	0.66	35.85	-0.5815	-0.5639	-0.0053
355	SLU 1	1.71	0.33	29.2	-0.2505	0.069	-0.0027
355	SLU 2	1.69	0.33	29.14	-0.2499	0.0682	-0.0027
355	SLU 3	1.82	0.35	30.14	-0.2623	0.0737	-0.0029
355	SLU 4	1.81	0.35	30.11	-0.2619	0.0732	-0.0029
355	SLU 5	1.79	0.34	29.86	-0.2583	0.0723	-0.0028
355	SLU 6	1.93	0.36	30.86	-0.2707	0.0778	-0.003
355	SLU 7	1.91	0.36	30.83	-0.2704	0.0773	-0.003
355	SLU 8	1.91	0.36	30.64	-0.2675	0.0772	-0.0029
355	SLU 9	1.9	0.36	30.61	-0.2671	0.0768	-0.0029
355	SLU 10	1.96	0.38	33.43	-0.2892	0.0793	-0.0032
355	SLU 11	2.1	0.4	34.43	-0.3016	0.0848	-0.0033
355	SLU 12	2.09	0.4	34.4	-0.3012	0.0843	-0.0033
355	SLU 13	2.07	0.4	34.15	-0.2977	0.0834	-0.0033
355	SLU 14	2.2	0.41	35.15	-0.3101	0.0889	-0.0034
355	SLU 15	2.19	0.41	35.12	-0.3097	0.0884	-0.0034
355	SLU 16	2.19	0.41	34.93	-0.3068	0.0883	-0.0034
355	SLU 17	2.18	0.41	34.9	-0.3064	0.0878	-0.0034
355	SLU 18	2.1	0.41	35.32	-0.3067	0.0848	-0.0034
355	SLU 19	2.09	0.41	35.29	-0.3063	0.0843	-0.0034
355	SLU 20	2.21	0.42	36.05	-0.3152	0.0889	-0.0035
355	SLU 21	2.19	0.42	36.01	-0.3148	0.0885	-0.0035
355	SLU 22	1.98	0.39	33.18	-0.2903	0.0802	-0.0032
355	SLU 23	1.97	0.39	33.13	-0.2896	0.0794	-0.0032
355	SLU 24	2.1	0.4	34.12	-0.302	0.0849	-0.0033
355	SLU 25	2.09	0.4	34.09	-0.3016	0.0844	-0.0033
355	SLU 26	2.07	0.4	33.85	-0.2981	0.0835	-0.0033
355	SLU 27	2.21	0.41	34.84	-0.3105	0.089	-0.0034
355	SLU 28	2.19	0.41	34.81	-0.3101	0.0885	-0.0034
355	SLU 29	2.19	0.41	34.62	-0.3072	0.0884	-0.0034
355	SLU 30	2.18	0.41	34.59	-0.3068	0.0879	-0.0034
355	SLU 31	2.24	0.44	37.42	-0.3289	0.0905	-0.0036
355	SLU 32	2.38	0.45	38.41	-0.3413	0.0959	-0.0037
355	SLU 33	2.37	0.45	38.38	-0.3409	0.0955	-0.0037
355	SLU 34	2.35	0.45	38.14	-0.3374	0.0946	-0.0037
355	SLU 35	2.48	0.47	39.13	-0.3498	0.1	-0.0038
355	SLU 36	2.47	0.47	39.1	-0.3494	0.0996	-0.0038
355	SLU 37	2.47	0.46	38.91	-0.3466	0.0994	-0.0038
355	SLU 38	2.46	0.46	38.88	-0.3462	0.099	-0.0038
355	SLU 39	2.38	0.46	39.31	-0.3465	0.096	-0.0038
355	SLU 40	2.37	0.46	39.28	-0.3461	0.0955	-0.0038
355	SLU 41	2.49	0.47	40.03	-0.3549	0.1001	-0.0039
355	SLU 42	2.47	0.47	40	-0.3545	0.0996	-0.0039
355	SLU 43	2.12	0.41	36.59	-0.3121	0.0859	-0.0034
355	SLU 44	2.1	0.41	36.54	-0.3114	0.0851	-0.0034
355	SLU 45	2.24	0.43	37.53	-0.3238	0.0906	-0.0035
355	SLU 46	2.23	0.43	37.5	-0.3234	0.0901	-0.0035
355	SLU 47	2.21	0.43	37.26	-0.3199	0.0892	-0.0035
355	SLU 48	2.34	0.44	38.25	-0.3323	0.0947	-0.0036
355	SLU 49	2.33	0.44	38.22	-0.3319	0.0942	-0.0036
355	SLU 50	2.33	0.44	38.03	-0.329	0.0941	-0.0036
355	SLU 51	2.32	0.44	38	-0.3286	0.0936	-0.0036
355	SLU 52	2.38	0.47	40.82	-0.3507	0.0962	-0.0038
355	SLU 53	2.52	0.48	41.82	-0.3631	0.1016	-0.004
355	SLU 54	2.51	0.48	41.79	-0.3627	0.1012	-0.004
355	SLU 55	2.48	0.48	41.55	-0.3592	0.1003	-0.0039
355	SLU 56	2.62	0.5	42.54	-0.3716	0.1057	-0.0041
355	SLU 57	2.61	0.49	42.51	-0.3712	0.1053	-0.0041
355	SLU 58	2.61	0.49	42.32	-0.3684	0.1052	-0.004
355	SLU 59	2.59	0.49	42.29	-0.368	0.1047	-0.004
355	SLU 60	2.52	0.49	42.72	-0.3683	0.1017	-0.004
355	SLU 61	2.51	0.49	42.68	-0.3679	0.1012	-0.004
355	SLU 62	2.62	0.5	43.44	-0.3767	0.1058	-0.0041
355	SLU 63	2.61	0.5	43.41	-0.3763	0.1053	-0.0041
355	SLU 64	2.4	0.47	40.57	-0.3518	0.097	-0.0039
355	SLU 65	2.38	0.47	40.52	-0.3511	0.0963	-0.0038
355	SLU 66	2.52	0.48	41.52	-0.3635	0.1017	-0.004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
355	SLU 67	2.51	0.48	41.48	-0.3631	0.1013	-0.004
355	SLU 68	2.49	0.48	41.24	-0.3596	0.1004	-0.0039
355	SLU 69	2.62	0.5	42.24	-0.372	0.1058	-0.0041
355	SLU 70	2.61	0.5	42.21	-0.3716	0.1054	-0.0041
355	SLU 71	2.61	0.49	42.02	-0.3688	0.1052	-0.004
355	SLU 72	2.6	0.49	41.99	-0.3684	0.1048	-0.004
355	SLU 73	2.66	0.52	44.81	-0.3905	0.1073	-0.0043
355	SLU 74	2.8	0.54	45.8	-0.4029	0.1128	-0.0044
355	SLU 75	2.78	0.54	45.77	-0.4025	0.1123	-0.0044
355	SLU 76	2.76	0.53	45.53	-0.399	0.1114	-0.0044
355	SLU 77	2.9	0.55	46.53	-0.4114	0.1169	-0.0045
355	SLU 78	2.89	0.55	46.49	-0.411	0.1164	-0.0045
355	SLU 79	2.89	0.54	46.31	-0.4081	0.1163	-0.0045
355	SLU 80	2.87	0.54	46.27	-0.4077	0.1159	-0.0045
355	SLU 81	2.8	0.54	46.7	-0.408	0.1128	-0.0045
355	SLU 82	2.79	0.54	46.67	-0.4076	0.1124	-0.0045
355	SLU 83	2.9	0.55	47.42	-0.4165	0.1169	-0.0046
355	SLU 84	2.89	0.55	47.39	-0.4161	0.1165	-0.0046
355	SLE RA 1	1.79	0.35	30.33	-0.2619	0.0722	-0.0029
355	SLE RA 2	1.77	0.35	30.3	-0.2614	0.0717	-0.0029
355	SLE RA 3	1.86	0.36	30.96	-0.2697	0.0753	-0.003
355	SLE RA 4	1.86	0.36	30.94	-0.2694	0.075	-0.003
355	SLE RA 5	1.84	0.36	30.78	-0.2671	0.0744	-0.0029
355	SLE RA 6	1.93	0.37	31.44	-0.2754	0.0781	-0.003
355	SLE RA 7	1.92	0.37	31.42	-0.2751	0.0778	-0.003
355	SLE RA 8	1.92	0.36	31.3	-0.2732	0.0777	-0.003
355	SLE RA 9	1.92	0.36	31.28	-0.2729	0.0774	-0.003
355	SLE RA 10	1.96	0.38	33.16	-0.2877	0.0791	-0.0032
355	SLE RA 11	2.05	0.39	33.82	-0.2959	0.0827	-0.0032
355	SLE RA 12	2.04	0.39	33.8	-0.2957	0.0824	-0.0032
355	SLE RA 13	2.03	0.39	33.64	-0.2933	0.0818	-0.0032
355	SLE RA 14	2.12	0.4	34.3	-0.3016	0.0854	-0.0033
355	SLE RA 15	2.11	0.4	34.28	-0.3013	0.0851	-0.0033
355	SLE RA 16	2.11	0.4	34.16	-0.2994	0.085	-0.0033
355	SLE RA 17	2.1	0.4	34.14	-0.2992	0.0847	-0.0033
355	SLE RA 18	2.05	0.4	34.42	-0.2993	0.0827	-0.0033
355	SLE RA 19	2.04	0.4	34.4	-0.2991	0.0824	-0.0033
355	SLE RA 20	2.12	0.41	34.9	-0.305	0.0855	-0.0033
355	SLE RA 21	2.11	0.41	34.88	-0.3047	0.0852	-0.0033
355	SLE FR 1	1.79	0.35	30.33	-0.2619	0.0722	-0.0029
355	SLE FR 2	1.78	0.35	30.33	-0.2618	0.0721	-0.0029
355	SLE FR 3	1.81	0.35	30.53	-0.2641	0.0733	-0.0029
355	SLE FR 4	1.86	0.36	31.55	-0.273	0.0752	-0.003
355	SLE FR 5	1.89	0.37	31.75	-0.2754	0.0764	-0.003
355	SLE FR 6	1.92	0.37	32.38	-0.2806	0.0775	-0.0031
355	SLE QP 1	1.79	0.35	30.33	-0.2619	0.0722	-0.0029
355	SLE QP 2	1.86	0.36	31.56	-0.2731	0.0753	-0.003
355	SLD 1	7.36	0.24	30.76	-0.1501	0.3173	-0.002
355	SLD 2	7.36	0.24	30.76	-0.1501	0.3173	-0.002
355	SLD 3	7.79	0.42	33.68	-0.329	0.3358	-0.0034
355	SLD 4	7.79	0.42	33.68	-0.329	0.3358	-0.0034
355	SLD 5	2.85	0.06	26.89	0.0351	0.12	-0.0005
355	SLD 6	2.85	0.06	26.89	0.0351	0.12	-0.0005
355	SLD 7	4.3	0.65	36.62	-0.5612	0.1814	-0.0053
355	SLD 8	4.3	0.65	36.62	-0.5612	0.1814	-0.0053
355	SLD 9	-0.57	0.08	26.5	0.0149	-0.0307	-0.0007
355	SLD 10	-0.57	0.08	26.5	0.0149	-0.0307	-0.0007
355	SLD 11	0.87	0.67	36.23	-0.5813	0.0307	-0.0055
355	SLD 12	0.87	0.67	36.23	-0.5813	0.0307	-0.0055
355	SLD 13	-4.06	0.31	29.44	-0.2172	-0.1851	-0.0026
355	SLD 14	-4.06	0.31	29.44	-0.2172	-0.1851	-0.0026
355	SLD 15	-3.63	0.49	32.36	-0.3961	-0.1666	-0.004
355	SLD 16	-3.63	0.49	32.36	-0.3961	-0.1666	-0.004
355	SLV 1	14.65	0.07	29.62	0.0232	0.6389	-0.0006
355	SLV 2	14.65	0.07	29.62	0.0232	0.6389	-0.0006
355	SLV 3	15.68	0.49	36.6	-0.4085	0.6826	-0.0041
355	SLV 4	15.68	0.49	36.6	-0.4085	0.6826	-0.0041
355	SLV 5	4.14	-0.37	20.4	0.4705	0.1782	0.003
355	SLV 6	4.14	-0.37	20.4	0.4705	0.1782	0.003
355	SLV 7	7.57	1.05	43.65	-0.9685	0.3238	-0.0086
355	SLV 8	7.57	1.05	43.65	-0.9685	0.3238	-0.0086
355	SLV 9	-3.84	-0.33	19.47	0.4222	-0.1731	0.0026
355	SLV 10	-3.84	-0.33	19.47	0.4222	-0.1731	0.0026
355	SLV 11	-0.41	1.1	42.72	-1.0168	-0.0275	-0.009
355	SLV 12	-0.41	1.1	42.72	-1.0168	-0.0275	-0.009
355	SLV 13	-11.95	0.23	26.52	-0.1377	-0.5319	-0.0019
355	SLV 14	-11.95	0.23	26.52	-0.1377	-0.5319	-0.0019
355	SLV 15	-10.92	0.66	33.5	-0.5694	-0.4882	-0.0054
355	SLV 16	-10.92	0.66	33.5	-0.5694	-0.4882	-0.0054
356	SLU 1	2.91	0.34	31.34	-0.2401	0.1091	-0.0026
356	SLU 2	2.89	0.34	31.27	-0.2395	0.1082	-0.0026
356	SLU 3	3.1	0.36	32.42	-0.2515	0.1161	-0.0028
356	SLU 4	3.09	0.36	32.38	-0.2511	0.1156	-0.0028
356	SLU 5	3.05	0.35	32.12	-0.2477	0.1143	-0.0027
356	SLU 6	3.26	0.37	33.26	-0.2597	0.1222	-0.0029
356	SLU 7	3.25	0.37	33.23	-0.2593	0.1217	-0.0029
356	SLU 8	3.24	0.37	33.03	-0.2566	0.1212	-0.0028



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
356	SLU 9	3.22	0.37	32.99	-0.2562	0.1207	-0.0028
356	SLU 10	3.34	0.4	35.91	-0.2773	0.1248	-0.003
356	SLU 11	3.55	0.41	37.06	-0.2893	0.1328	-0.0032
356	SLU 12	3.53	0.41	37.02	-0.2889	0.1322	-0.0032
356	SLU 13	3.5	0.41	36.75	-0.2855	0.1309	-0.0031
356	SLU 14	3.71	0.43	37.9	-0.2975	0.1388	-0.0033
356	SLU 15	3.7	0.43	37.86	-0.2972	0.1383	-0.0033
356	SLU 16	3.68	0.42	37.66	-0.2944	0.1379	-0.0032
356	SLU 17	3.67	0.42	37.63	-0.2941	0.1373	-0.0032
356	SLU 18	3.55	0.42	37.96	-0.2941	0.1328	-0.0032
356	SLU 19	3.54	0.42	37.92	-0.2937	0.1323	-0.0032
356	SLU 20	3.71	0.43	38.81	-0.3024	0.1389	-0.0033
356	SLU 21	3.7	0.43	38.77	-0.302	0.1384	-0.0033
356	SLU 22	3.38	0.4	35.68	-0.2783	0.1263	-0.0031
356	SLU 23	3.36	0.4	35.61	-0.2776	0.1255	-0.003
356	SLU 24	3.56	0.41	36.76	-0.2896	0.1334	-0.0032
356	SLU 25	3.55	0.41	36.72	-0.2893	0.1329	-0.0032
356	SLU 26	3.52	0.41	36.46	-0.2859	0.1315	-0.0031
356	SLU 27	3.72	0.43	37.6	-0.2979	0.1395	-0.0033
356	SLU 28	3.71	0.43	37.57	-0.2975	0.1389	-0.0033
356	SLU 29	3.7	0.42	37.37	-0.2948	0.1385	-0.0032
356	SLU 30	3.69	0.42	37.33	-0.2944	0.138	-0.0032
356	SLU 31	3.8	0.45	40.25	-0.3155	0.1421	-0.0035
356	SLU 32	4.01	0.47	41.4	-0.3275	0.15	-0.0036
356	SLU 33	4	0.47	41.36	-0.3271	0.1495	-0.0036
356	SLU 34	3.96	0.46	41.1	-0.3237	0.1482	-0.0036
356	SLU 35	4.17	0.48	42.24	-0.3357	0.1561	-0.0037
356	SLU 36	4.16	0.48	42.2	-0.3353	0.1556	-0.0037
356	SLU 37	4.15	0.48	42.01	-0.3326	0.1552	-0.0037
356	SLU 38	4.13	0.48	41.97	-0.3322	0.1546	-0.0037
356	SLU 39	4.02	0.48	42.3	-0.3323	0.1501	-0.0037
356	SLU 40	4	0.48	42.26	-0.3319	0.1496	-0.0036
356	SLU 41	4.18	0.49	43.15	-0.3406	0.1562	-0.0037
356	SLU 42	4.16	0.49	43.11	-0.3402	0.1557	-0.0037
356	SLU 43	3.63	0.43	39.25	-0.299	0.1359	-0.0033
356	SLU 44	3.61	0.43	39.18	-0.2984	0.135	-0.0033
356	SLU 45	3.82	0.44	40.33	-0.3104	0.1429	-0.0034
356	SLU 46	3.8	0.44	40.29	-0.31	0.1424	-0.0034
356	SLU 47	3.77	0.44	40.03	-0.3067	0.1411	-0.0034
356	SLU 48	3.98	0.46	41.18	-0.3187	0.149	-0.0035
356	SLU 49	3.96	0.46	41.14	-0.3183	0.1485	-0.0035
356	SLU 50	3.95	0.45	40.94	-0.3156	0.148	-0.0035
356	SLU 51	3.94	0.45	40.9	-0.3152	0.1475	-0.0035
356	SLU 52	4.05	0.48	43.82	-0.3362	0.1516	-0.0037
356	SLU 53	4.26	0.5	44.97	-0.3482	0.1595	-0.0038
356	SLU 54	4.25	0.5	44.93	-0.3478	0.159	-0.0038
356	SLU 55	4.22	0.49	44.67	-0.3445	0.1577	-0.0038
356	SLU 56	4.42	0.51	45.81	-0.3565	0.1656	-0.0039
356	SLU 57	4.41	0.51	45.78	-0.3561	0.1651	-0.0039
356	SLU 58	4.4	0.51	45.58	-0.3534	0.1647	-0.0039
356	SLU 59	4.38	0.51	45.54	-0.353	0.1641	-0.0039
356	SLU 60	4.27	0.5	45.87	-0.3531	0.1596	-0.0039
356	SLU 61	4.26	0.5	45.83	-0.3527	0.1591	-0.0039
356	SLU 62	4.43	0.52	46.72	-0.3613	0.1657	-0.004
356	SLU 63	4.42	0.52	46.68	-0.3609	0.1652	-0.004
356	SLU 64	4.09	0.48	43.59	-0.3372	0.1531	-0.0037
356	SLU 65	4.07	0.48	43.52	-0.3366	0.1522	-0.0037
356	SLU 66	4.28	0.5	44.67	-0.3486	0.1602	-0.0038
356	SLU 67	4.27	0.5	44.63	-0.3482	0.1597	-0.0038
356	SLU 68	4.23	0.49	44.37	-0.3448	0.1583	-0.0038
356	SLU 69	4.44	0.51	45.52	-0.3568	0.1663	-0.0039
356	SLU 70	4.43	0.51	45.48	-0.3565	0.1657	-0.0039
356	SLU 71	4.41	0.51	45.28	-0.3537	0.1653	-0.0039
356	SLU 72	4.4	0.51	45.24	-0.3534	0.1648	-0.0039
356	SLU 73	4.52	0.54	48.16	-0.3744	0.1689	-0.0041
356	SLU 74	4.73	0.55	49.31	-0.3864	0.1768	-0.0042
356	SLU 75	4.71	0.55	49.27	-0.386	0.1763	-0.0042
356	SLU 76	4.68	0.55	49.01	-0.3827	0.175	-0.0042
356	SLU 77	4.89	0.57	50.15	-0.3947	0.1829	-0.0043
356	SLU 78	4.87	0.57	50.12	-0.3943	0.1824	-0.0043
356	SLU 79	4.86	0.56	49.92	-0.3916	0.182	-0.0043
356	SLU 80	4.85	0.56	49.88	-0.3912	0.1814	-0.0043
356	SLU 81	4.73	0.56	50.21	-0.3913	0.1769	-0.0043
356	SLU 82	4.72	0.56	50.18	-0.3909	0.1764	-0.0043
356	SLU 83	4.89	0.57	51.06	-0.3995	0.183	-0.0044
356	SLU 84	4.88	0.57	51.02	-0.3991	0.1825	-0.0044
356	SLE RA 1	3.05	0.36	32.58	-0.251	0.114	-0.0028
356	SLE RA 2	3.03	0.36	32.53	-0.2506	0.1134	-0.0028
356	SLE RA 3	3.17	0.37	33.3	-0.2586	0.1187	-0.0028
356	SLE RA 4	3.16	0.37	33.27	-0.2583	0.1183	-0.0028
356	SLE RA 5	3.14	0.37	33.1	-0.2561	0.1175	-0.0028
356	SLE RA 6	3.28	0.38	33.86	-0.2641	0.1228	-0.0029
356	SLE RA 7	3.27	0.38	33.84	-0.2638	0.1224	-0.0029
356	SLE RA 8	3.26	0.38	33.7	-0.262	0.1221	-0.0029
356	SLE RA 9	3.25	0.37	33.68	-0.2618	0.1218	-0.0029
356	SLE RA 10	3.33	0.39	35.62	-0.2758	0.1245	-0.003
356	SLE RA 11	3.47	0.41	36.39	-0.2838	0.1298	-0.0031



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
356	SLE RA 12	3.46	0.41	36.36	-0.2835	0.1294	-0.0031
356	SLE RA 13	3.44	0.4	36.19	-0.2813	0.1286	-0.0031
356	SLE RA 14	3.58	0.41	36.95	-0.2893	0.1339	-0.0032
356	SLE RA 15	3.57	0.41	36.93	-0.289	0.1335	-0.0032
356	SLE RA 16	3.56	0.41	36.8	-0.2872	0.1332	-0.0032
356	SLE RA 17	3.55	0.41	36.77	-0.287	0.1329	-0.0032
356	SLE RA 18	3.47	0.41	36.99	-0.287	0.1298	-0.0032
356	SLE RA 19	3.46	0.41	36.97	-0.2868	0.1295	-0.0031
356	SLE RA 20	3.58	0.42	37.56	-0.2925	0.1339	-0.0032
356	SLE RA 21	3.57	0.42	37.53	-0.2923	0.1335	-0.0032
356	SLE FR 1	3.05	0.36	32.58	-0.251	0.114	-0.0028
356	SLE FR 2	3.04	0.36	32.57	-0.2509	0.1139	-0.0028
356	SLE FR 3	3.09	0.36	32.8	-0.2532	0.1156	-0.0028
356	SLE FR 4	3.17	0.37	33.89	-0.2617	0.1186	-0.0029
356	SLE FR 5	3.22	0.38	34.13	-0.264	0.1204	-0.0029
356	SLE FR 6	3.26	0.38	34.78	-0.269	0.1219	-0.003
356	SLE QP 1	3.05	0.36	32.58	-0.251	0.114	-0.0028
356	SLE QP 2	3.17	0.37	33.9	-0.2618	0.1188	-0.0029
356	SLD 1	8.28	0.26	33.34	-0.1497	0.3421	-0.002
356	SLD 2	8.28	0.26	33.34	-0.1497	0.3421	-0.002
356	SLD 3	8.83	0.42	36.26	-0.3102	0.3637	-0.0032
356	SLD 4	8.83	0.42	36.26	-0.3102	0.3637	-0.0032
356	SLD 5	3.89	0.1	29.31	0.0153	0.1531	-0.0007
356	SLD 6	3.89	0.1	29.31	0.0153	0.1531	-0.0007
356	SLD 7	5.69	0.62	39.03	-0.5199	0.2249	-0.0049
356	SLD 8	5.69	0.62	39.03	-0.5199	0.2249	-0.0049
356	SLD 9	0.66	0.12	28.77	-0.0038	0.0126	-0.0008
356	SLD 10	0.66	0.12	28.77	-0.0038	0.0126	-0.0008
356	SLD 11	2.46	0.64	38.49	-0.539	0.0844	-0.0051
356	SLD 12	2.46	0.64	38.49	-0.539	0.0844	-0.0051
356	SLD 13	-2.48	0.33	31.55	-0.2134	-0.1262	-0.0025
356	SLD 14	-2.48	0.33	31.55	-0.2134	-0.1262	-0.0025
356	SLD 15	-1.94	0.49	34.46	-0.374	-0.1046	-0.0038
356	SLD 16	-1.94	0.49	34.46	-0.374	-0.1046	-0.0038
356	SLV 1	15.07	0.11	32.53	0.0082	0.6386	-0.0007
356	SLV 2	15.07	0.11	32.53	0.0082	0.6386	-0.0007
356	SLV 3	16.36	0.48	39.48	-0.3794	0.69	-0.0038
356	SLV 4	16.36	0.48	39.48	-0.3794	0.69	-0.0038
356	SLV 5	4.78	-0.28	22.95	0.4072	0.1967	0.0024
356	SLV 6	4.78	-0.28	22.95	0.4072	0.1967	0.0024
356	SLV 7	9.09	0.98	46.12	-0.8851	0.3681	-0.0078
356	SLV 8	9.09	0.98	46.12	-0.8851	0.3681	-0.0078
356	SLV 9	-2.74	-0.23	21.69	0.3615	-0.1306	0.002
356	SLV 10	-2.74	-0.23	21.69	0.3615	-0.1306	0.002
356	SLV 11	1.57	1.03	44.85	-0.9308	0.0408	-0.0082
356	SLV 12	1.57	1.03	44.85	-0.9308	0.0408	-0.0082
356	SLV 13	-10.01	0.27	28.32	-0.1442	-0.4525	-0.002
356	SLV 14	-10.01	0.27	28.32	-0.1442	-0.4525	-0.002
356	SLV 15	-8.72	0.64	35.27	-0.5319	-0.4011	-0.0051
356	SLV 16	-8.72	0.64	35.27	-0.5319	-0.4011	-0.0051
357	SLU 1	3.62	0.31	34.51	-0.2096	0.1435	-0.0022
357	SLU 2	3.6	0.31	34.43	-0.209	0.1425	-0.0022
357	SLU 3	3.86	0.33	35.79	-0.2194	0.1527	-0.0023
357	SLU 4	3.84	0.33	35.74	-0.2191	0.1521	-0.0023
357	SLU 5	3.8	0.33	35.45	-0.2162	0.1504	-0.0023
357	SLU 6	4.06	0.34	36.81	-0.2266	0.1606	-0.0024
357	SLU 7	4.04	0.34	36.76	-0.2263	0.16	-0.0024
357	SLU 8	4.03	0.34	36.54	-0.2239	0.1593	-0.0024
357	SLU 9	4.01	0.34	36.5	-0.2236	0.1587	-0.0023
357	SLU 10	4.12	0.36	39.57	-0.2421	0.1631	-0.0025
357	SLU 11	4.38	0.38	40.93	-0.2525	0.1734	-0.0026
357	SLU 12	4.37	0.38	40.88	-0.2522	0.1728	-0.0026
357	SLU 13	4.32	0.38	40.59	-0.2493	0.171	-0.0026
357	SLU 14	4.58	0.39	41.95	-0.2597	0.1813	-0.0027
357	SLU 15	4.57	0.39	41.9	-0.2594	0.1807	-0.0027
357	SLU 16	4.55	0.39	41.68	-0.257	0.1799	-0.0027
357	SLU 17	4.53	0.39	41.64	-0.2567	0.1793	-0.0027
357	SLU 18	4.37	0.39	41.85	-0.2568	0.173	-0.0027
357	SLU 19	4.36	0.39	41.8	-0.2565	0.1724	-0.0027
357	SLU 20	4.57	0.4	42.87	-0.264	0.1809	-0.0028
357	SLU 21	4.56	0.4	42.82	-0.2637	0.1803	-0.0028
357	SLU 22	4.19	0.37	39.37	-0.2429	0.1656	-0.0025
357	SLU 23	4.16	0.36	39.29	-0.2423	0.1646	-0.0025
357	SLU 24	4.42	0.38	40.65	-0.2528	0.1749	-0.0027
357	SLU 25	4.41	0.38	40.6	-0.2524	0.1743	-0.0026
357	SLU 26	4.36	0.38	40.31	-0.2495	0.1725	-0.0026
357	SLU 27	4.62	0.39	41.67	-0.26	0.1828	-0.0027
357	SLU 28	4.61	0.39	41.62	-0.2596	0.1822	-0.0027
357	SLU 29	4.59	0.39	41.4	-0.2572	0.1814	-0.0027
357	SLU 30	4.57	0.39	41.36	-0.2569	0.1808	-0.0027
357	SLU 31	4.68	0.41	44.43	-0.2754	0.1853	-0.0029
357	SLU 32	4.94	0.43	45.79	-0.2859	0.1955	-0.003
357	SLU 33	4.93	0.43	45.74	-0.2855	0.1949	-0.003
357	SLU 34	4.89	0.43	45.45	-0.2826	0.1932	-0.003
357	SLU 35	5.15	0.44	46.81	-0.2931	0.2034	-0.0031
357	SLU 36	5.13	0.44	46.76	-0.2927	0.2028	-0.0031
357	SLU 37	5.11	0.44	46.54	-0.2904	0.2021	-0.0031



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
357	SLU 38	5.1	0.44	46.5	-0.29	0.2015	-0.003
357	SLU 39	4.93	0.44	46.71	-0.2902	0.1951	-0.003
357	SLU 40	4.92	0.44	46.66	-0.2899	0.1945	-0.003
357	SLU 41	5.13	0.45	47.73	-0.2974	0.203	-0.0031
357	SLU 42	5.12	0.45	47.68	-0.297	0.2024	-0.0031
357	SLU 43	4.52	0.39	43.19	-0.261	0.179	-0.0027
357	SLU 44	4.49	0.39	43.12	-0.2604	0.1779	-0.0027
357	SLU 45	4.75	0.41	44.48	-0.2709	0.1882	-0.0028
357	SLU 46	4.74	0.41	44.43	-0.2705	0.1876	-0.0028
357	SLU 47	4.69	0.4	44.13	-0.2676	0.1858	-0.0028
357	SLU 48	4.95	0.42	45.49	-0.278	0.1961	-0.0029
357	SLU 49	4.94	0.42	45.45	-0.2777	0.1955	-0.0029
357	SLU 50	4.92	0.41	45.23	-0.2753	0.1947	-0.0029
357	SLU 51	4.91	0.41	45.18	-0.275	0.1941	-0.0029
357	SLU 52	5.02	0.44	48.25	-0.2935	0.1986	-0.0031
357	SLU 53	5.28	0.46	49.61	-0.304	0.2088	-0.0032
357	SLU 54	5.26	0.46	49.57	-0.3036	0.2082	-0.0032
357	SLU 55	5.22	0.45	49.27	-0.3007	0.2065	-0.0032
357	SLU 56	5.48	0.47	50.63	-0.3111	0.2167	-0.0033
357	SLU 57	5.46	0.47	50.59	-0.3108	0.2161	-0.0033
357	SLU 58	5.44	0.46	50.37	-0.3084	0.2154	-0.0032
357	SLU 59	5.43	0.46	50.32	-0.3081	0.2148	-0.0032
357	SLU 60	5.27	0.46	50.53	-0.3083	0.2084	-0.0032
357	SLU 61	5.25	0.46	50.49	-0.3079	0.2078	-0.0032
357	SLU 62	5.47	0.47	51.55	-0.3154	0.2163	-0.0033
357	SLU 63	5.45	0.47	51.51	-0.3151	0.2157	-0.0033
357	SLU 64	5.08	0.44	48.05	-0.2943	0.2011	-0.0031
357	SLU 65	5.06	0.44	47.98	-0.2938	0.2001	-0.0031
357	SLU 66	5.31	0.46	49.34	-0.3042	0.2104	-0.0032
357	SLU 67	5.3	0.46	49.29	-0.3039	0.2097	-0.0032
357	SLU 68	5.26	0.45	48.99	-0.3009	0.208	-0.0032
357	SLU 69	5.52	0.47	50.35	-0.3114	0.2182	-0.0033
357	SLU 70	5.5	0.47	50.31	-0.311	0.2176	-0.0033
357	SLU 71	5.48	0.47	50.09	-0.3087	0.2169	-0.0032
357	SLU 72	5.47	0.46	50.04	-0.3083	0.2163	-0.0032
357	SLU 73	5.58	0.49	53.11	-0.3269	0.2207	-0.0034
357	SLU 74	5.84	0.51	54.47	-0.3373	0.231	-0.0035
357	SLU 75	5.82	0.51	54.43	-0.337	0.2304	-0.0035
357	SLU 76	5.78	0.5	54.13	-0.334	0.2286	-0.0035
357	SLU 77	6.04	0.52	55.49	-0.3445	0.2389	-0.0036
357	SLU 78	6.02	0.52	55.45	-0.3442	0.2383	-0.0036
357	SLU 79	6.01	0.52	55.23	-0.3418	0.2375	-0.0036
357	SLU 80	5.99	0.51	55.18	-0.3414	0.2369	-0.0036
357	SLU 81	5.83	0.51	55.39	-0.3416	0.2306	-0.0036
357	SLU 82	5.81	0.51	55.35	-0.3413	0.23	-0.0036
357	SLU 83	6.03	0.53	56.41	-0.3488	0.2385	-0.0037
357	SLU 84	6.01	0.52	56.37	-0.3485	0.2379	-0.0037
357	SLE RA 1	3.78	0.33	35.9	-0.2191	0.1498	-0.0023
357	SLE RA 2	3.77	0.33	35.84	-0.2187	0.1492	-0.0023
357	SLE RA 3	3.94	0.34	36.75	-0.2257	0.156	-0.0024
357	SLE RA 4	3.93	0.34	36.72	-0.2254	0.1556	-0.0024
357	SLE RA 5	3.9	0.34	36.52	-0.2235	0.1544	-0.0023
357	SLE RA 6	4.07	0.35	37.43	-0.2305	0.1612	-0.0024
357	SLE RA 7	4.07	0.35	37.4	-0.2302	0.1608	-0.0024
357	SLE RA 8	4.05	0.34	37.25	-0.2286	0.1603	-0.0024
357	SLE RA 9	4.04	0.34	37.22	-0.2284	0.1599	-0.0024
357	SLE RA 10	4.12	0.36	39.27	-0.2408	0.1629	-0.0025
357	SLE RA 11	4.29	0.37	40.18	-0.2477	0.1698	-0.0026
357	SLE RA 12	4.28	0.37	40.15	-0.2475	0.1694	-0.0026
357	SLE RA 13	4.25	0.37	39.95	-0.2456	0.1682	-0.0026
357	SLE RA 14	4.42	0.38	40.86	-0.2525	0.175	-0.0026
357	SLE RA 15	4.41	0.38	40.82	-0.2523	0.1746	-0.0026
357	SLE RA 16	4.4	0.38	40.68	-0.2507	0.1741	-0.0026
357	SLE RA 17	4.39	0.38	40.65	-0.2505	0.1737	-0.0026
357	SLE RA 18	4.28	0.38	40.79	-0.2506	0.1695	-0.0026
357	SLE RA 19	4.27	0.38	40.76	-0.2504	0.1691	-0.0026
357	SLE RA 20	4.42	0.38	41.47	-0.2554	0.1747	-0.0027
357	SLE RA 21	4.41	0.38	41.44	-0.2552	0.1743	-0.0027
357	SLE FR 1	3.78	0.33	35.9	-0.2191	0.1498	-0.0023
357	SLE FR 2	3.78	0.33	35.89	-0.219	0.1497	-0.0023
357	SLE FR 3	3.84	0.33	36.17	-0.221	0.1519	-0.0023
357	SLE FR 4	3.93	0.34	37.35	-0.2285	0.1556	-0.0024
357	SLE FR 5	3.99	0.35	37.64	-0.2305	0.1578	-0.0024
357	SLE FR 6	4.03	0.35	38.34	-0.2348	0.1597	-0.0025
357	SLE QP 1	3.78	0.33	35.9	-0.2191	0.1498	-0.0023
357	SLE QP 2	3.93	0.34	37.36	-0.2285	0.1557	-0.0024
357	SLD 1	8.72	0.25	36.84	-0.1324	0.369	-0.0017
357	SLD 2	8.72	0.25	36.84	-0.1324	0.369	-0.0017
357	SLD 3	9.38	0.37	39.89	-0.2642	0.3957	-0.0026
357	SLD 4	9.38	0.37	39.89	-0.2642	0.3957	-0.0026
357	SLD 5	4.38	0.13	32.59	0.0003	0.1791	-0.0007
357	SLD 6	4.38	0.13	32.59	0.0003	0.1791	-0.0007
357	SLD 7	6.56	0.53	42.74	-0.4392	0.2683	-0.0039
357	SLD 8	6.56	0.53	42.74	-0.4392	0.2683	-0.0039
357	SLD 9	1.31	0.15	31.99	-0.0179	0.0432	-0.0009
357	SLD 10	1.31	0.15	31.99	-0.0179	0.0432	-0.0009
357	SLD 11	3.49	0.56	42.14	-0.4573	0.1323	-0.0041



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
357	SLD 12	3.49	0.56	42.14	-0.4573	0.1323	-0.0041
357	SLD 13	-1.51	0.32	34.84	-0.1929	-0.0843	-0.0022
357	SLD 14	-1.51	0.32	34.84	-0.1929	-0.0843	-0.0022
357	SLD 15	-0.86	0.44	37.89	-0.3247	-0.0575	-0.0031
357	SLD 16	-0.86	0.44	37.89	-0.3247	-0.0575	-0.0031
357	SLV 1	15.07	0.11	36.09	0.0034	0.6517	-0.0006
357	SLV 2	15.07	0.11	36.09	0.0034	0.6517	-0.0006
357	SLV 3	16.64	0.4	43.34	-0.3152	0.7159	-0.0029
357	SLV 4	16.64	0.4	43.34	-0.3152	0.7159	-0.0029
357	SLV 5	4.89	-0.17	26	0.3244	0.2071	0.0016
357	SLV 6	4.89	-0.17	26	0.3244	0.2071	0.0016
357	SLV 7	10.13	0.8	50.14	-0.7379	0.4212	-0.0061
357	SLV 8	10.13	0.8	50.14	-0.7379	0.4212	-0.0061
357	SLV 9	-2.26	-0.12	24.59	0.2808	-0.1098	0.0013
357	SLV 10	-2.26	-0.12	24.59	0.2808	-0.1098	0.0013
357	SLV 11	2.97	0.86	48.73	-0.7815	0.1044	-0.0064
357	SLV 12	2.97	0.86	48.73	-0.7815	0.1044	-0.0064
357	SLV 13	-8.78	0.29	31.39	-0.1419	-0.4045	-0.0019
357	SLV 14	-8.78	0.29	31.39	-0.1419	-0.4045	-0.0019
357	SLV 15	-7.2	0.58	38.63	-0.4605	-0.3402	-0.0042
357	SLV 16	-7.2	0.58	38.63	-0.4605	-0.3402	-0.0042
358	SLU 1	3.41	0.21	38.15	-0.1518	0.123	-0.0013
358	SLU 2	3.39	0.21	38.06	-0.1514	0.1221	-0.0013
358	SLU 3	3.65	0.22	39.68	-0.1588	0.1318	-0.0014
358	SLU 4	3.63	0.22	39.62	-0.1585	0.1312	-0.0014
358	SLU 5	3.59	0.22	39.29	-0.1563	0.1297	-0.0014
358	SLU 6	3.86	0.23	40.9	-0.1637	0.1395	-0.0014
358	SLU 7	3.84	0.23	40.85	-0.1635	0.1389	-0.0014
358	SLU 8	3.83	0.23	40.6	-0.1617	0.1384	-0.0014
358	SLU 9	3.81	0.23	40.55	-0.1615	0.1378	-0.0014
358	SLU 10	3.83	0.25	43.75	-0.1754	0.1377	-0.0015
358	SLU 11	4.1	0.26	45.37	-0.1828	0.1475	-0.0016
358	SLU 12	4.08	0.26	45.31	-0.1825	0.1469	-0.0016
358	SLU 13	4.04	0.26	44.98	-0.1803	0.1454	-0.0016
358	SLU 14	4.31	0.27	46.59	-0.1877	0.1551	-0.0016
358	SLU 15	4.29	0.27	46.54	-0.1875	0.1545	-0.0016
358	SLU 16	4.27	0.26	46.29	-0.1857	0.154	-0.0016
358	SLU 17	4.26	0.26	46.24	-0.1855	0.1534	-0.0016
358	SLU 18	4.05	0.26	46.28	-0.1861	0.1454	-0.0016
358	SLU 19	4.04	0.26	46.23	-0.1858	0.1448	-0.0016
358	SLU 20	4.26	0.27	47.51	-0.191	0.1531	-0.0017
358	SLU 21	4.24	0.27	47.45	-0.1908	0.1525	-0.0017
358	SLU 22	3.92	0.25	43.6	-0.1759	0.1411	-0.0015
358	SLU 23	3.89	0.25	43.51	-0.1755	0.1401	-0.0015
358	SLU 24	4.16	0.26	45.12	-0.1828	0.1499	-0.0016
358	SLU 25	4.14	0.26	45.07	-0.1826	0.1493	-0.0016
358	SLU 26	4.1	0.26	44.73	-0.1804	0.1478	-0.0016
358	SLU 27	4.37	0.27	46.35	-0.1878	0.1575	-0.0016
358	SLU 28	4.35	0.27	46.29	-0.1876	0.1569	-0.0016
358	SLU 29	4.33	0.26	46.05	-0.1858	0.1564	-0.0016
358	SLU 30	4.32	0.26	46	-0.1855	0.1558	-0.0016
358	SLU 31	4.34	0.28	49.2	-0.1995	0.1557	-0.0017
358	SLU 32	4.61	0.29	50.81	-0.2068	0.1655	-0.0018
358	SLU 33	4.59	0.29	50.76	-0.2066	0.1649	-0.0018
358	SLU 34	4.55	0.29	50.42	-0.2044	0.1634	-0.0018
358	SLU 35	4.81	0.3	52.04	-0.2118	0.1732	-0.0018
358	SLU 36	4.8	0.3	51.98	-0.2116	0.1726	-0.0018
358	SLU 37	4.78	0.3	51.74	-0.2098	0.1721	-0.0018
358	SLU 38	4.77	0.3	51.69	-0.2095	0.1715	-0.0018
358	SLU 39	4.56	0.3	51.73	-0.2102	0.1634	-0.0018
358	SLU 40	4.54	0.3	51.67	-0.2099	0.1628	-0.0018
358	SLU 41	4.77	0.31	52.95	-0.2151	0.1711	-0.0019
358	SLU 42	4.75	0.3	52.9	-0.2149	0.1705	-0.0019
358	SLU 43	4.26	0.27	47.73	-0.1891	0.1538	-0.0016
358	SLU 44	4.24	0.27	47.64	-0.1887	0.1528	-0.0016
358	SLU 45	4.5	0.28	49.26	-0.196	0.1626	-0.0017
358	SLU 46	4.48	0.28	49.2	-0.1958	0.162	-0.0017
358	SLU 47	4.44	0.27	48.87	-0.1936	0.1605	-0.0017
358	SLU 48	4.71	0.28	50.48	-0.201	0.1702	-0.0018
358	SLU 49	4.69	0.28	50.43	-0.2007	0.1696	-0.0017
358	SLU 50	4.68	0.28	50.18	-0.199	0.1691	-0.0017
358	SLU 51	4.66	0.28	50.13	-0.1987	0.1685	-0.0017
358	SLU 52	4.68	0.3	53.33	-0.2127	0.1684	-0.0018
358	SLU 53	4.95	0.31	54.95	-0.22	0.1782	-0.0019
358	SLU 54	4.93	0.31	54.89	-0.2198	0.1776	-0.0019
358	SLU 55	4.89	0.31	54.56	-0.2176	0.1761	-0.0019
358	SLU 56	5.15	0.32	56.17	-0.225	0.1859	-0.002
358	SLU 57	5.14	0.32	56.12	-0.2247	0.1853	-0.002
358	SLU 58	5.12	0.32	55.87	-0.223	0.1848	-0.0019
358	SLU 59	5.11	0.32	55.82	-0.2227	0.1842	-0.0019
358	SLU 60	4.9	0.32	55.86	-0.2234	0.1761	-0.0019
358	SLU 61	4.89	0.32	55.81	-0.2231	0.1755	-0.0019
358	SLU 62	5.11	0.32	57.09	-0.2283	0.1838	-0.002
358	SLU 63	5.09	0.32	57.03	-0.2281	0.1832	-0.002
358	SLU 64	4.77	0.3	53.18	-0.2132	0.1718	-0.0019
358	SLU 65	4.74	0.3	53.09	-0.2128	0.1708	-0.0019
358	SLU 66	5.01	0.31	54.7	-0.2201	0.1806	-0.0019



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
358	SLU 67	4.99	0.31	54.65	-0.2199	0.18	-0.0019
358	SLU 68	4.95	0.31	54.31	-0.2177	0.1785	-0.0019
358	SLU 69	5.21	0.32	55.93	-0.2251	0.1883	-0.002
358	SLU 70	5.2	0.32	55.87	-0.2248	0.1877	-0.002
358	SLU 71	5.18	0.32	55.63	-0.2231	0.1872	-0.0019
358	SLU 72	5.17	0.32	55.57	-0.2228	0.1866	-0.0019
358	SLU 73	5.19	0.34	58.78	-0.2368	0.1865	-0.0021
358	SLU 74	5.46	0.35	60.39	-0.2441	0.1962	-0.0021
358	SLU 75	5.44	0.35	60.34	-0.2439	0.1956	-0.0021
358	SLU 76	5.4	0.34	60	-0.2417	0.1941	-0.0021
358	SLU 77	5.66	0.35	61.62	-0.2491	0.2039	-0.0022
358	SLU 78	5.65	0.35	61.56	-0.2488	0.2033	-0.0022
358	SLU 79	5.63	0.35	61.32	-0.2471	0.2028	-0.0022
358	SLU 80	5.62	0.35	61.26	-0.2468	0.2022	-0.0022
358	SLU 81	5.41	0.35	61.31	-0.2474	0.1942	-0.0022
358	SLU 82	5.39	0.35	61.25	-0.2472	0.1936	-0.0022
358	SLU 83	5.62	0.36	62.53	-0.2524	0.2018	-0.0022
358	SLU 84	5.6	0.36	62.48	-0.2522	0.2012	-0.0022
358	SLE RA 1	3.56	0.22	39.71	-0.1587	0.1282	-0.0014
358	SLE RA 2	3.54	0.22	39.65	-0.1584	0.1275	-0.0014
358	SLE RA 3	3.72	0.23	40.73	-0.1633	0.134	-0.0014
358	SLE RA 4	3.71	0.23	40.69	-0.1632	0.1337	-0.0014
358	SLE RA 5	3.68	0.23	40.47	-0.1617	0.1327	-0.0014
358	SLE RA 6	3.85	0.24	41.54	-0.1666	0.1392	-0.0015
358	SLE RA 7	3.84	0.24	41.51	-0.1665	0.1388	-0.0015
358	SLE RA 8	3.83	0.23	41.34	-0.1653	0.1384	-0.0014
358	SLE RA 9	3.82	0.23	41.31	-0.1651	0.138	-0.0014
358	SLE RA 10	3.84	0.25	43.44	-0.1744	0.138	-0.0015
358	SLE RA 11	4.01	0.25	44.52	-0.1793	0.1445	-0.0016
358	SLE RA 12	4	0.25	44.48	-0.1792	0.1441	-0.0016
358	SLE RA 13	3.98	0.25	44.26	-0.1777	0.1431	-0.0015
358	SLE RA 14	4.15	0.26	45.34	-0.1826	0.1496	-0.0016
358	SLE RA 15	4.14	0.26	45.3	-0.1825	0.1492	-0.0016
358	SLE RA 16	4.13	0.26	45.14	-0.1813	0.1489	-0.0016
358	SLE RA 17	4.12	0.26	45.1	-0.1811	0.1485	-0.0016
358	SLE RA 18	3.98	0.26	45.13	-0.1815	0.1431	-0.0016
358	SLE RA 19	3.97	0.26	45.09	-0.1814	0.1427	-0.0016
358	SLE RA 20	4.12	0.26	45.95	-0.1848	0.1482	-0.0016
358	SLE RA 21	4.11	0.26	45.91	-0.1847	0.1478	-0.0016
358	SLE FR 1	3.56	0.22	39.71	-0.1587	0.1282	-0.0014
358	SLE FR 2	3.55	0.22	39.7	-0.1586	0.1281	-0.0014
358	SLE FR 3	3.61	0.23	40.04	-0.16	0.1302	-0.0014
358	SLE FR 4	3.68	0.23	41.32	-0.1655	0.1325	-0.0014
358	SLE FR 5	3.74	0.24	41.66	-0.1669	0.1347	-0.0015
358	SLE FR 6	3.77	0.24	42.42	-0.1701	0.1356	-0.0015
358	SLE QP 1	3.56	0.22	39.71	-0.1587	0.1282	-0.0014
358	SLE QP 2	3.68	0.23	41.34	-0.1655	0.1327	-0.0014
358	SLD 1	8.21	0.15	40.76	-0.0888	0.3321	-0.0009
358	SLD 2	8.21	0.15	40.76	-0.0888	0.3321	-0.0009
358	SLD 3	8.93	0.23	44.17	-0.1851	0.36	-0.0015
358	SLD 4	8.93	0.23	44.17	-0.1851	0.36	-0.0015
358	SLD 5	3.95	0.09	36	0.0036	0.1502	-0.0004
358	SLD 6	3.95	0.09	36	0.0036	0.1502	-0.0004
358	SLD 7	6.35	0.35	47.35	-0.3176	0.2431	-0.0023
358	SLD 8	6.35	0.35	47.35	-0.3176	0.2431	-0.0023
358	SLD 9	1.02	0.12	35.32	-0.0135	0.0222	-0.0006
358	SLD 10	1.02	0.12	35.32	-0.0135	0.0222	-0.0006
358	SLD 11	3.42	0.38	46.68	-0.3347	0.1151	-0.0024
358	SLD 12	3.42	0.38	46.68	-0.3347	0.1151	-0.0024
358	SLD 13	-1.56	0.24	38.51	-0.1459	-0.0946	-0.0014
358	SLD 14	-1.56	0.24	38.51	-0.1459	-0.0946	-0.0014
358	SLD 15	-0.84	0.32	41.91	-0.2423	-0.0668	-0.0019
358	SLD 16	-0.84	0.32	41.91	-0.2423	-0.0668	-0.0019
358	SLV 1	14.19	0.03	39.95	0.0205	0.5961	-0.0002
358	SLV 2	14.19	0.03	39.95	0.0205	0.5961	-0.0002
358	SLV 3	15.93	0.22	48.04	-0.2129	0.6634	-0.0016
358	SLV 4	15.93	0.22	48.04	-0.2129	0.6634	-0.0016
358	SLV 5	4.2	-0.11	28.66	0.2442	0.1696	0.001
358	SLV 6	4.2	-0.11	28.66	0.2442	0.1696	0.001
358	SLV 7	10	0.51	55.61	-0.5337	0.394	-0.0036
358	SLV 8	10	0.51	55.61	-0.5337	0.394	-0.0036
358	SLV 9	-2.63	-0.05	27.06	0.2026	-0.1286	0.0007
358	SLV 10	-2.63	-0.05	27.06	0.2026	-0.1286	0.0007
358	SLV 11	3.17	0.58	54.01	-0.5753	0.0957	-0.0039
358	SLV 12	3.17	0.58	54.01	-0.5753	0.0957	-0.0039
358	SLV 13	-8.57	0.25	34.63	-0.1182	-0.398	-0.0013
358	SLV 14	-8.57	0.25	34.63	-0.1182	-0.398	-0.0013
358	SLV 15	-6.83	0.43	42.72	-0.3516	-0.3307	-0.0027
358	SLV 16	-6.83	0.43	42.72	-0.3516	-0.3307	-0.0027
359	SLU 1	2.71	0.03	41.93	-0.0718	0.0981	-0.0003
359	SLU 2	2.68	0.03	41.82	-0.0716	0.0972	-0.0003
359	SLU 3	2.92	0.04	43.71	-0.0746	0.1059	-0.0003
359	SLU 4	2.91	0.04	43.65	-0.0745	0.1053	-0.0003
359	SLU 5	2.87	0.03	43.28	-0.0734	0.1041	-0.0003
359	SLU 6	3.11	0.04	45.17	-0.0765	0.1128	-0.0003
359	SLU 7	3.1	0.04	45.11	-0.0764	0.1122	-0.0003
359	SLU 8	3.09	0.03	44.84	-0.0754	0.112	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
359	SLU 9	3.07	0.03	44.78	-0.0753	0.1114	-0.0003
359	SLU 10	2.98	0.04	48.06	-0.0829	0.1075	-0.0003
359	SLU 11	3.22	0.04	49.95	-0.0859	0.1163	-0.0003
359	SLU 12	3.2	0.04	49.89	-0.0858	0.1157	-0.0003
359	SLU 13	3.17	0.04	49.51	-0.0847	0.1144	-0.0003
359	SLU 14	3.41	0.04	51.41	-0.0878	0.1232	-0.0003
359	SLU 15	3.39	0.04	51.34	-0.0876	0.1226	-0.0003
359	SLU 16	3.39	0.04	51.08	-0.0867	0.1223	-0.0003
359	SLU 17	3.37	0.04	51.02	-0.0866	0.1217	-0.0003
359	SLU 18	3.13	0.04	50.84	-0.0879	0.1129	-0.0003
359	SLU 19	3.12	0.04	50.77	-0.0878	0.1123	-0.0003
359	SLU 20	3.32	0.04	52.29	-0.0897	0.1198	-0.0003
359	SLU 21	3.31	0.04	52.23	-0.0896	0.1193	-0.0003
359	SLU 22	3.08	0.04	47.97	-0.083	0.1115	-0.0003
359	SLU 23	3.06	0.04	47.87	-0.0828	0.1106	-0.0003
359	SLU 24	3.3	0.04	49.76	-0.0859	0.1193	-0.0003
359	SLU 25	3.28	0.04	49.7	-0.0858	0.1187	-0.0003
359	SLU 26	3.25	0.04	49.32	-0.0846	0.1175	-0.0003
359	SLU 27	3.49	0.04	51.22	-0.0877	0.1262	-0.0003
359	SLU 28	3.47	0.04	51.15	-0.0876	0.1256	-0.0003
359	SLU 29	3.46	0.04	50.89	-0.0866	0.1253	-0.0003
359	SLU 30	3.45	0.04	50.82	-0.0865	0.1248	-0.0003
359	SLU 31	3.36	0.04	54.1	-0.0941	0.1209	-0.0004
359	SLU 32	3.59	0.05	56	-0.0972	0.1296	-0.0004
359	SLU 33	3.58	0.05	55.93	-0.0971	0.1291	-0.0004
359	SLU 34	3.55	0.04	55.56	-0.0959	0.1278	-0.0004
359	SLU 35	3.79	0.05	57.45	-0.099	0.1365	-0.0004
359	SLU 36	3.77	0.05	57.39	-0.0989	0.136	-0.0004
359	SLU 37	3.76	0.05	57.12	-0.0979	0.1357	-0.0004
359	SLU 38	3.75	0.05	57.06	-0.0978	0.1351	-0.0004
359	SLU 39	3.51	0.05	56.88	-0.0991	0.1263	-0.0004
359	SLU 40	3.49	0.05	56.82	-0.099	0.1257	-0.0004
359	SLU 41	3.7	0.05	58.34	-0.1009	0.1332	-0.0004
359	SLU 42	3.68	0.05	58.28	-0.1008	0.1326	-0.0004
359	SLU 43	3.39	0.04	52.43	-0.0895	0.123	-0.0003
359	SLU 44	3.36	0.04	52.33	-0.0893	0.122	-0.0003
359	SLU 45	3.6	0.04	54.22	-0.0923	0.1308	-0.0003
359	SLU 46	3.59	0.04	54.16	-0.0922	0.1302	-0.0003
359	SLU 47	3.56	0.04	53.78	-0.0911	0.1289	-0.0003
359	SLU 48	3.79	0.04	55.68	-0.0941	0.1377	-0.0003
359	SLU 49	3.78	0.04	55.61	-0.094	0.1371	-0.0003
359	SLU 50	3.77	0.04	55.35	-0.0931	0.1368	-0.0003
359	SLU 51	3.76	0.04	55.28	-0.093	0.1362	-0.0003
359	SLU 52	3.66	0.05	58.56	-0.1006	0.1324	-0.0004
359	SLU 53	3.9	0.05	60.46	-0.1036	0.1411	-0.0004
359	SLU 54	3.89	0.05	60.39	-0.1035	0.1405	-0.0004
359	SLU 55	3.85	0.05	60.02	-0.1024	0.1393	-0.0004
359	SLU 56	4.09	0.05	61.91	-0.1054	0.148	-0.0004
359	SLU 57	4.08	0.05	61.85	-0.1053	0.1474	-0.0004
359	SLU 58	4.07	0.05	61.58	-0.1044	0.1472	-0.0004
359	SLU 59	4.05	0.05	61.52	-0.1043	0.1466	-0.0004
359	SLU 60	3.81	0.05	61.34	-0.1056	0.1378	-0.0004
359	SLU 61	3.8	0.05	61.28	-0.1055	0.1372	-0.0004
359	SLU 62	4	0.05	62.8	-0.1074	0.1447	-0.0004
359	SLU 63	3.99	0.05	62.74	-0.1073	0.1441	-0.0004
359	SLU 64	3.76	0.05	58.48	-0.1007	0.1364	-0.0004
359	SLU 65	3.74	0.05	58.37	-0.1005	0.1354	-0.0004
359	SLU 66	3.98	0.05	60.27	-0.1035	0.1442	-0.0004
359	SLU 67	3.96	0.05	60.2	-0.1034	0.1436	-0.0004
359	SLU 68	3.93	0.05	59.83	-0.1023	0.1423	-0.0004
359	SLU 69	4.17	0.05	61.72	-0.1054	0.1511	-0.0004
359	SLU 70	4.16	0.05	61.66	-0.1053	0.1505	-0.0004
359	SLU 71	4.15	0.05	61.39	-0.1043	0.1502	-0.0004
359	SLU 72	4.13	0.05	61.33	-0.1042	0.1496	-0.0004
359	SLU 73	4.04	0.05	64.61	-0.1118	0.1458	-0.0004
359	SLU 74	4.28	0.05	66.5	-0.1148	0.1545	-0.0004
359	SLU 75	4.26	0.05	66.44	-0.1147	0.1539	-0.0004
359	SLU 76	4.23	0.05	66.07	-0.1136	0.1527	-0.0004
359	SLU 77	4.47	0.05	67.96	-0.1167	0.1614	-0.0004
359	SLU 78	4.45	0.05	67.9	-0.1165	0.1608	-0.0004
359	SLU 79	4.45	0.05	67.63	-0.1156	0.1605	-0.0004
359	SLU 80	4.43	0.05	67.57	-0.1155	0.16	-0.0004
359	SLU 81	4.19	0.06	67.39	-0.1168	0.1512	-0.0004
359	SLU 82	4.18	0.06	67.32	-0.1167	0.1506	-0.0004
359	SLU 83	4.38	0.06	68.85	-0.1186	0.1581	-0.0004
359	SLU 84	4.37	0.06	68.78	-0.1185	0.1575	-0.0004
359	SLE RA 1	2.81	0.04	43.65	-0.075	0.102	-0.0003
359	SLE RA 2	2.8	0.04	43.58	-0.0749	0.1013	-0.0003
359	SLE RA 3	2.96	0.04	44.85	-0.0769	0.1071	-0.0003
359	SLE RA 4	2.95	0.04	44.8	-0.0768	0.1068	-0.0003
359	SLE RA 5	2.92	0.04	44.55	-0.0761	0.1059	-0.0003
359	SLE RA 6	3.08	0.04	45.82	-0.0781	0.1118	-0.0003
359	SLE RA 7	3.07	0.04	45.78	-0.078	0.1114	-0.0003
359	SLE RA 8	3.07	0.04	45.6	-0.0774	0.1112	-0.0003
359	SLE RA 9	3.06	0.04	45.56	-0.0773	0.1108	-0.0003
359	SLE RA 10	3	0.04	47.74	-0.0824	0.1082	-0.0003
359	SLE RA 11	3.15	0.04	49	-0.0844	0.114	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
359	SLE RA 12	3.15	0.04	48.96	-0.0844	0.1137	-0.0003
359	SLE RA 13	3.12	0.04	48.71	-0.0836	0.1128	-0.0003
359	SLE RA 14	3.28	0.04	49.98	-0.0856	0.1186	-0.0003
359	SLE RA 15	3.27	0.04	49.93	-0.0856	0.1183	-0.0003
359	SLE RA 16	3.27	0.04	49.76	-0.0849	0.1181	-0.0003
359	SLE RA 17	3.26	0.04	49.71	-0.0848	0.1177	-0.0003
359	SLE RA 18	3.1	0.04	49.59	-0.0857	0.1118	-0.0003
359	SLE RA 19	3.09	0.04	49.55	-0.0857	0.1114	-0.0003
359	SLE RA 20	3.22	0.04	50.57	-0.0869	0.1164	-0.0003
359	SLE RA 21	3.21	0.04	50.52	-0.0869	0.116	-0.0003
359	SLE FR 1	2.81	0.04	43.65	-0.075	0.102	-0.0003
359	SLE FR 2	2.81	0.04	43.64	-0.075	0.1018	-0.0003
359	SLE FR 3	2.86	0.04	44.04	-0.0755	0.1038	-0.0003
359	SLE FR 4	2.9	0.04	45.42	-0.0782	0.1048	-0.0003
359	SLE FR 5	2.95	0.04	45.83	-0.0787	0.1068	-0.0003
359	SLE FR 6	2.95	0.04	46.62	-0.0804	0.1069	-0.0003
359	SLE QP 1	2.81	0.04	43.65	-0.075	0.102	-0.0003
359	SLE QP 2	2.9	0.04	45.44	-0.0782	0.1049	-0.0003
359	SLD 1	7.33	0.07	44.94	-0.0232	0.3016	0
359	SLD 2	7.33	0.07	44.94	-0.0232	0.3016	0
359	SLD 3	8.12	0.11	49	-0.0829	0.3314	-0.0003
359	SLD 4	8.12	0.11	49	-0.0829	0.3314	-0.0003
359	SLD 5	3.03	-0.01	39.15	0.0288	0.1188	0.0002
359	SLD 6	3.03	-0.01	39.15	0.0288	0.1188	0.0002
359	SLD 7	5.66	0.11	52.65	-0.1701	0.218	-0.0007
359	SLD 8	5.66	0.11	52.65	-0.1701	0.218	-0.0007
359	SLD 9	0.14	-0.04	38.22	0.0137	-0.0082	0.0001
359	SLD 10	0.14	-0.04	38.22	0.0137	-0.0082	0.0001
359	SLD 11	2.76	0.08	51.73	-0.1852	0.0911	-0.0008
359	SLD 12	2.76	0.08	51.73	-0.1852	0.0911	-0.0008
359	SLD 13	-2.32	-0.03	41.88	-0.0735	-0.1215	-0.0003
359	SLD 14	-2.32	-0.03	41.88	-0.0735	-0.1215	-0.0003
359	SLD 15	-1.53	0.01	45.93	-0.1332	-0.0918	-0.0006
359	SLD 16	-1.53	0.01	45.93	-0.1332	-0.0918	-0.0006
359	SLV 1	13.18	0.12	44.25	0.056	0.5617	0.0004
359	SLV 2	13.18	0.12	44.25	0.056	0.5617	0.0004
359	SLV 3	15.09	0.21	53.85	-0.0891	0.6339	-0.0002
359	SLV 4	15.09	0.21	53.85	-0.0891	0.6339	-0.0002
359	SLV 5	3.09	-0.08	30.51	0.182	0.1324	0.0009
359	SLV 6	3.09	-0.08	30.51	0.182	0.1324	0.0009
359	SLV 7	9.45	0.23	62.53	-0.3015	0.3732	-0.0013
359	SLV 8	9.45	0.23	62.53	-0.3015	0.3732	-0.0013
359	SLV 9	-3.65	-0.15	28.34	0.145	-0.1633	0.0007
359	SLV 10	-3.65	-0.15	28.34	0.145	-0.1633	0.0007
359	SLV 11	2.7	0.15	60.36	-0.3384	0.0775	-0.0015
359	SLV 12	2.7	0.15	60.36	-0.3384	0.0775	-0.0015
359	SLV 13	-9.29	-0.13	37.02	-0.0673	-0.4241	-0.0004
359	SLV 14	-9.29	-0.13	37.02	-0.0673	-0.4241	-0.0004
359	SLV 15	-7.39	-0.04	46.63	-0.2124	-0.3519	-0.001
359	SLV 16	-7.39	-0.04	46.63	-0.2124	-0.3519	-0.001
360	SLU 1	1.33	-0.19	46.35	0.006	0.0272	-0.0002
360	SLU 2	1.31	-0.19	46.23	0.0059	0.0264	-0.0002
360	SLU 3	1.49	-0.21	48.48	0.0071	0.0315	-0.0002
360	SLU 4	1.47	-0.21	48.4	0.0071	0.0311	-0.0002
360	SLU 5	1.46	-0.2	47.99	0.0073	0.0307	-0.0002
360	SLU 6	1.63	-0.22	50.24	0.0085	0.0357	-0.0002
360	SLU 7	1.62	-0.21	50.17	0.0084	0.0353	-0.0002
360	SLU 8	1.62	-0.21	49.88	0.0086	0.0357	-0.0002
360	SLU 9	1.61	-0.21	49.8	0.0086	0.0352	-0.0002
360	SLU 10	1.36	-0.22	53.09	0.0069	0.024	-0.0002
360	SLU 11	1.53	-0.24	55.34	0.0081	0.0291	-0.0002
360	SLU 12	1.52	-0.24	55.27	0.0081	0.0286	-0.0002
360	SLU 13	1.5	-0.23	54.85	0.0083	0.0282	-0.0002
360	SLU 14	1.67	-0.25	57.1	0.0094	0.0333	-0.0002
360	SLU 15	1.66	-0.25	57.03	0.0094	0.0328	-0.0002
360	SLU 16	1.67	-0.24	56.74	0.0096	0.0332	-0.0002
360	SLU 17	1.65	-0.24	56.67	0.0096	0.0328	-0.0002
360	SLU 18	1.4	-0.24	56.16	0.0074	0.0237	-0.0002
360	SLU 19	1.39	-0.24	56.08	0.0074	0.0232	-0.0002
360	SLU 20	1.54	-0.25	57.92	0.0087	0.0279	-0.0002
360	SLU 21	1.53	-0.25	57.85	0.0087	0.0275	-0.0002
360	SLU 22	1.47	-0.23	53.1	0.0072	0.0283	-0.0002
360	SLU 23	1.45	-0.23	52.97	0.0071	0.0275	-0.0002
360	SLU 24	1.62	-0.24	55.22	0.0083	0.0326	-0.0002
360	SLU 25	1.61	-0.24	55.15	0.0083	0.0321	-0.0002
360	SLU 26	1.59	-0.23	54.74	0.0085	0.0317	-0.0002
360	SLU 27	1.76	-0.25	56.98	0.0096	0.0368	-0.0002
360	SLU 28	1.75	-0.25	56.91	0.0096	0.0363	-0.0002
360	SLU 29	1.76	-0.25	56.62	0.0098	0.0367	-0.0002
360	SLU 30	1.74	-0.24	56.55	0.0098	0.0362	-0.0002
360	SLU 31	1.49	-0.26	59.84	0.0081	0.025	-0.0002
360	SLU 32	1.67	-0.27	62.09	0.0093	0.0301	-0.0002
360	SLU 33	1.65	-0.27	62.01	0.0093	0.0296	-0.0002
360	SLU 34	1.64	-0.27	61.6	0.0095	0.0293	-0.0002
360	SLU 35	1.81	-0.28	63.85	0.0106	0.0343	-0.0002
360	SLU 36	1.8	-0.28	63.77	0.0106	0.0339	-0.0002
360	SLU 37	1.8	-0.28	63.48	0.0108	0.0343	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
360	SLU 38	1.79	-0.28	63.41	0.0108	0.0338	-0.0002
360	SLU 39	1.53	-0.27	62.9	0.0086	0.0248	-0.0002
360	SLU 40	1.52	-0.27	62.83	0.0086	0.0243	-0.0002
360	SLU 41	1.68	-0.28	64.66	0.0099	0.029	-0.0003
360	SLU 42	1.66	-0.28	64.59	0.0099	0.0285	-0.0003
360	SLU 43	1.69	-0.24	57.95	0.0074	0.035	-0.0002
360	SLU 44	1.67	-0.24	57.82	0.0073	0.0343	-0.0002
360	SLU 45	1.84	-0.25	60.07	0.0085	0.0393	-0.0002
360	SLU 46	1.83	-0.25	60	0.0085	0.0389	-0.0002
360	SLU 47	1.81	-0.25	59.58	0.0087	0.0385	-0.0002
360	SLU 48	1.98	-0.26	61.83	0.0098	0.0436	-0.0002
360	SLU 49	1.97	-0.26	61.76	0.0098	0.0431	-0.0002
360	SLU 50	1.98	-0.26	61.47	0.01	0.0435	-0.0002
360	SLU 51	1.96	-0.26	61.4	0.01	0.043	-0.0002
360	SLU 52	1.71	-0.27	64.69	0.0083	0.0318	-0.0002
360	SLU 53	1.88	-0.28	66.94	0.0095	0.0369	-0.0003
360	SLU 54	1.87	-0.28	66.86	0.0095	0.0364	-0.0003
360	SLU 55	1.86	-0.28	66.45	0.0096	0.036	-0.0003
360	SLU 56	2.03	-0.29	68.7	0.0108	0.0411	-0.0003
360	SLU 57	2.01	-0.29	68.62	0.0108	0.0406	-0.0003
360	SLU 58	2.02	-0.29	68.33	0.011	0.041	-0.0003
360	SLU 59	2.01	-0.29	68.26	0.011	0.0406	-0.0003
360	SLU 60	1.75	-0.29	67.75	0.0088	0.0315	-0.0003
360	SLU 61	1.74	-0.29	67.68	0.0088	0.0311	-0.0003
360	SLU 62	1.9	-0.3	69.51	0.0101	0.0358	-0.0003
360	SLU 63	1.88	-0.3	69.44	0.0101	0.0353	-0.0003
360	SLU 64	1.82	-0.27	64.69	0.0086	0.0361	-0.0002
360	SLU 65	1.8	-0.27	64.57	0.0085	0.0353	-0.0002
360	SLU 66	1.97	-0.28	66.82	0.0097	0.0404	-0.0003
360	SLU 67	1.96	-0.28	66.74	0.0097	0.0399	-0.0003
360	SLU 68	1.95	-0.28	66.33	0.0099	0.0395	-0.0003
360	SLU 69	2.12	-0.29	68.58	0.011	0.0446	-0.0003
360	SLU 70	2.11	-0.29	68.5	0.011	0.0441	-0.0003
360	SLU 71	2.11	-0.29	68.21	0.0112	0.0445	-0.0003
360	SLU 72	2.1	-0.29	68.14	0.0112	0.0441	-0.0003
360	SLU 73	1.85	-0.3	71.43	0.0095	0.0328	-0.0003
360	SLU 74	2.02	-0.32	73.68	0.0107	0.0379	-0.0003
360	SLU 75	2.01	-0.32	73.61	0.0107	0.0374	-0.0003
360	SLU 76	1.99	-0.31	73.19	0.0108	0.0371	-0.0003
360	SLU 77	2.16	-0.33	75.44	0.012	0.0421	-0.0003
360	SLU 78	2.15	-0.33	75.37	0.012	0.0417	-0.0003
360	SLU 79	2.16	-0.32	75.08	0.0122	0.0421	-0.0003
360	SLU 80	2.14	-0.32	75	0.0122	0.0416	-0.0003
360	SLU 81	1.89	-0.32	74.5	0.01	0.0326	-0.0003
360	SLU 82	1.87	-0.32	74.42	0.01	0.0321	-0.0003
360	SLU 83	2.03	-0.33	76.26	0.0113	0.0368	-0.0003
360	SLU 84	2.02	-0.33	76.18	0.0113	0.0363	-0.0003
360	SLE RA 1	1.37	-0.2	48.28	0.0063	0.0275	-0.0002
360	SLE RA 2	1.36	-0.2	48.2	0.0063	0.027	-0.0002
360	SLE RA 3	1.47	-0.21	49.7	0.0071	0.0304	-0.0002
360	SLE RA 4	1.47	-0.21	49.65	0.0071	0.0301	-0.0002
360	SLE RA 5	1.45	-0.21	49.37	0.0072	0.0298	-0.0002
360	SLE RA 6	1.57	-0.22	50.87	0.008	0.0332	-0.0002
360	SLE RA 7	1.56	-0.22	50.82	0.008	0.0329	-0.0002
360	SLE RA 8	1.56	-0.22	50.63	0.0081	0.0332	-0.0002
360	SLE RA 9	1.56	-0.22	50.58	0.0081	0.0328	-0.0002
360	SLE RA 10	1.39	-0.22	52.77	0.007	0.0254	-0.0002
360	SLE RA 11	1.5	-0.23	54.27	0.0077	0.0287	-0.0002
360	SLE RA 12	1.5	-0.23	54.22	0.0077	0.0284	-0.0002
360	SLE RA 13	1.48	-0.23	53.95	0.0078	0.0282	-0.0002
360	SLE RA 14	1.6	-0.24	55.45	0.0086	0.0316	-0.0002
360	SLE RA 15	1.59	-0.24	55.4	0.0086	0.0313	-0.0002
360	SLE RA 16	1.59	-0.24	55.2	0.0088	0.0315	-0.0002
360	SLE RA 17	1.59	-0.24	55.16	0.0087	0.0312	-0.0002
360	SLE RA 18	1.42	-0.23	54.82	0.0073	0.0252	-0.0002
360	SLE RA 19	1.41	-0.23	54.77	0.0073	0.0249	-0.0002
360	SLE RA 20	1.51	-0.24	55.99	0.0082	0.028	-0.0002
360	SLE RA 21	1.5	-0.24	55.94	0.0081	0.0277	-0.0002
360	SLE FR 1	1.37	-0.2	48.28	0.0063	0.0275	-0.0002
360	SLE FR 2	1.37	-0.2	48.26	0.0063	0.0274	-0.0002
360	SLE FR 3	1.41	-0.21	48.75	0.0067	0.0286	-0.0002
360	SLE FR 4	1.38	-0.21	50.22	0.0066	0.0267	-0.0002
360	SLE FR 5	1.42	-0.21	50.71	0.007	0.0279	-0.0002
360	SLE FR 6	1.39	-0.22	51.55	0.0068	0.0263	-0.0002
360	SLE QP 1	1.37	-0.2	48.28	0.0063	0.0275	-0.0002
360	SLE QP 2	1.39	-0.21	50.24	0.0066	0.0268	-0.0002
360	SLD 1	5.8	-0.15	49.86	0.0087	0.2221	0
360	SLD 2	5.8	-0.15	49.86	0.0087	0.2221	0
360	SLD 3	6.64	-0.18	55.17	0.0382	0.2503	-0.0001
360	SLD 4	6.64	-0.18	55.17	0.0382	0.2503	-0.0001
360	SLD 5	1.44	-0.14	42.07	-0.0375	0.0425	0
360	SLD 6	1.44	-0.14	42.07	-0.0375	0.0425	0
360	SLD 7	4.24	-0.25	59.77	0.0609	0.1367	-0.0003
360	SLD 8	4.24	-0.25	59.77	0.0609	0.1367	-0.0003
360	SLD 9	-1.47	-0.17	40.71	-0.0476	-0.0831	-0.0001
360	SLD 10	-1.47	-0.17	40.71	-0.0476	-0.0831	-0.0001
360	SLD 11	1.34	-0.28	58.41	0.0507	0.0111	-0.0004



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
360	SLD 12	1.34	-0.28	58.41	0.0507	0.0111	-0.0004
360	SLD 13	-3.87	-0.24	45.31	-0.025	-0.1967	-0.0003
360	SLD 14	-3.87	-0.24	45.31	-0.025	-0.1967	-0.0003
360	SLD 15	-3.03	-0.27	50.62	0.0045	-0.1684	-0.0004
360	SLD 16	-3.03	-0.27	50.62	0.0045	-0.1684	-0.0004
360	SLV 1	11.63	-0.06	49.28	0.0121	0.4803	0.0002
360	SLV 2	11.63	-0.06	49.28	0.0121	0.4803	0.0002
360	SLV 3	13.66	-0.14	61.87	0.0841	0.549	0
360	SLV 4	13.66	-0.14	61.87	0.0841	0.549	0
360	SLV 5	1.38	-0.05	30.87	-0.101	0.0586	0.0003
360	SLV 6	1.38	-0.05	30.87	-0.101	0.0586	0.0003
360	SLV 7	8.15	-0.31	72.81	0.1391	0.2877	-0.0005
360	SLV 8	8.15	-0.31	72.81	0.1391	0.2877	-0.0005
360	SLV 9	-5.38	-0.11	27.67	-0.1259	-0.2341	0.0001
360	SLV 10	-5.38	-0.11	27.67	-0.1259	-0.2341	0.0001
360	SLV 11	1.39	-0.38	69.61	0.1142	-0.005	-0.0007
360	SLV 12	1.39	-0.38	69.61	0.1142	-0.005	-0.0007
360	SLV 13	-10.89	-0.28	38.62	-0.0709	-0.4954	-0.0004
360	SLV 14	-10.89	-0.28	38.62	-0.0709	-0.4954	-0.0004
360	SLV 15	-8.86	-0.36	51.2	0.0011	-0.4266	-0.0006
360	SLV 16	-8.86	-0.36	51.2	0.0011	-0.4266	-0.0006
361	SLU 1	-2.43	-6.89	71.47	0.1107	-0.0973	-0.0002
361	SLU 2	-2.44	-6.87	71.28	0.1104	-0.0978	-0.0002
361	SLU 3	-2.52	-7.31	74.92	0.1207	-0.101	-0.0002
361	SLU 4	-2.52	-7.3	74.81	0.1205	-0.1013	-0.0002
361	SLU 5	-2.5	-7.25	74.16	0.1206	-0.1005	-0.0002
361	SLU 6	-2.59	-7.68	77.81	0.1309	-0.1038	-0.0002
361	SLU 7	-2.59	-7.67	77.69	0.1307	-0.104	-0.0002
361	SLU 8	-2.56	-7.64	77.24	0.1311	-0.1028	-0.0002
361	SLU 9	-2.57	-7.63	77.13	0.1309	-0.103	-0.0002
361	SLU 10	-3.02	-7.93	81.84	0.1265	-0.1208	-0.0003
361	SLU 11	-3.1	-8.37	85.49	0.1367	-0.1241	-0.0003
361	SLU 12	-3.11	-8.36	85.37	0.1366	-0.1244	-0.0003
361	SLU 13	-3.09	-8.31	84.73	0.1367	-0.1236	-0.0003
361	SLU 14	-3.17	-8.74	88.37	0.1469	-0.1268	-0.0003
361	SLU 15	-3.17	-8.73	88.26	0.1468	-0.1271	-0.0003
361	SLU 16	-3.14	-8.7	87.81	0.1471	-0.1259	-0.0003
361	SLU 17	-3.15	-8.69	87.69	0.147	-0.1261	-0.0003
361	SLU 18	-3.26	-8.4	86.56	0.1336	-0.1303	-0.0003
361	SLU 19	-3.26	-8.39	86.45	0.1335	-0.1306	-0.0003
361	SLU 20	-3.32	-8.78	89.45	0.1438	-0.133	-0.0003
361	SLU 21	-3.33	-8.77	89.33	0.1437	-0.1333	-0.0003
361	SLU 22	-2.93	-7.95	81.93	0.1276	-0.1173	-0.0003
361	SLU 23	-2.94	-7.93	81.74	0.1274	-0.1177	-0.0003
361	SLU 24	-3.02	-8.37	85.39	0.1376	-0.121	-0.0003
361	SLU 25	-3.03	-8.36	85.27	0.1375	-0.1213	-0.0003
361	SLU 26	-3.01	-8.31	84.63	0.1376	-0.1205	-0.0003
361	SLU 27	-3.09	-8.75	88.27	0.1478	-0.1237	-0.0003
361	SLU 28	-3.09	-8.74	88.16	0.1477	-0.124	-0.0003
361	SLU 29	-3.06	-8.7	87.71	0.148	-0.1227	-0.0003
361	SLU 30	-3.07	-8.69	87.59	0.1479	-0.123	-0.0003
361	SLU 31	-3.52	-8.99	92.3	0.1434	-0.1408	-0.0003
361	SLU 32	-3.6	-9.43	95.95	0.1537	-0.1441	-0.0003
361	SLU 33	-3.61	-9.42	95.84	0.1536	-0.1443	-0.0003
361	SLU 34	-3.59	-9.37	95.19	0.1536	-0.1435	-0.0003
361	SLU 35	-3.67	-9.81	98.84	0.1639	-0.1468	-0.0003
361	SLU 36	-3.67	-9.8	98.72	0.1638	-0.1471	-0.0003
361	SLU 37	-3.64	-9.76	98.27	0.1641	-0.1458	-0.0003
361	SLU 38	-3.65	-9.75	98.15	0.1639	-0.1461	-0.0003
361	SLU 39	-3.76	-9.46	97.02	0.1506	-0.1503	-0.0003
361	SLU 40	-3.76	-9.45	96.91	0.1504	-0.1505	-0.0003
361	SLU 41	-3.83	-9.84	99.91	0.1608	-0.153	-0.0003
361	SLU 42	-3.83	-9.83	99.8	0.1606	-0.1533	-0.0003
361	SLU 43	-2.98	-8.59	89.32	0.138	-0.1196	-0.0003
361	SLU 44	-2.99	-8.57	89.13	0.1378	-0.1201	-0.0003
361	SLU 45	-3.08	-9.01	92.78	0.1481	-0.1234	-0.0003
361	SLU 46	-3.08	-9	92.66	0.1479	-0.1236	-0.0003
361	SLU 47	-3.06	-8.95	92.02	0.148	-0.1228	-0.0003
361	SLU 48	-3.14	-9.39	95.66	0.1583	-0.1261	-0.0003
361	SLU 49	-3.15	-9.38	95.55	0.1581	-0.1264	-0.0003
361	SLU 50	-3.12	-9.34	95.1	0.1584	-0.1251	-0.0003
361	SLU 51	-3.12	-9.33	94.98	0.1583	-0.1254	-0.0003
361	SLU 52	-3.57	-9.63	99.69	0.1539	-0.1432	-0.0003
361	SLU 53	-3.66	-10.07	103.34	0.1641	-0.1465	-0.0003
361	SLU 54	-3.66	-10.06	103.23	0.164	-0.1467	-0.0003
361	SLU 55	-3.64	-10.01	102.58	0.1641	-0.1459	-0.0003
361	SLU 56	-3.72	-10.45	106.23	0.1743	-0.1492	-0.0003
361	SLU 57	-3.73	-10.44	106.11	0.1742	-0.1495	-0.0003
361	SLU 58	-3.7	-10.4	105.66	0.1745	-0.1482	-0.0003
361	SLU 59	-3.71	-10.39	105.54	0.1744	-0.1485	-0.0003
361	SLU 60	-3.81	-10.1	104.41	0.161	-0.1526	-0.0003
361	SLU 61	-3.82	-10.09	104.3	0.1608	-0.1529	-0.0003
361	SLU 62	-3.88	-10.48	107.3	0.1712	-0.1554	-0.0004
361	SLU 63	-3.89	-10.47	107.19	0.171	-0.1556	-0.0004
361	SLU 64	-3.48	-9.65	99.79	0.155	-0.1396	-0.0003
361	SLU 65	-3.5	-9.63	99.59	0.1548	-0.1401	-0.0003
361	SLU 66	-3.58	-10.07	103.24	0.165	-0.1433	-0.0003



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
361	SLU 67	-3.58	-10.06	103.13	0.1649	-0.1436	-0.0003
361	SLU 68	-3.56	-10.01	102.48	0.165	-0.1428	-0.0003
361	SLU 69	-3.64	-10.45	106.13	0.1752	-0.1461	-0.0003
361	SLU 70	-3.65	-10.44	106.01	0.1751	-0.1463	-0.0003
361	SLU 71	-3.62	-10.4	105.56	0.1754	-0.1451	-0.0003
361	SLU 72	-3.63	-10.39	105.44	0.1753	-0.1454	-0.0003
361	SLU 73	-4.08	-10.69	110.16	0.1708	-0.1632	-0.0004
361	SLU 74	-4.16	-11.13	113.8	0.1811	-0.1664	-0.0004
361	SLU 75	-4.16	-11.12	113.69	0.1809	-0.1667	-0.0004
361	SLU 76	-4.14	-11.07	113.04	0.181	-0.1659	-0.0004
361	SLU 77	-4.22	-11.51	116.69	0.1913	-0.1692	-0.0004
361	SLU 78	-4.23	-11.5	116.58	0.1911	-0.1694	-0.0004
361	SLU 79	-4.2	-11.46	116.12	0.1915	-0.1682	-0.0004
361	SLU 80	-4.21	-11.45	116.01	0.1913	-0.1684	-0.0004
361	SLU 81	-4.31	-11.17	114.88	0.1779	-0.1726	-0.0004
361	SLU 82	-4.32	-11.16	114.76	0.1778	-0.1729	-0.0004
361	SLU 83	-4.38	-11.54	117.76	0.1881	-0.1753	-0.0004
361	SLU 84	-4.39	-11.53	117.65	0.188	-0.1756	-0.0004
361	SLE RA 1	-2.57	-7.19	74.46	0.1155	-0.103	-0.0002
361	SLE RA 2	-2.58	-7.18	74.33	0.1153	-0.1033	-0.0002
361	SLE RA 3	-2.63	-7.47	76.76	0.1222	-0.1055	-0.0002
361	SLE RA 4	-2.64	-7.47	76.68	0.1221	-0.1057	-0.0002
361	SLE RA 5	-2.62	-7.43	76.26	0.1221	-0.1051	-0.0002
361	SLE RA 6	-2.68	-7.72	78.69	0.129	-0.1073	-0.0002
361	SLE RA 7	-2.68	-7.72	78.61	0.1289	-0.1075	-0.0002
361	SLE RA 8	-2.66	-7.69	78.31	0.1291	-0.1067	-0.0002
361	SLE RA 9	-2.66	-7.68	78.23	0.129	-0.1068	-0.0002
361	SLE RA 10	-2.96	-7.89	81.37	0.126	-0.1187	-0.0003
361	SLE RA 11	-3.02	-8.18	83.8	0.1329	-0.1209	-0.0003
361	SLE RA 12	-3.02	-8.17	83.73	0.1328	-0.1211	-0.0003
361	SLE RA 13	-3.01	-8.14	83.3	0.1328	-0.1205	-0.0003
361	SLE RA 14	-3.06	-8.43	85.73	0.1397	-0.1227	-0.0003
361	SLE RA 15	-3.07	-8.42	85.65	0.1396	-0.1229	-0.0003
361	SLE RA 16	-3.05	-8.4	85.35	0.1398	-0.122	-0.0003
361	SLE RA 17	-3.05	-8.39	85.27	0.1397	-0.1222	-0.0003
361	SLE RA 18	-3.12	-8.2	84.52	0.1308	-0.125	-0.0003
361	SLE RA 19	-3.13	-8.19	84.44	0.1307	-0.1252	-0.0003
361	SLE RA 20	-3.17	-8.45	86.44	0.1376	-0.1268	-0.0003
361	SLE RA 21	-3.17	-8.44	86.37	0.1375	-0.127	-0.0003
361	SLE FR 1	-2.57	-7.19	74.46	0.1155	-0.103	-0.0002
361	SLE FR 2	-2.57	-7.19	74.43	0.1155	-0.1031	-0.0002
361	SLE FR 3	-2.59	-7.29	75.23	0.1182	-0.1037	-0.0002
361	SLE FR 4	-2.74	-7.49	77.45	0.1201	-0.1097	-0.0003
361	SLE FR 5	-2.75	-7.59	78.25	0.1228	-0.1103	-0.0003
361	SLE FR 6	-2.85	-7.7	79.49	0.1231	-0.114	-0.0003
361	SLE QP 1	-2.57	-7.19	74.46	0.1155	-0.103	-0.0002
361	SLE QP 2	-2.74	-7.49	77.48	0.1201	-0.1096	-0.0003
361	SLD 1	2.22	-5.56	68.05	0.0936	0.1039	0.0002
361	SLD 2	2.22	-5.56	68.05	0.0936	0.1039	0.0002
361	SLD 3	2.66	-8.01	77.97	0.1957	0.1246	0.0001
361	SLD 4	2.66	-8.01	77.97	0.1957	0.1246	0.0001
361	SLD 5	-1.92	-3.2	59.61	-0.0426	-0.0769	0
361	SLD 6	-1.92	-3.2	59.61	-0.0426	-0.0769	0
361	SLD 7	-0.45	-11.37	92.67	0.2976	-0.0079	-0.0003
361	SLD 8	-0.45	-11.37	92.67	0.2976	-0.0079	-0.0003
361	SLD 9	-5.02	-3.62	62.29	-0.0574	-0.2113	-0.0002
361	SLD 10	-5.02	-3.62	62.29	-0.0574	-0.2113	-0.0002
361	SLD 11	-3.56	-11.79	95.35	0.2828	-0.1423	-0.0005
361	SLD 12	-3.56	-11.79	95.35	0.2828	-0.1423	-0.0005
361	SLD 13	-8.14	-6.97	76.98	0.0445	-0.3439	-0.0006
361	SLD 14	-8.14	-6.97	76.98	0.0445	-0.3439	-0.0006
361	SLD 15	-7.7	-9.43	86.9	0.1465	-0.3232	-0.0007
361	SLD 16	-7.7	-9.43	86.9	0.1465	-0.3232	-0.0007
361	SLV 1	8.81	-2.94	55.27	0.0583	0.3873	0.0007
361	SLV 2	8.81	-2.94	55.27	0.0583	0.3873	0.0007
361	SLV 3	9.86	-8.72	78.76	0.2983	0.437	0.0005
361	SLV 4	9.86	-8.72	78.76	0.2983	0.437	0.0005
361	SLV 5	-0.87	2.65	35.2	-0.2624	-0.036	0.0004
361	SLV 6	-0.87	2.65	35.2	-0.2624	-0.036	0.0004
361	SLV 7	2.64	-16.64	113.48	0.5375	0.1298	-0.0004
361	SLV 8	2.64	-16.64	113.48	0.5375	0.1298	-0.0004
361	SLV 9	-8.12	1.65	41.47	-0.2973	-0.349	-0.0001
361	SLV 10	-8.12	1.65	41.47	-0.2973	-0.349	-0.0001
361	SLV 11	-4.6	-17.63	119.76	0.5026	-0.1832	-0.0009
361	SLV 12	-4.6	-17.63	119.76	0.5026	-0.1832	-0.0009
361	SLV 13	-15.34	-6.26	76.19	-0.0581	-0.6562	-0.001
361	SLV 14	-15.34	-6.26	76.19	-0.0581	-0.6562	-0.001
361	SLV 15	-14.28	-12.05	99.68	0.1818	-0.6065	-0.0012
361	SLV 16	-14.28	-12.05	99.68	0.1818	-0.6065	-0.0012
362	SLU 1	-6.44	-0.19	47.84	0.001	-0.2399	0.0009
362	SLU 2	-6.44	-0.19	47.7	0.001	-0.2399	0.0009
362	SLU 3	-6.79	-0.2	50.08	0.0015	-0.2526	0.001
362	SLU 4	-6.79	-0.2	50	0.0015	-0.2526	0.001
362	SLU 5	-6.73	-0.2	49.57	0.0016	-0.2504	0.001
362	SLU 6	-7.08	-0.21	51.96	0.0021	-0.2631	0.001
362	SLU 7	-7.08	-0.21	51.88	0.0021	-0.2631	0.001
362	SLU 8	-7.02	-0.21	51.58	0.0022	-0.2608	0.001



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
362	SLU 9	-7.02	-0.21	51.5	0.0022	-0.2609	0.001
362	SLU 10	-7.67	-0.22	54.55	0.0007	-0.2864	0.0011
362	SLU 11	-8.02	-0.23	56.93	0.0011	-0.2991	0.0011
362	SLU 12	-8.02	-0.23	56.85	0.0012	-0.2991	0.0011
362	SLU 13	-7.96	-0.23	56.42	0.0013	-0.2969	0.0011
362	SLU 14	-8.31	-0.24	58.81	0.0018	-0.3095	0.0012
362	SLU 15	-8.31	-0.24	58.73	0.0018	-0.3096	0.0012
362	SLU 16	-8.26	-0.24	58.43	0.0019	-0.3073	0.0012
362	SLU 17	-8.26	-0.24	58.35	0.0019	-0.3073	0.0012
362	SLU 18	-8.2	-0.24	57.62	0.0005	-0.3063	0.0012
362	SLU 19	-8.2	-0.24	57.54	0.0005	-0.3063	0.0011
362	SLU 20	-8.49	-0.24	59.49	0.0011	-0.3167	0.0012
362	SLU 21	-8.49	-0.24	59.41	0.0011	-0.3168	0.0012
362	SLU 22	-7.61	-0.22	54.66	0.0008	-0.2837	0.0011
362	SLU 23	-7.61	-0.22	54.53	0.0009	-0.2838	0.0011
362	SLU 24	-7.96	-0.23	56.91	0.0013	-0.2964	0.0011
362	SLU 25	-7.96	-0.23	56.83	0.0014	-0.2964	0.0011
362	SLU 26	-7.9	-0.23	56.4	0.0015	-0.2942	0.0011
362	SLU 27	-8.25	-0.24	58.78	0.0019	-0.3069	0.0012
362	SLU 28	-8.25	-0.24	58.7	0.002	-0.3069	0.0012
362	SLU 29	-8.19	-0.24	58.41	0.002	-0.3047	0.0012
362	SLU 30	-8.19	-0.24	58.33	0.0021	-0.3047	0.0012
362	SLU 31	-8.85	-0.25	61.38	0.0005	-0.3302	0.0012
362	SLU 32	-9.19	-0.26	63.76	0.001	-0.3429	0.0013
362	SLU 33	-9.19	-0.26	63.68	0.001	-0.3429	0.0013
362	SLU 34	-9.14	-0.26	63.25	0.0011	-0.3407	0.0013
362	SLU 35	-9.49	-0.27	65.63	0.0016	-0.3534	0.0013
362	SLU 36	-9.48	-0.27	65.55	0.0016	-0.3534	0.0013
362	SLU 37	-9.43	-0.27	65.26	0.0017	-0.3511	0.0013
362	SLU 38	-9.43	-0.27	65.18	0.0017	-0.3512	0.0013
362	SLU 39	-9.38	-0.27	64.45	0.0004	-0.3501	0.0013
362	SLU 40	-9.37	-0.27	64.37	0.0004	-0.3501	0.0013
362	SLU 41	-9.67	-0.28	66.32	0.001	-0.3606	0.0013
362	SLU 42	-9.67	-0.28	66.24	0.001	-0.3606	0.0013
362	SLU 43	-7.97	-0.24	59.85	0.0014	-0.2968	0.0012
362	SLU 44	-7.97	-0.24	59.71	0.0014	-0.2969	0.0012
362	SLU 45	-8.32	-0.25	62.09	0.0018	-0.3095	0.0012
362	SLU 46	-8.32	-0.25	62.01	0.0019	-0.3096	0.0012
362	SLU 47	-8.26	-0.25	61.59	0.002	-0.3073	0.0012
362	SLU 48	-8.61	-0.26	63.97	0.0024	-0.32	0.0013
362	SLU 49	-8.61	-0.26	63.89	0.0025	-0.32	0.0013
362	SLU 50	-8.55	-0.26	63.59	0.0026	-0.3178	0.0013
362	SLU 51	-8.55	-0.26	63.51	0.0026	-0.3178	0.0013
362	SLU 52	-9.2	-0.27	66.56	0.001	-0.3433	0.0013
362	SLU 53	-9.55	-0.28	68.94	0.0015	-0.356	0.0014
362	SLU 54	-9.55	-0.28	68.86	0.0015	-0.356	0.0014
362	SLU 55	-9.49	-0.28	68.44	0.0016	-0.3538	0.0014
362	SLU 56	-9.84	-0.29	70.82	0.0021	-0.3665	0.0014
362	SLU 57	-9.84	-0.29	70.74	0.0021	-0.3665	0.0014
362	SLU 58	-9.79	-0.29	70.44	0.0022	-0.3642	0.0014
362	SLU 59	-9.79	-0.29	70.36	0.0022	-0.3643	0.0014
362	SLU 60	-9.73	-0.28	69.63	0.0009	-0.3632	0.0014
362	SLU 61	-9.73	-0.28	69.55	0.0009	-0.3632	0.0014
362	SLU 62	-10.02	-0.29	71.5	0.0015	-0.3737	0.0014
362	SLU 63	-10.02	-0.29	71.42	0.0015	-0.3737	0.0014
362	SLU 64	-9.14	-0.27	66.67	0.0012	-0.3406	0.0013
362	SLU 65	-9.14	-0.27	66.54	0.0012	-0.3407	0.0013
362	SLU 66	-9.49	-0.28	68.92	0.0017	-0.3534	0.0014
362	SLU 67	-9.49	-0.28	68.84	0.0017	-0.3534	0.0014
362	SLU 68	-9.43	-0.28	68.41	0.0018	-0.3512	0.0014
362	SLU 69	-9.78	-0.29	70.79	0.0023	-0.3638	0.0014
362	SLU 70	-9.78	-0.29	70.71	0.0023	-0.3639	0.0014
362	SLU 71	-9.72	-0.29	70.42	0.0024	-0.3616	0.0014
362	SLU 72	-9.72	-0.29	70.34	0.0024	-0.3616	0.0014
362	SLU 73	-10.38	-0.3	73.39	0.0009	-0.3872	0.0015
362	SLU 74	-10.73	-0.31	75.77	0.0013	-0.3998	0.0015
362	SLU 75	-10.72	-0.31	75.69	0.0014	-0.3999	0.0015
362	SLU 76	-10.67	-0.31	75.26	0.0015	-0.3976	0.0015
362	SLU 77	-11.02	-0.32	77.64	0.0019	-0.4103	0.0016
362	SLU 78	-11.02	-0.32	77.56	0.002	-0.4103	0.0016
362	SLU 79	-10.96	-0.32	77.27	0.0021	-0.4081	0.0016
362	SLU 80	-10.96	-0.32	77.19	0.0021	-0.4081	0.0016
362	SLU 81	-10.91	-0.31	76.46	0.0007	-0.407	0.0015
362	SLU 82	-10.91	-0.31	76.38	0.0007	-0.407	0.0015
362	SLU 83	-11.2	-0.32	78.33	0.0013	-0.4175	0.0016
362	SLU 84	-11.2	-0.32	78.25	0.0013	-0.4175	0.0016
362	SLE RA 1	-6.77	-0.2	49.79	0.001	-0.2524	0.001
362	SLE RA 2	-6.77	-0.2	49.7	0.001	-0.2524	0.001
362	SLE RA 3	-7.01	-0.21	51.28	0.0013	-0.2609	0.001
362	SLE RA 4	-7.01	-0.21	51.23	0.0013	-0.2609	0.001
362	SLE RA 5	-6.97	-0.21	50.95	0.0014	-0.2594	0.001
362	SLE RA 6	-7.2	-0.21	52.53	0.0017	-0.2679	0.001
362	SLE RA 7	-7.2	-0.21	52.48	0.0017	-0.2679	0.001
362	SLE RA 8	-7.16	-0.21	52.28	0.0018	-0.2664	0.001
362	SLE RA 9	-7.16	-0.21	52.23	0.0018	-0.2664	0.001
362	SLE RA 10	-7.6	-0.22	54.26	0.0008	-0.2834	0.0011
362	SLE RA 11	-7.83	-0.23	55.85	0.0011	-0.2918	0.0011



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
362	SLE RA 12	-7.83	-0.23	55.8	0.0011	-0.2919	0.0011
362	SLE RA 13	-7.79	-0.23	55.51	0.0012	-0.2904	0.0011
362	SLE RA 14	-8.02	-0.23	57.1	0.0015	-0.2988	0.0011
362	SLE RA 15	-8.02	-0.23	57.05	0.0015	-0.2989	0.0011
362	SLE RA 16	-7.98	-0.23	56.85	0.0015	-0.2973	0.0011
362	SLE RA 17	-7.98	-0.23	56.8	0.0015	-0.2974	0.0011
362	SLE RA 18	-7.95	-0.23	56.31	0.0006	-0.2966	0.0011
362	SLE RA 19	-7.95	-0.23	56.26	0.0006	-0.2967	0.0011
362	SLE RA 20	-8.14	-0.24	57.56	0.001	-0.3036	0.0012
362	SLE RA 21	-8.14	-0.24	57.5	0.001	-0.3037	0.0012
362	SLE FR 1	-6.77	-0.2	49.79	0.001	-0.2524	0.001
362	SLE FR 2	-6.77	-0.2	49.77	0.001	-0.2524	0.001
362	SLE FR 3	-6.85	-0.2	50.29	0.0011	-0.2552	0.001
362	SLE FR 4	-7.13	-0.21	51.73	0.0009	-0.2657	0.001
362	SLE FR 5	-7.2	-0.21	52.24	0.001	-0.2685	0.001
362	SLE FR 6	-7.36	-0.22	53.05	0.0008	-0.2745	0.0011
362	SLE QP 1	-6.77	-0.2	49.79	0.001	-0.2524	0.001
362	SLE QP 2	-7.13	-0.21	51.74	0.0009	-0.2657	0.001
362	SLD 1	-1.02	-0.22	45.61	0.0046	-0.0131	0.001
362	SLD 2	-1.02	-0.22	45.61	0.0046	-0.0131	0.001
362	SLD 3	-2.12	-0.28	51.27	0.0324	-0.0523	0.0012
362	SLD 4	-2.12	-0.28	51.27	0.0324	-0.0523	0.0012
362	SLD 5	-3.62	-0.12	41.33	-0.0403	-0.1305	0.0007
362	SLD 6	-3.62	-0.12	41.33	-0.0403	-0.1305	0.0007
362	SLD 7	-7.3	-0.32	60.18	0.0526	-0.2611	0.0014
362	SLD 8	-7.3	-0.32	60.18	0.0526	-0.2611	0.0014
362	SLD 9	-6.95	-0.1	43.31	-0.0508	-0.2703	0.0007
362	SLD 10	-6.95	-0.1	43.31	-0.0508	-0.2703	0.0007
362	SLD 11	-10.64	-0.3	62.16	0.042	-0.4008	0.0013
362	SLD 12	-10.64	-0.3	62.16	0.042	-0.4008	0.0013
362	SLD 13	-12.13	-0.14	52.22	-0.0307	-0.479	0.0009
362	SLD 14	-12.13	-0.14	52.22	-0.0307	-0.479	0.0009
362	SLD 15	-13.24	-0.2	57.87	-0.0029	-0.5182	0.0011
362	SLD 16	-13.24	-0.2	57.87	-0.0029	-0.5182	0.0011
362	SLV 1	7.13	-0.23	37.32	0.0109	0.3234	0.0009
362	SLV 2	7.13	-0.23	37.32	0.0109	0.3234	0.0009
362	SLV 3	4.53	-0.37	50.71	0.0776	0.2313	0.0014
362	SLV 4	4.53	-0.37	50.71	0.0776	0.2313	0.0014
362	SLV 5	1.09	0	27.11	-0.0973	0.0506	0.0003
362	SLV 6	1.09	0	27.11	-0.0973	0.0506	0.0003
362	SLV 7	-7.57	-0.47	71.74	0.1251	-0.2562	0.0018
362	SLV 8	-7.57	-0.47	71.74	0.1251	-0.2562	0.0018
362	SLV 9	-6.68	0.05	31.75	-0.1233	-0.2752	0.0002
362	SLV 10	-6.68	0.05	31.75	-0.1233	-0.2752	0.0002
362	SLV 11	-15.35	-0.42	76.37	0.099	-0.582	0.0017
362	SLV 12	-15.35	-0.42	76.37	0.099	-0.582	0.0017
362	SLV 13	-18.79	-0.05	52.77	-0.0759	-0.7627	0.0007
362	SLV 14	-18.79	-0.05	52.77	-0.0759	-0.7627	0.0007
362	SLV 15	-21.39	-0.19	66.16	-0.0092	-0.8547	0.0011
362	SLV 16	-21.39	-0.19	66.16	-0.0092	-0.8547	0.0011
363	SLU 1	-7.9	0.04	42.13	-0.0853	-0.3079	-0.0001
363	SLU 2	-7.89	0.04	42.01	-0.085	-0.3078	-0.0001
363	SLU 3	-8.32	0.05	44.03	-0.0897	-0.3243	-0.0001
363	SLU 4	-8.32	0.05	43.96	-0.0895	-0.3242	-0.0001
363	SLU 5	-8.24	0.05	43.58	-0.0884	-0.3212	-0.0001
363	SLU 6	-8.67	0.05	45.6	-0.0932	-0.3377	-0.0001
363	SLU 7	-8.67	0.05	45.53	-0.093	-0.3376	-0.0001
363	SLU 8	-8.59	0.05	45.27	-0.0922	-0.3347	-0.0001
363	SLU 9	-8.59	0.05	45.2	-0.092	-0.3346	-0.0001
363	SLU 10	-9.35	0.05	47.84	-0.0994	-0.3647	-0.0001
363	SLU 11	-9.78	0.06	49.85	-0.1042	-0.3812	-0.0001
363	SLU 12	-9.78	0.06	49.78	-0.104	-0.3811	-0.0001
363	SLU 13	-9.7	0.05	49.4	-0.1029	-0.3781	-0.0001
363	SLU 14	-10.13	0.06	51.42	-0.1077	-0.3946	-0.0001
363	SLU 15	-10.13	0.06	51.35	-0.1075	-0.3945	-0.0001
363	SLU 16	-10.05	0.06	51.09	-0.1067	-0.3916	-0.0001
363	SLU 17	-10.05	0.06	51.02	-0.1065	-0.3915	-0.0001
363	SLU 18	-9.98	0.06	50.45	-0.106	-0.3891	-0.0001
363	SLU 19	-9.98	0.06	50.38	-0.1058	-0.3891	-0.0001
363	SLU 20	-10.33	0.06	52.02	-0.1095	-0.4026	-0.0001
363	SLU 21	-10.33	0.06	51.95	-0.1093	-0.4025	-0.0001
363	SLU 22	-9.3	0.05	47.95	-0.0998	-0.3624	-0.0001
363	SLU 23	-9.29	0.05	47.83	-0.0994	-0.3623	-0.0001
363	SLU 24	-9.72	0.06	49.85	-0.1042	-0.3788	-0.0001
363	SLU 25	-9.72	0.06	49.78	-0.104	-0.3788	-0.0001
363	SLU 26	-9.64	0.05	49.4	-0.1029	-0.3757	-0.0001
363	SLU 27	-10.07	0.06	51.41	-0.1077	-0.3922	-0.0001
363	SLU 28	-10.07	0.06	51.34	-0.1075	-0.3922	-0.0001
363	SLU 29	-9.99	0.06	51.08	-0.1067	-0.3892	-0.0001
363	SLU 30	-9.99	0.06	51.01	-0.1065	-0.3892	-0.0001
363	SLU 31	-10.75	0.06	53.65	-0.1139	-0.4192	-0.0001
363	SLU 32	-11.18	0.06	55.67	-0.1187	-0.4358	-0.0002
363	SLU 33	-11.18	0.06	55.6	-0.1185	-0.4357	-0.0002
363	SLU 34	-11.1	0.06	55.22	-0.1174	-0.4326	-0.0002
363	SLU 35	-11.53	0.07	57.24	-0.1222	-0.4492	-0.0002
363	SLU 36	-11.52	0.07	57.17	-0.122	-0.4491	-0.0002
363	SLU 37	-11.45	0.07	56.91	-0.1212	-0.4461	-0.0002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
363	SLU 38	-11.45	0.06	56.84	-0.121	-0.4461	-0.0002
363	SLU 39	-11.38	0.06	56.27	-0.1205	-0.4437	-0.0002
363	SLU 40	-11.38	0.06	56.2	-0.1203	-0.4437	-0.0002
363	SLU 41	-11.73	0.07	57.83	-0.124	-0.4571	-0.0002
363	SLU 42	-11.72	0.07	57.76	-0.1238	-0.4571	-0.0002
363	SLU 43	-9.79	0.06	52.78	-0.1059	-0.3815	-0.0001
363	SLU 44	-9.78	0.06	52.66	-0.1056	-0.3814	-0.0001
363	SLU 45	-10.21	0.06	54.67	-0.1104	-0.3979	-0.0001
363	SLU 46	-10.21	0.06	54.6	-0.1101	-0.3979	-0.0001
363	SLU 47	-10.13	0.06	54.23	-0.109	-0.3948	-0.0001
363	SLU 48	-10.56	0.06	56.24	-0.1138	-0.4113	-0.0001
363	SLU 49	-10.56	0.06	56.17	-0.1136	-0.4113	-0.0001
363	SLU 50	-10.48	0.06	55.91	-0.1129	-0.4083	-0.0001
363	SLU 51	-10.48	0.06	55.84	-0.1127	-0.4083	-0.0001
363	SLU 52	-11.24	0.06	58.48	-0.1201	-0.4383	-0.0001
363	SLU 53	-11.67	0.07	60.5	-0.1248	-0.4548	-0.0002
363	SLU 54	-11.67	0.07	60.43	-0.1246	-0.4548	-0.0002
363	SLU 55	-11.59	0.07	60.05	-0.1235	-0.4517	-0.0002
363	SLU 56	-12.02	0.07	62.07	-0.1283	-0.4682	-0.0002
363	SLU 57	-12.01	0.07	62	-0.1281	-0.4682	-0.0002
363	SLU 58	-11.94	0.07	61.74	-0.1274	-0.4652	-0.0002
363	SLU 59	-11.94	0.07	61.66	-0.1271	-0.4652	-0.0002
363	SLU 60	-11.87	0.07	61.1	-0.1266	-0.4628	-0.0002
363	SLU 61	-11.87	0.07	61.02	-0.1264	-0.4628	-0.0002
363	SLU 62	-12.22	0.07	62.66	-0.1301	-0.4762	-0.0002
363	SLU 63	-12.21	0.07	62.59	-0.1299	-0.4762	-0.0002
363	SLU 64	-11.19	0.06	58.59	-0.1204	-0.4361	-0.0002
363	SLU 65	-11.18	0.06	58.47	-0.1201	-0.436	-0.0001
363	SLU 66	-11.61	0.07	60.49	-0.1248	-0.4525	-0.0002
363	SLU 67	-11.61	0.07	60.42	-0.1246	-0.4525	-0.0002
363	SLU 68	-11.53	0.07	60.04	-0.1235	-0.4494	-0.0002
363	SLU 69	-11.96	0.07	62.06	-0.1283	-0.4659	-0.0002
363	SLU 70	-11.96	0.07	61.99	-0.1281	-0.4659	-0.0002
363	SLU 71	-11.88	0.07	61.73	-0.1274	-0.4629	-0.0002
363	SLU 72	-11.88	0.07	61.66	-0.1271	-0.4628	-0.0002
363	SLU 73	-12.64	0.07	64.3	-0.1346	-0.4929	-0.0002
363	SLU 74	-13.07	0.07	66.31	-0.1393	-0.5094	-0.0002
363	SLU 75	-13.07	0.07	66.24	-0.1391	-0.5094	-0.0002
363	SLU 76	-12.99	0.07	65.87	-0.138	-0.5063	-0.0002
363	SLU 77	-13.42	0.08	67.88	-0.1428	-0.5228	-0.0002
363	SLU 78	-13.41	0.08	67.81	-0.1426	-0.5228	-0.0002
363	SLU 79	-13.34	0.08	67.55	-0.1419	-0.5198	-0.0002
363	SLU 80	-13.34	0.08	67.48	-0.1416	-0.5197	-0.0002
363	SLU 81	-13.27	0.08	66.91	-0.1411	-0.5174	-0.0002
363	SLU 82	-13.27	0.07	66.84	-0.1409	-0.5173	-0.0002
363	SLU 83	-13.62	0.08	68.48	-0.1446	-0.5308	-0.0002
363	SLU 84	-13.61	0.08	68.41	-0.1444	-0.5307	-0.0002
363	SLE RA 1	-8.3	0.05	43.79	-0.0895	-0.3234	-0.0001
363	SLE RA 2	-8.29	0.05	43.71	-0.0892	-0.3234	-0.0001
363	SLE RA 3	-8.58	0.05	45.06	-0.0924	-0.3344	-0.0001
363	SLE RA 4	-8.58	0.05	45.01	-0.0923	-0.3344	-0.0001
363	SLE RA 5	-8.53	0.05	44.76	-0.0915	-0.3323	-0.0001
363	SLE RA 6	-8.81	0.05	46.1	-0.0947	-0.3433	-0.0001
363	SLE RA 7	-8.81	0.05	46.06	-0.0946	-0.3433	-0.0001
363	SLE RA 8	-8.76	0.05	45.88	-0.0941	-0.3413	-0.0001
363	SLE RA 9	-8.76	0.05	45.84	-0.0939	-0.3413	-0.0001
363	SLE RA 10	-9.27	0.05	47.6	-0.0989	-0.3613	-0.0001
363	SLE RA 11	-9.55	0.05	48.94	-0.1021	-0.3723	-0.0001
363	SLE RA 12	-9.55	0.05	48.89	-0.1019	-0.3723	-0.0001
363	SLE RA 13	-9.5	0.05	48.64	-0.1012	-0.3703	-0.0001
363	SLE RA 14	-9.78	0.06	49.99	-0.1044	-0.3813	-0.0001
363	SLE RA 15	-9.78	0.06	49.94	-0.1042	-0.3812	-0.0001
363	SLE RA 16	-9.73	0.06	49.77	-0.1037	-0.3792	-0.0001
363	SLE RA 17	-9.73	0.06	49.72	-0.1036	-0.3792	-0.0001
363	SLE RA 18	-9.69	0.05	49.34	-0.1033	-0.3776	-0.0001
363	SLE RA 19	-9.68	0.05	49.29	-0.1031	-0.3776	-0.0001
363	SLE RA 20	-9.92	0.06	50.38	-0.1056	-0.3866	-0.0001
363	SLE RA 21	-9.92	0.06	50.34	-0.1054	-0.3865	-0.0001
363	SLE FR 1	-8.3	0.05	43.79	-0.0895	-0.3234	-0.0001
363	SLE FR 2	-8.3	0.05	43.78	-0.0894	-0.3234	-0.0001
363	SLE FR 3	-8.39	0.05	44.21	-0.0904	-0.327	-0.0001
363	SLE FR 4	-8.71	0.05	45.44	-0.0936	-0.3397	-0.0001
363	SLE FR 5	-8.81	0.05	45.87	-0.0945	-0.3433	-0.0001
363	SLE FR 6	-8.99	0.05	46.57	-0.0964	-0.3505	-0.0001
363	SLE QP 1	-8.3	0.05	43.79	-0.0895	-0.3234	-0.0001
363	SLE QP 2	-8.71	0.05	45.46	-0.0936	-0.3397	-0.0001
363	SLD 1	-2.3	-0.04	39.91	-0.0397	-0.0659	0.0003
363	SLD 2	-2.3	-0.04	39.91	-0.0397	-0.0659	0.0003
363	SLD 3	-3.37	0.03	44.36	-0.082	-0.1069	0
363	SLD 4	-3.37	0.03	44.36	-0.082	-0.1069	0
363	SLD 5	-5.16	-0.09	37.04	-0.0134	-0.1953	0.0006
363	SLD 6	-5.16	-0.09	37.04	-0.0134	-0.1953	0.0006
363	SLD 7	-8.74	0.15	51.88	-0.1542	-0.3321	-0.0007
363	SLD 8	-8.74	0.15	51.88	-0.1542	-0.3321	-0.0007
363	SLD 9	-8.69	-0.05	39.03	-0.033	-0.3473	0.0004
363	SLD 10	-8.69	-0.05	39.03	-0.033	-0.3473	0.0004
363	SLD 11	-12.27	0.18	53.87	-0.1738	-0.4841	-0.0008



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
363	SLD 12	-12.27	0.18	53.87	-0.1738	-0.4841	-0.0008
363	SLD 13	-14.06	0.06	46.55	-0.1052	-0.5725	-0.0002
363	SLD 14	-14.06	0.06	46.55	-0.1052	-0.5725	-0.0002
363	SLD 15	-15.13	0.14	51.01	-0.1475	-0.6135	-0.0006
363	SLD 16	-15.13	0.14	51.01	-0.1475	-0.6135	-0.0006
363	SLV 1	6.26	-0.16	32.42	0.037	0.2992	0.001
363	SLV 2	6.26	-0.16	32.42	0.037	0.2992	0.001
363	SLV 3	3.73	0.01	42.96	-0.0654	0.2024	0.0001
363	SLV 4	3.73	0.01	42.96	-0.0654	0.2024	0.0001
363	SLV 5	-0.38	-0.28	25.57	0.1008	-0.0011	0.0016
363	SLV 6	-0.38	-0.28	25.57	0.1008	-0.0011	0.0016
363	SLV 7	-8.82	0.3	60.68	-0.2403	-0.324	-0.0014
363	SLV 8	-8.82	0.3	60.68	-0.2403	-0.324	-0.0014
363	SLV 9	-8.6	-0.2	30.23	0.0531	-0.3554	0.0012
363	SLV 10	-8.6	-0.2	30.23	0.0531	-0.3554	0.0012
363	SLV 11	-17.05	0.38	65.34	-0.288	-0.6783	-0.0018
363	SLV 12	-17.05	0.38	65.34	-0.288	-0.6783	-0.0018
363	SLV 13	-21.15	0.09	47.96	-0.1218	-0.8818	-0.0003
363	SLV 14	-21.15	0.09	47.96	-0.1218	-0.8818	-0.0003
363	SLV 15	-23.69	0.26	58.49	-0.2242	-0.9786	-0.0012
363	SLV 16	-23.69	0.26	58.49	-0.2242	-0.9786	-0.0012
364	SLU 1	-8.73	0.21	37.06	-0.1693	-0.3452	-0.0014
364	SLU 2	-8.73	0.21	36.96	-0.1686	-0.345	-0.0014
364	SLU 3	-9.19	0.23	38.68	-0.1784	-0.3635	-0.0014
364	SLU 4	-9.19	0.23	38.61	-0.178	-0.3634	-0.0014
364	SLU 5	-9.1	0.22	38.29	-0.176	-0.3599	-0.0014
364	SLU 6	-9.57	0.24	40	-0.1858	-0.3784	-0.0015
364	SLU 7	-9.57	0.23	39.94	-0.1854	-0.3783	-0.0015
364	SLU 8	-9.48	0.23	39.72	-0.184	-0.3749	-0.0015
364	SLU 9	-9.48	0.23	39.66	-0.1836	-0.3748	-0.0015
364	SLU 10	-10.3	0.25	41.87	-0.1969	-0.4073	-0.0016
364	SLU 11	-10.76	0.26	43.59	-0.2067	-0.4257	-0.0017
364	SLU 12	-10.76	0.26	43.53	-0.2063	-0.4256	-0.0017
364	SLU 13	-10.67	0.26	43.2	-0.2042	-0.4221	-0.0017
364	SLU 14	-11.14	0.27	44.92	-0.214	-0.4406	-0.0017
364	SLU 15	-11.14	0.27	44.86	-0.2136	-0.4405	-0.0017
364	SLU 16	-11.05	0.27	44.63	-0.2122	-0.4371	-0.0017
364	SLU 17	-11.05	0.27	44.57	-0.2118	-0.437	-0.0017
364	SLU 18	-10.97	0.26	44.08	-0.2097	-0.4341	-0.0017
364	SLU 19	-10.97	0.26	44.02	-0.2093	-0.434	-0.0017
364	SLU 20	-11.35	0.27	45.41	-0.217	-0.4489	-0.0018
364	SLU 21	-11.35	0.27	45.35	-0.2166	-0.4488	-0.0018
364	SLU 22	-10.25	0.25	41.99	-0.1978	-0.4052	-0.0016
364	SLU 23	-10.24	0.25	41.89	-0.1971	-0.4051	-0.0016
364	SLU 24	-10.71	0.26	43.61	-0.207	-0.4235	-0.0017
364	SLU 25	-10.71	0.26	43.54	-0.2065	-0.4235	-0.0017
364	SLU 26	-10.62	0.26	43.21	-0.2045	-0.4199	-0.0017
364	SLU 27	-11.09	0.27	44.93	-0.2143	-0.4384	-0.0017
364	SLU 28	-11.09	0.27	44.87	-0.2139	-0.4383	-0.0017
364	SLU 29	-11	0.27	44.65	-0.2125	-0.4349	-0.0017
364	SLU 30	-11	0.27	44.58	-0.2121	-0.4348	-0.0017
364	SLU 31	-11.81	0.28	46.8	-0.2254	-0.4673	-0.0018
364	SLU 32	-12.28	0.3	48.52	-0.2352	-0.4858	-0.0019
364	SLU 33	-12.28	0.3	48.46	-0.2348	-0.4857	-0.0019
364	SLU 34	-12.19	0.29	48.13	-0.2327	-0.4821	-0.0019
364	SLU 35	-12.66	0.31	49.85	-0.2426	-0.5006	-0.002
364	SLU 36	-12.66	0.31	49.79	-0.2421	-0.5005	-0.002
364	SLU 37	-12.57	0.3	49.56	-0.2408	-0.4971	-0.0019
364	SLU 38	-12.57	0.3	49.5	-0.2403	-0.497	-0.0019
364	SLU 39	-12.49	0.3	49.01	-0.2382	-0.4941	-0.0019
364	SLU 40	-12.49	0.3	48.95	-0.2378	-0.494	-0.0019
364	SLU 41	-12.87	0.31	50.34	-0.2455	-0.5089	-0.002
364	SLU 42	-12.86	0.31	50.28	-0.2451	-0.5089	-0.002
364	SLU 43	-10.83	0.27	46.49	-0.2103	-0.4281	-0.0017
364	SLU 44	-10.82	0.26	46.38	-0.2096	-0.428	-0.0017
364	SLU 45	-11.29	0.28	48.1	-0.2195	-0.4465	-0.0018
364	SLU 46	-11.29	0.28	48.04	-0.2191	-0.4464	-0.0018
364	SLU 47	-11.2	0.27	47.71	-0.217	-0.4429	-0.0018
364	SLU 48	-11.67	0.29	49.43	-0.2268	-0.4613	-0.0018
364	SLU 49	-11.67	0.29	49.37	-0.2264	-0.4612	-0.0018
364	SLU 50	-11.58	0.28	49.15	-0.225	-0.4578	-0.0018
364	SLU 51	-11.58	0.28	49.08	-0.2246	-0.4578	-0.0018
364	SLU 52	-12.39	0.3	51.3	-0.2379	-0.4902	-0.0019
364	SLU 53	-12.86	0.31	53.02	-0.2477	-0.5087	-0.002
364	SLU 54	-12.86	0.31	52.96	-0.2473	-0.5086	-0.002
364	SLU 55	-12.77	0.31	52.63	-0.2452	-0.5051	-0.002
364	SLU 56	-13.24	0.32	54.35	-0.2551	-0.5235	-0.0021
364	SLU 57	-13.24	0.32	54.29	-0.2546	-0.5235	-0.0021
364	SLU 58	-13.15	0.32	54.06	-0.2533	-0.52	-0.002
364	SLU 59	-13.15	0.32	54	-0.2528	-0.52	-0.002
364	SLU 60	-13.07	0.32	53.51	-0.2507	-0.517	-0.002
364	SLU 61	-13.07	0.32	53.45	-0.2503	-0.5169	-0.002
364	SLU 62	-13.45	0.33	54.84	-0.2581	-0.5319	-0.0021
364	SLU 63	-13.45	0.33	54.78	-0.2576	-0.5318	-0.0021
364	SLU 64	-12.34	0.3	51.42	-0.2389	-0.4882	-0.0019
364	SLU 65	-12.34	0.3	51.31	-0.2382	-0.488	-0.0019
364	SLU 66	-12.81	0.31	53.03	-0.248	-0.5065	-0.002



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
364	SLU 67	-12.81	0.31	52.97	-0.2476	-0.5064	-0.002
364	SLU 68	-12.72	0.31	52.64	-0.2455	-0.5029	-0.002
364	SLU 69	-13.19	0.32	54.36	-0.2553	-0.5213	-0.0021
364	SLU 70	-13.18	0.32	54.3	-0.2549	-0.5213	-0.0021
364	SLU 71	-13.1	0.32	54.08	-0.2535	-0.5179	-0.0021
364	SLU 72	-13.1	0.32	54.01	-0.2531	-0.5178	-0.002
364	SLU 73	-13.91	0.34	56.23	-0.2664	-0.5503	-0.0022
364	SLU 74	-14.38	0.35	57.95	-0.2762	-0.5687	-0.0022
364	SLU 75	-14.38	0.35	57.89	-0.2758	-0.5686	-0.0022
364	SLU 76	-14.29	0.35	57.56	-0.2738	-0.5651	-0.0022
364	SLU 77	-14.76	0.36	59.28	-0.2836	-0.5836	-0.0023
364	SLU 78	-14.75	0.36	59.21	-0.2832	-0.5835	-0.0023
364	SLU 79	-14.67	0.36	58.99	-0.2818	-0.5801	-0.0023
364	SLU 80	-14.67	0.36	58.93	-0.2814	-0.58	-0.0023
364	SLU 81	-14.59	0.35	58.44	-0.2792	-0.5771	-0.0023
364	SLU 82	-14.59	0.35	58.38	-0.2788	-0.577	-0.0023
364	SLU 83	-14.97	0.36	59.77	-0.2866	-0.5919	-0.0023
364	SLU 84	-14.96	0.36	59.71	-0.2861	-0.5918	-0.0023
364	SLE RA 1	-9.16	0.22	38.47	-0.1775	-0.3623	-0.0014
364	SLE RA 2	-9.16	0.22	38.4	-0.177	-0.3622	-0.0014
364	SLE RA 3	-9.47	0.23	39.55	-0.1836	-0.3745	-0.0015
364	SLE RA 4	-9.47	0.23	39.5	-0.1833	-0.3745	-0.0015
364	SLE RA 5	-9.41	0.23	39.29	-0.1819	-0.3721	-0.0015
364	SLE RA 6	-9.72	0.24	40.43	-0.1884	-0.3844	-0.0015
364	SLE RA 7	-9.72	0.24	40.39	-0.1882	-0.3844	-0.0015
364	SLE RA 8	-9.67	0.24	40.24	-0.1872	-0.3821	-0.0015
364	SLE RA 9	-9.66	0.24	40.2	-0.187	-0.3821	-0.0015
364	SLE RA 10	-10.21	0.25	41.68	-0.1958	-0.4037	-0.0016
364	SLE RA 11	-10.52	0.26	42.82	-0.2024	-0.416	-0.0016
364	SLE RA 12	-10.52	0.26	42.78	-0.2021	-0.416	-0.0016
364	SLE RA 13	-10.46	0.25	42.56	-0.2007	-0.4136	-0.0016
364	SLE RA 14	-10.77	0.26	43.71	-0.2073	-0.4259	-0.0017
364	SLE RA 15	-10.77	0.26	43.67	-0.207	-0.4259	-0.0017
364	SLE RA 16	-10.71	0.26	43.52	-0.2061	-0.4236	-0.0017
364	SLE RA 17	-10.71	0.26	43.48	-0.2058	-0.4235	-0.0017
364	SLE RA 18	-10.66	0.26	43.15	-0.2044	-0.4216	-0.0016
364	SLE RA 19	-10.66	0.26	43.11	-0.2041	-0.4215	-0.0016
364	SLE RA 20	-10.91	0.26	44.04	-0.2093	-0.4315	-0.0017
364	SLE RA 21	-10.91	0.26	44	-0.209	-0.4314	-0.0017
364	SLE FR 1	-9.16	0.22	38.47	-0.1775	-0.3623	-0.0014
364	SLE FR 2	-9.16	0.22	38.46	-0.1774	-0.3623	-0.0014
364	SLE FR 3	-9.26	0.23	38.82	-0.1794	-0.3663	-0.0014
364	SLE FR 4	-9.61	0.23	39.86	-0.1855	-0.3801	-0.0015
364	SLE FR 5	-9.71	0.24	40.23	-0.1875	-0.3841	-0.0015
364	SLE FR 6	-9.91	0.24	40.81	-0.1909	-0.3919	-0.0015
364	SLE QP 1	-9.16	0.22	38.47	-0.1775	-0.3623	-0.0014
364	SLE QP 2	-9.61	0.23	39.87	-0.1855	-0.3801	-0.0015
364	SLD 1	-2.96	0.14	34.68	-0.2037	-0.1039	-0.0008
364	SLD 2	-2.96	0.14	34.68	-0.2037	-0.1039	-0.0008
364	SLD 3	-4.03	0.21	38.46	-0.2546	-0.1467	-0.0013
364	SLD 4	-4.03	0.21	38.46	-0.2546	-0.1467	-0.0013
364	SLD 5	-6	0.1	32.58	-0.1138	-0.2323	-0.0006
364	SLD 6	-6	0.1	32.58	-0.1138	-0.2323	-0.0006
364	SLD 7	-9.56	0.33	45.19	-0.2834	-0.375	-0.0022
364	SLD 8	-9.56	0.33	45.19	-0.2834	-0.375	-0.0022
364	SLD 9	-9.67	0.14	34.56	-0.0877	-0.3852	-0.0008
364	SLD 10	-9.67	0.14	34.56	-0.0877	-0.3852	-0.0008
364	SLD 11	-13.23	0.37	47.17	-0.2573	-0.5279	-0.0024
364	SLD 12	-13.23	0.37	47.17	-0.2573	-0.5279	-0.0024
364	SLD 13	-15.19	0.26	41.29	-0.1165	-0.6135	-0.0017
364	SLD 14	-15.19	0.26	41.29	-0.1165	-0.6135	-0.0017
364	SLD 15	-16.26	0.33	45.07	-0.1674	-0.6563	-0.0022
364	SLD 16	-16.26	0.33	45.07	-0.1674	-0.6563	-0.0022
364	SLV 1	5.91	0.01	27.68	-0.2283	0.2646	0.0001
364	SLV 2	5.91	0.01	27.68	-0.2283	0.2646	0.0001
364	SLV 3	3.39	0.18	36.63	-0.3515	0.1635	-0.0011
364	SLV 4	3.39	0.18	36.63	-0.3515	0.1635	-0.0011
364	SLV 5	-1.13	-0.08	22.65	-0.0115	-0.0334	0.0007
364	SLV 6	-1.13	-0.08	22.65	-0.0115	-0.0334	0.0007
364	SLV 7	-9.54	0.47	52.47	-0.4222	-0.3703	-0.0031
364	SLV 8	-9.54	0.47	52.47	-0.4222	-0.3703	-0.0031
364	SLV 9	-9.68	0	27.28	0.0511	-0.3899	0.0001
364	SLV 10	-9.68	0	27.28	0.0511	-0.3899	0.0001
364	SLV 11	-18.1	0.55	57.1	-0.3596	-0.7268	-0.0037
364	SLV 12	-18.1	0.55	57.1	-0.3596	-0.7268	-0.0037
364	SLV 13	-22.61	0.29	43.12	-0.0196	-0.9237	-0.0019
364	SLV 14	-22.61	0.29	43.12	-0.0196	-0.9237	-0.0019
364	SLV 15	-25.14	0.46	52.07	-0.1428	-1.0248	-0.0031
364	SLV 16	-25.14	0.46	52.07	-0.1428	-1.0248	-0.0031
365	SLU 1	-8.76	0.3	32.25	-0.2287	-0.3565	-0.0024
365	SLU 2	-8.75	0.29	32.16	-0.2277	-0.3565	-0.0024
365	SLU 3	-9.22	0.31	33.61	-0.2413	-0.3754	-0.0026
365	SLU 4	-9.22	0.31	33.55	-0.2407	-0.3754	-0.0026
365	SLU 5	-9.13	0.31	33.27	-0.2379	-0.3717	-0.0025
365	SLU 6	-9.59	0.32	34.72	-0.2514	-0.3906	-0.0027
365	SLU 7	-9.59	0.32	34.66	-0.2508	-0.3906	-0.0027
365	SLU 8	-9.5	0.32	34.48	-0.249	-0.3868	-0.0027



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
365	SLU 9	-9.5	0.32	34.43	-0.2485	-0.3868	-0.0027
365	SLU 10	-10.3	0.34	36.23	-0.2657	-0.4195	-0.0028
365	SLU 11	-10.77	0.36	37.68	-0.2792	-0.4384	-0.003
365	SLU 12	-10.77	0.36	37.62	-0.2786	-0.4384	-0.003
365	SLU 13	-10.67	0.36	37.34	-0.2759	-0.4347	-0.003
365	SLU 14	-11.14	0.37	38.79	-0.2894	-0.4536	-0.0031
365	SLU 15	-11.14	0.37	38.73	-0.2888	-0.4536	-0.0031
365	SLU 16	-11.05	0.37	38.55	-0.287	-0.4499	-0.0031
365	SLU 17	-11.05	0.37	38.49	-0.2864	-0.4499	-0.0031
365	SLU 18	-10.97	0.36	38.06	-0.2829	-0.4466	-0.003
365	SLU 19	-10.97	0.36	38.01	-0.2824	-0.4466	-0.003
365	SLU 20	-11.34	0.38	39.18	-0.2931	-0.4617	-0.0031
365	SLU 21	-11.34	0.38	39.12	-0.2925	-0.4617	-0.0031
365	SLU 22	-10.26	0.34	36.35	-0.2672	-0.4176	-0.0029
365	SLU 23	-10.25	0.34	36.26	-0.2662	-0.4176	-0.0028
365	SLU 24	-10.72	0.36	37.71	-0.2797	-0.4365	-0.003
365	SLU 25	-10.72	0.36	37.65	-0.2792	-0.4365	-0.003
365	SLU 26	-10.63	0.36	37.37	-0.2764	-0.4327	-0.003
365	SLU 27	-11.09	0.37	38.82	-0.2899	-0.4516	-0.0031
365	SLU 28	-11.09	0.37	38.77	-0.2893	-0.4516	-0.0031
365	SLU 29	-11	0.37	38.58	-0.2875	-0.4479	-0.0031
365	SLU 30	-11	0.37	38.53	-0.2869	-0.4479	-0.0031
365	SLU 31	-11.8	0.39	40.33	-0.3042	-0.4806	-0.0033
365	SLU 32	-12.27	0.41	41.78	-0.3177	-0.4995	-0.0034
365	SLU 33	-12.27	0.41	41.72	-0.3171	-0.4995	-0.0034
365	SLU 34	-12.18	0.41	41.44	-0.3143	-0.4958	-0.0034
365	SLU 35	-12.64	0.42	42.89	-0.3279	-0.5147	-0.0035
365	SLU 36	-12.64	0.42	42.83	-0.3273	-0.5147	-0.0035
365	SLU 37	-12.55	0.42	42.65	-0.3255	-0.511	-0.0035
365	SLU 38	-12.55	0.42	42.59	-0.3249	-0.5109	-0.0035
365	SLU 39	-12.47	0.41	42.17	-0.3214	-0.5076	-0.0034
365	SLU 40	-12.47	0.41	42.11	-0.3208	-0.5076	-0.0034
365	SLU 41	-12.84	0.43	43.28	-0.3316	-0.5228	-0.0035
365	SLU 42	-12.84	0.43	43.22	-0.331	-0.5228	-0.0035
365	SLU 43	-10.87	0.37	40.52	-0.2841	-0.4425	-0.003
365	SLU 44	-10.87	0.37	40.43	-0.2831	-0.4425	-0.003
365	SLU 45	-11.33	0.38	41.88	-0.2967	-0.4614	-0.0032
365	SLU 46	-11.33	0.38	41.82	-0.2961	-0.4614	-0.0032
365	SLU 47	-11.24	0.38	41.54	-0.2933	-0.4577	-0.0031
365	SLU 48	-11.7	0.4	42.99	-0.3068	-0.4766	-0.0033
365	SLU 49	-11.7	0.4	42.94	-0.3063	-0.4766	-0.0033
365	SLU 50	-11.61	0.39	42.75	-0.3045	-0.4729	-0.0033
365	SLU 51	-11.61	0.39	42.7	-0.3039	-0.4729	-0.0033
365	SLU 52	-12.41	0.41	44.5	-0.3211	-0.5056	-0.0034
365	SLU 53	-12.88	0.43	45.95	-0.3346	-0.5245	-0.0036
365	SLU 54	-12.88	0.43	45.89	-0.3341	-0.5244	-0.0036
365	SLU 55	-12.79	0.43	45.61	-0.3313	-0.5207	-0.0035
365	SLU 56	-13.25	0.44	47.06	-0.3448	-0.5396	-0.0037
365	SLU 57	-13.25	0.44	47	-0.3442	-0.5396	-0.0037
365	SLU 58	-13.16	0.44	46.82	-0.3424	-0.5359	-0.0037
365	SLU 59	-13.16	0.44	46.76	-0.3418	-0.5359	-0.0037
365	SLU 60	-13.08	0.44	46.34	-0.3384	-0.5326	-0.0036
365	SLU 61	-13.08	0.44	46.28	-0.3378	-0.5326	-0.0036
365	SLU 62	-13.45	0.45	47.45	-0.3485	-0.5478	-0.0037
365	SLU 63	-13.45	0.45	47.39	-0.3479	-0.5477	-0.0037
365	SLU 64	-12.37	0.42	44.63	-0.3226	-0.5036	-0.0035
365	SLU 65	-12.37	0.41	44.53	-0.3216	-0.5036	-0.0034
365	SLU 66	-12.83	0.43	45.98	-0.3352	-0.5225	-0.0036
365	SLU 67	-12.83	0.43	45.92	-0.3346	-0.5225	-0.0036
365	SLU 68	-12.74	0.43	45.64	-0.3318	-0.5188	-0.0036
365	SLU 69	-13.2	0.45	47.09	-0.3453	-0.5377	-0.0037
365	SLU 70	-13.2	0.44	47.04	-0.3447	-0.5376	-0.0037
365	SLU 71	-13.11	0.44	46.85	-0.3429	-0.5339	-0.0037
365	SLU 72	-13.11	0.44	46.8	-0.3424	-0.5339	-0.0037
365	SLU 73	-13.92	0.46	48.6	-0.3596	-0.5666	-0.0038
365	SLU 74	-14.38	0.48	50.05	-0.3731	-0.5855	-0.004
365	SLU 75	-14.38	0.48	49.99	-0.3725	-0.5855	-0.004
365	SLU 76	-14.29	0.48	49.71	-0.3698	-0.5818	-0.004
365	SLU 77	-14.75	0.49	51.16	-0.3833	-0.6007	-0.0041
365	SLU 78	-14.75	0.49	51.1	-0.3827	-0.6007	-0.0041
365	SLU 79	-14.66	0.49	50.92	-0.3809	-0.597	-0.0041
365	SLU 80	-14.66	0.49	50.86	-0.3803	-0.597	-0.0041
365	SLU 81	-14.58	0.49	50.44	-0.3769	-0.5937	-0.004
365	SLU 82	-14.58	0.49	50.38	-0.3763	-0.5937	-0.004
365	SLU 83	-14.95	0.5	51.55	-0.387	-0.6088	-0.0041
365	SLU 84	-14.95	0.5	51.49	-0.3864	-0.6088	-0.0041
365	SLE RA 1	-9.18	0.31	33.43	-0.2397	-0.374	-0.0026
365	SLE RA 2	-9.18	0.31	33.36	-0.2391	-0.374	-0.0026
365	SLE RA 3	-9.49	0.32	34.33	-0.2481	-0.3866	-0.0027
365	SLE RA 4	-9.49	0.32	34.29	-0.2477	-0.3866	-0.0027
365	SLE RA 5	-9.43	0.32	34.11	-0.2458	-0.3841	-0.0026
365	SLE RA 6	-9.74	0.33	35.07	-0.2548	-0.3967	-0.0027
365	SLE RA 7	-9.74	0.33	35.03	-0.2545	-0.3967	-0.0027
365	SLE RA 8	-9.68	0.33	34.91	-0.2533	-0.3942	-0.0027
365	SLE RA 9	-9.68	0.33	34.87	-0.2529	-0.3942	-0.0027
365	SLE RA 10	-10.22	0.34	36.07	-0.2644	-0.416	-0.0028
365	SLE RA 11	-10.53	0.35	37.04	-0.2734	-0.4286	-0.0029



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
365	SLE RA 12	-10.52	0.35	37	-0.273	-0.4286	-0.0029
365	SLE RA 13	-10.46	0.35	36.82	-0.2711	-0.4261	-0.0029
365	SLE RA 14	-10.77	0.36	37.78	-0.2802	-0.4387	-0.003
365	SLE RA 15	-10.77	0.36	37.74	-0.2798	-0.4387	-0.003
365	SLE RA 16	-10.71	0.36	37.62	-0.2786	-0.4362	-0.003
365	SLE RA 17	-10.71	0.36	37.58	-0.2782	-0.4362	-0.003
365	SLE RA 18	-10.66	0.36	37.3	-0.2759	-0.434	-0.003
365	SLE RA 19	-10.66	0.36	37.26	-0.2755	-0.434	-0.0029
365	SLE RA 20	-10.91	0.36	38.04	-0.2826	-0.4441	-0.003
365	SLE RA 21	-10.91	0.36	38	-0.2822	-0.4441	-0.003
365	SLE FR 1	-9.18	0.31	33.43	-0.2397	-0.374	-0.0026
365	SLE FR 2	-9.18	0.31	33.41	-0.2396	-0.374	-0.0026
365	SLE FR 3	-9.28	0.31	33.72	-0.2424	-0.378	-0.0026
365	SLE FR 4	-9.63	0.32	34.58	-0.2504	-0.392	-0.0027
365	SLE FR 5	-9.73	0.33	34.89	-0.2533	-0.396	-0.0027
365	SLE FR 6	-9.92	0.33	35.36	-0.2578	-0.404	-0.0028
365	SLE QP 1	-9.18	0.31	33.43	-0.2397	-0.374	-0.0026
365	SLE QP 2	-9.63	0.32	34.59	-0.2506	-0.392	-0.0027
365	SLD 1	-2.62	0.23	30	-0.2731	-0.087	-0.0019
365	SLD 2	-2.62	0.23	30	-0.2731	-0.087	-0.0019
365	SLD 3	-3.64	0.29	33.25	-0.329	-0.1282	-0.0024
365	SLD 4	-3.64	0.29	33.25	-0.329	-0.1282	-0.0024
365	SLD 5	-5.98	0.2	28.28	-0.1726	-0.2382	-0.0017
365	SLD 6	-5.98	0.2	28.28	-0.1726	-0.2382	-0.0017
365	SLD 7	-9.37	0.41	39.12	-0.3589	-0.3752	-0.0034
365	SLD 8	-9.37	0.41	39.12	-0.3589	-0.3752	-0.0034
365	SLD 9	-9.88	0.24	30.06	-0.1422	-0.4088	-0.002
365	SLD 10	-9.88	0.24	30.06	-0.1422	-0.4088	-0.002
365	SLD 11	-13.27	0.44	40.9	-0.3285	-0.5458	-0.0037
365	SLD 12	-13.27	0.44	40.9	-0.3285	-0.5458	-0.0037
365	SLD 13	-15.61	0.35	35.93	-0.1721	-0.6558	-0.003
365	SLD 14	-15.61	0.35	35.93	-0.1721	-0.6558	-0.003
365	SLD 15	-16.63	0.42	39.18	-0.228	-0.6969	-0.0035
365	SLD 16	-16.63	0.42	39.18	-0.228	-0.6969	-0.0035
365	SLV 1	6.72	0.1	23.81	-0.3031	0.3198	-0.0008
365	SLV 2	6.72	0.1	23.81	-0.3031	0.3198	-0.0008
365	SLV 3	4.31	0.25	31.5	-0.4378	0.2225	-0.002
365	SLV 4	4.31	0.25	31.5	-0.4378	0.2225	-0.002
365	SLV 5	-1.07	0.03	19.7	-0.0621	-0.0308	-0.0003
365	SLV 6	-1.07	0.03	19.7	-0.0621	-0.0308	-0.0003
365	SLV 7	-9.1	0.53	45.32	-0.511	-0.3553	-0.0043
365	SLV 8	-9.1	0.53	45.32	-0.511	-0.3553	-0.0043
365	SLV 9	-10.15	0.12	23.86	0.0099	-0.4287	-0.001
365	SLV 10	-10.15	0.12	23.86	0.0099	-0.4287	-0.001
365	SLV 11	-18.19	0.62	49.47	-0.439	-0.7531	-0.0051
365	SLV 12	-18.19	0.62	49.47	-0.439	-0.7531	-0.0051
365	SLV 13	-23.56	0.4	37.68	-0.0633	-1.0064	-0.0033
365	SLV 14	-23.56	0.4	37.68	-0.0633	-1.0064	-0.0033
365	SLV 15	-25.97	0.55	45.36	-0.198	-1.1037	-0.0046
365	SLV 16	-25.97	0.55	45.36	-0.198	-1.1037	-0.0046
366	SLU 1	-7.93	0.32	28.42	-0.266	-0.3209	-0.0029
366	SLU 2	-7.93	0.32	28.33	-0.2648	-0.321	-0.0028
366	SLU 3	-8.34	0.34	29.57	-0.2809	-0.3377	-0.003
366	SLU 4	-8.34	0.34	29.52	-0.2802	-0.3378	-0.003
366	SLU 5	-8.26	0.33	29.28	-0.277	-0.3344	-0.003
366	SLU 6	-8.67	0.35	30.52	-0.293	-0.351	-0.0031
366	SLU 7	-8.68	0.35	30.47	-0.2923	-0.3511	-0.0031
366	SLU 8	-8.59	0.35	30.32	-0.2903	-0.3476	-0.0031
366	SLU 9	-8.59	0.35	30.27	-0.2896	-0.3477	-0.0031
366	SLU 10	-9.32	0.37	31.72	-0.3088	-0.3774	-0.0033
366	SLU 11	-9.73	0.39	32.96	-0.3249	-0.3941	-0.0035
366	SLU 12	-9.73	0.39	32.91	-0.3242	-0.3941	-0.0035
366	SLU 13	-9.65	0.39	32.67	-0.321	-0.3907	-0.0034
366	SLU 14	-10.06	0.4	33.91	-0.337	-0.4074	-0.0036
366	SLU 15	-10.06	0.4	33.86	-0.3363	-0.4075	-0.0036
366	SLU 16	-9.98	0.4	33.71	-0.3343	-0.404	-0.0036
366	SLU 17	-9.98	0.4	33.66	-0.3336	-0.404	-0.0036
366	SLU 18	-9.91	0.4	33.27	-0.3289	-0.4015	-0.0035
366	SLU 19	-9.91	0.39	33.21	-0.3282	-0.4015	-0.0035
366	SLU 20	-10.24	0.41	34.22	-0.3411	-0.4148	-0.0037
366	SLU 21	-10.25	0.41	34.16	-0.3403	-0.4148	-0.0036
366	SLU 22	-9.27	0.37	31.86	-0.3109	-0.3755	-0.0033
366	SLU 23	-9.28	0.37	31.77	-0.3097	-0.3755	-0.0033
366	SLU 24	-9.69	0.39	33.01	-0.3257	-0.3922	-0.0035
366	SLU 25	-9.69	0.39	32.96	-0.325	-0.3923	-0.0035
366	SLU 26	-9.61	0.39	32.72	-0.3218	-0.3889	-0.0034
366	SLU 27	-10.02	0.41	33.96	-0.3379	-0.4056	-0.0036
366	SLU 28	-10.02	0.41	33.91	-0.3371	-0.4056	-0.0036
366	SLU 29	-9.94	0.4	33.76	-0.3351	-0.4021	-0.0036
366	SLU 30	-9.94	0.4	33.71	-0.3344	-0.4022	-0.0036
366	SLU 31	-10.67	0.42	35.17	-0.3537	-0.4319	-0.0038
366	SLU 32	-11.08	0.44	36.41	-0.3697	-0.4486	-0.004
366	SLU 33	-11.08	0.44	36.35	-0.369	-0.4487	-0.004
366	SLU 34	-11	0.44	36.12	-0.3658	-0.4453	-0.0039
366	SLU 35	-11.41	0.46	37.35	-0.3819	-0.4619	-0.0041
366	SLU 36	-11.41	0.46	37.3	-0.3811	-0.462	-0.0041
366	SLU 37	-11.33	0.46	37.15	-0.3792	-0.4585	-0.0041



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
366	SLU 38	-11.33	0.45	37.1	-0.3784	-0.4586	-0.0041
366	SLU 39	-11.26	0.45	36.71	-0.3738	-0.456	-0.004
366	SLU 40	-11.26	0.45	36.66	-0.373	-0.456	-0.004
366	SLU 41	-11.59	0.46	37.66	-0.3859	-0.4693	-0.0041
366	SLU 42	-11.59	0.46	37.6	-0.3852	-0.4694	-0.0041
366	SLU 43	-9.85	0.4	35.77	-0.3305	-0.3985	-0.0035
366	SLU 44	-9.85	0.4	35.68	-0.3293	-0.3986	-0.0035
366	SLU 45	-10.26	0.42	36.92	-0.3453	-0.4153	-0.0037
366	SLU 46	-10.26	0.41	36.86	-0.3446	-0.4153	-0.0037
366	SLU 47	-10.18	0.41	36.63	-0.3414	-0.4119	-0.0037
366	SLU 48	-10.59	0.43	37.87	-0.3575	-0.4286	-0.0038
366	SLU 49	-10.59	0.43	37.81	-0.3567	-0.4287	-0.0038
366	SLU 50	-10.51	0.43	37.67	-0.3548	-0.4252	-0.0038
366	SLU 51	-10.51	0.43	37.61	-0.354	-0.4252	-0.0038
366	SLU 52	-11.24	0.45	39.07	-0.3733	-0.455	-0.004
366	SLU 53	-11.65	0.47	40.31	-0.3893	-0.4717	-0.0042
366	SLU 54	-11.65	0.47	40.26	-0.3886	-0.4717	-0.0042
366	SLU 55	-11.57	0.46	40.02	-0.3854	-0.4683	-0.0041
366	SLU 56	-11.98	0.48	41.26	-0.4015	-0.485	-0.0043
366	SLU 57	-11.98	0.48	41.2	-0.4007	-0.485	-0.0043
366	SLU 58	-11.9	0.48	41.06	-0.3988	-0.4816	-0.0043
366	SLU 59	-11.9	0.48	41	-0.398	-0.4816	-0.0043
366	SLU 60	-11.83	0.47	40.61	-0.3934	-0.479	-0.0042
366	SLU 61	-11.83	0.47	40.56	-0.3926	-0.4791	-0.0042
366	SLU 62	-12.16	0.49	41.56	-0.4055	-0.4924	-0.0043
366	SLU 63	-12.16	0.49	41.51	-0.4048	-0.4924	-0.0043
366	SLU 64	-11.19	0.45	39.21	-0.3753	-0.453	-0.004
366	SLU 65	-11.19	0.45	39.12	-0.3741	-0.4531	-0.004
366	SLU 66	-11.61	0.47	40.36	-0.3902	-0.4698	-0.0042
366	SLU 67	-11.61	0.47	40.31	-0.3894	-0.4699	-0.0042
366	SLU 68	-11.52	0.46	40.07	-0.3862	-0.4665	-0.0041
366	SLU 69	-11.94	0.48	41.31	-0.4023	-0.4832	-0.0043
366	SLU 70	-11.94	0.48	41.26	-0.4016	-0.4832	-0.0043
366	SLU 71	-11.85	0.48	41.11	-0.3996	-0.4797	-0.0043
366	SLU 72	-11.85	0.48	41.05	-0.3989	-0.4798	-0.0043
366	SLU 73	-12.58	0.5	42.51	-0.4181	-0.5095	-0.0045
366	SLU 74	-13	0.52	43.75	-0.4342	-0.5262	-0.0047
366	SLU 75	-13	0.52	43.7	-0.4334	-0.5262	-0.0046
366	SLU 76	-12.91	0.52	43.46	-0.4302	-0.5228	-0.0046
366	SLU 77	-13.33	0.54	44.7	-0.4463	-0.5395	-0.0048
366	SLU 78	-13.33	0.54	44.65	-0.4456	-0.5396	-0.0048
366	SLU 79	-13.24	0.53	44.5	-0.4436	-0.5361	-0.0048
366	SLU 80	-13.24	0.53	44.45	-0.4429	-0.5361	-0.0047
366	SLU 81	-13.18	0.53	44.06	-0.4382	-0.5336	-0.0047
366	SLU 82	-13.18	0.53	44	-0.4375	-0.5336	-0.0047
366	SLU 83	-13.51	0.54	45	-0.4503	-0.5469	-0.0048
366	SLU 84	-13.51	0.54	44.95	-0.4496	-0.547	-0.0048
366	SLE RA 1	-8.31	0.34	29.41	-0.2789	-0.3365	-0.003
366	SLE RA 2	-8.31	0.33	29.35	-0.278	-0.3366	-0.003
366	SLE RA 3	-8.59	0.35	30.17	-0.2888	-0.3477	-0.0031
366	SLE RA 4	-8.59	0.35	30.14	-0.2883	-0.3477	-0.0031
366	SLE RA 5	-8.53	0.34	29.98	-0.2861	-0.3455	-0.0031
366	SLE RA 6	-8.81	0.36	30.8	-0.2968	-0.3566	-0.0032
366	SLE RA 7	-8.81	0.36	30.77	-0.2964	-0.3566	-0.0032
366	SLE RA 8	-8.75	0.35	30.67	-0.295	-0.3543	-0.0032
366	SLE RA 9	-8.75	0.35	30.63	-0.2945	-0.3543	-0.0032
366	SLE RA 10	-9.24	0.37	31.61	-0.3074	-0.3741	-0.0033
366	SLE RA 11	-9.52	0.38	32.43	-0.3181	-0.3853	-0.0034
366	SLE RA 12	-9.52	0.38	32.4	-0.3176	-0.3853	-0.0034
366	SLE RA 13	-9.46	0.38	32.24	-0.3155	-0.383	-0.0034
366	SLE RA 14	-9.74	0.39	33.07	-0.3262	-0.3942	-0.0035
366	SLE RA 15	-9.74	0.39	33.03	-0.3257	-0.3942	-0.0035
366	SLE RA 16	-9.68	0.39	32.93	-0.3244	-0.3919	-0.0035
366	SLE RA 17	-9.68	0.39	32.9	-0.3239	-0.3919	-0.0035
366	SLE RA 18	-9.64	0.39	32.64	-0.3208	-0.3902	-0.0034
366	SLE RA 19	-9.64	0.38	32.6	-0.3203	-0.3902	-0.0034
366	SLE RA 20	-9.86	0.4	33.27	-0.3289	-0.3991	-0.0035
366	SLE RA 21	-9.86	0.39	33.23	-0.3284	-0.3991	-0.0035
366	SLE FR 1	-8.31	0.34	29.41	-0.2789	-0.3365	-0.003
366	SLE FR 2	-8.31	0.33	29.39	-0.2787	-0.3365	-0.003
366	SLE FR 3	-8.4	0.34	29.66	-0.2821	-0.3401	-0.003
366	SLE FR 4	-8.71	0.35	30.36	-0.2913	-0.3526	-0.0031
366	SLE FR 5	-8.8	0.35	30.63	-0.2947	-0.3562	-0.0032
366	SLE FR 6	-8.97	0.36	31.02	-0.2998	-0.3634	-0.0032
366	SLE QP 1	-8.31	0.34	29.41	-0.2789	-0.3365	-0.003
366	SLE QP 2	-8.71	0.35	30.37	-0.2914	-0.3526	-0.0031
366	SLD 1	-1.95	0.26	26.39	-0.3163	-0.0714	-0.0023
366	SLD 2	-1.95	0.26	26.39	-0.3163	-0.0714	-0.0023
366	SLD 3	-2.87	0.32	29.21	-0.375	-0.1092	-0.0028
366	SLD 4	-2.87	0.32	29.21	-0.375	-0.1092	-0.0028
366	SLD 5	-5.28	0.23	24.9	-0.2098	-0.211	-0.0021
366	SLD 6	-5.28	0.23	24.9	-0.2098	-0.211	-0.0021
366	SLD 7	-8.36	0.43	34.3	-0.4056	-0.3368	-0.0038
366	SLD 8	-8.36	0.43	34.3	-0.4056	-0.3368	-0.0038
366	SLD 9	-9.06	0.27	26.45	-0.1772	-0.3684	-0.0025
366	SLD 10	-9.06	0.27	26.45	-0.1772	-0.3684	-0.0025
366	SLD 11	-12.14	0.47	35.85	-0.3731	-0.4943	-0.0041



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
366	SLD 12	-12.14	0.47	35.85	-0.3731	-0.4943	-0.0041
366	SLD 13	-14.55	0.38	31.54	-0.2078	-0.5961	-0.0034
366	SLD 14	-14.55	0.38	31.54	-0.2078	-0.5961	-0.0034
366	SLD 15	-15.47	0.44	34.36	-0.2666	-0.6338	-0.0039
366	SLD 16	-15.47	0.44	34.36	-0.2666	-0.6338	-0.0039
366	SLV 1	7.07	0.13	21.02	-0.349	0.3038	-0.0012
366	SLV 2	7.07	0.13	21.02	-0.349	0.3038	-0.0012
366	SLV 3	4.88	0.27	27.68	-0.4898	0.2144	-0.0024
366	SLV 4	4.88	0.27	27.68	-0.4898	0.2144	-0.0024
366	SLV 5	-0.65	0.07	17.48	-0.0952	-0.0202	-0.0007
366	SLV 6	-0.65	0.07	17.48	-0.0952	-0.0202	-0.0007
366	SLV 7	-7.96	0.54	39.65	-0.5645	-0.3181	-0.0047
366	SLV 8	-7.96	0.54	39.65	-0.5645	-0.3181	-0.0047
366	SLV 9	-9.46	0.16	21.1	-0.0184	-0.3872	-0.0015
366	SLV 10	-9.46	0.16	21.1	-0.0184	-0.3872	-0.0015
366	SLV 11	-16.77	0.63	43.27	-0.4877	-0.6851	-0.0055
366	SLV 12	-16.77	0.63	43.27	-0.4877	-0.6851	-0.0055
366	SLV 13	-22.3	0.43	33.07	-0.0931	-0.9196	-0.0038
366	SLV 14	-22.3	0.43	33.07	-0.0931	-0.9196	-0.0038
366	SLV 15	-24.49	0.57	39.72	-0.2338	-1.009	-0.005
366	SLV 16	-24.49	0.57	39.72	-0.2338	-1.009	-0.005
367	SLU 1	-6.92	0.33	25.95	-0.2937	-0.2941	-0.0026
367	SLU 2	-6.92	0.33	25.87	-0.2922	-0.2943	-0.0026
367	SLU 3	-7.28	0.35	26.98	-0.3104	-0.3093	-0.0028
367	SLU 4	-7.28	0.35	26.92	-0.3095	-0.3094	-0.0028
367	SLU 5	-7.21	0.35	26.71	-0.306	-0.3063	-0.0027
367	SLU 6	-7.56	0.37	27.82	-0.3241	-0.3214	-0.0029
367	SLU 7	-7.56	0.36	27.77	-0.3232	-0.3215	-0.0029
367	SLU 8	-7.49	0.36	27.65	-0.3212	-0.3182	-0.0029
367	SLU 9	-7.49	0.36	27.59	-0.3203	-0.3184	-0.0029
367	SLU 10	-8.12	0.38	28.82	-0.3406	-0.3448	-0.003
367	SLU 11	-8.47	0.4	29.93	-0.3588	-0.3599	-0.0032
367	SLU 12	-8.48	0.4	29.87	-0.3579	-0.36	-0.0032
367	SLU 13	-8.4	0.4	29.66	-0.3544	-0.3569	-0.0032
367	SLU 14	-8.76	0.42	30.77	-0.3725	-0.372	-0.0033
367	SLU 15	-8.76	0.42	30.72	-0.3717	-0.3721	-0.0033
367	SLU 16	-8.68	0.42	30.6	-0.3696	-0.3688	-0.0033
367	SLU 17	-8.68	0.42	30.55	-0.3687	-0.3689	-0.0033
367	SLU 18	-8.63	0.41	30.17	-0.3628	-0.3663	-0.0032
367	SLU 19	-8.63	0.41	30.12	-0.362	-0.3664	-0.0032
367	SLU 20	-8.91	0.42	31.02	-0.3766	-0.3784	-0.0034
367	SLU 21	-8.91	0.42	30.96	-0.3757	-0.3785	-0.0034
367	SLU 22	-8.08	0.39	28.97	-0.3433	-0.3431	-0.0031
367	SLU 23	-8.08	0.39	28.88	-0.3418	-0.3433	-0.0031
367	SLU 24	-8.44	0.41	29.99	-0.36	-0.3584	-0.0032
367	SLU 25	-8.44	0.41	29.94	-0.3591	-0.3585	-0.0032
367	SLU 26	-8.37	0.4	29.73	-0.3556	-0.3554	-0.0032
367	SLU 27	-8.72	0.42	30.84	-0.3737	-0.3705	-0.0033
367	SLU 28	-8.72	0.42	30.78	-0.3728	-0.3706	-0.0033
367	SLU 29	-8.64	0.42	30.66	-0.3708	-0.3673	-0.0033
367	SLU 30	-8.65	0.42	30.61	-0.3699	-0.3674	-0.0033
367	SLU 31	-9.28	0.44	31.83	-0.3902	-0.3939	-0.0035
367	SLU 32	-9.63	0.46	32.94	-0.4084	-0.409	-0.0036
367	SLU 33	-9.63	0.46	32.89	-0.4075	-0.4091	-0.0036
367	SLU 34	-9.56	0.46	32.68	-0.404	-0.406	-0.0036
367	SLU 35	-9.92	0.48	33.79	-0.4221	-0.421	-0.0038
367	SLU 36	-9.92	0.48	33.74	-0.4213	-0.4212	-0.0038
367	SLU 37	-9.84	0.47	33.61	-0.4192	-0.4179	-0.0037
367	SLU 38	-9.84	0.47	33.56	-0.4183	-0.418	-0.0037
367	SLU 39	-9.79	0.47	33.19	-0.4124	-0.4154	-0.0037
367	SLU 40	-9.79	0.46	33.13	-0.4116	-0.4155	-0.0037
367	SLU 41	-10.07	0.48	34.03	-0.4262	-0.4275	-0.0038
367	SLU 42	-10.07	0.48	33.98	-0.4253	-0.4276	-0.0038
367	SLU 43	-8.6	0.41	32.71	-0.3648	-0.3655	-0.0033
367	SLU 44	-8.6	0.41	32.62	-0.3633	-0.3657	-0.0032
367	SLU 45	-8.96	0.43	33.73	-0.3815	-0.3807	-0.0034
367	SLU 46	-8.96	0.43	33.68	-0.3806	-0.3808	-0.0034
367	SLU 47	-8.89	0.43	33.47	-0.3771	-0.3777	-0.0034
367	SLU 48	-9.24	0.45	34.57	-0.3952	-0.3928	-0.0035
367	SLU 49	-9.24	0.45	34.52	-0.3943	-0.3929	-0.0035
367	SLU 50	-9.17	0.44	34.4	-0.3923	-0.3896	-0.0035
367	SLU 51	-9.17	0.44	34.35	-0.3914	-0.3898	-0.0035
367	SLU 52	-9.8	0.46	35.57	-0.4117	-0.4162	-0.0037
367	SLU 53	-10.15	0.49	36.68	-0.4299	-0.4313	-0.0038
367	SLU 54	-10.16	0.48	36.63	-0.429	-0.4314	-0.0038
367	SLU 55	-10.08	0.48	36.42	-0.4255	-0.4283	-0.0038
367	SLU 56	-10.44	0.5	37.52	-0.4436	-0.4434	-0.004
367	SLU 57	-10.44	0.5	37.47	-0.4428	-0.4435	-0.004
367	SLU 58	-10.36	0.5	37.35	-0.4407	-0.4402	-0.0039
367	SLU 59	-10.36	0.5	37.3	-0.4398	-0.4403	-0.0039
367	SLU 60	-10.31	0.49	36.92	-0.4339	-0.4377	-0.0039
367	SLU 61	-10.31	0.49	36.87	-0.4331	-0.4378	-0.0039
367	SLU 62	-10.59	0.51	37.77	-0.4477	-0.4498	-0.004
367	SLU 63	-10.59	0.5	37.72	-0.4468	-0.4499	-0.004
367	SLU 64	-9.76	0.47	35.72	-0.4144	-0.4145	-0.0037
367	SLU 65	-9.76	0.47	35.64	-0.4129	-0.4147	-0.0037
367	SLU 66	-10.12	0.49	36.74	-0.431	-0.4298	-0.0038



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
367	SLU 67	-10.12	0.49	36.69	-0.4302	-0.4299	-0.0038
367	SLU 68	-10.04	0.48	36.48	-0.4267	-0.4268	-0.0038
367	SLU 69	-10.4	0.5	37.59	-0.4448	-0.4419	-0.004
367	SLU 70	-10.4	0.5	37.54	-0.4439	-0.442	-0.004
367	SLU 71	-10.32	0.5	37.41	-0.4419	-0.4387	-0.0039
367	SLU 72	-10.33	0.5	37.36	-0.441	-0.4388	-0.0039
367	SLU 73	-10.96	0.52	38.59	-0.4613	-0.4653	-0.0041
367	SLU 74	-11.31	0.54	39.69	-0.4795	-0.4804	-0.0043
367	SLU 75	-11.31	0.54	39.64	-0.4786	-0.4805	-0.0043
367	SLU 76	-11.24	0.54	39.43	-0.4751	-0.4774	-0.0042
367	SLU 77	-11.59	0.56	40.54	-0.4932	-0.4924	-0.0044
367	SLU 78	-11.6	0.56	40.49	-0.4924	-0.4926	-0.0044
367	SLU 79	-11.52	0.55	40.37	-0.4903	-0.4893	-0.0044
367	SLU 80	-11.52	0.55	40.31	-0.4894	-0.4894	-0.0044
367	SLU 81	-11.47	0.55	39.94	-0.4835	-0.4868	-0.0043
367	SLU 82	-11.47	0.54	39.89	-0.4827	-0.4869	-0.0043
367	SLU 83	-11.75	0.56	40.78	-0.4973	-0.4989	-0.0044
367	SLU 84	-11.75	0.56	40.73	-0.4964	-0.499	-0.0044
367	SLE RA 1	-7.25	0.35	26.82	-0.3078	-0.3081	-0.0027
367	SLE RA 2	-7.25	0.35	26.76	-0.3069	-0.3082	-0.0027
367	SLE RA 3	-7.49	0.36	27.5	-0.319	-0.3183	-0.0028
367	SLE RA 4	-7.49	0.36	27.46	-0.3184	-0.3183	-0.0028
367	SLE RA 5	-7.44	0.36	27.32	-0.316	-0.3163	-0.0028
367	SLE RA 6	-7.68	0.37	28.06	-0.3281	-0.3263	-0.0029
367	SLE RA 7	-7.68	0.37	28.03	-0.3276	-0.3264	-0.0029
367	SLE RA 8	-7.63	0.37	27.94	-0.3262	-0.3242	-0.0029
367	SLE RA 9	-7.63	0.37	27.91	-0.3256	-0.3243	-0.0029
367	SLE RA 10	-8.05	0.38	28.73	-0.3391	-0.3419	-0.003
367	SLE RA 11	-8.29	0.4	29.46	-0.3512	-0.352	-0.0031
367	SLE RA 12	-8.29	0.4	29.43	-0.3507	-0.352	-0.0031
367	SLE RA 13	-8.24	0.39	29.29	-0.3483	-0.35	-0.0031
367	SLE RA 14	-8.48	0.41	30.03	-0.3604	-0.36	-0.0032
367	SLE RA 15	-8.48	0.41	29.99	-0.3598	-0.3601	-0.0032
367	SLE RA 16	-8.43	0.4	29.91	-0.3585	-0.3579	-0.0032
367	SLE RA 17	-8.43	0.4	29.88	-0.3579	-0.358	-0.0032
367	SLE RA 18	-8.39	0.4	29.63	-0.354	-0.3563	-0.0032
367	SLE RA 19	-8.39	0.4	29.59	-0.3534	-0.3563	-0.0032
367	SLE RA 20	-8.58	0.41	30.19	-0.3631	-0.3643	-0.0032
367	SLE RA 21	-8.58	0.41	30.16	-0.3625	-0.3644	-0.0032
367	SLE FR 1	-7.25	0.35	26.82	-0.3078	-0.3081	-0.0027
367	SLE FR 2	-7.25	0.35	26.8	-0.3076	-0.3081	-0.0027
367	SLE FR 3	-7.33	0.35	27.04	-0.3115	-0.3113	-0.0028
367	SLE FR 4	-7.59	0.36	27.65	-0.3215	-0.3226	-0.0029
367	SLE FR 5	-7.67	0.37	27.88	-0.3253	-0.3258	-0.0029
367	SLE FR 6	-7.82	0.37	28.22	-0.3309	-0.3322	-0.003
367	SLE QP 1	-7.25	0.35	26.82	-0.3078	-0.3081	-0.0027
367	SLE QP 2	-7.59	0.36	27.66	-0.3217	-0.3225	-0.0029
367	SLD 1	-1.16	0.27	24.01	-0.3476	-0.0383	-0.0022
367	SLD 2	-1.16	0.27	24.01	-0.3476	-0.0383	-0.0022
367	SLD 3	-1.98	0.33	26.45	-0.4064	-0.0721	-0.0026
367	SLD 4	-1.98	0.33	26.45	-0.4064	-0.0721	-0.0026
367	SLD 5	-4.41	0.25	22.86	-0.2402	-0.186	-0.002
367	SLD 6	-4.41	0.25	22.86	-0.2402	-0.186	-0.002
367	SLD 7	-7.16	0.44	31	-0.4363	-0.2987	-0.0035
367	SLD 8	-7.16	0.44	31	-0.4363	-0.2987	-0.0035
367	SLD 9	-8.03	0.28	24.32	-0.207	-0.3464	-0.0023
367	SLD 10	-8.03	0.28	24.32	-0.207	-0.3464	-0.0023
367	SLD 11	-10.77	0.48	32.46	-0.4031	-0.4591	-0.0037
367	SLD 12	-10.77	0.48	32.46	-0.4031	-0.4591	-0.0037
367	SLD 13	-13.21	0.4	28.87	-0.2369	-0.573	-0.0031
367	SLD 14	-13.21	0.4	28.87	-0.2369	-0.573	-0.0031
367	SLD 15	-14.03	0.46	31.31	-0.2958	-0.6068	-0.0036
367	SLD 16	-14.03	0.46	31.31	-0.2958	-0.6068	-0.0036
367	SLV 1	7.43	0.14	19.1	-0.3817	0.3408	-0.0012
367	SLV 2	7.43	0.14	19.1	-0.3817	0.3408	-0.0012
367	SLV 3	5.48	0.29	24.86	-0.5221	0.2607	-0.0023
367	SLV 4	5.48	0.29	24.86	-0.5221	0.2607	-0.0023
367	SLV 5	-0.13	0.08	16.36	-0.1268	-0.002	-0.0008
367	SLV 6	-0.13	0.08	16.36	-0.1268	-0.002	-0.0008
367	SLV 7	-6.63	0.55	35.55	-0.5947	-0.2691	-0.0043
367	SLV 8	-6.63	0.55	35.55	-0.5947	-0.2691	-0.0043
367	SLV 9	-8.56	0.17	19.77	-0.0487	-0.376	-0.0015
367	SLV 10	-8.56	0.17	19.77	-0.0487	-0.376	-0.0015
367	SLV 11	-15.06	0.64	38.96	-0.5165	-0.6431	-0.005
367	SLV 12	-15.06	0.64	38.96	-0.5165	-0.6431	-0.005
367	SLV 13	-20.66	0.44	30.46	-0.1212	-0.9058	-0.0035
367	SLV 14	-20.66	0.44	30.46	-0.1212	-0.9058	-0.0035
367	SLV 15	-22.61	0.58	36.22	-0.2616	-0.9859	-0.0045
367	SLV 16	-22.61	0.58	36.22	-0.2616	-0.9859	-0.0045
368	SLU 1	-5.83	0.35	24.99	-0.3221	-0.2482	-0.0022
368	SLU 2	-5.83	0.35	24.91	-0.3204	-0.2483	-0.0022
368	SLU 3	-6.12	0.37	25.97	-0.3408	-0.2606	-0.0023
368	SLU 4	-6.13	0.37	25.91	-0.3397	-0.2607	-0.0023
368	SLU 5	-6.06	0.37	25.72	-0.3359	-0.2581	-0.0023
368	SLU 6	-6.35	0.39	26.78	-0.3563	-0.2704	-0.0024
368	SLU 7	-6.36	0.39	26.72	-0.3552	-0.2705	-0.0024
368	SLU 8	-6.29	0.39	26.61	-0.3531	-0.2677	-0.0024



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
368	SLU 9	-6.29	0.39	26.56	-0.3521	-0.2678	-0.0024
368	SLU 10	-6.82	0.41	27.68	-0.3733	-0.2902	-0.0025
368	SLU 11	-7.11	0.43	28.74	-0.3937	-0.3025	-0.0027
368	SLU 12	-7.11	0.43	28.68	-0.3927	-0.3026	-0.0027
368	SLU 13	-7.05	0.43	28.49	-0.3888	-0.3	-0.0026
368	SLU 14	-7.34	0.45	29.55	-0.4092	-0.3123	-0.0028
368	SLU 15	-7.34	0.45	29.49	-0.4082	-0.3124	-0.0028
368	SLU 16	-7.27	0.45	29.38	-0.4061	-0.3096	-0.0028
368	SLU 17	-7.28	0.44	29.33	-0.405	-0.3097	-0.0028
368	SLU 18	-7.24	0.44	28.95	-0.3978	-0.308	-0.0027
368	SLU 19	-7.24	0.43	28.9	-0.3967	-0.3081	-0.0027
368	SLU 20	-7.47	0.45	29.76	-0.4133	-0.3178	-0.0028
368	SLU 21	-7.47	0.45	29.71	-0.4122	-0.3179	-0.0028
368	SLU 22	-6.78	0.41	27.84	-0.3767	-0.2887	-0.0026
368	SLU 23	-6.79	0.41	27.75	-0.3749	-0.2889	-0.0026
368	SLU 24	-7.08	0.43	28.81	-0.3953	-0.3012	-0.0027
368	SLU 25	-7.08	0.43	28.76	-0.3942	-0.3013	-0.0027
368	SLU 26	-7.02	0.43	28.56	-0.3904	-0.2987	-0.0027
368	SLU 27	-7.31	0.45	29.62	-0.4108	-0.311	-0.0028
368	SLU 28	-7.31	0.45	29.57	-0.4098	-0.3111	-0.0028
368	SLU 29	-7.24	0.45	29.46	-0.4077	-0.3083	-0.0028
368	SLU 30	-7.25	0.45	29.4	-0.4066	-0.3084	-0.0028
368	SLU 31	-7.77	0.47	30.52	-0.4279	-0.3308	-0.0029
368	SLU 32	-8.06	0.49	31.58	-0.4483	-0.3431	-0.0031
368	SLU 33	-8.06	0.49	31.53	-0.4472	-0.3432	-0.003
368	SLU 34	-8	0.49	31.33	-0.4434	-0.3406	-0.003
368	SLU 35	-8.29	0.51	32.39	-0.4638	-0.3529	-0.0032
368	SLU 36	-8.29	0.51	32.34	-0.4627	-0.353	-0.0031
368	SLU 37	-8.23	0.5	32.23	-0.4606	-0.3502	-0.0031
368	SLU 38	-8.23	0.5	32.17	-0.4596	-0.3503	-0.0031
368	SLU 39	-8.19	0.5	31.79	-0.4523	-0.3486	-0.0031
368	SLU 40	-8.19	0.49	31.74	-0.4513	-0.3487	-0.0031
368	SLU 41	-8.42	0.51	32.6	-0.4678	-0.3584	-0.0032
368	SLU 42	-8.42	0.51	32.55	-0.4668	-0.3585	-0.0032
368	SLU 43	-7.25	0.44	31.51	-0.4001	-0.3087	-0.0027
368	SLU 44	-7.26	0.44	31.43	-0.3983	-0.3089	-0.0027
368	SLU 45	-7.54	0.46	32.49	-0.4187	-0.3212	-0.0029
368	SLU 46	-7.55	0.46	32.44	-0.4177	-0.3213	-0.0028
368	SLU 47	-7.49	0.45	32.24	-0.4138	-0.3186	-0.0028
368	SLU 48	-7.78	0.48	33.3	-0.4342	-0.3309	-0.003
368	SLU 49	-7.78	0.47	33.25	-0.4332	-0.331	-0.0029
368	SLU 50	-7.71	0.47	33.13	-0.4311	-0.3282	-0.0029
368	SLU 51	-7.71	0.47	33.08	-0.43	-0.3283	-0.0029
368	SLU 52	-8.24	0.49	34.2	-0.4513	-0.3508	-0.0031
368	SLU 53	-8.53	0.52	35.26	-0.4717	-0.3631	-0.0032
368	SLU 54	-8.53	0.52	35.21	-0.4706	-0.3632	-0.0032
368	SLU 55	-8.47	0.51	35.01	-0.4668	-0.3606	-0.0032
368	SLU 56	-8.76	0.53	36.07	-0.4872	-0.3729	-0.0033
368	SLU 57	-8.76	0.53	36.02	-0.4861	-0.373	-0.0033
368	SLU 58	-8.7	0.53	35.9	-0.484	-0.3702	-0.0033
368	SLU 59	-8.7	0.53	35.85	-0.483	-0.3703	-0.0033
368	SLU 60	-8.66	0.52	35.47	-0.4757	-0.3686	-0.0032
368	SLU 61	-8.66	0.52	35.42	-0.4747	-0.3687	-0.0032
368	SLU 62	-8.89	0.54	36.28	-0.4912	-0.3784	-0.0033
368	SLU 63	-8.89	0.54	36.23	-0.4902	-0.3784	-0.0033
368	SLU 64	-8.21	0.5	34.36	-0.4546	-0.3493	-0.0031
368	SLU 65	-8.21	0.5	34.27	-0.4528	-0.3494	-0.0031
368	SLU 66	-8.5	0.52	35.33	-0.4732	-0.3617	-0.0032
368	SLU 67	-8.5	0.52	35.28	-0.4722	-0.3618	-0.0032
368	SLU 68	-8.44	0.51	35.08	-0.4684	-0.3592	-0.0032
368	SLU 69	-8.73	0.54	36.14	-0.4888	-0.3715	-0.0033
368	SLU 70	-8.73	0.53	36.09	-0.4877	-0.3716	-0.0033
368	SLU 71	-8.67	0.53	35.98	-0.4856	-0.3688	-0.0033
368	SLU 72	-8.67	0.53	35.93	-0.4846	-0.3689	-0.0033
368	SLU 73	-9.19	0.55	37.04	-0.5058	-0.3914	-0.0034
368	SLU 74	-9.48	0.58	38.1	-0.5262	-0.4037	-0.0036
368	SLU 75	-9.49	0.58	38.05	-0.5251	-0.4038	-0.0036
368	SLU 76	-9.42	0.57	37.85	-0.5213	-0.4011	-0.0035
368	SLU 77	-9.71	0.59	38.91	-0.5417	-0.4134	-0.0037
368	SLU 78	-9.72	0.59	38.86	-0.5407	-0.4135	-0.0037
368	SLU 79	-9.65	0.59	38.75	-0.5386	-0.4107	-0.0037
368	SLU 80	-9.65	0.59	38.7	-0.5375	-0.4108	-0.0037
368	SLU 81	-9.61	0.58	38.31	-0.5303	-0.4092	-0.0036
368	SLU 82	-9.61	0.58	38.26	-0.5292	-0.4093	-0.0036
368	SLU 83	-9.84	0.6	39.12	-0.5458	-0.4189	-0.0037
368	SLU 84	-9.84	0.6	39.07	-0.5447	-0.419	-0.0037
368	SLE RA 1	-6.1	0.37	25.8	-0.3377	-0.2598	-0.0023
368	SLE RA 2	-6.1	0.37	25.75	-0.3365	-0.2599	-0.0023
368	SLE RA 3	-6.3	0.38	26.45	-0.3501	-0.2681	-0.0024
368	SLE RA 4	-6.3	0.38	26.42	-0.3494	-0.2681	-0.0024
368	SLE RA 5	-6.26	0.38	26.29	-0.3469	-0.2664	-0.0024
368	SLE RA 6	-6.45	0.4	26.99	-0.3605	-0.2746	-0.0025
368	SLE RA 7	-6.45	0.39	26.96	-0.3598	-0.2747	-0.0024
368	SLE RA 8	-6.41	0.39	26.88	-0.3584	-0.2728	-0.0024
368	SLE RA 9	-6.41	0.39	26.85	-0.3577	-0.2729	-0.0024
368	SLE RA 10	-6.76	0.41	27.59	-0.3718	-0.2878	-0.0025
368	SLE RA 11	-6.95	0.42	28.3	-0.3854	-0.296	-0.0026



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
368	SLE RA 12	-6.96	0.42	28.27	-0.3847	-0.2961	-0.0026
368	SLE RA 13	-6.91	0.42	28.13	-0.3822	-0.2943	-0.0026
368	SLE RA 14	-7.11	0.43	28.84	-0.3958	-0.3025	-0.0027
368	SLE RA 15	-7.11	0.43	28.81	-0.3951	-0.3026	-0.0027
368	SLE RA 16	-7.07	0.43	28.73	-0.3937	-0.3007	-0.0027
368	SLE RA 17	-7.07	0.43	28.7	-0.393	-0.3008	-0.0027
368	SLE RA 18	-7.04	0.43	28.44	-0.3881	-0.2997	-0.0026
368	SLE RA 19	-7.04	0.42	28.41	-0.3874	-0.2997	-0.0026
368	SLE RA 20	-7.19	0.44	28.98	-0.3985	-0.3062	-0.0027
368	SLE RA 21	-7.19	0.44	28.95	-0.3978	-0.3063	-0.0027
368	SLE FR 1	-6.1	0.37	25.8	-0.3377	-0.2598	-0.0023
368	SLE FR 2	-6.1	0.37	25.79	-0.3375	-0.2598	-0.0023
368	SLE FR 3	-6.16	0.37	26.02	-0.3418	-0.2624	-0.0023
368	SLE FR 4	-6.38	0.39	26.58	-0.3526	-0.2718	-0.0024
368	SLE FR 5	-6.44	0.39	26.81	-0.357	-0.2743	-0.0024
368	SLE FR 6	-6.57	0.4	27.12	-0.3629	-0.2797	-0.0025
368	SLE QP 1	-6.1	0.37	25.8	-0.3377	-0.2598	-0.0023
368	SLE QP 2	-6.38	0.39	26.6	-0.3528	-0.2717	-0.0024
368	SLD 1	-0.91	0.42	22.52	-0.3795	-0.038	-0.0018
368	SLD 2	-0.91	0.42	22.52	-0.3795	-0.038	-0.0018
368	SLD 3	-1.64	0.48	24.62	-0.4349	-0.0674	-0.0022
368	SLD 4	-1.64	0.48	24.62	-0.4349	-0.0674	-0.0022
368	SLD 5	-3.64	0.31	22.18	-0.2769	-0.157	-0.0017
368	SLD 6	-3.64	0.31	22.18	-0.2769	-0.157	-0.0017
368	SLD 7	-6.06	0.5	29.19	-0.4614	-0.255	-0.0028
368	SLD 8	-6.06	0.5	29.19	-0.4614	-0.255	-0.0028
368	SLD 9	-6.71	0.27	24	-0.2443	-0.2884	-0.002
368	SLD 10	-6.71	0.27	24	-0.2443	-0.2884	-0.002
368	SLD 11	-9.13	0.46	31.01	-0.4288	-0.3865	-0.0031
368	SLD 12	-9.13	0.46	31.01	-0.4288	-0.3865	-0.0031
368	SLD 13	-11.13	0.3	28.57	-0.2708	-0.4761	-0.0026
368	SLD 14	-11.13	0.3	28.57	-0.2708	-0.4761	-0.0026
368	SLD 15	-11.85	0.35	30.67	-0.3261	-0.5055	-0.003
368	SLD 16	-11.85	0.35	30.67	-0.3261	-0.5055	-0.003
368	SLV 1	6.38	0.46	17.05	-0.4147	0.2738	-0.0011
368	SLV 2	6.38	0.46	17.05	-0.4147	0.2738	-0.0011
368	SLV 3	4.67	0.6	22	-0.5464	0.2041	-0.0019
368	SLV 4	4.67	0.6	22	-0.5464	0.2041	-0.0019
368	SLV 5	0.05	0.21	16.23	-0.1717	-0.0025	-0.0008
368	SLV 6	0.05	0.21	16.23	-0.1717	-0.0025	-0.0008
368	SLV 7	-5.67	0.65	32.72	-0.6106	-0.2346	-0.0035
368	SLV 8	-5.67	0.65	32.72	-0.6106	-0.2346	-0.0035
368	SLV 9	-7.09	0.12	20.47	-0.0951	-0.3089	-0.0013
368	SLV 10	-7.09	0.12	20.47	-0.0951	-0.3089	-0.0013
368	SLV 11	-12.82	0.57	36.96	-0.5339	-0.541	-0.004
368	SLV 12	-12.82	0.57	36.96	-0.5339	-0.541	-0.004
368	SLV 13	-17.43	0.18	31.19	-0.1593	-0.7476	-0.0029
368	SLV 14	-17.43	0.18	31.19	-0.1593	-0.7476	-0.0029
368	SLV 15	-19.15	0.31	36.14	-0.2909	-0.8172	-0.0037
368	SLV 16	-19.15	0.31	36.14	-0.2909	-0.8172	-0.0037
369	SLU 1	-5.27	0.39	25.4	-0.357	-0.233	-0.0018
369	SLU 2	-5.27	0.38	25.32	-0.3549	-0.2331	-0.0018
369	SLU 3	-5.52	0.41	26.41	-0.378	-0.2444	-0.0019
369	SLU 4	-5.52	0.41	26.36	-0.3767	-0.2445	-0.0019
369	SLU 5	-5.47	0.4	26.16	-0.3725	-0.2421	-0.0019
369	SLU 6	-5.73	0.43	27.24	-0.3956	-0.2535	-0.002
369	SLU 7	-5.73	0.43	27.19	-0.3943	-0.2535	-0.002
369	SLU 8	-5.67	0.42	27.07	-0.3922	-0.2511	-0.002
369	SLU 9	-5.67	0.42	27.02	-0.3909	-0.2512	-0.002
369	SLU 10	-6.12	0.45	28.15	-0.4134	-0.2705	-0.0021
369	SLU 11	-6.37	0.47	29.24	-0.4365	-0.2818	-0.0022
369	SLU 12	-6.37	0.47	29.19	-0.4353	-0.2819	-0.0022
369	SLU 13	-6.32	0.47	28.99	-0.431	-0.2795	-0.0022
369	SLU 14	-6.57	0.49	30.08	-0.4541	-0.2909	-0.0023
369	SLU 15	-6.57	0.49	30.03	-0.4529	-0.291	-0.0023
369	SLU 16	-6.52	0.49	29.91	-0.4507	-0.2885	-0.0023
369	SLU 17	-6.52	0.49	29.86	-0.4494	-0.2886	-0.0023
369	SLU 18	-6.48	0.48	29.45	-0.4406	-0.2864	-0.0023
369	SLU 19	-6.48	0.48	29.4	-0.4393	-0.2865	-0.0022
369	SLU 20	-6.68	0.5	30.29	-0.4582	-0.2955	-0.0023
369	SLU 21	-6.68	0.49	30.24	-0.4569	-0.2955	-0.0023
369	SLU 22	-6.09	0.45	28.31	-0.4176	-0.2695	-0.0021
369	SLU 23	-6.09	0.45	28.23	-0.4155	-0.2696	-0.0021
369	SLU 24	-6.35	0.48	29.32	-0.4386	-0.281	-0.0022
369	SLU 25	-6.35	0.47	29.27	-0.4373	-0.281	-0.0022
369	SLU 26	-6.3	0.47	29.06	-0.4331	-0.2787	-0.0022
369	SLU 27	-6.55	0.49	30.15	-0.4562	-0.29	-0.0023
369	SLU 28	-6.55	0.49	30.1	-0.4549	-0.2901	-0.0023
369	SLU 29	-6.5	0.49	29.98	-0.4528	-0.2876	-0.0023
369	SLU 30	-6.5	0.49	29.93	-0.4515	-0.2877	-0.0023
369	SLU 31	-6.94	0.51	31.06	-0.474	-0.307	-0.0024
369	SLU 32	-7.2	0.54	32.15	-0.4971	-0.3184	-0.0025
369	SLU 33	-7.2	0.54	32.1	-0.4958	-0.3184	-0.0025
369	SLU 34	-7.14	0.53	31.9	-0.4916	-0.3161	-0.0025
369	SLU 35	-7.4	0.56	32.99	-0.5147	-0.3274	-0.0026
369	SLU 36	-7.4	0.56	32.94	-0.5134	-0.3275	-0.0026
369	SLU 37	-7.34	0.55	32.82	-0.5113	-0.325	-0.0026



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
369	SLU 38	-7.34	0.55	32.77	-0.51	-0.3251	-0.0026
369	SLU 39	-7.3	0.54	32.36	-0.5012	-0.3229	-0.0026
369	SLU 40	-7.3	0.54	32.31	-0.4999	-0.323	-0.0026
369	SLU 41	-7.5	0.56	33.2	-0.5188	-0.332	-0.0027
369	SLU 42	-7.51	0.56	33.14	-0.5175	-0.3321	-0.0026
369	SLU 43	-6.56	0.48	32.03	-0.4434	-0.2904	-0.0023
369	SLU 44	-6.57	0.48	31.94	-0.4412	-0.2905	-0.0023
369	SLU 45	-6.82	0.5	33.03	-0.4643	-0.3018	-0.0024
369	SLU 46	-6.82	0.5	32.98	-0.4631	-0.3019	-0.0024
369	SLU 47	-6.77	0.5	32.78	-0.4588	-0.2995	-0.0023
369	SLU 48	-7.02	0.52	33.87	-0.4819	-0.3109	-0.0025
369	SLU 49	-7.02	0.52	33.82	-0.4807	-0.3109	-0.0025
369	SLU 50	-6.97	0.52	33.7	-0.4785	-0.3085	-0.0024
369	SLU 51	-6.97	0.52	33.65	-0.4773	-0.3085	-0.0024
369	SLU 52	-7.41	0.54	34.78	-0.4998	-0.3279	-0.0026
369	SLU 53	-7.67	0.57	35.87	-0.5229	-0.3392	-0.0027
369	SLU 54	-7.67	0.56	35.82	-0.5216	-0.3393	-0.0027
369	SLU 55	-7.61	0.56	35.61	-0.5174	-0.3369	-0.0026
369	SLU 56	-7.87	0.59	36.7	-0.5405	-0.3483	-0.0028
369	SLU 57	-7.87	0.58	36.65	-0.5392	-0.3483	-0.0028
369	SLU 58	-7.81	0.58	36.53	-0.537	-0.3459	-0.0027
369	SLU 59	-7.82	0.58	36.48	-0.5358	-0.3459	-0.0027
369	SLU 60	-7.77	0.57	36.07	-0.527	-0.3438	-0.0027
369	SLU 61	-7.77	0.57	36.02	-0.5257	-0.3439	-0.0027
369	SLU 62	-7.98	0.59	36.91	-0.5445	-0.3528	-0.0028
369	SLU 63	-7.98	0.59	36.86	-0.5433	-0.3529	-0.0028
369	SLU 64	-7.39	0.55	34.94	-0.5039	-0.3269	-0.0026
369	SLU 65	-7.39	0.54	34.85	-0.5018	-0.327	-0.0026
369	SLU 66	-7.65	0.57	35.94	-0.5249	-0.3383	-0.0027
369	SLU 67	-7.65	0.57	35.89	-0.5236	-0.3384	-0.0027
369	SLU 68	-7.59	0.56	35.69	-0.5194	-0.336	-0.0027
369	SLU 69	-7.85	0.59	36.78	-0.5425	-0.3474	-0.0028
369	SLU 70	-7.85	0.59	36.73	-0.5412	-0.3474	-0.0028
369	SLU 71	-7.79	0.58	36.61	-0.5391	-0.345	-0.0028
369	SLU 72	-7.79	0.58	36.56	-0.5378	-0.345	-0.0028
369	SLU 73	-8.24	0.61	37.69	-0.5603	-0.3644	-0.0029
369	SLU 74	-8.49	0.63	38.78	-0.5834	-0.3757	-0.003
369	SLU 75	-8.49	0.63	38.72	-0.5822	-0.3758	-0.003
369	SLU 76	-8.44	0.63	38.52	-0.5779	-0.3734	-0.003
369	SLU 77	-8.69	0.65	39.61	-0.601	-0.3848	-0.0031
369	SLU 78	-8.7	0.65	39.56	-0.5998	-0.3848	-0.0031
369	SLU 79	-8.64	0.65	39.44	-0.5976	-0.3824	-0.0031
369	SLU 80	-8.64	0.65	39.39	-0.5963	-0.3824	-0.0031
369	SLU 81	-8.6	0.64	38.98	-0.5875	-0.3803	-0.003
369	SLU 82	-8.6	0.63	38.93	-0.5862	-0.3804	-0.003
369	SLU 83	-8.8	0.66	39.82	-0.6051	-0.3894	-0.0031
369	SLU 84	-8.8	0.65	39.77	-0.6038	-0.3894	-0.0031
369	SLE RA 1	-5.5	0.41	26.24	-0.3743	-0.2434	-0.0019
369	SLE RA 2	-5.5	0.4	26.18	-0.3729	-0.2435	-0.0019
369	SLE RA 3	-5.67	0.42	26.91	-0.3883	-0.2511	-0.002
369	SLE RA 4	-5.67	0.42	26.87	-0.3875	-0.2511	-0.002
369	SLE RA 5	-5.64	0.42	26.74	-0.3846	-0.2495	-0.002
369	SLE RA 6	-5.81	0.43	27.46	-0.4	-0.2571	-0.002
369	SLE RA 7	-5.81	0.43	27.43	-0.3992	-0.2571	-0.002
369	SLE RA 8	-5.77	0.43	27.35	-0.3978	-0.2555	-0.002
369	SLE RA 9	-5.77	0.43	27.32	-0.3969	-0.2555	-0.002
369	SLE RA 10	-6.07	0.45	28.07	-0.4119	-0.2684	-0.0021
369	SLE RA 11	-6.24	0.46	28.79	-0.4273	-0.276	-0.0022
369	SLE RA 12	-6.24	0.46	28.76	-0.4265	-0.276	-0.0022
369	SLE RA 13	-6.2	0.46	28.62	-0.4237	-0.2745	-0.0022
369	SLE RA 14	-6.37	0.48	29.35	-0.4391	-0.282	-0.0022
369	SLE RA 15	-6.37	0.47	29.32	-0.4382	-0.2821	-0.0022
369	SLE RA 16	-6.34	0.47	29.24	-0.4368	-0.2804	-0.0022
369	SLE RA 17	-6.34	0.47	29.2	-0.4359	-0.2805	-0.0022
369	SLE RA 18	-6.31	0.47	28.93	-0.43	-0.279	-0.0022
369	SLE RA 19	-6.31	0.46	28.9	-0.4292	-0.2791	-0.0022
369	SLE RA 20	-6.44	0.48	29.49	-0.4418	-0.2851	-0.0023
369	SLE RA 21	-6.44	0.48	29.46	-0.4409	-0.2851	-0.0023
369	SLE FR 1	-5.5	0.41	26.24	-0.3743	-0.2434	-0.0019
369	SLE FR 2	-5.5	0.41	26.22	-0.374	-0.2434	-0.0019
369	SLE FR 3	-5.56	0.41	26.46	-0.379	-0.2458	-0.0019
369	SLE FR 4	-5.74	0.42	27.03	-0.3908	-0.2541	-0.002
369	SLE FR 5	-5.8	0.43	27.27	-0.3957	-0.2565	-0.002
369	SLE FR 6	-5.91	0.44	27.58	-0.4022	-0.2612	-0.0021
369	SLE QP 1	-5.5	0.41	26.24	-0.3743	-0.2434	-0.0019
369	SLE QP 2	-5.74	0.42	27.05	-0.391	-0.2541	-0.002
369	SLD 1	-1.04	0.46	21.36	-0.418	-0.0334	-0.0016
369	SLD 2	-1.04	0.46	21.36	-0.418	-0.0334	-0.0016
369	SLD 3	-1.7	0.51	23.19	-0.4673	-0.0602	-0.0018
369	SLD 4	-1.7	0.51	23.19	-0.4673	-0.0602	-0.0018
369	SLD 5	-3.32	0.36	22.56	-0.3243	-0.1473	-0.0015
369	SLD 6	-3.32	0.36	22.56	-0.3243	-0.1473	-0.0015
369	SLD 7	-5.54	0.53	28.67	-0.4888	-0.2366	-0.0023
369	SLD 8	-5.54	0.53	28.67	-0.4888	-0.2366	-0.0023
369	SLD 9	-5.95	0.32	25.42	-0.2933	-0.2717	-0.0017
369	SLD 10	-5.95	0.32	25.42	-0.2933	-0.2717	-0.0017
369	SLD 11	-8.17	0.49	31.53	-0.4578	-0.361	-0.0025



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
369	SLD 12	-8.17	0.49	31.53	-0.4578	-0.361	-0.0025
369	SLD 13	-9.79	0.34	30.9	-0.3148	-0.448	-0.0022
369	SLD 14	-9.79	0.34	30.9	-0.3148	-0.448	-0.0022
369	SLD 15	-10.45	0.39	32.73	-0.3641	-0.4748	-0.0024
369	SLD 16	-10.45	0.39	32.73	-0.3641	-0.4748	-0.0024
369	SLV 1	5.24	0.5	13.76	-0.4535	0.2609	-0.001
369	SLV 2	5.24	0.5	13.76	-0.4535	0.2609	-0.001
369	SLV 3	3.67	0.62	18.07	-0.5707	0.1976	-0.0016
369	SLV 4	3.67	0.62	18.07	-0.5707	0.1976	-0.0016
369	SLV 5	-0.07	0.26	16.52	-0.232	-0.0036	-0.0009
369	SLV 6	-0.07	0.26	16.52	-0.232	-0.0036	-0.0009
369	SLV 7	-5.31	0.67	30.89	-0.6227	-0.2146	-0.0027
369	SLV 8	-5.31	0.67	30.89	-0.6227	-0.2146	-0.0027
369	SLV 9	-6.18	0.18	23.2	-0.1594	-0.2936	-0.0013
369	SLV 10	-6.18	0.18	23.2	-0.1594	-0.2936	-0.0013
369	SLV 11	-11.42	0.59	37.57	-0.55	-0.5047	-0.0031
369	SLV 12	-11.42	0.59	37.57	-0.55	-0.5047	-0.0031
369	SLV 13	-15.16	0.23	36.02	-0.2114	-0.7058	-0.0024
369	SLV 14	-15.16	0.23	36.02	-0.2114	-0.7058	-0.0024
369	SLV 15	-16.73	0.35	40.33	-0.3286	-0.7691	-0.003
369	SLV 16	-16.73	0.35	40.33	-0.3286	-0.7691	-0.003
370	SLU 1	-5.22	0.45	26.93	-0.4047	-0.2322	-0.0014
370	SLU 2	-5.22	0.45	26.85	-0.4022	-0.2321	-0.0014
370	SLU 3	-5.46	0.48	28.02	-0.4289	-0.2431	-0.0015
370	SLU 4	-5.46	0.48	27.97	-0.4273	-0.2431	-0.0015
370	SLU 5	-5.41	0.47	27.75	-0.4225	-0.2407	-0.0015
370	SLU 6	-5.66	0.5	28.93	-0.4492	-0.2518	-0.0016
370	SLU 7	-5.66	0.5	28.88	-0.4477	-0.2517	-0.0016
370	SLU 8	-5.61	0.5	28.74	-0.4454	-0.2495	-0.0015
370	SLU 9	-5.61	0.49	28.69	-0.4439	-0.2494	-0.0015
370	SLU 10	-6	0.52	29.94	-0.4684	-0.2674	-0.0016
370	SLU 11	-6.25	0.55	31.12	-0.495	-0.2785	-0.0017
370	SLU 12	-6.25	0.55	31.07	-0.4935	-0.2784	-0.0017
370	SLU 13	-6.2	0.54	30.85	-0.4887	-0.2761	-0.0017
370	SLU 14	-6.44	0.57	32.03	-0.5154	-0.2871	-0.0018
370	SLU 15	-6.44	0.57	31.98	-0.5138	-0.287	-0.0018
370	SLU 16	-6.39	0.57	31.84	-0.5116	-0.2848	-0.0018
370	SLU 17	-6.39	0.57	31.79	-0.51	-0.2847	-0.0018
370	SLU 18	-6.34	0.55	31.35	-0.4993	-0.2827	-0.0017
370	SLU 19	-6.34	0.55	31.3	-0.4977	-0.2826	-0.0017
370	SLU 20	-6.54	0.58	32.26	-0.5196	-0.2913	-0.0018
370	SLU 21	-6.53	0.58	32.21	-0.5181	-0.2913	-0.0018
370	SLU 22	-5.99	0.53	30.1	-0.4735	-0.2669	-0.0016
370	SLU 23	-5.99	0.52	30.02	-0.471	-0.2668	-0.0016
370	SLU 24	-6.24	0.55	31.19	-0.4976	-0.2779	-0.0017
370	SLU 25	-6.24	0.55	31.15	-0.4961	-0.2778	-0.0017
370	SLU 26	-6.18	0.55	30.92	-0.4913	-0.2754	-0.0017
370	SLU 27	-6.43	0.58	32.1	-0.518	-0.2865	-0.0018
370	SLU 28	-6.43	0.57	32.05	-0.5164	-0.2864	-0.0018
370	SLU 29	-6.38	0.57	31.91	-0.5142	-0.2842	-0.0018
370	SLU 30	-6.38	0.57	31.87	-0.5126	-0.2841	-0.0018
370	SLU 31	-6.78	0.6	33.12	-0.5371	-0.3022	-0.0019
370	SLU 32	-7.02	0.63	34.29	-0.5638	-0.3132	-0.002
370	SLU 33	-7.02	0.62	34.24	-0.5623	-0.3131	-0.002
370	SLU 34	-6.97	0.62	34.02	-0.5575	-0.3108	-0.0019
370	SLU 35	-7.22	0.65	35.2	-0.5841	-0.3218	-0.002
370	SLU 36	-7.21	0.65	35.15	-0.5826	-0.3218	-0.002
370	SLU 37	-7.17	0.64	35.01	-0.5803	-0.3195	-0.002
370	SLU 38	-7.16	0.64	34.96	-0.5788	-0.3195	-0.002
370	SLU 39	-7.12	0.63	34.52	-0.568	-0.3174	-0.002
370	SLU 40	-7.11	0.63	34.48	-0.5665	-0.3174	-0.002
370	SLU 41	-7.31	0.65	35.43	-0.5884	-0.3261	-0.002
370	SLU 42	-7.31	0.65	35.38	-0.5868	-0.326	-0.002
370	SLU 43	-6.52	0.56	33.92	-0.5026	-0.29	-0.0017
370	SLU 44	-6.52	0.56	33.84	-0.5	-0.2898	-0.0017
370	SLU 45	-6.77	0.59	35.01	-0.5267	-0.3009	-0.0018
370	SLU 46	-6.76	0.58	34.96	-0.5252	-0.3008	-0.0018
370	SLU 47	-6.71	0.58	34.74	-0.5204	-0.2985	-0.0018
370	SLU 48	-6.96	0.61	35.92	-0.547	-0.3095	-0.0019
370	SLU 49	-6.96	0.61	35.87	-0.5455	-0.3094	-0.0019
370	SLU 50	-6.91	0.6	35.73	-0.5432	-0.3072	-0.0019
370	SLU 51	-6.91	0.6	35.68	-0.5417	-0.3071	-0.0019
370	SLU 52	-7.3	0.63	36.93	-0.5662	-0.3252	-0.002
370	SLU 53	-7.55	0.66	38.11	-0.5929	-0.3362	-0.0021
370	SLU 54	-7.55	0.66	38.06	-0.5913	-0.3362	-0.0021
370	SLU 55	-7.5	0.65	37.84	-0.5865	-0.3338	-0.002
370	SLU 56	-7.74	0.68	39.02	-0.6132	-0.3449	-0.0021
370	SLU 57	-7.74	0.68	38.97	-0.6117	-0.3448	-0.0021
370	SLU 58	-7.69	0.68	38.83	-0.6094	-0.3426	-0.0021
370	SLU 59	-7.69	0.68	38.78	-0.6079	-0.3425	-0.0021
370	SLU 60	-7.64	0.66	38.34	-0.5971	-0.3405	-0.0021
370	SLU 61	-7.64	0.66	38.3	-0.5956	-0.3404	-0.0021
370	SLU 62	-7.84	0.69	39.25	-0.6174	-0.3491	-0.0021
370	SLU 63	-7.84	0.68	39.2	-0.6159	-0.349	-0.0021
370	SLU 64	-7.3	0.64	37.09	-0.5714	-0.3247	-0.002
370	SLU 65	-7.29	0.63	37.01	-0.5688	-0.3246	-0.002
370	SLU 66	-7.54	0.66	38.18	-0.5955	-0.3356	-0.0021



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
370	SLU 67	-7.54	0.66	38.14	-0.594	-0.3355	-0.0021
370	SLU 68	-7.49	0.65	37.92	-0.5891	-0.3332	-0.002
370	SLU 69	-7.73	0.68	39.09	-0.6158	-0.3442	-0.0021
370	SLU 70	-7.73	0.68	39.04	-0.6143	-0.3442	-0.0021
370	SLU 71	-7.68	0.68	38.9	-0.612	-0.3419	-0.0021
370	SLU 72	-7.68	0.68	38.86	-0.6105	-0.3419	-0.0021
370	SLU 73	-8.08	0.71	40.11	-0.635	-0.3599	-0.0022
370	SLU 74	-8.32	0.74	41.28	-0.6616	-0.371	-0.0023
370	SLU 75	-8.32	0.73	41.23	-0.6601	-0.3709	-0.0023
370	SLU 76	-8.27	0.73	41.01	-0.6553	-0.3685	-0.0023
370	SLU 77	-8.52	0.76	42.19	-0.682	-0.3796	-0.0024
370	SLU 78	-8.52	0.76	42.14	-0.6804	-0.3795	-0.0024
370	SLU 79	-8.47	0.75	42	-0.6782	-0.3773	-0.0024
370	SLU 80	-8.47	0.75	41.95	-0.6766	-0.3772	-0.0024
370	SLU 81	-8.42	0.74	41.51	-0.6659	-0.3752	-0.0023
370	SLU 82	-8.42	0.74	41.47	-0.6644	-0.3751	-0.0023
370	SLU 83	-8.61	0.76	42.42	-0.6862	-0.3838	-0.0024
370	SLU 84	-8.61	0.76	42.37	-0.6847	-0.3837	-0.0024
370	SLE RA 1	-5.44	0.47	27.83	-0.4244	-0.2421	-0.0015
370	SLE RA 2	-5.44	0.47	27.78	-0.4227	-0.242	-0.0015
370	SLE RA 3	-5.6	0.49	28.56	-0.4405	-0.2494	-0.0015
370	SLE RA 4	-5.6	0.49	28.53	-0.4395	-0.2494	-0.0015
370	SLE RA 5	-5.57	0.48	28.38	-0.4362	-0.2478	-0.0015
370	SLE RA 6	-5.73	0.5	29.17	-0.454	-0.2552	-0.0016
370	SLE RA 7	-5.73	0.5	29.14	-0.453	-0.2551	-0.0016
370	SLE RA 8	-5.7	0.5	29.04	-0.4515	-0.2536	-0.0016
370	SLE RA 9	-5.7	0.5	29.01	-0.4505	-0.2536	-0.0016
370	SLE RA 10	-5.96	0.52	29.84	-0.4668	-0.2656	-0.0016
370	SLE RA 11	-6.13	0.54	30.63	-0.4846	-0.273	-0.0017
370	SLE RA 12	-6.13	0.54	30.6	-0.4836	-0.2729	-0.0017
370	SLE RA 13	-6.09	0.53	30.45	-0.4804	-0.2714	-0.0017
370	SLE RA 14	-6.26	0.55	31.23	-0.4981	-0.2787	-0.0017
370	SLE RA 15	-6.26	0.55	31.2	-0.4971	-0.2787	-0.0017
370	SLE RA 16	-6.22	0.55	31.11	-0.4956	-0.2772	-0.0017
370	SLE RA 17	-6.22	0.55	31.08	-0.4946	-0.2771	-0.0017
370	SLE RA 18	-6.19	0.54	30.78	-0.4874	-0.2758	-0.0017
370	SLE RA 19	-6.19	0.54	30.75	-0.4864	-0.2757	-0.0017
370	SLE RA 20	-6.32	0.56	31.39	-0.501	-0.2815	-0.0017
370	SLE RA 21	-6.32	0.56	31.36	-0.4999	-0.2815	-0.0017
370	SLE FR 1	-5.44	0.47	27.83	-0.4244	-0.2421	-0.0015
370	SLE FR 2	-5.44	0.47	27.82	-0.4241	-0.2421	-0.0015
370	SLE FR 3	-5.49	0.48	28.07	-0.4298	-0.2444	-0.0015
370	SLE FR 4	-5.67	0.49	28.71	-0.443	-0.2522	-0.0015
370	SLE FR 5	-5.72	0.5	28.96	-0.4487	-0.2545	-0.0016
370	SLE FR 6	-5.82	0.51	29.31	-0.4559	-0.259	-0.0016
370	SLE QP 1	-5.44	0.47	27.83	-0.4244	-0.2421	-0.0015
370	SLE QP 2	-5.67	0.49	28.72	-0.4433	-0.2522	-0.0015
370	SLD 1	-1.84	0.52	19.94	-0.4677	-0.077	-0.0013
370	SLD 2	-1.84	0.52	19.94	-0.4677	-0.077	-0.0013
370	SLD 3	-2.46	0.57	21.7	-0.514	-0.1018	-0.0014
370	SLD 4	-2.46	0.57	21.7	-0.514	-0.1018	-0.0014
370	SLD 5	-3.58	0.43	23.42	-0.3805	-0.1619	-0.0012
370	SLD 6	-3.58	0.43	23.42	-0.3805	-0.1619	-0.0012
370	SLD 7	-5.65	0.59	29.27	-0.5346	-0.2448	-0.0017
370	SLD 8	-5.65	0.59	29.27	-0.5346	-0.2448	-0.0017
370	SLD 9	-5.69	0.39	28.16	-0.352	-0.2596	-0.0014
370	SLD 10	-5.69	0.39	28.16	-0.352	-0.2596	-0.0014
370	SLD 11	-7.75	0.56	34.01	-0.5061	-0.3425	-0.0018
370	SLD 12	-7.75	0.56	34.01	-0.5061	-0.3425	-0.0018
370	SLD 13	-8.87	0.41	35.74	-0.3726	-0.4026	-0.0016
370	SLD 14	-8.87	0.41	35.74	-0.3726	-0.4026	-0.0016
370	SLD 15	-9.49	0.46	37.49	-0.4189	-0.4275	-0.0018
370	SLD 16	-9.49	0.46	37.49	-0.4189	-0.4275	-0.0018
370	SLV 1	3.25	0.56	8.21	-0.5	0.1567	-0.0009
370	SLV 2	3.25	0.56	8.21	-0.5	0.1567	-0.0009
370	SLV 3	1.79	0.68	12.36	-0.6095	0.098	-0.0013
370	SLV 4	1.79	0.68	12.36	-0.6095	0.098	-0.0013
370	SLV 5	-0.77	0.34	16.28	-0.2942	-0.0405	-0.0008
370	SLV 6	-0.77	0.34	16.28	-0.2942	-0.0405	-0.0008
370	SLV 7	-5.65	0.73	30.1	-0.6593	-0.2362	-0.002
370	SLV 8	-5.65	0.73	30.1	-0.6593	-0.2362	-0.002
370	SLV 9	-5.68	0.26	27.34	-0.2273	-0.2683	-0.0011
370	SLV 10	-5.68	0.26	27.34	-0.2273	-0.2683	-0.0011
370	SLV 11	-10.56	0.65	41.16	-0.5924	-0.4639	-0.0022
370	SLV 12	-10.56	0.65	41.16	-0.5924	-0.4639	-0.0022
370	SLV 13	-13.12	0.31	45.08	-0.2771	-0.6024	-0.0018
370	SLV 14	-13.12	0.31	45.08	-0.2771	-0.6024	-0.0018
370	SLV 15	-14.59	0.42	49.22	-0.3866	-0.6611	-0.0021
370	SLV 16	-14.59	0.42	49.22	-0.3866	-0.6611	-0.0021
371	SLU 1	-5.54	0.67	31.38	-0.4627	-0.28	0.0012
371	SLU 2	-5.53	0.66	31.31	-0.4596	-0.2797	0.0012
371	SLU 3	-5.79	0.71	32.72	-0.4906	-0.2929	0.0013
371	SLU 4	-5.79	0.71	32.67	-0.4887	-0.2927	0.0013
371	SLU 5	-5.74	0.7	32.4	-0.4832	-0.2901	0.0013
371	SLU 6	-5.99	0.74	33.81	-0.5142	-0.3033	0.0014
371	SLU 7	-5.99	0.74	33.77	-0.5123	-0.3031	0.0014
371	SLU 8	-5.95	0.74	33.57	-0.5099	-0.3008	0.0014



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
371	SLU 9	-5.94	0.73	33.53	-0.5081	-0.3006	0.0014
371	SLU 10	-6.31	0.77	35.13	-0.5351	-0.3193	0.0014
371	SLU 11	-6.57	0.82	36.54	-0.566	-0.3325	0.0015
371	SLU 12	-6.56	0.81	36.5	-0.5642	-0.3323	0.0015
371	SLU 13	-6.51	0.81	36.23	-0.5587	-0.3297	0.0015
371	SLU 14	-6.77	0.85	37.64	-0.5896	-0.3429	0.0016
371	SLU 15	-6.76	0.85	37.6	-0.5878	-0.3427	0.0016
371	SLU 16	-6.72	0.85	37.4	-0.5854	-0.3404	0.0016
371	SLU 17	-6.71	0.84	37.36	-0.5835	-0.3402	0.0016
371	SLU 18	-6.65	0.82	36.85	-0.5705	-0.3365	0.0015
371	SLU 19	-6.64	0.82	36.81	-0.5686	-0.3364	0.0015
371	SLU 20	-6.85	0.86	37.95	-0.5941	-0.3469	0.0016
371	SLU 21	-6.84	0.86	37.9	-0.5922	-0.3468	0.0016
371	SLU 22	-6.31	0.78	35.27	-0.5414	-0.3194	0.0014
371	SLU 23	-6.3	0.78	35.19	-0.5383	-0.3191	0.0014
371	SLU 24	-6.56	0.82	36.6	-0.5693	-0.3323	0.0015
371	SLU 25	-6.56	0.82	36.56	-0.5675	-0.3321	0.0015
371	SLU 26	-6.51	0.81	36.29	-0.5619	-0.3295	0.0015
371	SLU 27	-6.76	0.86	37.7	-0.5929	-0.3427	0.0016
371	SLU 28	-6.76	0.85	37.65	-0.5911	-0.3425	0.0016
371	SLU 29	-6.72	0.85	37.46	-0.5886	-0.3402	0.0016
371	SLU 30	-6.71	0.85	37.42	-0.5868	-0.34	0.0016
371	SLU 31	-7.08	0.89	39.02	-0.6138	-0.3587	0.0016
371	SLU 32	-7.34	0.93	40.43	-0.6448	-0.3719	0.0017
371	SLU 33	-7.33	0.93	40.39	-0.6429	-0.3717	0.0017
371	SLU 34	-7.28	0.92	40.12	-0.6374	-0.3691	0.0017
371	SLU 35	-7.54	0.97	41.53	-0.6684	-0.3823	0.0018
371	SLU 36	-7.53	0.96	41.48	-0.6665	-0.3821	0.0018
371	SLU 37	-7.49	0.96	41.29	-0.6641	-0.3798	0.0018
371	SLU 38	-7.48	0.96	41.25	-0.6622	-0.3796	0.0018
371	SLU 39	-7.42	0.94	40.74	-0.6492	-0.376	0.0017
371	SLU 40	-7.41	0.93	40.69	-0.6474	-0.3758	0.0017
371	SLU 41	-7.62	0.97	41.84	-0.6728	-0.3864	0.0018
371	SLU 42	-7.61	0.97	41.79	-0.671	-0.3862	0.0018
371	SLU 43	-6.94	0.83	39.46	-0.5745	-0.3504	0.0015
371	SLU 44	-6.93	0.83	39.39	-0.5714	-0.3501	0.0015
371	SLU 45	-7.19	0.87	40.8	-0.6024	-0.3633	0.0016
371	SLU 46	-7.19	0.87	40.75	-0.6006	-0.3632	0.0016
371	SLU 47	-7.13	0.86	40.48	-0.595	-0.3605	0.0016
371	SLU 48	-7.39	0.9	41.89	-0.626	-0.3737	0.0017
371	SLU 49	-7.39	0.9	41.85	-0.6242	-0.3736	0.0017
371	SLU 50	-7.34	0.9	41.66	-0.6217	-0.3712	0.0017
371	SLU 51	-7.34	0.9	41.61	-0.6199	-0.3711	0.0017
371	SLU 52	-7.71	0.93	43.22	-0.6469	-0.3897	0.0017
371	SLU 53	-7.96	0.98	44.63	-0.6779	-0.4029	0.0018
371	SLU 54	-7.96	0.98	44.58	-0.676	-0.4028	0.0018
371	SLU 55	-7.91	0.97	44.31	-0.6705	-0.4001	0.0018
371	SLU 56	-8.17	1.01	45.72	-0.7015	-0.4133	0.0019
371	SLU 57	-8.16	1.01	45.68	-0.6996	-0.4132	0.0019
371	SLU 58	-8.12	1.01	45.49	-0.6972	-0.4108	0.0019
371	SLU 59	-8.11	1	45.44	-0.6953	-0.4107	0.0019
371	SLU 60	-8.04	0.98	44.93	-0.6823	-0.407	0.0018
371	SLU 61	-8.04	0.98	44.89	-0.6805	-0.4068	0.0018
371	SLU 62	-8.25	1.02	46.03	-0.7059	-0.4174	0.0019
371	SLU 63	-8.24	1.02	45.98	-0.7041	-0.4172	0.0019
371	SLU 64	-7.71	0.94	43.35	-0.6532	-0.3899	0.0017
371	SLU 65	-7.7	0.94	43.28	-0.6502	-0.3896	0.0017
371	SLU 66	-7.96	0.98	44.68	-0.6811	-0.4028	0.0018
371	SLU 67	-7.96	0.98	44.64	-0.6793	-0.4026	0.0018
371	SLU 68	-7.9	0.97	44.37	-0.6738	-0.4	0.0018
371	SLU 69	-8.16	1.02	45.78	-0.7047	-0.4132	0.0019
371	SLU 70	-8.16	1.02	45.74	-0.7029	-0.413	0.0019
371	SLU 71	-8.11	1.01	45.54	-0.7004	-0.4107	0.0019
371	SLU 72	-8.11	1.01	45.5	-0.6986	-0.4105	0.0019
371	SLU 73	-8.48	1.05	47.1	-0.7256	-0.4292	0.0019
371	SLU 74	-8.73	1.09	48.51	-0.7566	-0.4424	0.002
371	SLU 75	-8.73	1.09	48.47	-0.7547	-0.4422	0.002
371	SLU 76	-8.68	1.08	48.2	-0.7492	-0.4396	0.002
371	SLU 77	-8.94	1.13	49.61	-0.7802	-0.4528	0.0021
371	SLU 78	-8.93	1.12	49.56	-0.7783	-0.4526	0.0021
371	SLU 79	-8.89	1.12	49.37	-0.7759	-0.4503	0.0021
371	SLU 80	-8.88	1.12	49.33	-0.774	-0.4501	0.0021
371	SLU 81	-8.82	1.1	48.82	-0.761	-0.4465	0.002
371	SLU 82	-8.81	1.1	48.78	-0.7592	-0.4463	0.002
371	SLU 83	-9.02	1.13	49.92	-0.7846	-0.4569	0.0021
371	SLU 84	-9.01	1.13	49.87	-0.7828	-0.4567	0.0021
371	SLE RA 1	-5.76	0.7	32.49	-0.4852	-0.2912	0.0013
371	SLE RA 2	-5.76	0.7	32.44	-0.4831	-0.291	0.0013
371	SLE RA 3	-5.93	0.73	33.38	-0.5038	-0.2998	0.0013
371	SLE RA 4	-5.93	0.73	33.35	-0.5026	-0.2997	0.0013
371	SLE RA 5	-5.89	0.72	33.17	-0.4989	-0.298	0.0013
371	SLE RA 6	-6.06	0.75	34.11	-0.5195	-0.3068	0.0014
371	SLE RA 7	-6.06	0.75	34.08	-0.5183	-0.3067	0.0014
371	SLE RA 8	-6.03	0.75	33.95	-0.5167	-0.3051	0.0014
371	SLE RA 9	-6.03	0.74	33.92	-0.5154	-0.305	0.0014
371	SLE RA 10	-6.27	0.77	34.99	-0.5334	-0.3174	0.0014
371	SLE RA 11	-6.44	0.8	35.93	-0.5541	-0.3262	0.0015



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
371	SLE RA 12	-6.44	0.8	35.9	-0.5528	-0.3261	0.0015
371	SLE RA 13	-6.41	0.79	35.73	-0.5492	-0.3244	0.0015
371	SLE RA 14	-6.58	0.82	36.67	-0.5698	-0.3332	0.0015
371	SLE RA 15	-6.58	0.82	36.63	-0.5686	-0.3331	0.0015
371	SLE RA 16	-6.55	0.82	36.51	-0.567	-0.3315	0.0015
371	SLE RA 17	-6.54	0.82	36.48	-0.5657	-0.3314	0.0015
371	SLE RA 18	-6.5	0.8	36.14	-0.557	-0.329	0.0015
371	SLE RA 19	-6.5	0.8	36.11	-0.5558	-0.3288	0.0015
371	SLE RA 20	-6.63	0.83	36.87	-0.5728	-0.3359	0.0015
371	SLE RA 21	-6.63	0.83	36.84	-0.5715	-0.3358	0.0015
371	SLE FR 1	-5.76	0.7	32.49	-0.4852	-0.2912	0.0013
371	SLE FR 2	-5.76	0.7	32.48	-0.4848	-0.2912	0.0013
371	SLE FR 3	-5.82	0.71	32.78	-0.4915	-0.294	0.0013
371	SLE FR 4	-5.98	0.73	33.58	-0.5063	-0.3025	0.0014
371	SLE FR 5	-6.04	0.74	33.88	-0.513	-0.3053	0.0014
371	SLE FR 6	-6.13	0.75	34.32	-0.5211	-0.3101	0.0014
371	SLE QP 1	-5.76	0.7	32.49	-0.4852	-0.2912	0.0013
371	SLE QP 2	-5.98	0.73	33.59	-0.5067	-0.3026	0.0014
371	SLD 1	-2.55	0.74	18.98	-0.5201	-0.1077	0.0013
371	SLD 2	-2.55	0.74	18.98	-0.5201	-0.1077	0.0013
371	SLD 3	-3.08	0.83	21.09	-0.5774	-0.1315	0.0015
371	SLD 4	-3.08	0.83	21.09	-0.5774	-0.1315	0.0015
371	SLD 5	-4.16	0.6	26	-0.4239	-0.2081	0.001
371	SLD 6	-4.16	0.6	26	-0.4239	-0.2081	0.001
371	SLD 7	-5.91	0.9	33.04	-0.6148	-0.2873	0.0017
371	SLD 8	-5.91	0.9	33.04	-0.6148	-0.2873	0.0017
371	SLD 9	-6.06	0.57	34.13	-0.3987	-0.3178	0.001
371	SLD 10	-6.06	0.57	34.13	-0.3987	-0.3178	0.001
371	SLD 11	-7.81	0.86	41.17	-0.5896	-0.3971	0.0017
371	SLD 12	-7.81	0.86	41.17	-0.5896	-0.3971	0.0017
371	SLD 13	-8.89	0.63	46.08	-0.4361	-0.4736	0.0012
371	SLD 14	-8.89	0.63	46.08	-0.4361	-0.4736	0.0012
371	SLD 15	-9.41	0.72	48.19	-0.4934	-0.4974	0.0014
371	SLD 16	-9.41	0.72	48.19	-0.4934	-0.4974	0.0014
371	SLV 1	2.02	0.76	-0.53	-0.5377	0.152	0.0013
371	SLV 2	2.02	0.76	-0.53	-0.5377	0.152	0.0013
371	SLV 3	0.79	0.97	4.48	-0.6729	0.096	0.0018
371	SLV 4	0.79	0.97	4.48	-0.6729	0.096	0.0018
371	SLV 5	-1.71	0.43	15.74	-0.311	-0.0813	0.0006
371	SLV 6	-1.71	0.43	15.74	-0.311	-0.0813	0.0006
371	SLV 7	-5.83	1.12	32.46	-0.7616	-0.2679	0.0022
371	SLV 8	-5.83	1.12	32.46	-0.7616	-0.2679	0.0022
371	SLV 9	-6.14	0.35	34.71	-0.2519	-0.3372	0.0005
371	SLV 10	-6.14	0.35	34.71	-0.2519	-0.3372	0.0005
371	SLV 11	-10.26	1.04	51.43	-0.7025	-0.5238	0.0021
371	SLV 12	-10.26	1.04	51.43	-0.7025	-0.5238	0.0021
371	SLV 13	-12.75	0.49	62.69	-0.3406	-0.7011	0.0009
371	SLV 14	-12.75	0.49	62.69	-0.3406	-0.7011	0.0009
371	SLV 15	-13.99	0.7	67.71	-0.4758	-0.7571	0.0014
371	SLV 16	-13.99	0.7	67.71	-0.4758	-0.7571	0.0014
372	SLU 1	-6.02	0.31	20.97	-0.2417	-0.1734	-0.0362
372	SLU 2	-6.01	0.31	20.93	-0.2401	-0.1731	-0.036
372	SLU 3	-6.29	0.33	21.89	-0.2564	-0.1813	-0.0384
372	SLU 4	-6.28	0.33	21.87	-0.2554	-0.1811	-0.0383
372	SLU 5	-6.23	0.32	21.68	-0.2525	-0.1795	-0.0378
372	SLU 6	-6.51	0.35	22.64	-0.2689	-0.1876	-0.0403
372	SLU 7	-6.5	0.35	22.62	-0.2679	-0.1875	-0.0402
372	SLU 8	-6.45	0.34	22.47	-0.2667	-0.1861	-0.04
372	SLU 9	-6.45	0.34	22.45	-0.2657	-0.1859	-0.0398
372	SLU 10	-6.81	0.36	23.62	-0.2794	-0.1971	-0.0419
372	SLU 11	-7.09	0.38	24.58	-0.2957	-0.2052	-0.0443
372	SLU 12	-7.08	0.38	24.55	-0.2947	-0.2051	-0.0442
372	SLU 13	-7.03	0.37	24.37	-0.2918	-0.2034	-0.0437
372	SLU 14	-7.31	0.4	25.33	-0.3082	-0.2116	-0.0462
372	SLU 15	-7.3	0.4	25.31	-0.3072	-0.2114	-0.046
372	SLU 16	-7.26	0.39	25.16	-0.306	-0.21	-0.0459
372	SLU 17	-7.25	0.39	25.14	-0.305	-0.2099	-0.0457
372	SLU 18	-7.16	0.38	24.81	-0.2979	-0.2076	-0.0446
372	SLU 19	-7.16	0.38	24.79	-0.2969	-0.2074	-0.0445
372	SLU 20	-7.38	0.4	25.56	-0.3104	-0.2139	-0.0465
372	SLU 21	-7.37	0.4	25.54	-0.3094	-0.2138	-0.0464
372	SLU 22	-6.82	0.36	23.68	-0.2829	-0.1973	-0.0424
372	SLU 23	-6.81	0.36	23.64	-0.2812	-0.1971	-0.0421
372	SLU 24	-7.09	0.38	24.6	-0.2976	-0.2052	-0.0446
372	SLU 25	-7.09	0.38	24.58	-0.2966	-0.205	-0.0445
372	SLU 26	-7.03	0.38	24.39	-0.2937	-0.2034	-0.044
372	SLU 27	-7.31	0.4	25.36	-0.31	-0.2115	-0.0465
372	SLU 28	-7.3	0.4	25.33	-0.309	-0.2114	-0.0463
372	SLU 29	-7.26	0.4	25.19	-0.3078	-0.21	-0.0461
372	SLU 30	-7.25	0.4	25.16	-0.3068	-0.2098	-0.046
372	SLU 31	-7.61	0.41	26.33	-0.3205	-0.221	-0.048
372	SLU 32	-7.89	0.43	27.29	-0.3369	-0.2291	-0.0505
372	SLU 33	-7.89	0.43	27.27	-0.3359	-0.229	-0.0503
372	SLU 34	-7.83	0.43	27.08	-0.333	-0.2273	-0.0499
372	SLU 35	-8.11	0.45	28.04	-0.3494	-0.2355	-0.0524
372	SLU 36	-8.1	0.45	28.02	-0.3484	-0.2353	-0.0522
372	SLU 37	-8.06	0.45	27.87	-0.3471	-0.2339	-0.052



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
372	SLU 38	-8.05	0.45	27.85	-0.3461	-0.2338	-0.0519
372	SLU 39	-7.97	0.43	27.52	-0.3391	-0.2315	-0.0508
372	SLU 40	-7.96	0.43	27.5	-0.3381	-0.2313	-0.0507
372	SLU 41	-8.19	0.45	28.27	-0.3515	-0.2378	-0.0527
372	SLU 42	-8.18	0.45	28.25	-0.3505	-0.2377	-0.0525
372	SLU 43	-7.55	0.39	26.33	-0.3001	-0.2173	-0.045
372	SLU 44	-7.54	0.38	26.29	-0.2985	-0.217	-0.0447
372	SLU 45	-7.82	0.4	27.25	-0.3148	-0.2251	-0.0472
372	SLU 46	-7.81	0.4	27.23	-0.3138	-0.225	-0.047
372	SLU 47	-7.76	0.4	27.04	-0.3109	-0.2233	-0.0466
372	SLU 48	-8.03	0.42	28	-0.3273	-0.2315	-0.0491
372	SLU 49	-8.03	0.42	27.98	-0.3263	-0.2313	-0.0489
372	SLU 50	-7.98	0.42	27.84	-0.3251	-0.2299	-0.0487
372	SLU 51	-7.98	0.42	27.81	-0.3241	-0.2298	-0.0486
372	SLU 52	-8.34	0.43	28.98	-0.3378	-0.2409	-0.0506
372	SLU 53	-8.62	0.45	29.94	-0.3542	-0.2491	-0.0531
372	SLU 54	-8.61	0.45	29.92	-0.3532	-0.2489	-0.0529
372	SLU 55	-8.56	0.45	29.73	-0.3503	-0.2472	-0.0525
372	SLU 56	-8.84	0.47	30.69	-0.3666	-0.2554	-0.055
372	SLU 57	-8.83	0.47	30.67	-0.3656	-0.2552	-0.0548
372	SLU 58	-8.79	0.47	30.52	-0.3644	-0.2539	-0.0546
372	SLU 59	-8.78	0.47	30.5	-0.3634	-0.2537	-0.0545
372	SLU 60	-8.69	0.46	30.17	-0.3563	-0.2514	-0.0534
372	SLU 61	-8.69	0.46	30.15	-0.3553	-0.2513	-0.0532
372	SLU 62	-8.91	0.47	30.92	-0.3688	-0.2578	-0.0553
372	SLU 63	-8.9	0.47	30.9	-0.3678	-0.2576	-0.0551
372	SLU 64	-8.35	0.44	29.04	-0.3413	-0.2412	-0.0511
372	SLU 65	-8.34	0.44	29	-0.3396	-0.2409	-0.0509
372	SLU 66	-8.62	0.46	29.96	-0.356	-0.249	-0.0534
372	SLU 67	-8.61	0.46	29.94	-0.355	-0.2489	-0.0532
372	SLU 68	-8.56	0.45	29.75	-0.3521	-0.2472	-0.0528
372	SLU 69	-8.84	0.47	30.72	-0.3684	-0.2554	-0.0552
372	SLU 70	-8.83	0.47	30.69	-0.3674	-0.2552	-0.0551
372	SLU 71	-8.79	0.47	30.55	-0.3662	-0.2538	-0.0549
372	SLU 72	-8.78	0.47	30.52	-0.3652	-0.2537	-0.0547
372	SLU 73	-9.14	0.49	31.69	-0.3789	-0.2648	-0.0568
372	SLU 74	-9.42	0.51	32.65	-0.3953	-0.273	-0.0592
372	SLU 75	-9.42	0.51	32.63	-0.3943	-0.2728	-0.0591
372	SLU 76	-9.36	0.5	32.44	-0.3914	-0.2711	-0.0587
372	SLU 77	-9.64	0.52	33.4	-0.4078	-0.2793	-0.0611
372	SLU 78	-9.63	0.52	33.38	-0.4068	-0.2791	-0.061
372	SLU 79	-9.59	0.52	33.24	-0.4056	-0.2778	-0.0608
372	SLU 80	-9.58	0.52	33.21	-0.4045	-0.2776	-0.0606
372	SLU 81	-9.5	0.51	32.88	-0.3975	-0.2753	-0.0596
372	SLU 82	-9.49	0.51	32.86	-0.3965	-0.2752	-0.0594
372	SLU 83	-9.72	0.53	33.64	-0.4099	-0.2817	-0.0614
372	SLU 84	-9.71	0.52	33.61	-0.4089	-0.2815	-0.0613
372	SLE RA 1	-6.25	0.33	21.75	-0.2535	-0.1803	-0.038
372	SLE RA 2	-6.24	0.32	21.72	-0.2524	-0.1801	-0.0378
372	SLE RA 3	-6.43	0.34	22.36	-0.2633	-0.1855	-0.0395
372	SLE RA 4	-6.42	0.34	22.34	-0.2626	-0.1854	-0.0394
372	SLE RA 5	-6.39	0.33	22.22	-0.2607	-0.1843	-0.0391
372	SLE RA 6	-6.57	0.35	22.86	-0.2716	-0.1897	-0.0407
372	SLE RA 7	-6.57	0.35	22.84	-0.2709	-0.1896	-0.0406
372	SLE RA 8	-6.54	0.35	22.75	-0.2701	-0.1887	-0.0405
372	SLE RA 9	-6.53	0.35	22.73	-0.2694	-0.1886	-0.0404
372	SLE RA 10	-6.77	0.36	23.51	-0.2786	-0.196	-0.0417
372	SLE RA 11	-6.96	0.37	24.15	-0.2895	-0.2015	-0.0434
372	SLE RA 12	-6.96	0.37	24.13	-0.2888	-0.2013	-0.0433
372	SLE RA 13	-6.92	0.37	24.01	-0.2869	-0.2002	-0.043
372	SLE RA 14	-7.11	0.38	24.65	-0.2978	-0.2057	-0.0446
372	SLE RA 15	-7.1	0.38	24.64	-0.2971	-0.2056	-0.0445
372	SLE RA 16	-7.07	0.38	24.54	-0.2963	-0.2047	-0.0444
372	SLE RA 17	-7.07	0.38	24.52	-0.2957	-0.2045	-0.0443
372	SLE RA 18	-7.01	0.37	24.31	-0.2909	-0.203	-0.0436
372	SLE RA 19	-7.01	0.37	24.29	-0.2903	-0.2029	-0.0435
372	SLE RA 20	-7.16	0.38	24.81	-0.2993	-0.2073	-0.0449
372	SLE RA 21	-7.15	0.38	24.79	-0.2986	-0.2072	-0.0447
372	SLE FR 1	-6.25	0.33	21.75	-0.2535	-0.1803	-0.038
372	SLE FR 2	-6.25	0.33	21.74	-0.2533	-0.1802	-0.038
372	SLE FR 3	-6.31	0.33	21.95	-0.2568	-0.182	-0.0385
372	SLE FR 4	-6.48	0.34	22.51	-0.2645	-0.1871	-0.0396
372	SLE FR 5	-6.54	0.34	22.71	-0.268	-0.1888	-0.0402
372	SLE FR 6	-6.63	0.35	23.03	-0.2722	-0.1917	-0.0408
372	SLE QP 1	-6.25	0.33	21.75	-0.2535	-0.1803	-0.038
372	SLE QP 2	-6.48	0.34	22.51	-0.2647	-0.1871	-0.0397
372	SLD 1	-3.05	0.32	10.83	-0.264	-0.0835	-0.0392
372	SLD 2	-3.05	0.32	10.83	-0.264	-0.0835	-0.0392
372	SLD 3	-3.47	0.44	12.28	-0.3018	-0.0963	-0.0454
372	SLD 4	-3.47	0.44	12.28	-0.3018	-0.0963	-0.0454
372	SLD 5	-4.81	0.14	16.81	-0.207	-0.1366	-0.0302
372	SLD 6	-4.81	0.14	16.81	-0.207	-0.1366	-0.0302
372	SLD 7	-6.21	0.56	21.65	-0.3333	-0.1793	-0.0507
372	SLD 8	-6.21	0.56	21.65	-0.3333	-0.1793	-0.0507
372	SLD 9	-6.74	0.12	23.38	-0.1961	-0.1949	-0.0286
372	SLD 10	-6.74	0.12	23.38	-0.1961	-0.1949	-0.0286
372	SLD 11	-8.14	0.54	28.22	-0.3224	-0.2376	-0.0491



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
372	SLD 12	-8.14	0.54	28.22	-0.3224	-0.2376	-0.0491
372	SLD 13	-9.48	0.24	32.74	-0.2276	-0.2779	-0.034
372	SLD 14	-9.48	0.24	32.74	-0.2276	-0.2779	-0.034
372	SLD 15	-9.9	0.36	34.2	-0.2655	-0.2907	-0.0401
372	SLD 16	-9.9	0.36	34.2	-0.2655	-0.2907	-0.0401
372	SLV 1	1.51	0.28	-4.77	-0.2628	0.0547	-0.0386
372	SLV 2	1.51	0.28	-4.77	-0.2628	0.0547	-0.0386
372	SLV 3	0.52	0.58	-1.32	-0.3521	0.0245	-0.0531
372	SLV 4	0.52	0.58	-1.32	-0.3521	0.0245	-0.0531
372	SLV 5	-2.58	-0.12	9.1	-0.1287	-0.0687	-0.0174
372	SLV 6	-2.58	-0.12	9.1	-0.1287	-0.0687	-0.0174
372	SLV 7	-5.88	0.86	20.6	-0.4264	-0.1694	-0.0657
372	SLV 8	-5.88	0.86	20.6	-0.4264	-0.1694	-0.0657
372	SLV 9	-7.08	-0.18	24.43	-0.1031	-0.2048	-0.0137
372	SLV 10	-7.08	-0.18	24.43	-0.1031	-0.2048	-0.0137
372	SLV 11	-10.37	0.8	35.93	-0.4008	-0.3055	-0.062
372	SLV 12	-10.37	0.8	35.93	-0.4008	-0.3055	-0.062
372	SLV 13	-13.47	0.1	46.35	-0.1774	-0.3987	-0.0263
372	SLV 14	-13.47	0.1	46.35	-0.1774	-0.3987	-0.0263
372	SLV 15	-14.46	0.4	49.79	-0.2667	-0.4289	-0.0408
372	SLV 16	-14.46	0.4	49.79	-0.2667	-0.4289	-0.0408
373	SLU 1	-0.02	-11.89	45.29	0.3479	-0.0035	-0.0006
373	SLU 2	-0.02	-11.76	44.85	0.3439	-0.0036	-0.0006
373	SLU 3	-0.02	-12.6	48	0.3689	-0.0038	-0.0007
373	SLU 4	-0.02	-12.52	47.74	0.3665	-0.0038	-0.0007
373	SLU 5	-0.02	-12.37	47.2	0.3619	-0.0038	-0.0007
373	SLU 6	-0.02	-13.22	50.35	0.387	-0.004	-0.0007
373	SLU 7	-0.02	-13.14	50.09	0.3845	-0.004	-0.0007
373	SLU 8	-0.02	-13.12	49.99	0.384	-0.0039	-0.0007
373	SLU 9	-0.02	-13.04	49.73	0.3816	-0.004	-0.0007
373	SLU 10	-0.02	-13.69	52.03	0.4014	-0.0042	-0.0007
373	SLU 11	-0.02	-14.53	55.18	0.4265	-0.0044	-0.0008
373	SLU 12	-0.02	-14.45	54.91	0.4241	-0.0044	-0.0008
373	SLU 13	-0.02	-14.3	54.37	0.4195	-0.0044	-0.0008
373	SLU 14	-0.02	-15.15	57.52	0.4446	-0.0045	-0.0008
373	SLU 15	-0.02	-15.07	57.26	0.4421	-0.0046	-0.0008
373	SLU 16	-0.02	-15.05	57.16	0.4416	-0.0045	-0.0008
373	SLU 17	-0.02	-14.97	56.9	0.4392	-0.0046	-0.0008
373	SLU 18	-0.02	-14.65	55.54	0.4302	-0.0044	-0.0008
373	SLU 19	-0.02	-14.57	55.28	0.4277	-0.0044	-0.0008
373	SLU 20	-0.02	-15.26	57.89	0.4482	-0.0046	-0.0008
373	SLU 21	-0.02	-15.18	57.62	0.4458	-0.0046	-0.0008
373	SLU 22	-0.02	-13.9	52.82	0.4077	-0.0041	-0.0007
373	SLU 23	-0.02	-13.77	52.37	0.4037	-0.0042	-0.0007
373	SLU 24	-0.02	-14.61	55.52	0.4287	-0.0044	-0.0008
373	SLU 25	-0.02	-14.54	55.26	0.4263	-0.0044	-0.0008
373	SLU 26	-0.02	-14.39	54.72	0.4217	-0.0044	-0.0008
373	SLU 27	-0.02	-15.23	57.87	0.4468	-0.0046	-0.0008
373	SLU 28	-0.02	-15.15	57.61	0.4444	-0.0046	-0.0008
373	SLU 29	-0.02	-15.13	57.51	0.4438	-0.0045	-0.0008
373	SLU 30	-0.02	-15.05	57.25	0.4414	-0.0046	-0.0008
373	SLU 31	-0.02	-15.7	59.55	0.4613	-0.0048	-0.0008
373	SLU 32	-0.02	-16.55	62.7	0.4863	-0.005	-0.0009
373	SLU 33	-0.02	-16.47	62.43	0.4839	-0.005	-0.0009
373	SLU 34	-0.02	-16.32	61.9	0.4793	-0.005	-0.0009
373	SLU 35	-0.03	-17.16	65.05	0.5044	-0.0052	-0.0009
373	SLU 36	-0.03	-17.08	64.78	0.502	-0.0052	-0.0009
373	SLU 37	-0.03	-17.06	64.68	0.5014	-0.0051	-0.0009
373	SLU 38	-0.03	-16.99	64.42	0.499	-0.0052	-0.0009
373	SLU 39	-0.02	-16.66	63.06	0.49	-0.005	-0.0009
373	SLU 40	-0.02	-16.58	62.8	0.4876	-0.005	-0.0009
373	SLU 41	-0.03	-17.28	65.41	0.5081	-0.0052	-0.0009
373	SLU 42	-0.03	-17.2	65.15	0.5056	-0.0052	-0.0009
373	SLU 43	-0.02	-14.76	56.3	0.4318	-0.0044	-0.0008
373	SLU 44	-0.02	-14.63	55.86	0.4277	-0.0045	-0.0008
373	SLU 45	-0.02	-15.48	59.01	0.4528	-0.0046	-0.0008
373	SLU 46	-0.02	-15.4	58.75	0.4503	-0.0047	-0.0008
373	SLU 47	-0.02	-15.25	58.21	0.4458	-0.0047	-0.0008
373	SLU 48	-0.02	-16.09	61.36	0.4708	-0.0048	-0.0008
373	SLU 49	-0.02	-16.01	61.1	0.4684	-0.0049	-0.0009
373	SLU 50	-0.02	-15.99	61	0.4679	-0.0048	-0.0008
373	SLU 51	-0.02	-15.92	60.73	0.4655	-0.0048	-0.0008
373	SLU 52	-0.03	-16.56	63.04	0.4853	-0.0051	-0.0009
373	SLU 53	-0.03	-17.41	66.19	0.5104	-0.0052	-0.0009
373	SLU 54	-0.03	-17.33	65.92	0.5079	-0.0053	-0.0009
373	SLU 55	-0.03	-17.18	65.38	0.5034	-0.0053	-0.0009
373	SLU 56	-0.03	-18.02	68.53	0.5284	-0.0054	-0.001
373	SLU 57	-0.03	-17.94	68.27	0.526	-0.0055	-0.001
373	SLU 58	-0.03	-17.93	68.17	0.5255	-0.0054	-0.0009
373	SLU 59	-0.03	-17.85	67.91	0.523	-0.0054	-0.001
373	SLU 60	-0.03	-17.52	66.55	0.514	-0.0052	-0.0009
373	SLU 61	-0.03	-17.44	66.29	0.5116	-0.0053	-0.0009
373	SLU 62	-0.03	-18.14	68.9	0.5321	-0.0054	-0.001
373	SLU 63	-0.03	-18.06	68.63	0.5297	-0.0055	-0.001
373	SLU 64	-0.03	-16.78	63.82	0.4916	-0.005	-0.0009
373	SLU 65	-0.03	-16.65	63.38	0.4875	-0.0051	-0.0009
373	SLU 66	-0.03	-17.49	66.53	0.5126	-0.0052	-0.0009



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
373	SLU 67	-0.03	-17.41	66.27	0.5102	-0.0053	-0.0009
373	SLU 68	-0.03	-17.26	65.73	0.5056	-0.0053	-0.0009
373	SLU 69	-0.03	-18.11	68.88	0.5307	-0.0054	-0.001
373	SLU 70	-0.03	-18.03	68.62	0.5282	-0.0055	-0.001
373	SLU 71	-0.03	-18.01	68.52	0.5277	-0.0054	-0.0009
373	SLU 72	-0.03	-17.93	68.26	0.5253	-0.0054	-0.001
373	SLU 73	-0.03	-18.58	70.56	0.5451	-0.0057	-0.001
373	SLU 74	-0.03	-19.42	73.71	0.5702	-0.0058	-0.001
373	SLU 75	-0.03	-19.34	73.44	0.5678	-0.0059	-0.001
373	SLU 76	-0.03	-19.19	72.9	0.5632	-0.0059	-0.001
373	SLU 77	-0.03	-20.04	76.05	0.5882	-0.006	-0.0011
373	SLU 78	-0.03	-19.96	75.79	0.5858	-0.0061	-0.0011
373	SLU 79	-0.03	-19.94	75.69	0.5853	-0.006	-0.0011
373	SLU 80	-0.03	-19.86	75.43	0.5829	-0.006	-0.0011
373	SLU 81	-0.03	-19.54	74.07	0.5739	-0.0058	-0.001
373	SLU 82	-0.03	-19.46	73.81	0.5714	-0.0059	-0.001
373	SLU 83	-0.03	-20.15	76.42	0.5919	-0.006	-0.0011
373	SLU 84	-0.03	-20.07	76.15	0.5895	-0.0061	-0.0011
373	SLE RA 1	-0.02	-12.46	47.44	0.365	-0.0037	-0.0007
373	SLE RA 2	-0.02	-12.37	47.15	0.3623	-0.0038	-0.0007
373	SLE RA 3	-0.02	-12.94	49.25	0.379	-0.0039	-0.0007
373	SLE RA 4	-0.02	-12.89	49.07	0.3774	-0.0039	-0.0007
373	SLE RA 5	-0.02	-12.79	48.71	0.3743	-0.0039	-0.0007
373	SLE RA 6	-0.02	-13.35	50.81	0.391	-0.004	-0.0007
373	SLE RA 7	-0.02	-13.3	50.64	0.3894	-0.004	-0.0007
373	SLE RA 8	-0.02	-13.28	50.57	0.3891	-0.004	-0.0007
373	SLE RA 9	-0.02	-13.23	50.4	0.3875	-0.004	-0.0007
373	SLE RA 10	-0.02	-13.66	51.93	0.4007	-0.0042	-0.0007
373	SLE RA 11	-0.02	-14.23	54.03	0.4174	-0.0043	-0.0007
373	SLE RA 12	-0.02	-14.17	53.85	0.4158	-0.0043	-0.0008
373	SLE RA 13	-0.02	-14.07	53.5	0.4127	-0.0043	-0.0008
373	SLE RA 14	-0.02	-14.64	55.6	0.4294	-0.0044	-0.0008
373	SLE RA 15	-0.02	-14.58	55.42	0.4278	-0.0044	-0.0008
373	SLE RA 16	-0.02	-14.57	55.35	0.4275	-0.0044	-0.0008
373	SLE RA 17	-0.02	-14.52	55.18	0.4259	-0.0044	-0.0008
373	SLE RA 18	-0.02	-14.3	54.27	0.4198	-0.0043	-0.0008
373	SLE RA 19	-0.02	-14.25	54.1	0.4182	-0.0043	-0.0008
373	SLE RA 20	-0.02	-14.71	55.84	0.4319	-0.0044	-0.0008
373	SLE RA 21	-0.02	-14.66	55.66	0.4303	-0.0044	-0.0008
373	SLE FR 1	-0.02	-12.46	47.44	0.365	-0.0037	-0.0007
373	SLE FR 2	-0.02	-12.44	47.38	0.3645	-0.0037	-0.0007
373	SLE FR 3	-0.02	-12.63	48.07	0.3698	-0.0038	-0.0007
373	SLE FR 4	-0.02	-13	49.43	0.3809	-0.0039	-0.0007
373	SLE FR 5	-0.02	-13.18	50.12	0.3863	-0.0039	-0.0007
373	SLE FR 6	-0.02	-13.38	50.86	0.3924	-0.004	-0.0007
373	SLE QP 1	-0.02	-12.46	47.44	0.365	-0.0037	-0.0007
373	SLE QP 2	-0.02	-13.01	49.49	0.3814	-0.0039	-0.0007
373	SLD 1	-0.13	-12.75	49.11	0.3732	-0.0411	-0.0062
373	SLD 2	-0.13	-12.75	49.11	0.3732	-0.0411	-0.0062
373	SLD 3	-0.15	-15.57	58.01	0.4651	-0.0484	-0.0073
373	SLD 4	-0.15	-15.57	58.01	0.4651	-0.0484	-0.0073
373	SLD 5	-0.01	-8.65	35.88	0.2395	-0.0039	-0.0006
373	SLD 6	-0.01	-8.65	35.88	0.2395	-0.0039	-0.0006
373	SLD 7	-0.1	-18.06	65.55	0.5459	-0.0283	-0.0044
373	SLD 8	-0.1	-18.06	65.55	0.5459	-0.0283	-0.0044
373	SLD 9	0.06	-7.97	33.44	0.2169	0.0206	0.0031
373	SLD 10	0.06	-7.97	33.44	0.2169	0.0206	0.0031
373	SLD 11	-0.03	-17.37	63.11	0.5233	-0.0038	-0.0008
373	SLD 12	-0.03	-17.37	63.11	0.5233	-0.0038	-0.0008
373	SLD 13	0.12	-10.46	40.97	0.2978	0.0406	0.006
373	SLD 14	0.12	-10.46	40.97	0.2978	0.0406	0.006
373	SLD 15	0.09	-13.28	49.87	0.3897	0.0333	0.0048
373	SLD 16	0.09	-13.28	49.87	0.3897	0.0333	0.0048
373	SLV 1	-0.29	-12.38	48.53	0.3616	-0.0951	-0.0143
373	SLV 2	-0.29	-12.38	48.53	0.3616	-0.0951	-0.0143
373	SLV 3	-0.36	-19.06	69.63	0.5793	-0.1137	-0.0172
373	SLV 4	-0.36	-19.06	69.63	0.5793	-0.1137	-0.0172
373	SLV 5	0.01	-2.69	17.2	0.0454	-0.003	-0.0003
373	SLV 6	0.01	-2.69	17.2	0.0454	-0.003	-0.0003
373	SLV 7	-0.23	-24.97	87.54	0.7709	-0.0651	-0.0101
373	SLV 8	-0.23	-24.97	87.54	0.7709	-0.0651	-0.0101
373	SLV 9	0.19	-1.06	11.44	-0.008	0.0574	0.0087
373	SLV 10	0.19	-1.06	11.44	-0.008	0.0574	0.0087
373	SLV 11	-0.05	-23.34	81.79	0.7175	-0.0048	-0.001
373	SLV 12	-0.05	-23.34	81.79	0.7175	-0.0048	-0.001
373	SLV 13	0.32	-6.96	29.35	0.1836	0.106	0.0158
373	SLV 14	0.32	-6.96	29.35	0.1836	0.106	0.0158
373	SLV 15	0.25	-13.65	50.45	0.4013	0.0873	0.0129
373	SLV 16	0.25	-13.65	50.45	0.4013	0.0873	0.0129
3030	SLU 1	0	0	164.74	-7.9509	1.5293	0
3030	SLU 2	0	0	171.42	-8.6546	1.5911	0
3030	SLU 3	0	0	171.5	-8.2873	1.6037	0
3030	SLU 4	0	0	175.51	-8.7095	1.6408	0
3030	SLU 5	0	0	176.68	-8.9093	1.6486	0
3030	SLU 6	0	0	176.77	-8.542	1.6612	0
3030	SLU 7	0	0	180.78	-8.9642	1.6983	0
3030	SLU 8	0	0	175.27	-8.4603	1.6443	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3030	SLU 9	0	0	179.28	-8.8826	1.6814	0
3030	SLU 10	0	0	192.82	-9.6778	1.7747	0
3030	SLU 11	0	0	192.91	-9.3104	1.7873	0
3030	SLU 12	0	0	196.91	-9.7327	1.8244	0
3030	SLU 13	0	0	198.08	-9.9325	1.8322	0
3030	SLU 14	0	0	198.17	-9.5651	1.8448	0
3030	SLU 15	0	0	202.18	-9.9874	1.8819	0
3030	SLU 16	0	0	196.67	-9.4835	1.8279	0
3030	SLU 17	0	0	200.68	-9.9058	1.865	0
3030	SLU 18	0	0	195.31	-9.4126	1.7916	0
3030	SLU 19	0	0	199.32	-9.8349	1.8287	0
3030	SLU 20	0	0	200.58	-9.6673	1.8491	0
3030	SLU 21	0	0	204.58	-10.0896	1.8862	0
3030	SLU 22	0	0	186.91	-9.0316	1.7369	0
3030	SLU 23	0	0	193.59	-9.7353	1.7987	0
3030	SLU 24	0	0	193.68	-9.3679	1.8113	0
3030	SLU 25	0	0	197.69	-9.7901	1.8484	0
3030	SLU 26	0	0	198.86	-9.99	1.8562	0
3030	SLU 27	0	0	198.94	-9.6226	1.8688	0
3030	SLU 28	0	0	202.95	-10.0448	1.9059	0
3030	SLU 29	0	0	197.44	-9.541	1.8519	0
3030	SLU 30	0	0	201.45	-9.9632	1.889	0
3030	SLU 31	0	0	214.99	-10.7585	1.9823	0
3030	SLU 32	0	0	215.08	-10.3911	1.9949	0
3030	SLU 33	0	0	219.09	-10.8133	2.032	0
3030	SLU 34	0	0	220.26	-11.0132	2.0398	0
3030	SLU 35	0	0	220.35	-10.6458	2.0524	0
3030	SLU 36	0	0	224.35	-11.068	2.0895	0
3030	SLU 37	0	0	218.84	-10.5642	2.0355	0
3030	SLU 38	0	0	222.85	-10.9864	2.0726	0
3030	SLU 39	0	0	217.48	-10.4933	1.9991	0
3030	SLU 40	0	0	221.49	-10.9155	2.0362	0
3030	SLU 41	0	0	222.75	-10.748	2.0567	0
3030	SLU 42	0	0	226.76	-11.1702	2.0938	0
3030	SLU 43	0	0	206.55	-9.9657	1.9169	0
3030	SLU 44	0	0	213.24	-10.6694	1.9787	0
3030	SLU 45	0	0	213.32	-10.302	1.9913	0
3030	SLU 46	0	0	217.33	-10.7243	2.0284	0
3030	SLU 47	0	0	218.5	-10.9241	2.0363	0
3030	SLU 48	0	0	218.59	-10.5567	2.0488	0
3030	SLU 49	0	0	222.6	-10.979	2.0859	0
3030	SLU 50	0	0	217.09	-10.4751	2.032	0
3030	SLU 51	0	0	221.1	-10.8973	2.0691	0
3030	SLU 52	0	0	234.64	-11.6926	2.1623	0
3030	SLU 53	0	0	234.72	-11.3252	2.1749	0
3030	SLU 54	0	0	238.73	-11.7474	2.212	0
3030	SLU 55	0	0	239.9	-11.9473	2.2199	0
3030	SLU 56	0	0	239.99	-11.5799	2.2324	0
3030	SLU 57	0	0	244	-12.0021	2.2695	0
3030	SLU 58	0	0	238.49	-11.4983	2.2156	0
3030	SLU 59	0	0	242.5	-11.9205	2.2526	0
3030	SLU 60	0	0	237.13	-11.4274	2.1792	0
3030	SLU 61	0	0	241.14	-11.8496	2.2163	0
3030	SLU 62	0	0	242.39	-11.6821	2.2367	0
3030	SLU 63	0	0	246.4	-12.1043	2.2738	0
3030	SLU 64	0	0	228.73	-11.0464	2.1245	0
3030	SLU 65	0	0	235.41	-11.7501	2.1863	0
3030	SLU 66	0	0	235.5	-11.3827	2.1989	0
3030	SLU 67	0	0	239.5	-11.8049	2.236	0
3030	SLU 68	0	0	240.67	-12.0048	2.2438	0
3030	SLU 69	0	0	240.76	-11.6374	2.2564	0
3030	SLU 70	0	0	244.77	-12.0596	2.2935	0
3030	SLU 71	0	0	239.26	-11.5558	2.2395	0
3030	SLU 72	0	0	243.27	-11.978	2.2766	0
3030	SLU 73	0	0	256.81	-12.7733	2.3699	0
3030	SLU 74	0	0	256.9	-12.4059	2.3825	0
3030	SLU 75	0	0	260.91	-12.8281	2.4196	0
3030	SLU 76	0	0	262.08	-13.028	2.4274	0
3030	SLU 77	0	0	262.16	-12.6606	2.44	0
3030	SLU 78	0	0	266.17	-13.0828	2.4771	0
3030	SLU 79	0	0	260.66	-12.579	2.4231	0
3030	SLU 80	0	0	264.67	-13.0012	2.4602	0
3030	SLU 81	0	0	259.3	-12.5081	2.3868	0
3030	SLU 82	0	0	263.31	-12.9303	2.4239	0
3030	SLU 83	0	0	264.57	-12.7628	2.4443	0
3030	SLU 84	0	0	268.58	-13.185	2.4814	0
3030	SLE RA 1	0	0	171.07	-8.2597	1.5886	0
3030	SLE RA 2	0	0	175.52	-8.7288	1.6298	0
3030	SLE RA 3	0	0	175.58	-8.4839	1.6382	0
3030	SLE RA 4	0	0	178.26	-8.7654	1.6629	0
3030	SLE RA 5	0	0	179.04	-8.8986	1.6682	0
3030	SLE RA 6	0	0	179.09	-8.6537	1.6766	0
3030	SLE RA 7	0	0	181.77	-8.9352	1.7013	0
3030	SLE RA 8	0	0	178.09	-8.5993	1.6653	0
3030	SLE RA 9	0	0	180.77	-8.8808	1.69	0
3030	SLE RA 10	0	0	189.79	-9.411	1.7522	0
3030	SLE RA 11	0	0	189.85	-9.166	1.7606	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3030	SLE RA 12	0	0	192.52	-9.4475	1.7853	0
3030	SLE RA 13	0	0	193.3	-9.5808	1.7906	0
3030	SLE RA 14	0	0	193.36	-9.3358	1.7989	0
3030	SLE RA 15	0	0	196.03	-9.6173	1.8237	0
3030	SLE RA 16	0	0	192.36	-9.2814	1.7877	0
3030	SLE RA 17	0	0	195.03	-9.5629	1.8124	0
3030	SLE RA 18	0	0	191.45	-9.2342	1.7635	0
3030	SLE RA 19	0	0	194.12	-9.5156	1.7882	0
3030	SLE RA 20	0	0	194.96	-9.404	1.8018	0
3030	SLE RA 21	0	0	197.64	-9.6854	1.8265	0
3030	SLE FR 1	0	0	171.07	-8.2597	1.5886	0
3030	SLE FR 2	0	0	171.96	-8.3535	1.5968	0
3030	SLE FR 3	0	0	172.47	-8.3276	1.6039	0
3030	SLE FR 4	0	0	178.08	-8.6459	1.6493	0
3030	SLE FR 5	0	0	178.59	-8.62	1.6564	0
3030	SLE FR 6	0	0	181.26	-8.7469	1.676	0
3030	SLE QP 1	0	0	171.07	-8.2597	1.5886	0
3030	SLE QP 2	0	0	177.18	-8.552	1.6411	0
3030	SLD 1	0	0	249.2	-11.9392	2.4577	0
3030	SLD 2	0	0	249.2	-11.9392	2.4577	0
3030	SLD 3	0	0	229.51	-10.9842	2.2997	0
3030	SLD 4	0	0	229.51	-10.9842	2.2997	0
3030	SLD 5	0	0	228.65	-11.0166	2.1258	0
3030	SLD 6	0	0	228.65	-11.0166	2.1258	0
3030	SLD 7	0	0	163.02	-7.8332	1.5989	0
3030	SLD 8	0	0	163.02	-7.8332	1.5989	0
3030	SLD 9	0	0	191.35	-9.2708	1.6832	0
3030	SLD 10	0	0	191.35	-9.2708	1.6832	0
3030	SLD 11	0	0	125.72	-6.0875	1.1563	0
3030	SLD 12	0	0	125.72	-6.0875	1.1563	0
3030	SLD 13	0	0	124.86	-6.1199	0.9825	0
3030	SLD 14	0	0	124.86	-6.1199	0.9825	0
3030	SLD 15	0	0	105.17	-5.1649	0.8244	0
3030	SLD 16	0	0	105.17	-5.1649	0.8244	0
3030	SLV 1	0	0	346.25	-16.5392	3.5733	0
3030	SLV 2	0	0	346.25	-16.5392	3.5733	0
3030	SLV 3	0	0	300.01	-14.2718	3.1984	0
3030	SLV 4	0	0	300.01	-14.2718	3.1984	0
3030	SLV 5	0	0	298.03	-14.387	2.7893	0
3030	SLV 6	0	0	298.03	-14.387	2.7893	0
3030	SLV 7	0	0	143.9	-6.8291	1.5397	0
3030	SLV 8	0	0	143.9	-6.8291	1.5397	0
3030	SLV 9	0	0	210.46	-10.2749	1.7424	0
3030	SLV 10	0	0	210.46	-10.2749	1.7424	0
3030	SLV 11	0	0	56.34	-2.7171	0.4928	0
3030	SLV 12	0	0	56.34	-2.7171	0.4928	0
3030	SLV 13	0	0	54.36	-2.8323	0.0837	0
3030	SLV 14	0	0	54.36	-2.8323	0.0837	0
3030	SLV 15	0	0	8.12	-0.5649	-0.2912	0
3030	SLV 16	0	0	8.12	-0.5649	-0.2912	0
3367	SLU 1	0	0	134.77	-3.6898	-2.1468	0
3367	SLU 2	0	0	128.14	-3.4646	-2.0323	0
3367	SLU 3	0	0	138.42	-3.7773	-2.1988	0
3367	SLU 4	0	0	134.45	-3.6422	-2.1301	0
3367	SLU 5	0	0	130.43	-3.5198	-2.0647	0
3367	SLU 6	0	0	140.71	-3.8325	-2.2313	0
3367	SLU 7	0	0	136.73	-3.6974	-2.1626	0
3367	SLU 8	0	0	139.34	-3.8002	-2.2118	0
3367	SLU 9	0	0	135.36	-3.6651	-2.1431	0
3367	SLU 10	0	0	145.13	-3.9096	-2.3107	0
3367	SLU 11	0	0	155.42	-4.2223	-2.4773	0
3367	SLU 12	0	0	151.44	-4.0871	-2.4085	0
3367	SLU 13	0	0	147.42	-3.9648	-2.3432	0
3367	SLU 14	0	0	157.71	-4.2775	-2.5098	0
3367	SLU 15	0	0	153.73	-4.1423	-2.441	0
3367	SLU 16	0	0	156.34	-4.2452	-2.4902	0
3367	SLU 17	0	0	152.36	-4.1101	-2.4215	0
3367	SLU 18	0	0	159.05	-4.3255	-2.5445	0
3367	SLU 19	0	0	155.07	-4.1904	-2.4758	0
3367	SLU 20	0	0	161.33	-4.3807	-2.577	0
3367	SLU 21	0	0	157.36	-4.2456	-2.5083	0
3367	SLU 22	0	0	151.5	-4.1225	-2.4143	0
3367	SLU 23	0	0	144.87	-3.8973	-2.2998	0
3367	SLU 24	0	0	155.16	-4.21	-2.4664	0
3367	SLU 25	0	0	151.18	-4.0749	-2.3976	0
3367	SLU 26	0	0	147.16	-3.9525	-2.3323	0
3367	SLU 27	0	0	157.45	-4.2652	-2.4989	0
3367	SLU 28	0	0	153.47	-4.1301	-2.4301	0
3367	SLU 29	0	0	156.08	-4.2329	-2.4793	0
3367	SLU 30	0	0	152.1	-4.0978	-2.4106	0
3367	SLU 31	0	0	161.87	-4.3423	-2.5782	0
3367	SLU 32	0	0	172.15	-4.655	-2.7448	0
3367	SLU 33	0	0	168.18	-4.5198	-2.6761	0
3367	SLU 34	0	0	164.16	-4.3975	-2.6107	0
3367	SLU 35	0	0	174.44	-4.7102	-2.7773	0
3367	SLU 36	0	0	170.46	-4.5751	-2.7086	0
3367	SLU 37	0	0	173.07	-4.6779	-2.7577	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3367	SLU 38	0	0	169.1	-4.5428	-2.689	0
3367	SLU 39	0	0	175.78	-4.7582	-2.8121	0
3367	SLU 40	0	0	171.8	-4.6231	-2.7433	0
3367	SLU 41	0	0	178.07	-4.8134	-2.8446	0
3367	SLU 42	0	0	174.09	-4.6783	-2.7758	0
3367	SLU 43	0	0	169.46	-4.6484	-2.6991	0
3367	SLU 44	0	0	162.83	-4.4232	-2.5846	0
3367	SLU 45	0	0	173.12	-4.7359	-2.7511	0
3367	SLU 46	0	0	169.14	-4.6007	-2.6824	0
3367	SLU 47	0	0	165.12	-4.4784	-2.6171	0
3367	SLU 48	0	0	175.4	-4.7911	-2.7836	0
3367	SLU 49	0	0	171.43	-4.6559	-2.7149	0
3367	SLU 50	0	0	174.03	-4.7588	-2.7641	0
3367	SLU 51	0	0	170.06	-4.6237	-2.6954	0
3367	SLU 52	0	0	179.83	-4.8681	-2.863	0
3367	SLU 53	0	0	190.11	-5.1809	-3.0296	0
3367	SLU 54	0	0	186.13	-5.0457	-2.9609	0
3367	SLU 55	0	0	182.11	-4.9234	-2.8955	0
3367	SLU 56	0	0	192.4	-5.2361	-3.0621	0
3367	SLU 57	0	0	188.42	-5.1009	-2.9934	0
3367	SLU 58	0	0	191.03	-5.2038	-3.0425	0
3367	SLU 59	0	0	187.05	-5.0687	-2.9738	0
3367	SLU 60	0	0	193.74	-5.2841	-3.0968	0
3367	SLU 61	0	0	189.76	-5.1489	-3.0281	0
3367	SLU 62	0	0	196.03	-5.3393	-3.1293	0
3367	SLU 63	0	0	192.05	-5.2042	-3.0606	0
3367	SLU 64	0	0	186.19	-5.0811	-2.9666	0
3367	SLU 65	0	0	179.56	-4.8559	-2.8521	0
3367	SLU 66	0	0	189.85	-5.1686	-3.0187	0
3367	SLU 67	0	0	185.87	-5.0334	-2.9499	0
3367	SLU 68	0	0	181.85	-4.9111	-2.8846	0
3367	SLU 69	0	0	192.14	-5.2238	-3.0512	0
3367	SLU 70	0	0	188.16	-5.0887	-2.9824	0
3367	SLU 71	0	0	190.77	-5.1915	-3.0316	0
3367	SLU 72	0	0	186.79	-5.0564	-2.9629	0
3367	SLU 73	0	0	196.56	-5.3009	-3.1305	0
3367	SLU 74	0	0	206.85	-5.6136	-3.2971	0
3367	SLU 75	0	0	202.87	-5.4784	-3.2284	0
3367	SLU 76	0	0	198.85	-5.3561	-3.163	0
3367	SLU 77	0	0	209.13	-5.6688	-3.3296	0
3367	SLU 78	0	0	205.16	-5.5336	-3.2609	0
3367	SLU 79	0	0	207.76	-5.6365	-3.31	0
3367	SLU 80	0	0	203.79	-5.5014	-3.2413	0
3367	SLU 81	0	0	210.47	-5.7168	-3.3644	0
3367	SLU 82	0	0	206.49	-5.5817	-3.2956	0
3367	SLU 83	0	0	212.76	-5.772	-3.3969	0
3367	SLU 84	0	0	208.78	-5.6369	-3.3281	0
3367	SLE RA 1	0	0	139.55	-3.8134	-2.2232	0
3367	SLE RA 2	0	0	135.13	-3.6633	-2.1469	0
3367	SLE RA 3	0	0	141.99	-3.8718	-2.2579	0
3367	SLE RA 4	0	0	139.33	-3.7817	-2.2121	0
3367	SLE RA 5	0	0	136.65	-3.7001	-2.1685	0
3367	SLE RA 6	0	0	143.51	-3.9086	-2.2796	0
3367	SLE RA 7	0	0	140.86	-3.8185	-2.2338	0
3367	SLE RA 8	0	0	142.6	-3.887	-2.2665	0
3367	SLE RA 9	0	0	139.95	-3.797	-2.2207	0
3367	SLE RA 10	0	0	146.46	-3.9599	-2.3325	0
3367	SLE RA 11	0	0	153.32	-4.1684	-2.4435	0
3367	SLE RA 12	0	0	150.66	-4.0783	-2.3977	0
3367	SLE RA 13	0	0	147.98	-3.9968	-2.3541	0
3367	SLE RA 14	0	0	154.84	-4.2052	-2.4652	0
3367	SLE RA 15	0	0	152.19	-4.1151	-2.4194	0
3367	SLE RA 16	0	0	153.93	-4.1837	-2.4522	0
3367	SLE RA 17	0	0	151.28	-4.0936	-2.4063	0
3367	SLE RA 18	0	0	155.73	-4.2372	-2.4884	0
3367	SLE RA 19	0	0	153.08	-4.1471	-2.4426	0
3367	SLE RA 20	0	0	157.26	-4.274	-2.51	0
3367	SLE RA 21	0	0	154.61	-4.1839	-2.4642	0
3367	SLE FR 1	0	0	139.55	-3.8134	-2.2232	0
3367	SLE FR 2	0	0	138.66	-3.7834	-2.2079	0
3367	SLE FR 3	0	0	140.16	-3.8282	-2.2319	0
3367	SLE FR 4	0	0	143.52	-3.9105	-2.2875	0
3367	SLE FR 5	0	0	145.01	-3.9553	-2.3114	0
3367	SLE FR 6	0	0	147.64	-4.0253	-2.3558	0
3367	SLE QP 1	0	0	139.55	-3.8134	-2.2232	0
3367	SLE QP 2	0	0	144.4	-3.9406	-2.3028	0
3367	SLD 1	0	0	184.36	-5.0248	-2.8058	0
3367	SLD 2	0	0	184.36	-5.0248	-2.8058	0
3367	SLD 3	0	0	203.3	-5.9819	-3.1452	0
3367	SLD 4	0	0	203.3	-5.9819	-3.1452	0
3367	SLD 5	0	0	127.65	-2.8142	-1.9389	0
3367	SLD 6	0	0	127.65	-2.8142	-1.9389	0
3367	SLD 7	0	0	190.81	-6.0046	-3.0702	0
3367	SLD 8	0	0	190.81	-6.0046	-3.0702	0
3367	SLD 9	0	0	97.99	-1.8766	-1.5353	0
3367	SLD 10	0	0	97.99	-1.8766	-1.5353	0
3367	SLD 11	0	0	161.16	-5.0669	-2.6666	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3367	SLD 12	0	0	161.16	-5.0669	-2.6666	0
3367	SLD 13	0	0	85.5	-1.8993	-1.4603	0
3367	SLD 14	0	0	85.5	-1.8993	-1.4603	0
3367	SLD 15	0	0	104.45	-2.8564	-1.7997	0
3367	SLD 16	0	0	104.45	-2.8564	-1.7997	0
3367	SLV 1	0	0	238.18	-6.449	-3.4776	0
3367	SLV 2	0	0	238.18	-6.449	-3.4776	0
3367	SLV 3	0	0	282.79	-8.7399	-4.2736	0
3367	SLV 4	0	0	282.79	-8.7399	-4.2736	0
3367	SLV 5	0	0	104.88	-1.2186	-1.448	0
3367	SLV 6	0	0	104.88	-1.2186	-1.448	0
3367	SLV 7	0	0	253.57	-8.8548	-4.1012	0
3367	SLV 8	0	0	253.57	-8.8548	-4.1012	0
3367	SLV 9	0	0	35.23	0.9737	-0.5043	0
3367	SLV 10	0	0	35.23	0.9737	-0.5043	0
3367	SLV 11	0	0	183.93	-6.6625	-3.1575	0
3367	SLV 12	0	0	183.93	-6.6625	-3.1575	0
3367	SLV 13	0	0	6.02	0.8587	-0.332	0
3367	SLV 14	0	0	6.02	0.8587	-0.332	0
3367	SLV 15	0	0	50.63	-1.4321	-1.1279	0
3367	SLV 16	0	0	50.63	-1.4321	-1.1279	0
6913	SLU 1	0	0	344.37	1.827	-1.8742	0
6913	SLU 2	0	0	377.31	1.9613	-2.0734	0
6913	SLU 3	0	0	359.87	1.8972	-1.9437	0
6913	SLU 4	0	0	379.63	1.9778	-2.0633	0
6913	SLU 5	0	0	388.92	2.008	-2.1207	0
6913	SLU 6	0	0	371.48	1.9438	-1.991	0
6913	SLU 7	0	0	391.25	2.0244	-2.1105	0
6913	SLU 8	0	0	367.6	1.9203	-1.9687	0
6913	SLU 9	0	0	387.36	2.0009	-2.0883	0
6913	SLU 10	0	0	422.78	2.1993	-2.3369	0
6913	SLU 11	0	0	405.35	2.1351	-2.2073	0
6913	SLU 12	0	0	425.11	2.2157	-2.3268	0
6913	SLU 13	0	0	434.4	2.2459	-2.3842	0
6913	SLU 14	0	0	416.96	2.1818	-2.2545	0
6913	SLU 15	0	0	436.72	2.2624	-2.3741	0
6913	SLU 16	0	0	413.08	2.1582	-2.2323	0
6913	SLU 17	0	0	432.84	2.2388	-2.3518	0
6913	SLU 18	0	0	409.34	2.167	-2.2506	0
6913	SLU 19	0	0	429.1	2.2476	-2.3702	0
6913	SLU 20	0	0	420.95	2.2136	-2.2979	0
6913	SLU 21	0	0	440.71	2.2942	-2.4174	0
6913	SLU 22	0	0	392.92	2.0759	-2.1382	0
6913	SLU 23	0	0	425.86	2.2102	-2.3373	0
6913	SLU 24	0	0	408.42	2.146	-2.2077	0
6913	SLU 25	0	0	428.18	2.2266	-2.3272	0
6913	SLU 26	0	0	437.47	2.2568	-2.3846	0
6913	SLU 27	0	0	420.03	2.1926	-2.255	0
6913	SLU 28	0	0	439.79	2.2732	-2.3745	0
6913	SLU 29	0	0	416.15	2.1691	-2.2327	0
6913	SLU 30	0	0	435.91	2.2497	-2.3522	0
6913	SLU 31	0	0	471.33	2.4481	-2.6009	0
6913	SLU 32	0	0	453.89	2.384	-2.4712	0
6913	SLU 33	0	0	473.66	2.4646	-2.5907	0
6913	SLU 34	0	0	482.95	2.4948	-2.6481	0
6913	SLU 35	0	0	465.51	2.4306	-2.5185	0
6913	SLU 36	0	0	485.27	2.5112	-2.638	0
6913	SLU 37	0	0	461.62	2.4071	-2.4962	0
6913	SLU 38	0	0	481.39	2.4877	-2.6158	0
6913	SLU 39	0	0	457.88	2.4158	-2.5146	0
6913	SLU 40	0	0	477.65	2.4964	-2.6341	0
6913	SLU 41	0	0	469.5	2.4624	-2.5619	0
6913	SLU 42	0	0	489.26	2.543	-2.6814	0
6913	SLU 43	0	0	431.04	2.2898	-2.3459	0
6913	SLU 44	0	0	463.97	2.4241	-2.5451	0
6913	SLU 45	0	0	446.54	2.36	-2.4155	0
6913	SLU 46	0	0	466.3	2.4406	-2.535	0
6913	SLU 47	0	0	475.59	2.4708	-2.5924	0
6913	SLU 48	0	0	458.15	2.4066	-2.4628	0
6913	SLU 49	0	0	477.91	2.4872	-2.5823	0
6913	SLU 50	0	0	454.26	2.3831	-2.4405	0
6913	SLU 51	0	0	474.03	2.4637	-2.56	0
6913	SLU 52	0	0	509.45	2.6621	-2.8086	0
6913	SLU 53	0	0	492.01	2.5979	-2.679	0
6913	SLU 54	0	0	511.78	2.6785	-2.7985	0
6913	SLU 55	0	0	521.07	2.7087	-2.8559	0
6913	SLU 56	0	0	503.63	2.6446	-2.7263	0
6913	SLU 57	0	0	523.39	2.7252	-2.8458	0
6913	SLU 58	0	0	499.74	2.621	-2.704	0
6913	SLU 59	0	0	519.5	2.7016	-2.8235	0
6913	SLU 60	0	0	496	2.6298	-2.7224	0
6913	SLU 61	0	0	515.76	2.7103	-2.8419	0
6913	SLU 62	0	0	507.62	2.6764	-2.7697	0
6913	SLU 63	0	0	527.38	2.757	-2.8892	0
6913	SLU 64	0	0	479.58	2.5386	-2.6099	0
6913	SLU 65	0	0	512.52	2.673	-2.8091	0
6913	SLU 66	0	0	495.08	2.6088	-2.6795	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6913	SLU 67	0	0	514.85	2.6894	-2.799	0
6913	SLU 68	0	0	524.14	2.7196	-2.8564	0
6913	SLU 69	0	0	506.7	2.6554	-2.7267	0
6913	SLU 70	0	0	526.46	2.736	-2.8463	0
6913	SLU 71	0	0	502.81	2.6319	-2.7045	0
6913	SLU 72	0	0	522.58	2.7125	-2.824	0
6913	SLU 73	0	0	558	2.9109	-3.0726	0
6913	SLU 74	0	0	540.56	2.8468	-2.943	0
6913	SLU 75	0	0	560.32	2.9274	-3.0625	0
6913	SLU 76	0	0	569.61	2.9575	-3.1199	0
6913	SLU 77	0	0	552.17	2.8934	-2.9903	0
6913	SLU 78	0	0	571.94	2.974	-3.1098	0
6913	SLU 79	0	0	548.29	2.8699	-2.968	0
6913	SLU 80	0	0	568.05	2.9504	-3.0875	0
6913	SLU 81	0	0	544.55	2.8786	-2.9864	0
6913	SLU 82	0	0	564.31	2.9592	-3.1059	0
6913	SLU 83	0	0	556.16	2.9252	-3.0336	0
6913	SLU 84	0	0	575.93	3.0058	-3.1532	0
6913	SLE RA 1	0	0	358.24	1.8981	-1.9496	0
6913	SLE RA 2	0	0	380.2	1.9877	-2.0824	0
6913	SLE RA 3	0	0	368.57	1.9449	-1.996	0
6913	SLE RA 4	0	0	381.75	1.9986	-2.0756	0
6913	SLE RA 5	0	0	387.94	2.0187	-2.1139	0
6913	SLE RA 6	0	0	376.32	1.976	-2.0275	0
6913	SLE RA 7	0	0	389.49	2.0297	-2.1072	0
6913	SLE RA 8	0	0	373.73	1.9603	-2.0126	0
6913	SLE RA 9	0	0	386.9	2.014	-2.0923	0
6913	SLE RA 10	0	0	410.52	2.1463	-2.2581	0
6913	SLE RA 11	0	0	398.89	2.1035	-2.1716	0
6913	SLE RA 12	0	0	412.07	2.1573	-2.2513	0
6913	SLE RA 13	0	0	418.26	2.1774	-2.2896	0
6913	SLE RA 14	0	0	406.63	2.1346	-2.2032	0
6913	SLE RA 15	0	0	419.81	2.1883	-2.2828	0
6913	SLE RA 16	0	0	404.04	2.1189	-2.1883	0
6913	SLE RA 17	0	0	417.22	2.1727	-2.268	0
6913	SLE RA 18	0	0	401.55	2.1247	-2.2006	0
6913	SLE RA 19	0	0	414.73	2.1785	-2.2802	0
6913	SLE RA 20	0	0	409.29	2.1558	-2.2321	0
6913	SLE RA 21	0	0	422.47	2.2096	-2.3118	0
6913	SLE FR 1	0	0	358.24	1.8981	-1.9496	0
6913	SLE FR 2	0	0	362.63	1.916	-1.9762	0
6913	SLE FR 3	0	0	361.34	1.9106	-1.9622	0
6913	SLE FR 4	0	0	375.63	1.984	-2.0515	0
6913	SLE FR 5	0	0	374.33	1.9785	-2.0375	0
6913	SLE FR 6	0	0	379.9	2.0114	-2.0751	0
6913	SLE QP 1	0	0	358.24	1.8981	-1.9496	0
6913	SLE QP 2	0	0	371.23	1.9661	-2.0249	0
6913	SLD 1	0	0	491.17	2.5839	-2.448	0
6913	SLD 2	0	0	491.17	2.5839	-2.448	0
6913	SLD 3	0	0	449.83	2.4159	-2.2294	0
6913	SLD 4	0	0	449.83	2.4159	-2.2294	0
6913	SLD 5	0	0	469.92	2.4062	-2.4833	0
6913	SLD 6	0	0	469.92	2.4062	-2.4833	0
6913	SLD 7	0	0	332.11	1.8463	-1.7548	0
6913	SLD 8	0	0	332.11	1.8463	-1.7548	0
6913	SLD 9	0	0	410.36	2.0859	-2.295	0
6913	SLD 10	0	0	410.36	2.0859	-2.295	0
6913	SLD 11	0	0	272.55	1.5261	-1.5665	0
6913	SLD 12	0	0	272.55	1.5261	-1.5665	0
6913	SLD 13	0	0	292.64	1.5163	-1.8203	0
6913	SLD 14	0	0	292.64	1.5163	-1.8203	0
6913	SLD 15	0	0	251.3	1.3484	-1.6018	0
6913	SLD 16	0	0	251.3	1.3484	-1.6018	0
6913	SLV 1	0	0	653.59	3.4221	-3.0263	0
6913	SLV 2	0	0	653.59	3.4221	-3.0263	0
6913	SLV 3	0	0	555.13	3.0204	-2.501	0
6913	SLV 4	0	0	555.13	3.0204	-2.501	0
6913	SLV 5	0	0	605.27	3.0122	-3.122	0
6913	SLV 6	0	0	605.27	3.0122	-3.122	0
6913	SLV 7	0	0	277.07	1.6731	-1.3711	0
6913	SLV 8	0	0	277.07	1.6731	-1.3711	0
6913	SLV 9	0	0	465.4	2.2592	-2.6787	0
6913	SLV 10	0	0	465.4	2.2592	-2.6787	0
6913	SLV 11	0	0	137.19	0.92	-0.9278	0
6913	SLV 12	0	0	137.19	0.92	-0.9278	0
6913	SLV 13	0	0	187.33	0.9118	-1.5488	0
6913	SLV 14	0	0	187.33	0.9118	-1.5488	0
6913	SLV 15	0	0	88.87	0.5101	-1.0235	0
6913	SLV 16	0	0	88.87	0.5101	-1.0235	0
7189	SLU 1	0	0	286.99	-1.6055	-1.7155	0
7189	SLU 2	0	0	273.27	-1.5528	-1.6529	0
7189	SLU 3	0	0	294.76	-1.6713	-1.7775	0
7189	SLU 4	0	0	286.52	-1.6397	-1.7399	0
7189	SLU 5	0	0	277.2	-1.6014	-1.6952	0
7189	SLU 6	0	0	298.69	-1.7198	-1.8198	0
7189	SLU 7	0	0	290.46	-1.6882	-1.7822	0
7189	SLU 8	0	0	294.86	-1.7026	-1.8001	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7189	SLU 9	0	0	286.63	-1.671	-1.7625	0
7189	SLU 10	0	0	311.18	-1.7559	-1.8973	0
7189	SLU 11	0	0	332.67	-1.8743	-2.0219	0
7189	SLU 12	0	0	324.44	-1.8427	-1.9843	0
7189	SLU 13	0	0	315.12	-1.8044	-1.9395	0
7189	SLU 14	0	0	336.61	-1.9229	-2.0642	0
7189	SLU 15	0	0	328.37	-1.8912	-2.0266	0
7189	SLU 16	0	0	332.78	-1.9057	-2.0444	0
7189	SLU 17	0	0	324.54	-1.874	-2.0069	0
7189	SLU 18	0	0	341.15	-1.8956	-2.0646	0
7189	SLU 19	0	0	332.92	-1.864	-2.027	0
7189	SLU 20	0	0	345.09	-1.9441	-2.1069	0
7189	SLU 21	0	0	336.85	-1.9125	-2.0693	0
7189	SLU 22	0	0	323.95	-1.8169	-1.9591	0
7189	SLU 23	0	0	310.22	-1.7642	-1.8964	0
7189	SLU 24	0	0	331.71	-1.8826	-2.0211	0
7189	SLU 25	0	0	323.48	-1.851	-1.9835	0
7189	SLU 26	0	0	314.16	-1.8127	-1.9387	0
7189	SLU 27	0	0	335.65	-1.9312	-2.0633	0
7189	SLU 28	0	0	327.41	-1.8995	-2.0258	0
7189	SLU 29	0	0	331.82	-1.914	-2.0436	0
7189	SLU 30	0	0	323.58	-1.8823	-2.006	0
7189	SLU 31	0	0	348.13	-1.9672	-2.1408	0
7189	SLU 32	0	0	369.63	-2.0857	-2.2654	0
7189	SLU 33	0	0	361.39	-2.054	-2.2279	0
7189	SLU 34	0	0	352.07	-2.0158	-2.1831	0
7189	SLU 35	0	0	373.56	-2.1342	-2.3077	0
7189	SLU 36	0	0	365.33	-2.1026	-2.2701	0
7189	SLU 37	0	0	369.73	-2.117	-2.288	0
7189	SLU 38	0	0	361.5	-2.0854	-2.2504	0
7189	SLU 39	0	0	378.11	-2.1069	-2.3082	0
7189	SLU 40	0	0	369.87	-2.0753	-2.2706	0
7189	SLU 41	0	0	382.04	-2.1555	-2.3504	0
7189	SLU 42	0	0	373.81	-2.1239	-2.3129	0
7189	SLU 43	0	0	360.42	-2.0147	-2.1466	0
7189	SLU 44	0	0	346.69	-1.962	-2.084	0
7189	SLU 45	0	0	368.18	-2.0805	-2.2086	0
7189	SLU 46	0	0	359.95	-2.0489	-2.1711	0
7189	SLU 47	0	0	350.63	-2.0106	-2.1263	0
7189	SLU 48	0	0	372.12	-2.129	-2.2509	0
7189	SLU 49	0	0	363.89	-2.0974	-2.2133	0
7189	SLU 50	0	0	368.29	-2.1118	-2.2312	0
7189	SLU 51	0	0	360.05	-2.0802	-2.1936	0
7189	SLU 52	0	0	384.61	-2.1651	-2.3284	0
7189	SLU 53	0	0	406.1	-2.2835	-2.453	0
7189	SLU 54	0	0	397.86	-2.2519	-2.4154	0
7189	SLU 55	0	0	388.54	-2.2136	-2.3707	0
7189	SLU 56	0	0	410.03	-2.3321	-2.4953	0
7189	SLU 57	0	0	401.8	-2.3004	-2.4577	0
7189	SLU 58	0	0	406.2	-2.3149	-2.4756	0
7189	SLU 59	0	0	397.97	-2.2832	-2.438	0
7189	SLU 60	0	0	414.58	-2.3048	-2.4957	0
7189	SLU 61	0	0	406.34	-2.2732	-2.4582	0
7189	SLU 62	0	0	418.52	-2.3533	-2.538	0
7189	SLU 63	0	0	410.28	-2.3217	-2.5005	0
7189	SLU 64	0	0	397.37	-2.2261	-2.3902	0
7189	SLU 65	0	0	383.65	-2.1734	-2.3276	0
7189	SLU 66	0	0	405.14	-2.2918	-2.4522	0
7189	SLU 67	0	0	396.9	-2.2602	-2.4146	0
7189	SLU 68	0	0	387.58	-2.2219	-2.3699	0
7189	SLU 69	0	0	409.08	-2.3404	-2.4945	0
7189	SLU 70	0	0	400.84	-2.3087	-2.4569	0
7189	SLU 71	0	0	405.25	-2.3232	-2.4748	0
7189	SLU 72	0	0	397.01	-2.2915	-2.4372	0
7189	SLU 73	0	0	421.56	-2.3764	-2.572	0
7189	SLU 74	0	0	443.05	-2.4949	-2.6966	0
7189	SLU 75	0	0	434.82	-2.4632	-2.659	0
7189	SLU 76	0	0	425.5	-2.425	-2.6142	0
7189	SLU 77	0	0	446.99	-2.5434	-2.7389	0
7189	SLU 78	0	0	438.75	-2.5118	-2.7013	0
7189	SLU 79	0	0	443.16	-2.5262	-2.7191	0
7189	SLU 80	0	0	434.92	-2.4946	-2.6816	0
7189	SLU 81	0	0	451.54	-2.5161	-2.7393	0
7189	SLU 82	0	0	443.3	-2.4845	-2.7017	0
7189	SLU 83	0	0	455.47	-2.5647	-2.7816	0
7189	SLU 84	0	0	447.24	-2.5331	-2.744	0
7189	SLE RA 1	0	0	297.55	-1.6659	-1.7851	0
7189	SLE RA 2	0	0	288.4	-1.6308	-1.7433	0
7189	SLE RA 3	0	0	302.73	-1.7097	-1.8264	0
7189	SLE RA 4	0	0	297.24	-1.6887	-1.8014	0
7189	SLE RA 5	0	0	291.02	-1.6631	-1.7715	0
7189	SLE RA 6	0	0	305.35	-1.7421	-1.8546	0
7189	SLE RA 7	0	0	299.86	-1.721	-1.8296	0
7189	SLE RA 8	0	0	302.8	-1.7306	-1.8415	0
7189	SLE RA 9	0	0	297.31	-1.7096	-1.8164	0
7189	SLE RA 10	0	0	313.68	-1.7661	-1.9063	0
7189	SLE RA 11	0	0	328	-1.8451	-1.9893	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7189	SLE RA 12	0	0	322.51	-1.824	-1.9643	0
7189	SLE RA 13	0	0	316.3	-1.7985	-1.9344	0
7189	SLE RA 14	0	0	330.63	-1.8775	-2.0175	0
7189	SLE RA 15	0	0	325.14	-1.8564	-1.9925	0
7189	SLE RA 16	0	0	328.07	-1.866	-2.0044	0
7189	SLE RA 17	0	0	322.58	-1.8449	-1.9793	0
7189	SLE RA 18	0	0	333.66	-1.8593	-2.0178	0
7189	SLE RA 19	0	0	328.17	-1.8382	-1.9928	0
7189	SLE RA 20	0	0	336.28	-1.8916	-2.046	0
7189	SLE RA 21	0	0	330.79	-1.8706	-2.021	0
7189	SLE FR 1	0	0	297.55	-1.6659	-1.7851	0
7189	SLE FR 2	0	0	295.72	-1.6589	-1.7767	0
7189	SLE FR 3	0	0	298.6	-1.6789	-1.7964	0
7189	SLE FR 4	0	0	306.55	-1.7169	-1.8466	0
7189	SLE FR 5	0	0	309.43	-1.7369	-1.8662	0
7189	SLE FR 6	0	0	315.6	-1.7626	-1.9015	0
7189	SLE QP 1	0	0	297.55	-1.6659	-1.7851	0
7189	SLE QP 2	0	0	308.38	-1.7239	-1.8549	0
7189	SLD 1	0	0	376.99	-2.1301	-2.0714	0
7189	SLD 2	0	0	376.99	-2.1301	-2.0714	0
7189	SLD 3	0	0	415.89	-2.2971	-2.2772	0
7189	SLD 4	0	0	415.89	-2.2971	-2.2772	0
7189	SLD 5	0	0	269.96	-1.5925	-1.6078	0
7189	SLD 6	0	0	269.96	-1.5925	-1.6078	0
7189	SLD 7	0	0	399.64	-2.1492	-2.2936	0
7189	SLD 8	0	0	399.64	-2.1492	-2.2936	0
7189	SLD 9	0	0	217.13	-1.2987	-1.4162	0
7189	SLD 10	0	0	217.13	-1.2987	-1.4162	0
7189	SLD 11	0	0	346.81	-1.8554	-2.102	0
7189	SLD 12	0	0	346.81	-1.8554	-2.102	0
7189	SLD 13	0	0	200.87	-1.1508	-1.4326	0
7189	SLD 14	0	0	200.87	-1.1508	-1.4326	0
7189	SLD 15	0	0	239.78	-1.3178	-1.6384	0
7189	SLD 16	0	0	239.78	-1.3178	-1.6384	0
7189	SLV 1	0	0	469.22	-2.6791	-2.3622	0
7189	SLV 2	0	0	469.22	-2.6791	-2.3622	0
7189	SLV 3	0	0	561.13	-3.074	-2.8494	0
7189	SLV 4	0	0	561.13	-3.074	-2.8494	0
7189	SLV 5	0	0	217.24	-1.4115	-1.2682	0
7189	SLV 6	0	0	217.24	-1.4115	-1.2682	0
7189	SLV 7	0	0	523.6	-2.7279	-2.8922	0
7189	SLV 8	0	0	523.6	-2.7279	-2.8922	0
7189	SLV 9	0	0	93.17	-0.7199	-0.8176	0
7189	SLV 10	0	0	93.17	-0.7199	-0.8176	0
7189	SLV 11	0	0	399.52	-2.0364	-2.4417	0
7189	SLV 12	0	0	399.52	-2.0364	-2.4417	0
7189	SLV 13	0	0	55.63	-0.3739	-0.8604	0
7189	SLV 14	0	0	55.63	-0.3739	-0.8604	0
7189	SLV 15	0	0	147.54	-0.7688	-1.3476	0
7189	SLV 16	0	0	147.54	-0.7688	-1.3476	0

1.3 Verifica effetti secondo ordine

Quota inferiore: quota inferiore esprimibile come livello, falda, piano orizzontale alla Z specificata. esprimibile come livello, falda, piano orizzontale alla Z specificata. [m]

Quota superiore: quota superiore esprimibile come livello, falda, piano orizzontale alla Z specificata. esprimibile come livello, falda, piano orizzontale alla Z specificata. [m]

Comb.: combinazione.

N.b.: nome breve o compatto della combinazione di carico.

Carico verticale: carico verticale. [kN]

Spostamento: spostamento medio di interpiano. [m]

Forza orizzontale totale: forza orizzontale totale. [kN]

Altezza del piano: altezza del piano. [m]

Theta: coefficiente Theta formula [7.3.3] § 7.3.1. Il valore è adimensionale.

Quota inferiore	Quota superiore	Comb. N.b.	Carico verticale	Spostamento	Forza orizzontale totale	Altezza del piano	Theta
Secondo	Sottotetto	SLV 1	593.3	0.00226	294.45	6.68	0.001
Secondo	Sottotetto	SLV 2	593.3	0.00226	294.45	6.68	0.001
Secondo	Sottotetto	SLV 3	602.01	0.00192	309.2	6.68	0.001
Secondo	Sottotetto	SLV 4	602.01	0.00192	309.2	6.68	0.001
Secondo	Sottotetto	SLV 5	586.57	0.00287	183.85	6.68	0.001
Secondo	Sottotetto	SLV 6	586.57	0.00287	183.85	6.68	0.001
Secondo	Sottotetto	SLV 7	615.61	0.00306	201.15	6.68	0.001
Secondo	Sottotetto	SLV 8	615.61	0.00306	201.15	6.68	0.001
Secondo	Sottotetto	SLV 9	589.51	0.00243	209.14	6.68	0.001
Secondo	Sottotetto	SLV 10	589.51	0.00243	209.14	6.68	0.001
Secondo	Sottotetto	SLV 11	618.55	0.00348	175.14	6.68	0.002
Secondo	Sottotetto	SLV 12	618.55	0.00348	175.14	6.68	0.002
Secondo	Sottotetto	SLV 13	603.11	0.00179	311.16	6.68	0.001
Secondo	Sottotetto	SLV 14	603.11	0.00179	311.16	6.68	0.001
Secondo	Sottotetto	SLV 15	611.82	0.00262	293.25	6.68	0.001
Secondo	Sottotetto	SLV 16	611.82	0.00262	293.25	6.68	0.001
Rialzato	Sottotetto	SLV 1	593.3	0.00944	294.45	13.93	0.001



Quota inferiore	Quota superiore	Comb. N.b.	Carico verticale	Spostamento	Forza orizzontale totale	Altezza del piano	Theta
Rialzato	Sottotetto	SLV 2	593.3	0.00944	294.45	13.93	0.001
Rialzato	Sottotetto	SLV 3	602.01	0.00715	309.2	13.93	0.001
Rialzato	Sottotetto	SLV 4	602.01	0.00715	309.2	13.93	0.001
Rialzato	Sottotetto	SLV 5	586.57	0.00861	183.85	13.93	0.002
Rialzato	Sottotetto	SLV 6	586.57	0.00861	183.85	13.93	0.002
Rialzato	Sottotetto	SLV 7	615.61	0.00667	201.15	13.93	0.001
Rialzato	Sottotetto	SLV 8	615.61	0.00667	201.15	13.93	0.001
Rialzato	Sottotetto	SLV 9	589.51	0.00531	209.14	13.93	0.001
Rialzato	Sottotetto	SLV 10	589.51	0.00531	209.14	13.93	0.001
Rialzato	Sottotetto	SLV 11	618.55	0.00904	175.14	13.93	0.002
Rialzato	Sottotetto	SLV 12	618.55	0.00904	175.14	13.93	0.002
Rialzato	Sottotetto	SLV 13	603.11	0.00575	311.16	13.93	0.001
Rialzato	Sottotetto	SLV 14	603.11	0.00575	311.16	13.93	0.001
Rialzato	Sottotetto	SLV 15	611.82	0.00885	293.25	13.93	0.001
Rialzato	Sottotetto	SLV 16	611.82	0.00885	293.25	13.93	0.001
Fondazione	Sottotetto	SLV 1	593.3	0.00736	294.45	16.62	0.001
Fondazione	Sottotetto	SLV 2	593.3	0.00736	294.45	16.62	0.001
Fondazione	Sottotetto	SLV 3	602.01	0.00748	309.2	16.62	0.001
Fondazione	Sottotetto	SLV 4	602.01	0.00748	309.2	16.62	0.001
Fondazione	Sottotetto	SLV 5	586.57	0.00743	183.85	16.62	0.001
Fondazione	Sottotetto	SLV 6	586.57	0.00743	183.85	16.62	0.001
Fondazione	Sottotetto	SLV 7	615.61	0.00821	201.15	16.62	0.002
Fondazione	Sottotetto	SLV 8	615.61	0.00821	201.15	16.62	0.002
Fondazione	Sottotetto	SLV 9	589.51	0.00746	209.14	16.62	0.001
Fondazione	Sottotetto	SLV 10	589.51	0.00746	209.14	16.62	0.001
Fondazione	Sottotetto	SLV 11	618.55	0.00856	175.14	16.62	0.002
Fondazione	Sottotetto	SLV 12	618.55	0.00856	175.14	16.62	0.002
Fondazione	Sottotetto	SLV 13	603.11	0.00788	311.16	16.62	0.001
Fondazione	Sottotetto	SLV 14	603.11	0.00788	311.16	16.62	0.001
Fondazione	Sottotetto	SLV 15	611.82	0.00832	293.25	16.62	0.001
Fondazione	Sottotetto	SLV 16	611.82	0.00832	293.25	16.62	0.001
Sottotetto	Colmo maggiore	SLV 1	5.12	0.00454	34.24	2.46	0
Sottotetto	Colmo maggiore	SLV 2	5.12	0.00454	34.24	2.46	0
Sottotetto	Colmo maggiore	SLV 3	1.01	0.00555	36.56	2.46	0
Sottotetto	Colmo maggiore	SLV 4	1.01	0.00555	36.56	2.46	0
Sottotetto	Colmo maggiore	SLV 5	13.93	0.01565	19.82	2.46	0.004
Sottotetto	Colmo maggiore	SLV 6	13.93	0.01565	19.82	2.46	0.004
Sottotetto	Colmo maggiore	SLV 7	0.22	0.01782	23.63	2.46	0
Sottotetto	Colmo maggiore	SLV 8	0.22	0.01782	23.63	2.46	0
Sottotetto	Colmo maggiore	SLV 9	17.37	0.01516	16.06	2.46	0.007
Sottotetto	Colmo maggiore	SLV 10	17.37	0.01516	16.06	2.46	0.007
Sottotetto	Colmo maggiore	SLV 11	3.65	0.01832	9.74	2.46	0.003
Sottotetto	Colmo maggiore	SLV 12	3.65	0.01832	9.74	2.46	0.003
Sottotetto	Colmo maggiore	SLV 13	16.58	0.00292	18.4	2.46	0.001
Sottotetto	Colmo maggiore	SLV 14	16.58	0.00292	18.4	2.46	0.001
Sottotetto	Colmo maggiore	SLV 15	12.46	0.0072	13.23	2.46	0.003
Sottotetto	Colmo maggiore	SLV 16	12.46	0.0072	13.23	2.46	0.003

1.4 Risposta modale

Modo: identificativo del modo di vibrare.

Periodo: periodo. [s]

Massa X: massa partecipante in direzione globale X. Il valore è adimensionale.

Massa Y: massa partecipante in direzione globale Y. Il valore è adimensionale.

Massa Z: massa partecipante in direzione globale Z. Il valore è adimensionale.

Massa rot. X: massa rotazionale partecipante attorno la direzione globale X. Il valore è adimensionale.

Massa rot. Y: massa rotazionale partecipante attorno la direzione globale Y. Il valore è adimensionale.

Massa rot. Z: massa rotazionale partecipante attorno la direzione globale Z. Il valore è adimensionale.

Massa sX: massa partecipante in direzione Sisma X. Il valore è adimensionale.

Massa sY: massa partecipante in direzione Sisma Y. Il valore è adimensionale.

Totale masse partecipanti:

Traslazione X: 0.917254

Traslazione Y: 0.931385

Traslazione Z: 0

Rotazione X: 0.860744

Rotazione Y: 0.910801

Rotazione Z: 0.743179

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	5.015881746	0.033844422	0.000000516	0	0.000000565	0.042984585	0.001619171	0.033844422	0.000000516
2	2.370872709	0.000021503	0.005520427	0	0.014622582	0.000043531	0.013005278	0.000021503	0.005520427
3	2.149261794	0.005557742	0.000000662	0	0.000000546	0.010170674	0.000486744	0.005557742	0.000000662
4	2.067163769	0.005713666	0.000241944	0	0.000415907	0.010423327	0.000000061	0.005713666	0.000241944
5	2.016840455	0.000011741	0.015239977	0	0.025589791	0.000018444	0.011240867	0.000011741	0.015239977
6	1.981954623	0.000427136	0.010249418	0	0.015825583	0.000710692	0.028048169	0.000427136	0.010249418
7	1.967680345	0.000189387	0.012120029	0	0.018467884	0.000311638	0.000305511	0.000189387	0.012120029
8	1.878667709	0.000003538	0.00176274	0	0.001505024	0.000002285	0.000276889	0.000003538	0.00176274
9	1.87697649	0.000060322	0.010031794	0	0.008592462	0.000048012	0.029007952	0.000060322	0.010031794



Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
10	1.83875836	0.000019846	0.01267686	0	0.010054893	0.000015582	0.000575254	0.000019846	0.01267686
11	1.602429159	0.000001877	0.004393927	0	0.008466338	0.000002264	0.00296515	0.000001877	0.004393927
12	1.503730168	0.000142159	0.021216709	0	0.018113689	0.000005722	0.047522663	0.000142159	0.021216709
13	1.490268847	0.000041583	0.035041529	0	0.038180699	0.000001718	0.005626774	0.000041583	0.035041529
14	1.424671059	0.000182853	0.010399855	0	0.011185227	0.000054744	0.004449533	0.000182853	0.010399855
15	1.379388683	0.000528752	0.003736978	0	0.004934695	0.000017057	0.000000367	0.000528752	0.003736978
16	1.375562023	0.000314809	0.007861857	0	0.002657666	0.00004985	0.010820693	0.000314809	0.007861857
17	1.370539355	0.000704213	0.008612596	0	0.010537158	0.000019555	0.0189097	0.000704213	0.008612596
18	1.354611725	0.002747618	0.008728897	0	0.008720393	0.00179921	0.000992537	0.002747618	0.008728897
19	1.307483283	0.000221755	0.002396361	0	0.000706647	0.000403382	0.004800436	0.000221755	0.002396361
20	1.302679204	0.006902842	0.011383076	0	0.004870393	0.002867631	0.030886152	0.006902842	0.011383076
21	1.282505355	0.003606818	0.000719425	0	0.000017529	0.003855954	0.001067873	0.003606818	0.000719425
22	1.273641202	0.004174035	0.015265999	0	0.007002755	0.00211073	0.000010708	0.004174035	0.015265999
23	1.234200891	0.005131523	0.001234003	0	0.00000499	0.00032461	0.000021941	0.005131523	0.001234003
24	1.206282144	0.004316508	0.002846183	0	0.001905002	0.003267838	0.000686716	0.004316508	0.002846183
25	1.197087192	0.009060251	0.000649426	0	0.000426123	0.013392829	0.000011646	0.009060251	0.000649426
26	1.160794151	0.001003259	0.002149175	0	0.007387362	0.000565173	0.001092836	0.001003259	0.002149175
27	1.111047576	0.002290224	0.000048623	0	0.001484217	0.000010682	0.001932104	0.002290224	0.000048623
28	1.090381717	0.001828187	0.032038417	0	0.030755096	0.003035046	0.029294487	0.001828187	0.032038417
29	1.073846148	0.001138127	0.001746663	0	0.003819978	0.00009248	0.002496582	0.001138127	0.001746663
30	1.028742907	0.000000917	0.045523284	0	0.036164435	0.000002445	0.031216299	0.000000917	0.045523284
31	0.986012285	0.000430728	0.006329241	0	0.000393801	0.000099643	0.004710144	0.000430728	0.006329241
32	0.966292783	0.001057899	0.002482534	0	0.002112768	0.000010267	0.00063167	0.001057899	0.002482534
33	0.914233126	0.008640931	0.000448576	0	0.000602668	0.003772961	0.000271299	0.008640931	0.000448576
34	0.857737841	0.000364022	0.004044566	0	0.002195441	0.000570561	0.004972181	0.000364022	0.004044566
35	0.819081433	0.014390744	0.003335448	0	0.000038174	0.01462118	0.00090799	0.014390744	0.003335448
36	0.800669551	0.007953396	0.011211698	0	0.000644633	0.008443314	0.008794333	0.007953396	0.011211698
37	0.776405096	0.033431982	0.001213456	0	0.000751909	0.030159812	0.001320735	0.033431982	0.001213456
38	0.713500392	0.013083972	0.00265731	0	0.004450871	0.00594714	0.000806794	0.013083972	0.00265731
39	0.678966776	0.000627696	0.03181266	0	0.056631831	0.000005965	0.019102828	0.000627696	0.03181266
40	0.634859913	0.000378783	0.03271622	0	0.01947706	0.00000001	0.025852308	0.000378783	0.03271622
41	0.603923109	0.021684234	0.000265582	0	0.000041184	0.018259655	0.00000483	0.021684234	0.000265582
42	0.532556818	0.005532541	0.011553692	0	0.001883301	0.002975823	0.003201035	0.005532541	0.011553692
43	0.520232509	0.009409314	0.008380669	0	0.001522544	0.002220272	0.002906034	0.009409314	0.008380669
44	0.46047045	0.000761993	0.032870915	0	0.009202609	0.000091868	0.031177634	0.000761993	0.032870915
45	0.433477094	0.008957789	0.000978369	0	0.000251963	0.003263925	0.000837272	0.008957789	0.000978369
46	0.342019428	0.013262692	0.016541487	0	0.015940924	0.010130111	0.015895509	0.013262692	0.016541487
47	0.33586917	0.004348207	0.048224582	0	0.043560383	0.002326723	0.028651089	0.004348207	0.048224582
48	0.256104949	0.004537217	0.107474079	0	0.156962562	0.00410259	0.070149287	0.004537217	0.107474079
49	0.239404245	0.058841061	0.014237314	0	0.020129818	0.061263677	0.018889775	0.058841061	0.014237314
50	0.173012516	0.000730174	0.1545443	0	0.185963934	0.000819025	0.093018728	0.000730174	0.1545443
51	0.159253334	0.478508417	0.000296019	0	0.000273738	0.634484311	0.002504661	0.478508417	0.000296019
52	0.088530643	0.00186105	0.154505196	0	0.0452673	0.000287326	0.124740319	0.00186105	0.154505196
53	0.076348501	0.138217833	0.001365356	0	0.000011785	0.010146096	0.004359972	0.138217833	0.001365356
54	0.006964352	0.000045517	0.000031126	0	0.000000491	0.000137241	0.000098823	0.000045517	0.000031126
55	0.004907101	0.000007735	0.000021763	0	0.000011634	0.000054083	0.000002622	0.000007735	0.000021763

1.5 Equilibrio globale forze

Contributo: Nome attribuito al sistema risultante.

Fx: Componente X di forza del sistema risultante. [kN]

Fy: Componente Y di forza del sistema risultante. [kN]

Fz: Componente Z di forza del sistema risultante. [kN]

Mx: Componente di momento attorno l'asse X del sistema risultante. [kN*m]

My: Componente di momento attorno l'asse Y del sistema risultante. [kN*m]

Mz: Componente di momento attorno l'asse Z del sistema risultante. [kN*m]

Bilancio in condizione di carico: Pesi strutturali

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0.44975	-0.03546	-12305.26096	-12979.0319	-152510.702	-1.6413
Reazioni	-0.44975	0.03546	12305.26096	12979.0319	152510.702	1.6413
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Permanenti portati

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-2736.28817	-4074.2825	-33923.3414	0
Reazioni	0	0	2736.28817	4074.2825	33923.3414	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Variabile A

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-2125.15877	-2521.053	-26338.7283	0
Reazioni	0	0	2125.15877	2521.053	26338.7283	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Neve

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-342.29678	-346.5605	-4232.272	0
Reazioni	0	0	342.29678	346.5605	4232.272	0
P-Delta	0	0	0	0	0	0



Contributo	Fx	Fy	Fz	Mx	My	Mz
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Variabile H

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-265.44736	-345.2631	-3286.4651	0
Reazioni	0	0	265.44736	345.2631	3286.4651	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Vento

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	-46.49165	0	376.8964	0	576.6092
Reazioni	0	46.49165	0	-376.8964	0	-576.6092
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma X SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	4670.81438	0	0	0	47918.016	-5454.228
Reazioni	-4670.81438	0	0	0	-47918.016	5454.228
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma Y SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	4675.60759	0	-47967.1896	0	-57915.446
Reazioni	0	-4675.60759	0	47967.1896	0	57915.446
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma X SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	1999.2539	0	0	0	20510.402	-2334.5793
Reazioni	-1999.2539	0	0	0	-20510.402	2334.5793
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma Y SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	1999.2539	0	-20510.402	0	-24764.2001
Reazioni	0	-1999.2539	0	20510.402	0	24764.2001
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Ux

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Uy

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Rz

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

1.6 Risposta di spettro

Spettro: condizione elementare corrispondente allo spettro.

N.b.: nome breve della condizione elementare.

Fx: componente della forza lungo l'asse X. [kN]

Fy: componente della forza lungo l'asse Y. [kN]

Fz: componente della forza lungo l'asse Z. [kN]

Mx: componente della coppia attorno all'asse X. [kN*m]

My: componente della coppia attorno all'asse Y. [kN*m]

Mz: componente della coppia attorno all'asse Z. [kN*m]

Max X: massima reazione lungo l'asse X.

Valore: valore massimo della reazione. [kN]

Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Max Y: massima reazione lungo l'asse Y.



Valore: valore massimo della reazione. [kN]

Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Max Z: massima reazione lungo l'asse Z.

Valore: valore massimo della reazione. [kN]

Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Spettro N.b.	Fx	Fy	Fz	Mx	My	Mz	Max X		Max Y		Max Z	
							Valore	Angolo	Valore	Angolo	Valore	Angolo
SLV X	2776.6908	158.4149	0	1.382E03	2.667E04	3.936E03	2776.6908	0	1503.1932	89	0	0
SLV Y	158.4149	1503.1646	0	1.267E04	1.228E03	1.859E04	2776.6908	0	1503.1932	89	0	0
X SLD	1187.7436	67.7735	0	590.10187	1.141E04	1.687E03	1187.7436	0	638.2975	89	0	0
Y SLD	67.7735	638.2778	0	5.379E03	5.236E02	7.897E03	1187.7436	0	638.2975	89	0	0

1.7 Annotazioni solutore

Informazioni: informazioni fornite dal solutore al termine del calcolo del modello.

Informazioni

1.8 Statistiche soluzione

Tipo di equazioni	Lineari
Tecnica di soluzione	Intel MKL PARDISO
Numero equazioni	109854
Elemento min. diagonale	407.55537914
Elemento max diagonale	2273372772.30583
Rapporto max/min	5578070.83076886
Elementi non nulli	4308579

TABULATI DI CALCOLO-VERIFICHE
CIVICO 41
STATO DI FATTO



Sommario

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1 Verifiche

1.1 Verifica regolarità strutturale

Le unità di misura elencate nel capitolo sono in [cm, daN] ove non espressamente specificato.

Livello:

Descr: descrizione livello.

Quota: quota livello. [cm]

Q: quota livello. [cm]

Qinf: quota livello precedente. [cm]

Comb: combinazione.

A1: a1 (Distribuzione masse).

A1n: a1 numeratore (distanza tra centro massa vs. centro rigidezza [se presente] o centro dell'ingombro del piano). [cm]

A1d: a1 denominatore (ingombro del piano nella medesima direzione [x o y globale]). [cm]

A1r: a1 rapporto (distanza centro massa/rigidezza su ingombro del piano).

A2: a2 (Distribuzione rigidezze).

A2n: a2 numeratore (rigidezza max [x o y globale]).

A2d: a2 denominatore (rigidezza min [x o y globale]).

A2r: a2 rapporto (rigidezza max/min).

A3: a3 (Forma compatta).

A3n: a3 numeratore (area convessa). [cm²]

A3d: a3 denominatore (area piano). [cm²]

A3r: a3 rapporto (area convessa/area piano).

B: b (Rapporto lati).

Bn: b numeratore (lato max [x o y globale]). [cm]

Bd: b denominatore (lato min [x o y globale]). [cm]

Br: b rapporto (lato max/min).

C: c (Rapporto rigidezze piano).

Cn: c numeratore (rigidezza elementi verticali).

Cd: c denominatore (rigidezza piano).

Cr: c rapporto (rigidezza elementi verticali/rigidezza piano).

E1: e1 (Variazione masse).

E1n: e1 numeratore (massa max). [daN]

E1d: e1 denominatore (massa min). [daN]

E1r: e1 rapporto (massa max/min).

E2: e2 (Riduzione rigidezze).

E2n: e2 numeratore (rigidezza relativa alla traslazione KUmax). [daN/cm]

E2d: e2 denominatore (rigidezza relativa alla traslazione KUmin). [daN/cm]

E2r: e2 rapporto (variazione massima in decremento Kmax/Kmin).

E3: e3 (Incremento rigidezze).

E3n: e3 numeratore (rigidezza relativa alla traslazione KUmax). [daN/cm]

E3d: e3 denominatore (rigidezza relativa alla traslazione KUmin). [daN/cm]

E3r: e3 rapporto (variazione massima in incremento Kmax/Kmin).

F: f (Rapporto Capacità/Domanda).

F_n: f numeratore (rapporto capacità/domanda massimo [c/d max]). [daN]

F_d: f denominatore (rapporto capacità/domanda minimo [c/d min]). [daN]

F_r: f rapporto (variazione massima [rapporto (c/d max)/(c/d min)]).

G1: g1 (Rastremazione di piano).

G1n: g1 numeratore (L1). [cm]

G1d: g1 denominatore (L2). [cm]

G1r: g1 rapporto (L1/L2).

G2: g2 (Rastremazione totale).

G2n: g2 numeratore (L0). [cm]

G2d: g2 denominatore (Li). [cm]

G2r: g2 rapporto (L0/Li).

Capacità/Domanda in X:

VrdX: taglio resistente complessivo in direzione X. [daN]

VedX: taglio agente complessivo in direzione X. [daN]

[Rd/Ed]: [Rd/Ed] (rapporto capacità/domanda in termini di resistenza a taglio).

Capacità/Domanda in Y:

VrdY: taglio resistente complessivo in direzione Y. [daN]

VedY: taglio agente complessivo in direzione Y. [daN]

Verifica regolarità strutturale

Controllo regolarità edificio secondo D.M. 17-01-18 (N.T.C.) §7.2.1 - §C7.2.1

Avvertenze



La seguente procedura valuta la regolarità della costruzione secondo quanto indicato nelle NTC 2018 §7.2.1.

Tali valutazioni sono a carattere puramente informativo e vengono condotte sulla base del modello e delle verifiche presenti alla sua generazione, con le limitazioni indicate nella manualistica.

In ogni caso l'impostazione di regolarità della costruzione, in pianta ed elevazione, va indicata nelle preferenze di analisi dall'utente utilizzatore del software.

Sintesi dei risultati

Orizzontamenti considerati nella valutazione

Nessun livello di fondazione trovato

Livelli di elevazione considerati: Rialzato(L3), Primo(L4), Secondo(L5), Terzo(L6), Sottotetto(L7),

Regolarità in pianta - NO

L'edificio risulta NON regolare in pianta, in base alle condizioni indicate in NTC 2018 §7.2.1

N.V. - Criterio A1 (Distribuzione masse) non valutabile al livello Rialzato

N.V. - Criterio A2 (Distribuzione rigidezze) non valutabile al livello Rialzato

No - Criterio A3 (Forma compatta) NON rispettato, con rapporto massimo 2820474.5/2639360.8=1.1 (limite=1,05) al livello Sottotetto

Ok - Criterio B (Rapporto lati) rispettato, con rapporto massimo 2,42 (limite=4) al livello Rialzato

No - Criterio C (Rapporto rigidezze piano) NON rispettato, con rapporto massimo > 999 (limite=0) al livello Rialzato

Regolarità in altezza - NO

L'edificio risulta NON regolare in altezza, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio D (Altezza elementi sismoresistenti) rispettato, con rapporto massimo 1 (limite=1,01)

No - Criterio E1 (Variazione masse) NON rispettato, con rapporto massimo 164580.8/126551.5=1.3 (limite=1,25) tra il livello Primo ed il precedente

N.V. - Criterio E2 (Riduzione rigidezze) non valutabile tra il livello Primo ed il precedente

N.V. - Criterio E3 (Incremento rigidezze) non valutabile tra il livello Primo ed il precedente

No - Criterio F (Rapporto Capacità/Domanda) NON rispettato, con rapporto massimo 69/9.9=7 (limite=1,3) tra il livello Sottotetto ed il precedente

No - Criterio G1 (Rastremazione di piano) NON rispettato, con rapporto massimo 151.1/1030.1=0.1 (limite=0,1) tra il livello Sottotetto ed il precedente

Ok - Criterio G2 (Rastremazione totale) rispettato, con rapporto massimo 0 (limite=0,3) tra il livello Primo ed il precedente

Valori per piano

Verifiche di regolarità in pianta

Livello		A1			A2			A3			B			C		
Descr	Quota	A1n	A1d	A1r	A2n	A2d	A2r	A3n	A3d	A3r	Bn	Bd	Br	Cn	Cd	Cr
Rialzato	110							2539472	2505528	1.01	2498	1031	2.42	9999	1	9999
Primo	483							2523182	2494934	1.01	2484	1031	2.41	9999	1	9999
Secondo	835							2522292	2497676	1.01	2484	1030	2.41	9999	1	9999
Terzo	1187							2522292	2463989	1.02	2484	1030	2.41	9999	1	9999
Sottotetto	1503							2820475	2639361	1.07	2504	1187	2.11	9999	1	9999

Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 1393/1393=1.

Livello			E1			E2			E3			F			G1			G2		
Descr	Q	Q1nf	E1n	E1d	E1r	E2n	E2d	E2r	E3n	E3d	E3r	Fn	Fd	Fr	G1n	G1d	G1r	G2n	G2d	G2r
Primo	483	110	164581	126551	1.3							4.5	2.7	1.68	9	2498	0	9	2498	0
Secondo	835	483	126551	125337	1.01							3.2	2.5	1.24	0	2484	0	8	2498	0
Terzo	1187	835	125337	122779	1.02							10.9	7.1	1.53	0	2484	0	8	2498	0
Sottotetto	1503	1187	122779	99492	1.23							69	9.9	6.97	151	1030	0.15	0	1	0

Dettaglio delle resistenze di piano a taglio (per valutazione punto F)

Livello		Capacità/Domanda in X					Capacità/Domanda in Y				
Descr	Q	Comb	VrdX	VedX	Rd/Ed		VrdY	VedY	Rd/Ed		
Rialzato	110	SLD 1	326610	-124334	2.6		264157	-26023	10.2		
Rialzato	110	SLD 2	326610	-124334	2.6		264157	-26023	10.2		
Rialzato	110	SLD 3	329953	-127948	2.6		262091	26669	9.8		
Rialzato	110	SLD 4	329953	-127948	2.6		262091	26669	9.8		
Rialzato	110	SLD 5	326910	-31785	10.3		268804	-87724	3.1		
Rialzato	110	SLD 6	326910	-31785	10.3		268804	-87724	3.1		
Rialzato	110	SLD 7	338195	-43832	7.7		260832	87913	3		
Rialzato	110	SLD 8	338195	-43832	7.7		260832	87913	3		
Rialzato	110	SLD 9	328302	43928	7.5		271345	-87920	3.1		
Rialzato	110	SLD 10	328302	43928	7.5		271345	-87920	3.1		
Rialzato	110	SLD 11	341640	31881	10.7		263080	87717	3		
Rialzato	110	SLD 12	341640	31881	10.7		263080	87717	3		
Rialzato	110	SLD 13	338090	128044	2.6		271596	-26676	10.2		
Rialzato	110	SLD 14	338090	128044	2.6		271596	-26676	10.2		
Rialzato	110	SLD 15	342005	124430	2.7		270379	26015	10.4		
Rialzato	110	SLD 16	342005	124430	2.7		270379	26015	10.4		
Rialzato	110	SLV 1	316288	-293082	1.1		261048	-62511	4.2		
Rialzato	110	SLV 2	316288	-293082	1.1		261048	-62511	4.2		
Rialzato	110	SLV 3	313643	-302064	1		247475	63388	3.9		
Rialzato	110	SLV 4	313643	-302064	1		247475	63388	3.9		
Rialzato	110	SLV 5	310576	-74270	4.2		267954	-209703	1.3		
Rialzato	110	SLV 6	310576	-74270	4.2		267954	-209703	1.3		
Rialzato	110	SLV 7	329845	-104207	3.2		242183	209961	1.2		
Rialzato	110	SLV 8	329845	-104207	3.2		242183	209961	1.2		
Rialzato	110	SLV 9	319594	104303	3.1		270792	-209968	1.3		
Rialzato	110	SLV 10	319594	104303	3.1		270792	-209968	1.3		
Rialzato	110	SLV 11	333070	74366	4.5		243579	209696	1.2		
Rialzato	110	SLV 12	333070	74366	4.5		243579	209696	1.2		
Rialzato	110	SLV 13	337897	302160	1.1		269404	-63395	4.2		
Rialzato	110	SLV 14	337897	302160	1.1		269404	-63395	4.2		
Rialzato	110	SLV 15	334043	293179	1.1		262045	62504	4.2		



Livello			Capacità/Domanda in X			Capacità/Domanda in Y		
Descr	Q	Comb	VrdX	VedX	[Rd/Ed]	VrdY	VedY	[Rd/Ed]
Rialzato	110	SLV 16	334043	293179	1.1	262045	62504	4.2
Primo	483	SLD 1	212465	-114342	1.9	145072	-18560	7.8
Primo	483	SLD 2	212465	-114342	1.9	145072	-18560	7.8
Primo	483	SLD 3	213349	-114436	1.9	145258	17507	8.3
Primo	483	SLD 4	213349	-114436	1.9	145258	17507	8.3
Primo	483	SLD 5	215552	-34160	6.3	145156	-60274	2.4
Primo	483	SLD 6	215552	-34160	6.3	145156	-60274	2.4
Primo	483	SLD 7	221764	-34474	6.4	146652	59953	2.4
Primo	483	SLD 8	221764	-34474	6.4	146652	59953	2.4
Primo	483	SLD 9	219023	34474	6.4	145611	-59960	2.4
Primo	483	SLD 10	219023	34474	6.4	145611	-59960	2.4
Primo	483	SLD 11	223180	34160	6.5	147647	60267	2.4
Primo	483	SLD 12	223180	34160	6.5	147647	60267	2.4
Primo	483	SLD 13	221960	114436	1.9	147671	-17515	8.4
Primo	483	SLD 14	221960	114436	1.9	147671	-17515	8.4
Primo	483	SLD 15	221450	114342	1.9	148105	18553	8
Primo	483	SLD 16	221450	114342	1.9	148105	18553	8
Primo	483	SLV 1	183113	-267585	0.7	139214	-44109	3.2
Primo	483	SLV 2	183113	-267585	0.7	139214	-44109	3.2
Primo	483	SLV 3	188138	-267777	0.7	142404	41735	3.4
Primo	483	SLV 4	188138	-267777	0.7	142404	41735	3.4
Primo	483	SLV 5	202144	-79983	2.5	141485	-143432	1
Primo	483	SLV 6	202144	-79983	2.5	141485	-143432	1
Primo	483	SLV 7	207755	-80626	2.6	144651	142715	1
Primo	483	SLV 8	207755	-80626	2.6	144651	142715	1
Primo	483	SLV 9	204571	80626	2.5	143936	-142723	1
Primo	483	SLV 10	204571	80626	2.5	143936	-142723	1
Primo	483	SLV 11	212801	79983	2.7	146380	143425	1
Primo	483	SLV 12	212801	79983	2.7	146380	143425	1
Primo	483	SLV 13	200136	267777	0.7	145746	-41743	3.5
Primo	483	SLV 14	200136	267777	0.7	145746	-41743	3.5
Primo	483	SLV 15	201539	267585	0.8	145687	44102	3.3
Primo	483	SLV 16	201539	267585	0.8	145687	44102	3.3
Secondo	835	SLD 1	207171	-95162	2.2	126362	-14190	8.9
Secondo	835	SLD 2	207171	-95162	2.2	126362	-14190	8.9
Secondo	835	SLD 3	204470	-94848	2.2	127056	14095	9
Secondo	835	SLD 4	204470	-94848	2.2	127056	14095	9
Secondo	835	SLD 5	210307	-29024	7.2	124202	-47159	2.6
Secondo	835	SLD 6	210307	-29024	7.2	124202	-47159	2.6
Secondo	835	SLD 7	206200	-27979	7.4	126839	47126	2.7
Secondo	835	SLD 8	206200	-27979	7.4	126839	47126	2.7
Secondo	835	SLD 9	209783	27979	7.5	123880	-47133	2.6
Secondo	835	SLD 10	209783	27979	7.5	123880	-47133	2.6
Secondo	835	SLD 11	206258	29025	7.1	125740	47152	2.7
Secondo	835	SLD 12	206258	29025	7.1	125740	47152	2.7
Secondo	835	SLD 13	209287	94848	2.2	122899	-14102	8.7
Secondo	835	SLD 14	209287	94848	2.2	122899	-14102	8.7
Secondo	835	SLD 15	208084	95162	2.2	122801	14183	8.7
Secondo	835	SLD 16	208084	95162	2.2	122801	14183	8.7
Secondo	835	SLV 1	185797	-222725	0.8	124796	-33642	3.7
Secondo	835	SLV 2	185797	-222725	0.8	124796	-33642	3.7
Secondo	835	SLV 3	185871	-221962	0.8	126914	33512	3.8
Secondo	835	SLV 4	185871	-221962	0.8	126914	33512	3.8
Secondo	835	SLV 5	207796	-67974	3.1	123122	-111946	1.1
Secondo	835	SLV 6	207796	-67974	3.1	123122	-111946	1.1
Secondo	835	SLV 7	201559	-65432	3.1	126407	111902	1.1
Secondo	835	SLV 8	201559	-65432	3.1	126407	111902	1.1
Secondo	835	SLV 9	206359	65432	3.2	121757	-111909	1.1
Secondo	835	SLV 10	206359	65432	3.2	121757	-111909	1.1
Secondo	835	SLV 11	202328	67974	3	122350	111939	1.1
Secondo	835	SLV 12	202328	67974	3	122350	111939	1.1
Secondo	835	SLV 13	189625	221962	0.9	119753	-33519	3.6
Secondo	835	SLV 14	189625	221962	0.9	119753	-33519	3.6
Secondo	835	SLV 15	188382	222725	0.8	120426	33635	3.6
Secondo	835	SLV 16	188382	222725	0.8	120426	33635	3.6
Terzo	1187	SLD 1	178124	-57830	3.1	103509	-10523	9.8
Terzo	1187	SLD 2	178124	-57830	3.1	103509	-10523	9.8
Terzo	1187	SLD 3	176075	-58503	3	105044	9832	10.7
Terzo	1187	SLD 4	176075	-58503	3	105044	9832	10.7
Terzo	1187	SLD 5	179712	-16328	11	103008	-34031	3
Terzo	1187	SLD 6	179712	-16328	11	103008	-34031	3
Terzo	1187	SLD 7	176060	-18572	9.5	105302	33819	3.1
Terzo	1187	SLD 8	176060	-18572	9.5	105302	33819	3.1
Terzo	1187	SLD 9	180225	18572	9.7	102648	-33826	3
Terzo	1187	SLD 10	180225	18572	9.7	102648	-33826	3
Terzo	1187	SLD 11	177501	16328	10.9	105056	34024	3.1
Terzo	1187	SLD 12	177501	16328	10.9	105056	34024	3.1
Terzo	1187	SLD 13	178698	58503	3.1	103753	-9840	10.5
Terzo	1187	SLD 14	178698	58503	3.1	103753	-9840	10.5
Terzo	1187	SLD 15	178356	57830	3.1	104229	10516	9.9
Terzo	1187	SLD 16	178356	57830	3.1	104229	10516	9.9
Terzo	1187	SLV 1	148929	-135409	1.1	104196	-25062	4.2
Terzo	1187	SLV 2	148929	-135409	1.1	104196	-25062	4.2
Terzo	1187	SLV 3	148171	-137064	1.1	105607	23469	4.5
Terzo	1187	SLV 4	148171	-137064	1.1	105607	23469	4.5
Terzo	1187	SLV 5	175051	-38112	4.6	102496	-81126	1.3
Terzo	1187	SLV 6	175051	-38112	4.6	102496	-81126	1.3



Livello			Capacità/Domanda in X			Capacità/Domanda in Y		
Descr	Q	Comb	VrdX	VedX	[Rd/Ed]	VrdY	VedY	[Rd/Ed]
Terzo	1187	SLV 7	168441	-43630	3.9	105260	80644	1.3
Terzo	1187	SLV 8	168441	-43630	3.9	105260	80644	1.3
Terzo	1187	SLV 9	175918	43630	4	101873	-80651	1.3
Terzo	1187	SLV 10	175918	43630	4	101873	-80651	1.3
Terzo	1187	SLV 11	168665	38112	4.4	104561	81119	1.3
Terzo	1187	SLV 12	168665	38112	4.4	104561	81119	1.3
Terzo	1187	SLV 13	153416	137064	1.1	102860	-23476	4.4
Terzo	1187	SLV 14	153416	137064	1.1	102860	-23476	4.4
Terzo	1187	SLV 15	150227	135409	1.1	103752	25055	4.1
Terzo	1187	SLV 16	150227	135409	1.1	103752	25055	4.1
Sottotetto	1503	SLD 1	92451	-12567	7.4	64660	-1964	32.9
Sottotetto	1503	SLD 2	92451	-12567	7.4	64660	-1964	32.9
Sottotetto	1503	SLD 3	93272	-12955	7.2	59825	2470	24.2
Sottotetto	1503	SLD 4	93272	-12955	7.2	59825	2470	24.2
Sottotetto	1503	SLD 5	99942	-3187	31.4	52139	-7644	6.8
Sottotetto	1503	SLD 6	99942	-3187	31.4	52139	-7644	6.8
Sottotetto	1503	SLD 7	97376	-4483	21.7	65115	7136	9.1
Sottotetto	1503	SLD 8	97376	-4483	21.7	65115	7136	9.1
Sottotetto	1503	SLD 9	100420	4464	22.5	51173	-8080	6.3
Sottotetto	1503	SLD 10	100420	4464	22.5	51173	-8080	6.3
Sottotetto	1503	SLD 11	95505	3169	30.1	67370	6701	10.1
Sottotetto	1503	SLD 12	95505	3169	30.1	67370	6701	10.1
Sottotetto	1503	SLD 13	100254	12937	7.7	65671	-3414	19.2
Sottotetto	1503	SLD 14	100254	12937	7.7	65671	-3414	19.2
Sottotetto	1503	SLD 15	100122	12548	8	70439	1020	69
Sottotetto	1503	SLD 16	100122	12548	8	70439	1020	69
Sottotetto	1503	SLV 1	75851	-29217	2.6	54877	-3655	15
Sottotetto	1503	SLV 2	75851	-29217	2.6	54877	-3655	15
Sottotetto	1503	SLV 3	78919	-30220	2.6	54216	6544	8.3
Sottotetto	1503	SLV 4	78919	-30220	2.6	54216	6544	8.3
Sottotetto	1503	SLV 5	90252	-7251	12.4	44203	-16894	2.6
Sottotetto	1503	SLV 6	90252	-7251	12.4	44203	-16894	2.6
Sottotetto	1503	SLV 7	97174	-10593	9.2	46410	17100	2.7
Sottotetto	1503	SLV 8	97174	-10593	9.2	46410	17100	2.7
Sottotetto	1503	SLV 9	95826	10574	9.1	37326	-18044	2.1
Sottotetto	1503	SLV 10	95826	10574	9.1	37326	-18044	2.1
Sottotetto	1503	SLV 11	99033	7233	13.7	43412	15951	2.7
Sottotetto	1503	SLV 12	99033	7233	13.7	43412	15951	2.7
Sottotetto	1503	SLV 13	76911	30202	2.5	57258	-7487	7.6
Sottotetto	1503	SLV 14	76911	30202	2.5	57258	-7487	7.6
Sottotetto	1503	SLV 15	73502	29199	2.5	70021	2711	25.8
Sottotetto	1503	SLV 16	73502	29199	2.5	70021	2711	25.8

1.2 Verifiche aste in legno

Le unità di misura elencate nel capitolo sono in [cm] ove non espressamente specificato.

Descrizione: descrizione della sezione.

Tipo: tipo di sezione.

Base: base della sezione. [cm]

Altezza: altezza della sezione. [cm]

Area: area inerziale nel sistema geometrico centrato nel baricentro. [cm²]

Jx: momento d'inerzia attorno all'asse orizzontale baricentrico di definizione della sezione. [cm⁴]

Jy: momento d'inerzia attorno all'asse verticale baricentrico di definizione della sezione. [cm⁴]

Wx: modulo di resistenza elastico minimo relativo all'asse x. [cm³]

Wy: modulo di resistenza elastico minimo relativo all'asse y. [cm³]

Asta 11: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 34.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(8/85.3)^2 + 0.7*0.8/74.7 + 33.7/74.7 = 0.47 \leq 1$ [4.4.7b] Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $M_x = 1076.2$; $M_y = -44982.8$; $N = -3215.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{(2.91^2 + 0.05^2)} = 2.91 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = -517.4$; $T_y = 8.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.58 + 0 + 0 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $T_x = 79.5$; $T_y = 23.6$; $M_t = 17851.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 34.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $10.72 \leq 18.4$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $M_t = 17851.5$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 17.4
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $34.8/0 = 7454.5 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 17.4
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $34.8/0 = 10524.5 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 17.4
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = -0.01$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0.01$
 $L_{uce}/U_{fin} > \text{limite}$
 $34.8/0.01 = 6344.1 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 12: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.2/85.3)^2 + 0.7 \cdot 14.2/74.7 + 30/74.7 = 0.54 \leq 1$ [4.4.7b] Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_x = 18872.2$; $M_y = -39970.3$; $N = -2096.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{2.52^2 + 1.04^2} = 2.73 \leq 16$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $T_x = 448$; $T_y = 184.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0.02 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 444.3$; $T_y = 183.8$; $M_t = -2535.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$
 $1.52 \leq 18.4$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -2535.7$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $33.8/0 = 10061.5 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 15.8
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \text{limite}$
 $33.8/0 = 15405.5 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > \text{limite}$
 $33.8/0 = 8328.1 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$



Asta 13: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/85.3)^2 + 0.7 \cdot 0.6/74.7 + 18/74.7 = 0.25 \leq 1$ [4.4.7b] Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_x = -781.1$; $M_y = -23969.8$; $N = -715.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{3.79^2 + 0.15^2} = 3.79 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 673.2$; $T_y = 26.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.37 + 0.05 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 665.9$; $T_y = 23.5$; $M_t = 11204$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$6.73 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 11204$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

Luce/ $U_{inst,tot} > \text{limite}$

$33.8/0 = 24569.9 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

Luce/ $U_{inst,var} > \text{limite}$

$33.8/0 = 42001.6 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$



Luce/Ufin > limite

$33.8/0=19671.4 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Asta 14: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(0.6/117.3)^2 + 0.7 \cdot 0.3/102.7 + 26/102.7 = 0.25 \leq 1$ [4.4.7b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_x = 404$; $M_y = -34601.2$; $N = -254.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.86^2 + 0.08^2} = 0.86 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 152.8$; $T_y = -13.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.18 + 0 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 92.1$; $T_y = 16.9$; $M_t = -5591.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.36 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -5591.7$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

Luce/ $U_{inst,tot}$ > limite

$33.8/0=142218.1 > 300$ Comb: SLE rara, 5

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

Luce/ $U_{inst,var}$ > limite



33.8/0=99051.6 > 300 Comb: SLE rara, 5

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=183096.6 > 200

Condizione base per ricombinare la freccia: Variabile A

Comb: SLE quasi permanente, 2 + incrementi viscosi

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 1,000 + 0,180 = 1,180

Asta 15: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(1.9/117.3)^2 + 0.7*0.1/102.7 + 31.4/102.7 = 0.31 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

Mx = 170.8; My = 41925.6; N = -773.6

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_d \leq f_{v,d}$

$\sqrt{2.24^2 + 0.15^2} = 2.24 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

Tx = 397.5; Ty = 26.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.33 + 0.02 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = 391; Ty = 25.3; Mt = 10042.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq K_{sh} * f_{v,d}$

$6.03 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = 10042.6

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0



Luce/Uinst,tot > limite
33.8/0=29987.5 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=37679.4 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=26685.1 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 16: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(1.8/117.3)^2 + 0.7*1/102.7 + 32.6/102.7 = 0.32 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mx = -1311; My = 43501.9; N = -729.8

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau,d \leq fv,d$
 $Sqrt(4.82^2 + 0.14^2) = 4.83 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Tx = -857.7; Ty = -25.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau,tor,d/(ksh*fv,d) + (\tau,y,d/fv,d)^2 + (\tau,z,d/fv,d)^2 \leq 1$
 $0.21 + 0.03 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -453; Ty = -11.3; Mt = -6461.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau,tor,d \leq Ksh * fv,d$



3.95 <= 18.4 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = -6582.5

Verifica della freccia istantanea totale D.M. 17-01-18 §4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=31495 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=41073.5 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=27629.1 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 17: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(1.6/117.3)^2 + 0.7*0.6/102.7 + 10.7/102.7 = 0.11 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = 866.2; My = -14270.1; N = -620.8

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau,d \leq f_{v,d}$
 $Sqrt(4.08^2 + 0.05^2) = 4.08 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Tx = -725; Ty = -8.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67



$\tau_{tor,d}/(ksh \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.32+0+0 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -122.8; Ty = 13.6; Mt = 9683.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq Ksh \cdot f_{v,d}$
5.82 <= 18.4 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Mt = 9683.7

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=277109 > 300 Comb: SLE rara, 18

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=463965 > 300 Comb: SLE rara, 18

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=205333.2 > 200
Condizione base per ricombinare la freccia: Variabile A
Comb: SLE quasi permanente, 2 + incrementi viscosi
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 1,000 + 0,180 = 1,180

Asta 18: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
(1.8/117.3)^2+0.7*0.4/102.7+27.9/102.7=0.27 <= 1 [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mx = -535.8; My = -37158.7; N = -709.9

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{4.3^2 + 0.08^2} = 4.3 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = -764.7$; $T_y = -14.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.17 + 0.03 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 676.7$; $T_y = 10.3$; $M_t = -6957.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.48 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -5797.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $33.8/0 = 51560.1 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $33.8/0 = 72879.8 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $33.8/0 = 43050 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Asta 19: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/117.3)^2 + 0.7 \cdot 0.6/102.7 + 45.6/102.7 = 0.45 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 807.8$; $M_y = -60738.1$; $N = -706.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{4.09^2 + 0.12^2} = 4.09 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 727.7$; $T_y = 20.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.32 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 69.8$; $T_y = 12.4$; $M_t = 9806.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$5.89 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 9806.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 34958.1 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 45166.3 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 30332.9 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 20: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.7/117.3)^2 + 0.7 \cdot 0.3/102.7 + 45.1/102.7 = 0.44 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -360.6$; $M_y = -60183.3$; $N = -697.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{1.07^2 + 0.06^2} = 1.07 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -189.7$; $T_y = -10.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0 + 0 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = -188.7$; $T_y = -9.2$; $M_t = -6130.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.68 \leq 18.4$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$M_t = -6130.8$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

Luce/ $U_{inst,tot} > \text{limite}$

$33.8/0 = 31030.1 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

Luce/ $U_{inst,var} > \text{limite}$

$33.8/0 = 38433 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

Luce/ $U_{fin} > \text{limite}$

$33.8/0 = 27516.7 > 200$

Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 21: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/117.3)^2 + 0.7 \cdot 0.1/102.7 + 42.8/102.7 = 0.42 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = 101.1$; $M_y = -57054.3$; $N = -723.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{1.34^2 + 0.04^2} = 1.34 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = 238.8$; $T_y = -6.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.28 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 123.2$; $T_y = 10.8$; $M_t = 8444.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.07 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 8444.7$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $33.8/0 = 29272.8 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \text{limite}$
 $33.8/0 = 35318.6 > 300$ Comb: SLE rara, 17



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 26445.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 22: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/117.3)^2 + 0.7 \cdot 0.2/102.7 + 38.8/102.7 = 0.38 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -242.7$; $M_y = -51749.5$; $N = -732$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{(2.28^2 + 0.02^2)} = 2.28 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -405.3$; $T_y = 3.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,y,d}/f_{v,d})^2 + (\tau_{v,z,d}/f_{v,d})^2 \leq 1$

$0.26 + 0 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -129.4$; $T_y = -6.6$; $M_t = -7872.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$4.73 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -7872.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst} \text{ tot in } x = 0$

$U_{inst} \text{ tot in } y = 0$

$U_{inst} \text{ tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$



$33.8/0=30444.5 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0$

$U_{inst\ var\ in\ y} = 0$

$U_{inst\ var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0=34965.9 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0$

$U_{fin\ in\ y} = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0=28252.6 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 23: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/117.3)^2 + 0.7 \cdot 0.1/102.7 + 30.3/102.7 = 0.3 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 193.6$; $M_y = -40382.2$; $N = -728.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(2.73^2 + 0.05^2)} = 2.73 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 485.6$; $T_y = -8.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.21 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 183.2$; $T_y = 10.6$; $M_t = 6319.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.79 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media



Mt = 6319.6

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0

Luce/Uinst,tot > limite

33.8/0=34326.8 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

33.8/0=36706.2 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=33038.1 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Asta 24: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(1.1/117.3)^2 + 0.7*0.2/102.7 + 22/102.7 = 0.22 \leq 1$ [4.4.7b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

Mx = 202.5; My = 29362.4; N = -428.2

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau_d \leq f_{v,d}$

$\sqrt{2.72^2 + 0.03^2} = 2.72 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

Tx = -484.2; Ty = -6

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.32+0+0 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -114; Ty = 11.5; Mt = -9928.3

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor,d}} \leq K_{sh} \cdot f_{v,d}$
5.96 <= 18.4 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = -9928.3

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=38486.6 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=37192.1 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=39291.5 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 25: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/117.3)^2 + 0.7 \cdot 3.8/102.7 + 13.3/102.7 = 0.15 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mx = 5003.5; My = 17673; N = -737.4

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67



$\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(2.91^2 + 0.33^2) = 2.93 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = 517.3$; $T_y = -58.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.17 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 206.6$; $T_y = -25.3$; $M_t = 5154.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.1 \leq 18.4$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 5159.1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $33.8/0 = 46672.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 15.8
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \text{limite}$
 $33.8/0 = 40313.5 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > \text{limite}$
 $33.8/0 = 51551.9 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Asta 26: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 16.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$



$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(2.3/117.3)^2 + 0.7*2.9/102.7 + 11.1/102.7 = 0.13 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mx = -3821.8; My = 14737.1; N = -912.7

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.52^2 + 0.16^2} = 1.53 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
Tx = -270.7; Ty = 27.7

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.3 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 115.8; Ty = -12.2; Mt = -9123.8

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq k_{sh} * f_{v,d}$
 $5.48 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Mt = -9123.8

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
 $33.8/0 = 90160.9 > 300$ Comb: SLE rara, 10

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
 $33.8/0 = 126240.1 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
 $33.8/0 = 66812 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Vento = 0,600 + 0,400 = 1,000

Asta 27: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300



Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.5/85.3)^2 + 0.7 \cdot 8.5/74.7 + 18.3/74.7 = 0.32 \leq 1$ [4.4.7b] Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_x = 11281.8$; $M_y = 24442.7$; $N = -201.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{3.44^2 + 0.75^2} = 3.52 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $T_x = 612$; $T_y = -132.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.32 + 0.05 + 0 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $T_x = 612$; $T_y = -132.8$; $M_t = 9667.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.81 \leq 18.4$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $M_t = 9667.2$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $33.8/0 = 23104.4 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \text{limite}$
 $33.8/0 = 32225.6 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > \text{limite}$
 $33.8/0 = 19679.3 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$



Asta 28: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{mod}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{mod}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/85.3)^2 + 0.7 \cdot 9.3/74.7 + 20.4/74.7 = 0.36 \leq 1$ [4.4.7b] Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_x = -12453.5$; $M_y = 27229.8$; $N = -729.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{(2.31^2 + 0.66^2)} = 2.4 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -409.8$; $T_y = -117.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.59 + 0.02 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -409.8$; $T_y = -117.3$; $M_t = -18102.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$10.87 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -18102.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

Luce/ $U_{inst,tot} > \text{limite}$

$33.8/0 = 16799.7 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

Luce/ $U_{inst,var} > \text{limite}$

$33.8/0 = 21221.3 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$



Luce/Ufin > limite

$33.8/0=14932.9 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 29: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2/117.3)^2 + 0.7 \cdot 0.8/102.7 + 19.4/102.7 = 0.19 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_x = 1083.3$; $M_y = 25862.9$; $N = -815.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.65^2 + 0.05^2} = 1.65 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = -294$; $T_y = -9.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.17 + 0 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -189.8$; $T_y = -11.6$; $M_t = 7040.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.23 \leq 25.3$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 7040.1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

Luce/ $U_{inst,tot}$ > limite

$33.8/0=29173.9 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$



Luce/Uinst,var > limite

33.8/0=32144.5 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=27641.2 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Asta 30: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(0.5/117.3)^2 + 0.7*0.1/102.7 + 23.4/102.7 = 0.23 \leq 1$ [4.4.7b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

Mx = 133.7; My = -31192; N = -217.9

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau,d \leq f_{v,d}$

$\sqrt{3.73^2 + 0.13^2} = 3.73 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Tx = -662.8; Ty = -23.7

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.51 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = -332.5; Ty = -9.7; Mt = -15712

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq Ksh * f_{v,d}$

$9.44 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = -15712

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0



Luce/Uinst,tot > limite

$33.8/0=118799.9 > 300$ Comb: SLE rara, 18

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

$33.8/0=81266.8 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

$33.8/0=82518 > 200$

Condizione base per ricombinare la freccia: Variabile A

Comb: SLE quasi permanente, 2 + incrementi viscosi

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $1,000 + 0,180 = 1,180$

Asta 31: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(2.2/117.3)^2 + 0.7*0.1/102.7 + 27.4/102.7 = 0.27 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Mx = -80.5; My = 36498; N = -869.3

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_d \leq f_{v,d}$

$\sqrt{1.75^2 + 0.02^2} = 1.75 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

Tx = 310.8; Ty = 4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.21 + 0.01 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

Tx = 307.5; Ty = 4.2; Mt = 6481.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8



$$\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{\text{v,d}}$$

3.89 ≤ 18.4 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 6481.5

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6

$$K_{\text{def}} = 0$$

$$U_{\text{inst,tot}} \text{ in } x = 0$$

$$U_{\text{inst,tot}} \text{ in } y = 0$$

$$U_{\text{inst,tot}} = 0$$

$$L_{\text{uce}}/U_{\text{inst,tot}} > \text{limite}$$

$$33.8/0 = 137851.3 > 300 \text{ Comb: SLE rara, 19}$$

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1

$$K_{\text{def}} = 0$$

$$U_{\text{inst,var}} \text{ in } x = 0$$

$$U_{\text{inst,var}} \text{ in } y = 0$$

$$U_{\text{inst,var}} = 0$$

$$L_{\text{uce}}/U_{\text{inst,var}} > \text{limite}$$

$$33.8/0 = 102943.4 > 300 \text{ Comb: SLE rara, 8}$$

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6

$$K_{\text{def}} = 0.6$$

$$U_{\text{fin}} \text{ in } x = 0$$

$$U_{\text{fin}} \text{ in } y = 0$$

$$U_{\text{fin}} = 0$$

$$L_{\text{uce}}/U_{\text{fin}} > \text{limite}$$

$$33.8/0 = 95339.6 > 200$$

Coefficienti combinatori impiegati:

$$\text{Pesi strutturali} = 1,000 + 0,600 = 1,600$$

$$\text{Permanenti portati} = 1,000 + 0,600 = 1,600$$

$$\text{Variabile A} = 0,700 + 0,480 = 1,180$$

$$\text{Vento} = 0,600 + 0,000 = 0,600$$

Asta 32: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{\text{mod}} = 1.1$$

$$S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$$

$$K_{m,z,d}/f_{m,z,d} + S_{m,y,d}/f_{m,y,d} \leq 1$$

$$0.7 \cdot 0.1/102.7 + 32.4/102.7 = 0.32 \leq 1 \text{ (formula 4.4.5b) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo}$$

$$M_x = -81.2; M_y = -43181.7$$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{\text{mod}} = 0.8; k_{\text{cr}} = 0.67$$

$$\tau_{\text{d}} \leq f_{\text{v,d}}$$

$$\sqrt{(1.83^2 + 0.04^2)} = 1.83 \leq 16 \text{ Comb: SLU, 72; Durata minima del carico nella combinazione: media}$$

$$T_x = -325.2; T_y = -7.5$$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.43 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -320.3$; $T_y = -7.5$; $M_t = -13217.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $7.94 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -13217.6$

Verifica della freccia istantanea totale D.M. 17-01-18 §4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $33.8/0 = 153971.5 > 300$ Comb: SLE rara, 19

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 13.5
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $33.8/0 = 130699.7 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $33.8/0 = 108211.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,480 = 1,180$
Vento = $0,600 + 0,000 = 0,600$

Asta 33: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $S_{m,y,d}/f_{m,y,d} + K_{m} \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_{m} \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0/102.7 + 32.4/102.7 = 0.32 \leq 1$ (formula 4.4.5b) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = -28.8$; $M_y = -43224.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{1.81^2 + 0.04^2} = 1.81 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 321.9$; $T_y = 6.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.29 + 0.01 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 319.9$; $T_y = 6.8$; $M_t = 8934.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{t,d} \leq K_{sh} \cdot f_{v,d}$

$5.37 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 8934.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 171170.9 > 300$ Comb: SLE rara, 10

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 20.3

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 147106.1 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 13.5

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 122869.4 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Vento = $0,600 + 0,400 = 1,000$

Asta 34: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.5/117.3)^2 + 0.7 \cdot 0.3/102.7 + 31.4/102.7 = 0.31 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_x = 388.3$; $M_y = 41826.4$; $N = -980.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{2.44^2 + 0.04^2} = 2.44 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -433.5$; $T_y = -8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.35 + 0.02 + 0 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -433.5$; $T_y = -8$; $M_t = -10717.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$6.44 \leq 18.4$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -10717.9$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 137033.8 > 300$ Comb: SLE rara, 10

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 9

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 298183 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 20.3

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 94635.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Vento = $0,600 + 0,400 = 1,000$

Asta 35: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.6/52.8 + 0.7 \cdot 0.4/102.7 + 26.3/102.7 = 0.27 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 514.8$; $M_y = -35078.4$; $N = 244$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{(3.45^2 + 0.05^2)} = 3.45 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = 613.2$; $T_y = 9.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.38 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 212.6$; $T_y = 3.7$; $M_t = 11573$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $6.95 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 11573$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
Luce/ $U_{inst,tot} > \text{limite}$
 $33.8/0 = 61001.8 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
Luce/ $U_{inst,var} > \text{limite}$
 $33.8/0 = 130565.7 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
Luce/ $U_{fin} > \text{limite}$
 $33.8/0 = 45636.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$



Asta 36: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.6/52.8 + 0.7 \cdot 0/102.7 + 22.9/102.7 = 0.23 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_x = -16.7$; $M_y = -30501.5$; $N = 242$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{3.18^2 + 0.03^2} = 3.18 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -565$; $T_y = 6.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.26 + 0.01 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -281.2$; $T_y = 12.8$; $M_t = -7898$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.74 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -7898$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$Luce/U_{inst,tot} > \text{limite}$

$33.8/0 = 51377 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$Luce/U_{inst,var} > \text{limite}$

$33.8/0 = 106133.8 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$



Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=38709.5 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Asta 37: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $0.6/52.8 + 0.7 \cdot 0/102.7 + 34.4/102.7 = 0.35 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = -5$; $M_y = -45899.4$; $N = 228.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{4.49^2 + 0.02^2} = 4.49 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = 798.1$; $T_y = 4.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
 $0.51 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 336.8$; $T_y = -64.2$; $M_t = 15658.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{,tor,d} \leq K_{sh} \cdot f_{v,d}$
 $9.4 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 15658.8$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
Luce/ $U_{inst,tot}$ > limite
33.8/0=60104.7 > 300 Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$



Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=99746.9 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=44486.5 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Asta 38: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 49.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 49.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(2.7/85.3)^2 + 0.7 \cdot 8.9/74.7 + 31.2/74.7 = 0.5 \leq 1$ [4.4.7b] Comb: SLU, 38; Durata minima del carico nella combinazione: media
Mx = -11863.6; My = 41563.6; N = -1091.9

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(4.58^2 + 0.77^2)} = 4.64 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 813.9; Ty = 137.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0.08 + 0 \leq 1$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
Tx = 813.7; Ty = 135.3; Mt = 4558.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 49.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.9 \leq 25.3$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mt = 6489

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 28.1
Kdef = 0
Uinst tot in x = 0



Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
49.6/0=10293.1 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 28.1
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
49.6/0=13970.1 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 28.1
Kdef = 0.6
Ufin in x = 0.01
Ufin in y = 0
Ufin = 0.01
Luce/Ufin > limite
49.6/0.01=8889.3 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 39: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 18

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.9/38.4 + 0.7 \cdot 12.5/74.7 + 30.4/74.7 = 0.55 \leq 1$ [4.4.6b] Comb: SLU, 30; Durata minima del carico nella combinazione: media
Mx = 16613.6; My = 40591.5; N = 341.5

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{3 \cdot 76^2 + 1 \cdot 01^2} = 3.9 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
Tx = -668.8; Ty = 180.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{,tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
 $0.25 + 0.05 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -658.2; Ty = 183.9; Mt = 7534

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 18
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.52 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 7534$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \limite$
 $18/0 = 18051.5 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 9
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \limite$
 $18/0 = 25782.9 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 9
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > \limite$
 $18/0 = 15291.4 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Asta 40: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.7/85.3)^2 + 0.7 \cdot 1.4/74.7 + 21.4/74.7 = 0.3 \leq 1$ [4.4.7b] Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_x = 1815$; $M_y = 28474.8$; $N = -294.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{3.7^2 + 0.05^2} = 3.7 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $T_x = -657.6$; $T_y = 9$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.38 + 0.05 + 0 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = -657.6$; $T_y = 9$; $M_t = -11578.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$6.95 \leq 18.4$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$M_t = -11578.8$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 18552.3 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 27451.7 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 15446.7 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 41: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$



$(3/117.3)^2 + 0.7 \cdot 1.5/102.7 + 17.1/102.7 = 0.18 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = -2030.2; My = 22769.1; N = -1206.9

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau_{d} \leq f_{v,d}$

$\sqrt{2.62^2 + 0.17^2} = 2.63 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Tx = -466.1; Ty = 30.7

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.28 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = -215.8; Ty = 33.2; Mt = 8471.2

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$5.09 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = 8471.2

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0

Luce/Uinst,tot > limite

$33.8/0 = 72368.1 > 300$ Comb: SLE rara, 10

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

$33.8/0 = 152041.8 > 300$ Comb: SLE rara, 10

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

$33.8/0 = 53069.2 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Vento = $0,600 + 0,400 = 1,000$

Asta 42: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.5/117.3)^2 + 0.7 \cdot 1.2/102.7 + 13.2/102.7 = 0.14 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 1634.5$; $M_y = -17632$; $N = -587.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{3.26^2 + 0.24^2} = 3.27 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$T_x = -580.4$; $T_y = 43.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.17 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -274.1$; $T_y = 31$; $M_t = -5302.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.18 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -5302.1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 20.3

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 107523.8 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 80810.9 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 87668.5 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,480 = 1,180$

Vento = $0,600 + 0,000 = 0,600$

Asta 43: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.6/52.8 + 0.7 \cdot 0.1/102.7 + 24.4/102.7 = 0.25 \leq 1$ [4.4.6b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_x = -113.5$; $M_y = 32480.6$; $N = 230.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{2.79^2 + 0.02^2} = 2.79 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 496.4$; $T_y = 4.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.27 + 0 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 69.6$; $T_y = -4.4$; $M_t = 8242$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.95 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 8242$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$Luce/U_{inst,tot} > \text{limite}$

$33.8/0 = 53212.2 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$Luce/U_{inst,var} > \text{limite}$

$33.8/0 = 56887.8 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$Luce/U_{fin} > \text{limite}$

$33.8/0 = 51226.3 > 200$

Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 44: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.7/117.3)^2 + 0.7 \cdot 0/102.7 + 34.4/102.7 = 0.34 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = -9.8$; $M_y = -45816.9$; $N = -1076.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{(2.74^2 + 0.03^2)} = 2.74 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = -487.7$; $T_y = -5.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.22 + 0.01 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -209.8$; $T_y = -10.7$; $M_t = -6636.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.99 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -6636.8$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
Luce/ $U_{inst,tot} > \text{limite}$
 $33.8/0 = 40907.9 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
Luce/ $U_{inst,var} > \text{limite}$
 $33.8/0 = 49991.7 > 300$ Comb: SLE rara, 9



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=36886.4 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 45: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(2.6/117.3)^2 + 0.7*0.2/102.7 + 43.7/102.7 = 0.43 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = -302.5; My = -58223.5; N = -1043.7

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau,d \leq f_{v,d}$
 $\sqrt{2.22^2 + 0.04^2} = 2.22 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
Tx = 394.4; Ty = 7.1

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.19 + 0 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 78.6; Ty = 5.2; Mt = 5775.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq Ksh * f_{v,d}$
 $3.47 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 5775.4

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=30743 > 300 Comb: SLE rara, 17



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=40840.3 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=26746 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 46: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(2.5/117.3)^2 + 0.7*0/102.7 + 47.1/102.7 = 0.46 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = 38.4; My = -62834.8; N = -1016

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau,d \leq f_{v,d}$
 $\sqrt{0.83^2 + 0.07^2} = 0.83 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -146.8; Ty = -11.9

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.27 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -146.8; Ty = -11.9; Mt = -8264.9

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq Ksh * f_{v,d}$
 $4.96 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media



Mt = -8264.9

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0

Luce/Uinst,tot > limite

33.8/0=27082.1 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

33.8/0=37389.1 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=23095.8 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Asta 47: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(2.3/117.3)^2 + 0.7*0.3/102.7 + 49.3/102.7 = 0.48 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Mx = -437.2; My = -65765.4; N = -932.3

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau,d \leq f_{v,d}$

$\sqrt{(1.32^2 + 0.05^2)} = 1.32 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

Tx = 235; Ty = 9.7

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67



$\tau_{tor,d}/(ksh \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.14+0+0 <= 1 Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
Tx = -150.5; Ty = -7.3; Mt = 6019.9

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{tor,d} \leq Ksh \cdot f_{v,d}$
3.61 <= 25.3 Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
Mt = 6019.9

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=25777.7 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=36025.9 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=21792 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 48: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
(2.2/117.3)^2+0.7*0.6/102.7+49.6/102.7=0.49 <= 1 [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = 796; My = -66160.3; N = -875.8

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{4.19^2 + 0.13^2} = 4.19 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -745.3$; $T_y = -22.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.29 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -51.8$; $T_y = -13.9$; $M_t = -8850.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.31 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -8850.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $33.8/0 = 28273.4 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 16.9
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $33.8/0 = 40286.8 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $33.8/0 = 23673.9 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Asta 49: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2/117.3)^2 + 0.7 \cdot 0.5/102.7 + 31/102.7 = 0.31 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_x = -678.8$; $M_y = -41307.2$; $N = -818.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{4.42^2 + 0.06^2} = 4.42 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$T_x = 785$; $T_y = 10.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{t,d}/f_{v,d})^2 \leq 1$

$0.17 + 0.02 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -618.2$; $T_y = -12.1$; $M_t = 7128.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$4.28 \leq 25.3$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 7128.7$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,tot}$ in $x = 0$

$U_{inst,tot}$ in $y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$33.8/0 = 38789.9 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,var}$ in $x = 0$

$U_{inst,var}$ in $y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$33.8/0 = 56602.7 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

$K_{def} = 0.6$

U_{fin} in $x = 0$

U_{fin} in $y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$33.8/0 = 32122.5 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 50: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.9/117.3)^2 + 0.7 \cdot 0.6/102.7 + 13.8/102.7 = 0.14 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_x = 789.7$; $M_y = -18337.6$; $N = -747.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{4.3^2 + 0.06^2} = 4.3 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 763.6$; $T_y = 10$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.26 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 98.9$; $T_y = -17.2$; $M_t = -8115.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.87 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -8115.2$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.8

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$Luce/U_{inst,tot} > \text{limite}$

$33.8/0 = 115244.9 > 300$ Comb: SLE rara, 15

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$Luce/U_{inst,var} > \text{limite}$

$33.8/0 = 186444.8 > 300$ Comb: SLE rara, 15

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.8

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$Luce/U_{fin} > \text{limite}$

$33.8/0 = 89917.3 > 200$

Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,000 = 0,500
Variabile H = 0,000 + 1,000 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 51: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.6/117.3)^2 + 0.7 \cdot 0.8/102.7 + 32/102.7 = 0.32 \leq 1$ [4.4.7b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -1014.7$; $M_y = 42675.9$; $N = -252.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{4.86^2 + 0.12^2} = 4.86 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = 863.3$; $T_y = 20.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.16 + 0.02 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -610.2$; $T_y = -17.8$; $M_t = 6681.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.01 \leq 25.3$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_t = 6681.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $33.8/0 = 50047.5 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $Luce/U_{inst,var} > \text{limite}$



33.8/0=66834.9 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=43492.8 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Asta 52: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$

$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$

$(1.6/117.3)^2 + 0.7*0.2/102.7 + 30.8/102.7 = 0.3 \leq 1$ [4.4.7b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Mx = 268.2; My = 41107.4; N = -657

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_d \leq f_{v,d}$

$\sqrt{2.06^2 + 0.18^2} = 2.07 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

Tx = -366.4; Ty = -31.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(ksh*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.26 + 0.02 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = -358.9; Ty = -30.6; Mt = -8084.8

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq Ksh * f_{v,d}$

$4.85 \leq 18.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = -8084.8

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 14.6

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0

Luce/Uinst,tot > limite



33.8/0=48619.1 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 14.6

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

33.8/0=60823.8 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 14.6

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

33.8/0=43394.6 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Asta 53: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(0.9/117.3)^2 + 0.7 \cdot 0.8/102.7 + 27.7/102.7 = 0.28 \leq 1$ [4.4.7b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

Mx = 1105.2; My = -36948.4; N = -365.4

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{(1.03^2 + 0.05^2)} = 1.04 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Tx = -184; Ty = 9.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.13 + 0 + 0 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

Tx = -102.2; Ty = -38.2; Mt = 4107.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.47 \leq 18.4$ Comb: SLU, 71; Durata minima del carico nella combinazione: media



Mt = 4107.5

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18

Kdef = 0

Uinst tot in x = 0

Uinst tot in y = 0

Uinst tot = 0

Luce/Uinst,tot > limite

$33.8/0=96557.5 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18

Kdef = 0

Uinst var in x = 0

Uinst var in y = 0

Uinst var = 0

Luce/Uinst,var > limite

$33.8/0=147578.4 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0

Ufin = 0

Luce/Ufin > limite

$33.8/0=71542.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Asta 54: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$

$(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$

$(2.2/85.3)^2 + 0.7 \cdot 0.5/74.7 + 21.5/74.7 = 0.29 \leq 1$ [4.4.7b] Comb: SLU, 71; Durata minima del carico nella combinazione: media

Mx = -692.3; My = -28709.3; N = -883.5

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{d} \leq f_{v,d}$

$\sqrt{(3.92^2 + 0.18^2)} = 3.92 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

Tx = -696.7; Ty = -32.7

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.28+0.06+0 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -696.7; Ty = -32.7; Mt = -8486.9

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{v,d}$
5.12 <= 18.4 Comb: SLU, 38; Durata minima del carico nella combinazione: media
Mt = -8531

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.1
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
33.8/0=18716.1 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 19.1
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
33.8/0=30493.6 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.1
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
33.8/0=15194.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Asta 55: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.8/85.3)^2 + 0.7 \cdot 10.6/74.7 + 33/74.7 = 0.55 \leq 1$ [4.4.7b] Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mx = 14094.1; My = -43977.8; N = -3125.1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$



$\sqrt{2.32^2 + 0.24^2} = 2.33 \leq 16$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $T_x = -412$; $T_y = -42.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0.02 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -392.2$; $T_y = -39.2$; $M_t = 2182.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$
 $2.03 \leq 25.3$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
 $M_t = 3376.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 16.9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $33.8/0 = 8850.6 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $33.8/0 = 13288.6 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 16.9
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $33.8/0 = 7372.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Asta 56: Trave in legno a falda Falda 1 fili 55-241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 18.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 20x20	Rettangolare	20	20	400	13333.33	13333.33	1333.33	1333.33

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 18.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$



$(8.7/85.3)^2 + 0.7 \cdot 2.9/74.7 + 42.7/74.7 = 0.61 \leq 1$ [4.4.7b] Comb: SLU, 72; Durata minima del carico nella combinazione: media
Mx = 3846.1; My = -56963.3; N = -3479.5

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(3.69^2 + 0.31^2)} = 3.7 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -655.5; Ty = 55.4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.58 + 0.05 + 0 \leq 1$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
Tx = -642.6; Ty = 52.1; Mt = -17733.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 18.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$
 $10.71 \leq 18.4$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = -17842.9

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 9.5
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
 $18.9/0 = 11601.3 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 9.5
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
 $18.9/0 = 16803.3 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 9.5
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
 $18.9/0 = 9783.9 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 57: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 13.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 13.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \geq 1$

$K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \geq 1$

$98.7/74.7 + 0.7 \cdot 85.2/74.7 = 2.12 \geq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 156559.7$; $M_y = 105808.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 13.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{6.19^2 + 9.26^2} = 11.14 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -1138.9$; $T_y = -1703.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 13.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$3.94 + 0.16 + 0.32 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -1166.6$; $T_y = -1654.5$; $M_t = 124465.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 13.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} > k_{sh} \cdot f_{v,d}$

$75.12 > 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_t = 124465.8$

Asta 58: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 57.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.34^2 + 15.26^2} = 15.32 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 247.3$; $T_y = 2807.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(S_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$

$(1.6/85.3)^2 + 155.3/74.7 + 0.7 \cdot 20.3/74.67 = 2.27 \geq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 246422.5$; $M_y = 25198.9$; $N = -655.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.29 + 0.01 + 0.91 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 247.3$; $T_y = 2807.2$; $M_t = 9033.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 57.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.48 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 9084.9$

Asta 59: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 12.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.95^2 + 12.8^2} = 12.83 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 174.4$; $T_y = 2354.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 62.8/74.7 + 0.7 \cdot 32.7/74.67 = 1.15 ! > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 99659.8$; $M_y = 40582.2$; $N = -754.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.27 + 0 + 0.64 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 174.4$; $T_y = 2354.6$; $M_t = 8448.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 12.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.15 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 8540$

Asta 60: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 87

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.04^2 + 10.49^2} = 10.54 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -192.2$; $T_y = 1929.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(3.2/85.3)^2 + 48.6/74.7 + 0.7 \cdot 27.8/74.67 = 0.91 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = 77066.1$; $M_y = 34585.3$; $N = -1332.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.23 + 0 + 0.43 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -192.2$; $T_y = 1929.6$; $M_t = 7203.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 87
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.35 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 7203.9$

Asta 61: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 99.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.9^2 + 5.36^2} = 5.68 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -350.2$; $T_y = 985.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 99.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.7/85.3)^2 + 79.3/74.7 + 0.7 \cdot 16.9/74.67 = 1.22 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -125810.3$; $M_y = -20936$; $N = -2339.4$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0.01 + 0.11 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -350.2$; $T_y = 985.6$; $M_t = 1823$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 99.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.55 \leq 26.22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_t = 2561.2$

Asta 62: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 59

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 59
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(2.32^2 + 1.17^2)} = 2.6 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -426.4$; $T_y = -216.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 59
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.1/85.3)^2 + 68.1/74.7 + 0.7 \cdot 36.9/74.67 = 1.26 ! > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -108042$; $M_y = -45799.5$; $N = -2951$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0 \leq 1$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = -210.2$; $T_y = 51.4$; $M_t = 1780.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 59
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.09 \leq 26.22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = -1808.7$

Asta 63: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 42

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 42

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.37^2 + 2.37^2} = 2.4 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 68.7$; $T_y = -435.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(6.4/85.3)^2 + 74.4/74.7 + 0.7 \cdot 18.1/74.67 = 1.17 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -118008.8$; $M_y = -22458.4$; $N = -2668.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 42

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.39 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 138.6$; $T_y = -409.4$; $M_t = -12267.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 42

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$7.4 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -12267.9$

Asta 64: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 98.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 98.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.06^2 + 3.6^2} = 3.6 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 11.9$; $T_y = -662.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(6.4/85.3)^2 + 59/74.7 + 0.7 \cdot 10.6/74.67 = 0.9 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = -93643.1$; $M_y = -13132$; $N = -2647.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 98.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.21 + 0 + 0.05 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 37.6$; $T_y = -656$; $M_t = -6598.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 98.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.98 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -6598.2$

Asta 65: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 99.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 99.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.04^2 + 3.88^2} = 3.88 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 6.5$; $T_y = -714.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(5.9/85.3)^2 + 21.7/74.7 + 0.7 \cdot 7.1/74.67 = 0.36 \leq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_x = -34429.4$; $M_y = -8878.3$; $N = -2436.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 99.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.1 + 0 + 0.06 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 7.8$; $T_y = -713.6$; $M_t = -3285.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 99.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.98 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = -3285.6$



Asta 66: Trave in legno a falda Falda 5 fili 241-277

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 110.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 110.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.24^2 + 2.16^2} = 2.17 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -44.5$; $T_y = -396.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 110.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(5.6/85.3)^2 + 46.7/74.7 + 0.7 \cdot 8.1/74.67 = 0.71 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = 74191.1$; $M_y = -10051.7$; $N = -2336.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 110.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -41.5$; $T_y = -396.1$; $M_t = -1673.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 110.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.01 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = -1673.9$

Asta 67: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 74.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$



$\text{Sqrt}(0.89^2 + 15.88^2) = 15.9 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 162.9; Ty = 2921.1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(4.2/85.3)^2 + 163.3/74.7 + 0.7 \cdot 51.9/74.67 = 2.68 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = 259123.8; My = -64488.8; N = -1746.9

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{tor},d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.54 + 0 + 0.98 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Tx = 162.9; Ty = 2921.1; Mt = -16985.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 74.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{\text{tor},d} \leq k_{sh} \cdot f_{v,d}$

$10.26 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

Mt = -16997.1

Asta 68: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 103.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{d}} \leq f_{v,d}$

$\text{Sqrt}(2.75^2 + 11.24^2) = 11.57 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

Tx = 505.1; Ty = 2067.8

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 103.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(6.1/85.3)^2 + 67.9/74.7 + 0.7 \cdot 4.5/74.67 = 0.96 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

Mx = -107795.9; My = 5546.5; N = -2537.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{tor},d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0.03 + 0.49 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

Tx = 505.1; Ty = 2067.8; Mt = -6198

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 103.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.74 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -6198$

Asta 69: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 104.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(1.35^2 + 6.76^2) = 6.89 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 248.8$; $T_y = 1243.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 104.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.9/85.3)^2 + 123.3/74.7 + 0.7 \cdot 23.4/74.67 = 1.88 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -195749.7$; $M_y = 29052.7$; $N = -2451.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0.01 + 0.18 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 248.1$; $T_y = 1242.5$; $M_t = 438.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 104.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.59 \leq 26.22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_t = 982.8$

Asta 70: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 116.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.62^2 + 2.76^2} = 2.83 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 113.3$; $T_y = 507.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 116.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.8/85.3)^2 + 130.8/74.7 + 0.7 \cdot 30.6/74.67 = 2.04 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -207582.6$; $M_y = 38004.3$; $N = -2386.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.19 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 109.5$; $T_y = 507.6$; $M_t = 5898.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 116.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.56 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 5899.6$

Asta 71: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 90.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 90.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.83^2 + 7.2^2} = 7.25 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -153.2$; $T_y = -1324.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.9/85.3)^2 + 119.3/74.7 + 0.7 \cdot 34.9/74.67 = 1.93 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -189358.4$; $M_y = 43378.2$; $N = -3251.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 90.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.08+0+0.2 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -159.8; Ty = -1322.2; Mt = 2645.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 90.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.61 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = 2670.2

Asta 72: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.38^2 + 6.73^2) = 6.74 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -70.6; Ty = -1238.2

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(8.1/85.3)^2 + 39.9/74.7 + 0.7 \cdot 19.7/74.67 = 0.73 \leq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mx = -63338.4; My = 24455.4; N = -3333.4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.06+0+0.18 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -76; Ty = -1236.3; Mt = 1742.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.07 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = 1771.9

Asta 73: Trave in legno a falda Falda 5 fili 241-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 118.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 118.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 3.34^2} = 3.34 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 0.9$; $T_y = -614.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 118.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(6.6/85.3)^2 + 88.3/74.7 + 0.7 \cdot 11.7/74.67 = 1.3 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 140152.3$; $M_y = 14547.5$; $N = -2749.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 118.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -6.9$; $T_y = -611.9$; $M_t = 1698$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 118.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.03 \leq 19.07$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $M_t = 1704.3$

Asta 74: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 127.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 127.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.9/52.8 + 0.7 \cdot 11.3/102.7 + 20.7/102.7 = 0.33 \leq 1$ [4.4.6b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = -17867.7$; $M_y = 25688.1$; $N = 1180.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.42^2 + 1.41^2} = 1.47 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 77.3$; $T_y = 259.8$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02+0+0.01 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 77.3$; $T_y = 259.8$; $M_t = 600.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 127.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.57 \leq 26.22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 948.5$

Asta 75: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 104.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 104.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.9/38.4+35.9/74.7+0.7 \cdot 14.7/74.7=0.67 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_x = -56984.7$; $M_y = 18196$; $N = 801.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.03^2+2.36^2} = 2.36 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 4.6$; $T_y = 434.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.18+0+0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 5.2$; $T_y = 433.8$; $M_t = 5646$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 104.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.41 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 5646$

Asta 76: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 104.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 104.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.1/38.4 + 64.2/74.7 + 0.7 \cdot 11.9/74.7 = 1.03 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -101939.5$; $M_y = 14815.6$; $N = 887.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.36^2 + 2.46^2} = 2.49 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -65.4$; $T_y = 453.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.41 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -62.1$; $T_y = 453$; $M_t = 12857.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 104.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$7.76 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 12857.9$

Asta 77: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 63.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 63.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.6/38.4 + 84/74.7 + 0.7 \cdot 3.2/74.7 = 1.22 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -133300.3$; $M_y = 3945.5$; $N = 1079.7$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.28^2 + 2.2^2} = 2.54 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -235.2$; $T_y = 404.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.72 + 0.01 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -219.9$; $T_y = 402.1$; $M_t = 22625.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 63.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $13.66 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 22625.5$

Asta 78: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 40.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $3.7/38.4 + 100.6/74.7 + 0.7 \cdot 14/74.7 = 1.58 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -159695.9$; $M_y = 17349.8$; $N = 1546.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 40.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.57^2 + 4.42^2} = 4.45 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 104.8$; $T_y = -813$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 40.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.27 + 0 + 0.08 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 104.8$; $T_y = -813$; $M_t = -8573.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 40.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.18 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media



Mt = -8589

Asta 79: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 104.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $4.4/38.4 + 87.2/74.7 + 0.7 \cdot 20.3/74.7 = 1.47 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -138338.3$; $M_y = 25161.6$; $N = 1832.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.6^2 + 4.08^2} = 4.13 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -110.7$; $T_y = -751.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.07 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -111.7$; $T_y = -750.9$; $M_t = 1906.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$
 $1.15 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 1906.8$

Asta 80: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 104.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$



$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $4.1/38.4 + 39.5/74.7 + 0.7*4.6/74.7 = 0.68 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $Mx = 62628.3$; $My = -5742.1$; $N = 1692$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.86^2 + 6.59^2} = 6.65 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -158.1$; $T_y = -1213.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.21 + 0 + 0.17 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -157.4$; $T_y = -1212.4$; $M_t = -6645.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 104.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $4.01 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -6646.4$

Asta 81: Trave in legno a falda Falda 6 fili 177-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 71.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 71.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $3.8/38.4 + 114.2/74.7 + 0.7*22.5/74.7 = 1.84 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $Mx = 181193.4$; $My = -27913.5$; $N = 1593.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 71.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.18^2 + 8.48^2} = 8.56 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -216.6$; $T_y = -1559.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 71.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.59 + 0.01 + 0.28 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -216.6$; $T_y = -1559.6$; $M_t = -18795.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 71.2



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $11.36 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -18823.2$

Asta 82: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 129.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.25^2 + 11.99^2} = 12.06 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 230.2$; $T_y = 2206.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 129.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.1/85.3)^2 + 103.4/74.7 + 0.7 \cdot 22.5/74.67 = 1.6 ! > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -164021.6$; $M_y = 27949.5$; $N = -2921.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.19 + 0.01 + 0.56 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 230.2$; $T_y = 2206.8$; $M_t = -6024.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 129.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.67 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = -6086.9$

Asta 83: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.48^2 + 8.14^2} = 8.28 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 272.2$; $T_y = 1498.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(7.6/85.3)^2 + 197.4/74.7 + 0.7 \cdot 47.3/74.67 = 3.1 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -313301.5$; $M_y = 58720$; $N = -3160.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.15 + 0.01 + 0.26 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 272.1$; $T_y = 1498.2$; $M_t = 4873$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.94 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 4873$

Asta 84: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.42^2 + 4.24^2} = 4.26 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 77.6$; $T_y = 779.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(7.6/85.3)^2 + 243.7/74.7 + 0.7 \cdot 54.6/74.67 = 3.78 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -386791.7$; $M_y = 67862.1$; $N = -3141.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.34+0+0.07 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 77.6; Ty = 779.6; Mt = 10791.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
6.51 <= 19.07 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 10791.5

Asta 85: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 59.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 59.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.72^2 + 1.44^2) = 1.61 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -131.7; Ty = -264.6

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(7.5/85.3)^2 + 241.8/74.7 + 0.7 \cdot 53.8/74.67 = 3.75 \not\leq 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -383682.3; My = 66784; N = -3122.2

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 59.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.28+0+0.01 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -131.7; Ty = -264.6; Mt = 8945.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 59.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
5.4 <= 19.07 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 8945.7

Asta 86: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 42.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 42.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.52^2 + 5.53^2} = 5.56 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -95$; $T_y = -1017.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.7/85.3)^2 + 211.2/74.7 + 0.7 \cdot 42.3/74.67 = 3.23 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -335114.8$; $M_y = 52578.8$; $N = -3199$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 42.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $1.27 + 0 + 0.12 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -95$; $T_y = -1017.9$; $M_t = 40244.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 42.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} > k_{sh} \cdot f_{v,d}$
 $24.29 > 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_t = 40244.3$

Asta 87: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.6^2 + 7.91^2} = 7.93 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -111.1$; $T_y = -1455.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.8/85.3)^2 + 174.3/74.7 + 0.7 \cdot 33.6/74.67 = 2.66 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -276585$; $M_y = 41768.5$; $N = -3218$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.64 + 0 + 0.24 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -109.4$; $T_y = -1455.5$; $M_t = 20242.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $12.22 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 20242.5$

Asta 88: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.76^2 + 9.5^2} = 9.53 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -139.3$; $T_y = -1747.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.8/85.3)^2 + 89.5/74.7 + 0.7 \cdot 19.8/74.67 = 1.39 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -141970.2$; $M_y = 24640$; $N = -3208.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.18 + 0 + 0.35 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -137.8$; $T_y = -1746.9$; $M_t = 5613$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.39 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 5613$

Asta 89: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 102.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.84^2 + 10.01^2} = 10.05 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -153.9$; $T_y = -1842$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(8.3/85.3)^2 + 126.1/74.7 + 0.7 \cdot 8.8/74.67 = 1.78 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 200192.4$; $M_y = -10946.4$; $N = -3431.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.22 + 0 + 0.39 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -153.8$; $T_y = -1841.9$; $M_t = -7100.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.29 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -7101.5$

Asta 90: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 60.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 60.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.78^2 + 6.09^2} = 6.14 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -144.3$; $T_y = -1120.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 60.5



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(7.4/85.3)^2 + 181.5/74.7 + 0.7 \cdot 23.2/74.67 = 2.66 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 288028.3$; $M_y = -28828.1$; $N = -3066.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 60.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.99 + 0 + 0.14 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -143.9$; $T_y = -1115.7$; $M_t = -31400.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 60.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$18.95 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -31400.2$

Asta 91: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 18.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$

$1.2/38.4 + 100.3/74.7 + 0.7 \cdot 37.5/74.7 = 1.73 > 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 159189$; $M_y = 46615.6$; $N = 489.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} > f_{v,d}$

$\sqrt{6.69^2 + 26.17^2} = 27.02 > 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -1230.5$; $T_y = 4816.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$3.75 + 0.17 + 2.68 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -1230.5$; $T_y = 4816.1$; $M_t = 118488.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 18.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} > K_{sh} \cdot f_{v,d}$

$71.52 > 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_t = 118488.4$



Asta 92: Trave in legno a falda Falda 4 fili 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 10.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 10.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.6/52.8+0/102.7+0.7*0/102.7=0.01 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 40.5$; $M_y = 4.8$; $N = 256.2$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 9.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0 \leq 38.4$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$N = 0.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0^2+0.09^2} = 0.09 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 0$; $T_y = 16.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0+0+0 \leq 1$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 2$; $T_y = 4.7$; $M_t = -2.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 10.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0 \leq 26.22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = -2.2$

Asta 93: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 123.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.21^2 + 12.2^2} = 12.26 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -222.1$; $T_y = 2244.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 123.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.7/85.3)^2 + 115.2/74.7 + 0.7 \cdot 21.7/74.67 = 1.75 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -182784.4$; $M_y = -26985$; $N = -1935.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0.01 + 0.58 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -222.1$; $T_y = 2244.2$; $M_t = 1852.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 123.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.17 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = 1942.2$

Asta 94: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.66^2 + 8.44^2} = 8.6 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -304.9$; $T_y = 1552.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.4/85.3)^2 + 211.8/74.7 + 0.7 \cdot 49.1/74.67 = 3.3 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -336171.4$; $M_y = -61016.9$; $N = -2230.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.24 + 0.01 + 0.28 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -305$; $T_y = 1551.9$; $M_t = -7632.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.61 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -7632.1$

Asta 95: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.52^2 + 4.57^2)} = 4.6 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -96.1$; $T_y = 841.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.3/85.3)^2 + 260.4/74.7 + 0.7 \cdot 58/74.67 = 4.03 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -413179.9$; $M_y = -71985.4$; $N = -2206.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.4 + 0 + 0.08 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -96.3$; $T_y = 841.3$; $M_t = -12547.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $7.57 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -12547.2$

Asta 96: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 65.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 65.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.59^2 + 1.31^2} = 1.44 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 107.9$; $T_y = -241.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.3/85.3)^2 + 258.3/74.7 + 0.7 \cdot 57.2/74.67 = 4.1 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -409938.6$; $M_y = -71036.1$; $N = -2199.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 65.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.34 + 0 + 0.01 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 107.9$; $T_y = -241.5$; $M_t = -10624.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 65.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $6.41 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -10624.4$

Asta 97: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 36.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 36.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.47^2 + 5.73^2} = 5.74 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 86.4$; $T_y = -1053.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.3/85.3)^2 + 229.5/74.7 + 0.7 \cdot 45.1/74.67 = 3.5 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -364243.7$; $M_y = -56014.4$; $N = -2198.2$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 36.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$1.34 + 0 + 0.13 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = 84.1$; $T_y = -1053.1$; $M_t = -42296.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 36.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} > k_{sh} \cdot f_{v,d}$

$25.53 > 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_t = -42296.7$

Asta 98: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.59^2 + 8.2^2} = 8.22 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 109.3$; $T_y = -1509.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(5.3/85.3)^2 + 194.1/74.7 + 0.7 \cdot 37/74.67 = 2.95 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -308037.9$; $M_y = -45911.9$; $N = -2193.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.68 + 0 + 0.26 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 107.7$; $T_y = -1508.7$; $M_t = -21429.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$12.93 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -21429.6$

Asta 99: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 102.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.72^2 + 9.9^2} = 9.92 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 132.4$; $T_y = -1820.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.5/85.3)^2 + 106.1/74.7 + 0.7 \cdot 23.4/74.67 = 1.64 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -168435.8$; $M_y = -29005.9$; $N = -2289$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.2 + 0 + 0.38 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 131$; $T_y = -1819.9$; $M_t = -6367.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.84 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -6367.6$

Asta 100: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.83^2 + 10.5^2} = 10.53 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 152.5$; $T_y = -1931.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 102.4



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(6.1/85.3)^2 + 118.9/74.7 + 0.7 \cdot 4.8/74.67 = 1.64 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 188646.5$; $M_y = 5919.2$; $N = -2521.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0 + 0.43 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 152.5$; $T_y = -1931.8$; $M_t = 6210.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.75 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 6210.6$

Asta 101: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 66.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 66.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.65^2 + 7.69^2)} = 7.72 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 118.9$; $T_y = -1414.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 66.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(5.5/85.3)^2 + 187.1/74.7 + 0.7 \cdot 17.6/74.67 = 2.68 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 296961.4$; $M_y = 21844.8$; $N = -2263.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 66.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.83 + 0 + 0.23 > 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = 118.9$; $T_y = -1413.9$; $M_t = 26137.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 66.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$15.8 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 26182.1$



Asta 102: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 18.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$4.5/38.4 + 125.3/74.7 + 0.7 \cdot 36.2/74.7 = 2.14 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 198776.1$; $M_y = -45004.1$; $N = 1876.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} > f_{v,d}$

$\sqrt{4.47^2 + 44.15^2} = 44.37 > 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = 822$; $T_y = 8122.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{t,d}/f_{v,d})^2 > 1$

$3.93 + 0.08 + 7.61 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = 822$; $T_y = 8122.9$; $M_t = -124216.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 18.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} > K_{sh} \cdot f_{v,d}$

$74.97 > 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_t = -124216.6$

Asta 103: Trave in legno a falda Falda 4 fili 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 10.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 10.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$



$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $2.7/52.8 + 0.7 \cdot 0.1/102.7 + 0.2/102.7 = 0.05 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 117.5$; $M_y = -250.1$; $N = 1123.3$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 9.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $St_{0,d} \leq ft_{0,d}$
 $0 \leq 38.4$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $N = 0.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.31^2 + 0.1^2} = 0.33 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -57.6$; $T_y = 18.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -57.6$; $T_y = 18.4$; $M_t = 1.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 10.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0 \leq 26.22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = -1.8$

Asta 104: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 25.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 25.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.49^2 + 4.46^2} = 4.48 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 90.7$; $T_y = -819.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 25.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(Sc_{0,d}/fc_{0,d})^2 + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $(Sc_{0,d}/fc_{0,d})^2 + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $(8.4/85.3)^2 + 90.2/74.7 + 0.7 \cdot 9.9/74.67 = 1.31 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 143108.2$; $M_y = 12289.5$; $N = -3488.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 25.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.2+0+0.08 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 90.7$; $T_y = -819.7$; $M_t = 6225.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 25.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.76 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 6225.1$

Asta 105: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 105.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.08^2 + 4.7^2} = 4.7 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 14.7$; $T_y = 864.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(11.5/85.3)^2 + 84.5/74.7 + 0.7 \cdot 8.4/74.67 = 1.23 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 134043.7$; $M_y = 10483.9$; $N = -4755.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08+0+0.09 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 14.7$; $T_y = 864.6$; $M_t = -2430.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 105.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.47 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -2431.5$

Asta 106: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 105.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.63^2 + 7.72^2} = 7.74 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 116.1$; $T_y = 1419.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 105.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(11.8/85.3)^2 + 60/74.7 + 0.7 \cdot 20.4/74.67 = 1.01 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -95171.6$; $M_y = 25338.5$; $N = -4871.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.23 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 116.9$; $T_y = 1417.5$; $M_t = -903.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 105.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.27 \leq 26.22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = -2106$

Asta 107: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 80

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.13^2 + 6.93^2} = 7.02 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 208.4$; $T_y = 1275.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 80
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(11.8/85.3)^2 + 125.1/74.7 + 0.7 \cdot 36.6/74.67 = 2.04 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -198555.3$; $M_y = 45506.7$; $N = -4879$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0.01 + 0.19 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 210.5$; $T_y = 1272.5$; $M_t = -39.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 80

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.07 \leq 26.22$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo

$M_t = -1768.3$

Asta 108: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 25.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 25.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(1.94^2 + 1.89^2)} = 2.7 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -356.5$; $T_y = -347.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(9.6/85.3)^2 + 123.3/74.7 + 0.7 \cdot 34.7/74.67 = 1.99 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -195733.7$; $M_y = 43143.4$; $N = -3967.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 25.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.18 + 0.01 + 0.01 \leq 1$ Comb: SLU, 30; Durata minima del carico nella combinazione: media

$T_x = -352$; $T_y = -347.3$; $M_t = -5716.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 25.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.45 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media

$M_t = -5720.7$

Asta 109: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 106.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 106.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.99^2 + 3.86^2} = 3.99 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -182.8$; $T_y = -710.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(9.9/85.3)^2 + 133.8/74.7 + 0.7 \cdot 32.7/74.67 = 2.11 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -212392.8$; $M_y = 40601.1$; $N = -4108.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 106.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.17 + 0 + 0.06 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -183.6$; $T_y = -708.8$; $M_t = -5487.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 106.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.31 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -5487.9$

Asta 110: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 105.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 105.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.48^2 + 8.53^2} = 8.66 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -271.4$; $T_y = -1570.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(10.6/85.3)^2 + 114.7/74.7 + 0.7 \cdot 20.1/74.67 = 1.74 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -181955.3$; $M_y = 24978.3$; $N = -4368.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0.01 + 0.28 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -271.4$; $T_y = -1570.2$; $M_t = 734$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.83 \leq 26.22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_t = 1376.8$

Asta 111: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 105.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(2.73^2 + 14.32^2)} = 14.57 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -502.1$; $T_y = -2634.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(9.7/85.3)^2 + 100.3/74.7 + 0.7 \cdot 44.2/74.67 = 1.77 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 159124.8$; $M_y = -54836.5$; $N = -3997.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.24 + 0.03 + 0.8 > 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -502.1$; $T_y = -2634.1$; $M_t = 7712.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 105.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.66 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 7712.8$



Asta 112: Trave in legno a falda Falda 3 fili 16-55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 51.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 51.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} > f_{v,d}$

$\sqrt{(0.61^2 + 19.03^2)} = 19.04 > 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -112.7$; $T_y = -3501.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 51.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(6.9/85.3)^2 + 207.6/74.7 + 0.7 \cdot 52.7/74.67 = 3.28 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 329462.4$; $M_y = -65395.6$; $N = -2857.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 51.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.57 + 0 + 1.41 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -112.7$; $T_y = -3501.5$; $M_t = 18146.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 51.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$10.99 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 18207.5$

Asta 113: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 13.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.6$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$



$\sqrt{0.63^2 + 1.68^2} = 1.79 \leq 12$ Comb: SLU, 64; Durata minima del carico nella combinazione: permanente
Tx = 115.7; Ty = 308.4

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(8.4/85.3)^2 + 144.7/74.7 + 0.7 \cdot 85.5/74.67 = 2.75 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = 229660.8; My = -106248.1; N = -3459

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$3.36 + 0 + 0.01 > 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Tx = -26.1; Ty = 260.1; Mt = -106097.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 13.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} > k_{sh} \cdot f_{v,d}$

$64.04 > 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mt = -106097.6

Asta 114: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 35

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{d} > f_{v,d}$

$\sqrt{1.45^2 + 18.46^2} = 18.51 > 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Tx = -267.1; Ty = 3395.9

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(7.5/85.3)^2 + 185/74.7 + 0.7 \cdot 20/74.67 = 2.67 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = 293665; My = -24881.4; N = -3090.4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$0.49 + 0.01 + 1.33 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Tx = -267.1; Ty = 3395.9; Mt = -15407.3

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 35

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $9.4 \leq 19.07$ Comb: SLU, 29; Durata minima del carico nella combinazione: media
 $M_t = -15570.6$

Asta 115: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 12.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} > f_{v,d}$
 $\sqrt{1.69^2 + 16.75^2} = 16.84 > 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -311.7$; $T_y = 3082.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.9/85.3)^2 + 113.2/74.7 + 0.7 \cdot 28.7/74.67 = 1.79 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 179681.5$; $M_y = -35696.2$; $N = -3271.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.52 + 0.01 + 1.1 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -311.7$; $T_y = 3082.4$; $M_t = -16458.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 12.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $10.06 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -16663.8$

Asta 116: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 87.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.31^2 + 13.99^2} = 13.99 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 56.3$; $T_y = 2573.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(9.4/85.3)^2 + 89.3/74.7 + 0.7 \cdot 23.9/74.67 = 1.43 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 141789$; $M_y = -29655$; $N = -3886$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.32 + 0 + 0.76 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 56.3$; $T_y = 2573.9$; $M_t = -10251.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 87.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $6.19 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -10251.2$

Asta 117: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 100.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.04^2 + 7.72^2} = 7.98 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 375$; $T_y = 1420.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 100.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(12.9/85.3)^2 + 101.8/74.7 + 0.7 \cdot 14.5/74.67 = 1.52 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -161577.7$; $M_y = 18013.2$; $N = -5335.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.16+0.02+0.23 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = 375; Ty = 1420.1; Mt = -5011.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 100.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{v,d}$

3.02 <= 19.07 Comb: SLU, 72; Durata minima del carico nella combinazione: media

Mt = -5011.1

Asta 118: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 73.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{(2.74^2 + 1.57^2)} = 3.16 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

Tx = 504.9; Ty = 288.2

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 73.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(15/85.3)^2 + 96.1/74.7 + 0.7 \cdot 45.7/74.67 = 1.75 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = -152564.2; My = 56769.2; N = -6193.8

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{tor,d}}/(k_{\text{sh}} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

0.08+0.03+0.01 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media

Tx = 504.9; Ty = 288.2; Mt = -2401

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 73.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{v,d}$

1.45 <= 19.07 Comb: SLU, 72; Durata minima del carico nella combinazione: media

Mt = -2401

Asta 119: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 29.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 29.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.64^2 + 3.73^2} = 3.78 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -117.4$; $T_y = -685.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(13.8/85.3)^2 + 101/74.7 + 0.7 \cdot 21.1/74.67 = 1.58 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -160316.5$; $M_y = 26197.8$; $N = -5724.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 29.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.69 + 0 + 0.05 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -197.8$; $T_y = -656.6$; $M_t = 21687.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 29.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $13.09 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 21687.6$

Asta 120: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 100.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 100.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.15^2 + 4.93^2} = 4.93 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -27.8$; $T_y = -906.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(13.7/85.3)^2 + 81.6/74.7 + 0.7 \cdot 12.4/74.67 = 1.24 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -129472.6$; $M_y = 15454.4$; $N = -5680$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 100.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.37 + 0 + 0.09 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -59.8$; $T_y = -897.9$; $M_t = 11566.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 100.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$6.98 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 11566.3$

Asta 121: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 100.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 100.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.23^2 + 5.01^2)} = 5.01 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -42.6$; $T_y = -921.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(12.4/85.3)^2 + 28.5/74.7 + 0.7 \cdot 7/74.67 = 0.47 \leq 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_x = -45185.3$; $M_y = 8716.7$; $N = -5131.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 100.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0 + 0.1 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -42.6$; $T_y = -921.3$; $M_t = 6160.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 100.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$3.72 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 6160.8$

Asta 122: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 101.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 101.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.09^2 + 3.09^2} = 3.09 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 16.9$; $T_y = -569$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 101.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(12.8/85.3)^2 + 62.5/74.7 + 0.7 \cdot 2.7/74.67 = 0.88 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = 99237.4$; $M_y = 3298.8$; $N = -5281.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 101.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.09 + 0 + 0.04 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 16.9$; $T_y = -569$; $M_t = 2994.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 101.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.81 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 2994.2$

Asta 123: Trave in legno a falda Falda 2 fili 55-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 20.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.09^2 + 3.43^2} = 3.43 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = 15.6$; $T_y = 630.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$(9.8/85.3)^2 + 63/74.7 + 0.7 \cdot 4.5/74.67 = 0.9 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = 100031.3$; $M_y = 5579$; $N = -4055.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.1 + 0 + 0.05 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 26.9$; $T_y = 629.8$; $M_t = -3242.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 20.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.96 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -3242.9$

Asta 124: Trave in legno a falda Falda 1 fili 158-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 37.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/f_{t,0,d} + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$St_{0,d}/f_{t,0,d} + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$4.7/57.3 + 0.7 \cdot 0.8/111.3 + 39.9/111.3 = 0.45 \leq 1$ [4.4.6b] Comb: SLV, 4; Durata minima del carico nella combinazione: istantaneo

$M_x = 108.8$; $M_y = -4260.8$; $N = 377.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(2.23^2 + 0.28^2)} = 2.25 \leq 22$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$T_x = -79.3$; $T_y = -9.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0.01 + 0 \leq 1$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = -67.1$; $T_y = -13$; $M_t = 194.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.37 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = 194.2$



Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 19.8

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0$

$U_{inst\ tot\ in\ y} = 0$

$U_{inst\ tot} = 0$

$Luce/U_{inst,tot} > \limite$

$37.2/0=24978.8 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 21.1

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0$

$U_{inst\ var\ in\ y} = 0$

$U_{inst\ var} = 0$

$Luce/U_{inst,var} > \limite$

$37.2/0=48698.4 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 19.8

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0$

$U_{fin\ in\ y} = 0$

$U_{fin} = 0$

$Luce/U_{fin} > \limite$

$37.2/0=19310.3 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 125: Trave in legno a falda Falda 1 fili 158-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 37.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$

$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$

$4.7/57.3 + 0.7 \cdot 0.5/111.3 + 20/111.3 = 0.26 \leq 1$ [4.4.6b] Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$M_x = 68.2$; $M_y = -2130$; $N = 376.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.99^2 + 0.14^2} = 2 \leq 22$ Comb: SLV, 4; Durata minima del carico nella combinazione: istantaneo

$T_x = 70.9$; $T_y = -5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0 \leq 1$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo



$T_x = -44.1$; $T_y = 2.9$; $M_t = -74.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.53 \leq 26.13$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo

$M_t = -74.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18.6

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$Luce/U_{inst,tot} > \text{limite}$

$37.2/0 = 14266.6 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18.6

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$Luce/U_{inst,var} > \text{limite}$

$37.2/0 = 22763.6 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 18.6

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$Luce/U_{fin} > \text{limite}$

$37.2/0 = 11656.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Asta 126: Trave in legno a falda Falda 1 fili 158-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 37.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$6.3/57.3 + 0.7 \cdot 2.2/111.3 + 29/111.3 = 0.38 \leq 1$ [4.4.6b] Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$M_x = -291.2$; $M_y = -3089.5$; $N = 506.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(1.76^2 + 0.08^2)} = 1.76 \leq 22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo



$T_x = 62.4$; $T_y = -2.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0 \leq 1$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$T_x = -33.7$; $T_y = 10.9$; $M_t = -123.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 37.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.87 \leq 26.13$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$M_t = -123.6$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 18.6

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$37.2/0 = 14851.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 18.6

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$37.2/0 = 21563 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 17.3

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$37.2/0 = 12511 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Asta 127: Trave in legno a falda Falda 1 fili 158-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 38.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 25.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$7.9/57.3 + 0.7 \cdot 1.1/111.3 + 25/111.3 = 0.37 \leq 1$ [4.4.6b] Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo



$M_x = 141.6$; $M_y = -2662.6$; $N = 633.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.77^2 + 0.49^2} = 1.83 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 62.8$; $T_y = 17.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.07 + 0.01 + 0 \leq 1$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$T_x = 57.4$; $T_y = 14.6$; $M_t = -248.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 38.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.75 \leq 26.13$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$M_t = -248.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 20.7

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$38.9/0 = 23548.6 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 20.7

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$38.9/0 = 35834.1 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 20.7

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$38.9/0 = 19530.8 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 128: Trave in legno a falda Falda 1 fili 158-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 277.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 277.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$(28.4/85.3)^2 + 307.8/81 + 0.7 \cdot 4.3/80.97 = 3.95 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -41033.6$; $M_y = -461.1$; $N = -2270.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.11^2 + 8.01^2} = 8.01 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -4.1$; $T_y = 284.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.25 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -3.8$; $T_y = 284.8$; $M_t = -51.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 277.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.36 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -51.2$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 212.9

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0.03$

$U_{inst,tot} \text{ in } y = -0.92$

$U_{inst,tot} = 0.92$

$L_{uce}/U_{inst,tot} > \text{limite}$

$277.6/0.92 = 300.5 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 212.9

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0.02$

$U_{inst,var} \text{ in } y = -0.59$

$U_{inst,var} = 0.59$

$L_{uce}/U_{inst,var} > \text{limite}$

$277.6/0.59 = 466.7 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 212.9

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0.04$

$U_{fin} \text{ in } y = -1.12$

$U_{fin} = 1.12$

$L_{uce}/U_{fin} > \text{limite}$

$277.6/1.12 = 247.6 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Asta 129: Trave in legno a falda Falda 1 fili 170-171

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.16^2 + 2.92^2} = 2.92 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -5.7$; $T_y = -103.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.2/85.3)^2 + 114.9/81 + 0.7 \cdot 5.1/80.97 = 1.46 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 15321.3$; $M_y = -548.9$; $N = -97.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -6.2$; $T_y = -103.4$; $M_t = 2.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.2 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 28.7$

Asta 130: Trave in legno a falda Falda 1 fili 170-171

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.08^2 + 6.77^2} = 6.77 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -3$; $T_y = 240.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(6.7/85.3)^2 + 268.5/81 + 0.7 \cdot 2.5/80.97 = 3.34 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -35794.8$; $M_y = -271.4$; $N = -536.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.18 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.9$; $T_y = 240.5$; $M_t = -65.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.46 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -65.8$

Asta 131: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 94.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(1.84^2 + 4.55^2)} = 4.91 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 339.5$; $T_y = 837.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 22.9/74.7 + 0.7 \cdot 18.5/74.67 = 0.48 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 36346.5$; $M_y = -22941.6$; $N = -752.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0.01 + 0.08 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 339.5$; $T_y = 834$; $M_t = -2095.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 94.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.28 \leq 19.07$ Comb: SLU, 37; Durata minima del carico nella combinazione: media
 $M_t = -2128.6$



Asta 132: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.23^2 + 4.87^2} = 5.02 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 226.2$; $T_y = 895.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.9/85.3)^2 + 42.9/74.7 + 0.7 \cdot 19.3/74.67 = 0.76 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -68075.1$; $M_y = 23982.8$; $N = -777.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.1 + 0.01 + 0.09 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 226.2$; $T_y = 895.4$; $M_t = -3292.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -3311.2$

Asta 133: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$



$\text{Sqrt}(1.93^2 + 4.23^2) = 4.65 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 354.7; Ty = 778

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.8/85.3)^2 + 65.4/74.7 + 0.7 \cdot 38.1/74.67 = 1.23 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = -103787.2; My = 47335.6; N = -760.4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{tor},d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.12 + 0.01 + 0.07 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = 354.7; Ty = 778; Mt = -3693.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{\text{tor},d} \leq k_{sh} \cdot f_{v,d}$

$2.23 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = -3693.7

Asta 134: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{d} \leq f_{v,d}$

$\text{Sqrt}(0.71^2 + 4.48^2) = 4.54 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

Tx = -131; Ty = 824.1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 56.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.9/85.3)^2 + 81/74.7 + 0.7 \cdot 34.7/74.67 = 1.41 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = -128515.8; My = 43050.8; N = -783.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{\text{tor},d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0 + 0.08 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

Tx = -100.3; Ty = 810.5; Mt = -6337.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.84 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -6370.2$

Asta 135: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.89^2 + 2.32^2} = 3.7 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -530.9$; $T_y = -426$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 80.1/74.7 + 0.7 \cdot 35.9/74.67 = 1.41 ! > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -127118.3$; $M_y = 44535.8$; $N = -773$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.11 + 0.03 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -530.9$; $T_y = -426$; $M_t = -3508.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.13 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -3523.2$

Asta 136: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.8^2 + 5.49^2} = 5.55 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -147.9$; $T_y = -1010.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 79.1/74.7 + 0.7 \cdot 8.1/74.67 = 1.14 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -125530.9$; $M_y = 10080.1$; $N = -753.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0.12 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -147.9$; $T_y = -1010.2$; $M_t = -2473.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.49 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -2473.5$

Asta 137: Trave in legno a falda Falda 6 fili 209-265

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 75.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 75.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.8^2 + 7.7^2} = 7.74 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 146.8$; $T_y = -1417.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 51.3/74.7 + 0.7 \cdot 1.7/74.67 = 0.7 \leq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_x = -81392.7$; $M_y = -2097.9$; $N = -747.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 75.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.05+0+0.23 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 146.8; Ty = -1417.2; Mt = -1441.3

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 75.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.87 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = -1449.1

Asta 138: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 49.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 1.1/74.7 + 32.3/74.7 = 0.44 \leq 1$ (formula 4.4.5b) Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mx = 1798.2; My = 40077.9

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 49.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{5.22^2 + 1.1^2} = 5.34 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -961; Ty = -202.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 49.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
0.02+0.11+0 <= 1 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Tx = -958.1; Ty = -202.4; Mt = -567.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 49.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.04 <= 26.22 Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mt = -1717.3

Asta 139: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{3.24^2 + 3.74^2} = 4.95 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -595.3$; $T_y = 688.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1/85.3)^2 + 0.7 \cdot 19/74.7 + 30.9/74.7 = 0.59 \leq 1$ [4.4.7b] Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = -30225.7$; $M_y = -38374.4$; $N = -424$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0.04 + 0.05 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -595.3$; $T_y = 688.5$; $M_t = 397.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.67 \leq 26.22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
 $M_t = 1104.2$

Asta 140: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.47^2 + 4.65^2} = 4.67 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -87.4$; $T_y = 855.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.3/85.3)^2 + 40.4/74.7 + 0.7 \cdot 31.2/74.67 = 0.83 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = -64095.6$; $M_y = -38790.8$; $N = -538.1$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.09 + 0 + 0.08 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -91.8$; $T_y = 851.4$; $M_t = -2865.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.73 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -2865.6$

Asta 141: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{2.33^2 + 4.34^2} = 4.93 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 429.2$; $T_y = 798.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 31.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.4/85.3)^2 + 51.8/74.7 + 0.7 \cdot 19.8/74.67 = 0.88 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -82212.2$; $M_y = -24643.1$; $N = -570.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.12 + 0.02 + 0.07 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 419.6$; $T_y = 781.6$; $M_t = -3822.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.31 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -3822.4$

Asta 142: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.01^2 + 2.86^2} = 3.03 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -186.7$; $T_y = -526.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 33.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.4/85.3)^2 + 55.6/74.7 + 0.7 \cdot 13.1/74.67 = 0.87 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = -88275.9$; $M_y = -16294.5$; $N = -580.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.1 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -186.7$; $T_y = -526.3$; $M_t = -3075.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.86 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = -3076.4$

Asta 143: Trave in legno a falda Falda 1 fili 36-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.09^2 + 2.49^2} = 3.25 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 383.8$; $T_y = -458.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.4/85.3)^2 + 48/74.7 + 0.7 \cdot 18.2/74.67 = 0.81 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -76156.7$; $M_y = -22635.8$; $N = -581.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.15 + 0.02 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 375.9$; $T_y = -462.1$; $M_t = -4667.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.82 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -4667.3$

Asta 144: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 84

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.12^2 + 6.34^2)} = 6.34 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -22.1$; $T_y = 1167.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 84

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.9/85.3)^2 + 48.6/74.7 + 0.7 \cdot 2.2/74.67 = 0.67 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = -77102.6$; $M_y = 2756.4$; $N = -771.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.16 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -22.1$; $T_y = 1167.3$; $M_t = 1020.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 84

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.15 \leq 26.22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = 1913.1$



Asta 145: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.95^2 + 3.99^2} = 4.1 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 175$; $T_y = 734.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.9/85.3)^2 + 67/74.7 + 0.7 \cdot 12.1/74.67 = 1.01 \ngtr 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -106362.4$; $M_y = 15062.9$; $N = -798.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.06 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 175$; $T_y = 734.2$; $M_t = 1491.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.9 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 1491.1$

Asta 146: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$



$\sqrt{2.62^2 + 2.24^2} = 3.45 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 481.9$; $T_y = -412.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2/85.3)^2 + 64.4/74.7 + 0.7 \cdot 37/74.67 = 1.21 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -102201.4$; $M_y = 45895.1$; $N = -813.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.07 + 0.03 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 481.9$; $T_y = -412.3$; $M_t = 2150$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$1.3 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 2156.7$

Asta 147: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.85^2 + 3.05^2} = 3.16 \leq 16$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = -157.1$; $T_y = -560.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2/85.3)^2 + 64.9/74.7 + 0.7 \cdot 35.7/74.67 = 1.2 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -102947.5$; $M_y = 44352.4$; $N = -819.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.15 + 0.01 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -245.6$; $T_y = -517.7$; $M_t = 4756.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.87 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 4756.6$

Asta 148: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.38^2 + 4.43^2} = 4.45 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -70.4$; $T_y = -815.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2/85.3)^2 + 58.8/74.7 + 0.7 \cdot 22.3/74.67 = 1 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = -93245.1$; $M_y = 27751.9$; $N = -811.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12 + 0 + 0.08 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -70.4$; $T_y = -815.6$; $M_t = 3851.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.32 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 3851.7$

Asta 149: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.14^2 + 4.5^2} = 4.64 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -210.2$; $T_y = -828.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 34.7/74.7 + 0.7 \cdot 18.1/74.67 = 0.63 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = -55056$; $M_y = 22470.9$; $N = -806.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.11 + 0.01 + 0.08 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -210.2$; $T_y = -828.2$; $M_t = 3523.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.14 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 3550.5$

Asta 150: Trave in legno a falda Falda 3 fili 31-87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 81.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 81.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.89^2 + 3.95^2} = 4.38 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -348.3$; $T_y = -727.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 81.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2/85.3)^2 + 19.6/74.7 + 0.7 \cdot 16.3/74.67 = 0.42 \leq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_x = 31036.6$; $M_y = -20210.7$; $N = -815.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 81.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.08+0.01+0.06 <= 1 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = -345.2; Ty = -725.7; Mt = 2565.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 81.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.57 <= 19.07 Comb: SLU, 37; Durata minima del carico nella combinazione: media
Mt = 2602.7

Asta 151: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 43.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
27.4/74.7+0.7*13.7/74.7=0.5 <= 1 (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mx = 43506.6; My = -17053.4

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{,d} \leq f_{v,d}$
 $\text{Sqrt}(0.68^2+2.85^2) = 2.93 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 125.3; Ty = 523.8

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
0.16+0+0.03 <= 1 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = 125.1; Ty = 523.8; Mt = 5208.2

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 43.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
3.15 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = 5223

Asta 152: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $19.3/74.7 + 0.7 \cdot 9.4/74.7 = 0.35 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_x = 30672.3$; $M_y = -11620.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.71^2 + 5.65^2} = 5.9 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 314.6$; $T_y = 1039.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0.01 + 0.12 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 314.6$; $T_y = 1039.5$; $M_t = 4761.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.87 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 4761.9$

Asta 153: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $46.5/74.7 + 0.7 \cdot 10/74.7 = 0.72 \leq 1$ (formula 4.4.5a) Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = -73819.2$; $M_y = 12375.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.19^2 + 6.67^2} = 6.67 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 34.5$; $T_y = 1227.3$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.25 + 0 + 0.17 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 34.5$; $T_y = 1227.3$; $M_t = 7900.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.77 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 7902$

Asta 154: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$70.6/74.7 + 0.7 \cdot 45.9/74.7 = 1.38 \leq 1$ (formula 4.4.5a) Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -112044.5$; $M_y = 56950.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(3.69^2 + 5.28^2)} = 6.44 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 678.4$; $T_y = 971.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.06 + 0.05 + 0.11 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 678.4$; $T_y = 971.2$; $M_t = -1756.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.06 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -1759.1$

Asta 155: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$96.5/74.7 + 0.7 \cdot 38.4/74.7 = 1.65 \leq 1$ (formula 4.4.5a) Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -153132.1$; $M_y = 47699.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.83^2 + 5.74^2} = 5.8 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -153.2$; $T_y = 1055.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{t,d}/f_{v,d})^2 \leq 1$

$0.22 + 0 + 0.13 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -153.2$; $T_y = 1055.6$; $M_t = -6795.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.1 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -6795.5$

Asta 156: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 51.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$112.8/74.7 + 0.7 \cdot 31.1/74.7 = 1.8 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -178941$; $M_y = 38676.7$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.18^2 + 4.66^2} = 4.81 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -216.3$; $T_y = 858.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0.01 + 0.08 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -216.3$; $T_y = 858.1$; $M_t = -4652.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.81 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -4652.4$

Asta 157: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 38.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $120.2/74.7 + 0.7 \cdot 28.5/74.7 = 1.88 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -190751.6$; $M_y = 35340.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.22^2 + 2.92^2} = 2.92 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -40$; $T_y = 536.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -40$; $T_y = 536.6$; $M_t = -1519.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.92 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media



Mt = -1522.4

Asta 158: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 22.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$K_{m,z,d}/f_{m,z,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$119.4/74.7 + 0.7 \cdot 28/74.7 = 1.86 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -189466.6$; $M_y = 34779.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.03 \cdot 2 + 3.2 \cdot 2} = 3.2 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 4.6$; $T_y = -588.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.04 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 4.6$; $T_y = -588.2$; $M_t = 45.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.39 \leq 26.22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_t = 652$

Asta 159: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 4.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$



$S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) > 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} > 1$
 $111.2/74.7 + 0.7 \cdot 27.7/74.7 = 1.75 > 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -176488.2$; $M_y = 34406.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.38^2 + 4.73^2} = 4.74 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 70$; $T_y = -869.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.09 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 70$; $T_y = -869.9$; $M_t = 1432.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.87 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 1439.1$

Asta 160: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) > 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} > 1$
 $93.3/74.7 + 0.7 \cdot 30.6/74.7 = 1.54 > 1$ (formula 4.4.5a) Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -147995.6$; $M_y = 37954.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.86^2 + 5.96^2} = 6.02 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 157.6$; $T_y = -1096$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.16 + 0 + 0.14 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 157.6$; $T_y = -1096$; $M_t = 5112.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.09 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 5112.4$

Asta 161: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \geq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \geq 1$
 $65.8/74.7 + 0.7 \cdot 37.9/74.7 = 1.24 \geq 1$ (formula 4.4.5a) Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -104455.5$; $M_y = 47022$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.8^2 + 5.52^2} = 6.19 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -515$; $T_y = -1015.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.09 + 0.03 + 0.12 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -515$; $T_y = -1015.7$; $M_t = 2952.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.78 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 2952.6$

Asta 162: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $40.1/74.7 + 0.7 \cdot 10.2/74.7 = 0.63 \leq 1$ (formula 4.4.5a) Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_x = -63561.5$; $M_y = 12658.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.2^2 + 6.49^2} = 6.49 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -37.3$; $T_y = -1194.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.23 + 0 + 0.16 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -37.3$; $T_y = -1194.2$; $M_t = -7246.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.37 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -7247.9$

Asta 163: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $22.5/74.7 + 0.7 \cdot 9.4/74.7 = 0.39 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_x = 35727.1$; $M_y = -11657.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.71^2 + 5.4^2} = 5.66 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -314.6$; $T_y = -993$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.15+0.01+0.11 <= 1 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = -314.5; Ty = -993; Mt = -4655.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor},d} \leq K_{sh} \cdot f_{v,d}$
2.81 <= 19.07 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = -4655.4

Asta 164: Trave in legno a falda Falda 4 fili 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 39.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 39.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
28/74.7+0.7*12.8/74.7=0.5 <= 1 (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mx = 44492.6; My = -15838.2

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 39.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{,d} \leq f_{v,d}$
 $\text{Sqrt}(0.55^2 + 2.38^2) = 2.44 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -100.9; Ty = -437.6

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 39.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{\text{tor},d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
0.2+0+0.02 <= 1 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = -101; Ty = -437.3; Mt = -6252

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 39.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor},d} \leq K_{sh} \cdot f_{v,d}$
3.78 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = -6260.4

Asta 165: Trave in legno a falda Falda 1 fili 178-179

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m,z,d}/f_{m,z,d} + \sigma_{m,y,d}/f_{m,y,d} \leq 1$

$0.7/41.6 + 120.5/81 + 0.7 \cdot 8/81 = 1.57 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 16064.2$; $M_y = 828.7$; $N = 55.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.3^2 + 3.05^2} = 3.06 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 10.6$; $T_y = -108.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.04 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 10.6$; $T_y = -108.3$; $M_t = -2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.15 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 21.8$

Asta 166: Trave in legno a falda Falda 1 fili 178-179

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.08^2 + 6.21^2} = 6.22 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 2.7$; $T_y = 221$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,z,d}/f_{m,z,d} + \sigma_{m,y,d}/f_{m,y,d} \leq 1$

$(1.6/85.3)^2 + 248.2/81 + 0.7 \cdot 4.5/80.97 = 3.1 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -33095.9$; $M_y = 477.5$; $N = -132$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.15 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 2.7$; $T_y = 220.7$; $M_t = -69.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.49 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -69.4$

Asta 167: Trave in legno a falda Falda 1 fili 184-185

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.6/41.6 + 117.7/81 + 0.7 \cdot 8/81 = 1.54 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 15699.8$; $M_y = 854.6$; $N = 50.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.3^2 + 3.05^2} = 3.07 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 10.8$; $T_y = -108.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.04 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 10.8$; $T_y = -108.6$; $M_t = -3.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.14 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 19.2$

Asta 168: Trave in legno a falda Falda 1 fili 184-185

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.08^2 + 5.87^2} = 5.87 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 2.9$; $T_y = 208.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.2/85.3)^2 + 234.3/81 + 0.7 \cdot 4.8/80.97 = 2.93 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -31234.1$; $M_y = 512$; $N = -99.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.13 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 2.8$; $T_y = 208.5$; $M_t = -63.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.45 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -63.6$

Asta 169: Trave in legno a falda Falda 1 fili 191-192

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) > 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$

$1.3/41.6 + 105.5/81 + 0.7 \cdot 8.3/81 = 1.41 > 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 14063.1$; $M_y = 884.4$; $N = 104.1$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.25^2 + 2.92^2} = 2.93 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 9$; $T_y = -103.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0+0+0.03 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 7.7$; $T_y = -103.8$; $M_t = 1.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.13 \leq 26.13$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_t = 18.6$

Asta 170: Trave in legno a falda Falda 1 fili 191-192

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.06^2 + 5.79^2} = 5.79 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 2.2$; $T_y = 205.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,y}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.5/85.3)^2 + 227.3/81 + 0.7 \cdot 2.9/80.97 = 2.83 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -30303$; $M_y = 307.6$; $N = -196.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02+0+0.13 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 2.2$; $T_y = 205.9$; $M_t = -59.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.43 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media



Mt = -61.1

Asta 171: Trave in legno a falda Falda 1 fili 201-202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 41.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 18

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; Kh = 1.084 (formula 11.7.1)

$St_{0,d} \leq f_{t,0,d}$

0.12 \leq 41.64 Comb: SLU, 32; Durata minima del carico nella combinazione: media

N = 9.8

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; Kh = 1.084 (formula 11.7.1)

$St_{0,d}/f_{t,0,d} + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$

$St_{0,d}/f_{t,0,d} + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$

4.9/57.3+0.7*12/111.3+30.3/111.3=0.43 \leq 1 [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

Mx = 1598.9; My = 3235.6; N = 389.6

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 41.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; kcr = 0.67

$\tau_{d} \leq f_{v,d}$

$\sqrt{4.35^2 + 1.44^2} = 4.58 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

Tx = 154.6; Ty = -51.2

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 41.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1; Kh = 1.084 (formula 11.7.1); kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

0.02+0.04+0 \leq 1 Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

Tx = 154.6; Ty = -51.2; Mt = -83.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 41.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 1.1

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

0.59 \leq 26.13 Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

Mt = -83.5

Asta 172: Trave in legno a falda Falda 1 fili 201-202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 41.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300



Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $16.4/57.3 + 0.7 \cdot 4.8/111.3 + 31/111.3 = 0.59 \leq 1$ [4.4.6b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 634.7$; $M_y = 3305.6$; $N = 1309.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{4.32^2 + 0.22^2} = 4.32 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 153.5$; $T_y = -8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0.04 + 0 \leq 1$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 153.5$; $T_y = -8$; $M_t = -20.2$

Verifica compressione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.3

Sezione ad ascissa 1.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.6$; $K_h = 1.084$ (formula 11.7.1)
 $Sc_{0,d} \leq fc_{0,d}$
 $|-0.14| \leq 64$ Comb: SLU, 1; Durata minima del carico nella combinazione: permanente
 $N = -11.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.19 \leq 26.13$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = 27.1$

Asta 173: Trave in legno a falda Falda 1 fili 201-202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 41.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $20/57.3 + 0.7 \cdot 3.2/111.3 + 31.5/111.3 = 0.65 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = -430.2$; $M_y = 3364.7$; $N = 1597.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{3.56^2 + 0.71^2} = 3.63 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 126.5$; $T_y = 25.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0.03 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 126.5$; $T_y = 25.4$; $M_t = 78$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.75 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_t = 106.4$

Asta 174: Trave in legno a falda Falda 1 fili 201-202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 41.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $31.4/57.3 + 0.7 \cdot 0.7/111.3 + 27.3/111.3 = 0.8 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = -88.9$; $M_y = 2911.2$; $N = 2515.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.94^2 + 1.33^2} = 2.36 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = -69.2$; $T_y = -47.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0.01 \leq 1$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = -40.4$; $T_y = -63.3$; $M_t = -164.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 41.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.16 \leq 26.13$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = -164.6$



Asta 175: Trave in legno a falda Falda 1 fili 201-202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 278.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 278.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$

$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d} + Sm_{z,d}/fm_{z,d}) \leq 1$

$2.3/41.6 + 227.3/81 + 0.7 \cdot 1.5/81 = 2.87 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -30304.3$; $M_y = -155.4$; $N = 181.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.07^2 + 6.06^2)} = 6.06 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -2.3$; $T_y = 215.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.14 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -2.3$; $T_y = 215.5$; $M_t = -42.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 278.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.32 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -45.4$

Asta 176: Trave in legno a falda Falda 1 fili 210-211

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.14^2 + 4.61^2)} = 4.62 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -4.9$; $T_y = 164$



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.4/85.3)^2 + 195.2/81 + 0.7 \cdot 6.4/80.97 = 2.47 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -26028.2$; $M_y = -684.6$; $N = -433.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.08 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -4.9$; $T_y = 164$; $M_t = -61$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.45 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -63.8$

Asta 177: Trave in legno a falda Falda 1 fili 216-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/f_{t,0,d} + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) > 1$
 $St_{0,d}/f_{t,0,d} + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} > 1$
 $17/41.6 + 230.9/81 + 0.7 \cdot 8.7/81 = 3.33 > 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -30785.3$; $M_y = -925.5$; $N = 1360.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.24^2 + 6.36^2} = 6.36 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -8.6$; $T_y = 226$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.16 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -8.6$; $T_y = 226$; $M_t = -66.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



0.5 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = -71.1

Asta 178: Trave in legno a falda Falda 1 fili 225-226

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 3.77^2} = 3.77 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -3.1$; $T_y = 134.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.2/85.3)^2 + 171.3/81 + 0.7 \cdot 3.4/80.97 = 2.15 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -22840.4$; $M_y = -366.7$; $N = -172.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0.06 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -3.1$; $T_y = 134.1$; $M_t = -98.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.7 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -99.2$

Asta 179: Trave in legno a falda Falda 1 fili 236-237

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.05^2 + 3.29^2} = 3.29 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 1.8$; $T_y = 116.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.7/85.3)^2 + 156.8/81 + 0.7 \cdot 1.8/80.97 = 1.95 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20908.5$; $M_y = 196.7$; $N = -132.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.04 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 1.8$; $T_y = 116.9$; $M_t = -134.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.95 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -134.6$

Asta 180: Trave in legno a falda Falda 1 fili 242-243

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.03^2 + 2.91^2} = 2.91 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 1.2$; $T_y = 103.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(0.7/85.3)^2 + 144.8/81 + 0.7 \cdot 1.5/80.97 = 1.8 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -19304.3$; $M_y = 160.2$; $N = -56.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.06 + 0 + 0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 1.2$; $T_y = 103.6$; $M_t = -160.3$



Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.15 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -163.4$

Asta 181: Trave in legno a falda Falda 1 fili 248-249

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,y,d}(S_{m,z,d}/f_{m,z,d}) \geq 1$
 $K_{m,y,d}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \geq 1$
 $127.9/81 + 0.7 \cdot 3.5/81 = 1.61 \geq 1$ (formula 4.4.5a) Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -17047.6$; $M_y = -378.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.07^2 + 2.47^2} = 2.47 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.4$; $T_y = 87.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.02 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.4$; $T_y = 87.9$; $M_t = -178.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.3 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -183.6$

Asta 182: Trave in legno a falda Falda 1 fili 254-255

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \geq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $106.4/81 + 0.7 \cdot 6.3/81 = 1.37 \geq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -14181.9$; $M_y = -672$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.14^2 + 1.99^2} = 1.99 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -5$; $T_y = 70.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.02 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -5$; $T_y = 70.7$; $M_t = -175.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.3 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -183.5$

Asta 183: Trave in legno a falda Falda 1 fili 261-262

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 230.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.08^2 + 2.02^2} = 2.02 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.8$; $T_y = 71.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 230.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.7/85.3)^2 + 91.8/81 + 0.7 \cdot 1.7/80.97 = 1.15 \geq 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -12236.6$; $M_y = -180.6$; $N = -57.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.02 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.8$; $T_y = 71.9$; $M_t = -173.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 230.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.29 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -182.5$

Asta 184: Trave in legno a falda Falda 1 fili 266-267

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 158.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.24^2 + 2.91^2} = 2.92 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 8.6$; $T_y = 103.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 158.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.5/85.3)^2 + 83.8/81 + 0.7 \cdot 8/80.97 = 1.11 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -11178.1$; $M_y = 857$; $N = -118.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.09 + 0 + 0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 8.6$; $T_y = 103.4$; $M_t = -240.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 158.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.77 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -251.1$

Asta 185: Trave in legno a falda Falda 1 fili 270-271

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 87

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.07^2 + 5.67^2} = 5.77 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 37.9$; $T_y = 201.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 87
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.9/85.3)^2 + 86.2/81 + 0.7 \cdot 16.1/80.97 = 1.2 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -11492.3$; $M_y = 1720.1$; $N = -228.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12 + 0 + 0.13 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 37.9$; $T_y = 201.5$; $M_t = -329.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 87
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.41 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -341.8$

Asta 186: Trave in legno a falda Falda 1 fili 277-275

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 30

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 14
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.06 \leq 57.26$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $N = 4.7$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 30
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.6$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/60.7 + 0.7 \cdot 0/60.7 = 0 \leq 1$ (formula 4.4.5a) Comb: SLU, 43; Durata minima del carico nella combinazione: permanente
 $M_x = 14.9$; $M_y = 0$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 30

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0^2 + 0.04^2} = 0.04 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$T_x = 0$; $T_y = -1.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 9

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0$

$U_{inst\ tot\ in\ y} = 0$

$U_{inst\ tot} = 0$

$Luce/U_{inst,tot} > \limite$

$30/0 = 10656317.5 > 300$ Comb: SLE rara, 21

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 26

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0$

$U_{inst\ var\ in\ y} = 0$

$U_{inst\ var} = 0$

$Luce/U_{inst,var} > \limite$

$30/0 = 9962184703.1 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 9

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0$

$U_{fin\ in\ y} = 0$

$U_{fin} = 0$

$Luce/U_{fin} > \limite$

$30/0 = 6660272.8 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,480 = 1,180$

Neve = $0,500 + 0,000 = 0,500$

Vento = $0,600 + 0,000 = 0,600$

Asta 187: Trave in legno a falda Falda 5 fili 275-280

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 24.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 11.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.03 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$N = 2.7$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 24.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$



$0.7 \cdot 0.1 / 111.3 + 0.2 / 111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 7.1$; $M_y = -19.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_d \leq f_{v,d}$

$\sqrt{0.04^2 + 0.03^2} = 0.05 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = -1.4$; $T_y = 1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.3

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0$

$U_{inst\ tot\ in\ y} = 0$

$U_{inst\ tot} = 0$

$Luce / U_{inst,tot} > \limite$

$24.2 / 0 = 7820057 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 20.2

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0$

$U_{inst\ var\ in\ y} = 0$

$U_{inst\ var} = 0$

$Luce / U_{inst,var} > \limite$

$24.2 / 0 = 11265596672.8 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.3

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0$

$U_{fin\ in\ y} = 0$

$U_{fin} = 0$

$Luce / U_{fin} > \limite$

$24.2 / 0 = 4887719.3 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Asta 188: Trave in legno a falda Falda 1 fili 132-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 49.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$

$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$

$3.9 / 57.3 + 0.7^2 / 111.3 + 27.9 / 111.3 = 0.33 \leq 1$ [4.4.6b] Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo

$M_x = -264.1$; $M_y = -2979.7$; $N = 314.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 49.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_d \leq f_{v,d}$



$\sqrt{2.21^2 + 0.33^2} = 2.24 \leq 22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
 $T_x = 78.7$; $T_y = -11.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 49.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0.01 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 71.4$; $T_y = -17$; $M_t = -158.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 49.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.12 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_t = -158.7$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 29.9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $49.9/0 = 30074.8 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 25
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $49.9/0 = 23626.4 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 31.6
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $49.9/0 = 34441.4 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Asta 189: Trave in legno a falda Falda 1 fili 132-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 49.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 49.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$



$5/57.3+0.7*2.6/111.3+26.3/111.3=0.34 \leq 1$ [4.4.6b] Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
Mx = -351.5; My = 2801.8; N = 400.2

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.21^2+0.2^2} = 2.22 \leq 22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
Tx = 78.5; Ty = 7.1

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02+0.01+0 \leq 1$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
Tx = 78.5; Ty = 7.1; Mt = 60.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 49.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $0.42 \leq 26.13$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo
Mt = 60.1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 25
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
 $49.9/0=17809 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 21.6
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
 $49.9/0=28716.4 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 25
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
 $49.9/0=14441.3 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Asta 190: Trave in legno a falda Falda 1 fili 132-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 51.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno



Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 51.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$13/57.3 + 0.7 \cdot 0.3/111.3 + 23.9/111.3 = 0.44 \leq 1$ [4.4.6b] Comb: SLV, 4; Durata minima del carico nella combinazione: istantaneo

$M_x = 38.6$; $M_y = 2550$; $N = 1042.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{1.9^2 + 0.52^2} = 1.96 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -67.4$; $T_y = 18.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.06 + 0.01 + 0 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -67.4$; $T_y = 18.3$; $M_t = 222.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 51.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.57 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 222.1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 27.4

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$51.3/0 = 15462 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 27.4

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$51.3/0 = 23301.2 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 27.4

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$51.3/0 = 12858.2 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Asta 191: Trave in legno a falda Falda 1 fili 132-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 276.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 276.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(16.7/85.3)^2 + 319.9/81 + 0.7 \cdot 3.3/80.97 = 4.02 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -42657.2$; $M_y = -350.4$; $N = -1333.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.06^2 + 8.35^2} = 8.35 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -2.2$; $T_y = 297$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{v,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.27 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -2.2$; $T_y = 297$; $M_t = 6.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 276.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.2 \leq 26.13$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$M_t = 28.9$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 212.2

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = -0.01$

$U_{inst,tot} \text{ in } y = -0.95$

$U_{inst,tot} = 0.95$

$Luce/U_{inst,tot} < \text{limite}$

$276.8/0.95 = 291.2 < 300$ Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 212.2

$K_{def} = 0$

$U_{inst,var} \text{ in } x = -0.02$

$U_{inst,var} \text{ in } y = -0.61$

$U_{inst,var} = 0.61$

$Luce/U_{inst,var} > \text{limite}$

$276.8/0.61 = 451.4 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 212.2

$K_{def} = 0.6$

$U_{fin} \text{ in } x = -0.01$

$U_{fin} \text{ in } y = -1.15$

$U_{fin} = 1.15$

$Luce/U_{fin} > \text{limite}$

$276.8/1.15 = 240.1 > 200$

Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Asta 192: Trave in legno a falda Falda 1 fili 121-122

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,z,d}/f_{m,z,d} + S_{m,y,d}/f_{m,y,d} \leq 1$
 $126/81 + 0.7 \cdot 5.7/81 = 1.61 \leq 1$ (formula 4.4.5a) Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 16805.4$; $M_y = 606.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.11^2 + 3.3^2} = 3.31 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 4$; $T_y = -117.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.04 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 4$; $T_y = -117.5$; $M_t = 9.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.2 \leq 26.13$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = 28.4$

Asta 193: Trave in legno a falda Falda 1 fili 121-122

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.07^2 + 7.18^2} = 7.18 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -2.6$; $T_y = 255.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.6/85.3)^2 + 284.8/81 + 0.7 \cdot 4.5/80.97 = 3.56 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -37977.4$; $M_y = -481.3$; $N = -450.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.2 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.6$; $T_y = 255.2$; $M_t = 4.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.15 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_t = 20.9$

Asta 194: Trave in legno a falda Falda 1 fili 113-114

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$
 $0.8/41.6 + 135.4/81 + 0.7 \cdot 3.4/81 = 1.72 > 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 18057.2$; $M_y = -363.1$; $N = 62.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.16^2 + 3.45^2} = 3.46 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -5.7$; $T_y = -122.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0+0+0.05 <= 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -5.7; Ty = -122.8; Mt = 7.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{\text{tor},d} \leq K_{sh} * f_{v,d}$
0.2 <= 26.13 Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mt = 28.5

Asta 195: Trave in legno a falda Falda 1 fili 113-114

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.18^2 + 6.83^2) = 6.83 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -6.4; Ty = 242.9

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km*(Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km*(Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(1.7/85.3)^2 + 273.1/81 + 0.7*8.8/80.97 = 3.45 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -36419.9; My = -941.4; N = -135.2

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{\text{tor},d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0+0+0.18 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -6.4; Ty = 242.9; Mt = -5.2

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{\text{tor},d} \leq K_{sh} * f_{v,d}$
0.15 <= 26.13 Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mt = 20.9

Asta 196: Trave in legno a falda Falda 1 fili 104-105

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7/41.6 + 137/81 + 0.7 \cdot 1.8/81 = 1.73 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 18264.8$; $M_y = -193.4$; $N = 59.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.11^2 + 3.53^2} = 3.53 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -3.8$; $T_y = -125.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.05 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -3.8$; $T_y = -125.6$; $M_t = 8.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.2 \leq 26.13$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = 28.8$

Asta 197: Trave in legno a falda Falda 1 fili 104-105

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.15^2 + 6.76^2} = 6.76 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -5.4$; $T_y = 240.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.4/85.3)^2 + 270/81 + 0.7 \cdot 7.7/80.97 = 3.4 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -35998.7$; $M_y = -818.8$; $N = -114.8$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0 + 0.18 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -5.4$; $T_y = 240.4$; $M_t = -20.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.16 \leq 19$ Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_t = -22.1$

Asta 198: Trave in legno a falda Falda 1 fili 97-98

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.8/41.6 + 127.9/81 + 0.7 \cdot 1.7/81 = 1.64 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 17059.8$; $M_y = -181.5$; $N = 142.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.01^2 + 3.49^2} = 3.49 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -0.4$; $T_y = -124$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 0.6$; $T_y = -123.6$; $M_t = -1.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.15 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = -21.5$

Asta 199: Trave in legno a falda Falda 1 fili 97-98

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.14^2 + 7.01^2} = 7.01 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -5$; $T_y = 249.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.7/85.3)^2 + 275.6/81 + 0.7 \cdot 5.8/80.97 = 3.45 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -36746.4$; $M_y = -620.6$; $N = -218$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0 + 0.19 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -5$; $T_y = 249.2$; $M_t = -26.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.2 \leq 19$ Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_t = -28.4$

Asta 200: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$8.2/57.3 + 0.7 \cdot 12.5/111.3 + 20.1/111.3 = 0.4 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 1670.9$; $M_y = -2141$; $N = 653.4$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{2.75^2 + 1.31^2} = 3.05 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 97.8$; $T_y = 46.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0.02 + 0 \leq 1$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 97.8$; $T_y = 46.6$; $M_t = -98.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.72 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 102$

Asta 201: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$14.8/57.3 + 0.7 \cdot 6.2/111.3 + 15.7/111.3 = 0.44 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_x = 825.1$; $M_y = -1678.6$; $N = 1180.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{2.93^2 + 0.24^2} = 2.94 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 104.3$; $T_y = 8.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0.02 + 0 \leq 1$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 104.3$; $T_y = 8.5$; $M_t = -31.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.25 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo



Mt = 36

Asta 202: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$21/57.3 + 0.7 \cdot 0.8/111.3 + 17.9/111.3 = 0.53 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_x = -112.2$; $M_y = -1911.1$; $N = 1676.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{2.46^2 + 0.52^2} = 2.51 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 87.4$; $T_y = -18.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0.01 + 0 \leq 1$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 87.4$; $T_y = -18.4$; $M_t = 99.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.74 \leq 26.13$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = -104.2$

Asta 203: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 33.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)



$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $24.9/57.3+0.7*4.9/111.3+21.9/111.3=0.66 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $Mx = -659.1$; $My = -2332.6$; $N = 1996$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(1.91^2+0.55^2)} = 1.99 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = 68$; $T_y = -19.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04+0+0 \leq 1$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = 39.5$; $T_y = -27.1$; $M_t = 161.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $1.14 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = 161.2$

Asta 204: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 33.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 7.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $27.6/57.3+0.7*5.8/111.3+16.1/111.3=0.66 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $Mx = 770.6$; $My = -1720.5$; $N = 2210.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 33.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.61^2+2.91^2)} = 2.98 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -21.7$; $T_y = -103.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 33.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05+0+0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -21.1$; $T_y = -103.7$; $M_t = 133$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 33.3



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.34 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = 189.3$

Asta 205: Trave in legno a falda Falda 1 fili 89-90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 278.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 278.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $4.4/41.6 + 289.6/81 + 0.7 \cdot 0.8/81 = 3.69 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -38619.3$; $M_y = -89.7$; $N = 348.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 7.69^2} = 7.69 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 0.3$; $T_y = 273.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.23 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 0.3$; $T_y = 273.5$; $M_t = -39.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 278.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.29 \leq 19$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $M_t = -40.8$

Asta 206: Trave in legno a falda Falda 1 fili 81-82

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.1^2 + 6.34^2} = 6.34 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.7$; $T_y = 225.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(8.5/85.3)^2 + 265.1/81 + 0.7 \cdot 4.3/80.97 = 3.32 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -35345.9$; $M_y = 456$; $N = -677.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.16 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.7$; $T_y = 225.5$; $M_t = -5.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.22 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = 31.7$

Asta 207: Trave in legno a falda Falda 1 fili 72-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$
 $20.3/41.6 + 317.9/81 + 0.7 \cdot 1.2/81 = 4.42 > 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -42383.9$; $M_y = 125.2$; $N = 1622.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.03^2 + 8.68^2} = 8.68 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.2$; $T_y = 308.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.02+0+0.29 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 1.2; Ty = 308.7; Mt = 46.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.36 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 50.5

Asta 208: Trave in legno a falda Falda 1 fili 65-66

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 5.15^2} = 5.15 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = -0.6; Ty = 183

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(3.6/85.3)^2 + 239.4/81 + 0.7 \cdot 2.4/80.97 = 2.98 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -31918; My = -259.3; N = -291

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.04+0+0.1 <= 1 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Tx = -0.6; Ty = 183; Mt = 105

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.74 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 105

Asta 209: Trave in legno a falda Falda 1 fili 56-57

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.19^2 + 4.79^2} = 4.79 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -6.8$; $T_y = 170.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.5/85.3)^2 + 227.8/81 + 0.7 \cdot 8.7/80.97 = 2.89 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -30374.9$; $M_y = -930.2$; $N = -197.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.09 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -6.8$; $T_y = 170.2$; $M_t = 182.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.29 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 182.9$

Asta 210: Trave in legno a falda Falda 1 fili 49-50

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.2^2 + 4.15^2} = 4.15 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -7$; $T_y = 147.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1/85.3)^2 + 208.7/81 + 0.7 \cdot 8.8/80.97 = 2.65 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -27826.5$; $M_y = -937.4$; $N = -80.7$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.09 + 0 + 0.07 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -7$; $T_y = 147.5$; $M_t = 248.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.78 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 251.5$

Asta 211: Trave in legno a falda Falda 1 fili 43-44

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.01^2 + 3.54^2)} = 3.54 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -0.3$; $T_y = 126$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(0.6/85.3)^2 + 186.5/81 + 0.7 \cdot 0.5/80.97 = 2.31 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -24861.9$; $M_y = 49.7$; $N = -48.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.11 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -0.3$; $T_y = 126$; $M_t = 294.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.12 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 299.7$

Asta 212: Trave in legno a falda Falda 1 fili 37-38

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 262.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$S_{m,y,d}/f_{m,y,d} + K_{m,y,d}(S_{m,z,d}/f_{m,z,d}) \leq 1$

$K_{m,y,d}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$154.6/81 + 0.7 \cdot 7.1/81 = 1.97 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20616.2$; $M_y = 762.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.16^2 + 2.8^2} = 2.8 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.5$; $T_y = 99.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.11 + 0 + 0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 5.3$; $T_y = 99.5$; $M_t = 306.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 262.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.22 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 314$

Asta 213: Trave in legno a falda Falda 1 fili 32-33

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 239.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.16^2 + 2.59^2} = 2.6 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.7$; $T_y = 92.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 239.9



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.5/85.3)^2 + 127.5/81 + 0.7 \cdot 4.1/80.97 = 1.61 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -16996$; $M_y = 432$; $N = -42.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.11 + 0 + 0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 5.5$; $T_y = 92$; $M_t = 291.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 239.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.13 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 301.4$

Asta 214: Trave in legno a falda Falda 1 fili 27-28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 165.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.11^2 + 3.71^2} = 3.71 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -4$; $T_y = 132$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 165.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.2/85.3)^2 + 111.6/81 + 0.7 \cdot 6.5/80.97 = 1.44 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -14881.5$; $M_y = -691.1$; $N = -172.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.05 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -4$; $T_y = 132$; $M_t = 370.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 165.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.7 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 382.5$



Asta 215: Trave in legno a falda Falda 1 fili 23-24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 91.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.96^2 + 6.7^2} = 6.77 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -34$; $T_y = 238.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 91.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(3.1/85.3)^2 + 106.1/81 + 0.7 \cdot 17.7/80.97 = 1.46 \ngtr 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -14146.5$; $M_y = -1884.4$; $N = -244.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.2 + 0 + 0.18 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -34$; $T_y = 238.4$; $M_t = 550.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 91.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.98 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 563.7$

Asta 216: Trave in legno a falda Falda 1 fili 18-19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 17

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 17

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$



$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(10.2/85.3)^2 + 68.2/81 + 0.7*28.1/80.97 = 1.1 > 1$ [4.4.7a] Comb: SLU, 30; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -9092.9; My = 2993.1; N = -813.5

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{t,d} > f_{v,d}$
 $\sqrt{6.02^2 + 23.54^2} = 24.3 > 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Tx = 214; Ty = 836.9

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.77 + 0.14 + 2.16 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Tx = 214; Ty = 836.9; Mt = 2079.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 17
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $14.68 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
Mt = 2079.1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 11.4
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0
Uinst tot = 0
Luce/Uinst,tot > limite
 $17/0 = 13258.2 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 11.4
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0
Uinst var = 0
Luce/Uinst,var > limite
 $17/0 = 18145.8 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 11.9
Kdef = 0.6
Ufin in x = 0
Ufin in y = 0
Ufin = 0
Luce/Ufin > limite
 $17/0 = 11408.7 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Asta 217: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 79.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300



Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $4.2/38.4 + 95/74.7 + 0.7 \cdot 11.8/74.7 = 1.49 \geq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 150834.6$; $M_y = -14601.5$; $N = 1723.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.59^2 + 7.72^2} = 7.74 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 107.9$; $T_y = 1420.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.41 + 0 + 0.23 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 109$; $T_y = 1418.7$; $M_t = 12958.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 79.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$
 $7.82 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 12963$

Asta 218: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 106.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $4.8/38.4 + 44.7/74.7 + 0.7 \cdot 12/74.7 = 0.84 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_x = -70936.8$; $M_y = 14891.2$; $N = 2001.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.84^2 + 5.74^2} = 5.8 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 153.9$; $T_y = 1056.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12 + 0 + 0.13 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 155$; $T_y = 1054.2$; $M_t = 3859.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.33 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = 3866.5$

Asta 219: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 106.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $4.9/38.4 + 89.3/74.7 + 0.7 \cdot 19.1/74.7 = 1.5 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -141671.7$; $M_y = 23710.7$; $N = 2018.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.35^2 + 3.49^2} = 3.51 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 64.1$; $T_y = 642.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.05 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 65.6$; $T_y = 642.1$; $M_t = -2140.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.29 \leq 19.07$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -2140.4$

Asta 220: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 22.6



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 22.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$4/38.4 + 92.2/74.7 + 0.7 \cdot 12.8/74.7 = 1.46 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -146374.6$; $M_y = 15903.5$; $N = 1669.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{1.03^2 + 3.97^2} = 4.1 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -188.9$; $T_y = 731.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.26 + 0 + 0.06 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -188.9$; $T_y = 731.3$; $M_t = 8113.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 22.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.91 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 8128.8$

Asta 221: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 83.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.8/38.4 + 77.8/74.7 + 0.7 \cdot 3.5/74.7 = 1.15 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -123495$; $M_y = 4287.6$; $N = 1151.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 83.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_d \leq f_{v,d}$
 $\text{Sqrt}(1.04^2 + 2.33^2) = 2.55 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 191.1$; $T_y = -428.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 83.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.6 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 177.2$; $T_y = -426.6$; $M_t = -18801.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 83.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $11.35 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -18801.2$

Asta 222: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 106.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.3/38.4 + 54/74.7 + 0.7 \cdot 13.4/74.7 = 0.91 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_x = -85740.7$; $M_y = 16657.8$; $N = 954.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\text{Sqrt}(0.06^2 + 2.48^2) = 2.48 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 10.7$; $T_y = -457$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.32 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 12.1$; $T_y = -455.6$; $M_t = -10188.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 106.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $6.15 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -10188.8$



Asta 223: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 106.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.1/38.4 + 24.8/74.7 + 0.7 \cdot 12.3/74.7 = 0.5 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_x = -39424.7$; $M_y = 15317.6$; $N = 859.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 106.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.28^2 + 2.19^2} = 2.21 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -51.2$; $T_y = -402.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 106.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.12 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -52.7$; $T_y = -400.8$; $M_t = -3816.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 106.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.3 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = -3816.2$

Asta 224: Trave in legno a falda Falda 3 fili 60-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 95.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$4.3/52.8 + 0.7 \cdot 14.7/102.7 + 18.2/102.7 = 0.36 \leq 1$ [4.4.6b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo



$M_x = -23384.6$; $M_y = 22569.1$; $N = 1768.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 95.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{1.5^2 + 0.47^2} = 1.58 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -276.6$; $T_y = -87.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 95.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0 \leq 1$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$T_x = 219.7$; $T_y = -14.5$; $M_t = 1370.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 95.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.83 \leq 26.22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$M_t = 1370.7$

Asta 225: Trave in legno a falda Falda 5 fili 271-281

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 85.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 85.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.63^2 + 5.81^2} = 5.84 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -22.4$; $T_y = -206.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 85.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(3.9/85.3)^2 + 66/81 + 0.7 \cdot 11.5/80.97 = 0.92 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = 8805.1$; $M_y = -1225.7$; $N = -312$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 85.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.08 + 0 + 0.13 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -22.4$; $T_y = -206.5$; $M_t = 214.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 85.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



1.58 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 224.1

Asta 226: Trave in legno a falda Falda 5 fili 271-281

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.5/57.3 + 0.7 \cdot 0/111.3 + 0.1/111.3 = 0.01 \leq 1$ [4.4.6b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_x = -5.1$; $M_y = -11.1$; $N = 43.3$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.34 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo

$N = 27$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.02^2 + 0.05^2} = 0.05 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$T_x = -0.8$; $T_y = 1.6$

Asta 227: Trave in legno a falda Falda 5 fili 267-282

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 163.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 163.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.14^2 + 2.32^2} = 2.32 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 5.1$; $T_y = -82.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 163.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.6/85.3)^2 + 54.9/81 + 0.7 \cdot 2.7/80.97 = 0.7 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 7314.2$; $M_y = 283.1$; $N = -124.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 163.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.02 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 6.8$; $T_y = -77.9$; $M_t = 68.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 163.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.48 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 68.2$

Asta 228: Trave in legno a falda Falda 5 fili 267-282

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.09 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo
 $N = 7.1$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.6$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/60.7 + 0.7 \cdot 0/60.7 = 0 \leq 1$ (formula 4.4.5a) Comb: SLU, 43; Durata minima del carico nella combinazione: permanente
 $M_x = 8.6$; $M_y = 0$

Asta 229: Trave in legno a falda Falda 5 fili 262-283

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 239.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 239.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.44^2 + 1.3^2} = 1.37 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 15.5$; $T_y = -46.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 239.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 48.3/81 + 0.7 \cdot 16/80.97 = 0.74 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 6446.4$; $M_y = 1701.4$; $N = -144.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 239.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0.01 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 15.4$; $T_y = -46.2$; $M_t = -101.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 239.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.72 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -101.4$

Asta 230: Trave in legno a falda Falda 5 fili 262-283

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.14 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 11.3$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0.1/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 14.6$; $M_y = -5.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$



$\sqrt{0.01^2 + 0.03^2} = 0.03 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.3$; $T_y = 1.2$

Asta 231: Trave in legno a falda Falda 5 fili 256-284

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 315.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 315.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.62^2 + 0.78^2} = 1 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 22.1$; $T_y = -27.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 315.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.7/85.3)^2 + 36.7/81 + 0.7 \cdot 29.8/80.97 = 0.71 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 4887.6$; $M_y = 3180.1$; $N = -137.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 315.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 22.1$; $T_y = -27.9$; $M_t = -200.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 315.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.42 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -200.7$

Asta 232: Trave in legno a falda Falda 5 fili 256-284

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 11.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq f_{t,0,d}$
 $0.13 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo
 $N = 10.1$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.2/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = 11.4$; $M_y = 16.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d,d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 0.03^2} = 0.05 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = -1.4$; $T_y = 0.9$

Asta 233: Trave in legno a falda Falda 5 fili 250-285

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 392

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 392
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 21.8/81 + 28.6/81 = 0.54 \leq 1$ (formula 4.4.5b) Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 2901.6$; $M_y = 3052$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 392
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d,d} \leq f_{v,d}$
 $\sqrt{0.47^2 + 0.52^2} = 0.7 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 16.7$; $T_y = -18.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 392
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 16.7$; $T_y = -18.5$; $M_t = -205$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 392
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.45 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -205$



Asta 234: Trave in legno a falda Falda 5 fili 250-285

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 10.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d} \leq f_{t,0,d}$

$0.03 \leq 57.26 \text{ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo}$

$N = 2.3$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$Sm_{y,d}/f_{m,y,d} + K_m \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$

$K_m \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$

$0.7 \cdot 0.1/111.3 + 0.1/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 8$; $M_y = 11.4$

Asta 235: Trave in legno a falda Falda 5 fili 244-286

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 468.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 468.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.18^2 + 0.37^2)} = 0.42 \leq 16 \text{ Comb: SLU, 80; Durata minima del carico nella combinazione: media}$

$T_x = 6.5$; $T_y = -13.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 468.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + K_m \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$

$(Sc_{0,d}/f_{c,0,d})^2 + K_m \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$

$(1.6/85.3)^2 + 0.7 \cdot 11.8/81 + 15.3/81 = 0.29 \leq 1$ [4.4.7b] Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_x = 1567.9$; $M_y = 1627.9$; $N = -125.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 468.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0 \leq 1 \text{ Comb: SLU, 79; Durata minima del carico nella combinazione: media}$



Tx = 6.8; Ty = -13; Mt = -126.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 468.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.89 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = -126.6

Asta 236: Trave in legno a falda Falda 5 fili 244-286

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 10.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.08 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo
N = 6.1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.1/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mx = 6.9; My = 14.5

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 0.02^2} = 0.04 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Tx = -1.3; Ty = 0.6

Asta 237: Trave in legno a falda Falda 2 fili 19-1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 15.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)



$(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(10.9/85.3)^2 + 13.9/81 + 0.7*11.7/80.97 = 0.29 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 1848.9$; $M_y = -1247$; $N = -873$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 15.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.17^2 + 1.19^2} = 2.48 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 77.3$; $T_y = -42.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 15.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.13 + 0.02 + 0.01 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 77.3$; $T_y = -42.5$; $M_t = -351.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 15.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $2.5 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -353.4$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 7.6
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $15.1/0 = 16786.1 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 7.6
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $15.1/0 = 28660.4 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 7.6
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $15.1/0 = 13377 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Asta 238: Trave in legno a falda Falda 2 fili 24-2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 92.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 92.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.13^2 + 5.68^2} = 5.8 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 40.3$; $T_y = -202.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 92.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.2/85.3)^2 + 77.8/81 + 0.7 \cdot 18.8/80.97 = 1.13 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 10376.6$; $M_y = 2002.5$; $N = -335.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 92.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.09 + 0.01 + 0.13 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 40.3$; $T_y = -202.1$; $M_t = -244.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 92.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.79 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -254$

Asta 239: Trave in legno a falda Falda 2 fili 28-3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 169.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 169.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 2.35^2} = 2.35 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -0.6$; $T_y = -83.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 169.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 65.1/81 + 0.7 \cdot 0.3/80.97 = 0.81 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_x = 8682$; $M_y = 33.7$; $N = -151.6$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 169.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.02 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -2.6$; $T_y = -78.7$; $M_t = -41.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 169.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.57 \leq 26.13$ Comb: SLV, 4; Durata minima del carico nella combinazione: istantaneo

$M_t = -81.1$

Asta 240: Trave in legno a falda Falda 2 fili 33-4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 246.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 246.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.48^2 + 1.18^2)} = 1.27 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -17.1$; $T_y = -41.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 246.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.1/85.3)^2 + 54.8/81 + 0.7 \cdot 18.3/80.97 = 0.84 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = 7303.9$; $M_y = -1956.5$; $N = -170.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 246.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.07 + 0 + 0.01 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -17.1$; $T_y = -41.8$; $M_t = 197.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 246.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.4 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 197.7$

Asta 241: Trave in legno a falda Falda 2 fili 39-5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 322.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 322.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.73^2 + 0.68^2} = 1 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -26.1$; $T_y = -24.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 322.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.7/85.3)^2 + 36.6/81 + 0.7 \cdot 35.8/80.97 = 0.76 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = 4885.5$; $M_y = -3816$; $N = -135.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 322.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.11 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -26.1$; $T_y = -24.2$; $M_t = 295.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 322.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.09 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 295.6$

Asta 242: Trave in legno a falda Falda 2 fili 45-6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 399

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.7 \cdot 7.6/81 + 37.2/81 = 0.53 \leq 1$ (formula 4.4.5b) Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_x = -1008.1$; $M_y = 3972.9$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 399

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.53^2 + 0.35^2} = 0.64 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -18.7$; $T_y = -12.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 399

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.1 + 0 + 0 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -18.7$; $T_y = -12.6$; $M_t = 269.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 399

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.9 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 269.1$

Asta 243: Trave in legno a falda Falda 2 fili 51-7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 475.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 475.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.7/57.3 + 32.3/111.3 + 0.7 \cdot 9.5/111.3 = 0.38 \leq 1$ [4.4.6a] Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo

$M_x = -4300.8$; $M_y = -1008.5$; $N = 134.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.13^2 + 0.57^2} = 0.59 \leq 22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo

$T_x = -4.5$; $T_y = 20.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -5.5$; $T_y = 12.3$; $M_t = 134.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 475.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.95 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media



Mt = 134.5

Asta 244: Trave in legno a falda Falda 6 fili 238-239

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$17.5/41.6 + 170.8/81 + 0.7 \cdot 17.7/81 = 2.68 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -22775.1$; $M_y = -1889.2$; $N = 1396.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.46^2 + 3.58^2} = 3.61 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -16.3$; $T_y = 127.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -17$; $T_y = 127.1$; $M_t = 82$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.6 \leq 19$ Comb: SLU, 37; Durata minima del carico nella combinazione: media

$M_t = 84.4$

Asta 245: Trave in legno a falda Falda 6 fili 276-279

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 17.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)



$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $1/57.3 + 0.7 \cdot 0/111.3 + 0.1/111.3 = 0.02 \leq 1$ [4.4.6b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = -5.9$; $M_y = -5.5$; $N = 79.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 17.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 0.03^2} = 0.03 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.4$; $T_y = -1$

Verifica compressione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.3

Sezione ad ascissa 17.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $Sc_{0,d} \leq fc_{0,d}$
 $|-1| \leq 117.33$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $N = -80$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 8.2
 $K_{def} = 0$
 $U_{inst \text{ tot in } x} = 0$
 $U_{inst \text{ tot in } y} = 0$
 $U_{inst \text{ tot}} = 0$
 $Luce/U_{inst,tot} > \text{limite}$
 $17.5/0 = 7351669.5 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 1.2
 $K_{def} = 0$
 $U_{inst \text{ var in } x} = 0$
 $U_{inst \text{ var in } y} = 0$
 $U_{inst \text{ var}} = 0$
 $Luce/U_{inst,var} > \text{limite}$
 $17.5/0 = 3167463931.8 > 300$ Comb: SLE rara, 14

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 8.2
 $K_{def} = 0.6$
 $U_{fin \text{ in } x} = 0$
 $U_{fin \text{ in } y} = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > \text{limite}$
 $17.5/0 = 4597146.6 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$

Asta 246: Trave in legno a falda Falda 6 fili 272-273

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 96.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 96.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.09^2 + 7.98^2} = 8.25 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -74.2$; $T_y = -283.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.7/85.3)^2 + 126.5/81 + 0.7 \cdot 33/80.97 = 1.85 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -16872.1$; $M_y = 3524.6$; $N = -377.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 96.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.21 + 0.02 + 0.25 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -74.2$; $T_y = -283.8$; $M_t = 559.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 96.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.95 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 559.9$

Asta 247: Trave in legno a falda Falda 6 fili 268-269

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 175.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 175.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.83^2 + 3.88^2} = 3.97 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -29.3$; $T_y = -137.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.7/85.3)^2 + 117.7/81 + 0.7 \cdot 24.8/80.97 = 1.67 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -15694.9$; $M_y = 2649.4$; $N = -135.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 175.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.06 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -29.3$; $T_y = -137.9$; $M_t = 367.7$



Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 175.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.6 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 367.8$

Asta 248: Trave in legno a falda Falda 6 fili 263-264

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 253.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,y,d}(S_{m,z,d}/f_{m,z,d}) \geq 1$
 $K_{m,z,d}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \geq 1$
 $115.2/81 + 0.7 \cdot 16.9/81 = 1.57 \geq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -15359.8$; $M_y = 1798.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 253.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.37^2 + 2.41^2} = 2.44 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -13.2$; $T_y = -85.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 253.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.02 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -13.6$; $T_y = -85.3$; $M_t = 194.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 253.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.37 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 194.3$

Asta 249: Trave in legno a falda Falda 6 fili 257-258

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 88.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.31^2 + 6.23^2} = 6.24 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 10.9$; $T_y = 221.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 88.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(3.4/85.3)^2 + 152/81 + 0.7 \cdot 3.1/80.97 = 1.91 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20268.5$; $M_y = 333.6$; $N = -275.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.15 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 10.9$; $T_y = 221.7$; $M_t = -197.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 88.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.4 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -197.9$

Asta 250: Trave in legno a falda Falda 6 fili 251-252

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 167.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.53^2 + 4.52^2} = 4.55 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 18.8$; $T_y = 160.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 167.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.1/85.3)^2 + 164.5/81 + 0.7 \cdot 14.6/80.97 = 2.16 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -21935.4$; $M_y = 1558.7$; $N = -410.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.08 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 18.8$; $T_y = 160.6$; $M_t = -164.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 167.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.16 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -164.6$

Asta 251: Trave in legno a falda Falda 6 fili 245-246

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 246.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 246.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $6.3/41.6 + 174.5/81 + 0.7 \cdot 14.9/81 = 2.43 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -23260.4$; $M_y = 1588.9$; $N = 503.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.45^2 + 4.14^2} = 4.16 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 15.9$; $T_y = 147.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.07 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 15.9$; $T_y = 147.2$; $M_t = -90.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 246.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.64 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -90.4$

Asta 252: Trave in legno a falda Falda 5 fili 241-287

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 523.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 523.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.12^2 + 0.55^2} = 0.57 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -4.3$; $T_y = -19.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(8.5/85.3)^2 + 25/81 + 0.7 \cdot 10.7/80.97 = 0.41 \leq 1$ [4.4.7a] Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_x = -3328.8$; $M_y = 1142.5$; $N = -679.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 523.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -4.3$; $T_y = -19.7$; $M_t = 73$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 523.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.52 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 73$

Asta 253: Trave in legno a falda Falda 5 fili 241-287

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 10.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.01 \leq 57.26$ Comb: SLV, 14; Durata minima del carico nella combinazione: istantaneo
 $N = 0.5$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.2/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = 7.6$; $M_y = 18.6$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 0.02^2} = 0.05 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $T_x = -1.6$; $T_y = 0.7$

Asta 254: Trave in legno a falda Falda 5 fili 245-288

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 468.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 468.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.54^2 + 0.62^2} = 0.82 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -19.2$; $T_y = -22.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(1.5/85.3)^2 + 0.7 \cdot 30.2/81 + 43/81 = 0.79 \leq 1$ [4.4.7b] Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $M_x = -4023.5$; $M_y = 4581.8$; $N = -120.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 468.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -19.3$; $T_y = -22$; $M_t = 225$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 468.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.59 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 225$

Asta 255: Trave in legno a falda Falda 5 fili 245-288

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 8.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.07 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 5.9$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.4/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 8.9$; $M_y = -39.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.1^2 + 0.02^2} = 0.1 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 3.5$; $T_y = 0.6$

Asta 256: Trave in legno a falda Falda 5 fili 251-289

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 392.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 392.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.96^2 + 1.04^2} = 1.42 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -34.1$; $T_y = -37.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.9/85.3)^2 + 0.7 \cdot 48.7/81 + 66.5/81 = 1.24 > 1$ [4.4.7b] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -6492.2$; $M_y = 7094.6$; $N = -70.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 392.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.11 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -34.2$; $T_y = -37$; $M_t = 286$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 392.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.02 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 286$

Asta 257: Trave in legno a falda Falda 5 fili 251-289

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 10.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.05 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 3.7$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.6/111.3 = 0.01 \leq 1$ (formula 4.4.5b) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 11.1$; $M_y = -68.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.16^2 + 0.03^2} = 0.16 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 5.7$; $T_y = 1.1$

Asta 258: Trave in legno a falda Falda 5 fili 257-290

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.21^2 + 1.8^2} = 2.17 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -42.9$; $T_y = -64.1$



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_{m^*}(S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_{m^*}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 72/81 + 0.7 \cdot 68.3/80.97 = 1.48 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -9606.6$; $M_y = 7284.3$; $N = -152.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(\kappa_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0.01 + 0.01 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -42.9$; $T_y = -64.1$; $M_t = 225.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.6 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 225.9$

Asta 259: Trave in legno a falda Falda 5 fili 257-290

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 11.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq f_{t,0,d}$
 $0.2 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 16.1$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m^*}(S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_{m^*}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 0.1/111.3 + 0.1/111.3 = 0 \leq 1$ (formula 4.4.5b) Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 9$; $M_y = -9.5$

Asta 260: Trave in legno a falda Falda 5 fili 263-291

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 240.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300



Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 240.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.04^2 + 3.09^2} = 3.26 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -37$; $T_y = -109.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(3.2/85.3)^2 + 96.9/81 + 0.7 \cdot 45.1/80.97 = 1.59 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -12918.1$; $M_y = 4805.9$; $N = -259.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 240.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.04 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -36.8$; $T_y = -109.6$; $M_t = -9.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 240.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.37 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_t = -52$

Asta 261: Trave in legno a falda Falda 5 fili 263-291

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.6/57.3 + 0.7 \cdot 0.1/111.3 + 0.2/111.3 = 0.01 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -9$; $M_y = 21.1$; $N = 44.9$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 11.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.35 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 27.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 0.05^2} = 0.07 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 1.7$; $T_y = 1.7$

Asta 262: Trave in legno a falda Falda 5 fili 268-292

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 164.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 164.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.48^2 + 4.86^2} = 4.88 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -17.1$; $T_y = -172.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.9/85.3)^2 + 108.2/81 + 0.7 \cdot 16/80.97 = 1.48 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -14426.1$; $M_y = 1710.4$; $N = -233.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 164.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.09 + 0 + 0.09 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -16.9$; $T_y = -172.7$; $M_t = -231$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 164.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.63 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -231$

Asta 263: Trave in legno a falda Falda 5 fili 268-292

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.5/57.3 + 0.1/111.3 + 0.7 \cdot 0.1/111.3 = 0.03 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -19.6$; $M_y = 14.3$; $N = 116.9$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 11.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.91 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 72.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(0.03^2 + 0.07^2)} = 0.08 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 1.2$; $T_y = 2.6$

Asta 264: Trave in legno a falda Falda 5 fili 272-293

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 88.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 88.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(1.03^2 + 10.57^2)} = 10.62 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 36.7$; $T_y = -375.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(6.2/85.3)^2 + 133.9/81 + 0.7 \cdot 11/80.97 = 1.75 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -17853.5$; $M_y = -1171$; $N = -492.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 88.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.17 + 0 + 0.44 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 36.7$; $T_y = -375.8$; $M_t = -470.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 88.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



3.32 <= 19 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Mt = -470.8

Asta 265: Trave in legno a falda Falda 5 fili 272-293

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 23.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 12.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq f_{t,0,d}$
 $0.16 \leq 57.26$ Comb: SLD, 10; Durata minima del carico nella combinazione: istantaneo
N = 13

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.2/111.3 + 0.7 \cdot 0.1/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 32.5$; $M_y = 15.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 0.08^2} = 0.09 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = -1.2$; $T_y = 2.8$

Asta 266: Trave in legno a falda Falda 5 fili 276-294

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 24.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 14.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq f_{t,0,d}$
 $0.06 \leq 57.26$ Comb: SLD, 14; Durata minima del carico nella combinazione: istantaneo
N = 4.8

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.6$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m^*}(S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_{m^*}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/60.7 + 0.7 \cdot 0/60.7 = 0 \leq 1$ (formula 4.4.5a) Comb: SLU, 64; Durata minima del carico nella combinazione: permanente
 $M_x = 9.5$; $M_y = 0$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 0.03^2} = 0.03 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.5$; $T_y = 1$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 15.3
 $K_{def} = 0$
 $U_{inst\ tot\ in\ x} = 0$
 $U_{inst\ tot\ in\ y} = 0$
 $U_{inst\ tot} = 0$
 $Luce/U_{inst,tot} > limite$
 $24.2/0 = 7818414.3 > 300$ Comb: SLE rara, 14

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 22.6
 $K_{def} = 0$
 $U_{inst\ var\ in\ x} = 0$
 $U_{inst\ var\ in\ y} = 0$
 $U_{inst\ var} = 0$
 $Luce/U_{inst,var} > limite$
 $24.2/0 = 4239905377.2 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 15.3
 $K_{def} = 0.6$
 $U_{fin\ in\ x} = 0$
 $U_{fin\ in\ y} = 0$
 $U_{fin} = 0$
 $Luce/U_{fin} > limite$
 $24.2/0 = 4886946.1 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,000 = 0,500$
Variabile H = $0,000 + 1,000 = 1,000$

Asta 267: Trave in legno a falda Falda 6 fili 227-228

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/f_{t,0,d} + S_{m,y,d}/f_{m,y,d} + K_{m^*}(S_{m,z,d}/f_{m,z,d}) > 1$
 $St_{0,d}/f_{t,0,d} + K_{m^*}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} > 1$
 $1/41.6 + 166.3/81 + 0.7 \cdot 2.6/81 = 2.1 > 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -22173.1$; $M_y = -275.8$; $N = 82.4$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 3.42^2} = 3.42 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -0.5$; $T_y = 121.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -0.9$; $T_y = 121.3$; $M_t = 176.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.26 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 177.7$

Asta 268: Trave in legno a falda Falda 6 fili 218-219

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $3.2/41.6 + 156.3/81 + 0.7 \cdot 4.3/81 = 2.04 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20837.1$; $M_y = -455.5$; $N = 258$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.07^2 + 3.14^2} = 3.14 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.5$; $T_y = 111.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0.04 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -2.5$; $T_y = 111.6$; $M_t = 203.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.44 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media



Mt = 204.2

Asta 269: Trave in legno a falda Falda 6 fili 212-213

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 334.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 334.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $4.8/41.6 + 120.1/81 + 0.7 \cdot 2.2/81 = 1.62 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -16018.4$; $M_y = -235.1$; $N = 380.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 2.18^2} = 2.18 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -1.5$; $T_y = 77.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -1.5$; $T_y = 77.4$; $M_t = 115.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 334.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.82 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 115.5$

Asta 270: Trave in legno a falda Falda 6 fili 203-204

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 255.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 255.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)



$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $4/41.6 + 111.3/81 + 0.7 \cdot 5.7/81 = 1.52 \geq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -14842.5$; $M_y = 612.6$; $N = 321.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 2.84^2} = 2.84 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.3$; $T_y = 100.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.3$; $T_y = 100.8$; $M_t = 137.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 255.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.97 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 137.4$

Asta 271: Trave in legno a falda Falda 6 fili 193-194

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 176.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $2.3/41.6 + 84.9/81 + 0.7 \cdot 8.4/81 = 1.18 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 11325.5$; $M_y = -895.4$; $N = 181.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.32^2 + 3.65^2} = 3.66 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 11.2$; $T_y = 129.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.05 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 11.2$; $T_y = 129.8$; $M_t = 81.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 176.1



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.58 \leq 19$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = 81.7$

Asta 272: Trave in legno a falda Falda 6 fili 186-187

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 96.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.9/41.6 + 98.5/81 + 0.7 \cdot 9.1/81 = 1.36 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 13137.4$; $M_y = -967.6$; $N = 230$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.62^2 + 6.12^2} = 6.15 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 22$; $T_y = 217.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.15 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 22$; $T_y = 217.6$; $M_t = 47$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 96.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.33 \leq 19$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = 47.1$

Asta 273: Trave in legno a falda Falda 4 fili 172-173

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $3.2/41.6 + 382.3/81 + 0.7 \cdot 11.1/81 = 4.89 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -50967.2$; $M_y = -1184$; $N = 255$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{t,d} \leq f_{v,d}$
 $\sqrt{0.3^2 + 8.22^2} = 8.22 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -10.7$; $T_y = 292.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0 + 0.26 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -10.8$; $T_y = 292.1$; $M_t = -395.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.79 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -395.1$

Asta 274: Trave in legno a falda Falda 4 fili 163-164

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{t,d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 10.27^2} = 10.27 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.2$; $T_y = 365.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.2/85.3)^2 + 442.4/81 + 0.7 \cdot 1/80.97 = 5.47 \leq 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -58982.3$; $M_y = 103.9$; $N = -178$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.09+0+0.41 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = 3.2; Ty = 365.3; Mt = -253.3

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

1.79 <= 19 Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = -253.3

Asta 275: Trave in legno a falda Falda 4 fili 155-156

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; Kh = 1.084 (formula 11.7.1)

$S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

421.4/81+0.7*3.3/81=5.23 > 1 (formula 4.4.5a) Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

Mx = -56190.7; My = -356.1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; kcr = 0.67

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.06^2 + 9.18^2} = 9.18 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = -2.3; Ty = 326.4

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

0.06+0+0.33 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media

Tx = -2.3; Ty = 326.4; Mt = -161.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

Kmod = 0.8

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

1.14 <= 19 Comb: SLU, 80; Durata minima del carico nella combinazione: media

Mt = -161.4

Asta 276: Trave in legno a falda Falda 4 fili 150-151

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \geq 1$
 $K_{m,z,d}/f_{m,z,d} + S_{m,y,d}/f_{m,y,d} \geq 1$
 $429.6/81 + 0.7 \cdot 2.9/81 = 5.33 \geq 1$ (formula 4.4.5a) Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -57284.1$; $M_y = 314.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 9.34^2} = 9.34 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.9$; $T_y = 332$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.34 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.9$; $T_y = 332$; $M_t = -29.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.21 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -29.2$

Asta 277: Trave in legno a falda Falda 4 fili 141-142

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.16^2 + 9.44^2} = 9.45 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 5.6$; $T_y = 335.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 296.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(0.9/85.3)^2 + 433.1/81 + 0.7 \cdot 8.5/80.97 = 5.42 \geq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -57752.9$; $M_y = 904.7$; $N = -70.5$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.04 + 0 + 0.35 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 5.6$; $T_y = 335.8$; $M_t = 104.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.74 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 104.2$

Asta 278: Trave in legno a falda Falda 4 fili 134-135

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.28^2 + 9.3^2} = 9.31 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 9.8$; $T_y = 330.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(0.5/85.3)^2 + 429.3/81 + 0.7 \cdot 12.8/80.97 = 5.41 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -57243.8$; $M_y = 1365.7$; $N = -43.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.09 + 0 + 0.34 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 9.8$; $T_y = 330.7$; $M_t = 238.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.68 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 238.4$

Asta 279: Trave in legno a falda Falda 4 fili 123-124

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 296.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$5.2/41.6 + 357.8/81 + 0.7 \cdot 3.3/81 = 4.57 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -47712.5$; $M_y = 356.1$; $N = 412.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.07^2 + 6.63^2} = 6.63 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 2.5$; $T_y = 235.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.13 + 0 + 0.17 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 2.5$; $T_y = 235.7$; $M_t = 344.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 296.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.43 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 344.5$

Asta 280: Trave in legno a falda Falda 4 fili 230-231

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 53.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 53.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} > f_{v,d}$

$\sqrt{2.76^2 + 23.33^2} = 23.5 > 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -98.3$; $T_y = -829.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(5.7/85.3)^2 + 264.3/81 + 0.7 \cdot 20.6/80.97 = 3.45 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -35236.1$; $M_y = 2200.2$; $N = -458.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 53.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.53 + 0.03 + 2.13 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -98.3$; $T_y = -829.7$; $M_t = 1414.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 53.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $10.01 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 1416.9$

Asta 281: Trave in legno a falda Falda 4 fili 230-231

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.5/57.3 + 0.2/111.3 + 0.7 \cdot 0.1/111.3 = 0.03 \leq 1$ [4.4.6a] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 20.6$; $M_y = 6.4$; $N = 117.2$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 5.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $1.47 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $N = 117.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.03^2 + 0.08^2} = 0.08 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -1$; $T_y = 2.7$

Asta 282: Trave in legno a falda Falda 4 fili 221-222

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 130.4



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 130.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.87^2 + 6.39^2} = 6.45 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -30.9$; $T_y = -227.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 139/81 + 0.7 \cdot 18.7/80.97 = 1.88 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -18531.3$; $M_y = 1997.7$; $N = -154.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 130.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.24 + 0 + 0.16 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -30.9$; $T_y = -227.3$; $M_t = 657.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 130.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.66 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 659.5$

Asta 283: Trave in legno a falda Falda 4 fili 221-222

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/f_{t,0,d} + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $St_{0,d}/f_{t,0,d} + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $1/57.3 + 0.1/111.3 + 0.7 \cdot 0.1/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = -15.3$; $M_y = 6.8$; $N = 77.2$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 5.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)



St,0,d <= ft,0,d
0.97 <= 57.26 Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
N = 77.3

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau, d \leq f_v, d$
 $\text{Sqrt}(0.02^2 + 0.07^2) = 0.07 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
Tx = 0.6; Ty = 2.6

Asta 284: Trave in legno a falda Falda 4 fili 214-215

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 207.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 207.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau, d \leq f_v, d$
 $\text{Sqrt}(0.34^2 + 4.57^2) = 4.58 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -12; Ty = -162.5

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.6/85.3)^2 + 162.6/81 + 0.7 \cdot 11.5/80.97 = 2.11 \nlessgtr 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -21678.5; My = 1231; N = -126.1

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 207.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.17 + 0 + 0.08 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -12; Ty = -162.2; Mt = 445.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 207.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.15 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Mt = 445.6

Asta 285: Trave in legno a falda Falda 4 fili 214-215

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 14.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.14 \leq 57.26 \text{ Comb: SLV, 4; Durata minima del carico nella combinazione: istantaneo}$
 $N = 11.1$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 12.6$; $M_y = -0.4$

Asta 286: Trave in legno a falda Falda 4 fili 205-206

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 284.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 284.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.12^2 + 4.34^2} = 4.34 \leq 16 \text{ Comb: SLU, 71; Durata minima del carico nella combinazione: media}$
 $T_x = -4.3$; $T_y = -154.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.1/85.3)^2 + 224.2/81 + 0.7 \cdot 5.1/80.97 = 2.81 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -29895.3$; $M_y = 545.4$; $N = -90.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 284.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.07 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -4.5$; $T_y = -154.1$; $M_t = 384$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 284.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.71 \leq 19 \text{ Comb: SLU, 80; Durata minima del carico nella combinazione: media}$
 $M_t = 384.1$



Asta 287: Trave in legno a falda Falda 4 fili 205-206

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$3.2/57.3 + 0.2/111.3 + 0.7 \cdot 0/111.3 = 0.06 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -32.4$; $M_y = 5.2$; $N = 258.4$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 7.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$3.23 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$N = 258.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.03^2 + 0.14^2)} = 0.14 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -0.9$; $T_y = 5$

Asta 288: Trave in legno a falda Falda 4 fili 195-196

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 45

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 45

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) > 1$

$K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$

$280.3/81 + 0.7 \cdot 2.8/81 = 3.49 > 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -37369.9$; $M_y = -302.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_{t,d} > f_{v,d}$
 $\text{Sqrt}(0.3^2 + 21.07^2) = 21.07 > 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -10.7$; $T_y = 749.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{t,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.29 + 0 + 1.73 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = -10.7$; $T_y = 749.1$; $M_t = -779.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 45
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{t,d} \leq K_{sh} \cdot f_{v,d}$
 $5.5 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -779.4$

Asta 289: Trave in legno a falda Falda 4 fili 188-189

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 122

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{t,d} \leq f_{v,d}$
 $\text{Sqrt}(0.19^2 + 13.1^2) = 13.1 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -6.8$; $T_y = 465.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 122
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.4/85.3)^2 + 362.7/81 + 0.7 \cdot 4/80.97 = 4.51 ! > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -48358.3$; $M_y = -423.3$; $N = -113.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{t,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.24 + 0 + 0.67 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -6.8$; $T_y = 465.8$; $M_t = -645.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 122
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{t,d} \leq K_{sh} \cdot f_{v,d}$
 $4.56 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -645.2$



Asta 290: Trave in legno a falda Falda 4 fili 181-182

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 199

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 199
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $2.5/41.6 + 385.5/81 + 0.7 \cdot 2.5/81 = 4.84 \geq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -51400.2$; $M_y = -266.6$; $N = 196.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.08^2 + 9.6^2} = 9.6 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -2.8$; $T_y = 341.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.2 + 0 + 0.36 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -2.8$; $T_y = 341.2$; $M_t = -536.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 199
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.79 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -536.4$

Asta 291: Trave in legno a falda Falda 4 fili 116-117

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 203.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 203.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $3.5/41.6 + 396.4/81 + 0.7 \cdot 0.8/81 = 4.99 \geq 1$ [4.4.6a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

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$M_x = -52855.1$; $M_y = -89.3$; $N = 279.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.01^2 + 9.31^2} = 9.31 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.3$; $T_y = 330.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.19 + 0 + 0.34 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.3$; $T_y = 330.9$; $M_t = 507.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 203.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.58 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 507.5$

Asta 292: Trave in legno a falda Falda 4 fili 108-109

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 126.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.08^2 + 12.66^2} = 12.66 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 2.9$; $T_y = 450$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 126.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.7/85.3)^2 + 374.3/81 + 0.7 \cdot 1.7/80.97 = 4.64 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -49905$; $M_y = 177.3$; $N = -138.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.24 + 0 + 0.63 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 2.9$; $T_y = 450$; $M_t = 640$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 126.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



4.52 <= 19 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 640

Asta 293: Trave in legno a falda Falda 4 fili 101-102

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 49.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 49.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_{m,y,d} \cdot (S_{m,z,d}/f_{m,z,d}) \cdot \gamma > 1$
 $K_{m,z,d} \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \cdot \gamma > 1$
 $298.6/81 + 0.7 \cdot 0.6/81 = 3.69 > 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -39816.2$; $M_y = 69.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} > f_{v,d}$
 $\sqrt{0.05^2 + 20.51^2} = 20.51 > 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 1.8$; $T_y = 729.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.29 + 0 + 1.64 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 1.8$; $T_y = 729.4$; $M_t = 781.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 49.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.52 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 781.6$

Asta 294: Trave in legno a falda Falda 4 fili 93-94

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 288.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 288.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.14^2 + 4.46^2} = 4.47 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 5$; $T_y = -158.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.3/85.3)^2 + 234.2/81 + 0.7 \cdot 6/80.97 = 2.94 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -31231.1$; $M_y = -637$; $N = -107.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 288.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.08 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 5.2$; $T_y = -158.5$; $M_t = -363.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 288.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.57 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -363.5$

Asta 295: Trave in legno a falda Falda 4 fili 93-94

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 8.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.09 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo
 $N = 7.1$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.2/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 21.5$; $M_y = -2.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 0.06^2} = 0.06 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.4$; $T_y = 2$



Asta 296: Trave in legno a falda Falda 4 fili 85-86

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 211.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 211.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.37^2 + 4.62^2} = 4.63 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 13$; $T_y = -164.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.5/85.3)^2 + 167.6/81 + 0.7 \cdot 12.9/80.97 = 2.18 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -22352.9$; $M_y = -13777.7$; $N = -119.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 211.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.16 + 0 + 0.08 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 13.1$; $T_y = -163.9$; $M_t = -429.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 211.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.04 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -429.8$

Asta 297: Trave in legno a falda Falda 4 fili 85-86

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.8/57.3 + 0.3/111.3 + 0.7 \cdot 0/111.3 = 0.05 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo



$M_x = -39.4$; $M_y = 3.8$; $N = 224.3$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 8.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,d} \leq f_{t,d}$

$2.21 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$N = 176.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.02^2 + 0.15^2)} = 0.15 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = 0.6$; $T_y = 5.2$

Asta 298: Trave in legno a falda Falda 4 fili 79-80

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 134.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 134.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.92^2 + 6.32^2)} = 6.39 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 32.8$; $T_y = -224.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.1/85.3)^2 + 137.4/81 + 0.7 \cdot 21/80.97 = 1.88 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -18320.4$; $M_y = -2237.7$; $N = -164.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 134.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.24 + 0 + 0.16 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 33$; $T_y = -224.2$; $M_t = -652.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 134.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$4.61 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -652.5$

Asta 299: Trave in legno a falda Falda 4 fili 79-80

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1/57.3 + 0.1/111.3 + 0.7 \cdot 0.1/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -9.5$; $M_y = 6.1$; $N = 77$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 9.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.6 \leq 57.26$ Comb: SLV, 16; Durata minima del carico nella combinazione: istantaneo

$N = 48.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.03^2 + 0.04^2)} = 0.05 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -1.2$; $T_y = 1.4$

Asta 300: Trave in legno a falda Falda 4 fili 70-71

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 57.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 57.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} > f_{v,d}$

$\sqrt{(2.45^2 + 18.47^2)} = 18.63 > 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = 87.1$; $T_y = -656.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(4.2/85.3)^2 + 215.5/81 + 0.7 \cdot 22.7/80.97 = 2.86 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -28735.9$; $M_y = -2426.7$; $N = -332.9$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 57.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.51 + 0.02 + 1.33 > 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 87.1$; $T_y = -656.8$; $M_t = -1371.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 57.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $9.71 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -1375.3$

Asta 301: Trave in legno a falda Falda 4 fili 70-71

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.5/57.3 + 0.3/111.3 + 0.7 \cdot 0.1/111.3 = 0.03 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -36.4$; $M_y = -8.5$; $N = 120.1$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 9.1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.6 \leq 57.26$ Comb: SLD, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 48.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.03^2 + 0.12^2} = 0.12 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -1.1$; $T_y = 4.3$

Asta 302: Trave in legno a falda Falda 3 fili 106-107

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 74

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.9/41.6 + 101/81 + 0.7 \cdot 5.5/81 = 1.36 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 13472.5$; $M_y = 582.5$; $N = 230.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.47^2 + 7.45^2} = 7.47 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -16.6$; $T_y = 265$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{t,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.22 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -16.6$; $T_y = 265$; $M_t = -44.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 74

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.32 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -44.9$

Asta 303: Trave in legno a falda Falda 3 fili 58-59

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$3.1/41.6 + 160.5/81 + 0.7 \cdot 3.2/81 = 2.08 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -21406.2$; $M_y = 343$; $N = 247.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.06^2 + 3.6^2} = 3.6 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 2$; $T_y = 127.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.04 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 2.5$; $T_y = 127.7$; $M_t = -118.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.84 \leq 19$ Comb: SLU, 37; Durata minima del carico nella combinazione: media
 $M_t = -119.1$

Asta 304: Trave in legno a falda Falda 3 fili 67-68

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.2/41.6 + 151.5/81 + 0.7 \cdot 0.3/81 = 1.93 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20201.1$; $M_y = -30.3$; $N = 172.5$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 3.25^2} = 3.25 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -0.8$; $T_y = 115.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.04 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -0.4$; $T_y = 115.6$; $M_t = -170.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.21 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -171.7$

Asta 305: Trave in legno a falda Falda 3 fili 76-77

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 303.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $4.5/41.6 + 141.6/81 + 0.7 \cdot 2.8/81 = 1.88 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -18880.9$; $M_y = 297.4$; $N = 356.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.04^2 + 2.97^2)} = 2.97 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 1.5$; $T_y = 105.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.03 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 1.5$; $T_y = 105.5$; $M_t = -192.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 303.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.37 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -193.6$

Asta 306: Trave in legno a falda Falda 3 fili 83-84

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 321.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 321
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $5.7/41.6 + 119.8/81 + 0.7 \cdot 1.6/81 = 1.63 \geq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -15975.4$; $M_y = 171.1$; $N = 453.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.03^2 + 2.36^2)} = 2.36 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.2$; $T_y = 83.8$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 1.2$; $T_y = 83.8$; $M_t = -141$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 321

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -141$

Asta 307: Trave in legno a falda Falda 3 fili 91-92

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 238.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 238.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$4.3/41.6 + 100.4/81 + 0.7 \cdot 5.8/81 = 1.39 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -13381.7$; $M_y = -623.8$; $N = 341.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.1^2 + 2.97^2} = 2.97 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -3.5$; $T_y = 105.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -3.5$; $T_y = 105.7$; $M_t = -121.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 238.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.86 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -121.2$

Asta 308: Trave in legno a falda Falda 3 fili 99-100

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 156.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.3/41.6 + 95.6/81 + 0.7 \cdot 5.9/81 = 1.29 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 12749.2$; $M_y = 624.1$; $N = 186.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.25^2 + 4.16^2} = 4.16 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -8.9$; $T_y = 147.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.07 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -8.9$; $T_y = 147.8$; $M_t = -72.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 156.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.51 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = -72.6$

Asta 309: Trave in legno a falda Falda 3 fili 46-47

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 182.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.49^2 + 3.98^2} = 4.01 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -17.4$; $T_y = 141.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 182.9



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(4.1/85.3)^2 + 152.2/81 + 0.7 \cdot 14.6/80.97 = 2.01 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20292.5$; $M_y = -1559.6$; $N = -327.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.06 + 0 + 0.06 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -17.4$; $T_y = 141.4$; $M_t = 150.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 182.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.07 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 150.9$

Asta 310: Trave in legno a falda Falda 3 fili 52-53

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 264.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 264.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$

$9.8/41.6 + 162.5/81 + 0.7 \cdot 10.9/81 = 2.34 > 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -21664.5$; $M_y = -1166.3$; $N = 780.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.32^2 + 3.9^2)} = 3.91 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -11.3$; $T_y = 138.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.06 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -11.3$; $T_y = 138.5$; $M_t = 67.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 264.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.48 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 67.7$



Asta 311: Trave in legno a falda Falda 3 fili 40-41

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 101.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.6^2 + 5.01^2} = 5.05 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -21.4$; $T_y = 178.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 101.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.3/85.3)^2 + 141.7/81 + 0.7 \cdot 10.4/80.97 = 1.84 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -18890.9$; $M_y = -1108.7$; $N = -181.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.07 + 0 + 0.1 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -21.4$; $T_y = 178.2$; $M_t = 178.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 101.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.26 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 178.5$

Asta 312: Trave in legno a falda Falda 3 fili 34-35

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 263.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$



$$K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$$

$121.9/81 + 0.7 \cdot 10.5/81 = 1.6 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$$M_x = -16252.3; M_y = -1121$$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 263.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8; k_{cr} = 0.67$$

$$\tau_{d} \leq f_{v,d}$$

$$\sqrt{0.21^2 + 2.41^2} = 2.42 \leq 16 \text{ Comb: SLU, 72; Durata minima del carico nella combinazione: media}$$

$$T_x = 7.3; T_y = -85.6$$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 263.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8; K_h = 1.084 \text{ (formula 11.7.1); } k_{cr} = 0.67$$

$$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$$

$$0.06 + 0 + 0.02 \leq 1 \text{ Comb: SLU, 71; Durata minima del carico nella combinazione: media}$$

$$T_x = 7.6; T_y = -85.4; M_t = -153.7$$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 263.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8$$

$$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$$

$$1.09 \leq 19 \text{ Comb: SLU, 71; Durata minima del carico nella combinazione: media}$$

$$M_t = -153.7$$

Asta 313: Trave in legno a falda Falda 3 fili 29-30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 182.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 182.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8; k_{cr} = 0.67$$

$$\tau_{d} \leq f_{v,d}$$

$$\sqrt{0.46^2 + 4.09^2} = 4.11 \leq 16 \text{ Comb: SLU, 72; Durata minima del carico nella combinazione: media}$$

$$T_x = 16.5; T_y = -145.3$$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8; K_h = 1.084 \text{ (formula 11.7.1)}$$

$$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$$

$$(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$$

$$(1.9/85.3)^2 + 127.9/81 + 0.7 \cdot 15.8/80.97 = 1.72 \leq 1 \text{ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA}$$

$$M_x = -17048.6; M_y = -1683.9; N = -150.5$$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 182.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$$K_{mod} = 0.8; K_h = 1.084 \text{ (formula 11.7.1); } k_{cr} = 0.67$$

$$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$$

$$0.15 + 0 + 0.07 \leq 1 \text{ Comb: SLU, 72; Durata minima del carico nella combinazione: media}$$

$$T_x = 16.5; T_y = -145.3; M_t = -404.9$$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 182.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.86 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -404.9$

Asta 314: Trave in legno a falda Falda 3 fili 25-26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 100.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 100.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(1.14^2 + 8.51^2) = 8.58 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 40.5$; $T_y = -302.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.3/85.3)^2 + 144.3/81 + 0.7 \cdot 22.2/80.97 = 1.98 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19233.3$; $M_y = -2369.2$; $N = -341.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 100.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.3 + 0.01 + 0.28 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 40.5$; $T_y = -302.4$; $M_t = -802.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 100.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $5.67 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -802.6$

Asta 315: Trave in legno a falda Falda 3 fili 21-22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 20.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(13.5/85.3)^2 + 103.1/81 + 0.7 \cdot 38.7/80.97 = 1.63 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -13751.9$; $M_y = 4131.4$; $N = -1082.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 20.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} > f_{v,d}$

$\sqrt{9.27^2 + 29.32^2} = 30.75 > 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -329.6$; $T_y = -1042.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 20.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$

$1.16 + 0.34 + 3.36 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$T_x = -329.6$; $T_y = -1042.4$; $M_t = -3112.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 20.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} > K_{sh} \cdot f_{v,d}$

$21.99 > 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_t = -3112.9$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 6.8

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = 0$

$U_{inst,tot} \text{ in } y = 0$

$U_{inst,tot} = 0$

$L_{uce}/U_{inst,tot} > \text{limite}$

$20.5/0 = 7189.1 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 6.8

$K_{def} = 0$

$U_{inst,var} \text{ in } x = 0$

$U_{inst,var} \text{ in } y = 0$

$U_{inst,var} = 0$

$L_{uce}/U_{inst,var} > \text{limite}$

$20.5/0 = 10487.9 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 6.8

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0$

$U_{fin} \text{ in } y = 0$

$U_{fin} = 0$

$L_{uce}/U_{fin} > \text{limite}$

$20.5/0 = 6047.7 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Asta 316: Trave in legno a falda Falda 2 fili 55-8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 512.3



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 512.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.1/57.3 + 31/111.3 + 0.7 \cdot 1.9/111.3 = 0.33 \leq 1$ [4.4.6a] Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo

$M_x = -4138.8$; $M_y = -207.7$; $N = 168$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.02^2 + 0.52^2} = 0.53 \leq 22$ Comb: SLV, 2; Durata minima del carico nella combinazione: istantaneo

$T_x = -0.8$; $T_y = 18.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{t,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 3$; $T_y = 8.8$; $M_t = -40.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 512.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{t,d} \leq K_{sh} \cdot f_{v,d}$

$0.28 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = -40.1$

Asta 317: Trave in legno a falda Falda 2 fili 52-9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 475.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1/41.6 + 0.7 \cdot 15.6/81 + 31.3/81 = 0.54 \leq 1$ [4.4.6b] Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_x = -2078.6$; $M_y = -3343.3$; $N = 76.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 475.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.38^2 + 0.3^2) = 0.49 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 13.5$; $T_y = -10.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 475.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 13.5$; $T_y = -10.8$; $M_t = -161.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 475.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.14 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -161.9$

Asta 318: Trave in legno a falda Falda 2 fili 46-10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 398.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.7 \cdot 41.5/81 + 63/81 = 1.14 \leq 1$ (formula 4.4.5b) Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -5532.4$; $M_y = -6720.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 398.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.88^2 + 0.8^2) = 1.19 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 31.3$; $T_y = -28.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 398.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.1 + 0 + 0 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 31.4$; $T_y = -28.4$; $M_t = -267.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 398.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.89 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -267.6$



Asta 319: Trave in legno a falda Falda 2 fili 40-11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 322

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 322
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.23^2 + 1.69^2} = 2.09 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 43.6$; $T_y = -60$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.5/85.3)^2 + 72.9/81 + 0.7 \cdot 71.3/80.97 = 1.52 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -9717.8$; $M_y = -7600$; $N = -118.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 322
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.09 + 0.01 + 0.01 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 43.6$; $T_y = -60$; $M_t = -234.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 322
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.66 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -234.6$

Asta 320: Trave in legno a falda Falda 2 fili 34-12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 245.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 245.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.24^2 + 3.32^2} = 3.54 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 44$; $T_y = -118.1$



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(3.2/85.3)^2 + 113.1/81 + 0.7 \cdot 56.4/80.97 = 1.89 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -15081.5$; $M_y = -6019.3$; $N = -257.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 245.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0.01 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 44$; $T_y = -118.1$; $M_t = -35.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 245.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.43 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = -60.9$

Asta 321: Trave in legno a falda Falda 2 fili 29-13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 168.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 168.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.64^2 + 5.34^2} = 5.38 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 22.6$; $T_y = -189.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(3.4/85.3)^2 + 125.2/81 + 0.7 \cdot 21.3/80.97 = 1.73 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -16692.1$; $M_y = -2270$; $N = -275.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 168.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0.11 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 22.6$; $T_y = -189.9$; $M_t = 211.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 168.8
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



1.5 <= 19 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Mt = 211.7

Asta 322: Trave in legno a falda Falda 2 fili 25-14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 92.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 92.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.96^2 + 11.18^2} = 11.22 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -34$; $T_y = -397.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(6.7/85.3)^2 + 144.5/81 + 0.7 \cdot 9.7/80.97 = 1.87 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19265.8$; $M_y = 1036.1$; $N = -535.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 92.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.18 + 0 + 0.49 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -34$; $T_y = -397.4$; $M_t = 493.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 92.2
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.48 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 493.1$

Asta 323: Trave in legno a falda Falda 2 fili 21-15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 15.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 15.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_{m,d}(S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_{m,d}(S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(10.4/85.3)^2 + 30.1/81 + 0.7 \cdot 15.2/80.97 = 0.52 \leq 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_x = 4008.3$; $M_y = 1625$; $N = -828$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 15.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d,d} \leq f_{v,d}$
 $\sqrt{2.1^2 + 5.83^2} = 6.19 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 74.5$; $T_y = -207.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 15.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.26 + 0.02 + 0.13 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 74.5$; $T_y = -207.3$; $M_t = 698.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 15.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.93 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 698.8$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 8.8
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = 0$
 $U_{inst,tot} = 0$
 $L_{uce}/U_{inst,tot} > \text{limite}$
 $15.6/0 = 14566.9 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 8.8
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = 0$
 $U_{inst,var} = 0$
 $L_{uce}/U_{inst,var} > \text{limite}$
 $15.6/0 = 26086.5 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 8.8
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0$
 $U_{fin} \text{ in } y = 0$
 $U_{fin} = 0$
 $L_{uce}/U_{fin} > \text{limite}$
 $15.6/0 = 11469.4 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$

Asta 324: Trave in legno a falda Falda 1 fili 148-149

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 428

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0^2 + 2.4^2} = 2.4 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -0.1$; $T_y = 85.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 428
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.4/85.3)^2 + 156.5/81 + 0.7 \cdot 0.2/80.97 = 1.93 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20866.7$; $M_y = -23.9$; $N = -108.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -0.1$; $T_y = 85.3$; $M_t = -11.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 428
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.08 \leq 19$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = -11.9$

Asta 325: Trave in legno a falda Falda 1 fili 153-154

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 428

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 2.36^2} = 2.36 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.8$; $T_y = 83.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 428
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.2/85.3)^2 + 150.3/81 + 0.7 \cdot 2.6/80.97 = 1.88 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20033.4$; $M_y = 279$; $N = -334$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 1.8$; $T_y = 83.8$; $M_t = -34.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 428

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.25 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -35.1$

Asta 326: Trave in legno a falda Falda 1 fili 139-140

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 428

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.04^2 + 2.38^2} = 2.38 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -1.5$; $T_y = 84.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 428

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(3.4/85.3)^2 + 151.9/81 + 0.7 \cdot 2.4/80.97 = 1.9 \ngtr 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20254$; $M_y = -260.3$; $N = -271.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -1.5$; $T_y = 84.5$; $M_t = 6.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 428

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.14 \leq 26.13$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = 19.7$

Asta 327: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.3/52.8 + 0.7 \cdot 16.1/102.7 + 36.1/102.7 = 0.51 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = -25590.9$; $M_y = 44848.2$; $N = 948.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{1.64^2 + 1.45^2} = 2.19 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -301.1$; $T_y = 267.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.1 + 0.01 + 0.01 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -301.1$; $T_y = 267.1$; $M_t = 3010.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.82 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 3023.3$

Asta 328: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{1.12^2 + 2.29^2} = 2.55 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 205.8$; $T_y = 422.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$(1.6/85.3)^2 + 26.2/74.7 + 0.7 \cdot 1.8/74.67 = 0.37 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_x = -41641.9$; $M_y = 2263.1$; $N = -648.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.07 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 205.8$; $T_y = 422.2$; $M_t = 2195.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.33 \leq 19.07$ Comb: SLU, 38; Durata minima del carico nella combinazione: media

$M_t = 2198.9$

Asta 329: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(1.94^2 + 2.87^2)} = 3.46 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -357$; $T_y = -527.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 42.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$(1.5/85.3)^2 + 23.1/74.7 + 0.7 \cdot 10.6/74.67 = 0.41 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -36671.6$; $M_y = -13201.7$; $N = -636.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.08 + 0.01 + 0.03 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = -343.5$; $T_y = -509.9$; $M_t = 2456.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.48 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 2456.9$



Asta 330: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.83^2 + 2.33^2} = 2.47 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 152.8$; $T_y = -428.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.5/85.3)^2 + 0.7 \cdot 16.5/74.7 + 19.1/74.7 = 0.41 \leq 1$ [4.4.7b] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -26158.8$; $M_y = -23686.4$; $N = -603.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.02 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 155.1$; $T_y = -426.7$; $M_t = 930.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.56 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 930.4$

Asta 331: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$



$\sqrt{2.24^2 + 1.45^2} = 2.67 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 411.6$; $T_y = -267.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.2/85.3)^2 + 0.7 \cdot 7.2/74.7 + 14.7/74.7 = 0.26 \leq 1$ [4.4.7b] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -11377.5$; $M_y = -18313.8$; $N = -503.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0.02 + 0.01 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 396.1$; $T_y = -285.8$; $M_t = -1068.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq k_{sh} \cdot f_{v,d}$

$0.64 \leq 19.07$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = -1068.3$

Asta 332: Trave in legno a falda Falda 1 fili 217-260

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 40.1

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 40.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.7 \cdot 4.7/74.7 + 22.4/74.7 = 0.34 \leq 1$ (formula 4.4.5b) Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_x = -7481.7$; $M_y = 27822.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{3.48^2 + 1.66^2} = 3.86 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 641.1$; $T_y = 306.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0.05 + 0.01 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = 636.8$; $T_y = 304.6$; $M_t = 858.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 40.1

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.08 \leq 26.22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = 1796.9$

Asta 333: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.65^2 + 1.29^2} = 2.95 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 487.5$; $T_y = 237.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.4/117.3)^2 + 0.7 \cdot 13/102.7 + 43.3/102.7 = 0.51 \leq 1$ [4.4.7b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 20629$; $M_y = -53839.9$; $N = -987.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.16 + 0.03 + 0.01 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 487.5$; $T_y = 237.7$; $M_t = -5080.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.07 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -5086.8$

Asta 334: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.8/52.8 + 0.7 \cdot 8.3/102.7 + 21.1/102.7 = 0.3 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -13135.7$; $M_y = 26191.4$; $N = 753.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(1.09^2 + 2.25^2)} = 2.5 \leq 16$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $T_x = -200$; $T_y = -413.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$
 $0.07 + 0 + 0.02 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -196.8$; $T_y = -414.1$; $M_t = -2106.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{,tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.29 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -2132.3$

Asta 335: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.2/52.8 + 0.7 \cdot 7.1/102.7 + 21.8/102.7 = 0.3 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 11240.2$; $M_y = -27044.9$; $N = 922.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(0.97^2 + 1.7^2)} = 1.96 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -178.6$; $T_y = -312.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{,y,d}/f_{v,d})^2 + (\tau_{,z,d}/f_{v,d})^2 \leq 1$



0.05+0+0.01 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -164.5; Ty = -307.1; Mt = -1430.1

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{v,d}$
0.86 <= 19.07 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = -1430.1

Asta 336: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
2.2/52.8+0.7*10/102.7+34.6/102.7=0.45 <= 1 [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Mx = 15812.6; My = -42911.5; N = 915.8

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1; kcr = 0.67
 $\tau_{t,d} \leq f_{v,d}$
 $\sqrt{1.84^2 + 1.01^2} = 2.1 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
Tx = -339.3; Ty = -186.6

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{\text{tor,d}}/(k_{\text{sh}} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.03+0+0.01 <= 1 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Tx = -89.2; Ty = 228.7; Mt = -1019.4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{\text{tor,d}} \leq K_{\text{sh}} \cdot f_{v,d}$
0.62 <= 19.07 Comb: SLU, 29; Durata minima del carico nella combinazione: media
Mt = -1019.4

Asta 337: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.3/52.8 + 0.7 \cdot 15.1/102.7 + 52/102.7 = 0.65 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 23953.5$; $M_y = -64565$; $N = 946.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2 \cdot 15^2 + 1.39^2} = 2.56 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 395.4$; $T_y = 256$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0.01 + 0 \leq 1$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 395.4$; $T_y = 256$; $M_t = -1023.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.62 \leq 26.22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_t = -1023.3$

Asta 338: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.3/52.8 + 0.7 \cdot 16/102.7 + 54.9/102.7 = 0.69 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = 25466.6$; $M_y = -68202.6$; $N = 934.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{4.74^2 + 2.08^2} = 5.17 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = -871.8$; $T_y = -381.9$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0.04 + 0.01 \leq 1$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = 841.2$; $T_y = 430.1$; $M_t = 1415.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.85 \leq 26.22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_t = 1415.6$

Asta 339: Trave in legno a falda Falda 1 fili 161-217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $2.3/52.8 + 0.7 \cdot 17.9/102.7 + 41.1/102.7 = 0.57 \leq 1$ [4.4.6b] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = -28418.7$; $M_y = 51019.8$; $N = 970.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(5.56^2 + 2.77^2)} = 6.21 \leq 22$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = 1022.8$; $T_y = 508.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0.06 + 0.02 \leq 1$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $T_x = 1022.8$; $T_y = 508.8$; $M_t = 876.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.98 \leq 26.22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_t = -1630.5$

Asta 340: Trave in legno a falda Falda 1 fili 133-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.8/52.8 + 0.7 \cdot 6.6/102.7 + 29.4/102.7 = 0.36 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -10438.5$; $M_y = -36549.6$; $N = 732.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.01^2 + 3.57^2} = 3.57 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 2$; $T_y = 657$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.41 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = 2$; $T_y = 657$; $M_t = 12799.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$7.73 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 12799.5$

Asta 341: Trave in legno a falda Falda 1 fili 133-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 27

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.8/52.8 + 0.7 \cdot 8/102.7 + 30/102.7 = 0.38 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -12658.4$; $M_y = -37205.5$; $N = 729.3$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.2^2 + 2.38^2} = 2.39 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -36$; $T_y = 437.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.11 + 0 + 0.02 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -36$; $T_y = 437.9$; $M_t = 3549.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.14 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 3549.4$

Asta 342: Trave in legno a falda Falda 1 fili 133-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.19^2 + 1.95^2} = 1.96 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -34.6$; $T_y = -358.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.7/117.3)^2 + 0.7 \cdot 9.8/102.7 + 31.5/102.7 = 0.37 \leq 1$ [4.4.7b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = -15608.3$; $M_y = -39142.9$; $N = -1113.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12 + 0 + 0.01 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -34.6$; $T_y = -358.2$; $M_t = -3662.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.21 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media



Mt = -3662.8

Asta 343: Trave in legno a falda Falda 1 fili 133-161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_d \leq f_{v,d}$

$\sqrt{4.92^2 + 2.63^2} = 5.58 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = -904.7$; $T_y = -484.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.4/117.3)^2 + 0.7 \cdot 13.2/102.7 + 43.8/102.7 = 0.52 \leq 1$ [4.4.7b] Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_x = 20944.1$; $M_y = -54393.1$; $N = -976.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.4 + 0 + 0.05 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -93.7$; $T_y = -664.6$; $M_t = -12708.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$7.67 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -12708.5$

Asta 344: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_{d} \leq f_{v,d}$

$\sqrt{2.23^2 + 4.64^2} = 5.15 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -411.2$; $T_y = -853.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(1.4/85.3)^2 + 43.5/74.7 + 0.7 \cdot 3.1/74.67 = 0.61 \leq 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_x = -69083.4$; $M_y = 3909.5$; $N = -584.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0.02 + 0.08 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -411.2$; $T_y = -853.6$; $M_t = 334.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.92 \leq 26.22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_t = 1526.4$

Asta 345: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.8/52.8 + 0.7 \cdot 11.7/102.7 + 52.4/102.7 = 0.62 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 18494.3$; $M_y = -65052.6$; $N = 729.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{4.83^2 + 1.89^2} = 5.18 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$T_x = 888.1$; $T_y = 348.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.5

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.05 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 170.2$; $T_y = -665.3$; $M_t = -1639.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.5



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.99 \leq 19.07$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = -1639.7$

Asta 346: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.8/52.8 + 0.7 \cdot 10.6/102.7 + 49.5/102.7 = 0.59 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = 16822$; $M_y = -61505.3$; $N = 730.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 3.05^2} = 3.05 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -7.3$; $T_y = -561.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0.01 + 0.01 \leq 1$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = -396.1$; $T_y = -314.6$; $M_t = 1271.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.81 \leq 26.22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = -1350.2$

Asta 347: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.8/52.8 + 0.7 \cdot 6/102.7 + 30.9/102.7 = 0.38 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 9520.8$; $M_y = -38381.3$; $N = 756.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.53^2 + 2^2} = 2.07 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 98.3$; $T_y = -368.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.02 \leq 1$ Comb: SLU, 29; Durata minima del carico nella combinazione: media

$T_x = 97.2$; $T_y = -367.4$; $M_t = 607.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.62 \leq 26.22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo

$M_t = 1022.4$

Asta 348: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{1.93^2 + 0.97^2} = 2.16 \leq 22$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$T_x = 355.2$; $T_y = 179.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.6/117.3)^2 + 0.7 \cdot 4.2/102.7 + 20.9/102.7 = 0.23 \leq 1$ [4.4.7b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_x = 6666.1$; $M_y = 26010.1$; $N = -1097$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.03+0+0.01 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 141; Ty = 226.6; Mt = 1007.2

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.61 <= 19.07 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 1007.2

Asta 349: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.97^2 + 2.08^2} = 2.29 \leq 16$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
Tx = 178.1; Ty = 381.9

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(1.4/85.3)^2 + 0.7 \cdot 6/74.7 + 13.6/74.7 = 0.24 \leq 1$ [4.4.7b] Comb: SLU, 30; Durata minima del carico nella combinazione: media
Mx = 9583.6; My = 16841.6; N = -578.8

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.06+0+0.02 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 167.7; Ty = 379.9; Mt = 1776.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.09 <= 19.07 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 1800

Asta 350: Trave in legno a falda Falda 1 fili 74-133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 67.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{1.42^2 + 1.79^2} = 2.29 \leq 16$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -261.9$; $T_y = 329.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.6/117.3)^2 + 0.7 \cdot 13.2/102.7 + 23.5/102.7 = 0.32 \leq 1$ [4.4.7b] Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 21004.8$; $M_y = -29158.4$; $N = -1095.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0.01 + 0.01 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = -261.9$; $T_y = 329.8$; $M_t = 4896.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 67.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.96 \leq 19.07$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 4896.3$

Asta 351: Trave in legno a falda Falda 4 fili 173-174

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.2^2 + 7.8^2} = 7.8 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -7.1$; $T_y = -277.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(9.1/85.3)^2 + 398.8/81 + 0.7 \cdot 8.3/80.97 = 5.01 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -53171$; $M_y = 889.6$; $N = -727.5$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.24 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -7.1$; $T_y = -277.3$; $M_t = 367.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.6 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 367.8$

Asta 352: Trave in legno a falda Falda 4 fili 173-174

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.9/57.3 + 0.1/111.3 + 0.7 \cdot 0/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -9.9$; $M_y = -0.3$; $N = 73.7$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 7.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.92 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 73.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0^2 + 0.06^2} = 0.06 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.1$; $T_y = 2.2$

Asta 353: Trave in legno a falda Falda 4 fili 164-165

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.14^2 + 7.64^2} = 7.64 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -4.8$; $T_y = -271.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(4.4/85.3)^2 + 414.8/81 + 0.7 \cdot 7.5/80.97 = 5.19 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -55309.4$; $M_y = 802.9$; $N = -350.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.1 + 0 + 0.23 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -4.8$; $T_y = -271.6$; $M_t = 266.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.88 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 266.5$

Asta 354: Trave in legno a falda Falda 4 fili 164-165

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.7/57.3 + 0.7 \cdot 0/111.3 + 0/111.3 = 0.03 \leq 1$ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -5$; $M_y = 4.2$; $N = 134.7$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 5.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $1.69 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 134.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 0.03^2} = 0.04 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.6$; $T_y = 1.1$

Asta 355: Trave in legno a falda Falda 4 fili 156-157

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 7.11^2} = 7.11 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -3.3$; $T_y = -252.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.9/85.3)^2 + 411/81 + 0.7 \cdot 4.8/80.97 = 5.12 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -54802.9$; $M_y = 516.3$; $N = -151.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.2 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -3.4$; $T_y = -252.8$; $M_t = 155.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.1 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 155.2$

Asta 356: Trave in legno a falda Falda 4 fili 156-157

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.8/57.3 + 0.2/111.3 + 0.7 \cdot 0/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $M_x = -28.6$; $M_y = -3$; $N = 61$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 12.5
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.76 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $N = 60.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(0.01^2 + 0.08^2)} = 0.08 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.3$; $T_y = 2.8$

Asta 357: Trave in legno a falda Falda 4 fili 151-152

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{,d} \leq f_{v,d}$
 $\sqrt{(0.05^2 + 7.22^2)} = 7.22 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 1.7$; $T_y = -256.7$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.6/85.3)^2 + 417.9/81 + 0.7 \cdot 2.4/80.97 = 5.18 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -55718.8$; $M_y = -254.9$; $N = -204.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.2 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 1.6$; $T_y = -256.7$; $M_t = 26.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$



0.19 <= 19 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Mt = 26.5

Asta 358: Trave in legno a falda Falda 4 fili 151-152

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
 $1.9/57.3 + 0.3/111.3 + 0.7*0/111.3 = 0.04 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = -46.5$; $M_y = -1.2$; $N = 154.7$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 1
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq ft_{0,d}$
 $0.78 \leq 57.26$ Comb: SLD, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 62.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0^2 + 0.1^2} = 0.1 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.2$; $T_y = 3.4$

Asta 359: Trave in legno a falda Falda 4 fili 142-143

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 7.06^2} = 7.06 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 3.3$; $T_y = -251$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.6/85.3)^2 + 409.6/81 + 0.7 \cdot 6.2/80.97 = 5.11 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -54619.2$; $M_y = -662.7$; $N = -126.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.19 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 3.4$; $T_y = -251$; $M_t = -93.7$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.66 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -93.7$

Asta 360: Trave in legno a falda Falda 4 fili 142-143

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 7.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.35 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 27.7$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_{m,z,d}/f_{m,z,d} \leq 1$
 $K_{m,y,d}/f_{m,y,d} + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 17.5$; $M_y = -3.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.01^2 + 0.07^2)} = 0.07 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.4$; $T_y = 2.4$

Asta 361: Trave in legno a falda Falda 4 fili 135-136

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.15^2 + 7.68^2} = 7.69 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.3$; $T_y = -273.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(4.6/85.3)^2 + 413.3/81 + 0.7 \cdot 8.7/80.97 = 5.18 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -55100.7$; $M_y = -930$; $N = -365.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.08 + 0 + 0.23 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.3$; $T_y = -273.2$; $M_t = -213$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.51 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -213.2$

Asta 362: Trave in legno a falda Falda 4 fili 135-136

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 7.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.84 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$N = 67.2$

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$



$$St,0,d/ft,0,d + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$$
$$0.8/57.3+0.7*0/111.3+0/111.3=0.02 \leq 1 \text{ [4.4.6b] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo}$$
$$Mx = 1.8; My = 3.3; N = 67.3$$

Asta 363: Trave in legno a falda Falda 4 fili 124-125

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.24^2 + 7.82^2} = 7.82 \leq 16 \text{ Comb: SLU, 71; Durata minima del carico nella combinazione: media}$
 $T_x = 8.5$; $T_y = -277.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(Sc,0,d/fc,0,d)^2 + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(8.9/85.3)^2 + 395.9/81 + 0.7*9.5/80.97 = 4.98 > 1 \text{ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA}$
 $M_x = -52784.3$; $M_y = -1015.9$; $N = -712.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12+0+0.24 \leq 1 \text{ Comb: SLU, 71; Durata minima del carico nella combinazione: media}$
 $T_x = 8.5$; $T_y = -277.9$; $M_t = -328$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $2.32 \leq 19 \text{ Comb: SLU, 79; Durata minima del carico nella combinazione: media}$
 $M_t = -328.1$

Asta 364: Trave in legno a falda Falda 4 fili 124-125

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.3



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.09 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo

$N = 7.2$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.1/111.3 + 0.7 \cdot 0.1/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$M_x = 9.4$; $M_y = -6.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.02^2 + 0.04^2} = 0.04 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 0.8$; $T_y = 1.3$

Asta 365: Trave in legno a falda Falda 4 fili 196-197

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.02^2 + 5.33^2} = 5.33 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.8$; $T_y = -189.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.3/85.3)^2 + 292.1/81 + 0.7 \cdot 1.4/80.97 = 3.62 > 1$ [4.4.7a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -38945.5$; $M_y = 148.5$; $N = -187.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.16 + 0 + 0.11 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.8$; $T_y = -189.6$; $M_t = 431.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.05 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 431.6$



Asta 366: Trave in legno a falda Falda 4 fili 196-197

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.3/57.3 + 0.2/111.3 + 0.7 \cdot 0/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = -21.9$; $M_y = -3.5$; $N = 103.3$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 7.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$1.29 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$N = 103.4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.02^2 + 0.12^2} = 0.12 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo

$T_x = 0.6$; $T_y = 4.4$

Asta 367: Trave in legno a falda Falda 4 fili 189-190

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.12^2 + 6.77^2} = 6.77 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 4.1$; $T_y = -240.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$



$(Sc,0,d/fc,0,d)^2 + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $(9/85.3)^2 + 343.2/81 + 0.7*3.5/80.97 = 4.28 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $Mx = -45764.1$; $My = -378.5$; $N = -717.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.16 + 0 + 0.18 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 4.1$; $T_y = -240.8$; $M_t = 424.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $3 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 425.3$

Asta 368: Trave in legno a falda Falda 4 fili 189-190

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St,0,d/ft,0,d + Sm,y,d/fm,y,d + Km*(Sm,z,d/fm,z,d) \leq 1$
 $St,0,d/ft,0,d + Km*(Sm,y,d/fm,y,d) + Sm,z,d/fm,z,d \leq 1$
 $3/57.3 + 0.2/111.3 + 0.7*0/111.3 = 0.06 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_x = 33.2$; $M_y = -2.7$; $N = 241.9$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St,0,d \leq ft,0,d$
 $3.03 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 242$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 0.13^2} = 0.13 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.3$; $T_y = 4.6$

Asta 369: Trave in legno a falda Falda 4 fili 182-183

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$5.3/41.6 + 461.6/81 + 0.7 \cdot 6.5/81 = 5.89 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -61548.6$; $M_y = 696.7$; $N = 427.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.16^2 + 10.79^2} = 10.79 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -5.7$; $T_y = -383.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{t,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.16 + 0 + 0.45 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$T_x = -6.1$; $T_y = -383.5$; $M_t = 429.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$3.03 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 429.5$

Asta 370: Trave in legno a falda Falda 4 fili 182-183

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 14.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.2/57.3 + 0.1/111.3 + 0.7 \cdot 0/111.3 = 0.02 \leq 1$ [4.4.6a] Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_x = 15.8$; $M_y = -0.4$; $N = 97.7$

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 5.3

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$1.22 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$N = 97.8$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0^2 + 0.07^2} = 0.07 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.2$; $T_y = 2.4$

Asta 371: Trave in legno a falda Falda 4 fili 117-118

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m^*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_{m^*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $8.4/41.6 + 468.8/81 + 0.7 \cdot 1.7/81 = 6.01 \leq 1$ [4.4.6a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -62512.1$; $M_y = -184.1$; $N = 674.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 11.04^2} = 11.04 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 1.9$; $T_y = -392.5$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.14 + 0 + 0.48 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 1.9$; $T_y = -392.5$; $M_t = -380.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.69 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -381$

Asta 372: Trave in legno a falda Falda 4 fili 117-118

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.48 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $N = 38.4$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $M_x = 16$; $M_y = -1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 0.06^2} = 0.06 \leq 22$ Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.2$; $T_y = 2.1$

Asta 373: Trave in legno a falda Falda 4 fili 109-110

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.11^2 + 6.95^2} = 6.95 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -3.8$; $T_y = -247.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(9.3/85.3)^2 + 350.7/81 + 0.7 \cdot 3.5/80.97 = 4.37 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -46762.5$; $M_y = 369.7$; $N = -742.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0 + 0.19 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -3.8$; $T_y = -247.1$; $M_t = -394.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$



$K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.79 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -395$

Asta 374: Trave in legno a falda Falda 4 fili 109-110

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 5.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d} \leq f_{t,0,d}$
 $0.2 \leq 57.26$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $N = 15.8$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 13.3$; $M_y = -1.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0^2 + 0.06^2} = 0.06 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = -0.1$; $T_y = 2$

Asta 375: Trave in legno a falda Falda 4 fili 102-103

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 316.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 5.54^2} = 5.54 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 0.6$; $T_y = -196.9$



Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.5/85.3)^2 + 302/81 + 0.7 \cdot 0.9/80.97 = 3.74 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -40265$; $M_y = -92.8$; $N = -199$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.15 + 0 + 0.12 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 0.8$; $T_y = -196.7$; $M_t = -404.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 316.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.86 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -404.5$

Asta 376: Trave in legno a falda Falda 4 fili 102-103

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 14.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 6.7
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d} \leq f_{t,0,d}$
 $0.05 \leq 57.26$ Comb: SLV, 8; Durata minima del carico nella combinazione: istantaneo
 $N = 3.7$

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $K_h = 1.084$ (formula 11.7.1)
 $S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $0.1/111.3 + 0.7 \cdot 0/111.3 = 0 \leq 1$ (formula 4.4.5a) Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $M_x = 19.6$; $M_y = -4$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{(0.01^2 + 0.07^2)} = 0.08 \leq 22$ Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
 $T_x = 0.5$; $T_y = 2.6$

Asta 377: Trave in legno a falda Falda 3 fili 77-78

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 99.8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica flessione D.M. 17-01-18 §4.4.8.1.6

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$S_{m,y,d}/f_{m,y,d} + K_{m,y,d} \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$K_{m,y,d} \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$149.6/81 + 0.7 \cdot 2/81 = 1.86 \leq 1$ (formula 4.4.5a) Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -19943.2$; $M_y = 218.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 99.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.12^2 + 8.21^2} = 8.21 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -4.4$; $T_y = -292$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 99.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.11 + 0 + 0.26 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -4.4$; $T_y = -292$; $M_t = 296.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 99.8

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.1 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 297.1$

Asta 378: Trave in legno a falda Falda 3 fili 59-60

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/f_{t,0,d} + S_{m,y,d}/f_{m,y,d} + K_{m,y,d} \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$

$St_{0,d}/f_{t,0,d} + K_{m,y,d} \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$

$3.5/41.6 + 167.6/81 + 0.7 \cdot 4.7/81 = 2.19 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -22347.5$; $M_y = 506.4$; $N = 279.3$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.15^2 + 5.12^2} = 5.12 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -5.3$; $T_y = -182$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.05 + 0 + 0.1 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -5.3$; $T_y = -182$; $M_t = 146.2$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.03 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$M_t = 146.3$

Asta 379: Trave in legno a falda Falda 3 fili 68-69

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 182.2

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 182.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.13^2 + 5.44^2} = 5.44 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -4.7$; $T_y = -193.3$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2/85.3)^2 + 154.3/81 + 0.7 \cdot 4/80.97 = 1.94 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20566.9$; $M_y = 425.8$; $N = -163.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 182.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.08 + 0 + 0.12 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -4.7$; $T_y = -193.3$; $M_t = 204.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 182.2

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.45 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media



Mt = 204.6

Asta 380: Trave in legno a falda Falda 3 fili 47-48

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.05^2 + 3.33^2} = 3.33 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -2$; $T_y = -118.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.6/85.3)^2 + 147.2/81 + 0.7 \cdot 2.5/80.97 = 1.84 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19625$; $M_y = 270.8$; $N = -125.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -1.8$; $T_y = -118.5$; $M_t = -52.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.37 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -52.5$

Asta 381: Trave in legno a falda Falda 3 fili 53-54

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.15^2 + 3.33^2) = 3.33 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -5.3$; $T_y = -118.4$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.7/85.3)^2 + 143.2/81 + 0.7 \cdot 5.9/80.97 = 1.82 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19095$; $M_y = 631.5$; $N = -135.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -5.3$; $T_y = -118.4$; $M_t = 52.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.38 \leq 19$ Comb: SLU, 38; Durata minima del carico nella combinazione: media
 $M_t = 53.7$

Asta 382: Trave in legno a falda Falda 3 fili 41-42

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\text{Sqrt}(0.19^2 + 3.03^2) = 3.03 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 6.8$; $T_y = -107.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.2/85.3)^2 + 138.1/81 + 0.7 \cdot 8.1/80.97 = 1.78 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -18410.2$; $M_y = -859.7$; $N = -94.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 7.1$; $T_y = -107.4$; $M_t = -139.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.98 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = -139.3$

Asta 383: Trave in legno a falda Falda 1 fili 161-163

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(16.9/85.3)^2 + 254/81 + 0.7 \cdot 1.5/80.97 = 3.19 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = 33862.3$; $M_y = -157.7$; $N = -1350.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.02^2 + 8.6^2} = 8.6 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.8$; $T_y = -305.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.29 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -0.8$; $T_y = -305.7$; $M_t = 74.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.53 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 74.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 178.1

$K_{def} = 0$

$U_{inst,tot} \text{ in } x = -0.01$

$U_{inst,tot} \text{ in } y = 0.39$

$U_{inst,tot} = 0.39$

Luce/ $U_{inst,tot}$ > limite

$222.6/0.39 = 572.4 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 178.1

$K_{def} = 0$

$U_{inst,var} \text{ in } x = -0.01$

$U_{inst,var} \text{ in } y = 0.25$

$U_{inst,var} = 0.25$

Luce/ $U_{inst,var}$ > limite

$222.6/0.25 = 873.5 > 300$ Comb: SLE rara, 8



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 178.1
Kdef = 0.6
Ufin in x = -0.01
Ufin in y = 0.47
Ufin = 0.47
Luce/Ufin > limite
222.6/0.47=474.3 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Asta 384: Trave in legno a falda Falda 1 fili 171-172

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.18^2 + 8.06^2} = 8.06 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 6.5; Ty = -286.5

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $(Sc_{0,d}/f_{c,0,d})^2 + Sm_{y,d}/f_{m,y,d} + Km \cdot (Sm_{z,d}/f_{m,z,d}) \leq 1$
 $(Sc_{0,d}/f_{c,0,d})^2 + Km \cdot (Sm_{y,d}/f_{m,y,d}) + Sm_{z,d}/f_{m,z,d} \leq 1$
 $(12.9/85.3)^2 + 246/81 + 0.7 \cdot 6.1/80.97 = 3.11 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -32794.7; My = -655.9; N = -1031.3

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.25 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 6.5; Ty = -286.5; Mt = 90.5

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.64 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = 90.5

Asta 385: Trave in legno a falda Falda 1 fili 179-180

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$1.5/41.6 + 242.7/81 + 0.7 \cdot 13.1/81 = 3.15 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -32354.5$; $M_y = -1393.7$; $N = 119.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.34^2 + 7.94^2} = 7.95 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 12.2$; $T_y = -282.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.25 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 12.2$; $T_y = -282.3$; $M_t = 90$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.64 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 90.1$

Asta 386: Trave in legno a falda Falda 1 fili 185-186

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m} \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m} \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.3/41.6 + 231/81 + 0.7 \cdot 12.5/81 = 3.02 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -30803.6$; $M_y = -1335.7$; $N = 181.3$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$



$\tau_d \leq f_{v,d}$
 $\sqrt{0.31^2 + 7.42^2} = 7.43 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 11.1$; $T_y = -263.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.22 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 11.1$; $T_y = -263.8$; $M_t = 83.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.59 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 83.9$

Asta 387: Trave in legno a falda Falda 1 fili 192-193

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1.4/41.6 + 223.2/81 + 0.7 \cdot 8/81 = 2.86 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -29766.2$; $M_y = -849.6$; $N = 112.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.21^2 + 7.13^2} = 7.14 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 7.5$; $T_y = -253.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.2 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 7.1$; $T_y = -253.5$; $M_t = 77.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.55 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 77.7$



Asta 388: Trave in legno a falda Falda 1 fili 202-203

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica trazione parallela alla fibratura D.M. 17-01-18 §4.4.8.1.1

Sezione ad ascissa 118.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d} \leq f_{t,0,d}$

$0.2 \leq 41.64$ Comb: SLU, 47; Durata minima del carico nella combinazione: media

$N = 15.9$

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_{m*}(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_{m*}(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$3.4/41.6 + 217/81 + 0.7 \cdot 2.8/81 = 2.79 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -28939$; $M_y = -301.2$; $N = 268.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{0.05^2 + 7.03^2} = 7.04 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 1.9$; $T_y = -250.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.19 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 1.9$; $T_y = -250.1$; $M_t = 70.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.53 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = 74.8$

Asta 389: Trave in legno a falda Falda 1 fili 211-212

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1



Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $2.4/41.6 + 208.4/81 + 0.7*3.9/81 = 2.66 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -27789.3$; $M_y = 419.1$; $N = 188.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 6.85^2} = 6.85 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -3.1$; $T_y = -243.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.03 + 0 + 0.18 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -3.1$; $T_y = -243.4$; $M_t = 75.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} * f_{v,d}$
 $0.57 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 80.1$

Asta 390: Trave in legno a falda Falda 1 fili 217-218

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km*(Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km*(Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $10.4/41.6 + 202.5/81 + 0.7*2.7/81 = 2.77 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -26999.3$; $M_y = 288.2$; $N = 831.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 6.68^2} = 6.68 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -1.8$; $T_y = -237.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh}*f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0.03+0+0.17 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -2.5; Ty = -237.6; Mt = 92.6

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.68 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 96.1

Asta 391: Trave in legno a falda Falda 1 fili 226-227

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \leq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \leq 1$
6.6/41.6+177.2/81+0.7*1/81=2.36 > 1 [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -23627.2; My = -103.2; N = 531.6

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 6.03^2} = 6.03 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -0.3; Ty = -214.5

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.04+0+0.14 <= 1 Comb: SLU, 80; Durata minima del carico nella combinazione: media
Tx = -0.3; Ty = -214.5; Mt = 119.3

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.86 <= 19 Comb: SLU, 79; Durata minima del carico nella combinazione: media
Mt = 121.5

Asta 392: Trave in legno a falda Falda 1 fili 237-238

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.16^2 + 5.44^2} = 5.45 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -5.5$; $T_y = -193.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(7.1/85.3)^2 + 163.1/81 + 0.7 \cdot 9.2/80.97 = 2.1 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 21748.6$; $M_y = -984$; $N = -571.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.12 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = -5.5$; $T_y = -193.5$; $M_t = 145.5$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.03 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 145.6$

Asta 393: Trave in legno a falda Falda 1 fili 243-244

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 172.3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) > 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$
 $8.6/41.6 + 153.2/81 + 0.7 \cdot 19.9/81 = 2.27 > 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20423.5$; $M_y = 2118$; $N = 687.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 172.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.9^2 + 6.51^2} = 6.57 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -31.8$; $T_y = -231.5$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 172.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.1+0+0.17 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -31.8$; $T_y = -231.5$; $M_t = 261.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 172.3
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.84 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 261.1$

Asta 394: Trave in legno a falda Falda 1 fili 249-250

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 102.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $5.2/41.6+140.5/81+0.7 \cdot 47/81=2.27 \leq 1$ [4.4.6a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -18729.4$; $M_y = 5018.4$; $N = 416.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{2.91^2+8.3^2} = 8.8 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -103.4$; $T_y = -295.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.13+0.03+0.27 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -103.4$; $T_y = -295.2$; $M_t = 358$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 102.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.53 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = 358$

Asta 395: Trave in legno a falda Falda 1 fili 255-256

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 40

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$5.6/41.6 + 94.1/81 + 0.7 \cdot 68.9/81 = 1.89 \leq 1$ [4.4.6a] Comb: SLU, 79; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -12552.1$; $M_y = 7348.5$; $N = 446.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 40

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{v,d} \leq f_{v,d}$

$\sqrt{9^2 + 10.19^2} = 13.59 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -320.1$; $T_y = -362.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 40

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.14 + 0.32 + 0.41 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = -320.1$; $T_y = -362.2$; $M_t = 380.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 40

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$2.69 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$M_t = 380.4$

Asta 396: Trave in legno a falda Falda 1 fili 133-134

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(9.6/85.3)^2 + 260.8/81 + 0.7 \cdot 0.4/80.97 = 3.24 \leq 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -34776.9$; $M_y = 46.5$; $N = -765.7$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{v,d} \leq f_{v,d}$
 $\sqrt{0.02^2 + 8.84^2} = 8.84 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -0.6$; $T_y = -314.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{v,d} / (k_{sh} \cdot f_{v,d}) + (\tau_{v,d} / f_{v,d})^2 + (\tau_{t,d} / f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.31 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -0.6$; $T_y = -314.2$; $M_t = -16.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{t,d} \leq K_{sh} \cdot f_{v,d}$
 $0.16 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = -23.3$

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 51.9
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = 0$
 $U_{inst,tot} \text{ in } y = -0.42$
 $U_{inst,tot} = 0.42$
 $L_{uce} / U_{inst,tot} > \text{limite}$
 $222.6 / 0.42 = 534.7 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 51.9
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = 0$
 $U_{inst,var} \text{ in } y = -0.27$
 $U_{inst,var} = 0.27$
 $L_{uce} / U_{inst,var} > \text{limite}$
 $222.6 / 0.27 = 819.2 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 51.9
 $K_{def} = 0.6$
 $U_{fin} \text{ in } x = 0.01$
 $U_{fin} \text{ in } y = -0.5$
 $U_{fin} = 0.5$
 $L_{uce} / U_{fin} > \text{limite}$
 $222.6 / 0.5 = 441.6 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Asta 397: Trave in legno a falda Falda 1 fili 122-123

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno



Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.17^2 + 8.41^2} = 8.41 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -6.1$; $T_y = -298.9$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(8.1/85.3)^2 + 261.3/81 + 0.7 \cdot 6/80.97 = 3.29 > 1$ [4.4.7a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -34841.9$; $M_y = 641.3$; $N = -651.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.28 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -6.1$; $T_y = -298.9$; $M_t = -13.9$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 1.1$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.16 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
 $M_t = -22.7$

Asta 398: Trave in legno a falda Falda 1 fili 114-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) > 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} > 1$
 $1.7/41.6 + 267/81 + 0.7 \cdot 9.7/81 = 3.42 > 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -35593.6$; $M_y = 1035.9$; $N = 134.9$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_d \leq f_{v,d}$
 $\sqrt{0.25^2 + 8.55^2} = 8.55 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -9.1$; $T_y = -304$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$



$\tau_{\text{tor,d}}/(\text{ksh} \cdot \text{fv,d}) + (\tau_{\text{y,d}}/\text{fv,d})^2 + (\tau_{\text{z,d}}/\text{fv,d})^2 \leq 1$
0+0+0.29 \leq 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -9.1; Ty = -304; Mt = -4.2

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{\text{tor,d}} \leq \text{Ksh} \cdot \text{fv,d}$
0.2 \leq 26.13 Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo
Mt = -28.2

Asta 399: Trave in legno a falda Falda 1 fili 105-106

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $\text{St}_{0,\text{d}}/\text{ft}_{0,\text{d}} + \text{Sm}_{\text{y,d}}/\text{fm}_{\text{y,d}} + \text{Km} \cdot (\text{Sm}_{\text{z,d}}/\text{fm}_{\text{z,d}}) \leq 1$
 $\text{St}_{0,\text{d}}/\text{ft}_{0,\text{d}} + \text{Km} \cdot (\text{Sm}_{\text{y,d}}/\text{fm}_{\text{y,d}}) + \text{Sm}_{\text{z,d}}/\text{fm}_{\text{z,d}} \leq 1$
2.1/41.6+266.6/81+0.7*7.2/81=3.41 \leq 1 [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = -35548.8; My = 765.6; N = 167.8

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{\text{d}} \leq \text{fv,d}$
 $\text{Sqrt}(0.17^2 + 8.39^2) = 8.4 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = -6.2; Ty = -298.5

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{\text{tor,d}}/(\text{ksh} \cdot \text{fv,d}) + (\tau_{\text{y,d}}/\text{fv,d})^2 + (\tau_{\text{z,d}}/\text{fv,d})^2 \leq 1$
0.01+0+0.28 \leq 1 Comb: SLU, 72; Durata minima del carico nella combinazione: media
Tx = -6.9; Ty = -298.3; Mt = 15.7

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{\text{tor,d}} \leq \text{Ksh} \cdot \text{fv,d}$
0.25 \leq 26.13 Comb: SLV, 6; Durata minima del carico nella combinazione: istantaneo
Mt = 35.6

Asta 400: Trave in legno a falda Falda 1 fili 98-99

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $1.6/41.6 + 271.4/81 + 0.7 \cdot 2.2/81 = 3.41 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -36180$; $M_y = 229.7$; $N = 124.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.05^2 + 8.49^2} = 8.49 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -1.9$; $T_y = -301.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.28 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -1.9$; $T_y = -301.8$; $M_t = 27.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.2 \leq 19$ Comb: SLU, 30; Durata minima del carico nella combinazione: media
 $M_t = 28.2$

Asta 401: Trave in legno a falda Falda 1 fili 90-91

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $4.5/41.6 + 277.7/81 + 0.7 \cdot 2.2/81 = 3.56 \geq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -37028.4$; $M_y = -229.6$; $N = 360.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.09^2 + 8.8^2} = 8.8 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 3$; $T_y = -312.8$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.01 + 0 + 0.3 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 3$; $T_y = -312.8$; $M_t = 24$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.18 \leq 19$ Comb: SLU, 30; Durata minima del carico nella combinazione: media

$M_t = 24.9$

Asta 402: Trave in legno a falda Falda 1 fili 82-83

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$2.6/41.6 + 279.8/81 + 0.7 \cdot 8/81 = 3.59 \leq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -37307$; $M_y = -857.9$; $N = 206.7$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.2^2 + 8.96^2} = 8.97 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 7.2$; $T_y = -318.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0 + 0 + 0.31 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 7.2$; $T_y = -318.7$; $M_t = -4.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 1.1$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.24 \leq 26.13$ Comb: SLV, 12; Durata minima del carico nella combinazione: istantaneo

$M_t = -34.7$

Asta 403: Trave in legno a falda Falda 1 fili 74-76

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$

$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$

$12.7/41.6 + 280.7/81 + 0.7 \cdot 5.2/81 = 3.82 \geq 1$ [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -37424.2$; $M_y = -549.9$; $N = 1019.1$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{0.12^2 + 9.05^2} = 9.05 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media

$T_x = 4.4$; $T_y = -321.7$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.32 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media

$T_x = 4.8$; $T_y = -321.6$; $M_t = -59$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.44 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media

$M_t = -63$

Asta 404: Trave in legno a falda Falda 1 fili 66-67

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$

$St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$

$6.8/41.6 + 251.3/81 + 0.7 \cdot 1/81 = 3.27 \geq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -33504.9$; $M_y = 103.4$; $N = 544$



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0^2 + 8.32^2} = 8.32 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 0.2$; $T_y = -295.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.05 + 0 + 0.27 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 0.2$; $T_y = -295.9$; $M_t = -130.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.94 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = -132.6$

Asta 405: Trave in legno a falda Falda 1 fili 57-58

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.1^2 + 7.59^2} = 7.59 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.7$; $T_y = -269.8$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(8/85.3)^2 + 223.1/81 + 0.7 \cdot 7.4/80.97 = 2.83 > 1$ [4.4.7a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 29742.7$; $M_y = 786.5$; $N = -640.6$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.08 + 0 + 0.22 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 3.7$; $T_y = -269.8$; $M_t = -206.4$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.46 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media



Mt = -206.4

Asta 406: Trave in legno a falda Falda 1 fili 50-51

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 187.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 187.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $9.2/41.6 + 208.7/81 + 0.7 \cdot 30.7/81 = 3.06 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 27827.1$; $M_y = 3278.2$; $N = 733.8$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 187.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.74^2 + 8.52^2} = 8.55 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 26.3$; $T_y = -302.9$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 187.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.12 + 0 + 0.28 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 26.3$; $T_y = -302.9$; $M_t = -324.8$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 187.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.29 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -324.8$

Asta 407: Trave in legno a falda Falda 1 fili 44-45

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 115

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)



$St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $9.6/41.6 + 208.3/81 + 0.7 \cdot 56/81 = 3.29 \geq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -27773.9$; $M_y = -5972.9$; $N = 770.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 115
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{3.21^2 + 11.88^2} = 12.31 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 114.2$; $T_y = -422.4$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 115
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.19 + 0.04 + 0.55 \leq 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 114.2$; $T_y = -422.4$; $M_t = -508.6$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 115
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $3.59 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -508.6$

Asta 408: Trave in legno a falda Falda 1 fili 38-39

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 51.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $St_{0,d}/ft_{0,d} + Sm_{y,d}/fm_{y,d} + Km \cdot (Sm_{z,d}/fm_{z,d}) \geq 1$
 $St_{0,d}/ft_{0,d} + Km \cdot (Sm_{y,d}/fm_{y,d}) + Sm_{z,d}/fm_{z,d} \geq 1$
 $8.5/41.6 + 149.5/81 + 0.7 \cdot 97/81 = 2.89 \geq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19932.6$; $M_y = -10345.8$; $N = 682.6$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 51.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} > f_{v,d}$
 $\sqrt{10.41^2 + 15.59^2} = 18.74 > 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 370$; $T_y = -554.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 51.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 > 1$
 $0.21 + 0.42 + 0.95 > 1$ Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $T_x = 370$; $T_y = -554.2$; $M_t = -574.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 51.4



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $4.05 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -574.1$

Asta 409: Trave in legno a falda Falda 1 fili 149-150

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $1/41.6 + 258.5/81 + 0.7 \cdot 1.7/81 = 3.23 \leq 1$ [4.4.6a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 34464.7$; $M_y = 183.2$; $N = 81$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 7.99^2} = 7.99 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.5$; $T_y = -284.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.01 + 0 + 0.25 \leq 1$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.5$; $T_y = -284.2$; $M_t = 23.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.16 \leq 19$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $M_t = 23.3$

Asta 410: Trave in legno a falda Falda 1 fili 154-155

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1



Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 8.11^2} = 8.11 \leq 16$ Comb: SLU, 80; Durata minima del carico nella combinazione: media
 $T_x = 1.4$; $T_y = -288.2$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(2.7/85.3)^2 + 257.4/81 + 0.7 \cdot 1.3/80.97 = 3.19 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 34324.8$; $M_y = 139.9$; $N = -213.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.02 + 0 + 0.26 \leq 1$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $T_x = 1.6$; $T_y = -288.1$; $M_t = 52.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $0.37 \leq 19$ Comb: SLU, 79; Durata minima del carico nella combinazione: media
 $M_t = 52.1$

Asta 411: Trave in legno a falda Falda 1 fili 140-141

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 222.5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.01^2 + 8.14^2} = 8.14 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = 0.2$; $T_y = -289.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.6/85.3)^2 + 256.7/81 + 0.7 \cdot 0.5/80.97 = 3.18 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = 34227.6$; $M_y = 54.8$; $N = -124.3$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$



0+0+0.26 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 0.2; Ty = -289.6; Mt = -4

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 222.6
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 1.1
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
0.16 <= 26.13 Comb: SLV, 10; Durata minima del carico nella combinazione: istantaneo
Mt = -22.1

Asta 412: Trave in legno a falda Falda 6 fili 239-240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1)
 $\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
9.7/41.6+202/81+0.7*5.3/81=2.77 > 1 [4.4.6a] Comb: SLU, 80; Durata minima del carico nella combinazione: media - NON SODDISFATTA
Mx = 26937.6; My = 566.2; N = 776

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; kcr = 0.67
 $\tau_{t,d} \leq f_{v,d}$
 $\sqrt{0.15^2 + 6.16^2} = 6.16 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 5.4; Ty = -219

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8; Kh = 1.084 (formula 11.7.1); kcr = 0.67
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
0.07+0+0.15 <= 1 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Tx = 5.4; Ty = -219; Mt = -195

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
Kmod = 0.8
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
1.38 <= 19 Comb: SLU, 71; Durata minima del carico nella combinazione: media
Mt = -195

Asta 413: Trave in legno a falda Falda 6 fili 258-259

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.4^2 + 3.17^2} = 3.19 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -14.1$; $T_y = -112.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.3/85.3)^2 + 144.2/81 + 0.7 \cdot 15.7/80.97 = 1.92 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -19227.8$; $M_y = 1679.7$; $N = -102.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.06 + 0 + 0.04 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = -14.5$; $T_y = -112.4$; $M_t = 174$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $1.23 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $M_t = 174$

Asta 414: Trave in legno a falda Falda 6 fili 252-253

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $k_{cr} = 0.67$
 $\tau_{d} \leq f_{v,d}$
 $\sqrt{0.04^2 + 3.58^2} = 3.58 \leq 16$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $T_x = -1.6$; $T_y = -127.5$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m(\sigma_{m,z,d}/f_{m,z,d}) \leq 1$
 $(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m(\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$
 $(1.8/85.3)^2 + 156.6/81 + 0.7 \cdot 1.2/80.97 = 1.95 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -20885.6$; $M_y = 124.6$; $N = -147.6$



Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.03 + 0 + 0.05 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = -1.8$; $T_y = -127.4$; $M_t = 77.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.54 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = 77.1$

Asta 415: Trave in legno a falda Falda 6 fili 246-247

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 243.9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{d} \leq f_{v,d}$

$\sqrt{(0.15^2 + 3.66^2)} = 3.66 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.4$; $T_y = -130.1$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$(\sigma_{c,0,d}/f_{c,0,d})^2 + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$(\sigma_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$(2.1/85.3)^2 + 153.6/81 + 0.7 \cdot 7/80.97 = 1.96 ! > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -20475.5$; $M_y = -748.9$; $N = -168.2$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.02 + 0 + 0.05 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 5.4$; $T_y = -130.1$; $M_t = -52.3$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 243.9

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$0.38 \leq 19$ Comb: SLU, 38; Durata minima del carico nella combinazione: media

$M_t = -53.4$

Asta 416: Trave in legno a falda Falda 6 fili 228-229

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Lunghezza = 189.7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica tensoflessione D.M. 17-01-18 §4.4.8.1.7

Sezione ad ascissa 0

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)

$\sigma_{t,0,d}/f_{t,0,d} + \sigma_{m,y,d}/f_{m,y,d} + K_m \cdot (\sigma_{m,z,d}/f_{m,z,d}) \leq 1$

$\sigma_{t,0,d}/f_{t,0,d} + K_m \cdot (\sigma_{m,y,d}/f_{m,y,d}) + \sigma_{m,z,d}/f_{m,z,d} \leq 1$

$0.6/41.6 + 169.5/81 + 0.7 \cdot 2.2/81 = 2.13 \leq 1$ [4.4.6a] Comb: SLU, 72; Durata minima del carico nella combinazione: media - NON SODDISFATTA

$M_x = -22603.4$; $M_y = -229.8$; $N = 51.2$

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 189.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.09^2 + 6.18^2} = 6.18 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 3.1$; $T_y = -219.8$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 189.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$

$\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$

$0.09 + 0 + 0.15 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 3.1$; $T_y = -219.8$; $M_t = -252.1$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 189.7

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$

$\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$

$1.78 \leq 19$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$M_t = -252.1$

Asta 417: Trave in legno a falda Falda 6 fili 219-220

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Lunghezza = 110.4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica taglio D.M. 17-01-18 §4.4.8.1.9

Sezione ad ascissa 110.4

Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$

$K_{mod} = 0.8$; $k_{cr} = 0.67$

$\tau_{t,d} \leq f_{v,d}$

$\sqrt{0.04^2 + 8.93^2} = 8.93 \leq 16$ Comb: SLU, 71; Durata minima del carico nella combinazione: media

$T_x = 1.3$; $T_y = -317.6$

Verifica pressoflessione D.M. 17-01-18 §4.4.8.1.8

Sezione ad ascissa 0



Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1)
 $(S_{c,0,d}/f_{c,0,d})^2 + S_{m,y,d}/f_{m,y,d} + K_m \cdot (S_{m,z,d}/f_{m,z,d}) \leq 1$
 $(S_{c,0,d}/f_{c,0,d})^2 + K_m \cdot (S_{m,y,d}/f_{m,y,d}) + S_{m,z,d}/f_{m,z,d} \leq 1$
 $(1/85.3)^2 + 165.9/81 + 0.7 \cdot 0.4/80.97 = 2.05 > 1$ [4.4.7a] Comb: SLU, 71; Durata minima del carico nella combinazione: media - NON SODDISFATTA
 $M_x = -22123.1$; $M_y = -41.1$; $N = -79.1$

Verifica taglio+torsione D.M. 17-01-18 §4.4.8.1.11

Sezione ad ascissa 110.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$; $K_h = 1.084$ (formula 11.7.1); $k_{cr} = 0.67$
 $\tau_{tor,d}/(k_{sh} \cdot f_{v,d}) + (\tau_{y,d}/f_{v,d})^2 + (\tau_{z,d}/f_{v,d})^2 \leq 1$
 $0.13 + 0 + 0.31 \leq 1$ Comb: SLU, 71; Durata minima del carico nella combinazione: media
 $T_x = 1.3$; $T_y = -317.6$; $M_t = -353$

Verifica torsione D.M. 17-01-18 §4.4.8.1.10

Sezione ad ascissa 110.4
Coefficiente parziale di sicurezza del materiale $\gamma = 1.5$
 $K_{mod} = 0.8$
 $\tau_{tor,d} \leq K_{sh} \cdot f_{v,d}$
 $2.49 \leq 19$ Comb: SLU, 72; Durata minima del carico nella combinazione: media
 $M_t = -353$

1.3 Verifiche superelementi in legno

Le unità di misura elencate nel capitolo sono in [cm] ove non espressamente specificato.

Descrizione: descrizione della sezione.

Tipo: tipo di sezione.

Base: base della sezione. [cm]

Altezza: altezza della sezione. [cm]

Area: area inerziale nel sistema geometrico centrato nel baricentro. [cm²]

J_x: momento d'inerzia attorno all'asse orizzontale baricentrico di definizione della sezione. [cm⁴]

J_y: momento d'inerzia attorno all'asse verticale baricentrico di definizione della sezione. [cm⁴]

W_x: modulo di resistenza elastico minimo relativo all'asse x. [cm³]

W_y: modulo di resistenza elastico minimo relativo all'asse y. [cm³]

Superelemento in legno a "Falda 1" 73-76

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 485.3$ composto da:

asta 207: Trave in legno a falda Falda 1 fili 72-74 ($L = 262.8$)

asta 403: Trave in legno a falda Falda 1 fili 74-76 ($L = 222.5$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	J _x	J _y	W _x	W _y
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 254.1
 $K_{def} = 0$
 $U_{inst,tot} \text{ in } x = -0.05$
 $U_{inst,tot} \text{ in } y = -6.51$
 $U_{inst,tot} = 6.51$
 $Luce/U_{inst,tot} < \text{limite}$
 $485.3/6.51 = 74.6 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 254.1
 $K_{def} = 0$
 $U_{inst,var} \text{ in } x = -0.03$



Uinst var in y = -4.31
Uinst var = 4.31
Luce/Uinst,var < limite
485.3/4.31=112.6 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 254.1
Kdef = 0.6
Ufin in x = -0.06
Ufin in y = -7.83
Ufin = 7.83
Luce/Ufin < limite
485.3/7.83=62 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" 74-(-967; -97)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 472.8 composto da:

asta 344: Trave in legno a falda Falda 1 fili 74-133 (L = 67.5)
asta 345: Trave in legno a falda Falda 1 fili 74-133 (L = 67.5)
asta 346: Trave in legno a falda Falda 1 fili 74-133 (L = 67.6)
asta 347: Trave in legno a falda Falda 1 fili 74-133 (L = 67.6)
asta 348: Trave in legno a falda Falda 1 fili 74-133 (L = 67.6)
asta 349: Trave in legno a falda Falda 1 fili 74-133 (L = 67.6)
asta 350: Trave in legno a falda Falda 1 fili 74-133 (L = 67.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 130.5
Kdef = 0
Uinst tot in x = -0.14
Uinst tot in y = 0.08
Uinst tot = 0.14
Luce/Uinst,tot > limite
472.8/0.14=3417.9 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 153
Kdef = 0
Uinst var in x = -0.11
Uinst var in y = 0.07
Uinst var = 0.11
Luce/Uinst,var > limite
472.8/0.11=4144.7 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 126.1
Kdef = 0.6
Ufin in x = -0.16
Ufin in y = 0.09
Ufin = 0.16
Luce/Ufin > limite
472.8/0.16=3048.1 > 200
Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" 89-91

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 667.1 composto da:

asta 200: Trave in legno a falda Falda 1 fili 89-90 (L = 33.3)
asta 201: Trave in legno a falda Falda 1 fili 89-90 (L = 33.3)
asta 202: Trave in legno a falda Falda 1 fili 89-90 (L = 33.3)
asta 203: Trave in legno a falda Falda 1 fili 89-90 (L = 33.3)
asta 204: Trave in legno a falda Falda 1 fili 89-90 (L = 33.3)
asta 205: Trave in legno a falda Falda 1 fili 89-90 (L = 278.2)
asta 401: Trave in legno a falda Falda 1 fili 90-91 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 435.2

Kdef = 0

Uinst tot in x = 0.06

Uinst tot in y = -6.52

Uinst tot = 6.52

Luce/Uinst,tot < limite

667.1/6.52=102.3 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 435.2

Kdef = 0

Uinst var in x = -0.03

Uinst var in y = -4.29

Uinst var = 4.29

Luce/Uinst,var < limite

667.1/4.29=155.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 440.8

Kdef = 0.6

Ufin in x = 0.1

Ufin in y = -7.86

Ufin = 7.86

Luce/Ufin < limite

667.1/7.86=84.8 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" 133-(-896; -97)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 270.2 composto da:

asta 340: Trave in legno a falda Falda 1 fili 133-161 (L = 67.6)



asta 341: Trave in legno a falda Falda 1 fili 133-161 (L = 67.6)
asta 342: Trave in legno a falda Falda 1 fili 133-161 (L = 67.6)
asta 343: Trave in legno a falda Falda 1 fili 133-161 (L = 67.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 141.9
Kdef = 0
Uinst tot in x = -0.04
Uinst tot in y = -0.15
Uinst tot = 0.15
Luce/Uinst,tot > limite
 $270.2/0.15=1770.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 141.9
Kdef = 0
Uinst var in x = -0.02
Uinst var in y = -0.1
Uinst var = 0.1
Luce/Uinst,var > limite
 $270.2/0.1=2719.9 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 146.4
Kdef = 0.6
Ufin in x = -0.06
Ufin in y = -0.19
Ufin = 0.19
Luce/Ufin > limite
 $270.2/0.19=1427.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 1" 161-(-225; -97)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 472.9 composto da:
asta 333: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 334: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 335: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 336: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 337: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 338: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)
asta 339: Trave in legno a falda Falda 1 fili 161-217 (L = 67.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 326.5



Kdef = 0
Uinst tot in x = -0.1
Uinst tot in y = 0.04
Uinst tot = 0.1
Luce/Uinst,tot > limite
472.9/0.1=4540 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 317.5
Kdef = 0
Uinst var in x = -0.08
Uinst var in y = 0.03
Uinst var = 0.08
Luce/Uinst,var > limite
472.9/0.08=5943.8 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 349
Kdef = 0.6
Ufin in x = -0.14
Ufin in y = -0.06
Ufin = 0.14
Luce/Ufin > limite
472.9/0.14=3497.6 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" 201-203

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 666.9 composto da:
asta 171: Trave in legno a falda Falda 1 fili 201-202 (L = 41.5)
asta 172: Trave in legno a falda Falda 1 fili 201-202 (L = 41.6)
asta 173: Trave in legno a falda Falda 1 fili 201-202 (L = 41.6)
asta 174: Trave in legno a falda Falda 1 fili 201-202 (L = 41.6)
asta 175: Trave in legno a falda Falda 1 fili 201-202 (L = 278.2)
asta 388: Trave in legno a falda Falda 1 fili 202-203 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 435.1
Kdef = 0
Uinst tot in x = 0.04
Uinst tot in y = -5.08
Uinst tot = 5.08
Luce/Uinst,tot < limite
666.9/5.08=131.3 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 435.1
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -3.3
Uinst var = 3.3
Luce/Uinst,var < limite
666.9/3.3=201.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 440.7

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0.06$

$U_{fin} \text{ in } y = -6.15$

$U_{fin} = 6.15$

$L_{uce}/U_{fin} < \text{limite}$

$666.9/6.15=108.5 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" 217-(85; -97)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 377.9$ composto da:

asta 327: Trave in legno a falda Falda 1 fili 217-260 ($L = 67.6$)

asta 328: Trave in legno a falda Falda 1 fili 217-260 ($L = 67.6$)

asta 329: Trave in legno a falda Falda 1 fili 217-260 ($L = 67.6$)

asta 330: Trave in legno a falda Falda 1 fili 217-260 ($L = 67.6$)

asta 331: Trave in legno a falda Falda 1 fili 217-260 ($L = 67.6$)

asta 332: Trave in legno a falda Falda 1 fili 217-260 ($L = 40.1$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 164.4

$K_{def} = 0$

$U_{inst} \text{ tot in } x = -0.18$

$U_{inst} \text{ tot in } y = -0.28$

$U_{inst} \text{ tot} = 0.28$

$L_{uce}/U_{inst,tot} > \text{limite}$

$377.9/0.28=1339.4 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 164.4

$K_{def} = 0$

$U_{inst} \text{ var in } x = -0.12$

$U_{inst} \text{ var in } y = -0.19$

$U_{inst} \text{ var} = 0.19$

$L_{uce}/U_{inst,var} > \text{limite}$

$377.9/0.19=1967.7 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 166.6

$K_{def} = 0.6$

$U_{fin} \text{ in } x = -0.23$

$U_{fin} \text{ in } y = -0.37$

$U_{fin} = 0.37$

$L_{uce}/U_{fin} > \text{limite}$

$377.9/0.37=1017.7 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$



Superelemento in legno a "Falda 1" 223-218

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 485.3$ composto da:
asta 177: Trave in legno a falda Falda 1 fili 216-217 ($L = 262.7$)
asta 390: Trave in legno a falda Falda 1 fili 217-218 ($L = 222.5$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 254

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.05$

$U_{inst\ tot\ in\ y} = -4.67$

$U_{inst\ tot} = 4.67$

$Luce/U_{inst,tot} < \text{limite}$

$485.3/4.67 = 103.9 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 254

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.04$

$U_{inst\ var\ in\ y} = -3.05$

$U_{inst\ var} = 3.05$

$Luce/U_{inst,var} < \text{limite}$

$485.3/3.05 = 159.1 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 254

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.05$

$U_{fin\ in\ y} = -5.65$

$U_{fin} = 5.65$

$Luce/U_{fin} < \text{limite}$

$485.3/5.65 = 85.9 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-88; -322)-(-88; -243)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 87$ composto da:
Asta 185: Trave in legno a falda Falda 1 fili 270-271

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1



Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 55.1
Kdef = 0
Uinst tot in x = 0.01
Uinst tot in y = -0.05
Uinst tot = 0.05
Luce/Uinst,tot > limite
 $87/0.05=1672.6 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 55.1
Kdef = 0
Uinst var in x = 0
Uinst var in y = -0.04
Uinst var = 0.04
Luce/Uinst,var > limite
 $87/0.04=2465 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 58
Kdef = 0.6
Ufin in x = 0.01
Ufin in y = -0.06
Ufin = 0.06
Luce/Ufin > limite
 $87/0.06=1401.5 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-156; -322)-(-156; -178)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 158.9 composto da:
Asta 184: Trave in legno a falda Falda 1 fili 266-267

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 100.6
Kdef = 0
Uinst tot in x = 0.01
Uinst tot in y = -0.19
Uinst tot = 0.19
Luce/Uinst,tot > limite
 $158.9/0.19=819.9 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 95.3
Kdef = 0
Uinst var in x = 0.01
Uinst var in y = -0.13
Uinst var = 0.13
Luce/Uinst,var > limite
 $158.9/0.13=1194.1 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 100.6



Kdef = 0.6
Ufin in x = 0.02
Ufin in y = -0.23
Ufin = 0.23
Luce/Ufin > limite
158.9/0.23=688.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-223; -322)-(-223; -112)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 230.8 composto da:
Asta 183: Trave in legno a falda Falda 1 fili 261-262

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 138.5
Kdef = 0
Uinst tot in x = 0.03
Uinst tot in y = -0.53
Uinst tot = 0.53
Luce/Uinst,tot > limite
230.8/0.53=432.1 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 130.8
Kdef = 0
Uinst var in x = 0.02
Uinst var in y = -0.36
Uinst var = 0.36
Luce/Uinst,var > limite
230.8/0.36=634.1 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 138.5
Kdef = 0.6
Ufin in x = 0.03
Ufin in y = -0.64
Ufin = 0.64
Luce/Ufin > limite
230.8/0.64=362.3 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-291; -322)-256

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 302.8 composto da:



asta 182: Trave in legno a falda Falda 1 fili 254-255 (L = 262.7)
asta 395: Trave in legno a falda Falda 1 fili 255-256 (L = 40)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 175.2
Kdef = 0
Uinst tot in x = 0.05
Uinst tot in y = -1.28
Uinst tot = 1.28
Luce/Uinst,tot < limite
302.8/1.28=236 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 175.2
Kdef = 0
Uinst var in x = 0.03
Uinst var in y = -0.86
Uinst var = 0.86
Luce/Uinst,var > limite
302.8/0.86=353.8 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 175.2
Kdef = 0.6
Ufin in x = 0.07
Ufin in y = -1.54
Ufin = 1.54
Luce/Ufin < limite
302.8/1.54=196.7 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-359; -322)-250

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 365.1 composto da:
asta 181: Trave in legno a falda Falda 1 fili 248-249 (L = 262.7)
asta 394: Trave in legno a falda Falda 1 fili 249-250 (L = 102.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 201.4
Kdef = 0
Uinst tot in x = 0.12
Uinst tot in y = -2.3
Uinst tot = 2.3



Luce/Uinst,tot < limite

365.1/2.3=158.6 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 201.4

Kdef = 0

Uinst var in x = 0.07

Uinst var in y = -1.52

Uinst var = 1.52

Luce/Uinst,var < limite

365.1/1.52=240.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 201.4

Kdef = 0.6

Ufin in x = 0.16

Ufin in y = -2.77

Ufin = 2.77

Luce/Ufin < limite

365.1/2.77=131.6 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-426; -322)-244

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 435 composto da:

asta 180: Trave in legno a falda Falda 1 fili 242-243 (L = 262.7)

asta 393: Trave in legno a falda Falda 1 fili 243-244 (L = 172.3)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 227.7

Kdef = 0

Uinst tot in x = 0.07

Uinst tot in y = -3.4

Uinst tot = 3.4

Luce/Uinst,tot < limite

435/3.4=127.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 227.7

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -2.23

Uinst var = 2.23

Luce/Uinst,var < limite

435/2.23=195.3 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 227.7

Kdef = 0.6

Ufin in x = 0.1

Ufin in y = -4.1

Ufin = 4.1

Luce/Ufin < limite



435/4.1=106 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-494; -322)-238

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.3 composto da:

asta 179: Trave in legno a falda Falda 1 fili 236-237 (L = 262.7)

asta 392: Trave in legno a falda Falda 1 fili 237-238 (L = 222.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 236.5

Kdef = 0

Uinst tot in x = -0.07

Uinst tot in y = -4.07

Uinst tot = 4.07

Luce/Uinst,tot < limite

485.3/4.07=119.1 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 236.5

Kdef = 0

Uinst var in x = -0.05

Uinst var in y = -2.66

Uinst var = 2.66

Luce/Uinst,var < limite

485.3/2.66=182.2 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 236.5

Kdef = 0.6

Ufin in x = -0.08

Ufin in y = -4.92

Ufin = 4.92

Luce/Ufin < limite

485.3/4.92=98.6 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-561; -322)-227

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.3 composto da:

asta 178: Trave in legno a falda Falda 1 fili 225-226 (L = 262.7)

asta 391: Trave in legno a falda Falda 1 fili 226-227 (L = 222.5)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 245.2

Kdef = 0

Uinst tot in x = -0.04

Uinst tot in y = -4.41

Uinst tot = 4.41

Luce/Uinst,tot < limite

485.3/4.41=110 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 245.2

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -2.88

Uinst var = 2.88

Luce/Uinst,var < limite

485.3/2.88=168.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 245.2

Kdef = 0.6

Ufin in x = -0.05

Ufin in y = -5.33

Ufin = 5.33

Luce/Ufin < limite

485.3/5.33=91.1 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-696; -322)-212

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.4 composto da:

asta 176: Trave in legno a falda Falda 1 fili 210-211 (L = 262.7)

asta 389: Trave in legno a falda Falda 1 fili 211-212 (L = 222.7)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 254

Kdef = 0

Uinst tot in x = -0.06

Uinst tot in y = -4.88

Uinst tot = 4.88

Luce/Uinst,tot < limite

485.4/4.88=99.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 254

Kdef = 0

Uinst var in x = -0.05

Uinst var in y = -3.18

Uinst var = 3.18

Luce/Uinst,var < limite

485.4/3.18=152.6 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 254

Kdef = 0.6

Ufin in x = -0.06

Ufin in y = -5.9

Ufin = 5.9

Luce/Ufin < limite

485.4/5.9=82.2 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-832; -471)-193

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:

asta 169: Trave in legno a falda Falda 1 fili 191-192 (L = 165.2)

asta 170: Trave in legno a falda Falda 1 fili 191-192 (L = 262.7)

asta 387: Trave in legno a falda Falda 1 fili 192-193 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -5.27

Uinst tot = 5.27

Luce/Uinst,tot < limite

650.5/5.27=123.3 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -3.43

Uinst var = 3.43

Luce/Uinst,var < limite

650.5/3.43=189.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7

Kdef = 0.6

Ufin in x = 0.07

Ufin in y = -6.39

Ufin = 6.39

Luce/Ufin < limite

650.5/6.39=101.9 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:



Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-899; -471)-186

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:
asta 167: Trave in legno a falda Falda 1 fili 184-185 (L = 165.2)
asta 168: Trave in legno a falda Falda 1 fili 184-185 (L = 262.7)
asta 386: Trave in legno a falda Falda 1 fili 185-186 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2
Kdef = 0
Uinst tot in x = -0.04
Uinst tot in y = -5.49
Uinst tot = 5.49
Luce/Uinst,tot < limite
650.5/5.49=118.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2
Kdef = 0
Uinst var in x = -0.04
Uinst var in y = -3.56
Uinst var = 3.56
Luce/Uinst,var < limite
650.5/3.56=182.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7
Kdef = 0.6
Ufin in x = 0.06
Ufin in y = -6.65
Ufin = 6.65
Luce/Ufin < limite
650.5/6.65=97.8 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-967; -471)-180

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:
asta 165: Trave in legno a falda Falda 1 fili 178-179 (L = 165.2)
asta 166: Trave in legno a falda Falda 1 fili 178-179 (L = 262.7)
asta 385: Trave in legno a falda Falda 1 fili 179-180 (L = 222.6)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -5.73

Uinst tot = 5.73

Luce/Uinst,tot < limite

650.5/5.73=113.6 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -3.72

Uinst var = 3.72

Luce/Uinst,var < limite

650.5/3.72=175 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7

Kdef = 0.6

Ufin in x = 0.06

Ufin in y = -6.94

Ufin = 6.94

Luce/Ufin < limite

650.5/6.94=93.8 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1034; -471)-172

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.6 composto da:

asta 129: Trave in legno a falda Falda 1 fili 170-171 (L = 165.2)

asta 130: Trave in legno a falda Falda 1 fili 170-171 (L = 262.7)

asta 384: Trave in legno a falda Falda 1 fili 171-172 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2

Kdef = 0

Uinst tot in x = 0.05

Uinst tot in y = -5.98

Uinst tot = 5.98

Luce/Uinst,tot < limite



$650.6/5.98=108.8 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.03$

$U_{inst\ var\ in\ y} = -3.88$

$U_{inst\ var} = 3.88$

$L_{uce}/U_{inst,var} < \text{limite}$

$650.6/3.88=167.6 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0.08$

$U_{fin\ in\ y} = -7.24$

$U_{fin} = 7.24$

$L_{uce}/U_{fin} < \text{limite}$

$650.6/7.24=89.8 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-1169; -471)-155

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 650.5$ composto da:

asta 325: Trave in legno a falda Falda 1 fili 153-154 ($L = 428$)

asta 410: Trave in legno a falda Falda 1 fili 154-155 ($L = 222.5$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 370.9

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.08$

$U_{inst\ tot\ in\ y} = -6.75$

$U_{inst\ tot} = 6.75$

$L_{uce}/U_{inst,tot} < \text{limite}$

$650.5/6.75=96.4 < 300$ Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 370.9

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.06$

$U_{inst\ var\ in\ y} = -4.37$

$U_{inst\ var} = 4.37$

$L_{uce}/U_{inst,var} < \text{limite}$

$650.5/4.37=148.9 < 300$ Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 370.9

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.1$

$U_{fin\ in\ y} = -8.18$

$U_{fin} = 8.18$

$L_{uce}/U_{fin} < \text{limite}$

$650.5/8.18=79.6 < 200$ - NON SODDISFATTA



Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 1" (-1237; -471)-150

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:
asta 324: Trave in legno a falda Falda 1 fili 148-149 (L = 428)
asta 409: Trave in legno a falda Falda 1 fili 149-150 (L = 222.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 370.9
Kdef = 0
Uinst tot in x = -0.02
Uinst tot in y = -6.93
Uinst tot = 6.93
Luce/Uinst,tot < limite
650.5/6.93=93.8 < 300 Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 370.9
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -4.49
Uinst var = 4.49
Luce/Uinst,var < limite
650.5/4.49=144.8 < 300 Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 370.9
Kdef = 0.6
Ufin in x = -0.02
Ufin in y = -8.4
Ufin = 8.4
Luce/Ufin < limite
650.5/8.4=77.4 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 1" (-1304; -471)-141

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:
asta 326: Trave in legno a falda Falda 1 fili 139-140 (L = 428)
asta 411: Trave in legno a falda Falda 1 fili 140-141 (L = 222.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



$\beta, x = 0; \beta, y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 370.9

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -6.87

Uinst tot = 6.87

Luce/Uinst,tot < limite

650.5/6.87=94.7 < 300 Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 370.9

Kdef = 0

Uinst var in x = -0.03

Uinst var in y = -4.45

Uinst var = 4.45

Luce/Uinst,var < limite

650.5/4.45=146.1 < 300 Comb: SLE rara, 16 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 370.9

Kdef = 0.6

Ufin in x = 0.05

Ufin in y = -8.32

Ufin = 8.32

Luce/Ufin < limite

650.5/8.32=78.2 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 1" (-1440; -471)-123

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.6 composto da:

asta 192: Trave in legno a falda Falda 1 fili 121-122 (L = 165.2)

asta 193: Trave in legno a falda Falda 1 fili 121-122 (L = 262.8)

asta 397: Trave in legno a falda Falda 1 fili 122-123 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta, x = 0; \beta, y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2

Kdef = 0

Uinst tot in x = 0.05

Uinst tot in y = -6.41

Uinst tot = 6.41

Luce/Uinst,tot < limite

650.6/6.41=101.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2

Kdef = 0

Uinst var in x = -0.05



Uinst var in y = -4.17
Uinst var = 4.17
Luce/Uinst,var < limite
650.6/4.17=155.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7
Kdef = 0.6
Ufin in x = 0.08
Ufin in y = -7.75
Ufin = 7.75
Luce/Ufin < limite
650.6/7.75=83.9 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1507; -471)-115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.6 composto da:
asta 194: Trave in legno a falda Falda 1 fili 113-114 (L = 165.2)
asta 195: Trave in legno a falda Falda 1 fili 113-114 (L = 262.8)
asta 398: Trave in legno a falda Falda 1 fili 114-115 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2
Kdef = 0
Uinst tot in x = 0.05
Uinst tot in y = -6.37
Uinst tot = 6.37
Luce/Uinst,tot < limite
650.6/6.37=102.1 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2
Kdef = 0
Uinst var in x = -0.06
Uinst var in y = -4.15
Uinst var = 4.15
Luce/Uinst,var < limite
650.6/4.15=156.7 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7
Kdef = 0.6
Ufin in x = 0.08
Ufin in y = -7.7
Ufin = 7.7
Luce/Ufin < limite
650.6/7.7=84.5 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000



Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1575; -471)-106

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.6 composto da:

asta 196: Trave in legno a falda Falda 1 fili 104-105 (L = 165.2)

asta 197: Trave in legno a falda Falda 1 fili 104-105 (L = 262.8)

asta 399: Trave in legno a falda Falda 1 fili 105-106 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -6.38

Uinst tot = 6.38

Luce/Uinst,tot < limite

650.6/6.38=101.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2

Kdef = 0

Uinst var in x = -0.05

Uinst var in y = -4.17

Uinst var = 4.17

Luce/Uinst,var < limite

650.6/4.17=156 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7

Kdef = 0.6

Ufin in x = 0.08

Ufin in y = -7.71

Ufin = 7.71

Luce/Ufin < limite

650.6/7.71=84.3 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1642; -471)-99

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 650.5 composto da:

asta 198: Trave in legno a falda Falda 1 fili 97-98 (L = 165.2)

asta 199: Trave in legno a falda Falda 1 fili 97-98 (L = 262.8)

asta 400: Trave in legno a falda Falda 1 fili 98-99 (L = 222.6)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 419.2
Kdef = 0
Uinst tot in x = 0.05
Uinst tot in y = -6.44
Uinst tot = 6.44
Luce/Uinst,tot < limite
650.5/6.44=101 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 419.2
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -4.22
Uinst var = 4.22
Luce/Uinst,var < limite
650.5/4.22=154.1 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 424.7
Kdef = 0.6
Ufin in x = 0.09
Ufin in y = -7.78
Ufin = 7.78
Luce/Ufin < limite
650.5/7.78=83.7 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1777; -322)-83

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.3 composto da:
asta 206: Trave in legno a falda Falda 1 fili 81-82 (L = 262.8)
asta 402: Trave in legno a falda Falda 1 fili 82-83 (L = 222.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 254.1
Kdef = 0
Uinst tot in x = -0.06
Uinst tot in y = -6.56
Uinst tot = 6.56
Luce/Uinst,tot < limite
485.3/6.56=73.9 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 254.1
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -4.33



Uinst var = 4.33
Luce/Uinst,var < limite
485.3/4.33=112 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 254.1
Kdef = 0.6
Ufin in x = -0.07
Ufin in y = -7.91
Ufin = 7.91
Luce/Ufin < limite
485.3/7.91=61.4 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-1912; -322)-67

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.3 composto da:
asta 208: Trave in legno a falda Falda 1 fili 65-66 (L = 262.8)
asta 404: Trave in legno a falda Falda 1 fili 66-67 (L = 222.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 245.3
Kdef = 0
Uinst tot in x = -0.06
Uinst tot in y = -6.29
Uinst tot = 6.29
Luce/Uinst,tot < limite
485.3/6.29=77.2 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 245.3
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -4.17
Uinst var = 4.17
Luce/Uinst,var < limite
485.3/4.17=116.3 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 245.3
Kdef = 0.6
Ufin in x = -0.08
Ufin in y = -7.56
Ufin = 7.56
Luce/Ufin < limite
485.3/7.56=64.2 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600



Superelemento in legno a "Falda 1" (-1980; -322)-58

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 485.3$ composto da:

asta 209: Trave in legno a falda Falda 1 fili 56-57 ($L = 262.8$)

asta 405: Trave in legno a falda Falda 1 fili 57-58 ($L = 222.5$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 236.5

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.06$

$U_{inst\ tot\ in\ y} = -5.86$

$U_{inst\ tot} = 5.86$

Luce/ $U_{inst,tot}$ < limite

$485.3/5.86 = 82.8 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 236.5

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.03$

$U_{inst\ var\ in\ y} = -3.9$

$U_{inst\ var} = 3.9$

Luce/ $U_{inst,var}$ < limite

$485.3/3.9 = 124.6 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 236.5

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.08$

$U_{fin\ in\ y} = -7.04$

$U_{fin} = 7.04$

Luce/ U_{fin} < limite

$485.3/7.04 = 69 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-2048; -322)-51

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 450.2$ composto da:

asta 210: Trave in legno a falda Falda 1 fili 49-50 ($L = 262.8$)

asta 406: Trave in legno a falda Falda 1 fili 50-51 ($L = 187.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1



Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 227.8

Kdef = 0

Uinst tot in x = -0.12

Uinst tot in y = -5.03

Uinst tot = 5.03

Luce/Uinst,tot < limite

450.2/5.03=89.6 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 227.8

Kdef = 0

Uinst var in x = -0.07

Uinst var in y = -3.35

Uinst var = 3.35

Luce/Uinst,var < limite

450.2/3.35=134.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 227.8

Kdef = 0.6

Ufin in x = -0.15

Ufin in y = -6.03

Ufin = 6.03

Luce/Ufin < limite

450.2/6.03=74.6 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-2115; -322)-45

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 377.8 composto da:

asta 211: Trave in legno a falda Falda 1 fili 43-44 (L = 262.8)

asta 407: Trave in legno a falda Falda 1 fili 44-45 (L = 115)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 210.3

Kdef = 0

Uinst tot in x = -0.19

Uinst tot in y = -3.51

Uinst tot = 3.51

Luce/Uinst,tot < limite

377.8/3.51=107.5 < 300 Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 210.3

Kdef = 0

Uinst var in x = -0.12

Uinst var in y = -2.35

Uinst var = 2.35

Luce/Uinst,var < limite

377.8/2.35=160.7 < 300 Comb: SLE rara, 17 - NON SODDISFATTA



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 210.3

Kdef = 0.6

Ufin in x = -0.24

Ufin in y = -4.21

Ufin = 4.21

Luce/Ufin < limite

$377.8/4.21=89.7 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-2183; -322)-39

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 314.2 composto da:

asta 212: Trave in legno a falda Falda 1 fili 37-38 (L = 262.8)

asta 408: Trave in legno a falda Falda 1 fili 38-39 (L = 51.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 184

Kdef = 0

Uinst tot in x = -0.1

Uinst tot in y = -2.01

Uinst tot = 2.01

Luce/Uinst,tot < limite

$314.2/2.01=156.5 < 300$ Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 175.2

Kdef = 0

Uinst var in x = -0.06

Uinst var in y = -1.36

Uinst var = 1.36

Luce/Uinst,var < limite

$314.2/1.36=231.9 < 300$ Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 184

Kdef = 0.6

Ufin in x = -0.13

Ufin in y = -2.4

Ufin = 2.4

Luce/Ufin < limite

$314.2/2.4=130.9 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-2242; -97)-74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Superelemento di lunghezza complessiva $L = 387.1$ composto da:

asta 138: Trave in legno a falda Falda 1 fili 36-74 ($L = 49.3$)

asta 139: Trave in legno a falda Falda 1 fili 36-74 ($L = 67.6$)

asta 140: Trave in legno a falda Falda 1 fili 36-74 ($L = 67.6$)

asta 141: Trave in legno a falda Falda 1 fili 36-74 ($L = 67.6$)

asta 142: Trave in legno a falda Falda 1 fili 36-74 ($L = 67.6$)

asta 143: Trave in legno a falda Falda 1 fili 36-74 ($L = 67.6$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 220.5

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.41$

$U_{inst\ tot\ in\ y} = -0.65$

$U_{inst\ tot} = 0.65$

$Luce/U_{inst,tot} > \text{limite}$

$387.1/0.65=595.3 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 220.5

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.28$

$U_{inst\ var\ in\ y} = -0.44$

$U_{inst\ var} = 0.44$

$Luce/U_{inst,var} > \text{limite}$

$387.1/0.44=871 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 226.6

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.47$

$U_{fin\ in\ y} = -0.7$

$U_{fin} = 0.7$

$Luce/U_{fin} > \text{limite}$

$387.1/0.7=550 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-2250; -322)-(-2250; -104)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 239.9$ composto da:

Asta 213: Trave in legno a falda Falda 1 fili 32-33

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1



Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 144

Kdef = 0

Uinst tot in x = -0.05

Uinst tot in y = -0.8

Uinst tot = 0.8

Luce/Uinst,tot < limite

239.9/0.8=298.9 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 136

Kdef = 0

Uinst var in x = -0.03

Uinst var in y = -0.55

Uinst var = 0.55

Luce/Uinst,var > limite

239.9/0.55=433.6 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 144

Kdef = 0.6

Ufin in x = -0.06

Ufin in y = -0.95

Ufin = 0.95

Luce/Ufin > limite

239.9/0.95=251.8 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 1" (-2318; -322)-(-2318; -172)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 165.7 composto da:

Asta 214: Trave in legno a falda Falda 1 fili 27-28

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 104.9

Kdef = 0

Uinst tot in x = -0.03

Uinst tot in y = -0.27

Uinst tot = 0.27

Luce/Uinst,tot > limite

165.7/0.27=616 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 99.4

Kdef = 0

Uinst var in x = -0.02

Uinst var in y = -0.19

Uinst var = 0.19

Luce/Uinst,var > limite

165.7/0.19=879.1 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 104.9

Kdef = 0.6



Ufin in x = -0.03
Ufin in y = -0.32
Ufin = 0.32
Luce/Ufin > limite
 $165.7/0.32=521.8 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 1" (-2385; -322)-(-2385; -239)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 91.3 composto da:

Asta 215: Trave in legno a falda Falda 1 fili 23-24

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 60.9

Kdef = 0

Uinst tot in x = -0.01

Uinst tot in y = -0.07

Uinst tot = 0.07

Luce/Uinst,tot > limite

$91.3/0.07=1356.8 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 57.8

Kdef = 0

Uinst var in x = -0.01

Uinst var in y = -0.05

Uinst var = 0.05

Luce/Uinst,var > limite

$91.3/0.05=1909.5 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 60.9

Kdef = 0.6

Ufin in x = -0.01

Ufin in y = -0.08

Ufin = 0.08

Luce/Ufin > limite

$91.3/0.08=1154.9 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 2" 24-(-2468; -256)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 92.5 composto da:

Asta 238: Trave in legno a falda Falda 2 fili 24-2



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 67.9

Kdef = 0

Uinst tot in x = 0.01

Uinst tot in y = 0.03

Uinst tot = 0.03

Luce/Uinst,tot > limite

92.5/0.03=3058 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 67.9

Kdef = 0

Uinst var in x = 0.01

Uinst var in y = 0.02

Uinst var = 0.02

Luce/Uinst,var > limite

92.5/0.02=4293.5 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 67.9

Kdef = 0.6

Ufin in x = 0.01

Ufin in y = 0.04

Ufin = 0.04

Luce/Ufin > limite

92.5/0.04=2606.5 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 25-(-2469; 505)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 92.2 composto da:

Asta 322: Trave in legno a falda Falda 2 fili 25-14

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 21.5

Kdef = 0

Uinst tot in x = -0.01

Uinst tot in y = -0.05

Uinst tot = 0.05

Luce/Uinst,tot > limite

92.2/0.05=1974.3 > 300 Comb: SLE rara, 9



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 21.5
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = -0.03
Uinst var = 0.03
Luce/Uinst,var > limite
92.2/0.03=2903 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 21.5
Kdef = 0.6
Ufin in x = -0.02
Ufin in y = -0.06
Ufin = 0.06
Luce/Ufin > limite
92.2/0.06=1656.4 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 28-(-2468; -190)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 169.7 composto da:
Asta 239: Trave in legno a falda Falda 2 fili 28-3

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 118.8
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0.12
Uinst tot = 0.12
Luce/Uinst,tot > limite
169.7/0.12=1470.8 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 113.1
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0.08
Uinst var = 0.08
Luce/Uinst,var > limite
169.7/0.08=2059.9 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 118.8
Kdef = 0.6
Ufin in x = 0.01
Ufin in y = 0.14
Ufin = 0.14
Luce/Ufin > limite
169.7/0.14=1253.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880



Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 2" 29-(-2469; 432)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 168.8$ composto da:

Asta 321: Trave in legno a falda Falda 2 fili 29-13

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 39.4

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.04$

$U_{inst\ tot\ in\ y} = -0.14$

$U_{inst\ tot} = 0.14$

$Luce/U_{inst,tot} > \text{limite}$

$168.8/0.14 = 1217.9 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 39.4

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.03$

$U_{inst\ var\ in\ y} = -0.09$

$U_{inst\ var} = 0.09$

$Luce/U_{inst,var} > \text{limite}$

$168.8/0.09 = 1810.3 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 39.4

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.05$

$U_{fin\ in\ y} = -0.17$

$U_{fin} = 0.17$

$Luce/U_{fin} > \text{limite}$

$168.8/0.17 = 1018 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 2" 33-(-2468; -125)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 246.1$ composto da:

Asta 240: Trave in legno a falda Falda 2 fili 33-4

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1



Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 155.9
Kdef = 0
Uinst tot in x = 0.06
Uinst tot in y = 0.29
Uinst tot = 0.29
Luce/Uinst,tot > limite
246.1/0.29=855.2 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 155.9
Kdef = 0
Uinst var in x = 0.04
Uinst var in y = 0.21
Uinst var = 0.21
Luce/Uinst,var > limite
246.1/0.21=1191.7 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 155.9
Kdef = 0.6
Ufin in x = 0.08
Ufin in y = 0.34
Ufin = 0.34
Luce/Ufin > limite
246.1/0.34=730.6 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 34-(-2468; 359)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 245.4 composto da:
Asta 320: Trave in legno a falda Falda 2 fili 34-12

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 65.4
Kdef = 0
Uinst tot in x = -0.19
Uinst tot in y = -0.29
Uinst tot = 0.29
Luce/Uinst,tot > limite
245.4/0.29=837.4 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 65.4
Kdef = 0
Uinst var in x = -0.13
Uinst var in y = -0.19
Uinst var = 0.19
Luce/Uinst,var > limite
245.4/0.19=1266 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 65.4



Kdef = 0.6
Ufin in x = -0.23
Ufin in y = -0.35
Ufin = 0.35
Luce/Ufin > limite
245.4/0.35=695.8 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 39-(-2468; -59)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 322.5 composto da:
Asta 241: Trave in legno a falda Falda 2 fili 39-5

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 204.3
Kdef = 0
Uinst tot in x = 0.24
Uinst tot in y = 0.3
Uinst tot = 0.3
Luce/Uinst,tot > limite
322.5/0.3=1073.3 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 204.3
Kdef = 0
Uinst var in x = 0.16
Uinst var in y = 0.23
Uinst var = 0.23
Luce/Uinst,var > limite
322.5/0.23=1416 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 204.3
Kdef = 0.6
Ufin in x = 0.29
Ufin in y = 0.34
Ufin = 0.34
Luce/Ufin > limite
322.5/0.34=935.8 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 40-(-2468; 286)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 322 composto da:



Asta 319: Trave in legno a falda Falda 2 fili 40-11

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 85.9

Kdef = 0

Uinst tot in x = -0.38

Uinst tot in y = -0.38

Uinst tot = 0.38

Luce/Uinst,tot > limite

$322/0.38=838 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 75.1

Kdef = 0

Uinst var in x = -0.25

Uinst var in y = -0.24

Uinst var = 0.25

Luce/Uinst,var > limite

$322/0.25=1273.4 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 85.9

Kdef = 0.6

Ufin in x = -0.45

Ufin in y = -0.47

Ufin = 0.47

Luce/Ufin > limite

$322/0.47=688.2 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 2" 45-(-2468; 7)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 399 composto da:

Asta 242: Trave in legno a falda Falda 2 fili 45-6

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 93.1

Kdef = 0

Uinst tot in x = 0.3

Uinst tot in y = -0.1

Uinst tot = 0.3

Luce/Uinst,tot > limite

$399/0.3=1319.7 > 300$ Comb: SLE rara, 8



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 93.1
Kdef = 0
Uinst var in x = 0.2
Uinst var in y = -0.04
Uinst var = 0.2
Luce/Uinst,var > limite
399/0.2=2024.1 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 93.1
Kdef = 0.6
Ufin in x = 0.37
Ufin in y = -0.14
Ufin = 0.37
Luce/Ufin > limite
399/0.37=1091.7 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 2" 51-(-2468; 73)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 475.4 composto da:
Asta 243: Trave in legno a falda Falda 2 fili 51-7

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 269.4
Kdef = 0
Uinst tot in x = 0.14
Uinst tot in y = -0.44
Uinst tot = 0.44
Luce/Uinst,tot > limite
475.4/0.44=1087 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 269.4
Kdef = 0
Uinst var in x = 0.09
Uinst var in y = -0.22
Uinst var = 0.22
Luce/Uinst,var > limite
475.4/0.22=2165.9 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 269.4
Kdef = 0.6
Ufin in x = 0.17
Ufin in y = -0.57
Ufin = 0.57
Luce/Ufin > limite
475.4/0.57=836.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000



Superelemento in legno a "Falda 2" 52-(-2468; 140)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 475.2 composto da:

Asta 317: Trave in legno a falda Falda 2 fili 52-9

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 221.8

Kdef = 0

Uinst tot in x = -0.33

Uinst tot in y = -0.8

Uinst tot = 0.8

Luce/Uinst,tot > limite

475.2/0.8=594.9 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 221.8

Kdef = 0

Uinst var in x = -0.22

Uinst var in y = -0.45

Uinst var = 0.45

Luce/Uinst,var > limite

475.2/0.45=1052.2 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 221.8

Kdef = 0.6

Ufin in x = -0.39

Ufin in y = -1.01

Ufin = 1.01

Luce/Ufin > limite

475.2/1.01=471.9 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 2" 55-(-2906; -763)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 675.4 composto da:

asta 113: Trave in legno a falda Falda 2 fili 55-1 (L = 13.7)

asta 114: Trave in legno a falda Falda 2 fili 55-1 (L = 35)

asta 115: Trave in legno a falda Falda 2 fili 55-1 (L = 12.9)

asta 116: Trave in legno a falda Falda 2 fili 55-1 (L = 87.9)

asta 117: Trave in legno a falda Falda 2 fili 55-1 (L = 100.8)

asta 118: Trave in legno a falda Falda 2 fili 55-1 (L = 73.7)

asta 119: Trave in legno a falda Falda 2 fili 55-1 (L = 29.2)

asta 120: Trave in legno a falda Falda 2 fili 55-1 (L = 100.3)

asta 121: Trave in legno a falda Falda 2 fili 55-1 (L = 100.3)

asta 122: Trave in legno a falda Falda 2 fili 55-1 (L = 101.1)

asta 123: Trave in legno a falda Falda 2 fili 55-1 (L = 20.4)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 311.8

Kdef = 0

Uinst tot in x = 0.53

Uinst tot in y = -2.49

Uinst tot = 2.49

Luce/Uinst,tot < limite

675.4/2.49=271.2 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 311.8

Kdef = 0

Uinst var in x = 0.32

Uinst var in y = -1.65

Uinst var = 1.65

Luce/Uinst,var > limite

675.4/1.65=410.3 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 320.2

Kdef = 0.6

Ufin in x = 0.65

Ufin in y = -3

Ufin = 3

Luce/Ufin > limite

675.4/3=225.3 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 21-(-1581; -365)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 711.3 composto da:

asta 104: Trave in legno a falda Falda 3 fili 16-55 (L = 25.3)

asta 105: Trave in legno a falda Falda 3 fili 16-55 (L = 105.8)

asta 106: Trave in legno a falda Falda 3 fili 16-55 (L = 105.8)

asta 107: Trave in legno a falda Falda 3 fili 16-55 (L = 80)

asta 108: Trave in legno a falda Falda 3 fili 16-55 (L = 25.8)

asta 109: Trave in legno a falda Falda 3 fili 16-55 (L = 106.1)

asta 110: Trave in legno a falda Falda 3 fili 16-55 (L = 105.7)

asta 111: Trave in legno a falda Falda 3 fili 16-55 (L = 105.7)

asta 112: Trave in legno a falda Falda 3 fili 16-55 (L = 51.1)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 367.4



Kdef = 0
Uinst tot in x = 1.17
Uinst tot in y = -3.99
Uinst tot = 3.99
Luce/Uinst,tot < limite
711.3/3.99=178.3 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 367.4
Kdef = 0
Uinst var in x = 0.78
Uinst var in y = -2.64
Uinst var = 2.64
Luce/Uinst,var < limite
711.3/2.64=269.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 378.8
Kdef = 0.6
Ufin in x = 1.4
Ufin in y = -4.8
Ufin = 4.8
Luce/Ufin < limite
711.3/4.8=148.3 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 25-(-2385; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 100.9 composto da:
Asta 314: Trave in legno a falda Falda 3 fili 25-26

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 30.3
Kdef = 0
Uinst tot in x = -0.01
Uinst tot in y = -0.09
Uinst tot = 0.09
Luce/Uinst,tot > limite
100.9/0.09=1074.7 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 30.3
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = -0.06
Uinst var = 0.06
Luce/Uinst,var > limite
100.9/0.06=1608.8 > 300 Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 33.6
Kdef = 0.6
Ufin in x = -0.02
Ufin in y = -0.11



$U_{fin} = 0.11$
Luce/ $U_{fin} >$ limite
 $100.9/0.11=896.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 3" 29-(-2318; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 182.3$ composto da:
Asta 313: Trave in legno a falda Falda 3 fili 29-30

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 60.8
 $K_{def} = 0$
 $U_{inst\ tot\ in\ x} = -0.03$
 $U_{inst\ tot\ in\ y} = -0.3$
 $U_{inst\ tot} = 0.3$
Luce/ $U_{inst,tot} >$ limite
 $182.3/0.3=609.6 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 60.8
 $K_{def} = 0$
 $U_{inst\ var\ in\ x} = -0.02$
 $U_{inst\ var\ in\ y} = -0.2$
 $U_{inst\ var} = 0.2$
Luce/ $U_{inst,var} >$ limite
 $182.3/0.2=927.2 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 60.8
 $K_{def} = 0.6$
 $U_{fin\ in\ x} = -0.04$
 $U_{fin\ in\ y} = -0.36$
 $U_{fin} = 0.36$
Luce/ $U_{fin} >$ limite
 $182.3/0.36=505.6 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 3" 31-(-1341; 377)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 503.6$ composto da:
asta 144: Trave in legno a falda Falda 3 fili 31-87 ($L = 84$)
asta 145: Trave in legno a falda Falda 3 fili 31-87 ($L = 67.6$)
asta 146: Trave in legno a falda Falda 3 fili 31-87 ($L = 67.6$)
asta 147: Trave in legno a falda Falda 3 fili 31-87 ($L = 67.6$)
asta 148: Trave in legno a falda Falda 3 fili 31-87 ($L = 67.6$)
asta 149: Trave in legno a falda Falda 3 fili 31-87 ($L = 67.6$)



asta 150: Trave in legno a falda Falda 3 fili 31-87 (L = 81.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 232.6

Kdef = 0

Uinst tot in x = 0.65

Uinst tot in y = -1.43

Uinst tot = 1.43

Luce/Uinst,tot > limite

503.6/1.43=352.3 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 230.4

Kdef = 0

Uinst var in x = 0.44

Uinst var in y = -0.94

Uinst var = 0.94

Luce/Uinst,var > limite

503.6/0.94=534 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 242.2

Kdef = 0.6

Ufin in x = 0.79

Ufin in y = -1.74

Ufin = 1.74

Luce/Ufin > limite

503.6/1.74=289 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 34-(-2250; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 263.8 composto da:

Asta 312: Trave in legno a falda Falda 3 fili 34-35

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 96.7

Kdef = 0

Uinst tot in x = -0.04

Uinst tot in y = -0.78

Uinst tot = 0.78

Luce/Uinst,tot > limite

263.8/0.78=336.5 > 300 Comb: SLE rara, 8



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 96.7
Kdef = 0
Uinst var in x = -0.03
Uinst var in y = -0.51
Uinst var = 0.51
Luce/Uinst,var > limite
 $263.8/0.51=516.6 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 96.7
Kdef = 0.6
Ufin in x = -0.05
Ufin in y = -0.95
Ufin = 0.95
Luce/Ufin > limite
 $263.8/0.95=278.3 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 3" 40-(-2183; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 345.4 composto da:
asta 311: Trave in legno a falda Falda 3 fili 40-41 (L = 101.5)
asta 382: Trave in legno a falda Falda 3 fili 41-42 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 142.2
Kdef = 0
Uinst tot in x = -0.09
Uinst tot in y = -2.19
Uinst tot = 2.19
Luce/Uinst,tot < limite
 $345.4/2.19=157.9 < 300$ Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 142.2
Kdef = 0
Uinst var in x = -0.06
Uinst var in y = -1.43
Uinst var = 1.43
Luce/Uinst,var < limite
 $345.4/1.43=240.8 < 300$ Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 145.6
Kdef = 0.6
Ufin in x = -0.11
Ufin in y = -2.68
Ufin = 2.68
Luce/Ufin < limite
 $345.4/2.68=128.7 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$



Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 46-(-2115; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 426.8 composto da:

asta 309: Trave in legno a falda Falda 3 fili 46-47 (L = 182.9)

asta 380: Trave in legno a falda Falda 3 fili 47-48 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 199.2

Kdef = 0

Uinst tot in x = -0.08

Uinst tot in y = -3.64

Uinst tot = 3.64

Luce/Uinst,tot < limite

426.8/3.64=117.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 199.2

Kdef = 0

Uinst var in x = -0.05

Uinst var in y = -2.39

Uinst var = 2.39

Luce/Uinst,var < limite

426.8/2.39=178.6 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 205.3

Kdef = 0.6

Ufin in x = -0.1

Ufin in y = -4.44

Ufin = 4.44

Luce/Ufin < limite

426.8/4.44=96.2 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 52-(-2048; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 508.1 composto da:

asta 310: Trave in legno a falda Falda 3 fili 52-53 (L = 264.2)

asta 381: Trave in legno a falda Falda 3 fili 53-54 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno



Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 264.3

Kdef = 0

Uinst tot in x = 0.08

Uinst tot in y = -4.7

Uinst tot = 4.7

Luce/Uinst,tot < limite

508.1/4.7=108 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 264.3

Kdef = 0

Uinst var in x = 0.05

Uinst var in y = -3.08

Uinst var = 3.08

Luce/Uinst,var < limite

508.1/3.08=164.9 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 273.1

Kdef = 0.6

Ufin in x = 0.1

Ufin in y = -5.69

Ufin = 5.69

Luce/Ufin < limite

508.1/5.69=89.3 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 58-(-1980; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 547.5 composto da:

asta 303: Trave in legno a falda Falda 3 fili 58-59 (L = 303.6)

asta 378: Trave in legno a falda Falda 3 fili 59-60 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 283.3

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -4.8

Uinst tot = 4.8

Luce/Uinst,tot < limite

547.5/4.8=114.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 283.3

Kdef = 0

Uinst var in x = 0.03

Uinst var in y = -3.12

Uinst var = 3.12

Luce/Uinst,var < limite

547.5/3.12=175.4 < 300 Comb: SLE rara, 9 - NON SODDISFATTA



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 283.3

$K_{def} = 0.6$

$U_{fin} \text{ in } x = -0.05$

$U_{fin} \text{ in } y = -5.81$

$U_{fin} = 5.81$

$L_{uce}/U_{fin} < \text{limite}$

$547.5/5.81=94.3 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 3" 63-(-1113; -333)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 708.1$ composto da:

asta 217: Trave in legno a falda Falda 3 fili 60-115 ($L = 79.8$)

asta 218: Trave in legno a falda Falda 3 fili 60-115 ($L = 106.5$)

asta 219: Trave in legno a falda Falda 3 fili 60-115 ($L = 106.5$)

asta 220: Trave in legno a falda Falda 3 fili 60-115 ($L = 22.6$)

asta 221: Trave in legno a falda Falda 3 fili 60-115 ($L = 83.9$)

asta 222: Trave in legno a falda Falda 3 fili 60-115 ($L = 106.5$)

asta 223: Trave in legno a falda Falda 3 fili 60-115 ($L = 106.5$)

asta 224: Trave in legno a falda Falda 3 fili 60-115 ($L = 95.6$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 329.4

$K_{def} = 0$

$U_{inst} \text{ tot in } x = 0.78$

$U_{inst} \text{ tot in } y = -2.56$

$U_{inst} \text{ tot} = 2.56$

$L_{uce}/U_{inst,tot} < \text{limite}$

$708.1/2.56=277 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 329.4

$K_{def} = 0$

$U_{inst} \text{ var in } x = 0.49$

$U_{inst} \text{ var in } y = -1.62$

$U_{inst} \text{ var} = 1.62$

$L_{uce}/U_{inst,var} > \text{limite}$

$708.1/1.62=438 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 339.9

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0.94$

$U_{fin} \text{ in } y = -3.12$

$U_{fin} = 3.12$

$L_{uce}/U_{fin} > \text{limite}$

$708.1/3.12=227 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$



Superelemento in legno a "Falda 3" 67-69

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 485.8 composto da:

asta 304: Trave in legno a falda Falda 3 fili 67-68 (L = 303.6)

asta 379: Trave in legno a falda Falda 3 fili 68-69 (L = 182.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 273.2

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -3.88

Uinst tot = 3.88

Luce/Uinst,tot < limite

485.8/3.88=125.2 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 273.2

Kdef = 0

Uinst var in x = 0.03

Uinst var in y = -2.51

Uinst var = 2.51

Luce/Uinst,var < limite

485.8/2.51=193.7 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 273.2

Kdef = 0.6

Ufin in x = 0.05

Ufin in y = -4.7

Ufin = 4.7

Luce/Ufin < limite

485.8/4.7=103.3 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 76-78

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 403.4 composto da:

asta 305: Trave in legno a falda Falda 3 fili 76-77 (L = 303.6)

asta 377: Trave in legno a falda Falda 3 fili 77-78 (L = 99.8)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 253



Kdef = 0
Uinst tot in x = 0.04
Uinst tot in y = -2.44
Uinst tot = 2.44
Luce/Uinst,tot < limite
403.4/2.44=165.2 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 253
Kdef = 0
Uinst var in x = 0.03
Uinst var in y = -1.57
Uinst var = 1.57
Luce/Uinst,var < limite
403.4/1.57=257 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 253
Kdef = 0.6
Ufin in x = 0.04
Ufin in y = -2.96
Ufin = 2.96
Luce/Ufin < limite
403.4/2.96=136.1 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 83-84

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 321.1 composto da:
Asta 306: Trave in legno a falda Falda 3 fili 83-84

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 214
Kdef = 0
Uinst tot in x = 0.01
Uinst tot in y = -0.85
Uinst tot = 0.85
Luce/Uinst,tot > limite
321.1/0.85=377.3 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 214
Kdef = 0
Uinst var in x = 0.01
Uinst var in y = -0.53
Uinst var = 0.53
Luce/Uinst,var > limite
321.1/0.53=602.1 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 214
Kdef = 0.6
Ufin in x = 0.01
Ufin in y = -1.04



Ufin = 1.04
Luce/Ufin > limite
 $321.1/1.04=308.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 3" 91-92

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 238.7 composto da:
Asta 307: Trave in legno a falda Falda 3 fili 91-92

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 175
Kdef = 0
Uinst tot in x = -0.02
Uinst tot in y = -0.28
Uinst tot = 0.28
Luce/Uinst,tot > limite
 $238.7/0.28=864.2 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 175
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = -0.17
Uinst var = 0.17
Luce/Uinst,var > limite
 $238.7/0.17=1365.9 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 175
Kdef = 0.6
Ufin in x = -0.03
Ufin in y = -0.34
Ufin = 0.34
Luce/Ufin > limite
 $238.7/0.34=708.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 3" 99-100

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 156.3 composto da:
Asta 308: Trave in legno a falda Falda 3 fili 99-100

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 41.7
Kdef = 0
Uinst tot in x = -0.01
Uinst tot in y = 0.11
Uinst tot = 0.11
Luce/Uinst,tot > limite
156.3/0.11=1480.9 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 41.7
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = 0.07
Uinst var = 0.07
Luce/Uinst,var > limite
156.3/0.07=2280.2 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 41.7
Kdef = 0.6
Ufin in x = -0.01
Ufin in y = 0.13
Ufin = 0.13
Luce/Ufin > limite
156.3/0.13=1219.2 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 3" 106-107

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 74 composto da:
Asta 302: Trave in legno a falda Falda 3 fili 106-107

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 24.7
Kdef = 0
Uinst tot in x = 0
Uinst tot in y = 0.04
Uinst tot = 0.04
Luce/Uinst,tot > limite
74/0.04=1764.7 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 24.7
Kdef = 0
Uinst var in x = 0
Uinst var in y = 0.03
Uinst var = 0.03



Luce/Uinst,var > limite

$74/0.03=2877.3 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 24.7

Kdef = 0.6

Ufin in x = 0

Ufin in y = 0.05

Ufin = 0.05

Luce/Ufin > limite

$74/0.05=1439 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 3"-"Falda 2" 46-(-2468; 213)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 398.7 composto da:

Asta 318: Trave in legno a falda Falda 2 fili 46-10

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 146.2

Kdef = 0

Uinst tot in x = -0.5

Uinst tot in y = -0.55

Uinst tot = 0.55

Luce/Uinst,tot > limite

$398.7/0.55=719.3 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 132.9

Kdef = 0

Uinst var in x = -0.33

Uinst var in y = -0.34

Uinst var = 0.34

Luce/Uinst,var > limite

$398.7/0.34=1187 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 146.2

Kdef = 0.6

Ufin in x = -0.6

Ufin in y = -0.69

Ufin = 0.69

Luce/Ufin > limite

$398.7/0.69=580.2 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$



Superelemento in legno a "Falda 3"- "Falda 2" 55-(-2468; 105)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 512.3 composto da:

Asta 316: Trave in legno a falda Falda 2 fili 55-8

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 256.2

Kdef = 0

Uinst tot in x = 0.07

Uinst tot in y = -0.9

Uinst tot = 0.9

Luce/Uinst,tot > limite

512.3/0.9=566.1 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 256.2

Kdef = 0

Uinst var in x = 0.05

Uinst var in y = -0.51

Uinst var = 0.51

Luce/Uinst,var > limite

512.3/0.51=1004.9 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 256.2

Kdef = 0.6

Ufin in x = 0.08

Ufin in y = -1.14

Ufin = 1.14

Luce/Ufin > limite

512.3/1.14=448.6 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 70-71

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 72.2 composto da:

asta 300: Trave in legno a falda Falda 4 fili 70-71 (L = 57.8)

asta 301: Trave in legno a falda Falda 4 fili 70-71 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 21.2

Kdef = 0

Uinst tot in x = 0.01



Uinst tot in y = -0.06
Uinst tot = 0.06
Luce/Uinst,tot > limite
 $72.2/0.06=1134.5 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 21.2
Kdef = 0
Uinst var in x = 0.01
Uinst var in y = -0.04
Uinst var = 0.04
Luce/Uinst,var > limite
 $72.2/0.04=1707.5 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 21.2
Kdef = 0.6
Ufin in x = 0.01
Ufin in y = -0.08
Ufin = 0.08
Luce/Ufin > limite
 $72.2/0.08=944.4 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 79-80

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 149.3 composto da:
asta 298: Trave in legno a falda Falda 4 fili 79-80 (L = 134.8)
asta 299: Trave in legno a falda Falda 4 fili 79-80 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 40.4
Kdef = 0
Uinst tot in x = 0.03
Uinst tot in y = -0.14
Uinst tot = 0.14
Luce/Uinst,tot > limite
 $149.3/0.14=1067.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 40.4
Kdef = 0
Uinst var in x = 0.02
Uinst var in y = -0.09
Uinst var = 0.09
Luce/Uinst,var > limite
 $149.3/0.09=1624 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 153.7
Kdef = 0.6
Ufin in x = 0.03
Ufin in y = -0.21
Ufin = 0.21
Luce/Ufin > limite



$149.3/0.21=715.9 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 85-86

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 226.3$ composto da:

asta 296: Trave in legno a falda Falda 4 fili 85-86 ($L = 211.8$)

asta 297: Trave in legno a falda Falda 4 fili 85-86 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 70.6

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0.03$

$U_{inst\ tot\ in\ y} = -0.53$

$U_{inst\ tot} = 0.53$

Luce/ $U_{inst,tot} > \text{limite}$

$226.3/0.53=429.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 70.6

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0.02$

$U_{inst\ var\ in\ y} = -0.34$

$U_{inst\ var} = 0.34$

Luce/ $U_{inst,var} > \text{limite}$

$226.3/0.34=657 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 70.6

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0.04$

$U_{fin\ in\ y} = -0.64$

$U_{fin} = 0.64$

Luce/ $U_{fin} > \text{limite}$

$226.3/0.64=355.8 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 93-94

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 303.3$ composto da:

asta 294: Trave in legno a falda Falda 4 fili 93-94 ($L = 288.8$)

asta 295: Trave in legno a falda Falda 4 fili 93-94 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$



Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 105.9
Kdef = 0
Uinst tot in x = 0.05
Uinst tot in y = -1.59
Uinst tot = 1.59
Luce/Uinst,tot < limite
303.3/1.59=191 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 105.9
Kdef = 0
Uinst var in x = 0.03
Uinst var in y = -1.04
Uinst var = 1.04
Luce/Uinst,var < limite
303.3/1.04=292.1 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 105.9
Kdef = 0.6
Ufin in x = 0.06
Ufin in y = -1.92
Ufin = 1.92
Luce/Ufin < limite
303.3/1.92=158.2 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 95-198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 893.5 composto da:

asta 151: Trave in legno a falda Falda 4 fili 95-198 (L = 43.4)
asta 152: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 153: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 154: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 155: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 156: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 157: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 158: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 159: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 160: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 161: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 162: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 163: Trave in legno a falda Falda 4 fili 95-198 (L = 67.6)
asta 164: Trave in legno a falda Falda 4 fili 95-198 (L = 39.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 444.2
Kdef = 0
Uinst tot in x = 2.88



Uinst tot in y = -7.15
Uinst tot = 7.15
Luce/Uinst,tot < limite
 $893.5/7.15=124.9 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 444.2
Kdef = 0
Uinst var in x = 1.91
Uinst var in y = -4.76
Uinst var = 4.76
Luce/Uinst,var < limite
 $893.5/4.76=187.6 < 300$ Comb: SLE rara, 17 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 463.6
Kdef = 0.6
Ufin in x = 3.46
Ufin in y = -8.61
Ufin = 8.61
Luce/Ufin < limite
 $893.5/8.61=103.8 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$
Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 4" 101-103

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 380.3 composto da:
asta 293: Trave in legno a falda Falda 4 fili 101-102 (L = 49.4)
asta 375: Trave in legno a falda Falda 4 fili 102-103 (L = 316.4)
asta 376: Trave in legno a falda Falda 4 fili 102-103 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 133.8
Kdef = 0
Uinst tot in x = 0.01
Uinst tot in y = -3.97
Uinst tot = 3.97
Luce/Uinst,tot < limite
 $380.3/3.97=95.7 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 133.8
Kdef = 0
Uinst var in x = 0.01
Uinst var in y = -2.61
Uinst var = 2.61
Luce/Uinst,var < limite
 $380.3/2.61=145.5 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 135.5
Kdef = 0.6
Ufin in x = -0.01



Ufin in y = -4.85
Ufin = 4.85
Luce/Ufin < limite
 $380.3/4.85=78.4 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 108-110

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 457.3 composto da:
asta 292: Trave in legno a falda Falda 4 fili 108-109 (L = 126.4)
asta 373: Trave in legno a falda Falda 4 fili 109-110 (L = 316.4)
asta 374: Trave in legno a falda Falda 4 fili 109-110 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 168.6
Kdef = 0
Uinst tot in x = -0.09
Uinst tot in y = -7.74
Uinst tot = 7.74
Luce/Uinst,tot < limite
 $457.3/7.74=59.1 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 168.6
Kdef = 0
Uinst var in x = -0.06
Uinst var in y = -5.11
Uinst var = 5.11
Luce/Uinst,var < limite
 $457.3/5.11=89.5 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 172.8
Kdef = 0.6
Ufin in x = -0.11
Ufin in y = -9.44
Ufin = 9.44
Luce/Ufin < limite
 $457.3/9.44=48.5 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 116-118

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 534.3 composto da:
asta 291: Trave in legno a falda Falda 4 fili 116-117 (L = 203.5)
asta 371: Trave in legno a falda Falda 4 fili 117-118 (L = 316.4)
asta 372: Trave in legno a falda Falda 4 fili 117-118 (L = 14.4)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 214

Kdef = 0

Uinst tot in x = 0.04

Uinst tot in y = -12

Uinst tot = 12

Luce/Uinst,tot < limite

534.3/12=44.5 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 214

Kdef = 0

Uinst var in x = 0.03

Uinst var in y = -7.92

Uinst var = 7.92

Luce/Uinst,var < limite

534.3/7.92=67.5 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 220.8

Kdef = 0.6

Ufin in x = 0.05

Ufin in y = -14.54

Ufin = 14.54

Luce/Ufin < limite

534.3/14.54=36.7 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanententi portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 123-125

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:

asta 279: Trave in legno a falda Falda 4 fili 123-124 (L = 296.6)

asta 363: Trave in legno a falda Falda 4 fili 124-125 (L = 316.4)

asta 364: Trave in legno a falda Falda 4 fili 124-125 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 296.6

Kdef = 0

Uinst tot in x = 0.16

Uinst tot in y = -17.13

Uinst tot = 17.13

Luce/Uinst,tot < limite

627.5/17.13=36.6 < 300 Comb: SLE rara, 8 - NON SODDISFATTA



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 296.6
Kdef = 0
Uinst var in x = 0.11
Uinst var in y = -11.3
Uinst var = 11.3
Luce/Uinst,var < limite
627.5/11.3=55.5 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 306.4
Kdef = 0.6
Ufin in x = 0.19
Ufin in y = -20.65
Ufin = 20.65
Luce/Ufin < limite
627.5/20.65=30.4 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 126-61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 834.6 composto da:
asta 93: Trave in legno a falda Falda 4 fili 126-61 (L = 123.8)
asta 94: Trave in legno a falda Falda 4 fili 126-61 (L = 102.4)
asta 95: Trave in legno a falda Falda 4 fili 126-61 (L = 102.4)
asta 96: Trave in legno a falda Falda 4 fili 126-61 (L = 65.7)
asta 97: Trave in legno a falda Falda 4 fili 126-61 (L = 36.7)
asta 98: Trave in legno a falda Falda 4 fili 126-61 (L = 102.4)
asta 99: Trave in legno a falda Falda 4 fili 126-61 (L = 102.5)
asta 100: Trave in legno a falda Falda 4 fili 126-61 (L = 102.5)
asta 101: Trave in legno a falda Falda 4 fili 126-61 (L = 66.4)
asta 102: Trave in legno a falda Falda 4 fili 126-61 (L = 18.9)
asta 103: Trave in legno a falda Falda 4 fili 126-61 (L = 10.8)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 359.4
Kdef = 0
Uinst tot in x = -3.25
Uinst tot in y = -11.21
Uinst tot = 11.21
Luce/Uinst,tot < limite
834.6/11.21=74.4 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 359.4
Kdef = 0
Uinst var in x = -2.13
Uinst var in y = -7.36
Uinst var = 7.36
Luce/Uinst,var < limite
834.6/7.36=113.4 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 370.3
Kdef = 0.6



Ufin in x = -3.93
Ufin in y = -13.53
Ufin = 13.53
Luce/Ufin < limite
834.6/13.53=61.7 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 134-136

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:
asta 278: Trave in legno a falda Falda 4 fili 134-135 (L = 296.6)
asta 361: Trave in legno a falda Falda 4 fili 135-136 (L = 316.4)
asta 362: Trave in legno a falda Falda 4 fili 135-136 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1
Kdef = 0
Uinst tot in x = -0.05
Uinst tot in y = -18.29
Uinst tot = 18.29
Luce/Uinst,tot < limite
627.5/18.29=34.3 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1
Kdef = 0
Uinst var in x = 0.04
Uinst var in y = -12.07
Uinst var = 12.07
Luce/Uinst,var < limite
627.5/12.07=52 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 317
Kdef = 0.6
Ufin in x = -0.07
Ufin in y = -22.03
Ufin = 22.03
Luce/Ufin < limite
627.5/22.03=28.5 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 141-143

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:
asta 277: Trave in legno a falda Falda 4 fili 141-142 (L = 296.6)
asta 359: Trave in legno a falda Falda 4 fili 142-143 (L = 316.4)
asta 360: Trave in legno a falda Falda 4 fili 142-143 (L = 14.4)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1

Kdef = 0

Uinst tot in x = 0.05

Uinst tot in y = -19.03

Uinst tot = 19.03

Luce/Uinst,tot < limite

627.5/19.03=33 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1

Kdef = 0

Uinst var in x = 0.04

Uinst var in y = -12.56

Uinst var = 12.56

Luce/Uinst,var < limite

627.5/12.56=50 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 316.9

Kdef = 0.6

Ufin in x = 0.05

Ufin in y = -22.93

Ufin = 22.93

Luce/Ufin < limite

627.5/22.93=27.4 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanententi portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 150-152

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:

asta 276: Trave in legno a falda Falda 4 fili 150-151 (L = 296.6)

asta 357: Trave in legno a falda Falda 4 fili 151-152 (L = 316.4)

asta 358: Trave in legno a falda Falda 4 fili 151-152 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1

Kdef = 0

Uinst tot in x = 0.02

Uinst tot in y = -19.18

Uinst tot = 19.18

Luce/Uinst,tot < limite

627.5/19.18=32.7 < 300 Comb: SLE rara, 8 - NON SODDISFATTA



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1

Kdef = 0

Uinst var in x = 0.03

Uinst var in y = -12.66

Uinst var = 12.66

Luce/Uinst,var < limite

627.5/12.66=49.6 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 316.9

Kdef = 0.6

Ufin in x = 0.02

Ufin in y = -23.11

Ufin = 23.11

Luce/Ufin < limite

627.5/23.11=27.2 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 155-157

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:

asta 275: Trave in legno a falda Falda 4 fili 155-156 (L = 296.6)

asta 355: Trave in legno a falda Falda 4 fili 156-157 (L = 316.4)

asta 356: Trave in legno a falda Falda 4 fili 156-157 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1

Kdef = 0

Uinst tot in x = -0.03

Uinst tot in y = -18.82

Uinst tot = 18.82

Luce/Uinst,tot < limite

627.5/18.82=33.3 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1

Kdef = 0

Uinst var in x = 0.02

Uinst var in y = -12.42

Uinst var = 12.42

Luce/Uinst,var < limite

627.5/12.42=50.5 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 316.9

Kdef = 0.6

Ufin in x = -0.04

Ufin in y = -22.68

Ufin = 22.68

Luce/Ufin < limite

627.5/22.68=27.7 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600



Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 163-165

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 627.5$ composto da:

asta 274: Trave in legno a falda Falda 4 fili 163-164 ($L = 296.6$)

asta 353: Trave in legno a falda Falda 4 fili 164-165 ($L = 316.4$)

asta 354: Trave in legno a falda Falda 4 fili 164-165 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.11$

$U_{inst\ tot\ in\ y} = -17.91$

$U_{inst\ tot} = 17.91$

$Luce/U_{inst,tot} < \text{limite}$

$627.5/17.91 = 35 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.07$

$U_{inst\ var\ in\ y} = -11.81$

$U_{inst\ var} = 11.81$

$Luce/U_{inst,var} < \text{limite}$

$627.5/11.81 = 53.1 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 316.9

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.13$

$U_{fin\ in\ y} = -21.58$

$U_{fin} = 21.58$

$Luce/U_{fin} < \text{limite}$

$627.5/21.58 = 29.1 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 169-233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 834.6$ composto da:

asta 82: Trave in legno a falda Falda 4 fili 169-233 ($L = 129.7$)

asta 83: Trave in legno a falda Falda 4 fili 169-233 ($L = 102.4$)

asta 84: Trave in legno a falda Falda 4 fili 169-233 ($L = 102.4$)

asta 85: Trave in legno a falda Falda 4 fili 169-233 ($L = 59.9$)

asta 86: Trave in legno a falda Falda 4 fili 169-233 ($L = 42.6$)

asta 87: Trave in legno a falda Falda 4 fili 169-233 ($L = 102.5$)

asta 88: Trave in legno a falda Falda 4 fili 169-233 ($L = 102.5$)

asta 89: Trave in legno a falda Falda 4 fili 169-233 ($L = 102.5$)

asta 90: Trave in legno a falda Falda 4 fili 169-233 ($L = 60.5$)

asta 91: Trave in legno a falda Falda 4 fili 169-233 ($L = 18.9$)

asta 92: Trave in legno a falda Falda 4 fili 169-233 ($L = 10.9$)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 358.5

Kdef = 0

Uinst tot in x = 3

Uinst tot in y = -10.21

Uinst tot = 10.21

Luce/Uinst,tot < limite

834.6/10.21=81.8 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 360.5

Kdef = 0

Uinst var in x = 1.99

Uinst var in y = -6.69

Uinst var = 6.69

Luce/Uinst,var < limite

834.6/6.69=124.7 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 369.7

Kdef = 0.6

Ufin in x = 3.6

Ufin in y = -12.32

Ufin = 12.32

Luce/Ufin < limite

834.6/12.32=67.8 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 172-174

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 627.5 composto da:

asta 273: Trave in legno a falda Falda 4 fili 172-173 (L = 296.6)

asta 351: Trave in legno a falda Falda 4 fili 173-174 (L = 316.4)

asta 352: Trave in legno a falda Falda 4 fili 173-174 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 307.1

Kdef = 0

Uinst tot in x = 0.13

Uinst tot in y = -16.57

Uinst tot = 16.57

Luce/Uinst,tot < limite

627.5/16.57=37.9 < 300 Comb: SLE rara, 8 - NON SODDISFATTA



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 307.1
Kdef = 0
Uinst var in x = -0.08
Uinst var in y = -10.92
Uinst var = 10.92
Luce/Uinst,var < limite
627.5/10.92=57.5 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 316.9
Kdef = 0.6
Ufin in x = 0.17
Ufin in y = -19.97
Ufin = 19.97
Luce/Ufin < limite
627.5/19.97=31.4 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 181-183

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 529.9 composto da:
asta 290: Trave in legno a falda Falda 4 fili 181-182 (L = 199)
asta 369: Trave in legno a falda Falda 4 fili 182-183 (L = 316.4)
asta 370: Trave in legno a falda Falda 4 fili 182-183 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 220.1
Kdef = 0
Uinst tot in x = -0.11
Uinst tot in y = -11.45
Uinst tot = 11.45
Luce/Uinst,tot < limite
529.9/11.45=46.3 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 220.1
Kdef = 0
Uinst var in x = -0.04
Uinst var in y = -7.55
Uinst var = 7.55
Luce/Uinst,var < limite
529.9/7.55=70.2 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 226.8
Kdef = 0.6
Ufin in x = -0.15
Ufin in y = -13.87
Ufin = 13.87
Luce/Ufin < limite
529.9/13.87=38.2 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600



Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 188-190

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 452.9$ composto da:

asta 289: Trave in legno a falda Falda 4 fili 188-189 ($L = 122$)

asta 367: Trave in legno a falda Falda 4 fili 189-190 ($L = 316.4$)

asta 368: Trave in legno a falda Falda 4 fili 189-190 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 174.8

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0.1$

$U_{inst\ tot\ in\ y} = -7.33$

$U_{inst\ tot} = 7.33$

$Luce/U_{inst,tot} < \text{limite}$

$452.9/7.33=61.8 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 164.2

$K_{def} = 0$

$U_{inst\ var\ in\ x} = 0.07$

$U_{inst\ var\ in\ y} = -4.83$

$U_{inst\ var} = 4.83$

$Luce/U_{inst,var} < \text{limite}$

$452.9/4.83=93.8 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 178.8

$K_{def} = 0.6$

$U_{fin\ in\ x} = 0.13$

$U_{fin\ in\ y} = -8.93$

$U_{fin} = 8.93$

$Luce/U_{fin} < \text{limite}$

$452.9/8.93=50.7 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 195-197

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 375.9$ composto da:

asta 288: Trave in legno a falda Falda 4 fili 195-196 ($L = 45$)

asta 365: Trave in legno a falda Falda 4 fili 196-197 ($L = 316.4$)

asta 366: Trave in legno a falda Falda 4 fili 196-197 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200



Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 129.4
Kdef = 0
Uinst tot in x = -0.01
Uinst tot in y = -3.71
Uinst tot = 3.71
Luce/Uinst,tot < limite
 $375.9/3.71=101.4 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 129.4
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = -2.44
Uinst var = 2.44
Luce/Uinst,var < limite
 $375.9/2.44=154.3 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 130.9
Kdef = 0.6
Ufin in x = -0.01
Ufin in y = -4.52
Ufin = 4.52
Luce/Ufin < limite
 $375.9/4.52=83.1 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 205-206

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 298.9 composto da:
asta 286: Trave in legno a falda Falda 4 fili 205-206 (L = 284.4)
asta 287: Trave in legno a falda Falda 4 fili 205-206 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 104.3
Kdef = 0
Uinst tot in x = -0.04
Uinst tot in y = -1.47
Uinst tot = 1.47
Luce/Uinst,tot < limite
 $298.9/1.47=202.7 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 104.3
Kdef = 0
Uinst var in x = -0.02
Uinst var in y = -0.96
Uinst var = 0.96
Luce/Uinst,var > limite
 $298.9/0.96=310.5 > 300$ Comb: SLE rara, 8



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 104.3

$K_{def} = 0.6$

$U_{fin} \text{ in } x = -0.05$

$U_{fin} \text{ in } y = -1.78$

$U_{fin} = 1.78$

$L_{uce}/U_{fin} < \text{limite}$

$298.9/1.78=167.7 < 200$ - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 214-215

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 221.9$ composto da:

asta 284: Trave in legno a falda Falda 4 fili 214-215 ($L = 207.4$)

asta 285: Trave in legno a falda Falda 4 fili 214-215 ($L = 14.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 69.1

$K_{def} = 0$

$U_{inst} \text{ tot in } x = -0.03$

$U_{inst} \text{ tot in } y = -0.49$

$U_{inst} \text{ tot} = 0.49$

$L_{uce}/U_{inst,tot} > \text{limite}$

$221.9/0.49=452.8 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 69.1

$K_{def} = 0$

$U_{inst} \text{ var in } x = -0.02$

$U_{inst} \text{ var in } y = -0.32$

$U_{inst} \text{ var} = 0.32$

$L_{uce}/U_{inst,var} > \text{limite}$

$221.9/0.32=694.1 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 69.1

$K_{def} = 0.6$

$U_{fin} \text{ in } x = -0.04$

$U_{fin} \text{ in } y = -0.59$

$U_{fin} = 0.59$

$L_{uce}/U_{fin} > \text{limite}$

$221.9/0.59=374.6 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 4" 221-222

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 144.8$ composto da:

asta 282: Trave in legno a falda Falda 4 fili 221-222 ($L = 130.4$)



asta 283: Trave in legno a falda Falda 4 fili 221-222 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 39.1

Kdef = 0

Uinst tot in x = -0.02

Uinst tot in y = -0.15

Uinst tot = 0.15

Luce/Uinst,tot > limite

144.8/0.15=998.4 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 39.1

Kdef = 0

Uinst var in x = -0.02

Uinst var in y = -0.09

Uinst var = 0.09

Luce/Uinst,var > limite

144.8/0.09=1527.1 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 149.2

Kdef = 0.6

Ufin in x = -0.03

Ufin in y = -0.18

Ufin = 0.18

Luce/Ufin > limite

144.8/0.18=801.8 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 4" 230-231

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 67.8 composto da:

asta 280: Trave in legno a falda Falda 4 fili 230-231 (L = 53.4)

asta 281: Trave in legno a falda Falda 4 fili 230-231 (L = 14.4)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 21.4

Kdef = 0

Uinst tot in x = -0.01

Uinst tot in y = -0.07

Uinst tot = 0.07

Luce/Uinst,tot > limite

67.8/0.07=927 > 300 Comb: SLE rara, 8



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 21.4
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = -0.05
Uinst var = 0.05
Luce/Uinst,var > limite
 $67.8/0.05=1412.5 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 21.4
Kdef = 0.6
Ufin in x = -0.02
Ufin in y = -0.09
Ufin = 0.09
Luce/Ufin > limite
 $67.8/0.09=768.5 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 5" 241-287

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 546.4 composto da:
asta 252: Trave in legno a falda Falda 5 fili 241-287 (L = 523.1)
asta 253: Trave in legno a falda Falda 5 fili 241-287 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 191.8
Kdef = 0
Uinst tot in x = -0.13
Uinst tot in y = -0.66
Uinst tot = 0.66
Luce/Uinst,tot > limite
 $546.4/0.66=823.2 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 174.4
Kdef = 0
Uinst var in x = -0.09
Uinst var in y = -0.37
Uinst var = 0.37
Luce/Uinst,var > limite
 $546.4/0.37=1467.7 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 191.8
Kdef = 0.6
Ufin in x = -0.15
Ufin in y = -0.84
Ufin = 0.84
Luce/Ufin > limite
 $546.4/0.84=650 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880



Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 241-(373; 989)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 710.7 composto da:

asta 67: Trave in legno a falda Falda 5 fili 241-279 (L = 74.2)
asta 68: Trave in legno a falda Falda 5 fili 241-279 (L = 103.7)
asta 69: Trave in legno a falda Falda 5 fili 241-279 (L = 104.3)
asta 70: Trave in legno a falda Falda 5 fili 241-279 (L = 116.7)
asta 71: Trave in legno a falda Falda 5 fili 241-279 (L = 90.8)
asta 72: Trave in legno a falda Falda 5 fili 241-279 (L = 102.8)
asta 73: Trave in legno a falda Falda 5 fili 241-279 (L = 118.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 336.6

Kdef = 0

Uinst tot in x = 1.17

Uinst tot in y = -4.04

Uinst tot = 4.04

Luce/Uinst,tot < limite

710.7/4.04=175.8 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 336.6

Kdef = 0

Uinst var in x = 0.76

Uinst var in y = -2.65

Uinst var = 2.65

Luce/Uinst,var < limite

710.7/2.65=268.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 346.1

Kdef = 0.6

Ufin in x = 1.41

Ufin in y = -4.88

Ufin = 4.88

Luce/Ufin < limite

710.7/4.88=145.6 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 241-(375; -693)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 679.2 composto da:

asta 57: Trave in legno a falda Falda 5 fili 241-277 (L = 13.7)
asta 58: Trave in legno a falda Falda 5 fili 241-277 (L = 57.7)
asta 59: Trave in legno a falda Falda 5 fili 241-277 (L = 12.2)
asta 60: Trave in legno a falda Falda 5 fili 241-277 (L = 87)
asta 61: Trave in legno a falda Falda 5 fili 241-277 (L = 99.2)



asta 62: Trave in legno a falda Falda 5 fili 241-277 (L = 59)
asta 63: Trave in legno a falda Falda 5 fili 241-277 (L = 42)
asta 64: Trave in legno a falda Falda 5 fili 241-277 (L = 98.5)
asta 65: Trave in legno a falda Falda 5 fili 241-277 (L = 99.4)
asta 66: Trave in legno a falda Falda 5 fili 241-277 (L = 110.5)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 318.9
Kdef = 0
Uinst tot in x = -0.45
Uinst tot in y = -1.98
Uinst tot = 1.98
Luce/Uinst,tot > limite
 $679.2/1.98=342.7 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 318.9
Kdef = 0
Uinst var in x = -0.26
Uinst var in y = -1.28
Uinst var = 1.28
Luce/Uinst,var > limite
 $679.2/1.28=532.1 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 327.9
Kdef = 0.6
Ufin in x = -0.56
Ufin in y = -2.41
Ufin = 2.41
Luce/Ufin > limite
 $679.2/2.41=282.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 244-286

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 491.5 composto da:
asta 235: Trave in legno a falda Falda 5 fili 244-286 (L = 468.2)
asta 236: Trave in legno a falda Falda 5 fili 244-286 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 171.7
Kdef = 0



Uinst tot in x = 0.19
Uinst tot in y = -0.22
Uinst tot = 0.22
Luce/Uinst,tot > limite
491.5/0.22=2256.3 > 300 Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 374.6
Kdef = 0
Uinst var in x = 0.12
Uinst var in y = -0.09
Uinst var = 0.12
Luce/Uinst,var > limite
491.5/0.12=4007.1 > 300 Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 187.3
Kdef = 0.6
Ufin in x = 0.23
Ufin in y = -0.29
Ufin = 0.29
Luce/Ufin > limite
491.5/0.29=1679.2 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 245-288

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 491.8 composto da:
asta 254: Trave in legno a falda Falda 5 fili 245-288 (L = 468.6)
asta 255: Trave in legno a falda Falda 5 fili 245-288 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 171.8
Kdef = 0
Uinst tot in x = -0.45
Uinst tot in y = -0.58
Uinst tot = 0.58
Luce/Uinst,tot > limite
491.8/0.58=843 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 156.2
Kdef = 0
Uinst var in x = -0.3
Uinst var in y = -0.32
Uinst var = 0.32
Luce/Uinst,var > limite
491.8/0.32=1519.2 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 171.8
Kdef = 0.6
Ufin in x = -0.54
Ufin in y = -0.74



Ufin = 0.74
Luce/Ufin > limite
491.8/0.74=662.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 250-285

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 415.2 composto da:
asta 233: Trave in legno a falda Falda 5 fili 250-285 (L = 392)
asta 234: Trave in legno a falda Falda 5 fili 250-285 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 91.5
Kdef = 0
Uinst tot in x = -0.23
Uinst tot in y = 0.11
Uinst tot = 0.23
Luce/Uinst,tot > limite
415.2/0.23=1798 > 300 Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 91.5
Kdef = 0
Uinst var in x = -0.15
Uinst var in y = 0.1
Uinst var = 0.15
Luce/Uinst,var > limite
415.2/0.15=2848.3 > 300 Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 91.5
Kdef = 0.6
Ufin in x = -0.28
Ufin in y = 0.13
Ufin = 0.28
Luce/Ufin > limite
415.2/0.28=1471.1 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 5" 251-289

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 415.7 composto da:
asta 256: Trave in legno a falda Falda 5 fili 251-289 (L = 392.4)
asta 257: Trave in legno a falda Falda 5 fili 251-289 (L = 23.3)



Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 91.6

Kdef = 0

Uinst tot in x = 0.45

Uinst tot in y = -0.4

Uinst tot = 0.45

Luce/Uinst,tot > limite

$415.7/0.45=927.9 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 91.6

Kdef = 0

Uinst var in x = 0.29

Uinst var in y = -0.24

Uinst var = 0.29

Luce/Uinst,var > limite

$415.7/0.29=1420.4 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 91.6

Kdef = 0.6

Ufin in x = 0.54

Ufin in y = -0.5

Ufin = 0.54

Luce/Ufin > limite

$415.7/0.54=768.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 5" 256-284

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 338.9 composto da:

asta 231: Trave in legno a falda Falda 5 fili 256-284 (L = 315.8)

asta 232: Trave in legno a falda Falda 5 fili 256-284 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 231.6

Kdef = 0

Uinst tot in x = -0.17

Uinst tot in y = 0.29

Uinst tot = 0.29

Luce/Uinst,tot > limite

$338.9/0.29=1162.2 > 300$ Comb: SLE rara, 17



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 221
Kdef = 0
Uinst var in x = -0.11
Uinst var in y = 0.22
Uinst var = 0.22
Luce/Uinst,var > limite
338.9/0.22=1567.5 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 231.6
Kdef = 0.6
Ufin in x = -0.21
Ufin in y = 0.34
Ufin = 0.34
Luce/Ufin > limite
338.9/0.34=1003.1 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 257-290

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 340 composto da:
asta 258: Trave in legno a falda Falda 5 fili 257-290 (L = 316.8)
asta 259: Trave in legno a falda Falda 5 fili 257-290 (L = 23.3)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 73.9
Kdef = 0
Uinst tot in x = 0.31
Uinst tot in y = 0.26
Uinst tot = 0.31
Luce/Uinst,tot > limite
340/0.31=1093.5 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 73.9
Kdef = 0
Uinst var in x = 0.2
Uinst var in y = 0.18
Uinst var = 0.2
Luce/Uinst,var > limite
340/0.2=1676.7 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 73.9
Kdef = 0.6
Ufin in x = 0.38
Ufin in y = -0.32
Ufin = 0.38
Luce/Ufin > limite
340/0.38=904.7 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600



Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 5" 262-283

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 262.7$ composto da:

asta 229: Trave in legno a falda Falda 5 fili 262-283 ($L = 239.5$)

asta 230: Trave in legno a falda Falda 5 fili 262-283 ($L = 23.2$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 175.6

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.05$

$U_{inst\ tot\ in\ y} = 0.24$

$U_{inst\ tot} = 0.24$

$Luce/U_{inst,tot} > \text{limite}$

$262.7/0.24 = 1106.2 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 175.6

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.03$

$U_{inst\ var\ in\ y} = 0.17$

$U_{inst\ var} = 0.17$

$Luce/U_{inst,var} > \text{limite}$

$262.7/0.17 = 1542.8 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 175.6

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.06$

$U_{fin\ in\ y} = 0.28$

$U_{fin} = 0.28$

$Luce/U_{fin} > \text{limite}$

$262.7/0.28 = 944.8 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 5" 263-291

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 264$ composto da:

asta 260: Trave in legno a falda Falda 5 fili 263-291 ($L = 240.7$)

asta 261: Trave in legno a falda Falda 5 fili 263-291 ($L = 23.3$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300



Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 200.6
Kdef = 0
Uinst tot in x = 0.12
Uinst tot in y = 0.27
Uinst tot = 0.27
Luce/Uinst,tot > limite
264/0.27=983.1 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 200.6
Kdef = 0
Uinst var in x = 0.08
Uinst var in y = 0.18
Uinst var = 0.18
Luce/Uinst,var > limite
264/0.18=1449.7 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 200.6
Kdef = 0.6
Ufin in x = 0.15
Ufin in y = 0.32
Ufin = 0.32
Luce/Ufin > limite
264/0.32=824 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 5" 267-282

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 186.4 composto da:
asta 227: Trave in legno a falda Falda 5 fili 267-282 (L = 163.3)
asta 228: Trave in legno a falda Falda 5 fili 267-282 (L = 23.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 130.6
Kdef = 0
Uinst tot in x = -0.01
Uinst tot in y = 0.12
Uinst tot = 0.12
Luce/Uinst,tot > limite
186.4/0.12=1551.5 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 125.2
Kdef = 0
Uinst var in x = -0.01
Uinst var in y = 0.09
Uinst var = 0.09
Luce/Uinst,var > limite
186.4/0.09=2184.4 > 300 Comb: SLE rara, 17



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 130.6
Kdef = 0.6
Ufin in x = -0.02
Ufin in y = 0.14
Ufin = 0.14
Luce/Ufin > limite
186.4/0.14=1318.9 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Variabile A = 0,700 + 0,180 = 0,880
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 5" 268-292

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 187.9 composto da:
asta 262: Trave in legno a falda Falda 5 fili 268-292 (L = 164.6)
asta 263: Trave in legno a falda Falda 5 fili 268-292 (L = 23.3)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 137.2
Kdef = 0
Uinst tot in x = 0.03
Uinst tot in y = 0.16
Uinst tot = 0.16
Luce/Uinst,tot > limite
187.9/0.16=1154.3 > 300 Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 137.2
Kdef = 0
Uinst var in x = 0.02
Uinst var in y = 0.11
Uinst var = 0.11
Luce/Uinst,var > limite
187.9/0.11=1756.1 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 137.2
Kdef = 0.6
Ufin in x = 0.06
Ufin in y = 0.2
Ufin = 0.2
Luce/Ufin > limite
187.9/0.2=957.4 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 5" 271-281

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati generali

Superelemento di lunghezza complessiva $L = 108.5$ composto da:
asta 225: Trave in legno a falda Falda 5 fili 271-281 ($L = 85.3$)
asta 226: Trave in legno a falda Falda 5 fili 271-281 ($L = 23.1$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 74

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.02$

$U_{inst\ tot\ in\ y} = 0.05$

$U_{inst\ tot} = 0.05$

Luce/ $U_{inst\ tot} >$ limite

$108.5/0.05 = 2206.7 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 71.1

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.01$

$U_{inst\ var\ in\ y} = 0.03$

$U_{inst\ var} = 0.03$

Luce/ $U_{inst\ var} >$ limite

$108.5/0.03 = 3192.6 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 74

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.03$

$U_{fin\ in\ y} = 0.06$

$U_{fin} = 0.06$

Luce/ $U_{fin} >$ limite

$108.5/0.06 = 1859.5 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 5" 272-293

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 111.8$ composto da:
asta 264: Trave in legno a falda Falda 5 fili 272-293 ($L = 88.5$)
asta 265: Trave in legno a falda Falda 5 fili 272-293 ($L = 23.3$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 79.7

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = 0.03$



Uinst tot in y = 0.08
Uinst tot = 0.08
Luce/Uinst,tot > limite
 $111.8/0.08=1485.9 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 79.7
Kdef = 0
Uinst var in x = 0.02
Uinst var in y = 0.05
Uinst var = 0.05
Luce/Uinst,var > limite
 $111.8/0.05=2342.9 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 79.7
Kdef = 0.6
Ufin in x = 0.06
Ufin in y = 0.09
Ufin = 0.09
Luce/Ufin > limite
 $111.8/0.09=1217.6 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Variabile A = $0,700 + 0,180 = 0,880$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 6" 177-(-95; 1037)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 719.2 composto da:

asta 74: Trave in legno a falda Falda 6 fili 177-240 (L = 127.2)
asta 75: Trave in legno a falda Falda 6 fili 177-240 (L = 104.2)
asta 76: Trave in legno a falda Falda 6 fili 177-240 (L = 104.2)
asta 77: Trave in legno a falda Falda 6 fili 177-240 (L = 63.3)
asta 78: Trave in legno a falda Falda 6 fili 177-240 (L = 40.9)
asta 79: Trave in legno a falda Falda 6 fili 177-240 (L = 104.2)
asta 80: Trave in legno a falda Falda 6 fili 177-240 (L = 104.2)
asta 81: Trave in legno a falda Falda 6 fili 177-240 (L = 71.2)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 379.8
Kdef = 0
Uinst tot in x = 0.85
Uinst tot in y = -2.76
Uinst tot = 2.76
Luce/Uinst,tot < limite
 $719.2/2.76=260.2 < 300$ Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 379.8
Kdef = 0
Uinst var in x = 0.54
Uinst var in y = -1.76
Uinst var = 1.76
Luce/Uinst,var > limite
 $719.2/1.76=408.1 > 300$ Comb: SLE rara, 8



Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 388.9

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 1.04$

$U_{fin} \text{ in } y = -3.37$

$U_{fin} = 3.37$

$L_{uce}/U_{fin} > \text{limite}$

$719.2/3.37=213.7 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 6" 186-187

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 96.9$ composto da:

Asta 272: Trave in legno a falda Falda 6 fili 186-187

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 29

$K_{def} = 0$

$U_{inst} \text{ tot in } x = 0.01$

$U_{inst} \text{ tot in } y = 0.06$

$U_{inst} \text{ tot} = 0.06$

$L_{uce}/U_{inst,tot} > \text{limite}$

$96.9/0.06=1688 > 300$ Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 29

$K_{def} = 0$

$U_{inst} \text{ var in } x = 0$

$U_{inst} \text{ var in } y = 0.04$

$U_{inst} \text{ var} = 0.04$

$L_{uce}/U_{inst,var} > \text{limite}$

$96.9/0.04=2726.2 > 300$ Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 29

$K_{def} = 0.6$

$U_{fin} \text{ in } x = 0.01$

$U_{fin} \text{ in } y = 0.07$

$U_{fin} = 0.07$

$L_{uce}/U_{fin} > \text{limite}$

$96.9/0.07=1374.8 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 6" 193-194

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 176.1$ composto da:



Asta 271: Trave in legno a falda Falda 6 fili 193-194

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 35.2

Kdef = 0

Uinst tot in x = 0.02

Uinst tot in y = 0.08

Uinst tot = 0.08

Luce/Uinst,tot > limite

176.1/0.08=2167.9 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 35.2

Kdef = 0

Uinst var in x = 0.01

Uinst var in y = 0.05

Uinst var = 0.05

Luce/Uinst,var > limite

176.1/0.05=3341.2 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 35.2

Kdef = 0.6

Ufin in x = 0.02

Ufin in y = 0.1

Ufin = 0.1

Luce/Ufin > limite

176.1/0.1=1785.4 > 200

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Variabile A = 0,700 + 0,180 = 0,880

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 6" 203-204

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 255.4 composto da:

Asta 270: Trave in legno a falda Falda 6 fili 203-204

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 178.8

Kdef = 0

Uinst tot in x = 0.02

Uinst tot in y = -0.44

Uinst tot = 0.44

Luce/Uinst,tot > limite

255.4/0.44=574.9 > 300 Comb: SLE rara, 8



Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 178.8
Kdef = 0
Uinst var in x = 0.01
Uinst var in y = -0.28
Uinst var = 0.28
Luce/Uinst,var > limite
255.4/0.28=905 > 300 Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 178.8
Kdef = 0.6
Ufin in x = 0.03
Ufin in y = -0.54
Ufin = 0.54
Luce/Ufin > limite
255.4/0.54=471.5 > 200
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000

Superelemento in legno a "Falda 6" 209-(217; 377)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 507.7 composto da:
asta 131: Trave in legno a falda Falda 6 fili 209-265 (L = 94.1)
asta 132: Trave in legno a falda Falda 6 fili 209-265 (L = 67.6)
asta 133: Trave in legno a falda Falda 6 fili 209-265 (L = 67.6)
asta 134: Trave in legno a falda Falda 6 fili 209-265 (L = 67.6)
asta 135: Trave in legno a falda Falda 6 fili 209-265 (L = 67.6)
asta 136: Trave in legno a falda Falda 6 fili 209-265 (L = 67.6)
asta 137: Trave in legno a falda Falda 6 fili 209-265 (L = 75.8)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 18x23	Rettangolare	18	23	414	18250.5	11178	1587	1242

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 278.7
Kdef = 0
Uinst tot in x = 0.74
Uinst tot in y = -1.69
Uinst tot = 1.69
Luce/Uinst,tot > limite
507.7/1.69=301.2 > 300 Comb: SLE rara, 17

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 278.7
Kdef = 0
Uinst var in x = 0.51
Uinst var in y = -1.12
Uinst var = 1.12
Luce/Uinst,var > limite
507.7/1.12=453.4 > 300 Comb: SLE rara, 17

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 284.1
Kdef = 0.6
Ufin in x = 0.88
Ufin in y = -2.01
Ufin = 2.01
Luce/Ufin > limite



$507.7/2.01=252.9 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 6" 212-213

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 334.7$ composto da:

Asta 269: Trave in legno a falda Falda 6 fili 212-213

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 223.1

$K_{def} = 0$

$U_{inst\ tot\ in\ x} = -0.01$

$U_{inst\ tot\ in\ y} = -1.03$

$U_{inst\ tot} = 1.03$

$Luce/U_{inst,tot} > limite$

$334.7/1.03=324.6 > 300$ Comb: SLE rara, 9

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 223.1

$K_{def} = 0$

$U_{inst\ var\ in\ x} = -0.01$

$U_{inst\ var\ in\ y} = -0.65$

$U_{inst\ var} = 0.65$

$Luce/U_{inst,var} > limite$

$334.7/0.65=517.9 > 300$ Comb: SLE rara, 9

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 223.1

$K_{def} = 0.6$

$U_{fin\ in\ x} = -0.01$

$U_{fin\ in\ y} = -1.26$

$U_{fin} = 1.26$

$Luce/U_{fin} > limite$

$334.7/1.26=265.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Vento = $0,600 + 0,000 = 0,600$

Superelemento in legno a "Falda 6" 218-220

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva $L = 414$ composto da:

asta 268: Trave in legno a falda Falda 6 fili 218-219 ($L = 303.6$)

asta 417: Trave in legno a falda Falda 6 fili 219-220 ($L = 110.4$)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67



Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 253

Kdef = 0

Uinst tot in x = -0.05

Uinst tot in y = -2.96

Uinst tot = 2.96

Luce/Uinst,tot < limite

414/2.96=139.9 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 253

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -1.91

Uinst var = 1.91

Luce/Uinst,var < limite

414/1.91=217.3 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 253

Kdef = 0.6

Ufin in x = -0.06

Ufin in y = -3.59

Ufin = 3.59

Luce/Ufin < limite

414/3.59=115.3 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 6" 227-229

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 493.3 composto da:

asta 267: Trave in legno a falda Falda 6 fili 227-228 (L = 303.6)

asta 416: Trave in legno a falda Falda 6 fili 228-229 (L = 189.7)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 273.2

Kdef = 0

Uinst tot in x = -0.07

Uinst tot in y = -4.42

Uinst tot = 4.42

Luce/Uinst,tot < limite

493.3/4.42=111.5 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 273.2

Kdef = 0

Uinst var in x = -0.05



Uinst var in y = -2.86
Uinst var = 2.86
Luce/Uinst,var < limite
493.3/2.86=172.3 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 273.2
Kdef = 0.6
Ufin in x = -0.08
Ufin in y = -5.36
Ufin = 5.36
Luce/Ufin < limite
493.3/5.36=92.1 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 6" 238-235

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 547.5 composto da:
asta 244: Trave in legno a falda Falda 6 fili 238-239 (L = 303.6)
asta 412: Trave in legno a falda Falda 6 fili 239-240 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 283.3
Kdef = 0
Uinst tot in x = 0.26
Uinst tot in y = -5.28
Uinst tot = 5.28
Luce/Uinst,tot < limite
547.5/5.28=103.7 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 283.3
Kdef = 0
Uinst var in x = 0.12
Uinst var in y = -3.44
Uinst var = 3.44
Luce/Uinst,var < limite
547.5/3.44=159.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 283.3
Kdef = 0.6
Ufin in x = 0.35
Ufin in y = -6.38
Ufin = 6.38
Luce/Ufin < limite
547.5/6.38=85.8 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600



Superelemento in legno a "Falda 6" 245-(-426; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 490.1 composto da:

asta 251: Trave in legno a falda Falda 6 fili 245-246 (L = 246.2)

asta 415: Trave in legno a falda Falda 6 fili 246-247 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 246.2

Kdef = 0

Uinst tot in x = -0.07

Uinst tot in y = -4.85

Uinst tot = 4.85

Luce/Uinst,tot < limite

490.1/4.85=101.1 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 246.2

Kdef = 0

Uinst var in x = -0.04

Uinst var in y = -3.18

Uinst var = 3.18

Luce/Uinst,var < limite

490.1/3.18=154.4 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 254.4

Kdef = 0.6

Ufin in x = -0.09

Ufin in y = -5.87

Ufin = 5.87

Luce/Ufin < limite

490.1/5.87=83.4 < 200 - NON SODDISFATTA

Coefficienti combinatori impiegati:

Pesi strutturali = 1,000 + 0,600 = 1,600

Permanenti portati = 1,000 + 0,600 = 1,600

Neve = 0,500 + 0,500 = 1,000

Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 6" 251-(-359; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 411.4 composto da:

asta 250: Trave in legno a falda Falda 6 fili 251-252 (L = 167.5)

asta 414: Trave in legno a falda Falda 6 fili 252-253 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta_x = 0$; $\beta_y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 183.7



Kdef = 0
Uinst tot in x = 0.09
Uinst tot in y = -3.6
Uinst tot = 3.6
Luce/Uinst,tot < limite
411.4/3.6=114.4 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 183.7
Kdef = 0
Uinst var in x = 0.05
Uinst var in y = -2.36
Uinst var = 2.36
Luce/Uinst,var < limite
411.4/2.36=174.5 < 300 Comb: SLE rara, 9 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 189.3
Kdef = 0.6
Ufin in x = 0.12
Ufin in y = -4.39
Ufin = 4.39
Luce/Ufin < limite
411.4/4.39=93.7 < 200 - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = 1,000 + 0,600 = 1,600
Permanenti portati = 1,000 + 0,600 = 1,600
Neve = 0,500 + 0,500 = 1,000
Vento = 0,600 + 0,000 = 0,600

Superelemento in legno a "Falda 6" 257-(-291; 595)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 332.6 composto da:
asta 249: Trave in legno a falda Falda 6 fili 257-258 (L = 88.7)
asta 413: Trave in legno a falda Falda 6 fili 258-259 (L = 243.9)

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 137.5
Kdef = 0
Uinst tot in x = 0.11
Uinst tot in y = -2.07
Uinst tot = 2.07
Luce/Uinst,tot < limite
332.6/2.07=161 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 137.5
Kdef = 0
Uinst var in x = 0.07
Uinst var in y = -1.35
Uinst var = 1.35
Luce/Uinst,var < limite
332.6/1.35=246.2 < 300 Comb: SLE rara, 8 - NON SODDISFATTA

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 140.4
Kdef = 0.6
Ufin in x = 0.14



Ufin in y = -2.54
Ufin = 2.54
Luce/Ufin < limite
 $332.6/2.54=131.1 < 200$ - NON SODDISFATTA
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 6" 263-(-223; 596)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 253.8 composto da:
Asta 248: Trave in legno a falda Falda 6 fili 263-264

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016
 $\beta_x = 0$; $\beta_y = 0$
Rapporto luce/freccia elastica limite = 300
Rapporto luce/freccia elastica differita = 200
Mensola Y: Nessuno; Mensola X: Nessuno
Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 93.1
Kdef = 0
Uinst tot in x = 0.05
Uinst tot in y = -0.67
Uinst tot = 0.67
Luce/Uinst,tot > limite
 $253.8/0.67=380.7 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 93.1
Kdef = 0
Uinst var in x = 0.03
Uinst var in y = -0.43
Uinst var = 0.43
Luce/Uinst,var > limite
 $253.8/0.43=588.2 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 93.1
Kdef = 0.6
Ufin in x = 0.06
Ufin in y = -0.81
Ufin = 0.81
Luce/Ufin > limite
 $253.8/0.81=314.2 > 200$
Coefficienti combinatori impiegati:
Pesi strutturali = $1,000 + 0,600 = 1,600$
Permanenti portati = $1,000 + 0,600 = 1,600$
Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 6" 268-(-156; 596)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 175.1 composto da:
Asta 247: Trave in legno a falda Falda 6 fili 268-269

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016



$\beta, x = 0; \beta, y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 58.4

Kdef = 0

Uinst tot in x = 0.03

Uinst tot in y = -0.26

Uinst tot = 0.26

Luce/Uinst,tot > limite

$175.1/0.26=672.5 > 300$ Comb: SLE rara, 8

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 58.4

Kdef = 0

Uinst var in x = 0.02

Uinst var in y = -0.17

Uinst var = 0.17

Luce/Uinst,var > limite

$175.1/0.17=1042.4 > 300$ Comb: SLE rara, 8

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 58.4

Kdef = 0.6

Ufin in x = 0.04

Ufin in y = -0.32

Ufin = 0.32

Luce/Ufin > limite

$175.1/0.32=554.5 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Neve = $0,500 + 0,500 = 1,000$

Superelemento in legno a "Falda 6" 272-(-88; 597)

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati generali

Superelemento di lunghezza complessiva L= 96.3 composto da:

Asta 246: Trave in legno a falda Falda 6 fili 272-273

Caratteristiche della sezione

Descrizione	Tipo	Base	Altezza	Area	Jx	Jy	Wx	Wy
R 8x10	Rettangolare	8	10	80	666.67	426.67	133.33	106.67

Materiale: C14 EN 338:2016

$\beta, x = 0; \beta, y = 0$

Rapporto luce/freccia elastica limite = 300

Rapporto luce/freccia elastica differita = 200

Mensola Y: Nessuno; Mensola X: Nessuno

Classe di servizio 1

Verifica della freccia istantanea totale D.M. 17-01-18 §C4.4.7 Circolare 7 21-01-19

Sezione ad ascissa 28.9

Kdef = 0

Uinst tot in x = -0.01

Uinst tot in y = -0.07

Uinst tot = 0.07

Luce/Uinst,tot > limite

$96.3/0.07=1335 > 300$ Comb: SLE rara, 16

Verifica della freccia istantanea variabile D.M. 17-01-18 §4.4.7

Sezione ad ascissa 28.9

Kdef = 0

Uinst var in x = -0.01

Uinst var in y = -0.05

Uinst var = 0.05

Luce/Uinst,var > limite



$96.3/0.05=2088.4 > 300$ Comb: SLE rara, 16

Verifica della freccia finale EC5 §4.4.7 - EC5 2.2.3 (3)

Sezione ad ascissa 28.9

$K_{def} = 0.6$

U_{fin} in $x = -0.02$

U_{fin} in $y = -0.09$

$U_{fin} = 0.09$

$L_{uce}/U_{fin} > \text{limite}$

$96.3/0.09=1097.1 > 200$

Coefficienti combinatori impiegati:

Pesi strutturali = $1,000 + 0,600 = 1,600$

Permanenti portati = $1,000 + 0,600 = 1,600$

Variabile A = $0,700 + 0,180 = 0,880$

Neve = $0,500 + 0,500 = 1,000$

1.4 Verifica sismica globale

Desc.: descrizione.

Stato limite: (muratura) V=Taglio; PF=Pressoflessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.

Molt.: moltiplicatore minimo della azione sismica che produce lo stato limite.

Comb.: combinazione.

PGA: accelerazione al suolo.

iPGA (ZE): indicatore di rischio sismico in termini di PGA ovvero rapporto tra l'azione sismica massima sopportabile dall'elemento e l'azione sismica massima che si utilizzerebbe nel progetto nuovo (§C8.3).

TR: tempo di ritorno.

(TR/TRrif)^.41: indicatore di rischio sismico in termini di periodo di ritorno.

fa: fattore di accelerazione.

Stato limite: (muratura) V=Taglio; PF=Presso flessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.

Coeff.s.: coefficiente minimo prodotto dallo stato limite.

Verifica: stato di verifica.

Maschio: maschio.

Stato limite: (maschio muratura) V=Taglio; PF=Presso flessione; PFFP=Presso flessione fuori piano; R=Ribaltamento.

Trave: trave di collegamento in muratura.

Stato limite: (trave muratura) V=Taglio; F=Flessione.

S. L.: stato limite di riferimento.

TR,C: periodo di ritorno di capacità.

PGA,C: accelerazione di aggancio di capacità.

TR,Rif: periodo di ritorno di riferimento.

PGA,Rif: accelerazione di aggancio di riferimento.

Tipo rottura: tipo di rottura che fornisce il valore minimo degli elementi considerati.

PAM: perdita media annua attesa.

Classe PAM: classe di rischio PAM.

IS-V: indice di sicurezza.

Classe IS-V: classe di rischio IS-V.

Verifica di elementi dotati di indicatori di rischio sismico mediante analisi con fattore q

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.) § C8.7.1

Accelerazioni e tempi di ritorno

Accelerazione di aggancio SLO ($ag/g_{SLO} \cdot S \cdot ST$) $PGA, SLO_{rif} = 0.081$

Accelerazione di aggancio SLD ($ag/g_{SLD} \cdot S \cdot ST$) $PGA, SLD_{rif} = 0.101$

Accelerazione di aggancio SLV ($ag/g_{SLV} \cdot S \cdot ST$) $PGA, SLV_{rif} = 0.244$

$Tr, SLO_{rif} = 30$ anni

$Tr, SLD_{rif} = 50$ anni

$Tr, SLV_{rif} = 475$ anni

Moltiplicatori minimi delle condizioni sismiche

(Il valore di ZE corrisponde al valore di I.R. PGA secondo quanto riportato nella Circolare 7 21-01-19 §C8.3)

Rottura a taglio

Moltiplicatore: 0

Maschio 19

Lunghezza: 30.4; altezza: 269; spessore: 30; sezione a quota: 110

Combinazione SLV 1 N= 17 V par.= 14 l'= 0 fvd= 0.83 Vt scorrimento= 0 Vt fess. diag.= 0

Tempo di ritorno 0 anni

Indicatore $iTr = (Tr/Tr, SLV_{rif})^{.41} = 0$

PGA 0



Indicatore $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione $fa = 0$

Rottura a flessione

Moltiplicatore: 0

Maschio 19

Lunghezza: 30.4; altezza: 269; spessore: 30 sezione a quota 110

Combinazione SLV 1 N = 17 M = -488 $\sigma_0 = 0$ $f_d = 14.38$ $\mu_u = 0$

Tempo di ritorno 0 anni

Indicatore $iTr = (Tr/Tr, SLVrif)^{.41} = 0$

PGA 0

Indicatore $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione $fa = 0$

Rottura a pressoflessione nel piano ortogonale

Moltiplicatore: 0.143

Maschio 118

Lunghezza: 22; altezza: 352; spessore: 14; sezione a quota: 659

Combinazione SLV 1 $f_d = 14.38$ $T_a = 0.15$ $W_a = 0.03$ $N = -23$ $M = 157$ $M_c = 160$

Tempo di ritorno 3 anni

Indicatore $iTr = (Tr/Tr, SLVrif)^{.41} = 0.125$

PGA 0.031

Indicatore $iPGA = PGA/PGA, SLVrif = 0.127$

Fattore di accelerazione $fa = 0.1232$

Rottura per meccanismi locali di collasso

Moltiplicatore: 0

Maschio 19

Lunghezza: 30.4; altezza: 269; spessore: 30 $f_{agg} = 0$ $a_{lim} = 0$

Combinazione SLV 1 N top = 17 N base = -230 T orto = -2 $\alpha_0 = 0$ $M^* = 0$ $e^* = 0$ $a_0^* = 0$

Tempo di ritorno 0 anni

Indicatore $iTr = (Tr/Tr, SLVrif)^{.41} = 0$

PGA 0

Indicatore $iPGA = PGA/PGA, SLVrif = 0$

Fattore di accelerazione $fa = 0$

Indicatori minimi riferiti al solo materiale muratura

Desc.	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	fa
Maschio 19	PF	0	SLV 1	0	0	0	0	0
Maschio 19	V	0	SLV 1	0	0	0	0	0
Maschio 118	PFFP	0.143	SLV 1	0.0309	0.1266	3	0.1254	0.1232
Maschio 19	R	0	SLV 1	0	0	0	0	0
Trave di accoppiamento 10	PF	0	SLV 1	0	0	0	0	0
Trave di accoppiamento 1	V	0	SLV 1	0	0	0	0	0

Coefficienti di sicurezza riferiti al solo materiale muratura

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 1	PF SLU	3.485	SLU 83	Si
Maschio 1	V SLU	1.559	SLU 76	Si
Maschio 1	PF	2.377	SLV 11	Si
Maschio 1	V	1.002	SLV 5	Si
Maschio 1	PFFP	6.892	SLV 15	Si
Maschio 1	R	0.333	SLV 1	No
Maschio 2	PF SLU	3.064	SLU 83	Si
Maschio 2	V SLU	1.419	SLU 83	Si
Maschio 2	PF	2.054	SLV 9	Si
Maschio 2	V	0.898	SLV 11	No
Maschio 2	PFFP	7.577	SLV 15	Si
Maschio 2	R	0.246	SLV 11	No
Maschio 3	PF SLU	1.299	SLU 48	Si
Maschio 3	V SLU	6.86	SLU 80	Si
Maschio 3	PF	0	SLV 1	No
Maschio 3	V	0	SLV 1	No
Maschio 3	PFFP	7.599	SLV 5	Si
Maschio 3	R	0	SLV 12	No
Maschio 4	PF SLU	3.666	SLU 77	Si
Maschio 4	V SLU	4.122	SLU 77	Si
Maschio 4	PF	2.872	SLV 13	Si
Maschio 4	V	0.707	SLV 9	No
Maschio 4	PFFP	19.793	SLV 9	Si
Maschio 4	R	0.19	SLV 9	No
Maschio 5	PF SLU	10.875	SLU 83	Si
Maschio 5	V SLU	2.871	SLU 83	Si
Maschio 5	PF	1.755	SLV 5	Si
Maschio 5	V	0.796	SLV 15	No
Maschio 5	PFFP	34.502	SLV 9	Si
Maschio 5	R	0	SLV 5	No
Maschio 6	PF SLU	11.184	SLU 84	Si
Maschio 6	V SLU	9.442	SLU 72	Si
Maschio 6	PF	1.648	SLV 9	Si
Maschio 6	V	0.902	SLV 9	No
Maschio 6	PFFP	29.337	SLV 9	Si
Maschio 6	R	0.209	SLV 3	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 7	PF SLU	0	SLU 83	No
Maschio 7	V SLU	1.289	SLU 83	Si
Maschio 7	PF	0.916	SLV 11	No
Maschio 7	V	1.104	SLV 7	Si
Maschio 7	PFFP	25.872	SLV 5	Si
Maschio 7	R	0.17	SLV 3	No
Maschio 8	PF SLU	0	SLU 2	No
Maschio 8	V SLU	0	SLU 2	No
Maschio 8	PF	0	SLV 10	No
Maschio 8	V	0	SLD 1	No
Maschio 8	PFFP	9.162	SLV 7	Si
Maschio 8	R	0	SLV 10	No
Maschio 9	PF SLU	2.068	SLU 44	Si
Maschio 9	V SLU	1.723	SLU 47	Si
Maschio 9	PF	1.825	SLV 9	Si
Maschio 9	V	0.546	SLV 5	No
Maschio 9	PFFP	16.226	SLV 7	Si
Maschio 9	R	0.187	SLV 11	No
Maschio 10	PF SLU	0.758	SLU 84	No
Maschio 10	V SLU	1.504	SLU 73	Si
Maschio 10	PF	1.417	SLV 13	Si
Maschio 10	V	0.584	SLV 13	No
Maschio 10	PFFP	33.219	SLV 7	Si
Maschio 10	R	0.151	SLV 7	No
Maschio 11	PF SLU	1.132	SLU 84	Si
Maschio 11	V SLU	1.236	SLU 82	Si
Maschio 11	PF	0	SLV 15	No
Maschio 11	V	0	SLV 15	No
Maschio 11	PFFP	40.686	SLV 3	Si
Maschio 11	R	0.187	SLV 7	No
Maschio 12	PF SLU	4.386	SLU 77	Si
Maschio 12	V SLU	2.34	SLU 52	Si
Maschio 12	PF	2.255	SLV 7	Si
Maschio 12	V	0.752	SLV 5	No
Maschio 12	PFFP	15.735	SLV 7	Si
Maschio 12	R	0.111	SLV 1	No
Maschio 13	PF SLU	0.949	SLU 84	No
Maschio 13	V SLU	1.641	SLU 81	Si
Maschio 13	PF	0	SLV 12	No
Maschio 13	V	0	SLD 7	No
Maschio 13	PFFP	3.077	SLV 11	Si
Maschio 13	R	0	SLV 12	No
Maschio 14	PF SLU	4.206	SLU 84	Si
Maschio 14	V SLU	2.214	SLU 84	Si
Maschio 14	PF	0	SLV 11	No
Maschio 14	V	0	SLV 11	No
Maschio 14	PFFP	3.72	SLV 11	Si
Maschio 14	R	0.191	SLV 1	No
Maschio 15	PF SLU	3.738	SLU 79	Si
Maschio 15	V SLU	9.35	SLU 30	Si
Maschio 15	PF	1.264	SLV 11	Si
Maschio 15	V	0.678	SLV 11	No
Maschio 15	PFFP	20.271	SLV 11	Si
Maschio 15	R	0.144	SLV 7	No
Maschio 16	PF SLU	7.674	SLU 82	Si
Maschio 16	V SLU	0.779	SLU 83	No
Maschio 16	PF	1.914	SLV 11	Si
Maschio 16	V	0.674	SLV 5	No
Maschio 16	PFFP	14.223	SLV 11	Si
Maschio 16	R	0.193	SLV 1	No
Maschio 18	PF SLU	2.468	SLU 84	Si
Maschio 18	V SLU	5.929	SLU 52	Si
Maschio 18	PF	2.992	SLV 5	Si
Maschio 18	V	1.129	SLV 11	Si
Maschio 18	PFFP	54.399	SLV 1	Si
Maschio 18	R	0.402	SLV 1	No
Maschio 19	PF SLU	0	SLU 84	No
Maschio 19	V SLU	0	SLU 1	No
Maschio 19	PF	0	SLV 16	No
Maschio 19	V	0	SLD 1	No
Maschio 19	PFFP	0	SLV 12	No
Maschio 19	R	0	SLV 16	No
Maschio 21	PF SLU	0	SLU 84	No
Maschio 21	V SLU	0	SLU 1	No
Maschio 21	PF	0	SLV 16	No
Maschio 21	V	0	SLD 1	No
Maschio 21	PFFP	6.089	SLV 11	Si
Maschio 21	R	0	SLV 16	No
Maschio 23	PF SLU	4.252	SLU 28	Si
Maschio 23	V SLU	1.43	SLU 70	Si
Maschio 23	PF	0	SLV 3	No
Maschio 23	V	0	SLV 3	No
Maschio 23	PFFP	0	SLV 8	No
Maschio 23	R	0.548	SLV 3	No
Maschio 25	PF SLU	1.181	SLU 48	Si
Maschio 25	V SLU	1.328	SLU 45	Si
Maschio 25	PF	1.071	SLV 9	Si
Maschio 25	V	0.251	SLV 9	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 25	PFFP	17.84	SLV 1	Si
Maschio 25	R	0.067	SLV 3	No
Maschio 26	PF SLU	7.49	SLU 83	Si
Maschio 26	V SLU	1.53	SLU 83	Si
Maschio 26	PF	2.225	SLV 13	Si
Maschio 26	V	0.89	SLV 3	No
Maschio 26	PFFP	32.259	SLV 13	Si
Maschio 26	R	0.382	SLV 9	No
Maschio 27	PF SLU	5.38	SLU 84	Si
Maschio 27	V SLU	4.588	SLU 82	Si
Maschio 27	PF	1.79	SLV 13	Si
Maschio 27	V	0.938	SLV 3	No
Maschio 27	PFFP	41.689	SLV 5	Si
Maschio 27	R	0.345	SLV 11	No
Maschio 28	PF SLU	0	SLU 73	No
Maschio 28	V SLU	5.014	SLU 83	Si
Maschio 28	PF	1.265	SLV 15	Si
Maschio 28	V	3.204	SLV 13	Si
Maschio 28	PFFP	39.462	SLV 1	Si
Maschio 28	R	0.36	SLV 11	No
Maschio 29	PF SLU	0	SLU 62	No
Maschio 29	V SLU	9.23	SLU 78	Si
Maschio 29	PF	1.299	SLV 15	Si
Maschio 29	V	4.711	SLV 15	Si
Maschio 29	PFFP	37.243	SLV 1	Si
Maschio 29	R	0	SLV 3	No
Maschio 30	PF SLU	0	SLU 81	No
Maschio 30	V SLU	3.455	SLU 84	Si
Maschio 30	PF	1.165	SLV 13	Si
Maschio 30	V	1.877	SLV 13	Si
Maschio 30	PFFP	34.034	SLV 9	Si
Maschio 30	R	0	SLV 9	No
Maschio 31	PF SLU	2.924	SLU 83	Si
Maschio 31	V SLU	3.342	SLU 82	Si
Maschio 31	PF	1.174	SLV 13	Si
Maschio 31	V	0.574	SLV 13	No
Maschio 31	PFFP	40.252	SLV 9	Si
Maschio 31	R	0.389	SLV 3	No
Maschio 32	PF SLU	0.57	SLU 83	No
Maschio 32	V SLU	12.084	SLU 84	Si
Maschio 32	PF	1.593	SLV 15	Si
Maschio 32	V	3.533	SLV 15	Si
Maschio 32	PFFP	44.964	SLV 9	Si
Maschio 32	R	0.396	SLV 1	No
Maschio 33	PF SLU	5.2	SLU 84	Si
Maschio 33	V SLU	1.37	SLU 83	Si
Maschio 33	PF	1.924	SLV 15	Si
Maschio 33	V	0.852	SLV 15	No
Maschio 33	PFFP	37.831	SLV 1	Si
Maschio 33	R	0.37	SLV 5	No
Maschio 34	PF SLU	4.006	SLU 43	Si
Maschio 34	V SLU	8.978	SLU 44	Si
Maschio 34	PF	0	SLV 11	No
Maschio 34	V	0	SLV 11	No
Maschio 34	PFFP	11.075	SLV 11	Si
Maschio 34	R	0.131	SLV 7	No
Maschio 35	PF SLU	7.635	SLU 79	Si
Maschio 35	V SLU	20.21	SLU 81	Si
Maschio 35	PF	2.033	SLV 13	Si
Maschio 35	V	1.384	SLV 13	Si
Maschio 35	PFFP	12.482	SLV 15	Si
Maschio 35	R	0.087	SLV 9	No
Maschio 36	PF SLU	2.846	SLU 84	Si
Maschio 36	V SLU	7.017	SLU 79	Si
Maschio 36	PF	2.275	SLV 1	Si
Maschio 36	V	1.236	SLV 15	Si
Maschio 36	PFFP	18.139	SLV 9	Si
Maschio 36	R	0.163	SLV 1	No
Maschio 37	PF SLU	14.508	SLU 49	Si
Maschio 37	V SLU	4.739	SLU 82	Si
Maschio 37	PF	5.011	SLV 1	Si
Maschio 37	V	1.088	SLV 1	Si
Maschio 37	PFFP	23.224	SLV 9	Si
Maschio 37	R	0.189	SLV 5	No
Maschio 38	PF SLU	19.172	SLU 48	Si
Maschio 38	V SLU	6.957	SLU 84	Si
Maschio 38	PF	5.337	SLV 13	Si
Maschio 38	V	1.091	SLV 13	Si
Maschio 38	PFFP	21.7	SLV 5	Si
Maschio 38	R	0.075	SLV 9	No
Maschio 39	PF SLU	5.3	SLU 82	Si
Maschio 39	V SLU	5.069	SLU 84	Si
Maschio 39	PF	1.684	SLV 1	Si
Maschio 39	V	1.125	SLV 13	Si
Maschio 39	PFFP	9.473	SLV 1	Si
Maschio 39	R	0.367	SLV 7	No
Maschio 40	PF SLU	5.466	SLU 82	Si
Maschio 40	V SLU	1.344	SLU 79	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 40	PF	2.872	SLV 11	Si
Maschio 40	V	0.94	SLV 5	No
Maschio 40	PFFP	33.552	SLV 11	Si
Maschio 40	R	0.362	SLV 1	No
Maschio 41	PF SLU	3.7	SLU 79	Si
Maschio 41	V SLU	3.493	SLU 79	Si
Maschio 41	PF	2.921	SLV 9	Si
Maschio 41	V	1.134	SLV 9	Si
Maschio 41	PFFP	281.296	SLV 11	Si
Maschio 41	R	1.133	SLV 5	Si
Maschio 42	PF SLU	15.115	SLU 82	Si
Maschio 42	V SLU	3.186	SLU 52	Si
Maschio 42	PF	5.098	SLV 11	Si
Maschio 42	V	1.084	SLV 7	Si
Maschio 42	PFFP	35.544	SLV 13	Si
Maschio 42	R	0.263	SLV 1	No
Maschio 44	PF SLU	1.958	SLU 82	Si
Maschio 44	V SLU	1.184	SLU 82	Si
Maschio 44	PF	3.468	SLV 7	Si
Maschio 44	V	0.958	SLV 7	No
Maschio 44	PFFP	23.331	SLV 9	Si
Maschio 44	R	0.176	SLV 11	No
Maschio 45	PF SLU	2.061	SLU 79	Si
Maschio 45	V SLU	8.403	SLU 29	Si
Maschio 45	PF	1.288	SLV 7	Si
Maschio 45	V	0.755	SLV 7	No
Maschio 45	PFFP	21.34	SLV 7	Si
Maschio 45	R	0.182	SLV 3	No
Maschio 46	PF SLU	5.373	SLU 38	Si
Maschio 46	V SLU	2.389	SLU 84	Si
Maschio 46	PF	0	SLV 3	No
Maschio 46	V	0	SLV 3	No
Maschio 46	PFFP	3.886	SLV 7	Si
Maschio 46	R	0.167	SLV 13	No
Maschio 47	PF SLU	3.154	SLU 41	Si
Maschio 47	V SLU	3.808	SLU 83	Si
Maschio 47	PF	0	SLV 12	No
Maschio 47	V	0	SLV 3	No
Maschio 47	PFFP	11.608	SLV 7	Si
Maschio 47	R	0	SLV 12	No
Maschio 48	PF SLU	3.569	SLU 83	Si
Maschio 48	V SLU	3.385	SLU 2	Si
Maschio 48	PF	2.51	SLV 11	Si
Maschio 48	V	1.273	SLV 11	Si
Maschio 48	PFFP	23.4	SLV 11	Si
Maschio 48	R	0.213	SLV 1	No
Maschio 49	PF SLU	1.321	SLU 84	Si
Maschio 49	V SLU	1.427	SLU 84	Si
Maschio 49	PF	0	SLV 3	No
Maschio 49	V	0	SLV 3	No
Maschio 49	PFFP	36.423	SLV 15	Si
Maschio 49	R	0.17	SLV 11	No
Maschio 50	PF SLU	1.014	SLU 84	Si
Maschio 50	V SLU	1.763	SLU 73	Si
Maschio 50	PF	1.371	SLV 3	Si
Maschio 50	V	0.997	SLV 1	No
Maschio 50	PFFP	27.555	SLV 11	Si
Maschio 50	R	0	SLV 7	No
Maschio 51	PF SLU	2.47	SLU 47	Si
Maschio 51	V SLU	1.451	SLU 76	Si
Maschio 51	PF	2.043	SLV 3	Si
Maschio 51	V	0.632	SLV 13	No
Maschio 51	PFFP	14.265	SLV 7	Si
Maschio 51	R	0.183	SLV 7	No
Maschio 52	PF SLU	3.786	SLU 5	Si
Maschio 52	V SLU	2.459	SLU 2	Si
Maschio 52	PF	1.802	SLV 3	Si
Maschio 52	V	0.739	SLV 1	No
Maschio 52	PFFP	9.086	SLV 7	Si
Maschio 52	R	0.254	SLV 7	No
Maschio 53	PF SLU	0.433	SLU 83	No
Maschio 53	V SLU	32.838	SLU 41	Si
Maschio 53	PF	1.671	SLV 7	Si
Maschio 53	V	1.371	SLV 11	Si
Maschio 53	PFFP	27.719	SLV 9	Si
Maschio 53	R	0.208	SLV 15	No
Maschio 54	PF SLU	4.345	SLU 81	Si
Maschio 54	V SLU	3.493	SLU 81	Si
Maschio 54	PF	1.898	SLV 15	Si
Maschio 54	V	0.462	SLV 11	No
Maschio 54	PFFP	15.654	SLV 15	Si
Maschio 54	R	0.337	SLV 3	No
Maschio 55	PF SLU	9.713	SLU 43	Si
Maschio 55	V SLU	7.713	SLU 50	Si
Maschio 55	PF	0	SLV 6	No
Maschio 55	V	0	SLV 5	No
Maschio 55	PFFP	8.165	SLV 5	Si
Maschio 55	R	0	SLV 6	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 56	PF SLU	10.734	SLU 76	Si
Maschio 56	V SLU	3.529	SLU 76	Si
Maschio 56	PF	2.532	SLV 7	Si
Maschio 56	V	1.666	SLV 9	Si
Maschio 56	PFFP	14.068	SLV 3	Si
Maschio 56	R	0.374	SLV 13	No
Maschio 57	PF SLU	9.804	SLU 76	Si
Maschio 57	V SLU	3.081	SLU 83	Si
Maschio 57	PF	1.957	SLV 5	Si
Maschio 57	V	1.693	SLV 11	Si
Maschio 57	PFFP	11.355	SLV 1	Si
Maschio 57	R	0.363	SLV 15	No
Maschio 58	PF SLU	7.611	SLU 76	Si
Maschio 58	V SLU	12.745	SLU 5	Si
Maschio 58	PF	2.771	SLV 9	Si
Maschio 58	V	1.033	SLV 11	Si
Maschio 58	PFFP	2.167	SLV 15	Si
Maschio 58	R	0.037	SLV 15	No
Maschio 59	PF SLU	1.007	SLU 79	Si
Maschio 59	V SLU	0.275	SLU 50	No
Maschio 59	PF	0	SLV 3	No
Maschio 59	V	0	SLV 3	No
Maschio 59	PFFP	2.186	SLV 15	Si
Maschio 59	R	0.063	SLV 5	No
Maschio 60	PF SLU	1.892	SLU 83	Si
Maschio 60	V SLU	1.52	SLU 83	Si
Maschio 60	PF	0	SLV 9	No
Maschio 60	V	0	SLV 9	No
Maschio 60	PFFP	4.191	SLV 5	Si
Maschio 60	R	0.06	SLV 15	No
Maschio 61	PF SLU	0	SLU 2	No
Maschio 61	V SLU	0	SLU 2	No
Maschio 61	PF	0	SLD 1	No
Maschio 61	V	0	SLD 1	No
Maschio 61	PFFP	2.166	SLV 15	Si
Maschio 61	R	0.05	SLV 13	No
Maschio 62	PF SLU	1.633	SLU 2	Si
Maschio 62	V SLU	1.741	SLU 44	Si
Maschio 62	PF	0	SLV 1	No
Maschio 62	V	0	SLV 1	No
Maschio 62	PFFP	2.304	SLV 5	Si
Maschio 62	R	0.066	SLV 13	No
Maschio 63	PF SLU	1.199	SLU 82	Si
Maschio 63	V SLU	1.832	SLU 73	Si
Maschio 63	PF	0	SLV 13	No
Maschio 63	V	0	SLV 13	No
Maschio 63	PFFP	7.391	SLV 11	Si
Maschio 63	R	0.067	SLV 1	No
Maschio 64	PF SLU	0.235	SLU 83	No
Maschio 64	V SLU	2.247	SLU 81	Si
Maschio 64	PF	2.188	SLV 15	Si
Maschio 64	V	0.644	SLV 7	No
Maschio 64	PFFP	5.045	SLV 9	Si
Maschio 64	R	0.02	SLV 7	No
Maschio 65	PF SLU	0	SLU 74	No
Maschio 65	V SLU	0.828	SLU 83	No
Maschio 65	PF	0	SLV 1	No
Maschio 65	V	0	SLV 1	No
Maschio 65	PFFP	7.625	SLV 9	Si
Maschio 65	R	0	SLV 5	No
Maschio 66	PF SLU	0.876	SLU 84	No
Maschio 66	V SLU	1.733	SLU 79	Si
Maschio 66	PF	0	SLV 8	No
Maschio 66	V	0	SLV 7	No
Maschio 66	PFFP	6.353	SLV 11	Si
Maschio 66	R	0.053	SLV 7	No
Maschio 67	PF SLU	4.383	SLU 44	Si
Maschio 67	V SLU	2.422	SLU 2	Si
Maschio 67	PF	2.377	SLV 9	Si
Maschio 67	V	0.462	SLV 7	No
Maschio 67	PFFP	3.269	SLV 15	Si
Maschio 67	R	0.02	SLV 1	No
Maschio 68	PF SLU	1.176	SLU 82	Si
Maschio 68	V SLU	0.551	SLU 82	No
Maschio 68	PF	0	SLV 1	No
Maschio 68	V	0	SLV 1	No
Maschio 68	PFFP	1.715	SLV 3	Si
Maschio 68	R	0.048	SLV 11	No
Maschio 69	PF SLU	0	SLU 52	No
Maschio 69	V SLU	3.708	SLU 80	Si
Maschio 69	PF	0.916	SLV 11	No
Maschio 69	V	0.578	SLV 11	No
Maschio 69	PFFP	5.35	SLV 11	Si
Maschio 69	R	0.015	SLV 15	No
Maschio 70	PF SLU	2.582	SLU 83	Si
Maschio 70	V SLU	2.313	SLU 83	Si
Maschio 70	PF	1.897	SLV 11	Si
Maschio 70	V	1.149	SLV 9	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 70	PFFP	17.737	SLV 11	Si
Maschio 70	R	0.246	SLV 11	No
Maschio 71	PF SLU	0.516	SLU 83	No
Maschio 71	V SLU	0.251	SLU 50	No
Maschio 71	PF	0	SLD 1	No
Maschio 71	V	0	SLD 1	No
Maschio 71	PFFP	36.823	SLV 11	Si
Maschio 71	R	0.305	SLV 11	No
Maschio 73	PF SLU	3.742	SLU 83	Si
Maschio 73	V SLU	5.609	SLU 73	Si
Maschio 73	PF	3.877	SLV 15	Si
Maschio 73	V	0.916	SLV 11	No
Maschio 73	PFFP	16.181	SLV 1	Si
Maschio 73	R	0.145	SLV 1	No
Maschio 74	PF SLU	0	SLU 1	No
Maschio 74	V SLU	0	SLU 1	No
Maschio 74	PF	0	SLV 6	No
Maschio 74	V	0	SLD 1	No
Maschio 74	PFFP	8.998	SLV 3	Si
Maschio 74	R	0	SLV 10	No
Maschio 75	PF SLU	0	SLU 56	No
Maschio 75	V SLU	2.327	SLU 77	Si
Maschio 75	PF	0	SLV 6	No
Maschio 75	V	0	SLV 1	No
Maschio 75	PFFP	0	SLV 6	No
Maschio 75	R	0.063	SLV 13	No
Maschio 76	PF SLU	2.661	SLU 83	Si
Maschio 76	V SLU	1.514	SLU 83	Si
Maschio 76	PF	1.346	SLV 13	Si
Maschio 76	V	0.735	SLV 3	No
Maschio 76	PFFP	7.882	SLV 13	Si
Maschio 76	R	0.063	SLV 3	No
Maschio 77	PF SLU	2.299	SLU 83	Si
Maschio 77	V SLU	3.343	SLU 82	Si
Maschio 77	PF	2.745	SLV 1	Si
Maschio 77	V	0.765	SLV 3	No
Maschio 77	PFFP	10.455	SLV 5	Si
Maschio 77	R	0.058	SLV 9	No
Maschio 78	PF SLU	9.338	SLU 82	Si
Maschio 78	V SLU	2.428	SLU 84	Si
Maschio 78	PF	4.251	SLV 15	Si
Maschio 78	V	0.761	SLV 15	No
Maschio 78	PFFP	9.411	SLV 9	Si
Maschio 78	R	0.058	SLV 9	No
Maschio 79	PF SLU	2.686	SLU 83	Si
Maschio 79	V SLU	1.362	SLU 83	Si
Maschio 79	PF	2.312	SLV 3	Si
Maschio 79	V	0.807	SLV 15	No
Maschio 79	PFFP	9.408	SLV 1	Si
Maschio 79	R	0.059	SLV 7	No
Maschio 80	PF SLU	0.854	SLU 82	No
Maschio 80	V SLU	21.298	SLU 60	Si
Maschio 80	PF	0.725	SLV 7	No
Maschio 80	V	0.118	SLV 7	No
Maschio 80	PFFP	5.434	SLV 11	Si
Maschio 80	R	0.013	SLV 13	No
Maschio 81	PF SLU	2.765	SLU 84	Si
Maschio 81	V SLU	1.281	SLU 82	Si
Maschio 81	PF	0.977	SLV 13	No
Maschio 81	V	0.13	SLV 13	No
Maschio 81	PFFP	5.975	SLV 13	Si
Maschio 81	R	0.063	SLV 3	No
Maschio 82	PF SLU	7.604	SLU 84	Si
Maschio 82	V SLU	6.689	SLU 84	Si
Maschio 82	PF	2.406	SLV 13	Si
Maschio 82	V	0.898	SLV 1	No
Maschio 82	PFFP	6.771	SLV 9	Si
Maschio 82	R	0.063	SLV 9	No
Maschio 83	PF SLU	7.968	SLU 83	Si
Maschio 83	V SLU	9.572	SLU 84	Si
Maschio 83	PF	2.369	SLV 1	Si
Maschio 83	V	0.906	SLV 13	No
Maschio 83	PFFP	6.525	SLV 5	Si
Maschio 83	R	0.063	SLV 15	No
Maschio 84	PF SLU	2.701	SLU 77	Si
Maschio 84	V SLU	1.044	SLU 84	Si
Maschio 84	PF	1.135	SLV 1	Si
Maschio 84	V	0.486	SLV 13	No
Maschio 84	PFFP	6.551	SLV 5	Si
Maschio 84	R	0.063	SLV 13	No
Maschio 85	PF SLU	1.341	SLU 83	Si
Maschio 85	V SLU	2.056	SLU 79	Si
Maschio 85	PF	1.703	SLV 13	Si
Maschio 85	V	1.329	SLV 9	Si
Maschio 85	PFFP	22.16	SLV 7	Si
Maschio 85	R	0.228	SLV 7	No
Maschio 86	PF SLU	5.239	SLU 84	Si
Maschio 86	V SLU	8.767	SLU 52	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 86	PF	5.034	SLV 11	Si
Maschio 86	V	1.027	SLV 7	Si
Maschio 86	PFFP	17.89	SLV 11	Si
Maschio 86	R	0.131	SLV 1	No
Maschio 87	PF SLU	0	SLU 52	No
Maschio 87	V SLU	3.005	SLU 79	Si
Maschio 87	PF	0.825	SLV 11	No
Maschio 87	V	0.485	SLV 7	No
Maschio 87	PFFP	5.551	SLV 3	Si
Maschio 87	R	0.017	SLV 3	No
Maschio 88	PF SLU	1.235	SLU 82	Si
Maschio 88	V SLU	0.847	SLU 82	No
Maschio 88	PF	0	SLV 16	No
Maschio 88	V	0	SLV 3	No
Maschio 88	PFFP	0	SLV 16	No
Maschio 88	R	0.044	SLV 7	No
Maschio 89	PF SLU	0	SLU 61	No
Maschio 89	V SLU	2.821	SLU 52	Si
Maschio 89	PF	1.904	SLV 5	Si
Maschio 89	V	0.83	SLV 11	No
Maschio 89	PFFP	4.958	SLV 11	Si
Maschio 89	R	0.021	SLV 3	No
Maschio 90	PF SLU	0.613	SLU 84	No
Maschio 90	V SLU	0.839	SLU 84	No
Maschio 90	PF	0	SLV 12	No
Maschio 90	V	0	SLV 7	No
Maschio 90	PFFP	4.361	SLV 7	Si
Maschio 90	R	0.059	SLV 11	No
Maschio 91	PF SLU	0	SLU 74	No
Maschio 91	V SLU	2.892	SLU 83	Si
Maschio 91	PF	1.869	SLV 7	Si
Maschio 91	V	0.775	SLV 11	No
Maschio 91	PFFP	4.959	SLV 9	Si
Maschio 91	R	0.02	SLV 11	No
Maschio 92	PF SLU	0	SLU 1	No
Maschio 92	V SLU	0	SLU 1	No
Maschio 92	PF	0	SLD 5	No
Maschio 92	V	0	SLD 5	No
Maschio 92	PFFP	1.896	SLV 13	Si
Maschio 92	R	0.064	SLV 1	No
Maschio 93	PF SLU	0	SLU 20	No
Maschio 93	V SLU	1.04	SLU 82	Si
Maschio 93	PF	0	SLD 13	No
Maschio 93	V	0	SLD 13	No
Maschio 93	PFFP	6.62	SLV 1	Si
Maschio 93	R	0.006	SLV 13	No
Maschio 94	PF SLU	0	SLU 55	No
Maschio 94	V SLU	2.142	SLU 73	Si
Maschio 94	PF	0	SLV 3	No
Maschio 94	V	0	SLV 3	No
Maschio 94	PFFP	6.891	SLV 7	Si
Maschio 94	R	0.067	SLV 15	No
Maschio 95	PF SLU	1.558	SLU 2	Si
Maschio 95	V SLU	1.017	SLU 44	Si
Maschio 95	PF	0.896	SLV 15	No
Maschio 95	V	0.005	SLV 15	No
Maschio 95	PFFP	6.234	SLV 9	Si
Maschio 95	R	0.064	SLV 11	No
Maschio 96	PF SLU	1.282	SLU 2	Si
Maschio 96	V SLU	0.497	SLU 73	No
Maschio 96	PF	0	SLV 3	No
Maschio 96	V	0	SLV 3	No
Maschio 96	PFFP	0	SLV 7	No
Maschio 96	R	0.06	SLV 15	No
Maschio 97	PF SLU	2.269	SLU 77	Si
Maschio 97	V SLU	1.376	SLU 83	Si
Maschio 97	PF	0	SLV 5	No
Maschio 97	V	0	SLV 5	No
Maschio 97	PFFP	3.059	SLV 9	Si
Maschio 97	R	0	SLV 10	No
Maschio 98	PF SLU	2.103	SLU 81	Si
Maschio 98	V SLU	0.798	SLU 84	No
Maschio 98	PF	0	SLV 1	No
Maschio 98	V	0	SLV 1	No
Maschio 98	PFFP	0	SLV 6	No
Maschio 98	R	0	SLV 10	No
Maschio 99	PF SLU	2.619	SLU 76	Si
Maschio 99	V SLU	21.288	SLU 5	Si
Maschio 99	PF	1.845	SLV 5	Si
Maschio 99	V	1.754	SLV 5	Si
Maschio 99	PFFP	5.749	SLV 1	Si
Maschio 99	R	0.062	SLV 15	No
Maschio 100	PF SLU	1.961	SLU 76	Si
Maschio 100	V SLU	1.598	SLU 84	Si
Maschio 100	PF	1.751	SLV 13	Si
Maschio 100	V	1.286	SLV 9	Si
Maschio 100	PFFP	4.1	SLV 15	Si
Maschio 100	R	0.068	SLV 1	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 101	PF SLU	1.877	SLU 81	Si
Maschio 101	V SLU	1.311	SLU 81	Si
Maschio 101	PF	1.646	SLV 7	Si
Maschio 101	V	1.062	SLV 7	Si
Maschio 101	PFFP	2.54	SLV 13	Si
Maschio 101	R	0.067	SLV 1	No
Maschio 102	PF SLU	2.033	SLU 81	Si
Maschio 102	V SLU	1.704	SLU 82	Si
Maschio 102	PF	1.476	SLV 3	Si
Maschio 102	V	0.864	SLV 1	No
Maschio 102	PFFP	3.695	SLV 13	Si
Maschio 102	R	0.064	SLV 1	No
Maschio 103	PF SLU	11.051	SLU 30	Si
Maschio 103	V SLU	4.437	SLU 61	Si
Maschio 103	PF	1.416	SLV 1	Si
Maschio 103	V	0.474	SLV 1	No
Maschio 103	PFFP	3.835	SLV 1	Si
Maschio 103	R	0.007	SLV 7	No
Maschio 104	PF SLU	1.159	SLU 76	Si
Maschio 104	V SLU	0.654	SLU 76	No
Maschio 104	PF	1.189	SLV 1	Si
Maschio 104	V	0.456	SLV 1	No
Maschio 104	PFFP	3.992	SLV 15	Si
Maschio 104	R	0.062	SLV 3	No
Maschio 105	PF SLU	5.888	SLU 73	Si
Maschio 105	V SLU	17.043	SLU 28	Si
Maschio 105	PF	1.553	SLV 3	Si
Maschio 105	V	0.621	SLV 3	No
Maschio 105	PFFP	3.28	SLV 7	Si
Maschio 105	R	0.057	SLV 11	No
Maschio 106	PF SLU	2.506	SLU 73	Si
Maschio 106	V SLU	5.163	SLU 52	Si
Maschio 106	PF	0	SLV 9	No
Maschio 106	V	0	SLV 9	No
Maschio 106	PFFP	4.142	SLV 11	Si
Maschio 106	R	0	SLV 1	No
Maschio 107	PF SLU	5.469	SLU 29	Si
Maschio 107	V SLU	9.795	SLU 51	Si
Maschio 107	PF	6.609	SLV 1	Si
Maschio 107	V	0.735	SLV 9	No
Maschio 107	PFFP	3.218	SLV 5	Si
Maschio 107	R	0.018	SLV 1	No
Maschio 108	PF SLU	3.184	SLU 82	Si
Maschio 108	V SLU	2.487	SLU 82	Si
Maschio 108	PF	0	SLV 6	No
Maschio 108	V	0	SLD 1	No
Maschio 108	PFFP	4.419	SLV 5	Si
Maschio 108	R	0	SLV 6	No
Maschio 109	PF SLU	2.268	SLU 73	Si
Maschio 109	V SLU	1.845	SLU 73	Si
Maschio 109	PF	0	SLV 8	No
Maschio 109	V	0	SLV 3	No
Maschio 109	PFFP	4.571	SLV 15	Si
Maschio 109	R	0	SLV 8	No
Maschio 110	PF SLU	4.542	SLU 76	Si
Maschio 110	V SLU	3.911	SLU 2	Si
Maschio 110	PF	3.061	SLV 13	Si
Maschio 110	V	0.725	SLV 11	No
Maschio 110	PFFP	2.817	SLV 15	Si
Maschio 110	R	0.02	SLV 3	No
Maschio 111	PF SLU	3.02	SLU 73	Si
Maschio 111	V SLU	1.134	SLU 82	Si
Maschio 111	PF	1.013	SLV 15	Si
Maschio 111	V	0.19	SLV 15	No
Maschio 111	PFFP	4.653	SLV 3	Si
Maschio 111	R	0	SLV 5	No
Maschio 112	PF SLU	4.304	SLU 82	Si
Maschio 112	V SLU	5.844	SLU 30	Si
Maschio 112	PF	3.408	SLV 5	Si
Maschio 112	V	1.286	SLV 11	Si
Maschio 112	PFFP	3.479	SLV 15	Si
Maschio 112	R	0.02	SLV 5	No
Maschio 114	PF SLU	0	SLU 1	No
Maschio 114	V SLU	0	SLU 1	No
Maschio 114	PF	0	SLV 16	No
Maschio 114	V	0	SLD 1	No
Maschio 114	PFFP	0	SLV 12	No
Maschio 114	R	0	SLV 12	No
Maschio 115	PF SLU	1.028	SLU 77	Si
Maschio 115	V SLU	3.165	SLU 29	Si
Maschio 115	PF	0	SLV 6	No
Maschio 115	V	0	SLV 1	No
Maschio 115	PFFP	1.398	SLV 5	Si
Maschio 115	R	0	SLV 12	No
Maschio 116	PF SLU	3.834	SLU 71	Si
Maschio 116	V SLU	25.857	SLU 43	Si
Maschio 116	PF	1.302	SLV 7	Si
Maschio 116	V	0.384	SLV 7	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 116	PFFP	2.93	SLV 7	Si
Maschio 116	R	0.019	SLV 9	No
Maschio 117	PF SLU	1.188	SLU 51	Si
Maschio 117	V SLU	1000	SLU 1	Si
Maschio 117	PF	0	SLV 12	No
Maschio 117	V	0	SLD 3	No
Maschio 117	PFFP	0	SLV 12	No
Maschio 117	R	0	SLV 12	No
Maschio 118	PF SLU	0	SLU 1	No
Maschio 118	V SLU	0	SLU 1	No
Maschio 118	PF	0	SLV 8	No
Maschio 118	V	0	SLD 1	No
Maschio 118	PFFP	0	SLV 6	No
Maschio 118	R	0	SLV 8	No
Maschio 119	PF SLU	5.566	SLU 82	Si
Maschio 119	V SLU	5.626	SLU 82	Si
Maschio 119	PF	0	SLV 13	No
Maschio 119	V	0	SLV 13	No
Maschio 119	PFFP	2.888	SLV 13	Si
Maschio 119	R	0	SLV 5	No
Maschio 120	PF SLU	26.878	SLU 82	Si
Maschio 120	V SLU	10.597	SLU 51	Si
Maschio 120	PF	2.56	SLV 13	Si
Maschio 120	V	0.894	SLV 1	No
Maschio 120	PFFP	5.551	SLV 9	Si
Maschio 120	R	0.069	SLV 3	No
Maschio 121	PF SLU	14.202	SLU 80	Si
Maschio 121	V SLU	8.083	SLU 72	Si
Maschio 121	PF	2.55	SLV 1	Si
Maschio 121	V	0.9	SLV 1	No
Maschio 121	PFFP	5.625	SLV 5	Si
Maschio 121	R	0.062	SLV 5	No
Maschio 122	PF SLU	5.129	SLU 82	Si
Maschio 122	V SLU	6.254	SLU 82	Si
Maschio 122	PF	0	SLV 1	No
Maschio 122	V	0	SLV 1	No
Maschio 122	PFFP	3.134	SLV 1	Si
Maschio 122	R	0	SLV 5	No
Maschio 123	PF SLU	3.669	SLU 77	Si
Maschio 123	V SLU	1.753	SLU 41	Si
Maschio 123	PF	2.656	SLV 3	Si
Maschio 123	V	0.714	SLV 1	No
Maschio 123	PFFP	5.143	SLV 13	Si
Maschio 123	R	0.041	SLV 11	No
Maschio 124	PF SLU	21.201	SLU 48	Si
Maschio 124	V SLU	13.92	SLU 61	Si
Maschio 124	PF	2.957	SLV 1	Si
Maschio 124	V	0.686	SLV 3	No
Maschio 124	PFFP	7.844	SLV 5	Si
Maschio 124	R	0.055	SLV 9	No
Maschio 125	PF SLU	2.793	SLU 78	Si
Maschio 125	V SLU	6.69	SLU 44	Si
Maschio 125	PF	0	SLV 1	No
Maschio 125	V	0	SLV 1	No
Maschio 125	PFFP	9.198	SLV 9	Si
Maschio 125	R	0.002	SLV 9	No
Maschio 126	PF SLU	3.075	SLU 84	Si
Maschio 126	V SLU	4.427	SLU 52	Si
Maschio 126	PF	1.175	SLV 15	Si
Maschio 126	V	0.529	SLV 15	No
Maschio 126	PFFP	8.453	SLV 13	Si
Maschio 126	R	0.047	SLV 9	No
Maschio 127	PF SLU	3.168	SLU 84	Si
Maschio 127	V SLU	2.893	SLU 77	Si
Maschio 127	PF	1.024	SLV 15	Si
Maschio 127	V	0.311	SLV 15	No
Maschio 127	PFFP	9.037	SLV 9	Si
Maschio 127	R	0.055	SLV 9	No
Maschio 128	PF SLU	4.963	SLU 77	Si
Maschio 128	V SLU	1.819	SLU 83	Si
Maschio 128	PF	2.47	SLV 3	Si
Maschio 128	V	0.81	SLV 15	No
Maschio 128	PFFP	6.105	SLV 1	Si
Maschio 128	R	0.046	SLV 7	No
Maschio 130	PF SLU	6.144	SLU 82	Si
Maschio 130	V SLU	4.698	SLU 29	Si
Maschio 130	PF	3.706	SLV 5	Si
Maschio 130	V	1.295	SLV 7	Si
Maschio 130	PFFP	4.031	SLV 15	Si
Maschio 130	R	0.016	SLV 15	No
Maschio 131	PF SLU	4.527	SLU 82	Si
Maschio 131	V SLU	1.784	SLU 82	Si
Maschio 131	PF	0.956	SLV 15	No
Maschio 131	V	0.101	SLV 15	No
Maschio 131	PFFP	3.347	SLV 15	Si
Maschio 131	R	0.006	SLV 7	No
Maschio 132	PF SLU	6.138	SLU 76	Si
Maschio 132	V SLU	4.416	SLU 2	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 132	PF	4.711	SLV 1	Si
Maschio 132	V	0.854	SLV 11	No
Maschio 132	PFFP	3.621	SLV 7	Si
Maschio 132	R	0.02	SLV 1	No
Maschio 133	PF SLU	3.19	SLU 73	Si
Maschio 133	V SLU	7.16	SLU 23	Si
Maschio 133	PF	0	SLV 12	No
Maschio 133	V	0	SLV 3	No
Maschio 133	PFFP	1.435	SLV 7	Si
Maschio 133	R	0	SLV 12	No
Maschio 134	PF SLU	10.123	SLU 29	Si
Maschio 134	V SLU	6.572	SLU 81	Si
Maschio 134	PF	8.124	SLV 5	Si
Maschio 134	V	0.779	SLV 5	No
Maschio 134	PFFP	3.243	SLV 9	Si
Maschio 134	R	0.018	SLV 13	No
Maschio 135	PF SLU	0.266	SLU 77	No
Maschio 135	V SLU	0.41	SLU 82	No
Maschio 135	PF	0	SLV 14	No
Maschio 135	V	0	SLD 9	No
Maschio 135	PFFP	0	SLV 14	No
Maschio 135	R	0	SLV 10	No
Maschio 136	PF SLU	2.127	SLU 79	Si
Maschio 136	V SLU	21.339	SLU 84	Si
Maschio 136	PF	0.897	SLV 1	No
Maschio 136	V	0.392	SLV 1	No
Maschio 136	PFFP	4.501	SLV 5	Si
Maschio 136	R	0	SLV 16	No
Maschio 137	PF SLU	2.232	SLU 82	Si
Maschio 137	V SLU	6.341	SLU 79	Si
Maschio 137	PF	0	SLV 1	No
Maschio 137	V	0	SLV 1	No
Maschio 137	PFFP	3.598	SLV 7	Si
Maschio 137	R	0.068	SLV 15	No
Maschio 138	PF SLU	5.465	SLU 84	Si
Maschio 138	V SLU	5.976	SLU 84	Si
Maschio 138	PF	1.884	SLV 15	Si
Maschio 138	V	0.686	SLV 3	No
Maschio 138	PFFP	3.755	SLV 11	Si
Maschio 138	R	0.066	SLV 13	No
Maschio 139	PF SLU	5.358	SLU 31	Si
Maschio 139	V SLU	1.03	SLU 73	Si
Maschio 139	PF	1.638	SLV 3	Si
Maschio 139	V	0.669	SLV 15	No
Maschio 139	PFFP	2.844	SLV 7	Si
Maschio 139	R	0.058	SLV 1	No
Maschio 140	PF SLU	10.809	SLU 30	Si
Maschio 140	V SLU	6.928	SLU 82	Si
Maschio 140	PF	1.424	SLV 13	Si
Maschio 140	V	0.58	SLV 13	No
Maschio 140	PFFP	3.922	SLV 9	Si
Maschio 140	R	0.036	SLV 9	No
Maschio 141	PF SLU	7.629	SLU 82	Si
Maschio 141	V SLU	1.995	SLU 82	Si
Maschio 141	PF	1.594	SLV 1	Si
Maschio 141	V	0.899	SLV 13	No
Maschio 141	PFFP	2.499	SLV 5	Si
Maschio 141	R	0.066	SLV 13	No
Maschio 142	PF SLU	10.418	SLU 76	Si
Maschio 142	V SLU	25.034	SLU 5	Si
Maschio 142	PF	2.829	SLV 5	Si
Maschio 142	V	1.916	SLV 7	Si
Maschio 142	PFFP	4.364	SLV 1	Si
Maschio 142	R	0.068	SLV 15	No
Maschio 143	PF SLU	5.944	SLU 37	Si
Maschio 143	V SLU	4.412	SLU 82	Si
Maschio 143	PF	4.049	SLV 9	Si
Maschio 143	V	1.767	SLV 5	Si
Maschio 143	PFFP	2.48	SLV 11	Si
Maschio 143	R	0.064	SLV 1	No
Maschio 144	PF SLU	5.648	SLU 83	Si
Maschio 144	V SLU	3.44	SLU 81	Si
Maschio 144	PF	3.195	SLV 7	Si
Maschio 144	V	1.817	SLV 7	Si
Maschio 144	PFFP	1.929	SLV 13	Si
Maschio 144	R	0.059	SLV 3	No
Maschio 145	PF SLU	8.355	SLU 61	Si
Maschio 145	V SLU	3.157	SLU 82	Si
Maschio 145	PF	1.23	SLV 13	Si
Maschio 145	V	0.584	SLV 13	No
Maschio 145	PFFP	2.444	SLV 13	Si
Maschio 145	R	0.034	SLV 9	No
Maschio 146	PF SLU	0	SLU 29	No
Maschio 146	V SLU	0	SLU 6	No
Maschio 146	PF	0	SLV 4	No
Maschio 146	V	0	SLD 3	No
Maschio 146	PFFP	0	SLV 4	No
Maschio 146	R	0	SLV 4	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 147	PF SLU	4.382	SLU 82	Si
Maschio 147	V SLU	1.358	SLU 82	Si
Maschio 147	PF	2.668	SLV 3	Si
Maschio 147	V	1.082	SLV 3	Si
Maschio 147	PFFP	2.561	SLV 11	Si
Maschio 147	R	0.063	SLV 3	No
Maschio 148	PF SLU	5.551	SLU 68	Si
Maschio 148	V SLU	1.956	SLU 80	Si
Maschio 148	PF	1.58	SLV 1	Si
Maschio 148	V	0.678	SLV 1	No
Maschio 148	PFFP	2.82	SLV 7	Si
Maschio 148	R	0.062	SLV 5	No
Maschio 149	PF SLU	3.168	SLU 30	Si
Maschio 149	V SLU	2.341	SLU 71	Si
Maschio 149	PF	0	SLV 14	No
Maschio 149	V	0	SLV 1	No
Maschio 149	PFFP	1.427	SLV 15	Si
Maschio 149	R	0	SLV 1	No
Maschio 150	PF SLU	3.349	SLU 29	Si
Maschio 150	V SLU	6.273	SLU 51	Si
Maschio 150	PF	3.741	SLV 9	Si
Maschio 150	V	0.857	SLV 9	No
Maschio 150	PFFP	1.718	SLV 5	Si
Maschio 150	R	0.019	SLV 15	No
Maschio 151	PF SLU	3.301	SLU 71	Si
Maschio 151	V SLU	5.123	SLU 29	Si
Maschio 151	PF	0	SLV 5	No
Maschio 151	V	0	SLV 5	No
Maschio 151	PFFP	2.271	SLV 9	Si
Maschio 151	R	0.06	SLV 1	No
Maschio 152	PF SLU	3.004	SLU 44	Si
Maschio 152	V SLU	3.679	SLU 73	Si
Maschio 152	PF	0	SLV 8	No
Maschio 152	V	0	SLV 3	No
Maschio 152	PFFP	1.58	SLV 15	Si
Maschio 152	R	0	SLV 8	No
Maschio 153	PF SLU	4.4	SLU 26	Si
Maschio 153	V SLU	3.638	SLU 29	Si
Maschio 153	PF	2.872	SLV 13	Si
Maschio 153	V	0.841	SLV 7	No
Maschio 153	PFFP	1.771	SLV 3	Si
Maschio 153	R	0.019	SLV 15	No
Maschio 154	PF SLU	4.497	SLU 82	Si
Maschio 154	V SLU	1.186	SLU 82	Si
Maschio 154	PF	0	SLV 6	No
Maschio 154	V	0	SLV 1	No
Maschio 154	PFFP	0	SLV 6	No
Maschio 154	R	0	SLV 10	No
Maschio 155	PF SLU	13.971	SLU 82	Si
Maschio 155	V SLU	4.782	SLU 30	Si
Maschio 155	PF	5.627	SLV 5	Si
Maschio 155	V	1.418	SLV 11	Si
Maschio 155	PFFP	1.601	SLV 13	Si
Maschio 155	R	0.019	SLV 7	No
Maschio 156	PF SLU	0	SLU 1	No
Maschio 156	V SLU	0	SLU 1	No
Maschio 156	PF	0	SLV 16	No
Maschio 156	V	0	SLD 1	No
Maschio 156	PFFP	0	SLV 16	No
Maschio 156	R	0	SLV 16	No
Maschio 157	PF SLU	1.357	SLU 29	Si
Maschio 157	V SLU	1.297	SLU 29	Si
Maschio 157	PF	0	SLV 16	No
Maschio 157	V	0	SLD 1	No
Maschio 157	PFFP	0	SLV 10	No
Maschio 157	R	0	SLV 16	No
Maschio 158	PF SLU	3.254	SLU 79	Si
Maschio 158	V SLU	29.501	SLU 43	Si
Maschio 158	PF	1.734	SLV 7	Si
Maschio 158	V	0.729	SLV 7	No
Maschio 158	PFFP	1.686	SLV 15	Si
Maschio 158	R	0.019	SLV 9	No
Maschio 159	PF SLU	2.295	SLU 37	Si
Maschio 159	V SLU	15.11	SLU 84	Si
Maschio 159	PF	0	SLV 3	No
Maschio 159	V	0	SLV 3	No
Maschio 159	PFFP	0	SLV 3	No
Maschio 159	R	0	SLV 5	No
Maschio 160	PF SLU	0	SLU 84	No
Maschio 160	V SLU	0	SLU 1	No
Maschio 160	PF	0	SLV 16	No
Maschio 160	V	0	SLD 1	No
Maschio 160	PFFP	0	SLV 9	No
Maschio 160	R	0	SLV 16	No
Maschio 161	PF SLU	1.172	SLU 9	Si
Maschio 161	V SLU	1.595	SLU 9	Si
Maschio 161	PF	0	SLV 15	No
Maschio 161	V	0	SLV 15	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 161	PFFP	1.341	SLV 15	Si
Maschio 161	R	0.058	SLV 3	No
Maschio 162	PF SLU	10.011	SLU 9	Si
Maschio 162	V SLU	14.61	SLU 81	Si
Maschio 162	PF	2.186	SLV 13	Si
Maschio 162	V	0.92	SLV 13	No
Maschio 162	PFFP	3.433	SLV 9	Si
Maschio 162	R	0.042	SLV 9	No
Maschio 163	PF SLU	15.681	SLU 9	Si
Maschio 163	V SLU	8.46	SLU 9	Si
Maschio 163	PF	2.091	SLV 3	Si
Maschio 163	V	0.941	SLV 3	No
Maschio 163	PFFP	3.363	SLV 5	Si
Maschio 163	R	0.005	SLV 5	No
Maschio 164	PF SLU	4.28	SLU 9	Si
Maschio 164	V SLU	5.097	SLU 38	Si
Maschio 164	PF	1.029	SLV 3	Si
Maschio 164	V	0.275	SLV 3	No
Maschio 164	PFFP	1.618	SLV 1	Si
Maschio 164	R	0.058	SLV 15	No
Maschio 165	PF SLU	4.529	SLU 77	Si
Maschio 165	V SLU	1.299	SLU 83	Si
Maschio 165	PF	2.517	SLV 3	Si
Maschio 165	V	0.765	SLV 1	No
Maschio 165	PFFP	2.652	SLV 15	Si
Maschio 165	R	0.024	SLV 9	No
Maschio 166	PF SLU	14.575	SLU 69	Si
Maschio 166	V SLU	7.747	SLU 29	Si
Maschio 166	PF	4.616	SLV 3	Si
Maschio 166	V	0.738	SLV 13	No
Maschio 166	PFFP	5.216	SLV 9	Si
Maschio 166	R	0.047	SLV 11	No
Maschio 167	PF SLU	6.171	SLU 41	Si
Maschio 167	V SLU	6.139	SLU 41	Si
Maschio 167	PF	0	SLV 1	No
Maschio 167	V	0	SLV 1	No
Maschio 167	PFFP	5.341	SLV 11	Si
Maschio 167	R	0	SLV 5	No
Maschio 168	PF SLU	5.846	SLU 61	Si
Maschio 168	V SLU	5.688	SLU 52	Si
Maschio 168	PF	1.721	SLV 1	Si
Maschio 168	V	0.958	SLV 15	No
Maschio 168	PFFP	5.628	SLV 1	Si
Maschio 168	R	0.001	SLV 5	No
Maschio 169	PF SLU	4.072	SLU 78	Si
Maschio 169	V SLU	2.887	SLU 79	Si
Maschio 169	PF	0.992	SLV 15	No
Maschio 169	V	0.256	SLV 15	No
Maschio 169	PFFP	5.775	SLV 1	Si
Maschio 169	R	0.041	SLV 5	No
Maschio 170	PF SLU	4.783	SLU 77	Si
Maschio 170	V SLU	1.742	SLU 41	Si
Maschio 170	PF	2.905	SLV 15	Si
Maschio 170	V	0.951	SLV 15	No
Maschio 170	PFFP	3.081	SLV 1	Si
Maschio 170	R	0.024	SLV 7	No
Maschio 171	PF SLU	0	SLU 1	No
Maschio 171	V SLU	0	SLU 1	No
Maschio 171	PF	0	SLD 1	No
Maschio 171	V	0	SLD 1	No
Maschio 171	PFFP	0	SLV 7	No
Maschio 171	R	0	SLV 1	No
Maschio 172	PF SLU	21.085	SLU 19	Si
Maschio 172	V SLU	8.118	SLU 61	Si
Maschio 172	PF	7.832	SLV 5	Si
Maschio 172	V	1.153	SLV 7	Si
Maschio 172	PFFP	7.432	SLV 7	Si
Maschio 172	R	0.074	SLV 7	No
Maschio 174	PF SLU	5.612	SLU 27	Si
Maschio 174	V SLU	1.793	SLU 71	Si
Maschio 174	PF	3.427	SLV 9	Si
Maschio 174	V	1.137	SLV 9	Si
Maschio 174	PFFP	3.659	SLV 3	Si
Maschio 174	R	0.023	SLV 3	No
Maschio 175	PF SLU	9.607	SLU 61	Si
Maschio 175	V SLU	3.813	SLU 29	Si
Maschio 175	PF	5.096	SLV 9	Si
Maschio 175	V	1.419	SLV 7	Si
Maschio 175	PFFP	1.936	SLV 5	Si
Maschio 175	R	0.019	SLV 15	No
Maschio 176	PF SLU	3.244	SLU 40	Si
Maschio 176	V SLU	1.416	SLU 82	Si
Maschio 176	PF	0	SLV 3	No
Maschio 176	V	0	SLV 3	No
Maschio 176	PFFP	1.424	SLV 15	Si
Maschio 176	R	0	SLV 7	No
Maschio 177	PF SLU	5.407	SLU 5	Si
Maschio 177	V SLU	4.412	SLU 71	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 177	PF	4.194	SLV 7	Si
Maschio 177	V	0.929	SLV 7	No
Maschio 177	PFFP	1.727	SLV 3	Si
Maschio 177	R	0.012	SLV 5	No
Maschio 178	PF SLU	3.41	SLU 52	Si
Maschio 178	V SLU	6.948	SLU 73	Si
Maschio 178	PF	0	SLV 12	No
Maschio 178	V	0	SLV 3	No
Maschio 178	PFFP	0	SLV 8	No
Maschio 178	R	0	SLV 12	No
Maschio 179	PF SLU	4.145	SLU 29	Si
Maschio 179	V SLU	6.549	SLU 37	Si
Maschio 179	PF	3.289	SLV 5	Si
Maschio 179	V	0.923	SLV 5	No
Maschio 179	PFFP	1.762	SLV 9	Si
Maschio 179	R	0.018	SLV 7	No
Maschio 180	PF SLU	0	SLU 29	No
Maschio 180	V SLU	1.023	SLU 79	Si
Maschio 180	PF	0.98	SLV 5	No
Maschio 180	V	0.593	SLV 5	No
Maschio 180	PFFP	0	SLV 5	No
Maschio 180	R	0	SLV 6	No
Maschio 181	PF SLU	0	SLU 3	No
Maschio 181	V SLU	567.118	SLU 80	Si
Maschio 181	PF	0	SLV 10	No
Maschio 181	V	0	SLV 3	No
Maschio 181	PFFP	0	SLV 1	No
Maschio 181	R	0	SLV 16	No
Maschio 182	PF SLU	3.676	SLU 82	Si
Maschio 182	V SLU	4.864	SLU 71	Si
Maschio 182	PF	0	SLV 1	No
Maschio 182	V	0	SLV 1	No
Maschio 182	PFFP	0	SLV 7	No
Maschio 182	R	0.066	SLV 15	No
Maschio 183	PF SLU	10.373	SLU 65	Si
Maschio 183	V SLU	13.876	SLU 26	Si
Maschio 183	PF	1.718	SLV 13	Si
Maschio 183	V	0.886	SLV 13	No
Maschio 183	PFFP	2.629	SLV 11	Si
Maschio 183	R	0.022	SLV 15	No
Maschio 184	PF SLU	5.259	SLU 82	Si
Maschio 184	V SLU	1.511	SLU 82	Si
Maschio 184	PF	2.47	SLV 15	Si
Maschio 184	V	0.991	SLV 15	No
Maschio 184	PFFP	2.26	SLV 7	Si
Maschio 184	R	0.065	SLV 15	No
Maschio 185	PF SLU	2.11	SLU 9	Si
Maschio 185	V SLU	10.394	SLU 8	Si
Maschio 185	PF	0	SLV 16	No
Maschio 185	V	0	SLV 13	No
Maschio 185	PFFP	0	SLV 15	No
Maschio 185	R	0	SLV 16	No
Maschio 186	PF SLU	8.656	SLU 61	Si
Maschio 186	V SLU	2.541	SLU 82	Si
Maschio 186	PF	1.244	SLV 1	Si
Maschio 186	V	0.662	SLV 1	No
Maschio 186	PFFP	1.986	SLV 5	Si
Maschio 186	R	0.034	SLV 5	No
Maschio 187	PF SLU	33.548	SLU 26	Si
Maschio 187	V SLU	25.924	SLU 81	Si
Maschio 187	PF	3.901	SLV 5	Si
Maschio 187	V	1.998	SLV 7	Si
Maschio 187	PFFP	2.919	SLV 1	Si
Maschio 187	R	0.063	SLV 15	No
Maschio 188	PF SLU	1.482	SLU 41	Si
Maschio 188	V SLU	20.119	SLU 69	Si
Maschio 188	PF	0	SLV 3	No
Maschio 188	V	0	SLV 3	No
Maschio 188	PFFP	0	SLV 3	No
Maschio 188	R	0	SLV 12	No
Maschio 189	PF SLU	3.585	SLU 35	Si
Maschio 189	V SLU	8.866	SLU 30	Si
Maschio 189	PF	2.17	SLV 9	Si
Maschio 189	V	2.838	SLV 11	Si
Maschio 189	PFFP	0	SLV 9	No
Maschio 189	R	0	SLV 10	No
Maschio 190	PF SLU	1.129	SLU 38	Si
Maschio 190	V SLU	0.468	SLU 38	No
Maschio 190	PF	0	SLV 1	No
Maschio 190	V	0	SLV 1	No
Maschio 190	PFFP	1.412	SLV 5	Si
Maschio 190	R	0.028	SLV 5	No
Maschio 191	PF SLU	0	SLU 84	No
Maschio 191	V SLU	0	SLU 1	No
Maschio 191	PF	0	SLV 16	No
Maschio 191	V	0	SLD 1	No
Maschio 191	PFFP	0	SLV 10	No
Maschio 191	R	0	SLV 16	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 192	PF SLU	1.251	SLU 34	Si
Maschio 192	V SLU	0.81	SLU 38	No
Maschio 192	PF	1.098	SLV 5	Si
Maschio 192	V	0.728	SLV 1	No
Maschio 192	PFFP	1.295	SLV 11	Si
Maschio 192	R	0	SLV 3	No
Maschio 193	PF SLU	2.754	SLU 10	Si
Maschio 193	V SLU	2.161	SLU 80	Si
Maschio 193	PF	1.374	SLV 5	Si
Maschio 193	V	0.842	SLV 5	No
Maschio 193	PFFP	1.06	SLV 11	Si
Maschio 193	R	0	SLV 5	No
Maschio 194	PF SLU	0	SLU 38	No
Maschio 194	V SLU	0	SLU 2	No
Maschio 194	PF	0	SLV 16	No
Maschio 194	V	0	SLD 1	No
Maschio 194	PFFP	0	SLV 12	No
Maschio 194	R	0	SLV 16	No
Maschio 195	PF SLU	1.335	SLU 29	Si
Maschio 195	V SLU	1.443	SLU 29	Si
Maschio 195	PF	0	SLV 16	No
Maschio 195	V	0	SLD 1	No
Maschio 195	PFFP	0	SLV 12	No
Maschio 195	R	0	SLV 16	No
Maschio 196	PF SLU	1.304	SLU 37	Si
Maschio 196	V SLU	8.052	SLU 51	Si
Maschio 196	PF	0	SLD 5	No
Maschio 196	V	0	SLD 5	No
Maschio 196	PFFP	0	SLV 1	No
Maschio 196	R	0.02	SLV 7	No
Maschio 197	PF SLU	0.558	SLU 80	No
Maschio 197	V SLU	4.108	SLU 80	Si
Maschio 197	PF	1.597	SLV 7	Si
Maschio 197	V	1.313	SLV 9	Si
Maschio 197	PFFP	3.357	SLV 9	Si
Maschio 197	R	0	SLV 13	No
Maschio 198	PF SLU	1.109	SLU 38	Si
Maschio 198	V SLU	0.366	SLU 38	No
Maschio 198	PF	0	SLV 2	No
Maschio 198	V	0	SLD 3	No
Maschio 198	PFFP	0	SLV 1	No
Maschio 198	R	0	SLV 2	No
Maschio 199	PF SLU	1.219	SLU 8	Si
Maschio 199	V SLU	1.458	SLU 79	Si
Maschio 199	PF	0	SLV 5	No
Maschio 199	V	0	SLV 5	No
Maschio 199	PFFP	0	SLV 1	No
Maschio 199	R	0.017	SLV 15	No
Maschio 200	PF SLU	0	SLU 1	No
Maschio 200	V SLU	0	SLU 1	No
Maschio 200	PFFP	0	SLV 12	No
Maschio 200	R	0	SLV 14	No
Maschio 201	PF SLU	4.609	SLU 27	Si
Maschio 201	V SLU	1000	SLU 1	Si
Maschio 201	PFFP	0	SLV 10	No
Maschio 201	R	0.093	SLV 3	No
Maschio 202	PF SLU	1.183	SLU 42	Si
Maschio 202	V SLU	4.219	SLU 38	Si
Maschio 202	PF	0	SLV 16	No
Maschio 202	V	0	SLD 5	No
Maschio 202	PFFP	0	SLV 5	No
Maschio 202	R	0	SLV 16	No
Maschio 203	PF SLU	0	SLU 16	No
Maschio 203	V SLU	0	SLU 16	No
Maschio 203	PF	0	SLV 8	No
Maschio 203	V	0	SLD 3	No
Maschio 203	PFFP	0	SLV 1	No
Maschio 203	R	0.007	SLV 9	No
Maschio 204	PF SLU	0	SLU 84	No
Maschio 204	V SLU	0	SLU 1	No
Maschio 204	PF	0	SLV 16	No
Maschio 204	V	0	SLD 1	No
Maschio 204	PFFP	0	SLV 10	No
Maschio 204	R	0	SLV 16	No
Maschio 205	PF SLU	0	SLU 84	No
Maschio 205	V SLU	0	SLU 1	No
Maschio 205	PF	0	SLV 16	No
Maschio 205	V	0	SLD 1	No
Maschio 205	PFFP	0	SLV 6	No
Maschio 205	R	0	SLV 16	No
Maschio 206	PF SLU	5.912	SLU 37	Si
Maschio 206	V SLU	4.574	SLU 79	Si
Maschio 206	PF	1.113	SLV 3	Si
Maschio 206	V	0.606	SLV 3	No
Maschio 206	PFFP	1.186	SLV 7	Si
Maschio 206	R	0	SLV 8	No
Maschio 207	PF SLU	18.421	SLU 43	Si
Maschio 207	V SLU	17.785	SLU 81	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 207	PF	1.447	SLV 15	Si
Maschio 207	V	1.788	SLV 1	Si
Maschio 207	PFFP	1.142	SLV 7	Si
Maschio 207	R	0	SLV 12	No
Maschio 208	PF SLU	0	SLU 84	No
Maschio 208	V SLU	0	SLU 1	No
Maschio 208	PF	0	SLV 14	No
Maschio 208	V	0	SLD 1	No
Maschio 208	PFFP	0	SLV 1	No
Maschio 208	R	0	SLV 16	No
Maschio 209	PF SLU	2.451	SLU 39	Si
Maschio 209	V SLU	1.389	SLU 83	Si
Maschio 209	PF	1.291	SLV 13	Si
Maschio 209	V	1.512	SLV 1	Si
Maschio 209	PFFP	0	SLV 13	No
Maschio 209	R	0.113	SLV 1	No
Maschio 210	PF SLU	7.012	SLU 39	Si
Maschio 210	V SLU	7.325	SLU 30	Si
Maschio 210	PF	1.604	SLV 13	Si
Maschio 210	V	1.104	SLV 13	Si
Maschio 210	PFFP	2.432	SLV 13	Si
Maschio 210	R	0.027	SLV 11	No
Maschio 211	PF SLU	3.433	SLU 41	Si
Maschio 211	V SLU	3.8	SLU 35	Si
Maschio 211	PF	0	SLD 1	No
Maschio 211	V	0	SLD 1	No
Maschio 211	PFFP	1.735	SLV 7	Si
Maschio 211	R	0	SLV 3	No
Maschio 212	PF SLU	4.463	SLU 61	Si
Maschio 212	V SLU	3.949	SLU 82	Si
Maschio 212	PF	0	SLV 4	No
Maschio 212	V	0	SLV 1	No
Maschio 212	PFFP	1.022	SLV 1	Si
Maschio 212	R	0.071	SLV 5	No
Maschio 213	PF SLU	4.159	SLU 39	Si
Maschio 213	V SLU	2.603	SLU 79	Si
Maschio 213	PF	1.059	SLV 15	Si
Maschio 213	V	0.347	SLV 15	No
Maschio 213	PFFP	2.91	SLV 5	Si
Maschio 213	R	0.052	SLV 11	No
Maschio 214	PF SLU	2.193	SLU 37	Si
Maschio 214	V SLU	1.494	SLU 37	Si
Maschio 214	PF	1.972	SLV 15	Si
Maschio 214	V	1.895	SLV 15	Si
Maschio 214	PFFP	1.271	SLV 1	Si
Maschio 214	R	0.102	SLV 5	No
Maschio 215	PF SLU	0	SLU 5	No
Maschio 215	V SLU	0	SLU 5	No
Maschio 215	PF	0	SLV 8	No
Maschio 215	V	0	SLV 1	No
Maschio 215	PFFP	1.083	SLV 7	Si
Maschio 215	R	0	SLV 8	No
Maschio 216	PF SLU	1.304	SLU 30	Si
Maschio 216	V SLU	2.424	SLU 80	Si
Maschio 216	PF	0	SLV 5	No
Maschio 216	V	0	SLV 5	No
Maschio 216	PFFP	0	SLV 1	No
Maschio 216	R	0.006	SLV 3	No
Maschio 217	PF SLU	1.716	SLU 30	Si
Maschio 217	V SLU	1.379	SLU 30	Si
Maschio 217	PF	0	SLD 9	No
Maschio 217	V	0	SLD 9	No
Maschio 217	PFFP	0	SLV 1	No
Maschio 217	R	0.029	SLV 15	No
Maschio 218	PF SLU	1.203	SLU 29	Si
Maschio 218	V SLU	1.758	SLU 37	Si
Maschio 218	PF	0	SLV 5	No
Maschio 218	V	0	SLV 5	No
Maschio 218	PFFP	0.97	SLV 13	No
Maschio 218	R	0.024	SLV 3	No
Maschio 219	PF SLU	0	SLU 6	No
Maschio 219	V SLU	0.489	SLU 80	No
Maschio 219	PF	0.688	SLV 15	No
Maschio 219	V	0.203	SLV 13	No
Maschio 219	PFFP	2.429	SLV 5	Si
Maschio 219	R	0	SLV 8	No
Maschio 220	PF SLU	0	SLU 1	No
Maschio 220	V SLU	26.425	SLU 80	Si
Maschio 220	PF	0	SLD 11	No
Maschio 220	V	0	SLV 1	No
Maschio 220	PFFP	0	SLV 1	No
Maschio 220	R	0	SLV 8	No
Maschio 221	PF SLU	0	SLU 84	No
Maschio 221	V SLU	0	SLU 1	No
Maschio 221	PF	0	SLV 14	No
Maschio 221	V	0	SLD 1	No
Maschio 221	PFFP	0	SLV 10	No
Maschio 221	R	0	SLV 14	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 222	PF SLU	1.713	SLU 40	Si
Maschio 222	V SLU	1.204	SLU 38	Si
Maschio 222	PF	0	SLV 13	No
Maschio 222	V	0	SLV 13	No
Maschio 222	PFFP	1.352	SLV 9	Si
Maschio 222	R	0.022	SLV 9	No
Maschio 223	PF SLU	6.377	SLU 43	Si
Maschio 223	V SLU	21.878	SLU 81	Si
Maschio 223	PF	1.813	SLV 9	Si
Maschio 223	V	2.66	SLV 11	Si
Maschio 223	PFFP	1.267	SLV 5	Si
Maschio 223	R	0	SLV 1	No
Maschio 224	PF SLU	1.975	SLU 31	Si
Maschio 224	V SLU	1.507	SLU 82	Si
Maschio 224	PF	0	SLV 14	No
Maschio 224	V	0	SLD 13	No
Maschio 224	PFFP	0	SLV 13	No
Maschio 224	R	0	SLV 12	No
Maschio 225	PF SLU	2.326	SLU 19	Si
Maschio 225	V SLU	2.116	SLU 82	Si
Maschio 225	PF	0	SLV 10	No
Maschio 225	V	0	SLV 5	No
Maschio 225	PFFP	0	SLV 5	No
Maschio 225	R	0	SLV 10	No
Maschio 226	PF SLU	3.072	SLU 19	Si
Maschio 226	V SLU	2.178	SLU 82	Si
Maschio 226	PF	0	SLV 3	No
Maschio 226	V	0	SLV 3	No
Maschio 226	PFFP	0	SLV 11	No
Maschio 226	R	0	SLV 1	No
Maschio 227	PF SLU	4.595	SLU 52	Si
Maschio 227	V SLU	5.717	SLU 29	Si
Maschio 227	PF	0	SLV 12	No
Maschio 227	V	0	SLD 11	No
Maschio 227	PFFP	0	SLV 12	No
Maschio 227	R	0	SLV 12	No
Maschio 228	PF SLU	1.74	SLU 31	Si
Maschio 228	V SLU	2.309	SLU 80	Si
Maschio 228	PF	0	SLV 12	No
Maschio 228	V	0	SLD 7	No
Maschio 228	PFFP	0	SLV 16	No
Maschio 228	R	0	SLV 16	No
Maschio 229	PF SLU	7.065	SLU 10	Si
Maschio 229	V SLU	18.781	SLU 34	Si
Maschio 229	PF	1.858	SLV 9	Si
Maschio 229	V	2.662	SLV 13	Si
Maschio 229	PFFP	1.123	SLV 7	Si
Maschio 229	R	0	SLV 5	No
Maschio 230	PF SLU	2.288	SLU 31	Si
Maschio 230	V SLU	1.888	SLU 78	Si
Maschio 230	PF	1.389	SLV 11	Si
Maschio 230	V	1.606	SLV 11	Si
Maschio 230	PFFP	1.222	SLV 11	Si
Maschio 230	R	0	SLV 5	No
Maschio 233	PF SLU	1.131	SLU 84	Si
Maschio 233	V SLU	1.169	SLU 84	Si
Maschio 233	PF	0	SLV 16	No
Maschio 233	V	0	SLV 3	No
Maschio 233	PFFP	4.188	SLV 11	Si
Maschio 233	R	0	SLV 16	No
Maschio 234	PF SLU	2.784	SLU 84	Si
Maschio 234	V SLU	1.731	SLU 84	Si
Maschio 234	PF	0	SLV 8	No
Maschio 234	V	0	SLV 1	No
Maschio 234	PFFP	5.287	SLV 7	Si
Maschio 234	R	0.176	SLV 13	No
Maschio 235	PF SLU	5.997	SLU 80	Si
Maschio 235	V SLU	7.019	SLU 79	Si
Maschio 235	PF	0	SLV 16	No
Maschio 235	V	0	SLV 3	No
Maschio 235	PFFP	2.659	SLV 11	Si
Maschio 235	R	0	SLV 16	No
Maschio 236	PF SLU	5.117	SLU 81	Si
Maschio 236	V SLU	6.132	SLU 83	Si
Maschio 236	PF	0	SLV 8	No
Maschio 236	V	0	SLV 1	No
Maschio 236	PFFP	3.686	SLV 11	Si
Maschio 236	R	0.088	SLV 13	No
Maschio 237	PF SLU	6.877	SLU 61	Si
Maschio 237	V SLU	6.613	SLU 73	Si
Maschio 237	PF	0	SLV 16	No
Maschio 237	V	0	SLD 11	No
Maschio 237	PFFP	0	SLV 12	No
Maschio 237	R	0	SLV 16	No
Maschio 238	PF SLU	5.535	SLU 84	Si
Maschio 238	V SLU	9.258	SLU 82	Si
Maschio 238	PF	0	SLV 16	No
Maschio 238	V	0	SLV 1	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 238	PFFP	1.154	SLV 11	Si
Maschio 238	R	0.076	SLV 13	No
Maschio 239	PF SLU	42.278	SLU 37	Si
Maschio 239	V SLU	13.736	SLU 81	Si
Maschio 239	PF	3.15	SLV 11	Si
Maschio 239	V	2.732	SLV 15	Si
Maschio 239	PFFP	6.739	SLV 11	Si
Maschio 239	R	0.432	SLV 9	No
Maschio 240	PF SLU	8.175	SLU 38	Si
Maschio 240	V SLU	9.901	SLU 44	Si
Maschio 240	PF	0	SLV 16	No
Maschio 240	V	0	SLD 7	No
Maschio 240	PFFP	0	SLV 12	No
Maschio 240	R	0	SLV 16	No
Maschio 241	PF SLU	4.735	SLU 37	Si
Maschio 241	V SLU	8.368	SLU 80	Si
Maschio 241	PF	0	SLV 16	No
Maschio 241	V	0	SLV 1	No
Maschio 241	PFFP	0	SLV 12	No
Maschio 241	R	0	SLV 12	No
Maschio 242	PF SLU	0	SLU 29	No
Maschio 242	V SLU	0	SLU 3	No
Maschio 242	PF	0	SLV 10	No
Maschio 242	V	0	SLD 1	No
Maschio 242	PFFP	0	SLV 1	No
Maschio 242	R	0	SLV 16	No
Maschio 243	PF SLU	0	SLU 84	No
Maschio 243	V SLU	0	SLU 2	No
Maschio 243	PF	0	SLV 14	No
Maschio 243	V	0	SLD 1	No
Maschio 243	PFFP	0	SLV 1	No
Maschio 243	R	0	SLV 16	No
Maschio 244	PF SLU	0	SLU 1	No
Maschio 244	V SLU	0	SLU 1	No
Maschio 244	PF	0	SLV 10	No
Maschio 244	V	0	SLD 1	No
Maschio 244	PFFP	0	SLV 6	No
Maschio 244	R	0	SLV 10	No
Maschio 245	PF SLU	1.261	SLU 29	Si
Maschio 245	V SLU	2.618	SLU 37	Si
Maschio 245	PF	0	SLV 16	No
Maschio 245	V	0	SLD 7	No
Maschio 245	PFFP	0	SLV 12	No
Maschio 245	R	0	SLV 14	No
Maschio 246	PF SLU	1.784	SLU 44	Si
Maschio 246	V SLU	6.121	SLU 44	Si
Maschio 246	PF	0	SLV 12	No
Maschio 246	V	0	SLD 1	No
Maschio 246	PFFP	0	SLV 12	No
Maschio 246	R	0	SLV 16	No
Maschio 247	PF SLU	3.219	SLU 43	Si
Maschio 247	V SLU	2.358	SLU 80	Si
Maschio 247	PF	0	SLV 12	No
Maschio 247	V	0	SLD 1	No
Maschio 247	PFFP	0	SLV 1	No
Maschio 247	R	0	SLV 12	No
Maschio 248	PF SLU	0	SLU 84	No
Maschio 248	V SLU	0	SLU 1	No
Maschio 248	PFFP	0	SLV 10	No
Maschio 248	R	0	SLV 16	No
Maschio 249	PF SLU	5.358	SLU 83	Si
Maschio 249	V SLU	5.544	SLU 52	Si
Maschio 249	PF	1.668	SLV 5	Si
Maschio 249	V	0.581	SLV 5	No
Maschio 249	PFFP	4.783	SLV 5	Si
Maschio 249	R	0.061	SLV 13	No
Maschio 250	PF SLU	0	SLU 84	No
Maschio 250	V SLU	0	SLU 1	No
Maschio 250	PFFP	0	SLV 1	No
Maschio 250	R	0	SLV 14	No
Maschio 251	PF SLU	0	SLU 1	No
Maschio 251	V SLU	0	SLU 1	No
Maschio 251	PF	0	SLV 4	No
Maschio 251	V	0	SLD 1	No
Maschio 251	PFFP	0	SLV 1	No
Maschio 251	R	0	SLV 4	No
Maschio 252	PF SLU	2.279	SLU 43	Si
Maschio 252	V SLU	2.523	SLU 38	Si
Maschio 252	PF	0	SLV 16	No
Maschio 252	V	0	SLD 7	No
Maschio 252	PFFP	0	SLV 1	No
Maschio 252	R	0	SLV 16	No
Maschio 253	PF SLU	1.086	SLU 83	Si
Maschio 253	V SLU	2.648	SLU 41	Si
Maschio 253	PF	0.934	SLV 5	No
Maschio 253	V	0.092	SLV 11	No
Maschio 253	PFFP	2.549	SLV 11	Si
Maschio 253	R	0.007	SLV 11	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 254	PF SLU	20.854	SLU 69	Si
Maschio 254	V SLU	8.817	SLU 29	Si
Maschio 254	PF	4.986	SLV 11	Si
Maschio 254	V	1.058	SLV 7	Si
Maschio 254	PFFP	7.87	SLV 7	Si
Maschio 254	R	0.058	SLV 3	No
Maschio 255	PF SLU	3.456	SLU 82	Si
Maschio 255	V SLU	3.601	SLU 29	Si
Maschio 255	PF	3.316	SLV 7	Si
Maschio 255	V	1.228	SLV 9	Si
Maschio 255	PFFP	2.107	SLV 5	Si
Maschio 255	R	0.001	SLV 3	No
Maschio 256	PF SLU	1.501	SLU 44	Si
Maschio 256	V SLU	2.56	SLU 44	Si
Maschio 256	PF	0	SLV 16	No
Maschio 256	V	0	SLD 1	No
Maschio 256	PFFP	0	SLV 1	No
Maschio 256	R	0	SLV 8	No
Maschio 257	PF SLU	2.274	SLU 2	Si
Maschio 257	V SLU	8.392	SLU 34	Si
Maschio 257	PF	0	SLV 10	No
Maschio 257	V	0	SLD 1	No
Maschio 257	PFFP	0	SLV 1	No
Maschio 257	R	0	SLV 10	No
Maschio 258	PF SLU	0	SLU 37	No
Maschio 258	V SLU	0	SLU 6	No
Maschio 258	PF	0	SLV 14	No
Maschio 258	V	0	SLD 1	No
Maschio 258	PFFP	0	SLV 1	No
Maschio 258	R	0	SLV 14	No
Maschio 259	PF SLU	0	SLU 84	No
Maschio 259	V SLU	0	SLU 2	No
Maschio 259	PF	0	SLV 14	No
Maschio 259	V	0	SLD 1	No
Maschio 259	PFFP	0	SLV 1	No
Maschio 259	R	0	SLV 16	No

Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	PF	1.237	SLV 13	0.299	1.224	869	1.281	Si
	V	1.002	SLV 5	0.245	1.002	477	1.002	Si
	PFFP	1.286	SLV 15	0.311	1.271	974	1.342	Si
	R	0.356	SLV 1	0.083	0.342	34	0.339	No
2	PF	1.297	SLV 13	0.313	1.282	1000	1.357	Si
	V	0.909	SLV 11	0.221	0.905	364	0.897	No
	PFFP	1.422	SLV 15	0.343	1.403	1346	1.533	Si
	R	0.357	SLV 7	0.083	0.342	34	0.339	No
3	PF	0.401	SLV 3	0.094	0.384	44	0.377	No
	V	0.272	SLV 1	0.064	0.262	18	0.261	No
	PFFP	1.996	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.35	SLV 5	0.082	0.337	33	0.335	No
4	PF	1.724	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.69	SLV 7	0.165	0.676	172	0.659	No
	PFFP	2.405	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.255	SLV 9	0.059	0.242	14	0.236	No
5	PF	1.422	SLV 5	0.34	1.39	1307	1.514	Si
	V	0.761	SLV 15	0.184	0.753	223	0.733	No
	PFFP	2.993	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.104	SLV 11	0.02	0.08	1	0.08	No
6	PF	1.59	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.94	SLV 9	0.229	0.937	400	0.932	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.215	SLV 3	0.049	0.201	9	0.197	No
7	PF	0.903	SLV 11	0.22	0.899	358	0.891	No
	V	1.14	SLV 7	0.276	1.13	684	1.161	Si
	PFFP	2.493	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.184	SLV 3	0.041	0.169	6	0.167	No
8	PF	0.164	SLV 5	0.038	0.157	5	0.155	No
	V	0.094	SLV 1	0.02	0.08	1	0.08	No
	PFFP	2.758	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.351	SLV 7	0.082	0.337	33	0.335	No
9	PF	2.873	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.553	SLV 5	0.131	0.535	100	0.528	No
	PFFP	2.492	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.236	SLV 11	0.055	0.226	12	0.221	No
10	PF	1.756	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.515	SLV 13	0.121	0.495	83	0.489	No
	PFFP	2.921	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.226	SLV 7	0.053	0.218	11	0.214	No
11	PF	0.66	SLV 15	0.157	0.642	153	0.628	No
	V	0.529	SLV 15	0.125	0.511	89	0.503	No
	PFFP	2.764	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.273	SLV 11	0.064	0.262	18	0.261	No
12	PF	2.956	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.732	SLV 5	0.176	0.722	200	0.701	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.12	SLV 1	0.026	0.107	2	0.106	No
13	PF	0.337	SLV 7	0.079	0.323	30	0.322	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	0.379	SLV 7	0.089	0.364	39	0.359	No
	PFFP	1.083	SLV 11	0.263	1.077	593	1.095	Si
	R	0.359	SLV 13	0.085	0.346	35	0.343	No
14	PF	0.821	SLV 15	0.199	0.814	275	0.799	No
	V	0.795	SLV 15	0.192	0.787	251	0.77	No
	PFFP	1.128	SLV 11	0.273	1.119	664	1.147	Si
	R	0.251	SLV 1	0.059	0.242	14	0.236	No
15	PF	1.185	SLV 11	0.286	1.171	762	1.214	Si
	V	0.849	SLV 11	0.206	0.843	302	0.831	No
	PFFP	2.822	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.211	SLV 3	0.049	0.201	9	0.197	No
16	PF	1.337	SLV 11	0.321	1.312	1080	1.4	Si
	V	0.48	SLV 5	0.113	0.463	70	0.456	No
	PFFP	1.462	SLV 11	0.349	1.427	1424	1.569	Si
	R	0.204	SLV 1	0.047	0.191	8	0.187	No
18	PF	2.664	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.115	SLV 5	0.27	1.107	643	1.132	Si
	PFFP	3.918	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.415	SLV 1	0.098	0.399	49	0.394	No
19	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.606	SLV 11	0.144	0.589	125	0.578	No
	R	0	SLV 1	0	0	0	0	No
21	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	2.338	SLV 11	0.362	1.483	1618	1.653	Si
	R	0	SLV 1	0	0	0	0	No
23	PF	0.659	SLV 7	0.157	0.642	153	0.628	No
	V	0.447	SLV 7	0.105	0.43	58	0.422	No
	PFFP	0.819	SLV 7	0.199	0.813	274	0.798	No
	R	0.685	SLV 3	0.164	0.671	169	0.655	No
25	PF	1.218	SLV 7	0.294	1.202	822	1.252	Si
	V	0.259	SLV 9	0.061	0.249	16	0.249	No
	PFFP	2.371	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.274	SLV 13	0.064	0.262	18	0.261	No
26	PF	1.893	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.842	SLV 3	0.204	0.835	294	0.821	No
	PFFP	3.935	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.397	SLV 1	0.093	0.38	43	0.373	No
27	PF	1.784	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.933	SLV 3	0.227	0.929	390	0.922	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.37	SLV 15	0.087	0.355	37	0.351	No
28	PF	1.528	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.479	SLV 1	0.356	1.457	1527	1.614	Si
	PFFP	2.118	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.377	SLV 15	0.089	0.364	39	0.359	No
29	PF	1.2	SLV 15	0.29	1.189	796	1.236	Si
	V	1.341	SLV 1	0.324	1.325	1114	1.418	Si
	PFFP	2.007	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.245	SLV 9	0.057	0.234	13	0.229	No
30	PF	1.111	SLV 13	0.27	1.105	640	1.13	Si
	V	1.133	SLV 13	0.275	1.126	677	1.156	Si
	PFFP	2.09	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.323	SLV 9	0.075	0.308	26	0.304	No
31	PF	1.162	SLV 13	0.282	1.153	727	1.191	Si
	V	0.764	SLV 13	0.185	0.755	225	0.736	No
	PFFP	3.77	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.392	SLV 3	0.092	0.376	42	0.37	No
32	PF	1.655	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.797	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.396	SLV 1	0.093	0.38	43	0.373	No
33	PF	2.104	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.809	SLV 15	0.196	0.802	264	0.786	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.393	SLV 1	0.093	0.38	43	0.373	No
34	PF	0.954	SLV 11	0.233	0.952	416	0.947	No
	V	0.946	SLV 11	0.23	0.943	406	0.938	No
	PFFP	1.575	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.227	SLV 3	0.053	0.218	11	0.214	No
35	PF	1.584	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.165	SLV 13	0.282	1.156	732	1.194	Si
	PFFP	2.889	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.223	SLV 11	0.051	0.21	10	0.205	No
36	PF	1.963	SLV 5	0.362	1.483	1618	1.653	Si
	V	1.204	SLV 1	0.291	1.193	804	1.241	Si
	PFFP	2.123	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.205	SLV 1	0.047	0.191	8	0.187	No
37	PF	1.818	SLV 9	0.362	1.483	1618	1.653	Si
	V	1.093	SLV 1	0.266	1.088	611	1.109	Si
	PFFP	2.497	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.237	SLV 1	0.055	0.226	12	0.221	No
38	PF	1.646	SLV 5	0.362	1.483	1618	1.653	Si
	V	1.094	SLV 13	0.266	1.089	613	1.11	Si
	PFFP	2.432	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.18	SLV 9	0.041	0.169	6	0.167	No
39	PF	1.476	SLV 1	0.355	1.455	1517	1.61	Si



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	1.093	SLV 1	0.266	1.088	611	1.109	Si
	PFFP	1.671	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.374	SLV 3	0.088	0.359	38	0.355	No
40	PF	1.582	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.916	SLV 5	0.223	0.913	373	0.906	No
	PFFP	1.904	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.37	SLV 1	0.087	0.355	37	0.351	No
41	PF	1.625	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.132	SLV 7	0.274	1.122	670	1.151	Si
	PFFP	2.119	SLV 11	0.362	1.483	1618	1.653	Si
	R	1.13	SLV 5	0.274	1.121	668	1.15	Si
42	PF	3.923	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.093	SLV 7	0.265	1.086	608	1.107	Si
	PFFP	3.963	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.276	SLV 1	0.064	0.262	18	0.261	No
44	PF	1.816	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.935	SLV 7	0.228	0.932	394	0.926	No
	PFFP	2.398	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.191	SLV 3	0.044	0.181	7	0.177	No
45	PF	1.228	SLV 7	0.296	1.211	841	1.264	Si
	V	0.875	SLV 7	0.212	0.87	328	0.859	No
	PFFP	3.896	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.209	SLV 13	0.049	0.201	9	0.197	No
46	PF	0.863	SLV 3	0.209	0.856	315	0.845	No
	V	0.815	SLV 3	0.197	0.808	269	0.792	No
	PFFP	1.141	SLV 7	0.276	1.131	686	1.163	Si
	R	0.217	SLV 13	0.051	0.21	10	0.205	No
47	PF	0.582	SLV 7	0.138	0.565	113	0.555	No
	V	0.582	SLV 7	0.138	0.565	113	0.555	No
	PFFP	1.485	SLV 7	0.354	1.448	1494	1.6	Si
	R	0.393	SLV 9	0.093	0.38	43	0.373	No
48	PF	2.63	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.221	SLV 11	0.294	1.204	828	1.256	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.217	SLV 1	0.051	0.21	10	0.205	No
49	PF	0.726	SLV 3	0.175	0.715	196	0.696	No
	V	0.611	SLV 3	0.145	0.593	127	0.582	No
	PFFP	2.445	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.274	SLV 7	0.064	0.262	18	0.261	No
50	PF	1.724	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.995	SLV 1	0.243	0.994	467	0.993	No
	PFFP	2.632	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.236	SLV 15	0.055	0.226	12	0.221	No
51	PF	1.708	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.561	SLV 13	0.133	0.544	104	0.536	No
	PFFP	1.964	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.237	SLV 3	0.055	0.226	12	0.221	No
52	PF	1.116	SLV 7	0.271	1.108	645	1.134	Si
	V	0.747	SLV 1	0.18	0.738	212	0.718	No
	PFFP	1.333	SLV 7	0.32	1.308	1070	1.395	Si
	R	0.291	SLV 15	0.069	0.281	21	0.278	No
53	PF	1.845	SLV 7	0.362	1.483	1618	1.653	Si
	V	1.306	SLV 5	0.314	1.283	1004	1.359	Si
	PFFP	3.209	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.211	SLV 1	0.049	0.201	9	0.197	No
54	PF	1.992	SLV 5	0.362	1.483	1618	1.653	Si
	V	0.415	SLV 11	0.098	0.399	49	0.394	No
	PFFP	2.945	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.359	SLV 3	0.085	0.346	35	0.343	No
55	PF	0.815	SLV 5	0.198	0.809	271	0.794	No
	V	0.751	SLV 5	0.181	0.743	216	0.724	No
	PFFP	1.306	SLV 5	0.314	1.283	1004	1.359	Si
	R	0.293	SLV 5	0.069	0.281	21	0.278	No
56	PF	1.242	SLV 3	0.3	1.229	879	1.287	Si
	V	1.235	SLV 3	0.299	1.222	865	1.279	Si
	PFFP	1.318	SLV 3	0.318	1.302	1054	1.387	Si
	R	0.384	SLV 13	0.09	0.368	40	0.363	No
57	PF	1.195	SLV 1	0.289	1.184	787	1.23	Si
	V	1.194	SLV 1	0.289	1.183	785	1.229	Si
	PFFP	1.256	SLV 1	0.304	1.242	909	1.305	Si
	R	0.376	SLV 15	0.088	0.359	38	0.355	No
58	PF	1.308	SLV 15	0.316	1.293	1028	1.372	Si
	V	1.03	SLV 11	0.251	1.028	515	1.034	Si
	PFFP	1.193	SLV 15	0.289	1.182	783	1.227	Si
	R	0.07	SLV 1	0	0	0	0	No
59	PF	0.212	SLV 3	0.049	0.201	9	0.197	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.325	SLV 15	0.32	1.309	1072	1.396	Si
	R	0.087	SLV 3	0.02	0.08	1	0.08	No
60	PF	0.714	SLV 9	0.172	0.703	188	0.684	No
	V	0.402	SLV 13	0.095	0.388	45	0.381	No
	PFFP	1.435	SLV 5	0.343	1.402	1344	1.532	Si
	R	0.067	SLV 15	0	0	0	0	No
61	PF	0.078	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.302	SLV 15	0.314	1.287	1013	1.364	Si
	R	0.084	SLV 13	0.02	0.08	1	0.08	No
62	PF	0.695	SLV 1	0.166	0.68	174	0.662	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	0.435	SLV 13	0.102	0.417	54	0.41	No
	PFFP	1.246	SLV 5	0.3	1.228	877	1.286	Si
	R	0.072	SLV 1	0	0	0	0	No
63	PF	0.533	SLV 13	0.126	0.516	91	0.508	No
	V	0.385	SLV 13	0.091	0.372	41	0.366	No
	PFFP	1.959	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.07	SLV 1	0	0	0	0	No
64	PF	3.165	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.595	SLV 7	0.141	0.578	120	0.569	No
	PFFP	3.159	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.022	SLV 1	0	0	0	0	No
65	PF	0.884	SLV 1	0.215	0.879	337	0.869	No
	V	0.462	SLV 3	0.109	0.445	64	0.44	No
	PFFP	1.95	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 1	0	0	0	0	No
66	PF	0.742	SLV 7	0.179	0.733	208	0.713	No
	V	0.589	SLV 3	0.139	0.569	116	0.561	No
	PFFP	1.513	SLV 11	0.36	1.473	1583	1.638	Si
	R	0.065	SLV 3	0	0	0	0	No
67	PF	2.253	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.477	SLV 7	0.112	0.46	69	0.453	No
	PFFP	2.129	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.023	SLV 1	0	0	0	0	No
68	PF	0.624	SLV 3	0.148	0.606	134	0.595	No
	V	0.036	SLV 13	0	0	0	0	No
	PFFP	1.086	SLV 3	0.264	1.081	600	1.101	Si
	R	0.067	SLV 1	0	0	0	0	No
69	PF	0.871	SLV 11	0.212	0.866	324	0.855	No
	V	0.743	SLV 11	0.18	0.735	210	0.716	No
	PFFP	3.093	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
70	PF	1.186	SLV 11	0.286	1.172	763	1.214	Si
	V	1.086	SLV 11	0.264	1.08	597	1.098	Si
	PFFP	1.434	SLV 11	0.342	1.401	1341	1.53	Si
	R	0.272	SLV 15	0.064	0.262	18	0.261	No
71	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.332	SLV 1	0.078	0.318	28	0.313	No
73	PF	3.445	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.911	SLV 11	0.222	0.907	367	0.9	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.148	SLV 1	0.035	0.143	4	0.141	No
74	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.896	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.03	SLV 1	0	0	0	0	No
75	PF	0.53	SLV 5	0.125	0.513	90	0.506	No
	V	0.496	SLV 5	0.116	0.477	75	0.469	No
	PFFP	0.935	SLV 5	0.228	0.932	394	0.926	No
	R	0.065	SLV 1	0	0	0	0	No
76	PF	1.22	SLV 13	0.295	1.208	834	1.26	Si
	V	0.674	SLV 3	0.161	0.658	161	0.642	No
	PFFP	2.277	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.066	SLV 1	0	0	0	0	No
77	PF	2.718	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.742	SLV 3	0.179	0.733	208	0.713	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.064	SLV 1	0	0	0	0	No
78	PF	3.007	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.726	SLV 15	0.175	0.715	196	0.696	No
	PFFP	3.84	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 1	0	0	0	0	No
79	PF	2.125	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.752	SLV 15	0.181	0.743	216	0.724	No
	PFFP	2.99	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.064	SLV 1	0	0	0	0	No
80	PF	0.505	SLV 7	0.119	0.487	80	0.482	No
	V	0.373	SLV 7	0.088	0.359	38	0.355	No
	PFFP	3.217	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.019	SLV 1	0	0	0	0	No
81	PF	0.991	SLV 13	0.242	0.99	462	0.989	No
	V	0.474	SLV 1	0.112	0.457	68	0.451	No
	PFFP	1.849	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.066	SLV 1	0	0	0	0	No
82	PF	1.481	SLV 5	0.353	1.444	1482	1.594	Si
	V	0.896	SLV 1	0.218	0.891	350	0.882	No
	PFFP	1.943	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.066	SLV 1	0	0	0	0	No
83	PF	1.57	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.903	SLV 13	0.219	0.898	357	0.89	No
	PFFP	1.864	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.066	SLV 1	0	0	0	0	No
84	PF	1.056	SLV 1	0.257	1.053	554	1.065	Si
	V	0.436	SLV 13	0.103	0.42	55	0.413	No
	PFFP	1.968	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 15	0	0	0	0	No
85	PF	1.327	SLV 7	0.318	1.303	1055	1.387	Si



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	1.197	SLV 7	0.289	1.182	783	1.227	Si
	PFFP	1.694	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.27	SLV 3	0.062	0.256	17	0.255	No
86	PF	3.271	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.027	SLV 7	0.25	1.025	511	1.03	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.142	SLV 1	0.031	0.127	3	0.125	No
87	PF	0.686	SLV 11	0.164	0.671	169	0.655	No
	V	0.687	SLV 7	0.164	0.673	170	0.656	No
	PFFP	2.867	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 9	0	0	0	0	No
88	PF	0.449	SLV 7	0.106	0.433	59	0.425	No
	V	0.138	SLV 3	0.031	0.127	3	0.125	No
	PFFP	0.865	SLV 15	0.21	0.858	316	0.846	No
	R	0.067	SLV 13	0	0	0	0	No
89	PF	1.882	SLV 5	0.362	1.483	1618	1.653	Si
	V	0.837	SLV 11	0.203	0.83	290	0.817	No
	PFFP	2.718	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.022	SLV 1	0	0	0	0	No
90	PF	0.619	SLV 11	0.147	0.602	132	0.592	No
	V	0.311	SLV 13	0.073	0.298	24	0.294	No
	PFFP	1.281	SLV 7	0.308	1.26	948	1.328	Si
	R	0.067	SLV 1	0	0	0	0	No
91	PF	2.133	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.748	SLV 11	0.181	0.74	213	0.72	No
	PFFP	2.629	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.022	SLV 1	0	0	0	0	No
92	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	1.085	SLV 13	0.264	1.08	598	1.099	Si
	R	0.067	SLV 1	0	0	0	0	No
93	PF	0.081	SLV 15	0	0	0	0	No
	V	0.147	SLV 13	0.031	0.127	3	0.125	No
	PFFP	1.491	SLV 1	0.359	1.469	1568	1.632	Si
	R	0.066	SLV 15	0	0	0	0	No
94	PF	0.643	SLV 1	0.153	0.625	143	0.611	No
	V	0.531	SLV 3	0.125	0.513	90	0.506	No
	PFFP	1.647	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.067	SLV 1	0	0	0	0	No
95	PF	0.914	SLV 15	0.222	0.91	369	0.902	No
	V	0.35	SLV 1	0.082	0.337	33	0.335	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.07	SLV 1	0	0	0	0	No
96	PF	0.859	SLV 3	0.208	0.853	311	0.841	No
	V	0.144	SLV 13	0.031	0.127	3	0.125	No
	PFFP	0.979	SLV 7	0.239	0.977	447	0.975	No
	R	0.067	SLV 13	0	0	0	0	No
97	PF	0.692	SLV 5	0.166	0.678	173	0.661	No
	V	0.417	SLV 1	0.098	0.403	50	0.397	No
	PFFP	1.241	SLV 9	0.299	1.223	867	1.28	Si
	R	0.067	SLV 1	0	0	0	0	No
98	PF	0.854	SLV 1	0.207	0.848	306	0.835	No
	V	0.238	SLV 15	0.055	0.226	12	0.221	No
	PFFP	0.837	SLV 5	0.203	0.83	290	0.817	No
	R	0.068	SLV 13	0	0	0	0	No
99	PF	1.366	SLV 1	0.329	1.349	1182	1.453	Si
	V	1.327	SLV 5	0.318	1.303	1055	1.387	Si
	PFFP	1.545	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 13	0	0	0	0	No
100	PF	1.36	SLV 13	0.328	1.343	1166	1.445	Si
	V	1.296	SLV 13	0.313	1.281	998	1.356	Si
	PFFP	1.579	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.071	SLV 1	0	0	0	0	No
101	PF	1.285	SLV 13	0.31	1.27	971	1.341	Si
	V	1.079	SLV 7	0.262	1.073	587	1.091	Si
	PFFP	1.222	SLV 13	0.295	1.209	838	1.262	Si
	R	0.072	SLV 1	0	0	0	0	No
102	PF	1.154	SLV 13	0.28	1.146	713	1.181	Si
	V	0.873	SLV 1	0.212	0.867	325	0.856	No
	PFFP	1.382	SLV 13	0.333	1.364	1228	1.476	Si
	R	0.07	SLV 1	0	0	0	0	No
103	PF	1.071	SLV 1	0.261	1.067	577	1.083	Si
	V	0.765	SLV 13	0.185	0.757	226	0.737	No
	PFFP	1.714	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 15	0	0	0	0	No
104	PF	1.162	SLV 15	0.282	1.153	727	1.191	Si
	V	0.315	SLV 1	0.074	0.303	25	0.299	No
	PFFP	1.416	SLV 15	0.341	1.397	1328	1.524	Si
	R	0.069	SLV 1	0	0	0	0	No
105	PF	1.542	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.645	SLV 1	0.153	0.627	144	0.613	No
	PFFP	1.717	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.076	SLV 1	0	0	0	0	No
106	PF	0.567	SLV 13	0.134	0.548	106	0.541	No
	V	0.461	SLV 15	0.108	0.442	63	0.437	No
	PFFP	2.032	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 15	0	0	0	0	No
107	PF	2.673	SLV 9	0.362	1.483	1618	1.653	Si



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
108	V	0.756	SLV 9	0.183	0.748	220	0.729	No
	PFFP	2.3	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.02	SLV 1	0	0	0	0	No
	PF	0.334	SLV 1	0.078	0.318	28	0.313	No
109	V	0.274	SLV 1	0.064	0.262	18	0.261	No
	PFFP	1.978	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 3	0	0	0	0	No
	PF	0.617	SLV 13	0.146	0.598	129	0.586	No
110	V	0.366	SLV 13	0.086	0.351	36	0.347	No
	PFFP	1.846	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 1	0	0	0	0	No
	PF	3.581	SLV 13	0.362	1.483	1618	1.653	Si
111	V	0.721	SLV 7	0.173	0.71	192	0.69	No
	PFFP	2.188	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
	PF	1.01	SLV 15	0.247	1.01	488	1.011	Si
112	V	0.503	SLV 15	0.118	0.485	79	0.479	No
	PFFP	1.881	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.067	SLV 1	0	0	0	0	No
	PF	3.322	SLV 11	0.362	1.483	1618	1.653	Si
114	V	1.262	SLV 11	0.304	1.242	909	1.305	Si
	PFFP	2.496	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
115	V	0	SLV 1	0	0	0	0	No
	PFFP	0.733	SLV 11	0.177	0.723	201	0.703	No
	R	0.033	SLV 1	0	0	0	0	No
	PF	0.425	SLV 5	0.1	0.41	52	0.404	No
116	V	0.405	SLV 5	0.096	0.392	46	0.384	No
	PFFP	1.037	SLV 5	0.253	1.035	526	1.043	Si
	R	0.068	SLV 1	0	0	0	0	No
	PF	1.256	SLV 7	0.302	1.237	896	1.297	Si
117	V	0.609	SLV 7	0.144	0.591	126	0.58	No
	PFFP	2.012	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
	PF	0.161	SLV 7	0.035	0.143	4	0.141	No
118	V	0.181	SLV 7	0.041	0.169	6	0.167	No
	PFFP	0.498	SLV 7	0.117	0.479	77	0.474	No
	R	0.021	SLV 5	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
119	V	0	SLV 1	0	0	0	0	No
	PFFP	0.143	SLV 1	0.031	0.127	3	0.125	No
	R	0.024	SLV 1	0	0	0	0	No
	PF	0.898	SLV 13	0.218	0.893	351	0.883	No
120	V	0.753	SLV 13	0.182	0.744	217	0.725	No
	PFFP	1.31	SLV 13	0.316	1.295	1033	1.375	Si
	R	0.071	SLV 3	0	0	0	0	No
	PF	1.996	SLV 13	0.362	1.483	1618	1.653	Si
121	V	0.89	SLV 1	0.216	0.885	343	0.875	No
	PFFP	2.444	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 1	0	0	0	0	No
	PF	1.88	SLV 1	0.362	1.483	1618	1.653	Si
122	V	0.899	SLV 13	0.218	0.894	352	0.884	No
	PFFP	2.47	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.071	SLV 15	0	0	0	0	No
	PF	0.933	SLV 1	0.227	0.929	390	0.922	No
123	V	0.781	SLV 1	0.189	0.773	239	0.755	No
	PFFP	1.341	SLV 1	0.324	1.325	1114	1.418	Si
	R	0.07	SLV 15	0	0	0	0	No
	PF	1.823	SLV 13	0.362	1.483	1618	1.653	Si
124	V	0.65	SLV 1	0.155	0.633	148	0.62	No
	PFFP	2.109	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.069	SLV 1	0	0	0	0	No
	PF	2.753	SLV 1	0.362	1.483	1618	1.653	Si
125	V	0.679	SLV 3	0.162	0.663	165	0.648	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.068	SLV 1	0	0	0	0	No
	PF	0.59	SLV 15	0.14	0.571	117	0.563	No
126	V	0.578	SLV 15	0.137	0.56	111	0.551	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.068	SLV 3	0	0	0	0	No
	PF	1.169	SLV 15	0.283	1.16	740	1.199	Si
127	V	0.733	SLV 15	0.176	0.722	200	0.701	No
	PFFP	3.446	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.067	SLV 1	0	0	0	0	No
	PF	1.024	SLV 13	0.25	1.023	508	1.028	Si
128	V	0.559	SLV 15	0.132	0.542	103	0.534	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.067	SLV 1	0	0	0	0	No
	PF	2.182	SLV 3	0.362	1.483	1618	1.653	Si
130	V	0.758	SLV 15	0.183	0.748	220	0.729	No
	PFFP	2.349	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.068	SLV 13	0	0	0	0	No
	PF	3.454	SLV 11	0.362	1.483	1618	1.653	Si
131	V	1.281	SLV 7	0.308	1.26	948	1.328	Si
	PFFP	2.505	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.02	SLV 1	0	0	0	0	No
	PF	0.974	SLV 3	0.237	0.972	440	0.969	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	0.57	SLV 3	0.135	0.551	107	0.543	No
	PFFP	1.428	SLV 15	0.344	1.408	1364	1.541	Si
	R	0.067	SLV 13	0	0	0	0	No
132	PF	4.036	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.852	SLV 11	0.207	0.846	305	0.834	No
	PFFP	2.81	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
133	PF	0.628	SLV 11	0.149	0.61	136	0.599	No
	V	0.562	SLV 3	0.133	0.544	104	0.536	No
	PFFP	1.049	SLV 7	0.255	1.046	542	1.056	Si
	R	0.072	SLV 3	0	0	0	0	No
134	PF	2.727	SLV 5	0.362	1.483	1618	1.653	Si
	V	0.801	SLV 5	0.194	0.793	257	0.777	No
	PFFP	2.162	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.02	SLV 1	0	0	0	0	No
135	PF	0	SLV 1	0	0	0	0	No
	V	0.013	SLV 13	0	0	0	0	No
	PFFP	0.73	SLV 13	0.175	0.718	198	0.699	No
	R	0.064	SLV 13	0	0	0	0	No
136	PF	0.936	SLV 1	0.228	0.932	394	0.926	No
	V	0.763	SLV 9	0.185	0.755	225	0.736	No
	PFFP	1.911	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.038	SLV 15	0	0	0	0	No
137	PF	0.697	SLV 1	0.167	0.682	175	0.664	No
	V	0.538	SLV 3	0.127	0.52	94	0.515	No
	PFFP	1.523	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.075	SLV 15	0	0	0	0	No
138	PF	1.993	SLV 7	0.362	1.483	1618	1.653	Si
	V	0.666	SLV 3	0.159	0.65	157	0.635	No
	PFFP	1.771	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.074	SLV 3	0	0	0	0	No
139	PF	1.148	SLV 3	0.279	1.14	702	1.174	Si
	V	0.603	SLV 15	0.143	0.585	123	0.575	No
	PFFP	1.351	SLV 7	0.324	1.325	1115	1.419	Si
	R	0.072	SLV 1	0	0	0	0	No
140	PF	1.148	SLV 13	0.279	1.14	702	1.174	Si
	V	0.777	SLV 1	0.188	0.769	236	0.751	No
	PFFP	1.664	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.071	SLV 3	0	0	0	0	No
141	PF	1.166	SLV 1	0.283	1.157	734	1.195	Si
	V	0.877	SLV 13	0.213	0.871	329	0.86	No
	PFFP	1.26	SLV 5	0.303	1.241	905	1.303	Si
	R	0.073	SLV 3	0	0	0	0	No
142	PF	1.623	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.583	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.729	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 1	0	0	0	0	No
143	PF	2.063	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.567	SLV 11	0.362	1.483	1618	1.653	Si
	PFFP	1.617	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.072	SLV 1	0	0	0	0	No
144	PF	1.513	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.437	SLV 9	0.343	1.404	1350	1.535	Si
	PFFP	1.273	SLV 13	0.308	1.259	945	1.326	Si
	R	0.071	SLV 3	0	0	0	0	No
145	PF	1.066	SLV 13	0.26	1.062	569	1.077	Si
	V	0.925	SLV 13	0.225	0.921	381	0.914	No
	PFFP	1.438	SLV 13	0.346	1.418	1395	1.555	Si
	R	0.067	SLV 3	0	0	0	0	No
146	PF	0.389	SLV 3	0.092	0.376	42	0.37	No
	V	0.33	SLV 3	0.078	0.318	28	0.313	No
	PFFP	0.731	SLV 3	0.176	0.72	199	0.7	No
	R	0.076	SLV 15	0	0	0	0	No
147	PF	1.348	SLV 15	0.325	1.331	1133	1.428	Si
	V	1.129	SLV 3	0.274	1.122	670	1.151	Si
	PFFP	1.47	SLV 11	0.35	1.434	1448	1.579	Si
	R	0.067	SLV 1	0	0	0	0	No
148	PF	1.707	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.679	SLV 1	0.162	0.663	165	0.648	No
	PFFP	2.307	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.074	SLV 1	0	0	0	0	No
149	PF	0.551	SLV 13	0.13	0.532	99	0.526	No
	V	0.517	SLV 15	0.122	0.498	84	0.491	No
	PFFP	1.16	SLV 15	0.281	1.151	724	1.189	Si
	R	0.068	SLV 15	0	0	0	0	No
150	PF	2.118	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.868	SLV 9	0.211	0.863	321	0.852	No
	PFFP	1.469	SLV 5	0.35	1.433	1445	1.578	Si
	R	0.02	SLV 1	0	0	0	0	No
151	PF	0.86	SLV 5	0.209	0.855	313	0.843	No
	V	0.801	SLV 13	0.194	0.793	257	0.777	No
	PFFP	1.316	SLV 9	0.316	1.292	1028	1.372	Si
	R	0.063	SLV 1	0	0	0	0	No
152	PF	0.516	SLV 13	0.122	0.498	84	0.491	No
	V	0.373	SLV 13	0.088	0.359	38	0.355	No
	PFFP	1.169	SLV 15	0.283	1.16	740	1.199	Si
	R	0.07	SLV 15	0	0	0	0	No
153	PF	3.99	SLV 15	0.362	1.483	1618	1.653	Si



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	0.835	SLV 7	0.202	0.828	288	0.815	No
	PFFP	1.737	SLV 3	0.362	1.483	1618	1.653	Si
154	R	0.021	SLV 1	0	0	0	0	No
	PF	0.559	SLV 5	0.132	0.542	103	0.534	No
	V	0.522	SLV 13	0.123	0.503	86	0.496	No
	PFFP	0.772	SLV 5	0.187	0.765	233	0.747	No
	R	0.068	SLV 3	0	0	0	0	No
155	PF	2.904	SLV 9	0.362	1.483	1618	1.653	Si
	V	1.407	SLV 11	0.336	1.377	1265	1.494	Si
	PFFP	1.431	SLV 13	0.345	1.411	1374	1.546	Si
	R	0.021	SLV 1	0	0	0	0	No
156	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.419	SLV 11	0.098	0.403	50	0.397	No
	R	0.032	SLV 1	0	0	0	0	No
157	PF	0.199	SLV 5	0.047	0.191	8	0.187	No
	V	0.188	SLV 5	0.044	0.181	7	0.177	No
	PFFP	0.445	SLV 5	0.105	0.43	58	0.422	No
	R	0.065	SLV 15	0	0	0	0	No
158	PF	1.876	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.749	SLV 7	0.181	0.741	214	0.721	No
	PFFP	1.473	SLV 15	0.355	1.452	1508	1.606	Si
	R	0.02	SLV 1	0	0	0	0	No
159	PF	0.488	SLV 7	0.115	0.471	73	0.464	No
	V	0.486	SLV 7	0.114	0.468	72	0.461	No
	PFFP	0.643	SLV 7	0.153	0.627	144	0.613	No
	R	0.02	SLV 5	0	0	0	0	No
160	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.934	SLV 9	0.227	0.931	393	0.925	No
	R	0	SLV 1	0	0	0	0	No
161	PF	0.92	SLV 15	0.224	0.916	376	0.909	No
	V	0.812	SLV 15	0.196	0.804	266	0.788	No
	PFFP	1.099	SLV 15	0.267	1.094	621	1.116	Si
	R	0.071	SLV 3	0	0	0	0	No
162	PF	1.902	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.946	SLV 13	0.23	0.942	405	0.937	No
	PFFP	2.557	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.069	SLV 1	0	0	0	0	No
163	PF	1.834	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.964	SLV 3	0.235	0.962	428	0.958	No
	PFFP	2.438	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.069	SLV 1	0	0	0	0	No
164	PF	1.007	SLV 3	0.246	1.007	484	1.008	Si
	V	0.892	SLV 3	0.217	0.887	345	0.877	No
	PFFP	1.176	SLV 1	0.285	1.166	752	1.207	Si
	R	0.069	SLV 13	0	0	0	0	No
165	PF	1.495	SLV 15	0.36	1.473	1581	1.637	Si
	V	0.684	SLV 1	0.163	0.669	168	0.653	No
	PFFP	1.587	SLV 15	0.362	1.483	1618	1.653	Si
	R	0.064	SLV 3	0	0	0	0	No
166	PF	3.232	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.737	SLV 13	0.177	0.727	203	0.706	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.062	SLV 1	0	0	0	0	No
167	PF	0.444	SLV 1	0.104	0.427	57	0.419	No
	V	0.415	SLV 1	0.098	0.399	49	0.394	No
	PFFP	3.08	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.063	SLV 13	0	0	0	0	No
168	PF	1.304	SLV 1	0.315	1.289	1018	1.367	Si
	V	0.966	SLV 15	0.235	0.963	429	0.959	No
	PFFP	4.079	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.061	SLV 13	0	0	0	0	No
169	PF	0.99	SLV 15	0.242	0.989	461	0.988	No
	V	0.55	SLV 15	0.129	0.53	98	0.524	No
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.063	SLV 1	0	0	0	0	No
170	PF	1.683	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.935	SLV 15	0.227	0.931	393	0.925	No
	PFFP	1.754	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.065	SLV 3	0	0	0	0	No
171	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.982	SLV 7	0.24	0.982	452	0.98	No
	R	0.074	SLV 1	0	0	0	0	No
172	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.152	SLV 7	0.279	1.141	704	1.175	Si
	PFFP	3.665	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.113	SLV 3	0.026	0.107	2	0.106	No
174	PF	2.2	SLV 7	0.362	1.483	1618	1.653	Si
	V	1.147	SLV 9	0.278	1.136	696	1.17	Si
	PFFP	1.903	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.063	SLV 13	0	0	0	0	No
175	PF	3.402	SLV 5	0.362	1.483	1618	1.653	Si
	V	1.419	SLV 7	0.339	1.387	1298	1.51	Si
	PFFP	1.715	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.021	SLV 1	0	0	0	0	No
176	PF	0.834	SLV 15	0.202	0.827	287	0.813	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
	V	0.553	SLV 3	0.131	0.535	100	0.528	No
	PFFP	1.107	SLV 15	0.269	1.101	634	1.126	Si
	R	0.07	SLV 3	0	0	0	0	No
177	PF	4.045	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.928	SLV 7	0.226	0.925	386	0.918	No
	PFFP	1.483	SLV 3	0.357	1.461	1541	1.62	Si
	R	0.02	SLV 1	0	0	0	0	No
178	PF	0.538	SLV 7	0.127	0.52	94	0.515	No
	V	0.429	SLV 3	0.101	0.414	53	0.407	No
	PFFP	0.758	SLV 7	0.183	0.75	221	0.731	No
	R	0.067	SLV 3	0	0	0	0	No
179	PF	2.074	SLV 5	0.362	1.483	1618	1.653	Si
	V	0.93	SLV 5	0.227	0.927	388	0.92	No
	PFFP	1.469	SLV 9	0.35	1.433	1445	1.578	Si
	R	0.019	SLV 11	0	0	0	0	No
180	PF	0.996	SLV 5	0.243	0.995	469	0.995	No
	V	0.996	SLV 5	0.243	0.995	469	0.995	No
	PFFP	0.944	SLV 5	0.23	0.941	404	0.936	No
	R	0.066	SLV 3	0	0	0	0	No
181	PF	0.488	SLV 9	0.115	0.471	73	0.464	No
	V	0.49	SLV 9	0.115	0.471	73	0.464	No
	PFFP	0.424	SLV 5	0.1	0.41	52	0.404	No
	R	0.074	SLV 13	0	0	0	0	No
182	PF	0.568	SLV 1	0.135	0.551	107	0.543	No
	V	0.532	SLV 3	0.125	0.513	90	0.506	No
	PFFP	0.982	SLV 7	0.239	0.98	450	0.978	No
	R	0.073	SLV 15	0	0	0	0	No
183	PF	1.611	SLV 15	0.362	1.483	1618	1.653	Si
	V	0.93	SLV 13	0.226	0.926	387	0.919	No
	PFFP	1.839	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.069	SLV 1	0	0	0	0	No
184	PF	1.467	SLV 3	0.353	1.446	1488	1.597	Si
	V	0.987	SLV 15	0.241	0.986	457	0.984	No
	PFFP	1.473	SLV 7	0.351	1.437	1457	1.583	Si
	R	0.07	SLV 1	0	0	0	0	No
185	PF	0.64	SLV 15	0.152	0.623	142	0.61	No
	V	0.545	SLV 15	0.128	0.525	96	0.519	No
	PFFP	0.941	SLV 15	0.229	0.937	400	0.932	No
	R	0.074	SLV 3	0	0	0	0	No
186	PF	1.077	SLV 1	0.262	1.073	586	1.09	Si
	V	0.89	SLV 13	0.216	0.885	343	0.875	No
	PFFP	1.325	SLV 5	0.318	1.301	1050	1.384	Si
	R	0.069	SLV 1	0	0	0	0	No
187	PF	2.206	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.743	SLV 5	0.362	1.483	1618	1.653	Si
	PFFP	2.03	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.071	SLV 1	0	0	0	0	No
188	PF	0.713	SLV 7	0.171	0.701	187	0.682	No
	V	0.656	SLV 7	0.156	0.639	151	0.625	No
	PFFP	0.758	SLV 7	0.183	0.75	221	0.731	No
	R	0.077	SLV 13	0	0	0	0	No
189	PF	1.388	SLV 9	0.332	1.359	1212	1.468	Si
	V	1.31	SLV 9	0.314	1.287	1013	1.364	Si
	PFFP	0.943	SLV 9	0.23	0.94	403	0.935	No
	R	0.058	SLV 15	0	0	0	0	No
190	PF	0.552	SLV 3	0.13	0.532	99	0.526	No
	V	0.347	SLV 3	0.081	0.332	31	0.327	No
	PFFP	1.319	SLV 5	0.316	1.295	1035	1.376	Si
	R	0.057	SLV 1	0	0	0	0	No
191	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.261	SLV 5	0.061	0.249	16	0.249	No
	R	0	SLV 1	0	0	0	0	No
192	PF	1.228	SLV 5	0.296	1.211	841	1.264	Si
	V	0.819	SLV 1	0.198	0.811	273	0.797	No
	PFFP	1.228	SLV 11	0.296	1.211	841	1.264	Si
	R	0.067	SLV 3	0	0	0	0	No
193	PF	1.505	SLV 1	0.362	1.482	1615	1.652	Si
	V	0.924	SLV 5	0.225	0.921	381	0.914	No
	PFFP	1.044	SLV 11	0.254	1.041	535	1.05	Si
	R	0.087	SLV 7	0.02	0.08	1	0.08	No
194	PF	0.245	SLV 11	0.057	0.234	13	0.229	No
	V	0.245	SLV 11	0.057	0.234	13	0.229	No
	PFFP	0.21	SLV 7	0.049	0.201	9	0.197	No
	R	0	SLV 1	0	0	0	0	No
195	PF	0.182	SLV 15	0.041	0.169	6	0.167	No
	V	0.179	SLV 15	0.041	0.169	6	0.167	No
	PFFP	0.385	SLV 11	0.091	0.372	41	0.366	No
	R	0	SLV 1	0	0	0	0	No
196	PF	0.355	SLV 5	0.083	0.342	34	0.339	No
	V	0.309	SLV 5	0.073	0.298	24	0.294	No
	PFFP	0.767	SLV 3	0.185	0.758	228	0.74	No
	R	0.026	SLV 15	0	0	0	0	No
197	PF	1.528	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.304	SLV 9	0.313	1.281	999	1.356	Si
	PFFP	1.752	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.071	SLV 1	0	0	0	0	No
198	PF	0.215	SLV 7	0.049	0.201	9	0.197	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
199	V	0.167	SLV 7	0.038	0.157	5	0.155	No
	PFFP	0.628	SLV 5	0.149	0.61	136	0.599	No
	R	0.029	SLV 1	0	0	0	0	No
	PF	0.737	SLV 9	0.178	0.728	205	0.709	No
200	V	0.722	SLV 9	0.174	0.711	193	0.691	No
	PFFP	0.595	SLV 13	0.141	0.578	120	0.569	No
	R	0.028	SLV 1	0	0	0	0	No
	PFFP	0.4	SLV 7	0.094	0.384	44	0.377	No
201	R	0	SLV 1	0	0	0	0	No
	PFFP	0.61	SLV 9	0.145	0.593	127	0.582	No
	R	0.106	SLV 3	0.02	0.08	1	0.08	No
	PF	0.203	SLV 9	0.047	0.191	8	0.187	No
202	V	0.202	SLV 9	0.047	0.191	8	0.187	No
	PFFP	0.653	SLV 13	0.155	0.635	149	0.622	No
	R	0.028	SLV 3	0	0	0	0	No
	PF	0.164	SLV 7	0.038	0.157	5	0.155	No
203	V	0.161	SLV 7	0.035	0.143	4	0.141	No
	PFFP	0.317	SLV 7	0.074	0.303	25	0.299	No
	R	0.027	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
204	V	0	SLV 1	0	0	0	0	No
	PFFP	0.545	SLV 9	0.129	0.528	97	0.521	No
	R	0	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
205	V	0	SLV 1	0	0	0	0	No
	PFFP	0.193	SLV 1	0.044	0.181	7	0.177	No
	R	0	SLV 1	0	0	0	0	No
	PF	1.062	SLV 3	0.259	1.059	563	1.072	Si
206	V	0.952	SLV 3	0.232	0.949	413	0.944	No
	PFFP	1.148	SLV 7	0.278	1.137	697	1.17	Si
	R	0	SLV 1	0	0	0	0	No
	PF	1.242	SLV 15	0.3	1.229	879	1.287	Si
207	V	1.122	SLV 15	0.273	1.115	658	1.143	Si
	PFFP	1.111	SLV 7	0.27	1.103	637	1.128	Si
	R	0	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
208	V	0	SLV 1	0	0	0	0	No
	PFFP	0.486	SLV 5	0.114	0.468	72	0.461	No
	R	0	SLV 1	0	0	0	0	No
	PF	1.079	SLV 13	0.263	1.075	589	1.092	Si
209	V	1.064	SLV 15	0.259	1.061	566	1.075	Si
	PFFP	0.953	SLV 13	0.232	0.95	415	0.946	No
	R	0.118	SLV 1	0.026	0.107	2	0.106	No
	PF	1.327	SLV 13	0.32	1.311	1077	1.399	Si
210	V	1.031	SLV 13	0.252	1.029	518	1.036	Si
	PFFP	1.895	SLV 13	0.362	1.483	1618	1.653	Si
	R	0.083	SLV 3	0.02	0.08	1	0.08	No
	PF	0.342	SLV 1	0.08	0.328	31	0.327	No
211	V	0.321	SLV 1	0.075	0.308	26	0.304	No
	PFFP	1.183	SLV 7	0.286	1.17	759	1.212	Si
	R	0.068	SLV 7	0	0	0	0	No
	PF	0.489	SLV 1	0.115	0.471	73	0.464	No
212	V	0.482	SLV 1	0.113	0.463	70	0.456	No
	PFFP	1.006	SLV 1	0.246	1.006	483	1.007	Si
	R	0.09	SLV 13	0.02	0.08	1	0.08	No
	PF	1.077	SLV 15	0.262	1.073	586	1.09	Si
213	V	0.623	SLV 15	0.148	0.604	133	0.593	No
	PFFP	2.05	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.079	SLV 15	0	0	0	0	No
	PF	1.899	SLV 1	0.362	1.483	1618	1.653	Si
214	V	1.901	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.181	SLV 1	0.286	1.171	761	1.213	Si
	R	0.118	SLV 1	0.026	0.107	2	0.106	No
	PF	0.381	SLV 5	0.09	0.368	40	0.363	No
215	V	0.203	SLV 5	0.047	0.191	8	0.187	No
	PFFP	1.049	SLV 7	0.255	1.046	542	1.056	Si
	R	0.124	SLV 13	0.026	0.107	2	0.106	No
	PF	0.653	SLV 9	0.156	0.637	150	0.623	No
216	V	0.649	SLV 9	0.155	0.633	148	0.62	No
	PFFP	0.642	SLV 5	0.153	0.625	143	0.611	No
	R	0.028	SLV 1	0	0	0	0	No
	PF	0.384	SLV 9	0.091	0.372	41	0.366	No
217	V	0.361	SLV 9	0.085	0.346	35	0.343	No
	PFFP	0.812	SLV 1	0.196	0.804	266	0.788	No
	R	0.029	SLV 1	0	0	0	0	No
	PF	0.451	SLV 9	0.106	0.433	59	0.425	No
218	V	0.414	SLV 5	0.098	0.399	49	0.394	No
	PFFP	0.973	SLV 13	0.237	0.97	438	0.967	No
	R	0.026	SLV 1	0	0	0	0	No
	PF	0.341	SLV 15	0.08	0.328	31	0.327	No
219	V	0.35	SLV 13	0.082	0.337	33	0.335	No
	PFFP	1.612	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.013	SLV 13	0	0	0	0	No
	PF	0.03	SLV 15	0	0	0	0	No
220	V	0.906	SLV 1	0.22	0.901	360	0.893	No
	PFFP	0.725	SLV 1	0.174	0.713	194	0.693	No
	R	0.066	SLV 3	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
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Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
222	V	0	SLV 1	0	0	0	0	No
	PFFP	0.315	SLV 9	0.074	0.303	25	0.299	No
	R	0	SLV 1	0	0	0	0	No
	PF	0.779	SLV 15	0.188	0.771	238	0.753	No
	V	0.534	SLV 15	0.126	0.516	91	0.508	No
223	PFFP	1.289	SLV 9	0.31	1.268	965	1.337	Si
	R	0.072	SLV 13	0	0	0	0	No
	PF	1.296	SLV 9	0.311	1.274	980	1.346	Si
	V	1.249	SLV 9	0.301	1.23	883	1.289	Si
	PFFP	1.261	SLV 5	0.303	1.242	907	1.304	Si
224	R	0.069	SLV 1	0	0	0	0	No
	PF	0.308	SLV 13	0.071	0.292	23	0.289	No
	V	0.288	SLV 13	0.067	0.275	20	0.273	No
	PFFP	0.703	SLV 13	0.169	0.691	181	0.673	No
	R	0.075	SLV 15	0	0	0	0	No
225	PF	0.441	SLV 9	0.104	0.424	56	0.416	No
	V	0.393	SLV 9	0.093	0.38	43	0.373	No
	PFFP	0.831	SLV 5	0.201	0.825	285	0.811	No
	R	0.062	SLV 15	0	0	0	0	No
	PF	0.783	SLV 3	0.189	0.775	242	0.758	No
226	V	0.538	SLV 3	0.127	0.52	94	0.515	No
	PFFP	0.83	SLV 15	0.201	0.822	282	0.808	No
	R	0.063	SLV 3	0	0	0	0	No
	PF	0.384	SLV 11	0.091	0.372	41	0.366	No
	V	0.368	SLV 11	0.087	0.355	37	0.351	No
228	PFFP	0.411	SLV 7	0.097	0.395	47	0.387	No
	R	0.097	SLV 5	0.02	0.08	1	0.08	No
	PF	0.3	SLV 11	0.07	0.286	22	0.284	No
	V	0.286	SLV 11	0.067	0.275	20	0.273	No
	PFFP	0.23	SLV 11	0.053	0.218	11	0.214	No
229	R	0	SLV 1	0	0	0	0	No
	PF	1.933	SLV 9	0.362	1.483	1618	1.653	Si
	V	1.516	SLV 9	0.361	1.477	1596	1.644	Si
	PFFP	1.096	SLV 7	0.266	1.09	613	1.11	Si
	R	0.085	SLV 7	0.02	0.08	1	0.08	No
230	PF	1.488	SLV 11	0.354	1.451	1504	1.604	Si
	V	1.203	SLV 11	0.29	1.188	795	1.235	Si
	PFFP	1.195	SLV 11	0.288	1.181	780	1.226	Si
	R	0.087	SLV 15	0.02	0.08	1	0.08	No
	PF	0.515	SLV 15	0.121	0.495	83	0.489	No
233	V	0.323	SLV 1	0.075	0.308	26	0.304	No
	PFFP	1.114	SLV 11	0.27	1.106	642	1.131	Si
	R	0.185	SLV 1	0.041	0.169	6	0.167	No
	PF	0.475	SLV 3	0.112	0.457	68	0.451	No
	V	0.428	SLV 3	0.101	0.414	53	0.407	No
234	PFFP	1.174	SLV 7	0.284	1.161	743	1.201	Si
	R	0.185	SLV 13	0.041	0.169	6	0.167	No
	PF	0.529	SLV 15	0.125	0.511	89	0.503	No
	V	0.447	SLV 15	0.105	0.43	58	0.422	No
	PFFP	1.16	SLV 11	0.281	1.148	718	1.185	Si
236	R	0.094	SLV 1	0.02	0.08	1	0.08	No
	PF	0.56	SLV 3	0.132	0.542	103	0.534	No
	V	0.465	SLV 3	0.11	0.448	65	0.442	No
	PFFP	1.324	SLV 11	0.318	1.3	1047	1.383	Si
	R	0.096	SLV 13	0.02	0.08	1	0.08	No
237	PF	0.385	SLV 15	0.091	0.372	41	0.366	No
	V	0.364	SLV 15	0.086	0.351	36	0.347	No
	PFFP	0.619	SLV 11	0.147	0.602	132	0.592	No
	R	0.085	SLV 1	0.02	0.08	1	0.08	No
	PF	0.495	SLV 3	0.116	0.477	75	0.469	No
238	V	0.434	SLV 3	0.102	0.417	54	0.41	No
	PFFP	1.026	SLV 11	0.25	1.024	510	1.03	Si
	R	0.085	SLV 13	0.02	0.08	1	0.08	No
	PF	1.075	SLV 11	0.261	1.07	581	1.086	Si
	V	1.075	SLV 11	0.261	1.07	581	1.086	Si
240	PFFP	1.128	SLV 11	0.273	1.119	664	1.147	Si
	R	0.466	SLV 9	0.11	0.448	65	0.442	No
	PF	0.332	SLV 7	0.078	0.318	28	0.313	No
	V	0.327	SLV 7	0.077	0.313	27	0.309	No
	PFFP	0.35	SLV 11	0.082	0.337	33	0.335	No
241	R	0.036	SLV 15	0	0	0	0	No
	PF	0.48	SLV 7	0.113	0.463	70	0.456	No
	V	0.457	SLV 15	0.107	0.439	62	0.434	No
	PFFP	0.541	SLV 11	0.128	0.523	95	0.517	No
	R	0.008	SLV 1	0	0	0	0	No
242	PF	0.019	SLV 3	0	0	0	0	No
	V	0.019	SLV 3	0	0	0	0	No
	PFFP	0.173	SLV 9	0.038	0.157	5	0.155	No
	R	0	SLV 1	0	0	0	0	No
	PF	0.014	SLV 5	0	0	0	0	No
243	V	0.014	SLV 5	0	0	0	0	No
	PFFP	0.265	SLV 9	0.062	0.256	17	0.255	No
	R	0	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
244	PFFP	0.663	SLV 5	0.158	0.646	155	0.632	No
	R	0.028	SLV 5	0	0	0	0	No
	PF	0.242	SLV 11	0.057	0.234	13	0.229	No



Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
246	V	0.231	SLV 11	0.053	0.218	11	0.214	No
	PFFP	0.282	SLV 11	0.066	0.269	19	0.267	No
	R	0.094	SLV 9	0.02	0.08	1	0.08	No
	PF	0.175	SLV 11	0.041	0.169	6	0.167	No
	V	0.166	SLV 11	0.038	0.157	5	0.155	No
247	PFFP	0.274	SLV 11	0.064	0.262	18	0.261	No
	R	0.118	SLV 5	0.026	0.107	2	0.106	No
	PF	0.248	SLV 3	0.057	0.234	13	0.229	No
	V	0.246	SLV 3	0.057	0.234	13	0.229	No
	PFFP	0.404	SLV 7	0.095	0.388	45	0.381	No
248	R	0.117	SLV 5	0.026	0.107	2	0.106	No
	PFFP	0.289	SLV 5	0.067	0.275	20	0.273	No
	R	0	SLV 1	0	0	0	0	No
	PF	1.297	SLV 5	0.311	1.275	982	1.347	Si
	V	0.777	SLV 11	0.188	0.77	237	0.752	No
250	PFFP	2.662	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.067	SLV 13	0	0	0	0	No
	PFFP	0.48	SLV 7	0.113	0.463	70	0.456	No
	R	0	SLV 1	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
251	V	0	SLV 1	0	0	0	0	No
	PFFP	0.305	SLV 11	0.071	0.292	23	0.289	No
	R	0.08	SLV 7	0	0	0	0	No
	PF	0.164	SLV 11	0.038	0.157	5	0.155	No
	V	0.164	SLV 11	0.038	0.157	5	0.155	No
252	PFFP	0.35	SLV 11	0.082	0.337	33	0.335	No
	R	0.131	SLV 5	0.031	0.127	3	0.125	No
	PF	0.881	SLV 5	0.214	0.877	335	0.867	No
	V	0.743	SLV 5	0.18	0.735	210	0.716	No
	PFFP	1.832	SLV 11	0.362	1.483	1618	1.653	Si
254	R	0.03	SLV 3	0	0	0	0	No
	PF	3.804	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.056	SLV 7	0.257	1.052	553	1.064	Si
	PFFP	1.000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.064	SLV 3	0	0	0	0	No
255	PF	2.001	SLV 9	0.362	1.483	1618	1.653	Si
	V	1.205	SLV 9	0.291	1.19	798	1.237	Si
	PFFP	1.795	SLV 5	0.362	1.483	1618	1.653	Si
	R	0.03	SLV 5	0	0	0	0	No
	PF	0.143	SLV 3	0.031	0.127	3	0.125	No
256	V	0.143	SLV 3	0.031	0.127	3	0.125	No
	PFFP	0.355	SLV 7	0.083	0.342	34	0.339	No
	R	0.121	SLV 5	0.026	0.107	2	0.106	No
	PF	0.125	SLV 5	0.026	0.107	2	0.106	No
	V	0.125	SLV 5	0.026	0.107	2	0.106	No
257	PFFP	0.294	SLV 7	0.069	0.281	21	0.278	No
	R	0.113	SLV 3	0.026	0.107	2	0.106	No
	PF	0.019	SLV 11	0	0	0	0	No
	V	0.018	SLV 11	0	0	0	0	No
	PFFP	0.174	SLV 5	0.038	0.157	5	0.155	No
258	R	0.023	SLV 5	0	0	0	0	No
	PF	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
	PFFP	0.276	SLV 5	0.064	0.262	18	0.261	No
	R	0	SLV 1	0	0	0	0	No

Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	F	1.223	SLV 5	0.295	1.206	832	1.258	Si
	V	0	SLV 1	0	0	0	0	No
2	F	0.343	SLV 9	0.08	0.328	31	0.327	No
	V	0	SLV 1	0	0	0	0	No
3	F	0.099	SLV 9	0.02	0.08	1	0.08	No
	V	0	SLV 1	0	0	0	0	No
4	F	0.377	SLV 7	0.089	0.364	39	0.359	No
	V	0	SLV 1	0	0	0	0	No
5	F	0.899	SLV 9	0.219	0.895	353	0.885	No
	V	0	SLV 1	0	0	0	0	No
6	F	0.524	SLV 7	0.124	0.506	87	0.499	No
	V	0	SLV 1	0	0	0	0	No
7	F	0.369	SLV 3	0.087	0.355	37	0.351	No
	V	0	SLV 1	0	0	0	0	No
8	F	0.031	SLV 13	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
9	F	0.077	SLV 7	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
10	F	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
11	F	0.326	SLV 11	0.077	0.313	27	0.309	No
	V	0.066	SLV 11	0	0	0	0	No
12	F	0.582	SLV 13	0.137	0.562	112	0.553	No
	V	0	SLV 1	0	0	0	0	No
13	F	0.127	SLV 3	0.026	0.107	2	0.106	No
	V	0	SLV 1	0	0	0	0	No
14	F	0.796	SLV 13	0.193	0.788	252	0.771	No
	V	0	SLV 1	0	0	0	0	No
15	F	0.73	SLV 13	0.175	0.718	198	0.699	No
	V	0	SLV 1	0	0	0	0	No



Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
16	F	0.499	SLV 15	0.117	0.479	77	0.474	No
	V	0	SLV 1	0	0	0	0	No
17	F	0.433	SLV 1	0.102	0.417	54	0.41	No
	V	0	SLV 1	0	0	0	0	No
18	F	0.547	SLV 15	0.129	0.528	97	0.521	No
	V	0	SLV 1	0	0	0	0	No
19	F	0.36	SLV 7	0.085	0.346	35	0.343	No
	V	0	SLV 1	0	0	0	0	No
20	F	3.094	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
21	F	0.555	SLV 3	0.131	0.537	101	0.53	No
	V	0	SLV 1	0	0	0	0	No
22	F	0.306	SLV 1	0.071	0.292	23	0.289	No
	V	0	SLV 1	0	0	0	0	No
23	F	1.124	SLV 5	0.273	1.115	658	1.143	Si
	V	0	SLV 1	0	0	0	0	No
24	F	0.444	SLV 13	0.104	0.427	57	0.419	No
	V	0	SLV 1	0	0	0	0	No
25	F	0.583	SLV 13	0.138	0.565	113	0.555	No
	V	0	SLV 1	0	0	0	0	No
26	F	0.274	SLV 15	0.064	0.262	18	0.261	No
	V	0	SLV 1	0	0	0	0	No
27	F	0.132	SLV 7	0.031	0.127	3	0.125	No
	V	0	SLV 1	0	0	0	0	No
28	F	0.19	SLV 13	0.044	0.181	7	0.177	No
	V	0	SLV 1	0	0	0	0	No
29	F	0.108	SLV 1	0.02	0.08	1	0.08	No
	V	0	SLV 1	0	0	0	0	No
30	F	0.147	SLV 5	0.035	0.143	4	0.141	No
	V	0	SLV 1	0	0	0	0	No
31	F	0.4	SLV 13	0.094	0.384	44	0.377	No
	V	0	SLV 1	0	0	0	0	No
32	F	0.183	SLV 11	0.041	0.169	6	0.167	No
	V	0	SLV 1	0	0	0	0	No
33	F	0.343	SLV 11	0.08	0.328	31	0.327	No
	V	0	SLV 1	0	0	0	0	No
34	F	0.46	SLV 15	0.108	0.442	63	0.437	No
	V	0	SLV 1	0	0	0	0	No
35	F	0.119	SLV 5	0.026	0.107	2	0.106	No
	V	0	SLV 1	0	0	0	0	No
36	F	0.341	SLV 11	0.08	0.328	31	0.327	No
	V	0	SLV 1	0	0	0	0	No
37	F	0.11	SLV 7	0.026	0.107	2	0.106	No
	V	0	SLV 1	0	0	0	0	No
38	F	0.828	SLV 3	0.201	0.821	281	0.806	No
	V	0	SLV 1	0	0	0	0	No
39	F	0.114	SLV 1	0.026	0.107	2	0.106	No
	V	0	SLV 1	0	0	0	0	No
40	F	0.383	SLV 1	0.09	0.368	40	0.363	No
	V	0	SLV 1	0	0	0	0	No
41	F	0.161	SLV 13	0.035	0.143	4	0.141	No
	V	0	SLV 1	0	0	0	0	No
42	F	0.637	SLV 13	0.151	0.619	140	0.606	No
	V	0	SLV 1	0	0	0	0	No
43	F	0.047	SLV 13	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
44	F	0.679	SLV 13	0.162	0.663	165	0.648	No
	V	0	SLV 1	0	0	0	0	No
45	F	0.241	SLV 9	0.055	0.226	12	0.221	No
	V	0	SLV 1	0	0	0	0	No
46	F	0.248	SLV 13	0.057	0.234	13	0.229	No
	V	0	SLV 1	0	0	0	0	No
47	F	0.273	SLV 15	0.064	0.262	18	0.261	No
	V	0.039	SLV 15	0	0	0	0	No
48	F	0.193	SLV 5	0.044	0.181	7	0.177	No
	V	0	SLV 1	0	0	0	0	No
49	F	0.178	SLV 3	0.041	0.169	6	0.167	No
	V	0	SLV 1	0	0	0	0	No
50	F	0.149	SLV 13	0.035	0.143	4	0.141	No
	V	0	SLV 1	0	0	0	0	No
51	F	0.214	SLV 15	0.049	0.201	9	0.197	No
	V	0	SLV 1	0	0	0	0	No
52	F	0.275	SLV 15	0.064	0.262	18	0.261	No
	V	0.053	SLV 1	0	0	0	0	No
53	F	0.769	SLV 3	0.186	0.759	229	0.741	No
	V	0	SLV 1	0	0	0	0	No
54	F	0.241	SLV 7	0.055	0.226	12	0.221	No
	V	0.042	SLV 3	0	0	0	0	No
55	F	0.737	SLV 3	0.177	0.727	203	0.706	No
	V	0	SLV 1	0	0	0	0	No
56	F	0.235	SLV 7	0.055	0.226	12	0.221	No
	V	0.024	SLV 3	0	0	0	0	No
57	F	0.696	SLV 15	0.167	0.682	175	0.664	No
	V	0	SLV 1	0	0	0	0	No
58	F	0.276	SLV 3	0.064	0.262	18	0.261	No
	V	0	SLV 1	0	0	0	0	No
59	F	0.189	SLV 13	0.044	0.181	7	0.177	No
	V	0	SLV 1	0	0	0	0	No



Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
60	F	0.194	SLV 5	0.044	0.181	7	0.177	No
	V	0	SLV 1	0	0	0	0	No
61	F	0.326	SLV 13	0.077	0.313	27	0.309	No
	V	0	SLV 1	0	0	0	0	No
62	F	0.701	SLV 13	0.168	0.687	178	0.669	No
	V	0	SLV 1	0	0	0	0	No
63	F	0.1	SLV 13	0.02	0.08	1	0.08	No
	V	0	SLV 1	0	0	0	0	No
64	F	0.787	SLV 15	0.19	0.779	245	0.762	No
	V	0	SLV 1	0	0	0	0	No
65	F	0.165	SLV 3	0.038	0.157	5	0.155	No
	V	0	SLV 1	0	0	0	0	No
66	F	0.487	SLV 1	0.114	0.468	72	0.461	No
	V	0	SLV 1	0	0	0	0	No
67	F	0.235	SLV 13	0.055	0.226	12	0.221	No
	V	0	SLV 1	0	0	0	0	No
68	F	0.341	SLV 13	0.08	0.328	31	0.327	No
	V	0	SLV 1	0	0	0	0	No
69	F	0.24	SLV 15	0.055	0.226	12	0.221	No
	V	0	SLV 1	0	0	0	0	No
70	F	0.534	SLV 15	0.126	0.516	91	0.508	No
	V	0	SLV 1	0	0	0	0	No
71	F	0.469	SLV 7	0.11	0.451	66	0.445	No
	V	0	SLV 1	0	0	0	0	No
72	F	0.775	SLV 3	0.187	0.767	235	0.749	No
	V	0	SLV 1	0	0	0	0	No
73	F	0.91	SLV 3	0.221	0.905	364	0.897	No
	V	0	SLV 1	0	0	0	0	No
74	F	0.368	SLV 1	0.087	0.355	37	0.351	No
	V	0	SLV 1	0	0	0	0	No
75	F	0.548	SLV 1	0.129	0.53	98	0.524	No
	V	0	SLV 1	0	0	0	0	No
76	F	1.416	SLV 3	0.341	1.397	1328	1.524	Si
	V	0	SLV 1	0	0	0	0	No
77	F	1.124	SLV 13	0.273	1.117	662	1.146	Si
	V	0	SLV 1	0	0	0	0	No
78	F	0.581	SLV 13	0.137	0.562	112	0.553	No
	V	0	SLV 1	0	0	0	0	No
79	F	0.8	SLV 13	0.193	0.792	255	0.775	No
	V	0	SLV 1	0	0	0	0	No
80	F	0.254	SLV 9	0.059	0.242	14	0.236	No
	V	0.114	SLV 9	0.026	0.107	2	0.106	No
81	F	0.233	SLV 13	0.053	0.218	11	0.214	No
	V	0	SLV 1	0	0	0	0	No
82	F	0.228	SLV 15	0.053	0.218	11	0.214	No
	V	0.016	SLV 15	0	0	0	0	No
83	F	0.282	SLV 5	0.066	0.269	19	0.267	No
	V	0	SLV 1	0	0	0	0	No
84	F	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
85	F	0.949	SLV 15	0.231	0.946	409	0.941	No
	V	0	SLV 1	0	0	0	0	No
86	F	0.847	SLV 3	0.205	0.841	300	0.828	No
	V	0	SLV 1	0	0	0	0	No
87	F	0.901	SLV 3	0.219	0.896	354	0.886	No
	V	0	SLV 1	0	0	0	0	No
88	F	0.849	SLV 15	0.206	0.843	302	0.831	No
	V	0	SLV 1	0	0	0	0	No
89	F	0.612	SLV 13	0.145	0.593	127	0.582	No
	V	0	SLV 1	0	0	0	0	No
90	F	0.866	SLV 15	0.21	0.859	317	0.847	No
	V	0	SLV 1	0	0	0	0	No
91	F	0.318	SLV 1	0.074	0.303	25	0.299	No
	V	0	SLV 1	0	0	0	0	No
92	F	0.198	SLV 13	0.047	0.191	8	0.187	No
	V	0	SLV 1	0	0	0	0	No
93	F	0.268	SLV 15	0.062	0.256	17	0.255	No
	V	0	SLV 1	0	0	0	0	No
94	F	0.272	SLV 15	0.064	0.262	18	0.261	No
	V	0	SLV 1	0	0	0	0	No
95	F	0.288	SLV 15	0.067	0.275	20	0.273	No
	V	0	SLV 1	0	0	0	0	No
96	F	0.205	SLV 3	0.047	0.191	8	0.187	No
	V	0	SLV 1	0	0	0	0	No
97	F	0.322	SLV 3	0.075	0.308	26	0.304	No
	V	0	SLV 1	0	0	0	0	No
98	F	0.138	SLV 5	0.031	0.127	3	0.125	No
	V	0.007	SLV 5	0	0	0	0	No
99	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
100	F	0.623	SLV 15	0.148	0.604	133	0.593	No
	V	0	SLV 1	0	0	0	0	No
101	F	0.636	SLV 15	0.151	0.619	140	0.606	No
	V	0	SLV 1	0	0	0	0	No
102	F	0.908	SLV 15	0.221	0.903	362	0.895	No
	V	0	SLV 1	0	0	0	0	No
103	F	1.087	SLV 3	0.264	1.082	601	1.101	Si
	V	0	SLV 1	0	0	0	0	No



Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
104	F	0.917	SLV 1	0.223	0.913	373	0.906	No
	V	0	SLV 1	0	0	0	0	No
105	F	0.607	SLV 13	0.144	0.589	125	0.578	No
	V	0	SLV 1	0	0	0	0	No
106	F	0.56	SLV 13	0.132	0.542	103	0.534	No
	V	0	SLV 1	0	0	0	0	No
107	F	0.741	SLV 15	0.179	0.731	207	0.711	No
	V	0	SLV 1	0	0	0	0	No
108	F	0.888	SLV 1	0.216	0.882	340	0.872	No
	V	0	SLV 1	0	0	0	0	No
109	F	0.428	SLV 7	0.101	0.414	53	0.407	No
	V	0	SLV 1	0	0	0	0	No
110	F	1.267	SLV 3	0.306	1.253	932	1.318	Si
	V	0	SLV 1	0	0	0	0	No
111	F	1.335	SLV 3	0.322	1.319	1098	1.41	Si
	V	0	SLV 1	0	0	0	0	No
112	F	0.877	SLV 1	0.213	0.871	329	0.86	No
	V	0	SLV 1	0	0	0	0	No
113	F	1.417	SLV 1	0.342	1.398	1331	1.526	Si
	V	0	SLV 1	0	0	0	0	No
114	F	1.993	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.131	SLV 15	0.031	0.127	3	0.125	No
115	F	1.522	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
116	F	0.777	SLV 13	0.188	0.769	236	0.751	No
	V	0	SLV 1	0	0	0	0	No
117	F	1.061	SLV 3	0.259	1.058	562	1.071	Si
	V	0	SLV 1	0	0	0	0	No
118	F	0.192	SLV 9	0.044	0.181	7	0.177	No
	V	0.047	SLV 9	0	0	0	0	No
119	F	0.486	SLV 13	0.114	0.468	72	0.461	No
	V	0	SLV 1	0	0	0	0	No
120	F	0.249	SLV 15	0.057	0.234	13	0.229	No
	V	0.015	SLV 15	0	0	0	0	No
121	F	0.591	SLV 5	0.14	0.574	118	0.565	No
	V	0.061	SLV 5	0	0	0	0	No
122	F	0.017	SLV 7	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
123	F	1.693	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
124	F	1.706	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
125	F	1.388	SLV 1	0.335	1.37	1245	1.484	Si
	V	0	SLV 1	0	0	0	0	No
126	F	1.538	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
127	F	1.706	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
128	F	1.72	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
129	F	0.463	SLV 1	0.109	0.445	64	0.44	No
	V	0	SLV 1	0	0	0	0	No
130	F	0.243	SLV 13	0.057	0.234	13	0.229	No
	V	0	SLV 1	0	0	0	0	No
131	F	0.328	SLV 1	0.077	0.313	27	0.309	No
	V	0	SLV 1	0	0	0	0	No
132	F	0.393	SLV 15	0.093	0.38	43	0.373	No
	V	0	SLV 1	0	0	0	0	No
133	F	0.462	SLV 15	0.109	0.445	64	0.44	No
	V	0	SLV 1	0	0	0	0	No
134	F	0.462	SLV 3	0.109	0.445	64	0.44	No
	V	0	SLV 1	0	0	0	0	No
135	F	0.519	SLV 3	0.122	0.501	85	0.494	No
	V	0	SLV 1	0	0	0	0	No
136	F	0.141	SLV 9	0.031	0.127	3	0.125	No
	V	0.008	SLV 9	0	0	0	0	No
137	F	1.576	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.212	SLV 7	0.049	0.201	9	0.197	No
138	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
139	F	0.794	SLV 15	0.192	0.785	250	0.769	No
	V	0	SLV 1	0	0	0	0	No
140	F	1.361	SLV 15	0.328	1.344	1169	1.447	Si
	V	0	SLV 1	0	0	0	0	No
141	F	1.802	SLV 3	0.362	1.483	1618	1.653	Si
	V	0.092	SLV 3	0.02	0.08	1	0.08	No
142	F	1.488	SLV 3	0.358	1.466	1557	1.627	Si
	V	0	SLV 1	0	0	0	0	No
143	F	0.941	SLV 13	0.229	0.937	400	0.932	No
	V	0	SLV 1	0	0	0	0	No
144	F	1.235	SLV 13	0.299	1.222	865	1.279	Si
	V	0	SLV 1	0	0	0	0	No
145	F	0.989	SLV 15	0.241	0.988	459	0.986	No
	V	0	SLV 15	0	0	0	0	No
146	F	1.097	SLV 15	0.267	1.092	617	1.113	Si
	V	0	SLV 1	0	0	0	0	No
147	F	1.773	SLV 7	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No



Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
148	F	2.114	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
149	F	1.092	SLV 3	0.266	1.087	610	1.108	Si
	V	0	SLV 1	0	0	0	0	No
150	F	2.785	SLV 5	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
151	F	1.102	SLV 5	0.267	1.095	622	1.117	Si
	V	0	SLV 1	0	0	0	0	No
152	F	3.395	SLV 5	0.362	1.483	1618	1.653	Si
	V	0.296	SLV 5	0.07	0.286	22	0.284	No
153	F	1.269	SLV 5	0.305	1.249	923	1.313	Si
	V	0	SLV 1	0	0	0	0	No
154	F	1.574	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.167	SLV 3	0.038	0.157	5	0.155	No
155	F	1.718	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
156	F	1.912	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.364	SLV 7	0.086	0.351	36	0.347	No
157	F	0.6	SLV 11	0.142	0.583	122	0.573	No
	V	0	SLV 1	0	0	0	0	No
158	F	2.454	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.19	SLV 3	0.044	0.181	7	0.177	No
159	F	1.055	SLV 13	0.257	1.052	553	1.064	Si
	V	0	SLV 1	0	0	0	0	No
160	F	2.633	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.022	SLV 13	0	0	0	0	No
161	F	1.563	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
162	F	2.841	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.163	SLV 15	0.038	0.157	5	0.155	No
163	F	2.094	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
164	F	1.503	SLV 1	0.362	1.481	1609	1.649	Si
	V	0	SLV 1	0	0	0	0	No
165	F	0.708	SLV 3	0.17	0.696	184	0.678	No
	V	0	SLV 1	0	0	0	0	No
166	F	0.833	SLV 15	0.202	0.826	286	0.812	No
	V	0	SLV 1	0	0	0	0	No
167	F	1.799	SLV 15	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
168	F	1.359	SLV 15	0.328	1.342	1163	1.444	Si
	V	0	SLV 1	0	0	0	0	No
169	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.414	SLV 11	0.338	1.383	1285	1.504	Si
170	F	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
171	F	1.499	SLV 15	0.361	1.477	1595	1.643	Si
	V	0.007	SLV 15	0	0	0	0	No
172	F	1.545	SLV 15	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
173	F	0.88	SLV 11	0.214	0.876	334	0.866	No
	V	0.007	SLV 7	0	0	0	0	No
174	F	1.296	SLV 13	0.313	1.281	998	1.356	Si
	V	0	SLV 1	0	0	0	0	No
175	F	0.394	SLV 15	0.093	0.38	43	0.373	No
	V	0	SLV 1	0	0	0	0	No
176	F	0.725	SLV 3	0.174	0.713	194	0.693	No
	V	0.461	SLV 13	0.108	0.442	63	0.437	No
177	F	1.56	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
178	F	0.779	SLV 9	0.188	0.771	238	0.753	No
	V	0	SLV 1	0	0	0	0	No
179	F	1.524	SLV 15	0.362	1.483	1618	1.653	Si
	V	0.097	SLV 15	0.02	0.08	1	0.08	No
180	F	1.174	SLV 11	0.284	1.161	743	1.201	Si
	V	0	SLV 1	0	0	0	0	No
181	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.377	SLV 7	0.089	0.364	39	0.359	No
182	F	0.903	SLV 9	0.22	0.899	358	0.891	No
	V	0.096	SLV 7	0.02	0.08	1	0.08	No
183	F	2.174	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
184	F	1.565	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
185	F	0	SLV 1	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
186	F	0.427	SLV 1	0.1	0.41	52	0.404	No
	V	0.057	SLV 1	0	0	0	0	No
187	F	0.387	SLV 13	0.091	0.372	41	0.366	No
	V	0	SLV 1	0	0	0	0	No
188	F	0.659	SLV 13	0.156	0.64	152	0.627	No
	V	0.03	SLV 13	0	0	0	0	No
189	F	0.726	SLV 13	0.175	0.715	196	0.696	No
	V	0	SLV 1	0	0	0	0	No
190	F	1.166	SLV 13	0.283	1.157	734	1.195	Si
	V	0.111	SLV 13	0.026	0.107	2	0.106	No
191	F	1.809	SLV 9	0.362	1.483	1618	1.653	Si
	V	0.13	SLV 13	0.026	0.107	2	0.106	No

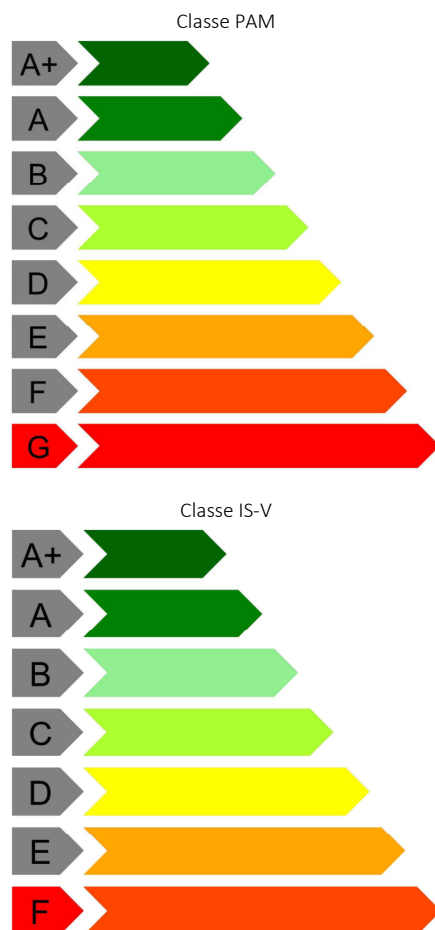


Periodi di ritorno e accelerazioni di aggancio per gli Stati Limite

S. L.	TR,C	PGA,C	TR,Rif	PGA,Rif	Tipo rottura
Stato limite di salvaguardia della vita	0	0	475	0.244	taglio maschio muratura

Coefficienti relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

TR,C	TR,Rif	PAM	Classe PAM	IS-V	Classe IS-V	Tipo rottura
0	475	8.22	G	0	F	taglio maschio muratura



1.5 Verifiche maschi in muratura

Le unità di misura elencate nel capitolo sono in [cm, daN, s] ove non espressamente specificato.

X_{ini}: coordinate del punto iniziale del maschio. [cm]

Y_{ini}: coordinate del punto iniziale del maschio. [cm]

X_{fin}: coordinate del punto finale del maschio. [cm]

Y_{fin}: coordinate del punto finale del maschio. [cm]

Quota_i: livello o falda inferiore.

Quota_s: livello o falda superiore.

l: lunghezza del maschio. [cm]

Sp: spessore. [cm]

h_{netta}: altezza netta (a filo solai). [cm]

h_{ini}: altezza nel modello al punto iniziale. [cm]

h_{fin}: altezza nel modello al punto finale. [cm]

a: distanza tra irrigidimenti laterali. [cm]

a_{s,sx}: lunghezza di appoggio del solaio di sinistra. [cm]

a_{s,dx}: lunghezza di appoggio del solaio di destra. [cm]

f_b: resistenza normalizzata a compressione verticale dei blocchi. [daN/cm²]

f_k: resistenza caratteristica a compressione della muratura utilizzata. [daN/cm²]

f_{vk0}: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/cm²]



fmedio: resistenza media a compressione della muratura utilizzata. [daN/cm²]

τ0: resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/cm²]

fν0: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/cm²]

μ: coefficiente di attrito [C8.7.1.17].

φ: coefficiente di ammorsamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

fν,lim: valore massimo della resistenza a taglio che può essere impiegata nel calcolo. [daN/cm²]

E: modulo di elasticità longitudinale della muratura utilizzato. [daN/cm²]

G: modulo di elasticità tangenziale della muratura utilizzato. [daN/cm²]

FC: fattore di confidenza della muratura.

Comb.: combinazione.

Quota: quota della sezione di verifica. [cm]

N: sforzo normale. [daN]

M: momento flettente nel piano. [daN*cm]

σ0: tensione media di compressione. [daN/cm²]

Mu: momento flettente ultimo. [daN*cm]

c.s.: coefficiente di sicurezza.

Verifica: stato di verifica.

V par: taglio nel piano. [daN]

σN: tensione media di compressione sulla parte reagente. [daN/cm²]

l': lunghezza della parte compressa della parete. [cm]

fvd: resistenza a taglio di calcolo. [daN/cm²]

Vt scorr.: taglio ultimo per verifica a scorrimento. [daN]

Vt fess.diag.: taglio ultimo per verifica a fessurazione diagonale regolare [C8.7.1.17]. [daN]

Vt,lim: taglio limite [C8.7.1.18]. [daN]

c.s.: coefficiente di sicurezza a taglio.

fd: resistenza a compressione di calcolo. [daN/cm²]

Sa: accelerazione massima, adimensionalizzata rispetto a g, che l'elemento strutturale subisce durante il sisma.

M: momento flettente fuori piano. [daN*cm]

Mc: momento di collasso per azioni perpendicolari al piano. [daN*cm]

Coeff.s.: coefficiente di sicurezza.

N top: sforzo normale in sommità. [daN]

N base: sforzo normale al piede. [daN]

V orto: taglio fuori piano. [daN]

α0: moltiplicatore secondo [C8.7.1.1].

M*: massa partecipante al cinematismo. [daN/(cm/s²)]

e*: frazione di massa partecipante della muratura [C8.7.1.5].

α0*: accelerazione spettrale di attivazione del meccanismo [C8.7.1.8]. [cm/s²]

αLim: accelerazione limite [C7.2.11]. [cm/s²]

Stato limite: pF_SLV=Presso flessione per azioni non sismiche; V_SLV=Taglio per azioni non sismiche; PF_SLV=Presso flessione per azioni sismiche; V_SLV=Taglio per azioni sismiche; PFFP_SLV=Presso flessione fuori piano per azioni sismiche; R_SLV=Ribaltamento per azioni sismiche.

Maschio 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2465.3	127.1	-2465.3	-328.4	L1	L3	455.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ ₀	f _{ν0}	μ	φ	f _{ν,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	M	σ ₀	Mu	c.s.	Verifica
SLU 74	-159	-56043	-1573381	2.73	8479655	5.389	Si
SLU 74	61	-39479	-1943920	1.93	6865424	3.532	Si
SLU 84	-159	-57868	-1636518	2.82	8611747	5.262	Si
SLU 84	61	-41715	-1982690	2.04	7127026	3.595	Si
SLU 81	-159	-56823	-1638622	2.77	8537207	5.21	Si
SLU 81	61	-39992	-1980921	1.95	6926572	3.497	Si
SLU 83	-159	-57588	-1641227	2.81	8592065	5.235	Si
SLU 83	61	-40639	-2009676	1.98	7002838	3.485	Si
SLU 82	-159	-57103	-1633914	2.79	8557474	5.237	Si
SLU 82	61	-41068	-1953935	2	7052662	3.609	Si
SLU 77	-159	-56808	-1575986	2.77	8536141	5.416	Si
SLU 77	61	-40127	-1972674	1.96	6942594	3.519	Si
SLU 62	-159	-53231	-1463552	2.6	8258319	5.643	Si
SLU 62	61	-37137	-1829508	1.81	6576802	3.595	Si
SLU 60	-159	-52465	-1460948	2.56	8194365	5.609	Si
SLU 60	61	-36490	-1800754	1.78	6494350	3.606	Si
SLU 79	-159	-56461	-1557343	2.75	8510678	5.465	Si
SLU 79	61	-39822	-1958280	1.94	6906354	3.527	Si
SLU 56	-159	-52451	-1398311	2.56	8193125	5.859	Si
SLU 56	61	-36625	-1792507	1.79	6511664	3.633	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	-159	-68095	-1522155	3.32	11291999	7.418	Si
SLV 2	61	-47931	-2477135	2.34	8827191	3.563	Si
SLV 4	-159	-67799	-2586613	3.31	11261173	4.354	Si
SLV 4	61	-46190	-2321546	2.25	8579614	3.696	Si
SLV 6	-159	-48290	417655	2.36	8877499	21.256	Si
SLV 6	61	-36070	-1911592	1.76	7031796	3.679	Si
SLV 3	-159	-67799	-2586613	3.31	11261173	4.354	Si
SLV 3	61	-46190	-2321546	2.25	8579614	3.696	Si
SLV 5	-159	-48290	417655	2.36	8877499	21.256	Si
SLV 5	61	-36070	-1911592	1.76	7031796	3.679	Si
SLV 11	-159	-30032	-2532301	1.47	6019673	2.377	Si
SLV 11	61	-18356	-752622	0.9	3874218	5.148	Si
SLV 7	-159	-47304	-3130538	2.31	8738602	2.791	Si
SLV 7	61	-30265	-1392962	1.48	6059861	4.35	Si
SLV 1	-159	-68095	-1522155	3.32	11291999	7.418	Si
SLV 1	61	-47931	-2477135	2.34	8827191	3.563	Si
SLV 12	-159	-30032	-2532301	1.47	6019673	2.377	Si
SLV 12	61	-18356	-752622	0.9	3874218	5.148	Si
SLV 8	-159	-47304	-3130538	2.31	8738602	2.791	Si
SLV 8	61	-30265	-1392962	1.48	6059861	4.35	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	-159	-56808	9493	-1575986		2.77	455.5	0.93	18962			2	Si
SLU 77	61	-40127	10123	-1972674		1.96	455.5	0.82	16738			1.65	Si
SLU 73	-159	-55397	10027	-1544286		2.7	455.5	0.92	18774			1.87	Si
SLU 73	61	-40320	10556	-1855793		1.97	455.5	0.82	16763			1.59	Si
SLU 84	-159	-57868	10176	-1636518		2.82	455.5	0.93	19103			1.88	Si
SLU 84	61	-41715	10797	-1982690		2.04	455.5	0.83	16950			1.57	Si
SLU 80	-159	-56741	10092	-1552635		2.77	455.5	0.92	18953			1.88	Si
SLU 80	61	-40898	10660	-1931294		2	455.5	0.82	16841			1.58	Si
SLU 82	-159	-57103	9924	-1633914		2.79	455.5	0.93	19001			1.91	Si
SLU 82	61	-41068	10543	-1953935		2	455.5	0.82	16863			1.6	Si
SLU 75	-159	-56323	9899	-1568673		2.75	455.5	0.92	18897			1.91	Si
SLU 75	61	-40555	10475	-1916934		1.98	455.5	0.82	16795			1.6	Si
SLU 83	-159	-57588	9519	-1641227		2.81	455.5	0.93	19066			2	Si
SLU 83	61	-40639	10191	-2009676		1.98	455.5	0.82	16806			1.65	Si
SLU 78	-159	-57088	10150	-1571277		2.79	455.5	0.93	18999			1.87	Si
SLU 78	61	-41203	10729	-1945688		2.01	455.5	0.82	16881			1.57	Si
SLU 68	-159	-51746	9497	-1345084		2.52	455.5	0.89	18287			1.93	Si
SLU 68	61	-37548	9900	-1697529		1.83	455.5	0.8	16394			1.66	Si
SLU 76	-159	-56162	10279	-1546891		2.74	455.5	0.92	18876			1.84	Si
SLU 76	61	-40967	10810	-1884548		2	455.5	0.82	16850			1.56	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-159	-68095	13347	-1522155		3.32	455.5	1.5	30700			2.3	Si
SLV 2	61	-47931	18297	-2477135		2.34	455.5	1.3	26667			1.46	Si
SLD 5	-159	-43053	13562	-423438		2.1	455.5	1.25	25692			1.89	Si
SLD 5	61	-30938	14086	-1581581		1.51	455.5	1.14	23269			1.65	Si
SLV 9	-159	-31019	21856	1015892		1.51	455.5	1.14	23285			1.07	Si
SLV 9	61	-24161	20066	-1271252		1.18	455.5	1.07	21914			1.09	Si
SLV 1	-159	-68095	13347	-1522155		3.32	455.5	1.5	30700			2.3	Si
SLV 1	61	-47931	18297	-2477135		2.34	455.5	1.3	26667			1.46	Si
SLV 6	-159	-48290	23161	417655		2.36	455.5	1.3	26739			1.15	Si
SLV 6	61	-36070	24244	-1911592		1.76	455.5	1.19	24295			1	Si
SLV 5	-159	-48290	23161	417655		2.36	455.5	1.3	26739			1.15	Si
SLV 5	61	-36070	24244	-1911592		1.76	455.5	1.19	24295			1	Si
SLD 10	-159	-35670	13000	-167969		1.74	455.5	1.18	24215			1.86	Si
SLD 10	61	-25872	12355	-1310114		1.26	455.5	1.09	22256			1.8	Si
SLD 9	-159	-35670	13000	-167969		1.74	455.5	1.18	24215			1.86	Si
SLD 9	61	-25872	12355	-1310114		1.26	455.5	1.09	22256			1.8	Si
SLD 6	-159	-43053	13562	-423438		2.1	455.5	1.25	25692			1.89	Si
SLD 6	61	-30938	14086	-1581581		1.51	455.5	1.14	23269			1.65	Si
SLV 10	-159	-31019	21856	1015892		1.51	455.5	1.14	23285			1.07	Si
SLV 10	61	-24161	20066	-1271252		1.18	455.5	1.07	21914			1.09	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.24	0.42	-8622	27178	187324	6.89	Si
SLV 16	14	0.24	0.42	-8622	27178	187324	6.89	Si
SLV 13	14	0.24	0.45	-9172	27178	198802	7.31	Si
SLV 14	14	0.24	0.45	-9172	27178	198802	7.31	Si
SLV 11	14	0.24	1.22	-25023	27178	506766	18.65	Si
SLV 12	14	0.24	1.22	-25023	27178	506766	18.65	Si
SLV 10	14	0.24	1.31	-26853	27178	539421	19.85	Si
SLV 9	14	0.24	1.31	-26853	27178	539421	19.85	Si
SLV 7	14	0.24	1.93	-39630	27178	750580	27.62	Si
SLV 8	14	0.24	1.93	-39630	27178	750580	27.62	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	$\alpha 0^*$	aLim	Verifica
SLV 1	-44226	-68095	883	0.074	52.805	0.957	112.619	338.414	No
SLV 2	-44226	-68095	883	0.074	52.805	0.957	112.619	338.414	No
SLV 3	-42551	-67799	749	0.077	51.102	0.955	116.57	338.414	No
SLV 4	-42551	-67799	749	0.077	51.102	0.955	116.57	338.414	No
SLV 6	-33296	-48290	788	0.074	41.704	0.947	113.445	328.355	No
SLV 5	-33296	-48290	788	0.074	41.704	0.947	113.445	328.355	No
SLV 10	-22252	-31019	572	0.078	30.525	0.931	121.593	328.355	No
SLV 9	-22252	-31019	572	0.078	30.525	0.931	121.593	328.355	No
SLV 7	-27714	-47304	340	0.086	36.046	0.939	132.959	328.355	No
SLV 8	-27714	-47304	340	0.086	36.046	0.939	132.959	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.485	SLU 83	Si
V_SLU	1.559	SLU 76	Si
PF_SLV	2.377	SLV 11	Si
V_SLV	1.002	SLV 5	Si
PFFP_SLV	6.892	SLV 15	Si
R_SLV	0.333	SLV 1	No

Maschio 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2465.3	587.6	-2465.3	227.1	L1	L3	360.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 81	-159	-34498	57049	2.13	4594883	80.543	Si
SLU 81	61	-26176	1232031	1.61	3783638	3.071	Si
SLU 79	-159	-34372	85304	2.12	4584069	53.738	Si
SLU 79	61	-26044	1220335	1.61	3769197	3.089	Si
SLU 78	-159	-34444	138768	2.12	4590287	33.079	Si
SLU 78	61	-25996	1216885	1.6	3763999	3.093	Si
SLU 74	-159	-34161	73163	2.11	4565736	62.405	Si
SLU 74	61	-25875	1213637	1.59	3750714	3.09	Si
SLU 84	-159	-34781	122654	2.14	4619175	37.66	Si
SLU 84	61	-26298	1235279	1.62	3796823	3.074	Si
SLU 80	-159	-34267	140462	2.11	4574990	32.571	Si
SLU 80	61	-25803	1207790	1.59	3742783	3.099	Si
SLU 75	-159	-34056	128321	2.1	4556597	35.509	Si
SLU 75	61	-25634	1201093	1.58	3724189	3.101	Si
SLU 77	-159	-34549	83610	2.13	4599315	55.009	Si
SLU 77	61	-26237	1229429	1.62	3790285	3.083	Si
SLU 83	-159	-34886	67496	2.15	4628107	68.568	Si
SLU 83	61	-26539	1247823	1.64	3822911	3.064	Si
SLU 82	-159	-34393	112207	2.12	4585841	40.87	Si
SLU 82	61	-25935	1219487	1.6	3757311	3.081	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 14	-159	-9462	669019	0.58	1624083	2.428	Si
SLV 14	61	-5693	-84214	0.35	996673	11.835	Si
SLV 11	-159	-19200	-1394781	1.18	3125633	2.241	Si
SLV 11	61	-15556	958682	0.96	2583926	2.695	Si
SLV 4	-159	-39246	-549050	2.42	5673516	10.333	Si
SLV 4	61	-30415	1770879	1.87	4641102	2.621	Si
SLV 10	-159	-20459	1609762	1.26	3307137	2.054	Si
SLV 10	61	-13335	236456	0.82	2241955	9.481	Si
SLV 3	-159	-39246	-549050	2.42	5673516	10.333	Si
SLV 3	61	-30415	1770879	1.87	4641102	2.621	Si
SLV 13	-159	-9462	669019	0.58	1624083	2.428	Si
SLV 13	61	-5693	-84214	0.35	996673	11.835	Si
SLV 8	-159	-28249	-1489793	1.74	4366224	2.931	Si
SLV 8	61	-22773	1450209	1.4	3633214	2.505	Si
SLV 12	-159	-19200	-1394781	1.18	3125633	2.241	Si
SLV 12	61	-15556	958682	0.96	2583926	2.695	Si
SLV 7	-159	-28249	-1489793	1.74	4366224	2.931	Si
SLV 7	61	-22773	1450209	1.4	3633214	2.505	Si
SLV 9	-159	-20459	1609762	1.26	3307137	2.054	Si
SLV 9	61	-13335	236456	0.82	2241955	9.481	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	-159	-34781	-9156	122654		2.14	360.5	0.84	13650			1.49	Si
SLU 84	61	-26298	-8183	1235279		1.62	360.5	0.77	12519			1.53	Si
SLU 83	-159	-34886	-9627	67496		2.15	360.5	0.84	13664			1.42	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	61	-26539	-8650	1247823		1.64	360.5	0.77	12551			1.45	Si
SLU 62	-159	-32738	-8836	77217		2.02	360.5	0.82	13378			1.51	Si
SLU 62	61	-24470	-7972	1146534		1.51	360.5	0.76	12275			1.54	Si
SLU 79	-159	-34372	-9323	85304		2.12	360.5	0.84	13595			1.46	Si
SLU 79	61	-26044	-8396	1220335		1.61	360.5	0.77	12485			1.49	Si
SLU 74	-159	-34161	-9373	73163		2.11	360.5	0.84	13567			1.45	Si
SLU 74	61	-25875	-8441	1213637		1.59	360.5	0.77	12462			1.48	Si
SLU 77	-159	-34549	-9419	83610		2.13	360.5	0.84	13619			1.45	Si
SLU 77	61	-26237	-8482	1229429		1.62	360.5	0.77	12511			1.47	Si
SLU 60	-159	-32350	-8791	66769		1.99	360.5	0.82	13326			1.52	Si
SLU 60	61	-24108	-7931	1130742		1.49	360.5	0.75	12227			1.54	Si
SLU 78	-159	-34444	-8948	138768		2.12	360.5	0.84	13605			1.52	Si
SLU 78	61	-25996	-8015	1216885		1.6	360.5	0.77	12479			1.56	Si
SLU 81	-159	-34498	-9581	57049		2.13	360.5	0.84	13612			1.42	Si
SLU 81	61	-26176	-8609	1232031		1.61	360.5	0.77	12503			1.45	Si
SLU 82	-159	-34393	-9111	112207		2.12	360.5	0.84	13598			1.49	Si
SLU 82	61	-25935	-8142	1219487		1.6	360.5	0.77	12471			1.53	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	-159	-28249	-20096	-1489793		1.74	360.5	1.18	19169			0.95	No, Vu<V
SLV 8	61	-22773	-18378	1450209		1.45	349.71	1.12	17669			0.96	No, Vu<V
SLV 12	-159	-19200	-17750	-1394781		1.32	322.82	1.1	15946			0.9	No, Vu<V
SLV 12	61	-15556	-17754	958682		0.97	355.87	1.03	16456			0.93	No, Vu<V
SLD 8	-159	-25988	-12354	-606095		1.6	360.5	1.15	18716			1.52	Si
SLD 8	61	-20049	-11181	1103006		1.24	360.5	1.08	17529			1.57	Si
SLD 11	-159	-22124	-11354	-564607		1.36	360.5	1.11	17943			1.58	Si
SLD 11	61	-16970	-10902	894521		1.05	360.5	1.04	16913			1.55	Si
SLV 4	-159	-39246	-14160	-549050		2.42	360.5	1.32	21368			1.51	Si
SLV 4	61	-30415	-10600	1770879		1.87	360.5	1.21	19602			1.85	Si
SLD 7	-159	-25988	-12354	-606095		1.6	360.5	1.15	18716			1.52	Si
SLD 7	61	-20049	-11181	1103006		1.24	360.5	1.08	17529			1.57	Si
SLD 12	-159	-22124	-11354	-564607		1.36	360.5	1.11	17943			1.58	Si
SLD 12	61	-16970	-10902	894521		1.05	360.5	1.04	16913			1.55	Si
SLV 3	-159	-39246	-14160	-549050		2.42	360.5	1.32	21368			1.51	Si
SLV 3	61	-30415	-10600	1770879		1.87	360.5	1.21	19602			1.85	Si
SLV 7	-159	-28249	-20096	-1489793		1.74	360.5	1.18	19169			0.95	No, Vu<V
SLV 7	61	-22773	-18378	1450209		1.45	349.71	1.12	17669			0.96	No, Vu<V
SLV 11	-159	-19200	-17750	-1394781		1.32	322.82	1.1	15946			0.9	No, Vu<V
SLV 11	61	-15556	-17754	958682		0.97	355.87	1.03	16456			0.93	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.24	0.46	-7529	21510	162975	7.58	Si
SLV 15	14	0.24	0.46	-7529	21510	162975	7.58	Si
SLV 14	14	0.24	0.47	-7598	21510	164399	7.64	Si
SLV 13	14	0.24	0.47	-7598	21510	164399	7.64	Si
SLV 12	14	0.24	1.09	-17629	21510	361381	16.8	Si
SLV 11	14	0.24	1.09	-17629	21510	361381	16.8	Si
SLV 10	14	0.24	1.1	-17858	21510	365602	17	Si
SLV 9	14	0.24	1.1	-17858	21510	365602	17	Si
SLV 7	14	0.24	1.62	-26355	21510	514144	23.9	Si
SLV 8	14	0.24	1.62	-26355	21510	514144	23.9	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-15056	-19200	940	0.051	21.584	0.924	80.905	328.355	No
SLV 12	-15056	-19200	940	0.051	21.584	0.924	80.905	328.355	No
SLV 7	-22904	-28249	978	0.059	29.511	0.941	91.787	328.355	No
SLV 8	-22904	-28249	978	0.059	29.511	0.941	91.787	328.355	No
SLV 4	-30147	-39246	531	0.078	36.859	0.951	118.692	338.414	No
SLV 3	-30147	-39246	531	0.078	36.859	0.951	118.692	338.414	No
SLV 16	-3986	-9084	404	0.074	10.729	0.889	121.256	338.414	No
SLV 15	-3986	-9084	404	0.074	10.729	0.889	121.256	338.414	No
SLV 9	-9588	-20459	-465	0.074	16.12	0.907	117.909	328.355	No
SLV 10	-9588	-20459	-465	0.074	16.12	0.907	117.909	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.064	SLU 83	Si
V_SLU	1.419	SLU 83	Si
PF_SLV	2.054	SLV 9	Si
V_SLV	0.898	SLV 11	No
PFFP_SLV	7.577	SLV 15	Si
R_SLV	0.246	SLV 11	No

Maschio 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2276.3	587.6	-2465.3	587.6	L1	L3	189	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 48	41	-7471	-331593	0.88	629843	1.899	Si
SLU 48	81	-6039	-401034	0.71	520955	1.299	Si
SLU 71	41	-8597	-375248	1.01	711632	1.896	Si
SLU 71	81	-7135	-451628	0.84	604835	1.339	Si
SLU 46	41	-7385	-326072	0.87	623490	1.912	Si
SLU 46	81	-5995	-390477	0.7	517467	1.325	Si
SLU 43	41	-7309	-325568	0.86	617860	1.898	Si
SLU 43	81	-5890	-390084	0.69	509258	1.306	Si
SLU 50	41	-7434	-329656	0.87	627128	1.902	Si
SLU 50	81	-6011	-398644	0.71	518771	1.301	Si
SLU 69	41	-8634	-377185	1.02	714231	1.894	Si
SLU 69	81	-7163	-454018	0.84	606933	1.337	Si
SLU 66	41	-8572	-375142	1.01	709806	1.892	Si
SLU 66	81	-7102	-449738	0.84	602372	1.339	Si
SLU 49	41	-7447	-328116	0.88	628117	1.914	Si
SLU 49	81	-6055	-394757	0.71	522211	1.323	Si
SLU 51	41	-7411	-326178	0.87	625399	1.917	Si
SLU 51	81	-6027	-392367	0.71	520029	1.325	Si
SLU 45	41	-7408	-329550	0.87	625220	1.897	Si
SLU 45	81	-5978	-396754	0.7	516208	1.301	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 4	41	-6044	-268923	0.71	537979	2	Si
SLD 4	81	-4836	-441478	0.57	435754	0.987	No, M>Mu
SLV 7	41	-6666	-522933	0.78	589524	1.127	Si
SLV 7	81	-3925	-537527	0	0	0	No, e>l/2
SLV 4	41	-5221	-242207	0.61	468564	1.935	Si
SLV 4	81	-3848	-574598	0	0	0	No, e>l/2
SLV 11	41	-7619	-600992	0.9	667237	1.11	Si
SLV 11	81	-4725	-424979	0.56	426181	1.003	Si
SLV 2	41	-4935	-79644	0.58	444228	5.578	Si
SLV 2	81	-4582	-493825	0	0	0	No, e>l/2
SLV 3	41	-5221	-242207	0.61	468564	1.935	Si
SLV 3	81	-3848	-574598	0	0	0	No, e>l/2
SLV 12	41	-7619	-600992	0.9	667237	1.11	Si
SLV 12	81	-4725	-424979	0.56	426181	1.003	Si
SLV 1	41	-4935	-79644	0.58	444228	5.578	Si
SLV 1	81	-4582	-493825	0	0	0	No, e>l/2
SLD 3	41	-6044	-268923	0.71	537979	2	Si
SLD 3	81	-4836	-441478	0.57	435754	0.987	No, M>Mu
SLV 8	41	-6666	-522933	0.78	589524	1.127	Si
SLV 8	81	-3925	-537527	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	41	-8612	441	-363040		1.22	157.03	0.72	5074			11.51	Si
SLU 38	81	-7490	549	-430396		1.5	111.1	0.76	3776			6.88	Si
SLU 37	41	-8635	417	-366518		1.23	156.17	0.72	5056			12.11	Si
SLU 37	81	-7473	527	-436673		1.53	108.21	0.76	3702			7.03	Si
SLU 42	41	-9157	442	-384301		1.29	157.6	0.73	5161			11.67	Si
SLU 42	81	-8029	553	-452298		1.56	114.51	0.76	3933			7.11	Si
SLU 78	41	-10029	414	-428085		1.43	155.44	0.75	5223			12.63	Si
SLU 78	81	-8580	543	-508832		1.81	105.59	0.8	3784			6.96	Si
SLU 77	41	-10052	390	-431562		1.44	154.7	0.75	5208			13.35	Si
SLU 77	81	-8564	522	-515109		1.85	103.06	0.8	3718			7.13	Si
SLU 84	41	-10537	424	-447408		1.5	156.12	0.76	5308			12.51	Si
SLU 84	81	-9092	556	-528344		1.85	109.17	0.8	3941			7.09	Si
SLU 35	41	-8672	408	-368455		1.24	156.03	0.72	5057			12.4	Si
SLU 35	81	-7501	518	-439063		1.54	107.91	0.76	3698			7.14	Si
SLU 80	41	-9992	423	-426147		1.43	155.55	0.75	5221			12.34	Si
SLU 80	81	-8552	552	-506442		1.8	105.85	0.79	3787			6.86	Si
SLU 36	41	-8649	432	-364978		1.22	156.9	0.72	5076			11.76	Si
SLU 36	81	-7518	540	-432786		1.51	110.79	0.76	3772			6.98	Si
SLU 79	41	-10015	399	-429624		1.44	154.81	0.75	5206			13.04	Si
SLU 79	81	-8536	530	-512719		1.84	103.31	0.8	3721			7.02	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	41	-5221	10435	-242207		0.8	144.32	0.99	6456			0.62	No, Vu<V
SLV 4	81	-3848	8309	-574598		0	0	0.83	0			0	No, Vu<V
SLV 7	41	-6666	9993	-522933		3.08	48.15	1.45	3139			0.31	No, Vu<V
SLV 7	81	-3925	-3060	-537527		0	0	0.83	0			0	No, Vu<V
SLV 11	41	-7619	5154	-600992		3.61	46.87	1.56	3281			0.64	No, Vu<V
SLV 11	81	-4725	-9037	-424979		7.69	13.65	1.63	998			0.11	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	41	-4935	5977	-79644		0.58	189	0.95	8075			1.35	Si
SLV 1	81	-4582	12077	-493825		0	0	0.83	0			0	No, Vu<V
SLV 8	41	-6666	9993	-522933		3.08	48.15	1.45	3139			0.31	No, Vu<V
SLV 8	81	-3925	-3060	-537527		0	0	0.83	0			0	No, Vu<V
SLV 2	41	-4935	5977	-79644		0.58	189	0.95	8075			1.35	Si
SLV 2	81	-4582	12077	-493825		0	0	0.83	0			0	No, Vu<V
SLD 3	41	-6044	4465	-268923		0.9	150.03	1.01	6835			1.53	Si
SLD 3	81	-4836	3630	-441478		11.15	9.64	1.63	705			0.19	No, Vu<V
SLD 4	41	-6044	4465	-268923		0.9	150.03	1.01	6835			1.53	Si
SLD 4	81	-4836	3630	-441478		11.15	9.64	1.63	705			0.19	No, Vu<V
SLV 3	41	-5221	10435	-242207		0.8	144.32	0.99	6456			0.62	No, Vu<V
SLV 3	81	-3848	8309	-574598		0	0	0.83	0			0	No, Vu<V
SLV 12	41	-7619	5154	-600992		3.61	46.87	1.56	3281			0.64	No, Vu<V
SLV 12	81	-4725	-9037	-424979		7.69	13.65	1.63	998			0.11	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.24	0.48	-4113	11695	88870	7.6	Si
SLV 6	14	0.24	0.48	-4113	11695	88870	7.6	Si
SLV 10	14	0.24	0.5	-4268	11695	92083	7.87	Si
SLV 9	14	0.24	0.5	-4268	11695	92083	7.87	Si
SLV 2	14	0.24	0.71	-6029	11695	127788	10.93	Si
SLV 1	14	0.24	0.71	-6029	11695	127788	10.93	Si
SLV 14	14	0.24	0.77	-6547	11695	138028	11.8	Si
SLV 13	14	0.24	0.77	-6547	11695	138028	11.8	Si
SLV 4	14	0.24	0.92	-7828	11695	162855	13.93	Si
SLV 3	14	0.24	0.92	-7828	11695	162855	13.93	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	2280	-14777	-132	0	0	0	0	328.355	No, Trazione
SLV 12	2280	-14777	-132	0	0	0	0	328.355	No, Trazione
SLV 8	3249	-16590	-123	0	0	0	0	328.355	No, Trazione
SLV 7	3249	-16590	-123	0	0	0	0	328.355	No, Trazione
SLV 6	-10535	-4750	457	0.061	13.981	0.936	94.706	328.355	No
SLV 5	-10535	-4750	457	0.061	13.981	0.936	94.706	328.355	No
SLV 10	-11504	-2938	449	0.063	14.962	0.94	97.851	328.355	No
SLV 9	-11504	-2938	449	0.063	14.962	0.94	97.851	328.355	No
SLV 1	-4580	-11009	264	0.07	8.01	0.903	112.206	338.414	No
SLV 2	-4580	-11009	264	0.07	8.01	0.903	112.206	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.299	SLU 48	Si
V_SLU	6.86	SLU 80	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	7.599	SLV 5	Si
R_SLV	0	SLV 12	No

Maschio 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	587.6	-2176.3	587.6	L1	L3	214.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	41	-29364	-350288	3.04	1973178	5.633	Si
SLU 83	81	-29551	-532456	3.06	1978200	3.715	Si
SLU 74	41	-28106	-345977	2.91	1936850	5.598	Si
SLU 74	81	-28252	-522579	2.93	1941309	3.715	Si
SLU 79	41	-28324	-347140	2.93	1943450	5.598	Si
SLU 79	81	-28473	-526810	2.95	1947911	3.698	Si
SLU 77	41	-28490	-351545	2.95	1948388	5.542	Si
SLU 77	81	-28647	-532713	2.97	1953005	3.666	Si
SLU 80	41	-28300	-347650	2.93	1942742	5.588	Si
SLU 80	81	-28450	-526464	2.95	1947205	3.699	Si
SLU 78	41	-28466	-352056	2.95	1947691	5.532	Si
SLU 78	81	-28623	-532367	2.97	1952311	3.667	Si
SLU 69	41	-25165	-331207	2.61	1835144	5.541	Si
SLU 69	81	-25211	-495894	2.61	1836929	3.704	Si
SLU 75	41	-28082	-346488	2.91	1936128	5.588	Si
SLU 75	81	-28229	-522233	2.92	1940589	3.716	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 70	41	-25141	-331718	2.6	1834233	5.529	Si
SLU 70	81	-25188	-495548	2.61	1836011	3.705	Si
SLU 84	41	-29341	-350799	3.04	1972538	5.623	Si
SLU 84	81	-29527	-532110	3.06	1977564	3.716	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	41	-29458	-336611	3.05	2370267	7.042	Si
SLV 8	81	-23144	-580256	2.4	1995102	3.438	Si
SLV 15	41	-19408	-549480	2.01	1738948	3.165	Si
SLV 15	81	-19022	-422647	1.97	1711055	4.048	Si
SLV 7	41	-29458	-336611	3.05	2370267	7.042	Si
SLV 7	81	-23144	-580256	2.4	1995102	3.438	Si
SLV 14	41	-13530	-447282	1.4	1284616	2.872	Si
SLV 14	81	-16701	-292643	1.73	1537569	5.254	Si
SLV 11	41	-27984	-489888	2.9	2289183	4.673	Si
SLV 11	81	-22491	-577515	2.33	1952158	3.38	Si
SLV 12	41	-27984	-489888	2.9	2289183	4.673	Si
SLV 12	81	-22491	-577515	2.33	1952158	3.38	Si
SLV 13	41	-13530	-447282	1.4	1284616	2.872	Si
SLV 13	81	-16701	-292643	1.73	1537569	5.254	Si
SLV 16	41	-19408	-549480	2.01	1738948	3.165	Si
SLV 16	81	-19022	-422647	1.97	1711055	4.048	Si
SLD 12	41	-22654	-346266	2.35	1962980	5.669	Si
SLD 12	81	-20432	-453323	2.12	1811724	3.997	Si
SLD 11	41	-22654	-346266	2.35	1962980	5.669	Si
SLD 11	81	-20432	-453323	2.12	1811724	3.997	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	41	-29364	2178	-350288		3.04	214.5	0.96	9278			4.26	Si
SLU 83	81	-29551	1766	-532456		3.06	214.5	0.96	9303			5.27	Si
SLU 79	41	-28324	2202	-347140		2.93	214.5	0.95	9139			4.15	Si
SLU 79	81	-28473	1799	-526810		2.95	214.5	0.95	9159			5.09	Si
SLU 80	41	-28300	2181	-347650		2.93	214.5	0.95	9136			4.19	Si
SLU 80	81	-28450	1778	-526464		2.95	214.5	0.95	9156			5.15	Si
SLU 74	41	-28106	2129	-345977		2.91	214.5	0.94	9110			4.28	Si
SLU 74	81	-28252	1731	-522579		2.93	214.5	0.95	9129			5.28	Si
SLU 71	41	-24999	2041	-326802		2.59	214.5	0.9	8696			4.26	Si
SLU 71	81	-25038	1676	-489991		2.59	214.5	0.9	8701			5.19	Si
SLU 77	41	-28490	2223	-351545		2.95	214.5	0.95	9161			4.12	Si
SLU 77	81	-28647	1817	-532713		2.97	214.5	0.95	9182			5.05	Si
SLU 69	41	-25165	2061	-331207		2.61	214.5	0.9	8718			4.23	Si
SLU 69	81	-25211	1693	-495894		2.61	214.5	0.9	8724			5.15	Si
SLU 78	41	-28466	2201	-352056		2.95	214.5	0.95	9158			4.16	Si
SLU 78	81	-28623	1795	-532367		2.97	214.5	0.95	9179			5.11	Si
SLU 70	41	-25141	2040	-331718		2.6	214.5	0.9	8715			4.27	Si
SLU 70	81	-25188	1672	-495548		2.61	214.5	0.9	8721			5.22	Si
SLU 84	41	-29341	2157	-350799		3.04	214.5	0.96	9275			4.3	Si
SLU 84	81	-29527	1745	-532110		3.06	214.5	0.96	9299			5.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	41	-24320	13805	-38557		2.52	214.5	1.34	12908			0.93	No, Vu<V
SLV 4	81	-21199	14779	-431781		2.2	214.5	1.27	12284			0.83	No, Vu<V
SLV 12	41	-27984	11436	-489888		2.9	214.5	1.41	13641			1.19	Si
SLV 12	81	-22491	11717	-577515		2.33	214.5	1.3	12542			1.07	Si
SLV 3	41	-24320	13805	-38557		2.52	214.5	1.34	12908			0.93	No, Vu<V
SLV 3	81	-21199	14779	-431781		2.2	214.5	1.27	12284			0.83	No, Vu<V
SLV 13	41	-13530	-10953	-447282		1.4	214.5	1.11	10750			0.98	No, Vu<V
SLV 13	81	-16701	-12471	-292643		1.73	214.5	1.18	11384			0.91	No, Vu<V
SLV 8	41	-29458	16598	-336611		3.05	214.5	1.44	13935			0.84	No, Vu<V
SLV 8	81	-23144	17472	-580256		2.4	214.5	1.31	12673			0.73	No, Vu<V
SLV 14	41	-13530	-10953	-447282		1.4	214.5	1.11	10750			0.98	No, Vu<V
SLV 14	81	-16701	-12471	-292643		1.73	214.5	1.18	11384			0.91	No, Vu<V
SLV 10	41	-8392	-13746	-149228		0.87	214.5	1.01	9722			0.71	No, Vu<V
SLV 10	81	-14756	-15164	-144169		1.53	214.5	1.14	10995			0.73	No, Vu<V
SLV 7	41	-29458	16598	-336611		3.05	214.5	1.44	13935			0.84	No, Vu<V
SLV 7	81	-23144	17472	-580256		2.4	214.5	1.31	12673			0.73	No, Vu<V
SLV 9	41	-8392	-13746	-149228		0.87	214.5	1.01	9722			0.71	No, Vu<V
SLV 9	81	-14756	-15164	-144169		1.53	214.5	1.14	10995			0.73	No, Vu<V
SLV 11	41	-27984	11436	-489888		2.9	214.5	1.41	13641			1.19	Si
SLV 11	81	-22491	11717	-577515		2.33	214.5	1.3	12542			1.07	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	1.36	-13139	13272	262699	19.79	Si
SLV 10	14	0.24	1.36	-13139	13272	262699	19.79	Si
SLV 6	14	0.24	1.47	-14217	13272	281330	21.2	Si
SLV 5	14	0.24	1.47	-14217	13272	281330	21.2	Si
SLV 13	14	0.24	1.8	-17331	13272	332648	25.06	Si
SLV 14	14	0.24	1.8	-17331	13272	332648	25.06	Si
SLV 1	14	0.24	2.17	-20925	13272	387279	29.18	Si
SLV 2	14	0.24	2.17	-20925	13272	387279	29.18	Si
SLV 16	14	0.24	2.28	-22002	13272	402697	30.34	Si
SLV 15	14	0.24	2.28	-22002	13272	402697	30.34	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	-16167	-21702	990	0.041	20.134	0.948	62.396	328.355	No
SLV 9	-16167	-21702	990	0.041	20.134	0.948	62.396	328.355	No
SLV 5	-17436	-21231	987	0.044	21.422	0.95	66.654	328.355	No
SLV 6	-17436	-21231	987	0.044	21.422	0.95	66.654	328.355	No
SLV 13	-14979	-24224	770	0.05	18.928	0.945	77.634	338.414	No
SLV 14	-14979	-24224	770	0.05	18.928	0.945	77.634	338.414	No
SLV 1	-19209	-22651	760	0.057	23.222	0.954	87.504	338.414	No
SLV 2	-19209	-22651	760	0.057	23.222	0.954	87.504	338.414	No
SLV 15	-15229	-25913	578	0.062	19.182	0.945	95.098	338.414	No
SLV 16	-15229	-25913	578	0.062	19.182	0.945	95.098	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.666	SLU 77	Si
V_SLU	4.122	SLU 77	Si
PF_SLV	2.872	SLV 13	Si
V_SLV	0.707	SLV 9	No
PFFP_SLV	19.793	SLV 9	Si
R_SLV	0.19	SLV 9	No

Maschio 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1969.3	587.6	-1969.3	657.6	L1	L3	70	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 74	-159	-17602	16393	5.59	193454	11.801	Si
SLU 74	110	-15007	-2935	4.76	218056	74.284	Si
SLU 78	-159	-17796	16152	5.65	190872	11.817	Si
SLU 78	110	-15212	-3689	4.83	216776	58.766	Si
SLU 75	-159	-17600	16337	5.59	193474	11.842	Si
SLU 75	110	-14999	-2772	4.76	218099	78.678	Si
SLU 80	-159	-17665	15824	5.61	192628	12.173	Si
SLU 80	110	-15091	-3819	4.79	217543	56.969	Si
SLU 84	-159	-18194	16979	5.78	185270	10.912	Si
SLU 84	110	-15577	-2519	4.94	214227	85.06	Si
SLU 81	-159	-18000	17219	5.71	188063	10.922	Si
SLU 81	110	-15371	-1765	4.88	215712	122.203	Si
SLU 77	-159	-17798	16208	5.65	190852	11.775	Si
SLU 77	110	-15220	-3852	4.83	216729	56.261	Si
SLU 79	-159	-17666	15879	5.61	192609	12.129	Si
SLU 79	110	-15098	-3982	4.79	217499	54.619	Si
SLU 83	-159	-18195	17034	5.78	185248	10.875	Si
SLU 83	110	-15584	-2682	4.95	214174	79.857	Si
SLU 82	-159	-17998	17164	5.71	188084	10.958	Si
SLU 82	110	-15364	-1602	4.88	215762	134.702	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLD 8	-159	-13758	69152	4.37	309407	4.474	Si
SLD 8	110	-11913	-279	3.78	287903	1000	Si
SLV 11	-159	-16185	148880	5.14	328265	2.205	Si
SLV 11	110	-13845	-22290	4.4	310264	13.919	Si
SLV 6	-159	-8049	-126952	2.56	222794	1.755	Si
SLV 6	110	-6468	18109	2.05	188348	10.401	Si
SLV 5	-159	-8049	-126952	2.56	222794	1.755	Si
SLV 5	110	-6468	18109	2.05	188348	10.401	Si
SLV 8	-159	-15985	148802	5.07	327120	2.198	Si
SLV 8	110	-14320	2176	4.55	314730	144.606	Si
SLV 12	-159	-16185	148880	5.14	328265	2.205	Si
SLV 12	110	-13845	-22290	4.4	310264	13.919	Si
SLV 10	-159	-8248	-126874	2.62	226816	1.788	Si
SLV 10	110	-5993	-6358	1.9	177089	27.854	Si
SLV 9	-159	-8248	-126874	2.62	226816	1.788	Si
SLV 9	110	-5993	-6358	1.9	177089	27.854	Si
SLD 7	-159	-13758	69152	4.37	309407	4.474	Si
SLD 7	110	-11913	-279	3.78	287903	1000	Si
SLV 7	-159	-15985	148802	5.07	327120	2.198	Si
SLV 7	110	-14320	2176	4.55	314730	144.606	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	-159	-17665	572	15824		5.61	70	1.08	3413			5.96	Si
SLU 80	110	-15091	1179	-3819		4.79	70	1.08	3413			2.89	Si
SLU 75	-159	-17600	573	16337		5.59	70	1.08	3413			5.95	Si
SLU 75	110	-14999	1150	-2772		4.76	70	1.08	3413			2.97	Si
SLU 83	-159	-18195	606	17034		5.78	70	1.08	3413			5.63	Si
SLU 83	110	-15584	1189	-2682		4.95	70	1.08	3413			2.87	Si
SLU 78	-159	-17796	577	16152		5.65	70	1.08	3413			5.91	Si
SLU 78	110	-15212	1184	-3689		4.83	70	1.08	3413			2.88	Si
SLU 74	-159	-17602	575	16393		5.59	70	1.08	3413			5.94	Si
SLU 74	110	-15007	1152	-2935		4.76	70	1.08	3413			2.96	Si
SLU 81	-159	-18000	603	17219		5.71	70	1.08	3413			5.66	Si
SLU 81	110	-15371	1155	-1765		4.88	70	1.08	3413			2.95	Si
SLU 79	-159	-17666	574	15879		5.61	70	1.08	3413			5.95	Si
SLU 79	110	-15098	1180	-3982		4.79	70	1.08	3413			2.89	Si
SLU 77	-159	-17798	579	16208		5.65	70	1.08	3413			5.9	Si
SLU 77	110	-15220	1185	-3852		4.83	70	1.08	3413			2.88	Si
SLU 82	-159	-17998	601	17164		5.71	70	1.08	3413			5.68	Si
SLU 82	110	-15364	1154	-1602		4.88	70	1.08	3413			2.96	Si
SLU 84	-159	-18194	605	16979		5.78	70	1.08	3413			5.64	Si
SLU 84	110	-15577	1187	-2519		4.94	70	1.08	3413			2.87	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	-159	-10594	-2036	-30529		3.36	70	1.51	4744			2.33	Si
SLV 1	110	-9772	-4378	41077		3.1	70	1.45	4579			1.05	Si
SLV 2	-159	-10594	-2036	-30529		3.36	70	1.51	4744			2.33	Si
SLV 2	110	-9772	-4378	41077		3.1	70	1.45	4579			1.05	Si
SLV 16	-159	-13639	2788	52458		4.33	70	1.63	5119			1.84	Si
SLV 16	110	-10542	5946	-45258		3.35	70	1.5	4733			0.8	No, Vu<V
SLV 5	-159	-8049	-3153	-126952		3.1	57.68	1.45	3773			1.2	Si
SLV 5	110	-6468	-3490	18109		2.05	70	1.24	3919			1.12	Si
SLV 11	-159	-16185	3906	148880		5.14	70	1.63	5119			1.31	Si
SLV 11	110	-13845	5058	-22290		4.4	70	1.63	5119			1.01	Si
SLV 6	-159	-8049	-3153	-126952		3.1	57.68	1.45	3773			1.2	Si
SLV 6	110	-6468	-3490	18109		2.05	70	1.24	3919			1.12	Si
SLV 14	-159	-11258	938	-30269		3.57	70	1.55	4877			5.2	Si
SLV 14	110	-8186	4149	-40478		2.6	70	1.35	4262			1.03	Si
SLV 15	-159	-13639	2788	52458		4.33	70	1.63	5119			1.84	Si
SLV 15	110	-10542	5946	-45258		3.35	70	1.5	4733			0.8	No, Vu<V
SLV 12	-159	-16185	3906	148880		5.14	70	1.63	5119			1.31	Si
SLV 12	110	-13845	5058	-22290		4.4	70	1.63	5119			1.01	Si
SLV 13	-159	-11258	938	-30269		3.57	70	1.55	4877			5.2	Si
SLV 13	110	-8186	4149	-40478		2.6	70	1.35	4262			1.03	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.24	2.58	-8116	4177	144103	34.5	Si
SLV 9	14	0.24	2.58	-8116	4177	144103	34.5	Si
SLV 6	14	0.24	2.81	-8838	4177	153193	36.68	Si
SLV 5	14	0.24	2.81	-8838	4177	153193	36.68	Si
SLV 13	14	0.24	3.07	-9672	4177	162939	39.01	Si
SLV 14	14	0.24	3.07	-9672	4177	162939	39.01	Si
SLV 16	14	0.24	3.72	-11729	4177	183480	43.93	Si
SLV 15	14	0.24	3.72	-11729	4177	183480	43.93	Si
SLV 1	14	0.24	3.83	-12079	4177	186490	44.65	Si
SLV 2	14	0.24	3.83	-12079	4177	186490	44.65	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-13845	-16185	2061	0	15.289	0.976	0	328.355	No
SLV 6	-6468	-8049	-871	0	7.781	0.955	0	328.355	No
SLV 8	-14320	-15985	1770	0	15.774	0.977	0	328.355	No
SLV 7	-14320	-15985	1770	0	15.774	0.977	0	328.355	No
SLV 11	-13845	-16185	2061	0	15.289	0.976	0	328.355	No
SLV 5	-6468	-8049	-871	0	7.781	0.955	0	328.355	No
SLV 15	-10542	-13639	1475	0	11.925	0.97	0	338.414	No
SLV 16	-10542	-13639	1475	0	11.925	0.97	0	338.414	No
SLV 10	-5993	-8248	-581	0.007	7.298	0.952	10.895	328.355	No
SLV 9	-5993	-8248	-581	0.007	7.298	0.952	10.895	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.875	SLU 83	Si
V_SLU	2.871	SLU 83	Si
PF_SLV	1.755	SLV 5	Si
V_SLV	0.796	SLV 15	No
PFFP_SLV	34.502	SLV 9	Si
R_SLV	0	SLV 5	No



Maschio 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	207.1	-1961.8	485.1	L1	L3	278	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	-159	-54631	26607	6.55	1487232	55.896	Si
SLU 82	41	-50804	151632	6.09	1780831	11.744	Si
SLU 83	-159	-55864	140	6.7	1379880	1000	Si
SLU 83	41	-52037	145208	6.24	1692784	11.658	Si
SLU 77	-159	-54822	-17800	6.57	1470983	82.637	Si
SLU 77	41	-50995	148715	6.11	1767577	11.886	Si
SLU 84	-159	-55699	3173	6.68	1394612	439.499	Si
SLU 84	41	-51872	152447	6.22	1704932	11.184	Si
SLU 80	-159	-54340	-22240	6.52	1511632	67.97	Si
SLU 80	41	-50514	156653	6.06	1800680	11.495	Si
SLU 76	-159	-53162	3216	6.37	1606983	499.667	Si
SLU 76	41	-49336	160664	5.92	1877587	11.686	Si
SLU 79	-159	-54505	-25273	6.54	1497816	59.266	Si
SLU 79	41	-50679	149414	6.08	1789449	11.976	Si
SLU 75	-159	-53589	8666	6.43	1573080	181.515	Si
SLU 75	41	-49763	155139	5.97	1850369	11.927	Si
SLU 73	-159	-52095	26650	6.25	1688520	63.359	Si
SLU 73	41	-48268	159849	5.79	1942404	12.151	Si
SLU 78	-159	-54657	-14767	6.55	1485012	100.56	Si
SLU 78	41	-50830	155954	6.09	1779022	11.407	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	-159	-34232	-832018	4.1	3159842	3.798	Si
SLV 14	41	-31516	712839	3.78	3025899	4.245	Si
SLV 12	-159	-38858	1732346	4.66	3341677	1.929	Si
SLV 12	41	-35416	-307052	4.25	3211935	10.461	Si
SLV 6	-159	-33832	-1701657	4.06	3141364	1.846	Si
SLV 6	41	-31387	542832	3.76	3019031	5.562	Si
SLV 7	-159	-39607	1915243	4.75	3365596	1.757	Si
SLV 7	41	-36121	-564373	4.33	3241144	5.743	Si
SLV 8	-159	-39607	1915243	4.75	3365596	1.757	Si
SLV 8	41	-36121	-564373	4.33	3241144	5.743	Si
SLV 11	-159	-38858	1732346	4.66	3341677	1.929	Si
SLV 11	41	-35416	-307052	4.25	3211935	10.461	Si
SLV 13	-159	-34232	-832018	4.1	3159842	3.798	Si
SLV 13	41	-31516	712839	3.78	3025899	4.245	Si
SLV 5	-159	-33832	-1701657	4.06	3141364	1.846	Si
SLV 5	41	-31387	542832	3.76	3019031	5.562	Si
SLV 10	-159	-33084	-1884553	3.97	3105659	1.648	Si
SLV 10	41	-30682	800153	3.68	2980715	3.725	Si
SLV 9	-159	-33084	-1884553	3.97	3105659	1.648	Si
SLV 9	41	-30682	800153	3.68	2980715	3.725	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	-159	-49161	-895	-22418		5.89	278	1.08	9035			10.09	Si
SLU 69	41	-45334	-895	156628		5.44	278	1.08	9035			10.09	Si
SLU 71	-159	-48844	-936	-29891		5.86	278	1.08	9035			9.65	Si
SLU 71	41	-45017	-936	157327		5.4	278	1.08	9035			9.65	Si
SLU 72	-159	-48679	-957	-26858		5.84	278	1.08	9035			9.44	Si
SLU 72	41	-44852	-957	164566		5.38	278	1.08	9035			9.44	Si
SLU 59	-159	-48871	-881	-17845		5.86	278	1.08	9035			10.26	Si
SLU 59	41	-45044	-881	158399		5.4	278	1.08	9035			10.26	Si
SLU 70	-159	-48996	-916	-19385		5.87	278	1.08	9035			9.86	Si
SLU 70	41	-45169	-916	163867		5.42	278	1.08	9035			9.86	Si
SLU 51	-159	-43210	-944	-22462		5.18	278	1.08	9035			9.57	Si
SLU 51	41	-39383	-944	166312		4.72	278	1.08	9035			9.57	Si
SLU 80	-159	-54340	-894	-22240		6.52	278	1.08	9035			10.1	Si
SLU 80	41	-50514	-894	156653		6.06	278	1.08	9035			10.1	Si
SLU 50	-159	-43375	-923	-25495		5.2	278	1.08	9035			9.79	Si
SLU 50	41	-39548	-923	159073		4.74	278	1.08	9035			9.79	Si
SLU 49	-159	-43527	-903	-14990		5.22	278	1.08	9035			10.01	Si
SLU 49	41	-39700	-903	165613		4.76	278	1.08	9035			10.01	Si
SLU 48	-159	-43692	-882	-18023		5.24	278	1.08	9035			10.25	Si
SLU 48	41	-39865	-882	158374		4.78	278	1.08	9035			10.25	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	-159	-33832	-11054	-1701657		4.24	266.11	1.63	12973			1.17	Si
SLV 5	41	-31387	-10873	542832		3.76	278	1.59	13227			1.22	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	-159	-33084	-13303	-1884553		4.48	246.11	1.63	11998			0.9	No, Vu<V
SLV 10	41	-30682	-13243	800153		3.68	278	1.57	13086			0.99	No, Vu<V
SLV 13	-159	-34232	-7762	-832018		4.1	278	1.63	13552			1.75	Si
SLV 13	41	-31516	-7926	712839		3.78	278	1.59	13253			1.67	Si
SLV 11	-159	-38858	10028	1732346		4.66	278	1.63	13552			1.35	Si
SLV 11	41	-35416	9848	-307052		4.25	278	1.63	13552			1.38	Si
SLV 9	-159	-33084	-13303	-1884553		4.48	246.11	1.63	11998			0.9	No, Vu<V
SLV 9	41	-30682	-13243	800153		3.68	278	1.57	13086			0.99	No, Vu<V
SLV 12	-159	-38858	10028	1732346		4.66	278	1.63	13552			1.35	Si
SLV 12	41	-35416	9848	-307052		4.25	278	1.63	13552			1.38	Si
SLV 14	-159	-34232	-7762	-832018		4.1	278	1.63	13552			1.75	Si
SLV 14	41	-31516	-7926	712839		3.78	278	1.59	13253			1.67	Si
SLV 6	-159	-33832	-11054	-1701657		4.24	266.11	1.63	12973			1.17	Si
SLV 6	41	-31387	-10873	542832		3.76	278	1.59	13227			1.22	Si
SLV 8	-159	-39607	12278	1915243		4.85	271.93	1.63	13257			1.08	Si
SLV 8	41	-36121	12218	-564373		4.33	278	1.63	13552			1.11	Si
SLV 7	-159	-39607	12278	1915243		4.85	271.93	1.63	13257			1.08	Si
SLV 7	41	-36121	12218	-564373		4.33	278	1.63	13552			1.11	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	3.73	-31148	11058	324411	29.34	Si
SLV 10	14	0.24	3.73	-31148	11058	324411	29.34	Si
SLV 6	14	0.24	3.82	-31871	11058	328546	29.71	Si
SLV 5	14	0.24	3.82	-31871	11058	328546	29.71	Si
SLV 13	14	0.24	3.89	-32444	11058	331718	30	Si
SLV 14	14	0.24	3.89	-32444	11058	331718	30	Si
SLV 16	14	0.24	4.11	-34277	11058	341211	30.86	Si
SLV 15	14	0.24	4.11	-34277	11058	341211	30.86	Si
SLV 1	14	0.24	4.18	-34852	11058	343984	31.11	Si
SLV 2	14	0.24	4.18	-34852	11058	343984	31.11	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-27407	-38458	64	0.057	31.062	0.969	86.096	411.62	No
SLV 3	-27407	-38458	64	0.057	31.062	0.969	86.096	411.62	No
SLV 1	-25812	-36726	68	0.057	29.438	0.967	86.16	411.62	No
SLV 2	-25812	-36726	68	0.057	29.438	0.967	86.16	411.62	No
SLV 15	-26010	-35964	-66	0.057	29.639	0.968	86.261	411.62	No
SLV 16	-26010	-35964	-66	0.057	29.639	0.968	86.261	411.62	No
SLV 14	-24415	-34232	-62	0.058	28.016	0.966	86.797	411.62	No
SLV 13	-24415	-34232	-62	0.058	28.016	0.966	86.797	411.62	No
SLV 12	-28359	-38858	-25	0.059	32.031	0.97	87.878	392.468	No
SLV 11	-28359	-38858	-25	0.059	32.031	0.97	87.878	392.468	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	11.184	SLU 84	Si
V_SLU	9.442	SLU 72	Si
PF_SLV	1.648	SLV 9	Si
V_SLV	0.902	SLV 9	No
PFFP_SLV	29.337	SLV 9	Si
R_SLV	0.209	SLV 3	No

Maschio 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	565.1	-1961.8	610.1	L1	L3	45	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	-159	-8462	9488	6.27	43890	4.626	Si
SLU 84	41	-11047	-61147	8.18	0	0	No, Rottura per schiacciamento
SLU 83	-159	-8463	9503	6.27	43871	4.617	Si
SLU 83	41	-11056	-61212	8.19	0	0	No, Rottura per schiacciamento
SLU 74	-159	-8179	9146	6.06	47155	5.156	Si
SLU 74	41	-10663	-58911	7.9	7286	0.124	No, M>Mu
SLU 80	-159	-8229	9050	6.1	46606	5.15	Si
SLU 80	41	-10733	-59043	7.95	5804	0.098	No, M>Mu
SLU 78	-159	-8284	9181	6.14	45982	5.008	Si
SLU 78	41	-10817	-59600	8.01	3988	0.067	No, M>Mu



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	-159	-8286	9196	6.14	45963	4.998	Si
SLU 77	41	-10825	-59665	8.02	3799	0.064	No, M>Mu
SLU 81	-159	-8357	9453	6.19	45140	4.775	Si
SLU 81	41	-10893	-60458	8.07	2308	0.038	No, M>Mu
SLU 75	-159	-8177	9131	6.06	47173	5.166	Si
SLU 75	41	-10654	-58847	7.89	7470	0.127	No, M>Mu
SLU 82	-159	-8355	9438	6.19	45159	4.785	Si
SLU 82	41	-10885	-60394	8.06	2499	0.041	No, M>Mu
SLU 79	-159	-8230	9064	6.1	46587	5.14	Si
SLU 79	41	-10741	-59107	7.96	5618	0.095	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	-159	-5776	53663	4.28	84451	1.574	Si
SLV 11	41	-11104	-89191	8.23	81656	0.916	No, M>Mu
SLD 12	-159	-5686	26022	4.21	83838	3.222	Si
SLD 12	41	-8867	-60634	6.57	92263	1.522	Si
SLD 7	-159	-5431	25904	4.02	81964	3.164	Si
SLD 7	41	-8585	-57264	6.36	92630	1.618	Si
SLD 8	-159	-5431	25904	4.02	81964	3.164	Si
SLD 8	41	-8585	-57264	6.36	92630	1.618	Si
SLV 12	-159	-5776	53663	4.28	84451	1.574	Si
SLV 12	41	-11104	-89191	8.23	81656	0.916	No, M>Mu
SLV 7	-159	-5172	53425	3.83	79881	1.495	Si
SLV 7	41	-10436	-81226	7.73	86257	1.062	Si
SLV 15	-159	-6581	20734	4.87	88996	4.292	Si
SLV 15	41	-9412	-66624	6.97	90938	1.365	Si
SLD 11	-159	-5686	26022	4.21	83838	3.222	Si
SLD 11	41	-8867	-60634	6.57	92263	1.522	Si
SLV 16	-159	-6581	20734	4.87	88996	4.292	Si
SLV 16	41	-9412	-66624	6.97	90938	1.365	Si
SLV 8	-159	-5172	53425	3.83	79881	1.495	Si
SLV 8	41	-10436	-81226	7.73	86257	1.062	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	-159	-8462	122	9488		6.27	45	1.08	1462			12	Si
SLU 84	41	-11047	1134	-61147		8.18	45	1.08	1462			1.29	Si
SLU 83	-159	-8463	122	9503		6.27	45	1.08	1462			11.96	Si
SLU 83	41	-11056	1135	-61212		8.19	45	1.08	1462			1.29	Si
SLU 80	-159	-8229	117	9050		6.1	45	1.08	1462			12.48	Si
SLU 80	41	-10733	1090	-59043		7.95	45	1.08	1462			1.34	Si
SLU 77	-159	-8286	119	9196		6.14	45	1.08	1462			12.27	Si
SLU 77	41	-10825	1102	-59665		8.02	45	1.08	1462			1.33	Si
SLU 78	-159	-8284	119	9181		6.14	45	1.08	1462			12.32	Si
SLU 78	41	-10817	1102	-59600		8.01	45	1.08	1462			1.33	Si
SLU 81	-159	-8357	120	9453		6.19	45	1.08	1462			12.16	Si
SLU 81	41	-10893	1124	-60458		8.07	45	1.08	1462			1.3	Si
SLU 79	-159	-8230	118	9064		6.1	45	1.08	1462			12.43	Si
SLU 79	41	-10741	1091	-59107		7.96	45	1.08	1462			1.34	Si
SLU 82	-159	-8355	120	9438		6.19	45	1.08	1462			12.2	Si
SLU 82	41	-10885	1123	-60394		8.06	45	1.08	1462			1.3	Si
SLU 74	-159	-8179	117	9146		6.06	45	1.08	1462			12.48	Si
SLU 74	41	-10663	1092	-58911		7.9	45	1.08	1462			1.34	Si
SLU 75	-159	-8177	117	9131		6.06	45	1.08	1462			12.53	Si
SLU 75	41	-10654	1091	-58847		7.89	45	1.08	1462			1.34	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 8	-159	-5431	299	25904		4.02	45	1.63	2194			7.34	Si
SLD 8	41	-8585	1250	-57264		6.36	45	1.63	2194			1.75	Si
SLV 3	-159	-4568	243	19943		3.38	45	1.51	2039			8.4	Si
SLV 3	41	-7182	1419	-40073		5.32	45	1.63	2194			1.55	Si
SLV 8	-159	-5172	604	53425		4.72	36.51	1.63	1780			2.95	Si
SLV 8	41	-10436	1949	-81226		7.88	44.15	1.63	2152			1.1	Si
SLV 11	-159	-5776	599	53663		4.86	39.63	1.63	1932			3.23	Si
SLV 11	41	-11104	1739	-89191		8.53	43.4	1.63	2116			1.22	Si
SLD 11	-159	-5686	297	26022		4.21	45	1.63	2194			7.39	Si
SLD 11	41	-8867	1160	-60634		6.57	45	1.63	2194			1.89	Si
SLD 12	-159	-5686	297	26022		4.21	45	1.63	2194			7.39	Si
SLD 12	41	-8867	1160	-60634		6.57	45	1.63	2194			1.89	Si
SLD 7	-159	-5431	299	25904		4.02	45	1.63	2194			7.34	Si
SLD 7	41	-8585	1250	-57264		6.36	45	1.63	2194			1.75	Si
SLV 7	-159	-5172	604	53425		4.72	36.51	1.63	1780			2.95	Si
SLV 7	41	-10436	1949	-81226		7.88	44.15	1.63	2152			1.1	Si
SLV 12	-159	-5776	599	53663		4.86	39.63	1.63	1932			3.23	Si
SLV 12	41	-11104	1739	-89191		8.53	43.4	1.63	2116			1.22	Si
SLV 4	-159	-4568	243	19943		3.38	45	1.51	2039			8.4	Si
SLV 4	41	-7182	1419	-40073		5.32	45	1.63	2194			1.55	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.24	3.05	-4113	1790	46311	25.87	Si
SLV 6	14	0.24	3.05	-4113	1790	46311	25.87	Si
SLV 10	14	0.24	3.44	-4641	1790	50029	27.95	Si
SLV 9	14	0.24	3.44	-4641	1790	50029	27.95	Si



Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	3.78	-5098	1790	52834	29.52	Si
SLV 2	14	0.24	3.78	-5098	1790	52834	29.52	Si
SLV 3	14	0.24	4.79	-6470	1790	58983	32.95	Si
SLV 4	14	0.24	4.79	-6470	1790	58983	32.95	Si
SLV 14	14	0.24	5.08	-6858	1790	60102	33.58	Si
SLV 13	14	0.24	5.08	-6858	1790	60102	33.58	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-6399	-4568	-77	0.047	7.027	0.977	69.851	411.62	No
SLV 4	-6399	-4568	-77	0.047	7.027	0.977	69.851	411.62	No
SLV 2	-4741	-4654	-51	0.049	5.338	0.971	73.688	411.62	No
SLV 1	-4741	-4654	-51	0.049	5.338	0.971	73.688	411.62	No
SLV 7	-8818	-5172	-93	0.048	9.491	0.983	70.384	392.468	No
SLV 8	-8818	-5172	-93	0.048	9.491	0.983	70.384	392.468	No
SLV 12	-9232	-5776	-80	0.049	9.914	0.984	72.816	392.468	No
SLV 11	-9232	-5776	-80	0.049	9.914	0.984	72.816	392.468	No
SLV 15	-7781	-6581	-35	0.054	8.435	0.981	79.531	411.62	No
SLV 16	-7781	-6581	-35	0.054	8.435	0.981	79.531	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 83	No
V_SLU	1.289	SLU 83	Si
PF_SLV	0.916	SLV 11	No
V_SLV	1.104	SLV 7	Si
PFFP_SLV	25.872	SLV 5	Si
R_SLV	0.17	SLV 3	No

Maschio 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2254.3	-328.4	-2465.3	-328.4	L1	L3	211	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 68	41	-6402	-260949	0.67	619503	2.374	Si
SLU 68	81	-4519	-413051	0.48	448920	1.087	Si
SLU 49	41	-6044	-247893	0.64	587834	2.371	Si
SLU 49	81	-4366	-402576	0.46	434644	1.08	Si
SLU 7	41	-4717	-192531	0.5	467334	2.427	Si
SLU 7	81	-3348	-315524	0.35	337952	1.071	Si
SLU 9	41	-4682	-191105	0.49	464044	2.428	Si
SLU 9	81	-3319	-313181	0.35	335150	1.07	Si
SLU 51	41	-6009	-246467	0.63	584673	2.372	Si
SLU 51	81	-4337	-400233	0.46	431923	1.079	Si
SLU 5	41	-4016	-168384	0.42	401719	2.386	Si
SLU 5	81	-2463	-269104	0	0	0	No, e>l/2
SLU 44	41	-5330	-224281	0.56	523520	2.334	Si
SLU 44	81	-3474	-349270	0.37	350069	1.002	Si
SLU 26	41	-5075	-205587	0.53	500298	2.434	Si
SLU 26	81	-3501	-326000	0.37	352652	1.082	Si
SLU 2	41	-4003	-168919	0.42	400433	2.371	Si
SLU 2	81	-2456	-262218	0	0	0	No, e>l/2
SLU 47	41	-5343	-223746	0.56	524756	2.345	Si
SLU 47	81	-3481	-356156	0.37	350715	0.985	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 2	41	-3526	-36964	0.37	360721	9.759	Si
SLV 2	81	-1560	-614038	0	0	0	No, e>l/2
SLV 6	41	-2920	-150738	0.31	300322	1.992	Si
SLV 6	81	2435	-492488	0	0	0	No, Trazione
SLD 6	41	-4939	-210529	0.52	498928	2.37	Si
SLD 6	81	-2176	-433734	0	0	0	No, e>l/2
SLD 10	41	-5443	-262412	0.57	547271	2.086	Si
SLD 10	81	-2568	-380424	0	0	0	No, e>l/2
SLV 9	41	-4091	-272291	0.43	416356	1.529	Si
SLV 9	81	1517	-365181	0	0	0	No, Trazione
SLV 1	41	-3526	-36964	0.37	360721	9.759	Si
SLV 1	81	-1560	-614038	0	0	0	No, e>l/2
SLD 9	41	-5443	-262412	0.57	547271	2.086	Si
SLD 9	81	-2568	-380424	0	0	0	No, e>l/2
SLD 1	41	-5144	-160568	0.54	518653	3.23	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 1	81	-3742	-484183	0	0	0	No, e>l/2
SLV 5	41	-2920	-150738	0.31	300322	1.992	Si
SLV 5	81	2435	-492488	0	0	0	No, Trazione
SLV 10	41	-4091	-272291	0.43	416356	1.529	Si
SLV 10	81	1517	-365181	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 48	41	-7022	2930	-282777		0.8	195.69	0.66	5829			1.99	Si
SLU 48	81	-5641	3058	-458362		1.72	72.72	0.79	2570			0.84	No, Vu<V
SLU 77	41	-9436	3773	-368563		1.05	199.32	0.7	6241			1.65	Si
SLU 77	81	-8026	3928	-581223		1.8	99.25	0.8	3552			0.9	No, Vu<V
SLU 47	41	-5343	589	-223746		0.62	190.87	0.64	5484			9.32	Si
SLU 47	81	-3481	697	-356156		8.1	9.56	1.08	466			0.67	No, Vu<V
SLU 5	41	-4016	105	-168384		0.47	190.72	0.62	5304			50.54	Si
SLU 5	81	-2463	189	-269104		0	0	0.56	0			0	No, Vu<V
SLU 51	41	-6009	1623	-246467		0.69	193.45	0.65	5637			3.47	Si
SLU 51	81	-4337	1741	-400233		2.43	39.67	0.88	1570			0.9	No, Vu<V
SLU 71	41	-8046	3358	-318554		0.9	197.72	0.68	6016			1.79	Si
SLU 71	81	-6650	3498	-512915		1.74	85.11	0.79	3014			0.86	No, Vu<V
SLU 2	41	-4003	-61	-168919		0.47	189.9	0.62	5281			85.88	Si
SLU 2	81	-2456	20	-262218		0	0	0.56	0			0	No, Vu<V
SLU 69	41	-8081	3363	-319979		0.91	197.71	0.68	6020			1.79	Si
SLU 69	81	-6679	3505	-515258		1.74	85.06	0.79	3017			0.86	No, Vu<V
SLU 49	41	-6044	1629	-247893		0.69	193.46	0.65	5642			3.46	Si
SLU 49	81	-4366	1747	-402576		2.43	39.9	0.88	1580			0.9	No, Vu<V
SLU 50	41	-6987	2924	-281351		0.79	195.69	0.66	5824			1.99	Si
SLU 50	81	-5612	3051	-456020		1.72	72.71	0.78	2566			0.84	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	41	-3526	10598	-36964		0.37	211	0.91	8618			0.81	No, Vu<V
SLV 2	81	-1560	12779	-614038		0	0	0.83	0			0	No, Vu<V
SLD 1	41	-5144	5939	-160568		0.54	211	0.94	8941			1.51	Si
SLD 1	81	-3742	6860	-484183		0	0	0.83	0			0	No, Vu<V
SLD 10	41	-5443	-3108	-262412		0.7	171.86	0.97	7533			2.42	Si
SLD 10	81	-2568	-3200	-380424		0	0	0.83	0			0	No, Vu<V
SLD 9	41	-5443	-3108	-262412		0.7	171.86	0.97	7533			2.42	Si
SLD 9	81	-2568	-3200	-380424		0	0	0.83	0			0	No, Vu<V
SLV 1	41	-3526	10598	-36964		0.37	211	0.91	8618			0.81	No, Vu<V
SLV 1	81	-1560	12779	-614038		0	0	0.83	0			0	No, Vu<V
SLV 6	41	-2920	-4432	-150738		0.4	161.64	0.91	6646			1.5	Si
SLV 6	81	2435	-3520	-492488		0	0	0.83	0			0	No, Vu<V
SLD 6	41	-4939	-231	-210529		0.58	188.63	0.95	8062			34.96	Si
SLD 6	81	-2176	159	-433734		0	0	0.83	0			0	No, Vu<V
SLV 5	41	-2920	-4432	-150738		0.4	161.64	0.91	6646			1.5	Si
SLV 5	81	2435	-3520	-492488		0	0	0.83	0			0	No, Vu<V
SLD 5	41	-4939	-231	-210529		0.58	188.63	0.95	8062			34.96	Si
SLD 5	81	-2176	159	-433734		0	0	0.83	0			0	No, Vu<V
SLD 2	41	-5144	5939	-160568		0.54	211	0.94	8941			1.51	Si
SLD 2	81	-3742	6860	-484183		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.24	0.57	-5376	12590	115346	9.16	Si
SLV 8	14	0.24	0.57	-5376	12590	115346	9.16	Si
SLV 12	14	0.24	0.57	-5389	12590	115622	9.18	Si
SLV 11	14	0.24	0.57	-5389	12590	115622	9.18	Si
SLV 4	14	0.24	0.72	-6872	12590	145462	11.55	Si
SLV 3	14	0.24	0.72	-6872	12590	145462	11.55	Si
SLV 15	14	0.24	0.73	-6917	12590	146357	11.63	Si
SLV 16	14	0.24	0.73	-6917	12590	146357	11.63	Si
SLV 2	14	0.24	0.86	-8168	12590	170847	13.57	Si
SLV 1	14	0.24	0.86	-8168	12590	170847	13.57	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	3415	-17882	57	0	0	0	0	328.355	No, Trazione
SLV 1	684	-16287	-132	0	0	0	0	338.414	No, Trazione
SLV 9	2052	-15652	68	0	0	0	0	328.355	No, Trazione
SLV 2	684	-16287	-132	0	0	0	0	338.414	No, Trazione
SLV 10	2052	-15652	68	0	0	0	0	328.355	No, Trazione
SLV 5	3415	-17882	57	0	0	0	0	328.355	No, Trazione
SLV 8	-8933	-5891	-449	0.061	12.755	0.925	95.502	328.355	No
SLV 7	-8933	-5891	-449	0.061	12.755	0.925	95.502	328.355	No
SLV 11	-10296	-3661	-439	0.064	14.128	0.931	100.036	328.355	No
SLV 12	-10296	-3661	-439	0.064	14.128	0.931	100.036	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 2	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLV 10	No
V_SLV	0	SLD 1	No



Stato limite	Coeff.s.	Comb.	Verifica
PFFP_SLV	9.162	SLV 7	Si
R_SLV	0	SLV 10	No

Maschio 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1831.3	-328.4	-2154.3	-328.4	L1	L3	323	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 55	41	-35693	-1591973	2.46	4026655	2.529	Si
SLU 55	81	-34401	-1873673	2.37	3941535	2.104	Si
SLU 68	41	-34763	-1562487	2.39	3965832	2.538	Si
SLU 68	81	-33471	-1847457	2.3	3877435	2.099	Si
SLU 5	41	-24437	-1198601	1.68	3132005	2.613	Si
SLU 5	81	-23443	-1443531	1.61	3036419	2.103	Si
SLU 44	41	-30866	-1473522	2.12	3685310	2.501	Si
SLU 44	81	-29574	-1732951	2.03	3583179	2.068	Si
SLU 52	41	-35662	-1607607	2.45	4024684	2.504	Si
SLU 52	81	-34370	-1878119	2.36	3939456	2.098	Si
SLU 73	41	-39529	-1712206	2.72	4252565	2.484	Si
SLU 73	81	-38237	-1997071	2.63	4180963	2.094	Si
SLU 76	41	-39559	-1696572	2.72	4254211	2.508	Si
SLU 76	81	-38267	-1992625	2.63	4182718	2.099	Si
SLU 65	41	-34732	-1578121	2.39	3963783	2.512	Si
SLU 65	81	-33440	-1851903	2.3	3875278	2.093	Si
SLU 2	41	-24406	-1214235	1.68	3129092	2.577	Si
SLU 2	81	-23412	-1447977	1.61	3033422	2.095	Si
SLU 47	41	-30896	-1457888	2.13	3687683	2.529	Si
SLU 47	81	-29604	-1728505	2.04	3585660	2.074	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	41	-27773	-1807128	1.91	3783949	2.094	Si
SLV 15	81	-27917	-1043740	1.92	3799893	3.641	Si
SLD 10	41	-30996	-1446716	2.13	4132172	2.856	Si
SLD 10	81	-28022	-1556465	1.93	3811458	2.449	Si
SLV 14	41	-31208	-2204759	2.15	4154461	1.884	Si
SLV 14	81	-28419	-1589020	1.96	3855259	2.426	Si
SLV 16	41	-27773	-1807128	1.91	3783949	2.094	Si
SLV 16	81	-27917	-1043740	1.92	3799893	3.641	Si
SLV 9	41	-34470	-2000921	2.37	4486445	2.242	Si
SLV 9	81	-28490	-2116638	1.96	3862996	1.825	Si
SLV 13	41	-31208	-2204759	2.15	4154461	1.884	Si
SLV 13	81	-28419	-1589020	1.96	3855259	2.426	Si
SLV 10	41	-34470	-2000921	2.37	4486445	2.242	Si
SLV 10	81	-28490	-2116638	1.96	3862996	1.825	Si
SLD 9	41	-30996	-1446716	2.13	4132172	2.856	Si
SLD 9	81	-28022	-1556465	1.93	3811458	2.449	Si
SLV 6	41	-33831	-1428572	2.33	4422934	3.096	Si
SLV 6	81	-28048	-2023602	1.93	3814373	1.885	Si
SLV 5	41	-33831	-1428572	2.33	4422934	3.096	Si
SLV 5	81	-28048	-2023602	1.93	3814373	1.885	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 44	41	-30866	6500	-1473522		2.12	323	0.84	12190			1.88	Si
SLU 44	81	-29574	6500	-1732951		2.13	308.71	0.84	11661			1.79	Si
SLU 47	41	-30896	6780	-1457888		2.13	323	0.84	12195			1.8	Si
SLU 47	81	-29604	6780	-1728505		2.13	309.34	0.84	11681			1.72	Si
SLU 2	41	-24406	5855	-1214235		1.68	323	0.78	11329			1.94	Si
SLU 2	81	-23412	5855	-1447977		1.74	298.96	0.79	10596			1.81	Si
SLU 55	41	-35693	7057	-1591973		2.46	323	0.88	12834			1.82	Si
SLU 55	81	-34401	7057	-1873673		2.38	321.1	0.87	12614			1.79	Si
SLU 76	41	-39559	7416	-1696572		2.72	323	0.92	13350			1.8	Si
SLU 76	81	-38267	7416	-1992625		2.63	323	0.91	13177			1.78	Si
SLU 65	41	-34732	6859	-1578121		2.39	323	0.87	12706			1.85	Si
SLU 65	81	-33440	6859	-1851903		2.33	318.36	0.87	12418			1.81	Si
SLU 5	41	-24437	6134	-1198601		1.68	323	0.78	11333			1.85	Si
SLU 5	81	-23443	6134	-1443531		1.74	299.77	0.79	10620			1.73	Si
SLU 68	41	-34763	7139	-1562487		2.39	323	0.87	12710			1.78	Si
SLU 68	81	-33471	7139	-1847457		2.33	318.91	0.87	12436			1.74	Si
SLU 26	41	-28303	6493	-1303200		1.95	323	0.82	11849			1.82	Si
SLU 26	81	-27310	6493	-1562483		1.94	312.86	0.81	11463			1.77	Si
SLU 13	41	-29233	6411	-1332686		2.01	323	0.82	11973			1.87	Si
SLU 13	81	-28240	6411	-1588699		1.99	315.73	0.82	11658			1.82	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	41	-29078	24989	-296929		2	323	1.23	17928			0.72	No, Vu<V
SLV 1	81	-26947	27888	-1278900		1.85	323	1.2	17502			0.63	No, Vu<V
SLV 12	41	-23020	-15648	-675484		1.58	323	1.15	16717			1.07	Si
SLV 12	81	-26816	-23186	-299039		1.84	323	1.2	17476			0.75	No, Vu<V
SLV 6	41	-33831	21134	-1428572		2.33	323	1.3	18879			0.89	No, Vu<V
SLV 6	81	-28048	28672	-2023602		2.33	268.06	1.3	15662			0.55	No, Vu<V
SLV 2	41	-29078	24989	-296929		2	323	1.23	17928			0.72	No, Vu<V
SLV 2	81	-26947	27888	-1278900		1.85	323	1.2	17502			0.63	No, Vu<V
SLV 11	41	-23020	-15648	-675484		1.58	323	1.15	16717			1.07	Si
SLV 11	81	-26816	-23186	-299039		1.84	323	1.2	17476			0.75	No, Vu<V
SLV 15	41	-27773	-19503	-1807128		2.13	289.3	1.26	16403			0.84	No, Vu<V
SLV 15	81	-27917	-22401	-1043740		1.92	323	1.22	17696			0.79	No, Vu<V
SLV 16	41	-27773	-19503	-1807128		2.13	289.3	1.26	16403			0.84	No, Vu<V
SLV 16	81	-27917	-22401	-1043740		1.92	323	1.22	17696			0.79	No, Vu<V
SLV 10	41	-34470	10105	-2000921		2.47	310.36	1.33	18532			1.83	Si
SLV 10	81	-28490	17222	-2116638		2.42	261.62	1.32	15508			0.9	No, Vu<V
SLV 9	41	-34470	10105	-2000921		2.47	310.36	1.33	18532			1.83	Si
SLV 9	81	-28490	17222	-2116638		2.42	261.62	1.32	15508			0.9	No, Vu<V
SLV 5	41	-33831	21134	-1428572		2.33	323	1.3	18879			0.89	No, Vu<V
SLV 5	81	-28048	28672	-2023602		2.33	268.06	1.3	15662			0.55	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	1.05	-15199	19272	312704	16.23	Si
SLV 7	14	0.24	1.05	-15199	19272	312704	16.23	Si
SLV 11	14	0.24	1.06	-15461	19272	317589	16.48	Si
SLV 12	14	0.24	1.06	-15461	19272	317589	16.48	Si
SLV 3	14	0.24	1.44	-20918	19272	415220	21.54	Si
SLV 4	14	0.24	1.44	-20918	19272	415220	21.54	Si
SLV 15	14	0.24	1.5	-21793	19272	430168	22.32	Si
SLV 16	14	0.24	1.5	-21793	19272	430168	22.32	Si
SLV 1	14	0.24	1.79	-26083	19272	500673	25.98	Si
SLV 2	14	0.24	1.79	-26083	19272	500673	25.98	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezz'aria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-21712	-14515	-1398	0.04	27.648	0.943	61.447	328.355	No
SLV 11	-21712	-14515	-1398	0.04	27.648	0.943	61.447	328.355	No
SLV 7	-20660	-14403	-1344	0.04	26.582	0.941	62.133	328.355	No
SLV 8	-20660	-14403	-1344	0.04	26.582	0.941	62.133	328.355	No
SLV 15	-24143	-21428	-1264	0.049	30.113	0.947	74.545	338.414	No
SLV 16	-24143	-21428	-1264	0.049	30.113	0.947	74.545	338.414	No
SLV 3	-20636	-21056	-1081	0.051	26.557	0.941	78.841	338.414	No
SLV 4	-20636	-21056	-1081	0.051	26.557	0.941	78.841	338.414	No
SLV 14	-25175	-27243	-1094	0.056	31.16	0.949	85.434	338.414	No
SLV 13	-25175	-27243	-1094	0.056	31.16	0.949	85.434	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.068	SLU 44	Si
V_SLU	1.723	SLU 47	Si
PF_SLV	1.825	SLV 9	Si
V_SLV	0.546	SLV 5	No
PFFP_SLV	16.226	SLV 7	Si
R_SLV	0.187	SLV 11	No

Maschio 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1652.3	-328.4	-1731.3	-328.4	L1	L3	79	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	41	-23512	62817	6.61	174663	2.78	Si
SLU 76	81	-19057	329969	5.36	257379	0.78	No, M>Mu
SLU 80	41	-23105	58179	6.5	184473	3.171	Si
SLU 80	81	-18589	321502	5.23	262926	0.818	No, M>Mu
SLU 82	41	-23913	59467	6.73	164575	2.767	Si
SLU 82	81	-19270	333790	5.42	254662	0.763	No, M>Mu
SLU 78	41	-23209	59515	6.53	182012	3.058	Si
SLU 78	81	-18698	323566	5.26	261692	0.809	No, M>Mu



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	41	-24061	58706	6.77	160732	2.738	Si
SLU 84	81	-19351	334733	5.44	253594	0.758	No, M>Mu
SLU 77	41	-22376	53699	6.29	200907	3.741	Si
SLU 77	81	-17874	309451	5.03	270245	0.873	No, M>Mu
SLU 83	41	-23228	52890	6.53	181564	3.433	Si
SLU 83	81	-18527	320617	5.21	263614	0.822	No, M>Mu
SLU 73	41	-23364	63579	6.57	178284	2.804	Si
SLU 73	81	-18976	329027	5.34	258383	0.785	No, M>Mu
SLU 75	41	-23061	60277	6.49	185511	3.078	Si
SLU 75	81	-18617	322623	5.24	262616	0.814	No, M>Mu
SLU 81	41	-23080	53651	6.49	185070	3.45	Si
SLU 81	81	-18446	319675	5.19	264500	0.827	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	41	-15862	95927	4.46	397756	4.146	Si
SLV 14	81	-15774	279998	4.44	396806	1.417	Si
SLV 12	41	-9300	-13518	2.62	288711	21.357	Si
SLV 12	81	-7675	166554	2.16	249598	1.499	Si
SLV 10	41	-20525	117148	5.77	427651	3.651	Si
SLV 10	81	-18014	289017	5.07	416464	1.441	Si
SLV 16	41	-12495	56727	3.51	351577	6.198	Si
SLV 16	81	-12672	243259	3.56	354523	1.457	Si
SLV 9	41	-20525	117148	5.77	427651	3.651	Si
SLV 9	81	-18014	289017	5.07	416464	1.441	Si
SLD 14	41	-15457	64076	4.35	393287	6.138	Si
SLD 14	81	-13718	241319	3.86	370734	1.536	Si
SLD 13	41	-15457	64076	4.35	393287	6.138	Si
SLD 13	81	-13718	241319	3.86	370734	1.536	Si
SLV 13	41	-15862	95927	4.46	397756	4.146	Si
SLV 13	81	-15774	279998	4.44	396806	1.417	Si
SLV 15	41	-12495	56727	3.51	351577	6.198	Si
SLV 15	81	-12672	243259	3.56	354523	1.457	Si
SLV 11	41	-9300	-13518	2.62	288711	21.357	Si
SLV 11	81	-7675	166554	2.16	249598	1.499	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	41	-20936	-2350	63363		5.89	79	1.08	3851			1.64	Si
SLU 68	81	-17091	-863	296896		5.72	66.38	1.08	3236			3.75	Si
SLU 82	41	-23913	-2328	59467		6.73	79	1.08	3851			1.65	Si
SLU 82	81	-19270	-793	333790		6.44	66.53	1.08	3244			4.09	Si
SLU 65	41	-20788	-2495	64125		5.85	79	1.08	3851			1.54	Si
SLU 65	81	-17009	-877	295954		5.7	66.3	1.08	3232			3.68	Si
SLU 44	41	-18826	-2379	62284		5.3	79	1.08	3851			1.62	Si
SLU 44	81	-15478	-855	269890		5.2	66.19	1.08	3227			3.77	Si
SLU 73	41	-23364	-2560	63579		6.57	79	1.08	3851			1.5	Si
SLU 73	81	-18976	-913	329027		6.34	66.48	1.08	3241			3.55	Si
SLU 52	41	-21402	-2444	61738		6.02	79	1.08	3851			1.58	Si
SLU 52	81	-17445	-891	302963		5.84	66.4	1.08	3237			3.63	Si
SLU 55	41	-21550	-2299	60976		6.06	79	1.08	3851			1.68	Si
SLU 55	81	-17526	-877	303906		5.86	66.48	1.08	3241			3.7	Si
SLU 75	41	-23061	-2218	60277		6.49	79	1.08	3851			1.74	Si
SLU 75	81	-18617	-775	322623		6.22	66.51	1.08	3242			4.19	Si
SLU 76	41	-23512	-2415	62817		6.61	79	1.08	3851			1.59	Si
SLU 76	81	-19057	-899	329969		6.36	66.56	1.08	3245			3.61	Si
SLU 47	41	-18974	-2234	61522		5.34	79	1.08	3851			1.72	Si
SLU 47	81	-15559	-841	270833		5.22	66.28	1.08	3231			3.84	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	41	-12495	-7470	56727		3.51	79	1.54	5461			0.73	No, Vu<V
SLV 15	81	-12672	-1078	243259		4.62	60.91	1.63	4454			4.13	Si
SLV 3	41	-14593	7062	-13308		4.1	79	1.63	5777			0.82	No, Vu<V
SLV 3	81	-8734	1208	146563		2.85	68.15	1.4	4303			3.56	Si
SLV 9	41	-20525	-7617	117148		5.77	79	1.63	5777			0.76	No, Vu<V
SLV 9	81	-18014	-2383	289017		5.69	70.37	1.63	5146			2.16	Si
SLV 16	41	-12495	-7470	56727		3.51	79	1.54	5461			0.73	No, Vu<V
SLV 16	81	-12672	-1078	243259		4.62	60.91	1.63	4454			4.13	Si
SLV 13	41	-15862	-9885	95927		4.46	79	1.63	5777			0.58	No, Vu<V
SLV 13	81	-15774	-2050	279998		5.37	65.25	1.63	4771			2.33	Si
SLV 7	41	-9930	4794	-34529		2.79	79	1.39	4948			1.03	Si
SLV 7	81	-6493	1541	137545		2.63	54.95	1.36	3359			2.18	Si
SLV 10	41	-20525	-7617	117148		5.77	79	1.63	5777			0.76	No, Vu<V
SLV 10	81	-18014	-2383	289017		5.69	70.37	1.63	5146			2.16	Si
SLV 8	41	-9930	4794	-34529		2.79	79	1.39	4948			1.03	Si
SLV 8	81	-6493	1541	137545		2.63	54.95	1.36	3359			2.18	Si
SLV 4	41	-14593	7062	-13308		4.1	79	1.63	5777			0.82	No, Vu<V
SLV 4	81	-8734	1208	146563		2.85	68.15	1.4	4303			3.56	Si
SLV 14	41	-15862	-9885	95927		4.46	79	1.63	5777			0.58	No, Vu<V
SLV 14	81	-15774	-2050	279998		5.37	65.25	1.63	4771			2.33	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	2.45	-8703	4714	156581	33.22	Si
SLV 7	14	0.24	2.45	-8703	4714	156581	33.22	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.24	2.66	-9461	4714	166511	35.33	Si
SLV 3	14	0.24	2.66	-9461	4714	166511	35.33	Si
SLV 12	14	0.24	2.85	-10144	4714	174938	37.11	Si
SLV 11	14	0.24	2.85	-10144	4714	174938	37.11	Si
SLV 2	14	0.24	3.25	-11553	4714	190801	40.48	Si
SLV 1	14	0.24	3.25	-11553	4714	190801	40.48	Si
SLV 16	14	0.24	4.01	-14265	4714	215558	45.73	Si
SLV 15	14	0.24	4.01	-14265	4714	215558	45.73	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	σ_0	M*	e*	a0*	aLim	Verifica
SLV 7	-5908	-6837	-419	0.032	7.368	0.947	49.569	328.355	No
SLV 8	-5908	-6837	-419	0.032	7.368	0.947	49.569	328.355	No
SLV 12	-5773	-11351	-389	0.036	7.231	0.947	54.974	328.355	No
SLV 11	-5773	-11351	-389	0.036	7.231	0.947	54.974	328.355	No
SLV 4	-7287	-4371	-404	0.043	8.768	0.955	65.234	338.414	No
SLV 3	-7287	-4371	-404	0.043	8.768	0.955	65.234	338.414	No
SLV 2	-8333	-6772	-361	0.052	9.832	0.959	79.068	338.414	No
SLV 1	-8333	-6772	-361	0.052	9.832	0.959	79.068	338.414	No
SLV 15	-6836	-19418	-304	0.054	8.31	0.953	81.626	338.414	No
SLV 16	-6836	-19418	-304	0.054	8.31	0.953	81.626	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.758	SLV 84	No
V_SLV	1.504	SLV 73	Si
PF_SLV	1.417	SLV 13	Si
V_SLV	0.584	SLV 13	No
PFFP_SLV	33.219	SLV 7	Si
R_SLV	0.151	SLV 7	No

Maschio 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s.	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1376.3	-328.4	-1422.3	-328.4	L1	L3	46	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	-159	-10156	-74994	4.91	92895	1.239	Si
SLU 77	51	-10554	-6911	5.1	90809	13.14	Si
SLU 82	-159	-10235	-81573	4.94	92516	1.134	Si
SLU 82	51	-10894	-5059	5.26	88680	17.527	Si
SLU 81	-159	-10284	-79269	4.97	92273	1.164	Si
SLU 81	51	-10817	-5611	5.23	89192	15.896	Si
SLU 83	-159	-10452	-78684	5.05	91386	1.161	Si
SLU 83	51	-10906	-5993	5.27	88600	14.784	Si
SLU 84	-159	-10403	-80988	5.03	91653	1.132	Si
SLU 84	51	-10983	-5442	5.31	88070	16.185	Si
SLU 76	-159	-9890	-78903	4.78	94052	1.192	Si
SLU 76	51	-10553	-5576	5.1	90813	16.288	Si
SLU 73	-159	-9722	-79488	4.7	94681	1.191	Si
SLU 73	51	-10464	-5193	5.06	91319	17.583	Si
SLU 80	-159	-10090	-76781	4.87	93200	1.214	Si
SLU 80	51	-10591	-6325	5.12	90593	14.323	Si
SLU 75	-159	-9940	-77883	4.8	93850	1.205	Si
SLU 75	51	-10542	-5977	5.09	90877	15.204	Si
SLU 78	-159	-10108	-77297	4.88	93122	1.205	Si
SLU 78	51	-10631	-6359	5.14	90352	14.208	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	-159	-5393	-130682	0	0	0	No, e>l/2
SLV 16	51	-9285	-2392	4.49	135156	56.497	Si
SLD 16	-159	-6247	-85902	3.02	108190	1.259	Si
SLD 16	51	-8111	-4116	3.92	126728	30.787	Si
SLV 14	-159	-6715	-132933	3.24	113444	0.853	No, M>Mu
SLV 14	51	-10244	-6791	4.95	140187	20.642	Si
SLD 13	-159	-6805	-86856	3.29	114406	1.317	Si
SLD 13	51	-8516	-5994	4.11	129917	21.673	Si
SLD 14	-159	-6805	-86856	3.29	114406	1.317	Si
SLD 14	51	-8516	-5994	4.11	129917	21.673	Si
SLV 15	-159	-5393	-130682	0	0	0	No, e>l/2
SLV 15	51	-9285	-2392	4.49	135156	56.497	Si
SLD 15	-159	-6247	-85902	3.02	108190	1.259	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 15	51	-8111	-4116	3.92	126728	30.787	Si
SLV 12	-159	-4430	-72498	2.14	84052	1.159	Si
SLV 12	51	-6394	2165	3.09	109890	50.762	Si
SLV 13	-159	-6715	-132933	3.24	113444	0.853	No, M>Mu
SLV 13	51	-10244	-6791	4.95	140187	20.642	Si
SLV 11	-159	-4430	-72498	2.14	84052	1.159	Si
SLV 11	51	-6394	2165	3.09	109890	50.762	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	-159	-10235	-1778	-81573		5.04	45.09	1.08	2198			1.24	Si
SLU 82	51	-10894	516	-5059		5.26	46	1.08	2242			4.35	Si
SLU 76	-159	-9890	-1717	-78903		4.88	45.07	1.08	2197			1.28	Si
SLU 76	51	-10553	511	-5576		5.1	46	1.08	2242			4.39	Si
SLU 75	-159	-9940	-1696	-77883		4.86	45.49	1.08	2218			1.31	Si
SLU 75	51	-10542	506	-5977		5.09	46	1.08	2242			4.43	Si
SLU 73	-159	-9722	-1728	-79488		4.86	44.47	1.08	2168			1.26	Si
SLU 73	51	-10464	504	-5193		5.06	46	1.08	2242			4.45	Si
SLU 84	-159	-10403	-1768	-80988		5.06	45.64	1.08	2225			1.26	Si
SLU 84	51	-10983	523	-5442		5.31	46	1.08	2242			4.29	Si
SLU 74	-159	-9989	-1648	-75579		4.83	46	1.08	2242			1.36	Si
SLU 74	51	-10465	493	-6529		5.06	46	1.08	2242			4.55	Si
SLU 78	-159	-10108	-1686	-77297		4.88	46	1.08	2242			1.33	Si
SLU 78	51	-10631	513	-6359		5.14	46	1.08	2242			4.37	Si
SLU 81	-159	-10284	-1731	-79269		4.98	45.88	1.08	2236			1.29	Si
SLU 81	51	-10817	503	-5611		5.23	46	1.08	2242			4.46	Si
SLU 83	-159	-10452	-1720	-78684		5.05	46	1.08	2242			1.3	Si
SLU 83	51	-10906	510	-5993		5.27	46	1.08	2242			4.4	Si
SLU 80	-159	-10090	-1676	-76781		4.87	46	1.08	2242			1.34	Si
SLU 80	51	-10591	510	-6325		5.12	46	1.08	2242			4.4	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-6715	-2129	-132933		15.52	9.61	1.63	703			0.33	No, Vu<V
SLV 13	51	-10244	310	-6791		4.95	46	1.63	3364			10.86	Si
SLV 12	-159	-4430	-1444	-72498		4.95	19.91	1.63	1456			1.01	Si
SLV 12	51	-6394	-293	2165		3.09	46	1.45	3004			10.27	Si
SLD 15	-159	-6247	-1564	-85902		5	27.75	1.63	2029			1.3	Si
SLD 15	51	-8111	184	-4116		3.92	46	1.62	3347			18.21	Si
SLV 11	-159	-4430	-1444	-72498		4.95	19.91	1.63	1456			1.01	Si
SLV 11	51	-6394	-293	2165		3.09	46	1.45	3004			10.27	Si
SLD 16	-159	-6247	-1564	-85902		5	27.75	1.63	2029			1.3	Si
SLD 16	51	-8111	184	-4116		3.92	46	1.62	3347			18.21	Si
SLD 14	-159	-6805	-1562	-86856		4.92	30.71	1.63	2246			1.44	Si
SLD 14	51	-8516	330	-5994		4.11	46	1.63	3364			10.19	Si
SLV 14	-159	-6715	-2129	-132933		15.52	9.61	1.63	703			0.33	No, Vu<V
SLV 14	51	-10244	310	-6791		4.95	46	1.63	3364			10.86	Si
SLV 16	-159	-5393	-2134	-130682		0	0	0.83	0			0	No, Vu<V
SLV 16	51	-9285	-36	-2392		4.49	46	1.63	3364			94.03	Si
SLD 13	-159	-6805	-1562	-86856		4.92	30.71	1.63	2246			1.44	Si
SLD 13	51	-8516	330	-5994		4.11	46	1.63	3364			10.19	Si
SLV 15	-159	-5393	-2134	-130682		0	0	0.83	0			0	No, Vu<V
SLV 15	51	-9285	-36	-2392		4.49	46	1.63	3364			94.03	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.24	3.28	-6781	2745	111669	40.69	Si
SLV 4	14	0.24	3.28	-6781	2745	111669	40.69	Si
SLV 7	14	0.24	3.43	-7109	2745	115000	41.9	Si
SLV 8	14	0.24	3.43	-7109	2745	115000	41.9	Si
SLV 2	14	0.24	3.98	-8248	2745	125065	45.57	Si
SLV 1	14	0.24	3.98	-8248	2745	125065	45.57	Si
SLV 12	14	0.24	4.28	-8858	2745	129507	47.19	Si
SLV 11	14	0.24	4.28	-8858	2745	129507	47.19	Si
SLV 14	14	0.24	6.8	-14078	2745	140450	51.17	Si
SLV 13	14	0.24	6.8	-14078	2745	140450	51.17	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-2570	-4929	-178	0.039	3.409	0.936	61.313	328.355	No
SLV 7	-2570	-4929	-178	0.039	3.409	0.936	61.313	328.355	No
SLV 12	-3826	-4430	-215	0.044	4.682	0.951	66.713	328.355	No
SLV 11	-3826	-4430	-215	0.044	4.682	0.951	66.713	328.355	No
SLV 16	-6573	-5393	-227	0.057	7.475	0.968	86.26	338.414	No
SLV 15	-6573	-5393	-227	0.057	7.475	0.968	86.26	338.414	No
SLV 13	-7670	-6715	-200	0.064	8.593	0.972	96.101	338.414	No
SLV 14	-7670	-6715	-200	0.064	8.593	0.972	96.101	338.414	No
SLV 3	-2385	-7053	-102	0.063	3.222	0.933	97.607	338.414	No
SLV 4	-2385	-7053	-102	0.063	3.222	0.933	97.607	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.132	SLU 84	Si
V_SLU	1.236	SLU 82	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0	SLV 15	No
V_SLV	0	SLV 15	No
PFFP_SLV	40.686	SLV 3	Si
R_SLV	0.187	SLV 7	No

Maschio 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1849.8	104.6	-1849.8	-328.4	L1	L3	433	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 41	-159	-33535	-1073815	2.58	4959355	4.618	Si
SLU 41	110	-17395	65879	1.34	3146867	47.767	Si
SLU 74	-159	-38537	-1139566	2.97	5304685	4.655	Si
SLU 74	110	-19628	110718	1.51	3461142	31.261	Si
SLU 79	-159	-38712	-1210104	2.98	5314908	4.392	Si
SLU 79	110	-19675	89073	1.51	3467658	38.931	Si
SLU 77	-159	-38962	-1215076	3	5329322	4.386	Si
SLU 77	110	-19845	90218	1.53	3490629	38.691	Si
SLU 81	-159	-39416	-1124597	3.03	5354807	4.762	Si
SLU 81	110	-20161	127320	1.55	3533220	27.751	Si
SLU 37	-159	-32405	-1083811	2.49	4867199	4.491	Si
SLU 37	110	-16692	48133	1.28	3043710	63.236	Si
SLU 69	-159	-35334	-1062211	2.72	5095367	4.797	Si
SLU 69	110	-17698	96644	1.36	3190724	33.015	Si
SLU 83	-159	-39841	-1200107	3.07	5377913	4.481	Si
SLU 83	110	-20378	106819	1.57	3562232	33.348	Si
SLU 35	-159	-32656	-1088784	2.51	4888074	4.489	Si
SLU 35	110	-16861	49277	1.3	3068749	62.275	Si
SLU 32	-159	-32230	-1013273	2.48	4852462	4.789	Si
SLU 32	110	-16644	69778	1.28	3036610	43.518	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	-159	-27660	-2192976	2.13	4944875	2.255	Si
SLV 8	110	-11361	-16623	0.87	2283576	137.372	Si
SLV 7	-159	-27660	-2192976	2.13	4944875	2.255	Si
SLV 7	110	-11361	-16623	0.87	2283576	137.372	Si
SLD 7	-159	-27044	-1328202	2.08	4857373	3.657	Si
SLD 7	110	-12503	55580	0.96	2493734	44.867	Si
SLV 2	-159	-29133	-1470013	2.24	5149574	3.503	Si
SLV 2	110	-12565	-173432	0.97	2504918	14.443	Si
SLV 4	-159	-29275	-2163154	2.25	5168967	2.39	Si
SLV 4	110	-11605	-195311	0.89	2328794	11.924	Si
SLD 8	-159	-27044	-1328202	2.08	4857373	3.657	Si
SLD 8	110	-12503	55580	0.96	2493734	44.867	Si
SLV 11	-159	-26135	-1525396	2.01	4726589	3.099	Si
SLV 11	110	-12111	158415	0.93	2422000	15.289	Si
SLV 12	-159	-26135	-1525396	2.01	4726589	3.099	Si
SLV 12	110	-12111	158415	0.93	2422000	15.289	Si
SLV 3	-159	-29275	-2163154	2.25	5168967	2.39	Si
SLV 3	110	-11605	-195311	0.89	2328794	11.924	Si
SLV 1	-159	-29133	-1470013	2.24	5149574	3.503	Si
SLV 1	110	-12565	-173432	0.97	2504918	14.443	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	-159	-34039	2282	-718042		2.62	433	0.9	11755			5.15	Si
SLU 65	110	-17620	3926	166832		1.36	433	0.74	9566			2.44	Si
SLU 10	-159	-28138	2431	-577106		2.17	433	0.84	10968			4.51	Si
SLU 10	110	-14840	3788	138555		1.14	433	0.71	9195			2.43	Si
SLU 31	-159	-31360	2315	-744616		2.41	433	0.88	11398			4.92	Si
SLU 31	110	-16784	3820	119465		1.29	433	0.73	9454			2.48	Si
SLU 23	-159	-27733	2280	-591750		2.13	433	0.84	10914			4.79	Si
SLU 23	110	-14637	3614	125891		1.13	433	0.71	9168			2.54	Si
SLU 2	-159	-24510	2395	-424240		1.89	433	0.81	10485			4.38	Si
SLU 2	110	-12693	3582	144981		0.98	433	0.69	8909			2.49	Si
SLU 52	-159	-34444	2432	-703399		2.65	433	0.91	11809			4.85	Si
SLU 52	110	-17824	4099	179495		1.37	433	0.74	9593			2.34	Si
SLU 73	-159	-37667	2317	-870908		2.9	433	0.94	12239			5.28	Si
SLU 73	110	-19767	4132	160405		1.52	433	0.76	9852			2.38	Si
SLU 76	-159	-38092	1942	-946419		2.93	433	0.95	12296			6.33	Si
SLU 76	110	-19984	3764	139905		1.54	433	0.76	9881			2.63	Si
SLU 44	-159	-30817	2397	-550533		2.37	433	0.87	11326			4.72	Si
SLU 44	110	-15677	3894	185922		1.21	433	0.72	9307			2.39	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	-159	-34870	2057	-778910		2.68	433	0.91	11866			5.77	Si
SLU 55	110	-18041	3731	158994		1.39	433	0.74	9622			2.58	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	-159	-27660	-15073	-2192976		2.24	411.65	1.28	15823			1.05	Si
SLV 7	110	-11361	-15678	-16623		0.87	433	1.01	13097			0.84	No, Vu<V
SLV 10	-159	-25663	14776	785074		1.98	433	1.23	15958			1.08	Si
SLV 10	110	-15310	17967	231343		1.18	433	1.07	13887			0.77	No, Vu<V
SLD 6	-159	-26928	5411	-361926		2.07	433	1.25	16211			3	Si
SLD 6	110	-13849	8202	85959		1.07	433	1.05	13595			1.66	Si
SLV 11	-159	-26135	-13404	-1525396		2.01	433	1.24	16052			1.2	Si
SLV 11	110	-12111	-15975	158415		0.93	433	1.02	13247			0.83	No, Vu<V
SLV 8	-159	-27660	-15073	-2192976		2.24	411.65	1.28	15823			1.05	Si
SLV 8	110	-11361	-15678	-16623		0.87	433	1.01	13097			0.84	No, Vu<V
SLV 12	-159	-26135	-13404	-1525396		2.01	433	1.24	16052			1.2	Si
SLV 12	110	-12111	-15975	158415		0.93	433	1.02	13247			0.83	No, Vu<V
SLV 6	-159	-27188	13106	117495		2.09	433	1.25	16263			1.24	Si
SLV 6	110	-14560	18264	56304		1.12	433	1.06	13737			0.75	No, Vu<V
SLV 5	-159	-27188	13106	117495		2.09	433	1.25	16263			1.24	Si
SLV 5	110	-14560	18264	56304		1.12	433	1.06	13737			0.75	No, Vu<V
SLD 5	-159	-26928	5411	-361926		2.07	433	1.25	16211			3	Si
SLD 5	110	-13849	8202	85959		1.07	433	1.05	13595			1.66	Si
SLV 9	-159	-25663	14776	785074		1.98	433	1.23	15958			1.08	Si
SLV 9	110	-15310	17967	231343		1.18	433	1.07	13887			0.77	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	1.6	-20790	17224	271007	15.73	Si
SLV 7	14	0.24	1.6	-20790	17224	271007	15.73	Si
SLV 11	14	0.24	1.62	-20990	17224	273218	15.86	Si
SLV 12	14	0.24	1.62	-20990	17224	273218	15.86	Si
SLV 4	14	0.24	1.64	-21277	17224	276366	16.05	Si
SLV 3	14	0.24	1.64	-21277	17224	276366	16.05	Si
SLV 1	14	0.24	1.69	-21893	17224	283100	16.44	Si
SLV 2	14	0.24	1.69	-21893	17224	283100	16.44	Si
SLV 16	14	0.24	1.69	-21943	17224	283643	16.47	Si
SLV 15	14	0.24	1.69	-21943	17224	283643	16.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-12565	-29133	-596	0.029	17.795	0.926	45.535	411.62	No
SLV 2	-12565	-29133	-596	0.029	17.795	0.926	45.535	411.62	No
SLV 4	-11605	-29275	-557	0.03	16.83	0.923	47.058	411.62	No
SLV 3	-11605	-29275	-557	0.03	16.83	0.923	47.058	411.62	No
SLV 6	-14560	-27188	-635	0.03	19.807	0.932	46.5	392.468	No
SLV 5	-14560	-27188	-635	0.03	19.807	0.932	46.5	392.468	No
SLV 10	-15310	-25663	-630	0.031	20.564	0.934	48.456	392.468	No
SLV 9	-15310	-25663	-630	0.031	20.564	0.934	48.456	392.468	No
SLV 14	-15066	-24049	-579	0.034	20.318	0.933	52.303	411.62	No
SLV 13	-15066	-24049	-579	0.034	20.318	0.933	52.303	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.386	SLU 77	Si
V_SLU	2.34	SLU 52	Si
PF_SLV	2.255	SLV 7	Si
V_SLV	0.752	SLV 5	No
PFFP_SLV	15.735	SLV 7	Si
R_SLV	0.111	SLV 1	No

Maschio 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1705.3	-500.9	-1705.3	-350.9	L1	L3	150	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	-159	-17176	320683	2.54	885788	2.762	Si
SLU 75	110	-10785	679524	1.6	650233	0.957	No, M>Mu
SLU 81	-159	-17858	298915	2.65	904342	3.025	Si
SLU 81	110	-11791	731116	1.75	694700	0.95	No, M>Mu
SLU 77	-159	-17268	290071	2.56	888374	3.063	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	110	-11257	700571	1.67	671446	0.958	No, M>Mu
SLU 78	-159	-17093	323425	2.53	883454	2.732	Si
SLU 78	110	-10713	676398	1.59	646934	0.956	No, M>Mu
SLU 83	-159	-17775	301657	2.63	902162	2.991	Si
SLU 83	110	-11719	727991	1.74	691599	0.95	No, M>Mu
SLU 76	-159	-16962	341199	2.51	879713	2.578	Si
SLU 76	110	-10315	657049	1.53	628483	0.957	No, M>Mu
SLU 82	-159	-17683	332269	2.62	899704	2.708	Si
SLU 82	110	-11247	706943	1.67	670980	0.949	No, M>Mu
SLU 80	-159	-16996	321704	2.52	880688	2.738	Si
SLU 80	110	-10605	670039	1.57	641988	0.958	No, M>Mu
SLU 73	-159	-17045	338457	2.53	882076	2.606	Si
SLU 73	110	-10387	660175	1.54	631860	0.957	No, M>Mu
SLU 84	-159	-17600	335010	2.61	897484	2.679	Si
SLU 84	110	-11175	703818	1.66	667772	0.949	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	-159	-2060	437996	0	0	0	No, e>l/2
SLV 12	110	4111	-154365	0	0	0	No, Trazione
SLD 11	-159	-8236	292619	1.22	555992	1.9	Si
SLD 11	110	-3168	235996	0.47	228492	0.968	No, M>Mu
SLD 12	-159	-8236	292619	1.22	555992	1.9	Si
SLD 12	110	-3168	235996	0.47	228492	0.968	No, M>Mu
SLD 7	-159	-8427	241292	1.25	567462	2.352	Si
SLD 7	110	-2802	214002	0	0	0	No, e>l/2
SLV 11	-159	-2060	437996	0	0	0	No, e>l/2
SLV 11	110	4111	-154365	0	0	0	No, Trazione
SLD 8	-159	-8427	241292	1.25	567462	2.352	Si
SLD 8	110	-2802	214002	0	0	0	No, e>l/2
SLV 8	-159	-2512	317493	0	0	0	No, e>l/2
SLV 8	110	5022	-208591	0	0	0	No, Trazione
SLV 7	-159	-2512	317493	0	0	0	No, e>l/2
SLV 7	110	5022	-208591	0	0	0	No, Trazione
SLV 4	-159	-10226	47515	1.52	671876	14.14	Si
SLV 4	110	-2671	199985	0.4	193825	0.969	No, M>Mu
SLV 3	-159	-10226	47515	1.52	671876	14.14	Si
SLV 3	110	-2671	199985	0.4	193825	0.969	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	-159	-17268	-102	290071		2.56	150	0.9	6052			59.32	Si
SLU 77	110	-11257	-1094	700571		6.53	38.3	1.08	1867			1.71	Si
SLU 81	-159	-17858	-156	298915		2.65	150	0.91	6131			39.24	Si
SLU 81	110	-11791	-1158	731116		6.72	38.99	1.08	1901			1.64	Si
SLU 60	-159	-16974	-123	268956		2.51	150	0.89	6013			48.73	Si
SLU 60	110	-10940	-1072	678095		6.22	39.05	1.08	1904			1.78	Si
SLU 74	-159	-17351	-121	287330		2.57	150	0.9	6063			50.08	Si
SLU 74	110	-11330	-1106	703696		6.51	38.67	1.08	1885			1.7	Si
SLU 53	-159	-16467	-88	257370		2.44	150	0.88	5946			67.39	Si
SLU 53	110	-10479	-1020	650675		6.01	38.71	1.08	1887			1.85	Si
SLU 56	-159	-16385	-69	260111		2.43	150	0.88	5935			85.77	Si
SLU 56	110	-10406	-1007	647550		6.03	38.32	1.08	1868			1.85	Si
SLU 62	-159	-16892	-104	271697		2.5	150	0.89	6002			57.52	Si
SLU 62	110	-10868	-1060	674969		6.24	38.68	1.08	1886			1.78	Si
SLU 79	-159	-17171	-96	288351		2.54	150	0.89	6039			63.13	Si
SLU 79	110	-11150	-1081	694212		6.48	38.21	1.08	1863			1.72	Si
SLU 83	-159	-17775	-137	301657		2.63	150	0.91	6120			44.61	Si
SLU 83	110	-11719	-1146	727991		6.74	38.64	1.08	1884			1.64	Si
SLU 82	-159	-17683	99	332269		2.62	150	0.9	6108			61.56	Si
SLU 82	110	-11247	-951	706943		6.86	36.43	1.08	1776			1.87	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 8	-159	-8427	466	241292		1.35	139.1	1.1	6902			14.8	Si
SLD 8	110	-2802	42	214002		0	0	0.83	0			0	No, Vu<V
SLV 3	-159	-10226	270	47515		1.52	150	1.14	7670			28.38	Si
SLV 3	110	-2671	-827	199985		161.84	0.37	1.63	27			0.03	No, Vu<V
SLD 11	-159	-8236	483	292619		1.55	118.41	1.14	6087			12.6	Si
SLD 11	110	-3168	228	235996		45.79	1.54	1.63	112			0.49	No, Vu<V
SLV 4	-159	-10226	270	47515		1.52	150	1.14	7670			28.38	Si
SLV 4	110	-2671	-827	199985		161.84	0.37	1.63	27			0.03	No, Vu<V
SLV 11	-159	-2060	1306	437996		0	0	0.83	0			0	No, Vu<V
SLV 11	110	4111	1780	-154365		0	0	0.83	0			0	No, Vu<V
SLD 12	-159	-8236	483	292619		1.55	118.41	1.14	6087			12.6	Si
SLD 12	110	-3168	228	235996		45.79	1.54	1.63	112			0.49	No, Vu<V
SLV 8	-159	-2512	1266	317493		0	0	0.83	0			0	No, Vu<V
SLV 8	110	5022	1328	-208591		0	0	0.83	0			0	No, Vu<V
SLD 7	-159	-8427	466	241292		1.35	139.1	1.1	6902			14.8	Si
SLD 7	110	-2802	42	214002		0	0	0.83	0			0	No, Vu<V
SLV 12	-159	-2060	1306	437996		0	0	0.83	0			0	No, Vu<V
SLV 12	110	4111	1780	-154365		0	0	0.83	0			0	No, Vu<V
SLV 7	-159	-2512	1266	317493		0	0	0.83	0			0	No, Vu<V
SLV 7	110	5022	1328	-208591		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	0.18	-1243	8950	27541	3.08	Si
SLV 11	14	0.24	0.18	-1243	8950	27541	3.08	Si
SLV 8	14	0.24	0.26	-1777	8950	39119	4.37	Si
SLV 7	14	0.24	0.26	-1777	8950	39119	4.37	Si
SLV 15	14	0.24	1.07	-7230	8950	148414	16.58	Si
SLV 16	14	0.24	1.07	-7230	8950	148414	16.58	Si
SLV 3	14	0.24	1.33	-9010	8950	180587	20.18	Si
SLV 4	14	0.24	1.33	-9010	8950	180587	20.18	Si
SLV 14	14	0.24	1.91	-12896	8950	244791	27.35	Si
SLV 13	14	0.24	1.91	-12896	8950	244791	27.35	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	5022	-2512	15	0	0	0	0	328.355	No, Trazione
SLV 11	4111	-2060	-96	0	0	0	0	328.355	No, Trazione
SLV 12	4111	-2060	-96	0	0	0	0	328.355	No, Trazione
SLV 7	5022	-2512	15	0	0	0	0	328.355	No, Trazione
SLV 15	-5705	-8720	-278	0.064	8.419	0.92	101.678	338.414	No
SLV 16	-5705	-8720	-278	0.064	8.419	0.92	101.678	338.414	No
SLV 13	-13209	-14880	-323	0.071	16.012	0.953	108.372	338.414	No
SLV 14	-13209	-14880	-323	0.071	16.012	0.953	108.372	338.414	No
SLV 9	-20902	-22594	-246	0.079	23.837	0.967	118.356	328.355	No
SLV 10	-20902	-22594	-246	0.079	23.837	0.967	118.356	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.949	SLU 84	No
V_SLU	1.641	SLU 81	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 7	No
PFFP_SLV	3.077	SLV 11	Si
R_SLV	0	SLV 12	No

Maschio 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1376.3	-478.4	-1705.3	-478.4	L1	L3	329	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	-159	-36259	-973346	2.45	4171307	4.286	Si
SLU 83	110	-21318	-144772	1.44	2886873	19.941	Si
SLU 77	-159	-35700	-953046	2.41	4134217	4.338	Si
SLU 77	110	-20904	-148530	1.41	2842694	19.139	Si
SLU 78	-159	-35423	-967138	2.39	4115552	4.255	Si
SLU 78	110	-20969	-132260	1.42	2849694	21.546	Si
SLU 42	-159	-28979	-850017	1.96	3621561	4.261	Si
SLU 42	110	-17328	-149630	1.17	2440863	16.313	Si
SLU 76	-159	-34877	-942018	2.36	4078028	4.329	Si
SLU 76	110	-20839	-86710	1.41	2835706	32.703	Si
SLU 79	-159	-35665	-955064	2.41	4131895	4.326	Si
SLU 79	110	-20863	-154317	1.41	2838215	18.392	Si
SLU 36	-159	-28420	-829717	1.92	3573368	4.307	Si
SLU 36	110	-16914	-153388	1.14	2392186	15.596	Si
SLU 84	-159	-35982	-987438	2.43	4153064	4.206	Si
SLU 84	110	-21383	-128502	1.44	2893799	22.52	Si
SLU 38	-159	-28385	-831735	1.92	3570360	4.293	Si
SLU 38	110	-16873	-159175	1.14	2387255	14.998	Si
SLU 80	-159	-35389	-969156	2.39	4113204	4.244	Si
SLU 80	110	-20928	-138047	1.41	2845223	20.611	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	-159	-6449	-480021	0.44	1023049	2.131	Si
SLV 15	110	-320	580864	0	0	0	No, e>/2
SLV 10	-159	-38731	-1118302	2.62	5007166	4.477	Si
SLV 10	110	-22906	-332741	1.55	3290969	9.89	Si
SLV 14	-159	-16827	-785002	1.14	2510564	3.198	Si
SLV 14	110	-7091	306403	0.48	1120806	3.658	Si
SLV 12	-159	-4138	-101699	0.28	665134	6.54	Si
SLV 12	110	-335	582130	0	0	0	No, e>/2
SLV 11	-159	-4138	-101699	0.28	665134	6.54	Si
SLV 11	110	-335	582130	0	0	0	No, e>/2
SLV 8	-159	-12535	-82403	0.85	1919140	23.29	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	110	-7120	308754	0.48	1125092	3.644	Si
SLV 7	-159	-12535	-82403	0.85	1919140	23.29	Si
SLV 7	110	-7120	308754	0.48	1125092	3.644	Si
SLV 13	-159	-16827	-785002	1.14	2510564	3.198	Si
SLV 13	110	-7091	306403	0.48	1120806	3.658	Si
SLV 16	-159	-6449	-480021	0.44	1023049	2.131	Si
SLV 16	110	-320	580864	0	0	0	No, $e \geq 1/2$
SLV 9	-159	-38731	-1118302	2.62	5007166	4.477	Si
SLV 9	110	-22906	-332741	1.55	3290969	9.89	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 75	-159	-35095	5625	-930606		2.37	329	0.87	12904			2.29	Si
SLU 75	110	-20838	2187	-91769		1.41	329	0.74	11003			5.03	Si
SLU 76	-159	-34877	5665	-942018		2.36	329	0.87	12875			2.27	Si
SLU 76	110	-20839	2226	-86710		1.41	329	0.74	11004			4.94	Si
SLU 83	-159	-36259	5832	-973346		2.45	329	0.88	13060			2.24	Si
SLU 83	110	-21318	2234	-144772		1.44	329	0.75	11067			4.95	Si
SLU 82	-159	-35655	5732	-950906		2.41	329	0.88	12979			2.26	Si
SLU 82	110	-21251	2220	-88011		1.44	329	0.75	11058			4.98	Si
SLU 78	-159	-35423	5774	-967138		2.39	329	0.87	12948			2.24	Si
SLU 78	110	-20969	2251	-132260		1.42	329	0.74	11021			4.9	Si
SLU 81	-159	-35931	5683	-936815		2.43	329	0.88	13016			2.29	Si
SLU 81	110	-21186	2170	-104281		1.43	329	0.75	11050			5.09	Si
SLU 84	-159	-35982	5881	-987438		2.43	329	0.88	13023			2.21	Si
SLU 84	110	-21383	2283	-128502		1.44	329	0.75	11076			4.85	Si
SLU 80	-159	-35389	5781	-969156		2.39	329	0.87	12944			2.24	Si
SLU 80	110	-20928	2256	-138047		1.41	329	0.74	11015			4.88	Si
SLU 79	-159	-35665	5732	-955064		2.41	329	0.88	12980			2.26	Si
SLU 79	110	-20863	2207	-154317		1.41	329	0.74	11007			4.99	Si
SLU 77	-159	-35700	5725	-953046		2.41	329	0.88	12985			2.27	Si
SLU 77	110	-20904	2201	-148530		1.41	329	0.74	11012			5	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-159	-44817	11903	-720684		3.03	329	1.44	21301			1.79	Si
SLV 2	110	-29706	7891	-604851		2.01	329	1.23	18279			2.32	Si
SLV 11	-159	-4138	-1790	-101699		0.28	329	0.89	13165			7.35	Si
SLV 11	110	-335	-1077	582130		0	0	0.83	0			0	No, $V_u < V$
SLV 6	-159	-47128	9451	-1099006		3.18	329	1.47	21763			2.3	Si
SLV 6	110	-29691	4019	-606117		2.01	329	1.23	18276			4.55	Si
SLV 1	-159	-44817	11903	-720684		3.03	329	1.44	21301			1.79	Si
SLV 1	110	-29706	7891	-604851		2.01	329	1.23	18279			2.32	Si
SLV 16	-159	-6449	-4242	-480021		0.53	270.2	0.94	11422			2.69	Si
SLV 16	110	-320	-4948	580864		0	0	0.83	0			0	No, $V_u < V$
SLV 12	-159	-4138	-1790	-101699		0.28	329	0.89	13165			7.35	Si
SLV 12	110	-335	-1077	582130		0	0	0.83	0			0	No, $V_u < V$
SLV 15	-159	-6449	-4242	-480021		0.53	270.2	0.94	11422			2.69	Si
SLV 15	110	-320	-4948	580864		0	0	0.83	0			0	No, $V_u < V$
SLV 5	-159	-47128	9451	-1099006		3.18	329	1.47	21763			2.3	Si
SLV 5	110	-29691	4019	-606117		2.01	329	1.23	18276			4.55	Si
SLV 4	-159	-34439	9794	-415703		2.33	329	1.3	19225			1.96	Si
SLV 4	110	-22935	7481	-330389		1.55	329	1.14	16924			2.26	Si
SLV 3	-159	-34439	9794	-415703		2.33	329	1.3	19225			1.96	Si
SLV 3	110	-22935	7481	-330389		1.55	329	1.14	16924			2.26	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	0.22	-3306	19630	73016	3.72	Si
SLV 11	14	0.24	0.22	-3306	19630	73016	3.72	Si
SLV 15	14	0.24	0.3	-4498	19630	98699	5.03	Si
SLV 16	14	0.24	0.3	-4498	19630	98699	5.03	Si
SLV 8	14	0.24	0.73	-10851	19630	229511	11.69	Si
SLV 7	14	0.24	0.73	-10851	19630	229511	11.69	Si
SLV 14	14	0.24	0.88	-13067	19630	272769	13.9	Si
SLV 13	14	0.24	0.88	-13067	19630	272769	13.9	Si
SLV 4	14	0.24	2	-29651	19630	557803	28.42	Si
SLV 3	14	0.24	2	-29651	19630	557803	28.42	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	α_{lim}	Verifica
SLV 1	-29706	-44817	-1670	0.042	35.866	0.954	64.726	338.414	No
SLV 2	-29706	-44817	-1670	0.042	35.866	0.954	64.726	338.414	No
SLV 6	-29691	-47128	-1670	0.042	35.85	0.954	64.665	328.355	No
SLV 5	-29691	-47128	-1670	0.042	35.85	0.954	64.665	328.355	No
SLV 3	-22935	-34439	-1219	0.049	28.992	0.945	75.37	338.414	No
SLV 4	-22935	-34439	-1219	0.049	28.992	0.945	75.37	338.414	No
SLV 10	-22906	-38731	-1220	0.049	28.963	0.945	75.237	328.355	No
SLV 9	-22906	-38731	-1220	0.049	28.963	0.945	75.237	328.355	No
SLV 15	-320	-6449	283	0.088	7.357	0.964	132.708	338.414	No
SLV 16	-320	-6449	283	0.088	7.357	0.964	132.708	338.414	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.206	SLU 84	Si
V_SLU	2.214	SLU 84	Si
PF_SLV	0	SLV 11	No
V_SLV	0	SLV 11	No
PFFP_SLV	3.72	SLV 11	Si
R_SLV	0.191	SLV 1	No

Maschio 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1505.7	220.1	-1505.8	635.1	L1	L3	415	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 77	-159	-59551	802486	4.78	5100960	6.356	Si
SLU 77	61	-55190	1389643	4.43	5219868	3.756	Si
SLU 80	-159	-58791	824662	4.72	5127282	6.217	Si
SLU 80	61	-54393	1399048	4.37	5233186	3.741	Si
SLU 78	-159	-59542	802139	4.78	5101301	6.36	Si
SLU 78	61	-55181	1388868	4.43	5220022	3.758	Si
SLU 72	-159	-52292	825013	4.2	5255836	6.371	Si
SLU 72	61	-47886	1293719	3.85	5244671	4.054	Si
SLU 79	-159	-58801	825010	4.72	5126971	6.214	Si
SLU 79	61	-54401	1399822	4.37	5233060	3.738	Si
SLU 83	-159	-62521	658541	5.02	4975464	7.555	Si
SLU 83	61	-58070	1321480	4.66	5150071	3.897	Si
SLU 84	-159	-62511	658194	5.02	4975919	7.56	Si
SLU 84	61	-58062	1320705	4.66	5150323	3.9	Si
SLU 70	-159	-53042	802489	4.26	5249818	6.542	Si
SLU 70	61	-48674	1283539	3.91	5252506	4.092	Si
SLU 69	-159	-53052	802837	4.26	5249728	6.539	Si
SLU 69	61	-48683	1284313	3.91	5252576	4.09	Si
SLU 71	-159	-52301	825361	4.2	5255774	6.368	Si
SLU 71	61	-47894	1294493	3.85	5244767	4.052	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 7	-159	-32034	3491579	2.57	5247402	1.503	Si
SLV 7	61	-30971	2708034	2.49	5118097	1.89	Si
SLV 5	-159	-56713	-3021166	4.56	7380795	2.443	Si
SLV 5	61	-50209	-1204706	4.03	6979738	5.794	Si
SLV 12	-159	-27947	3746377	2.24	4733617	1.264	Si
SLV 12	61	-27457	2813980	2.21	4669002	1.659	Si
SLV 15	-159	-31815	1764180	2.56	5220971	2.959	Si
SLV 15	61	-30090	1568125	2.42	5008753	3.194	Si
SLV 6	-159	-56713	-3021166	4.56	7380795	2.443	Si
SLV 6	61	-50209	-1204706	4.03	6979738	5.794	Si
SLV 9	-159	-52625	-2766368	4.23	7142225	2.582	Si
SLV 9	61	-46695	-1098760	3.75	6715060	6.111	Si
SLV 11	-159	-27947	3746377	2.24	4733617	1.264	Si
SLV 11	61	-27457	2813980	2.21	4669002	1.659	Si
SLV 16	-159	-31815	1764180	2.56	5220971	2.959	Si
SLV 16	61	-30090	1568125	2.42	5008753	3.194	Si
SLV 8	-159	-32034	3491579	2.57	5247402	1.503	Si
SLV 8	61	-30971	2708034	2.49	5118097	1.89	Si
SLV 10	-159	-52625	-2766368	4.23	7142225	2.582	Si
SLV 10	61	-46695	-1098760	3.75	6715060	6.111	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 28	-159	-43233	1117	725487		3.47	415	1.02	12681			11.35	Si
SLU 28	61	-39966	1253	1112106		3.21	415	0.98	12245			9.77	Si
SLU 29	-159	-42492	1171	748358		3.41	415	1.01	12582			10.74	Si
SLU 29	61	-39186	1295	1123061		3.15	415	0.98	12141			9.37	Si
SLU 70	-159	-53042	1151	802489		4.26	415	1.08	13488			11.71	Si
SLU 70	61	-48674	1345	1283539		3.91	415	1.08	13407			9.96	Si
SLU 80	-159	-58791	1192	824662		4.72	415	1.08	13488			11.32	Si
SLU 80	61	-54393	1372	1399048		4.37	415	1.08	13488			9.83	Si
SLU 72	-159	-52292	1208	825013		4.2	415	1.08	13488			11.17	Si
SLU 72	61	-47886	1391	1293719		3.85	415	1.07	13301			9.56	Si
SLU 30	-159	-42483	1174	748011		3.41	415	1.01	12581			10.72	Si
SLU 30	61	-39177	1298	1122286		3.15	415	0.98	12140			9.35	Si
SLU 79	-159	-58801	1189	825010		4.72	415	1.08	13488			11.34	Si
SLU 79	61	-54401	1368	1399822		4.37	415	1.08	13488			9.86	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	-159	-43243	1115	725835		3.47	415	1.02	12682			11.38	Si
SLU 27	61	-39974	1250	1112881		3.21	415	0.98	12247			9.8	Si
SLU 71	-159	-52301	1206	825361		4.2	415	1.08	13488			11.19	Si
SLU 71	61	-47894	1388	1294493		3.85	415	1.07	13303			9.58	Si
SLU 9	-159	-37039	1020	673789		2.98	415	0.95	11855			11.62	Si
SLU 9	61	-33616	1145	980115		2.7	415	0.92	11399			9.96	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	-159	-52625	-15145	-2766368		4.23	415	1.63	20231			1.34	Si
SLV 9	61	-46695	-14243	-1098760		3.75	415	1.58	19714			1.38	Si
SLV 10	-159	-52625	-15145	-2766368		4.23	415	1.63	20231			1.34	Si
SLV 10	61	-46695	-14243	-1098760		3.75	415	1.58	19714			1.38	Si
SLV 5	-159	-56713	-15190	-3021166		4.56	415	1.63	20231			1.33	Si
SLV 5	61	-50209	-13210	-1204706		4.03	415	1.63	20231			1.53	Si
SLV 8	-159	-32034	15803	3491579		3.61	295.52	1.56	13795			0.87	No, Vu<V
SLV 8	61	-30971	15287	2708034		2.87	360.19	1.41	15199			0.99	No, Vu<V
SLV 12	-159	-27947	15848	3746377		4.23	220.34	1.63	10741			0.68	No, Vu<V
SLV 12	61	-27457	14254	2813980		2.91	315.04	1.41	13367			0.94	No, Vu<V
SLV 11	-159	-27947	15848	3746377		4.23	220.34	1.63	10741			0.68	No, Vu<V
SLV 11	61	-27457	14254	2813980		2.91	315.04	1.41	13367			0.94	No, Vu<V
SLD 12	-159	-36339	6899	1782308		2.92	415	1.42	17643			2.56	Si
SLD 12	61	-34102	6333	1646045		2.74	415	1.38	17195			2.72	Si
SLV 6	-159	-56713	-15190	-3021166		4.56	415	1.63	20231			1.33	Si
SLV 6	61	-50209	-13210	-1204706		4.03	415	1.63	20231			1.53	Si
SLD 11	-159	-36339	6899	1782308		2.92	415	1.42	17643			2.56	Si
SLD 11	61	-34102	6333	1646045		2.74	415	1.38	17195			2.72	Si
SLV 7	-159	-32034	15803	3491579		3.61	295.52	1.56	13795			0.87	No, Vu<V
SLV 7	61	-30971	15287	2708034		2.87	360.19	1.41	15199			0.99	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.24	2.18	-27157	16508	334631	20.27	Si
SLV 12	14	0.24	2.18	-27157	16508	334631	20.27	Si
SLV 15	14	0.24	2.45	-30556	16508	366279	22.19	Si
SLV 16	14	0.24	2.45	-30556	16508	366279	22.19	Si
SLV 8	14	0.24	2.49	-30987	16508	370126	22.42	Si
SLV 7	14	0.24	2.49	-30987	16508	370126	22.42	Si
SLV 14	14	0.24	3	-37301	16508	422319	25.58	Si
SLV 13	14	0.24	3	-37301	16508	422319	25.58	Si
SLV 3	14	0.24	3.48	-43324	16508	464785	28.16	Si
SLV 4	14	0.24	3.48	-43324	16508	464785	28.16	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 8	-27877	-32034	-739	0.037	33.105	0.958	56.556	392.468	No
SLV 7	-27877	-32034	-739	0.037	33.105	0.958	56.556	392.468	No
SLV 11	-24550	-27947	-659	0.038	29.723	0.954	57.815	392.468	No
SLV 12	-24550	-27947	-659	0.038	29.723	0.954	57.815	392.468	No
SLV 9	-43407	-52625	719	0.044	48.908	0.971	65.718	392.468	No
SLV 10	-43407	-52625	719	0.044	48.908	0.971	65.718	392.468	No
SLV 6	-46735	-56713	640	0.046	52.297	0.972	69.179	392.468	No
SLV 5	-46735	-56713	640	0.046	52.297	0.972	69.179	392.468	No
SLV 3	-38360	-45441	-350	0.051	43.77	0.967	77.186	411.62	No
SLV 4	-38360	-45441	-350	0.051	43.77	0.967	77.186	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.738	SLU 79	Si
V_SLU	9.35	SLU 30	Si
PF_SLV	1.264	SLV 11	Si
V_SLV	0.678	SLV 11	No
PFFP_SLV	20.271	SLV 11	Si
R_SLV	0.144	SLV 7	No

Maschio 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1376.3	-478.4	-1376.3	-331.4	L1	L3	147	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	-159	-26125	66165	5.92	523551	7.913	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	110	-30220	-33949	6.85	352417	10.381	Si
SLU 75	-159	-25084	62915	5.69	556110	8.839	Si
SLU 75	110	-29130	-32523	6.61	404679	12.443	Si
SLU 83	-159	-26062	61593	5.91	525665	8.534	Si
SLU 83	110	-30186	-34945	6.85	354104	10.133	Si
SLU 81	-159	-25741	65017	5.84	536073	8.245	Si
SLU 81	110	-29700	-31824	6.74	377946	11.876	Si
SLU 78	-159	-25405	59491	5.76	546563	9.187	Si
SLU 78	110	-29616	-35644	6.72	381971	10.716	Si
SLU 82	-159	-25805	69589	5.85	534042	7.674	Si
SLU 82	110	-29734	-30827	6.74	376327	12.208	Si
SLU 73	-159	-24751	68180	5.61	565597	8.296	Si
SLU 73	110	-28614	-30149	6.49	427728	14.187	Si
SLU 61	-159	-24325	61873	5.52	577065	9.327	Si
SLU 61	110	-28042	-35319	6.36	451972	12.797	Si
SLU 80	-159	-25349	58285	5.75	548240	9.406	Si
SLU 80	110	-29564	-37056	6.7	384466	10.375	Si
SLU 76	-159	-25072	64757	5.69	556486	8.594	Si
SLU 76	110	-29100	-33271	6.6	406047	12.204	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	-159	-13868	349997	3.14	756876	2.163	Si
SLV 16	110	-12075	257835	2.74	688551	2.671	Si
SLV 4	-159	-15625	-180118	3.54	815328	4.527	Si
SLV 4	110	-21254	-277061	4.82	945850	3.414	Si
SLV 12	-159	-8301	269641	1.88	516072	1.914	Si
SLV 12	110	-6789	107552	1.54	436099	4.055	Si
SLV 2	-159	-20924	-270276	4.75	940590	3.48	Si
SLV 2	110	-28538	-308715	6.47	986463	3.195	Si
SLV 13	-159	-19167	259839	4.35	907540	3.493	Si
SLV 13	110	-19359	226181	4.39	911565	4.03	Si
SLV 11	-159	-8301	269641	1.88	516072	1.914	Si
SLV 11	110	-6789	107552	1.54	436099	4.055	Si
SLV 1	-159	-20924	-270276	4.75	940590	3.48	Si
SLV 1	110	-28538	-308715	6.47	986463	3.195	Si
SLV 15	-159	-13868	349997	3.14	756876	2.163	Si
SLV 15	110	-12075	257835	2.74	688551	2.671	Si
SLV 14	-159	-19167	259839	4.35	907540	3.493	Si
SLV 14	110	-19359	226181	4.39	911565	4.03	Si
SLV 3	-159	-15625	-180118	3.54	815328	4.527	Si
SLV 3	110	-21254	-277061	4.82	945850	3.414	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLU 75	-159	-25084	-5799	62915		5.69	146.99	1.08	4777			0.82	No, Vu<V
SLU 75	110	-29130	-3062	-32523		6.61	146.99	1.08	4777			1.56	Si
SLU 82	-159	-25805	-5959	69589		5.85	146.99	1.08	4777			0.8	No, Vu<V
SLU 82	110	-29734	-3183	-30827		6.74	146.99	1.08	4777			1.5	Si
SLU 80	-159	-25349	-5914	58285		5.75	146.99	1.08	4777			0.81	No, Vu<V
SLU 80	110	-29564	-3133	-37056		6.7	146.99	1.08	4777			1.52	Si
SLU 78	-159	-25405	-5924	59491		5.76	146.99	1.08	4777			0.81	No, Vu<V
SLU 78	110	-29616	-3138	-35644		6.72	146.99	1.08	4777			1.52	Si
SLU 79	-159	-25286	-5960	53713		5.73	146.99	1.08	4777			0.8	No, Vu<V
SLU 79	110	-29530	-3180	-38053		6.7	146.99	1.08	4777			1.5	Si
SLU 77	-159	-25341	-5971	54919		5.75	146.99	1.08	4777			0.8	No, Vu<V
SLU 77	110	-29583	-3186	-36641		6.71	146.99	1.08	4777			1.5	Si
SLU 74	-159	-25021	-5845	58342		5.67	146.99	1.08	4777			0.82	No, Vu<V
SLU 74	110	-29096	-3109	-33519		6.6	146.99	1.08	4777			1.54	Si
SLU 81	-159	-25741	-6006	65017		5.84	146.99	1.08	4777			0.8	No, Vu<V
SLU 81	110	-29700	-3230	-31824		6.74	146.99	1.08	4777			1.48	Si
SLU 84	-159	-26125	-6085	66165		5.92	146.99	1.08	4777			0.79	No, Vu<V
SLU 84	110	-30220	-3260	-33949		6.85	146.99	1.08	4777			1.47	Si
SLU 83	-159	-26062	-6131	61593		5.91	146.99	1.08	4777			0.78	No, Vu<V
SLU 83	110	-30186	-3307	-34945		6.85	146.99	1.08	4777			1.44	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLV 10	-159	-25964	-9571	-30886		5.89	146.99	1.63	7166			0.75	No, Vu<V
SLV 10	110	-31070	-7342	2037		7.05	146.99	1.63	7166			0.98	No, Vu<V
SLD 9	-159	-21021	-6351	10203		4.77	146.99	1.63	7166			1.13	Si
SLD 9	110	-24853	-4295	-13402		5.64	146.99	1.63	7166			1.67	Si
SLV 5	-159	-26492	-10635	-189920		6.01	146.99	1.63	7166			0.67	No, Vu<V
SLV 5	110	-33824	-8134	-158432		7.67	146.99	1.63	7166			0.88	No, Vu<V
SLV 6	-159	-26492	-10635	-189920		6.01	146.99	1.63	7166			0.67	No, Vu<V
SLV 6	110	-33824	-8134	-158432		7.67	146.99	1.63	7166			0.88	No, Vu<V
SLD 6	-159	-21247	-6804	-57613		4.82	146.99	1.63	7166			1.05	Si
SLD 6	110	-26025	-4627	-81741		5.9	146.99	1.63	7166			1.55	Si
SLV 2	-159	-20924	-7581	-270276		4.75	146.99	1.63	7166			0.95	No, Vu<V
SLV 2	110	-28538	-5070	-308715		6.47	146.99	1.63	7166			1.41	Si
SLV 1	-159	-20924	-7581	-270276		4.75	146.99	1.63	7166			0.95	No, Vu<V
SLV 1	110	-28538	-5070	-308715		6.47	146.99	1.63	7166			1.41	Si
SLD 10	-159	-21021	-6351	10203		4.77	146.99	1.63	7166			1.13	Si
SLD 10	110	-24853	-4295	-13402		5.64	146.99	1.63	7166			1.67	Si
SLD 5	-159	-21247	-6804	-57613		4.82	146.99	1.63	7166			1.05	Si
SLD 5	110	-26025	-4627	-81741		5.9	146.99	1.63	7166			1.55	Si
SLV 9	-159	-25964	-9571	-30886		5.89	146.99	1.63	7166			0.75	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	110	-31070	-7342	2037		7.05	146.99	1.63	7166			0.98	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	1.42	-6275	5847	83160	14.22	Si
SLV 11	14	0.24	1.42	-6275	5847	83160	14.22	Si
SLV 8	14	0.24	2.19	-9636	5847	118694	20.3	Si
SLV 7	14	0.24	2.19	-9636	5847	118694	20.3	Si
SLV 16	14	0.24	2.23	-9813	5847	120383	20.59	Si
SLV 15	14	0.24	2.23	-9813	5847	120383	20.59	Si
SLV 13	14	0.24	3.68	-16207	5847	169977	29.07	Si
SLV 14	14	0.24	3.68	-16207	5847	169977	29.07	Si
SLV 3	14	0.24	4.77	-21018	5847	192287	32.89	Si
SLV 4	14	0.24	4.77	-21018	5847	192287	32.89	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-28538	-20924	123	0.054	30.733	0.983	79.259	411.62	No
SLV 2	-28538	-20924	123	0.054	30.733	0.983	79.259	411.62	No
SLV 16	-12075	-13868	-101	0.053	13.964	0.964	79.271	411.62	No
SLV 15	-12075	-13868	-101	0.053	13.964	0.964	79.271	411.62	No
SLV 3	-21254	-15625	82	0.055	23.311	0.978	81.394	411.62	No
SLV 4	-21254	-15625	82	0.055	23.311	0.978	81.394	411.62	No
SLV 13	-19359	-19167	-60	0.056	21.381	0.976	83.024	411.62	No
SLV 14	-19359	-19167	-60	0.056	21.381	0.976	83.024	411.62	No
SLV 5	-33824	-26492	108	0.054	36.12	0.985	80.209	392.468	No
SLV 6	-33824	-26492	108	0.054	36.12	0.985	80.209	392.468	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.674	SLU 82	Si
V_SLU	0.779	SLU 83	No
PF_SLV	1.914	SLV 11	Si
V_SLV	0.674	SLV 5	No
PFFP_SLV	14.223	SLV 11	Si
R_SLV	0.193	SLV 1	No

Maschio 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X inl.	Y inl.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h inl.	h fin.	a	a.s,sx	a.s,dx
-1376.3	-331.4	-1376.3	104.6	Z medio -60 cm	L3	436	30	170	71	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	39	-69831	169272	5.34	5246383	30.994	Si
SLU 75	110	-68194	-2032382	5.21	5351806	2.633	Si
SLU 80	39	-69970	153800	5.35	5236956	34.05	Si
SLU 80	110	-68391	-2047061	5.23	5339709	2.608	Si
SLU 77	39	-70187	171242	5.37	5222001	30.495	Si
SLU 77	110	-68590	-2029385	5.24	5327346	2.625	Si
SLU 78	39	-70466	171099	5.39	5202589	30.407	Si
SLU 78	110	-68861	-2045358	5.26	5310215	2.596	Si
SLU 84	39	-72931	195022	5.58	5016703	25.724	Si
SLU 84	110	-71191	-2087010	5.44	5150525	2.468	Si
SLU 81	39	-72019	193337	5.51	5088393	26.319	Si
SLU 81	110	-70253	-2058061	5.37	5217444	2.535	Si
SLU 76	39	-69521	151878	5.31	5267203	34.681	Si
SLU 76	110	-67905	-2044734	5.19	5369272	2.626	Si
SLU 79	39	-69692	153943	5.33	5255803	34.141	Si
SLU 79	110	-68120	-2031087	5.21	5356319	2.637	Si
SLU 83	39	-72653	195164	5.55	5038922	25.819	Si
SLU 83	110	-70920	-2071037	5.42	5170239	2.496	Si
SLU 82	39	-72297	193194	5.53	5066896	26.227	Si
SLU 82	110	-70524	-2074034	5.39	5198469	2.506	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 5	39	-43410	-525599	3.32	6893266	13.115	Si
SLD 5	110	-43257	-1755520	3.31	6877957	3.918	Si
SLV 1	39	-34627	-914004	2.65	5913455	6.47	Si
SLV 1	110	-33195	-1785970	2.54	5733764	3.21	Si
SLV 9	39	-44534	-936877	3.4	7003468	7.475	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	110	-46306	-2079068	3.54	7170230	3.449	Si
SLV 10	39	-44534	-936877	3.4	7003468	7.475	Si
SLV 10	110	-46306	-2079068	3.54	7170230	3.449	Si
SLD 6	39	-43410	-525599	3.32	6893266	13.115	Si
SLD 6	110	-43257	-1755520	3.31	6877957	3.918	Si
SLV 6	39	-37991	-1300783	2.9	6313626	4.854	Si
SLV 6	110	-39096	-2151935	2.99	6438301	2.992	Si
SLV 5	39	-37991	-1300783	2.9	6313626	4.854	Si
SLV 5	110	-39096	-2151935	2.99	6438301	2.992	Si
SLD 2	39	-41963	-363883	3.21	6746358	18.54	Si
SLD 2	110	-40757	-1602409	3.12	6619440	4.131	Si
SLD 1	39	-41963	-363883	3.21	6746358	18.54	Si
SLD 1	110	-40757	-1602409	3.12	6619440	4.131	Si
SLV 2	39	-34627	-914004	2.65	5913455	6.47	Si
SLV 2	110	-33195	-1785970	2.54	5733764	3.21	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	39	-69521	2070	151878		5.31	436.01	1.08	14170			6.84	Si
SLU 76	110	-67905	1618	-2044734		5.19	436.01	1.08	14170			8.76	Si
SLU 52	39	-63356	2390	28036		4.84	436.01	1.08	14170			5.93	Si
SLU 52	110	-61885	1989	-1979656		4.73	436.01	1.08	14170			7.13	Si
SLU 61	39	-66766	2335	71180		5.1	436.01	1.08	14170			6.07	Si
SLU 61	110	-65170	1917	-2021932		4.98	436.01	1.08	14170			7.39	Si
SLU 82	39	-72297	2326	193194		5.53	436.01	1.08	14170			6.09	Si
SLU 82	110	-70524	1887	-2074034		5.39	436.01	1.08	14170			7.51	Si
SLU 44	39	-54966	2052	-72412		4.2	436.01	1.08	14170			6.91	Si
SLU 44	110	-53798	1669	-1856163		4.11	436.01	1.08	14170			8.49	Si
SLU 65	39	-60497	2042	49603		4.63	436.01	1.08	14170			6.94	Si
SLU 65	110	-59152	1638	-1908265		4.52	436.01	1.08	14170			8.65	Si
SLU 10	39	-52237	2029	76871		3.99	436.01	1.08	14170			6.98	Si
SLU 10	110	-50986	1716	-1571195		3.9	436.01	1.08	14065			8.2	Si
SLU 55	39	-63990	2080	29863		4.89	436.01	1.08	14170			6.81	Si
SLU 55	110	-62551	1649	-1992632		4.78	436.01	1.08	14170			8.59	Si
SLU 73	39	-68887	2381	150050		5.27	436.01	1.08	14170			5.95	Si
SLU 73	110	-67239	1958	-2031758		5.14	436.01	1.08	14170			7.24	Si
SLU 60	39	-66488	2036	71322		5.08	436.01	1.08	14170			6.96	Si
SLU 60	110	-64899	1604	-2005959		4.96	436.01	1.08	14170			8.83	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	39	-44534	-14055	-936877		3.4	436.01	1.51	19807			1.41	Si
SLV 10	110	-46306	-12723	-2079068		3.54	436.01	1.54	20162			1.58	Si
SLV 6	39	-37991	-16258	-1300783		2.9	436.01	1.41	18499			1.14	Si
SLV 6	110	-39096	-16333	-2151935		2.99	436.01	1.43	18720			1.15	Si
SLV 1	39	-34627	-7319	-914004		2.65	436.01	1.36	17826			2.44	Si
SLV 1	110	-33195	-9706	-1785970		2.54	436.01	1.34	17539			1.81	Si
SLV 8	39	-50188	16626	1017320		3.84	436.01	1.6	20938			1.26	Si
SLV 8	110	-46270	14637	-863432		3.54	436.01	1.54	20154			1.38	Si
SLV 7	39	-50188	16626	1017320		3.84	436.01	1.6	20938			1.26	Si
SLV 7	110	-46270	14637	-863432		3.54	436.01	1.54	20154			1.38	Si
SLV 2	39	-34627	-7319	-914004		2.65	436.01	1.36	17826			2.44	Si
SLV 2	110	-33195	-9706	-1785970		2.54	436.01	1.34	17539			1.81	Si
SLV 5	39	-37991	-16258	-1300783		2.9	436.01	1.41	18499			1.14	Si
SLV 5	110	-39096	-16333	-2151935		2.99	436.01	1.43	18720			1.15	Si
SLV 9	39	-44534	-14055	-936877		3.4	436.01	1.51	19807			1.41	Si
SLV 9	110	-46306	-12723	-2079068		3.54	436.01	1.54	20162			1.58	Si
SLV 11	39	-56730	18829	1381227		4.34	436.01	1.63	21256			1.13	Si
SLV 11	110	-53480	18247	-790565		4.09	436.01	1.63	21256			1.16	Si
SLV 12	39	-56730	18829	1381227		4.34	436.01	1.63	21256			1.13	Si
SLV 12	110	-53480	18247	-790565		4.09	436.01	1.63	21256			1.16	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 74.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.26	2.59	-33928	7369	400883	54.4	Si
SLV 2	14	0.26	2.59	-33928	7369	400883	54.4	Si
SLV 3	14	0.26	2.78	-36305	7369	420869	57.11	Si
SLV 4	14	0.26	2.78	-36305	7369	420869	57.11	Si
SLV 5	14	0.26	2.9	-37992	7369	434414	58.95	Si
SLV 6	14	0.26	2.9	-37992	7369	434414	58.95	Si
SLV 9	14	0.26	3.35	-43852	7369	477305	64.77	Si
SLV 10	14	0.26	3.35	-43852	7369	477305	64.77	Si
SLV 8	14	0.26	3.51	-45915	7369	490865	66.61	Si
SLV 7	14	0.26	3.51	-45915	7369	490865	66.61	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 74.5 Wa = 0.05 Ta = 0.0161

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 1	-33195	-34627	358	0.083	36.928	0.974	124.001	308.222	No
SLV 2	-33195	-34627	358	0.083	36.928	0.974	124.001	308.222	No
SLV 5	-39096	-37991	360	0.084	42.939	0.977	124.553	302.946	No
SLV 6	-39096	-37991	360	0.084	42.939	0.977	124.553	302.946	No
SLV 4	-35348	-38286	282	0.085	39.12	0.975	127.276	308.222	No
SLV 3	-35348	-38286	282	0.085	39.12	0.975	127.276	308.222	No
SLV 10	-46306	-44534	288	0.086	50.285	0.981	127.377	302.946	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	-46306	-44534	288	0.086	50.285	0.981	127.377	302.946	No
SLV 13	-57229	-56436	114	0.089	61.415	0.984	131.877	308.222	No
SLV 14	-57229	-56436	114	0.089	61.415	0.984	131.877	308.222	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.468	SLU 84	Si
V_SLU	5.929	SLU 52	Si
PF_SLV	2.992	SLV 5	Si
V_SLV	1.129	SLV 11	Si
PFFP_SLV	54.399	SLV 1	Si
R_SLV	0.402	SLV 1	No

Maschio 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1246.3	-361.9	-1246.3	-331.5	L1	L3	30.4	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 53	-159	-525	3421	0.58	7423	2.17	Si
SLU 53	110	29	-847	0	0	0	No, Trazione
SLU 55	-159	-530	3413	0.58	7482	2.192	Si
SLU 55	110	29	-844	0	0	0	No, Trazione
SLU 56	-159	-512	3468	0.56	7244	2.089	Si
SLU 56	110	29	-848	0	0	0	No, Trazione
SLU 57	-159	-509	3480	0.56	7208	2.071	Si
SLU 57	110	29	-848	0	0	0	No, Trazione
SLU 1	-159	-138	2026	0.15	2055	1.015	Si
SLU 1	110	12	-344	0	0	0	No, Trazione
SLU 60	-159	-701	3704	0.77	9659	2.608	Si
SLU 60	110	36	-1024	0	0	0	No, Trazione
SLU 58	-159	-521	3441	0.57	7364	2.14	Si
SLU 58	110	29	-844	0	0	0	No, Trazione
SLU 59	-159	-518	3452	0.57	7327	2.122	Si
SLU 59	110	29	-844	0	0	0	No, Trazione
SLU 54	-159	-523	3432	0.57	7387	2.152	Si
SLU 54	110	29	-847	0	0	0	No, Trazione
SLU 61	-159	-699	3716	0.77	9624	2.59	Si
SLU 61	110	36	-1025	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 12	-159	1318	9153	0	0	0	No, Trazione
SLV 12	110	33	-819	0	0	0	No, Trazione
SLV 13	-159	-1460	-3105	1.6	19297	6.216	Si
SLV 13	110	16	-544	0	0	0	No, Trazione
SLV 9	-159	-2200	-6308	2.41	26852	4.257	Si
SLV 9	110	3	-242	0	0	0	No, Trazione
SLD 1	-159	-155	2728	0	0	0	No, e>l/2
SLD 1	110	13	-397	0	0	0	No, Trazione
SLV 11	-159	1318	9153	0	0	0	No, Trazione
SLV 11	110	33	-819	0	0	0	No, Trazione
SLV 8	-159	1740	11046	0	0	0	No, Trazione
SLV 8	110	31	-734	0	0	0	No, Trazione
SLV 6	-159	-1779	-4416	1.95	22732	5.148	Si
SLV 6	110	1	-156	0	0	0	No, Trazione
SLV 7	-159	1740	11046	0	0	0	No, Trazione
SLV 7	110	31	-734	0	0	0	No, Trazione
SLV 10	-159	-2200	-6308	2.41	26852	4.257	Si
SLV 10	110	3	-242	0	0	0	No, Trazione
SLV 14	-159	-1460	-3105	1.6	19297	6.216	Si
SLV 14	110	16	-544	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 59	-159	-518	50	3452	0.67	25.62	0.65	496				9.97	Si
SLU 59	110	29	26	-844	0	0	0.56	0				0	No, Vu<V
SLU 58	-159	-521	49	3441	0.67	25.8	0.65	499				10.19	Si
SLU 58	110	29	26	-844	0	0	0.56	0				0	No, Vu<V
SLU 54	-159	-523	48	3432	0.67	25.91	0.65	502				10.35	Si
SLU 54	110	29	26	-847	0	0	0.56	0				0	No, Vu<V
SLU 57	-159	-509	52	3480	0.68	25.1	0.65	486				9.4	Si
SLU 57	110	29	26	-848	0	0	0.56	0				0	No, Vu<V
SLU 61	-159	-699	38	3716	0.79	29.66	0.66	587				15.28	Si
SLU 61	110	36	32	-1025	0	0	0.56	0				0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 1	-159	-138	46	2026		3.07	1.49	0.97	43			0.95	No, Vu<V
SLU 1	110	12	10	-344		0	0	0.56	0			0	No, Vu<V
SLU 53	-159	-525	48	3421		0.67	26.08	0.65	505			10.58	Si
SLU 53	110	29	26	-847		0	0	0.56	0			0	No, Vu<V
SLU 60	-159	-701	38	3704		0.79	29.77	0.66	590			15.65	Si
SLU 60	110	36	32	-1024		0	0	0.56	0			0	No, Vu<V
SLU 55	-159	-530	47	3413		0.67	26.29	0.65	509			10.83	Si
SLU 55	110	29	26	-844		0	0	0.56	0			0	No, Vu<V
SLU 56	-159	-512	51	3468		0.67	25.28	0.65	490			9.6	Si
SLU 56	110	29	26	-848		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 1	-159	-155	70	2728		0	0	0.83	0			0	No, Vu<V
SLD 1	110	13	16	-397		0	0	0.83	0			0	No, Vu<V
SLV 10	-159	-2200	-494	-6308		2.41	30.41	1.32	1200			2.43	Si
SLV 10	110	3	45	-242		0	0	0.83	0			0	No, Vu<V
SLV 14	-159	-1460	-294	-3105		1.6	30.41	1.15	1052			3.58	Si
SLV 14	110	16	28	-544		0	0	0.83	0			0	No, Vu<V
SLV 6	-159	-1779	-376	-4416		1.95	30.41	1.22	1116			2.97	Si
SLV 6	110	1	42	-156		0	0	0.83	0			0	No, Vu<V
SLV 13	-159	-1460	-294	-3105		1.6	30.41	1.15	1052			3.58	Si
SLV 13	110	16	28	-544		0	0	0.83	0			0	No, Vu<V
SLV 9	-159	-2200	-494	-6308		2.41	30.41	1.32	1200			2.43	Si
SLV 9	110	3	45	-242		0	0	0.83	0			0	No, Vu<V
SLV 8	-159	1740	588	11046		0	0	0.83	0			0	No, Vu<V
SLV 8	110	31	-17	-734		0	0	0.83	0			0	No, Vu<V
SLV 7	-159	1740	588	11046		0	0	0.83	0			0	No, Vu<V
SLV 7	110	31	-17	-734		0	0	0.83	0			0	No, Vu<V
SLV 12	-159	1318	470	9153		0	0	0.83	0			0	No, Vu<V
SLV 12	110	33	-14	-819		0	0	0.83	0			0	No, Vu<V
SLV 11	-159	1318	470	9153		0	0	0.83	0			0	No, Vu<V
SLV 11	110	33	-14	-819		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.24	0	-54	1210	0	0	No, $e > t/2$
SLV 7	14	0.24	0	49	1210	0	0	No, Trazione
SLV 8	14	0.24	0	49	1210	0	0	No, Trazione
SLV 12	14	0.24	0	147	1210	0	0	No, Trazione
SLV 16	14	0.24	0	-54	1210	0	0	No, $e > t/2$
SLV 11	14	0.24	0	147	1210	0	0	No, Trazione
SLV 13	14	0.24	0.35	-324	1210	4712	3.9	Si
SLV 14	14	0.24	0.35	-324	1210	4712	3.9	Si
SLV 4	14	0.24	0.42	-380	1210	5502	4.55	Si
SLV 3	14	0.24	0.42	-380	1210	5502	4.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	17	1000	34	0	0	0	0	411.62	No, Trazione
SLV 6	1	-1779	2	0	0	0	0	392.468	No, Trazione
SLV 8	31	1740	15	0	0	0	0	392.468	No, Trazione
SLV 7	31	1740	15	0	0	0	0	392.468	No, Trazione
SLV 5	1	-1779	2	0	0	0	0	392.468	No, Trazione
SLV 4	17	1000	34	0	0	0	0	411.62	No, Trazione
SLV 10	3	-2200	-18	0	0	0	0	392.468	No, Trazione
SLV 9	3	-2200	-18	0	0	0	0	392.468	No, Trazione
SLV 2	8	-56	30	0	0	0	0	411.62	No, Trazione
SLV 1	8	-56	30	0	0	0	0	411.62	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No

Maschio 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1246.3	-331.5	-1246.3	-191.6	L2	L3	139.9	30	71	71	71			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 1	39	-391	10761	0.09	27036	2.512	Si
SLU 1	110	37	-4201	0	0	0	No, Trazione
SLU 60	39	-711	17419	0.17	48679	2.795	Si
SLU 60	110	31	-7069	0	0	0	No, Trazione
SLU 61	39	-710	17457	0.17	48628	2.786	Si
SLU 61	110	31	-7084	0	0	0	No, Trazione
SLU 54	39	-643	16635	0.15	44110	2.652	Si
SLU 54	110	37	-6681	0	0	0	No, Trazione
SLU 56	39	-639	16827	0.15	43876	2.607	Si
SLU 56	110	38	-6753	0	0	0	No, Trazione
SLU 57	39	-638	16865	0.15	43824	2.599	Si
SLU 57	110	39	-6768	0	0	0	No, Trazione
SLU 58	39	-642	16662	0.15	44092	2.646	Si
SLU 58	110	38	-6681	0	0	0	No, Trazione
SLU 55	39	-645	16494	0.15	44291	2.685	Si
SLU 55	110	37	-6619	0	0	0	No, Trazione
SLU 53	39	-643	16598	0.15	44162	2.661	Si
SLU 53	110	37	-6666	0	0	0	No, Trazione
SLU 59	39	-642	16699	0.15	44040	2.637	Si
SLU 59	110	38	-6696	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	39	7	30377	0	0	0	No, Trazione
SLV 7	110	96	-10970	0	0	0	No, Trazione
SLV 12	39	118	35186	0	0	0	No, Trazione
SLV 12	110	121	-13115	0	0	0	No, Trazione
SLV 8	39	7	30377	0	0	0	No, Trazione
SLV 8	110	96	-10970	0	0	0	No, Trazione
SLV 3	39	-467	10286	0.11	32352	3.145	Si
SLV 3	110	15	-3397	0	0	0	No, Trazione
SLV 14	39	-390	13905	0.09	27058	1.946	Si
SLV 14	110	56	-6200	0	0	0	No, Trazione
SLV 13	39	-390	13905	0.09	27058	1.946	Si
SLV 13	110	56	-6200	0	0	0	No, Trazione
SLD 1	39	-571	6045	0.14	39478	6.53	Si
SLD 1	110	8	-2355	0	0	0	No, Trazione
SLV 4	39	-467	10286	0.11	32352	3.145	Si
SLV 4	110	15	-3397	0	0	0	No, Trazione
SLV 15	39	-95	26317	0	0	0	No, $e \geq l/2$
SLV 15	110	100	-10546	0	0	0	No, Trazione
SLV 11	39	118	35186	0	0	0	No, Trazione
SLV 11	110	121	-13115	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 56	39	-639	1106	16827	0.16	130.88	0.58	2267				2.05	Si
SLU 56	110	38	432	-6753	0	0	0.56	0				0	No, $V_u < V$
SLU 59	39	-642	1099	16699	0.16	131.78	0.58	2282				2.08	Si
SLU 59	110	38	429	-6696	0	0	0.56	0				0	No, $V_u < V$
SLU 60	39	-711	1201	17419	0.17	136.33	0.58	2367				1.97	Si
SLU 60	110	31	461	-7069	0	0	0.56	0				0	No, $V_u < V$
SLU 54	39	-643	1096	16635	0.16	132.21	0.58	2289				2.09	Si
SLU 54	110	37	428	-6681	0	0	0.56	0				0	No, $V_u < V$
SLU 57	39	-638	1108	16865	0.16	130.61	0.58	2262				2.04	Si
SLU 57	110	39	433	-6768	0	0	0.56	0				0	No, $V_u < V$
SLU 53	39	-643	1094	16598	0.16	132.47	0.58	2294				2.1	Si
SLU 53	110	37	427	-6666	0	0	0.56	0				0	No, $V_u < V$
SLU 1	39	-391	627	10761	0.1	127.29	0.57	2174				3.47	Si
SLU 1	110	37	257	-4201	0	0	0.56	0				0	No, $V_u < V$
SLU 58	39	-642	1097	16662	0.16	132.05	0.58	2286				2.08	Si
SLU 58	110	38	428	-6681	0	0	0.56	0				0	No, $V_u < V$
SLU 55	39	-645	1088	16494	0.16	133.19	0.58	2306				2.12	Si
SLU 55	110	37	425	-6619	0	0	0.56	0				0	No, $V_u < V$
SLU 61	39	-710	1203	17457	0.17	136.09	0.58	2363				1.96	Si
SLU 61	110	31	462	-7084	0	0	0.56	0				0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	39	7	2025	30377	0	0	0.83	0				0	No, $V_u < V$
SLV 8	110	96	513	-10970	0	0	0.83	0				0	No, $V_u < V$
SLV 4	39	-467	1018	10286	0.11	139.91	0.86	3591				3.53	Si
SLV 4	110	15	199	-3397	0	0	0.83	0				0	No, $V_u < V$
SLV 11	39	118	2099	35186	0	0	0.83	0				0	No, $V_u < V$
SLV 11	110	121	621	-13115	0	0	0.83	0				0	No, $V_u < V$
SLV 12	39	118	2099	35186	0	0	0.83	0				0	No, $V_u < V$
SLV 12	110	121	621	-13115	0	0	0.83	0				0	No, $V_u < V$
SLV 14	39	-390	474	13905	0.13	102.83	0.86	2649				5.58	Si
SLV 14	110	56	399	-6200	0	0	0.83	0				0	No, $V_u < V$
SLV 13	39	-390	474	13905	0.13	102.83	0.86	2649				5.58	Si
SLV 13	110	56	399	-6200	0	0	0.83	0				0	No, $V_u < V$
SLD 1	39	-571	528	6045	0.14	139.91	0.86	3612				6.85	Si
SLD 1	110	8	188	-2355	0	0	0.83	0				0	No, $V_u < V$
SLV 7	39	7	2025	30377	0	0	0.83	0				0	No, $V_u < V$
SLV 7	110	96	513	-10970	0	0	0.83	0				0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	39	-467	1018	10286		0.11	139.91	0.86	3591			3.53	Si
SLV 3	110	15	199	-3397		0	0	0.83	0			0	No, Vu<V
SLV 15	39	-95	1264	26317		0	0	0.83	0			0	No, Vu<V
SLV 15	110	100	560	-10546		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 74.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.26	0.04	-168	412	2512	6.09	Si
SLV 11	14	0.26	0.04	-168	412	2512	6.09	Si
SLV 15	14	0.26	0.04	-183	412	2740	6.64	Si
SLV 16	14	0.26	0.04	-183	412	2740	6.64	Si
SLV 8	14	0.26	0.05	-194	412	2893	7.01	Si
SLV 7	14	0.26	0.05	-194	412	2893	7.01	Si
SLV 13	14	0.26	0.05	-222	412	3317	8.04	Si
SLV 14	14	0.26	0.05	-222	412	3317	8.04	Si
SLV 3	14	0.26	0.06	-269	412	4009	9.72	Si
SLV 4	14	0.26	0.06	-269	412	4009	9.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 74.5 Wa = 0.05 Ta = 0.0028

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	56	-390	-40	0	0	0	0	258.906	No, Trazione
SLV 12	121	118	-2	0	0	0	0	258.172	No, Trazione
SLV 3	15	-467	39	0	0	0	0	258.906	No, Trazione
SLV 13	56	-390	-40	0	0	0	0	258.906	No, Trazione
SLV 8	96	7	21	0	0	0	0	258.172	No, Trazione
SLV 4	15	-467	39	0	0	0	0	258.906	No, Trazione
SLV 7	96	7	21	0	0	0	0	258.172	No, Trazione
SLV 11	121	118	-2	0	0	0	0	258.172	No, Trazione
SLV 15	100	-95	-34	0	0	0	0	258.906	No, Trazione
SLV 16	100	-95	-34	0	0	0	0	258.906	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	6.089	SLV 11	Si
R_SLV	0	SLV 16	No

Maschio 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1246.3	-191.6	-1246.3	-35.4	Z medio -60 cm	Z medio 74 cm	156.2	30	134.5	63.5	205.4			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 26	-25	-1820	30869	0.39	135348	4.385	Si
SLU 26	39	-901	-5742	0.19	68684	11.962	Si
SLU 28	-25	-1821	31849	0.39	135431	4.252	Si
SLU 28	39	-891	-6131	0.19	67976	11.087	Si
SLU 29	-25	-1820	31303	0.39	135372	4.325	Si
SLU 29	39	-896	-5934	0.19	68328	11.514	Si
SLU 69	-25	-2270	37856	0.48	166725	4.404	Si
SLU 69	39	-1100	-7640	0.23	83401	10.917	Si
SLU 72	-25	-2268	37506	0.48	166572	4.441	Si
SLU 72	39	-1102	-7560	0.24	83586	11.057	Si
SLU 25	-25	-1822	31251	0.39	135488	4.335	Si
SLU 25	39	-898	-5841	0.19	68469	11.721	Si
SLU 24	-25	-1823	31153	0.39	135537	4.351	Si
SLU 24	39	-899	-5783	0.19	68551	11.854	Si
SLU 30	-25	-1820	31401	0.39	135323	4.31	Si
SLU 30	39	-895	-5993	0.19	68246	11.388	Si
SLU 27	-25	-1822	31751	0.39	135480	4.267	Si
SLU 27	39	-892	-6073	0.19	68058	11.207	Si
SLU 70	-25	-2269	37954	0.48	166678	4.392	Si
SLU 70	39	-1099	-7698	0.23	83320	10.824	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	-25	-1162	70452	0.25	88898	1.262	Si
SLV 7	39	-133	-53968	0	0	0	No, e>1/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 7	-25	-1656	46278	0.35	125550	2.713	Si
SLD 7	39	-703	-24455	0.15	54241	2.218	Si
SLV 11	-25	-1415	60031	0.3	107749	1.795	Si
SLV 11	39	-388	-36094	0	0	0	No, $e \geq l/2$
SLV 3	-25	-1377	56683	0.29	104974	1.852	Si
SLV 3	39	-441	-45136	0	0	0	No, $e \geq l/2$
SLV 4	-25	-1377	56683	0.29	104974	1.852	Si
SLV 4	39	-441	-45136	0	0	0	No, $e \geq l/2$
SLD 3	-25	-1745	40421	0.37	132146	3.269	Si
SLD 3	39	-833	-20696	0.18	64105	3.097	Si
SLD 4	-25	-1745	40421	0.37	132146	3.269	Si
SLD 4	39	-833	-20696	0.18	64105	3.097	Si
SLD 8	-25	-1656	46278	0.35	125550	2.713	Si
SLD 8	39	-703	-24455	0.15	54241	2.218	Si
SLV 12	-25	-1415	60031	0.3	107749	1.795	Si
SLV 12	39	-388	-36094	0	0	0	No, $e \geq l/2$
SLV 8	-25	-1162	70452	0.25	88898	1.262	Si
SLV 8	39	-133	-53968	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 66	-25	-2271	1498	37258		0.48	156.18	0.62	2906			1.94	Si
SLU 66	39	-1106	1879	-7350		0.24	156.18	0.59	2751			1.46	Si
SLU 72	-25	-2268	1516	37506		0.48	156.18	0.62	2905			1.92	Si
SLU 72	39	-1102	1898	-7560		0.24	156.18	0.59	2750			1.45	Si
SLU 67	-25	-2270	1505	37356		0.48	156.18	0.62	2906			1.93	Si
SLU 67	39	-1105	1887	-7408		0.24	156.18	0.59	2750			1.46	Si
SLU 65	-25	-2269	1460	36376		0.48	156.18	0.62	2906			1.99	Si
SLU 65	39	-1115	1831	-7019		0.24	156.18	0.59	2752			1.5	Si
SLU 70	-25	-2269	1536	37954		0.48	156.18	0.62	2906			1.89	Si
SLU 70	39	-1099	1923	-7698		0.23	156.18	0.59	2749			1.43	Si
SLU 77	-25	-3337	1551	42583		0.71	156.18	0.65	3048			1.97	Si
SLU 77	39	-2110	1924	1768		0.45	156.18	0.62	2884			1.5	Si
SLU 71	-25	-2269	1510	37408		0.48	156.18	0.62	2905			1.92	Si
SLU 71	39	-1103	1891	-7501		0.24	156.18	0.59	2750			1.45	Si
SLU 68	-25	-2268	1490	36973		0.48	156.18	0.62	2905			1.95	Si
SLU 68	39	-1108	1867	-7309		0.24	156.18	0.59	2751			1.47	Si
SLU 78	-25	-3336	1558	42681		0.71	156.18	0.65	3048			1.96	Si
SLU 78	39	-2109	1931	1710		0.45	156.18	0.62	2884			1.49	Si
SLU 69	-25	-2270	1529	37856		0.48	156.18	0.62	2906			1.9	Si
SLU 69	39	-1100	1915	-7640		0.23	156.18	0.59	2750			1.44	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 8	-25	-1656	3046	46278		0.37	150.41	0.91	4091			1.34	Si
SLD 8	39	-703	3093	-24455		0.18	129.95	0.87	3389			1.1	Si
SLV 12	-25	-1415	5263	60031		0.44	106.97	0.92	2957			0.56	No, $V_u < V$
SLV 12	39	-388	4606	-36094		0	0	0.83	0			0	No, $V_u < V$
SLV 9	-25	-2873	-3528	-14042		0.61	156.18	0.96	4479			1.27	Si
SLV 9	39	-2117	-2732	48722		0.45	156.18	0.92	4328			1.58	Si
SLV 10	-25	-2873	-3528	-14042		0.61	156.18	0.96	4479			1.27	Si
SLV 10	39	-2117	-2732	48722		0.45	156.18	0.92	4328			1.58	Si
SLV 8	-25	-1162	5692	70452		0.74	52.38	0.98	1542			0.27	No, $V_u < V$
SLV 8	39	-133	5440	-53968		0	0	0.83	0			0	No, $V_u < V$
SLD 7	-25	-1656	3046	46278		0.37	150.41	0.91	4091			1.34	Si
SLD 7	39	-703	3093	-24455		0.18	129.95	0.87	3389			1.1	Si
SLV 3	-25	-1377	3114	56683		0.41	110.81	0.92	3046			0.98	No, $V_u < V$
SLV 3	39	-441	3844	-45136		0	0	0.83	0			0	No, $V_u < V$
SLV 4	-25	-1377	3114	56683		0.41	110.81	0.92	3046			0.98	No, $V_u < V$
SLV 4	39	-441	3844	-45136		0	0	0.83	0			0	No, $V_u < V$
SLV 7	-25	-1162	5692	70452		0.74	52.38	0.98	1542			0.27	No, $V_u < V$
SLV 7	39	-133	5440	-53968		0	0	0.83	0			0	No, $V_u < V$
SLV 11	-25	-1415	5263	60031		0.44	106.97	0.92	2957			0.56	No, $V_u < V$
SLV 11	39	-388	4606	-36094		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 7.2 W_a 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.25	0	220	1562	0	0	No, Trazione
SLV 7	14	0.25	0	220	1562	0	0	No, Trazione
SLV 12	14	0.25	0.05	-234	1562	3494	2.24	Si
SLV 11	14	0.25	0.05	-234	1562	3494	2.24	Si
SLV 4	14	0.25	0.06	-280	1562	4176	2.67	Si
SLV 3	14	0.25	0.06	-280	1562	4176	2.67	Si
SLV 2	14	0.25	0.25	-1162	1562	17070	10.93	Si
SLV 1	14	0.25	0.25	-1162	1562	17070	10.93	Si
SLV 15	14	0.25	0.38	-1792	1562	26038	16.67	Si
SLV 16	14	0.25	0.38	-1792	1562	26038	16.67	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 7.2 $W_a = 0.05$ $T_a = 0.0101$

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 4	-441	-1377	83	0.092	1.43	0.89	150.042	273.929	No
SLV 3	-441	-1377	83	0.092	1.43	0.89	150.042	273.929	No
SLV 13	-1809	-2657	-68	0.109	2.751	0.917	173.561	273.929	No
SLV 14	-1809	-2657	-68	0.109	2.751	0.917	173.561	273.929	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 2	-960	-1815	64	0.111	1.912	0.895	179.815	273.929	No
SLV 1	-960	-1815	64	0.111	1.912	0.895	179.815	273.929	No
SLV 8	-133	-1162	58	0.119	1.199	0.929	185.497	271.062	No
SLV 7	-133	-1162	58	0.119	1.199	0.929	185.497	271.062	No
SLV 9	-2117	-2873	-44	0.119	3.06	0.923	187.196	271.062	No
SLV 10	-2117	-2873	-44	0.119	3.06	0.923	187.196	271.062	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.252	SLU 28	Si
V_SLU	1.43	SLU 70	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 8	No
R_SLV	0.548	SLV 3	No

Maschio 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1246.3	-35.4	-1246.3	104.6	Z medio -127 cm	L3	140	30	237.2	205.4	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 69	-95	-12974	143019	3.09	563780	3.942	Si
SLU 69	110	-4061	208756	0.97	250551	1.2	Si
SLU 43	-95	-11224	119841	2.67	527936	4.405	Si
SLU 43	110	-3435	181410	0.82	216324	1.192	Si
SLU 50	-95	-11513	124164	2.74	534724	4.307	Si
SLU 50	110	-3511	185744	0.84	220551	1.187	Si
SLU 44	-95	-11253	120315	2.68	528615	4.394	Si
SLU 44	110	-3441	181574	0.82	216639	1.193	Si
SLU 47	-95	-11397	122476	2.71	532035	4.344	Si
SLU 47	110	-3479	183741	0.83	218755	1.191	Si
SLU 51	-95	-11530	124448	2.75	535112	4.3	Si
SLU 51	110	-3514	185843	0.84	220739	1.188	Si
SLU 48	-95	-11638	125939	2.77	537552	4.268	Si
SLU 48	110	-3559	188995	0.85	223214	1.181	Si
SLU 45	-95	-11494	123778	2.74	534275	4.316	Si
SLU 45	110	-3521	186828	0.84	221111	1.183	Si
SLU 49	-95	-11655	126224	2.78	537931	4.262	Si
SLU 49	110	-3562	189094	0.85	223401	1.181	Si
SLU 46	-95	-11511	124062	2.74	534664	4.31	Si
SLU 46	110	-3524	186927	0.84	221299	1.184	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 6	-95	-5786	26635	1.38	359342	13.491	Si
SLV 6	110	-4536	267682	1.08	289473	1.081	Si
SLD 6	-95	-8193	72325	1.95	481940	6.664	Si
SLD 6	110	-3803	197314	0.91	246510	1.249	Si
SLV 14	-95	-12903	144437	3.07	676129	4.681	Si
SLV 14	110	-5017	259494	1.19	316885	1.221	Si
SLV 9	-95	-8089	60948	1.93	477002	7.826	Si
SLV 9	110	-5290	310222	1.26	332153	1.071	Si
SLD 5	-95	-8193	72325	1.95	481940	6.664	Si
SLD 5	110	-3803	197314	0.91	246510	1.249	Si
SLV 13	-95	-12903	144437	3.07	676129	4.681	Si
SLV 13	110	-5017	259494	1.19	316885	1.221	Si
SLD 9	-95	-9175	87020	2.18	527436	6.061	Si
SLD 9	110	-4122	215317	0.98	265359	1.232	Si
SLD 10	-95	-9175	87020	2.18	527436	6.061	Si
SLD 10	110	-4122	215317	0.98	265359	1.232	Si
SLV 5	-95	-5786	26635	1.38	359342	13.491	Si
SLV 5	110	-4536	267682	1.08	289473	1.081	Si
SLV 10	-95	-8089	60948	1.93	477002	7.826	Si
SLV 10	110	-5290	310222	1.26	332153	1.071	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	-95	-11224	-901	119841		2.67	140	0.91	3830			4.25	Si
SLU 43	110	-3435	-975	181410		2.22	51.58	0.85	1318			1.35	Si
SLU 50	-95	-11513	-923	124164		2.74	140	0.92	3868			4.19	Si
SLU 50	110	-3511	-978	185744		2.28	51.29	0.86	1323			1.35	Si
SLU 49	-95	-11655	-937	126224		2.78	140	0.93	3887			4.15	Si
SLU 49	110	-3562	-987	189094		2.34	50.76	0.87	1321			1.34	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 45	-95	-11494	-927	123778		2.74	140	0.92	3866			4.17	Si
SLU 45	110	-3521	-992	186828		2.31	50.82	0.86	1317			1.33	Si
SLU 46	-95	-11511	-926	124062		2.74	140	0.92	3868			4.18	Si
SLU 46	110	-3524	-986	186927		2.31	50.89	0.86	1318			1.34	Si
SLU 48	-95	-11638	-938	125939		2.77	140	0.93	3885			4.14	Si
SLU 48	110	-3559	-993	188995		2.34	50.69	0.87	1319			1.33	Si
SLU 66	-95	-12829	-1056	140857		3.05	140	0.96	4044			3.83	Si
SLU 66	110	-4024	-1082	206589		2.4	55.96	0.88	1469			1.36	Si
SLU 69	-95	-12974	-1067	143019		3.09	140	0.97	4063			3.81	Si
SLU 69	110	-4061	-1083	208756		2.43	55.8	0.88	1472			1.36	Si
SLU 67	-95	-12846	-1055	141142		3.06	140	0.96	4046			3.84	Si
SLU 67	110	-4027	-1076	206688		2.4	56.02	0.88	1471			1.37	Si
SLU 51	-95	-11530	-922	124448		2.75	140	0.92	3871			4.2	Si
SLU 51	110	-3514	-972	185843		2.28	51.36	0.86	1325			1.36	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	-95	-8089	-3622	60948		1.93	140	1.22	5118			1.41	Si
SLV 9	110	-5290	-6609	310222		5.17	34.09	1.63	1662			0.25	No, Vu<V
SLV 14	-95	-12903	-2452	144437		3.07	140	1.45	6081			2.48	Si
SLV 14	110	-5017	-5545	259494		3.05	54.85	1.44	2375			0.43	No, Vu<V
SLV 7	-95	-11860	2032	150797		2.82	140	1.4	5872			2.89	Si
SLV 7	110	-1243	5077	-19053		0.3	140	0.89	3749			0.74	No, Vu<V
SLD 10	-95	-9175	-1998	87020		2.18	140	1.27	5335			2.67	Si
SLD 10	110	-4122	-3246	215317		2.58	53.29	1.35	2157			0.66	No, Vu<V
SLV 10	-95	-8089	-3622	60948		1.93	140	1.22	5118			1.41	Si
SLV 10	110	-5290	-6609	310222		5.17	34.09	1.63	1662			0.25	No, Vu<V
SLV 8	-95	-11860	2032	150797		2.82	140	1.4	5872			2.89	Si
SLV 8	110	-1243	5077	-19053		0.3	140	0.89	3749			0.74	No, Vu<V
SLV 5	-95	-5786	-3088	26635		1.38	140	1.11	4657			1.51	Si
SLV 5	110	-4536	-4613	267682		4.59	32.97	1.63	1607			0.35	No, Vu<V
SLV 13	-95	-12903	-2452	144437		3.07	140	1.45	6081			2.48	Si
SLV 13	110	-5017	-5545	259494		3.05	54.85	1.44	2375			0.43	No, Vu<V
SLD 9	-95	-9175	-1998	87020		2.18	140	1.27	5335			2.67	Si
SLD 9	110	-4122	-3246	215317		2.58	53.29	1.35	2157			0.66	No, Vu<V
SLV 6	-95	-5786	-3088	26635		1.38	140	1.11	4657			1.51	Si
SLV 6	110	-4536	-4613	267682		4.59	32.97	1.63	1607			0.35	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 7.3 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.25	1.39	-5850	4358	77742	17.84	Si
SLV 1	14	0.25	1.39	-5850	4358	77742	17.84	Si
SLV 3	14	0.25	1.48	-6220	4358	81988	18.81	Si
SLV 4	14	0.25	1.48	-6220	4358	81988	18.81	Si
SLV 6	14	0.25	1.88	-7916	4358	100428	23.05	Si
SLV 5	14	0.25	1.88	-7916	4358	100428	23.05	Si
SLV 7	14	0.25	2.18	-9150	4358	112778	25.88	Si
SLV 8	14	0.25	2.18	-9150	4358	112778	25.88	Si
SLV 10	14	0.25	2.39	-10058	4358	121301	27.84	Si
SLV 9	14	0.25	2.39	-10058	4358	121301	27.84	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 7.3 Wa = 0.05 Ta = 0.0313

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 3	-1516	-7047	173	0.015	3.02	0.895	24.541	367.449	No
SLV 4	-1516	-7047	173	0.015	3.02	0.895	24.541	367.449	No
SLV 2	-2504	-5224	169	0.03	3.993	0.912	48.201	367.449	No
SLV 1	-2504	-5224	169	0.03	3.993	0.912	48.201	367.449	No
SLV 16	-4029	-14726	-174	0.039	5.524	0.931	61.489	367.449	No
SLV 15	-4029	-14726	-174	0.039	5.524	0.931	61.489	367.449	No
SLV 14	-5017	-12903	-178	0.043	6.523	0.94	66.068	367.449	No
SLV 13	-5017	-12903	-178	0.043	6.523	0.94	66.068	367.449	No
SLV 10	-5290	-8089	-61	0.063	6.8	0.942	96.495	354.514	No
SLV 9	-5290	-8089	-61	0.063	6.8	0.942	96.495	354.514	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.181	SLU 48	Si
V_SLU	1.328	SLU 45	Si
PF_SLV	1.071	SLV 9	Si
V_SLV	0.251	SLV 9	No
PFFP_SLV	17.84	SLV 1	Si
R_SLV	0.067	SLV 3	No

Maschio 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1963.8	104.6	-2465.3	104.6	L1	L3	501.5	45	269	269	269			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 74	-159	-106790	388347	4.73	11222106	28.897	Si
SLU 74	51	-101763	-1408536	4.51	11391644	8.088	Si
SLU 83	-159	-111293	380616	4.93	11011721	28.931	Si
SLU 83	51	-106596	-1499353	4.72	11229953	7.49	Si
SLU 78	-159	-108048	382323	4.79	11168901	29.213	Si
SLU 78	51	-103063	-1425724	4.57	11354415	7.964	Si
SLU 75	-159	-106540	395143	4.72	11232179	28.426	Si
SLU 75	51	-101452	-1362700	4.5	11399873	8.366	Si
SLU 84	-159	-111043	387412	4.92	11024869	28.458	Si
SLU 84	51	-106285	-1453517	4.71	11242286	7.735	Si
SLU 79	-159	-107655	353537	4.77	11186002	31.64	Si
SLU 79	51	-102675	-1467989	4.55	11366015	7.743	Si
SLU 80	-159	-107405	360333	4.76	11196665	31.073	Si
SLU 80	51	-102363	-1422153	4.54	11375019	7.998	Si
SLU 81	-159	-109785	393437	4.86	11088351	28.183	Si
SLU 81	51	-104984	-1436330	4.65	11290941	7.861	Si
SLU 82	-159	-109535	400233	4.85	11100470	27.735	Si
SLU 82	51	-104673	-1390494	4.64	11301906	8.128	Si
SLU 77	-159	-108299	375527	4.8	11157797	29.712	Si
SLU 77	51	-103374	-1471560	4.58	11344817	7.709	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 1	-159	-82509	5358437	3.66	14498505	2.706	Si
SLV 1	51	-85778	118380	3.8	14817956	125.173	Si
SLV 14	-159	-60797	-5341433	2.69	11883600	2.225	Si
SLV 14	51	-47834	-1935032	2.12	9913627	5.123	Si
SLV 3	-159	-83763	5877361	3.71	14623339	2.488	Si
SLV 3	51	-87528	169964	3.88	14980957	88.142	Si
SLV 7	-159	-77627	2737818	3.44	13985222	5.108	Si
SLV 7	51	-76289	-488547	3.38	13836997	28.323	Si
SLV 13	-159	-60797	-5341433	2.69	11883600	2.225	Si
SLV 13	51	-47834	-1935032	2.12	9913627	5.123	Si
SLV 15	-159	-62051	-4822509	2.75	12057950	2.5	Si
SLV 15	51	-49583	-1883448	2.2	10197379	5.414	Si
SLV 2	-159	-82509	5358437	3.66	14498505	2.706	Si
SLV 2	51	-85778	118380	3.8	14817956	125.173	Si
SLV 16	-159	-62051	-4822509	2.75	12057950	2.5	Si
SLV 16	51	-49583	-1883448	2.2	10197379	5.414	Si
SLV 4	-159	-83763	5877361	3.71	14623339	2.488	Si
SLV 4	51	-87528	169964	3.88	14980957	88.142	Si
SLV 8	-159	-77627	2737818	3.44	13985222	5.108	Si
SLV 8	51	-76289	-488547	3.38	13836997	28.323	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	-159	-109535	15104	400233		4.85	501.5	1.08	24448			1.62	Si
SLU 82	51	-104673	15343	-1390494		4.64	501.5	1.08	24448			1.59	Si
SLU 83	-159	-111293	15722	380616		4.93	501.5	1.08	24448			1.56	Si
SLU 83	51	-106596	15976	-1499353		4.72	501.5	1.08	24448			1.53	Si
SLU 84	-159	-111043	15465	387412		4.92	501.5	1.08	24448			1.58	Si
SLU 84	51	-106285	15708	-1453517		4.71	501.5	1.08	24448			1.56	Si
SLU 79	-159	-107655	15108	353537		4.77	501.5	1.08	24448			1.62	Si
SLU 79	51	-102675	15357	-1467989		4.55	501.5	1.08	24448			1.59	Si
SLU 81	-159	-109785	15361	393437		4.86	501.5	1.08	24448			1.59	Si
SLU 81	51	-104984	15611	-1436330		4.65	501.5	1.08	24448			1.57	Si
SLU 78	-159	-108048	15038	382323		4.79	501.5	1.08	24448			1.63	Si
SLU 78	51	-103063	15279	-1425724		4.57	501.5	1.08	24448			1.6	Si
SLU 75	-159	-106540	14677	395143		4.72	501.5	1.08	24448			1.67	Si
SLU 75	51	-101452	14914	-1362700		4.5	501.5	1.08	24448			1.64	Si
SLU 80	-159	-107405	14850	360333		4.76	501.5	1.08	24448			1.65	Si
SLU 80	51	-102363	15089	-1422153		4.54	501.5	1.08	24448			1.62	Si
SLU 74	-159	-106790	14934	388347		4.73	501.5	1.08	24448			1.64	Si
SLU 74	51	-101763	15182	-1408536		4.51	501.5	1.08	24448			1.61	Si
SLU 77	-159	-108299	15296	375527		4.8	501.5	1.08	24448			1.6	Si
SLU 77	51	-103374	15547	-1471560		4.58	501.5	1.08	24448			1.57	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	-159	-83763	39971	5877361		3.71	501.5	1.58	35559			0.89	No, Vu<V
SLV 3	51	-87528	40115	169964		3.88	501.5	1.61	36312			0.91	No, Vu<V
SLV 13	-159	-60797	-20939	-5341433		2.76	488.68	1.39	30485			1.46	Si
SLV 13	51	-47834	-20741	-1935032		2.12	501.5	1.26	28373			1.37	Si
SLV 16	-159	-62051	-18534	-4822509		2.75	501.5	1.38	31216			1.68	Si
SLV 16	51	-49583	-19439	-1883448		2.2	501.5	1.27	28723			1.48	Si
SLV 2	-159	-82509	37566	5358437		3.66	501.5	1.56	35308			0.94	No, Vu<V
SLV 2	51	-85778	38814	118380		3.8	501.5	1.59	35962			0.93	No, Vu<V
SLV 1	-159	-82509	37566	5358437		3.66	501.5	1.56	35308			0.94	No, Vu<V
SLV 1	51	-85778	38814	118380		3.8	501.5	1.59	35962			0.93	No, Vu<V
SLV 4	-159	-83763	39971	5877361		3.71	501.5	1.58	35559			0.89	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	51	-87528	40115	169964		3.88	501.5	1.61	36312			0.91	No, Vu<V
SLD 4	-159	-77184	22518	2665575		3.42	501.5	1.52	34243			1.52	Si
SLD 4	51	-76134	22672	-433427		3.37	501.5	1.51	34033			1.5	Si
SLD 3	-159	-77184	22518	2665575		3.42	501.5	1.52	34243			1.52	Si
SLD 3	51	-76134	22672	-433427		3.37	501.5	1.51	34033			1.5	Si
SLV 14	-159	-60797	-20939	-5341433		2.76	488.68	1.39	30485			1.46	Si
SLV 14	51	-47834	-20741	-1935032		2.12	501.5	1.26	28373			1.37	Si
SLV 15	-159	-62051	-18534	-4822509		2.75	501.5	1.38	31216			1.68	Si
SLV 15	51	-49583	-19439	-1883448		2.2	501.5	1.27	28723			1.48	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.24	2.35	-53144	29923	965287	32.26	Si
SLV 13	14	0.24	2.35	-53144	29923	965287	32.26	Si
SLV 15	14	0.24	2.4	-54216	29923	980014	32.75	Si
SLV 16	14	0.24	2.4	-54216	29923	980014	32.75	Si
SLV 10	14	0.24	2.79	-62918	29923	1092643	36.52	Si
SLV 9	14	0.24	2.79	-62918	29923	1092643	36.52	Si
SLV 11	14	0.24	2.95	-66491	29923	1135305	37.94	Si
SLV 12	14	0.24	2.95	-66491	29923	1135305	37.94	Si
SLV 5	14	0.24	3.21	-72368	29923	1200948	40.14	Si
SLV 6	14	0.24	3.21	-72368	29923	1200948	40.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-54110	-66933	508	0.083	63.646	0.96	125.321	328.355	No
SLV 10	-54110	-66933	508	0.083	63.646	0.96	125.321	328.355	No
SLV 5	-61887	-73447	483	0.083	71.558	0.964	125.513	328.355	No
SLV 6	-61887	-73447	483	0.083	71.558	0.964	125.513	328.355	No
SLV 7	-64611	-77627	-457	0.084	74.329	0.965	125.939	328.355	No
SLV 8	-64611	-77627	-457	0.084	74.329	0.965	125.939	328.355	No
SLV 11	-56833	-71113	-431	0.084	66.416	0.962	127.05	328.355	No
SLV 12	-56833	-71113	-431	0.084	66.416	0.962	127.05	328.355	No
SLV 4	-72732	-83763	-157	0.087	82.595	0.969	131.26	338.414	No
SLV 3	-72732	-83763	-157	0.087	82.595	0.969	131.26	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.49	SLU 83	Si
V_SLU	1.53	SLU 83	Si
PF_SLV	2.225	SLV 13	Si
V_SLV	0.89	SLV 3	No
PFFP_SLV	32.259	SLV 13	Si
R_SLV	0.382	SLV 9	No

Maschio 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1506.3	104.6	-1883.8	104.6	L1	L3	377.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	-159	-113285	-678793	6.67	3877351	5.712	Si
SLU 83	51	-110026	-683335	6.48	4254896	6.227	Si
SLU 82	-159	-110112	-737252	6.48	4245334	5.758	Si
SLU 82	51	-107272	-762048	6.31	4551405	5.973	Si
SLU 75	-159	-107721	-714110	6.34	4504492	6.308	Si
SLU 75	51	-104635	-686782	6.16	4815907	7.012	Si
SLU 81	-159	-111122	-673077	6.54	4131164	6.138	Si
SLU 81	51	-107897	-722626	6.35	4485949	6.208	Si
SLU 79	-159	-110114	-654458	6.48	4245058	6.486	Si
SLU 79	51	-106543	-589423	6.27	4626438	7.849	Si
SLU 78	-159	-109884	-719826	6.47	4270750	5.933	Si
SLU 78	51	-106764	-647492	6.28	4603805	7.11	Si
SLU 80	-159	-109104	-718633	6.42	4356451	6.062	Si
SLU 80	51	-105918	-628845	6.24	4689585	7.457	Si
SLU 76	-159	-106268	-755701	6.26	4654335	6.159	Si
SLU 76	51	-103372	-694418	6.09	4935856	7.108	Si
SLU 77	-159	-110894	-655650	6.53	4157209	6.341	Si
SLU 77	51	-107389	-608069	6.32	4539216	7.465	Si
SLU 84	-159	-112275	-742968	6.61	3997482	5.38	Si
SLU 84	51	-109401	-722758	6.44	4323982	5.983	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	-159	-61369	3944149	3.61	8158679	2.069	Si
SLV 1	51	-62123	-851298	3.66	8216294	9.651	Si
SLV 2	-159	-61369	3944149	3.61	8158679	2.069	Si
SLV 2	51	-62123	-851298	3.66	8216294	9.651	Si
SLV 15	-159	-84379	-4838134	4.97	9452120	1.954	Si
SLV 15	51	-77373	-32308	4.55	9160277	283.531	Si
SLV 3	-159	-69719	4187020	4.1	8739327	2.087	Si
SLV 3	51	-67684	-1083375	3.98	8609528	7.947	Si
SLV 14	-159	-76029	-5081006	4.48	9094079	1.79	Si
SLV 14	51	-71812	199769	4.23	8865041	44.376	Si
SLV 13	-159	-76029	-5081006	4.48	9094079	1.79	Si
SLV 13	51	-71812	199769	4.23	8865041	44.376	Si
SLV 4	-159	-69719	4187020	4.1	8739327	2.087	Si
SLV 4	51	-67684	-1083375	3.98	8609528	7.947	Si
SLV 16	-159	-84379	-4838134	4.97	9452120	1.954	Si
SLV 16	51	-77373	-32308	4.55	9160277	283.531	Si
SLV 10	-159	-61158	-2205552	3.6	8142300	3.692	Si
SLV 10	51	-61933	102652	3.65	8201853	79.899	Si
SLV 9	-159	-61158	-2205552	3.6	8142300	3.692	Si
SLV 9	51	-61933	102652	3.65	8201853	79.899	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	-159	-111122	3846	-673077		6.54	377.5	1.08	18403			4.79	Si
SLU 81	51	-107897	3657	-722626		6.35	377.5	1.08	18403			5.03	Si
SLU 61	-159	-98808	3695	-674740		5.82	377.5	1.08	18403			4.98	Si
SLU 61	51	-95447	3521	-714631		5.62	377.5	1.08	18403			5.23	Si
SLU 76	-159	-106268	3558	-755701		6.26	377.5	1.08	18403			5.17	Si
SLU 76	51	-103372	3369	-694418		6.09	377.5	1.08	18403			5.46	Si
SLU 73	-159	-104105	3796	-749985		6.13	377.5	1.08	18403			4.85	Si
SLU 73	51	-101242	3609	-733708		5.96	377.5	1.08	18403			5.1	Si
SLU 75	-159	-107721	3581	-714110		6.34	377.5	1.08	18403			5.14	Si
SLU 75	51	-104635	3393	-686782		6.16	377.5	1.08	18403			5.42	Si
SLU 83	-159	-113285	3608	-678793		6.67	377.5	1.08	18403			5.1	Si
SLU 83	51	-110026	3417	-683335		6.48	377.5	1.08	18403			5.39	Si
SLU 40	-159	-94161	3529	-635955		5.54	377.5	1.08	18403			5.21	Si
SLU 40	51	-92538	3362	-660754		5.45	377.5	1.08	18403			5.47	Si
SLU 84	-159	-112275	3773	-742968		6.61	377.5	1.08	18403			4.88	Si
SLU 84	51	-109401	3577	-722758		6.44	377.5	1.08	18403			5.14	Si
SLU 60	-159	-99818	3530	-610565		5.88	377.5	1.08	18403			5.21	Si
SLU 60	51	-96072	3361	-675208		5.66	377.5	1.08	18403			5.47	Si
SLU 82	-159	-110112	4011	-737252		6.48	377.5	1.08	18403			4.59	Si
SLU 82	51	-107272	3817	-762048		6.31	377.5	1.08	18403			4.82	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-76029	-24382	-5081006		4.62	365.76	1.63	26746			1.1	Si
SLV 13	51	-71812	-25127	199769		4.23	377.5	1.63	27605			1.1	Si
SLV 15	-159	-84379	-23351	-4838134		4.97	377.5	1.63	27605			1.18	Si
SLV 15	51	-77373	-23315	-32308		4.55	377.5	1.63	27605			1.18	Si
SLV 1	-159	-61369	27897	3944149		3.65	373.44	1.56	26278			0.94	No, Vu<V
SLV 1	51	-62123	27616	-851298		3.66	377.5	1.56	26581			0.96	No, Vu<V
SLV 16	-159	-84379	-23351	-4838134		4.97	377.5	1.63	27605			1.18	Si
SLV 16	51	-77373	-23315	-32308		4.55	377.5	1.63	27605			1.18	Si
SLV 4	-159	-69719	28929	4187020		4.1	377.5	1.63	27605			0.95	No, Vu<V
SLV 4	51	-67684	29428	-1083375		3.98	377.5	1.63	27605			0.94	No, Vu<V
SLV 3	-159	-69719	28929	4187020		4.1	377.5	1.63	27605			0.95	No, Vu<V
SLV 3	51	-67684	29428	-1083375		3.98	377.5	1.63	27605			0.94	No, Vu<V
SLD 4	-159	-71476	13664	1530310		4.21	377.5	1.63	27605			2.02	Si
SLD 4	51	-68837	13803	-714607		4.05	377.5	1.63	27605			2	Si
SLV 14	-159	-76029	-24382	-5081006		4.62	365.76	1.63	26746			1.1	Si
SLV 14	51	-71812	-25127	199769		4.23	377.5	1.63	27605			1.1	Si
SLV 2	-159	-61369	27897	3944149		3.65	373.44	1.56	26278			0.94	No, Vu<V
SLV 2	51	-62123	27616	-851298		3.66	377.5	1.56	26581			0.96	No, Vu<V
SLD 3	-159	-71476	13664	1530310		4.21	377.5	1.63	27605			2.02	Si
SLD 3	51	-68837	13803	-714607		4.05	377.5	1.63	27605			2	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.24	3.41	-57865	22524	939000	41.69	Si
SLV 6	14	0.24	3.41	-57865	22524	939000	41.69	Si
SLV 2	14	0.24	3.6	-61124	22524	970297	43.08	Si
SLV 1	14	0.24	3.6	-61124	22524	970297	43.08	Si
SLV 10	14	0.24	3.63	-61724	22524	975802	43.32	Si
SLV 9	14	0.24	3.63	-61724	22524	975802	43.32	Si
SLV 4	14	0.24	3.99	-67777	22524	1027027	45.6	Si
SLV 3	14	0.24	3.99	-67777	22524	1027027	45.6	Si
SLV 14	14	0.24	4.36	-73987	22524	1071325	47.56	Si
SLV 13	14	0.24	4.36	-73987	22524	1071325	47.56	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 11	-70759	-88988	-915	0.076	78.477	0.975	113.339	328.355	No
SLV 12	-70759	-88988	-915	0.076	78.477	0.975	113.339	328.355	No
SLV 15	-68548	-84379	-687	0.079	76.225	0.974	117.766	338.414	No
SLV 16	-68548	-84379	-687	0.079	76.225	0.974	117.766	338.414	No
SLV 5	-51371	-56760	689	0.077	58.735	0.967	116.376	328.355	No
SLV 6	-51371	-56760	689	0.077	58.735	0.967	116.376	328.355	No
SLV 8	-67743	-84590	-696	0.079	75.405	0.974	117.537	328.355	No
SLV 7	-67743	-84590	-696	0.079	75.405	0.974	117.537	328.355	No
SLV 1	-53582	-61369	461	0.082	60.986	0.968	122.543	338.414	No
SLV 2	-53582	-61369	461	0.082	60.986	0.968	122.543	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.38	SLU 84	Si
V_SLU	4.588	SLU 82	Si
PF_SLV	1.79	SLV 13	Si
V_SLV	0.938	SLV 3	No
PFFP_SLV	41.689	SLV 5	Si
R_SLV	0.345	SLV 11	No

Maschio 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1358.3	104.6	-1406.3	104.6	L1	L3	48	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 83	-159	-19177	-17598	8.88	0	0	No, Rottura per schiacciamento
SLU 83	57	-11510	-141572	5.33	95532	0.675	No, M>Mu
SLU 77	-159	-18561	-17878	8.59	0	0	No, Rottura per schiacciamento
SLU 77	57	-11181	-137448	5.18	97819	0.712	No, M>Mu
SLU 76	-159	-18326	-16722	8.48	0	0	No, Rottura per schiacciamento
SLU 76	57	-10893	-133929	5.04	99581	0.744	No, M>Mu
SLU 75	-159	-18456	-16715	8.54	0	0	No, Rottura per schiacciamento
SLU 75	57	-11004	-135308	5.09	98931	0.731	No, M>Mu
SLU 79	-159	-18386	-17964	8.51	0	0	No, Rottura per schiacciamento
SLU 79	57	-11076	-136133	5.13	98491	0.723	No, M>Mu
SLU 84	-159	-19245	-17478	8.91	0	0	No, Rottura per schiacciamento
SLU 84	57	-11503	-141477	5.33	95588	0.676	No, M>Mu
SLU 74	-159	-18388	-16835	8.51	0	0	No, Rottura per schiacciamento
SLU 74	57	-11011	-135403	5.1	98885	0.73	No, M>Mu
SLU 80	-159	-18454	-17844	8.54	0	0	No, Rottura per schiacciamento
SLU 80	57	-11068	-136038	5.12	98538	0.724	No, M>Mu
SLU 73	-159	-18153	-15679	8.4	0	0	No, Rottura per schiacciamento
SLU 73	57	-10723	-131884	4.96	100514	0.762	No, M>Mu
SLU 81	-159	-19004	-16555	8.8	0	0	No, Rottura per schiacciamento
SLU 81	57	-11340	-139527	5.25	96752	0.693	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 12	-159	-18998	-24089	8.8	127745	5.303	Si
SLV 12	57	-8811	-107437	4.08	140867	1.311	Si
SLD 16	-159	-15223	-27827	7.05	154621	5.557	Si
SLD 16	57	-8453	-101743	3.91	137893	1.355	Si
SLV 13	-159	-15994	-49757	7.4	151238	3.04	Si
SLV 13	57	-9539	-111751	4.42	146190	1.308	Si
SLV 16	-159	-19032	-50582	8.81	127387	2.518	Si
SLV 16	57	-9994	-117778	4.63	149029	1.265	Si
SLD 15	-159	-15223	-27827	7.05	154621	5.557	Si
SLD 15	57	-8453	-101743	3.91	137893	1.355	Si
SLD 12	-159	-15190	-16558	7.03	154740	9.345	Si
SLD 12	57	-7937	-97201	3.67	133200	1.37	Si
SLV 15	-159	-19032	-50582	8.81	127387	2.518	Si
SLV 15	57	-9994	-117778	4.63	149029	1.265	Si
SLD 11	-159	-15190	-16558	7.03	154740	9.345	Si
SLD 11	57	-7937	-97201	3.67	133200	1.37	Si
SLV 11	-159	-18998	-24089	8.8	127745	5.303	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	57	-8811	-107437	4.08	140867	1.311	Si
SLV 14	-159	-15994	-49757	7.4	151238	3.04	Si
SLV 14	57	-9539	-111751	4.42	146190	1.308	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	-159	-19004	-231	-16555		8.8	48	1.08	2340			10.14	Si
SLU 81	57	-11340	335	-139527		7.18	35.09	1.08	1711			5.11	Si
SLU 78	-159	-18629	-245	-17758		8.62	48	1.08	2340			9.55	Si
SLU 78	57	-11174	331	-137353		7.07	35.12	1.08	1712			5.18	Si
SLU 79	-159	-18386	-250	-17964		8.51	48	1.08	2340			9.37	Si
SLU 79	57	-11076	332	-136133		7.01	35.13	1.08	1712			5.16	Si
SLU 83	-159	-19177	-245	-17598		8.88	48	1.08	2340			9.53	Si
SLU 83	57	-11510	341	-141572		7.29	35.1	1.08	1711			5.01	Si
SLU 84	-159	-19245	-241	-17478		8.91	48	1.08	2340			9.69	Si
SLU 84	57	-11503	338	-141477		7.28	35.1	1.08	1711			5.06	Si
SLU 80	-159	-18454	-246	-17844		8.54	48	1.08	2340			9.52	Si
SLU 80	57	-11068	329	-136038		7	35.13	1.08	1712			5.21	Si
SLU 74	-159	-18388	-235	-16835		8.51	48	1.08	2340			9.98	Si
SLU 74	57	-11011	327	-135403		6.97	35.11	1.08	1712			5.24	Si
SLU 75	-159	-18456	-231	-16715		8.54	48	1.08	2340			10.15	Si
SLU 75	57	-11004	324	-135308		6.96	35.11	1.08	1712			5.29	Si
SLU 82	-159	-19072	-227	-16435		8.83	48	1.08	2340			10.32	Si
SLU 82	57	-11333	331	-139431		7.18	35.09	1.08	1711			5.16	Si
SLU 77	-159	-18561	-249	-17878		8.59	48	1.08	2340			9.39	Si
SLU 77	57	-11181	334	-137448		7.07	35.12	1.08	1712			5.13	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-159	-5771	731	28688		2.67	48	1.37	2954			4.04	Si
SLV 2	57	-4642	187	-62119		3.24	31.85	1.48	2123			11.37	Si
SLV 4	-159	-8809	795	27863		4.08	48	1.63	3510			4.42	Si
SLV 4	57	-5097	152	-68145		3.55	31.89	1.54	2215			14.56	Si
SLV 16	-159	-19032	-1032	-50582		8.81	48	1.63	3510			3.4	Si
SLV 16	57	-9994	251	-117778		6.06	36.64	1.63	2680			10.67	Si
SLV 14	-159	-15994	-1096	-49757		7.4	48	1.63	3510			3.2	Si
SLV 14	57	-9539	286	-111751		5.75	36.85	1.63	2695			9.43	Si
SLV 15	-159	-19032	-1032	-50582		8.81	48	1.63	3510			3.4	Si
SLV 15	57	-9994	251	-117778		6.06	36.64	1.63	2680			10.67	Si
SLD 14	-159	-13942	-554	-27466		6.45	48	1.63	3510			6.33	Si
SLD 14	57	-8269	247	-99294		5.11	35.98	1.63	2631			10.63	Si
SLV 13	-159	-15994	-1096	-49757		7.4	48	1.63	3510			3.2	Si
SLV 13	57	-9539	286	-111751		5.75	36.85	1.63	2695			9.43	Si
SLV 1	-159	-5771	731	28688		2.67	48	1.37	2954			4.04	Si
SLV 1	57	-4642	187	-62119		3.24	31.85	1.48	2123			11.37	Si
SLV 3	-159	-8809	795	27863		4.08	48	1.63	3510			4.42	Si
SLV 3	57	-5097	152	-68145		3.55	31.89	1.54	2215			14.56	Si
SLD 13	-159	-13942	-554	-27466		6.45	48	1.63	3510			6.33	Si
SLD 13	57	-8269	247	-99294		5.11	35.98	1.63	2631			10.63	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	3.12	-6749	2864	113018	39.46	Si
SLV 2	14	0.24	3.12	-6749	2864	113018	39.46	Si
SLV 3	14	0.24	3.72	-8046	2864	125843	43.94	Si
SLV 4	14	0.24	3.72	-8046	2864	125843	43.94	Si
SLV 15	14	0.24	8.48	-18325	2864	126036	44.01	Si
SLV 16	14	0.24	8.48	-18325	2864	126036	44.01	Si
SLV 5	14	0.24	4.09	-8833	2864	132228	46.17	Si
SLV 6	14	0.24	4.09	-8833	2864	132228	46.17	Si
SLV 14	14	0.24	7.88	-17028	2864	135943	47.47	Si
SLV 13	14	0.24	7.88	-17028	2864	135943	47.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 11	-9717	-18998	88	0.079	10.711	0.976	118.062	328.355	No
SLV 12	-9717	-18998	88	0.079	10.711	0.976	118.062	328.355	No
SLV 8	-8094	-15931	78	0.08	9.058	0.972	119.151	328.355	No
SLV 7	-8094	-15931	78	0.08	9.058	0.972	119.151	328.355	No
SLV 16	-10825	-19032	50	0.083	11.841	0.978	123.406	338.414	No
SLV 15	-10825	-19032	50	0.083	11.841	0.978	123.406	338.414	No
SLV 5	-5850	-5805	-66	0.08	6.775	0.964	120.895	328.355	No
SLV 6	-5850	-5805	-66	0.08	6.775	0.964	120.895	328.355	No
SLV 10	-7473	-8872	-55	0.082	8.427	0.97	123.086	328.355	No
SLV 9	-7473	-8872	-55	0.082	8.427	0.97	123.086	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0	SLV 73	No
V_SLV	5.014	SLV 83	Si
PF_SLV	1.265	SLV 15	Si
V_SLV	3.204	SLV 13	Si
PFFP_SLV	39.462	SLV 1	Si
R_SLV	0.36	SLV 11	No



Maschio 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1223.8	104.6	-1261.3	104.6	L1	L3	37.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 76	-159	-14490	-16455	8.59	0	0	No, Rottura per schiacciamento
SLU 76	57	-6374	-26505	3.78	64095	2.418	Si
SLU 79	-159	-14615	-17044	8.66	0	0	No, Rottura per schiacciamento
SLU 79	57	-6434	-26628	3.81	64172	2.41	Si
SLU 84	-159	-15241	-17123	9.03	0	0	No, Rottura per schiacciamento
SLU 84	57	-6723	-28046	3.98	64404	2.296	Si
SLU 78	-159	-14773	-17212	8.75	0	0	No, Rottura per schiacciamento
SLU 78	57	-6508	-26943	3.86	64253	2.385	Si
SLU 75	-159	-14617	-16532	8.66	0	0	No, Rottura per schiacciamento
SLU 75	57	-6435	-26775	3.81	64173	2.397	Si
SLU 63	-159	-13824	-15442	8.19	0	0	No, Rottura per schiacciamento
SLU 63	57	-6065	-25241	3.59	63544	2.517	Si
SLU 74	-159	-14598	-16478	8.65	0	0	No, Rottura per schiacciamento
SLU 74	57	-6427	-26748	3.81	64164	2.399	Si
SLU 62	-159	-13805	-15387	8.18	0	0	No, Rottura per schiacciamento
SLU 62	57	-6057	-25214	3.59	63527	2.519	Si
SLU 73	-159	-14333	-15775	8.49	0	0	No, Rottura per schiacciamento
SLU 73	57	-6301	-26338	3.73	63989	2.43	Si
SLU 80	-159	-14634	-17099	8.67	0	0	No, Rottura per schiacciamento
SLU 80	57	-6442	-26655	3.82	64181	2.408	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 1	-159	-5075	39846	3.01	71740	1.8	Si
SLV 1	57	-2178	-19808	1.29	36522	1.844	Si
SLV 4	-159	-6329	38349	3.75	82241	2.145	Si
SLV 4	57	-2691	-22924	1.59	43874	1.914	Si
SLV 3	-159	-6329	38349	3.75	82241	2.145	Si
SLV 3	57	-2691	-22924	1.59	43874	1.914	Si
SLV 2	-159	-5075	39846	3.01	71740	1.8	Si
SLV 2	57	-2178	-19808	1.29	36522	1.844	Si
SLV 14	-159	-13327	-60152	7.9	88374	1.469	Si
SLV 14	57	-5896	-12778	3.49	78938	6.178	Si
SLV 15	-159	-14580	-61649	8.64	80069	1.299	Si
SLV 15	57	-6409	-15894	3.8	82819	5.211	Si
SLV 7	-159	-10679	1602	6.33	96528	60.24	Si
SLV 7	57	-4591	-24098	2.72	66919	2.777	Si
SLV 16	-159	-14580	-61649	8.64	80069	1.299	Si
SLV 16	57	-6409	-15894	3.8	82819	5.211	Si
SLV 8	-159	-10679	1602	6.33	96528	60.24	Si
SLV 8	57	-4591	-24098	2.72	66919	2.777	Si
SLV 13	-159	-13327	-60152	7.9	88374	1.469	Si
SLV 13	57	-5896	-12778	3.49	78938	6.178	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	-159	-14773	-198	-17212		8.75	37.5	1.08	1828			9.23	Si
SLU 78	57	-6508	129	-26943		3.86	37.5	1.07	1805			13.96	Si
SLU 83	-159	-15222	-197	-17068		9.02	37.5	1.08	1828			9.28	Si
SLU 83	57	-6715	141	-28019		3.98	37.5	1.08	1828			12.94	Si
SLU 74	-159	-14598	-190	-16478		8.65	37.5	1.08	1828			9.61	Si
SLU 74	57	-6427	130	-26748		3.81	37.5	1.06	1794			13.83	Si
SLU 81	-159	-15066	-190	-16388		8.93	37.5	1.08	1828			9.64	Si
SLU 81	57	-6642	141	-27851		3.94	37.5	1.08	1823			12.94	Si
SLU 77	-159	-14755	-198	-17158		8.74	37.5	1.08	1828			9.25	Si
SLU 77	57	-6500	130	-26916		3.85	37.5	1.07	1804			13.86	Si
SLU 75	-159	-14617	-191	-16532		8.66	37.5	1.08	1828			9.59	Si
SLU 75	57	-6435	129	-26775		3.81	37.5	1.06	1796			13.94	Si
SLU 84	-159	-15241	-198	-17123		9.03	37.5	1.08	1828			9.25	Si
SLU 84	57	-6723	140	-28046		3.98	37.5	1.08	1828			13.02	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	-159	-14634	-197	-17099		8.67	37.5	1.08	1828			9.3	Si
SLU 80	57	-6442	130	-26655		3.82	37.5	1.06	1796			13.8	Si
SLU 79	-159	-14615	-196	-17044		8.66	37.5	1.08	1828			9.32	Si
SLU 79	57	-6434	131	-26628		3.81	37.5	1.06	1795			13.69	Si
SLU 82	-159	-15085	-190	-16443		8.94	37.5	1.08	1828			9.61	Si
SLU 82	57	-6650	140	-27878		3.94	37.5	1.08	1824			13.03	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	-159	-8977	-236	-23405		5.32	37.5	1.63	2742			11.61	Si
SLV 10	57	-3996	285	-11603		2.37	37.5	1.31	2205			7.75	Si
SLV 3	-159	-6329	316	38349		3.75	37.5	1.58	2672			8.47	Si
SLV 3	57	-2691	-91	-22924		1.95	30.7	1.22	1689			18.61	Si
SLV 14	-159	-13327	-567	-60152		7.9	37.5	1.63	2742			4.83	Si
SLV 14	57	-5896	260	-12778		3.49	37.5	1.53	2585			9.93	Si
SLV 9	-159	-8977	-236	-23405		5.32	37.5	1.63	2742			11.61	Si
SLV 9	57	-3996	285	-11603		2.37	37.5	1.31	2205			7.75	Si
SLV 4	-159	-6329	316	38349		3.75	37.5	1.58	2672			8.47	Si
SLV 4	57	-2691	-91	-22924		1.95	30.7	1.22	1689			18.61	Si
SLV 13	-159	-13327	-567	-60152		7.9	37.5	1.63	2742			4.83	Si
SLV 13	57	-5896	260	-12778		3.49	37.5	1.53	2585			9.93	Si
SLV 16	-159	-14580	-582	-61649		8.64	37.5	1.63	2742			4.71	Si
SLV 16	57	-6409	163	-15894		3.8	37.5	1.59	2688			16.44	Si
SLV 15	-159	-14580	-582	-61649		8.64	37.5	1.63	2742			4.71	Si
SLV 15	57	-6409	163	-15894		3.8	37.5	1.59	2688			16.44	Si
SLV 2	-159	-5075	330	39846		3.45	32.7	1.52	2241			6.79	Si
SLV 2	57	-2178	6	-19808		1.67	28.96	1.17	1522			243.71	Si
SLV 1	-159	-5075	330	39846		3.45	32.7	1.52	2241			6.79	Si
SLV 1	57	-2178	6	-19808		1.67	28.96	1.17	1522			243.71	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	2.87	-4839	2237	83330	37.24	Si
SLV 2	14	0.24	2.87	-4839	2237	83330	37.24	Si
SLV 3	14	0.24	3.6	-6081	2237	96474	43.12	Si
SLV 4	14	0.24	3.6	-6081	2237	96474	43.12	Si
SLV 6	14	0.24	3.66	-6180	2237	97370	43.52	Si
SLV 5	14	0.24	3.66	-6180	2237	97370	43.52	Si
SLV 16	14	0.24	8.33	-14051	2237	100710	45.01	Si
SLV 15	14	0.24	8.33	-14051	2237	100710	45.01	Si
SLV 14	14	0.24	7.59	-12809	2237	109168	48.79	Si
SLV 13	14	0.24	7.59	-12809	2237	109168	48.79	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 5	-4127	-6501	765	0	4.842	0.961	0	328.355	No
SLV 9	-6107	-8977	901	0	6.857	0.971	0	328.355	No
SLV 6	-4127	-6501	765	0	4.842	0.961	0	328.355	No
SLV 4	-3556	-6329	-451	0	4.261	0.956	0	338.414	No
SLV 3	-3556	-6329	-451	0	4.261	0.956	0	338.414	No
SLV 10	-6107	-8977	901	0	6.857	0.971	0	328.355	No
SLV 8	-6802	-10679	-861	0	7.565	0.974	0	328.355	No
SLV 7	-6802	-10679	-861	0	7.565	0.974	0	328.355	No
SLV 11	-8782	-13154	-725	0.008	9.581	0.979	12.538	328.355	No
SLV 12	-8782	-13154	-725	0.008	9.581	0.979	12.538	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 62	No
V_SLU	9.23	SLU 78	Si
PF_SLV	1.299	SLV 15	Si
V_SLV	4.711	SLV 15	Si
PFFP_SLV	37.243	SLV 1	Si
R_SLV	0	SLV 3	No

Maschio 30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1071.3	104.6	-1123.8	104.6	L1	L3	52.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	-159	-19315	9958	8.18	0	0	No, Rottura per schiacciamento
SLU 81	57	-12186	41046	5.16	117325	2.858	Si
SLU 82	-159	-19396	9557	8.21	0	0	No, Rottura per schiacciamento
SLU 82	57	-12189	41134	5.16	117308	2.852	Si
SLU 83	-159	-19297	9463	8.17	0	0	No, Rottura per schiacciamento
SLU 83	57	-12266	41788	5.19	116758	2.794	Si
SLU 74	-159	-18465	8763	7.82	19628	2.24	Si
SLU 74	57	-11674	39892	4.94	120550	3.022	Si
SLU 77	-159	-18448	8268	7.81	20049	2.425	Si
SLU 77	57	-11754	40635	4.98	120095	2.955	Si
SLU 75	-159	-18547	8362	7.85	17655	2.111	Si
SLU 75	57	-11676	39980	4.94	120537	3.015	Si
SLU 73	-159	-18419	8532	7.8	20733	2.43	Si
SLU 73	57	-11481	38955	4.86	121578	3.121	Si
SLU 78	-159	-18529	7868	7.84	18079	2.298	Si
SLU 78	57	-11756	40723	4.98	120082	2.949	Si
SLU 76	-159	-18402	8038	7.79	21151	2.631	Si
SLU 76	57	-11561	39698	4.89	121164	3.052	Si
SLU 84	-159	-19379	9062	8.2	0	0	No, Rottura per schiacciamento
SLU 84	57	-12268	41877	5.19	116741	2.788	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	-159	-11943	-131562	5.06	183799	1.397	Si
SLV 16	57	-6326	78241	2.68	129668	1.657	Si
SLV 1	-159	-13063	143183	5.53	187731	1.311	Si
SLV 1	57	-9151	-25382	3.87	164065	6.464	Si
SLV 4	-159	-17073	141233	7.23	183104	1.296	Si
SLV 4	57	-10556	-23401	4.47	175765	7.511	Si
SLV 2	-159	-13063	143183	5.53	187731	1.311	Si
SLV 2	57	-9151	-25382	3.87	164065	6.464	Si
SLV 6	-159	-6590	49981	2.79	133490	2.671	Si
SLV 6	57	-6032	7883	2.55	125252	15.889	Si
SLV 13	-159	-7933	-129611	3.36	151018	1.165	Si
SLV 13	57	-4921	76261	2.08	107163	1.405	Si
SLV 3	-159	-17073	141233	7.23	183104	1.296	Si
SLV 3	57	-10556	-23401	4.47	175765	7.511	Si
SLV 15	-159	-11943	-131562	5.06	183799	1.397	Si
SLV 15	57	-6326	78241	2.68	129668	1.657	Si
SLV 5	-159	-6590	49981	2.79	133490	2.671	Si
SLV 5	57	-6032	7883	2.55	125252	15.889	Si
SLV 14	-159	-7933	-129611	3.36	151018	1.165	Si
SLV 14	57	-4921	76261	2.08	107163	1.405	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	-159	-18448	230	8268		7.81	52.5	1.08	2559			11.12	Si
SLU 77	57	-11754	717	40635		4.98	52.5	1.08	2559			3.57	Si
SLU 82	-159	-19396	240	9557		8.21	52.5	1.08	2559			10.64	Si
SLU 82	57	-12189	733	41134		5.16	52.5	1.08	2559			3.49	Si
SLU 84	-159	-19379	240	9062		8.2	52.5	1.08	2559			10.68	Si
SLU 84	57	-12268	741	41877		5.19	52.5	1.08	2559			3.45	Si
SLU 75	-159	-18547	225	8362		7.85	52.5	1.08	2559			11.37	Si
SLU 75	57	-11676	712	39980		4.94	52.5	1.08	2559			3.6	Si
SLU 80	-159	-18330	223	7810		7.76	52.5	1.08	2559			11.49	Si
SLU 80	57	-11639	709	40382		4.93	52.5	1.08	2559			3.61	Si
SLU 74	-159	-18465	231	8763		7.82	52.5	1.08	2559			11.08	Si
SLU 74	57	-11674	709	39892		4.94	52.5	1.08	2559			3.61	Si
SLU 78	-159	-18529	224	7868		7.84	52.5	1.08	2559			11.41	Si
SLU 78	57	-11756	720	40723		4.98	52.5	1.08	2559			3.56	Si
SLU 81	-159	-19315	246	9958		8.18	52.5	1.08	2559			10.39	Si
SLU 81	57	-12186	730	41046		5.16	52.5	1.08	2559			3.51	Si
SLU 79	-159	-18249	229	8210		7.72	52.5	1.08	2559			11.19	Si
SLU 79	57	-11637	706	40293		4.93	52.5	1.08	2559			3.62	Si
SLU 83	-159	-19297	246	9463		8.17	52.5	1.08	2559			10.42	Si
SLU 83	57	-12266	738	41788		5.19	52.5	1.08	2559			3.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-159	-13063	1509	143183		6.33	45.87	1.63	3354			2.22	Si
SLV 2	57	-9151	144	-25382		3.87	52.5	1.61	3799			26.33	Si
SLV 13	-159	-7933	-1159	-129611		5.93	29.74	1.63	2175			1.88	Si
SLV 13	57	-4921	736	76261		3.39	32.26	1.51	2194			2.98	Si
SLV 4	-159	-17073	1459	141233		7.23	52.5	1.63	3839			2.63	Si
SLV 4	57	-10556	202	-23401		4.47	52.5	1.63	3839			19.03	Si
SLV 1	-159	-13063	1509	143183		6.33	45.87	1.63	3354			2.22	Si
SLV 1	57	-9151	144	-25382		3.87	52.5	1.61	3799			26.33	Si
SLV 6	-159	-6590	634	49981		2.79	52.5	1.39	3287			5.19	Si
SLV 6	57	-6032	284	7883		2.55	52.5	1.34	3175			11.17	Si
SLV 14	-159	-7933	-1159	-129611		5.93	29.74	1.63	2175			1.88	Si
SLV 14	57	-4921	736	76261		3.39	32.26	1.51	2194			2.98	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	-159	-17073	1459	141233		7.23	52.5	1.63	3839			2.63	Si
SLV 3	57	-10556	202	-23401		4.47	52.5	1.63	3839			19.03	Si
SLV 15	-159	-11943	-1209	-131562		5.81	45.7	1.63	3342			2.77	Si
SLV 15	57	-6326	793	78241		3.38	41.65	1.51	2827			3.56	Si
SLV 16	-159	-11943	-1209	-131562		5.81	45.7	1.63	3342			2.77	Si
SLV 16	57	-6326	793	78241		3.38	41.65	1.51	2827			3.56	Si
SLV 5	-159	-6590	634	49981		2.79	52.5	1.39	3287			5.19	Si
SLV 5	57	-6032	284	7883		2.55	52.5	1.34	3175			11.17	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	2.53	-5975	3132	106610	34.03	Si
SLV 10	14	0.24	2.53	-5975	3132	106610	34.03	Si
SLV 13	14	0.24	2.8	-6608	3132	114650	36.6	Si
SLV 14	14	0.24	2.8	-6608	3132	114650	36.6	Si
SLV 6	14	0.24	3.37	-7962	3132	129730	41.41	Si
SLV 5	14	0.24	3.37	-7962	3132	129730	41.41	Si
SLV 16	14	0.24	3.87	-9138	3132	140520	44.86	Si
SLV 15	14	0.24	3.87	-9138	3132	140520	44.86	Si
SLV 8	14	0.24	6.94	-16394	3132	159380	50.88	Si
SLV 7	14	0.24	6.94	-16394	3132	159380	50.88	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-3076	-5051	382	0	4.035	0.938	0	328.355	No
SLV 9	-3076	-5051	382	0	4.035	0.938	0	328.355	No
SLV 5	-4760	-6590	351	0.027	5.743	0.954	40.861	328.355	No
SLV 6	-4760	-6590	351	0.027	5.743	0.954	40.861	328.355	No
SLV 12	-6952	-18417	-352	0.043	7.972	0.966	65.042	328.355	No
SLV 11	-6952	-18417	-352	0.043	7.972	0.966	65.042	328.355	No
SLV 14	-2469	-7933	162	0.046	3.422	0.929	71.924	338.414	No
SLV 13	-2469	-7933	162	0.046	3.422	0.929	71.924	338.414	No
SLV 7	-8635	-19955	-384	0.047	9.686	0.972	70.569	328.355	No
SLV 8	-8635	-19955	-384	0.047	9.686	0.972	70.569	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0	SLV 81	No
V_SLV	3.455	SLV 84	Si
PF_SLV	1.165	SLV 13	Si
V_SLV	1.877	SLV 13	Si
PFFP_SLV	34.034	SLV 9	Si
R_SLV	0	SLV 9	No

Maschio 31

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-742.8	104.6	-971.3	104.6	L1	L3	228.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	-159	-72613	-377565	7.06	1104015	2.924	Si
SLU 83	51	-67751	291689	6.59	1479386	5.072	Si
SLU 75	-159	-69122	-369531	6.72	1380103	3.735	Si
SLU 75	51	-64260	298933	6.25	1709170	5.718	Si
SLU 79	-159	-69663	-369257	6.77	1339472	3.627	Si
SLU 79	51	-64801	254235	6.3	1675719	6.591	Si
SLU 78	-159	-69899	-381948	6.8	1321508	3.46	Si
SLU 78	51	-65037	285575	6.33	1660884	5.816	Si
SLU 74	-159	-69458	-363093	6.75	1354976	3.732	Si
SLU 74	51	-64596	275684	6.28	1688500	6.125	Si
SLU 77	-159	-70235	-375510	6.83	1295668	3.45	Si
SLU 77	51	-65373	262326	6.36	1639502	6.25	Si
SLU 82	-159	-71500	-371585	6.95	1195672	3.218	Si
SLU 82	51	-66638	328295	6.48	1556277	4.74	Si
SLU 80	-159	-69327	-375694	6.74	1364787	3.633	Si
SLU 80	51	-64465	277483	6.27	1696577	6.114	Si
SLU 81	-159	-71836	-365148	6.99	1168366	3.2	Si
SLU 81	51	-66974	305047	6.51	1533427	5.027	Si
SLU 84	-159	-72277	-384003	7.03	1132034	2.948	Si
SLU 84	51	-67415	314938	6.56	1502949	4.772	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	-159	-55309	2102962	5.38	3537282	1.682	Si
SLV 4	51	-51234	-767583	4.98	3466516	4.516	Si
SLV 16	-159	-43730	-2653502	4.25	3257207	1.228	Si
SLV 16	51	-40075	1267832	3.9	3118151	2.459	Si
SLV 3	-159	-55309	2102962	5.38	3537282	1.682	Si
SLV 3	51	-51234	-767583	4.98	3466516	4.516	Si
SLD 16	-159	-45315	-1267480	4.41	3309929	2.611	Si
SLD 16	51	-41608	646897	4.05	3179419	4.915	Si
SLV 13	-159	-37743	-2570692	3.67	3016726	1.174	Si
SLV 13	51	-34339	1136634	3.34	2850932	2.508	Si
SLD 15	-159	-45315	-1267480	4.41	3309929	2.611	Si
SLD 15	51	-41608	646897	4.05	3179419	4.915	Si
SLV 2	-159	-49322	2185772	4.8	3422895	1.566	Si
SLV 2	51	-45498	-898780	4.42	3315720	3.689	Si
SLV 14	-159	-37743	-2570692	3.67	3016726	1.174	Si
SLV 14	51	-34339	1136634	3.34	2850932	2.508	Si
SLV 15	-159	-43730	-2653502	4.25	3257207	1.228	Si
SLV 15	51	-40075	1267832	3.9	3118151	2.459	Si
SLV 1	-159	-49322	2185772	4.8	3422895	1.566	Si
SLV 1	51	-45498	-898780	4.42	3315720	3.689	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	-159	-72277	-3328	-384003		7.03	228.5	1.08	11139			3.35	Si
SLU 84	51	-67415	-3328	314938		6.56	228.5	1.08	11139			3.35	Si
SLU 83	-159	-72613	-3187	-377565		7.06	228.5	1.08	11139			3.5	Si
SLU 83	51	-67751	-3187	291689		6.59	228.5	1.08	11139			3.5	Si
SLU 81	-159	-71836	-3192	-365148		6.99	228.5	1.08	11139			3.49	Si
SLU 81	51	-66974	-3192	305047		6.51	228.5	1.08	11139			3.49	Si
SLU 73	-159	-67548	-3214	-355151		6.57	228.5	1.08	11139			3.47	Si
SLU 73	51	-62687	-3214	319698		6.1	228.5	1.08	11139			3.47	Si
SLU 82	-159	-71500	-3333	-371585		6.95	228.5	1.08	11139			3.34	Si
SLU 82	51	-66638	-3333	328295		6.48	228.5	1.08	11139			3.34	Si
SLU 61	-159	-63947	-3071	-336586		6.22	228.5	1.08	11139			3.63	Si
SLU 61	51	-59086	-3071	308261		5.75	228.5	1.08	11139			3.63	Si
SLU 78	-159	-69899	-3179	-381948		6.8	228.5	1.08	11139			3.5	Si
SLU 78	51	-65037	-3179	285575		6.33	228.5	1.08	11139			3.5	Si
SLU 75	-159	-69122	-3183	-369531		6.72	228.5	1.08	11139			3.5	Si
SLU 75	51	-64260	-3183	298933		6.25	228.5	1.08	11139			3.5	Si
SLU 80	-159	-69327	-3110	-375694		6.74	228.5	1.08	11139			3.58	Si
SLU 80	51	-64465	-3110	277483		6.27	228.5	1.08	11139			3.58	Si
SLU 76	-159	-68326	-3209	-367568		6.64	228.5	1.08	11139			3.47	Si
SLU 76	51	-63464	-3209	306340		6.17	228.5	1.08	11139			3.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	-159	-45315	-9117	-1267480		4.41	228.5	1.63	16709			1.83	Si
SLD 15	51	-41608	-9175	646897		4.05	228.5	1.63	16709			1.82	Si
SLV 2	-159	-49322	14695	2185772		5.22	209.8	1.63	15342			1.04	Si
SLV 2	51	-45498	14829	-898780		4.42	228.5	1.63	16709			1.13	Si
SLV 13	-159	-37743	-17638	-2570692		6.06	138.42	1.63	10122			0.57	No, Vu<V
SLV 13	51	-34339	-17651	1136634		3.34	228.5	1.5	15436			0.87	No, Vu<V
SLV 14	-159	-37743	-17638	-2570692		6.06	138.42	1.63	10122			0.57	No, Vu<V
SLV 14	51	-34339	-17651	1136634		3.34	228.5	1.5	15436			0.87	No, Vu<V
SLV 15	-159	-43730	-18680	-2653502		6.05	160.71	1.63	11752			0.63	No, Vu<V
SLV 15	51	-40075	-18813	1267832		3.9	228.5	1.61	16584			0.88	No, Vu<V
SLV 4	-159	-55309	13654	2102962		5.38	228.5	1.63	16709			1.22	Si
SLV 4	51	-51234	13667	-767583		4.98	228.5	1.63	16709			1.22	Si
SLV 16	-159	-43730	-18680	-2653502		6.05	160.71	1.63	11752			0.63	No, Vu<V
SLV 16	51	-40075	-18813	1267832		3.9	228.5	1.61	16584			0.88	No, Vu<V
SLV 1	-159	-49322	14695	2185772		5.22	209.8	1.63	15342			1.04	Si
SLV 1	51	-45498	14829	-898780		4.42	228.5	1.63	16709			1.13	Si
SLV 3	-159	-55309	13654	2102962		5.38	228.5	1.63	16709			1.22	Si
SLV 3	51	-51234	13667	-767583		4.98	228.5	1.63	16709			1.22	Si
SLD 16	-159	-45315	-9117	-1267480		4.41	228.5	1.63	16709			1.83	Si
SLD 16	51	-41608	-9175	646897		4.05	228.5	1.63	16709			1.82	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.24	3.22	-33123	13634	548784	40.25	Si
SLV 9	14	0.24	3.22	-33123	13634	548784	40.25	Si
SLV 13	14	0.24	3.5	-36025	13634	578146	42.41	Si
SLV 14	14	0.24	3.5	-36025	13634	578146	42.41	Si
SLV 6	14	0.24	3.53	-36341	13634	581158	42.63	Si
SLV 5	14	0.24	3.53	-36341	13634	581158	42.63	Si
SLV 15	14	0.24	4.06	-41731	13634	627074	45.99	Si
SLV 16	14	0.24	4.06	-41731	13634	627074	45.99	Si
SLV 1	14	0.24	4.55	-46752	13634	660485	48.44	Si
SLV 2	14	0.24	4.55	-46752	13634	660485	48.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	$\alpha 0^*$	aLim	Verifica
SLV 4	-39996	-55309	19	0.088	44.615	0.973	131.566	338.414	No
SLV 3	-39996	-55309	19	0.088	44.615	0.973	131.566	338.414	No
SLV 2	-35694	-49322	25	0.088	40.234	0.97	132.46	338.414	No
SLV 1	-35694	-49322	25	0.088	40.234	0.97	132.46	338.414	No
SLV 15	-30430	-43730	-13	0.09	34.875	0.966	134.728	338.414	No
SLV 16	-30430	-43730	-13	0.09	34.875	0.966	134.728	338.414	No
SLV 8	-41666	-58242	1	0.088	46.317	0.974	131.797	328.355	No
SLV 7	-41666	-58242	1	0.088	46.317	0.974	131.797	328.355	No
SLV 11	-38797	-54769	-9	0.088	43.394	0.972	132.231	328.355	No
SLV 12	-38797	-54769	-9	0.088	43.394	0.972	132.231	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.924	SLU 83	Si
V_SLU	3.342	SLU 82	Si
PF_SLV	1.174	SLV 13	Si
V_SLV	0.574	SLV 13	No
PFFP_SLV	40.252	SLV 9	Si
R_SLV	0.389	SLV 3	No

Maschio 32

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-598.8	104.6	-652.8	104.6	L1	L3	54	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 79	-159	-17880	-23316	7.36	46697	2.003	Si
SLU 79	51	-18615	22184	7.66	29957	1.35	Si
SLU 82	-159	-17486	-23788	7.2	55059	2.315	Si
SLU 82	51	-18782	23071	7.73	25947	1.125	Si
SLU 78	-159	-17491	-23917	7.2	54953	2.298	Si
SLU 78	51	-18581	22886	7.65	30749	1.344	Si
SLU 84	-159	-17866	-24384	7.35	46986	1.927	Si
SLU 84	51	-19118	23500	7.87	17643	0.751	No, M>Mu
SLU 80	-159	-17382	-23452	7.15	57187	2.438	Si
SLU 80	51	-18443	22396	7.59	34006	1.518	Si
SLU 81	-159	-17983	-23652	7.4	44429	1.878	Si
SLU 81	51	-18954	22858	7.8	21738	0.951	No, M>Mu
SLU 83	-159	-18364	-24248	7.56	35839	1.478	Si
SLU 83	51	-19290	23287	7.94	13276	0.57	No, M>Mu
SLU 75	-159	-17111	-23321	7.04	62637	2.686	Si
SLU 75	51	-18245	22457	7.51	38561	1.717	Si
SLU 74	-159	-17608	-23185	7.25	52516	2.265	Si
SLU 74	51	-18417	22245	7.58	34604	1.556	Si
SLU 77	-159	-17988	-23781	7.4	44316	1.863	Si
SLU 77	51	-18753	22674	7.72	26635	1.175	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 11	-159	-15568	-61562	6.41	199943	3.248	Si
SLV 11	51	-12975	74465	5.34	197237	2.649	Si
SLV 1	-159	-10499	94537	4.32	183237	1.938	Si
SLV 1	51	-11900	-88828	4.9	192525	2.167	Si
SLV 16	-159	-13038	-123955	5.37	197445	1.593	Si
SLV 16	51	-12454	117068	5.13	195218	1.668	Si
SLV 3	-159	-12753	85253	5.25	196437	2.304	Si
SLV 3	51	-12371	-69403	5.09	194849	2.808	Si
SLV 2	-159	-10499	94537	4.32	183237	1.938	Si
SLV 2	51	-11900	-88828	4.9	192525	2.167	Si
SLV 15	-159	-13038	-123955	5.37	197445	1.593	Si
SLV 15	51	-12454	117068	5.13	195218	1.668	Si
SLV 4	-159	-12753	85253	5.25	196437	2.304	Si
SLV 4	51	-12371	-69403	5.09	194849	2.808	Si
SLV 14	-159	-10783	-114672	4.44	185410	1.617	Si
SLV 14	51	-11983	97643	4.93	192965	1.976	Si
SLV 13	-159	-10783	-114672	4.44	185410	1.617	Si
SLV 13	51	-11983	97643	4.93	192965	1.976	Si
SLV 12	-159	-15568	-61562	6.41	199943	3.248	Si
SLV 12	51	-12975	74465	5.34	197237	2.649	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	-159	-17486	-210	-23788		7.2	54	1.08	2633			12.53	Si
SLU 82	51	-18782	-213	23071		7.73	54	1.08	2633			12.37	Si
SLU 81	-159	-17983	-211	-23652		7.4	54	1.08	2633			12.5	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	51	-18954	-212	22858		7.8	54	1.08	2633			12.4	Si
SLU 74	-159	-17608	-206	-23185		7.25	54	1.08	2633			12.77	Si
SLU 74	51	-18417	-208	22245		7.58	54	1.08	2633			12.67	Si
SLU 79	-159	-17880	-207	-23316		7.36	54	1.08	2633			12.72	Si
SLU 79	51	-18615	-208	22184		7.66	54	1.08	2633			12.63	Si
SLU 77	-159	-17988	-211	-23781		7.4	54	1.08	2633			12.46	Si
SLU 77	51	-18753	-213	22674		7.72	54	1.08	2633			12.36	Si
SLU 75	-159	-17111	-206	-23321		7.04	54	1.08	2633			12.79	Si
SLU 75	51	-18245	-208	22457		7.51	54	1.08	2633			12.64	Si
SLU 84	-159	-17866	-215	-24384		7.35	54	1.08	2633			12.23	Si
SLU 84	51	-19118	-218	23500		7.87	54	1.08	2633			12.08	Si
SLU 80	-159	-17382	-206	-23452		7.15	54	1.08	2633			12.75	Si
SLU 80	51	-18443	-209	22396		7.59	54	1.08	2633			12.6	Si
SLU 78	-159	-17491	-211	-23917		7.2	54	1.08	2633			12.49	Si
SLU 78	51	-18581	-213	22886		7.65	54	1.08	2633			12.33	Si
SLU 83	-159	-18364	-216	-24248		7.56	54	1.08	2633			12.21	Si
SLU 83	51	-19290	-217	23287		7.94	54	1.08	2633			12.11	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-10783	-979	-114672		4.88	49.1	1.63	3590			3.67	Si
SLV 13	51	-11983	-932	97643		4.93	54	1.63	3949			4.24	Si
SLV 4	-159	-12753	718	85253		5.25	54	1.63	3949			5.5	Si
SLV 4	51	-12371	669	-69403		5.09	54	1.63	3949			5.9	Si
SLV 12	-159	-15568	-580	-61562		6.41	54	1.63	3949			6.81	Si
SLV 12	51	-12975	-543	74465		5.34	54	1.63	3949			7.27	Si
SLV 2	-159	-10499	825	94537		4.32	53.99	1.63	3948			4.78	Si
SLV 2	51	-11900	763	-88828		4.9	54	1.63	3949			5.17	Si
SLV 3	-159	-12753	718	85253		5.25	54	1.63	3949			5.5	Si
SLV 3	51	-12371	669	-69403		5.09	54	1.63	3949			5.9	Si
SLV 11	-159	-15568	-580	-61562		6.41	54	1.63	3949			6.81	Si
SLV 11	51	-12975	-543	74465		5.34	54	1.63	3949			7.27	Si
SLV 15	-159	-13038	-1086	-123955		5.52	52.48	1.63	3837			3.53	Si
SLV 15	51	-12454	-1026	117068		5.24	52.8	1.63	3861			3.76	Si
SLV 14	-159	-10783	-979	-114672		4.88	49.1	1.63	3590			3.67	Si
SLV 14	51	-11983	-932	97643		4.93	54	1.63	3949			4.24	Si
SLV 1	-159	-10499	825	94537		4.32	53.99	1.63	3948			4.78	Si
SLV 1	51	-11900	763	-88828		4.9	54	1.63	3949			5.17	Si
SLV 16	-159	-13038	-1086	-123955		5.52	52.48	1.63	3837			3.53	Si
SLV 16	51	-12454	-1026	117068		5.24	52.8	1.63	3861			3.76	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.24	3.88	-9440	3222	144872	44.96	Si
SLV 9	14	0.24	3.88	-9440	3222	144872	44.96	Si
SLV 5	14	0.24	3.9	-9471	3222	145126	45.04	Si
SLV 6	14	0.24	3.9	-9471	3222	145126	45.04	Si
SLV 14	14	0.24	4.41	-10710	3222	154052	47.81	Si
SLV 13	14	0.24	4.41	-10710	3222	154052	47.81	Si
SLV 1	14	0.24	4.45	-10813	3222	154693	48.01	Si
SLV 2	14	0.24	4.45	-10813	3222	154693	48.01	Si
SLV 16	14	0.24	4.87	-11829	3222	160119	49.7	Si
SLV 15	14	0.24	4.87	-11829	3222	160119	49.7	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-5703	-10499	18	0.089	6.727	0.959	134.143	338.414	No
SLV 1	-5703	-10499	18	0.089	6.727	0.959	134.143	338.414	No
SLV 3	-5933	-12753	16	0.089	6.962	0.961	134.301	338.414	No
SLV 4	-5933	-12753	16	0.089	6.962	0.961	134.301	338.414	No
SLV 14	-5391	-10783	19	0.089	6.41	0.958	134.632	338.414	No
SLV 13	-5391	-10783	19	0.089	6.41	0.958	134.632	338.414	No
SLV 16	-5621	-13038	16	0.089	6.645	0.959	134.783	338.414	No
SLV 15	-5621	-13038	16	0.089	6.645	0.959	134.783	338.414	No
SLV 6	-5325	-7968	22	0.088	6.343	0.957	134.109	328.355	No
SLV 5	-5325	-7968	22	0.088	6.343	0.957	134.109	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.57	SLU 83	No
V_SLV	12.084	SLU 84	Si
PF_SLV	1.593	SLV 15	Si
V_SLV	3.533	SLV 15	Si
PFFP_SLV	44.964	SLV 9	Si
R_SLV	0.396	SLV 1	No

Maschio 33

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	104.6	-508.8	104.6	L1	L3	496.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 77	-159	-117073	-1948972	5.24	10367913	5.32	Si
SLU 77	51	-110195	819819	4.93	10792660	13.165	Si
SLU 80	-159	-116393	-1937297	5.21	10415661	5.376	Si
SLU 80	51	-109472	746017	4.9	10829820	14.517	Si
SLU 74	-159	-115816	-1895607	5.18	10455177	5.515	Si
SLU 74	51	-108835	781708	4.87	10861359	13.894	Si
SLU 81	-159	-119133	-1871085	5.33	10215630	5.46	Si
SLU 81	51	-112296	850895	5.03	10676582	12.547	Si
SLU 84	-159	-120436	-1944846	5.39	10113275	5.2	Si
SLU 84	51	-113689	813963	5.09	10593015	13.014	Si
SLU 75	-159	-115863	-1916004	5.19	10452037	5.455	Si
SLU 75	51	-108867	706665	4.87	10859766	15.368	Si
SLU 79	-159	-116347	-1916901	5.21	10418868	5.435	Si
SLU 79	51	-109439	821060	4.9	10831467	13.192	Si
SLU 78	-159	-117120	-1969368	5.24	10364614	5.263	Si
SLU 78	51	-110228	744776	4.93	10790946	14.489	Si
SLU 82	-159	-119179	-1891482	5.33	10212071	5.399	Si
SLU 82	51	-112329	775852	5.03	10674680	13.759	Si
SLU 83	-159	-120390	-1924449	5.39	10116992	5.257	Si
SLU 83	51	-113657	889006	5.09	10595038	11.918	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 4	-159	-72561	4523444	3.25	13225443	2.924	Si
SLV 4	51	-60891	1681206	2.73	11744645	6.986	Si
SLV 1	-159	-71538	5050178	3.2	13105551	2.595	Si
SLV 1	51	-60537	1468970	2.71	11695852	7.962	Si
SLD 15	-159	-82312	-3998315	3.68	14272856	3.57	Si
SLD 15	51	-78575	-47910	3.52	13891918	289.96	Si
SLV 14	-159	-85603	-7103630	3.83	14587341	2.054	Si
SLV 14	51	-85455	-866011	3.82	14573609	16.828	Si
SLV 15	-159	-86626	-7630363	3.88	14681069	1.924	Si
SLV 15	51	-85809	-653776	3.84	14606360	22.342	Si
SLV 13	-159	-85603	-7103630	3.83	14587341	2.054	Si
SLV 13	51	-85455	-866011	3.82	14573609	16.828	Si
SLD 16	-159	-82312	-3998315	3.68	14272856	3.57	Si
SLD 16	51	-78575	-47910	3.52	13891918	289.96	Si
SLV 2	-159	-71538	5050178	3.2	13105551	2.595	Si
SLV 2	51	-60537	1468970	2.71	11695852	7.962	Si
SLV 3	-159	-72561	4523444	3.25	13225443	2.924	Si
SLV 3	51	-60891	1681206	2.73	11744645	6.986	Si
SLV 16	-159	-86626	-7630363	3.88	14681069	1.924	Si
SLV 16	51	-85809	-653776	3.84	14606360	22.342	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 75	-159	-115863	-16416	-1916004		5.19	496.5	1.08	24204			1.47	Si
SLU 75	51	-108867	-16434	706665		4.87	496.5	1.08	24204			1.47	Si
SLU 77	-159	-117073	-17248	-1948972		5.24	496.5	1.08	24204			1.4	Si
SLU 77	51	-110195	-17279	819819		4.93	496.5	1.08	24204			1.4	Si
SLU 78	-159	-117120	-16973	-1969368		5.24	496.5	1.08	24204			1.43	Si
SLU 78	51	-110228	-16992	744776		4.93	496.5	1.08	24204			1.42	Si
SLU 80	-159	-116393	-16791	-1937297		5.21	496.5	1.08	24204			1.44	Si
SLU 80	51	-109472	-16810	746017		4.9	496.5	1.08	24204			1.44	Si
SLU 82	-159	-119179	-16799	-1891482		5.33	496.5	1.08	24204			1.44	Si
SLU 82	51	-112329	-16818	775852		5.03	496.5	1.08	24204			1.44	Si
SLU 81	-159	-119133	-17074	-1871085		5.33	496.5	1.08	24204			1.42	Si
SLU 81	51	-112296	-17106	850895		5.03	496.5	1.08	24204			1.41	Si
SLU 83	-159	-120390	-17631	-1924449		5.39	496.5	1.08	24204			1.37	Si
SLU 83	51	-113657	-17663	889006		5.09	496.5	1.08	24204			1.37	Si
SLU 74	-159	-115816	-16691	-1895607		5.18	496.5	1.08	24204			1.45	Si
SLU 74	51	-108835	-16722	781708		4.87	496.5	1.08	24204			1.45	Si
SLU 84	-159	-120436	-17356	-1944846		5.39	496.5	1.08	24204			1.39	Si
SLU 84	51	-113689	-17376	813963		5.09	496.5	1.08	24204			1.39	Si
SLU 79	-159	-116347	-17066	-1916901		5.21	496.5	1.08	24204			1.42	Si
SLU 79	51	-109439	-17097	821060		4.9	496.5	1.08	24204			1.42	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	-159	-85603	-38557	-7103630		3.84	495.8	1.6	35713			0.93	No, Vu<V
SLV 14	51	-85455	-39013	-866011		3.82	496.5	1.6	35710			0.92	No, Vu<V
SLV 12	-159	-82896	-23798	-3991053		3.71	496.5	1.58	35198			1.48	Si
SLV 12	51	-77501	-22883	411076		3.47	496.5	1.53	34119			1.49	Si
SLV 15	-159	-86626	-41251	-7630363		4.01	480.5	1.63	35136			0.85	No, Vu<V
SLV 15	51	-85809	-41119	-653776		3.84	496.5	1.6	35781			0.87	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	-159	-82312	-23626	-3998315		3.68	496.5	1.57	35081			1.48	Si
SLD 15	51	-78575	-23585	-47910		3.52	496.5	1.54	34334			1.46	Si
SLV 13	-159	-85603	-38557	-7103630		3.84	495.8	1.6	35713			0.93	No, Vu<V
SLV 13	51	-85455	-39013	-866011		3.82	496.5	1.6	35710			0.92	No, Vu<V
SLD 16	-159	-82312	-23626	-3998315		3.68	496.5	1.57	35081			1.48	Si
SLD 16	51	-78575	-23585	-47910		3.52	496.5	1.54	34334			1.46	Si
SLV 16	-159	-86626	-41251	-7630363		4.01	480.5	1.63	35136			0.85	No, Vu<V
SLV 16	51	-85809	-41119	-653776		3.84	496.5	1.6	35781			0.87	No, Vu<V
SLD 13	-159	-81887	-22493	-3774241		3.67	496.5	1.57	34996			1.56	Si
SLD 13	51	-78442	-22695	-134376		3.51	496.5	1.54	34307			1.51	Si
SLV 11	-159	-82896	-23798	-3991053		3.71	496.5	1.58	35198			1.48	Si
SLV 11	51	-77501	-22883	411076		3.47	496.5	1.53	34119			1.49	Si
SLD 14	-159	-81887	-22493	-3774241		3.67	496.5	1.57	34996			1.56	Si
SLD 14	51	-78442	-22695	-134376		3.51	496.5	1.54	34307			1.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	2.93	-65548	29624	1120713	37.83	Si
SLV 2	14	0.24	2.93	-65548	29624	1120713	37.83	Si
SLV 3	14	0.24	2.96	-66081	29624	1126930	38.04	Si
SLV 4	14	0.24	2.96	-66081	29624	1126930	38.04	Si
SLV 5	14	0.24	3.22	-71989	29624	1192626	40.26	Si
SLV 6	14	0.24	3.22	-71989	29624	1192626	40.26	Si
SLV 7	14	0.24	3.3	-73768	29624	1211280	40.89	Si
SLV 8	14	0.24	3.3	-73768	29624	1211280	40.89	Si
SLV 10	14	0.24	3.49	-78044	29624	1253988	42.33	Si
SLV 9	14	0.24	3.49	-78044	29624	1253988	42.33	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-60890	-75267	654	0.081	70.457	0.964	121.54	328.355	No
SLV 5	-60890	-75267	654	0.081	70.457	0.964	121.54	328.355	No
SLV 10	-65512	-79487	597	0.082	75.161	0.966	122.781	328.355	No
SLV 9	-65512	-79487	597	0.082	75.161	0.966	122.781	328.355	No
SLV 12	-66463	-82896	-593	0.082	76.129	0.966	122.844	328.355	No
SLV 11	-66463	-82896	-593	0.082	76.129	0.966	122.844	328.355	No
SLV 7	-61841	-78677	-536	0.082	71.425	0.964	124.174	328.355	No
SLV 8	-61841	-78677	-536	0.082	71.425	0.964	124.174	328.355	No
SLV 16	-71523	-86626	-243	0.086	81.279	0.968	129.619	338.414	No
SLV 15	-71523	-86626	-243	0.086	81.279	0.968	129.619	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.2	SLU 84	Si
V_SLU	1.37	SLU 83	Si
PF_SLV	1.924	SLV 15	Si
V_SLV	0.852	SLV 15	No
PFFP_SLV	37.831	SLV 1	Si
R_SLV	0.37	SLV 5	No

Maschio 34

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.7	333.1	-1475.8	333.1	L1	L3	30	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 47	-159	-2962	278	3.29	26443	95.271	Si
SLU 47	61	-1754	-4583	1.95	19990	4.362	Si
SLU 64	-159	-3394	-2	3.77	27299	1000	Si
SLU 64	61	-2104	-5070	2.34	22474	4.432	Si
SLU 46	-159	-3031	429	3.37	26632	62.121	Si
SLU 46	61	-1779	-4807	1.98	20189	4.2	Si
SLU 65	-159	-3393	-2	3.77	27299	1000	Si
SLU 65	61	-2104	-5068	2.34	22474	4.434	Si
SLU 43	-159	-3114	654	3.46	26830	41.024	Si
SLU 43	61	-1804	-5086	2.01	20376	4.006	Si
SLU 48	-159	-2881	52	3.2	26196	499.072	Si
SLU 48	61	-1729	-4306	1.92	19800	4.598	Si
SLU 45	-159	-3032	429	3.37	26632	62.11	Si
SLU 45	61	-1779	-4808	1.98	20190	4.2	Si
SLU 44	-159	-3113	654	3.46	26829	41.031	Si
SLU 44	61	-1804	-5084	2.01	20375	4.007	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 2	-159	-2469	330	2.75	24530	74.332	Si
SLU 2	61	-1466	-3906	1.63	17578	4.5	Si
SLU 1	-159	-2469	330	2.75	24532	74.305	Si
SLU 1	61	-1467	-3908	1.63	17580	4.498	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	-159	-4283	9990	4.76	39171	3.921	Si
SLV 1	61	-1714	-17615	1.91	21680	1.231	Si
SLV 6	-159	-4902	7332	5.45	40692	5.55	Si
SLV 6	61	-2216	-13137	2.46	26513	2.018	Si
SLV 16	-159	-1020	-10210	1.13	13874	1.359	Si
SLV 16	61	-1615	9858	1.8	20643	2.094	Si
SLV 4	-159	-3123	7081	3.47	33500	4.731	Si
SLV 4	61	-1360	-14227	1.51	17860	1.255	Si
SLV 2	-159	-4283	9990	4.76	39171	3.921	Si
SLV 2	61	-1714	-17615	1.91	21680	1.231	Si
SLV 12	-159	-402	-7552	0	0	0	No, $e \geq l/2$
SLV 12	61	-1113	5380	1.24	14986	2.786	Si
SLV 15	-159	-1020	-10210	1.13	13874	1.359	Si
SLV 15	61	-1615	9858	1.8	20643	2.094	Si
SLV 5	-159	-4902	7332	5.45	40692	5.55	Si
SLV 5	61	-2216	-13137	2.46	26513	2.018	Si
SLV 3	-159	-3123	7081	3.47	33500	4.731	Si
SLV 3	61	-1360	-14227	1.51	17860	1.255	Si
SLV 11	-159	-402	-7552	0	0	0	No, $e \geq l/2$
SLV 11	61	-1113	5380	1.24	14986	2.786	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	-159	-3114	24	654		3.46	29.98	1.02	915			38.57	Si
SLU 43	61	-1804	82	-5086		2.01	29.98	0.82	740			8.99	Si
SLU 49	-159	-2880	8	52		3.2	29.98	0.98	884			112.47	Si
SLU 49	61	-1729	63	-4305		1.92	29.98	0.81	730			11.64	Si
SLU 48	-159	-2881	8	52		3.2	29.98	0.98	884			112.18	Si
SLU 48	61	-1729	63	-4306		1.92	29.98	0.81	730			11.65	Si
SLU 2	-159	-2469	14	330		2.75	29.98	0.92	829			59.41	Si
SLU 2	61	-1466	60	-3906		1.63	29.98	0.77	695			11.64	Si
SLU 46	-159	-3031	18	429		3.37	29.98	1.01	904			50.72	Si
SLU 46	61	-1779	76	-4807		1.98	29.98	0.82	737			9.74	Si
SLU 64	-159	-3394	8	-2		3.77	29.98	1.06	952			125.81	Si
SLU 64	61	-2104	68	-5070		2.34	29.98	0.87	780			11.42	Si
SLU 65	-159	-3393	8	-2		3.77	29.98	1.06	952			126.39	Si
SLU 65	61	-2104	68	-5068		2.34	29.98	0.87	780			11.41	Si
SLU 44	-159	-3113	24	654		3.46	29.98	1.02	915			38.62	Si
SLU 44	61	-1804	82	-5084		2.01	29.98	0.82	740			8.98	Si
SLU 45	-159	-3032	18	429		3.37	29.98	1.01	904			50.67	Si
SLU 45	61	-1779	76	-4808		1.98	29.98	0.82	737			9.75	Si
SLU 47	-159	-2962	14	278		3.29	29.98	0.99	895			65.2	Si
SLU 47	61	-1754	69	-4583		1.95	29.98	0.82	733			10.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-2181	-211	-7302		2.43	29.98	1.32	1186			5.62	Si
SLV 13	61	-1969	3	6470		2.19	29.98	1.27	1143			414.32	Si
SLV 11	-159	-402	-211	-7552		0	0	0.83	0			0	No, $V_u < V$
SLV 11	61	-1113	-164	5380		1.24	29.98	1.08	972			5.93	Si
SLV 5	-159	-4902	217	7332		5.45	29.98	1.63	1461			6.74	Si
SLV 5	61	-2216	263	-13137		2.72	27.18	1.38	1123			4.27	Si
SLV 16	-159	-1020	-293	-10210		2.28	14.95	1.29	578			1.97	Si
SLV 16	61	-1615	-107	9858		2.02	26.65	1.24	989			9.25	Si
SLV 14	-159	-2181	-211	-7302		2.43	29.98	1.32	1186			5.62	Si
SLV 14	61	-1969	3	6470		2.19	29.98	1.27	1143			414.32	Si
SLV 15	-159	-1020	-293	-10210		2.28	14.95	1.29	578			1.97	Si
SLV 15	61	-1615	-107	9858		2.02	26.65	1.24	989			9.25	Si
SLV 12	-159	-402	-211	-7552		0	0	0.83	0			0	No, $V_u < V$
SLV 12	61	-1113	-164	5380		1.24	29.98	1.08	972			5.93	Si
SLV 6	-159	-4902	217	7332		5.45	29.98	1.63	1461			6.74	Si
SLV 6	61	-2216	263	-13137		2.72	27.18	1.38	1123			4.27	Si
SLV 1	-159	-4283	299	9990		4.76	29.98	1.63	1461			4.88	Si
SLV 1	61	-1714	206	-17615		4.04	14.13	1.63	689			3.35	Si
SLV 2	-159	-4283	299	9990		4.76	29.98	1.63	1461			4.88	Si
SLV 2	61	-1714	206	-17615		4.04	14.13	1.63	689			3.35	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	1.07	-965	1192	13205	11.07	Si
SLV 11	14	0.24	1.07	-965	1192	13205	11.07	Si
SLV 8	14	0.24	1.49	-1340	1192	17653	14.81	Si
SLV 7	14	0.24	1.49	-1340	1192	17653	14.81	Si
SLV 15	14	0.24	1.57	-1416	1192	18502	15.52	Si
SLV 16	14	0.24	1.57	-1416	1192	18502	15.52	Si
SLV 13	14	0.24	2.42	-2178	1192	26190	21.97	Si
SLV 14	14	0.24	2.42	-2178	1192	26190	21.97	Si
SLV 4	14	0.24	2.97	-2667	1192	30293	25.41	Si
SLV 3	14	0.24	2.97	-2667	1192	30293	25.41	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 8	-609	-1033	-31	0.032	0.971	0.912	51.596	392.468	No
SLV 7	-609	-1033	-31	0.032	0.971	0.912	51.596	392.468	No
SLV 3	-1072	-3123	-25	0.046	1.436	0.934	71.061	411.62	No
SLV 4	-1072	-3123	-25	0.046	1.436	0.934	71.061	411.62	No
SLV 14	-1255	-2181	24	0.047	1.621	0.941	73.222	411.62	No
SLV 13	-1255	-2181	24	0.047	1.621	0.941	73.222	411.62	No
SLV 12	-560	-402	-21	0.044	0.922	0.908	70.353	392.468	No
SLV 11	-560	-402	-21	0.044	0.922	0.908	70.353	392.468	No
SLV 9	-1717	-4271	31	0.046	2.09	0.952	70.357	392.468	No
SLV 10	-1717	-4271	31	0.046	2.09	0.952	70.357	392.468	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.006	SLU 43	Si
V_SLU	8.978	SLU 44	Si
PF_SLV	0	SLV 11	No
V_SLV	0	SLV 11	No
PFFP_SLV	11.075	SLV 11	Si
R_SLV	0.131	SLV 7	No

Maschio 35

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.8	333.1	-972.8	333.1	L1	L3	403	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 38	-159	-28530	-268033	2.36	4083422	15.235	Si
SLU 38	61	-19612	-411939	1.62	3164878	7.683	Si
SLU 36	-159	-28923	-257058	2.39	4116411	16.014	Si
SLU 36	61	-19883	-411678	1.64	3197604	7.767	Si
SLU 79	-159	-34101	-263271	2.82	4492048	17.062	Si
SLU 79	61	-22811	-462578	1.89	3531763	7.635	Si
SLU 35	-159	-28897	-257797	2.39	4114197	15.959	Si
SLU 35	61	-19864	-411731	1.64	3195288	7.761	Si
SLU 78	-159	-34520	-251557	2.86	4517683	17.959	Si
SLU 78	61	-23101	-462265	1.91	3563002	7.708	Si
SLU 80	-159	-34127	-262532	2.82	4493695	17.117	Si
SLU 80	61	-22830	-462525	1.89	3533846	7.64	Si
SLU 29	-159	-223333	-223333	1.99	3669768	16.432	Si
SLU 29	61	-15829	-347249	1.31	2676903	7.709	Si
SLU 37	-159	-28504	-268772	2.36	4081165	15.184	Si
SLU 37	61	-19593	-411991	1.62	3162540	7.676	Si
SLU 30	-159	-24146	-222594	2	3672501	16.499	Si
SLU 30	61	-15848	-347196	1.31	2679537	7.718	Si
SLU 77	-159	-34494	-252296	2.85	4516079	17.9	Si
SLU 77	61	-23082	-462318	1.91	3560940	7.702	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	-159	-17245	917475	1.43	3069261	3.345	Si
SLV 15	61	-13183	-248385	1.09	2419390	9.74	Si
SLV 13	-159	-17562	1533364	1.45	3118089	2.033	Si
SLV 13	61	-11052	124774	0.91	2060358	16.513	Si
SLV 3	-159	-31276	-1701147	2.59	4967881	2.92	Si
SLV 3	61	-20416	-680287	1.69	3545250	5.211	Si
SLV 8	-159	-25996	-1503166	2.15	4316347	2.872	Si
SLV 8	61	-20371	-964472	1.68	3538746	3.669	Si
SLV 10	-159	-22843	1335383	1.89	3891115	2.914	Si
SLV 10	61	-11097	408959	0.92	2067996	5.057	Si
SLV 9	-159	-22843	1335383	1.89	3891115	2.914	Si
SLV 9	61	-11097	408959	0.92	2067996	5.057	Si
SLV 7	-159	-25996	-1503166	2.15	4316347	2.872	Si
SLV 7	61	-20371	-964472	1.68	3538746	3.669	Si
SLV 4	-159	-31276	-1701147	2.59	4967881	2.92	Si
SLV 4	61	-20416	-680287	1.69	3545250	5.211	Si
SLV 16	-159	-17245	917475	1.43	3069261	3.345	Si
SLV 16	61	-13183	-248385	1.09	2419390	9.74	Si
SLV 14	-159	-17562	1533364	1.45	3118089	2.033	Si
SLV 14	61	-11052	124774	0.91	2060358	16.513	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	-159	-36657	35	-228105		3.03	403	0.96	11604			330.29	Si
SLU 84	61	-24841	-473	-468936		2.05	403	0.83	10029			21.21	Si
SLU 82	-159	-37309	25	-174205		3.09	403	0.97	11691			472.42	Si
SLU 82	61	-25239	-499	-447600		2.09	403	0.83	10082			20.21	Si
SLU 74	-159	-35145	21	-198395		2.91	403	0.94	11403			537.41	Si
SLU 74	61	-23480	-463	-440982		1.94	403	0.81	9847			21.27	Si
SLU 75	-159	-35171	21	-197656		2.91	403	0.94	11406			538.02	Si
SLU 75	61	-23499	-463	-440929		1.94	403	0.81	9850			21.27	Si
SLU 73	-159	-35447	15	-154238		2.93	403	0.95	11443			761.91	Si
SLU 73	61	-23638	-478	-419818		1.96	403	0.82	9868			20.64	Si
SLU 52	-159	-32291	-2	-91766		2.67	403	0.91	11022			1000	Si
SLU 52	61	-20886	-442	-356373		1.73	403	0.79	9501			21.47	Si
SLU 83	-159	-36631	35	-228844		3.03	403	0.96	11601			330.02	Si
SLU 83	61	-24822	-473	-468989		2.05	403	0.83	10026			21.21	Si
SLU 81	-159	-37282	25	-174944		3.08	403	0.97	11688			471.93	Si
SLU 81	61	-25219	-499	-447653		2.09	403	0.83	10079			20.21	Si
SLU 60	-159	-34125	8	-112471		2.82	403	0.93	11267			1000	Si
SLU 60	61	-22467	-463	-384207		1.86	403	0.8	9712			20.97	Si
SLU 61	-159	-34152	8	-111733		2.82	403	0.93	11270			1000	Si
SLU 61	61	-22486	-463	-384154		1.86	403	0.8	9715			20.97	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	-159	-31276	-8730	-1701147		2.59	403	1.35	16330			1.87	Si
SLV 4	61	-20416	-5516	-680287		1.69	403	1.17	14158			2.57	Si
SLV 1	-159	-31593	-8353	-1085258		2.61	403	1.36	16394			1.96	Si
SLV 1	61	-18284	-5900	-307128		1.51	403	1.14	13732			2.33	Si
SLV 3	-159	-31276	-8730	-1701147		2.59	403	1.35	16330			1.87	Si
SLV 3	61	-20416	-5516	-680287		1.69	403	1.17	14158			2.57	Si
SLV 15	-159	-17245	8347	917475		1.43	403	1.12	13524			1.62	Si
SLV 15	61	-13183	5227	-248385		1.09	403	1.05	12712			2.43	Si
SLV 14	-159	-17562	8724	1533364		1.71	342.57	1.18	12077			1.38	Si
SLV 14	61	-11052	4844	124774		0.91	403	1.02	12285			2.54	Si
SLV 2	-159	-31593	-8353	-1085258		2.61	403	1.36	16394			1.96	Si
SLV 2	61	-18284	-5900	-307128		1.51	403	1.14	13732			2.33	Si
SLV 13	-159	-17562	8724	1533364		1.71	342.57	1.18	12077			1.38	Si
SLV 13	61	-11052	4844	124774		0.91	403	1.02	12285			2.54	Si
SLD 14	-159	-21469	3737	604935		1.78	403	1.19	14369			3.84	Si
SLD 14	61	-13739	1880	-107681		1.14	403	1.06	12823			6.82	Si
SLD 13	-159	-21469	3737	604935		1.78	403	1.19	14369			3.84	Si
SLD 13	61	-13739	1880	-107681		1.14	403	1.06	12823			6.82	Si
SLV 16	-159	-17245	8347	917475		1.43	403	1.12	13524			1.62	Si
SLV 16	61	-13183	5227	-248385		1.09	403	1.05	12712			2.43	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.24	1.23	-14828	16030	200091	12.48	Si
SLV 15	14	0.24	1.23	-14828	16030	200091	12.48	Si
SLV 13	14	0.24	1.24	-15021	16030	202409	12.63	Si
SLV 14	14	0.24	1.24	-15021	16030	202409	12.63	Si
SLV 12	14	0.24	1.56	-18858	16030	246761	15.39	Si
SLV 11	14	0.24	1.56	-18858	16030	246761	15.39	Si
SLV 9	14	0.24	1.61	-19504	16030	253930	15.84	Si
SLV 10	14	0.24	1.61	-19504	16030	253930	15.84	Si
SLV 7	14	0.24	1.86	-22506	16030	286161	17.85	Si
SLV 8	14	0.24	1.86	-22506	16030	286161	17.85	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-7836	-22843	-533	0.021	12.698	0.91	34.248	392.468	No
SLV 9	-7836	-22843	-533	0.021	12.698	0.91	34.248	392.468	No
SLV 6	-10238	-27052	-591	0.023	15.098	0.92	36.681	392.468	No
SLV 5	-10238	-27052	-591	0.023	15.098	0.92	36.681	392.468	No
SLV 11	-16919	-21786	625	0.033	21.841	0.941	50.222	392.468	No
SLV 12	-16919	-21786	625	0.033	21.841	0.941	50.222	392.468	No
SLV 8	-19321	-25996	566	0.038	24.276	0.946	57.874	392.468	No
SLV 7	-19321	-25996	566	0.038	24.276	0.946	57.874	392.468	No
SLV 15	-10937	-17245	288	0.047	15.801	0.923	73.584	411.62	No
SLV 16	-10937	-17245	288	0.047	15.801	0.923	73.584	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.635	SLU 79	Si
V_SLU	20.21	SLU 81	Si
PF_SLV	2.033	SLV 13	Si
V_SLV	1.384	SLV 13	Si
PFFP_SLV	12.482	SLV 15	Si
R_SLV	0.087	SLV 9	No



Maschio 36

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1969.3	657.6	-1776.8	657.6	L1	L3	192.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 81	41	-24687	-424970	2.85	1544823	3.635	Si
SLU 81	81	-24811	-539993	2.86	1548378	2.867	Si
SLU 77	41	-24524	-416613	2.83	1540080	3.697	Si
SLU 77	81	-24642	-535261	2.84	1543511	2.884	Si
SLU 82	41	-24685	-425271	2.85	1544777	3.632	Si
SLU 82	81	-24810	-540152	2.86	1548344	2.866	Si
SLU 74	41	-24211	-412723	2.79	1530754	3.709	Si
SLU 74	81	-24322	-528114	2.81	1534087	2.905	Si
SLU 79	41	-24329	-412523	2.81	1534299	3.719	Si
SLU 79	81	-24435	-530480	2.82	1537451	2.898	Si
SLU 78	41	-24523	-416915	2.83	1540034	3.694	Si
SLU 78	81	-24641	-535420	2.84	1543477	2.883	Si
SLU 83	41	-25000	-428860	2.89	1553742	3.623	Si
SLU 83	81	-25131	-547139	2.9	1557375	2.846	Si
SLU 84	41	-24999	-429161	2.89	1553697	3.62	Si
SLU 84	81	-25129	-547299	2.9	1557343	2.846	Si
SLU 75	41	-24209	-413024	2.79	1530707	3.706	Si
SLU 75	81	-24321	-528274	2.81	1534052	2.904	Si
SLU 80	41	-24327	-412825	2.81	1534251	3.716	Si
SLU 80	81	-24434	-530640	2.82	1537416	2.897	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 1	41	-15962	-393555	1.84	1304667	3.315	Si
SLD 1	81	-15924	-435771	1.84	1302078	2.988	Si
SLD 2	41	-15962	-393555	1.84	1304667	3.315	Si
SLD 2	81	-15924	-435771	1.84	1302078	2.988	Si
SLD 4	41	-17594	-400900	2.03	1411913	3.522	Si
SLD 4	81	-17675	-458080	2.04	1417123	3.094	Si
SLV 6	41	-10284	-330983	1.19	893691	2.7	Si
SLV 6	81	-9843	-331841	1.14	859313	2.59	Si
SLV 3	41	-18912	-564297	2.18	1495051	2.649	Si
SLV 3	81	-19066	-591936	2.2	1504530	2.542	Si
SLV 2	41	-15043	-545856	1.74	1242081	2.275	Si
SLV 2	81	-14920	-538780	1.72	1233645	2.29	Si
SLV 1	41	-15043	-545856	1.74	1242081	2.275	Si
SLV 1	81	-14920	-538780	1.72	1233645	2.29	Si
SLV 5	41	-10284	-330983	1.19	893691	2.7	Si
SLV 5	81	-9843	-331841	1.14	859313	2.59	Si
SLD 3	41	-17594	-400900	2.03	1411913	3.522	Si
SLD 3	81	-17675	-458080	2.04	1417123	3.094	Si
SLV 4	41	-18912	-564297	2.18	1495051	2.649	Si
SLV 4	81	-19066	-591936	2.2	1504530	2.542	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	41	-25000	658	-428860		2.89	192.5	0.94	8146			12.39	Si
SLU 83	81	-25131	1108	-547139		2.9	192.5	0.94	8163			7.37	Si
SLU 84	41	-24999	653	-429161		2.89	192.5	0.94	8146			12.47	Si
SLU 84	81	-25129	1104	-547299		2.9	192.5	0.94	8163			7.4	Si
SLU 69	41	-22227	676	-369417		2.57	192.5	0.9	7776			11.5	Si
SLU 69	81	-22272	1077	-479715		2.57	192.5	0.9	7782			7.23	Si
SLU 78	41	-24523	695	-416915		2.83	192.5	0.93	8082			11.63	Si
SLU 78	81	-24641	1138	-535420		2.84	192.5	0.93	8098			7.12	Si
SLU 79	41	-24329	711	-412523		2.81	192.5	0.93	8056			11.33	Si
SLU 79	81	-24435	1150	-530480		2.82	192.5	0.93	8070			7.02	Si
SLU 71	41	-22032	688	-365327		2.54	192.5	0.89	7750			11.27	Si
SLU 71	81	-22065	1084	-474934		2.55	192.5	0.9	7755			7.15	Si
SLU 77	41	-24524	700	-416613		2.83	192.5	0.93	8082			11.55	Si
SLU 77	81	-24642	1143	-535261		2.84	192.5	0.93	8098			7.09	Si
SLU 72	41	-22030	683	-365628		2.54	192.5	0.89	7750			11.34	Si
SLU 72	81	-22064	1080	-475094		2.55	192.5	0.9	7754			7.18	Si
SLU 70	41	-22225	672	-369718		2.57	192.5	0.9	7776			11.57	Si
SLU 70	81	-22271	1072	-479874		2.57	192.5	0.9	7782			7.26	Si
SLU 80	41	-24327	707	-412825		2.81	192.5	0.93	8056			11.4	Si
SLU 80	81	-24434	1146	-530640		2.82	192.5	0.93	8070			7.04	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	41	-18912	-6256	-564297		2.18	192.5	1.27	11001			1.76	Si
SLV 4	81	-19066	-6217	-591936		2.2	192.5	1.27	11032			1.77	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	41	-10284	-3938	-330983		1.19	192.2	1.07	9264			2.35	Si
SLV 5	81	-9843	-3460	-331841		1.17	187.61	1.07	9004			2.6	Si
SLV 16	41	-18216	8402	-11846		2.1	192.5	1.25	10862			1.29	Si
SLV 16	81	-18378	8817	-177864		2.12	192.5	1.26	10894			1.24	Si
SLV 13	41	-14346	7104	6595		1.66	192.5	1.16	10088			1.42	Si
SLV 13	81	-14233	7661	-124709		1.64	192.5	1.16	10065			1.31	Si
SLV 14	41	-14346	7104	6595		1.66	192.5	1.16	10088			1.42	Si
SLV 14	81	-14233	7661	-124709		1.64	192.5	1.16	10065			1.31	Si
SLV 2	41	-15043	-7554	-545856		1.86	179.89	1.2	9754			1.29	Si
SLV 2	81	-14920	-7373	-538780		1.84	180.42	1.2	9750			1.32	Si
SLV 15	41	-18216	8402	-11846		2.1	192.5	1.25	10862			1.29	Si
SLV 15	81	-18378	8817	-177864		2.12	192.5	1.26	10894			1.24	Si
SLV 6	41	-10284	-3938	-330983		1.19	192.2	1.07	9264			2.35	Si
SLV 6	81	-9843	-3460	-331841		1.17	187.61	1.07	9004			2.6	Si
SLV 1	41	-15043	-7554	-545856		1.86	179.89	1.2	9754			1.29	Si
SLV 1	81	-14920	-7373	-538780		1.84	180.42	1.2	9750			1.32	Si
SLV 3	41	-18912	-6256	-564297		2.18	192.5	1.27	11001			1.76	Si
SLV 3	81	-19066	-6217	-591936		2.2	192.5	1.27	11032			1.77	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	1.18	-10253	11486	208346	18.14	Si
SLV 10	14	0.24	1.18	-10253	11486	208346	18.14	Si
SLV 5	14	0.24	1.24	-10763	11486	217539	18.94	Si
SLV 6	14	0.24	1.24	-10763	11486	217539	18.94	Si
SLV 13	14	0.24	1.75	-15183	11486	292619	25.48	Si
SLV 14	14	0.24	1.75	-15183	11486	292619	25.48	Si
SLV 2	14	0.24	1.95	-16883	11486	319269	27.8	Si
SLV 1	14	0.24	1.95	-16883	11486	319269	27.8	Si
SLV 15	14	0.24	2.3	-19919	11486	363835	31.68	Si
SLV 16	14	0.24	2.3	-19919	11486	363835	31.68	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-12268	-20550	-863	0.036	15.797	0.941	55.222	338.414	No
SLV 1	-12268	-20550	-863	0.036	15.797	0.941	55.222	338.414	No
SLV 6	-7289	-10625	-629	0.035	10.772	0.92	55.706	328.355	No
SLV 5	-7289	-10625	-629	0.035	10.772	0.92	55.706	328.355	No
SLV 3	-16824	-27729	-985	0.041	20.419	0.953	62.281	338.414	No
SLV 4	-16824	-27729	-985	0.041	20.419	0.953	62.281	338.414	No
SLV 9	-7578	-9296	-551	0.045	11.061	0.922	70.63	328.355	No
SLV 10	-7578	-9296	-551	0.045	11.061	0.922	70.63	328.355	No
SLV 8	-22475	-34555	-1036	0.049	26.165	0.962	73.392	328.355	No
SLV 7	-22475	-34555	-1036	0.049	26.165	0.962	73.392	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.846	SLU 84	Si
V_SLU	7.017	SLU 79	Si
PF_SLV	2.275	SLV 1	Si
V_SLV	1.236	SLV 15	Si
PFFP_SLV	18.139	SLV 9	Si
R_SLV	0.163	SLV 1	No

Maschio 37

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1676.8	657.6	-1288.8	657.6	L1	L3	388	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 69	41	-61549	-463155	3.53	6773207	14.624	Si
SLU 69	81	-62179	-383381	3.56	6789107	17.709	Si
SLU 66	41	-60517	-454811	3.47	6744812	14.83	Si
SLU 66	81	-61132	-374342	3.5	6762095	18.064	Si
SLU 46	41	-53741	-442020	3.08	6486344	14.674	Si
SLU 46	81	-54120	-373116	3.1	6504107	17.432	Si
SLU 49	41	-54774	-450364	3.14	6533823	14.508	Si
SLU 49	81	-55167	-382155	3.16	6551146	17.143	Si
SLU 67	41	-60494	-455239	3.46	6744170	14.815	Si
SLU 67	81	-61109	-374667	3.5	6761457	18.047	Si
SLU 50	41	-54290	-441695	3.11	6511909	14.743	Si
SLU 50	81	-54659	-374710	3.13	6528673	17.423	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 70	41	-61527	-463583	3.52	6772627	14.609	Si
SLU 70	81	-62156	-383705	3.56	6788535	17.692	Si
SLU 48	41	-54796	-449936	3.14	6534811	14.524	Si
SLU 48	81	-55191	-381830	3.16	6552163	17.16	Si
SLU 45	41	-53764	-441592	3.08	6487395	14.691	Si
SLU 45	81	-54144	-372792	3.1	6505191	17.45	Si
SLU 51	41	-54267	-442123	3.11	6510891	14.726	Si
SLU 51	81	-54635	-375034	3.13	6527621	17.405	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	41	-37964	700756	2.17	6054430	8.64	Si
SLV 14	81	-37340	-6587	2.14	5976031	907.241	Si
SLD 2	41	-44187	-744819	2.53	6796729	9.125	Si
SLD 2	81	-44097	-397508	2.53	6786567	17.073	Si
SLV 6	41	-26260	-523243	1.5	4467337	8.538	Si
SLV 6	81	-22621	-423737	1.3	3923166	9.258	Si
SLV 3	41	-53867	-1364840	3.09	7811569	5.723	Si
SLV 3	81	-55420	-530806	3.17	7958491	14.993	Si
SLV 13	41	-37964	700756	2.17	6054430	8.64	Si
SLV 13	81	-37340	-6587	2.14	5976031	907.241	Si
SLV 1	41	-41734	-1299535	2.39	6512574	5.011	Si
SLV 1	81	-40849	-572866	2.34	6407291	11.185	Si
SLV 2	41	-41734	-1299535	2.39	6512574	5.011	Si
SLV 2	81	-40849	-572866	2.34	6407291	11.185	Si
SLV 4	41	-53867	-1364840	3.09	7811569	5.723	Si
SLV 4	81	-55420	-530806	3.17	7958491	14.993	Si
SLV 5	41	-26260	-523243	1.5	4467337	8.538	Si
SLV 5	81	-22621	-423737	1.3	3923166	9.258	Si
SLD 1	41	-44187	-744819	2.53	6796729	9.125	Si
SLD 1	81	-44097	-397508	2.53	6786567	17.073	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	41	-69118	-3988	-427907		3.96	388	1.08	18915			4.74	Si
SLU 82	81	-70056	-3991	-326065		4.01	388	1.08	18915			4.74	Si
SLU 73	41	-66054	-3763	-431416		3.78	388	1.06	18507			4.92	Si
SLU 73	81	-66883	-3767	-336014		3.83	388	1.07	18618			4.94	Si
SLU 78	41	-68641	-3787	-456060		3.93	388	1.08	18852			4.98	Si
SLU 78	81	-69524	-3790	-360995		3.98	388	1.08	18915			4.99	Si
SLU 74	41	-67630	-3794	-447288		3.87	388	1.07	18717			4.93	Si
SLU 74	81	-68501	-3797	-351633		3.92	388	1.08	18833			4.96	Si
SLU 81	41	-69140	-3986	-427479		3.96	388	1.08	18915			4.75	Si
SLU 81	81	-70079	-3990	-325741		4.01	388	1.08	18915			4.74	Si
SLU 76	41	-67087	-3754	-439760		3.84	388	1.07	18645			4.97	Si
SLU 76	81	-67930	-3758	-345053		3.89	388	1.07	18757			4.99	Si
SLU 83	41	-70172	-3977	-435823		4.02	388	1.08	18915			4.76	Si
SLU 83	81	-71126	-3981	-334779		4.07	388	1.08	18915			4.75	Si
SLU 77	41	-68663	-3785	-455632		3.93	388	1.08	18855			4.98	Si
SLU 77	81	-69548	-3788	-360671		3.98	388	1.08	18915			4.99	Si
SLU 75	41	-67608	-3796	-447716		3.87	388	1.07	18714			4.93	Si
SLU 75	81	-68477	-3799	-351957		3.92	388	1.08	18830			4.96	Si
SLU 84	41	-70150	-3979	-436251		4.02	388	1.08	18915			4.75	Si
SLU 84	81	-71103	-3982	-335104		4.07	388	1.08	18915			4.75	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	41	-37964	13875	700756		2.17	388	1.27	22143			1.6	Si
SLV 14	81	-37340	15609	-6587		2.14	388	1.26	22018			1.41	Si
SLV 16	41	-50097	13825	635450		2.87	388	1.41	24569			1.78	Si
SLV 16	81	-51911	15796	35472		2.97	388	1.43	24932			1.58	Si
SLV 4	41	-53867	-18962	-1364840		3.09	388	1.45	25323			1.34	Si
SLV 4	81	-55420	-20702	-530806		3.17	388	1.47	25634			1.24	Si
SLV 2	41	-41734	-18912	-1299535		2.39	388	1.31	22897			1.21	Si
SLV 2	81	-40849	-20888	-572866		2.34	388	1.3	22720			1.09	Si
SLV 3	41	-53867	-18962	-1364840		3.09	388	1.45	25323			1.34	Si
SLV 3	81	-55420	-20702	-530806		3.17	388	1.47	25634			1.24	Si
SLV 13	41	-37964	13875	700756		2.17	388	1.27	22143			1.6	Si
SLV 13	81	-37340	15609	-6587		2.14	388	1.26	22018			1.41	Si
SLV 1	41	-41734	-18912	-1299535		2.39	388	1.31	22897			1.21	Si
SLV 1	81	-40849	-20888	-572866		2.34	388	1.3	22720			1.09	Si
SLD 1	41	-44187	-9531	-744819		2.53	388	1.34	23387			2.45	Si
SLD 1	81	-44097	-10312	-397508		2.53	388	1.34	23369			2.27	Si
SLV 15	41	-50097	13825	635450		2.87	388	1.41	24569			1.78	Si
SLV 15	81	-51911	15796	35472		2.97	388	1.43	24932			1.58	Si
SLD 2	41	-44187	-9531	-744819		2.53	388	1.34	23387			2.45	Si
SLD 2	81	-44097	-10312	-397508		2.53	388	1.34	23369			2.27	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.24	1.57	-27420	23151	537656	23.22	Si
SLV 9	14	0.24	1.57	-27420	23151	537656	23.22	Si
SLV 6	14	0.24	1.62	-28353	23151	553162	23.89	Si
SLV 5	14	0.24	1.62	-28353	23151	553162	23.89	Si
SLV 13	14	0.24	2.15	-37604	23151	696961	30.11	Si
SLV 14	14	0.24	2.15	-37604	23151	696961	30.11	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	2.33	-40715	23151	741252	32.02	Si
SLV 2	14	0.24	2.33	-40715	23151	741252	32.02	Si
SLV 16	14	0.24	2.71	-47267	23151	827878	35.76	Si
SLV 15	14	0.24	2.71	-47267	23151	827878	35.76	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	σ_0	M*	e*	a0*	aLim	Verifica
SLV 6	-25730	-28346	-1652	0.04	32.855	0.943	62.14	328.355	No
SLV 5	-25730	-28346	-1652	0.04	32.855	0.943	62.14	328.355	No
SLV 10	-24734	-27600	-1554	0.042	31.846	0.941	65.137	328.355	No
SLV 9	-24734	-27600	-1554	0.042	31.846	0.941	65.137	328.355	No
SLV 2	-39708	-40524	-1877	0.049	47.05	0.958	74.273	338.414	No
SLV 1	-39708	-40524	-1877	0.049	47.05	0.958	74.273	338.414	No
SLV 3	-50694	-50216	-1972	0.054	58.225	0.966	81.526	338.414	No
SLV 4	-50694	-50216	-1972	0.054	58.225	0.966	81.526	338.414	No
SLV 13	-36388	-38037	-1552	0.054	43.674	0.955	82.353	338.414	No
SLV 14	-36388	-38037	-1552	0.054	43.674	0.955	82.353	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	14.508	SLU 49	Si
V_SLU	4.739	SLU 82	Si
PF_SLV	5.011	SLV 1	Si
V_SLV	1.088	SLV 1	Si
PFFP_SLV	23.224	SLV 9	Si
R_SLV	0.189	SLV 5	No

Maschio 38

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1188.8	657.6	-800.8	657.6	L1	L3	388	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 45	41	-48580	301543	2.78	6205390	20.579	Si
SLU 45	81	-44442	175480	2.55	5927710	33.78	Si
SLU 50	41	-49610	325055	2.84	6267251	19.281	Si
SLU 50	81	-45375	195197	2.6	5994382	30.709	Si
SLU 46	41	-48517	300458	2.78	6201496	20.64	Si
SLU 46	81	-44383	174193	2.54	5923373	34.005	Si
SLU 49	41	-49914	326923	2.86	6284957	19.225	Si
SLU 49	81	-45666	195919	2.62	6014682	30.7	Si
SLU 48	41	-49977	328008	2.86	6288610	19.172	Si
SLU 48	81	-45725	197206	2.62	6018811	30.52	Si
SLU 51	41	-49546	323970	2.84	6263535	19.334	Si
SLU 51	81	-45316	193910	2.6	5990196	30.892	Si
SLU 69	41	-56201	328958	3.22	6594658	20.047	Si
SLU 69	81	-51609	178486	2.96	6379099	35.74	Si
SLU 71	41	-55834	326005	3.2	6579535	20.182	Si
SLU 71	81	-51259	176477	2.94	6360293	36.04	Si
SLU 72	41	-55771	324919	3.19	6576893	20.242	Si
SLU 72	81	-51199	175190	2.93	6357063	36.287	Si
SLU 70	41	-56138	327873	3.22	6592079	20.106	Si
SLU 70	81	-51550	177199	2.95	6375926	35.982	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 14	41	-40788	621286	2.34	6399969	10.301	Si
SLD 14	81	-36601	202324	2.1	5882412	29.074	Si
SLD 13	41	-40788	621286	2.34	6399969	10.301	Si
SLD 13	81	-36601	202324	2.1	5882412	29.074	Si
SLV 15	41	-50212	1233785	2.88	7448454	6.037	Si
SLV 15	81	-47804	356394	2.74	7195927	20.191	Si
SLV 14	41	-40032	1182090	2.29	6308883	5.337	Si
SLV 14	81	-34688	350791	1.99	5635334	16.065	Si
SLV 13	41	-40032	1182090	2.29	6308883	5.337	Si
SLV 13	81	-34688	350791	1.99	5635334	16.065	Si
SLV 1	41	-32338	-830248	1.85	5322641	6.411	Si
SLV 1	81	-28019	-171748	1.6	4721833	27.493	Si
SLV 4	41	-42519	-778554	2.44	6604660	8.483	Si
SLV 4	81	-41135	-166145	2.36	6441507	38.77	Si
SLV 3	41	-42519	-778554	2.44	6604660	8.483	Si
SLV 3	81	-41135	-166145	2.36	6441507	38.77	Si
SLV 2	41	-32338	-830248	1.85	5322641	6.411	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	81	-28019	-171748	1.6	4721833	27.493	Si
SLV 16	41	-50212	1233785	2.88	7448454	6.037	Si
SLV 16	81	-47804	356394	2.74	7195927	20.191	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	41	-60783	2380	269450		3.48	388	1.02	17804			7.48	Si
SLU 76	81	-55997	2375	103190		3.21	388	0.98	17166			7.23	Si
SLU 77	41	-62653	2439	300678		3.59	388	1.03	18054			7.4	Si
SLU 77	81	-57730	2433	129069		3.31	388	1	17397			7.15	Si
SLU 79	41	-62286	2424	297725		3.57	388	1.03	18005			7.43	Si
SLU 79	81	-57379	2419	127060		3.29	388	0.99	17351			7.17	Si
SLU 84	41	-63590	2524	258054		3.64	388	1.04	18179			7.2	Si
SLU 84	81	-58660	2518	82869		3.36	388	1	17521			6.96	Si
SLU 78	41	-62590	2446	299593		3.58	388	1.03	18045			7.38	Si
SLU 78	81	-57670	2440	127782		3.3	388	1	17389			7.13	Si
SLU 75	41	-61193	2390	273127		3.5	388	1.02	17859			7.47	Si
SLU 75	81	-56387	2385	106057		3.23	388	0.99	17218			7.22	Si
SLU 82	41	-62193	2468	231589		3.56	388	1.03	17992			7.29	Si
SLU 82	81	-57377	2463	61144		3.29	388	0.99	17350			7.04	Si
SLU 80	41	-62222	2431	296639		3.56	388	1.03	17996			7.4	Si
SLU 80	81	-57320	2426	125773		3.28	388	0.99	17343			7.15	Si
SLU 81	41	-62256	2461	232674		3.57	388	1.03	18001			7.31	Si
SLU 81	81	-57436	2456	62431		3.29	388	0.99	17358			7.07	Si
SLU 83	41	-63654	2517	259140		3.65	388	1.04	18187			7.23	Si
SLU 83	81	-58719	2511	84156		3.36	388	1	17529			6.98	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	41	-42519	-15583	-778554		2.44	388	1.32	23054			1.48	Si
SLV 4	81	-41135	-16618	-166145		2.36	388	1.3	22777			1.37	Si
SLV 1	41	-32338	-14556	-830248		1.85	388	1.2	21018			1.44	Si
SLV 1	81	-28019	-15583	-171748		1.6	388	1.15	20154			1.29	Si
SLV 9	41	-25462	8241	417462		1.46	388	1.12	19642			2.38	Si
SLV 9	81	-17052	8559	161366		0.98	388	1.03	17960			2.1	Si
SLV 10	41	-25462	8241	417462		1.46	388	1.12	19642			2.38	Si
SLV 10	81	-17052	8559	161366		0.98	388	1.03	17960			2.1	Si
SLV 16	41	-50212	17646	1233785		2.88	388	1.41	24592			1.39	Si
SLV 16	81	-47804	18665	356394		2.74	388	1.38	24111			1.29	Si
SLV 13	41	-40032	18673	1182090		2.29	388	1.29	22556			1.21	Si
SLV 13	81	-34688	19700	350791		1.99	388	1.23	21488			1.09	Si
SLV 15	41	-50212	17646	1233785		2.88	388	1.41	24592			1.39	Si
SLV 15	81	-47804	18665	356394		2.74	388	1.38	24111			1.29	Si
SLV 14	41	-40032	18673	1182090		2.29	388	1.29	22556			1.21	Si
SLV 14	81	-34688	19700	350791		1.99	388	1.23	21488			1.09	Si
SLV 2	41	-32338	-14556	-830248		1.85	388	1.2	21018			1.44	Si
SLV 2	81	-28019	-15583	-171748		1.6	388	1.15	20154			1.29	Si
SLV 3	41	-42519	-15583	-778554		2.44	388	1.32	23054			1.48	Si
SLV 3	81	-41135	-16618	-166145		2.36	388	1.3	22777			1.37	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.24	1.45	-25337	23151	502371	21.7	Si
SLV 5	14	0.24	1.45	-25337	23151	502371	21.7	Si
SLV 9	14	0.24	1.56	-27227	23151	534417	23.08	Si
SLV 10	14	0.24	1.56	-27227	23151	534417	23.08	Si
SLV 1	14	0.24	1.93	-33618	23151	637205	27.52	Si
SLV 2	14	0.24	1.93	-33618	23151	637205	27.52	Si
SLV 14	14	0.24	2.29	-39917	23151	730093	31.54	Si
SLV 13	14	0.24	2.29	-39917	23151	730093	31.54	Si
SLV 3	14	0.24	2.44	-42606	23151	767180	33.14	Si
SLV 4	14	0.24	2.44	-42606	23151	767180	33.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 9	-17914	-27753	-1856	0.016	24.951	0.928	24.721	328.355	No
SLV 10	-17914	-27753	-1856	0.016	24.951	0.928	24.721	328.355	No
SLV 6	-15956	-26079	-1708	0.017	22.98	0.924	26.002	328.355	No
SLV 5	-15956	-26079	-1708	0.017	22.98	0.924	26.002	328.355	No
SLV 13	-32837	-41502	-2177	0.034	40.067	0.952	52.581	338.414	No
SLV 14	-32837	-41502	-2177	0.034	40.067	0.952	52.581	338.414	No
SLV 2	-26311	-35920	-1685	0.04	33.444	0.944	61.663	338.414	No
SLV 1	-26311	-35920	-1685	0.04	33.444	0.944	61.663	338.414	No
SLV 15	-43671	-51611	-2305	0.043	51.08	0.961	64.857	338.414	No
SLV 16	-43671	-51611	-2305	0.043	51.08	0.961	64.857	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	19.172	SLU 48	Si
V_SLU	6.957	SLU 84	Si
PF_SLV	5.337	SLV 13	Si
V_SLV	1.091	SLV 13	Si
PFFP_SLV	21.7	SLV 5	Si
R_SLV	0.075	SLV 9	No



Maschio 39

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-700.8	657.6	-530.8	657.6	L1	L3	170	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	41	-15026	-128672	1.96	969232	7.533	Si
SLU 77	81	-14340	-175721	1.87	938425	5.34	Si
SLU 84	41	-15076	-129005	1.97	971435	7.53	Si
SLU 84	81	-14390	-177473	1.88	940721	5.301	Si
SLU 74	41	-14622	-126027	1.91	951215	7.548	Si
SLU 74	81	-13936	-172216	1.82	919652	5.34	Si
SLU 82	41	-14672	-126359	1.92	953473	7.546	Si
SLU 82	81	-13986	-173967	1.83	922003	5.3	Si
SLU 75	41	-14591	-125557	1.91	949832	7.565	Si
SLU 75	81	-13905	-172064	1.82	918211	5.336	Si
SLU 73	41	-14089	-121957	1.84	926815	7.6	Si
SLU 73	81	-13404	-167249	1.75	894256	5.347	Si
SLU 76	41	-14494	-124602	1.89	945420	7.588	Si
SLU 76	81	-13808	-170755	1.8	913617	5.35	Si
SLU 78	41	-14995	-128202	1.96	967883	7.55	Si
SLU 78	81	-14310	-175569	1.87	937018	5.337	Si
SLU 81	41	-14702	-126829	1.92	954850	7.529	Si
SLU 81	81	-14017	-174120	1.83	923437	5.303	Si
SLU 83	41	-15107	-129474	1.97	972778	7.513	Si
SLU 83	81	-14421	-177625	1.89	942121	5.304	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	41	-6861	-320864	0.9	540394	1.684	Si
SLV 1	81	-6223	-115103	0.81	493748	4.29	Si
SLD 3	41	-9740	-203865	1.27	741637	3.638	Si
SLD 3	81	-9270	-123302	1.21	709792	5.757	Si
SLD 2	41	-8631	-187424	1.13	665904	3.553	Si
SLD 2	81	-8058	-116827	1.05	625861	5.357	Si
SLV 6	41	-5045	-99375	0.66	405649	4.082	Si
SLV 6	81	-4120	-94063	0.54	334802	3.559	Si
SLV 2	41	-6861	-320864	0.9	540394	1.684	Si
SLV 2	81	-6223	-115103	0.81	493748	4.29	Si
SLD 4	41	-9740	-203865	1.27	741637	3.638	Si
SLD 4	81	-9270	-123302	1.21	709792	5.757	Si
SLD 1	41	-8631	-187424	1.13	665904	3.553	Si
SLD 1	81	-8058	-116827	1.05	625861	5.357	Si
SLV 3	41	-9481	-359206	1.24	724169	2.016	Si
SLV 3	81	-9083	-130298	1.19	697032	5.35	Si
SLV 5	41	-5045	-99375	0.66	405649	4.082	Si
SLV 5	81	-4120	-94063	0.54	334802	3.559	Si
SLV 4	41	-9481	-359206	1.24	724169	2.016	Si
SLV 4	81	-9083	-130298	1.19	697032	5.35	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	41	-15107	1209	-129474		1.97	170	0.82	6264			5.18	Si
SLU 83	81	-14421	1209	-177625		1.89	170	0.81	6173			5.11	Si
SLU 84	41	-15076	1217	-129005		1.97	170	0.82	6260			5.14	Si
SLU 84	81	-14390	1217	-177473		1.88	170	0.81	6169			5.07	Si
SLU 76	41	-14494	1159	-124602		1.89	170	0.81	6182			5.33	Si
SLU 76	81	-13808	1159	-170755		1.8	170	0.8	6091			5.25	Si
SLU 75	41	-14591	1168	-125557		1.91	170	0.81	6195			5.3	Si
SLU 75	81	-13905	1168	-172064		1.82	170	0.8	6104			5.23	Si
SLU 80	41	-14918	1175	-127561		1.95	170	0.82	6239			5.31	Si
SLU 80	81	-14233	1175	-174361		1.86	170	0.8	6148			5.23	Si
SLU 74	41	-14622	1160	-126027		1.91	170	0.81	6200			5.34	Si
SLU 74	81	-13936	1160	-172216		1.82	170	0.8	6108			5.27	Si
SLU 81	41	-14702	1188	-126829		1.92	170	0.81	6210			5.23	Si
SLU 81	81	-14017	1188	-174120		1.83	170	0.8	6119			5.15	Si
SLU 78	41	-14995	1189	-128202		1.96	170	0.82	6249			5.25	Si
SLU 78	81	-14310	1189	-175569		1.87	170	0.8	6158			5.18	Si
SLU 82	41	-14672	1196	-126359		1.92	170	0.81	6206			5.19	Si
SLU 82	81	-13986	1196	-173967		1.83	170	0.8	6115			5.11	Si
SLU 77	41	-15026	1182	-128672		1.96	170	0.82	6253			5.29	Si
SLU 77	81	-14340	1182	-175721		1.87	170	0.81	6162			5.22	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	41	-9481	-5798	-359206		1.49	141.34	1.13	7197			1.24	Si
SLV 3	81	-9083	-5870	-130298		1.19	170	1.07	8192			1.4	Si
SLV 2	41	-6861	-4517	-320864		1.33	114.71	1.1	5674			1.26	Si
SLV 2	81	-6223	-4789	-115103		0.81	170	1	7620			1.59	Si
SLV 4	41	-9481	-5798	-359206		1.49	141.34	1.13	7197			1.24	Si
SLV 4	81	-9083	-5870	-130298		1.19	170	1.07	8192			1.4	Si
SLV 14	41	-10405	7329	184156		1.36	170	1.11	8456			1.15	Si
SLV 14	81	-9749	7400	-105639		1.27	170	1.09	8325			1.12	Si
SLV 15	41	-13025	6047	145814		1.7	170	1.17	8980			1.49	Si
SLV 15	81	-12608	6320	-120834		1.65	170	1.16	8897			1.41	Si
SLV 13	41	-10405	7329	184156		1.36	170	1.11	8456			1.15	Si
SLV 13	81	-9749	7400	-105639		1.27	170	1.09	8325			1.12	Si
SLV 1	41	-6861	-4517	-320864		1.33	114.71	1.1	5674			1.26	Si
SLV 1	81	-6223	-4789	-115103		0.81	170	1	7620			1.59	Si
SLV 9	41	-6108	4678	52131		0.8	170	0.99	7597			1.62	Si
SLV 9	81	-5178	4394	-91224		0.68	170	0.97	7411			1.69	Si
SLV 10	41	-6108	4678	52131		0.8	170	0.99	7597			1.62	Si
SLV 10	81	-5178	4394	-91224		0.68	170	0.97	7411			1.69	Si
SLV 16	41	-13025	6047	145814		1.7	170	1.17	8980			1.49	Si
SLV 16	81	-12608	6320	-120834		1.65	170	1.16	8897			1.41	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.24	0.59	-4486	10143	96085	9.47	Si
SLV 1	14	0.24	0.59	-4486	10143	96085	9.47	Si
SLV 6	14	0.24	0.68	-5191	10143	110303	10.87	Si
SLV 5	14	0.24	0.68	-5191	10143	110303	10.87	Si
SLV 4	14	0.24	0.86	-6581	10143	137656	13.57	Si
SLV 3	14	0.24	0.86	-6581	10143	137656	13.57	Si
SLV 9	14	0.24	1.03	-7891	10143	162550	16.03	Si
SLV 10	14	0.24	1.03	-7891	10143	162550	16.03	Si
SLV 8	14	0.24	1.59	-12176	10143	238280	23.49	Si
SLV 7	14	0.24	1.59	-12176	10143	238280	23.49	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-12330	-13813	-228	0.078	15.467	0.946	120.547	328.355	No
SLV 7	-12330	-13813	-228	0.078	15.467	0.946	120.547	328.355	No
SLV 12	-12795	-19001	-227	0.079	15.939	0.948	120.711	328.355	No
SLV 11	-12795	-19001	-227	0.079	15.939	0.948	120.711	328.355	No
SLV 4	-8474	-5343	-192	0.08	11.563	0.931	124.914	338.414	No
SLV 3	-8474	-5343	-192	0.08	11.563	0.931	124.914	338.414	No
SLV 15	-10025	-22636	-189	0.081	13.131	0.938	125.102	338.414	No
SLV 16	-10025	-22636	-189	0.081	13.131	0.938	125.102	338.414	No
SLV 13	-7185	-20563	-157	0.083	10.263	0.925	131.043	338.414	No
SLV 14	-7185	-20563	-157	0.083	10.263	0.925	131.043	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.3	SLU 82	Si
V_SLU	5.069	SLU 84	Si
PF_SLV	1.684	SLV 1	Si
V_SLV	1.125	SLV 13	Si
PFFP_SLV	9.473	SLV 1	Si
R_SLV	0.367	SLV 7	No

Maschio 40

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1101.3	-478.4	-1101.3	-191.6	L1	L2	286.8	30	198	198	198			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	-159	-49351	339034	5.74	2094246	6.177	Si
SLU 73	39	-48146	98443	5.6	2161816	21.96	Si
SLU 76	-159	-50513	319585	5.87	2023452	6.331	Si
SLU 76	39	-49490	84450	5.75	2086066	24.702	Si
SLU 84	-159	-52672	338845	6.12	1877303	5.54	Si
SLU 84	39	-51791	106667	6.02	1939255	18.18	Si
SLU 75	-159	-50554	322371	5.88	2020853	6.269	Si
SLU 75	39	-49603	91555	5.76	2079350	22.711	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	-159	-51509	358294	5.99	1958361	5.466	Si
SLU 82	39	-50447	120660	5.86	2027659	16.805	Si
SLU 81	-159	-51473	349339	5.98	1960782	5.613	Si
SLU 81	39	-50550	118125	5.87	2021118	17.11	Si
SLU 74	-159	-50518	313416	5.87	2023133	6.455	Si
SLU 74	39	-49707	89020	5.78	2073166	23.289	Si
SLU 78	-159	-51716	302922	6.01	1944337	6.419	Si
SLU 78	39	-50947	77563	5.92	1995584	25.729	Si
SLU 83	-159	-52636	329890	6.12	1879894	5.699	Si
SLU 83	39	-51894	104132	6.03	1932144	18.555	Si
SLU 77	-159	-51680	293967	6.01	1946788	6.622	Si
SLU 77	39	-51051	75028	5.93	1988831	26.508	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 12	-159	-27499	434396	3.2	2912182	6.704	Si
SLD 12	39	-26501	167637	3.08	2842560	16.957	Si
SLD 8	-159	-30471	418254	3.54	3103355	7.42	Si
SLD 8	39	-28744	234507	3.34	2995187	12.772	Si
SLV 11	-159	-17736	736244	2.06	2114453	2.872	Si
SLV 11	39	-16443	346118	1.91	1989294	5.747	Si
SLV 7	-159	-24715	698539	2.87	2711191	3.881	Si
SLV 7	39	-21719	503939	2.52	2471301	4.904	Si
SLV 12	-159	-17736	736244	2.06	2114453	2.872	Si
SLV 12	39	-16443	346118	1.91	1989294	5.747	Si
SLD 11	-159	-27499	434396	3.2	2912182	6.704	Si
SLD 11	39	-26501	167637	3.08	2842560	16.957	Si
SLV 8	-159	-24715	698539	2.87	2711191	3.881	Si
SLV 8	39	-21719	503939	2.52	2471301	4.904	Si
SLV 16	-159	-19032	426617	2.21	2235312	5.24	Si
SLV 16	39	-20671	-109356	2.4	2381581	21.778	Si
SLD 7	-159	-30471	418254	3.54	3103355	7.42	Si
SLD 7	39	-28744	234507	3.34	2995187	12.772	Si
SLV 15	-159	-19032	426617	2.21	2235312	5.24	Si
SLV 15	39	-20671	-109356	2.4	2381581	21.778	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 56	-159	-48289	-6320	254726		5.61	286.82	1.08	9322			1.47	Si
SLU 56	39	-47704	-2812	38099		5.54	286.82	1.08	9322			3.32	Si
SLU 58	-159	-48224	-6355	245970		5.6	286.82	1.08	9322			1.47	Si
SLU 58	39	-47659	-2863	29303		5.54	286.82	1.08	9322			3.26	Si
SLU 71	-159	-46523	-6286	226342		5.41	286.82	1.08	9322			1.48	Si
SLU 71	39	-45799	-2857	10448		5.32	286.82	1.08	9322			3.26	Si
SLU 78	-159	-51716	-6727	302922		6.01	286.82	1.08	9322			1.39	Si
SLU 78	39	-50947	-2905	77563		5.92	286.82	1.08	9322			3.21	Si
SLU 80	-159	-51651	-6761	294166		6	286.82	1.08	9322			1.38	Si
SLU 80	39	-50903	-2957	68767		5.92	286.82	1.08	9322			3.15	Si
SLU 74	-159	-50518	-6403	313416		5.87	286.82	1.08	9322			1.46	Si
SLU 74	39	-49707	-2640	89020		5.78	286.82	1.08	9322			3.53	Si
SLU 84	-159	-52672	-6542	338845		6.12	286.82	1.08	9322			1.42	Si
SLU 84	39	-51791	-2633	106667		6.02	286.82	1.08	9322			3.54	Si
SLU 83	-159	-52636	-6717	329890		6.12	286.82	1.08	9322			1.39	Si
SLU 83	39	-51894	-2811	104132		6.03	286.82	1.08	9322			3.32	Si
SLU 77	-159	-51680	-6902	293967		6.01	286.82	1.08	9322			1.35	Si
SLU 77	39	-51051	-3082	75028		5.93	286.82	1.08	9322			3.02	Si
SLU 79	-159	-51615	-6937	285211		6	286.82	1.08	9322			1.34	Si
SLU 79	39	-51007	-3134	66232		5.93	286.82	1.08	9322			2.97	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 5	-159	-41918	-8715	-9944		4.87	286.82	1.63	13982			1.6	Si
SLD 5	39	-41328	-5866	-92865		4.8	286.82	1.63	13982			2.38	Si
SLV 12	-159	-17736	6626	736244		2.06	286.82	1.25	10718			1.62	Si
SLV 12	39	-16443	8609	346118		1.91	286.82	1.22	10459			1.21	Si
SLD 6	-159	-41918	-8715	-9944		4.87	286.82	1.63	13982			1.6	Si
SLD 6	39	-41328	-5866	-92865		4.8	286.82	1.63	13982			2.38	Si
SLV 5	-159	-51681	-14879	-311792		6.01	286.82	1.63	13982			0.94	No, Vu<V
SLV 5	39	-51386	-11682	-271346		5.97	286.82	1.63	13982			1.2	Si
SLV 9	-159	-44702	-14797	-274087		5.2	286.82	1.63	13982			0.94	No, Vu<V
SLV 9	39	-46110	-12275	-429167		5.36	286.82	1.63	13982			1.14	Si
SLV 11	-159	-17736	6626	736244		2.06	286.82	1.25	10718			1.62	Si
SLV 11	39	-16443	8609	346118		1.91	286.82	1.22	10459			1.21	Si
SLV 6	-159	-51681	-14879	-311792		6.01	286.82	1.63	13982			0.94	No, Vu<V
SLV 6	39	-51386	-11682	-271346		5.97	286.82	1.63	13982			1.2	Si
SLV 8	-159	-24715	6545	698539		2.87	286.82	1.41	12114			1.85	Si
SLV 8	39	-21719	9201	503939		2.52	286.82	1.34	11514			1.25	Si
SLV 10	-159	-44702	-14797	-274087		5.2	286.82	1.63	13982			0.94	No, Vu<V
SLV 10	39	-46110	-12275	-429167		5.36	286.82	1.63	13982			1.14	Si
SLV 7	-159	-24715	6545	698539		2.87	286.82	1.41	12114			1.85	Si
SLV 7	39	-21719	9201	503939		2.52	286.82	1.34	11514			1.25	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -60 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	1.9	-16377	6181	207391	33.55	Si
SLV 11	14	0.24	1.9	-16377	6181	207391	33.55	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.24	2.04	-17533	6181	219141	35.45	Si
SLV 16	14	0.24	2.04	-17533	6181	219141	35.45	Si
SLV 8	14	0.24	2.74	-23566	6181	274258	44.37	Si
SLV 7	14	0.24	2.74	-23566	6181	274258	44.37	Si
SLV 13	14	0.24	2.99	-25713	6181	291371	47.14	Si
SLV 14	14	0.24	2.99	-25713	6181	291371	47.14	Si
SLV 4	14	0.24	4.82	-41497	6181	376775	60.96	Si
SLV 3	14	0.24	4.82	-41497	6181	376775	60.96	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -60 Wa = 0.05 Ta = 0.0218

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-47158	-50385	115	0.076	50.429	0.985	111.83	308.845	No
SLV 2	-47158	-50385	115	0.076	50.429	0.985	111.83	308.845	No
SLV 4	-38258	-42295	103	0.076	41.359	0.982	112.629	308.845	No
SLV 3	-38258	-42295	103	0.076	41.359	0.982	112.629	308.845	No
SLV 14	-29571	-27122	-55	0.078	32.508	0.977	115.588	308.845	No
SLV 13	-29571	-27122	-55	0.078	32.508	0.977	115.588	308.845	No
SLV 6	-51386	-51681	68	0.077	54.737	0.986	112.979	301.518	No
SLV 5	-51386	-51681	68	0.077	54.737	0.986	112.979	301.518	No
SLV 16	-20671	-19032	-67	0.078	23.444	0.969	116.971	308.845	No
SLV 15	-20671	-19032	-67	0.078	23.444	0.969	116.971	308.845	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.466	SLU 82	Si
V_SLU	1.344	SLU 79	Si
PF_SLV	2.872	SLV 11	Si
V_SLV	0.94	SLV 5	No
PFFP_SLV	33.552	SLV 11	Si
R_SLV	0.362	SLV 1	No

Maschio 41

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1101.3	-478.4	-1101.3	-191.6	L2	L3	286.8	30	71	71	71			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 58	39	-50725	-477702	5.9	2009965	4.208	Si
SLU 58	110	-50863	-273510	5.91	2001060	7.316	Si
SLU 80	39	-54129	-465740	6.29	1767820	3.796	Si
SLU 80	110	-54409	-253128	6.32	1745833	6.897	Si
SLU 62	39	-51486	-447270	5.98	1959970	4.382	Si
SLU 62	110	-51688	-254091	6.01	1946294	7.66	Si
SLU 78	39	-54169	-454149	6.3	1764684	3.886	Si
SLU 78	110	-54457	-243626	6.33	1742019	7.15	Si
SLU 56	39	-50765	-466110	5.9	2007388	4.307	Si
SLU 56	110	-50911	-264009	5.92	1997944	7.568	Si
SLU 59	39	-50625	-467769	5.88	2016367	4.311	Si
SLU 59	110	-50789	-271369	5.9	2005810	7.391	Si
SLU 79	39	-54229	-475674	6.3	1759983	3.7	Si
SLU 79	110	-54482	-255269	6.33	1739995	6.816	Si
SLU 83	39	-54990	-445242	6.39	1699078	3.816	Si
SLU 83	110	-55307	-235850	6.43	1673014	7.094	Si
SLU 84	39	-54890	-435309	6.38	1707226	3.922	Si
SLU 84	110	-55233	-233708	6.42	1679101	7.185	Si
SLU 77	39	-54269	-464082	6.31	1756831	3.786	Si
SLU 77	110	-54530	-245767	6.34	1736167	7.064	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	39	-23904	-424426	2.78	2648677	6.241	Si
SLV 15	110	-26218	-721558	3.05	2822336	3.911	Si
SLV 13	39	-33292	-951076	3.87	3262569	3.43	Si
SLV 13	110	-35432	-1042644	4.12	3368876	3.231	Si
SLV 8	39	-22853	708210	2.66	2564996	3.622	Si
SLV 8	110	-22551	584126	2.62	2540335	4.349	Si
SLV 14	39	-33292	-951076	3.87	3262569	3.43	Si
SLV 14	110	-35432	-1042644	4.12	3368876	3.231	Si
SLV 6	39	-54146	-1047292	6.29	3766029	3.596	Si
SLV 6	110	-53264	-486161	6.19	3768763	7.752	Si
SLV 10	39	-49576	-1286466	5.76	3757207	2.921	Si
SLV 10	110	-49995	-915892	5.81	3760390	4.106	Si
SLV 16	39	-23904	-424426	2.78	2648677	6.241	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	110	-26218	-721558	3.05	2822336	3.911	Si
SLV 5	39	-54146	-1047292	6.29	3766029	3.596	Si
SLV 5	110	-53264	-486161	6.19	3768763	7.752	Si
SLV 9	39	-49576	-1286466	5.76	3757207	2.921	Si
SLV 9	110	-49995	-915892	5.81	3760390	4.106	Si
SLV 7	39	-22853	708210	2.66	2564996	3.622	Si
SLV 7	110	-22551	584126	2.62	2540335	4.349	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	39	-54269	-2487	-464082		6.31	286.82	1.08	9322			3.75	Si
SLU 77	110	-54530	-2618	-245767		6.34	286.82	1.08	9322			3.56	Si
SLU 78	39	-54169	-2317	-454149		6.3	286.82	1.08	9322			4.02	Si
SLU 78	110	-54457	-2450	-243626		6.33	286.82	1.08	9322			3.8	Si
SLU 69	39	-49107	-2270	-437479		5.71	286.82	1.08	9322			4.11	Si
SLU 69	110	-49184	-2425	-241732		5.72	286.82	1.08	9322			3.84	Si
SLU 56	39	-50765	-2260	-466110		5.9	286.82	1.08	9322			4.13	Si
SLU 56	110	-50911	-2391	-264009		5.92	286.82	1.08	9322			3.9	Si
SLU 79	39	-54229	-2538	-475674		6.3	286.82	1.08	9322			3.67	Si
SLU 79	110	-54482	-2668	-255269		6.33	286.82	1.08	9322			3.49	Si
SLU 80	39	-54129	-2368	-465740		6.29	286.82	1.08	9322			3.94	Si
SLU 80	110	-54409	-2501	-253128		6.32	286.82	1.08	9322			3.73	Si
SLU 37	39	-45309	-2310	-390346		5.27	286.82	1.08	9322			4.04	Si
SLU 37	110	-45610	-2410	-198032		5.3	286.82	1.08	9322			3.87	Si
SLU 58	39	-50725	-2310	-477702		5.9	286.82	1.08	9322			4.04	Si
SLU 58	110	-50863	-2441	-273510		5.91	286.82	1.08	9322			3.82	Si
SLU 71	39	-49067	-2321	-449071		5.7	286.82	1.08	9322			4.02	Si
SLU 71	110	-49136	-2475	-251234		5.71	286.82	1.08	9322			3.77	Si
SLU 35	39	-45350	-2260	-378754		5.27	286.82	1.08	9322			4.13	Si
SLU 35	110	-45658	-2359	-188531		5.31	286.82	1.08	9322			3.95	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	39	-49576	-11566	-1286466		5.76	286.82	1.63	13982			1.21	Si
SLV 10	110	-49995	-12335	-915892		5.81	286.82	1.63	13982			1.13	Si
SLV 8	39	-22853	9276	708210		2.66	286.82	1.36	11741			1.27	Si
SLV 8	110	-22551	9849	584126		2.62	286.82	1.36	11681			1.19	Si
SLV 11	39	-18283	8266	469036		2.12	286.82	1.26	10827			1.31	Si
SLV 11	110	-19282	7892	154395		2.24	286.82	1.28	11027			1.4	Si
SLV 5	39	-54146	-10556	-1047292		6.29	286.82	1.63	13982			1.32	Si
SLV 5	110	-53264	-10378	-486161		6.19	286.82	1.63	13982			1.35	Si
SLV 12	39	-18283	8266	469036		2.12	286.82	1.26	10827			1.31	Si
SLV 12	110	-19282	7892	154395		2.24	286.82	1.28	11027			1.4	Si
SLV 6	39	-54146	-10556	-1047292		6.29	286.82	1.63	13982			1.32	Si
SLV 6	110	-53264	-10378	-486161		6.19	286.82	1.63	13982			1.35	Si
SLV 13	39	-33292	-5803	-951076		3.87	286.82	1.61	13829			2.38	Si
SLV 13	110	-35432	-7539	-1042644		4.12	286.82	1.63	13982			1.85	Si
SLV 14	39	-33292	-5803	-951076		3.87	286.82	1.61	13829			2.38	Si
SLV 14	110	-35432	-7539	-1042644		4.12	286.82	1.63	13982			1.85	Si
SLV 7	39	-22853	9276	708210		2.66	286.82	1.36	11741			1.27	Si
SLV 7	110	-22551	9849	584126		2.62	286.82	1.36	11681			1.19	Si
SLV 9	39	-49576	-11566	-1286466		5.76	286.82	1.63	13982			1.21	Si
SLV 9	110	-49995	-12335	-915892		5.81	286.82	1.63	13982			1.13	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 74.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.26	2.26	-19459	846	237860	281.3	Si
SLV 12	14	0.26	2.26	-19459	846	237860	281.3	Si
SLV 8	14	0.26	2.68	-23056	846	269998	319.3	Si
SLV 7	14	0.26	2.68	-23056	846	269998	319.3	Si
SLV 15	14	0.26	3.03	-26092	846	294253	347.99	Si
SLV 16	14	0.26	3.03	-26092	846	294253	347.99	Si
SLV 14	14	0.26	4.11	-35375	846	352090	416.39	Si
SLV 13	14	0.26	4.11	-35375	846	352090	416.39	Si
SLV 4	14	0.26	4.43	-38083	846	364327	430.86	Si
SLV 3	14	0.26	4.43	-38083	846	364327	430.86	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 74.5 Wa = 0.05 Ta = 0.0028

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-53264	-54146	708	0.2	55.138	0.995	292.532	258.172	Si
SLV 5	-53264	-54146	708	0.2	55.138	0.995	292.532	258.172	Si
SLV 10	-49995	-49576	635	0.201	51.806	0.995	293.698	258.172	Si
SLV 9	-49995	-49576	635	0.201	51.806	0.995	293.698	258.172	Si
SLV 1	-46328	-48525	549	0.202	48.067	0.994	295.325	258.906	Si
SLV 2	-46328	-48525	549	0.202	48.067	0.994	295.325	258.906	Si
SLV 3	-37114	-39137	340	0.205	38.675	0.993	300.562	258.906	Si
SLV 4	-37114	-39137	340	0.205	38.675	0.993	300.562	258.906	Si
SLV 13	-35432	-33292	306	0.206	36.962	0.993	301.644	258.906	Si
SLV 14	-35432	-33292	306	0.206	36.962	0.993	301.644	258.906	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.7	SLU 79	Si
V_SLU	3.493	SLU 79	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.921	SLV 9	Si
V_SLV	1.134	SLV 9	Si
PFFP_SLV	281.296	SLV 11	Si
R_SLV	1.133	SLV 5	Si

Maschio 42

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1101.3	-191.6	-1101.3	-35.4	L1	Z medio 74 cm	156.2	30	233.5	198	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 60	-159	-27856	25085	5.95	587643	23.426	Si
SLU 60	39	-26187	-3162	5.59	641863	203.009	Si
SLU 61	-159	-27890	27645	5.95	586406	21.212	Si
SLU 61	39	-26217	-4753	5.6	640985	134.863	Si
SLU 84	-159	-30624	25505	6.54	472589	18.529	Si
SLU 84	39	-28985	3727	6.19	544509	146.104	Si
SLU 83	-159	-30590	22946	6.53	474210	20.666	Si
SLU 83	39	-28955	5318	6.18	545728	102.62	Si
SLU 76	-159	-29189	24364	6.23	536171	22.007	Si
SLU 76	39	-27516	3944	5.87	599603	152.017	Si
SLU 82	-159	-30250	32416	6.46	489973	15.115	Si
SLU 82	39	-28595	2302	6.1	560013	243.229	Si
SLU 73	-159	-28814	31275	6.15	551358	17.629	Si
SLU 73	39	-27126	2520	5.79	612762	243.172	Si
SLU 75	-159	-29341	24730	6.26	529806	21.423	Si
SLU 75	39	-27680	5943	5.91	593881	99.929	Si
SLU 40	-159	-25566	30077	5.46	659121	21.915	Si
SLU 40	39	-24324	3910	5.19	688919	176.214	Si
SLU 81	-159	-30216	29857	6.45	491542	16.463	Si
SLU 81	39	-28564	3894	6.1	561184	144.133	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	-159	-15875	85343	3.39	895937	10.498	Si
SLV 15	39	-14743	-4526	3.15	854792	188.856	Si
SLV 6	-159	-20363	-164188	4.35	1024558	6.24	Si
SLV 6	39	-18994	56138	4.05	991149	17.656	Si
SLV 9	-159	-17753	-154550	3.79	956422	6.188	Si
SLV 9	39	-16507	60941	3.52	917373	15.053	Si
SLV 7	-159	-22161	187579	4.73	1060668	5.655	Si
SLV 7	39	-20743	-53202	4.43	1032928	19.415	Si
SLV 11	-159	-19550	197217	4.17	1005336	5.098	Si
SLV 11	39	-18256	-48399	3.9	971018	20.063	Si
SLV 8	-159	-22161	187579	4.73	1060668	5.655	Si
SLV 8	39	-20743	-53202	4.43	1032928	19.415	Si
SLV 12	-159	-19550	197217	4.17	1005336	5.098	Si
SLV 12	39	-18256	-48399	3.9	971018	20.063	Si
SLV 10	-159	-17753	-154550	3.79	956422	6.188	Si
SLV 10	39	-16507	60941	3.52	917373	15.053	Si
SLV 16	-159	-15875	85343	3.39	895937	10.498	Si
SLV 16	39	-14743	-4526	3.15	854792	188.856	Si
SLV 5	-159	-20363	-164188	4.35	1024558	6.24	Si
SLV 5	39	-18994	56138	4.05	991149	17.656	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	-159	-27890	1592	27645		5.95	156.18	1.08	5076			3.19	Si
SLU 61	39	-26217	1221	-4753		5.6	156.18	1.08	5076			4.16	Si
SLU 73	-159	-28814	1579	31275		6.15	156.18	1.08	5076			3.22	Si
SLU 73	39	-27126	1197	2520		5.79	156.18	1.08	5076			4.24	Si
SLU 55	-159	-26829	1424	19592		5.73	156.18	1.08	5076			3.56	Si
SLU 55	39	-25139	993	-3111		5.37	156.18	1.08	5076			5.11	Si
SLU 82	-159	-30250	1578	32416		6.46	156.18	1.08	5076			3.22	Si
SLU 82	39	-28595	1217	2302		6.1	156.18	1.08	5076			4.17	Si
SLU 63	-159	-28265	1424	20734		6.03	156.18	1.08	5076			3.57	Si
SLU 63	39	-26607	1014	-3328		5.68	156.18	1.08	5076			5.01	Si
SLU 44	-159	-23051	1433	19858		4.92	156.18	1.08	5076			3.54	Si
SLU 44	39	-21275	986	-1553		4.54	156.18	1.08	5076			5.15	Si
SLU 81	-159	-30216	1474	29857		6.45	156.18	1.08	5076			3.44	Si
SLU 81	39	-28564	1109	3894		6.1	156.18	1.08	5076			4.58	Si
SLU 52	-159	-26455	1593	26503		5.65	156.18	1.08	5076			3.19	Si
SLU 52	39	-24748	1201	-4535		5.28	156.18	1.08	5076			4.23	Si
SLU 60	-159	-27856	1488	25085		5.95	156.18	1.08	5076			3.41	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	39	-26187	1113	-3162		5.59	156.18	1.08	5076			4.56	Si
SLU 65	-159	-25411	1419	24630		5.42	156.18	1.08	5076			3.58	Si
SLU 65	39	-23652	982	5502		5.05	156.18	1.08	5076			5.17	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	-159	-24577	2880	53216		5.25	156.18	1.63	7614			2.64	Si
SLV 3	39	-23033	4520	-20536		4.92	156.18	1.63	7614			1.68	Si
SLV 8	-159	-22161	6330	187579		4.73	156.18	1.63	7614			1.2	Si
SLV 8	39	-20743	7021	-53202		4.43	156.18	1.63	7614			1.08	Si
SLV 5	-159	-20363	-4134	-164188		4.35	156.18	1.63	7614			1.84	Si
SLV 5	39	-18994	-4385	56138		4.05	156.18	1.63	7614			1.74	Si
SLV 4	-159	-24577	2880	53216		5.25	156.18	1.63	7614			2.64	Si
SLV 4	39	-23033	4520	-20536		4.92	156.18	1.63	7614			1.68	Si
SLV 7	-159	-22161	6330	187579		4.73	156.18	1.63	7614			1.2	Si
SLV 7	39	-20743	7021	-53202		4.43	156.18	1.63	7614			1.08	Si
SLV 12	-159	-19550	6147	197217		4.17	156.18	1.63	7614			1.24	Si
SLV 12	39	-18256	5743	-48399		3.9	156.18	1.61	7556			1.32	Si
SLV 11	-159	-19550	6147	197217		4.17	156.18	1.63	7614			1.24	Si
SLV 11	39	-18256	5743	-48399		3.9	156.18	1.61	7556			1.32	Si
SLV 10	-159	-17753	-4316	-154550		3.79	156.18	1.59	7455			1.73	Si
SLV 10	39	-16507	-5663	60941		3.52	156.18	1.54	7206			1.27	Si
SLV 6	-159	-20363	-4134	-164188		4.35	156.18	1.63	7614			1.84	Si
SLV 6	39	-18994	-4385	56138		4.05	156.18	1.63	7614			1.74	Si
SLV 9	-159	-17753	-4316	-154550		3.79	156.18	1.59	7455			1.73	Si
SLV 9	39	-16507	-5663	60941		3.52	156.18	1.54	7206			1.27	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -60 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.24	3.21	-15046	4681	166379	35.54	Si
SLV 13	14	0.24	3.21	-15046	4681	166379	35.54	Si
SLV 15	14	0.24	3.33	-15590	4681	170171	36.35	Si
SLV 16	14	0.24	3.33	-15590	4681	170171	36.35	Si
SLV 9	14	0.24	3.73	-17476	4681	182122	38.91	Si
SLV 10	14	0.24	3.73	-17476	4681	182122	38.91	Si
SLV 12	14	0.24	4.12	-19289	4681	191850	40.99	Si
SLV 11	14	0.24	4.12	-19289	4681	191850	40.99	Si
SLV 6	14	0.24	4.29	-20103	4681	195659	41.8	Si
SLV 5	14	0.24	4.29	-20103	4681	195659	41.8	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -60 Wa = 0.05 Ta = 0.0303

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-22508	-24038	120	0.062	24.46	0.98	91.655	348.44	No
SLV 2	-22508	-24038	120	0.062	24.46	0.98	91.655	348.44	No
SLV 4	-23033	-24577	90	0.063	24.995	0.981	93.572	348.44	No
SLV 3	-23033	-24577	90	0.063	24.995	0.981	93.572	348.44	No
SLV 15	-14743	-15875	-72	0.064	16.55	0.971	95.289	348.44	No
SLV 16	-14743	-15875	-72	0.064	16.55	0.971	95.289	348.44	No
SLV 5	-18994	-20363	99	0.062	20.88	0.977	92.889	336.593	No
SLV 6	-18994	-20363	99	0.062	20.88	0.977	92.889	336.593	No
SLV 13	-14218	-15336	-41	0.066	16.016	0.971	98.343	348.44	No
SLV 14	-14218	-15336	-41	0.066	16.016	0.971	98.343	348.44	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	15.115	SLU 82	Si
V_SLU	3.186	SLU 52	Si
PF_SLV	5.098	SLV 11	Si
V_SLV	1.084	SLV 7	Si
PFFP_SLV	35.544	SLV 13	Si
R_SLV	0.263	SLV 1	No

Maschio 44

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1101.3	-35.4	-1101.3	104.6	L1	L3	140	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	-159	-28546	122096	6.8	330961	2.711	Si
SLU 76	110	-23641	-61210	5.63	511352	8.354	Si
SLU 81	-159	-29847	131078	7.11	266619	2.034	Si
SLU 81	110	-24766	-63099	5.9	478679	7.586	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	-159	-30037	128110	7.15	256627	2.003	Si
SLU 84	110	-24994	-64732	5.95	471441	7.283	Si
SLU 83	-159	-29955	125213	7.13	260933	2.084	Si
SLU 83	110	-24951	-64009	5.94	472802	7.386	Si
SLU 77	-159	-28786	113937	6.85	319622	2.805	Si
SLU 77	110	-24007	-60716	5.72	501299	8.256	Si
SLU 74	-159	-28677	119801	6.83	324788	2.711	Si
SLU 74	110	-23822	-59806	5.67	506459	8.468	Si
SLU 78	-159	-28867	116833	6.87	315706	2.702	Si
SLU 78	110	-24049	-61439	5.73	500101	8.14	Si
SLU 82	-159	-29928	133974	7.13	262349	1.958	Si
SLU 82	110	-24808	-63822	5.91	477349	7.479	Si
SLU 73	-159	-28437	127961	6.77	336021	2.626	Si
SLU 73	110	-23456	-60300	5.58	516235	8.561	Si
SLU 75	-159	-28759	122697	6.85	320909	2.615	Si
SLU 75	110	-23864	-60529	5.68	505293	8.348	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 12	-159	-21945	145452	5.22	879260	6.045	Si
SLD 12	110	-17416	-38491	4.15	805384	20.924	Si
SLV 8	-159	-28178	256437	6.71	889430	3.468	Si
SLV 8	110	-22201	-25482	5.29	881773	34.604	Si
SLV 4	-159	-26355	175027	6.28	897423	5.127	Si
SLV 4	110	-21964	-23611	5.23	879455	37.248	Si
SLV 12	-159	-25347	230078	6.03	897951	3.903	Si
SLV 12	110	-19450	-33859	4.63	845489	24.971	Si
SLD 7	-159	-23154	156635	5.51	889520	5.679	Si
SLD 7	110	-18557	-34080	4.42	829277	24.333	Si
SLV 3	-159	-26355	175027	6.28	897423	5.127	Si
SLV 3	110	-21964	-23611	5.23	879455	37.248	Si
SLD 8	-159	-23154	156635	5.51	889520	5.679	Si
SLD 8	110	-18557	-34080	4.42	829277	24.333	Si
SLV 11	-159	-25347	230078	6.03	897951	3.903	Si
SLV 11	110	-19450	-33859	4.63	845489	24.971	Si
SLD 11	-159	-21945	145452	5.22	879260	6.045	Si
SLD 11	110	-17416	-38491	4.15	805384	20.924	Si
SLV 7	-159	-28178	256437	6.71	889430	3.468	Si
SLV 7	110	-22201	-25482	5.29	881773	34.604	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	-159	-29928	3842	133974		7.13	140	1.08	4550			1.18	Si
SLU 82	110	-24808	-216	-63822		5.91	140	1.08	4550			21.07	Si
SLU 76	-159	-28546	3598	122096		6.8	140	1.08	4550			1.26	Si
SLU 76	110	-23641	-315	-61210		5.63	140	1.08	4550			14.43	Si
SLU 61	-159	-27253	3640	121550		6.49	140	1.08	4550			1.25	Si
SLU 61	110	-22395	-55	-63912		5.33	140	1.08	4550			83.14	Si
SLU 75	-159	-28759	3589	122697		6.85	140	1.08	4550			1.27	Si
SLU 75	110	-23864	-338	-60529		5.68	140	1.08	4550			13.47	Si
SLU 84	-159	-30037	3726	128110		7.15	140	1.08	4550			1.22	Si
SLU 84	110	-24994	-377	-64732		5.95	140	1.08	4550			12.06	Si
SLU 83	-159	-29955	3639	125213		7.13	140	1.08	4550			1.25	Si
SLU 83	110	-24951	-457	-64009		5.94	140	1.08	4550			9.96	Si
SLU 73	-159	-28437	3714	127961		6.77	140	1.08	4550			1.23	Si
SLU 73	110	-23456	-154	-60300		5.58	140	1.08	4550			29.56	Si
SLU 63	-159	-27362	3524	115685		6.51	140	1.08	4550			1.29	Si
SLU 63	110	-22580	-216	-64823		5.38	140	1.08	4550			21.06	Si
SLU 81	-159	-29847	3754	131078		7.11	140	1.08	4550			1.21	Si
SLU 81	110	-24766	-295	-63099		5.9	140	1.08	4550			15.41	Si
SLU 60	-159	-27172	3552	118653		6.47	140	1.08	4550			1.28	Si
SLU 60	110	-22353	-134	-63189		5.32	140	1.08	4550			33.95	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	-159	-10700	-2149	-90389		2.55	140	1.34	5640			2.62	Si
SLV 10	110	-9600	-4295	-56438		2.29	140	1.29	5420			1.26	Si
SLV 7	-159	-28178	7127	256437		6.71	140	1.63	6825			0.96	No, Vu<V
SLV 7	110	-22201	3946	-25482		5.29	140	1.63	6825			1.73	Si
SLV 8	-159	-28178	7127	256437		6.71	140	1.63	6825			0.96	No, Vu<V
SLV 8	110	-22201	3946	-25482		5.29	140	1.63	6825			1.73	Si
SLV 5	-159	-13531	-2100	-64029		3.22	140	1.48	6206			2.96	Si
SLV 5	110	-12351	-3895	-48061		2.94	140	1.42	5970			1.53	Si
SLV 6	-159	-13531	-2100	-64029		3.22	140	1.48	6206			2.96	Si
SLV 6	110	-12351	-3895	-48061		2.94	140	1.42	5970			1.53	Si
SLV 9	-159	-10700	-2149	-90389		2.55	140	1.34	5640			2.62	Si
SLV 9	110	-9600	-4295	-56438		2.29	140	1.29	5420			1.26	Si
SLV 11	-159	-25347	7078	230078		6.03	140	1.63	6825			0.96	No, Vu<V
SLV 11	110	-19450	3546	-33859		4.63	140	1.63	6825			1.92	Si
SLD 8	-159	-23154	4469	156635		5.51	140	1.63	6825			1.53	Si
SLD 8	110	-18557	1568	-34080		4.42	140	1.63	6825			4.35	Si
SLV 12	-159	-25347	7078	230078		6.03	140	1.63	6825			0.96	No, Vu<V
SLV 12	110	-19450	3546	-33859		4.63	140	1.63	6825			1.92	Si
SLD 7	-159	-23154	4469	156635		5.51	140	1.63	6825			1.53	Si
SLD 7	110	-18557	1568	-34080		4.42	140	1.63	6825			4.35	Si



Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	2.63	-11034	5569	129927	23.33	Si
SLV 10	14	0.24	2.63	-11034	5569	129927	23.33	Si
SLV 14	14	0.24	2.95	-12374	5569	140855	25.29	Si
SLV 13	14	0.24	2.95	-12374	5569	140855	25.29	Si
SLV 6	14	0.24	3.21	-13494	5569	149188	26.79	Si
SLV 5	14	0.24	3.21	-13494	5569	149188	26.79	Si
SLV 15	14	0.24	3.81	-15982	5569	165071	29.64	Si
SLV 16	14	0.24	3.81	-15982	5569	165071	29.64	Si
SLV 1	14	0.24	4.9	-20573	5569	184884	33.2	Si
SLV 2	14	0.24	4.9	-20573	5569	184884	33.2	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 11	-19450	-25347	248	0.046	21.395	0.977	69.023	392.468	No
SLV 12	-19450	-25347	248	0.046	21.395	0.977	69.023	392.468	No
SLV 7	-22201	-28178	260	0.047	24.198	0.979	69.737	392.468	No
SLV 8	-22201	-28178	260	0.047	24.198	0.979	69.737	392.468	No
SLV 3	-21964	-26355	165	0.051	23.956	0.979	75.763	411.62	No
SLV 4	-21964	-26355	165	0.051	23.956	0.979	75.763	411.62	No
SLV 15	-12792	-16917	126	0.051	14.615	0.967	76.292	411.62	No
SLV 16	-12792	-16917	126	0.051	14.615	0.967	76.292	411.62	No
SLV 2	-19009	-21961	72	0.055	20.945	0.976	81.884	411.62	No
SLV 1	-19009	-21961	72	0.055	20.945	0.976	81.884	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.958	SLU 82	Si
V_SLU	1.184	SLU 82	Si
PF_SLV	3.468	SLV 7	Si
V_SLV	0.958	SLV 7	No
PFFP_SLV	23.331	SLV 9	Si
R_SLV	0.176	SLV 11	No

Maschio 45

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-972.8	220.1	-972.8	657.6	L1	L3	437.5	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 77	-159	-55503	1396600	4.23	5838301	4.18	Si
SLU 77	61	-58235	2806033	4.44	5800156	2.067	Si
SLU 74	-159	-56599	1151877	4.31	5826669	5.058	Si
SLU 74	61	-59162	2575663	4.51	5780277	2.244	Si
SLU 83	-159	-58484	1201261	4.46	5795151	4.824	Si
SLU 83	61	-61352	2681689	4.67	5719344	2.133	Si
SLU 78	-159	-55518	1389380	4.23	5838171	4.202	Si
SLU 78	61	-58245	2798085	4.44	5799949	2.073	Si
SLU 84	-159	-58500	1194040	4.46	5794832	4.853	Si
SLU 84	61	-61362	2673740	4.68	5719002	2.139	Si
SLU 72	-159	-48579	1384401	3.7	5798176	4.188	Si
SLU 72	61	-50279	2604077	3.83	5826199	2.237	Si
SLU 79	-159	-54741	1429675	4.17	5843490	4.087	Si
SLU 79	61	-57378	2822049	4.37	5815408	2.061	Si
SLU 69	-159	-49325	1358546	3.76	5811933	4.278	Si
SLU 69	61	-51125	2596009	3.9	5835740	2.248	Si
SLU 80	-159	-54756	1422455	4.17	5843409	4.108	Si
SLU 80	61	-57389	2814101	4.37	5815238	2.066	Si
SLU 71	-159	-48563	1391621	3.7	5797866	4.166	Si
SLU 71	61	-50268	2612025	3.83	5826061	2.23	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	-159	-32419	3794836	2.47	5658123	1.491	Si
SLV 11	61	-36733	4187749	2.8	6194862	1.479	Si
SLD 11	-159	-36750	1982348	2.8	6196807	3.126	Si
SLD 11	61	-39209	2714279	2.99	6479974	2.387	Si
SLV 8	-159	-28204	3948274	2.15	5084526	1.288	Si
SLV 8	61	-32701	4100876	2.49	5694693	1.389	Si
SLV 7	-159	-28204	3948274	2.15	5084526	1.288	Si
SLV 7	61	-32701	4100876	2.49	5694693	1.389	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	-159	-29932	1884508	2.28	5325506	2.826	Si
SLV 3	61	-32345	2250703	2.46	5648435	2.51	Si
SLV 4	-159	-29932	1884508	2.28	5325506	2.826	Si
SLV 4	61	-32345	2250703	2.46	5648435	2.51	Si
SLD 8	-159	-34958	2046650	2.66	5980166	2.922	Si
SLD 8	61	-37504	2675387	2.86	6285453	2.349	Si
SLV 12	-159	-32419	3794836	2.47	5658123	1.491	Si
SLV 12	61	-36733	4187749	2.8	6194862	1.479	Si
SLD 12	-159	-36750	1982348	2.8	6196807	3.126	Si
SLD 12	61	-39209	2714279	2.99	6479974	2.387	Si
SLD 7	-159	-34958	2046650	2.66	5980166	2.922	Si
SLD 7	61	-37504	2675387	2.86	6285453	2.349	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLU 8	-159	-34548	1295	1097717		2.63	437.5	0.91	11898			9.19	Si
SLU 8	61	-35490	1320	1957239		2.7	437.5	0.92	12024			9.11	Si
SLU 72	-159	-48579	1516	1384401		3.7	437.5	1.05	13769			9.08	Si
SLU 72	61	-50279	1554	2604077		3.83	437.5	1.07	13996			9	Si
SLU 37	-159	-45281	1487	1305328		3.45	437.5	1.02	13329			8.96	Si
SLU 37	61	-48041	1460	2480493		3.66	437.5	1.04	13697			9.38	Si
SLU 28	-159	-39881	1407	1226978		3.04	437.5	0.96	12609			8.96	Si
SLU 28	61	-41799	1416	2246505		3.18	437.5	0.98	12865			9.09	Si
SLU 27	-159	-39865	1415	1234199		3.04	437.5	0.96	12607			8.91	Si
SLU 27	61	-41788	1422	2254453		3.18	437.5	0.98	12863			9.05	Si
SLU 38	-159	-45297	1479	1298108		3.45	437.5	1.02	13331			9.01	Si
SLU 38	61	-48051	1454	2472545		3.66	437.5	1.04	13698			9.42	Si
SLU 29	-159	-39104	1488	1267274		2.98	437.5	0.95	12505			8.4	Si
SLU 29	61	-40931	1484	2270469		3.12	437.5	0.97	12749			8.59	Si
SLU 30	-159	-39119	1480	1260054		2.98	437.5	0.95	12508			8.45	Si
SLU 30	61	-40942	1478	2262521		3.12	437.5	0.97	12751			8.62	Si
SLU 9	-159	-34563	1287	1090496		2.63	437.5	0.91	11900			9.25	Si
SLU 9	61	-35500	1314	1949290		2.7	437.5	0.92	12025			9.15	Si
SLU 71	-159	-48563	1524	1391621		3.7	437.5	1.05	13767			9.03	Si
SLU 71	61	-50268	1560	2612025		3.83	437.5	1.07	13994			8.97	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLV 12	-159	-32419	15114	3794836		3.54	305.09	1.54	14111			0.93	No, Vu<V
SLV 12	61	-36733	14568	4187749		3.9	314.24	1.61	15203			1.04	Si
SLV 11	-159	-32419	15114	3794836		3.54	305.09	1.54	14111			0.93	No, Vu<V
SLV 11	61	-36733	14568	4187749		3.9	314.24	1.61	15203			1.04	Si
SLV 9	-159	-51409	-14455	-2613099		3.92	437.5	1.62	21219			1.47	Si
SLV 9	61	-49158	-14204	-808878		3.75	437.5	1.58	20769			1.46	Si
SLV 8	-159	-28204	15247	3948274		3.98	236.27	1.63	11518			0.76	No, Vu<V
SLV 8	61	-32701	15167	4100876		3.89	280.03	1.61	13541			0.89	No, Vu<V
SLD 8	-159	-34958	6693	2046650		2.66	437.5	1.37	17929			2.68	Si
SLD 8	61	-37504	6707	2675387		2.86	437.5	1.4	18438			2.75	Si
SLV 6	-159	-47193	-14322	-2459661		3.6	437.5	1.55	20376			1.42	Si
SLV 6	61	-45125	-13605	-895752		3.44	437.5	1.52	19963			1.47	Si
SLD 7	-159	-34958	6693	2046650		2.66	437.5	1.37	17929			2.68	Si
SLD 7	61	-37504	6707	2675387		2.86	437.5	1.4	18438			2.75	Si
SLV 7	-159	-28204	15247	3948274		3.98	236.27	1.63	11518			0.76	No, Vu<V
SLV 7	61	-32701	15167	4100876		3.89	280.03	1.61	13541			0.89	No, Vu<V
SLV 10	-159	-51409	-14455	-2613099		3.92	437.5	1.62	21219			1.47	Si
SLV 10	61	-49158	-14204	-808878		3.75	437.5	1.58	20769			1.46	Si
SLV 5	-159	-47193	-14322	-2459661		3.6	437.5	1.55	20376			1.42	Si
SLV 5	61	-45125	-13605	-895752		3.44	437.5	1.52	19963			1.47	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	2.33	-30595	17403	371377	21.34	Si
SLV 7	14	0.24	2.33	-30595	17403	371377	21.34	Si
SLV 3	14	0.24	2.35	-30890	17403	374106	21.5	Si
SLV 4	14	0.24	2.35	-30890	17403	374106	21.5	Si
SLV 12	14	0.24	2.63	-34534	17403	406466	23.36	Si
SLV 11	14	0.24	2.63	-34534	17403	406466	23.36	Si
SLV 2	14	0.24	2.67	-35082	17403	411116	23.62	Si
SLV 1	14	0.24	2.67	-35082	17403	411116	23.62	Si
SLV 16	14	0.24	3.35	-44020	17403	479057	27.53	Si
SLV 15	14	0.24	3.35	-44020	17403	479057	27.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-33564	-29932	-401	0.05	39.146	0.962	75.031	411.62	No
SLV 3	-33564	-29932	-401	0.05	39.146	0.962	75.031	411.62	No
SLV 13	-51178	-49681	405	0.052	57.077	0.973	77	411.62	No
SLV 14	-51178	-49681	405	0.052	57.077	0.973	77	411.62	No
SLV 8	-35441	-28204	-356	0.051	41.055	0.964	77.103	392.468	No
SLV 7	-35441	-28204	-356	0.051	41.055	0.964	77.103	392.468	No
SLV 16	-48351	-43984	249	0.054	54.198	0.972	81.305	411.62	No
SLV 15	-48351	-43984	249	0.054	54.198	0.972	81.305	411.62	No
SLV 1	-36392	-35629	-245	0.054	42.023	0.964	81.465	411.62	No
SLV 2	-36392	-35629	-245	0.054	42.023	0.964	81.465	411.62	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.061	SLU 79	Si
V_SLU	8.403	SLU 29	Si
PF_SLV	1.288	SLV 7	Si
V_SLV	0.755	SLV 7	No
PFFP_SLV	21.34	SLV 7	Si
R_SLV	0.182	SLV 3	No

Maschio 46

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-772.3	-478.4	-1101.3	-478.4	L1	L3	329	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 38	-159	-28963	673789	1.96	3620176	5.373	Si
SLU 38	110	-15498	-36149	1.05	2221848	61.464	Si
SLU 34	-159	-27855	639347	1.88	3523794	5.512	Si
SLU 34	110	-15096	-76136	1.02	2172390	28.533	Si
SLU 78	-159	-35949	746144	2.43	4150821	5.563	Si
SLU 78	110	-19151	-115350	1.29	2650086	22.974	Si
SLU 76	-159	-34888	717797	2.36	4078831	5.682	Si
SLU 76	110	-18765	-149907	1.27	2606566	17.388	Si
SLU 37	-159	-29505	641623	1.99	3666153	5.714	Si
SLU 37	110	-15552	-33328	1.05	2228358	66.861	Si
SLU 80	-159	-35996	752239	2.43	4153957	5.522	Si
SLU 80	110	-19168	-109919	1.29	2651990	24.127	Si
SLU 42	-159	-29066	666938	1.96	3628962	5.441	Si
SLU 42	110	-15601	-49560	1.05	2234416	45.085	Si
SLU 36	-159	-28916	667694	1.95	3616134	5.416	Si
SLU 36	110	-15481	-41580	1.05	2219773	53.386	Si
SLU 35	-159	-29458	635528	1.99	3662180	5.762	Si
SLU 35	110	-15535	-38759	1.05	2226286	57.439	Si
SLU 84	-159	-36099	745387	2.44	4160768	5.582	Si
SLU 84	110	-19271	-123330	1.3	2663528	21.597	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 12	-159	-9993	110865	0.67	1553057	14.009	Si
SLV 12	110	-7129	-311642	0.48	1126557	3.615	Si
SLV 4	-159	-9957	1032897	0.67	1547816	1.499	Si
SLV 4	110	-1990	-638267	0	0	0	No, e>l/2
SLV 11	-159	-9993	110865	0.67	1553057	14.009	Si
SLV 11	110	-7129	-311642	0.48	1126557	3.615	Si
SLD 4	-159	-19061	664492	1.29	2805151	4.221	Si
SLD 4	110	-8627	-373988	0.58	1351530	3.614	Si
SLD 3	-159	-19061	664492	1.29	2805151	4.221	Si
SLD 3	110	-8627	-373988	0.58	1351530	3.614	Si
SLV 8	-159	-3908	508223	0.26	628925	1.237	Si
SLV 8	110	-1831	-543336	0	0	0	No, e>l/2
SLV 1	-159	-21228	1085259	1.43	3082247	2.84	Si
SLV 1	110	-7425	-487942	0.5	1171218	2.4	Si
SLV 2	-159	-21228	1085259	1.43	3082247	2.84	Si
SLV 2	110	-7425	-487942	0.5	1171218	2.4	Si
SLV 7	-159	-3908	508223	0.26	628925	1.237	Si
SLV 7	110	-1831	-543336	0	0	0	No, e>l/2
SLV 3	-159	-9957	1032897	0.67	1547816	1.499	Si
SLV 3	110	-1990	-638267	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	-159	-34888	-5263	717797		2.36	329	0.87	12877			2.45	Si
SLU 76	110	-18765	-2050	-149907		1.27	329	0.72	10727			5.23	Si
SLU 82	-159	-35353	-5244	689501		2.39	329	0.87	12939			2.47	Si
SLU 82	110	-18904	-2005	-161437		1.28	329	0.73	10746			5.36	Si
SLU 83	-159	-36641	-5404	713221		2.47	329	0.89	13111			2.43	Si
SLU 83	110	-19324	-2034	-120509		1.31	329	0.73	10802			5.31	Si
SLU 80	-159	-35996	-5441	752239		2.43	329	0.88	13024			2.39	Si
SLU 80	110	-19168	-2095	-109919		1.29	329	0.73	10781			5.15	Si
SLU 63	-159	-34891	-5145	673549		2.36	329	0.87	12877			2.5	Si
SLU 63	110	-18577	-1975	-160073		1.25	329	0.72	10702			5.42	Si
SLU 84	-159	-36099	-5457	745387		2.44	329	0.88	13038			2.39	Si
SLU 84	110	-19271	-2085	-123330		1.3	329	0.73	10794			5.18	Si
SLU 75	-159	-35203	-5208	690258		2.38	329	0.87	12919			2.48	Si
SLU 75	110	-18784	-2008	-153457		1.27	329	0.72	10730			5.34	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	-159	-36491	-5368	713978		2.46	329	0.88	13090			2.44	Si
SLU 77	110	-19204	-2037	-112529		1.3	329	0.73	10786			5.3	Si
SLU 79	-159	-36538	-5388	720073		2.47	329	0.88	13097			2.43	Si
SLU 79	110	-19221	-2044	-107099		1.3	329	0.73	10788			5.28	Si
SLU 78	-159	-35949	-5421	746144		2.43	329	0.88	13018			2.4	Si
SLU 78	110	-19151	-2088	-115350		1.29	329	0.73	10778			5.16	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	-159	-41513	-10937	-239269		2.8	329	1.39	20640			1.89	Si
SLV 14	110	-25085	-8189	284373		1.69	329	1.17	17354			2.12	Si
SLV 1	-159	-21228	2763	1085259		1.43	329	1.12	16583			6	Si
SLV 1	110	-7425	4674	-487942		0.56	296.34	0.94	12598			2.7	Si
SLV 13	-159	-41513	-10937	-239269		2.8	329	1.39	20640			1.89	Si
SLV 13	110	-25085	-8189	284373		1.69	329	1.17	17354			2.12	Si
SLV 8	-159	-3908	564	508223		0.84	103.33	1	4656			8.25	Si
SLV 8	110	-1831	1947	-543336		0	0	0.83	0			0	No, Vu<V
SLV 2	-159	-21228	2763	1085259		1.43	329	1.12	16583			6	Si
SLV 2	110	-7425	4674	-487942		0.56	296.34	0.94	12598			2.7	Si
SLV 3	-159	-9957	3961	1032897		1.21	182.3	1.08	8828			2.23	Si
SLV 3	110	-1990	5493	-638267		0	0	0.83	0			0	No, Vu<V
SLV 7	-159	-3908	564	508223		0.84	103.33	1	4656			8.25	Si
SLV 7	110	-1831	1947	-543336		0	0	0.83	0			0	No, Vu<V
SLV 15	-159	-30242	-9739	-291631		2.04	329	1.24	18386			1.89	Si
SLV 15	110	-19650	-7370	134048		1.33	329	1.1	16268			2.21	Si
SLV 4	-159	-9957	3961	1032897		1.21	182.3	1.08	8828			2.23	Si
SLV 4	110	-1990	5493	-638267		0	0	0.83	0			0	No, Vu<V
SLV 16	-159	-30242	-9739	-291631		2.04	329	1.24	18386			1.89	Si
SLV 16	110	-19650	-7370	134048		1.33	329	1.1	16268			2.21	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	0.23	-3456	19630	76274	3.89	Si
SLV 7	14	0.24	0.23	-3456	19630	76274	3.89	Si
SLV 4	14	0.24	0.45	-6636	19630	143830	7.33	Si
SLV 3	14	0.24	0.45	-6636	19630	143830	7.33	Si
SLV 12	14	0.24	0.63	-9363	19630	199761	10.18	Si
SLV 11	14	0.24	0.63	-9363	19630	199761	10.18	Si
SLV 1	14	0.24	1.03	-15268	19630	314543	16.02	Si
SLV 2	14	0.24	1.03	-15268	19630	314543	16.02	Si
SLV 15	14	0.24	1.78	-26325	19630	506124	25.78	Si
SLV 16	14	0.24	1.78	-26325	19630	506124	25.78	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-25085	-41513	-1638	0.037	31.173	0.948	56.645	338.414	No
SLV 14	-25085	-41513	-1638	0.037	31.173	0.948	56.645	338.414	No
SLV 9	-25244	-47563	-1661	0.036	31.334	0.948	55.815	328.355	No
SLV 10	-25244	-47563	-1661	0.036	31.334	0.948	55.815	328.355	No
SLV 5	-19946	-41477	-1300	0.041	25.963	0.939	63.676	328.355	No
SLV 6	-19946	-41477	-1300	0.041	25.963	0.939	63.676	328.355	No
SLV 15	-19650	-30242	-1257	0.042	25.664	0.939	65.7	338.414	No
SLV 16	-19650	-30242	-1257	0.042	25.664	0.939	65.7	338.414	No
SLV 2	-7425	-21228	-433	0.072	13.404	0.901	115.39	338.414	No
SLV 1	-7425	-21228	-433	0.072	13.404	0.901	115.39	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.373	SLU 38	Si
V_SLU	2.389	SLU 84	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	3.886	SLV 7	Si
R_SLV	0.167	SLV 13	No

Maschio 47

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-772.3	-328.4	-772.3	-478.4	L1	L3	150	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 35	-159	-16948	-146144	2.51	879363	6.017	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 35	110	-10301	-193652	1.53	627846	3.242	Si
SLU 79	-159	-20687	-161624	3.06	967847	5.988	Si
SLU 79	110	-12264	-218415	1.82	714682	3.272	Si
SLU 81	-159	-21033	-166384	3.12	974115	5.855	Si
SLU 81	110	-12515	-228087	1.85	725007	3.179	Si
SLU 41	-159	-17365	-153753	2.57	891102	5.796	Si
SLU 41	110	-10613	-203688	1.57	642357	3.154	Si
SLU 39	-159	-17227	-149867	2.55	887265	5.92	Si
SLU 39	110	-10484	-201072	1.55	636396	3.165	Si
SLU 37	-159	-16880	-145107	2.5	877399	6.047	Si
SLU 37	110	-10233	-191400	1.52	624683	3.264	Si
SLU 74	-159	-20617	-158776	3.05	966543	6.087	Si
SLU 74	110	-12202	-218050	1.81	712116	3.266	Si
SLU 83	-159	-21171	-170270	3.14	976520	5.735	Si
SLU 83	110	-12644	-230703	1.87	730253	3.165	Si
SLU 32	-159	-16810	-142258	2.49	875369	6.153	Si
SLU 32	110	-10172	-191036	1.51	621776	3.255	Si
SLU 77	-159	-20755	-162661	3.07	969104	5.958	Si
SLU 77	110	-12331	-220667	1.83	717473	3.251	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	-159	-11501	-416294	1.7	742337	1.783	Si
SLV 4	110	-2007	-168699	0	0	0	No, $e \geq l/2$
SLV 12	-159	-6786	-129318	1.01	467076	3.612	Si
SLV 12	110	4667	168508	0	0	0	No, Trazione
SLV 7	-159	-6314	-299057	0.94	437321	1.462	Si
SLV 7	110	6049	102103	0	0	0	No, Trazione
SLV 1	-159	-16419	-347044	2.43	986324	2.842	Si
SLV 1	110	-10295	-334411	1.53	675762	2.021	Si
SLV 11	-159	-6786	-129318	1.01	467076	3.612	Si
SLV 11	110	4667	168508	0	0	0	No, Trazione
SLD 3	-159	-13397	-232987	1.98	841628	3.612	Si
SLD 3	110	-5845	-155734	0.87	407321	2.615	Si
SLV 3	-159	-11501	-416294	1.7	742337	1.783	Si
SLV 3	110	-2007	-168699	0	0	0	No, $e \geq l/2$
SLV 2	-159	-16419	-347044	2.43	986324	2.842	Si
SLV 2	110	-10295	-334411	1.53	675762	2.021	Si
SLV 8	-159	-6314	-299057	0.94	437321	1.462	Si
SLV 8	110	6049	102103	0	0	0	No, Trazione
SLD 4	-159	-13397	-232987	1.98	841628	3.612	Si
SLD 4	110	-5845	-155734	0.87	407321	2.615	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 74	-159	-20617	178	-158776		3.05	150.01	0.96	6499			36.44	Si
SLU 74	110	-12202	1377	-218050		1.81	150.01	0.8	5377			3.91	Si
SLU 53	-159	-19467	142	-134023		2.88	150.01	0.94	6346			44.54	Si
SLU 53	110	-11260	1278	-189424		1.67	150.01	0.78	5251			4.11	Si
SLU 83	-159	-21171	198	-170270		3.14	150.01	0.97	6573			33.25	Si
SLU 83	110	-12644	1428	-230703		1.87	150.01	0.81	5436			3.81	Si
SLU 60	-159	-19884	169	-141632		2.95	150.01	0.95	6401			37.86	Si
SLU 60	110	-11572	1320	-199460		1.71	150.01	0.78	5293			4.01	Si
SLU 77	-159	-20755	171	-162661		3.07	150.01	0.97	6517			38.1	Si
SLU 77	110	-12331	1386	-220667		1.83	150.01	0.8	5394			3.89	Si
SLU 79	-159	-20687	167	-161624		3.06	150.01	0.96	6508			38.98	Si
SLU 79	110	-12264	1378	-218415		1.82	150.01	0.8	5385			3.91	Si
SLU 81	-159	-21033	205	-166384		3.12	150.01	0.97	6555			31.98	Si
SLU 81	110	-12515	1418	-228087		1.85	150.01	0.8	5419			3.82	Si
SLU 62	-159	-20022	162	-145517		2.97	150.01	0.95	6420			39.68	Si
SLU 62	110	-11701	1329	-202076		1.73	150.01	0.79	5310			3.99	Si
SLU 56	-159	-19605	135	-137909		2.9	150.01	0.94	6364			47.09	Si
SLU 56	110	-11389	1288	-192040		1.69	150.01	0.78	5269			4.09	Si
SLU 58	-159	-19537	131	-136872		2.89	150.01	0.94	6355			48.48	Si
SLU 58	110	-11322	1280	-189789		1.68	150.01	0.78	5260			4.11	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-17991	1229	218751		2.67	150.01	1.37	9223			7.51	Si
SLV 13	110	-14902	3447	-113062		2.21	150.01	1.27	8606			2.5	Si
SLV 8	-159	-6314	-2623	-299057		1.69	82.92	1.17	4372			1.67	Si
SLV 8	110	6049	-2246	102103		0	0	0.83	0			0	No, Vu<V
SLV 4	-159	-11501	-1018	-416294		2.2	116.42	1.27	6666			6.55	Si
SLV 4	110	-2007	-1530	-168699		0	0	0.83	0			0	No, Vu<V
SLV 14	-159	-17991	1229	218751		2.67	150.01	1.37	9223			7.51	Si
SLV 14	110	-14902	3447	-113062		2.21	150.01	1.27	8606			2.5	Si
SLV 11	-159	-6786	-2422	-129318		1.01	150.01	1.03	6982			2.88	Si
SLV 11	110	4667	-1239	168508		0	0	0.83	0			0	No, Vu<V
SLV 9	-159	-23178	2834	101514		3.43	150.01	1.52	10261			3.62	Si
SLV 9	110	-22958	4164	-383864		3.4	150.01	1.51	10217			2.45	Si
SLV 10	-159	-23178	2834	101514		3.43	150.01	1.52	10261			3.62	Si
SLV 10	110	-22958	4164	-383864		3.4	150.01	1.51	10217			2.45	Si
SLV 7	-159	-6314	-2623	-299057		1.69	82.92	1.17	4372			1.67	Si
SLV 7	110	6049	-2246	102103		0	0	0.83	0			0	No, Vu<V
SLV 12	-159	-6786	-2422	-129318		1.01	150.01	1.03	6982			2.88	Si
SLV 12	110	4667	-1239	168508		0	0	0.83	0			0	No, Vu<V
SLV 3	-159	-11501	-1018	-416294		2.2	116.42	1.27	6666			6.55	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	110	-2007	-1530	-168699		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	0.73	-4910	8950	103898	11.61	Si
SLV 7	14	0.24	0.73	-4910	8950	103898	11.61	Si
SLV 12	14	0.24	0.85	-5724	8950	119855	13.39	Si
SLV 11	14	0.24	0.85	-5724	8950	119855	13.39	Si
SLV 4	14	0.24	1.47	-9898	8950	195985	21.9	Si
SLV 3	14	0.24	1.47	-9898	8950	195985	21.9	Si
SLV 15	14	0.24	1.87	-12612	8950	240382	26.86	Si
SLV 16	14	0.24	1.87	-12612	8950	240382	26.86	Si
SLV 1	14	0.24	2.22	-14988	8950	275953	30.83	Si
SLV 2	14	0.24	2.22	-14988	8950	275953	30.83	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	4667	-6786	32	0	0	0	0	328.355	No, Trazione
SLV 12	4667	-6786	32	0	0	0	0	328.355	No, Trazione
SLV 8	6049	-6314	28	0	0	0	0	328.355	No, Trazione
SLV 7	6049	-6314	28	0	0	0	0	328.355	No, Trazione
SLV 5	-21576	-22707	-180	0.082	24.523	0.968	122.766	328.355	No
SLV 6	-21576	-22707	-180	0.082	24.523	0.968	122.766	328.355	No
SLV 9	-22958	-23178	-176	0.082	25.93	0.97	122.954	328.355	No
SLV 10	-22958	-23178	-176	0.082	25.93	0.97	122.954	328.355	No
SLV 13	-14902	-17991	-98	0.086	17.733	0.957	130.484	338.414	No
SLV 14	-14902	-17991	-98	0.086	17.733	0.957	130.484	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.154	SLU 41	Si
V_SLU	3.808	SLU 83	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 3	No
PFFP_SLV	11.608	SLV 7	Si
R_SLV	0	SLV 12	No

Maschio 48

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-626.8	104.6	-626.8	-328.4	L1	L3	433	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 41	-159	-55326	-1357975	4.26	5715077	4.209	Si
SLU 41	110	-48599	615719	3.74	5689088	9.24	Si
SLU 81	-159	-64310	-1455261	4.95	5460966	3.753	Si
SLU 81	110	-56036	798321	4.31	5707012	7.149	Si
SLU 78	-159	-64026	-1333223	4.93	5474093	4.106	Si
SLU 78	110	-56630	909976	4.36	5698682	6.262	Si
SLU 80	-159	-63624	-1325378	4.9	5492041	4.144	Si
SLU 80	110	-56210	906824	4.33	5704724	6.291	Si
SLU 82	-159	-64528	-1288470	4.97	5450698	4.23	Si
SLU 82	110	-57052	927134	4.39	5691884	6.139	Si
SLU 74	-159	-62913	-1437143	4.84	5522174	3.842	Si
SLU 74	110	-54780	787278	4.22	5719868	7.265	Si
SLU 84	-159	-65423	-1351341	5.04	5406524	4.001	Si
SLU 84	110	-57886	921019	4.46	5676320	6.163	Si
SLU 83	-159	-65205	-1518132	5.02	5417590	3.569	Si
SLU 83	110	-56870	792206	4.38	5694915	7.189	Si
SLU 77	-159	-63808	-1500014	4.91	5483912	3.656	Si
SLU 77	110	-55614	781163	4.28	5712055	7.312	Si
SLU 79	-159	-63406	-1492168	4.88	5501503	3.687	Si
SLU 79	110	-55193	778011	4.25	5716349	7.347	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 7	-159	-42092	-1524429	3.24	6696071	4.393	Si
SLD 7	110	-34620	254147	2.67	5860311	23.059	Si
SLV 7	-159	-40777	-2384376	3.14	6560026	2.751	Si
SLV 7	110	-31123	-228736	2.4	5416807	23.681	Si
SLV 16	-159	-36243	-1495146	2.79	6054839	4.05	Si
SLV 16	110	-28355	-59556	2.18	5042117	84.662	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 11	-159	-40684	-1561627	3.13	6550241	4.194	Si
SLD 11	110	-33011	185501	2.54	5660355	30.514	Si
SLD 8	-159	-42092	-1524429	3.24	6696071	4.393	Si
SLD 8	110	-34620	254147	2.67	5860311	23.059	Si
SLV 11	-159	-37396	-2465633	2.88	6188586	2.51	Si
SLV 11	110	-27285	-388634	2.1	4891687	12.587	Si
SLD 12	-159	-40684	-1561627	3.13	6550241	4.194	Si
SLD 12	110	-33011	185501	2.54	5660355	30.514	Si
SLV 15	-159	-36243	-1495146	2.79	6054839	4.05	Si
SLV 15	110	-28355	59556	2.18	5042117	84.662	Si
SLV 8	-159	-40777	-2384376	3.14	6560026	2.751	Si
SLV 8	110	-31123	-228736	2.4	5416807	23.681	Si
SLV 12	-159	-37396	-2465633	2.88	6188586	2.51	Si
SLV 12	110	-27285	-388634	2.1	4891687	12.587	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	-159	-61980	2409	-1088442		4.77	432.99	1.08	14072			5.84	Si
SLU 73	110	-55220	4050	1004930		4.25	432.99	1.08	14072			3.47	Si
SLU 76	-159	-62875	2098	-1151313		4.84	432.99	1.08	14072			6.71	Si
SLU 76	110	-56054	3758	998815		4.32	432.99	1.08	14072			3.74	Si
SLU 10	-159	-46257	2485	-711222		3.56	432.99	1.03	13384			5.39	Si
SLU 10	110	-41428	3721	825357		3.19	432.99	0.98	12740			3.42	Si
SLU 65	-159	-55696	2364	-881162		4.29	432.99	1.08	14072			5.95	Si
SLU 65	110	-49364	3862	986078		3.8	432.99	1.06	13798			3.57	Si
SLU 2	-159	-39973	2440	-503943		3.08	432.99	0.97	12546			5.14	Si
SLU 2	110	-35572	3533	806505		2.74	432.99	0.92	11960			3.39	Si
SLU 52	-159	-56136	2482	-871379		4.32	432.99	1.08	14072			5.67	Si
SLU 52	110	-49699	3993	1001844		3.83	432.99	1.07	13843			3.47	Si
SLU 5	-159	-40867	2129	-566813		3.15	432.99	0.98	12666			5.95	Si
SLU 5	110	-36406	3241	800390		2.8	432.99	0.93	12071			3.72	Si
SLU 44	-159	-49852	2437	-664099		3.84	432.99	1.07	13863			5.69	Si
SLU 44	110	-43843	3806	982992		3.38	432.99	1.01	13062			3.43	Si
SLU 31	-159	-52101	2411	-928285		4.01	432.99	1.08	14072			5.84	Si
SLU 31	110	-46950	3777	828444		3.61	432.99	1.04	13477			3.57	Si
SLU 23	-159	-45816	2366	-721006		3.53	432.99	1.03	13325			5.63	Si
SLU 23	110	-41094	3590	809591		3.16	432.99	0.98	12696			3.54	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-159	-49906	4499	-311190		3.84	432.99	1.6	20806			4.62	Si
SLV 2	110	-45903	7479	1136613		3.53	432.99	1.54	20005			2.68	Si
SLV 12	-159	-37396	-13336	-2465633		2.88	432.99	1.41	18304			1.37	Si
SLV 12	110	-27285	-12788	-388634		2.1	432.99	1.25	16282			1.27	Si
SLV 8	-159	-40777	-12921	-2384376		3.14	432.99	1.46	18980			1.47	Si
SLV 8	110	-31123	-11281	-228736		2.4	432.99	1.31	17049			1.51	Si
SLV 10	-159	-45372	12721	578041		3.49	432.99	1.53	19899			1.56	Si
SLV 10	110	-43135	13369	1424904		3.32	432.99	1.5	19452			1.46	Si
SLV 6	-159	-48753	13135	659297		3.75	432.99	1.58	20576			1.57	Si
SLV 6	110	-46973	14875	1584803		3.62	432.99	1.56	20219			1.36	Si
SLV 5	-159	-48753	13135	659297		3.75	432.99	1.58	20576			1.57	Si
SLV 5	110	-46973	14875	1584803		3.62	432.99	1.56	20219			1.36	Si
SLV 11	-159	-37396	-13336	-2465633		2.88	432.99	1.41	18304			1.37	Si
SLV 11	110	-27285	-12788	-388634		2.1	432.99	1.25	16282			1.27	Si
SLV 1	-159	-49906	4499	-311190		3.84	432.99	1.6	20806			4.62	Si
SLV 1	110	-45903	7479	1136613		3.53	432.99	1.54	20005			2.68	Si
SLV 9	-159	-45372	12721	578041		3.49	432.99	1.53	19899			1.56	Si
SLV 9	110	-43135	13369	1424904		3.32	432.99	1.5	19452			1.46	Si
SLV 7	-159	-40777	-12921	-2384376		3.14	432.99	1.46	18980			1.47	Si
SLV 7	110	-31123	-11281	-228736		2.4	432.99	1.31	17049			1.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	2.64	-34267	17223	403030	23.4	Si
SLV 11	14	0.24	2.64	-34267	17223	403030	23.4	Si
SLV 16	14	0.24	2.65	-34441	17223	404511	23.49	Si
SLV 15	14	0.24	2.65	-34441	17223	404511	23.49	Si
SLV 8	14	0.24	2.9	-37635	17223	430670	25	Si
SLV 7	14	0.24	2.9	-37635	17223	430670	25	Si
SLV 13	14	0.24	2.92	-37959	17223	433211	25.15	Si
SLV 14	14	0.24	2.92	-37959	17223	433211	25.15	Si
SLV 3	14	0.24	3.52	-45670	17223	487934	28.33	Si
SLV 4	14	0.24	3.52	-45670	17223	487934	28.33	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 1	-45903	-49906	-44	0.058	51.654	0.971	87.495	411.62	No
SLV 2	-45903	-49906	-44	0.058	51.654	0.971	87.495	411.62	No
SLV 3	-41148	-47513	-30	0.059	46.813	0.968	88.645	411.62	No
SLV 4	-41148	-47513	-30	0.059	46.813	0.968	88.645	411.62	No
SLV 14	-33110	-38636	2	0.061	38.633	0.962	91.478	411.62	No
SLV 13	-33110	-38636	2	0.061	38.633	0.962	91.478	411.62	No
SLV 6	-46973	-48753	-44	0.058	52.743	0.971	87.357	392.468	No
SLV 5	-46973	-48753	-44	0.058	52.743	0.971	87.357	392.468	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 15	-28355	-36243	16	0.061	33.797	0.957	92.384	411.62	No
SLV 16	-28355	-36243	16	0.061	33.797	0.957	92.384	411.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.569	SLU 83	Si
V_SLU	3.385	SLU 2	Si
PF_SLV	2.51	SLV 11	Si
V_SLV	1.273	SLV 11	Si
PFFP_SLV	23.4	SLV 11	Si
R_SLV	0.213	SLV 1	No

Maschio 49

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1101.3	-328.4	-1055.3	-328.4	L1	L3	46	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 75	-159	-9664	-67518	4.67	94883	1.405	Si
SLU 75	46	-10042	-1100	4.85	93414	84.954	Si
SLU 76	-159	-9619	-68494	4.65	95031	1.387	Si
SLU 76	46	-10052	-689	4.86	93373	135.45	Si
SLU 84	-159	-10055	-70687	4.86	93357	1.321	Si
SLU 84	46	-10506	-913	5.08	91082	99.77	Si
SLU 81	-159	-9860	-68493	4.76	94169	1.375	Si
SLU 81	46	-10267	-1206	4.96	92358	76.568	Si
SLU 73	-159	-9364	-68148	4.52	95769	1.405	Si
SLU 73	46	-9852	-333	4.76	94202	282.617	Si
SLU 83	-159	-10115	-68840	4.89	93085	1.352	Si
SLU 83	46	-10467	-1562	5.06	91302	58.442	Si
SLU 77	-159	-9979	-66018	4.82	93686	1.419	Si
SLU 77	46	-10203	-2105	4.93	92672	44.026	Si
SLU 80	-159	-9914	-67610	4.79	93955	1.39	Si
SLU 80	46	-10225	-1478	4.94	92564	62.616	Si
SLU 82	-159	-9800	-70340	4.73	94399	1.342	Si
SLU 82	46	-10306	-557	4.98	92159	165.49	Si
SLU 78	-159	-9919	-67865	4.79	93936	1.384	Si
SLU 78	46	-10242	-1456	4.95	92481	63.534	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLD 4	-159	-6064	-77561	2.93	106036	1.367	Si
SLD 4	46	-7646	-3146	3.69	122696	39.002	Si
SLD 3	-159	-6064	-77561	2.93	106036	1.367	Si
SLD 3	46	-7646	-3146	3.69	122696	39.002	Si
SLV 8	-159	-4038	-63131	1.95	78042	1.236	Si
SLV 8	46	-5731	-245	2.77	101949	416.751	Si
SLD 1	-159	-6684	-78854	3.23	113107	1.434	Si
SLD 1	46	-8112	-3824	3.92	126735	33.139	Si
SLV 4	-159	-5203	-121531	0	0	0	No, e>l/2
SLV 4	46	-8762	-5465	4.23	131714	24.1	Si
SLV 2	-159	-6666	-124608	3.22	112908	0.906	No, M>Mu
SLV 2	46	-9862	-7042	4.76	138384	19.652	Si
SLV 1	-159	-6666	-124608	3.22	112908	0.906	No, M>Mu
SLV 1	46	-9862	-7042	4.76	138384	19.652	Si
SLV 3	-159	-5203	-121531	0	0	0	No, e>l/2
SLV 3	46	-8762	-5465	4.23	131714	24.1	Si
SLV 7	-159	-4038	-63131	1.95	78042	1.236	Si
SLV 7	46	-5731	-245	2.77	101949	416.751	Si
SLD 2	-159	-6684	-78854	3.23	113107	1.434	Si
SLD 2	46	-8112	-3824	3.92	126735	33.139	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	-159	-9860	-1524	-68493		4.76	46	1.08	2242			1.47	Si
SLU 81	46	-10267	179	-1206		4.96	46	1.08	2242			12.49	Si
SLU 73	-159	-9364	-1513	-68148		4.52	46	1.08	2242			1.48	Si
SLU 73	46	-9852	196	-333		4.76	46	1.08	2242			11.46	Si
SLU 82	-159	-9800	-1564	-70340		4.73	46	1.08	2242			1.43	Si
SLU 82	46	-10306	189	-557		4.98	46	1.08	2242			11.87	Si
SLU 84	-159	-10055	-1572	-70687		4.86	46	1.08	2242			1.43	Si
SLU 84	46	-10506	199	-913		5.08	46	1.08	2242			11.27	Si
SLU 80	-159	-9914	-1502	-67610		4.79	46	1.08	2242			1.49	Si
SLU 80	46	-10225	210	-1478		4.94	46	1.08	2242			10.69	Si
SLU 83	-159	-10115	-1532	-68840		4.89	46	1.08	2242			1.46	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	46	-10467	190	-1562		5.06	46	1.08	2242			11.82	Si
SLU 75	-159	-9664	-1500	-67518		4.67	46	1.08	2242			1.5	Si
SLU 75	46	-10042	201	-1100		4.85	46	1.08	2242			11.17	Si
SLU 78	-159	-9919	-1507	-67865		4.79	46	1.08	2242			1.49	Si
SLU 78	46	-10242	211	-1456		4.95	46	1.08	2242			10.63	Si
SLU 77	-159	-9979	-1468	-66018		4.82	46	1.08	2242			1.53	Si
SLU 77	46	-10203	202	-2105		4.93	46	1.08	2242			11.13	Si
SLU 76	-159	-9619	-1521	-68494		4.65	46	1.08	2242			1.47	Si
SLU 76	46	-10052	206	-689		4.86	46	1.08	2242			10.9	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	-159	-4038	-1308	-63131		4.06	22.09	1.63	1616			1.24	Si
SLV 7	46	-5731	-289	-245		2.77	46	1.39	2871			9.92	Si
SLV 8	-159	-4038	-1308	-63131		4.06	22.09	1.63	1616			1.24	Si
SLV 8	46	-5731	-289	-245		2.77	46	1.39	2871			9.92	Si
SLV 4	-159	-5203	-1933	-121531		0	0	0.83	0			0	No, Vu<V
SLV 4	46	-8762	48	-5465		4.23	46	1.63	3364			70.39	Si
SLV 3	-159	-5203	-1933	-121531		0	0	0.83	0			0	No, Vu<V
SLV 3	46	-8762	48	-5465		4.23	46	1.63	3364			70.39	Si
SLD 3	-159	-6064	-1395	-77561		4.4	30.63	1.63	2240			1.61	Si
SLD 3	46	-7646	102	-3146		3.69	46	1.57	3254			31.84	Si
SLD 2	-159	-6684	-1386	-78854		4.42	33.61	1.63	2458			1.77	Si
SLD 2	46	-8112	215	-3824		3.92	46	1.62	3347			15.59	Si
SLV 2	-159	-6666	-1912	-124608		11.47	12.92	1.63	945			0.49	No, Vu<V
SLV 2	46	-9862	312	-7042		4.76	46	1.63	3364			10.76	Si
SLD 1	-159	-6684	-1386	-78854		4.42	33.61	1.63	2458			1.77	Si
SLD 1	46	-8112	215	-3824		3.92	46	1.62	3347			15.59	Si
SLD 4	-159	-6064	-1395	-77561		4.4	30.63	1.63	2240			1.61	Si
SLD 4	46	-7646	102	-3146		3.69	46	1.57	3254			31.84	Si
SLV 1	-159	-6666	-1912	-124608		11.47	12.92	1.63	945			0.49	No, Vu<V
SLV 1	46	-9862	312	-7042		4.76	46	1.63	3364			10.76	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.24	2.78	-5750	2745	99968	36.42	Si
SLV 15	14	0.24	2.78	-5750	2745	99968	36.42	Si
SLV 12	14	0.24	2.79	-5769	2745	100191	36.5	Si
SLV 11	14	0.24	2.79	-5769	2745	100191	36.5	Si
SLV 14	14	0.24	3.61	-7478	2745	118510	43.18	Si
SLV 13	14	0.24	3.61	-7478	2745	118510	43.18	Si
SLV 7	14	0.24	3.63	-7512	2745	118820	43.29	Si
SLV 8	14	0.24	3.63	-7512	2745	118820	43.29	Si
SLV 10	14	0.24	5.57	-11528	2745	141159	51.43	Si
SLV 9	14	0.24	5.57	-11528	2745	141159	51.43	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-1963	-4502	160	0.036	2.796	0.925	55.966	328.355	No
SLV 11	-1963	-4502	160	0.036	2.796	0.925	55.966	328.355	No
SLV 7	-3235	-4038	196	0.042	4.082	0.945	65.094	328.355	No
SLV 8	-3235	-4038	196	0.042	4.082	0.945	65.094	328.355	No
SLV 4	-6213	-5203	215	0.058	7.11	0.967	86.995	338.414	No
SLV 3	-6213	-5203	215	0.058	7.11	0.967	86.995	338.414	No
SLV 1	-7493	-6666	195	0.064	8.413	0.971	96.473	338.414	No
SLV 2	-7493	-6666	195	0.064	8.413	0.971	96.473	338.414	No
SLV 15	-1972	-6749	95	0.062	2.805	0.925	97.728	338.414	No
SLV 16	-1972	-6749	95	0.062	2.805	0.925	97.728	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.321	SLU 84	Si
V_SLU	1.427	SLU 84	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	36.423	SLV 15	Si
R_SLV	0.17	SLV 11	No

Maschio 50

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-825.3	-328.4	-746.3	-328.4	L1	L3	79	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	41	-17672	142784	4.97	272058	1.905	Si
SLU 75	81	-16169	263940	4.55	282070	1.069	Si
SLU 78	41	-17909	145476	5.04	269917	1.855	Si
SLU 78	81	-16389	267160	4.61	280990	1.052	Si
SLU 73	41	-17815	142084	5.01	270783	1.906	Si
SLU 73	81	-16343	267442	4.6	281226	1.052	Si
SLU 83	41	-17743	144928	4.99	271434	1.873	Si
SLU 83	81	-16152	262554	4.54	282148	1.075	Si
SLU 77	41	-17243	141671	4.85	275546	1.945	Si
SLU 77	81	-15701	255293	4.42	283928	1.112	Si
SLU 84	41	-18409	148733	5.18	264897	1.781	Si
SLU 84	81	-16840	274421	4.74	278363	1.014	Si
SLU 76	41	-18052	144776	5.08	268549	1.855	Si
SLU 76	81	-16563	270662	4.66	280042	1.035	Si
SLU 81	41	-17506	142235	4.92	273468	1.923	Si
SLU 81	81	-15932	259334	4.48	283085	1.092	Si
SLU 82	41	-18172	146041	5.11	267361	1.831	Si
SLU 82	81	-16620	271201	4.68	279713	1.031	Si
SLU 80	41	-17845	144931	5.02	270510	1.866	Si
SLU 80	81	-16324	265971	4.59	281321	1.058	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 2	41	-12143	75545	3.42	345563	4.574	Si
SLD 2	81	-11415	207675	3.21	332412	1.601	Si
SLV 3	41	-9878	3634	2.78	301451	82.944	Si
SLV 3	81	-9733	217590	2.74	298299	1.371	Si
SLV 7	41	-6473	-5780	1.82	217577	37.645	Si
SLV 7	81	-5901	126994	1.66	201430	1.586	Si
SLV 4	41	-9878	3634	2.78	301451	82.944	Si
SLV 4	81	-9733	217590	2.74	298299	1.371	Si
SLD 1	41	-12143	75545	3.42	345563	4.574	Si
SLD 1	81	-11415	207675	3.21	332412	1.601	Si
SLV 5	41	-16630	154431	4.68	405395	2.625	Si
SLV 5	81	-15584	256573	4.38	394726	1.538	Si
SLV 2	41	-12925	51698	3.64	358626	6.937	Si
SLV 2	81	-12637	256464	3.55	353952	1.38	Si
SLV 8	41	-6473	-5780	1.82	217577	37.645	Si
SLV 8	81	-5901	126994	1.66	201430	1.586	Si
SLV 6	41	-16630	154431	4.68	405395	2.625	Si
SLV 6	81	-15584	256573	4.38	394726	1.538	Si
SLV 1	41	-12925	51698	3.64	358626	6.937	Si
SLV 1	81	-12637	256464	3.55	353952	1.38	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	41	-17909	-2035	145476		5.04	79	1.08	3851			1.89	Si
SLU 78	81	-16389	-1010	267160		5.23	69.6	1.08	3393			3.36	Si
SLU 68	41	-16183	-2017	129622		4.55	79	1.08	3851			1.91	Si
SLU 68	81	-14847	-1090	243431		4.76	69.31	1.08	3379			3.1	Si
SLU 84	41	-18409	-2091	148733		5.18	79	1.08	3851			1.84	Si
SLU 84	81	-16840	-1025	274421		5.38	69.61	1.08	3394			3.31	Si
SLU 52	41	-16310	-2026	129498		4.59	79	1.08	3851			1.9	Si
SLU 52	81	-14947	-1096	244916		4.79	69.34	1.08	3381			3.08	Si
SLU 75	41	-17672	-2042	142784		4.97	79	1.08	3851			1.89	Si
SLU 75	81	-16169	-1011	263940		5.17	69.53	1.08	3390			3.35	Si
SLU 73	41	-17815	-2184	142084		5.01	79	1.08	3851			1.76	Si
SLU 73	81	-16343	-1149	267442		5.23	69.41	1.08	3384			2.94	Si
SLU 76	41	-18052	-2177	144776		5.08	79	1.08	3851			1.77	Si
SLU 76	81	-16563	-1148	270662		5.3	69.48	1.08	3387			2.95	Si
SLU 65	41	-15946	-2024	126930		4.49	79	1.08	3851			1.9	Si
SLU 65	81	-14627	-1092	240211		4.69	69.23	1.08	3375			3.09	Si
SLU 55	41	-16547	-2019	132191		4.65	79	1.08	3851			1.91	Si
SLU 55	81	-15167	-1095	248136		4.86	69.42	1.08	3384			3.09	Si
SLU 82	41	-18172	-2099	146041		5.11	79	1.08	3851			1.84	Si
SLU 82	81	-16620	-1027	271201		5.31	69.55	1.08	3390			3.3	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	41	-12925	-5564	51698		3.64	79	1.56	5548			1	No, Vu<V
SLV 2	81	-12637	-2826	256464		4.87	57.62	1.63	4213			1.49	Si
SLD 1	41	-12143	-3095	75545		3.42	79	1.52	5391			1.74	Si
SLD 1	81	-11415	-1519	207675		3.97	63.92	1.63	4674			3.08	Si
SLV 16	41	-10306	3019	136948		2.91	78.63	1.42	5010			1.66	Si
SLV 16	81	-8469	1704	88322		2.38	79	1.31	4656			2.73	Si
SLV 3	41	-9878	-4001	3634		2.78	79	1.39	4938			1.23	Si
SLV 3	81	-9733	-2204	217590		4.21	51.43	1.63	3761			1.71	Si
SLV 4	41	-9878	-4001	3634		2.78	79	1.39	4938			1.23	Si
SLV 4	81	-9733	-2204	217590		4.21	51.43	1.63	3761			1.71	Si
SLV 6	41	-16630	-4930	154431		4.68	79	1.63	5777			1.17	Si
SLV 6	81	-15584	-2185	256573		5.01	69.11	1.63	5054			2.31	Si
SLV 5	41	-16630	-4930	154431		4.68	79	1.63	5777			1.17	Si
SLV 5	81	-15584	-2185	256573		5.01	69.11	1.63	5054			2.31	Si
SLV 1	41	-12925	-5564	51698		3.64	79	1.56	5548			1	No, Vu<V
SLV 1	81	-12637	-2826	256464		4.87	57.62	1.63	4213			1.49	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	41	-10306	3019	136948		2.91	78.63	1.42	5010			1.66	Si
SLV 15	81	-8469	1704	88322		2.38	79	1.31	4656			2.73	Si
SLD 2	41	-12143	-3095	75545		3.42	79	1.52	5391			1.74	Si
SLD 2	81	-11415	-1519	207675		3.97	63.92	1.63	4674			3.08	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.24	1.93	-6854	4714	129885	27.56	Si
SLV 12	14	0.24	1.93	-6854	4714	129885	27.56	Si
SLV 15	14	0.24	2.13	-7588	4714	140904	29.89	Si
SLV 16	14	0.24	2.13	-7588	4714	140904	29.89	Si
SLV 7	14	0.24	2.29	-8151	4714	148984	31.61	Si
SLV 8	14	0.24	2.29	-8151	4714	148984	31.61	Si
SLV 13	14	0.24	2.68	-9514	4714	167175	35.47	Si
SLV 14	14	0.24	2.68	-9514	4714	167175	35.47	Si
SLV 4	14	0.24	3.35	-11911	4714	194508	41.26	Si
SLV 3	14	0.24	3.35	-11911	4714	194508	41.26	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-2942	-4918	547	0	4.371	0.919	0	328.355	No
SLV 12	-2942	-4918	547	0	4.371	0.919	0	328.355	No
SLV 8	-2150	-8982	348	0	3.58	0.907	0	328.355	No
SLV 7	-2150	-8982	348	0	3.58	0.907	0	328.355	No
SLV 15	-7590	-3089	639	0.017	9.077	0.956	25.22	338.414	No
SLV 16	-7590	-3089	639	0.017	9.077	0.956	25.22	338.414	No
SLV 13	-10782	-5585	519	0.045	12.324	0.967	68.048	338.414	No
SLV 14	-10782	-5585	519	0.045	12.324	0.967	68.048	338.414	No
SLV 2	-8141	-19131	-144	0.076	9.637	0.959	114.749	338.414	No
SLV 1	-8141	-19131	-144	0.076	9.637	0.959	114.749	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.014	SLU 84	Si
V_SLU	1.763	SLU 73	Si
PF_SLV	1.371	SLV 3	Si
V_SLV	0.997	SLV 1	No
PFFP_SLV	27.555	SLV 11	Si
R_SLV	0	SLV 7	No

Maschio 51

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-646.3	-328.4	-323.3	-328.4	L1	L3	323	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	41	-39676	-1299721	2.73	4260454	3.278	Si
SLU 76	81	-38384	-1662914	2.64	4189369	2.519	Si
SLU 2	41	-24345	-935174	1.67	3123327	3.34	Si
SLU 2	81	-23352	-1215040	1.61	3027488	2.492	Si
SLU 52	41	-35374	-1215729	2.43	4006066	3.295	Si
SLU 52	81	-34082	-1553361	2.34	3919818	2.523	Si
SLU 55	41	-35738	-1222641	2.46	4029567	3.296	Si
SLU 55	81	-34446	-1566864	2.37	3944603	2.518	Si
SLU 44	41	-30702	-1125790	2.11	3672594	3.262	Si
SLU 44	81	-29410	-1443896	2.02	3569879	2.472	Si
SLU 47	41	-31066	-1132702	2.14	3700739	3.267	Si
SLU 47	81	-29774	-1457399	2.05	3599308	2.47	Si
SLU 68	41	-35004	-1209782	2.41	3981819	3.291	Si
SLU 68	81	-33712	-1553449	2.32	3894267	2.507	Si
SLU 5	41	-24710	-942086	1.7	3157790	3.352	Si
SLU 5	81	-23716	-1228543	1.63	3062939	2.493	Si
SLU 73	41	-39312	-1292809	2.7	4240867	3.28	Si
SLU 73	81	-38020	-1649411	2.62	4168497	2.527	Si
SLU 65	41	-34639	-1202870	2.38	3957588	3.29	Si
SLU 65	81	-33348	-1539946	2.29	3868751	2.512	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	41	-42561	-1059006	2.93	5226383	4.935	Si
SLV 9	81	-31367	-1518935	2.16	4171097	2.746	Si
SLD 5	41	-33813	-1137845	2.33	4421111	3.886	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 5	81	-28653	-1238332	1.97	3880926	3.134	Si
SLV 5	41	-41933	-1646142	2.88	5173223	3.143	Si
SLV 5	81	-30466	-1657878	2.1	4076251	2.459	Si
SLD 6	41	-33813	-1137845	2.33	4421111	3.886	Si
SLD 6	81	-28653	-1238332	1.97	3880926	3.134	Si
SLV 2	41	-31331	-1924169	2.16	4167317	2.166	Si
SLV 2	81	-26781	-1360033	1.84	3672945	2.701	Si
SLV 1	41	-31331	-1924169	2.16	4167317	2.166	Si
SLV 1	81	-26781	-1360033	1.84	3672945	2.701	Si
SLV 6	41	-41933	-1646142	2.88	5173223	3.143	Si
SLV 6	81	-30466	-1657878	2.1	4076251	2.459	Si
SLV 3	41	-22871	-1575343	1.57	3218045	2.043	Si
SLV 3	81	-24523	-965795	1.69	3413656	3.535	Si
SLV 10	41	-42561	-1059006	2.93	5226383	4.935	Si
SLV 10	81	-31367	-1518935	2.16	4171097	2.746	Si
SLV 4	41	-22871	-1575343	1.57	3218045	2.043	Si
SLV 4	81	-24523	-965795	1.69	3413656	3.535	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	41	-35004	8607	-1209782		2.41	323	0.88	12742			1.48	Si
SLU 68	81	-33712	8607	-1553449		2.32	323	0.86	12570			1.46	Si
SLU 47	41	-31066	8133	-1132702		2.14	323	0.84	12217			1.5	Si
SLU 47	81	-29774	8133	-1457399		2.05	323	0.83	12045			1.48	Si
SLU 65	41	-34639	8442	-1202870		2.38	323	0.87	12694			1.5	Si
SLU 65	81	-33348	8442	-1539946		2.29	323	0.86	12521			1.48	Si
SLU 76	41	-39676	9095	-1299721		2.73	323	0.92	13365			1.47	Si
SLU 76	81	-38384	9095	-1662914		2.64	323	0.91	13193			1.45	Si
SLU 34	41	-33320	8136	-1109106		2.29	323	0.86	12518			1.54	Si
SLU 34	81	-32326	8136	-1434058		2.22	323	0.85	12385			1.52	Si
SLU 44	41	-30702	7968	-1125790		2.11	323	0.84	12169			1.53	Si
SLU 44	81	-29410	7968	-1443896		2.02	323	0.83	11996			1.51	Si
SLU 73	41	-39312	8931	-1292809		2.7	323	0.92	13317			1.49	Si
SLU 73	81	-38020	8931	-1649411		2.62	323	0.9	13144			1.47	Si
SLU 55	41	-35738	8621	-1222641		2.46	323	0.88	12840			1.49	Si
SLU 55	81	-34446	8621	-1566864		2.37	323	0.87	12668			1.47	Si
SLU 52	41	-35374	8456	-1215729		2.43	323	0.88	12792			1.51	Si
SLU 52	81	-34082	8456	-1553361		2.34	323	0.87	12619			1.49	Si
SLU 26	41	-28648	7648	-1019166		1.97	323	0.82	11895			1.56	Si
SLU 26	81	-27654	7648	-1324593		1.9	323	0.81	11762			1.54	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	41	-22871	-18165	-1575343		1.83	277.86	1.2	14994			0.83	No, Vu<V
SLV 4	81	-24523	-20573	-965795		1.69	323	1.17	17017			0.83	No, Vu<V
SLV 13	41	-33424	26196	32950		2.3	323	1.29	18797			0.72	No, Vu<V
SLV 13	81	-29784	28604	-896892		2.05	323	1.24	18069			0.63	No, Vu<V
SLV 14	41	-33424	26196	32950		2.3	323	1.29	18797			0.72	No, Vu<V
SLV 14	81	-29784	28604	-896892		2.05	323	1.24	18069			0.63	No, Vu<V
SLV 3	41	-22871	-18165	-1575343		1.83	277.86	1.2	14994			0.83	No, Vu<V
SLV 3	81	-24523	-20573	-965795		1.69	323	1.17	17017			0.83	No, Vu<V
SLV 10	41	-42561	21669	-1059006		2.93	323	1.42	20625			0.95	No, Vu<V
SLV 10	81	-31367	28319	-1518935		2.16	323	1.26	18386			0.65	No, Vu<V
SLV 8	41	-13734	-13638	-483387		0.94	323	1.02	14859			1.09	Si
SLV 8	81	-22941	-20288	-343751		1.58	323	1.15	16701			0.82	No, Vu<V
SLV 9	41	-42561	21669	-1059006		2.93	323	1.42	20625			0.95	No, Vu<V
SLV 9	81	-31367	28319	-1518935		2.16	323	1.26	18386			0.65	No, Vu<V
SLV 7	41	-13734	-13638	-483387		0.94	323	1.02	14859			1.09	Si
SLV 7	81	-22941	-20288	-343751		1.58	323	1.15	16701			0.82	No, Vu<V
SLV 15	41	-24964	18944	381776		1.72	323	1.18	17105			0.9	No, Vu<V
SLV 15	81	-27527	17444	-502654		1.89	323	1.21	17618			1.01	Si
SLV 16	41	-24964	18944	381776		1.72	323	1.18	17105			0.9	No, Vu<V
SLV 16	81	-27527	17444	-502654		1.89	323	1.21	17618			1.01	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.24	0.91	-13200	19272	274923	14.27	Si
SLV 8	14	0.24	0.91	-13200	19272	274923	14.27	Si
SLV 12	14	0.24	0.95	-13867	19272	287638	14.92	Si
SLV 11	14	0.24	0.95	-13867	19272	287638	14.92	Si
SLV 3	14	0.24	1.41	-20542	19272	408733	21.21	Si
SLV 4	14	0.24	1.41	-20542	19272	408733	21.21	Si
SLV 15	14	0.24	1.57	-22764	19272	446543	23.17	Si
SLV 16	14	0.24	1.57	-22764	19272	446543	23.17	Si
SLV 1	14	0.24	1.89	-27502	19272	522967	27.14	Si
SLV 2	14	0.24	1.89	-27502	19272	522967	27.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-19587	-15018	1330	0.039	25.494	0.939	60.066	328.355	No
SLV 8	-19587	-15018	1330	0.039	25.494	0.939	60.066	328.355	No
SLV 12	-20302	-15790	1281	0.042	26.219	0.941	65.2	328.355	No
SLV 11	-20302	-15790	1281	0.042	26.219	0.941	65.2	328.355	No
SLV 4	-20618	-21995	1218	0.045	26.538	0.941	70.029	338.414	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-20618	-21995	1218	0.045	26.538	0.941	70.029	338.414	No
SLV 2	-22217	-28749	1074	0.053	28.159	0.944	82.094	338.414	No
SLV 1	-22217	-28749	1074	0.053	28.159	0.944	82.094	338.414	No
SLV 15	-23003	-24570	1057	0.055	28.957	0.946	84.374	338.414	No
SLV 16	-23003	-24570	1057	0.055	28.957	0.946	84.374	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.47	SLU 47	Si
V_SLU	1.451	SLU 76	Si
PF_SLV	2.043	SLV 3	Si
V_SLV	0.632	SLV 13	No
PFFP_SLV	14.265	SLV 7	Si
R_SLV	0.183	SLV 7	No

Maschio 52

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-223.3	-328.4	-12.3	-328.4	L1	L3	211	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 76	41	-24795	424123	2.61	1777285	4.19	Si
SLU 76	81	-22410	379919	2.36	1679212	4.42	Si
SLU 5	41	-15698	330041	1.65	1320009	4	Si
SLU 5	81	-13831	316462	1.46	1198235	3.786	Si
SLU 55	41	-22300	401572	2.35	1674342	4.169	Si
SLU 55	81	-19991	366085	2.11	1563925	4.272	Si
SLU 65	41	-21727	402652	2.29	1648282	4.094	Si
SLU 65	81	-19422	369188	2.05	1534499	4.156	Si
SLU 68	41	-22097	413454	2.33	1665192	4.028	Si
SLU 68	81	-19764	377496	2.08	1552270	4.112	Si
SLU 2	41	-15328	319238	1.61	1296643	4.062	Si
SLU 2	81	-13490	308154	1.42	1174938	3.813	Si
SLU 44	41	-19232	380101	2.03	1524455	4.011	Si
SLU 44	81	-17003	355354	1.79	1399500	3.938	Si
SLU 23	41	-17823	341789	1.88	1447039	4.234	Si
SLU 23	81	-15908	321988	1.68	1333123	4.14	Si
SLU 47	41	-19602	390904	2.06	1543883	3.95	Si
SLU 47	81	-17345	363662	1.83	1419524	3.903	Si
SLU 26	41	-18193	352591	1.92	1467888	4.163	Si
SLU 26	81	-16250	330296	1.71	1354167	4.1	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 4	41	-6898	-379910	0.73	684499	1.802	Si
SLV 4	81	-7222	-154378	0.76	714524	4.628	Si
SLV 12	41	-6750	273094	0.71	670718	2.456	Si
SLV 12	81	-12082	10521	1.27	1141919	108.533	Si
SLD 15	41	-18648	466290	1.96	1651147	3.541	Si
SLD 15	81	-18142	257968	1.91	1614692	6.259	Si
SLV 16	41	-20237	773369	2.13	1762621	2.279	Si
SLV 16	81	-21074	363031	2.22	1819470	5.012	Si
SLV 11	41	-6750	273094	0.71	670718	2.456	Si
SLV 11	81	-12082	10521	1.27	1141919	108.533	Si
SLD 16	41	-18648	466290	1.96	1651147	3.541	Si
SLD 16	81	-18142	257968	1.91	1614692	6.259	Si
SLV 13	41	-27796	856192	2.93	2229905	2.604	Si
SLV 13	81	-24626	509959	2.59	2046591	4.013	Si
SLV 14	41	-27796	856192	2.93	2229905	2.604	Si
SLV 14	81	-24626	509959	2.59	2046591	4.013	Si
SLV 15	41	-20237	773369	2.13	1762621	2.279	Si
SLV 15	81	-21074	363031	2.22	1819470	5.012	Si
SLV 3	41	-6898	-379910	0.73	684499	1.802	Si
SLV 3	81	-7222	-154378	0.76	714524	4.628	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	41	-22097	-3009	413454		2.33	211	0.87	8221			2.73	Si
SLU 68	81	-19764	-3045	377496		2.08	211	0.83	7910			2.6	Si
SLU 10	41	-18027	-2775	329906		1.9	211	0.81	7679			2.77	Si
SLU 10	81	-16136	-2809	310577		1.7	211	0.78	7426			2.64	Si
SLU 26	41	-18193	-2838	352591		1.92	211	0.81	7701			2.71	Si
SLU 26	81	-16250	-2872	330296		1.71	211	0.78	7442			2.59	Si
SLU 44	41	-19232	-3014	380101		2.03	211	0.83	7839			2.6	Si
SLU 44	81	-17003	-3050	355354		1.79	211	0.79	7542			2.47	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 47	41	-19602	-3027	390904		2.06	211	0.83	7889			2.61	Si
SLU 47	81	-17345	-3062	363662		1.83	211	0.8	7588			2.48	Si
SLU 2	41	-15328	-2843	319238		1.61	211	0.77	7319			2.57	Si
SLU 2	81	-13490	-2877	308154		1.42	211	0.74	7074			2.46	Si
SLU 5	41	-15698	-2856	330041		1.65	211	0.78	7368			2.58	Si
SLU 5	81	-13831	-2890	316462		1.46	211	0.75	7119			2.46	Si
SLU 23	41	-17823	-2826	341789		1.88	211	0.81	7651			2.71	Si
SLU 23	81	-15908	-2860	321988		1.68	211	0.78	7396			2.59	Si
SLU 65	41	-21727	-2996	402652		2.29	211	0.86	8172			2.73	Si
SLU 65	81	-19422	-3032	369188		2.05	211	0.83	7865			2.59	Si
SLU 52	41	-21930	-2946	390770		2.31	211	0.86	8199			2.78	Si
SLU 52	81	-19649	-2981	357777		2.07	211	0.83	7895			2.65	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	41	-14457	-12392	-297087		1.52	211	1.14	10804			0.87	No, Vu<V
SLV 1	81	-10774	-13626	-7450		1.13	211	1.06	10067			0.74	No, Vu<V
SLV 3	41	-6898	-7164	-379910		1.01	151.28	1.04	7053			0.98	No, Vu<V
SLV 3	81	-7222	-9618	-154378		0.76	211	0.99	9357			0.97	No, Vu<V
SLV 16	41	-20237	11343	773369		2.23	201.86	1.28	11617			1.02	Si
SLV 16	81	-21074	12566	363031		2.22	211	1.28	12127			0.97	No, Vu<V
SLV 5	41	-27944	-12013	203188		2.94	211	1.42	13501			1.12	Si
SLV 5	81	-19766	-10539	345060		2.08	211	1.25	11866			1.13	Si
SLV 4	41	-6898	-7164	-379910		1.01	151.28	1.04	7053			0.98	No, Vu<V
SLV 4	81	-7222	-9618	-154378		0.76	211	0.99	9357			0.97	No, Vu<V
SLV 15	41	-20237	11343	773369		2.23	201.86	1.28	11617			1.02	Si
SLV 15	81	-21074	12566	363031		2.22	211	1.28	12127			0.97	No, Vu<V
SLV 2	41	-14457	-12392	-297087		1.52	211	1.14	10804			0.87	No, Vu<V
SLV 2	81	-10774	-13626	-7450		1.13	211	1.06	10067			0.74	No, Vu<V
SLV 12	41	-6750	10965	273094		0.77	195.13	0.99	8667			0.79	No, Vu<V
SLV 12	81	-12082	9478	10521		1.27	211	1.09	10329			1.09	Si
SLV 6	41	-27944	-12013	203188		2.94	211	1.42	13501			1.12	Si
SLV 6	81	-19766	-10539	345060		2.08	211	1.25	11866			1.13	Si
SLV 11	41	-6750	10965	273094		0.77	195.13	0.99	8667			0.79	No, Vu<V
SLV 11	81	-12082	9478	10521		1.27	211	1.09	10329			1.09	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.24	0.56	-5329	12590	114391	9.09	Si
SLV 7	14	0.24	0.56	-5329	12590	114391	9.09	Si
SLV 3	14	0.24	0.7	-6636	12590	140773	11.18	Si
SLV 4	14	0.24	0.7	-6636	12590	140773	11.18	Si
SLV 12	14	0.24	1.14	-10803	12590	220443	17.51	Si
SLV 11	14	0.24	1.14	-10803	12590	220443	17.51	Si
SLV 1	14	0.24	1.39	-13232	12590	263756	20.95	Si
SLV 2	14	0.24	1.39	-13232	12590	263756	20.95	Si
SLV 16	14	0.24	2.62	-24885	12590	439817	34.93	Si
SLV 15	14	0.24	2.62	-24885	12590	439817	34.93	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-11346	-6527	603	0.054	15.188	0.935	83.314	328.355	No
SLV 7	-11346	-6527	603	0.054	15.188	0.935	83.314	328.355	No
SLV 11	-14636	-14450	688	0.054	18.52	0.945	83.654	328.355	No
SLV 12	-14636	-14450	688	0.054	18.52	0.945	83.654	328.355	No
SLV 15	-18936	-32236	669	0.061	22.885	0.954	93.218	338.414	No
SLV 16	-18936	-32236	669	0.061	22.885	0.954	93.218	338.414	No
SLV 14	-19331	-39558	567	0.066	23.286	0.955	100.927	338.414	No
SLV 13	-19331	-39558	567	0.066	23.286	0.955	100.927	338.414	No
SLV 3	-7967	-5827	384	0.065	11.784	0.92	102.581	338.414	No
SLV 4	-7967	-5827	384	0.065	11.784	0.92	102.581	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.786	SLU 5	Si
V_SLU	2.459	SLU 2	Si
PF_SLV	1.802	SLV 3	Si
V_SLV	0.739	SLV 1	No
PFFP_SLV	9.086	SLV 7	Si
R_SLV	0.254	SLV 7	No

Maschio 53

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	207.1	-515.8	680.1	L1	L3	473	30	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	-159	-105947	2814038	7.47	2090244	0.743	No, M>Mu
SLU 74	51	-99141	2757477	6.99	3336454	1.21	Si
SLU 75	-159	-105551	2809832	7.44	2167953	0.772	No, M>Mu
SLU 75	51	-98745	2766925	6.96	3403135	1.23	Si
SLU 83	-159	-110020	2896874	7.75	1253735	0.433	No, M>Mu
SLU 83	51	-103214	2830364	7.27	2613375	0.923	No, M>Mu
SLU 79	-159	-108318	2929654	7.63	1611416	0.55	No, M>Mu
SLU 79	51	-101513	2869362	7.15	2923674	1.019	Si
SLU 80	-159	-107922	2925449	7.61	1692968	0.579	No, M>Mu
SLU 80	51	-101117	2878809	7.13	2994198	1.04	Si
SLU 77	-159	-108822	2943876	7.67	1506805	0.512	No, M>Mu
SLU 77	51	-102016	2879185	7.19	2833085	0.984	No, M>Mu
SLU 81	-159	-107145	2767036	7.55	1851268	0.669	No, M>Mu
SLU 81	51	-100339	2708657	7.07	3130838	1.156	Si
SLU 84	-159	-109624	2892669	7.73	1338044	0.463	No, M>Mu
SLU 84	51	-102818	2839812	7.25	2686655	0.946	No, M>Mu
SLU 78	-159	-108426	2939671	7.64	1589173	0.541	No, M>Mu
SLU 78	51	-101620	2888632	7.16	2904424	1.005	Si
SLU 82	-159	-106749	2762830	7.52	1930917	0.699	No, M>Mu
SLU 82	51	-99943	2718105	7.04	3199460	1.177	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 7	-159	-79435	3676978	5.6	10179492	2.768	Si
SLD 7	51	-74532	2491651	5.25	10049625	4.033	Si
SLV 8	-159	-90543	6121664	6.38	10231106	1.671	Si
SLV 8	51	-86043	3333699	6.06	10250759	3.075	Si
SLD 11	-159	-76774	3545487	5.41	10117158	2.854	Si
SLD 11	51	-73426	2381690	5.17	10011293	4.203	Si
SLV 4	-159	-86653	3615529	6.11	10251331	2.835	Si
SLV 4	51	-76086	2702606	5.36	10097896	3.736	Si
SLV 12	-159	-84253	5818622	5.94	10243219	1.76	Si
SLV 12	51	-83415	3076394	5.88	10236683	3.327	Si
SLV 11	-159	-84253	5818622	5.94	10243219	1.76	Si
SLV 11	51	-83415	3076394	5.88	10236683	3.327	Si
SLD 12	-159	-76774	3545487	5.41	10117158	2.854	Si
SLD 12	51	-73426	2381690	5.17	10011293	4.203	Si
SLV 3	-159	-86653	3615529	6.11	10251331	2.835	Si
SLV 3	51	-76086	2702606	5.36	10097896	3.736	Si
SLD 8	-159	-79435	3676978	5.6	10179492	2.768	Si
SLD 8	51	-74532	2491651	5.25	10049625	4.033	Si
SLV 7	-159	-90543	6121664	6.38	10231106	1.671	Si
SLV 7	51	-86043	3333699	6.06	10250759	3.075	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	-159	-91287	429	2336906		6.43	473	1.08	15373			35.8	Si
SLU 39	51	-86052	429	2264207		6.06	473	1.08	15373			35.8	Si
SLU 42	-159	-93766	403	2462539		6.61	473	1.08	15373			38.13	Si
SLU 42	51	-88531	403	2395362		6.24	473	1.08	15373			38.13	Si
SLU 77	-159	-108822	416	2943876		7.67	473	1.08	15373			36.93	Si
SLU 77	51	-102016	416	2879185		7.19	473	1.08	15373			36.93	Si
SLU 37	-159	-92460	439	2499525		6.52	473	1.08	15373			35.05	Si
SLU 37	51	-87225	439	2424911		6.15	473	1.08	15373			35.05	Si
SLU 32	-159	-90089	421	2383909		6.35	473	1.08	15373			36.54	Si
SLU 32	51	-84854	421	2313027		5.98	473	1.08	15373			36.54	Si
SLU 35	-159	-92964	459	2513747		6.55	473	1.08	15373			33.46	Si
SLU 35	51	-87729	459	2434734		6.18	473	1.08	15373			33.46	Si
SLU 79	-159	-108318	395	2929654		7.63	473	1.08	15373			38.89	Si
SLU 79	51	-101513	395	2869362		7.15	473	1.08	15373			38.89	Si
SLU 41	-159	-94162	468	2466745		6.64	473	1.08	15373			32.84	Si
SLU 41	51	-88927	468	2385914		6.27	473	1.08	15373			32.84	Si
SLU 36	-159	-92568	394	2509541		6.52	473	1.08	15373			38.97	Si
SLU 36	51	-87333	394	2444182		6.15	473	1.08	15373			38.97	Si
SLU 83	-159	-110020	425	2896874		7.75	473	1.08	15373			36.18	Si
SLU 83	51	-103214	425	2830364		7.27	473	1.08	15373			36.18	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	-159	-90543	15409	6121664		6.38	473	1.63	23059			1.5	Si
SLV 8	51	-86043	15062	3333699		6.06	473	1.63	23059			1.53	Si
SLV 9	-159	-52175	-15145	-2351905		3.68	473	1.57	22260			1.47	Si
SLV 9	51	-46204	-14798	415589		3.26	473	1.48	21066			1.42	Si
SLV 7	-159	-90543	15409	6121664		6.38	473	1.63	23059			1.5	Si
SLV 7	51	-86043	15062	3333699		6.06	473	1.63	23059			1.53	Si
SLV 16	-159	-65688	7275	2605388		4.63	473	1.63	23059			3.17	Si
SLV 16	51	-67325	6235	1844924		4.74	473	1.63	23059			3.7	Si
SLV 10	-159	-52175	-15145	-2351905		3.68	473	1.57	22260			1.47	Si
SLV 10	51	-46204	-14798	415589		3.26	473	1.48	21066			1.42	Si
SLV 12	-159	-84253	16818	5818622		5.94	473	1.63	23059			1.37	Si
SLV 12	51	-83415	15956	3076394		5.88	473	1.63	23059			1.45	Si
SLV 15	-159	-65688	7275	2605388		4.63	473	1.63	23059			3.17	Si
SLV 15	51	-67325	6235	1844924		4.74	473	1.63	23059			3.7	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	-159	-84253	16818	5818622		5.94	473	1.63	23059			1.37	Si
SLV 11	51	-83415	15956	3076394		5.88	473	1.63	23059			1.45	Si
SLV 5	-159	-58464	-16554	-2048863		4.12	473	1.63	23059			1.39	Si
SLV 5	51	-48832	-15692	672894		3.44	473	1.52	21591			1.38	Si
SLV 6	-159	-58464	-16554	-2048863		4.12	473	1.63	23059			1.39	Si
SLV 6	51	-48832	-15692	672894		3.44	473	1.52	21591			1.38	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.24	3.39	-48127	18815	521525	27.72	Si
SLV 10	14	0.24	3.39	-48127	18815	521525	27.72	Si
SLV 5	14	0.24	3.77	-53533	18815	555070	29.5	Si
SLV 6	14	0.24	3.77	-53533	18815	555070	29.5	Si
SLV 14	14	0.24	3.8	-53875	18815	557021	29.61	Si
SLV 13	14	0.24	3.8	-53875	18815	557021	29.61	Si
SLV 15	14	0.24	4.52	-64208	18815	606455	32.23	Si
SLV 16	14	0.24	4.52	-64208	18815	606455	32.23	Si
SLV 2	14	0.24	5.07	-71895	18815	631249	33.55	Si
SLV 1	14	0.24	5.07	-71895	18815	631249	33.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-66292	-65688	-61	0.058	72.873	0.977	85.734	411.62	No
SLV 15	-66292	-65688	-61	0.058	72.873	0.977	85.734	411.62	No
SLV 3	-68495	-86653	-46	0.058	75.118	0.978	85.899	411.62	No
SLV 4	-68495	-86653	-46	0.058	75.118	0.978	85.899	411.62	No
SLV 2	-57926	-77030	68	0.058	64.351	0.974	86.185	411.62	No
SLV 1	-57926	-77030	68	0.058	64.351	0.974	86.185	411.62	No
SLV 13	-55722	-56064	53	0.058	62.107	0.973	86.751	411.62	No
SLV 14	-55722	-56064	53	0.058	62.107	0.973	86.751	411.62	No
SLV 12	-79394	-84253	-188	0.056	86.222	0.981	82.715	392.468	No
SLV 11	-79394	-84253	-188	0.056	86.222	0.981	82.715	392.468	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.433	SLU 83	No
V_SLU	32.838	SLU 41	Si
PF_SLV	1.671	SLV 7	Si
V_SLV	1.371	SLV 11	Si
PFFP_SLV	27.719	SLV 9	Si
R_SLV	0.208	SLV 15	No

Maschio 54

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-500.8	587.6	-301.3	587.6	L1	L3	199.5	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	41	-20987	327160	2.34	1492646	4.562	Si
SLU 75	81	-20184	241439	2.25	1457649	6.037	Si
SLU 82	41	-21578	345379	2.4	1517287	4.393	Si
SLU 82	81	-20775	257933	2.31	1483585	5.752	Si
SLU 73	41	-20420	322371	2.27	1468140	4.554	Si
SLU 73	81	-19617	238912	2.19	1431902	5.993	Si
SLU 81	41	-21663	350010	2.41	1520755	4.345	Si
SLU 81	81	-20860	260879	2.32	1487238	5.701	Si
SLU 84	41	-22008	344705	2.45	1534615	4.452	Si
SLU 84	81	-21205	257577	2.36	1501854	5.831	Si
SLU 39	41	-18663	303053	2.08	1386538	4.575	Si
SLU 39	81	-18046	228961	2.01	1355859	5.922	Si
SLU 83	41	-22093	349337	2.46	1537983	4.403	Si
SLU 83	81	-21290	260523	2.37	1505408	5.778	Si
SLU 74	41	-21072	331791	2.35	1496251	4.51	Si
SLU 74	81	-20269	244385	2.26	1461440	5.98	Si
SLU 60	41	-19331	312617	2.15	1418571	4.538	Si
SLU 60	81	-18529	230214	2.06	1379950	5.994	Si
SLU 77	41	-21502	331117	2.4	1514172	4.573	Si
SLU 77	81	-20699	244029	2.31	1480303	6.066	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	41	-15610	703675	1.74	1335496	1.898	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	81	-13878	262460	1.55	1209199	4.607	Si
SLD 15	41	-14715	426503	1.64	1270949	2.98	Si
SLD 15	81	-13643	203383	1.52	1191623	5.859	Si
SLV 14	41	-13436	520934	1.5	1176053	2.258	Si
SLV 14	81	-13143	118812	1.46	1153935	9.712	Si
SLV 7	41	-17548	411065	1.95	1470413	3.577	Si
SLV 7	81	-14651	392265	1.63	1266227	3.228	Si
SLV 11	41	-17824	644515	1.99	1489064	2.31	Si
SLV 11	81	-14690	409704	1.64	1269093	3.098	Si
SLV 16	41	-15610	703675	1.74	1335496	1.898	Si
SLV 16	81	-13878	262460	1.55	1209199	4.607	Si
SLD 16	41	-14715	426503	1.64	1270949	2.98	Si
SLD 16	81	-13643	203383	1.52	1191623	5.859	Si
SLV 13	41	-13436	520934	1.5	1176053	2.258	Si
SLV 13	81	-13143	118812	1.46	1153935	9.712	Si
SLV 12	41	-17824	644515	1.99	1489064	2.31	Si
SLV 12	81	-14690	409704	1.64	1269093	3.098	Si
SLV 8	41	-17548	411065	1.95	1470413	3.577	Si
SLV 8	81	-14651	392265	1.63	1266227	3.228	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 79	41	-21422	2136	328743		2.39	199.5	0.87	7844			3.67	Si
SLU 79	81	-20619	2136	243110		2.3	199.5	0.86	7737			3.62	Si
SLU 60	41	-19331	2056	312617		2.15	199.5	0.84	7565			3.68	Si
SLU 60	81	-18529	2056	230214		2.06	199.5	0.83	7458			3.63	Si
SLU 82	41	-21578	2182	345379		2.4	199.5	0.88	7865			3.6	Si
SLU 82	81	-20775	2182	257933		2.31	199.5	0.86	7757			3.56	Si
SLU 78	41	-21417	2131	326486		2.39	199.5	0.87	7843			3.68	Si
SLU 78	81	-20614	2131	241083		2.3	199.5	0.86	7736			3.63	Si
SLU 77	41	-21502	2173	331117		2.4	199.5	0.87	7854			3.61	Si
SLU 77	81	-20699	2173	244029		2.31	199.5	0.86	7747			3.57	Si
SLU 84	41	-22008	2174	344705		2.45	199.5	0.88	7922			3.64	Si
SLU 84	81	-21205	2174	257577		2.36	199.5	0.87	7815			3.59	Si
SLU 74	41	-21072	2181	331791		2.35	199.5	0.87	7797			3.58	Si
SLU 74	81	-20269	2181	244385		2.26	199.5	0.86	7690			3.53	Si
SLU 81	41	-21663	2224	350010		2.41	199.5	0.88	7876			3.54	Si
SLU 81	81	-20860	2224	260879		2.32	199.5	0.87	7769			3.49	Si
SLU 75	41	-20987	2139	327160		2.34	199.5	0.87	7786			3.64	Si
SLU 75	81	-20184	2139	241439		2.25	199.5	0.86	7679			3.59	Si
SLU 83	41	-22093	2216	349337		2.46	199.5	0.88	7933			3.58	Si
SLU 83	81	-21290	2216	260523		2.37	199.5	0.87	7826			3.53	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	41	-15610	13371	703675		2.11	164.01	1.26	9272			0.69	No, Vu<V
SLV 16	81	-13878	15667	262460		1.55	199.5	1.14	10257			0.65	No, Vu<V
SLV 11	41	-17824	16516	644515		2.08	190.77	1.25	10719			0.65	No, Vu<V
SLV 11	81	-14690	22554	409704		1.64	199.5	1.16	10419			0.46	No, Vu<V
SLV 15	41	-15610	13371	703675		2.11	164.01	1.26	9272			0.69	No, Vu<V
SLV 15	81	-13878	15667	262460		1.55	199.5	1.14	10257			0.65	No, Vu<V
SLV 5	41	-10301	-13440	-198071		1.15	199.5	1.06	9542			0.71	No, Vu<V
SLV 5	81	-12200	-19479	-86561		1.36	199.5	1.11	9921			0.51	No, Vu<V
SLV 12	41	-17824	16516	644515		2.08	190.77	1.25	10719			0.65	No, Vu<V
SLV 12	81	-14690	22554	409704		1.64	199.5	1.16	10419			0.46	No, Vu<V
SLV 10	41	-10577	-8600	35379		1.18	199.5	1.07	9597			1.12	Si
SLV 10	81	-12240	-14320	-69122		1.36	199.5	1.11	9929			0.69	No, Vu<V
SLV 9	41	-10577	-8600	35379		1.18	199.5	1.07	9597			1.12	Si
SLV 9	81	-12240	-14320	-69122		1.36	199.5	1.11	9929			0.69	No, Vu<V
SLV 6	41	-10301	-13440	-198071		1.15	199.5	1.06	9542			0.71	No, Vu<V
SLV 6	81	-12200	-19479	-86561		1.36	199.5	1.11	9921			0.51	No, Vu<V
SLV 7	41	-17548	11676	411065		1.95	199.5	1.22	10991			0.94	No, Vu<V
SLV 7	81	-14651	17396	392265		1.63	199.5	1.16	10411			0.6	No, Vu<V
SLV 8	41	-17548	11676	411065		1.95	199.5	1.22	10991			0.94	No, Vu<V
SLV 8	81	-14651	17396	392265		1.63	199.5	1.16	10411			0.6	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.24	1.01	-9024	11903	186336	15.65	Si
SLV 16	14	0.24	1.01	-9024	11903	186336	15.65	Si
SLV 14	14	0.24	1.12	-10061	11903	205604	17.27	Si
SLV 13	14	0.24	1.12	-10061	11903	205604	17.27	Si
SLV 11	14	0.24	1.13	-10129	11903	206860	17.38	Si
SLV 12	14	0.24	1.13	-10129	11903	206860	17.38	Si
SLV 8	14	0.24	1.35	-12113	11903	242449	20.37	Si
SLV 7	14	0.24	1.35	-12113	11903	242449	20.37	Si
SLV 9	14	0.24	1.51	-13585	11903	267807	22.5	Si
SLV 10	14	0.24	1.51	-13585	11903	267807	22.5	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-10183	-20667	-312	0.073	13.811	0.932	113.941	338.414	No
SLV 4	-10183	-20667	-312	0.073	13.811	0.932	113.941	338.414	No
SLV 1	-11064	-23191	-298	0.075	14.701	0.936	116.235	338.414	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 2	-11064	-23191	-298	0.075	14.701	0.936	116.235	338.414	No
SLV 7	-9939	-11780	-267	0.077	13.564	0.931	119.508	328.355	No
SLV 8	-9939	-11780	-267	0.077	13.564	0.931	119.508	328.355	No
SLV 5	-12875	-20191	-221	0.081	16.534	0.942	125.017	328.355	No
SLV 6	-12875	-20191	-221	0.081	16.534	0.942	125.017	328.355	No
SLV 12	-10611	-6685	-215	0.081	14.243	0.934	126.095	328.355	No
SLV 11	-10611	-6685	-215	0.081	14.243	0.934	126.095	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.345	SLU 81	Si
V_SLU	3.493	SLU 81	Si
PF_SLV	1.898	SLV 15	Si
V_SLV	0.462	SLV 11	No
PFFP_SLV	15.654	SLV 15	Si
R_SLV	0.337	SLV 3	No

Maschio 55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-201.3	587.6	-12.3	587.6	L1	L3	189	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 3	41	-14014	87175	1.65	1056431	12.118	Si
SLU 3	81	-13239	89859	1.56	1011986	11.262	Si
SLU 66	41	-19531	110604	2.3	1325343	11.983	Si
SLU 66	81	-18526	113349	2.18	1282555	11.315	Si
SLU 46	41	-16955	103902	1.99	1210108	11.647	Si
SLU 46	81	-15984	106682	1.88	1162004	10.892	Si
SLU 48	41	-17521	109988	2.06	1236986	11.247	Si
SLU 48	81	-16509	114591	1.94	1188341	10.37	Si
SLU 43	41	-17182	117642	2.02	1221031	10.379	Si
SLU 43	81	-16186	120686	1.9	1172226	9.713	Si
SLU 50	41	-17377	106305	2.04	1230266	11.573	Si
SLU 50	81	-16368	111325	1.92	1181363	10.612	Si
SLU 64	41	-19290	112589	2.27	1315339	11.683	Si
SLU 64	81	-18294	114764	2.15	1272295	11.086	Si
SLU 1	41	-13773	89161	1.62	1042803	11.696	Si
SLU 1	81	-13007	91274	1.53	998384	10.938	Si
SLU 44	41	-16401	98052	1.93	1182999	12.065	Si
SLU 44	81	-15463	99704	1.82	1135126	11.385	Si
SLU 45	41	-17423	115656	2.05	1232420	10.656	Si
SLU 45	81	-16418	119271	1.93	1183819	9.925	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 2	41	-6919	-408588	0.81	610351	1.494	Si
SLV 2	81	-4568	-183378	0.54	412723	2.251	Si
SLV 5	41	-2533	-182972	0.3	233535	1.276	Si
SLV 5	81	1726	-160906	0	0	0	No, Trazione
SLV 4	41	-13575	-329511	1.6	1115251	3.385	Si
SLV 4	81	-13215	-73643	1.55	1090006	14.801	Si
SLV 16	41	-23227	578700	2.73	1704346	2.945	Si
SLV 16	81	-24054	356344	2.83	1746950	4.902	Si
SLV 15	41	-23227	578700	2.73	1704346	2.945	Si
SLV 15	81	-24054	356344	2.83	1746950	4.902	Si
SLV 1	41	-6919	-408588	0.81	610351	1.494	Si
SLV 1	81	-4568	-183378	0.54	412723	2.251	Si
SLV 13	41	-16571	499622	1.95	1316273	2.635	Si
SLV 13	81	-15407	246610	1.81	1240116	5.029	Si
SLV 6	41	-2533	-182972	0.3	233535	1.276	Si
SLV 6	81	1726	-160906	0	0	0	No, Trazione
SLV 14	41	-16571	499622	1.95	1316273	2.635	Si
SLV 14	81	-15407	246610	1.81	1240116	5.029	Si
SLV 3	41	-13575	-329511	1.6	1115251	3.385	Si
SLV 3	81	-13215	-73643	1.55	1090006	14.801	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 50	41	-17377	-799	106305		2.04	189	0.83	7042			8.81	Si
SLU 50	81	-16368	-896	111325		1.92	189	0.81	6907			7.71	Si
SLU 43	41	-17182	-717	117642		2.02	189	0.82	7016			9.79	Si
SLU 43	81	-16186	-812	120686		1.9	189	0.81	6883			8.48	Si
SLU 45	41	-17423	-755	115656		2.05	189	0.83	7048			9.34	Si
SLU 45	81	-16418	-852	119271		1.93	189	0.81	6914			8.12	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 48	41	-17521	-796	109988		2.06	189	0.83	7061			8.87	Si
SLU 48	81	-16509	-894	114591		1.94	189	0.81	6926			7.75	Si
SLU 71	41	-19485	-785	101253		2.29	189	0.86	7323			9.32	Si
SLU 71	81	-18477	-892	105403		2.17	189	0.85	7189			8.06	Si
SLU 51	41	-16909	-693	94551		1.99	189	0.82	6980			10.06	Si
SLU 51	81	-15935	-790	98736		1.87	189	0.81	6850			8.67	Si
SLU 66	41	-19531	-741	110604		2.3	189	0.86	7329			9.89	Si
SLU 66	81	-18526	-848	113349		2.18	189	0.85	7195			8.48	Si
SLU 58	41	-19820	-738	96989		2.33	189	0.87	7368			9.99	Si
SLU 58	81	-18825	-845	100481		2.21	189	0.85	7235			8.57	Si
SLU 56	41	-19963	-735	100672		2.35	189	0.87	7387			10.06	Si
SLU 56	81	-18966	-843	103746		2.23	189	0.85	7254			8.61	Si
SLU 69	41	-19628	-782	104935		2.31	189	0.86	7342			9.38	Si
SLU 69	81	-18617	-890	108669		2.19	189	0.85	7207			8.1	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	41	-23227	7799	578700		2.73	189	1.38	11733			1.5	Si
SLV 16	81	-24054	9471	356344		2.83	189	1.4	11898			1.26	Si
SLV 15	41	-23227	7799	578700		2.73	189	1.38	11733			1.5	Si
SLV 15	81	-24054	9471	356344		2.83	189	1.4	11898			1.26	Si
SLV 1	41	-6919	-8851	-408588		1.45	106.35	1.12	5372			0.61	No, Vu<V
SLV 1	81	-4568	-10687	-183378		0.62	163.07	0.96	7029			0.66	No, Vu<V
SLV 5	41	-2533	-2866	-182972		0.84	66.79	1	3011			1.05	Si
SLV 5	81	1726	-7974	-160906		0	0	0.83	0			0	No, Vu<V
SLV 4	41	-13575	-8955	-329511		1.6	189	1.15	9802			1.09	Si
SLV 4	81	-13215	-7824	-73643		1.55	189	1.14	9730			1.24	Si
SLV 13	41	-16571	7902	499622		1.95	189	1.22	10402			1.32	Si
SLV 13	81	-15407	6608	246610		1.81	189	1.2	10169			1.54	Si
SLV 14	41	-16571	7902	499622		1.95	189	1.22	10402			1.32	Si
SLV 14	81	-15407	6608	246610		1.81	189	1.2	10169			1.54	Si
SLV 6	41	-2533	-2866	-182972		0.84	66.79	1	3011			1.05	Si
SLV 6	81	1726	-7974	-160906		0	0	0.83	0			0	No, Vu<V
SLV 3	41	-13575	-8955	-329511		1.6	189	1.15	9802			1.09	Si
SLV 3	81	-13215	-7824	-73643		1.55	189	1.14	9730			1.24	Si
SLV 2	41	-6919	-8851	-408588		1.45	106.35	1.12	5372			0.61	No, Vu<V
SLV 2	81	-4568	-10687	-183378		0.62	163.07	0.96	7029			0.66	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.24	0.5	-4267	11277	92074	8.16	Si
SLV 6	14	0.24	0.5	-4267	11277	92074	8.16	Si
SLV 2	14	0.24	0.7	-5994	11277	127096	11.27	Si
SLV 1	14	0.24	0.7	-5994	11277	127096	11.27	Si
SLV 9	14	0.24	1.01	-8562	11277	176770	15.68	Si
SLV 10	14	0.24	1.01	-8562	11277	176770	15.68	Si
SLV 3	14	0.24	1.38	-11769	11277	234818	20.82	Si
SLV 4	14	0.24	1.38	-11769	11277	234818	20.82	Si
SLV 13	14	0.24	2.39	-20309	11277	367655	32.6	Si
SLV 14	14	0.24	2.39	-20309	11277	367655	32.6	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-383	-10951	-538	0	4.304	0.938	0	328.355	No
SLV 6	2236	-4366	-504	0	0	0	0	328.355	No, Trazione
SLV 10	-383	-10951	-538	0	4.304	0.938	0	328.355	No
SLV 5	2236	-4366	-504	0	0	0	0	328.355	No, Trazione
SLV 1	-4120	-4231	-349	0.055	7.558	0.9	88.753	338.414	No
SLV 2	-4120	-4231	-349	0.055	7.558	0.9	88.753	338.414	No
SLV 14	-12851	-26180	-464	0.064	16.326	0.944	98.662	338.414	No
SLV 13	-12851	-26180	-464	0.064	16.326	0.944	98.662	338.414	No
SLV 16	-20919	-32648	-366	0.075	24.522	0.961	113.757	338.414	No
SLV 15	-20919	-32648	-366	0.075	24.522	0.961	113.757	338.414	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.713	SLU 43	Si
V_SLU	7.713	SLU 50	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 5	No
PFFP_SLV	8.165	SLV 5	Si
R_SLV	0	SLV 6	No

Maschio 56

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	127.1	-12.3	-328.4	L1	L3	455.5	45	269	269	269			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 68	-159	-102087	-157506	4.98	9034803	57.362	Si
SLU 68	61	-90412	838724	4.41	9441346	11.257	Si
SLU 65	-159	-100495	-176178	4.9	9112107	51.721	Si
SLU 65	61	-88862	803846	4.34	9467367	11.778	Si
SLU 52	-159	-100427	-203209	4.9	9115260	44.857	Si
SLU 52	61	-88629	777160	4.32	9470706	12.186	Si
SLU 73	-159	-109388	-270728	5.34	8591537	31.735	Si
SLU 73	61	-97063	821699	4.74	9255333	11.264	Si
SLU 84	-159	-113618	-363087	5.54	8268284	22.772	Si
SLU 84	61	-100435	756262	4.9	9114914	12.053	Si
SLU 47	-159	-93126	-89987	4.54	9380026	104.237	Si
SLU 47	61	-81979	794186	4	9503718	11.967	Si
SLU 80	-159	-111398	-303893	5.43	8444052	27.786	Si
SLU 80	61	-98471	783489	4.8	9200481	11.743	Si
SLU 76	-159	-110980	-252056	5.41	8475626	33.626	Si
SLU 76	61	-98613	856577	4.81	9194631	10.734	Si
SLU 78	-159	-112187	-314123	5.47	8383069	26.687	Si
SLU 78	61	-99242	783679	4.84	9168120	11.699	Si
SLU 55	-159	-102019	-184537	4.98	9038252	48.978	Si
SLU 55	61	-90180	812038	4.4	9445670	11.632	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 4	-159	-20239	-1166014	0.99	4236875	3.634	Si
SLV 4	61	-15380	-499500	0.75	3287714	6.582	Si
SLV 6	-159	-78014	2642793	3.81	12233236	4.629	Si
SLV 6	61	-74689	1982775	3.64	11937705	6.021	Si
SLV 8	-159	-43134	-3212071	2.1	8131925	2.532	Si
SLV 8	61	-30355	-1408793	1.48	6075367	4.312	Si
SLV 9	-159	-108103	2645489	5.27	13993567	5.29	Si
SLV 9	61	-100825	2220851	4.92	13718746	6.177	Si
SLV 10	-159	-108103	2645489	5.27	13993567	5.29	Si
SLV 10	61	-100825	2220851	4.92	13718746	6.177	Si
SLV 3	-159	-20239	-1166014	0.99	4236875	3.634	Si
SLV 3	61	-15380	-499500	0.75	3287714	6.582	Si
SLV 12	-159	-73223	-3209375	3.57	11800971	3.677	Si
SLV 12	61	-56490	-1170717	2.76	9963778	8.511	Si
SLV 11	-159	-73223	-3209375	3.57	11800971	3.677	Si
SLV 11	61	-56490	-1170717	2.76	9963778	8.511	Si
SLV 7	-159	-43134	-3212071	2.1	8131925	2.532	Si
SLV 7	61	-30355	-1408793	1.48	6075367	4.312	Si
SLV 5	-159	-78014	2642793	3.81	12233236	4.629	Si
SLV 5	61	-74689	1982775	3.64	11937705	6.021	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	-159	-112187	6068	-314123		5.47	455.5	1.08	22206			3.66	Si
SLU 78	61	-99242	5136	783679		4.84	455.5	1.08	22206			4.32	Si
SLU 68	-159	-102087	5797	-157506		4.98	455.5	1.08	22206			3.83	Si
SLU 68	61	-90412	4860	838724		4.41	455.5	1.08	22206			4.57	Si
SLU 76	-159	-110980	6292	-252056		5.41	455.5	1.08	22206			3.53	Si
SLU 76	61	-98613	5336	856577		4.81	455.5	1.08	22206			4.16	Si
SLU 55	-159	-102019	5783	-184537		4.98	455.5	1.08	22206			3.84	Si
SLU 55	61	-90180	4857	812038		4.4	455.5	1.08	22206			4.57	Si
SLU 73	-159	-109388	6140	-270728		5.34	455.5	1.08	22206			3.62	Si
SLU 73	61	-97063	5186	821699		4.74	455.5	1.08	22206			4.28	Si
SLU 82	-159	-112026	5936	-381758		5.47	455.5	1.08	22206			3.74	Si
SLU 82	61	-98885	5004	721384		4.82	455.5	1.08	22206			4.44	Si
SLU 65	-159	-100495	5645	-176178		4.9	455.5	1.08	22206			3.93	Si
SLU 65	61	-88862	4711	803846		4.34	455.5	1.08	22206			4.71	Si
SLU 80	-159	-111398	6026	-303893		5.43	455.5	1.08	22206			3.68	Si
SLU 80	61	-98471	5101	783489		4.8	455.5	1.08	22206			4.35	Si
SLU 75	-159	-110596	5916	-332795		5.4	455.5	1.08	22206			3.75	Si
SLU 75	61	-97692	4986	748801		4.77	455.5	1.08	22206			4.45	Si
SLU 84	-159	-113618	6087	-363087		5.54	455.5	1.08	22206			3.65	Si
SLU 84	61	-100435	5154	756262		4.9	455.5	1.08	22206			4.31	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	-159	-73223	-12104	-3209375		3.57	455.5	1.55	31726			2.62	Si
SLV 12	61	-56490	-10357	-1170717		2.76	455.5	1.38	28379			2.74	Si
SLD 10	-159	-89444	10605	964102		4.36	455.5	1.63	33308			3.14	Si
SLD 10	61	-80561	8894	1170775		3.93	455.5	1.62	33193			3.73	Si
SLV 11	-159	-73223	-12104	-3209375		3.57	455.5	1.55	31726			2.62	Si
SLV 11	61	-56490	-10357	-1170717		2.76	455.5	1.38	28379			2.74	Si
SLV 8	-159	-43134	-12851	-3212071		2.1	455.5	1.25	25708			2	Si
SLV 8	61	-30355	-11130	-1408793		1.48	455.5	1.13	23152			2.08	Si
SLV 7	-159	-43134	-12851	-3212071		2.1	455.5	1.25	25708			2	Si
SLV 7	61	-30355	-11130	-1408793		1.48	455.5	1.13	23152			2.08	Si
SLV 9	-159	-108103	19993	2645489		5.27	455.5	1.63	33308			1.67	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	61	-100825	16958	2220851		4.92	455.5	1.63	33308			1.96	Si
SLV 10	-159	-108103	19993	2645489		5.27	455.5	1.63	33308			1.67	Si
SLV 10	61	-100825	16958	2220851		4.92	455.5	1.63	33308			1.96	Si
SLV 5	-159	-78014	19245	2642793		3.81	455.5	1.59	32684			1.7	Si
SLV 5	61	-74689	16185	1982775		3.64	455.5	1.56	32019			1.98	Si
SLV 6	-159	-78014	19245	2642793		3.81	455.5	1.59	32684			1.7	Si
SLV 6	61	-74689	16185	1982775		3.64	455.5	1.56	32019			1.98	Si
SLD 9	-159	-89444	10605	964102		4.36	455.5	1.63	33308			3.14	Si
SLD 9	61	-80561	8894	1170775		3.93	455.5	1.62	33193			3.73	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.24	0.89	-18336	27178	382351	14.07	Si
SLV 4	14	0.24	0.89	-18336	27178	382351	14.07	Si
SLV 2	14	0.24	1.48	-30379	27178	600618	22.1	Si
SLV 1	14	0.24	1.48	-30379	27178	600618	22.1	Si
SLV 7	14	0.24	1.8	-36878	27178	707575	26.03	Si
SLV 8	14	0.24	1.8	-36878	27178	707575	26.03	Si
SLV 11	14	0.24	3.16	-64814	27178	1080927	39.77	Si
SLV 12	14	0.24	3.16	-64814	27178	1080927	39.77	Si
SLV 6	14	0.24	3.76	-77022	27178	1200048	44.16	Si
SLV 5	14	0.24	3.76	-77022	27178	1200048	44.16	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-112314	-130999	-209	0.085	122.132	0.98	126.629	338.414	No
SLV 14	-112314	-130999	-209	0.085	122.132	0.98	126.629	338.414	No
SLV 16	-98868	-120535	-62	0.087	108.433	0.978	129.385	338.414	No
SLV 15	-98868	-120535	-62	0.087	108.433	0.978	129.385	338.414	No
SLV 10	-98618	-108103	-296	0.085	108.178	0.978	126.038	328.355	No
SLV 9	-98618	-108103	-296	0.085	108.178	0.978	126.038	328.355	No
SLV 5	-73433	-78014	-224	0.086	82.526	0.971	128.818	328.355	No
SLV 6	-73433	-78014	-224	0.086	82.526	0.971	128.818	328.355	No
SLV 12	-53799	-73223	195	0.087	62.54	0.963	131.919	328.355	No
SLV 11	-53799	-73223	195	0.087	62.54	0.963	131.919	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.734	SLU 76	Si
V_SLU	3.529	SLU 76	Si
PF_SLV	2.532	SLV 7	Si
V_SLV	1.666	SLV 9	Si
PFFP_SLV	14.068	SLV 3	Si
R_SLV	0.374	SLV 13	No

Maschio 57

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	610.1	-12.3	227.1	L1	L3	383	45	269	269	269			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	-159	-79830	122880	4.63	6594532	53.667	Si
SLU 76	61	-71242	685400	4.13	6719639	9.804	Si
SLU 70	-159	-75318	85392	4.37	6685345	78.29	Si
SLU 70	61	-66906	625008	3.88	6706375	10.73	Si
SLU 84	-159	-83321	25818	4.83	6486146	251.226	Si
SLU 84	61	-74781	666095	4.34	6692452	10.047	Si
SLU 82	-159	-82983	1824	4.81	6498101	1000	Si
SLU 82	61	-74445	634611	4.32	6696502	10.552	Si
SLU 72	-159	-74633	89876	4.33	6694276	74.483	Si
SLU 72	61	-66213	621772	3.84	6699503	10.775	Si
SLU 73	-159	-79491	98885	4.61	6603265	66.777	Si
SLU 73	61	-70906	653917	4.11	6720444	10.277	Si
SLU 75	-159	-81298	33353	4.72	6553001	196.476	Si
SLU 75	61	-72803	646589	4.22	6711860	10.38	Si
SLU 78	-159	-81636	57347	4.74	6542600	114.088	Si
SLU 78	61	-73139	678073	4.24	6709316	9.895	Si
SLU 68	-159	-73511	150924	4.27	6706138	44.434	Si
SLU 68	61	-65010	632335	3.77	6684446	10.571	Si
SLU 80	-159	-80951	61832	4.7	6563335	106.149	Si
SLU 80	61	-72446	674836	4.2	6714225	9.949	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	-159	-16798	950889	0.97	2960099	3.113	Si
SLV 1	61	-11071	552028	0.64	2008615	3.639	Si
SLV 12	-159	-88370	-2532380	5.13	9821258	3.878	Si
SLV 12	61	-85742	-308212	4.97	9734078	31.582	Si
SLV 10	-159	-49583	2201846	2.88	7259363	3.297	Si
SLV 10	61	-38251	1097150	2.22	5994395	5.464	Si
SLV 7	-159	-66973	-2344986	3.89	8746339	3.73	Si
SLV 7	61	-65526	-332787	3.8	8643579	25.973	Si
SLV 2	-159	-16798	950889	0.97	2960099	3.113	Si
SLV 2	61	-11071	552028	0.64	2008615	3.639	Si
SLV 8	-159	-66973	-2344986	3.89	8746339	3.73	Si
SLV 8	61	-65526	-332787	3.8	8643579	25.973	Si
SLV 9	-159	-49583	2201846	2.88	7259363	3.297	Si
SLV 9	61	-38251	1097150	2.22	5994395	5.464	Si
SLV 11	-159	-88370	-2532380	5.13	9821258	3.878	Si
SLV 11	61	-85742	-308212	4.97	9734078	31.582	Si
SLV 5	-159	-28185	2389241	1.64	4675029	1.957	Si
SLV 5	61	-18035	1072575	1.05	3157797	2.944	Si
SLV 6	-159	-28185	2389241	1.64	4675029	1.957	Si
SLV 6	61	-18035	1072575	1.05	3157797	2.944	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 74	-159	-82473	-5884	-94211		4.79	382.99	1.08	18671			3.17	Si
SLU 74	61	-74105	-4966	583518		4.3	382.99	1.08	18671			3.76	Si
SLU 75	-159	-81298	-5453	33353		4.72	382.99	1.08	18671			3.42	Si
SLU 75	61	-72803	-4551	646589		4.22	382.99	1.08	18671			4.1	Si
SLU 77	-159	-82811	-5945	-70217		4.8	382.99	1.08	18671			3.14	Si
SLU 77	61	-74441	-5018	615002		4.32	382.99	1.08	18671			3.72	Si
SLU 82	-159	-82983	-5567	1824		4.81	382.99	1.08	18671			3.35	Si
SLU 82	61	-74445	-4636	634611		4.32	382.99	1.08	18671			4.03	Si
SLU 84	-159	-83321	-5628	25818		4.83	382.99	1.08	18671			3.32	Si
SLU 84	61	-74781	-4687	666095		4.34	382.99	1.08	18671			3.98	Si
SLU 79	-159	-82127	-5880	-65732		4.77	382.99	1.08	18671			3.18	Si
SLU 79	61	-73748	-4962	611765		4.28	382.99	1.08	18671			3.76	Si
SLU 83	-159	-84496	-6059	-101746		4.9	382.99	1.08	18671			3.08	Si
SLU 83	61	-76083	-5102	603024		4.41	382.99	1.08	18671			3.66	Si
SLU 78	-159	-81636	-5513	57347		4.74	382.99	1.08	18671			3.39	Si
SLU 78	61	-73139	-4603	678073		4.24	382.99	1.08	18671			4.06	Si
SLU 81	-159	-84158	-5999	-125740		4.88	382.99	1.08	18671			3.11	Si
SLU 81	61	-75747	-5051	571540		4.4	382.99	1.08	18671			3.7	Si
SLU 62	-159	-78485	-5507	-91061		4.55	382.99	1.08	18671			3.39	Si
SLU 62	61	-70120	-4651	537898		4.07	382.99	1.08	18671			4.01	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	-159	-88370	-16538	-2532380		5.13	382.99	1.63	28006			1.69	Si
SLV 12	61	-85742	-13897	-308212		4.97	382.99	1.63	28006			2.02	Si
SLV 6	-159	-28185	8461	2389241		1.96	320.19	1.22	17644			2.09	Si
SLV 6	61	-18035	7053	1072575		1.05	382.99	1.04	17969			2.55	Si
SLV 5	-159	-28185	8461	2389241		1.96	320.19	1.22	17644			2.09	Si
SLV 5	61	-18035	7053	1072575		1.05	382.99	1.04	17969			2.55	Si
SLD 8	-159	-61914	-9066	-1041365		3.59	382.99	1.55	26745			2.95	Si
SLD 8	61	-57602	-7770	81463		3.34	382.99	1.5	25883			3.33	Si
SLD 12	-159	-71059	-9391	-1120859		4.12	382.99	1.63	28006			2.98	Si
SLD 12	61	-66242	-7882	92434		3.84	382.99	1.6	27611			3.5	Si
SLV 7	-159	-66973	-15777	-2344986		3.89	382.99	1.61	27757			1.76	Si
SLV 7	61	-65526	-13641	-332787		3.8	382.99	1.59	27467			2.01	Si
SLV 11	-159	-88370	-16538	-2532380		5.13	382.99	1.63	28006			1.69	Si
SLV 11	61	-85742	-13897	-308212		4.97	382.99	1.63	28006			2.02	Si
SLD 7	-159	-61914	-9066	-1041365		3.59	382.99	1.55	26745			2.95	Si
SLD 7	61	-57602	-7770	81463		3.34	382.99	1.5	25883			3.33	Si
SLV 8	-159	-66973	-15777	-2344986		3.89	382.99	1.61	27757			1.76	Si
SLV 8	61	-65526	-13641	-332787		3.8	382.99	1.59	27467			2.01	Si
SLD 11	-159	-71059	-9391	-1120859		4.12	382.99	1.63	28006			2.98	Si
SLD 11	61	-66242	-7882	92434		3.84	382.99	1.6	27611			3.5	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -24.5 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.24	0.71	-12244	22852	259482	11.35	Si
SLV 2	14	0.24	0.71	-12244	22852	259482	11.35	Si
SLV 6	14	0.24	1.08	-18686	22852	383125	16.77	Si
SLV 5	14	0.24	1.08	-18686	22852	383125	16.77	Si
SLV 3	14	0.24	1.61	-27702	22852	541300	23.69	Si
SLV 4	14	0.24	1.61	-27702	22852	541300	23.69	Si
SLV 10	14	0.24	2.3	-39664	22852	724354	31.7	Si
SLV 9	14	0.24	2.3	-39664	22852	724354	31.7	Si
SLV 8	14	0.24	4.07	-70210	22852	1053045	46.08	Si
SLV 7	14	0.24	4.07	-70210	22852	1053045	46.08	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -24.5 Wa = 0.08 Ta = 0.0269



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	-86027	-99758	441	0.083	94.124	0.978	122.726	338.414	No
SLV 15	-86027	-99758	441	0.083	94.124	0.978	122.726	338.414	No
SLV 14	-72300	-88122	358	0.084	80.14	0.975	124.528	338.414	No
SLV 13	-72300	-88122	358	0.084	80.14	0.975	124.528	338.414	No
SLV 12	-80118	-88370	364	0.083	88.104	0.977	124.156	328.355	No
SLV 11	-80118	-88370	364	0.083	88.104	0.977	124.156	328.355	No
SLV 7	-61326	-66973	215	0.086	68.963	0.971	128.259	328.355	No
SLV 8	-61326	-66973	215	0.086	68.963	0.971	128.259	328.355	No
SLV 10	-34360	-49583	86	0.09	41.527	0.954	137.831	328.355	No
SLV 9	-34360	-49583	86	0.09	41.527	0.954	137.831	328.355	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.804	SLU 76	Si
V_SLU	3.081	SLU 83	Si
PF_SLV	1.957	SLV 5	Si
V_SLV	1.693	SLV 11	Si
PFFP_SLV	11.355	SLV 1	Si
R_SLV	0.363	SLV 15	No

Maschio 58

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	-335.9	-2467.8	595.1	L3	L4	931.1	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 23	110	-65061	-2604121	2.5	21008726	8.067	Si
SLU 23	483	-39807	-779990	1.53	15057705	19.305	Si
SLU 34	110	-73042	-2896698	2.8	22307939	7.701	Si
SLU 34	483	-46418	-941150	1.78	16885826	17.942	Si
SLU 55	110	-80390	-2913436	3.08	23257231	7.983	Si
SLU 55	483	-48806	-866977	1.87	17499123	20.184	Si
SLU 73	110	-85986	-3048682	3.3	23821342	7.814	Si
SLU 73	483	-53240	-989218	2.04	18571322	18.774	Si
SLU 31	110	-71666	-2800014	2.75	22103871	7.894	Si
SLU 31	483	-45239	-917143	1.74	16573844	18.071	Si
SLU 13	110	-66070	-2664768	2.53	21188429	7.951	Si
SLU 13	483	-40805	-794903	1.57	15346113	19.306	Si
SLU 5	110	-59465	-2468874	2.28	19931237	8.073	Si
SLU 5	483	-35373	-657750	1.36	13724378	20.866	Si
SLU 68	110	-80757	-2949473	3.1	23298413	7.899	Si
SLU 68	483	-48987	-876070	1.88	17544447	20.026	Si
SLU 76	110	-87362	-3145366	3.35	23939021	7.611	Si
SLU 76	483	-54419	-1013224	2.09	18841943	18.596	Si
SLU 26	110	-66437	-2700805	2.55	21252640	7.869	Si
SLU 26	483	-40986	-803996	1.57	15397768	19.152	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 8	110	-71184	4412623	2.73	25733269	5.832	Si
SLV 8	483	-42557	109228	1.63	17165033	157.148	Si
SLV 16	110	-20083	2454704	0.77	8759951	3.569	Si
SLV 16	483	-10172	-287869	0.39	4584015	15.924	Si
SLV 9	110	-47977	-6845007	1.84	18970881	2.771	Si
SLV 9	483	-29924	-1085943	1.15	12621877	11.623	Si
SLV 12	110	-47526	5503770	1.82	18824120	3.42	Si
SLV 12	483	-27164	120905	1.04	11567523	95.674	Si
SLV 7	110	-71184	4412623	2.73	25733269	5.832	Si
SLV 7	483	-42557	109228	1.63	17165033	157.148	Si
SLV 5	110	-71635	-7936155	2.75	25848896	3.257	Si
SLV 5	483	-45317	-1097619	1.74	18095237	16.486	Si
SLV 6	110	-71635	-7936155	2.75	25848896	3.257	Si
SLV 6	483	-45317	-1097619	1.74	18095237	16.486	Si
SLV 15	110	-20083	2454704	0.77	8759951	3.569	Si
SLV 15	483	-10172	-287869	0.39	4584015	15.924	Si
SLV 11	110	-47526	5503770	1.82	18824120	3.42	Si
SLV 11	483	-27164	120905	1.04	11567523	95.674	Si
SLV 10	110	-47977	-6845007	1.84	18970881	2.771	Si
SLV 10	483	-29924	-1085943	1.15	12621877	11.623	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 34	110	-73042	-1754	-2896698		2.8	931.07	0.93	24222			13.81	Si
SLU 34	483	-46418	-1514	-941150		1.78	931.07	0.79	20672			13.65	Si
SLU 23	110	-65061	-1575	-2604121		2.5	931.07	0.89	23158			14.71	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 23	483	-39807	-1338	-779990		1.53	931.07	0.76	19791			14.79	Si
SLU 76	110	-87362	-1678	-3145366		3.35	931.07	1	26132			15.57	Si
SLU 76	483	-54419	-1435	-1013224		2.09	931.07	0.83	21739			15.15	Si
SLU 5	110	-59465	-1741	-2468874		2.28	931.07	0.86	22412			12.88	Si
SLU 5	483	-35373	-1506	-657750		1.36	931.07	0.74	19200			12.75	Si
SLU 47	110	-73785	-1665	-2717542		2.83	931.07	0.93	24321			14.6	Si
SLU 47	483	-43374	-1427	-729824		1.66	931.07	0.78	20267			14.2	Si
SLU 2	110	-58089	-1532	-2372190		2.23	931.07	0.85	22228			14.51	Si
SLU 2	483	-34194	-1297	-633744		1.31	931.07	0.73	19042			14.68	Si
SLU 13	110	-66070	-1711	-2664768		2.53	931.07	0.89	23293			13.62	Si
SLU 13	483	-40805	-1474	-794903		1.57	931.07	0.76	19924			13.52	Si
SLU 26	110	-66437	-1783	-2700805		2.55	931.07	0.9	23342			13.09	Si
SLU 26	483	-40986	-1547	-803996		1.57	931.07	0.77	19948			12.89	Si
SLU 55	110	-80390	-1636	-2913436		3.08	931.07	0.97	25202			15.41	Si
SLU 55	483	-48806	-1395	-866977		1.87	931.07	0.81	20991			15.05	Si
SLU 68	110	-80757	-1708	-2949473		3.1	931.07	0.97	25251			14.78	Si
SLU 68	483	-48987	-1468	-876070		1.88	931.07	0.81	21015			14.32	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	110	-71635	-29821	-7936155		2.75	931.07	1.38	36052			1.21	Si
SLV 5	483	-45317	-17584	-1097619		1.74	931.07	1.18	30788			1.75	Si
SLV 9	110	-47977	-29957	-6845007		1.84	931.07	1.2	31320			1.05	Si
SLV 9	483	-29924	-17897	-1085943		1.15	931.07	1.06	27710			1.55	Si
SLV 8	110	-71184	30354	4412623		2.73	931.07	1.38	35962			1.18	Si
SLV 8	483	-42557	18327	109228		1.63	931.07	1.16	30236			1.65	Si
SLV 7	110	-71184	30354	4412623		2.73	931.07	1.38	35962			1.18	Si
SLV 7	483	-42557	18327	109228		1.63	931.07	1.16	30236			1.65	Si
SLD 12	110	-54474	12718	1603260		2.09	931.07	1.25	32620			2.56	Si
SLD 12	483	-32400	7775	-252004		1.24	931.07	1.08	28205			3.63	Si
SLV 11	110	-47526	30218	5503770		1.82	931.07	1.2	31230			1.03	Si
SLV 11	483	-27164	18015	120905		1.04	931.07	1.04	27158			1.51	Si
SLD 11	110	-54474	12718	1603260		2.09	931.07	1.25	32620			2.56	Si
SLD 11	483	-32400	7775	-252004		1.24	931.07	1.08	28205			3.63	Si
SLV 6	110	-71635	-29821	-7936155		2.75	931.07	1.38	36052			1.21	Si
SLV 6	483	-45317	-17584	-1097619		1.74	931.07	1.18	30788			1.75	Si
SLV 10	110	-47977	-29957	-6845007		1.84	931.07	1.2	31320			1.05	Si
SLV 10	483	-29924	-17897	-1085943		1.15	931.07	1.06	27710			1.55	Si
SLV 12	110	-47526	30218	5503770		1.82	931.07	1.2	31230			1.03	Si
SLV 12	483	-27164	18015	120905		1.04	931.07	1.04	27158			1.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.31	0.53	-13806	85347	184906	2.17	Si
SLV 16	14	0.31	0.53	-13806	85347	184906	2.17	Si
SLV 13	14	0.31	0.55	-14430	85347	192869	2.26	Si
SLV 14	14	0.31	0.55	-14430	85347	192869	2.26	Si
SLV 12	14	0.31	1.38	-35879	85347	445727	5.22	Si
SLV 11	14	0.31	1.38	-35879	85347	445727	5.22	Si
SLV 9	14	0.31	1.46	-37959	85347	468100	5.48	Si
SLV 10	14	0.31	1.46	-37959	85347	468100	5.48	Si
SLV 7	14	0.31	2.13	-55423	85347	640915	7.51	Si
SLV 8	14	0.31	2.13	-55423	85347	640915	7.51	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-10172	-20083	640	0.021	25.092	0.889	34.468	942.914	No
SLV 15	-10172	-20083	640	0.021	25.092	0.889	34.468	942.914	No
SLV 13	-10999	-20218	621	0.023	25.864	0.89	37.139	942.914	No
SLV 14	-10999	-20218	621	0.023	25.864	0.89	37.139	942.914	No
SLV 1	-62309	-99078	-726	0.032	77.191	0.949	48.918	942.914	No
SLV 2	-62309	-99078	-726	0.032	77.191	0.949	48.918	942.914	No
SLV 4	-61482	-98943	-707	0.032	76.351	0.948	49.258	942.914	No
SLV 3	-61482	-98943	-707	0.032	76.351	0.948	49.258	942.914	No
SLV 5	-45317	-71635	-277	0.038	59.969	0.936	59.722	853.756	No
SLV 6	-45317	-71635	-277	0.038	59.969	0.936	59.722	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.611	SLU 76	Si
V_SLU	12.745	SLU 5	Si
PF_SLV	2.771	SLV 9	Si
V_SLV	1.033	SLV 11	Si
PFFP_SLV	2.167	SLV 15	Si
R_SLV	0.037	SLV 15	No

Maschio 59

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2276.3	595.1	-2467.8	595.1	L3	L4	191.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	μ	ϕ	$f_{v,lim}$	E	G	FC	
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 69	200	-8949	358191	1.67	681286	1.902	Si
SLU 69	390	-8026	-621659	1.5	627252	1.009	Si
SLU 50	200	-8013	324293	1.49	626499	1.932	Si
SLU 50	390	-6847	-548179	1.28	552805	1.008	Si
SLU 72	200	-8747	349997	1.63	669782	1.914	Si
SLU 72	390	-7885	-610367	1.47	618676	1.014	Si
SLU 71	200	-8866	355935	1.65	676578	1.901	Si
SLU 71	390	-7944	-617131	1.48	622276	1.008	Si
SLU 77	200	-9813	388405	1.83	728491	1.876	Si
SLU 77	390	-9178	-689571	1.71	694147	1.007	Si
SLU 78	200	-9694	382466	1.81	722188	1.888	Si
SLU 78	390	-9119	-682806	1.7	690867	1.012	Si
SLU 48	200	-8096	326550	1.51	631518	1.934	Si
SLU 48	390	-6929	-552707	1.29	558174	1.01	Si
SLU 80	200	-9611	380210	1.79	717751	1.888	Si
SLU 80	390	-9037	-678279	1.69	686284	1.012	Si
SLU 83	200	-9985	392051	1.86	737503	1.881	Si
SLU 83	390	-9402	-698586	1.75	706484	1.011	Si
SLU 79	200	-9730	386148	1.81	724097	1.875	Si
SLU 79	390	-9096	-685043	1.7	689586	1.007	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	200	-6961	917348	0	0	0	No, e>l/2
SLV 3	390	-11426	-1160080	0	0	0	No, e>l/2
SLV 7	200	-4926	885071	0	0	0	No, e>l/2
SLV 7	390	-10324	-1044523	0	0	0	No, e>l/2
SLV 4	200	-6961	917348	0	0	0	No, e>l/2
SLV 4	390	-11426	-1160080	0	0	0	No, e>l/2
SLV 11	200	-4403	577434	0	0	0	No, e>l/2
SLV 11	390	-7560	-696255	1.41	640331	0.92	No, M>Mu
SLV 12	200	-4403	577434	0	0	0	No, e>l/2
SLV 12	390	-7560	-696255	1.41	640331	0.92	No, M>Mu
SLV 1	200	-8184	637377	1.53	685732	1.076	Si
SLV 1	390	-9607	-910860	1.79	784974	0.862	No, M>Mu
SLV 2	200	-8184	637377	1.53	685732	1.076	Si
SLV 2	390	-9607	-910860	1.79	784974	0.862	No, M>Mu
SLV 14	200	-6443	-388080	1.2	556224	1.433	Si
SLV 14	390	-393	250032	0	0	0	No, e>l/2
SLV 13	200	-6443	-388080	1.2	556224	1.433	Si
SLV 13	390	-393	250032	0	0	0	No, e>l/2
SLV 8	200	-4926	885071	0	0	0	No, e>l/2
SLV 8	390	-10324	-1044523	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 51	200	-7894	5215	318355		1.7	166.27	0.78	3639			0.7	No, Vu<V
SLU 51	390	-6788	5150	-541415		5.05	47.96	1.08	1455			0.28	No, Vu<V
SLU 49	200	-7977	5250	320611		1.71	166.68	0.78	3656			0.7	No, Vu<V
SLU 49	390	-6870	5184	-545943		5.02	48.83	1.08	1481			0.29	No, Vu<V
SLU 77	200	-9813	6624	388405		2.08	168.51	0.83	3930			0.59	No, Vu<V
SLU 77	390	-9178	6546	-689571		5.3	61.86	1.08	1876			0.29	No, Vu<V
SLU 48	200	-8096	5287	326550		1.74	166.25	0.79	3666			0.69	No, Vu<V
SLU 48	390	-6929	5222	-552707		5.16	47.93	1.08	1454			0.28	No, Vu<V
SLU 45	200	-7981	5131	319503		1.71	167.15	0.78	3664			0.71	No, Vu<V
SLU 45	390	-6741	5066	-537145		5	48.19	1.08	1462			0.29	No, Vu<V
SLU 72	200	-8747	5886	349997		1.87	167.21	0.8	3767			0.64	No, Vu<V
SLU 72	390	-7885	5815	-610367		5.12	55.02	1.08	1669			0.29	No, Vu<V
SLU 71	200	-8866	5923	355935		1.9	166.81	0.81	3777			0.64	No, Vu<V
SLU 71	390	-7944	5852	-617131		5.24	54.18	1.08	1644			0.28	No, Vu<V
SLU 50	200	-8013	5251	324293		1.73	165.84	0.79	3648			0.69	No, Vu<V
SLU 50	390	-6847	5187	-548179		5.2	47.05	1.08	1427			0.28	No, Vu<V
SLU 79	200	-9730	6588	386148		2.07	168.19	0.83	3914			0.59	No, Vu<V
SLU 79	390	-9096	6512	-685043		5.3	61.32	1.08	1860			0.29	No, Vu<V
SLU 69	200	-8949	5958	358191		1.91	167.17	0.81	3794			0.64	No, Vu<V
SLU 69	390	-8026	5887	-621659		5.22	54.87	1.08	1664			0.28	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	200	-8184	9425	637377		5.45	53.61	1.63	2439			0.26	No, Vu<V
SLV 2	390	-9607	10511	-910860		122.17	2.81	1.63	128			0.01	No, Vu<V
SLV 14	200	-6443	-5540	-388080		2.16	106.54	1.27	3775			0.68	No, Vu<V
SLV 14	390	-393	-4389	250032		0	0	0.83	0			0	No, Vu<V
SLV 13	200	-6443	-5540	-388080		2.16	106.54	1.27	3775			0.68	No, Vu<V
SLV 13	390	-393	-4389	250032		0	0	0.83	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	200	-6961	14256	917348		0	0	0.83	0			0	No, Vu<V
SLV 4	390	-11426	12999	-1160080		0	0	0.83	0			0	No, Vu<V
SLV 8	200	-4926	14654	885071		0	0	0.83	0			0	No, Vu<V
SLV 8	390	-10324	10686	-1044523		0	0	0.83	0			0	No, Vu<V
SLV 1	200	-8184	9425	637377		5.45	53.61	1.63	2439			0.26	No, Vu<V
SLV 1	390	-9607	10511	-910860		122.17	2.81	1.63	128			0.01	No, Vu<V
SLV 12	200	-4403	10164	577434		0	0	0.83	0			0	No, Vu<V
SLV 12	390	-7560	6216	-696255		24.65	10.95	1.63	498			0.08	No, Vu<V
SLV 3	200	-6961	14256	917348		0	0	0.83	0			0	No, Vu<V
SLV 3	390	-11426	12999	-1160080		0	0	0.83	0			0	No, Vu<V
SLV 11	200	-4403	10164	577434		0	0	0.83	0			0	No, Vu<V
SLV 11	390	-7560	6216	-696255		24.65	10.95	1.63	498			0.08	No, Vu<V
SLV 7	200	-4926	14654	885071		0	0	0.83	0			0	No, Vu<V
SLV 7	390	-10324	10686	-1044523		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.31	0.53	-2866	17554	38365	2.19	Si
SLV 16	14	0.31	0.53	-2866	17554	38365	2.19	Si
SLV 13	14	0.31	0.58	-3115	17554	41533	2.37	Si
SLV 14	14	0.31	0.58	-3115	17554	41533	2.37	Si
SLV 11	14	0.31	0.93	-4982	17554	64447	3.67	Si
SLV 12	14	0.31	0.93	-4982	17554	64447	3.67	Si
SLV 9	14	0.31	1.08	-5812	17554	74153	4.22	Si
SLV 10	14	0.31	1.08	-5812	17554	74153	4.22	Si
SLV 8	14	0.31	1.31	-7045	17554	88028	5.01	Si
SLV 7	14	0.31	1.31	-7045	17554	88028	5.01	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-1499	-2928	82	0.033	4.624	0.89	53.932	853.756	No
SLV 5	-1499	-2928	82	0.033	4.624	0.89	53.932	853.756	No
SLV 10	-926	-903	77	0.034	4.148	0.899	54.806	853.756	No
SLV 9	-926	-903	77	0.034	4.148	0.899	54.806	853.756	No
SLV 11	-4579	-12053	-86	0.035	7.571	0.908	55.482	853.756	No
SLV 12	-4579	-12053	-86	0.035	7.571	0.908	55.482	853.756	No
SLV 7	-5153	-14078	-81	0.036	8.141	0.912	56.74	853.756	No
SLV 8	-5153	-14078	-81	0.036	8.141	0.912	56.74	853.756	No
SLV 1	-3446	-9194	31	0.044	6.455	0.899	71.916	942.914	No
SLV 2	-3446	-9194	31	0.044	6.455	0.899	71.916	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.007	SLU 79	Si
V_SLU	0.275	SLU 50	No
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	2.186	SLV 15	Si
R_SLV	0.063	SLV 5	No

Maschio 60

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	595.1	-2176.3	595.1	L3	L4	214.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	200	-24605	-683429	4.1	1311726	1.919	Si
SLU 82	390	-24818	-194947	4.13	1311494	6.727	Si
SLU 77	200	-24911	-681117	4.15	1311329	1.925	Si
SLU 77	390	-25298	-225129	4.21	1310239	5.82	Si
SLU 78	200	-24874	-680370	4.14	1311399	1.927	Si
SLU 78	390	-25231	-228153	4.2	1310473	5.744	Si
SLU 81	200	-24642	-684176	4.1	1311700	1.917	Si
SLU 81	390	-24884	-191924	4.14	1311380	6.833	Si
SLU 80	200	-24681	-674671	4.11	1311666	1.944	Si
SLU 80	390	-25050	-228410	4.17	1311012	5.74	Si
SLU 84	200	-25156	-692087	4.19	1310716	1.894	Si
SLU 84	390	-25495	-213891	4.24	1309433	6.122	Si
SLU 83	200	-25193	-692834	4.19	1310600	1.892	Si
SLU 83	390	-25561	-210867	4.26	1309122	6.208	Si
SLU 74	200	-24361	-672459	4.06	1311749	1.951	Si
SLU 74	390	-24621	-206185	4.1	1311716	6.362	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	200	-24323	-671712	4.05	1311729	1.953	Si
SLU 75	390	-24554	-209209	4.09	1311753	6.27	Si
SLU 79	200	-24718	-675418	4.12	1311627	1.942	Si
SLU 79	390	-25117	-225386	4.18	1310830	5.816	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	200	-9038	-917586	1.5	849923	0.926	No, M>Mu
SLV 13	390	-19414	263365	3.23	1531310	5.814	Si
SLV 15	200	-15999	-782308	2.66	1341786	1.715	Si
SLV 15	390	-22549	133268	3.75	1675304	12.571	Si
SLV 5	200	-6051	-572899	1.01	595433	1.039	Si
SLV 5	390	-9829	-17771	1.64	912971	51.374	Si
SLD 10	200	-11183	-602023	1.86	1016604	1.689	Si
SLD 10	390	-14832	-1888	2.47	1269197	672.09	Si
SLD 9	200	-11183	-602023	1.86	1016604	1.689	Si
SLD 9	390	-14832	-1888	2.47	1269197	672.09	Si
SLV 16	200	-15999	-782308	2.66	1341786	1.715	Si
SLV 16	390	-22549	133268	3.75	1675304	12.571	Si
SLV 14	200	-9038	-917586	1.5	849923	0.926	No, M>Mu
SLV 14	390	-19414	263365	3.23	1531310	5.814	Si
SLV 6	200	-6051	-572899	1.01	595433	1.039	Si
SLV 6	390	-9829	-17771	1.64	912971	51.374	Si
SLV 10	200	-3681	-804827	0	0	0	No, e>l/2
SLV 10	390	-12564	182036	2.09	1116818	6.135	Si
SLV 9	200	-3681	-804827	0	0	0	No, e>l/2
SLV 9	390	-12564	182036	2.09	1116818	6.135	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	200	-24681	-4093	-674671		4.11	214.5	1.08	6507			1.59	Si
SLU 80	390	-25050	-4089	-228410		4.17	214.5	1.08	6507			1.59	Si
SLU 74	200	-24361	-4136	-672459		4.06	214.5	1.08	6507			1.57	Si
SLU 74	390	-24621	-4133	-206185		4.1	214.5	1.08	6507			1.57	Si
SLU 81	200	-24642	-4263	-684176		4.1	214.5	1.08	6507			1.53	Si
SLU 81	390	-24884	-4260	-191924		4.14	214.5	1.08	6507			1.53	Si
SLU 78	200	-24874	-4118	-680370		4.14	214.5	1.08	6507			1.58	Si
SLU 78	390	-25231	-4114	-228153		4.2	214.5	1.08	6507			1.58	Si
SLU 83	200	-25193	-4280	-692834		4.19	214.5	1.08	6507			1.52	Si
SLU 83	390	-25561	-4277	-210867		4.26	214.5	1.08	6507			1.52	Si
SLU 77	200	-24911	-4153	-681117		4.15	214.5	1.08	6507			1.57	Si
SLU 77	390	-25298	-4151	-225129		4.21	214.5	1.08	6507			1.57	Si
SLU 75	200	-24323	-4101	-671712		4.05	214.5	1.08	6507			1.59	Si
SLU 75	390	-24554	-4097	-209209		4.09	214.5	1.08	6507			1.59	Si
SLU 82	200	-24605	-4227	-683429		4.1	214.5	1.08	6507			1.54	Si
SLU 82	390	-24818	-4223	-194947		4.13	214.5	1.08	6507			1.54	Si
SLU 84	200	-25156	-4244	-692087		4.19	214.5	1.08	6507			1.53	Si
SLU 84	390	-25495	-4240	-213891		4.24	214.5	1.08	6507			1.53	Si
SLU 79	200	-24718	-4129	-675418		4.12	214.5	1.08	6507			1.58	Si
SLU 79	390	-25117	-4126	-225386		4.18	214.5	1.08	6507			1.58	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 14	200	-13342	-7069	-654631		2.73	174.56	1.38	6741			0.95	No, Vu<V
SLD 14	390	-17716	-6738	34777		2.95	214.5	1.42	8548			1.27	Si
SLV 9	200	-3681	-9813	-804827		0	0	0.83	0			0	No, Vu<V
SLV 9	390	-12564	-7153	182036		2.09	214.5	1.25	7518			1.05	Si
SLV 15	200	-15999	-10120	-782308		3.26	175.05	1.49	7284			0.72	No, Vu<V
SLV 15	390	-22549	-10900	133268		3.75	214.5	1.58	9515			0.87	No, Vu<V
SLV 5	200	-6051	-4684	-572899		5.73	37.7	1.63	1715			0.37	No, Vu<V
SLV 5	390	-9829	-2033	-17771		1.64	214.5	1.16	6971			3.43	Si
SLV 13	200	-9038	-12740	-917586		18.8	17.16	1.63	781			0.06	No, Vu<V
SLV 13	390	-19414	-11928	263365		3.23	214.5	1.48	8888			0.75	No, Vu<V
SLV 10	200	-3681	-9813	-804827		0	0	0.83	0			0	No, Vu<V
SLV 10	390	-12564	-7153	182036		2.09	214.5	1.25	7518			1.05	Si
SLV 6	200	-6051	-4684	-572899		5.73	37.7	1.63	1715			0.37	No, Vu<V
SLV 6	390	-9829	-2033	-17771		1.64	214.5	1.16	6971			3.43	Si
SLD 13	200	-13342	-7069	-654631		2.73	174.56	1.38	6741			0.95	No, Vu<V
SLD 13	390	-17716	-6738	34777		2.95	214.5	1.42	8548			1.27	Si
SLV 14	200	-9038	-12740	-917586		18.8	17.16	1.63	781			0.06	No, Vu<V
SLV 14	390	-19414	-11928	263365		3.23	214.5	1.48	8888			0.75	No, Vu<V
SLV 16	200	-15999	-10120	-782308		3.26	175.05	1.49	7284			0.72	No, Vu<V
SLV 16	390	-22549	-10900	133268		3.75	214.5	1.58	9515			0.87	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.31	1.07	-6453	19662	82395	4.19	Si
SLV 5	14	0.31	1.07	-6453	19662	82395	4.19	Si
SLV 10	14	0.31	1.19	-7163	19662	90495	4.6	Si
SLV 9	14	0.31	1.19	-7163	19662	90495	4.6	Si
SLV 1	14	0.31	2.07	-12417	19662	144423	7.35	Si
SLV 2	14	0.31	2.07	-12417	19662	144423	7.35	Si
SLV 13	14	0.31	2.46	-14785	19662	165285	8.41	Si
SLV 14	14	0.31	2.46	-14785	19662	165285	8.41	Si
SLV 4	14	0.31	3.04	-18239	19662	191886	9.76	Si
SLV 3	14	0.31	3.04	-18239	19662	191886	9.76	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	-19610	-17080	-81	0.037	23.123	0.959	56.497	942.914	No
SLV 15	-19610	-17080	-81	0.037	23.123	0.959	56.497	942.914	No
SLV 6	-7773	-9156	121	0.033	11.124	0.924	51.776	853.756	No
SLV 5	-7773	-9156	121	0.033	11.124	0.924	51.776	853.756	No
SLV 2	-8875	-15528	80	0.037	12.235	0.93	58.111	942.914	No
SLV 1	-8875	-15528	80	0.037	12.235	0.93	58.111	942.914	No
SLV 11	-20712	-23452	-122	0.035	24.244	0.961	53.674	853.756	No
SLV 12	-20712	-23452	-122	0.035	24.244	0.961	53.674	853.756	No
SLV 8	-18453	-24354	-93	0.037	21.946	0.957	55.677	853.756	No
SLV 7	-18453	-24354	-93	0.037	21.946	0.957	55.677	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.892	SLU 83	Si
V_SLU	1.52	SLU 83	Si
PF_SLV	0	SLV 9	No
V_SLV	0	SLV 9	No
PFFP_SLV	4.191	SLV 5	Si
R_SLV	0.06	SLV 15	No

Maschio 61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2254.3	-335.9	-2467.8	-335.9	L3	L4	213.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 47	200	-5980	755187	0	0	0	No, e>l/2
SLU 47	390	-6639	-747671	0	0	0	No, e>l/2
SLU 34	200	-6181	764534	0	0	0	No, e>l/2
SLU 34	390	-7697	-794995	1.29	691779	0.87	No, M>Mu
SLU 65	200	-6751	800249	0	0	0	No, e>l/2
SLU 65	390	-7678	-825553	0	0	0	No, e>l/2
SLU 31	200	-6004	748404	0	0	0	No, e>l/2
SLU 31	390	-7467	-774765	1.25	674871	0.871	No, M>Mu
SLU 68	200	-6929	816380	0	0	0	No, e>l/2
SLU 68	390	-7908	-845783	0	0	0	No, e>l/2
SLU 73	200	-7686	856964	0	0	0	No, e>l/2
SLU 73	390	-8989	-923138	1.5	782445	0.848	No, M>Mu
SLU 55	200	-6915	811901	0	0	0	No, e>l/2
SLU 55	390	-7950	-845255	1.33	710087	0.84	No, M>Mu
SLU 52	200	-6737	795771	0	0	0	No, e>l/2
SLU 52	390	-7720	-825025	0	0	0	No, e>l/2
SLU 23	200	-5069	691689	0	0	0	No, e>l/2
SLU 23	390	-6156	-677181	0	0	0	No, e>l/2
SLU 26	200	-5246	707820	0	0	0	No, e>l/2
SLU 26	390	-6386	-697411	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 2	200	-7271	1402330	0	0	0	No, e>l/2
SLV 2	390	-13736	-1663990	0	0	0	No, e>l/2
SLV 1	200	-7271	1402330	0	0	0	No, e>l/2
SLV 1	390	-13736	-1663990	0	0	0	No, e>l/2
SLV 10	200	-5174	761934	0	0	0	No, e>l/2
SLV 10	390	-7869	-780616	1.32	749488	0.96	No, M>Mu
SLV 6	200	-5536	1228671	0	0	0	No, e>l/2
SLV 6	390	-11332	-1312344	0	0	0	No, e>l/2
SLV 3	200	-8397	1084443	0	0	0	No, e>l/2
SLV 3	390	-12333	-1433671	0	0	0	No, e>l/2
SLV 15	200	-7192	-471348	1.2	692135	1.468	Si
SLV 15	390	-787	338758	0	0	0	No, e>l/2
SLV 5	200	-5536	1228671	0	0	0	No, e>l/2
SLV 5	390	-11332	-1312344	0	0	0	No, e>l/2
SLV 4	200	-8397	1084443	0	0	0	No, e>l/2
SLV 4	390	-12333	-1433671	0	0	0	No, e>l/2
SLV 9	200	-5174	761934	0	0	0	No, e>l/2
SLV 9	390	-7869	-780616	1.32	749488	0.96	No, M>Mu
SLD 1	200	-7273	860811	0	0	0	No, e>l/2
SLD 1	390	-10008	-1086586	0	0	0	No, e>l/2



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 13	200	-5232	9262	703341		0	0	0.56	0			0	No, Vu<V
SLU 13	390	-6428	9157	-696883		0	0	0.56	0			0	No, Vu<V
SLU 65	200	-6751	10666	800249		0	0	0.56	0			0	No, Vu<V
SLU 65	390	-7678	10548	-825553		0	0	0.56	0			0	No, Vu<V
SLU 31	200	-6004	10081	748404		0	0	0.56	0			0	No, Vu<V
SLU 31	390	-7467	9970	-774765		29.72	8.97	1.08	272			0.03	No, Vu<V
SLU 34	200	-6181	10303	764534		0	0	0.56	0			0	No, Vu<V
SLU 34	390	-7697	10191	-794995		26.46	10.39	1.08	315			0.03	No, Vu<V
SLU 47	200	-5980	9847	755187		0	0	0.56	0			0	No, Vu<V
SLU 47	390	-6639	9735	-747671		0	0	0.56	0			0	No, Vu<V
SLU 26	200	-5246	9275	707820		0	0	0.56	0			0	No, Vu<V
SLU 26	390	-6386	9170	-697411		0	0	0.56	0			0	No, Vu<V
SLU 76	200	-7864	11916	873094		0	0	0.56	0			0	No, Vu<V
SLU 76	390	-9219	11789	-943368		24.82	13.27	1.08	402			0.03	No, Vu<V
SLU 10	200	-5055	9040	687210		0	0	0.56	0			0	No, Vu<V
SLU 10	390	-6198	8936	-676653		0	0	0.56	0			0	No, Vu<V
SLU 23	200	-5069	9054	691689		0	0	0.56	0			0	No, Vu<V
SLU 23	390	-6156	8950	-677181		0	0	0.56	0			0	No, Vu<V
SLU 73	200	-7686	11694	856964		0	0	0.56	0			0	No, Vu<V
SLU 73	390	-8989	11569	-923138		26.4	12.16	1.08	369			0.03	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	200	-7192	-6345	-471348		2.08	123.63	1.25	4323			0.68	No, Vu<V
SLV 15	390	-787	-5600	338758		0	0	0.83	0			0	No, Vu<V
SLV 3	200	-8397	17333	1084443		0	0	0.83	0			0	No, Vu<V
SLV 3	390	-12333	17412	-1433671		0	0	0.83	0			0	No, Vu<V
SLV 1	200	-7271	20660	1402330		0	0	0.83	0			0	No, Vu<V
SLV 1	390	-13736	19795	-1663990		0	0	0.83	0			0	No, Vu<V
SLV 4	200	-8397	17333	1084443		0	0	0.83	0			0	No, Vu<V
SLV 4	390	-12333	17412	-1433671		0	0	0.83	0			0	No, Vu<V
SLV 6	200	-5536	16254	1228671		0	0	0.83	0			0	No, Vu<V
SLV 6	390	-11332	14521	-1312344		0	0	0.83	0			0	No, Vu<V
SLV 2	200	-7271	20660	1402330		0	0	0.83	0			0	No, Vu<V
SLV 2	390	-13736	19795	-1663990		0	0	0.83	0			0	No, Vu<V
SLV 10	200	-5174	9150	761934		0	0	0.83	0			0	No, Vu<V
SLV 10	390	-7869	7618	-780616		12.42	22.63	1.63	1030			0.14	No, Vu<V
SLV 5	200	-5536	16254	1228671		0	0	0.83	0			0	No, Vu<V
SLV 5	390	-11332	14521	-1312344		0	0	0.83	0			0	No, Vu<V
SLV 9	200	-5174	9150	761934		0	0	0.83	0			0	No, Vu<V
SLV 9	390	-7869	7618	-780616		12.42	22.63	1.63	1030			0.14	No, Vu<V
SLD 1	200	-7273	12866	860811		0	0	0.83	0			0	No, Vu<V
SLD 1	390	-10008	12495	-1086586		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.31	0.53	-3165	19571	42390	2.17	Si
SLV 16	14	0.31	0.53	-3165	19571	42390	2.17	Si
SLV 14	14	0.31	0.53	-3192	19571	42735	2.18	Si
SLV 13	14	0.31	0.53	-3192	19571	42735	2.18	Si
SLV 12	14	0.31	1.02	-6119	19571	78494	4.01	Si
SLV 11	14	0.31	1.02	-6119	19571	78494	4.01	Si
SLV 9	14	0.31	1.04	-6209	19571	79540	4.06	Si
SLV 10	14	0.31	1.04	-6209	19571	79540	4.06	Si
SLV 7	14	0.31	1.45	-8679	19571	107066	5.47	Si
SLV 8	14	0.31	1.45	-8679	19571	107066	5.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-3320	-5337	120	0.029	6.69	0.895	47.193	942.914	No
SLV 14	-3320	-5337	120	0.029	6.69	0.895	47.193	942.914	No
SLV 3	-3777	-12045	-117	0.03	7.133	0.898	49.207	942.914	No
SLV 4	-3777	-12045	-117	0.03	7.133	0.898	49.207	942.914	No
SLV 7	-2054	-8487	-103	0.031	5.498	0.889	50.304	853.756	No
SLV 8	-2054	-8487	-103	0.031	5.498	0.889	50.304	853.756	No
SLV 9	-5042	-8895	107	0.033	8.378	0.908	52.964	853.756	No
SLV 10	-5042	-8895	107	0.033	8.378	0.908	52.964	853.756	No
SLV 1	-4807	-12843	-71	0.038	8.146	0.906	61.265	942.914	No
SLV 2	-4807	-12843	-71	0.038	8.146	0.906	61.265	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 2	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLD 1	No
V_SLV	0	SLD 1	No
PFFP_SLV	2.166	SLV 15	Si
R_SLV	0.05	SLV 13	No



Maschio 62

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1936.8	-335.9	-2154.3	-335.9	L3	L4	217.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 23	310	-9522	-475735	1.56	836733	1.759	Si
SLU 23	390	-8680	-306781	1.43	778759	2.538	Si
SLU 10	310	-9789	-485407	1.61	854502	1.76	Si
SLU 10	390	-8961	-309406	1.47	798477	2.581	Si
SLU 47	310	-10542	-518187	1.73	902803	1.742	Si
SLU 47	390	-9470	-334747	1.55	833254	2.489	Si
SLU 5	310	-7865	-435483	1.29	719720	1.653	Si
SLU 5	390	-7037	-283413	1.16	656708	2.317	Si
SLU 26	310	-9578	-473141	1.57	840515	1.776	Si
SLU 26	390	-8736	-312431	1.43	782750	2.505	Si
SLU 65	310	-12198	-558439	2	1000374	1.791	Si
SLU 65	390	-11113	-358114	1.82	937782	2.619	Si
SLU 2	310	-7809	-438077	1.28	715513	1.633	Si
SLU 2	390	-6980	-277764	1.15	652296	2.348	Si
SLU 52	310	-12466	-568111	2.05	1015004	1.787	Si
SLU 52	390	-11394	-360739	1.87	954498	2.646	Si
SLU 13	310	-9846	-482813	1.62	858218	1.778	Si
SLU 13	390	-9018	-315056	1.48	802398	2.547	Si
SLU 44	310	-10485	-520781	1.72	899259	1.727	Si
SLU 44	390	-9413	-329097	1.55	829445	2.52	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	310	-7080	-272520	1.16	696692	2.556	Si
SLV 1	390	-7975	-1132609	0	0	0	No, $e \geq l/2$
SLV 5	310	-7112	-848961	0	0	0	No, $e \geq l/2$
SLV 5	390	-12098	-899516	1.99	1101747	1.225	Si
SLD 2	310	-9916	-307741	1.63	934629	3.037	Si
SLD 2	390	-9766	-606822	1.6	922641	1.52	Si
SLV 9	310	-9359	-995512	1.54	889796	0.894	No, $M > Mu$
SLV 9	390	-14358	-432947	2.36	1260121	2.911	Si
SLV 3	310	-9300	75022	1.53	884972	11.796	Si
SLV 3	390	-6700	-865832	0	0	0	No, $e \geq l/2$
SLV 4	310	-9300	75022	1.53	884972	11.796	Si
SLV 4	390	-6700	-865832	0	0	0	No, $e \geq l/2$
SLV 2	310	-7080	-272520	1.16	696692	2.556	Si
SLV 2	390	-7975	-1132609	0	0	0	No, $e \geq l/2$
SLV 10	310	-9359	-995512	1.54	889796	0.894	No, $M > Mu$
SLV 10	390	-14358	-432947	2.36	1260121	2.911	Si
SLV 6	310	-7112	-848961	0	0	0	No, $e \geq l/2$
SLV 6	390	-12098	-899516	1.99	1101747	1.225	Si
SLD 1	310	-9916	-307741	1.63	934629	3.037	Si
SLD 1	390	-9766	-606822	1.6	922641	1.52	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 52	310	-12466	-2583	-568111		2.35	189.53	0.87	4610			1.78	Si
SLU 52	390	-11394	-2583	-360739		1.87	217.5	0.81	4903			1.9	Si
SLU 73	310	-14179	-2693	-605769		2.56	198.08	0.9	4972			1.85	Si
SLU 73	390	-13093	-2693	-389756		2.15	217.5	0.84	5129			1.9	Si
SLU 5	310	-7865	-1895	-435483		1.75	160.14	0.79	3540			1.87	Si
SLU 5	390	-7037	-1895	-283413		1.22	205.42	0.72	4134			2.18	Si
SLU 55	310	-12522	-2480	-565517		2.34	190.77	0.87	4637			1.87	Si
SLU 55	390	-11450	-2480	-366389		1.88	217.5	0.81	4910			1.98	Si
SLU 47	310	-10542	-2284	-518187		2.11	178.78	0.84	4187			1.83	Si
SLU 47	390	-9470	-2284	-334747		1.55	217.5	0.76	4646			2.03	Si
SLU 65	310	-12198	-2497	-558439		2.31	188.91	0.86	4565			1.83	Si
SLU 65	390	-11113	-2497	-358114		1.82	217.5	0.8	4865			1.95	Si
SLU 10	310	-9789	-2194	-485407		1.97	177.49	0.82	4066			1.85	Si
SLU 10	390	-8961	-2194	-309406		1.47	217.5	0.75	4578			2.09	Si
SLU 44	310	-10485	-2387	-520781		2.11	177.25	0.84	4155			1.74	Si
SLU 44	390	-9413	-2387	-329097		1.55	217.5	0.76	4638			1.94	Si
SLU 23	310	-9522	-2107	-475735		1.93	176.36	0.81	4013			1.9	Si
SLU 23	390	-8680	-2107	-306781		1.43	217.5	0.75	4541			2.15	Si
SLU 2	310	-7809	-1998	-438077		1.77	157.94	0.79	3498			1.75	Si
SLU 2	390	-6980	-1998	-277764		1.21	206.87	0.72	4149			2.08	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	310	-9359	-7999	-995512		46.76	7.15	1.63	325			0.04	No, $V_u < V$
SLV 9	390	-14358	-7167	-432947		2.36	217.5	1.3	7947			1.11	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scor.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	310	-14571	-15073	-761022		3.07	169.56	1.45	6871			0.46	No, Vu<V
SLV 13	390	-15507	-14817	422624		2.55	217.5	1.34	8176			0.55	No, Vu<V
SLV 4	310	-9300	12049	75022		1.53	217.5	1.14	6935			0.58	No, Vu<V
SLV 4	390	-6700	11794	-865832		0	0	0.83	0			0	No, Vu<V
SLV 3	310	-9300	12049	75022		1.53	217.5	1.14	6935			0.58	No, Vu<V
SLV 3	390	-6700	11794	-865832		0	0	0.83	0			0	No, Vu<V
SLV 1	310	-7080	10454	-272520		1.2	210.78	1.07	6334			0.61	No, Vu<V
SLV 1	390	-7975	10696	-1132609		0	0	0.83	0			0	No, Vu<V
SLV 2	310	-7080	10454	-272520		1.2	210.78	1.07	6334			0.61	No, Vu<V
SLV 2	390	-7975	10696	-1132609		0	0	0.83	0			0	No, Vu<V
SLV 14	310	-14571	-15073	-761022		3.07	169.56	1.45	6871			0.46	No, Vu<V
SLV 14	390	-15507	-14817	422624		2.55	217.5	1.34	8176			0.55	No, Vu<V
SLV 10	310	-9359	-7999	-995512		46.76	7.15	1.63	325			0.04	No, Vu<V
SLV 10	390	-14358	-7167	-432947		2.36	217.5	1.3	7947			1.11	Si
SLV 5	310	-7112	-341	-848961		0	0	0.83	0			0	No, Vu<V
SLV 5	390	-12098	487	-899516		4.19	103.19	1.63	4695			9.65	Si
SLV 6	310	-7112	-341	-848961		0	0	0.83	0			0	No, Vu<V
SLV 6	390	-12098	487	-899516		4.19	103.19	1.63	4695			9.65	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.31	0.56	-3440	19937	45928	2.3	Si
SLV 5	14	0.31	0.56	-3440	19937	45928	2.3	Si
SLV 9	14	0.31	0.72	-4368	19937	57561	2.89	Si
SLV 10	14	0.31	0.72	-4368	19937	57561	2.89	Si
SLV 2	14	0.31	1.09	-6624	19937	84476	4.24	Si
SLV 1	14	0.31	1.09	-6624	19937	84476	4.24	Si
SLV 14	14	0.31	1.6	-9718	19937	118283	5.93	Si
SLV 13	14	0.31	1.6	-9718	19937	118283	5.93	Si
SLV 3	14	0.31	1.69	-10281	19937	124048	6.22	Si
SLV 4	14	0.31	1.69	-10281	19937	124048	6.22	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-11952	-6264	38	0.04	15.392	0.941	62.194	942.914	No
SLV 14	-11952	-6264	38	0.04	15.392	0.941	62.194	942.914	No
SLV 9	-14538	-4720	86	0.037	18.015	0.949	56.63	853.756	No
SLV 10	-14538	-4720	86	0.037	18.015	0.949	56.63	853.756	No
SLV 8	-4416	-11015	-90	0.036	7.824	0.902	57.211	853.756	No
SLV 7	-4416	-11015	-90	0.036	7.824	0.902	57.211	853.756	No
SLV 5	-13908	-5154	77	0.038	17.374	0.947	57.561	853.756	No
SLV 6	-13908	-5154	77	0.038	17.374	0.947	57.561	853.756	No
SLV 4	-7002	-9471	-42	0.041	10.397	0.92	65.411	942.914	No
SLV 3	-7002	-9471	-42	0.041	10.397	0.92	65.411	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.633	SLU 2	Si
V_SLU	1.741	SLU 44	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	2.304	SLV 5	Si
R_SLV	0.066	SLV 13	No

Maschio 63

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1831.3	-335.9	-1886.8	-335.9	L3	L4	55.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	310	-9524	-11034	6.13	65443	5.931	Si
SLU 74	390	-9413	44042	6.06	66969	1.521	Si
SLU 80	310	-9620	-13736	6.19	64086	4.665	Si
SLU 80	390	-9496	45134	6.11	65834	1.459	Si
SLU 78	310	-9705	-14063	6.25	62839	4.469	Si
SLU 78	390	-9577	46149	6.16	64695	1.402	Si
SLU 76	310	-9627	-17730	6.19	63984	3.609	Si
SLU 76	390	-9467	50383	6.09	66238	1.315	Si
SLU 82	310	-9912	-16473	6.38	59682	3.623	Si
SLU 82	390	-9773	51567	6.29	61820	1.199	Si
SLU 83	310	-9867	-11075	6.35	60379	5.452	Si
SLU 83	390	-9776	44847	6.29	61784	1.378	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	310	-9559	-18915	6.15	64958	3.434	Si
SLU 73	390	-9384	52690	6.04	67366	1.279	Si
SLU 81	310	-9799	-12260	6.31	61425	5.01	Si
SLU 81	390	-9692	47153	6.24	63024	1.337	Si
SLU 84	310	-9980	-15289	6.42	58602	3.833	Si
SLU 84	390	-9856	49260	6.34	60550	1.229	Si
SLU 75	310	-9637	-15247	6.2	63836	4.187	Si
SLU 75	390	-9494	48455	6.11	65863	1.359	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	310	-5389	-107197	3.47	107106	0.999	No, M>Mu
SLV 13	390	-5785	186927	0	0	0	No, e>l/2
SLD 13	310	-6027	-50492	3.88	114163	2.261	Si
SLD 13	390	-6137	97775	3.95	115258	1.179	Si
SLV 3	310	-7691	90021	4.95	126976	1.411	Si
SLV 3	390	-7065	-122883	4.55	123109	1.002	Si
SLV 14	310	-5389	-107197	3.47	107106	0.999	No, M>Mu
SLV 14	390	-5785	186927	0	0	0	No, e>l/2
SLV 4	310	-7691	90021	4.95	126976	1.411	Si
SLV 4	390	-7065	-122883	4.55	123109	1.002	Si
SLV 10	310	-8399	-47140	5.4	129976	2.757	Si
SLV 10	390	-7596	122315	4.89	126462	1.034	Si
SLV 15	310	-3936	-101283	2.53	86585	0.855	No, M>Mu
SLV 15	390	-4887	158034	0	0	0	No, e>l/2
SLV 16	310	-3936	-101283	2.53	86585	0.855	No, M>Mu
SLV 16	390	-4887	158034	0	0	0	No, e>l/2
SLD 14	310	-6027	-50492	3.88	114163	2.261	Si
SLD 14	390	-6137	97775	3.95	115258	1.179	Si
SLV 9	310	-8399	-47140	5.4	129976	2.757	Si
SLV 9	390	-7596	122315	4.89	126462	1.034	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	310	-9071	-822	-15815		5.84	55.5	1.08	1684			2.05	Si
SLU 61	390	-8911	-805	47936		5.73	55.5	1.08	1684			2.09	Si
SLU 68	310	-8627	-808	-16871		5.55	55.5	1.08	1684			2.08	Si
SLU 68	390	-8433	-789	46139		5.43	55.5	1.08	1684			2.13	Si
SLU 65	310	-8559	-850	-18056		5.51	55.5	1.08	1684			1.98	Si
SLU 65	390	-8350	-830	48445		5.37	55.5	1.08	1684			2.03	Si
SLU 55	310	-8785	-820	-17072		5.65	55.5	1.08	1684			2.05	Si
SLU 55	390	-8605	-801	46753		5.54	55.5	1.08	1684			2.1	Si
SLU 84	310	-9980	-837	-15289		6.42	55.5	1.08	1684			2.01	Si
SLU 84	390	-9856	-819	49260		6.34	55.5	1.08	1684			2.05	Si
SLU 52	310	-8717	-862	-18256		5.61	55.5	1.08	1684			1.95	Si
SLU 52	390	-8522	-842	49060		5.48	55.5	1.08	1684			2	Si
SLU 82	310	-9912	-879	-16473		6.38	55.5	1.08	1684			1.92	Si
SLU 82	390	-9773	-861	51567		6.29	55.5	1.08	1684			1.96	Si
SLU 73	310	-9559	-919	-18915		6.15	55.5	1.08	1684			1.83	Si
SLU 73	390	-9384	-898	52690		6.04	55.5	1.08	1684			1.87	Si
SLU 76	310	-9627	-878	-17730		6.19	55.5	1.08	1684			1.92	Si
SLU 76	390	-9467	-857	50383		6.09	55.5	1.08	1684			1.96	Si
SLU 75	310	-9637	-824	-15247		6.2	55.5	1.08	1684			2.04	Si
SLU 75	390	-9494	-806	48455		6.11	55.5	1.08	1684			2.09	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 13	310	-6027	-1917	-50492		3.88	55.5	1.61	2500			1.3	Si
SLD 13	390	-6137	-1886	97775		6.18	35.45	1.63	1613			0.86	No, Vu<V
SLV 16	310	-3936	-3378	-101283		23.21	6.06	1.63	276			0.08	No, Vu<V
SLV 16	390	-4887	-3510	158034		0	0	0.83	0			0	No, Vu<V
SLV 10	310	-8399	-2139	-47140		5.4	55.5	1.63	2525			1.18	Si
SLV 10	390	-7596	-1816	122315		7.76	34.94	1.63	1590			0.88	No, Vu<V
SLV 14	310	-5389	-3795	-107197		8.16	23.58	1.63	1073			0.28	No, Vu<V
SLV 14	390	-5785	-3731	186927		0	0	0.83	0			0	No, Vu<V
SLV 13	310	-5389	-3795	-107197		8.16	23.58	1.63	1073			0.28	No, Vu<V
SLV 13	390	-5785	-3731	186927		0	0	0.83	0			0	No, Vu<V
SLV 15	310	-3936	-3378	-101283		23.21	6.06	1.63	276			0.08	No, Vu<V
SLV 15	390	-4887	-3510	158034		0	0	0.83	0			0	No, Vu<V
SLV 4	310	-7691	2742	90021		5.71	48.13	1.63	2190			0.8	No, Vu<V
SLV 4	390	-7065	2696	-122883		8.12	31.07	1.63	1414			0.52	No, Vu<V
SLD 14	310	-6027	-1917	-50492		3.88	55.5	1.61	2500			1.3	Si
SLD 14	390	-6137	-1886	97775		6.18	35.45	1.63	1613			0.86	No, Vu<V
SLV 3	310	-7691	2742	90021		5.71	48.13	1.63	2190			0.8	No, Vu<V
SLV 3	390	-7065	2696	-122883		8.12	31.07	1.63	1414			0.52	No, Vu<V
SLV 9	310	-8399	-2139	-47140		5.4	55.5	1.63	2525			1.18	Si
SLV 9	390	-7596	-1816	122315		7.76	34.94	1.63	1590			0.88	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	2.08	-3238	5087	37602	7.39	Si
SLV 12	14	0.31	2.08	-3238	5087	37602	7.39	Si
SLV 7	14	0.31	2.2	-3419	5087	39246	7.71	Si
SLV 8	14	0.31	2.2	-3419	5087	39246	7.71	Si
SLV 16	14	0.31	3.08	-4786	5087	50118	9.85	Si
SLV 15	14	0.31	3.08	-4786	5087	50118	9.85	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.31	3.47	-5389	5087	54033	10.62	Si
SLV 4	14	0.31	3.47	-5389	5087	54033	10.62	Si
SLV 14	14	0.31	4.05	-6294	5087	58909	11.58	Si
SLV 13	14	0.31	4.05	-6294	5087	58909	11.58	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-3210	-6714	6	0.041	4.089	0.943	63.622	942.914	No
SLV 2	-3210	-6714	6	0.041	4.089	0.943	63.622	942.914	No
SLV 4	-2760	-4786	5	0.042	3.634	0.937	65.004	942.914	No
SLV 3	-2760	-4786	5	0.042	3.634	0.937	65.004	942.914	No
SLV 13	-2645	-9594	-2	0.043	3.518	0.936	66.783	942.914	No
SLV 14	-2645	-9594	-2	0.043	3.518	0.936	66.783	942.914	No
SLV 16	-2196	-7666	-3	0.044	3.064	0.928	68.523	942.914	No
SLV 15	-2196	-7666	-3	0.044	3.064	0.928	68.523	942.914	No
SLV 5	-3536	-9972	3	0.042	4.421	0.947	63.779	853.756	No
SLV 6	-3536	-9972	3	0.042	4.421	0.947	63.779	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.199	SLU 82	Si
V_SLU	1.832	SLU 73	Si
PF_SLV	0	SLV 13	No
V_SLV	0	SLV 13	No
PFFP_SLV	7.391	SLV 11	Si
R_SLV	0.067	SLV 1	No

Maschio 64

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1961.8	104.6	-1961.8	581.1	L3	L4	476.5	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	110	-52264	2024248	7.83	476311	0.235	No, M>Mu
SLU 83	483	-37186	-59981	5.57	2797185	46.634	Si
SLU 80	110	-51357	1996567	7.7	672200	0.337	No, M>Mu
SLU 80	483	-37314	-6820	5.59	2785805	408.47	Si
SLU 84	110	-52080	2033615	7.81	516739	0.254	No, M>Mu
SLU 84	483	-37123	-56066	5.56	2802693	49.989	Si
SLU 79	110	-51542	1987200	7.73	632940	0.319	No, M>Mu
SLU 79	483	-37377	-10735	5.6	2780191	258.982	Si
SLU 75	110	-50448	1975125	7.56	861396	0.436	No, M>Mu
SLU 75	483	-35843	-49619	5.37	2907218	58.591	Si
SLU 74	110	-50632	1965758	7.59	823606	0.419	No, M>Mu
SLU 74	483	-35905	-53534	5.38	2902416	54.216	Si
SLU 82	110	-50764	1999904	7.61	796400	0.398	No, M>Mu
SLU 82	483	-35420	-85854	5.31	2938577	34.227	Si
SLU 81	110	-50949	1990538	7.64	758098	0.381	No, M>Mu
SLU 81	483	-35483	-89769	5.32	2934008	32.684	Si
SLU 78	110	-51763	2008835	7.76	585383	0.291	No, M>Mu
SLU 78	483	-37545	-19831	5.63	2765022	139.432	Si
SLU 77	110	-51948	1999469	7.79	545466	0.273	No, M>Mu
SLU 77	483	-37608	-23746	5.64	2759281	116.202	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 16	110	-34463	1701990	5.17	4739544	2.785	Si
SLD 16	483	-23346	205945	3.5	3969318	19.274	Si
SLD 15	110	-34463	1701990	5.17	4739544	2.785	Si
SLD 15	483	-23346	205945	3.5	3969318	19.274	Si
SLD 14	110	-32247	1625759	4.83	4643669	2.856	Si
SLD 14	483	-22366	234646	3.35	3866697	16.479	Si
SLV 16	110	-34887	2172698	5.23	4754596	2.188	Si
SLV 16	483	-23110	519210	3.46	3945084	7.598	Si
SLV 13	110	-29646	1986257	4.44	4494494	2.263	Si
SLV 13	483	-20810	590106	3.12	3692389	6.257	Si
SLD 13	110	-32247	1625759	4.83	4643669	2.856	Si
SLD 13	483	-22366	234646	3.35	3866697	16.479	Si
SLV 12	110	-42354	1885562	6.35	4847872	2.571	Si
SLV 12	483	-26897	28985	4.03	4293871	148.139	Si
SLV 15	110	-34887	2172698	5.23	4754596	2.188	Si
SLV 15	483	-23110	519210	3.46	3945084	7.598	Si
SLV 14	110	-29646	1986257	4.44	4494494	2.263	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	483	-20810	590106	3.12	3692389	6.257	Si
SLV 11	110	-42354	1885562	6.35	4847872	2.571	Si
SLV 11	483	-26897	28985	4.03	4293871	148.139	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	110	-49919	2866	1969101		7.48	476.52	1.08	7227			2.52	Si
SLU 76	483	-35570	494	-33998		5.33	476.52	1.08	7227			14.64	Si
SLU 84	110	-52080	3087	2033615		7.81	476.52	1.08	7227			2.34	Si
SLU 84	483	-37123	653	-56066		5.56	476.52	1.08	7227			11.07	Si
SLU 77	110	-51948	2891	1999469		7.79	476.52	1.08	7227			2.5	Si
SLU 77	483	-37608	370	-23746		5.64	476.52	1.08	7227			19.55	Si
SLU 75	110	-50448	2967	1975125		7.56	476.52	1.08	7227			2.44	Si
SLU 75	483	-35843	603	-49619		5.37	476.52	1.08	7227			11.98	Si
SLU 82	110	-50764	3190	1999904		7.61	476.52	1.08	7227			2.27	Si
SLU 82	483	-35420	916	-85854		5.31	476.52	1.08	7227			7.89	Si
SLU 78	110	-51763	2864	2008835		7.76	476.52	1.08	7227			2.52	Si
SLU 78	483	-37545	341	-19831		5.63	476.52	1.08	7227			21.22	Si
SLU 83	110	-52264	3114	2024248		7.83	476.52	1.08	7227			2.32	Si
SLU 83	483	-37186	682	-59981		5.57	476.52	1.08	7227			10.6	Si
SLU 73	110	-48604	2968	1935390		7.29	476.52	1.08	7227			2.43	Si
SLU 73	483	-33867	757	-63787		5.08	476.52	1.08	7227			9.55	Si
SLU 81	110	-50949	3217	1990538		7.64	476.52	1.08	7227			2.25	Si
SLU 81	483	-35483	945	-89769		5.32	476.52	1.08	7227			7.65	Si
SLU 74	110	-50632	2994	1965758		7.59	476.52	1.08	7227			2.41	Si
SLU 74	483	-35905	633	-53534		5.38	476.52	1.08	7227			11.42	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	110	-43514	16840	1453004		6.52	476.52	1.63	10841			0.64	No, Vu<V
SLV 7	483	-27844	12963	-320312		4.17	476.52	1.63	10841			0.84	No, Vu<V
SLV 3	110	-38754	10644	730838		5.81	476.52	1.63	10841			1.02	Si
SLV 3	483	-26266	8387	-645114		3.94	476.52	1.62	10812			1.29	Si
SLV 6	110	-26046	-10061	831532		3.9	476.52	1.61	10769			1.07	Si
SLV 6	483	-20178	-9334	-83993		3.02	476.52	1.44	9595			1.03	Si
SLV 4	110	-38754	10644	730838		5.81	476.52	1.63	10841			1.02	Si
SLV 4	483	-26266	8387	-645114		3.94	476.52	1.62	10812			1.29	Si
SLV 11	110	-42354	14080	1885562		6.35	476.52	1.63	10841			0.77	No, Vu<V
SLV 11	483	-26897	10196	28985		4.03	476.52	1.63	10841			1.06	Si
SLV 5	110	-26046	-10061	831532		3.9	476.52	1.61	10769			1.07	Si
SLV 5	483	-20178	-9334	-83993		3.02	476.52	1.44	9595			1.03	Si
SLV 10	110	-24886	-12821	1264091		3.73	476.52	1.58	10537			0.82	No, Vu<V
SLV 10	483	-19232	-12101	265304		2.88	476.52	1.41	9406			0.78	No, Vu<V
SLV 8	110	-43514	16840	1453004		6.52	476.52	1.63	10841			0.64	No, Vu<V
SLV 8	483	-27844	12963	-320312		4.17	476.52	1.63	10841			0.84	No, Vu<V
SLV 9	110	-24886	-12821	1264091		3.73	476.52	1.58	10537			0.82	No, Vu<V
SLV 9	483	-19232	-12101	265304		2.88	476.52	1.41	9406			0.78	No, Vu<V
SLV 12	110	-42354	14080	1885562		6.35	476.52	1.63	10841			0.77	No, Vu<V
SLV 12	483	-26897	10196	28985		4.03	476.52	1.63	10841			1.06	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.31	3.56	-23768	23364	117862	5.04	Si
SLV 10	14	0.31	3.56	-23768	23364	117862	5.04	Si
SLV 6	14	0.31	3.6	-23991	23364	118510	5.07	Si
SLV 5	14	0.31	3.6	-23991	23364	118510	5.07	Si
SLV 14	14	0.31	4.06	-27099	23364	126630	5.42	Si
SLV 13	14	0.31	4.06	-27099	23364	126630	5.42	Si
SLV 2	14	0.31	4.17	-27844	23364	128329	5.49	Si
SLV 1	14	0.31	4.17	-27844	23364	128329	5.49	Si
SLV 16	14	0.31	4.52	-30178	23364	133038	5.69	Si
SLV 15	14	0.31	4.52	-30178	23364	133038	5.69	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-27844	-43514	39	0.019	31.852	0.967	28.347	1401.525	No
SLV 7	-27844	-43514	39	0.019	31.852	0.967	28.347	1401.525	No
SLV 10	-19232	-24886	-41	0.019	23.091	0.955	28.644	1401.525	No
SLV 9	-19232	-24886	-41	0.019	23.091	0.955	28.644	1401.525	No
SLV 12	-26897	-42354	33	0.019	30.888	0.966	28.691	1401.525	No
SLV 11	-26897	-42354	33	0.019	30.888	0.966	28.691	1401.525	No
SLV 6	-20178	-26046	-35	0.019	24.054	0.957	29.001	1401.525	No
SLV 5	-20178	-26046	-35	0.019	24.054	0.957	29.001	1401.525	No
SLV 4	-26266	-38754	20	0.02	30.245	0.965	29.399	1401.525	No
SLV 3	-26266	-38754	20	0.02	30.245	0.965	29.399	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.235	SLU 83	No
V_SLU	2.247	SLU 81	Si
PF_SLV	2.188	SLV 15	Si
V_SLV	0.644	SLV 7	No
PFFP_SLV	5.045	SLV 9	Si
R_SLV	0.02	SLV 7	No



Maschio 65

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	595.1	-1961.8	666.1	L3	L4	71	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 78	110	-16451	-94781	8.28	0	0	No, Rottura per schiacciamento
SLU 78	483	-8644	5722	4.35	143065	25.002	Si
SLU 75	110	-16193	-93582	8.15	40	0	No, M>Mu
SLU 75	483	-8144	8645	4.1	143716	16.625	Si
SLU 84	110	-16720	-96598	8.41	0	0	No, Rottura per schiacciamento
SLU 84	483	-8427	9148	4.24	143483	15.685	Si
SLU 79	110	-16316	-94006	8.21	0	0	No, Rottura per schiacciamento
SLU 79	483	-8633	4979	4.34	143091	28.738	Si
SLU 74	110	-16199	-93735	8.15	0	0	No, Rottura per schiacciamento
SLU 74	483	-8146	8625	4.1	143716	16.662	Si
SLU 82	110	-16462	-95399	8.28	0	0	No, Rottura per schiacciamento
SLU 82	483	-7926	12070	3.99	143657	11.902	Si
SLU 80	110	-16311	-93853	8.2	0	0	No, Rottura per schiacciamento
SLU 80	483	-8630	4998	4.34	143098	28.628	Si
SLU 81	110	-16468	-95552	8.28	0	0	No, Rottura per schiacciamento
SLU 81	483	-7929	12051	3.99	143659	11.921	Si
SLU 77	110	-16457	-94934	8.28	0	0	No, Rottura per schiacciamento
SLU 77	483	-8647	5703	4.35	143058	25.085	Si
SLU 83	110	-16726	-96751	8.41	0	0	No, Rottura per schiacciamento
SLU 83	483	-8429	9129	4.24	143479	15.718	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 6	110	-6816	-79935	3.43	174070	2.178	Si
SLV 6	483	-1809	35759	0.91	59446	1.662	Si
SLV 2	110	-10740	-123119	5.4	212697	1.728	Si
SLV 2	483	-1234	62773	0	0	0	No, e>l/2
SLV 3	110	-13473	-124322	6.78	213004	1.713	Si
SLV 3	483	-2749	54726	1.38	86557	1.582	Si
SLV 5	110	-6816	-79935	3.43	174070	2.178	Si
SLV 5	483	-1809	35759	0.91	59446	1.662	Si
SLD 1	110	-10938	-89128	5.5	213451	2.395	Si
SLD 1	483	-3591	30688	1.81	108645	3.54	Si
SLV 1	110	-10740	-123119	5.4	212697	1.728	Si
SLV 1	483	-1234	62773	0	0	0	No, e>l/2
SLV 4	110	-13473	-124322	6.78	213004	1.713	Si
SLV 4	483	-2749	54726	1.38	86557	1.582	Si
SLD 2	110	-10938	-89128	5.5	213451	2.395	Si
SLD 2	483	-3591	30688	1.81	108645	3.54	Si
SLV 8	110	-15926	-83946	8.01	194698	2.319	Si
SLV 8	483	-6861	8936	3.45	174763	19.558	Si
SLV 7	110	-15926	-83946	8.01	194698	2.319	Si
SLV 7	483	-6861	8936	3.45	174763	19.558	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	110	-16726	-2602	-96751		8.41	71	1.08	2154			0.83	No, Vu<V
SLU 83	483	-8429	-916	9129		4.24	71	1.08	2154			2.35	Si
SLU 79	110	-16316	-2499	-94006		8.21	71	1.08	2154			0.86	No, Vu<V
SLU 79	483	-8633	-701	4979		4.34	71	1.08	2154			3.07	Si
SLU 80	110	-16311	-2497	-93853		8.2	71	1.08	2154			0.86	No, Vu<V
SLU 80	483	-8630	-703	4998		4.34	71	1.08	2154			3.07	Si
SLU 82	110	-16462	-2591	-95399		8.28	71	1.08	2154			0.83	No, Vu<V
SLU 82	483	-7926	-1055	12070		3.99	71	1.08	2154			2.04	Si
SLU 84	110	-16720	-2600	-96598		8.41	71	1.08	2154			0.83	No, Vu<V
SLU 84	483	-8427	-918	9148		4.24	71	1.08	2154			2.35	Si
SLU 74	110	-16199	-2521	-93735		8.15	71	1.08	2154			0.85	No, Vu<V
SLU 74	483	-8146	-882	8625		4.1	71	1.08	2154			2.44	Si
SLU 78	110	-16451	-2526	-94781		8.28	71	1.08	2154			0.85	No, Vu<V
SLU 78	483	-8644	-746	5722		4.35	71	1.08	2154			2.89	Si
SLU 75	110	-16193	-2518	-93582		8.15	71	1.08	2154			0.86	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 75	483	-8144	-883	8645		4.1	71	1.08	2154			2.44	Si
SLU 77	110	-16457	-2529	-94934		8.28	71	1.08	2154			0.85	No, Vu<V
SLU 77	483	-8647	-744	5703		4.35	71	1.08	2154			2.89	Si
SLU 81	110	-16468	-2594	-95552		8.28	71	1.08	2154			0.83	No, Vu<V
SLU 81	483	-7929	-1053	12051		3.99	71	1.08	2154			2.04	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 4	110	-12083	-3087	-89637		6.08	71	1.63	3230			1.05	Si
SLD 4	483	-4228	-1787	27302		2.13	71	1.26	2502			1.4	Si
SLV 3	110	-13473	-4975	-124322		6.78	71	1.63	3230			0.65	No, Vu<V
SLV 3	483	-2749	-3297	54726		2.1	46.79	1.25	1642			0.5	No, Vu<V
SLD 3	110	-12083	-3087	-89637		6.08	71	1.63	3230			1.05	Si
SLD 3	483	-4228	-1787	27302		2.13	71	1.26	2502			1.4	Si
SLV 5	110	-6816	-620	-79935		3.43	71	1.52	3020			4.87	Si
SLV 5	483	-1809	-3127	35759		1.37	47.21	1.11	1463			0.47	No, Vu<V
SLV 7	110	-15926	-4445	-83946		8.01	71	1.63	3230			0.73	No, Vu<V
SLV 7	483	-6861	-32	8936		3.45	71	1.52	3029			94.31	Si
SLV 2	110	-10740	-3827	-123119		5.4	71	1.63	3230			0.84	No, Vu<V
SLV 2	483	-1234	-4225	62773		0	0	0.83	0			0	No, Vu<V
SLV 8	110	-15926	-4445	-83946		8.01	71	1.63	3230			0.73	No, Vu<V
SLV 8	483	-6861	-32	8936		3.45	71	1.52	3029			94.31	Si
SLV 6	110	-6816	-620	-79935		3.43	71	1.52	3020			4.87	Si
SLV 6	483	-1809	-3127	35759		1.37	47.21	1.11	1463			0.47	No, Vu<V
SLV 4	110	-13473	-4975	-124322		6.78	71	1.63	3230			0.65	No, Vu<V
SLV 4	483	-2749	-3297	54726		2.1	46.79	1.25	1642			0.5	No, Vu<V
SLV 1	110	-10740	-3827	-123119		5.4	71	1.63	3230			0.84	No, Vu<V
SLV 1	483	-1234	-4225	62773		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.31	2.23	-4438	6660	50777	7.62	Si
SLV 10	14	0.31	2.23	-4438	6660	50777	7.62	Si
SLV 6	14	0.31	2.34	-4657	6660	52702	7.91	Si
SLV 5	14	0.31	2.34	-4657	6660	52702	7.91	Si
SLV 13	14	0.31	3.35	-6661	6660	67684	10.16	Si
SLV 14	14	0.31	3.35	-6661	6660	67684	10.16	Si
SLV 1	14	0.31	3.72	-7394	6660	72006	10.81	Si
SLV 2	14	0.31	3.72	-7394	6660	72006	10.81	Si
SLV 16	14	0.31	4.42	-8787	6660	78518	11.79	Si
SLV 15	14	0.31	4.42	-8787	6660	78518	11.79	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 5	-1809	-6816	-178	0	2.918	0.91	0	853.756	No
SLV 6	-1809	-6816	-178	0	2.918	0.91	0	853.756	No
SLV 2	-1234	-10740	-85	0.006	2.351	0.898	10.067	942.914	No
SLV 1	-1234	-10740	-85	0.006	2.351	0.898	10.067	942.914	No
SLV 9	-3818	-6185	-158	0.008	4.939	0.94	12.33	853.756	No
SLV 10	-3818	-6185	-158	0.008	4.939	0.94	12.33	853.756	No
SLV 8	-6861	-15926	157	0.02	8.03	0.961	30.158	853.756	No
SLV 7	-6861	-15926	157	0.02	8.03	0.961	30.158	853.756	No
SLV 11	-8869	-15295	178	0.021	10.074	0.968	32.262	853.756	No
SLV 12	-8869	-15295	178	0.021	10.074	0.968	32.262	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 74	No
V_SLU	0.828	SLU 83	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	7.625	SLV 9	Si
R_SLV	0	SLV 5	No

Maschio 66

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1638.3	-335.9	-1731.3	-335.9	L3	L4	93	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	200	-17457	157186	6.7	143696	0.914	No, M>Mu
SLU 76	390	-12889	113666	4.95	235158	2.069	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	200	-17564	144266	6.75	140446	0.974	No, M>Mu
SLU 82	390	-13750	126947	5.28	224912	1.772	Si
SLU 77	200	-16867	138471	6.48	160656	1.16	Si
SLU 77	390	-13350	122884	5.13	230076	1.872	Si
SLU 83	200	-17248	136737	6.62	149880	1.096	Si
SLU 83	390	-13909	129926	5.34	222663	1.714	Si
SLU 84	200	-17795	152114	6.83	133280	0.876	No, M>Mu
SLU 84	390	-13687	123740	5.26	225776	1.825	Si
SLU 75	200	-17183	146000	6.6	151751	1.039	Si
SLU 75	390	-13191	119905	5.07	231936	1.934	Si
SLU 79	200	-16775	139406	6.44	163147	1.17	Si
SLU 79	390	-13197	120769	5.07	231873	1.92	Si
SLU 78	200	-17414	153848	6.69	144971	0.942	No, M>Mu
SLU 78	390	-13128	116697	5.04	232645	1.994	Si
SLU 73	200	-17226	149338	6.62	150519	1.008	Si
SLU 73	390	-12952	116873	4.97	234515	2.007	Si
SLU 80	200	-17323	154783	6.65	147680	0.954	No, M>Mu
SLU 80	390	-12974	114583	4.98	234291	2.045	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	200	-16057	301125	6.17	369848	1.228	Si
SLV 2	390	-8999	40206	3.46	300108	7.464	Si
SLV 4	200	-14312	366190	5.5	366156	1	No, M>Mu
SLV 4	390	-3340	-68642	1.28	139011	2.025	Si
SLV 8	200	-9679	269578	3.72	313166	1.162	Si
SLV 8	390	1101	-123504	0	0	0	No, Trazione
SLV 1	200	-16057	301125	6.17	369848	1.228	Si
SLV 1	390	-8999	40206	3.46	300108	7.464	Si
SLV 7	200	-9679	269578	3.72	313166	1.162	Si
SLV 7	390	1101	-123504	0	0	0	No, Trazione
SLV 3	200	-14312	366190	5.5	366156	1	No, M>Mu
SLV 3	390	-3340	-68642	1.28	139011	2.025	Si
SLV 10	200	-13266	-95180	5.09	359673	3.779	Si
SLV 10	390	-19615	301147	7.53	349804	1.162	Si
SLV 12	200	-7452	121702	2.86	265366	2.18	Si
SLV 12	390	-751	-61680	0	0	0	No, e>l/2
SLV 9	200	-13266	-95180	5.09	359673	3.779	Si
SLV 9	390	-19615	301147	7.53	349804	1.162	Si
SLV 11	200	-7452	121702	2.86	265366	2.18	Si
SLV 11	390	-751	-61680	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	200	-17323	1619	154783		6.65	93	1.08	2821			1.74	Si
SLU 80	390	-12974	-487	114583		4.98	93	1.08	2821			5.79	Si
SLU 58	200	-15491	1539	129766		5.95	93	1.08	2821			1.83	Si
SLU 58	390	-12018	-464	110308		4.62	93	1.08	2821			6.08	Si
SLU 78	200	-17414	1592	153848		6.69	93	1.08	2821			1.77	Si
SLU 78	390	-13128	-502	116697		5.04	93	1.08	2821			5.62	Si
SLU 59	200	-16038	1530	145143		6.16	93	1.08	2821			1.84	Si
SLU 59	390	-11796	-489	104122		4.53	93	1.08	2821			5.77	Si
SLU 57	200	-16130	1504	144209		6.19	93	1.08	2821			1.88	Si
SLU 57	390	-11950	-504	106237		4.59	93	1.08	2821			5.6	Si
SLU 77	200	-16867	1601	138471		6.48	93	1.08	2821			1.76	Si
SLU 77	390	-13350	-477	122884		5.13	93	1.08	2821			5.91	Si
SLU 79	200	-16775	1628	139406		6.44	93	1.08	2821			1.73	Si
SLU 79	390	-13197	-462	120769		5.07	93	1.08	2821			6.1	Si
SLU 83	200	-17248	1558	136737		6.62	93	1.08	2821			1.81	Si
SLU 83	390	-13909	-519	129926		5.34	93	1.08	2821			5.44	Si
SLU 56	200	-15582	1513	128831		5.98	93	1.08	2821			1.86	Si
SLU 56	390	-12172	-479	112423		4.67	93	1.08	2821			5.89	Si
SLU 84	200	-17795	1548	152114		6.83	93	1.08	2821			1.82	Si
SLU 84	390	-13687	-543	123740		5.26	93	1.08	2821			5.19	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	200	-7452	-919	121702		2.94	90.51	1.42	3602			3.92	Si
SLV 12	390	-751	568	-61680		0	0	0.83	0			0	No, Vu<V
SLV 11	200	-7452	-919	121702		2.94	90.51	1.42	3602			3.92	Si
SLV 11	390	-751	568	-61680		0	0	0.83	0			0	No, Vu<V
SLV 1	200	-16057	5925	301125		6.89	83.24	1.63	3787			0.64	No, Vu<V
SLV 1	390	-8999	1139	40206		3.46	93	1.52	3970			3.49	Si
SLV 2	200	-16057	5925	301125		6.89	83.24	1.63	3787			0.64	No, Vu<V
SLV 2	390	-8999	1139	40206		3.46	93	1.52	3970			3.49	Si
SLV 3	200	-14312	5675	366190		8.15	62.74	1.63	2855			0.5	No, Vu<V
SLV 3	390	-3340	2095	-68642		1.53	77.85	1.14	2484			1.19	Si
SLV 16	200	-6889	-4022	-126728		2.92	84.31	1.42	3345			0.83	No, Vu<V
SLV 16	390	-9515	-1969	137438		3.65	93	1.56	4073			2.07	Si
SLV 8	200	-9679	1990	269578		6.18	55.95	1.63	2546			1.28	Si
SLV 8	390	1101	1787	-123504		0	0	0.83	0			0	No, Vu<V
SLV 7	200	-9679	1990	269578		6.18	55.95	1.63	2546			1.28	Si
SLV 7	390	1101	1787	-123504		0	0	0.83	0			0	No, Vu<V
SLV 4	200	-14312	5675	366190		8.15	62.74	1.63	2855			0.5	No, Vu<V
SLV 4	390	-3340	2095	-68642		1.53	77.85	1.14	2484			1.19	Si
SLV 15	200	-6889	-4022	-126728		2.92	84.31	1.42	3345			0.83	No, Vu<V
SLV 15	390	-9515	-1969	137438		3.65	93	1.56	4073			2.07	Si



Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	1.73	-4507	8525	54160	6.35	Si
SLV 12	14	0.31	1.73	-4507	8525	54160	6.35	Si
SLV 15	14	0.31	2.22	-5787	8525	66285	7.78	Si
SLV 16	14	0.31	2.22	-5787	8525	66285	7.78	Si
SLV 8	14	0.31	2.64	-6866	8525	75380	8.84	Si
SLV 7	14	0.31	2.64	-6866	8525	75380	8.84	Si
SLV 14	14	0.31	3.55	-9244	8525	91814	10.77	Si
SLV 13	14	0.31	3.55	-9244	8525	91814	10.77	Si
SLV 6	14	0.31	7.06	-18387	8525	108660	12.75	Si
SLV 5	14	0.31	7.06	-18387	8525	108660	12.75	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 7	-3098	-2705	68	0.029	4.549	0.921	45.277	853.756	No
SLV 8	-3098	-2705	68	0.029	4.549	0.921	45.277	853.756	No
SLV 12	-4931	-2926	67	0.032	6.4	0.94	48.986	853.756	No
SLV 11	-4931	-2926	67	0.032	6.4	0.94	48.986	853.756	No
SLV 16	-9131	-7783	22	0.039	10.665	0.962	58.284	942.914	No
SLV 15	-9131	-7783	22	0.039	10.665	0.962	58.284	942.914	No
SLV 14	-10898	-11726	-14	0.039	12.463	0.967	58.779	942.914	No
SLV 13	-10898	-11726	-14	0.039	12.463	0.967	58.779	942.914	No
SLV 6	-8986	-15847	-55	0.035	10.517	0.961	53.366	853.756	No
SLV 5	-8986	-15847	-55	0.035	10.517	0.961	53.366	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.876	SLU 84	No
V_SLU	1.733	SLU 79	Si
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 7	No
PFFP_SLV	6.353	SLV 11	Si
R_SLV	0.053	SLV 7	No

Maschio 67

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1844.8	-335.9	-1844.8	104.6	L3	L4	440.6	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 47	110	-17535	-535148	2.84	2514573	4.699	Si
SLU 47	483	-18054	272118	2.93	2547936	9.363	Si
SLU 76	110	-21723	-556075	3.52	2716316	4.885	Si
SLU 76	483	-23012	421385	3.73	2747446	6.52	Si
SLU 52	110	-19509	-591115	3.16	2628831	4.447	Si
SLU 52	483	-20177	317356	3.27	2659769	8.381	Si
SLU 55	110	-19725	-555937	3.2	2639250	4.747	Si
SLU 55	483	-20617	342916	3.34	2677972	7.809	Si
SLU 10	110	-16219	-497383	2.63	2419501	4.864	Si
SLU 10	483	-16887	277976	2.74	2469637	8.884	Si
SLU 68	110	-19533	-535286	3.17	2630019	4.913	Si
SLU 68	483	-20449	350587	3.32	2671247	7.619	Si
SLU 44	110	-17319	-570326	2.81	2500008	4.383	Si
SLU 44	483	-17614	246558	2.86	2519860	10.22	Si
SLU 65	110	-19317	-570464	3.13	2619236	4.591	Si
SLU 65	483	-20010	325028	3.24	2652401	8.161	Si
SLU 73	110	-21507	-591253	3.49	2709679	4.583	Si
SLU 73	483	-22573	395825	3.66	2738473	6.918	Si
SLU 2	110	-14029	-476594	2.27	2227508	4.674	Si
SLU 2	483	-14324	207178	2.32	2255783	10.888	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 14	110	-14041	-866053	2.28	2516826	2.906	Si
SLV 14	483	-12600	458888	2.04	2311585	5.037	Si
SLV 6	110	-17723	-1035017	2.87	2986019	2.885	Si
SLV 6	483	-17094	293027	2.77	2911444	9.936	Si
SLV 13	110	-14041	-866053	2.28	2516826	2.906	Si
SLV 13	483	-12600	458888	2.04	2311585	5.037	Si
SLV 9	110	-16960	-1218069	2.75	2895225	2.377	Si
SLV 9	483	-15380	395668	2.49	2696556	6.815	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 9	110	-15492	-691770	2.51	2711106	3.919	Si
SLD 9	483	-15229	319045	2.47	2676789	8.39	Si
SLD 10	110	-15492	-691770	2.51	2711106	3.919	Si
SLD 10	483	-15229	319045	2.47	2676789	8.39	Si
SLV 7	110	-11931	580918	1.93	2212107	3.808	Si
SLV 7	483	-14866	131519	2.41	2628781	19.988	Si
SLV 8	110	-11931	580918	1.93	2212107	3.808	Si
SLV 8	483	-14866	131519	2.41	2628781	19.988	Si
SLV 10	110	-16960	-1218069	2.75	2895225	2.377	Si
SLV 10	483	-15380	395668	2.49	2696556	6.815	Si
SLV 5	110	-17723	-1035017	2.87	2986019	2.885	Si
SLV 5	483	-17094	293027	2.77	2911444	9.936	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 31	110	-18218	-2142	-497522		2.95	440.57	0.95	5856			2.73	Si
SLU 31	483	-19282	-1346	356445		3.13	440.57	0.97	5998			4.46	Si
SLU 13	110	-16435	-1867	-462205		2.66	440.57	0.91	5618			3.01	Si
SLU 13	483	-17326	-1105	303535		2.81	440.57	0.93	5737			5.19	Si
SLU 10	110	-16219	-2244	-497383		2.63	440.57	0.91	5589			2.49	Si
SLU 10	483	-16887	-1484	277976		2.74	440.57	0.92	5678			3.83	Si
SLU 52	110	-19509	-2279	-591115		3.16	440.57	0.98	6028			2.65	Si
SLU 52	483	-20177	-1440	317356		3.27	440.57	0.99	6117			4.25	Si
SLU 5	110	-14245	-1810	-441416		2.31	440.57	0.86	5326			2.94	Si
SLU 5	483	-14763	-1089	232738		2.39	440.57	0.87	5395			4.95	Si
SLU 23	110	-16028	-2085	-476733		2.6	440.57	0.9	5564			2.67	Si
SLU 23	483	-16720	-1330	285648		2.71	440.57	0.92	5656			4.25	Si
SLU 44	110	-17319	-2222	-570326		2.81	440.57	0.93	5736			2.58	Si
SLU 44	483	-17614	-1425	246558		2.86	440.57	0.94	5775			4.05	Si
SLU 73	110	-21507	-2177	-591253		3.49	440.57	1.02	6294			2.89	Si
SLU 73	483	-22573	-1302	395825		3.66	440.57	1.04	6436			4.94	Si
SLU 2	110	-14029	-2187	-476594		2.27	440.57	0.86	5297			2.42	Si
SLU 2	483	-14324	-1469	207178		2.32	440.57	0.87	5337			3.63	Si
SLU 65	110	-19317	-2120	-570464		3.13	440.57	0.97	6002			2.83	Si
SLU 65	483	-20010	-1286	325028		3.24	440.57	0.99	6095			4.74	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	110	-11167	15550	397865		1.81	440.57	1.2	7373			0.47	No, Vu<V
SLV 12	483	-13152	11407	234161		2.13	440.57	1.26	7770			0.68	No, Vu<V
SLD 7	110	-13399	6740	54618		2.17	440.57	1.27	7820			1.16	Si
SLD 7	483	-15017	4921	208142		2.43	440.57	1.32	8143			1.65	Si
SLV 10	110	-16960	-16264	-1218069		2.75	440.57	1.38	8532			0.52	No, Vu<V
SLV 10	483	-15380	-10616	395668		2.49	440.57	1.33	8216			0.77	No, Vu<V
SLV 11	110	-11167	15550	397865		1.81	440.57	1.2	7373			0.47	No, Vu<V
SLV 11	483	-13152	11407	234161		2.13	440.57	1.26	7770			0.68	No, Vu<V
SLV 5	110	-17723	-15523	-1035017		2.87	440.57	1.41	8685			0.56	No, Vu<V
SLV 5	483	-17094	-10727	293027		2.77	440.57	1.39	8559			0.8	No, Vu<V
SLV 9	110	-16960	-16264	-1218069		2.75	440.57	1.38	8532			0.52	No, Vu<V
SLV 9	483	-15380	-10616	395668		2.49	440.57	1.33	8216			0.77	No, Vu<V
SLV 8	110	-11931	16291	580918		1.93	440.57	1.22	7526			0.46	No, Vu<V
SLV 8	483	-14866	11296	131519		2.41	440.57	1.32	8113			0.72	No, Vu<V
SLV 6	110	-17723	-15523	-1035017		2.87	440.57	1.41	8685			0.56	No, Vu<V
SLV 6	483	-17094	-10727	293027		2.77	440.57	1.39	8559			0.8	No, Vu<V
SLV 7	110	-11931	16291	580918		1.93	440.57	1.22	7526			0.46	No, Vu<V
SLV 7	483	-14866	11296	131519		2.41	440.57	1.32	8113			0.72	No, Vu<V
SLD 8	110	-13399	6740	54618		2.17	440.57	1.27	7820			1.16	Si
SLD 8	483	-15017	4921	208142		2.43	440.57	1.32	8143			1.65	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.31	1.95	-11999	21601	70621	3.27	Si
SLV 15	14	0.31	1.95	-11999	21601	70621	3.27	Si
SLV 14	14	0.31	2.04	-12594	21601	73426	3.4	Si
SLV 13	14	0.31	2.04	-12594	21601	73426	3.4	Si
SLV 11	14	0.31	2.27	-14023	21601	79898	3.7	Si
SLV 12	14	0.31	2.27	-14023	21601	79898	3.7	Si
SLV 9	14	0.31	2.59	-16006	21601	88246	4.09	Si
SLV 10	14	0.31	2.59	-16006	21601	88246	4.09	Si
SLV 7	14	0.31	2.65	-16353	21601	89633	4.15	Si
SLV 8	14	0.31	2.65	-16353	21601	89633	4.15	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-18314	-16587	40	0.019	21.891	0.956	28.414	1401.525	No
SLV 2	-18314	-16587	40	0.019	21.891	0.956	28.414	1401.525	No
SLV 3	-17645	-14849	35	0.019	21.212	0.955	28.825	1401.525	No
SLV 4	-17645	-14849	35	0.019	21.212	0.955	28.825	1401.525	No
SLV 15	-11932	-12304	-38	0.019	15.413	0.941	29.137	1401.525	No
SLV 16	-11932	-12304	-38	0.019	15.413	0.941	29.137	1401.525	No
SLV 14	-12600	-14041	-33	0.019	16.09	0.943	29.578	1401.525	No
SLV 13	-12600	-14041	-33	0.019	16.09	0.943	29.578	1401.525	No
SLV 6	-17094	-17723	20	0.02	20.651	0.954	30.053	1401.525	No
SLV 5	-17094	-17723	20	0.02	20.651	0.954	30.053	1401.525	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.383	SLU 44	Si
V_SLU	2.422	SLU 2	Si
PF_SLV	2.377	SLV 9	Si
V_SLV	0.462	SLV 7	No
PFFP_SLV	3.269	SLV 15	Si
R_SLV	0.02	SLV 1	No

Maschio 68

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1375.3	-335.9	-1548.3	-335.9	L3	L4	173	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 75	110	-11253	-576928	2.32	695771	1.206	Si
SLU 75	320	-16417	-151047	3.39	829239	5.49	Si
SLU 84	110	-11608	-597795	2.4	708710	1.186	Si
SLU 84	320	-16982	-157560	3.51	836740	5.311	Si
SLU 80	110	-11356	-572966	2.34	699588	1.221	Si
SLU 80	320	-16348	-168128	3.37	828220	4.926	Si
SLU 76	110	-11245	-579188	2.32	695499	1.201	Si
SLU 76	320	-16446	-144604	3.4	829654	5.737	Si
SLU 73	110	-11091	-579381	2.29	689718	1.19	Si
SLU 73	320	-16389	-130587	3.38	828823	6.347	Si
SLU 83	110	-11543	-588751	2.38	706384	1.2	Si
SLU 83	320	-16749	-171820	3.46	833814	4.853	Si
SLU 81	110	-11389	-588944	2.35	700803	1.19	Si
SLU 81	320	-16692	-157803	3.45	833060	5.279	Si
SLU 74	110	-11187	-567884	2.31	693343	1.221	Si
SLU 74	320	-16184	-165307	3.34	825736	4.995	Si
SLU 82	110	-11454	-597988	2.36	703174	1.176	Si
SLU 82	320	-16924	-143543	3.49	836044	5.824	Si
SLU 78	110	-11407	-576734	2.35	701444	1.216	Si
SLU 78	320	-16474	-165064	3.4	830062	5.029	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	110	-8873	-726281	1.83	652474	0.898	No, M>Mu
SLV 15	320	-17533	288943	3.62	1067358	3.694	Si
SLV 7	110	-5444	-96074	1.12	427620	4.451	Si
SLV 7	320	-3459	-386765	0	0	0	No, e>l/2
SLV 2	110	-6829	-67390	1.41	522537	7.754	Si
SLV 2	320	-4981	-517679	0	0	0	No, e>l/2
SLV 3	110	-5673	43763	1.17	443668	10.138	Si
SLV 3	320	-1725	-601021	0	0	0	No, e>l/2
SLV 4	110	-5673	43763	1.17	443668	10.138	Si
SLV 4	320	-1725	-601021	0	0	0	No, e>l/2
SLV 8	110	-5444	-96074	1.12	427620	4.451	Si
SLV 8	320	-3459	-386765	0	0	0	No, e>l/2
SLV 16	110	-8873	-726281	1.83	652474	0.898	No, M>Mu
SLV 16	320	-17533	288943	3.62	1067358	3.694	Si
SLV 1	110	-6829	-67390	1.41	522537	7.754	Si
SLV 1	320	-4981	-517679	0	0	0	No, e>l/2
SLV 14	110	-10029	-837434	2.07	720530	0.86	No, M>Mu
SLV 14	320	-20789	372285	4.29	1166646	3.134	Si
SLV 13	110	-10029	-837434	2.07	720530	0.86	No, M>Mu
SLV 13	320	-20789	372285	4.29	1166646	3.134	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	110	-11608	-5563	-597795		3.95	105.01	1.08	3181			0.57	No, Vu<V
SLU 84	320	-16982	-5605	-157560		3.51	173	1.02	4955			0.88	No, Vu<V
SLU 31	110	-9088	-4702	-483689		3.25	99.83	0.99	2765			0.59	No, Vu<V
SLU 31	320	-13677	-4754	-97892		2.82	173	0.93	4515			0.95	No, Vu<V
SLU 76	110	-11245	-5463	-579188		3.83	104.98	1.07	3132			0.57	No, Vu<V
SLU 76	320	-16446	-5458	-144604		3.4	173	1.01	4884			0.89	No, Vu<V
SLU 83	110	-11543	-5384	-588751		3.87	106.49	1.07	3196			0.59	No, Vu<V
SLU 83	320	-16749	-5412	-171820		3.46	173	1.02	4924			0.91	No, Vu<V
SLU 81	110	-11389	-5487	-588944		3.9	104.37	1.08	3142			0.57	No, Vu<V
SLU 81	320	-16692	-5537	-157803		3.45	173	1.01	4917			0.89	No, Vu<V
SLU 65	110	-10143	-5052	-521896		3.45	105.14	1.01	2988			0.59	No, Vu<V
SLU 65	320	-14775	-4940	-122539		3.05	173	0.96	4661			0.94	No, Vu<V
SLU 40	110	-9451	-4802	-502296		3.37	100.05	1.01	2816			0.59	No, Vu<V
SLU 40	320	-14213	-4901	-110847		2.93	173	0.95	4586			0.94	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	110	-11091	-5566	-579381		3.85	102.79	1.07	3078			0.55	No, Vu<V
SLU 73	320	-16389	-5584	-130587		3.38	173	1.01	4876			0.87	No, Vu<V
SLU 75	110	-11253	-5408	-576928		3.8	105.69	1.06	3144			0.58	No, Vu<V
SLU 75	320	-16417	-5398	-151047		3.39	173	1.01	4880			0.9	No, Vu<V
SLU 82	110	-11454	-5666	-597988		3.98	102.88	1.08	3121			0.55	No, Vu<V
SLU 82	320	-16924	-5731	-143543		3.49	173	1.02	4948			0.86	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	110	-8873	-11171	-726281		22.72	13.95	1.63	635			0.06	No, Vu<V
SLV 16	320	-17533	-9142	288943		3.62	173	1.56	7543			0.83	No, Vu<V
SLV 3	110	-5673	4391	43763		1.17	173	1.07	5171			1.18	Si
SLV 3	320	-1725	2558	-601021		0	0	0.83	0			0	No, Vu<V
SLV 15	110	-8873	-11171	-726281		22.72	13.95	1.63	635			0.06	No, Vu<V
SLV 15	320	-17533	-9142	288943		3.62	173	1.56	7543			0.83	No, Vu<V
SLV 7	110	-5444	-333	-96074		1.12	173	1.06	5126			15.37	Si
SLV 7	320	-3459	-745	-386765		0	0	0.83	0			0	No, Vu<V
SLV 2	110	-6829	3772	-67390		1.41	173	1.12	5402			1.43	Si
SLV 2	320	-4981	1879	-517679		0	0	0.83	0			0	No, Vu<V
SLV 8	110	-5444	-333	-96074		1.12	173	1.06	5126			15.37	Si
SLV 8	320	-3459	-745	-386765		0	0	0.83	0			0	No, Vu<V
SLV 1	110	-6829	3772	-67390		1.41	173	1.12	5402			1.43	Si
SLV 1	320	-4981	1879	-517679		0	0	0.83	0			0	No, Vu<V
SLV 14	110	-10029	-11791	-837434		39.79	9	1.63	410			0.03	No, Vu<V
SLV 14	320	-20789	-9820	372285		4.29	173	1.63	7871			0.8	No, Vu<V
SLV 4	110	-5673	4391	43763		1.17	173	1.07	5171			1.18	Si
SLV 4	320	-1725	2558	-601021		0	0	0.83	0			0	No, Vu<V
SLV 13	110	-10029	-11791	-837434		39.79	9	1.63	410			0.03	No, Vu<V
SLV 13	320	-20789	-9820	372285		4.29	173	1.63	7871			0.8	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.31	0.42	-2010	15858	27190	1.71	Si
SLV 3	14	0.31	0.42	-2010	15858	27190	1.71	Si
SLV 8	14	0.31	0.62	-3016	15858	40074	2.53	Si
SLV 7	14	0.31	0.62	-3016	15858	40074	2.53	Si
SLV 1	14	0.31	1.1	-5331	15858	67908	4.28	Si
SLV 2	14	0.31	1.1	-5331	15858	67908	4.28	Si
SLV 11	14	0.31	1.49	-7198	15858	88521	5.58	Si
SLV 12	14	0.31	1.49	-7198	15858	88521	5.58	Si
SLV 5	14	0.31	2.91	-14084	15858	150254	9.47	Si
SLV 6	14	0.31	2.91	-14084	15858	150254	9.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 12	-7834	-6405	-169	0.026	10.55	0.934	40.647	853.756	No
SLV 11	-7834	-6405	-169	0.026	10.55	0.934	40.647	853.756	No
SLV 6	-14120	-9298	176	0.03	16.925	0.956	45.997	853.756	No
SLV 5	-14120	-9298	176	0.03	16.925	0.956	45.997	853.756	No
SLV 8	-8452	-5444	-139	0.03	11.175	0.937	46.205	853.756	No
SLV 7	-8452	-5444	-139	0.03	11.175	0.937	46.205	853.756	No
SLV 1	-12857	-6829	100	0.035	15.642	0.953	53.12	942.914	No
SLV 2	-12857	-6829	100	0.035	15.642	0.953	53.12	942.914	No
SLV 15	-9096	-8873	-94	0.034	11.827	0.94	53.335	942.914	No
SLV 16	-9096	-8873	-94	0.034	11.827	0.94	53.335	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.176	SLU 82	Si
V_SLU	0.551	SLU 82	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.715	SLV 3	Si
R_SLV	0.048	SLV 11	No

Maschio 69

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	220.1	-1505.8	666.1	L3	L4	446	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 55	110	-51600	2466251	8.26	0	0	No, Rottura per schiacciamento
SLU 55	483	-33789	-414728	5.41	2529340	6.099	Si
SLU 83	110	-59036	2922536	9.45	0	0	No, Rottura per schiacciamento
SLU 83	483	-38986	-442897	6.24	2029980	4.583	Si
SLU 54	110	-52530	2456347	8.41	0	0	No, Rottura per schiacciamento
SLU 54	483	-34538	-441937	5.53	2471948	5.593	Si
SLU 53	110	-52540	2457973	8.41	0	0	No, Rottura per schiacciamento
SLU 53	483	-34539	-441134	5.53	2471847	5.603	Si
SLU 57	110	-51738	2649300	8.29	0	0	No, Rottura per schiacciamento
SLU 57	483	-33863	-359489	5.42	2523882	7.021	Si
SLU 60	110	-54749	2403609	8.77	0	0	No, Rottura per schiacciamento
SLU 60	483	-36140	-510369	5.79	2332792	4.571	Si
SLU 84	110	-59025	2920910	9.45	0	0	No, Rottura per schiacciamento
SLU 84	483	-38985	-443700	6.24	2030129	4.575	Si
SLU 56	110	-51748	2650926	8.29	0	0	No, Rottura per schiacciamento
SLU 56	483	-33864	-358686	5.42	2523789	7.036	Si
SLU 61	110	-54738	2401983	8.77	0	0	No, Rottura per schiacciamento
SLU 61	483	-36139	-511173	5.79	2332910	4.564	Si
SLU 52	110	-52392	2273298	8.39	0	0	No, Rottura per schiacciamento
SLU 52	483	-34464	-497176	5.52	2477845	4.984	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	110	-33312	4568605	5.34	4185027	0.916	No, M>Mu
SLV 11	483	-21518	319422	3.45	3445129	10.786	Si
SLV 8	110	-36957	4406631	5.92	4249222	0.964	No, M>Mu
SLV 8	483	-24158	208798	3.87	3681393	17.631	Si
SLD 12	110	-37542	2946291	6.01	4252291	1.443	Si
SLD 12	483	-24492	-83455	3.92	3708406	44.436	Si
SLD 7	110	-39086	2878267	6.26	4250782	1.477	Si
SLD 7	483	-25610	-130031	4.1	3793952	29.177	Si
SLV 16	110	-32790	2866387	5.25	4169492	1.455	Si
SLV 16	483	-21043	2334	3.37	3398263	1000	Si
SLV 12	110	-33312	4568605	5.34	4185027	0.916	No, M>Mu
SLV 12	483	-21518	319422	3.45	3445129	10.786	Si
SLV 7	110	-36957	4406631	5.92	4249222	0.964	No, M>Mu
SLV 7	483	-24158	208798	3.87	3681393	17.631	Si
SLD 8	110	-39086	2878267	6.26	4250782	1.477	Si
SLD 8	483	-25610	-130031	4.1	3793952	29.177	Si
SLD 11	110	-37542	2946291	6.01	4252291	1.443	Si
SLD 11	483	-24492	-83455	3.92	3708406	44.436	Si
SLV 15	110	-32790	2866387	5.25	4169492	1.455	Si
SLV 15	483	-21043	2334	3.37	3398263	1000	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	110	-46399	1695	2615709		7.43	446	1.08	6764			3.99	Si
SLU 38	483	-30512	843	-244070		4.89	446	1.08	6764			8.02	Si
SLU 37	110	-46409	1692	2617334		7.43	446	1.08	6764			4	Si
SLU 37	483	-30514	840	-243267		4.89	446	1.08	6764			8.06	Si
SLU 78	110	-56817	1772	2975274		9.1	446	1.08	6764			3.82	Si
SLU 78	483	-37385	760	-374465		5.99	446	1.08	6764			8.91	Si
SLU 71	110	-50444	1778	2690153		8.08	446	1.08	6764			3.8	Si
SLU 71	483	-32732	876	-312008		5.24	446	1.08	6764			7.73	Si
SLU 72	110	-50434	1781	2688527		8.08	446	1.08	6764			3.8	Si
SLU 72	483	-32730	879	-312811		5.24	446	1.08	6764			7.7	Si
SLU 77	110	-56827	1769	2976900		9.1	446	1.08	6764			3.82	Si
SLU 77	483	-37386	756	-373661		5.99	446	1.08	6764			8.94	Si
SLU 69	110	-51367	1726	2679165		8.23	446	1.08	6764			3.92	Si
SLU 69	483	-33480	815	-339753		5.36	446	1.08	6764			8.3	Si
SLU 79	110	-55904	1822	2987888		8.95	446	1.08	6764			3.71	Si
SLU 79	483	-36637	817	-345916		5.87	446	1.08	6764			8.28	Si
SLU 70	110	-51357	1729	2677539		8.23	446	1.08	6764			3.91	Si
SLU 70	483	-33479	818	-340556		5.36	446	1.08	6764			8.27	Si
SLU 80	110	-55894	1824	2986262		8.95	446	1.08	6764			3.71	Si
SLU 80	483	-36636	820	-346720		5.87	446	1.08	6764			8.24	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	110	-47618	-8628	-996760		7.63	446	1.63	10146			1.18	Si
SLV 6	483	-31600	-7614	-1065914		5.06	446	1.63	10146			1.33	Si
SLD 11	110	-37542	4685	2946291		6.19	433.56	1.63	9863			2.11	Si
SLD 11	483	-24492	3290	-83455		3.92	446	1.62	10102			3.07	Si
SLV 10	110	-43973	-8499	-834786		7.04	446	1.63	10146			1.19	Si
SLV 10	483	-28960	-7033	-955290		4.64	446	1.63	10146			1.44	Si
SLV 8	110	-36957	10001	4406631		8.48	311.29	1.63	7082			0.71	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	483	-24158	7181	208798		3.87	446	1.61	10035			1.4	Si
SLV 9	110	-43973	-8499	-834786		7.04	446	1.63	10146			1.19	Si
SLV 9	483	-28960	-7033	-955290		4.64	446	1.63	10146			1.44	Si
SLV 12	110	-33312	10130	4568605		9.24	257.56	1.63	5859			0.58	No, Vu<V
SLV 12	483	-21518	7761	319422		3.45	446	1.52	9507			1.22	Si
SLD 12	110	-37542	4685	2946291		6.19	433.56	1.63	9863			2.11	Si
SLD 12	483	-24492	3290	-83455		3.92	446	1.62	10102			3.07	Si
SLV 11	110	-33312	10130	4568605		9.24	257.56	1.63	5859			0.58	No, Vu<V
SLV 11	483	-21518	7761	319422		3.45	446	1.52	9507			1.22	Si
SLV 5	110	-47618	-8628	-996760		7.63	446	1.63	10146			1.18	Si
SLV 5	483	-31600	-7614	-1065914		5.06	446	1.63	10146			1.33	Si
SLV 7	110	-36957	10001	4406631		8.48	311.29	1.63	7082			0.71	No, Vu<V
SLV 7	483	-24158	7181	208798		3.87	446	1.61	10035			1.4	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	3.96	-24727	21867	116990	5.35	Si
SLV 12	14	0.31	3.96	-24727	21867	116990	5.35	Si
SLV 16	14	0.31	3.97	-24803	21867	117178	5.36	Si
SLV 15	14	0.31	3.97	-24803	21867	117178	5.36	Si
SLV 8	14	0.31	4.42	-27625	21867	123357	5.64	Si
SLV 7	14	0.31	4.42	-27625	21867	123357	5.64	Si
SLV 14	14	0.31	4.45	-27768	21867	123630	5.65	Si
SLV 13	14	0.31	4.45	-27768	21867	123630	5.65	Si
SLV 4	14	0.31	5.52	-34465	21867	132270	6.05	Si
SLV 3	14	0.31	5.52	-34465	21867	132270	6.05	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-21043	-32790	-142	0.014	24.706	0.96	21.699	1401.525	No
SLV 16	-21043	-32790	-142	0.014	24.706	0.96	21.699	1401.525	No
SLV 13	-23275	-35989	-143	0.015	26.977	0.963	22.133	1401.525	No
SLV 14	-23275	-35989	-143	0.015	26.977	0.963	22.133	1401.525	No
SLV 3	-29843	-44941	144	0.015	33.662	0.97	23.192	1401.525	No
SLV 4	-29843	-44941	144	0.015	33.662	0.97	23.192	1401.525	No
SLV 2	-32076	-48140	143	0.016	35.936	0.972	23.534	1401.525	No
SLV 1	-32076	-48140	143	0.016	35.936	0.972	23.534	1401.525	No
SLV 10	-28960	-43973	-45	0.019	32.763	0.969	27.869	1401.525	No
SLV 9	-28960	-43973	-45	0.019	32.763	0.969	27.869	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 52	No
V_SLU	3.708	SLU 80	Si
PF_SLV	0.916	SLV 11	No
V_SLV	0.578	SLV 11	No
PFFP_SLV	5.35	SLV 11	Si
R_SLV	0.015	SLV 15	No

Maschio 70

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-485.9	-1375.3	-331.4	L3	Z medio 312 cm	154.5	28	202	202	202			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	110	-31421	-67878	7.26	262979	3.874	Si
SLU 76	312	-22933	130714	5.3	618650	4.733	Si
SLU 83	110	-32537	-74657	7.52	192735	2.582	Si
SLU 83	312	-23892	149298	5.52	594309	3.981	Si
SLU 81	110	-32004	-69298	7.4	226967	3.275	Si
SLU 81	312	-23473	149738	5.43	605441	4.043	Si
SLU 84	110	-32595	-72502	7.53	188890	2.605	Si
SLU 84	312	-23924	148464	5.53	593410	3.997	Si
SLU 82	110	-32062	-67143	7.41	223259	3.325	Si
SLU 82	312	-23505	148904	5.43	604602	4.06	Si
SLU 77	110	-31908	-75055	7.38	232977	3.104	Si
SLU 77	312	-23338	133121	5.39	608858	4.574	Si
SLU 80	110	-31915	-74674	7.38	232563	3.114	Si
SLU 80	312	-23330	130830	5.39	609053	4.655	Si
SLU 78	110	-31967	-72900	7.39	229294	3.145	Si
SLU 78	312	-23371	132287	5.4	608038	4.596	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	110	-31375	-69696	7.25	265741	3.813	Si
SLU 74	312	-22919	133560	5.3	618973	4.634	Si
SLU 79	110	-31856	-76830	7.36	236233	3.075	Si
SLU 79	312	-23298	131664	5.39	609867	4.632	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	110	-31683	-422682	7.32	980490	2.32	Si
SLV 2	312	-24602	16445	5.69	1015948	61.779	Si
SLV 11	110	-7061	249114	1.63	472615	1.897	Si
SLV 11	312	-5890	100211	1.36	404293	4.034	Si
SLV 15	110	-12173	328148	2.81	723785	2.206	Si
SLV 15	312	-7076	142412	1.64	473445	3.324	Si
SLV 12	110	-7061	249114	1.63	472615	1.897	Si
SLV 12	312	-5890	100211	1.36	404293	4.034	Si
SLV 3	110	-23810	-301524	5.5	1010803	3.352	Si
SLV 3	312	-19776	17690	4.57	956128	54.051	Si
SLV 16	110	-12173	328148	2.81	723785	2.206	Si
SLV 16	312	-7076	142412	1.64	473445	3.324	Si
SLV 1	110	-31683	-422682	7.32	980490	2.32	Si
SLV 1	312	-24602	16445	5.69	1015948	61.779	Si
SLV 6	110	-36794	-343648	8.51	863823	2.514	Si
SLV 6	312	-25788	58646	5.96	1020226	17.396	Si
SLV 4	110	-23810	-301524	5.5	1010803	3.352	Si
SLV 4	312	-19776	17690	4.57	956128	54.051	Si
SLV 5	110	-36794	-343648	8.51	863823	2.514	Si
SLV 5	312	-25788	58646	5.96	1020226	17.396	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 74	110	-31375	-1881	-69696		7.25	154.5	1.08	4687			2.49	Si
SLU 74	312	-22919	-1008	133560		5.3	154.5	1.08	4687			4.65	Si
SLU 79	110	-31856	-1932	-76830		7.36	154.5	1.08	4687			2.43	Si
SLU 79	312	-23298	-1002	131664		5.39	154.5	1.08	4687			4.68	Si
SLU 84	110	-32595	-1972	-72502		7.53	154.5	1.08	4687			2.38	Si
SLU 84	312	-23924	-1110	148464		5.53	154.5	1.08	4687			4.22	Si
SLU 81	110	-32004	-1971	-69298		7.4	154.5	1.08	4687			2.38	Si
SLU 81	312	-23473	-1149	149738		5.43	154.5	1.08	4687			4.08	Si
SLU 80	110	-31915	-1877	-74674		7.38	154.5	1.08	4687			2.5	Si
SLU 80	312	-23330	-961	130830		5.39	154.5	1.08	4687			4.88	Si
SLU 82	110	-32062	-1916	-67143		7.41	154.5	1.08	4687			2.45	Si
SLU 82	312	-23505	-1108	148904		5.43	154.5	1.08	4687			4.23	Si
SLU 78	110	-31967	-1882	-72900		7.39	154.5	1.08	4687			2.49	Si
SLU 78	312	-23371	-969	132287		5.4	154.5	1.08	4687			4.83	Si
SLU 83	110	-32537	-2026	-74657		7.52	154.5	1.08	4687			2.31	Si
SLU 83	312	-23892	-1151	149298		5.52	154.5	1.08	4687			4.07	Si
SLU 77	110	-31908	-1937	-75055		7.38	154.5	1.08	4687			2.42	Si
SLU 77	312	-23338	-1010	133121		5.39	154.5	1.08	4687			4.64	Si
SLU 62	110	-30771	-1832	-74688		7.11	154.5	1.08	4687			2.56	Si
SLU 62	312	-22547	-1013	135056		5.21	154.5	1.08	4687			4.63	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	110	-10553	3741	60212		2.44	154.5	1.32	5716			1.53	Si
SLV 7	312	-9700	3738	62795		2.24	154.5	1.28	5545			1.48	Si
SLV 6	110	-36794	-5255	-343648		8.51	154.5	1.63	7030			1.34	Si
SLV 6	312	-25788	-3373	58646		5.96	154.5	1.63	7030			2.08	Si
SLV 11	110	-7061	2878	249114		2	125.91	1.23	4350			1.51	Si
SLV 11	312	-5890	2237	100211		1.36	154.5	1.11	4783			2.14	Si
SLV 8	110	-10553	3741	60212		2.44	154.5	1.32	5716			1.53	Si
SLV 8	312	-9700	3738	62795		2.24	154.5	1.28	5545			1.48	Si
SLV 12	110	-7061	2878	249114		2	125.91	1.23	4350			1.51	Si
SLV 12	312	-5890	2237	100211		1.36	154.5	1.11	4783			2.14	Si
SLV 9	110	-33303	-6118	-154746		7.7	154.5	1.63	7030			1.15	Si
SLV 9	312	-21978	-4874	96063		5.08	154.5	1.63	7030			1.44	Si
SLV 5	110	-36794	-5255	-343648		8.51	154.5	1.63	7030			1.34	Si
SLV 5	312	-25788	-3373	58646		5.96	154.5	1.63	7030			2.08	Si
SLV 13	110	-20045	-3977	206990		4.63	154.5	1.63	7030			1.77	Si
SLV 13	312	-11903	-4136	141168		2.75	154.5	1.38	5986			1.45	Si
SLV 14	110	-20045	-3977	206990		4.63	154.5	1.63	7030			1.77	Si
SLV 14	312	-11903	-4136	141168		2.75	154.5	1.38	5986			1.45	Si
SLV 10	110	-33303	-6118	-154746		7.7	154.5	1.63	7030			1.15	Si
SLV 10	312	-21978	-4874	96063		5.08	154.5	1.63	7030			1.44	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 211 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.29	1.31	-5680	4002	70976	17.74	Si
SLV 12	14	0.29	1.31	-5680	4002	70976	17.74	Si
SLV 15	14	0.29	1.66	-7169	4002	86756	21.68	Si
SLV 16	14	0.29	1.66	-7169	4002	86756	21.68	Si
SLV 7	14	0.29	2.38	-10293	4002	116041	29	Si
SLV 8	14	0.29	2.38	-10293	4002	116041	29	Si
SLV 14	14	0.29	3.02	-13059	4002	137654	34.4	Si
SLV 13	14	0.29	3.02	-13059	4002	137654	34.4	Si
SLV 3	14	0.29	5.21	-22546	4002	181009	45.23	Si
SLV 4	14	0.29	5.21	-22546	4002	181009	45.23	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 211 Wa = 0.05 Ta = 0.0243

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 12	-5890	-7061	129	0.058	7.232	0.951	88.991	361.29	No
SLV 11	-5890	-7061	129	0.058	7.232	0.951	88.991	361.29	No
SLV 16	-7076	-12173	112	0.062	8.437	0.957	94.2	371.2	No
SLV 15	-7076	-12173	112	0.062	8.437	0.957	94.2	371.2	No
SLV 8	-9700	-10553	110	0.064	11.106	0.966	96.209	361.29	No
SLV 7	-9700	-10553	110	0.064	11.106	0.966	96.209	361.29	No
SLV 13	-11903	-20045	79	0.067	13.348	0.972	100.757	371.2	No
SLV 14	-11903	-20045	79	0.067	13.348	0.972	100.757	371.2	No
SLV 4	-19776	-23810	51	0.069	21.369	0.982	102.833	371.2	No
SLV 3	-19776	-23810	51	0.069	21.369	0.982	102.833	371.2	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.582	SLU 83	Si
V_SLU	2.313	SLU 83	Si
PF_SLV	1.897	SLV 11	Si
V_SLV	1.149	SLV 9	Si
PFFP_SLV	17.737	SLV 11	Si
R_SLV	0.246	SLV 11	No

Maschio 71

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-349.9	-1375.3	-331.4	Z medio 312 cm	L4	18.6	28	171	171	171			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 77	312	-2912	2546	5.6	8444	3.316	Si
SLU 77	483	-2134	18751	4.1	9829	0.524	No, M>Mu
SLU 83	312	-2849	1484	5.48	8657	5.832	Si
SLU 83	483	-2183	19028	4.2	9820	0.516	No, M>Mu
SLU 78	312	-2916	2712	5.61	8433	3.109	Si
SLU 78	483	-2145	18686	4.13	9827	0.526	No, M>Mu
SLU 79	312	-2901	2489	5.58	8484	3.409	Si
SLU 79	483	-2123	18694	4.08	9829	0.526	No, M>Mu
SLU 74	312	-2859	2555	5.5	8625	3.376	Si
SLU 74	483	-2106	18359	4.05	9829	0.535	No, M>Mu
SLU 75	312	-2862	2721	5.5	8615	3.166	Si
SLU 75	483	-2117	18294	4.07	9829	0.537	No, M>Mu
SLU 81	312	-2795	1493	5.38	8824	5.911	Si
SLU 81	483	-2155	18636	4.15	9826	0.527	No, M>Mu
SLU 84	312	-2852	1651	5.49	8647	5.239	Si
SLU 84	483	-2195	18962	4.22	9816	0.518	No, M>Mu
SLU 80	312	-2904	2655	5.59	8473	3.192	Si
SLU 80	483	-2134	18628	4.11	9829	0.528	No, M>Mu
SLU 82	312	-2798	1659	5.38	8814	5.313	Si
SLU 82	483	-2167	18570	4.17	9824	0.529	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 1	312	-2265	-2917	4.36	13531	4.639	Si
SLV 1	483	-1558	23565	0	0	0	No, e>l/2
SLV 5	312	-2656	-6618	5.11	14348	2.168	Si
SLV 5	483	-1760	26681	0	0	0	No, e>l/2
SLV 4	312	-1936	2276	3.72	12496	5.49	Si
SLV 4	483	-1379	16510	0	0	0	No, e>l/2
SLV 3	312	-1936	2276	3.72	12496	5.49	Si
SLV 3	483	-1379	16510	0	0	0	No, e>l/2
SLD 1	312	-2175	531	4.18	13278	25.009	Si
SLD 1	483	-1500	17327	0	0	0	No, e>l/2
SLV 6	312	-2656	-6618	5.11	14348	2.168	Si
SLV 6	483	-1760	26681	0	0	0	No, e>l/2
SLV 9	312	-2661	-4598	5.12	14356	3.122	Si
SLV 9	483	-1754	22297	0	0	0	No, e>l/2
SLV 2	312	-2265	-2917	4.36	13531	4.639	Si
SLV 2	483	-1558	23565	0	0	0	No, e>l/2
SLV 10	312	-2661	-4598	5.12	14356	3.122	Si
SLV 10	483	-1754	22297	0	0	0	No, e>l/2
SLD 10	312	-2341	-192	4.5	13724	71.507	Si
SLD 10	483	-1583	16757	0	0	0	No, e>l/2



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 48	312	-2739	5	4807		5.27	18.57	1.08	563			113.82	Si
SLU 48	483	-1782	101	16023		72.48	0.88	1.08	27			0.26	No, Vu<V
SLU 58	312	-2731	-100	2387		5.25	18.57	1.08	563			5.63	Si
SLU 58	483	-1977	117	17659		67.19	1.05	1.08	32			0.27	No, Vu<V
SLU 56	312	-2743	-97	2445		5.28	18.57	1.08	563			5.78	Si
SLU 56	483	-1988	120	17717		63.77	1.11	1.08	34			0.28	No, Vu<V
SLU 50	312	-2727	2	4750		5.25	18.57	1.08	563			246.92	Si
SLU 50	483	-1771	98	15965		78.39	0.81	1.08	24			0.25	No, Vu<V
SLU 59	312	-2735	-87	2553		5.26	18.57	1.08	563			6.44	Si
SLU 59	483	-1988	127	17593		54.41	1.31	1.08	40			0.31	No, Vu<V
SLU 71	312	-2897	-4	4851		5.57	18.57	1.08	563			158.63	Si
SLU 71	483	-1917	119	17000		54.81	1.25	1.08	38			0.32	No, Vu<V
SLU 62	312	-2679	-135	1383		5.15	18.57	1.08	563			4.18	Si
SLU 62	483	-2037	132	17993		53.85	1.35	1.08	41			0.31	No, Vu<V
SLU 51	312	-2731	15	4916		5.25	18.57	1.08	563			37.85	Si
SLU 51	483	-1783	107	15900		58.28	1.09	1.08	33			0.31	No, Vu<V
SLU 45	312	-2685	14	4816		5.16	18.57	1.08	563			40.16	Si
SLU 45	483	-1754	107	15631		56.02	1.12	1.08	34			0.32	No, Vu<V
SLU 79	312	-2901	-106	2489		5.58	18.57	1.08	563			5.32	Si
SLU 79	483	-2123	139	18694		52.9	1.43	1.08	43			0.31	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	312	-2661	-640	-4598		5.12	18.57	1.63	845			1.32	Si
SLV 10	483	-1754	-313	22297		0	0	0.83	0			0	No, Vu<V
SLV 2	312	-2265	-504	-2917		4.36	18.57	1.63	845			1.68	Si
SLV 2	483	-1558	-207	23565		0	0	0.83	0			0	No, Vu<V
SLD 1	312	-2175	-221	531		4.18	18.57	1.63	845			3.82	Si
SLD 1	483	-1500	-28	17327		0	0	0.83	0			0	No, Vu<V
SLV 5	312	-2656	-805	-6618		5.11	18.57	1.63	845			1.05	Si
SLV 5	483	-1760	-415	26681		0	0	0.83	0			0	No, Vu<V
SLV 6	312	-2656	-805	-6618		5.11	18.57	1.63	845			1.05	Si
SLV 6	483	-1760	-415	26681		0	0	0.83	0			0	No, Vu<V
SLV 1	312	-2265	-504	-2917		4.36	18.57	1.63	845			1.68	Si
SLV 1	483	-1558	-207	23565		0	0	0.83	0			0	No, Vu<V
SLV 3	312	-1936	-80	2276		3.72	18.57	1.58	820			10.22	Si
SLV 3	483	-1379	73	16510		0	0	0.83	0			0	No, Vu<V
SLD 6	312	-2339	-349	-1042		4.5	18.57	1.63	845			2.42	Si
SLD 6	483	-1585	-116	18622		0	0	0.83	0			0	No, Vu<V
SLV 9	312	-2661	-640	-4598		5.12	18.57	1.63	845			1.32	Si
SLV 9	483	-1754	-313	22297		0	0	0.83	0			0	No, Vu<V
SLD 10	312	-2341	-279	-192		4.5	18.57	1.63	845			3.02	Si
SLD 10	483	-1583	-73	16757		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 397.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.33	2.49	-1292	391	14409	36.82	Si
SLV 12	14	0.33	2.49	-1292	391	14409	36.82	Si
SLV 8	14	0.33	2.56	-1329	391	14716	37.61	Si
SLV 7	14	0.33	2.56	-1329	391	14716	37.61	Si
SLV 15	14	0.33	2.83	-1474	391	15845	40.49	Si
SLV 16	14	0.33	2.83	-1474	391	15845	40.49	Si
SLV 4	14	0.33	3.07	-1598	391	16742	42.79	Si
SLV 3	14	0.33	3.07	-1598	391	16742	42.79	Si
SLV 13	14	0.33	3.21	-1667	391	17211	43.98	Si
SLV 14	14	0.33	3.21	-1667	391	17211	43.98	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 397.5 Wa = 0.05 Ta = 0.0174

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-1156	-1563	16	0.074	1.302	0.971	110.696	362.649	No
SLV 11	-1156	-1563	16	0.074	1.302	0.971	110.696	362.649	No
SLV 5	-1760	-2656	-18	0.075	1.918	0.98	111.871	362.649	No
SLV 6	-1760	-2656	-18	0.075	1.918	0.98	111.871	362.649	No
SLV 2	-1558	-2265	-14	0.077	1.712	0.977	114.959	369.541	No
SLV 1	-1558	-2265	-14	0.077	1.712	0.977	114.959	369.541	No
SLV 15	-1359	-1954	12	0.078	1.508	0.974	116.508	369.541	No
SLV 16	-1359	-1954	12	0.078	1.508	0.974	116.508	369.541	No
SLV 10	-1754	-2661	-13	0.078	1.911	0.98	115.991	362.649	No
SLV 9	-1754	-2661	-13	0.078	1.911	0.98	115.991	362.649	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.516	SLU 83	No
V_SLU	0.251	SLU 50	No
PF_SLV	0	SLD 1	No
V_SLV	0	SLD 1	No
PFFP_SLV	36.823	SLV 11	Si
R_SLV	0.305	SLV 11	No



Maschio 73

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-331.4	-1375.3	-35.4	Z medio 211 cm	L4	296	28	272	0	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 82	312	-45304	571869	5.47	2205657	3.857	Si
SLU 82	483	-37229	39803	4.49	2471529	62.093	Si
SLU 80	312	-44312	533711	5.35	2253703	4.223	Si
SLU 80	483	-36248	3278	4.37	2484348	757.897	Si
SLU 79	312	-44226	536093	5.34	2257662	4.211	Si
SLU 79	483	-36150	5593	4.36	2485403	444.347	Si
SLU 74	312	-43978	535859	5.31	2268933	4.234	Si
SLU 74	483	-35996	14361	4.34	2486966	173.178	Si
SLU 81	312	-45218	574252	5.46	2209990	3.848	Si
SLU 81	483	-37130	42119	4.48	2473007	58.715	Si
SLU 77	312	-44522	544740	5.37	2243868	4.119	Si
SLU 77	483	-36410	9190	4.39	2482525	270.131	Si
SLU 75	312	-44063	533477	5.32	2265067	4.246	Si
SLU 75	483	-36094	12045	4.36	2485977	206.385	Si
SLU 78	312	-44608	542358	5.38	2239798	4.13	Si
SLU 78	483	-36508	6875	4.4	2481357	360.943	Si
SLU 84	312	-45848	580751	5.53	2177426	3.749	Si
SLU 84	483	-37643	34633	4.54	2464849	71.171	Si
SLU 83	312	-45762	583133	5.52	2181964	3.742	Si
SLU 83	483	-37544	36948	4.53	2466507	66.756	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 15	312	-32018	552578	3.86	3240456	5.864	Si
SLD 15	483	-25583	70923	3.09	2829807	39.9	Si
SLD 14	312	-32475	534505	3.92	3264988	6.108	Si
SLD 14	483	-25712	8567	3.1	2839168	331.407	Si
SLV 12	312	-29817	550578	3.6	3113581	5.655	Si
SLV 12	483	-24809	268430	2.99	2772207	10.327	Si
SLV 14	312	-35693	825651	4.31	3420669	4.143	Si
SLV 14	483	-27297	46796	3.29	2951005	63.062	Si
SLD 16	312	-32018	552578	3.86	3240456	5.864	Si
SLD 16	483	-25583	70923	3.09	2829807	39.9	Si
SLV 16	312	-34615	869752	4.18	3371877	3.877	Si
SLV 16	483	-26991	194684	3.26	2929978	15.05	Si
SLV 11	312	-29817	550578	3.6	3113581	5.655	Si
SLV 11	483	-24809	268430	2.99	2772207	10.327	Si
SLV 13	312	-35693	825651	4.31	3420669	4.143	Si
SLV 13	483	-27297	46796	3.29	2951005	63.062	Si
SLD 13	312	-32475	534505	3.92	3264988	6.108	Si
SLD 13	483	-25712	8567	3.1	2839168	331.407	Si
SLV 15	312	-34615	869752	4.18	3371877	3.877	Si
SLV 15	483	-26991	194684	3.26	2929978	15.05	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	312	-41864	1338	495121		5.05	296	1.08	8979			6.71	Si
SLU 60	483	-34432	196	27990		4.15	296	1.08	8979			45.75	Si
SLU 10	312	-32750	1402	384857		3.95	296	1.08	8971			6.4	Si
SLU 10	483	-26945	454	15356		3.25	296	0.99	8197			18.07	Si
SLU 19	312	-34774	1393	442366		4.2	296	1.08	8979			6.44	Si
SLU 19	483	-28688	302	43083		3.46	296	1.02	8429			27.88	Si
SLU 61	312	-41950	1581	492739		5.06	296	1.08	8979			5.68	Si
SLU 61	483	-34531	366	25675		4.17	296	1.08	8979			24.52	Si
SLU 52	312	-39926	1590	435231		4.82	296	1.08	8979			5.65	Si
SLU 52	483	-32788	518	2053		3.96	296	1.08	8976			17.34	Si
SLU 31	312	-36104	1413	463987		4.36	296	1.08	8979			6.36	Si
SLU 31	483	-29643	494	29484		3.58	296	1.03	8557			17.31	Si
SLU 40	312	-38128	1404	521496		4.6	296	1.08	8979			6.4	Si
SLU 40	483	-31385	343	57212		3.79	296	1.06	8789			25.64	Si
SLU 73	312	-43280	1601	514361		5.22	296	1.08	8979			5.61	Si
SLU 73	483	-35486	558	12076		4.28	296	1.08	8979			16.09	Si
SLU 82	312	-45304	1592	571869		5.47	296	1.08	8979			5.64	Si
SLU 82	483	-37229	407	39803		4.49	296	1.08	8979			22.08	Si
SLU 81	312	-45218	1348	574252		5.46	296	1.08	8979			6.66	Si
SLU 81	483	-37130	237	42119		4.48	296	1.08	8979			37.92	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	312	-33411	-9604	403573		4.03	296	1.63	13468			1.4	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	483	-25830	-6504	-224531		3.12	296	1.46	12073			1.86	Si
SLV 7	312	-26783	11091	232898		3.23	296	1.48	12263			1.11	Si
SLV 7	483	-23245	6995	183753		2.8	296	1.39	11556			1.65	Si
SLV 5	312	-30377	-12564	85893		3.67	296	1.57	12982			1.03	Si
SLV 5	483	-24265	-8312	-309208		2.93	296	1.42	11760			1.41	Si
SLV 15	312	-34615	9225	869752		4.18	296	1.63	13468			1.46	Si
SLV 15	483	-26991	5555	194684		3.26	296	1.48	12305			2.22	Si
SLV 9	312	-33411	-9604	403573		4.03	296	1.63	13468			1.4	Si
SLV 9	483	-25830	-6504	-224531		3.12	296	1.46	12073			1.86	Si
SLV 11	312	-29817	14051	550578		3.6	296	1.55	12870			0.92	No, Vu<V
SLV 11	483	-24809	8803	268430		2.99	296	1.43	11868			1.35	Si
SLV 16	312	-34615	9225	869752		4.18	296	1.63	13468			1.46	Si
SLV 16	483	-26991	5555	194684		3.26	296	1.48	12305			2.22	Si
SLV 6	312	-30377	-12564	85893		3.67	296	1.57	12982			1.03	Si
SLV 6	483	-24265	-8312	-309208		2.93	296	1.42	11760			1.41	Si
SLV 8	312	-26783	11091	232898		3.23	296	1.48	12263			1.11	Si
SLV 8	483	-23245	6995	183753		2.8	296	1.39	11556			1.65	Si
SLV 12	312	-29817	14051	550578		3.6	296	1.55	12870			0.92	No, Vu<V
SLV 12	483	-24809	8803	268430		2.99	296	1.43	11868			1.35	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 397.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.33	2.88	-23868	15784	255393	16.18	Si
SLV 1	14	0.33	2.88	-23868	15784	255393	16.18	Si
SLV 4	14	0.33	2.89	-23917	15784	255759	16.2	Si
SLV 3	14	0.33	2.89	-23917	15784	255759	16.2	Si
SLV 5	14	0.33	3.12	-25842	15784	269467	17.07	Si
SLV 6	14	0.33	3.12	-25842	15784	269467	17.07	Si
SLV 8	14	0.33	3.14	-26007	15784	270594	17.14	Si
SLV 7	14	0.33	3.14	-26007	15784	270594	17.14	Si
SLV 9	14	0.33	3.33	-27584	15784	280988	17.8	Si
SLV 10	14	0.33	3.33	-27584	15784	280988	17.8	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 397.5 Wa = 0.05 Ta = 0.0441

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-22083	-25579	92	0.052	25.659	0.963	78.494	542.884	No
SLV 1	-22083	-25579	92	0.052	25.659	0.963	78.494	542.884	No
SLV 6	-24265	-30377	123	0.051	27.879	0.966	76.38	514.931	No
SLV 5	-24265	-30377	123	0.051	27.879	0.966	76.38	514.931	No
SLV 13	-27297	-35693	34	0.054	30.965	0.969	80.813	542.884	No
SLV 14	-27297	-35693	34	0.054	30.965	0.969	80.813	542.884	No
SLV 3	-21777	-24501	47	0.054	25.347	0.962	81.366	542.884	No
SLV 4	-21777	-24501	47	0.054	25.347	0.962	81.366	542.884	No
SLV 10	-25830	-33411	106	0.051	29.471	0.967	77.235	514.931	No
SLV 9	-25830	-33411	106	0.051	29.471	0.967	77.235	514.931	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.742	SLU 83	Si
V_SLU	5.609	SLU 73	Si
PF_SLV	3.877	SLV 15	Si
V_SLV	0.916	SLV 11	No
PFFP_SLV	16.181	SLV 1	Si
R_SLV	0.145	SLV 1	No

Maschio 74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-35.4	-1375.3	-22.8	L3	L4	12.6	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 53	110	-1993	-1741	5.66	3818	2.193	Si
SLU 53	320	-578	-10371	0	0	0	No, e>l/2
SLU 59	110	-1987	-1813	5.65	3833	2.113	Si
SLU 59	320	-587	-10499	0	0	0	No, e>l/2
SLU 55	110	-2021	-1546	5.74	3749	2.425	Si
SLU 55	320	-563	-10174	0	0	0	No, e>l/2
SLU 57	110	-2011	-1813	5.71	3773	2.081	Si
SLU 57	320	-592	-10585	0	0	0	No, e>l/2
SLU 56	110	-1980	-1930	5.63	3849	1.994	Si
SLU 56	320	-598	-10652	0	0	0	No, e>l/2
SLU 1	110	-1375	-1282	3.91	4497	3.509	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 1	320	-383	-6882	0	0	0	No, e>l/2
SLU 60	110	-2090	-1546	5.94	3560	2.303	Si
SLU 60	320	-586	-10622	0	0	0	No, e>l/2
SLU 61	110	-2121	-1428	6.03	3468	2.428	Si
SLU 61	320	-580	-10555	0	0	0	No, e>l/2
SLU 58	110	-1956	-1931	5.56	3906	2.023	Si
SLU 58	320	-593	-10566	0	0	0	No, e>l/2
SLU 54	110	-2024	-1623	5.75	3740	2.304	Si
SLU 54	320	-572	-10304	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	110	207	-7018	0	0	0	No, Trazione
SLV 6	320	-689	-9742	0	0	0	No, e>l/2
SLV 14	110	-1673	-2946	4.75	6424	2.18	Si
SLV 14	320	-741	-14085	0	0	0	No, e>l/2
SLV 7	110	-2819	4236	8.01	6104	1.441	Si
SLV 7	320	-29	-2270	0	0	0	No, e>l/2
SLV 11	110	-3198	4297	9.09	5153	1.199	Si
SLV 11	320	-159	-5482	0	0	0	No, e>l/2
SLV 8	110	-2819	4236	8.01	6104	1.441	Si
SLV 8	320	-29	-2270	0	0	0	No, e>l/2
SLV 13	110	-1673	-2946	4.75	6424	2.18	Si
SLV 13	320	-741	-14085	0	0	0	No, e>l/2
SLV 9	110	-172	-6957	0	0	0	No, e>l/2
SLV 9	320	-820	-12953	0	0	0	No, e>l/2
SLD 1	110	-1042	-2101	2.96	4964	2.362	Si
SLD 1	320	-373	-5806	0	0	0	No, e>l/2
SLV 10	110	-172	-6957	0	0	0	No, e>l/2
SLV 10	320	-820	-12953	0	0	0	No, e>l/2
SLV 12	110	-3198	4297	9.09	5153	1.199	Si
SLV 12	320	-159	-5482	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	110	-2121	133	-1428		6.03	12.57	1.08	381			2.86	Si
SLU 61	320	-580	-135	-10555		0	0	0.56	0			0	No, Vu<V
SLU 60	110	-2090	123	-1546		5.94	12.57	1.08	381			3.09	Si
SLU 60	320	-586	-148	-10622		0	0	0.56	0			0	No, Vu<V
SLU 59	110	-1987	99	-1813		5.65	12.57	1.08	381			3.86	Si
SLU 59	320	-587	-186	-10499		0	0	0.56	0			0	No, Vu<V
SLU 53	110	-1993	103	-1741		5.66	12.57	1.08	381			3.68	Si
SLU 53	320	-578	-171	-10371		0	0	0.56	0			0	No, Vu<V
SLU 56	110	-1980	91	-1930		5.63	12.57	1.08	381			4.17	Si
SLU 56	320	-598	-198	-10652		0	0	0.56	0			0	No, Vu<V
SLU 57	110	-2011	101	-1813		5.71	12.57	1.08	381			3.76	Si
SLU 57	320	-592	-185	-10585		0	0	0.56	0			0	No, Vu<V
SLU 58	110	-1956	89	-1931		5.56	12.57	1.08	381			4.29	Si
SLU 58	320	-593	-199	-10566		0	0	0.56	0			0	No, Vu<V
SLU 54	110	-2024	113	-1623		5.75	12.57	1.08	381			3.36	Si
SLU 54	320	-572	-158	-10304		0	0	0.56	0			0	No, Vu<V
SLU 55	110	-2021	118	-1546		5.74	12.57	1.08	381			3.24	Si
SLU 55	320	-563	-150	-10174		0	0	0.56	0			0	No, Vu<V
SLU 1	110	-1375	69	-1282		3.91	12.57	1.08	379			5.52	Si
SLU 1	320	-383	-113	-6882		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	110	-1673	465	-2946		4.75	12.57	1.63	572			1.23	Si
SLV 13	320	-741	-24	-14085		0	0	0.83	0			0	No, Vu<V
SLV 11	110	-3198	713	4297		9.09	12.57	1.63	572			0.8	No, Vu<V
SLV 11	320	-159	654	-5482		0	0	0.83	0			0	No, Vu<V
SLV 6	110	207	-561	-7018		0	0	0.83	0			0	No, Vu<V
SLV 6	320	-689	-907	-9742		0	0	0.83	0			0	No, Vu<V
SLV 8	110	-2819	393	4236		8.01	12.57	1.63	572			1.46	Si
SLV 8	320	-29	469	-2270		0	0	0.83	0			0	No, Vu<V
SLV 12	110	-3198	713	4297		9.09	12.57	1.63	572			0.8	No, Vu<V
SLV 12	320	-159	654	-5482		0	0	0.83	0			0	No, Vu<V
SLD 1	110	-1042	-206	-2101		2.96	12.57	1.43	502			2.44	Si
SLD 1	320	-373	-345	-5806		0	0	0.83	0			0	No, Vu<V
SLV 9	110	-172	-242	-6957		0	0	0.83	0			0	No, Vu<V
SLV 9	320	-820	-722	-12953		0	0	0.83	0			0	No, Vu<V
SLV 14	110	-1673	465	-2946		4.75	12.57	1.63	572			1.23	Si
SLV 14	320	-741	-24	-14085		0	0	0.83	0			0	No, Vu<V
SLV 7	110	-2819	393	4236		8.01	12.57	1.63	572			1.46	Si
SLV 7	320	-29	469	-2270		0	0	0.83	0			0	No, Vu<V
SLV 10	110	-172	-242	-6957		0	0	0.83	0			0	No, Vu<V
SLV 10	320	-820	-722	-12953		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.31	2.79	-982	1179	10609	9	Si
SLV 4	14	0.31	2.79	-982	1179	10609	9	Si
SLV 7	14	0.31	3.22	-1135	1179	11694	9.92	Si
SLV 8	14	0.31	3.22	-1135	1179	11694	9.92	Si
SLV 1	14	0.31	3.7	-1301	1179	12706	10.78	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.31	3.7	-1301	1179	12706	10.78	Si
SLV 14	14	0.31	7.96	-2802	1179	13668	11.59	Si
SLV 13	14	0.31	7.96	-2802	1179	13668	11.59	Si
SLV 11	14	0.31	4.5	-1585	1179	14011	11.88	Si
SLV 12	14	0.31	4.5	-1585	1179	14011	11.88	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 $W_a = 0.05$ $T_a = 0.083$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 5	447	207	134	0	0	0	0	853.756	No, Trazione
SLV 14	-1585	-1673	-242	0	1.798	0.969	0	942.914	No
SLV 3	-1365	-1318	290	0	1.574	0.965	0	942.914	No
SLV 1	-325	-410	307	0	0.521	0.911	0	942.914	No
SLV 13	-1585	-1673	-242	0	1.798	0.969	0	942.914	No
SLV 10	69	-172	-31	0	0	0	0	853.756	No, Trazione
SLV 9	69	-172	-31	0	0	0	0	853.756	No, Trazione
SLV 6	447	207	134	0	0	0	0	853.756	No, Trazione
SLV 2	-325	-410	307	0	0.521	0.911	0	942.914	No
SLV 4	-1365	-1318	290	0	1.574	0.965	0	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 6	No
V_SLV	0	SLD 1	No
PFFP_SLV	8.998	SLV 3	Si
R_SLV	0	SLV 10	No

Maschio 75

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1375.3	67.2	-1375.3	104.6	L3	L4	37.4	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	110	-9568	-28826	9.13	0	0	No, Rottura per schiacciamento
SLU 77	320	-5894	11729	5.62	34157	2.912	Si
SLU 63	110	-8646	-23956	8.25	0	0	No, Rottura per schiacciamento
SLU 63	320	-5646	7490	5.39	35787	4.778	Si
SLU 56	110	-8550	-25214	8.16	0	0	No, Rottura per schiacciamento
SLU 56	320	-5333	9565	5.09	37462	3.917	Si
SLU 74	110	-9331	-27242	8.9	0	0	No, Rottura per schiacciamento
SLU 74	320	-5872	10237	5.6	34307	3.351	Si
SLU 75	110	-9279	-26497	8.85	0	0	No, Rottura per schiacciamento
SLU 75	320	-5934	9405	5.66	33862	3.6	Si
SLU 78	110	-9517	-28081	9.08	0	0	No, Rottura per schiacciamento
SLU 78	320	-5956	10897	5.68	33706	3.093	Si
SLU 84	110	-9664	-27568	9.22	0	0	No, Rottura per schiacciamento
SLU 84	320	-6206	9655	5.92	31713	3.285	Si
SLU 73	110	-8925	-24346	8.52	0	0	No, Rottura per schiacciamento
SLU 73	320	-5874	7434	5.6	34295	4.613	Si
SLU 83	110	-9716	-28313	9.27	0	0	No, Rottura per schiacciamento
SLU 83	320	-6144	10486	5.86	32233	3.074	Si
SLU 62	110	-8697	-24701	8.3	0	0	No, Rottura per schiacciamento
SLU 62	320	-5584	8322	5.33	36154	4.344	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	110	-3441	36496	3.28	47092	1.29	Si
SLV 7	320	-7084	-31499	6.76	59239	1.881	Si
SLV 6	110	-7086	-61432	6.76	59236	0.964	No, $M > Mu$
SLV 6	320	171	47729	0	0	0	No, Trazione
SLV 10	110	-8923	-71701	8.51	50640	0.706	No, $M > Mu$
SLV 10	320	-751	43725	0	0	0	No, $e > l/2$
SLV 1	110	-3667	-15176	3.5	48975	3.227	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	320	-1292	24671	0	0	0	No, $e>l/2$
SLV 2	110	-3667	-15176	3.5	48975	3.227	Si
SLV 2	320	-1292	24671	0	0	0	No, $e>l/2$
SLV 13	110	-9790	-49407	9.34	43152	0.873	No, $M>Mu$
SLV 13	320	-4367	11323	4.17	53857	4.756	Si
SLV 5	110	-7086	-61432	6.76	59236	0.964	No, $M>Mu$
SLV 5	320	171	47729	0	0	0	No, Trazione
SLV 14	110	-9790	-49407	9.34	43152	0.873	No, $M>Mu$
SLV 14	320	-4367	11323	4.17	53857	4.756	Si
SLV 8	110	-3441	36496	3.28	47092	1.29	Si
SLV 8	320	-7084	-31499	6.76	59239	1.881	Si
SLV 9	110	-8923	-71701	8.51	50640	0.706	No, $M>Mu$
SLV 9	320	-751	43725	0	0	0	No, $e>l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	110	-8479	-447	-26164		8.09	37.43	1.08	1135			2.54	Si
SLU 69	320	-5071	-425	11323		4.84	37.43	1.08	1135			2.67	Si
SLU 80	110	-9434	-470	-28012		9	37.43	1.08	1135			2.42	Si
SLU 80	320	-5875	-445	10973		5.61	37.43	1.08	1135			2.55	Si
SLU 84	110	-9664	-453	-27568		9.22	37.43	1.08	1135			2.51	Si
SLU 84	320	-6206	-427	9655		5.92	37.43	1.08	1135			2.66	Si
SLU 79	110	-9486	-488	-28757		9.05	37.43	1.08	1135			2.33	Si
SLU 79	320	-5813	-463	11804		5.55	37.43	1.08	1135			2.45	Si
SLU 71	110	-8397	-447	-26095		8.01	37.43	1.08	1135			2.54	Si
SLU 71	320	-4990	-426	11398		4.76	37.43	1.08	1135			2.67	Si
SLU 74	110	-9331	-454	-27242		8.9	37.43	1.08	1135			2.5	Si
SLU 74	320	-5872	-429	10237		5.6	37.43	1.08	1135			2.65	Si
SLU 78	110	-9517	-470	-28081		9.08	37.43	1.08	1135			2.41	Si
SLU 78	320	-5956	-445	10897		5.68	37.43	1.08	1135			2.55	Si
SLU 81	110	-9478	-437	-26729		9.04	37.43	1.08	1135			2.6	Si
SLU 81	320	-6123	-411	8994		5.84	37.43	1.08	1135			2.77	Si
SLU 83	110	-9716	-471	-28313		9.27	37.43	1.08	1135			2.41	Si
SLU 83	320	-6144	-445	10486		5.86	37.43	1.08	1135			2.55	Si
SLU 77	110	-9568	-488	-28826		9.13	37.43	1.08	1135			2.33	Si
SLU 77	320	-5894	-463	11729		5.62	37.43	1.08	1135			2.45	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	110	-3667	-873	-15176		3.5	37.43	1.53	1607			1.84	Si
SLV 1	320	-1292	-34	24671		0	0	0.83	0			0	No, $Vu<V$
SLV 5	110	-7086	-1491	-61432		8.4	30.14	1.63	1371			0.92	No, $Vu<V$
SLV 5	320	171	-969	47729		0	0	0.83	0			0	No, $Vu<V$
SLV 7	110	-3441	768	36496		5.05	24.32	1.63	1107			1.44	Si
SLV 7	320	-7084	721	-31499		6.76	37.43	1.63	1703			2.36	Si
SLV 2	110	-3667	-873	-15176		3.5	37.43	1.53	1607			1.84	Si
SLV 2	320	-1292	-34	24671		0	0	0.83	0			0	No, $Vu<V$
SLV 10	110	-8923	-1343	-71701		9.95	32.04	1.63	1458			1.09	Si
SLV 10	320	-751	-1263	43725		0	0	0.83	0			0	No, $Vu<V$
SLV 13	110	-9790	-380	-49407		9.34	37.43	1.63	1703			4.48	Si
SLV 13	320	-4367	-1016	11323		4.17	37.43	1.63	1703			1.68	Si
SLV 14	110	-9790	-380	-49407		9.34	37.43	1.63	1703			4.48	Si
SLV 14	320	-4367	-1016	11323		4.17	37.43	1.63	1703			1.68	Si
SLV 8	110	-3441	768	36496		5.05	24.32	1.63	1107			1.44	Si
SLV 8	320	-7084	721	-31499		6.76	37.43	1.63	1703			2.36	Si
SLV 6	110	-7086	-1491	-61432		8.4	30.14	1.63	1371			0.92	No, $Vu<V$
SLV 6	320	171	-969	47729		0	0	0.83	0			0	No, $Vu<V$
SLV 9	110	-8923	-1343	-71701		9.95	32.04	1.63	1458			1.09	Si
SLV 9	320	-751	-1263	43725		0	0	0.83	0			0	No, $Vu<V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.31	0	21	3511	0	0	No, Trazione
SLV 6	14	0.31	0	21	3511	0	0	No, Trazione
SLV 9	14	0.31	0.71	-749	3511	9869	2.81	Si
SLV 10	14	0.31	0.71	-749	3511	9869	2.81	Si
SLV 2	14	0.31	1.54	-1615	3511	19760	5.63	Si
SLV 1	14	0.31	1.54	-1615	3511	19760	5.63	Si
SLV 3	14	0.31	3.61	-3787	3511	37340	10.64	Si
SLV 4	14	0.31	3.61	-3787	3511	37340	10.64	Si
SLV 13	14	0.31	3.99	-4180	3511	39421	11.23	Si
SLV 14	14	0.31	3.99	-4180	3511	39421	11.23	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 13	-3613	-9790	-5	0.04	4.229	0.961	59.822	942.914	No
SLV 14	-3613	-9790	-5	0.04	4.229	0.961	59.822	942.914	No
SLV 2	-3857	-3667	1	0.04	4.477	0.963	60.878	942.914	No
SLV 1	-3857	-3667	1	0.04	4.477	0.963	60.878	942.914	No
SLV 15	-2618	-8697	-5	0.04	3.218	0.95	61.66	942.914	No
SLV 16	-2618	-8697	-5	0.04	3.218	0.95	61.66	942.914	No
SLV 4	-2861	-2573	2	0.041	3.465	0.954	62.705	942.914	No
SLV 3	-2861	-2573	2	0.041	3.465	0.954	62.705	942.914	No
SLV 9	-4859	-8923	-3	0.039	5.497	0.969	59.16	853.756	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	-4859	-8923	-3	0.039	5.497	0.969	59.16	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 56	No
V_SLU	2.327	SLU 77	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0.063	SLV 13	No

Maschio 76

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2066.8	104.6	-2465.3	104.6	L3	L4	398.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 79	110	-67275	215723	6.03	3482868	16.145	Si
SLU 79	320	-61550	-1389987	5.52	3958979	2.848	Si
SLU 78	110	-67704	210122	6.07	3441434	16.378	Si
SLU 78	320	-61979	-1390905	5.55	3928306	2.824	Si
SLU 80	110	-67093	200385	6.01	3500205	17.467	Si
SLU 80	320	-61368	-1378089	5.5	3971749	2.882	Si
SLU 84	110	-68971	225281	6.18	3314228	14.712	Si
SLU 84	320	-63246	-1423227	5.67	3832915	2.693	Si
SLU 75	110	-66505	207079	5.96	3555304	17.169	Si
SLU 75	320	-60779	-1342741	5.45	4012076	2.988	Si
SLU 81	110	-67954	237575	6.09	3416884	14.382	Si
SLU 81	320	-62229	-1386961	5.58	3910036	2.819	Si
SLU 74	110	-66687	222417	5.98	3538438	15.909	Si
SLU 74	320	-60961	-1354639	5.46	3999775	2.953	Si
SLU 83	110	-69153	240618	6.2	3295394	13.696	Si
SLU 83	320	-63428	-1435124	5.68	3818647	2.661	Si
SLU 77	110	-67886	225460	6.08	3423611	15.185	Si
SLU 77	320	-62161	-1402802	5.57	3915049	2.791	Si
SLU 82	110	-67772	22237	6.07	3434762	15.455	Si
SLU 82	320	-62047	-1375063	5.56	3923348	2.853	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 14	110	-29378	-3410842	2.63	4592228	1.346	Si
SLV 14	320	-24665	-259287	2.21	4025398	15.525	Si
SLV 3	110	-60345	3644900	5.41	6701829	1.839	Si
SLV 3	320	-56310	-1430785	5.05	6585777	4.603	Si
SLD 3	110	-51442	1621630	4.61	6382423	3.936	Si
SLD 3	320	-47204	-1098787	4.23	6148946	5.596	Si
SLV 15	110	-31350	-3372536	2.81	4810154	1.426	Si
SLV 15	320	-26378	-325447	2.36	4238946	13.025	Si
SLV 16	110	-31350	-3372536	2.81	4810154	1.426	Si
SLV 16	320	-26378	-325447	2.36	4238946	13.025	Si
SLV 4	110	-60345	3644900	5.41	6701829	1.839	Si
SLV 4	320	-56310	-1430785	5.05	6585777	4.603	Si
SLV 2	110	-58373	3606594	5.23	6651046	1.844	Si
SLV 2	320	-54597	-1364625	4.89	6522111	4.779	Si
SLV 13	110	-29378	-3410842	2.63	4592228	1.346	Si
SLV 13	320	-24665	-259287	2.21	4025398	15.525	Si
SLV 1	110	-58373	3606594	5.23	6651046	1.844	Si
SLV 1	320	-54597	-1364625	4.89	6522111	4.779	Si
SLD 4	110	-51442	1621630	4.61	6382423	3.936	Si
SLD 4	320	-47204	-1098787	4.23	6148946	5.596	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	110	-69153	7986	240618		6.2	398.5	1.08	12088			1.51	Si
SLU 83	320	-63428	7986	-1435124		5.68	398.5	1.08	12088			1.51	Si
SLU 82	110	-67772	7613	22237		6.07	398.5	1.08	12088			1.59	Si
SLU 82	320	-62047	7613	-1375063		5.56	398.5	1.08	12088			1.59	Si
SLU 80	110	-67093	7523	200385		6.01	398.5	1.08	12088			1.61	Si
SLU 80	320	-61368	7523	-1378089		5.5	398.5	1.08	12088			1.61	Si
SLU 78	110	-67704	7630	210122		6.07	398.5	1.08	12088			1.58	Si
SLU 78	320	-61979	7630	-1390905		5.55	398.5	1.08	12088			1.58	Si
SLU 81	110	-67954	7742	237575		6.09	398.5	1.08	12088			1.56	Si
SLU 81	320	-62229	7742	-1386961		5.58	398.5	1.08	12088			1.56	Si
SLU 84	110	-68971	7856	225281		6.18	398.5	1.08	12088			1.54	Si
SLU 84	320	-63246	7856	-1423227		5.67	398.5	1.08	12088			1.54	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	110	-67886	7760	225460		6.08	398.5	1.08	12088			1.56	Si
SLU 77	320	-62161	7760	-1402802		5.57	398.5	1.08	12088			1.56	Si
SLU 74	110	-66687	7516	222417		5.98	398.5	1.08	12088			1.61	Si
SLU 74	320	-60961	7516	-1354639		5.46	398.5	1.08	12088			1.61	Si
SLU 79	110	-67275	7653	215723		6.03	398.5	1.08	12088			1.58	Si
SLU 79	320	-61550	7653	-1389987		5.52	398.5	1.08	12088			1.58	Si
SLU 75	110	-66505	7386	207079		5.96	398.5	1.08	12088			1.64	Si
SLU 75	320	-60779	7386	-1342741		5.45	398.5	1.08	12088			1.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	110	-60345	24363	3644900		5.41	398.5	1.63	18132			0.74	No, Vu<V
SLV 4	320	-56310	24656	-1430785		5.05	398.5	1.63	18132			0.74	No, Vu<V
SLD 3	110	-51442	13035	1621630		4.61	398.5	1.63	18132			1.39	Si
SLD 3	320	-47204	13161	-1098787		4.23	398.5	1.63	18132			1.38	Si
SLV 3	110	-60345	24363	3644900		5.41	398.5	1.63	18132			0.74	No, Vu<V
SLV 3	320	-56310	24656	-1430785		5.05	398.5	1.63	18132			0.74	No, Vu<V
SLV 2	110	-58373	24258	3606594		5.23	398.5	1.63	18132			0.75	No, Vu<V
SLV 2	320	-54597	24237	-1364625		4.89	398.5	1.63	18132			0.75	No, Vu<V
SLD 4	110	-51442	13035	1621630		4.61	398.5	1.63	18132			1.39	Si
SLD 4	320	-47204	13161	-1098787		4.23	398.5	1.63	18132			1.38	Si
SLV 15	110	-31350	-15085	-3372536		4.07	275.02	1.63	12513			0.83	No, Vu<V
SLV 15	320	-26378	-15064	-325447		2.36	398.5	1.31	14574			0.97	No, Vu<V
SLV 14	110	-29378	-15191	-3410842		4.21	249.44	1.63	11350			0.75	No, Vu<V
SLV 14	320	-24665	-15483	-259287		2.21	398.5	1.28	14231			0.92	No, Vu<V
SLV 16	110	-31350	-15085	-3372536		4.07	275.02	1.63	12513			0.83	No, Vu<V
SLV 16	320	-26378	-15064	-325447		2.36	398.5	1.31	14574			0.97	No, Vu<V
SLV 13	110	-29378	-15191	-3410842		4.21	249.44	1.63	11350			0.75	No, Vu<V
SLV 13	320	-24665	-15483	-259287		2.21	398.5	1.28	14231			0.92	No, Vu<V
SLV 1	110	-58373	24258	3606594		5.23	398.5	1.63	18132			0.75	No, Vu<V
SLV 1	320	-54597	24237	-1364625		4.89	398.5	1.63	18132			0.75	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.31	2.33	-26002	37378	294603	7.88	Si
SLV 14	14	0.31	2.33	-26002	37378	294603	7.88	Si
SLV 15	14	0.31	2.49	-27753	37378	309446	8.28	Si
SLV 16	14	0.31	2.49	-27753	37378	309446	8.28	Si
SLV 10	14	0.31	3.06	-34097	37378	357974	9.58	Si
SLV 9	14	0.31	3.06	-34097	37378	357974	9.58	Si
SLV 11	14	0.31	3.58	-39932	37378	395304	10.58	Si
SLV 12	14	0.31	3.58	-39932	37378	395304	10.58	Si
SLV 6	14	0.31	3.83	-42786	37378	411020	11	Si
SLV 5	14	0.31	3.83	-42786	37378	411020	11	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-35305	-60345	-68	0.039	41.812	0.958	59.734	942.914	No
SLV 3	-35305	-60345	-68	0.039	41.812	0.958	59.734	942.914	No
SLV 13	-30797	-29378	69	0.04	37.23	0.954	60.336	942.914	No
SLV 14	-30797	-29378	69	0.04	37.23	0.954	60.336	942.914	No
SLV 10	-30274	-37225	198	0.036	36.699	0.953	54.667	853.756	No
SLV 9	-30274	-37225	198	0.036	36.699	0.953	54.667	853.756	No
SLV 7	-35828	-52498	-196	0.036	42.344	0.959	54.749	853.756	No
SLV 8	-35828	-52498	-196	0.036	42.344	0.959	54.749	853.756	No
SLV 6	-31211	-45924	191	0.036	37.651	0.954	54.947	853.756	No
SLV 5	-31211	-45924	191	0.036	37.651	0.954	54.947	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.661	SLU 83	Si
V_SLU	1.514	SLU 83	Si
PF_SLV	1.346	SLV 13	Si
V_SLV	0.735	SLV 3	No
PFFP_SLV	7.882	SLV 13	Si
R_SLV	0.063	SLV 3	No

Maschio 77

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1228.3	104.6	-1986.8	104.6	L3	L4	758.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	110	-153229	2257531	7.21	6641613	2.942	Si
SLU 81	360	-131454	-180519	6.19	11972640	66.323	Si
SLU 84	110	-155941	2331293	7.34	5832033	2.502	Si
SLU 84	360	-134352	-161311	6.33	11383075	70.566	Si
SLU 74	110	-150501	2348004	7.09	7423332	3.162	Si
SLU 74	360	-128761	-116293	6.06	12487524	107.379	Si
SLU 79	110	-152367	2558423	7.17	6892244	2.694	Si
SLU 79	360	-130493	-45148	6.14	12160066	269.335	Si
SLU 82	110	-152622	2132446	7.19	6818304	3.197	Si
SLU 82	360	-131225	-209644	6.18	12017657	57.324	Si
SLU 77	110	-153820	2546851	7.24	6467924	2.54	Si
SLU 77	360	-131888	-67961	6.21	11886722	174.906	Si
SLU 83	110	-156548	2456378	7.37	5646515	2.299	Si
SLU 83	360	-134581	-132186	6.34	11334918	85.75	Si
SLU 78	110	-153213	2421766	7.21	6646186	2.744	Si
SLU 78	360	-131659	-97086	6.2	11932175	122.904	Si
SLU 75	110	-149895	2222919	7.06	7592766	3.416	Si
SLU 75	360	-128532	-145419	6.05	12529837	86.164	Si
SLU 80	110	-151760	2433338	7.15	7066640	2.904	Si
SLU 80	360	-130264	-74273	6.13	12204118	164.313	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	110	-97336	7015178	4.58	23068396	3.288	Si
SLV 3	360	-81212	345365	3.82	21160758	61.271	Si
SLV 2	110	-89147	8084130	4.2	22194505	2.745	Si
SLV 2	360	-74401	989424	3.5	20126612	20.342	Si
SLV 5	110	-84363	5074547	3.97	21593343	4.255	Si
SLV 5	360	-70820	1216509	3.33	19528629	16.053	Si
SLD 1	110	-95500	4288094	4.5	22889521	5.338	Si
SLD 1	360	-80003	373691	3.77	20987115	56.162	Si
SLD 2	110	-95500	4288094	4.5	22889521	5.338	Si
SLD 2	360	-80003	373691	3.77	20987115	56.162	Si
SLV 4	110	-97336	7015178	4.58	23068396	3.288	Si
SLV 4	360	-81212	345365	3.82	21160758	61.271	Si
SLV 15	110	-110965	-5146803	5.22	24088266	4.68	Si
SLV 15	360	-93686	-1152685	4.41	22703152	19.696	Si
SLV 1	110	-89147	8084130	4.2	22194505	2.745	Si
SLV 1	360	-74401	989424	3.5	20126612	20.342	Si
SLV 6	110	-84363	5074547	3.97	21593343	4.255	Si
SLV 6	360	-70820	1216509	3.33	19528629	16.053	Si
SLV 16	110	-110965	-5146803	5.22	24088266	4.68	Si
SLV 16	360	-93686	-1152685	4.41	22703152	19.696	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	110	-148037	5969	2151100		6.97	758.5	1.08	23008			3.85	Si
SLU 76	360	-126985	6138	-142023		5.98	758.5	1.08	23008			3.75	Si
SLU 61	110	-136324	6201	1749232		6.42	758.5	1.08	23008			3.71	Si
SLU 61	360	-115822	6452	-283398		5.45	758.5	1.08	23008			3.57	Si
SLU 81	110	-153229	6553	2257531		7.21	758.5	1.08	23008			3.51	Si
SLU 81	360	-131454	6720	-180519		6.19	758.5	1.08	23008			3.42	Si
SLU 83	110	-156548	6262	2456378		7.37	758.5	1.08	23008			3.67	Si
SLU 83	360	-134581	6361	-132186		6.34	758.5	1.08	23008			3.62	Si
SLU 73	110	-144718	6259	1952253		6.81	758.5	1.08	23008			3.68	Si
SLU 73	360	-123858	6497	-190356		5.83	758.5	1.08	23008			3.54	Si
SLU 60	110	-136931	6082	1874317		6.45	758.5	1.08	23008			3.78	Si
SLU 60	360	-116051	6288	-254273		5.46	758.5	1.08	23008			3.66	Si
SLU 84	110	-155941	6382	2331293		7.34	758.5	1.08	23008			3.61	Si
SLU 84	360	-134352	6524	-161311		6.33	758.5	1.08	23008			3.53	Si
SLU 75	110	-149895	6106	2222919		7.06	758.5	1.08	23008			3.77	Si
SLU 75	360	-128532	6243	-145419		6.05	758.5	1.08	23008			3.69	Si
SLU 63	110	-139643	5911	1948079		6.58	758.5	1.08	23008			3.89	Si
SLU 63	360	-118949	6093	-235065		5.6	758.5	1.08	23008			3.78	Si
SLU 82	110	-152622	6672	2132446		7.19	758.5	1.08	23008			3.45	Si
SLU 82	360	-131225	6883	-209644		6.18	758.5	1.08	23008			3.34	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	110	-89147	42832	8084130		4.2	758.5	1.63	34512			0.81	No, Vu<V
SLV 2	360	-74401	39017	989424		3.5	758.5	1.53	32578			0.83	No, Vu<V
SLD 4	110	-98859	21564	3841464		4.65	758.5	1.63	34512			1.6	Si
SLD 4	360	-82796	20288	101351		3.9	758.5	1.61	34258			1.69	Si
SLV 3	110	-97336	45102	7015178		4.58	758.5	1.63	34512			0.77	No, Vu<V
SLV 3	360	-81212	41947	345365		3.82	758.5	1.6	33941			0.81	No, Vu<V
SLV 13	110	-102776	-37096	-4077851		4.84	758.5	1.63	34512			0.93	No, Vu<V
SLV 13	360	-86875	-33679	-508626		4.09	758.5	1.63	34512			1.02	Si
SLV 15	110	-110965	-34826	-5146803		5.22	758.5	1.63	34512			0.99	No, Vu<V
SLV 15	360	-93686	-30750	-1152685		4.41	758.5	1.63	34512			1.12	Si
SLV 14	110	-102776	-37096	-4077851		4.84	758.5	1.63	34512			0.93	No, Vu<V
SLV 14	360	-86875	-33679	-508626		4.09	758.5	1.63	34512			1.02	Si
SLV 1	110	-89147	42832	8084130		4.2	758.5	1.63	34512			0.81	No, Vu<V
SLV 1	360	-74401	39017	989424		3.5	758.5	1.53	32578			0.83	No, Vu<V
SLV 16	110	-110965	-34826	-5146803		5.22	758.5	1.63	34512			0.99	No, Vu<V
SLV 16	360	-93686	-30750	-1152685		4.41	758.5	1.63	34512			1.12	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 3	110	-98859	21564	3841464		4.65	758.5	1.63	34512			1.6	Si
SLD 3	360	-82796	20288	101351		3.9	758.5	1.61	34258			1.69	Si
SLV 4	110	-97336	45102	7015178		4.58	758.5	1.63	34512			0.77	No, Vu<V
SLV 4	360	-81212	41947	345365		3.82	758.5	1.6	33941			0.81	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.31	3.51	-74546	71145	743840	10.46	Si
SLV 5	14	0.31	3.51	-74546	71145	743840	10.46	Si
SLV 2	14	0.31	3.55	-75301	71145	748307	10.52	Si
SLV 1	14	0.31	3.55	-75301	71145	748307	10.52	Si
SLV 10	14	0.31	3.78	-80367	71145	776686	10.92	Si
SLV 9	14	0.31	3.78	-80367	71145	776686	10.92	Si
SLV 4	14	0.31	3.85	-81769	71145	784052	11.02	Si
SLV 3	14	0.31	3.85	-81769	71145	784052	11.02	Si
SLV 14	14	0.31	4.46	-94705	71145	841994	11.83	Si
SLV 13	14	0.31	4.46	-94705	71145	841994	11.83	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-69909	-88452	625	0.033	82.341	0.96	49.811	853.756	No
SLV 9	-69909	-88452	625	0.033	82.341	0.96	49.811	853.756	No
SLV 6	-69839	-84363	591	0.033	82.27	0.96	50.477	853.756	No
SLV 5	-69839	-84363	591	0.033	82.27	0.96	50.477	853.756	No
SLV 8	-90700	-111660	-632	0.034	103.495	0.967	50.794	853.756	No
SLV 7	-90700	-111660	-632	0.034	103.495	0.967	50.794	853.756	No
SLV 11	-90769	-115749	-598	0.034	103.566	0.967	51.32	853.756	No
SLV 12	-90769	-115749	-598	0.034	103.566	0.967	51.32	853.756	No
SLV 3	-83317	-97336	-244	0.038	95.981	0.965	56.925	942.914	No
SLV 4	-83317	-97336	-244	0.038	95.981	0.965	56.925	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.299	SLU 83	Si
V_SLU	3.343	SLU 82	Si
PF_SLV	2.745	SLV 1	Si
V_SLV	0.765	SLV 3	No
PFFP_SLV	10.455	SLV 5	Si
R_SLV	0.058	SLV 9	No

Maschio 78

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-496.8	104.6	-1116.3	104.6	L3	L4	619.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	110	-106206	-463186	6.12	8170080	17.639	Si
SLU 83	360	-98208	988685	5.66	9276803	9.383	Si
SLU 73	110	-98121	-271409	5.66	9287304	34.219	Si
SLU 73	360	-90481	931855	5.22	10079526	10.817	Si
SLU 84	110	-105638	-395697	6.09	8257911	20.869	Si
SLU 84	360	-98059	993917	5.65	9294682	9.352	Si
SLU 75	110	-101270	-398929	5.84	8886271	22.275	Si
SLU 75	360	-93421	928371	5.39	9804889	10.561	Si
SLU 78	110	-103019	-494437	5.94	8644633	17.484	Si
SLU 78	360	-95238	904308	5.49	9616296	10.634	Si
SLU 77	110	-103587	-561926	5.97	8563323	15.239	Si
SLU 77	360	-95386	899076	5.5	9600252	10.678	Si
SLU 81	110	-104456	-367678	6.02	8436167	22.944	Si
SLU 81	360	-96391	1012748	5.56	9489048	9.37	Si
SLU 82	110	-103889	-300189	5.99	8519641	28.381	Si
SLU 82	360	-96243	1017980	5.55	9505745	9.338	Si
SLU 74	110	-101838	-466418	5.87	8809318	18.887	Si
SLU 74	360	-93570	923139	5.39	9790027	10.605	Si
SLU 76	110	-99870	-366917	5.76	9069826	24.719	Si
SLU 76	360	-92297	907792	5.32	9914351	10.921	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	110	-52680	-2293191	3.04	12261797	5.347	Si
SLV 9	360	-50099	456497	2.89	11850041	25.959	Si
SLV 15	110	-67033	-2204466	3.86	14196560	6.44	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	360	-59200	3109079	3.41	13215272	4.251	Si
SLV 12	110	-79689	321698	4.59	15402974	47.88	Si
SLV 12	360	-68790	2092545	3.97	14392021	6.878	Si
SLV 10	110	-52680	-2293191	3.04	12261797	5.347	Si
SLV 10	360	-50099	456497	2.89	11850041	25.959	Si
SLV 13	110	-58930	-2988933	3.4	13178350	4.409	Si
SLV 13	360	-53592	2618264	3.09	12402712	4.737	Si
SLV 16	110	-67033	-2204466	3.86	14196560	6.44	Si
SLV 16	360	-59200	3109079	3.41	13215272	4.251	Si
SLV 14	110	-58930	-2988933	3.4	13178350	4.409	Si
SLV 14	360	-53592	2618264	3.09	12402712	4.737	Si
SLV 11	110	-79689	321698	4.59	15402974	47.88	Si
SLV 11	360	-68790	2092545	3.97	14392021	6.878	Si
SLV 3	110	-76184	2398257	4.39	15115734	6.303	Si
SLV 3	360	-67910	-1431351	3.92	14295231	9.987	Si
SLV 4	110	-76184	2398257	4.39	15115734	6.303	Si
SLV 4	360	-67910	-1431351	3.92	14295231	9.987	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 75	110	-101270	-7435	-398929		5.84	619.5	1.08	18791			2.53	Si
SLU 75	360	-93421	-7312	928371		5.39	619.5	1.08	18791			2.57	Si
SLU 78	110	-103019	-7472	-494437		5.94	619.5	1.08	18791			2.51	Si
SLU 78	360	-95238	-7278	904308		5.49	619.5	1.08	18791			2.58	Si
SLU 83	110	-106206	-7603	-463186		6.12	619.5	1.08	18791			2.47	Si
SLU 83	360	-98208	-7414	988685		5.66	619.5	1.08	18791			2.53	Si
SLU 76	110	-99870	-7363	-366917		5.76	619.5	1.08	18791			2.55	Si
SLU 76	360	-92297	-7289	907792		5.32	619.5	1.08	18791			2.58	Si
SLU 82	110	-103889	-7701	-300189		5.99	619.5	1.08	18791			2.44	Si
SLU 82	360	-96243	-7645	1017980		5.55	619.5	1.08	18791			2.46	Si
SLU 84	110	-105638	-7738	-395697		6.09	619.5	1.08	18791			2.43	Si
SLU 84	360	-98059	-7611	993917		5.65	619.5	1.08	18791			2.47	Si
SLU 73	110	-98121	-7326	-271409		5.66	619.5	1.08	18791			2.57	Si
SLU 73	360	-90481	-7323	931855		5.22	619.5	1.08	18791			2.57	Si
SLU 77	110	-103587	-7337	-561926		5.97	619.5	1.08	18791			2.56	Si
SLU 77	360	-95386	-7080	899076		5.5	619.5	1.08	18791			2.65	Si
SLU 81	110	-104456	-7566	-367678		6.02	619.5	1.08	18791			2.48	Si
SLU 81	360	-96391	-7447	1012748		5.56	619.5	1.08	18791			2.52	Si
SLU 80	110	-101999	-7311	-507417		5.88	619.5	1.08	18791			2.57	Si
SLU 80	360	-94213	-7124	880241		5.43	619.5	1.08	18791			2.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	110	-79689	-18729	321698		4.59	619.5	1.63	28187			1.51	Si
SLV 12	360	-68790	-18261	2092545		3.97	619.5	1.63	28187			1.54	Si
SLV 14	110	-58930	-33718	-2988933		3.4	619.5	1.51	26241			0.78	No, Vu<V
SLV 14	360	-53592	-30277	2618264		3.09	619.5	1.45	25173			0.83	No, Vu<V
SLV 1	110	-68081	27003	1613790		3.92	619.5	1.62	28071			1.04	Si
SLV 1	360	-62303	24009	-1922165		3.59	619.5	1.55	26916			1.12	Si
SLV 4	110	-76184	24112	2398257		4.39	619.5	1.63	28187			1.17	Si
SLV 4	360	-67910	20786	-1431351		3.92	619.5	1.62	28037			1.35	Si
SLV 11	110	-79689	-18729	321698		4.59	619.5	1.63	28187			1.51	Si
SLV 11	360	-68790	-18261	2092545		3.97	619.5	1.63	28187			1.54	Si
SLV 2	110	-68081	27003	1613790		3.92	619.5	1.62	28071			1.04	Si
SLV 2	360	-62303	24009	-1922165		3.59	619.5	1.55	26916			1.12	Si
SLV 3	110	-76184	24112	2398257		4.39	619.5	1.63	28187			1.17	Si
SLV 3	360	-67910	20786	-1431351		3.92	619.5	1.62	28037			1.35	Si
SLV 16	110	-67033	-36609	-2204466		3.86	619.5	1.61	27862			0.76	No, Vu<V
SLV 16	360	-59200	-33500	3109079		3.41	619.5	1.52	26295			0.78	No, Vu<V
SLV 15	110	-67033	-36609	-2204466		3.86	619.5	1.61	27862			0.76	No, Vu<V
SLV 15	360	-59200	-33500	3109079		3.41	619.5	1.52	26295			0.78	No, Vu<V
SLV 13	110	-58930	-33718	-2988933		3.4	619.5	1.51	26241			0.78	No, Vu<V
SLV 13	360	-53592	-30277	2618264		3.09	619.5	1.45	25173			0.83	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.31	2.98	-51641	58107	546824	9.41	Si
SLV 10	14	0.31	2.98	-51641	58107	546824	9.41	Si
SLV 14	14	0.31	3.14	-54445	58107	566429	9.75	Si
SLV 13	14	0.31	3.14	-54445	58107	566429	9.75	Si
SLV 6	14	0.31	3.19	-55361	58107	572607	9.85	Si
SLV 5	14	0.31	3.19	-55361	58107	572607	9.85	Si
SLV 16	14	0.31	3.49	-60568	58107	605632	10.42	Si
SLV 15	14	0.31	3.49	-60568	58107	605632	10.42	Si
SLV 2	14	0.31	3.85	-66843	58107	640674	11.03	Si
SLV 1	14	0.31	3.85	-66843	58107	640674	11.03	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-48393	-52680	480	0.033	58.402	0.954	49.812	853.756	No
SLV 10	-48393	-52680	480	0.033	58.402	0.954	49.812	853.756	No
SLV 5	-49879	-55425	476	0.033	59.912	0.955	50.084	853.756	No
SLV 6	-49879	-55425	476	0.033	59.912	0.955	50.084	853.756	No
SLV 8	-64619	-82435	-483	0.034	74.902	0.963	50.948	853.756	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 7	-64619	-82435	-483	0.034	74.902	0.963	50.948	853.756	No
SLV 12	-63133	-79689	-479	0.034	73.391	0.963	50.966	853.756	No
SLV 11	-63133	-79689	-479	0.034	73.391	0.963	50.966	853.756	No
SLV 4	-61193	-76184	-153	0.039	71.417	0.962	58.185	942.914	No
SLV 3	-61193	-76184	-153	0.039	71.417	0.962	58.185	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.338	SLU 82	Si
V_SLU	2.428	SLU 84	Si
PF_SLV	4.251	SLV 15	Si
V_SLV	0.761	SLV 15	No
PFFP_SLV	9.411	SLV 9	Si
R_SLV	0.058	SLV 9	No

Maschio 79

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	104.6	-416.8	104.6	L3	L4	404.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 84	110	-72466	225670	6.4	3144374	13.933	Si
SLU 84	320	-70662	1215288	6.24	3345583	2.753	Si
SLU 74	110	-69982	204393	6.18	3417678	16.721	Si
SLU 74	320	-67898	1172350	5.99	3626097	3.093	Si
SLU 81	110	-71235	244799	6.29	3283233	13.412	Si
SLU 81	320	-69378	1208121	6.13	3480070	2.881	Si
SLU 78	110	-71214	185263	6.29	3285581	17.735	Si
SLU 78	320	-69182	1179518	6.11	3499940	2.967	Si
SLU 80	110	-70591	187322	6.23	3353174	17.901	Si
SLU 80	320	-68518	1169355	6.05	3566123	3.05	Si
SLU 77	110	-70956	196421	6.26	3313787	16.871	Si
SLU 77	320	-69012	1216647	6.09	3517077	2.891	Si
SLU 82	110	-71493	233642	6.31	3254712	13.93	Si
SLU 82	320	-69548	1170991	6.14	3462659	2.957	Si
SLU 83	110	-72208	236828	6.38	3173995	13.402	Si
SLU 83	320	-70492	1252418	6.22	3363824	2.686	Si
SLU 75	110	-70240	193235	6.2	3390572	17.546	Si
SLU 75	320	-68068	1135221	6.01	3609790	3.18	Si
SLU 79	110	-70333	198479	6.21	3380676	17.033	Si
SLU 79	320	-68348	1206485	6.03	3582764	2.97	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 1	110	-41918	2420918	3.7	5909952	2.441	Si
SLV 1	320	-32607	671008	2.88	5040940	7.512	Si
SLV 4	110	-41880	2554924	3.7	5906905	2.312	Si
SLV 4	320	-33010	851625	2.91	5083735	5.969	Si
SLV 2	110	-41918	2420918	3.7	5909952	2.441	Si
SLV 2	320	-32607	671008	2.88	5040940	7.512	Si
SLV 3	110	-41880	2554924	3.7	5906905	2.312	Si
SLV 3	320	-33010	851625	2.91	5083735	5.969	Si
SLV 16	110	-53877	-2186064	4.76	6654396	3.044	Si
SLV 16	320	-58467	756066	5.16	6829140	9.032	Si
SLV 15	110	-53877	-2186064	4.76	6654396	3.044	Si
SLV 15	320	-58467	756066	5.16	6829140	9.032	Si
SLD 3	110	-45316	1158835	4	6164020	5.319	Si
SLD 3	320	-40171	771238	3.55	5766249	7.477	Si
SLV 13	110	-53915	-2320071	4.76	6656104	2.869	Si
SLV 13	320	-58065	575449	5.13	6816287	11.845	Si
SLV 14	110	-53915	-2320071	4.76	6656104	2.869	Si
SLV 14	320	-58065	575449	5.13	6816287	11.845	Si
SLD 4	110	-45316	1158835	4	6164020	5.319	Si
SLD 4	320	-40171	771238	3.55	5766249	7.477	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	110	-70956	-8793	196421		6.26	404.5	1.08	12270			1.4	Si
SLU 77	320	-69012	-8814	1216647		6.09	404.5	1.08	12270			1.39	Si
SLU 79	110	-70333	-8695	198479		6.21	404.5	1.08	12270			1.41	Si
SLU 79	320	-68348	-8715	1206485		6.03	404.5	1.08	12270			1.41	Si
SLU 41	110	-61322	-8255	233498		5.41	404.5	1.08	12270			1.49	Si
SLU 41	320	-60697	-8273	1143336		5.36	404.5	1.08	12270			1.48	Si
SLU 83	110	-72208	-8989	236828		6.38	404.5	1.08	12270			1.36	Si
SLU 83	320	-70492	-9010	1252418		6.22	404.5	1.08	12270			1.36	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	110	-71493	-8395	233642		6.31	404.5	1.08	12270			1.46	Si
SLU 82	320	-69548	-8424	1170991		6.14	404.5	1.08	12270			1.46	Si
SLU 74	110	-69982	-8410	204393		6.18	404.5	1.08	12270			1.46	Si
SLU 74	320	-67898	-8430	1172350		5.99	404.5	1.08	12270			1.46	Si
SLU 80	110	-70591	-8484	187322		6.23	404.5	1.08	12270			1.45	Si
SLU 80	320	-68518	-8513	1169355		6.05	404.5	1.08	12270			1.44	Si
SLU 81	110	-71235	-8606	244799		6.29	404.5	1.08	12270			1.43	Si
SLU 81	320	-69378	-8626	1208121		6.13	404.5	1.08	12270			1.42	Si
SLU 84	110	-72466	-8779	225670		6.4	404.5	1.08	12270			1.4	Si
SLU 84	320	-70662	-8808	1215288		6.24	404.5	1.08	12270			1.39	Si
SLU 78	110	-71214	-8582	185263		6.29	404.5	1.08	12270			1.43	Si
SLU 78	320	-69182	-8611	1179518		6.11	404.5	1.08	12270			1.42	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 16	110	-50457	-12489	-867825		4.45	404.5	1.63	18405			1.47	Si
SLD 16	320	-51062	-12611	729829		4.51	404.5	1.63	18405			1.46	Si
SLV 13	110	-53915	-22269	-2320071		4.76	404.5	1.63	18405			0.83	No, Vu<V
SLV 13	320	-58065	-21869	575449		5.13	404.5	1.63	18405			0.84	No, Vu<V
SLV 4	110	-41880	12253	2554924		3.7	404.5	1.57	17814			1.45	Si
SLV 4	320	-33010	11825	851625		2.91	404.5	1.42	16040			1.36	Si
SLV 16	110	-53877	-22522	-2186064		4.76	404.5	1.63	18405			0.82	No, Vu<V
SLV 16	320	-58467	-22796	756066		5.16	404.5	1.63	18405			0.81	No, Vu<V
SLV 2	110	-41918	12505	2420918		3.7	404.5	1.57	17822			1.43	Si
SLV 2	320	-32607	12752	671008		2.88	404.5	1.41	15960			1.25	Si
SLD 15	110	-50457	-12489	-867825		4.45	404.5	1.63	18405			1.47	Si
SLD 15	320	-51062	-12611	729829		4.51	404.5	1.63	18405			1.46	Si
SLV 3	110	-41880	12253	2554924		3.7	404.5	1.57	17814			1.45	Si
SLV 3	320	-33010	11825	851625		2.91	404.5	1.42	16040			1.36	Si
SLV 15	110	-53877	-22522	-2186064		4.76	404.5	1.63	18405			0.82	No, Vu<V
SLV 15	320	-58467	-22796	756066		5.16	404.5	1.63	18405			0.81	No, Vu<V
SLV 1	110	-41918	12505	2420918		3.7	404.5	1.57	17822			1.43	Si
SLV 1	320	-32607	12752	671008		2.88	404.5	1.41	15960			1.25	Si
SLV 14	110	-53915	-22269	-2320071		4.76	404.5	1.63	18405			0.83	No, Vu<V
SLV 14	320	-58065	-21869	575449		5.13	404.5	1.63	18405			0.84	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296,5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.31	2.98	-33703	37941	356932	9.41	Si
SLV 1	14	0.31	2.98	-33703	37941	356932	9.41	Si
SLV 4	14	0.31	3.01	-34106	37941	359807	9.48	Si
SLV 3	14	0.31	3.01	-34106	37941	359807	9.48	Si
SLV 5	14	0.31	3.7	-41907	37941	409036	10.78	Si
SLV 6	14	0.31	3.7	-41907	37941	409036	10.78	Si
SLV 7	14	0.31	3.82	-43249	37941	416263	10.97	Si
SLV 8	14	0.31	3.82	-43249	37941	416263	10.97	Si
SLV 10	14	0.31	4.36	-49342	37941	444491	11.72	Si
SLV 9	14	0.31	4.36	-49342	37941	444491	11.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-38514	-46034	-328	0.033	45.165	0.961	50.151	853.756	No
SLV 8	-38514	-46034	-328	0.033	45.165	0.961	50.151	853.756	No
SLV 9	-41457	-49760	328	0.033	48.159	0.963	50.452	853.756	No
SLV 10	-41457	-49760	328	0.033	48.159	0.963	50.452	853.756	No
SLV 6	-37072	-46161	313	0.033	43.698	0.96	50.543	853.756	No
SLV 5	-37072	-46161	313	0.033	43.698	0.96	50.543	853.756	No
SLV 12	-42900	-49633	-313	0.034	49.627	0.964	51.106	853.756	No
SLV 11	-42900	-49633	-313	0.034	49.627	0.964	51.106	853.756	No
SLV 13	-47079	-53915	122	0.038	53.879	0.967	57.037	942.914	No
SLV 14	-47079	-53915	122	0.038	53.879	0.967	57.037	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.686	SLU 83	Si
V_SLU	1.362	SLU 83	Si
PF_SLV	2.312	SLV 3	Si
V_SLV	0.807	SLV 15	No
PFFP_SLV	9.408	SLV 1	Si
R_SLV	0.059	SLV 7	No

Maschio 80

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1239.3	333.1	-1239.3	104.6	L3	L4	228.5	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	110	-16434	-738611	5.14	693479	0.939	No, M>Mu
SLU 74	483	-17995	-287304	5.63	636183	2.214	Si
SLU 81	110	-17144	-781994	5.36	670064	0.857	No, M>Mu
SLU 81	483	-18815	-326553	5.88	597524	1.83	Si
SLU 75	110	-16453	-740273	5.14	692892	0.936	No, M>Mu
SLU 75	483	-18000	-287009	5.63	635981	2.216	Si
SLU 60	110	-15671	-728795	4.9	713699	0.979	No, M>Mu
SLU 60	483	-17096	-307018	5.34	671788	2.188	Si
SLU 84	110	-16924	-750893	5.29	677785	0.903	No, M>Mu
SLU 84	483	-18529	-291107	5.79	611683	2.101	Si
SLU 61	110	-15691	-730457	4.9	713244	0.976	No, M>Mu
SLU 61	483	-17101	-306722	5.35	671623	2.19	Si
SLU 82	110	-17164	-783656	5.37	669355	0.854	No, M>Mu
SLU 82	483	-18820	-326257	5.88	597289	1.831	Si
SLU 73	110	-16389	-754348	5.12	694819	0.921	No, M>Mu
SLU 73	483	-17897	-310448	5.59	640416	2.063	Si
SLU 83	110	-16905	-749231	5.28	678453	0.906	No, M>Mu
SLU 83	483	-18524	-291403	5.79	611906	2.1	Si
SLU 76	110	-16149	-721585	5.05	701622	0.972	No, M>Mu
SLU 76	483	-17606	-275298	5.5	652458	2.37	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	110	-12634	-1070264	3.95	976878	0.913	No, M>Mu
SLV 11	483	-7175	326116	2.24	669295	2.052	Si
SLV 4	110	-14799	-1344997	4.63	1050639	0.781	No, M>Mu
SLV 4	483	-8846	-60854	2.77	781944	12.849	Si
SLV 7	110	-14313	-1428848	4.47	1036473	0.725	No, M>Mu
SLV 7	483	-6106	322486	1.91	588609	1.825	Si
SLV 2	110	-13536	-914542	4.23	1010945	1.105	Si
SLV 2	483	-12265	-385802	3.83	961576	2.492	Si
SLV 3	110	-14799	-1344997	4.63	1050639	0.781	No, M>Mu
SLV 3	483	-8846	-60854	2.77	781944	12.849	Si
SLV 12	110	-12634	-1070264	3.95	976878	0.913	No, M>Mu
SLV 12	483	-7175	326116	2.24	669295	2.052	Si
SLD 8	110	-12616	-911684	3.94	976146	1.071	Si
SLD 8	483	-9702	12620	3.03	833347	66.034	Si
SLD 7	110	-12616	-911684	3.94	976146	1.071	Si
SLD 7	483	-9702	12620	3.03	833347	66.034	Si
SLV 1	110	-13536	-914542	4.23	1010945	1.105	Si
SLV 1	483	-12265	-385802	3.83	961576	2.492	Si
SLV 8	110	-14313	-1428848	4.47	1036473	0.725	No, M>Mu
SLV 8	483	-6106	322486	1.91	588609	1.825	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 64	110	-14517	119	-680609		5.13	202.1	1.08	3065			25.79	Si
SLU 64	483	-15728	123	-274513		4.92	228.5	1.08	3466			28.2	Si
SLU 44	110	-13077	119	-630180		4.71	198.18	1.08	3006			25.29	Si
SLU 44	483	-14017	124	-254485		4.38	228.5	1.08	3466			27.88	Si
SLU 60	110	-15671	145	-728795		5.51	203.23	1.08	3082			21.3	Si
SLU 60	483	-17096	133	-307018		5.34	228.5	1.08	3466			25.99	Si
SLU 61	110	-15691	134	-730457		5.52	203.09	1.08	3080			22.92	Si
SLU 61	483	-17101	124	-306722		5.35	228.5	1.08	3466			27.85	Si
SLU 43	110	-13044	136	-627410		4.69	198.45	1.08	3010			22.12	Si
SLU 43	483	-14009	139	-254978		4.38	228.5	1.08	3466			24.89	Si
SLU 52	110	-14916	125	-701149		5.28	201.73	1.08	3060			24.49	Si
SLU 52	483	-16178	120	-290913		5.06	228.5	1.08	3466			28.82	Si
SLU 62	110	-15432	122	-696032		5.31	207.44	1.08	3146			25.72	Si
SLU 62	483	-16805	111	-271868		5.25	228.5	1.08	3466			31.16	Si
SLU 53	110	-14961	122	-685412		5.2	205.31	1.08	3114			25.62	Si
SLU 53	483	-16276	115	-267769		5.09	228.5	1.08	3466			30.15	Si
SLU 45	110	-13122	115	-614443		4.63	202.27	1.08	3068			26.57	Si
SLU 45	483	-14115	119	-231341		4.41	228.5	1.08	3466			29.12	Si
SLU 81	110	-17144	128	-781994		5.95	205.91	1.08	3123			24.49	Si
SLU 81	483	-18815	117	-326553		5.88	228.5	1.08	3466			29.61	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	110	-14799	-5271	-1344997		15.08	70.1	1.63	1595			0.3	No, Vu<V
SLV 4	483	-8846	-3474	-60854		2.77	228.5	1.39	4435			1.28	Si
SLV 3	110	-14799	-5271	-1344997		15.08	70.1	1.63	1595			0.3	No, Vu<V
SLV 3	483	-8846	-3474	-60854		2.77	228.5	1.39	4435			1.28	Si
SLV 12	110	-12634	-6488	-1070264		10.18	88.61	1.63	2016			0.31	No, Vu<V
SLV 12	483	-7175	-5685	326116		2.48	206.4	1.33	3843			0.68	No, Vu<V
SLV 9	110	-8424	8549	364588		2.83	212.91	1.4	4169			0.49	No, Vu<V
SLV 9	483	-18571	6890	-757043		6.02	220.45	1.63	5015			0.73	No, Vu<V
SLV 10	110	-8424	8549	364588		2.83	212.91	1.4	4169			0.49	No, Vu<V
SLV 10	483	-18571	6890	-757043		6.02	220.45	1.63	5015			0.73	No, Vu<V
SLV 11	110	-12634	-6488	-1070264		10.18	88.61	1.63	2016			0.31	No, Vu<V
SLV 11	483	-7175	-5685	326116		2.48	206.4	1.33	3843			0.68	No, Vu<V
SLV 5	110	-10103	6682	6004		3.16	228.5	1.46	4687			0.7	No, Vu<V
SLV 5	483	-17501	5879	-760673		5.89	212.36	1.63	4831			0.82	No, Vu<V



Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	110	-14313	-8355	-1428848		23.63	43.27	1.63	984			0.12	No, Vu<V
SLV 7	483	-6106	-6696	322486		2.37	184.3	1.31	3371			0.5	No, Vu<V
SLV 6	110	-10103	6682	6004		3.16	228.5	1.46	4687			0.7	No, Vu<V
SLV 6	483	-17501	5879	-760673		5.89	212.36	1.63	4831			0.82	No, Vu<V
SLV 8	110	-14313	-8355	-1428848		23.63	43.27	1.63	984			0.12	No, Vu<V
SLV 8	483	-6106	-6696	322486		2.37	184.3	1.31	3371			0.5	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	3.46	-11083	10229	55585	5.43	Si
SLV 12	14	0.31	3.46	-11083	10229	55585	5.43	Si
SLV 7	14	0.31	3.67	-11753	10229	57532	5.62	Si
SLV 8	14	0.31	3.67	-11753	10229	57532	5.62	Si
SLV 16	14	0.31	3.7	-11842	10229	57779	5.65	Si
SLV 15	14	0.31	3.7	-11842	10229	57779	5.65	Si
SLV 13	14	0.31	4.11	-13161	10229	61107	5.97	Si
SLV 14	14	0.31	4.11	-13161	10229	61107	5.97	Si
SLV 3	14	0.31	4.4	-14072	10229	63042	6.16	Si
SLV 4	14	0.31	4.4	-14072	10229	63042	6.16	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 14	-15830	-7938	135	0.012	17.797	0.971	17.881	1401.525	No
SLV 13	-15830	-7938	135	0.012	17.797	0.971	17.881	1401.525	No
SLV 16	-12412	-9201	108	0.012	14.317	0.965	18.469	1401.525	No
SLV 15	-12412	-9201	108	0.012	14.317	0.965	18.469	1401.525	No
SLV 3	-8846	-14799	-79	0.013	10.691	0.954	19.576	1401.525	No
SLV 4	-8846	-14799	-79	0.013	10.691	0.954	19.576	1401.525	No
SLV 9	-18571	-8424	102	0.015	20.588	0.975	21.756	1401.525	No
SLV 10	-18571	-8424	102	0.015	20.588	0.975	21.756	1401.525	No
SLV 7	-6106	-14313	-46	0.015	7.91	0.94	23.535	1401.525	No
SLV 8	-6106	-14313	-46	0.015	7.91	0.94	23.535	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.854	SLV 82	No
V_SLV	21.298	SLV 60	Si
PF_SLV	0.725	SLV 7	No
V_SLV	0.118	SLV 7	No
PFFP_SLV	5.434	SLV 11	Si
R_SLV	0.013	SLV 13	No

Maschio 81

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1969.3	666.1	-1776.8	666.1	L3	L4	192.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 81	200	-21812	-375664	4.05	1056445	2.812	Si
SLU 81	390	-24931	-8979	4.63	1037046	115.492	Si
SLU 77	200	-21579	-377287	4	1056183	2.799	Si
SLU 77	390	-24142	-26497	4.48	1045981	39.475	Si
SLU 82	200	-21808	-375899	4.05	1056443	2.81	Si
SLU 82	390	-24934	-8698	4.63	1037010	119.218	Si
SLU 80	200	-21360	-374561	3.96	1055718	2.819	Si
SLU 80	390	-23819	-27505	4.42	1048853	38.133	Si
SLU 83	200	-22075	-381792	4.1	1056457	2.767	Si
SLU 83	390	-25012	-16109	4.64	1035971	64.309	Si
SLU 78	200	-21576	-377522	4	1056177	2.798	Si
SLU 78	390	-24145	-26216	4.48	1045955	39.897	Si
SLU 79	200	-21363	-374325	3.96	1055726	2.82	Si
SLU 79	390	-23817	-27786	4.42	1048875	37.748	Si
SLU 74	200	-21316	-371158	3.95	1055600	2.844	Si
SLU 74	390	-24061	-19367	4.46	1046746	54.047	Si
SLU 84	200	-22072	-382028	4.09	1056458	2.765	Si
SLU 84	390	-25015	-15828	4.64	1035934	65.448	Si
SLU 75	200	-21313	-371393	3.95	1055590	2.842	Si
SLU 75	390	-24064	-19086	4.46	1046721	54.841	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 2	200	-12988	-612752	2.41	1003591	1.638	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	390	-24251	451607	4.5	1474658	3.265	Si
SLV 5	200	-8341	-283198	1.55	701163	2.476	Si
SLV 5	390	-14272	139281	2.65	1076015	7.725	Si
SLV 3	200	-16725	-665390	3.1	1200994	1.805	Si
SLV 3	390	-27097	441561	5.03	1535024	3.476	Si
SLV 4	200	-16725	-665390	3.1	1200994	1.805	Si
SLV 4	390	-27097	441561	5.03	1535024	3.476	Si
SLV 14	200	-12167	153370	2.26	954739	6.225	Si
SLV 14	390	-5229	-474237	0.97	463339	0.977	No, M>Mu
SLV 16	200	-15904	100732	2.95	1161112	11.527	Si
SLV 16	390	-8076	-484283	1.5	681967	1.408	Si
SLV 15	200	-15904	100732	2.95	1161112	11.527	Si
SLV 15	390	-8076	-484283	1.5	681967	1.408	Si
SLV 1	200	-12988	-612752	2.41	1003591	1.638	Si
SLV 1	390	-24251	451607	4.5	1474658	3.265	Si
SLV 13	200	-12167	153370	2.26	954739	6.225	Si
SLV 13	390	-5229	-474237	0.97	463339	0.977	No, M>Mu
SLV 6	200	-8341	-283198	1.55	701163	2.476	Si
SLV 6	390	-14272	139281	2.65	1076015	7.725	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	200	-21812	-4553	-375664		4.05	192.5	1.08	5839			1.28	Si
SLU 81	390	-24931	-4553	-8979		4.63	192.5	1.08	5839			1.28	Si
SLU 82	200	-21808	-4559	-375899		4.05	192.5	1.08	5839			1.28	Si
SLU 82	390	-24934	-4558	-8698		4.63	192.5	1.08	5839			1.28	Si
SLU 83	200	-22075	-4462	-381792		4.1	192.5	1.08	5839			1.31	Si
SLU 83	390	-25012	-4463	-16109		4.64	192.5	1.08	5839			1.31	Si
SLU 73	200	-20831	-4326	-362460		3.86	192.5	1.07	5772			1.33	Si
SLU 73	390	-23659	-4325	-13058		4.39	192.5	1.08	5839			1.35	Si
SLU 75	200	-21313	-4305	-371393		3.95	192.5	1.08	5836			1.36	Si
SLU 75	390	-24064	-4305	-19086		4.46	192.5	1.08	5839			1.36	Si
SLU 61	200	-19613	-4122	-343296		3.64	192.5	1.04	5610			1.36	Si
SLU 61	390	-22242	-4122	-12353		4.13	192.5	1.08	5839			1.42	Si
SLU 60	200	-19616	-4116	-343060		3.64	192.5	1.04	5610			1.36	Si
SLU 60	390	-22239	-4117	-12634		4.13	192.5	1.08	5839			1.42	Si
SLU 76	200	-21095	-4235	-368589		3.91	192.5	1.08	5807			1.37	Si
SLU 76	390	-23740	-4235	-20188		4.4	192.5	1.08	5839			1.38	Si
SLU 84	200	-22072	-4468	-382028		4.09	192.5	1.08	5839			1.31	Si
SLU 84	390	-25015	-4468	-15828		4.64	192.5	1.08	5839			1.31	Si
SLU 74	200	-21316	-4299	-371158		3.95	192.5	1.08	5837			1.36	Si
SLU 74	390	-24061	-4300	-19367		4.46	192.5	1.08	5839			1.36	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	200	-16725	-11256	-665390		3.53	169.4	1.54	7298			0.65	No, Vu<V
SLV 3	390	-27097	-11756	441561		5.03	192.5	1.63	8759			0.75	No, Vu<V
SLV 15	200	-15904	6078	100732		2.95	192.5	1.42	7672			1.26	Si
SLV 15	390	-8076	5760	-484283		2.65	108.84	1.36	4155			0.72	No, Vu<V
SLV 4	200	-16725	-11256	-665390		3.53	169.4	1.54	7298			0.65	No, Vu<V
SLV 4	390	-27097	-11756	441561		5.03	192.5	1.63	8759			0.75	No, Vu<V
SLV 5	200	-8341	-6781	-283198		1.59	186.9	1.15	6029			0.89	No, Vu<V
SLV 5	390	-14272	-5451	139281		2.65	192.5	1.36	7346			1.35	Si
SLV 2	200	-12988	-11991	-612752		3.15	147.22	1.46	6033			0.5	No, Vu<V
SLV 2	390	-24251	-11675	451607		4.5	192.5	1.63	8759			0.75	No, Vu<V
SLV 14	200	-12167	5344	153370		2.26	192.5	1.28	6925			1.3	Si
SLV 14	390	-5229	5841	-474237		11.2	16.67	1.63	759			0.13	No, Vu<V
SLV 6	200	-8341	-6781	-283198		1.59	186.9	1.15	6029			0.89	No, Vu<V
SLV 6	390	-14272	-5451	139281		2.65	192.5	1.36	7346			1.35	Si
SLV 1	200	-12988	-11991	-612752		3.15	147.22	1.46	6033			0.5	No, Vu<V
SLV 1	390	-24251	-11675	451607		4.5	192.5	1.63	8759			0.75	No, Vu<V
SLV 16	200	-15904	6078	100732		2.95	192.5	1.42	7672			1.26	Si
SLV 16	390	-8076	5760	-484283		2.65	108.84	1.36	4155			0.72	No, Vu<V
SLV 13	200	-12167	5344	153370		2.26	192.5	1.28	6925			1.3	Si
SLV 13	390	-5229	5841	-474237		11.2	16.67	1.63	759			0.13	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.31	1.61	-8673	17646	105430	5.97	Si
SLV 13	14	0.31	1.61	-8673	17646	105430	5.97	Si
SLV 9	14	0.31	1.67	-8979	17646	108565	6.15	Si
SLV 10	14	0.31	1.67	-8979	17646	108565	6.15	Si
SLV 15	14	0.31	2.2	-11871	17646	136235	7.72	Si
SLV 16	14	0.31	2.2	-11871	17646	136235	7.72	Si
SLV 5	14	0.31	2.31	-12439	17646	141253	8	Si
SLV 6	14	0.31	2.31	-12439	17646	141253	8	Si
SLV 12	14	0.31	3.64	-19638	17646	192954	10.93	Si
SLV 11	14	0.31	3.64	-19638	17646	192954	10.93	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-25054	-16564	-16	0.039	28.338	0.97	59.183	942.914	No
SLV 4	-25054	-16564	-16	0.039	28.338	0.97	59.183	942.914	No
SLV 2	-23504	-13218	-16	0.04	26.76	0.968	59.449	942.914	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 1	-23504	-13218	-16	0.04	26.76	0.968	59.449	942.914	No
SLV 8	-20153	-19166	-2	0.041	23.349	0.964	61.154	853.756	No
SLV 7	-20153	-19166	-2	0.041	23.349	0.964	61.154	853.756	No
SLV 16	-5886	-12847	23	0.043	8.889	0.917	68.692	942.914	No
SLV 15	-5886	-12847	23	0.043	8.889	0.917	68.692	942.914	No
SLV 11	-14402	-18051	10	0.041	17.502	0.953	62.718	853.756	No
SLV 12	-14402	-18051	10	0.041	17.502	0.953	62.718	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.765	SLU 84	Si
V_SLU	1.281	SLU 82	Si
PF_SLV	0.977	SLV 13	No
V_SLV	0.13	SLV 13	No
PFFP_SLV	5.975	SLV 13	Si
R_SLV	0.063	SLV 3	No

Maschio 82

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1676.8	666.1	-1288.8	666.1	L3	L4	388	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 83	200	-54007	-536420	4.97	4083281	7.612	Si
SLU 83	390	-55895	-353141	5.14	3994719	11.312	Si
SLU 79	200	-52407	-511438	4.82	4146137	8.107	Si
SLU 79	390	-53880	-320427	4.96	4088701	12.76	Si
SLU 78	200	-52878	-518069	4.87	4128814	7.97	Si
SLU 78	390	-54437	-327070	5.01	4064510	12.427	Si
SLU 80	200	-52390	-512138	4.82	4146771	8.097	Si
SLU 80	390	-53857	-320322	4.96	4089652	12.767	Si
SLU 77	200	-52896	-517369	4.87	4128142	7.979	Si
SLU 77	390	-54459	-327176	5.01	4063501	12.42	Si
SLU 74	200	-52085	-515642	4.79	4157441	8.063	Si
SLU 74	390	-53731	-341251	4.95	4094930	12	Si
SLU 75	200	-52067	-516342	4.79	4158050	8.053	Si
SLU 75	390	-53709	-341146	4.94	4095867	12.006	Si
SLU 84	200	-53990	-537120	4.97	4084039	7.604	Si
SLU 84	390	-55872	-353035	5.14	3995870	11.319	Si
SLU 82	200	-53179	-535393	4.89	4117227	7.69	Si
SLU 82	390	-55144	-367111	5.08	4031808	10.983	Si
SLU 81	200	-53197	-534693	4.9	4116532	7.699	Si
SLU 81	390	-55167	-367216	5.08	4030729	10.976	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 5	200	-16406	-1026115	1.51	2789462	2.718	Si
SLV 5	390	-24130	-229520	2.22	3830290	16.688	Si
SLV 13	200	-27414	-977514	2.52	4219965	4.317	Si
SLV 13	390	-29079	-1831228	2.68	4405510	2.406	Si
SLV 15	200	-39012	-1131461	3.59	5344062	4.723	Si
SLV 15	390	-36693	-1826310	3.38	5150804	2.82	Si
SLV 6	200	-16406	-1026115	1.51	2789462	2.718	Si
SLV 6	390	-24130	-229520	2.22	3830290	16.688	Si
SLV 2	200	-31296	-1828678	2.88	4640034	2.537	Si
SLV 2	390	-35133	-1347982	3.23	5011857	3.718	Si
SLV 4	200	-42894	-1674731	3.95	5632519	3.363	Si
SLV 4	390	-42747	-1352900	3.93	5622411	4.156	Si
SLV 16	200	-39012	-1131461	3.59	5344062	4.723	Si
SLV 16	390	-36693	-1826310	3.38	5150804	2.82	Si
SLV 3	200	-42894	-1674731	3.95	5632519	3.363	Si
SLV 3	390	-42747	-1352900	3.93	5622411	4.156	Si
SLV 1	200	-31296	-1828678	2.88	4640034	2.537	Si
SLV 1	390	-35133	-1347982	3.23	5011857	3.718	Si
SLV 14	200	-27414	-977514	2.52	4219965	4.317	Si
SLV 14	390	-29079	-1831228	2.68	4405510	2.406	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 79	200	-52407	-1746	-511438		4.82	388	1.08	11769			6.74	Si
SLU 79	390	-53880	-1746	-320427		4.96	388	1.08	11769			6.74	Si
SLU 80	200	-52390	-1750	-512138		4.82	388	1.08	11769			6.73	Si
SLU 80	390	-53857	-1749	-320322		4.96	388	1.08	11769			6.73	Si
SLU 82	200	-53179	-1686	-535393		4.89	388	1.08	11769			6.98	Si
SLU 82	390	-55144	-1686	-367111		5.08	388	1.08	11769			6.98	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 74	200	-52085	-1680	-515642		4.79	388	1.08	11769			7.01	Si
SLU 74	390	-53731	-1679	-341251		4.95	388	1.08	11769			7.01	Si
SLU 77	200	-52896	-1753	-517369		4.87	388	1.08	11769			6.71	Si
SLU 77	390	-54459	-1752	-327176		5.01	388	1.08	11769			6.72	Si
SLU 81	200	-53197	-1683	-534693		4.9	388	1.08	11769			6.99	Si
SLU 81	390	-55167	-1682	-367216		5.08	388	1.08	11769			7	Si
SLU 84	200	-53990	-1759	-537120		4.97	388	1.08	11769			6.69	Si
SLU 84	390	-55872	-1759	-353035		5.14	388	1.08	11769			6.69	Si
SLU 83	200	-54007	-1756	-536420		4.97	388	1.08	11769			6.7	Si
SLU 83	390	-55895	-1755	-353141		5.14	388	1.08	11769			6.71	Si
SLU 75	200	-52067	-1684	-516342		4.79	388	1.08	11769			6.99	Si
SLU 75	390	-53709	-1683	-341146		4.94	388	1.08	11769			6.99	Si
SLU 78	200	-52878	-1757	-518069		4.87	388	1.08	11769			6.7	Si
SLU 78	390	-54437	-1756	-327070		5.01	388	1.08	11769			6.7	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	200	-27414	14843	977514		2.52	388	1.34	14536			0.98	No, Vu<V
SLV 13	390	-29079	14506	-1831228		2.68	388	1.37	14869			1.03	Si
SLD 1	200	-33564	-7920	-980059		3.09	388	1.45	15766			1.99	Si
SLD 1	390	-35608	-7911	439338		3.28	388	1.49	16175			2.04	Si
SLV 15	200	-39012	14851	1131461		3.59	388	1.55	16856			1.13	Si
SLV 15	390	-36693	14833	-1826310		3.38	388	1.51	16392			1.11	Si
SLD 2	200	-33564	-7920	-980059		3.09	388	1.45	15766			1.99	Si
SLD 2	390	-35608	-7911	439338		3.28	388	1.49	16175			2.04	Si
SLV 2	200	-31296	-17050	-1828678		2.88	388	1.41	15313			0.9	No, Vu<V
SLV 2	390	-35133	-17031	1347982		3.23	388	1.48	16080			0.94	No, Vu<V
SLV 4	200	-42894	-17041	-1674731		3.95	388	1.62	17632			1.03	Si
SLV 4	390	-42747	-16703	1352900		3.93	388	1.62	17603			1.05	Si
SLV 14	200	-27414	14843	977514		2.52	388	1.34	14536			0.98	No, Vu<V
SLV 14	390	-29079	14506	-1831228		2.68	388	1.37	14869			1.03	Si
SLV 16	200	-39012	14851	1131461		3.59	388	1.55	16856			1.13	Si
SLV 16	390	-36693	14833	-1826310		3.38	388	1.51	16392			1.11	Si
SLV 1	200	-31296	-17050	-1828678		2.88	388	1.41	15313			0.9	No, Vu<V
SLV 1	390	-35133	-17031	1347982		3.23	388	1.48	16080			0.94	No, Vu<V
SLV 3	200	-42894	-17041	-1674731		3.95	388	1.62	17632			1.03	Si
SLV 3	390	-42747	-16703	1352900		3.93	388	1.62	17603			1.05	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.31	1.87	-20308	35566	240819	6.77	Si
SLV 10	14	0.31	1.87	-20308	35566	240819	6.77	Si
SLV 5	14	0.31	1.98	-21536	35566	252589	7.1	Si
SLV 6	14	0.31	1.98	-21536	35566	252589	7.1	Si
SLV 13	14	0.31	2.73	-29707	35566	322820	9.08	Si
SLV 14	14	0.31	2.73	-29707	35566	322820	9.08	Si
SLV 2	14	0.31	3.11	-33799	35566	352705	9.92	Si
SLV 1	14	0.31	3.11	-33799	35566	352705	9.92	Si
SLV 16	14	0.31	3.59	-38990	35566	385529	10.84	Si
SLV 15	14	0.31	3.59	-38990	35566	385529	10.84	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-20191	-13179	-204	0.035	26.312	0.939	53.742	853.756	No
SLV 10	-20191	-13179	-204	0.035	26.312	0.939	53.742	853.756	No
SLV 3	-34910	-38342	73	0.039	41.255	0.959	59.384	942.914	No
SLV 4	-34910	-38342	73	0.039	41.255	0.959	59.384	942.914	No
SLV 8	-39780	-50875	207	0.036	46.209	0.963	54.218	853.756	No
SLV 7	-39780	-50875	207	0.036	46.209	0.963	54.218	853.756	No
SLV 6	-21500	-13615	-197	0.035	27.638	0.942	54.24	853.756	No
SLV 5	-21500	-13615	-197	0.035	27.638	0.942	54.24	853.756	No
SLV 12	-38470	-50439	200	0.036	44.876	0.962	54.441	853.756	No
SLV 11	-38470	-50439	200	0.036	44.876	0.962	54.441	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.604	SLU 84	Si
V_SLU	6.689	SLU 84	Si
PF_SLV	2.406	SLV 13	Si
V_SLV	0.898	SLV 1	No
PFFP_SLV	6.771	SLV 9	Si
R_SLV	0.063	SLV 9	No

Maschio 83

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1188.8	666.1	-800.8	666.1	L3	L4	388	28	373	373	373			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 80	200	-52750	508931	4.86	4133610	8.122	Si
SLU 80	390	-55174	444153	5.08	4030386	9.074	Si
SLU 74	200	-51897	491680	4.78	4163819	8.469	Si
SLU 74	390	-54475	435089	5.01	4062798	9.338	Si
SLU 79	200	-52806	509076	4.86	4131507	8.116	Si
SLU 79	390	-55237	446373	5.08	4027358	9.022	Si
SLU 84	200	-53815	513043	4.95	4091419	7.975	Si
SLU 84	390	-56654	450634	5.21	3954689	8.776	Si
SLU 77	200	-53204	511209	4.9	4116233	8.052	Si
SLU 77	390	-55728	449253	5.13	4003167	8.911	Si
SLU 82	200	-52508	493514	4.83	4142507	8.394	Si
SLU 82	390	-55401	436470	5.1	4019407	9.209	Si
SLU 83	200	-53872	513188	4.96	4089052	7.968	Si
SLU 83	390	-56717	452854	5.22	3951251	8.725	Si
SLU 75	200	-51841	491535	4.77	4165698	8.475	Si
SLU 75	390	-54412	432869	5.01	4065616	9.392	Si
SLU 81	200	-52564	493658	4.84	4140463	8.387	Si
SLU 81	390	-55464	438690	5.11	4016316	9.155	Si
SLU 78	200	-53148	511065	4.89	4118435	8.059	Si
SLU 78	390	-55665	447033	5.12	4006330	8.962	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	200	-36358	-1154712	3.35	5121531	4.435	Si
SLV 3	390	-34687	1794076	3.19	4970875	2.771	Si
SLV 13	200	-33093	1799891	3.05	4819563	2.678	Si
SLV 13	390	-37555	-1218793	3.46	5224495	4.287	Si
SLV 1	200	-24934	-1061310	2.3	3928654	3.702	Si
SLV 1	390	-27165	1768980	2.5	4191576	2.369	Si
SLV 9	200	-16910	907440	1.56	2862700	3.155	Si
SLV 9	390	-25143	-202351	2.31	3953901	19.54	Si
SLV 4	200	-36358	-1154712	3.35	5121531	4.435	Si
SLV 4	390	-34687	1794076	3.19	4970875	2.771	Si
SLV 2	200	-24934	-1061310	2.3	3928654	3.702	Si
SLV 2	390	-27165	1768980	2.5	4191576	2.369	Si
SLV 14	200	-33093	1799891	3.05	4819563	2.678	Si
SLV 14	390	-37555	-1218793	3.46	5224495	4.287	Si
SLV 10	200	-16910	907440	1.56	2862700	3.155	Si
SLV 10	390	-25143	-202351	2.31	3953901	19.54	Si
SLV 15	200	-44517	1706488	4.1	5740020	3.364	Si
SLV 15	390	-45077	-1193697	4.15	5775364	4.838	Si
SLV 16	200	-44517	1706488	4.1	5740020	3.364	Si
SLV 16	390	-45077	-1193697	4.15	5775364	4.838	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	200	-52508	1208	493514		4.83	388	1.08	11769			9.75	Si
SLU 82	390	-55401	1207	436470		5.1	388	1.08	11769			9.75	Si
SLU 79	200	-52806	1184	509076		4.86	388	1.08	11769			9.94	Si
SLU 79	390	-55237	1183	446373		5.08	388	1.08	11769			9.95	Si
SLU 80	200	-52750	1194	508931		4.86	388	1.08	11769			9.86	Si
SLU 80	390	-55174	1193	444153		5.08	388	1.08	11769			9.86	Si
SLU 83	200	-53872	1219	513188		4.96	388	1.08	11769			9.65	Si
SLU 83	390	-56717	1219	452854		5.22	388	1.08	11769			9.66	Si
SLU 77	200	-53204	1191	511209		4.9	388	1.08	11769			9.88	Si
SLU 77	390	-55728	1190	449253		5.13	388	1.08	11769			9.89	Si
SLU 84	200	-53815	1230	513043		4.95	388	1.08	11769			9.57	Si
SLU 84	390	-56654	1229	450634		5.21	388	1.08	11769			9.58	Si
SLU 81	200	-52564	1197	493658		4.84	388	1.08	11769			9.83	Si
SLU 81	390	-55464	1197	438690		5.11	388	1.08	11769			9.84	Si
SLU 78	200	-53148	1201	511065		4.89	388	1.08	11769			9.8	Si
SLU 78	390	-55665	1200	447033		5.12	388	1.08	11769			9.81	Si
SLU 75	200	-51841	1179	491535		4.77	388	1.08	11769			9.98	Si
SLU 75	390	-54412	1178	432869		5.01	388	1.08	11769			9.99	Si
SLU 76	200	-51405	1179	489305		4.73	388	1.08	11769			9.98	Si
SLU 76	390	-53879	1178	428509		4.96	388	1.08	11769			9.99	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	200	-44517	15224	1706488		4.1	388	1.63	17654			1.16	Si
SLV 15	390	-45077	15927	-1193697		4.15	388	1.63	17654			1.11	Si
SLV 1	200	-24934	-13655	-1061310		2.3	388	1.29	14040			1.03	Si
SLV 1	390	-27165	-14359	1768980		2.51	386.64	1.34	14455			1.01	Si
SLV 13	200	-33093	17296	1799891		3.05	388	1.44	15672			0.91	No, Vu<V
SLV 13	390	-37555	16510	-1218793		3.46	388	1.52	16564			1	Si
SLV 2	200	-24934	-13655	-1061310		2.3	388	1.29	14040			1.03	Si
SLV 2	390	-27165	-14359	1768980		2.51	386.64	1.34	14455			1.01	Si
SLV 14	200	-33093	17296	1799891		3.05	388	1.44	15672			0.91	No, Vu<V
SLV 14	390	-37555	16510	-1218793		3.46	388	1.52	16564			1	Si
SLV 4	200	-36358	-15727	-1154712		3.35	388	1.5	16325			1.04	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	390	-34687	-14943	1794076		3.19	388	1.47	15991			1.07	Si
SLV 10	200	-16910	8880	907440		1.56	388	1.14	12435			1.4	Si
SLV 10	390	-25143	6386	-202351		2.31	388	1.3	14082			2.21	Si
SLV 16	200	-44517	15224	1706488		4.1	388	1.63	17654			1.16	Si
SLV 16	390	-45077	15927	-1193697		4.15	388	1.63	17654			1.11	Si
SLV 3	200	-36358	-15727	-1154712		3.35	388	1.5	16325			1.04	Si
SLV 3	390	-34687	-14943	1794076		3.19	388	1.47	15991			1.07	Si
SLV 9	200	-16910	8880	907440		1.56	388	1.14	12435			1.4	Si
SLV 9	390	-25143	6386	-202351		2.31	388	1.3	14082			2.21	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.31	1.79	-19417	35566	232074	6.53	Si
SLV 5	14	0.31	1.79	-19417	35566	232074	6.53	Si
SLV 9	14	0.31	2.05	-22251	35566	259294	7.29	Si
SLV 10	14	0.31	2.05	-22251	35566	259294	7.29	Si
SLV 1	14	0.31	2.47	-26852	35566	299887	8.43	Si
SLV 2	14	0.31	2.47	-26852	35566	299887	8.43	Si
SLV 4	14	0.31	3.32	-36059	35566	367697	10.34	Si
SLV 3	14	0.31	3.32	-36059	35566	367697	10.34	Si
SLV 14	14	0.31	3.34	-36298	35566	369218	10.38	Si
SLV 13	14	0.31	3.34	-36298	35566	369218	10.38	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-37029	-38129	72	0.039	43.41	0.961	59.182	942.914	No
SLV 16	-37029	-38129	72	0.039	43.41	0.961	59.182	942.914	No
SLV 6	-19746	-12793	-199	0.035	25.862	0.938	54.008	853.756	No
SLV 5	-19746	-12793	-199	0.035	25.862	0.938	54.008	853.756	No
SLV 12	-40441	-47909	204	0.036	46.881	0.963	54.314	853.756	No
SLV 11	-40441	-47909	204	0.036	46.881	0.963	54.314	853.756	No
SLV 9	-22272	-14449	-193	0.035	28.42	0.943	54.496	853.756	No
SLV 10	-22272	-14449	-193	0.035	28.42	0.943	54.496	853.756	No
SLV 8	-37915	-46253	198	0.036	44.311	0.962	54.502	853.756	No
SLV 7	-37915	-46253	198	0.036	44.311	0.962	54.502	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.968	SLU 83	Si
V_SLU	9.572	SLU 84	Si
PF_SLV	2.369	SLV 1	Si
V_SLV	0.906	SLV 13	No
PFFP_SLV	6.525	SLV 5	Si
R_SLV	0.063	SLV 15	No

Maschio 84

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-700.8	666.1	-515.8	666.1	L3	L4	185	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	200	-21853	359091	4.22	974518	2.714	Si
SLU 79	390	-27095	72524	5.23	896921	12.367	Si
SLU 81	200	-21473	343553	4.15	975460	2.839	Si
SLU 81	390	-26767	53975	5.17	905300	16.773	Si
SLU 83	200	-22139	357617	4.27	973391	2.722	Si
SLU 83	390	-27589	61913	5.33	883410	14.268	Si
SLU 76	200	-21105	344407	4.07	975769	2.833	Si
SLU 76	390	-26198	62069	5.06	918754	14.802	Si
SLU 77	200	-21998	360578	4.25	973991	2.701	Si
SLU 77	390	-27313	71530	5.27	891096	12.458	Si
SLU 74	200	-21332	346513	4.12	975649	2.816	Si
SLU 74	390	-26491	63591	5.11	911992	14.341	Si
SLU 84	200	-22090	357245	4.26	973611	2.725	Si
SLU 84	390	-27543	60403	5.32	884709	14.647	Si
SLU 75	200	-21283	346141	4.11	975694	2.819	Si
SLU 75	390	-26446	62081	5.11	913071	14.708	Si
SLU 80	200	-21804	358719	4.21	974677	2.717	Si
SLU 80	390	-27049	71014	5.22	898121	12.647	Si
SLU 78	200	-21949	360205	4.24	974181	2.705	Si
SLU 78	390	-27267	70020	5.26	892339	12.744	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	200	-17439	702516	3.37	1168673	1.664	Si
SLV 15	390	-27774	-419489	5.36	1441737	3.437	Si
SLV 10	200	-8904	357943	1.72	707766	1.977	Si
SLV 10	390	-15269	-140152	2.95	1071649	7.646	Si
SLV 13	200	-13987	693698	2.7	1007890	1.453	Si
SLV 13	390	-24879	-445176	4.8	1396724	3.137	Si
SLV 2	200	-10972	-236209	2.12	838999	3.552	Si
SLV 2	390	-7070	511947	1.36	580957	1.135	Si
SLV 16	200	-17439	702516	3.37	1168673	1.664	Si
SLV 16	390	-27774	-419489	5.36	1441737	3.437	Si
SLV 14	200	-13987	693698	2.7	1007890	1.453	Si
SLV 14	390	-24879	-445176	4.8	1396724	3.137	Si
SLV 4	200	-14425	-227392	2.78	1030203	4.531	Si
SLV 4	390	-9965	537634	1.92	776656	1.445	Si
SLV 1	200	-10972	-236209	2.12	838999	3.552	Si
SLV 1	390	-7070	511947	1.36	580957	1.135	Si
SLV 9	200	-8904	357943	1.72	707766	1.977	Si
SLV 9	390	-15269	-140152	2.95	1071649	7.646	Si
SLV 3	200	-14425	-227392	2.78	1030203	4.531	Si
SLV 3	390	-9965	537634	1.92	776656	1.445	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	200	-22139	5358	357617		4.27	185	1.08	5612			1.05	Si
SLU 83	390	-27589	5367	61913		5.33	185	1.08	5612			1.05	Si
SLU 74	200	-21332	5150	346513		4.12	185	1.08	5612			1.09	Si
SLU 74	390	-26491	5158	63591		5.11	185	1.08	5612			1.09	Si
SLU 82	200	-21424	5259	343181		4.14	185	1.08	5612			1.07	Si
SLU 82	390	-26722	5266	52465		5.16	185	1.08	5612			1.07	Si
SLU 81	200	-21473	5251	343553		4.15	185	1.08	5612			1.07	Si
SLU 81	390	-26767	5259	53975		5.17	185	1.08	5612			1.07	Si
SLU 78	200	-21949	5266	360205		4.24	185	1.08	5612			1.07	Si
SLU 78	390	-27267	5273	70020		5.26	185	1.08	5612			1.06	Si
SLU 77	200	-21998	5258	360578		4.25	185	1.08	5612			1.07	Si
SLU 77	390	-27313	5266	71530		5.27	185	1.08	5612			1.07	Si
SLU 80	200	-21804	5218	358719		4.21	185	1.08	5612			1.08	Si
SLU 80	390	-27049	5225	71014		5.22	185	1.08	5612			1.07	Si
SLU 84	200	-22090	5367	357245		4.26	185	1.08	5612			1.05	Si
SLU 84	390	-27543	5374	60403		5.32	185	1.08	5612			1.04	Si
SLU 75	200	-21283	5158	346141		4.11	185	1.08	5612			1.09	Si
SLU 75	390	-26446	5165	62081		5.11	185	1.08	5612			1.09	Si
SLU 79	200	-21853	5209	359091		4.22	185	1.08	5612			1.08	Si
SLU 79	390	-27095	5218	72524		5.23	185	1.08	5612			1.08	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	200	-10972	-4921	-236209		2.12	185	1.26	6511			1.32	Si
SLV 1	390	-7070	-5214	511947		4.19	60.28	1.63	2743			0.53	No, Vu<V
SLV 13	200	-13987	11924	693698		3.88	128.71	1.61	5801			0.49	No, Vu<V
SLV 13	390	-24879	12122	-445176		4.8	185	1.63	8417			0.69	No, Vu<V
SLV 2	200	-10972	-4921	-236209		2.12	185	1.26	6511			1.32	Si
SLV 2	390	-7070	-5214	511947		4.19	60.28	1.63	2743			0.53	No, Vu<V
SLV 16	200	-17439	11783	702516		3.98	156.65	1.63	7128			0.6	No, Vu<V
SLV 16	390	-27774	12088	-419489		5.36	185	1.63	8417			0.7	No, Vu<V
SLV 3	200	-14425	-5062	-227392		2.78	185	1.39	7202			1.42	Si
SLV 3	390	-9965	-5248	537634		3.08	115.65	1.45	4692			0.89	No, Vu<V
SLV 10	200	-8904	6192	357943		2.03	156.9	1.24	5442			0.88	No, Vu<V
SLV 10	390	-15269	6094	-140152		2.95	185	1.42	7370			1.21	Si
SLV 4	200	-14425	-5062	-227392		2.78	185	1.39	7202			1.42	Si
SLV 4	390	-9965	-5248	537634		3.08	115.65	1.45	4692			0.89	No, Vu<V
SLV 9	200	-8904	6192	357943		2.03	156.9	1.24	5442			0.88	No, Vu<V
SLV 9	390	-15269	6094	-140152		2.95	185	1.42	7370			1.21	Si
SLV 14	200	-13987	11924	693698		3.88	128.71	1.61	5801			0.49	No, Vu<V
SLV 14	390	-24879	12122	-445176		4.8	185	1.63	8417			0.69	No, Vu<V
SLV 15	200	-17439	11783	702516		3.98	156.65	1.63	7128			0.6	No, Vu<V
SLV 15	390	-27774	12088	-419489		5.36	185	1.63	8417			0.7	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.31	1.8	-9303	16958	111101	6.55	Si
SLV 5	14	0.31	1.8	-9303	16958	111101	6.55	Si
SLV 2	14	0.31	1.88	-9753	16958	115504	6.81	Si
SLV 1	14	0.31	1.88	-9753	16958	115504	6.81	Si
SLV 10	14	0.31	2.37	-12260	16958	138396	8.16	Si
SLV 9	14	0.31	2.37	-12260	16958	138396	8.16	Si
SLV 4	14	0.31	2.53	-13096	16958	145408	8.57	Si
SLV 3	14	0.31	2.53	-13096	16958	145408	8.57	Si
SLV 13	14	0.31	3.79	-19610	16958	189481	11.17	Si
SLV 14	14	0.31	3.79	-19610	16958	189481	11.17	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-22428	-9455	-24	0.039	25.555	0.968	58.965	942.914	No
SLV 14	-22428	-9455	-24	0.039	25.555	0.968	58.965	942.914	No
SLV 16	-24537	-12345	1	0.04	27.701	0.97	59.905	942.914	No
SLV 15	-24537	-12345	1	0.04	27.701	0.97	59.905	942.914	No
SLV 12	-20931	-14842	40	0.039	24.03	0.966	58.161	853.756	No
SLV 11	-20931	-14842	40	0.039	24.03	0.966	58.161	853.756	No
SLV 7	-15731	-14091	49	0.038	18.741	0.957	58.402	853.756	No
SLV 8	-15731	-14091	49	0.038	18.741	0.957	58.402	853.756	No
SLV 4	-7206	-9843	31	0.041	10.1	0.927	64.785	942.914	No
SLV 3	-7206	-9843	31	0.041	10.1	0.927	64.785	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.701	SLU 77	Si
V_SLU	1.044	SLU 84	Si
PF_SLV	1.135	SLV 1	Si
V_SLV	0.486	SLV 13	No
PFFP_SLV	6.551	SLV 5	Si
R_SLV	0.063	SLV 13	No

Maschio 85

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-470.9	-1100.3	-331.4	L3	Z medio 312 cm	139.5	28	202	202	202			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 77	110	-26039	-240801	6.67	329842	1.37	Si
SLU 77	312	-17352	46237	4.44	550254	11.901	Si
SLU 84	110	-26241	-235136	6.72	320804	1.364	Si
SLU 84	312	-17483	50176	4.48	549384	10.949	Si
SLU 76	110	-25170	-226499	6.44	366791	1.619	Si
SLU 76	312	-16729	43221	4.28	553344	12.803	Si
SLU 80	110	-26007	-240685	6.66	331269	1.376	Si
SLU 80	312	-17323	44957	4.43	550437	12.244	Si
SLU 79	110	-26067	-242724	6.67	328623	1.354	Si
SLU 79	312	-17367	45720	4.45	550157	12.033	Si
SLU 83	110	-26300	-237175	6.73	318097	1.341	Si
SLU 83	312	-17528	50939	4.49	549073	10.779	Si
SLU 78	110	-25980	-238762	6.65	332481	1.393	Si
SLU 78	312	-17307	45474	4.43	550531	12.107	Si
SLU 82	110	-25444	-222309	6.51	355526	1.599	Si
SLU 82	312	-16920	48949	4.33	552580	11.289	Si
SLU 74	110	-25242	-227973	6.46	363860	1.596	Si
SLU 74	312	-16788	45010	4.3	553125	12.289	Si
SLU 81	110	-25503	-224347	6.53	353027	1.574	Si
SLU 81	312	-16964	49712	4.34	552379	11.112	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 9	110	-27613	-451572	7.07	811675	1.797	Si
SLV 9	312	-17584	25174	4.5	774599	30.77	Si
SLV 5	110	-27061	-294607	6.93	817284	2.774	Si
SLV 5	312	-18283	41275	4.68	786726	19.061	Si
SLV 14	110	-21249	-482885	5.44	822240	1.703	Si
SLV 14	312	-12220	402	3.13	634111	1000	Si
SLV 10	110	-27613	-451572	7.07	811675	1.797	Si
SLV 10	312	-17584	25174	4.5	774599	30.77	Si
SLV 15	110	-15241	-352760	3.9	723579	2.051	Si
SLV 15	312	-8322	-4731	2.13	479263	101.313	Si
SLV 6	110	-27061	-294607	6.93	817284	2.774	Si
SLV 6	312	-18283	41275	4.68	786726	19.061	Si
SLD 13	110	-18988	-294906	4.86	797499	2.704	Si
SLD 13	312	-11762	14313	3.01	618223	43.194	Si
SLV 13	110	-21249	-482885	5.44	822240	1.703	Si
SLV 13	312	-12220	402	3.13	634111	1000	Si
SLD 14	110	-18988	-294906	4.86	797499	2.704	Si
SLD 14	312	-11762	14313	3.01	618223	43.194	Si
SLV 16	110	-15241	-352760	3.9	723579	2.051	Si
SLV 16	312	-8322	-4731	2.13	479263	101.313	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	110	-26241	-1940	-235136		6.72	139.5	1.08	4231			2.18	Si
SLU 84	312	-17483	-1313	50176		4.48	139.5	1.08	4231			3.22	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	110	-26007	-2017	-240685		6.66	139.5	1.08	4231			2.1	Si
SLU 80	312	-17323	-1314	44957		4.43	139.5	1.08	4231			3.22	Si
SLU 56	110	-24504	-1848	-229200		6.27	139.5	1.08	4231			2.29	Si
SLU 56	312	-16273	-1177	40146		4.17	139.5	1.08	4231			3.6	Si
SLU 78	110	-25980	-2005	-238762		6.65	139.5	1.08	4231			2.11	Si
SLU 78	312	-17307	-1308	45474		4.43	139.5	1.08	4231			3.24	Si
SLU 58	110	-24531	-1859	-231123		6.28	139.5	1.08	4231			2.28	Si
SLU 58	312	-16289	-1183	39630		4.17	139.5	1.08	4231			3.58	Si
SLU 71	110	-23661	-1850	-225740		6.06	139.5	1.08	4231			2.29	Si
SLU 71	312	-15677	-1066	30679		4.01	139.5	1.08	4231			3.97	Si
SLU 74	110	-25242	-1881	-227973		6.46	139.5	1.08	4231			2.25	Si
SLU 74	312	-16788	-1218	45010		4.3	139.5	1.08	4231			3.48	Si
SLU 79	110	-26067	-2058	-242724		6.67	139.5	1.08	4231			2.06	Si
SLU 79	312	-17367	-1342	45720		4.45	139.5	1.08	4231			3.15	Si
SLU 83	110	-26300	-1982	-237175		6.73	139.5	1.08	4231			2.14	Si
SLU 83	312	-17528	-1342	50939		4.49	139.5	1.08	4231			3.15	Si
SLU 77	110	-26039	-2047	-240801		6.67	139.5	1.08	4231			2.07	Si
SLU 77	312	-17352	-1336	46237		4.44	139.5	1.08	4231			3.17	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	110	-19407	-1866	40332		4.97	139.5	1.63	6347			3.4	Si
SLV 2	312	-14552	-3397	54072		3.73	139.5	1.58	6165			1.82	Si
SLV 11	110	-7587	2193	-17822		1.94	139.5	1.22	4772			2.18	Si
SLV 11	312	-4591	2310	8067		1.18	139.5	1.07	4173			1.81	Si
SLV 7	110	-7035	2410	139143		1.8	139.5	1.19	4662			1.93	Si
SLV 7	312	-5291	1111	24168		1.35	139.5	1.1	4313			3.88	Si
SLV 12	110	-7587	2193	-17822		1.94	139.5	1.22	4772			2.18	Si
SLV 12	312	-4591	2310	8067		1.18	139.5	1.07	4173			1.81	Si
SLV 10	110	-27613	-4778	-451572		7.07	139.5	1.63	6347			1.33	Si
SLV 10	312	-17584	-2474	25174		4.5	139.5	1.63	6347			2.57	Si
SLV 9	110	-27613	-4778	-451572		7.07	139.5	1.63	6347			1.33	Si
SLV 9	312	-17584	-2474	25174		4.5	139.5	1.63	6347			2.57	Si
SLV 5	110	-27061	-4560	-294607		6.93	139.5	1.63	6347			1.39	Si
SLV 5	312	-18283	-3672	41275		4.68	139.5	1.63	6347			1.73	Si
SLV 8	110	-7035	2410	139143		1.8	139.5	1.19	4662			1.93	Si
SLV 8	312	-5291	1111	24168		1.35	139.5	1.1	4313			3.88	Si
SLV 6	110	-27061	-4560	-294607		6.93	139.5	1.63	6347			1.39	Si
SLV 6	312	-18283	-3672	41275		4.68	139.5	1.63	6347			1.73	Si
SLV 1	110	-19407	-1866	40332		4.97	139.5	1.63	6347			3.4	Si
SLV 1	312	-14552	-3397	54072		3.73	139.5	1.58	6165			1.82	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 211 W_a 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.29	1.7	-6644	3613	80067	22.16	Si
SLV 7	14	0.29	1.7	-6644	3613	80067	22.16	Si
SLV 12	14	0.29	1.72	-6736	3613	80990	22.42	Si
SLV 11	14	0.29	1.72	-6736	3613	80990	22.42	Si
SLV 4	14	0.29	3.27	-12759	3613	130873	36.22	Si
SLV 3	14	0.29	3.27	-12759	3613	130873	36.22	Si
SLV 15	14	0.29	3.34	-13065	3613	132836	36.76	Si
SLV 16	14	0.29	3.34	-13065	3613	132836	36.76	Si
SLV 1	14	0.29	4.63	-18092	3613	157273	43.53	Si
SLV 2	14	0.29	4.63	-18092	3613	157273	43.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 211 $W_a = 0.05$ $T_a = 0.0243$

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 7	-5291	-7035	-142	0.054	6.502	0.95	82.463	361.29	No
SLV 8	-5291	-7035	-142	0.054	6.502	0.95	82.463	361.29	No
SLV 12	-4591	-7587	-127	0.055	5.792	0.945	84.086	361.29	No
SLV 11	-4591	-7587	-127	0.055	5.792	0.945	84.086	361.29	No
SLV 4	-10655	-13399	-110	0.064	11.958	0.972	95.696	371.2	No
SLV 3	-10655	-13399	-110	0.064	11.958	0.972	95.696	371.2	No
SLV 2	-14552	-19407	-68	0.068	15.928	0.978	101.139	371.2	No
SLV 1	-14552	-19407	-68	0.068	15.928	0.978	101.139	371.2	No
SLV 15	-8322	-15241	-61	0.068	9.584	0.965	102.479	371.2	No
SLV 16	-8322	-15241	-61	0.068	9.584	0.965	102.479	371.2	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.341	SLU 83	Si
V_SLV	2.056	SLU 79	Si
PF_SLV	1.703	SLV 13	Si
V_SLV	1.329	SLV 9	Si
PFFP_SLV	22.16	SLV 7	Si
R_SLV	0.228	SLV 7	No

Maschio 86

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-331.4	-1100.3	-35.4	L3	Z medio 398 cm	296	28	287.5	202	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ ₀	f _{v0}	μ	φ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	M	σ ₀	Mu	c.s.	Verifica
SLU 74	110	-45367	54836	5.47	2202441	40.164	Si
SLU 74	312	-41500	418524	5.01	2366496	5.654	Si
SLU 79	110	-46005	22773	5.55	2169070	95.249	Si
SLU 79	312	-42121	405397	5.08	2344585	5.783	Si
SLU 78	110	-46256	38276	5.58	2155432	56.313	Si
SLU 78	312	-42386	417483	5.11	2334716	5.592	Si
SLU 80	110	-46016	28557	5.55	2168473	75.934	Si
SLU 80	312	-42120	406639	5.08	2344611	5.766	Si
SLU 82	110	-46378	84034	5.6	2148737	25.57	Si
SLU 82	312	-42410	440990	5.12	2333812	5.292	Si
SLU 81	110	-46367	78249	5.59	2149352	27.468	Si
SLU 81	312	-42410	439747	5.12	2333785	5.307	Si
SLU 84	110	-47256	61689	5.7	2098444	34.016	Si
SLU 84	312	-43296	438707	5.22	2298474	5.239	Si
SLU 77	110	-46245	32491	5.58	2156041	66.358	Si
SLU 77	312	-42386	416240	5.11	2334689	5.609	Si
SLU 83	110	-47245	55904	5.7	2099102	37.548	Si
SLU 83	312	-43296	437464	5.22	2298443	5.254	Si
SLU 75	110	-45378	60620	5.48	2201875	36.322	Si
SLU 75	312	-41500	419766	5.01	2366520	5.638	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γ_M = 2

Comb.	Quota	N	M	σ ₀	Mu	c.s.	Verifica
SLV 8	110	-30358	602212	3.66	3146095	5.224	Si
SLV 8	312	-25921	565052	3.13	2854358	5.051	Si
SLV 12	110	-25670	563378	3.1	2836145	5.034	Si
SLV 12	312	-25299	503349	3.05	2808863	5.58	Si
SLV 11	110	-25670	563378	3.1	2836145	5.034	Si
SLV 11	312	-25299	503349	3.05	2808863	5.58	Si
SLV 7	110	-30358	602212	3.66	3146095	5.224	Si
SLV 7	312	-25921	565052	3.13	2854358	5.051	Si
SLV 9	110	-31320	-536223	3.78	3201745	5.971	Si
SLV 9	312	-29965	-27708	3.62	3122595	112.695	Si
SLV 3	110	-37805	262658	4.56	3506384	13.35	Si
SLV 3	312	-28280	451170	3.41	3016619	6.686	Si
SLV 4	110	-37805	262658	4.56	3506384	13.35	Si
SLV 4	312	-28280	451170	3.41	3016619	6.686	Si
SLV 5	110	-36008	-497389	4.34	3434281	6.905	Si
SLV 5	312	-30587	33995	3.69	3159607	92.943	Si
SLV 6	110	-36008	-497389	4.34	3434281	6.905	Si
SLV 6	312	-30587	33995	3.69	3159607	92.943	Si
SLV 10	110	-31320	-536223	3.78	3201745	5.971	Si
SLV 10	312	-29965	-27708	3.62	3122595	112.695	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	V par	M	σ ₀	σ _N	I'	f _{vd}	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 44	110	-35647	872	21316		4.3	296	1.08	8979			10.29	Si
SLU 44	312	-32042	458	283016		3.87	296	1.07	8877			19.36	Si
SLU 29	110	-33810	-461	2983		4.08	296	1.08	8979			19.46	Si
SLU 29	312	-30837	-853	286765		3.72	296	1.05	8716			10.22	Si
SLU 31	110	-37015	846	82484		4.47	296	1.08	8979			10.62	Si
SLU 31	312	-33875	481	362899		4.09	296	1.08	8979			18.66	Si
SLU 8	110	-30133	-420	-27634		3.64	296	1.04	8622			20.55	Si
SLU 8	312	-27342	-779	227243		3.3	296	1	8250			10.59	Si
SLU 52	110	-40590	1024	46486		4.9	296	1.08	8979			8.77	Si
SLU 52	312	-36852	611	352513		4.45	296	1.08	8979			14.7	Si
SLU 82	110	-46378	916	84034		5.6	296	1.08	8979			9.81	Si
SLU 82	312	-42410	482	440990		5.12	296	1.08	8979			18.63	Si
SLU 61	110	-42700	958	53417		5.15	296	1.08	8979			9.38	Si
SLU 61	312	-38914	556	381468		4.7	296	1.08	8979			16.16	Si
SLU 73	110	-44267	982	77103		5.34	296	1.08	8979			9.14	Si
SLU 73	312	-40347	537	412035		4.87	296	1.08	8979			16.72	Si
SLU 65	110	-39324	830	51933		4.74	296	1.08	8979			10.81	Si
SLU 65	312	-35537	385	342538		4.29	296	1.08	8979			23.33	Si
SLU 10	110	-33337	888	51867		4.02	296	1.08	8979			10.11	Si
SLU 10	312	-30380	555	303377		3.67	296	1.04	8655			15.6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γ_M = 2

Comb.	Quota	N	V par	M	σ ₀	σ _N	I'	f _{vd}	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	110	-37805	10153	262658		4.56	296	1.63	13468			1.33	Si
SLV 3	312	-28280	5661	451170		3.41	296	1.52	12563			2.22	Si
SLV 9	110	-31320	-11755	-536223		3.78	296	1.59	13171			1.12	Si
SLV 9	312	-29965	-9958	-27708		3.62	296	1.56	12900			1.3	Si
SLV 12	110	-25670	8639	563378		3.1	296	1.45	12041			1.39	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	312	-25299	8551	503349		3.05	296	1.44	11966			1.4	Si
SLV 4	110	-37805	10153	262658		4.56	296	1.63	13468			1.33	Si
SLV 4	312	-28280	5661	451170		3.41	296	1.52	12563			2.22	Si
SLV 8	110	-30358	12632	602212		3.66	296	1.57	12978			1.03	Si
SLV 8	312	-25921	10207	565052		3.13	296	1.46	12091			1.18	Si
SLV 10	110	-31320	-11755	-536223		3.78	296	1.59	13171			1.12	Si
SLV 10	312	-29965	-9958	-27708		3.62	296	1.56	12900			1.3	Si
SLV 7	110	-30358	12632	602212		3.66	296	1.57	12978			1.03	Si
SLV 7	312	-25921	10207	565052		3.13	296	1.46	12091			1.18	Si
SLV 13	110	-23873	-9276	-196669		2.88	296	1.41	11681			1.26	Si
SLV 13	312	-27607	-5412	86174		3.33	296	1.5	12428			2.3	Si
SLV 11	110	-25670	8639	563378		3.1	296	1.45	12041			1.39	Si
SLV 11	312	-25299	8551	503349		3.05	296	1.44	11966			1.4	Si
SLV 14	110	-23873	-9276	-196669		2.88	296	1.41	11681			1.26	Si
SLV 14	312	-27607	-5412	86174		3.33	296	1.5	12428			2.3	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 211 Wa 0.05 denominatore 8 yM = 2

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.29	3.27	-27095	15530	277836	17.89	Si
SLV 11	14	0.29	3.27	-27095	15530	277836	17.89	Si
SLV 15	14	0.29	3.33	-27569	15530	280894	18.09	Si
SLV 16	14	0.29	3.33	-27569	15530	280894	18.09	Si
SLV 7	14	0.29	3.5	-29016	15530	289833	18.66	Si
SLV 8	14	0.29	3.5	-29016	15530	289833	18.66	Si
SLV 13	14	0.29	3.61	-29898	15530	294995	18.99	Si
SLV 14	14	0.29	3.61	-29898	15530	294995	18.99	Si
SLV 4	14	0.29	4.1	-33975	15530	316073	20.35	Si
SLV 3	14	0.29	4.1	-33975	15530	316073	20.35	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 211 Wa = 0.05 Ta = 0.0493

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-29680	-39500	166	0.047	33.572	0.97	70.109	536.447	No
SLV 1	-29680	-39500	166	0.047	33.572	0.97	70.109	536.447	No
SLV 3	-28280	-37805	153	0.047	32.147	0.968	70.689	536.447	No
SLV 4	-28280	-37805	153	0.047	32.147	0.968	70.689	536.447	No
SLV 16	-26207	-22178	-137	0.048	30.036	0.966	71.539	536.447	No
SLV 15	-26207	-22178	-137	0.048	30.036	0.966	71.539	536.447	No
SLV 14	-27607	-23873	-124	0.048	31.461	0.968	72.151	536.447	No
SLV 13	-27607	-23873	-124	0.048	31.461	0.968	72.151	536.447	No
SLV 5	-30587	-36008	79	0.049	34.496	0.97	74.1	505.225	No
SLV 6	-30587	-36008	79	0.049	34.496	0.97	74.1	505.225	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.239	SLU 84	Si
V_SLU	8.767	SLU 52	Si
PF_SLV	5.034	SLV 11	Si
V_SLV	1.027	SLV 7	Si
PFFP_SLV	17.89	SLV 11	Si
R_SLV	0.131	SLV 1	No

Maschio 87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-972.8	220.1	-972.8	666.1	L3	L4	446	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, yM = 3

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 55	110	-51284	3136225	8.21	0	0	No, Rottura per schiacciamento
SLU 55	483	-31914	-188868	5.11	2651355	14.038	Si
SLU 52	110	-52261	2834929	8.37	0	0	No, Rottura per schiacciamento
SLU 52	483	-32864	-319467	5.26	2593402	8.118	Si
SLU 84	110	-58172	3752323	9.32	0	0	No, Rottura per schiacciamento
SLU 84	483	-36468	-150873	5.84	2301574	15.255	Si
SLU 57	110	-51277	3421465	8.21	0	0	No, Rottura per schiacciamento
SLU 57	483	-31743	-89935	5.08	2660926	29.587	Si
SLU 56	110	-51265	3432032	8.21	0	0	No, Rottura per schiacciamento
SLU 56	483	-31717	-85202	5.08	2662382	31.248	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 53	110	-52242	3130736	8.37	0	0	No, Rottura per schiacciamento
SLU 53	483	-32667	-215801	5.23	2606070	12.076	Si
SLU 83	110	-58161	3762890	9.31	0	0	No, Rottura per schiacciamento
SLU 83	483	-36441	-146140	5.84	2304123	15.767	Si
SLU 54	110	-52254	3120169	8.37	0	0	No, Rottura per schiacciamento
SLU 54	483	-32693	-220535	5.24	2604394	11.809	Si
SLU 61	110	-54683	2991079	8.76	0	0	No, Rottura per schiacciamento
SLU 61	483	-34527	-328567	5.53	2472891	7.526	Si
SLU 60	110	-54671	3001646	8.76	0	0	No, Rottura per schiacciamento
SLU 60	483	-34500	-323834	5.53	2474991	7.643	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	110	-33245	5054577	5.32	4183144	0.828	No, $M > M_u$
SLV 8	483	-21786	376855	3.49	3470998	9.21	Si
SLD 7	110	-37163	3435857	5.95	4250555	1.237	Si
SLD 7	483	-23665	41187	3.79	3640372	88.386	Si
SLD 12	110	-39159	3480550	6.27	4250390	1.221	Si
SLD 12	483	-23873	43345	3.82	3657844	84.389	Si
SLV 15	110	-46475	3290376	7.44	4050668	1.231	Si
SLV 15	483	-24900	-17854	3.99	3740473	209.501	Si
SLD 8	110	-37163	3435857	5.95	4250555	1.237	Si
SLD 8	483	-23665	41187	3.79	3640372	88.386	Si
SLV 7	110	-33245	5054577	5.32	4183144	0.828	No, $M > M_u$
SLV 7	483	-21786	376855	3.49	3470998	9.21	Si
SLD 11	110	-39159	3480550	6.27	4250390	1.221	Si
SLD 11	483	-23873	43345	3.82	3657844	84.389	Si
SLV 12	110	-37964	5153039	6.08	4253285	0.825	No, $M > M_u$
SLV 12	483	-22286	381848	3.57	3518046	9.213	Si
SLV 16	110	-46475	3290376	7.44	4050668	1.231	Si
SLV 16	483	-24900	-17854	3.99	3740473	209.501	Si
SLV 11	110	-37964	5153039	6.08	4253285	0.825	No, $M > M_u$
SLV 11	483	-22286	381848	3.57	3518046	9.213	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	110	-50062	2117	3544066		8.02	446	1.08	6764			3.2	Si
SLU 69	483	-30686	1004	-9512		4.91	446	1.08	6764			6.74	Si
SLU 77	110	-55732	2182	3891980		8.93	446	1.08	6764			3.1	Si
SLU 77	483	-34608	947	-38108		5.54	446	1.08	6764			7.14	Si
SLU 38	110	-45197	2100	3447828		7.33	440.15	1.08	6676			3.18	Si
SLU 38	483	-27931	1056	69706		4.47	446	1.08	6764			6.41	Si
SLU 37	110	-45185	2108	3458394		7.35	439.38	1.08	6664			3.16	Si
SLU 37	483	-27904	1062	74439		4.47	446	1.08	6764			6.37	Si
SLU 80	110	-54766	2243	3904514		8.77	446	1.08	6764			3.02	Si
SLU 80	483	-33837	1018	-8018		5.42	446	1.08	6764			6.64	Si
SLU 72	110	-49097	2179	3556600		7.86	446	1.08	6764			3.1	Si
SLU 72	483	-29915	1075	20577		4.79	446	1.08	6764			6.29	Si
SLU 71	110	-49085	2187	3567167		7.86	446	1.08	6764			3.09	Si
SLU 71	483	-29889	1082	25311		4.79	446	1.08	6764			6.25	Si
SLU 79	110	-54754	2251	3915080		8.77	446	1.08	6764			3.01	Si
SLU 79	483	-33811	1025	-3285		5.41	446	1.08	6764			6.6	Si
SLU 70	110	-50074	2109	3533500		8.02	446	1.08	6764			3.21	Si
SLU 70	483	-30712	997	-14245		4.92	446	1.08	6764			6.78	Si
SLU 78	110	-55744	2173	3881413		8.93	446	1.08	6764			3.11	Si
SLU 78	483	-34634	941	-42841		5.55	446	1.08	6764			7.19	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 8	110	-37163	4695	3435857		6.78	391.64	1.63	8910			1.9	Si
SLD 8	483	-23665	3268	41187		3.79	446	1.59	9936			3.04	Si
SLV 6	110	-41833	-8145	-595522		6.7	446	1.63	10146			1.25	Si
SLV 6	483	-27591	-7268	-781795		4.42	446	1.63	10146			1.4	Si
SLV 11	110	-37964	9896	5153039		10.36	261.79	1.63	5956			0.6	No, $V_u < V$
SLV 11	483	-22286	7397	381848		3.57	446	1.55	9660			1.31	Si
SLV 9	110	-46552	-8225	-497060		7.46	446	1.63	10146			1.23	Si
SLV 9	483	-28090	-7576	-776802		4.5	446	1.63	10146			1.34	Si
SLV 12	110	-37964	9896	5153039		10.36	261.79	1.63	5956			0.6	No, $V_u < V$
SLV 12	483	-22286	7397	381848		3.57	446	1.55	9660			1.31	Si
SLV 10	110	-46552	-8225	-497060		7.46	446	1.63	10146			1.23	Si
SLV 10	483	-28090	-7576	-776802		4.5	446	1.63	10146			1.34	Si
SLV 5	110	-41833	-8145	-595522		6.7	446	1.63	10146			1.25	Si
SLV 5	483	-27591	-7268	-781795		4.42	446	1.63	10146			1.4	Si
SLD 7	110	-37163	4695	3435857		6.78	391.64	1.63	8910			1.9	Si
SLD 7	483	-23665	3268	41187		3.79	446	1.59	9936			3.04	Si
SLV 7	110	-33245	9976	5054577		11.15	212.88	1.63	4843			0.49	No, $V_u < V$
SLV 7	483	-21786	7706	376855		3.49	446	1.53	9561			1.24	Si
SLV 8	110	-33245	9976	5054577		11.15	212.88	1.63	4843			0.49	No, $V_u < V$
SLV 8	483	-21786	7706	376855		3.49	446	1.53	9561			1.24	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma_M = 2$



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.31	3.59	-22424	19966	110831	5.55	Si
SLV 4	14	0.31	3.59	-22424	19966	110831	5.55	Si
SLV 7	14	0.31	3.75	-23411	19966	113591	5.69	Si
SLV 8	14	0.31	3.75	-23411	19966	113591	5.69	Si
SLV 1	14	0.31	4.01	-25012	19966	117685	5.89	Si
SLV 2	14	0.31	4.01	-25012	19966	117685	5.89	Si
SLV 11	14	0.31	4.3	-26846	19966	121796	6.1	Si
SLV 12	14	0.31	4.3	-26846	19966	121796	6.1	Si
SLV 6	14	0.31	5.13	-32039	19966	130092	6.52	Si
SLV 5	14	0.31	5.13	-32039	19966	130092	6.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-23235	-30745	120	0.016	26.936	0.963	23.498	1401.525	No
SLV 3	-23235	-30745	120	0.016	26.936	0.963	23.498	1401.525	No
SLV 14	-26641	-49051	-125	0.016	30.403	0.967	23.704	1401.525	No
SLV 13	-26641	-49051	-125	0.016	30.403	0.967	23.704	1401.525	No
SLV 15	-24900	-46475	-121	0.016	28.631	0.965	23.714	1401.525	No
SLV 16	-24900	-46475	-121	0.016	28.631	0.965	23.714	1401.525	No
SLV 2	-24976	-33322	116	0.016	28.708	0.966	24.01	1401.525	No
SLV 1	-24976	-33322	116	0.016	28.708	0.966	24.01	1401.525	No
SLV 9	-28090	-46552	-46	0.019	31.878	0.969	27.811	1401.525	No
SLV 10	-28090	-46552	-46	0.019	31.878	0.969	27.811	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 52	No
V_SLU	3.005	SLU 79	Si
PF_SLV	0.825	SLV 11	No
V_SLV	0.485	SLV 7	No
PFFP_SLV	5.551	SLV 3	Si
R_SLV	0.017	SLV 3	No

Maschio 88

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-944.8	-335.9	-1100.3	-335.9	L3	L4	155.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	110	-9685	429814	2.22	547392	1.274	Si
SLU 76	320	-13841	168377	3.18	656171	3.897	Si
SLU 82	110	-9737	444579	2.24	549223	1.235	Si
SLU 82	320	-14047	169171	3.23	659595	3.899	Si
SLU 84	110	-10019	450211	2.3	558937	1.242	Si
SLU 84	320	-14363	179811	3.3	664484	3.695	Si
SLU 40	110	-8036	379501	1.85	483241	1.273	Si
SLU 40	320	-11825	136215	2.72	612860	4.499	Si
SLU 39	110	-8009	375872	1.84	482095	1.283	Si
SLU 39	320	-11717	144965	2.69	610024	4.208	Si
SLU 73	110	-9403	424183	2.16	537265	1.267	Si
SLU 73	320	-13525	157737	3.11	650558	4.124	Si
SLU 75	110	-9687	428640	2.22	547464	1.277	Si
SLU 75	320	-13822	172719	3.17	655844	3.797	Si
SLU 78	110	-9969	434272	2.29	557239	1.283	Si
SLU 78	320	-14138	183358	3.25	661045	3.605	Si
SLU 81	110	-9710	440950	2.23	548277	1.243	Si
SLU 81	320	-13938	177921	3.2	657816	3.697	Si
SLU 83	110	-9992	446582	2.3	558025	1.25	Si
SLU 83	320	-14254	188561	3.27	662855	3.515	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	110	-4545	-42470	1.04	323202	7.61	Si
SLV 15	320	848	584912	0	0	0	No, Trazione
SLV 7	110	-2943	432051	0	0	0	No, e>l/2
SLV 7	320	-6138	104957	1.41	422160	4.022	Si
SLV 12	110	-2384	226584	0	0	0	No, e>l/2
SLV 12	320	-1053	361603	0	0	0	No, e>l/2
SLV 13	110	-6957	-67621	1.6	470145	6.953	Si
SLV 13	320	-2608	519674	0	0	0	No, e>l/2
SLV 16	110	-4545	-42470	1.04	323202	7.61	Si
SLV 16	320	848	584912	0	0	0	No, Trazione
SLV 8	110	-2943	432051	0	0	0	No, e>l/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	320	-6138	104957	1.41	422160	4.022	Si
SLV 14	110	-6957	-67621	1.6	470145	6.953	Si
SLV 14	320	-2608	519674	0	0	0	No, $e \geq l/2$
SLV 4	110	-6408	642421	0	0	0	No, $e \geq l/2$
SLV 4	320	-16102	-270575	3.7	873016	3.227	Si
SLV 3	110	-6408	642421	0	0	0	No, $e \geq l/2$
SLV 3	320	-16102	-270575	3.7	873016	3.227	Si
SLV 11	110	-2384	226584	0	0	0	No, $e \geq l/2$
SLV 11	320	-1053	361603	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	110	-10019	3284	450211		3.63	98.45	1.04	2867			0.87	No, $V_u < V$
SLU 84	320	-14363	4448	179811		3.3	155.5	1	4334			0.97	No, $V_u < V$
SLU 39	110	-8009	2747	375872		3.09	92.46	0.97	2506			0.91	No, $V_u < V$
SLU 39	320	-11717	3767	144965		2.69	155.5	0.91	3981			1.06	Si
SLU 81	110	-9710	3216	440950		3.57	97.02	1.03	2804			0.87	No, $V_u < V$
SLU 81	320	-13938	4366	177921		3.2	155.5	0.98	4277			0.98	No, $V_u < V$
SLU 75	110	-9687	3168	428640		3.44	100.51	1.01	2855			0.9	No, $V_u < V$
SLU 75	320	-13822	4213	172719		3.17	155.5	0.98	4262			1.01	Si
SLU 82	110	-9737	3302	444579		3.61	96.28	1.04	2796			0.85	No, $V_u < V$
SLU 82	320	-14047	4470	169171		3.23	155.5	0.99	4292			0.96	No, $V_u < V$
SLU 76	110	-9685	3201	429814		3.46	100.12	1.02	2849			0.89	No, $V_u < V$
SLU 76	320	-13841	4252	168377		3.18	155.5	0.98	4264			1	Si
SLU 40	110	-8036	2833	379501		3.13	91.58	0.97	2496			0.88	No, $V_u < V$
SLU 40	320	-11825	3871	136215		2.72	155.5	0.92	3996			1.03	Si
SLU 73	110	-9403	3219	424183		3.43	97.92	1.01	2777			0.86	No, $V_u < V$
SLU 73	320	-13525	4274	157737		3.11	155.5	0.97	4222			0.99	No, $V_u < V$
SLU 31	110	-7702	2749	359104		2.95	93.38	0.95	2479			0.9	No, $V_u < V$
SLU 31	320	-11303	3675	124781		2.6	155.5	0.9	3926			1.07	Si
SLU 83	110	-9992	3198	446582		3.6	99.17	1.04	2875			0.9	No, $V_u < V$
SLU 83	320	-14254	4344	188561		3.27	155.5	0.99	4319			0.99	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	110	-2943	3229	432051		0	0	0.83	0			0	No, $V_u < V$
SLV 8	320	-6138	3666	104957		1.41	155.5	1.12	4856			1.32	Si
SLV 16	110	-4545	-6549	-42470		1.04	155.5	1.04	4537			0.69	No, $V_u < V$
SLV 16	320	848	-3443	584912		0	0	0.83	0			0	No, $V_u < V$
SLV 11	110	-2384	-1731	226584		0	0	0.83	0			0	No, $V_u < V$
SLV 11	320	-1053	100	361603		0	0	0.83	0			0	No, $V_u < V$
SLV 12	110	-2384	-1731	226584		0	0	0.83	0			0	No, $V_u < V$
SLV 12	320	-1053	100	361603		0	0	0.83	0			0	No, $V_u < V$
SLV 4	110	-6408	9985	642421		0	0	0.83	0			0	No, $V_u < V$
SLV 4	320	-16102	8444	-270575		3.7	155.5	1.57	6849			0.81	No, $V_u < V$
SLV 15	110	-4545	-6549	-42470		1.04	155.5	1.04	4537			0.69	No, $V_u < V$
SLV 15	320	848	-3443	584912		0	0	0.83	0			0	No, $V_u < V$
SLV 14	110	-6957	-5718	-67621		1.6	155.5	1.15	5020			0.88	No, $V_u < V$
SLV 14	320	-2608	-2914	519674		0	0	0.83	0			0	No, $V_u < V$
SLV 3	110	-6408	9985	642421		0	0	0.83	0			0	No, $V_u < V$
SLV 3	320	-16102	8444	-270575		3.7	155.5	1.57	6849			0.81	No, $V_u < V$
SLV 7	110	-2943	3229	432051		0	0	0.83	0			0	No, $V_u < V$
SLV 7	320	-6138	3666	104957		1.41	155.5	1.12	4856			1.32	Si
SLV 13	110	-6957	-5718	-67621		1.6	155.5	1.15	5020			0.88	No, $V_u < V$
SLV 13	320	-2608	-2914	519674		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	0	-824	14254	0	0	No, $e \geq t/2$
SLV 12	14	0.31	0	-824	14254	0	0	No, $e \geq t/2$
SLV 15	14	0.31	0	335	14254	0	0	No, Trazione
SLV 16	14	0.31	0	335	14254	0	0	No, Trazione
SLV 13	14	0.31	0.72	-3122	14254	41144	2.89	Si
SLV 14	14	0.31	0.72	-3122	14254	41144	2.89	Si
SLV 7	14	0.31	1.21	-5274	14254	66513	4.67	Si
SLV 8	14	0.31	1.21	-5274	14254	66513	4.67	Si
SLV 10	14	0.31	2.84	-12347	14254	132742	9.31	Si
SLV 9	14	0.31	2.84	-12347	14254	132742	9.31	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 8	-5501	-2943	-149	0.024	7.93	0.923	37.749	853.756	No
SLV 7	-5501	-2943	-149	0.024	7.93	0.923	37.749	853.756	No
SLV 11	-6161	-2384	-121	0.029	8.595	0.928	45.217	853.756	No
SLV 12	-6161	-2384	-121	0.029	8.595	0.928	45.217	853.756	No
SLV 9	-14243	-10421	154	0.031	16.791	0.96	47.335	853.756	No
SLV 10	-14243	-10421	154	0.031	16.791	0.96	47.335	853.756	No
SLV 3	-7560	-6408	-86	0.034	10.007	0.936	52.857	942.914	No
SLV 4	-7560	-6408	-86	0.034	10.007	0.936	52.857	942.914	No
SLV 13	-12185	-6957	91	0.035	14.698	0.954	53.175	942.914	No
SLV 14	-12185	-6957	91	0.035	14.698	0.954	53.175	942.914	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.235	SLU 82	Si
V_SLU	0.847	SLU 82	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 16	No
R_SLV	0.044	SLV 7	No

Maschio 89

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-626.8	-335.9	-626.8	104.6	L3	L4	440.5	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 73	110	-53854	-1254211	8.73	0	0	No, Rottura per schiacciamento
SLU 73	483	-32430	197705	5.26	2531656	12.805	Si
SLU 61	110	-50242	-1135235	8.15	0	0	No, Rottura per schiacciamento
SLU 61	483	-30255	159349	4.91	2650350	16.632	Si
SLU 78	110	-55166	-1122494	8.95	0	0	No, Rottura per schiacciamento
SLU 78	483	-33935	224771	5.5	2425238	10.79	Si
SLU 83	110	-55234	-972307	8.96	0	0	No, Rottura per schiacciamento
SLU 83	483	-34079	228061	5.53	2413985	10.585	Si
SLU 74	110	-53265	-961720	8.64	0	0	No, Rottura per schiacciamento
SLU 74	483	-32891	213865	5.33	2501159	11.695	Si
SLU 63	110	-51053	-1123438	8.28	0	0	No, Rottura per schiacciamento
SLU 63	483	-30951	169718	5.02	2616871	15.419	Si
SLU 75	110	-54355	-1134292	8.81	0	0	No, Rottura per schiacciamento
SLU 75	483	-33239	214402	5.39	2476924	11.553	Si
SLU 76	110	-54665	-1242413	8.86	0	0	No, Rottura per schiacciamento
SLU 76	483	-33126	208074	5.37	2484907	11.942	Si
SLU 84	110	-56323	-1144879	9.13	0	0	No, Rottura per schiacciamento
SLU 84	483	-34427	228598	5.58	2386127	10.438	Si
SLU 79	110	-53661	-942997	8.7	0	0	No, Rottura per schiacciamento
SLU 79	483	-33242	217548	5.39	2476675	11.384	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 5	110	-40398	-1283293	6.55	4127485	3.216	Si
SLD 5	483	-23674	162056	3.84	3576029	22.067	Si
SLV 10	110	-42508	-1910841	6.89	4080893	2.136	Si
SLV 10	483	-24012	-64643	3.89	3603341	55.742	Si
SLV 1	110	-44902	-1359083	7.28	3996522	2.941	Si
SLV 1	483	-26155	595194	4.24	3761122	6.319	Si
SLV 9	110	-42508	-1910841	6.89	4080893	2.136	Si
SLV 9	483	-24012	-64643	3.89	3603341	55.742	Si
SLV 2	110	-44902	-1359083	7.28	3996522	2.941	Si
SLV 2	483	-26155	595194	4.24	3761122	6.319	Si
SLV 5	110	-46264	-2066338	7.5	3933596	1.904	Si
SLV 5	483	-25964	229391	4.21	3748148	16.34	Si
SLD 6	110	-40398	-1283293	6.55	4127485	3.216	Si
SLD 6	483	-23674	162056	3.84	3576029	22.067	Si
SLV 6	110	-46264	-2066338	7.5	3933596	1.904	Si
SLV 6	483	-25964	229391	4.21	3748148	16.34	Si
SLD 9	110	-38825	-1216190	6.3	4145271	3.408	Si
SLD 9	483	-22853	37889	3.71	3506891	92.557	Si
SLD 10	110	-38825	-1216190	6.3	4145271	3.408	Si
SLD 10	483	-22853	37889	3.71	3506891	92.557	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	110	-53854	-2309	-1254211		8.73	440.5	1.08	6681			2.89	Si
SLU 73	483	-32430	-1350	197705		5.26	440.5	1.08	6681			4.95	Si
SLU 2	110	-34902	-2272	-988880		5.66	440.5	1.08	6681			2.94	Si
SLU 2	483	-20572	-1486	85044		3.34	440.5	1	6169			4.15	Si
SLU 23	110	-40172	-2213	-1010321		6.51	440.5	1.08	6681			3.02	Si



Comb.	Quota	N	V par	M	$\alpha 0$	αN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 23	483	-24047	-1384	143924		3.9	440.5	1.08	6632			4.79	Si
SLU 55	110	-49395	-2060	-1220972		8.01	440.5	1.08	6681			3.24	Si
SLU 55	483	-29650	-1137	149194		4.81	440.5	1.08	6681			5.87	Si
SLU 31	110	-45735	-2279	-1051184		7.42	440.5	1.08	6681			2.93	Si
SLU 31	483	-27624	-1407	192648		4.48	440.5	1.08	6681			4.75	Si
SLU 65	110	-48291	-2243	-1213348		7.83	440.5	1.08	6681			2.98	Si
SLU 65	483	-28853	-1328	148981		4.68	440.5	1.08	6681			5.03	Si
SLU 13	110	-41276	-2030	-1017945		6.69	440.5	1.08	6681			3.29	Si
SLU 13	483	-24844	-1194	144137		4.03	440.5	1.08	6681			5.6	Si
SLU 44	110	-43022	-2302	-1191907		6.98	440.5	1.08	6681			2.9	Si
SLU 44	483	-25378	-1430	90101		4.12	440.5	1.08	6681			4.67	Si
SLU 10	110	-40465	-2338	-1029743		6.56	440.5	1.08	6681			2.86	Si
SLU 10	483	-24148	-1509	133768		3.92	440.5	1.08	6646			4.41	Si
SLU 52	110	-48584	-2368	-1232770		7.88	440.5	1.08	6681			2.82	Si
SLU 52	483	-28954	-1452	138825		4.7	440.5	1.08	6681			4.6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	110	-29855	10292	472717		4.84	440.5	1.63	10021			0.97	No, Vu<V
SLV 7	483	-20002	10442	294428		3.24	440.5	1.48	9140			0.88	No, Vu<V
SLV 6	110	-46264	-11446	-2066338		7.5	440.5	1.63	10021			0.88	No, Vu<V
SLV 6	483	-25964	-9894	229391		4.21	440.5	1.63	10021			1.01	Si
SLV 11	110	-26100	11374	628214		4.23	440.5	1.63	10021			0.88	No, Vu<V
SLV 11	483	-18050	10547	394		2.93	440.5	1.42	8749			0.83	No, Vu<V
SLV 9	110	-42508	-10364	-1910841		6.89	440.5	1.63	10021			0.97	No, Vu<V
SLV 9	483	-24012	-9789	-64643		3.89	440.5	1.61	9942			1.02	Si
SLV 1	110	-44902	-5100	-1359083		7.28	440.5	1.63	10021			1.96	Si
SLV 1	483	-26155	-2898	595194		4.24	440.5	1.63	10021			3.46	Si
SLV 12	110	-26100	11374	628214		4.23	440.5	1.63	10021			0.88	No, Vu<V
SLV 12	483	-18050	10547	394		2.93	440.5	1.42	8749			0.83	No, Vu<V
SLV 2	110	-44902	-5100	-1359083		7.28	440.5	1.63	10021			1.96	Si
SLV 2	483	-26155	-2898	595194		4.24	440.5	1.63	10021			3.46	Si
SLV 5	110	-46264	-11446	-2066338		7.5	440.5	1.63	10021			0.88	No, Vu<V
SLV 5	483	-25964	-9894	229391		4.21	440.5	1.63	10021			1.01	Si
SLV 8	110	-29855	10292	472717		4.84	440.5	1.63	10021			0.97	No, Vu<V
SLV 8	483	-20002	10442	294428		3.24	440.5	1.48	9140			0.88	No, Vu<V
SLV 10	110	-42508	-10364	-1910841		6.89	440.5	1.63	10021			0.97	No, Vu<V
SLV 10	483	-24012	-9789	-64643		3.89	440.5	1.61	9942			1.02	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.31	3.46	-21345	21598	107091	4.96	Si
SLV 12	14	0.31	3.46	-21345	21598	107091	4.96	Si
SLV 15	14	0.31	3.57	-22006	21598	109056	5.05	Si
SLV 16	14	0.31	3.57	-22006	21598	109056	5.05	Si
SLV 7	14	0.31	3.9	-24057	21598	114637	5.31	Si
SLV 8	14	0.31	3.9	-24057	21598	114637	5.31	Si
SLV 13	14	0.31	4.1	-25285	21598	117603	5.45	Si
SLV 14	14	0.31	4.1	-25285	21598	117603	5.45	Si
SLV 4	14	0.31	5.03	-31047	21598	127785	5.92	Si
SLV 3	14	0.31	5.03	-31047	21598	127785	5.92	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.03 Ta = 0.166

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-24367	-39980	24	0.019	28.047	0.965	29.082	1401.525	No
SLV 3	-24367	-39980	24	0.019	28.047	0.965	29.082	1401.525	No
SLV 2	-26155	-44902	20	0.019	29.867	0.967	29.228	1401.525	No
SLV 1	-26155	-44902	20	0.019	29.867	0.967	29.228	1401.525	No
SLV 13	-19648	-32384	-24	0.019	23.246	0.959	29.514	1401.525	No
SLV 14	-19648	-32384	-24	0.019	23.246	0.959	29.514	1401.525	No
SLV 9	-24012	-42508	-14	0.02	27.686	0.965	29.699	1401.525	No
SLV 10	-24012	-42508	-14	0.02	27.686	0.965	29.699	1401.525	No
SLV 15	-17859	-27461	-19	0.02	21.428	0.956	30.075	1401.525	No
SLV 16	-17859	-27461	-19	0.02	21.428	0.956	30.075	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 61	No
V_SLU	2.821	SLU 52	Si
PF_SLV	1.904	SLV 5	Si
V_SLV	0.83	SLV 11	No
PFFP_SLV	4.958	SLV 11	Si
R_SLV	0.021	SLV 3	No

Maschio 90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-746.3	-335.9	-854.8	-335.9	L3	L4	108.5	28	373	373	373			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	200	-18796	-353799	6.19	245195	0.693	No, M>Mu
SLU 75	390	-13092	-83138	4.31	334499	4.023	Si
SLU 73	200	-18740	-361380	6.17	246774	0.683	No, M>Mu
SLU 73	390	-12698	-77452	4.18	335401	4.33	Si
SLU 84	200	-19454	-367961	6.4	225724	0.613	No, M>Mu
SLU 84	390	-13605	-85579	4.48	332309	3.883	Si
SLU 82	200	-19045	-358630	6.27	238069	0.664	No, M>Mu
SLU 82	390	-13425	-86667	4.42	333207	3.845	Si
SLU 78	200	-19206	-363130	6.32	233296	0.642	No, M>Mu
SLU 78	390	-13272	-82051	4.37	333863	4.069	Si
SLU 83	200	-18809	-341831	6.19	244848	0.716	No, M>Mu
SLU 83	390	-13762	-93302	4.53	331407	3.552	Si
SLU 80	200	-19129	-362622	6.3	235592	0.65	No, M>Mu
SLU 80	390	-13162	-80426	4.33	334270	4.156	Si
SLU 79	200	-18483	-336492	6.08	253796	0.754	No, M>Mu
SLU 79	390	-13319	-88148	4.38	333673	3.785	Si
SLU 76	200	-19150	-370711	6.3	234976	0.634	No, M>Mu
SLU 76	390	-12877	-76365	4.24	335075	4.388	Si
SLU 77	200	-18561	-337000	6.11	251717	0.747	No, M>Mu
SLU 77	390	-13429	-89773	4.42	333189	3.711	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	200	-7241	-251364	2.38	316205	1.258	Si
SLV 11	390	2136	-212994	0	0	0	No, Trazione
SLV 7	200	-4036	-71283	1.33	195142	2.738	Si
SLV 7	390	576	108736	0	0	0	No, Trazione
SLV 10	200	-20854	-372162	6.86	495758	1.332	Si
SLV 10	390	-18571	-234818	6.11	503447	2.144	Si
SLV 16	200	-15745	-503738	5.18	491867	0.976	No, M>Mu
SLV 16	390	-3291	177894	1.08	162727	0.915	No, M>Mu
SLV 12	200	-7241	-251364	2.38	316205	1.258	Si
SLV 12	390	2136	-212994	0	0	0	No, Trazione
SLV 14	200	-19829	-539977	6.53	501094	0.928	No, M>Mu
SLV 14	390	-9504	43550	3.13	383578	8.808	Si
SLV 8	200	-4036	-71283	1.33	195142	2.738	Si
SLV 8	390	576	108736	0	0	0	No, Trazione
SLV 13	200	-19829	-539977	6.53	501094	0.928	No, M>Mu
SLV 13	390	-9504	43550	3.13	383578	8.808	Si
SLV 9	200	-20854	-372162	6.86	495758	1.332	Si
SLV 9	390	-18571	-234818	6.11	503447	2.144	Si
SLV 15	200	-15745	-503738	5.18	491867	0.976	No, M>Mu
SLV 15	390	-3291	177894	1.08	162727	0.915	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	200	-19206	-3799	-363130		6.47	106.03	1.08	3216			0.85	No, Vu<V
SLU 78	390	-13272	-685	-82051		4.37	108.5	1.08	3291			4.8	Si
SLU 82	200	-19045	-3686	-358630		6.4	106.26	1.08	3223			0.87	No, Vu<V
SLU 82	390	-13425	-655	-86667		4.42	108.5	1.08	3291			5.02	Si
SLU 77	200	-18561	-3715	-337000		6.12	108.28	1.08	3284			0.88	No, Vu<V
SLU 77	390	-13429	-690	-89773		4.42	108.5	1.08	3291			4.77	Si
SLU 75	200	-18796	-3655	-353799		6.32	106.28	1.08	3224			0.88	No, Vu<V
SLU 75	390	-13092	-646	-83138		4.31	108.5	1.08	3291			5.09	Si
SLU 73	200	-18740	-3574	-361380		6.38	104.9	1.08	3182			0.89	No, Vu<V
SLU 73	390	-12698	-612	-77452		4.18	108.5	1.08	3291			5.38	Si
SLU 83	200	-18809	-3746	-341831		6.21	108.23	1.08	3283			0.88	No, Vu<V
SLU 83	390	-13762	-699	-93302		4.53	108.5	1.08	3291			4.71	Si
SLU 84	200	-19454	-3830	-367961		6.55	106.01	1.08	3216			0.84	No, Vu<V
SLU 84	390	-13605	-694	-85579		4.48	108.5	1.08	3291			4.74	Si
SLU 80	200	-19129	-3807	-362622		6.45	105.88	1.08	3212			0.84	No, Vu<V
SLU 80	390	-13162	-692	-80426		4.33	108.5	1.08	3291			4.75	Si
SLU 79	200	-18483	-3723	-336492		6.1	108.13	1.08	3280			0.88	No, Vu<V
SLU 79	390	-13319	-697	-88148		4.38	108.5	1.08	3291			4.72	Si
SLU 76	200	-19150	-3718	-370711		6.53	104.67	1.08	3175			0.85	No, Vu<V
SLU 76	390	-12877	-650	-76365		4.24	108.5	1.08	3291			5.06	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 14	200	-15557	-5172	-357170		5.92	93.87	1.63	4271			0.83	No, Vu<V
SLD 14	390	-9139	-1360	-15800		3.01	108.5	1.44	4360			3.21	Si
SLV 16	200	-15745	-8003	-503738		8.42	66.77	1.63	3038			0.38	No, Vu<V
SLV 16	390	-3291	-3453	177894		193.63	0.61	1.63	28			0.01	No, Vu<V
SLV 14	200	-19829	-8935	-539977		8.74	81.06	1.63	3688			0.41	No, Vu<V
SLV 14	390	-9504	-2626	43550		3.13	108.5	1.46	4432			1.69	Si
SLD 13	200	-15557	-5172	-357170		5.92	93.87	1.63	4271			0.83	No, Vu<V
SLD 13	390	-9139	-1360	-15800		3.01	108.5	1.44	4360			3.21	Si
SLV 15	200	-15745	-8003	-503738		8.42	66.77	1.63	3038			0.38	No, Vu<V
SLV 15	390	-3291	-3453	177894		193.63	0.61	1.63	28			0.01	No, Vu<V
SLV 13	200	-19829	-8935	-539977		8.74	81.06	1.63	3688			0.41	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	390	-9504	-2626	43550		3.13	108.5	1.46	4432			1.69	Si
SLV 7	200	-4036	987	-71283		1.33	108.5	1.1	3339			3.38	Si
SLV 7	390	576	-997	108736		0	0	0.83	0			0	No, Vu<V
SLV 12	200	-7241	-2660	-251364		4.41	58.61	1.63	2667			1	Si
SLV 12	390	2136	-2576	212994		0	0	0.83	0			0	No, Vu<V
SLV 8	200	-4036	987	-71283		1.33	108.5	1.1	3339			3.38	Si
SLV 8	390	576	-997	108736		0	0	0.83	0			0	No, Vu<V
SLV 11	200	-7241	-2660	-251364		4.41	58.61	1.63	2667			1	Si
SLV 11	390	2136	-2576	212994		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.31	1.12	-3412	9946	43377	4.36	Si
SLV 7	14	0.31	1.12	-3412	9946	43377	4.36	Si
SLV 4	14	0.31	1.65	-5008	9946	60655	6.1	Si
SLV 3	14	0.31	1.65	-5008	9946	60655	6.1	Si
SLV 11	14	0.31	2.12	-6426	9946	74388	7.48	Si
SLV 12	14	0.31	2.12	-6426	9946	74388	7.48	Si
SLV 1	14	0.31	3.09	-9390	9946	98207	9.87	Si
SLV 2	14	0.31	3.09	-9390	9946	98207	9.87	Si
SLV 15	14	0.31	4.96	-15054	9946	125286	12.6	Si
SLV 16	14	0.31	4.96	-15054	9946	125286	12.6	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-2427	-2972	59	0.032	4.123	0.906	50.611	853.756	No
SLV 11	-2427	-2972	59	0.032	4.123	0.906	50.611	853.756	No
SLV 7	-4463	-2964	63	0.033	6.162	0.93	51.595	853.756	No
SLV 8	-4463	-2964	63	0.033	6.162	0.93	51.595	853.756	No
SLV 3	-9469	-7743	26	0.039	11.238	0.958	58.697	942.914	No
SLV 4	-9469	-7743	26	0.039	11.238	0.958	58.697	942.914	No
SLV 9	-9944	-16650	-61	0.035	11.721	0.96	53.766	853.756	No
SLV 10	-9944	-16650	-61	0.035	11.721	0.96	53.766	853.756	No
SLV 2	-11724	-11847	-10	0.04	13.532	0.964	59.935	942.914	No
SLV 1	-11724	-11847	-10	0.04	13.532	0.964	59.935	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.613	SLU 84	No
V_SLU	0.839	SLU 84	No
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 7	No
PFFP_SLV	4.361	SLV 7	Si
R_SLV	0.059	SLV 11	No

Maschio 91

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	104.6	-515.8	581.1	L3	L4	476.5	14	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	110	-56070	2279988	8.4	0	0	No, Rottura per schiacciamento
SLU 74	483	-37577	-43943	5.63	2761895	62.851	Si
SLU 81	110	-56136	2269627	8.41	0	0	No, Rottura per schiacciamento
SLU 81	483	-37128	-87224	5.57	2801938	32.124	Si
SLU 78	110	-57620	2372851	8.64	0	0	No, Rottura per schiacciamento
SLU 78	483	-39282	-10598	5.89	2593490	244.723	Si
SLU 76	110	-55205	2279803	8.28	0	0	No, Rottura per schiacciamento
SLU 76	483	-37198	-36180	5.58	2795806	77.274	Si
SLU 77	110	-57932	2369620	8.68	0	0	No, Rottura per schiacciamento
SLU 77	483	-39372	-6768	5.9	2583935	381.811	Si
SLU 75	110	-55758	2283219	8.36	0	0	No, Rottura per schiacciamento
SLU 75	483	-37487	-47773	5.62	2770039	57.983	Si
SLU 84	110	-57687	2362490	8.65	0	0	No, Rottura per schiacciamento
SLU 84	483	-38834	-53878	5.82	2640241	49.004	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	110	-55825	2272858	8.37	0	0	No, Rottura per schiacciamento
SLU 82	483	-37039	-91054	5.55	2809729	30.858	Si
SLU 80	110	-57275	2367281	8.59	0	0	No, Rottura per schiacciamento
SLU 80	483	-39053	3549	5.85	2617594	737.607	Si
SLU 79	110	-57587	2364050	8.63	0	0	No, Rottura per schiacciamento
SLU 79	483	-39143	7379	5.87	2608220	353.473	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	110	-47936	2080397	7.19	4704309	2.261	Si
SLV 11	483	-30404	-170885	4.56	4541780	26.578	Si
SLV 4	110	-42336	2451981	6.35	4847712	1.977	Si
SLV 4	483	-25185	443956	3.78	4146333	9.34	Si
SLV 2	110	-35846	2000949	5.37	4784561	2.391	Si
SLV 2	483	-21919	447293	3.29	3817866	8.535	Si
SLV 1	110	-35846	2000949	5.37	4784561	2.391	Si
SLV 1	483	-21919	447293	3.29	3817866	8.535	Si
SLV 8	110	-48846	2494761	7.32	4663678	1.869	Si
SLV 8	483	-29753	111091	4.46	4501200	40.518	Si
SLV 12	110	-47936	2080397	7.19	4704309	2.261	Si
SLV 12	483	-30404	-170885	4.56	4541780	26.578	Si
SLD 7	110	-42332	1937587	6.35	4847756	2.502	Si
SLD 7	483	-26801	34159	4.02	4285819	125.468	Si
SLV 3	110	-42336	2451981	6.35	4847712	1.977	Si
SLV 3	483	-25185	443956	3.78	4146333	9.34	Si
SLD 8	110	-42332	1937587	6.35	4847756	2.502	Si
SLD 8	483	-26801	34159	4.02	4285819	125.468	Si
SLV 7	110	-48846	2494761	7.32	4663678	1.869	Si
SLV 7	483	-29753	111091	4.46	4501200	40.518	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 74	110	-56070	2371	2279988		8.4	476.5	1.08	7227			3.05	Si
SLU 74	483	-37577	1192	-43943		5.63	476.5	1.08	7227			6.07	Si
SLU 82	110	-55825	2364	2272858		8.37	476.5	1.08	7227			3.06	Si
SLU 82	483	-37039	1253	-91054		5.55	476.5	1.08	7227			5.77	Si
SLU 79	110	-57587	2402	2364050		8.63	476.5	1.08	7227			3.01	Si
SLU 79	483	-39143	1108	7379		5.87	476.5	1.08	7227			6.52	Si
SLU 81	110	-56136	2429	2269627		8.41	476.5	1.08	7227			2.98	Si
SLU 81	483	-37128	1314	-87224		5.57	476.5	1.08	7227			5.5	Si
SLU 77	110	-57932	2441	2369620		8.68	476.5	1.08	7227			2.96	Si
SLU 77	483	-39372	1161	-6768		5.9	476.5	1.08	7227			6.22	Si
SLU 83	110	-57998	2499	2359259		8.69	476.5	1.08	7227			2.89	Si
SLU 83	483	-38924	1284	-50048		5.83	476.5	1.08	7227			5.63	Si
SLU 80	110	-57275	2337	2367281		8.59	476.5	1.08	7227			3.09	Si
SLU 80	483	-39053	1047	3549		5.85	476.5	1.08	7227			6.9	Si
SLU 75	110	-55758	2306	2283219		8.36	476.5	1.08	7227			3.13	Si
SLU 75	483	-37487	1130	-47773		5.62	476.5	1.08	7227			6.39	Si
SLU 78	110	-57620	2376	2372851		8.64	476.5	1.08	7227			3.04	Si
SLU 78	483	-39282	1100	-10598		5.89	476.5	1.08	7227			6.57	Si
SLU 84	110	-57687	2434	2362490		8.65	476.5	1.08	7227			2.97	Si
SLU 84	483	-38834	1223	-53878		5.82	476.5	1.08	7227			5.91	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	110	-27212	-11045	991320		4.08	476.5	1.63	10840			0.98	No, Vu<V
SLV 5	483	-18867	-11210	122216		2.83	476.5	1.4	9333			0.83	No, Vu<V
SLV 16	110	-39302	8988	1070769		5.89	476.5	1.63	10840			1.21	Si
SLV 16	483	-27352	9050	-495962		4.1	476.5	1.63	10840			1.2	Si
SLV 12	110	-47936	13986	2080397		7.19	476.5	1.63	10840			0.78	No, Vu<V
SLV 12	483	-30404	12567	-170885		4.56	476.5	1.63	10840			0.86	No, Vu<V
SLV 8	110	-48846	11505	2494761		7.32	476.5	1.63	10840			0.94	No, Vu<V
SLV 8	483	-29753	9399	111091		4.46	476.5	1.63	10840			1.15	Si
SLV 7	110	-48846	11505	2494761		7.32	476.5	1.63	10840			0.94	No, Vu<V
SLV 7	483	-29753	9399	111091		4.46	476.5	1.63	10840			1.15	Si
SLV 9	110	-26302	-8564	576956		3.94	476.5	1.62	10820			1.26	Si
SLV 9	483	-19517	-8042	-159759		2.93	476.5	1.42	9463			1.18	Si
SLV 10	110	-26302	-8564	576956		3.94	476.5	1.62	10820			1.26	Si
SLV 10	483	-19517	-8042	-159759		2.93	476.5	1.42	9463			1.18	Si
SLV 11	110	-47936	13986	2080397		7.19	476.5	1.63	10840			0.78	No, Vu<V
SLV 11	483	-30404	12567	-170885		4.56	476.5	1.63	10840			0.86	No, Vu<V
SLV 15	110	-39302	8988	1070769		5.89	476.5	1.63	10840			1.21	Si
SLV 15	483	-27352	9050	-495962		4.1	476.5	1.63	10840			1.2	Si
SLV 6	110	-27212	-11045	991320		4.08	476.5	1.63	10840			0.98	No, Vu<V
SLV 6	483	-18867	-11210	122216		2.83	476.5	1.4	9333			0.83	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.31	3.46	-23096	23363	115863	4.96	Si
SLV 10	14	0.31	3.46	-23096	23363	115863	4.96	Si
SLV 5	14	0.31	3.51	-23397	23363	116769	5	Si
SLV 6	14	0.31	3.51	-23397	23363	116769	5	Si
SLV 14	14	0.31	4.24	-28268	23363	129253	5.53	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.31	4.24	-28268	23363	129253	5.53	Si
SLV 2	14	0.31	4.39	-29272	23363	131320	5.62	Si
SLV 1	14	0.31	4.39	-29272	23363	131320	5.62	Si
SLV 16	14	0.31	4.95	-33002	23363	137482	5.88	Si
SLV 15	14	0.31	4.95	-33002	23363	137482	5.88	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 $W_a = 0.03$ $T_a = 0.166$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-30404	-47936	-36	0.019	34.457	0.969	28.41	1401.525	No
SLV 11	-30404	-47936	-36	0.019	34.457	0.969	28.41	1401.525	No
SLV 6	-18867	-27212	39	0.019	22.72	0.955	28.804	1401.525	No
SLV 5	-18867	-27212	39	0.019	22.72	0.955	28.804	1401.525	No
SLV 7	-29753	-48846	-27	0.019	33.795	0.968	28.889	1401.525	No
SLV 8	-29753	-48846	-27	0.019	33.795	0.968	28.889	1401.525	No
SLV 16	-27352	-39302	-25	0.019	31.351	0.966	29.105	1401.525	No
SLV 15	-27352	-39302	-25	0.019	31.351	0.966	29.105	1401.525	No
SLV 2	-21919	-35846	27	0.019	25.823	0.96	29.346	1401.525	No
SLV 1	-21919	-35846	27	0.019	25.823	0.96	29.346	1401.525	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 74	No
V_SLU	2.892	SLU 83	Si
PF_SLV	1.869	SLV 7	Si
V_SLV	0.775	SLV 11	No
PFFP_SLV	4.959	SLV 9	Si
R_SLV	0.02	SLV 11	No

Maschio 92

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	595.1	-515.8	600.6	L3	L4	5.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 57	310	-1226	2211	7.96	75	0.034	No, $M > M_u$
SLU 57	390	-1433	4023	0	0	0	No, $e > l/2$
SLU 61	310	-1144	2027	7.43	277	0.137	No, $M > M_u$
SLU 61	390	-1373	3958	0	0	0	No, $e > l/2$
SLU 1	310	-797	1422	5.17	800	0.562	No, $M > M_u$
SLU 1	390	-930	2637	0	0	0	No, $e > l/2$
SLU 54	310	-1163	2080	7.55	234	0.112	No, $M > M_u$
SLU 54	390	-1374	3906	0	0	0	No, $e > l/2$
SLU 56	310	-1233	2227	8	59	0.026	No, $M > M_u$
SLU 56	390	-1435	4025	0	0	0	No, $e > l/2$
SLU 60	310	-1150	2043	7.47	263	0.129	No, $M > M_u$
SLU 60	390	-1375	3961	0	0	0	No, $e > l/2$
SLU 55	310	-1155	2063	7.5	252	0.122	No, $M > M_u$
SLU 55	390	-1363	3864	0	0	0	No, $e > l/2$
SLU 58	310	-1229	2221	7.98	69	0.031	No, $M > M_u$
SLU 58	390	-1425	3985	0	0	0	No, $e > l/2$
SLU 59	310	-1223	2205	7.94	85	0.039	No, $M > M_u$
SLU 59	390	-1423	3982	0	0	0	No, $e > l/2$
SLU 53	310	-1169	2096	7.59	219	0.104	No, $M > M_u$
SLU 53	390	-1376	3908	0	0	0	No, $e > l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	310	-238	-562	1.54	571	1.016	Si
SLV 13	390	-1400	5117	0	0	0	No, $e > l/2$
SLD 14	310	-601	648	3.9	1125	1.735	Si
SLD 14	390	-1185	3854	0	0	0	No, $e > l/2$
SLV 15	310	-564	219	3.66	1086	4.954	Si
SLV 15	390	-1586	5047	0	0	0	No, $e > l/2$
SLD 16	310	-736	978	4.78	1233	1.261	Si
SLD 16	390	-1263	3830	0	0	0	No, $e > l/2$
SLV 10	310	-184	-267	1.2	457	1.714	Si
SLV 10	390	-854	3680	0	0	0	No, $e > l/2$
SLD 15	310	-736	978	4.78	1233	1.261	Si
SLD 15	390	-1263	3830	0	0	0	No, $e > l/2$
SLV 6	310	-465	767	3.02	963	1.255	Si
SLV 6	390	-572	2379	0	0	0	No, $e > l/2$
SLV 5	310	-465	767	3.02	963	1.255	Si
SLV 5	390	-572	2379	0	0	0	No, $e > l/2$



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	310	-184	-267	1.2	457	1.714	Si
SLV 9	390	-854	3680	0	0	0	No, $e>l/2$
SLV 14	310	-238	-562	1.54	571	1.016	Si
SLV 14	390	-1400	5117	0	0	0	No, $e>l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	310	-1163	106	2080		14.4	2.88	1.08	87			0.83	No, $V_u < V$
SLU 54	390	-1374	-186	3906		0	0	0.56	0			0	No, $V_u < V$
SLU 55	310	-1155	105	2063		14.27	2.89	1.08	88			0.83	No, $V_u < V$
SLU 55	390	-1363	-184	3864		0	0	0.56	0			0	No, $V_u < V$
SLU 57	310	-1226	112	2211		15.42	2.84	1.08	86			0.77	No, $V_u < V$
SLU 57	390	-1433	-192	4023		0	0	0.56	0			0	No, $V_u < V$
SLU 60	310	-1150	104	2043		14.06	2.92	1.08	89			0.85	No, $V_u < V$
SLU 60	390	-1375	-189	3961		0	0	0.56	0			0	No, $V_u < V$
SLU 61	310	-1144	104	2027		13.93	2.93	1.08	89			0.86	No, $V_u < V$
SLU 61	390	-1373	-189	3958		0	0	0.56	0			0	No, $V_u < V$
SLU 59	310	-1223	112	2205		15.38	2.84	1.08	86			0.77	No, $V_u < V$
SLU 59	390	-1423	-190	3982		0	0	0.56	0			0	No, $V_u < V$
SLU 58	310	-1229	113	2221		15.52	2.83	1.08	86			0.76	No, $V_u < V$
SLU 58	390	-1425	-190	3985		0	0	0.56	0			0	No, $V_u < V$
SLU 1	310	-797	72	1422		9.83	2.9	1.08	88			1.21	Si
SLU 1	390	-930	-126	2637		0	0	0.56	0			0	No, $V_u < V$
SLU 56	310	-1233	113	2227		15.55	2.83	1.08	86			0.76	No, $V_u < V$
SLU 56	390	-1435	-192	4025		0	0	0.56	0			0	No, $V_u < V$
SLU 53	310	-1169	107	2096		14.54	2.87	1.08	87			0.82	No, $V_u < V$
SLU 53	390	-1376	-186	3908		0	0	0.56	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	310	-465	40	767		5.03	3.3	1.63	150			3.75	Si
SLV 6	390	-572	-126	2379		0	0	0.83	0			0	No, $V_u < V$
SLV 5	310	-465	40	767		5.03	3.3	1.63	150			3.75	Si
SLV 5	390	-572	-126	2379		0	0	0.83	0			0	No, $V_u < V$
SLV 15	310	-564	11	219		3.66	5.5	1.57	241			21.47	Si
SLV 15	390	-1586	-232	5047		0	0	0.83	0			0	No, $V_u < V$
SLV 14	310	-238	-28	-562		7.34	1.16	1.63	53			1.89	Si
SLV 14	390	-1400	-242	5117		0	0	0.83	0			0	No, $V_u < V$
SLD 15	310	-736	50	978		6.16	4.27	1.63	194			3.89	Si
SLD 15	390	-1263	-179	3830		0	0	0.83	0			0	No, $V_u < V$
SLV 13	310	-238	-28	-562		7.34	1.16	1.63	53			1.89	Si
SLV 13	390	-1400	-242	5117		0	0	0.83	0			0	No, $V_u < V$
SLD 16	310	-736	50	978		6.16	4.27	1.63	194			3.89	Si
SLD 16	390	-1263	-179	3830		0	0	0.83	0			0	No, $V_u < V$
SLV 10	310	-184	-12	-267		1.68	3.91	1.17	128			10.43	Si
SLV 10	390	-854	-185	3680		0	0	0.83	0			0	No, $V_u < V$
SLD 14	310	-601	33	648		4.28	5.01	1.63	228			6.83	Si
SLD 14	390	-1185	-183	3854		0	0	0.83	0			0	No, $V_u < V$
SLV 9	310	-184	-12	-267		1.68	3.91	1.17	128			10.43	Si
SLV 9	390	-854	-185	3680		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296,5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.31	0.47	-73	516	978	1.9	Si
SLV 13	14	0.31	0.47	-73	516	978	1.9	Si
SLV 10	14	0.31	0.51	-78	516	1046	2.03	Si
SLV 9	14	0.31	0.51	-78	516	1046	2.03	Si
SLV 16	14	0.31	1.56	-240	516	2933	5.69	Si
SLV 15	14	0.31	1.56	-240	516	2933	5.69	Si
SLV 5	14	0.31	1.62	-250	516	3035	5.88	Si
SLV 6	14	0.31	1.62	-250	516	3035	5.88	Si
SLV 11	14	0.31	4.13	-636	516	5896	11.43	Si
SLV 12	14	0.31	4.13	-636	516	5896	11.43	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-377	-1416	-1	0.04	0.465	0.95	60.479	942.914	No
SLV 2	-377	-1416	-1	0.04	0.465	0.95	60.479	942.914	No
SLV 16	-357	-1867	1	0.04	0.445	0.948	61.214	942.914	No
SLV 15	-357	-1867	1	0.04	0.445	0.948	61.214	942.914	No
SLV 3	-458	-1788	0	0.041	0.547	0.956	62.148	942.914	No
SLV 4	-458	-1788	0	0.041	0.547	0.956	62.148	942.914	No
SLV 12	-486	-2273	2	0.038	0.576	0.958	58.012	853.756	No
SLV 11	-486	-2273	2	0.038	0.576	0.958	58.012	853.756	No
SLV 7	-516	-2250	1	0.039	0.606	0.96	58.793	853.756	No
SLV 8	-516	-2250	1	0.039	0.606	0.96	58.793	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLD 5	No
V_SLV	0	SLD 5	No
PFPP_SLV	1.896	SLV 13	Si



Stato limite	Coeff.s.	Comb.	Verifica
R_SLV	0.064	SLV 1	No

Maschio 93

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	650.6	-515.8	666.1	L3	L4	15.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 58	310	-4160	-11060	9.58	0	0	No, Rottura per schiacciamento
SLU 58	390	-2779	7089	6.4	4608	0.65	No, M>Mu
SLU 61	310	-4051	-11607	9.33	0	0	No, Rottura per schiacciamento
SLU 61	390	-2585	7845	5.96	5385	0.686	No, M>Mu
SLU 42	310	-4026	-11231	9.28	0	0	No, Rottura per schiacciamento
SLU 42	390	-2631	7449	6.06	5217	0.7	No, M>Mu
SLU 60	310	-4059	-11571	9.35	0	0	No, Rottura per schiacciamento
SLU 60	390	-2599	7796	5.99	5335	0.684	No, M>Mu
SLU 57	310	-4183	-11264	9.64	0	0	No, Rottura per schiacciamento
SLU 57	390	-2775	7287	6.39	4625	0.635	No, M>Mu
SLU 62	310	-4208	-11652	9.7	0	0	No, Rottura per schiacciamento
SLU 62	390	-2747	7693	6.33	4748	0.617	No, M>Mu
SLU 56	310	-4191	-11228	9.66	0	0	No, Rottura per schiacciamento
SLU 56	390	-2789	7237	6.43	4563	0.631	No, M>Mu
SLU 54	310	-4034	-11183	9.29	0	0	No, Rottura per schiacciamento
SLU 54	390	-2627	7389	6.05	5230	0.708	No, M>Mu
SLU 59	310	-4151	-11096	9.57	0	0	No, Rottura per schiacciamento
SLU 59	390	-2765	7138	6.37	4669	0.654	No, M>Mu
SLU 55	310	-3996	-11039	9.21	0	0	No, Rottura per schiacciamento
SLU 55	390	-2608	7273	6.01	5301	0.729	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 2	310	-1294	10717	0	0	0	No, e>l/2
SLV 2	390	-2770	-12295	6.38	10254	0.834	No, M>Mu
SLD 14	310	-3498	-16729	8.06	9228	0.552	No, M>Mu
SLD 14	390	-1306	14274	0	0	0	No, e>l/2
SLV 1	310	-1294	10717	0	0	0	No, e>l/2
SLV 1	390	-2770	-12295	6.38	10254	0.834	No, M>Mu
SLD 16	310	-3744	-16523	8.63	8529	0.516	No, M>Mu
SLD 16	390	-1607	13163	0	0	0	No, e>l/2
SLV 9	310	-2461	-15018	5.67	10222	0.681	No, M>Mu
SLV 9	390	-408	15690	0	0	0	No, e>l/2
SLD 15	310	-3744	-16523	8.63	8529	0.516	No, M>Mu
SLD 15	390	-1607	13163	0	0	0	No, e>l/2
SLV 14	310	-4142	-27950	9.54	7026	0.251	No, M>Mu
SLV 14	390	-426	26004	0	0	0	No, e>l/2
SLV 13	310	-4142	-27950	9.54	7026	0.251	No, M>Mu
SLV 13	390	-426	26004	0	0	0	No, e>l/2
SLV 10	310	-2461	-15018	5.67	10222	0.681	No, M>Mu
SLV 10	390	-408	15690	0	0	0	No, e>l/2
SLV 15	310	-4729	-27434	10.9	3966	0.145	No, M>Mu
SLV 15	390	-1145	23354	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 75	310	-4516	-408	-12523		10.8	14.93	1.08	453			1.11	Si
SLU 75	390	-2951	-399	8274		7.1	14.84	1.08	450			1.13	Si
SLU 81	310	-4542	-423	-12912		11.02	14.72	1.08	447			1.05	Si
SLU 81	390	-2922	-414	8680		7.28	14.34	1.08	435			1.05	Si
SLU 76	310	-4479	-403	-12380		10.69	14.96	1.08	454			1.13	Si
SLU 76	390	-2931	-394	8158		7.03	14.9	1.08	452			1.15	Si
SLU 73	310	-4330	-403	-12298		10.5	14.73	1.08	447			1.11	Si
SLU 73	390	-2784	-394	8260		6.93	14.35	1.08	435			1.1	Si
SLU 74	310	-4525	-407	-12487		10.79	14.97	1.08	454			1.12	Si
SLU 74	390	-2965	-397	8224		7.09	14.93	1.08	453			1.14	Si
SLU 82	310	-4533	-425	-12948		11.03	14.68	1.08	445			1.05	Si
SLU 82	390	-2909	-416	8730		7.29	14.25	1.08	432			1.04	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	310	-4674	-407	-12568		10.99	15.18	1.08	461			1.13	Si
SLU 77	390	-3112	-397	8122		7.21	15.42	1.08	468			1.18	Si
SLU 83	310	-4691	-423	-12993		11.21	14.94	1.08	453			1.07	Si
SLU 83	390	-3070	-414	8578		7.37	14.87	1.08	451			1.09	Si
SLU 78	310	-4666	-408	-12605		11	15.15	1.08	459			1.13	Si
SLU 78	390	-3098	-399	8172		7.21	15.34	1.08	465			1.17	Si
SLU 84	310	-4683	-425	-13029		11.22	14.9	1.08	452			1.06	Si
SLU 84	390	-3056	-415	8628		7.38	14.78	1.08	448			1.08	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	310	-4729	-953	-27434		28.89	5.85	1.63	266			0.28	No, Vu<V
SLV 15	390	-1145	-929	23354		0	0	0.83	0			0	No, Vu<V
SLV 2	310	-1294	408	10717		0	0	0.83	0			0	No, Vu<V
SLV 2	390	-2770	396	-12295		9.96	9.94	1.63	452			1.14	Si
SLD 15	310	-3744	-564	-16523		13.36	10.01	1.63	456			0.81	No, Vu<V
SLD 15	390	-1607	-550	13163		0	0	0.83	0			0	No, Vu<V
SLV 14	310	-4142	-1051	-27950		49.17	3.01	1.63	137			0.13	No, Vu<V
SLV 14	390	-426	-1070	26004		0	0	0.83	0			0	No, Vu<V
SLV 10	310	-2461	-654	-15018		17.78	4.94	1.63	225			0.34	No, Vu<V
SLV 10	390	-408	-721	15690		0	0	0.83	0			0	No, Vu<V
SLV 1	310	-1294	408	10717		0	0	0.83	0			0	No, Vu<V
SLV 1	390	-2770	396	-12295		9.96	9.94	1.63	452			1.14	Si
SLV 9	310	-2461	-654	-15018		17.78	4.94	1.63	225			0.34	No, Vu<V
SLV 9	390	-408	-721	15690		0	0	0.83	0			0	No, Vu<V
SLD 14	310	-3498	-605	-16729		14.03	8.9	1.63	405			0.67	No, Vu<V
SLD 14	390	-1306	-609	14274		0	0	0.83	0			0	No, Vu<V
SLV 13	310	-4142	-1051	-27950		49.17	3.01	1.63	137			0.13	No, Vu<V
SLV 13	390	-426	-1070	26004		0	0	0.83	0			0	No, Vu<V
SLD 16	310	-3744	-564	-16523		13.36	10.01	1.63	456			0.81	No, Vu<V
SLD 16	390	-1607	-550	13163		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.31	1.87	-812	1454	9625	6.62	Si
SLV 1	14	0.31	1.87	-812	1454	9625	6.62	Si
SLV 6	14	0.31	2.63	-1140	1454	12526	8.62	Si
SLV 5	14	0.31	2.63	-1140	1454	12526	8.62	Si
SLV 4	14	0.31	2.78	-1209	1454	13065	8.99	Si
SLV 3	14	0.31	2.78	-1209	1454	13065	8.99	Si
SLV 9	14	0.31	4.19	-1818	1454	16724	11.5	Si
SLV 10	14	0.31	4.19	-1818	1454	16724	11.5	Si
SLV 15	14	0.31	7.99	-3468	1454	16798	11.55	Si
SLV 16	14	0.31	7.99	-3468	1454	16798	11.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-44	-4341	12	0.004	0.314	0.918	6.043	942.914	No
SLV 14	-44	-4341	12	0.004	0.314	0.918	6.043	942.914	No
SLV 9	-27	-2391	-11	0.005	0.305	0.938	8.04	853.756	No
SLV 10	-27	-2391	-11	0.005	0.305	0.938	8.04	853.756	No
SLV 15	-443	-5217	22	0.009	0.685	0.915	15.03	942.914	No
SLV 16	-443	-5217	22	0.009	0.685	0.915	15.03	942.914	No
SLV 5	-412	-1595	-21	0.01	0.654	0.912	16.653	853.756	No
SLV 6	-412	-1595	-21	0.01	0.654	0.912	16.653	853.756	No
SLV 1	-1327	-1689	-20	0.028	1.579	0.957	42.16	942.914	No
SLV 2	-1327	-1689	-20	0.028	1.579	0.957	42.16	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 20	No
V_SLU	1.04	SLU 82	Si
PF_SLV	0	SLD 13	No
V_SLV	0	SLD 13	No
PFFP_SLV	6.62	SLV 1	Si
R_SLV	0.006	SLV 13	No

Maschio 94

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-600.8	-335.9	-646.3	-335.9	L3	L4	45.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 74	310	-9979	13380	7.83	8733	0.653	No, M>Mu
SLU 74	390	-11012	-22936	8.64	0	0	No, Rottura per schiacciamento
SLU 83	310	-10345	13628	8.12	735	0.054	No, M>Mu
SLU 83	390	-11439	-23270	8.98	0	0	No, Rottura per schiacciamento
SLU 84	310	-10666	16941	8.37	0	0	No, Rottura per schiacciamento
SLU 84	390	-11745	-26543	9.22	0	0	No, Rottura per schiacciamento
SLU 73	310	-10277	18951	8.07	2268	0.12	No, M>Mu
SLU 73	390	-11245	-28571	8.83	0	0	No, Rottura per schiacciamento
SLU 63	310	-9763	15637	7.66	13164	0.842	No, M>Mu
SLU 63	390	-10714	-24282	8.41	0	0	No, Rottura per schiacciamento
SLU 59	310	-9494	14930	7.45	18388	1.232	Si
SLU 59	390	-10422	-22806	8.18	0	0	No, Rottura per schiacciamento
SLU 57	310	-9563	15135	7.51	17078	1.128	Si
SLU 57	390	-10493	-23287	8.24	0	0	No, Rottura per schiacciamento
SLU 55	310	-9541	17393	7.49	17504	1.006	Si
SLU 55	390	-10420	-25649	8.18	0	0	No, Rottura per schiacciamento
SLU 61	310	-9595	15891	7.53	16456	1.036	Si
SLU 61	390	-10508	-24943	8.25	0	0	No, Rottura per schiacciamento
SLU 62	310	-9442	12323	7.41	19371	1.572	Si
SLU 62	390	-10408	-21009	8.17	0	0	No, Rottura per schiacciamento

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	310	-5811	86010	4.56	82850	0.963	No, M>Mu
SLV 2	390	-6784	-127200	5.33	87077	0.685	No, M>Mu
SLV 6	310	-9325	39336	7.32	85062	2.162	Si
SLV 6	390	-10153	-62368	7.97	80332	1.288	Si
SLV 4	310	-3952	81487	3.1	67086	0.823	No, M>Mu
SLV 4	390	-4880	-118792	0	0	0	No, e>l/2
SLV 16	310	-7797	-66946	6.12	88535	1.322	Si
SLV 16	390	-8156	94468	6.4	88333	0.935	No, M>Mu
SLV 5	310	-9325	39336	7.32	85062	2.162	Si
SLV 5	390	-10153	-62368	7.97	80332	1.288	Si
SLV 3	310	-3952	81487	3.1	67086	0.823	No, M>Mu
SLV 3	390	-4880	-118792	0	0	0	No, e>l/2
SLV 14	310	-9656	-62422	7.58	83410	1.336	Si
SLV 14	390	-10060	86060	7.9	80960	0.941	No, M>Mu
SLV 15	310	-7797	-66946	6.12	88535	1.322	Si
SLV 15	390	-8156	94468	6.4	88333	0.935	No, M>Mu
SLV 13	310	-9656	-62422	7.58	83410	1.336	Si
SLV 13	390	-10060	86060	7.9	80960	0.941	No, M>Mu
SLV 1	310	-5811	86010	4.56	82850	0.963	No, M>Mu
SLV 1	390	-6784	-127200	5.33	87077	0.685	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	310	-9541	585	17393		7.49	45.5	1.08	1380			2.36	Si
SLU 55	390	-10420	583	-25649		8.18	45.5	1.08	1380			2.37	Si
SLU 73	310	-10277	644	18951		8.07	45.5	1.08	1380			2.14	Si
SLU 73	390	-11245	642	-28571		8.83	45.5	1.08	1380			2.15	Si
SLU 82	310	-10499	608	17195		8.24	45.5	1.08	1380			2.27	Si
SLU 82	390	-11539	606	-27204		9.06	45.5	1.08	1380			2.28	Si
SLU 65	310	-9261	601	17894		7.27	45.5	1.08	1380			2.29	Si
SLU 65	390	-10084	599	-26670		7.92	45.5	1.08	1380			2.3	Si
SLU 52	310	-9374	595	17647		7.36	45.5	1.08	1380			2.32	Si
SLU 52	390	-10215	592	-26310		8.02	45.5	1.08	1380			2.33	Si
SLU 78	310	-10467	578	16439		8.22	45.5	1.08	1380			2.39	Si
SLU 78	390	-11524	577	-25548		9.05	45.5	1.08	1380			2.39	Si
SLU 76	310	-10444	634	18697		8.2	45.5	1.08	1380			2.18	Si
SLU 76	390	-11451	632	-27910		8.99	45.5	1.08	1380			2.18	Si
SLU 84	310	-10666	598	16941		8.37	45.5	1.08	1380			2.31	Si
SLU 84	390	-11745	597	-26543		9.22	45.5	1.08	1380			2.31	Si
SLU 68	310	-9428	592	17640		7.4	45.5	1.08	1380			2.33	Si
SLU 68	390	-10290	589	-26009		8.08	45.5	1.08	1380			2.34	Si
SLU 75	310	-10299	588	16693		8.08	45.5	1.08	1380			2.35	Si
SLU 75	390	-11318	587	-26209		8.88	45.5	1.08	1380			2.35	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	310	-9656	-1666	-62422		7.58	45.5	1.63	2070			1.24	Si
SLV 13	390	-10060	-1828	86060		8.44	42.59	1.63	1938			1.06	Si
SLV 14	310	-9656	-1666	-62422		7.58	45.5	1.63	2070			1.24	Si
SLV 14	390	-10060	-1828	86060		8.44	42.59	1.63	1938			1.06	Si
SLV 6	310	-9325	1867	39336		7.32	45.5	1.63	2070			1.11	Si
SLV 6	390	-10153	1377	-62368		7.97	45.5	1.63	2070			1.5	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	310	-7797	-2162	-66946		6.55	42.49	1.63	1933			0.89	No, Vu<V
SLV 16	390	-8156	-2028	94468		8.69	33.5	1.63	1524			0.75	No, Vu<V
SLV 3	310	-3952	2383	81487		22.06	6.4	1.63	291			0.12	No, Vu<V
SLV 3	390	-4880	2544	-118792		0	0	0.83	0			0	No, Vu<V
SLV 2	310	-5811	2879	86010		8.7	23.85	1.63	1085			0.38	No, Vu<V
SLV 2	390	-6784	2744	-127200		20.19	12	1.63	546			0.2	No, Vu<V
SLV 5	310	-9325	1867	39336		7.32	45.5	1.63	2070			1.11	Si
SLV 5	390	-10153	1377	-62368		7.97	45.5	1.63	2070			1.5	Si
SLV 1	310	-5811	2879	86010		8.7	23.85	1.63	1085			0.38	No, Vu<V
SLV 1	390	-6784	2744	-127200		20.19	12	1.63	546			0.2	No, Vu<V
SLV 15	310	-7797	-2162	-66946		6.55	42.49	1.63	1933			0.89	No, Vu<V
SLV 15	390	-8156	-2028	94468		8.69	33.5	1.63	1524			0.75	No, Vu<V
SLV 4	310	-3952	2383	81487		22.06	6.4	1.63	291			0.12	No, Vu<V
SLV 4	390	-4880	2544	-118792		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.31	1.91	-2433	4171	28739	6.89	Si
SLV 7	14	0.31	1.91	-2433	4171	28739	6.89	Si
SLV 12	14	0.31	2.08	-2645	4171	30737	7.37	Si
SLV 11	14	0.31	2.08	-2645	4171	30737	7.37	Si
SLV 3	14	0.31	3.29	-4194	4171	42898	10.29	Si
SLV 4	14	0.31	3.29	-4194	4171	42898	10.29	Si
SLV 16	14	0.31	3.85	-4900	4171	47007	11.27	Si
SLV 15	14	0.31	3.85	-4900	4171	47007	11.27	Si
SLV 1	14	0.31	4.64	-5916	4171	51346	12.31	Si
SLV 2	14	0.31	4.64	-5916	4171	51346	12.31	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-2983	-3313	-4	0.041	3.709	0.948	62.784	942.914	No
SLV 15	-2983	-3313	-4	0.041	3.709	0.948	62.784	942.914	No
SLV 13	-3471	-5282	0	0.042	4.205	0.953	63.299	942.914	No
SLV 14	-3471	-5282	0	0.042	4.205	0.953	63.299	942.914	No
SLV 4	-2103	-5383	-6	0.042	2.817	0.934	64.836	942.914	No
SLV 3	-2103	-5383	-6	0.042	2.817	0.934	64.836	942.914	No
SLV 1	-2591	-7352	-1	0.043	3.312	0.943	65.716	942.914	No
SLV 2	-2591	-7352	-1	0.043	3.312	0.943	65.716	942.914	No
SLV 9	-3733	-8304	6	0.04	4.471	0.956	60.826	853.756	No
SLV 10	-3733	-8304	6	0.04	4.471	0.956	60.826	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 55	No
V_SLU	2.142	SLU 73	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	6.891	SLV 7	Si
R_SLV	0.067	SLV 15	No

Maschio 95

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-323.3	-335.9	-550.8	-335.9	L3	L4	227.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 68	310	-15629	773730	2.45	1242326	1.606	Si
SLU 68	390	-14489	375303	2.27	1187921	3.165	Si
SLU 55	310	-15809	781088	2.48	1250412	1.601	Si
SLU 55	390	-14684	380754	2.31	1197620	3.145	Si
SLU 47	310	-13551	715594	2.13	1138853	1.591	Si
SLU 47	390	-12425	349572	1.95	1074914	3.075	Si
SLU 76	310	-17888	839224	2.81	1333300	1.589	Si
SLU 76	390	-16748	406485	2.63	1290185	3.174	Si
SLU 2	310	-10118	594633	1.59	926507	1.558	Si
SLU 2	390	-9248	293345	1.45	864509	2.947	Si
SLU 65	310	-15313	765142	2.4	1227815	1.605	Si
SLU 65	390	-14173	371647	2.22	1171831	3.153	Si
SLU 44	310	-13235	707007	2.08	1121463	1.586	Si
SLU 44	390	-12109	345916	1.9	1055964	3.053	Si
SLU 5	310	-10434	603221	1.64	948215	1.572	Si
SLU 5	390	-9564	297000	1.5	887422	2.988	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 52	310	-15493	772501	2.43	1236151	1.6	Si
SLU 52	390	-14368	377099	2.26	1181800	3.134	Si
SLU 73	310	-17572	830637	2.76	1321919	1.591	Si
SLU 73	390	-16432	402829	2.58	1277225	3.171	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	310	-17634	1182553	2.77	1551438	1.312	Si
SLV 5	390	-20799	164294	3.27	1733676	10.552	Si
SLV 15	310	-10482	32990	1.65	1031783	31.276	Si
SLV 15	390	-8339	944951	1.31	846921	0.896	No, $M > M_u$
SLV 14	310	-12180	410927	1.91	1168695	2.844	Si
SLV 14	390	-12449	1050841	1.95	1189548	1.132	Si
SLV 1	310	-17523	919693	2.75	1544512	1.679	Si
SLV 1	390	-17919	-503137	2.81	1569048	3.119	Si
SLV 9	310	-16031	1029923	2.52	1447974	1.406	Si
SLV 9	390	-19158	630488	3.01	1642827	2.606	Si
SLV 13	310	-12180	410927	1.91	1168695	2.844	Si
SLV 13	390	-12449	1050841	1.95	1189548	1.132	Si
SLV 2	310	-17523	919693	2.75	1544512	1.679	Si
SLV 2	390	-17919	-503137	2.81	1569048	3.119	Si
SLV 16	310	-10482	32990	1.65	1031783	31.276	Si
SLV 16	390	-8339	944951	1.31	846921	0.896	No, $M > M_u$
SLV 6	310	-17634	1182553	2.77	1551438	1.312	Si
SLV 6	390	-20799	164294	3.27	1733676	10.552	Si
SLV 10	310	-16031	1029923	2.52	1447974	1.406	Si
SLV 10	390	-19158	630488	3.01	1642827	2.606	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 5	310	-10434	3819	603221		2.22	167.81	0.85	4002			1.05	Si
SLU 5	390	-9564	3819	297000		1.5	227.5	0.76	4814			1.26	Si
SLU 73	310	-17572	5338	830637		3.15	199.44	0.98	5445			1.02	Si
SLU 73	390	-16432	5338	402829		2.58	227.5	0.9	5730			1.07	Si
SLU 44	310	-13235	4502	707007		2.61	180.99	0.9	4580			1.02	Si
SLU 44	390	-12109	4502	345916		1.9	227.5	0.81	5153			1.14	Si
SLU 2	310	-10118	3758	594633		2.19	164.94	0.85	3915			1.04	Si
SLU 2	390	-9248	3758	293345		1.45	227.5	0.75	4772			1.27	Si
SLU 68	310	-15629	4971	773730		2.9	192.73	0.94	5082			1.02	Si
SLU 68	390	-14489	4971	375303		2.27	227.5	0.86	5471			1.1	Si
SLU 52	310	-15493	4931	772501		2.89	191.67	0.94	5047			1.02	Si
SLU 52	390	-14368	4931	377099		2.26	227.5	0.86	5455			1.11	Si
SLU 47	310	-13551	4563	715594		2.65	182.82	0.91	4651			1.02	Si
SLU 47	390	-12425	4563	349572		1.95	227.5	0.82	5196			1.14	Si
SLU 55	310	-15809	4992	781088		2.93	193.03	0.95	5111			1.02	Si
SLU 55	390	-14684	4992	380754		2.31	227.5	0.86	5497			1.1	Si
SLU 76	310	-17888	5399	839224		3.19	200.5	0.98	5504			1.02	Si
SLU 76	390	-16748	5399	406485		2.63	227.5	0.91	5772			1.07	Si
SLU 65	310	-15313	4909	765142		2.86	191.35	0.94	5018			1.02	Si
SLU 65	390	-14173	4909	371647		2.22	227.5	0.85	5429			1.11	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	310	-10482	-10854	32990		1.65	227.5	1.16	7405			0.68	No, $V_u < V$
SLV 15	390	-8339	-11236	944951		230.27	1.29	1.63	59			0.01	No, $V_u < V$
SLV 14	310	-12180	-8407	410927		1.91	227.5	1.22	7744			0.92	No, $V_u < V$
SLV 14	390	-12449	-8011	1050841		5.05	88.01	1.63	4004			0.5	No, $V_u < V$
SLV 4	310	-15825	14777	541755		2.48	227.5	1.33	8473			0.57	No, $V_u < V$
SLV 4	390	-13810	14381	-609027		2.36	208.95	1.31	7637			0.53	No, $V_u < V$
SLV 5	310	-17634	11108	1182553		4.5	140.07	1.63	6373			0.57	No, $V_u < V$
SLV 5	390	-20799	12402	164294		3.27	227.5	1.49	9468			0.76	No, $V_u < V$
SLV 6	310	-17634	11108	1182553		4.5	140.07	1.63	6373			0.57	No, $V_u < V$
SLV 6	390	-20799	12402	164294		3.27	227.5	1.49	9468			0.76	No, $V_u < V$
SLV 16	310	-10482	-10854	32990		1.65	227.5	1.16	7405			0.68	No, $V_u < V$
SLV 16	390	-8339	-11236	944951		230.27	1.29	1.63	59			0.01	No, $V_u < V$
SLV 13	310	-12180	-8407	410927		1.91	227.5	1.22	7744			0.92	No, $V_u < V$
SLV 13	390	-12449	-8011	1050841		5.05	88.01	1.63	4004			0.5	No, $V_u < V$
SLV 2	310	-17523	17224	919693		3.41	183.8	1.51	7793			0.45	No, $V_u < V$
SLV 2	390	-17919	17606	-503137		2.81	227.5	1.4	8892			0.51	No, $V_u < V$
SLV 1	310	-17523	17224	919693		3.41	183.8	1.51	7793			0.45	No, $V_u < V$
SLV 1	390	-17919	17606	-503137		2.81	227.5	1.4	8892			0.51	No, $V_u < V$
SLV 3	310	-15825	14777	541755		2.48	227.5	1.33	8473			0.57	No, $V_u < V$
SLV 3	390	-13810	14381	-609027		2.36	208.95	1.31	7637			0.53	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.31	1.69	-10778	20854	129997	6.23	Si
SLV 9	14	0.31	1.69	-10778	20854	129997	6.23	Si
SLV 14	14	0.31	1.7	-10836	20854	130587	6.26	Si
SLV 13	14	0.31	1.7	-10836	20854	130587	6.26	Si
SLV 6	14	0.31	1.73	-11047	20854	132712	6.36	Si
SLV 5	14	0.31	1.73	-11047	20854	132712	6.36	Si
SLV 15	14	0.31	1.75	-11156	20854	133796	6.42	Si
SLV 16	14	0.31	1.75	-11156	20854	133796	6.42	Si
SLV 1	14	0.31	1.84	-11735	20854	139516	6.69	Si
SLV 2	14	0.31	1.84	-11735	20854	139516	6.69	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 11	-5560	-2068	-107	0.034	9.113	0.909	54.384	853.756	No
SLV 12	-5560	-2068	-107	0.034	9.113	0.909	54.384	853.756	No
SLV 8	-5635	-962	-105	0.034	9.188	0.909	54.985	853.756	No
SLV 7	-5635	-962	-105	0.034	9.188	0.909	54.985	853.756	No
SLV 5	-17664	-15494	98	0.037	21.338	0.954	55.778	853.756	No
SLV 6	-17664	-15494	98	0.037	21.338	0.954	55.778	853.756	No
SLV 10	-17588	-16600	96	0.037	21.261	0.954	55.997	853.756	No
SLV 9	-17588	-16600	96	0.037	21.261	0.954	55.997	853.756	No
SLV 1	-13542	-9118	31	0.041	17.153	0.944	62.63	942.914	No
SLV 2	-13542	-9118	31	0.041	17.153	0.944	62.63	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.558	SLU 2	Si
V_SLU	1.017	SLU 44	Si
PF_SLV	0.896	SLV 15	No
V_SLV	0.005	SLV 15	No
PFFP_SLV	6.234	SLV 9	Si
R_SLV	0.064	SLV 11	No

Maschio 96

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-223.3	-335.9	L3	L4	211	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 23	200	-11512	-702672	1.95	923984	1.315	Si
SLU 23	390	-16310	-94483	2.76	1137559	12.04	Si
SLU 10	200	-11421	-699687	1.93	918971	1.313	Si
SLU 10	390	-16270	-87890	2.75	1136203	12.928	Si
SLU 76	200	-16204	-870548	2.74	1133936	1.303	Si
SLU 76	390	-22593	-90181	3.82	1264576	14.023	Si
SLU 2	200	-9877	-645754	1.67	828175	1.282	Si
SLU 2	390	-13910	-101698	2.35	1043353	10.259	Si
SLU 5	200	-10239	-657058	1.73	850396	1.294	Si
SLU 5	390	-14380	-104520	2.43	1063780	10.178	Si
SLU 65	200	-14299	-805311	2.42	1060312	1.317	Si
SLU 65	390	-19763	-101166	3.35	1228782	12.146	Si
SLU 44	200	-12664	-748393	2.14	984476	1.315	Si
SLU 44	390	-17363	-108381	2.94	1170908	10.804	Si
SLU 52	200	-14208	-802326	2.4	1056408	1.317	Si
SLU 52	390	-19723	-94574	3.34	1228028	12.985	Si
SLU 73	200	-15842	-859244	2.68	1121179	1.305	Si
SLU 73	390	-22123	-87359	3.74	1261065	14.435	Si
SLU 68	200	-14661	-816615	2.48	1075518	1.317	Si
SLU 68	390	-20233	-103988	3.42	1237154	11.897	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 16	200	-14219	-970219	2.41	1204619	1.242	Si
SLV 16	390	-23382	448937	3.96	1667789	3.715	Si
SLD 13	200	-14638	-778843	2.48	1231145	1.581	Si
SLD 13	390	-21256	192683	3.6	1582180	8.211	Si
SLV 15	200	-14219	-970219	2.41	1204619	1.242	Si
SLV 15	390	-23382	448937	3.96	1667789	3.715	Si
SLV 3	200	-5948	361643	1.01	575779	1.592	Si
SLV 3	390	-2307	-481872	0	0	0	No, e>l/2
SLV 10	200	-19915	-1087176	3.37	1521396	1.399	Si
SLV 10	390	-27998	159732	4.74	1808168	11.32	Si
SLD 14	200	-14638	-778843	2.48	1231145	1.581	Si
SLD 14	390	-21256	192683	3.6	1582180	8.211	Si
SLV 4	200	-5948	361643	1.01	575779	1.592	Si
SLV 4	390	-2307	-481872	0	0	0	No, e>l/2
SLV 9	200	-19915	-1087176	3.37	1521396	1.399	Si
SLV 9	390	-27998	159732	4.74	1808168	11.32	Si
SLV 14	200	-18184	-1239346	3.08	1435162	1.158	Si
SLV 14	390	-28917	465820	4.89	1828677	3.926	Si
SLV 13	200	-18184	-1239346	3.08	1435162	1.158	Si
SLV 13	390	-28917	465820	4.89	1828677	3.926	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	200	-15842	-9072	-859244		3.68	153.79	1.05	4505			0.5	No, Vu<V
SLU 73	390	-22123	-9020	-87359		3.74	211	1.05	6232			0.69	No, Vu<V
SLU 34	200	-13418	-7967	-767909		3.31	144.81	1	4042			0.51	No, Vu<V
SLU 34	390	-19140	-7917	-83497		3.24	211	0.99	5834			0.74	No, Vu<V
SLU 68	200	-14661	-8367	-816615		3.5	149.4	1.02	4279			0.51	No, Vu<V
SLU 68	390	-20233	-8315	-103988		3.42	211	1.01	5980			0.72	No, Vu<V
SLU 65	200	-14299	-8262	-805311		3.46	147.54	1.02	4202			0.51	No, Vu<V
SLU 65	390	-19763	-8211	-101166		3.35	211	1	5917			0.72	No, Vu<V
SLU 31	200	-13056	-7862	-756606		3.27	142.64	0.99	3960			0.5	No, Vu<V
SLU 31	390	-18671	-7813	-80675		3.16	211	0.98	5772			0.74	No, Vu<V
SLU 2	200	-9877	-6271	-645754		2.93	120.36	0.95	3189			0.51	No, Vu<V
SLU 2	390	-13910	-6225	-101698		2.35	211	0.87	5137			0.83	No, Vu<V
SLU 52	200	-14208	-8292	-802326		3.45	147.09	1.02	4182			0.5	No, Vu<V
SLU 52	390	-19723	-8241	-94574		3.34	211	1	5912			0.72	No, Vu<V
SLU 10	200	-11421	-7082	-699687		3.07	132.71	0.97	3587			0.51	No, Vu<V
SLU 10	390	-16270	-7034	-87890		2.75	211	0.92	5452			0.78	No, Vu<V
SLU 76	200	-16204	-9177	-870548		3.73	155.33	1.05	4577			0.5	No, Vu<V
SLU 76	390	-22593	-9124	-90181		3.82	211	1.07	6295			0.69	No, Vu<V
SLU 55	200	-14570	-8396	-813629		3.49	148.97	1.02	4260			0.51	No, Vu<V
SLU 55	390	-20193	-8345	-97396		3.42	211	1.01	5975			0.72	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	200	-5948	5634	361643		1.58	134.09	1.15	4318			0.77	No, Vu<V
SLV 4	390	-2307	5428	-481872		0	0	0.83	0			0	No, Vu<V
SLD 14	200	-14638	-10055	-778843		3.33	156.88	1.5	6588			0.66	No, Vu<V
SLD 14	390	-21256	-9957	192683		3.6	211	1.55	9174			0.92	No, Vu<V
SLV 10	200	-19915	-12281	-1087176		4.66	152.73	1.63	6949			0.57	No, Vu<V
SLV 10	390	-27998	-11847	159732		4.74	211	1.63	9601			0.81	No, Vu<V
SLV 15	200	-14219	-14023	-970219		4.54	111.8	1.63	5087			0.36	No, Vu<V
SLV 15	390	-23382	-14023	448937		3.96	211	1.62	9600			0.68	No, Vu<V
SLV 9	200	-19915	-12281	-1087176		4.66	152.73	1.63	6949			0.57	No, Vu<V
SLV 9	390	-27998	-11847	159732		4.74	211	1.63	9601			0.81	No, Vu<V
SLV 3	200	-5948	5634	361643		1.58	134.09	1.15	4318			0.77	No, Vu<V
SLV 3	390	-2307	5428	-481872		0	0	0.83	0			0	No, Vu<V
SLV 14	200	-18184	-16394	-1239346		5.8	112.03	1.63	5097			0.31	No, Vu<V
SLV 14	390	-28917	-16160	465820		4.89	211	1.63	9601			0.59	No, Vu<V
SLD 13	200	-14638	-10055	-778843		3.33	156.88	1.5	6588			0.66	No, Vu<V
SLD 13	390	-21256	-9957	192683		3.6	211	1.55	9174			0.92	No, Vu<V
SLV 13	200	-18184	-16394	-1239346		5.8	112.03	1.63	5097			0.31	No, Vu<V
SLV 13	390	-28917	-16160	465820		4.89	211	1.63	9601			0.59	No, Vu<V
SLV 16	200	-14219	-14023	-970219		4.54	111.8	1.63	5087			0.36	No, Vu<V
SLV 16	390	-23382	-14023	448937		3.96	211	1.62	9600			0.68	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.31	0	-1093	19341	0	0	No, $e > t/2$
SLV 8	14	0.31	0	-1093	19341	0	0	No, $e > t/2$
SLV 3	14	0.31	0.49	-2893	19341	38873	2.01	Si
SLV 4	14	0.31	0.49	-2893	19341	38873	2.01	Si
SLV 11	14	0.31	1.03	-6073	19341	77869	4.03	Si
SLV 12	14	0.31	1.03	-6073	19341	77869	4.03	Si
SLV 2	14	0.31	1.59	-9415	19341	114616	5.93	Si
SLV 1	14	0.31	1.59	-9415	19341	114616	5.93	Si
SLV 15	14	0.31	3.3	-19492	19341	199204	10.3	Si
SLV 16	14	0.31	3.3	-19492	19341	199204	10.3	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-18241	-12436	-86	0.037	21.679	0.958	56.122	942.914	No
SLV 15	-18241	-12436	-86	0.037	21.679	0.958	56.122	942.914	No
SLV 12	-8257	-3797	-114	0.034	11.558	0.928	52.681	853.756	No
SLV 11	-8257	-3797	-114	0.034	11.558	0.928	52.681	853.756	No
SLV 1	-9019	-8381	71	0.038	12.327	0.931	59.076	942.914	No
SLV 2	-9019	-8381	71	0.038	12.327	0.931	59.076	942.914	No
SLV 13	-22695	-17196	-30	0.039	26.21	0.964	59.25	942.914	No
SLV 14	-22695	-17196	-30	0.039	26.21	0.964	59.25	942.914	No
SLV 5	-19003	-17020	100	0.036	22.453	0.959	55.052	853.756	No
SLV 6	-19003	-17020	100	0.036	22.453	0.959	55.052	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.282	SLU 2	Si
V_SLU	0.497	SLU 73	No
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 7	No
R_SLV	0.06	SLV 15	No



Maschio 97

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-301.3	595.1	-515.8	595.1	L3	L4	214.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	200	-23250	575365	3.87	1308552	2.274	Si
SLU 79	390	-27294	425946	4.54	1294191	3.038	Si
SLU 81	200	-22630	549692	3.77	1304414	2.373	Si
SLU 81	390	-26511	388193	4.41	1302571	3.355	Si
SLU 80	200	-23142	571615	3.85	1307952	2.288	Si
SLU 80	390	-27128	431116	4.52	1296193	3.007	Si
SLU 74	200	-22603	554462	3.76	1304199	2.352	Si
SLU 74	390	-26456	401811	4.4	1303054	3.243	Si
SLU 77	200	-23380	576900	3.89	1309205	2.269	Si
SLU 77	390	-27445	427428	4.57	1292264	3.023	Si
SLU 83	200	-23406	572131	3.9	1309329	2.289	Si
SLU 83	390	-27500	413810	4.58	1291544	3.121	Si
SLU 75	200	-22495	550712	3.75	1303292	2.367	Si
SLU 75	390	-26290	406981	4.38	1304446	3.205	Si
SLU 78	200	-23272	573150	3.87	1308666	2.283	Si
SLU 78	390	-27279	432598	4.54	1294376	2.992	Si
SLU 84	200	-23298	568381	3.88	1308803	2.303	Si
SLU 84	390	-27333	418980	4.55	1293697	3.088	Si
SLU 76	200	-22293	546676	3.71	1301461	2.381	Si
SLU 76	390	-26028	408945	4.33	1306395	3.195	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	200	-4478	466638	0.75	450996	0.966	No, $M > \mu$
SLV 9	390	-7067	553284	1.18	684905	1.238	Si
SLV 14	200	-14722	-23765	2.45	1262162	53.111	Si
SLV 14	390	-11788	787546	1.96	1061165	1.347	Si
SLV 4	200	-15513	773414	2.58	1312056	1.696	Si
SLV 4	390	-23150	-260206	3.85	1699623	6.532	Si
SLV 5	200	-2635	747605	0	0	0	No, $e > l/2$
SLV 5	390	-8755	265157	1.46	826934	3.119	Si
SLV 2	200	-8576	912792	1.43	812327	0.89	No, $M > \mu$
SLV 2	390	-17415	-172876	2.9	1424541	8.24	Si
SLV 13	200	-14722	-23765	2.45	1262162	53.111	Si
SLV 13	390	-11788	787546	1.96	1061165	1.347	Si
SLV 10	200	-4478	466638	0.75	450996	0.966	No, $M > \mu$
SLV 10	390	-7067	553284	1.18	684905	1.238	Si
SLV 1	200	-8576	912792	1.43	812327	0.89	No, $M > \mu$
SLV 1	390	-17415	-172876	2.9	1424541	8.24	Si
SLV 6	200	-2635	747605	0	0	0	No, $e > l/2$
SLV 6	390	-8755	265157	1.46	826934	3.119	Si
SLV 3	200	-15513	773414	2.58	1312056	1.696	Si
SLV 3	390	-23150	-260206	3.85	1699623	6.532	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	200	-23272	4551	573150		3.87	214.5	1.07	6440			1.42	Si
SLU 78	390	-27279	4542	432598		4.54	214.5	1.08	6507			1.43	Si
SLU 82	200	-22522	4510	545942		3.75	214.5	1.06	6340			1.41	Si
SLU 82	390	-26344	4502	393362		4.39	214.5	1.08	6507			1.45	Si
SLU 77	200	-23380	4630	576900		3.89	214.5	1.07	6454			1.39	Si
SLU 77	390	-27445	4622	427428		4.57	214.5	1.08	6507			1.41	Si
SLU 84	200	-23298	4613	568381		3.88	214.5	1.07	6443			1.4	Si
SLU 84	390	-27333	4605	418980		4.55	214.5	1.08	6507			1.41	Si
SLU 80	200	-23142	4538	571615		3.85	214.5	1.07	6422			1.42	Si
SLU 80	390	-27128	4530	431116		4.52	214.5	1.08	6507			1.44	Si
SLU 79	200	-23250	4617	575365		3.87	214.5	1.07	6437			1.39	Si
SLU 79	390	-27294	4610	425946		4.54	214.5	1.08	6507			1.41	Si
SLU 75	200	-22495	4447	550712		3.75	214.5	1.05	6336			1.42	Si
SLU 75	390	-26290	4440	406981		4.38	214.5	1.08	6507			1.47	Si
SLU 81	200	-22630	4589	549692		3.77	214.5	1.06	6354			1.38	Si
SLU 81	390	-26511	4582	388193		4.41	214.5	1.08	6507			1.42	Si
SLU 74	200	-22603	4526	554462		3.76	214.5	1.06	6350			1.4	Si
SLU 74	390	-26456	4520	401811		4.4	214.5	1.08	6507			1.44	Si
SLU 83	200	-23406	4692	572131		3.9	214.5	1.08	6458			1.38	Si
SLU 83	390	-27500	4685	413810		4.58	214.5	1.08	6507			1.39	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	200	-2635	5520	747605		0	0	0.83	0			0	No, $V_u < V$
SLV 5	390	-8755	5500	265157		1.46	214.5	1.12	6756			1.23	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 1	200	-12390	6663	601040		2.51	176.22	1.34	6590			0.99	No, Vu<V
SLD 1	390	-17484	6609	75273		2.91	214.5	1.42	8502			1.29	Si
SLV 9	200	-4478	478	466638		17.47	9.16	1.63	417			0.87	No, Vu<V
SLV 9	390	-7067	540	553284		2.91	86.86	1.41	3440			6.37	Si
SLV 2	200	-8576	11472	912792		124.51	2.46	1.63	112			0.01	No, Vu<V
SLV 2	390	-17415	11338	-172876		2.9	214.5	1.41	8488			0.75	No, Vu<V
SLV 10	200	-4478	478	466638		17.47	9.16	1.63	417			0.87	No, Vu<V
SLV 10	390	-7067	540	553284		2.91	86.86	1.41	3440			6.37	Si
SLV 3	200	-15513	11532	773414		3.22	172.18	1.48	7120			0.62	No, Vu<V
SLV 3	390	-23150	11383	-260206		3.85	214.5	1.6	9635			0.85	No, Vu<V
SLD 2	200	-12390	6663	601040		2.51	176.22	1.34	6590			0.99	No, Vu<V
SLD 2	390	-17484	6609	75273		2.91	214.5	1.42	8502			1.29	Si
SLV 4	200	-15513	11532	773414		3.22	172.18	1.48	7120			0.62	No, Vu<V
SLV 4	390	-23150	11383	-260206		3.85	214.5	1.6	9635			0.85	No, Vu<V
SLV 6	200	-2635	5520	747605		0	0	0.83	0			0	No, Vu<V
SLV 6	390	-8755	5500	265157		1.46	214.5	1.12	6756			1.23	Si
SLV 1	200	-8576	11472	912792		124.51	2.46	1.63	112			0.01	No, Vu<V
SLV 1	390	-17415	11338	-172876		2.9	214.5	1.41	8488			0.75	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore $8 \mu M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.31	0.76	-4583	19662	60152	3.06	Si
SLV 9	14	0.31	0.76	-4583	19662	60152	3.06	Si
SLV 6	14	0.31	0.87	-5216	19662	67838	3.45	Si
SLV 5	14	0.31	0.87	-5216	19662	67838	3.45	Si
SLV 14	14	0.31	1.95	-11715	19662	137831	7.01	Si
SLV 13	14	0.31	1.95	-11715	19662	137831	7.01	Si
SLV 1	14	0.31	2.3	-13827	19662	157108	7.99	Si
SLV 2	14	0.31	2.3	-13827	19662	157108	7.99	Si
SLV 15	14	0.31	3.07	-18462	19662	193448	9.84	Si
SLV 16	14	0.31	3.07	-18462	19662	193448	9.84	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-7619	910	116	0	0	0	0	853.756	No, Trazione
SLV 5	-8944	2064	88	0	0	0	0	853.756	No, Trazione
SLV 10	-7619	910	116	0	0	0	0	853.756	No, Trazione
SLV 6	-8944	2064	88	0	0	0	0	853.756	No, Trazione
SLV 3	-18337	-13570	-74	0.038	21.828	0.957	57.128	942.914	No
SLV 4	-18337	-13570	-74	0.038	21.828	0.957	57.128	942.914	No
SLV 13	-10299	-9580	81	0.037	13.673	0.936	57.647	942.914	No
SLV 14	-10299	-9580	81	0.037	13.673	0.936	57.647	942.914	No
SLV 7	-21017	-24059	-109	0.036	24.554	0.962	54.525	853.756	No
SLV 8	-21017	-24059	-109	0.036	24.554	0.962	54.525	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.269	SLU 77	Si
V_SLU	1.376	SLU 83	Si
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	3.059	SLV 9	Si
R_SLV	0	SLV 10	No

Maschio 98

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	595.1	-201.3	595.1	L3	L4	189	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\mu M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	200	-15800	-449858	2.99	945854	2.103	Si
SLU 81	390	-20272	82540	3.83	1014821	12.295	Si
SLU 79	200	-15356	-431416	2.9	934211	2.165	Si
SLU 79	390	-19586	91790	3.7	1009931	11.003	Si
SLU 77	200	-15508	-436126	2.93	938301	2.151	Si
SLU 77	390	-19795	91601	3.74	1011640	11.044	Si
SLU 84	200	-15422	-436348	2.91	935992	2.145	Si
SLU 84	390	-19935	98829	3.77	1012675	10.247	Si
SLU 78	200	-15058	-423918	2.85	925906	2.184	Si
SLU 78	390	-19354	99309	3.66	1007808	10.148	Si
SLU 83	200	-15873	-448556	3	947667	2.113	Si
SLU 83	390	-20376	91121	3.85	1015381	11.143	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	200	-14491	-415817	2.74	909072	2.186	Si
SLU 60	390	-18341	62847	3.47	995794	15.845	Si
SLU 74	200	-15436	-437428	2.92	936373	2.141	Si
SLU 74	390	-19691	83021	3.72	1010814	12.175	Si
SLU 75	200	-14985	-425219	2.83	923835	2.173	Si
SLU 75	390	-19250	90729	3.64	1006781	11.097	Si
SLU 82	200	-15350	-437649	2.9	934037	2.134	Si
SLU 82	390	-19831	90248	3.75	1011913	11.213	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	200	-17373	-930586	3.28	1200651	1.29	Si
SLV 11	390	-26108	202162	4.93	1471038	7.277	Si
SLV 6	200	-4125	313564	0.78	364906	1.164	Si
SLV 6	390	-838	-113854	0	0	0	No, $e \geq l/2$
SLV 5	200	-4125	313564	0.78	364906	1.164	Si
SLV 5	390	-838	-113854	0	0	0	No, $e \geq l/2$
SLV 14	200	-12501	-684034	2.36	952935	1.393	Si
SLV 14	390	-20596	312731	3.89	1326394	4.241	Si
SLV 13	200	-12501	-684034	2.36	952935	1.393	Si
SLV 13	390	-20596	312731	3.89	1326394	4.241	Si
SLV 2	200	-5640	347425	1.07	486478	1.4	Si
SLV 2	390	-570	-267048	0	0	0	No, $e \geq l/2$
SLV 16	200	-15858	-964447	3	1131046	1.173	Si
SLV 16	390	-26375	355356	4.98	1475794	4.153	Si
SLV 1	200	-5640	347425	1.07	486478	1.4	Si
SLV 1	390	-570	-267048	0	0	0	No, $e \geq l/2$
SLV 15	200	-15858	-964447	3	1131046	1.173	Si
SLV 15	390	-26375	355356	4.98	1475794	4.153	Si
SLV 12	200	-17373	-930586	3.28	1200651	1.29	Si
SLV 12	390	-26108	202162	4.93	1471038	7.277	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	200	-15350	-6207	-437649		2.9	189	0.94	4987			0.8	No, Vu<V
SLU 82	390	-19831	-6192	90248		3.75	189	1.06	5584			0.9	No, Vu<V
SLU 80	200	-14905	-6039	-419208		2.82	189	0.93	4927			0.82	No, Vu<V
SLU 80	390	-19145	-6023	99499		3.62	189	1.04	5493			0.91	No, Vu<V
SLU 78	200	-15058	-6091	-423918		2.85	189	0.93	4948			0.81	No, Vu<V
SLU 78	390	-19354	-6075	99309		3.66	189	1.04	5520			0.91	No, Vu<V
SLU 77	200	-15508	-6109	-436126		2.93	189	0.95	5008			0.82	No, Vu<V
SLU 77	390	-19795	-6095	91601		3.74	189	1.05	5579			0.92	No, Vu<V
SLU 73	200	-14460	-5918	-413673		2.73	189	0.92	4868			0.82	No, Vu<V
SLU 73	390	-18642	-5902	87477		3.52	189	1.03	5426			0.92	No, Vu<V
SLU 81	200	-15800	-6226	-449858		2.99	189	0.95	5047			0.81	No, Vu<V
SLU 81	390	-20272	-6212	82540		3.83	189	1.07	5643			0.91	No, Vu<V
SLU 84	200	-15422	-6262	-436348		2.91	189	0.94	4996			0.8	No, Vu<V
SLU 84	390	-19935	-6246	98829		3.77	189	1.06	5598			0.9	No, Vu<V
SLU 75	200	-14985	-6037	-425219		2.83	189	0.93	4938			0.82	No, Vu<V
SLU 75	390	-19250	-6021	90729		3.64	189	1.04	5507			0.91	No, Vu<V
SLU 83	200	-15873	-6280	-448556		3	189	0.96	5056			0.81	No, Vu<V
SLU 83	390	-20376	-6266	91121		3.85	189	1.07	5657			0.9	No, Vu<V
SLU 76	200	-14532	-5972	-412371		2.75	189	0.92	4878			0.82	No, Vu<V
SLU 76	390	-18746	-5956	96057		3.54	189	1.03	5439			0.91	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	200	-12501	-9589	-684034		3.74	119.34	1.58	5285			0.55	No, Vu<V
SLV 14	390	-20596	-10025	312731		3.89	189	1.61	8529			0.85	No, Vu<V
SLV 13	200	-12501	-9589	-684034		3.74	119.34	1.58	5285			0.55	No, Vu<V
SLV 13	390	-20596	-10025	312731		3.89	189	1.61	8529			0.85	No, Vu<V
SLV 12	200	-17373	-12246	-930586		5.05	122.8	1.63	8588			0.46	No, Vu<V
SLV 12	390	-26108	-9988	202162		4.93	189	1.63	8599			0.86	No, Vu<V
SLV 6	200	-4125	3986	313564		2.66	55.43	1.36	2118			0.53	No, Vu<V
SLV 6	390	-838	1747	-113854		0	0	0.83	0			0	No, Vu<V
SLV 1	200	-5640	4895	347425		2.04	98.69	1.24	3431			0.7	No, Vu<V
SLV 1	390	-570	4039	-267048		0	0	0.83	0			0	No, Vu<V
SLV 2	200	-5640	4895	347425		2.04	98.69	1.24	3431			0.7	No, Vu<V
SLV 2	390	-570	4039	-267048		0	0	0.83	0			0	No, Vu<V
SLV 15	200	-15858	-13155	-964447		5.6	101.04	1.63	4597			0.35	No, Vu<V
SLV 15	390	-26375	-12280	355356		4.98	189	1.63	8599			0.7	No, Vu<V
SLV 11	200	-17373	-12246	-930586		5.05	122.8	1.63	8588			0.46	No, Vu<V
SLV 11	390	-26108	-9988	202162		4.93	189	1.63	8599			0.86	No, Vu<V
SLV 5	200	-4125	3986	313564		2.66	55.43	1.36	2118			0.53	No, Vu<V
SLV 5	390	-838	1747	-113854		0	0	0.83	0			0	No, Vu<V
SLV 16	200	-15858	-13155	-964447		5.6	101.04	1.63	4597			0.35	No, Vu<V
SLV 16	390	-26375	-12280	355356		4.98	189	1.63	8599			0.7	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.31	0	1185	17325	0	0	No, Trazione
SLV 6	14	0.31	0	1185	17325	0	0	No, Trazione
SLV 2	14	0.31	0.38	-1988	17325	26980	1.56	Si
SLV 1	14	0.31	0.38	-1988	17325	26980	1.56	Si
SLV 10	14	0.31	0.58	-3078	17325	41039	2.37	Si
SLV 9	14	0.31	0.58	-3078	17325	41039	2.37	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.31	1.7	-8971	17325	108167	6.24	Si
SLV 4	14	0.31	1.7	-8971	17325	108167	6.24	Si
SLV 14	14	0.31	3.06	-16197	17325	169958	9.81	Si
SLV 13	14	0.31	3.06	-16197	17325	169958	9.81	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-6153	552	77	0	0	0	0	853.756	No, Trazione
SLV 5	-2577	3011	69	0	0	0	0	853.756	No, Trazione
SLV 9	-6153	552	77	0	0	0	0	853.756	No, Trazione
SLV 6	-2577	3011	69	0	0	0	0	853.756	No, Trazione
SLV 13	-15189	-10311	36	0.039	18.25	0.955	59.857	942.914	No
SLV 14	-15189	-10311	36	0.039	18.25	0.955	59.857	942.914	No
SLV 16	-19359	-17164	-6	0.04	22.49	0.963	60.965	942.914	No
SLV 15	-19359	-17164	-6	0.04	22.49	0.963	60.965	942.914	No
SLV 8	-16476	-19831	-72	0.037	19.558	0.958	56.519	853.756	No
SLV 7	-16476	-19831	-72	0.037	19.558	0.958	56.519	853.756	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.103	SLU 81	Si
V_SLU	0.798	SLU 84	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 10	No

Maschio 99

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-12.3	-328.4	-12.3	595.1	L3	L4	923.5	28	373	373	373			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 70	110	-159088	-4787018	6.15	17976639	3.755	Si
SLU 70	483	-105219	-2238134	4.07	24314848	10.864	Si
SLU 84	110	-176118	-4828628	6.81	13325737	2.76	Si
SLU 84	483	-116540	-2177764	4.51	24038740	11.038	Si
SLU 78	110	-173432	-5055662	6.71	14143910	2.798	Si
SLU 78	483	-115019	-2346197	4.45	24108524	10.276	Si
SLU 76	110	-171139	-5658373	6.62	14817158	2.619	Si
SLU 76	483	-113010	-2572974	4.37	24185138	9.4	Si
SLU 68	110	-156795	-5389730	6.06	18505681	3.434	Si
SLU 68	483	-103210	-2464911	3.99	24305137	9.86	Si
SLU 55	110	-156676	-5209755	6.06	18532475	3.557	Si
SLU 55	483	-102968	-2331085	3.98	24302770	10.426	Si
SLU 80	110	-171917	-5062162	6.65	14591396	2.882	Si
SLU 80	483	-113803	-2354034	4.4	24157001	10.262	Si
SLU 75	110	-171486	-4706995	6.63	14716653	3.127	Si
SLU 75	483	-113556	-2123614	4.39	24166054	11.38	Si
SLU 82	110	-174173	-4479961	6.74	13921398	3.107	Si
SLU 82	483	-115077	-1955182	4.45	24106027	12.329	Si
SLU 73	110	-169193	-5309707	6.54	15370341	2.895	Si
SLU 73	483	-111547	-2350392	4.31	24229783	10.309	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	110	-42496	-5347287	1.64	16983053	3.176	Si
SLV 2	483	-35141	-3247979	1.36	14421683	4.44	Si
SLV 8	110	-95092	13288989	3.68	30693270	2.31	Si
SLV 8	483	-65890	6571202	2.55	24079751	3.664	Si
SLV 12	110	-140285	12578962	5.43	36014970	2.863	Si
SLV 12	483	-91176	6663167	3.53	29951129	4.495	Si
SLV 1	110	-42496	-5347287	1.64	16983053	3.176	Si
SLV 1	483	-35141	-3247979	1.36	14421683	4.44	Si
SLV 10	110	-140484	-17366639	5.43	36025206	2.074	Si
SLV 10	483	-89255	-8278198	3.45	29570553	3.572	Si
SLV 9	110	-140484	-17366639	5.43	36025206	2.074	Si
SLV 9	483	-89255	-8278198	3.45	29570553	3.572	Si
SLV 7	110	-95092	13288989	3.68	30693270	2.31	Si
SLV 7	483	-65890	6571202	2.55	24079751	3.664	Si
SLV 6	110	-95291	-16656612	3.69	30729804	1.845	Si
SLV 6	483	-63969	-8370164	2.47	23557156	2.814	Si
SLV 5	110	-95291	-16656612	3.69	30729804	1.845	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	483	-63969	-8370164	2.47	23557156	2.814	Si
SLV 11	110	-140285	12578962	5.43	36014970	2.863	Si
SLV 11	483	-91176	6663167	3.53	29951129	4.495	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 34	110	-143230	-1214	-5262018		5.54	923.49	1.08	28013			23.07	Si
SLU 34	483	-94882	-915	-2429854		3.67	923.49	1.04	27016			29.53	Si
SLU 10	110	-126822	-1158	-4464732		4.9	923.49	1.08	28013			24.18	Si
SLU 10	483	-83377	-867	-1965383		3.22	923.49	0.99	25482			29.4	Si
SLU 68	110	-156795	-1164	-5389730		6.06	923.49	1.08	28013			24.06	Si
SLU 68	483	-103210	-861	-2464911		3.99	923.49	1.08	28013			32.52	Si
SLU 23	110	-126940	-1181	-4644707		4.91	923.49	1.08	28013			23.72	Si
SLU 23	483	-83619	-889	-2099208		3.23	923.49	0.99	25515			28.71	Si
SLU 2	110	-112477	-1221	-4196089		4.35	923.49	1.08	28013			22.95	Si
SLU 2	483	-73577	-933	-1857320		2.85	923.49	0.93	24176			25.9	Si
SLU 13	110	-128767	-1254	-4813399		4.98	923.49	1.08	28013			22.35	Si
SLU 13	483	-84840	-960	-2187965		3.28	923.49	0.99	25677			26.76	Si
SLU 55	110	-156676	-1142	-5209755		6.06	923.49	1.08	28013			24.54	Si
SLU 55	483	-102968	-840	-2331085		3.98	923.49	1.08	28013			33.36	Si
SLU 26	110	-128886	-1276	-4993374		4.98	923.49	1.08	28013			21.95	Si
SLU 26	483	-85082	-981	-2321791		3.29	923.49	0.99	25710			26.2	Si
SLU 47	110	-142331	-1204	-4941111		5.5	923.49	1.08	28013			23.27	Si
SLU 47	483	-93168	-906	-2223022		3.6	923.49	1.04	26788			29.56	Si
SLU 5	110	-114423	-1316	-4544755		4.43	923.49	1.08	28013			21.29	Si
SLU 5	483	-75040	-1026	-2079902		2.9	923.49	0.94	24371			23.75	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	110	-95291	-22315	-16656612		3.95	860.85	1.62	39145			1.75	Si
SLV 6	483	-63969	-17434	-8370164		2.47	923.49	1.33	34342			1.97	Si
SLV 9	110	-140484	-22113	-17366639		5.43	923.49	1.63	42019			1.9	Si
SLV 9	483	-89255	-17191	-8278198		3.45	923.49	1.52	39399			2.29	Si
SLD 12	110	-127397	10140	4099077		4.93	923.49	1.63	42019			4.14	Si
SLD 12	483	-83409	8068	2297272		3.23	923.49	1.48	38230			4.74	Si
SLV 7	110	-95092	23008	13288989		3.68	923.49	1.57	40567			1.76	Si
SLV 7	483	-65890	18157	6571202		2.55	923.49	1.34	34726			1.91	Si
SLV 5	110	-95291	-22315	-16656612		3.95	860.85	1.62	39145			1.75	Si
SLV 5	483	-63969	-17434	-8370164		2.47	923.49	1.33	34342			1.97	Si
SLV 10	110	-140484	-22113	-17366639		5.43	923.49	1.63	42019			1.9	Si
SLV 10	483	-89255	-17191	-8278198		3.45	923.49	1.52	39399			2.29	Si
SLV 12	110	-140285	23210	12578962		5.43	923.49	1.63	42019			1.81	Si
SLV 12	483	-91176	18400	6663167		3.53	923.49	1.54	39783			2.16	Si
SLD 11	110	-127397	10140	4099077		4.93	923.49	1.63	42019			4.14	Si
SLD 11	483	-83409	8068	2297272		3.23	923.49	1.48	38230			4.74	Si
SLV 8	110	-95092	23008	13288989		3.68	923.49	1.57	40567			1.76	Si
SLV 8	483	-65890	18157	6571202		2.55	923.49	1.34	34726			1.91	Si
SLV 11	110	-140285	23210	12578962		5.43	923.49	1.63	42019			1.81	Si
SLV 11	483	-91176	18400	6663167		3.53	923.49	1.54	39783			2.16	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 296.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.31	1.54	-39771	84653	486705	5.75	Si
SLV 1	14	0.31	1.54	-39771	84653	486705	5.75	Si
SLV 3	14	0.31	1.55	-40093	84653	490080	5.79	Si
SLV 4	14	0.31	1.55	-40093	84653	490080	5.79	Si
SLV 6	14	0.31	3.01	-77924	84653	821876	9.71	Si
SLV 5	14	0.31	3.01	-77924	84653	821876	9.71	Si
SLV 7	14	0.31	3.06	-78999	84653	829452	9.8	Si
SLV 8	14	0.31	3.06	-78999	84653	829452	9.8	Si
SLV 9	14	0.31	4.29	-110949	84653	1007837	11.91	Si
SLV 10	14	0.31	4.29	-110949	84653	1007837	11.91	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 296.5 Wa = 0.05 Ta = 0.083

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 15	-120004	-193081	-155	0.039	135.755	0.97	58.253	942.914	No
SLV 16	-120004	-193081	-155	0.039	135.755	0.97	58.253	942.914	No
SLV 14	-119427	-193140	-43	0.04	135.168	0.969	59.576	942.914	No
SLV 13	-119427	-193140	-43	0.04	135.168	0.969	59.576	942.914	No
SLV 12	-91176	-140285	-224	0.039	106.416	0.962	58.251	853.756	No
SLV 11	-91176	-140285	-224	0.039	106.416	0.962	58.251	853.756	No
SLV 9	-89255	-140484	148	0.039	104.461	0.961	59.498	853.756	No
SLV 10	-89255	-140484	148	0.039	104.461	0.961	59.498	853.756	No
SLV 1	-35141	-42496	131	0.042	49.581	0.926	65.845	942.914	No
SLV 2	-35141	-42496	131	0.042	49.581	0.926	65.845	942.914	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.619	SLU 76	Si
V_SLU	21.288	SLU 5	Si
PF_SLV	1.845	SLV 5	Si
V_SLV	1.754	SLV 5	Si
PFFP_SLV	5.749	SLV 1	Si
R_SLV	0.062	SLV 15	No



Maschio 100

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	-335.9	-2467.8	126.6	L4	L5	462.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 70	483	-56270	-2851043	4.34	6073262	2.13	Si
SLU 70	693	-44470	-1471643	3.43	5949996	4.043	Si
SLU 84	483	-62208	-2962439	4.8	5904357	1.993	Si
SLU 84	693	-48477	-1608631	3.74	6060318	3.767	Si
SLU 55	483	-55162	-2852659	4.26	6087650	2.134	Si
SLU 55	693	-43186	-1443381	3.33	5899780	4.087	Si
SLU 73	483	-59636	-2956160	4.6	5996494	2.028	Si
SLU 73	693	-46374	-1544406	3.58	6011204	3.892	Si
SLU 68	483	-55455	-2896221	4.28	6084366	2.101	Si
SLU 68	693	-43582	-1458457	3.36	5916021	4.056	Si
SLU 78	483	-61723	-2990836	4.77	5923975	1.981	Si
SLU 78	693	-48442	-1605145	3.74	6059652	3.775	Si
SLU 80	483	-61144	-2982382	4.72	5946021	1.994	Si
SLU 80	693	-47954	-1598969	3.7	6049922	3.784	Si
SLU 75	483	-60451	-2910982	4.67	5970463	2.051	Si
SLU 75	693	-47262	-1557592	3.65	6034307	3.874	Si
SLU 82	483	-60936	-2882585	4.7	5953553	2.065	Si
SLU 82	693	-47297	-1561077	3.65	6035155	3.866	Si
SLU 76	483	-60908	-3036014	4.7	5954548	1.961	Si
SLU 76	693	-47554	-1591960	3.67	6041142	3.795	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 6	483	-47222	-2859326	3.65	7662811	2.68	Si
SLD 6	693	-36925	-1386058	2.85	6547560	4.724	Si
SLV 6	483	-57204	-4168009	4.42	8448111	2.027	Si
SLV 6	693	-44621	-1900536	3.45	7410320	3.899	Si
SLD 10	483	-40852	-2746726	3.15	7009451	2.552	Si
SLD 10	693	-33302	-1200485	2.57	6081430	5.066	Si
SLD 9	483	-40852	-2746726	3.15	7009451	2.552	Si
SLD 9	693	-33302	-1200485	2.57	6081430	5.066	Si
SLD 5	483	-47222	-2859326	3.65	7662811	2.68	Si
SLD 5	693	-36925	-1386058	2.85	6547560	4.724	Si
SLV 9	483	-42244	-3902251	3.26	7162299	1.835	Si
SLV 9	693	-36128	-1465100	2.79	6448332	4.401	Si
SLV 10	483	-42244	-3902251	3.26	7162299	1.835	Si
SLV 10	693	-36128	-1465100	2.79	6448332	4.401	Si
SLV 14	483	-17969	-2104172	1.39	3684015	1.751	Si
SLV 14	693	-19864	-488097	1.53	4017519	8.231	Si
SLV 5	483	-57204	-4168009	4.42	8448111	2.027	Si
SLV 5	693	-44621	-1900536	3.45	7410320	3.899	Si
SLV 13	483	-17969	-2104172	1.39	3684015	1.751	Si
SLV 13	693	-19864	-488097	1.53	4017519	8.231	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	483	-60936	-8470	-2882585		4.7	462.57	1.08	14031			1.66	Si
SLU 82	693	-47297	-8324	-1561077		3.65	462.57	1.04	13502			1.62	Si
SLU 79	483	-59588	-8202	-2782152		4.6	462.57	1.08	14031			1.71	Si
SLU 79	693	-46786	-8203	-1538151		3.61	462.57	1.04	13434			1.64	Si
SLU 78	483	-61723	-8664	-2990836		4.77	462.57	1.08	14031			1.62	Si
SLU 78	693	-48442	-8518	-1605145		3.74	462.57	1.05	13654			1.6	Si
SLU 76	483	-60908	-8640	-3036014		4.7	462.57	1.08	14031			1.62	Si
SLU 76	693	-47554	-8395	-1591960		3.67	462.57	1.05	13536			1.61	Si
SLU 83	483	-60653	-8298	-2762209		4.68	462.57	1.08	14031			1.69	Si
SLU 83	693	-47309	-8298	-1547813		3.65	462.57	1.04	13503			1.63	Si
SLU 73	483	-59636	-8416	-2956160		4.6	462.57	1.08	14031			1.67	Si
SLU 73	693	-46374	-8171	-1544406		3.58	462.57	1.03	13379			1.64	Si
SLU 80	483	-61144	-8599	-2982382		4.72	462.57	1.08	14031			1.63	Si
SLU 80	693	-47954	-8452	-1598969		3.7	462.57	1.05	13589			1.61	Si
SLU 84	483	-62208	-8694	-2962439		4.8	462.57	1.08	14031			1.61	Si
SLU 84	693	-48477	-8548	-1608631		3.74	462.57	1.05	13659			1.6	Si
SLU 77	483	-60167	-8268	-2790606		4.65	462.57	1.08	14031			1.7	Si
SLU 77	693	-47273	-8268	-1544328		3.65	462.57	1.04	13499			1.63	Si
SLU 75	483	-60451	-8440	-2910982		4.67	462.57	1.08	14031			1.66	Si
SLU 75	693	-47262	-8294	-1557592		3.65	462.57	1.04	13497			1.63	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 5	483	-47222	-9894	-2859326		3.65	462.57	1.56	20238			2.05	Si
SLD 5	693	-36925	-9492	-1386058		2.85	462.57	1.4	18178			1.92	Si
SLV 9	483	-42244	-14133	-3902251		3.62	416.73	1.56	18172			1.29	Si
SLV 9	693	-36128	-12967	-1465100		2.79	462.57	1.39	18019			1.39	Si
SLD 9	483	-40852	-9135	-2746726		3.15	462.57	1.46	18964			2.08	Si
SLD 9	693	-33302	-8642	-1200485		2.57	462.57	1.35	17454			2.02	Si
SLD 10	483	-40852	-9135	-2746726		3.15	462.57	1.46	18964			2.08	Si
SLD 10	693	-33302	-8642	-1200485		2.57	462.57	1.35	17454			2.02	Si
SLV 5	483	-57204	-15940	-4168009		4.42	462.57	1.63	21047			1.32	Si
SLV 5	693	-44621	-15008	-1900536		3.45	462.57	1.52	19717			1.31	Si
SLV 1	483	-67838	-11326	-2990030		5.24	462.57	1.63	21047			1.86	Si
SLV 1	693	-48172	-11400	-1939553		3.72	462.57	1.58	20428			1.79	Si
SLD 6	483	-47222	-9894	-2859326		3.65	462.57	1.56	20238			2.05	Si
SLD 6	693	-36925	-9492	-1386058		2.85	462.57	1.4	18178			1.92	Si
SLV 6	483	-57204	-15940	-4168009		4.42	462.57	1.63	21047			1.32	Si
SLV 6	693	-44621	-15008	-1900536		3.45	462.57	1.52	19717			1.31	Si
SLV 10	483	-42244	-14133	-3902251		3.62	416.73	1.56	18172			1.29	Si
SLV 10	693	-36128	-12967	-1465100		2.79	462.57	1.39	18019			1.39	Si
SLV 2	483	-67838	-11326	-2990030		5.24	462.57	1.63	21047			1.86	Si
SLV 2	693	-48172	-11400	-1939553		3.72	462.57	1.58	20428			1.79	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.38	1.18	-15273	47121	193185	4.1	Si
SLV 15	14	0.38	1.18	-15273	47121	193185	4.1	Si
SLV 12	14	0.38	1.44	-18666	47121	230506	4.89	Si
SLV 11	14	0.38	1.44	-18666	47121	230506	4.89	Si
SLV 14	14	0.38	1.61	-20808	47121	253010	5.37	Si
SLV 13	14	0.38	1.61	-20808	47121	253010	5.37	Si
SLV 7	14	0.38	2.09	-27110	47121	314527	6.67	Si
SLV 8	14	0.38	2.09	-27110	47121	314527	6.67	Si
SLV 9	14	0.38	2.87	-37117	47121	397765	8.44	Si
SLV 10	14	0.38	2.87	-37117	47121	397765	8.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-36799	-67838	24	0.043	43.896	0.957	65.569	967.392	No
SLV 2	-36799	-67838	24	0.043	43.896	0.957	65.569	967.392	No
SLV 3	-32838	-61991	31	0.043	39.871	0.953	66.106	967.392	No
SLV 4	-32838	-61991	31	0.043	39.871	0.953	66.106	967.392	No
SLV 14	-18080	-17969	-25	0.046	24.917	0.93	71.928	967.392	No
SLV 13	-18080	-17969	-25	0.046	24.917	0.93	71.928	967.392	No
SLV 6	-34869	-57204	-1	0.044	41.935	0.955	66.865	882.77	No
SLV 5	-34869	-57204	-1	0.044	41.935	0.955	66.865	882.77	No
SLV 10	-29254	-42244	-15	0.044	36.231	0.949	67.703	882.77	No
SLV 9	-29254	-42244	-15	0.044	36.231	0.949	67.703	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.961	SLU 76	Si
V_SLU	1.598	SLU 84	Si
PF_SLV	1.751	SLV 13	Si
V_SLV	1.286	SLV 9	Si
PFFP_SLV	4.1	SLV 15	Si
R_SLV	0.068	SLV 1	No

Maschio 101

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	206.6	-2467.8	595.1	L4	L5	388.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	483	-42992	2208017	3.95	4299360	1.947	Si
SLU 77	693	-37656	519156	3.46	4206212	8.102	Si
SLU 74	483	-42314	2214974	3.89	4294450	1.939	Si
SLU 74	693	-36861	506706	3.39	4181675	8.253	Si
SLU 60	483	-39203	2096143	3.6	4246076	2.026	Si
SLU 60	693	-33729	484580	3.1	4057954	8.374	Si
SLU 82	483	-42289	2195475	3.89	4294230	1.956	Si
SLU 82	693	-36549	488484	3.36	4171249	8.539	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 78	483	-42583	2113501	3.91	4296642	2.033	Si
SLU 78	693	-37154	508707	3.42	4191021	8.239	Si
SLU 83	483	-43375	2283035	3.99	4301246	1.884	Si
SLU 83	693	-37845	511383	3.48	4211650	8.236	Si
SLU 84	483	-42967	2188518	3.95	4299214	1.964	Si
SLU 84	693	-37343	500934	3.43	4196876	8.378	Si
SLU 79	483	-42603	2183088	3.92	4296788	1.968	Si
SLU 79	693	-37286	519814	3.43	4195146	8.07	Si
SLU 75	483	-41906	2120457	3.85	4290518	2.023	Si
SLU 75	693	-36359	496257	3.34	4164736	8.392	Si
SLU 81	483	-42698	2289991	3.93	4297476	1.877	Si
SLU 81	693	-37051	498933	3.41	4187772	8.393	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	483	-43139	3438964	3.97	5660003	1.646	Si
SLV 7	693	-38830	722179	3.57	5339162	7.393	Si
SLV 4	483	-50126	3124293	4.61	6064897	1.941	Si
SLV 4	693	-43548	608556	4	5687632	9.346	Si
SLV 12	483	-32156	2771142	2.96	4735138	1.709	Si
SLV 12	693	-29430	635942	2.71	4450975	6.999	Si
SLD 7	483	-35160	2348687	3.23	5023098	2.139	Si
SLD 7	693	-30994	521300	2.85	4616708	8.856	Si
SLD 12	483	-30492	2062630	2.8	4564221	2.213	Si
SLD 12	693	-26987	483989	2.48	4177833	8.632	Si
SLD 11	483	-30492	2062630	2.8	4564221	2.213	Si
SLD 11	693	-26987	483989	2.48	4177833	8.632	Si
SLD 8	483	-35160	2348687	3.23	5023098	2.139	Si
SLD 8	693	-30994	521300	2.85	4616708	8.856	Si
SLV 8	483	-43139	3438964	3.97	5660003	1.646	Si
SLV 8	693	-38830	722179	3.57	5339162	7.393	Si
SLV 3	483	-50126	3124293	4.61	6064897	1.941	Si
SLV 3	693	-43548	608556	4	5687632	9.346	Si
SLV 11	483	-32156	2771142	2.96	4735138	1.709	Si
SLV 11	693	-29430	635942	2.71	4450975	6.999	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	483	-39203	7629	2096143		3.6	388.5	1.04	11270			1.48	Si
SLU 60	693	-33729	7633	484580		3.1	388.5	0.97	10541			1.38	Si
SLU 74	483	-42314	8162	2214974		3.89	388.5	1.07	11685			1.43	Si
SLU 74	693	-36861	8166	506706		3.39	388.5	1.01	10958			1.34	Si
SLU 77	483	-42992	8177	2208017		3.95	388.5	1.08	11776			1.44	Si
SLU 77	693	-37656	8182	519156		3.46	388.5	1.02	11064			1.35	Si
SLU 84	483	-42967	7905	2188518		3.95	388.5	1.08	11772			1.49	Si
SLU 84	693	-37343	7909	500934		3.43	388.5	1.01	11022			1.39	Si
SLU 81	483	-42698	8376	2289991		3.93	388.5	1.08	11736			1.4	Si
SLU 81	693	-37051	8381	498933		3.41	388.5	1.01	10983			1.31	Si
SLU 79	483	-42603	8073	2183088		3.92	388.5	1.08	11724			1.45	Si
SLU 79	693	-37286	8078	519814		3.43	388.5	1.01	11015			1.36	Si
SLU 83	483	-43375	8391	2283035		3.99	388.5	1.08	11785			1.4	Si
SLU 83	693	-37845	8396	511383		3.48	388.5	1.02	11089			1.32	Si
SLU 53	483	-38820	7414	2021126		3.57	388.5	1.03	11219			1.51	Si
SLU 53	693	-33540	7419	492352		3.08	388.5	0.97	10515			1.42	Si
SLU 82	483	-42289	7890	2195475		3.89	388.5	1.07	11682			1.48	Si
SLU 82	693	-36549	7893	488484		3.36	388.5	1	10916			1.38	Si
SLU 62	483	-39881	7644	2089186		3.67	388.5	1.04	11361			1.49	Si
SLU 62	693	-34524	7648	497030		3.17	388.5	0.98	10646			1.39	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	483	-32156	12357	2771142		3.54	324.22	1.54	13996			1.13	Si
SLV 11	693	-29430	11567	635942		2.71	388.5	1.37	14951			1.29	Si
SLV 7	483	-43139	14715	3438964		4.48	343.59	1.63	15634			1.06	Si
SLV 7	693	-38830	13461	722179		3.57	388.5	1.55	16831			1.25	Si
SLV 4	483	-50126	11944	3124293		4.61	388.5	1.63	17677			1.48	Si
SLV 4	693	-43548	10865	608556		4	388.5	1.63	17677			1.63	Si
SLD 12	483	-30492	8505	2062630		2.87	379.81	1.41	14961			1.76	Si
SLD 12	693	-26987	8174	483989		2.48	388.5	1.33	14462			1.77	Si
SLD 8	483	-35160	9489	2348687		3.28	382.35	1.49	15953			1.68	Si
SLD 8	693	-30994	8973	521300		2.85	388.5	1.4	15264			1.7	Si
SLD 11	483	-30492	8505	2062630		2.87	379.81	1.41	14961			1.76	Si
SLD 11	693	-26987	8174	483989		2.48	388.5	1.33	14462			1.77	Si
SLV 12	483	-32156	12357	2771142		3.54	324.22	1.54	13996			1.13	Si
SLV 12	693	-29430	11567	635942		2.71	388.5	1.37	14951			1.29	Si
SLD 7	483	-35160	9489	2348687		3.28	382.35	1.49	15953			1.68	Si
SLD 7	693	-30994	8973	521300		2.85	388.5	1.4	15264			1.7	Si
SLV 3	483	-50126	11944	3124293		4.61	388.5	1.63	17677			1.48	Si
SLV 3	693	-43548	10865	608556		4	388.5	1.63	17677			1.63	Si
SLV 8	483	-43139	14715	3438964		4.48	343.59	1.63	15634			1.06	Si
SLV 8	693	-38830	13461	722179		3.57	388.5	1.55	16831			1.25	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.38	0.7	-7616	39576	100517	2.54	Si
SLV 13	14	0.38	0.7	-7616	39576	100517	2.54	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.38	1.16	-12587	39576	159526	4.03	Si
SLV 10	14	0.38	1.16	-12587	39576	159526	4.03	Si
SLV 15	14	0.38	1.17	-12774	39576	161653	4.08	Si
SLV 16	14	0.38	1.17	-12774	39576	161653	4.08	Si
SLV 6	14	0.38	2.02	-22005	39576	257068	6.5	Si
SLV 5	14	0.38	2.02	-22005	39576	257068	6.5	Si
SLV 11	14	0.38	2.74	-29781	39576	323513	8.17	Si
SLV 12	14	0.38	2.74	-29781	39576	323513	8.17	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-27892	-45132	54	0.042	33.804	0.953	64.657	967.392	No
SLV 2	-27892	-45132	54	0.042	33.804	0.953	64.657	967.392	No
SLV 4	-31621	-50126	16	0.043	37.593	0.958	65.606	967.392	No
SLV 3	-31621	-50126	16	0.043	37.593	0.958	65.606	967.392	No
SLV 7	-28880	-43139	-53	0.042	34.808	0.955	64.492	882.77	No
SLV 8	-28880	-43139	-53	0.042	34.808	0.955	64.492	882.77	No
SLV 12	-22803	-32156	-75	0.042	28.637	0.946	64.753	882.77	No
SLV 11	-22803	-32156	-75	0.042	28.637	0.946	64.753	882.77	No
SLV 15	-11362	-13517	-55	0.045	17.083	0.918	71.784	967.392	No
SLV 16	-11362	-13517	-55	0.045	17.083	0.918	71.784	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.877	SLU 81	Si
V_SLU	1.311	SLU 81	Si
PF_SLV	1.646	SLV 7	Si
V_SLV	1.062	SLV 7	Si
PFFP_SLV	2.54	SLV 13	Si
R_SLV	0.067	SLV 1	No

Maschio 102

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s.	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-2271.3	595.1	-2467.8	595.1	L4	L5	196.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	573	-23876	512131	4.34	1096134	2.14	Si
SLU 79	753	-21189	-23119	3.85	1097588	47.475	Si
SLU 83	573	-24355	536331	4.43	1092549	2.037	Si
SLU 83	753	-21900	-53051	3.98	1100283	20.74	Si
SLU 78	573	-23721	504911	4.31	1097079	2.173	Si
SLU 78	753	-21156	-32439	3.85	1097411	33.83	Si
SLU 75	573	-23397	507130	4.25	1098712	2.167	Si
SLU 75	753	-20966	-53374	3.81	1096284	20.54	Si
SLU 81	573	-24031	538550	4.37	1095083	2.033	Si
SLU 81	753	-21709	-73987	3.95	1099777	14.865	Si
SLU 77	573	-24140	517225	4.39	1094281	2.116	Si
SLU 77	753	-21478	-29110	3.9	1098949	37.751	Si
SLU 74	573	-23816	519445	4.33	1096510	2.111	Si
SLU 74	753	-21287	-50046	3.87	1098090	21.942	Si
SLU 84	573	-23936	524017	4.35	1095741	2.091	Si
SLU 84	753	-21579	-56379	3.92	1099339	19.499	Si
SLU 80	573	-23457	499817	4.26	1098445	2.198	Si
SLU 80	753	-20868	-26448	3.79	1095644	41.427	Si
SLU 82	573	-23612	526236	4.29	1097680	2.086	Si
SLU 82	753	-21388	-77315	3.89	1098565	14.209	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	573	-26682	739376	4.85	1581062	2.138	Si
SLV 7	753	-23594	-89210	4.29	1504567	16.866	Si
SLV 2	573	-20432	939481	3.71	1397336	1.487	Si
SLV 2	753	-21535	-247273	3.91	1438047	5.816	Si
SLV 4	573	-25373	1051612	4.61	1552027	1.476	Si
SLV 4	753	-25361	-240919	4.61	1551737	6.441	Si
SLV 14	573	-7704	-326389	1.4	670151	2.053	Si
SLV 14	753	-3734	165003	0.68	346495	2.1	Si
SLD 4	573	-20284	656836	3.69	1391588	2.119	Si
SLD 4	753	-19153	-125022	3.48	1345646	10.763	Si
SLV 13	573	-7704	-326389	1.4	670151	2.053	Si
SLV 13	753	-3734	165003	0.68	346495	2.1	Si
SLV 1	573	-20432	939481	3.71	1397336	1.487	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	753	-21535	-247273	3.91	1438047	5.816	Si
SLV 3	573	-25373	1051612	4.61	1552027	1.476	Si
SLV 3	753	-25361	-240919	4.61	1551737	6.441	Si
SLV 8	573	-26682	739376	4.85	1581062	2.138	Si
SLV 8	753	-23594	-89210	4.29	1504567	16.866	Si
SLD 3	573	-20284	656836	3.69	1391588	2.119	Si
SLD 3	753	-19153	-125022	3.48	1345646	10.763	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	573	-23612	3469	526236		4.29	196.5	1.08	5960			1.72	Si
SLU 82	753	-21388	3467	-77315		3.89	196.5	1.07	5908			1.7	Si
SLU 73	573	-22529	3247	496046		4.09	196.5	1.08	5960			1.84	Si
SLU 73	753	-20272	3243	-70538		3.68	196.5	1.05	5760			1.78	Si
SLU 81	573	-24031	3464	538550		4.37	196.5	1.08	5960			1.72	Si
SLU 81	753	-21709	3465	-73987		3.95	196.5	1.08	5951			1.72	Si
SLU 75	573	-23397	3117	507130		4.25	196.5	1.08	5960			1.91	Si
SLU 75	753	-20966	3115	-53374		3.81	196.5	1.06	5852			1.88	Si
SLU 83	573	-24355	3263	536331		4.43	196.5	1.08	5960			1.83	Si
SLU 83	753	-21900	3264	-53051		3.98	196.5	1.08	5960			1.83	Si
SLU 84	573	-23936	3268	524017		4.35	196.5	1.08	5960			1.82	Si
SLU 84	753	-21579	3266	-56379		3.92	196.5	1.08	5934			1.82	Si
SLU 39	573	-20056	3015	453567		3.65	196.5	1.04	5731			1.9	Si
SLU 39	753	-18386	3016	-68074		3.34	196.5	1	5508			1.83	Si
SLU 60	573	-22105	3106	493275		4.02	196.5	1.08	5960			1.92	Si
SLU 60	753	-19700	3107	-65410		3.58	196.5	1.03	5683			1.83	Si
SLU 40	573	-19637	3020	441252		3.57	196.5	1.03	5675			1.88	Si
SLU 40	753	-18065	3018	-71402		3.28	196.5	0.99	5465			1.81	Si
SLU 61	573	-21685	3111	480961		3.94	196.5	1.08	5948			1.91	Si
SLU 61	753	-19379	3109	-68739		3.52	196.5	1.03	5641			1.81	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	573	-12645	-3940	-214258		2.3	196.5	1.29	7114			1.81	Si
SLV 15	753	-7560	-3544	171357		1.37	196.5	1.11	6097			1.72	Si
SLV 2	573	-20432	8256	939481		4.65	156.81	1.63	7135			0.86	No, Vu<V
SLV 2	753	-21535	7861	-247273		3.91	196.5	1.62	8892			1.13	Si
SLV 14	573	-7704	-4408	-326389		1.64	167.65	1.16	5452			1.24	Si
SLV 14	753	-3734	-3911	165003		0.82	162.18	1	4531			1.16	Si
SLV 4	573	-25373	8723	1051612		5.32	170.41	1.63	7754			0.89	No, Vu<V
SLV 4	753	-25361	8227	-240919		4.61	196.5	1.63	8941			1.09	Si
SLD 2	573	-18203	4768	608289		3.34	194.5	1.5	8179			1.72	Si
SLD 2	753	-17533	4597	-127906		3.19	196.5	1.47	8092			1.76	Si
SLV 13	573	-7704	-4408	-326389		1.64	167.65	1.16	5452			1.24	Si
SLV 13	753	-3734	-3911	165003		0.82	162.18	1	4531			1.16	Si
SLV 3	573	-25373	8723	1051612		5.32	170.41	1.63	7754			0.89	No, Vu<V
SLV 3	753	-25361	8227	-240919		4.61	196.5	1.63	8941			1.09	Si
SLV 16	573	-12645	-3940	-214258		2.3	196.5	1.29	7114			1.81	Si
SLV 16	753	-7560	-3544	171357		1.37	196.5	1.11	6097			1.72	Si
SLV 1	573	-20432	8256	939481		4.65	156.81	1.63	7135			0.86	No, Vu<V
SLV 1	753	-21535	7861	-247273		3.91	196.5	1.62	8892			1.13	Si
SLD 1	573	-18203	4768	608289		3.34	194.5	1.5	8179			1.72	Si
SLD 1	753	-17533	4597	-127906		3.19	196.5	1.47	8092			1.76	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.38	1.05	-5780	20017	73961	3.69	Si
SLV 14	14	0.38	1.05	-5780	20017	73961	3.69	Si
SLV 9	14	0.38	1.13	-6218	20017	79005	3.95	Si
SLV 10	14	0.38	1.13	-6218	20017	79005	3.95	Si
SLV 15	14	0.38	1.82	-10011	20017	119287	5.96	Si
SLV 16	14	0.38	1.82	-10011	20017	119287	5.96	Si
SLV 5	14	0.38	1.97	-10826	20017	127156	6.35	Si
SLV 6	14	0.38	1.97	-10826	20017	127156	6.35	Si
SLV 12	14	0.38	3.69	-20323	20017	198513	9.92	Si
SLV 11	14	0.38	3.69	-20323	20017	198513	9.92	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-16219	-23439	51	0.041	19.244	0.958	61.864	967.392	No
SLV 2	-16219	-23439	51	0.041	19.244	0.958	61.864	967.392	No
SLV 3	-19131	-28804	23	0.042	22.206	0.963	63.386	967.392	No
SLV 4	-19131	-28804	23	0.042	22.206	0.963	63.386	967.392	No
SLV 15	-7500	-9318	-52	0.042	10.403	0.929	65.196	967.392	No
SLV 16	-7500	-9318	-52	0.042	10.403	0.929	65.196	967.392	No
SLV 12	-14969	-22397	-59	0.04	17.973	0.955	61.443	882.77	No
SLV 11	-14969	-22397	-59	0.04	17.973	0.955	61.443	882.77	No
SLV 8	-18459	-28243	-37	0.041	21.521	0.962	62.524	882.77	No
SLV 7	-18459	-28243	-37	0.041	21.521	0.962	62.524	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.033	SLU 81	Si
V_SLU	1.704	SLU 82	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.476	SLV 3	Si
V_SLV	0.864	SLV 1	No
PFFP_SLV	3.695	SLV 13	Si
R_SLV	0.064	SLV 1	No

Maschio 103

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	595.1	-2181.3	595.1	L4	L5	219.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 29	573	-14698	-101013	2.39	1139545	11.281	Si
SLU 29	753	-11945	-22074	1.94	998189	45.22	Si
SLU 38	573	-16224	-101817	2.64	1203573	11.821	Si
SLU 38	753	-13788	-9730	2.24	1096477	112.693	Si
SLU 37	573	-16266	-99887	2.65	1205175	12.065	Si
SLU 37	753	-13813	-6896	2.25	1097733	159.184	Si
SLU 27	573	-14903	-93578	2.42	1148711	12.275	Si
SLU 27	753	-12257	-14829	1.99	1015885	68.508	Si
SLU 9	573	-12843	-87584	2.09	1047938	11.965	Si
SLU 9	753	-10163	-21845	1.65	888947	40.693	Si
SLU 71	573	-17557	-100432	2.86	1251153	12.458	Si
SLU 71	753	-14350	-5924	2.33	1123492	189.635	Si
SLU 8	573	-12885	-85654	2.1	1050157	12.26	Si
SLU 8	753	-10188	-19012	1.66	890608	46.846	Si
SLU 28	573	-14861	-95509	2.42	1146860	12.008	Si
SLU 28	753	-12232	-17662	1.99	1014455	57.436	Si
SLU 72	573	-17516	-102362	2.85	1249787	12.209	Si
SLU 72	753	-14324	-8758	2.33	1122297	128.142	Si
SLU 30	573	-14657	-102943	2.38	1137657	11.051	Si
SLU 30	753	-11920	-24908	1.94	996725	40.017	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 16	573	-15535	-474598	2.53	1352256	2.849	Si
SLV 16	753	-19530	301353	3.18	1586007	5.263	Si
SLV 14	573	-12844	-504507	2.09	1168517	2.316	Si
SLV 14	753	-18788	288551	3.06	1546125	5.358	Si
SLV 1	573	-9602	435232	1.56	919076	2.112	Si
SLV 1	753	-2589	-193766	0.42	274349	1.416	Si
SLV 3	573	-12293	465142	2	1128315	2.426	Si
SLV 3	753	-3331	-180964	0.54	349364	1.931	Si
SLV 10	573	-8569	-210493	1.39	833178	3.958	Si
SLV 10	753	-12253	104803	1.99	1125344	10.738	Si
SLV 13	573	-12844	-504507	2.09	1168517	2.316	Si
SLV 13	753	-18788	288551	3.06	1546125	5.358	Si
SLV 2	573	-9602	435232	1.56	919076	2.112	Si
SLV 2	753	-2589	-193766	0.42	274349	1.416	Si
SLV 15	573	-15535	-474598	2.53	1352256	2.849	Si
SLV 15	753	-19530	301353	3.18	1586007	5.263	Si
SLV 9	573	-8569	-210493	1.39	833178	3.958	Si
SLV 9	753	-12253	104803	1.99	1125344	10.738	Si
SLV 4	573	-12293	465142	2	1128315	2.426	Si
SLV 4	753	-3331	-180964	0.54	349364	1.931	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	573	-15614	-1094	-31297		2.54	219.5	0.89	5496			5.02	Si
SLU 40	753	-14424	-1093	66118		2.35	219.5	0.87	5338			4.88	Si
SLU 73	573	-17773	-1167	-32485		2.89	219.5	0.94	5784			4.96	Si
SLU 73	753	-16011	-1165	73874		2.61	219.5	0.9	5549			4.76	Si
SLU 39	573	-15655	-1089	-29366		2.55	219.5	0.9	5502			5.05	Si
SLU 39	753	-14450	-1088	68952		2.35	219.5	0.87	5341			4.91	Si
SLU 18	573	-13842	-1038	-14007		2.25	219.5	0.86	5260			5.07	Si
SLU 18	753	-12693	-1036	72014		2.07	219.5	0.83	5107			4.93	Si
SLU 19	573	-13800	-1042	-15938		2.25	219.5	0.85	5254			5.04	Si
SLU 19	753	-12667	-1041	69181		2.06	219.5	0.83	5103			4.9	Si
SLU 60	573	-16700	-1219	-13426		2.72	219.5	0.92	5641			4.63	Si
SLU 60	753	-15098	-1218	88164		2.46	219.5	0.88	5427			4.46	Si
SLU 82	573	-18473	-1276	-30715		3.01	219.5	0.96	5877			4.61	Si
SLU 82	753	-16829	-1274	82268		2.74	219.5	0.92	5658			4.44	Si
SLU 61	573	-16659	-1224	-15357		2.71	219.5	0.92	5636			4.6	Si
SLU 61	753	-15072	-1222	85330		2.45	219.5	0.88	5424			4.44	Si
SLU 81	573	-18514	-1271	-28785		3.01	219.5	0.96	5883			4.63	Si
SLU 81	753	-16855	-1269	85102		2.74	219.5	0.92	5662			4.46	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 52	573	-15599	-1115	-17126		2.6	219.5	0.9	5542			4.97	Si
SLU 52	753	-14254	-1114	76936		2.32	219.5	0.86	5315			4.77	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	573	-15535	-8457	-474598		2.53	219.5	1.34	8229			0.97	No, Vu<V
SLV 16	753	-19530	-7758	301353		3.18	219.5	1.47	9028			1.16	Si
SLV 15	573	-15535	-8457	-474598		2.53	219.5	1.34	8229			0.97	No, Vu<V
SLV 15	753	-19530	-7758	301353		3.18	219.5	1.47	9028			1.16	Si
SLV 3	573	-12293	8293	465142		2.04	215.74	1.24	7492			0.9	No, Vu<V
SLV 3	753	-3331	7585	-180964		0.72	166.27	0.98	4546			0.6	No, Vu<V
SLV 1	573	-9602	6950	435232		1.77	193.27	1.19	6430			0.93	No, Vu<V
SLV 1	753	-2589	6252	-193766		0.88	104.73	1.01	2961			0.47	No, Vu<V
SLV 2	573	-9602	6950	435232		1.77	193.27	1.19	6430			0.93	No, Vu<V
SLV 2	753	-2589	6252	-193766		0.88	104.73	1.01	2961			0.47	No, Vu<V
SLV 14	573	-12844	-9800	-504507		2.17	211.41	1.27	7502			0.77	No, Vu<V
SLV 14	753	-18788	-9090	288551		3.06	219.5	1.44	8879			0.98	No, Vu<V
SLV 10	573	-8569	-5504	-210493		1.39	219.5	1.11	6836			1.24	Si
SLV 10	753	-12253	-5275	104803		1.99	219.5	1.23	7572			1.44	Si
SLV 9	573	-8569	-5504	-210493		1.39	219.5	1.11	6836			1.24	Si
SLV 9	753	-12253	-5275	104803		1.99	219.5	1.23	7572			1.44	Si
SLV 4	573	-12293	8293	465142		2.04	215.74	1.24	7492			0.9	No, Vu<V
SLV 4	753	-3331	7585	-180964		0.72	166.27	0.98	4546			0.6	No, Vu<V
SLV 13	573	-12844	-9800	-504507		2.17	211.41	1.27	7502			0.77	No, Vu<V
SLV 13	753	-18788	-9090	288551		3.06	219.5	1.44	8879			0.98	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.38	1.09	-6729	22360	85761	3.84	Si
SLV 1	14	0.38	1.09	-6729	22360	85761	3.84	Si
SLV 4	14	0.38	1.32	-8090	22360	101055	4.52	Si
SLV 3	14	0.38	1.32	-8090	22360	101055	4.52	Si
SLV 6	14	0.38	1.38	-8469	22360	105197	4.7	Si
SLV 5	14	0.38	1.38	-8469	22360	105197	4.7	Si
SLV 10	14	0.38	1.84	-11322	22360	134611	6.02	Si
SLV 9	14	0.38	1.84	-11322	22360	134611	6.02	Si
SLV 7	14	0.38	2.12	-13006	22360	150548	6.73	Si
SLV 8	14	0.38	2.12	-13006	22360	150548	6.73	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-5158	-16177	332	0.004	8.393	0.91	6.236	882.77	No
SLV 8	-5158	-16177	332	0.004	8.393	0.91	6.236	882.77	No
SLV 5	-7779	-6441	-361	0.011	11.017	0.926	16.622	882.77	No
SLV 6	-7779	-6441	-361	0.011	11.017	0.926	16.622	882.77	No
SLV 11	-9561	-18301	369	0.014	12.815	0.934	22.492	882.77	No
SLV 12	-9561	-18301	369	0.014	12.815	0.934	22.492	882.77	No
SLV 1	-1725	-7370	-161	0.017	5.094	0.889	27.803	967.392	No
SLV 2	-1725	-7370	-161	0.017	5.094	0.889	27.803	967.392	No
SLV 10	-12181	-8565	-325	0.022	15.468	0.944	34.276	882.77	No
SLV 9	-12181	-8565	-325	0.022	15.468	0.944	34.276	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	11.051	SLU 30	Si
V_SLU	4.437	SLU 61	Si
PF_SLV	1.416	SLV 1	Si
V_SLV	0.474	SLV 1	No
PFFP_SLV	3.835	SLV 1	Si
R_SLV	0.007	SLV 7	No

Maschio 104

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-2249.3	-335.9	-2467.8	-335.9	L4	L5	218.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	573	-27489	1157088	4.49	1346665	1.164	Si
SLU 84	753	-27363	-186251	4.47	1348043	7.238	Si
SLU 76	573	-26602	1169496	4.35	1354936	1.159	Si
SLU 76	753	-26524	-174593	4.34	1355496	7.764	Si
SLU 73	573	-25911	1145569	4.24	1358989	1.186	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	753	-25817	-176142	4.22	1359379	7.718	Si
SLU 82	573	-26798	1133161	4.38	1353404	1.194	Si
SLU 82	753	-26656	-187800	4.36	1354527	7.213	Si
SLU 77	573	-27540	1069142	4.5	1346078	1.259	Si
SLU 77	753	-26969	-176864	4.41	1351928	7.644	Si
SLU 75	573	-26851	1124139	4.39	1352959	1.204	Si
SLU 75	753	-26583	-178380	4.35	1355075	7.597	Si
SLU 78	573	-27542	1148066	4.5	1346058	1.172	Si
SLU 78	753	-27290	-176831	4.46	1348819	7.628	Si
SLU 83	573	-27487	1078165	4.49	1346685	1.249	Si
SLU 83	753	-27043	-186284	4.42	1351255	7.254	Si
SLU 80	573	-27292	1140807	4.46	1348803	1.182	Si
SLU 80	753	-27018	-173066	4.42	1351489	7.809	Si
SLU 68	573	-24530	1075678	4.01	1360821	1.265	Si
SLU 68	753	-24067	-147443	3.93	1359565	9.221	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	573	-22874	1366737	3.74	1734332	1.269	Si
SLV 3	753	-25690	-513780	4.2	1842105	3.585	Si
SLD 1	573	-22297	1089510	3.64	1709365	1.569	Si
SLD 1	753	-22948	-286972	3.75	1737461	6.054	Si
SLV 4	573	-22874	1366737	3.74	1734332	1.269	Si
SLV 4	753	-25690	-513780	4.2	1842105	3.585	Si
SLD 2	573	-22297	1089510	3.64	1709365	1.569	Si
SLD 2	753	-22948	-286972	3.75	1737461	6.054	Si
SLV 1	573	-27575	1598584	4.51	1901317	1.189	Si
SLV 1	753	-30055	-514022	4.91	1963365	3.82	Si
SLV 5	573	-28296	1329632	4.63	1921215	1.445	Si
SLV 5	753	-28013	-236513	4.58	1913580	8.091	Si
SLD 4	573	-20320	992230	3.32	1616517	1.629	Si
SLD 4	753	-21111	-287113	3.45	1655038	5.764	Si
SLV 2	573	-27575	1598584	4.51	1901317	1.189	Si
SLV 2	753	-30055	-514022	4.91	1963365	3.82	Si
SLD 3	573	-20320	992230	3.32	1616517	1.629	Si
SLD 3	753	-21111	-287113	3.45	1655038	5.764	Si
SLV 6	573	-28296	1329632	4.63	1921215	1.445	Si
SLV 6	753	-28013	-236513	4.58	1913580	8.091	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	573	-26602	9091	1169496		4.85	195.86	1.08	5941			0.65	No, Vu<V
SLU 76	753	-26524	9040	-174593		4.34	218.5	1.08	6628			0.73	No, Vu<V
SLU 80	573	-27292	8794	1140807		4.82	202.35	1.08	6138			0.7	No, Vu<V
SLU 80	753	-27018	8763	-173066		4.42	218.5	1.08	6628			0.76	No, Vu<V
SLU 75	573	-26851	8734	1124139		4.74	202.15	1.08	6132			0.7	No, Vu<V
SLU 75	753	-26583	8703	-178380		4.35	218.5	1.08	6628			0.76	No, Vu<V
SLU 84	573	-27489	9047	1157088		4.87	201.47	1.08	6111			0.68	No, Vu<V
SLU 84	753	-27363	9017	-186251		4.47	218.5	1.08	6628			0.74	No, Vu<V
SLU 55	573	-24290	8171	1066522		4.43	196.03	1.08	5946			0.73	No, Vu<V
SLU 55	753	-23890	8119	-150232		3.9	218.5	1.08	6584			0.81	No, Vu<V
SLU 73	573	-25911	8957	1145569		4.74	195.12	1.08	5919			0.66	No, Vu<V
SLU 73	753	-25817	8906	-176142		4.22	218.5	1.08	6628			0.74	No, Vu<V
SLU 82	573	-26798	8913	1133161		4.76	200.89	1.08	6094			0.68	No, Vu<V
SLU 82	753	-26656	8882	-187800		4.36	218.5	1.08	6628			0.75	No, Vu<V
SLU 78	573	-27542	8868	1148066		4.85	202.7	1.08	6148			0.69	No, Vu<V
SLU 78	753	-27290	8837	-176831		4.46	218.5	1.08	6628			0.75	No, Vu<V
SLU 68	573	-24530	8186	1075678		4.47	196.2	1.08	5951			0.73	No, Vu<V
SLU 68	753	-24067	8134	-147443		3.93	218.5	1.08	6608			0.81	No, Vu<V
SLU 34	573	-22244	7937	1008060		4.14	191.8	1.08	5818			0.73	No, Vu<V
SLU 34	753	-22560	7886	-152244		3.69	218.5	1.05	6407			0.81	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	573	-28296	10993	1329632		5.41	186.78	1.63	8499			0.77	No, Vu<V
SLV 6	753	-28013	10288	-236513		4.58	218.5	1.63	9942			0.97	No, Vu<V
SLV 4	573	-22874	13644	1366737		5.5	148.5	1.63	6757			0.5	No, Vu<V
SLV 4	753	-25690	13219	-513780		4.2	218.5	1.63	9942			0.75	No, Vu<V
SLV 5	573	-28296	10993	1329632		5.41	186.78	1.63	8499			0.77	No, Vu<V
SLV 5	753	-28013	10288	-236513		4.58	218.5	1.63	9942			0.97	No, Vu<V
SLD 3	573	-20320	8952	992230		4	181.26	1.63	8247			0.92	No, Vu<V
SLD 3	753	-21111	8769	-287113		3.45	218.5	1.52	9321			1.06	Si
SLD 1	573	-22297	9642	1089510		4.4	181.16	1.63	8243			0.85	No, Vu<V
SLD 1	753	-22948	9330	-286972		3.75	218.5	1.58	9688			1.04	Si
SLV 3	573	-22874	13644	1366737		5.5	148.5	1.63	6757			0.5	No, Vu<V
SLV 3	753	-25690	13219	-513780		4.2	218.5	1.63	9942			0.75	No, Vu<V
SLD 4	573	-20320	8952	992230		4	181.26	1.63	8247			0.92	No, Vu<V
SLD 4	753	-21111	8769	-287113		3.45	218.5	1.52	9321			1.06	Si
SLD 2	573	-22297	9642	1089510		4.4	181.16	1.63	8243			0.85	No, Vu<V
SLD 2	753	-22948	9330	-286972		3.75	218.5	1.58	9688			1.04	Si
SLV 2	573	-27575	15354	1598584		6.4	153.84	1.63	7000			0.46	No, Vu<V
SLV 2	753	-30055	14611	-514022		4.91	218.5	1.63	9942			0.68	No, Vu<V
SLV 1	573	-27575	15354	1598584		6.4	153.84	1.63	7000			0.46	No, Vu<V
SLV 1	753	-30055	14611	-514022		4.91	218.5	1.63	9942			0.68	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.38	1.14	-7003	22258	88862	3.99	Si
SLV 16	14	0.38	1.14	-7003	22258	88862	3.99	Si
SLV 12	14	0.38	1.22	-7493	22258	94388	4.24	Si
SLV 11	14	0.38	1.22	-7493	22258	94388	4.24	Si
SLV 13	14	0.38	1.94	-11869	22258	139782	6.28	Si
SLV 14	14	0.38	1.94	-11869	22258	139782	6.28	Si
SLV 8	14	0.38	2.09	-12778	22258	148315	6.66	Si
SLV 7	14	0.38	2.09	-12778	22258	148315	6.66	Si
SLV 10	14	0.38	3.88	-23711	22258	226663	10.18	Si
SLV 9	14	0.38	3.88	-23711	22258	226663	10.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-19064	-27589	-82	0.04	22.444	0.96	59.897	967.392	No
SLV 3	-19064	-27589	-82	0.04	22.444	0.96	59.897	967.392	No
SLV 7	-10688	-13306	-132	0.035	13.941	0.939	54.791	882.77	No
SLV 8	-10688	-13306	-132	0.035	13.941	0.939	54.791	882.77	No
SLV 13	-9260	-11730	81	0.039	12.496	0.933	61.347	967.392	No
SLV 14	-9260	-11730	81	0.039	12.496	0.933	61.347	967.392	No
SLV 9	-17636	-26014	132	0.037	20.992	0.957	56.121	882.77	No
SLV 10	-17636	-26014	132	0.037	20.992	0.957	56.121	882.77	No
SLV 11	-6769	-6821	-105	0.037	9.987	0.92	57.795	882.77	No
SLV 12	-6769	-6821	-105	0.037	9.987	0.92	57.795	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.159	SLU 76	Si
V_SLU	0.654	SLU 76	No
PF_SLV	1.189	SLV 1	Si
V_SLV	0.456	SLV 1	No
PFFP_SLV	3.992	SLV 15	Si
R_SLV	0.062	SLV 3	No

Maschio 105

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1936.8	-335.9	-2159.3	-335.9	L4	L5	222.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 65	683	-11514	-152495	1.85	990316	6.494	Si
SLU 65	763	-10384	-154662	1.67	918867	5.941	Si
SLU 44	683	-10161	-141777	1.63	904097	6.377	Si
SLU 44	763	-9042	-138297	1.45	826728	5.978	Si
SLU 52	683	-11659	-159571	1.87	999064	6.261	Si
SLU 52	763	-10524	-155400	1.69	928007	5.972	Si
SLU 82	683	-14281	-170583	2.29	1141653	6.693	Si
SLU 82	763	-13062	-179186	2.1	1079127	6.022	Si
SLU 73	683	-13012	-170289	2.09	1076402	6.321	Si
SLU 73	763	-11866	-171765	1.9	1011428	5.888	Si
SLU 84	683	-14397	-164552	2.31	1147308	6.972	Si
SLU 84	763	-13181	-179591	2.12	1085501	6.044	Si
SLU 68	683	-11631	-146464	1.87	997389	6.81	Si
SLU 68	763	-10503	-155067	1.69	926633	5.976	Si
SLU 55	683	-11776	-153540	1.89	1006063	6.552	Si
SLU 55	763	-10643	-155805	1.71	935700	6.006	Si
SLU 47	683	-10278	-135745	1.65	911863	6.717	Si
SLU 47	763	-9161	-138702	1.47	835193	6.021	Si
SLU 76	683	-13129	-164258	2.11	1082707	6.592	Si
SLU 76	763	-11985	-172170	1.92	1018424	5.915	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	683	-8918	66369	1.43	875930	13.198	Si
SLV 2	763	-9724	-546386	1.56	943601	1.727	Si
SLD 4	683	-8666	-28630	1.39	854371	29.841	Si
SLD 4	763	-8601	-282761	1.38	848707	3.001	Si
SLD 2	683	-9618	-32249	1.54	934831	28.988	Si
SLD 2	763	-9400	-302185	1.51	916592	3.033	Si
SLV 3	683	-6550	76255	1.05	666023	8.734	Si
SLV 3	763	-7757	-499183	1.25	775021	1.553	Si
SLD 1	683	-9618	-32249	1.54	934831	28.988	Si
SLD 1	763	-9400	-302185	1.51	916592	3.033	Si
SLV 1	683	-8918	66369	1.43	875930	13.198	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	683	-9724	-546386	1.56	943601	1.727	Si
SLV 15	683	-11469	-278231	1.84	1083684	3.895	Si
SLV 15	683	-8667	305515	1.39	854393	2.797	Si
SLV 16	683	-11469	-278231	1.84	1083684	3.895	Si
SLV 16	683	-8667	305515	1.39	854393	2.797	Si
SLV 4	683	-6550	76255	1.05	666023	8.734	Si
SLV 4	683	-7757	-499183	1.25	775021	1.553	Si
SLD 3	683	-8666	-28630	1.39	854371	29.841	Si
SLD 3	683	-8601	-282761	1.38	848707	3.001	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	683	-12375	258	-133100	1.99	222.5	0.82	5111				19.82	Si
SLU 72	683	-11183	136	-155564	1.79	222.5	0.79	4952				36.36	Si
SLU 36	683	-11796	257	-128292	1.89	222.5	0.81	5034				19.57	Si
SLU 36	683	-10879	92	-148658	1.75	222.5	0.79	4912				53.38	Si
SLU 29	683	-10966	278	-96441	1.76	222.5	0.79	4923				17.73	Si
SLU 29	683	-9968	175	-128049	1.6	222.5	0.77	4790				27.42	Si
SLU 28	683	-10299	284	-110497	1.65	222.5	0.78	4834				17.04	Si
SLU 28	683	-9398	149	-131555	1.51	222.5	0.76	4714				31.61	Si
SLU 27	683	-11239	284	-99499	1.8	222.5	0.8	4960				17.46	Si
SLU 27	683	-10239	169	-131691	1.64	222.5	0.77	4826				28.62	Si
SLU 35	683	-12737	258	-117293	2.04	222.5	0.83	5159				20.03	Si
SLU 35	683	-11721	112	-148794	1.88	222.5	0.81	5024				45.05	Si
SLU 69	683	-13589	265	-125159	2.18	222.5	0.85	5273				19.93	Si
SLU 69	683	-12296	150	-159342	1.97	222.5	0.82	5101				34.08	Si
SLU 38	683	-11523	251	-125234	1.85	222.5	0.8	4997				19.91	Si
SLU 38	683	-10608	98	-145016	1.7	222.5	0.78	4875				49.71	Si
SLU 70	683	-12649	264	-136158	2.03	222.5	0.83	5148				19.48	Si
SLU 70	683	-11454	130	-159206	1.84	222.5	0.8	4988				38.33	Si
SLU 30	683	-10025	277	-107439	1.61	222.5	0.77	4798				17.3	Si
SLU 30	683	-9126	155	-127912	1.46	222.5	0.75	4678				30.15	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	683	-6550	9735	76255	1.05	222.5	1.04	6502				0.67	No, Vu<V
SLV 3	683	-7757	7786	-499183	1.97	140.69	1.23	4834				0.62	No, Vu<V
SLV 16	683	-11469	-10835	-278231	1.84	222.5	1.2	7485				0.69	No, Vu<V
SLV 16	683	-8667	-8285	305515	1.39	222.5	1.11	6925				0.84	No, Vu<V
SLV 11	683	-6985	-5026	-142627	1.12	222.5	1.06	6589				1.31	Si
SLV 11	683	-6053	-3171	78940	0.97	222.5	1.03	6402				2.02	Si
SLV 2	683	-8918	10926	66369	1.43	222.5	1.12	6975				0.64	No, Vu<V
SLV 2	683	-9724	8223	-546386	2.1	165.18	1.25	5799				0.71	No, Vu<V
SLV 4	683	-6550	9735	76255	1.05	222.5	1.04	6502				0.67	No, Vu<V
SLV 4	683	-7757	7786	-499183	1.97	140.69	1.23	4834				0.62	No, Vu<V
SLV 13	683	-13837	-9643	-288117	2.22	222.5	1.28	7959				0.83	No, Vu<V
SLV 13	683	-10634	-7848	258312	1.71	222.5	1.17	7318				0.93	No, Vu<V
SLV 14	683	-13837	-9643	-288117	2.22	222.5	1.28	7959				0.83	No, Vu<V
SLV 14	683	-10634	-7848	258312	1.71	222.5	1.17	7318				0.93	No, Vu<V
SLV 15	683	-11469	-10835	-278231	1.84	222.5	1.2	7485				0.69	No, Vu<V
SLV 15	683	-8667	-8285	305515	1.39	222.5	1.11	6925				0.84	No, Vu<V
SLV 12	683	-6985	-5026	-142627	1.12	222.5	1.06	6589				1.31	Si
SLV 12	683	-6053	-3171	78940	0.97	222.5	1.03	6402				2.02	Si
SLV 1	683	-8918	10926	66369	1.43	222.5	1.12	6975				0.64	No, Vu<V
SLV 1	683	-9724	8223	-546386	2.1	165.18	1.25	5799				0.71	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.38	0.92	-5743	22666	74334	3.28	Si
SLV 7	14	0.38	0.92	-5743	22666	74334	3.28	Si
SLV 12	14	0.38	1	-6224	22666	80007	3.53	Si
SLV 11	14	0.38	1	-6224	22666	80007	3.53	Si
SLV 3	14	0.38	1.25	-7795	22666	97957	4.32	Si
SLV 4	14	0.38	1.25	-7795	22666	97957	4.32	Si
SLV 16	14	0.38	1.51	-9398	22666	115326	5.09	Si
SLV 15	14	0.38	1.51	-9398	22666	115326	5.09	Si
SLV 1	14	0.38	1.61	-10035	22666	121971	5.38	Si
SLV 2	14	0.38	1.61	-10035	22666	121971	5.38	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 11	-6116	-3780	-144	0.032	9.392	0.916	50.278	882.77	No
SLV 12	-6116	-3780	-144	0.032	9.392	0.916	50.278	882.77	No
SLV 5	-9581	-12698	145	0.034	12.878	0.934	52.985	882.77	No
SLV 6	-9581	-12698	145	0.034	12.878	0.934	52.985	882.77	No
SLV 7	-5761	-3669	-124	0.034	9.037	0.913	53.884	882.77	No
SLV 8	-5761	-3669	-124	0.034	9.037	0.913	53.884	882.77	No
SLV 9	-9936	-12810	125	0.036	13.237	0.935	55.746	882.77	No
SLV 10	-9936	-12810	125	0.036	13.237	0.935	55.746	882.77	No
SLV 1	-7829	-9407	74	0.04	11.111	0.926	63.232	967.392	No
SLV 2	-7829	-9407	74	0.04	11.111	0.926	63.232	967.392	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.888	SLU 73	Si
V_SLU	17.043	SLU 28	Si
PF_SLV	1.553	SLV 3	Si
V_SLV	0.621	SLV 3	No
PFFP_SLV	3.28	SLV 7	Si
R_SLV	0.057	SLV 11	No

Maschio 106

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1826.3	-335.9	-1886.8	-335.9	L4	L5	60.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 31	683	-3626	1262	2.14	80864	64.086	Si
SLU 31	763	-3227	28580	1.9	74786	2.617	Si
SLU 65	683	-3923	2301	2.32	84934	36.913	Si
SLU 65	763	-3384	29812	2	77257	2.592	Si
SLU 82	683	-4829	3650	2.85	94955	26.018	Si
SLU 82	763	-4300	34892	2.54	89537	2.566	Si
SLU 73	683	-4425	2289	2.61	90933	39.725	Si
SLU 73	763	-3899	33762	2.3	84619	2.506	Si
SLU 10	683	-3191	672	1.88	74209	110.38	Si
SLU 10	763	-2797	25806	1.65	67467	2.614	Si
SLU 76	683	-4508	3602	2.66	91815	25.492	Si
SLU 76	763	-3964	31994	2.34	85462	2.671	Si
SLU 44	683	-3488	1711	2.06	78845	46.069	Si
SLU 44	763	-2954	27037	1.74	70234	2.598	Si
SLU 2	683	-2689	684	1.59	65495	95.729	Si
SLU 2	763	-2282	21855	1.35	57617	2.636	Si
SLU 61	683	-4394	3060	2.59	90592	29.605	Si
SLU 61	763	-3870	32117	2.28	84238	2.623	Si
SLU 52	683	-3990	1700	2.36	85801	50.484	Si
SLU 52	763	-3470	30988	2.05	78566	2.535	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 13	683	-2264	-25149	1.34	61002	2.426	Si
SLD 13	763	-2778	58829	1.64	72760	1.237	Si
SLV 14	683	-693	-63996	0	0	0	No, e>l/2
SLV 14	763	-2450	107609	0	0	0	No, e>l/2
SLV 1	683	-6086	91361	3.59	129972	1.423	Si
SLV 1	763	-2527	-65361	1.49	67114	1.027	Si
SLV 15	683	-770	-82835	0	0	0	No, e>l/2
SLV 15	763	-3475	110095	0	0	0	No, e>l/2
SLV 9	683	-2491	12358	1.47	66288	5.364	Si
SLV 9	763	-1281	44170	0	0	0	No, e>l/2
SLV 13	683	-693	-63996	0	0	0	No, e>l/2
SLV 13	763	-2450	107609	0	0	0	No, e>l/2
SLD 14	683	-2264	-25149	1.34	61002	2.426	Si
SLD 14	763	-2778	58829	1.64	72760	1.237	Si
SLV 2	683	-6086	91361	3.59	129972	1.423	Si
SLV 2	763	-2527	-65361	1.49	67114	1.027	Si
SLV 16	683	-770	-82835	0	0	0	No, e>l/2
SLV 16	763	-3475	110095	0	0	0	No, e>l/2
SLV 10	683	-2491	12358	1.47	66288	5.364	Si
SLV 10	763	-1281	44170	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 31	683	-3626	-266	1262		2.14	60.5	0.84	1425			5.35	Si
SLU 31	763	-3227	-143	28580		1.9	60.5	0.81	1371			9.59	Si
SLU 73	683	-4425	-295	2289		2.61	60.5	0.9	1531			5.19	Si
SLU 73	763	-3899	-159	33762		2.3	60.5	0.86	1461			9.21	Si
SLU 82	683	-4829	-264	3650		2.85	60.5	0.94	1585			6.01	Si
SLU 82	763	-4300	-184	34892		2.54	60.5	0.89	1514			8.22	Si
SLU 23	683	-3124	-232	1274		1.84	60.5	0.8	1358			5.85	Si
SLU 23	763	-2711	-96	24629		1.6	60.5	0.77	1303			13.58	Si
SLU 44	683	-3488	-251	1711		2.06	60.5	0.83	1406			5.6	Si
SLU 44	763	-2954	-84	27037		1.74	60.5	0.79	1335			15.82	Si
SLU 10	683	-3191	-257	672		1.88	60.5	0.81	1367			5.33	Si
SLU 10	763	-2797	-116	25806		1.65	60.5	0.78	1314			11.33	Si
SLU 52	683	-3990	-285	1700		2.36	60.5	0.87	1473			5.16	Si
SLU 52	763	-3470	-131	30988		2.05	60.5	0.83	1404			10.68	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	683	-4394	-254	3060		2.59	60.5	0.9	1527			6.02	Si
SLU 61	763	-3870	-157	32117		2.28	60.5	0.86	1457			9.27	Si
SLU 2	683	-2689	-222	684		1.59	60.5	0.77	1300			5.85	Si
SLU 2	763	-2282	-69	21855		1.35	60.5	0.74	1245			18.09	Si
SLU 65	683	-3923	-261	2301		2.32	60.5	0.86	1464			5.62	Si
SLU 65	763	-3384	-111	29812		2	60.5	0.82	1392			12.49	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	683	-693	-3451	-63996		0	0	0.83	0			0	No, Vu<V
SLV 13	763	-2450	-510	107609		0	0	0.83	0			0	No, Vu<V
SLV 2	683	-6086	2687	91361		4.75	45.72	1.63	2080			0.77	No, Vu<V
SLV 2	763	-2527	692	-65361		6.86	13.16	1.63	599			0.87	No, Vu<V
SLV 14	683	-693	-3451	-63996		0	0	0.83	0			0	No, Vu<V
SLV 14	763	-2450	-510	107609		0	0	0.83	0			0	No, Vu<V
SLV 1	683	-6086	2687	91361		4.75	45.72	1.63	2080			0.77	No, Vu<V
SLV 1	763	-2527	692	-65361		6.86	13.16	1.63	599			0.87	No, Vu<V
SLV 9	683	-2491	-1914	12358		1.47	60.5	1.13	1910			1	No, Vu<V
SLV 9	763	-1281	365	44170		0	0	0.83	0			0	No, Vu<V
SLV 3	683	-6163	3212	72522		3.97	55.45	1.63	2523			0.79	No, Vu<V
SLV 3	763	-3552	303	-62875		3.37	37.65	1.51	1589			5.25	Si
SLV 4	683	-6163	3212	72522		3.97	55.45	1.63	2523			0.79	No, Vu<V
SLV 4	763	-3552	303	-62875		3.37	37.65	1.51	1589			5.25	Si
SLV 16	683	-770	-2926	-82835		0	0	0.83	0			0	No, Vu<V
SLV 16	763	-3475	-900	110095		0	0	0.83	0			0	No, Vu<V
SLV 15	683	-770	-2926	-82835		0	0	0.83	0			0	No, Vu<V
SLV 15	763	-3475	-900	110095		0	0	0.83	0			0	No, Vu<V
SLV 10	683	-2491	-1914	12358		1.47	60.5	1.13	1910			1	No, Vu<V
SLV 10	763	-1281	365	44170		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.38	1.19	-2021	6163	25529	4.14	Si
SLV 12	14	0.38	1.19	-2021	6163	25529	4.14	Si
SLV 15	14	0.38	1.21	-2045	6163	25805	4.19	Si
SLV 16	14	0.38	1.21	-2045	6163	25805	4.19	Si
SLV 8	14	0.38	1.47	-2489	6163	30655	4.97	Si
SLV 7	14	0.38	1.47	-2489	6163	30655	4.97	Si
SLV 14	14	0.38	1.5	-2534	6163	31138	5.05	Si
SLV 13	14	0.38	1.5	-2534	6163	31138	5.05	Si
SLV 4	14	0.38	2.13	-3606	6163	41688	6.76	Si
SLV 3	14	0.38	2.13	-3606	6163	41688	6.76	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-1110	-3113	-137	0	2.006	0.901	0	967.392	No
SLV 3	-2230	-1839	135	0	3.123	0.927	0	967.392	No
SLV 1	-2034	-2486	139	0	2.926	0.924	0	967.392	No
SLV 13	-1110	-3113	-137	0	2.006	0.901	0	967.392	No
SLV 2	-2034	-2486	139	0	2.926	0.924	0	967.392	No
SLV 15	-1306	-2466	-140	0	2.198	0.906	0	967.392	No
SLV 4	-2230	-1839	135	0	3.123	0.927	0	967.392	No
SLV 16	-1306	-2466	-140	0	2.198	0.906	0	967.392	No
SLV 5	-1482	-3460	46	0.027	2.374	0.911	43.683	882.77	No
SLV 6	-1482	-3460	46	0.027	2.374	0.911	43.683	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.506	SLU 73	Si
V_SLU	5.163	SLU 52	Si
PF_SLV	0	SLV 9	No
V_SLV	0	SLV 9	No
PFFP_SLV	4.142	SLV 11	Si
R_SLV	0	SLV 1	No

Maschio 107

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	104.6	-1961.8	581.1	L4	L5	476.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 28	483	-28297	-40416	4.24	3231329	79.952	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 28	835	-23694	509536	3.55	3183868	6.249	Si
SLU 9	483	-24257	-6179	3.64	3199640	517.857	Si
SLU 9	835	-20688	518315	3.1	3052615	5.889	Si
SLU 50	483	-29219	-17496	4.38	3218506	183.961	Si
SLU 50	835	-23761	510335	3.56	3185882	6.243	Si
SLU 29	483	-28137	-30017	4.22	3232792	107.7	Si
SLU 29	835	-23855	583084	3.58	3188663	5.469	Si
SLU 71	483	-33049	-39535	4.95	3085413	78.043	Si
SLU 71	835	-26936	564452	4.04	3236640	5.734	Si
SLU 30	483	-28087	-28218	4.21	3233205	114.579	Si
SLU 30	835	-23864	572432	3.58	3188914	5.571	Si
SLU 8	483	-24307	-7977	3.64	3200909	401.25	Si
SLU 8	835	-20680	528967	3.1	3052123	5.77	Si
SLU 72	483	-32999	-37736	4.95	3087983	81.831	Si
SLU 72	835	-26945	553800	4.04	3236657	5.844	Si
SLU 51	483	-29169	-15697	4.37	3219394	205.098	Si
SLU 51	835	-23769	499683	3.56	3186141	6.376	Si
SLU 27	483	-28347	-42215	4.25	3230823	76.533	Si
SLU 27	835	-23685	520187	3.55	3183604	6.12	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	483	-22994	-595111	3.45	3933048	6.609	Si
SLV 1	835	-15847	-50911	2.38	3041615	59.743	Si
SLV 4	483	-25170	-427069	3.77	4145206	9.706	Si
SLV 4	835	-18365	79412	2.75	3389776	42.686	Si
SLV 2	483	-22994	-595111	3.45	3933048	6.609	Si
SLV 2	835	-15847	-50911	2.38	3041615	59.743	Si
SLV 16	483	-22549	444737	3.38	3886269	8.738	Si
SLV 16	835	-14749	35346	2.21	2878199	81.43	Si
SLV 5	483	-19537	-486028	2.93	3539183	7.282	Si
SLV 5	835	-11643	-218379	1.75	2377850	10.889	Si
SLV 9	483	-18751	-224486	2.81	3439823	15.323	Si
SLV 9	835	-10558	-231599	1.58	2189775	9.455	Si
SLV 15	483	-22549	444737	3.38	3886269	8.738	Si
SLV 15	835	-14749	35346	2.21	2878199	81.43	Si
SLV 3	483	-25170	-427069	3.77	4145206	9.706	Si
SLV 3	835	-18365	79412	2.75	3389776	42.686	Si
SLV 6	483	-19537	-486028	2.93	3539183	7.282	Si
SLV 6	835	-11643	-218379	1.75	2377850	10.889	Si
SLV 10	483	-18751	-224486	2.81	3439823	15.323	Si
SLV 10	835	-10558	-231599	1.58	2189775	9.455	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLU 8	483	-24307	-326	-7977		3.64	476.52	1.04	6947			21.29	Si
SLU 8	835	-20680	-597	528967		3.1	476.52	0.97	6464			10.83	Si
SLU 51	483	-29169	-353	-15697		4.37	476.52	1.08	7227			20.48	Si
SLU 51	835	-23769	-702	499683		3.56	476.52	1.03	6875			9.79	Si
SLU 82	483	-34076	663	-146548		5.11	476.52	1.08	7227			10.91	Si
SLU 82	835	-22623	208	-90357		3.39	476.52	1.01	6723			32.34	Si
SLU 49	483	-29378	-270	-27895		4.4	476.52	1.08	7227			26.74	Si
SLU 49	835	-23600	-622	436787		3.54	476.52	1.03	6853			11.02	Si
SLU 81	483	-34126	695	-148347		5.12	476.52	1.08	7227			10.39	Si
SLU 81	835	-22614	261	-79705		3.39	476.52	1.01	6721			25.73	Si
SLU 9	483	-24257	-359	-6179		3.64	476.52	1.04	6940			19.33	Si
SLU 9	835	-20688	-650	518315		3.1	476.52	0.97	6465			9.94	Si
SLU 40	483	-29164	657	-137030		4.37	476.52	1.08	7227			11.01	Si
SLU 40	835	-19542	259	-71725		2.93	476.52	0.95	6312			24.33	Si
SLU 50	483	-29219	-320	-17496		4.38	476.52	1.08	7227			22.57	Si
SLU 50	835	-23761	-649	510335		3.56	476.52	1.03	6874			10.6	Si
SLU 7	483	-24466	-276	-18377		3.67	476.52	1.04	6968			25.21	Si
SLU 7	835	-20519	-570	455419		3.08	476.52	0.97	6442			11.3	Si
SLU 39	483	-29214	689	-138829		4.38	476.52	1.08	7227			10.49	Si
SLU 39	835	-19533	313	-61073		2.93	476.52	0.95	6311			20.18	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLV 10	483	-18751	-11458	-224486		2.81	476.52	1.4	9309			0.81	No, Vu<V
SLV 10	835	-10558	-10438	-231599		1.58	476.52	1.15	7671			0.73	No, Vu<V
SLV 9	483	-18751	-11458	-224486		2.81	476.52	1.4	9309			0.81	No, Vu<V
SLV 9	835	-10558	-10438	-231599		1.58	476.52	1.15	7671			0.73	No, Vu<V
SLV 13	483	-20372	-6691	276695		3.05	476.52	1.44	9634			1.44	Si
SLV 13	835	-12231	-6873	-94978		1.83	476.52	1.2	8005			1.16	Si
SLV 11	483	-26005	9735	335653		3.9	476.52	1.61	10760			1.11	Si
SLV 11	835	-18952	7961	202813		2.84	476.52	1.4	9350			1.17	Si
SLV 7	483	-26792	12006	74112		4.02	476.52	1.63	10841			0.9	No, Vu<V
SLV 7	835	-20037	10425	216033		3	476.52	1.43	9567			0.92	No, Vu<V
SLV 5	483	-19537	-9187	-486028		2.93	476.52	1.42	9467			1.03	Si
SLV 5	835	-11643	-7974	-218379		1.75	476.52	1.18	7888			0.99	No, Vu<V
SLV 12	483	-26005	9735	335653		3.9	476.52	1.61	10760			1.11	Si
SLV 12	835	-18952	7961	202813		2.84	476.52	1.4	9350			1.17	Si
SLV 8	483	-26792	12006	74112		4.02	476.52	1.63	10841			0.9	No, Vu<V
SLV 8	835	-20037	10425	216033		3	476.52	1.43	9567			0.92	No, Vu<V
SLV 6	483	-19537	-9187	-486028		2.93	476.52	1.42	9467			1.03	Si
SLV 6	835	-11643	-7974	-218379		1.75	476.52	1.18	7888			0.99	No, Vu<V
SLV 14	483	-20372	-6691	276695		3.05	476.52	1.44	9634			1.44	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	835	-12231	-6873	-94978		1.83	476.52	1.2	8005			1.16	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore $8 \gamma M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.38	2.18	-14526	25964	83560	3.22	Si
SLV 6	14	0.38	2.18	-14526	25964	83560	3.22	Si
SLV 10	14	0.38	2.28	-15242	25964	86743	3.34	Si
SLV 9	14	0.38	2.28	-15242	25964	86743	3.34	Si
SLV 2	14	0.38	2.4	-16043	25964	90198	3.47	Si
SLV 1	14	0.38	2.4	-16043	25964	90198	3.47	Si
SLV 4	14	0.38	2.71	-18060	25964	98410	3.79	Si
SLV 3	14	0.38	2.71	-18060	25964	98410	3.79	Si
SLV 13	14	0.38	2.76	-18431	25964	99843	3.85	Si
SLV 14	14	0.38	2.76	-18431	25964	99843	3.85	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-15847	-22994	-54	0.019	19.453	0.951	29.373	1649.904	No
SLV 2	-15847	-22994	-54	0.019	19.453	0.951	29.373	1649.904	No
SLV 15	-14749	-22549	53	0.019	18.338	0.948	29.507	1649.904	No
SLV 16	-14749	-22549	53	0.019	18.338	0.948	29.507	1649.904	No
SLV 11	-18952	-26005	42	0.02	22.608	0.957	30.223	1649.904	No
SLV 12	-18952	-26005	42	0.02	22.608	0.957	30.223	1649.904	No
SLV 3	-18365	-25170	-37	0.02	22.011	0.956	30.635	1649.904	No
SLV 4	-18365	-25170	-37	0.02	22.011	0.956	30.635	1649.904	No
SLV 5	-11643	-19537	-43	0.02	15.19	0.939	30.658	1649.904	No
SLV 6	-11643	-19537	-43	0.02	15.19	0.939	30.658	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.469	SLU 29	Si
V_SLU	9.795	SLU 51	Si
PF_SLV	6.609	SLV 1	Si
V_SLV	0.735	SLV 9	No
PFFP_SLV	3.218	SLV 5	Si
R_SLV	0.018	SLV 1	No

Maschio 108

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	595.1	-1961.8	666.1	L4	L5	71	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	483	-6561	-43515	3.3	138550	3.184	Si
SLU 82	835	-5758	26527	2.9	131730	4.966	Si
SLU 73	483	-6390	-39883	3.21	137337	3.443	Si
SLU 73	835	-5565	22731	2.8	129664	5.704	Si
SLU 40	483	-5552	-38127	2.79	129524	3.397	Si
SLU 40	835	-5011	22662	2.52	122841	5.421	Si
SLU 18	483	-4794	-34411	2.41	119802	3.482	Si
SLU 18	835	-4124	23998	2.07	109113	4.547	Si
SLU 39	483	-5557	-38038	2.8	129579	3.407	Si
SLU 39	835	-5035	22672	2.53	123168	5.433	Si
SLU 61	483	-5798	-39888	2.92	132134	3.313	Si
SLU 61	835	-4847	27853	2.44	120564	4.329	Si
SLU 52	483	-5627	-36256	2.83	130349	3.595	Si
SLU 52	835	-4653	24057	2.34	117725	4.894	Si
SLU 81	483	-6566	-43426	3.3	138583	3.191	Si
SLU 81	835	-5782	26537	2.91	131977	4.973	Si
SLU 19	483	-4789	-34500	2.41	119731	3.471	Si
SLU 19	835	-4099	23988	2.06	108689	4.531	Si
SLU 60	483	-5803	-39799	2.92	132183	3.321	Si
SLU 60	835	-4871	27863	2.45	120908	4.339	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	483	-10221	82177	5.14	210168	2.558	Si
SLV 14	835	-136	-149617	0	0	0	No, $e > l/2$
SLV 1	483	2773	-154111	0	0	0	No, Trazione
SLV 1	835	-7816	204731	3.93	188191	0.919	No, $M > Mu$
SLV 3	483	1090	-133385	0	0	0	No, Trazione
SLV 3	835	-7687	176645	3.87	186529	1.056	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	483	-10221	82177	5.14	210168	2.558	Si
SLV 13	835	-136	-149617	0	0	0	No, $e \geq l/2$
SLV 5	483	188	-95590	0	0	0	No, Trazione
SLV 5	835	-5279	113475	2.66	146681	1.293	Si
SLV 4	483	1090	-133385	0	0	0	No, Trazione
SLV 4	835	-7687	176645	3.87	186529	1.056	Si
SLV 6	483	188	-95590	0	0	0	No, Trazione
SLV 6	835	-5279	113475	2.66	146681	1.293	Si
SLV 2	483	2773	-154111	0	0	0	No, Trazione
SLV 2	835	-7816	204731	3.93	188191	0.919	No, $M > \mu$
SLV 15	483	-11904	102903	5.99	215496	2.094	Si
SLV 15	835	-6	-177703	0	0	0	No, $e \geq l/2$
SLD 1	483	-1437	-80452	0	0	0	No, $e \geq l/2$
SLD 1	835	-5576	95222	2.8	152505	1.602	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	483	-6566	-795	-43426		3.3	71	1	1980			2.49	Si
SLU 81	835	-5782	-351	26537		2.91	71	0.94	1875			5.34	Si
SLU 61	483	-5798	-736	-39888		2.92	71	0.94	1877			2.55	Si
SLU 61	835	-4847	-343	27853		2.44	71	0.88	1751			5.11	Si
SLU 60	483	-5803	-735	-39799		2.92	71	0.94	1878			2.56	Si
SLU 60	835	-4871	-345	27863		2.45	71	0.88	1754			5.09	Si
SLU 19	483	-4789	-629	-34500		2.41	71	0.88	1743			2.77	Si
SLU 19	835	-4099	-295	23988		2.06	71	0.83	1651			5.6	Si
SLU 73	483	-6390	-735	-39883		3.21	71	0.98	1956			2.66	Si
SLU 73	835	-5565	-309	22731		2.8	71	0.93	1846			5.97	Si
SLU 52	483	-5627	-675	-36256		2.83	71	0.93	1855			2.75	Si
SLU 52	835	-4653	-303	24057		2.34	71	0.87	1725			5.7	Si
SLU 18	483	-4794	-628	-34411		2.41	71	0.88	1744			2.78	Si
SLU 18	835	-4124	-297	23998		2.07	71	0.83	1654			5.57	Si
SLU 40	483	-5552	-689	-38127		2.79	71	0.93	1845			2.68	Si
SLU 40	835	-5011	-301	22662		2.52	71	0.89	1773			5.88	Si
SLU 82	483	-6561	-796	-43515		3.3	71	1	1979			2.49	Si
SLU 82	835	-5758	-349	26527		2.9	71	0.94	1872			5.36	Si
SLU 39	483	-5557	-688	-38038		2.8	71	0.93	1845			2.68	Si
SLU 39	835	-5035	-303	22672		2.53	71	0.89	1776			5.85	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	483	-10221	1617	82177		5.14	71	1.63	3230			2	Si
SLV 14	835	-136	1989	-149617		0	0	0.83	0			0	No, $V_u < V$
SLV 15	483	-11904	2589	102903		5.99	71	1.63	3230			1.25	Si
SLV 15	835	-6	2227	-177703		0	0	0.83	0			0	No, $V_u < V$
SLD 1	483	-1437	-1782	-80452		0	0	0.83	0			0	No, $V_u < V$
SLD 1	835	-5576	-1225	95222		3.6	55.27	1.55	2405			1.96	Si
SLV 5	483	188	-2877	-95590		0	0	0.83	0			0	No, $V_u < V$
SLV 5	835	-5279	-1283	113475		4.49	42.02	1.63	1912			1.49	Si
SLV 4	483	1090	-2580	-133385		0	0	0.83	0			0	No, $V_u < V$
SLV 4	835	-7687	-2379	176645		7.31	37.56	1.63	1709			0.72	No, $V_u < V$
SLV 1	483	2773	-3552	-154111		0	0	0.83	0			0	No, $V_u < V$
SLV 1	835	-7816	-2617	204731		10	27.92	1.63	1270			0.49	No, $V_u < V$
SLV 2	483	2773	-3552	-154111		0	0	0.83	0			0	No, $V_u < V$
SLV 2	835	-7816	-2617	204731		10	27.92	1.63	1270			0.49	No, $V_u < V$
SLV 3	483	1090	-2580	-133385		0	0	0.83	0			0	No, $V_u < V$
SLV 3	835	-7687	-2379	176645		7.31	37.56	1.63	1709			0.72	No, $V_u < V$
SLV 13	483	-10221	1617	82177		5.14	71	1.63	3230			2	Si
SLV 13	835	-136	1989	-149617		0	0	0.83	0			0	No, $V_u < V$
SLV 6	483	188	-2877	-95590		0	0	0.83	0			0	No, $V_u < V$
SLV 6	835	-5279	-1283	113475		4.49	42.02	1.63	1912			1.49	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.38	1.32	-2618	7401	32706	4.42	Si
SLV 6	14	0.38	1.32	-2618	7401	32706	4.42	Si
SLV 2	14	0.38	1.48	-2940	7401	36179	4.89	Si
SLV 1	14	0.38	1.48	-2940	7401	36179	4.89	Si
SLV 10	14	0.38	1.57	-3126	7401	38127	5.15	Si
SLV 9	14	0.38	1.57	-3126	7401	38127	5.15	Si
SLV 3	14	0.38	1.87	-3723	7401	44132	5.96	Si
SLV 4	14	0.38	1.87	-3723	7401	44132	5.96	Si
SLV 14	14	0.38	2.33	-4630	7401	52469	7.09	Si
SLV 13	14	0.38	2.33	-4630	7401	52469	7.09	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	α_{lim}	Verifica
SLV 3	-7687	1090	218	0	0	0	0	967.392	No, Trazione
SLV 2	-7816	2773	58	0	0	0	0	967.392	No, Trazione
SLV 9	-2975	-3710	-307	0	4.026	0.933	0	882.77	No
SLV 7	-4848	-5421	310	0	5.924	0.952	0	882.77	No
SLV 6	-5279	188	-225	0	0	0	0	882.77	No, Trazione
SLV 4	-7687	1090	218	0	0	0	0	967.392	No, Trazione
SLV 8	-4848	-5421	310	0	5.924	0.952	0	882.77	No
SLV 5	-5279	188	-225	0	0	0	0	882.77	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	-2975	-3710	-307	0	4.026	0.933	0	882.77	No
SLV 1	-7816	2773	58	0	0	0	0	967.392	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.184	SLU 82	Si
V_SLU	2.487	SLU 82	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLD 1	No
PFFP_SLV	4.419	SLV 5	Si
R_SLV	0	SLV 6	No

Maschio 109

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1633.3	-335.9	-1736.3	-335.9	L4	L5	103	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 44	573	-8125	-81534	2.82	273725	3.357	Si
SLU 44	753	-6497	100370	2.25	242066	2.412	Si
SLU 52	573	-8977	-89333	3.11	285654	3.198	Si
SLU 52	753	-7489	112391	2.6	262736	2.338	Si
SLU 75	573	-10092	-82222	3.5	296469	3.606	Si
SLU 75	753	-8581	116844	2.98	280498	2.401	Si
SLU 81	573	-10330	-81332	3.58	298070	3.665	Si
SLU 81	753	-9173	122953	3.18	287956	2.342	Si
SLU 61	573	-9458	-85382	3.28	290986	3.408	Si
SLU 61	753	-8099	115955	2.81	273310	2.357	Si
SLU 76	573	-9881	-86132	3.43	294838	3.423	Si
SLU 76	753	-8232	115025	2.85	275394	2.394	Si
SLU 65	573	-8824	-88424	3.06	283743	3.209	Si
SLU 65	753	-7294	109750	2.53	259002	2.36	Si
SLU 73	573	-9675	-96224	3.35	293064	3.046	Si
SLU 73	753	-8285	121771	2.87	276209	2.268	Si
SLU 82	573	-10156	-92272	3.52	296924	3.218	Si
SLU 82	753	-8896	125335	3.08	284653	2.271	Si
SLU 84	573	-10362	-82181	3.59	298264	3.629	Si
SLU 84	753	-8842	118589	3.07	283981	2.395	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 7	573	-7579	192303	2.63	306361	1.593	Si
SLV 7	753	94	-171209	0	0	0	No, Trazione
SLV 4	573	-8596	281508	2.98	334699	1.189	Si
SLV 4	753	-2131	-159193	0	0	0	No, e>l/2
SLV 3	573	-8596	281508	2.98	334699	1.189	Si
SLV 3	753	-2131	-159193	0	0	0	No, e>l/2
SLV 15	573	-5624	-294561	0	0	0	No, e>l/2
SLV 15	753	-6731	205093	2.33	280439	1.367	Si
SLV 13	573	-5605	-390920	0	0	0	No, e>l/2
SLV 13	753	-10018	324678	3.47	369263	1.137	Si
SLV 8	573	-7579	192303	2.63	306361	1.593	Si
SLV 8	753	94	-171209	0	0	0	No, Trazione
SLV 10	573	-6622	-301715	2.3	276938	0.918	No, M>Mu
SLV 10	753	-12244	336694	4.25	411464	1.222	Si
SLV 16	573	-5624	-294561	0	0	0	No, e>l/2
SLV 16	753	-6731	205093	2.33	280439	1.367	Si
SLV 9	573	-6622	-301715	2.3	276938	0.918	No, M>Mu
SLV 9	753	-12244	336694	4.25	411464	1.222	Si
SLV 14	573	-5605	-390920	0	0	0	No, e>l/2
SLV 14	753	-10018	324678	3.47	369263	1.137	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 52	573	-8977	-1456	-89333		3.11	103	0.97	2799			1.92	Si
SLU 52	753	-7489	-830	112391		2.6	103	0.9	2601			3.13	Si
SLU 65	573	-8824	-1472	-88424		3.06	103	0.96	2779			1.89	Si
SLU 65	753	-7294	-794	109750		2.53	103	0.89	2575			3.24	Si
SLU 76	573	-9881	-1409	-86132		3.43	103	1.01	2920			2.07	Si
SLU 76	753	-8232	-734	115025		2.85	103	0.94	2700			3.68	Si
SLU 61	573	-9458	-1359	-85382		3.28	103	0.99	2863			2.11	Si
SLU 61	753	-8099	-775	115955		2.81	103	0.93	2682			3.46	Si
SLU 31	573	-7917	-1362	-83433		2.75	103	0.92	2658			1.95	Si
SLU 31	753	-6889	-688	101998		2.39	103	0.87	2521			3.66	Si
SLU 44	573	-8125	-1360	-81534		2.82	103	0.93	2686			1.97	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 44	753	-6497	-794	100370		2.25	103	0.86	2469			3.11	Si
SLU 73	573	-9675	-1567	-96224		3.35	103	1	2892			1.85	Si
SLU 73	753	-8285	-830	121771		2.87	103	0.94	2707			3.26	Si
SLU 23	573	-7066	-1267	-75634		2.45	103	0.88	2544			2.01	Si
SLU 23	753	-5897	-652	89977		2.04	103	0.83	2389			3.67	Si
SLU 10	573	-7219	-1251	-76543		2.5	103	0.89	2565			2.05	Si
SLU 10	753	-6093	-688	92619		2.11	103	0.84	2415			3.51	Si
SLU 82	573	-10156	-1471	-92272		3.52	103	1.03	2956			2.01	Si
SLU 82	753	-8896	-774	125335		3.08	103	0.97	2788			3.6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	573	-7579	2297	192303		3.45	78.38	1.52	3345			1.46	Si
SLV 7	753	94	1208	-171209		0	0	0.83	0			0	No, Vu<V
SLV 13	573	-5605	-6712	-390920		0	0	0.83	0			0	No, Vu<V
SLV 13	753	-10018	-2430	324678		6.25	57.28	1.63	2606			1.07	Si
SLV 16	573	-5624	-5779	-294561		0	0	0.83	0			0	No, Vu<V
SLV 16	753	-6731	-1699	205093		3.81	63.09	1.6	2818			1.66	Si
SLV 4	573	-8596	4971	281508		5.46	56.25	1.63	2559			0.51	No, Vu<V
SLV 4	753	-2131	1462	-159193		0	0	0.83	0			0	No, Vu<V
SLV 3	573	-8596	4971	281508		5.46	56.25	1.63	2559			0.51	No, Vu<V
SLV 3	753	-2131	1462	-159193		0	0	0.83	0			0	No, Vu<V
SLV 9	573	-6622	-4038	-301715		13.28	17.81	1.63	810			0.2	No, Vu<V
SLV 9	753	-12244	-2175	336694		6.07	72	1.63	3276			1.51	Si
SLV 14	573	-5605	-6712	-390920		0	0	0.83	0			0	No, Vu<V
SLV 14	753	-10018	-2430	324678		6.25	57.28	1.63	2606			1.07	Si
SLV 15	573	-5624	-5779	-294561		0	0	0.83	0			0	No, Vu<V
SLV 15	753	-6731	-1699	205093		3.81	63.09	1.6	2818			1.66	Si
SLV 10	573	-6622	-4038	-301715		13.28	17.81	1.63	810			0.2	No, Vu<V
SLV 10	753	-12244	-2175	336694		6.07	72	1.63	3276			1.51	Si
SLV 8	573	-7579	2297	192303		3.45	78.38	1.52	3345			1.46	Si
SLV 8	753	94	1208	-171209		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.38	1.33	-3846	10492	47965	4.57	Si
SLV 15	14	0.38	1.33	-3846	10492	47965	4.57	Si
SLV 12	14	0.38	1.58	-4543	10492	55407	5.28	Si
SLV 11	14	0.38	1.58	-4543	10492	55407	5.28	Si
SLV 14	14	0.38	1.63	-4696	10492	56984	5.43	Si
SLV 13	14	0.38	1.63	-4696	10492	56984	5.43	Si
SLV 8	14	0.38	2.08	-5992	10492	69621	6.64	Si
SLV 7	14	0.38	2.08	-5992	10492	69621	6.64	Si
SLV 9	14	0.38	2.56	-7378	10492	81665	7.78	Si
SLV 10	14	0.38	2.56	-7378	10492	81665	7.78	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	568	-5118	-72	0	0	0	0	882.77	No, Trazione
SLV 7	568	-5118	-72	0	0	0	0	882.77	No, Trazione
SLV 11	-782	-7260	-87	0.01	2.366	0.889	16.174	882.77	No
SLV 12	-782	-7260	-87	0.01	2.366	0.889	16.174	882.77	No
SLV 5	-8697	-7710	89	0.034	10.285	0.959	52.005	882.77	No
SLV 6	-8697	-7710	89	0.034	10.285	0.959	52.005	882.77	No
SLV 1	-3880	-4303	51	0.037	5.401	0.928	57.588	967.392	No
SLV 2	-3880	-4303	51	0.037	5.401	0.928	57.588	967.392	No
SLV 16	-5599	-10666	-49	0.038	7.14	0.943	58.344	967.392	No
SLV 15	-5599	-10666	-49	0.038	7.14	0.943	58.344	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.268	SLU 73	Si
V_SLU	1.845	SLU 73	Si
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 3	No
PFFP_SLV	4.571	SLV 15	Si
R_SLV	0	SLV 8	No

Maschio 110

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1844.8	-335.9	-1844.8	104.6	L4	L5	440.6	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 34	483	-19387	360406	3.14	2622756	7.277	Si
SLU 34	835	-13711	476745	2.22	2196080	4.606	Si
SLU 68	483	-20316	341590	3.29	2665707	7.804	Si
SLU 68	835	-14449	477789	2.34	2267593	4.746	Si
SLU 31	483	-18947	320776	3.07	2599773	8.105	Si
SLU 31	835	-13242	451632	2.15	2148186	4.756	Si
SLU 26	483	-16972	297652	2.75	2475760	8.318	Si
SLU 26	835	-12012	423087	1.95	2013456	4.759	Si
SLU 78	483	-23269	469934	3.77	2751910	5.856	Si
SLU 78	835	-17045	533165	2.76	2480981	4.653	Si
SLU 80	483	-22972	465486	3.72	2746696	5.901	Si
SLU 80	835	-16710	524328	2.71	2456713	4.685	Si
SLU 84	483	-23567	452750	3.82	2756355	6.088	Si
SLU 84	835	-16969	522211	2.75	2475523	4.74	Si
SLU 36	483	-19925	425996	3.23	2648561	6.217	Si
SLU 36	835	-14608	478464	2.37	2282326	4.77	Si
SLU 73	483	-22291	364713	3.61	2731818	7.49	Si
SLU 73	835	-15679	506334	2.54	2376041	4.693	Si
SLU 76	483	-22731	404344	3.69	2741894	6.781	Si
SLU 76	835	-16148	531447	2.62	2413911	4.542	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	483	-13349	591901	2.16	2419771	4.088	Si
SLV 11	835	-10516	204324	1.7	1993310	9.756	Si
SLD 14	483	-14276	262915	2.31	2549091	9.695	Si
SLD 14	835	-10640	430576	1.73	2012963	4.675	Si
SLV 10	483	-15468	-6345	2.51	2708080	426.809	Si
SLV 10	835	-10958	545160	1.78	2062849	3.784	Si
SLV 15	483	-12489	424896	2.02	2295249	5.402	Si
SLV 15	835	-9956	526697	1.61	1903496	3.614	Si
SLD 13	483	-14276	262915	2.31	2549091	9.695	Si
SLD 13	835	-10640	430576	1.73	2012963	4.675	Si
SLV 14	483	-13125	245423	2.13	2387694	9.729	Si
SLV 14	835	-10089	628948	1.64	1924910	3.061	Si
SLV 12	483	-13349	591901	2.16	2419771	4.088	Si
SLV 12	835	-10516	204324	1.7	1993310	9.756	Si
SLV 13	483	-13125	245423	2.13	2387694	9.729	Si
SLV 13	835	-10089	628948	1.64	1924910	3.061	Si
SLV 16	483	-12489	424896	2.02	2295249	5.402	Si
SLV 16	835	-9956	526697	1.61	1903496	3.614	Si
SLV 9	483	-15468	-6345	2.51	2708080	426.809	Si
SLV 9	835	-10958	545160	1.78	2062849	3.784	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	483	-17212	1130	395507		2.79	440.57	0.93	5722			5.06	Si
SLU 27	835	-13048	1122	376459		2.12	440.57	0.84	5166			4.6	Si
SLU 44	483	-17595	-1318	224801		2.85	440.57	0.94	5773			4.38	Si
SLU 44	835	-12277	-620	389649		1.99	440.57	0.82	5064			8.16	Si
SLU 10	483	-16666	-1378	243618		2.7	440.57	0.92	5649			4.1	Si
SLU 10	835	-11539	-680	388605		1.87	440.57	0.8	4965			7.31	Si
SLU 8	483	-14634	1064	313901		2.37	440.57	0.87	5378			5.05	Si
SLU 8	835	-11009	1057	304594		1.78	440.57	0.79	4895			4.63	Si
SLU 37	483	-19330	1187	453814		3.13	440.57	0.97	6004			5.06	Si
SLU 37	835	-14411	1178	421279		2.34	440.57	0.87	5348			4.54	Si
SLU 29	483	-16915	1203	391059		2.74	440.57	0.92	5682			4.72	Si
SLU 29	835	-12712	1195	367621		2.06	440.57	0.83	5122			4.29	Si
SLU 23	483	-16532	-1223	258021		2.68	440.57	0.91	5631			4.6	Si
SLU 23	835	-11543	-524	397975		1.87	440.57	0.81	4966			9.48	Si
SLU 2	483	-14251	-1362	180863		2.31	440.57	0.86	5327			3.91	Si
SLU 2	835	-9840	-662	334947		1.6	440.57	0.77	4739			7.16	Si
SLU 52	483	-20010	-1334	287556		3.24	440.57	0.99	6095			4.57	Si
SLU 52	835	-13976	-638	443306		2.27	440.57	0.86	5290			8.3	Si
SLU 71	483	-20259	1247	434997		3.28	440.57	0.99	6128			4.91	Si
SLU 71	835	-15150	1237	422322		2.46	440.57	0.88	5447			4.4	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	483	-16841	-10091	-42672		2.73	440.57	1.38	8508			0.84	No, Vu<V
SLV 5	835	-11570	-8436	371090		1.88	440.57	1.21	7454			0.88	No, Vu<V
SLV 9	483	-15468	-10430	-6345		2.51	440.57	1.33	8234			0.79	No, Vu<V
SLV 9	835	-10958	-8338	545160		1.78	440.57	1.19	7332			0.88	No, Vu<V
SLV 7	483	-14722	11111	555574		2.39	440.57	1.31	8084			0.73	No, Vu<V
SLV 7	835	-11128	9003	30254		1.8	440.57	1.19	7366			0.82	No, Vu<V
SLD 7	483	-14945	4841	390986		2.42	440.57	1.32	8129			1.68	Si
SLD 7	835	-11090	3960	179273		1.8	440.57	1.19	7358			1.86	Si
SLV 10	483	-15468	-10430	-6345		2.51	440.57	1.33	8234			0.79	No, Vu<V
SLV 10	835	-10958	-8338	545160		1.78	440.57	1.19	7332			0.88	No, Vu<V
SLV 8	483	-14722	11111	555574		2.39	440.57	1.31	8084			0.73	No, Vu<V
SLV 8	835	-11128	9003	30254		1.8	440.57	1.19	7366			0.82	No, Vu<V
SLD 8	483	-14945	4841	390986		2.42	440.57	1.32	8129			1.68	Si
SLD 8	835	-11090	3960	179273		1.8	440.57	1.19	7358			1.86	Si
SLV 6	483	-16841	-10091	-42672		2.73	440.57	1.38	8508			0.84	No, Vu<V
SLV 6	835	-11570	-8436	371090		1.88	440.57	1.21	7454			0.88	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	483	-13349	10773	591901		2.16	440.57	1.27	7810			0.72	No, Vu<V
SLV 12	835	-10516	9100	204324		1.7	440.57	1.17	7243			0.8	No, Vu<V
SLV 11	483	-13349	10773	591901		2.16	440.57	1.27	7810			0.72	No, Vu<V
SLV 11	835	-10516	9100	204324		1.7	440.57	1.17	7243			0.8	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore $8 \gamma M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.38	1.85	-11381	24006	67636	2.82	Si
SLV 15	14	0.38	1.85	-11381	24006	67636	2.82	Si
SLV 14	14	0.38	1.93	-11896	24006	70126	2.92	Si
SLV 13	14	0.38	1.93	-11896	24006	70126	2.92	Si
SLV 12	14	0.38	2	-12324	24006	72160	3.01	Si
SLV 11	14	0.38	2	-12324	24006	72160	3.01	Si
SLV 8	14	0.38	2.21	-13647	24006	78229	3.26	Si
SLV 7	14	0.38	2.21	-13647	24006	78229	3.26	Si
SLV 10	14	0.38	2.28	-14039	24006	79968	3.33	Si
SLV 9	14	0.38	2.28	-14039	24006	79968	3.33	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-11997	-17066	22	0.021	15.292	0.943	32.48	1649.904	No
SLV 4	-11997	-17066	22	0.021	15.292	0.943	32.48	1649.904	No
SLV 1	-12130	-17702	22	0.021	15.427	0.944	32.495	1649.904	No
SLV 2	-12130	-17702	22	0.021	15.427	0.944	32.495	1649.904	No
SLV 14	-10089	-13125	-22	0.021	13.36	0.936	33	1649.904	No
SLV 13	-10089	-13125	-22	0.021	13.36	0.936	33	1649.904	No
SLV 15	-9956	-12489	-22	0.021	13.226	0.936	33.098	1649.904	No
SLV 16	-9956	-12489	-22	0.021	13.226	0.936	33.098	1649.904	No
SLV 6	-11570	-16841	6	0.022	14.859	0.942	34.453	1649.904	No
SLV 5	-11570	-16841	6	0.022	14.859	0.942	34.453	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.542	SLU 76	Si
V_SLU	3.911	SLU 2	Si
PF_SLV	3.061	SLV 13	Si
V_SLV	0.725	SLV 11	No
PFFP_SLV	2.817	SLV 15	Si
R_SLV	0.02	SLV 3	No

Maschio 111

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1389.3	-335.9	-1543.3	-335.9	L4	L5	154	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	483	-13254	-145747	3.07	635457	4.36	Si
SLU 73	693	-14808	-218361	3.43	659522	3.02	Si
SLU 84	483	-13961	-134409	3.24	647727	4.819	Si
SLU 84	693	-15381	-207666	3.57	665723	3.206	Si
SLU 40	483	-11219	-125917	2.6	587940	4.669	Si
SLU 40	693	-12895	-191025	2.99	628401	3.29	Si
SLU 75	483	-13609	-131621	3.16	641895	4.877	Si
SLU 75	693	-14917	-204910	3.46	660808	3.225	Si
SLU 65	483	-12233	-131484	2.84	613879	4.669	Si
SLU 65	693	-13304	-197322	3.09	636406	3.225	Si
SLU 81	483	-13751	-131499	3.19	644305	4.9	Si
SLU 81	693	-15219	-207972	3.53	664117	3.193	Si
SLU 31	483	-10758	-127949	2.49	574641	4.491	Si
SLU 31	693	-12344	-189770	2.86	616457	3.248	Si
SLU 76	483	-13500	-136441	3.13	639976	4.69	Si
SLU 76	693	-14830	-206411	3.44	659787	3.196	Si
SLU 52	483	-12566	-129879	2.91	621417	4.785	Si
SLU 52	693	-13691	-193150	3.18	643297	3.331	Si
SLU 82	483	-13715	-143715	3.18	643706	4.479	Si
SLU 82	693	-15359	-219615	3.56	665512	3.03	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	483	-10723	-241002	2.49	657619	2.729	Si
SLV 3	693	-6395	-212354	1.48	432656	2.037	Si
SLV 4	483	-10723	-241002	2.49	657619	2.729	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	693	-6395	-212354	1.48	432656	2.037	Si
SLV 12	483	-6082	-243546	1.41	414264	1.701	Si
SLV 12	693	-12196	236350	2.83	721728	3.054	Si
SLV 11	483	-6082	-243546	1.41	414264	1.701	Si
SLV 11	693	-12196	236350	2.83	721728	3.054	Si
SLV 14	483	-8469	-413138	1.96	547288	1.325	Si
SLV 14	693	-14082	487013	3.27	794519	1.631	Si
SLV 1	483	-12471	273676	2.89	732966	2.678	Si
SLV 1	693	-5952	-209115	1.38	406548	1.944	Si
SLV 16	483	-6721	-445811	1.56	451494	1.013	Si
SLV 16	693	-14525	483774	3.37	810103	1.675	Si
SLV 13	483	-8469	-413138	1.96	547288	1.325	Si
SLV 13	693	-14082	487013	3.27	794519	1.631	Si
SLV 15	483	-6721	-445811	1.56	451494	1.013	Si
SLV 15	693	-14525	483774	3.37	810103	1.675	Si
SLV 2	483	-12471	273676	2.89	732966	2.678	Si
SLV 2	693	-5952	-209115	1.38	406548	1.944	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	483	-13027	-2482	-127848		3.02	154	0.96	4132			1.66	Si
SLU 61	693	-14242	-3524	194404		3.3	154	1	4295			1.22	Si
SLU 31	483	-10758	-2468	-127949		2.49	154	0.89	3830			1.55	Si
SLU 31	693	-12344	-3304	189770		2.86	154	0.94	4041			1.22	Si
SLU 81	483	-13751	-2644	-131499		3.19	154	0.98	4229			1.6	Si
SLU 81	693	-15219	-3761	207972		3.53	154	1.03	4425			1.18	Si
SLU 75	483	-13609	-2604	-131621		3.16	154	0.98	4210			1.62	Si
SLU 75	693	-14917	-3568	204910		3.46	154	1.02	4384			1.23	Si
SLU 84	483	-13961	-2645	-134409		3.24	154	0.99	4257			1.61	Si
SLU 84	693	-15381	-3695	207666		3.57	154	1.03	4446			1.2	Si
SLU 82	483	-13715	-2820	-143715		3.18	154	0.98	4224			1.5	Si
SLU 82	693	-15359	-3920	219615		3.56	154	1.03	4443			1.13	Si
SLU 52	483	-12566	-2482	-129879		2.91	154	0.94	4071			1.64	Si
SLU 52	693	-13691	-3411	193150		3.18	154	0.98	4221			1.24	Si
SLU 76	483	-13500	-2645	-136441		3.13	154	0.97	4196			1.59	Si
SLU 76	693	-14830	-3583	206411		3.44	154	1.01	4373			1.22	Si
SLU 73	483	-13254	-2820	-145747		3.07	154	0.97	4163			1.48	Si
SLU 73	693	-14808	-3808	218361		3.43	154	1.01	4370			1.15	Si
SLU 40	483	-11219	-2468	-125917		2.6	154	0.9	3891			1.58	Si
SLU 40	693	-12895	-3416	191025		2.99	154	0.95	4115			1.2	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	483	-6721	-7672	-445811		7.5	32	1.63	1456			0.19	No, Vu<V
SLV 16	693	-14525	-7188	483774		3.96	131.08	1.62	5964			0.83	No, Vu<V
SLV 13	483	-8469	-7295	-413138		3.57	84.65	1.55	3669			0.5	No, Vu<V
SLV 13	693	-14082	-6593	487013		3.95	127.25	1.62	5786			0.88	No, Vu<V
SLD 14	483	-9101	-4113	-226253		2.11	154	1.26	5414			1.32	Si
SLD 14	693	-11880	-4193	286690		2.76	154	1.38	5969			1.42	Si
SLV 11	483	-6082	-4088	-243546		1.96	110.87	1.23	3803			0.93	No, Vu<V
SLV 11	693	-12196	-4734	236350		2.83	154	1.4	6033			1.27	Si
SLD 13	483	-9101	-4113	-226253		2.11	154	1.26	5414			1.32	Si
SLD 13	693	-11880	-4193	286690		2.76	154	1.38	5969			1.42	Si
SLD 16	483	-8378	-4273	-239450		2.06	145.26	1.25	5065			1.19	Si
SLD 16	693	-12071	-4438	285563		2.8	154	1.39	6008			1.35	Si
SLV 15	483	-6721	-7672	-445811		7.5	32	1.63	1456			0.19	No, Vu<V
SLV 15	693	-14525	-7188	483774		3.96	131.08	1.62	5964			0.83	No, Vu<V
SLV 12	483	-6082	-4088	-243546		1.96	110.87	1.23	3803			0.93	No, Vu<V
SLV 12	693	-12196	-4734	236350		2.83	154	1.4	6033			1.27	Si
SLD 15	483	-8378	-4273	-239450		2.06	145.26	1.25	5065			1.19	Si
SLD 15	693	-12071	-4438	285563		2.8	154	1.39	6008			1.35	Si
SLV 14	483	-8469	-7295	-413138		3.57	84.65	1.55	3669			0.5	No, Vu<V
SLV 14	693	-14082	-6593	487013		3.95	127.25	1.62	5786			0.88	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.38	1.36	-5867	15688	72991	4.65	Si
SLV 4	14	0.38	1.36	-5867	15688	72991	4.65	Si
SLV 1	14	0.38	1.46	-6294	15688	77593	4.95	Si
SLV 2	14	0.38	1.46	-6294	15688	77593	4.95	Si
SLV 7	14	0.38	1.89	-8132	15688	96278	6.14	Si
SLV 8	14	0.38	1.89	-8132	15688	96278	6.14	Si
SLV 6	14	0.38	2.22	-9557	15688	109525	6.98	Si
SLV 5	14	0.38	2.22	-9557	15688	109525	6.98	Si
SLV 12	14	0.38	2.44	-10501	15688	117714	7.5	Si
SLV 11	14	0.38	2.44	-10501	15688	117714	7.5	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 5	-3258	-13110	333	0	5.531	0.906	0	882.77	No
SLV 5	-3258	-13110	333	0	5.531	0.906	0	882.77	No
SLV 9	-2757	-11909	272	0	5.037	0.9	0	882.77	No
SLV 10	-2757	-11909	272	0	5.037	0.9	0	882.77	No
SLV 1	-7269	-12471	202	0.023	9.559	0.938	35.094	967.392	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 2	-7269	-12471	202	0.023	9.559	0.938	35.094	967.392	No
SLV 12	-12544	-6082	-303	0.022	14.912	0.958	33.182	882.77	No
SLV 11	-12544	-6082	-303	0.022	14.912	0.958	33.182	882.77	No
SLV 15	-8533	-6721	-173	0.028	10.839	0.944	42.766	967.392	No
SLV 16	-8533	-6721	-173	0.028	10.839	0.944	42.766	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.02	SLU 73	Si
V_SLU	1.134	SLU 82	Si
PF_SLV	1.013	SLV 15	Si
V_SLV	0.19	SLV 15	No
PFFP_SLV	4.653	SLV 3	Si
R_SLV	0	SLV 5	No

Maschio 112

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	220.1	-1505.8	666.1	L4	L5	446	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 82	483	-37398	-512943	5.99	2207717	4.304	Si
SLU 82	835	-20812	-214949	3.33	2742027	12.757	Si
SLU 52	483	-32556	-475326	5.21	2612988	5.497	Si
SLU 52	835	-17945	-188285	2.87	2589890	13.755	Si
SLU 84	483	-36793	-427228	5.89	2269593	5.312	Si
SLU 84	835	-20590	-178818	3.3	2732814	15.283	Si
SLU 81	483	-37399	-512278	5.99	2207620	4.309	Si
SLU 81	835	-20813	-214527	3.33	2742065	12.782	Si
SLU 60	483	-34116	-493273	5.46	2504891	5.078	Si
SLU 60	835	-18854	-199197	3.02	2645893	13.283	Si
SLU 61	483	-34115	-493938	5.46	2504961	5.071	Si
SLU 61	835	-18853	-199620	3.02	2645839	13.254	Si
SLU 83	483	-36794	-426563	5.89	2269501	5.32	Si
SLU 83	835	-20591	-178396	3.3	2732854	15.319	Si
SLU 74	483	-35942	-434239	5.76	2351229	5.415	Si
SLU 74	835	-20159	-175733	3.23	2713695	15.442	Si
SLU 73	483	-35839	-494332	5.74	2360612	4.775	Si
SLU 73	835	-19905	-203615	3.19	2701666	13.268	Si
SLU 75	483	-35941	-434904	5.76	2351314	5.407	Si
SLU 75	835	-20158	-176155	3.23	2713651	15.405	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 10	483	-26569	-1031899	4.26	3861534	3.742	Si
SLV 10	835	-13481	-236466	2.16	2475071	10.467	Si
SLD 5	483	-26601	-696879	4.26	3863704	5.544	Si
SLD 5	835	-14310	-201605	2.29	2592596	12.86	Si
SLD 10	483	-25656	-637226	4.11	3797291	5.959	Si
SLD 10	835	-13682	-182182	2.19	2503960	13.744	Si
SLV 9	483	-26569	-1031899	4.26	3861534	3.742	Si
SLV 9	835	-13481	-236466	2.16	2475071	10.467	Si
SLV 2	483	-29592	-813783	4.74	4039470	4.964	Si
SLV 2	835	-16433	-251841	2.63	2875264	11.417	Si
SLV 5	483	-28803	-1173149	4.61	3998149	3.408	Si
SLV 5	835	-14961	-282250	2.4	2681992	9.502	Si
SLV 1	483	-29592	-813783	4.74	4039470	4.964	Si
SLV 1	835	-16433	-251841	2.63	2875264	11.417	Si
SLV 6	483	-28803	-1173149	4.61	3998149	3.408	Si
SLV 6	835	-14961	-282250	2.4	2681992	9.502	Si
SLD 6	483	-26601	-696879	4.26	3863704	5.544	Si
SLD 6	835	-14310	-201605	2.29	2592596	12.86	Si
SLD 9	483	-25656	-637226	4.11	3797291	5.959	Si
SLD 9	835	-13682	-182182	2.19	2503960	13.744	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 9	483	-21903	785	-164828		3.51	446	1.02	6389			8.14	Si
SLU 9	835	-12250	800	-55647		1.96	446	0.82	5102			6.38	Si
SLU 30	483	-25186	901	-183834		4.03	446	1.08	6764			7.51	Si
SLU 30	835	-14209	918	-70977		2.28	446	0.86	5363			5.84	Si
SLU 27	483	-25893	837	-209899		4.15	446	1.08	6764			8.08	Si
SLU 27	835	-14684	853	-79507		2.35	446	0.87	5427			6.36	Si
SLU 37	483	-28822	839	-227631		4.62	446	1.08	6764			8.06	Si
SLU 37	835	-16325	857	-97658		2.61	446	0.9	5646			6.59	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 8	483	-21904	782	-164163		3.51	446	1.02	6389			8.17	Si
SLU 8	835	-12250	796	-55224		1.96	446	0.82	5102			6.41	Si
SLU 29	483	-25187	898	-183169		4.03	446	1.08	6764			7.54	Si
SLU 29	835	-14210	915	-70554		2.28	446	0.86	5364			5.86	Si
SLU 72	483	-30995	878	-277996		4.96	446	1.08	6764			7.7	Si
SLU 72	835	-17345	896	-103967		2.78	446	0.93	5782			6.46	Si
SLU 38	483	-28822	843	-228296		4.62	446	1.08	6764			8.03	Si
SLU 38	835	-16324	860	-98081		2.61	446	0.9	5645			6.57	Si
SLU 71	483	-30996	875	-277331		4.96	446	1.08	6764			7.73	Si
SLU 71	835	-17346	892	-103544		2.78	446	0.93	5782			6.48	Si
SLU 28	483	-25892	840	-210564		4.15	446	1.08	6764			8.05	Si
SLU 28	835	-14683	856	-79930		2.35	446	0.87	5427			6.34	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	483	-26569	-6844	-1031899		4.26	446	1.63	10146			1.48	Si
SLV 10	835	-13481	-5279	-236466		2.16	446	1.27	7900			1.5	Si
SLD 12	483	-23581	3126	-10575		3.78	446	1.59	9919			3.17	Si
SLD 12	835	-13408	2423	-77616		2.15	446	1.26	7885			3.25	Si
SLV 11	483	-21379	7368	465694		3.42	446	1.52	9479			1.29	Si
SLV 11	835	-12757	5646	3029		2.04	446	1.24	7755			1.37	Si
SLV 7	483	-23613	6990	324444		3.78	446	1.59	9926			1.42	Si
SLV 7	835	-14237	5434	-42755		2.28	446	1.29	8051			1.48	Si
SLV 8	483	-23613	6990	324444		3.78	446	1.59	9926			1.42	Si
SLV 8	835	-14237	5434	-42755		2.28	446	1.29	8051			1.48	Si
SLV 6	483	-28803	-7222	-1173149		4.61	446	1.63	10146			1.4	Si
SLV 6	835	-14961	-5490	-282250		2.4	446	1.31	8195			1.49	Si
SLV 5	483	-28803	-7222	-1173149		4.61	446	1.63	10146			1.4	Si
SLV 5	835	-14961	-5490	-282250		2.4	446	1.31	8195			1.49	Si
SLV 12	483	-21379	7368	465694		3.42	446	1.52	9479			1.29	Si
SLV 12	835	-12757	5646	3029		2.04	446	1.24	7755			1.37	Si
SLV 9	483	-26569	-6844	-1031899		4.26	446	1.63	10146			1.48	Si
SLV 9	835	-13481	-5279	-236466		2.16	446	1.27	7900			1.5	Si
SLD 11	483	-23581	3126	-10575		3.78	446	1.59	9919			3.17	Si
SLD 11	835	-13408	2423	-77616		2.15	446	1.26	7885			3.25	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.38	2.41	-15047	24302	84557	3.48	Si
SLV 15	14	0.38	2.41	-15047	24302	84557	3.48	Si
SLV 14	14	0.38	2.5	-15593	24302	86841	3.57	Si
SLV 13	14	0.38	2.5	-15593	24302	86841	3.57	Si
SLV 12	14	0.38	2.66	-16595	24302	90898	3.74	Si
SLV 11	14	0.38	2.66	-16595	24302	90898	3.74	Si
SLV 9	14	0.38	2.95	-18413	24302	97783	4.02	Si
SLV 10	14	0.38	2.95	-18413	24302	97783	4.02	Si
SLV 8	14	0.38	2.96	-18467	24302	97980	4.03	Si
SLV 7	14	0.38	2.96	-18467	24302	97980	4.03	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-14961	-28803	-11	0.022	18.337	0.951	32.977	1649.904	No
SLV 5	-14961	-28803	-11	0.022	18.337	0.951	32.977	1649.904	No
SLV 7	-14237	-23613	12	0.022	17.603	0.949	32.996	1649.904	No
SLV 8	-14237	-23613	12	0.022	17.603	0.949	32.996	1649.904	No
SLV 3	-16216	-28036	5	0.022	19.613	0.954	33.176	1649.904	No
SLV 4	-16216	-28036	5	0.022	19.613	0.954	33.176	1649.904	No
SLV 10	-13481	-26569	-11	0.022	16.836	0.947	33.297	1649.904	No
SLV 9	-13481	-26569	-11	0.022	16.836	0.947	33.297	1649.904	No
SLV 1	-16433	-29592	-2	0.022	19.833	0.954	33.384	1649.904	No
SLV 2	-16433	-29592	-2	0.022	19.833	0.954	33.384	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.304	SLU 82	Si
V_SLU	5.844	SLU 30	Si
PF_SLV	3.408	SLV 5	Si
V_SLV	1.286	SLV 11	Si
PFFP_SLV	3.479	SLV 15	Si
R_SLV	0.02	SLV 5	No

Maschio 114

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-35.4	-1375.3	-22.8	L4	L5	12.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 56	483	-1034	37	2.94	4154	112.74	Si
SLU 56	693	-688	-11832	0	0	0	No, $e > l/2$
SLU 61	483	-1124	1108	3.19	4295	3.877	Si
SLU 61	693	-608	-10869	0	0	0	No, $e > l/2$
SLU 1	483	-794	-329	2.26	3609	10.965	Si
SLU 1	693	-416	-7262	0	0	0	No, $e > l/2$
SLU 57	483	-1056	165	3	4193	25.345	Si
SLU 57	693	-675	-11656	0	0	0	No, $e > l/2$
SLU 60	483	-1102	979	3.13	4263	4.354	Si
SLU 60	693	-621	-11044	0	0	0	No, $e > l/2$
SLU 53	483	-1063	313	3.02	4204	13.438	Si
SLU 53	693	-641	-11167	0	0	0	No, $e > l/2$
SLU 58	483	-1016	19	2.89	4122	216.591	Si
SLU 58	693	-684	-11764	0	0	0	No, $e > l/2$
SLU 59	483	-1039	148	2.95	4163	28.199	Si
SLU 59	693	-671	-11588	0	0	0	No, $e > l/2$
SLU 54	483	-1086	441	3.09	4240	9.605	Si
SLU 54	693	-628	-10992	0	0	0	No, $e > l/2$
SLU 55	483	-1083	509	3.08	4235	8.316	Si
SLU 55	693	-615	-10807	0	0	0	No, $e > l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	483	-1926	5597	5.47	6684	1.194	Si
SLV 7	693	150	-4	0	0	0	No, Trazione
SLV 13	483	-940	447	2.67	4616	10.315	Si
SLV 13	693	-350	-6509	0	0	0	No, $e > l/2$
SLV 6	483	556	-7273	0	0	0	No, Trazione
SLV 6	693	-1265	-18631	0	0	0	No, $e > l/2$
SLD 1	483	-467	-1969	1.33	2615	1.328	Si
SLD 1	693	-688	-11049	0	0	0	No, $e > l/2$
SLV 10	483	267	-5789	0	0	0	No, Trazione
SLV 10	693	-1071	-16045	0	0	0	No, $e > l/2$
SLV 14	483	-940	447	2.67	4616	10.315	Si
SLV 14	693	-350	-6509	0	0	0	No, $e > l/2$
SLV 8	483	-1926	5597	5.47	6684	1.194	Si
SLV 8	693	150	-4	0	0	0	No, Trazione
SLV 11	483	-2216	7082	6.3	6751	0.953	No, $M > Mu$
SLV 11	693	344	2582	0	0	0	No, Trazione
SLV 12	483	-2216	7082	6.3	6751	0.953	No, $M > Mu$
SLV 12	693	344	2582	0	0	0	No, Trazione
SLV 9	483	267	-5789	0	0	0	No, Trazione
SLV 9	693	-1071	-16045	0	0	0	No, $e > l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	483	-1086	125	441		3.09	12.57	0.97	340			2.73	Si
SLU 54	693	-628	-194	-10992		0	0	0.56	0			0	No, $V_u < V$
SLU 56	483	-1034	90	37		2.94	12.57	0.95	333			3.71	Si
SLU 56	693	-688	-248	-11832		0	0	0.56	0			0	No, $V_u < V$
SLU 1	483	-794	63	-329		2.26	12.57	0.86	301			4.79	Si
SLU 1	693	-416	-132	-7262		0	0	0.56	0			0	No, $V_u < V$
SLU 58	483	-1016	86	19		2.89	12.57	0.94	331			3.83	Si
SLU 58	693	-684	-246	-11764		0	0	0.56	0			0	No, $V_u < V$
SLU 57	483	-1056	102	165		3	12.57	0.96	336			3.31	Si
SLU 57	693	-675	-236	-11656		0	0	0.56	0			0	No, $V_u < V$
SLU 59	483	-1039	98	148		2.95	12.57	0.95	334			3.4	Si
SLU 59	693	-671	-234	-11588		0	0	0.56	0			0	No, $V_u < V$
SLU 61	483	-1124	165	1108		3.19	12.57	0.98	345			2.1	Si
SLU 61	693	-608	-155	-10869		0	0	0.56	0			0	No, $V_u < V$
SLU 55	483	-1083	129	509		3.08	12.57	0.97	340			2.63	Si
SLU 55	693	-615	-184	-10807		0	0	0.56	0			0	No, $V_u < V$
SLU 60	483	-1102	153	979		3.13	12.57	0.97	342			2.24	Si
SLU 60	693	-621	-167	-11044		0	0	0.56	0			0	No, $V_u < V$
SLU 53	483	-1063	113	313		3.02	12.57	0.96	337			2.99	Si
SLU 53	693	-641	-206	-11167		0	0	0.56	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	483	-1926	600	5597		6.79	10.14	1.63	461			0.77	No, $V_u < V$
SLV 7	693	150	458	-4		0	0	0.83	0			0	No, $V_u < V$
SLV 10	483	267	-450	-5789		0	0	0.83	0			0	No, $V_u < V$
SLV 10	693	-1071	-755	-16045		0	0	0.83	0			0	No, $V_u < V$
SLV 9	483	267	-450	-5789		0	0	0.83	0			0	No, $V_u < V$
SLV 9	693	-1071	-755	-16045		0	0	0.83	0			0	No, $V_u < V$
SLV 11	483	-2216	749	7082		8.54	9.27	1.63	422			0.56	No, $V_u < V$
SLV 11	693	344	644	2582		0	0	0.83	0			0	No, $V_u < V$
SLV 6	483	556	-599	-7273		0	0	0.83	0			0	No, $V_u < V$
SLV 6	693	-1265	-940	-18631		0	0	0.83	0			0	No, $V_u < V$
SLV 13	483	-940	143	447		2.67	12.57	1.37	481			3.37	Si
SLV 13	693	-350	-50	-6509		0	0	0.83	0			0	No, $V_u < V$
SLV 14	483	-940	143	447		2.67	12.57	1.37	481			3.37	Si
SLV 14	693	-350	-50	-6509		0	0	0.83	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	483	-1926	600	5597		6.79	10.14	1.63	461			0.77	No, Vu<V
SLV 8	693	150	458	-4		0	0	0.83	0			0	No, Vu<V
SLV 12	483	-2216	749	7082		8.54	9.27	1.63	422			0.56	No, Vu<V
SLV 12	693	344	644	2582		0	0	0.83	0			0	No, Vu<V
SLD 1	483	-467	-107	-1969		2.69	6.2	1.37	238			2.23	Si
SLD 1	693	-688	-368	-11049		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.38	0	292	1310	0	0	No, Trazione
SLV 12	14	0.38	0	292	1310	0	0	No, Trazione
SLV 7	14	0.38	0	-59	1310	0	0	No, e>t/2
SLV 8	14	0.38	0	-59	1310	0	0	No, e>t/2
SLV 16	14	0.38	0.36	-125	1310	1701	1.3	Si
SLV 15	14	0.38	0.36	-125	1310	1701	1.3	Si
SLV 14	14	0.38	2.37	-834	1310	9410	7.18	Si
SLV 13	14	0.38	2.37	-834	1310	9410	7.18	Si
SLV 3	14	0.38	3.68	-1295	1310	12670	9.67	Si
SLV 4	14	0.38	3.68	-1295	1310	12670	9.67	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-1162	-720	130	0	1.358	0.962	0	967.392	No
SLV 10	-2184	267	14	0	0	0	0	882.77	No, Trazione
SLV 3	-1162	-720	130	0	1.358	0.962	0	967.392	No
SLV 5	-2427	556	83	0	0	0	0	882.77	No, Trazione
SLV 8	-44	-1926	31	0	0.247	0.908	0	882.77	No
SLV 6	-2427	556	83	0	0	0	0	882.77	No, Trazione
SLV 7	-44	-1926	31	0	0.247	0.908	0	882.77	No
SLV 2	-1877	25	145	0	0	0	0	967.392	No, Trazione
SLV 9	-2184	267	14	0	0	0	0	882.77	No, Trazione
SLV 1	-1877	25	145	0	0	0	0	967.392	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

Maschio 115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	67.2	-1375.3	104.6	L4	L5	37.4	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	483	-6730	-25030	6.42	26662	1.065	Si
SLU 79	693	-4336	9836	4.14	39935	4.06	Si
SLU 69	483	-6195	-24070	5.91	31814	1.322	Si
SLU 69	693	-3841	10452	3.67	39545	3.784	Si
SLU 71	483	-6117	-24002	5.84	32459	1.352	Si
SLU 71	693	-3762	10476	3.59	39382	3.759	Si
SLU 80	483	-6659	-23974	6.35	27423	1.144	Si
SLU 80	693	-4392	8895	4.19	39912	4.487	Si
SLU 78	483	-6737	-24042	6.43	26593	1.106	Si
SLU 78	693	-4471	8871	4.27	39855	4.493	Si
SLU 84	483	-6600	-21505	6.3	28033	1.304	Si
SLU 84	693	-4623	6288	4.41	39669	6.308	Si
SLU 70	483	-6123	-23015	5.84	32407	1.408	Si
SLU 70	693	-3897	9510	3.72	39642	4.168	Si
SLU 77	483	-6808	-25098	6.5	25807	1.028	Si
SLU 77	693	-4416	9813	4.21	39898	4.066	Si
SLU 83	483	-6671	-22561	6.37	27290	1.21	Si
SLU 83	693	-4568	7230	4.36	39749	5.498	Si
SLU 74	483	-6486	-22188	6.19	29164	1.314	Si
SLU 74	693	-4401	7480	4.2	39906	5.335	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	483	-549	57932	0	0	0	No, e>l/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	693	-6640	-42839	6.34	59835	1.397	Si
SLV 16	483	-1940	39958	0	0	0	No, $e>l/2$
SLV 16	693	-5325	-22072	5.08	58219	2.638	Si
SLV 9	483	-7105	-63486	6.78	59197	0.932	No, $M>Mu$
SLV 9	693	-123	42385	0	0	0	No, $e>l/2$
SLV 10	483	-7105	-63486	6.78	59197	0.932	No, $M>Mu$
SLV 10	693	-123	42385	0	0	0	No, $e>l/2$
SLV 11	483	-549	57932	0	0	0	No, $e>l/2$
SLV 11	693	-6640	-42839	6.34	59835	1.397	Si
SLV 2	483	-6488	-66532	6.19	59907	0.9	No, $M>Mu$
SLV 2	693	-610	29385	0	0	0	No, $e>l/2$
SLV 8	483	-1323	36912	0	0	0	No, $e>l/2$
SLV 8	693	-5812	-35072	5.55	59406	1.694	Si
SLV 5	483	-7879	-84505	7.52	56732	0.671	No, $M>Mu$
SLV 5	693	704	50152	0	0	0	No, Trazione
SLV 7	483	-1323	36912	0	0	0	No, $e>l/2$
SLV 7	693	-5812	-35072	5.55	59406	1.694	Si
SLV 6	483	-7879	-84505	7.52	56732	0.671	No, $M>Mu$
SLV 6	693	704	50152	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	483	-5167	-293	-20987		4.93	37.43	1.08	1135			3.88	Si
SLU 30	693	-3109	-291	9611		2.97	37.43	0.95	997			3.43	Si
SLU 28	483	-5245	-293	-21055		5	37.43	1.08	1135			3.88	Si
SLU 28	693	-3188	-291	9588		3.04	37.43	0.96	1007			3.46	Si
SLU 27	483	-5317	-313	-22110		5.07	37.43	1.08	1135			3.63	Si
SLU 27	693	-3133	-313	10529		2.99	37.43	0.95	1000			3.2	Si
SLU 69	483	-6195	-327	-24070		5.91	37.43	1.08	1135			3.47	Si
SLU 69	693	-3841	-326	10452		3.67	37.43	1.04	1094			3.36	Si
SLU 35	483	-5930	-318	-23138		5.66	37.43	1.08	1135			3.57	Si
SLU 35	693	-3707	-318	9890		3.54	37.43	1.03	1076			3.39	Si
SLU 79	483	-6730	-332	-25030		6.42	37.43	1.08	1135			3.42	Si
SLU 79	693	-4336	-331	9836		4.14	37.43	1.08	1135			3.43	Si
SLU 77	483	-6808	-332	-25098		6.5	37.43	1.08	1135			3.42	Si
SLU 77	693	-4416	-331	9813		4.21	37.43	1.08	1135			3.43	Si
SLU 29	483	-5239	-313	-22043		5	37.43	1.08	1135			3.63	Si
SLU 29	693	-3053	-313	10553		2.91	37.43	0.94	989			3.16	Si
SLU 37	483	-5852	-318	-23070		5.58	37.43	1.08	1135			3.57	Si
SLU 37	693	-3627	-318	9914		3.46	37.43	1.02	1066			3.36	Si
SLU 71	483	-6117	-327	-24002		5.84	37.43	1.08	1135			3.48	Si
SLU 71	693	-3762	-326	10476		3.59	37.43	1.03	1084			3.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	483	-1940	765	39958		0	0	0.83	0			0	No, $Vu<V$
SLV 15	693	-5325	-333	-22072		5.08	37.43	1.63	1703			5.11	Si
SLV 2	483	-6488	-1076	-66532		9.13	25.38	1.63	1155			1.07	Si
SLV 2	693	-610	25	29385		0	0	0.83	0			0	No, $Vu<V$
SLV 7	483	-1323	1074	36912		0	0	0.83	0			0	No, $Vu<V$
SLV 7	693	-5812	926	-35072		5.55	37.43	1.63	1703			1.84	Si
SLV 1	483	-6488	-1076	-66532		9.13	25.38	1.63	1155			1.07	Si
SLV 1	693	-610	25	29385		0	0	0.83	0			0	No, $Vu<V$
SLV 16	483	-1940	765	39958		0	0	0.83	0			0	No, $Vu<V$
SLV 16	693	-5325	-333	-22072		5.08	37.43	1.63	1703			5.11	Si
SLV 10	483	-7105	-1385	-63486		8.65	29.34	1.63	1335			0.96	No, $Vu<V$
SLV 10	693	-123	-1234	42385		0	0	0.83	0			0	No, $Vu<V$
SLV 8	483	-1323	1074	36912		0	0	0.83	0			0	No, $Vu<V$
SLV 8	693	-5812	926	-35072		5.55	37.43	1.63	1703			1.84	Si
SLV 9	483	-7105	-1385	-63486		8.65	29.34	1.63	1335			0.96	No, $Vu<V$
SLV 9	693	-123	-1234	42385		0	0	0.83	0			0	No, $Vu<V$
SLV 5	483	-7879	-1688	-84505		11.74	23.97	1.63	1091			0.65	No, $Vu<V$
SLV 5	693	704	-957	50152		0	0	0.83	0			0	No, $Vu<V$
SLV 6	483	-7879	-1688	-84505		11.74	23.97	1.63	1091			0.65	No, $Vu<V$
SLV 6	693	704	-957	50152		0	0	0.83	0			0	No, $Vu<V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.38	0.38	-402	3902	5455	1.4	Si
SLV 5	14	0.38	0.38	-402	3902	5455	1.4	Si
SLV 1	14	0.38	1.06	-1111	3902	14208	3.64	Si
SLV 2	14	0.38	1.06	-1111	3902	14208	3.64	Si
SLV 9	14	0.38	1.17	-1223	3902	15490	3.97	Si
SLV 10	14	0.38	1.17	-1223	3902	15490	3.97	Si
SLV 3	14	0.38	2.42	-2540	3902	28506	7.31	Si
SLV 4	14	0.38	2.42	-2540	3902	28506	7.31	Si
SLV 14	14	0.38	3.67	-3848	3902	37684	9.66	Si
SLV 13	14	0.38	3.67	-3848	3902	37684	9.66	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	138	-549	7	0	0	0	0	882.77	No, Trazione
SLV 11	138	-549	7	0	0	0	0	882.77	No, Trazione
SLV 1	-4274	-6488	-17	0.039	4.871	0.968	58.356	967.392	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 2	-4274	-6488	-17	0.039	4.871	0.968	58.356	967.392	No
SLV 4	-2897	-4521	-15	0.039	3.47	0.956	59.663	967.392	No
SLV 3	-2897	-4521	-15	0.039	3.47	0.956	59.663	967.392	No
SLV 14	-2075	-3907	12	0.04	2.635	0.944	62.183	967.392	No
SLV 13	-2075	-3907	12	0.04	2.635	0.944	62.183	967.392	No
SLV 16	-698	-1940	14	0.039	1.252	0.902	62.475	967.392	No
SLV 15	-698	-1940	14	0.039	1.252	0.902	62.475	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.028	SLU 77	Si
V_SLU	3.165	SLU 29	Si
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.398	SLV 5	Si
R_SLV	0	SLV 12	No

Maschio 116

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1239.3	333.1	-1239.3	104.6	L4	L5	228.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 51	483	-12063	22472	3.77	740199	32.938	Si
SLU 51	835	-6518	143308	2.04	558418	3.897	Si
SLU 50	483	-12060	22506	3.77	740174	32.887	Si
SLU 50	835	-6533	143797	2.04	559248	3.889	Si
SLU 69	483	-13895	19207	4.34	741011	38.581	Si
SLU 69	835	-7635	159008	2.39	616734	3.879	Si
SLU 78	483	-15719	9407	4.91	712569	75.745	Si
SLU 78	835	-8523	166511	2.66	655273	3.935	Si
SLU 71	483	-13560	23334	4.24	743063	31.844	Si
SLU 71	835	-7403	157952	2.31	605533	3.834	Si
SLU 77	483	-15716	9441	4.91	712638	75.48	Si
SLU 77	835	-8538	167000	2.67	655847	3.927	Si
SLU 72	483	-13563	23300	4.24	743049	31.89	Si
SLU 72	835	-7389	157464	2.31	604814	3.841	Si
SLU 70	483	-13898	19173	4.34	740989	38.648	Si
SLU 70	835	-7621	158519	2.38	616045	3.886	Si
SLU 80	483	-15384	13535	4.81	719983	53.193	Si
SLU 80	835	-8291	165456	2.59	645877	3.904	Si
SLU 79	483	-15381	13569	4.81	720043	53.065	Si
SLU 79	835	-8306	165945	2.6	646480	3.896	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 8	483	-6281	141932	1.96	602303	4.244	Si
SLV 8	835	-3887	307042	1.21	399883	1.302	Si
SLV 11	483	-7106	147795	2.22	664285	4.495	Si
SLV 11	835	-4042	256017	1.26	414055	1.617	Si
SLD 12	483	-9259	49816	2.89	807241	16.205	Si
SLD 12	835	-4898	165167	1.53	489496	2.964	Si
SLV 7	483	-6281	141932	1.96	602303	4.244	Si
SLV 7	835	-3887	307042	1.21	399883	1.302	Si
SLV 4	483	-8220	18276	2.57	741633	40.579	Si
SLV 4	835	-4803	238218	1.5	481320	2.021	Si
SLD 7	483	-8909	47372	2.79	785888	16.59	Si
SLD 7	835	-4833	186910	1.51	483860	2.589	Si
SLV 3	483	-8220	18276	2.57	741633	40.579	Si
SLV 3	835	-4803	238218	1.5	481320	2.021	Si
SLD 8	483	-8909	47372	2.79	785888	16.59	Si
SLD 8	835	-4833	186910	1.51	483860	2.589	Si
SLD 11	483	-9259	49816	2.89	807241	16.205	Si
SLD 11	835	-4898	165167	1.53	489496	2.964	Si
SLV 12	483	-7106	147795	2.22	664285	4.495	Si
SLV 12	835	-4042	256017	1.26	414055	1.617	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	483	-12342	132	-25584		3.86	228.5	1.07	3423			25.86	Si
SLU 43	835	-6236	98	114538		1.95	228.5	0.82	2609			26.49	Si
SLU 81	483	-16444	108	-38706		5.14	228.5	1.08	3466			31.98	Si
SLU 81	835	-8396	62	140111		2.62	228.5	0.91	2897			46.53	Si
SLU 53	483	-14357	107	-15432		4.49	228.5	1.08	3466			32.32	Si
SLU 53	835	-7518	68	138215		2.35	228.5	0.87	2780			41	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 64	483	-13842	116	-24756		4.33	228.5	1.08	3466			29.88	Si
SLU 64	835	-7107	82	128694		2.22	228.5	0.85	2725			33.21	Si
SLU 52	483	-14168	113	-35406		4.43	228.5	1.08	3466			30.79	Si
SLU 52	835	-7114	74	121715		2.22	228.5	0.85	2726			37.08	Si
SLU 61	483	-14947	116	-39568		4.67	228.5	1.08	3466			29.86	Si
SLU 61	835	-7510	72	125466		2.35	228.5	0.87	2779			38.59	Si
SLU 1	483	-9890	98	-19462		3.09	228.5	0.97	3096			31.75	Si
SLU 1	835	-5026	71	91839		1.57	228.5	0.77	2447			34.27	Si
SLU 44	483	-12347	118	-25641		3.86	228.5	1.07	3423			29.04	Si
SLU 44	835	-6211	87	113723		1.94	228.5	0.81	2605			29.82	Si
SLU 60	483	-14944	125	-39534		4.67	228.5	1.08	3466			27.78	Si
SLU 60	835	-7525	79	125955		2.35	228.5	0.87	2781			35.35	Si
SLU 45	483	-12536	113	-5667		3.92	228.5	1.08	3449			30.64	Si
SLU 45	835	-6616	82	130222		2.07	228.5	0.83	2659			32.57	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	483	-8220	-3356	18276		2.57	228.5	1.35	4310			1.28	Si
SLV 3	835	-4803	-3609	238218		1.77	193.96	1.19	3223			0.89	No, Vu<V
SLV 9	483	-15396	6399	-185962		4.81	228.5	1.63	5198			0.81	No, Vu<V
SLV 9	835	-7180	5359	-110708		2.24	228.5	1.28	4102			0.77	No, Vu<V
SLV 8	483	-6281	-6216	141932		1.96	228.5	1.23	3922			0.63	No, Vu<V
SLV 8	835	-3887	-5233	307042		2.63	105.74	1.36	2011			0.38	No, Vu<V
SLV 10	483	-15396	6399	-185962		4.81	228.5	1.63	5198			0.81	No, Vu<V
SLV 10	835	-7180	5359	-110708		2.24	228.5	1.28	4102			0.77	No, Vu<V
SLV 12	483	-7106	-5190	147795		2.22	228.5	1.28	4087			0.79	No, Vu<V
SLV 12	835	-4042	-3860	256017		1.89	152.74	1.21	2590			0.67	No, Vu<V
SLV 11	483	-7106	-5190	147795		2.22	228.5	1.28	4087			0.79	No, Vu<V
SLV 11	835	-4042	-3860	256017		1.89	152.74	1.21	2590			0.67	No, Vu<V
SLV 5	483	-14571	5373	-191825		4.55	228.5	1.63	5198			0.97	No, Vu<V
SLV 5	835	-7024	3986	-59683		2.2	228.5	1.27	4071			1.02	Si
SLV 6	483	-14571	5373	-191825		4.55	228.5	1.63	5198			0.97	No, Vu<V
SLV 6	835	-7024	3986	-59683		2.2	228.5	1.27	4071			1.02	Si
SLV 7	483	-6281	-6216	141932		1.96	228.5	1.23	3922			0.63	No, Vu<V
SLV 7	835	-3887	-5233	307042		2.63	105.74	1.36	2011			0.38	No, Vu<V
SLV 4	483	-8220	-3356	18276		2.57	228.5	1.35	4310			1.28	Si
SLV 4	835	-4803	-3609	238218		1.77	193.96	1.19	3223			0.89	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.38	1.73	-5544	11368	33304	2.93	Si
SLV 7	14	0.38	1.73	-5544	11368	33304	2.93	Si
SLV 12	14	0.38	1.73	-5549	11368	33326	2.93	Si
SLV 11	14	0.38	1.73	-5549	11368	33326	2.93	Si
SLV 3	14	0.38	2.15	-6882	11368	39694	3.49	Si
SLV 4	14	0.38	2.15	-6882	11368	39694	3.49	Si
SLV 16	14	0.38	2.16	-6897	11368	39760	3.5	Si
SLV 15	14	0.38	2.16	-6897	11368	39760	3.5	Si
SLV 2	14	0.38	2.51	-8034	11368	44678	3.93	Si
SLV 1	14	0.38	2.51	-8034	11368	44678	3.93	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 9	-7180	-15396	18	0.02	8.902	0.949	30.89	1649.904	No
SLV 10	-7180	-15396	18	0.02	8.902	0.949	30.89	1649.904	No
SLV 6	-7024	-14571	17	0.02	8.744	0.948	31.043	1649.904	No
SLV 5	-7024	-14571	17	0.02	8.744	0.948	31.043	1649.904	No
SLV 7	-3887	-6281	-19	0.02	5.571	0.924	31.73	1649.904	No
SLV 8	-3887	-6281	-19	0.02	5.571	0.924	31.73	1649.904	No
SLV 12	-4042	-7106	-18	0.02	5.728	0.926	31.854	1649.904	No
SLV 11	-4042	-7106	-18	0.02	5.728	0.926	31.854	1649.904	No
SLV 13	-6263	-13457	6	0.022	7.973	0.943	33.626	1649.904	No
SLV 14	-6263	-13457	6	0.022	7.973	0.943	33.626	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.834	SLU 71	Si
V_SLU	25.857	SLU 43	Si
PF_SLV	1.302	SLV 7	Si
V_SLV	0.384	SLV 7	No
PFFP_SLV	2.93	SLV 7	Si
R_SLV	0.019	SLV 9	No

Maschio 117

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	333.1	-1074.8	333.1	L4	L5	431	14	352	352	352			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 48	483	-2784	-158921	0.46	565945	3.561	Si
SLU 48	673	-5486	-868040	0.91	1050324	1.21	Si
SLU 50	483	-2689	-155286	0.45	547772	3.528	Si
SLU 50	673	-5233	-847619	0.87	1007649	1.189	Si
SLU 51	483	-2689	-155358	0.45	547696	3.525	Si
SLU 51	673	-5231	-848223	0.87	1007377	1.188	Si
SLU 6	483	-2176	-126973	0.36	448122	3.529	Si
SLU 6	673	-4372	-698260	0.72	858444	1.229	Si
SLU 7	483	-2175	-127045	0.36	448044	3.527	Si
SLU 7	673	-4371	-698863	0.72	858159	1.228	Si
SLU 49	483	-2783	-158993	0.46	565869	3.559	Si
SLU 49	673	-5485	-868644	0.91	1050055	1.209	Si
SLU 8	483	-2081	-123338	0.34	429444	3.482	Si
SLU 8	673	-4119	-677839	0.68	813296	1.2	Si
SLU 9	483	-2080	-123410	0.34	429365	3.479	Si
SLU 9	673	-4118	-678442	0.68	813008	1.198	Si
SLU 71	483	-3017	-173077	0.5	610306	3.526	Si
SLU 71	673	-6243	-954891	1.03	1174503	1.23	Si
SLU 72	483	-3017	-173149	0.5	610231	3.524	Si
SLU 72	673	-6242	-955494	1.03	1174245	1.229	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	483	125	-201946	0	0	0	No, Trazione
SLV 11	673	1490	-1157394	0	0	0	No, Trazione
SLD 12	483	-1458	-165678	0.24	307914	1.859	Si
SLD 12	673	-2547	-925415	0	0	0	No, e>l/2
SLV 7	483	-144	-242857	0	0	0	No, e>l/2
SLV 7	673	2537	-1414421	0	0	0	No, Trazione
SLD 4	483	-2474	-175912	0.41	515309	2.929	Si
SLD 4	673	-3827	-1002309	0	0	0	No, e>l/2
SLD 8	483	-1569	-182393	0.26	330968	1.815	Si
SLD 8	673	-2103	-1034266	0	0	0	No, e>l/2
SLD 11	483	-1458	-165678	0.24	307914	1.859	Si
SLD 11	673	-2547	-925415	0	0	0	No, e>l/2
SLV 8	483	-144	-242857	0	0	0	No, e>l/2
SLV 8	673	2537	-1414421	0	0	0	No, Trazione
SLD 3	483	-2474	-175912	0.41	515309	2.929	Si
SLD 3	673	-3827	-1002309	0	0	0	No, e>l/2
SLV 12	483	125	-201946	0	0	0	No, Trazione
SLV 12	673	1490	-1157394	0	0	0	No, Trazione
SLD 7	483	-1569	-182393	0.26	330968	1.815	Si
SLD 7	673	-2103	-1034266	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 57	483	-3219	-3	-176526		0.53	431	0.63	3781			1000	Si
SLU 57	673	-6787	-1	-986198		2.3	210.6	0.86	2543			1000	Si
SLU 55	483	-3284	-3	-174682		0.54	431	0.63	3790			1000	Si
SLU 55	673	-6907	-1	-971525		2.2	224.52	0.85	2667			1000	Si
SLU 60	483	-3632	-3	-183820		0.6	431	0.64	3837			1000	Si
SLU 60	673	-7842	-1	-1026245		2.21	253.89	0.85	3020			1000	Si
SLU 1	483	-2402	-2	-126825		0.4	431	0.61	3673			1000	Si
SLU 1	673	-4867	-1	-688531		1.57	222.1	0.76	2376			1000	Si
SLU 61	483	-3632	-3	-183891		0.6	431	0.64	3836			1000	Si
SLU 61	673	-7840	-1	-1026849		2.21	253.58	0.85	3018			1000	Si
SLU 59	483	-3124	-3	-172891		0.52	431	0.62	3769			1000	Si
SLU 59	673	-6534	-1	-965777		2.3	203.08	0.86	2451			1000	Si
SLU 54	483	-3380	-3	-178269		0.56	431	0.63	3803			1000	Si
SLU 54	673	-7161	-1	-991544		2.21	231.12	0.85	2752			1000	Si
SLU 53	483	-3380	-3	-178197		0.56	431	0.63	3803			1000	Si
SLU 53	673	-7163	-1	-990940		2.21	231.47	0.85	2755			1000	Si
SLU 58	483	-3124	-3	-172819		0.52	431	0.62	3769			1000	Si
SLU 58	673	-6536	-1	-965173		2.29	203.46	0.86	2454			1000	Si
SLU 56	483	-3219	-3	-176454		0.53	431	0.63	3781			1000	Si
SLU 56	673	-6789	-1	-985594		2.3	210.97	0.86	2546			1000	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	483	125	980	-201946		0	0	0.83	0			0	No, Vu<V
SLV 12	673	1490	-403	-1157394		0	0	0.83	0			0	No, Vu<V
SLD 8	483	-1569	-156	-182393		0.38	297.8	0.91	3788			24.23	Si
SLD 8	673	-2103	-113	-1034266		0	0	0.83	0			0	No, Vu<V
SLD 12	483	-1458	177	-165678		0.34	305.52	0.9	3856			21.84	Si
SLD 12	673	-2547	-147	-925415		0	0	0.83	0			0	No, Vu<V
SLV 4	483	-2286	-1152	-230748		0.48	343.71	0.93	4467			3.88	Si
SLV 4	673	-1520	-14	-1341088		0	0	0.83	0			0	No, Vu<V
SLV 7	483	-144	185	-242857		0	0	0.83	0			0	No, Vu<V
SLV 7	673	2537	-344	-1414421		0	0	0.83	0			0	No, Vu<V
SLD 11	483	-1458	177	-165678		0.34	305.52	0.9	3856			21.84	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 11	673	-2547	-147	-925415		0	0	0.83	0			0	No, Vu<V
SLV 11	483	125	980	-201946		0	0	0.83	0			0	No, Vu<V
SLV 11	673	1490	-403	-1157394		0	0	0.83	0			0	No, Vu<V
SLV 3	483	-2286	-1152	-230748		0.48	343.71	0.93	4467			3.88	Si
SLV 3	673	-1520	-14	-1341088		0	0	0.83	0			0	No, Vu<V
SLV 8	483	-144	185	-242857		0	0	0.83	0			0	No, Vu<V
SLV 8	673	2537	-344	-1414421		0	0	0.83	0			0	No, Vu<V
SLD 4	483	-2474	-553	-175912		0.41	431	0.92	5523			9.98	Si
SLD 4	673	-3827	17	-1002309		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.38	0	1511	21442	0	0	No, Trazione
SLV 7	14	0.38	0	2482	21442	0	0	No, Trazione
SLV 8	14	0.38	0	2482	21442	0	0	No, Trazione
SLV 4	14	0.38	0	-1691	21442	0	0	No, e>t/2
SLV 12	14	0.38	0	1511	21442	0	0	No, Trazione
SLV 3	14	0.38	0	-1691	21442	0	0	No, e>t/2
SLV 15	14	0.38	0.82	-4929	21442	32199	1.5	Si
SLV 16	14	0.38	0.82	-4929	21442	32199	1.5	Si
SLV 2	14	0.38	1.03	-6240	21442	39982	1.86	Si
SLV 1	14	0.38	1.03	-6240	21442	39982	1.86	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-4444	125	315	0	0	0	0	1649.904	No, Trazione
SLV 8	-4036	-144	297	0	7.224	0.902	0	1649.904	No
SLV 7	-4036	-144	297	0	7.224	0.902	0	1649.904	No
SLV 11	-4444	125	315	0	0	0	0	1649.904	No, Trazione
SLV 6	-12766	-5366	-315	0.001	16.004	0.946	1.543	1649.904	No
SLV 5	-12766	-5366	-315	0.001	16.004	0.946	1.543	1649.904	No
SLV 10	-13173	-5096	-297	0.003	16.417	0.948	4.152	1649.904	No
SLV 9	-13173	-5096	-297	0.003	16.417	0.948	4.152	1649.904	No
SLV 15	-7975	-1388	122	0.011	11.156	0.928	17.905	1649.904	No
SLV 16	-7975	-1388	122	0.011	11.156	0.928	17.905	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.188	SLU 51	Si
V_SLU	1000	SLU 1	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 3	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

Maschio 118

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-994.8	333.1	-972.8	333.1	L4	L5	22	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 29	483	-297	3124	0.96	2878	0.921	No, M>Mu
SLU 29	673	-356	3973	0	0	0	No, e>l/2
SLU 55	483	-418	4408	1.36	3830	0.869	No, M>Mu
SLU 55	673	-482	5360	0	0	0	No, e>l/2
SLU 58	483	-395	4169	1.28	3663	0.879	No, M>Mu
SLU 58	673	-460	5168	0	0	0	No, e>l/2
SLU 57	483	-409	4310	1.33	3763	0.873	No, M>Mu
SLU 57	673	-478	5318	0	0	0	No, e>l/2
SLU 56	483	-408	4302	1.32	3758	0.873	No, M>Mu
SLU 56	673	-477	5312	0	0	0	No, e>l/2
SLU 28	483	-310	3266	1.01	2989	0.915	No, M>Mu
SLU 28	673	-373	4123	0	0	0	No, e>l/2
SLU 27	483	-309	3258	1	2983	0.916	No, M>Mu
SLU 27	673	-372	4117	0	0	0	No, e>l/2
SLU 26	483	-319	3364	1.04	3064	0.911	No, M>Mu
SLU 26	673	-377	4165	0	0	0	No, e>l/2
SLU 1	483	-305	3224	0.99	2948	0.914	No, M>Mu
SLU 1	673	-337	3853	0	0	0	No, e>l/2
SLU 30	483	-297	3132	0.97	2884	0.921	No, M>Mu
SLU 30	673	-357	3979	0	0	0	No, e>l/2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 1	483	-108	2426	0	0	0	No, $e \geq l/2$
SLD 1	673	604	10797	0	0	0	No, Trazione
SLV 3	483	366	-127	0	0	0	No, Trazione
SLV 3	673	1725	13433	0	0	0	No, Trazione
SLV 1	483	205	500	0	0	0	No, Trazione
SLV 1	673	2093	20900	0	0	0	No, Trazione
SLV 9	483	-782	5517	2.54	6815	1.235	Si
SLV 9	673	-448	12739	0	0	0	No, $e \geq l/2$
SLV 5	483	-413	3539	1.34	4044	1.143	Si
SLV 5	673	923	20527	0	0	0	No, Trazione
SLV 4	483	366	-127	0	0	0	No, Trazione
SLV 4	673	1725	13433	0	0	0	No, Trazione
SLV 10	483	-782	5517	2.54	6815	1.235	Si
SLV 10	673	-448	12739	0	0	0	No, $e \geq l/2$
SLV 11	483	-247	3427	0	0	0	No, $e \geq l/2$
SLV 11	673	-1677	-12150	5.44	10226	0.842	No, $M > M_u$
SLV 6	483	-413	3539	1.34	4044	1.143	Si
SLV 6	673	923	20527	0	0	0	No, Trazione
SLV 2	483	205	500	0	0	0	No, Trazione
SLV 2	673	2093	20900	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 1	483	-305	9	3224		16.74	1.3	1.08	20			2.19	Si
SLU 1	673	-337	2	3853		0	0	0.56	0			0	No, $V_u < V$
SLU 60	483	-460	14	4858		24.91	1.32	1.08	20			1.45	Si
SLU 60	673	-534	4	5827		0	0	0.56	0			0	No, $V_u < V$
SLU 64	483	-419	13	4424		22.66	1.32	1.08	20			1.59	Si
SLU 64	673	-476	3	5327		0	0	0.56	0			0	No, $V_u < V$
SLU 69	483	-389	12	4104		20.27	1.37	1.08	21			1.71	Si
SLU 69	673	-453	3	5107		0	0	0.56	0			0	No, $V_u < V$
SLU 62	483	-439	13	4631		23.33	1.34	1.08	20			1.52	Si
SLU 62	673	-514	4	5645		0	0	0.56	0			0	No, $V_u < V$
SLU 63	483	-440	13	4639		23.34	1.35	1.08	20			1.51	Si
SLU 63	673	-516	4	5651		0	0	0.56	0			0	No, $V_u < V$
SLU 65	483	-420	13	4437		22.67	1.32	1.08	20			1.59	Si
SLU 65	673	-478	3	5337		0	0	0.56	0			0	No, $V_u < V$
SLU 66	483	-410	13	4331		21.84	1.34	1.08	20			1.62	Si
SLU 66	673	-473	3	5289		0	0	0.56	0			0	No, $V_u < V$
SLU 67	483	-411	13	4338		21.84	1.34	1.08	20			1.62	Si
SLU 67	673	-474	3	5295		0	0	0.56	0			0	No, $V_u < V$
SLU 68	483	-399	12	4210		21.09	1.35	1.08	20			1.67	Si
SLU 68	673	-458	3	5155		0	0	0.56	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	483	366	-314	-127		0	0	0.83	0			0	No, $V_u < V$
SLV 4	673	1725	-158	13433		0	0	0.83	0			0	No, $V_u < V$
SLV 3	483	366	-314	-127		0	0	0.83	0			0	No, $V_u < V$
SLV 3	673	1725	-158	13433		0	0	0.83	0			0	No, $V_u < V$
SLV 2	483	205	-188	500		0	0	0.83	0			0	No, $V_u < V$
SLV 2	673	2093	-101	20900		0	0	0.83	0			0	No, $V_u < V$
SLV 6	483	-413	142	3539		4.04	7.29	1.63	166			1.17	Si
SLV 6	673	923	58	20527		0	0	0.83	0			0	No, $V_u < V$
SLV 5	483	-413	142	3539		4.04	7.29	1.63	166			1.17	Si
SLV 5	673	923	58	20527		0	0	0.83	0			0	No, $V_u < V$
SLV 11	483	-247	-122	3427		0	0	0.83	0			0	No, $V_u < V$
SLV 11	673	-1677	-53	-12150		10.64	11.26	1.63	256			4.83	Si
SLV 8	483	123	-278	1449		0	0	0.83	0			0	No, $V_u < V$
SLV 8	673	-305	-132	-4363		0	0	0.83	0			0	No, $V_u < V$
SLD 1	483	-108	-69	2426		0	0	0.83	0			0	No, $V_u < V$
SLD 1	673	604	-38	10797		0	0	0.83	0			0	No, $V_u < V$
SLV 7	483	123	-278	1449		0	0	0.83	0			0	No, $V_u < V$
SLV 7	673	-305	-132	-4363		0	0	0.83	0			0	No, $V_u < V$
SLV 1	483	205	-188	500		0	0	0.83	0			0	No, $V_u < V$
SLV 1	673	2093	-101	20900		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.38	0	1725	1094	0	0	No, Trazione
SLV 1	14	0.38	0	2093	1094	0	0	No, Trazione
SLV 3	14	0.38	0	1725	1094	0	0	No, Trazione
SLV 5	14	0.38	0	923	1094	0	0	No, Trazione
SLV 2	14	0.38	0	2093	1094	0	0	No, Trazione
SLV 6	14	0.38	0	923	1094	0	0	No, Trazione
SLV 8	14	0.38	0.99	-305	1094	1963	1.79	Si
SLV 7	14	0.38	0.99	-305	1094	1963	1.79	Si
SLV 10	14	0.38	1.46	-448	1094	2764	2.53	Si
SLV 9	14	0.38	1.46	-448	1094	2764	2.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.03 Ta = 0.1478



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 1	-279	205	-5	0	0	0	0	1649.904	No, Trazione
SLV 3	-241	366	0	0	0	0	0	1649.904	No, Trazione
SLV 7	-212	123	7	0	0	0	0	1649.904	No, Trazione
SLV 8	-212	123	7	0	0	0	0	1649.904	No, Trazione
SLV 4	-241	366	0	0	0	0	0	1649.904	No, Trazione
SLV 2	-279	205	-5	0	0	0	0	1649.904	No, Trazione
SLV 11	-225	-247	8	0.001	0.387	0.905	1.493	1649.904	No
SLV 12	-225	-247	8	0.001	0.387	0.905	1.493	1649.904	No
SLV 5	-339	-413	-8	0.006	0.501	0.92	9.078	1649.904	No
SLV 6	-339	-413	-8	0.006	0.501	0.92	9.078	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 8	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 8	No

Maschio 119

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1975.8	666.1	-1771.8	666.1	L4	L5	204	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 84	573	-20483	32440	3.59	1169535	36.052	Si
SLU 84	753	-17982	191265	3.15	1125318	5.884	Si
SLU 83	573	-20486	33156	3.59	1169560	35.275	Si
SLU 83	753	-17984	190589	3.15	1125366	5.905	Si
SLU 40	573	-17793	16823	3.12	1120865	66.626	Si
SLU 40	753	-15854	176785	2.78	1066116	6.031	Si
SLU 73	573	-20010	28870	3.5	1163271	40.293	Si
SLU 73	753	-17509	191556	3.07	1113863	5.815	Si
SLU 75	573	-20010	35607	3.5	1163277	32.67	Si
SLU 75	753	-17509	183679	3.07	1113872	6.064	Si
SLU 82	573	-20978	26118	3.67	1175026	44.99	Si
SLU 82	753	-18476	204122	3.23	1136230	5.566	Si
SLU 60	573	-19132	28083	3.35	1149059	40.916	Si
SLU 60	753	-16660	184035	2.92	1090882	5.928	Si
SLU 61	573	-19130	27367	3.35	1149021	41.985	Si
SLU 61	753	-16658	184711	2.92	1090822	5.906	Si
SLU 39	573	-17795	17539	3.12	1120914	63.911	Si
SLU 39	753	-15856	176110	2.78	1066183	6.054	Si
SLU 81	573	-20980	26833	3.67	1175047	43.791	Si
SLU 81	753	-18478	203447	3.24	1136274	5.585	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	573	-5406	644818	0	0	0	No, e>l/2
SLV 13	753	-3802	-423677	0	0	0	No, e>l/2
SLV 15	573	-7918	634781	1.39	716038	1.128	Si
SLV 15	753	-5759	-396282	1.01	538933	1.36	Si
SLV 9	573	-7540	227598	1.32	686033	3.014	Si
SLV 9	753	-6560	-79380	1.15	606237	7.637	Si
SLV 14	573	-5406	644818	0	0	0	No, e>l/2
SLV 14	753	-3802	-423677	0	0	0	No, e>l/2
SLV 3	573	-22392	-590731	3.92	1551196	2.626	Si
SLV 3	753	-20160	678743	3.53	1462345	2.154	Si
SLV 1	573	-19879	-580694	3.48	1450140	2.497	Si
SLV 1	753	-18203	651347	3.19	1372475	2.107	Si
SLV 16	573	-7918	634781	1.39	716038	1.128	Si
SLV 16	753	-5759	-396282	1.01	538933	1.36	Si
SLV 4	573	-22392	-590731	3.92	1551196	2.626	Si
SLV 4	753	-20160	678743	3.53	1462345	2.154	Si
SLV 10	573	-7540	227598	1.32	686033	3.014	Si
SLV 10	753	-6560	-79380	1.15	606237	7.637	Si
SLV 2	573	-19879	-580694	3.48	1450140	2.497	Si
SLV 2	753	-18203	651347	3.19	1372475	2.107	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	573	-20483	-895	32440		3.59	204	1.03	5904			6.59	Si
SLU 84	753	-17982	-895	191265		3.15	204	0.98	5571			6.22	Si
SLU 83	573	-20486	-888	33156		3.59	204	1.03	5905			6.65	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	753	-17984	-888	190589		3.15	204	0.98	5571			6.28	Si
SLU 81	573	-20980	-994	26833		3.67	204	1.05	5971			6.01	Si
SLU 81	753	-18478	-994	203447		3.24	204	0.99	5637			5.67	Si
SLU 61	573	-19130	-888	27367		3.35	204	1	5724			6.45	Si
SLU 61	753	-16658	-888	184711		2.92	204	0.94	5394			6.08	Si
SLU 40	573	-17793	-898	16823		3.12	204	0.97	5546			6.17	Si
SLU 40	753	-15854	-898	176785		2.78	204	0.93	5287			5.88	Si
SLU 82	573	-20978	-1002	26118		3.67	204	1.05	5970			5.96	Si
SLU 82	753	-18476	-1002	204122		3.23	204	0.99	5637			5.63	Si
SLU 39	573	-17795	-891	17539		3.12	204	0.97	5546			6.23	Si
SLU 39	753	-15856	-891	176110		2.78	204	0.93	5288			5.94	Si
SLU 31	573	-16825	-813	19576		2.95	204	0.95	5417			6.66	Si
SLU 31	753	-14887	-813	164219		2.61	204	0.9	5158			6.34	Si
SLU 60	573	-19132	-880	28083		3.35	204	1	5724			6.5	Si
SLU 60	753	-16660	-880	184035		2.92	204	0.94	5395			6.13	Si
SLU 73	573	-20010	-917	28870		3.5	204	1.02	5841			6.37	Si
SLU 73	753	-17509	-917	191556		3.07	204	0.96	5508			6.01	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	573	-5406	5549	644818		0	0	0.83	0			0	No, Vu<V
SLV 13	753	-3802	5458	-423677		0	0	0.83	0			0	No, Vu<V
SLV 6	573	-11882	-3756	-140055		2.08	204	1.25	7136			1.9	Si
SLV 6	753	-10880	-2527	243127		1.9	204	1.21	6936			2.74	Si
SLV 15	573	-7918	6294	634781		4.32	65.5	1.63	2980			0.47	No, Vu<V
SLV 15	753	-5759	5541	-396282		2.07	99.56	1.25	3475			0.63	No, Vu<V
SLV 1	573	-19879	-7431	-580694		3.48	204	1.53	8736			1.18	Si
SLV 1	753	-18203	-6678	651347		3.27	198.66	1.49	8276			1.24	Si
SLV 4	573	-22392	-6686	-590731		3.92	204	1.62	9238			1.38	Si
SLV 4	753	-20160	-6595	678743		3.53	204	1.54	8792			1.33	Si
SLV 5	573	-11882	-3756	-140055		2.08	204	1.25	7136			1.9	Si
SLV 5	753	-10880	-2527	243127		1.9	204	1.21	6936			2.74	Si
SLV 16	573	-7918	6294	634781		4.32	65.5	1.63	2980			0.47	No, Vu<V
SLV 16	753	-5759	5541	-396282		2.07	99.56	1.25	3475			0.63	No, Vu<V
SLV 3	573	-22392	-6686	-590731		3.92	204	1.62	9238			1.38	Si
SLV 3	753	-20160	-6595	678743		3.53	204	1.54	8792			1.33	Si
SLV 2	573	-19879	-7431	-580694		3.48	204	1.53	8736			1.18	Si
SLV 2	753	-18203	-6678	651347		3.27	198.66	1.49	8276			1.24	Si
SLV 14	573	-5406	5549	644818		0	0	0.83	0			0	No, Vu<V
SLV 14	753	-3802	5458	-423677		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.38	0.8	-4588	20781	60015	2.89	Si
SLV 14	14	0.38	0.8	-4588	20781	60015	2.89	Si
SLV 16	14	0.38	1.14	-6509	20781	82625	3.98	Si
SLV 15	14	0.38	1.14	-6509	20781	82625	3.98	Si
SLV 10	14	0.38	1.31	-7510	20781	93831	4.52	Si
SLV 9	14	0.38	1.31	-7510	20781	93831	4.52	Si
SLV 5	14	0.38	2.09	-11935	20781	138519	6.67	Si
SLV 6	14	0.38	2.09	-11935	20781	138519	6.67	Si
SLV 11	14	0.38	2.44	-13912	20781	155941	7.5	Si
SLV 12	14	0.38	2.44	-13912	20781	155941	7.5	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-6747	-13731	538	0	9.754	0.923	0	882.77	No
SLV 10	-5368	-6887	576	0	8.372	0.914	0	882.77	No
SLV 5	-6747	-13731	538	0	9.754	0.923	0	882.77	No
SLV 9	-5368	-6887	576	0	8.372	0.914	0	882.77	No
SLV 11	-10585	-11786	-546	0.002	13.629	0.941	2.35	882.77	No
SLV 12	-10585	-11786	-546	0.002	13.629	0.941	2.35	882.77	No
SLV 8	-11963	-18629	-584	0.003	15.027	0.946	3.985	882.77	No
SLV 7	-11963	-18629	-584	0.003	15.027	0.946	3.985	882.77	No
SLV 14	-5586	-618	228	0.019	8.589	0.915	29.724	967.392	No
SLV 13	-5586	-618	228	0.019	8.589	0.915	29.724	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.566	SLU 82	Si
V_SLU	5.626	SLU 82	Si
PF_SLV	0	SLV 13	No
V_SLV	0	SLV 13	No
PFFP_SLV	2.888	SLV 13	Si
R_SLV	0	SLV 5	No

Maschio 120

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1681.8	666.1	-1283.8	666.1	L4	L5	398	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 52	573	-35681	-141797	3.2	4309589	30.393	Si
SLU 52	753	-31856	-63602	2.86	4114694	64.694	Si
SLU 60	573	-37318	-151719	3.35	4373387	28.826	Si
SLU 60	753	-33619	-82815	3.02	4212476	50.866	Si
SLU 82	573	-41103	-166524	3.69	4475895	26.878	Si
SLU 82	753	-37456	-94064	3.36	4378207	46.545	Si
SLU 73	573	-39480	-155086	3.54	4439645	28.627	Si
SLU 73	753	-35710	-75039	3.2	4310823	57.448	Si
SLU 39	573	-34748	-143076	3.12	4267952	29.83	Si
SLU 39	753	-32065	-92695	2.88	4127024	44.523	Si
SLU 61	573	-37303	-153235	3.35	4372860	28.537	Si
SLU 61	753	-33601	-82626	3.02	4211575	50.971	Si
SLU 40	573	-34733	-144593	3.12	4267257	29.512	Si
SLU 40	753	-32048	-92506	2.88	4126005	44.602	Si
SLU 9	573	-26803	-43127	2.41	3758949	87.159	Si
SLU 9	753	-23213	110304	2.08	3438182	31.17	Si
SLU 19	573	-30934	-131304	2.78	4058120	30.906	Si
SLU 19	753	-28193	-81069	2.53	3867982	47.712	Si
SLU 81	573	-41118	-165007	3.69	4476174	27.127	Si
SLU 81	753	-37473	-94252	3.36	4378813	46.459	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 1	573	-27752	-755323	2.49	4397071	5.821	Si
SLD 1	753	-25353	486132	2.28	4105887	8.446	Si
SLV 13	573	-22560	1463014	2.02	3745626	2.56	Si
SLV 13	753	-20005	-1285242	1.8	3396158	2.642	Si
SLV 1	573	-27741	-1631455	2.49	4395768	2.694	Si
SLV 1	753	-26232	1183096	2.35	4214535	3.562	Si
SLV 16	573	-27729	1430681	2.49	4394311	3.071	Si
SLV 16	753	-23145	-1251353	2.08	3822975	3.055	Si
SLV 4	573	-32909	-1663788	2.95	4966184	2.985	Si
SLV 4	753	-29372	1216985	2.64	4584205	3.767	Si
SLV 14	573	-22560	1463014	2.02	3745626	2.56	Si
SLV 14	753	-20005	-1285242	1.8	3396158	2.642	Si
SLV 15	573	-27729	1430681	2.49	4394311	3.071	Si
SLV 15	753	-23145	-1251353	2.08	3822975	3.055	Si
SLD 2	573	-27752	-755323	2.49	4397071	5.821	Si
SLD 2	753	-25353	486132	2.28	4105887	8.446	Si
SLV 2	573	-27741	-1631455	2.49	4395768	2.694	Si
SLV 2	753	-26232	1183096	2.35	4214535	3.562	Si
SLV 3	573	-32909	-1663788	2.95	4966184	2.985	Si
SLV 3	753	-29372	1216985	2.64	4584205	3.767	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 49	573	-33794	-911	-71912		3.03	398	0.96	10697			11.74	Si
SLU 49	753	-29295	-911	94647		2.63	398	0.91	10097			11.09	Si
SLU 69	573	-37609	-927	-83684		3.37	398	1.01	11206			12.09	Si
SLU 69	753	-33167	-926	83021		2.98	398	0.95	10613			11.46	Si
SLU 72	573	-36972	-969	-78347		3.32	398	1	11121			11.47	Si
SLU 72	753	-32476	-969	97309		2.91	398	0.94	10521			10.86	Si
SLU 70	573	-37594	-936	-85200		3.37	398	1.01	11204			11.97	Si
SLU 70	753	-33150	-936	83209		2.97	398	0.95	10611			11.34	Si
SLU 9	573	-26803	-827	-43127		2.41	398	0.88	9765			11.81	Si
SLU 9	753	-23213	-827	110304		2.08	398	0.83	9286			11.23	Si
SLU 48	573	-33809	-902	-70395		3.03	398	0.96	10699			11.86	Si
SLU 48	753	-29313	-902	94458		2.63	398	0.91	10099			11.2	Si
SLU 51	573	-33173	-945	-65059		2.98	398	0.95	10614			11.24	Si
SLU 51	753	-28621	-944	108746		2.57	398	0.9	10007			10.6	Si
SLU 71	573	-36987	-960	-76831		3.32	398	1	11123			11.58	Si
SLU 71	753	-32493	-960	97121		2.92	398	0.94	10524			10.96	Si
SLU 8	573	-26818	-818	-41611		2.41	398	0.88	9767			11.94	Si
SLU 8	753	-23231	-818	110115		2.08	398	0.83	9289			11.36	Si
SLU 50	573	-33188	-935	-63542		2.98	398	0.95	10616			11.35	Si
SLU 50	753	-28639	-935	108558		2.57	398	0.9	10010			10.7	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 2	573	-27752	-7334	-755323		2.49	398	1.33	14837			2.02	Si
SLD 2	753	-25353	-6870	486132		2.28	398	1.29	14357			2.09	Si
SLV 3	573	-32909	-16243	-1663788		2.95	398	1.42	15869			0.98	No, Vu<V
SLV 3	753	-29372	-15515	1216985		2.64	398	1.36	15161			0.98	No, Vu<V
SLV 13	573	-22560	15415	1463014		2.02	398	1.24	13799			0.9	No, Vu<V
SLV 13	753	-20005	14687	-1285242		1.8	398	1.19	13288			0.9	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	573	-27741	-16599	-1631455		2.49	398	1.33	14835			0.89	No, Vu<V
SLV 2	753	-26232	-15514	1183096		2.35	398	1.3	14533			0.94	No, Vu<V
SLV 4	573	-32909	-16243	-1663788		2.95	398	1.42	15869			0.98	No, Vu<V
SLV 4	753	-29372	-15515	1216985		2.64	398	1.36	15161			0.98	No, Vu<V
SLV 14	573	-22560	15415	1463014		2.02	398	1.24	13799			0.9	No, Vu<V
SLV 14	753	-20005	14687	-1285242		1.8	398	1.19	13288			0.9	No, Vu<V
SLV 15	573	-27729	15771	1430681		2.49	398	1.33	14832			0.94	No, Vu<V
SLV 15	753	-23145	14686	-1251353		2.08	398	1.25	13916			0.95	No, Vu<V
SLD 1	573	-27752	-7334	-755323		2.49	398	1.33	14837			2.02	Si
SLD 1	753	-25353	-6870	486132		2.28	398	1.29	14357			2.09	Si
SLV 1	573	-27741	-16599	-1631455		2.49	398	1.33	14835			0.89	No, Vu<V
SLV 1	753	-26232	-15514	1183096		2.35	398	1.3	14533			0.94	No, Vu<V
SLV 16	573	-27729	15771	1430681		2.49	398	1.33	14832			0.94	No, Vu<V
SLV 16	753	-23145	14686	-1251353		2.08	398	1.25	13916			0.95	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.38	1.67	-18623	40544	225062	5.55	Si
SLV 9	14	0.38	1.67	-18623	40544	225062	5.55	Si
SLV 6	14	0.38	1.82	-20329	40544	242113	5.97	Si
SLV 5	14	0.38	1.82	-20329	40544	242113	5.97	Si
SLV 14	14	0.38	1.92	-21429	40544	252790	6.23	Si
SLV 13	14	0.38	1.92	-21429	40544	252790	6.23	Si
SLV 15	14	0.38	2.29	-25540	40544	290491	7.16	Si
SLV 16	14	0.38	2.29	-25540	40544	290491	7.16	Si
SLV 2	14	0.38	2.43	-27115	40544	304019	7.5	Si
SLV 1	14	0.38	2.43	-27115	40544	304019	7.5	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-23059	-29632	-48	0.043	29.032	0.946	66.5	967.392	No
SLV 3	-23059	-29632	-48	0.043	29.032	0.946	66.5	967.392	No
SLV 1	-20745	-24341	-25	0.045	26.686	0.941	68.705	967.392	No
SLV 2	-20745	-24341	-25	0.045	26.686	0.941	68.705	967.392	No
SLV 14	-16655	-21563	42	0.045	22.548	0.933	69.561	967.392	No
SLV 13	-16655	-21563	42	0.045	22.548	0.933	69.561	967.392	No
SLV 16	-18969	-26854	20	0.045	24.888	0.938	69.915	967.392	No
SLV 15	-18969	-26854	20	0.045	24.888	0.938	69.915	967.392	No
SLV 8	-24328	-34833	-50	0.043	30.319	0.948	65.999	882.77	No
SLV 7	-24328	-34833	-50	0.043	30.319	0.948	65.999	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	26.878	SLU 82	Si
V_SLU	10.597	SLU 51	Si
PF_SLV	2.56	SLV 13	Si
V_SLV	0.894	SLV 1	No
PFFP_SLV	5.551	SLV 9	Si
R_SLV	0.069	SLV 3	No

Maschio 121

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1193.8	666.1	-795.8	666.1	L4	L5	398	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	573	-42645	316822	3.83	4499665	14.202	Si
SLU 79	753	-38350	90016	3.44	4407551	48.964	Si
SLU 80	573	-42599	316788	3.82	4499103	14.202	Si
SLU 80	753	-38306	88465	3.44	4406188	49.807	Si
SLU 83	573	-43031	306069	3.86	4503983	14.716	Si
SLU 83	753	-39129	132362	3.51	4430273	33.471	Si
SLU 36	573	-36712	282229	3.29	4351137	15.417	Si
SLU 36	753	-33445	89206	3	4203464	47.121	Si
SLU 77	573	-43170	316441	3.87	4505370	14.238	Si
SLU 77	753	-38934	97703	3.49	4424826	45.288	Si
SLU 84	573	-42985	306034	3.86	4503499	14.716	Si
SLU 84	753	-39085	130812	3.51	4429060	33.858	Si
SLU 76	573	-41333	291381	3.71	4480103	15.375	Si
SLU 76	753	-37314	109966	3.35	4373249	39.769	Si
SLU 37	573	-36234	282645	3.25	4332449	15.328	Si
SLU 37	753	-32905	83070	2.95	4174551	50.254	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 78	573	-43123	316406	3.87	4504915	14.238	Si
SLU 78	753	-38890	96152	3.49	4423575	46.006	Si
SLU 38	573	-36188	282610	3.25	4330585	15.324	Si
SLU 38	753	-32861	81519	2.95	4172136	51.18	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	573	-34833	1745566	3.13	5158509	2.955	Si
SLV 15	753	-30888	-1148530	2.77	4752415	4.138	Si
SLV 14	573	-29582	1740198	2.65	4607908	2.648	Si
SLV 14	753	-27558	-1157893	2.47	4374176	3.778	Si
SLD 13	573	-28799	846700	2.58	4518850	5.337	Si
SLD 13	753	-26189	-451838	2.35	4209231	9.316	Si
SLV 1	573	-21550	-1386456	1.93	3609727	2.604	Si
SLV 1	753	-19423	1299598	1.74	3313866	2.55	Si
SLV 13	573	-29582	1740198	2.65	4607908	2.648	Si
SLV 13	753	-27558	-1157893	2.47	4374176	3.778	Si
SLV 3	573	-26801	-1381088	2.4	4283603	3.102	Si
SLV 3	753	-22753	1308960	2.04	3771286	2.881	Si
SLV 4	573	-26801	-1381088	2.4	4283603	3.102	Si
SLV 4	753	-22753	1308960	2.04	3771286	2.881	Si
SLV 16	573	-34833	1745566	3.13	5158509	2.955	Si
SLV 16	753	-30888	-1148530	2.77	4752415	4.138	Si
SLD 14	573	-28799	846700	2.58	4518850	5.337	Si
SLD 14	753	-26189	-451838	2.35	4209231	9.316	Si
SLV 2	573	-21550	-1386456	1.93	3609727	2.604	Si
SLV 2	753	-19423	1299598	1.74	3313866	2.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 70	573	-39340	1293	282268		3.53	398	1.03	11436			8.84	Si
SLU 70	753	-34826	1293	49925		3.13	398	0.97	10835			8.38	Si
SLU 50	573	-34844	1241	243572		3.13	398	0.97	10837			8.73	Si
SLU 50	753	-30194	1241	16369		2.71	398	0.92	10217			8.23	Si
SLU 49	573	-35322	1212	243156		3.17	398	0.98	10901			8.99	Si
SLU 49	753	-30734	1212	22505		2.76	398	0.92	10289			8.49	Si
SLU 69	573	-39386	1284	282303		3.53	398	1.03	11443			8.91	Si
SLU 69	753	-34871	1285	51476		3.13	398	0.97	10841			8.44	Si
SLU 51	573	-34798	1250	243537		3.12	398	0.97	10831			8.67	Si
SLU 51	753	-30150	1250	14818		2.71	398	0.92	10211			8.17	Si
SLU 48	573	-35368	1204	243190		3.17	398	0.98	10907			9.06	Si
SLU 48	753	-30778	1204	24056		2.76	398	0.92	10295			8.55	Si
SLU 71	573	-38862	1322	282684		3.49	398	1.02	11373			8.6	Si
SLU 71	753	-34287	1322	43789		3.08	398	0.97	10763			8.14	Si
SLU 72	573	-38816	1331	282649		3.48	398	1.02	11367			8.54	Si
SLU 72	753	-34242	1331	42238		3.07	398	0.97	10757			8.08	Si
SLU 29	573	-32451	1164	248506		2.91	398	0.94	10518			9.03	Si
SLU 29	753	-28842	1164	36842		2.59	398	0.9	10037			8.62	Si
SLU 30	573	-32405	1173	248472		2.91	398	0.94	10512			8.96	Si
SLU 30	753	-28798	1173	35292		2.58	398	0.9	10031			8.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	573	-26801	-15542	-1381088		2.4	398	1.31	14647			0.94	No, Vu<V
SLV 3	753	-22753	-14655	1308960		2.04	398	1.24	13837			0.94	No, Vu<V
SLD 14	573	-28799	7545	846700		2.58	398	1.35	15046			1.99	Si
SLD 14	753	-26189	7166	-451838		2.35	398	1.3	14524			2.03	Si
SLV 1	573	-21550	-15112	-1386456		1.93	398	1.22	13597			0.9	No, Vu<V
SLV 1	753	-19423	-14184	1299598		1.75	396.27	1.18	13131			0.93	No, Vu<V
SLV 15	573	-34833	16375	1745566		3.13	398	1.46	16253			0.99	No, Vu<V
SLV 15	753	-30888	15447	-1148530		2.77	398	1.39	15464			1	Si
SLV 4	573	-26801	-15542	-1381088		2.4	398	1.31	14647			0.94	No, Vu<V
SLV 4	753	-22753	-14655	1308960		2.04	398	1.24	13837			0.94	No, Vu<V
SLV 13	573	-29582	16805	1740198		2.65	398	1.36	15203			0.9	No, Vu<V
SLV 13	753	-27558	15919	-1157893		2.47	398	1.33	14798			0.93	No, Vu<V
SLD 13	573	-28799	7545	846700		2.58	398	1.35	15046			1.99	Si
SLD 13	753	-26189	7166	-451838		2.35	398	1.3	14524			2.03	Si
SLV 2	573	-21550	-15112	-1386456		1.93	398	1.22	13597			0.9	No, Vu<V
SLV 2	753	-19423	-14184	1299598		1.75	396.27	1.18	13131			0.93	No, Vu<V
SLV 14	573	-29582	16805	1740198		2.65	398	1.36	15203			0.9	No, Vu<V
SLV 14	753	-27558	15919	-1157893		2.47	398	1.33	14798			0.93	No, Vu<V
SLV 16	573	-34833	16375	1745566		3.13	398	1.46	16253			0.99	No, Vu<V
SLV 16	753	-30888	15447	-1148530		2.77	398	1.39	15464			1	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.38	1.7	-18918	40544	228052	5.62	Si
SLV 5	14	0.38	1.7	-18918	40544	228052	5.62	Si
SLV 1	14	0.38	1.86	-20682	40544	245566	6.06	Si
SLV 2	14	0.38	1.86	-20682	40544	245566	6.06	Si
SLV 10	14	0.38	1.91	-21316	40544	251710	6.21	Si
SLV 9	14	0.38	1.91	-21316	40544	251710	6.21	Si
SLV 4	14	0.38	2.21	-24592	40544	282111	6.96	Si
SLV 3	14	0.38	2.21	-24592	40544	282111	6.96	Si
SLV 14	14	0.38	2.57	-28677	40544	316926	7.82	Si
SLV 13	14	0.38	2.57	-28677	40544	316926	7.82	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-15338	-16551	232	0.035	21.219	0.929	54.616	882.77	No
SLV 6	-15338	-16551	232	0.035	21.219	0.929	54.616	882.77	No
SLV 11	-24913	-36369	-237	0.036	30.913	0.948	55.742	882.77	No
SLV 12	-24913	-36369	-237	0.036	30.913	0.948	55.742	882.77	No
SLV 15	-24297	-32574	-131	0.04	30.288	0.948	61.545	967.392	No
SLV 16	-24297	-32574	-131	0.04	30.288	0.948	61.545	967.392	No
SLV 1	-15954	-20346	126	0.041	21.84	0.931	63.285	967.392	No
SLV 2	-15954	-20346	126	0.041	21.84	0.931	63.285	967.392	No
SLV 8	-23109	-34298	-199	0.038	29.083	0.946	57.749	882.77	No
SLV 7	-23109	-34298	-199	0.038	29.083	0.946	57.749	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	14.202	SLU 80	Si
V_SLU	8.083	SLU 72	Si
PF_SLV	2.55	SLV 1	Si
V_SLV	0.9	SLV 1	No
PFFP_SLV	5.625	SLV 5	Si
R_SLV	0.062	SLV 5	No

Maschio 122

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-705.8	666.1	-501.8	666.1	L4	L5	204	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 75	573	-21793	-61317	3.82	1181745	19.273	Si
SLU 75	753	-19163	-213860	3.35	1149609	5.376	Si
SLU 76	573	-21426	-58358	3.75	1179082	20.204	Si
SLU 76	753	-18796	-211148	3.29	1142712	5.412	Si
SLU 81	573	-22011	-62393	3.85	1183045	18.961	Si
SLU 81	753	-19380	-223410	3.39	1153419	5.163	Si
SLU 78	573	-22230	-58931	3.89	1184146	20.094	Si
SLU 78	753	-19600	-212761	3.43	1157051	5.438	Si
SLU 84	573	-22420	-58538	3.93	1184926	20.242	Si
SLU 84	753	-19790	-223676	3.46	1160018	5.186	Si
SLU 77	573	-22259	-60400	3.9	1184271	19.607	Si
SLU 77	753	-19628	-211397	3.44	1157500	5.475	Si
SLU 74	573	-21821	-62786	3.82	1181924	18.825	Si
SLU 74	753	-19191	-212495	3.36	1150112	5.412	Si
SLU 73	573	-20989	-60744	3.67	1175140	19.346	Si
SLU 73	753	-18359	-212246	3.21	1133728	5.342	Si
SLU 83	573	-22448	-60007	3.93	1185028	19.748	Si
SLU 83	753	-19818	-222312	3.47	1160444	5.22	Si
SLU 82	573	-21983	-60924	3.85	1182889	19.416	Si
SLU 82	753	-19352	-224775	3.39	1152939	5.129	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	573	-21288	534172	3.73	1509057	2.825	Si
SLV 13	753	-19410	-663297	3.4	1429218	2.155	Si
SLD 2	573	-10793	-294294	1.89	930678	3.162	Si
SLD 2	753	-8899	87047	1.56	791999	9.098	Si
SLV 15	573	-23486	523784	4.11	1589449	3.035	Si
SLV 15	753	-21179	-674325	3.71	1504727	2.231	Si
SLV 2	573	-5695	-622171	0	0	0	No, e>l/2
SLV 2	753	-3968	392211	0.69	381712	0.973	No, M>Mu
SLV 1	573	-5695	-622171	0	0	0	No, e>l/2
SLV 1	753	-3968	392211	0.69	381712	0.973	No, M>Mu
SLD 1	573	-10793	-294294	1.89	930678	3.162	Si
SLD 1	753	-8899	87047	1.56	791999	9.098	Si
SLV 14	573	-21288	534172	3.73	1509057	2.825	Si
SLV 14	753	-19410	-663297	3.4	1429218	2.155	Si
SLV 4	573	-7894	-632559	1.38	714101	1.129	Si
SLV 4	753	-5737	381182	1	537073	1.409	Si
SLV 16	573	-23486	523784	4.11	1589449	3.035	Si
SLV 16	753	-21179	-674325	3.71	1504727	2.231	Si
SLV 3	573	-7894	-632559	1.38	714101	1.129	Si
SLV 3	753	-5737	381182	1	537073	1.409	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	573	-18786	819	-48094		3.29	204	0.99	5678			6.94	Si
SLU 39	753	-16748	819	-194113		2.93	204	0.95	5406			6.6	Si
SLU 42	573	-19195	842	-44239		3.36	204	1	5733			6.81	Si
SLU 42	753	-17157	842	-194379		3	204	0.96	5461			6.49	Si
SLU 84	573	-22420	927	-58538		3.93	204	1.08	6163			6.65	Si
SLU 84	753	-19790	927	-223676		3.46	204	1.02	5812			6.27	Si
SLU 76	573	-21426	859	-58358		3.75	204	1.06	6030			7.02	Si
SLU 76	753	-18796	859	-211148		3.29	204	0.99	5679			6.62	Si
SLU 83	573	-22448	911	-60007		3.93	204	1.08	6166			6.77	Si
SLU 83	753	-19818	911	-222312		3.47	204	1.02	5816			6.38	Si
SLU 41	573	-19223	826	-45708		3.37	204	1	5736			6.95	Si
SLU 41	753	-17185	826	-193015		3.01	204	0.96	5465			6.62	Si
SLU 81	573	-22011	904	-62393		3.85	204	1.07	6108			6.75	Si
SLU 81	753	-19380	904	-223410		3.39	204	1.01	5757			6.37	Si
SLU 73	573	-20989	851	-60744		3.67	204	1.05	5972			7.01	Si
SLU 73	753	-18359	851	-212246		3.21	204	0.98	5621			6.6	Si
SLU 40	573	-18758	834	-46625		3.28	204	0.99	5674			6.8	Si
SLU 40	753	-16720	834	-195478		2.93	204	0.95	5403			6.48	Si
SLU 82	573	-21983	920	-60924		3.85	204	1.07	6104			6.64	Si
SLU 82	753	-19352	920	-224775		3.39	204	1.01	5754			6.25	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	573	-23486	6435	523784		4.11	204	1.63	9282			1.44	Si
SLV 15	753	-21179	6079	-674325		3.71	204	1.57	8996			1.48	Si
SLV 3	573	-7894	-6215	-632559		4.3	65.6	1.63	2985			0.48	No, Vu<V
SLV 3	753	-5737	-5674	381182		1.92	106.67	1.22	3636			0.64	No, Vu<V
SLV 2	573	-5695	-5399	-622171		0	0	0.83	0			0	No, Vu<V
SLV 2	753	-3968	-5043	392211		14.98	9.46	1.63	430			0.09	No, Vu<V
SLV 9	573	-13265	3775	141572		2.32	204	1.3	7413			1.96	Si
SLV 9	753	-11941	3332	-281002		2.09	204	1.25	7148			2.15	Si
SLV 13	573	-21288	7251	534172		3.73	204	1.58	9018			1.24	Si
SLV 13	753	-19410	6710	-663297		3.41	203.48	1.51	8630			1.29	Si
SLV 10	573	-13265	3775	141572		2.32	204	1.3	7413			1.96	Si
SLV 10	753	-11941	3332	-281002		2.09	204	1.25	7148			2.15	Si
SLV 1	573	-5695	-5399	-622171		0	0	0.83	0			0	No, Vu<V
SLV 1	753	-3968	-5043	392211		14.98	9.46	1.63	430			0.09	No, Vu<V
SLV 14	573	-21288	7251	534172		3.73	204	1.58	9018			1.24	Si
SLV 14	753	-19410	6710	-663297		3.41	203.48	1.51	8630			1.29	Si
SLV 4	573	-7894	-6215	-632559		4.3	65.6	1.63	2985			0.48	No, Vu<V
SLV 4	753	-5737	-5674	381182		1.92	106.67	1.22	3636			0.64	No, Vu<V
SLV 16	573	-23486	6435	523784		4.11	204	1.63	9282			1.44	Si
SLV 16	753	-21179	6079	-674325		3.71	204	1.57	8996			1.48	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.38	0.88	-5013	20781	65139	3.13	Si
SLV 1	14	0.38	0.88	-5013	20781	65139	3.13	Si
SLV 4	14	0.38	1.19	-6792	20781	85836	4.13	Si
SLV 3	14	0.38	1.19	-6792	20781	85836	4.13	Si
SLV 6	14	0.38	1.47	-8387	20781	103307	4.97	Si
SLV 5	14	0.38	1.47	-8387	20781	103307	4.97	Si
SLV 10	14	0.38	2.29	-13058	20781	148611	7.15	Si
SLV 9	14	0.38	2.29	-13058	20781	148611	7.15	Si
SLV 7	14	0.38	2.51	-14318	20781	159330	7.67	Si
SLV 8	14	0.38	2.51	-14318	20781	159330	7.67	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-6705	-8551	418	0	9.712	0.923	0	882.77	No
SLV 5	-6705	-8551	418	0	9.712	0.923	0	882.77	No
SLV 9	-8699	-15878	374	0.011	11.722	0.933	17.159	882.77	No
SLV 10	-8699	-15878	374	0.011	11.722	0.933	17.159	882.77	No
SLV 11	-13904	-20017	-422	0.017	16.996	0.952	26.725	882.77	No
SLV 12	-13904	-20017	-422	0.017	16.996	0.952	26.725	882.77	No
SLV 8	-11910	-12690	-378	0.017	14.972	0.946	26.837	882.77	No
SLV 7	-11910	-12690	-378	0.017	14.972	0.946	26.837	882.77	No
SLV 2	-6200	-1451	191	0.025	9.205	0.92	39.411	967.392	No
SLV 1	-6200	-1451	191	0.025	9.205	0.92	39.411	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.129	SLU 82	Si
V_SLU	6.254	SLU 82	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	3.134	SLV 1	Si
R_SLV	0	SLV 5	No



Maschio 123

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2066.8	104.6	-2467.8	104.6	L4	L5	401	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 74	483	-41969	-745435	3.74	4553481	6.108	Si
SLU 74	693	-40559	-1184310	3.61	4525880	3.822	Si
SLU 81	483	-41864	-783521	3.73	4551724	5.809	Si
SLU 81	693	-40777	-1183144	3.63	4530719	3.829	Si
SLU 75	483	-41982	-758045	3.74	4553691	6.007	Si
SLU 75	693	-40613	-1160861	3.62	4527080	3.9	Si
SLU 77	483	-42861	-749570	3.82	4566447	6.092	Si
SLU 77	693	-41533	-1239022	3.7	4545882	3.669	Si
SLU 83	483	-42756	-787656	3.81	4565101	5.796	Si
SLU 83	693	-41751	-1237856	3.72	4549790	3.676	Si
SLU 82	483	-41877	-796131	3.73	4551941	5.718	Si
SLU 82	693	-40831	-1159695	3.64	4531868	3.908	Si
SLU 79	483	-42248	-736882	3.76	4557918	6.185	Si
SLU 79	693	-40847	-1218133	3.64	4532212	3.721	Si
SLU 84	483	-42768	-800267	3.81	4565268	5.705	Si
SLU 84	693	-41805	-1214407	3.72	4550712	3.747	Si
SLU 78	483	-42874	-762180	3.82	4566608	5.992	Si
SLU 78	693	-41587	-1215573	3.7	4546855	3.741	Si
SLU 80	483	-42261	-749492	3.76	4558113	6.082	Si
SLU 80	693	-40900	-1194683	3.64	4533344	3.795	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 16	483	-27009	-1428413	2.41	4349186	3.045	Si
SLV 16	693	-17635	454111	1.57	3081359	6.785	Si
SLV 4	483	-31987	469198	2.85	4918085	10.482	Si
SLV 4	693	-36726	-2030473	3.27	5392359	2.656	Si
SLV 15	483	-27009	-1428413	2.41	4349186	3.045	Si
SLV 15	693	-17635	454111	1.57	3081359	6.785	Si
SLV 14	483	-25517	-1419862	2.27	4164633	2.933	Si
SLV 14	693	-16907	570276	1.51	2972112	5.212	Si
SLV 2	483	-30496	477749	2.72	4755234	9.953	Si
SLV 2	693	-35998	-1914309	3.21	5323747	2.781	Si
SLV 13	483	-25517	-1419862	2.27	4164633	2.933	Si
SLV 13	693	-16907	570276	1.51	2972112	5.212	Si
SLV 7	483	-31985	-204942	2.85	4917846	23.996	Si
SLV 7	693	-30894	-1296394	2.75	4799364	3.702	Si
SLV 3	483	-31987	469198	2.85	4918085	10.482	Si
SLV 3	693	-36726	-2030473	3.27	5392359	2.656	Si
SLV 8	483	-31985	-204942	2.85	4917846	23.996	Si
SLV 8	693	-30894	-1296394	2.75	4799364	3.702	Si
SLV 1	483	-30496	477749	2.72	4755234	9.953	Si
SLV 1	693	-35998	-1914309	3.21	5323747	2.781	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	483	-42768	6513	-800267		3.81	401	1.06	11940			1.83	Si
SLU 84	693	-41805	6596	-1214407		3.72	401	1.05	11812			1.79	Si
SLU 41	483	-35961	6242	-701255		3.2	401	0.98	11033			1.77	Si
SLU 41	693	-36005	6298	-1109325		3.21	401	0.98	11038			1.75	Si
SLU 42	483	-35974	6103	-713865		3.2	401	0.98	11034			1.81	Si
SLU 42	693	-36058	6175	-1085876		3.21	401	0.98	11046			1.79	Si
SLU 78	483	-42874	6392	-762180		3.82	401	1.06	11954			1.87	Si
SLU 78	693	-41587	6475	-1215573		3.7	401	1.05	11783			1.82	Si
SLU 77	483	-42861	6531	-749570		3.82	401	1.06	11953			1.83	Si
SLU 77	693	-41533	6597	-1239022		3.7	401	1.05	11776			1.78	Si
SLU 79	483	-42248	6421	-736882		3.76	401	1.06	11871			1.85	Si
SLU 79	693	-40847	6487	-1218133		3.64	401	1.04	11684			1.8	Si
SLU 36	483	-36079	5982	-675779		3.21	401	0.98	11048			1.85	Si
SLU 36	693	-35840	6054	-1087042		3.19	401	0.98	11016			1.82	Si
SLU 35	483	-36066	6121	-663169		3.21	401	0.98	11047			1.8	Si
SLU 35	693	-35787	6176	-1110491		3.19	401	0.98	11009			1.78	Si
SLU 37	483	-35454	6011	-650480		3.16	401	0.98	10965			1.82	Si
SLU 37	693	-35100	6066	-1089601		3.13	401	0.97	10918			1.8	Si
SLU 83	483	-42756	6652	-787656		3.81	401	1.06	11939			1.79	Si
SLU 83	693	-41751	6718	-1237856		3.72	401	1.05	11805			1.76	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	483	-30496	21659	477749		2.72	401	1.38	15456			0.71	No, Vu<V
SLV 1	693	-35998	20658	-1914309		3.21	401	1.47	16556			0.8	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	483	-31987	21028	469198		2.85	401	1.4	15754			0.75	No, Vu<V
SLV 3	693	-36726	19753	-2030473		3.27	401	1.49	16702			0.85	No, Vu<V
SLV 2	483	-30496	21659	477749		2.72	401	1.38	15456			0.71	No, Vu<V
SLV 2	693	-35998	20658	-1914309		3.21	401	1.47	16556			0.8	No, Vu<V
SLV 13	483	-25517	-13926	-1419862		2.27	401	1.29	14460			1.04	Si
SLV 13	693	-16907	-12560	570276		1.51	401	1.13	12738			1.01	Si
SLV 14	483	-25517	-13926	-1419862		2.27	401	1.29	14460			1.04	Si
SLV 14	693	-16907	-12560	570276		1.51	401	1.13	12738			1.01	Si
SLD 2	483	-29511	11272	-68018		2.63	401	1.36	15259			1.35	Si
SLD 2	693	-30753	10885	-1237766		2.74	401	1.38	15507			1.42	Si
SLV 16	483	-27009	-14557	-1428413		2.41	401	1.31	14758			1.01	Si
SLV 16	693	-17635	-13466	454111		1.57	401	1.15	12884			0.96	No, Vu<V
SLV 15	483	-27009	-14557	-1428413		2.41	401	1.31	14758			1.01	Si
SLV 15	693	-17635	-13466	454111		1.57	401	1.15	12884			0.96	No, Vu<V
SLV 4	483	-31987	21028	469198		2.85	401	1.4	15754			0.75	No, Vu<V
SLV 4	693	-36726	19753	-2030473		3.27	401	1.49	16702			0.85	No, Vu<V
SLD 1	483	-29511	11272	-68018		2.63	401	1.36	15259			1.35	Si
SLD 1	693	-30753	10885	-1237766		2.74	401	1.38	15507			1.42	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore $8 \gamma M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.38	1.57	-17620	41799	214995	5.14	Si
SLV 13	14	0.38	1.57	-17620	41799	214995	5.14	Si
SLV 16	14	0.38	1.63	-18334	41799	222375	5.32	Si
SLV 15	14	0.38	1.63	-18334	41799	222375	5.32	Si
SLV 10	14	0.38	2.09	-23472	41799	272383	6.52	Si
SLV 9	14	0.38	2.09	-23472	41799	272383	6.52	Si
SLV 12	14	0.38	2.3	-25853	41799	293737	7.03	Si
SLV 11	14	0.38	2.3	-25853	41799	293737	7.03	Si
SLV 6	14	0.38	2.6	-29202	41799	321807	7.7	Si
SLV 5	14	0.38	2.6	-29202	41799	321807	7.7	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-23603	-30491	-583	0.024	29.626	0.946	36.13	882.77	No
SLV 12	-23603	-30491	-583	0.024	29.626	0.946	36.13	882.77	No
SLV 6	-24059	-27013	584	0.024	30.088	0.947	36.433	882.77	No
SLV 5	-24059	-27013	584	0.024	30.088	0.947	36.433	882.77	No
SLV 9	-21372	-25520	472	0.027	27.364	0.942	40.916	882.77	No
SLV 10	-21372	-25520	472	0.027	27.364	0.942	40.916	882.77	No
SLV 16	-19688	-27009	-345	0.031	25.658	0.939	47.978	967.392	No
SLV 15	-19688	-27009	-345	0.031	25.658	0.939	47.978	967.392	No
SLV 8	-26290	-31985	-470	0.029	32.353	0.95	43.994	882.77	No
SLV 7	-26290	-31985	-470	0.029	32.353	0.95	43.994	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.669	SLU 77	Si
V_SLU	1.753	SLU 41	Si
PF_SLV	2.656	SLV 3	Si
V_SLV	0.714	SLV 1	No
PFFP_SLV	5.143	SLV 13	Si
R_SLV	0.041	SLV 11	No

Maschio 124

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1228.3	104.6	-1986.8	104.6	L4	L5	758.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 53	483	-94060	328611	4.43	16277401	49.534	Si
SLU 53	733	-83055	-702077	3.91	16376650	23.326	Si
SLU 50	483	-86075	324371	4.05	16402281	50.566	Si
SLU 50	733	-73938	-735716	3.48	16056700	21.825	Si
SLU 49	483	-87483	300304	4.12	16400560	54.613	Si
SLU 49	733	-75711	-706989	3.56	16147482	22.84	Si
SLU 77	483	-107539	493057	5.06	15432358	31.299	Si
SLU 77	733	-96907	-698417	4.56	16165301	23.146	Si
SLU 56	483	-97418	369962	4.59	16141398	43.63	Si
SLU 56	733	-86240	-742330	4.06	16402528	22.096	Si
SLU 48	483	-87563	322260	4.12	16400201	50.891	Si
SLU 48	733	-75536	-761237	3.56	16139137	21.201	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 45	483	-84206	280909	3.96	16391131	58.35	Si
SLU 45	733	-72351	-720983	3.41	15963806	22.142	Si
SLU 51	483	-85996	302415	4.05	16402118	54.237	Si
SLU 51	733	-74113	-681469	3.49	16066271	23.576	Si
SLU 69	483	-97685	445355	4.6	16128469	36.215	Si
SLU 69	733	-86203	-717324	4.06	16402483	22.866	Si
SLU 58	483	-95930	372073	4.52	16207760	43.561	Si
SLU 58	733	-84641	-716810	3.99	16395098	22.872	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 2	483	-67400	2810798	3.17	18922466	6.732	Si
SLD 2	733	-60273	-456684	2.84	17549286	38.428	Si
SLV 15	483	-74294	-5684371	3.5	20109429	3.538	Si
SLV 15	733	-62415	-513912	2.94	17977530	34.982	Si
SLV 13	483	-68799	-5500914	3.24	19174503	3.486	Si
SLV 13	733	-57782	-95191	2.72	17034363	178.949	Si
SLV 2	483	-64552	6218695	3.04	18391455	2.957	Si
SLV 2	733	-59375	-435043	2.8	17365723	39.917	Si
SLV 16	483	-74294	-5684371	3.5	20109429	3.538	Si
SLV 16	733	-62415	-513912	2.94	17977530	34.982	Si
SLV 3	483	-70047	6035238	3.3	19394604	3.214	Si
SLV 3	733	-64007	-853764	3.01	18287321	21.42	Si
SLV 14	483	-68799	-5500914	3.24	19174503	3.486	Si
SLV 14	733	-57782	-95191	2.72	17034363	178.949	Si
SLD 1	483	-67400	2810798	3.17	18922466	6.732	Si
SLD 1	733	-60273	-456684	2.84	17549286	38.428	Si
SLV 4	483	-70047	6035238	3.3	19394604	3.214	Si
SLV 4	733	-64007	-853764	3.01	18287321	21.42	Si
SLV 1	483	-64552	6218695	3.04	18391455	2.957	Si
SLV 1	733	-59375	-435043	2.8	17365723	39.917	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 19	483	-77714	1356	264552		3.66	758.5	1.04	22161			16.35	Si
SLU 19	733	-70255	737	-411169		3.31	758.5	1	21166			28.73	Si
SLU 30	483	-80472	-281	402205		3.79	758.5	1.06	22529			80.31	Si
SLU 30	733	-72000	-1225	-474773		3.39	758.5	1.01	21399			17.47	Si
SLU 81	483	-103559	1374	432908		4.88	758.5	1.08	23008			16.75	Si
SLU 81	733	-93526	412	-584287		4.4	758.5	1.08	23008			55.82	Si
SLU 18	483	-77794	1306	286509		3.66	758.5	1.04	22171			16.98	Si
SLU 18	733	-70080	623	-465416		3.3	758.5	1	21143			33.92	Si
SLU 29	483	-80552	-330	424161		3.79	758.5	1.06	22539			68.32	Si
SLU 29	733	-71825	-1338	-529020		3.38	758.5	1.01	21376			15.97	Si
SLU 82	483	-103480	1423	410952		4.87	758.5	1.08	23008			16.17	Si
SLU 82	733	-93701	525	-530039		4.41	758.5	1.08	23008			43.78	Si
SLU 10	483	-73437	1215	229471		3.46	758.5	1.02	21590			17.77	Si
SLU 10	733	-65784	683	-383107		3.1	758.5	0.97	20570			30.12	Si
SLU 60	483	-93438	1603	309813		4.4	758.5	1.08	23008			14.35	Si
SLU 60	733	-82859	821	-628200		3.9	758.5	1.08	22847			27.81	Si
SLU 52	483	-89081	1513	252776		4.19	758.5	1.08	23008			15.21	Si
SLU 52	733	-78563	881	-545890		3.7	758.5	1.05	22274			25.28	Si
SLU 61	483	-93358	1653	287857		4.4	758.5	1.08	23008			13.92	Si
SLU 61	733	-83034	935	-573952		3.91	758.5	1.08	22870			24.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	483	-70047	46232	6035238		3.3	758.5	1.49	31708			0.69	No, Vu<V
SLV 4	733	-64007	39251	-853764		3.01	758.5	1.44	30500			0.78	No, Vu<V
SLV 1	483	-64552	43267	6218695		3.04	758.5	1.44	30609			0.71	No, Vu<V
SLV 1	733	-59375	36114	-435043		2.8	758.5	1.39	29573			0.82	No, Vu<V
SLV 2	483	-64552	43267	6218695		3.04	758.5	1.44	30609			0.71	No, Vu<V
SLV 2	733	-59375	36114	-435043		2.8	758.5	1.39	29573			0.82	No, Vu<V
SLV 15	483	-74294	-41710	-5684371		3.5	758.5	1.53	32557			0.78	No, Vu<V
SLV 15	733	-62415	-35790	-513912		2.94	758.5	1.42	30181			0.84	No, Vu<V
SLV 16	483	-74294	-41710	-5684371		3.5	758.5	1.53	32557			0.78	No, Vu<V
SLV 16	733	-62415	-35790	-513912		2.94	758.5	1.42	30181			0.84	No, Vu<V
SLV 13	483	-68799	-44675	-5500914		3.24	758.5	1.48	31458			0.7	No, Vu<V
SLV 13	733	-57782	-38927	-95191		2.72	758.5	1.38	29255			0.75	No, Vu<V
SLD 4	483	-69658	20199	2731182		3.28	758.5	1.49	31630			1.57	Si
SLD 4	733	-62197	16865	-636747		2.93	758.5	1.42	30138			1.79	Si
SLV 3	483	-70047	46232	6035238		3.3	758.5	1.49	31708			0.69	No, Vu<V
SLV 3	733	-64007	39251	-853764		3.01	758.5	1.44	30500			0.78	No, Vu<V
SLV 14	483	-68799	-44675	-5500914		3.24	758.5	1.48	31458			0.7	No, Vu<V
SLV 14	733	-57782	-38927	-95191		2.72	758.5	1.38	29255			0.75	No, Vu<V
SLD 3	483	-69658	20199	2731182		3.28	758.5	1.49	31630			1.57	Si
SLD 3	733	-62197	16865	-636747		2.93	758.5	1.42	30138			1.79	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.38	2.67	-56674	79064	620153	7.84	Si
SLV 6	14	0.38	2.67	-56674	79064	620153	7.84	Si
SLV 10	14	0.38	2.75	-58389	79064	633520	8.01	Si
SLV 9	14	0.38	2.75	-58389	79064	633520	8.01	Si
SLV 2	14	0.38	2.78	-59097	79064	638941	8.08	Si
SLV 1	14	0.38	2.78	-59097	79064	638941	8.08	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.38	2.96	-62889	79064	667075	8.44	Si
SLV 4	14	0.38	2.96	-62889	79064	667075	8.44	Si
SLV 13	14	0.38	3.05	-64815	79064	680768	8.61	Si
SLV 14	14	0.38	3.05	-64815	79064	680768	8.61	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-49995	-60901	724	0.032	61.468	0.95	48.512	882.77	No
SLV 9	-49995	-60901	724	0.032	61.468	0.95	48.512	882.77	No
SLV 5	-51070	-59627	664	0.033	62.559	0.951	50.307	882.77	No
SLV 6	-51070	-59627	664	0.033	62.559	0.951	50.307	882.77	No
SLV 8	-65091	-77945	-729	0.033	76.808	0.959	50.532	882.77	No
SLV 7	-65091	-77945	-729	0.033	76.808	0.959	50.532	882.77	No
SLV 12	-64016	-79219	-668	0.034	75.715	0.959	51.713	882.77	No
SLV 11	-64016	-79219	-668	0.034	75.715	0.959	51.713	882.77	No
SLV 4	-61438	-70047	-312	0.039	73.094	0.957	59.381	967.392	No
SLV 3	-61438	-70047	-312	0.039	73.094	0.957	59.381	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	21.201	SLV 48	Si
V_SLV	13.92	SLV 61	Si
PF_SLV	2.957	SLV 1	Si
V_SLV	0.686	SLV 3	No
PFFP_SLV	7.844	SLV 5	Si
R_SLV	0.055	SLV 9	No

Maschio 125

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1046.6	104.6	-1116.3	104.6	L4	L5	69.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	483	-12375	-31857	6.35	95164	2.987	Si
SLU 82	733	-11075	23782	5.68	116737	4.909	Si
SLU 80	483	-12124	-33512	6.22	99900	2.981	Si
SLU 80	733	-11227	25446	5.76	114598	4.504	Si
SLU 76	483	-11994	-33940	6.15	102253	3.013	Si
SLU 76	733	-10835	26147	5.56	119901	4.586	Si
SLU 83	483	-12493	-30884	6.41	92840	3.006	Si
SLU 83	733	-11481	22491	5.89	110794	4.926	Si
SLU 63	483	-11494	-35908	5.89	110591	3.08	Si
SLU 63	733	-10119	29333	5.19	127862	4.359	Si
SLU 84	483	-12530	-32521	6.43	92095	2.832	Si
SLU 84	733	-11436	24263	5.87	111479	4.595	Si
SLU 78	483	-12348	-34262	6.33	95685	2.793	Si
SLU 78	733	-11399	26070	5.85	112053	4.298	Si
SLU 57	483	-11312	-37649	5.8	113354	3.011	Si
SLU 57	733	-10081	31140	5.17	128218	4.117	Si
SLU 75	483	-12193	-33598	6.25	98630	2.936	Si
SLU 75	733	-11037	25589	5.66	117250	4.582	Si
SLU 77	483	-12311	-32625	6.31	96400	2.955	Si
SLU 77	733	-11443	24298	5.87	111374	4.584	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 15	483	-9661	-130653	4.95	199974	1.531	Si
SLD 15	733	-7150	131362	3.67	174235	1.326	Si
SLV 13	483	-9437	-276779	4.84	198431	0.717	No, M>Mu
SLV 13	733	-7071	267897	0	0	0	No, e>l/2
SLV 2	483	-4761	223824	0	0	0	No, e>l/2
SLV 2	733	-7246	-242829	3.72	175556	0.723	No, M>Mu
SLD 16	483	-9661	-130653	4.95	199974	1.531	Si
SLD 16	733	-7150	131362	3.67	174235	1.326	Si
SLV 16	483	-11636	-273043	5.97	207272	0.759	No, M>Mu
SLV 16	733	-7112	281584	0	0	0	No, e>l/2
SLV 3	483	-6960	227559	3.57	171538	0.754	No, M>Mu
SLV 3	733	-7286	-229142	3.74	176108	0.769	No, M>Mu
SLV 4	483	-6960	227559	3.57	171538	0.754	No, M>Mu
SLV 4	733	-7286	-229142	3.74	176108	0.769	No, M>Mu
SLV 1	483	-4761	223824	0	0	0	No, e>l/2
SLV 1	733	-7246	-242829	3.72	175556	0.723	No, M>Mu
SLV 14	483	-9437	-276779	4.84	198431	0.717	No, M>Mu



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	733	-7071	267897	0	0	0	No, $e>l/2$
SLV 15	483	-11636	-273043	5.97	207272	0.759	No, $M>Mu$
SLV 15	733	-7112	281584	0	0	0	No, $e>l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 49	483	-10003	-290	-38411		5.13	69.64	1.08	2112			7.3	Si
SLU 49	733	-8747	-289	32779		4.49	69.64	1.08	2112			7.32	Si
SLU 61	483	-11339	-267	-35244		5.82	69.64	1.08	2112			7.91	Si
SLU 61	733	-9757	-291	28852		5	69.64	1.08	2112			7.26	Si
SLU 43	483	-9432	-282	-34695		4.84	69.64	1.08	2112			7.49	Si
SLU 43	733	-7896	-283	29421		4.05	69.64	1.08	2112			7.47	Si
SLU 44	483	-9494	-316	-37424		4.87	69.64	1.08	2112			6.69	Si
SLU 44	733	-7822	-315	32374		4.01	69.64	1.08	2112			6.7	Si
SLU 47	483	-9649	-305	-38088		4.95	69.64	1.08	2112			6.94	Si
SLU 47	733	-8184	-304	32855		4.2	69.64	1.08	2112			6.95	Si
SLU 54	483	-11157	-276	-36985		5.72	69.64	1.08	2112			7.65	Si
SLU 54	733	-9719	-292	30659		4.98	69.64	1.08	2112			7.23	Si
SLU 46	483	-9848	-301	-37747		5.05	69.64	1.08	2112			7.03	Si
SLU 46	733	-8386	-300	32298		4.3	69.64	1.08	2112			7.04	Si
SLU 57	483	-11312	-265	-37649		5.8	69.64	1.08	2112			7.98	Si
SLU 57	733	-10081	-281	31140		5.17	69.64	1.08	2112			7.53	Si
SLU 52	483	-10803	-291	-36662		5.54	69.64	1.08	2112			7.26	Si
SLU 52	733	-9156	-307	30735		4.7	69.64	1.08	2112			6.87	Si
SLU 55	483	-10958	-280	-37327		5.62	69.64	1.08	2112			7.55	Si
SLU 55	733	-9518	-296	31216		4.88	69.64	1.08	2112			7.14	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	483	-4761	2244	223824		0	0	0.83	0			0	No, $Vu<V$
SLV 1	733	-7246	2058	-242829		66.12	3.91	1.63	178			0.09	No, $Vu<V$
SLV 13	483	-9437	-2487	-276779		20.46	16.47	1.63	749			0.3	No, $Vu<V$
SLV 13	733	-7071	-2263	267897		0	0	0.83	0			0	No, $Vu<V$
SLD 16	483	-9661	-1211	-130653		5.4	63.88	1.63	2907			2.4	Si
SLD 16	733	-7150	-1142	131362		5.18	49.34	1.63	2245			1.97	Si
SLV 15	483	-11636	-2600	-273043		12.2	34.06	1.63	1550			0.6	No, $Vu<V$
SLV 15	733	-7112	-2425	281584		0	0	0.83	0			0	No, $Vu<V$
SLV 3	483	-6960	2131	227559		39.04	6.37	1.63	290			0.14	No, $Vu<V$
SLV 3	733	-7286	1896	-229142		25.74	10.11	1.63	460			0.24	No, $Vu<V$
SLD 15	483	-9661	-1211	-130653		5.4	63.88	1.63	2907			2.4	Si
SLD 15	733	-7150	-1142	131362		5.18	49.34	1.63	2245			1.97	Si
SLV 4	483	-6960	2131	227559		39.04	6.37	1.63	290			0.14	No, $Vu<V$
SLV 4	733	-7286	1896	-229142		25.74	10.11	1.63	460			0.24	No, $Vu<V$
SLV 2	483	-4761	2244	223824		0	0	0.83	0			0	No, $Vu<V$
SLV 2	733	-7246	2058	-242829		66.12	3.91	1.63	178			0.09	No, $Vu<V$
SLV 16	483	-11636	-2600	-273043		12.2	34.06	1.63	1550			0.6	No, $Vu<V$
SLV 16	733	-7112	-2425	281584		0	0	0.83	0			0	No, $Vu<V$
SLV 14	483	-9437	-2487	-276779		20.46	16.47	1.63	749			0.3	No, $Vu<V$
SLV 14	733	-7071	-2263	267897		0	0	0.83	0			0	No, $Vu<V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.38	3.38	-6595	7259	66769	9.2	Si
SLV 9	14	0.38	3.38	-6595	7259	66769	9.2	Si
SLV 5	14	0.38	3.42	-6666	7259	67215	9.26	Si
SLV 6	14	0.38	3.42	-6666	7259	67215	9.26	Si
SLV 13	14	0.38	3.56	-6936	7259	68834	9.48	Si
SLV 14	14	0.38	3.56	-6936	7259	68834	9.48	Si
SLV 1	14	0.38	3.68	-7175	7259	70201	9.67	Si
SLV 2	14	0.38	3.68	-7175	7259	70201	9.67	Si
SLV 15	14	0.38	3.74	-7300	7259	70887	9.77	Si
SLV 16	14	0.38	3.74	-7300	7259	70887	9.77	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	α_{lim}	Verifica
SLV 10	-3377	-5235	179	0.001	4.413	0.939	1.651	882.77	No
SLV 9	-3377	-5235	179	0.001	4.413	0.939	1.651	882.77	No
SLV 6	-2670	-3833	145	0.003	3.699	0.929	5.053	882.77	No
SLV 5	-2670	-3833	145	0.003	3.699	0.929	5.053	882.77	No
SLV 8	-5031	-11162	-179	0.012	6.091	0.954	19.04	882.77	No
SLV 7	-5031	-11162	-179	0.012	6.091	0.954	19.04	882.77	No
SLV 3	-3379	-6960	-106	0.019	4.416	0.939	30.141	967.392	No
SLV 4	-3379	-6960	-106	0.019	4.416	0.939	30.141	967.392	No
SLV 12	-5738	-12565	-144	0.021	6.81	0.958	31.79	882.77	No
SLV 11	-5738	-12565	-144	0.021	6.81	0.958	31.79	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.793	SLU 78	Si
V_SLU	6.69	SLU 44	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	9.198	SLV 9	Si
R_SLV	0.002	SLV 9	No



Maschio 126

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-727.8	104.6	-938.6	104.6	L4	L5	210.9	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 83	483	-37954	-139304	6.43	843701	6.057	Si
SLU 83	733	-32381	354714	5.48	1115415	3.145	Si
SLU 74	483	-36729	-135710	6.22	915099	6.743	Si
SLU 74	733	-31217	341655	5.29	1154958	3.38	Si
SLU 76	483	-36174	-164083	6.13	945285	5.761	Si
SLU 76	733	-30795	346501	5.22	1167863	3.37	Si
SLU 84	483	-37946	-159484	6.43	844183	5.293	Si
SLU 84	733	-32445	361998	5.5	1113081	3.075	Si
SLU 75	483	-36721	-155890	6.22	915539	5.873	Si
SLU 75	733	-31281	348939	5.3	1152949	3.304	Si
SLU 77	483	-37761	-126350	6.4	855393	6.77	Si
SLU 77	733	-32146	342362	5.44	1123889	3.283	Si
SLU 78	483	-37753	-146530	6.39	855869	5.841	Si
SLU 78	733	-32209	349646	5.46	1121620	3.208	Si
SLU 81	483	-36922	-148664	6.25	904280	6.083	Si
SLU 81	733	-31453	354007	5.33	1147442	3.241	Si
SLU 80	483	-37211	-141270	6.3	887786	6.284	Si
SLU 80	733	-31680	342353	5.37	1139938	3.33	Si
SLU 82	483	-36914	-168844	6.25	904727	5.358	Si
SLU 82	733	-31516	361291	5.34	1145367	3.17	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 15	483	-22767	-626459	3.86	1642849	2.622	Si
SLD 15	733	-20773	458050	3.52	1559482	3.405	Si
SLV 3	483	-28687	1062156	4.86	1821817	1.715	Si
SLV 3	733	-20186	-241846	3.42	1532748	6.338	Si
SLV 16	483	-20963	-1334704	3.55	1567923	1.175	Si
SLV 16	733	-21638	768197	3.66	1597065	2.079	Si
SLV 15	483	-20963	-1334704	3.55	1567923	1.175	Si
SLV 15	733	-21638	768197	3.66	1597065	2.079	Si
SLV 2	483	-27299	1138056	4.62	1789046	1.572	Si
SLV 2	733	-18650	-313967	3.16	1457983	4.644	Si
SLV 14	483	-19575	-1258805	3.32	1503818	1.195	Si
SLV 14	733	-20102	696076	3.4	1528817	2.196	Si
SLV 13	483	-19575	-1258805	3.32	1503818	1.195	Si
SLV 13	733	-20102	696076	3.4	1528817	2.196	Si
SLD 16	483	-22767	-626459	3.86	1642849	2.622	Si
SLD 16	733	-20773	458050	3.52	1559482	3.405	Si
SLV 1	483	-27299	1138056	4.62	1789046	1.572	Si
SLV 1	733	-18650	-313967	3.16	1457983	4.644	Si
SLV 4	483	-28687	1062156	4.86	1821817	1.715	Si
SLV 4	733	-20186	-241846	3.42	1532748	6.338	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 63	483	-33767	-1361	-162977		5.72	210.86	1.08	6396			4.7	Si
SLU 63	733	-28627	-776	332060		4.85	210.86	1.08	6396			8.24	Si
SLU 75	483	-36721	-1313	-155890		6.22	210.86	1.08	6396			4.87	Si
SLU 75	733	-31281	-688	348939		5.3	210.86	1.08	6396			9.3	Si
SLU 61	483	-32736	-1440	-172336		5.54	210.86	1.08	6396			4.44	Si
SLU 61	733	-27699	-864	331352		4.69	210.86	1.08	6396			7.4	Si
SLU 52	483	-30964	-1445	-176936		5.24	210.86	1.08	6396			4.43	Si
SLU 52	733	-26049	-890	315855		4.41	210.86	1.08	6396			7.19	Si
SLU 73	483	-35142	-1442	-173443		5.95	210.86	1.08	6396			4.44	Si
SLU 73	733	-29866	-821	345794		5.06	210.86	1.08	6396			7.79	Si
SLU 54	483	-32542	-1316	-159383		5.51	210.86	1.08	6396			4.86	Si
SLU 54	733	-27464	-757	319000		4.65	210.86	1.08	6396			8.45	Si
SLU 55	483	-31995	-1366	-167576		5.42	210.86	1.08	6396			4.68	Si
SLU 55	733	-26977	-801	316563		4.57	210.86	1.08	6396			7.98	Si
SLU 84	483	-37946	-1358	-159484		6.43	210.86	1.08	6396			4.71	Si
SLU 84	733	-32445	-707	361998		5.5	210.86	1.08	6396			9.04	Si
SLU 76	483	-36174	-1363	-164083		6.13	210.86	1.08	6396			4.69	Si
SLU 76	733	-30795	-733	346501		5.22	210.86	1.08	6396			8.73	Si
SLU 82	483	-36914	-1437	-168844		6.25	210.86	1.08	6396			4.45	Si
SLU 82	733	-31516	-796	361291		5.34	210.86	1.08	6396			8.04	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	483	-19575	-10070	-1258805		5.67	123.37	1.63	5613			0.56	No, Vu<V
SLV 14	733	-20102	-5174	696076		3.4	210.86	1.51	8941			1.73	Si
SLV 15	483	-20963	-10768	-1334704		5.98	125.28	1.63	5700			0.53	No, Vu<V
SLV 15	733	-21638	-5764	768197		3.68	209.79	1.57	9223			1.6	Si
SLV 3	483	-28687	8441	1062156		4.99	205.22	1.63	9337			1.11	Si
SLV 3	733	-20186	4202	-241846		3.42	210.86	1.52	8957			2.13	Si
SLV 4	483	-28687	8441	1062156		4.99	205.22	1.63	9337			1.11	Si
SLV 4	733	-20186	4202	-241846		3.42	210.86	1.52	8957			2.13	Si
SLD 16	483	-22767	-5065	-626459		3.86	210.86	1.6	9474			1.87	Si
SLD 16	733	-20773	-2737	458050		3.52	210.86	1.54	9075			3.32	Si
SLV 16	483	-20963	-10768	-1334704		5.98	125.28	1.63	5700			0.53	No, Vu<V
SLV 16	733	-21638	-5764	768197		3.68	209.79	1.57	9223			1.6	Si
SLD 15	483	-22767	-5065	-626459		3.86	210.86	1.6	9474			1.87	Si
SLD 15	733	-20773	-2737	458050		3.52	210.86	1.54	9075			3.32	Si
SLV 2	483	-27299	9139	1138056		5.1	191.23	1.63	8701			0.95	No, Vu<V
SLV 2	733	-18650	4792	-313967		3.16	210.86	1.47	8650			1.8	Si
SLV 13	483	-19575	-10070	-1258805		5.67	123.37	1.63	5613			0.56	No, Vu<V
SLV 13	733	-20102	-5174	696076		3.4	210.86	1.51	8941			1.73	Si
SLV 1	483	-27299	9139	1138056		5.1	191.23	1.63	8701			0.95	No, Vu<V
SLV 1	733	-18650	4792	-313967		3.16	210.86	1.47	8650			1.8	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.38	2.97	-17530	21980	185787	8.45	Si
SLV 13	14	0.38	2.97	-17530	21980	185787	8.45	Si
SLV 9	14	0.38	3.11	-18333	21980	191439	8.71	Si
SLV 10	14	0.38	3.11	-18333	21980	191439	8.71	Si
SLV 15	14	0.38	3.25	-19196	21980	197236	8.97	Si
SLV 16	14	0.38	3.25	-19196	21980	197236	8.97	Si
SLV 5	14	0.38	3.5	-20687	21980	206569	9.4	Si
SLV 6	14	0.38	3.5	-20687	21980	206569	9.4	Si
SLV 11	14	0.38	4.05	-23886	21980	223682	10.18	Si
SLV 12	14	0.38	4.05	-23886	21980	223682	10.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezz'era = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-17036	-20659	309	0.027	20.275	0.957	41.578	882.77	No
SLV 10	-17036	-20659	309	0.027	20.275	0.957	41.578	882.77	No
SLV 5	-16440	-22976	301	0.027	19.669	0.956	41.656	882.77	No
SLV 6	-16440	-22976	301	0.027	19.669	0.956	41.656	882.77	No
SLV 8	-18613	-27603	-309	0.028	21.879	0.96	42.851	882.77	No
SLV 7	-18613	-27603	-309	0.028	21.879	0.96	42.851	882.77	No
SLV 12	-19209	-25286	-301	0.029	22.485	0.961	43.85	882.77	No
SLV 11	-19209	-25286	-301	0.029	22.485	0.961	43.85	882.77	No
SLV 3	-17157	-28687	-105	0.038	20.398	0.958	57.95	967.392	No
SLV 4	-17157	-28687	-105	0.038	20.398	0.958	57.95	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.075	SLU 84	Si
V_SLU	4.427	SLU 52	Si
PF_SLV	1.175	SLV 15	Si
V_SLV	0.529	SLV 15	No
PFFP_SLV	8.453	SLV 13	Si
R_SLV	0.047	SLV 9	No

Maschio 127

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-496.8	104.6	-647.8	104.6	L4	L5	151	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	483	-24015	-95376	5.68	548857	5.755	Si
SLU 77	693	-23926	170957	5.66	551477	3.226	Si
SLU 81	483	-23023	-85261	5.45	576262	6.759	Si
SLU 81	693	-23642	159265	5.59	559650	3.514	Si
SLU 84	483	-23750	-91442	5.62	556596	6.087	Si
SLU 84	693	-24461	168939	5.79	535124	3.168	Si
SLU 79	483	-23709	-93129	5.61	557768	5.989	Si
SLU 79	693	-23560	167408	5.57	561970	3.357	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	483	-23812	-91734	5.63	554828	6.048	Si
SLU 83	693	-24203	168581	5.72	543175	3.222	Si
SLU 78	483	-23954	-95083	5.67	550679	5.792	Si
SLU 78	693	-24185	171315	5.72	543739	3.174	Si
SLU 74	483	-23226	-88902	5.49	570995	6.423	Si
SLU 74	693	-23366	161641	5.53	567272	3.509	Si
SLU 82	483	-22961	-84968	5.43	577817	6.8	Si
SLU 82	693	-23901	159623	5.65	552234	3.46	Si
SLU 80	483	-23648	-92837	5.59	559507	6.027	Si
SLU 80	693	-23818	167765	5.63	554648	3.306	Si
SLU 75	483	-23165	-88610	5.48	572604	6.462	Si
SLU 75	693	-23624	161998	5.59	560169	3.458	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	483	-16774	650701	3.97	855229	1.314	Si
SLV 4	693	-15959	-542351	3.77	832686	1.535	Si
SLV 15	483	-15140	-788987	3.58	808072	1.024	Si
SLV 15	693	-15093	786637	3.57	806604	1.025	Si
SLV 14	483	-14213	-758974	3.36	777849	1.025	Si
SLV 14	693	-14627	738950	3.46	791668	1.071	Si
SLV 2	483	-15847	680714	3.75	829434	1.218	Si
SLV 2	693	-15493	-590038	3.66	818929	1.388	Si
SLV 3	483	-16774	650701	3.97	855229	1.314	Si
SLV 3	693	-15959	-542351	3.77	832686	1.535	Si
SLD 16	483	-15339	-368130	3.63	814231	2.212	Si
SLD 16	693	-15206	392286	3.6	810118	2.065	Si
SLV 1	483	-15847	680714	3.75	829434	1.218	Si
SLV 1	693	-15493	-590038	3.66	818929	1.388	Si
SLV 13	483	-14213	-758974	3.36	777849	1.025	Si
SLV 13	693	-14627	738950	3.46	791668	1.071	Si
SLD 15	483	-15339	-368130	3.63	814231	2.212	Si
SLD 15	693	-15206	392286	3.6	810118	2.065	Si
SLV 16	483	-15140	-788987	3.58	808072	1.024	Si
SLV 16	693	-15093	786637	3.57	806604	1.025	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 35	483	-20569	-1406	-83686		4.86	151	1.08	4580			3.26	Si
SLU 35	693	-20766	-1406	151964		4.91	151	1.08	4580			3.26	Si
SLU 56	483	-21627	-1406	-87126		5.12	151	1.08	4580			3.26	Si
SLU 56	693	-21158	-1406	151359		5	151	1.08	4580			3.26	Si
SLU 84	483	-23750	-1438	-91442		5.62	151	1.08	4580			3.18	Si
SLU 84	693	-24461	-1435	168939		5.79	151	1.08	4580			3.19	Si
SLU 74	483	-23226	-1502	-88902		5.49	151	1.08	4580			3.05	Si
SLU 74	693	-23366	-1501	161641		5.53	151	1.08	4580			3.05	Si
SLU 79	483	-23709	-1543	-93129		5.61	151	1.08	4580			2.97	Si
SLU 79	693	-23560	-1542	167408		5.57	151	1.08	4580			2.97	Si
SLU 81	483	-23023	-1478	-85261		5.45	151	1.08	4580			3.1	Si
SLU 81	693	-23642	-1478	159265		5.59	151	1.08	4580			3.1	Si
SLU 78	483	-23954	-1462	-95083		5.67	151	1.08	4580			3.13	Si
SLU 78	693	-24185	-1458	171315		5.72	151	1.08	4580			3.14	Si
SLU 77	483	-24015	-1583	-95376		5.68	151	1.08	4580			2.89	Si
SLU 77	693	-23926	-1583	170957		5.66	151	1.08	4580			2.89	Si
SLU 80	483	-23648	-1421	-92837		5.59	151	1.08	4580			3.22	Si
SLU 80	693	-23818	-1418	167765		5.63	151	1.08	4580			3.23	Si
SLU 83	483	-23812	-1560	-91734		5.63	151	1.08	4580			2.94	Si
SLU 83	693	-24203	-1560	168581		5.72	151	1.08	4580			2.94	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	483	-15140	-10279	-788987		7.71	70.16	1.63	3192			0.31	No, Vu<V
SLV 15	693	-15093	-9910	786637		7.68	70.14	1.63	3191			0.32	No, Vu<V
SLV 13	483	-14213	-8481	-758974		7.66	66.3	1.63	3017			0.36	No, Vu<V
SLV 13	693	-14627	-8195	738950		6.97	74.94	1.63	3410			0.42	No, Vu<V
SLV 1	483	-15847	8459	680714		5.8	97.63	1.63	4442			0.53	No, Vu<V
SLV 1	693	-15493	8090	-590038		4.93	112.25	1.63	5107			0.63	No, Vu<V
SLV 14	483	-14213	-8481	-758974		7.66	66.3	1.63	3017			0.36	No, Vu<V
SLV 14	693	-14627	-8195	738950		6.97	74.94	1.63	3410			0.42	No, Vu<V
SLV 3	483	-16774	6660	650701		5.44	110.12	1.63	5011			0.75	No, Vu<V
SLV 3	693	-15959	6375	-542351		4.58	124.55	1.63	5667			0.89	No, Vu<V
SLV 4	483	-16774	6660	650701		5.44	110.12	1.63	5011			0.75	No, Vu<V
SLV 4	693	-15959	6375	-542351		4.58	124.55	1.63	5667			0.89	No, Vu<V
SLV 11	483	-16793	-6449	-320111		3.97	151	1.63	6871			1.07	Si
SLV 11	693	-15940	-6210	377126		3.77	151	1.59	6711			1.08	Si
SLV 12	483	-16793	-6449	-320111		3.97	151	1.63	6871			1.07	Si
SLV 12	693	-15940	-6210	377126		3.77	151	1.59	6711			1.08	Si
SLV 16	483	-15140	-10279	-788987		7.71	70.16	1.63	3192			0.31	No, Vu<V
SLV 16	693	-15093	-9910	786637		7.68	70.14	1.63	3191			0.32	No, Vu<V
SLV 2	483	-15847	8459	680714		5.8	97.63	1.63	4442			0.53	No, Vu<V
SLV 2	693	-15493	8090	-590038		4.93	112.25	1.63	5107			0.63	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.38	3.29	-13900	15740	142239	9.04	Si
SLV 10	14	0.38	3.29	-13900	15740	142239	9.04	Si



Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.38	3.35	-14149	15740	143833	9.14	Si
SLV 5	14	0.38	3.35	-14149	15740	143833	9.14	Si
SLV 14	14	0.38	3.4	-14356	15740	145132	9.22	Si
SLV 13	14	0.38	3.4	-14356	15740	145132	9.22	Si
SLV 16	14	0.38	3.55	-14996	15740	149002	9.47	Si
SLV 15	14	0.38	3.55	-14996	15740	149002	9.47	Si
SLV 2	14	0.38	3.59	-15186	15740	150109	9.54	Si
SLV 1	14	0.38	3.59	-15186	15740	150109	9.54	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 10	-11752	-13703	160	0.032	14.065	0.956	48.123	882.77	No
SLV 9	-11752	-13703	160	0.032	14.065	0.956	48.123	882.77	No
SLV 5	-11678	-14193	159	0.032	13.989	0.956	48.16	882.77	No
SLV 6	-11678	-14193	159	0.032	13.989	0.956	48.16	882.77	No
SLV 7	-12437	-17283	-159	0.032	14.761	0.958	48.731	882.77	No
SLV 8	-12437	-17283	-159	0.032	14.761	0.958	48.731	882.77	No
SLV 12	-12511	-16793	-158	0.032	14.837	0.958	48.875	882.77	No
SLV 11	-12511	-16793	-158	0.032	14.837	0.958	48.875	882.77	No
SLV 14	-12104	-14213	49	0.04	14.423	0.957	60.833	967.392	No
SLV 13	-12104	-14213	49	0.04	14.423	0.957	60.833	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.168	SLU 84	Si
V_SLU	2.893	SLU 77	Si
PF_SLV	1.024	SLV 15	Si
V_SLV	0.311	SLV 15	No
PFFP_SLV	9.037	SLV 9	Si
R_SLV	0.055	SLV 9	No

Maschio 128

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-12.3	104.6	-416.8	104.6	L4	L5	404.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ ₀	f _{v0}	μ	φ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 75	483	-50543	267669	4.46	4622197	17.268	Si
SLU 75	693	-48296	866465	4.26	4654597	5.372	Si
SLU 83	483	-51258	285519	4.53	4607229	16.136	Si
SLU 83	693	-49493	924986	4.37	4640085	5.016	Si
SLU 80	483	-50750	256664	4.48	4618098	17.993	Si
SLU 80	693	-48550	900211	4.29	4652040	5.168	Si
SLU 77	483	-51092	262059	4.51	4610896	17.595	Si
SLU 77	693	-49051	936255	4.33	4646181	4.963	Si
SLU 84	483	-51583	285850	4.55	4599695	16.091	Si
SLU 84	693	-49724	906219	4.39	4636566	5.116	Si
SLU 74	483	-50218	267339	4.43	4628249	17.312	Si
SLU 74	693	-48065	885233	4.24	4656671	5.26	Si
SLU 78	483	-51417	262389	4.54	4603598	17.545	Si
SLU 78	693	-49281	917488	4.35	4643110	5.061	Si
SLU 81	483	-50383	290800	4.45	4625218	15.905	Si
SLU 81	693	-48508	873964	4.28	4652486	5.323	Si
SLU 79	483	-50425	256333	4.45	4624445	18.041	Si
SLU 79	693	-48319	918978	4.27	4654372	5.065	Si
SLU 82	483	-50708	291130	4.48	4618929	15.866	Si
SLU 82	693	-48738	855196	4.3	4649965	5.437	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γ_M = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 1	483	-29051	1774244	2.56	4642166	2.616	Si
SLV 1	693	-20452	-276661	1.81	3525151	12.742	Si
SLD 4	483	-32391	907828	2.86	5017725	5.527	Si
SLD 4	693	-27455	229091	2.42	4451172	19.43	Si
SLV 16	483	-40055	-1440182	3.54	5756353	3.997	Si
SLV 16	693	-43720	1344909	3.86	6048867	4.498	Si
SLV 15	483	-40055	-1440182	3.54	5756353	3.997	Si
SLV 15	693	-43720	1344909	3.86	6048867	4.498	Si
SLV 3	483	-29510	1900764	2.61	4695728	2.47	Si
SLV 3	693	-21278	-177907	1.88	3641739	20.47	Si
SLV 13	483	-39596	-1566702	3.5	5716942	3.649	Si
SLV 13	693	-42894	1246155	3.79	5986417	4.804	Si
SLV 14	483	-39596	-1566702	3.5	5716942	3.649	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	693	-42894	1246155	3.79	5986417	4.804	Si
SLD 3	483	-32391	907828	2.86	5017725	5.527	Si
SLD 3	693	-27455	229091	2.42	4451172	19.43	Si
SLV 4	483	-29510	1900764	2.61	4695728	2.47	Si
SLV 4	693	-21278	-177907	1.88	3641739	20.47	Si
SLV 2	483	-29051	1774244	2.56	4642166	2.616	Si
SLV 2	693	-20452	-276661	1.81	3525151	12.742	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	483	-50383	-6359	290800		4.45	404.5	1.08	12270			1.93	Si
SLU 81	693	-48508	-6369	873964		4.28	404.5	1.08	12270			1.93	Si
SLU 80	483	-50750	-6319	256664		4.48	404.5	1.08	12270			1.94	Si
SLU 80	693	-48550	-6365	900211		4.29	404.5	1.08	12270			1.93	Si
SLU 37	483	-42277	-6131	233043		3.73	404.5	1.05	11929			1.95	Si
SLU 37	693	-41331	-6139	828540		3.65	404.5	1.04	11803			1.92	Si
SLU 77	483	-51092	-6633	262059		4.51	404.5	1.08	12270			1.85	Si
SLU 77	693	-49051	-6643	936255		4.33	404.5	1.08	12270			1.85	Si
SLU 79	483	-50425	-6517	256333		4.45	404.5	1.08	12270			1.88	Si
SLU 79	693	-48319	-6527	918978		4.27	404.5	1.08	12270			1.88	Si
SLU 84	483	-51583	-6536	285850		4.55	404.5	1.08	12270			1.88	Si
SLU 84	693	-49724	-6582	906219		4.39	404.5	1.08	12270			1.86	Si
SLU 41	483	-43111	-6348	262230		3.81	404.5	1.06	12040			1.9	Si
SLU 41	693	-42504	-6356	834548		3.75	404.5	1.06	11959			1.88	Si
SLU 83	483	-51258	-6734	285519		4.53	404.5	1.08	12270			1.82	Si
SLU 83	693	-49493	-6744	924986		4.37	404.5	1.08	12270			1.82	Si
SLU 78	483	-51417	-6435	262389		4.54	404.5	1.08	12270			1.91	Si
SLU 78	693	-49281	-6481	917488		4.35	404.5	1.08	12270			1.89	Si
SLU 35	483	-42945	-6247	238769		3.79	404.5	1.06	12018			1.92	Si
SLU 35	693	-42062	-6255	845817		3.71	404.5	1.05	11900			1.9	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	483	-40055	-21538	-1440182		3.54	404.5	1.54	17449			0.81	No, Vu<V
SLV 16	693	-43720	-20349	1344909		3.86	404.5	1.61	18182			0.89	No, Vu<V
SLD 15	483	-36904	-11199	-521370		3.26	404.5	1.49	16819			1.5	Si
SLD 15	693	-37058	-10699	879344		3.27	404.5	1.49	16850			1.57	Si
SLV 14	483	-39596	-20778	-1566702		3.5	404.5	1.53	17357			0.84	No, Vu<V
SLV 14	693	-42894	-19571	1246155		3.79	404.5	1.59	18017			0.92	No, Vu<V
SLV 1	483	-29051	14557	1774244		2.56	404.5	1.35	15249			1.05	Si
SLV 1	693	-20452	13355	-276661		1.81	404.5	1.19	13529			1.01	Si
SLV 13	483	-39596	-20778	-1566702		3.5	404.5	1.53	17357			0.84	No, Vu<V
SLV 13	693	-42894	-19571	1246155		3.79	404.5	1.59	18017			0.92	No, Vu<V
SLV 4	483	-29510	13797	1900764		2.61	404.5	1.35	15340			1.11	Si
SLV 4	693	-21278	12576	-177907		1.88	404.5	1.21	13694			1.09	Si
SLV 15	483	-40055	-21538	-1440182		3.54	404.5	1.54	17449			0.81	No, Vu<V
SLV 15	693	-43720	-20349	1344909		3.86	404.5	1.61	18182			0.89	No, Vu<V
SLV 3	483	-29510	13797	1900764		2.61	404.5	1.35	15340			1.11	Si
SLV 3	693	-21278	12576	-177907		1.88	404.5	1.21	13694			1.09	Si
SLD 16	483	-36904	-11199	-521370		3.26	404.5	1.49	16819			1.5	Si
SLD 16	693	-37058	-10699	879344		3.27	404.5	1.49	16850			1.57	Si
SLV 2	483	-29051	14557	1774244		2.56	404.5	1.35	15249			1.05	Si
SLV 2	693	-20452	13355	-276661		1.81	404.5	1.19	13529			1.01	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.38	1.93	-21830	42164	257412	6.1	Si
SLV 2	14	0.38	1.93	-21830	42164	257412	6.1	Si
SLV 4	14	0.38	2	-22676	42164	265441	6.3	Si
SLV 3	14	0.38	2	-22676	42164	265441	6.3	Si
SLV 5	14	0.38	2.47	-27988	42164	312585	7.41	Si
SLV 6	14	0.38	2.47	-27988	42164	312585	7.41	Si
SLV 7	14	0.38	2.72	-30806	42164	335277	7.95	Si
SLV 8	14	0.38	2.72	-30806	42164	335277	7.95	Si
SLV 10	14	0.38	3.01	-34111	42164	359843	8.53	Si
SLV 9	14	0.38	3.01	-34111	42164	359843	8.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-26630	-33736	-536	0.027	32.748	0.95	40.913	882.77	No
SLV 8	-26630	-33736	-536	0.027	32.748	0.95	40.913	882.77	No
SLV 10	-28545	-35370	537	0.027	34.693	0.953	41.94	882.77	No
SLV 9	-28545	-35370	537	0.027	34.693	0.953	41.94	882.77	No
SLV 6	-25309	-32206	494	0.028	31.407	0.948	42.304	882.77	No
SLV 5	-25309	-32206	494	0.028	31.407	0.948	42.304	882.77	No
SLV 12	-29866	-36900	-493	0.029	36.034	0.954	44.615	882.77	No
SLV 11	-29866	-36900	-493	0.029	36.034	0.954	44.615	882.77	No
SLV 4	-22392	-29510	-226	0.037	28.448	0.944	56.325	967.392	No
SLV 3	-22392	-29510	-226	0.037	28.448	0.944	56.325	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.963	SLU 77	Si
V_SLU	1.819	SLU 83	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.47	SLV 3	Si
V_SLV	0.81	SLV 15	No
PFFP_SLV	6.105	SLV 1	Si
R_SLV	0.046	SLV 7	No

Maschio 130

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-972.8	220.1	-972.8	666.1	L4	L5	446	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 61	483	-33471	-410079	5.36	2552228	6.224	Si
SLU 61	835	-19670	-232386	3.15	2690067	11.576	Si
SLU 19	483	-27720	-324288	4.44	2812620	8.673	Si
SLU 19	835	-16329	-186537	2.62	2472345	13.254	Si
SLU 65	483	-30902	-310989	4.95	2704380	8.696	Si
SLU 65	835	-18183	-174927	2.91	2605218	14.893	Si
SLU 60	483	-33445	-405400	5.36	2554021	6.3	Si
SLU 60	835	-19655	-229850	3.15	2689297	11.7	Si
SLU 81	483	-36218	-373401	5.8	2325500	6.228	Si
SLU 81	835	-21372	-216795	3.42	2763345	12.746	Si
SLU 82	483	-36243	-378080	5.8	2323087	6.144	Si
SLU 82	835	-21387	-219330	3.43	2763885	12.601	Si
SLU 52	483	-31880	-392135	5.11	2653256	6.766	Si
SLU 52	835	-18716	-220248	3	2637865	11.977	Si
SLU 43	483	-28087	-335189	4.5	2804669	8.367	Si
SLU 43	835	-16440	-183757	2.63	2481152	13.502	Si
SLU 73	483	-34653	-360137	5.55	2462780	6.838	Si
SLU 73	835	-20433	-207192	3.27	2726052	13.157	Si
SLU 44	483	-28129	-342988	4.51	2803672	8.174	Si
SLU 44	835	-16465	-187982	2.64	2483148	13.209	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 10	483	-26372	-1011512	4.22	3848150	3.804	Si
SLV 10	835	-14924	-361206	2.39	2676982	7.411	Si
SLV 9	483	-26372	-1011512	4.22	3848150	3.804	Si
SLV 9	835	-14924	-361206	2.39	2676982	7.411	Si
SLV 6	483	-27238	-1053745	4.36	3905573	3.706	Si
SLV 6	835	-15203	-376744	2.43	2714755	7.206	Si
SLD 9	483	-25065	-571971	4.01	3753190	6.562	Si
SLD 9	835	-14510	-236775	2.32	2620388	11.067	Si
SLD 6	483	-25432	-589368	4.07	3780839	6.415	Si
SLD 6	835	-14632	-243375	2.34	2637106	10.836	Si
SLV 5	483	-27238	-1053745	4.36	3905573	3.706	Si
SLV 5	835	-15203	-376744	2.43	2714755	7.206	Si
SLD 10	483	-25065	-571971	4.01	3753190	6.562	Si
SLD 10	835	-14510	-236775	2.32	2620388	11.067	Si
SLV 11	483	-21162	545148	3.39	3410166	6.255	Si
SLV 11	835	-13262	89950	2.12	2443327	27.163	Si
SLD 5	483	-25432	-589368	4.07	3780839	6.415	Si
SLD 5	835	-14632	-243375	2.34	2637106	10.836	Si
SLV 12	483	-21162	545148	3.39	3410166	6.255	Si
SLV 12	835	-13262	89950	2.12	2443327	27.163	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	483	-23355	1114	51939		3.74	446	1.05	6583			5.91	Si
SLU 30	835	-13984	1128	13794		2.24	446	0.85	5333			4.73	Si
SLU 37	483	-27080	1064	7470		4.34	446	1.08	6764			6.36	Si
SLU 37	835	-16219	1078	-15936		2.6	446	0.9	5631			5.22	Si
SLU 71	483	-29080	1083	-29173		4.66	446	1.08	6764			6.24	Si
SLU 71	835	-17310	1098	-29519		2.77	446	0.93	5777			5.26	Si
SLU 29	483	-23330	1120	56618		3.74	446	1.05	6579			5.87	Si
SLU 29	835	-13969	1135	16330		2.24	446	0.85	5331			4.7	Si
SLU 8	483	-20557	977	24619		3.29	446	0.99	6210			6.36	Si
SLU 8	835	-12251	989	3274		1.96	446	0.82	5102			5.16	Si
SLU 27	483	-24102	1042	20587		3.86	446	1.07	6683			6.41	Si
SLU 27	835	-14520	1056	-1128		2.33	446	0.87	5405			5.12	Si
SLU 38	483	-27106	1057	2791		4.34	446	1.08	6764			6.4	Si
SLU 38	835	-16234	1072	-18471		2.6	446	0.9	5633			5.26	Si
SLU 9	483	-20583	970	19940		3.3	446	1	6213			6.41	Si
SLU 9	835	-12267	982	739		1.96	446	0.82	5104			5.2	Si
SLU 28	483	-24128	1036	15908		3.86	446	1.07	6686			6.46	Si
SLU 28	835	-14535	1049	-3664		2.33	446	0.87	5407			5.15	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	483	-29105	1077	-33852		4.66	446	1.08	6764			6.28	Si
SLU 72	835	-17325	1092	-32054		2.77	446	0.93	5779			5.29	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	483	-22028	7421	502915		3.53	446	1.54	9609			1.29	Si
SLV 7	835	-13542	5991	74413		2.17	446	1.27	7912			1.32	Si
SLV 6	483	-27238	-6925	-1053745		4.36	446	1.63	10146			1.47	Si
SLV 6	835	-15203	-5384	-376744		2.43	446	1.32	8244			1.53	Si
SLV 8	483	-22028	7421	502915		3.53	446	1.54	9609			1.29	Si
SLV 8	835	-13542	5991	74413		2.17	446	1.27	7912			1.32	Si
SLV 12	483	-21162	7057	545148		3.39	446	1.51	9436			1.34	Si
SLV 12	835	-13262	5525	89950		2.12	446	1.26	7856			1.42	Si
SLV 5	483	-27238	-6925	-1053745		4.36	446	1.63	10146			1.47	Si
SLV 5	835	-15203	-5384	-376744		2.43	446	1.32	8244			1.53	Si
SLD 7	483	-23335	3151	63374		3.74	446	1.58	9870			3.13	Si
SLD 7	835	-13955	2568	-50019		2.23	446	1.28	7994			3.11	Si
SLV 10	483	-26372	-7289	-1011512		4.22	446	1.63	10146			1.39	Si
SLV 10	835	-14924	-5851	-361206		2.39	446	1.31	8188			1.4	Si
SLV 9	483	-26372	-7289	-1011512		4.22	446	1.63	10146			1.39	Si
SLV 9	835	-14924	-5851	-361206		2.39	446	1.31	8188			1.4	Si
SLV 11	483	-21162	7057	545148		3.39	446	1.51	9436			1.34	Si
SLV 11	835	-13262	5525	89950		2.12	446	1.26	7856			1.42	Si
SLD 8	483	-23335	3151	63374		3.74	446	1.58	9870			3.13	Si
SLD 8	835	-13955	2568	-50019		2.23	446	1.28	7994			3.11	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.38	2.6	-16231	22188	89446	4.03	Si
SLV 16	14	0.38	2.6	-16231	22188	89446	4.03	Si
SLV 14	14	0.38	2.61	-16287	22188	89671	4.04	Si
SLV 13	14	0.38	2.61	-16287	22188	89671	4.04	Si
SLV 12	14	0.38	3.12	-19508	22188	101639	4.58	Si
SLV 11	14	0.38	3.12	-19508	22188	101639	4.58	Si
SLV 9	14	0.38	3.15	-19695	22188	102275	4.61	Si
SLV 10	14	0.38	3.15	-19695	22188	102275	4.61	Si
SLV 8	14	0.38	3.58	-22373	22188	110685	4.99	Si
SLV 7	14	0.38	3.58	-22373	22188	110685	4.99	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-13517	-21975	-88	0.017	16.872	0.947	25.684	1649.904	No
SLV 16	-13517	-21975	-88	0.017	16.872	0.947	25.684	1649.904	No
SLV 1	-14948	-26425	89	0.017	18.325	0.951	25.918	1649.904	No
SLV 2	-14948	-26425	89	0.017	18.325	0.951	25.918	1649.904	No
SLV 3	-14450	-24862	75	0.018	17.819	0.95	27.128	1649.904	No
SLV 4	-14450	-24862	75	0.018	17.819	0.95	27.128	1649.904	No
SLV 14	-14015	-23538	-74	0.018	17.378	0.949	27.147	1649.904	No
SLV 13	-14015	-23538	-74	0.018	17.378	0.949	27.147	1649.904	No
SLV 6	-15203	-27238	48	0.019	18.584	0.952	29.575	1649.904	No
SLV 5	-15203	-27238	48	0.019	18.584	0.952	29.575	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.144	SLU 82	Si
V_SLU	4.698	SLU 29	Si
PF_SLV	3.706	SLV 5	Si
V_SLV	1.295	SLV 7	Si
PFFP_SLV	4.031	SLV 15	Si
R_SLV	0.016	SLV 15	No

Maschio 131

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-944.8	-335.9	-1100.3	-335.9	L4	L5	155.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	483	-14332	23879	3.29	664026	27.808	Si
SLU 81	693	-13937	-139682	3.2	657792	4.709	Si
SLU 82	483	-14309	28953	3.29	663681	22.923	Si
SLU 82	693	-13989	-145485	3.21	658656	4.527	Si
SLU 73	483	-13814	29800	3.17	655702	22.003	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	693	-13490	-138815	3.1	649905	4.682	Si
SLU 84	483	-14858	22146	3.41	671260	30.31	Si
SLU 84	693	-14419	-138852	3.31	665300	4.791	Si
SLU 75	483	-14409	21132	3.31	665151	31.476	Si
SLU 75	693	-13958	-131627	3.21	658145	5	Si
SLU 83	483	-14881	17072	3.42	671550	39.336	Si
SLU 83	693	-14367	-133049	3.3	664534	4.995	Si
SLU 31	483	-11276	30676	2.59	597967	19.493	Si
SLU 31	693	-11241	-123915	2.58	596993	4.818	Si
SLU 40	483	-11771	29829	2.7	611460	20.499	Si
SLU 40	693	-11741	-130585	2.7	610670	4.676	Si
SLU 39	483	-11794	24754	2.71	612062	24.726	Si
SLU 39	693	-11689	-124783	2.68	609291	4.883	Si
SLU 76	483	-14362	22994	3.3	664474	28.898	Si
SLU 76	693	-13919	-132182	3.2	657490	4.974	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	483	-10959	-354571	2.52	676520	1.908	Si
SLV 16	693	-4027	302852	0.92	289413	0.956	No, M>Mu
SLV 4	483	-6002	430771	1.38	414022	0.961	No, M>Mu
SLV 4	693	-12631	-473082	2.9	748881	1.583	Si
SLV 2	483	-8913	377743	2.05	576892	1.527	Si
SLV 2	693	-14891	-469551	3.42	833707	1.776	Si
SLV 8	483	-4341	217767	1	309966	1.423	Si
SLV 8	693	-6982	-205624	1.6	471630	2.294	Si
SLV 14	483	-13869	-407599	3.19	797219	1.956	Si
SLV 14	693	-6288	306382	1.44	431080	1.407	Si
SLV 1	483	-8913	377743	2.05	576892	1.527	Si
SLV 1	693	-14891	-469551	3.42	833707	1.776	Si
SLV 3	483	-6002	430771	1.38	414022	0.961	No, M>Mu
SLV 3	693	-12631	-473082	2.9	748881	1.583	Si
SLV 15	483	-10959	-354571	2.52	676520	1.908	Si
SLV 15	693	-4027	302852	0.92	289413	0.956	No, M>Mu
SLV 13	483	-13869	-407599	3.19	797219	1.956	Si
SLV 13	693	-6288	306382	1.44	431080	1.407	Si
SLV 7	483	-4341	217767	1	309966	1.423	Si
SLV 7	693	-6982	-205624	1.6	471630	2.294	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	483	-13814	1331	29800		3.17	155.5	0.98	4261			3.2	Si
SLU 73	693	-13490	2272	-138815		3.1	155.5	0.97	4218			1.86	Si
SLU 82	483	-14309	1332	28953		3.29	155.5	0.99	4327			3.25	Si
SLU 82	693	-13989	2401	-145485		3.21	155.5	0.98	4284			1.78	Si
SLU 84	483	-14858	1234	22146		3.41	155.5	1.01	4400			3.56	Si
SLU 84	693	-14419	2246	-138852		3.31	155.5	1	4341			1.93	Si
SLU 61	483	-13500	1086	19984		3.1	155.5	0.97	4219			3.88	Si
SLU 61	693	-12863	2104	-126824		2.95	155.5	0.95	4134			1.96	Si
SLU 31	483	-11276	1204	30676		2.59	155.5	0.9	3922			3.26	Si
SLU 31	693	-11241	2007	-123915		2.58	155.5	0.9	3918			1.95	Si
SLU 81	483	-14332	1254	23879		3.29	155.5	0.99	4330			3.45	Si
SLU 81	693	-13937	2343	-139682		3.2	155.5	0.98	4277			1.83	Si
SLU 39	483	-11794	1126	24754		2.71	155.5	0.92	3991			3.54	Si
SLU 39	693	-11689	2078	-124783		2.68	155.5	0.91	3977			1.91	Si
SLU 40	483	-11771	1205	29829		2.7	155.5	0.92	3988			3.31	Si
SLU 40	693	-11741	2136	-130585		2.7	155.5	0.92	3984			1.87	Si
SLU 83	483	-14881	1156	17072		3.42	155.5	1.01	4403			3.81	Si
SLU 83	693	-14367	2188	-133049		3.3	155.5	1	4334			1.98	Si
SLU 75	483	-14409	1218	21132		3.31	155.5	1	4340			3.56	Si
SLU 75	693	-13958	2131	-131627		3.21	155.5	0.98	4280			2.01	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	483	-8913	6754	377743		3	106.11	1.43	4258			0.63	No, Vu<V
SLV 2	693	-14891	6282	-469551		3.84	138.65	1.6	6213			0.99	No, Vu<V
SLV 15	483	-10959	-5134	-354571		2.87	136.18	1.41	5369			1.05	Si
SLV 15	693	-4027	-3445	302852		18.81	7.65	1.63	348			0.1	No, Vu<V
SLV 13	483	-13869	-6013	-407599		3.41	145.08	1.52	6159			1.02	Si
SLV 13	693	-6288	-4618	306382		2.58	87.06	1.35	3289			0.71	No, Vu<V
SLV 1	483	-8913	6754	377743		3	106.11	1.43	4258			0.63	No, Vu<V
SLV 1	693	-14891	6282	-469551		3.84	138.65	1.6	6213			0.99	No, Vu<V
SLV 14	483	-13869	-6013	-407599		3.41	145.08	1.52	6159			1.02	Si
SLV 14	693	-6288	-4618	306382		2.58	87.06	1.35	3289			0.71	No, Vu<V
SLV 7	483	-4341	4189	217767		1.87	82.75	1.21	2799			0.67	No, Vu<V
SLV 7	693	-6982	5007	-205624		1.72	144.9	1.18	4778			0.95	No, Vu<V
SLV 4	483	-6002	7633	430771		11.95	17.94	1.63	816			0.11	No, Vu<V
SLV 4	693	-12631	7455	-473082		3.73	120.88	1.58	5347			0.72	No, Vu<V
SLV 16	483	-10959	-5134	-354571		2.87	136.18	1.41	5369			1.05	Si
SLV 16	693	-4027	-3445	302852		18.81	7.65	1.63	348			0.1	No, Vu<V
SLV 3	483	-6002	7633	430771		11.95	17.94	1.63	816			0.11	No, Vu<V
SLV 3	693	-12631	7455	-473082		3.73	120.88	1.58	5347			0.72	No, Vu<V
SLV 8	483	-4341	4189	217767		1.87	82.75	1.21	2799			0.67	No, Vu<V
SLV 8	693	-6982	5007	-205624		1.72	144.9	1.18	4778			0.95	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

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Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.38	0.94	-4103	15841	53014	3.35	Si
SLV 15	14	0.38	0.94	-4103	15841	53014	3.35	Si
SLV 12	14	0.38	1.12	-4862	15841	61844	3.9	Si
SLV 11	14	0.38	1.12	-4862	15841	61844	3.9	Si
SLV 13	14	0.38	1.43	-6227	15841	76971	4.86	Si
SLV 14	14	0.38	1.43	-6227	15841	76971	4.86	Si
SLV 7	14	0.38	1.75	-7635	15841	91555	5.78	Si
SLV 8	14	0.38	1.75	-7635	15841	91555	5.78	Si
SLV 10	14	0.38	2.74	-11940	15841	129645	8.18	Si
SLV 9	14	0.38	2.74	-11940	15841	129645	8.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-3401	-4341	-230	0.003	5.695	0.907	5.149	882.77	No
SLV 7	-3401	-4341	-230	0.003	5.695	0.907	5.149	882.77	No
SLV 11	-3949	-5828	-193	0.014	6.239	0.912	22.157	882.77	No
SLV 12	-3949	-5828	-193	0.014	6.239	0.912	22.157	882.77	No
SLV 10	-11199	-15531	278	0.022	13.566	0.953	33.532	882.77	No
SLV 9	-11199	-15531	278	0.022	13.566	0.953	33.532	882.77	No
SLV 5	-10651	-14044	241	0.024	13.009	0.952	37.049	882.77	No
SLV 6	-10651	-14044	241	0.024	13.009	0.952	37.049	882.77	No
SLV 13	-9301	-13869	157	0.03	11.639	0.947	46.422	967.392	No
SLV 14	-9301	-13869	157	0.03	11.639	0.947	46.422	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.527	SLU 82	Si
V_SLU	1.784	SLU 82	Si
PF_SLV	0.956	SLV 15	No
V_SLV	0.101	SLV 15	No
PFFP_SLV	3.347	SLV 15	Si
R_SLV	0.006	SLV 7	No

Maschio 132

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-626.8	-335.9	-626.8	104.6	L4	L5	440.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 34	483	-27222	242739	4.41	2746663	11.315	Si
SLU 34	835	-17455	393083	2.83	2508683	6.382	Si
SLU 78	483	-32782	310123	5.32	2508559	8.089	Si
SLU 78	835	-21528	428591	3.49	2709579	6.322	Si
SLU 31	483	-26531	219604	4.3	2757323	12.556	Si
SLU 31	835	-16802	380439	2.72	2462870	6.474	Si
SLU 84	483	-33175	302362	5.38	2481439	8.207	Si
SLU 84	835	-21415	424210	3.47	2705981	6.379	Si
SLU 68	483	-28592	215926	4.64	2713169	12.565	Si
SLU 68	835	-18379	389687	2.98	2567004	6.587	Si
SLU 73	483	-31241	241762	5.07	2601711	10.761	Si
SLU 73	835	-19828	422666	3.22	2643399	6.254	Si
SLU 82	483	-32484	279227	5.27	2528171	9.054	Si
SLU 82	835	-20761	411566	3.37	2682875	6.519	Si
SLU 75	483	-32091	286988	5.2	2552906	8.896	Si
SLU 75	835	-20874	415947	3.38	2687118	6.46	Si
SLU 80	483	-32435	304510	5.26	2531345	8.313	Si
SLU 80	835	-21168	417301	3.43	2697689	6.465	Si
SLU 76	483	-31932	264897	5.18	2562515	9.674	Si
SLU 76	835	-20482	435310	3.32	2671858	6.138	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	483	-23994	610038	3.89	3601902	5.904	Si
SLV 3	835	-13152	469244	2.13	2391117	5.096	Si
SLV 12	483	-17605	449260	2.85	2971567	6.614	Si
SLV 12	835	-12748	53193	2.07	2332764	43.854	Si
SLV 2	483	-25608	390685	4.15	3723380	9.53	Si
SLV 2	835	-13850	528547	2.25	2489730	4.711	Si
SLV 5	483	-25064	-89601	4.06	3684175	41.118	Si
SLV 5	835	-14885	410960	2.41	2630765	6.402	Si
SLV 8	483	-19685	641579	3.19	3202948	4.992	Si
SLV 8	835	-12559	213285	2.04	2305059	10.807	Si
SLV 6	483	-25064	-89601	4.06	3684175	41.118	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	835	-14885	410960	2.41	2630765	6.402	Si
SLV 1	483	-25608	390685	4.15	3723380	9.53	Si
SLV 1	835	-13850	528547	2.25	2489730	4.711	Si
SLV 4	483	-23994	610038	3.89	3601902	5.904	Si
SLV 4	835	-13152	469244	2.13	2391117	5.096	Si
SLV 7	483	-19685	641579	3.19	3202948	4.992	Si
SLV 7	835	-12559	213285	2.04	2305059	10.807	Si
SLV 11	483	-17605	449260	2.85	2971567	6.614	Si
SLV 11	835	-12748	53193	2.07	2332764	43.854	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 71	483	-28813	1097	280256		4.67	440.5	1.08	6681			6.09	Si
SLU 71	835	-19114	1090	325699		3.1	440.5	0.97	5975			5.48	Si
SLU 10	483	-23254	-1399	155219		3.77	440.5	1.06	6527			4.67	Si
SLU 10	835	-14612	-710	325641		2.37	440.5	0.87	5374			7.57	Si
SLU 29	483	-24104	1040	258098		3.91	440.5	1.08	6640			6.38	Si
SLU 29	835	-16088	1035	283471		2.61	440.5	0.9	5571			5.38	Si
SLU 73	483	-31241	-1239	241762		5.07	440.5	1.08	6681			5.39	Si
SLU 73	835	-19828	-552	422666		3.22	440.5	0.98	6070			10.99	Si
SLU 44	483	-24623	-1320	128406		3.99	440.5	1.08	6681			5.06	Si
SLU 44	835	-15536	-631	322245		2.52	440.5	0.89	5498			8.71	Si
SLU 65	483	-27901	-1217	192791		4.52	440.5	1.08	6681			5.49	Si
SLU 65	835	-17725	-529	377043		2.87	440.5	0.94	5789			10.94	Si
SLU 52	483	-27963	-1342	177377		4.53	440.5	1.08	6681			4.98	Si
SLU 52	835	-17638	-654	367868		2.86	440.5	0.94	5778			8.83	Si
SLU 31	483	-26531	-1297	219604		4.3	440.5	1.08	6681			5.15	Si
SLU 31	835	-16802	-608	380439		2.72	440.5	0.92	5666			9.32	Si
SLU 23	483	-23191	-1275	170633		3.76	440.5	1.06	6518			5.11	Si
SLU 23	835	-14699	-585	334816		2.38	440.5	0.87	5386			9.21	Si
SLU 2	483	-19914	-1377	106248		3.23	440.5	0.99	6081			4.42	Si
SLU 2	835	-12509	-687	280017		2.03	440.5	0.83	5094			7.41	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 12	483	-19763	4455	293182		3.2	440.5	1.47	9092			2.04	Si
SLD 12	835	-13372	3976	156628		2.17	440.5	1.27	7814			1.97	Si
SLV 11	483	-17605	10115	449260		2.85	440.5	1.4	8660			0.86	No, Vu<V
SLV 11	835	-12748	8998	53193		2.07	440.5	1.25	7689			0.85	No, Vu<V
SLV 5	483	-25064	-9454	-89601		4.06	440.5	1.63	10021			1.06	Si
SLV 5	835	-14885	-8348	410960		2.41	440.5	1.32	8116			0.97	No, Vu<V
SLV 9	483	-22984	-9432	-281920		3.73	440.5	1.58	9736			1.03	Si
SLV 9	835	-15074	-8114	250869		2.44	440.5	1.32	8154			1	Si
SLV 12	483	-17605	10115	449260		2.85	440.5	1.4	8660			0.86	No, Vu<V
SLV 12	835	-12748	8998	53193		2.07	440.5	1.25	7689			0.85	No, Vu<V
SLV 7	483	-19685	10093	641579		3.19	440.5	1.47	9076			0.9	No, Vu<V
SLV 7	835	-12559	8764	213285		2.04	440.5	1.24	7651			0.87	No, Vu<V
SLD 11	483	-19763	4455	293182		3.2	440.5	1.47	9092			2.04	Si
SLD 11	835	-13372	3976	156628		2.17	440.5	1.27	7814			1.97	Si
SLV 6	483	-25064	-9454	-89601		4.06	440.5	1.63	10021			1.06	Si
SLV 6	835	-14885	-8348	410960		2.41	440.5	1.32	8116			0.97	No, Vu<V
SLV 8	483	-19685	10093	641579		3.19	440.5	1.47	9076			0.9	No, Vu<V
SLV 8	835	-12559	8764	213285		2.04	440.5	1.24	7651			0.87	No, Vu<V
SLV 10	483	-22984	-9432	-281920		3.73	440.5	1.58	9736			1.03	Si
SLV 10	835	-15074	-8114	250869		2.44	440.5	1.32	8154			1	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.38	2.54	-15680	24002	86921	3.62	Si
SLV 7	14	0.38	2.54	-15680	24002	86921	3.62	Si
SLV 12	14	0.38	2.58	-15928	24002	87928	3.66	Si
SLV 11	14	0.38	2.58	-15928	24002	87928	3.66	Si
SLV 3	14	0.38	2.75	-16981	24002	92081	3.84	Si
SLV 4	14	0.38	2.75	-16981	24002	92081	3.84	Si
SLV 16	14	0.38	2.89	-17807	24002	95192	3.97	Si
SLV 15	14	0.38	2.89	-17807	24002	95192	3.97	Si
SLV 1	14	0.38	2.97	-18344	24002	97149	4.05	Si
SLV 2	14	0.38	2.97	-18344	24002	97149	4.05	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 1	-13850	-25608	9	0.022	17.171	0.949	33.328	1649.904	No
SLV 2	-13850	-25608	9	0.022	17.171	0.949	33.328	1649.904	No
SLV 5	-14885	-25064	6	0.022	18.222	0.951	33.33	1649.904	No
SLV 6	-14885	-25064	6	0.022	18.222	0.951	33.33	1649.904	No
SLV 16	-13783	-17061	-9	0.022	17.103	0.948	33.337	1649.904	No
SLV 15	-13783	-17061	-9	0.022	17.103	0.948	33.337	1649.904	No
SLV 14	-14481	-18675	-7	0.022	17.812	0.95	33.374	1649.904	No
SLV 13	-14481	-18675	-7	0.022	17.812	0.95	33.374	1649.904	No
SLV 9	-15074	-22984	1	0.022	18.414	0.952	33.722	1649.904	No
SLV 10	-15074	-22984	1	0.022	18.414	0.952	33.722	1649.904	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.138	SLU 76	Si
V_SLU	4.416	SLU 2	Si
PF_SLV	4.711	SLV 1	Si
V_SLV	0.854	SLV 11	No
PFFP_SLV	3.621	SLV 7	Si
R_SLV	0.02	SLV 1	No

Maschio 133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-741.3	-335.9	-854.8	-335.9	L4	L5	113.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 61	573	-11128	12490	3.5	360052	28.827	Si
SLU 61	753	-8799	-98507	2.77	329614	3.346	Si
SLU 84	573	-12434	7049	3.91	366709	52.024	Si
SLU 84	753	-9946	-105330	3.13	347578	3.3	Si
SLU 82	573	-12035	14016	3.79	365470	26.076	Si
SLU 82	753	-9745	-108021	3.07	344850	3.192	Si
SLU 73	573	-11535	19970	3.63	362927	18.174	Si
SLU 73	753	-9134	-105174	2.87	335462	3.19	Si
SLU 76	573	-11934	13003	3.76	365043	28.073	Si
SLU 76	753	-9335	-102483	2.94	338728	3.305	Si
SLU 75	573	-12075	9071	3.8	365622	40.307	Si
SLU 75	753	-9619	-103740	3.03	343048	3.307	Si
SLU 83	573	-12534	-2021	3.94	366910	181.52	Si
SLU 83	753	-10184	-103210	3.2	350587	3.397	Si
SLU 52	573	-10628	18444	3.34	355519	19.275	Si
SLU 52	753	-8188	-95660	2.58	317691	3.321	Si
SLU 81	573	-12135	4945	3.82	365845	73.976	Si
SLU 81	753	-9984	-105901	3.14	348069	3.287	Si
SLU 65	573	-10522	19754	3.31	354423	17.942	Si
SLU 65	753	-8079	-95233	2.54	315402	3.312	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	573	-8694	-358777	2.74	382922	1.067	Si
SLV 15	753	-1988	198645	0	0	0	No, e>1/2
SLV 16	573	-8694	-358777	2.74	382922	1.067	Si
SLV 16	753	-1988	198645	0	0	0	No, e>1/2
SLV 3	573	-5012	306947	0	0	0	No, e>1/2
SLV 3	753	-6518	-247788	2.05	307797	1.242	Si
SLV 2	573	-7929	365363	2.5	358105	0.98	No, M>Mu
SLV 2	753	-11240	-341221	3.54	453232	1.328	Si
SLV 7	573	-2896	5792	0.91	152099	26.261	Si
SLV 7	753	577	17469	0	0	0	No, Trazione
SLV 1	573	-7929	365363	2.5	358105	0.98	No, M>Mu
SLV 1	753	-11240	-341221	3.54	453232	1.328	Si
SLV 11	573	-4001	-193925	1.26	203659	1.05	Si
SLV 11	753	1936	151398	0	0	0	No, Trazione
SLV 4	573	-5012	306947	0	0	0	No, e>1/2
SLV 4	753	-6518	-247788	2.05	307797	1.242	Si
SLV 12	573	-4001	-193925	1.26	203659	1.05	Si
SLV 12	753	1936	151398	0	0	0	No, Trazione
SLV 8	573	-2896	5792	0.91	152099	26.261	Si
SLV 8	753	577	17469	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 10	573	-8610	352	18129		2.71	113.5	0.92	2914			8.29	Si
SLU 10	753	-6700	275	-79203		2.11	113.5	0.84	2659			9.67	Si
SLU 47	573	-10014	262	11261		3.15	113.5	0.98	3101			11.82	Si
SLU 47	753	-7334	279	-83029		2.31	113.5	0.86	2743			9.84	Si
SLU 65	573	-10522	416	19754		3.31	113.5	1	3169			7.61	Si
SLU 65	753	-8079	314	-95233		2.54	113.5	0.89	2843			9.04	Si
SLU 23	573	-8504	405	19438		2.68	113.5	0.91	2899			7.16	Si
SLU 23	753	-6591	265	-78776		2.07	113.5	0.83	2644			9.98	Si
SLU 2	573	-7597	369	17913		2.39	113.5	0.87	2778			7.52	Si
SLU 2	753	-5645	295	-69263		1.78	113.5	0.79	2518			8.54	Si
SLU 73	573	-11535	399	19970		3.63	113.5	1.04	3304			8.29	Si
SLU 73	753	-9134	295	-105174		2.87	113.5	0.94	2983			10.13	Si
SLU 44	573	-9615	381	18228		3.03	113.5	0.96	3048			8	Si
SLU 44	753	-7133	344	-85720		2.24	113.5	0.85	2717			7.89	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 26	573	-8903	286	12472		2.8	113.5	0.93	2953			10.31	Si
SLU 26	753	-6792	199	-76085		2.14	113.5	0.84	2671			13.4	Si
SLU 52	573	-10628	363	18444		3.34	113.5	1	3183			8.77	Si
SLU 52	753	-8188	324	-95660		2.58	113.5	0.9	2857			8.81	Si
SLU 31	573	-9517	387	19654		2.99	113.5	0.95	3034			7.84	Si
SLU 31	753	-7646	245	-88717		2.41	113.5	0.88	2785			11.37	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	573	-8694	-6239	-358777		6.68	46.45	1.63	2113			0.34	No, Vu<V
SLV 16	753	-1988	-2091	198645		0	0	0.83	0			0	No, Vu<V
SLV 2	573	-7929	6407	365363		8.84	32.02	1.63	1457			0.23	No, Vu<V
SLV 2	753	-11240	2324	-341221		5.07	79.18	1.63	3603			1.55	Si
SLV 15	573	-8694	-6239	-358777		6.68	46.45	1.63	2113			0.34	No, Vu<V
SLV 15	753	-1988	-2091	198645		0	0	0.83	0			0	No, Vu<V
SLV 7	573	-2896	1115	5792		0.91	113.5	1.02	3228			2.9	Si
SLV 7	753	577	791	17469		0	0	0.83	0			0	No, Vu<V
SLV 1	573	-7929	6407	365363		8.84	32.02	1.63	1457			0.23	No, Vu<V
SLV 1	753	-11240	2324	-341221		5.07	79.18	1.63	3603			1.55	Si
SLV 11	573	-4001	-2536	-193925		5.75	24.84	1.63	1130			0.45	No, Vu<V
SLV 11	753	1936	-535	151398		0	0	0.83	0			0	No, Vu<V
SLV 12	573	-4001	-2536	-193925		5.75	24.84	1.63	1130			0.45	No, Vu<V
SLV 12	753	1936	-535	151398		0	0	0.83	0			0	No, Vu<V
SLV 3	573	-5012	5930	306947		0	0	0.83	0			0	No, Vu<V
SLV 3	753	-6518	2331	-247788		4.14	56.2	1.63	2557			1.1	Si
SLV 4	573	-5012	5930	306947		0	0	0.83	0			0	No, Vu<V
SLV 4	753	-6518	2331	-247788		4.14	56.2	1.63	2557			1.1	Si
SLV 8	573	-2896	1115	5792		0.91	113.5	1.02	3228			2.9	Si
SLV 8	753	577	791	17469		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.38	0.39	-1224	11562	16591	1.43	Si
SLV 8	14	0.38	0.39	-1224	11562	16591	1.43	Si
SLV 3	14	0.38	0.88	-2803	11562	36405	3.15	Si
SLV 4	14	0.38	0.88	-2803	11562	36405	3.15	Si
SLV 12	14	0.38	1.04	-3292	11562	42184	3.65	Si
SLV 11	14	0.38	1.04	-3292	11562	42184	3.65	Si
SLV 1	14	0.38	1.96	-6225	11562	73176	6.33	Si
SLV 2	14	0.38	1.96	-6225	11562	73176	6.33	Si
SLV 15	14	0.38	3.05	-9698	11562	101864	8.81	Si
SLV 16	14	0.38	3.05	-9698	11562	101864	8.81	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	1312	-4934	-75	0	0	0	0	882.77	No, Trazione
SLV 12	1312	-4934	-75	0	0	0	0	882.77	No, Trazione
SLV 7	-88	-7126	-93	0	2.066	0.964	0	882.77	No
SLV 8	-88	-7126	-93	0	2.066	0.964	0	882.77	No
SLV 3	-5741	-10667	-54	0.038	7.433	0.94	58.173	967.392	No
SLV 4	-5741	-10667	-54	0.038	7.433	0.94	58.173	967.392	No
SLV 10	-10174	-7741	91	0.035	11.935	0.961	53.211	882.77	No
SLV 9	-10174	-7741	91	0.035	11.935	0.961	53.211	882.77	No
SLV 14	-4520	-4200	53	0.037	6.199	0.931	58.394	967.392	No
SLV 13	-4520	-4200	53	0.037	6.199	0.931	58.394	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.19	SLU 73	Si
V_SLU	7.16	SLU 23	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 3	No
PFFP_SLV	1.435	SLV 7	Si
R_SLV	0	SLV 12	No

Maschio 134

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	104.6	-515.8	581.1	L4	L5	476.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 71	483	-34763	-29409	5.21	2983921	101.461	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 71	835	-27230	276842	4.08	3236662	11.691	Si
SLU 9	483	-25453	-5670	3.82	3223749	568.6	Si
SLU 9	835	-20711	275615	3.1	3053715	11.08	Si
SLU 30	483	-29529	-20794	4.43	3212289	154.479	Si
SLU 30	835	-23926	297130	3.59	3190526	10.738	Si
SLU 8	483	-25527	936	3.83	3224842	1000	Si
SLU 8	835	-20717	293668	3.11	3054057	10.4	Si
SLU 61	483	-31885	-143570	4.78	3139215	21.865	Si
SLU 61	835	-20688	-277481	3.1	3052453	11.001	Si
SLU 27	483	-29820	-28872	4.47	3205896	111.037	Si
SLU 27	835	-23848	260516	3.57	3188285	12.238	Si
SLU 19	483	-26725	-128349	4.01	3235808	25.211	Si
SLU 19	835	-17391	-239141	2.61	2817337	11.781	Si
SLU 60	483	-31959	-136965	4.79	3136123	22.897	Si
SLU 60	835	-20694	-259429	3.1	3052796	11.767	Si
SLU 29	483	-29603	-14189	4.44	3210730	226.289	Si
SLU 29	835	-23932	315182	3.59	3190698	10.123	Si
SLU 52	483	-30353	-131857	4.55	3192260	24.21	Si
SLU 52	835	-19865	-254154	2.98	3002708	11.815	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	483	-19880	-418846	2.98	3581235	8.55	Si
SLV 9	835	-12139	-274388	1.82	2461365	8.97	Si
SLV 13	483	-23841	-472126	3.57	4018765	8.512	Si
SLV 13	835	-16502	-156270	2.47	3135665	20.066	Si
SLV 6	483	-19175	-228751	2.87	3493723	15.273	Si
SLV 6	835	-11105	-281308	1.66	2285248	8.124	Si
SLV 3	483	-24180	305951	3.62	4051983	13.244	Si
SLV 3	835	-15761	-85014	2.36	3029001	35.629	Si
SLV 14	483	-23841	-472126	3.57	4018765	8.512	Si
SLV 14	835	-16502	-156270	2.47	3135665	20.066	Si
SLV 10	483	-19880	-418846	2.98	3581235	8.55	Si
SLV 10	835	-12139	-274388	1.82	2461365	8.97	Si
SLV 4	483	-24180	305951	3.62	4051983	13.244	Si
SLV 4	835	-15761	-85014	2.36	3029001	35.629	Si
SLV 16	483	-26531	-327699	3.98	4263601	13.011	Si
SLV 16	835	-19208	-61947	2.88	3497919	56.467	Si
SLV 5	483	-19175	-228751	2.87	3493723	15.273	Si
SLV 5	835	-11105	-281308	1.66	2285248	8.124	Si
SLV 15	483	-26531	-327699	3.98	4263601	13.011	Si
SLV 15	835	-19208	-61947	2.88	3497919	56.467	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	483	-30801	998	-143474		4.62	476.5	1.08	7227			7.24	Si
SLU 40	835	-20606	361	-217626		3.09	476.5	0.97	6454			17.9	Si
SLU 74	483	-36604	989	-116178		5.49	476.5	1.08	7227			7.31	Si
SLU 74	835	-26032	304	-58778		3.9	476.5	1.08	7177			23.6	Si
SLU 81	483	-36035	1100	-152089		5.4	476.5	1.08	7227			6.57	Si
SLU 81	835	-23910	382	-237914		3.58	476.5	1.03	6894			18.07	Si
SLU 77	483	-38439	962	-81699		5.76	476.5	1.08	7227			7.51	Si
SLU 77	835	-29057	277	139663		4.36	476.5	1.08	7227			26.12	Si
SLU 39	483	-30875	1064	-136868		4.63	476.5	1.08	7227			6.79	Si
SLU 39	835	-20612	441	-199574		3.09	476.5	0.97	6454			14.63	Si
SLU 82	483	-35961	1034	-158695		5.39	476.5	1.08	7227			6.99	Si
SLU 82	835	-23904	301	-255967		3.58	476.5	1.03	6893			22.89	Si
SLU 41	483	-32710	1037	-102390		4.9	476.5	1.08	7227			6.97	Si
SLU 41	835	-23637	414	-1132		3.54	476.5	1.03	6858			16.58	Si
SLU 42	483	-32636	971	-108995		4.89	476.5	1.08	7227			7.44	Si
SLU 42	835	-23631	333	-19185		3.54	476.5	1.03	6857			20.59	Si
SLU 84	483	-37796	1007	-124216		5.67	476.5	1.08	7227			7.18	Si
SLU 84	835	-26929	274	-57526		4.04	476.5	1.08	7227			26.41	Si
SLU 83	483	-37870	1072	-117610		5.68	476.5	1.08	7227			6.74	Si
SLU 83	835	-26935	354	-39473		4.04	476.5	1.08	7227			20.41	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	483	-28142	8896	252672		4.22	476.5	1.63	10840			1.22	Si
SLV 7	835	-20125	7836	33103		3.02	476.5	1.44	9584			1.22	Si
SLV 1	483	-21490	-7393	161524		3.22	476.5	1.48	9857			1.33	Si
SLV 1	835	-13055	-6454	-179338		1.96	476.5	1.22	8170			1.27	Si
SLV 2	483	-21490	-7393	161524		3.22	476.5	1.48	9857			1.33	Si
SLV 2	835	-13055	-6454	-179338		1.96	476.5	1.22	8170			1.27	Si
SLV 8	483	-28142	8896	252672		4.22	476.5	1.63	10840			1.22	Si
SLV 8	835	-20125	7836	33103		3.02	476.5	1.44	9584			1.22	Si
SLV 6	483	-19175	-10798	-228751		2.87	476.5	1.41	9394			0.87	No, Vu<V
SLV 6	835	-11105	-9985	-281308		1.66	476.5	1.17	7780			0.78	No, Vu<V
SLV 9	483	-19880	-7809	-418846		2.98	476.5	1.43	9535			1.22	Si
SLV 9	835	-12139	-7666	-274388		1.82	476.5	1.2	7987			1.04	Si
SLV 11	483	-28847	11885	62577		4.32	476.5	1.63	10840			0.91	No, Vu<V
SLV 11	835	-21159	10156	40024		3.17	476.5	1.47	9791			0.96	No, Vu<V
SLV 12	483	-28847	11885	62577		4.32	476.5	1.63	10840			0.91	No, Vu<V
SLV 12	835	-21159	10156	40024		3.17	476.5	1.47	9791			0.96	No, Vu<V
SLV 5	483	-19175	-10798	-228751		2.87	476.5	1.41	9394			0.87	No, Vu<V
SLV 5	835	-11105	-9985	-281308		1.66	476.5	1.17	7780			0.78	No, Vu<V
SLV 10	483	-19880	-7809	-418846		2.98	476.5	1.43	9535			1.22	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	835	-12139	-7666	-274388		1.82	476.5	1.2	7987			1.04	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.38	2.2	-14666	25964	84191	3.24	Si
SLV 10	14	0.38	2.2	-14666	25964	84191	3.24	Si
SLV 5	14	0.38	2.32	-15477	25964	87767	3.38	Si
SLV 6	14	0.38	2.32	-15477	25964	87767	3.38	Si
SLV 13	14	0.38	2.52	-16837	25964	93513	3.6	Si
SLV 14	14	0.38	2.52	-16837	25964	93513	3.6	Si
SLV 16	14	0.38	2.92	-19508	25964	103874	4	Si
SLV 15	14	0.38	2.92	-19508	25964	103874	4	Si
SLV 1	14	0.38	2.93	-19539	25964	103986	4.01	Si
SLV 2	14	0.38	2.93	-19539	25964	103986	4.01	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-16502	-23841	55	0.019	20.118	0.952	29.305	1649.904	No
SLV 13	-16502	-23841	55	0.019	20.118	0.952	29.305	1649.904	No
SLV 4	-15761	-24180	-54	0.019	19.366	0.95	29.391	1649.904	No
SLV 3	-15761	-24180	-54	0.019	19.366	0.95	29.391	1649.904	No
SLV 7	-20125	-28142	-42	0.02	23.799	0.959	30.17	1649.904	No
SLV 8	-20125	-28142	-42	0.02	23.799	0.959	30.17	1649.904	No
SLV 16	-19208	-26531	38	0.02	22.868	0.957	30.49	1649.904	No
SLV 15	-19208	-26531	38	0.02	22.868	0.957	30.49	1649.904	No
SLV 10	-12139	-19880	43	0.02	15.692	0.941	30.667	1649.904	No
SLV 9	-12139	-19880	43	0.02	15.692	0.941	30.667	1649.904	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	10.123	SLV 29	Si
V_SLV	6.572	SLV 81	Si
PF_SLV	8.124	SLV 5	Si
V_SLV	0.779	SLV 5	No
PFFP_SLV	3.243	SLV 9	Si
R_SLV	0.018	SLV 13	No

Maschio 135

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X inl.	Y inl.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h inl.	h fin.	a	a.s,sx	a.s,dx
-515.8	595.1	-515.8	600.6	L4	L5	5.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 76	683	-815	564	5.29	785	1.392	Si
SLV 76	763	-921	1856	5.98	673	0.363	No, M>Mu
SLV 78	683	-898	718	5.83	702	0.978	No, M>Mu
SLV 78	763	-1019	1955	6.62	526	0.269	No, M>Mu
SLV 74	683	-822	564	5.34	780	1.382	Si
SLV 74	763	-926	1864	6.01	667	0.358	No, M>Mu
SLV 69	683	-845	773	5.49	758	0.981	No, M>Mu
SLV 69	763	-951	1714	6.17	633	0.369	No, M>Mu
SLV 79	683	-906	761	5.88	692	0.909	No, M>Mu
SLV 79	763	-1026	1927	6.66	514	0.267	No, M>Mu
SLV 84	683	-844	558	5.48	760	1.361	Si
SLV 84	763	-955	1951	6.2	627	0.321	No, M>Mu
SLV 80	683	-901	745	5.85	699	0.938	No, M>Mu
SLV 80	763	-1022	1934	6.63	522	0.27	No, M>Mu
SLV 75	683	-816	548	5.3	784	1.432	Si
SLV 75	763	-921	1872	5.98	673	0.359	No, M>Mu
SLV 77	683	-903	734	5.87	695	0.947	No, M>Mu
SLV 77	763	-1023	1947	6.64	519	0.266	No, M>Mu
SLV 83	683	-849	574	5.51	754	1.314	Si
SLV 83	763	-960	1944	6.23	620	0.319	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	683	-289	95	1.88	673	7.067	Si
SLV 5	763	-182	841	0	0	0	No, e>l/2
SLD 16	683	-372	-837	2.41	820	0.98	No, M>Mu
SLD 16	763	-770	2668	0	0	0	No, e>l/2
SLV 14	683	49	-3084	0	0	0	No, Trazione
SLV 14	763	-854	5092	0	0	0	No, e>l/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	683	-1093	3736	0	0	0	No, e>l/2
SLV 3	763	-305	-2705	0	0	0	No, e>l/2
SLV 9	683	-13	-1744	0	0	0	No, e>l/2
SLV 9	763	-399	3045	0	0	0	No, e>l/2
SLV 6	683	-289	95	1.88	673	7.067	Si
SLV 6	763	-182	841	0	0	0	No, e>l/2
SLV 10	683	-13	-1744	0	0	0	No, e>l/2
SLV 10	763	-399	3045	0	0	0	No, e>l/2
SLV 2	683	-871	3046	0	0	0	No, e>l/2
SLV 2	763	-132	-2255	0	0	0	No, e>l/2
SLV 4	683	-1093	3736	0	0	0	No, e>l/2
SLV 4	763	-305	-2705	0	0	0	No, e>l/2
SLV 13	683	49	-3084	0	0	0	No, Trazione
SLV 13	763	-854	5092	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	683	-657	18	335		4.27	5.5	1.08	167			9.13	Si
SLU 39	763	-743	-110	1618		15.46	1.72	1.08	52			0.47	No, Vu<V
SLU 52	683	-637	17	319		4.14	5.5	1.08	167			9.63	Si
SLU 52	763	-712	-106	1552		14.89	1.71	1.08	52			0.49	No, Vu<V
SLU 82	683	-762	21	388		4.95	5.5	1.08	167			7.88	Si
SLU 82	763	-858	-127	1868		17.84	1.72	1.08	52			0.41	No, Vu<V
SLU 81	683	-768	22	404		4.98	5.5	1.08	167			7.48	Si
SLU 81	763	-862	-127	1861		17.35	1.78	1.08	54			0.43	No, Vu<V
SLU 61	683	-666	17	313		4.32	5.5	1.08	167			10.04	Si
SLU 61	763	-746	-112	1648		16.42	1.62	1.08	49			0.44	No, Vu<V
SLU 19	683	-556	13	244		3.61	5.5	1.04	160			12.67	Si
SLU 19	763	-626	-96	1404		14.7	1.52	1.08	46			0.48	No, Vu<V
SLU 73	683	-734	22	394		4.76	5.5	1.08	167			7.63	Si
SLU 73	763	-824	-121	1773		16.39	1.8	1.08	54			0.45	No, Vu<V
SLU 60	683	-671	18	329		4.36	5.5	1.08	167			9.39	Si
SLU 60	763	-750	-112	1641		15.86	1.69	1.08	51			0.46	No, Vu<V
SLU 40	683	-652	17	319		4.23	5.5	1.08	167			9.74	Si
SLU 40	763	-738	-111	1625		16	1.65	1.08	50			0.45	No, Vu<V
SLU 84	683	-844	33	558		5.48	5.5	1.08	167			5.1	Si
SLU 84	763	-955	-132	1951		16.08	2.12	1.08	64			0.49	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	683	49	-223	-3084		0	0	0.83	0			0	No, Vu<V
SLV 14	763	-854	-323	5092		0	0	0.83	0			0	No, Vu<V
SLV 6	683	-289	-10	95		1.88	5.5	1.21	186			18.42	Si
SLV 6	763	-182	51	841		0	0	0.83	0			0	No, Vu<V
SLV 4	683	-1093	261	3736		0	0	0.83	0			0	No, Vu<V
SLV 4	763	-305	161	-2705		0	0	0.83	0			0	No, Vu<V
SLV 9	683	-13	-139	-1744		0	0	0.83	0			0	No, Vu<V
SLV 9	763	-399	-104	3045		0	0	0.83	0			0	No, Vu<V
SLV 10	683	-13	-139	-1744		0	0	0.83	0			0	No, Vu<V
SLV 10	763	-399	-104	3045		0	0	0.83	0			0	No, Vu<V
SLV 3	683	-1093	261	3736		0	0	0.83	0			0	No, Vu<V
SLV 3	763	-305	161	-2705		0	0	0.83	0			0	No, Vu<V
SLV 2	683	-871	205	3046		0	0	0.83	0			0	No, Vu<V
SLV 2	763	-132	194	-2255		0	0	0.83	0			0	No, Vu<V
SLD 16	683	-372	-61	-837		8.89	1.49	1.63	68			1.12	Si
SLD 16	763	-770	-199	2668		0	0	0.83	0			0	No, Vu<V
SLV 13	683	49	-223	-3084		0	0	0.83	0			0	No, Vu<V
SLV 13	763	-854	-323	5092		0	0	0.83	0			0	No, Vu<V
SLV 5	683	-289	-10	95		1.88	5.5	1.21	186			18.42	Si
SLV 5	763	-182	51	841		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.38	0	-16	573	0	0	No, e>t/2
SLV 16	14	0.38	0	-16	573	0	0	No, e>t/2
SLV 13	14	0.38	0	44	573	0	0	No, Trazione
SLV 14	14	0.38	0	44	573	0	0	No, Trazione
SLV 9	14	0.38	0.38	-59	573	797	1.39	Si
SLV 10	14	0.38	0.38	-59	573	797	1.39	Si
SLV 6	14	0.38	1.34	-206	573	2570	4.48	Si
SLV 5	14	0.38	1.34	-206	573	2570	4.48	Si
SLV 12	14	0.38	1.67	-257	573	3105	5.42	Si
SLV 11	14	0.38	1.67	-257	573	3105	5.42	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-115	-466	-21	0	0.196	0.905	0	967.392	No
SLV 4	-269	-559	-25	0	0.351	0.939	0	967.392	No
SLV 5	82	-234	-1	0	0	0	0	882.77	No, Trazione
SLV 6	82	-234	-1	0	0	0	0	882.77	No, Trazione
SLV 14	-65	-115	25	0	0.148	0.891	0	967.392	No
SLV 9	97	-129	12	0	0	0	0	882.77	No, Trazione
SLV 3	-269	-559	-25	0	0.351	0.939	0	967.392	No
SLV 13	-65	-115	25	0	0.148	0.891	0	967.392	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	97	-129	12	0	0	0	0	882.77	No, Trazione
SLV 1	-115	-466	-21	0	0.196	0.905	0	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.266	SLU 77	No
V_SLU	0.41	SLU 82	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 9	No
PFFP_SLV	0	SLV 14	No
R_SLV	0	SLV 10	No

Maschio 136

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	650.6	-515.8	666.1	L4	L5	15.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 78	683	-2815	-2056	6.49	4444	2.162	Si
SLU 78	763	-2732	-331	6.29	4812	14.526	Si
SLU 71	683	-2647	-1818	6.1	5153	2.834	Si
SLU 71	763	-2564	-408	5.91	5460	13.396	Si
SLU 69	683	-2637	-1833	6.08	5193	2.834	Si
SLU 69	763	-2553	-392	5.88	5496	14.035	Si
SLU 79	683	-2841	-2034	6.55	4326	2.127	Si
SLU 79	763	-2757	-366	6.35	4703	12.845	Si
SLU 74	683	-2562	-1926	5.9	5467	2.838	Si
SLU 74	763	-2478	-269	5.71	5742	21.313	Si
SLU 84	683	-2640	-2011	6.08	5181	2.576	Si
SLU 84	763	-2557	-249	5.89	5485	22.049	Si
SLU 80	683	-2826	-2041	6.51	4396	2.154	Si
SLU 80	763	-2742	-347	6.32	4768	13.73	Si
SLU 70	683	-2622	-1840	6.04	5249	2.853	Si
SLU 70	763	-2539	-373	5.85	5547	14.884	Si
SLU 83	683	-2655	-2004	6.12	5123	2.557	Si
SLU 83	763	-2572	-268	5.93	5433	20.297	Si
SLU 77	683	-2830	-2048	6.52	4374	2.136	Si
SLU 77	763	-2747	-350	6.33	4748	13.56	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	683	-2029	-7899	4.67	9708	1.229	Si
SLV 13	763	-1955	6623	4.5	9565	1.444	Si
SLV 9	683	-1253	-2898	2.89	7416	2.559	Si
SLV 9	763	-1183	3342	2.73	7123	2.131	Si
SLV 10	683	-1253	-2898	2.89	7416	2.559	Si
SLV 10	763	-1183	3342	2.73	7123	2.131	Si
SLV 1	683	-876	5668	2.02	5666	1	No, M>Mu
SLV 1	763	-820	-5990	1.89	5372	0.897	No, M>Mu
SLV 16	683	-2348	-8115	5.41	10140	1.249	Si
SLV 16	763	-2276	5651	5.24	10068	1.782	Si
SLV 14	683	-2029	-7899	4.67	9708	1.229	Si
SLV 14	763	-1955	6623	4.5	9565	1.444	Si
SLV 3	683	-1195	5452	2.75	7173	1.316	Si
SLV 3	763	-1141	-6962	2.63	6940	0.997	No, M>Mu
SLV 4	683	-1195	5452	2.75	7173	1.316	Si
SLV 4	763	-1141	-6962	2.63	6940	0.997	No, M>Mu
SLV 2	683	-876	5668	2.02	5666	1	No, M>Mu
SLV 2	763	-820	-5990	1.89	5372	0.897	No, M>Mu
SLV 15	683	-2348	-8115	5.41	10140	1.249	Si
SLV 15	763	-2276	5651	5.24	10068	1.782	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	683	-2387	-21	-1882		5.5	15.5	1.08	470			22.19	Si
SLU 81	763	-2303	-21	-187		5.31	15.5	1.08	470			22.19	Si
SLU 76	683	-2547	-21	-1924		5.87	15.5	1.08	470			22.52	Si
SLU 76	763	-2464	-21	-254		5.68	15.5	1.08	470			22.52	Si
SLU 82	683	-2372	-22	-1889		5.46	15.5	1.08	470			21.85	Si
SLU 82	763	-2288	-22	-168		5.27	15.5	1.08	470			21.85	Si
SLU 80	683	-2826	-21	-2041		6.51	15.5	1.08	470			22.21	Si
SLU 80	763	-2742	-21	-347		6.32	15.5	1.08	470			22.21	Si
SLU 77	683	-2830	-21	-2048		6.52	15.5	1.08	470			22.15	Si
SLU 77	763	-2747	-21	-350		6.33	15.5	1.08	470			22.15	Si
SLU 78	683	-2815	-22	-2056		6.49	15.5	1.08	470			21.81	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	763	-2732	-22	-331		6.29	15.5	1.08	470			21.81	Si
SLU 84	683	-2640	-22	-2011		6.08	15.5	1.08	470			21.34	Si
SLU 84	763	-2557	-22	-249		5.89	15.5	1.08	470			21.34	Si
SLU 79	683	-2841	-21	-2034		6.55	15.5	1.08	470			22.56	Si
SLU 79	763	-2757	-21	-366		6.35	15.5	1.08	470			22.56	Si
SLU 83	683	-2655	-22	-2004		6.12	15.5	1.08	470			21.66	Si
SLU 83	763	-2572	-22	-268		5.93	15.5	1.08	470			21.66	Si
SLU 75	683	-2547	-21	-1934		5.87	15.5	1.08	470			22.35	Si
SLU 75	763	-2463	-21	-251		5.68	15.5	1.08	470			22.35	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	683	-876	-127	5668		8.16	3.83	1.63	174			1.37	Si
SLV 2	763	-820	155	-5990		21.98	1.33	1.63	61			0.39	No, Vu<V
SLV 1	683	-876	-127	5668		8.16	3.83	1.63	174			1.37	Si
SLV 1	763	-820	155	-5990		21.98	1.33	1.63	61			0.39	No, Vu<V
SLV 5	683	-907	-750	1172		2.09	15.5	1.25	543			0.72	No, Vu<V
SLV 5	763	-842	28	-442		1.94	15.5	1.22	530			18.9	Si
SLV 7	683	-1971	794	451		4.54	15.5	1.63	705			0.89	No, Vu<V
SLV 7	763	-1913	48	-3681		4.41	15.5	1.63	705			14.63	Si
SLV 9	683	-1253	-821	-2898		2.89	15.5	1.41	612			0.75	No, Vu<V
SLV 9	763	-1183	-75	3342		2.86	14.77	1.41	581			7.8	Si
SLV 8	683	-1971	794	451		4.54	15.5	1.63	705			0.89	No, Vu<V
SLV 8	763	-1913	48	-3681		4.41	15.5	1.63	705			14.63	Si
SLV 6	683	-907	-750	1172		2.09	15.5	1.25	543			0.72	No, Vu<V
SLV 6	763	-842	28	-442		1.94	15.5	1.22	530			18.9	Si
SLV 11	683	-2317	724	-3619		5.34	15.5	1.63	705			0.97	No, Vu<V
SLV 11	763	-2253	-54	102		5.19	15.5	1.63	705			12.97	Si
SLV 12	683	-2317	724	-3619		5.34	15.5	1.63	705			0.97	No, Vu<V
SLV 12	763	-2253	-54	102		5.19	15.5	1.63	705			12.97	Si
SLV 10	683	-1253	-821	-2898		2.89	15.5	1.41	612			0.75	No, Vu<V
SLV 10	763	-1183	-75	3342		2.86	14.77	1.41	581			7.8	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.38	1.34	-584	1616	7272	4.5	Si
SLV 5	14	0.38	1.34	-584	1616	7272	4.5	Si
SLV 2	14	0.38	1.49	-645	1616	7933	4.91	Si
SLV 1	14	0.38	1.49	-645	1616	7933	4.91	Si
SLV 10	14	0.38	1.66	-722	1616	8731	5.4	Si
SLV 9	14	0.38	1.66	-722	1616	8731	5.4	Si
SLV 3	14	0.38	1.93	-836	1616	9860	6.1	Si
SLV 4	14	0.38	1.93	-836	1616	9860	6.1	Si
SLV 14	14	0.38	2.55	-1106	1616	12254	7.58	Si
SLV 13	14	0.38	2.55	-1106	1616	12254	7.58	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 8	767	-2244	-37	0	0	0	0	882.77	No, Trazione
SLV 2	2443	-2862	624	0	0	0	0	967.392	No, Trazione
SLV 7	767	-2244	-37	0	0	0	0	882.77	No, Trazione
SLV 5	-837	-25	370	0	1.068	0.943	0	882.77	No
SLV 9	-3167	1742	31	0	0	0	0	882.77	No, Trazione
SLV 1	2443	-2862	624	0	0	0	0	967.392	No, Trazione
SLV 4	2924	-3528	502	0	0	0	0	967.392	No, Trazione
SLV 3	2924	-3528	502	0	0	0	0	967.392	No, Trazione
SLV 10	-3167	1742	31	0	0	0	0	882.77	No, Trazione
SLV 6	-837	-25	370	0	1.068	0.943	0	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.127	SLU 79	Si
V_SLU	21.339	SLU 84	Si
PF_SLV	0.897	SLV 1	No
V_SLV	0.392	SLV 1	No
PFFP_SLV	4.501	SLV 5	Si
R_SLV	0	SLV 16	No

Maschio 137

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-600.8	-335.9	-651.3	-335.9	L4	L5	50.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 75	683	-5784	-5839	4.09	72707	12.451	Si
SLU 75	763	-5152	-31296	3.64	71901	2.297	Si
SLU 74	683	-5966	-7090	4.22	72615	10.241	Si
SLU 74	763	-5347	-31149	3.78	72337	2.322	Si
SLU 81	683	-5983	-6478	4.23	72599	11.207	Si
SLU 81	763	-5382	-32107	3.81	72397	2.255	Si
SLU 82	683	-5801	-5227	4.1	72705	13.909	Si
SLU 82	763	-5187	-32254	3.67	71991	2.232	Si
SLU 83	683	-6152	-7200	4.35	72370	10.052	Si
SLU 83	763	-5542	-32191	3.92	72606	2.255	Si
SLU 76	683	-5601	-5024	3.96	72654	14.461	Si
SLU 76	763	-4968	-30864	3.51	71337	2.311	Si
SLU 73	683	-5431	-4303	3.84	72473	16.844	Si
SLU 73	763	-4807	-30781	3.4	70723	2.298	Si
SLU 78	683	-5953	-6561	4.21	72627	11.069	Si
SLU 78	763	-5313	-31379	3.76	72272	2.303	Si
SLU 77	683	-6135	-7812	4.34	72399	9.268	Si
SLU 77	763	-5508	-31232	3.9	72570	2.324	Si
SLU 84	683	-5970	-5949	4.22	72611	12.206	Si
SLU 84	763	-5347	-32338	3.78	72337	2.237	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	683	-6846	-74646	4.84	104366	1.398	Si
SLV 13	763	-3919	43230	2.77	76509	1.77	Si
SLV 4	683	-1180	65200	0	0	0	No, $e \geq l/2$
SLV 4	763	-3181	-85240	0	0	0	No, $e \geq l/2$
SLV 14	683	-6846	-74646	4.84	104366	1.398	Si
SLV 14	763	-3919	43230	2.77	76509	1.77	Si
SLD 3	683	-2807	25230	1.98	59354	2.353	Si
SLD 3	763	-3385	-48331	2.39	68723	1.422	Si
SLD 1	683	-3094	22843	2.19	64138	2.808	Si
SLD 1	763	-3197	-46319	2.26	65786	1.42	Si
SLV 2	683	-1883	59949	0	0	0	No, $e \geq l/2$
SLV 2	763	-2717	-79968	0	0	0	No, $e \geq l/2$
SLD 4	683	-2807	25230	1.98	59354	2.353	Si
SLD 4	763	-3385	-48331	2.39	68723	1.422	Si
SLV 3	683	-1180	65200	0	0	0	No, $e \geq l/2$
SLV 3	763	-3181	-85240	0	0	0	No, $e \geq l/2$
SLD 2	683	-3094	22843	2.19	64138	2.808	Si
SLD 2	763	-3197	-46319	2.26	65786	1.42	Si
SLV 1	683	-1883	59949	0	0	0	No, $e \geq l/2$
SLV 1	763	-2717	-79968	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	683	-6152	-66	-7200		4.35	50.5	1.08	1532			23.15	Si
SLU 83	763	-5542	240	-32191		3.92	50.5	1.08	1525			6.34	Si
SLU 80	683	-5891	-51	-6580		4.17	50.5	1.08	1532			29.82	Si
SLU 80	763	-5259	226	-30850		3.72	50.5	1.05	1487			6.58	Si
SLU 37	683	-5151	-92	-6603		3.64	50.5	1.04	1472			15.97	Si
SLU 37	763	-4667	215	-26106		3.3	50.5	1	1408			6.54	Si
SLU 41	683	-5230	-57	-5972		3.7	50.5	1.05	1483			25.83	Si
SLU 41	763	-4755	217	-27593		3.36	50.5	1	1420			6.54	Si
SLU 79	683	-6073	-101	-7831		4.3	50.5	1.08	1532			15.17	Si
SLU 79	763	-5454	239	-30703		3.86	50.5	1.07	1513			6.34	Si
SLU 78	683	-5953	-44	-6561		4.21	50.5	1.08	1532			35.18	Si
SLU 78	763	-5313	223	-31379		3.76	50.5	1.06	1494			6.7	Si
SLU 35	683	-5213	-84	-6584		3.69	50.5	1.05	1481			17.55	Si
SLU 35	763	-4721	212	-26635		3.34	50.5	1	1415			6.67	Si
SLU 77	683	-6135	-93	-7812		4.34	50.5	1.08	1532			16.45	Si
SLU 77	763	-5508	235	-31232		3.9	50.5	1.07	1520			6.45	Si
SLU 84	683	-5970	-17	-5949		4.22	50.5	1.08	1532			92.39	Si
SLU 84	763	-5347	228	-32338		3.78	50.5	1.06	1499			6.58	Si
SLU 81	683	-5983	-33	-6478		4.23	50.5	1.08	1532			46.41	Si
SLU 81	763	-5382	224	-32107		3.81	50.5	1.06	1503			6.71	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	683	-1180	2509	65200		0	0	0.83	0			0	No, $V_u < V$
SLV 4	763	-3181	658	-85240		0	0	0.83	0			0	No, $V_u < V$
SLV 8	683	-2096	979	24217		1.82	41.09	1.2	1378			1.41	Si
SLV 8	763	-4143	685	-48270		3.63	40.8	1.56	1781			2.6	Si
SLV 2	683	-1883	2347	59949		0	0	0.83	0			0	No, $V_u < V$
SLV 2	763	-2717	398	-79968		0	0	0.83	0			0	No, $V_u < V$
SLV 15	683	-6142	-2404	-69396		5.24	41.86	1.63	1904			0.79	No, $V_u < V$
SLV 15	763	-4383	-134	37959		3.15	49.77	1.46	2038			15.22	Si
SLV 13	683	-6846	-2566	-74646		5.68	43.04	1.63	1958			0.76	No, $V_u < V$
SLV 13	763	-3919	-394	43230		3.28	42.66	1.49	1779			4.51	Si
SLV 3	683	-1180	2509	65200		0	0	0.83	0			0	No, $V_u < V$
SLV 3	763	-3181	658	-85240		0	0	0.83	0			0	No, $V_u < V$
SLV 16	683	-6142	-2404	-69396		5.24	41.86	1.63	1904			0.79	No, $V_u < V$
SLV 16	763	-4383	-134	37959		3.15	49.77	1.46	2038			15.22	Si
SLV 14	683	-6846	-2566	-74646		5.68	43.04	1.63	1958			0.76	No, $V_u < V$
SLV 14	763	-3919	-394	43230		3.28	42.66	1.49	1779			4.51	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	683	-1883	2347	59949		0	0	0.83	0			0	No, Vu<V
SLV 1	763	-2717	398	-79968		0	0	0.83	0			0	No, Vu<V
SLV 7	683	-2096	979	24217		1.82	41.09	1.2	1378			1.41	Si
SLV 7	763	-4143	685	-48270		3.63	40.8	1.56	1781			2.6	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore $8 \gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.38	1.02	-1443	5144	18509	3.6	Si
SLV 7	14	0.38	1.02	-1443	5144	18509	3.6	Si
SLV 3	14	0.38	1.32	-1860	5144	23235	4.52	Si
SLV 4	14	0.38	1.32	-1860	5144	23235	4.52	Si
SLV 12	14	0.38	1.36	-1927	5144	23967	4.66	Si
SLV 11	14	0.38	1.36	-1927	5144	23967	4.66	Si
SLV 2	14	0.38	1.91	-2702	5144	31911	6.2	Si
SLV 1	14	0.38	1.91	-2702	5144	31911	6.2	Si
SLV 15	14	0.38	2.46	-3474	5144	38857	7.55	Si
SLV 16	14	0.38	2.46	-3474	5144	38857	7.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-2554	-2033	-9	0.043	3.307	0.94	65.941	967.392	No
SLV 15	-2554	-2033	-9	0.043	3.307	0.94	65.941	967.392	No
SLV 14	-2560	-2850	-3	0.045	3.313	0.94	69.049	967.392	No
SLV 13	-2560	-2850	-3	0.045	3.313	0.94	69.049	967.392	No
SLV 11	-1984	-1193	-13	0.042	2.73	0.93	65.221	882.77	No
SLV 12	-1984	-1193	-13	0.042	2.73	0.93	65.221	882.77	No
SLV 9	-2003	-3915	7	0.044	2.75	0.931	68.866	882.77	No
SLV 10	-2003	-3915	7	0.044	2.75	0.931	68.866	882.77	No
SLV 8	-1500	-1289	-10	0.044	2.244	0.919	69.029	882.77	No
SLV 7	-1500	-1289	-10	0.044	2.244	0.919	69.029	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.232	SLU 82	Si
V_SLU	6.341	SLU 79	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	3.598	SLV 7	Si
R_SLV	0.068	SLV 15	No

Maschio 138

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-318.3	-335.9	-550.8	-335.9	L4	L5	232.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	683	-16982	232110	2.61	1341948	5.782	Si
SLU 73	763	-15042	228695	2.31	1252631	5.477	Si
SLU 78	683	-18596	230358	2.86	1403691	6.094	Si
SLU 78	763	-16495	240294	2.53	1321104	5.498	Si
SLU 84	683	-18697	236821	2.87	1407180	5.942	Si
SLU 84	763	-16602	242592	2.55	1325781	5.465	Si
SLU 80	683	-18330	228139	2.82	1394319	6.112	Si
SLU 80	763	-16238	236406	2.49	1309637	5.54	Si
SLU 81	683	-19005	225731	2.92	1417538	6.28	Si
SLU 81	763	-16849	239947	2.59	1336346	5.569	Si
SLU 83	683	-19434	227014	2.99	1431246	6.305	Si
SLU 83	763	-17235	243499	2.65	1352411	5.554	Si
SLU 75	683	-18167	229075	2.79	1388409	6.061	Si
SLU 75	763	-16109	236741	2.47	1303784	5.507	Si
SLU 76	683	-17410	233393	2.67	1359458	5.825	Si
SLU 76	763	-15429	232248	2.37	1271760	5.476	Si
SLU 82	683	-18268	235537	2.81	1392087	5.91	Si
SLU 82	763	-16216	239039	2.49	1308643	5.475	Si
SLU 77	683	-19332	220551	2.97	1428084	6.475	Si
SLU 77	763	-17128	241201	2.63	1348030	5.589	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	683	-12926	326345	1.99	1258498	3.856	Si
SLV 3	763	-9442	-276621	1.45	967309	3.497	Si
SLV 14	683	-12496	-24680	1.92	1224473	49.613	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	763	-12875	599097	1.98	1254492	2.094	Si
SLV 16	683	-9410	-22662	1.45	964498	42.561	Si
SLV 16	763	-10244	550810	1.57	1037512	1.884	Si
SLV 13	683	-12496	-24680	1.92	1224473	49.613	Si
SLV 13	763	-12875	599097	1.98	1254492	2.094	Si
SLV 15	683	-9410	-22662	1.45	964498	42.561	Si
SLV 15	763	-10244	550810	1.57	1037512	1.884	Si
SLV 4	683	-12926	326345	1.99	1258498	3.856	Si
SLV 4	763	-9442	-276621	1.45	967309	3.497	Si
SLD 16	683	-11324	77011	1.74	1129003	14.66	Si
SLD 16	763	-10782	327494	1.66	1083539	3.309	Si
SLD 15	683	-11324	77011	1.74	1129003	14.66	Si
SLD 15	763	-10782	327494	1.66	1083539	3.309	Si
SLD 14	683	-12596	75332	1.93	1232400	16.36	Si
SLD 14	763	-11878	348112	1.82	1174657	3.374	Si
SLD 13	683	-12596	75332	1.93	1232400	16.36	Si
SLD 13	763	-11878	348112	1.82	1174657	3.374	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	683	-18697	1000	236821		2.87	232.5	0.94	6110			6.11	Si
SLU 84	763	-16602	976	242592		2.55	232.5	0.9	5830			5.98	Si
SLU 83	683	-19434	1011	227014		2.99	232.5	0.95	6208			6.14	Si
SLU 83	763	-17235	951	243499		2.65	232.5	0.91	5915			6.22	Si
SLU 76	683	-17410	932	233393		2.67	232.5	0.91	5938			6.37	Si
SLU 76	763	-15429	932	232248		2.37	232.5	0.87	5674			6.09	Si
SLU 81	683	-19005	981	225731		2.92	232.5	0.94	6151			6.27	Si
SLU 81	763	-16849	938	239947		2.59	232.5	0.9	5863			6.25	Si
SLU 79	683	-19067	980	218332		2.93	232.5	0.95	6159			6.28	Si
SLU 79	763	-16871	903	237313		2.59	232.5	0.9	5866			6.5	Si
SLU 73	683	-16982	901	232110		2.61	232.5	0.9	5881			6.52	Si
SLU 73	763	-15042	919	228695		2.31	232.5	0.86	5622			6.12	Si
SLU 80	683	-18330	969	228139		2.82	232.5	0.93	6061			6.25	Si
SLU 80	763	-16238	928	236406		2.49	232.5	0.89	5782			6.23	Si
SLU 63	683	-16881	934	219085		2.59	232.5	0.9	5867			6.29	Si
SLU 63	763	-14892	896	220491		2.29	232.5	0.86	5602			6.25	Si
SLU 78	683	-18596	957	230358		2.86	232.5	0.94	6096			6.37	Si
SLU 78	763	-16495	926	240294		2.53	232.5	0.89	5816			6.28	Si
SLU 82	683	-18268	970	235537		2.81	232.5	0.93	6052			6.24	Si
SLU 82	763	-16216	963	239039		2.49	232.5	0.89	5779			6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	683	-12926	11673	326345		1.99	232.5	1.23	8010			0.69	No, Vu<V
SLV 3	763	-9442	9557	-276621		1.45	232.5	1.12	7313			0.77	No, Vu<V
SLV 14	683	-12496	-10424	-24680		1.92	232.5	1.22	7924			0.76	No, Vu<V
SLV 14	763	-12875	-8380	599097		2.2	209.16	1.27	7455			0.89	No, Vu<V
SLV 4	683	-12926	11673	326345		1.99	232.5	1.23	8010			0.69	No, Vu<V
SLV 4	763	-9442	9557	-276621		1.45	232.5	1.12	7313			0.77	No, Vu<V
SLV 15	683	-9410	-9144	-22662		1.45	232.5	1.12	7307			0.8	No, Vu<V
SLV 15	763	-10244	-7110	550810		1.95	187.44	1.22	6423			0.9	No, Vu<V
SLV 2	683	-16013	10393	324327		2.46	232.5	1.33	8628			0.83	No, Vu<V
SLV 2	763	-12073	8287	-228335		1.85	232.5	1.2	7840			0.95	No, Vu<V
SLV 13	683	-12496	-10424	-24680		1.92	232.5	1.22	7924			0.76	No, Vu<V
SLV 13	763	-12875	-8380	599097		2.2	209.16	1.27	7455			0.89	No, Vu<V
SLV 16	683	-9410	-9144	-22662		1.45	232.5	1.12	7307			0.8	No, Vu<V
SLV 16	763	-10244	-7110	550810		1.95	187.44	1.22	6423			0.9	No, Vu<V
SLV 8	683	-8095	5881	206548		1.24	232.5	1.08	7044			1.2	Si
SLV 8	763	-6653	5204	-43354		1.02	232.5	1.04	6756			1.3	Si
SLV 7	683	-8095	5881	206548		1.24	232.5	1.08	7044			1.2	Si
SLV 7	763	-6653	5204	-43354		1.02	232.5	1.04	6756			1.3	Si
SLV 1	683	-16013	10393	324327		2.46	232.5	1.33	8628			0.83	No, Vu<V
SLV 1	763	-12073	8287	-228335		1.85	232.5	1.2	7840			0.95	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.38	1.07	-6962	23685	88937	3.76	Si
SLV 11	14	0.38	1.07	-6962	23685	88937	3.76	Si
SLV 7	14	0.38	1.08	-7047	23685	89921	3.8	Si
SLV 8	14	0.38	1.08	-7047	23685	89921	3.8	Si
SLV 15	14	0.38	1.59	-10320	23685	125733	5.31	Si
SLV 16	14	0.38	1.59	-10320	23685	125733	5.31	Si
SLV 3	14	0.38	1.63	-10604	23685	128669	5.43	Si
SLV 4	14	0.38	1.63	-10604	23685	128669	5.43	Si
SLV 13	14	0.38	2.04	-13283	23685	154911	6.54	Si
SLV 14	14	0.38	2.04	-13283	23685	154911	6.54	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-10719	-13399	61	0.041	14.172	0.937	64.266	967.392	No
SLV 14	-10719	-13399	61	0.041	14.172	0.937	64.266	967.392	No
SLV 9	-12937	-16437	101	0.038	16.419	0.944	59.247	882.77	No
SLV 10	-12937	-16437	101	0.038	16.419	0.944	59.247	882.77	No
SLV 8	-6440	-4393	-100	0.038	9.863	0.916	59.702	882.77	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 7	-6440	-4393	-100	0.038	9.863	0.916	59.702	882.77	No
SLV 4	-8659	-7431	-60	0.042	12.092	0.928	65.517	967.392	No
SLV 3	-8659	-7431	-60	0.042	12.092	0.928	65.517	967.392	No
SLV 6	-12901	-15661	81	0.04	16.382	0.944	61.3	882.77	No
SLV 5	-12901	-15661	81	0.04	16.382	0.944	61.3	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.465	SLU 84	Si
V_SLU	5.976	SLU 84	Si
PF_SLV	1.884	SLV 15	Si
V_SLV	0.686	SLV 3	No
PFFP_SLV	3.755	SLV 11	Si
R_SLV	0.066	SLV 13	No

Maschio 139

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-228.3	-335.9	L4	L5	216	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 65	573	-14348	-195253	2.37	1098276	5.625	Si
SLU 65	753	-16282	160256	2.69	1177298	7.346	Si
SLU 34	573	-13405	-192152	2.22	1053837	5.484	Si
SLU 34	753	-15855	161670	2.62	1161269	7.183	Si
SLU 31	573	-12920	-192143	2.14	1029452	5.358	Si
SLU 31	753	-15360	162000	2.54	1141681	7.047	Si
SLU 10	573	-11465	-172745	1.9	950049	5.5	Si
SLU 10	753	-13405	137998	2.22	1053795	7.636	Si
SLU 52	573	-14139	-192451	2.34	1088766	5.657	Si
SLU 52	753	-16143	162316	2.67	1172186	7.222	Si
SLU 2	573	-10218	-156151	1.69	874643	5.601	Si
SLU 2	753	-11588	111937	1.92	957106	8.55	Si
SLU 73	573	-15595	-211848	2.58	1151101	5.434	Si
SLU 73	753	-18099	186318	2.99	1236589	6.637	Si
SLU 23	573	-11673	-175548	1.93	962006	5.48	Si
SLU 23	753	-13543	135939	2.24	1060570	7.802	Si
SLU 76	573	-16080	-211857	2.66	1169800	5.522	Si
SLU 76	753	-18594	185987	3.07	1250233	6.722	Si
SLU 26	573	-12158	-175557	2.01	989041	5.634	Si
SLU 26	753	-14038	135608	2.32	1084103	7.994	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 14	573	-15469	-494297	2.56	1320920	2.672	Si
SLV 14	753	-20482	518601	3.39	1598935	3.083	Si
SLV 1	573	-11494	293611	1.9	1048252	3.57	Si
SLV 1	753	-7609	-265092	1.26	737184	2.781	Si
SLV 3	573	-7231	298026	1.2	704565	2.364	Si
SLV 3	753	-4403	-273014	0.73	447221	1.638	Si
SLV 12	573	-4842	-208963	0.8	488713	2.339	Si
SLV 12	753	-9030	227145	1.49	856065	3.769	Si
SLV 11	573	-4842	-208963	0.8	488713	2.339	Si
SLV 11	753	-9030	227145	1.49	856065	3.769	Si
SLV 2	573	-11494	293611	1.9	1048252	3.57	Si
SLV 2	753	-7609	-265092	1.26	737184	2.781	Si
SLV 16	573	-11206	-489882	1.85	1026754	2.096	Si
SLV 16	753	-17276	510679	2.86	1429595	2.799	Si
SLV 4	573	-7231	298026	1.2	704565	2.364	Si
SLV 4	753	-4403	-273014	0.73	447221	1.638	Si
SLV 15	573	-11206	-489882	1.85	1026754	2.096	Si
SLV 15	753	-17276	510679	2.86	1429595	2.799	Si
SLV 13	573	-15469	-494297	2.56	1320920	2.672	Si
SLV 13	753	-20482	518601	3.39	1598935	3.083	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	573	-14348	-4700	-195253		2.37	216	0.87	5273			1.12	Si
SLU 65	753	-16282	-4643	160256		2.69	216	0.91	5531			1.19	Si
SLU 75	573	-16415	-5027	-186317		2.71	216	0.92	5549			1.1	Si
SLU 75	753	-18741	-4992	187906		3.1	216	0.97	5859			1.17	Si
SLU 52	573	-14139	-4719	-192451		2.34	216	0.87	5245			1.11	Si
SLU 52	753	-16143	-4661	162316		2.67	216	0.91	5512			1.18	Si
SLU 34	573	-13405	-4655	-192152		2.22	216	0.85	5147			1.11	Si
SLU 34	753	-15855	-4598	161670		2.62	216	0.91	5474			1.19	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	573	-16758	-5220	-191650		2.77	216	0.93	5594			1.07	Si
SLU 84	753	-19284	-5185	195778		3.19	216	0.98	5931			1.14	Si
SLU 78	573	-16900	-5032	-186327		2.79	216	0.93	5613			1.12	Si
SLU 78	753	-19236	-4997	187575		3.18	216	0.98	5925			1.19	Si
SLU 73	573	-15595	-5279	-211848		2.58	216	0.9	5439			1.03	Si
SLU 73	753	-18099	-5221	186318		2.99	216	0.95	5773			1.11	Si
SLU 31	573	-12920	-4651	-192143		2.14	216	0.84	5083			1.09	Si
SLU 31	753	-15360	-4593	162000		2.54	216	0.89	5408			1.18	Si
SLU 82	573	-16273	-5216	-191640		2.69	216	0.91	5530			1.06	Si
SLU 82	753	-18788	-5181	196108		3.11	216	0.97	5865			1.13	Si
SLU 76	573	-16080	-5283	-211857		2.66	216	0.91	5504			1.04	Si
SLU 76	753	-18594	-5226	185987		3.07	216	0.97	5839			1.12	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	573	-11206	-10074	-489882		2.08	192.86	1.25	6741			0.67	No, Vu<V
SLV 16	753	-17276	-9693	510679		2.86	216	1.4	8495			0.88	No, Vu<V
SLV 3	573	-7231	4767	298026		1.29	200.36	1.09	6121			1.28	Si
SLV 3	753	-4403	3839	-273014		1.14	137.99	1.06	4101			1.07	Si
SLV 4	573	-7231	4767	298026		1.29	200.36	1.09	6121			1.28	Si
SLV 4	753	-4403	3839	-273014		1.14	137.99	1.06	4101			1.07	Si
SLD 14	573	-13088	-6393	-268164		2.16	216	1.27	7658			1.2	Si
SLD 14	753	-15874	-6002	292092		2.62	216	1.36	8215			1.37	Si
SLD 16	573	-11304	-6068	-264832		1.87	216	1.21	7301			1.2	Si
SLD 16	753	-14513	-5901	288425		2.4	216	1.31	7943			1.35	Si
SLD 15	573	-11304	-6068	-264832		1.87	216	1.21	7301			1.2	Si
SLD 15	753	-14513	-5901	288425		2.4	216	1.31	7943			1.35	Si
SLD 13	573	-13088	-6393	-268164		2.16	216	1.27	7658			1.2	Si
SLD 13	753	-15874	-6002	292092		2.62	216	1.36	8215			1.37	Si
SLV 14	573	-15469	-10887	-494297		2.56	216	1.34	8134			0.75	No, Vu<V
SLV 14	753	-20482	-9957	518601		3.39	216	1.51	9136			0.92	No, Vu<V
SLV 15	573	-11206	-10074	-489882		2.08	192.86	1.25	6741			0.67	No, Vu<V
SLV 15	753	-17276	-9693	510679		2.86	216	1.4	8495			0.88	No, Vu<V
SLV 13	573	-15469	-10887	-494297		2.56	216	1.34	8134			0.75	No, Vu<V
SLV 13	753	-20482	-9957	518601		3.39	216	1.51	9136			0.92	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.38	0.79	-4778	22004	62570	2.84	Si
SLV 7	14	0.38	0.79	-4778	22004	62570	2.84	Si
SLV 4	14	0.38	1.02	-6172	22004	79191	3.6	Si
SLV 3	14	0.38	1.02	-6172	22004	79191	3.6	Si
SLV 11	14	0.38	1.2	-7267	22004	91736	4.17	Si
SLV 12	14	0.38	1.2	-7267	22004	91736	4.17	Si
SLV 1	14	0.38	1.63	-9856	22004	119577	5.43	Si
SLV 2	14	0.38	1.63	-9856	22004	119577	5.43	Si
SLV 15	14	0.38	2.39	-14469	22004	162902	7.4	Si
SLV 16	14	0.38	2.39	-14469	22004	162902	7.4	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-7948	-8320	114	0.036	11.137	0.927	56.379	967.392	No
SLV 1	-7948	-8320	114	0.036	11.137	0.927	56.379	967.392	No
SLV 16	-12254	-14847	-115	0.037	15.491	0.945	56.991	967.392	No
SLV 15	-12254	-14847	-115	0.037	15.491	0.945	56.991	967.392	No
SLV 11	-6979	-6214	-135	0.033	10.162	0.922	52.351	882.77	No
SLV 12	-6979	-6214	-135	0.033	10.162	0.922	52.351	882.77	No
SLV 6	-13222	-16952	133	0.036	16.474	0.948	55.207	882.77	No
SLV 5	-13222	-16952	133	0.036	16.474	0.948	55.207	882.77	No
SLV 13	-14738	-19032	-49	0.041	18.012	0.952	63.233	967.392	No
SLV 14	-14738	-19032	-49	0.041	18.012	0.952	63.233	967.392	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.358	SLU 31	Si
V_SLU	1.03	SLU 73	Si
PF_SLV	1.638	SLV 3	Si
V_SLV	0.669	SLV 15	No
PFFP_SLV	2.844	SLV 7	Si
R_SLV	0.058	SLV 1	No

Maschio 140

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-296.3	595.1	-515.8	595.1	L4	L5	219.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 71	573	-18455	2688	3	1278805	475.696	Si
SLU 71	753	-17094	103852	2.78	1235487	11.897	Si
SLU 9	573	-13399	16327	2.18	1076963	65.963	Si
SLU 9	753	-12151	91792	1.98	1009887	11.002	Si
SLU 30	573	-15321	21545	2.49	1166910	54.163	Si
SLU 30	753	-14226	103400	2.31	1117632	10.809	Si
SLU 27	573	-15675	10502	2.55	1181714	112.519	Si
SLU 27	753	-14651	95709	2.38	1137397	11.884	Si
SLU 28	573	-15519	13707	2.53	1175242	85.743	Si
SLU 28	753	-14500	98419	2.36	1130491	11.486	Si
SLU 51	573	-16376	675	2.66	1209386	1000	Si
SLU 51	753	-14868	94954	2.42	1147170	12.081	Si
SLU 8	573	-13555	13123	2.21	1084889	82.674	Si
SLU 8	753	-12301	89082	2	1018345	11.432	Si
SLU 7	573	-13597	8489	2.21	1086962	128.046	Si
SLU 7	753	-12426	86811	2.02	1025247	11.81	Si
SLU 29	573	-15478	18340	2.52	1173517	63.986	Si
SLU 29	753	-14376	100690	2.34	1124720	11.17	Si
SLU 72	573	-18298	5893	2.98	1274240	216.246	Si
SLU 72	753	-16943	106562	2.76	1230194	11.544	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	573	-11864	414648	1.93	1096358	2.644	Si
SLV 1	753	-18103	-278339	2.95	1507854	5.417	Si
SLV 9	573	-7356	-104281	1.2	728252	6.984	Si
SLV 9	753	-7480	194226	1.22	739195	3.806	Si
SLV 4	573	-15258	369617	2.48	1334302	3.61	Si
SLV 4	753	-20013	-320942	3.26	1611063	5.02	Si
SLV 15	573	-14414	-509563	2.35	1278292	2.509	Si
SLV 15	753	-7098	329614	1.15	705359	2.14	Si
SLV 16	573	-14414	-509563	2.35	1278292	2.509	Si
SLV 16	753	-7098	329614	1.15	705359	2.14	Si
SLV 3	573	-15258	369617	2.48	1334302	3.61	Si
SLV 3	753	-20013	-320942	3.26	1611063	5.02	Si
SLV 10	573	-7356	-104281	1.2	728252	6.984	Si
SLV 10	753	-7480	194226	1.22	739195	3.806	Si
SLV 13	573	-11020	-464531	1.79	1031979	2.222	Si
SLV 13	753	-5188	372217	0.84	530062	1.424	Si
SLV 14	573	-11020	-464531	1.79	1031979	2.222	Si
SLV 14	753	-5188	372217	0.84	530062	1.424	Si
SLV 2	573	-11864	414648	1.93	1096358	2.644	Si
SLV 2	753	-18103	-278339	2.95	1507854	5.417	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	573	-16229	769	-51477		2.64	219.5	0.91	5578			7.25	Si
SLU 40	753	-16245	769	30696		2.64	219.5	0.91	5580			7.26	Si
SLU 39	573	-16386	763	-54681		2.67	219.5	0.91	5599			7.34	Si
SLU 39	753	-16396	762	27986		2.67	219.5	0.91	5601			7.35	Si
SLU 18	573	-14463	685	-59899		2.35	219.5	0.87	5343			7.8	Si
SLU 18	753	-14321	685	16378		2.33	219.5	0.87	5324			7.77	Si
SLU 73	573	-18400	772	-60886		2.99	219.5	0.95	5868			7.6	Si
SLU 73	753	-17994	772	37893		2.93	219.5	0.95	5814			7.53	Si
SLU 52	573	-16477	695	-66104		2.68	219.5	0.91	5611			8.08	Si
SLU 52	753	-15920	695	26285		2.59	219.5	0.9	5537			7.97	Si
SLU 82	573	-19207	858	-67129		3.13	219.5	0.97	5975			6.96	Si
SLU 82	753	-18962	858	33858		3.09	219.5	0.97	5943			6.93	Si
SLU 61	573	-17284	780	-72346		2.81	219.5	0.93	5719			7.33	Si
SLU 61	753	-16887	780	22250		2.75	219.5	0.92	5666			7.26	Si
SLU 81	573	-19363	852	-70333		3.15	219.5	0.98	5996			7.04	Si
SLU 81	753	-19113	851	31148		3.11	219.5	0.97	5963			7	Si
SLU 60	573	-17441	774	-75551		2.84	219.5	0.93	5740			7.41	Si
SLU 60	753	-17038	774	19540		2.77	219.5	0.93	5686			7.35	Si
SLU 19	573	-14307	691	-56694		2.33	219.5	0.87	5322			7.7	Si
SLU 19	753	-14170	691	19088		2.31	219.5	0.86	5304			7.67	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	573	-7609	5579	159472		1.24	219.5	1.08	6644			1.19	Si
SLV 5	753	-11355	5554	-941		1.85	219.5	1.2	7393			1.33	Si
SLV 13	573	-11020	-7070	-464531		1.94	202.79	1.22	6936			0.98	No, Vu<V
SLV 13	753	-5188	-6381	372217		1.63	114.02	1.16	3698			0.58	No, Vu<V
SLV 15	573	-14414	-8639	-509563		2.35	219.5	1.3	8004			0.93	No, Vu<V
SLV 15	753	-7098	-8050	329614		1.33	189.93	1.1	5851			0.73	No, Vu<V
SLV 4	573	-15258	8005	369617		2.48	219.5	1.33	8173			1.02	Si
SLV 4	753	-20013	7315	-320942		3.26	219.5	1.48	9124			1.25	Si
SLV 2	573	-11864	9574	414648		1.93	219.5	1.22	7494			0.78	No, Vu<V
SLV 2	753	-18103	8984	-278339		2.95	219.5	1.42	8742			0.97	No, Vu<V
SLV 6	573	-7609	5579	159472		1.24	219.5	1.08	6644			1.19	Si
SLV 6	753	-11355	5554	-941		1.85	219.5	1.2	7393			1.33	Si
SLV 3	573	-15258	8005	369617		2.48	219.5	1.33	8173			1.02	Si
SLV 3	753	-20013	7315	-320942		3.26	219.5	1.48	9124			1.25	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	573	-11864	9574	414648		1.93	219.5	1.22	7494			0.78	No, Vu<V
SLV 1	753	-18103	8984	-278339		2.95	219.5	1.42	8742			0.97	No, Vu<V
SLV 16	573	-14414	-8639	-509563		2.35	219.5	1.3	8004			0.93	No, Vu<V
SLV 16	753	-7098	-8050	329614		1.33	189.93	1.1	5851			0.73	No, Vu<V
SLV 14	573	-11020	-7070	-464531		1.94	202.79	1.22	6936			0.98	No, Vu<V
SLV 14	753	-5188	-6381	372217		1.63	114.02	1.16	3698			0.58	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.38	1.12	-6898	22360	87702	3.92	Si
SLV 9	14	0.38	1.12	-6898	22360	87702	3.92	Si
SLV 13	14	0.38	1.15	-7071	22360	89678	4.01	Si
SLV 14	14	0.38	1.15	-7071	22360	89678	4.01	Si
SLV 5	14	0.38	1.57	-9659	22360	117838	5.27	Si
SLV 6	14	0.38	1.57	-9659	22360	117838	5.27	Si
SLV 15	14	0.38	1.62	-9981	22360	121165	5.42	Si
SLV 16	14	0.38	1.62	-9981	22360	121165	5.42	Si
SLV 1	14	0.38	2.65	-16276	22360	178477	7.98	Si
SLV 2	14	0.38	2.65	-16276	22360	178477	7.98	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-7340	-6296	-258	0.02	10.576	0.923	31.936	882.77	No
SLV 9	-7340	-6296	-258	0.02	10.576	0.923	31.936	882.77	No
SLV 14	-3445	-8755	-149	0.027	6.708	0.897	43.105	967.392	No
SLV 13	-3445	-8755	-149	0.027	6.708	0.897	43.105	967.392	No
SLV 8	-12264	-19038	268	0.026	15.552	0.944	40.629	882.77	No
SLV 7	-12264	-19038	268	0.026	15.552	0.944	40.629	882.77	No
SLV 11	-8560	-17719	219	0.026	11.804	0.93	41.167	882.77	No
SLV 12	-8560	-17719	219	0.026	11.804	0.93	41.167	882.77	No
SLV 5	-11044	-7615	-209	0.03	14.316	0.94	45.782	882.77	No
SLV 6	-11044	-7615	-209	0.03	14.316	0.94	45.782	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.809	SLU 30	Si
V_SLU	6.928	SLU 82	Si
PF_SLV	1.424	SLV 13	Si
V_SLV	0.58	SLV 13	No
PFFP_SLV	3.922	SLV 9	Si
R_SLV	0.036	SLV 9	No

Maschio 141

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	595.1	-206.3	595.1	L4	L5	194	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 73	573	-14243	14592	2.62	936853	64.204	Si
SLU 73	753	-15278	121146	2.81	970282	8.009	Si
SLU 60	573	-14204	6254	2.61	935499	149.59	Si
SLU 60	753	-14921	114518	2.75	959264	8.377	Si
SLU 81	573	-15403	9456	2.84	973989	102.999	Si
SLU 81	753	-16454	128895	3.03	1002540	7.778	Si
SLU 31	573	-11661	12647	2.15	833017	65.867	Si
SLU 31	753	-12791	106518	2.35	882058	8.281	Si
SLU 84	573	-15168	24148	2.79	966960	40.043	Si
SLU 84	753	-16183	115823	2.98	995637	8.596	Si
SLU 82	573	-15003	11488	2.76	961849	83.73	Si
SLU 82	753	-16179	130491	2.98	995527	7.629	Si
SLU 61	573	-13804	8285	2.54	921254	111.196	Si
SLU 61	753	-14645	116115	2.7	950399	8.185	Si
SLU 39	573	-12821	7512	2.36	883286	117.591	Si
SLU 39	753	-13967	114266	2.57	927137	8.114	Si
SLU 40	573	-12421	9543	2.29	866616	90.815	Si
SLU 40	753	-13691	115863	2.52	917120	7.916	Si
SLU 19	573	-11222	6340	2.07	812446	128.144	Si
SLU 19	753	-12158	101486	2.24	855269	8.427	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	573	-14728	-340330	2.71	1111600	3.266	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	753	-18634	303361	3.43	1300055	4.286	Si
SLV 4	573	-10792	363101	1.99	876601	2.414	Si
SLV 4	753	-6498	-147886	1.2	568596	3.845	Si
SLV 14	573	-10506	-343319	1.93	857766	2.498	Si
SLV 14	753	-15422	300364	2.84	1148353	3.823	Si
SLV 5	573	-3022	110424	0.56	279773	2.534	Si
SLV 5	753	-3786	3557	0.7	346303	97.355	Si
SLV 2	573	-6570	360112	1.21	574195	1.594	Si
SLV 2	753	-3286	-150883	0.6	302950	2.008	Si
SLV 16	573	-14728	-340330	2.71	1111600	3.266	Si
SLV 16	753	-18634	303361	3.43	1300055	4.286	Si
SLV 13	573	-10506	-343319	1.93	857766	2.498	Si
SLV 13	753	-15422	300364	2.84	1148353	3.823	Si
SLV 6	573	-3022	110424	0.56	279773	2.534	Si
SLV 6	753	-3786	3557	0.7	346303	97.355	Si
SLV 1	573	-6570	360112	1.21	574195	1.594	Si
SLV 1	753	-3286	-150883	0.6	302950	2.008	Si
SLV 3	573	-10792	363101	1.99	876601	2.414	Si
SLV 3	753	-6498	-147886	1.2	568596	3.845	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	573	-14204	-2190	6254		2.61	194	0.9	4912			2.24	Si
SLU 60	753	-14921	-2191	114518		2.75	194	0.92	5007			2.29	Si
SLU 40	573	-12421	-2223	9543		2.29	194	0.86	4674			2.1	Si
SLU 40	753	-13691	-2219	115863		2.52	194	0.89	4843			2.18	Si
SLU 61	573	-13804	-2257	8285		2.54	194	0.89	4858			2.15	Si
SLU 61	753	-14645	-2254	116115		2.7	194	0.92	4970			2.21	Si
SLU 81	573	-15403	-2449	9456		2.84	194	0.93	5072			2.07	Si
SLU 81	753	-16454	-2449	128895		3.03	194	0.96	5212			2.13	Si
SLU 31	573	-11661	-2079	12647		2.15	194	0.84	4573			2.2	Si
SLU 31	753	-12791	-2073	106518		2.35	194	0.87	4723			2.28	Si
SLU 39	573	-12821	-2156	7512		2.36	194	0.87	4727			2.19	Si
SLU 39	753	-13967	-2156	114266		2.57	194	0.9	4880			2.26	Si
SLU 84	573	-15168	-2277	24148		2.79	194	0.93	5040			2.21	Si
SLU 84	753	-16183	-2273	115823		2.98	194	0.95	5175			2.28	Si
SLU 73	573	-14243	-2372	14592		2.62	194	0.91	4917			2.07	Si
SLU 73	753	-15278	-2366	121146		2.81	194	0.93	5055			2.14	Si
SLU 52	573	-13044	-2114	11389		2.4	194	0.88	4757			2.25	Si
SLU 52	753	-13745	-2107	106770		2.53	194	0.89	4850			2.3	Si
SLU 82	573	-15003	-2515	11488		2.76	194	0.92	5018			1.99	Si
SLU 82	753	-16179	-2512	130491		2.98	194	0.95	5175			2.06	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	573	-4203	-3848	-100605		0.77	194	0.99	5367			1.39	Si
SLV 9	753	-7427	-2993	138931		1.37	194	1.11	6012			2.01	Si
SLV 3	573	-10792	4407	363101		2.03	190.06	1.24	6593			1.5	Si
SLV 3	753	-6498	3597	-147886		1.2	194	1.07	5826			1.62	Si
SLV 4	573	-10792	4407	363101		2.03	190.06	1.24	6593			1.5	Si
SLV 4	753	-6498	3597	-147886		1.2	194	1.07	5826			1.62	Si
SLV 1	573	-6570	4002	360112		1.85	126.56	1.2	4267			1.07	Si
SLV 1	753	-3286	3596	-150883		0.77	153.24	0.99	4233			1.18	Si
SLV 2	573	-6570	4002	360112		1.85	126.56	1.2	4267			1.07	Si
SLV 2	753	-3286	3596	-150883		0.77	153.24	0.99	4233			1.18	Si
SLV 13	573	-10506	-7348	-343319		1.94	192.96	1.22	6604			0.9	No, Vu<V
SLV 13	753	-15422	-6539	300364		2.84	194	1.4	7611			1.16	Si
SLV 16	573	-14728	-6942	-340330		2.71	194	1.38	7472			1.08	Si
SLV 16	753	-18634	-6538	303361		3.43	194	1.52	8254			1.26	Si
SLV 14	573	-10506	-7348	-343319		1.94	192.96	1.22	6604			0.9	No, Vu<V
SLV 14	753	-15422	-6539	300364		2.84	194	1.4	7611			1.16	Si
SLV 10	573	-4203	-3848	-100605		0.77	194	0.99	5367			1.39	Si
SLV 10	753	-7427	-2993	138931		1.37	194	1.11	6012			2.01	Si
SLV 15	573	-14728	-6942	-340330		2.71	194	1.38	7472			1.08	Si
SLV 15	753	-18634	-6538	303361		3.43	194	1.52	8254			1.26	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.38	0.69	-3738	19763	49386	2.5	Si
SLV 5	14	0.38	0.69	-3738	19763	49386	2.5	Si
SLV 1	14	0.38	0.96	-5198	19763	67077	3.39	Si
SLV 2	14	0.38	0.96	-5198	19763	67077	3.39	Si
SLV 9	14	0.38	1.13	-6155	19763	78183	3.96	Si
SLV 10	14	0.38	1.13	-6155	19763	78183	3.96	Si
SLV 3	14	0.38	1.63	-8867	19763	107556	5.44	Si
SLV 4	14	0.38	1.63	-8867	19763	107556	5.44	Si
SLV 14	14	0.38	2.44	-13256	19763	148517	7.52	Si
SLV 13	14	0.38	2.44	-13256	19763	148517	7.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-11243	-12927	46	0.041	14.154	0.946	63.785	967.392	No
SLV 13	-11243	-12927	46	0.041	14.154	0.946	63.785	967.392	No
SLV 15	-13680	-16959	27	0.042	16.628	0.953	64.778	967.392	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	-13680	-16959	27	0.042	16.628	0.953	64.778	967.392	No
SLV 3	-6681	-7102	-45	0.043	9.542	0.925	66.875	967.392	No
SLV 4	-6681	-7102	-45	0.043	9.542	0.925	66.875	967.392	No
SLV 7	-11974	-15257	-42	0.042	14.896	0.948	63.926	882.77	No
SLV 8	-11974	-15257	-42	0.042	14.896	0.948	63.926	882.77	No
SLV 11	-14073	-18214	-20	0.043	17.028	0.954	65.236	882.77	No
SLV 12	-14073	-18214	-20	0.043	17.028	0.954	65.236	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.629	SLU 82	Si
V_SLU	1.995	SLU 82	Si
PF_SLV	1.594	SLV 1	Si
V_SLV	0.899	SLV 13	No
PFFP_SLV	2.499	SLV 5	Si
R_SLV	0.066	SLV 13	No

Maschio 142

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-12.3	595.1	L4	L5	931	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 26	483	-83452	-2157656	3.2	23580073	10.929	Si
SLU 26	835	-52903	-624033	2.03	18490926	29.631	Si
SLU 5	483	-73850	-1931176	2.83	22421432	11.61	Si
SLU 5	835	-46555	-536182	1.79	16920188	31.557	Si
SLU 73	483	-109235	-2149705	4.19	24691160	11.486	Si
SLU 73	835	-68279	-594767	2.62	21563835	36.256	Si
SLU 68	483	-101403	-2273899	3.89	24661846	10.846	Si
SLU 68	835	-64070	-618938	2.46	20825767	33.648	Si
SLU 34	483	-92744	-2251532	3.56	24316423	10.8	Si
SLU 34	835	-58614	-663364	2.25	19753359	29.778	Si
SLU 13	483	-83142	-2025052	3.19	23548974	11.629	Si
SLU 13	835	-52267	-575513	2.01	18341562	31.87	Si
SLU 80	483	-111523	-2159128	4.28	24648959	11.416	Si
SLU 80	835	-71055	-566066	2.73	22008153	38.879	Si
SLU 76	483	-110695	-2367775	4.25	24666882	10.418	Si
SLU 76	835	-69782	-658269	2.68	21808554	33.13	Si
SLU 55	483	-101093	-2141295	3.88	24655151	11.514	Si
SLU 55	835	-63434	-570418	2.43	20707529	36.302	Si
SLU 78	483	-112721	-2150399	4.32	24617711	11.448	Si
SLU 78	835	-71973	-572213	2.76	22147691	38.705	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 6	483	-63559	-8371249	2.44	23682679	2.829	Si
SLV 6	835	-41487	-4160523	1.59	16796630	4.037	Si
SLV 10	483	-87541	-8174568	3.36	29550578	3.615	Si
SLV 10	835	-52127	-3657532	2	20293866	5.549	Si
SLV 5	483	-63559	-8371249	2.44	23682679	2.829	Si
SLV 5	835	-41487	-4160523	1.59	16796630	4.037	Si
SLV 8	483	-64875	6698881	2.49	24048519	3.59	Si
SLV 8	835	-43722	3418020	1.68	17558823	5.137	Si
SLV 1	483	-36040	-3326165	1.38	14878354	4.473	Si
SLV 1	835	-29856	-2094857	1.15	12595118	6.012	Si
SLV 11	483	-88858	6895563	3.41	29824103	4.325	Si
SLV 11	835	-54362	3921011	2.09	20986540	5.352	Si
SLV 2	483	-36040	-3326165	1.38	14878354	4.473	Si
SLV 2	835	-29856	-2094857	1.15	12595118	6.012	Si
SLV 9	483	-87541	-8174568	3.36	29550578	3.615	Si
SLV 9	835	-52127	-3657532	2	20293866	5.549	Si
SLV 12	483	-88858	6895563	3.41	29824103	4.325	Si
SLV 12	835	-54362	3921011	2.09	20986540	5.352	Si
SLV 7	483	-64875	6698881	2.49	24048519	3.59	Si
SLV 7	835	-43722	3418020	1.68	17558823	5.137	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	483	-102035	672	-896665		3.91	931	1.08	28087			41.77	Si
SLU 60	835	-63806	679	-134510		2.45	931	0.88	22990			33.84	Si
SLU 10	483	-81682	-812	-1806981		3.13	931	0.97	25373			31.25	Si
SLU 10	835	-50764	-387	-512011		1.95	931	0.82	21251			54.86	Si
SLU 13	483	-83142	-905	-2025052		3.19	931	0.98	25568			28.27	Si
SLU 13	835	-52267	-478	-575513		2.01	931	0.82	21451			44.84	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 26	483	-83452	-926	-2157656		3.2	931	0.98	25609			27.65	Si
SLU 26	835	-52903	-500	-624033		2.03	931	0.83	21536			43.11	Si
SLU 81	483	-111637	718	-1123145		4.28	931	1.08	28240			39.34	Si
SLU 81	835	-70153	726	-222361		2.69	931	0.91	23836			32.83	Si
SLU 47	483	-91801	-851	-2047419		3.52	931	1.03	26722			31.41	Si
SLU 47	835	-57723	-424	-531087		2.21	931	0.85	22179			52.27	Si
SLU 2	483	-72390	-879	-1713106		2.78	931	0.93	24134			27.45	Si
SLU 2	835	-45053	-455	-472681		1.73	931	0.79	20489			45	Si
SLU 23	483	-81992	-834	-1939586		3.15	931	0.97	25415			30.48	Si
SLU 23	835	-51400	-409	-560531		1.97	931	0.82	21336			52.22	Si
SLU 5	483	-73850	-972	-1931176		2.83	931	0.93	24329			25.03	Si
SLU 5	835	-46555	-546	-536182		1.79	931	0.79	20690			37.87	Si
SLU 34	483	-92744	-859	-2251532		3.56	931	1.03	26848			31.25	Si
SLU 34	835	-58614	-432	-663364		2.25	931	0.86	22297			51.66	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	483	-87541	-16127	-8174568		3.36	931	1.5	39232			2.43	Si
SLV 10	835	-52127	-14912	-3657532		2	931	1.23	32149			2.16	Si
SLV 6	483	-63559	-16396	-8371249		2.44	931	1.32	34435			2.1	Si
SLV 6	835	-41487	-15188	-4160523		1.59	931	1.15	30021			1.98	Si
SLD 8	483	-71379	7534	2384895		2.74	931	1.38	35999			4.78	Si
SLD 8	835	-46130	7011	1377537		1.77	931	1.19	30949			4.41	Si
SLV 11	483	-88858	17371	6895563		3.41	931	1.52	39495			2.27	Si
SLV 11	835	-54362	16174	3921011		2.09	931	1.25	32596			2.02	Si
SLD 7	483	-71379	7534	2384895		2.74	931	1.38	35999			4.78	Si
SLD 7	835	-46130	7011	1377537		1.77	931	1.19	30949			4.41	Si
SLV 7	483	-64875	17102	6698881		2.49	931	1.33	34698			2.03	Si
SLV 7	835	-43722	15898	3418020		1.68	931	1.17	30468			1.92	Si
SLV 12	483	-88858	17371	6895563		3.41	931	1.52	39495			2.27	Si
SLV 12	835	-54362	16174	3921011		2.09	931	1.25	32596			2.02	Si
SLV 5	483	-63559	-16396	-8371249		2.44	931	1.32	34435			2.1	Si
SLV 5	835	-41487	-15188	-4160523		1.59	931	1.15	30021			1.98	Si
SLV 9	483	-87541	-16127	-8174568		3.36	931	1.5	39232			2.43	Si
SLV 9	835	-52127	-14912	-3657532		2	931	1.23	32149			2.16	Si
SLV 8	483	-64875	17102	6698881		2.49	931	1.33	34698			2.03	Si
SLV 8	835	-43722	15898	3418020		1.68	931	1.17	30468			1.92	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 659 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.38	1.26	-32975	94840	413859	4.36	Si
SLV 1	14	0.38	1.26	-32975	94840	413859	4.36	Si
SLV 4	14	0.38	1.28	-33260	94840	417014	4.4	Si
SLV 3	14	0.38	1.28	-33260	94840	417014	4.4	Si
SLV 5	14	0.38	2.01	-52495	94840	613807	6.47	Si
SLV 6	14	0.38	2.01	-52495	94840	613807	6.47	Si
SLV 8	14	0.38	2.05	-53444	94840	622671	6.57	Si
SLV 7	14	0.38	2.05	-53444	94840	622671	6.57	Si
SLV 10	14	0.38	2.67	-69511	94840	760781	8.02	Si
SLV 9	14	0.38	2.67	-69511	94840	760781	8.02	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 659 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 16	-65993	-116376	-68	0.043	80.146	0.953	66.017	967.392	No
SLV 15	-65993	-116376	-68	0.043	80.146	0.953	66.017	967.392	No
SLV 14	-65322	-115981	-15	0.044	79.465	0.953	67.184	967.392	No
SLV 13	-65322	-115981	-15	0.044	79.465	0.953	67.184	967.392	No
SLV 12	-54362	-88858	-101	0.043	68.339	0.946	66.681	882.77	No
SLV 11	-54362	-88858	-101	0.043	68.339	0.946	66.681	882.77	No
SLV 1	-29856	-36040	64	0.047	43.573	0.922	73.647	967.392	No
SLV 2	-29856	-36040	64	0.047	43.573	0.922	73.647	967.392	No
SLV 9	-52127	-87541	74	0.044	66.072	0.944	67.696	882.77	No
SLV 10	-52127	-87541	74	0.044	66.072	0.944	67.696	882.77	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.418	SLU 76	Si
V_SLU	25.034	SLU 5	Si
PF_SLV	2.829	SLV 5	Si
V_SLV	1.916	SLV 7	Si
PFFP_SLV	4.364	SLV 1	Si
R_SLV	0.068	SLV 15	No

Maschio 143

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	-335.9	-2467.8	126.6	L5	L6	462.6	28	352	352	352			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 41	835	-32194	-463762	2.49	5173925	11.156	Si
SLU 41	1045	-20259	-604706	1.56	3785803	6.261	Si
SLU 77	835	-38194	-599574	2.95	5635801	9.4	Si
SLU 77	1045	-24612	-693191	1.9	4364419	6.296	Si
SLU 80	835	-38381	-665088	2.96	5647658	8.492	Si
SLU 80	1045	-24849	-687971	1.92	4393615	6.386	Si
SLU 79	835	-37744	-610384	2.91	5606595	9.185	Si
SLU 79	1045	-24338	-693785	1.88	4330463	6.242	Si
SLU 35	835	-32359	-508494	2.5	5188705	10.204	Si
SLU 35	1045	-20756	-641686	1.6	3856148	6.009	Si
SLU 78	835	-38832	-654278	3	5675605	8.675	Si
SLU 78	1045	-25123	-687377	1.94	4426957	6.44	Si
SLU 37	835	-31908	-519305	2.46	5147969	9.913	Si
SLU 37	1045	-20482	-642280	1.58	3817562	5.944	Si
SLU 42	835	-32832	-518466	2.53	5230502	10.088	Si
SLU 42	1045	-20770	-598892	1.6	3858104	6.442	Si
SLU 38	835	-32546	-574009	2.51	5205345	9.068	Si
SLU 38	1045	-20994	-636467	1.62	3889361	6.111	Si
SLU 36	835	-32997	-563198	2.55	5244821	9.313	Si
SLU 36	1045	-21268	-635872	1.64	3927333	6.176	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 5	835	-33522	-1403204	2.59	6110830	4.355	Si
SLV 5	1045	-22395	-472195	1.73	4446645	9.417	Si
SLV 11	835	-16936	675814	1.31	3497846	5.176	Si
SLV 11	1045	-9895	-232684	0.76	2145552	9.221	Si
SLV 12	835	-16936	675814	1.31	3497846	5.176	Si
SLV 12	1045	-9895	-232684	0.76	2145552	9.221	Si
SLV 3	835	-32219	-189130	2.49	5934646	31.379	Si
SLV 3	1045	-17478	-750665	1.35	3595926	4.79	Si
SLV 10	835	-28305	-1327633	2.19	5375593	4.049	Si
SLV 10	1045	-20629	-233212	1.59	4149296	17.792	Si
SLV 8	835	-22153	600243	1.71	4406446	7.341	Si
SLV 8	1045	-11661	-471667	0.9	2498297	5.297	Si
SLV 4	835	-32219	-189130	2.49	5934646	31.379	Si
SLV 4	1045	-17478	-750665	1.35	3595926	4.79	Si
SLV 6	835	-33522	-1403204	2.59	6110830	4.355	Si
SLV 6	1045	-22395	-472195	1.73	4446645	9.417	Si
SLV 7	835	-22153	600243	1.71	4406446	7.341	Si
SLV 7	1045	-11661	-471667	0.9	2498297	5.297	Si
SLV 9	835	-28305	-1327633	2.19	5375593	4.049	Si
SLV 9	1045	-20629	-233212	1.59	4149296	17.792	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	835	-36761	-2506	-581787		2.84	462.57	0.93	12097			4.83	Si
SLU 73	1045	-23397	-2254	-534358		1.81	462.57	0.8	10315			4.58	Si
SLU 81	835	-37007	-2299	-494956		2.86	462.57	0.94	12130			5.28	Si
SLU 81	1045	-23217	-2295	-581342		1.79	462.57	0.79	10291			4.48	Si
SLU 83	835	-38030	-2287	-554841		2.94	462.57	0.95	12266			5.36	Si
SLU 83	1045	-24114	-2283	-656211		1.86	462.57	0.8	10411			4.56	Si
SLU 74	835	-37172	-2190	-539688		2.87	462.57	0.94	12152			5.55	Si
SLU 74	1045	-23715	-2186	-618323		1.83	462.57	0.8	10358			4.74	Si
SLU 75	835	-37809	-2392	-594392		2.92	462.57	0.94	12237			5.12	Si
SLU 75	1045	-24227	-2239	-612509		1.87	462.57	0.8	10426			4.66	Si
SLU 80	835	-38381	-2348	-665088		2.96	462.57	0.95	12313			5.24	Si
SLU 80	1045	-24849	-2194	-687971		1.92	462.57	0.81	10509			4.79	Si
SLU 82	835	-37645	-2500	-549660		2.91	462.57	0.94	12215			4.88	Si
SLU 82	1045	-23729	-2348	-575528		1.83	462.57	0.8	10359			4.41	Si
SLU 78	835	-38832	-2381	-654278		3	462.57	0.96	12373			5.2	Si
SLU 78	1045	-25123	-2227	-687377		1.94	462.57	0.81	10545			4.74	Si
SLU 76	835	-37784	-2494	-641672		2.92	462.57	0.94	12233			4.9	Si
SLU 76	1045	-24294	-2242	-609227		1.88	462.57	0.81	10435			4.66	Si
SLU 84	835	-38667	-2489	-609545		2.99	462.57	0.95	12351			4.96	Si
SLU 84	1045	-24626	-2336	-650397		1.9	462.57	0.81	10479			4.49	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 6	835	-28740	-4943	-804652		2.22	462.57	1.28	16541			3.35	Si
SLD 6	1045	-18800	-4508	-403017		1.45	462.57	1.12	14553			3.23	Si
SLV 12	835	-16936	6727	675814		1.31	462.57	1.09	14180			2.11	Si
SLV 12	1045	-9895	5717	-232684		0.76	462.57	0.99	12772			2.23	Si
SLV 10	835	-28305	-9287	-1327633		2.19	462.57	1.27	16454			1.77	Si
SLV 10	1045	-20629	-8130	-233212		1.59	462.57	1.15	14919			1.84	Si
SLV 9	835	-28305	-9287	-1327633		2.19	462.57	1.27	16454			1.77	Si
SLV 9	1045	-20629	-8130	-233212		1.59	462.57	1.15	14919			1.84	Si
SLV 6	835	-33522	-9655	-1403204		2.59	462.57	1.35	17498			1.81	Si
SLV 6	1045	-22395	-8641	-472195		1.73	462.57	1.18	15272			1.77	Si
SLV 5	835	-33522	-9655	-1403204		2.59	462.57	1.35	17498			1.81	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1045	-22395	-8641	-472195		1.73	462.57	1.18	15272			1.77	Si
SLV 7	835	-22153	6359	600243		1.71	462.57	1.18	15224			2.39	Si
SLV 7	1045	-11661	5206	-471667		0.9	462.57	1.01	13125			2.52	Si
SLV 8	835	-22153	6359	600243		1.71	462.57	1.18	15224			2.39	Si
SLV 8	1045	-11661	5206	-471667		0.9	462.57	1.01	13125			2.52	Si
SLD 5	835	-28740	-4943	-804652		2.22	462.57	1.28	16541			3.35	Si
SLD 5	1045	-18800	-4508	-403017		1.45	462.57	1.12	14553			3.23	Si
SLV 11	835	-16936	6727	675814		1.31	462.57	1.09	14180			2.11	Si
SLV 11	1045	-9895	5717	-232684		0.76	462.57	0.99	12772			2.23	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.46	0.82	-10676	56210	139387	2.48	Si
SLV 12	14	0.46	0.82	-10676	56210	139387	2.48	Si
SLV 16	14	0.46	0.95	-12353	56210	159447	2.84	Si
SLV 15	14	0.46	0.95	-12353	56210	159447	2.84	Si
SLV 7	14	0.46	0.96	-12473	56210	160863	2.86	Si
SLV 8	14	0.46	0.96	-12473	56210	160863	2.86	Si
SLV 14	14	0.46	1.2	-15588	56210	196732	3.5	Si
SLV 13	14	0.46	1.2	-15588	56210	196732	3.5	Si
SLV 3	14	0.46	1.42	-18343	56210	227036	4.04	Si
SLV 4	14	0.46	1.42	-18343	56210	227036	4.04	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-10898	-35629	-96	0.044	17.714	0.91	70.665	1108.806	No
SLV 1	-10898	-35629	-96	0.044	17.714	0.91	70.665	1108.806	No
SLV 16	-8250	-14828	78	0.047	15.1	0.9	75.297	1108.806	No
SLV 15	-8250	-14828	78	0.047	15.1	0.9	75.297	1108.806	No
SLV 3	-9372	-32219	-67	0.047	16.203	0.904	75.378	1108.806	No
SLV 4	-9372	-32219	-67	0.047	16.203	0.904	75.378	1108.806	No
SLV 13	-9776	-18239	49	0.048	16.602	0.906	77.001	1108.806	No
SLV 14	-9776	-18239	49	0.048	16.602	0.906	77.001	1108.806	No
SLV 6	-12285	-33522	-79	0.045	19.096	0.914	71.348	1011.814	No
SLV 5	-12285	-33522	-79	0.045	19.096	0.914	71.348	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.944	SLU 37	Si
V_SLU	4.412	SLU 82	Si
PF_SLV	4.049	SLV 9	Si
V_SLV	1.767	SLV 5	Si
PFFP_SLV	2.48	SLV 11	Si
R_SLV	0.064	SLV 1	No

Maschio 144

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	206.6	-2467.8	595.1	L5	L6	388.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	835	-28358	648920	2.61	3745669	5.772	Si
SLU 81	1045	-21892	-88463	2.01	3201942	36.195	Si
SLU 41	835	-24606	591315	2.26	3452446	5.839	Si
SLU 41	1045	-19443	-7783	1.79	2948092	378.771	Si
SLU 83	835	-29335	674880	2.7	3811853	5.648	Si
SLU 83	1045	-22906	-9369	2.11	3299279	352.15	Si
SLU 32	835	-23995	564990	2.21	3398827	6.016	Si
SLU 32	1045	-18918	-1940	1.74	2890298	1000	Si
SLU 77	835	-29700	674514	2.73	3835531	5.686	Si
SLU 77	1045	-23395	75569	2.15	3344615	44.259	Si
SLU 74	835	-28724	648554	2.64	3770910	5.814	Si
SLU 74	1045	-22381	-3526	2.06	3249451	921.627	Si
SLU 79	835	-29462	667115	2.71	3820161	5.726	Si
SLU 79	1045	-23191	89740	2.13	3325887	37.061	Si
SLU 35	835	-24971	590949	2.3	3483695	5.895	Si
SLU 35	1045	-19932	77154	1.83	3000850	38.894	Si
SLU 37	835	-24733	583551	2.27	3463389	5.935	Si
SLU 37	1045	-19729	91325	1.81	2979034	32.62	Si
SLU 39	835	-23629	565355	2.17	3366015	5.954	Si
SLU 39	1045	-18430	-86878	1.69	2835369	32.636	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	835	-30578	1093126	2.81	4573343	4.184	Si
SLV 4	1045	-23808	-206989	2.19	3796262	18.34	Si
SLD 7	835	-23105	807290	2.12	3707991	4.593	Si
SLD 7	1045	-18435	-112004	1.69	3084275	27.537	Si
SLV 10	835	-11640	-499782	1.07	2063035	4.128	Si
SLV 10	1045	-6936	166850	0.64	1276952	7.653	Si
SLV 11	835	-22142	1070164	2.04	3584573	3.35	Si
SLV 11	1045	-18857	-144939	1.73	3143312	21.687	Si
SLV 8	835	-27732	1334369	2.55	4263013	3.195	Si
SLV 8	1045	-23068	-223944	2.12	3703230	16.536	Si
SLV 3	835	-30578	1093126	2.81	4573343	4.184	Si
SLV 3	1045	-23808	-206989	2.19	3796262	18.34	Si
SLV 12	835	-22142	1070164	2.04	3584573	3.35	Si
SLV 12	1045	-18857	-144939	1.73	3143312	21.687	Si
SLV 9	835	-11640	-499782	1.07	2063035	4.128	Si
SLV 9	1045	-6936	166850	0.64	1276952	7.653	Si
SLD 8	835	-23105	807290	2.12	3707991	4.593	Si
SLD 8	1045	-18435	-112004	1.69	3084275	27.537	Si
SLV 7	835	-27732	1334369	2.55	4263013	3.195	Si
SLV 7	1045	-23068	-223944	2.12	3703230	16.536	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	835	-28358	2605	648920		2.61	388.5	0.9	9824			3.77	Si
SLU 81	1045	-21892	2605	-88463		2.01	388.5	0.82	8962			3.44	Si
SLU 83	835	-29335	2386	674880		2.7	388.5	0.92	9955			4.17	Si
SLU 83	1045	-22906	2387	-9369		2.11	388.5	0.84	9097			3.81	Si
SLU 82	835	-28128	2214	598469		2.59	388.5	0.9	9794			4.42	Si
SLU 82	1045	-21579	2214	-73086		1.98	388.5	0.82	8921			4.03	Si
SLU 64	835	-25527	2126	536506		2.35	388.5	0.87	9447			4.44	Si
SLU 64	1045	-19466	2127	-21748		1.79	388.5	0.79	8639			4.06	Si
SLU 53	835	-26374	2087	567171		2.42	388.5	0.88	9560			4.58	Si
SLU 53	1045	-20300	2088	3417		1.87	388.5	0.8	8750			4.19	Si
SLU 18	835	-21280	2000	483972		1.96	388.5	0.82	8881			4.44	Si
SLU 18	1045	-16348	2001	-79935		1.5	388.5	0.76	8223			4.11	Si
SLU 62	835	-26985	2161	593497		2.48	388.5	0.89	9641			4.46	Si
SLU 62	1045	-20825	2161	-2426		1.91	388.5	0.81	8820			4.08	Si
SLU 60	835	-26009	2379	567537		2.39	388.5	0.87	9511			4	Si
SLU 60	1045	-19811	2380	-81521		1.82	388.5	0.8	8685			3.65	Si
SLU 39	835	-23629	2226	565355		2.17	388.5	0.85	9194			4.13	Si
SLU 39	1045	-18430	2226	-86878		1.69	388.5	0.78	8501			3.82	Si
SLU 74	835	-28724	2313	648554		2.64	388.5	0.91	9873			4.27	Si
SLU 74	1045	-22381	2314	-3526		2.06	388.5	0.83	9028			3.9	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	835	-17230	-4031	-235577		1.58	388.5	1.15	12511			3.1	Si
SLV 5	1045	-11146	-3242	87846		1.02	388.5	1.04	11294			3.48	Si
SLV 8	835	-27732	8039	1334369		2.55	388.5	1.34	14611			1.82	Si
SLV 8	1045	-23068	6904	-223944		2.12	388.5	1.26	13679			1.98	Si
SLV 9	835	-11640	-4676	-499782		1.07	388.5	1.05	11393			2.44	Si
SLV 9	1045	-6936	-3540	166850		0.64	388.5	0.96	10452			2.95	Si
SLV 10	835	-11640	-4676	-499782		1.07	388.5	1.05	11393			2.44	Si
SLV 10	1045	-6936	-3540	166850		0.64	388.5	0.96	10452			2.95	Si
SLV 7	835	-27732	8039	1334369		2.55	388.5	1.34	14611			1.82	Si
SLV 7	1045	-23068	6904	-223944		2.12	388.5	1.26	13679			1.98	Si
SLV 6	835	-17230	-4031	-235577		1.58	388.5	1.15	12511			3.1	Si
SLV 6	1045	-11146	-3242	87846		1.02	388.5	1.04	11294			3.48	Si
SLV 11	835	-22142	7395	1070164		2.04	388.5	1.24	13493			1.82	Si
SLV 11	1045	-18857	6606	-144939		1.73	388.5	1.18	12836			1.94	Si
SLD 7	835	-23105	4372	807290		2.12	388.5	1.26	13686			3.13	Si
SLD 7	1045	-18435	3901	-112004		1.69	388.5	1.17	12752			3.27	Si
SLD 8	835	-23105	4372	807290		2.12	388.5	1.26	13686			3.13	Si
SLD 8	1045	-18435	3901	-112004		1.69	388.5	1.17	12752			3.27	Si
SLV 12	835	-22142	7395	1070164		2.04	388.5	1.24	13493			1.82	Si
SLV 12	1045	-18857	6606	-144939		1.73	388.5	1.18	12836			1.94	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.46	0.63	-6859	47209	91066	1.93	Si
SLV 13	14	0.46	0.63	-6859	47209	91066	1.93	Si
SLV 9	14	0.46	0.7	-7589	47209	100185	2.12	Si
SLV 10	14	0.46	0.7	-7589	47209	100185	2.12	Si
SLV 15	14	0.46	0.96	-10453	47209	134835	2.86	Si
SLV 16	14	0.46	0.96	-10453	47209	134835	2.86	Si
SLV 6	14	0.46	1.09	-11810	47209	150653	3.19	Si
SLV 5	14	0.46	1.09	-11810	47209	150653	3.19	Si
SLV 11	14	0.46	1.8	-19571	47209	233651	4.95	Si
SLV 12	14	0.46	1.8	-19571	47209	233651	4.95	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-13349	-30578	101	0.042	19.078	0.925	65.877	1108.806	No
SLV 4	-13349	-30578	101	0.042	19.078	0.925	65.877	1108.806	No
SLV 14	-5709	-8794	-113	0.042	11.497	0.895	68.794	1108.806	No
SLV 13	-5709	-8794	-113	0.042	11.497	0.895	68.794	1108.806	No
SLV 1	-11717	-27428	78	0.044	17.438	0.919	69.036	1108.806	No
SLV 2	-11717	-27428	78	0.044	17.438	0.919	69.036	1108.806	No
SLV 15	-7342	-11944	-90	0.044	13.087	0.902	71.085	1108.806	No
SLV 16	-7342	-11944	-90	0.044	13.087	0.902	71.085	1108.806	No
SLV 8	-13151	-27732	61	0.044	18.879	0.924	69.75	1011.814	No
SLV 7	-13151	-27732	61	0.044	18.879	0.924	69.75	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.648	SLU 83	Si
V_SLU	3.44	SLU 81	Si
PF_SLV	3.195	SLV 7	Si
V_SLV	1.817	SLV 7	Si
PFFP_SLV	1.929	SLV 13	Si
R_SLV	0.059	SLV 3	No

Maschio 145

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2271.3	595.1	-2467.8	595.1	L5	L6	196.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 19	925	-9772	34876	1.78	750786	21.527	Si
SLU 19	1105	-8810	-80629	1.6	695427	8.625	Si
SLU 40	925	-10793	47328	1.96	805041	17.01	Si
SLU 40	1105	-10025	-83731	1.82	764616	9.132	Si
SLU 60	925	-12277	40684	2.23	875798	21.527	Si
SLU 60	1105	-10739	-94520	1.95	802288	8.488	Si
SLU 73	925	-12587	46491	2.29	889345	19.129	Si
SLU 73	1105	-11252	-90366	2.05	827945	9.162	Si
SLU 81	925	-13297	53136	2.42	918847	17.292	Si
SLU 81	1105	-11954	-97623	2.17	861204	8.822	Si
SLU 82	925	-13084	51026	2.38	910217	17.838	Si
SLU 82	1105	-11817	-98289	2.15	854913	8.698	Si
SLU 52	925	-11566	34039	2.1	843115	24.769	Si
SLU 52	1105	-10037	-87264	1.82	765292	8.77	Si
SLU 18	925	-9986	36986	1.81	762517	20.616	Si
SLU 18	1105	-8946	-79962	1.63	703516	8.798	Si
SLU 10	925	-9275	30341	1.69	722694	23.819	Si
SLU 10	1105	-8244	-72706	1.5	661002	9.091	Si
SLU 61	925	-12063	38574	2.19	866212	22.456	Si
SLU 61	1105	-10603	-95187	1.93	795271	8.355	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 14	925	-6432	-303749	1.17	571476	1.881	Si
SLV 14	1105	-2838	217067	0.52	267092	1.23	Si
SLV 9	925	-4938	-129370	0.9	449549	3.475	Si
SLV 9	1105	-3547	68584	0.64	330084	4.813	Si
SLV 13	925	-6432	-303749	1.17	571476	1.881	Si
SLV 13	1105	-2838	217067	0.52	267092	1.23	Si
SLV 2	925	-9907	328073	1.8	829956	2.53	Si
SLV 2	1105	-11289	-304840	2.05	922870	3.027	Si
SLV 16	925	-8755	-263670	1.59	748144	2.837	Si
SLV 16	1105	-4766	187766	0.87	435079	2.317	Si
SLV 1	925	-9907	328073	1.8	829956	2.53	Si
SLV 1	1105	-11289	-304840	2.05	922870	3.027	Si
SLV 15	925	-8755	-263670	1.59	748144	2.837	Si
SLV 15	1105	-4766	187766	0.87	435079	2.317	Si
SLV 3	925	-12230	368151	2.22	983026	2.67	Si
SLV 3	1105	-13216	-334141	2.4	1043240	3.122	Si
SLV 10	925	-4938	-129370	0.9	449549	3.475	Si
SLV 10	1105	-3547	68584	0.64	330084	4.813	Si
SLV 4	925	-12230	368151	2.22	983026	2.67	Si
SLV 4	1105	-13216	-334141	2.4	1043240	3.122	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	925	-11196	1230	62251		2.03	196.5	0.83	4550			3.7	Si
SLU 42	1105	-10415	1229	-50380		1.89	196.5	0.81	4445			3.62	Si
SLU 73	925	-12587	1364	46491		2.29	196.5	0.86	4735			3.47	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	1105	-11252	1360	-90366		2.05	196.5	0.83	4557			3.35	Si
SLU 31	925	-10296	1234	42793		1.87	196.5	0.81	4429			3.59	Si
SLU 31	1105	-9459	1231	-75808		1.72	196.5	0.78	4318			3.51	Si
SLU 82	925	-13084	1469	51026		2.38	196.5	0.87	4801			3.27	Si
SLU 82	1105	-11817	1467	-98289		2.15	196.5	0.84	4632			3.16	Si
SLU 81	925	-13297	1434	53136		2.42	196.5	0.88	4830			3.37	Si
SLU 81	1105	-11954	1434	-97623		2.17	196.5	0.85	4650			3.24	Si
SLU 40	925	-10793	1340	47328		1.96	196.5	0.82	4496			3.36	Si
SLU 40	1105	-10025	1338	-83731		1.82	196.5	0.8	4393			3.28	Si
SLU 84	925	-13487	1359	65949		2.45	196.5	0.88	4855			3.57	Si
SLU 84	1105	-12207	1358	-64938		2.22	196.5	0.85	4684			3.45	Si
SLU 61	925	-12063	1263	38574		2.19	196.5	0.85	4665			3.69	Si
SLU 61	1105	-10603	1261	-95187		1.93	196.5	0.81	4470			3.55	Si
SLU 39	925	-11006	1304	49438		2	196.5	0.82	4524			3.47	Si
SLU 39	1105	-10161	1305	-83065		1.85	196.5	0.8	4411			3.38	Si
SLU 83	925	-13701	1324	68059		2.49	196.5	0.89	4883			3.69	Si
SLU 83	1105	-12344	1325	-64272		2.24	196.5	0.85	4703			3.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 4	925	-10562	3054	175939		1.92	196.5	1.22	6697			2.19	Si
SLD 4	1105	-10245	2690	-176194		1.86	196.5	1.21	6634			2.47	Si
SLV 14	925	-6432	-4433	-303749		1.5	153.07	1.13	4858			1.1	Si
SLV 14	1105	-2838	-3580	217067		1.55	65.32	1.14	2092			0.58	No, Vu<V
SLV 1	925	-9907	5695	328073		1.81	195.41	1.2	6541			1.15	Si
SLV 1	1105	-11289	4948	-304840		2.05	196.5	1.24	6843			1.38	Si
SLV 15	925	-8755	-4070	-263670		1.59	196.5	1.15	6336			1.56	Si
SLV 15	1105	-4766	-3323	187766		0.96	176.56	1.03	5073			1.53	Si
SLV 13	925	-6432	-4433	-303749		1.5	153.07	1.13	4858			1.1	Si
SLV 13	1105	-2838	-3580	217067		1.55	65.32	1.14	2092			0.58	No, Vu<V
SLV 3	925	-12230	6058	368151		2.22	196.5	1.28	7031			1.16	Si
SLV 3	1105	-13216	5205	-334141		2.4	196.5	1.31	7228			1.39	Si
SLD 3	925	-10562	3054	175939		1.92	196.5	1.22	6697			2.19	Si
SLD 3	1105	-10245	2690	-176194		1.86	196.5	1.21	6634			2.47	Si
SLV 16	925	-8755	-4070	-263670		1.59	196.5	1.15	6336			1.56	Si
SLV 16	1105	-4766	-3323	187766		0.96	176.56	1.03	5073			1.53	Si
SLV 4	925	-12230	6058	368151		2.22	196.5	1.28	7031			1.16	Si
SLV 4	1105	-13216	5205	-334141		2.4	196.5	1.31	7228			1.39	Si
SLV 2	925	-9907	5695	328073		1.81	195.41	1.2	6541			1.15	Si
SLV 2	1105	-11289	4948	-304840		2.05	196.5	1.24	6843			1.38	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.46	0.81	-4465	23878	58356	2.44	Si
SLV 14	14	0.46	0.81	-4465	23878	58356	2.44	Si
SLV 9	14	0.46	0.82	-4505	23878	58838	2.46	Si
SLV 10	14	0.46	0.82	-4505	23878	58838	2.46	Si
SLV 15	14	0.46	1.17	-6456	23878	81702	3.42	Si
SLV 16	14	0.46	1.17	-6456	23878	81702	3.42	Si
SLV 6	14	0.46	1.19	-6530	23878	82537	3.46	Si
SLV 5	14	0.46	1.19	-6530	23878	82537	3.46	Si
SLV 12	14	0.46	2.02	-11141	23878	130129	5.45	Si
SLV 11	14	0.46	2.02	-11141	23878	130129	5.45	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-3340	-4018	165	0.021	6.253	0.899	34.035	1011.814	No
SLV 10	-3340	-4018	165	0.021	6.253	0.899	34.035	1011.814	No
SLV 5	-4867	-6814	143	0.029	7.762	0.912	45.75	1011.814	No
SLV 6	-4867	-6814	143	0.029	7.762	0.912	45.75	1011.814	No
SLV 8	-8972	-15627	-164	0.031	11.89	0.936	48.038	1011.814	No
SLV 7	-8972	-15627	-164	0.031	11.89	0.936	48.038	1011.814	No
SLV 12	-7444	-12830	-142	0.032	10.347	0.929	49.872	1011.814	No
SLV 11	-7444	-12830	-142	0.032	10.347	0.929	49.872	1011.814	No
SLV 3	-9317	-15805	-82	0.039	12.239	0.938	59.83	1108.806	No
SLV 4	-9317	-15805	-82	0.039	12.239	0.938	59.83	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	8.355	SLU 61	Si
V_SLU	3.157	SLU 82	Si
PF_SLV	1.23	SLV 13	Si
V_SLV	0.584	SLV 13	No
PFFP_SLV	2.444	SLV 13	Si
R_SLV	0.034	SLV 9	No

Maschio 146

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	595.1	-2181.3	595.1	L5	L6	219.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 29	925	-2047	344933	0	0	0	No, e>l/2
SLU 29	1105	20	134845	0	0	0	No, Trazione
SLU 9	925	-1887	304504	0	0	0	No, e>l/2
SLU 9	1105	148	118597	0	0	0	No, Trazione
SLU 16	925	-3053	308904	0.5	314643	1.019	Si
SLU 16	1105	-1017	123267	0	0	0	No, e>l/2
SLU 27	925	-2835	333929	0	0	0	No, e>l/2
SLU 27	1105	-768	131660	0	0	0	No, e>l/2
SLU 51	925	-3685	343763	0.6	374626	1.09	Si
SLU 51	1105	-1049	132766	0	0	0	No, e>l/2
SLU 8	925	-1867	311954	0	0	0	No, e>l/2
SLU 8	1105	169	119237	0	0	0	No, Trazione
SLU 7	925	-2675	293500	0.44	277939	0.947	No, M>Mu
SLU 7	1105	-640	115412	0	0	0	No, e>l/2
SLU 28	925	-2855	326479	0	0	0	No, e>l/2
SLU 28	1105	-789	131019	0	0	0	No, e>l/2
SLU 50	925	-3664	351213	0.6	372726	1.061	Si
SLU 50	1105	-1028	133406	0	0	0	No, e>l/2
SLU 6	925	-2655	300950	0	0	0	No, e>l/2
SLU 6	1105	-619	116052	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	925	-3130	645963	0	0	0	No, e>l/2
SLV 8	1105	-999	-32584	0.16	108177	3.32	Si
SLD 1	925	-4465	388008	0.73	460897	1.188	Si
SLD 1	1105	-2313	-41534	0.38	246039	5.924	Si
SLV 4	925	-545	846059	0	0	0	No, e>l/2
SLV 4	1105	1760	-204884	0	0	0	No, Trazione
SLD 2	925	-4465	388008	0.73	460897	1.188	Si
SLD 2	1105	-2313	-41534	0.38	246039	5.924	Si
SLD 3	925	-4009	462660	0	0	0	No, e>l/2
SLD 3	1105	-1856	-47812	0.3	198700	4.156	Si
SLV 7	925	-3130	645963	0	0	0	No, e>l/2
SLV 7	1105	-999	-32584	0.16	108177	3.32	Si
SLV 3	925	-545	846059	0	0	0	No, e>l/2
SLV 3	1105	1760	-204884	0	0	0	No, Trazione
SLV 2	925	-1629	669242	0	0	0	No, e>l/2
SLV 2	1105	670	-191305	0	0	0	No, Trazione
SLV 1	925	-1629	669242	0	0	0	No, e>l/2
SLV 1	1105	670	-191305	0	0	0	No, Trazione
SLD 4	925	-4009	462660	0	0	0	No, e>l/2
SLD 4	1105	-1856	-47812	0.3	198700	4.156	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	925	-2835	1107	333929		0	0	0.56	0			0	No, Vu<V
SLU 27	1105	-768	1107	131660		0	0	0.56	0			0	No, Vu<V
SLU 50	925	-3664	1186	351213		3.14	41.71	0.97	1137			0.96	No, Vu<V
SLU 50	1105	-1028	1186	133406		0	0	0.56	0			0	No, Vu<V
SLU 38	925	-3253	1073	334433		5.58	20.82	1.08	632			0.59	No, Vu<V
SLU 38	1105	-1186	1073	138234		0	0	0.56	0			0	No, Vu<V
SLU 51	925	-3685	1149	343763		2.67	49.36	0.91	1259			1.1	Si
SLU 51	1105	-1049	1149	132766		0	0	0.56	0			0	No, Vu<V
SLU 37	925	-3233	1111	341883		9.64	11.97	1.08	363			0.33	No, Vu<V
SLU 37	1105	-1166	1111	138875		0	0	0.56	0			0	No, Vu<V
SLU 28	925	-2855	1069	326479		0	0	0.56	0			0	No, Vu<V
SLU 28	1105	-789	1069	131019		0	0	0.56	0			0	No, Vu<V
SLU 29	925	-2047	1150	344933		0	0	0.56	0			0	No, Vu<V
SLU 29	1105	20	1150	134845		0	0	0.56	0			0	No, Vu<V
SLU 30	925	-2067	1112	337483		0	0	0.56	0			0	No, Vu<V
SLU 30	1105	-1	1112	134204		0	0	0.56	0			0	No, Vu<V
SLU 72	925	-3864	1246	376742		3.75	36.76	1.06	1087			0.87	No, Vu<V
SLU 72	1105	-1198	1246	148373		0	0	0.56	0			0	No, Vu<V
SLU 71	925	-3844	1284	384192		4.67	29.41	1.08	892			0.69	No, Vu<V
SLU 71	1105	-1177	1284	149014		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 4	925	-4009	3108	462660		0	0	0.83	0			0	No, Vu<V
SLD 4	1105	-1856	2743	-47812		0.3	219.5	0.89	5493			2	Si
SLD 1	925	-4465	2581	388008		2.33	68.55	1.3	2492			0.97	No, Vu<V
SLD 1	1105	-2313	2278	-41534		0.38	219.5	0.91	5584			2.45	Si
SLV 7	925	-3130	4256	645963		0	0	0.83	0			0	No, Vu<V
SLV 7	1105	-999	3763	-32584		0.16	219.5	0.87	5321			1.41	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	925	-1629	5258	669242		0	0	0.83	0			0	No, Vu<V
SLV 2	1105	670	4554	-191305		0	0	0.83	0			0	No, Vu<V
SLV 4	925	-545	6512	846059		0	0	0.83	0			0	No, Vu<V
SLV 4	1105	1760	5653	-204884		0	0	0.83	0			0	No, Vu<V
SLD 2	925	-4465	2581	388008		2.33	68.55	1.3	2492			0.97	No, Vu<V
SLD 2	1105	-2313	2278	-41534		0.38	219.5	0.91	5584			2.45	Si
SLV 8	925	-3130	4256	645963		0	0	0.83	0			0	No, Vu<V
SLV 8	1105	-999	3763	-32584		0.16	219.5	0.87	5321			1.41	Si
SLV 1	925	-1629	5258	669242		0	0	0.83	0			0	No, Vu<V
SLV 1	1105	670	4554	-191305		0	0	0.83	0			0	No, Vu<V
SLV 3	925	-545	6512	846059		0	0	0.83	0			0	No, Vu<V
SLV 3	1105	1760	5653	-204884		0	0	0.83	0			0	No, Vu<V
SLD 3	925	-4009	3108	462660		0	0	0.83	0			0	No, Vu<V
SLD 3	1105	-1856	2743	-47812		0.3	219.5	0.89	5493			2	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.46	0	-916	26673	0	0	No, e>t/2
SLV 4	14	0.46	0	145	26673	0	0	No, Trazione
SLV 3	14	0.46	0	145	26673	0	0	No, Trazione
SLV 1	14	0.46	0	-916	26673	0	0	No, e>t/2
SLV 8	14	0.46	0.38	-2329	26673	31589	1.18	Si
SLV 7	14	0.46	0.38	-2329	26673	31589	1.18	Si
SLV 12	14	0.46	0.9	-5510	26673	71477	2.68	Si
SLV 11	14	0.46	0.9	-5510	26673	71477	2.68	Si
SLV 6	14	0.46	0.95	-5865	26673	75702	2.84	Si
SLV 5	14	0.46	0.95	-5865	26673	75702	2.84	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-943	1758	3	0	0	0	0	1108.806	No, Trazione
SLV 3	-288	3452	-54	0	0	0	0	1108.806	No, Trazione
SLV 2	-943	1758	3	0	0	0	0	1108.806	No, Trazione
SLV 4	-288	3452	-54	0	0	0	0	1108.806	No, Trazione
SLV 7	-1511	-854	-106	0.032	4.906	0.89	51.645	1011.814	No
SLV 8	-1511	-854	-106	0.032	4.906	0.89	51.645	1011.814	No
SLV 10	-5398	-11883	96	0.037	8.631	0.911	59.357	1011.814	No
SLV 9	-5398	-11883	96	0.037	8.631	0.911	59.357	1011.814	No
SLV 12	-3214	-6239	-93	0.037	6.484	0.895	59.739	1011.814	No
SLV 11	-3214	-6239	-93	0.037	6.484	0.895	59.739	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 29	No
V_SLU	0	SLU 6	No
PF_SLV	0	SLV 4	No
V_SLV	0	SLD 3	No
PFFP_SLV	0	SLV 4	No
R_SLV	0	SLV 4	No

Maschio 147

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2249.3	-335.9	-2467.8	-335.9	L5	L6	218.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 40	925	-12415	186380	2.03	1018443	5.464	Si
SLU 40	1105	-12509	-222617	2.04	1023597	4.598	Si
SLU 61	925	-13681	178178	2.24	1084355	6.086	Si
SLU 61	1105	-13047	-231724	2.13	1052217	4.541	Si
SLU 65	925	-13579	187717	2.22	1079306	5.75	Si
SLU 65	1105	-12829	-220441	2.1	1040761	4.721	Si
SLU 60	925	-13626	157975	2.23	1081631	6.847	Si
SLU 60	1105	-12865	-223565	2.1	1042668	4.664	Si
SLU 52	925	-13306	181685	2.17	1065550	5.865	Si
SLU 52	1105	-12594	-224392	2.06	1028203	4.582	Si
SLU 31	925	-12039	189887	1.97	997554	5.253	Si
SLU 31	1105	-12056	-215286	1.97	998516	4.638	Si
SLU 82	925	-14916	207453	2.44	1141862	5.504	Si
SLU 82	1105	-14621	-257569	2.39	1128721	4.382	Si
SLU 73	925	-14541	210960	2.38	1125091	5.333	Si
SLU 73	1105	-14168	-250238	2.32	1107833	4.427	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	925	-14861	187250	2.43	1139437	6.085	Si
SLU 81	1105	-14439	-249411	2.36	1120429	4.492	Si
SLU 84	925	-15518	219050	2.54	1167442	5.33	Si
SLU 84	1105	-15263	-245754	2.49	1156799	4.707	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	925	-13850	403384	2.26	1232792	3.056	Si
SLV 2	1105	-15071	-469458	2.46	1314551	2.8	Si
SLD 3	925	-10849	213196	1.77	1013227	4.753	Si
SLD 3	1105	-11054	-279663	1.81	1029049	3.68	Si
SLV 15	925	-6906	-165976	1.13	684795	4.126	Si
SLV 15	1105	-4272	145572	0.7	440083	3.023	Si
SLV 3	925	-11476	339392	1.88	1061264	3.127	Si
SLV 3	1105	-12888	-436760	2.11	1165288	2.668	Si
SLD 4	925	-10849	213196	1.77	1013227	4.753	Si
SLD 4	1105	-11054	-279663	1.81	1029049	3.68	Si
SLV 4	925	-11476	339392	1.88	1061264	3.127	Si
SLV 4	1105	-12888	-436760	2.11	1165288	2.668	Si
SLV 8	925	-7106	87855	1.16	702546	7.997	Si
SLV 8	1105	-7326	-194796	1.2	721965	3.706	Si
SLV 1	925	-13850	403384	2.26	1232792	3.056	Si
SLV 1	1105	-15071	-469458	2.46	1314551	2.8	Si
SLV 16	925	-6906	-165976	1.13	684795	4.126	Si
SLV 16	1105	-4272	145572	0.7	440083	3.023	Si
SLV 7	925	-7106	87855	1.16	702546	7.997	Si
SLV 7	1105	-7326	-194796	1.2	721965	3.706	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	925	-15142	3933	222557		2.48	218.5	0.89	5418			1.38	Si
SLU 76	1105	-14810	3884	-238423		2.42	218.5	0.88	5374			1.38	Si
SLU 81	925	-14861	3717	187250		2.43	218.5	0.88	5380			1.45	Si
SLU 81	1105	-14439	3718	-249411		2.36	218.5	0.87	5324			1.43	Si
SLU 78	925	-15934	3866	219757		2.6	218.5	0.9	5523			1.43	Si
SLU 78	1105	-15609	3839	-230378		2.55	218.5	0.9	5480			1.43	Si
SLU 82	925	-14916	3968	207453		2.44	218.5	0.88	5388			1.36	Si
SLU 82	1105	-14621	3938	-257569		2.39	218.5	0.87	5348			1.36	Si
SLU 40	925	-12415	3546	186380		2.03	218.5	0.83	5054			1.43	Si
SLU 40	1105	-12509	3516	-222617		2.04	218.5	0.83	5067			1.44	Si
SLU 84	925	-15518	3991	219050		2.54	218.5	0.89	5468			1.37	Si
SLU 84	1105	-15263	3962	-245754		2.49	218.5	0.89	5434			1.37	Si
SLU 42	925	-13016	3569	197977		2.13	218.5	0.84	5134			1.44	Si
SLU 42	1105	-13151	3540	-210802		2.15	218.5	0.84	5152			1.46	Si
SLU 73	925	-14541	3911	210960		2.38	218.5	0.87	5338			1.36	Si
SLU 73	1105	-14168	3860	-250238		2.32	218.5	0.86	5288			1.37	Si
SLU 31	925	-12039	3488	189887		1.97	218.5	0.82	5004			1.43	Si
SLU 31	1105	-12056	3438	-215286		1.97	218.5	0.82	5006			1.46	Si
SLU 75	925	-15332	3843	208160		2.51	218.5	0.89	5443			1.42	Si
SLU 75	1105	-14967	3815	-242193		2.45	218.5	0.88	5394			1.41	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 2	925	-11857	4385	240041		1.94	218.5	1.22	7470			1.7	Si
SLD 2	1105	-11971	3972	-292916		1.96	218.5	1.22	7493			1.89	Si
SLV 5	925	-15021	4272	301163		2.46	218.5	1.32	8103			1.9	Si
SLV 5	1105	-14602	4006	-303790		2.39	218.5	1.31	8019			2	Si
SLV 2	925	-13850	7165	403384		2.26	218.5	1.29	7868			1.1	Si
SLV 2	1105	-15071	6205	-469458		2.46	218.5	1.33	8113			1.31	Si
SLV 1	925	-13850	7165	403384		2.26	218.5	1.29	7868			1.1	Si
SLV 1	1105	-15071	6205	-469458		2.46	218.5	1.33	8113			1.31	Si
SLD 3	925	-10849	4249	213196		1.77	218.5	1.19	7268			1.71	Si
SLD 3	1105	-11054	3835	-279663		1.81	218.5	1.19	7309			1.91	Si
SLD 4	925	-10849	4249	213196		1.77	218.5	1.19	7268			1.71	Si
SLD 4	1105	-11054	3835	-279663		1.81	218.5	1.19	7309			1.91	Si
SLV 4	925	-11476	6835	339392		1.88	218.5	1.21	7393			1.08	Si
SLV 4	1105	-12888	5860	-436760		2.11	218.5	1.25	7676			1.31	Si
SLV 6	925	-15021	4272	301163		2.46	218.5	1.32	8103			1.9	Si
SLV 6	1105	-14602	4006	-303790		2.39	218.5	1.31	8019			2	Si
SLV 3	925	-11476	6835	339392		1.88	218.5	1.21	7393			1.08	Si
SLV 3	1105	-12888	5860	-436760		2.11	218.5	1.25	7676			1.31	Si
SLD 1	925	-11857	4385	240041		1.94	218.5	1.22	7470			1.7	Si
SLD 1	1105	-11971	3972	-292916		1.96	218.5	1.22	7493			1.89	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.46	0.85	-5223	26552	68008	2.56	Si
SLV 11	14	0.46	0.85	-5223	26552	68008	2.56	Si
SLV 16	14	0.46	0.89	-5430	26552	70501	2.66	Si
SLV 15	14	0.46	0.89	-5430	26552	70501	2.66	Si
SLV 7	14	0.46	1.2	-7363	26552	92934	3.5	Si
SLV 8	14	0.46	1.2	-7363	26552	92934	3.5	Si
SLV 13	14	0.46	1.27	-7749	26552	97241	3.66	Si
SLV 14	14	0.46	1.27	-7749	26552	97241	3.66	Si
SLV 3	14	0.46	2.05	-12567	26552	146357	5.51	Si
SLV 4	14	0.46	2.05	-12567	26552	146357	5.51	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-9096	-15499	18	0.045	12.331	0.932	70.323	1108.806	No
SLV 3	-9096	-15499	18	0.045	12.331	0.932	70.323	1108.806	No
SLV 2	-10480	-18423	4	0.046	13.73	0.938	70.77	1108.806	No
SLV 1	-10480	-18423	4	0.046	13.73	0.938	70.77	1108.806	No
SLV 6	-10237	-18219	-21	0.044	13.484	0.937	68.819	1011.814	No
SLV 5	-10237	-18219	-21	0.044	13.484	0.937	68.819	1011.814	No
SLV 10	-8645	-15120	-28	0.044	11.876	0.93	69.425	1011.814	No
SLV 9	-8645	-15120	-28	0.044	11.876	0.93	69.425	1011.814	No
SLV 14	-5173	-8093	-19	0.048	8.392	0.91	76.671	1108.806	No
SLV 13	-5173	-8093	-19	0.048	8.392	0.91	76.671	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.382	SLU 82	Si
V_SLU	1.358	SLU 82	Si
PF_SLV	2.668	SLV 3	Si
V_SLV	1.082	SLV 3	Si
PFFP_SLV	2.561	SLV 11	Si
R_SLV	0.063	SLV 3	No

Maschio 148

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1936.8	-335.9	-2159.3	-335.9	L5	L6	222.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 73	1035	-9080	10269	1.46	829380	80.766	Si
SLU 73	1115	-8133	-134658	1.31	759829	5.643	Si
SLU 72	1035	-8604	32773	1.38	794886	24.255	Si
SLU 72	1115	-7674	-128857	1.23	724629	5.623	Si
SLU 65	1035	-8208	15077	1.32	765455	50.768	Si
SLU 65	1115	-7255	-122952	1.16	691754	5.626	Si
SLU 23	1035	-6545	14198	1.05	634221	44.67	Si
SLU 23	1115	-5850	-101779	0.94	575832	5.658	Si
SLU 68	1035	-8249	25457	1.32	768555	30.19	Si
SLU 68	1115	-7332	-125715	1.18	697816	5.551	Si
SLU 76	1035	-9121	20648	1.46	832322	40.309	Si
SLU 76	1115	-8210	-137421	1.32	765597	5.571	Si
SLU 26	1035	-6586	24577	1.06	637621	25.943	Si
SLU 26	1115	-5927	-104541	0.95	582365	5.571	Si
SLU 5	1035	-5754	22894	0.92	567520	24.789	Si
SLU 5	1115	-5072	-89536	0.81	507860	5.672	Si
SLU 34	1035	-7458	19769	1.2	707743	35.801	Si
SLU 34	1115	-6805	-116247	1.09	655555	5.639	Si
SLU 80	1035	-9475	27964	1.52	857300	30.657	Si
SLU 80	1115	-8552	-140563	1.37	791092	5.628	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLD 2	1035	-6462	58580	1.04	657884	11.231	Si
SLD 2	1115	-6245	-229962	1	637757	2.773	Si
SLV 2	1035	-5768	132576	0.93	593039	4.473	Si
SLV 2	1115	-6383	-411744	1.02	650557	1.58	Si
SLV 3	1035	-5444	81514	0.87	562317	6.898	Si
SLV 3	1115	-5557	-351485	0.89	573071	1.63	Si
SLV 16	1035	-8196	-124651	1.32	813675	6.528	Si
SLV 16	1115	-5927	221028	0.95	608042	2.751	Si
SLV 6	1035	-7109	119990	1.14	717012	5.976	Si
SLV 6	1115	-7476	-281667	1.2	750044	2.663	Si
SLD 1	1035	-6462	58580	1.04	657884	11.231	Si
SLD 1	1115	-6245	-229962	1	637757	2.773	Si
SLV 1	1035	-5768	132576	0.93	593039	4.473	Si
SLV 1	1115	-6383	-411744	1.02	650557	1.58	Si
SLV 15	1035	-8196	-124651	1.32	813675	6.528	Si
SLV 15	1115	-5927	221028	0.95	608042	2.751	Si
SLV 5	1035	-7109	119990	1.14	717012	5.976	Si
SLV 5	1115	-7476	-281667	1.2	750044	2.663	Si
SLV 4	1035	-5444	81514	0.87	562317	6.898	Si
SLV 4	1115	-5557	-351485	0.89	573071	1.63	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	1035	-9807	2240	15524		1.57	222.5	0.77	4769			2.13	Si
SLU 84	1115	-8852	1597	-142818		1.42	222.5	0.75	4641			2.91	Si
SLU 38	1035	-7812	2152	27085		1.25	222.5	0.72	4503			2.09	Si
SLU 38	1115	-7147	1545	-119390		1.15	222.5	0.71	4414			2.86	Si
SLU 68	1035	-8249	2199	25457		1.32	222.5	0.73	4561			2.07	Si
SLU 68	1115	-7332	1585	-125715		1.18	222.5	0.71	4439			2.8	Si
SLU 70	1035	-8990	2305	29854		1.44	222.5	0.75	4660			2.02	Si
SLU 70	1115	-8048	1667	-132478		1.29	222.5	0.73	4534			2.72	Si
SLU 36	1035	-8199	2144	24166		1.32	222.5	0.73	4554			2.12	Si
SLU 36	1115	-7521	1529	-123010		1.21	222.5	0.72	4464			2.92	Si
SLU 76	1035	-9121	2301	20648		1.46	222.5	0.75	4677			2.03	Si
SLU 76	1115	-8210	1642	-137421		1.32	222.5	0.73	4556			2.78	Si
SLU 79	1035	-9945	2259	23368		1.6	222.5	0.77	4787			2.12	Si
SLU 79	1115	-8951	1638	-141135		1.44	222.5	0.75	4655			2.84	Si
SLU 78	1035	-9862	2407	25045		1.58	222.5	0.77	4776			1.98	Si
SLU 78	1115	-8926	1723	-144184		1.43	222.5	0.75	4651			2.7	Si
SLU 72	1035	-8604	2314	32773		1.38	222.5	0.74	4608			1.99	Si
SLU 72	1115	-7674	1684	-128857		1.23	222.5	0.72	4484			2.66	Si
SLU 80	1035	-9475	2415	27964		1.52	222.5	0.76	4724			1.96	Si
SLU 80	1115	-8552	1740	-140563		1.37	222.5	0.74	4601			2.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1035	-7109	5698	119990		1.14	222.5	1.06	6613			1.16	Si
SLV 5	1115	-7476	4414	-281667		1.21	220.73	1.08	6646			1.51	Si
SLV 14	1035	-8520	-4847	-73589		1.37	222.5	1.11	6896			1.42	Si
SLV 14	1115	-6753	-3689	160769		1.08	222.5	1.05	6542			1.77	Si
SLV 4	1035	-5444	7433	81514		0.87	222.5	1.01	6280			0.84	No, Vu<V
SLV 4	1115	-5557	5558	-351485		1.38	143.99	1.11	4471			0.8	No, Vu<V
SLV 3	1035	-5444	7433	81514		0.87	222.5	1.01	6280			0.84	No, Vu<V
SLV 3	1115	-5557	5558	-351485		1.38	143.99	1.11	4471			0.8	No, Vu<V
SLV 15	1035	-8196	-6258	-124651		1.32	222.5	1.1	6831			1.09	Si
SLV 15	1115	-5927	-4841	221028		0.95	221.88	1.02	6363			1.31	Si
SLV 16	1035	-8196	-6258	-124651		1.32	222.5	1.1	6831			1.09	Si
SLV 16	1115	-5927	-4841	221028		0.95	221.88	1.02	6363			1.31	Si
SLV 2	1035	-5768	8844	132576		0.93	222.5	1.02	6345			0.72	No, Vu<V
SLV 2	1115	-6383	6710	-411744		1.63	140.23	1.16	4549			0.68	No, Vu<V
SLV 13	1035	-8520	-4847	-73589		1.37	222.5	1.11	6896			1.42	Si
SLV 13	1115	-6753	-3689	160769		1.08	222.5	1.05	6542			1.77	Si
SLV 6	1035	-7109	5698	119990		1.14	222.5	1.06	6613			1.16	Si
SLV 6	1115	-7476	4414	-281667		1.21	220.73	1.08	6646			1.51	Si
SLV 1	1035	-5768	8844	132576		0.93	222.5	1.02	6345			0.72	No, Vu<V
SLV 1	1115	-6383	6710	-411744		1.63	140.23	1.16	4549			0.68	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.46	0.95	-5905	27038	76253	2.82	Si
SLV 7	14	0.46	0.95	-5905	27038	76253	2.82	Si
SLV 12	14	0.46	0.98	-6105	27038	78615	2.91	Si
SLV 11	14	0.46	0.98	-6105	27038	78615	2.91	Si
SLV 3	14	0.46	1	-6218	27038	79940	2.96	Si
SLV 4	14	0.46	1	-6218	27038	79940	2.96	Si
SLV 2	14	0.46	1.07	-6687	27038	85391	3.16	Si
SLV 1	14	0.46	1.07	-6687	27038	85391	3.16	Si
SLV 16	14	0.46	1.11	-6886	27038	87679	3.24	Si
SLV 15	14	0.46	1.11	-6886	27038	87679	3.24	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-5224	-8385	-80	0.04	8.503	0.909	63.133	1011.814	No
SLV 5	-5224	-8385	-80	0.04	8.503	0.909	63.133	1011.814	No
SLV 12	-4011	-4313	82	0.039	7.306	0.9	63.23	1011.814	No
SLV 11	-4011	-4313	82	0.039	7.306	0.9	63.23	1011.814	No
SLV 9	-5422	-8038	-78	0.04	8.7	0.911	63.634	1011.814	No
SLV 10	-5422	-8038	-78	0.04	8.7	0.911	63.634	1011.814	No
SLV 7	-3813	-4660	79	0.04	7.111	0.899	64.063	1011.814	No
SLV 8	-3813	-4660	79	0.04	7.111	0.899	64.063	1011.814	No
SLV 16	-4737	-5212	29	0.047	8.02	0.906	75.558	1108.806	No
SLV 15	-4737	-5212	29	0.047	8.02	0.906	75.558	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.551	SLU 68	Si
V_SLU	1.956	SLU 80	Si
PF_SLV	1.58	SLV 1	Si
V_SLV	0.678	SLV 1	No
PFFP_SLV	2.82	SLV 7	Si
R_SLV	0.062	SLV 5	No



Maschio 149

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1826.3	-335.9	-1886.8	-335.9	L5	L6	60.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 68	1035	-2543	18923	1.5	62752	3.316	Si
SLU 68	1115	-1856	764	1.1	48603	63.575	Si
SLU 9	1035	-2023	16297	1.19	52214	3.204	Si
SLU 9	1115	-1466	-3314	0.87	39636	11.959	Si
SLU 72	1035	-2829	21397	1.67	68032	3.18	Si
SLU 72	1115	-2109	-2461	1.24	54038	21.958	Si
SLU 28	1035	-2411	18398	1.42	60184	3.271	Si
SLU 28	1115	-1830	-2406	1.08	48020	19.959	Si
SLU 26	1035	-2024	15893	1.19	52252	3.288	Si
SLU 26	1115	-1479	-301	0.87	39955	132.527	Si
SLU 30	1035	-2310	18367	1.36	58181	3.168	Si
SLU 30	1115	-1732	-3527	1.02	45806	12.988	Si
SLU 71	1035	-3089	21875	1.82	72528	3.316	Si
SLU 71	1115	-2365	-2386	1.4	59281	24.842	Si
SLU 51	1035	-2541	19327	1.5	62718	3.245	Si
SLU 51	1115	-1843	-2248	1.09	48306	21.484	Si
SLU 70	1035	-2930	21428	1.73	69806	3.258	Si
SLU 70	1115	-2207	-1340	1.3	56089	41.857	Si
SLU 80	1035	-3101	22143	1.83	72725	3.284	Si
SLU 80	1115	-2395	-951	1.41	59875	62.933	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 5	1035	-2634	67268	1.55	69533	1.034	Si
SLV 5	1115	-364	-19664	0	0	0	No, e>l/2
SLV 13	1035	26	-33928	0	0	0	No, Trazione
SLV 13	1115	-886	61951	0	0	0	No, e>l/2
SLV 9	1035	-1330	32370	0.79	37649	1.163	Si
SLV 9	1115	-130	16267	0	0	0	No, e>l/2
SLV 1	1035	-4320	82396	2.55	103407	1.255	Si
SLV 1	1115	-1667	-57816	0	0	0	No, e>l/2
SLV 15	1035	-116	-55857	0	0	0	No, e>l/2
SLV 15	1115	-1768	65178	0	0	0	No, e>l/2
SLV 2	1035	-4320	82396	2.55	103407	1.255	Si
SLV 2	1115	-1667	-57816	0	0	0	No, e>l/2
SLV 16	1035	-116	-55857	0	0	0	No, e>l/2
SLV 16	1115	-1768	65178	0	0	0	No, e>l/2
SLV 14	1035	26	-33928	0	0	0	No, Trazione
SLV 14	1115	-886	61951	0	0	0	No, e>l/2
SLV 10	1035	-1330	32370	0.79	37649	1.163	Si
SLV 10	1115	-130	16267	0	0	0	No, e>l/2
SLV 6	1035	-2634	67268	1.55	69533	1.034	Si
SLV 6	1115	-364	-19664	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	1035	-3101	554	22143		1.83	60.5	0.8	1355			2.45	Si
SLU 80	1115	-2395	88	-951		1.41	60.5	0.74	1260			14.35	Si
SLU 79	1035	-3361	583	22621		1.98	60.5	0.82	1389			2.38	Si
SLU 79	1115	-2651	63	-877		1.57	60.5	0.76	1295			20.63	Si
SLU 71	1035	-3089	578	21875		1.82	60.5	0.8	1353			2.34	Si
SLU 71	1115	-2365	90	-2386		1.4	60.5	0.74	1256			13.9	Si
SLU 70	1035	-2930	535	21428		1.73	60.5	0.79	1332			2.49	Si
SLU 70	1115	-2207	112	-1340		1.3	60.5	0.73	1235			11.02	Si
SLU 72	1035	-2829	549	21397		1.67	60.5	0.78	1318			2.4	Si
SLU 72	1115	-2109	115	-2461		1.24	60.5	0.72	1222			10.58	Si
SLU 29	1035	-2570	521	18845		1.52	60.5	0.76	1284			2.46	Si
SLU 29	1115	-1988	69	-3452		1.17	60.5	0.71	1206			17.59	Si
SLU 69	1035	-3190	564	21906		1.88	60.5	0.81	1366			2.42	Si
SLU 69	1115	-2464	87	-1265		1.45	60.5	0.75	1270			14.59	Si
SLU 37	1035	-2842	527	19591		1.68	60.5	0.78	1320			2.51	Si
SLU 37	1115	-2274	41	-1943		1.34	60.5	0.73	1244			30.37	Si
SLU 77	1035	-3462	569	22652		2.04	60.5	0.83	1403			2.46	Si
SLU 77	1115	-2750	59	244		1.62	60.5	0.77	1308			22.02	Si
SLU 50	1035	-2802	521	19805		1.65	60.5	0.78	1315			2.52	Si
SLU 50	1115	-2100	95	-2174		1.24	60.5	0.72	1221			12.89	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	1035	-116	-2102	-55857		0	0	0.83	0			0	No, Vu<V
SLV 16	1115	-1768	-557	65178		0	0	0.83	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	1035	-4320	2646	82396		4.6	33.53	1.63	1526			0.58	No, Vu<V
SLV 2	1115	-1667	674	-57816		0	0	0.83	0			0	No, Vu<V
SLV 1	1035	-4320	2646	82396		4.6	33.53	1.63	1526			0.58	No, Vu<V
SLV 1	1115	-1667	674	-57816		0	0	0.83	0			0	No, Vu<V
SLV 13	1035	26	-1812	-33928		0	0	0.83	0			0	No, Vu<V
SLV 13	1115	-886	-208	61951		0	0	0.83	0			0	No, Vu<V
SLV 9	1035	-1330	87	32370		2.68	17.74	1.37	680			7.81	Si
SLV 9	1115	-130	508	16267		0	0	0.83	0			0	No, Vu<V
SLV 15	1035	-116	-2102	-55857		0	0	0.83	0			0	No, Vu<V
SLV 15	1115	-1768	-557	65178		0	0	0.83	0			0	No, Vu<V
SLV 10	1035	-1330	87	32370		2.68	17.74	1.37	680			7.81	Si
SLV 10	1115	-130	508	16267		0	0	0.83	0			0	No, Vu<V
SLV 6	1035	-2634	1424	67268		6.66	14.13	1.63	643			0.45	No, Vu<V
SLV 6	1115	-364	773	-19664		0	0	0.83	0			0	No, Vu<V
SLV 5	1035	-2634	1424	67268		6.66	14.13	1.63	643			0.45	No, Vu<V
SLV 5	1115	-364	773	-19664		0	0	0.83	0			0	No, Vu<V
SLV 14	1035	26	-1812	-33928		0	0	0.83	0			0	No, Vu<V
SLV 14	1115	-886	-208	61951		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.46	0.46	-779	7352	10492	1.43	Si
SLV 15	14	0.46	0.46	-779	7352	10492	1.43	Si
SLV 14	14	0.46	0.49	-833	7352	11198	1.52	Si
SLV 13	14	0.46	0.49	-833	7352	11198	1.52	Si
SLV 11	14	0.46	0.8	-1347	7352	17636	2.4	Si
SLV 12	14	0.46	0.8	-1347	7352	17636	2.4	Si
SLV 9	14	0.46	0.9	-1530	7352	19836	2.7	Si
SLV 10	14	0.46	0.9	-1530	7352	19836	2.7	Si
SLV 7	14	0.46	1.12	-1890	7352	24041	3.27	Si
SLV 8	14	0.46	1.12	-1890	7352	24041	3.27	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 14	-364	-1514	-102	0	1.308	0.893	0	1108.806	No
SLV 13	-364	-1514	-102	0	1.308	0.893	0	1108.806	No
SLV 2	-1405	-1211	117	0	2.296	0.909	0	1108.806	No
SLV 15	-551	-1515	-121	0	1.472	0.889	0	1108.806	No
SLV 16	-551	-1515	-121	0	1.472	0.889	0	1108.806	No
SLV 1	-1405	-1211	117	0	2.296	0.909	0	1108.806	No
SLV 4	-1592	-1212	98	0.004	2.483	0.914	5.799	1108.806	No
SLV 3	-1592	-1212	98	0.004	2.483	0.914	5.799	1108.806	No
SLV 5	-822	-1316	63	0.009	1.726	0.893	15.436	1011.814	No
SLV 6	-822	-1316	63	0.009	1.726	0.893	15.436	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.168	SLU 30	Si
V_SLU	2.341	SLU 71	Si
PF_SLV	0	SLV 14	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.427	SLV 15	Si
R_SLV	0	SLV 1	No

Maschio 150

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	104.6	-1961.8	581.1	L5	L6	476.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 72	835	-26153	449322	3.92	3232340	7.194	Si
SLU 72	1187	-17843	781849	2.67	2855404	3.652	Si
SLU 30	835	-23170	487255	3.47	3166678	6.499	Si
SLU 30	1187	-16334	800563	2.45	2721993	3.4	Si
SLU 29	835	-23155	499948	3.47	3166161	6.333	Si
SLU 29	1187	-16289	811601	2.44	2717699	3.349	Si
SLU 8	835	-20171	441647	3.02	3022040	6.843	Si
SLU 8	1187	-14234	699089	2.13	2503085	3.58	Si
SLU 37	835	-24657	436405	3.7	3209173	7.354	Si
SLU 37	1187	-16791	783049	2.52	2764511	3.53	Si
SLU 71	835	-26139	462015	3.92	3232208	6.996	Si
SLU 71	1187	-17798	792886	2.67	2851707	3.597	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 38	835	-24672	423712	3.7	3209497	7.575	Si
SLU 38	1187	-16837	772012	2.52	2768606	3.586	Si
SLU 9	835	-20186	428954	3.03	3022943	7.047	Si
SLU 9	1187	-14279	688051	2.14	2508191	3.645	Si
SLU 28	835	-22983	425155	3.45	3159973	7.433	Si
SLU 28	1187	-16028	725238	2.4	2692422	3.712	Si
SLU 27	835	-22968	437848	3.44	3159431	7.216	Si
SLU 27	1187	-15982	736275	2.4	2688008	3.651	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-11361	-478447	1.7	2329583	4.869	Si
SLV 5	1187	-6645	121771	1	1454163	11.942	Si
SLV 6	835	-11361	-478447	1.7	2329583	4.869	Si
SLV 6	1187	-6645	121771	1	1454163	11.942	Si
SLV 4	835	-17894	219313	2.68	3327532	15.173	Si
SLV 4	1187	-8018	246087	1.2	1722410	6.999	Si
SLV 14	835	-11380	-341934	1.71	2332925	6.823	Si
SLV 14	1187	-8201	-65700	1.23	1757334	26.748	Si
SLV 3	835	-17894	219313	2.68	3327532	15.173	Si
SLV 3	1187	-8018	246087	1.2	1722410	6.999	Si
SLV 10	835	-10109	-564033	1.52	2109897	3.741	Si
SLV 10	1187	-6937	30743	1.04	1512177	49.187	Si
SLV 13	835	-11380	-341934	1.71	2332925	6.823	Si
SLV 13	1187	-8201	-65700	1.23	1757334	26.748	Si
SLV 9	835	-10109	-564033	1.52	2109897	3.741	Si
SLV 9	1187	-6937	30743	1.04	1512177	49.187	Si
SLV 1	835	-15553	-56645	2.33	2998584	52.936	Si
SLV 1	1187	-7227	237725	1.08	1569207	6.601	Si
SLV 2	835	-15553	-56645	2.33	2998584	52.936	Si
SLV 2	1187	-7227	237725	1.08	1569207	6.601	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 51	835	-23170	-1083	391021		3.47	476.52	1.02	6795			6.27	Si
SLU 51	1187	-15788	-412	669337		2.37	476.52	0.87	5811			14.1	Si
SLU 30	835	-23170	-981	487255		3.47	476.52	1.02	6796			6.93	Si
SLU 30	1187	-16334	-226	800563		2.45	476.52	0.88	5884			26.06	Si
SLU 50	835	-23155	-1032	403714		3.47	476.52	1.02	6794			6.58	Si
SLU 50	1187	-15743	-347	680374		2.36	476.52	0.87	5805			16.75	Si
SLU 49	835	-22983	-987	328921		3.45	476.52	1.01	6771			6.86	Si
SLU 49	1187	-15482	-370	594012		2.32	476.52	0.86	5770			15.59	Si
SLU 9	835	-20186	-1003	428954		3.03	476.52	0.96	6398			6.38	Si
SLU 9	1187	-14279	-329	688051		2.14	476.52	0.84	5610			17.03	Si
SLU 8	835	-20171	-952	441647		3.02	476.52	0.96	6396			6.72	Si
SLU 8	1187	-14234	-264	699089		2.13	476.52	0.84	5604			21.24	Si
SLU 72	835	-26153	-1061	449322		3.92	476.52	1.08	7193			6.78	Si
SLU 72	1187	-17843	-309	781849		2.67	476.52	0.91	6085			19.72	Si
SLU 48	835	-22968	-935	341614		3.44	476.52	1.01	6769			7.24	Si
SLU 48	1187	-15436	-305	605049		2.31	476.52	0.86	5764			18.93	Si
SLU 71	835	-26139	-1010	462015		3.92	476.52	1.08	7191			7.12	Si
SLU 71	1187	-17798	-243	792886		2.67	476.52	0.91	6079			25.02	Si
SLU 7	835	-19999	-906	366854		3	476.52	0.96	6373			7.03	Si
SLU 7	1187	-13972	-287	612726		2.09	476.52	0.83	5569			19.38	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	835	-19166	8515	441413		2.87	476.52	1.41	9392			1.1	Si
SLV 8	1187	-9281	6317	149643		1.39	476.52	1.11	7416			1.17	Si
SLV 9	835	-10109	-8848	-564033		1.52	476.52	1.14	7581			0.86	No, Vu<V
SLV 9	1187	-6937	-6475	30743		1.04	476.52	1.04	6947			1.07	Si
SLV 10	835	-10109	-8848	-564033		1.52	476.52	1.14	7581			0.86	No, Vu<V
SLV 10	1187	-6937	-6475	30743		1.04	476.52	1.04	6947			1.07	Si
SLV 7	835	-19166	8515	441413		2.87	476.52	1.41	9392			1.1	Si
SLV 7	1187	-9281	6317	149643		1.39	476.52	1.11	7416			1.17	Si
SLV 11	835	-17914	6590	355826		2.69	476.52	1.37	9142			1.39	Si
SLV 11	1187	-9574	5467	58615		1.44	476.52	1.12	7474			1.37	Si
SLV 14	835	-11380	-5691	-341934		1.71	476.52	1.17	7835			1.38	Si
SLV 14	1187	-8201	-3287	-65700		1.23	476.52	1.08	7200			2.19	Si
SLV 6	835	-11361	-6923	-478447		1.7	476.52	1.17	7832			1.13	Si
SLV 6	1187	-6645	-5625	121771		1	476.52	1.03	6888			1.22	Si
SLV 13	835	-11380	-5691	-341934		1.71	476.52	1.17	7835			1.38	Si
SLV 13	1187	-8201	-3287	-65700		1.23	476.52	1.08	7200			2.19	Si
SLV 12	835	-17914	6590	355826		2.69	476.52	1.37	9142			1.39	Si
SLV 12	1187	-9574	5467	58615		1.44	476.52	1.12	7474			1.37	Si
SLV 5	835	-11361	-6923	-478447		1.7	476.52	1.17	7832			1.13	Si
SLV 5	1187	-6645	-5625	121771		1	476.52	1.03	6888			1.22	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.46	1.27	-8486	30972	53220	1.72	Si
SLV 5	14	0.46	1.27	-8486	30972	53220	1.72	Si
SLV 9	14	0.46	1.3	-8642	30972	54080	1.75	Si
SLV 10	14	0.46	1.3	-8642	30972	54080	1.75	Si
SLV 2	14	0.46	1.54	-10290	30972	62935	2.03	Si
SLV 1	14	0.46	1.54	-10290	30972	62935	2.03	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.46	1.62	-10808	30972	65623	2.12	Si
SLV 14	14	0.46	1.62	-10808	30972	65623	2.12	Si
SLV 4	14	0.46	1.8	-11991	30972	71587	2.31	Si
SLV 3	14	0.46	1.8	-11991	30972	71587	2.31	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 $W_a = 0.03$ $T_a = 0.1478$

Comb.	N top	N base	V orto	σ_0	M*	e*	a0*	aLim	Verifica
SLV 16	-8992	-13722	-10	0.023	12.511	0.928	35.632	1891.088	No
SLV 15	-8992	-13722	-10	0.023	12.511	0.928	35.632	1891.088	No
SLV 11	-9574	-17914	-6	0.023	13.098	0.931	35.816	1891.088	No
SLV 12	-9574	-17914	-6	0.023	13.098	0.931	35.816	1891.088	No
SLV 14	-8201	-11380	-8	0.023	11.714	0.925	36.471	1891.088	No
SLV 13	-8201	-11380	-8	0.023	11.714	0.925	36.471	1891.088	No
SLV 4	-8018	-17894	8	0.023	11.53	0.924	36.521	1891.088	No
SLV 3	-8018	-17894	8	0.023	11.53	0.924	36.521	1891.088	No
SLV 8	-9281	-19166	-1	0.024	12.803	0.93	36.745	1891.088	No
SLV 7	-9281	-19166	-1	0.024	12.803	0.93	36.745	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.349	SLU 29	Si
V_SLU	6.273	SLU 51	Si
PF_SLV	3.741	SLV 9	Si
V_SLV	0.857	SLV 9	No
PFFP_SLV	1.718	SLV 5	Si
R_SLV	0.019	SLV 15	No

Maschio 151

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1961.8	581.1	-1961.8	652.1	L5	L6	71	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 72	835	-11645	34673	5.86	116123	3.349	Si
SLU 72	1187	-10837	13568	5.45	127265	9.38	Si
SLU 27	835	-10535	31875	5.3	130686	4.1	Si
SLU 27	1187	-9998	12850	5.03	135795	10.568	Si
SLU 28	835	-10469	31687	5.27	131386	4.146	Si
SLU 28	1187	-9955	12780	5.01	136153	10.654	Si
SLU 70	835	-11112	31731	5.59	123792	3.901	Si
SLU 70	1187	-10346	12926	5.2	132630	10.261	Si
SLU 69	835	-11178	31919	5.62	122905	3.851	Si
SLU 69	1187	-10390	12996	5.23	132198	10.172	Si
SLU 80	835	-11429	30368	5.75	119379	3.931	Si
SLU 80	1187	-10908	14051	5.49	126399	8.995	Si
SLU 30	835	-11002	34628	5.53	125220	3.616	Si
SLU 30	1187	-10446	13421	5.25	131628	9.807	Si
SLU 29	835	-11068	34817	5.57	124365	3.572	Si
SLU 29	1187	-10489	13491	5.28	131178	9.723	Si
SLU 71	835	-11711	34861	5.89	115080	3.301	Si
SLU 71	1187	-10880	13637	5.47	126740	9.294	Si
SLU 79	835	-11496	30556	5.78	118399	3.875	Si
SLU 79	1187	-10951	14121	5.51	125860	8.913	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-327	-33563	0	0	0	No, $e \geq l/2$
SLV 5	1187	-2283	5016	1.15	73430	14.638	Si
SLV 16	835	-4729	99324	2.38	135186	1.361	Si
SLV 16	1187	-3095	1323	1.56	95864	72.477	Si
SLV 2	835	-3100	-92359	1.56	96007	1.039	Si
SLV 2	1187	-3615	5932	1.82	109237	18.415	Si
SLV 1	835	-3100	-92359	1.56	96007	1.039	Si
SLV 1	1187	-3615	5932	1.82	109237	18.415	Si
SLV 13	835	-2524	93856	0	0	0	No, $e \geq l/2$
SLV 13	1187	-2336	1783	1.18	74966	42.053	Si
SLV 10	835	-154	22302	0	0	0	No, $e \geq l/2$
SLV 10	1187	-1899	3772	0.96	62157	16.481	Si
SLV 15	835	-4729	99324	2.38	135186	1.361	Si
SLV 15	1187	-3095	1323	1.56	95864	72.477	Si
SLV 6	835	-327	-33563	0	0	0	No, $e \geq l/2$
SLV 6	1187	-2283	5016	1.15	73430	14.638	Si
SLV 14	835	-2524	93856	0	0	0	No, $e \geq l/2$



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1187	-2336	1783	1.18	74966	42.053	Si
SLV 9	835	-154	22302	0	0	0	No, $e > l/2$
SLV 9	1187	-1899	3772	0.96	62157	16.481	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 8	835	-9786	393	31621	4.92	71	1.08	2154				5.49	Si
SLU 8	1187	-9068	-299	11390	4.56	71	1.08	2154				7.2	Si
SLU 29	835	-11068	420	34817	5.57	71	1.08	2154				5.12	Si
SLU 29	1187	-10489	-355	13491	5.28	71	1.08	2154				6.07	Si
SLU 72	835	-11645	399	34673	5.86	71	1.08	2154				5.4	Si
SLU 72	1187	-10837	-371	13568	5.45	71	1.08	2154				5.8	Si
SLU 80	835	-11429	305	30368	5.75	71	1.08	2154				7.07	Si
SLU 80	1187	-10908	-396	14051	5.49	71	1.08	2154				5.43	Si
SLU 71	835	-11711	402	34861	5.89	71	1.08	2154				5.36	Si
SLU 71	1187	-10880	-369	13637	5.47	71	1.08	2154				5.84	Si
SLU 79	835	-11496	307	30556	5.78	71	1.08	2154				7.02	Si
SLU 79	1187	-10951	-394	14121	5.51	71	1.08	2154				5.47	Si
SLU 30	835	-11002	418	34628	5.53	71	1.08	2154				5.15	Si
SLU 30	1187	-10446	-357	13421	5.25	71	1.08	2154				6.03	Si
SLU 77	835	-10963	260	27614	5.51	71	1.08	2154				8.27	Si
SLU 77	1187	-10461	-385	13480	5.26	71	1.08	2154				5.59	Si
SLU 78	835	-10896	258	27426	5.48	71	1.08	2154				8.35	Si
SLU 78	1187	-10417	-388	13410	5.24	71	1.08	2154				5.55	Si
SLU 9	835	-9719	390	31433	4.89	71	1.08	2154				5.52	Si
SLU 9	1187	-9024	-302	11320	4.54	71	1.08	2154				7.14	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	835	-3100	-1711	-92359	6.47	17.12	1.63	779				0.46	No, $V_u < V$
SLV 2	1187	-3615	-251	5932	1.82	71	1.2	2380				9.47	Si
SLV 13	835	-2524	1442	93856	0	0	0.83	0				0	No, $V_u < V$
SLV 13	1187	-2336	-309	1783	1.18	71	1.07	2124				6.88	Si
SLV 10	835	-154	141	22302	0	0	0.83	0				0	No, $V_u < V$
SLV 10	1187	-1899	-630	3772	0.96	71	1.02	2037				3.23	Si
SLV 16	835	-4729	1611	99324	3.88	43.48	1.61	1960				1.22	Si
SLV 16	1187	-3095	-15	1323	1.56	71	1.14	2276				146.85	Si
SLV 6	835	-327	-805	-33563	0	0	0.83	0				0	No, $V_u < V$
SLV 6	1187	-2283	-613	5016	1.15	71	1.06	2113				3.45	Si
SLV 14	835	-2524	1442	93856	0	0	0.83	0				0	No, $V_u < V$
SLV 14	1187	-2336	-309	1783	1.18	71	1.07	2124				6.88	Si
SLV 9	835	-154	141	22302	0	0	0.83	0				0	No, $V_u < V$
SLV 9	1187	-1899	-630	3772	0.96	71	1.02	2037				3.23	Si
SLV 15	835	-4729	1611	99324	3.88	43.48	1.61	1960				1.22	Si
SLV 15	1187	-3095	-15	1323	1.56	71	1.14	2276				146.85	Si
SLV 1	835	-3100	-1711	-92359	6.47	17.12	1.63	779				0.46	No, $V_u < V$
SLV 1	1187	-3615	-251	5932	1.82	71	1.2	2380				9.47	Si
SLV 5	835	-327	-805	-33563	0	0	0.83	0				0	No, $V_u < V$
SLV 5	1187	-2283	-613	5016	1.15	71	1.06	2113				3.45	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 $W_a 0.05$ denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.46	0.77	-1528	8828	20045	2.27	Si
SLV 10	14	0.46	0.77	-1528	8828	20045	2.27	Si
SLV 6	14	0.46	0.98	-1944	8828	25034	2.84	Si
SLV 5	14	0.46	0.98	-1944	8828	25034	2.84	Si
SLV 14	14	0.46	1.19	-2371	8828	29955	3.39	Si
SLV 13	14	0.46	1.19	-2371	8828	29955	3.39	Si
SLV 15	14	0.46	1.77	-3510	8828	42035	4.76	Si
SLV 16	14	0.46	1.77	-3510	8828	42035	4.76	Si
SLV 1	14	0.46	1.89	-3757	8828	44463	5.04	Si
SLV 2	14	0.46	1.89	-3757	8828	44463	5.04	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 $W_a = 0.05$ $T_a = 0.0739$

Comb.	N top	N base	V orto	α_0	M*	e*	a_0^*	aLim	Verifica
SLV 2	-3615	-3100	12	0.043	4.674	0.941	66.057	1108.806	No
SLV 1	-3615	-3100	12	0.043	4.674	0.941	66.057	1108.806	No
SLV 3	-4373	-5304	8	0.043	5.443	0.948	66.089	1108.806	No
SLV 4	-4373	-5304	8	0.043	5.443	0.948	66.089	1108.806	No
SLV 16	-3095	-4729	-11	0.044	4.147	0.934	67.937	1108.806	No
SLV 15	-3095	-4729	-11	0.044	4.147	0.934	67.937	1108.806	No
SLV 12	-4427	-7502	-9	0.043	5.497	0.948	65.945	1011.814	No
SLV 11	-4427	-7502	-9	0.043	5.497	0.948	65.945	1011.814	No
SLV 14	-2336	-2524	-6	0.046	3.383	0.923	72.491	1108.806	No
SLV 13	-2336	-2524	-6	0.046	3.383	0.923	72.491	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.301	SLU 71	Si
V_SLU	5.123	SLU 29	Si
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	2.271	SLV 9	Si
R_SLV	0.06	SLV 1	No



Maschio 152

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1633.3	-335.9	-1736.3	-335.9	L5	L6	103	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 73	925	-4982	-41542	1.73	202153	4.866	Si
SLU 73	1105	-4602	60703	1.6	190566	3.139	Si
SLU 23	925	-3566	-33259	1.24	155790	4.684	Si
SLU 23	1105	-3336	45478	1.16	147424	3.242	Si
SLU 82	925	-5471	-36632	1.9	216139	5.9	Si
SLU 82	1105	-4871	59646	1.69	198843	3.334	Si
SLU 2	925	-3164	-32542	1.1	141013	4.333	Si
SLU 2	1105	-2866	42898	0.99	129580	3.021	Si
SLU 31	925	-3916	-36868	1.36	168041	4.558	Si
SLU 31	1105	-3874	51422	1.34	166619	3.24	Si
SLU 44	925	-4231	-37216	1.47	178637	4.8	Si
SLU 44	1105	-3593	52179	1.25	156743	3.004	Si
SLU 61	925	-5069	-35914	1.76	204720	5.7	Si
SLU 61	1105	-4400	57065	1.53	184167	3.227	Si
SLU 10	925	-3513	-36150	1.22	153880	4.257	Si
SLU 10	1105	-3403	48842	1.18	149885	3.069	Si
SLU 65	925	-4633	-37934	1.61	191534	5.049	Si
SLU 65	1105	-4064	54760	1.41	173086	3.161	Si
SLU 52	925	-4580	-40824	1.59	189872	4.651	Si
SLU 52	1105	-4131	58123	1.43	175333	3.017	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	925	-6061	245465	2.1	258463	1.053	Si
SLV 3	1105	-862	-119074	0	0	0	No, e>l/2
SLV 10	925	-3883	-198371	1.35	177951	0.897	No, M>Mu
SLV 10	1105	-6688	138055	2.32	279057	2.021	Si
SLV 8	925	-4573	163097	1.59	204943	1.257	Si
SLV 8	1105	186	-65412	0	0	0	No, Trazione
SLV 14	925	-2395	-280739	0	0	0	No, e>l/2
SLV 14	1105	-5640	191717	1.96	243972	1.273	Si
SLV 7	925	-4573	163097	1.59	204943	1.257	Si
SLV 7	1105	186	-65412	0	0	0	No, Trazione
SLV 4	925	-6061	245465	2.1	258463	1.053	Si
SLV 4	1105	-862	-119074	0	0	0	No, e>l/2
SLV 9	925	-3883	-198371	1.35	177951	0.897	No, M>Mu
SLV 9	1105	-6688	138055	2.32	279057	2.021	Si
SLV 13	925	-2395	-280739	0	0	0	No, e>l/2
SLV 13	1105	-5640	191717	1.96	243972	1.273	Si
SLV 16	925	-2260	-213616	0	0	0	No, e>l/2
SLV 16	1105	-3846	155377	1.33	176471	1.136	Si
SLV 15	925	-2260	-213616	0	0	0	No, e>l/2
SLV 15	1105	-3846	155377	1.33	176471	1.136	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 2	925	-3164	-462	-32542		1.1	103	0.7	2024			4.38	Si
SLU 2	1105	-2866	-428	42898		0.99	103	0.69	1984			4.63	Si
SLU 44	925	-4231	-558	-37216		1.47	103	0.75	2166			3.89	Si
SLU 44	1105	-3593	-526	52179		1.25	103	0.72	2081			3.95	Si
SLU 31	925	-3916	-520	-36868		1.36	103	0.74	2124			4.08	Si
SLU 31	1105	-3874	-444	51422		1.34	103	0.73	2119			4.78	Si
SLU 65	925	-4633	-575	-37934		1.61	103	0.77	2220			3.86	Si
SLU 65	1105	-4064	-498	54760		1.41	103	0.74	2144			4.31	Si
SLU 10	925	-3513	-503	-36150		1.22	103	0.72	2071			4.12	Si
SLU 10	1105	-3403	-472	48842		1.18	103	0.71	2056			4.35	Si
SLU 52	925	-4580	-599	-40824		1.59	103	0.77	2213			3.7	Si
SLU 52	1105	-4131	-570	58123		1.43	103	0.75	2153			3.78	Si
SLU 61	925	-5069	-567	-35914		1.76	103	0.79	2278			4.02	Si
SLU 61	1105	-4400	-535	57065		1.53	103	0.76	2189			4.09	Si
SLU 23	925	-3566	-479	-33259		1.24	103	0.72	2078			4.34	Si
SLU 23	1105	-3336	-400	45478		1.16	103	0.71	2047			5.12	Si
SLU 82	925	-5471	-584	-36632		1.9	103	0.81	2332			3.99	Si
SLU 82	1105	-4871	-507	59646		1.69	103	0.78	2252			4.44	Si
SLU 73	925	-4982	-616	-41542		1.73	103	0.79	2266			3.68	Si
SLU 73	1105	-4602	-542	60703		1.6	103	0.77	2216			4.09	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	925	-2260	-4042	-213616		0	0	0.83	0			0	No, Vu<V
SLV 16	1105	-3846	-1450	155377		4.12	33.32	1.63	1516			1.05	Si
SLV 4	925	-6061	4134	245465		6.56	33.01	1.63	1502			0.36	No, Vu<V
SLV 4	1105	-862	752	-119074		0	0	0.83	0			0	No, Vu<V
SLV 3	925	-6061	4134	245465		6.56	33.01	1.63	1502			0.36	No, Vu<V
SLV 3	1105	-862	752	-119074		0	0	0.83	0			0	No, Vu<V
SLV 10	925	-3883	-2920	-198371		110.86	1.25	1.63	57			0.02	No, Vu<V
SLV 10	1105	-6688	-460	138055		2.58	92.57	1.35	3498			7.61	Si
SLV 7	925	-4573	2209	163097		3.44	47.5	1.52	2023			0.92	No, Vu<V
SLV 7	1105	186	-137	-65412		0	0	0.83	0			0	No, Vu<V
SLV 8	925	-4573	2209	163097		3.44	47.5	1.52	2023			0.92	No, Vu<V
SLV 8	1105	186	-137	-65412		0	0	0.83	0			0	No, Vu<V
SLV 9	925	-3883	-2920	-198371		110.86	1.25	1.63	57			0.02	No, Vu<V
SLV 9	1105	-6688	-460	138055		2.58	92.57	1.35	3498			7.61	Si
SLV 14	925	-2395	-4845	-280739		0	0	0.83	0			0	No, Vu<V
SLV 14	1105	-5640	-1349	191717		3.84	52.52	1.6	2354			1.74	Si
SLV 15	925	-2260	-4042	-213616		0	0	0.83	0			0	No, Vu<V
SLV 15	1105	-3846	-1450	155377		4.12	33.32	1.63	1516			1.05	Si
SLV 13	925	-2395	-4845	-280739		0	0	0.83	0			0	No, Vu<V
SLV 13	1105	-5640	-1349	191717		3.84	52.52	1.6	2354			1.74	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.46	0.51	-1474	12516	19776	1.58	Si
SLV 16	14	0.46	0.51	-1474	12516	19776	1.58	Si
SLV 13	14	0.46	0.7	-2032	12516	26810	2.14	Si
SLV 14	14	0.46	0.7	-2032	12516	26810	2.14	Si
SLV 12	14	0.46	0.78	-2254	12516	29538	2.36	Si
SLV 11	14	0.46	0.78	-2254	12516	29538	2.36	Si
SLV 8	14	0.46	1.21	-3480	12516	43913	3.51	Si
SLV 7	14	0.46	1.21	-3480	12516	43913	3.51	Si
SLV 10	14	0.46	1.43	-4114	12516	50870	4.06	Si
SLV 9	14	0.46	1.43	-4114	12516	50870	4.06	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-55	-2328	-88	0	1.869	0.974	0	1011.814	No
SLV 11	-55	-2328	-88	0	1.869	0.974	0	1011.814	No
SLV 7	687	-1056	-89	0	0	0	0	1011.814	No, Trazione
SLV 8	687	-1056	-89	0	0	0	0	1011.814	No, Trazione
SLV 5	-5084	-6767	85	0.032	6.617	0.939	48.89	1011.814	No
SLV 6	-5084	-6767	85	0.032	6.617	0.939	48.89	1011.814	No
SLV 9	-5826	-8038	86	0.032	7.37	0.945	49.937	1011.814	No
SLV 10	-5826	-8038	86	0.032	7.37	0.945	49.937	1011.814	No
SLV 13	-4672	-7524	25	0.042	6.201	0.936	64.878	1108.806	No
SLV 14	-4672	-7524	25	0.042	6.201	0.936	64.878	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.004	SLU 44	Si
V_SLU	3.679	SLU 73	Si
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 3	No
PFFP_SLV	1.58	SLV 15	Si
R_SLV	0	SLV 8	No

Maschio 153

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1844.8	-335.9	-1844.8	104.6	L5	L6	440.6	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 26	835	-11609	402538	1.88	1966435	4.885	Si
SLU 26	1187	-6350	277751	1.03	1222018	4.4	Si
SLU 80	835	-16063	526102	2.6	2407199	4.576	Si
SLU 80	1187	-8783	339700	1.42	1596607	4.7	Si
SLU 30	835	-12145	426111	1.97	2028687	4.761	Si
SLU 30	1187	-6890	287223	1.12	1309702	4.56	Si
SLU 13	835	-11569	386060	1.88	1961639	5.081	Si
SLU 13	1187	-6154	262168	1	1189567	4.537	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 34	835	-13093	448354	2.12	2132614	4.757	Si
SLU 34	1187	-6956	293193	1.13	1320083	4.502	Si
SLU 47	835	-12519	394419	2.03	2070580	5.25	Si
SLU 47	1187	-6836	283759	1.11	1300941	4.585	Si
SLU 78	835	-16403	531523	2.66	2433669	4.579	Si
SLU 78	1187	-9053	346389	1.47	1634960	4.72	Si
SLU 76	835	-15527	502529	2.52	2363363	4.703	Si
SLU 76	1187	-8243	330227	1.34	1517894	4.597	Si
SLU 5	835	-10085	340244	1.64	1775622	5.219	Si
SLU 5	1187	-5548	246725	0.9	1087245	4.407	Si
SLU 68	835	-14043	456713	2.28	2228857	4.88	Si
SLU 68	1187	-7637	314785	1.24	1426664	4.532	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	835	-9852	574492	1.6	1886608	3.284	Si
SLV 15	1187	-5773	315456	0.94	1174262	3.722	Si
SLV 9	835	-10888	203372	1.77	2051924	10.089	Si
SLV 9	1187	-5607	381366	0.91	1143172	2.998	Si
SLV 13	835	-10090	482653	1.64	1925088	3.989	Si
SLV 13	1187	-5744	406944	0.93	1168922	2.872	Si
SLV 12	835	-10096	509502	1.64	1926068	3.78	Si
SLV 12	1187	-5702	76407	0.92	1161029	15.195	Si
SLV 14	835	-10090	482653	1.64	1925088	3.989	Si
SLV 14	1187	-5744	406944	0.93	1168922	2.872	Si
SLV 6	835	-11334	55828	1.84	2121257	37.996	Si
SLV 6	1187	-5517	267954	0.89	1126394	4.204	Si
SLV 10	835	-10888	203372	1.77	2051924	10.089	Si
SLV 10	1187	-5607	381366	0.91	1143172	2.998	Si
SLV 5	835	-11334	55828	1.84	2121257	37.996	Si
SLV 5	1187	-5517	267954	0.89	1126394	4.204	Si
SLV 16	835	-9852	574492	1.6	1886608	3.284	Si
SLV 16	1187	-5773	315456	0.94	1174262	3.722	Si
SLV 11	835	-10096	509502	1.64	1926068	3.78	Si
SLV 11	1187	-5702	76407	0.92	1161029	15.195	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	835	-14579	762	480286		2.36	440.57	0.87	5371			7.05	Si
SLU 72	1187	-8178	1166	324257		1.33	440.57	0.73	4517			3.87	Si
SLU 69	835	-15050	1162	457895		2.44	440.57	0.88	5433			4.68	Si
SLU 69	1187	-8533	1162	297369		1.38	440.57	0.74	4564			3.93	Si
SLU 71	835	-14711	1235	452474		2.39	440.57	0.87	5388			4.36	Si
SLU 71	1187	-8263	1235	290679		1.34	440.57	0.73	4528			3.67	Si
SLU 80	835	-16063	744	526102		2.6	440.57	0.9	5568			7.48	Si
SLU 80	1187	-8783	1148	339700		1.42	440.57	0.75	4598			4.01	Si
SLU 79	835	-16195	1217	498290		2.63	440.57	0.91	5586			4.59	Si
SLU 79	1187	-8869	1217	306122		1.44	440.57	0.75	4609			3.79	Si
SLU 38	835	-13629	703	471927		2.21	440.57	0.85	5244			7.46	Si
SLU 38	1187	-7496	1110	302666		1.22	440.57	0.72	4426			3.99	Si
SLU 37	835	-13761	1176	444115		2.23	440.57	0.85	5261			4.47	Si
SLU 37	1187	-7582	1179	269088		1.23	440.57	0.72	4438			3.76	Si
SLU 27	835	-12616	1121	403720		2.05	440.57	0.83	5109			4.56	Si
SLU 27	1187	-7246	1124	260335		1.17	440.57	0.71	4393			3.91	Si
SLU 29	835	-12277	1194	398299		1.99	440.57	0.82	5064			4.24	Si
SLU 29	1187	-6976	1198	253645		1.13	440.57	0.71	4357			3.64	Si
SLU 30	835	-12145	721	426111		1.97	440.57	0.82	5046			7	Si
SLU 30	1187	-6890	1128	287223		1.12	440.57	0.7	4345			3.85	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 8	835	-10658	3786	314426		1.73	440.57	1.18	7272			1.92	Si
SLD 8	1187	-5623	2596	83280		0.91	440.57	1.02	6265			2.41	Si
SLD 7	835	-10658	3786	314426		1.73	440.57	1.18	7272			1.92	Si
SLD 7	1187	-5623	2596	83280		0.91	440.57	1.02	6265			2.41	Si
SLV 12	835	-10096	8350	509502		1.64	440.57	1.16	7159			0.86	No, Vu<V
SLV 12	1187	-5702	6310	76407		0.92	440.57	1.02	6280			1	No, Vu<V
SLV 7	835	-10542	8620	361958		1.71	440.57	1.18	7248			0.84	No, Vu<V
SLV 7	1187	-5613	5813	-37005		0.91	440.57	1.02	6263			1.08	Si
SLV 5	835	-11334	-7690	55828		1.84	440.57	1.2	7407			0.96	No, Vu<V
SLV 5	1187	-5517	-5667	267954		0.89	440.57	1.01	6243			1.1	Si
SLV 8	835	-10542	8620	361958		1.71	440.57	1.18	7248			0.84	No, Vu<V
SLV 8	1187	-5613	5813	-37005		0.91	440.57	1.02	6263			1.08	Si
SLV 11	835	-10096	8350	509502		1.64	440.57	1.16	7159			0.86	No, Vu<V
SLV 11	1187	-5702	6310	76407		0.92	440.57	1.02	6280			1	No, Vu<V
SLV 9	835	-10888	-7960	203372		1.77	440.57	1.19	7318			0.92	No, Vu<V
SLV 9	1187	-5607	-5169	381366		0.91	440.57	1.02	6261			1.21	Si
SLV 10	835	-10888	-7960	203372		1.77	440.57	1.19	7318			0.92	No, Vu<V
SLV 10	1187	-5607	-5169	381366		0.91	440.57	1.02	6261			1.21	Si
SLV 6	835	-11334	-7690	55828		1.84	440.57	1.2	7407			0.96	No, Vu<V
SLV 6	1187	-5517	-5667	267954		0.89	440.57	1.01	6243			1.1	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.46	1.32	-8117	28636	50701	1.77	Si
SLV 4	14	0.46	1.32	-8117	28636	50701	1.77	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.46	1.32	-8157	28636	50919	1.78	Si
SLV 1	14	0.46	1.32	-8157	28636	50919	1.78	Si
SLV 7	14	0.46	1.33	-8220	28636	51264	1.79	Si
SLV 8	14	0.46	1.33	-8220	28636	51264	1.79	Si
SLV 11	14	0.46	1.35	-8347	28636	51960	1.81	Si
SLV 12	14	0.46	1.35	-8347	28636	51960	1.81	Si
SLV 6	14	0.46	1.35	-8352	28636	51984	1.82	Si
SLV 5	14	0.46	1.35	-8352	28636	51984	1.82	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	σ_0	M*	e*	a0*	aLim	Verifica
SLV 15	-5773	-9852	-15	0.023	9.017	0.914	36.58	1891.088	No
SLV 16	-5773	-9852	-15	0.023	9.017	0.914	36.58	1891.088	No
SLV 13	-5744	-10090	-15	0.023	8.988	0.913	36.586	1891.088	No
SLV 14	-5744	-10090	-15	0.023	8.988	0.913	36.586	1891.088	No
SLV 4	-5475	-11340	15	0.023	8.72	0.912	36.767	1891.088	No
SLV 3	-5475	-11340	15	0.023	8.72	0.912	36.767	1891.088	No
SLV 1	-5446	-11578	15	0.023	8.691	0.911	36.815	1891.088	No
SLV 2	-5446	-11578	15	0.023	8.691	0.911	36.815	1891.088	No
SLV 7	-5613	-10542	5	0.024	8.857	0.913	38.829	1891.088	No
SLV 8	-5613	-10542	5	0.024	8.857	0.913	38.829	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.4	SLU 26	Si
V_SLU	3.638	SLU 29	Si
PF_SLV	2.872	SLV 13	Si
V_SLV	0.841	SLV 7	No
PFFP_SLV	1.771	SLV 3	Si
R_SLV	0.019	SLV 15	No

Maschio 154

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1389.3	-335.9	-1543.3	-335.9	L5	L6	154	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 76	835	-9133	-69265	2.12	520395	7.513	Si
SLU 76	1045	-10548	-119736	2.45	568300	4.746	Si
SLU 75	835	-9345	-65123	2.17	528138	8.11	Si
SLU 75	1045	-10802	-121273	2.51	575966	4.749	Si
SLU 40	835	-7563	-72125	1.75	456972	6.336	Si
SLU 40	1045	-9323	-112449	2.16	527321	4.689	Si
SLU 31	835	-7278	-74255	1.69	444273	5.983	Si
SLU 31	1045	-8972	-108137	2.08	514381	4.757	Si
SLU 81	835	-9382	-67363	2.18	529466	7.86	Si
SLU 81	1045	-10917	-126932	2.53	579335	4.564	Si
SLU 73	835	-9041	-80052	2.1	516969	6.458	Si
SLU 73	1045	-10687	-125297	2.48	572530	4.569	Si
SLU 82	835	-9327	-77922	2.16	527460	6.769	Si
SLU 82	1045	-11038	-129609	2.56	582833	4.497	Si
SLU 83	835	-9475	-56576	2.2	532753	9.417	Si
SLU 83	1045	-10778	-121371	2.5	575245	4.74	Si
SLU 84	835	-9419	-67135	2.18	530770	7.906	Si
SLU 84	1045	-10899	-124048	2.53	578816	4.666	Si
SLU 39	835	-7619	-61566	1.77	459408	7.462	Si
SLU 39	1045	-9202	-109772	2.13	522912	4.764	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-1420	1136	0.33	106377	93.654	Si
SLV 5	1045	1863	224625	0	0	0	No, Trazione
SLV 10	835	-339	-147572	0	0	0	No, e>/2
SLV 10	1045	-1401	303214	0	0	0	No, e>/2
SLV 2	835	-6722	197986	1.56	451554	2.281	Si
SLV 2	1045	351	6128	0	0	0	No, Trazione
SLV 13	835	-3119	-297707	0	0	0	No, e>/2
SLV 13	1045	-10529	268093	2.44	648698	2.42	Si
SLV 14	835	-3119	-297707	0	0	0	No, e>/2
SLV 14	1045	-10529	268093	2.44	648698	2.42	Si
SLV 6	835	-1420	1136	0.33	106377	93.654	Si
SLV 6	1045	1863	224625	0	0	0	No, Trazione
SLV 15	835	-6582	-277686	1.53	443520	1.597	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	1045	-15089	159399	3.5	829101	5.201	Si
SLV 16	835	-6582	-277686	1.53	443520	1.597	Si
SLV 16	1045	-15089	159399	3.5	829101	5.201	Si
SLV 9	835	-339	-147572	0	0	0	No, $e>l/2$
SLV 9	1045	-1401	303214	0	0	0	No, $e>l/2$
SLV 1	835	-6722	197986	1.56	451554	2.281	Si
SLV 1	1045	351	6128	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	835	-7619	-1750	-61566		1.77	154	0.79	3411			1.95	Si
SLU 39	1045	-9202	-2769	109772		2.13	154	0.84	3622			1.31	Si
SLU 61	835	-8900	-1813	-65845		2.06	154	0.83	3582			1.98	Si
SLU 61	1045	-10083	-2912	114560		2.34	154	0.87	3740			1.28	Si
SLU 40	835	-7563	-1879	-72125		1.75	154	0.79	3404			1.81	Si
SLU 40	1045	-9323	-2848	112449		2.16	154	0.84	3639			1.28	Si
SLU 83	835	-9475	-1855	-56576		2.2	154	0.85	3659			1.97	Si
SLU 83	1045	-10778	-2946	121371		2.5	154	0.89	3833			1.3	Si
SLU 73	835	-9041	-2123	-80052		2.1	154	0.84	3601			1.7	Si
SLU 73	1045	-10687	-3120	125297		2.48	154	0.89	3821			1.22	Si
SLU 82	835	-9327	-2121	-77922		2.16	154	0.84	3639			1.72	Si
SLU 82	1045	-11038	-3261	129609		2.56	154	0.9	3867			1.19	Si
SLU 75	835	-9345	-1980	-65123		2.17	154	0.84	3642			1.84	Si
SLU 75	1045	-10802	-2940	121273		2.51	154	0.89	3836			1.3	Si
SLU 81	835	-9382	-1992	-67363		2.18	154	0.85	3647			1.83	Si
SLU 81	1045	-10917	-3182	126932		2.53	154	0.89	3851			1.21	Si
SLU 84	835	-9419	-1984	-67135		2.18	154	0.85	3651			1.84	Si
SLU 84	1045	-10899	-3024	124048		2.53	154	0.89	3849			1.27	Si
SLU 60	835	-8956	-1684	-55286		2.08	154	0.83	3590			2.13	Si
SLU 60	1045	-9962	-2833	111882		2.31	154	0.86	3724			1.31	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	835	-3119	-6092	-297707		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1045	-10529	-4896	268093		2.44	154	1.32	5699			1.16	Si
SLV 5	835	-1420	-35	1136		0.33	154	0.9	3877			111.31	Si
SLV 5	1045	1863	-696	224625		0	0	0.83	0			0	No, $V_u < V$
SLV 9	835	-339	-2880	-147572		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1045	-1401	-2504	303214		0	0	0.83	0			0	No, $V_u < V$
SLV 10	835	-339	-2880	-147572		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1045	-1401	-2504	303214		0	0	0.83	0			0	No, $V_u < V$
SLV 16	835	-6582	-6000	-277686		2.25	104.44	1.28	3753			0.63	No, $V_u < V$
SLV 16	1045	-15089	-5139	159399		3.5	154	1.53	6611			1.29	Si
SLV 15	835	-6582	-6000	-277686		2.25	104.44	1.28	3753			0.63	No, $V_u < V$
SLV 15	1045	-15089	-5139	159399		3.5	154	1.53	6611			1.29	Si
SLV 6	835	-1420	-35	1136		0.33	154	0.9	3877			111.31	Si
SLV 6	1045	1863	-696	224625		0	0	0.83	0			0	No, $V_u < V$
SLV 2	835	-6722	3391	197986		1.68	142.64	1.17	4673			1.38	Si
SLV 2	1045	351	1130	6128		0	0	0.83	0			0	No, $V_u < V$
SLV 13	835	-3119	-6092	-297707		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1045	-10529	-4896	268093		2.44	154	1.32	5699			1.16	Si
SLV 1	835	-6722	3391	197986		1.68	142.64	1.17	4673			1.38	Si
SLV 1	1045	351	1130	6128		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.46	0	-1277	18714	0	0	No, $e>t/2$
SLV 6	14	0.46	0	844	18714	0	0	No, Trazione
SLV 9	14	0.46	0	-1277	18714	0	0	No, $e>t/2$
SLV 5	14	0.46	0	844	18714	0	0	No, Trazione
SLV 1	14	0.46	0.42	-1805	18714	24400	1.3	Si
SLV 2	14	0.46	0.42	-1805	18714	24400	1.3	Si
SLV 4	14	0.46	1.44	-6196	18714	76542	4.09	Si
SLV 3	14	0.46	1.44	-6196	18714	76542	4.09	Si
SLV 14	14	0.46	2.06	-8874	18714	103315	5.52	Si
SLV 13	14	0.46	2.06	-8874	18714	103315	5.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	1270	-339	118	0	0	0	0	1011.814	No, Trazione
SLV 5	1911	-1420	114	0	0	0	0	1011.814	No, Trazione
SLV 6	1911	-1420	114	0	0	0	0	1011.814	No, Trazione
SLV 9	1270	-339	118	0	0	0	0	1011.814	No, Trazione
SLV 8	-9968	-12965	-122	0.034	12.294	0.95	51.742	1011.814	No
SLV 7	-9968	-12965	-122	0.034	12.294	0.95	51.742	1011.814	No
SLV 11	-10608	-11884	-117	0.035	12.945	0.952	52.697	1011.814	No
SLV 12	-10608	-11884	-117	0.035	12.945	0.952	52.697	1011.814	No
SLV 4	-5063	-10186	-45	0.041	7.332	0.923	64.974	1108.806	No
SLV 3	-5063	-10186	-45	0.041	7.332	0.923	64.974	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.497	SLU 82	Si
V_SLU	1.186	SLU 82	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0	SLV 6	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 10	No

Maschio 155

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	220.1	-1505.8	666.1	L5	L6	446	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 82	835	-19668	-192539	3.15	2689964	13.971	Si
SLU 82	1187	-9023	-48224	1.45	1655127	34.321	Si
SLU 81	835	-19669	-192256	3.15	2690019	13.992	Si
SLU 81	1187	-9024	-48051	1.45	1655329	34.449	Si
SLU 40	835	-16624	-162806	2.66	2495498	15.328	Si
SLU 40	1187	-7639	-41733	1.22	1447674	34.689	Si
SLU 52	835	-17093	-169812	2.74	2530774	14.903	Si
SLU 52	1187	-7802	-41202	1.25	1473009	35.751	Si
SLU 73	835	-18860	-180706	3.02	2646239	14.644	Si
SLU 73	1187	-8672	-44452	1.39	1604190	36.088	Si
SLU 19	835	-14858	-151912	2.38	2345405	15.439	Si
SLU 19	1187	-6769	-38483	1.08	1308610	34.005	Si
SLU 60	835	-17903	-181362	2.87	2587094	14.265	Si
SLU 60	1187	-8154	-44801	1.31	1526831	34.08	Si
SLU 39	835	-16625	-162523	2.66	2495583	15.355	Si
SLU 39	1187	-7641	-41560	1.22	1447894	34.839	Si
SLU 61	835	-17902	-181645	2.87	2587022	14.242	Si
SLU 61	1187	-8153	-44974	1.31	1526618	33.944	Si
SLU 18	835	-14859	-151630	2.38	2345507	15.469	Si
SLU 18	1187	-6771	-38310	1.08	1308841	34.165	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 1	835	-15654	-315781	2.51	2774604	8.786	Si
SLV 1	1187	-7005	-12275	1.12	1418765	115.578	Si
SLV 2	835	-15654	-315781	2.51	2774604	8.786	Si
SLV 2	1187	-7005	-12275	1.12	1418765	115.578	Si
SLV 10	835	-12950	-401193	2.07	2397707	5.976	Si
SLV 10	1187	-4876	171662	0.78	1017847	5.929	Si
SLV 8	835	-13468	155822	2.16	2473228	15.872	Si
SLV 8	1187	-7299	-229406	1.17	1471969	6.416	Si
SLV 7	835	-13468	155822	2.16	2473228	15.872	Si
SLV 7	1187	-7299	-229406	1.17	1471969	6.416	Si
SLV 9	835	-12950	-401193	2.07	2397707	5.976	Si
SLV 9	1187	-4876	171662	0.78	1017847	5.929	Si
SLV 5	835	-14339	-461492	2.3	2596600	5.627	Si
SLV 5	1187	-5581	147682	0.89	1153579	7.811	Si
SLV 12	835	-12080	216121	1.93	2267270	10.491	Si
SLV 12	1187	-6594	-205426	1.06	1343320	6.539	Si
SLV 6	835	-14339	-461492	2.3	2596600	5.627	Si
SLV 6	1187	-5581	147682	0.89	1153579	7.811	Si
SLV 11	835	-12080	216121	1.93	2267270	10.491	Si
SLV 11	1187	-6594	-205426	1.06	1343320	6.539	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 29	835	-13542	916	-30998		2.17	446	0.84	5275			5.76	Si
SLU 29	1187	-6600	906	6275		1.06	446	0.7	4349			4.8	Si
SLU 37	835	-15427	857	-59047		2.47	446	0.88	5526			6.44	Si
SLU 37	1187	-7415	848	-2795		1.19	446	0.71	4458			5.26	Si
SLU 9	835	-11775	801	-20387		1.89	446	0.81	5039			6.29	Si
SLU 9	1187	-5728	793	9352		0.92	446	0.68	4233			5.34	Si
SLU 27	835	-14000	854	-40853		2.24	446	0.85	5336			6.25	Si
SLU 27	1187	-6904	845	5395		1.11	446	0.7	4389			5.2	Si
SLU 28	835	-13999	857	-41136		2.24	446	0.85	5335			6.23	Si
SLU 28	1187	-6903	848	5222		1.11	446	0.7	4389			5.18	Si
SLU 72	835	-16585	897	-61013		2.66	446	0.91	5680			6.34	Si
SLU 72	1187	-7982	887	-389		1.28	446	0.73	4533			5.11	Si
SLU 38	835	-15426	861	-59330		2.47	446	0.88	5526			6.42	Si
SLU 38	1187	-7414	851	-2968		1.19	446	0.71	4457			5.24	Si
SLU 30	835	-13541	919	-31281		2.17	446	0.84	5274			5.74	Si
SLU 30	1187	-6598	909	6102		1.06	446	0.7	4349			4.78	Si
SLU 71	835	-16587	893	-60731		2.66	446	0.91	5680			6.36	Si
SLU 71	1187	-7983	883	-216		1.28	446	0.73	4533			5.13	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLU 8	835	-11776	797	-20104		1.89	446	0.81	5039			6.32	Si
SLU 8	1187	-5730	789	9526		0.92	446	0.68	4233			5.36	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLV 11	835	-12080	5371	216121		1.93	446	1.22	7619			1.42	Si
SLV 11	1187	-6594	3170	-205426		1.06	446	1.04	6522			2.06	Si
SLV 10	835	-12950	-4994	-401193		2.07	446	1.25	7793			1.56	Si
SLV 10	1187	-4876	-2678	171662		0.78	446	0.99	6179			2.31	Si
SLV 6	835	-14339	-5216	-461492		2.3	446	1.29	8071			1.55	Si
SLV 6	1187	-5581	-3021	147682		0.89	446	1.01	6320			2.09	Si
SLV 7	835	-13468	5150	155822		2.16	446	1.26	7897			1.53	Si
SLV 7	1187	-7299	2828	-229406		1.17	446	1.07	6663			2.36	Si
SLD 11	835	-12744	2304	22056		2.04	446	1.24	7752			3.37	Si
SLD 11	1187	-6300	1384	-102916		1.01	446	1.04	6463			4.67	Si
SLV 5	835	-14339	-5216	-461492		2.3	446	1.29	8071			1.55	Si
SLV 5	1187	-5581	-3021	147682		0.89	446	1.01	6320			2.09	Si
SLV 12	835	-12080	5371	216121		1.93	446	1.22	7619			1.42	Si
SLV 12	1187	-6594	3170	-205426		1.06	446	1.04	6522			2.06	Si
SLV 9	835	-12950	-4994	-401193		2.07	446	1.25	7793			1.56	Si
SLV 9	1187	-4876	-2678	171662		0.78	446	0.99	6179			2.31	Si
SLD 12	835	-12744	2304	22056		2.04	446	1.24	7752			3.37	Si
SLD 12	1187	-6300	1384	-102916		1.01	446	1.04	6463			4.67	Si
SLV 8	835	-13468	5150	155822		2.16	446	1.26	7897			1.53	Si
SLV 8	1187	-7299	2828	-229406		1.17	446	1.07	6663			2.36	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.46	1.17	-7335	28989	46409	1.6	Si
SLV 14	14	0.46	1.17	-7335	28989	46409	1.6	Si
SLV 15	14	0.46	1.26	-7874	28989	49429	1.71	Si
SLV 16	14	0.46	1.26	-7874	28989	49429	1.71	Si
SLV 10	14	0.46	1.27	-7916	28989	49663	1.71	Si
SLV 9	14	0.46	1.27	-7916	28989	49663	1.71	Si
SLV 5	14	0.46	1.43	-8953	28989	55317	1.91	Si
SLV 6	14	0.46	1.43	-8953	28989	55317	1.91	Si
SLV 11	14	0.46	1.56	-9713	28989	59333	2.05	Si
SLV 12	14	0.46	1.56	-9713	28989	59333	2.05	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-7299	-13468	-16	0.022	10.585	0.923	35.268	1891.088	No
SLV 8	-7299	-13468	-16	0.022	10.585	0.923	35.268	1891.088	No
SLV 12	-6594	-12080	-18	0.022	9.878	0.918	35.418	1891.088	No
SLV 11	-6594	-12080	-18	0.022	9.878	0.918	35.418	1891.088	No
SLV 6	-5581	-14339	18	0.023	8.866	0.912	36.188	1891.088	No
SLV 5	-5581	-14339	18	0.023	8.866	0.912	36.188	1891.088	No
SLV 1	-7005	-15654	8	0.023	10.29	0.921	36.855	1891.088	No
SLV 2	-7005	-15654	8	0.023	10.29	0.921	36.855	1891.088	No
SLV 9	-4876	-12950	16	0.023	8.165	0.907	37.276	1891.088	No
SLV 10	-4876	-12950	16	0.023	8.165	0.907	37.276	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	13.971	SLU 82	Si
V_SLU	4.782	SLU 30	Si
PF_SLV	5.627	SLV 5	Si
V_SLV	1.418	SLV 11	Si
PFFP_SLV	1.601	SLV 13	Si
R_SLV	0.019	SLV 7	No

Maschio 156

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1375.3	-35.4	-1375.3	-22.8	L5	L6	12.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 56	835	-914	9481	0	0	0	No, e>/2
SLU 56	1045	-944	-9858	0	0	0	No, e>/2
SLU 53	835	-849	9906	0	0	0	No, e>/2
SLU 53	1045	-861	-9158	0	0	0	No, e>/2
SLU 55	835	-824	10254	0	0	0	No, e>/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 55	1045	-832	-8921	0	0	0	No, e>l/2
SLU 1	835	-496	4612	0	0	0	No, e>l/2
SLU 1	1045	-558	-5725	0	0	0	No, e>l/2
SLU 58	835	-916	9564	0	0	0	No, e>l/2
SLU 58	1045	-947	-9927	0	0	0	No, e>l/2
SLU 59	835	-900	9723	0	0	0	No, e>l/2
SLU 59	1045	-928	-9744	0	0	0	No, e>l/2
SLU 54	835	-833	10065	0	0	0	No, e>l/2
SLU 54	1045	-841	-8974	0	0	0	No, e>l/2
SLU 57	835	-898	9640	0	0	0	No, e>l/2
SLU 57	1045	-924	-9675	0	0	0	No, e>l/2
SLU 61	835	-843	12456	0	0	0	No, e>l/2
SLU 61	1045	-800	-8926	0	0	0	No, e>l/2
SLU 60	835	-859	12296	0	0	0	No, e>l/2
SLU 60	1045	-820	-9110	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	835	-1851	-907	5.26	6626	7.303	Si
SLV 6	1045	-2001	-19496	0	0	0	No, e>l/2
SLD 1	835	-917	3625	2.61	4536	1.251	Si
SLD 1	1045	-955	-9588	0	0	0	No, e>l/2
SLV 9	835	-1566	1194	4.45	6258	5.241	Si
SLV 9	1045	-1739	-17084	0	0	0	No, e>l/2
SLV 13	835	-436	7640	0	0	0	No, e>l/2
SLV 13	1045	-550	-5910	0	0	0	No, e>l/2
SLV 10	835	-1566	1194	4.45	6258	5.241	Si
SLV 10	1045	-1739	-17084	0	0	0	No, e>l/2
SLV 11	835	711	12606	0	0	0	No, Trazione
SLV 11	1045	785	6803	0	0	0	No, Trazione
SLV 14	835	-436	7640	0	0	0	No, e>l/2
SLV 14	1045	-550	-5910	0	0	0	No, e>l/2
SLV 12	835	711	12606	0	0	0	No, Trazione
SLV 12	1045	785	6803	0	0	0	No, Trazione
SLV 7	835	426	10504	0	0	0	No, Trazione
SLV 7	1045	523	4391	0	0	0	No, Trazione
SLV 8	835	426	10504	0	0	0	No, Trazione
SLV 8	1045	523	4391	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 57	835	-898	70	9640		0	0	0.56	0			0	No, Vu<V
SLU 57	1045	-924	-23	-9675		0	0	0.56	0			0	No, Vu<V
SLU 61	835	-843	148	12456		0	0	0.56	0			0	No, Vu<V
SLU 61	1045	-800	7	-8926		0	0	0.56	0			0	No, Vu<V
SLU 54	835	-833	93	10065		0	0	0.56	0			0	No, Vu<V
SLU 54	1045	-841	-10	-8974		0	0	0.56	0			0	No, Vu<V
SLU 60	835	-859	141	12296		0	0	0.56	0			0	No, Vu<V
SLU 60	1045	-820	4	-9110		0	0	0.56	0			0	No, Vu<V
SLU 1	835	-496	25	4612		0	0	0.56	0			0	No, Vu<V
SLU 1	1045	-558	-8	-5725		0	0	0.56	0			0	No, Vu<V
SLU 53	835	-849	86	9906		0	0	0.56	0			0	No, Vu<V
SLU 53	1045	-861	-12	-9158		0	0	0.56	0			0	No, Vu<V
SLU 58	835	-916	65	9564		0	0	0.56	0			0	No, Vu<V
SLU 58	1045	-947	-26	-9927		0	0	0.56	0			0	No, Vu<V
SLU 59	835	-900	72	9723		0	0	0.56	0			0	No, Vu<V
SLU 59	1045	-928	-24	-9744		0	0	0.56	0			0	No, Vu<V
SLU 55	835	-824	100	10254		0	0	0.56	0			0	No, Vu<V
SLU 55	1045	-832	-8	-8921		0	0	0.56	0			0	No, Vu<V
SLU 56	835	-914	63	9481		0	0	0.56	0			0	No, Vu<V
SLU 56	1045	-944	-26	-9858		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	835	711	617	12606		0	0	0.83	0			0	No, Vu<V
SLV 11	1045	785	206	6803		0	0	0.83	0			0	No, Vu<V
SLD 1	835	-917	-336	3625		4.68	7	1.63	319			0.95	No, Vu<V
SLD 1	1045	-955	-61	-9588		0	0	0.83	0			0	No, Vu<V
SLV 10	835	-1566	-68	1194		4.45	12.57	1.63	572			8.46	Si
SLV 10	1045	-1739	-181	-17084		0	0	0.83	0			0	No, Vu<V
SLV 14	835	-436	719	7640		0	0	0.83	0			0	No, Vu<V
SLV 14	1045	-550	1	-5910		0	0	0.83	0			0	No, Vu<V
SLV 9	835	-1566	-68	1194		4.45	12.57	1.63	572			8.46	Si
SLV 9	1045	-1739	-181	-17084		0	0	0.83	0			0	No, Vu<V
SLV 13	835	-436	719	7640		0	0	0.83	0			0	No, Vu<V
SLV 13	1045	-550	1	-5910		0	0	0.83	0			0	No, Vu<V
SLV 6	835	-1851	-537	-907		5.26	12.57	1.63	572			1.07	Si
SLV 6	1045	-2001	-221	-19496		0	0	0.83	0			0	No, Vu<V
SLV 12	835	711	617	12606		0	0	0.83	0			0	No, Vu<V
SLV 12	1045	785	206	6803		0	0	0.83	0			0	No, Vu<V
SLV 8	835	426	148	10504		0	0	0.83	0			0	No, Vu<V
SLV 8	1045	523	166	4391		0	0	0.83	0			0	No, Vu<V
SLV 7	835	426	148	10504		0	0	0.83	0			0	No, Vu<V
SLV 7	1045	523	166	4391		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

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Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.46	0	498	1563	0	0	No, Trazione
SLV 16	14	0.46	0	183	1563	0	0	No, Trazione
SLV 11	14	0.46	0	760	1563	0	0	No, Trazione
SLV 12	14	0.46	0	760	1563	0	0	No, Trazione
SLV 8	14	0.46	0	498	1563	0	0	No, Trazione
SLV 15	14	0.46	0	183	1563	0	0	No, Trazione
SLV 13	14	0.46	1.63	-574	1563	6968	4.46	Si
SLV 14	14	0.46	1.63	-574	1563	6968	4.46	Si
SLV 3	14	0.46	1.96	-691	1563	8116	5.19	Si
SLV 4	14	0.46	1.96	-691	1563	8116	5.19	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = 1011 $W_a = 0.05$ $T_a = 0.0739$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-84	-703	86	0	0.279	0.891	0	1108.806	No
SLV 7	-199	426	-4	0	0	0	0	1011.814	No, Trazione
SLV 2	-62	-1387	109	0	0.261	0.897	0	1108.806	No
SLV 4	-84	-703	86	0	0.279	0.891	0	1108.806	No
SLV 5	-127	-1851	72	0	0.317	0.889	0	1011.814	No
SLV 6	-127	-1851	72	0	0.317	0.889	0	1011.814	No
SLV 12	-276	711	-59	0	0	0	0	1011.814	No, Trazione
SLV 1	-62	-1387	109	0	0.261	0.897	0	1108.806	No
SLV 8	-199	426	-4	0	0	0	0	1011.814	No, Trazione
SLV 11	-276	711	-59	0	0	0	0	1011.814	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 16	No
R_SLV	0	SLV 16	No

Maschio 157

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	67.2	-1375.3	104.6	L5	L6	37.4	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 70	835	-5439	-24058	5.19	36940	1.535	Si
SLU 70	1045	-2263	17535	2.16	31130	1.775	Si
SLU 69	835	-5529	-25245	5.28	36465	1.444	Si
SLU 69	1045	-2205	18640	2.1	30608	1.642	Si
SLU 28	835	-4758	-22845	4.54	39419	1.726	Si
SLU 28	1045	-1777	17322	1.7	26334	1.52	Si
SLU 78	835	-5719	-23138	5.46	35333	1.527	Si
SLU 78	1045	-2668	15685	2.55	34329	2.189	Si
SLU 79	835	-5720	-24246	5.46	35329	1.457	Si
SLU 79	1045	-2535	16660	2.42	33353	2.002	Si
SLU 71	835	-5440	-25166	5.19	36937	1.468	Si
SLU 71	1045	-2130	18510	2.03	29916	1.616	Si
SLU 77	835	-5808	-24324	5.54	34749	1.429	Si
SLU 77	1045	-2610	16790	2.49	33911	2.02	Si
SLU 29	835	-4759	-23953	4.54	39418	1.646	Si
SLU 29	1045	-1643	18297	1.57	24836	1.357	Si
SLU 27	835	-4848	-24031	4.63	39210	1.632	Si
SLU 27	1045	-1718	18427	1.64	25688	1.394	Si
SLU 30	835	-4670	-22767	4.46	39592	1.739	Si
SLU 30	1045	-1702	17193	1.62	25502	1.483	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	835	-6784	-63086	6.47	59705	0.946	No, $M > M_u$
SLV 2	1045	638	45971	0	0	0	No, Trazione
SLV 12	835	1917	73346	0	0	0	No, Trazione
SLV 12	1045	-5937	-56086	5.66	59600	1.063	Si
SLV 5	835	-8590	-94172	8.2	52925	0.562	No, $M > M_u$
SLV 5	1045	2189	67912	0	0	0	No, Trazione
SLV 11	835	1917	73346	0	0	0	No, Trazione
SLV 11	1045	-5937	-56086	5.66	59600	1.063	Si
SLV 10	835	-7357	-76011	7.02	58588	0.771	No, $M > M_u$
SLV 10	1045	1336	53764	0	0	0	No, Trazione
SLV 6	835	-8590	-94172	8.2	52925	0.562	No, $M > M_u$



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	1045	2189	67912	0	0	0	No, Trazione
SLD 1	835	-4803	-32782	4.58	56174	1.714	Si
SLD 1	1045	-804	23010	0	0	0	No, e>1/2
SLV 7	835	683	55184	0	0	0	No, Trazione
SLV 7	1045	-5084	-41938	4.85	57377	1.368	Si
SLV 9	835	-7357	-76011	7.02	58588	0.771	No, M>Mu
SLV 9	1045	1336	53764	0	0	0	No, Trazione
SLV 8	835	683	55184	0	0	0	No, Trazione
SLV 8	1045	-5084	-41938	4.85	57377	1.368	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	835	-4848	-447	-24031		4.63	37.43	1.08	1135			2.54	Si
SLU 27	1045	-1718	-444	18427		2.56	23.98	0.9	602			1.36	Si
SLU 71	835	-5440	-458	-25166		5.19	37.43	1.08	1135			2.48	Si
SLU 71	1045	-2130	-456	18510		2.53	30.07	0.89	752			1.65	Si
SLU 30	835	-4670	-422	-22767		4.46	37.43	1.08	1135			2.69	Si
SLU 30	1045	-1702	-417	17193		2.35	25.84	0.87	629			1.51	Si
SLU 69	835	-5529	-460	-25245		5.28	37.43	1.08	1135			2.47	Si
SLU 69	1045	-2205	-458	18640		2.56	30.78	0.9	773			1.69	Si
SLU 28	835	-4758	-424	-22845		4.54	37.43	1.08	1135			2.68	Si
SLU 28	1045	-1777	-419	17322		2.36	26.9	0.87	655			1.56	Si
SLU 37	835	-5039	-421	-23032		4.81	37.43	1.08	1135			2.7	Si
SLU 37	1045	-2048	-417	16448		2.28	32.05	0.86	772			1.85	Si
SLU 8	835	-4068	-351	-19311		3.88	37.43	1.07	1125			3.21	Si
SLU 8	1045	-1547	-349	14284		1.94	28.45	0.81	649			1.86	Si
SLU 29	835	-4759	-445	-23953		4.54	37.43	1.08	1135			2.55	Si
SLU 29	1045	-1643	-442	18297		2.58	22.74	0.9	573			1.3	Si
SLU 72	835	-5351	-435	-23980		5.11	37.43	1.08	1135			2.61	Si
SLU 72	1045	-2188	-431	17405		2.42	32.28	0.88	794			1.84	Si
SLU 70	835	-5439	-437	-24058		5.19	37.43	1.08	1135			2.6	Si
SLU 70	1045	-2263	-433	17535		2.46	32.9	0.88	814			1.88	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	835	-7357	-1640	-76011		10.45	25.15	1.63	1144			0.7	No, Vu<V
SLV 10	1045	1336	-1603	53764		0	0	0.83	0			0	No, Vu<V
SLV 9	835	-7357	-1640	-76011		10.45	25.15	1.63	1144			0.7	No, Vu<V
SLV 9	1045	1336	-1603	53764		0	0	0.83	0			0	No, Vu<V
SLV 6	835	-8590	-2043	-94172		13.19	23.26	1.63	1058			0.52	No, Vu<V
SLV 6	1045	2189	-1343	67912		0	0	0.83	0			0	No, Vu<V
SLV 12	835	1917	1699	73346		0	0	0.83	0			0	No, Vu<V
SLV 12	1045	-5937	999	-56086		7.63	27.81	1.63	1265			1.27	Si
SLV 8	835	683	1297	55184		0	0	0.83	0			0	No, Vu<V
SLV 8	1045	-5084	1259	-41938		5.78	31.4	1.63	1429			1.13	Si
SLV 11	835	1917	1699	73346		0	0	0.83	0			0	No, Vu<V
SLV 11	1045	-5937	999	-56086		7.63	27.81	1.63	1265			1.27	Si
SLV 5	835	-8590	-2043	-94172		13.19	23.26	1.63	1058			0.52	No, Vu<V
SLV 5	1045	2189	-1343	67912		0	0	0.83	0			0	No, Vu<V
SLV 7	835	683	1297	55184		0	0	0.83	0			0	No, Vu<V
SLV 7	1045	-5084	1259	-41938		5.78	31.4	1.63	1429			1.13	Si
SLD 1	835	-4803	-667	-32782		4.81	35.67	1.63	1623			2.43	Si
SLD 1	1045	-804	-150	23010		0	0	0.83	0			0	No, Vu<V
SLV 2	835	-6784	-1343	-63086		8.58	28.25	1.63	1285			0.96	No, Vu<V
SLV 2	1045	638	-129	45971		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.46	0	2099	4654	0	0	No, Trazione
SLV 1	14	0.46	0	548	4654	0	0	No, Trazione
SLV 10	14	0.46	0	1251	4654	0	0	No, Trazione
SLV 9	14	0.46	0	1251	4654	0	0	No, Trazione
SLV 5	14	0.46	0	2099	4654	0	0	No, Trazione
SLV 2	14	0.46	0	548	4654	0	0	No, Trazione
SLV 3	14	0.46	1.55	-1629	4654	19909	4.28	Si
SLV 4	14	0.46	1.55	-1629	4654	19909	4.28	Si
SLV 14	14	0.46	2.17	-2277	4654	26214	5.63	Si
SLV 13	14	0.46	2.17	-2277	4654	26214	5.63	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	α_{lim}	Verifica
SLV 16	-1296	111	-41	0	0	0	0	1108.806	No, Trazione
SLV 11	-1372	1917	-97	0	0	0	0	1011.814	No, Trazione
SLV 5	-1073	-8590	96	0	1.624	0.917	0	1011.814	No
SLV 9	-1092	-7357	88	0	1.643	0.918	0	1011.814	No
SLV 15	-1296	111	-41	0	0	0	0	1108.806	No, Trazione
SLV 8	-1353	683	-89	0	0	0	0	1011.814	No, Trazione
SLV 12	-1372	1917	-97	0	0	0	0	1011.814	No, Trazione
SLV 7	-1353	683	-89	0	0	0	0	1011.814	No, Trazione
SLV 10	-1092	-7357	88	0	1.643	0.918	0	1011.814	No
SLV 6	-1073	-8590	96	0	1.624	0.917	0	1011.814	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.357	SLU 29	Si
V_SLU	1.297	SLU 29	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 16	No

Maschio 158

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1239.3	333.1	-1239.3	104.6	L5	L6	228.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 72	835	-7394	184778	2.31	605079	3.275	Si
SLU 72	1187	-4613	104226	1.44	433765	4.162	Si
SLU 71	835	-7411	185612	2.32	605882	3.264	Si
SLU 71	1187	-4632	105018	1.45	435140	4.143	Si
SLU 79	835	-8162	196815	2.55	640413	3.254	Si
SLU 79	1187	-4956	107232	1.55	458531	4.276	Si
SLU 69	835	-7649	186883	2.39	617363	3.303	Si
SLU 69	1187	-4902	104378	1.53	454723	4.356	Si
SLU 70	835	-7632	186048	2.39	616594	3.314	Si
SLU 70	1187	-4884	103586	1.53	453392	4.377	Si
SLU 80	835	-8145	195980	2.55	639717	3.264	Si
SLU 80	1187	-4937	106440	1.54	457209	4.295	Si
SLU 29	835	-6169	159398	1.93	537931	3.375	Si
SLU 29	1187	-3900	92937	1.22	378878	4.077	Si
SLU 77	835	-8400	198086	2.63	650326	3.283	Si
SLU 77	1187	-5226	106592	1.63	477346	4.478	Si
SLU 78	835	-8383	197251	2.62	649664	3.294	Si
SLU 78	1187	-5208	105800	1.63	476068	4.5	Si
SLU 30	835	-6152	158564	1.92	536950	3.386	Si
SLU 30	1187	-3881	92145	1.21	377383	4.096	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	835	-4004	135708	1.25	410591	3.026	Si
SLV 11	1187	-2504	135532	0.78	267777	1.976	Si
SLD 7	835	-4764	123599	1.49	477923	3.867	Si
SLD 7	1187	-3119	110073	0.98	327919	2.979	Si
SLV 7	835	-3807	131800	1.19	392594	2.979	Si
SLV 7	1187	-2988	181816	0.93	315269	1.734	Si
SLD 11	835	-4847	125240	1.52	485132	3.874	Si
SLD 11	1187	-2913	90408	0.91	308031	3.407	Si
SLV 3	835	-4674	116030	1.46	470173	4.052	Si
SLV 3	1187	-3882	164534	1.21	399446	2.428	Si
SLV 4	835	-4674	116030	1.46	470173	4.052	Si
SLV 4	1187	-3882	164534	1.21	399446	2.428	Si
SLD 12	835	-4847	125240	1.52	485132	3.874	Si
SLD 12	1187	-2913	90408	0.91	308031	3.407	Si
SLD 8	835	-4764	123599	1.49	477923	3.867	Si
SLD 8	1187	-3119	110073	0.98	327919	2.979	Si
SLV 8	835	-3807	131800	1.19	392594	2.979	Si
SLV 8	1187	-2988	181816	0.93	315269	1.734	Si
SLV 12	835	-4004	135708	1.25	410591	3.026	Si
SLV 12	1187	-2504	135532	0.78	267777	1.976	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	835	-7349	67	151324		2.3	228.5	0.86	2757			40.95	Si
SLU 60	1187	-4183	26	68267		1.31	228.5	0.73	2335			89.43	Si
SLU 43	835	-6276	89	135320		1.96	228.5	0.82	2614			29.5	Si
SLU 43	1187	-3720	49	65104		1.16	228.5	0.71	2273			46.39	Si
SLU 52	835	-7000	63	145132		2.19	228.5	0.85	2711			42.81	Si
SLU 52	1187	-4013	27	65998		1.25	228.5	0.72	2312			84.4	Si
SLU 65	835	-7032	62	152939		2.2	228.5	0.85	2715			43.48	Si
SLU 65	1187	-4167	31	74945		1.3	228.5	0.73	2333			74.95	Si
SLU 45	835	-6690	73	152232		2.09	228.5	0.83	2669			36.41	Si
SLU 45	1187	-4207	40	78841		1.32	228.5	0.73	2338			58.18	Si
SLU 44	835	-6249	78	133929		1.95	228.5	0.82	2610			33.38	Si
SLU 44	1187	-3689	43	63784		1.15	228.5	0.71	2269			52.25	Si
SLU 64	835	-7059	73	154330		2.21	228.5	0.85	2718			37.32	Si
SLU 64	1187	-4198	37	76265		1.31	228.5	0.73	2337			63.67	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 46	835	-6674	67	151397		2.09	228.5	0.83	2667			39.76	Si
SLU 46	1187	-4188	37	78049		1.31	228.5	0.73	2336			63.4	Si
SLU 47	835	-6425	63	149570		2.01	228.5	0.82	2634			42.04	Si
SLU 47	1187	-3905	36	78161		1.22	228.5	0.72	2298			63.94	Si
SLU 1	835	-5034	64	109106		1.57	228.5	0.77	2448			38.26	Si
SLU 1	1187	-2988	34	53024		0.93	228.5	0.68	2176			63.15	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	835	-4674	-3298	116030		1.46	228.5	1.13	3601			1.09	Si
SLV 4	1187	-3882	-2376	164534		1.29	215.59	1.09	3292			1.39	Si
SLV 8	835	-3807	-4703	131800		1.19	228.5	1.07	3427			0.73	No, Vu<V
SLV 8	1187	-2988	-3367	181816		1.33	160.2	1.1	2467			0.73	No, Vu<V
SLV 9	835	-7138	4814	103676		2.23	228.5	1.28	4093			0.85	No, Vu<V
SLV 9	1187	-3446	3419	-68126		1.08	228.5	1.05	3355			0.98	No, Vu<V
SLV 11	835	-4004	-3433	135708		1.25	228.5	1.08	3467			1.01	Si
SLV 11	1187	-2504	-2454	135532		0.99	180.39	1.03	2605			1.06	Si
SLV 12	835	-4004	-3433	135708		1.25	228.5	1.08	3467			1.01	Si
SLV 12	1187	-2504	-2454	135532		0.99	180.39	1.03	2605			1.06	Si
SLV 6	835	-6941	3544	99769		2.17	228.5	1.27	4054			1.14	Si
SLV 6	1187	-3930	2506	-21842		1.23	228.5	1.08	3452			1.38	Si
SLV 10	835	-7138	4814	103676		2.23	228.5	1.28	4093			0.85	No, Vu<V
SLV 10	1187	-3446	3419	-68126		1.08	228.5	1.05	3355			0.98	No, Vu<V
SLV 5	835	-6941	3544	99769		2.17	228.5	1.27	4054			1.14	Si
SLV 5	1187	-3930	2506	-21842		1.23	228.5	1.08	3452			1.38	Si
SLV 3	835	-4674	-3298	116030		1.46	228.5	1.13	3601			1.09	Si
SLV 3	1187	-3882	-2376	164534		1.29	215.59	1.09	3292			1.39	Si
SLV 7	835	-3807	-4703	131800		1.19	228.5	1.07	3427			0.73	No, Vu<V
SLV 7	1187	-2988	-3367	181816		1.33	160.2	1.1	2467			0.73	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.46	1.12	-3596	13560	22858	1.69	Si
SLV 16	14	0.46	1.12	-3596	13560	22858	1.69	Si
SLV 12	14	0.46	1.2	-3830	13560	24182	1.78	Si
SLV 11	14	0.46	1.2	-3830	13560	24182	1.78	Si
SLV 14	14	0.46	1.23	-3926	13560	24722	1.82	Si
SLV 13	14	0.46	1.23	-3926	13560	24722	1.82	Si
SLV 7	14	0.46	1.36	-4360	13560	27114	2	Si
SLV 8	14	0.46	1.36	-4360	13560	27114	2	Si
SLV 9	14	0.46	1.54	-4929	13560	30152	2.22	Si
SLV 10	14	0.46	1.54	-4929	13560	30152	2.22	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-3446	-7138	10	0.022	5.129	0.919	35.091	1891.088	No
SLV 10	-3446	-7138	10	0.022	5.129	0.919	35.091	1891.088	No
SLV 5	-3930	-6941	7	0.022	5.614	0.925	35.359	1891.088	No
SLV 6	-3930	-6941	7	0.022	5.614	0.925	35.359	1891.088	No
SLV 4	-3882	-4674	-7	0.023	5.566	0.924	35.399	1891.088	No
SLV 3	-3882	-4674	-7	0.023	5.566	0.924	35.399	1891.088	No
SLV 7	-2988	-3807	-10	0.022	4.67	0.914	35.476	1891.088	No
SLV 8	-2988	-3807	-10	0.022	4.67	0.914	35.476	1891.088	No
SLV 2	-4164	-5614	-2	0.023	5.851	0.927	36.676	1891.088	No
SLV 1	-4164	-5614	-2	0.023	5.851	0.927	36.676	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.254	SLU 79	Si
V_SLU	29.501	SLU 43	Si
PF_SLV	1.734	SLV 7	Si
V_SLV	0.729	SLV 7	No
PFFP_SLV	1.686	SLV 15	Si
R_SLV	0.019	SLV 9	No

Maschio 159

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	333.1	-1074.8	333.1	L5	L6	431	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 38	835	-5922	-85574	0.98	1122499	13.117	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 38	1025	-5494	-457921	0.91	1051644	2.297	Si
SLU 29	835	-5570	-89633	0.92	1064239	11.873	Si
SLU 29	1025	-4728	-391686	0.78	920876	2.351	Si
SLU 30	835	-5574	-88968	0.92	1064990	11.971	Si
SLU 30	1025	-4731	-391612	0.78	921416	2.353	Si
SLU 17	835	-5636	-77819	0.93	1075305	13.818	Si
SLU 17	1025	-4880	-391094	0.81	947237	2.422	Si
SLU 37	835	-5918	-86239	0.98	1121762	13.008	Si
SLU 37	1025	-5491	-457996	0.91	1051125	2.295	Si
SLU 80	835	-7623	-109831	1.26	1388032	12.638	Si
SLU 80	1025	-6711	-526019	1.11	1248784	2.374	Si
SLU 41	835	-6424	-88705	1.06	1203453	13.567	Si
SLU 41	1025	-6140	-475668	1.02	1157942	2.434	Si
SLU 79	835	-7619	-110496	1.26	1387362	12.556	Si
SLU 79	1025	-6708	-526094	1.11	1248298	2.373	Si
SLU 42	835	-6429	-88040	1.07	1204170	13.677	Si
SLU 42	1025	-6143	-475594	1.02	1158444	2.436	Si
SLU 16	835	-5632	-78484	0.93	1074556	13.691	Si
SLU 16	1025	-4877	-391168	0.81	946701	2.42	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 8	835	-4707	-112161	0.78	949594	8.466	Si
SLD 8	1025	-3354	-598188	0.56	689956	1.153	Si
SLV 11	835	-3782	67854	0.63	773205	11.395	Si
SLV 11	1025	-1724	-767547	0	0	0	No, $e \geq l/2$
SLV 12	835	-3782	67854	0.63	773205	11.395	Si
SLV 12	1025	-1724	-767547	0	0	0	No, $e \geq l/2$
SLV 8	835	-2713	-142049	0.45	563085	3.964	Si
SLV 8	1025	-922	-945894	0	0	0	No, $e \geq l/2$
SLV 3	835	-3517	-424644	0.58	721759	1.7	Si
SLV 3	1025	-2667	-793245	0	0	0	No, $e \geq l/2$
SLD 11	835	-5160	-23191	0.86	1034218	44.595	Si
SLD 11	1025	-3695	-522404	0.61	756317	1.448	Si
SLD 7	835	-4707	-112161	0.78	949594	8.466	Si
SLD 7	1025	-3354	-598188	0.56	689956	1.153	Si
SLV 4	835	-3517	-424644	0.58	721759	1.7	Si
SLV 4	1025	-2667	-793245	0	0	0	No, $e \geq l/2$
SLV 7	835	-2713	-142049	0.45	563085	3.964	Si
SLV 7	1025	-922	-945894	0	0	0	No, $e \geq l/2$
SLD 12	835	-5160	-23191	0.86	1034218	44.595	Si
SLD 12	1025	-3695	-522404	0.61	756317	1.448	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	835	-8482	-278	-116884		1.41	431	0.74	4483			16.11	Si
SLU 81	1025	-7680	-278	-533020		1.27	431	0.73	4376			15.72	Si
SLU 41	835	-6424	-253	-88705		1.06	431	0.7	4209			16.63	Si
SLU 41	1025	-6140	-253	-475668		1.06	414.1	0.7	4040			15.95	Si
SLU 80	835	-7623	-269	-109831		1.26	431	0.72	4369			16.23	Si
SLU 80	1025	-6711	-269	-526019		1.17	411.36	0.71	4094			15.2	Si
SLU 84	835	-8130	-283	-112298		1.35	431	0.74	4436			15.65	Si
SLU 84	1025	-7360	-284	-543692		1.24	424.9	0.72	4286			15.11	Si
SLU 79	835	-7619	-269	-110496		1.26	431	0.72	4368			16.24	Si
SLU 79	1025	-6708	-269	-526094		1.17	411.22	0.71	4093			15.21	Si
SLU 78	835	-8065	-274	-104257		1.34	431	0.73	4428			16.15	Si
SLU 78	1025	-7165	-274	-526914		1.2	425.87	0.72	4268			15.56	Si
SLU 82	835	-8486	-278	-116219		1.41	431	0.74	4484			16.11	Si
SLU 82	1025	-7683	-279	-532946		1.27	431	0.73	4377			15.71	Si
SLU 42	835	-6429	-253	-88040		1.07	431	0.7	4209			16.62	Si
SLU 42	1025	-6143	-253	-475594		1.06	414.26	0.7	4041			15.95	Si
SLU 83	835	-8125	-283	-112963		1.35	431	0.74	4436			15.66	Si
SLU 83	1025	-7357	-283	-543766		1.24	424.78	0.72	4285			15.12	Si
SLU 77	835	-8061	-274	-104922		1.34	431	0.73	4427			16.16	Si
SLU 77	1025	-7161	-274	-526989		1.2	425.74	0.72	4266			15.56	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	835	-2713	-1941	-142049		0.45	431	0.92	5571			2.87	Si
SLV 8	1025	-922	-1254	-945894		0	0	0.83	0			0	No, $V_u < V$
SLV 2	835	-5276	13	-456966		0.97	386.64	1.03	5566			421.26	Si
SLV 2	1025	-4964	-1509	-484057		1	353.98	1.03	5123			3.39	Si
SLD 8	835	-4707	-853	-112161		0.78	431	0.99	5970			7	Si
SLD 8	1025	-3354	-603	-598188		2.15	111.49	1.26	1972			3.27	Si
SLV 4	835	-3517	-992	-424644		0.88	284.28	1.01	4020			4.05	Si
SLV 4	1025	-2667	-1885	-793245		0	0	0.83	0			0	No, $V_u < V$
SLV 7	835	-2713	-1941	-142049		0.45	431	0.92	5571			2.87	Si
SLV 7	1025	-922	-1254	-945894		0	0	0.83	0			0	No, $V_u < V$
SLV 1	835	-5276	13	-456966		0.97	386.64	1.03	5566			421.26	Si
SLV 1	1025	-4964	-1509	-484057		1	353.98	1.03	5123			3.39	Si
SLV 12	835	-3782	-1748	67854		0.63	431	0.96	5785			3.31	Si
SLV 12	1025	-1724	-337	-767547		0	0	0.83	0			0	No, $V_u < V$
SLV 11	835	-3782	-1748	67854		0.63	431	0.96	5785			3.31	Si
SLV 11	1025	-1724	-337	-767547		0	0	0.83	0			0	No, $V_u < V$
SLD 7	835	-4707	-853	-112161		0.78	431	0.99	5970			7	Si
SLD 7	1025	-3354	-603	-598188		2.15	111.49	1.26	1972			3.27	Si
SLV 3	835	-3517	-992	-424644		0.88	284.28	1.01	4020			4.05	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	1025	-2667	-1885	-793245		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.46	0	-922	25578	0	0	No, $e>t/2$
SLV 7	14	0.46	0	-922	25578	0	0	No, $e>t/2$
SLV 12	14	0.46	0	-1724	25578	0	0	No, $e>t/2$
SLV 11	14	0.46	0	-1724	25578	0	0	No, $e>t/2$
SLV 3	14	0.46	0	-2667	25578	0	0	No, $e>t/2$
SLV 4	14	0.46	0	-2667	25578	0	0	No, $e>t/2$
SLV 1	14	0.46	0.82	-4964	25578	32410	1.27	Si
SLV 2	14	0.46	0.82	-4964	25578	32410	1.27	Si
SLV 16	14	0.46	0.88	-5340	25578	34671	1.36	Si
SLV 15	14	0.46	0.88	-5340	25578	34671	1.36	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-4562	-3782	283	0	7.742	0.906	0	1891.088	No
SLV 8	-4176	-2713	287	0	7.361	0.903	0	1891.088	No
SLV 10	-7398	-9644	-287	0	10.575	0.925	0	1891.088	No
SLV 7	-4176	-2713	287	0	7.361	0.903	0	1891.088	No
SLV 9	-7398	-9644	-287	0	10.575	0.925	0	1891.088	No
SLV 12	-4562	-3782	283	0	7.742	0.906	0	1891.088	No
SLV 5	-7012	-8575	-284	0	10.187	0.922	0	1891.088	No
SLV 6	-7012	-8575	-284	0	10.187	0.922	0	1891.088	No
SLV 3	-4718	-3517	92	0.012	7.897	0.907	18.906	1891.088	No
SLV 4	-4718	-3517	92	0.012	7.897	0.907	18.906	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.295	SLU 37	Si
V_SLU	15.11	SLU 84	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 3	No
R_SLV	0	SLV 5	No

Maschio 160

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-994.8	333.1	-972.8	333.1	L5	L6	22	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 57	835	387	9466	0	0	0	No, Trazione
SLU 57	1025	-1839	-9337	5.97	5400	0.578	No, M>Mu
SLU 59	835	395	9268	0	0	0	No, Trazione
SLU 59	1025	-1782	-9119	5.79	5679	0.623	No, M>Mu
SLU 54	835	321	9275	0	0	0	No, Trazione
SLU 54	1025	-1851	-9171	6.01	5341	0.582	No, M>Mu
SLU 60	835	328	9661	0	0	0	No, Trazione
SLU 60	1025	-1933	-9533	6.28	4881	0.512	No, M>Mu
SLU 53	835	322	9265	0	0	0	No, Trazione
SLU 53	1025	-1848	-9162	6	5354	0.584	No, M>Mu
SLU 58	835	396	9259	0	0	0	No, Trazione
SLU 58	1025	-1780	-9109	5.78	5690	0.625	No, M>Mu
SLU 56	835	388	9457	0	0	0	No, Trazione
SLU 56	1025	-1837	-9327	5.96	5413	0.58	No, M>Mu
SLU 61	835	328	9670	0	0	0	No, Trazione
SLU 61	1025	-1935	-9543	6.28	4867	0.51	No, M>Mu
SLU 1	835	126	5830	0	0	0	No, Trazione
SLU 1	1025	-1216	-5790	3.95	6893	1.191	Si
SLU 55	835	329	9083	0	0	0	No, Trazione
SLU 55	1025	-1795	-8960	5.83	5618	0.627	No, M>Mu

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	835	1020	13000	0	0	0	No, Trazione
SLV 4	1025	-1991	-16196	6.46	10314	0.637	No, M>Mu
SLV 12	835	1218	16479	0	0	0	No, Trazione
SLV 12	1025	-2487	-13014	8.07	9278	0.713	No, M>Mu
SLV 11	835	1218	16479	0	0	0	No, Trazione
SLV 11	1025	-2487	-13014	8.07	9278	0.713	No, M>Mu



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	835	1020	13000	0	0	0	No, Trazione
SLV 3	1025	-1991	-16196	6.46	10314	0.637	No, M>Mu
SLV 9	835	-1075	-4703	3.49	8449	1.797	Si
SLV 9	1025	-100	3755	0	0	0	No, e>l/2
SLD 1	835	262	6773	0	0	0	No, Trazione
SLD 1	1025	-1331	-8602	4.32	9464	1.1	Si
SLV 10	835	-1075	-4703	3.49	8449	1.797	Si
SLV 10	1025	-100	3755	0	0	0	No, e>l/2
SLV 7	835	1498	18295	0	0	0	No, Trazione
SLV 7	1025	-2644	-17191	8.58	8652	0.503	No, M>Mu
SLV 8	835	1498	18295	0	0	0	No, Trazione
SLV 8	1025	-2644	-17191	8.58	8652	0.503	No, M>Mu
SLV 2	835	332	6645	0	0	0	No, Trazione
SLV 2	1025	-1275	-11165	4.14	9273	0.831	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 1	835	126	146	5830		0	0	0.56	0			0	No, Vu<V
SLU 1	1025	-1216	146	-5790		4.64	18.72	1.08	284			1.95	Si
SLU 53	835	322	232	9265		0	0	0.56	0			0	No, Vu<V
SLU 53	1025	-1848	232	-9162		7.28	18.13	1.08	275			1.19	Si
SLU 54	835	321	232	9275		0	0	0.56	0			0	No, Vu<V
SLU 54	1025	-1851	232	-9171		7.29	18.13	1.08	275			1.19	Si
SLU 55	835	329	227	9083		0	0	0.56	0			0	No, Vu<V
SLU 55	1025	-1795	227	-8960		7.11	18.03	1.08	273			1.21	Si
SLU 57	835	387	237	9466		0	0	0.56	0			0	No, Vu<V
SLU 57	1025	-1839	237	-9337		7.39	17.77	1.08	270			1.14	Si
SLU 61	835	328	241	9670		0	0	0.56	0			0	No, Vu<V
SLU 61	1025	-1935	241	-9543		7.59	18.21	1.08	276			1.14	Si
SLU 58	835	396	232	9259		0	0	0.56	0			0	No, Vu<V
SLU 58	1025	-1780	232	-9109		7.2	17.65	1.08	268			1.16	Si
SLU 60	835	328	241	9661		0	0	0.56	0			0	No, Vu<V
SLU 60	1025	-1933	241	-9533		7.58	18.2	1.08	276			1.15	Si
SLU 56	835	388	237	9457		0	0	0.56	0			0	No, Vu<V
SLU 56	1025	-1837	237	-9327		7.38	17.77	1.08	269			1.14	Si
SLU 59	835	395	232	9268		0	0	0.56	0			0	No, Vu<V
SLU 59	1025	-1782	232	-9119		7.21	17.65	1.08	268			1.16	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt_lim	c.s.	Verifica
SLV 8	835	1498	869	18295		0	0	0.83	0			0	No, Vu<V
SLV 8	1025	-2644	1135	-17191		14	13.49	1.63	307			0.27	No, Vu<V
SLV 12	835	1218	886	16479		0	0	0.83	0			0	No, Vu<V
SLV 12	1025	-2487	1135	-13014		10.27	17.3	1.63	394			0.35	No, Vu<V
SLD 1	835	262	70	6773		0	0	0.83	0			0	No, Vu<V
SLD 1	1025	-1331	54	-8602		6.98	13.62	1.63	310			5.72	Si
SLV 11	835	1218	886	16479		0	0	0.83	0			0	No, Vu<V
SLV 11	1025	-2487	1135	-13014		10.27	17.3	1.63	394			0.35	No, Vu<V
SLV 10	835	-1075	-529	-4703		3.86	19.88	1.61	447			0.84	No, Vu<V
SLV 10	1025	-100	-795	3755		0	0	0.83	0			0	No, Vu<V
SLV 4	835	1020	354	13000		0	0	0.83	0			0	No, Vu<V
SLV 4	1025	-1991	459	-16196		16.54	8.6	1.63	196			0.43	No, Vu<V
SLV 9	835	-1075	-529	-4703		3.86	19.88	1.61	447			0.84	No, Vu<V
SLV 9	1025	-100	-795	3755		0	0	0.83	0			0	No, Vu<V
SLV 2	835	332	-71	6645		0	0	0.83	0			0	No, Vu<V
SLV 2	1025	-1275	-120	-11165		13.54	6.73	1.63	153			1.28	Si
SLV 3	835	1020	354	13000		0	0	0.83	0			0	No, Vu<V
SLV 3	1025	-1991	459	-16196		16.54	8.6	1.63	196			0.43	No, Vu<V
SLV 7	835	1498	869	18295		0	0	0.83	0			0	No, Vu<V
SLV 7	1025	-2644	1135	-17191		14	13.49	1.63	307			0.27	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.46	0	-100	1306	0	0	No, e>t/2
SLV 10	14	0.46	0	-100	1306	0	0	No, e>t/2
SLV 5	14	0.46	0.83	-257	1306	1675	1.28	Si
SLV 6	14	0.46	0.83	-257	1306	1675	1.28	Si
SLV 13	14	0.46	2.44	-753	1306	4216	3.23	Si
SLV 14	14	0.46	2.44	-753	1306	4216	3.23	Si
SLV 8	14	0.46	8.58	-2644	1306	5506	4.22	Si
SLV 7	14	0.46	8.58	-2644	1306	5506	4.22	Si
SLV 2	14	0.46	4.14	-1275	1306	5901	4.52	Si
SLV 1	14	0.46	4.14	-1275	1306	5901	4.52	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 15	-194	90	-2	0	0	0	0	1891.088	No, Trazione
SLV 2	-81	332	2	0	0	0	0	1891.088	No, Trazione
SLV 4	185	1020	7	0	0	0	0	1891.088	No, Trazione
SLV 1	-81	332	2	0	0	0	0	1891.088	No, Trazione
SLV 11	249	1218	8	0	0	0	0	1891.088	No, Trazione
SLV 3	185	1020	7	0	0	0	0	1891.088	No, Trazione
SLV 8	362	1498	10	0	0	0	0	1891.088	No, Trazione
SLV 16	-194	90	-2	0	0	0	0	1891.088	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 7	362	1498	10	0	0	0	0	1891.088	No, Trazione
SLV 12	249	1218	8	0	0	0	0	1891.088	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 9	No
R_SLV	0	SLV 16	No

Maschio 161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1975.8	666.1	-1771.8	666.1	L5	L6	204	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 37	925	-5704	18957	1	510461	26.927	Si
SLU 37	1105	-3609	187077	0.63	339605	1.815	Si
SLU 27	925	-5185	27974	0.91	469965	16.8	Si
SLU 27	1105	-3091	172100	0.54	294350	1.71	Si
SLU 8	925	-3915	31810	0.69	365704	11.497	Si
SLU 8	1105	-1847	153709	0.32	180943	1.177	Si
SLU 38	925	-5701	18199	1	510274	28.039	Si
SLU 38	1105	-3607	187586	0.63	339397	1.809	Si
SLU 7	925	-4700	29551	0.82	430997	14.585	Si
SLU 7	1105	-2633	146785	0.46	253356	1.726	Si
SLU 6	925	-4703	30310	0.82	431194	14.226	Si
SLU 6	1105	-2635	146277	0.46	253575	1.734	Si
SLU 9	925	-3912	31051	0.68	365499	11.771	Si
SLU 9	1105	-1845	154217	0.32	180715	1.172	Si
SLU 28	925	-5183	27215	0.91	469773	17.261	Si
SLU 28	1105	-3089	172608	0.54	294136	1.704	Si
SLU 30	925	-4395	28715	0.77	405943	14.137	Si
SLU 30	1105	-2301	180040	0.4	223071	1.239	Si
SLU 29	925	-4397	29474	0.77	406143	13.78	Si
SLU 29	1105	-2303	179531	0.4	223293	1.244	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 16	925	-3577	409765	0	0	0	No, e>l/2
SLV 16	1105	-1907	-226176	0	0	0	No, e>l/2
SLV 12	925	-6798	252051	1.19	625862	2.483	Si
SLV 12	1105	-5131	-112270	0.9	484899	4.319	Si
SLV 15	925	-3577	409765	0	0	0	No, e>l/2
SLV 15	1105	-1907	-226176	0	0	0	No, e>l/2
SLV 14	925	-3465	327910	0.61	335878	1.024	Si
SLV 14	1105	-1607	-163471	0.28	160106	0.979	No, M>Mu
SLV 11	925	-6798	252051	1.19	625862	2.483	Si
SLV 11	1105	-5131	-112270	0.9	484899	4.319	Si
SLV 1	925	-12297	-395552	2.15	1033298	2.612	Si
SLV 1	1105	-9816	370995	1.72	860435	2.319	Si
SLV 13	925	-3465	327910	0.61	335878	1.024	Si
SLV 13	1105	-1607	-163471	0.28	160106	0.979	No, M>Mu
SLV 2	925	-12297	-395552	2.15	1033298	2.612	Si
SLV 2	1105	-9816	370995	1.72	860435	2.319	Si
SLV 5	925	-9076	-237838	1.59	805331	3.386	Si
SLV 5	1105	-6592	257089	1.15	608902	2.368	Si
SLV 6	925	-9076	-237838	1.59	805331	3.386	Si
SLV 6	1105	-6592	257089	1.15	608902	2.368	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 28	925	-5183	-816	27215		0.91	204	0.68	3864			4.73	Si
SLU 28	1105	-3089	-816	172608		0.8	138.35	0.66	2564			3.14	Si
SLU 8	925	-3915	-686	31810		0.69	204	0.65	3695			5.39	Si
SLU 8	1105	-1847	-686	153709		1.17	56.38	0.71	1123			1.64	Si
SLU 9	925	-3912	-693	31051		0.68	204	0.65	3695			5.33	Si
SLU 9	1105	-1845	-693	154217		1.19	55.22	0.71	1105			1.59	Si
SLU 71	925	-6460	-878	33508		1.13	204	0.71	4035			4.6	Si
SLU 71	1105	-3754	-878	189541		0.87	154.54	0.67	2905			3.31	Si
SLU 29	925	-4397	-842	29474		0.77	204	0.66	3760			4.46	Si
SLU 29	1105	-2303	-842	179531		1.14	72.15	0.71	1429			1.7	Si
SLU 30	925	-4395	-849	28715		0.77	204	0.66	3759			4.43	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	1105	-2301	-849	180040		1.15	71.24	0.71	1415			1.67	Si
SLU 38	925	-5701	-950	18199		1	204	0.69	3934			4.14	Si
SLU 38	1105	-3607	-950	187586		0.86	149.98	0.67	2814			2.96	Si
SLU 27	925	-5185	-809	27974		0.91	204	0.68	3865			4.78	Si
SLU 27	1105	-3091	-809	172100		0.79	138.98	0.66	2574			3.18	Si
SLU 72	925	-6457	-885	32750		1.13	204	0.71	4034			4.56	Si
SLU 72	1105	-3752	-885	190049		0.87	154.04	0.67	2896			3.27	Si
SLU 37	925	-5704	-943	18957		1	204	0.69	3934			4.17	Si
SLU 37	1105	-3609	-943	187077		0.86	150.51	0.67	2823			2.99	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	925	-3577	3393	409765		0	0	0.83	0			0	No, Vu<V
SLV 16	1105	-1907	2887	-226176		0	0	0.83	0			0	No, Vu<V
SLV 4	925	-12409	-4089	-313697		2.17	204	1.27	7242			1.77	Si
SLV 4	1105	-10117	-3139	308290		1.77	204	1.19	6783			2.16	Si
SLV 14	925	-3465	3347	327910		5.6	22.09	1.63	1005			0.3	No, Vu<V
SLV 14	1105	-1607	2396	-163471		75.32	0.76	1.63	35			0.01	No, Vu<V
SLV 15	925	-3577	3393	409765		0	0	0.83	0			0	No, Vu<V
SLV 15	1105	-1907	2887	-226176		0	0	0.83	0			0	No, Vu<V
SLV 13	925	-3465	3347	327910		5.6	22.09	1.63	1005			0.3	No, Vu<V
SLV 13	1105	-1607	2396	-163471		75.32	0.76	1.63	35			0.01	No, Vu<V
SLV 3	925	-12409	-4089	-313697		2.17	204	1.27	7242			1.77	Si
SLV 3	1105	-10117	-3139	308290		1.77	204	1.19	6783			2.16	Si
SLV 6	925	-9076	-1571	-237838		1.59	204	1.15	6575			4.18	Si
SLV 6	1105	-6592	-2094	257089		1.25	189	1.08	5729			2.74	Si
SLV 2	925	-12297	-4136	-395552		2.15	204	1.26	7219			1.75	Si
SLV 2	1105	-9816	-3630	370995		1.82	192.62	1.2	6458			1.78	Si
SLV 5	925	-9076	-1571	-237838		1.59	204	1.15	6575			4.18	Si
SLV 5	1105	-6592	-2094	257089		1.25	189	1.08	5729			2.74	Si
SLV 1	925	-12297	-4136	-395552		2.15	204	1.26	7219			1.75	Si
SLV 1	1105	-9816	-3630	370995		1.82	192.62	1.2	6458			1.78	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.46	0.43	-2462	24790	33254	1.34	Si
SLV 15	14	0.46	0.43	-2462	24790	33254	1.34	Si
SLV 13	14	0.46	0.49	-2817	24790	37847	1.53	Si
SLV 14	14	0.46	0.49	-2817	24790	37847	1.53	Si
SLV 12	14	0.46	0.9	-5150	24790	66779	2.69	Si
SLV 11	14	0.46	0.9	-5150	24790	66779	2.69	Si
SLV 9	14	0.46	1.11	-6333	24790	80617	3.25	Si
SLV 10	14	0.46	1.11	-6333	24790	80617	3.25	Si
SLV 7	14	0.46	1.37	-7809	24790	97091	3.92	Si
SLV 8	14	0.46	1.37	-7809	24790	97091	3.92	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-6070	-15087	63	0.041	9.075	0.919	64.721	1108.806	No
SLV 3	-6070	-15087	63	0.041	9.075	0.919	64.721	1108.806	No
SLV 7	-5560	-10933	75	0.039	8.564	0.915	62.515	1011.814	No
SLV 8	-5560	-10933	75	0.039	8.564	0.915	62.515	1011.814	No
SLV 2	-5553	-14606	30	0.046	8.557	0.915	72.296	1108.806	No
SLV 1	-5553	-14606	30	0.046	8.557	0.915	72.296	1108.806	No
SLV 14	-2371	-1137	-47	0.046	5.438	0.891	74.49	1108.806	No
SLV 13	-2371	-1137	-47	0.046	5.438	0.891	74.49	1108.806	No
SLV 11	-4606	-6892	52	0.043	7.613	0.908	68.676	1011.814	No
SLV 12	-4606	-6892	52	0.043	7.613	0.908	68.676	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.172	SLU 9	Si
V_SLU	1.595	SLU 9	Si
PF_SLV	0	SLV 15	No
V_SLV	0	SLV 15	No
PFFP_SLV	1.341	SLV 15	Si
R_SLV	0.058	SLV 3	No

Maschio 162

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1681.8	666.1	-1283.8	666.1	L5	L6	398	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 8	925	-17416	136700	1.56	2800918	20.49	Si
SLU 8	1105	-13236	223952	1.19	2249848	10.046	Si
SLU 9	925	-17409	135695	1.56	2800057	20.635	Si
SLU 9	1105	-13227	224615	1.19	2248577	10.011	Si
SLU 50	925	-21537	143621	1.93	3269017	22.761	Si
SLU 50	1105	-16233	225961	1.46	2652669	11.739	Si
SLU 7	925	-18044	126082	1.62	2876963	22.818	Si
SLU 7	1105	-13905	199565	1.25	2343273	11.742	Si
SLU 6	925	-18051	127087	1.62	2877805	22.644	Si
SLU 6	1105	-13914	198901	1.25	2344517	11.787	Si
SLU 30	925	-19554	163125	1.75	3052999	18.716	Si
SLU 30	1105	-15340	238690	1.38	2536779	10.628	Si
SLU 51	925	-21530	142617	1.93	3268282	22.917	Si
SLU 51	1105	-16224	226625	1.46	2651517	11.7	Si
SLU 72	925	-23674	170046	2.12	3482491	20.48	Si
SLU 72	1105	-18337	240700	1.65	2911949	12.098	Si
SLU 29	925	-19561	164129	1.76	3053795	18.606	Si
SLU 29	1105	-15349	238026	1.38	2537966	10.663	Si
SLU 71	925	-23681	171051	2.12	3483160	20.363	Si
SLU 71	1105	-18346	240036	1.65	2913017	12.136	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 13	925	-16331	525878	1.47	2860124	5.439	Si
SLD 13	1105	-12843	-410174	1.15	2314644	5.643	Si
SLV 13	925	-14984	1142868	1.34	2653663	2.322	Si
SLV 13	1105	-11845	-984711	1.06	2152145	2.186	Si
SLV 3	925	-19682	-1012333	1.77	3350571	3.31	Si
SLV 3	1105	-15339	1020677	1.38	2708633	2.654	Si
SLV 15	925	-16744	1134191	1.5	2922383	2.577	Si
SLV 15	1105	-11857	-973896	1.06	2154021	2.212	Si
SLV 1	925	-17921	-1003655	1.61	3096967	3.086	Si
SLV 1	1105	-15328	1009862	1.38	2706874	2.68	Si
SLV 14	925	-14984	1142868	1.34	2653663	2.322	Si
SLV 14	1105	-11845	-984711	1.06	2152145	2.186	Si
SLD 14	925	-16331	525878	1.47	2860124	5.439	Si
SLD 14	1105	-12843	-410174	1.15	2314644	5.643	Si
SLV 4	925	-19682	-1012333	1.77	3350571	3.31	Si
SLV 4	1105	-15339	1020677	1.38	2708633	2.654	Si
SLV 16	925	-16744	1134191	1.5	2922383	2.577	Si
SLV 16	1105	-11857	-973896	1.06	2154021	2.212	Si
SLV 2	925	-17921	-1003655	1.61	3096967	3.086	Si
SLV 2	1105	-15328	1009862	1.38	2706874	2.68	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 18	925	-18862	502	69479		1.69	398	0.78	8706			17.34	Si
SLU 18	1105	-15319	502	-21331		1.37	398	0.74	8234			16.4	Si
SLU 61	925	-22975	530	75395		2.06	398	0.83	9254			17.47	Si
SLU 61	1105	-18307	530	-18658		1.64	398	0.77	8632			16.3	Si
SLU 60	925	-22982	539	76400		2.06	398	0.83	9255			17.18	Si
SLU 60	1105	-18316	539	-19321		1.64	398	0.77	8633			16.03	Si
SLU 40	925	-20999	565	95903		1.88	398	0.81	8991			15.92	Si
SLU 40	1105	-17423	565	-6593		1.56	398	0.76	8514			15.08	Si
SLU 81	925	-25127	610	103829		2.25	398	0.86	9541			15.64	Si
SLU 81	1105	-20430	610	-5246		1.83	398	0.8	8915			14.61	Si
SLU 31	925	-20191	469	90715		1.81	398	0.8	8883			18.94	Si
SLU 31	1105	-16543	469	7084		1.48	398	0.75	8397			17.9	Si
SLU 19	925	-18855	493	68474		1.69	398	0.78	8705			17.65	Si
SLU 19	1105	-15310	493	-20667		1.37	398	0.74	8232			16.7	Si
SLU 73	925	-24312	506	97637		2.18	398	0.85	9433			18.66	Si
SLU 73	1105	-19541	506	9094		1.75	398	0.79	8797			17.4	Si
SLU 82	925	-25120	601	102824		2.25	398	0.86	9540			15.87	Si
SLU 82	1105	-20421	601	-4583		1.83	398	0.8	8914			14.83	Si
SLU 39	925	-21006	574	96908		1.88	398	0.81	8992			15.67	Si
SLU 39	1105	-17432	574	-7256		1.56	398	0.76	8515			14.84	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	925	-19682	-12022	-1012333		1.77	398	1.19	13223			1.1	Si
SLV 3	1105	-15339	-10495	1020677		1.38	397.38	1.11	12340			1.18	Si
SLV 14	925	-14984	12589	1142868		1.45	368.18	1.12	11588			0.92	No, Vu<V
SLV 14	1105	-11845	11062	-984711		1.22	347.61	1.08	10480			0.95	No, Vu<V
SLV 1	925	-17921	-11976	-1003655		1.61	398	1.15	12871			1.07	Si
SLV 1	1105	-15328	-10506	1009862		1.38	398	1.11	12352			1.18	Si
SLV 16	925	-16744	12544	1134191		1.52	393.79	1.14	12537			1	No, Vu<V
SLV 16	1105	-11857	11074	-973896		1.21	350.58	1.07	10552			0.95	No, Vu<V
SLV 4	925	-19682	-12022	-1012333		1.77	398	1.19	13223			1.1	Si
SLV 4	1105	-15339	-10495	1020677		1.38	397.38	1.11	12340			1.18	Si
SLV 13	925	-14984	12589	1142868		1.45	368.18	1.12	11588			0.92	No, Vu<V
SLV 13	1105	-11845	11062	-984711		1.22	347.61	1.08	10480			0.95	No, Vu<V
SLD 13	925	-16331	5542	525878		1.47	398	1.13	12553			2.26	Si
SLD 13	1105	-12843	4890	-410174		1.15	398	1.06	11855			2.42	Si
SLV 2	925	-17921	-11976	-1003655		1.61	398	1.15	12871			1.07	Si
SLV 2	1105	-15328	-10506	1009862		1.38	398	1.11	12352			1.18	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	925	-16744	12544	1134191		1.52	393.79	1.14	12537			1	No, Vu<V
SLV 15	1105	-11857	11074	-973896		1.21	350.58	1.07	10552			0.95	No, Vu<V
SLD 14	925	-16331	5542	525878		1.47	398	1.13	12553			2.26	Si
SLD 14	1105	-12843	4890	-410174		1.15	398	1.06	11855			2.42	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.46	1.18	-13123	48364	166016	3.43	Si
SLV 9	14	0.46	1.18	-13123	48364	166016	3.43	Si
SLV 13	14	0.46	1.19	-13266	48364	167626	3.47	Si
SLV 14	14	0.46	1.19	-13266	48364	167626	3.47	Si
SLV 5	14	0.46	1.27	-14104	48364	177004	3.66	Si
SLV 6	14	0.46	1.27	-14104	48364	177004	3.66	Si
SLV 16	14	0.46	1.29	-14369	48364	179937	3.72	Si
SLV 15	14	0.46	1.29	-14369	48364	179937	3.72	Si
SLV 2	14	0.46	1.48	-16536	48364	203387	4.21	Si
SLV 1	14	0.46	1.48	-16536	48364	203387	4.21	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-10143	-13136	-317	0.027	16.004	0.913	42.8	1011.814	No
SLV 9	-10143	-13136	-317	0.027	16.004	0.913	42.8	1011.814	No
SLV 6	-10823	-14399	-318	0.027	16.683	0.915	43.461	1011.814	No
SLV 5	-10823	-14399	-318	0.027	16.683	0.915	43.461	1011.814	No
SLV 11	-10417	-19865	312	0.027	16.278	0.914	43.724	1011.814	No
SLV 12	-10417	-19865	312	0.027	16.278	0.914	43.724	1011.814	No
SLV 8	-11097	-21129	310	0.028	16.958	0.916	44.698	1011.814	No
SLV 7	-11097	-21129	310	0.028	16.958	0.916	44.698	1011.814	No
SLV 1	-11713	-18229	-101	0.042	17.574	0.918	67.089	1108.806	No
SLV 2	-11713	-18229	-101	0.042	17.574	0.918	67.089	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	10.011	SLU 9	Si
V_SLU	14.61	SLU 81	Si
PF_SLV	2.186	SLV 13	Si
V_SLV	0.92	SLV 13	No
PFFP_SLV	3.433	SLV 9	Si
R_SLV	0.042	SLV 9	No

Maschio 163

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1193.8	666.1	-795.8	666.1	L5	L6	398	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 7	925	-18925	15366	1.7	2980988	194.005	Si
SLU 7	1105	-14928	-131996	1.34	2482139	18.805	Si
SLU 50	925	-22495	9746	2.02	3367227	345.482	Si
SLU 50	1105	-17368	-150204	1.56	2795013	18.608	Si
SLU 51	925	-22468	10245	2.02	3364537	328.398	Si
SLU 51	1105	-17344	-151936	1.56	2791976	18.376	Si
SLU 72	925	-24747	8565	2.22	3582170	418.254	Si
SLU 72	1105	-19626	-157214	1.76	3061165	19.471	Si
SLU 9	925	-18361	14660	1.65	2914778	198.828	Si
SLU 9	1105	-14312	-152998	1.28	2399103	15.681	Si
SLU 30	925	-20640	12979	1.85	3173454	244.506	Si
SLU 30	1105	-16594	-158275	1.49	2698622	17.05	Si
SLU 6	925	-18952	14867	1.7	2984093	200.724	Si
SLU 6	1105	-14953	-130263	1.34	2485438	19.08	Si
SLU 71	925	-24774	8066	2.22	3584592	444.423	Si
SLU 71	1105	-19650	-155481	1.76	3063955	19.706	Si
SLU 29	925	-20667	12480	1.85	3176358	254.512	Si
SLU 29	1105	-16619	-156543	1.49	2701741	17.259	Si
SLU 8	925	-18388	14161	1.65	2917949	206.056	Si
SLU 8	1105	-14337	-151265	1.29	2402469	15.883	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 4	925	-17022	-473592	1.53	2963970	6.258	Si
SLD 4	1105	-13118	447878	1.18	2359035	5.267	Si
SLD 3	925	-17022	-473592	1.53	2963970	6.258	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 3	1105	-13118	447878	1.18	2359035	5.267	Si
SLV 14	925	-18564	1041265	1.67	3190538	3.064	Si
SLV 14	1105	-15909	-1030692	1.43	2796008	2.713	Si
SLV 1	925	-14464	-1081425	1.3	2572558	2.379	Si
SLV 1	1105	-11707	980448	1.05	2129407	2.172	Si
SLV 3	925	-16408	-1081086	1.47	2871738	2.656	Si
SLV 3	1105	-11996	1041039	1.08	2176815	2.091	Si
SLV 16	925	-20508	1041604	1.84	3466420	3.328	Si
SLV 16	1105	-16197	-970101	1.45	2839873	2.927	Si
SLV 15	925	-20508	1041604	1.84	3466420	3.328	Si
SLV 15	1105	-16197	-970101	1.45	2839873	2.927	Si
SLV 2	925	-14464	-1081425	1.3	2572558	2.379	Si
SLV 2	1105	-11707	980448	1.05	2129407	2.172	Si
SLV 4	925	-16408	-1081086	1.47	2871738	2.656	Si
SLV 4	1105	-11996	1041039	1.08	2176815	2.091	Si
SLV 13	925	-18564	1041265	1.67	3190538	3.064	Si
SLV 13	1105	-15909	-1030692	1.43	2796008	2.713	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 7	925	-18925	850	15366	1.7	398	0.78	8715				10.25	Si
SLU 7	1105	-14928	851	-131996	1.34	398	0.73	8181				9.62	Si
SLU 71	925	-24774	963	8066	2.22	398	0.85	9494				9.86	Si
SLU 71	1105	-19650	963	-155481	1.76	398	0.79	8811				9.15	Si
SLU 29	925	-20667	971	12480	1.85	398	0.8	8947				9.21	Si
SLU 29	1105	-16619	971	-156543	1.49	398	0.75	8407				8.65	Si
SLU 50	925	-22495	936	9746	2.02	398	0.82	9190				9.82	Si
SLU 50	1105	-17368	937	-150204	1.56	398	0.76	8507				9.08	Si
SLU 72	925	-24747	976	8565	2.22	398	0.85	9491				9.73	Si
SLU 72	1105	-19626	976	-157214	1.76	398	0.79	8808				9.02	Si
SLU 8	925	-18388	944	14161	1.65	398	0.78	8643				9.15	Si
SLU 8	1105	-14337	945	-151265	1.29	398	0.73	8103				8.58	Si
SLU 28	925	-21204	877	13685	1.9	398	0.81	9018				10.28	Si
SLU 28	1105	-17210	878	-137273	1.54	398	0.76	8486				9.67	Si
SLU 9	925	-18361	957	14660	1.65	398	0.78	8639				9.03	Si
SLU 9	1105	-14312	957	-152998	1.28	398	0.73	8099				8.46	Si
SLU 30	925	-20640	984	12979	1.85	398	0.8	8943				9.09	Si
SLU 30	1105	-16594	984	-158275	1.49	398	0.75	8404				8.54	Si
SLU 51	925	-22468	949	10245	2.02	398	0.82	9187				9.68	Si
SLU 51	1105	-17344	949	-151936	1.56	398	0.76	8504				8.96	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	925	-14464	-12136	-1081425	1.39	372.7	1.11	11589				0.95	No, Vu<V
SLV 1	1105	-11707	-10718	980448	1.21	345.76	1.08	10409				0.97	No, Vu<V
SLD 2	925	-16197	-5216	-473826	1.45	398	1.12	12526				2.4	Si
SLD 2	1105	-12992	-4610	422165	1.17	398	1.07	11885				2.58	Si
SLV 14	925	-18564	12187	1041265	1.67	398	1.17	12999				1.07	Si
SLV 14	1105	-15909	10799	-1030692	1.43	398	1.12	12468				1.15	Si
SLV 3	925	-16408	-12285	-1081086	1.47	398	1.13	12568				1.02	Si
SLV 3	1105	-11996	-10897	1041039	1.27	336.64	1.09	10254				0.94	No, Vu<V
SLV 16	925	-20508	12038	1041604	1.84	398	1.2	13388				1.11	Si
SLV 16	1105	-16197	10620	-970101	1.45	398	1.12	12526				1.18	Si
SLV 13	925	-18564	12187	1041265	1.67	398	1.17	12999				1.07	Si
SLV 13	1105	-15909	10799	-1030692	1.43	398	1.12	12468				1.15	Si
SLD 1	925	-16197	-5216	-473826	1.45	398	1.12	12526				2.4	Si
SLD 1	1105	-12992	-4610	422165	1.17	398	1.07	11885				2.58	Si
SLV 15	925	-20508	12038	1041604	1.84	398	1.2	13388				1.11	Si
SLV 15	1105	-16197	10620	-970101	1.45	398	1.12	12526				1.18	Si
SLV 2	925	-14464	-12136	-1081425	1.39	372.7	1.11	11589				0.95	No, Vu<V
SLV 2	1105	-11707	-10718	980448	1.21	345.76	1.08	10409				0.97	No, Vu<V
SLV 4	925	-16408	-12285	-1081086	1.47	398	1.13	12568				1.02	Si
SLV 4	1105	-11996	-10897	1041039	1.27	336.64	1.09	10254				0.94	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.46	1.15	-12826	48364	162647	3.36	Si
SLV 6	14	0.46	1.15	-12826	48364	162647	3.36	Si
SLV 2	14	0.46	1.16	-12877	48364	163235	3.38	Si
SLV 1	14	0.46	1.16	-12877	48364	163235	3.38	Si
SLV 9	14	0.46	1.26	-14011	48364	175975	3.64	Si
SLV 10	14	0.46	1.26	-14011	48364	175975	3.64	Si
SLV 3	14	0.46	1.27	-14108	48364	177043	3.66	Si
SLV 4	14	0.46	1.27	-14108	48364	177043	3.66	Si
SLV 14	14	0.46	1.51	-16830	48364	206497	4.27	Si
SLV 13	14	0.46	1.51	-16830	48364	206497	4.27	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-10332	-12863	-644	0.003	16.193	0.913	5.532	1011.814	No
SLV 5	-10332	-12863	-644	0.003	16.193	0.913	5.532	1011.814	No
SLV 7	-10412	-20315	638	0.004	16.272	0.914	6.508	1011.814	No
SLV 8	-10412	-20315	638	0.004	16.272	0.914	6.508	1011.814	No
SLV 10	-11068	-14383	-644	0.005	16.928	0.916	8.364	1011.814	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	-11068	-14383	-644	0.005	16.928	0.916	8.364	1011.814	No
SLV 12	-11147	-21835	637	0.006	17.007	0.916	9.377	1011.814	No
SLV 11	-11147	-21835	637	0.006	17.007	0.916	9.377	1011.814	No
SLV 1	-9502	-13698	-194	0.036	15.366	0.91	56.885	1108.806	No
SLV 2	-9502	-13698	-194	0.036	15.366	0.91	56.885	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	15.681	SLV 9	Si
V_SLV	8.46	SLV 9	Si
PF_SLV	2.091	SLV 3	Si
V_SLV	0.941	SLV 3	No
PFFP_SLV	3.363	SLV 5	Si
R_SLV	0.005	SLV 5	No

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Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-705.8	666.1	-501.8	666.1	L5	L6	204	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 9	925	-7314	1984	1.28	628735	316.954	Si
SLV 9	1105	-5348	-112798	0.94	482829	4.28	Si
SLV 38	925	-9666	17113	1.69	781131	45.647	Si
SLV 38	1105	-7674	-136727	1.34	653660	4.781	Si
SLV 72	925	-10459	4472	1.83	827033	184.942	Si
SLV 72	1105	-7887	-139710	1.38	668098	4.782	Si
SLV 27	925	-8936	5433	1.56	736404	135.549	Si
SLV 27	1105	-6944	-124308	1.22	602551	4.847	Si
SLV 37	925	-9673	15615	1.69	781558	50.053	Si
SLV 37	1105	-7681	-136273	1.34	654148	4.8	Si
SLV 30	925	-8348	7703	1.46	698748	90.717	Si
SLV 30	1105	-6356	-129853	1.11	559765	4.311	Si
SLV 28	925	-8929	6931	1.56	735955	106.187	Si
SLV 28	1105	-6936	-124761	1.21	602039	4.826	Si
SLV 8	925	-7321	486	1.28	629235	1000	Si
SLV 8	1105	-5356	-112344	0.94	483390	4.303	Si
SLV 71	925	-10467	2974	1.83	827435	278.235	Si
SLV 71	1105	-7894	-139257	1.38	668580	4.801	Si
SLV 29	925	-8356	6205	1.46	699216	112.694	Si
SLV 29	1105	-6363	-129400	1.11	560295	4.33	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 8	925	-7822	-225626	1.37	708428	3.14	Si
SLV 8	1105	-5824	102897	1.02	544475	5.291	Si
SLV 10	925	-9961	225805	1.74	870988	3.857	Si
SLV 10	1105	-8013	-221270	1.4	723471	3.27	Si
SLV 13	925	-13355	382393	2.34	1101574	2.881	Si
SLV 13	1105	-11710	-322788	2.05	993994	3.079	Si
SLV 14	925	-13355	382393	2.34	1101574	2.881	Si
SLV 14	1105	-11710	-322788	2.05	993994	3.079	Si
SLV 4	925	-4427	-382214	0.78	422938	1.107	Si
SLV 4	1105	-2127	204415	0.37	210354	1.029	Si
SLV 9	925	-9961	225805	1.74	870988	3.857	Si
SLV 9	1105	-8013	-221270	1.4	723471	3.27	Si
SLV 7	925	-7822	-225626	1.37	708428	3.14	Si
SLV 7	1105	-5824	102897	1.02	544475	5.291	Si
SLV 1	925	-4249	-309011	0.74	407043	1.317	Si
SLV 1	1105	-1901	149688	0.33	188619	1.26	Si
SLV 2	925	-4249	-309011	0.74	407043	1.317	Si
SLV 2	1105	-1901	149688	0.33	188619	1.26	Si
SLV 3	925	-4427	-382214	0.78	422938	1.107	Si
SLV 3	1105	-2127	204415	0.37	210354	1.029	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 36	925	-10247	791	16341		1.79	204	0.79	4540			5.74	Si
SLV 36	1105	-8254	791	-131635		1.45	204	0.75	4274			5.41	Si
SLV 37	925	-9673	812	15615		1.69	204	0.78	4463			5.49	Si
SLV 37	1105	-7681	812	-136273		1.34	204	0.73	4198			5.17	Si
SLV 35	925	-10254	780	14843		1.8	204	0.79	4540			5.82	Si
SLV 35	1105	-8262	780	-131182		1.45	204	0.75	4275			5.48	Si
SLV 38	925	-9666	823	17113		1.69	204	0.78	4462			5.42	Si
SLV 38	1105	-7674	823	-136727		1.34	204	0.73	4197			5.1	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	925	-11777	851	13882		2.06	204	0.83	4744			5.58	Si
SLU 80	1105	-9205	851	-146584		1.61	204	0.77	4401			5.17	Si
SLU 78	925	-12358	818	13110		2.16	204	0.84	4821			5.89	Si
SLU 78	1105	-9785	818	-141492		1.71	204	0.78	4478			5.47	Si
SLU 79	925	-11784	840	12384		2.06	204	0.83	4745			5.65	Si
SLU 79	1105	-9212	840	-146131		1.61	204	0.77	4402			5.24	Si
SLU 30	925	-8348	733	7703		1.46	204	0.75	4286			5.85	Si
SLU 30	1105	-6356	733	-129853		1.11	204	0.7	4021			5.49	Si
SLU 72	925	-10459	760	4472		1.83	204	0.8	4568			6.01	Si
SLU 72	1105	-7887	760	-139710		1.38	204	0.74	4225			5.56	Si
SLU 77	925	-12365	807	11612		2.16	204	0.84	4822			5.97	Si
SLU 77	1105	-9792	807	-141039		1.71	204	0.78	4479			5.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	925	-13355	4272	382393		2.34	204	1.3	7431			1.74	Si
SLV 14	1105	-11710	3520	-322788		2.05	204	1.24	7102			2.02	Si
SLV 4	925	-4427	-3676	-382214		3.36	47.01	1.51	1982			0.54	No, Vu<V
SLV 4	1105	-2127	-2924	204415		4.29	17.7	1.63	805			0.28	No, Vu<V
SLV 3	925	-4427	-3676	-382214		3.36	47.01	1.51	1982			0.54	No, Vu<V
SLV 3	1105	-2127	-2924	204415		4.29	17.7	1.63	805			0.28	No, Vu<V
SLV 13	925	-13355	4272	382393		2.34	204	1.3	7431			1.74	Si
SLV 13	1105	-11710	3520	-322788		2.05	204	1.24	7102			2.02	Si
SLV 2	925	-4249	-3211	-309011		1.73	87.84	1.18	2899			0.9	No, Vu<V
SLV 2	1105	-1901	-2431	149688		0.97	69.77	1.03	2008			0.83	No, Vu<V
SLV 9	925	-9961	2195	225805		1.74	204	1.18	6752			3.08	Si
SLV 9	1105	-8013	2012	-221270		1.4	204	1.11	6363			3.16	Si
SLV 15	925	-13533	3807	309190		2.37	204	1.31	7467			1.96	Si
SLV 15	1105	-11936	3027	-268061		2.09	204	1.25	7147			2.36	Si
SLV 10	925	-9961	2195	225805		1.74	204	1.18	6752			3.08	Si
SLV 10	1105	-8013	2012	-221270		1.4	204	1.11	6363			3.16	Si
SLV 16	925	-13533	3807	309190		2.37	204	1.31	7467			1.96	Si
SLV 16	1105	-11936	3027	-268061		2.09	204	1.25	7147			2.36	Si
SLV 1	925	-4249	-3211	-309011		1.73	87.84	1.18	2899			0.9	No, Vu<V
SLV 1	1105	-1901	-2431	149688		0.97	69.77	1.03	2008			0.83	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.46	0.52	-2993	24790	40110	1.62	Si
SLV 1	14	0.46	0.52	-2993	24790	40110	1.62	Si
SLV 4	14	0.46	0.57	-3278	24790	43735	1.76	Si
SLV 3	14	0.46	0.57	-3278	24790	43735	1.76	Si
SLV 6	14	0.46	1.03	-5912	24790	75754	3.06	Si
SLV 5	14	0.46	1.03	-5912	24790	75754	3.06	Si
SLV 8	14	0.46	1.2	-6860	24790	86603	3.49	Si
SLV 7	14	0.46	1.2	-6860	24790	86603	3.49	Si
SLV 10	14	0.46	1.52	-8698	24790	106594	4.3	Si
SLV 9	14	0.46	1.52	-8698	24790	106594	4.3	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-8126	-16127	58	0.041	11.143	0.931	64.238	1108.806	No
SLV 15	-8126	-16127	58	0.041	11.143	0.931	64.238	1108.806	No
SLV 11	-7174	-11671	69	0.04	10.183	0.926	62.946	1011.814	No
SLV 12	-7174	-11671	69	0.04	10.183	0.926	62.946	1011.814	No
SLV 14	-7390	-15763	27	0.045	10.401	0.927	69.956	1108.806	No
SLV 13	-7390	-15763	27	0.045	10.401	0.927	69.956	1108.806	No
SLV 7	-5622	-7489	47	0.043	8.625	0.916	68.38	1011.814	No
SLV 8	-5622	-7489	47	0.043	8.625	0.916	68.38	1011.814	No
SLV 2	-2217	-1822	-45	0.046	5.294	0.89	75.854	1108.806	No
SLV 1	-2217	-1822	-45	0.046	5.294	0.89	75.854	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.28	SLU 9	Si
V_SLU	5.097	SLU 38	Si
PF_SLV	1.029	SLV 3	Si
V_SLV	0.275	SLV 3	No
PFFP_SLV	1.618	SLV 1	Si
R_SLV	0.058	SLV 15	No

Maschio 165

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2066.8	104.6	-2467.8	104.6	L5	L6	401	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 36	835	-22935	-229557	2.04	3445309	15.009	Si
SLU 36	1045	-23158	-738720	2.06	3467513	4.694	Si
SLU 80	835	-26664	-257851	2.37	3787593	14.689	Si
SLU 80	1045	-25840	-799835	2.3	3717183	4.647	Si
SLU 38	835	-22120	-211741	1.97	3362396	15.88	Si
SLU 38	1045	-22211	-717200	1.98	3371874	4.701	Si
SLU 83	835	-26511	-251670	2.36	3774713	14.999	Si
SLU 83	1045	-26073	-785547	2.32	3737382	4.758	Si
SLU 35	835	-22816	-221320	2.03	3433468	15.514	Si
SLU 35	1045	-23050	-754007	2.05	3456859	4.585	Si
SLU 77	835	-27361	-267430	2.44	3844780	14.377	Si
SLU 77	1045	-26679	-836642	2.38	3788818	4.529	Si
SLU 69	835	-25922	-253334	2.31	3724299	14.701	Si
SLU 69	1045	-24142	-749937	2.15	3562797	4.751	Si
SLU 79	835	-26546	-249615	2.36	3777684	15.134	Si
SLU 79	1045	-25733	-815121	2.29	3707792	4.549	Si
SLU 78	835	-27479	-275666	2.45	3854267	13.982	Si
SLU 78	1045	-26786	-821356	2.39	3797764	4.624	Si
SLU 37	835	-22001	-203505	1.96	3350132	16.462	Si
SLU 37	1045	-22104	-732486	1.97	3360774	4.588	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	835	-14680	-890410	1.31	2628466	2.952	Si
SLV 14	1045	-9801	651418	0.87	1824785	2.801	Si
SLV 4	835	-21918	537971	1.95	3692512	6.864	Si
SLV 4	1045	-23809	-1567682	2.12	3945309	2.517	Si
SLV 13	835	-14680	-890410	1.31	2628466	2.952	Si
SLV 13	1045	-9801	651418	0.87	1824785	2.801	Si
SLV 15	835	-15526	-917958	1.38	2760611	3.007	Si
SLV 15	1045	-9443	593408	0.84	1763049	2.971	Si
SLV 8	835	-20667	-3744	1.84	3519489	939.981	Si
SLV 8	1045	-18363	-878978	1.64	3189043	3.628	Si
SLV 3	835	-21918	537971	1.95	3692512	6.864	Si
SLV 3	1045	-23809	-1567682	2.12	3945309	2.517	Si
SLV 2	835	-21073	565520	1.88	3576159	6.324	Si
SLV 2	1045	-24168	-1509673	2.15	3992006	2.644	Si
SLV 7	835	-20667	-3744	1.84	3519489	939.981	Si
SLV 7	1045	-18363	-878978	1.64	3189043	3.628	Si
SLV 16	835	-15526	-917958	1.38	2760611	3.007	Si
SLV 16	1045	-9443	593408	0.84	1763049	2.971	Si
SLV 1	835	-21073	565520	1.88	3576159	6.324	Si
SLV 1	1045	-24168	-1509673	2.15	3992006	2.644	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 35	835	-22816	6935	-221320		2.03	401	0.83	9280			1.34	Si
SLU 35	1045	-23050	6944	-754007		2.05	401	0.83	9311			1.34	Si
SLU 84	835	-26629	7337	-259906		2.37	401	0.87	9788			1.33	Si
SLU 84	1045	-26180	7369	-770261		2.33	401	0.87	9728			1.32	Si
SLU 77	835	-27361	7407	-267430		2.44	401	0.88	9886			1.33	Si
SLU 77	1045	-26679	7416	-836642		2.38	401	0.87	9795			1.32	Si
SLU 79	835	-26546	7263	-249615		2.36	401	0.87	9777			1.35	Si
SLU 79	1045	-25733	7273	-815121		2.29	401	0.86	9669			1.33	Si
SLU 80	835	-26664	7128	-257851		2.37	401	0.87	9793			1.37	Si
SLU 80	1045	-25840	7163	-799835		2.3	401	0.86	9683			1.35	Si
SLU 37	835	-22001	6792	-203505		1.96	401	0.82	9171			1.35	Si
SLU 37	1045	-22104	6801	-732486		1.97	401	0.82	9185			1.35	Si
SLU 41	835	-21966	7000	-205561		1.96	401	0.82	9167			1.31	Si
SLU 41	1045	-22444	7007	-702912		2	401	0.82	9230			1.32	Si
SLU 78	835	-27479	7271	-275666		2.45	401	0.88	9902			1.36	Si
SLU 78	1045	-26786	7306	-821356		2.39	401	0.87	9809			1.34	Si
SLU 42	835	-22084	6865	-213797		1.97	401	0.82	9182			1.34	Si
SLU 42	1045	-22552	6897	-687625		2.01	401	0.82	9245			1.34	Si
SLU 83	835	-26511	7472	-251670		2.36	401	0.87	9773			1.31	Si
SLU 83	1045	-26073	7479	-785547		2.32	401	0.87	9714			1.3	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	835	-17850	9445	88085		1.59	401	1.15	12927			1.37	Si
SLV 5	1045	-19557	8677	-685613		1.74	401	1.18	13268			1.53	Si
SLV 2	835	-21073	17734	565520		1.88	401	1.21	13571			0.77	No, Vu<V
SLV 2	1045	-24168	15863	-1509673		2.15	401	1.26	14190			0.89	No, Vu<V
SLV 15	835	-15526	-9726	-917958		1.38	401	1.11	12462			1.28	Si
SLV 15	1045	-9443	-7850	593408		0.84	401	1	11245			1.43	Si
SLV 16	835	-15526	-9726	-917958		1.38	401	1.11	12462			1.28	Si
SLV 16	1045	-9443	-7850	593408		0.84	401	1	11245			1.43	Si
SLV 3	835	-21918	16862	537971		1.95	401	1.22	13740			0.81	No, Vu<V
SLV 3	1045	-23809	15128	-1567682		2.12	401	1.26	14119			0.93	No, Vu<V
SLV 1	835	-21073	17734	565520		1.88	401	1.21	13571			0.77	No, Vu<V
SLV 1	1045	-24168	15863	-1509673		2.15	401	1.26	14190			0.89	No, Vu<V
SLD 2	835	-19492	9867	140852		1.74	401	1.18	13255			1.34	Si
SLD 2	1045	-19956	9069	-908027		1.78	401	1.19	13348			1.47	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	835	-17850	9445	88085		1.59	401	1.15	12927			1.37	Si
SLV 6	1045	-19557	8677	-685613		1.74	401	1.18	13268			1.53	Si
SLV 4	835	-21918	16862	537971		1.95	401	1.22	13740			0.81	No, Vu<V
SLV 4	1045	-23809	15128	-1567682		2.12	401	1.26	14119			0.93	No, Vu<V
SLD 1	835	-19492	9867	140852		1.74	401	1.18	13255			1.34	Si
SLD 1	1045	-19956	9069	-908027		1.78	401	1.19	13348			1.47	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.46	0.91	-10202	49862	132211	2.65	Si
SLV 15	14	0.46	0.91	-10202	49862	132211	2.65	Si
SLV 13	14	0.46	0.93	-10418	49862	134773	2.7	Si
SLV 14	14	0.46	0.93	-10418	49862	134773	2.7	Si
SLV 12	14	0.46	1.33	-14982	49862	186847	3.75	Si
SLV 11	14	0.46	1.33	-14982	49862	186847	3.75	Si
SLV 9	14	0.46	1.4	-15700	49862	194651	3.9	Si
SLV 10	14	0.46	1.4	-15700	49862	194651	3.9	Si
SLV 8	14	0.46	1.72	-19295	49862	232138	4.66	Si
SLV 7	14	0.46	1.72	-19295	49862	232138	4.66	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-14508	-15932	-583	0.015	20.425	0.927	24.067	1011.814	No
SLV 9	-14508	-15932	-583	0.015	20.425	0.927	24.067	1011.814	No
SLV 8	-16562	-20667	588	0.018	22.498	0.932	27.442	1011.814	No
SLV 7	-16562	-20667	588	0.018	22.498	0.932	27.442	1011.814	No
SLV 11	-14405	-18749	505	0.02	20.323	0.926	30.674	1011.814	No
SLV 12	-14405	-18749	505	0.02	20.323	0.926	30.674	1011.814	No
SLV 6	-16665	-17850	-500	0.022	22.601	0.932	34.371	1011.814	No
SLV 5	-16665	-17850	-500	0.022	22.601	0.932	34.371	1011.814	No
SLV 13	-11955	-14680	-299	0.03	17.86	0.919	46.863	1108.806	No
SLV 14	-11955	-14680	-299	0.03	17.86	0.919	46.863	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.529	SLV 77	Si
V_SLV	1.299	SLV 83	Si
PF_SLV	2.517	SLV 3	Si
V_SLV	0.765	SLV 1	No
PFFP_SLV	2.652	SLV 15	Si
R_SLV	0.024	SLV 9	No

Maschio 166

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1228.3	104.6	-1986.8	104.6	L5	L6	758.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 56	835	-68902	-746476	3.24	15723732	21.064	Si
SLV 56	1085	-58720	-935656	2.76	14710782	15.722	Si
SLV 77	835	-74951	-883034	3.53	16110266	18.244	Si
SLV 77	1085	-65500	-1009882	3.08	15435882	15.285	Si
SLV 45	835	-60975	-582920	2.87	14974301	25.688	Si
SLV 45	1085	-49683	-850780	2.34	13431068	15.787	Si
SLV 48	835	-64284	-601302	3.03	15320666	25.479	Si
SLV 48	1085	-53388	-946915	2.51	13999009	14.784	Si
SLV 50	835	-62612	-594442	2.95	15151641	25.489	Si
SLV 50	1085	-51649	-920021	2.43	13740032	14.934	Si
SLV 69	835	-70333	-737860	3.31	15829678	21.454	Si
SLV 69	1085	-60168	-1021140	2.83	14882621	14.575	Si
SLV 27	835	-59007	-645180	2.78	14745640	22.855	Si
SLV 27	1085	-51747	-872774	2.44	13754965	15.76	Si
SLV 66	835	-67024	-719478	3.16	15571086	21.642	Si
SLV 66	1085	-56463	-925005	2.66	14424816	15.594	Si
SLV 79	835	-73279	-876174	3.45	16019454	18.283	Si
SLV 79	1085	-63762	-982988	3	15269215	15.533	Si
SLV 71	835	-68661	-730999	3.23	15705007	21.484	Si
SLV 71	1085	-58430	-994247	2.75	14675319	14.76	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	835	-43527	-2802215	2.05	13738768	4.903	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	1085	-33638	1856808	1.58	11103668	5.98	Si
SLV 3	835	-51902	1711230	2.44	15746973	9.202	Si
SLV 3	1085	-44921	-3051558	2.12	14087216	4.616	Si
SLV 14	835	-43527	-2802215	2.05	13738768	4.903	Si
SLV 14	1085	-33638	1856808	1.58	11103668	5.98	Si
SLD 3	835	-49485	419494	2.33	15188513	36.207	Si
SLD 3	1085	-41684	-1646508	1.96	13269311	8.059	Si
SLV 2	835	-47996	2074625	2.26	14835822	7.151	Si
SLV 2	1085	-43957	-2835443	2.07	13846948	4.884	Si
SLV 4	835	-51902	1711230	2.44	15746973	9.202	Si
SLV 4	1085	-44921	-3051558	2.12	14087216	4.616	Si
SLV 15	835	-47433	-3165610	2.23	14700943	4.644	Si
SLV 15	1085	-34602	1640693	1.63	11372999	6.932	Si
SLV 1	835	-47996	2074625	2.26	14835822	7.151	Si
SLV 1	1085	-43957	-2835443	2.07	13846948	4.884	Si
SLD 4	835	-49485	419494	2.33	15188513	36.207	Si
SLD 4	1085	-41684	-1646508	1.96	13269311	8.059	Si
SLV 16	835	-47433	-3165610	2.23	14700943	4.644	Si
SLV 16	1085	-34602	1640693	1.63	11372999	6.932	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 37	835	-61953	-2271	-783494		2.92	758.5	0.94	20059			8.83	Si
SLU 37	1085	-55341	-2251	-834621		2.61	758.5	0.9	19178			8.52	Si
SLU 28	835	-59298	-2095	-590933		2.79	758.5	0.93	19705			9.41	Si
SLU 28	1085	-51987	-2174	-786623		2.45	758.5	0.88	18730			8.62	Si
SLU 72	835	-68951	-2186	-676752		3.25	758.5	0.99	20992			9.6	Si
SLU 72	1085	-58670	-2328	-908096		2.76	758.5	0.92	19621			8.43	Si
SLU 69	835	-70333	-2088	-737860		3.31	758.5	1	21177			10.14	Si
SLU 69	1085	-60168	-2215	-1021140		2.83	758.5	0.93	19821			8.95	Si
SLU 38	835	-62243	-2238	-729247		2.93	758.5	0.95	20098			8.98	Si
SLU 38	1085	-55581	-2202	-748471		2.62	758.5	0.9	19210			8.72	Si
SLU 27	835	-59007	-2128	-645180		2.78	758.5	0.93	19667			9.24	Si
SLU 27	1085	-51747	-2222	-872774		2.44	758.5	0.88	18699			8.41	Si
SLU 30	835	-57625	-2226	-584072		2.71	758.5	0.92	19482			8.75	Si
SLU 30	1085	-50249	-2335	-759730		2.37	758.5	0.87	18499			7.92	Si
SLU 29	835	-57335	-2259	-638320		2.7	758.5	0.92	19444			8.61	Si
SLU 29	1085	-50009	-2384	-845880		2.35	758.5	0.87	18467			7.75	Si
SLU 79	835	-73279	-2231	-876174		3.45	758.5	1.02	21569			9.67	Si
SLU 79	1085	-63762	-2244	-982988		3	758.5	0.96	20300			9.05	Si
SLU 71	835	-68661	-2219	-730999		3.23	758.5	0.99	20954			9.44	Si
SLU 71	1085	-58430	-2377	-994247		2.75	758.5	0.92	19590			8.24	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	835	-43527	-35797	-2802215		2.05	758.5	1.24	26404			0.74	No, Vu<V
SLV 13	1085	-33638	-29010	1856808		1.58	758.5	1.15	24426			0.84	No, Vu<V
SLV 1	835	-47996	31758	2074625		2.26	758.5	1.29	27298			0.86	No, Vu<V
SLV 1	1085	-43957	24718	-2835443		2.07	758.5	1.25	26490			1.07	Si
SLV 15	835	-47433	-33351	-3165610		2.23	758.5	1.28	27185			0.82	No, Vu<V
SLV 15	1085	-34602	-26229	1640693		1.63	758.5	1.16	24619			0.94	No, Vu<V
SLD 13	835	-45944	-15758	-1510479		2.16	758.5	1.27	26887			1.71	Si
SLD 13	1085	-36875	-12832	451758		1.74	758.5	1.18	25073			1.95	Si
SLV 16	835	-47433	-33351	-3165610		2.23	758.5	1.28	27185			0.82	No, Vu<V
SLV 16	1085	-34602	-26229	1640693		1.63	758.5	1.16	24619			0.94	No, Vu<V
SLV 2	835	-47996	31758	2074625		2.26	758.5	1.29	27298			0.86	No, Vu<V
SLV 2	1085	-43957	24718	-2835443		2.07	758.5	1.25	26490			1.07	Si
SLV 4	835	-51902	34204	1711230		2.44	758.5	1.32	28079			0.82	No, Vu<V
SLV 4	1085	-44921	27498	-3051558		2.12	758.5	1.26	26683			0.97	No, Vu<V
SLD 14	835	-45944	-15758	-1510479		2.16	758.5	1.27	26887			1.71	Si
SLD 14	1085	-36875	-12832	451758		1.74	758.5	1.18	25073			1.95	Si
SLV 3	835	-51902	34204	1711230		2.44	758.5	1.32	28079			0.82	No, Vu<V
SLV 3	1085	-44921	27498	-3051558		2.12	758.5	1.26	26683			0.97	No, Vu<V
SLV 14	835	-43527	-35797	-2802215		2.05	758.5	1.24	26404			0.74	No, Vu<V
SLV 14	1085	-33638	-29010	1856808		1.58	758.5	1.15	24426			0.84	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.46	1.97	-41905	94314	491930	5.22	Si
SLV 9	14	0.46	1.97	-41905	94314	491930	5.22	Si
SLV 14	14	0.46	1.98	-41984	94314	492684	5.22	Si
SLV 13	14	0.46	1.98	-41984	94314	492684	5.22	Si
SLV 6	14	0.46	1.99	-42194	94314	494672	5.24	Si
SLV 5	14	0.46	1.99	-42194	94314	494672	5.24	Si
SLV 16	14	0.46	1.99	-42342	94314	496068	5.26	Si
SLV 15	14	0.46	1.99	-42342	94314	496068	5.26	Si
SLV 2	14	0.46	2.02	-42950	94314	501781	5.32	Si
SLV 1	14	0.46	2.02	-42950	94314	501781	5.32	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-34462	-53555	-635	0.031	45.722	0.936	47.904	1011.814	No
SLV 12	-34462	-53555	-635	0.031	45.722	0.936	47.904	1011.814	No
SLV 6	-37496	-41874	636	0.031	48.793	0.939	48.656	1011.814	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-37496	-41874	636	0.031	48.793	0.939	48.656	1011.814	No
SLV 16	-31041	-47433	-450	0.035	42.265	0.932	54.493	1108.806	No
SLV 15	-31041	-47433	-450	0.035	42.265	0.932	54.493	1108.806	No
SLV 2	-40917	-47996	451	0.036	52.258	0.943	55.379	1108.806	No
SLV 1	-40917	-47996	451	0.036	52.258	0.943	55.379	1108.806	No
SLV 10	-34541	-40534	464	0.035	45.802	0.936	54.349	1011.814	No
SLV 9	-34541	-40534	464	0.035	45.802	0.936	54.349	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	14.575	SLU 69	Si
V_SLU	7.747	SLU 29	Si
PF_SLV	4.616	SLV 3	Si
V_SLV	0.738	SLV 13	No
PFFP_SLV	5.216	SLV 9	Si
R_SLV	0.047	SLV 11	No

Maschio 167

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1046.6	104.6	-1116.3	104.6	L5	L6	69.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 32	835	-6014	17511	3.08	130113	7.43	Si
SLU 32	1085	-12946	-12946	3.48	135319	10.452	Si
SLU 37	835	-6021	18312	3.09	130173	7.109	Si
SLU 37	1085	-7117	-13821	3.65	136766	9.895	Si
SLU 36	835	-6223	16688	3.19	131782	7.897	Si
SLU 36	1085	-7242	-12362	3.71	137182	11.097	Si
SLU 42	835	-6051	19570	3.1	130419	6.664	Si
SLU 42	1085	-6869	-14421	3.52	135733	9.412	Si
SLU 38	835	-6032	16761	3.09	130264	7.772	Si
SLU 38	1085	-7069	-12433	3.63	136587	10.986	Si
SLU 35	835	-6212	18239	3.19	131700	7.221	Si
SLU 35	1085	-7290	-13751	3.74	137324	9.987	Si
SLU 39	835	-5842	20393	3	128593	6.306	Si
SLU 39	1085	-6411	-15005	3.29	133122	8.872	Si
SLU 40	835	-5853	18841	3	128692	6.83	Si
SLU 40	1085	-6363	-13616	3.26	132795	9.753	Si
SLU 41	835	-6040	21121	3.1	130329	6.171	Si
SLU 41	1085	-6917	-15809	3.55	135953	8.6	Si
SLU 33	835	-6025	15960	3.09	130204	8.158	Si
SLU 33	1085	-6736	-11558	3.45	135071	11.687	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 4	835	-3726	255866	0	0	0	No, e>/2
SLV 4	1085	-4677	-224521	0	0	0	No, e>/2
SLV 2	835	-2665	252602	0	0	0	No, e>/2
SLV 2	1085	-5844	-221389	0	0	0	No, e>/2
SLD 2	835	-3956	109771	2.03	114869	1.046	Si
SLD 2	1085	-5299	-94944	2.72	143460	1.511	Si
SLV 15	835	-7163	-246049	3.67	174420	0.709	No, M>Mu
SLV 15	1085	-3952	220380	0	0	0	No, e>/2
SLV 14	835	-6102	-249313	0	0	0	No, e>/2
SLV 14	1085	-5119	223512	0	0	0	No, e>/2
SLV 13	835	-6102	-249313	0	0	0	No, e>/2
SLV 13	1085	-5119	223512	0	0	0	No, e>/2
SLD 1	835	-3956	109771	2.03	114869	1.046	Si
SLD 1	1085	-5299	-94944	2.72	143460	1.511	Si
SLV 1	835	-2665	252602	0	0	0	No, e>/2
SLV 1	1085	-5844	-221389	0	0	0	No, e>/2
SLV 16	835	-7163	-246049	3.67	174420	0.709	No, M>Mu
SLV 16	1085	-3952	220380	0	0	0	No, e>/2
SLV 3	835	-3726	255866	0	0	0	No, e>/2
SLV 3	1085	-4677	-224521	0	0	0	No, e>/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	835	-7261	275	16785		3.72	69.64	1.05	2051			7.47	Si
SLU 83	1085	-7906	245	-11170		4.05	69.64	1.08	2112			8.61	Si
SLU 39	835	-5842	278	20393		3	69.64	0.96	1862			6.7	Si
SLU 39	1085	-6411	248	-15005		3.29	69.64	0.99	1938			7.8	Si
SLU 35	835	-6212	298	18239		3.19	69.64	0.98	1912			6.41	Si
SLU 35	1085	-7290	277	-13751		3.74	69.64	1.05	2055			7.42	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 36	835	-6223	281	16688		3.19	69.64	0.98	1913			6.8	Si
SLU 36	1085	-7242	261	-12362		3.71	69.64	1.05	2049			7.85	Si
SLU 40	835	-5853	261	18841		3	69.64	0.96	1864			7.13	Si
SLU 40	1085	-6363	232	-13616		3.26	69.64	0.99	1932			8.31	Si
SLU 42	835	-6051	291	19570		3.1	69.64	0.97	1890			6.49	Si
SLU 42	1085	-6869	263	-14421		3.52	69.64	1.03	1999			7.61	Si
SLU 41	835	-6040	308	21121		3.1	69.64	0.97	1889			6.14	Si
SLU 41	1085	-6917	279	-15809		3.55	69.64	1.03	2005			7.2	Si
SLU 32	835	-6014	268	17511		3.08	69.64	0.97	1885			7.03	Si
SLU 32	1085	-6784	247	-12946		3.48	69.64	1.02	1988			8.05	Si
SLU 37	835	-6021	300	18312		3.09	69.64	0.97	1886			6.29	Si
SLU 37	1085	-7117	279	-13821		3.65	69.64	1.04	2032			7.28	Si
SLU 38	835	-6032	283	16761		3.09	69.64	0.97	1888			6.66	Si
SLU 38	1085	-7069	263	-12433		3.63	69.64	1.04	2026			7.7	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	835	-2665	2484	252602		0	0	0.83	0			0	No, Vu<V
SLV 2	1085	-5844	2174	-221389		0	0	0.83	0			0	No, Vu<V
SLD 2	835	-3956	1112	109771		6.66	21.21	1.63	965			0.87	No, Vu<V
SLD 2	1085	-5299	977	-94944		3.73	50.7	1.58	2243			2.3	Si
SLD 1	835	-3956	1112	109771		6.66	21.21	1.63	965			0.87	No, Vu<V
SLD 1	1085	-5299	977	-94944		3.73	50.7	1.58	2243			2.3	Si
SLV 15	835	-7163	-2303	-246049		181.94	1.41	1.63	64			0.03	No, Vu<V
SLV 15	1085	-3952	-2010	220380		0	0	0.83	0			0	No, Vu<V
SLV 1	835	-2665	2484	252602		0	0	0.83	0			0	No, Vu<V
SLV 1	1085	-5844	2174	-221389		0	0	0.83	0			0	No, Vu<V
SLV 13	835	-6102	-2222	-249313		0	0	0.83	0			0	No, Vu<V
SLV 13	1085	-5119	-1886	223512		0	0	0.83	0			0	No, Vu<V
SLV 4	835	-3726	2403	255866		0	0	0.83	0			0	No, Vu<V
SLV 4	1085	-4677	2050	-224521		0	0	0.83	0			0	No, Vu<V
SLV 3	835	-3726	2403	255866		0	0	0.83	0			0	No, Vu<V
SLV 3	1085	-4677	2050	-224521		0	0	0.83	0			0	No, Vu<V
SLV 16	835	-7163	-2303	-246049		181.94	1.41	1.63	64			0.03	No, Vu<V
SLV 16	1085	-3952	-2010	220380		0	0	0.83	0			0	No, Vu<V
SLV 14	835	-6102	-2222	-249313		0	0	0.83	0			0	No, Vu<V
SLV 14	1085	-5119	-1886	223512		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.46	2.03	-3962	8659	46248	5.34	Si
SLV 12	14	0.46	2.03	-3962	8659	46248	5.34	Si
SLV 7	14	0.46	2.15	-4182	8659	48275	5.58	Si
SLV 8	14	0.46	2.15	-4182	8659	48275	5.58	Si
SLV 15	14	0.46	2.18	-4260	8659	48973	5.66	Si
SLV 16	14	0.46	2.18	-4260	8659	48973	5.66	Si
SLV 13	14	0.46	2.43	-4735	8659	53111	6.13	Si
SLV 14	14	0.46	2.43	-4735	8659	53111	6.13	Si
SLV 3	14	0.46	2.56	-4993	8659	55253	6.38	Si
SLV 4	14	0.46	2.56	-4993	8659	55253	6.38	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-3105	-3662	255	0	4.138	0.935	0	1011.814	No
SLV 7	-1954	-6166	-255	0	2.98	0.916	0	1011.814	No
SLV 6	-2520	-2631	236	0	3.548	0.927	0	1011.814	No
SLV 5	-2520	-2631	236	0	3.548	0.927	0	1011.814	No
SLV 11	-2538	-7197	-235	0	3.566	0.927	0	1011.814	No
SLV 12	-2538	-7197	-235	0	3.566	0.927	0	1011.814	No
SLV 9	-3105	-3662	255	0	4.138	0.935	0	1011.814	No
SLV 8	-1954	-6166	-255	0	2.98	0.916	0	1011.814	No
SLV 3	-1471	-3726	-106	0.001	2.499	0.906	1.592	1108.806	No
SLV 4	-1471	-3726	-106	0.001	2.499	0.906	1.592	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.171	SLU 41	Si
V_SLU	6.139	SLU 41	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	5.341	SLV 11	Si
R_SLV	0	SLV 5	No

Maschio 168

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-727.8	104.6	-938.6	104.6	L5	L6	210.9	28	352	352	352			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 55	835	-21618	-121228	3.66	1254728	10.35	Si
SLU 55	1085	-17225	194252	2.92	1165634	6.001	Si
SLU 73	835	-22634	-127818	3.83	1263290	9.884	Si
SLU 73	1085	-18113	199304	3.07	1190457	5.973	Si
SLU 52	835	-20450	-135644	3.46	1239295	9.136	Si
SLU 52	1085	-16186	192623	2.74	1132195	5.878	Si
SLU 82	835	-23282	-128199	3.94	1266384	9.878	Si
SLU 82	1085	-18734	203863	3.17	1205785	5.915	Si
SLU 63	835	-22266	-121610	3.77	1260709	10.367	Si
SLU 63	1085	-17847	198811	3.02	1183382	5.952	Si
SLU 84	835	-24451	-113784	4.14	1267309	11.138	Si
SLU 84	1085	-19773	205492	3.35	1227618	5.974	Si
SLU 61	835	-21098	-136026	3.57	1248595	9.179	Si
SLU 61	1085	-16808	197181	2.85	1152774	5.846	Si
SLU 75	835	-24327	-110163	4.12	1267495	11.506	Si
SLU 75	1085	-19647	202990	3.33	1225228	6.036	Si
SLU 54	835	-22142	-117989	3.75	1259708	10.676	Si
SLU 54	1085	-17721	196308	3	1179930	6.011	Si
SLU 60	835	-21001	-124460	3.56	1247326	10.022	Si
SLU 60	1085	-16694	191500	2.83	1149142	6.001	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	835	-17207	-438062	2.91	1381426	3.153	Si
SLV 11	1085	-15407	392314	2.61	1277456	3.256	Si
SLV 1	835	-14661	649795	2.48	1231584	1.895	Si
SLV 1	1085	-7547	-413902	1.28	712436	1.721	Si
SLV 15	835	-17346	-801961	2.94	1389095	1.732	Si
SLV 15	1085	-17607	684187	2.98	1403289	2.051	Si
SLV 13	835	-16818	-706874	2.85	1359810	1.924	Si
SLV 13	1085	-16737	623225	2.83	1355189	2.174	Si
SLV 16	835	-17346	-801961	2.94	1389095	1.732	Si
SLV 16	1085	-17607	684187	2.98	1403289	2.051	Si
SLV 3	835	-15188	554708	2.57	1264197	2.279	Si
SLV 3	1085	-8418	-352940	1.43	783925	2.221	Si
SLV 12	835	-17207	-438062	2.91	1381426	3.153	Si
SLV 12	1085	-15407	392314	2.61	1277456	3.256	Si
SLV 2	835	-14661	649795	2.48	1231584	1.895	Si
SLV 2	1085	-7547	-413902	1.28	712436	1.721	Si
SLV 4	835	-15188	554708	2.57	1264197	2.279	Si
SLV 4	1085	-8418	-352940	1.43	783925	2.221	Si
SLV 14	835	-16818	-706874	2.85	1359810	1.924	Si
SLV 14	1085	-16737	623225	2.83	1355189	2.174	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	835	-23282	-993	-128199		3.94	210.86	1.08	6384			6.43	Si
SLU 82	1085	-18734	-477	203863		3.17	210.86	0.98	5778			12.12	Si
SLU 63	835	-22266	-961	-121610		3.77	210.86	1.06	6249			6.5	Si
SLU 63	1085	-17847	-441	198811		3.02	210.86	0.96	5660			12.84	Si
SLU 10	835	-16727	-858	-111083		2.83	210.86	0.93	5510			6.42	Si
SLU 10	1085	-13378	-444	156613		2.27	210.86	0.86	5064			11.39	Si
SLU 44	835	-18787	-905	-116761		3.18	210.86	0.98	5785			6.39	Si
SLU 44	1085	-14559	-454	173149		2.47	210.86	0.88	5221			11.51	Si
SLU 73	835	-22634	-981	-127818		3.83	210.86	1.07	6298			6.42	Si
SLU 73	1085	-18113	-469	199304		3.07	210.86	0.96	5695			12.14	Si
SLU 61	835	-21098	-1068	-136026		3.57	210.86	1.03	6093			5.71	Si
SLU 61	1085	-16808	-559	197181		2.85	210.86	0.94	5521			9.88	Si
SLU 19	835	-17375	-870	-111465		2.94	210.86	0.95	5597			6.44	Si
SLU 19	1085	-14000	-452	161171		2.37	210.86	0.87	5147			11.38	Si
SLU 52	835	-20450	-1056	-135644		3.46	210.86	1.02	6007			5.69	Si
SLU 52	1085	-16186	-551	192623		2.74	210.86	0.92	5438			9.87	Si
SLU 55	835	-21618	-950	-121228		3.66	210.86	1.04	6162			6.49	Si
SLU 55	1085	-17225	-433	194252		2.92	210.86	0.94	5577			12.88	Si
SLU 60	835	-21001	-988	-124460		3.56	210.86	1.03	6080			6.15	Si
SLU 60	1085	-16694	-508	191500		2.83	210.86	0.93	5506			10.85	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	835	-17207	-3935	-438062		2.91	210.86	1.42	8361			2.12	Si
SLV 12	1085	-15407	-2357	392314		2.61	210.86	1.36	8001			3.4	Si
SLV 11	835	-17207	-3935	-438062		2.91	210.86	1.42	8361			2.12	Si
SLV 11	1085	-15407	-2357	392314		2.61	210.86	1.36	8001			3.4	Si
SLV 4	835	-15188	6006	554708		2.62	206.73	1.36	7861			1.31	Si
SLV 4	1085	-8418	2795	-352940		1.58	190.51	1.15	6129			2.19	Si
SLV 3	835	-15188	6006	554708		2.62	206.73	1.36	7861			1.31	Si
SLV 3	1085	-8418	2795	-352940		1.58	190.51	1.15	6129			2.19	Si
SLV 16	835	-17346	-7945	-801961		3.49	177.6	1.53	7613			0.96	No, Vu<V
SLV 16	1085	-17607	-3972	684187		3.15	199.72	1.46	8182			2.06	Si
SLV 14	835	-16818	-7198	-706874		3.16	190.21	1.46	7802			1.08	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	1085	-16737	-3327	623225		2.92	204.58	1.42	8121			2.44	Si
SLV 13	835	-16818	-7198	-706874		3.16	190.21	1.46	7802			1.08	Si
SLV 13	1085	-16737	-3327	623225		2.92	204.58	1.42	8121			2.44	Si
SLV 1	835	-14661	6754	649795		2.86	183.33	1.4	7210			1.07	Si
SLV 1	1085	-7547	3440	-413902		1.78	151.76	1.19	5050			1.47	Si
SLV 2	835	-14661	6754	649795		2.86	183.33	1.4	7210			1.07	Si
SLV 2	1085	-7547	3440	-413902		1.78	151.76	1.19	5050			1.47	Si
SLV 15	835	-17346	-7945	-801961		3.49	177.6	1.53	7613			0.96	No, Vu<V
SLV 15	1085	-17607	-3972	684187		3.15	199.72	1.46	8182			2.06	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.46	2.17	-12817	26219	147560	5.63	Si
SLV 2	14	0.46	2.17	-12817	26219	147560	5.63	Si
SLV 4	14	0.46	2.23	-13156	26219	150599	5.74	Si
SLV 3	14	0.46	2.23	-13156	26219	150599	5.74	Si
SLV 6	14	0.46	2.24	-13242	26219	151360	5.77	Si
SLV 5	14	0.46	2.24	-13242	26219	151360	5.77	Si
SLV 10	14	0.46	2.36	-13945	26219	157495	6.01	Si
SLV 9	14	0.46	2.36	-13945	26219	157495	6.01	Si
SLV 7	14	0.46	2.43	-14373	26219	161128	6.15	Si
SLV 8	14	0.46	2.43	-14373	26219	161128	6.15	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-8820	-14800	493	0.001	11.943	0.933	0.895	1011.814	No
SLV 5	-8820	-14800	493	0.001	11.943	0.933	0.895	1011.814	No
SLV 8	-10056	-16559	-520	0.002	13.191	0.938	3.672	1011.814	No
SLV 7	-10056	-16559	-520	0.002	13.191	0.938	3.672	1011.814	No
SLV 10	-11350	-15448	523	0.006	14.503	0.943	9.007	1011.814	No
SLV 9	-11350	-15448	523	0.006	14.503	0.943	9.007	1011.814	No
SLV 11	-12586	-17207	-491	0.011	15.755	0.947	16.823	1011.814	No
SLV 12	-12586	-17207	-491	0.011	15.755	0.947	16.823	1011.814	No
SLV 4	-6672	-15188	-200	0.025	9.778	0.921	39.541	1108.806	No
SLV 3	-6672	-15188	-200	0.025	9.778	0.921	39.541	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.846	SLU 61	Si
V_SLU	5.688	SLU 52	Si
PF_SLV	1.721	SLV 1	Si
V_SLV	0.958	SLV 15	No
PFFP_SLV	5.628	SLV 1	Si
R_SLV	0.001	SLV 5	No

Maschio 169

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-496.8	104.6	-647.8	104.6	L5	L6	151	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	835	-15763	-109904	3.73	645412	5.872	Si
SLU 83	1045	-15504	148987	3.67	643609	4.32	Si
SLU 77	835	-16425	-112105	3.88	648678	5.786	Si
SLU 77	1045	-15763	158489	3.73	645408	4.072	Si
SLU 59	835	-14895	-99439	3.52	638210	6.418	Si
SLU 59	1045	-13923	143607	3.29	626229	4.361	Si
SLU 79	835	-16050	-110337	3.8	647062	5.864	Si
SLU 79	1045	-15315	157256	3.62	642109	4.083	Si
SLU 84	835	-15935	-108664	3.77	646442	5.949	Si
SLU 84	1045	-15778	149402	3.73	645506	4.321	Si
SLU 57	835	-15270	-101207	3.61	641725	6.341	Si
SLU 57	1045	-14370	144841	3.4	632260	4.365	Si
SLU 78	835	-16596	-110865	3.93	649212	5.856	Si
SLU 78	1045	-16037	158903	3.79	646995	4.072	Si
SLU 56	835	-15098	-102447	3.57	640195	6.249	Si
SLU 56	1045	-14096	144426	3.33	628671	4.353	Si
SLU 58	835	-14723	-100679	3.48	636399	6.321	Si
SLU 58	1045	-13649	143193	3.23	622103	4.345	Si
SLU 80	835	-16221	-109097	3.84	647877	5.939	Si
SLU 80	1045	-15589	157670	3.69	644234	4.086	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	835	-10656	-594870	2.52	638589	1.073	Si
SLV 13	1045	-10250	587792	2.42	620330	1.055	Si
SLD 16	835	-10688	-316407	2.53	640011	2.023	Si
SLD 16	1045	-10170	322358	2.41	616685	1.913	Si
SLV 1	835	-10265	521518	2.43	621027	1.191	Si
SLV 1	1045	-9249	-462379	2.19	573291	1.24	Si
SLV 15	835	-10859	-652735	2.57	647531	0.992	No, M>Mu
SLV 15	1045	-10542	637331	2.49	633512	0.994	No, M>Mu
SLV 14	835	-10656	-594870	2.52	638589	1.073	Si
SLV 14	1045	-10250	587792	2.42	620330	1.055	Si
SLV 2	835	-10265	521518	2.43	621027	1.191	Si
SLV 2	1045	-9249	-462379	2.19	573291	1.24	Si
SLV 4	835	-10468	463653	2.48	630200	1.359	Si
SLV 4	1045	-9541	-412841	2.26	587327	1.423	Si
SLV 3	835	-10468	463653	2.48	630200	1.359	Si
SLV 3	1045	-9541	-412841	2.26	587327	1.423	Si
SLD 15	835	-10688	-316407	2.53	640011	2.023	Si
SLD 15	1045	-10170	322358	2.41	616685	1.913	Si
SLV 16	835	-10859	-652735	2.57	647531	0.992	No, M>Mu
SLV 16	1045	-10542	637331	2.49	633512	0.994	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	835	-16596	-1487	-110865		3.93	151	1.08	4562			3.07	Si
SLU 78	1045	-16037	-1484	158903		3.79	151	1.06	4487			3.02	Si
SLU 77	835	-16425	-1540	-112105		3.88	151	1.07	4539			2.95	Si
SLU 77	1045	-15763	-1540	158489		3.73	151	1.05	4451			2.89	Si
SLU 35	835	-13903	-1362	-97797		3.29	151	0.99	4203			3.09	Si
SLU 35	1045	-13644	-1362	139599		3.23	151	0.99	4168			3.06	Si
SLU 56	835	-15098	-1393	-102447		3.57	151	1.03	4362			3.13	Si
SLU 56	1045	-14096	-1393	144426		3.33	151	1	4228			3.04	Si
SLU 79	835	-16050	-1520	-110337		3.8	151	1.06	4489			2.95	Si
SLU 79	1045	-15315	-1521	157256		3.62	151	1.04	4391			2.89	Si
SLU 74	835	-15744	-1411	-105493		3.72	151	1.05	4448			3.15	Si
SLU 74	1045	-15273	-1411	143591		3.61	151	1.04	4385			3.11	Si
SLU 37	835	-13528	-1343	-96029		3.2	151	0.98	4153			3.09	Si
SLU 37	1045	-13196	-1343	138366		3.12	151	0.97	4108			3.06	Si
SLU 58	835	-14723	-1374	-100679		3.48	151	1.02	4312			3.14	Si
SLU 58	1045	-13649	-1374	143193		3.23	151	0.99	4169			3.03	Si
SLU 83	835	-15763	-1468	-109904		3.73	151	1.05	4451			3.03	Si
SLU 83	1045	-15504	-1469	148987		3.67	151	1.04	4416			3.01	Si
SLU 80	835	-16221	-1468	-109097		3.84	151	1.07	4512			3.07	Si
SLU 80	1045	-15589	-1465	157670		3.69	151	1.05	4427			3.02	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	835	-10859	-8193	-652735		8.4	46.17	1.63	2101			0.26	No, Vu<V
SLV 15	1045	-10542	-7483	637331		8.34	45.13	1.63	2054			0.27	No, Vu<V
SLV 14	835	-10656	-6675	-594870		6.45	59.03	1.63	2686			0.4	No, Vu<V
SLV 14	1045	-10250	-6120	587792		6.72	54.46	1.63	2478			0.4	No, Vu<V
SLV 13	835	-10656	-6675	-594870		6.45	59.03	1.63	2686			0.4	No, Vu<V
SLV 13	1045	-10250	-6120	587792		6.72	54.46	1.63	2478			0.4	No, Vu<V
SLV 12	835	-10959	-5358	-329507		2.87	136.3	1.41	5372			1	Si
SLV 12	1045	-10533	-4908	327565		2.82	133.2	1.4	5215			1.06	Si
SLV 11	835	-10959	-5358	-329507		2.87	136.3	1.41	5372			1	Si
SLV 11	1045	-10533	-4908	327565		2.82	133.2	1.4	5215			1.06	Si
SLV 2	835	-10265	6486	521518		4.95	74.09	1.63	3371			0.52	No, Vu<V
SLV 2	1045	-9249	5776	-462379		4.32	76.53	1.63	3482			0.6	No, Vu<V
SLV 16	835	-10859	-8193	-652735		8.4	46.17	1.63	2101			0.26	No, Vu<V
SLV 16	1045	-10542	-7483	637331		8.34	45.13	1.63	2054			0.27	No, Vu<V
SLV 3	835	-10468	4968	463653		3.99	93.63	1.63	4260			0.86	No, Vu<V
SLV 3	1045	-9541	4414	-412841		3.52	96.69	1.54	4164			0.94	No, Vu<V
SLV 1	835	-10265	6486	521518		4.95	74.09	1.63	3371			0.52	No, Vu<V
SLV 1	1045	-9249	5776	-462379		4.32	76.53	1.63	3482			0.6	No, Vu<V
SLV 4	835	-10468	4968	463653		3.99	93.63	1.63	4260			0.86	No, Vu<V
SLV 4	1045	-9541	4414	-412841		3.52	96.69	1.54	4164			0.94	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.46	2.24	-9488	18776	108437	5.78	Si
SLV 1	14	0.46	2.24	-9488	18776	108437	5.78	Si
SLV 6	14	0.46	2.25	-9527	18776	108785	5.79	Si
SLV 5	14	0.46	2.25	-9527	18776	108785	5.79	Si
SLV 3	14	0.46	2.31	-9773	18776	110943	5.91	Si
SLV 4	14	0.46	2.31	-9773	18776	110943	5.91	Si
SLV 9	14	0.46	2.33	-9847	18776	111577	5.94	Si
SLV 10	14	0.46	2.33	-9847	18776	111577	5.94	Si
SLV 8	14	0.46	2.48	-10479	18776	116945	6.23	Si
SLV 7	14	0.46	2.48	-10479	18776	116945	6.23	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-6930	-10165	159	0.027	9.172	0.936	41.796	1011.814	No
SLV 6	-6930	-10165	159	0.027	9.172	0.936	41.796	1011.814	No
SLV 10	-7134	-10283	161	0.027	9.379	0.938	41.978	1011.814	No
SLV 9	-7134	-10283	161	0.027	9.379	0.938	41.978	1011.814	No
SLV 8	-7473	-10842	-161	0.028	9.722	0.939	42.681	1011.814	No
SLV 7	-7473	-10842	-161	0.028	9.722	0.939	42.681	1011.814	No
SLV 11	-7677	-10959	-159	0.028	9.929	0.941	43.288	1011.814	No
SLV 12	-7677	-10959	-159	0.028	9.929	0.941	43.288	1011.814	No
SLV 13	-7562	-10656	50	0.04	9.812	0.94	62.008	1108.806	No
SLV 14	-7562	-10656	50	0.04	9.812	0.94	62.008	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.072	SLU 78	Si
V_SLU	2.887	SLU 79	Si
PF_SLV	0.992	SLV 15	No
V_SLV	0.256	SLV 15	No
PFFP_SLV	5.775	SLV 1	Si
R_SLV	0.041	SLV 5	No

Maschio 170

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	104.6	-416.8	104.6	L5	L6	404.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 80	835	-31559	224709	2.79	4199458	18.688	Si
SLU 80	1045	-28441	803551	2.51	3978959	4.952	Si
SLU 35	835	-26638	203794	2.35	3831964	18.803	Si
SLU 35	1045	-24996	760302	2.21	3685775	4.848	Si
SLU 83	835	-31300	233015	2.76	4182754	17.951	Si
SLU 83	1045	-28626	797660	2.53	3993216	5.006	Si
SLU 74	835	-31387	241617	2.77	4188431	17.335	Si
SLU 74	1045	-28409	786723	2.51	3976444	5.054	Si
SLU 37	835	-25848	183836	2.28	3763096	20.47	Si
SLU 37	1045	-24110	728058	2.13	3601985	4.947	Si
SLU 78	835	-32349	244667	2.86	4248549	17.365	Si
SLU 78	1045	-29327	835795	2.59	4045932	4.841	Si
SLU 38	835	-26129	191664	2.31	3787953	19.764	Si
SLU 38	1045	-24282	720545	2.14	3618491	5.022	Si
SLU 77	835	-32067	236839	2.83	4231367	17.866	Si
SLU 77	1045	-29155	843308	2.57	4033222	4.783	Si
SLU 36	835	-26919	211622	2.38	3855846	18.22	Si
SLU 36	1045	-25168	752789	2.22	3701614	4.917	Si
SLU 79	835	-31277	216881	2.76	4181302	19.279	Si
SLU 79	1045	-28269	811064	2.5	3965584	4.889	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 16	835	-25788	-580362	2.28	4243749	7.312	Si
SLV 16	1045	-26036	1471706	2.3	4275121	2.905	Si
SLV 2	835	-17680	891459	1.56	3118937	3.499	Si
SLV 2	1045	-11402	-544164	1.01	2116031	3.889	Si
SLV 11	835	-23509	-62060	2.08	3946966	63.599	Si
SLV 11	1045	-21662	892917	1.91	3695349	4.139	Si
SLV 13	835	-25420	-582449	2.24	4196827	7.205	Si
SLV 13	1045	-25543	1388124	2.26	4212573	3.035	Si
SLV 1	835	-17680	891459	1.56	3118937	3.499	Si
SLV 1	1045	-11402	-544164	1.01	2116031	3.889	Si
SLV 14	835	-25420	-582449	2.24	4196827	7.205	Si
SLV 14	1045	-25543	1388124	2.26	4212573	3.035	Si
SLV 3	835	-18048	893546	1.59	3174191	3.552	Si
SLV 3	1045	-11895	-460582	1.05	2198958	4.774	Si
SLV 12	835	-23509	-62060	2.08	3946966	63.599	Si
SLV 12	1045	-21662	892917	1.91	3695349	4.139	Si
SLV 15	835	-25788	-580362	2.28	4243749	7.312	Si
SLV 15	1045	-26036	1471706	2.3	4275121	2.905	Si
SLV 4	835	-18048	893546	1.59	3174191	3.552	Si
SLV 4	1045	-11895	-460582	1.05	2198958	4.774	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	835	-31581	-5535	240843		2.79	404.5	0.93	10503			1.9	Si
SLU 84	1045	-28797	-5579	790148		2.54	404.5	0.89	10132			1.82	Si
SLU 83	835	-31300	-5732	233015		2.76	404.5	0.92	10466			1.83	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	1045	-28626	-5740	797660		2.53	404.5	0.89	10109			1.76	Si
SLU 78	835	-32349	-5503	244667		2.86	404.5	0.94	10605			1.93	Si
SLU 78	1045	-29327	-5551	835795		2.59	404.5	0.9	10202			1.84	Si
SLU 41	835	-25870	-5477	199970		2.28	404.5	0.86	9742			1.78	Si
SLU 41	1045	-24467	-5485	714654		2.16	404.5	0.84	9554			1.74	Si
SLU 77	835	-32067	-5700	236839		2.83	404.5	0.93	10568			1.85	Si
SLU 77	1045	-29155	-5712	843308		2.57	404.5	0.9	10180			1.78	Si
SLU 37	835	-25848	-5294	183836		2.28	404.5	0.86	9739			1.84	Si
SLU 37	1045	-24110	-5306	728058		2.13	404.5	0.84	9507			1.79	Si
SLU 42	835	-26152	-5280	207798		2.31	404.5	0.86	9779			1.85	Si
SLU 42	1045	-24638	-5324	707141		2.18	404.5	0.85	9577			1.8	Si
SLU 79	835	-31277	-5549	216881		2.76	404.5	0.92	10463			1.89	Si
SLU 79	1045	-28269	-5561	811064		2.5	404.5	0.89	10061			1.81	Si
SLU 35	835	-26638	-5445	203794		2.35	404.5	0.87	9844			1.81	Si
SLU 35	1045	-24996	-5457	760302		2.21	404.5	0.85	9625			1.76	Si
SLU 36	835	-26919	-5249	211622		2.38	404.5	0.87	9881			1.88	Si
SLU 36	1045	-25168	-5295	752789		2.22	404.5	0.85	9648			1.82	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	835	-23466	-8196	-159874		2.07	404.5	1.25	14132			1.72	Si
SLD 15	1045	-21846	-7397	893960		1.93	404.5	1.22	13808			1.87	Si
SLV 16	835	-25788	-15355	-580362		2.28	404.5	1.29	14596			0.95	No, Vu<V
SLV 16	1045	-26036	-13476	1471706		2.3	404.5	1.29	14646			1.09	Si
SLV 3	835	-18048	9008	893546		1.59	404.5	1.15	13048			1.45	Si
SLV 3	1045	-11895	7076	-460582		1.05	404.5	1.04	11817			1.67	Si
SLD 16	835	-23466	-8196	-159874		2.07	404.5	1.25	14132			1.72	Si
SLD 16	1045	-21846	-7397	893960		1.93	404.5	1.22	13808			1.87	Si
SLV 15	835	-25788	-15355	-580362		2.28	404.5	1.29	14596			0.95	No, Vu<V
SLV 15	1045	-26036	-13476	1471706		2.3	404.5	1.29	14646			1.09	Si
SLV 4	835	-18048	9008	893546		1.59	404.5	1.15	13048			1.45	Si
SLV 4	1045	-11895	7076	-460582		1.05	404.5	1.04	11817			1.67	Si
SLV 13	835	-25420	-14732	-582449		2.24	404.5	1.28	14522			0.99	No, Vu<V
SLV 13	1045	-25543	-12808	1388124		2.26	404.5	1.28	14547			1.14	Si
SLV 1	835	-17680	9630	891459		1.56	404.5	1.15	12974			1.35	Si
SLV 1	1045	-11402	7744	-544164		1.01	404.5	1.03	11719			1.51	Si
SLV 14	835	-25420	-14732	-582449		2.24	404.5	1.28	14522			0.99	No, Vu<V
SLV 14	1045	-25543	-12808	1388124		2.26	404.5	1.28	14547			1.14	Si
SLV 2	835	-17680	9630	891459		1.56	404.5	1.15	12974			1.35	Si
SLV 2	1045	-11402	7744	-544164		1.01	404.5	1.03	11719			1.51	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.46	1.07	-12134	50297	154979	3.08	Si
SLV 2	14	0.46	1.07	-12134	50297	154979	3.08	Si
SLV 4	14	0.46	1.11	-12622	50297	160594	3.19	Si
SLV 3	14	0.46	1.11	-12622	50297	160594	3.19	Si
SLV 5	14	0.46	1.46	-16505	50297	203510	4.05	Si
SLV 6	14	0.46	1.46	-16505	50297	203510	4.05	Si
SLV 7	14	0.46	1.6	-18133	50297	220598	4.39	Si
SLV 8	14	0.46	1.6	-18133	50297	220598	4.39	Si
SLV 9	14	0.46	1.83	-20740	50297	246844	4.91	Si
SLV 10	14	0.46	1.83	-20740	50297	246844	4.91	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-14514	-21187	-580	0.016	20.483	0.926	24.455	1011.814	No
SLV 8	-14514	-21187	-580	0.016	20.483	0.926	24.455	1011.814	No
SLV 9	-15044	-22281	580	0.016	21.017	0.928	25.506	1011.814	No
SLV 10	-15044	-22281	580	0.016	21.017	0.928	25.506	1011.814	No
SLV 6	-13525	-19959	541	0.017	19.488	0.923	25.971	1011.814	No
SLV 5	-13525	-19959	541	0.017	19.488	0.923	25.971	1011.814	No
SLV 11	-16033	-23509	-541	0.019	22.014	0.93	30.408	1011.814	No
SLV 12	-16033	-23509	-541	0.019	22.014	0.93	30.408	1011.814	No
SLV 4	-12396	-18048	-234	0.034	18.354	0.92	53.815	1108.806	No
SLV 3	-12396	-18048	-234	0.034	18.354	0.92	53.815	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.783	SLU 77	Si
V_SLU	1.742	SLU 41	Si
PF_SLV	2.905	SLV 15	Si
V_SLV	0.951	SLV 15	No
PFFP_SLV	3.081	SLV 1	Si
R_SLV	0.024	SLV 7	No

Maschio 171

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-350.9	-1100.3	-331.4	L5	L6	19.6	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 53	835	-1131	-13827	0	0	0	No, e>l/2
SLU 53	1187	-268	-4023	0	0	0	No, e>l/2
SLU 60	835	-1121	-13510	0	0	0	No, e>l/2
SLU 60	1187	-245	-3914	0	0	0	No, e>l/2
SLU 54	835	-1136	-13838	0	0	0	No, e>l/2
SLU 54	1187	-268	-4047	0	0	0	No, e>l/2
SLU 55	835	-1136	-13857	0	0	0	No, e>l/2
SLU 55	1187	-267	-3925	0	0	0	No, e>l/2
SLU 1	835	-774	-9265	0	0	0	No, e>l/2
SLU 1	1187	-191	-2877	0	0	0	No, e>l/2
SLU 57	835	-1186	-14725	0	0	0	No, e>l/2
SLU 57	1187	-292	-4114	0	0	0	No, e>l/2
SLU 61	835	-1126	-13521	0	0	0	No, e>l/2
SLU 61	1187	-245	-3939	0	0	0	No, e>l/2
SLU 58	835	-1178	-14725	0	0	0	No, e>l/2
SLU 58	1187	-291	-3951	0	0	0	No, e>l/2
SLU 56	835	-1181	-14714	0	0	0	No, e>l/2
SLU 56	1187	-292	-4089	0	0	0	No, e>l/2
SLU 59	835	-1183	-14736	0	0	0	No, e>l/2
SLU 59	1187	-291	-3976	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	835	-1201	-19984	0	0	0	No, e>l/2
SLV 6	1187	-224	822	0.41	2116	2.575	Si
SLV 9	835	-1105	-16373	0	0	0	No, e>l/2
SLV 9	1187	-222	493	0.41	2104	4.267	Si
SLV 8	835	-550	-3556	1	4937	1.388	Si
SLV 8	1187	-174	-6621	0	0	0	No, e>l/2
SLV 13	835	-765	-6410	1.4	6632	1.035	Si
SLV 13	1187	-204	-2495	0	0	0	No, e>l/2
SLV 11	835	-454	55	0.83	4139	74.732	Si
SLV 11	1187	-173	-6950	0	0	0	No, e>l/2
SLV 10	835	-1105	-16373	0	0	0	No, e>l/2
SLV 10	1187	-222	493	0.41	2104	4.267	Si
SLV 12	835	-454	55	0.83	4139	74.732	Si
SLV 12	1187	-173	-6950	0	0	0	No, e>l/2
SLV 7	835	-550	-3556	1	4937	1.388	Si
SLV 7	1187	-174	-6621	0	0	0	No, e>l/2
SLD 1	835	-937	-13577	0	0	0	No, e>l/2
SLD 1	1187	-203	-2352	0	0	0	No, e>l/2
SLV 14	835	-765	-6410	1.4	6632	1.035	Si
SLV 14	1187	-204	-2495	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 58	835	-1178	-66	-14725		0	0	0.56	0			0	No, Vu<V
SLU 58	1187	-291	26	-3951		0	0	0.56	0			0	No, Vu<V
SLU 56	835	-1181	-65	-14714		0	0	0.56	0			0	No, Vu<V
SLU 56	1187	-292	29	-4089		0	0	0.56	0			0	No, Vu<V
SLU 1	835	-774	-25	-9265		0	0	0.56	0			0	No, Vu<V
SLU 1	1187	-191	25	-2877		0	0	0.56	0			0	No, Vu<V
SLU 53	835	-1131	-52	-13827		0	0	0.56	0			0	No, Vu<V
SLU 53	1187	-268	33	-4023		0	0	0.56	0			0	No, Vu<V
SLU 61	835	-1126	-43	-13521		0	0	0.56	0			0	No, Vu<V
SLU 61	1187	-245	36	-3939		0	0	0.56	0			0	No, Vu<V
SLU 59	835	-1183	-64	-14736		0	0	0.56	0			0	No, Vu<V
SLU 59	1187	-291	26	-3976		0	0	0.56	0			0	No, Vu<V
SLU 55	835	-1136	-50	-13857		0	0	0.56	0			0	No, Vu<V
SLU 55	1187	-267	31	-3925		0	0	0.56	0			0	No, Vu<V
SLU 57	835	-1186	-63	-14725		0	0	0.56	0			0	No, Vu<V
SLU 57	1187	-292	29	-4114		0	0	0.56	0			0	No, Vu<V
SLU 54	835	-1136	-50	-13838		0	0	0.56	0			0	No, Vu<V
SLU 54	1187	-268	33	-4047		0	0	0.56	0			0	No, Vu<V
SLU 60	835	-1121	-45	-13510		0	0	0.56	0			0	No, Vu<V
SLU 60	1187	-245	35	-3914		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	835	-550	216	-3556		1.97	9.95	1.23	342			1.59	Si
SLV 7	1187	-174	108	-6621		0	0	0.83	0			0	No, Vu<V
SLV 6	835	-1201	-425	-19984		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-224	-101	822		0.44	18.34	0.92	473			4.7	Si
SLV 11	835	-454	362	55		0.83	19.57	1	547			1.51	Si
SLV 11	1187	-173	154	-6950		0	0	0.83	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	835	-1105	-278	-16373		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	-222	-54	493		0.41	19.57	0.91	501			9.26	Si
SLV 8	835	-550	216	-3556		1.97	9.95	1.23	342			1.59	Si
SLV 8	1187	-174	108	-6621		0	0	0.83	0			0	No, Vu<V
SLV 12	835	-454	362	55		0.83	19.57	1	547			1.51	Si
SLV 12	1187	-173	154	-6950		0	0	0.83	0			0	No, Vu<V
SLV 13	835	-765	117	-6410		6.47	4.23	1.63	192			1.64	Si
SLV 13	1187	-204	73	-2495		0	0	0.83	0			0	No, Vu<V
SLV 14	835	-765	117	-6410		6.47	4.23	1.63	192			1.64	Si
SLV 14	1187	-204	73	-2495		0	0	0.83	0			0	No, Vu<V
SLV 10	835	-1105	-278	-16373		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	-222	-54	493		0.41	19.57	0.91	501			9.26	Si
SLD 1	835	-937	-176	-13577		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-203	-19	-2352		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.46	0	-171	2433	0	0	No, e>t/2
SLV 7	14	0.46	0	-171	2433	0	0	No, e>t/2
SLV 3	14	0.46	0.46	-251	2433	3386	1.39	Si
SLV 4	14	0.46	0.46	-251	2433	3386	1.39	Si
SLV 12	14	0.46	0.46	-252	2433	3392	1.39	Si
SLV 11	14	0.46	0.46	-252	2433	3392	1.39	Si
SLV 2	14	0.46	0.73	-401	2433	5282	2.17	Si
SLV 1	14	0.46	0.73	-401	2433	5282	2.17	Si
SLV 15	14	0.46	0.95	-521	2433	6731	2.77	Si
SLV 16	14	0.46	0.95	-521	2433	6731	2.77	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-204	-765	-26	0	0.499	0.89	0	1108.806	No
SLV 4	-193	-889	27	0	0.49	0.889	0	1108.806	No
SLV 16	-189	-570	-26	0	0.486	0.889	0	1108.806	No
SLV 15	-189	-570	-26	0	0.486	0.889	0	1108.806	No
SLV 2	-208	-1085	28	0	0.504	0.89	0	1108.806	No
SLV 13	-204	-765	-26	0	0.499	0.89	0	1108.806	No
SLV 1	-208	-1085	28	0	0.504	0.89	0	1108.806	No
SLV 3	-193	-889	27	0	0.49	0.889	0	1108.806	No
SLV 5	-224	-1201	10	0.033	0.518	0.89	53.358	1011.814	No
SLV 6	-224	-1201	10	0.033	0.518	0.89	53.358	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLD 1	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 7	No
R_SLV	0	SLV 1	No

Maschio 172

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1100.3	-331.4	-1100.3	-35.4	L5	Z medio 1098 cm	296	28	263	174	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 21	835	-18142	-75612	2.19	1963477	25.968	Si
SLU 21	1009	-14876	-80951	1.79	1716505	21.204	Si
SLU 20	835	-18144	-74643	2.19	1963620	26.307	Si
SLU 20	1009	-14897	-80063	1.8	1718245	21.461	Si
SLU 16	835	-18168	-81654	2.19	1965246	24.068	Si
SLU 16	1009	-14870	-56859	1.79	1716062	30.181	Si
SLU 18	835	-17289	-61163	2.09	1903524	31.122	Si
SLU 18	1009	-14151	-77536	1.71	1655366	21.35	Si
SLU 42	835	-20037	-70728	2.42	2085376	29.484	Si
SLU 42	1009	-16402	-76532	1.98	1837705	24.012	Si
SLU 19	835	-17287	-62132	2.09	1903373	30.634	Si
SLU 19	1009	-14130	-78424	1.7	1653556	21.085	Si
SLU 59	835	-21872	-96178	2.64	2188323	22.753	Si
SLU 59	1009	-17799	-56793	2.15	1939787	34.155	Si
SLU 40	835	-19183	-57248	2.31	2032375	35.501	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 40	1009	-15656	-74006	1.89	1779745	24.049	Si
SLU 17	835	-18166	-82624	2.19	1965104	23.784	Si
SLU 17	1009	-14849	-57747	1.79	1714319	29.687	Si
SLU 58	835	-21874	-95209	2.64	2188432	22.986	Si
SLU 58	1009	-17820	-55905	2.15	1941258	34.724	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	835	-18176	-219953	2.19	2207202	10.035	Si
SLV 9	1009	-14456	-55499	1.74	1834065	33.047	Si
SLV 8	835	-13055	134920	1.58	1683076	12.475	Si
SLV 8	1009	-10600	40179	1.28	1404620	34.959	Si
SLV 12	835	-13985	185359	1.69	1783908	9.624	Si
SLV 12	1009	-11436	32332	1.38	1501386	46.436	Si
SLV 10	835	-18176	-219953	2.19	2207202	10.035	Si
SLV 10	1009	-14456	-55499	1.74	1834065	33.047	Si
SLV 2	835	-14695	-187378	1.77	1859265	9.923	Si
SLV 2	1009	-11588	-7758	1.4	1518809	195.772	Si
SLV 7	835	-13055	134920	1.58	1683076	12.475	Si
SLV 7	1009	-10600	40179	1.28	1404620	34.959	Si
SLV 11	835	-13985	185359	1.69	1783908	9.624	Si
SLV 11	1009	-11436	32332	1.38	1501386	46.436	Si
SLV 6	835	-17246	-270392	2.08	2117756	7.832	Si
SLV 6	1009	-13620	-47653	1.64	1744676	36.612	Si
SLV 1	835	-14695	-187378	1.77	1859265	9.923	Si
SLV 1	1009	-11588	-7758	1.4	1518809	195.772	Si
SLV 5	835	-17246	-270392	2.08	2117756	7.832	Si
SLV 5	1009	-13620	-47653	1.64	1744676	36.612	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 19	835	-17287	314	-62132		2.09	296	0.83	6909			22.02	Si
SLU 19	1009	-14130	761	-78424		1.7	296	0.78	6488			8.53	Si
SLU 40	835	-19183	292	-57248		2.31	296	0.86	7162			24.51	Si
SLU 40	1009	-15656	769	-74006		1.89	296	0.81	6692			8.7	Si
SLU 52	835	-20161	424	-69864		2.43	296	0.88	7293			17.21	Si
SLU 52	1009	-16294	791	-52333		1.97	296	0.82	6777			8.56	Si
SLU 10	835	-16455	366	-56309		1.99	296	0.82	6798			18.56	Si
SLU 10	1009	-13344	704	-53287		1.61	296	0.77	6384			9.06	Si
SLU 81	835	-22891	250	-69833		2.76	296	0.92	7657			30.66	Si
SLU 81	1009	-18627	771	-72163		2.25	296	0.86	7088			9.2	Si
SLU 60	835	-20995	271	-74717		2.53	296	0.89	7404			27.28	Si
SLU 60	1009	-17101	763	-76582		2.06	296	0.83	6885			9.03	Si
SLU 82	835	-22889	350	-70802		2.76	296	0.92	7656			21.9	Si
SLU 82	1009	-18606	856	-73051		2.24	296	0.85	7085			8.28	Si
SLU 31	835	-18351	345	-51425		2.21	296	0.85	7051			20.46	Si
SLU 31	1009	-14870	713	-48868		1.79	296	0.79	6587			9.24	Si
SLU 73	835	-22057	402	-64979		2.66	296	0.91	7545			18.76	Si
SLU 73	1009	-17820	800	-47914		2.15	296	0.84	6980			8.73	Si
SLU 61	835	-20993	371	-75686		2.53	296	0.89	7404			19.94	Si
SLU 61	1009	-17080	848	-77470		2.06	296	0.83	6882			8.12	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	835	-13055	8139	134920		1.58	296	1.15	9518			1.17	Si
SLV 8	1009	-10600	7827	40179		1.28	296	1.09	9027			1.15	Si
SLV 5	835	-17246	-6530	-270392		2.08	296	1.25	10356			1.59	Si
SLV 5	1009	-13620	-5859	-47653		1.64	296	1.16	9631			1.64	Si
SLV 4	835	-13438	4486	-65785		1.62	296	1.16	9594			2.14	Si
SLV 4	1009	-10682	4455	18592		1.29	296	1.09	9043			2.03	Si
SLV 7	835	-13055	8139	134920		1.58	296	1.15	9518			1.17	Si
SLV 7	1009	-10600	7827	40179		1.28	296	1.09	9027			1.15	Si
SLV 3	835	-13438	4486	-65785		1.62	296	1.16	9594			2.14	Si
SLV 3	1009	-10682	4455	18592		1.29	296	1.09	9043			2.03	Si
SLV 11	835	-13985	6870	185359		1.69	296	1.17	9704			1.41	Si
SLV 11	1009	-11436	6612	32332		1.38	296	1.11	9194			1.39	Si
SLV 9	835	-18176	-7799	-219953		2.19	296	1.27	10542			1.35	Si
SLV 9	1009	-14456	-7074	-55499		1.74	296	1.18	9798			1.39	Si
SLV 10	835	-18176	-7799	-219953		2.19	296	1.27	10542			1.35	Si
SLV 10	1009	-14456	-7074	-55499		1.74	296	1.18	9798			1.39	Si
SLV 6	835	-17246	-6530	-270392		2.08	296	1.25	10356			1.59	Si
SLV 6	1009	-13620	-5859	-47653		1.64	296	1.16	9631			1.64	Si
SLV 12	835	-13985	6870	185359		1.69	296	1.17	9704			1.41	Si
SLV 12	1009	-11436	6612	32332		1.38	296	1.11	9194			1.39	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 922 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.44	1.43	-11848	19707	146465	7.43	Si
SLV 7	14	0.44	1.43	-11848	19707	146465	7.43	Si
SLV 3	14	0.44	1.46	-12117	19707	149345	7.58	Si
SLV 4	14	0.44	1.46	-12117	19707	149345	7.58	Si
SLV 12	14	0.44	1.54	-12778	19707	156320	7.93	Si
SLV 11	14	0.44	1.54	-12778	19707	156320	7.93	Si
SLV 1	14	0.44	1.6	-13278	19707	161522	8.2	Si
SLV 2	14	0.44	1.6	-13278	19707	161522	8.2	Si
SLV 15	14	0.44	1.84	-15218	19707	181032	9.19	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.44	1.84	-15218	19707	181032	9.19	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 922 Wa = 0.05 Ta = 0.0413

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-10600	-13055	-404	0.029	13.89	0.938	45.554	615.999	No
SLV 7	-10600	-13055	-404	0.029	13.89	0.938	45.554	615.999	No
SLV 4	-10682	-13438	-338	0.035	13.973	0.938	53.839	646.909	No
SLV 3	-10682	-13438	-338	0.035	13.973	0.938	53.839	646.909	No
SLV 11	-11436	-13985	-338	0.036	14.736	0.941	55.296	615.999	No
SLV 12	-11436	-13985	-338	0.036	14.736	0.941	55.296	615.999	No
SLV 2	-11588	-14695	-216	0.045	14.89	0.942	69.489	646.909	No
SLV 1	-11588	-14695	-216	0.045	14.89	0.942	69.489	646.909	No
SLV 15	-13468	-16536	-118	0.052	16.796	0.947	80.276	646.909	No
SLV 16	-13468	-16536	-118	0.052	16.796	0.947	80.276	646.909	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	21.085	SLU 19	Si
V_SLU	8.118	SLU 61	Si
PF_SLV	7.832	SLV 5	Si
V_SLV	1.153	SLV 7	Si
PFFP_SLV	7.432	SLV 7	Si
R_SLV	0.074	SLV 7	No

Maschio 174

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-35.4	-1100.3	104.6	L5	L6	140	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 69	835	-14212	-81183	3.63	552065	6.8	Si
SLU 69	1187	-8152	75120	2.08	424945	5.657	Si
SLU 27	835	-11931	-69517	3.04	523116	7.525	Si
SLU 27	1187	-6969	67956	1.78	381355	5.612	Si
SLU 29	835	-11633	-69902	2.97	517653	7.405	Si
SLU 29	1187	-6736	65740	1.72	372047	5.659	Si
SLU 8	835	-10230	-62784	2.61	486683	7.752	Si
SLU 8	1187	-5929	55230	1.51	337981	6.119	Si
SLU 28	835	-11892	-68994	3.03	522419	7.572	Si
SLU 28	1187	-6929	67054	1.77	379780	5.664	Si
SLU 30	835	-11594	-69379	2.96	516905	7.45	Si
SLU 30	1187	-6696	64837	1.71	370431	5.713	Si
SLU 70	835	-14173	-80660	3.62	551761	6.841	Si
SLU 70	1187	-8112	74218	2.07	423576	5.707	Si
SLU 6	835	-10528	-62399	2.69	493978	7.916	Si
SLU 6	1187	-6162	57447	1.57	348113	6.06	Si
SLU 72	835	-13875	-81045	3.54	549225	6.777	Si
SLU 72	1187	-7879	72001	2.01	415436	5.77	Si
SLU 71	835	-13914	-81568	3.55	549581	6.738	Si
SLU 71	1187	-7919	72904	2.02	416845	5.718	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	835	-9371	-153977	2.39	527631	3.427	Si
SLV 9	1187	-7094	92140	1.81	423041	4.591	Si
SLV 13	835	-9713	-154099	2.48	542034	3.517	Si
SLV 13	1187	-6689	53192	1.71	402820	7.573	Si
SLV 10	835	-9371	-153977	2.39	527631	3.427	Si
SLV 10	1187	-7094	92140	1.81	423041	4.591	Si
SLV 16	835	-10013	-102084	2.55	554404	5.431	Si
SLV 16	1187	-5761	20185	1.47	354791	17.577	Si
SLV 5	835	-9378	-101856	2.39	527941	5.183	Si
SLV 5	1187	-6515	92519	1.66	394002	4.259	Si
SLV 15	835	-10013	-102084	2.55	554404	5.431	Si
SLV 15	1187	-5761	20185	1.47	354791	17.577	Si
SLV 1	835	-9737	19635	2.48	543043	27.656	Si
SLV 1	1187	-4757	54452	1.21	299917	5.508	Si
SLV 14	835	-9713	-154099	2.48	542034	3.517	Si
SLV 14	1187	-6689	53192	1.71	402820	7.573	Si
SLV 6	835	-9378	-101856	2.39	527941	5.183	Si
SLV 6	1187	-6515	92519	1.66	394002	4.259	Si
SLV 2	835	-9737	19635	2.48	543043	27.656	Si
SLV 2	1187	-4757	54452	1.21	299917	5.508	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	835	-11931	-1101	-69517		3.04	140	0.96	3769			3.42	Si
SLU 27	1187	-6969	-1692	67956		1.78	140	0.79	3107			1.84	Si
SLU 30	835	-11594	-1083	-69379		2.96	140	0.95	3724			3.44	Si
SLU 30	1187	-6696	-1661	64837		1.71	140	0.78	3071			1.85	Si
SLU 72	835	-13875	-1107	-81045		3.54	140	1.03	4028			3.64	Si
SLU 72	1187	-7879	-1777	72001		2.01	140	0.82	3228			1.82	Si
SLU 70	835	-14173	-1078	-80660		3.62	140	1.04	4068			3.77	Si
SLU 70	1187	-8112	-1781	74218		2.07	140	0.83	3259			1.83	Si
SLU 79	835	-14848	-1076	-54161		3.79	140	1.06	4157			3.86	Si
SLU 79	1187	-8494	-1717	67391		2.17	140	0.84	3310			1.93	Si
SLU 28	835	-11892	-1054	-68994		3.03	140	0.96	3763			3.57	Si
SLU 28	1187	-6929	-1666	67054		1.77	140	0.79	3102			1.86	Si
SLU 71	835	-13914	-1153	-81568		3.55	140	1.03	4033			3.5	Si
SLU 71	1187	-7919	-1803	72904		2.02	140	0.82	3234			1.79	Si
SLU 29	835	-11633	-1129	-69902		2.97	140	0.95	3729			3.3	Si
SLU 29	1187	-6736	-1688	65740		1.72	140	0.78	3076			1.82	Si
SLU 69	835	-14212	-1125	-81183		3.63	140	1.04	4073			3.62	Si
SLU 69	1187	-8152	-1808	75120		2.08	140	0.83	3265			1.81	Si
SLU 77	835	-15145	-1048	-53776		3.86	140	1.07	4197			4.01	Si
SLU 77	1187	-8727	-1722	69608		2.23	140	0.85	3341			1.94	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	835	-10380	3685	71528		2.65	140	1.36	5343			1.45	Si
SLV 8	1187	-3424	1958	-17503		0.87	140	1.01	3952			2.02	Si
SLV 11	835	-10372	3152	19408		2.65	140	1.36	5341			1.69	Si
SLV 11	1187	-4004	1308	-17881		1.02	140	1.04	4067			3.11	Si
SLV 9	835	-9371	-4521	-153977		2.39	140	1.31	5141			1.14	Si
SLV 9	1187	-7094	-3518	92140		1.81	140	1.2	4686			1.33	Si
SLV 12	835	-10372	3152	19408		2.65	140	1.36	5341			1.69	Si
SLV 12	1187	-4004	1308	-17881		1.02	140	1.04	4067			3.11	Si
SLV 5	835	-9378	-3989	-101856		2.39	140	1.31	5142			1.29	Si
SLV 5	1187	-6515	-2869	92519		1.66	140	1.17	4570			1.59	Si
SLV 7	835	-10380	3685	71528		2.65	140	1.36	5343			1.45	Si
SLV 7	1187	-3424	1958	-17503		0.87	140	1.01	3952			2.02	Si
SLV 6	835	-9378	-3989	-101856		2.39	140	1.31	5142			1.29	Si
SLV 6	1187	-6515	-2869	92519		1.66	140	1.17	4570			1.59	Si
SLV 13	835	-9713	-2457	-154099		2.48	140	1.33	5209			2.12	Si
SLV 13	1187	-6689	-2587	53192		1.71	140	1.17	4604			1.78	Si
SLV 10	835	-9371	-4521	-153977		2.39	140	1.31	5141			1.14	Si
SLV 10	1187	-7094	-3518	92140		1.81	140	1.2	4686			1.33	Si
SLV 14	835	-9713	-2457	-154099		2.48	140	1.33	5209			2.12	Si
SLV 14	1187	-6689	-2587	53192		1.71	140	1.17	4604			1.78	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.46	1.3	-5091	17408	63697	3.66	Si
SLV 3	14	0.46	1.3	-5091	17408	63697	3.66	Si
SLV 1	14	0.46	1.43	-5615	17408	69393	3.99	Si
SLV 2	14	0.46	1.43	-5615	17408	69393	3.99	Si
SLV 7	14	0.46	1.61	-6306	17408	76663	4.4	Si
SLV 8	14	0.46	1.61	-6306	17408	76663	4.4	Si
SLV 11	14	0.46	2.01	-7872	17408	92093	5.29	Si
SLV 12	14	0.46	2.01	-7872	17408	92093	5.29	Si
SLV 5	14	0.46	2.05	-8052	17408	93782	5.39	Si
SLV 6	14	0.46	2.05	-8052	17408	93782	5.39	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-3830	-10038	169	0.016	5.891	0.915	25.725	1108.806	No
SLV 3	-3830	-10038	169	0.016	5.891	0.915	25.725	1108.806	No
SLV 2	-4757	-9737	152	0.023	6.821	0.924	35.752	1108.806	No
SLV 1	-4757	-9737	152	0.023	6.821	0.924	35.752	1108.806	No
SLV 14	-6689	-9713	-170	0.025	8.771	0.938	38.082	1108.806	No
SLV 13	-6689	-9713	-170	0.025	8.771	0.938	38.082	1108.806	No
SLV 15	-5761	-10013	-153	0.025	7.833	0.932	39.05	1108.806	No
SLV 16	-5761	-10013	-153	0.025	7.833	0.932	39.05	1108.806	No
SLV 8	-3424	-10380	77	0.034	5.487	0.911	54.136	1011.814	No
SLV 7	-3424	-10380	77	0.034	5.487	0.911	54.136	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.612	SLU 27	Si
V_SLU	1.793	SLU 71	Si
PF_SLV	3.427	SLV 9	Si
V_SLV	1.137	SLV 9	Si
PFFP_SLV	3.659	SLV 3	Si
R_SLV	0.023	SLV 3	No



Maschio 175

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-972.8	220.1	-972.8	666.1	L5	L6	446	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	835	-19230	-274992	3.08	2666967	9.698	Si
SLU 60	1187	-8333	-45222	1.33	1553817	34.36	Si
SLU 81	835	-20838	-266453	3.34	2743069	10.295	Si
SLU 81	1187	-9012	-31338	1.44	1653614	52.766	Si
SLU 61	835	-19245	-277686	3.08	2667773	9.607	Si
SLU 61	1187	-8340	-46184	1.34	1554847	33.666	Si
SLU 18	835	-15908	-223445	2.55	2437959	10.911	Si
SLU 18	1187	-6850	-32444	1.1	1321899	40.744	Si
SLU 73	835	-19963	-252528	3.2	2704479	10.71	Si
SLU 73	1187	-8684	-31227	1.39	1605877	51.426	Si
SLU 19	835	-15923	-226139	2.55	2439198	10.786	Si
SLU 19	1187	-6857	-33406	1.1	1323017	39.604	Si
SLU 82	835	-20852	-269147	3.34	2743666	10.194	Si
SLU 82	1187	-9019	-32301	1.44	1654603	51.225	Si
SLU 44	835	-16256	-218099	2.6	2466502	11.309	Si
SLU 44	1187	-7212	-41109	1.16	1380239	33.575	Si
SLU 52	835	-18355	-261067	2.94	2616044	10.021	Si
SLU 52	1187	-8005	-45111	1.28	1504125	33.343	Si
SLU 10	835	-15033	-209521	2.41	2361558	11.271	Si
SLU 10	1187	-6522	-32332	1.04	1267939	39.216	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-14221	-499929	2.28	2580124	5.161	Si
SLV 5	1187	-5222	173164	0.84	1084759	6.264	Si
SLV 10	835	-14312	-508849	2.29	2592901	5.096	Si
SLV 10	1187	-5490	143872	0.88	1136170	7.897	Si
SLV 6	835	-14221	-499929	2.28	2580124	5.161	Si
SLV 6	1187	-5222	173164	0.84	1084759	6.264	Si
SLD 10	835	-14101	-315767	2.26	2563391	8.118	Si
SLD 10	1187	-5864	46544	0.94	1207171	25.936	Si
SLV 12	835	-13717	156131	2.2	2508921	16.069	Si
SLV 12	1187	-7055	-220971	1.13	1427838	6.462	Si
SLD 9	835	-14101	-315767	2.26	2563391	8.118	Si
SLD 9	1187	-5864	46544	0.94	1207171	25.936	Si
SLV 7	835	-13625	165050	2.18	2495826	15.122	Si
SLV 7	1187	-6787	-191679	1.09	1378881	7.194	Si
SLV 9	835	-14312	-508849	2.29	2592901	5.096	Si
SLV 9	1187	-5490	143872	0.88	1136170	7.897	Si
SLV 8	835	-13625	165050	2.18	2495826	15.122	Si
SLV 8	1187	-6787	-191679	1.09	1378881	7.194	Si
SLV 11	835	-13717	156131	2.2	2508921	16.069	Si
SLV 11	1187	-7055	-220971	1.13	1427838	6.462	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	835	-17077	1094	-44156		2.73	446	0.92	5746			5.25	Si
SLU 72	1187	-7786	1087	32374		1.25	446	0.72	4507			4.15	Si
SLU 38	835	-15854	1074	-35578		2.54	446	0.89	5583			5.2	Si
SLU 38	1187	-7096	1067	41150		1.14	446	0.71	4415			4.14	Si
SLU 28	835	-14302	1052	-12794		2.29	446	0.86	5376			5.11	Si
SLU 28	1187	-6658	1045	39948		1.07	446	0.7	4357			4.17	Si
SLU 71	835	-17062	1100	-41462		2.73	446	0.92	5744			5.22	Si
SLU 71	1187	-7779	1093	33336		1.25	446	0.72	4506			4.12	Si
SLU 37	835	-15839	1081	-32884		2.54	446	0.89	5581			5.16	Si
SLU 37	1187	-7090	1073	42112		1.14	446	0.71	4414			4.11	Si
SLU 8	835	-12133	991	1545		1.94	446	0.81	5087			5.13	Si
SLU 8	1187	-5618	985	32230		0.9	446	0.68	4218			4.28	Si
SLU 29	835	-13741	1137	10084		2.2	446	0.85	5301			4.66	Si
SLU 29	1187	-6297	1130	46114		1.01	446	0.69	4308			3.81	Si
SLU 27	835	-14288	1058	-10100		2.29	446	0.86	5374			5.08	Si
SLU 27	1187	-6651	1051	40911		1.07	446	0.7	4356			4.14	Si
SLU 30	835	-13756	1130	7390		2.2	446	0.85	5303			4.69	Si
SLU 30	1187	-6304	1123	45152		1.01	446	0.69	4309			3.84	Si
SLU 9	835	-12148	984	-1149		1.95	446	0.81	5089			5.17	Si
SLU 9	1187	-5625	978	31268		0.9	446	0.68	4219			4.31	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	835	-14312	-5447	-508849		2.29	446	1.29	8066			1.48	Si
SLV 9	1187	-5490	-3279	143872		0.88	446	1.01	6301			1.92	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	835	-13717	5168	156131		2.2	446	1.27	7947			1.54	Si
SLV 11	1187	-7055	2799	-220971		1.13	446	1.06	6614			2.36	Si
SLV 10	835	-14312	-5447	-508849		2.29	446	1.29	8066			1.48	Si
SLV 10	1187	-5490	-3279	143872		0.88	446	1.01	6301			1.92	Si
SLV 6	835	-14221	-5027	-499929		2.28	446	1.29	8047			1.6	Si
SLV 6	1187	-5222	-2661	173164		0.84	446	1	6248			2.35	Si
SLV 3	835	-13727	2363	-57286		2.2	446	1.27	7949			3.36	Si
SLV 3	1187	-5926	2010	-29810		0.95	446	1.02	6389			3.18	Si
SLV 4	835	-13727	2363	-57286		2.2	446	1.27	7949			3.36	Si
SLV 4	1187	-5926	2010	-29810		0.95	446	1.02	6389			3.18	Si
SLV 7	835	-13625	5588	165050		2.18	446	1.27	7928			1.42	Si
SLV 7	1187	-6787	3416	-191679		1.09	446	1.05	6561			1.92	Si
SLV 8	835	-13625	5588	165050		2.18	446	1.27	7928			1.42	Si
SLV 8	1187	-6787	3416	-191679		1.09	446	1.05	6561			1.92	Si
SLV 5	835	-14221	-5027	-499929		2.28	446	1.29	8047			1.6	Si
SLV 5	1187	-5222	-2661	173164		0.84	446	1	6248			2.35	Si
SLV 12	835	-13717	5168	156131		2.2	446	1.27	7947			1.54	Si
SLV 12	1187	-7055	2799	-220971		1.13	446	1.06	6614			2.36	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.46	1.31	-8203	26468	51246	1.94	Si
SLV 5	14	0.46	1.31	-8203	26468	51246	1.94	Si
SLV 2	14	0.46	1.34	-8358	26468	52097	1.97	Si
SLV 1	14	0.46	1.34	-8358	26468	52097	1.97	Si
SLV 9	14	0.46	1.41	-8775	26468	54361	2.05	Si
SLV 10	14	0.46	1.41	-8775	26468	54361	2.05	Si
SLV 4	14	0.46	1.45	-9064	26468	55908	2.11	Si
SLV 3	14	0.46	1.45	-9064	26468	55908	2.11	Si
SLV 13	14	0.46	1.64	-10266	26468	62193	2.35	Si
SLV 14	14	0.46	1.64	-10266	26468	62193	2.35	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-6820	-14032	-14	0.023	10.105	0.92	35.934	1891.088	No
SLV 15	-6820	-14032	-14	0.023	10.105	0.92	35.934	1891.088	No
SLV 13	-6351	-14211	-13	0.023	9.634	0.917	36.566	1891.088	No
SLV 14	-6351	-14211	-13	0.023	9.634	0.917	36.566	1891.088	No
SLV 4	-5926	-13727	14	0.023	9.21	0.914	36.66	1891.088	No
SLV 3	-5926	-13727	14	0.023	9.21	0.914	36.66	1891.088	No
SLV 1	-5457	-13906	16	0.023	8.742	0.911	36.811	1891.088	No
SLV 2	-5457	-13906	16	0.023	8.742	0.911	36.811	1891.088	No
SLV 12	-7055	-13717	-6	0.024	10.341	0.921	37.219	1891.088	No
SLV 11	-7055	-13717	-6	0.024	10.341	0.921	37.219	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.607	SLU 61	Si
V_SLU	3.813	SLU 29	Si
PF_SLV	5.096	SLV 9	Si
V_SLV	1.419	SLV 7	Si
PFFP_SLV	1.936	SLV 5	Si
R_SLV	0.019	SLV 15	No

Maschio 176

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-944.8	-335.9	-1100.3	-335.9	L5	L6	155.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 40	835	-7305	56133	1.68	450988	8.034	Si
SLU 40	1045	-7126	-136486	1.64	442717	3.244	Si
SLU 31	835	-57108	57108	1.61	438306	7.675	Si
SLU 31	1045	-6862	-126568	1.58	430289	3.4	Si
SLU 73	835	-8765	59088	2.01	513069	8.683	Si
SLU 73	1045	-8240	-141945	1.89	491796	3.465	Si
SLU 42	835	-7830	47979	1.8	474385	9.887	Si
SLU 42	1045	-7507	-130106	1.72	460128	3.537	Si
SLU 39	835	-7411	48111	1.7	455786	9.474	Si
SLU 39	1045	-7133	-133810	1.64	443053	3.311	Si
SLU 81	835	-9144	50091	2.1	527666	10.534	Si
SLU 81	1045	-8511	-149187	1.95	502922	3.371	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 84	835	-9564	49958	2.2	543076	10.871	Si
SLU 84	1045	-8885	-145483	2.04	517738	3.559	Si
SLU 82	835	-9039	58113	2.08	523670	9.011	Si
SLU 82	1045	-8504	-151863	1.95	502629	3.31	Si
SLU 19	835	-6860	43563	1.58	430220	9.876	Si
SLU 19	1045	-6343	-116163	1.46	404977	3.486	Si
SLU 61	835	-8594	45542	1.97	506283	11.117	Si
SLU 61	1045	-7721	-131539	1.77	469616	3.57	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	835	-3291	325176	0	0	0	No, $e > l/2$
SLV 3	1045	-8275	-359195	1.9	543291	1.513	Si
SLV 8	835	-1985	152467	0.46	148558	0.974	No, $M > M_u$
SLV 8	1045	-3772	-104693	0.87	272477	2.603	Si
SLV 13	835	-9810	-270233	2.25	622079	2.302	Si
SLV 13	1045	-3491	183016	0.8	253638	1.386	Si
SLV 15	835	-7444	-246705	1.71	497810	2.018	Si
SLV 15	1045	-1626	225693	0	0	0	No, $e > l/2$
SLV 14	835	-9810	-270233	2.25	622079	2.302	Si
SLV 14	1045	-3491	183016	0.8	253638	1.386	Si
SLV 7	835	-1985	152467	0.46	148558	0.974	No, $M > M_u$
SLV 7	1045	-3772	-104693	0.87	272477	2.603	Si
SLV 4	835	-3291	325176	0	0	0	No, $e > l/2$
SLV 4	1045	-8275	-359195	1.9	543291	1.513	Si
SLV 2	835	-5656	301648	1.3	393019	1.303	Si
SLV 2	1045	-10140	-401872	2.33	638103	1.588	Si
SLV 16	835	-7444	-246705	1.71	497810	2.018	Si
SLV 16	1045	-1626	225693	0	0	0	No, $e > l/2$
SLV 1	835	-5656	301648	1.3	393019	1.303	Si
SLV 1	1045	-10140	-401872	2.33	638103	1.588	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	835	-8594	1104	45542		1.97	155.5	0.82	3565			3.23	Si
SLU 61	1045	-7721	2210	-131539		1.77	155.5	0.79	3448			1.56	Si
SLU 31	835	-7031	1279	57108		1.61	155.5	0.77	3356			2.63	Si
SLU 31	1045	-6862	2054	-126568		1.58	155.5	0.77	3334			1.62	Si
SLU 40	835	-7305	1272	56133		1.68	155.5	0.78	3393			2.67	Si
SLU 40	1045	-7126	2241	-136486		1.64	155.5	0.77	3369			1.5	Si
SLU 83	835	-9669	1185	41936		2.22	155.5	0.85	3708			3.13	Si
SLU 83	1045	-8892	2299	-142807		2.04	155.5	0.83	3604			1.57	Si
SLU 82	835	-9039	1387	58113		2.08	155.5	0.83	3624			2.61	Si
SLU 82	1045	-8504	2509	-151863		1.95	155.5	0.82	3553			1.42	Si
SLU 81	835	-9144	1293	50091		2.1	155.5	0.84	3638			2.81	Si
SLU 81	1045	-8511	2484	-149187		1.95	155.5	0.82	3554			1.43	Si
SLU 73	835	-8765	1394	59088		2.01	155.5	0.82	3588			2.57	Si
SLU 73	1045	-8240	2322	-141945		1.89	155.5	0.81	3517			1.51	Si
SLU 84	835	-9564	1279	49958		2.2	155.5	0.85	3694			2.89	Si
SLU 84	1045	-8885	2325	-145483		2.04	155.5	0.83	3604			1.55	Si
SLU 39	835	-7411	1178	48111		1.7	155.5	0.78	3407			2.89	Si
SLU 39	1045	-7133	2215	-133810		1.64	155.5	0.77	3370			1.52	Si
SLU 60	835	-8700	1010	37520		2	155.5	0.82	3579			3.54	Si
SLU 60	1045	-7728	2185	-128864		1.77	155.5	0.79	3449			1.58	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	835	-7444	-3740	-246705		1.99	133.83	1.23	4612			1.23	Si
SLV 16	1045	-1626	-1899	225693		0	0	0.83	0			0	No, $V_u < V$
SLV 14	835	-9810	-4108	-270233		2.33	150.61	1.3	5476			1.33	Si
SLV 14	1045	-3491	-3040	183016		1.64	75.99	1.16	2471			0.81	No, $V_u < V$
SLV 4	835	-3291	5759	325176		0	0	0.83	0			0	No, $V_u < V$
SLV 4	1045	-8275	5956	-359195		2.87	103.02	1.41	4059			0.68	No, $V_u < V$
SLV 15	835	-7444	-3740	-246705		1.99	133.83	1.23	4612			1.23	Si
SLV 15	1045	-1626	-1899	225693		0	0	0.83	0			0	No, $V_u < V$
SLV 2	835	-5656	5391	301648		2.76	73.26	1.38	2841			0.53	No, $V_u < V$
SLV 2	1045	-10140	4815	-401872		3.17	114.35	1.47	4696			0.98	No, $V_u < V$
SLV 7	835	-1985	2864	152467		25.38	2.79	1.63	127			0.04	No, $V_u < V$
SLV 7	1045	-3772	4538	-104693		0.9	149.98	1.01	4254			0.94	No, $V_u < V$
SLV 1	835	-5656	5391	301648		2.76	73.26	1.38	2841			0.53	No, $V_u < V$
SLV 1	1045	-10140	4815	-401872		3.17	114.35	1.47	4696			0.98	No, $V_u < V$
SLV 8	835	-1985	2864	152467		25.38	2.79	1.63	127			0.04	No, $V_u < V$
SLV 8	1045	-3772	4538	-104693		0.9	149.98	1.01	4254			0.94	No, $V_u < V$
SLV 13	835	-9810	-4108	-270233		2.33	150.61	1.3	5476			1.33	Si
SLV 13	1045	-3491	-3040	183016		1.64	75.99	1.16	2471			0.81	No, $V_u < V$
SLV 3	835	-3291	5759	325176		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1045	-8275	5956	-359195		2.87	103.02	1.41	4059			0.68	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.46	0.46	-1996	18896	26899	1.42	Si
SLV 16	14	0.46	0.46	-1996	18896	26899	1.42	Si
SLV 12	14	0.46	0.59	-2589	18896	34480	1.82	Si
SLV 11	14	0.46	0.59	-2589	18896	34480	1.82	Si
SLV 14	14	0.46	0.82	-3551	18896	46398	2.46	Si
SLV 13	14	0.46	0.82	-3551	18896	46398	2.46	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.46	1.07	-4652	18896	59428	3.15	Si
SLV 8	14	0.46	1.07	-4652	18896	59428	3.15	Si
SLV 9	14	0.46	1.78	-7772	18896	92911	4.92	Si
SLV 10	14	0.46	1.78	-7772	18896	92911	4.92	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 $W_a = 0.05$ $T_a = 0.0739$

Comb.	N top	N base	V orto	σ_0	M*	e*	a0*	aLim	Verifica
SLV 7	-2403	-1985	-228	0	4.715	0.896	0	1011.814	No
SLV 8	-2403	-1985	-228	0	4.715	0.896	0	1011.814	No
SLV 12	-2466	-3231	-202	0.002	4.776	0.897	2.542	1011.814	No
SLV 11	-2466	-3231	-202	0.002	4.776	0.897	2.542	1011.814	No
SLV 10	-5033	-11116	227	0.013	7.324	0.922	20.471	1011.814	No
SLV 9	-5033	-11116	227	0.013	7.324	0.922	20.471	1011.814	No
SLV 5	-4970	-9870	200	0.017	7.261	0.922	26.662	1011.814	No
SLV 6	-4970	-9870	200	0.017	7.261	0.922	26.662	1011.814	No
SLV 3	-3228	-3291	-109	0.028	5.523	0.905	44.86	1108.806	No
SLV 4	-3228	-3291	-109	0.028	5.523	0.905	44.86	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.244	SLV 40	Si
V_SLV	1.416	SLV 82	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	1.424	SLV 15	Si
R_SLV	0	SLV 7	No

Maschio 177

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-626.8	-335.9	-626.8	104.6	L5	L6	440.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-12757	296317	2.07	2096263	7.074	Si
SLV 5	1187	-6878	241777	1.12	1307389	5.407	Si
SLV 76	835	-19566	441237	3.17	2630975	5.963	Si
SLV 76	1187	-10182	319370	1.65	1788057	5.599	Si
SLV 2	835	-12113	268921	1.96	2024603	7.529	Si
SLV 2	1187	-6245	214188	1.01	1204411	5.623	Si
SLV 26	835	-14739	352154	2.39	2293813	6.514	Si
SLV 26	1187	-7899	271098	1.28	1466235	5.409	Si
SLV 34	835	-16588	392403	2.69	2447126	6.236	Si
SLV 34	1187	-8647	282256	1.4	1576711	5.586	Si
SLV 23	835	-14095	324758	2.29	2233349	6.877	Si
SLV 23	1187	-7266	243509	1.18	1368926	5.622	Si
SLV 47	835	-15736	345151	2.55	2380153	6.896	Si
SLV 47	1187	-8412	278891	1.36	1542554	5.531	Si
SLV 70	835	-18755	420486	3.04	2588564	6.156	Si
SLV 70	1187	-10372	323457	1.68	1812769	5.604	Si
SLV 68	835	-17717	400989	2.87	2525957	6.299	Si
SLV 68	1187	-9434	308212	1.53	1687647	5.476	Si
SLV 28	835	-15776	371651	2.56	2383512	6.413	Si
SLV 28	1187	-8837	286343	1.43	1603979	5.602	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	835	-13216	382870	2.14	2400343	6.269	Si
SLV 2	1187	-5775	267952	0.94	1174412	4.383	Si
SLV 7	835	-11934	527405	1.94	2212171	4.194	Si
SLV 7	1187	-6198	72912	1.01	1252832	17.183	Si
SLV 8	835	-11934	527405	1.94	2212171	4.194	Si
SLV 8	1187	-6198	72912	1.01	1252832	17.183	Si
SLV 6	835	-14377	96745	2.33	2562313	26.485	Si
SLV 6	1187	-6725	303418	1.09	1348964	4.446	Si
SLV 4	835	-12484	512068	2.02	2293992	4.48	Si
SLV 4	1187	-5617	198801	0.91	1144865	5.759	Si
SLV 3	835	-12484	512068	2.02	2293992	4.48	Si
SLV 3	1187	-5617	198801	0.91	1144865	5.759	Si
SLV 11	835	-12196	411352	1.98	2251355	5.473	Si
SLV 11	1187	-6854	34159	1.11	1372352	40.175	Si
SLV 1	835	-13216	382870	2.14	2400343	6.269	Si
SLV 1	1187	-5775	267952	0.94	1174412	4.383	Si
SLV 12	835	-12196	411352	1.98	2251355	5.473	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	1187	-6854	34159	1.11	1372352	40.175	Si
SLV 5	835	-14377	96745	2.33	2562313	26.485	Si
SLV 5	1187	-6725	303418	1.09	1348964	4.446	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 8	835	-13480	932	281387		2.19	440.5	0.85	5223			5.61	Si
SLU 8	1187	-7550	926	212401		1.22	440.5	0.72	4433			4.79	Si
SLU 71	835	-18440	1089	386059		2.99	440.5	0.95	5885			5.4	Si
SLU 71	1187	-10106	1082	278836		1.64	440.5	0.77	4774			4.41	Si
SLU 29	835	-15462	1034	337225		2.51	440.5	0.89	5488			5.31	Si
SLU 29	1187	-8571	1030	241722		1.39	440.5	0.74	4569			4.43	Si
SLU 69	835	-18802	1027	395091		3.05	440.5	0.96	5933			5.78	Si
SLU 69	1187	-10396	1020	289278		1.69	440.5	0.78	4812			4.72	Si
SLU 27	835	-15824	972	346256		2.57	440.5	0.9	5536			5.7	Si
SLU 27	1187	-8861	968	252164		1.44	440.5	0.75	4608			4.76	Si
SLU 72	835	-18393	596	411454		2.98	440.5	0.95	5878			9.87	Si
SLU 72	1187	-10083	987	313015		1.63	440.5	0.77	4770			4.83	Si
SLU 79	835	-20289	1066	426308		3.29	440.5	0.99	6131			5.75	Si
SLU 79	1187	-10854	1059	289994		1.76	440.5	0.79	4873			4.6	Si
SLU 37	835	-17311	1011	377473		2.81	440.5	0.93	5734			5.67	Si
SLU 37	1187	-9319	1007	252880		1.51	440.5	0.76	4669			4.63	Si
SLU 50	835	-16458	987	330221		2.67	440.5	0.91	5621			5.7	Si
SLU 50	1187	-9085	978	249515		1.47	440.5	0.75	4637			4.74	Si
SLU 30	835	-15415	540	362620		2.5	440.5	0.89	5481			10.14	Si
SLU 30	1187	-8548	936	275901		1.39	440.5	0.74	4566			4.88	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	835	-12196	8134	411352		1.98	440.5	1.23	7578			0.93	No, Vu<V
SLV 12	1187	-6854	6078	34159		1.11	440.5	1.06	6510			1.07	Si
SLD 11	835	-12833	3609	318913		2.08	440.5	1.25	7706			2.13	Si
SLD 11	1187	-6823	2718	110941		1.11	440.5	1.05	6504			2.39	Si
SLV 7	835	-11934	8100	527405		1.94	440.5	1.22	7526			0.93	No, Vu<V
SLV 7	1187	-6198	5988	72912		1.01	440.5	1.03	6379			1.07	Si
SLV 9	835	-14638	-7452	-19308		2.37	440.5	1.31	8067			1.08	Si
SLV 9	1187	-7381	-5360	264665		1.2	440.5	1.07	6615			1.23	Si
SLV 10	835	-14638	-7452	-19308		2.37	440.5	1.31	8067			1.08	Si
SLV 10	1187	-7381	-5360	264665		1.2	440.5	1.07	6615			1.23	Si
SLV 8	835	-11934	8100	527405		1.94	440.5	1.22	7526			0.93	No, Vu<V
SLV 8	1187	-6198	5988	72912		1.01	440.5	1.03	6379			1.07	Si
SLD 12	835	-12833	3609	318913		2.08	440.5	1.25	7706			2.13	Si
SLD 12	1187	-6823	2718	110941		1.11	440.5	1.05	6504			2.39	Si
SLV 5	835	-14377	-7486	96745		2.33	440.5	1.3	8014			1.07	Si
SLV 5	1187	-6725	-5450	303418		1.09	440.5	1.05	6484			1.19	Si
SLV 11	835	-12196	8134	411352		1.98	440.5	1.23	7578			0.93	No, Vu<V
SLV 11	1187	-6854	6078	34159		1.11	440.5	1.06	6510			1.07	Si
SLV 6	835	-14377	-7486	96745		2.33	440.5	1.3	8014			1.07	Si
SLV 6	1187	-6725	-5450	303418		1.09	440.5	1.05	6484			1.19	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.46	1.28	-7890	28631	49447	1.73	Si
SLV 4	14	0.46	1.28	-7890	28631	49447	1.73	Si
SLV 1	14	0.46	1.33	-8218	28631	51254	1.79	Si
SLV 2	14	0.46	1.33	-8218	28631	51254	1.79	Si
SLV 7	14	0.46	1.49	-9188	28631	56476	1.97	Si
SLV 8	14	0.46	1.49	-9188	28631	56476	1.97	Si
SLV 6	14	0.46	1.67	-10282	28631	62155	2.17	Si
SLV 5	14	0.46	1.67	-10282	28631	62155	2.17	Si
SLV 12	14	0.46	1.72	-10629	28631	63910	2.23	Si
SLV 11	14	0.46	1.72	-10629	28631	63910	2.23	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.03 Ta = 0.1478

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-6725	-14377	83	0.015	9.969	0.92	23.295	1891.088	No
SLV 5	-6725	-14377	83	0.015	9.969	0.92	23.295	1891.088	No
SLV 12	-6854	-12196	-84	0.015	10.099	0.921	23.327	1891.088	No
SLV 11	-6854	-12196	-84	0.015	10.099	0.921	23.327	1891.088	No
SLV 7	-6198	-11934	-78	0.015	9.441	0.916	23.824	1891.088	No
SLV 8	-6198	-11934	-78	0.015	9.441	0.916	23.824	1891.088	No
SLV 10	-7381	-14638	78	0.016	10.628	0.924	24.675	1891.088	No
SLV 9	-7381	-14638	78	0.016	10.628	0.924	24.675	1891.088	No
SLV 15	-7805	-13356	-33	0.02	11.054	0.926	32.084	1891.088	No
SLV 16	-7805	-13356	-33	0.02	11.054	0.926	32.084	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.407	SLU 5	Si
V_SLU	4.412	SLU 71	Si
PF_SLV	4.194	SLV 7	Si
V_SLV	0.929	SLV 7	No
PFFP_SLV	1.727	SLV 3	Si
R_SLV	0.012	SLV 5	No



Maschio 178

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-741.3	-335.9	-854.8	-335.9	L5	L6	113.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 23	925	-4526	24801	1.42	211951	8.546	Si
SLU 23	1105	-4022	-54406	1.27	192789	3.544	Si
SLU 52	925	-5678	26960	1.79	251542	9.33	Si
SLU 52	1105	-4838	-65471	1.52	223241	3.41	Si
SLU 61	925	-6173	21383	1.94	266775	12.476	Si
SLU 61	1105	-5126	-64591	1.61	233313	3.612	Si
SLU 10	925	-4426	25397	1.39	208243	8.199	Si
SLU 10	1105	-3997	-55374	1.26	191809	3.464	Si
SLU 82	925	-6701	22943	2.11	281858	12.285	Si
SLU 82	1105	-5739	-70040	1.81	253472	3.619	Si
SLU 31	925	-4955	26957	1.56	227374	8.435	Si
SLU 31	1105	-4609	-60823	1.45	214999	3.535	Si
SLU 2	925	-3997	23241	1.26	191825	8.254	Si
SLU 2	1105	-3410	-48957	1.07	168023	3.432	Si
SLU 44	925	-5249	24803	1.65	237477	9.574	Si
SLU 44	1105	-4251	-59054	1.34	201619	3.414	Si
SLU 73	925	-6206	28519	1.95	267772	9.389	Si
SLU 73	1105	-5450	-70920	1.71	244174	3.443	Si
SLU 65	925	-5778	26363	1.82	254701	9.661	Si
SLU 65	1105	-4863	-64503	1.53	224128	3.475	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	925	-873	264138	0	0	0	No, e>l/2
SLV 3	1105	-4193	-191537	1.32	212278	1.108	Si
SLV 4	925	-873	264138	0	0	0	No, e>l/2
SLV 4	1105	-4193	-191537	1.32	212278	1.108	Si
SLV 7	925	2683	84055	0	0	0	No, Trazione
SLV 7	1105	-533	-23935	0.17	29831	1.246	Si
SLV 2	925	-5145	264680	1.62	253273	0.957	No, M>Mu
SLV 2	1105	-6446	-233614	2.03	305089	1.306	Si
SLV 12	925	1458	-69759	0	0	0	No, Trazione
SLV 12	1105	352	77647	0	0	0	No, Trazione
SLV 16	925	-4954	-248576	1.56	245261	0.987	No, M>Mu
SLV 16	1105	-1244	147068	0	0	0	No, e>l/2
SLV 11	925	1458	-69759	0	0	0	No, Trazione
SLV 11	1105	352	77647	0	0	0	No, Trazione
SLV 15	925	-4954	-248576	1.56	245261	0.987	No, M>Mu
SLV 15	1105	-1244	147068	0	0	0	No, e>l/2
SLV 1	925	-5145	264680	1.62	253273	0.957	No, M>Mu
SLV 1	1105	-6446	-233614	2.03	305089	1.306	Si
SLV 8	925	2683	84055	0	0	0	No, Trazione
SLV 8	1105	-533	-23935	0.17	29831	1.246	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	925	-5450	300	21381		1.71	113.5	0.78	2492			8.3	Si
SLU 40	1105	-4898	47	-59943		1.54	113.5	0.76	2419			51.96	Si
SLU 52	925	-5678	341	26960		1.79	113.5	0.79	2523			7.4	Si
SLU 52	1105	-4838	167	-65471		1.52	113.5	0.76	2411			14.47	Si
SLU 82	925	-6701	341	22943		2.11	113.5	0.84	2659			7.79	Si
SLU 82	1105	-5739	79	-70040		1.81	113.5	0.8	2531			31.95	Si
SLU 65	925	-5778	351	26363		1.82	113.5	0.8	2536			7.22	Si
SLU 65	1105	-4863	133	-64503		1.53	113.5	0.76	2414			18.12	Si
SLU 10	925	-4426	300	25397		1.39	113.5	0.74	2356			7.86	Si
SLU 10	1105	-3997	134	-55374		1.26	113.5	0.72	2298			17.16	Si
SLU 44	925	-5249	319	24803		1.65	113.5	0.78	2465			7.74	Si
SLU 44	1105	-4251	179	-59054		1.34	113.5	0.73	2332			13.02	Si
SLU 73	925	-6206	373	28519		1.95	113.5	0.82	2593			6.95	Si
SLU 73	1105	-5450	121	-70920		1.71	113.5	0.78	2492			20.66	Si
SLU 31	925	-4955	332	26957		1.56	113.5	0.76	2426			7.3	Si
SLU 31	1105	-4609	88	-60823		1.45	113.5	0.75	2380			27.06	Si
SLU 23	925	-4526	310	24801		1.42	113.5	0.75	2369			7.64	Si
SLU 23	1105	-4022	101	-54406		1.27	113.5	0.72	2302			22.9	Si
SLU 2	925	-3997	278	23241		1.26	113.5	0.72	2299			8.28	Si
SLU 2	1105	-3410	146	-48957		1.07	113.5	0.7	2220			15.16	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	925	1458	-1802	-69759		0	0	0.83	0			0	No, Vu<V
SLV 11	1105	352	-407	77647		0	0	0.83	0			0	No, Vu<V
SLV 1	925	-5145	4966	264680		11.55	15.9	1.63	724			0.15	No, Vu<V
SLV 1	1105	-6446	1606	-233614		3.74	61.53	1.58	2725			1.7	Si
SLV 8	925	2683	953	84055		0	0	0.83	0			0	No, Vu<V
SLV 8	1105	-533	537	-23935		0.54	35.52	0.94	935			1.74	Si
SLV 4	925	-873	4597	264138		0	0	0.83	0			0	No, Vu<V
SLV 4	1105	-4193	1622	-191537		4.51	33.22	1.63	1512			0.93	No, Vu<V
SLV 15	925	-4954	-4586	-248576		8.98	19.71	1.63	897			0.2	No, Vu<V
SLV 15	1105	-1244	-1527	147068		0	0	0.83	0			0	No, Vu<V
SLV 16	925	-4954	-4586	-248576		8.98	19.71	1.63	897			0.2	No, Vu<V
SLV 16	1105	-1244	-1527	147068		0	0	0.83	0			0	No, Vu<V
SLV 12	925	1458	-1802	-69759		0	0	0.83	0			0	No, Vu<V
SLV 12	1105	352	-407	77647		0	0	0.83	0			0	No, Vu<V
SLV 3	925	-873	4597	264138		0	0	0.83	0			0	No, Vu<V
SLV 3	1105	-4193	1622	-191537		4.51	33.22	1.63	1512			0.93	No, Vu<V
SLV 2	925	-5145	4966	264680		11.55	15.9	1.63	724			0.15	No, Vu<V
SLV 2	1105	-6446	1606	-233614		3.74	61.53	1.58	2725			1.7	Si
SLV 7	925	2683	953	84055		0	0	0.83	0			0	No, Vu<V
SLV 7	1105	-533	537	-23935		0.54	35.52	0.94	935			1.74	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.46	0	489	13792	0	0	No, Trazione
SLV 12	14	0.46	0	-859	13792	0	0	No, e>t/2
SLV 11	14	0.46	0	-859	13792	0	0	No, e>t/2
SLV 7	14	0.46	0	489	13792	0	0	No, Trazione
SLV 3	14	0.46	0.34	-1082	13792	14724	1.07	Si
SLV 4	14	0.46	0.34	-1082	13792	14724	1.07	Si
SLV 1	14	0.46	1.19	-3777	13792	47731	3.46	Si
SLV 2	14	0.46	1.19	-3777	13792	47731	3.46	Si
SLV 16	14	0.46	1.75	-5576	13792	66854	4.85	Si
SLV 15	14	0.46	1.75	-5576	13792	66854	4.85	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	713	1195	-76	0	0	0	0	1011.814	No, Trazione
SLV 11	713	1195	-76	0	0	0	0	1011.814	No, Trazione
SLV 8	-80	-173	-121	0	2.064	0.967	0	1011.814	No
SLV 7	-80	-173	-121	0	2.064	0.967	0	1011.814	No
SLV 13	-2565	-4164	102	0.022	4.239	0.908	35.777	1108.806	No
SLV 14	-2565	-4164	102	0.022	4.239	0.908	35.777	1108.806	No
SLV 4	-3267	-5514	-107	0.024	4.938	0.917	38.328	1108.806	No
SLV 3	-3267	-5514	-107	0.024	4.938	0.917	38.328	1108.806	No
SLV 9	-5753	-9505	117	0.028	7.445	0.94	43.948	1011.814	No
SLV 10	-5753	-9505	117	0.028	7.445	0.94	43.948	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.41	SLU 52	Si
V_SLU	6.948	SLU 73	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 8	No
R_SLV	0	SLV 12	No

Maschio 179

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	104.6	-515.8	581.1	L5	L6	476.5	14	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 72	835	-26377	124177	3.95	3233918	26.043	Si
SLU 72	1187	-18470	615866	2.77	2904811	4.717	Si
SLU 71	835	-26373	144633	3.95	3233892	22.359	Si
SLU 71	1187	-18445	632620	2.76	2902889	4.589	Si
SLU 29	835	-23176	207075	3.47	3166717	15.293	Si
SLU 29	1187	-16768	666461	2.51	2762282	4.145	Si
SLU 27	835	-23075	151572	3.46	3163133	20.869	Si
SLU 27	1187	-16506	588645	2.47	2738090	4.652	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 38	835	-24825	106559	3.72	3212564	30.148	Si
SLU 38	1187	-17384	601783	2.61	2816794	4.681	Si
SLU 37	835	-24821	127015	3.72	3212485	25.292	Si
SLU 37	1187	-17359	618537	2.6	2814632	4.55	Si
SLU 28	835	-23079	131116	3.46	3163270	24.126	Si
SLU 28	1187	-16532	571891	2.48	2740440	4.792	Si
SLU 9	835	-20187	169786	3.03	3022879	17.804	Si
SLU 9	1187	-14675	562450	2.2	2552146	4.538	Si
SLU 30	835	-23180	186618	3.47	3166851	16.97	Si
SLU 30	1187	-16794	649706	2.52	2764573	4.255	Si
SLU 8	835	-20184	190242	3.03	3022646	15.888	Si
SLU 8	1187	-14650	579204	2.2	2549387	4.402	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 10	835	-13847	-362868	2.08	2738576	7.547	Si
SLD 10	1187	-8001	-7500	1.2	1719091	229.22	Si
SLV 10	835	-11706	-577171	1.75	2388431	4.138	Si
SLV 10	1187	-6918	-21733	1.04	1508274	69.4	Si
SLD 9	835	-13847	-362868	2.08	2738576	7.547	Si
SLD 9	1187	-8001	-7500	1.2	1719091	229.22	Si
SLV 9	835	-11706	-577171	1.75	2388431	4.138	Si
SLV 9	1187	-6918	-21733	1.04	1508274	69.4	Si
SLD 6	835	-13313	-398428	2	2653758	6.661	Si
SLD 6	1187	-7950	-3737	1.19	1709317	457.397	Si
SLV 1	835	-12021	-468803	1.8	2441614	5.208	Si
SLV 1	1187	-7989	6332	1.2	1716835	271.149	Si
SLD 5	835	-13313	-398428	2	2653758	6.661	Si
SLD 5	1187	-7950	-3737	1.19	1709317	457.397	Si
SLV 5	835	-10455	-660166	1.57	2171363	3.289	Si
SLV 5	1187	-6788	-13949	1.02	1482637	106.288	Si
SLV 6	835	-10455	-660166	1.57	2171363	3.289	Si
SLV 6	1187	-6788	-13949	1.02	1482637	106.288	Si
SLV 2	835	-12021	-468803	1.8	2441614	5.208	Si
SLV 2	1187	-7989	6332	1.2	1716835	271.149	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	835	-23075	-359	151572		3.46	476.5	1.02	6783			18.91	Si
SLU 27	1187	-16506	773	588645		2.47	476.5	0.89	5907			7.64	Si
SLU 36	835	-24724	-224	51057		3.71	476.5	1.05	7003			31.26	Si
SLU 36	1187	-17122	788	523967		2.57	476.5	0.9	5989			7.6	Si
SLU 29	835	-23176	-423	207075		3.47	476.5	1.02	6796			16.07	Si
SLU 29	1187	-16768	792	666461		2.51	476.5	0.89	5942			7.51	Si
SLU 41	835	-22474	45	-96868		3.37	476.5	1	6703			149.41	Si
SLU 41	1187	-14292	700	301857		2.14	476.5	0.84	5612			8.01	Si
SLU 35	835	-24720	-145	71513		3.71	476.5	1.05	7002			48.18	Si
SLU 35	1187	-17097	901	540722		2.56	476.5	0.9	5986			6.64	Si
SLU 38	835	-24825	-288	106559		3.72	476.5	1.05	7016			24.35	Si
SLU 38	1187	-17384	807	601783		2.61	476.5	0.9	6024			7.47	Si
SLU 77	835	-27918	-234	9071		4.18	476.5	1.08	7227			30.92	Si
SLU 77	1187	-18774	826	506881		2.81	476.5	0.93	6209			7.52	Si
SLU 37	835	-24821	-209	127015		3.72	476.5	1.05	7016			33.49	Si
SLU 37	1187	-17359	919	618537		2.6	476.5	0.9	6021			6.55	Si
SLU 79	835	-28019	-298	64574		4.2	476.5	1.08	7227			24.26	Si
SLU 79	1187	-19036	844	584697		2.85	476.5	0.94	6244			7.4	Si
SLU 16	835	-21829	-302	110183		3.27	476.5	0.99	6617			21.94	Si
SLU 16	1187	-15241	689	531281		2.28	476.5	0.86	5738			8.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	835	-20352	8088	246231		3.05	476.5	1.44	9630			1.19	Si
SLV 12	1187	-10779	6615	10266		1.62	476.5	1.16	7715			1.17	Si
SLV 11	835	-20352	8088	246231		3.05	476.5	1.44	9630			1.19	Si
SLV 11	1187	-10779	6615	10266		1.62	476.5	1.16	7715			1.17	Si
SLV 1	835	-12021	-5159	-468803		1.8	476.5	1.19	7963			1.54	Si
SLV 1	1187	-7989	-3043	6332		1.2	476.5	1.07	7157			2.35	Si
SLV 7	835	-19100	6374	163236		2.86	476.5	1.41	9379			1.47	Si
SLV 7	1187	-10650	5818	18050		1.6	476.5	1.15	7689			1.32	Si
SLV 8	835	-19100	6374	163236		2.86	476.5	1.41	9379			1.47	Si
SLV 8	1187	-10650	5818	18050		1.6	476.5	1.15	7689			1.32	Si
SLV 5	835	-10455	-8292	-660166		1.57	476.5	1.15	7650			0.92	No, Vu<V
SLV 5	1187	-6788	-6384	-13949		1.02	476.5	1.04	6917			1.08	Si
SLV 2	835	-12021	-5159	-468803		1.8	476.5	1.19	7963			1.54	Si
SLV 2	1187	-7989	-3043	6332		1.2	476.5	1.07	7157			2.35	Si
SLV 10	835	-11706	-6578	-577171		1.75	476.5	1.18	7900			1.2	Si
SLV 10	1187	-6918	-5588	-21733		1.04	476.5	1.04	6943			1.24	Si
SLV 6	835	-10455	-8292	-660166		1.57	476.5	1.15	7650			0.92	No, Vu<V
SLV 6	1187	-6788	-6384	-13949		1.02	476.5	1.04	6917			1.08	Si
SLV 9	835	-11706	-6578	-577171		1.75	476.5	1.18	7900			1.2	Si
SLV 9	1187	-6918	-5588	-21733		1.04	476.5	1.04	6943			1.24	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.46	1.31	-8733	30971	54579	1.76	Si
SLV 9	14	0.46	1.31	-8733	30971	54579	1.76	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.46	1.33	-8886	30971	55418	1.79	Si
SLV 5	14	0.46	1.33	-8886	30971	55418	1.79	Si
SLV 13	14	0.46	1.63	-10897	30971	66083	2.13	Si
SLV 14	14	0.46	1.63	-10897	30971	66083	2.13	Si
SLV 1	14	0.46	1.71	-11407	30971	68675	2.22	Si
SLV 2	14	0.46	1.71	-11407	30971	68675	2.22	Si
SLV 16	14	0.46	1.93	-12906	30971	76036	2.46	Si
SLV 15	14	0.46	1.93	-12906	30971	76036	2.46	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 $W_a = 0.03$ $T_a = 0.1478$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-10650	-19100	10	0.022	14.185	0.935	34.842	1891.088	No
SLV 8	-10650	-19100	10	0.022	14.185	0.935	34.842	1891.088	No
SLV 12	-10779	-20352	8	0.023	14.316	0.936	35.04	1891.088	No
SLV 11	-10779	-20352	8	0.023	14.316	0.936	35.04	1891.088	No
SLV 3	-9148	-14615	6	0.023	12.668	0.929	36.118	1891.088	No
SLV 4	-9148	-14615	6	0.023	12.668	0.929	36.118	1891.088	No
SLV 16	-9579	-18786	-1	0.023	13.103	0.931	36.502	1891.088	No
SLV 15	-9579	-18786	-1	0.023	13.103	0.931	36.502	1891.088	No
SLV 14	-8420	-16192	-6	0.023	11.935	0.926	36.527	1891.088	No
SLV 13	-8420	-16192	-6	0.023	11.935	0.926	36.527	1891.088	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.145	SLU 29	Si
V_SLU	6.549	SLU 37	Si
PF_SLV	3.289	SLV 5	Si
V_SLV	0.923	SLV 5	No
PFFP_SLV	1.762	SLV 9	Si
R_SLV	0.018	SLV 7	No

Maschio 180

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s.	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	581.1	-515.8	600.6	L5	L6	19.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 37	1035	-4373	9995	8.01	715	0.072	No, M>Mu
SLU 37	1115	-4509	14654	8.26	0	0	No, Rottura per schiacciamento
SLU 70	1035	-4383	10063	8.03	617	0.061	No, M>Mu
SLU 70	1115	-4485	14463	8.21	0	0	No, Rottura per schiacciamento
SLU 72	1035	-4598	10690	8.42	0	0	No, Rottura per schiacciamento
SLU 72	1115	-4696	15080	8.6	0	0	No, Rottura per schiacciamento
SLU 78	1035	-4335	9564	7.94	1073	0.112	No, M>Mu
SLU 78	1115	-4477	14683	8.2	0	0	No, Rottura per schiacciamento
SLU 30	1035	-4374	10302	8.01	708	0.069	No, M>Mu
SLU 30	1115	-4475	14350	8.2	0	0	No, Rottura per schiacciamento
SLU 29	1035	-4422	10494	8.1	250	0.024	No, M>Mu
SLU 29	1115	-4517	14434	8.27	0	0	No, Rottura per schiacciamento
SLU 71	1035	-4646	10882	8.51	0	0	No, Rottura per schiacciamento
SLU 71	1115	-4738	15164	8.68	0	0	No, Rottura per schiacciamento
SLU 69	1035	-4432	10255	8.12	156	0.015	No, M>Mu
SLU 69	1115	-4527	14547	8.29	0	0	No, Rottura per schiacciamento
SLU 38	1035	-4325	9803	7.92	1163	0.119	No, M>Mu
SLU 38	1115	-4467	14570	8.18	0	0	No, Rottura per schiacciamento
SLU 77	1035	-4383	9756	8.03	624	0.064	No, M>Mu
SLU 77	1115	-4519	14767	8.28	0	0	No, Rottura per schiacciamento

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 6	1035	-1019	350	1.87	8415	24.027	Si
SLD 6	1115	-1208	5360	2.21	9644	1.799	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	1035	-2698	8809	4.94	15667	1.779	Si
SLV 12	1115	-2419	5089	4.43	15033	2.954	Si
SLV 10	1035	-507	-2265	0.93	4567	2.016	Si
SLV 10	1115	-849	5505	1.55	7222	1.312	Si
SLV 2	1035	-881	-162	1.61	7457	46.074	Si
SLV 2	1115	-1074	5111	1.97	8788	1.72	Si
SLV 1	1035	-881	-162	1.61	7457	46.074	Si
SLV 1	1115	-1074	5111	1.97	8788	1.72	Si
SLV 5	1035	-326	-3083	0.6	3021	0.98	No, M>Mu
SLV 5	1115	-699	5390	1.28	6103	1.132	Si
SLV 9	1035	-507	-2265	0.93	4567	2.016	Si
SLV 9	1115	-849	5505	1.55	7222	1.312	Si
SLD 5	1035	-1019	350	1.87	8415	24.027	Si
SLD 5	1115	-1208	5360	2.21	9644	1.799	Si
SLV 6	1035	-326	-3083	0.6	3021	0.98	No, M>Mu
SLV 6	1115	-699	5390	1.28	6103	1.132	Si
SLV 11	1035	-2698	8809	4.94	15667	1.779	Si
SLV 11	1115	-2419	5089	4.43	15033	2.954	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1035	-4325	374	9803		7.92	19.5	1.08	591			1.58	Si
SLU 38	1115	-4467	-547	14570		8.2	19.46	1.08	590			1.08	Si
SLU 78	1035	-4335	364	9564		7.94	19.5	1.08	591			1.63	Si
SLU 78	1115	-4477	-553	14683		8.24	19.41	1.08	589			1.07	Si
SLU 70	1035	-4383	384	10063		8.03	19.5	1.08	591			1.54	Si
SLU 70	1115	-4485	-543	14463		8.21	19.5	1.08	591			1.09	Si
SLU 37	1035	-4373	381	9995		8.01	19.5	1.08	591			1.55	Si
SLU 37	1115	-4509	-550	14654		8.26	19.5	1.08	591			1.08	Si
SLU 71	1035	-4646	415	10882		8.51	19.5	1.08	591			1.43	Si
SLU 71	1115	-4738	-569	15164		8.68	19.5	1.08	591			1.04	Si
SLU 80	1035	-4550	388	10192		8.33	19.5	1.08	591			1.53	Si
SLU 80	1115	-4688	-575	15300		8.6	19.46	1.08	590			1.03	Si
SLU 79	1035	-4598	395	10384		8.42	19.5	1.08	591			1.5	Si
SLU 79	1115	-4730	-578	15384		8.67	19.49	1.08	591			1.02	Si
SLU 69	1035	-4432	391	10255		8.12	19.5	1.08	591			1.51	Si
SLU 69	1115	-4527	-546	14547		8.29	19.5	1.08	591			1.08	Si
SLU 72	1035	-4598	408	10690		8.42	19.5	1.08	591			1.45	Si
SLU 72	1115	-4696	-566	15080		8.6	19.5	1.08	591			1.05	Si
SLU 77	1035	-4383	371	9756		8.03	19.5	1.08	591			1.59	Si
SLU 77	1115	-4519	-556	14767		8.3	19.45	1.08	590			1.06	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 6	1035	-1019	32	350		1.87	19.5	1.21	659			20.28	Si
SLD 6	1115	-1208	-198	5360		2.71	15.94	1.37	613			3.1	Si
SLV 2	1035	-881	19	-162		1.61	19.5	1.16	631			33.31	Si
SLV 2	1115	-1074	-196	5111		2.56	14.98	1.35	564			2.88	Si
SLV 1	1035	-881	19	-162		1.61	19.5	1.16	631			33.31	Si
SLV 1	1115	-1074	-196	5111		2.56	14.98	1.35	564			2.88	Si
SLV 5	1035	-326	-66	-3083		13.55	0.86	1.63	39			0.59	No, Vu<V
SLV 5	1115	-699	-192	5390		4.08	6.12	1.63	279			1.45	Si
SLV 10	1035	-507	-42	-2265		1.14	15.85	1.06	471			11.23	Si
SLV 10	1115	-849	-193	5505		3.1	9.79	1.45	398			2.06	Si
SLV 12	1035	-2698	280	8809		4.95	19.45	1.63	885			3.16	Si
SLV 12	1115	-2419	-207	5089		4.43	19.5	1.63	887			4.28	Si
SLD 5	1035	-1019	32	350		1.87	19.5	1.21	659			20.28	Si
SLD 5	1115	-1208	-198	5360		2.71	15.94	1.37	613			3.1	Si
SLV 9	1035	-507	-42	-2265		1.14	15.85	1.06	471			11.23	Si
SLV 9	1115	-849	-193	5505		3.1	9.79	1.45	398			2.06	Si
SLV 11	1035	-2698	280	8809		4.95	19.45	1.63	885			3.16	Si
SLV 11	1115	-2419	-207	5089		4.43	19.5	1.63	887			4.28	Si
SLV 6	1035	-326	-66	-3083		13.55	0.86	1.63	39			0.59	No, Vu<V
SLV 6	1115	-699	-192	5390		4.08	6.12	1.63	279			1.45	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.46	0	-130	2425	0	0	No, e>t/2
SLV 5	14	0.46	0	-130	2425	0	0	No, e>t/2
SLV 9	14	0.46	0.41	-226	2425	3052	1.26	Si
SLV 10	14	0.46	0.41	-226	2425	3052	1.26	Si
SLV 1	14	0.46	0.84	-460	2425	5995	2.47	Si
SLV 2	14	0.46	0.84	-460	2425	5995	2.47	Si
SLV 14	14	0.46	1.43	-779	2425	9628	3.97	Si
SLV 13	14	0.46	1.43	-779	2425	9628	3.97	Si
SLV 4	14	0.46	1.54	-838	2425	10262	4.23	Si
SLV 3	14	0.46	1.54	-838	2425	10262	4.23	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-398	415	-2	0	0	0	0	1011.814	No, Trazione
SLV 5	-398	415	-2	0	0	0	0	1011.814	No, Trazione
SLV 2	-531	336	4	0	0	0	0	1108.806	No, Trazione
SLV 1	-531	336	4	0	0	0	0	1108.806	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-711	-1074	-6	0.041	0.999	0.927	63.615	1108.806	No
SLV 14	-711	-1074	-6	0.041	0.999	0.927	63.615	1108.806	No
SLV 3	-698	-155	6	0.041	0.986	0.926	64.29	1108.806	No
SLV 4	-698	-155	6	0.041	0.986	0.926	64.29	1108.806	No
SLV 15	-879	-1565	-4	0.043	1.169	0.936	66.164	1108.806	No
SLV 16	-879	-1565	-4	0.043	1.169	0.936	66.164	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 29	No
V_SLU	1.023	SLU 79	Si
PF_SLV	0.98	SLV 5	No
V_SLV	0.593	SLV 5	No
PFFP_SLV	0	SLV 5	No
R_SLV	0	SLV 6	No

Maschio 181

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	650.6	-515.8	652.1	L5	L6	1.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 50	1035	-703	-2	16.75	0	0	No, Rottura per schiacciamento
SLU 50	1115	-695	3	16.56	0	0	No, Rottura per schiacciamento
SLU 51	1035	-695	-2	16.55	0	0	No, Rottura per schiacciamento
SLU 51	1115	-687	3	16.36	0	0	No, Rottura per schiacciamento
SLU 57	1035	-649	-2	15.46	0	0	No, Rottura per schiacciamento
SLU 57	1115	-641	3	15.27	0	0	No, Rottura per schiacciamento
SLU 58	1035	-696	-2	16.57	0	0	No, Rottura per schiacciamento
SLU 58	1115	-688	3	16.38	0	0	No, Rottura per schiacciamento
SLU 53	1035	-437	-1	10.42	0	0	No, Rottura per schiacciamento
SLU 53	1115	-429	2	10.23	0	0	No, Rottura per schiacciamento
SLU 59	1035	-688	-2	16.37	0	0	No, Rottura per schiacciamento
SLU 59	1115	-680	3	16.18	0	0	No, Rottura per schiacciamento
SLU 55	1035	-462	-2	10.99	0	0	No, Rottura per schiacciamento
SLU 55	1115	-454	2	10.8	0	0	No, Rottura per schiacciamento
SLU 56	1035	-658	-2	15.66	0	0	No, Rottura per schiacciamento
SLU 56	1115	-650	3	15.47	0	0	No, Rottura per schiacciamento
SLU 42	1035	-524	-2	12.48	0	0	No, Rottura per schiacciamento
SLU 42	1115	-518	3	12.33	0	0	No, Rottura per schiacciamento
SLU 54	1035	-429	-1	10.21	0	0	No, Rottura per schiacciamento
SLU 54	1115	-421	2	10.02	0	0	No, Rottura per schiacciamento

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 4	1035	-129	-85	3.07	72	0.852	No, M>Mu
SLV 4	1115	-325	74	7.73	89	1.202	Si
SLV 3	1035	-129	-85	3.07	72	0.852	No, M>Mu
SLV 3	1115	-325	74	7.73	89	1.202	Si
SLV 11	1035	-351	-135	8.36	83	0.618	No, M>Mu
SLV 11	1115	-613	74	14.6	0	0	No, Rottura per schiacciamento
SLV 5	1035	-154	133	0	0	0	No, e>l/2
SLV 5	1115	121	-71	0	0	0	No, Trazione
SLV 6	1035	-154	133	0	0	0	No, e>l/2
SLV 6	1115	121	-71	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	1035	-351	-135	8.36	83	0.618	No, M>Mu
SLV 12	1115	-613	74	14.6	0	0	No, Rottura per schiacciamento
SLV 9	1035	-238	157	5.66	96	0.608	No, M>Mu
SLV 9	1115	104	-100	0	0	0	No, Trazione
SLV 7	1035	-267	-159	6.35	96	0.604	No, M>Mu
SLV 7	1115	-596	102	14.19	0	0	No, Rottura per schiacciamento
SLV 10	1035	-238	157	5.66	96	0.608	No, M>Mu
SLV 10	1115	104	-100	0	0	0	No, Trazione
SLV 8	1035	-267	-159	6.35	96	0.604	No, M>Mu
SLV 8	1115	-596	102	14.19	0	0	No, Rottura per schiacciamento

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	1035	-745	0	-2	17.74	1.5	1.08	46				590.53	Si
SLU 78	1115	-737	0	4	17.54	1.5	1.08	46				590.45	Si
SLU 37	1035	-756	0	-2	18	1.5	1.08	46				589.31	Si
SLU 37	1115	-750	0	4	17.86	1.5	1.08	46				589.16	Si
SLU 79	1035	-792	0	-2	18.85	1.5	1.08	46				572.56	Si
SLU 79	1115	-784	0	4	18.65	1.5	1.08	46				572.42	Si
SLU 80	1035	-783	0	-2	18.65	1.5	1.08	46				567.26	Si
SLU 80	1115	-775	0	4	18.45	1.5	1.08	46				567.12	Si
SLU 72	1035	-790	0	-2	18.82	1.5	1.08	46				590.28	Si
SLU 72	1115	-782	0	4	18.63	1.5	1.08	46				590.13	Si
SLU 36	1035	-710	0	-2	16.89	1.5	1.08	46				608.37	Si
SLU 36	1115	-703	0	4	16.74	1.5	1.08	46				608.28	Si
SLU 71	1035	-799	0	-2	19.02	1.5	1.08	46				596.02	Si
SLU 71	1115	-791	0	4	18.83	1.5	1.08	46				595.87	Si
SLU 38	1035	-748	0	-2	17.8	1.5	1.08	46				583.69	Si
SLU 38	1115	-741	0	4	17.65	1.5	1.08	46				583.55	Si
SLU 30	1035	-755	0	-2	17.98	1.5	1.08	46				608.1	Si
SLU 30	1115	-749	0	4	17.83	1.5	1.08	46				607.94	Si
SLU 77	1035	-753	0	-2	17.94	1.5	1.08	46				596.29	Si
SLU 77	1115	-745	0	4	17.75	1.5	1.08	46				596.2	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1035	-129	0	-85	0	0	0	0.83	0			0	No, Vu<V
SLV 4	1115	-325	5	74	7.73	1.5	1.63	68				14.23	Si
SLV 3	1035	-129	0	-85	0	0	0	0.83	0			0	No, Vu<V
SLV 3	1115	-325	5	74	7.73	1.5	1.63	68				14.23	Si
SLV 5	1035	-154	-9	133	0	0	0	0.83	0			0	No, Vu<V
SLV 5	1115	121	-6	-71	0	0	0	0.83	0			0	No, Vu<V
SLV 10	1035	-238	-7	157	0	0	0	0.83	0			0	No, Vu<V
SLV 10	1115	104	-8	-100	0	0	0	0.83	0			0	No, Vu<V
SLV 8	1035	-267	7	-159	20.58	0.46	1.63	21				2.98	Si
SLV 8	1115	-596	8	102	14.19	1.5	1.63	68				8.82	Si
SLV 6	1035	-154	-9	133	0	0	0	0.83	0			0	No, Vu<V
SLV 6	1115	121	-6	-71	0	0	0	0.83	0			0	No, Vu<V
SLV 9	1035	-238	-7	157	0	0	0	0.83	0			0	No, Vu<V
SLV 9	1115	104	-8	-100	0	0	0	0.83	0			0	No, Vu<V
SLV 12	1035	-351	9	-135	11.41	1.1	1.63	50				5.73	Si
SLV 12	1115	-613	6	74	14.6	1.5	1.63	68				11.2	Si
SLV 7	1035	-267	7	-159	20.58	0.46	1.63	21				2.98	Si
SLV 7	1115	-596	8	102	14.19	1.5	1.63	68				8.82	Si
SLV 11	1035	-351	9	-135	11.41	1.1	1.63	50				5.73	Si
SLV 11	1115	-613	6	74	14.6	1.5	1.63	68				11.2	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.46	0	-12	187	0	0	No, e>t/2
SLV 1	14	0.46	0	-3	187	0	0	No, e>t/2
SLV 14	14	0.46	0	-12	187	0	0	No, e>t/2
SLV 3	14	0.46	0	-7	187	0	0	No, e>t/2
SLV 6	14	0.46	0	-1	187	0	0	No, e>t/2
SLV 5	14	0.46	0	-1	187	0	0	No, e>t/2
SLV 9	14	0.46	0	-4	187	0	0	No, e>t/2
SLV 4	14	0.46	0	-7	187	0	0	No, e>t/2
SLV 2	14	0.46	0	-3	187	0	0	No, e>t/2
SLV 10	14	0.46	0	-4	187	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-7	62	-1	0	0	0	0	1011.814	No, Trazione
SLV 9	-7	62	-1	0	0	0	0	1011.814	No, Trazione
SLV 2	-9	-85	2	0	0.033	0.892	0	1108.806	No
SLV 14	-19	57	-2	0	0	0	0	1108.806	No, Trazione
SLV 13	-19	57	-2	0	0	0	0	1108.806	No, Trazione
SLV 1	-9	-85	2	0	0.033	0.892	0	1108.806	No
SLV 6	-4	20	0	0	0	0	0	1011.814	No, Trazione
SLV 5	-4	20	0	0	0	0	0	1011.814	No, Trazione
SLV 3	-16	-133	2	0	0.039	0.89	0	1108.806	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-16	-133	2	0	0.039	0.89	0	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 3	No
V_SLU	567.118	SLU 80	Si
PF_SLV	0	SLV 10	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

Maschio 182

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-600.8	-335.9	-651.3	-335.9	L5	L6	50.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 19	1035	-2323	-5136	1.64	46831	9.118	Si
SLU 19	1115	-2005	-10906	1.42	41820	3.835	Si
SLU 82	1035	-3169	-7302	2.24	58001	7.944	Si
SLU 82	1115	-2747	-14368	1.94	52817	3.676	Si
SLU 73	1035	-2911	-6886	2.06	54931	7.977	Si
SLU 73	1115	-2478	-13325	1.75	49102	3.685	Si
SLU 40	1035	-2645	-5882	1.87	51449	8.747	Si
SLU 40	1115	-2330	-12379	1.65	46936	3.792	Si
SLU 31	1035	-2387	-5466	1.69	47786	8.742	Si
SLU 31	1115	-2061	-11336	1.46	42729	3.769	Si
SLU 61	1035	-2847	-6556	2.01	54122	8.255	Si
SLU 61	1115	-2422	-12894	1.71	48294	3.745	Si
SLU 60	1035	-3049	-7125	2.16	56606	7.944	Si
SLU 60	1115	-2624	-13168	1.86	51164	3.885	Si
SLU 81	1035	-3370	-7871	2.38	60201	7.649	Si
SLU 81	1115	-2949	-14642	2.09	55398	3.784	Si
SLU 52	1035	-2590	-6141	1.83	50689	8.254	Si
SLU 52	1115	-2153	-11851	1.52	44196	3.729	Si
SLU 10	1035	-2066	-4721	1.46	42805	9.067	Si
SLU 10	1115	-1736	-9863	1.23	37230	3.775	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 6	1035	-2494	-1100	1.76	53881	49	Si
SLV 6	1115	-585	-17132	0	0	0	No, $e \geq l/2$
SLD 2	1035	-1558	12140	1.1	35785	2.948	Si
SLD 2	1115	-1499	-25825	1.06	34563	1.338	Si
SLV 3	1035	-131	41387	0	0	0	No, $e \geq l/2$
SLV 3	1115	-1576	-50482	0	0	0	No, $e \geq l/2$
SLV 4	1035	-131	41387	0	0	0	No, $e \geq l/2$
SLV 4	1115	-1576	-50482	0	0	0	No, $e \geq l/2$
SLV 5	1035	-2494	-1100	1.76	53881	49	Si
SLV 5	1115	-585	-17132	0	0	0	No, $e \geq l/2$
SLV 8	1035	-929	16222	0.66	22198	1.368	Si
SLV 8	1115	-2873	-25439	2.03	60482	2.378	Si
SLD 1	1035	-1558	12140	1.1	35785	2.948	Si
SLD 1	1115	-1499	-25825	1.06	34563	1.338	Si
SLV 2	1035	-601	36191	0	0	0	No, $e \geq l/2$
SLV 2	1115	-889	-47990	0	0	0	No, $e \geq l/2$
SLV 7	1035	-929	16222	0.66	22198	1.368	Si
SLV 7	1115	-2873	-25439	2.03	60482	2.378	Si
SLV 1	1035	-601	36191	0	0	0	No, $e \geq l/2$
SLV 1	1115	-889	-47990	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 37	1035	-3053	-225	-8306		2.16	50.5	0.84	1193			5.3	Si
SLU 37	1115	-2725	121	-11019		1.93	50.5	0.81	1149			9.53	Si
SLU 50	1035	-2968	-231	-8897		2.1	50.5	0.84	1181			5.12	Si
SLU 50	1115	-2503	78	-9527		1.77	50.5	0.79	1119			14.4	Si
SLU 79	1035	-3577	-251	-9726		2.53	50.5	0.89	1262			5.02	Si
SLU 79	1115	-3142	126	-13008		2.22	50.5	0.85	1204			9.58	Si
SLU 48	1035	-3046	-225	-8947		2.15	50.5	0.84	1192			5.29	Si
SLU 48	1115	-2576	77	-10156		1.82	50.5	0.8	1129			14.64	Si
SLU 69	1035	-3368	-246	-9692		2.38	50.5	0.87	1235			5.02	Si
SLU 69	1115	-2901	97	-11629		2.05	50.5	0.83	1172			12.14	Si
SLU 77	1035	-3656	-246	-9776		2.59	50.5	0.9	1273			5.18	Si
SLU 77	1115	-3215	125	-13636		2.27	50.5	0.86	1214			9.7	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 71	1035	-3289	-252	-9642		2.33	50.5	0.87	1224			4.86	Si
SLU 71	1115	-2828	97	-11001		2	50.5	0.82	1163			11.96	Si
SLU 27	1035	-2844	-220	-8272		2.01	50.5	0.82	1165			5.3	Si
SLU 27	1115	-2485	91	-9640		1.76	50.5	0.79	1117			12.21	Si
SLU 58	1035	-3255	-231	-8981		2.3	50.5	0.86	1220			5.29	Si
SLU 58	1115	-2817	106	-11535		1.99	50.5	0.82	1161			10.93	Si
SLU 29	1035	-2765	-225	-8222		1.96	50.5	0.82	1154			5.12	Si
SLU 29	1115	-2412	92	-9012		1.71	50.5	0.78	1107			12.02	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	1035	-4445	-1849	-53031		3.97	39.96	1.63	1818			0.98	No, Vu<V
SLV 14	1115	-2308	-246	31869		2.4	34.33	1.31	1263			5.14	Si
SLV 15	1035	-3976	-1746	-47835		3.58	39.66	1.55	1720			0.99	No, Vu<V
SLV 15	1115	-2995	-35	29377		2.31	46.32	1.3	1680			47.68	Si
SLV 3	1035	-131	1614	41387		0	0	0.83	0			0	No, Vu<V
SLV 3	1115	-1576	352	-50482		0	0	0.83	0			0	No, Vu<V
SLV 5	1035	-2494	215	-1100		1.76	50.5	1.19	1677			7.81	Si
SLV 5	1115	-585	-240	-17132		0	0	0.83	0			0	No, Vu<V
SLV 16	1035	-3976	-1746	-47835		3.58	39.66	1.55	1720			0.99	No, Vu<V
SLV 16	1115	-2995	-35	29377		2.31	46.32	1.3	1680			47.68	Si
SLV 13	1035	-4445	-1849	-53031		3.97	39.96	1.63	1818			0.98	No, Vu<V
SLV 13	1115	-2308	-246	31869		2.4	34.33	1.31	1263			5.14	Si
SLV 6	1035	-2494	215	-1100		1.76	50.5	1.19	1677			7.81	Si
SLV 6	1115	-585	-240	-17132		0	0	0.83	0			0	No, Vu<V
SLV 1	1035	-601	1511	36191		0	0	0.83	0			0	No, Vu<V
SLV 1	1115	-889	141	-47990		0	0	0.83	0			0	No, Vu<V
SLV 4	1035	-131	1614	41387		0	0	0.83	0			0	No, Vu<V
SLV 4	1115	-1576	352	-50482		0	0	0.83	0			0	No, Vu<V
SLV 2	1035	-601	1511	36191		0	0	0.83	0			0	No, Vu<V
SLV 2	1115	-889	141	-47990		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.46	0	-417	6137	0	0	No, e>t/2
SLV 7	14	0.46	0	-417	6137	0	0	No, e>t/2
SLV 4	14	0.46	0.42	-597	6137	8069	1.31	Si
SLV 3	14	0.46	0.42	-597	6137	8069	1.31	Si
SLV 12	14	0.46	0.64	-910	6137	12064	1.97	Si
SLV 11	14	0.46	0.64	-910	6137	12064	1.97	Si
SLV 2	14	0.46	0.88	-1243	6137	16155	2.63	Si
SLV 1	14	0.46	0.88	-1243	6137	16155	2.63	Si
SLV 16	14	0.46	1.58	-2238	6137	27275	4.44	Si
SLV 15	14	0.46	1.58	-2238	6137	27275	4.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-1676	-1221	-4	0.046	2.421	0.923	72.941	1108.806	No
SLV 15	-1676	-1221	-4	0.046	2.421	0.923	72.941	1108.806	No
SLV 14	-1605	-1377	1	0.048	2.349	0.921	75.888	1108.806	No
SLV 13	-1605	-1377	1	0.048	2.349	0.921	75.888	1108.806	No
SLV 12	-1254	-1104	-9	0.045	1.998	0.912	71.269	1011.814	No
SLV 11	-1254	-1104	-9	0.045	1.998	0.912	71.269	1011.814	No
SLV 8	-822	-1160	-10	0.046	1.571	0.898	74.874	1011.814	No
SLV 7	-822	-1160	-10	0.046	1.571	0.898	74.874	1011.814	No
SLV 10	-1018	-1623	6	0.048	1.763	0.904	77.114	1011.814	No
SLV 9	-1018	-1623	6	0.048	1.763	0.904	77.114	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.676	SLU 82	Si
V_SLU	4.864	SLU 71	Si
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 7	No
R_SLV	0.066	SLV 15	No

Maschio 183

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-318.3	-335.9	-550.8	-335.9	L5	L6	232.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 44	1035	-8615	49937	1.32	838811	16.797	Si
SLU 44	1115	-7286	68993	1.12	730658	10.59	Si
SLU 65	1035	-9737	55739	1.5	924076	16.579	Si
SLU 65	1115	-8386	79118	1.29	820708	10.373	Si
SLU 26	1035	-8285	41076	1.27	812697	19.785	Si
SLU 26	1115	-7226	67564	1.11	725526	10.738	Si
SLU 2	1035	-6764	38139	1.04	686031	17.988	Si
SLU 2	1115	-5749	56027	0.88	595902	10.636	Si
SLU 73	1035	-10752	65649	1.65	996458	15.179	Si
SLU 73	1115	-9391	85465	1.44	898400	10.512	Si
SLU 31	1035	-8900	53851	1.37	861015	15.989	Si
SLU 31	1115	-7854	72499	1.21	777829	10.729	Si
SLU 76	1035	-11151	62783	1.71	1023735	16.306	Si
SLU 76	1115	-9768	86876	1.5	926366	10.663	Si
SLU 23	1035	-7886	43941	1.21	780398	17.76	Si
SLU 23	1115	-6849	66153	1.05	693362	10.481	Si
SLU 52	1035	-9630	59846	1.48	916183	15.309	Si
SLU 52	1115	-8292	75339	1.27	813197	10.794	Si
SLU 68	1035	-10137	52874	1.56	953131	18.027	Si
SLU 68	1115	-8763	80530	1.35	850334	10.559	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 14	1035	-7715	8090	1.19	809861	100.112	Si
SLD 14	1115	-6955	216704	1.07	737862	3.405	Si
SLD 13	1035	-7715	8090	1.19	809861	100.112	Si
SLD 13	1115	-6955	216704	1.07	737862	3.405	Si
SLV 10	1035	-9539	-38028	1.47	975884	25.662	Si
SLV 10	1115	-8810	276470	1.35	910712	3.294	Si
SLV 15	1035	-6143	-10139	0.94	658931	64.987	Si
SLV 15	1115	-5743	359593	0.88	619419	1.723	Si
SLV 4	1035	-8853	149729	1.36	914611	6.108	Si
SLV 4	1115	-7009	-310477	1.08	743012	2.393	Si
SLV 14	1035	-7272	-48836	1.12	768095	15.728	Si
SLV 14	1115	-6954	429471	1.07	737720	1.718	Si
SLV 13	1035	-7272	-48836	1.12	768095	15.728	Si
SLV 13	1115	-6954	429471	1.07	737720	1.718	Si
SLV 9	1035	-9539	-38028	1.47	975884	25.662	Si
SLV 9	1115	-8810	276470	1.35	910712	3.294	Si
SLV 3	1035	-8853	149729	1.36	914611	6.108	Si
SLV 3	1115	-7009	-310477	1.08	743012	2.393	Si
SLV 16	1035	-6143	-10139	0.94	658931	64.987	Si
SLV 16	1115	-5743	359593	0.88	619419	1.723	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	1035	-10137	-349	52874	1.56	232.5	0.76	4968				14.25	Si
SLU 68	1115	-8763	-243	80530	1.35	232.5	0.74	4785				19.65	Si
SLU 44	1035	-8615	-287	49937	1.32	232.5	0.73	4765				16.58	Si
SLU 44	1115	-7286	-203	68993	1.12	232.5	0.7	4588				22.62	Si
SLU 70	1035	-11163	-297	55228	1.71	232.5	0.78	5105				17.18	Si
SLU 70	1115	-9744	-200	84219	1.5	232.5	0.76	4916				24.55	Si
SLU 26	1035	-8285	-340	41076	1.27	232.5	0.73	4721				13.88	Si
SLU 26	1115	-7226	-239	67564	1.11	232.5	0.7	4580				19.12	Si
SLU 28	1035	-9312	-289	43431	1.43	232.5	0.75	4858				16.83	Si
SLU 28	1115	-8207	-196	71253	1.26	232.5	0.72	4711				24.01	Si
SLU 65	1035	-9737	-329	55739	1.5	232.5	0.75	4915				14.93	Si
SLU 65	1115	-8386	-227	79118	1.29	232.5	0.73	4735				20.84	Si
SLU 2	1035	-6764	-279	38139	1.04	232.5	0.69	4519				16.2	Si
SLU 2	1115	-5749	-199	56027	0.88	232.5	0.67	4383				22.04	Si
SLU 23	1035	-7886	-321	43941	1.21	232.5	0.72	4668				14.56	Si
SLU 23	1115	-6849	-223	66153	1.05	232.5	0.7	4530				20.29	Si
SLU 47	1035	-9015	-307	47071	1.38	232.5	0.74	4819				15.7	Si
SLU 47	1115	-7663	-219	70404	1.18	232.5	0.71	4638				21.18	Si
SLU 5	1035	-7164	-298	35273	1.1	232.5	0.7	4572				15.32	Si
SLU 5	1115	-6126	-215	57439	0.94	232.5	0.68	4433				20.61	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1035	-6587	3571	138921	1.01	232.5	1.04	6742				1.89	Si
SLV 8	1115	-5153	3101	-157476	0.79	232.5	0.99	6456				2.08	Si
SLV 1	1035	-9982	5850	111032	1.53	232.5	1.14	7421				1.27	Si
SLV 1	1115	-8220	4905	-240599	1.26	232.5	1.09	7069				1.44	Si
SLV 2	1035	-9982	5850	111032	1.53	232.5	1.14	7421				1.27	Si
SLV 2	1115	-8220	4905	-240599	1.26	232.5	1.09	7069				1.44	Si
SLV 14	1035	-7272	-7020	-48836	1.12	232.5	1.06	6879				0.98	No, Vu<V
SLV 14	1115	-6954	-5873	429471	1.52	163.47	1.14	5205				0.89	No, Vu<V
SLV 7	1035	-6587	3571	138921	1.01	232.5	1.04	6742				1.89	Si
SLV 7	1115	-5153	3101	-157476	0.79	232.5	0.99	6456				2.08	Si
SLV 3	1035	-8853	6877	149729	1.36	232.5	1.11	7196				1.05	Si
SLV 3	1115	-7009	5813	-310477	1.16	215.86	1.07	6439				1.11	Si
SLV 15	1035	-6143	-5993	-10139	0.94	232.5	1.02	6654				1.11	Si
SLV 15	1115	-5743	-4964	359593	1.27	160.91	1.09	4903				0.99	No, Vu<V
SLV 16	1035	-6143	-5993	-10139	0.94	232.5	1.02	6654				1.11	Si
SLV 16	1115	-5743	-4964	359593	1.27	160.91	1.09	4903				0.99	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1035	-8853	6877	149729		1.36	232.5	1.11	7196			1.05	Si
SLV 4	1115	-7009	5813	-310477		1.16	215.86	1.07	6439			1.11	Si
SLV 13	1035	-7272	-7020	-48836		1.12	232.5	1.06	6879			0.98	No, Vu<V
SLV 13	1115	-6954	-5873	429471		1.52	163.47	1.14	5205			0.89	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.46	0.88	-5717	28253	74286	2.63	Si
SLV 12	14	0.46	0.88	-5717	28253	74286	2.63	Si
SLV 8	14	0.46	0.9	-5861	28253	76004	2.69	Si
SLV 7	14	0.46	0.9	-5861	28253	76004	2.69	Si
SLV 16	14	0.46	1.08	-7013	28253	89525	3.17	Si
SLV 15	14	0.46	1.08	-7013	28253	89525	3.17	Si
SLV 3	14	0.46	1.15	-7491	28253	95003	3.36	Si
SLV 4	14	0.46	1.15	-7491	28253	95003	3.36	Si
SLV 14	14	0.46	1.27	-8267	28253	103712	3.67	Si
SLV 13	14	0.46	1.27	-8267	28253	103712	3.67	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 16	-4825	-8077	252	0.015	8.257	0.905	24.253	1108.806	No
SLV 15	-4825	-8077	252	0.015	8.257	0.905	24.253	1108.806	No
SLV 2	-6121	-7790	-249	0.019	9.545	0.914	30.721	1108.806	No
SLV 1	-6121	-7790	-249	0.019	9.545	0.914	30.721	1108.806	No
SLV 4	-5374	-6182	-191	0.025	8.801	0.909	40.137	1108.806	No
SLV 3	-5374	-6182	-191	0.025	8.801	0.909	40.137	1108.806	No
SLV 13	-5571	-9685	194	0.025	8.997	0.91	40.161	1108.806	No
SLV 14	-5571	-9685	194	0.025	8.997	0.91	40.161	1108.806	No
SLV 12	-4146	-5537	165	0.026	7.589	0.9	42.671	1011.814	No
SLV 11	-4146	-5537	165	0.026	7.589	0.9	42.671	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	10.373	SLV 65	Si
V_SLV	13.876	SLV 26	Si
PF_SLV	1.718	SLV 13	Si
V_SLV	0.886	SLV 13	No
PFFP_SLV	2.629	SLV 11	Si
R_SLV	0.022	SLV 15	No

Maschio 184

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-228.3	-335.9	L5	L6	216	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 82	925	-11290	-90035	1.87	939881	10.439	Si
SLV 82	1105	-11442	180411	1.89	948740	5.259	Si
SLV 73	925	-10991	-94489	1.82	922191	9.76	Si
SLV 73	1105	-11064	173872	1.83	926535	5.329	Si
SLV 52	925	-10058	-78718	1.66	864495	10.982	Si
SLV 52	1105	-9789	151147	1.62	847179	5.605	Si
SLV 84	925	-11811	-89956	1.95	969791	10.781	Si
SLV 84	1105	-11981	175146	1.98	979251	5.591	Si
SLV 31	925	-9059	-89479	1.5	798478	8.924	Si
SLV 31	1105	-9422	152357	1.56	822976	5.402	Si
SLV 19	925	-8425	-69254	1.39	754327	10.892	Si
SLV 19	1105	-8527	136172	1.41	761494	5.592	Si
SLV 61	925	-10357	-74264	1.71	883407	11.896	Si
SLV 61	1105	-10168	157687	1.68	871498	5.527	Si
SLV 39	925	-9382	-69701	1.55	820278	11.769	Si
SLV 39	1105	-9696	153717	1.6	841070	5.472	Si
SLV 81	925	-11313	-74711	1.87	941259	12.599	Si
SLV 81	1105	-11337	175232	1.87	942659	5.379	Si
SLV 40	925	-9358	-85024	1.55	818699	9.629	Si
SLV 40	1105	-9801	158896	1.62	847905	5.336	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 16	925	-7146	-247986	1.18	697167	2.811	Si
SLV 16	1105	-9517	362569	1.57	895497	2.47	Si
SLV 3	925	-6611	171250	1.09	650114	3.796	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	1105	-4149	-145445	0.69	422965	2.908	Si
SLV 14	925	-9309	-257393	1.54	878730	3.414	Si
SLV 14	1105	-11031	367127	1.82	1013536	2.761	Si
SLD 16	925	-7617	-130620	1.26	737818	5.649	Si
SLD 16	1105	-8418	218637	1.39	805595	3.685	Si
SLV 13	925	-9309	-257393	1.54	878730	3.414	Si
SLV 13	1105	-11031	367127	1.82	1013536	2.761	Si
SLV 11	925	-4436	-90279	0.73	450311	4.988	Si
SLV 11	1105	-5872	179447	0.97	583813	3.253	Si
SLD 15	925	-7617	-130620	1.26	737818	5.649	Si
SLD 15	1105	-8418	218637	1.39	805595	3.685	Si
SLV 12	925	-4436	-90279	0.73	450311	4.988	Si
SLV 12	1105	-5872	179447	0.97	583813	3.253	Si
SLV 4	925	-6611	171250	1.09	650114	3.796	Si
SLV 4	1105	-4149	-145445	0.69	422965	2.908	Si
SLV 15	925	-7146	-247986	1.18	697167	2.811	Si
SLV 15	1105	-9517	362569	1.57	895497	2.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 31	925	-9059	-2834	-89479	1.5	216	0.76	4568				1.61	Si
SLU 31	1105	-9422	-2784	152357	1.56	216	0.76	4616				1.66	Si
SLU 75	925	-11732	-3087	-84571	1.94	216	0.81	4924				1.6	Si
SLU 75	1105	-11787	-3058	172662	1.95	216	0.82	4932				1.61	Si
SLU 76	925	-11512	-3151	-94411	1.9	216	0.81	4895				1.55	Si
SLU 76	1105	-11602	-3102	168607	1.92	216	0.81	4907				1.58	Si
SLU 73	925	-10991	-3171	-94489	1.82	216	0.8	4825				1.52	Si
SLU 73	1105	-11064	-3121	173872	1.83	216	0.8	4835				1.55	Si
SLU 78	925	-12253	-3067	-84492	2.03	216	0.83	4994				1.63	Si
SLU 78	1105	-12326	-3040	167397	2.04	216	0.83	5003				1.65	Si
SLU 84	925	-11811	-3199	-89956	1.95	216	0.82	4935				1.54	Si
SLU 84	1105	-11981	-3171	175146	1.98	216	0.82	4957				1.56	Si
SLU 81	925	-11313	-3012	-74711	1.87	216	0.8	4868				1.62	Si
SLU 81	1105	-11337	-3013	175232	1.87	216	0.81	4872				1.62	Si
SLU 42	925	-9880	-2863	-84946	1.63	216	0.77	4677				1.63	Si
SLU 42	1105	-10339	-2834	153631	1.71	216	0.78	4739				1.67	Si
SLU 82	925	-11290	-3219	-90035	1.87	216	0.8	4865				1.51	Si
SLU 82	1105	-11442	-3190	180411	1.89	216	0.81	4886				1.53	Si
SLU 40	925	-9358	-2883	-85024	1.55	216	0.76	4608				1.6	Si
SLU 40	1105	-9801	-2853	158896	1.62	216	0.77	4667				1.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 14	925	-8533	-3728	-134829	1.41	216	1.12	6747				1.81	Si
SLD 14	1105	-9057	-3287	220155	1.5	216	1.13	6851				2.08	Si
SLD 13	925	-8533	-3728	-134829	1.41	216	1.12	6747				1.81	Si
SLD 13	1105	-9057	-3287	220155	1.5	216	1.13	6851				2.08	Si
SLV 16	925	-7146	-6529	-247986	1.18	216	1.07	6469				0.99	No, Vu < V
SLV 16	1105	-9517	-5600	362569	1.62	209.71	1.16	6797				1.21	Si
SLV 13	925	-9309	-6222	-257393	1.54	216	1.14	6902				1.11	Si
SLV 13	1105	-11031	-5185	367127	1.82	216	1.2	7246				1.4	Si
SLD 16	925	-7617	-3857	-130620	1.26	216	1.09	6563				1.7	Si
SLD 16	1105	-8418	-3461	218637	1.39	216	1.11	6724				1.94	Si
SLV 15	925	-7146	-6529	-247986	1.18	216	1.07	6469				0.99	No, Vu < V
SLV 15	1105	-9517	-5600	362569	1.62	209.71	1.16	6797				1.21	Si
SLV 11	925	-4436	-3732	-90279	0.73	216	0.98	5927				1.59	Si
SLV 11	1105	-5872	-3617	179447	0.97	216	1.03	6214				1.72	Si
SLV 12	925	-4436	-3732	-90279	0.73	216	0.98	5927				1.59	Si
SLV 12	1105	-5872	-3617	179447	0.97	216	1.03	6214				1.72	Si
SLD 15	925	-7617	-3857	-130620	1.26	216	1.09	6563				1.7	Si
SLD 15	1105	-8418	-3461	218637	1.39	216	1.11	6724				1.94	Si
SLV 14	925	-9309	-6222	-257393	1.54	216	1.14	6902				1.11	Si
SLV 14	1105	-11031	-5185	367127	1.82	216	1.2	7246				1.4	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.46	0.75	-4512	26248	59310	2.26	Si
SLV 8	14	0.46	0.75	-4512	26248	59310	2.26	Si
SLV 4	14	0.46	0.87	-5287	26248	68728	2.62	Si
SLV 3	14	0.46	0.87	-5287	26248	68728	2.62	Si
SLV 11	14	0.46	0.93	-5599	26248	72446	2.76	Si
SLV 12	14	0.46	0.93	-5599	26248	72446	2.76	Si
SLV 1	14	0.46	1.16	-7039	26248	89162	3.4	Si
SLV 2	14	0.46	1.16	-7039	26248	89162	3.4	Si
SLV 16	14	0.46	1.47	-8911	26248	109710	4.18	Si
SLV 15	14	0.46	1.47	-8911	26248	109710	4.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-6350	-9647	27	0.046	9.531	0.918	72.448	1108.806	No
SLV 16	-6350	-9647	27	0.046	9.531	0.918	72.448	1108.806	No
SLV 14	-7441	-11998	8	0.047	10.626	0.925	74	1108.806	No
SLV 13	-7441	-11998	8	0.047	10.626	0.925	74	1108.806	No
SLV 1	-5074	-6985	-27	0.047	8.257	0.91	74.696	1108.806	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 2	-5074	-6985	-27	0.047	8.257	0.91	74.696	1108.806	No
SLV 6	-7175	-11482	-37	0.044	10.358	0.923	69.391	1011.814	No
SLV 5	-7175	-11482	-37	0.044	10.358	0.923	69.391	1011.814	No
SLV 10	-7885	-12986	-26	0.045	11.073	0.927	70.303	1011.814	No
SLV 9	-7885	-12986	-26	0.045	11.073	0.927	70.303	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.259	SLU 82	Si
V_SLU	1.511	SLU 82	Si
PF_SLV	2.47	SLV 15	Si
V_SLV	0.991	SLV 15	No
PFFP_SLV	2.26	SLV 7	Si
R_SLV	0.065	SLV 15	No

Maschio 185

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-296.3	595.1	-515.8	595.1	L5	L6	219.5	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 29	925	-4556	-161801	0.74	454510	2.809	Si
SLU 29	1105	-2571	-113778	0.42	267716	2.353	Si
SLU 50	925	-5884	-168509	0.96	569907	3.382	Si
SLU 50	1105	-3358	-114698	0.55	343849	2.998	Si
SLU 7	925	-4610	-141351	0.75	459394	3.25	Si
SLU 7	1105	-2659	-97349	0.43	276285	2.838	Si
SLU 6	925	-4676	-144527	0.76	465245	3.219	Si
SLU 6	1105	-2724	-98478	0.44	282697	2.871	Si
SLU 9	925	-3949	-148386	0.64	399257	2.691	Si
SLU 9	1105	-1998	-99749	0.33	210493	2.11	Si
SLU 27	925	-5217	-154766	0.85	512890	3.314	Si
SLU 27	1105	-3232	-111379	0.53	331846	2.979	Si
SLU 28	925	-5151	-151591	0.84	507194	3.346	Si
SLU 28	1105	-3167	-110250	0.52	325580	2.953	Si
SLU 51	925	-5819	-165333	0.95	564403	3.414	Si
SLU 51	1105	-3293	-113570	0.54	337619	2.973	Si
SLU 30	925	-4490	-158625	0.73	448625	2.828	Si
SLU 30	1105	-2506	-112650	0.41	261260	2.319	Si
SLU 8	925	-4015	-151562	0.65	405298	2.674	Si
SLU 8	1105	-2063	-100877	0.34	217094	2.152	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	925	-2876	-494015	0	0	0	No, e>1/2
SLV 13	1105	-529	183805	0	0	0	No, e>1/2
SLV 16	925	-2440	-642225	0	0	0	No, e>1/2
SLV 16	1105	155	207839	0	0	0	No, Trazione
SLV 12	925	-5217	-464560	0.85	532795	1.147	Si
SLV 12	1105	-2689	52858	0.44	284582	5.384	Si
SLD 15	925	-5252	-312948	0.85	536106	1.713	Si
SLD 15	1105	-3028	52051	0.49	318888	6.126	Si
SLV 15	925	-2440	-642225	0	0	0	No, e>1/2
SLV 15	1105	155	207839	0	0	0	No, Trazione
SLD 13	925	-5437	-250121	0.88	553515	2.213	Si
SLD 13	1105	-3315	41396	0.54	347744	8.4	Si
SLD 16	925	-5252	-312948	0.85	536106	1.713	Si
SLD 16	1105	-3028	52051	0.49	318888	6.126	Si
SLV 11	925	-5217	-464560	0.85	532795	1.147	Si
SLV 11	1105	-2689	52858	0.44	284582	5.384	Si
SLD 14	925	-5437	-250121	0.88	553515	2.213	Si
SLD 14	1105	-3315	41396	0.54	347744	8.4	Si
SLV 14	925	-2876	-494015	0	0	0	No, e>1/2
SLV 14	1105	-529	183805	0	0	0	No, e>1/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 9	925	-3949	-288	-148386		0.65	216.54	0.64	3895			13.51	Si
SLU 9	1105	-1998	-288	-99749		0.4	179.45	0.61	3058			10.61	Si
SLU 72	925	-6360	-296	-175573		1.03	219.5	0.69	4262			14.38	Si
SLU 72	1105	-3801	-296	-126471		0.62	219.5	0.64	3921			13.23	Si
SLU 50	925	-5884	-322	-168509		0.96	219.5	0.68	4199			13.02	Si
SLU 50	1105	-3358	-322	-114698		0.55	219.5	0.63	3862			11.98	Si
SLU 8	925	-4015	-300	-151562		0.66	216	0.64	3895			13	Si
SLU 8	1105	-2063	-300	-100877		0.4	182.56	0.61	3115			10.39	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 71	925	-6425	-308	-178748		1.05	219.5	0.69	4271			13.87	Si
SLU 71	1105	-3867	-308	-127600		0.63	219.5	0.64	3930			12.77	Si
SLU 51	925	-5819	-311	-165333		0.95	219.5	0.68	4190			13.47	Si
SLU 51	1105	-3293	-311	-113570		0.54	219.5	0.63	3853			12.39	Si
SLU 6	925	-4676	-274	-144527		0.76	219.5	0.66	4038			14.74	Si
SLU 6	1105	-2724	-274	-98478		0.44	219.5	0.61	3778			13.79	Si
SLU 30	925	-4490	-274	-158625		0.73	219.5	0.65	4013			14.66	Si
SLU 30	1105	-2506	-274	-112650		0.46	194.39	0.62	3358			12.27	Si
SLU 29	925	-4556	-285	-161801		0.74	219.5	0.65	4022			14.1	Si
SLU 29	1105	-2571	-285	-113778		0.47	196.51	0.62	3400			11.92	Si
SLU 48	925	-6545	-297	-161474		1.06	219.5	0.7	4287			14.45	Si
SLU 48	1105	-4019	-297	-112299		0.65	219.5	0.64	3950			13.32	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	925	-2876	-4221	-494015		0	0	0.83	0			0	No, Vu<V
SLV 13	1105	-529	-3575	183805		0	0	0.83	0			0	No, Vu<V
SLV 14	925	-2876	-4221	-494015		0	0	0.83	0			0	No, Vu<V
SLV 14	1105	-529	-3575	183805		0	0	0.83	0			0	No, Vu<V
SLV 15	925	-2440	-5337	-642225		0	0	0.83	0			0	No, Vu<V
SLV 15	1105	155	-4476	207839		0	0	0.83	0			0	No, Vu<V
SLV 1	925	-12263	5282	507634		2.14	205.07	1.26	7238			1.37	Si
SLV 1	1105	-10936	4422	-339110		1.78	219.5	1.19	7309			1.65	Si
SLV 4	925	-11827	4166	359424		1.92	219.5	1.22	7487			1.8	Si
SLV 4	1105	-10252	3520	-315076		1.67	219.5	1.17	7172			2.04	Si
SLV 12	925	-5217	-3312	-464560		3	62.11	1.43	2493			0.75	No, Vu<V
SLV 12	1105	-2689	-2730	52858		0.44	219.5	0.92	5660			2.07	Si
SLV 3	925	-11827	4166	359424		1.92	219.5	1.22	7487			1.8	Si
SLV 3	1105	-10252	3520	-315076		1.67	219.5	1.17	7172			2.04	Si
SLV 11	925	-5217	-3312	-464560		3	62.11	1.43	2493			0.75	No, Vu<V
SLV 11	1105	-2689	-2730	52858		0.44	219.5	0.92	5660			2.07	Si
SLV 16	925	-2440	-5337	-642225		0	0	0.83	0			0	No, Vu<V
SLV 16	1105	155	-4476	207839		0	0	0.83	0			0	No, Vu<V
SLV 2	925	-12263	5282	507634		2.14	205.07	1.26	7238			1.37	Si
SLV 2	1105	-10936	4422	-339110		1.78	219.5	1.19	7309			1.65	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.46	0	-1543	26673	0	0	No, e>t/2
SLV 16	14	0.46	0	-1543	26673	0	0	No, e>t/2
SLV 13	14	0.46	0.34	-2070	26673	28177	1.06	Si
SLV 14	14	0.46	0.34	-2070	26673	28177	1.06	Si
SLV 11	14	0.46	0.69	-4213	26673	55673	2.09	Si
SLV 12	14	0.46	0.69	-4213	26673	55673	2.09	Si
SLV 9	14	0.46	0.97	-5968	26673	76908	2.88	Si
SLV 10	14	0.46	0.97	-5968	26673	76908	2.88	Si
SLV 8	14	0.46	1.14	-7028	26673	89181	3.34	Si
SLV 7	14	0.46	1.14	-7028	26673	89181	3.34	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-1740	638	-46	0	0	0	0	1108.806	No, Trazione
SLV 16	-1740	638	-46	0	0	0	0	1108.806	No, Trazione
SLV 12	-3118	-3945	-117	0.032	6.392	0.894	52.079	1011.814	No
SLV 11	-3118	-3945	-117	0.032	6.392	0.894	52.079	1011.814	No
SLV 7	-4467	-8712	-112	0.034	7.708	0.904	55.26	1011.814	No
SLV 8	-4467	-8712	-112	0.034	7.708	0.904	55.26	1011.814	No
SLV 6	-5023	-11505	107	0.036	8.259	0.909	56.948	1011.814	No
SLV 5	-5023	-11505	107	0.036	8.259	0.909	56.948	1011.814	No
SLV 10	-3675	-6738	102	0.035	6.931	0.898	57.306	1011.814	No
SLV 9	-3675	-6738	102	0.035	6.931	0.898	57.306	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.11	SLU 9	Si
V_SLU	10.394	SLU 8	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 13	No
PFFP_SLV	0	SLV 15	No
R_SLV	0	SLV 16	No

Maschio 186

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	595.1	-206.3	595.1	L5	L6	194	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	925	-10305	-22464	1.9	766802	34.135	Si
SLU 81	1105	-10041	82798	1.85	752950	9.094	Si
SLU 52	925	-8961	-15774	1.65	693169	43.944	Si
SLU 52	1105	-8478	73372	1.56	664820	9.061	Si
SLU 10	925	-7159	-15076	1.32	582101	38.61	Si
SLU 10	1105	-6973	61837	1.28	569783	9.214	Si
SLU 61	925	-9348	-17820	1.72	715166	40.132	Si
SLU 61	1105	-8952	80023	1.65	692690	8.656	Si
SLU 19	925	-7546	-17123	1.39	607152	35.459	Si
SLU 19	1105	-7447	68488	1.37	600783	8.772	Si
SLU 18	925	-7739	-16511	1.42	619396	37.513	Si
SLU 18	1105	-7538	67412	1.39	606594	8.998	Si
SLU 82	925	-10112	-23075	1.86	756728	32.794	Si
SLU 82	1105	-9950	83874	1.83	748133	8.92	Si
SLU 73	925	-9726	-21029	1.79	736029	35.001	Si
SLU 73	1105	-9476	77222	1.74	722337	9.354	Si
SLU 40	925	-8311	-22378	1.53	654755	29.259	Si
SLU 40	1105	-8445	72339	1.55	662811	9.163	Si
SLU 60	925	-9540	-17209	1.76	725886	42.18	Si
SLU 60	1105	-9043	78947	1.66	697904	8.84	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	925	-3312	94333	0.61	305216	3.236	Si
SLV 5	1105	-2938	-64522	0.54	272357	4.221	Si
SLV 15	925	-8726	-305732	1.61	735141	2.405	Si
SLV 15	1105	-10834	292954	1.99	879354	3.002	Si
SLV 1	925	-5812	282794	1.07	514394	1.819	Si
SLV 1	1105	-2605	-195228	0.48	242772	1.244	Si
SLV 16	925	-8726	-305732	1.61	735141	2.405	Si
SLV 16	1105	-10834	292954	1.99	879354	3.002	Si
SLV 6	925	-3312	94333	0.61	305216	3.236	Si
SLV 6	1105	-2938	-64522	0.54	272357	4.221	Si
SLV 14	925	-6405	-294178	1.18	561335	1.908	Si
SLV 14	1105	-9154	266476	1.69	765501	2.873	Si
SLV 4	925	-8133	271240	1.5	692224	2.552	Si
SLV 4	1105	-4285	-168750	0.79	388777	2.304	Si
SLV 3	925	-8133	271240	1.5	692224	2.552	Si
SLV 3	1105	-4285	-168750	0.79	388777	2.304	Si
SLV 2	925	-5812	282794	1.07	514394	1.819	Si
SLV 2	1105	-2605	-195228	0.48	242772	1.244	Si
SLV 13	925	-6405	-294178	1.18	561335	1.908	Si
SLV 13	1105	-9154	266476	1.69	765501	2.873	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	925	-9726	-1620	-21029	1.79	194	0.79	4315				2.66	Si
SLU 73	1105	-9476	-1613	77222	1.74	194	0.79	4281				2.65	Si
SLU 82	925	-10112	-1714	-23075	1.86	194	0.8	4366				2.55	Si
SLU 82	1105	-9950	-1710	83874	1.83	194	0.8	4344				2.54	Si
SLU 81	925	-10305	-1648	-22464	1.9	194	0.81	4392				2.66	Si
SLU 81	1105	-10041	-1647	82798	1.85	194	0.8	4357				2.64	Si
SLU 84	925	-10369	-1540	-25496	1.91	194	0.81	4400				2.86	Si
SLU 84	1105	-10123	-1535	58144	1.86	194	0.8	4367				2.84	Si
SLU 61	925	-9348	-1523	-17820	1.72	194	0.78	4264				2.8	Si
SLU 61	1105	-8952	-1518	80023	1.65	194	0.78	4211				2.77	Si
SLU 39	925	-8504	-1469	-21766	1.57	194	0.76	4152				2.83	Si
SLU 39	1105	-8535	-1468	71262	1.57	194	0.77	4156				2.83	Si
SLU 52	925	-8961	-1429	-15774	1.65	194	0.78	4213				2.95	Si
SLU 52	1105	-8478	-1422	73372	1.56	194	0.76	4148				2.92	Si
SLU 60	925	-9540	-1456	-17209	1.76	194	0.79	4290				2.95	Si
SLU 60	1105	-9043	-1456	78947	1.66	194	0.78	4224				2.9	Si
SLU 31	925	-7924	-1441	-20331	1.46	194	0.75	4074				2.83	Si
SLU 31	1105	-7971	-1434	65687	1.47	194	0.75	4081				2.84	Si
SLU 40	925	-8311	-1535	-22378	1.53	194	0.76	4126				2.69	Si
SLU 40	1105	-8445	-1531	72339	1.55	194	0.76	4144				2.71	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	925	-5812	4113	282794		1.43	145.03	1.12	4546			1.11	Si
SLV 1	1105	-2605	3120	-195228		1.41	66.17	1.11	2065			0.66	No, Vu<V
SLV 14	925	-6405	-5782	-294178		1.49	153.21	1.13	4856			0.84	No, Vu<V
SLV 14	1105	-9154	-5048	266476		1.69	194	1.17	6358			1.26	Si
SLD 15	925	-7889	-3134	-137295		1.45	194	1.12	6104			1.95	Si
SLD 15	1105	-8477	-2709	153200		1.56	194	1.15	6222			2.3	Si
SLV 4	925	-8133	3855	271240		1.52	190.95	1.14	6082			1.58	Si
SLV 4	1105	-4285	3123	-168750		0.89	172.84	1.01	4890			1.57	Si
SLD 16	925	-7889	-3134	-137295		1.45	194	1.12	6104			1.95	Si
SLD 16	1105	-8477	-2709	153200		1.56	194	1.15	6222			2.3	Si
SLV 2	925	-5812	4113	282794		1.43	145.03	1.12	4546			1.11	Si
SLV 2	1105	-2605	3120	-195228		1.41	66.17	1.11	2065			0.66	No, Vu<V
SLV 13	925	-6405	-5782	-294178		1.49	153.21	1.13	4856			0.84	No, Vu<V
SLV 13	1105	-9154	-5048	266476		1.69	194	1.17	6358			1.26	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	925	-8726	-6039	-305732		1.68	185.89	1.17	6083			1.01	Si
SLV 15	1105	-10834	-5045	292954		1.99	194	1.23	6693			1.33	Si
SLV 3	925	-8133	3855	271240		1.52	190.95	1.14	6082			1.58	Si
SLV 3	1105	-4285	3123	-168750		0.89	172.84	1.01	4890			1.57	Si
SLV 16	925	-8726	-6039	-305732		1.68	185.89	1.17	6083			1.01	Si
SLV 16	1105	-10834	-5045	292954		1.99	194	1.23	6693			1.33	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.46	0.65	-3532	23574	46811	1.99	Si
SLV 6	14	0.46	0.65	-3532	23574	46811	1.99	Si
SLV 1	14	0.46	0.78	-4229	23574	55436	2.35	Si
SLV 2	14	0.46	0.78	-4229	23574	55436	2.35	Si
SLV 9	14	0.46	0.88	-4800	23574	62339	2.64	Si
SLV 10	14	0.46	0.88	-4800	23574	62339	2.64	Si
SLV 4	14	0.46	1.12	-6095	23574	77499	3.29	Si
SLV 3	14	0.46	1.12	-6095	23574	77499	3.29	Si
SLV 13	14	0.46	1.56	-8457	23574	103311	4.38	Si
SLV 14	14	0.46	1.56	-8457	23574	103311	4.38	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-3162	-2645	158	0.022	6.042	0.898	34.848	1011.814	No
SLV 5	-3162	-2645	158	0.022	6.042	0.898	34.848	1011.814	No
SLV 9	-4028	-4288	135	0.028	6.892	0.905	45.214	1011.814	No
SLV 10	-4028	-4288	135	0.028	6.892	0.905	45.214	1011.814	No
SLV 12	-7339	-11956	-157	0.03	10.205	0.929	46.999	1011.814	No
SLV 11	-7339	-11956	-157	0.03	10.205	0.929	46.999	1011.814	No
SLV 7	-6473	-10313	-134	0.032	9.332	0.923	49.93	1011.814	No
SLV 8	-6473	-10313	-134	0.032	9.332	0.923	49.93	1011.814	No
SLV 1	-3310	-3412	81	0.037	6.186	0.899	60.133	1108.806	No
SLV 2	-3310	-3412	81	0.037	6.186	0.899	60.133	1108.806	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	8.656	SLV 61	Si
V_SLV	2.541	SLV 82	Si
PF_SLV	1.244	SLV 1	Si
V_SLV	0.662	SLV 1	No
PFFP_SLV	1.986	SLV 5	Si
R_SLV	0.034	SLV 5	No

Maschio 187

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-12.3	595.1	L5	L6	931	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 5	835	-45541	-466212	1.75	16652798	35.719	Si
SLV 5	1187	-22374	109802	0.86	9317631	84.859	Si
SLV 26	835	-51444	-540890	1.97	18145669	33.548	Si
SLV 26	1187	-25490	132034	0.98	10441159	79.079	Si
SLV 6	835	-47414	-147031	1.82	17143040	116.595	Si
SLV 6	1187	-24184	274166	0.93	9975471	36.385	Si
SLV 50	835	-57559	-124155	2.21	19530875	157.311	Si
SLV 50	1187	-28822	334947	1.11	11595670	34.619	Si
SLV 34	835	-56648	-572188	2.17	19335041	33.791	Si
SLV 34	1187	-27690	133698	1.06	11208766	83.837	Si
SLV 13	835	-50745	-497510	1.95	17976864	36.134	Si
SLV 13	1187	-24574	111465	0.94	10115292	90.748	Si
SLV 8	835	-46525	-140974	1.78	16912335	119.968	Si
SLV 8	1187	-23673	285991	0.91	9791368	34.237	Si
SLV 48	835	-58448	-130212	2.24	19718584	151.435	Si
SLV 48	1187	-29333	323122	1.13	11768248	36.42	Si
SLV 71	835	-63462	-198833	2.43	20712706	104.172	Si
SLV 71	1187	-31938	357180	1.23	12631104	35.363	Si
SLV 29	835	-52429	-215652	2.01	18379731	85.229	Si
SLV 29	1187	-26789	308224	1.03	10897143	35.355	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	835	-42938	3605252	1.65	17293204	4.797	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	1187	-21706	1487818	0.83	9415408	6.328	Si
SLV 11	835	-52695	4117178	2.02	20471385	4.972	Si
SLV 11	1187	-23386	1764067	0.9	10086717	5.718	Si
SLV 1	835	-30101	-2089004	1.15	12687838	6.074	Si
SLV 1	1187	-19352	-694149	0.74	8461240	12.189	Si
SLV 2	835	-30101	-2089004	1.15	12687838	6.074	Si
SLV 2	1187	-19352	-694149	0.74	8461240	12.189	Si
SLV 5	835	-40701	-4236299	1.56	16525364	3.901	Si
SLV 5	1187	-21101	-1373222	0.81	9171690	6.679	Si
SLV 6	835	-40701	-4236299	1.56	16525364	3.901	Si
SLV 6	1187	-21101	-1373222	0.81	9171690	6.679	Si
SLV 7	835	-42938	3605252	1.65	17293204	4.797	Si
SLV 7	1187	-21706	1487818	0.83	9415408	6.328	Si
SLV 10	835	-50458	-3724372	1.94	19767337	5.308	Si
SLV 10	1187	-22781	-1096973	0.87	9845969	8.976	Si
SLV 9	835	-50458	-3724372	1.94	19767337	5.308	Si
SLV 9	1187	-22781	-1096973	0.87	9845969	8.976	Si
SLV 12	835	-52695	4117178	2.02	20471385	4.972	Si
SLV 12	1187	-23386	1764067	0.9	10086717	5.718	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	835	-54558	583	-12462		2.09	931	0.83	21757			37.33	Si
SLU 43	1187	-25873	581	237551		0.99	931	0.69	17932			30.89	Si
SLU 39	835	-56862	605	-148671		2.18	931	0.85	22064			36.48	Si
SLU 39	1187	-26983	602	213204		1.04	931	0.69	18080			30.03	Si
SLU 81	835	-67896	727	-131851		2.6	931	0.9	23535			32.38	Si
SLU 81	1187	-32132	724	262160		1.23	931	0.72	18766			25.92	Si
SLU 53	835	-62151	584	-105663		2.38	931	0.87	22769			39.01	Si
SLU 53	1187	-30058	580	276087		1.15	931	0.71	18490			31.87	Si
SLU 83	835	-69396	636	-187698		2.66	931	0.91	23735			37.3	Si
SLU 83	1187	-33606	632	310858		1.29	931	0.73	18963			30.01	Si
SLU 18	835	-50959	558	-73993		1.95	931	0.82	21277			38.14	Si
SLU 18	1187	-23867	556	190971		0.92	931	0.68	17664			31.78	Si
SLU 62	835	-63493	589	-113020		2.44	931	0.88	22948			38.93	Si
SLU 62	1187	-30491	586	288625		1.17	931	0.71	18548			31.67	Si
SLU 64	835	-60461	630	-87140		2.32	931	0.86	22544			35.8	Si
SLU 64	1187	-28989	627	259783		1.11	931	0.7	18347			29.27	Si
SLU 74	835	-68055	631	-180341		2.61	931	0.9	23556			37.35	Si
SLU 74	1187	-33174	626	298320		1.27	931	0.73	18905			30.18	Si
SLU 60	835	-61992	680	-57173		2.38	931	0.87	22748			33.46	Si
SLU 60	1187	-29016	678	239927		1.11	931	0.7	18351			27.08	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	835	-52695	15484	4117178		2.02	931	1.24	32262			2.08	Si
SLV 12	1187	-23386	11513	1764067		0.9	931	1.01	26400			2.29	Si
SLV 6	835	-40701	-14497	-4236299		1.56	931	1.15	29864			2.06	Si
SLV 6	1187	-21101	-10530	-1373222		0.81	931	1	25943			2.46	Si
SLV 10	835	-50458	-14180	-3724372		1.94	931	1.22	31815			2.24	Si
SLV 10	1187	-22781	-10294	-1096973		0.87	931	1.01	26279			2.55	Si
SLV 7	835	-42938	15168	3605252		1.65	931	1.16	30311			2	Si
SLV 7	1187	-21706	11276	1487818		0.83	931	1	26064			2.31	Si
SLD 8	835	-45092	6701	1494419		1.73	931	1.18	30742			4.59	Si
SLD 8	1187	-22011	5051	744210		0.84	931	1	26126			5.17	Si
SLV 9	835	-50458	-14180	-3724372		1.94	931	1.22	31815			2.24	Si
SLV 9	1187	-22781	-10294	-1096973		0.87	931	1.01	26279			2.55	Si
SLV 5	835	-40701	-14497	-4236299		1.56	931	1.15	29864			2.06	Si
SLV 5	1187	-21101	-10530	-1373222		0.81	931	1	25943			2.46	Si
SLV 11	835	-52695	15484	4117178		2.02	931	1.24	32262			2.08	Si
SLV 11	1187	-23386	11513	1764067		0.9	931	1.01	26400			2.29	Si
SLD 7	835	-45092	6701	1494419		1.73	931	1.18	30742			4.59	Si
SLD 7	1187	-22011	5051	744210		0.84	931	1	26126			5.17	Si
SLV 8	835	-42938	15168	3605252		1.65	931	1.16	30311			2	Si
SLV 8	1187	-21706	11276	1487818		0.83	931	1	26064			2.31	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1011 $W_a 0.05$ denominatore $8 \gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.46	0.98	-25654	113133	330224	2.92	Si
SLV 1	14	0.46	0.98	-25654	113133	330224	2.92	Si
SLV 4	14	0.46	1	-26088	113133	335318	2.96	Si
SLV 3	14	0.46	1	-26088	113133	335318	2.96	Si
SLV 6	14	0.46	1.18	-30638	113133	387679	3.43	Si
SLV 5	14	0.46	1.18	-30638	113133	387679	3.43	Si
SLV 8	14	0.46	1.23	-32087	113133	403960	3.57	Si
SLV 7	14	0.46	1.23	-32087	113133	403960	3.57	Si
SLV 10	14	0.46	1.36	-35346	113133	439927	3.89	Si
SLV 9	14	0.46	1.36	-35346	113133	439927	3.89	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1011 $W_a = 0.05$ $T_a = 0.0739$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-25134	-63295	-199	0.044	38.842	0.915	69.336	1108.806	No
SLV 16	-25134	-63295	-199	0.044	38.842	0.915	69.336	1108.806	No
SLV 14	-24952	-62624	-196	0.044	38.661	0.915	69.557	1108.806	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-24952	-62624	-196	0.044	38.661	0.915	69.557	1108.806	No
SLV 2	-19352	-30101	210	0.044	33.095	0.905	70.74	1108.806	No
SLV 1	-19352	-30101	210	0.044	33.095	0.905	70.74	1108.806	No
SLV 3	-19534	-30772	207	0.044	33.274	0.905	70.87	1108.806	No
SLV 4	-19534	-30772	207	0.044	33.274	0.905	70.87	1108.806	No
SLV 11	-23386	-52695	-61	0.048	37.098	0.912	76.84	1011.814	No
SLV 12	-23386	-52695	-61	0.048	37.098	0.912	76.84	1011.814	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	33.548	SLU 26	Si
V_SLU	25.924	SLU 81	Si
PF_SLV	3.901	SLV 5	Si
V_SLV	1.998	SLV 7	Si
PFFP_SLV	2.919	SLV 1	Si
R_SLV	0.063	SLV 15	No

Maschio 188

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	-335.9	-2467.8	126.6	L6	L7	462.6	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 41	1187	-10256	-900910	0.79	2141542	2.377	Si
SLU 41	1397	-4007	-601542	0.31	891551	1.482	Si
SLU 36	1187	-11115	-995861	0.86	2299937	2.309	Si
SLU 36	1397	-4724	-674097	0.36	1043704	1.548	Si
SLU 38	1187	-11088	-978250	0.86	2295001	2.346	Si
SLU 38	1397	-4756	-665297	0.37	1050438	1.579	Si
SLU 32	1187	-10213	-854285	0.79	2133485	2.497	Si
SLU 32	1397	-3997	-572390	0.31	889330	1.554	Si
SLU 35	1187	-10857	-976341	0.84	2252711	2.307	Si
SLU 35	1397	-4514	-673132	0.35	999323	1.485	Si
SLU 39	1187	-9612	-778854	0.74	2020619	2.594	Si
SLU 39	1397	-3490	-500800	0.27	780409	1.558	Si
SLU 40	1187	-9870	-798374	0.76	2069253	2.592	Si
SLU 40	1397	-3700	-501766	0.29	825734	1.646	Si
SLU 37	1187	-10830	-958730	0.84	2247744	2.345	Si
SLU 37	1397	-4546	-664332	0.35	1006086	1.514	Si
SLU 33	1187	-10471	-873806	0.81	2181440	2.496	Si
SLU 33	1397	-4207	-573356	0.32	934188	1.629	Si
SLU 42	1187	-10514	-920430	0.81	2189448	2.379	Si
SLU 42	1397	-4217	-602507	0.33	936400	1.554	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 11	1187	-7622	265761	0.59	1677857	6.313	Si
SLV 11	1397	-1711	-305990	0.13	391517	1.28	Si
SLV 12	1187	-7622	265761	0.59	1677857	6.313	Si
SLV 12	1397	-1711	-305990	0.13	391517	1.28	Si
SLV 1	1187	-9222	-1013043	0.71	2008693	1.983	Si
SLV 1	1397	-3197	-566445	0.25	724417	1.279	Si
SLD 4	1187	-8734	-541841	0.67	1908532	3.522	Si
SLD 4	1397	-2825	-440531	0.22	641610	1.456	Si
SLV 7	1187	-7475	58237	0.58	1647121	28.283	Si
SLV 7	1397	-1257	-471974	0	0	0	No, e>l/2
SLD 3	1187	-8734	-541841	0.67	1908532	3.522	Si
SLD 3	1397	-2825	-440531	0.22	641610	1.456	Si
SLV 8	1187	-7475	58237	0.58	1647121	28.283	Si
SLV 8	1397	-1257	-471974	0	0	0	No, e>l/2
SLV 2	1187	-9222	-1013043	0.71	2008693	1.983	Si
SLV 2	1397	-3197	-566445	0.25	724417	1.279	Si
SLV 4	1187	-8337	-630350	0.64	1826564	2.898	Si
SLV 4	1397	-2057	-612219	0	0	0	No, e>l/2
SLV 3	1187	-8337	-630350	0.64	1826564	2.898	Si
SLV 3	1397	-2057	-612219	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 35	1187	-10857	147	-976341		0.91	424.08	0.68	8044			54.78	Si
SLU 35	1397	-4514	205	-673132		0.65	246.48	0.64	4436			21.64	Si
SLU 78	1187	-13568	106	-1046719		1.05	462.42	0.7	9002			85.12	Si
SLU 78	1397	-5645	266	-708172		0.63	317.52	0.64	5692			21.43	Si
SLU 48	1187	-12585	275	-692885		0.97	462.57	0.69	8874			32.27	Si
SLU 48	1397	-5256	325	-496988		0.46	410.19	0.62	7082			21.8	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	1187	-13146	253	-877315		1.02	462.57	0.69	8948			35.44	Si
SLU 69	1397	-5485	311	-618652		0.55	355.51	0.63	6262			20.12	Si
SLU 77	1187	-13310	196	-1027199		1.03	462.33	0.69	8967			45.66	Si
SLU 77	1397	-5435	255	-707207		0.64	303.49	0.64	5446			21.34	Si
SLU 72	1187	-13377	138	-879224		1.03	462.57	0.69	8979			65.24	Si
SLU 72	1397	-5728	301	-610817		0.55	373.92	0.63	6580			21.87	Si
SLU 70	1187	-13404	162	-896835		1.03	462.57	0.69	8983			55.49	Si
SLU 70	1397	-5696	322	-619618		0.55	367.49	0.63	6476			20.13	Si
SLU 49	1187	-12843	184	-712405		0.99	462.57	0.69	8908			48.32	Si
SLU 49	1397	-5466	335	-497953		0.46	420.58	0.62	7271			21.68	Si
SLU 27	1187	-10693	203	-826457		0.83	461.99	0.67	8612			42.43	Si
SLU 27	1397	-4564	261	-584577		0.53	309.62	0.63	5425			20.78	Si
SLU 28	1187	-10951	112	-845978		0.85	462.11	0.67	8648			76.99	Si
SLU 28	1397	-4775	272	-585543		0.52	325.94	0.63	5707			21.01	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	1187	-7475	5044	58237		0.58	462.57	0.95	12288			2.44	Si
SLV 7	1397	-1257	2817	-471974		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-10427	-4607	-1217406		1.08	343.59	1.05	10103			2.19	Si
SLV 6	1397	-5056	-2353	-319393		0.39	462.57	0.91	11804			5.02	Si
SLV 3	1187	-8337	1902	-630350		0.64	462.57	0.96	12461			6.55	Si
SLV 3	1397	-2057	1241	-612219		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-7475	5044	58237		0.58	462.57	0.95	12288			2.44	Si
SLV 8	1397	-1257	2817	-471974		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	-7622	4841	265761		0.59	462.57	0.95	12318			2.54	Si
SLV 12	1397	-1711	2616	-305990		0.39	157.44	0.91	4016			1.53	Si
SLV 5	1187	-10427	-4607	-1217406		1.08	343.59	1.05	10103			2.19	Si
SLV 5	1397	-5056	-2353	-319393		0.39	462.57	0.91	11804			5.02	Si
SLV 9	1187	-10574	-4810	-1009881		0.93	407.34	1.02	11619			2.42	Si
SLV 9	1397	-5510	-2554	-153409		0.43	462.57	0.92	11895			4.66	Si
SLV 10	1187	-10574	-4810	-1009881		0.93	407.34	1.02	11619			2.42	Si
SLV 10	1397	-5510	-2554	-153409		0.43	462.57	0.92	11895			4.66	Si
SLV 11	1187	-7622	4841	265761		0.59	462.57	0.95	12318			2.54	Si
SLV 11	1397	-1711	2616	-305990		0.39	157.44	0.91	4016			1.53	Si
SLV 4	1187	-8337	1902	-630350		0.64	462.57	0.96	12461			6.55	Si
SLV 4	1397	-2057	1241	-612219		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.53	0	-2397	52251	0	0	No, e>t/2
SLV 7	14	0.53	0	-2397	52251	0	0	No, e>t/2
SLV 3	14	0.53	0	-3055	52251	0	0	No, e>t/2
SLV 4	14	0.53	0	-3055	52251	0	0	No, e>t/2
SLV 12	14	0.53	0	-2893	52251	0	0	No, e>t/2
SLV 11	14	0.53	0	-2893	52251	0	0	No, e>t/2
SLV 2	14	0.53	0.32	-4114	52251	56105	1.07	Si
SLV 1	14	0.53	0.32	-4114	52251	56105	1.07	Si
SLV 15	14	0.53	0.36	-4707	52251	63944	1.22	Si
SLV 16	14	0.53	0.36	-4707	52251	63944	1.22	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 1	-383	-9222	-539	0	7.577	0.959	0	993.207	No
SLV 11	38	-7622	131	0	0	0	0	922.376	No, Trazione
SLV 2	-383	-9222	-539	0	7.577	0.959	0	993.207	No
SLV 4	-39	-8337	-631	0	7.511	0.995	0	993.207	No
SLV 10	-1110	-10574	436	0	7.935	0.918	0	922.376	No
SLV 12	38	-7622	131	0	0	0	0	922.376	No, Trazione
SLV 7	188	-7475	-270	0	0	0	0	922.376	No, Trazione
SLV 8	188	-7475	-270	0	0	0	0	922.376	No, Trazione
SLV 9	-1110	-10574	436	0	7.935	0.918	0	922.376	No
SLV 3	-39	-8337	-631	0	7.511	0.995	0	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.482	SLU 41	Si
V_SLU	20.119	SLU 69	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 3	No
R_SLV	0	SLV 12	No

Maschio 189

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2467.8	206.6	-2467.8	595.1	L6	L7	388.5	28	316	316	316			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 38	1187	-12296	541740	1.13	2057055	3.797	Si
SLU 38	1397	-5953	217810	0.55	1078633	4.952	Si
SLU 41	1187	-11545	516297	1.06	1950483	3.778	Si
SLU 41	1397	-5483	141369	0.5	999228	7.068	Si
SLU 79	1187	-14613	613376	1.34	2370406	3.865	Si
SLU 79	1397	-6991	218181	0.64	1250786	5.733	Si
SLU 36	1187	-12317	548390	1.13	2059981	3.756	Si
SLU 36	1397	-5935	213758	0.55	1075727	5.032	Si
SLU 37	1187	-12357	570400	1.14	2065552	3.621	Si
SLU 37	1397	-6057	209868	0.56	1096215	5.223	Si
SLU 32	1187	-11335	495698	1.04	1920172	3.874	Si
SLU 32	1397	-5345	139525	0.49	975654	6.993	Si
SLU 27	1187	-11838	513469	1.09	1992312	3.88	Si
SLU 27	1397	-5758	210966	0.53	1045784	4.957	Si
SLU 35	1187	-12377	577049	1.14	2068473	3.585	Si
SLU 35	1397	-6040	205816	0.56	1093317	5.312	Si
SLU 29	1187	-11817	506820	1.09	1989342	3.925	Si
SLU 29	1397	-5775	215017	0.53	1048703	4.877	Si
SLU 77	1187	-14633	620026	1.35	2373120	3.827	Si
SLU 77	1397	-6973	214130	0.64	1247959	5.828	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	1187	-11735	614390	1.08	2078273	3.383	Si
SLV 3	1397	-5318	-11496	0.49	991657	86.263	Si
SLV 11	1187	-10416	669575	0.96	1864701	2.785	Si
SLV 11	1397	-5741	-15901	0.53	1067100	67.111	Si
SLV 8	1187	-11630	783403	1.07	2061459	2.631	Si
SLV 8	1397	-6164	-43771	0.57	1141747	26.085	Si
SLV 12	1187	-10416	669575	0.96	1864701	2.785	Si
SLV 12	1397	-5741	-15901	0.53	1067100	67.111	Si
SLV 7	1187	-11630	783403	1.07	2061459	2.631	Si
SLV 7	1397	-6164	-43771	0.57	1141747	26.085	Si
SLV 9	1187	-6668	-192745	0.61	1230280	6.383	Si
SLV 9	1397	-1918	169216	0.18	367222	2.17	Si
SLV 4	1187	-11735	614390	1.08	2078273	3.383	Si
SLV 4	1397	-5318	-11496	0.49	991657	86.263	Si
SLV 5	1187	-7882	-78917	0.72	1440340	18.251	Si
SLV 5	1397	-2340	141345	0.22	446586	3.16	Si
SLV 10	1187	-6668	-192745	0.61	1230280	6.383	Si
SLV 10	1397	-1918	169216	0.18	367222	2.17	Si
SLV 6	1187	-7882	-78917	0.72	1440340	18.251	Si
SLV 6	1397	-2340	141345	0.22	446586	3.16	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 9	1187	-10724	-605	384425		0.99	388.5	0.69	7473			12.36	Si
SLU 9	1397	-5076	-730	197422		0.47	388.5	0.62	6720			9.2	Si
SLU 7	1187	-10745	-591	391075		0.99	388.5	0.69	7476			12.64	Si
SLU 7	1397	-5058	-709	193371		0.47	388.5	0.62	6718			9.48	Si
SLU 30	1187	-11756	-621	478160		1.08	388.5	0.7	7611			12.27	Si
SLU 30	1397	-5670	-767	222959		0.52	388.5	0.63	6799			8.87	Si
SLU 72	1187	-14012	-591	521137		1.29	388.5	0.73	7912			13.4	Si
SLU 72	1397	-6604	-738	231272		0.61	388.5	0.64	6924			9.38	Si
SLU 51	1187	-12980	-575	427402		1.19	388.5	0.71	7774			13.53	Si
SLU 51	1397	-6009	-702	205735		0.55	388.5	0.63	6844			9.76	Si
SLU 36	1187	-12317	-518	548390		1.13	388.5	0.71	7686			14.84	Si
SLU 36	1397	-5935	-656	213758		0.55	388.5	0.63	6835			10.42	Si
SLU 38	1187	-12296	-531	541740		1.13	388.5	0.71	7683			14.46	Si
SLU 38	1397	-5953	-677	217810		0.55	388.5	0.63	6837			10.09	Si
SLU 28	1187	-11777	-607	484810		1.08	388.5	0.7	7614			12.54	Si
SLU 28	1397	-5653	-745	218908		0.52	388.5	0.62	6797			9.12	Si
SLU 70	1187	-14033	-577	527787		1.29	388.5	0.73	7914			13.71	Si
SLU 70	1397	-6586	-717	227221		0.61	388.5	0.64	6922			9.66	Si
SLU 49	1187	-13001	-561	434051		1.2	388.5	0.71	7777			13.85	Si
SLU 49	1397	-5991	-680	201684		0.55	388.5	0.63	6842			10.06	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1187	-10416	3928	669575		0.96	388.5	1.02	11148			2.84	Si
SLV 12	1397	-5741	2165	-15901		0.53	388.5	0.94	10213			4.72	Si
SLV 6	1187	-7882	-3723	-78917		0.72	388.5	0.98	10641			2.86	Si
SLV 6	1397	-2340	-2027	141345		0.22	388.5	0.88	9533			4.7	Si
SLD 12	1187	-9682	1720	454450		0.89	388.5	1.01	11001			6.4	Si
SLD 12	1397	-4756	950	28986		0.44	388.5	0.92	10016			10.55	Si
SLV 5	1187	-7882	-3723	-78917		0.72	388.5	0.98	10641			2.86	Si
SLV 5	1397	-2340	-2027	141345		0.22	388.5	0.88	9533			4.7	Si
SLV 9	1187	-6668	-3582	-192745		0.61	388.5	0.96	10399			2.9	Si
SLV 9	1397	-1918	-1971	169216		0.22	318.09	0.88	7806			3.96	Si
SLD 11	1187	-9682	1720	454450		0.89	388.5	1.01	11001			6.4	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 11	1397	-4756	950	28986		0.44	388.5	0.92	10016			10.55	Si
SLV 8	1187	-11630	3787	783403		1.09	380.67	1.05	11208			2.96	Si
SLV 8	1397	-6164	2109	-43771		0.57	388.5	0.95	10298			4.88	Si
SLV 11	1187	-10416	3928	669575		0.96	388.5	1.02	11148			2.84	Si
SLV 11	1397	-5741	2165	-15901		0.53	388.5	0.94	10213			4.72	Si
SLV 7	1187	-11630	3787	783403		1.09	380.67	1.05	11208			2.96	Si
SLV 7	1397	-6164	2109	-43771		0.57	388.5	0.95	10298			4.88	Si
SLV 10	1187	-6668	-3582	-192745		0.61	388.5	0.96	10399			2.9	Si
SLV 10	1397	-1918	-1971	169216		0.22	318.09	0.88	7806			3.96	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.53	0	-2899	43884	0	0	No, $e > t/2$
SLV 9	14	0.53	0	-2899	43884	0	0	No, $e > t/2$
SLV 14	14	0.53	0.31	-3395	43884	46322	1.06	Si
SLV 13	14	0.53	0.31	-3395	43884	46322	1.06	Si
SLV 5	14	0.53	0.33	-3595	43884	48963	1.12	Si
SLV 6	14	0.53	0.33	-3595	43884	48963	1.12	Si
SLV 15	14	0.53	0.42	-4516	43884	61080	1.39	Si
SLV 16	14	0.53	0.42	-4516	43884	61080	1.39	Si
SLV 2	14	0.53	0.53	-5714	43884	76552	1.74	Si
SLV 1	14	0.53	0.53	-5714	43884	76552	1.74	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-1228	-10416	450	0	6.862	0.908	0	922.376	No
SLV 11	-1228	-10416	450	0	6.862	0.908	0	922.376	No
SLV 9	458	-6668	33	0	0	0	0	922.376	No, Trazione
SLV 14	-147	-6563	426	0	6.32	0.979	0	993.207	No
SLV 2	-105	-10611	-281	0	6.314	0.984	0	993.207	No
SLV 1	-105	-10611	-281	0	6.314	0.984	0	993.207	No
SLV 13	-147	-6563	426	0	6.32	0.979	0	993.207	No
SLV 10	458	-6668	33	0	0	0	0	922.376	No, Trazione
SLV 6	471	-7882	-180	0	0	0	0	922.376	No, Trazione
SLV 5	471	-7882	-180	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.585	SLU 35	Si
V_SLU	8.866	SLU 30	Si
PF_SLV	2.17	SLV 9	Si
V_SLV	2.838	SLV 11	Si
PFFP_SLV	0	SLV 9	No
R_SLV	0	SLV 10	No

Maschio 190

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2271.3	595.1	-2467.8	595.1	L6	L7	196.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 80	1277	-4495	315260	0.82	397347	1.26	Si
SLU 80	1457	-3365	-91430	0.61	305825	3.345	Si
SLU 29	1277	-3801	270201	0.69	341809	1.265	Si
SLU 29	1457	-2927	-92118	0.53	268780	2.918	Si
SLU 38	1277	-3649	291699	0.66	329299	1.129	Si
SLU 38	1457	-2973	-89944	0.54	272760	3.033	Si
SLU 42	1277	-3285	252373	0.6	299131	1.185	Si
SLU 42	1457	-2558	-56036	0.46	236999	4.229	Si
SLU 37	1277	-3697	295178	0.67	333290	1.129	Si
SLU 37	1457	-2994	-87263	0.54	274496	3.146	Si
SLU 16	1277	-3537	252431	0.64	320108	1.268	Si
SLU 16	1457	-2652	-76293	0.48	245150	3.213	Si
SLU 30	1277	-3753	266722	0.68	337841	1.267	Si
SLU 30	1457	-2906	-94798	0.53	267038	2.817	Si
SLU 34	1277	-3298	239349	0.6	300157	1.254	Si
SLU 34	1457	-2516	-59903	0.46	233312	3.895	Si
SLU 41	1277	-3334	255852	0.61	303199	1.185	Si
SLU 41	1457	-2579	-53356	0.47	238772	4.475	Si
SLU 79	1277	-4544	318740	0.83	401157	1.259	Si
SLU 79	1457	-3386	-88750	0.62	307526	3.465	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	1277	-3222	344897	0	0	0	No, e>l/2
SLV 8	1457	-2352	11145	0.43	223017	20.011	Si
SLV 5	1277	-2564	53410	0.47	242341	4.537	Si
SLV 5	1457	-1220	-94424	0.22	117722	1.247	Si
SLD 4	1277	-2881	239971	0.52	270912	1.129	Si
SLD 4	1457	-1847	-44358	0.34	176476	3.978	Si
SLV 3	1277	-2696	365169	0	0	0	No, e>l/2
SLV 3	1457	-1891	-78070	0.34	180605	2.313	Si
SLV 6	1277	-2564	53410	0.47	242341	4.537	Si
SLV 6	1457	-1220	-94424	0.22	117722	1.247	Si
SLV 1	1277	-2499	277722	0	0	0	No, e>l/2
SLV 1	1457	-1552	-109741	0.28	148952	1.357	Si
SLD 3	1277	-2881	239971	0.52	270912	1.129	Si
SLD 3	1457	-1847	-44358	0.34	176476	3.978	Si
SLV 7	1277	-3222	344897	0	0	0	No, e>l/2
SLV 7	1457	-2352	11145	0.43	223017	20.011	Si
SLV 4	1277	-2696	365169	0	0	0	No, e>l/2
SLV 4	1457	-1891	-78070	0.34	180605	2.313	Si
SLV 2	1277	-2499	277722	0	0	0	No, e>l/2
SLV 2	1457	-1552	-109741	0.28	148952	1.357	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 36	1277	-3972	2846	279790		1.7	83.44	0.78	1828			0.64	No, Vu<V
SLU 36	1457	-3356	2641	-93792		0.61	196.5	0.64	3504			1.33	Si
SLU 37	1277	-3697	2852	295178		2.39	55.24	0.87	1352			0.47	No, Vu<V
SLU 37	1457	-2994	2635	-87263		0.54	196.5	0.63	3456			1.31	Si
SLU 30	1277	-3753	2659	266722		1.64	81.53	0.77	1769			0.67	No, Vu<V
SLU 30	1457	-2906	2441	-94798		0.53	196.5	0.63	3444			1.41	Si
SLU 41	1277	-3334	2389	255852		1.85	64.53	0.8	1448			0.61	No, Vu<V
SLU 41	1457	-2579	2245	-53356		0.47	196.5	0.62	3400			1.51	Si
SLU 38	1277	-3649	2864	291699		2.37	54.91	0.87	1341			0.47	No, Vu<V
SLU 38	1457	-2973	2646	-89944		0.54	196.5	0.63	3453			1.3	Si
SLU 42	1277	-3285	2400	252373		1.82	64.3	0.8	1438			0.6	No, Vu<V
SLU 42	1457	-2558	2256	-56036		0.46	196.5	0.62	3398			1.51	Si
SLU 35	1277	-4021	2835	283269		1.72	83.39	0.79	1833			0.65	No, Vu<V
SLU 35	1457	-3376	2630	-91112		0.61	196.5	0.64	3507			1.33	Si
SLU 29	1277	-3801	2647	270201		1.67	81.51	0.78	1775			0.67	No, Vu<V
SLU 29	1457	-2927	2430	-92118		0.53	196.5	0.63	3447			1.42	Si
SLU 79	1277	-4544	3043	318740		1.92	84.3	0.81	1917			0.63	No, Vu<V
SLU 79	1457	-3386	2825	-88750		0.62	196.5	0.64	3508			1.24	Si
SLU 80	1277	-4495	3055	315260		1.9	84.35	0.81	1911			0.63	No, Vu<V
SLU 80	1457	-3365	2835	-91430		0.61	196.5	0.64	3505			1.24	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1277	-2499	3193	277722		0	0	0.83	0			0	No, Vu<V
SLV 1	1457	-1552	2461	-109741		0.67	82.61	0.97	2238			0.91	No, Vu<V
SLV 5	1277	-2564	1256	53410		0.47	196.5	0.93	5098			4.06	Si
SLV 5	1457	-1220	1590	-94424		0.7	62.62	0.97	1705			1.07	Si
SLV 4	1277	-2696	3597	365169		0	0	0.83	0			0	No, Vu<V
SLV 4	1457	-1891	2476	-78070		0.4	170.92	0.91	4366			1.76	Si
SLV 3	1277	-2696	3597	365169		0	0	0.83	0			0	No, Vu<V
SLV 3	1457	-1891	2476	-78070		0.4	170.92	0.91	4366			1.76	Si
SLV 7	1277	-3222	2602	344897		0	0	0.83	0			0	No, Vu<V
SLV 7	1457	-2352	1643	11145		0.43	196.5	0.92	5055			3.08	Si
SLD 4	1277	-2881	2281	239971		2.29	44.85	1.29	1623			0.71	No, Vu<V
SLD 4	1457	-1847	1767	-44358		0.34	196.5	0.9	4954			2.8	Si
SLV 8	1277	-3222	2602	344897		0	0	0.83	0			0	No, Vu<V
SLV 8	1457	-2352	1643	11145		0.43	196.5	0.92	5055			3.08	Si
SLV 6	1277	-2564	1256	53410		0.47	196.5	0.93	5098			4.06	Si
SLV 6	1457	-1220	1590	-94424		0.7	62.62	0.97	1705			1.07	Si
SLD 3	1277	-2881	2281	239971		2.29	44.85	1.29	1623			0.71	No, Vu<V
SLD 3	1457	-1847	1767	-44358		0.34	196.5	0.9	4954			2.8	Si
SLV 2	1277	-2499	3193	277722		0	0	0.83	0			0	No, Vu<V
SLV 2	1457	-1552	2461	-109741		0.67	82.61	0.97	2238			0.91	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0.42	-2318	22196	31338	1.41	Si
SLV 6	14	0.53	0.42	-2318	22196	31338	1.41	Si
SLV 9	14	0.53	0.43	-2368	22196	31985	1.44	Si
SLV 10	14	0.53	0.43	-2368	22196	31985	1.44	Si
SLV 2	14	0.53	0.47	-2589	22196	34850	1.57	Si
SLV 1	14	0.53	0.47	-2589	22196	34850	1.57	Si
SLV 13	14	0.53	0.5	-2754	22196	36982	1.67	Si
SLV 14	14	0.53	0.5	-2754	22196	36982	1.67	Si
SLV 4	14	0.53	0.52	-2871	22196	38472	1.73	Si
SLV 3	14	0.53	0.52	-2871	22196	38472	1.73	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 6	-1884	-3056	-167	0.016	4.547	0.89	26.165	922.376	No
SLV 5	-1884	-3056	-167	0.016	4.547	0.89	26.165	922.376	No
SLV 9	-1538	-2195	-155	0.017	4.229	0.889	27.495	922.376	No
SLV 10	-1538	-2195	-155	0.017	4.229	0.889	27.495	922.376	No
SLV 2	-2242	-5142	-137	0.027	4.884	0.892	43.27	993.207	No
SLV 1	-2242	-5142	-137	0.027	4.884	0.892	43.27	993.207	No
SLV 14	-1088	-2270	-96	0.034	3.835	0.892	55.804	993.207	No
SLV 13	-1088	-2270	-96	0.034	3.835	0.892	55.804	993.207	No
SLV 4	-2203	-6068	-99	0.036	4.847	0.892	59.412	993.207	No
SLV 3	-2203	-6068	-99	0.036	4.847	0.892	59.412	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.129	SLU 38	Si
V_SLU	0.468	SLU 38	No
PF_SLV	0	SLV 1	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.412	SLV 5	Si
R_SLV	0.028	SLV 5	No

Maschio 191

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1975.8	595.1	-2181.3	595.1	L6	L7	205.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 57	1277	790	298275	0	0	0	No, Trazione
SLU 57	1457	3382	415205	0	0	0	No, Trazione
SLU 59	1277	1563	306888	0	0	0	No, Trazione
SLU 59	1457	4155	428951	0	0	0	No, Trazione
SLU 56	1277	781	298090	0	0	0	No, Trazione
SLU 56	1457	3373	411775	0	0	0	No, Trazione
SLU 1	1277	-1634	116166	0.28	162007	1.395	Si
SLU 1	1457	367	104490	0	0	0	No, Trazione
SLU 60	1277	-2310	147088	0.4	225697	1.534	Si
SLU 60	1457	281	109557	0	0	0	No, Trazione
SLU 61	1277	-2301	147273	0.4	224843	1.527	Si
SLU 61	1457	290	112987	0	0	0	No, Trazione
SLU 53	1277	-1161	216664	0	0	0	No, e>l/2
SLU 53	1457	1430	254380	0	0	0	No, Trazione
SLU 58	1277	1554	306704	0	0	0	No, Trazione
SLU 58	1457	4145	425521	0	0	0	No, Trazione
SLU 55	1277	-373	225585	0	0	0	No, e>l/2
SLU 55	1457	2219	273844	0	0	0	No, Trazione
SLU 54	1277	-1152	216849	0	0	0	No, e>l/2
SLU 54	1457	1440	257811	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 5	1277	-848	68035	0.15	86127	1.266	Si
SLV 5	1457	1726	261975	0	0	0	No, Trazione
SLV 6	1277	-848	68035	0.15	86127	1.266	Si
SLV 6	1457	1726	261975	0	0	0	No, Trazione
SLV 14	1277	-979	-35354	0.17	99239	2.807	Si
SLV 14	1457	1506	352511	0	0	0	No, Trazione
SLD 1	1277	-1446	174779	0	0	0	No, e>l/2
SLD 1	1457	527	71606	0	0	0	No, Trazione
SLV 13	1277	-979	-35354	0.17	99239	2.807	Si
SLV 13	1457	1506	352511	0	0	0	No, Trazione
SLV 10	1277	-704	-12979	0.12	71637	5.52	Si
SLV 10	1457	2039	365615	0	0	0	No, Trazione
SLV 7	1277	-2115	274155	0	0	0	No, e>l/2
SLV 7	1457	-842	-120930	0	0	0	No, e>l/2
SLV 9	1277	-704	-12979	0.12	71637	5.52	Si
SLV 9	1457	2039	365615	0	0	0	No, Trazione
SLV 4	1277	-1840	296530	0	0	0	No, e>l/2
SLV 4	1457	-308	-107826	0	0	0	No, e>l/2
SLV 8	1277	-2115	274155	0	0	0	No, e>l/2
SLV 8	1457	-842	-120930	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 58	1277	1554	-617	306704		0	0	0.56	0			0	No, Vu<V
SLU 58	1457	4145	-617	425521		0	0	0.56	0			0	No, Vu<V
SLU 54	1277	-1152	-185	216849		0	0	0.56	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	1457	1440	-185	257811		0	0	0.56	0			0	No, Vu<V
SLU 1	1277	-1634	98	116166		0.61	94.92	0.64	1694			17.29	Si
SLU 1	1457	367	98	104490		0	0	0.56	0			0	No, Vu<V
SLU 57	1277	790	-607	298275		0	0	0.56	0			0	No, Vu<V
SLU 57	1457	3382	-607	415205		0	0	0.56	0			0	No, Vu<V
SLU 59	1277	1563	-635	306888		0	0	0.56	0			0	No, Vu<V
SLU 59	1457	4155	-635	428951		0	0	0.56	0			0	No, Vu<V
SLU 56	1277	781	-589	298090		0	0	0.56	0			0	No, Vu<V
SLU 56	1457	3373	-589	411775		0	0	0.56	0			0	No, Vu<V
SLU 60	1277	-2310	252	147088		0.7	117.26	0.65	2132			8.48	Si
SLU 60	1457	281	252	109557		0	0	0.56	0			0	No, Vu<V
SLU 53	1277	-1161	-166	216664		0	0	0.56	0			0	No, Vu<V
SLU 53	1457	1430	-166	254380		0	0	0.56	0			0	No, Vu<V
SLU 55	1277	-373	-225	225585		0	0	0.56	0			0	No, Vu<V
SLU 55	1457	2219	-225	273844		0	0	0.56	0			0	No, Vu<V
SLU 61	1277	-2301	234	147273		0.71	116.26	0.65	2115			9.06	Si
SLU 61	1457	290	234	112987		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	1277	-848	-671	68035		0.45	67.69	0.92	1749			2.6	Si
SLV 6	1457	1726	-1356	261975		0	0	0.83	0			0	No, Vu<V
SLD 1	1277	-1446	816	174779		0	0	0.83	0			0	No, Vu<V
SLD 1	1457	527	516	71606		0	0	0.83	0			0	No, Vu<V
SLV 5	1277	-848	-671	68035		0.45	67.69	0.92	1749			2.6	Si
SLV 5	1457	1726	-1356	261975		0	0	0.83	0			0	No, Vu<V
SLV 8	1277	-2115	2106	274155		0	0	0.83	0			0	No, Vu<V
SLV 8	1457	-842	2455	-120930		0	0	0.83	0			0	No, Vu<V
SLV 4	1277	-1840	2624	296530		0	0	0.83	0			0	No, Vu<V
SLV 4	1457	-308	2219	-107826		0	0	0.83	0			0	No, Vu<V
SLV 10	1277	-704	-1948	-12979		0.12	205.5	0.86	4936			2.53	Si
SLV 10	1457	2039	-2297	365615		0	0	0.83	0			0	No, Vu<V
SLV 9	1277	-704	-1948	-12979		0.12	205.5	0.86	4936			2.53	Si
SLV 9	1457	2039	-2297	365615		0	0	0.83	0			0	No, Vu<V
SLV 7	1277	-2115	2106	274155		0	0	0.83	0			0	No, Vu<V
SLV 7	1457	-842	2455	-120930		0	0	0.83	0			0	No, Vu<V
SLV 13	1277	-979	-2466	-35354		0.17	199.97	0.87	4862			1.97	Si
SLV 13	1457	1506	-2061	352511		0	0	0.83	0			0	No, Vu<V
SLV 14	1277	-979	-2466	-35354		0.17	199.97	0.87	4862			1.97	Si
SLV 14	1457	1506	-2061	352511		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.53	0	268	23213	0	0	No, Trazione
SLV 13	14	0.53	0	-518	23213	0	0	No, e>t/2
SLV 10	14	0.53	0	268	23213	0	0	No, Trazione
SLV 2	14	0.53	0	-293	23213	0	0	No, e>t/2
SLV 3	14	0.53	0	-898	23213	0	0	No, e>t/2
SLV 5	14	0.53	0	335	23213	0	0	No, Trazione
SLV 1	14	0.53	0	-293	23213	0	0	No, e>t/2
SLV 4	14	0.53	0	-898	23213	0	0	No, e>t/2
SLV 14	14	0.53	0	-518	23213	0	0	No, e>t/2
SLV 6	14	0.53	0	335	23213	0	0	No, Trazione

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	1725	-1984	-453	0	0	0	0	922.376	No, Trazione
SLV 5	1725	-1984	-453	0	0	0	0	922.376	No, Trazione
SLV 4	-895	388	164	0	0	0	0	993.207	No, Trazione
SLV 9	2585	-2964	-473	0	0	0	0	922.376	No, Trazione
SLV 8	-764	-93	459	0	3.712	0.902	0	922.376	No
SLV 3	-895	388	164	0	0	0	0	993.207	No, Trazione
SLV 12	96	-1073	439	0	0	0	0	922.376	No, Trazione
SLV 7	-764	-93	459	0	3.712	0.902	0	922.376	No
SLV 11	96	-1073	439	0	0	0	0	922.376	No, Trazione
SLV 10	2585	-2964	-473	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 16	No

Maschio 192

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2249.3	-335.9	-2467.8	-335.9	L6	L7	218.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 17	1277	-3890	279457	0.64	391838	1.402	Si
SLU 17	1457	-2752	21257	0.45	284037	13.362	Si
SLU 37	1277	-4180	307963	0.68	418320	1.358	Si
SLU 37	1457	-3156	17708	0.52	322983	18.24	Si
SLU 80	1277	-4987	350123	0.82	490277	1.4	Si
SLU 80	1457	-3511	20986	0.57	356568	16.991	Si
SLU 38	1277	-4098	328425	0.67	410910	1.251	Si
SLU 38	1457	-3118	26063	0.51	319283	12.25	Si
SLU 34	1277	-3610	292503	0.59	365821	1.251	Si
SLU 34	1457	-2598	21541	0.42	269062	12.491	Si
SLU 41	1277	-3705	271933	0.61	374647	1.378	Si
SLU 41	1457	-2694	9393	0.44	278453	29.645	Si
SLU 31	1277	-3176	242939	0.52	324862	1.337	Si
SLU 31	1457	-2105	11449	0.34	220244	19.238	Si
SLU 42	1277	-3623	292395	0.59	367067	1.255	Si
SLU 42	1457	-2656	17748	0.43	274674	15.476	Si
SLU 36	1277	-4400	317230	0.72	438253	1.381	Si
SLU 36	1457	-3494	15523	0.57	354950	22.867	Si
SLU 40	1277	-3189	242831	0.52	326134	1.343	Si
SLU 40	1457	-2162	7656	0.35	225980	29.517	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 9	1277	-3610	280621	0.59	375301	1.337	Si
SLV 9	1457	-2087	46065	0.34	221605	4.811	Si
SLD 6	1277	-3453	237299	0.56	359821	1.516	Si
SLD 6	1457	-2065	16579	0.34	219400	13.234	Si
SLV 2	1277	-3592	323383	0.59	373581	1.155	Si
SLV 2	1457	-2406	16856	0.39	254437	15.095	Si
SLV 6	1277	-3746	353989	0.61	388717	1.098	Si
SLV 6	1457	-2352	51156	0.38	248841	4.864	Si
SLV 1	1277	-3592	323383	0.59	373581	1.155	Si
SLV 1	1457	-2406	16856	0.39	254437	15.095	Si
SLV 10	1277	-3610	280621	0.59	375301	1.337	Si
SLV 10	1457	-2087	46065	0.34	221605	4.811	Si
SLV 3	1277	-3324	223781	0.54	347022	1.551	Si
SLV 3	1457	-2188	-17634	0.36	232067	13.16	Si
SLV 4	1277	-3324	223781	0.54	347022	1.551	Si
SLV 4	1457	-2188	-17634	0.36	232067	13.16	Si
SLV 5	1277	-3746	353989	0.61	388717	1.098	Si
SLV 5	1457	-2352	51156	0.38	248841	4.864	Si
SLD 5	1277	-3453	237299	0.56	359821	1.516	Si
SLD 5	1457	-2065	16579	0.34	219400	13.234	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 34	1277	-3610	2150	292503	1.52	84.67	0.76	1798				0.84	No, Vu<V
SLU 34	1457	-2598	2030	21541	0.42	218.5	0.61	3745				1.84	Si
SLU 76	1277	-4498	2349	314201	1.36	118.21	0.74	2439				1.04	Si
SLU 76	1457	-2992	2229	16464	0.49	218.5	0.62	3798				1.7	Si
SLU 36	1277	-4400	2391	317230	1.41	111.45	0.74	2320				0.97	No, Vu<V
SLU 36	1457	-3494	2248	15523	0.57	218.5	0.63	3865				1.72	Si
SLU 80	1277	-4987	2551	350123	1.52	117.11	0.76	2487				0.97	No, Vu<V
SLU 80	1457	-3511	2399	20986	0.57	218.5	0.63	3867				1.61	Si
SLU 37	1277	-4180	2248	307963	1.4	106.7	0.74	2217				0.99	No, Vu<V
SLU 37	1457	-3156	2117	17708	0.52	218.5	0.62	3820				1.8	Si
SLU 38	1277	-4098	2352	328425	1.68	87.33	0.78	1905				0.81	No, Vu<V
SLU 38	1457	-3118	2201	26063	0.51	218.5	0.62	3815				1.73	Si
SLU 42	1277	-3623	2190	292395	1.51	85.66	0.76	1816				0.83	No, Vu<V
SLU 42	1457	-2656	2084	17748	0.43	218.5	0.61	3753				1.8	Si
SLU 40	1277	-3189	1919	242831	1.15	99.33	0.71	1970				1.03	Si
SLU 40	1457	-2162	1857	7656	0.35	218.5	0.6	3687				1.99	Si
SLU 84	1277	-4512	2390	314093	1.36	118.9	0.74	2451				1.03	Si
SLU 84	1457	-3049	2282	12671	0.5	218.5	0.62	3805				1.67	Si
SLU 41	1277	-3705	2087	271933	1.23	107.54	0.72	2167				1.04	Si
SLU 41	1457	-2694	2000	9393	0.44	218.5	0.61	3758				1.88	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	1277	-3610	1407	280621	1.36	94.52	1.11	2927				2.08	Si
SLV 9	1457	-2087	1659	46065	0.34	218.5	0.9	5516				3.32	Si
SLV 5	1277	-3746	2249	353989	3.02	44.24	1.44	1781				0.79	No, Vu<V
SLV 5	1457	-2352	1439	51156	0.38	218.5	0.91	5569				3.87	Si
SLV 2	1277	-3592	2835	323383	2.22	57.67	1.28	2064				0.73	No, Vu<V
SLV 2	1457	-2406	959	16856	0.39	218.5	0.91	5580				5.82	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1277	-3592	2835	323383		2.22	57.67	1.28	2064			0.73	No, Vu<V
SLV 1	1457	-2406	959	16856		0.39	218.5	0.91	5580			5.82	Si
SLV 4	1277	-3324	2495	223781		0.94	125.8	1.02	3600			1.44	Si
SLV 4	1457	-2188	769	-17634		0.36	218.5	0.9	5536			7.2	Si
SLD 2	1277	-3385	1933	224700		0.94	128.61	1.02	3678			1.9	Si
SLD 2	1457	-2088	1124	1818		0.34	218.5	0.9	5516			4.91	Si
SLD 1	1277	-3385	1933	224700		0.94	128.61	1.02	3678			1.9	Si
SLD 1	1457	-2088	1124	1818		0.34	218.5	0.9	5516			4.91	Si
SLV 6	1277	-3746	2249	353989		3.02	44.24	1.44	1781			0.79	No, Vu<V
SLV 6	1457	-2352	1439	51156		0.38	218.5	0.91	5569			3.87	Si
SLV 10	1277	-3610	1407	280621		1.36	94.52	1.11	2927			2.08	Si
SLV 10	1457	-2087	1659	46065		0.34	218.5	0.9	5516			3.32	Si
SLV 3	1277	-3324	2495	223781		0.94	125.8	1.02	3600			1.44	Si
SLV 3	1457	-2188	769	-17634		0.36	218.5	0.9	5536			7.2	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.53	0.39	-2357	24681	31958	1.29	Si
SLV 11	14	0.53	0.39	-2357	24681	31958	1.29	Si
SLV 16	14	0.53	0.39	-2373	24681	32171	1.3	Si
SLV 15	14	0.53	0.39	-2373	24681	32171	1.3	Si
SLV 8	14	0.53	0.42	-2596	24681	35082	1.42	Si
SLV 7	14	0.53	0.42	-2596	24681	35082	1.42	Si
SLV 13	14	0.53	0.43	-2626	24681	35476	1.44	Si
SLV 14	14	0.53	0.43	-2626	24681	35476	1.44	Si
SLV 4	14	0.53	0.52	-3170	24681	42499	1.72	Si
SLV 3	14	0.53	0.52	-3170	24681	42499	1.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-1246	-6212	255	0	4.295	0.892	0	993.207	No
SLV 7	-1370	-3716	235	0	4.401	0.89	0	922.376	No
SLV 8	-1370	-3716	235	0	4.401	0.89	0	922.376	No
SLV 4	-1246	-6212	255	0	4.295	0.892	0	993.207	No
SLV 1	-1132	-7275	184	0.007	4.2	0.893	11.519	993.207	No
SLV 2	-1132	-7275	184	0.007	4.2	0.893	11.519	993.207	No
SLV 11	-1362	-2638	147	0.022	4.394	0.89	35.761	922.376	No
SLV 12	-1362	-2638	147	0.022	4.394	0.89	35.761	922.376	No
SLV 13	-1106	-3683	-110	0.033	4.178	0.894	53.172	993.207	No
SLV 14	-1106	-3683	-110	0.033	4.178	0.894	53.172	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.251	SLU 34	Si
V_SLU	0.81	SLU 38	No
PF_SLV	1.098	SLV 5	Si
V_SLV	0.728	SLV 1	No
PFFP_SLV	1.295	SLV 11	Si
R_SLV	0	SLV 3	No

Maschio 193

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1936.8	-335.9	-2159.3	-335.9	L6	L7	222.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 23	1387	-1891	28271	0.3	202556	7.165	Si
SLU 23	1467	-1046	-36292	0.17	113999	3.141	Si
SLU 31	1387	-1848	25504	0.3	198152	7.77	Si
SLU 31	1467	-1040	-40163	0.17	113286	2.821	Si
SLU 10	1387	-1712	19660	0.27	184037	9.361	Si
SLU 10	1467	-869	-34519	0.14	95070	2.754	Si
SLU 2	1387	-1755	22427	0.28	188466	8.404	Si
SLU 2	1467	-876	-30648	0.14	95788	3.125	Si
SLU 19	1387	-1800	19526	0.29	193120	9.891	Si
SLU 19	1467	-945	-33757	0.15	103179	3.056	Si
SLU 34	1387	-1984	44219	0.32	212125	4.797	Si
SLU 34	1467	-1221	-40904	0.2	132564	3.241	Si
SLU 73	1387	-2408	31017	0.39	255142	8.226	Si
SLU 73	1467	-1303	-45607	0.21	141232	3.097	Si
SLU 40	1387	-1936	25370	0.31	207183	8.166	Si
SLU 40	1467	-1115	-39401	0.18	121339	3.08	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 13	1387	-1848	38374	0.3	198091	5.162	Si
SLU 13	1467	-1051	-35261	0.17	114483	3.247	Si
SLU 52	1387	-2271	25173	0.36	241362	9.588	Si
SLU 52	1467	-1133	-39963	0.18	123212	3.083	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 10	1387	-1936	71668	0.31	209937	2.929	Si
SLV 10	1467	-1235	-82830	0.2	135163	1.632	Si
SLV 6	1387	-1750	113956	0.28	190223	1.669	Si
SLV 6	1467	-1209	-96314	0.19	132360	1.374	Si
SLV 1	1387	-1675	116479	0.27	182266	1.565	Si
SLV 1	1467	-1106	-68466	0.18	121309	1.772	Si
SLV 2	1387	-1675	116479	0.27	182266	1.565	Si
SLV 2	1467	-1106	-68466	0.18	121309	1.772	Si
SLD 9	1387	-1995	45219	0.32	216144	4.78	Si
SLD 9	1467	-1162	-49813	0.19	127326	2.556	Si
SLV 9	1387	-1936	71668	0.31	209937	2.929	Si
SLV 9	1467	-1235	-82830	0.2	135163	1.632	Si
SLD 5	1387	-1915	63265	0.31	207666	3.283	Si
SLD 5	1467	-1151	-55533	0.18	126103	2.271	Si
SLD 6	1387	-1915	63265	0.31	207666	3.283	Si
SLD 6	1467	-1151	-55533	0.18	126103	2.271	Si
SLV 5	1387	-1750	113956	0.28	190223	1.669	Si
SLV 5	1467	-1209	-96314	0.19	132360	1.374	Si
SLD 10	1387	-1995	45219	0.32	216144	4.78	Si
SLD 10	1467	-1162	-49813	0.19	127326	2.556	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	1387	-2269	1598	66753		0.36	222.5	0.6	3764			2.35	Si
SLU 30	1467	-1487	692	-35354		0.24	222.5	0.59	3659			5.29	Si
SLU 36	1387	-2707	1574	61802		0.43	222.5	0.61	3822			2.43	Si
SLU 36	1467	-1910	706	-40426		0.31	222.5	0.6	3716			5.26	Si
SLU 80	1387	-2785	1774	69499		0.45	222.5	0.62	3832			2.16	Si
SLU 80	1467	-1744	806	-44668		0.28	222.5	0.59	3694			4.59	Si
SLU 71	1387	-2987	1618	73844		0.48	222.5	0.62	3859			2.39	Si
SLU 71	1467	-1869	725	-37165		0.3	222.5	0.6	3710			5.12	Si
SLU 79	1387	-2944	1684	71077		0.47	222.5	0.62	3854			2.29	Si
SLU 79	1467	-1862	769	-41037		0.3	222.5	0.6	3709			4.83	Si
SLU 72	1387	-2828	1708	72266		0.45	222.5	0.62	3838			2.25	Si
SLU 72	1467	-1751	762	-40797		0.28	222.5	0.59	3695			4.85	Si
SLU 70	1387	-3309	1618	70082		0.53	222.5	0.63	3902			2.41	Si
SLU 70	1467	-2180	732	-41998		0.35	222.5	0.6	3752			5.13	Si
SLU 38	1387	-2226	1665	63986		0.36	222.5	0.6	3758			2.26	Si
SLU 38	1467	-1481	736	-39225		0.24	222.5	0.59	3659			4.97	Si
SLU 37	1387	-2385	1575	65564		0.38	222.5	0.61	3779			2.4	Si
SLU 37	1467	-1598	699	-35593		0.26	222.5	0.59	3674			5.26	Si
SLU 78	1387	-3266	1684	67315		0.52	222.5	0.63	3897			2.31	Si
SLU 78	1467	-2173	776	-45869		0.35	222.5	0.6	3751			4.83	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	1387	-2343	-1952	-62084		0.38	222.5	0.91	5660			2.9	Si
SLV 11	1467	-1029	-2119	41686		0.17	212.22	0.87	5158			2.43	Si
SLV 1	1387	-1675	3187	116479		0.48	125.16	0.93	3255			1.02	Si
SLV 1	1467	-1106	2070	-68466		0.27	148.12	0.89	3677			1.78	Si
SLV 10	1387	-1936	2234	71668		0.31	222.5	0.9	5579			2.5	Si
SLV 10	1467	-1235	2309	-82830		0.33	132.54	0.9	3340			1.45	Si
SLV 6	1387	-1750	3350	113956		0.45	138.41	0.92	3580			1.07	Si
SLV 6	1467	-1209	2914	-96314		0.46	94.75	0.92	2453			0.84	No, Vu<V
SLV 9	1387	-1936	2234	71668		0.31	222.5	0.9	5579			2.5	Si
SLV 9	1467	-1235	2309	-82830		0.33	132.54	0.9	3340			1.45	Si
SLV 12	1387	-2343	-1952	-62084		0.38	222.5	0.91	5660			2.9	Si
SLV 12	1467	-1029	-2119	41686		0.17	212.22	0.87	5158			2.43	Si
SLV 2	1387	-1675	3187	116479		0.48	125.16	0.93	3255			1.02	Si
SLV 2	1467	-1106	2070	-68466		0.27	148.12	0.89	3677			1.78	Si
SLV 4	1387	-1797	1931	76353		0.31	206.3	0.9	5173			2.68	Si
SLV 4	1467	-1045	742	-31111		0.17	222.5	0.87	5401			7.28	Si
SLV 5	1387	-1750	3350	113956		0.45	138.41	0.92	3580			1.07	Si
SLV 5	1467	-1209	2914	-96314		0.46	94.75	0.92	2453			0.84	No, Vu<V
SLV 3	1387	-1797	1931	76353		0.31	206.3	0.9	5173			2.68	Si
SLV 3	1467	-1045	742	-31111		0.17	222.5	0.87	5401			7.28	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.53	0.31	-1953	25133	26638	1.06	Si
SLV 12	14	0.53	0.31	-1953	25133	26638	1.06	Si
SLV 16	14	0.53	0.34	-2113	25133	28765	1.14	Si
SLV 15	14	0.53	0.34	-2113	25133	28765	1.14	Si
SLV 8	14	0.53	0.35	-2150	25133	29247	1.16	Si
SLV 7	14	0.53	0.35	-2150	25133	29247	1.16	Si
SLV 13	14	0.53	0.39	-2448	25133	33167	1.32	Si
SLV 14	14	0.53	0.39	-2448	25133	33167	1.32	Si
SLV 4	14	0.53	0.44	-2770	25133	37365	1.49	Si
SLV 3	14	0.53	0.44	-2770	25133	37365	1.49	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 $W_a = 0.05$ $T_a = 0.0596$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-477	-3867	-232	0	3.782	0.923	0	922.376	No
SLV 12	-820	-2248	311	0	4.014	0.902	0	922.376	No
SLV 6	-477	-3867	-232	0	3.782	0.923	0	922.376	No
SLV 11	-820	-2248	311	0	4.014	0.902	0	922.376	No
SLV 7	-869	-2414	318	0	4.051	0.901	0	922.376	No
SLV 8	-869	-2414	318	0	4.051	0.901	0	922.376	No
SLV 9	-427	-3701	-239	0	3.754	0.927	0	922.376	No
SLV 10	-427	-3701	-239	0	3.754	0.927	0	922.376	No
SLV 3	-790	-3117	134	0.023	3.992	0.904	36.529	993.207	No
SLV 4	-790	-3117	134	0.023	3.992	0.904	36.529	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.754	SLU 10	Si
V_SLU	2.161	SLU 80	Si
PF_SLV	1.374	SLV 5	Si
V_SLV	0.842	SLV 5	No
PFFP_SLV	1.06	SLV 11	Si
R_SLV	0	SLV 5	No

Maschio 194

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1826.3	-335.9	-1886.8	-335.9	L6	L7	60.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	$\tau 0$	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 40	1387	-320	11093	0	0	0	No, e>l/2
SLU 40	1467	-393	-11051	0.23	11559	1.046	Si
SLU 36	1387	-120	10334	0	0	0	No, e>l/2
SLU 36	1467	-1029	-21715	0.61	28804	1.326	Si
SLU 38	1387	93	9623	0	0	0	No, Trazione
SLU 38	1467	-900	-23114	0.53	25439	1.101	Si
SLU 37	1387	-43	9820	0	0	0	No, e>l/2
SLU 37	1467	-1004	-23071	0.59	28156	1.22	Si
SLU 41	1387	-250	10746	0	0	0	No, e>l/2
SLU 41	1467	-750	-17209	0.44	21457	1.247	Si
SLU 34	1387	-23	10036	0	0	0	No, e>l/2
SLU 34	1467	-578	-16941	0.34	16740	0.988	No, M>Mu
SLU 35	1387	-255	10531	0	0	0	No, e>l/2
SLU 35	1467	-1133	-21672	0.67	31462	1.452	Si
SLU 83	1387	-413	12801	0	0	0	No, e>l/2
SLU 83	1467	-819	-17938	0.48	23297	1.299	Si
SLU 47	1387	-225	9722	0	0	0	No, e>l/2
SLU 47	1467	-522	-13402	0.31	15184	1.133	Si
SLU 42	1387	-114	10549	0	0	0	No, e>l/2
SLU 42	1467	-646	-17252	0.38	18624	1.08	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 11	1387	1476	-28594	0	0	0	No, Trazione
SLV 11	1467	328	21689	0	0	0	No, Trazione
SLD 1	1387	-1019	17347	0.6	29294	1.689	Si
SLD 1	1467	-563	-17517	0	0	0	No, e>l/2
SLV 12	1387	1476	-28594	0	0	0	No, Trazione
SLV 12	1467	328	21689	0	0	0	No, Trazione
SLV 6	1387	-2443	47029	1.44	65180	1.386	Si
SLV 6	1467	-1148	-36928	0	0	0	No, e>l/2
SLV 4	1387	-732	7581	0.43	21354	2.817	Si
SLV 4	1467	-362	-16340	0	0	0	No, e>l/2
SLV 14	1387	-235	10855	0	0	0	No, e>l/2
SLV 14	1467	-457	1101	0.27	13526	12.281	Si
SLV 7	1387	1016	-23251	0	0	0	No, Trazione
SLV 7	1467	233	12048	0	0	0	No, Trazione
SLV 8	1387	1016	-23251	0	0	0	No, Trazione
SLV 8	1467	233	12048	0	0	0	No, Trazione
SLV 5	1387	-2443	47029	1.44	65180	1.386	Si
SLV 5	1467	-1148	-36928	0	0	0	No, e>l/2
SLV 13	1387	-235	10855	0	0	0	No, e>l/2
SLV 13	1467	-457	1101	0.27	13526	12.281	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1387	93	380	9623		0	0	0.56	0			0	No, Vu<V
SLU 38	1467	-900	-439	-23114		2.35	13.67	0.87	333			0.76	No, Vu<V
SLU 34	1387	-23	351	10036		0	0	0.56	0			0	No, Vu<V
SLU 34	1467	-578	-348	-16941		7.49	2.75	1.08	84			0.24	No, Vu<V
SLU 41	1387	-250	378	10746		0	0	0.56	0			0	No, Vu<V
SLU 41	1467	-750	-312	-17209		1.22	21.92	0.72	441			1.41	Si
SLU 35	1387	-255	402	10531		0	0	0.56	0			0	No, Vu<V
SLU 35	1467	-1133	-407	-21672		1.21	33.37	0.72	670			1.64	Si
SLU 36	1387	-120	394	10334		0	0	0.56	0			0	No, Vu<V
SLU 36	1467	-1029	-435	-21715		1.34	27.44	0.73	564			1.3	Si
SLU 42	1387	-114	370	10549		0	0	0.56	0			0	No, Vu<V
SLU 42	1467	-646	-339	-17252		2.17	10.62	0.85	251			0.74	No, Vu<V
SLU 83	1387	-413	433	12801		0	0	0.56	0			0	No, Vu<V
SLU 83	1467	-819	-324	-17938		1.17	25.02	0.71	498			1.54	Si
SLU 37	1387	-43	388	9820		0	0	0.56	0			0	No, Vu<V
SLU 37	1467	-1004	-412	-23071		1.64	21.8	0.77	473			1.15	Si
SLU 47	1387	-225	316	9722		0	0	0.56	0			0	No, Vu<V
SLU 47	1467	-522	-276	-13402		1.36	13.68	0.74	282			1.02	Si
SLU 40	1387	-320	346	11093		0	0	0.56	0			0	No, Vu<V
SLU 40	1467	-393	-230	-11051		2.17	6.47	0.85	153			0.67	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	1387	-235	-12	10855		0	0	0.83	0			0	No, Vu<V
SLV 13	1467	-457	-134	1101		0.27	60.5	0.89	1503			11.19	Si
SLV 12	1387	1476	-815	-28594		0	0	0.83	0			0	No, Vu<V
SLV 12	1467	328	-691	21689		0	0	0.83	0			0	No, Vu<V
SLV 11	1387	1476	-815	-28594		0	0	0.83	0			0	No, Vu<V
SLV 11	1467	328	-691	21689		0	0	0.83	0			0	No, Vu<V
SLV 4	1387	-732	562	7581		0.44	59.67	0.92	1539			2.74	Si
SLV 4	1467	-362	-132	-16340		0	0	0.83	0			0	No, Vu<V
SLV 5	1387	-2443	1365	47029		2.64	33	1.36	1259			0.92	No, Vu<V
SLV 5	1467	-1148	425	-36928		0	0	0.83	0			0	No, Vu<V
SLV 14	1387	-235	-12	10855		0	0	0.83	0			0	No, Vu<V
SLV 14	1467	-457	-134	1101		0.27	60.5	0.89	1503			11.19	Si
SLV 7	1387	1016	-477	-23251		0	0	0.83	0			0	No, Vu<V
SLV 7	1467	233	-598	12048		0	0	0.83	0			0	No, Vu<V
SLV 8	1387	1016	-477	-23251		0	0	0.83	0			0	No, Vu<V
SLV 8	1467	233	-598	12048		0	0	0.83	0			0	No, Vu<V
SLD 1	1387	-1019	629	17347		0.92	39.65	1.02	1129			1.79	Si
SLD 1	1467	-563	-6	-17517		0	0	0.83	0			0	No, Vu<V
SLV 6	1387	-2443	1365	47029		2.64	33	1.36	1259			0.92	No, Vu<V
SLV 6	1467	-1148	425	-36928		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.53	0	-191	6834	0	0	No, $e>t/2$
SLV 11	14	0.53	0	498	6834	0	0	No, Trazione
SLV 7	14	0.53	0	589	6834	0	0	No, Trazione
SLV 12	14	0.53	0	498	6834	0	0	No, Trazione
SLV 16	14	0.53	0	-191	6834	0	0	No, $e>t/2$
SLV 2	14	0.53	0	-385	6834	0	0	No, $e>t/2$
SLV 3	14	0.53	0	114	6834	0	0	No, Trazione
SLV 1	14	0.53	0	-385	6834	0	0	No, $e>t/2$
SLV 8	14	0.53	0	589	6834	0	0	No, Trazione
SLV 4	14	0.53	0	114	6834	0	0	No, Trazione

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	1468	-636	-44	0	0	0	0	922.376	No, Trazione
SLV 11	1646	-573	-46	0	0	0	0	922.376	No, Trazione
SLV 16	879	-457	-43	0	0	0	0	993.207	No, Trazione
SLV 3	284	-668	-38	0	0	0	0	993.207	No, Trazione
SLV 14	43	-420	-39	0	0	0	0	993.207	No, Trazione
SLV 12	1646	-573	-46	0	0	0	0	922.376	No, Trazione
SLV 15	879	-457	-43	0	0	0	0	993.207	No, Trazione
SLV 13	43	-420	-39	0	0	0	0	993.207	No, Trazione
SLV 7	1468	-636	-44	0	0	0	0	922.376	No, Trazione
SLV 4	284	-668	-38	0	0	0	0	993.207	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 38	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No



Maschio 195

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1720.3	-335.9	-1736.3	-335.9	L6	L7	16	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 50	1277	-871	3844	1.94	5306	1.38	Si
SLU 50	1457	-262	168	0.58	1944	11.58	Si
SLU 48	1277	-890	3754	1.99	5382	1.434	Si
SLU 48	1457	-317	463	0.71	2314	4.998	Si
SLU 16	1277	-781	3427	1.74	4911	1.433	Si
SLU 16	1457	-218	-153	0.49	1637	10.696	Si
SLU 37	1277	-859	3708	1.92	5253	1.416	Si
SLU 37	1457	-245	-228	0.55	1826	8.005	Si
SLU 8	1277	-788	3675	1.76	4942	1.345	Si
SLU 8	1457	-216	-25	0.48	1628	66.256	Si
SLU 71	1277	-949	4126	2.12	5617	1.362	Si
SLU 71	1457	-289	93	0.64	2128	22.922	Si
SLU 29	1277	-865	3957	1.93	5281	1.335	Si
SLU 29	1457	-243	-100	0.54	1817	18.242	Si
SLU 6	1277	-806	3586	1.8	5024	1.401	Si
SLU 6	1457	-271	270	0.61	2009	7.428	Si
SLU 69	1277	-967	4036	2.16	5687	1.409	Si
SLU 69	1457	-344	388	0.77	2491	6.422	Si
SLU 27	1277	-884	3867	1.97	5358	1.385	Si
SLU 27	1457	-298	195	0.67	2192	11.215	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	1277	620	-8508	0	0	0	No, Trazione
SLV 11	1457	-581	486	1.3	4153	8.549	Si
SLV 8	1277	33	-2408	0	0	0	No, Trazione
SLV 8	1457	-232	-1213	0.52	1778	1.465	Si
SLV 7	1277	33	-2408	0	0	0	No, Trazione
SLV 7	1457	-232	-1213	0.52	1778	1.465	Si
SLV 6	1277	-1395	10295	3.11	8316	0.808	No, M>Mu
SLV 6	1457	200	509	0	0	0	No, Trazione
SLV 10	1277	-808	4195	1.8	5510	1.313	Si
SLV 10	1457	-149	2209	0	0	0	No, e>l/2
SLD 1	1277	-891	5980	1.99	5968	0.998	No, M>Mu
SLD 1	1457	83	-603	0	0	0	No, Trazione
SLV 12	1277	620	-8508	0	0	0	No, Trazione
SLV 12	1457	-581	486	1.3	4153	8.549	Si
SLV 9	1277	-808	4195	1.8	5510	1.313	Si
SLV 9	1457	-149	2209	0	0	0	No, e>l/2
SLV 13	1277	377	-7368	0	0	0	No, Trazione
SLV 13	1457	-707	3588	1.58	4924	1.372	Si
SLV 14	1277	377	-7368	0	0	0	No, Trazione
SLV 14	1457	-707	3588	1.58	4924	1.372	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 71	1277	-949	199	4126		3.09	10.96	0.97	297			1.49	Si
SLU 71	1457	-289	-11	93		0.64	16	0.64	287			26.24	Si
SLU 37	1277	-859	178	3708		2.78	11.04	0.93	286			1.61	Si
SLU 37	1457	-245	4	-228		0.55	16	0.63	282			78.12	Si
SLU 29	1277	-865	191	3957		3.01	10.28	0.96	275			1.44	Si
SLU 29	1457	-243	-3	-100		0.54	16	0.63	281			103.84	Si
SLU 8	1277	-788	178	3675		2.81	10	0.93	261			1.47	Si
SLU 8	1457	-216	-5	-25		0.48	16	0.62	278			51.95	Si
SLU 79	1277	-942	186	3877		2.89	11.65	0.94	307			1.65	Si
SLU 79	1457	-290	-5	-36		0.65	16	0.64	288			61.95	Si
SLU 69	1277	-967	194	4036		3.01	11.48	0.96	308			1.58	Si
SLU 69	1457	-344	-23	388		0.77	16	0.66	295			12.94	Si
SLU 6	1277	-806	173	3586		2.7	10.66	0.92	273			1.58	Si
SLU 6	1457	-271	-17	270		0.61	16	0.64	285			16.6	Si
SLU 48	1277	-890	181	3754		2.8	11.34	0.93	295			1.63	Si
SLU 48	1457	-317	-25	463		0.71	16	0.65	291			11.45	Si
SLU 27	1277	-884	186	3867		2.9	10.87	0.94	287			1.54	Si
SLU 27	1457	-298	-15	195		0.67	16	0.64	289			19.86	Si
SLU 50	1277	-871	186	3844		2.89	10.77	0.94	284			1.52	Si
SLU 50	1457	-262	-14	168		0.58	16	0.63	284			20.88	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1277	620	-702	-8508		0	0	0.83	0			0	No, Vu<V
SLV 12	1457	-581	146	486		1.3	16	1.09	489			3.35	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	1277	-808	491	4195		3.42	8.43	1.52	358			0.73	No, Vu<V
SLV 10	1457	-149	-240	2209		0	0	0.83	0			0	No, Vu<V
SLV 11	1277	620	-702	-8508		0	0	0.83	0			0	No, Vu<V
SLV 11	1457	-581	146	486		1.3	16	1.09	489			3.35	Si
SLV 7	1277	33	-407	-2408		0	0	0.83	0			0	No, Vu<V
SLV 7	1457	-232	197	-1213		1	8.32	1.03	240			1.22	Si
SLD 1	1277	-891	322	5980		8.23	3.87	1.63	176			0.55	No, Vu<V
SLD 1	1457	83	-8	-603		0	0	0.83	0			0	No, Vu<V
SLV 9	1277	-808	491	4195		3.42	8.43	1.52	358			0.73	No, Vu<V
SLV 9	1457	-149	-240	2209		0	0	0.83	0			0	No, Vu<V
SLV 6	1277	-1395	785	10295		26.79	1.86	1.63	85			0.11	No, Vu<V
SLV 6	1457	200	-190	509		0	0	0.83	0			0	No, Vu<V
SLV 13	1277	377	-270	-7368		0	0	0.83	0			0	No, Vu<V
SLV 13	1457	-707	-164	3588		2.88	8.77	1.41	346			2.11	Si
SLV 8	1277	33	-407	-2408		0	0	0.83	0			0	No, Vu<V
SLV 8	1457	-232	197	-1213		1	8.32	1.03	240			1.22	Si
SLV 14	1277	377	-270	-7368		0	0	0.83	0			0	No, Vu<V
SLV 14	1457	-707	-164	3588		2.88	8.77	1.41	346			2.11	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.53	0	0	1807	0	0	No, $e > t/2$
SLV 12	14	0.53	0	327	1807	0	0	No, Trazione
SLV 8	14	0.53	0	260	1807	0	0	No, Trazione
SLV 7	14	0.53	0	260	1807	0	0	No, Trazione
SLV 15	14	0.53	0	0	1807	0	0	No, $e > t/2$
SLV 11	14	0.53	0	327	1807	0	0	No, Trazione
SLV 4	14	0.53	0.5	-225	1807	3024	1.67	Si
SLV 3	14	0.53	0.5	-225	1807	3024	1.67	Si
SLV 13	14	0.53	0.78	-349	1807	4569	2.53	Si
SLV 14	14	0.53	0.78	-349	1807	4569	2.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-70	-55	37	0	0.297	0.897	0	922.376	No
SLV 5	-28	-205	32	0	0.269	0.931	0	922.376	No
SLV 6	-28	-205	32	0	0.269	0.931	0	922.376	No
SLV 1	22	-399	-18	0	0	0	0	993.207	No, Trazione
SLV 3	24	-415	-57	0	0	0	0	993.207	No, Trazione
SLV 4	24	-415	-57	0	0	0	0	993.207	No, Trazione
SLV 7	-22	-259	-97	0	0.265	0.941	0	922.376	No
SLV 2	22	-399	-18	0	0	0	0	993.207	No, Trazione
SLV 8	-22	-259	-97	0	0.265	0.941	0	922.376	No
SLV 10	-70	-55	37	0	0.297	0.897	0	922.376	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.335	SLU 29	Si
V_SLU	1.443	SLU 29	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No

Maschio 196

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1961.8	104.6	-1961.8	581.1	L6	L7	476.5	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 80	1187	-17378	820635	2.6	2816357	3.432	Si
SLU 80	1503	-4064	685577	0.61	895934	1.307	Si
SLU 72	1187	-17029	822542	2.55	2785915	3.387	Si
SLU 72	1503	-4095	687317	0.61	902157	1.313	Si
SLU 16	1187	-13989	719709	2.1	2474982	3.439	Si
SLU 16	1503	-3426	580311	0.51	764894	1.318	Si
SLU 17	1187	-14035	707164	2.1	2480340	3.507	Si
SLU 17	1503	-3441	582188	0.52	767896	1.319	Si
SLU 29	1187	-15495	854528	2.32	2639176	3.088	Si
SLU 29	1503	-3990	672628	0.6	880882	1.31	Si
SLU 30	1187	-15542	841983	2.33	2643920	3.14	Si
SLU 30	1503	-4005	674505	0.6	883813	1.31	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 37	1187	-15844	852622	2.37	2674302	3.137	Si
SLU 37	1503	-3959	670887	0.59	874630	1.304	Si
SLU 79	1187	-17331	833180	2.6	2812360	3.375	Si
SLU 79	1503	-4050	683699	0.61	893010	1.306	Si
SLU 38	1187	-15890	840077	2.38	2678905	3.189	Si
SLU 38	1503	-3974	672765	0.6	877565	1.304	Si
SLU 71	1187	-16983	835086	2.55	2781777	3.331	Si
SLU 71	1503	-4081	685440	0.61	899237	1.312	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 6	1187	-7256	72033	1.09	1574971	21.865	Si
SLD 6	1503	-1181	290307	0	0	0	No, $e \geq l/2$
SLV 1	1187	-6990	203385	1.05	1522649	7.487	Si
SLV 1	1503	-541	181110	0	0	0	No, $e \geq l/2$
SLV 7	1187	-8534	333862	1.28	1820455	5.453	Si
SLV 7	1503	-315	-172379	0	0	0	No, $e \geq l/2$
SLV 9	1187	-6881	-84812	1.03	1501153	17.7	Si
SLV 9	1503	-1794	515589	0	0	0	No, $e \geq l/2$
SLV 8	1187	-8534	333862	1.28	1820455	5.453	Si
SLV 8	1503	-315	-172379	0	0	0	No, $e \geq l/2$
SLV 6	1187	-6623	-6834	0.99	1449754	212.15	Si
SLV 6	1503	-1389	464017	0	0	0	No, $e \geq l/2$
SLV 10	1187	-6881	-84812	1.03	1501153	17.7	Si
SLV 10	1503	-1794	515589	0	0	0	No, $e \geq l/2$
SLD 5	1187	-7256	72033	1.09	1574971	21.865	Si
SLD 5	1503	-1181	290307	0	0	0	No, $e \geq l/2$
SLV 2	1187	-6990	203385	1.05	1522649	7.487	Si
SLV 2	1503	-541	181110	0	0	0	No, $e \geq l/2$
SLV 5	1187	-6623	-6834	0.99	1449754	212.15	Si
SLV 5	1503	-1389	464017	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 51	1187	-15175	-302	689629		2.27	476.52	0.86	5730			18.97	Si
SLU 51	1503	-3562	-264	596741		1.2	212.19	0.72	2125			8.05	Si
SLU 44	1187	-8643	-324	46745		1.3	476.52	0.73	4859			15	Si
SLU 44	1503	-1025	-201	162164		0.3	240.28	0.6	2006			9.98	Si
SLU 50	1187	-15128	-235	702174		2.27	476.52	0.86	5723			24.32	Si
SLU 50	1503	-3548	-225	594863		1.2	211.73	0.72	2120			9.44	Si
SLU 5	1187	-10437	-254	383447		1.56	476.52	0.76	5098			20.07	Si
SLU 5	1503	-2208	-201	367266		0.73	215.77	0.65	1973			9.82	Si
SLU 72	1187	-17029	-181	822542		2.55	476.52	0.9	5977			33.11	Si
SLU 72	1503	-4095	-213	687317		1.38	211.25	0.74	2189			10.27	Si
SLU 9	1187	-13687	-221	709070		2.05	476.52	0.83	5531			25.03	Si
SLU 9	1503	-3472	-219	583929		1.18	210.16	0.71	2097			9.56	Si
SLU 49	1187	-14877	-266	614768		2.23	476.52	0.85	5690			21.39	Si
SLU 49	1503	-3387	-242	555507		1.09	222.79	0.7	2184			9.01	Si
SLU 68	1187	-13779	-214	496918		2.07	476.52	0.83	5543			25.95	Si
SLU 68	1503	-2831	-195	470655		0.94	216.11	0.68	2058			10.57	Si
SLU 47	1187	-11924	-335	364005		1.79	476.52	0.79	5296			15.8	Si
SLU 47	1503	-2298	-246	380078		0.75	218.69	0.66	2007			8.17	Si
SLU 46	1187	-11596	-255	297508		1.74	476.52	0.79	5252			20.63	Si
SLU 46	1503	-2114	-198	337593		0.64	235.73	0.64	2115			10.7	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	-6623	-4852	-6834		0.99	476.52	1.03	6884			1.42	Si
SLV 5	1503	-1389	-1983	464017		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1187	-8534	5708	333862		1.28	476.52	1.09	7266			1.27	Si
SLV 7	1503	-315	2632	-172379		0	0	0.83	0			0	No, $V_u < V$
SLV 6	1187	-6623	-4852	-6834		0.99	476.52	1.03	6884			1.42	Si
SLV 6	1503	-1389	-1983	464017		0	0	0.83	0			0	No, $V_u < V$
SLV 1	1187	-6990	-45	203385		1.05	476.52	1.04	6957			155.41	Si
SLV 1	1503	-541	509	181110		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1187	-6881	-5804	-84812		1.03	476.52	1.04	6936			1.19	Si
SLV 10	1503	-1794	-2734	515589		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1187	-6990	-45	203385		1.05	476.52	1.04	6957			155.41	Si
SLV 2	1503	-541	509	181110		0	0	0.83	0			0	No, $V_u < V$
SLV 8	1187	-8534	5708	333862		1.28	476.52	1.09	7266			1.27	Si
SLV 8	1503	-315	2632	-172379		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	-6881	-5804	-84812		1.03	476.52	1.04	6936			1.19	Si
SLV 9	1503	-1794	-2734	515589		0	0	0.83	0			0	No, $V_u < V$
SLD 5	1187	-7256	-2071	72033		1.09	476.52	1.05	7011			3.39	Si
SLD 5	1503	-1181	-840	290307		0	0	0.83	0			0	No, $V_u < V$
SLD 6	1187	-7256	-2071	72033		1.09	476.52	1.05	7011			3.39	Si
SLD 6	1503	-1181	-840	290307		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.53	0	-3903	28791	0	0	No, $e > t/2$
SLV 5	14	0.53	0	-3903	28791	0	0	No, $e > t/2$
SLV 7	14	0.53	0	-3673	28791	0	0	No, $e > t/2$
SLV 1	14	0.53	0	-3114	28791	0	0	No, $e > t/2$
SLV 2	14	0.53	0	-3114	28791	0	0	No, $e > t/2$
SLV 8	14	0.53	0	-3673	28791	0	0	No, $e > t/2$



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.53	0	-3044	28791	0	0	No, $e > t/2$
SLV 4	14	0.53	0	-3044	28791	0	0	No, $e > t/2$
SLV 12	14	0.53	0.64	-4281	28791	28391	0.99	No, $M > Mu$
SLV 11	14	0.53	0.64	-4281	28791	28391	0.99	No, $M > Mu$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 $W_a = 0.03$ $T_a = 0.1191$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 7	-315	-8534	34	0.026	3.948	0.942	39.477	1966.941	No
SLV 8	-315	-8534	34	0.026	3.948	0.942	39.477	1966.941	No
SLV 12	-719	-8793	32	0.026	4.184	0.909	41.548	1966.941	No
SLV 11	-719	-8793	32	0.026	4.184	0.909	41.548	1966.941	No
SLV 9	-1794	-6881	-28	0.026	5.064	0.889	42.208	1966.941	No
SLV 10	-1794	-6881	-28	0.026	5.064	0.889	42.208	1966.941	No
SLV 5	-1389	-6623	-26	0.027	4.71	0.891	44.042	1966.941	No
SLV 6	-1389	-6623	-26	0.027	4.71	0.891	44.042	1966.941	No
SLV 14	-1890	-7852	-10	0.031	5.15	0.889	49.972	2084.601	No
SLV 13	-1890	-7852	-10	0.031	5.15	0.889	49.972	2084.601	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.304	SLU 37	Si
V_SLV	8.052	SLU 51	Si
PF_SLV	0	SLD 5	No
V_SLV	0	SLD 5	No
PFFP_SLV	0	SLV 1	No
R_SLV	0.02	SLV 7	No

Maschio 197

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1961.8	581.1	-1961.8	652.1	L6	L7	71	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 71	1187	-11156	4386	5.61	123204	28.087	Si
SLU 71	1503	-13504	130711	6.79	79641	0.609	No, $M > Mu$
SLU 77	1187	-10753	3558	5.41	128261	36.051	Si
SLU 77	1503	-13034	128968	6.56	90291	0.7	No, $M > Mu$
SLU 38	1187	-10804	4211	5.43	127655	30.313	Si
SLU 38	1503	-13488	131218	6.78	79999	0.61	No, $M > Mu$
SLU 72	1187	-11115	4225	5.59	123749	29.291	Si
SLU 72	1503	-13489	132411	6.79	79985	0.604	No, $M > Mu$
SLU 78	1187	-10712	3396	5.39	128734	37.905	Si
SLU 78	1503	-13019	130668	6.55	90605	0.693	No, $M > Mu$
SLU 80	1187	-11208	3917	5.64	122510	31.272	Si
SLU 80	1503	-13659	135936	6.87	75893	0.558	No, $M > Mu$
SLU 30	1187	-10712	4519	5.39	128731	28.489	Si
SLU 30	1503	-13318	127693	6.7	83963	0.658	No, $M > Mu$
SLU 79	1187	-11248	4079	5.66	121949	29.896	Si
SLU 79	1503	-13674	134235	6.88	75538	0.563	No, $M > Mu$
SLU 37	1187	-10845	4373	5.46	127166	29.081	Si
SLU 37	1503	-13503	129517	6.79	79655	0.615	No, $M > Mu$
SLU 29	1187	-10753	4680	5.41	128258	27.405	Si
SLU 29	1503	-13333	125993	6.71	83630	0.664	No, $M > Mu$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	1187	-4440	2217	2.23	128800	58.087	Si
SLV 12	1503	-3136	60129	1.58	96960	1.613	Si
SLV 8	1187	-4828	3206	2.43	137330	42.837	Si
SLV 8	1503	-4256	78037	2.14	124608	1.597	Si
SLV 7	1187	-4828	3206	2.43	137330	42.837	Si
SLV 7	1503	-4256	78037	2.14	124608	1.597	Si
SLD 7	1187	-3993	1276	2.01	118442	92.838	Si
SLD 7	1503	-3732	56862	1.88	112142	1.972	Si
SLV 3	1187	-4457	2411	2.24	129200	53.577	Si
SLV 3	1503	-5361	80563	2.7	148306	1.841	Si
SLD 12	1187	-3829	854	1.93	114514	134.165	Si
SLD 12	1503	-3258	49131	1.64	100156	2.039	Si
SLV 4	1187	-4457	2411	2.24	129200	53.577	Si
SLV 4	1503	-5361	80563	2.7	148306	1.841	Si
SLD 8	1187	-3993	1276	2.01	118442	92.838	Si
SLD 8	1503	-3732	56862	1.88	112142	1.972	Si
SLV 11	1187	-4440	2217	2.23	128800	58.087	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	1503	-3136	60129	1.58	96960	1.613	Si
SLD 11	1187	-3829	854	1.93	114514	134.165	Si
SLD 11	1503	-3258	49131	1.64	100156	2.039	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	1187	-11115	-499	4225		5.59	71	1.08	2154			4.31	Si
SLU 72	1503	-13489	-315	132411		6.79	71	1.08	2154			6.85	Si
SLU 78	1187	-10712	-510	3396		5.39	71	1.08	2154			4.23	Si
SLU 78	1503	-13019	-235	130668		6.55	71	1.08	2154			9.17	Si
SLU 37	1187	-10845	-506	4373		5.46	71	1.08	2154			4.25	Si
SLU 37	1503	-13503	-173	129517		6.79	71	1.08	2154			12.47	Si
SLU 35	1187	-10349	-492	3852		5.21	71	1.08	2154			4.38	Si
SLU 35	1503	-12863	-151	124249		6.47	71	1.08	2154			14.24	Si
SLU 71	1187	-11156	-497	4386		5.61	71	1.08	2154			4.33	Si
SLU 71	1503	-13504	-281	130711		6.79	71	1.08	2154			7.65	Si
SLU 77	1187	-10753	-507	3558		5.41	71	1.08	2154			4.25	Si
SLU 77	1503	-13034	-202	128968		6.56	71	1.08	2154			10.67	Si
SLU 36	1187	-10308	-494	3690		5.19	71	1.08	2154			4.36	Si
SLU 36	1503	-12848	-184	125950		6.46	71	1.08	2154			11.68	Si
SLU 38	1187	-10804	-509	4211		5.43	71	1.08	2154			4.23	Si
SLU 38	1503	-13488	-206	131218		6.78	71	1.08	2154			10.47	Si
SLU 80	1187	-11208	-524	3917		5.64	71	1.08	2154			4.11	Si
SLU 80	1503	-13659	-256	135936		6.87	71	1.08	2154			8.4	Si
SLU 79	1187	-11248	-522	4079		5.66	71	1.08	2154			4.13	Si
SLU 79	1503	-13674	-223	134235		6.88	71	1.08	2154			9.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	1187	-2085	-692	-3347		1.05	71	1.04	2074			3	Si
SLV 9	1503	-2562	-1652	7654		1.29	71	1.09	2169			1.31	Si
SLV 10	1187	-2085	-692	-3347		1.05	71	1.04	2074			3	Si
SLV 10	1503	-2562	-1652	7654		1.29	71	1.09	2169			1.31	Si
SLV 5	1187	-2474	-643	-2359		1.24	71	1.08	2151			3.35	Si
SLV 5	1503	-3681	-1407	25562		1.85	71	1.2	2393			1.7	Si
SLV 14	1187	-2456	-397	-2553		1.24	71	1.08	2148			5.41	Si
SLV 14	1503	-1457	-954	5128		0.73	71	0.98	1948			2.04	Si
SLV 11	1187	-4440	315	2217		2.23	71	1.28	2545			8.07	Si
SLV 11	1503	-3136	1159	60129		2.29	48.98	1.29	1770			1.53	Si
SLV 7	1187	-4828	365	3206		2.43	71	1.32	2622			7.19	Si
SLV 7	1503	-4256	1405	78037		2.95	51.49	1.42	2053			1.46	Si
SLV 6	1187	-2474	-643	-2359		1.24	71	1.08	2151			3.35	Si
SLV 6	1503	-3681	-1407	25562		1.85	71	1.2	2393			1.7	Si
SLV 13	1187	-2456	-397	-2553		1.24	71	1.08	2148			5.41	Si
SLV 13	1503	-1457	-954	5128		0.73	71	0.98	1948			2.04	Si
SLV 12	1187	-4440	315	2217		2.23	71	1.28	2545			8.07	Si
SLV 12	1503	-3136	1159	60129		2.29	48.98	1.29	1770			1.53	Si
SLV 8	1187	-4828	365	3206		2.43	71	1.32	2622			7.19	Si
SLV 8	1503	-4256	1405	78037		2.95	51.49	1.42	2053			1.46	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.53	1.09	-2160	8206	27552	3.36	Si
SLV 10	14	0.53	1.09	-2160	8206	27552	3.36	Si
SLV 13	14	0.53	1.23	-2445	8206	30784	3.75	Si
SLV 14	14	0.53	1.23	-2445	8206	30784	3.75	Si
SLV 5	14	0.53	1.33	-2638	8206	32925	4.01	Si
SLV 6	14	0.53	1.33	-2638	8206	32925	4.01	Si
SLV 15	14	0.53	1.59	-3167	8206	38561	4.7	Si
SLV 16	14	0.53	1.59	-3167	8206	38561	4.7	Si
SLV 2	14	0.53	2.03	-4039	8206	47146	5.74	Si
SLV 1	14	0.53	2.03	-4039	8206	47146	5.74	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-1457	-2456	164	0	2.396	0.909	0	993.207	No
SLV 13	-1457	-2456	164	0	2.396	0.909	0	993.207	No
SLV 16	-1629	-3162	187	0	2.568	0.913	0	993.207	No
SLV 15	-1629	-3162	187	0	2.568	0.913	0	993.207	No
SLV 1	-5188	-3751	-191	0.015	6.168	0.958	23.371	993.207	No
SLV 2	-5188	-3751	-191	0.015	6.168	0.958	23.371	993.207	No
SLV 3	-5361	-4457	-169	0.02	6.343	0.959	30.272	993.207	No
SLV 4	-5361	-4457	-169	0.02	6.343	0.959	30.272	993.207	No
SLV 12	-3136	-4440	88	0.027	4.085	0.939	42.313	922.376	No
SLV 11	-3136	-4440	88	0.027	4.085	0.939	42.313	922.376	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0.558	SLU 80	No
V_SLU	4.108	SLU 80	Si
PF_SLV	1.597	SLV 7	Si
V_SLV	1.313	SLV 9	Si
PFFP_SLV	3.357	SLV 9	Si
R_SLV	0	SLV 13	No



Maschio 198

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1844.8	-335.9	-1844.8	104.6	L6	L7	440.6	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 36	1187	-7026	335795	1.14	1331345	3.965	Si
SLU 36	1503	-1177	-213478	0.19	253198	1.186	Si
SLU 30	1187	-6375	324574	1.03	1226184	3.778	Si
SLU 30	1503	-1204	-228495	0.2	258768	1.132	Si
SLU 80	1187	-8034	369721	1.3	1486749	4.021	Si
SLU 80	1503	-1237	-226156	0.2	265779	1.175	Si
SLU 29	1187	-6423	297870	1.04	1234062	4.143	Si
SLU 29	1503	-1150	-215834	0.19	247520	1.147	Si
SLU 17	1187	-6154	300184	1	1189670	3.963	Si
SLU 17	1503	-1044	-196590	0.17	225154	1.145	Si
SLU 8	1187	-5805	265769	0.94	1130927	4.255	Si
SLU 8	1503	-1009	-182745	0.16	217882	1.192	Si
SLU 9	1187	-5757	292472	0.93	1122789	3.839	Si
SLU 9	1503	-1063	-195405	0.17	229195	1.173	Si
SLU 16	1187	-6202	273481	1.01	1197640	4.379	Si
SLU 16	1503	-990	-183930	0.16	213832	1.163	Si
SLU 37	1187	-6821	305582	1.11	1298616	4.25	Si
SLU 37	1503	-1131	-217019	0.18	243494	1.122	Si
SLU 38	1187	-6773	332285	1.1	1290906	3.885	Si
SLU 38	1503	-1184	-229680	0.19	254750	1.109	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	1187	-5290	271796	0.86	1083534	3.987	Si
SLV 11	1503	-735	-283029	0	0	0	No, e>l/2
SLV 9	1187	-5198	160169	0.84	1065999	6.655	Si
SLV 9	1503	-180	216467	0	0	0	No, e>l/2
SLV 4	1187	-5065	45815	0.82	1040801	22.718	Si
SLV 4	1503	-164	-119391	0	0	0	No, e>l/2
SLV 3	1187	-5065	45815	0.82	1040801	22.718	Si
SLV 3	1503	-164	-119391	0	0	0	No, e>l/2
SLD 12	1187	-5249	212416	0.85	1075754	5.064	Si
SLD 12	1503	-520	-136002	0	0	0	No, e>l/2
SLV 1	1187	-5037	12326	0.82	1035509	84.007	Si
SLV 1	1503	2	30458	0	0	0	No, Trazione
SLV 6	1187	-5109	73902	0.83	1049102	14.196	Si
SLV 6	1503	-6	211304	0	0	0	No, e>l/2
SLV 2	1187	-5037	12326	0.82	1035509	84.007	Si
SLV 2	1503	2	30458	0	0	0	No, Trazione
SLV 5	1187	-5109	73902	0.83	1049102	14.196	Si
SLV 5	1503	-6	211304	0	0	0	No, e>l/2
SLV 10	1187	-5198	160169	0.84	1065999	6.655	Si
SLV 10	1503	-180	216467	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 36	1187	-7026	1142	335795		1.14	440.57	0.71	4363			3.82	Si
SLU 36	1503	-1177	1997	-213478		0.72	116.72	0.65	1065			0.53	No, Vu<V
SLU 29	1187	-6423	1218	297870		1.04	440.57	0.69	4283			3.52	Si
SLU 29	1503	-1150	1920	-215834		0.84	97.79	0.67	914			0.48	No, Vu<V
SLU 79	1187	-8082	1238	343018		1.31	440.57	0.73	4504			3.64	Si
SLU 79	1503	-1183	1942	-213495		0.71	119.63	0.65	1088			0.56	No, Vu<V
SLU 72	1187	-7636	1271	362010		1.24	440.57	0.72	4445			3.5	Si
SLU 72	1503	-1256	2166	-224971		0.73	123.56	0.65	1128			0.52	No, Vu<V
SLU 30	1187	-6375	1234	324574		1.03	440.57	0.69	4277			3.47	Si
SLU 30	1503	-1204	2127	-228495		0.94	91.29	0.68	871			0.41	No, Vu<V
SLU 80	1187	-8034	1253	369721		1.3	440.57	0.73	4498			3.59	Si
SLU 80	1503	-1237	2149	-226156		0.79	112.37	0.66	1039			0.48	No, Vu<V
SLU 37	1187	-6821	1200	305582		1.11	440.57	0.7	4336			3.61	Si
SLU 37	1503	-1131	1903	-217019		0.95	85.11	0.68	813			0.43	No, Vu<V
SLU 9	1187	-5757	1090	292472		0.93	440.57	0.68	4194			3.85	Si
SLU 9	1503	-1063	1879	-195405		0.69	109.35	0.65	992			0.53	No, Vu<V
SLU 38	1187	-6773	1216	332285		1.1	440.57	0.7	4330			3.56	Si
SLU 38	1503	-1184	2110	-229680		1.07	79.08	0.7	723			0.37	No, Vu<V
SLU 17	1187	-6154	1072	300184		1	440.57	0.69	4247			3.96	Si
SLU 17	1503	-1044	1863	-196590		0.78	95.83	0.66	884			0.47	No, Vu<V



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 12	1187	-5249	2457	212416		0.85	440.57	1	6190			2.52	Si
SLD 12	1503	-520	1794	-136002		0	0	0.83	0			0	No, Vu<V
SLV 2	1187	-5037	-1680	12326		0.82	440.57	1	6147			3.66	Si
SLV 2	1503	2	-751	30458		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-5109	-4841	73902		0.83	440.57	1	6162			1.27	Si
SLV 6	1503	-6	-2765	211304		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	-5198	-4541	160169		0.84	440.57	1	6180			1.36	Si
SLV 10	1503	-180	-2596	216467		0	0	0.83	0			0	No, Vu<V
SLV 5	1187	-5109	-4841	73902		0.83	440.57	1	6162			1.27	Si
SLV 5	1503	-6	-2765	211304		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	-5290	5492	271796		0.86	440.57	1	6198			1.13	Si
SLV 11	1503	-735	3723	-283029		0	0	0.83	0			0	No, Vu<V
SLV 4	1187	-5065	1330	45815		0.82	440.57	1	6153			4.63	Si
SLV 4	1503	-164	1145	-119391		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-5065	1330	45815		0.82	440.57	1	6153			4.63	Si
SLV 3	1503	-164	1145	-119391		0	0	0.83	0			0	No, Vu<V
SLV 1	1187	-5037	-1680	12326		0.82	440.57	1	6147			3.66	Si
SLV 1	1503	2	-751	30458		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	-5198	-4541	160169		0.84	440.57	1	6180			1.36	Si
SLV 9	1503	-180	-2596	216467		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.53	0	-2572	26619	0	0	No, e>t/2
SLV 6	14	0.53	0	-2242	26619	0	0	No, e>t/2
SLV 7	14	0.53	0	-3228	26619	0	0	No, e>t/2
SLV 1	14	0.53	0	-2277	26619	0	0	No, e>t/2
SLV 2	14	0.53	0	-2277	26619	0	0	No, e>t/2
SLV 4	14	0.53	0	-2572	26619	0	0	No, e>t/2
SLV 8	14	0.53	0	-3228	26619	0	0	No, e>t/2
SLV 9	14	0.53	0	-2507	26619	0	0	No, e>t/2
SLV 5	14	0.53	0	-2242	26619	0	0	No, e>t/2
SLV 10	14	0.53	0	-2507	26619	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	2	-5037	-1	0	0	0	0	2084.601	No, Trazione
SLV 1	2	-5037	-1	0	0	0	0	2084.601	No, Trazione
SLV 15	-744	-5361	1	0.037	3.924	0.905	60.03	2084.601	No
SLV 16	-744	-5361	1	0.037	3.924	0.905	60.03	2084.601	No
SLV 14	-577	-5334	2	0.038	3.81	0.915	60.364	2084.601	No
SLV 13	-577	-5334	2	0.038	3.81	0.915	60.364	2084.601	No
SLV 3	-164	-5065	-2	0.041	3.603	0.962	62.35	2084.601	No
SLV 4	-164	-5065	-2	0.041	3.603	0.962	62.35	2084.601	No
SLV 12	-735	-5290	-2	0.037	3.918	0.906	59.58	1966.941	No
SLV 11	-735	-5290	-2	0.037	3.918	0.906	59.58	1966.941	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.109	SLU 38	Si
V_SLU	0.366	SLU 38	No
PF_SLV	0	SLV 2	No
V_SLV	0	SLD 3	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 2	No

Maschio 199

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	220.1	-1505.8	666.1	L6	L7	446	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 30	1187	-6114	46579	0.98	1199586	25.754	Si
SLU 30	1503	-2024	355198	0.32	433404	1.22	Si
SLU 72	1187	-7448	41091	1.19	1417698	34.501	Si
SLU 72	1503	-2066	360338	0.33	441983	1.227	Si
SLU 9	1187	-5420	44540	0.87	1079841	24.244	Si
SLU 9	1503	-1721	304047	0.28	370833	1.22	Si
SLU 37	1187	-6718	36392	1.08	1300245	35.729	Si
SLU 37	1503	-2052	359016	0.33	439112	1.223	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 8	1187	-5421	44578	0.87	1080100	24.23	Si
SLU 8	1503	-1723	304349	0.28	371120	1.219	Si
SLU 29	1187	-6116	46617	0.98	1199836	25.738	Si
SLU 29	1503	-2025	355500	0.32	433687	1.22	Si
SLU 38	1187	-6717	36354	1.08	1300003	35.76	Si
SLU 38	1503	-2051	358714	0.33	438829	1.223	Si
SLU 17	1187	-6022	34315	0.96	1183925	34.502	Si
SLU 17	1503	-1748	307563	0.28	376328	1.224	Si
SLU 71	1187	-7450	41129	1.19	1417931	34.475	Si
SLU 71	1503	-2067	360640	0.33	442266	1.226	Si
SLU 16	1187	-6024	34353	0.96	1184177	34.471	Si
SLU 16	1503	-1749	307865	0.28	376615	1.223	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	1187	-6436	-47650	1.03	1314217	27.58	Si
SLV 1	1503	-640	113944	0.1	141547	1.242	Si
SLD 5	1187	-5424	6430	0.87	1123609	174.752	Si
SLD 5	1503	-444	80429	0.07	98441	1.224	Si
SLD 9	1187	-5156	19737	0.83	1072075	54.318	Si
SLD 9	1503	-399	71674	0.06	88449	1.234	Si
SLD 10	1187	-5156	19737	0.83	1072075	54.318	Si
SLD 10	1503	-399	71674	0.06	88449	1.234	Si
SLV 6	1187	-5166	41802	0.83	1074050	25.694	Si
SLV 6	1503	-244	64187	0	0	0	No, $e \geq l/2$
SLV 10	1187	-4534	73041	0.73	950898	13.019	Si
SLV 10	1503	-137	43852	0	0	0	No, $e \geq l/2$
SLV 2	1187	-6436	-47650	1.03	1314217	27.58	Si
SLV 2	1503	-640	113944	0.1	141547	1.242	Si
SLV 9	1187	-4534	73041	0.73	950898	13.019	Si
SLV 9	1503	-137	43852	0	0	0	No, $e \geq l/2$
SLD 6	1187	-5424	6430	0.87	1123609	174.752	Si
SLD 6	1503	-444	80429	0.07	98441	1.224	Si
SLV 5	1187	-5166	41802	0.83	1074050	25.694	Si
SLV 5	1503	-244	64187	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	1187	-6114	892	46579		0.98	446	0.69	4284			4.8	Si
SLU 30	1503	-2024	-883	355198		1.01	142.54	0.69	1378			1.56	Si
SLU 80	1187	-8050	811	30866		1.29	446	0.73	4542			5.6	Si
SLU 80	1503	-2092	-974	363854		1.01	147.31	0.69	1425			1.46	Si
SLU 79	1187	-8052	808	30904		1.29	446	0.73	4542			5.62	Si
SLU 79	1503	-2094	-977	364156		1.02	147.22	0.69	1424			1.46	Si
SLU 77	1187	-8331	747	27997		1.33	446	0.73	4580			6.13	Si
SLU 77	1503	-2037	-938	345264		0.91	160.51	0.68	1520			1.62	Si
SLU 37	1187	-6718	831	36392		1.08	446	0.7	4365			5.25	Si
SLU 37	1503	-2052	-940	359016		1.02	144.09	0.69	1394			1.48	Si
SLU 38	1187	-6717	834	36354		1.08	446	0.7	4364			5.23	Si
SLU 38	1503	-2051	-937	358714		1.02	144.18	0.69	1395			1.49	Si
SLU 71	1187	-7450	866	41129		1.19	446	0.71	4462			5.15	Si
SLU 71	1503	-2067	-923	360640		1.01	145.64	0.69	1408			1.53	Si
SLU 29	1187	-6116	889	46617		0.98	446	0.69	4284			4.82	Si
SLU 29	1503	-2025	-886	355500		1.02	142.45	0.69	1378			1.55	Si
SLU 58	1187	-7357	693	28865		1.18	446	0.71	4450			6.42	Si
SLU 58	1503	-1791	-840	313004		0.88	144.66	0.67	1364			1.62	Si
SLU 72	1187	-7448	869	41091		1.19	446	0.71	4462			5.13	Si
SLU 72	1503	-2066	-920	360338		1.01	145.73	0.69	1409			1.53	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1187	-6054	2340	-78404		0.97	446	1.03	6414			2.74	Si
SLV 12	1503	-916	-650	118233		0.23	281.71	0.88	3470			5.34	Si
SLV 6	1187	-5166	-2198	41802		0.83	446	1	6237			2.84	Si
SLV 6	1503	-244	-18	64187		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	-4534	-1955	73041		0.73	446	0.98	6110			3.13	Si
SLV 9	1503	-137	387	43852		0	0	0.83	0			0	No, $V_u < V$
SLV 4	1187	-6892	310	-93084		1.1	446	1.05	6582			21.25	Si
SLV 4	1503	-874	-1164	136259		0.31	201.13	0.9	2521			2.17	Si
SLV 11	1187	-6054	2340	-78404		0.97	446	1.03	6414			2.74	Si
SLV 11	1503	-916	-650	118233		0.23	281.71	0.88	3470			5.34	Si
SLV 5	1187	-5166	-2198	41802		0.83	446	1	6237			2.84	Si
SLV 5	1503	-244	-18	64187		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1187	-6436	-979	-47650		1.03	446	1.04	6491			6.63	Si
SLV 2	1503	-640	-853	113944		0.34	134.98	0.9	1703			2	Si
SLV 3	1187	-6892	310	-93084		1.1	446	1.05	6582			21.25	Si
SLV 3	1503	-874	-1164	136259		0.31	201.13	0.9	2521			2.17	Si
SLV 1	1187	-6436	-979	-47650		1.03	446	1.04	6491			6.63	Si
SLV 1	1503	-640	-853	113944		0.34	134.98	0.9	1703			2	Si
SLV 10	1187	-4534	-1955	73041		0.73	446	0.98	6110			3.13	Si
SLV 10	1503	-137	387	43852		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.53	0	-3296	26947	0	0	No, $e > t/2$
SLV 7	14	0.53	0	-3012	26947	0	0	No, $e > t/2$



Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0	-2743	26947	0	0	No, $e > t/2$
SLV 9	14	0.53	0	-2419	26947	0	0	No, $e > t/2$
SLV 4	14	0.53	0	-3296	26947	0	0	No, $e > t/2$
SLV 6	14	0.53	0	-2743	26947	0	0	No, $e > t/2$
SLV 1	14	0.53	0	-3216	26947	0	0	No, $e > t/2$
SLV 10	14	0.53	0	-2419	26947	0	0	No, $e > t/2$
SLV 8	14	0.53	0	-3012	26947	0	0	No, $e > t/2$
SLV 2	14	0.53	0	-3216	26947	0	0	No, $e > t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 $W_a = 0.03$ $T_a = 0.1191$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 15	-519	-4783	-40	0.022	3.816	0.92	34.892	2084.601	No
SLV 16	-519	-4783	-40	0.022	3.816	0.92	34.892	2084.601	No
SLV 2	-640	-6436	40	0.022	3.894	0.911	34.974	2084.601	No
SLV 1	-640	-6436	40	0.022	3.894	0.911	34.974	2084.601	No
SLV 6	-244	-5166	35	0.024	3.674	0.95	36.813	1966.941	No
SLV 5	-244	-5166	35	0.024	3.674	0.95	36.813	1966.941	No
SLV 11	-916	-6054	-35	0.024	4.094	0.899	38.333	1966.941	No
SLV 12	-916	-6054	-35	0.024	4.094	0.899	38.333	1966.941	No
SLV 4	-874	-6892	24	0.028	4.062	0.9	44.825	2084.601	No
SLV 3	-874	-6892	24	0.028	4.062	0.9	44.825	2084.601	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.219	SLU 8	Si
V_SLU	1.458	SLU 79	Si
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	0	SLV 1	No
R_SLV	0.017	SLV 15	No

Maschio 200

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-35.4	-1375.3	-22.8	L6	L7	12.6	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	$\tau 0$	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 54	1187	-212	222	0.6	1232	5.55	Si
SLU 54	1397	-29	-551	0	0	0	No, $e > l/2$
SLU 61	1187	-191	351	0.54	1120	3.191	Si
SLU 61	1397	-29	-644	0	0	0	No, $e > l/2$
SLU 59	1187	-216	287	0.61	1253	4.361	Si
SLU 59	1397	-26	-399	0	0	0	No, $e > l/2$
SLU 60	1187	-193	364	0.55	1131	3.109	Si
SLU 60	1397	-29	-625	0	0	0	No, $e > l/2$
SLU 53	1187	-214	235	0.61	1243	5.294	Si
SLU 53	1397	-29	-532	0	0	0	No, $e > l/2$
SLU 1	1187	-202	-172	0.58	1182	6.861	Si
SLU 1	1397	-29	-513	0	0	0	No, $e > l/2$
SLU 58	1187	-218	300	0.62	1263	4.212	Si
SLU 58	1397	-26	-380	0	0	0	No, $e > l/2$
SLU 56	1187	-216	295	0.61	1253	4.245	Si
SLU 56	1397	-26	-399	0	0	0	No, $e > l/2$
SLU 55	1187	-212	218	0.6	1235	5.659	Si
SLU 55	1397	-30	-544	0	0	0	No, $e > l/2$
SLU 57	1187	-214	282	0.61	1242	4.399	Si
SLU 57	1397	-27	-418	0	0	0	No, $e > l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	f _{vd}	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	1187	-212	2	222	0.6	12.57	0.64	224				121.52	Si
SLU 54	1397	-29	9	-551	0	0	0.56	0				0	No, $V_u < V$
SLU 61	1187	-191	3	351	0.54	12.57	0.63	221				65.71	Si
SLU 61	1397	-29	26	-644	0	0	0.56	0				0	No, $V_u < V$
SLU 53	1187	-214	2	235	0.61	12.57	0.64	224				133.56	Si
SLU 53	1397	-29	8	-532	0	0	0.56	0				0	No, $V_u < V$
SLU 56	1187	-216	1	295	0.61	12.57	0.64	224				272.51	Si
SLU 56	1397	-26	-4	-399	0	0	0.56	0				0	No, $V_u < V$
SLU 58	1187	-218	1	300	0.62	12.57	0.64	225				271.64	Si
SLU 58	1397	-26	-7	-380	0	0	0.56	0				0	No, $V_u < V$
SLU 57	1187	-214	1	282	0.61	12.57	0.64	224				226.98	Si
SLU 57	1397	-27	-3	-418	0	0	0.56	0				0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 59	1187	-216	1	287		0.61	12.57	0.64	224			226.42	Si
SLU 59	1397	-26	-6	-399		0	0	0.56	0			0	No, Vu<V
SLU 60	1187	-193	3	364		0.55	12.57	0.63	221			69.16	Si
SLU 60	1397	-29	24	-625		0	0	0.56	0			0	No, Vu<V
SLU 1	1187	-202	1	-172		0.58	12.57	0.63	223			335.15	Si
SLU 1	1397	-29	0	-513		0	0	0.56	0			0	No, Vu<V
SLU 55	1187	-212	2	218		0.6	12.57	0.64	224			114.54	Si
SLU 55	1397	-30	7	-544		0	0	0.56	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.53	0	-75	1453	0	0	No, e>t/2
SLV 11	14	0.53	0	116	1453	0	0	No, Trazione
SLV 8	14	0.53	0	119	1453	0	0	No, Trazione
SLV 15	14	0.53	0	-75	1453	0	0	No, e>t/2
SLV 3	14	0.53	0	-64	1453	0	0	No, e>t/2
SLV 4	14	0.53	0	-64	1453	0	0	No, e>t/2
SLV 12	14	0.53	0	116	1453	0	0	No, Trazione
SLV 7	14	0.53	0	119	1453	0	0	No, Trazione
SLV 1	14	0.53	0.64	-225	1453	2983	2.05	Si
SLV 2	14	0.53	0.64	-225	1453	2983	2.05	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	99	-229	2	0	0	0	0	993.207	No, Trazione
SLV 9	168	-256	-1	0	0	0	0	922.376	No, Trazione
SLV 13	52	-193	-2	0	0	0	0	993.207	No, Trazione
SLV 14	52	-193	-2	0	0	0	0	993.207	No, Trazione
SLV 10	168	-256	-1	0	0	0	0	922.376	No, Trazione
SLV 1	99	-229	2	0	0	0	0	993.207	No, Trazione
SLV 5	182	-267	1	0	0	0	0	922.376	No, Trazione
SLV 4	14	-185	2	0	0	0	0	993.207	No, Trazione
SLV 3	14	-185	2	0	0	0	0	993.207	No, Trazione
SLV 6	182	-267	1	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 14	No

Maschio 201

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	67.2	-1375.3	104.6	L6	L7	37.4	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 37	1187	-1561	4105	1.49	23871	5.816	Si
SLU 37	1397	-1061	2677	1.01	17388	6.496	Si
SLU 36	1187	-1610	4331	1.54	24446	5.644	Si
SLU 36	1397	-1110	2912	1.06	18079	6.208	Si
SLU 30	1187	-1466	4124	1.4	22723	5.51	Si
SLU 30	1397	-987	3098	0.94	16338	5.273	Si
SLU 35	1187	-1599	4508	1.53	24321	5.395	Si
SLU 35	1397	-1098	3055	1.05	17901	5.86	Si
SLU 6	1187	-1412	3685	1.35	22056	5.986	Si
SLU 6	1397	-962	2977	0.92	15970	5.364	Si
SLU 69	1187	-1859	4568	1.77	27212	5.957	Si
SLU 69	1397	-1258	3491	1.2	20074	5.75	Si
SLU 7	1187	-1423	3508	1.36	22190	6.326	Si
SLU 7	1397	-974	2835	0.93	16155	5.699	Si
SLU 28	1187	-1504	4527	1.43	23188	5.122	Si
SLU 28	1397	-1024	3476	0.98	16863	4.851	Si
SLU 27	1187	-1493	4704	1.42	23058	4.902	Si
SLU 27	1397	-1011	3619	0.96	16680	4.609	Si
SLU 29	1187	-1455	4301	1.39	22591	5.252	Si
SLU 29	1397	-974	3241	0.93	16153	4.984	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	1187	-1831	0	1368		1.75	37.43	0.79	826			1000	Si
SLU 55	1397	-1257	0	524		1.2	37.43	0.72	750			1000	Si
SLU 54	1187	-1862	0	1890		1.78	37.43	0.79	831			1000	Si
SLU 54	1397	-1285	0	997		1.23	37.43	0.72	754			1000	Si
SLU 56	1187	-1883	0	3352		1.8	37.43	0.8	833			1000	Si
SLU 56	1397	-1295	0	2285		1.24	37.43	0.72	755			1000	Si
SLU 53	1187	-1852	0	2067		1.77	37.43	0.79	829			1000	Si
SLU 53	1397	-1273	0	1140		1.21	37.43	0.72	752			1000	Si
SLU 58	1187	-1845	0	2949		1.76	37.43	0.79	828			1000	Si
SLU 58	1397	-1259	0	1907		1.2	37.43	0.72	750			1000	Si
SLU 1	1187	-1311	0	711		1.25	37.43	0.72	757			1000	Si
SLU 1	1397	-880	0	308		0.84	37.43	0.67	700			1000	Si
SLU 60	1187	-1827	0	294		1.74	37.43	0.79	826			1000	Si
SLU 60	1397	-1250	0	-625		1.19	37.43	0.71	749			1000	Si
SLU 57	1187	-1894	0	3175		1.81	37.43	0.8	835			1000	Si
SLU 57	1397	-1308	0	2143		1.25	37.43	0.72	757			1000	Si
SLU 61	1187	-1838	0	117		1.75	37.43	0.79	827			1000	Si
SLU 61	1397	-1263	0	-768		1.21	37.43	0.72	751			1000	Si
SLU 59	1187	-1856	0	2772		1.77	37.43	0.79	830			1000	Si
SLU 59	1397	-1271	0	1765		1.21	37.43	0.72	752			1000	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.53	0	334	4326	0	0	No, Trazione
SLV 6	14	0.53	0	54	4326	0	0	No, Trazione
SLV 9	14	0.53	0	334	4326	0	0	No, Trazione
SLV 5	14	0.53	0	54	4326	0	0	No, Trazione
SLV 13	14	0.53	0	-186	4326	0	0	No, $e > t/2$
SLV 14	14	0.53	0	-186	4326	0	0	No, $e > t/2$
SLV 16	14	0.53	0.87	-910	4326	11839	2.74	Si
SLV 15	14	0.53	0.87	-910	4326	11839	2.74	Si
SLV 1	14	0.53	1.07	-1118	4326	14288	3.3	Si
SLV 2	14	0.53	1.07	-1118	4326	14288	3.3	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-483	-2170	4	0.057	0.984	0.894	91.915	993.207	No
SLV 3	-483	-2170	4	0.057	0.984	0.894	91.915	993.207	No
SLV 8	-538	-2588	3	0.056	1.037	0.897	91.014	922.376	No
SLV 7	-538	-2588	3	0.056	1.037	0.897	91.014	922.376	No
SLV 2	-366	-1523	2	0.061	0.873	0.89	99.477	993.207	No
SLV 1	-366	-1523	2	0.061	0.873	0.89	99.477	993.207	No
SLV 11	-467	-2298	2	0.06	0.969	0.894	96.833	922.376	No
SLV 12	-467	-2298	2	0.06	0.969	0.894	96.833	922.376	No
SLV 16	-248	-1205	-2	0.064	0.766	0.89	105.346	993.207	No
SLV 15	-248	-1205	-2	0.064	0.766	0.89	105.346	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.609	SLU 27	Si
V_SLU	1000	SLU 1	Si
PFFP_SLV	0	SLV 10	No
R_SLV	0.093	SLV 3	No

Maschio 202

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1239.3	333.1	-1239.3	104.6	L6	L7	228.5	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 41	1187	-3764	104548	1.18	367908	3.519	Si
SLU 41	1503	-325	30932	0.1	36664	1.185	Si
SLU 16	1187	-3551	102404	1.11	350415	3.422	Si
SLU 16	1503	-330	30792	0.1	37174	1.207	Si
SLU 40	1187	-3510	87920	1.1	347023	3.947	Si
SLU 40	1503	-257	24144	0.08	29084	1.205	Si
SLU 39	1187	-3529	88880	1.1	348557	3.922	Si
SLU 39	1503	-257	24090	0.08	29078	1.207	Si
SLU 42	1187	-3745	103588	1.17	366412	3.537	Si
SLU 42	1503	-325	30986	0.1	36670	1.183	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 21	1187	-3368	87810	1.05	335060	3.816	Si
SLU 21	1503	-266	25071	0.08	30054	1.199	Si
SLU 20	1187	-3386	88770	1.06	336617	3.792	Si
SLU 20	1503	-266	25017	0.08	30048	1.201	Si
SLU 38	1187	-3910	117223	1.22	379692	3.239	Si
SLU 38	1503	-389	36761	0.12	43762	1.19	Si
SLU 37	1187	-3928	118183	1.23	381161	3.225	Si
SLU 37	1503	-389	36707	0.12	43757	1.192	Si
SLU 17	1187	-3533	101445	1.1	348885	3.439	Si
SLU 17	1503	-330	30846	0.1	37180	1.205	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	1187	-2695	100704	0.84	286648	2.846	Si
SLV 7	1503	-1016	121801	0	0	0	No, $e \geq l/2$
SLV 12	1187	-2338	75768	0.73	251149	3.315	Si
SLV 12	1503	-741	98566	0	0	0	No, $e \geq l/2$
SLD 16	1187	-2747	56494	0.86	291784	5.165	Si
SLD 16	1503	-94	12363	0	0	0	No, $e \geq l/2$
SLV 11	1187	-2338	75768	0.73	251149	3.315	Si
SLV 11	1503	-741	98566	0	0	0	No, $e \geq l/2$
SLV 13	1187	-2643	25811	0.83	281515	10.907	Si
SLV 13	1503	458	-49657	0	0	0	No, Trazione
SLV 6	1187	-3803	68605	1.19	392263	5.718	Si
SLV 6	1503	333	-64530	0	0	0	No, Trazione
SLV 10	1187	-3447	43669	1.08	359075	8.223	Si
SLV 10	1503	609	-87765	0	0	0	No, Trazione
SLV 8	1187	-2695	100704	0.84	286648	2.846	Si
SLV 8	1503	-1016	121801	0	0	0	No, $e \geq l/2$
SLV 14	1187	-2643	25811	0.83	281515	10.907	Si
SLV 14	1503	458	-49657	0	0	0	No, Trazione
SLV 9	1187	-3447	43669	1.08	359075	8.223	Si
SLV 9	1503	609	-87765	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	1187	-3745	-13	103588		1.17	228.5	0.71	2277			175.66	Si
SLU 42	1503	-325	-89	30986		0.41	56.74	0.61	485			5.44	Si
SLU 16	1187	-3551	2	102404		1.11	228.5	0.7	2251			935.36	Si
SLU 16	1503	-330	-91	30792		0.38	62.44	0.61	530			5.81	Si
SLU 30	1187	-3745	4	112478		1.17	228.5	0.71	2277			526.12	Si
SLU 30	1503	-379	-108	34270		0.38	71.71	0.61	608			5.64	Si
SLU 29	1187	-3764	7	113438		1.18	228.5	0.71	2279			317.59	Si
SLU 29	1503	-379	-105	34216		0.38	72.1	0.61	611			5.83	Si
SLU 80	1187	-4655	1	131710		1.46	228.5	0.75	2398			1000	Si
SLU 80	1503	-424	-113	39117		0.46	65.83	0.62	569			5.05	Si
SLU 37	1187	-3928	-8	118183		1.23	228.5	0.72	2301			277.47	Si
SLU 37	1503	-389	-118	36707		0.47	59.51	0.62	515			4.35	Si
SLU 79	1187	-4674	4	132670		1.46	228.5	0.75	2400			662.26	Si
SLU 79	1503	-424	-110	39064		0.46	66.18	0.62	571			5.21	Si
SLU 38	1187	-3910	-11	117223		1.22	228.5	0.72	2299			206.3	Si
SLU 38	1503	-389	-121	36761		0.47	59.13	0.62	512			4.22	Si
SLU 17	1187	-3533	0	101445		1.1	228.5	0.7	2248			1000	Si
SLU 17	1503	-330	-94	30846		0.38	61.99	0.61	526			5.58	Si
SLU 41	1187	-3764	-10	104548		1.18	228.5	0.71	2279			225.4	Si
SLU 41	1503	-325	-86	30932		0.41	57.19	0.61	488			5.67	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1187	-2695	-2472	100704		0.84	228.5	1	3205			1.3	Si
SLV 8	1503	-1016	-1148	121801		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1187	-2695	-2472	100704		0.84	228.5	1	3205			1.3	Si
SLV 7	1503	-1016	-1148	121801		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1187	-2338	-1744	75768		0.73	228.5	0.98	3133			1.8	Si
SLV 11	1503	-741	-1363	98566		0	0	0.83	0			0	No, $V_u < V$
SLV 6	1187	-3803	1784	68605		1.19	228.5	1.07	3427			1.92	Si
SLV 6	1503	333	1336	-64530		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	-3447	2512	43669		1.08	228.5	1.05	3355			1.34	Si
SLV 9	1503	609	1121	-87765		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1187	-3447	2512	43669		1.08	228.5	1.05	3355			1.34	Si
SLV 10	1503	609	1121	-87765		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-2643	1872	25811		0.83	228.5	1	3194			1.71	Si
SLV 13	1503	458	1	-49657		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-2643	1872	25811		0.83	228.5	1	3194			1.71	Si
SLV 14	1503	458	1	-49657		0	0	0.83	0			0	No, $V_u < V$
SLD 16	1187	-2747	265	56494		0.86	228.5	1.01	3215			12.15	Si
SLD 16	1503	-94	-324	12363		0	0	0.83	0			0	No, $V_u < V$
SLV 12	1187	-2338	-1744	75768		0.73	228.5	0.98	3133			1.8	Si
SLV 12	1503	-741	-1363	98566		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.53	0	-866	12605	0	0	No, $e > t/2$
SLV 16	14	0.53	0	-1210	12605	0	0	No, $e > t/2$
SLV 10	14	0.53	0	-1045	12605	0	0	No, $e > t/2$
SLV 5	14	0.53	0	-1541	12605	0	0	No, $e > t/2$



Comb.	fd	Sa	$\alpha 0$	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.53	0	-1210	12605	0	0	No, $e>t/2$
SLV 6	14	0.53	0	-1541	12605	0	0	No, $e>t/2$
SLV 13	14	0.53	0	-866	12605	0	0	No, $e>t/2$
SLV 9	14	0.53	0	-1045	12605	0	0	No, $e>t/2$
SLV 12	14	0.53	0.68	-2190	12605	14473	1.15	Si
SLV 11	14	0.53	0.68	-2190	12605	14473	1.15	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = 1345 $W_a = 0.03$ $T_a = 0.1191$

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	53	-2310	25	0	0	0	0	2084.601	No, Trazione
SLV 5	333	-3803	6	0	0	0	0	1966.941	No, Trazione
SLV 10	609	-3447	24	0	0	0	0	1966.941	No, Trazione
SLV 9	609	-3447	24	0	0	0	0	1966.941	No, Trazione
SLV 14	458	-2643	34	0	0	0	0	2084.601	No, Trazione
SLV 15	53	-2310	25	0	0	0	0	2084.601	No, Trazione
SLV 13	458	-2643	34	0	0	0	0	2084.601	No, Trazione
SLV 6	333	-3803	6	0	0	0	0	1966.941	No, Trazione
SLV 4	-866	-3499	-35	0.014	2.433	0.889	22.983	2084.601	No
SLV 3	-866	-3499	-35	0.014	2.433	0.889	22.983	2084.601	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.183	SLV 42	Si
V_SLV	4.219	SLV 38	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 5	No
PFFP_SLV	0	SLV 5	No
R_SLV	0	SLV 16	No

Maschio 203

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1505.8	333.1	-1074.8	333.1	L6	L7	431	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 21	1187	-1651	477	0.27	343881	720.303	Si
SLU 21	1377	-695	-196466	0	0	0	No, $e>l/2$
SLU 38	1187	-1313	-4497	0.22	275434	61.245	Si
SLU 38	1377	-566	-232352	0	0	0	No, $e>l/2$
SLU 19	1187	-1805	635	0.3	374758	589.748	Si
SLU 19	1377	-785	-184708	0	0	0	No, $e>l/2$
SLU 31	1187	-1625	-3821	0.27	338577	88.598	Si
SLU 31	1377	-746	-208859	0	0	0	No, $e>l/2$
SLU 41	1187	-1178	-5248	0.2	247768	47.212	Si
SLU 41	1377	-504	-242962	0	0	0	No, $e>l/2$
SLU 34	1187	-1471	-3980	0.24	307456	77.259	Si
SLU 34	1377	-657	-220617	0	0	0	No, $e>l/2$
SLU 42	1187	-1183	-4708	0.2	248812	52.844	Si
SLU 42	1377	-506	-242996	0	0	0	No, $e>l/2$
SLU 37	1187	-1308	-5037	0.22	274395	54.479	Si
SLU 37	1377	-564	-232317	0	0	0	No, $e>l/2$
SLU 20	1187	-1646	-62	0.27	342857	1000	Si
SLU 20	1377	-693	-196431	0	0	0	No, $e>l/2$
SLU 39	1187	-1332	-5090	0.22	279284	54.87	Si
SLU 39	1377	-594	-231204	0	0	0	No, $e>l/2$

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLD 4	1187	-2175	6265	0.36	454851	72.606	Si
SLD 4	1377	-576	-245456	0	0	0	No, $e>l/2$
SLD 11	1187	-2107	30372	0.35	441145	14.525	Si
SLD 11	1377	-758	-227950	0	0	0	No, $e>l/2$
SLV 12	1187	-1674	72108	0.28	352555	4.889	Si
SLV 12	1377	-264	-348813	0	0	0	No, $e>l/2$
SLD 3	1187	-2175	6265	0.36	454851	72.606	Si
SLD 3	1377	-576	-245456	0	0	0	No, $e>l/2$
SLV 8	1187	-1468	68765	0.24	310037	4.509	Si
SLV 8	1377	309	-452808	0	0	0	No, Trazione
SLD 12	1187	-2107	30372	0.35	441145	14.525	Si
SLD 12	1377	-758	-227950	0	0	0	No, $e>l/2$
SLV 11	1187	-1674	72108	0.28	352555	4.889	Si
SLV 11	1377	-264	-348813	0	0	0	No, $e>l/2$
SLD 7	1187	-2022	28960	0.34	423842	14.636	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 7	1377	-516	-272158	0	0	0	No, $e>l/2$
SLD 8	1187	-2022	28960	0.34	423842	14.636	Si
SLD 8	1377	-516	-272158	0	0	0	No, $e>l/2$
SLV 7	1187	-1468	68765	0.24	310037	4.509	Si
SLV 7	1377	309	-452808	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 34	1187	-1471	-144	-3980		0.24	431	0.59	3548			24.66	Si
SLU 34	1377	-657	-145	-220617		0	0	0.56	0			0	No, $Vu < V$
SLU 31	1187	-1625	-138	-3821		0.27	431	0.59	3569			25.83	Si
SLU 31	1377	-746	-139	-208859		0	0	0.56	0			0	No, $Vu < V$
SLU 19	1187	-1805	-124	635		0.3	431	0.6	3593			28.94	Si
SLU 19	1377	-785	-124	-184708		0	0	0.56	0			0	No, $Vu < V$
SLU 20	1187	-1646	-130	-62		0.27	431	0.59	3572			27.52	Si
SLU 20	1377	-693	-130	-196431		0	0	0.56	0			0	No, $Vu < V$
SLU 37	1187	-1308	-149	-5037		0.22	431	0.58	3527			23.59	Si
SLU 37	1377	-564	-151	-232317		0	0	0.56	0			0	No, $Vu < V$
SLU 41	1187	-1178	-157	-5248		0.2	431	0.58	3509			22.35	Si
SLU 41	1377	-504	-158	-242962		0	0	0.56	0			0	No, $Vu < V$
SLU 42	1187	-1183	-157	-4708		0.2	431	0.58	3510			22.34	Si
SLU 42	1377	-506	-158	-242996		0	0	0.56	0			0	No, $Vu < V$
SLU 38	1187	-1313	-150	-4497		0.22	431	0.58	3527			23.58	Si
SLU 38	1377	-566	-151	-232352		0	0	0.56	0			0	No, $Vu < V$
SLU 21	1187	-1651	-130	477		0.27	431	0.59	3572			27.51	Si
SLU 21	1377	-695	-131	-196466		0	0	0.56	0			0	No, $Vu < V$
SLU 39	1187	-1332	-151	-5090		0.22	431	0.58	3530			23.33	Si
SLU 39	1377	-594	-152	-231204		0	0	0.56	0			0	No, $Vu < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1187	-2337	10	-27224		0.39	431	0.91	5496			569.23	Si
SLV 1	1377	-516	-816	-232780		0	0	0.83	0			0	No, $Vu < V$
SLD 8	1187	-2022	-385	28960		0.34	431	0.9	5433			14.11	Si
SLD 8	1377	-516	-570	-272158		0	0	0.83	0			0	No, $Vu < V$
SLV 8	1187	-1468	-829	68765		0.24	431	0.88	5322			6.42	Si
SLV 8	1377	309	-1280	-452808		0	0	0.83	0			0	No, $Vu < V$
SLV 4	1187	-1825	-411	15279		0.3	431	0.89	5393			13.12	Si
SLV 4	1377	173	-1349	-390329		0	0	0.83	0			0	No, $Vu < V$
SLD 11	1187	-2107	-365	30372		0.35	431	0.9	5450			14.94	Si
SLD 11	1377	-758	-327	-227950		0	0	0.83	0			0	No, $Vu < V$
SLD 12	1187	-2107	-365	30372		0.35	431	0.9	5450			14.94	Si
SLD 12	1377	-758	-327	-227950		0	0	0.83	0			0	No, $Vu < V$
SLV 3	1187	-1825	-411	15279		0.3	431	0.89	5393			13.12	Si
SLV 3	1377	173	-1349	-390329		0	0	0.83	0			0	No, $Vu < V$
SLV 7	1187	-1468	-829	68765		0.24	431	0.88	5322			6.42	Si
SLV 7	1377	309	-1280	-452808		0	0	0.83	0			0	No, $Vu < V$
SLV 11	1187	-1674	-766	72108		0.28	431	0.89	5363			7	Si
SLV 11	1377	-264	-689	-348813		0	0	0.83	0			0	No, $Vu < V$
SLV 2	1187	-2337	10	-27224		0.39	431	0.91	5496			569.23	Si
SLV 2	1377	-516	-816	-232780		0	0	0.83	0			0	No, $Vu < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.53	0	-232	23776	0	0	No, $e>t/2$
SLV 7	14	0.53	0	-103	23776	0	0	No, $e>t/2$
SLV 6	14	0.53	0	-2421	23776	0	0	No, $e>t/2$
SLV 1	14	0.53	0	-927	23776	0	0	No, $e>t/2$
SLV 8	14	0.53	0	-103	23776	0	0	No, $e>t/2$
SLV 5	14	0.53	0	-2421	23776	0	0	No, $e>t/2$
SLV 3	14	0.53	0	-232	23776	0	0	No, $e>t/2$
SLV 9	14	0.53	0	-3006	23776	0	0	No, $e>t/2$
SLV 2	14	0.53	0	-927	23776	0	0	No, $e>t/2$
SLV 10	14	0.53	0	-3006	23776	0	0	No, $e>t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezziera = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 10	-740	-3381	-71	0.009	3.848	0.905	14.051	1966.941	No
SLV 9	-740	-3381	-71	0.009	3.848	0.905	14.051	1966.941	No
SLV 7	-1123	-1468	71	0.01	4.148	0.893	16.978	1966.941	No
SLV 8	-1123	-1468	71	0.01	4.148	0.893	16.978	1966.941	No
SLV 6	-775	-3175	-67	0.011	3.874	0.903	17.184	1966.941	No
SLV 5	-775	-3175	-67	0.011	3.874	0.903	17.184	1966.941	No
SLV 12	-1088	-1674	67	0.012	4.119	0.894	19.244	1966.941	No
SLV 11	-1088	-1674	67	0.012	4.119	0.894	19.244	1966.941	No
SLV 4	-1042	-1825	28	0.026	4.081	0.895	41.821	2084.601	No
SLV 3	-1042	-1825	28	0.026	4.081	0.895	41.821	2084.601	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 16	No
V_SLU	0	SLU 16	No
PF_SLV	0	SLV 8	No
V_SLV	0	SLD 3	No



Stato limite	Coeff.s.	Comb.	Verifica
PFFP_SLV	0	SLV 1	No
R_SLV	0.007	SLV 9	No

Maschio 204

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-994.8	333.1	-972.8	333.1	L6	L7	22	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 56	1187	418	5735	0	0	0	No, Trazione
SLU 56	1377	-898	-5612	2.92	6342	1.13	Si
SLU 57	1187	418	5739	0	0	0	No, Trazione
SLU 57	1377	-899	-5617	2.92	6345	1.13	Si
SLU 53	1187	380	5509	0	0	0	No, Trazione
SLU 53	1377	-873	-5441	2.84	6263	1.151	Si
SLU 55	1187	372	5263	0	0	0	No, Trazione
SLU 55	1377	-813	-5133	2.64	6045	1.178	Si
SLU 60	1187	404	5582	0	0	0	No, Trazione
SLU 60	1377	-849	-5456	2.76	6180	1.133	Si
SLU 54	1187	380	5514	0	0	0	No, Trazione
SLU 54	1377	-874	-5447	2.84	6266	1.15	Si
SLU 58	1187	410	5481	0	0	0	No, Trazione
SLU 58	1377	-836	-5295	2.71	6132	1.158	Si
SLU 1	1187	168	3176	0	0	0	No, Trazione
SLU 1	1377	-529	-3178	1.72	4589	1.444	Si
SLU 59	1187	410	5486	0	0	0	No, Trazione
SLU 59	1377	-837	-5300	2.72	6135	1.158	Si
SLU 61	1187	404	5587	0	0	0	No, Trazione
SLU 61	1377	-850	-5461	2.76	6183	1.132	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 13	1187	235	6840	0	0	0	No, Trazione
SLV 13	1377	-159	2650	0	0	0	No, e>l/2
SLD 1	1187	60	1184	0	0	0	No, Trazione
SLD 1	1377	-577	-4991	1.87	5373	1.076	Si
SLV 12	1187	1128	10847	0	0	0	No, Trazione
SLV 12	1377	-1427	-8371	4.63	9745	1.164	Si
SLV 11	1187	1128	10847	0	0	0	No, Trazione
SLV 11	1377	-1427	-8371	4.63	9745	1.164	Si
SLV 14	1187	235	6840	0	0	0	No, Trazione
SLV 14	1377	-159	2650	0	0	0	No, e>l/2
SLV 7	1187	996	8057	0	0	0	No, Trazione
SLV 7	1377	-1539	-11170	5	10005	0.896	No, M>Mu
SLV 9	1187	-483	-325	1.57	4631	14.24	Si
SLV 9	1377	324	3562	0	0	0	No, Trazione
SLV 10	1187	-483	-325	1.57	4631	14.24	Si
SLV 10	1377	324	3562	0	0	0	No, Trazione
SLV 8	1187	996	8057	0	0	0	No, Trazione
SLV 8	1377	-1539	-11170	5	10005	0.896	No, M>Mu
SLV 6	1187	-615	-3115	2	5663	1.818	Si
SLV 6	1377	212	763	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	1187	404	139	5587	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 61	1377	-850	139	-5461	4.42	13.73	1.08	1.08	208	0	0	1.49	Si
SLU 53	1187	380	139	5509	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 53	1377	-873	139	-5441	4.36	14.31	1.08	1.08	217	0	0	1.56	Si
SLU 59	1187	410	137	5486	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 59	1377	-837	138	-5300	4.27	14	1.08	1.08	212	0	0	1.54	Si
SLU 54	1187	380	139	5514	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 54	1377	-874	139	-5447	4.36	14.31	1.08	1.08	217	0	0	1.56	Si
SLU 56	1187	418	144	5735	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 56	1377	-898	145	-5612	4.5	14.25	1.08	1.08	216	0	0	1.49	Si
SLU 55	1187	372	132	5263	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 55	1377	-813	132	-5133	4.13	14.06	1.08	1.08	213	0	0	1.62	Si
SLU 57	1187	418	144	5739	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 57	1377	-899	145	-5617	4.5	14.25	1.08	1.08	216	0	0	1.49	Si
SLU 60	1187	404	139	5582	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 60	1377	-849	139	-5456	4.42	13.73	1.08	1.08	208	0	0	1.5	Si
SLU 58	1187	410	137	5481	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 58	1377	-836	138	-5295	4.27	14	1.08	1.08	212	0	0	1.54	Si
SLU 1	1187	168	80	3176	0	0	0	0.56	0	0	0	0	No, Vu<V
SLU 1	1377	-529	80	-3178	2.52	14.96	0.89	0.89	187	0	0	2.33	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	1187	235	69	6840		0	0	0.83	0			0	No, Vu<V
SLV 13	1377	-159	-145	2650		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	1128	375	10847		0	0	0.83	0			0	No, Vu<V
SLV 11	1377	-1427	398	-8371		6.62	15.4	1.63	350			0.88	No, Vu<V
SLD 1	1187	60	42	1184		0	0	0.83	0			0	No, Vu<V
SLD 1	1377	-577	112	-4991		5.85	7.04	1.63	160			1.43	Si
SLV 10	1187	-483	-150	-325		1.57	22	1.15	353			2.35	Si
SLV 10	1377	324	-288	3562		0	0	0.83	0			0	No, Vu<V
SLV 14	1187	235	69	6840		0	0	0.83	0			0	No, Vu<V
SLV 14	1377	-159	-145	2650		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-615	-181	-3115		2.47	17.81	1.33	331			1.83	Si
SLV 6	1377	212	-204	763		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	1128	375	10847		0	0	0.83	0			0	No, Vu<V
SLV 12	1377	-1427	398	-8371		6.62	15.4	1.63	350			0.88	No, Vu<V
SLV 9	1187	-483	-150	-325		1.57	22	1.15	353			2.35	Si
SLV 9	1377	324	-288	3562		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	996	344	8057		0	0	0.83	0			0	No, Vu<V
SLV 8	1377	-1539	482	-11170		9.79	11.22	1.63	255			0.53	No, Vu<V
SLV 7	1187	996	344	8057		0	0	0.83	0			0	No, Vu<V
SLV 7	1377	-1539	482	-11170		9.79	11.22	1.63	255			0.53	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.53	0	345	1214	0	0	No, Trazione
SLV 5	14	0.53	0	129	1214	0	0	No, Trazione
SLV 6	14	0.53	0	129	1214	0	0	No, Trazione
SLV 14	14	0.53	0	-9	1214	0	0	No, e>t/2
SLV 9	14	0.53	0	345	1214	0	0	No, Trazione
SLV 13	14	0.53	0	-9	1214	0	0	No, e>t/2
SLV 16	14	0.53	1.71	-528	1214	3178	2.62	Si
SLV 15	14	0.53	1.71	-528	1214	3178	2.62	Si
SLV 1	14	0.53	2.37	-729	1214	4113	3.39	Si
SLV 2	14	0.53	2.37	-729	1214	4113	3.39	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	8	-615	-2	0	0	0	0	1966.941	No, Trazione
SLV 8	-43	996	1	0	0	0	0	1966.941	No, Trazione
SLV 9	3	-483	-1	0	0	0	0	1966.941	No, Trazione
SLV 5	8	-615	-2	0	0	0	0	1966.941	No, Trazione
SLV 4	-20	278	0	0	0	0	0	2084.601	No, Trazione
SLV 11	-48	1128	2	0	0	0	0	1966.941	No, Trazione
SLV 7	-43	996	1	0	0	0	0	1966.941	No, Trazione
SLV 3	-20	278	0	0	0	0	0	2084.601	No, Trazione
SLV 12	-48	1128	2	0	0	0	0	1966.941	No, Trazione
SLV 10	3	-483	-1	0	0	0	0	1966.941	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 16	No

Maschio 205

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1975.8	666.1	-1771.8	666.1	L6	L7	204	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 61	1277	-2134	47061	0.37	207666	4.413	Si
SLU 61	1457	440	213064	0	0	0	No, Trazione
SLU 58	1277	2170	209553	0	0	0	No, Trazione
SLU 58	1457	4743	702153	0	0	0	No, Trazione
SLU 1	1277	-1520	52679	0.27	150007	2.848	Si
SLU 1	1457	466	187906	0	0	0	No, Trazione
SLU 60	1277	-2148	47105	0.38	209001	4.437	Si
SLU 60	1457	425	211884	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 57	1277	1310	200973	0	0	0	No, Trazione
SLU 57	1457	3883	674672	0	0	0	No, Trazione
SLU 59	1277	2184	209509	0	0	0	No, Trazione
SLU 59	1457	4758	703333	0	0	0	No, Trazione
SLU 56	1277	1295	201017	0	0	0	No, Trazione
SLU 56	1457	3869	673491	0	0	0	No, Trazione
SLU 55	1277	16	130033	0	0	0	No, Trazione
SLU 55	1457	2590	458219	0	0	0	No, Trazione
SLU 54	1277	-868	121526	0	0	0	No, e>l/2
SLU 54	1457	1706	428770	0	0	0	No, Trazione
SLU 53	1277	-882	121571	0	0	0	No, e>l/2
SLU 53	1457	1691	427590	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1277	-2341	164735	0.41	230792	1.401	Si
SLV 14	1457	692	138310	0	0	0	No, Trazione
SLV 11	1277	-2219	-130889	0.39	219108	1.674	Si
SLV 11	1457	-279	54198	0	0	0	No, e>l/2
SLV 12	1277	-2219	-130889	0.39	219108	1.674	Si
SLV 12	1457	-279	54198	0	0	0	No, e>l/2
SLV 6	1277	-279	247391	0	0	0	No, e>l/2
SLV 6	1457	1770	386174	0	0	0	No, Trazione
SLV 7	1277	-1457	-158270	0	0	0	No, e>l/2
SLV 7	1457	-80	126678	0	0	0	No, e>l/2
SLD 1	1277	-631	64259	0.11	63753	0.992	No, M>Mu
SLD 1	1457	1005	288156	0	0	0	No, Trazione
SLV 10	1277	-1040	274772	0	0	0	No, e>l/2
SLV 10	1457	1571	313694	0	0	0	No, Trazione
SLV 13	1277	-2341	164735	0.41	230792	1.401	Si
SLV 13	1457	692	138310	0	0	0	No, Trazione
SLV 8	1277	-1457	-158270	0	0	0	No, e>l/2
SLV 8	1457	-80	126678	0	0	0	No, e>l/2
SLV 9	1277	-1040	274772	0	0	0	No, e>l/2
SLV 9	1457	1571	313694	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	1277	16	-1781	130033		0	0	0.56	0			0	No, Vu<V
SLU 55	1457	2590	-1781	458219		0	0	0.56	0			0	No, Vu<V
SLU 59	1277	2184	-2701	209509		0	0	0.56	0			0	No, Vu<V
SLU 59	1457	4758	-2701	703333		0	0	0.56	0			0	No, Vu<V
SLU 61	1277	-2134	-880	47061		0.37	204	0.61	3458			3.93	Si
SLU 61	1457	440	-880	213064		0	0	0.56	0			0	No, Vu<V
SLU 56	1277	1295	-2583	201017		0	0	0.56	0			0	No, Vu<V
SLU 56	1457	3869	-2583	673491		0	0	0.56	0			0	No, Vu<V
SLU 58	1277	2170	-2695	209553		0	0	0.56	0			0	No, Vu<V
SLU 58	1457	4743	-2695	702153		0	0	0.56	0			0	No, Vu<V
SLU 1	1277	-1520	-719	52679		0.27	202.05	0.59	3346			4.65	Si
SLU 1	1457	466	-719	187906		0	0	0.56	0			0	No, Vu<V
SLU 53	1277	-882	-1658	121571		0	0	0.56	0			0	No, Vu<V
SLU 53	1457	1691	-1658	427590		0	0	0.56	0			0	No, Vu<V
SLU 54	1277	-868	-1665	121526		0	0	0.56	0			0	No, Vu<V
SLU 54	1457	1706	-1665	428770		0	0	0.56	0			0	No, Vu<V
SLU 57	1277	1310	-2590	200973		0	0	0.56	0			0	No, Vu<V
SLU 57	1457	3883	-2590	674672		0	0	0.56	0			0	No, Vu<V
SLU 60	1277	-2148	-873	47105		0.38	204	0.61	3460			3.96	Si
SLU 60	1457	425	-873	211884		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	1277	-2341	756	164735		0.88	94.91	1.01	2683			3.55	Si
SLV 13	1457	692	-656	138310		0	0	0.83	0			0	No, Vu<V
SLV 12	1277	-2219	-809	-130889		0.61	129.01	0.96	3454			4.27	Si
SLV 12	1457	-279	-908	54198		0	0	0.83	0			0	No, Vu<V
SLV 9	1277	-1040	-22	274772		0	0	0.83	0			0	No, Vu<V
SLV 9	1457	1571	-717	313694		0	0	0.83	0			0	No, Vu<V
SLV 7	1277	-1457	-1712	-158270		0	0	0.83	0			0	No, Vu<V
SLV 7	1457	-80	-1017	126678		0	0	0.83	0			0	No, Vu<V
SLV 8	1277	-1457	-1712	-158270		0	0	0.83	0			0	No, Vu<V
SLV 8	1457	-80	-1017	126678		0	0	0.83	0			0	No, Vu<V
SLV 6	1277	-279	-926	247391		0	0	0.83	0			0	No, Vu<V
SLV 6	1457	1770	-827	386174		0	0	0.83	0			0	No, Vu<V
SLD 1	1277	-631	-1462	64259		62.55	0.36	1.63	16			0.01	No, Vu<V
SLD 1	1457	1005	-933	288156		0	0	0.83	0			0	No, Vu<V
SLV 14	1277	-2341	756	164735		0.88	94.91	1.01	2683			3.55	Si
SLV 14	1457	692	-656	138310		0	0	0.83	0			0	No, Vu<V
SLV 10	1277	-1040	-22	274772		0	0	0.83	0			0	No, Vu<V
SLV 10	1457	1571	-717	313694		0	0	0.83	0			0	No, Vu<V
SLV 11	1277	-2219	-809	-130889		0.61	129.01	0.96	3454			4.27	Si
SLV 11	1457	-279	-908	54198		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.53	0	-122	23043	0	0	No, e>t/2
SLV 10	14	0.53	0	-122	23043	0	0	No, e>t/2



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0	462	23043	0	0	No, Trazione
SLV 1	14	0.53	0	639	23043	0	0	No, Trazione
SLV 8	14	0.53	0	-979	23043	0	0	No, $e > t/2$
SLV 2	14	0.53	0	639	23043	0	0	No, Trazione
SLV 4	14	0.53	0	207	23043	0	0	No, Trazione
SLV 7	14	0.53	0	-979	23043	0	0	No, $e > t/2$
SLV 6	14	0.53	0	462	23043	0	0	No, Trazione
SLV 3	14	0.53	0	207	23043	0	0	No, Trazione

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 $W_a = 0.05$ $T_a = 0.0596$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	1735	-742	321	0	0	0	0	922.376	No, Trazione
SLV 10	1735	-742	321	0	0	0	0	922.376	No, Trazione
SLV 5	2233	-1284	312	0	0	0	0	922.376	No, Trazione
SLV 2	2345	-2652	77	0	0	0	0	993.207	No, Trazione
SLV 7	892	-3388	-326	0	0	0	0	922.376	No, Trazione
SLV 6	2233	-1284	312	0	0	0	0	922.376	No, Trazione
SLV 4	1943	-3283	-114	0	0	0	0	993.207	No, Trazione
SLV 1	2345	-2652	77	0	0	0	0	993.207	No, Trazione
SLV 8	892	-3388	-326	0	0	0	0	922.376	No, Trazione
SLV 3	1943	-3283	-114	0	0	0	0	993.207	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 16	No

Maschio 206

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1681.8	666.1	-1283.8	666.1	L6	L7	398	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 30	1277	-7865	213881	0.71	1429586	6.684	Si
SLU 30	1457	-3313	-6986	0.3	635187	90.926	Si
SLU 38	1277	-7703	236644	0.69	1402832	5.928	Si
SLU 38	1457	-3251	-4634	0.29	623715	134.598	Si
SLU 79	1277	-9339	243706	0.84	1667202	6.841	Si
SLU 79	1457	-3780	-11524	0.34	720881	62.555	Si
SLU 42	1277	-6892	193001	0.62	1267391	6.567	Si
SLU 42	1457	-2784	-11081	0.25	537052	48.465	Si
SLU 80	1277	-9342	243171	0.84	1667719	6.858	Si
SLU 80	1457	-3782	-11490	0.34	721276	62.777	Si
SLU 29	1277	-7862	214415	0.71	1429048	6.665	Si
SLU 29	1457	-3311	-7020	0.3	634788	90.425	Si
SLU 37	1277	-7700	237178	0.69	1402291	5.912	Si
SLU 37	1457	-3248	-4668	0.29	623315	133.523	Si
SLU 41	1277	-6889	193535	0.62	1266839	6.546	Si
SLU 41	1457	-2782	-11116	0.25	536648	48.279	Si
SLU 17	1277	-7275	196576	0.65	1331765	6.775	Si
SLU 17	1457	-2943	-5064	0.26	566651	111.898	Si
SLU 16	1277	-7272	197110	0.65	1331218	6.754	Si
SLU 16	1457	-2941	-5098	0.26	566248	111.066	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1277	-6408	616412	0.58	1215181	1.971	Si
SLV 14	1457	-3052	-279525	0.27	593720	2.124	Si
SLV 15	1277	-5941	522708	0.53	1130637	2.163	Si
SLV 15	1457	-2329	-235995	0.21	455555	1.93	Si
SLV 2	1277	-6114	-351702	0.55	1162021	3.304	Si
SLV 2	1457	-2058	192863	0.18	403269	2.091	Si
SLV 4	1277	-5647	-445406	0.51	1077075	2.418	Si
SLV 4	1457	-1335	236394	0.12	263002	1.113	Si
SLV 3	1277	-5647	-445406	0.51	1077075	2.418	Si
SLV 3	1457	-1335	236394	0.12	263002	1.113	Si
SLV 16	1277	-5941	522708	0.53	1130637	2.163	Si
SLV 16	1457	-2329	-235995	0.21	455555	1.93	Si
SLV 1	1277	-6114	-351702	0.55	1162021	3.304	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	1457	-2058	192863	0.18	403269	2.091	Si
SLV 13	1277	-6408	616412	0.58	1215181	1.971	Si
SLV 13	1457	-3052	-279525	0.27	593720	2.124	Si
SLV 7	1277	-5204	-215887	0.47	996105	4.614	Si
SLV 7	1457	-839	121843	0.08	166008	1.362	Si
SLV 8	1277	-5204	-215887	0.47	996105	4.614	Si
SLV 8	1457	-839	121843	0.08	166008	1.362	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1277	-7703	1391	236644		0.69	398	0.65	7218			5.19	Si
SLU 38	1457	-3251	1395	-4634		0.29	398	0.59	6625			4.75	Si
SLU 36	1277	-8346	1398	215752		0.75	398	0.66	7304			5.22	Si
SLU 36	1457	-3999	1402	-29276		0.36	398	0.6	6724			4.8	Si
SLU 35	1277	-8343	1401	216287		0.75	398	0.66	7304			5.21	Si
SLU 35	1457	-3997	1405	-29311		0.36	398	0.6	6724			4.79	Si
SLU 79	1277	-9339	1460	243706		0.84	398	0.67	7436			5.09	Si
SLU 79	1457	-3780	1464	-11524		0.34	398	0.6	6695			4.57	Si
SLU 72	1277	-9504	1356	220409		0.85	398	0.67	7458			5.5	Si
SLU 72	1457	-3844	1360	-13841		0.34	398	0.6	6704			4.93	Si
SLU 80	1277	-9342	1457	243171		0.84	398	0.67	7437			5.1	Si
SLU 80	1457	-3782	1461	-11490		0.34	398	0.6	6695			4.58	Si
SLU 71	1277	-9501	1359	220943		0.85	398	0.67	7458			5.49	Si
SLU 71	1457	-3842	1363	-13876		0.34	398	0.6	6703			4.92	Si
SLU 78	1277	-9985	1464	222280		0.9	398	0.68	7522			5.14	Si
SLU 78	1457	-4531	1468	-36132		0.41	398	0.61	6795			4.63	Si
SLU 37	1277	-7700	1394	237178		0.69	398	0.65	7218			5.18	Si
SLU 37	1457	-3248	1398	-4668		0.29	398	0.59	6624			4.74	Si
SLU 77	1277	-9982	1467	222814		0.9	398	0.67	7522			5.13	Si
SLU 77	1457	-4529	1471	-36166		0.41	398	0.61	6795			4.62	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	1277	-5647	-4538	-445406		0.56	360.36	0.95	9538			2.1	Si
SLV 3	1457	-1335	-2967	236394		0.73	65.66	0.98	1799			0.61	No, Vu<V
SLV 4	1277	-5647	-4538	-445406		0.56	360.36	0.95	9538			2.1	Si
SLV 4	1457	-1335	-2967	236394		0.73	65.66	0.98	1799			0.61	No, Vu<V
SLV 15	1277	-5941	5052	522708		0.64	333.04	0.96	8959			1.77	Si
SLV 15	1457	-2329	3476	-235995		0.28	293.02	0.89	7303			2.1	Si
SLV 7	1277	-5204	-1920	-215887		0.47	398	0.93	10328			5.38	Si
SLV 7	1457	-839	-1458	121843		0.19	161.53	0.87	3937			2.7	Si
SLV 1	1277	-6114	-3905	-351702		0.55	398	0.94	10509			2.69	Si
SLV 1	1457	-2058	-2328	192863		0.23	315.8	0.88	7780			3.34	Si
SLV 13	1277	-6408	5684	616412		0.74	308.42	0.98	8478			1.49	Si
SLV 13	1457	-3052	4116	-279525		0.34	322.23	0.9	8129			1.98	Si
SLV 14	1277	-6408	5684	616412		0.74	308.42	0.98	8478			1.49	Si
SLV 14	1457	-3052	4116	-279525		0.34	322.23	0.9	8129			1.98	Si
SLV 8	1277	-5204	-1920	-215887		0.47	398	0.93	10328			5.38	Si
SLV 8	1457	-839	-1458	121843		0.19	161.53	0.87	3937			2.7	Si
SLV 2	1277	-6114	-3905	-351702		0.55	398	0.94	10509			2.69	Si
SLV 2	1457	-2058	-2328	192863		0.23	315.8	0.88	7780			3.34	Si
SLV 16	1277	-5941	5052	522708		0.64	333.04	0.96	8959			1.77	Si
SLV 16	1457	-2329	3476	-235995		0.28	293.02	0.89	7303			2.1	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.53	0.35	-3922	44957	53326	1.19	Si
SLV 7	14	0.53	0.35	-3922	44957	53326	1.19	Si
SLV 12	14	0.53	0.36	-3986	44957	54177	1.21	Si
SLV 11	14	0.53	0.36	-3986	44957	54177	1.21	Si
SLV 3	14	0.53	0.4	-4430	44957	59996	1.33	Si
SLV 4	14	0.53	0.4	-4430	44957	59996	1.33	Si
SLV 16	14	0.53	0.42	-4645	44957	62806	1.4	Si
SLV 15	14	0.53	0.42	-4645	44957	62806	1.4	Si
SLV 2	14	0.53	0.44	-4929	44957	66509	1.48	Si
SLV 1	14	0.53	0.44	-4929	44957	66509	1.48	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 5	-1694	-7391	530	0	7.353	0.898	0	922.376	No
SLV 4	-57	-8123	310	0	6.463	0.991	0	993.207	No
SLV 8	191	-7637	142	0	0	0	0	922.376	No, Trazione
SLV 10	-2046	-6901	503	0	7.637	0.893	0	922.376	No
SLV 3	-57	-8123	310	0	6.463	0.991	0	993.207	No
SLV 2	-623	-8049	426	0	6.64	0.936	0	993.207	No
SLV 6	-1694	-7391	530	0	7.353	0.898	0	922.376	No
SLV 7	191	-7637	142	0	0	0	0	922.376	No, Trazione
SLV 1	-623	-8049	426	0	6.64	0.936	0	993.207	No
SLV 9	-2046	-6901	503	0	7.637	0.893	0	922.376	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.912	SLU 37	Si
V_SLU	4.574	SLU 79	Si



Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.113	SLV 3	Si
V_SLV	0.606	SLV 3	No
PFFP_SLV	1.186	SLV 7	Si
R_SLV	0	SLV 8	No

Maschio 207

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1193.8	666.1	-795.8	666.1	L6	L7	398	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 44	1277	-7673	-18608	0.69	1397921	75.125	Si
SLU 44	1457	-2673	27510	0.24	516200	18.764	Si
SLU 46	1277	-9161	3238	0.82	1639048	506.133	Si
SLU 46	1457	-3947	36485	0.35	751316	20.592	Si
SLU 52	1277	-7511	-41446	0.67	1370990	33.079	Si
SLU 52	1457	-2613	25179	0.23	505065	20.059	Si
SLU 43	1277	-7688	-19823	0.69	1400266	70.64	Si
SLU 43	1457	-2684	28141	0.24	518387	18.421	Si
SLU 39	1277	-6217	-61404	0.56	1152517	18.77	Si
SLU 39	1457	-2403	10380	0.22	465450	44.842	Si
SLU 45	1277	-9169	2510	0.82	1640399	653.663	Si
SLU 45	1457	-3954	36864	0.35	752590	20.416	Si
SLU 1	1277	-6025	-18072	0.54	1119460	61.946	Si
SLU 1	1457	-2153	19990	0.19	418296	20.925	Si
SLU 60	1277	-7455	-52449	0.67	1361772	25.964	Si
SLU 60	1457	-2599	24810	0.23	502479	20.253	Si
SLU 61	1277	-7447	-51720	0.67	1360356	26.302	Si
SLU 61	1457	-2592	24432	0.23	501164	20.513	Si
SLU 40	1277	-6209	-60675	0.56	1151055	18.971	Si
SLU 40	1457	-2396	10002	0.21	464129	46.406	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	1277	-6013	488168	0.54	1143704	2.343	Si
SLV 15	1457	-1460	-198736	0.13	287495	1.447	Si
SLV 16	1277	-6013	488168	0.54	1143704	2.343	Si
SLV 16	1457	-1460	-198736	0.13	287495	1.447	Si
SLV 11	1277	-5578	236859	0.5	1064580	4.495	Si
SLV 11	1457	-960	-76226	0.09	189760	2.489	Si
SLV 2	1277	-6187	-543479	0.56	1175357	2.163	Si
SLV 2	1457	-3003	233796	0.27	584391	2.5	Si
SLV 13	1277	-6340	415794	0.57	1202850	2.893	Si
SLV 13	1457	-2146	-179696	0.19	420324	2.339	Si
SLV 12	1277	-5578	236859	0.5	1064580	4.495	Si
SLV 12	1457	-960	-76226	0.09	189760	2.489	Si
SLV 3	1277	-5861	-471105	0.53	1116065	2.369	Si
SLV 3	1457	-2317	214756	0.21	453279	2.111	Si
SLV 4	1277	-5861	-471105	0.53	1116065	2.369	Si
SLV 4	1457	-2317	214756	0.21	453279	2.111	Si
SLV 1	1277	-6187	-543479	0.56	1175357	2.163	Si
SLV 1	1457	-3003	233796	0.27	584391	2.5	Si
SLV 14	1277	-6340	415794	0.57	1202850	2.893	Si
SLV 14	1457	-2146	-179696	0.19	420324	2.339	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 52	1277	-7511	-285	-41446		0.67	398	0.65	7193			25.26	Si
SLU 52	1457	-2613	-286	25179		0.23	398	0.59	6540			22.9	Si
SLU 19	1277	-5785	-295	-49969		0.52	398	0.62	6962			23.56	Si
SLU 19	1457	-2061	-296	16282		0.18	398	0.58	6466			21.82	Si
SLU 81	1277	-7880	-369	-63155		0.71	398	0.65	7242			19.64	Si
SLU 81	1457	-2934	-370	18530		0.26	398	0.59	6582			17.79	Si
SLU 60	1277	-7455	-339	-52449		0.67	398	0.64	7185			21.21	Si
SLU 60	1457	-2599	-340	24810		0.23	398	0.59	6538			19.25	Si
SLU 82	1277	-7871	-362	-62426		0.71	398	0.65	7241			19.99	Si
SLU 82	1457	-2927	-364	18152		0.26	398	0.59	6581			18.09	Si
SLU 39	1277	-6217	-332	-61404		0.56	398	0.63	7020			21.16	Si
SLU 39	1457	-2403	-333	10380		0.22	398	0.58	6511			19.54	Si
SLU 73	1277	-7935	-315	-52152		0.71	398	0.65	7249			23.04	Si
SLU 73	1457	-2948	-316	18899		0.26	398	0.59	6584			20.83	Si
SLU 40	1277	-6209	-325	-60675		0.56	398	0.63	7019			21.57	Si
SLU 40	1457	-2396	-327	10002		0.21	398	0.58	6511			19.92	Si
SLU 18	1277	-5793	-302	-50698		0.52	398	0.62	6964			23.07	Si
SLU 18	1457	-2068	-303	16660		0.19	398	0.58	6467			21.36	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	1277	-7447	-332	-51720		0.67	398	0.64	7184			21.62	Si
SLU 61	1457	-2592	-333	24432		0.23	398	0.59	6537			19.61	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1277	-5861	-4893	-471105		0.59	355.85	0.95	9475			1.94	Si
SLV 4	1457	-2317	-2365	214756		0.26	318.96	0.89	7906			3.34	Si
SLV 15	1277	-6013	4654	488168		0.61	353.43	0.95	9449			2.03	Si
SLV 15	1457	-1460	2345	-198736		0.28	188.74	0.89	4696			2	Si
SLD 1	1277	-6134	-2268	-248125		0.55	398	0.94	10514			4.64	Si
SLD 1	1457	-2556	-1283	109885		0.23	398	0.88	9798			7.64	Si
SLD 2	1277	-6134	-2268	-248125		0.55	398	0.94	10514			4.64	Si
SLD 2	1457	-2556	-1283	109885		0.23	398	0.88	9798			7.64	Si
SLV 1	1277	-6187	-5043	-543479		0.66	333.49	0.97	9019			1.79	Si
SLV 1	1457	-3003	-2737	233796		0.3	363.43	0.89	9081			3.32	Si
SLV 13	1277	-6340	4504	415794		0.57	398	0.95	10555			2.34	Si
SLV 13	1457	-2146	1974	-179696		0.22	345.79	0.88	8498			4.3	Si
SLV 3	1277	-5861	-4893	-471105		0.59	355.85	0.95	9475			1.94	Si
SLV 3	1457	-2317	-2365	214756		0.26	318.96	0.89	7906			3.34	Si
SLV 14	1277	-6340	4504	415794		0.57	398	0.95	10555			2.34	Si
SLV 14	1457	-2146	1974	-179696		0.22	345.79	0.88	8498			4.3	Si
SLV 2	1277	-6187	-5043	-543479		0.66	333.49	0.97	9019			1.79	Si
SLV 2	1457	-3003	-2737	233796		0.3	363.43	0.89	9081			3.32	Si
SLV 16	1277	-6013	4654	488168		0.61	353.43	0.95	9449			2.03	Si
SLV 16	1457	-1460	2345	-198736		0.28	188.74	0.89	4696			2	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.53	0.34	-3770	44957	51322	1.14	Si
SLV 8	14	0.53	0.34	-3770	44957	51322	1.14	Si
SLV 12	14	0.53	0.34	-3839	44957	52229	1.16	Si
SLV 11	14	0.53	0.34	-3839	44957	52229	1.16	Si
SLV 3	14	0.53	0.39	-4309	44957	58420	1.3	Si
SLV 4	14	0.53	0.39	-4309	44957	58420	1.3	Si
SLV 15	14	0.53	0.41	-4538	44957	61416	1.37	Si
SLV 16	14	0.53	0.41	-4538	44957	61416	1.37	Si
SLV 1	14	0.53	0.43	-4840	44957	65350	1.45	Si
SLV 2	14	0.53	0.43	-4840	44957	65350	1.45	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	162	-7558	247	0	0	0	0	922.376	No, Trazione
SLV 16	-151	-8111	312	0	6.475	0.979	0	993.207	No
SLV 6	-1808	-7085	401	0	7.443	0.896	0	922.376	No
SLV 10	-1559	-7558	409	0	7.25	0.9	0	922.376	No
SLV 9	-1559	-7558	409	0	7.25	0.9	0	922.376	No
SLV 5	-1808	-7085	401	0	7.443	0.896	0	922.376	No
SLV 15	-151	-8111	312	0	6.475	0.979	0	993.207	No
SLV 13	-667	-8110	361	0	6.663	0.933	0	993.207	No
SLV 14	-667	-8110	361	0	6.663	0.933	0	993.207	No
SLV 12	162	-7558	247	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	18.421	SLU 43	Si
V_SLU	17.785	SLU 81	Si
PF_SLV	1.447	SLV 15	Si
V_SLV	1.788	SLV 1	Si
PFFP_SLV	1.142	SLV 7	Si
R_SLV	0	SLV 12	No

Maschio 208

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-705.8	666.1	-501.8	666.1	L6	L7	204	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 59	1277	-1145	-75368	0.2	113908	1.511	Si
SLU 59	1457	1442	-437161	0	0	0	No, Trazione
SLU 56	1277	-1848	-75087	0.32	180980	2.41	Si
SLU 56	1457	739	-422135	0	0	0	No, Trazione
SLU 60	1277	-3014	-13095	0.53	287469	21.952	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	1457	-426	-140009	0	0	0	No, e>l/2
SLU 58	1277	-1168	-75552	0.2	116128	1.537	Si
SLU 58	1457	1419	-435383	0	0	0	No, Trazione
SLU 53	1277	-2783	-45638	0.49	266932	5.849	Si
SLU 53	1457	-196	-274134	0	0	0	No, e>l/2
SLU 57	1277	-1825	-74904	0.32	178827	2.387	Si
SLU 57	1457	762	-423913	0	0	0	No, Trazione
SLU 55	1277	-2065	-45797	0.36	201325	4.396	Si
SLU 55	1457	522	-290345	0	0	0	No, Trazione
SLU 54	1277	-2761	-45455	0.48	264874	5.827	Si
SLU 54	1457	-173	-275912	0	0	0	No, e>l/2
SLU 61	1277	-2991	-12912	0.52	285434	22.106	Si
SLU 61	1457	-403	-141787	0	0	0	No, e>l/2
SLU 1	1277	-2305	-20828	0.4	223424	10.727	Si
SLU 1	1457	-307	-123098	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	1277	-1771	-184645	0	0	0	No, e>l/2
SLV 2	1457	-371	-119297	0	0	0	No, e>l/2
SLV 13	1277	-2092	50485	0.37	207004	4.1	Si
SLV 13	1457	678	-248752	0	0	0	No, Trazione
SLV 9	1277	-1352	-141140	0	0	0	No, e>l/2
SLV 9	1457	1123	-301630	0	0	0	No, Trazione
SLV 10	1277	-1352	-141140	0	0	0	No, e>l/2
SLV 10	1457	1123	-301630	0	0	0	No, Trazione
SLV 15	1277	-2630	144196	0.46	258189	1.791	Si
SLV 15	1457	-18	-164591	0	0	0	No, e>l/2
SLV 1	1277	-1771	-184645	0	0	0	No, e>l/2
SLV 1	1457	-371	-119297	0	0	0	No, e>l/2
SLV 6	1277	-1255	-211679	0	0	0	No, e>l/2
SLV 6	1457	808	-262794	0	0	0	No, Trazione
SLD 1	1277	-2019	-90165	0.35	199942	2.218	Si
SLD 1	1457	-268	-131989	0	0	0	No, e>l/2
SLV 14	1277	-2092	50485	0.37	207004	4.1	Si
SLV 14	1457	678	-248752	0	0	0	No, Trazione
SLV 5	1277	-1255	-211679	0	0	0	No, e>l/2
SLV 5	1457	808	-262794	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	1277	-2761	1246	-45455	0.48	204	0.62	3541				2.84	Si
SLU 54	1457	-173	1246	-275912	0	0	0.56	0				0	No, Vu<V
SLU 56	1277	-1848	1894	-75087	0.36	184.08	0.6	3110				1.64	Si
SLU 56	1457	739	1894	-422135	0	0	0.56	0				0	No, Vu<V
SLU 61	1277	-2991	682	-12912	0.52	204	0.63	3572				5.24	Si
SLU 61	1457	-403	682	-141787	0	0	0.56	0				0	No, Vu<V
SLU 57	1277	-1825	1905	-74904	0.36	182.85	0.6	3088				1.62	Si
SLU 57	1457	762	1905	-423913	0	0	0.56	0				0	No, Vu<V
SLU 55	1277	-2065	1325	-45797	0.36	204	0.6	3449				2.6	Si
SLU 55	1457	522	1325	-290345	0	0	0.56	0				0	No, Vu<V
SLU 59	1277	-1145	1976	-75368	0.38	108.51	0.61	1841				0.93	No, Vu<V
SLU 59	1457	1442	1976	-437161	0	0	0.56	0				0	No, Vu<V
SLU 58	1277	-1168	1965	-75552	0.37	111.92	0.61	1897				0.97	No, Vu<V
SLU 58	1457	1419	1965	-435383	0	0	0.56	0				0	No, Vu<V
SLU 1	1277	-2305	542	-20828	0.4	204	0.61	3481				6.42	Si
SLU 1	1457	-307	542	-123098	0	0	0.56	0				0	No, Vu<V
SLU 53	1277	-2783	1236	-45638	0.49	204	0.62	3544				2.87	Si
SLU 53	1457	-196	1236	-274134	0	0	0.56	0				0	No, Vu<V
SLU 60	1277	-3014	671	-13095	0.53	204	0.63	3575				5.33	Si
SLU 60	1457	-426	671	-140009	0	0	0.56	0				0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	1277	-1352	821	-141140	0	0	0.83	0				0	No, Vu<V
SLV 9	1457	1123	881	-301630	0	0	0.83	0				0	No, Vu<V
SLV 15	1277	-2630	2180	144196	0.66	141.54	0.97	3829				1.76	Si
SLV 15	1457	-18	1170	-164591	0	0	0.83	0				0	No, Vu<V
SLV 14	1277	-2092	2021	50485	0.37	204	0.91	5178				2.56	Si
SLV 14	1457	678	1211	-248752	0	0	0.83	0				0	No, Vu<V
SLV 10	1277	-1352	821	-141140	0	0	0.83	0				0	No, Vu<V
SLV 10	1457	1123	881	-301630	0	0	0.83	0				0	No, Vu<V
SLV 2	1277	-1771	-879	-184645	0	0	0.83	0				0	No, Vu<V
SLV 2	1457	-371	131	-119297	0	0	0.83	0				0	No, Vu<V
SLV 5	1277	-1255	-50	-211679	0	0	0.83	0				0	No, Vu<V
SLV 5	1457	808	557	-262794	0	0	0.83	0				0	No, Vu<V
SLV 13	1277	-2092	2021	50485	0.37	204	0.91	5178				2.56	Si
SLV 13	1457	678	1211	-248752	0	0	0.83	0				0	No, Vu<V
SLD 1	1277	-2019	-3	-90165	0.42	172	0.92	4417				1000	Si
SLD 1	1457	-268	428	-131989	0	0	0.83	0				0	No, Vu<V
SLV 1	1277	-1771	-879	-184645	0	0	0.83	0				0	No, Vu<V
SLV 1	1457	-371	131	-119297	0	0	0.83	0				0	No, Vu<V
SLV 6	1277	-1255	-50	-211679	0	0	0.83	0				0	No, Vu<V
SLV 6	1457	808	557	-262794	0	0	0.83	0				0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

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Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.53	0	-1189	23043	0	0	No, $e > t/2$
SLV 13	14	0.53	0	-1189	23043	0	0	No, $e > t/2$
SLV 2	14	0.53	0	-888	23043	0	0	No, $e > t/2$
SLV 4	14	0.53	0	-1561	23043	0	0	No, $e > t/2$
SLV 6	14	0.53	0	-209	23043	0	0	No, $e > t/2$
SLV 9	14	0.53	0	-299	23043	0	0	No, $e > t/2$
SLV 3	14	0.53	0	-1561	23043	0	0	No, $e > t/2$
SLV 5	14	0.53	0	-209	23043	0	0	No, $e > t/2$
SLV 10	14	0.53	0	-299	23043	0	0	No, $e > t/2$
SLV 1	14	0.53	0	-888	23043	0	0	No, $e > t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 $W_a = 0.05$ $T_a = 0.0596$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	22	-4629	-325	0	0	0	0	922.376	No, Trazione
SLV 8	-313	-3513	-315	0	3.401	0.937	0	922.376	No
SLV 9	1183	-2542	314	0	0	0	0	922.376	No, Trazione
SLV 2	50	-855	111	0	0	0	0	993.207	No, Trazione
SLV 6	848	-1426	324	0	0	0	0	922.376	No, Trazione
SLV 7	-313	-3513	-315	0	3.401	0.937	0	922.376	No
SLV 1	50	-855	111	0	0	0	0	993.207	No, Trazione
SLV 10	1183	-2542	314	0	0	0	0	922.376	No, Trazione
SLV 12	22	-4629	-325	0	0	0	0	922.376	No, Trazione
SLV 5	848	-1426	324	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

Maschio 209

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-2066.8	104.6	-2452.8	104.6	L6	L7	386	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 19	1187	-9573	546928	0.89	1646768	3.011	Si
SLU 19	1397	-5527	-167463	0.51	999703	5.97	Si
SLU 82	1187	-12922	736686	1.2	2127900	2.888	Si
SLU 82	1397	-7577	-245899	0.7	1336489	5.435	Si
SLU 18	1187	-9558	563187	0.88	1644434	2.92	Si
SLU 18	1397	-5511	-162022	0.51	997096	6.154	Si
SLU 40	1187	-10413	705908	0.96	1771955	2.51	Si
SLU 40	1397	-6238	-205033	0.58	1118555	5.455	Si
SLU 81	1187	-12907	752946	1.19	2125793	2.823	Si
SLU 81	1397	-7561	-240458	0.7	1334021	5.548	Si
SLU 41	1187	-10958	695249	1.01	1851652	2.663	Si
SLU 41	1397	-6783	-297801	0.63	1208234	4.057	Si
SLU 42	1187	-10973	678990	1.02	1853891	2.73	Si
SLU 42	1397	-6798	-303242	0.63	1210756	3.993	Si
SLU 9	1187	-10461	214190	0.97	1779010	8.306	Si
SLU 9	1397	-6414	-381015	0.59	1147684	3.012	Si
SLU 39	1187	-10397	722168	0.96	1769678	2.451	Si
SLU 39	1397	-6222	-199593	0.58	1115995	5.591	Si
SLU 31	1187	-10353	611398	0.96	1763100	2.884	Si
SLU 31	1397	-6178	-213800	0.57	1108601	5.185	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	1187	-6074	-158680	0.56	1118359	7.048	Si
SLV 15	1397	-2121	309537	0.2	402833	1.301	Si
SLV 4	1187	-13050	840159	1.21	2269785	2.702	Si
SLV 4	1397	-8937	-684255	0.83	1608102	2.35	Si
SLV 13	1187	-6170	-69181	0.57	1135228	16.41	Si
SLV 13	1397	-2117	311327	0.2	401978	1.291	Si
SLV 1	1187	-13146	929657	1.22	2284689	2.458	Si
SLV 1	1397	-8932	-682466	0.83	1607338	2.355	Si
SLV 6	1187	-10817	684479	1	1916715	2.8	Si
SLV 6	1397	-6542	-332551	0.61	1199978	3.608	Si
SLV 14	1187	-6170	-69181	0.57	1135228	16.41	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1397	-2117	311327	0.2	401978	1.291	Si
SLV 16	1187	-6074	-158680	0.56	1118359	7.048	Si
SLV 16	1397	-2121	309537	0.2	402833	1.301	Si
SLV 5	1187	-10817	684479	1	1916715	2.8	Si
SLV 5	1397	-6542	-332551	0.61	1199978	3.608	Si
SLV 3	1187	-13050	840159	1.21	2269785	2.702	Si
SLV 3	1397	-8937	-684255	0.83	1608102	2.35	Si
SLV 2	1187	-13146	929657	1.22	2284689	2.458	Si
SLV 2	1397	-8932	-682466	0.83	1607338	2.355	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	1187	-13467	5104	726028		1.25	386	0.72	7800			1.53	Si
SLU 83	1397	-8122	5104	-338667		0.75	386	0.66	7087			1.39	Si
SLU 84	1187	-13483	5053	709768		1.25	386	0.72	7802			1.54	Si
SLU 84	1397	-8138	5053	-344107		0.75	386	0.66	7089			1.4	Si
SLU 81	1187	-12907	4765	752946		1.19	386	0.71	7725			1.62	Si
SLU 81	1397	-7561	4765	-240458		0.7	386	0.65	7013			1.47	Si
SLU 80	1187	-13973	5018	599180		1.29	386	0.73	7868			1.57	Si
SLU 80	1397	-8628	5018	-447457		0.8	386	0.66	7155			1.43	Si
SLU 37	1187	-11448	4720	584661		1.06	386	0.7	7531			1.6	Si
SLU 37	1397	-7273	4720	-401150		0.67	386	0.65	6974			1.48	Si
SLU 77	1187	-15305	5157	640899		1.42	386	0.74	8045			1.56	Si
SLU 77	1397	-9959	5157	-434837		0.92	386	0.68	7332			1.42	Si
SLU 78	1187	-15320	5105	624639		1.42	386	0.74	8047			1.58	Si
SLU 78	1397	-9975	5105	-440277		0.92	386	0.68	7334			1.44	Si
SLU 41	1187	-10958	4755	695249		1.01	386	0.69	7466			1.57	Si
SLU 41	1397	-6783	4755	-297801		0.63	386	0.64	6909			1.45	Si
SLU 79	1187	-13958	5070	615439		1.29	386	0.73	7865			1.55	Si
SLU 79	1397	-8613	5070	-442016		0.8	386	0.66	7153			1.41	Si
SLU 42	1187	-10973	4703	678990		1.02	386	0.69	7468			1.59	Si
SLU 42	1397	-6798	4703	-303242		0.63	386	0.64	6911			1.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 3	1187	-11080	4469	580799		1.03	386	1.04	11223			2.51	Si
SLD 3	1397	-6986	4169	-399656		0.65	386	0.96	10404			2.5	Si
SLV 3	1187	-13050	6770	840159		1.21	385.86	1.07	11613			1.72	Si
SLV 3	1397	-8937	6051	-684255		0.91	349.31	1.02	9938			1.64	Si
SLV 6	1187	-10817	4826	684479		1	386	1.03	11170			2.31	Si
SLV 6	1397	-6542	4701	-332551		0.61	386	0.95	10315			2.19	Si
SLD 4	1187	-11080	4469	580799		1.03	386	1.04	11223			2.51	Si
SLD 4	1397	-6986	4169	-399656		0.65	386	0.96	10404			2.5	Si
SLV 1	1187	-13146	7249	929657		1.28	366.85	1.09	11189			1.54	Si
SLV 1	1397	-8932	6579	-682466		0.91	349.79	1.02	9948			1.51	Si
SLV 4	1187	-13050	6770	840159		1.21	385.86	1.07	11613			1.72	Si
SLV 4	1397	-8937	6051	-684255		0.91	349.31	1.02	9938			1.64	Si
SLV 2	1187	-13146	7249	929657		1.28	366.85	1.09	11189			1.54	Si
SLV 2	1397	-8932	6579	-682466		0.91	349.79	1.02	9948			1.51	Si
SLV 5	1187	-10817	4826	684479		1	386	1.03	11170			2.31	Si
SLV 5	1397	-6542	4701	-332551		0.61	386	0.95	10315			2.19	Si
SLD 2	1187	-11118	4663	617306		1.03	386	1.04	11230			2.41	Si
SLD 2	1397	-6984	4380	-398624		0.65	386	0.96	10403			2.38	Si
SLD 1	1187	-11118	4663	617306		1.03	386	1.04	11230			2.41	Si
SLD 1	1397	-6984	4380	-398624		0.65	386	0.96	10403			2.38	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.53	0	-2955	44616	0	0	No, $e > t/2$
SLV 16	14	0.53	0	-2953	44616	0	0	No, $e > t/2$
SLV 14	14	0.53	0	-2955	44616	0	0	No, $e > t/2$
SLV 15	14	0.53	0	-2953	44616	0	0	No, $e > t/2$
SLV 12	14	0.53	0.49	-5334	44616	71661	1.61	Si
SLV 11	14	0.53	0.49	-5334	44616	71661	1.61	Si
SLV 9	14	0.53	0.49	-5341	44616	71746	1.61	Si
SLV 10	14	0.53	0.49	-5341	44616	71746	1.61	Si
SLV 7	14	0.53	0.68	-7377	44616	97506	2.19	Si
SLV 8	14	0.53	0.68	-7377	44616	97506	2.19	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	α_{lim}	Verifica
SLV 1	-1843	-13146	13	0.069	7.291	0.895	112.549	993.207	No
SLV 2	-1843	-13146	13	0.069	7.291	0.895	112.549	993.207	No
SLV 4	-1863	-13050	7	0.071	7.307	0.895	114.541	993.207	No
SLV 3	-1863	-13050	7	0.071	7.307	0.895	114.541	993.207	No
SLV 16	-1405	-6074	-13	0.072	6.95	0.903	115.585	993.207	No
SLV 15	-1405	-6074	-13	0.072	6.95	0.903	115.585	993.207	No
SLV 14	-1385	-6170	-7	0.073	6.936	0.903	118.053	993.207	No
SLV 13	-1385	-6170	-7	0.073	6.936	0.903	118.053	993.207	No
SLV 6	-1659	-10817	14	0.07	7.145	0.898	113.572	922.376	No
SLV 5	-1659	-10817	14	0.07	7.145	0.898	113.572	922.376	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.451	SLU 39	Si
V_SLU	1.389	SLU 83	Si
PF_SLV	1.291	SLV 13	Si
V_SLV	1.512	SLV 1	Si
PFFP_SLV	0	SLV 13	No
R_SLV	0.113	SLV 1	No

Maschio 210

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1228.3	104.6	-1986.8	104.6	L6	L7	758.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 40	1187	-26631	-1132022	1.25	8545100	7.549	Si
SLU 40	1437	-19700	-511626	0.93	6620585	12.94	Si
SLU 82	1187	-33507	-1229231	1.58	10246296	8.336	Si
SLU 82	1437	-23986	-605496	1.13	7835570	12.941	Si
SLU 83	1187	-37686	-1354420	1.77	11179031	8.254	Si
SLU 83	1437	-28829	-392012	1.36	9111387	23.243	Si
SLU 81	1187	-33324	-1308950	1.57	10203833	7.795	Si
SLU 81	1437	-23892	-668268	1.12	7809556	11.686	Si
SLU 39	1187	-26449	-1211740	1.25	8497137	7.012	Si
SLU 39	1437	-19606	-574398	0.92	6592789	11.478	Si
SLU 32	1187	-33023	-1203527	1.55	10133341	8.42	Si
SLU 32	1437	-26586	-328363	1.25	8533144	25.987	Si
SLU 31	1187	-27159	-997870	1.28	8683150	8.702	Si
SLU 31	1437	-19884	-419665	0.94	6674147	15.904	Si
SLU 42	1187	-30993	-1177492	1.46	9648298	8.194	Si
SLU 42	1437	-24638	-235369	1.16	8013139	34.045	Si
SLU 18	1187	-24169	-923486	1.14	7885585	8.539	Si
SLU 18	1437	-16937	-530319	0.8	5794451	10.926	Si
SLU 41	1187	-30810	-1257211	1.45	9603824	7.639	Si
SLU 41	1437	-24543	-298141	1.16	7987396	26.791	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 4	1187	-27545	-754146	1.3	9337634	12.382	Si
SLD 4	1437	-20426	-1775655	0.96	7136917	4.019	Si
SLV 2	1187	-30538	-989639	1.44	10218661	10.326	Si
SLV 2	1437	-22687	-3444863	1.07	7851936	2.279	Si
SLV 14	1187	-22065	-871608	1.04	7656486	8.784	Si
SLV 14	1437	-12377	2786467	0.58	4469954	1.604	Si
SLV 3	1187	-29745	-708047	1.4	9987721	14.106	Si
SLV 3	1437	-23662	-3605027	1.11	8155429	2.262	Si
SLV 13	1187	-22065	-871608	1.04	7656486	8.784	Si
SLV 13	1437	-12377	2786467	0.58	4469954	1.604	Si
SLV 1	1187	-30538	-989639	1.44	10218661	10.326	Si
SLV 1	1437	-22687	-3444863	1.07	7851936	2.279	Si
SLD 3	1187	-27545	-754146	1.3	9337634	12.382	Si
SLD 3	1437	-20426	-1775655	0.96	7136917	4.019	Si
SLV 15	1187	-21271	-590016	1	7405900	12.552	Si
SLV 15	1437	-13351	2626304	0.63	4802808	1.829	Si
SLV 4	1187	-29745	-708047	1.4	9987721	14.106	Si
SLV 4	1437	-23662	-3605027	1.11	8155429	2.262	Si
SLV 16	1187	-21271	-590016	1	7405900	12.552	Si
SLV 16	1437	-13351	2626304	0.63	4802808	1.829	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 29	1187	-36527	-2261	-1032660	1.72	758.5	0.78	16669				7.37	Si
SLU 29	1437	-29880	-1551	145157	1.41	758.5	0.74	15783				10.17	Si
SLU 28	1187	-38516	-2120	-980263	1.81	758.5	0.8	16934				7.99	Si
SLU 28	1437	-31897	-1345	127595	1.5	758.5	0.76	16052				11.94	Si
SLU 71	1187	-43403	-2212	-1129869	2.04	758.5	0.83	17586				7.95	Si
SLU 71	1437	-34166	-1432	51287	1.61	758.5	0.77	16354				11.42	Si
SLU 30	1187	-36710	-2279	-952941	1.73	758.5	0.79	16694				7.32	Si
SLU 30	1437	-29975	-1606	207929	1.41	758.5	0.74	15795				9.84	Si
SLU 72	1187	-43586	-2230	-1050150	2.05	758.5	0.83	17610				7.9	Si
SLU 72	1437	-34260	-1486	114059	1.61	758.5	0.77	16367				11.02	Si
SLU 79	1187	-42454	-2052	-1318884	2	758.5	0.82	17459				8.51	Si
SLU 79	1437	-33886	-913	-65642	1.6	758.5	0.77	16317				17.86	Si
SLU 80	1187	-42637	-2071	-1239165	2.01	758.5	0.82	17484				8.44	Si
SLU 80	1437	-33981	-968	-2870	1.6	758.5	0.77	16330				16.88	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1187	-35761	-2119	-1141956		1.68	758.5	0.78	16567			7.82	Si
SLU 38	1437	-29695	-1087	91000		1.4	758.5	0.74	15758			14.49	Si
SLU 27	1187	-38333	-2102	-1059982		1.8	758.5	0.8	16910			8.04	Si
SLU 27	1437	-31803	-1291	64823		1.5	758.5	0.76	16039			12.43	Si
SLU 37	1187	-35579	-2101	-1221674		1.68	758.5	0.78	16543			7.87	Si
SLU 37	1437	-29600	-1033	28228		1.39	758.5	0.74	15746			15.24	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	1187	-29745	18809	-708047		1.4	758.5	1.11	23647			1.26	Si
SLV 3	1437	-23662	12442	-3605027		1.24	680.68	1.08	20615			1.66	Si
SLV 13	1187	-22065	-19888	-871608		1.04	758.5	1.04	22111			1.11	Si
SLV 13	1437	-12377	-12017	2786467		0.96	462.33	1.02	13263			1.1	Si
SLV 15	1187	-21271	-17923	-590016		1	758.5	1.03	21953			1.22	Si
SLV 15	1437	-13351	-10104	2626304		0.87	547.61	1.01	15448			1.53	Si
SLV 1	1187	-30538	16844	-989639		1.44	758.5	1.12	23806			1.41	Si
SLV 1	1437	-22687	10529	-3444863		1.19	682.23	1.07	20456			1.94	Si
SLV 4	1187	-29745	18809	-708047		1.4	758.5	1.11	23647			1.26	Si
SLV 4	1437	-23662	12442	-3605027		1.24	680.68	1.08	20615			1.66	Si
SLV 10	1187	-25956	-9323	-1241443		1.22	758.5	1.08	22889			2.46	Si
SLV 10	1437	-14849	-6358	792359		0.7	758.5	0.97	20668			3.25	Si
SLV 2	1187	-30538	16844	-989639		1.44	758.5	1.12	23806			1.41	Si
SLV 2	1437	-22687	10529	-3444863		1.19	682.23	1.07	20456			1.94	Si
SLV 9	1187	-25956	-9323	-1241443		1.22	758.5	1.08	22889			2.46	Si
SLV 9	1437	-14849	-6358	792359		0.7	758.5	0.97	20668			3.25	Si
SLV 14	1187	-22065	-19888	-871608		1.04	758.5	1.04	22111			1.11	Si
SLV 14	1437	-12377	-12017	2786467		0.96	462.33	1.02	13263			1.1	Si
SLV 16	1187	-21271	-17923	-590016		1	758.5	1.03	21953			1.22	Si
SLV 16	1437	-13351	-10104	2626304		0.87	547.61	1.01	15448			1.53	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.53	0.76	-16247	87671	213215	2.43	Si
SLV 14	14	0.53	0.76	-16247	87671	213215	2.43	Si
SLV 15	14	0.53	0.8	-17038	87671	222870	2.54	Si
SLV 16	14	0.53	0.8	-17038	87671	222870	2.54	Si
SLV 10	14	0.53	0.85	-18005	87671	234577	2.68	Si
SLV 9	14	0.53	0.85	-18005	87671	234577	2.68	Si
SLV 5	14	0.53	0.96	-20303	87671	261998	2.99	Si
SLV 6	14	0.53	0.96	-20303	87671	261998	2.99	Si
SLV 12	14	0.53	0.97	-20642	87671	265997	3.03	Si
SLV 11	14	0.53	0.97	-20642	87671	265997	3.03	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-15893	-23312	902	0.015	25.928	0.909	24.595	922.376	No
SLV 12	-15893	-23312	902	0.015	25.928	0.909	24.595	922.376	No
SLV 7	-17562	-25854	913	0.017	27.59	0.913	27.023	922.376	No
SLV 8	-17562	-25854	913	0.017	27.59	0.913	27.023	922.376	No
SLV 9	-13121	-25956	-747	0.019	23.187	0.903	31.021	922.376	No
SLV 10	-13121	-25956	-747	0.019	23.187	0.903	31.021	922.376	No
SLV 5	-14790	-28498	-737	0.022	24.835	0.907	34.925	922.376	No
SLV 6	-14790	-28498	-737	0.022	24.835	0.907	34.925	922.376	No
SLV 3	-18539	-29745	348	0.041	28.565	0.915	65.168	993.207	No
SLV 4	-18539	-29745	348	0.041	28.565	0.915	65.168	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.012	SLU 39	Si
V_SLU	7.325	SLU 30	Si
PF_SLV	1.604	SLV 13	Si
V_SLV	1.104	SLV 13	Si
PFFP_SLV	2.432	SLV 13	Si
R_SLV	0.027	SLV 11	No

Maschio 211

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1046.6	104.6	-1116.3	104.6	L6	L7	69.6	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 40	1187	-2622	21246	1.34	76228	3.588	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 40	1437	-3803	-9938	1.95	100718	10.135	Si
SLU 41	1187	-2970	24492	1.52	84072	3.433	Si
SLU 41	1437	-4729	-12384	2.43	115638	9.338	Si
SLU 36	1187	-3557	23169	1.82	96111	4.148	Si
SLU 36	1437	-5843	-11798	3	128603	10.901	Si
SLU 42	1187	-2963	23506	1.52	83916	3.57	Si
SLU 42	1437	-4680	-11586	2.4	114938	9.921	Si
SLU 32	1187	-3223	21896	1.65	89457	4.086	Si
SLU 32	1437	-5016	-10948	2.57	119491	10.915	Si
SLU 38	1187	-3360	22866	1.72	92249	4.034	Si
SLU 38	1437	-5571	-11711	2.86	125933	10.753	Si
SLU 37	1187	-3368	23852	1.73	92392	3.874	Si
SLU 37	1437	-5620	-12509	2.88	126440	10.108	Si
SLU 39	1187	-2629	22232	1.35	76394	3.436	Si
SLU 39	1437	-3853	-10736	1.98	101607	9.464	Si
SLU 34	1187	-3015	19949	1.55	85052	4.263	Si
SLU 34	1437	-4661	-9531	2.39	114665	12.03	Si
SLU 35	1187	-3564	24155	1.83	96247	3.985	Si
SLU 35	1437	-5892	-12596	3.02	129052	10.246	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1187	-4086	-170458	0	0	0	No, $e \geq l/2$
SLV 14	1437	-4766	132407	2.44	132752	1.003	Si
SLV 8	1187	-1999	48502	1.03	63766	1.315	Si
SLV 8	1437	-669	-41749	0	0	0	No, $e \geq l/2$
SLV 7	1187	-1999	48502	1.03	63766	1.315	Si
SLV 7	1437	-669	-41749	0	0	0	No, $e \geq l/2$
SLD 1	1187	-2152	86916	0	0	0	No, $e \geq l/2$
SLD 1	1437	-3478	-59603	1.78	103430	1.735	Si
SLV 2	1187	-1446	193570	0	0	0	No, $e \geq l/2$
SLV 2	1437	-3583	-136733	0	0	0	No, $e \geq l/2$
SLV 3	1187	-1275	185420	0	0	0	No, $e \geq l/2$
SLV 3	1437	-2047	-136370	0	0	0	No, $e \geq l/2$
SLV 4	1187	-1275	185420	0	0	0	No, $e \geq l/2$
SLV 4	1437	-2047	-136370	0	0	0	No, $e \geq l/2$
SLV 13	1187	-4086	-170458	0	0	0	No, $e \geq l/2$
SLV 13	1437	-4766	132407	2.44	132752	1.003	Si
SLV 12	1187	-2791	-60706	1.43	85802	1.413	Si
SLV 12	1437	-1024	38993	0	0	0	No, $e \geq l/2$
SLV 11	1187	-2791	-60706	1.43	85802	1.413	Si
SLV 11	1437	-1024	38993	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 35	1187	-3564	410	24155		1.83	69.64	0.8	1558			3.8	Si
SLU 35	1437	-5892	388	-12596		3.02	69.64	0.96	1869			4.82	Si
SLU 80	1187	-4115	391	20318		2.11	69.64	0.84	1632			4.17	Si
SLU 80	1437	-6305	368	-9185		3.23	69.64	0.99	1924			5.23	Si
SLU 79	1187	-4122	402	21305		2.11	69.64	0.84	1633			4.07	Si
SLU 79	1437	-6355	378	-9983		3.26	69.64	0.99	1931			5.1	Si
SLU 78	1187	-4312	398	20621		2.21	69.64	0.85	1658			4.16	Si
SLU 78	1437	-6578	376	-9271		3.37	69.64	1.01	1960			5.22	Si
SLU 42	1187	-2963	360	23506		1.52	69.64	0.76	1478			4.1	Si
SLU 42	1437	-4680	332	-11586		2.4	69.64	0.88	1707			5.15	Si
SLU 36	1187	-3557	400	23169		1.82	69.64	0.8	1557			3.9	Si
SLU 36	1437	-5843	378	-11798		3	69.64	0.96	1862			4.93	Si
SLU 41	1187	-2970	371	24492		1.52	69.64	0.76	1479			3.99	Si
SLU 41	1437	-4729	342	-12384		2.43	69.64	0.88	1714			5.01	Si
SLU 77	1187	-4319	409	21608		2.22	69.64	0.85	1659			4.06	Si
SLU 77	1437	-6627	386	-10069		3.4	69.64	1.01	1967			5.09	Si
SLU 37	1187	-3368	403	23852		1.73	69.64	0.79	1532			3.8	Si
SLU 37	1437	-5620	380	-12509		2.88	69.64	0.94	1833			4.82	Si
SLU 38	1187	-3360	393	22866		1.72	69.64	0.79	1531			3.9	Si
SLU 38	1437	-5571	370	-11711		2.86	69.64	0.94	1826			4.94	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1187	-1999	536	48502		2.25	31.67	1.28	1139			2.12	Si
SLV 8	1437	-669	246	-41749		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-4086	-1468	-170458		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1437	-4766	-726	132407		8.06	21.11	1.63	961			1.32	Si
SLV 12	1187	-2791	-470	-60706		2.54	39.21	1.34	1473			3.13	Si
SLV 12	1437	-1024	-321	38993		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-4086	-1468	-170458		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1437	-4766	-726	132407		8.06	21.11	1.63	961			1.32	Si
SLV 4	1187	-1275	1806	185420		0	0	0.83	0			0	No, $V_u < V$
SLV 4	1437	-2047	1046	-136370		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1187	-1446	1887	193570		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1437	-3583	1164	-136733		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1187	-1999	536	48502		2.25	31.67	1.28	1139			2.12	Si
SLV 7	1437	-669	246	-41749		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1187	-2791	-470	-60706		2.54	39.21	1.34	1473			3.13	Si
SLV 11	1437	-1024	-321	38993		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1187	-1275	1806	185420		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1437	-2047	1046	-136370		0	0	0.83	0			0	No, $V_u < V$
SLD 1	1187	-2152	901	86916		0	0	0.83	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 1	1437	-3478	590	-59603		2.34	53.05	1.3	1933			3.28	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.53	0.53	-1043	8049	13961	1.73	Si
SLV 8	14	0.53	0.53	-1043	8049	13961	1.73	Si
SLV 11	14	0.53	0.76	-1483	8049	19468	2.42	Si
SLV 12	14	0.53	0.76	-1483	8049	19468	2.42	Si
SLV 3	14	0.53	0.86	-1678	8049	21834	2.71	Si
SLV 4	14	0.53	0.86	-1678	8049	21834	2.71	Si
SLV 1	14	0.53	1.37	-2662	8049	33103	4.11	Si
SLV 2	14	0.53	1.37	-2662	8049	33103	4.11	Si
SLV 16	14	0.53	1.61	-3144	8049	38211	4.75	Si
SLV 15	14	0.53	1.61	-3144	8049	38211	4.75	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-3453	-2570	-241	0	4.389	0.944	0	922.376	No
SLV 4	-872	-1275	137	0	1.805	0.894	0	993.207	No
SLV 7	-219	-1999	296	0	1.229	0.908	0	922.376	No
SLV 10	-3863	-3362	-266	0	4.805	0.948	0	922.376	No
SLV 9	-3863	-3362	-266	0	4.805	0.948	0	922.376	No
SLV 11	-629	-2791	271	0	1.576	0.889	0	922.376	No
SLV 12	-629	-2791	271	0	1.576	0.889	0	922.376	No
SLV 8	-219	-1999	296	0	1.229	0.908	0	922.376	No
SLV 5	-3453	-2570	-241	0	4.389	0.944	0	922.376	No
SLV 3	-872	-1275	137	0	1.805	0.894	0	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.433	SLU 41	Si
V_SLU	3.8	SLU 35	Si
PF_SLV	0	SLD 1	No
V_SLV	0	SLD 1	No
PFFP_SLV	1.735	SLV 7	Si
R_SLV	0	SLV 3	No

Maschio 212

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-727.8	104.6	-938.6	104.6	L6	L7	210.9	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 19	1187	-7134	-72542	1.21	640593	8.831	Si
SLU 19	1437	-4346	87530	0.74	416810	4.762	Si
SLU 43	1187	-10681	-61835	1.81	876042	14.167	Si
SLU 43	1437	-6803	129418	1.15	615769	4.758	Si
SLU 44	1187	-10832	-68771	1.83	884827	12.866	Si
SLU 44	1437	-6922	133614	1.17	624785	4.676	Si
SLU 18	1187	-7044	-68380	1.19	633868	9.27	Si
SLU 18	1437	-4274	85012	0.72	410597	4.83	Si
SLU 52	1187	-9983	-85983	1.69	834036	9.7	Si
SLU 52	1437	-6252	127067	1.06	573460	4.513	Si
SLU 10	1187	-7558	-67940	1.28	671661	9.886	Si
SLU 10	1437	-4681	92014	0.79	445518	4.842	Si
SLU 60	1187	-9468	-86423	1.6	801714	9.277	Si
SLU 60	1437	-5845	120066	0.99	541342	4.509	Si
SLU 2	1187	-8408	-50728	1.42	731479	14.42	Si
SLU 2	1437	-5352	98561	0.91	501460	5.088	Si
SLU 1	1187	-8257	-43792	1.4	721092	16.466	Si
SLU 1	1437	-5232	94365	0.89	491620	5.21	Si
SLU 61	1187	-90585		1.62	807478	8.914	Si
SLU 61	1437	-5917	122583	1	547060	4.463	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 1	1187	-6202	136831	1.05	597635	4.368	Si
SLD 1	1437	-2426	-170468	0.41	247198	1.45	Si
SLV 4	1187	-3775	273469	0.64	377213	1.379	Si
SLV 4	1437	583	-445919	0	0	0	No, Trazione
SLV 1	1187	-3706	380785	0.63	370695	0.974	No, M>Mu
SLV 1	1437	1085	-516144	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 3	1187	-3775	273469	0.64	377213	1.379	Si
SLV 3	1437	583	-445919	0	0	0	No, Trazione
SLD 2	1187	-6202	136831	1.05	597635	4.368	Si
SLD 2	1437	-2426	-170468	0.41	247198	1.45	Si
SLV 6	1187	-6648	245762	1.13	636334	2.589	Si
SLV 6	1437	-2442	-200539	0.41	248768	1.24	Si
SLV 5	1187	-6648	245762	1.13	636334	2.589	Si
SLV 5	1437	-2442	-200539	0.41	248768	1.24	Si
SLV 15	1187	-12410	-470030	2.1	1083355	2.305	Si
SLV 15	1437	-11164	689893	1.89	994907	1.442	Si
SLV 16	1187	-12410	-470030	2.1	1083355	2.305	Si
SLV 16	1437	-11164	689893	1.89	994907	1.442	Si
SLV 2	1187	-3706	380785	0.63	370695	0.974	No, M>Mu
SLV 2	1437	1085	-516144	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 60	1187	-9468	-781	-86423		1.6	210.86	0.77	4542			5.82	Si
SLU 60	1437	-5845	-1016	120066		0.99	210.86	0.69	4059			4	Si
SLU 84	1187	-11036	-355	-51525		1.87	210.86	0.8	4752			13.39	Si
SLU 84	1437	-6940	-993	98431		1.18	210.86	0.71	4205			4.24	Si
SLU 52	1187	-9983	-762	-85983		1.69	210.86	0.78	4611			6.05	Si
SLU 52	1437	-6252	-949	127067		1.06	210.86	0.7	4114			4.34	Si
SLU 73	1187	-10137	-581	-71676		1.72	210.86	0.78	4632			7.97	Si
SLU 73	1437	-6249	-954	107398		1.06	210.86	0.7	4113			4.31	Si
SLU 62	1187	-10792	-517	-61670		1.83	210.86	0.8	4719			9.13	Si
SLU 62	1437	-6871	-978	115583		1.16	210.86	0.71	4196			4.29	Si
SLU 63	1187	-10882	-536	-65832		1.84	210.86	0.8	4731			8.83	Si
SLU 63	1437	-6943	-988	118100		1.18	210.86	0.71	4206			4.26	Si
SLU 81	1187	-9622	-600	-72117		1.63	210.86	0.77	4563			7.61	Si
SLU 81	1437	-5842	-1020	100396		0.99	210.86	0.69	4059			3.98	Si
SLU 83	1187	-10946	-336	-47363		1.85	210.86	0.8	4740			14.12	Si
SLU 83	1437	-6868	-983	95913		1.16	210.86	0.71	4196			4.27	Si
SLU 82	1187	-9713	-619	-76278		1.65	210.86	0.77	4575			7.39	Si
SLU 82	1437	-5914	-1030	102913		1	210.86	0.69	4069			3.95	Si
SLU 61	1187	-9558	-800	-90585		1.62	210.86	0.77	4555			5.69	Si
SLU 61	1437	-5917	-1026	122583		1	210.86	0.69	4069			3.97	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	-6648	2524	245762		1.16	205.39	1.06	6122			2.43	Si
SLV 5	1437	-2442	1329	-200539		1.25	69.95	1.08	2121			1.6	Si
SLV 2	1187	-3706	5158	380785		16.38	8.08	1.63	368			0.07	No, Vu<V
SLV 2	1437	1085	2681	-516144		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-3775	4327	273469		1.36	98.99	1.11	3065			0.71	No, Vu<V
SLV 3	1437	583	2046	-445919		0	0	0.83	0			0	No, Vu<V
SLV 4	1187	-3775	4327	273469		1.36	98.99	1.11	3065			0.71	No, Vu<V
SLV 4	1437	583	2046	-445919		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	-12341	-5137	-362714		2.09	210.86	1.25	7388			1.44	Si
SLV 13	1437	-10663	-3298	619668		2.68	141.95	1.37	5445			1.65	Si
SLV 15	1187	-12410	-5968	-470030		2.19	202.67	1.27	7211			1.21	Si
SLV 15	1437	-11164	-3933	689893		3.05	130.91	1.44	5287			1.34	Si
SLV 1	1187	-3706	5158	380785		16.38	8.08	1.63	368			0.07	No, Vu<V
SLV 1	1437	1085	2681	-516144		0	0	0.83	0			0	No, Vu<V
SLV 16	1187	-12410	-5968	-470030		2.19	202.67	1.27	7211			1.21	Si
SLV 16	1437	-11164	-3933	689893		3.05	130.91	1.44	5287			1.34	Si
SLV 6	1187	-6648	2524	245762		1.16	205.39	1.06	6122			2.43	Si
SLV 6	1437	-2442	1329	-200539		1.25	69.95	1.08	2121			1.6	Si
SLV 14	1187	-12341	-5137	-362714		2.09	210.86	1.25	7388			1.44	Si
SLV 14	1437	-10663	-3298	619668		2.68	141.95	1.37	5445			1.65	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.53	0.31	-1826	24373	24918	1.02	Si
SLV 1	14	0.53	0.31	-1826	24373	24918	1.02	Si
SLV 4	14	0.53	0.34	-2030	24373	27626	1.13	Si
SLV 3	14	0.53	0.34	-2030	24373	27626	1.13	Si
SLV 5	14	0.53	0.78	-4602	24373	60321	2.47	Si
SLV 6	14	0.53	0.78	-4602	24373	60321	2.47	Si
SLV 7	14	0.53	0.89	-5284	24373	68552	2.81	Si
SLV 8	14	0.53	0.89	-5284	24373	68552	2.81	Si
SLV 9	14	0.53	1.22	-7186	24373	90586	3.72	Si
SLV 10	14	0.53	1.22	-7186	24373	90586	3.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 5	-2187	-6648	-89	0.04	5.034	0.891	65.941	922.376	No
SLV 6	-2187	-6648	-89	0.04	5.034	0.891	65.941	922.376	No
SLV 9	-4327	-9239	-90	0.042	7.118	0.909	66.762	922.376	No
SLV 10	-4327	-9239	-90	0.042	7.118	0.909	66.762	922.376	No
SLV 12	-5221	-9469	74	0.044	8.008	0.916	70.323	922.376	No
SLV 11	-5221	-9469	74	0.044	8.008	0.916	70.323	922.376	No
SLV 13	-7138	-12341	-33	0.049	9.933	0.928	76.737	993.207	No
SLV 14	-7138	-12341	-33	0.049	9.933	0.928	76.737	993.207	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 8	-3081	-6878	75	0.044	5.891	0.898	71.621	922.376	No
SLV 7	-3081	-6878	75	0.044	5.891	0.898	71.621	922.376	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.463	SLU 61	Si
V_SLU	3.949	SLU 82	Si
PF_SLV	0	SLV 4	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.022	SLV 1	Si
R_SLV	0.071	SLV 5	No

Maschio 213

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-496.8	104.6	-647.8	104.6	L6	L7	151	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 40	1187	-5325	-77768	1.26	339869	4.37	Si
SLU 40	1397	-6152	71340	1.46	381504	5.348	Si
SLU 82	1187	-6797	-91147	1.61	411897	4.519	Si
SLU 82	1397	-7341	90884	1.74	436124	4.799	Si
SLU 60	1187	-6269	-86163	1.48	387157	4.493	Si
SLU 60	1397	-6338	93038	1.5	390479	4.197	Si
SLU 61	1187	-6451	-84522	1.53	395836	4.683	Si
SLU 61	1397	-6479	92047	1.53	397136	4.314	Si
SLU 52	1187	-6724	-77242	1.59	408570	5.289	Si
SLU 52	1397	-6513	88485	1.54	398738	4.506	Si
SLU 19	1187	-4979	-71143	1.18	321577	4.52	Si
SLU 19	1397	-5289	72502	1.25	338020	4.662	Si
SLU 39	1187	-5143	-79409	1.22	330290	4.159	Si
SLU 39	1397	-6011	72330	1.42	374646	5.18	Si
SLU 43	1187	-6774	-65545	1.6	410866	6.268	Si
SLU 43	1397	-6140	83365	1.45	380921	4.569	Si
SLU 18	1187	-4797	-72785	1.13	311721	4.283	Si
SLU 18	1397	-5149	73493	1.22	330630	4.499	Si
SLU 81	1187	-6615	-92788	1.56	403494	4.349	Si
SLU 81	1397	-7201	91875	1.7	429997	4.68	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 11	1187	-5731	-239710	1.36	384668	1.605	Si
SLV 11	1397	-6444	202009	1.52	425830	2.108	Si
SLV 13	1187	-5660	-311122	1.34	380524	1.223	Si
SLV 13	1397	-5901	328547	1.4	394659	1.201	Si
SLV 4	1187	-4940	194757	1.17	337292	1.732	Si
SLV 4	1397	-4572	-197702	1.08	314623	1.591	Si
SLV 16	1187	-5838	-369275	1.38	390946	1.059	Si
SLV 16	1397	-6456	360281	1.53	426527	1.184	Si
SLV 15	1187	-5838	-369275	1.38	390946	1.059	Si
SLV 15	1397	-6456	360281	1.53	426527	1.184	Si
SLV 3	1187	-4940	194757	1.17	337292	1.732	Si
SLV 3	1397	-4572	-197702	1.08	314623	1.591	Si
SLV 14	1187	-5660	-311122	1.34	380524	1.223	Si
SLV 14	1397	-5901	328547	1.4	394659	1.201	Si
SLV 2	1187	-4762	252910	1.13	326405	1.291	Si
SLV 2	1397	-4017	-229435	0.95	279700	1.219	Si
SLV 12	1187	-5731	-239710	1.36	384668	1.605	Si
SLV 12	1397	-6444	202009	1.52	425830	2.108	Si
SLV 1	1187	-4762	252910	1.13	326405	1.291	Si
SLV 1	1397	-4017	-229435	0.95	279700	1.219	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	1187	-9263	-1322	-86581		2.19	151	0.85	3584			2.71	Si
SLU 78	1397	-10634	-1320	85847		2.52	151	0.89	3767			2.85	Si
SLU 62	1187	-7231	-1176	-86493		1.71	151	0.78	3313			2.82	Si
SLU 62	1397	-7771	-1176	91355		1.84	151	0.8	3385			2.88	Si
SLU 37	1187	-7217	-1171	-73884		1.71	151	0.78	3311			2.83	Si
SLU 37	1397	-8818	-1171	66063		2.09	151	0.83	3525			3.01	Si
SLU 84	1187	-7759	-1257	-91477		1.84	151	0.8	3383			2.69	Si
SLU 84	1397	-8774	-1255	89202		2.08	151	0.83	3519			2.8	Si
SLU 83	1187	-7576	-1271	-93118		1.79	151	0.79	3359			2.64	Si
SLU 83	1397	-8634	-1270	90192		2.04	151	0.83	3500			2.76	Si
SLU 80	1187	-8872	-1334	-85621		2.1	151	0.84	3532			2.65	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	1397	-10148	-1332	84617		2.4	151	0.88	3702			2.78	Si
SLU 59	1187	-8526	-1239	-78996		2.02	151	0.82	3486			2.81	Si
SLU 59	1397	-9285	-1237	85780		2.2	151	0.85	3587			2.9	Si
SLU 79	1187	-8690	-1347	-87262		2.06	151	0.83	3507			2.6	Si
SLU 79	1397	-10007	-1347	85608		2.37	151	0.87	3683			2.73	Si
SLU 77	1187	-9080	-1335	-88222		2.15	151	0.84	3560			2.67	Si
SLU 77	1397	-10493	-1335	86838		2.48	151	0.89	3748			2.81	Si
SLU 58	1187	-8344	-1253	-80638		1.97	151	0.82	3461			2.76	Si
SLU 58	1397	-9145	-1253	86770		2.16	151	0.84	3568			2.85	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1187	-4762	3295	252910		2.53	67.18	1.34	2520			0.76	No, Vu<V
SLV 1	1397	-4017	2292	-229435		2.6	55.15	1.35	2090			0.91	No, Vu<V
SLV 11	1187	-5731	-3535	-239710		2.03	101.01	1.24	3503			0.99	No, Vu<V
SLV 11	1397	-6444	-3143	202009		1.74	132.45	1.18	4379			1.39	Si
SLV 13	1187	-5660	-3782	-311122		3.28	61.6	1.49	2569			0.68	No, Vu<V
SLV 13	1397	-5901	-2840	328547		3.54	59.48	1.54	2568			0.9	No, Vu<V
SLV 15	1187	-5838	-4811	-369275		5.68	36.73	1.63	1671			0.35	No, Vu<V
SLV 15	1397	-6456	-3808	360281		3.9	59.09	1.61	2670			0.7	No, Vu<V
SLV 12	1187	-5731	-3535	-239710		2.03	101.01	1.24	3503			0.99	No, Vu<V
SLV 12	1397	-6444	-3143	202009		1.74	132.45	1.18	4379			1.39	Si
SLV 2	1187	-4762	3295	252910		2.53	67.18	1.34	2520			0.76	No, Vu<V
SLV 2	1397	-4017	2292	-229435		2.6	55.15	1.35	2090			0.91	No, Vu<V
SLV 4	1187	-4940	2266	194757		1.63	108.22	1.16	3513			1.55	Si
SLV 4	1397	-4572	1324	-197702		1.69	96.77	1.17	3172			2.4	Si
SLV 14	1187	-5660	-3782	-311122		3.28	61.6	1.49	2569			0.68	No, Vu<V
SLV 14	1397	-5901	-2840	328547		3.54	59.48	1.54	2568			0.9	No, Vu<V
SLV 3	1187	-4940	2266	194757		1.63	108.22	1.16	3513			1.55	Si
SLV 3	1397	-4572	1324	-197702		1.69	96.77	1.17	3172			2.4	Si
SLV 16	1187	-5838	-4811	-369275		5.68	36.73	1.63	1671			0.35	No, Vu<V
SLV 16	1397	-6456	-3808	360281		3.9	59.09	1.61	2670			0.7	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0.93	-3925	17453	50780	2.91	Si
SLV 6	14	0.53	0.93	-3925	17453	50780	2.91	Si
SLV 2	14	0.53	0.95	-4022	17453	51922	2.97	Si
SLV 1	14	0.53	0.95	-4022	17453	51922	2.97	Si
SLV 10	14	0.53	1.04	-4402	17453	56376	3.23	Si
SLV 9	14	0.53	1.04	-4402	17453	56376	3.23	Si
SLV 4	14	0.53	1.08	-4581	17453	58446	3.35	Si
SLV 3	14	0.53	1.08	-4581	17453	58446	3.35	Si
SLV 14	14	0.53	1.33	-5610	17453	70013	4.01	Si
SLV 13	14	0.53	1.33	-5610	17453	70013	4.01	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-4815	-5731	135	0.031	6.815	0.926	48.091	922.376	No
SLV 11	-4815	-5731	135	0.031	6.815	0.926	48.091	922.376	No
SLV 7	-4253	-5461	121	0.032	6.25	0.921	50.235	922.376	No
SLV 8	-4253	-5461	121	0.032	6.25	0.921	50.235	922.376	No
SLV 6	-2919	-4869	-95	0.034	4.919	0.906	54.859	922.376	No
SLV 5	-2919	-4869	-95	0.034	4.919	0.906	54.859	922.376	No
SLV 16	-5005	-5838	76	0.041	7.006	0.928	63.588	993.207	No
SLV 15	-5005	-5838	76	0.041	7.006	0.928	63.588	993.207	No
SLV 10	-3482	-5139	-81	0.038	5.478	0.913	61.212	922.376	No
SLV 9	-3482	-5139	-81	0.038	5.478	0.913	61.212	922.376	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.159	SLU 39	Si
V_SLU	2.603	SLU 79	Si
PF_SLV	1.059	SLV 15	Si
V_SLV	0.347	SLV 15	No
PFFP_SLV	2.91	SLV 5	Si
R_SLV	0.052	SLV 11	No

Maschio 214

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	104.6	-416.8	104.6	L6	L7	404.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 37	1187	-8927	94882	0.79	1630765	17.187	Si
SLU 37	1397	-6683	571725	0.59	1253789	2.193	Si
SLU 16	1187	-8893	95572	0.79	1625167	17.005	Si
SLU 16	1397	-6150	500283	0.54	1160915	2.321	Si
SLU 79	1187	-11523	120673	1.02	2039446	16.901	Si
SLU 79	1397	-8070	630313	0.71	1489446	2.363	Si
SLU 17	1187	-9016	101967	0.8	1645278	16.135	Si
SLU 17	1397	-6175	499312	0.55	1165261	2.334	Si
SLU 8	1187	-9641	113853	0.85	1746195	15.337	Si
SLU 8	1397	-6109	474796	0.54	1153796	2.43	Si
SLU 80	1187	-11646	127067	1.03	2058134	16.197	Si
SLU 80	1397	-8095	629343	0.71	1493583	2.373	Si
SLU 38	1187	-9050	101276	0.8	1650857	16.301	Si
SLU 38	1397	-6708	570755	0.59	1258077	2.204	Si
SLU 29	1187	-9676	113163	0.85	1751681	15.479	Si
SLU 29	1397	-6643	546239	0.59	1246765	2.282	Si
SLU 41	1187	-8132	72711	0.72	1499677	20.625	Si
SLU 41	1397	-6262	483721	0.55	1180614	2.441	Si
SLU 30	1187	-9799	119557	0.87	1771368	14.816	Si
SLU 30	1397	-6668	545268	0.59	1251057	2.294	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	1187	-9328	53946	0.82	1759388	32.614	Si
SLV 11	1397	-6632	553997	0.59	1276999	2.305	Si
SLV 15	1187	-10050	-17997	0.89	1885052	104.741	Si
SLV 15	1397	-7102	691081	0.63	1362708	1.972	Si
SLV 16	1187	-10050	-17997	0.89	1885052	104.741	Si
SLV 16	1397	-7102	691081	0.63	1362708	1.972	Si
SLD 15	1187	-9155	37762	0.81	1729024	45.787	Si
SLD 15	1397	-6126	469133	0.54	1184090	2.524	Si
SLD 14	1187	-9053	36895	0.8	1711184	46.38	Si
SLD 14	1397	-5929	432900	0.52	1147758	2.651	Si
SLV 12	1187	-9328	53946	0.82	1759388	32.614	Si
SLV 12	1397	-6632	553997	0.59	1276999	2.305	Si
SLV 13	1187	-9806	-20314	0.87	1842727	90.714	Si
SLV 13	1397	-6625	603106	0.58	1275823	2.115	Si
SLD 13	1187	-9053	36895	0.8	1711184	46.38	Si
SLD 13	1397	-5929	432900	0.52	1147758	2.651	Si
SLD 16	1187	-9155	37762	0.81	1729024	45.787	Si
SLD 16	1397	-6126	469133	0.54	1184090	2.524	Si
SLV 14	1187	-9806	-20314	0.87	1842727	90.714	Si
SLV 14	1397	-6625	603106	0.58	1275823	2.115	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	1187	-11646	-4434	127067		1.03	404.5	0.69	7845			1.77	Si
SLU 80	1397	-8095	-4299	629343		0.77	373.52	0.66	6890			1.6	Si
SLU 37	1187	-8927	-4389	94882		0.79	404.5	0.66	7482			1.7	Si
SLU 37	1397	-6683	-4241	571725		0.68	350.12	0.65	6337			1.49	Si
SLU 42	1187	-8255	-4286	79105		0.73	404.5	0.65	7393			1.72	Si
SLU 42	1397	-6287	-4202	482750		0.6	376.4	0.64	6693			1.59	Si
SLU 83	1187	-10728	-4608	98502		0.95	404.5	0.68	7723			1.68	Si
SLU 83	1397	-7649	-4506	542309		0.69	394.07	0.65	7150			1.59	Si
SLU 35	1187	-9991	-4534	133779		0.88	404.5	0.67	7624			1.68	Si
SLU 35	1397	-7971	-4394	596355		0.74	382.3	0.65	7010			1.6	Si
SLU 38	1187	-9050	-4250	101276		0.8	404.5	0.66	7499			1.76	Si
SLU 38	1397	-6708	-4118	570755		0.68	351.5	0.65	6362			1.54	Si
SLU 84	1187	-10851	-4469	104896		0.96	404.5	0.68	7739			1.73	Si
SLU 84	1397	-7674	-4383	541338		0.69	395.13	0.65	7170			1.64	Si
SLU 41	1187	-8132	-4425	72711		0.72	404.5	0.65	7376			1.67	Si
SLU 41	1397	-6262	-4325	483721		0.6	375.03	0.64	6669			1.54	Si
SLU 77	1187	-12588	-4717	159570		1.11	404.5	0.7	7971			1.69	Si
SLU 77	1397	-9358	-4574	654943		0.84	396.78	0.67	7420			1.62	Si
SLU 79	1187	-11523	-4573	120673		1.02	404.5	0.69	7829			1.71	Si
SLU 79	1397	-8070	-4422	630313		0.77	372.44	0.66	6870			1.55	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	1187	-10050	-6042	-17997		0.89	404.5	1.01	11448			1.89	Si
SLV 15	1397	-7102	-3200	691081		0.81	314.84	0.99	8767			2.74	Si
SLD 13	1187	-9053	-3596	36895		0.8	404.5	0.99	11249			3.13	Si
SLD 13	1397	-5929	-2369	432900		0.55	387.71	0.94	10232			4.32	Si
SLV 14	1187	-9806	-5385	-20314		0.87	404.5	1.01	11400			2.12	Si
SLV 14	1397	-6625	-2554	603106		0.71	333.66	0.98	9110			3.57	Si
SLD 16	1187	-9155	-3866	37762		0.81	404.5	0.99	11269			2.92	Si
SLD 16	1397	-6126	-2634	469133		0.58	377	0.95	10022			3.81	Si
SLV 16	1187	-10050	-6042	-17997		0.89	404.5	1.01	11448			1.89	Si
SLV 16	1397	-7102	-3200	691081		0.81	314.84	0.99	8767			2.74	Si
SLD 15	1187	-9155	-3866	37762		0.81	404.5	0.99	11269			2.92	Si
SLD 15	1397	-6126	-2634	469133		0.58	377	0.95	10022			3.81	Si
SLD 14	1187	-9053	-3596	36895		0.8	404.5	0.99	11249			3.13	Si
SLD 14	1397	-5929	-2369	432900		0.55	387.71	0.94	10232			4.32	Si
SLV 13	1187	-9806	-5385	-20314		0.87	404.5	1.01	11400			2.12	Si
SLV 13	1397	-6625	-2554	603106		0.71	333.66	0.98	9110			3.57	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1187	-9328	-4387	53946		0.82	404.5	1	11304			2.58	Si
SLV 12	1397	-6632	-3492	553997		0.67	356.14	0.97	9636			2.76	Si
SLV 11	1187	-9328	-4387	53946		0.82	404.5	1	11304			2.58	Si
SLV 11	1397	-6632	-3492	553997		0.67	356.14	0.97	9636			2.76	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.53	0.39	-4382	46754	59407	1.27	Si
SLV 1	14	0.53	0.39	-4382	46754	59407	1.27	Si
SLV 4	14	0.53	0.42	-4800	46754	64871	1.39	Si
SLV 3	14	0.53	0.42	-4800	46754	64871	1.39	Si
SLV 6	14	0.53	0.44	-4969	46754	67074	1.43	Si
SLV 5	14	0.53	0.44	-4969	46754	67074	1.43	Si
SLV 10	14	0.53	0.52	-5891	46754	78963	1.69	Si
SLV 9	14	0.53	0.52	-5891	46754	78963	1.69	Si
SLV 7	14	0.53	0.56	-6363	46754	84986	1.82	Si
SLV 8	14	0.53	0.56	-6363	46754	84986	1.82	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-1593	-7650	76	0.058	7.375	0.9	93.888	922.376	No
SLV 5	-1593	-7650	76	0.058	7.375	0.9	93.888	922.376	No
SLV 11	-1696	-9328	-72	0.059	7.454	0.898	94.992	922.376	No
SLV 12	-1696	-9328	-72	0.059	7.454	0.898	94.992	922.376	No
SLV 9	-1637	-8513	70	0.059	7.408	0.9	95.836	922.376	No
SLV 10	-1637	-8513	70	0.059	7.408	0.9	95.836	922.376	No
SLV 7	-1653	-8464	-66	0.06	7.42	0.899	97.178	922.376	No
SLV 8	-1653	-8464	-66	0.06	7.42	0.899	97.178	922.376	No
SLV 2	-1564	-6927	34	0.067	7.352	0.901	108.232	993.207	No
SLV 1	-1564	-6927	34	0.067	7.352	0.901	108.232	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.193	SLU 37	Si
V_SLU	1.494	SLU 37	Si
PF_SLV	1.972	SLV 15	Si
V_SLV	1.895	SLV 15	Si
PFFP_SLV	1.271	SLV 1	Si
R_SLV	0.102	SLV 5	No

Maschio 215

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-350.9	-1100.3	104.6	L6	L7	455.6	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 42	1187	-14702	390115	1.15	2874985	7.37	Si
SLU 42	1503	-819	190121	0	0	0	No, e>l/2
SLU 38	1187	-15661	435363	1.23	3029667	6.959	Si
SLU 38	1503	-952	235188	0	0	0	No, e>l/2
SLU 36	1187	-16064	475151	1.26	3093380	6.51	Si
SLU 36	1503	-1038	244592	0	0	0	No, e>l/2
SLU 41	1187	-14763	395104	1.16	2885079	7.302	Si
SLU 41	1503	-829	192346	0	0	0	No, e>l/2
SLU 37	1187	-15723	440352	1.23	3039500	6.902	Si
SLU 37	1503	-962	237413	0	0	0	No, e>l/2
SLU 49	1187	-17445	506367	1.37	3306493	6.53	Si
SLU 49	1503	-1110	260085	0	0	0	No, e>l/2
SLU 50	1187	-17104	471567	1.34	3254677	6.902	Si
SLU 50	1503	-1033	252906	0	0	0	No, e>l/2
SLU 48	1187	-17506	511356	1.37	3315843	6.484	Si
SLU 48	1503	-1119	262310	0	0	0	No, e>l/2
SLU 83	1187	-17837	470449	1.4	3365514	7.154	Si
SLU 83	1503	-983	224889	0	0	0	No, e>l/2
SLU 47	1187	-15940	424220	1.25	3073873	7.246	Si
SLU 47	1503	-897	207534	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	1187	-11481	351279	0.9	2422594	6.897	Si
SLV 1	1503	-171	50602	0	0	0	No, e>l/2
SLV 4	1187	-10138	352692	0.79	2159082	6.122	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	1503	327	-72003	0	0	0	No, Trazione
SLV 7	1187	-9679	339487	0.76	2067802	6.091	Si
SLV 7	1503	390	-108217	0	0	0	No, Trazione
SLV 9	1187	-15106	322046	1.18	3107377	9.649	Si
SLV 9	1503	-1714	392032	0	0	0	No, e>l/2
SLV 3	1187	-10138	352692	0.79	2159082	6.122	Si
SLV 3	1503	327	-72003	0	0	0	No, Trazione
SLV 5	1187	-14156	334777	1.11	2931676	8.757	Si
SLV 5	1503	-1270	300467	0	0	0	No, e>l/2
SLV 2	1187	-11481	351279	0.9	2422594	6.897	Si
SLV 2	1503	-171	50602	0	0	0	No, e>l/2
SLV 11	1187	-10629	326756	0.83	2255931	6.904	Si
SLV 11	1503	-54	-16653	0	0	0	No, e>l/2
SLV 10	1187	-15106	322046	1.18	3107377	9.649	Si
SLV 10	1503	-1714	392032	0	0	0	No, e>l/2
SLV 6	1187	-14156	334777	1.11	2931676	8.757	Si
SLV 6	1503	-1270	300467	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 41	1187	-14763	-1564	395104		1.16	455.57	0.71	9055			5.79	Si
SLU 41	1503	-829	-499	192346		0	0	0.56	0			0	No, Vu<V
SLU 48	1187	-17506	-1996	511356		1.37	455.57	0.74	9421			4.72	Si
SLU 48	1503	-1119	-585	262310		0	0	0.56	0			0	No, Vu<V
SLU 37	1187	-15723	-2344	440352		1.23	455.57	0.72	9183			3.92	Si
SLU 37	1503	-962	-759	237413		0	0	0.56	0			0	No, Vu<V
SLU 83	1187	-17837	-1608	470449		1.4	455.57	0.74	9465			5.89	Si
SLU 83	1503	-983	-493	224889		0	0	0.56	0			0	No, Vu<V
SLU 38	1187	-15661	-2278	435363		1.23	455.57	0.72	9175			4.03	Si
SLU 38	1503	-952	-745	235188		0	0	0.56	0			0	No, Vu<V
SLU 42	1187	-14702	-1497	390115		1.15	455.57	0.71	9047			6.04	Si
SLU 42	1503	-819	-485	190121		0	0	0.56	0			0	No, Vu<V
SLU 49	1187	-17445	-1929	506367		1.37	455.57	0.74	9413			4.88	Si
SLU 49	1503	-1110	-571	260085		0	0	0.56	0			0	No, Vu<V
SLU 36	1187	-16064	-2175	475151		1.26	455.57	0.72	9228			4.24	Si
SLU 36	1503	-1038	-699	244592		0	0	0.56	0			0	No, Vu<V
SLU 47	1187	-15940	-1229	424220		1.25	455.57	0.72	9212			7.5	Si
SLU 47	1503	-897	-348	207534		0	0	0.56	0			0	No, Vu<V
SLU 50	1187	-17104	-2098	471567		1.34	455.57	0.73	9367			4.46	Si
SLU 50	1503	-1033	-631	252906		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	1187	-14156	-6691	334777		1.11	455.57	1.06	13461			2.01	Si
SLV 6	1503	-1270	-2251	300467		0	0	0.83	0			0	No, Vu<V
SLV 7	1187	-9679	6712	339487		0.76	455.57	0.99	12566			1.87	Si
SLV 7	1503	390	2295	-108217		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	-10629	5454	326756		0.83	455.57	1	12756			2.34	Si
SLV 11	1503	-54	1949	-16653		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-9679	6712	339487		0.76	455.57	0.99	12566			1.87	Si
SLV 8	1503	390	2295	-108217		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	-10629	5454	326756		0.83	455.57	1	12756			2.34	Si
SLV 12	1503	-54	1949	-16653		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-10138	3488	352692		0.79	455.57	0.99	12658			3.63	Si
SLV 3	1503	327	1108	-72003		0	0	0.83	0			0	No, Vu<V
SLV 4	1187	-10138	3488	352692		0.79	455.57	0.99	12658			3.63	Si
SLV 4	1503	327	1108	-72003		0	0	0.83	0			0	No, Vu<V
SLV 5	1187	-14156	-6691	334777		1.11	455.57	1.06	13461			2.01	Si
SLV 5	1503	-1270	-2251	300467		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	-15106	-7949	322046		1.18	455.57	1.07	13651			1.72	Si
SLV 10	1503	-1714	-2597	392032		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	-15106	-7949	322046		1.18	455.57	1.07	13651			1.72	Si
SLV 9	1503	-1714	-2597	392032		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.53	0.33	-4188	52657	57051	1.08	Si
SLV 8	14	0.53	0.33	-4188	52657	57051	1.08	Si
SLV 3	14	0.53	0.34	-4375	52657	59531	1.13	Si
SLV 4	14	0.53	0.34	-4375	52657	59531	1.13	Si
SLV 12	14	0.53	0.41	-5277	52657	71374	1.36	Si
SLV 11	14	0.53	0.41	-5277	52657	71374	1.36	Si
SLV 1	14	0.53	0.44	-5625	52657	75907	1.44	Si
SLV 2	14	0.53	0.44	-5625	52657	75907	1.44	Si
SLV 16	14	0.53	0.63	-8006	52657	106325	2.02	Si
SLV 15	14	0.53	0.63	-8006	52657	106325	2.02	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	390	-9679	47	0	0	0	0	922.376	No, Trazione
SLV 7	390	-9679	47	0	0	0	0	922.376	No, Trazione
SLV 4	327	-10138	3	0	0	0	0	993.207	No, Trazione
SLV 3	327	-10138	3	0	0	0	0	993.207	No, Trazione
SLV 5	-1270	-14156	-62	0.064	7.929	0.912	102.542	922.376	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 6	-1270	-14156	-62	0.064	7.929	0.912	102.542	922.376	No
SLV 9	-1714	-15106	-57	0.064	8.245	0.902	102.554	922.376	No
SLV 10	-1714	-15106	-57	0.064	8.245	0.902	102.554	922.376	No
SLV 14	-1651	-14647	-13	0.072	8.198	0.903	116.21	993.207	No
SLV 13	-1651	-14647	-13	0.072	8.198	0.903	116.21	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 5	No
V_SLU	0	SLU 5	No
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.083	SLV 7	Si
R_SLV	0	SLV 8	No

Maschio 216

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-972.8	220.1	-972.8	666.1	L6	L7	446	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 9	1187	-5483	50110	0.88	1090840	21.769	Si
SLU 9	1503	-1699	280280	0.27	366238	1.307	Si
SLU 30	1187	-6054	62440	0.97	1189400	19.049	Si
SLU 30	1503	-1993	327622	0.32	427113	1.304	Si
SLU 72	1187	-7502	47970	1.2	1426268	29.732	Si
SLU 72	1503	-2054	332080	0.33	439598	1.324	Si
SLU 16	1187	-6113	39332	0.98	1199354	30.493	Si
SLU 16	1503	-1740	281710	0.28	374815	1.33	Si
SLU 38	1187	-6691	50584	1.07	1295796	25.617	Si
SLU 38	1503	-2036	329324	0.33	435860	1.323	Si
SLU 8	1187	-5476	51188	0.88	1089732	21.289	Si
SLU 8	1503	-1698	280008	0.27	365957	1.307	Si
SLU 17	1187	-6119	38254	0.98	1200426	31.38	Si
SLU 17	1503	-1742	281982	0.28	375095	1.33	Si
SLU 29	1187	-6048	63518	0.97	1188324	18.708	Si
SLU 29	1503	-1992	327350	0.32	426835	1.304	Si
SLU 37	1187	-6685	51662	1.07	1294755	25.062	Si
SLU 37	1503	-2035	329052	0.33	435582	1.324	Si
SLU 71	1187	-7496	49048	1.2	1425272	29.059	Si
SLU 71	1503	-2053	331808	0.33	439321	1.324	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	1187	-5968	-90377	0.96	1226806	13.574	Si
SLV 13	1503	-645	120643	0.1	142577	1.182	Si
SLD 5	1187	-5342	19357	0.86	1107826	57.231	Si
SLD 5	1503	-425	70585	0.07	94292	1.336	Si
SLV 9	1187	-4949	40904	0.79	1031952	25.229	Si
SLV 9	1503	-212	77878	0	0	0	No, $e>l/2$
SLV 10	1187	-4949	40904	0.79	1031952	25.229	Si
SLV 10	1503	-212	77878	0	0	0	No, $e>l/2$
SLD 6	1187	-5342	19357	0.86	1107826	57.231	Si
SLD 6	1503	-425	70585	0.07	94292	1.336	Si
SLV 5	1187	-4681	92888	0.75	979839	10.549	Si
SLV 5	1503	-122	52036	0	0	0	No, $e>l/2$
SLV 14	1187	-5968	-90377	0.96	1226806	13.574	Si
SLV 14	1503	-645	120643	0.1	142577	1.182	Si
SLD 9	1187	-5455	-2753	0.87	1129520	410.222	Si
SLD 9	1503	-464	81507	0.07	102841	1.262	Si
SLD 10	1187	-5455	-2753	0.87	1129520	410.222	Si
SLD 10	1503	-464	81507	0.07	102841	1.262	Si
SLV 6	1187	-4681	92888	0.75	979839	10.549	Si
SLV 6	1503	-122	52036	0	0	0	No, $e>l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 79	1187	-8133	1020	37192		1.3	446	0.73	4553			4.46	Si
SLU 79	1503	-2096	-724	333511		0.78	191.53	0.66	1769			2.44	Si
SLU 78	1187	-8478	936	27408		1.36	446	0.74	4599			4.92	Si
SLU 78	1503	-2058	-710	315148		0.7	209.65	0.65	1905			2.68	Si
SLU 38	1187	-6691	1050	50584		1.07	446	0.7	4361			4.15	Si
SLU 38	1503	-2036	-681	329324		0.79	183.76	0.66	1701			2.5	Si
SLU 30	1187	-6054	1107	62440		0.97	446	0.68	4276			3.86	Si
SLU 30	1503	-1993	-628	327622		0.81	175.95	0.66	1634			2.6	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 80	1187	-8139	1013	36114		1.3	446	0.73	4554			4.49	Si
SLU 80	1503	-2097	-730	333783		0.78	191.45	0.66	1769			2.42	Si
SLU 37	1187	-6685	1057	51662		1.07	446	0.7	4360			4.13	Si
SLU 37	1503	-2035	-675	329052		0.79	183.83	0.66	1701			2.52	Si
SLU 71	1187	-7496	1076	49048		1.2	446	0.72	4468			4.15	Si
SLU 71	1503	-2053	-671	331808		0.8	184.11	0.66	1706			2.54	Si
SLU 29	1187	-6048	1113	63518		0.97	446	0.68	4275			3.84	Si
SLU 29	1503	-1992	-622	327350		0.81	176.02	0.66	1635			2.63	Si
SLU 77	1187	-8472	942	28486		1.36	446	0.74	4598			4.88	Si
SLU 77	1503	-2057	-704	314876		0.7	209.75	0.65	1906			2.71	Si
SLU 72	1187	-7502	1070	47970		1.2	446	0.72	4469			4.18	Si
SLU 72	1503	-2054	-677	332080		0.8	184.04	0.66	1705			2.52	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	1187	-5968	-1503	-90377		0.96	446	1.02	6397			4.26	Si
SLV 14	1503	-645	-946	120643		0.43	107.7	0.92	1385			1.46	Si
SLV 8	1187	-6703	2527	-108918		1.07	446	1.05	6544			2.59	Si
SLV 8	1503	-1059	-605	88080		0.18	419.38	0.87	5104			8.43	Si
SLV 15	1187	-6575	-189	-150920		1.05	446	1.04	6518			34.43	Si
SLV 15	1503	-926	-1253	131456		0.27	242.96	0.89	3020			2.41	Si
SLV 16	1187	-6575	-189	-150920		1.05	446	1.04	6518			34.43	Si
SLV 16	1503	-926	-1253	131456		0.27	242.96	0.89	3020			2.41	Si
SLV 7	1187	-6703	2527	-108918		1.07	446	1.05	6544			2.59	Si
SLV 7	1503	-1059	-605	88080		0.18	419.38	0.87	5104			8.43	Si
SLV 5	1187	-4681	-1851	92888		0.75	446	0.98	6140			3.32	Si
SLV 5	1503	-122	418	52036		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-4681	-1851	92888		0.75	446	0.98	6140			3.32	Si
SLV 6	1503	-122	418	52036		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	-4949	-2397	40904		0.79	446	0.99	6193			2.58	Si
SLV 10	1503	-212	-46	77878		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	-5968	-1503	-90377		0.96	446	1.02	6397			4.26	Si
SLV 13	1503	-645	-946	120643		0.43	107.7	0.92	1385			1.46	Si
SLV 9	1187	-4949	-2397	40904		0.79	446	0.99	6193			2.58	Si
SLV 9	1503	-212	-46	77878		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.53	0	-2824	24604	0	0	No, e>t/2
SLV 5	14	0.53	0	-2049	24604	0	0	No, e>t/2
SLV 9	14	0.53	0	-2181	24604	0	0	No, e>t/2
SLV 3	14	0.53	0	-2824	24604	0	0	No, e>t/2
SLV 10	14	0.53	0	-2181	24604	0	0	No, e>t/2
SLV 6	14	0.53	0	-2049	24604	0	0	No, e>t/2
SLV 7	14	0.53	0	-3479	24604	0	0	No, e>t/2
SLV 1	14	0.53	0	-2395	24604	0	0	No, e>t/2
SLV 2	14	0.53	0	-2395	24604	0	0	No, e>t/2
SLV 8	14	0.53	0	-3479	24604	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-626	-5683	74	0.008	3.884	0.912	12.191	2084.601	No
SLV 4	-626	-5683	74	0.008	3.884	0.912	12.191	2084.601	No
SLV 13	-645	-5968	-74	0.008	3.897	0.911	12.805	2084.601	No
SLV 14	-645	-5968	-74	0.008	3.897	0.911	12.805	2084.601	No
SLV 1	-345	-5077	62	0.012	3.719	0.936	18.051	2084.601	No
SLV 2	-345	-5077	62	0.012	3.719	0.936	18.051	2084.601	No
SLV 15	-926	-6575	-61	0.014	4.102	0.899	22.84	2084.601	No
SLV 16	-926	-6575	-61	0.014	4.102	0.899	22.84	2084.601	No
SLV 9	-212	-4949	-41	0.021	3.662	0.954	32.605	1966.941	No
SLV 10	-212	-4949	-41	0.021	3.662	0.954	32.605	1966.941	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.304	SLU 30	Si
V_SLU	2.424	SLU 80	Si
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	0	SLV 1	No
R_SLV	0.006	SLV 3	No

Maschio 217

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-626.8	-335.9	-626.8	104.6	L6	L7	440.5	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 17	1187	-7583	290971	1.23	1417988	4.873	Si
SLU 17	1503	-995	-118562	0.16	214714	1.811	Si
SLU 8	1187	-7074	260309	1.15	1338588	5.142	Si
SLU 8	1503	-953	-110885	0.15	205892	1.857	Si
SLU 37	1187	-8393	292661	1.36	1539738	5.261	Si
SLU 37	1503	-1076	-129313	0.17	231919	1.793	Si
SLU 30	1187	-7888	317186	1.28	1464600	4.617	Si
SLU 30	1503	-1124	-141021	0.18	241988	1.716	Si
SLU 16	1187	-7580	263378	1.23	1417660	5.383	Si
SLU 16	1503	-950	-108869	0.15	205241	1.885	Si
SLU 38	1187	-8395	320255	1.36	1540051	4.809	Si
SLU 38	1503	-1121	-139006	0.18	241342	1.736	Si
SLU 72	1187	-9368	358323	1.52	1678594	4.685	Si
SLU 72	1503	-1199	-134753	0.19	257719	1.913	Si
SLU 29	1187	-7886	289593	1.28	1464278	5.056	Si
SLU 29	1503	-1079	-131328	0.17	232566	1.771	Si
SLU 9	1187	-7076	287903	1.15	1338926	4.651	Si
SLU 9	1503	-998	-120577	0.16	215363	1.786	Si
SLU 28	1187	-8159	325821	1.32	1505125	4.619	Si
SLU 28	1503	-1130	-128351	0.18	243368	1.896	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	1187	-6266	258975	1.02	1265296	4.886	Si
SLV 12	1503	-664	-186187	0	0	0	No, $e \geq l/2$
SLV 4	1187	-5401	259870	0.88	1104287	4.249	Si
SLV 4	1503	-417	-142708	0	0	0	No, $e \geq l/2$
SLV 7	1187	-5800	289962	0.94	1179126	4.066	Si
SLV 7	1503	-619	-231015	0	0	0	No, $e \geq l/2$
SLV 3	1187	-5401	259870	0.88	1104287	4.249	Si
SLV 3	1503	-417	-142708	0	0	0	No, $e \geq l/2$
SLV 13	1187	-7077	99796	1.15	1412387	14.153	Si
SLV 13	1503	-441	127238	0	0	0	No, $e \geq l/2$
SLV 8	1187	-5800	289962	0.94	1179126	4.066	Si
SLV 8	1503	-619	-231015	0	0	0	No, $e \geq l/2$
SLV 9	1187	-6678	69703	1.08	1340528	19.232	Si
SLV 9	1503	-240	215544	0	0	0	No, $e \geq l/2$
SLV 14	1187	-7077	99796	1.15	1412387	14.153	Si
SLV 14	1503	-441	127238	0	0	0	No, $e \geq l/2$
SLV 5	1187	-6212	100691	1.01	1255481	12.469	Si
SLV 5	1503	-194	170716	0	0	0	No, $e \geq l/2$
SLV 11	1187	-6266	258975	1.02	1265296	4.886	Si
SLV 11	1503	-664	-186187	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	1187	-7888	1032	317186		1.28	440.5	0.73	4478			4.34	Si
SLU 30	1503	-1124	1712	-141021		0.28	284.31	0.59	2361			1.38	Si
SLU 72	1187	-9368	1083	358323		1.52	440.5	0.76	4675			4.32	Si
SLU 72	1503	-1199	1765	-134753		0.26	323.51	0.59	2676			1.52	Si
SLU 80	1187	-9875	1061	361392		1.6	440.5	0.77	4743			4.47	Si
SLU 80	1503	-1196	1746	-132737		0.26	327.7	0.59	2708			1.55	Si
SLU 28	1187	-8159	969	325821		1.32	440.5	0.73	4514			4.66	Si
SLU 28	1503	-1130	1623	-128351		0.25	320.12	0.59	2641			1.63	Si
SLU 29	1187	-7886	1043	289593		1.28	440.5	0.73	4478			4.29	Si
SLU 29	1503	-1079	1524	-131328		0.26	295.64	0.59	2443			1.6	Si
SLU 37	1187	-8393	1020	292661		1.36	440.5	0.74	4545			4.45	Si
SLU 37	1503	-1076	1505	-129313		0.26	300.22	0.59	2479			1.65	Si
SLU 38	1187	-8395	1009	320255		1.36	440.5	0.74	4545			4.5	Si
SLU 38	1503	-1121	1693	-139006		0.28	288.67	0.59	2395			1.41	Si
SLU 36	1187	-8666	946	328889		1.41	440.5	0.74	4582			4.84	Si
SLU 36	1503	-1127	1604	-126335		0.25	324.55	0.59	2675			1.67	Si
SLU 9	1187	-7076	925	287903		1.15	440.5	0.71	4370			4.72	Si
SLU 9	1503	-998	1533	-120577		0.24	298.16	0.59	2452			1.6	Si
SLU 17	1187	-7583	903	290971		1.23	440.5	0.72	4437			4.91	Si
SLU 17	1503	-995	1514	-118562		0.23	303.12	0.59	2490			1.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	-6212	-4154	100691		1.01	440.5	1.03	6382			1.54	Si
SLV 5	1503	-194	-2461	170716		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	-6678	-4051	69703		1.08	440.5	1.05	6475			1.6	Si
SLV 9	1503	-240	-2692	215544		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1187	-5800	4684	289962		0.94	440.5	1.02	6299			1.34	Si
SLV 7	1503	-619	3544	-231015		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1187	-6266	4787	258975		1.02	440.5	1.04	6392			1.34	Si
SLV 11	1503	-664	3314	-186187		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-7077	-837	99796		1.15	440.5	1.06	6555			7.83	Si
SLV 13	1503	-441	-858	127238		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1187	-5401	1471	259870		0.88	440.5	1.01	6219			4.23	Si
SLV 3	1503	-417	1711	-142708		0	0	0.83	0			0	No, $V_u < V$
SLV 4	1187	-5401	1471	259870		0.88	440.5	1.01	6219			4.23	Si
SLV 4	1503	-417	1711	-142708		0	0	0.83	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1187	-6266	4787	258975		1.02	440.5	1.04	6392			1.34	Si
SLV 12	1503	-664	3314	-186187		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-6212	-4154	100691		1.01	440.5	1.03	6382			1.54	Si
SLV 6	1503	-194	-2461	170716		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-5800	4684	289962		0.94	440.5	1.02	6299			1.34	Si
SLV 8	1503	-619	3544	-231015		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.53	0	-3585	26615	0	0	No, e>t/2
SLV 1	14	0.53	0	-3132	26615	0	0	No, e>t/2
SLV 5	14	0.53	0	-3420	26615	0	0	No, e>t/2
SLV 10	14	0.53	0	-3715	26615	0	0	No, e>t/2
SLV 4	14	0.53	0	-3182	26615	0	0	No, e>t/2
SLV 3	14	0.53	0	-3182	26615	0	0	No, e>t/2
SLV 6	14	0.53	0	-3420	26615	0	0	No, e>t/2
SLV 9	14	0.53	0	-3715	26615	0	0	No, e>t/2
SLV 8	14	0.53	0	-3585	26615	0	0	No, e>t/2
SLV 2	14	0.53	0	-3132	26615	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-568	-6954	-2	0.038	3.803	0.915	60.358	2084.601	No
SLV 16	-568	-6954	-2	0.038	3.803	0.915	60.358	2084.601	No
SLV 12	-664	-6266	-5	0.036	3.867	0.909	57.728	1966.941	No
SLV 11	-664	-6266	-5	0.036	3.867	0.909	57.728	1966.941	No
SLV 7	-619	-5800	-5	0.036	3.836	0.912	58.116	1966.941	No
SLV 8	-619	-5800	-5	0.036	3.836	0.912	58.116	1966.941	No
SLV 3	-417	-5401	-1	0.039	3.713	0.928	61.739	2084.601	No
SLV 4	-417	-5401	-1	0.039	3.713	0.928	61.739	2084.601	No
SLV 14	-441	-7077	1	0.039	3.726	0.926	61.991	2084.601	No
SLV 13	-441	-7077	1	0.039	3.726	0.926	61.991	2084.601	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.716	SLV 30	Si
V_SLV	1.379	SLV 30	Si
PF_SLV	0	SLD 9	No
V_SLV	0	SLD 9	No
PFFP_SLV	0	SLV 1	No
R_SLV	0.029	SLV 15	No

Maschio 218

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	104.6	-515.8	581.1	L6	L7	476.5	14	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 71	1187	-17555	633218	2.63	2831317	4.471	Si
SLU 71	1503	-5376	954650	0.81	1154197	1.209	Si
SLU 8	1187	-13996	567870	2.1	2475737	4.36	Si
SLU 8	1503	-4550	815083	0.68	993245	1.219	Si
SLU 38	1187	-16387	630052	2.46	2726822	4.328	Si
SLU 38	1503	-5235	935504	0.78	1127060	1.205	Si
SLU 37	1187	-16356	648675	2.45	2723934	4.199	Si
SLU 37	1503	-5218	932961	0.78	1123727	1.204	Si
SLU 80	1187	-18031	592253	2.7	2870458	4.847	Si
SLU 80	1503	-5357	950152	0.8	1150561	1.211	Si
SLU 30	1187	-15941	652394	2.39	2683824	4.114	Si
SLU 30	1503	-5271	942544	0.79	1134043	1.203	Si
SLU 9	1187	-14027	549247	2.1	2479256	4.514	Si
SLU 9	1503	-4567	817626	0.68	996679	1.219	Si
SLU 29	1187	-15911	671017	2.39	2680816	3.995	Si
SLU 29	1503	-5254	940002	0.79	1130716	1.203	Si
SLU 79	1187	-18001	610876	2.7	2868010	4.695	Si
SLU 79	1503	-5340	947609	0.8	1147247	1.211	Si
SLU 72	1187	-17586	614595	2.64	2833884	4.611	Si
SLU 72	1503	-5394	957192	0.81	1157505	1.209	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	1187	-10031	183794	1.5	2095756	11.403	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	1503	-590	-164115	0	0	0	No, $e>l/2$
SLV 12	1187	-10031	183794	1.5	2095756	11.403	Si
SLV 12	1503	-590	-164115	0	0	0	No, $e>l/2$
SLD 10	1187	-7704	-53046	1.15	1661981	31.331	Si
SLD 10	1503	-1539	353596	0.23	359634	1.017	Si
SLV 10	1187	-6821	-152274	1.02	1489093	9.779	Si
SLV 10	1503	-1762	536614	0	0	0	No, $e>l/2$
SLV 14	1187	-8137	-32816	1.22	1745117	53.179	Si
SLV 14	1503	-821	200311	0	0	0	No, $e>l/2$
SLV 6	1187	-6656	-153846	1	1456259	9.466	Si
SLV 6	1503	-2217	614655	0	0	0	No, $e>l/2$
SLD 9	1187	-7704	-53046	1.15	1661981	31.331	Si
SLD 9	1503	-1539	353596	0.23	359634	1.017	Si
SLV 13	1187	-8137	-32816	1.22	1745117	53.179	Si
SLV 13	1503	-821	200311	0	0	0	No, $e>l/2$
SLV 9	1187	-6821	-152274	1.02	1489093	9.779	Si
SLV 9	1503	-1762	536614	0	0	0	No, $e>l/2$
SLV 5	1187	-6656	-153846	1	1456259	9.466	Si
SLV 5	1503	-2217	614655	0	0	0	No, $e>l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	1187	-17783	521	516044		2.67	476.5	0.91	6077			11.67	Si
SLU 78	1503	-5115	1069	891913		1.91	191.62	0.81	2172			2.03	Si
SLU 27	1187	-15663	590	594808		2.35	476.5	0.87	5794			9.83	Si
SLU 27	1503	-5011	1039	881763		1.92	186.89	0.81	2122			2.04	Si
SLU 80	1187	-18031	529	592253		2.7	476.5	0.92	6110			11.55	Si
SLU 80	1503	-5357	1097	950152		2.09	182.69	0.83	2135			1.95	Si
SLU 38	1187	-16387	614	630052		2.46	476.5	0.88	5891			9.59	Si
SLU 38	1503	-5235	1129	935504		2.09	178.63	0.83	2087			1.85	Si
SLU 35	1187	-16108	717	572466		2.41	476.5	0.88	5854			8.16	Si
SLU 35	1503	-4975	1157	874723		1.9	187.28	0.81	2120			1.83	Si
SLU 29	1187	-15911	598	671017		2.39	476.5	0.87	5828			9.74	Si
SLU 29	1503	-5254	1067	940002		2.11	178	0.84	2085			1.95	Si
SLU 36	1187	-16139	606	553843		2.42	476.5	0.88	5858			9.67	Si
SLU 36	1503	-4992	1101	877265		1.9	187.58	0.81	2125			1.93	Si
SLU 77	1187	-17753	632	534667		2.66	476.5	0.91	6073			9.61	Si
SLU 77	1503	-5097	1125	889371		1.9	191.33	0.81	2168			1.93	Si
SLU 37	1187	-16356	725	648675		2.45	476.5	0.88	5887			8.11	Si
SLU 37	1503	-5218	1185	932961		2.09	178.31	0.83	2083			1.76	Si
SLU 79	1187	-18001	640	610876		2.7	476.5	0.92	6106			9.54	Si
SLU 79	1503	-5340	1153	947609		2.09	182.39	0.83	2131			1.85	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	-6656	-5674	-153846		1	476.5	1.03	6890			1.21	Si
SLV 5	1503	-2217	-2589	614655		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1187	-10031	5767	183794		1.5	476.5	1.13	7565			1.31	Si
SLV 11	1503	-590	3127	-164115		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1187	-6821	-4733	-152274		1.02	476.5	1.04	6923			1.46	Si
SLV 10	1503	-1762	-1899	536614		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-8137	39	-32816		1.22	476.5	1.08	7187			184.37	Si
SLV 14	1503	-821	666	200311		0	0	0.83	0			0	No, $V_u < V$
SLD 10	1187	-7704	-1977	-53046		1.15	476.5	1.06	7100			3.59	Si
SLD 10	1503	-1539	-635	353596		4.35	25.26	1.63	575			0.91	No, $V_u < V$
SLD 9	1187	-7704	-1977	-53046		1.15	476.5	1.06	7100			3.59	Si
SLD 9	1503	-1539	-635	353596		4.35	25.26	1.63	575			0.91	No, $V_u < V$
SLV 9	1187	-6821	-4733	-152274		1.02	476.5	1.04	6923			1.46	Si
SLV 9	1503	-1762	-1899	536614		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-8137	39	-32816		1.22	476.5	1.08	7187			184.37	Si
SLV 13	1503	-821	666	200311		0	0	0.83	0			0	No, $V_u < V$
SLV 12	1187	-10031	5767	183794		1.5	476.5	1.13	7565			1.31	Si
SLV 12	1503	-590	3127	-164115		0	0	0.83	0			0	No, $V_u < V$
SLV 6	1187	-6656	-5674	-153846		1	476.5	1.03	6890			1.21	Si
SLV 6	1503	-2217	-2589	614655		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.03 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.53	0.63	-4208	28790	27933	0.97	No, $M > M_u$
SLV 14	14	0.53	0.63	-4208	28790	27933	0.97	No, $M > M_u$
SLV 15	14	0.53	0.64	-4258	28790	28252	0.98	No, $M > M_u$
SLV 16	14	0.53	0.64	-4258	28790	28252	0.98	No, $M > M_u$
SLV 9	14	0.53	0.67	-4464	28790	29536	1.03	Si
SLV 10	14	0.53	0.67	-4464	28790	29536	1.03	Si
SLV 12	14	0.53	0.69	-4634	28790	30592	1.06	Si
SLV 11	14	0.53	0.69	-4634	28790	30592	1.06	Si
SLV 5	14	0.53	0.71	-4735	28790	31217	1.08	Si
SLV 6	14	0.53	0.71	-4735	28790	31217	1.08	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.03 Ta = 0.1191

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-1987	-8550	10	0.03	5.239	0.889	49.731	2084.601	No
SLV 4	-1987	-8550	10	0.03	5.239	0.889	49.731	2084.601	No
SLV 6	-2217	-6656	-12	0.029	5.451	0.889	48	1966.941	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-2217	-6656	-12	0.029	5.451	0.889	48	1966.941	No
SLV 10	-1762	-6821	-16	0.029	5.036	0.889	48.017	1966.941	No
SLV 9	-1762	-6821	-16	0.029	5.036	0.889	48.017	1966.941	No
SLV 2	-2339	-7587	1	0.032	5.564	0.89	51.82	2084.601	No
SLV 1	-2339	-7587	1	0.032	5.564	0.89	51.82	2084.601	No
SLV 8	-1045	-9866	16	0.031	4.427	0.897	50.236	1966.941	No
SLV 7	-1045	-9866	16	0.031	4.427	0.897	50.236	1966.941	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.203	SLU 29	Si
V_SLU	1.758	SLU 37	Si
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	0.97	SLV 13	No
R_SLV	0.024	SLV 3	No

Maschio 219

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	581.1	-515.8	600.6	L6	L7	19.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 48	1387	-5133	-4336	9.4	0	0	No, Rottura per schiacciamento
SLU 48	1467	-6263	26199	11.47	0	0	No, Rottura per schiacciamento
SLU 38	1387	-6258	-5020	11.46	0	0	No, Rottura per schiacciamento
SLU 38	1467	-7675	32283	14.06	0	0	No, Rottura per schiacciamento
SLU 50	1387	-5424	-4670	9.93	0	0	No, Rottura per schiacciamento
SLU 50	1467	-6607	27251	12.1	0	0	No, Rottura per schiacciamento
SLU 36	1387	-5967	-4686	10.93	0	0	No, Rottura per schiacciamento
SLU 36	1467	-7331	31232	13.43	0	0	No, Rottura per schiacciamento
SLU 42	1387	-4330	-3240	7.93	1117	0.345	No, M>Mu
SLU 42	1467	-5348	24064	9.79	0	0	No, Rottura per schiacciamento
SLU 49	1387	-5097	-4483	9.34	0	0	No, Rottura per schiacciamento
SLU 49	1467	-6242	26429	11.43	0	0	No, Rottura per schiacciamento
SLU 35	1387	-6002	-4540	10.99	0	0	No, Rottura per schiacciamento
SLU 35	1467	-7351	31002	13.46	0	0	No, Rottura per schiacciamento
SLU 83	1387	-4475	-3242	8.2	0	0	No, Rottura per schiacciamento
SLU 83	1467	-5503	24869	10.08	0	0	No, Rottura per schiacciamento
SLU 41	1387	-4366	-3093	8	785	0.254	No, M>Mu
SLU 41	1467	-5368	23834	9.83	0	0	No, Rottura per schiacciamento
SLU 37	1387	-6293	-4874	11.53	0	0	No, Rottura per schiacciamento
SLU 37	1467	-7696	32054	14.09	0	0	No, Rottura per schiacciamento

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLD 14	1387	-1706	-211	3.12	12379	58.573	Si
SLD 14	1467	-2084	13804	3.82	13972	1.012	Si
SLV 16	1387	-2096	541	3.84	14017	25.931	Si
SLV 16	1467	-2635	22597	4.83	15545	0.688	No, M>Mu
SLV 13	1387	-1748	1257	3.2	12580	10.008	Si
SLV 13	1467	-2112	18399	3.87	14073	0.765	No, M>Mu
SLV 12	1387	-2326	-1789	4.26	14772	8.257	Si
SLV 12	1467	-3028	20431	5.55	16123	0.789	No, M>Mu
SLD 13	1387	-1706	-211	3.12	12379	58.573	Si
SLD 13	1467	-2084	13804	3.82	13972	1.012	Si
SLV 14	1387	-1748	1257	3.2	12580	10.008	Si
SLV 14	1467	-2112	18399	3.87	14073	0.765	No, M>Mu



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 16	1387	-1838	-501	3.37	12984	25.939	Si
SLD 16	1467	-2292	15560	4.2	14668	0.943	No, M>Mu
SLV 11	1387	-2326	-1789	4.26	14772	8.257	Si
SLV 11	1467	-3028	20431	5.55	16123	0.789	No, M>Mu
SLD 15	1387	-1838	-501	3.37	12984	25.939	Si
SLD 15	1467	-2292	15560	4.2	14668	0.943	No, M>Mu
SLV 15	1387	-2096	541	3.84	14017	25.931	Si
SLV 15	1467	-2635	22597	4.83	15545	0.688	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 72	1387	-6287	-352	-5374		11.52	19.5	1.08	591			1.68	Si
SLU 72	1467	-7690	-978	32106		16.42	16.73	1.08	507			0.52	No, Vu<V
SLU 38	1387	-6258	-339	-5020		11.46	19.5	1.08	591			1.75	Si
SLU 38	1467	-7675	-984	32283		16.48	16.63	1.08	504			0.51	No, Vu<V
SLU 79	1387	-6402	-341	-5023		11.73	19.5	1.08	591			1.73	Si
SLU 79	1467	-7831	-1010	33089		16.87	16.57	1.08	503			0.5	No, Vu<V
SLU 70	1387	-5996	-331	-5040		10.98	19.5	1.08	591			1.79	Si
SLU 70	1467	-7346	-950	31055		15.84	16.57	1.08	503			0.53	No, Vu<V
SLU 78	1387	-6076	-323	-4836		11.13	19.5	1.08	591			1.83	Si
SLU 78	1467	-7466	-993	32267		16.37	16.28	1.08	494			0.5	No, Vu<V
SLU 77	1387	-6111	-320	-4689		11.19	19.5	1.08	591			1.85	Si
SLU 77	1467	-7487	-983	32037		16.29	16.41	1.08	498			0.51	No, Vu<V
SLU 80	1387	-6367	-344	-5170		11.66	19.5	1.08	591			1.72	Si
SLU 80	1467	-7811	-1021	33318		16.95	16.45	1.08	499			0.49	No, Vu<V
SLU 36	1387	-5967	-318	-4686		10.93	19.5	1.08	591			1.86	Si
SLU 36	1467	-7331	-956	31232		15.9	16.47	1.08	500			0.52	No, Vu<V
SLU 37	1387	-6293	-336	-4874		11.53	19.5	1.08	591			1.76	Si
SLU 37	1467	-7696	-973	32054		16.4	16.75	1.08	508			0.52	No, Vu<V
SLU 71	1387	-6323	-349	-5227		11.58	19.5	1.08	591			1.69	Si
SLU 71	1467	-7710	-967	31876		16.35	16.85	1.08	511			0.53	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	1387	-1838	-71	-501		3.37	19.5	1.51	823			11.64	Si
SLD 15	1467	-2292	-454	15560		9.22	8.88	1.63	404			0.89	No, Vu<V
SLD 14	1387	-1706	-61	-211		3.12	19.5	1.46	796			13.06	Si
SLD 14	1467	-2084	-492	13804		7.94	9.38	1.63	427			0.87	No, Vu<V
SLD 13	1387	-1706	-61	-211		3.12	19.5	1.46	796			13.06	Si
SLD 13	1467	-2084	-492	13804		7.94	9.38	1.63	427			0.87	No, Vu<V
SLV 10	1387	-1166	-28	599		2.14	19.5	1.26	688			24.24	Si
SLV 10	1467	-1284	-581	6435		3.23	14.21	1.48	588			1.01	Si
SLV 9	1387	-1166	-28	599		2.14	19.5	1.26	688			24.24	Si
SLV 9	1467	-1284	-581	6435		3.23	14.21	1.48	588			1.01	Si
SLV 13	1387	-1748	-38	1257		3.2	19.5	1.47	805			21.03	Si
SLV 13	1467	-2112	-700	18399		24.21	3.12	1.63	142			0.2	No, Vu<V
SLV 14	1387	-1748	-38	1257		3.2	19.5	1.47	805			21.03	Si
SLV 14	1467	-2112	-700	18399		24.21	3.12	1.63	142			0.2	No, Vu<V
SLV 15	1387	-2096	-63	541		3.84	19.5	1.6	874			13.97	Si
SLV 15	1467	-2635	-610	22597		26.69	3.53	1.63	160			0.26	No, Vu<V
SLV 16	1387	-2096	-63	541		3.84	19.5	1.6	874			13.97	Si
SLV 16	1467	-2635	-610	22597		26.69	3.53	1.63	160			0.26	No, Vu<V
SLD 16	1387	-1838	-71	-501		3.37	19.5	1.51	823			11.64	Si
SLD 16	1467	-2292	-454	15560		9.22	8.88	1.63	404			0.89	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0.76	-417	2254	5475	2.43	Si
SLV 6	14	0.53	0.76	-417	2254	5475	2.43	Si
SLV 10	14	0.53	0.87	-473	2254	6156	2.73	Si
SLV 9	14	0.53	0.87	-473	2254	6156	2.73	Si
SLV 1	14	0.53	0.91	-499	2254	6466	2.87	Si
SLV 2	14	0.53	0.91	-499	2254	6466	2.87	Si
SLV 3	14	0.53	1.15	-626	2254	7939	3.52	Si
SLV 4	14	0.53	1.15	-626	2254	7939	3.52	Si
SLV 14	14	0.53	1.26	-686	2254	8620	3.82	Si
SLV 13	14	0.53	1.26	-686	2254	8620	3.82	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	-358	-926	59	0	0.616	0.905	0	922.376	No
SLV 8	107	-875	-41	0	0	0	0	922.376	No, Trazione
SLV 2	-83	-503	-123	0	0.36	0.898	0	993.207	No
SLV 7	107	-875	-41	0	0	0	0	922.376	No, Trazione
SLV 12	-358	-926	59	0	0.616	0.905	0	922.376	No
SLV 10	-1485	-447	111	0	1.756	0.959	0	922.376	No
SLV 3	255	-647	-139	0	0	0	0	993.207	No, Trazione
SLV 1	-83	-503	-123	0	0.36	0.898	0	993.207	No
SLV 9	-1485	-447	111	0	1.756	0.959	0	922.376	No
SLV 4	255	-647	-139	0	0	0	0	993.207	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF-SLU	0	SLU 6	No



Stato limite	Coeff.s.	Comb.	Verifica
V_SLU	0.489	SLU 80	No
PF_SLV	0.688	SLV 15	No
V_SLV	0.203	SLV 13	No
PFFP_SLV	2.429	SLV 5	Si
R_SLV	0	SLV 8	No

Maschio 220

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-515.8	650.6	-515.8	652.1	L6	L7	1.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 58	1387	-1356	-49	32.27	0	0	No, Rottura per schiacciamento
SLU 58	1467	-1348	69	32.08	0	0	No, Rottura per schiacciamento
SLU 59	1387	-1356	-49	32.29	0	0	No, Rottura per schiacciamento
SLU 59	1467	-1348	70	32.1	0	0	No, Rottura per schiacciamento
SLU 61	1387	-519	-14	12.35	0	0	No, Rottura per schiacciamento
SLU 61	1467	-511	20	12.16	0	0	No, Rottura per schiacciamento
SLU 54	1387	-872	-29	20.75	0	0	No, Rottura per schiacciamento
SLU 54	1467	-864	40	20.56	0	0	No, Rottura per schiacciamento
SLU 55	1387	-924	-32	22.01	0	0	No, Rottura per schiacciamento
SLU 55	1467	-916	45	21.82	0	0	No, Rottura per schiacciamento
SLU 60	1387	-518	-14	12.34	0	0	No, Rottura per schiacciamento
SLU 60	1467	-510	19	12.15	0	0	No, Rottura per schiacciamento
SLU 53	1387	-871	-29	20.74	0	0	No, Rottura per schiacciamento
SLU 53	1467	-863	40	20.55	0	0	No, Rottura per schiacciamento
SLU 56	1387	-1303	-46	31.03	0	0	No, Rottura per schiacciamento
SLU 56	1467	-1295	65	30.84	0	0	No, Rottura per schiacciamento
SLU 1	1387	-391	-13	9.32	0	0	No, Rottura per schiacciamento
SLU 1	1467	-385	17	9.17	0	0	No, Rottura per schiacciamento
SLU 57	1387	-1304	-46	31.04	0	0	No, Rottura per schiacciamento
SLU 57	1467	-1296	65	30.85	0	0	No, Rottura per schiacciamento

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1387	-861	20	20.49	0	0	No, Rottura per schiacciamento
SLV 14	1467	-819	32	19.49	0	0	No, Rottura per schiacciamento
SLV 2	1387	-8	-36	0	0	0	No, $e \geq l/2$
SLV 2	1467	-64	-24	1.53	42	1.725	Si
SLD 14	1387	-640	-1	15.23	0	0	No, Rottura per schiacciamento
SLD 14	1467	-621	27	14.78	0	0	No, Rottura per schiacciamento
SLD 15	1387	-673	-8	16.02	0	0	No, Rottura per schiacciamento
SLD 15	1467	-641	39	15.25	0	0	No, Rottura per schiacciamento
SLV 12	1387	-742	-30	17.66	0	0	No, Rottura per schiacciamento
SLV 12	1467	-677	85	16.12	0	0	No, Rottura per schiacciamento
SLV 1	1387	-8	-36	0	0	0	No, $e \geq l/2$
SLV 1	1467	-64	-24	1.53	42	1.725	Si
SLD 16	1387	-673	-8	16.02	0	0	No, Rottura per schiacciamento



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 16	1467	-641	39	15.25	0	0	No, Rottura per schiacciamento
SLV 13	1387	-861	20	20.49	0	0	No, Rottura per schiacciamento
SLV 13	1467	-819	32	19.49	0	0	No, Rottura per schiacciamento
SLV 11	1387	-742	-30	17.66	0	0	No, Rottura per schiacciamento
SLV 11	1467	-677	85	16.12	0	0	No, Rottura per schiacciamento
SLV 15	1387	-943	6	22.46	0	0	No, Rottura per schiacciamento
SLV 15	1467	-875	66	20.84	0	0	No, Rottura per schiacciamento

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	1387	-1537	-2	-54		36.59	1.5	1.08	46			27.85	Si
SLU 78	1467	-1529	-2	77		36.4	1.5	1.08	46			27.85	Si
SLU 70	1387	-1474	-2	-54		35.1	1.5	1.08	46			27.97	Si
SLU 70	1467	-1466	-2	76		34.91	1.5	1.08	46			27.97	Si
SLU 80	1387	-1589	-2	-57		37.84	1.5	1.08	46			26.43	Si
SLU 80	1467	-1581	-2	81		37.65	1.5	1.08	46			26.42	Si
SLU 79	1387	-1589	-2	-57		37.83	1.5	1.08	46			26.56	Si
SLU 79	1467	-1581	-2	80		37.64	1.5	1.08	46			26.56	Si
SLU 72	1387	-1527	-2	-57		36.35	1.5	1.08	46			26.54	Si
SLU 72	1467	-1519	-2	80		36.16	1.5	1.08	46			26.53	Si
SLU 71	1387	-1526	-2	-57		36.34	1.5	1.08	46			26.67	Si
SLU 71	1467	-1518	-2	80		36.15	1.5	1.08	46			26.67	Si
SLU 38	1387	-1552	-2	-56		36.95	1.5	1.08	46			26.92	Si
SLU 38	1467	-1546	-2	79		36.8	1.5	1.08	46			26.92	Si
SLU 37	1387	-1551	-2	-56		36.94	1.5	1.08	46			27.06	Si
SLU 37	1467	-1545	-2	79		36.79	1.5	1.08	46			27.06	Si
SLU 30	1387	-1489	-2	-56		35.46	1.5	1.08	46			27.04	Si
SLU 30	1467	-1483	-2	79		35.31	1.5	1.08	46			27.03	Si
SLU 29	1387	-1489	-2	-55		35.45	1.5	1.08	46			27.18	Si
SLU 29	1467	-1483	-2	79		35.3	1.5	1.08	46			27.17	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	1387	-742	2	-30		17.66	1.5	1.63	68			44.09	Si
SLV 11	1467	-677	5	85		16.12	1.5	1.63	68			13.71	Si
SLV 3	1387	-91	1	-50		5.42	0.6	1.63	27			24.35	Si
SLV 3	1467	-121	-3	9		2.87	1.5	1.41	59			19.08	Si
SLV 15	1387	-943	-1	6		22.46	1.5	1.63	68			104.74	Si
SLV 15	1467	-875	5	66		20.84	1.5	1.63	68			14.34	Si
SLV 16	1387	-943	-1	6		22.46	1.5	1.63	68			104.74	Si
SLV 16	1467	-875	5	66		20.84	1.5	1.63	68			14.34	Si
SLV 5	1387	-210	-2	1		5	1.5	1.63	68			28.03	Si
SLV 5	1467	-262	-6	-43		6.24	1.5	1.63	68			11.63	Si
SLV 6	1387	-210	-2	1		5	1.5	1.63	68			28.03	Si
SLV 6	1467	-262	-6	-43		6.24	1.5	1.63	68			11.63	Si
SLV 12	1387	-742	2	-30		17.66	1.5	1.63	68			44.09	Si
SLV 12	1467	-677	5	85		16.12	1.5	1.63	68			13.71	Si
SLV 2	1387	-8	0	-36		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1467	-64	-6	-24		2.07	1.11	1.25	39			6.85	Si
SLV 1	1387	-8	0	-36		0	0	0.83	0			0	No, $V_u < V$
SLV 1	1467	-64	-6	-24		2.07	1.11	1.25	39			6.85	Si
SLV 4	1387	-91	1	-50		5.42	0.6	1.63	27			24.35	Si
SLV 4	1467	-121	-3	9		2.87	1.5	1.41	59			19.08	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.53	0	-2	173	0	0	No, $e > t/2$
SLV 6	14	0.53	0	-3	173	0	0	No, $e > t/2$
SLV 1	14	0.53	0	-2	173	0	0	No, $e > t/2$
SLV 5	14	0.53	0	-3	173	0	0	No, $e > t/2$
SLV 4	14	0.53	0.32	-13	173	182	1.05	Si
SLV 3	14	0.53	0.32	-13	173	182	1.05	Si
SLV 9	14	0.53	0.37	-15	173	210	1.21	Si
SLV 10	14	0.53	0.37	-15	173	210	1.21	Si
SLV 7	14	0.53	0.99	-41	173	533	3.07	Si
SLV 8	14	0.53	0.99	-41	173	533	3.07	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-47	-21	4	0	0.066	0.925	0	922.376	No
SLV 3	42	-31	-10	0	0	0	0	993.207	No, Trazione
SLV 1	39	-23	-9	0	0	0	0	993.207	No, Trazione
SLV 6	-8	-18	-2	0	0.029	0.892	0	922.376	No
SLV 5	-8	-18	-2	0	0.029	0.892	0	922.376	No
SLV 10	-47	-21	4	0	0.066	0.925	0	922.376	No
SLV 2	39	-23	-9	0	0	0	0	993.207	No, Trazione
SLV 4	42	-31	-10	0	0	0	0	993.207	No, Trazione
SLV 7	0	-45	-4	0	0	0	0	922.376	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 8	0	-45	-4	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	26.425	SLU 80	Si
PF_SLV	0	SLD 11	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 8	No

Maschio 221

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-296.3	595.1	-501.8	595.1	L6	L7	205.5	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 56	1277	-160	-175609	0	0	0	No, e>l/2
SLU 56	1457	2426	-337919	0	0	0	No, Trazione
SLU 1	1277	-1775	-76304	0.31	175472	2.3	Si
SLU 1	1457	222	-101194	0	0	0	No, Trazione
SLU 55	1277	-891	-145499	0	0	0	No, e>l/2
SLU 55	1457	1695	-236138	0	0	0	No, Trazione
SLU 59	1277	563	-182351	0	0	0	No, Trazione
SLU 59	1457	3149	-347434	0	0	0	No, Trazione
SLU 54	1277	-1603	-140366	0.28	159086	1.133	Si
SLU 54	1457	983	-227906	0	0	0	No, Trazione
SLU 60	1277	-2393	-100061	0.42	233345	2.332	Si
SLU 60	1457	193	-116558	0	0	0	No, Trazione
SLU 57	1277	-126	-180435	0	0	0	No, e>l/2
SLU 57	1457	2460	-341767	0	0	0	No, Trazione
SLU 53	1277	-1637	-135539	0.28	162362	1.198	Si
SLU 53	1457	949	-224058	0	0	0	No, Trazione
SLU 61	1277	-2359	-104887	0.41	230183	2.195	Si
SLU 61	1457	227	-120406	0	0	0	No, Trazione
SLU 58	1277	529	-177525	0	0	0	No, Trazione
SLU 58	1457	3115	-343586	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLV 10	1277	-465	-82618	0	0	0	No, e>l/2
SLV 10	1457	1146	-245963	0	0	0	No, Trazione
SLV 4	1277	-1969	2634	0.34	196670	74.653	Si
SLV 4	1457	561	-208562	0	0	0	No, Trazione
SLV 11	1277	-2700	-145055	0.47	266771	1.839	Si
SLV 11	1457	-572	100460	0	0	0	No, e>l/2
SLV 6	1277	-489	-24539	0.08	49871	2.032	Si
SLV 6	1457	1392	-332628	0	0	0	No, Trazione
SLV 5	1277	-489	-24539	0.08	49871	2.032	Si
SLV 5	1457	1392	-332628	0	0	0	No, Trazione
SLV 14	1277	-1220	-172229	0	0	0	No, e>l/2
SLV 14	1457	258	-23606	0	0	0	No, Trazione
SLV 12	1277	-2700	-145055	0.47	266771	1.839	Si
SLV 12	1457	-572	100460	0	0	0	No, e>l/2
SLD 1	1277	-1459	-40342	0.25	146813	3.639	Si
SLD 1	1457	700	-200101	0	0	0	No, Trazione
SLV 9	1277	-465	-82618	0	0	0	No, e>l/2
SLV 9	1457	1146	-245963	0	0	0	No, Trazione
SLV 13	1277	-1220	-172229	0	0	0	No, e>l/2
SLV 13	1457	258	-23606	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 53	1277	-1637	447	-135539		0.98	59.91	0.69	1150			2.57	Si
SLU 53	1457	949	447	-224058		0	0	0.56	0			0	No, Vu<V
SLU 60	1277	-2393	47	-100061		0.47	182.82	0.62	3163			66.95	Si
SLU 60	1457	193	47	-116558		0	0	0.56	0			0	No, Vu<V
SLU 1	1277	-1775	104	-76304		0.35	179.28	0.6	3026			29.07	Si
SLU 1	1457	222	104	-101194		0	0	0.56	0			0	No, Vu<V
SLU 59	1277	563	873	-182351		0	0	0.56	0			0	No, Vu<V
SLU 59	1457	3149	873	-347434		0	0	0.56	0			0	No, Vu<V
SLU 61	1277	-2359	42	-104887		0.48	174.86	0.62	3035			72.59	Si
SLU 61	1457	227	42	-120406		0	0	0.56	0			0	No, Vu<V
SLU 57	1277	-126	852	-180435		0	0	0.56	0			0	No, Vu<V
SLU 57	1457	2460	852	-341767		0	0	0.56	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	1277	-891	459	-145499		0	0	0.56	0			0	No, Vu<V
SLU 55	1457	1695	459	-236138		0	0	0.56	0			0	No, Vu<V
SLU 58	1277	529	878	-177525		0	0	0.56	0			0	No, Vu<V
SLU 58	1457	3115	878	-343586		0	0	0.56	0			0	No, Vu<V
SLU 54	1277	-1603	442	-140366		1.26	45.58	0.72	923			2.09	Si
SLU 54	1457	983	442	-227906		0	0	0.56	0			0	No, Vu<V
SLU 56	1277	-160	857	-175609		0	0	0.56	0			0	No, Vu<V
SLU 56	1457	2426	857	-337919		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1277	-1969	1557	2634		0.34	205.5	0.9	5189			3.33	Si
SLV 4	1457	561	1100	-208562		0	0	0.83	0			0	No, Vu<V
SLD 1	1277	-1459	1050	-40342		0.25	205.5	0.88	5087			4.85	Si
SLD 1	1457	700	780	-200101		0	0	0.83	0			0	No, Vu<V
SLV 5	1277	-489	1863	-24539		0.11	157.63	0.86	3776			2.03	Si
SLV 5	1457	1392	1408	-332628		0	0	0.83	0			0	No, Vu<V
SLV 9	1277	-465	799	-82618		0	0	0.83	0			0	No, Vu<V
SLV 9	1457	1146	670	-245963		0	0	0.83	0			0	No, Vu<V
SLV 11	1277	-2700	-1584	-145055		0.66	147.08	0.96	3972			2.51	Si
SLV 11	1457	-572	-1129	100460		0	0	0.83	0			0	No, Vu<V
SLV 10	1277	-465	799	-82618		0	0	0.83	0			0	No, Vu<V
SLV 10	1457	1146	670	-245963		0	0	0.83	0			0	No, Vu<V
SLV 13	1277	-1220	-1278	-172229		0	0	0.83	0			0	No, Vu<V
SLV 13	1457	258	-821	-23606		0	0	0.83	0			0	No, Vu<V
SLV 14	1277	-1220	-1278	-172229		0	0	0.83	0			0	No, Vu<V
SLV 14	1457	258	-821	-23606		0	0	0.83	0			0	No, Vu<V
SLV 6	1277	-489	1863	-24539		0.11	157.63	0.86	3776			2.03	Si
SLV 6	1457	1392	1408	-332628		0	0	0.83	0			0	No, Vu<V
SLV 12	1277	-2700	-1584	-145055		0.66	147.08	0.96	3972			2.51	Si
SLV 12	1457	-572	-1129	100460		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.53	0	-822	23213	0	0	No, e>t/2
SLV 6	14	0.53	0	124	23213	0	0	No, Trazione
SLV 14	14	0.53	0	-315	23213	0	0	No, e>t/2
SLV 5	14	0.53	0	124	23213	0	0	No, Trazione
SLV 2	14	0.53	0	-822	23213	0	0	No, e>t/2
SLV 3	14	0.53	0	-1481	23213	0	0	No, e>t/2
SLV 4	14	0.53	0	-1481	23213	0	0	No, e>t/2
SLV 10	14	0.53	0	276	23213	0	0	No, Trazione
SLV 9	14	0.53	0	276	23213	0	0	No, Trazione
SLV 13	14	0.53	0	-315	23213	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	1600	-3487	298	0	0	0	0	993.207	No, Trazione
SLV 2	2304	-3411	12	0	0	0	0	993.207	No, Trazione
SLV 6	2348	-2317	-438	0	0	0	0	922.376	No, Trazione
SLV 1	2304	-3411	12	0	0	0	0	993.207	No, Trazione
SLV 5	2348	-2317	-438	0	0	0	0	922.376	No, Trazione
SLV 8	1	-2568	517	0	0	0	0	922.376	No, Trazione
SLV 7	1	-2568	517	0	0	0	0	922.376	No, Trazione
SLV 9	1681	-1454	-536	0	0	0	0	922.376	No, Trazione
SLV 3	1600	-3487	298	0	0	0	0	993.207	No, Trazione
SLV 10	1681	-1454	-536	0	0	0	0	922.376	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 14	No

Maschio 222

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	595.1	-206.3	595.1	L6	L7	194	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 38	1277	-3329	-162566	0.61	298650	1.837	Si
SLU 38	1457	-2534	121007	0.47	231709	1.915	Si
SLU 40	1277	-2653	-141175	0.49	241879	1.713	Si
SLU 40	1457	-1863	41908	0.34	173063	4.13	Si
SLU 9	1277	-3336	-117929	0.61	299193	2.537	Si
SLU 9	1457	-2205	108333	0.41	203252	1.876	Si
SLU 42	1277	-2961	-156393	0.55	268031	1.714	Si
SLU 42	1457	-2209	80763	0.41	203571	2.521	Si
SLU 29	1277	-3509	-139758	0.65	313353	2.242	Si
SLU 29	1457	-2481	122494	0.46	227186	1.855	Si
SLU 34	1277	-2993	-148482	0.55	270694	1.823	Si
SLU 34	1457	-2189	83321	0.4	201836	2.422	Si
SLU 41	1277	-3003	-154691	0.55	271488	1.755	Si
SLU 41	1457	-2207	79009	0.41	203358	2.574	Si
SLU 39	1277	-2694	-139473	0.5	245392	1.759	Si
SLU 39	1457	-1860	40154	0.34	172846	4.305	Si
SLU 31	1277	-2684	-133264	0.49	244585	1.835	Si
SLU 31	1457	-1843	44466	0.34	171298	3.852	Si
SLU 30	1277	-3467	-141460	0.64	309987	2.191	Si
SLU 30	1457	-2484	124248	0.46	227397	1.83	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	1277	-2200	-250874	0	0	0	No, $e \geq l/2$
SLV 15	1457	-1721	84313	0.32	162610	1.929	Si
SLD 16	1277	-2519	-163639	0.46	235039	1.436	Si
SLD 16	1457	-1655	54741	0.3	156556	2.86	Si
SLV 13	1277	-1961	-198867	0	0	0	No, $e \geq l/2$
SLV 13	1457	-1577	111187	0.29	149373	1.343	Si
SLV 12	1277	-2952	-223122	0.54	273591	1.226	Si
SLV 12	1457	-1857	7279	0.34	175077	24.054	Si
SLV 11	1277	-2952	-223122	0.54	273591	1.226	Si
SLV 11	1457	-1857	7279	0.34	175077	24.054	Si
SLV 10	1277	-2157	-49763	0.4	202462	4.069	Si
SLV 10	1457	-1378	96858	0.25	130908	1.352	Si
SLV 9	1277	-2157	-49763	0.4	202462	4.069	Si
SLV 9	1457	-1378	96858	0.25	130908	1.352	Si
SLD 15	1277	-2519	-163639	0.46	235039	1.436	Si
SLD 15	1457	-1655	54741	0.3	156556	2.86	Si
SLV 14	1277	-1961	-198867	0	0	0	No, $e \geq l/2$
SLV 14	1457	-1577	111187	0.29	149373	1.343	Si
SLV 16	1277	-2200	-250874	0	0	0	No, $e \geq l/2$
SLV 16	1457	-1721	84313	0.32	162610	1.929	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	1277	-3744	-2156	-174063		0.88	151.53	0.67	2856			1.32	Si
SLU 84	1457	-2567	-2016	83967		0.48	192.85	0.62	3342			1.66	Si
SLU 38	1277	-3329	-2236	-162566		0.82	144.52	0.67	2692			1.2	Si
SLU 38	1457	-2534	-2031	121007		0.61	147.73	0.64	2636			1.3	Si
SLU 78	1277	-4413	-2438	-173649		0.91	172.94	0.68	3279			1.34	Si
SLU 78	1457	-3269	-2241	127846		0.67	173.66	0.65	3137			1.4	Si
SLU 79	1277	-4153	-2374	-178534		0.92	162.04	0.68	3074			1.29	Si
SLU 79	1457	-2889	-2167	122457		0.63	163.84	0.64	2934			1.35	Si
SLU 42	1277	-2961	-1975	-156393		0.8	132.57	0.66	2457			1.24	Si
SLU 42	1457	-2209	-1837	80763		0.44	181.32	0.61	3115			1.7	Si
SLU 34	1277	-2993	-1917	-148482		0.75	142.18	0.66	2611			1.36	Si
SLU 34	1457	-2189	-1779	83321		0.44	176.81	0.61	3042			1.71	Si
SLU 41	1277	-3003	-1931	-154691		0.79	136.44	0.66	2523			1.31	Si
SLU 41	1457	-2207	-1795	79009		0.43	183.58	0.61	3150			1.76	Si
SLU 36	1277	-3630	-2257	-155979		0.8	162.09	0.66	3005			1.33	Si
SLU 36	1457	-2911	-2062	124642		0.64	162.55	0.64	2917			1.41	Si
SLU 37	1277	-3371	-2193	-160864		0.81	147.82	0.66	2749			1.25	Si
SLU 37	1457	-2531	-1988	119253		0.6	149.67	0.64	2666			1.34	Si
SLU 80	1277	-4112	-2417	-180235		0.92	159.51	0.68	3030			1.25	Si
SLU 80	1457	-2891	-2210	124211		0.64	162.12	0.64	2907			1.32	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1277	-2952	-2043	-223122		1.64	64.24	1.16	2089			1.02	Si
SLV 12	1457	-1857	-1034	7279		0.34	194	0.9	4898			4.74	Si
SLV 10	1277	-2157	-1304	-49763		0.4	194	0.91	4958			3.8	Si
SLV 10	1457	-1378	-1435	96858		0.61	80.16	0.96	2146			1.5	Si
SLD 15	1277	-2519	-1955	-163639		0.94	96.09	1.02	2746			1.4	Si
SLD 15	1457	-1655	-1276	54741		0.31	191.79	0.89	4806			3.77	Si
SLV 15	1277	-2200	-3067	-250874		0	0	0.83	0			0	No, $V_u < V$
SLV 15	1457	-1721	-1546	84313		0.43	144.03	0.92	3705			2.4	Si
SLV 11	1277	-2952	-2043	-223122		1.64	64.24	1.16	2089			1.02	Si
SLV 11	1457	-1857	-1034	7279		0.34	194	0.9	4898			4.74	Si
SLV 16	1277	-2200	-3067	-250874		0	0	0.83	0			0	No, $V_u < V$
SLV 16	1457	-1721	-1546	84313		0.43	144.03	0.92	3705			2.4	Si
SLV 13	1277	-1961	-2846	-198867		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1457	-1577	-1666	111187		0.71	79.54	0.97	2171			1.3	Si
SLV 9	1277	-2157	-1304	-49763		0.4	194	0.91	4958			3.8	Si
SLV 9	1457	-1378	-1435	96858		0.61	80.16	0.96	2146			1.5	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	1277	-1961	-2846	-198867		0	0	0.83	0			0	No, Vu<V
SLV 14	1457	-1577	-1666	111187		0.71	79.54	0.97	2171			1.3	Si
SLD 16	1277	-2519	-1955	-163639		0.94	96.09	1.02	2746			1.4	Si
SLD 16	1457	-1655	-1276	54741		0.31	191.79	0.89	4806			3.77	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 10	14	0.53	0.4	-2188	21914	29629	1.35	Si
SLV 9	14	0.53	0.4	-2188	21914	29629	1.35	Si
SLV 5	14	0.53	0.42	-2271	21914	30710	1.4	Si
SLV 6	14	0.53	0.42	-2271	21914	30710	1.4	Si
SLV 14	14	0.53	0.43	-2319	21914	31329	1.43	Si
SLV 13	14	0.53	0.43	-2319	21914	31329	1.43	Si
SLV 15	14	0.53	0.46	-2513	21914	33854	1.54	Si
SLV 16	14	0.53	0.46	-2513	21914	33854	1.54	Si
SLV 2	14	0.53	0.48	-2595	21914	34908	1.59	Si
SLV 1	14	0.53	0.48	-2595	21914	34908	1.59	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-973	-2531	-148	0.013	3.702	0.894	20.489	922.376	No
SLV 9	-973	-2531	-148	0.013	3.702	0.894	20.489	922.376	No
SLV 6	-913	-2041	-130	0.019	3.654	0.895	31.175	922.376	No
SLV 5	-913	-2041	-130	0.019	3.654	0.895	31.175	922.376	No
SLV 14	-1044	-3960	-117	0.026	3.761	0.893	41.898	993.207	No
SLV 13	-1044	-3960	-117	0.026	3.761	0.893	41.898	993.207	No
SLV 15	-1045	-4695	-71	0.043	3.762	0.893	70.408	993.207	No
SLV 16	-1045	-4695	-71	0.043	3.762	0.893	70.408	993.207	No
SLV 1	-846	-2328	-56	0.049	3.6	0.897	80.093	993.207	No
SLV 2	-846	-2328	-56	0.049	3.6	0.897	80.093	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.713	SLU 40	Si
V_SLU	1.204	SLU 38	Si
PF_SLV	0	SLV 13	No
V_SLV	0	SLV 13	No
PFFP_SLV	1.352	SLV 9	Si
R_SLV	0.022	SLV 9	No

Maschio 223

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-12.3	595.1	L6	L7	931	28	316	316	316			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 22	1187	-22555	223064	0.87	9384136	42.069	Si
SLU 22	1503	-1627	95920	0.06	751696	7.837	Si
SLU 18	1187	-22368	207906	0.86	9315620	44.807	Si
SLU 18	1503	-1232	78474	0.05	570028	7.264	Si
SLU 64	1187	-27615	274769	1.06	11182905	40.699	Si
SLU 64	1503	-1748	109347	0.07	807196	7.382	Si
SLU 81	1187	-30083	283277	1.15	12019792	42.431	Si
SLU 81	1503	-1924	115777	0.07	887410	7.665	Si
SLU 43	1187	-24959	251103	0.96	10252905	40.831	Si
SLU 43	1503	-1177	85471	0.05	545085	6.377	Si
SLU 39	1187	-25024	231572	0.96	10275783	44.374	Si
SLU 39	1503	-1803	102350	0.07	832004	8.129	Si
SLU 60	1187	-27428	259611	1.05	11118530	42.828	Si
SLU 60	1503	-1353	91901	0.05	625738	6.809	Si
SLU 1	1187	-19900	199398	0.76	8395235	42.103	Si
SLU 1	1503	-1056	72044	0.04	489282	6.791	Si
SLU 62	1187	-28837	299284	1.11	11600613	38.761	Si
SLU 62	1503	-2357	130035	0.09	1084804	8.342	Si
SLU 45	1187	-26830	280940	1.03	10911303	38.839	Si
SLU 45	1503	-2113	117864	0.08	973814	8.262	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	1187	-20249	-1472811	0.78	8826719	5.993	Si
SLV 6	1503	-1025	-191270	0.04	475678	2.487	Si
SLV 9	1187	-21518	-1250444	0.83	9339991	7.469	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 9	1503	-728	-186433	0.03	338012	1.813	Si
SLV 10	1187	-21518	-1250444	0.83	9339991	7.469	Si
SLV 10	1503	-728	-186433	0.03	338012	1.813	Si
SLV 5	1187	-20249	-1472811	0.78	8826719	5.993	Si
SLV 5	1503	-1025	-191270	0.04	475678	2.487	Si
SLV 12	1187	-22055	1888534	0.85	9555779	5.06	Si
SLV 12	1503	-1484	351573	0.06	687545	1.956	Si
SLV 11	1187	-22055	1888534	0.85	9555779	5.06	Si
SLV 11	1503	-1484	351573	0.06	687545	1.956	Si
SLV 16	1187	-23348	1049319	0.9	10071706	9.598	Si
SLV 16	1503	-872	168914	0.03	404961	2.397	Si
SLV 15	1187	-23348	1049319	0.9	10071706	9.598	Si
SLV 15	1503	-872	168914	0.03	404961	2.397	Si
SLV 7	1187	-20786	1666167	0.8	9044498	5.428	Si
SLV 7	1503	-1781	346737	0.07	824553	2.378	Si
SLV 8	1187	-20786	1666167	0.8	9044498	5.428	Si
SLV 8	1503	-1781	346737	0.07	824553	2.378	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 61	1187	-27527	437	180630		1.06	931	0.7	18152			41.51	Si
SLU 61	1503	-1416	526	61700		0.05	931	0.56	14671			27.88	Si
SLU 18	1187	-22368	556	207906		0.86	931	0.67	17465			31.39	Si
SLU 18	1503	-1232	527	78474		0.05	931	0.56	14646			27.78	Si
SLU 43	1187	-24959	581	251103		0.96	931	0.68	17810			30.65	Si
SLU 43	1503	-1177	551	85471		0.05	931	0.56	14639			26.59	Si
SLU 64	1187	-27615	628	274769		1.06	931	0.7	18164			28.94	Si
SLU 64	1503	-1748	577	109347		0.07	931	0.56	14715			25.51	Si
SLU 74	1187	-31213	628	310562		1.2	931	0.72	18644			29.69	Si
SLU 74	1503	-2807	537	146240		0.11	931	0.57	14856			27.65	Si
SLU 60	1187	-27428	678	259611		1.05	931	0.7	18139			26.75	Si
SLU 60	1503	-1353	647	91901		0.05	931	0.56	14663			22.65	Si
SLU 82	1187	-30182	484	204296		1.16	931	0.71	18506			38.24	Si
SLU 82	1503	-1987	552	85576		0.08	931	0.57	14747			26.69	Si
SLU 81	1187	-30083	725	283277		1.15	931	0.71	18493			25.52	Si
SLU 81	1503	-1924	674	115777		0.07	931	0.57	14739			21.88	Si
SLU 39	1187	-25024	603	231572		0.96	931	0.68	17819			29.55	Si
SLU 39	1503	-1803	554	102350		0.07	931	0.56	14723			26.6	Si
SLU 83	1187	-31492	634	322950		1.21	931	0.72	18681			29.49	Si
SLU 83	1503	-2927	535	153911		0.11	931	0.57	14873			27.8	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1187	-20786	9549	1666167		0.8	931	0.99	25881			2.71	Si
SLV 8	1503	-1781	3223	346737		0.08	812.54	0.85	19315			5.99	Si
SLV 11	1187	-22055	9825	1888534		0.85	931	1	26134			2.66	Si
SLV 11	1503	-1484	3337	351573		0.08	685.73	0.85	16297			4.88	Si
SLV 5	1187	-20249	-8841	-1472811		0.78	931	0.99	25773			2.92	Si
SLV 5	1503	-1025	-2423	-191270		0.04	836.77	0.84	19730			8.14	Si
SLD 12	1187	-21537	4442	922157		0.83	931	1	26031			5.86	Si
SLD 12	1503	-1342	1680	193232		0.05	931	0.84	21992			13.09	Si
SLV 9	1187	-21518	-8565	-1250444		0.83	931	1	26027			3.04	Si
SLV 9	1503	-728	-2309	-186433		0.04	628.01	0.84	14799			6.41	Si
SLD 11	1187	-21537	4442	922157		0.83	931	1	26031			5.86	Si
SLD 11	1503	-1342	1680	193232		0.05	931	0.84	21992			13.09	Si
SLV 6	1187	-20249	-8841	-1472811		0.78	931	0.99	25773			2.92	Si
SLV 6	1503	-1025	-2423	-191270		0.04	836.77	0.84	19730			8.14	Si
SLV 12	1187	-22055	9825	1888534		0.85	931	1	26134			2.66	Si
SLV 12	1503	-1484	3337	351573		0.08	685.73	0.85	16297			4.88	Si
SLV 7	1187	-20786	9549	1666167		0.8	931	0.99	25881			2.71	Si
SLV 7	1503	-1781	3223	346737		0.08	812.54	0.85	19315			5.99	Si
SLV 10	1187	-21518	-8565	-1250444		0.83	931	1	26027			3.04	Si
SLV 10	1503	-728	-2309	-186433		0.04	628.01	0.84	14799			6.41	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1345 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.53	0.39	-10172	108832	137864	1.27	Si
SLV 5	14	0.53	0.39	-10172	108832	137864	1.27	Si
SLV 2	14	0.53	0.39	-10178	108832	137935	1.27	Si
SLV 1	14	0.53	0.39	-10178	108832	137935	1.27	Si
SLV 9	14	0.53	0.39	-10244	108832	138806	1.28	Si
SLV 10	14	0.53	0.39	-10244	108832	138806	1.28	Si
SLV 4	14	0.53	0.39	-10254	108832	138936	1.28	Si
SLV 3	14	0.53	0.39	-10254	108832	138936	1.28	Si
SLV 14	14	0.53	0.4	-10417	108832	141071	1.3	Si
SLV 13	14	0.53	0.4	-10417	108832	141071	1.3	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1345 Wa = 0.05 Ta = 0.0596

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 1	-1637	-18957	-797	0	15.626	0.931	0	993.207	No
SLV 3	-1864	-19118	-789	0	15.75	0.926	0	993.207	No
SLV 2	-1637	-18957	-797	0	15.626	0.931	0	993.207	No
SLV 4	-1864	-19118	-789	0	15.75	0.926	0	993.207	No
SLV 6	-1025	-20249	-453	0.03	15.341	0.949	45.232	922.376	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 5	-1025	-20249	-453	0.03	15.341	0.949	45.232	922.376	No
SLV 7	-1781	-20786	-426	0.034	15.704	0.928	52.719	922.376	No
SLV 8	-1781	-20786	-426	0.034	15.704	0.928	52.719	922.376	No
SLV 16	-872	-23348	219	0.057	15.284	0.955	87.432	993.207	No
SLV 15	-872	-23348	219	0.057	15.284	0.955	87.432	993.207	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.377	SLU 43	Si
V_SLU	21.878	SLU 81	Si
PF_SLV	1.813	SLV 9	Si
V_SLV	2.66	SLV 11	Si
PFFP_SLV	1.267	SLV 5	Si
R_SLV	0	SLV 1	No

Maschio 224

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1633.3	-335.9	-1720.3	-335.9	L6	F1	87	28	319.3	319.3	319.3			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 39	1187	-2093	-38000	0.86	81446	2.143	Si
SLU 39	1397	-1293	8229	0.53	52593	6.392	Si
SLU 61	1187	-2385	-42234	0.98	91264	2.161	Si
SLU 61	1397	-1508	13575	0.62	60630	4.466	Si
SLU 82	1187	-2505	-45881	1.03	95226	2.076	Si
SLU 82	1397	-1764	13029	0.72	69901	5.365	Si
SLU 19	1187	-1816	-34577	0.75	71779	2.076	Si
SLU 19	1397	-1283	11825	0.53	52211	4.415	Si
SLU 31	1187	-1851	-36974	0.76	73019	1.975	Si
SLU 31	1397	-1703	12243	0.7	67727	5.532	Si
SLU 40	1187	-1937	-38224	0.8	76043	1.989	Si
SLU 40	1397	-1538	11279	0.63	61734	5.473	Si
SLU 73	1187	-2420	-44631	0.99	92416	2.071	Si
SLU 73	1397	-1928	13994	0.79	75732	5.412	Si
SLU 10	1187	-1730	-33328	0.71	68710	2.062	Si
SLU 10	1397	-1448	12789	0.59	58389	4.565	Si
SLU 52	1187	-2299	-40985	0.94	88408	2.157	Si
SLU 52	1397	-1673	14540	0.69	66645	4.584	Si
SLU 81	1187	-2661	-45657	1.09	100241	2.196	Si
SLU 81	1397	-1519	9979	0.62	61002	6.113	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 4	1187	121	23503	0	0	0	No, Trazione
SLV 4	1397	-2487	-71067	1.02	99142	1.395	Si
SLV 13	1187	-4231	-86832	1.74	157873	1.818	Si
SLV 13	1397	258	82601	0	0	0	No, Trazione
SLV 9	1187	-5624	-76146	2.31	198411	2.606	Si
SLV 9	1397	56	46371	0	0	0	No, Trazione
SLV 10	1187	-5624	-76146	2.31	198411	2.606	Si
SLV 10	1397	56	46371	0	0	0	No, Trazione
SLV 7	1187	1514	12817	0	0	0	No, Trazione
SLV 7	1397	-2285	-34837	0.94	91759	2.634	Si
SLD 16	1187	-2190	-47606	0.9	88267	1.854	Si
SLD 16	1397	-731	33810	0	0	0	No, e>l/2
SLV 8	1187	1514	12817	0	0	0	No, Trazione
SLV 8	1397	-2285	-34837	0.94	91759	2.634	Si
SLV 12	1187	786	-14758	0	0	0	No, Trazione
SLV 12	1397	-1611	7792	0.66	66300	8.509	Si
SLV 14	1187	-4231	-86832	1.74	157873	1.818	Si
SLV 14	1397	258	82601	0	0	0	No, Trazione
SLV 11	1187	786	-14758	0	0	0	No, Trazione
SLV 11	1397	-1611	7792	0.66	66300	8.509	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 52	1187	-2299	-844	-40985		1.07	77.01	0.7	1504			1.78	Si
SLU 52	1397	-1673	-88	14540		0.69	87	0.65	1576			18.01	Si
SLU 61	1187	-2385	-914	-42234		1.1	77.37	0.7	1521			1.67	Si
SLU 61	1397	-1508	-77	13575		0.62	87	0.64	1554			20.15	Si
SLU 60	1187	-2540	-961	-42010		1.12	80.89	0.71	1597			1.66	Si
SLU 60	1397	-1263	-47	10525		0.52	87	0.62	1522			32.72	Si
SLU 82	1187	-2505	-1002	-45881		1.18	75.56	0.71	1509			1.51	Si
SLU 82	1397	-1764	-17	13029		0.72	87	0.65	1588			93.29	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	1187	-2854	-953	-42599		1.19	85.73	0.71	1714			1.8	Si
SLU 83	1397	-2115	263	550		0.87	87	0.67	1635			6.21	Si
SLU 39	1187	-2093	-879	-38000		0.98	76.04	0.69	1462			1.66	Si
SLU 39	1397	-1293	32	8229		0.53	87	0.63	1526			47.01	Si
SLU 81	1187	-2661	-1049	-45657		1.2	79.03	0.72	1584			1.51	Si
SLU 81	1397	-1519	14	9979		0.62	87	0.64	1556			114.51	Si
SLU 40	1187	-1937	-832	-38224		0.97	71.31	0.68	1368			1.64	Si
SLU 40	1397	-1538	2	11279		0.63	87	0.64	1558			844.74	Si
SLU 73	1187	-2420	-932	-44631		1.15	75.16	0.71	1492			1.6	Si
SLU 73	1397	-1928	-27	13994		0.79	87	0.66	1610			58.76	Si
SLU 31	1187	-1851	-763	-36974		0.94	70.58	0.68	1345			1.76	Si
SLU 31	1397	-1703	-9	12243		0.7	87	0.65	1580			185.14	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	1187	-5624	-2474	-76146		2.31	87	1.3	3155			1.27	Si
SLV 9	1397	56	-1179	46371		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	786	634	-14758		0	0	0.83	0			0	No, Vu<V
SLV 12	1397	-1611	342	7792		0.66	87	0.97	2352			6.88	Si
SLV 7	1187	1514	1043	12817		0	0	0.83	0			0	No, Vu<V
SLV 7	1397	-2285	1212	-34837		0.96	84.76	1.03	2435			2.01	Si
SLV 11	1187	786	634	-14758		0	0	0.83	0			0	No, Vu<V
SLV 11	1397	-1611	342	7792		0.66	87	0.97	2352			6.88	Si
SLV 4	1187	121	431	23503		0	0	0.83	0			0	No, Vu<V
SLV 4	1397	-2487	1694	-71067		1.98	44.77	1.23	1542			0.91	No, Vu<V
SLV 10	1187	-5624	-2474	-76146		2.31	87	1.3	3155			1.27	Si
SLV 10	1397	56	-1179	46371		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	-4231	-1863	-86832		2.19	68.93	1.27	2454			1.32	Si
SLV 13	1397	258	-1662	82601		0	0	0.83	0			0	No, Vu<V
SLV 14	1187	-4231	-1863	-86832		2.19	68.93	1.27	2454			1.32	Si
SLV 14	1397	258	-1662	82601		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	1514	1043	12817		0	0	0.83	0			0	No, Vu<V
SLV 8	1397	-2285	1212	-34837		0.96	84.76	1.03	2435			2.01	Si
SLD 16	1187	-2190	-817	-47606		1.2	65.3	1.07	1962			2.4	Si
SLD 16	1397	-731	-512	33810		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.6 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 14	14	0.53	0	-200	10040	0	0	No, e>t/2
SLV 16	14	0.53	0	-321	10040	0	0	No, e>t/2
SLV 13	14	0.53	0	-200	10040	0	0	No, e>t/2
SLV 15	14	0.53	0	-321	10040	0	0	No, e>t/2
SLV 10	14	0.53	0.31	-758	10040	10338	1.03	Si
SLV 9	14	0.53	0.31	-758	10040	10338	1.03	Si
SLV 12	14	0.53	0.48	-1161	10040	15615	1.56	Si
SLV 11	14	0.53	0.48	-1161	10040	15615	1.56	Si
SLV 6	14	0.53	0.56	-1357	10040	18130	1.81	Si
SLV 5	14	0.53	0.56	-1357	10040	18130	1.81	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1346.6 Wa = 0.05 Ta = 0.0608

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-347	121	2	0	0	0	0	1013.373	No, Trazione
SLV 15	-259	-2308	84	0	1.54	0.91	0	1013.373	No
SLV 16	-259	-2308	84	0	1.54	0.91	0	1013.373	No
SLV 12	-358	786	104	0	0	0	0	939.538	No, Trazione
SLV 8	-384	1514	80	0	0	0	0	939.538	No, Trazione
SLV 7	-384	1514	80	0	0	0	0	939.538	No, Trazione
SLV 4	-347	121	2	0	0	0	0	1013.373	No, Trazione
SLV 11	-358	786	104	0	0	0	0	939.538	No, Trazione
SLV 6	-189	-4895	-60	0.011	1.495	0.923	17.27	939.538	No
SLV 5	-189	-4895	-60	0.011	1.495	0.923	17.27	939.538	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.975	SLU 31	Si
V_SLU	1.507	SLU 82	Si
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 13	No
PFFP_SLV	0	SLV 13	No
R_SLV	0	SLV 12	No

Maschio 225

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-335.9	-1543.3	-335.9	L6	F1	168	28	319.1	319.1	319.2			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti



fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	1187	-4614	-80313	0.98	340926	4.245	Si
SLU 81	1397	-3394	108388	0.72	259833	2.397	Si
SLU 52	1187	-4569	-65752	0.97	338042	5.141	Si
SLU 52	1397	-2990	95022	0.64	231527	2.437	Si
SLU 39	1187	-3594	-71368	0.76	273606	3.834	Si
SLU 39	1397	-2826	92185	0.6	219866	2.385	Si
SLU 18	1187	-3425	-60505	0.73	261995	4.33	Si
SLU 18	1397	-2400	80372	0.51	188938	2.351	Si
SLU 82	1187	-4659	-81384	0.99	343740	4.224	Si
SLU 82	1397	-3410	109772	0.73	260980	2.377	Si
SLU 61	1187	-4489	-70520	0.95	332919	4.721	Si
SLU 61	1397	-2984	97958	0.63	231146	2.36	Si
SLU 60	1187	-4445	-69450	0.94	330072	4.753	Si
SLU 60	1397	-2968	96574	0.63	229968	2.381	Si
SLU 19	1187	-3469	-61575	0.74	265039	4.304	Si
SLU 19	1397	-2416	81756	0.51	190158	2.326	Si
SLU 40	1187	-3639	-72439	0.77	276618	3.819	Si
SLU 40	1397	-2842	93569	0.6	221054	2.362	Si
SLU 10	1187	-3549	-56807	0.75	270520	4.762	Si
SLU 10	1397	-2422	78820	0.51	190553	2.418	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	1187	-1401	95613	0.3	114789	1.201	Si
SLV 1	1397	-1162	-44787	0.25	95660	2.136	Si
SLV 6	1187	2973	2552	0	0	0	No, Trazione
SLV 6	1397	-1206	139928	0	0	0	No, e>l/2
SLV 5	1187	2973	2552	0	0	0	No, Trazione
SLV 5	1397	-1206	139928	0	0	0	No, e>l/2
SLV 10	1187	2819	-82596	0	0	0	No, Trazione
SLV 10	1397	-1835	231039	0	0	0	No, e>l/2
SLD 9	1187	-873	-62365	0.19	72238	1.158	Si
SLD 9	1397	-2195	138670	0.47	177359	1.279	Si
SLD 10	1187	-873	-62365	0.19	72238	1.158	Si
SLD 10	1397	-2195	138670	0.47	177359	1.279	Si
SLV 13	1187	-1913	-188212	0	0	0	No, e>l/2
SLV 13	1397	-3259	258918	0.69	258220	0.997	No, M>Mu
SLV 14	1187	-1913	-188212	0	0	0	No, e>l/2
SLV 14	1397	-3259	258918	0.69	258220	0.997	No, M>Mu
SLV 2	1187	-1401	95613	0.3	114789	1.201	Si
SLV 2	1397	-1162	-44787	0.25	95660	2.136	Si
SLV 9	1187	2819	-82596	0	0	0	No, Trazione
SLV 9	1397	-1835	231039	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	1187	-4659	-1339	-81384		0.99	168	0.69	3234			2.42	Si
SLU 82	1397	-3410	-1357	109772		0.78	155.44	0.66	2873			2.12	Si
SLU 81	1187	-4614	-1344	-80313		0.98	168	0.69	3229			2.4	Si
SLU 81	1397	-3394	-1353	108388		0.78	156.19	0.66	2882			2.13	Si
SLU 84	1187	-4938	-1412	-68660		1.05	168	0.7	3272			2.32	Si
SLU 84	1397	-4022	-1420	109366		0.86	168	0.67	3150			2.22	Si
SLU 78	1187	-5515	-1466	-53037		1.17	168	0.71	3349			2.28	Si
SLU 78	1397	-4865	-1465	113449		1.03	168	0.69	3262			2.23	Si
SLU 80	1187	-5267	-1418	-50454		1.12	168	0.7	3316			2.34	Si
SLU 80	1397	-4628	-1416	105102		0.98	168	0.69	3230			2.28	Si
SLU 75	1187	-5236	-1393	-65761		1.11	168	0.7	3311			2.38	Si
SLU 75	1397	-4254	-1402	113855		0.9	168	0.68	3181			2.27	Si
SLU 73	1187	-4738	-1269	-76615		1.01	168	0.69	3245			2.56	Si
SLU 73	1397	-3416	-1293	106836		0.77	158.17	0.66	2916			2.26	Si
SLU 83	1187	-4894	-1416	-67589		1.04	168	0.69	3266			2.31	Si
SLU 83	1397	-4006	-1416	107982		0.85	168	0.67	3147			2.22	Si
SLU 74	1187	-5191	-1398	-64691		1.1	168	0.7	3306			2.36	Si
SLU 74	1397	-4237	-1398	112471		0.9	168	0.68	3178			2.27	Si
SLU 77	1187	-5471	-1471	-51967		1.16	168	0.71	3343			2.27	Si
SLU 77	1397	-4849	-1461	112065		1.03	168	0.69	3260			2.23	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 10	1187	-873	-2123	-62365		0.83	37.75	1	1055			0.5	No, Vu<V
SLD 10	1397	-2195	-2014	138670		1.25	62.5	1.08	1897			0.94	No, Vu<V
SLV 10	1187	2819	-3864	-82596		0	0	0.83	0			0	No, Vu<V
SLV 10	1397	-1835	-3635	231039		0	0	0.83	0			0	No, Vu<V
SLD 5	1187	-810	-1562	-26001		0.19	155.64	0.87	3794			2.43	Si
SLD 5	1397	-1927	-1793	99763		0.71	96.71	0.98	2642			1.47	Si
SLD 6	1187	-810	-1562	-26001		0.19	155.64	0.87	3794			2.43	Si
SLD 6	1397	-1927	-1793	99763		0.71	96.71	0.98	2642			1.47	Si
SLV 6	1187	2973	-2552	2552		0	0	0.83	0			0	No, Vu<V
SLV 6	1397	-1206	-3118	139928		0	0	0.83	0			0	No, Vu<V
SLV 5	1187	2973	-2552	2552		0	0	0.83	0			0	No, Vu<V
SLV 5	1397	-1206	-3118	139928		0	0	0.83	0			0	No, Vu<V
SLD 9	1187	-873	-2123	-62365		0.83	37.75	1	1055			0.5	No, Vu<V
SLD 9	1397	-2195	-2014	138670		1.25	62.5	1.08	1897			0.94	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	1187	-1913	-3750	-188212		0	0	0.83	0			0	No, Vu<V
SLV 14	1397	-3259	-2481	258918		8.53	13.65	1.63	621			0.25	No, Vu<V
SLV 13	1187	-1913	-3750	-188212		0	0	0.83	0			0	No, Vu<V
SLV 13	1397	-3259	-2481	258918		8.53	13.65	1.63	621			0.25	No, Vu<V
SLV 9	1187	2819	-3864	-82596		0	0	0.83	0			0	No, Vu<V
SLV 9	1397	-1835	-3635	231039		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.53	0	-829	19367	0	0	No, e>t/2
SLV 9	14	0.53	0	-1155	19367	0	0	No, e>t/2
SLV 6	14	0.53	0	-829	19367	0	0	No, e>t/2
SLV 10	14	0.53	0	-1155	19367	0	0	No, e>t/2
SLV 2	14	0.53	0.37	-1761	19367	23896	1.23	Si
SLV 1	14	0.53	0.37	-1761	19367	23896	1.23	Si
SLV 13	14	0.53	0.61	-2847	19367	37889	1.96	Si
SLV 14	14	0.53	0.61	-2847	19367	37889	1.96	Si
SLV 4	14	0.53	0.61	-2885	19367	38367	1.98	Si
SLV 3	14	0.53	0.61	-2885	19367	38367	1.98	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1346.5 Wa = 0.05 Ta = 0.0607

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	-799	2973	-48	0	0	0	0	938.67	No, Trazione
SLV 9	-831	2819	-24	0	0	0	0	938.67	No, Trazione
SLV 5	-799	2973	-48	0	0	0	0	938.67	No, Trazione
SLV 10	-831	2819	-24	0	0	0	0	938.67	No, Trazione
SLV 12	-1523	-10189	181	0.002	3.83	0.889	2.514	938.67	No
SLV 11	-1523	-10189	181	0.002	3.83	0.889	2.514	938.67	No
SLV 8	-1491	-10035	157	0.009	3.8	0.889	15.215	938.67	No
SLV 7	-1491	-10035	157	0.009	3.8	0.889	15.215	938.67	No
SLV 16	-1317	-5815	136	0.015	3.642	0.889	24.436	1012.353	No
SLV 15	-1317	-5815	136	0.015	3.642	0.889	24.436	1012.353	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.326	SLV 19	Si
V_SLV	2.116	SLV 82	Si
PF_SLV	0	SLV 10	No
V_SLV	0	SLV 5	No
PFFP_SLV	0	SLV 5	No
R_SLV	0	SLV 10	No

Maschio 226

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-944.8	-335.9	-1100.3	-335.9	L6	F1	155.5	28	318.8	318.8	318.9			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 39	1187	-2438	49308	0.56	176504	3.58	Si
SLV 39	1397	-2511	-58505	0.58	181412	3.101	Si
SLV 40	1187	-2417	49824	0.56	175105	3.514	Si
SLV 40	1397	-2507	-58919	0.58	181164	3.075	Si
SLV 60	1187	-3154	42786	0.72	223432	5.222	Si
SLV 60	1397	-2596	-59935	0.6	187075	3.121	Si
SLV 31	1187	-2518	46143	0.58	181844	3.941	Si
SLV 31	1397	-2499	-57553	0.57	180580	3.138	Si
SLV 73	1187	-3313	50144	0.76	233512	4.657	Si
SLV 73	1397	-2987	-67797	0.69	212655	3.137	Si
SLV 61	1187	-3133	43302	0.72	222097	5.129	Si
SLV 61	1397	-2592	-60348	0.6	186829	3.096	Si
SLV 19	1187	-2338	39301	0.54	169803	4.321	Si
SLV 19	1397	-2104	-50104	0.48	153910	3.072	Si
SLV 82	1187	-3212	53826	0.74	227124	4.22	Si
SLV 82	1397	-2995	-69162	0.69	213221	3.083	Si
SLV 18	1187	-2359	38784	0.54	171210	4.414	Si
SLV 18	1397	-2108	-49691	0.48	154164	3.102	Si
SLV 81	1187	-3233	53309	0.74	228451	4.285	Si
SLV 81	1397	-2999	-68749	0.69	213461	3.105	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	1187	-1542	163090	0	0	0	No, e>l/2



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 4	1397	-3445	-161939	0.79	250538	1.547	Si
SLV 7	1187	-859	88312	0	0	0	No, $e > l/2$
SLV 7	1397	-1768	-49343	0.41	132917	2.694	Si
SLV 14	1187	-3832	-100980	0.88	276501	2.738	Si
SLV 14	1397	-968	66274	0.22	73859	1.114	Si
SLV 16	1187	-2854	-89345	0.66	209965	2.35	Si
SLV 16	1397	-434	87849	0	0	0	No, $e > l/2$
SLV 1	1187	-2520	151456	0.58	186683	1.233	Si
SLV 1	1397	-3979	-183514	0.91	286262	1.56	Si
SLV 8	1187	-859	88312	0	0	0	No, $e > l/2$
SLV 8	1397	-1768	-49343	0.41	132917	2.694	Si
SLV 2	1187	-2520	151456	0.58	186683	1.233	Si
SLV 2	1397	-3979	-183514	0.91	286262	1.56	Si
SLV 13	1187	-3832	-100980	0.88	276501	2.738	Si
SLV 13	1397	-968	66274	0.22	73859	1.114	Si
SLV 15	1187	-2854	-89345	0.66	209965	2.35	Si
SLV 15	1397	-434	87849	0	0	0	No, $e > l/2$
SLV 3	1187	-1542	163090	0	0	0	No, $e > l/2$
SLV 3	1397	-3445	-161939	0.79	250538	1.547	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	1187	-4521	1321	35707		1.04	155.5	0.69	3022			2.29	Si
SLU 77	1397	-4455	1277	-76563		1.02	155.5	0.69	3013			2.36	Si
SLU 84	1187	-3761	1312	46303		0.86	155.5	0.67	2920			2.23	Si
SLU 84	1397	-3635	1285	-70304		0.83	155.5	0.67	2904			2.26	Si
SLU 73	1187	-3313	1237	50144		0.76	155.5	0.66	2861			2.31	Si
SLU 73	1397	-2987	1230	-67797		0.69	155.5	0.65	2817			2.29	Si
SLU 74	1187	-3973	1316	43230		0.91	155.5	0.68	2949			2.24	Si
SLU 74	1397	-3816	1282	-75421		0.88	155.5	0.67	2928			2.28	Si
SLU 75	1187	-3952	1320	43747		0.91	155.5	0.68	2946			2.23	Si
SLU 75	1397	-3812	1297	-75835		0.88	155.5	0.67	2927			2.26	Si
SLU 78	1187	-4500	1325	36224		1.03	155.5	0.69	3019			2.28	Si
SLU 78	1397	-4451	1293	-76976		1.02	155.5	0.69	3012			2.33	Si
SLU 81	1187	-3233	1303	53309		0.74	155.5	0.65	2850			2.19	Si
SLU 81	1397	-2999	1275	-68749		0.69	155.5	0.65	2819			2.21	Si
SLU 82	1187	-3212	1307	53826		0.74	155.5	0.65	2847			2.18	Si
SLU 82	1397	-2995	1290	-69162		0.69	155.5	0.65	2818			2.18	Si
SLU 83	1187	-3782	1308	45786		0.87	155.5	0.67	2923			2.23	Si
SLU 83	1397	-3638	1270	-69891		0.84	155.5	0.67	2904			2.29	Si
SLU 40	1187	-2417	1172	49824		0.56	155.5	0.63	2741			2.34	Si
SLU 40	1397	-2507	1157	-58919		0.58	155.5	0.63	2753			2.38	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	1187	-2854	-1423	-89345		0.73	139.32	0.98	3822			2.69	Si
SLV 15	1397	-434	-95	87849		0	0	0.83	0			0	No, $V_u < V$
SLV 1	1187	-2520	3054	151456		1.7	52.98	1.17	1740			0.57	No, $V_u < V$
SLV 1	1397	-3979	1694	-183514		1.5	94.91	1.13	3010			1.78	Si
SLV 3	1187	-1542	3760	163090		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1397	-3445	2271	-161939		1.33	92.25	1.1	2842			1.25	Si
SLV 7	1187	-859	2769	88312		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1397	-1768	2116	-49343		0.42	149.54	0.92	3843			1.82	Si
SLV 16	1187	-2854	-1423	-89345		0.73	139.32	0.98	3822			2.69	Si
SLV 16	1397	-434	-95	87849		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-3832	-2128	-100980		0.89	154.2	1.01	4365			2.05	Si
SLV 14	1397	-968	-672	66274		1.24	27.76	1.08	841			1.25	Si
SLV 8	1187	-859	2769	88312		0	0	0.83	0			0	No, $V_u < V$
SLV 8	1397	-1768	2116	-49343		0.42	149.54	0.92	3843			1.82	Si
SLV 4	1187	-1542	3760	163090		0	0	0.83	0			0	No, $V_u < V$
SLV 4	1397	-3445	2271	-161939		1.33	92.25	1.1	2842			1.25	Si
SLV 2	1187	-2520	3054	151456		1.7	52.98	1.17	1740			0.57	No, $V_u < V$
SLV 2	1397	-3979	1694	-183514		1.5	94.91	1.13	3010			1.78	Si
SLV 13	1187	-3832	-2128	-100980		0.89	154.2	1.01	4365			2.05	Si
SLV 13	1397	-968	-672	66274		1.24	27.76	1.08	841			1.25	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.4 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 13	14	0.53	0	-1257	17892	0	0	No, $e > t/2$
SLV 15	14	0.53	0	-824	17892	0	0	No, $e > t/2$
SLV 14	14	0.53	0	-1257	17892	0	0	No, $e > t/2$
SLV 12	14	0.53	0	-1237	17892	0	0	No, $e > t/2$
SLV 16	14	0.53	0	-824	17892	0	0	No, $e > t/2$
SLV 11	14	0.53	0	-1237	17892	0	0	No, $e > t/2$
SLV 7	14	0.53	0.46	-2024	17892	27258	1.52	Si
SLV 8	14	0.53	0.46	-2024	17892	27258	1.52	Si
SLV 10	14	0.53	0.62	-2681	17892	35643	1.99	Si
SLV 9	14	0.53	0.62	-2681	17892	35643	1.99	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1346.4 Wa = 0.05 Ta = 0.0606

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	-1050	-2520	158	0	3.218	0.89	0	1010.529	No
SLV 3	-1047	-1542	208	0	3.215	0.89	0	1010.529	No
SLV 8	-979	-859	175	0	3.156	0.89	0	937.118	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-1047	-1542	208	0	3.215	0.89	0	1010.529	No
SLV 1	-1050	-2520	158	0	3.218	0.89	0	1010.529	No
SLV 7	-979	-859	175	0	3.156	0.89	0	937.118	No
SLV 13	-867	-3832	-100	0.023	3.061	0.892	37.08	1010.529	No
SLV 14	-867	-3832	-100	0.023	3.061	0.892	37.08	1010.529	No
SLV 11	-924	-1253	98	0.024	3.109	0.891	39.264	937.118	No
SLV 12	-924	-1253	98	0.024	3.109	0.891	39.264	937.118	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.072	SLU 19	Si
V_SLU	2.178	SLU 82	Si
PF_SLV	0	SLV 3	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 11	No
R_SLV	0	SLV 1	No

Maschio 227

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-741.3	-335.9	-854.8	-335.9	L6	F1	113.5	28	318.7	318.6	318.7			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLU 2	1277	-2260	-5590	0.71	117036	20.936	Si
SLU 2	1457	-1325	-15010	0.42	71353	4.754	Si
SLU 61	1277	-2762	-11477	0.87	140009	12.199	Si
SLU 61	1457	-1439	-15937	0.45	77117	4.839	Si
SLU 73	1277	-3071	-12859	0.97	153602	11.945	Si
SLU 73	1457	-1835	-19119	0.58	96771	5.061	Si
SLU 10	1277	-2234	-7169	0.7	115860	16.161	Si
SLU 10	1457	-1348	-15739	0.42	72540	4.609	Si
SLU 52	1277	-2799	-8910	0.88	141675	15.901	Si
SLU 52	1457	-1555	-18054	0.49	82956	4.595	Si
SLU 23	1277	-2531	-9539	0.8	129606	13.587	Si
SLU 23	1457	-1605	-16075	0.51	85450	5.316	Si
SLU 65	1277	-3096	-11280	0.97	154686	13.714	Si
SLU 65	1457	-1812	-18390	0.57	95634	5.2	Si
SLU 44	1277	-2824	-7331	0.89	142789	19.477	Si
SLU 44	1457	-1532	-17325	0.48	81790	4.721	Si
SLU 19	1277	-2197	-9736	0.69	114102	11.72	Si
SLU 19	1457	-1232	-13621	0.39	66595	4.889	Si
SLU 31	1277	-2506	-11118	0.79	128460	11.555	Si
SLU 31	1457	-1629	-16804	0.51	86608	5.154	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\alpha 0$	Mu	c.s.	Verifica
SLD 11	1277	-1992	-43488	0.63	107239	2.466	Si
SLD 11	1457	-417	26351	0	0	0	No, e>l/2
SLV 7	1277	-866	-13516	0.27	48046	3.555	Si
SLV 7	1457	314	30077	0	0	0	No, Trazione
SLV 8	1277	-866	-13516	0.27	48046	3.555	Si
SLV 8	1457	314	30077	0	0	0	No, Trazione
SLV 3	1277	-767	100547	0	0	0	No, e>l/2
SLV 3	1457	-1131	-71501	0	0	0	No, e>l/2
SLV 2	1277	-1393	123857	0	0	0	No, e>l/2
SLV 2	1457	-2068	-109836	0.65	111096	1.011	Si
SLV 11	1277	-1576	-87974	0.5	85809	0.975	No, M>Mu
SLV 11	1457	616	78810	0	0	0	No, Trazione
SLV 4	1277	-767	100547	0	0	0	No, e>l/2
SLV 4	1457	-1131	-71501	0	0	0	No, e>l/2
SLD 12	1277	-1992	-43488	0.63	107239	2.466	Si
SLD 12	1457	-417	26351	0	0	0	No, e>l/2
SLV 12	1277	-1576	-87974	0.5	85809	0.975	No, M>Mu
SLV 12	1457	616	78810	0	0	0	No, Trazione
SLV 16	1277	-3134	-147648	0.99	163508	1.107	Si
SLV 16	1457	-124	90941	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\alpha 0$	αN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1277	-3718	-391	-30239		1.17	113.5	0.71	2261			5.78	Si
SLU 38	1457	-2545	-177	-8273		0.8	113.5	0.66	2105			11.86	Si
SLU 27	1277	-3892	-387	-31443		1.22	113.5	0.72	2284			5.9	Si
SLU 27	1457	-2492	-215	-6394		0.78	113.5	0.66	2098			9.75	Si
SLU 35	1277	-3866	-386	-33022		1.22	113.5	0.72	2281			5.9	Si
SLU 35	1457	-2515	-177	-7123		0.79	113.5	0.66	2101			11.87	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 37	1277	-3678	-394	-33075		1.16	113.5	0.71	2256			5.72	Si
SLU 37	1457	-2356	-200	-4628		0.74	113.5	0.65	2080			10.42	Si
SLU 72	1277	-4308	-396	-30401		1.36	113.5	0.74	2340			5.91	Si
SLU 72	1457	-2729	-207	-9859		0.86	113.5	0.67	2129			10.28	Si
SLU 30	1277	-3743	-392	-28660		1.18	113.5	0.71	2265			5.77	Si
SLU 30	1457	-2522	-216	-7543		0.79	113.5	0.66	2102			9.74	Si
SLU 29	1277	-3703	-395	-31496		1.17	113.5	0.71	2259			5.72	Si
SLU 29	1457	-2332	-238	-3898		0.73	113.5	0.65	2077			8.73	Si
SLU 71	1277	-4268	-399	-33237		1.34	113.5	0.73	2335			5.86	Si
SLU 71	1457	-2539	-229	-6214		0.8	113.5	0.66	2104			9.17	Si
SLU 80	1277	-4283	-395	-31980		1.35	113.5	0.74	2337			5.92	Si
SLU 80	1457	-2752	-169	-10588		0.87	113.5	0.67	2132			12.62	Si
SLU 79	1277	-4243	-398	-34816		1.33	113.5	0.73	2331			5.86	Si
SLU 79	1457	-2563	-191	-6943		0.81	113.5	0.66	2107			11.02	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	1277	-3134	-2508	-147648		3.87	28.92	1.61	1302			0.52	No, Vu<V
SLV 16	1457	-124	-857	90941		0	0	0.83	0			0	No, Vu<V
SLV 4	1277	-767	1685	100547		0	0	0.83	0			0	No, Vu<V
SLV 4	1457	-1131	-26	-71501		0	0	0.83	0			0	No, Vu<V
SLV 1	1277	-1393	2374	123857		0	0	0.83	0			0	No, Vu<V
SLV 1	1457	-2068	946	-109836		6.78	10.89	1.63	496			0.52	No, Vu<V
SLV 11	1277	-1576	-1844	-87974		20.19	2.79	1.63	127			0.07	No, Vu<V
SLV 11	1457	616	-1700	78810		0	0	0.83	0			0	No, Vu<V
SLV 7	1277	-866	-587	-13516		0.27	113.5	0.89	2822			4.81	Si
SLV 7	1457	314	-1450	30077		0	0	0.83	0			0	No, Vu<V
SLD 11	1277	-1992	-791	-43488		0.68	104.75	0.97	2843			3.59	Si
SLD 11	1457	-417	-654	26351		0	0	0.83	0			0	No, Vu<V
SLV 15	1277	-3134	-2508	-147648		3.87	28.92	1.61	1302			0.52	No, Vu<V
SLV 15	1457	-124	-857	90941		0	0	0.83	0			0	No, Vu<V
SLD 12	1277	-1992	-791	-43488		0.68	104.75	0.97	2843			3.59	Si
SLD 12	1457	-417	-654	26351		0	0	0.83	0			0	No, Vu<V
SLV 3	1277	-767	1685	100547		0	0	0.83	0			0	No, Vu<V
SLV 3	1457	-1131	-26	-71501		0	0	0.83	0			0	No, Vu<V
SLV 12	1277	-1576	-1844	-87974		20.19	2.79	1.63	127			0.07	No, Vu<V
SLV 12	1457	616	-1700	78810		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.3 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.53	0	1236	13045	0	0	No, Trazione
SLV 12	14	0.53	0	1236	13045	0	0	No, Trazione
SLV 8	14	0.53	0	1887	13045	0	0	No, Trazione
SLV 7	14	0.53	0	1887	13045	0	0	No, Trazione
SLV 3	14	0.53	0	174	13045	0	0	No, Trazione
SLV 4	14	0.53	0	174	13045	0	0	No, Trazione
SLV 1	14	0.53	0.61	-1946	13045	25878	1.98	Si
SLV 2	14	0.53	0.61	-1946	13045	25878	1.98	Si
SLV 15	14	0.53	0.63	-1997	13045	26514	2.03	Si
SLV 16	14	0.53	0.63	-1997	13045	26514	2.03	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = 1346.3 Wa = 0.05 Ta = 0.0606

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 6	-396	-6593	140	0	2.046	0.904	0	936.244	No
SLV 12	-945	1855	-123	0	0	0	0	936.244	No, Trazione
SLV 7	-942	1187	-117	0	0	0	0	936.244	No, Trazione
SLV 9	-400	-5925	133	0	2.049	0.904	0	936.244	No
SLV 8	-942	1187	-117	0	0	0	0	936.244	No, Trazione
SLV 5	-396	-6593	140	0	2.046	0.904	0	936.244	No
SLV 10	-400	-5925	133	0	2.049	0.904	0	936.244	No
SLV 11	-945	1855	-123	0	0	0	0	936.244	No, Trazione
SLV 2	-583	-4649	58	0.032	2.192	0.894	51.481	1009.501	No
SLV 1	-583	-4649	58	0.032	2.192	0.894	51.481	1009.501	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.595	SLU 52	Si
V_SLU	5.717	SLU 29	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 11	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

Maschio 228

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-600.8	-335.9	-651.3	-335.9	L6	F1	50.5	28	318.5	318.5	318.6			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 73	1387	-479	-5715	0.34	11593	2.029	Si
SLU 73	1467	-489	3794	0.35	11830	3.118	Si
SLU 26	1387	-312	-3616	0.22	7664	2.12	Si
SLU 26	1467	-700	4191	0.49	16592	3.959	Si
SLU 10	1387	-314	-3985	0.22	7724	1.938	Si
SLU 10	1467	-262	2578	0.18	6455	2.504	Si
SLU 19	1387	-387	-4336	0.27	9440	2.177	Si
SLU 19	1467	-336	2621	0.24	8248	3.147	Si
SLU 34	1387	-317	-4075	0.22	7777	1.908	Si
SLU 34	1467	-715	4596	0.51	16927	3.683	Si
SLU 40	1387	-416	-5183	0.29	10115	1.952	Si
SLU 40	1467	-492	3628	0.35	11901	3.28	Si
SLU 23	1387	-339	-4373	0.24	8297	1.897	Si
SLU 23	1467	-402	3180	0.28	9805	3.083	Si
SLU 31	1387	-343	-4832	0.24	8408	1.74	Si
SLU 31	1467	-417	3585	0.3	10159	2.834	Si
SLU 42	1387	-389	-4426	0.28	9491	2.145	Si
SLU 42	1467	-790	4639	0.56	18571	4.003	Si
SLU 2	1387	-310	-3526	0.22	7612	2.159	Si
SLU 2	1467	-246	2173	0.17	6091	2.803	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	1387	877	6711	0	0	0	No, Trazione
SLV 11	1467	780	2450	0	0	0	No, Trazione
SLV 3	1387	398	4824	0	0	0	No, Trazione
SLV 3	1467	42	-11084	0	0	0	No, Trazione
SLV 7	1387	1142	9908	0	0	0	No, Trazione
SLV 7	1467	855	-4923	0	0	0	No, Trazione
SLV 16	1387	-486	-5834	0.34	11919	2.043	Si
SLV 16	1467	-205	13492	0	0	0	No, e>l/2
SLV 4	1387	398	4824	0	0	0	No, Trazione
SLV 4	1467	42	-11084	0	0	0	No, Trazione
SLV 8	1387	1142	9908	0	0	0	No, Trazione
SLV 8	1467	855	-4923	0	0	0	No, Trazione
SLV 15	1387	-486	-5834	0.34	11919	2.043	Si
SLV 15	1467	-205	13492	0	0	0	No, e>l/2
SLD 7	1387	173	1340	0	0	0	No, Trazione
SLD 7	1467	74	-653	0	0	0	No, Trazione
SLD 8	1387	173	1340	0	0	0	No, Trazione
SLD 8	1467	74	-653	0	0	0	No, Trazione
SLV 12	1387	877	6711	0	0	0	No, Trazione
SLV 12	1467	780	2450	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 78	1387	-660	-321	-5115		0.47	50.5	0.62	873			2.72	Si
SLU 78	1467	-1256	406	5285		0.89	50.5	0.67	953			2.35	Si
SLU 38	1387	-360	-268	-3472		0.27	46.86	0.59	777			2.9	Si
SLU 38	1467	-1080	384	5477		0.76	50.5	0.66	930			2.42	Si
SLU 77	1387	-765	-323	-5346		0.54	50.5	0.63	888			2.75	Si
SLU 77	1467	-1358	387	5089		0.96	50.5	0.68	967			2.5	Si
SLU 79	1387	-602	-302	-4584		0.43	50.5	0.61	866			2.86	Si
SLU 79	1467	-1255	388	5490		0.89	50.5	0.67	953			2.46	Si
SLU 34	1387	-317	-248	-4075		0.3	37.15	0.6	620			2.51	Si
SLU 34	1467	-715	328	4596		0.51	50.5	0.62	881			2.68	Si
SLU 80	1387	-496	-301	-4354		0.36	49.43	0.6	835			2.78	Si
SLU 80	1467	-1152	407	5686		0.81	50.5	0.66	939			2.31	Si
SLU 31	1387	-343	-229	-4832		0.37	33.51	0.6	567			2.48	Si
SLU 31	1467	-417	260	3585		0.3	49.99	0.6	833			3.2	Si
SLU 72	1387	-492	-278	-3894		0.35	50.5	0.6	851			3.06	Si
SLU 72	1467	-1137	376	5281		0.8	50.5	0.66	937			2.49	Si
SLU 76	1387	-453	-281	-4958		0.38	42.88	0.61	727			2.59	Si
SLU 76	1467	-787	352	4805		0.56	50.5	0.63	890			2.53	Si
SLU 36	1387	-524	-288	-4233		0.37	50.5	0.6	855			2.97	Si
SLU 36	1467	-1184	382	5076		0.84	50.5	0.67	943			2.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	1387	877	-8	6711		0	0	0.83	0			0	No, Vu<V
SLV 11	1467	780	667	2450		0	0	0.83	0			0	No, Vu<V
SLV 16	1387	-486	-514	-5834		0.44	39.71	0.92	1024			1.99	Si
SLV 16	1467	-205	386	13492		0	0	0.83	0			0	No, Vu<V
SLV 7	1387	1142	245	9908		0	0	0.83	0			0	No, Vu<V
SLV 7	1467	855	621	-4923		0	0	0.83	0			0	No, Vu<V
SLD 7	1387	173	-10	1340		0	0	0.83	0			0	No, Vu<V
SLD 7	1467	74	354	-653		0	0	0.83	0			0	No, Vu<V
SLV 4	1387	398	330	4824		0	0	0.83	0			0	No, Vu<V
SLV 4	1467	42	233	-11084		0	0	0.83	0			0	No, Vu<V
SLV 15	1387	-486	-514	-5834		0.44	39.71	0.92	1024			1.99	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	1467	-205	386	13492		0	0	0.83	0			0	No, Vu<V
SLV 3	1387	398	330	4824		0	0	0.83	0			0	No, Vu<V
SLV 3	1467	42	233	-11084		0	0	0.83	0			0	No, Vu<V
SLD 8	1387	173	-10	1340		0	0	0.83	0			0	No, Vu<V
SLD 8	1467	74	354	-653		0	0	0.83	0			0	No, Vu<V
SLV 12	1387	877	-8	6711		0	0	0.83	0			0	No, Vu<V
SLV 12	1467	780	667	2450		0	0	0.83	0			0	No, Vu<V
SLV 8	1387	1142	245	9908		0	0	0.83	0			0	No, Vu<V
SLV 8	1467	855	621	-4923		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.3 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.53	0	-257	5799	0	0	No, e>t/2
SLV 11	14	0.53	0	647	5799	0	0	No, Trazione
SLV 15	14	0.53	0	163	5799	0	0	No, Trazione
SLV 13	14	0.53	0	-378	5799	0	0	No, e>t/2
SLV 8	14	0.53	0	521	5799	0	0	No, Trazione
SLV 7	14	0.53	0	521	5799	0	0	No, Trazione
SLV 16	14	0.53	0	163	5799	0	0	No, Trazione
SLV 12	14	0.53	0	647	5799	0	0	No, Trazione
SLV 3	14	0.53	0	-257	5799	0	0	No, e>t/2
SLV 14	14	0.53	0	-378	5799	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1346.3 Wa = 0.05 Ta = 0.0605

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	924	-483	-33	0	0	0	0	1008.708	No, Trazione
SLV 12	1215	-499	-39	0	0	0	0	935.569	No, Trazione
SLV 7	1490	-474	-40	0	0	0	0	935.569	No, Trazione
SLV 8	1490	-474	-40	0	0	0	0	935.569	No, Trazione
SLV 15	7	-566	-28	0	0	0	0	1008.708	No, Trazione
SLV 11	1215	-499	-39	0	0	0	0	935.569	No, Trazione
SLV 1	164	-516	-25	0	0	0	0	1008.708	No, Trazione
SLV 2	164	-516	-25	0	0	0	0	1008.708	No, Trazione
SLV 3	924	-483	-33	0	0	0	0	1008.708	No, Trazione
SLV 16	7	-566	-28	0	0	0	0	1008.708	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.74	SLU 31	Si
V_SLU	2.309	SLU 80	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 7	No
PFFP_SLV	0	SLV 16	No
R_SLV	0	SLV 16	No

Maschio 229

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-318.3	-335.9	-550.8	-335.9	L6	F1	232.5	28	318.4	318.3	318.5			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 82	1387	-2884	6341	0.44	317007	49.992	Si
SLU 82	1467	-1677	20309	0.26	188767	9.295	Si
SLU 19	1387	-2016	7438	0.31	225478	30.315	Si
SLU 19	1467	-1108	16563	0.17	126082	7.612	Si
SLU 31	1387	-2224	5074	0.34	247674	48.808	Si
SLU 31	1467	-1328	17472	0.2	150488	8.613	Si
SLU 40	1387	-2318	6350	0.36	257729	40.59	Si
SLU 40	1467	-1404	17397	0.22	158920	9.135	Si
SLU 10	1387	-1922	6163	0.3	215298	34.935	Si
SLU 10	1467	-1031	16639	0.16	117550	7.065	Si
SLU 73	1387	-2789	5066	0.43	307186	60.635	Si
SLU 73	1467	-1600	20384	0.25	180427	8.851	Si
SLU 44	1387	-2522	1027	0.39	279204	271.982	Si
SLU 44	1467	-1316	16755	0.2	149181	8.904	Si
SLU 61	1387	-2582	7429	0.4	285505	38.429	Si
SLU 61	1467	-1380	19475	0.21	156283	8.025	Si
SLU 52	1387	-2487	6154	0.38	275559	44.774	Si
SLU 52	1467	-1304	19551	0.2	147843	7.562	Si
SLU 2	1387	-1956	1035	0.3	219029	211.644	Si
SLU 2	1467	-1043	13843	0.16	118903	8.589	Si



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	1387	-2322	59682	0.36	262026	4.39	Si
SLV 7	1467	-1377	-55431	0.21	157286	2.838	Si
SLV 8	1387	-2322	59682	0.36	262026	4.39	Si
SLV 8	1467	-1377	-55431	0.21	157286	2.838	Si
SLV 10	1387	-2291	-59917	0.35	258643	4.317	Si
SLV 10	1467	-1281	78822	0.2	146486	1.858	Si
SLV 14	1387	-1912	-67876	0.29	216951	3.196	Si
SLV 14	1467	-1268	45344	0.19	145084	3.2	Si
SLV 12	1387	-2065	26834	0.32	233820	8.714	Si
SLV 12	1467	-1346	-46523	0.21	153873	3.307	Si
SLV 6	1387	-2548	-27069	0.39	286679	10.591	Si
SLV 6	1467	-1311	69914	0.2	149904	2.144	Si
SLV 9	1387	-2291	-59917	0.35	258643	4.317	Si
SLV 9	1467	-1281	78822	0.2	146486	1.858	Si
SLV 5	1387	-2548	-27069	0.39	286679	10.591	Si
SLV 5	1467	-1311	69914	0.2	149904	2.144	Si
SLV 11	1387	-2065	26834	0.32	233820	8.714	Si
SLV 11	1467	-1346	-46523	0.21	153873	3.307	Si
SLV 13	1387	-1912	-67876	0.29	216951	3.196	Si
SLV 13	1467	-1268	45344	0.19	145084	3.2	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	1387	-2789	-183	5066		0.43	232.5	0.61	3989			21.78	Si
SLU 73	1467	-1600	-106	20384		0.25	232.5	0.59	3830			36.24	Si
SLU 23	1387	-2258	-184	-53		0.35	232.5	0.6	3918			21.31	Si
SLU 23	1467	-1340	-91	14676		0.21	232.5	0.58	3795			41.86	Si
SLU 30	1387	-3333	-183	-26984		0.51	232.5	0.62	4061			22.15	Si
SLU 30	1467	-2364	49	-6068		0.36	232.5	0.6	3932			79.98	Si
SLU 31	1387	-2224	-187	5074		0.34	232.5	0.6	3913			20.88	Si
SLU 31	1467	-1328	-102	17472		0.2	232.5	0.58	3794			37.13	Si
SLU 34	1387	-2706	-212	-7930		0.42	232.5	0.61	3978			18.78	Si
SLU 34	1467	-1799	-40	7737		0.28	232.5	0.59	3857			96.26	Si
SLU 65	1387	-2824	-180	-62		0.43	232.5	0.61	3993			22.24	Si
SLU 65	1467	-1612	-94	17588		0.25	232.5	0.59	3832			40.69	Si
SLU 38	1387	-3298	-187	-21857		0.51	232.5	0.62	4056			21.7	Si
SLU 38	1467	-2351	38	-3272		0.36	232.5	0.6	3930			104.4	Si
SLU 26	1387	-2741	-208	-13058		0.42	232.5	0.61	3982			19.13	Si
SLU 26	1467	-1811	-29	4941		0.28	232.5	0.59	3858			135.13	Si
SLU 68	1387	-3306	-204	-13066		0.51	232.5	0.62	4058			19.9	Si
SLU 68	1467	-2083	-32	7853		0.32	232.5	0.6	3894			121.53	Si
SLU 76	1387	-3272	-207	-7938		0.5	232.5	0.62	4053			19.53	Si
SLU 76	1467	-2071	-44	10649		0.32	232.5	0.6	3893			89.37	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	1387	-1844	-1201	-41851		0.28	232.5	0.89	5794			4.82	Si
SLV 15	1467	-1288	-619	7741		0.2	232.5	0.87	5683			9.18	Si
SLV 4	1387	-2700	2108	67642		0.41	232.5	0.92	5965			2.83	Si
SLV 4	1467	-1389	1174	-21953		0.21	232.5	0.88	5703			4.86	Si
SLV 10	1387	-2291	-2168	-59917		0.35	232.5	0.9	5883			2.71	Si
SLV 10	1467	-1281	-1374	78822		0.28	164.11	0.89	4085			2.97	Si
SLV 3	1387	-2700	2108	67642		0.41	232.5	0.92	5965			2.83	Si
SLV 3	1467	-1389	1174	-21953		0.21	232.5	0.88	5703			4.86	Si
SLV 8	1387	-2322	2094	59682		0.36	232.5	0.9	5889			2.81	Si
SLV 8	1467	-1377	1291	-55431		0.22	227.97	0.88	5595			4.33	Si
SLV 7	1387	-2322	2094	59682		0.36	232.5	0.9	5889			2.81	Si
SLV 7	1467	-1377	1291	-55431		0.22	227.97	0.88	5595			4.33	Si
SLV 9	1387	-2291	-2168	-59917		0.35	232.5	0.9	5883			2.71	Si
SLV 9	1467	-1281	-1374	78822		0.28	164.11	0.89	4085			2.97	Si
SLV 13	1387	-1912	-2182	-67876		0.29	232.5	0.89	5807			2.66	Si
SLV 13	1467	-1268	-1257	45344		0.19	232.5	0.87	5679			4.52	Si
SLV 16	1387	-1844	-1201	-41851		0.28	232.5	0.89	5794			4.82	Si
SLV 16	1467	-1288	-619	7741		0.2	232.5	0.87	5683			9.18	Si
SLV 14	1387	-1912	-2182	-67876		0.29	232.5	0.89	5807			2.66	Si
SLV 14	1467	-1268	-1257	45344		0.19	232.5	0.87	5679			4.52	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346.2 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.53	0.34	-2201	26675	29968	1.12	Si
SLV 8	14	0.53	0.34	-2201	26675	29968	1.12	Si
SLV 3	14	0.53	0.36	-2314	26675	31453	1.18	Si
SLV 4	14	0.53	0.36	-2314	26675	31453	1.18	Si
SLV 12	14	0.53	0.37	-2381	26675	32333	1.21	Si
SLV 11	14	0.53	0.37	-2381	26675	32333	1.21	Si
SLV 1	14	0.53	0.4	-2590	26675	35076	1.31	Si
SLV 2	14	0.53	0.4	-2590	26675	35076	1.31	Si
SLV 15	14	0.53	0.45	-2912	26675	39272	1.47	Si
SLV 16	14	0.53	0.45	-2912	26675	39272	1.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 1346.2 Wa = 0.05 Ta = 0.0605



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	$\alpha 0^*$	aLim	Verifica
SLV 5	-499	-4639	-241	0	3.981	0.923	0	934.805	No
SLV 7	-1079	-2551	328	0	4.393	0.896	0	934.805	No
SLV 6	-499	-4639	-241	0	3.981	0.923	0	934.805	No
SLV 12	-1065	-2569	326	0	4.382	0.896	0	934.805	No
SLV 10	-486	-4657	-243	0	3.973	0.924	0	934.805	No
SLV 9	-486	-4657	-243	0	3.973	0.924	0	934.805	No
SLV 11	-1065	-2569	326	0	4.382	0.896	0	934.805	No
SLV 8	-1079	-2551	328	0	4.393	0.896	0	934.805	No
SLV 4	-892	-3261	130	0.027	4.248	0.901	42.737	1007.811	No
SLV 3	-892	-3261	130	0.027	4.248	0.901	42.737	1007.811	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.065	SLU 10	Si
V_SLU	18.781	SLU 34	Si
PF_SLV	1.858	SLV 9	Si
V_SLV	2.662	SLV 13	Si
PFFP_SLV	1.123	SLV 7	Si
R_SLV	0	SLV 5	No

Maschio 230

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-12.3	-335.9	-228.3	-335.9	L6	F1	216	28	318.2	318.1	318.2			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 34	1277	-3352	-134189	0.55	337376	2.514	Si
SLU 34	1457	-2691	31908	0.44	274788	8.612	Si
SLU 13	1277	-3149	-112667	0.52	318375	2.826	Si
SLU 13	1457	-2289	24597	0.38	235728	9.584	Si
SLU 42	1277	-3337	-131701	0.55	335942	2.551	Si
SLU 42	1457	-2730	36330	0.45	278504	7.666	Si
SLU 31	1277	-2798	-124594	0.46	285028	2.288	Si
SLU 31	1457	-2028	22175	0.34	209964	9.469	Si
SLU 10	1277	-2595	-103073	0.43	265535	2.576	Si
SLU 10	1457	-1625	14864	0.27	169734	11.419	Si
SLU 19	1277	-2580	-100585	0.43	264050	2.625	Si
SLU 19	1457	-1664	19287	0.28	173631	9.003	Si
SLU 40	1277	-2783	-122106	0.46	283557	2.322	Si
SLU 40	1457	-2066	26597	0.34	213793	8.038	Si
SLU 73	1277	-3596	-133292	0.59	360043	2.701	Si
SLU 73	1457	-2381	28411	0.39	244679	8.612	Si
SLU 39	1277	-2864	-104947	0.47	291301	2.776	Si
SLU 39	1457	-2098	34231	0.35	216909	6.337	Si
SLU 82	1277	-3581	-130804	0.59	358625	2.742	Si
SLU 82	1457	-2419	32834	0.4	248448	7.567	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 7	1277	-2358	66366	0.39	246493	3.714	Si
SLV 7	1457	-1531	96398	0.25	161914	1.68	Si
SLV 13	1277	-2758	-164441	0.46	286715	1.744	Si
SLV 13	1457	-2124	63369	0.35	222774	3.516	Si
SLV 10	1277	-3450	-197775	0.57	355226	1.796	Si
SLV 10	1457	-1996	-34822	0.33	209707	6.022	Si
SLV 15	1277	-2369	-96892	0.39	247603	2.555	Si
SLV 15	1457	-2042	113073	0.34	214428	1.896	Si
SLV 14	1277	-2758	-164441	0.46	286715	1.744	Si
SLV 14	1457	-2124	63369	0.35	222774	3.516	Si
SLV 11	1277	-2153	27389	0.36	225759	8.243	Si
SLV 11	1457	-1723	130858	0.28	181709	1.389	Si
SLV 12	1277	-2153	27389	0.36	225759	8.243	Si
SLV 12	1457	-1723	130858	0.28	181709	1.389	Si
SLV 9	1277	-3450	-197775	0.57	355226	1.796	Si
SLV 9	1457	-1996	-34822	0.33	209707	6.022	Si
SLV 16	1277	-2369	-96892	0.39	247603	2.555	Si
SLV 16	1457	-2042	113073	0.34	214428	1.896	Si
SLV 8	1277	-2358	66366	0.39	246493	3.714	Si
SLV 8	1457	-1531	96398	0.25	161914	1.68	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	1277	-4150	-1954	-142886		0.69	216	0.65	3913			2	Si
SLU 76	1457	-3044	-1843	38144		0.5	216	0.62	3766			2.04	Si
SLU 79	1277	-4839	-1983	-123883		0.8	216	0.66	4005			2.02	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 79	1457	-3761	-1871	60601		0.62	216	0.64	3861			2.06	Si
SLU 34	1277	-3352	-1785	-134189		0.59	203.9	0.63	3619			2.03	Si
SLU 34	1457	-2691	-1675	31908		0.44	216	0.61	3719			2.22	Si
SLU 75	1277	-4458	-1948	-125607		0.74	216	0.65	3954			2.03	Si
SLU 75	1457	-3390	-1857	52125		0.56	216	0.63	3812			2.05	Si
SLU 77	1277	-5093	-2040	-118043		0.84	216	0.67	4039			1.98	Si
SLU 77	1457	-4085	-1934	69492		0.68	216	0.65	3905			2.02	Si
SLU 42	1277	-3337	-1821	-131701		0.58	205.58	0.63	3643			2	Si
SLU 42	1457	-2730	-1725	36330		0.45	216	0.62	3724			2.16	Si
SLU 78	1277	-5012	-2134	-135201		0.83	216	0.67	4028			1.89	Si
SLU 78	1457	-4054	-2007	61857		0.67	216	0.64	3900			1.94	Si
SLU 80	1277	-4758	-2077	-141042		0.79	216	0.66	3994			1.92	Si
SLU 80	1457	-3729	-1944	52967		0.62	216	0.64	3857			1.98	Si
SLU 36	1277	-4214	-1965	-126504		0.7	216	0.65	3922			2	Si
SLU 36	1457	-3700	-1839	55621		0.61	216	0.64	3853			2.09	Si
SLU 84	1277	-4135	-1990	-140399		0.68	216	0.65	3911			1.97	Si
SLU 84	1457	-3083	-1893	42567		0.51	216	0.62	3771			1.99	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	1277	-3450	-1480	-197775		0.81	152.03	1	4237			2.86	Si
SLV 10	1457	-1996	-446	-34822		0.33	216	0.9	5439			12.2	Si
SLV 9	1277	-3450	-1480	-197775		0.81	152.03	1	4237			2.86	Si
SLV 9	1457	-1996	-446	-34822		0.33	216	0.9	5439			12.2	Si
SLV 7	1277	-2358	-645	66366		0.39	216	0.91	5512			8.54	Si
SLV 7	1457	-1531	-1624	96398		0.4	135.1	0.91	3458			2.13	Si
SLV 12	1277	-2153	-1468	27389		0.36	216	0.9	5471			3.73	Si
SLV 12	1457	-1723	-1611	130858		0.64	96.11	0.96	2587			1.61	Si
SLV 14	1277	-2758	-2436	-164441		0.68	145.11	0.97	3937			1.62	Si
SLV 14	1457	-2124	-838	63369		0.35	216	0.9	5465			6.52	Si
SLV 11	1277	-2153	-1468	27389		0.36	216	0.9	5471			3.73	Si
SLV 11	1457	-1723	-1611	130858		0.64	96.11	0.96	2587			1.61	Si
SLV 8	1277	-2358	-645	66366		0.39	216	0.91	5512			8.54	Si
SLV 8	1457	-1531	-1624	96398		0.4	135.1	0.91	3458			2.13	Si
SLV 13	1277	-2758	-2436	-164441		0.68	145.11	0.97	3937			1.62	Si
SLV 13	1457	-2124	-838	63369		0.35	216	0.9	5465			6.52	Si
SLV 16	1277	-2369	-2433	-96892		0.42	201.28	0.92	5170			2.13	Si
SLV 16	1457	-2042	-1187	113073		0.46	157.87	0.93	4092			3.45	Si
SLV 15	1277	-2369	-2433	-96892		0.42	201.28	0.92	5170			2.13	Si
SLV 15	1457	-2042	-1187	113073		0.46	157.87	0.93	4092			3.45	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1346 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.53	0.37	-2228	24744	30245	1.22	Si
SLV 11	14	0.53	0.37	-2228	24744	30245	1.22	Si
SLV 15	14	0.53	0.38	-2286	24744	31013	1.25	Si
SLV 16	14	0.53	0.38	-2286	24744	31013	1.25	Si
SLV 8	14	0.53	0.38	-2310	24744	31330	1.27	Si
SLV 7	14	0.53	0.38	-2310	24744	31330	1.27	Si
SLV 13	14	0.53	0.4	-2419	24744	32751	1.32	Si
SLV 14	14	0.53	0.4	-2419	24744	32751	1.32	Si
SLV 4	14	0.53	0.42	-2561	24744	34612	1.4	Si
SLV 3	14	0.53	0.42	-2561	24744	34612	1.4	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1346 Wa = 0.05 Ta = 0.0604

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-1144	-4141	210	0	4.194	0.893	0	1006.366	No
SLV 12	-1228	-2587	247	0	4.265	0.892	0	933.576	No
SLV 16	-1144	-4141	210	0	4.194	0.893	0	1006.366	No
SLV 5	-382	-5211	-180	0	3.65	0.931	0	933.576	No
SLV 6	-382	-5211	-180	0	3.65	0.931	0	933.576	No
SLV 11	-1228	-2587	247	0	4.265	0.892	0	933.576	No
SLV 7	-1089	-2168	172	0.01	4.149	0.894	16.057	933.576	No
SLV 8	-1089	-2168	172	0.01	4.149	0.894	16.057	933.576	No
SLV 2	-466	-3658	-143	0.013	3.697	0.923	21.249	1006.366	No
SLV 1	-466	-3658	-143	0.013	3.697	0.923	21.249	1006.366	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.288	SLU 31	Si
V_SLU	1.888	SLU 78	Si
PF_SLV	1.389	SLV 11	Si
V_SLV	1.606	SLV 11	Si
PFFP_SLV	1.222	SLV 11	Si
R_SLV	0	SLV 5	No

Maschio 233

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1376.3	-485.9	-1314.3	-485.9	L2	Z medio 312 cm	62	30	273	273	273			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ ₀	f _{v0}	μ	φ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	M	σ ₀	Mu	c.s.	Verifica
SLU 80	39	-7299	12910	3.92	117266	9.083	Si
SLU 80	289	-11660	71497	6.27	83292	1.165	Si
SLU 75	39	-7149	12906	3.84	117050	9.07	Si
SLU 75	289	-11342	68660	6.1	88398	1.287	Si
SLU 76	39	-7151	13178	3.84	117053	8.883	Si
SLU 76	289	-11386	69423	6.12	87711	1.263	Si
SLU 83	39	-7378	11963	3.97	117343	9.808	Si
SLU 83	289	-11747	71009	6.32	81815	1.152	Si
SLU 84	39	-7379	12473	3.97	117343	9.408	Si
SLU 84	289	-11788	71713	6.34	81123	1.131	Si
SLU 79	39	-7298	12401	3.92	117265	9.456	Si
SLU 79	289	-11620	70793	6.25	83963	1.186	Si
SLU 77	39	-7297	12468	3.92	117264	9.405	Si
SLU 77	289	-11602	70500	6.24	84251	1.195	Si
SLU 82	39	-7230	12401	3.89	117178	9.449	Si
SLU 82	289	-11487	69170	6.18	86117	1.245	Si
SLU 78	39	-7298	12978	3.92	117265	9.036	Si
SLU 78	289	-11642	71203	6.26	83583	1.174	Si
SLU 81	39	-7229	11891	3.89	117177	9.854	Si
SLU 81	289	-11447	68467	6.15	86760	1.267	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γ_M = 2

Comb.	Quota	N	M	σ ₀	Mu	c.s.	Verifica
SLV 15	39	-4526	108006	2.43	112365	1.04	Si
SLV 15	289	-4068	-139804	0	0	0	No, Trazione
SLV 14	39	-7077	120904	3.8	151075	1.25	Si
SLV 14	289	-227	-104278	0	0	0	No, Trazione
SLV 12	39	-1022	19644	0.55	30269	1.541	Si
SLV 12	289	1537	-63139	0	0	0	No, Trazione
SLV 16	39	-4526	108006	2.43	112365	1.04	Si
SLV 16	289	-4068	-139804	0	0	0	No, Trazione
SLV 13	39	-7077	120904	3.8	151075	1.25	Si
SLV 13	289	-227	-104278	0	0	0	No, Trazione
SLV 8	39	-571	-43198	0	0	0	No, e>l/2
SLV 8	289	-4472	38100	2.4	111354	2.923	Si
SLV 11	39	-1022	19644	0.55	30269	1.541	Si
SLV 11	289	1537	-63139	0	0	0	No, Trazione
SLV 4	39	-3020	-101465	0	0	0	No, e>l/2
SLV 4	289	-15963	197659	8.58	147274	0.745	No, M>Mu
SLV 7	39	-571	-43198	0	0	0	No, e>l/2
SLV 7	289	-4472	38100	2.4	111354	2.923	Si
SLV 3	39	-3020	-101465	0	0	0	No, e>l/2
SLV 3	289	-15963	197659	8.58	147274	0.745	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γ_M = 3

Comb.	Quota	N	V par	M	σ ₀	σ _N	I'	f _{vd}	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	39	-7151	377	13178		3.84	62	1.07	1987			5.27	Si
SLU 76	289	-11386	-1672	69423		6.12	62	1.08	2015			1.2	Si
SLU 75	39	-7149	367	12906		3.84	62	1.07	1987			5.41	Si
SLU 75	289	-11342	-1650	68660		6.1	62	1.08	2015			1.22	Si
SLU 80	39	-7299	365	12910		3.92	62	1.08	2007			5.5	Si
SLU 80	289	-11660	-1715	71497		6.27	62	1.08	2015			1.17	Si
SLU 82	39	-7230	370	12401		3.89	62	1.07	1997			5.4	Si
SLU 82	289	-11487	-1665	69170		6.18	62	1.08	2015			1.21	Si
SLU 63	39	-7024	354	11924		3.78	62	1.06	1970			5.56	Si
SLU 63	289	-11220	-1650	68342		6.03	62	1.08	2015			1.22	Si
SLU 78	39	-7298	367	12978		3.92	62	1.08	2006			5.47	Si
SLU 78	289	-11642	-1708	71203		6.26	62	1.08	2015			1.18	Si
SLU 83	39	-7378	351	11963		3.97	62	1.08	2015			5.74	Si
SLU 83	289	-11747	-1700	71009		6.32	62	1.08	2015			1.19	Si
SLU 79	39	-7298	347	12401		3.92	62	1.08	2006			5.79	Si
SLU 79	289	-11620	-1692	70793		6.25	62	1.08	2015			1.19	Si
SLU 84	39	-7379	369	12473		3.97	62	1.08	2015			5.46	Si
SLU 84	289	-11788	-1723	71713		6.34	62	1.08	2015			1.17	Si
SLU 77	39	-7297	349	12468		3.92	62	1.08	2006			5.76	Si
SLU 77	289	-11602	-1685	70500		6.24	62	1.08	2015			1.2	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γ_M = 2

Comb.	Quota	N	V par	M	σ ₀	σ _N	I'	f _{vd}	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	39	-1022	-383	19644		0.96	35.36	1.03	1089			2.84	Si
SLV 12	289	1537	2340	-63139		0	0	0.83	0			0	No, Vu<V
SLV 4	39	-3020	-487	-101465		0	0	0.83	0			0	No, Vu<V
SLV 4	289	-15963	-5881	197659		9.53	55.85	1.63	2723			0.46	No, Vu<V
SLV 13	39	-7077	1006	120904		5.65	41.75	1.63	2035			2.02	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	289	227	3639	-104278		0	0	0.83	0			0	No, Vu<V
SLV 7	39	-571	-688	-43198		0	0	0.83	0			0	No, Vu<V
SLV 7	289	-4472	-852	38100		2.4	62	1.31	2444			2.87	Si
SLV 3	39	-3020	-487	-101465		0	0	0.83	0			0	No, Vu<V
SLV 3	289	-15963	-5881	197659		9.53	55.85	1.63	2723			0.46	No, Vu<V
SLV 14	39	-7077	1006	120904		5.65	41.75	1.63	2035			2.02	Si
SLV 14	289	227	3639	-104278		0	0	0.83	0			0	No, Vu<V
SLV 16	39	-4526	529	108006		7.05	21.41	1.63	1044			1.97	Si
SLV 16	289	4068	4758	-139804		0	0	0.83	0			0	No, Vu<V
SLV 15	39	-4526	529	108006		7.05	21.41	1.63	1044			1.97	Si
SLV 15	289	4068	4758	-139804		0	0	0.83	0			0	No, Vu<V
SLV 8	39	-571	-688	-43198		0	0	0.83	0			0	No, Vu<V
SLV 8	289	-4472	-852	38100		2.4	62	1.31	2444			2.87	Si
SLV 11	39	-1022	-383	19644		0.96	35.36	1.03	1089			2.84	Si
SLV 11	289	1537	2340	-63139		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 175.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.28	0.47	-867	2987	12512	4.19	Si
SLV 12	14	0.28	0.47	-867	2987	12512	4.19	Si
SLV 16	14	0.28	1.3	-2421	2987	32443	10.86	Si
SLV 15	14	0.28	1.3	-2421	2987	32443	10.86	Si
SLV 7	14	0.28	1.3	-2426	2987	32508	10.88	Si
SLV 8	14	0.28	1.3	-2426	2987	32508	10.88	Si
SLV 13	14	0.28	2.86	-5311	2987	61049	20.44	Si
SLV 14	14	0.28	2.86	-5311	2987	61049	20.44	Si
SLV 3	14	0.28	4.1	-7617	2987	75963	25.43	Si
SLV 4	14	0.28	4.1	-7617	2987	75963	25.43	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 175.5 Wa = 0.05 Ta = 0.0415

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	486	-1022	-11	0	0	0	0	445.254	No, Trazione
SLV 11	486	-1022	-11	0	0	0	0	445.254	No, Trazione
SLV 15	1489	-4526	4	0	0	0	0	467.744	No, Trazione
SLV 16	1489	-4526	4	0	0	0	0	467.744	No, Trazione
SLV 3	-10968	-3020	-11	0.056	11.884	0.981	83.262	467.744	No
SLV 4	-10968	-3020	-11	0.056	11.884	0.981	83.262	467.744	No
SLV 2	-13846	-5571	-2	0.057	14.816	0.985	83.467	467.744	No
SLV 1	-13846	-5571	-2	0.057	14.816	0.985	83.467	467.744	No
SLV 5	-12843	-9075	13	0.056	13.794	0.984	82.52	445.254	No
SLV 6	-12843	-9075	13	0.056	13.794	0.984	82.52	445.254	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.131	SLV 84	Si
V_SLV	1.169	SLV 84	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 3	No
PFFP_SLV	4.188	SLV 11	Si
R_SLV	0	SLV 16	No

Maschio 234

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1174.3	-485.9	-1101.3	-485.9	L2	Z medio 312 cm	73	30	273	273	273			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 78	39	-8028	7122	3.67	161159	22.629	Si
SLV 78	289	-11862	-50015	5.42	145070	2.901	Si
SLV 76	39	-7769	6551	3.55	160076	24.436	Si
SLV 76	289	-11546	-49947	5.27	148670	2.977	Si
SLV 80	39	-8056	7058	3.68	161257	22.847	Si
SLV 80	289	-11893	-49904	5.43	144699	2.9	Si
SLV 77	39	-8025	8382	3.66	161146	19.224	Si
SLV 77	289	-11840	-49161	5.41	145333	2.956	Si
SLV 83	39	-7970	11169	3.64	160940	14.41	Si
SLV 83	289	-11948	-50778	5.46	144022	2.836	Si
SLV 84	39	-7974	9908	3.64	160953	16.245	Si
SLV 84	289	-11970	-51632	5.47	143749	2.784	Si
SLV 81	39	-7681	11502	3.51	159646	13.88	Si
SLV 81	289	-11587	-50251	5.29	148231	2.95	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 79	39	-8052	8319	3.68	161245	19.383	Si
SLU 79	289	-11871	-49051	5.42	144965	2.955	Si
SLU 82	39	-7685	10241	3.51	159664	15.59	Si
SLU 82	289	-11609	-51105	5.3	147991	2.896	Si
SLU 75	39	-7740	7455	3.53	159935	21.453	Si
SLU 75	289	-11501	-49488	5.25	149152	3.014	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	39	-9755	-60812	4.45	226254	3.721	Si
SLV 2	289	264	152738	0	0	0	No, Trazione
SLV 3	39	-7146	-51209	3.26	191167	3.733	Si
SLV 3	289	4145	191853	0	0	0	No, Trazione
SLV 11	39	-175	37884	0	0	0	No, $e \geq l/2$
SLV 11	289	-4527	-30433	2.07	137282	4.511	Si
SLV 7	39	-1987	1935	0.91	67151	34.701	Si
SLV 7	289	1565	93223	0	0	0	No, Trazione
SLV 1	39	-9755	-60812	4.45	226254	3.721	Si
SLV 1	289	264	152738	0	0	0	No, Trazione
SLV 8	39	-1987	1935	0.91	67151	34.701	Si
SLV 8	289	1565	93223	0	0	0	No, Trazione
SLV 12	39	-175	37884	0	0	0	No, $e \geq l/2$
SLV 12	289	-4527	-30433	2.07	137282	4.511	Si
SLV 15	39	-1105	68621	0	0	0	No, $e \geq l/2$
SLV 15	289	-16162	-220332	7.38	233616	1.06	Si
SLV 16	39	-1105	68621	0	0	0	No, $e \geq l/2$
SLV 16	289	-16162	-220332	7.38	233616	1.06	Si
SLV 4	39	-7146	-51209	3.26	191167	3.733	Si
SLV 4	289	4145	191853	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	39	-7681	335	11502		3.51	73	1.02	2241			6.69	Si
SLU 81	289	-11587	1336	-50251		5.29	73	1.08	2373			1.78	Si
SLU 80	39	-8056	245	7058		3.68	73	1.05	2291			9.35	Si
SLU 80	289	-11893	1323	-49904		5.43	73	1.08	2373			1.79	Si
SLU 76	39	-7769	239	6551		3.55	73	1.03	2253			9.44	Si
SLU 76	289	-11546	1318	-49947		5.27	73	1.08	2373			1.8	Si
SLU 83	39	-7970	321	11169		3.64	73	1.04	2279			7.1	Si
SLU 83	289	-11948	1353	-50778		5.46	73	1.08	2373			1.75	Si
SLU 78	39	-8028	248	7122		3.67	73	1.04	2287			9.22	Si
SLU 78	289	-11862	1324	-50015		5.42	73	1.08	2373			1.79	Si
SLU 77	39	-8025	279	8382		3.66	73	1.04	2287			8.2	Si
SLU 77	289	-11840	1306	-49161		5.41	73	1.08	2373			1.82	Si
SLU 82	39	-7685	304	10241		3.51	73	1.02	2241			7.37	Si
SLU 82	289	-11609	1354	-51105		5.3	73	1.08	2373			1.75	Si
SLU 63	39	-7580	276	9141		3.46	73	1.02	2227			8.06	Si
SLU 63	289	-11369	1306	-48990		5.19	73	1.08	2373			1.82	Si
SLU 84	39	-7974	290	9908		3.64	73	1.04	2280			7.86	Si
SLU 84	289	-11970	1371	-51632		5.47	73	1.08	2373			1.73	Si
SLU 75	39	-7740	262	7455		3.53	73	1.03	2249			8.58	Si
SLU 75	289	-11501	1307	-49488		5.25	73	1.08	2373			1.82	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	39	-1105	845	68621		0	0	0.83	0			0	No, Vu<V
SLV 16	289	-16162	5601	-220332		7.85	68.6	1.63	3344			0.6	No, Vu<V
SLV 8	39	-1987	-834	1935		0.91	73	1.01	2222			2.67	Si
SLV 8	289	1565	-2461	93223		0	0	0.83	0			0	No, Vu<V
SLV 1	39	-9755	-454	-60812		4.45	73	1.63	3559			7.84	Si
SLV 1	289	264	-3820	152738		0	0	0.83	0			0	No, Vu<V
SLV 15	39	-1105	845	68621		0	0	0.83	0			0	No, Vu<V
SLV 15	289	-16162	5601	-220332		7.85	68.6	1.63	3344			0.6	No, Vu<V
SLV 2	39	-9755	-454	-60812		4.45	73	1.63	3559			7.84	Si
SLV 2	289	264	-3820	152738		0	0	0.83	0			0	No, Vu<V
SLV 3	39	-7146	-913	-51209		3.26	73	1.49	3254			3.56	Si
SLV 3	289	4145	-4888	191853		0	0	0.83	0			0	No, Vu<V
SLV 4	39	-7146	-913	-51209		3.26	73	1.49	3254			3.56	Si
SLV 4	289	4145	-4888	191853		0	0	0.83	0			0	No, Vu<V
SLV 11	39	-175	-306	37884		0	0	0.83	0			0	No, Vu<V
SLV 11	289	-4527	685	-30433		2.07	73	1.25	2730			3.99	Si
SLV 7	39	-1987	-834	1935		0.91	73	1.01	2222			2.67	Si
SLV 7	289	1565	-2461	93223		0	0	0.83	0			0	No, Vu<V
SLV 12	39	-175	-306	37884		0	0	0.83	0			0	No, Vu<V
SLV 12	289	-4527	685	-30433		2.07	73	1.25	2730			3.99	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 175.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.28	0.6	-1303	3517	18597	5.29	Si
SLV 8	14	0.28	0.6	-1303	3517	18597	5.29	Si
SLV 12	14	0.28	1.26	-2763	3517	37163	10.57	Si
SLV 11	14	0.28	1.26	-2763	3517	37163	10.57	Si
SLV 4	14	0.28	1.46	-3200	3517	42259	12.01	Si
SLV 3	14	0.28	1.46	-3200	3517	42259	12.01	Si
SLV 2	14	0.28	2.87	-6285	3517	72132	20.51	Si
SLV 1	14	0.28	2.87	-6285	3517	72132	20.51	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.28	3.68	-8065	3517	84512	24.03	Si
SLV 15	14	0.28	3.68	-8065	3517	84512	24.03	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 175.5 $W_a = 0.05$ $T_a = 0.0415$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-12981	-3714	22	0.056	14.06	0.981	82.263	467.744	No
SLV 13	-12981	-3714	22	0.056	14.06	0.981	82.263	467.744	No
SLV 15	-10000	-1105	18	0.056	11.023	0.976	83.481	467.744	No
SLV 16	-10000	-1105	18	0.056	11.023	0.976	83.481	467.744	No
SLV 9	-12991	-8872	12	0.056	14.071	0.981	83.249	445.254	No
SLV 10	-12991	-8872	12	0.056	14.071	0.981	83.249	445.254	No
SLV 1	-3074	-9755	-17	0.058	3.978	0.94	90.144	467.744	No
SLV 2	-3074	-9755	-17	0.058	3.978	0.94	90.144	467.744	No
SLV 6	-10019	-10685	1	0.058	11.042	0.976	85.837	445.254	No
SLV 5	-10019	-10685	1	0.058	11.042	0.976	85.837	445.254	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.784	SLV 84	Si
V_SLV	1.731	SLV 84	Si
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 1	No
PFFP_SLV	5.287	SLV 7	Si
R_SLV	0.176	SLV 13	No

Maschio 235

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-485.9	-1293.3	-485.9	Z medio 312 cm	Z medio 657 cm	82	30	345	345	345			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 83	407	-9864	18537	4.01	205364	11.079	Si
SLV 83	607	-8881	32999	3.61	202761	6.145	Si
SLV 57	407	-9332	17905	3.79	204444	11.418	Si
SLV 57	607	-8423	31851	3.42	200196	6.285	Si
SLV 58	407	-9303	17553	3.78	204362	11.642	Si
SLV 58	607	-8442	32270	3.43	200320	6.208	Si
SLV 79	407	-9815	18669	3.99	205327	10.998	Si
SLV 79	607	-8914	33829	3.62	202914	5.998	Si
SLV 84	407	-9900	18848	4.02	205384	10.897	Si
SLV 84	607	-8893	33015	3.61	202816	6.143	Si
SLV 56	407	-9296	17594	3.78	204341	11.614	Si
SLV 56	607	-8411	31834	3.42	200118	6.286	Si
SLV 80	407	-9850	18980	4	205354	10.82	Si
SLV 80	607	-8926	33845	3.63	202967	5.997	Si
SLV 77	407	-9807	18710	3.99	205321	10.974	Si
SLV 77	607	-8883	33393	3.61	202771	6.072	Si
SLV 59	407	-9339	17864	3.8	204464	11.445	Si
SLV 59	607	-8454	32287	3.44	200396	6.207	Si
SLV 78	407	-9843	19021	4	205349	10.796	Si
SLV 78	607	-8895	33409	3.62	202826	6.071	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	407	-1111	-53497	0	0	0	No, e>l/2
SLV 8	607	-3049	30389	1.24	112341	3.697	Si
SLV 14	407	-9430	192836	3.83	265351	1.376	Si
SLV 14	607	-501	-107957	0	0	0	No, e>l/2
SLV 15	407	-6288	184405	2.56	203890	1.106	Si
SLV 15	607	2423	-127009	0	0	0	No, Trazione
SLV 11	407	-1808	51764	0.74	69688	1.346	Si
SLV 11	607	1050	-52516	0	0	0	No, Trazione
SLV 4	407	-3962	-166466	0	0	0	No, e>l/2
SLV 4	607	-11242	149340	4.57	288554	1.932	Si
SLV 3	407	-3962	-166466	0	0	0	No, e>l/2
SLV 3	607	-11242	149340	4.57	288554	1.932	Si
SLV 12	407	-1808	51764	0.74	69688	1.346	Si
SLV 12	607	1050	-52516	0	0	0	No, Trazione
SLV 13	407	-9430	192836	3.83	265351	1.376	Si
SLV 13	607	-501	-107957	0	0	0	No, e>l/2
SLV 16	407	-6288	184405	2.56	203890	1.106	Si
SLV 16	607	2423	-127009	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	407	-1111	-53497	0	0	0	No, $e > l/2$
SLV 7	607	-3049	30389	1.24	112341	3.697	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLU 78	407	-9843	-199	19021		4	82	1.08	2665			13.36	Si
SLU 78	607	-8895	-348	33409		3.62	82	1.04	2553			7.34	Si
SLU 16	407	-7575	-184	14130		3.08	82	0.97	2377			12.88	Si
SLU 16	607	-6945	-307	27009		2.82	82	0.93	2293			7.47	Si
SLU 58	407	-9303	-219	17553		3.78	82	1.06	2607			11.91	Si
SLU 58	607	-8442	-336	32270		3.43	82	1.01	2492			7.42	Si
SLU 35	407	-8079	-171	15287		3.28	82	0.99	2444			14.31	Si
SLU 35	607	-7387	-323	28132		3	82	0.96	2352			7.27	Si
SLU 79	407	-9815	-213	18669		3.99	82	1.08	2665			12.51	Si
SLU 79	607	-8914	-364	33829		3.62	82	1.04	2555			7.02	Si
SLU 38	407	-8122	-173	15557		3.3	82	1	2450			14.17	Si
SLU 38	607	-7430	-330	28584		3.02	82	0.96	2357			7.14	Si
SLU 36	407	-8115	-165	15598		3.3	82	1	2449			14.84	Si
SLU 36	607	-7399	-319	28148		3.01	82	0.96	2353			7.38	Si
SLU 80	407	-9850	-207	18980		4	82	1.08	2665			12.86	Si
SLU 80	607	-8926	-359	33845		3.63	82	1.04	2557			7.12	Si
SLU 37	407	-8086	-179	15246		3.29	82	0.99	2445			13.68	Si
SLU 37	607	-7418	-335	28568		3.02	82	0.96	2356			7.03	Si
SLU 77	407	-9807	-205	18710		3.99	82	1.08	2665			12.99	Si
SLU 77	607	-8883	-352	33393		3.61	82	1.04	2551			7.24	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt _{lim}	c.s.	Verifica
SLV 16	407	-6288	4355	184405		5.98	35.03	1.63	1708			0.39	No, Vu<V
SLV 16	607	2423	4515	-127009		0	0	0.83	0			0	No, Vu<V
SLV 12	407	-1808	354	51764		1.62	37.13	1.16	1290			3.64	Si
SLV 12	607	1050	1617	-52516		0	0	0.83	0			0	No, Vu<V
SLV 4	407	-3962	-5155	-166466		0	0	0.83	0			0	No, Vu<V
SLV 4	607	-11242	-4581	149340		4.57	82	1.63	3998			0.87	No, Vu<V
SLV 15	407	-6288	4355	184405		5.98	35.03	1.63	1708			0.39	No, Vu<V
SLV 15	607	2423	4515	-127009		0	0	0.83	0			0	No, Vu<V
SLV 3	407	-3962	-5155	-166466		0	0	0.83	0			0	No, Vu<V
SLV 3	607	-11242	-4581	149340		4.57	82	1.63	3998			0.87	No, Vu<V
SLV 14	407	-9430	4931	192836		5.1	61.66	1.63	3006			0.61	No, Vu<V
SLV 14	607	-501	4270	-107957		0	0	0.83	0			0	No, Vu<V
SLV 11	407	-1808	354	51764		1.62	37.13	1.16	1290			3.64	Si
SLV 11	607	1050	1617	-52516		0	0	0.83	0			0	No, Vu<V
SLV 13	407	-9430	4931	192836		5.1	61.66	1.63	3006			0.61	No, Vu<V
SLV 13	607	-501	4270	-107957		0	0	0.83	0			0	No, Vu<V
SLV 8	407	-1111	-2499	-53497		0	0	0.83	0			0	No, Vu<V
SLV 8	607	-3049	-1112	30389		1.24	82	1.08	2660			2.39	Si
SLV 7	407	-1111	-2499	-53497		0	0	0.83	0			0	No, Vu<V
SLV 7	607	-3049	-1112	30389		1.24	82	1.08	2660			2.39	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 484.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.35	0.59	-1446	7764	20647	2.66	Si
SLV 11	14	0.35	0.59	-1446	7764	20647	2.66	Si
SLV 8	14	0.35	0.97	-2397	7764	33087	4.26	Si
SLV 7	14	0.35	0.97	-2397	7764	33087	4.26	Si
SLV 16	14	0.35	1.48	-3641	7764	47999	6.18	Si
SLV 15	14	0.35	1.48	-3641	7764	47999	6.18	Si
SLV 14	14	0.35	2.63	-6473	7764	76189	9.81	Si
SLV 13	14	0.35	2.63	-6473	7764	76189	9.81	Si
SLV 3	14	0.35	2.77	-6811	7764	79014	10.18	Si
SLV 4	14	0.35	2.77	-6811	7764	79014	10.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 484.5 Wa = 0.05 Ta = 0.0663

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	422	576	23	0	0	0	0	733.241	No, Trazione
SLV 16	548	1684	7	0	0	0	0	796.45	No, Trazione
SLV 11	422	576	23	0	0	0	0	733.241	No, Trazione
SLV 15	548	1684	7	0	0	0	0	796.45	No, Trazione
SLV 1	-10010	-14736	-7	0.046	11.387	0.968	68.865	796.45	No
SLV 2	-10010	-14736	-7	0.046	11.387	0.968	68.865	796.45	No
SLV 3	-7657	-11677	6	0.047	8.992	0.96	70.654	796.45	No
SLV 4	-7657	-11677	6	0.047	8.992	0.96	70.654	796.45	No
SLV 5	-9884	-13629	-23	0.044	11.258	0.968	66.738	733.241	No
SLV 6	-9884	-13629	-23	0.044	11.258	0.968	66.738	733.241	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.997	SLU 80	Si
V_SLU	7.019	SLU 79	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 3	No
PFFP_SLV	2.659	SLV 11	Si
R_SLV	0	SLV 16	No



Maschio 236

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1193.3	-485.9	-1100.3	-485.9	Z medio 312 cm	Z medio 657 cm	93	30	345	345	345			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ0	fν0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 75	407	-10278	-20039	3.68	261771	13.063	Si
SLU 75	607	-8995	-47795	3.22	252711	5.287	Si
SLU 60	407	-9646	-17030	3.46	258150	15.159	Si
SLU 60	607	-8524	-46708	3.06	247688	5.303	Si
SLU 82	407	-10219	-18547	3.66	261502	14.1	Si
SLU 82	607	-9027	-49429	3.24	253016	5.119	Si
SLU 77	407	-10694	-21249	3.83	263266	12.39	Si
SLU 77	607	-9329	-48377	3.34	255719	5.286	Si
SLU 73	407	-9905	-18932	3.55	259835	13.725	Si
SLU 73	607	-8698	-47071	3.12	249653	5.304	Si
SLU 84	407	-10653	-20282	3.82	263151	12.975	Si
SLU 84	607	-9373	-50015	3.36	256079	5.12	Si
SLU 81	407	-10201	-18021	3.66	261417	14.506	Si
SLU 81	607	-9015	-49425	3.23	252901	5.117	Si
SLU 78	407	-10712	-21775	3.84	263315	12.093	Si
SLU 78	607	-9341	-48381	3.35	255819	5.288	Si
SLU 83	407	-10635	-19756	3.81	263098	13.317	Si
SLU 83	607	-9361	-50011	3.36	255980	5.119	Si
SLU 74	407	-10260	-19514	3.68	261691	13.411	Si
SLU 74	607	-8983	-47791	3.22	252594	5.285	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 15	407	-2636	193103	0	0	0	No, e>l/2
SLV 15	607	-10489	-231895	3.76	337651	1.456	Si
SLV 16	407	-2636	193103	0	0	0	No, e>l/2
SLV 16	607	-10489	-231895	3.76	337651	1.456	Si
SLV 4	407	-8339	-211893	2.99	292902	1.382	Si
SLV 4	607	887	197377	0	0	0	No, Trazione
SLV 2	407	-11579	-220523	4.15	355531	1.612	Si
SLV 2	607	-1886	166007	0	0	0	No, e>l/2
SLV 3	407	-8339	-211893	2.99	292902	1.382	Si
SLV 3	607	887	197377	0	0	0	No, Trazione
SLV 12	407	-852	61423	0	0	0	No, e>l/2
SLV 12	607	-3272	-45051	1.17	137532	3.053	Si
SLV 1	407	-11579	-220523	4.15	355531	1.612	Si
SLV 1	607	-1886	166007	0	0	0	No, e>l/2
SLV 11	407	-852	61423	0	0	0	No, e>l/2
SLV 11	607	-3272	-45051	1.17	137532	3.053	Si
SLV 7	407	-2563	-60075	0.92	110214	1.835	Si
SLV 7	607	141	83730	0	0	0	No, Trazione
SLV 8	407	-2563	-60075	0.92	110214	1.835	Si
SLV 8	607	141	83730	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	407	-10635	39	-19756		3.81	93	1.06	2968			75.44	Si
SLU 83	607	-9361	456	-50011		3.36	93	1	2798			6.13	Si
SLU 84	407	-10653	35	-20282		3.82	93	1.06	2970			84.94	Si
SLU 84	607	-9373	449	-50015		3.36	93	1	2800			6.23	Si
SLU 82	407	-10219	61	-18547		3.66	93	1.04	2912			47.55	Si
SLU 82	607	-9027	440	-49429		3.24	93	0.99	2754			6.26	Si
SLU 39	407	-8371	59	-14326		3	93	0.96	2666			45.38	Si
SLU 39	607	-7436	393	-41178		2.67	93	0.91	2541			6.46	Si
SLU 62	407	-10081	46	-18765		3.61	93	1.04	2894			63.27	Si
SLU 62	607	-8870	420	-47294		3.18	93	0.98	2733			6.5	Si
SLU 60	407	-9646	72	-17030		3.46	93	1.02	2836			39.37	Si
SLU 60	607	-8524	411	-46708		3.06	93	0.96	2686			6.54	Si
SLU 77	407	-10694	2	-21249		3.83	93	1.07	2976			1000	Si
SLU 77	607	-9329	425	-48377		3.34	93	1	2794			6.58	Si
SLU 81	407	-10201	66	-18021		3.66	93	1.04	2910			44.34	Si
SLU 81	607	-9015	447	-49425		3.23	93	0.99	2752			6.16	Si
SLU 42	407	-8823	28	-16587		3.16	93	0.98	2726			97.05	Si
SLU 42	607	-7794	395	-41768		2.79	93	0.93	2589			6.55	Si
SLU 41	407	-8805	32	-16061		3.16	93	0.98	2724			83.91	Si
SLU 41	607	-7782	402	-41764		2.79	93	0.93	2588			6.43	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	407	-2636	4802	193103		0	0	0.83	0			0	No, Vu<V
SLV 16	607	-10489	5152	-231895		4.78	73.17	1.63	3567			0.69	No, Vu<V
SLV 7	407	-2563	-341	-60075		1.23	69.18	1.08	2242			6.57	Si
SLV 7	607	141	-1692	83730		0	0	0.83	0			0	No, Vu<V
SLV 4	407	-8339	-4166	-211893		4.39	63.27	1.63	3084			0.74	No, Vu<V
SLV 4	607	887	-4901	197377		0	0	0.83	0			0	No, Vu<V
SLV 15	407	-2636	4802	193103		0	0	0.83	0			0	No, Vu<V
SLV 15	607	-10489	5152	-231895		4.78	73.17	1.63	3567			0.69	No, Vu<V
SLV 3	407	-8339	-4166	-211893		4.39	63.27	1.63	3084			0.74	No, Vu<V
SLV 3	607	887	-4901	197377		0	0	0.83	0			0	No, Vu<V
SLV 11	407	-852	2349	61423		0	0	0.83	0			0	No, Vu<V
SLV 11	607	-3272	1324	-45051		1.17	93	1.07	2979			2.25	Si
SLV 2	407	-11579	-4754	-220523		4.69	82.36	1.63	4015			0.84	No, Vu<V
SLV 2	607	-1886	-4635	166007		0	0	0.83	0			0	No, Vu<V
SLV 1	407	-11579	-4754	-220523		4.69	82.36	1.63	4015			0.84	No, Vu<V
SLV 1	607	-1886	-4635	166007		0	0	0.83	0			0	No, Vu<V
SLV 12	407	-852	2349	61423		0	0	0.83	0			0	No, Vu<V
SLV 12	607	-3272	1324	-45051		1.17	93	1.07	2979			2.25	Si
SLV 8	407	-2563	-341	-60075		1.23	69.18	1.08	2242			6.57	Si
SLV 8	607	141	-1692	83730		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 484.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.35	0.83	-2322	8804	32454	3.69	Si
SLV 12	14	0.35	0.83	-2322	8804	32454	3.69	Si
SLV 7	14	0.35	0.87	-2435	8804	33910	3.85	Si
SLV 8	14	0.35	0.87	-2435	8804	33910	3.85	Si
SLV 15	14	0.35	1.95	-5441	8804	68584	7.79	Si
SLV 16	14	0.35	1.95	-5441	8804	68584	7.79	Si
SLV 3	14	0.35	2.08	-5817	8804	72362	8.22	Si
SLV 4	14	0.35	2.08	-5817	8804	72362	8.22	Si
SLV 13	14	0.35	2.95	-8227	8804	93620	10.63	Si
SLV 14	14	0.35	2.95	-8227	8804	93620	10.63	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 484.5 Wa = 0.05 Ta = 0.0663

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-8926	-13464	-9	0.046	10.444	0.961	70.178	796.45	No
SLV 14	-8926	-13464	-9	0.046	10.444	0.961	70.178	796.45	No
SLV 15	-6894	-10345	0	0.048	8.378	0.953	73.676	796.45	No
SLV 16	-6894	-10345	0	0.048	8.378	0.953	73.676	796.45	No
SLV 9	-9210	-13528	-16	0.046	10.733	0.962	68.902	733.241	No
SLV 10	-9210	-13528	-16	0.046	10.733	0.962	68.902	733.241	No
SLV 5	-7421	-10464	-14	0.046	8.914	0.955	70.554	733.241	No
SLV 6	-7421	-10464	-14	0.046	8.914	0.955	70.554	733.241	No
SLV 2	-2964	-3251	-1	0.053	4.402	0.92	83.981	796.45	No
SLV 1	-2964	-3251	-1	0.053	4.402	0.92	83.981	796.45	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.117	SLU 81	Si
V_SLU	6.132	SLU 83	Si
PF_SLV	0	SLV 8	No
V_SLV	0	SLV 1	No
PFFP_SLV	3.686	SLV 11	Si
R_SLV	0.088	SLV 13	No

Maschio 237

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-485.9	-1293.3	-485.9	Z medio 657 cm	Z medio 1009 cm	82	30	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 63	752	-6535	22611	2.66	180574	7.986	Si
SLU 63	952	-4664	20650	1.9	146739	7.106	Si
SLU 82	752	-6577	22930	2.67	181174	7.901	Si
SLU 82	952	-4453	20604	1.81	142023	6.893	Si
SLU 84	752	-6957	24024	2.83	186229	7.752	Si
SLU 84	952	-4941	21539	2.01	152645	7.087	Si
SLU 60	752	-6166	21526	2.51	175031	8.131	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	952	-4212	19337	1.71	136394	7.053	Si
SLU 52	752	-5962	21031	2.42	171724	8.165	Si
SLU 52	952	-4026	19051	1.64	131915	6.924	Si
SLU 19	752	-4987	17291	2.03	153600	8.883	Si
SLU 19	952	-3376	16190	1.37	115103	7.11	Si
SLU 73	752	-6384	22443	2.59	178369	7.947	Si
SLU 73	952	-4303	19940	1.75	138544	6.948	Si
SLU 61	752	-6155	21517	2.5	174863	8.127	Si
SLU 61	952	-4177	19714	1.7	135564	6.877	Si
SLU 81	752	-6588	22939	2.68	181323	7.905	Si
SLU 81	952	-4488	20227	1.82	142813	7.06	Si
SLU 10	752	-4794	16805	1.95	149535	8.898	Si
SLU 10	952	-3225	15526	1.31	110960	7.147	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 15	752	-5882	155710	2.39	193989	1.246	Si
SLV 15	952	-3601	-78296	0	0	0	No, Trazione
SLV 14	752	-9060	169305	3.68	259525	1.533	Si
SLV 14	952	0	-77367	0	0	0	No, Trazione
SLV 4	752	-181	-136458	0	0	0	No, e>l/2
SLV 4	952	-6300	104623	2.56	204174	1.952	Si
SLV 11	752	-179	37590	0	0	0	No, e>l/2
SLV 11	952	4337	-15359	0	0	0	No, Trazione
SLV 12	752	-179	37590	0	0	0	No, e>l/2
SLV 12	952	4337	-15359	0	0	0	No, Trazione
SLV 13	752	-9060	169305	3.68	259525	1.533	Si
SLV 13	952	0	-77367	0	0	0	No, Trazione
SLD 16	752	-5164	75946	2.1	175358	2.309	Si
SLD 16	952	-269	-25640	0	0	0	No, e>l/2
SLV 3	752	-181	-136458	0	0	0	No, e>l/2
SLV 3	952	-6300	104623	2.56	204174	1.952	Si
SLV 7	752	1531	-50061	0	0	0	No, Trazione
SLV 7	952	1366	39517	0	0	0	No, Trazione
SLV 8	752	1531	-50061	0	0	0	No, Trazione
SLV 8	952	1366	39517	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	752	-6588	322	22939		2.68	82	0.91	2245			6.98	Si
SLU 81	952	-4488	31	20227		1.82	82	0.8	1965			62.49	Si
SLU 82	752	-6577	337	22930		2.67	82	0.91	2244			6.65	Si
SLU 82	952	-4453	21	20604		1.81	82	0.8	1961			95.45	Si
SLU 73	752	-6384	335	22443		2.59	82	0.9	2218			6.61	Si
SLU 73	952	-4303	19	19940		1.75	82	0.79	1940			103.42	Si
SLU 52	752	-5962	304	21031		2.42	82	0.88	2162			7.12	Si
SLU 52	952	-4026	7	19051		1.64	82	0.77	1904			255.37	Si
SLU 40	752	-5409	288	18704		2.2	82	0.85	2088			7.24	Si
SLU 40	952	-3653	15	17080		1.48	82	0.75	1854			126.52	Si
SLU 76	752	-6764	308	23538		2.75	82	0.92	2269			7.36	Si
SLU 76	952	-4790	-4	20876		1.95	82	0.82	2005			472.61	Si
SLU 31	752	-5216	286	18218		2.12	82	0.84	2062			7.2	Si
SLU 31	952	-3502	13	16416		1.42	82	0.75	1834			142.45	Si
SLU 65	752	-5948	307	21323		2.42	82	0.88	2160			7.04	Si
SLU 65	952	-4005	32	17806		1.63	82	0.77	1901			60.2	Si
SLU 75	752	-6733	310	23415		2.74	82	0.92	2265			7.31	Si
SLU 75	952	-4720	14	20433		1.92	82	0.81	1996			143.92	Si
SLU 61	752	-6155	305	21517		2.5	82	0.89	2187			7.16	Si
SLU 61	952	-4177	9	19714		1.7	82	0.78	1924			208.35	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	752	1531	-1144	-50061		0	0	0.83	0			0	No, Vu<V
SLV 7	952	1366	-1881	39517		0	0	0.83	0			0	No, Vu<V
SLV 11	752	-179	1298	37590		0	0	0.83	0			0	No, Vu<V
SLV 11	952	4337	-20	-15359		0	0	0.83	0			0	No, Vu<V
SLD 16	752	-5164	1937	75946		2.18	78.89	1.27	3005			1.55	Si
SLD 16	952	-269	1231	-25640		0	0	0.83	0			0	No, Vu<V
SLV 12	752	-179	1298	37590		0	0	0.83	0			0	No, Vu<V
SLV 12	952	4337	-20	-15359		0	0	0.83	0			0	No, Vu<V
SLV 14	752	-9060	4328	169305		4.51	66.95	1.63	3264			0.75	No, Vu<V
SLV 14	952	0	3429	-77367		0	0	0.83	0			0	No, Vu<V
SLV 4	752	-181	-3894	-136458		0	0	0.83	0			0	No, Vu<V
SLV 4	952	-6300	-3365	104623		2.87	73.19	1.41	3090			0.92	No, Vu<V
SLV 3	752	-181	-3894	-136458		0	0	0.83	0			0	No, Vu<V
SLV 3	952	-6300	-3365	104623		2.87	73.19	1.41	3090			0.92	No, Vu<V
SLV 15	752	-5882	4244	155710		4.5	43.59	1.63	2125			0.5	No, Vu<V
SLV 15	952	3601	2840	-78296		0	0	0.83	0			0	No, Vu<V
SLV 8	752	1531	-1144	-50061		0	0	0.83	0			0	No, Vu<V
SLV 8	952	1366	-1881	39517		0	0	0.83	0			0	No, Vu<V
SLV 13	752	-9060	4328	169305		4.51	66.95	1.63	3264			0.75	No, Vu<V
SLV 13	952	0	3429	-77367		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 833 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.42	0	807	9789	0	0	No, Trazione



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.42	0	1939	9789	0	0	No, Trazione
SLV 12	14	0.42	0	1939	9789	0	0	No, Trazione
SLV 8	14	0.42	0	807	9789	0	0	No, Trazione
SLV 15	14	0.42	0.27	-660	9789	9679	0.99	No, M>Mu
SLV 16	14	0.42	0.27	-660	9789	9679	0.99	No, M>Mu
SLV 14	14	0.42	1.63	-4019	9789	52229	5.34	Si
SLV 13	14	0.42	1.63	-4019	9789	52229	5.34	Si
SLV 3	14	0.42	1.8	-4433	9789	56685	5.79	Si
SLV 4	14	0.42	1.8	-4433	9789	56685	5.79	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 833 Wa = 0.05 Ta = 0.069

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	2041	-804	8	0	0	0	0	960.742	No, Trazione
SLV 7	1824	-1255	30	0	0	0	0	881.567	No, Trazione
SLV 12	3555	93	30	0	0	0	0	881.567	No, Trazione
SLV 16	2041	-804	8	0	0	0	0	960.742	No, Trazione
SLV 11	3555	93	30	0	0	0	0	881.567	No, Trazione
SLV 8	1824	-1255	30	0	0	0	0	881.567	No, Trazione
SLV 2	-6760	-7415	-9	0.046	8.105	0.956	69.753	960.742	No
SLV 1	-6760	-7415	-9	0.046	8.105	0.956	69.753	960.742	No
SLV 5	-8275	-8312	-30	0.043	9.645	0.962	64.876	881.567	No
SLV 6	-8275	-8312	-30	0.043	9.645	0.962	64.876	881.567	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	6.877	SLU 61	Si
V_SLU	6.613	SLU 73	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 11	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No

Maschio 238

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1193.3	-485.9	-1114.3	-485.9	Z medio 657 cm	Z medio 1009 cm	79	30	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 81	752	-5789	-16361	2.44	160077	9.784	Si
SLU 81	952	-4745	-25385	2	141340	5.568	Si
SLU 84	752	-6145	-18365	2.59	165447	9.009	Si
SLU 84	952	-5047	-26600	2.13	147229	5.535	Si
SLU 75	752	-5929	-17793	2.5	162264	9.12	Si
SLU 75	952	-4840	-25409	2.04	143237	5.637	Si
SLU 83	752	-6139	-18450	2.59	165364	8.963	Si
SLU 83	952	-5030	-26480	2.12	146902	5.548	Si
SLU 79	752	-6330	-20327	2.67	168032	8.266	Si
SLU 79	952	-5156	-26493	2.18	149250	5.634	Si
SLU 82	752	-5794	-16276	2.45	160168	9.841	Si
SLU 82	952	-4762	-25505	2.01	141686	5.555	Si
SLU 77	752	-6274	-19967	2.65	167270	8.377	Si
SLU 77	952	-5108	-26385	2.16	148368	5.623	Si
SLU 80	752	-6335	-20242	2.67	168110	8.305	Si
SLU 80	952	-5173	-26613	2.18	149567	5.62	Si
SLU 63	752	-5807	-17174	2.45	160363	9.337	Si
SLU 63	952	-4771	-25162	2.01	141861	5.638	Si
SLU 78	752	-6280	-19882	2.65	167349	8.417	Si
SLU 78	952	-5125	-26505	2.16	148689	5.61	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	752	-2276	-26588	0.96	82845	3.116	Si
SLV 8	952	735	54584	0	0	0	No, Trazione
SLV 4	752	-7270	-101738	3.07	215061	2.114	Si
SLV 4	952	1141	101391	0	0	0	No, Trazione
SLV 2	752	-9088	-109833	3.84	246305	2.243	Si
SLV 2	952	-635	77539	0	0	0	No, e>l/2
SLV 13	752	-881	77897	0	0	0	No, e>l/2
SLV 13	952	-7713	-135702	3.25	223508	1.647	Si
SLV 11	752	186	29731	0	0	0	No, Trazione
SLV 11	952	-1388	-9388	0.59	52203	5.561	Si
SLV 12	752	186	29731	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 12	952	-1388	-9388	0.59	52203	5.561	Si
SLV 7	752	-2276	-26588	0.96	82845	3.116	Si
SLV 7	952	735	54584	0	0	0	No, Trazione
SLV 16	752	937	85992	0	0	0	No, Trazione
SLV 16	952	-5938	-111850	2.51	186432	1.667	Si
SLV 3	752	-7270	-101738	3.07	215061	2.114	Si
SLV 3	952	1141	101391	0	0	0	No, Trazione
SLV 14	752	-881	77897	0	0	0	No, e>l/2
SLV 14	952	-7713	-135702	3.25	223508	1.647	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 63	752	-5807	-50	-17174		2.45	79	0.88	2091			42.09	Si
SLU 63	952	-4771	204	-25162		2.01	79	0.82	1953			9.55	Si
SLU 61	752	-5456	-24	-15085		2.3	79	0.86	2044			86.07	Si
SLU 61	952	-4485	201	-24067		1.89	79	0.81	1915			9.54	Si
SLU 83	752	-6139	-51	-18450		2.59	79	0.9	2135			42.25	Si
SLU 83	952	-5030	203	-26480		2.12	79	0.84	1987			9.81	Si
SLU 55	752	-5651	-63	-16905		2.38	79	0.87	2070			33.09	Si
SLU 55	952	-4623	194	-24159		1.95	79	0.82	1933			9.96	Si
SLU 84	752	-6145	-63	-18365		2.59	79	0.9	2136			34.15	Si
SLU 84	952	-5047	214	-26600		2.13	79	0.84	1990			9.28	Si
SLU 76	752	-5989	-75	-18096		2.53	79	0.89	2115			28.04	Si
SLU 76	952	-4899	204	-25597		2.07	79	0.83	1970			9.65	Si
SLU 73	752	-5639	-50	-16007		2.38	79	0.87	2068			41.78	Si
SLU 73	952	-4614	200	-24502		1.95	79	0.82	1932			9.64	Si
SLU 82	752	-5794	-37	-16276		2.45	79	0.88	2089			57.04	Si
SLU 82	952	-4762	211	-25505		2.01	79	0.82	1951			9.26	Si
SLU 52	752	-5301	-37	-14816		2.24	79	0.85	2023			55.23	Si
SLU 52	952	-4337	190	-23064		1.83	79	0.8	1895			9.96	Si
SLU 81	752	-5789	-25	-16361		2.44	79	0.88	2088			84.87	Si
SLU 81	952	-4745	199	-25385		2	79	0.82	1949			9.8	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	752	-2276	-634	-26588		0.96	79	1.03	2430			3.83	Si
SLV 7	952	735	-1683	54584		0	0	0.83	0			0	No, Vu<V
SLV 13	752	-881	3887	77897		0	0	0.83	0			0	No, Vu<V
SLV 13	952	-7713	3470	-135702		3.91	65.71	1.62	3186			0.92	No, Vu<V
SLV 16	752	937	4260	85992		0	0	0.83	0			0	No, Vu<V
SLV 16	952	-5938	2948	-111850		3.19	61.98	1.47	2737			0.93	No, Vu<V
SLV 4	752	-7270	-3938	-101738		3.17	76.51	1.47	3367			0.85	No, Vu<V
SLV 4	952	1141	-3239	101391		0	0	0.83	0			0	No, Vu<V
SLV 2	752	-9088	-4311	-109833		3.84	79	1.6	3793			0.88	No, Vu<V
SLV 2	952	-635	-2716	77539		0	0	0.83	0			0	No, Vu<V
SLV 12	752	186	1825	29731		0	0	0.83	0			0	No, Vu<V
SLV 12	952	-1388	173	-9388		0.59	79	0.95	2253			13.04	Si
SLV 14	752	-881	3887	77897		0	0	0.83	0			0	No, Vu<V
SLV 14	952	-7713	3470	-135702		3.91	65.71	1.62	3186			0.92	No, Vu<V
SLV 8	752	-2276	-634	-26588		0.96	79	1.03	2430			3.83	Si
SLV 8	952	735	-1683	54584		0	0	0.83	0			0	No, Vu<V
SLV 3	752	-7270	-3938	-101738		3.17	76.51	1.47	3367			0.85	No, Vu<V
SLV 3	952	1141	-3239	101391		0	0	0.83	0			0	No, Vu<V
SLV 11	752	186	1825	29731		0	0	0.83	0			0	No, Vu<V
SLV 11	952	-1388	173	-9388		0.59	79	0.95	2253			13.04	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 833 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.42	0.31	-745	9429	10884	1.15	Si
SLV 12	14	0.42	0.31	-745	9429	10884	1.15	Si
SLV 15	14	0.42	0.66	-1557	9429	22104	2.34	Si
SLV 16	14	0.42	0.66	-1557	9429	22104	2.34	Si
SLV 7	14	0.42	0.7	-1665	9429	23534	2.5	Si
SLV 8	14	0.42	0.7	-1665	9429	23534	2.5	Si
SLV 13	14	0.42	1.34	-3174	9429	42389	4.5	Si
SLV 14	14	0.42	1.34	-3174	9429	42389	4.5	Si
SLV 4	14	0.42	1.95	-4624	9429	58281	6.18	Si
SLV 3	14	0.42	1.95	-4624	9429	58281	6.18	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezziera = 833 Wa = 0.05 Ta = 0.069

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 14	-4730	-5490	-6	0.047	5.998	0.944	72.805	960.742	No
SLV 13	-4730	-5490	-6	0.047	5.998	0.944	72.805	960.742	No
SLV 9	-4864	-6187	-27	0.044	6.134	0.945	66.903	881.567	No
SLV 10	-4864	-6187	-27	0.044	6.134	0.945	66.903	881.567	No
SLV 6	-3831	-5428	-28	0.043	5.087	0.936	67.435	881.567	No
SLV 5	-3831	-5428	-28	0.043	5.087	0.936	67.435	881.567	No
SLV 16	-3582	-4134	10	0.048	4.835	0.933	74.264	960.742	No
SLV 15	-3582	-4134	10	0.048	4.835	0.933	74.264	960.742	No
SLV 7	-3	-909	26	0.05	1.531	0.998	73.274	881.567	No
SLV 8	-3	-909	26	0.05	1.531	0.998	73.274	881.567	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.535	SLU 84	Si
V_SLU	9.258	SLU 82	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 1	No
PFFP_SLV	1.154	SLV 11	Si
R_SLV	0.076	SLV 13	No

Maschio 239

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1101.3	-478.4	-1376.3	-478.4	L1	L2	275	45	198	198	198			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 36	-159	-30770	4534	2.49	2939421	648.275	Si
SLU 36	39	-18591	-44519	1.5	2084837	46.83	Si
SLU 14	-159	-29077	4652	2.35	2844852	611.562	Si
SLU 14	39	-17394	-40000	1.41	1979003	49.475	Si
SLU 37	-159	-30912	-1135	2.5	2947009	1000	Si
SLU 37	39	-18636	-49404	1.51	2088733	42.278	Si
SLU 35	-159	-30859	2214	2.49	2944172	1000	Si
SLU 35	39	-18599	-45377	1.5	2085498	45.959	Si
SLU 15	-159	-28988	6972	2.34	2839669	407.28	Si
SLU 15	39	-17387	-39141	1.4	1978317	50.543	Si
SLU 16	-159	-29130	1303	2.35	2847948	1000	Si
SLU 16	39	-17431	-44027	1.41	1982360	45.026	Si
SLU 17	-159	-29042	3624	2.35	2842777	784.522	Si
SLU 17	39	-17424	-43169	1.41	1981675	45.906	Si
SLU 38	-159	-30823	1186	2.49	2942271	1000	Si
SLU 38	39	-18628	-48546	1.51	2088072	43.012	Si
SLU 29	-159	-27611	-5711	2.23	2756625	482.697	Si
SLU 29	39	-16058	-36292	1.3	1856263	51.148	Si
SLU 30	-159	-27522	-3390	2.22	2751086	811.439	Si
SLU 30	39	-16051	-35433	1.3	1855549	52.367	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 11	-159	-5198	-160199	0.42	690170	4.308	Si
SLV 11	39	-1511	65308	0.12	205741	3.15	Si
SLV 1	-159	-36373	508667	2.94	3798248	7.467	Si
SLV 1	39	-22395	-204328	1.81	2623272	12.839	Si
SLV 4	-159	-25235	475612	2.04	2890703	6.078	Si
SLV 4	39	-15204	-205511	1.23	1880384	9.15	Si
SLV 12	-159	-5198	-160199	0.42	690170	4.308	Si
SLV 12	39	-1511	65308	0.12	205741	3.15	Si
SLV 3	-159	-25235	475612	2.04	2890703	6.078	Si
SLV 3	39	-15204	-205511	1.23	1880384	9.15	Si
SLV 14	-159	-25540	-410173	2.06	2918625	7.116	Si
SLV 14	39	-14236	214441	1.15	1773163	8.269	Si
SLV 13	-159	-25540	-410173	2.06	2918625	7.116	Si
SLV 13	39	-14236	214441	1.15	1773163	8.269	Si
SLV 15	-159	-14402	-443228	1.16	1791628	4.042	Si
SLV 15	39	-7045	213257	0.57	923567	4.331	Si
SLV 2	-159	-36373	508667	2.94	3798248	7.467	Si
SLV 2	39	-22395	-204328	1.81	2623272	12.839	Si
SLV 16	-159	-14402	-443228	1.16	1791628	4.042	Si
SLV 16	39	-7045	213257	0.57	923567	4.331	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 64	-159	-32287	-519	40139		2.61	275	0.9	11180			21.53	Si
SLU 64	39	-18523	-608	9138		1.5	275	0.76	9345			15.38	Si
SLU 82	-159	-36914	-569	48997		2.98	275	0.95	11797			20.75	Si
SLU 82	39	-22198	-708	-8736		1.79	275	0.79	9835			13.89	Si
SLU 62	-159	-36168	-495	31424		2.92	275	0.95	11697			23.62	Si
SLU 62	39	-21608	-633	-24548		1.75	275	0.79	9756			15.41	Si
SLU 61	-159	-35132	-568	51435		2.84	275	0.93	11559			20.34	Si
SLU 61	39	-20993	-695	-3358		1.7	275	0.78	9674			13.93	Si
SLU 52	-159	-33658	-543	51021		2.72	275	0.92	11363			20.94	Si
SLU 52	39	-19884	-657	2834		1.61	275	0.77	9526			14.5	Si
SLU 60	-159	-35221	-580	49114		2.85	275	0.94	11571			19.97	Si
SLU 60	39	-21001	-703	-4217		1.7	275	0.78	9675			13.77	Si
SLU 83	-159	-37950	-496	28986		3.07	275	0.96	11935			24.08	Si
SLU 83	39	-22813	-647	-29925		1.84	275	0.8	9917			15.33	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	-159	-35440	-543	48583		2.86	275	0.94	11600			21.37	Si
SLU 73	39	-21088	-670	-2544		1.7	275	0.78	9687			14.45	Si
SLU 81	-159	-37003	-580	46676		2.99	275	0.95	11809			20.36	Si
SLU 81	39	-22206	-716	-9594		1.79	275	0.79	9836			13.74	Si
SLU 43	-159	-30505	-519	42577		2.47	275	0.88	10942			21.09	Si
SLU 43	39	-17318	-594	14516		1.4	275	0.74	9184			15.46	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	-159	-25540	-5032	-410173		2.06	275	1.25	15421			3.06	Si
SLV 13	39	-14236	-2117	214441		1.15	275	1.06	13160			6.22	Si
SLV 3	-159	-25235	4209	475612		2.04	275	1.24	15359			3.65	Si
SLV 3	39	-15204	1144	-205511		1.23	275	1.08	13353			11.67	Si
SLV 1	-159	-36373	4006	508667		2.94	275	1.42	17587			4.39	Si
SLV 1	39	-22395	757	-204328		1.81	275	1.2	14792			19.55	Si
SLV 2	-159	-36373	4006	508667		2.94	275	1.42	17587			4.39	Si
SLV 2	39	-22395	757	-204328		1.81	275	1.2	14792			19.55	Si
SLD 16	-159	-20719	-2304	-170088		1.67	275	1.17	14456			6.27	Si
SLD 16	39	-11457	-1019	94029		0.93	275	1.02	12604			12.37	Si
SLV 15	-159	-14402	-4829	-443228		1.16	275	1.07	13193			2.73	Si
SLV 15	39	-7045	-1729	213257		0.57	275	0.95	11722			6.78	Si
SLV 14	-159	-25540	-5032	-410173		2.06	275	1.25	15421			3.06	Si
SLV 14	39	-14236	-2117	214441		1.15	275	1.06	13160			6.22	Si
SLV 16	-159	-14402	-4829	-443228		1.16	275	1.07	13193			2.73	Si
SLV 16	39	-7045	-1729	213257		0.57	275	0.95	11722			6.78	Si
SLD 15	-159	-20719	-2304	-170088		1.67	275	1.17	14456			6.27	Si
SLD 15	39	-11457	-1019	94029		0.93	275	1.02	12604			12.37	Si
SLV 4	-159	-25235	4209	475612		2.04	275	1.24	15359			3.65	Si
SLV 4	39	-15204	1144	-205511		1.23	275	1.08	13353			11.67	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota -60 Wa 0.08 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.24	0.22	-2711	8890	59910	6.74	Si
SLV 11	14	0.24	0.22	-2711	8890	59910	6.74	Si
SLV 8	14	0.24	0.52	-6411	8890	138130	15.54	Si
SLV 7	14	0.24	0.52	-6411	8890	138130	15.54	Si
SLV 16	14	0.24	0.76	-9402	8890	198396	22.32	Si
SLV 15	14	0.24	0.76	-9402	8890	198396	22.32	Si
SLV 13	14	0.24	1.52	-18837	8890	371032	41.74	Si
SLV 14	14	0.24	1.52	-18837	8890	371032	41.74	Si
SLV 4	14	0.24	1.76	-21734	8890	418731	47.1	Si
SLV 3	14	0.24	1.76	-21734	8890	418731	47.1	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = -60 Wa = 0.08 Ta = 0.0145

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	-25481	-42327	-1213	0.079	29.393	0.965	118.859	275.321	No
SLV 9	-25481	-42327	-1213	0.079	29.393	0.965	118.859	275.321	No
SLV 5	-27929	-45577	-1224	0.081	31.885	0.967	122.192	275.321	No
SLV 6	-27929	-45577	-1224	0.081	31.885	0.967	122.192	275.321	No
SLV 14	-14236	-25540	-770	0.082	17.964	0.945	126.136	279.624	No
SLV 13	-14236	-25540	-770	0.082	17.964	0.945	126.136	279.624	No
SLV 1	-22395	-36373	-810	0.091	26.254	0.961	137.495	279.624	No
SLV 2	-22395	-36373	-810	0.091	26.254	0.961	137.495	279.624	No
SLV 15	-7045	-14402	-403	0.097	10.706	0.917	154.007	279.624	No
SLV 16	-7045	-14402	-403	0.097	10.706	0.917	154.007	279.624	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	42.278	SLU 37	Si
V_SLU	13.736	SLU 81	Si
PF_SLV	3.15	SLV 11	Si
V_SLV	2.732	SLV 15	Si
PFFP_SLV	6.739	SLV 11	Si
R_SLV	0.432	SLV 9	No

Maschio 240

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-1375.3	-485.9	-1293.3	-485.9	Z medio 1009 cm	F1	82	30	427.8	427.8	427.7			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 16	1104	-2960	9362	1.2	103455	11.05	Si
SLU 16	1304	-1835	8197	0.75	68341	8.338	Si
SLU 17	1104	-2929	9453	1.19	102537	10.847	Si
SLU 17	1304	-1814	8178	0.74	67641	8.271	Si
SLU 30	1104	-3129	10778	1.27	108253	10.044	Si
SLU 30	1304	-1971	8739	0.8	72878	8.339	Si
SLU 36	1104	-3084	10386	1.25	106981	10.301	Si
SLU 36	1304	-1940	8606	0.79	71845	8.348	Si
SLU 37	1104	-3199	10426	1.3	110232	10.573	Si
SLU 37	1304	-2030	9084	0.83	74791	8.233	Si
SLU 29	1104	-3160	10687	1.28	109145	10.213	Si
SLU 29	1304	-1992	8758	0.81	73564	8.4	Si
SLU 80	1104	-3685	12280	1.5	123322	10.042	Si
SLU 80	1304	-2246	9746	0.91	81775	8.391	Si
SLU 35	1104	-3115	10295	1.27	107879	10.479	Si
SLU 35	1304	-1961	8624	0.8	72534	8.41	Si
SLU 79	1104	-3717	12189	1.51	124142	10.185	Si
SLU 79	1304	-2267	9765	0.92	82438	8.443	Si
SLU 38	1104	-3167	10517	1.29	109345	10.397	Si
SLU 38	1304	-2009	9065	0.82	74108	8.175	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 8	1104	360	-11375	0	0	0	No, Trazione
SLD 8	1304	-557	18893	0.23	22401	1.186	Si
SLV 16	1104	-1690	59367	0.69	65401	1.102	Si
SLV 16	1304	383	-37841	0	0	0	No, Trazione
SLV 12	1104	2916	-550	0	0	0	No, Trazione
SLV 12	1304	763	10529	0	0	0	No, Trazione
SLV 11	1104	2916	-550	0	0	0	No, Trazione
SLV 11	1304	763	10529	0	0	0	No, Trazione
SLV 8	1104	3648	-36423	0	0	0	No, Trazione
SLV 8	1304	162	39237	0	0	0	No, Trazione
SLV 4	1104	749	-60207	0	0	0	No, Trazione
SLV 4	1304	-1618	57852	0.66	62775	1.085	Si
SLV 14	1104	-4907	74853	1.99	168346	2.249	Si
SLV 14	1304	-543	-50593	0	0	0	No, $e \geq l/2$
SLV 7	1104	3648	-36423	0	0	0	No, Trazione
SLV 7	1304	162	39237	0	0	0	No, Trazione
SLV 13	1104	-4907	74853	1.99	168346	2.249	Si
SLV 13	1304	-543	-50593	0	0	0	No, $e \geq l/2$
SLD 7	1104	360	-11375	0	0	0	No, Trazione
SLD 7	1304	-557	18893	0.23	22401	1.186	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 73	1104	-2742	152	9811		1.11	82	0.7	1732			11.41	Si
SLU 73	1304	-1449	16	5146		0.59	82	0.63	1560			99.48	Si
SLU 10	1104	-1986	132	6984		0.81	82	0.66	1631			12.38	Si
SLU 10	1304	-1017	1	3578		0.41	82	0.61	1502			1000	Si
SLU 44	1104	-2465	171	9009		1	82	0.69	1695			9.9	Si
SLU 44	1304	-1217	21	3933		0.49	82	0.62	1529			73.22	Si
SLU 82	1104	-2780	128	9638		1.13	82	0.71	1737			13.58	Si
SLU 82	1304	-1479	19	5298		0.6	82	0.64	1564			83.65	Si
SLU 52	1104	-2504	162	8747		1.02	82	0.69	1701			10.47	Si
SLU 52	1304	-1254	9	4259		0.51	82	0.62	1534			166.62	Si
SLU 61	1104	-2541	139	8575		1.03	82	0.69	1706			12.3	Si
SLU 61	1304	-1284	12	4411		0.52	82	0.63	1538			125.84	Si
SLU 65	1104	-2703	161	10072		1.1	82	0.7	1727			10.76	Si
SLU 65	1304	-1412	27	4820		0.57	82	0.63	1555			56.84	Si
SLU 47	1104	-2926	137	10273		1.19	82	0.71	1757			12.84	Si
SLU 47	1304	-1608	30	6227		0.65	82	0.64	1581			52.89	Si
SLU 23	1104	-2185	130	8309		0.89	82	0.67	1658			12.77	Si
SLU 23	1304	-1174	20	4139		0.48	82	0.62	1523			77.65	Si
SLU 2	1104	-1947	140	7245		0.79	82	0.66	1626			11.58	Si
SLU 2	1304	-979	13	3252		0.4	82	0.61	1497			113.92	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1104	749	-2402	-60207		0	0	0.83	0			0	No, Vu<V
SLV 4	1304	-1618	-1040	57852		3.42	15.75	1.52	717			0.69	No, Vu<V
SLV 15	1104	-1690	1776	59367		3.2	17.63	1.47	779			0.44	No, Vu<V
SLV 15	1304	383	481	-37841		0	0	0.83	0			0	No, Vu<V
SLV 11	1104	2916	-614	-550		0	0	0.83	0			0	No, Vu<V
SLV 11	1304	763	-778	10529		0	0	0.83	0			0	No, Vu<V
SLD 12	1104	46	-211	3947		0	0	0.83	0			0	No, Vu<V
SLD 12	1304	-300	-313	6627		0.18	56.75	0.87	1479			4.72	Si
SLD 7	1104	360	-747	-11375		0	0	0.83	0			0	No, Vu<V
SLD 7	1304	-557	-508	18893		0.88	21.18	1.01	641			1.26	Si
SLV 12	1104	2916	-614	-550		0	0	0.83	0			0	No, Vu<V
SLV 12	1304	763	-778	10529		0	0	0.83	0			0	No, Vu<V
SLV 3	1104	749	-2402	-60207		0	0	0.83	0			0	No, Vu<V
SLV 3	1304	-1618	-1040	57852		3.42	15.75	1.52	717			0.69	No, Vu<V
SLV 8	1104	3648	-1867	-36423		0	0	0.83	0			0	No, Vu<V
SLV 8	1304	162	-1234	39237		0	0	0.83	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	1104	-1690	1776	59367		3.2	17.63	1.47	779			0.44	No, Vu<V
SLV 16	1304	383	481	-37841		0	0	0.83	0			0	No, Vu<V
SLD 11	1104	46	-211	3947		0	0	0.83	0			0	No, Vu<V
SLD 11	1304	-300	-313	6627		0.18	56.75	0.87	1479			4.72	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1222.9 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.5	0	1660	17274	0	0	No, Trazione
SLV 3	14	0.5	0	-680	17274	0	0	No, e>t/2
SLV 8	14	0.5	0	1660	17274	0	0	No, Trazione
SLV 16	14	0.5	0	-491	17274	0	0	No, e>t/2
SLV 15	14	0.5	0	-491	17274	0	0	No, e>t/2
SLV 4	14	0.5	0	-680	17274	0	0	No, e>t/2
SLV 11	14	0.5	0	1716	17274	0	0	No, Trazione
SLV 12	14	0.5	0	1716	17274	0	0	No, Trazione
SLV 13	14	0.5	0.99	-2440	17274	33627	1.95	Si
SLV 14	14	0.5	0.99	-2440	17274	33627	1.95	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1222.9 Wa = 0.05 Ta = 0.1018

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 13	-15	-1763	-77	0	1.931	0.992	0	1754.014	No
SLV 12	275	3110	-135	0	0	0	0	1591.954	No, Trazione
SLV 6	-472	-7098	92	0	2.171	0.9	0	1591.954	No
SLV 2	-374	-4997	87	0	2.099	0.908	0	1754.014	No
SLV 1	-374	-4997	87	0	2.099	0.908	0	1754.014	No
SLV 8	167	2140	-86	0	0	0	0	1591.954	No, Trazione
SLV 7	167	2140	-86	0	0	0	0	1591.954	No, Trazione
SLV 5	-472	-7098	92	0	2.171	0.9	0	1591.954	No
SLV 11	275	3110	-135	0	0	0	0	1591.954	No, Trazione
SLV 14	-15	-1763	-77	0	1.931	0.992	0	1754.014	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	8.175	SLU 38	Si
V_SLU	9.901	SLU 44	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 7	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No

Maschio 241

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1193.3	-485.9	-1114.3	-485.9	Z medio 1009 cm	F1	79	30	427.6	427.6	427.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 41	1104	-2339	-2694	0.99	81187	30.137	Si
SLU 41	1304	-1794	-13510	0.76	64288	4.759	Si
SLU 80	1104	-3113	-5040	1.31	103131	20.462	Si
SLU 80	1304	-2401	-17483	1.01	83027	4.749	Si
SLU 78	1104	-3054	-4684	1.29	101537	21.677	Si
SLU 78	1304	-2339	-17081	0.99	81196	4.754	Si
SLU 36	1104	-2581	-4215	1.09	88307	20.949	Si
SLU 36	1304	-2076	-15450	0.88	73184	4.737	Si
SLU 77	1104	-3049	-4707	1.29	101402	21.542	Si
SLU 77	1304	-2351	-17159	0.99	81538	4.752	Si
SLU 79	1104	-3108	-5063	1.31	102998	20.342	Si
SLU 79	1304	-2412	-17561	1.02	83367	4.747	Si
SLU 42	1104	-2344	-2671	0.99	81336	30.456	Si
SLU 42	1304	-1783	-13432	0.75	63919	4.759	Si
SLU 38	1104	-2640	-4571	1.11	90016	19.691	Si
SLU 38	1304	-2138	-15852	0.9	75082	4.736	Si
SLU 35	1104	-2576	-4239	1.09	88163	20.8	Si
SLU 35	1304	-2088	-15528	0.88	73539	4.736	Si
SLU 37	1104	-2635	-4595	1.11	89873	19.56	Si
SLU 37	1304	-2149	-15930	0.91	75434	4.735	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 7	1104	-1025	-7107	0.43	39058	5.496	Si
SLV 7	1304	795	28675	0	0	0	No, Trazione



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	1104	-166	38658	0	0	0	No, $e>l/2$
SLV 14	1304	-2760	-59697	1.16	98630	1.652	Si
SLV 11	1104	249	18538	0	0	0	No, Trazione
SLV 11	1304	158	2085	0	0	0	No, Trazione
SLV 2	1104	-4413	-46826	1.86	147743	3.155	Si
SLV 2	1304	-637	28937	0	0	0	No, $e>l/2$
SLV 8	1104	-1025	-7107	0.43	39058	5.496	Si
SLV 8	1304	795	28675	0	0	0	No, Trazione
SLV 13	1104	-166	38658	0	0	0	No, $e>l/2$
SLV 13	1304	-2760	-59697	1.16	98630	1.652	Si
SLV 3	1104	-3536	-42303	1.49	122594	2.898	Si
SLV 3	1304	367	43134	0	0	0	No, Trazione
SLV 12	1104	249	18538	0	0	0	No, Trazione
SLV 12	1304	158	2085	0	0	0	No, Trazione
SLV 16	1104	711	43181	0	0	0	No, Trazione
SLV 16	1304	-1756	-45501	0.74	65161	1.432	Si
SLV 4	1104	-3536	-42303	1.49	122594	2.898	Si
SLV 4	1304	367	43134	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 38	1104	-2640	157	-4571		1.11	79	0.7	1669			10.61	Si
SLU 38	1304	-2138	183	-15852		0.9	79	0.68	1602			8.77	Si
SLU 77	1104	-3049	188	-4707		1.29	79	0.73	1723			9.19	Si
SLU 77	1304	-2351	186	-17159		0.99	79	0.69	1630			8.78	Si
SLU 76	1104	-2804	75	-3472		1.18	79	0.71	1690			22.55	Si
SLU 76	1304	-2013	173	-14596		0.85	79	0.67	1585			9.14	Si
SLU 35	1104	-2576	191	-4239		1.09	79	0.7	1660			8.71	Si
SLU 35	1304	-2088	173	-15528		0.88	79	0.67	1595			9.23	Si
SLU 37	1104	-2635	197	-4595		1.11	79	0.7	1668			8.46	Si
SLU 37	1304	-2149	174	-15930		0.91	79	0.68	1603			9.2	Si
SLU 78	1104	-3054	148	-4684		1.29	79	0.73	1724			11.66	Si
SLU 78	1304	-2339	194	-17081		0.99	79	0.69	1628			8.39	Si
SLU 36	1104	-2581	151	-4215		1.09	79	0.7	1661			11.01	Si
SLU 36	1304	-2076	181	-15450		0.88	79	0.67	1593			8.8	Si
SLU 84	1104	-2817	115	-3139		1.19	79	0.71	1692			14.74	Si
SLU 84	1304	-2046	178	-15063		0.86	79	0.67	1589			8.92	Si
SLU 80	1104	-3113	154	-5040		1.31	79	0.73	1732			11.22	Si
SLU 80	1304	-2401	196	-17483		1.01	79	0.69	1637			8.37	Si
SLU 79	1104	-3108	194	-5063		1.31	79	0.73	1731			8.92	Si
SLU 79	1304	-2412	187	-17561		1.02	79	0.69	1638			8.75	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1104	-1025	-1298	-7107		0.43	79	0.92	2180			1.68	Si
SLV 8	1304	795	-610	28675		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1104	-166	2569	38658		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1304	-2760	1307	-59697		1.72	53.61	1.18	1892			1.45	Si
SLV 4	1104	-3536	-2478	-42303		1.49	79	1.13	2682			1.08	Si
SLV 4	1304	367	-1138	43134		0	0	0.83	0			0	No, $V_u < V$
SLV 16	1104	711	2183	43181		0	0	0.83	0			0	No, $V_u < V$
SLV 16	1304	-1756	1091	-45501		1.44	40.77	1.12	1371			1.26	Si
SLV 2	1104	-4413	-2091	-46826		1.86	79	1.21	2858			1.37	Si
SLV 2	1304	-637	-922	28937		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1104	-1025	-1298	-7107		0.43	79	0.92	2180			1.68	Si
SLV 7	1304	795	-610	28675		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1104	249	100	18538		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1304	158	58	2085		0	0	0.83	0			0	No, $V_u < V$
SLV 3	1104	-3536	-2478	-42303		1.49	79	1.13	2682			1.08	Si
SLV 3	1304	367	-1138	43134		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1104	-166	2569	38658		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1304	-2760	1307	-59697		1.72	53.61	1.18	1892			1.45	Si
SLV 12	1104	249	100	18538		0	0	0.83	0			0	No, $V_u < V$
SLV 12	1304	158	58	2085		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1222.8 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 16	14	0.5	0	-798	16629	0	0	No, $e>t/2$
SLV 8	14	0.5	0	4	16629	0	0	No, Trazione
SLV 15	14	0.5	0	-798	16629	0	0	No, $e>t/2$
SLV 12	14	0.5	0	147	16629	0	0	No, Trazione
SLV 7	14	0.5	0	4	16629	0	0	No, Trazione
SLV 11	14	0.5	0	147	16629	0	0	No, Trazione
SLV 3	14	0.5	0.54	-1276	16629	18291	1.1	Si
SLV 4	14	0.5	0.54	-1276	16629	18291	1.1	Si
SLV 13	14	0.5	0.74	-1752	16629	24688	1.48	Si
SLV 14	14	0.5	0.74	-1752	16629	24688	1.48	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1222.8 Wa = 0.05 Ta = 0.1018

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 11	41	-692	-51	0	0	0	0	1590.697	No, Trazione
SLV 2	218	-2352	-82	0	0	0	0	1752.751	No, Trazione
SLV 12	41	-692	-51	0	0	0	0	1590.697	No, Trazione
SLV 1	218	-2352	-82	0	0	0	0	1752.751	No, Trazione



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 7	276	-672	-66	0	0	0	0	1590.697	No, Trazione
SLV 4	371	-1566	-83	0	0	0	0	1752.751	No, Trazione
SLV 3	371	-1566	-83	0	0	0	0	1752.751	No, Trazione
SLV 8	276	-672	-66	0	0	0	0	1590.697	No, Trazione
SLV 6	-236	-3293	-64	0.007	1.941	0.925	10.848	1590.697	No
SLV 5	-236	-3293	-64	0.007	1.941	0.925	10.848	1590.697	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.735	SLU 37	Si
V_SLU	8.368	SLU 80	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLV 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

Maschio 242

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1705.3	-500.9	-1705.3	-486.2	L3	F1	14.7	30	1323.5	1320.1	1326.9			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 50	1187	-158	1007	0.36	1109	1.101	Si
SLU 50	1399	-19	619	0	0	0	No, e>l/2
SLU 49	1187	-168	1047	0.38	1174	1.122	Si
SLU 49	1399	-114	1311	0	0	0	No, e>l/2
SLU 53	1187	-168	1060	0.38	1173	1.106	Si
SLU 53	1399	-101	802	0	0	0	No, e>l/2
SLU 51	1187	-168	1047	0.38	1174	1.121	Si
SLU 51	1399	-106	1297	0	0	0	No, e>l/2
SLU 55	1187	-184	1127	0.42	1279	1.135	Si
SLU 55	1399	-237	1917	0	0	0	No, e>l/2
SLU 42	1187	-136	862	0.31	959	1.113	Si
SLU 42	1399	-152	1680	0	0	0	No, e>l/2
SLU 56	1187	-160	1030	0.36	1124	1.092	Si
SLU 56	1399	-48	855	0	0	0	No, e>l/2
SLU 57	1187	-170	1070	0.39	1189	1.111	Si
SLU 57	1399	-134	1533	0	0	0	No, e>l/2
SLU 47	1187	-181	1104	0.41	1265	1.145	Si
SLU 47	1399	-217	1695	0	0	0	No, e>l/2
SLU 54	1187	-177	1100	0.4	1237	1.124	Si
SLU 54	1399	-188	1479	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 5	1187	333	-980	0	0	0	No, Trazione
SLV 5	1399	1001	-10789	0	0	0	No, Trazione
SLD 1	1187	-26	461	0	0	0	No, e>l/2
SLD 1	1399	111	1151	0	0	0	No, Trazione
SLV 8	1187	-523	2412	1.19	3463	1.436	Si
SLV 8	1399	-1073	14970	0	0	0	No, e>l/2
SLV 10	1187	258	-758	0	0	0	No, Trazione
SLV 10	1399	873	-13847	0	0	0	No, Trazione
SLV 7	1187	-523	2412	1.19	3463	1.436	Si
SLV 7	1399	-1073	14970	0	0	0	No, e>l/2
SLV 6	1187	333	-980	0	0	0	No, Trazione
SLV 6	1399	1001	-10789	0	0	0	No, Trazione
SLV 9	1187	258	-758	0	0	0	No, Trazione
SLV 9	1399	873	-13847	0	0	0	No, Trazione
SLV 3	1187	-136	966	0.31	972	1.006	Si
SLV 3	1399	-198	9522	0	0	0	No, e>l/2
SLV 2	1187	121	-52	0	0	0	No, Trazione
SLV 2	1399	424	1794	0	0	0	No, Trazione
SLV 4	1187	-136	966	0.31	972	1.006	Si
SLV 4	1399	-198	9522	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 53	1187	-168	14	1060		1.84	3.04	0.8	73			5.22	Si
SLU 53	1399	-101	7	802		0	0	0.56	0			0	No, Vu<V
SLU 47	1187	-181	13	1104		1.61	3.76	0.77	87			6.72	Si
SLU 47	1399	-217	54	1695		0	0	0.56	0			0	No, Vu<V
SLU 55	1187	-184	12	1127		1.7	3.61	0.78	85			6.96	Si
SLU 55	1399	-237	68	1917		0	0	0.56	0			0	No, Vu<V
SLU 54	1187	-177	13	1100		1.74	3.4	0.79	80			6.3	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	1399	-188	46	1479		0	0	0.56	0			0	No, Vu<V
SLU 57	1187	-170	13	1070		1.8	3.15	0.8	75			5.95	Si
SLU 57	1399	-134	30	1533		0	0	0.56	0			0	No, Vu<V
SLU 42	1187	-136	8	862		1.52	2.98	0.76	68			8.03	Si
SLU 42	1399	-152	51	1680		0	0	0.56	0			0	No, Vu<V
SLU 51	1187	-168	14	1047		1.7	3.3	0.78	77			5.67	Si
SLU 51	1399	-106	13	1297		0	0	0.56	0			0	No, Vu<V
SLU 49	1187	-168	13	1047		1.69	3.31	0.78	78			5.78	Si
SLU 49	1399	-114	17	1311		0	0	0.56	0			0	No, Vu<V
SLU 56	1187	-160	14	1030		1.94	2.76	0.81	67			4.85	Si
SLU 56	1399	-48	-9	855		0	0	0.56	0			0	No, Vu<V
SLU 50	1187	-158	15	1007		1.81	2.91	0.8	70			4.67	Si
SLU 50	1399	-19	-26	619		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	1187	333	-64	-980		0	0	0.83	0			0	No, Vu<V
SLV 6	1399	1001	-174	-10789		0	0	0.83	0			0	No, Vu<V
SLV 7	1187	-523	40	2412		2.13	8.17	1.26	309			7.65	Si
SLV 7	1399	-1073	187	14970		0	0	0.83	0			0	No, Vu<V
SLV 5	1187	333	-64	-980		0	0	0.83	0			0	No, Vu<V
SLV 5	1399	1001	-174	-10789		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-523	40	2412		2.13	8.17	1.26	309			7.65	Si
SLV 8	1399	-1073	187	14970		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	258	-18	-758		0	0	0.83	0			0	No, Vu<V
SLV 9	1399	873	-167	-13847		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-136	-50	966		6.54	0.69	1.63	34			0.68	No, Vu<V
SLV 3	1399	-198	52	9522		0	0	0.83	0			0	No, Vu<V
SLV 4	1187	-136	-50	966		6.54	0.69	1.63	34			0.68	No, Vu<V
SLV 4	1399	-198	52	9522		0	0	0.83	0			0	No, Vu<V
SLV 2	1187	121	-81	-52		0	0	0.83	0			0	No, Vu<V
SLV 2	1399	424	-57	1794		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-26	-28	461		0	0	0.83	0			0	No, Vu<V
SLD 1	1399	111	-15	1151		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	258	-18	-758		0	0	0.83	0			0	No, Vu<V
SLV 10	1399	873	-167	-13847		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 770 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.41	0	-140	23472	0	0	No, e>t/2
SLV 7	14	0.41	0	-520	23472	0	0	No, e>t/2
SLV 8	14	0.41	0	-520	23472	0	0	No, e>t/2
SLV 4	14	0.41	0	-408	23472	0	0	No, e>t/2
SLV 1	14	0.41	0	-294	23472	0	0	No, e>t/2
SLV 9	14	0.41	0	-122	23472	0	0	No, e>t/2
SLV 2	14	0.41	0	-294	23472	0	0	No, e>t/2
SLV 6	14	0.41	0	-140	23472	0	0	No, e>t/2
SLV 3	14	0.41	0	-408	23472	0	0	No, e>t/2
SLV 10	14	0.41	0	-122	23472	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 770 Wa = 0.05 Ta = 0.975

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	81	1523	-46	0	0	0	0	239.674	No, Trazione
SLV 8	141	714	41	0	0	0	0	239.674	No, Trazione
SLV 4	359	1329	-14	0	0	0	0	239.674	No, Trazione
SLV 10	-124	1239	-25	0	0	0	0	239.674	No, Trazione
SLV 2	342	1571	-40	0	0	0	0	239.674	No, Trazione
SLV 7	141	714	41	0	0	0	0	239.674	No, Trazione
SLV 1	342	1571	-40	0	0	0	0	239.674	No, Trazione
SLV 9	-124	1239	-25	0	0	0	0	239.674	No, Trazione
SLV 3	359	1329	-14	0	0	0	0	239.674	No, Trazione
SLV 5	81	1523	-46	0	0	0	0	239.674	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 29	No
V_SLU	0	SLU 3	No
PF_SLV	0	SLV 10	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

Maschio 243

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X inl.	Y inl.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h inl.	h fin.	a	a.s.,sx	a.s.,dx
-1705.3	-377.2	-1705.3	-349.9	L3	F1	27.3	30	1383.5	1377.3	1389.8			



Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 47	1187	-965	-6523	1.18	11245	1.724	Si
SLU 47	1399	159	2880	0	0	0	No, Trazione
SLU 38	1187	-799	-4859	0.98	9576	1.971	Si
SLU 38	1399	160	1981	0	0	0	No, Trazione
SLU 39	1187	-518	-2584	0.63	6507	2.519	Si
SLU 39	1399	12	1370	0	0	0	No, Trazione
SLU 40	1187	-656	-6683	0.8	8063	1.206	Si
SLU 40	1399	255	2992	0	0	0	No, Trazione
SLU 36	1187	-829	-5104	1.01	9893	1.938	Si
SLU 36	1399	135	2182	0	0	0	No, Trazione
SLU 49	1187	-971	-3353	1.19	11304	3.371	Si
SLU 49	1399	-59	1591	0	0	0	No, e>l/2
SLU 44	1187	-898	-7205	1.1	10581	1.469	Si
SLU 44	1399	189	3288	0	0	0	No, Trazione
SLU 46	1187	-904	-4035	1.11	10641	2.637	Si
SLU 46	1399	-28	1999	0	0	0	No, e>l/2
SLU 41	1187	-586	-1902	0.72	7276	3.826	Si
SLU 41	1399	-18	962	0	0	0	No, e>l/2
SLU 42	1187	-724	-6002	0.89	8794	1.465	Si
SLU 42	1399	225	2583	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLD 1	1187	-566	2210	0.69	7271	3.291	Si
SLD 1	1399	-25	6100	0	0	0	No, e>l/2
SLV 14	1187	1590	11961	0	0	0	No, Trazione
SLV 14	1399	1068	3830	0	0	0	No, Trazione
SLV 6	1187	2595	33582	0	0	0	No, Trazione
SLV 6	1399	2156	29907	0	0	0	No, Trazione
SLV 5	1187	2595	33582	0	0	0	No, Trazione
SLV 5	1399	2156	29907	0	0	0	No, Trazione
SLV 2	1187	-566	7313	0.69	7280	0.996	No, M>Mu
SLV 2	1399	145	14162	0	0	0	No, Trazione
SLV 13	1187	1590	11961	0	0	0	No, Trazione
SLV 13	1399	1068	3830	0	0	0	No, Trazione
SLV 1	1187	-566	7313	0.69	7280	0.996	No, M>Mu
SLV 1	1399	145	14162	0	0	0	No, Trazione
SLV 15	1187	-474	-9161	0	0	0	No, e>l/2
SLV 15	1399	-379	-12766	0	0	0	No, e>l/2
SLV 9	1187	3242	34976	0	0	0	No, Trazione
SLV 9	1399	2433	26808	0	0	0	No, Trazione
SLV 10	1187	3242	34976	0	0	0	No, Trazione
SLV 10	1399	2433	26808	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 46	1187	-904	-122	-4035		1.11	27.25	0.7	575			4.7	Si
SLU 46	1399	-28	102	1999		0	0	0.56	0			0	No, Vu<V
SLU 40	1187	-656	-226	-6683		2.12	10.33	0.84	260			1.15	Si
SLU 40	1399	255	212	2992		0	0	0.56	0			0	No, Vu<V
SLU 39	1187	-518	-92	-2584		0.67	25.91	0.64	501			5.47	Si
SLU 39	1399	12	89	1370		0	0	0.56	0			0	No, Vu<V
SLU 38	1187	-799	-169	-4859		1.18	22.62	0.71	483			2.87	Si
SLU 38	1399	160	62	1981		0	0	0.56	0			0	No, Vu<V
SLU 42	1187	-724	-206	-6002		1.51	16.01	0.76	363			1.76	Si
SLU 42	1399	225	145	2583		0	0	0.56	0			0	No, Vu<V
SLU 36	1187	-829	-176	-5104		1.23	22.41	0.72	484			2.75	Si
SLU 36	1399	135	75	2182		0	0	0.56	0			0	No, Vu<V
SLU 44	1187	-898	-225	-7205		1.78	16.79	0.79	400			1.78	Si
SLU 44	1399	189	236	3288		0	0	0.56	0			0	No, Vu<V
SLU 41	1187	-586	-72	-1902		0.72	27.25	0.65	532			7.43	Si
SLU 41	1399	-18	23	962		0	0	0.56	0			0	No, Vu<V
SLU 49	1187	-971	-102	-3353		1.19	27.25	0.71	584			5.7	Si
SLU 49	1399	-59	35	1591		0	0	0.56	0			0	No, Vu<V
SLU 47	1187	-965	-205	-6523		1.56	20.6	0.76	472			2.3	Si
SLU 47	1399	159	170	2880		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	2595	-932	33582		0	0	0.83	0			0	No, Vu<V
SLV 5	1399	2156	1775	29907		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	3242	-968	34976		0	0	0.83	0			0	No, Vu<V
SLV 10	1399	2433	1687	26808		0	0	0.83	0			0	No, Vu<V
SLV 1	1187	-566	-244	7313		8.8	2.15	1.63	105			0.43	No, Vu<V
SLV 1	1399	145	694	14162		0	0	0.83	0			0	No, Vu<V
SLV 15	1187	-474	192	-9161		0	0	0.83	0			0	No, Vu<V
SLV 15	1399	-379	-616	-12766		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	1590	-362	11961		0	0	0.83	0			0	No, Vu<V
SLV 13	1399	1068	399	3830		0	0	0.83	0			0	No, Vu<V
SLV 2	1187	-566	-244	7313		8.8	2.15	1.63	105			0.43	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	1399	145	694	14162		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	2595	-932	33582		0	0	0.83	0			0	No, Vu<V
SLV 6	1399	2156	1775	29907		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-566	-112	2210		0.69	27.25	0.97	794			7.08	Si
SLD 1	1399	-25	299	6100		0	0	0.83	0			0	No, Vu<V
SLV 14	1187	1590	-362	11961		0	0	0.83	0			0	No, Vu<V
SLV 14	1399	1068	399	3830		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	3242	-968	34976		0	0	0.83	0			0	No, Vu<V
SLV 9	1399	2433	1687	26808		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 798.6 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.41	0	-990	48314	0	0	No, e>t/2
SLV 3	14	0.41	0	-1639	48314	0	0	No, e>t/2
SLV 6	14	0.41	0	-179	48314	0	0	No, e>t/2
SLV 5	14	0.41	0	-179	48314	0	0	No, e>t/2
SLV 4	14	0.41	0	-1639	48314	0	0	No, e>t/2
SLV 8	14	0.41	0	-2342	48314	0	0	No, e>t/2
SLV 10	14	0.41	0	-132	48314	0	0	No, e>t/2
SLV 9	14	0.41	0	-132	48314	0	0	No, e>t/2
SLV 7	14	0.41	0	-2342	48314	0	0	No, e>t/2
SLV 2	14	0.41	0	-990	48314	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 798.6 Wa = 0.05 Ta = 1.0655

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 2	52	-9408	-5	0	0	0	0	239.674	No, Trazione
SLV 10	318	-20128	2	0	0	0	0	239.674	No, Trazione
SLV 9	318	-20128	2	0	0	0	0	239.674	No, Trazione
SLV 3	36	-1116	5	0	0	0	0	239.674	No, Trazione
SLV 1	52	-9408	-5	0	0	0	0	239.674	No, Trazione
SLV 7	151	7994	26	0	0	0	0	239.674	No, Trazione
SLV 4	36	-1116	5	0	0	0	0	239.674	No, Trazione
SLV 8	151	7994	26	0	0	0	0	239.674	No, Trazione
SLV 6	204	-19645	-6	0	0	0	0	239.674	No, Trazione
SLV 5	204	-19645	-6	0	0	0	0	239.674	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

Maschio 244

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-335.9	-1389.3	-335.9	L4	L6	14	28	704	704	704			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedlo	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 61	483	-1399	12426	0	0	0	No, e>l/2
SLU 61	1187	-554	9136	0	0	0	No, e>l/2
SLU 55	483	-1368	12525	0	0	0	No, e>l/2
SLU 55	1187	-529	8992	0	0	0	No, e>l/2
SLU 1	483	-953	8870	0	0	0	No, e>l/2
SLU 1	1187	-388	6228	0	0	0	No, e>l/2
SLU 58	483	-1358	12983	0	0	0	No, e>l/2
SLU 58	1187	-504	9127	0	0	0	No, e>l/2
SLU 60	483	-1386	12448	0	0	0	No, e>l/2
SLU 60	1187	-546	9077	0	0	0	No, e>l/2
SLU 54	483	-1370	12560	0	0	0	No, e>l/2
SLU 54	1187	-549	9298	0	0	0	No, e>l/2
SLU 59	483	-1372	12961	0	0	0	No, e>l/2
SLU 59	1187	-512	9186	0	0	0	No, e>l/2
SLU 53	483	-1356	12582	0	0	0	No, e>l/2
SLU 53	1187	-542	9238	0	0	0	No, e>l/2
SLU 56	483	-1369	13003	0	0	0	No, e>l/2
SLU 56	1187	-530	9472	0	0	0	No, e>l/2
SLU 57	483	-1383	12981	0	0	0	No, e>l/2
SLU 57	1187	-537	9531	0	0	0	No, e>l/2



Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 14	483	-1256	3168	3.2	6486	2.047	Si
SLV 14	1187	-380	6465	0	0	0	No, $e \geq l/2$
SLV 7	483	-775	7920	0	0	0	No, $e \geq l/2$
SLV 7	1187	-1200	12357	0	0	0	No, $e \geq l/2$
SLV 11	483	-887	3720	2.26	5060	1.36	Si
SLV 11	1187	-1333	13196	0	0	0	No, $e \geq l/2$
SLV 6	483	-1141	14609	0	0	0	No, $e \geq l/2$
SLV 6	1187	506	496	0	0	0	No, Trazione
SLV 10	483	-1253	10409	0	0	0	No, $e \geq l/2$
SLV 10	1187	372	1335	0	0	0	No, Trazione
SLV 9	483	-1253	10409	0	0	0	No, $e \geq l/2$
SLV 9	1187	372	1335	0	0	0	No, Trazione
SLD 1	483	-957	12568	0	0	0	No, $e \geq l/2$
SLD 1	1187	-209	5486	0	0	0	No, $e \geq l/2$
SLV 13	483	-1256	3168	3.2	6486	2.047	Si
SLV 13	1187	-380	6465	0	0	0	No, $e \geq l/2$
SLV 12	483	-887	3720	2.26	5060	1.36	Si
SLV 12	1187	-1333	13196	0	0	0	No, $e \geq l/2$
SLV 8	483	-775	7920	0	0	0	No, $e \geq l/2$
SLV 8	1187	-1200	12357	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 58	483	-1358	-298	12983		0	0	0.56	0			0	No, Vu<V
SLU 58	1187	-504	-98	9127		0	0	0.56	0			0	No, Vu<V
SLU 1	483	-953	-228	8870		0	0	0.56	0			0	No, Vu<V
SLU 1	1187	-388	-44	6228		0	0	0.56	0			0	No, Vu<V
SLU 53	483	-1356	-320	12582		0	0	0.56	0			0	No, Vu<V
SLU 53	1187	-542	-82	9238		0	0	0.56	0			0	No, Vu<V
SLU 57	483	-1383	-317	12981		0	0	0.56	0			0	No, Vu<V
SLU 57	1187	-537	-97	9531		0	0	0.56	0			0	No, Vu<V
SLU 54	483	-1370	-331	12560		0	0	0.56	0			0	No, Vu<V
SLU 54	1187	-549	-81	9298		0	0	0.56	0			0	No, Vu<V
SLU 55	483	-1368	-332	12525		0	0	0.56	0			0	No, Vu<V
SLU 55	1187	-529	-79	8992		0	0	0.56	0			0	No, Vu<V
SLU 60	483	-1386	-346	12448		0	0	0.56	0			0	No, Vu<V
SLU 60	1187	-546	-72	9077		0	0	0.56	0			0	No, Vu<V
SLU 56	483	-1369	-305	13003		0	0	0.56	0			0	No, Vu<V
SLU 56	1187	-530	-99	9472		0	0	0.56	0			0	No, Vu<V
SLU 59	483	-1372	-310	12961		0	0	0.56	0			0	No, Vu<V
SLU 59	1187	-512	-96	9186		0	0	0.56	0			0	No, Vu<V
SLU 61	483	-1399	-358	12426		0	0	0.56	0			0	No, Vu<V
SLU 61	1187	-554	-70	9136		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	483	-775	-279	7920		0	0	0.83	0			0	No, Vu<V
SLV 7	1187	-1200	195	12357		0	0	0.83	0			0	No, Vu<V
SLV 13	483	-1256	-600	3168	3.34	13.43	1.5	565				0.94	No, Vu<V
SLV 13	1187	-380	-179	6465		0	0	0.83	0			0	No, Vu<V
SLV 10	483	-1253	-228	10409		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	372	-303	1335		0	0	0.83	0			0	No, Vu<V
SLV 12	483	-887	-513	3720	3.76	8.42	1.59	374				0.73	No, Vu<V
SLV 12	1187	-1333	162	13196		0	0	0.83	0			0	No, Vu<V
SLV 11	483	-887	-513	3720	3.76	8.42	1.59	374				0.73	No, Vu<V
SLV 11	1187	-1333	162	13196		0	0	0.83	0			0	No, Vu<V
SLV 8	483	-775	-279	7920		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-1200	195	12357		0	0	0.83	0			0	No, Vu<V
SLD 1	483	-957	-69	12568		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-209	-60	5486		0	0	0.83	0			0	No, Vu<V
SLV 6	483	-1141	5	14609		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	506	-270	496		0	0	0.83	0			0	No, Vu<V
SLV 9	483	-1253	-228	10409		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	372	-303	1335		0	0	0.83	0			0	No, Vu<V
SLV 14	483	-1256	-600	3168	3.34	13.43	1.5	565				0.94	No, Vu<V
SLV 14	1187	-380	-179	6465		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 835 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.42	0	23	6255	0	0	No, Trazione
SLV 9	14	0.42	0	-49	6255	0	0	No, $e \geq t/2$
SLV 10	14	0.42	0	-49	6255	0	0	No, $e \geq t/2$
SLV 6	14	0.42	0	23	6255	0	0	No, Trazione
SLV 2	14	0.42	1.47	-576	6255	7098	1.13	Si
SLV 1	14	0.42	1.47	-576	6255	7098	1.13	Si
SLV 13	14	0.42	2.08	-815	6255	9465	1.51	Si
SLV 14	14	0.42	2.08	-815	6255	9465	1.51	Si
SLV 4	14	0.42	2.96	-1161	6255	12317	1.97	Si
SLV 3	14	0.42	2.96	-1161	6255	12317	1.97	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 835 Wa = 0.05 Ta = 0.2956



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	372	-1253	9	0	0	0	0	1482.591	No, Trazione
SLV 10	372	-1253	9	0	0	0	0	1482.591	No, Trazione
SLV 6	506	-1141	8	0	0	0	0	1482.591	No, Trazione
SLV 5	506	-1141	8	0	0	0	0	1482.591	No, Trazione
SLV 1	65	-882	3	0	0	0	0	1242.886	No, Trazione
SLV 2	65	-882	3	0	0	0	0	1242.886	No, Trazione
SLV 8	-1200	-775	-8	0.018	1.615	0.934	28.066	1482.591	No
SLV 7	-1200	-775	-8	0.018	1.615	0.934	28.066	1482.591	No
SLV 12	-1333	-887	-8	0.018	1.75	0.938	28.239	1482.591	No
SLV 11	-1333	-887	-8	0.018	1.75	0.938	28.239	1482.591	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 10	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 6	No
R_SLV	0	SLV 10	No

Maschio 245

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1627.8	-485.9	-1705.3	-485.9	L3	F1	77.5	30	1327	1327	1327			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 35	1187	-1554	7958	0.67	55251	6.943	Si
SLU 35	1399	-321	-8107	0.14	12204	1.505	Si
SLU 8	1187	-1344	6600	0.58	48361	7.327	Si
SLU 8	1399	-250	-6665	0.11	9556	1.434	Si
SLU 71	1187	-1824	7669	0.79	63839	8.324	Si
SLU 71	1399	-362	-7520	0.16	13762	1.83	Si
SLU 29	1187	-1406	7566	0.61	50407	6.662	Si
SLU 29	1399	-264	-8009	0.11	10099	1.261	Si
SLU 6	1187	-1362	6103	0.59	48940	8.019	Si
SLU 6	1399	-262	-6051	0.11	10001	1.653	Si
SLU 27	1187	-1424	7069	0.61	50982	7.212	Si
SLU 27	1399	-276	-7395	0.12	10544	1.426	Si
SLU 14	1187	-1493	6992	0.64	53242	7.615	Si
SLU 14	1399	-306	-6764	0.13	11664	1.724	Si
SLU 37	1187	-1537	8455	0.66	54686	6.468	Si
SLU 37	1399	-309	-8721	0.13	11761	1.349	Si
SLU 79	1187	-1955	8558	0.84	67894	7.933	Si
SLU 79	1399	-407	-8233	0.17	15406	1.871	Si
SLU 16	1187	-1475	7489	0.63	52673	7.034	Si
SLU 16	1399	-294	-7378	0.13	11221	1.521	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLD 16	1187	-983	-22441	0.42	36749	1.638	Si
SLD 16	1399	-195	14927	0	0	0	No, e>l/2
SLV 11	1187	-212	-89964	0	0	0	No, e>l/2
SLV 11	1399	292	33428	0	0	0	No, Trazione
SLV 2	1187	-2788	60960	1.2	97353	1.597	Si
SLV 2	1399	-758	-36861	0	0	0	No, e>l/2
SLV 14	1187	-864	-8048	0.37	32427	4.029	Si
SLV 14	1399	-311	20697	0	0	0	No, e>l/2
SLV 7	1187	-789	-69262	0	0	0	No, e>l/2
SLV 7	1399	158	16161	0	0	0	No, Trazione
SLV 8	1187	-789	-69262	0	0	0	No, e>l/2
SLV 8	1399	158	16161	0	0	0	No, Trazione
SLV 12	1187	-212	-89964	0	0	0	No, e>l/2
SLV 12	1399	292	33428	0	0	0	No, Trazione
SLV 3	1187	-2176	12005	0.94	77804	6.481	Si
SLV 3	1399	-407	-21687	0	0	0	No, e>l/2
SLV 4	1187	-2176	12005	0.94	77804	6.481	Si
SLV 4	1399	-407	-21687	0	0	0	No, e>l/2
SLV 13	1187	-864	-8048	0.37	32427	4.029	Si
SLV 13	1399	-311	20697	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 37	1187	-1537	176	8455		0.66	77.45	0.64	1496			8.52	Si
SLU 37	1399	-309	-216	-8721		0.33	31.44	0.6	565			2.62	Si
SLU 29	1187	-1406	160	7566		0.61	77.45	0.64	1478			9.24	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 29	1399	-264	-157	-8009		0.35	25.33	0.6	458			2.92	Si
SLU 38	1187	-1823	108	5263		0.78	77.45	0.66	1534			14.22	Si
SLU 38	1399	-443	-251	-5130		0.19	77.45	0.58	1350			5.37	Si
SLU 79	1187	-1955	167	8558		0.84	77.45	0.67	1552			9.29	Si
SLU 79	1399	-407	-210	-8233		0.24	55.43	0.59	978			4.65	Si
SLU 16	1187	-1475	149	7489		0.63	77.45	0.64	1488			9.97	Si
SLU 16	1399	-294	-170	-7378		0.24	40.98	0.59	722			4.24	Si
SLU 77	1187	-1973	155	8061		0.85	77.45	0.67	1554			10	Si
SLU 77	1399	-418	-206	-7619		0.23	61.55	0.59	1082			5.24	Si
SLU 14	1187	-1493	138	6992		0.64	77.45	0.64	1490			10.82	Si
SLU 14	1399	-306	-166	-6764		0.2	49.9	0.58	872			5.24	Si
SLU 27	1187	-1424	148	7069		0.61	77.45	0.64	1481			9.98	Si
SLU 27	1399	-276	-153	-7395		0.26	35.89	0.59	635			4.16	Si
SLU 36	1187	-1840	96	4766		0.79	77.45	0.66	1536			15.96	Si
SLU 36	1399	-455	-247	-4516		0.2	77.45	0.58	1352			5.47	Si
SLU 35	1187	-1554	164	7958		0.67	77.45	0.64	1498			9.14	Si
SLU 35	1399	-321	-212	-8107		0.27	40.31	0.59	715			3.37	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	1187	-789	-447	-69262		0	0	0.83	0			0	No, Vu<V
SLV 8	1399	158	902	16161		0	0	0.83	0			0	No, Vu<V
SLV 7	1187	-789	-447	-69262		0	0	0.83	0			0	No, Vu<V
SLV 7	1399	158	902	16161		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-2176	528	12005		0.94	77.45	1.02	2371			4.49	Si
SLV 3	1399	-407	-700	-21687		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	-212	-878	-89964		0	0	0.83	0			0	No, Vu<V
SLV 11	1399	292	1513	33428		0	0	0.83	0			0	No, Vu<V
SLD 16	1187	-983	-376	-22441		0.69	47.69	0.97	1389			3.69	Si
SLD 16	1399	-195	525	14927		0	0	0.83	0			0	No, Vu<V
SLV 4	1187	-2176	528	12005		0.94	77.45	1.02	2371			4.49	Si
SLV 4	1399	-407	-700	-21687		0	0	0.83	0			0	No, Vu<V
SLV 14	1187	-864	-501	-8048		0.37	77.45	0.91	2109			4.21	Si
SLV 14	1399	-311	572	20697		0	0	0.83	0			0	No, Vu<V
SLV 2	1187	-2788	934	60960		1.84	50.57	1.2	1822			1.95	Si
SLV 2	1399	-758	-1462	-36861		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	-212	-878	-89964		0	0	0.83	0			0	No, Vu<V
SLV 12	1399	292	1513	33428		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	-864	-501	-8048		0.37	77.45	0.91	2109			4.21	Si
SLV 13	1399	-311	572	20697		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 773.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.41	0	-423	124712	0	0	No, e>t/2
SLV 4	14	0.41	0	-4319	124712	0	0	No, e>t/2
SLV 2	14	0.41	0	-6660	124712	0	0	No, e>t/2
SLV 3	14	0.41	0	-4319	124712	0	0	No, e>t/2
SLV 5	14	0.41	0	-8224	124712	0	0	No, e>t/2
SLV 9	14	0.41	0	-7225	124712	0	0	No, e>t/2
SLV 8	14	0.41	0	-423	124712	0	0	No, e>t/2
SLV 6	14	0.41	0	-8224	124712	0	0	No, e>t/2
SLV 10	14	0.41	0	-7225	124712	0	0	No, e>t/2
SLV 1	14	0.41	0	-6660	124712	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 773.5 Wa = 0.05 Ta = 0.9802

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 10	1436	-11810	-31	0	0	0	0	239.674	No, Trazione
SLV 9	1436	-11810	-31	0	0	0	0	239.674	No, Trazione
SLV 14	648	-6501	-27	0	0	0	0	239.674	No, Trazione
SLV 6	1224	-13821	-22	0	0	0	0	239.674	No, Trazione
SLV 13	648	-6501	-27	0	0	0	0	239.674	No, Trazione
SLV 5	1224	-13821	-22	0	0	0	0	239.674	No, Trazione
SLV 8	-1736	-5354	20	0.014	6.641	0.894	22.554	239.674	No
SLV 7	-1736	-5354	20	0.014	6.641	0.894	22.554	239.674	No
SLV 4	-947	-10663	15	0.016	6.049	0.913	24.906	239.674	No
SLV 3	-947	-10663	15	0.016	6.049	0.913	24.906	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.261	SLU 29	Si
V_SLU	2.618	SLU 37	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 7	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 14	No

Maschio 246

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-485.9	-1443.8	-485.9	L3	F1	68.5	30	1326.8	1326.8	1326.8			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 43	1187	-1486	-5556	0.72	46421	8.355	Si
SLU 43	1399	-379	5565	0.18	12689	2.28	Si
SLU 1	1187	-1182	-4052	0.57	37649	9.293	Si
SLU 1	1399	-297	3996	0.14	10013	2.506	Si
SLU 47	1187	-1755	-4596	0.85	53836	11.713	Si
SLU 47	1399	-417	5704	0.2	13945	2.445	Si
SLU 10	1187	-1223	-2834	0.59	38849	13.71	Si
SLU 10	1399	-298	3962	0.14	10018	2.529	Si
SLU 44	1187	-1487	-5751	0.72	46427	8.073	Si
SLU 44	1399	-375	7051	0.18	12577	1.784	Si
SLU 2	1187	-1182	-4247	0.57	37655	8.867	Si
SLU 2	1399	-294	5482	0.14	9901	1.806	Si
SLU 23	1187	-1328	-3404	0.65	41914	12.312	Si
SLU 23	1399	-317	4401	0.15	10661	2.422	Si
SLU 52	1187	-1527	-4338	0.74	47571	10.966	Si
SLU 52	1399	-379	5531	0.18	12693	2.295	Si
SLU 65	1187	-1633	-4909	0.79	50504	10.289	Si
SLU 65	1399	-398	5970	0.19	13330	2.233	Si
SLU 46	1187	-1709	-4737	0.83	52602	11.105	Si
SLU 46	1399	-412	5304	0.2	13770	2.596	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 2	1187	-1917	29620	0.93	60682	2.049	Si
SLV 2	1399	-179	-25539	0	0	0	No, e>l/2
SLV 8	1187	1871	-14194	0	0	0	No, Trazione
SLV 8	1399	41	23784	0	0	0	No, Trazione
SLD 1	1187	-1526	10700	0.74	49121	4.591	Si
SLD 1	1399	-250	-8972	0	0	0	No, e>l/2
SLV 7	1187	1871	-14194	0	0	0	No, Trazione
SLV 7	1399	41	23784	0	0	0	No, Trazione
SLV 6	1187	-4204	23778	2.04	119972	5.045	Si
SLV 6	1399	-525	-29737	0	0	0	No, e>l/2
SLV 12	1187	1733	-30592	0	0	0	No, Trazione
SLV 12	1399	-85	36242	0	0	0	No, e>l/2
SLV 11	1187	1733	-30592	0	0	0	No, Trazione
SLV 11	1399	-85	36242	0	0	0	No, e>l/2
SLV 4	1187	-94	18228	0	0	0	No, e>l/2
SLV 4	1399	-9	-9483	0	0	0	No, e>l/2
SLV 3	1187	-94	18228	0	0	0	No, e>l/2
SLV 3	1399	-9	-9483	0	0	0	No, e>l/2
SLV 5	1187	-4204	23778	2.04	119972	5.045	Si
SLV 5	1399	-525	-29737	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	1187	-1486	-124	-5556	0.72	68.55	0.65	1341				10.78	Si
SLU 43	1399	-379	86	5565	0.21	58.75	0.58	1030				11.92	Si
SLU 44	1187	-1487	-138	-5751	0.72	68.55	0.65	1341				9.74	Si
SLU 44	1399	-375	135	7051	0.27	46.47	0.59	825				6.12	Si
SLU 23	1187	-1328	-65	-3404	0.65	68.55	0.64	1320				20.41	Si
SLU 23	1399	-317	86	4401	0.17	61.18	0.58	1062				12.34	Si
SLU 10	1187	-1223	-64	-2834	0.59	68.55	0.63	1305				20.53	Si
SLU 10	1399	-298	76	3962	0.16	62.88	0.58	1088				14.38	Si
SLU 65	1187	-1633	-103	-4909	0.79	68.55	0.66	1360				13.26	Si
SLU 65	1399	-398	112	5970	0.23	57.86	0.59	1017				9.09	Si
SLU 2	1187	-1182	-100	-4247	0.57	68.55	0.63	1300				13.05	Si
SLU 2	1399	-294	109	5482	0.21	46.89	0.58	821				7.55	Si
SLU 52	1187	-1527	-102	-4338	0.74	68.55	0.65	1346				13.26	Si
SLU 52	1399	-379	102	5531	0.21	59.03	0.58	1034				10.19	Si
SLU 47	1187	-1755	-79	-4596	0.85	68.55	0.67	1376				17.52	Si
SLU 47	1399	-417	101	5704	0.23	61.81	0.59	1086				10.71	Si
SLU 46	1187	-1709	-84	-4737	0.83	68.55	0.67	1370				16.3	Si
SLU 46	1399	-412	87	5304	0.21	64.19	0.58	1125				13	Si
SLU 37	1187	-1905	103	514	0.93	68.55	0.68	1396				13.61	Si
SLU 37	1399	-408	-62	-1300	0.2	68.55	0.58	1197				19.27	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1187	1733	-1082	-30592	0	0	0.83	0				0	No, Vu<V
SLV 12	1399	-85	910	36242	0	0	0.83	0				0	No, Vu<V
SLV 5	1187	-4204	950	23778	2.04	68.55	1.24	2554				2.69	Si
SLV 5	1399	-525	-821	-29737	0	0	0.83	0				0	No, Vu<V
SLV 2	1187	-1917	1237	29620	1.13	56.46	1.06	1795				1.45	Si
SLV 2	1399	-179	-1672	-25539	0	0	0.83	0				0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1187	-94	825	18228		0	0	0.83	0			0	No, Vu<V
SLV 4	1399	-9	-1441	-9483		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	-4204	950	23778		2.04	68.55	1.24	2554			2.69	Si
SLV 6	1399	-525	-821	-29737		0	0	0.83	0			0	No, Vu<V
SLV 7	1187	1871	-424	-14194		0	0	0.83	0			0	No, Vu<V
SLV 7	1399	41	-51	23784		0	0	0.83	0			0	No, Vu<V
SLV 3	1187	-94	825	18228		0	0	0.83	0			0	No, Vu<V
SLV 3	1399	-9	-1441	-9483		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	1733	-1082	-30592		0	0	0.83	0			0	No, Vu<V
SLV 11	1399	-85	910	36242		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	1871	-424	-14194		0	0	0.83	0			0	No, Vu<V
SLV 8	1399	41	-51	23784		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-1526	488	10700		0.74	68.55	0.98	2019			4.14	Si
SLD 1	1399	-250	-685	-8972		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 773.4 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 12	14	0.41	0	1553	110334	0	0	No, Trazione
SLV 1	14	0.41	0	-7223	110334	0	0	No, e>t/2
SLV 4	14	0.41	0	-4497	110334	0	0	No, e>t/2
SLV 3	14	0.41	0	-4497	110334	0	0	No, e>t/2
SLV 11	14	0.41	0	1553	110334	0	0	No, Trazione
SLV 14	14	0.41	0	-2807	110334	0	0	No, e>t/2
SLV 13	14	0.41	0	-2807	110334	0	0	No, e>t/2
SLV 7	14	0.41	0	228	110334	0	0	No, Trazione
SLV 8	14	0.41	0	228	110334	0	0	No, Trazione
SLV 2	14	0.41	0	-7223	110334	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 773.4 Wa = 0.05 Ta = 0.9799

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 15	-262	1642	2	0	0	0	0	239.674	No, Trazione
SLV 3	186	-11799	-6	0	0	0	0	239.674	No, Trazione
SLV 4	186	-11799	-6	0	0	0	0	239.674	No, Trazione
SLV 2	14	-15399	8	0	0	0	0	239.674	No, Trazione
SLV 11	94	1138	-18	0	0	0	0	239.674	No, Trazione
SLV 8	229	-2894	-20	0	0	0	0	239.674	No, Trazione
SLV 16	-262	1642	2	0	0	0	0	239.674	No, Trazione
SLV 12	94	1138	-18	0	0	0	0	239.674	No, Trazione
SLV 1	14	-15399	8	0	0	0	0	239.674	No, Trazione
SLV 7	229	-2894	-20	0	0	0	0	239.674	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.784	SLU 44	Si
V_SLU	6.121	SLU 44	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 16	No

Maschio 247

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-485.9	-1375.3	-349.9	Z medio 312 cm	F1	135.9	28	1156.2	1124.8	1187.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 43	312	-15342	1811	4.03	526736	290.812	Si
SLU 43	1437	-405	8432	0.11	27142	3.219	Si
SLU 52	312	-17002	3386	4.47	521858	154.101	Si
SLU 52	1437	-445	7953	0.12	29786	3.745	Si
SLU 1	312	-12078	1813	3.17	501092	276.427	Si
SLU 1	1437	-328	6327	0.09	22071	3.489	Si
SLU 44	312	-15396	2367	4.05	526767	222.551	Si
SLU 44	1437	-403	7718	0.11	27023	3.501	Si
SLU 60	312	-17637	3268	4.63	516796	158.153	Si
SLU 60	1437	-464	8768	0.12	31086	3.546	Si
SLU 19	312	-14405	3603	3.78	524153	145.493	Si
SLU 19	1437	-387	6234	0.1	25963	4.165	Si
SLU 61	312	-17669	3601	4.64	516494	143.426	Si
SLU 61	1437	-463	8339	0.12	31015	3.719	Si
SLU 2	312	-12131	2368	3.19	501886	211.906	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 2	1437	-326	5613	0.09	21951	3.911	Si
SLU 18	312	-14373	3269	3.78	523996	160.283	Si
SLU 18	1437	-388	6662	0.1	26035	3.908	Si
SLU 64	312	-16389	3402	4.31	525067	154.352	Si
SLU 64	1437	-469	7828	0.12	31388	4.01	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	312	-20776	-46651	5.46	781223	16.746	Si
SLV 1	1437	42	30206	0	0	0	No, Trazione
SLD 11	312	-9166	33098	2.41	500171	15.112	Si
SLD 11	1437	-69	-5967	0	0	0	No, e>l/2
SLD 8	312	-10666	25332	2.8	558646	22.053	Si
SLD 8	1437	101	-1666	0	0	0	No, Trazione
SLV 3	312	-16632	-8504	4.37	726118	85.388	Si
SLV 3	1437	570	15983	0	0	0	No, Trazione
SLV 8	312	-7689	57096	2.02	436168	7.639	Si
SLV 8	1437	722	-12423	0	0	0	No, Trazione
SLV 2	312	-20776	-46651	5.46	781223	16.746	Si
SLV 2	1437	42	30206	0	0	0	No, Trazione
SLV 7	312	-7689	57096	2.02	436168	7.639	Si
SLV 7	1437	722	-12423	0	0	0	No, Trazione
SLV 11	312	-4168	75177	1.1	257883	3.43	Si
SLV 11	1437	323	-22546	0	0	0	No, Trazione
SLD 1	312	-16212	-18382	4.26	717739	39.045	Si
SLD 1	1437	-188	16401	0	0	0	No, e>l/2
SLD 12	312	-9166	33098	2.41	500171	15.112	Si
SLD 12	1437	-69	-5967	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 37	312	-15434	-755	3024		4.06	135.93	1.08	4123			5.46	Si
SLU 37	1437	-547	-915	-954		0.14	135.93	0.57	2187			2.39	Si
SLU 71	312	-17092	-602	2003		4.49	135.93	1.08	4123			6.84	Si
SLU 71	1437	-582	-807	916		0.15	135.93	0.58	2192			2.72	Si
SLU 78	312	-18760	-831	3947		4.93	135.93	1.08	4123			4.96	Si
SLU 78	1437	-641	-914	2219		0.17	135.93	0.58	2200			2.41	Si
SLU 79	312	-18699	-842	3022		4.91	135.93	1.08	4123			4.9	Si
SLU 79	1437	-624	-928	1151		0.16	135.93	0.58	2198			2.37	Si
SLU 38	312	-15466	-732	3357		4.06	135.93	1.08	4123			5.63	Si
SLU 38	1437	-546	-919	-1382		0.14	135.93	0.57	2187			2.38	Si
SLU 72	312	-17124	-580	2336		4.5	135.93	1.08	4123			7.11	Si
SLU 72	1437	-581	-811	488		0.15	135.93	0.58	2192			2.7	Si
SLU 80	312	-18731	-819	3356		4.92	135.93	1.08	4123			5.03	Si
SLU 80	1437	-623	-932	723		0.16	135.93	0.58	2197			2.36	Si
SLU 77	312	-18728	-854	3614		4.92	135.93	1.08	4123			4.83	Si
SLU 77	1437	-642	-910	2647		0.17	135.93	0.58	2200			2.42	Si
SLU 36	312	-15495	-744	3949		4.07	135.93	1.08	4123			5.54	Si
SLU 36	1437	-565	-901	114		0.15	135.93	0.58	2190			2.43	Si
SLU 35	312	-15463	-767	3615		4.06	135.93	1.08	4123			5.38	Si
SLU 35	1437	-566	-897	542		0.15	135.93	0.58	2190			2.44	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	312	-20776	1422	-46651		5.46	135.93	1.63	6185			4.35	Si
SLV 2	1437	42	-356	30206		0	0	0.83	0			0	No, Vu<V
SLV 11	312	-4168	1152	75177		1.1	135.93	1.05	4005			3.48	Si
SLV 11	1437	323	2273	-22546		0	0	0.83	0			0	No, Vu<V
SLV 1	312	-20776	1422	-46651		5.46	135.93	1.63	6185			4.35	Si
SLV 1	1437	42	-356	30206		0	0	0.83	0			0	No, Vu<V
SLD 1	312	-16212	306	-18382		4.26	135.93	1.63	6185			20.21	Si
SLD 1	1437	-188	-321	16401		0	0	0.83	0			0	No, Vu<V
SLV 8	312	-7689	2774	57096		2.02	135.93	1.24	4709			1.7	Si
SLV 8	1437	722	2741	-12423		0	0	0.83	0			0	No, Vu<V
SLV 7	312	-7689	2774	57096		2.02	135.93	1.24	4709			1.7	Si
SLV 7	1437	722	2741	-12423		0	0	0.83	0			0	No, Vu<V
SLD 12	312	-9166	171	33098		2.41	135.93	1.31	5005			29.3	Si
SLD 12	1437	-69	799	-5967		0	0	0.83	0			0	No, Vu<V
SLD 11	312	-9166	171	33098		2.41	135.93	1.31	5005			29.3	Si
SLD 11	1437	-69	799	-5967		0	0	0.83	0			0	No, Vu<V
SLV 3	312	-16632	2920	-8504		4.37	135.93	1.63	6185			2.12	Si
SLV 3	1437	570	1325	15983		0	0	0.83	0			0	No, Vu<V
SLV 4	312	-16632	2920	-8504		4.37	135.93	1.63	6185			2.12	Si
SLV 4	1437	570	1325	15983		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 874.4 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.43	0	-7359	170910	0	0	No, e>t/2
SLV 5	14	0.43	0	-7359	170910	0	0	No, e>t/2
SLV 3	14	0.43	0	-5121	170910	0	0	No, e>t/2
SLV 7	14	0.43	0	-4697	170910	0	0	No, e>t/2
SLV 4	14	0.43	0	-5121	170910	0	0	No, e>t/2
SLV 9	14	0.43	0	-7794	170910	0	0	No, e>t/2
SLV 1	14	0.43	0	-5920	170910	0	0	No, e>t/2
SLV 8	14	0.43	0	-4697	170910	0	0	No, e>t/2
SLV 10	14	0.43	0	-7794	170910	0	0	No, e>t/2



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 2	14	0.43	0	-5920	170910	0	0	No, $e > t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 874.4 Wa = 0.05 Ta = 0.7973

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	323	-4168	-82	0	0	0	0	239.674	No, Trazione
SLV 3	570	-16632	34	0	0	0	0	239.674	No, Trazione
SLV 7	722	-7689	-53	0	0	0	0	239.674	No, Trazione
SLV 8	722	-7689	-53	0	0	0	0	239.674	No, Trazione
SLV 4	570	-16632	34	0	0	0	0	239.674	No, Trazione
SLV 1	42	-20776	81	0	0	0	0	239.674	No, Trazione
SLV 11	323	-4168	-82	0	0	0	0	239.674	No, Trazione
SLV 2	42	-20776	81	0	0	0	0	239.674	No, Trazione
SLV 6	-1040	-21504	101	0.002	8.44	0.924	2.379	239.674	No
SLV 5	-1040	-21504	101	0.002	8.44	0.924	2.379	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.219	SLU 43	Si
V_SLU	2.358	SLU 80	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 12	No

Maschio 248

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-349.9	-1375.3	-331.4	L4	L7	18.6	28	1020	1020	1020			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 56	483	-1990	25431	0	0	0	No, $e > l/2$
SLU 56	1503	111	903	0	0	0	No, Trazione
SLU 59	483	-1991	25551	0	0	0	No, $e > l/2$
SLU 59	1503	126	924	0	0	0	No, Trazione
SLU 53	483	-1964	25271	0	0	0	No, $e > l/2$
SLU 53	1503	56	691	0	0	0	No, Trazione
SLU 60	483	-2012	26118	0	0	0	No, $e > l/2$
SLU 60	1503	15	514	0	0	0	No, Trazione
SLU 58	483	-1979	25227	0	0	0	No, $e > l/2$
SLU 58	1503	126	923	0	0	0	No, Trazione
SLU 1	483	-1362	17521	0	0	0	No, $e > l/2$
SLU 1	1503	18	393	0	0	0	No, Trazione
SLU 54	483	-1977	25595	0	0	0	No, $e > l/2$
SLU 54	1503	57	693	0	0	0	No, Trazione
SLU 55	483	-1973	25607	0	0	0	No, $e > l/2$
SLU 55	1503	72	713	0	0	0	No, Trazione
SLU 57	483	-2003	25755	0	0	0	No, $e > l/2$
SLU 57	1503	112	904	0	0	0	No, Trazione
SLU 61	483	-2025	26442	0	0	0	No, $e > l/2$
SLU 61	1503	16	516	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 53	483	-1964	148	25271		0	0	0.56	0			0	No, $V_u < V$
SLU 53	1503	56	0	691		0	0	0.56	0			0	No, $V_u < V$
SLU 60	483	-2012	161	26118		0	0	0.56	0			0	No, $V_u < V$
SLU 60	1503	15	0	514		0	0	0.56	0			0	No, $V_u < V$
SLU 54	483	-1977	160	25595		0	0	0.56	0			0	No, $V_u < V$
SLU 54	1503	57	0	693		0	0	0.56	0			0	No, $V_u < V$
SLU 58	483	-1979	135	25227		0	0	0.56	0			0	No, $V_u < V$
SLU 58	1503	126	-1	923		0	0	0.56	0			0	No, $V_u < V$
SLU 1	483	-1362	109	17521		0	0	0.56	0			0	No, $V_u < V$
SLU 1	1503	18	0	393		0	0	0.56	0			0	No, $V_u < V$
SLU 56	483	-1990	140	25431		0	0	0.56	0			0	No, $V_u < V$
SLU 56	1503	111	-1	903		0	0	0.56	0			0	No, $V_u < V$
SLU 59	483	-1991	148	25551		0	0	0.56	0			0	No, $V_u < V$
SLU 59	1503	126	-1	924		0	0	0.56	0			0	No, $V_u < V$
SLU 61	483	-2025	173	26442		0	0	0.56	0			0	No, $V_u < V$
SLU 61	1503	16	0	516		0	0	0.56	0			0	No, $V_u < V$
SLU 57	483	-2003	152	25755		0	0	0.56	0			0	No, $V_u < V$
SLU 57	1503	112	-1	904		0	0	0.56	0			0	No, $V_u < V$
SLU 55	483	-1973	164	25607		0	0	0.56	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	1503	72	0	713		0	0	0.56	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 993 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.45	0	-928	19226	0	0	No, e>t/2
SLV 5	14	0.45	0	768	19226	0	0	No, Trazione
SLV 10	14	0.45	0	499	19226	0	0	No, Trazione
SLV 14	14	0.45	0	-897	19226	0	0	No, e>t/2
SLV 1	14	0.45	0	0	19226	0	0	No, e>t/2
SLV 4	14	0.45	0	-928	19226	0	0	No, e>t/2
SLV 2	14	0.45	0	0	19226	0	0	No, e>t/2
SLV 6	14	0.45	0	768	19226	0	0	No, Trazione
SLV 13	14	0.45	0	-897	19226	0	0	No, e>t/2
SLV 9	14	0.45	0	499	19226	0	0	No, Trazione

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 993 Wa = 0.05 Ta = 0.6205

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	23	-1370	2	0	0	0	0	239.674	No, Trazione
SLV 7	86	-1168	-28	0	0	0	0	239.674	No, Trazione
SLV 5	-52	-1746	43	0	0.983	0.958	0	239.674	No
SLV 2	-18	-1543	23	0	0.974	0.983	0	239.674	No
SLV 6	-52	-1746	43	0	0.983	0.958	0	239.674	No
SLV 8	86	-1168	-28	0	0	0	0	239.674	No, Trazione
SLV 4	23	-1370	2	0	0	0	0	239.674	No, Trazione
SLV 10	-40	-1746	38	0	0.979	0.966	0	239.674	No
SLV 1	-18	-1543	23	0	0.974	0.983	0	239.674	No
SLV 9	-40	-1746	38	0	0.979	0.966	0	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 16	No

Maschio 249

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-1375.3	-331.4	-1375.3	-35.4	Z medio 570 cm	Z medio 922 cm	296	28	352	352	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 77	657	-28519	434842	3.44	2437839	5.606	Si
SLU 77	835	-19122	-33928	2.31	2028468	59.788	Si
SLU 35	657	-23633	405628	2.85	2273285	5.604	Si
SLU 35	835	-15631	-14192	1.89	1777803	125.271	Si
SLU 83	657	-28909	456608	3.49	2446451	5.358	Si
SLU 83	835	-19728	-34765	2.38	2066579	59.444	Si
SLU 42	657	-24106	413156	2.91	2293814	5.552	Si
SLU 42	835	-16363	-29296	1.97	1834806	62.629	Si
SLU 37	657	-23390	404406	2.82	2262375	5.594	Si
SLU 37	835	-15455	-2484	1.86	1763692	710.141	Si
SLU 84	657	-28993	442370	3.5	2448221	5.534	Si
SLU 84	835	-19854	-49032	2.4	2074267	42.304	Si
SLU 79	657	-28276	433620	3.41	2432134	5.609	Si
SLU 79	835	-18945	-22220	2.29	2017062	90.779	Si
SLU 39	657	-23712	395832	2.86	2276775	5.752	Si
SLU 39	835	-16323	-41475	1.97	1831750	44.165	Si
SLU 81	657	-28598	425046	3.45	2439638	5.74	Si
SLU 81	835	-19814	-61211	2.39	2071825	33.847	Si
SLU 41	657	-24022	427394	2.9	2290243	5.359	Si
SLU 41	835	-16238	-15029	1.96	1825195	121.443	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 10	657	-18724	626413	2.26	2258756	3.606	Si
SLV 10	835	-8704	525644	1.05	1177500	2.24	Si
SLV 5	657	-19000	744012	2.29	2284365	3.07	Si
SLV 5	835	-7911	646924	0.95	1079350	1.668	Si
SLV 11	657	-20542	-321025	2.48	2423475	7.549	Si
SLV 11	835	-19440	-789326	2.35	2324789	2.945	Si
SLV 1	657	-19957	549607	2.41	2371601	4.315	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 1	835	-10743	328179	1.3	1421264	4.331	Si
SLV 6	657	-19000	744012	2.29	2284365	3.07	Si
SLV 6	835	-7911	646924	0.95	1079350	1.668	Si
SLV 2	657	-19957	549607	2.41	2371601	4.315	Si
SLV 2	835	-10743	328179	1.3	1421264	4.331	Si
SLV 9	657	-18724	626413	2.26	2258756	3.606	Si
SLV 9	835	-8704	525644	1.05	1177500	2.24	Si
SLV 12	657	-20542	-321025	2.48	2423475	7.549	Si
SLV 12	835	-19440	-789326	2.35	2324789	2.945	Si
SLV 8	657	-20817	-203426	2.51	2447619	12.032	Si
SLV 8	835	-18646	-668045	2.25	2251532	3.37	Si
SLV 7	657	-20817	-203426	2.51	2447619	12.032	Si
SLV 7	835	-18646	-668045	2.25	2251532	3.37	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 31	657	-22909	1273	317553		2.76	296	0.92	7659			6.02	Si
SLU 31	835	-15835	923	-79153		1.91	296	0.81	6716			7.27	Si
SLU 82	657	-28682	1435	410808		3.46	296	1.02	8429			5.88	Si
SLU 82	835	-19940	913	-75478		2.41	296	0.88	7263			7.96	Si
SLU 23	657	-20708	960	190271		2.5	296	0.89	7366			7.68	Si
SLU 23	835	-14207	1008	-111587		1.71	296	0.78	6499			6.45	Si
SLU 19	657	-21799	1259	327170		2.63	296	0.91	7511			5.96	Si
SLU 19	835	-15346	659	-45465		1.85	296	0.8	6651			10.09	Si
SLU 40	657	-23796	1258	381594		2.87	296	0.94	7777			6.18	Si
SLU 40	835	-16449	770	-55742		1.98	296	0.82	6798			8.83	Si
SLU 65	657	-25595	1136	219485		3.09	296	0.97	8017			7.06	Si
SLU 65	835	-17698	1151	-131323		2.14	296	0.84	6964			6.05	Si
SLU 52	657	-25799	1451	292343		3.11	296	0.97	8044			5.54	Si
SLU 52	835	-18223	956	-88613		2.2	296	0.85	7034			7.36	Si
SLU 10	657	-20912	1274	263129		2.52	296	0.89	7393			5.8	Si
SLU 10	835	-14732	813	-68877		1.78	296	0.79	6569			8.08	Si
SLU 61	657	-26686	1436	356384		3.22	296	0.98	8163			5.68	Si
SLU 61	835	-18837	802	-65201		2.27	296	0.86	7116			8.87	Si
SLU 73	657	-27795	1450	346766		3.35	296	1	8310			5.73	Si
SLU 73	835	-19326	1067	-98889		2.33	296	0.87	7181			6.73	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	657	-19000	-12574	744012		2.29	296	1.29	10707			0.85	No, Vu<V
SLV 6	835	-7911	-10694	646924		1.42	198.67	1.12	6218			0.58	No, Vu<V
SLV 11	657	-20542	13928	-321025		2.48	296	1.33	11015			0.79	No, Vu<V
SLV 11	835	-19440	11917	-789326		2.35	296	1.3	10795			0.91	No, Vu<V
SLV 10	657	-18724	-9902	626413		2.26	296	1.29	10651			1.08	Si
SLV 10	835	-8704	-8109	525644		1.18	262.83	1.07	7874			0.97	No, Vu<V
SLV 15	657	-19584	8704	-126621		2.36	296	1.31	10823			1.24	Si
SLV 15	835	-16608	7923	-470581		2	296	1.23	10228			1.29	Si
SLV 5	657	-19000	-12574	744012		2.29	296	1.29	10707			0.85	No, Vu<V
SLV 5	835	-7911	-10694	646924		1.42	198.67	1.12	6218			0.58	No, Vu<V
SLV 7	657	-20817	11256	-203426		2.51	296	1.34	11070			0.98	No, Vu<V
SLV 7	835	-18646	9332	-668045		2.25	296	1.28	10636			1.14	Si
SLV 16	657	-19584	8704	-126621		2.36	296	1.31	10823			1.24	Si
SLV 16	835	-16608	7923	-470581		2	296	1.23	10228			1.29	Si
SLV 12	657	-20542	13928	-321025		2.48	296	1.33	11015			0.79	No, Vu<V
SLV 12	835	-19440	11917	-789326		2.35	296	1.3	10795			0.91	No, Vu<V
SLV 9	657	-18724	-9902	626413		2.26	296	1.29	10651			1.08	Si
SLV 9	835	-8704	-8109	525644		1.18	262.83	1.07	7874			0.97	No, Vu<V
SLV 8	657	-20817	11256	-203426		2.51	296	1.34	11070			0.98	No, Vu<V
SLV 8	835	-18646	9332	-668045		2.25	296	1.28	10636			1.14	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 746 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.4	1.52	-12614	32325	154604	4.78	Si
SLV 5	14	0.4	1.52	-12614	32325	154604	4.78	Si
SLV 10	14	0.4	1.58	-13060	32325	159256	4.93	Si
SLV 9	14	0.4	1.58	-13060	32325	159256	4.93	Si
SLV 1	14	0.4	1.75	-14483	32325	173764	5.38	Si
SLV 2	14	0.4	1.75	-14483	32325	173764	5.38	Si
SLV 13	14	0.4	1.93	-15967	32325	188291	5.82	Si
SLV 14	14	0.4	1.93	-15967	32325	188291	5.82	Si
SLV 4	14	0.4	1.99	-16530	32325	193643	5.99	Si
SLV 3	14	0.4	1.99	-16530	32325	193643	5.99	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 746 Wa = 0.05 Ta = 0.0739

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-13387	-19038	112	0.039	17.781	0.936	61.052	1002.344	No
SLV 13	-13387	-19038	112	0.039	17.781	0.936	61.052	1002.344	No
SLV 10	-8704	-18724	155	0.035	13.063	0.918	55.874	914.664	No
SLV 9	-8704	-18724	155	0.035	13.063	0.918	55.874	914.664	No
SLV 6	-7911	-19000	127	0.038	12.269	0.914	59.876	914.664	No
SLV 5	-7911	-19000	127	0.038	12.269	0.914	59.876	914.664	No
SLV 15	-16608	-19584	46	0.043	21.042	0.944	65.875	1002.344	No
SLV 16	-16608	-19584	46	0.043	21.042	0.944	65.875	1002.344	No
SLV 3	-13963	-20503	-49	0.043	18.364	0.938	66.833	1002.344	No



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 4	-13963	-20503	-49	0.043	18.364	0.938	66.833	1002.344	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.358	SLU 83	Si
V_SLU	5.544	SLU 52	Si
PF_SLV	1.668	SLV 5	Si
V_SLV	0.581	SLV 5	No
PFFP_SLV	4.783	SLV 5	Si
R_SLV	0.061	SLV 13	No

Maschio 250

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1375.3	-331.4	-1375.3	-35.4	Z medio 922 cm	L7	296	28	581	494	668			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 54	1009	-10787	107337	1.3	1341362	12.497	Si
SLU 54	1503	109	5647	0	0	0	No, Trazione
SLU 53	1009	-10837	113471	1.31	1346413	11.866	Si
SLU 53	1503	111	5097	0	0	0	No, Trazione
SLU 61	1009	-10821	85005	1.31	1344778	15.82	Si
SLU 61	1503	68	-593	0	0	0	No, Trazione
SLU 1	1009	-7933	73464	0.96	1036082	14.103	Si
SLU 1	1503	51	421	0	0	0	No, Trazione
SLU 57	1009	-10985	131926	1.33	1361290	10.319	Si
SLU 57	1503	166	13516	0	0	0	No, Trazione
SLU 58	1009	-11057	139586	1.33	1368406	9.803	Si
SLU 58	1503	180	14815	0	0	0	No, Trazione
SLU 59	1009	-11007	133453	1.33	1363403	10.216	Si
SLU 59	1503	179	15365	0	0	0	No, Trazione
SLU 55	1009	-10774	104775	1.3	1340123	12.79	Si
SLU 55	1503	121	7863	0	0	0	No, Trazione
SLU 56	1009	-11036	138059	1.33	1366297	9.896	Si
SLU 56	1503	168	12966	0	0	0	No, Trazione
SLU 60	1009	-10871	91138	1.31	1349822	14.811	Si
SLU 60	1503	70	-1144	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	σN	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 54	1009	-10787	-66	107337	1.3	296	0.73	6043				91.5	Si
SLU 54	1503	109	0	5647	0	0	0.56	0				0	No, Vu<V
SLU 59	1009	-11007	-129	133453	1.33	296	0.73	6072				46.95	Si
SLU 59	1503	179	3	15365	0	0	0.56	0				0	No, Vu<V
SLU 61	1009	-10821	32	85005	1.31	296	0.73	6047				189.59	Si
SLU 61	1503	68	-2	-593	0	0	0.56	0				0	No, Vu<V
SLU 58	1009	-11057	-139	139586	1.33	296	0.73	6079				43.71	Si
SLU 58	1503	180	4	14815	0	0	0.56	0				0	No, Vu<V
SLU 1	1009	-7933	-70	73464	0.96	296	0.68	5662				81.47	Si
SLU 1	1503	51	0	421	0	0	0.56	0				0	No, Vu<V
SLU 56	1009	-11036	-142	138059	1.33	296	0.73	6076				42.78	Si
SLU 56	1503	168	3	12966	0	0	0.56	0				0	No, Vu<V
SLU 53	1009	-10837	-76	113471	1.31	296	0.73	6049				79.82	Si
SLU 53	1503	111	0	5097	0	0	0.56	0				0	No, Vu<V
SLU 60	1009	-10871	22	91138	1.31	296	0.73	6054				273.31	Si
SLU 60	1503	70	-2	-1144	0	0	0.56	0				0	No, Vu<V
SLU 55	1009	-10774	-57	104775	1.3	296	0.73	6041				106.79	Si
SLU 55	1503	121	1	7863	0	0	0.56	0				0	No, Vu<V
SLU 57	1009	-10985	-132	131926	1.33	296	0.73	6069				45.88	Si
SLU 57	1503	166	3	13516	0	0	0.56	0				0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 1256 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.51	0	-4559	111557	0	0	No, e>t/2
SLV 10	14	0.51	0	-4559	111557	0	0	No, e>t/2
SLV 6	14	0.51	0	-4494	111557	0	0	No, e>t/2
SLV 3	14	0.51	0	-3953	111557	0	0	No, e>t/2
SLV 4	14	0.51	0	-3953	111557	0	0	No, e>t/2
SLV 1	14	0.51	0	-4168	111557	0	0	No, e>t/2
SLV 7	14	0.51	0	-3778	111557	0	0	No, e>t/2
SLV 2	14	0.51	0	-4168	111557	0	0	No, e>t/2



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 8	14	0.51	0	-3778	111557	0	0	No, $e > t/2$
SLV 5	14	0.51	0	-4494	111557	0	0	No, $e > t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 1256 $W_a = 0.05$ $T_a = 0.2013$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 5	150	-11936	26	0	0	0	0	2058.958	No, Trazione
SLV 9	121	-11252	37	0	0	0	0	2058.958	No, Trazione
SLV 1	131	-10355	-8	0	0	0	0	2058.958	No, Trazione
SLV 3	85	-8316	-24	0	0	0	0	2058.958	No, Trazione
SLV 4	85	-8316	-24	0	0	0	0	2058.958	No, Trazione
SLV 2	131	-10355	-8	0	0	0	0	2058.958	No, Trazione
SLV 13	32	-8075	31	0	0	0	0	2058.958	No, Trazione
SLV 6	150	-11936	26	0	0	0	0	2058.958	No, Trazione
SLV 14	32	-8075	31	0	0	0	0	2058.958	No, Trazione
SLV 10	121	-11252	37	0	0	0	0	2058.958	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 14	No

Maschio 251

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-485.9	-1100.3	-470.9	L3	F1	15	28	1330	1326.6	1333.5			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	110	-2761	38095	0	0	0	No, $e > l/2$
SLU 60	1437	-33	256	0	0	0	No, $e > l/2$
SLU 53	110	-2748	37739	0	0	0	No, $e > l/2$
SLU 53	1437	-45	429	0	0	0	No, $e > l/2$
SLU 57	110	-2846	39037	0	0	0	No, $e > l/2$
SLU 57	1437	-60	611	0	0	0	No, $e > l/2$
SLU 59	110	-2855	39144	0	0	0	No, $e > l/2$
SLU 59	1437	-62	634	0	0	0	No, $e > l/2$
SLU 58	110	-2862	39075	0	0	0	No, $e > l/2$
SLU 58	1437	-59	676	0	0	0	No, $e > l/2$
SLU 54	110	-2741	37809	0	0	0	No, $e > l/2$
SLU 54	1437	-47	386	0	0	0	No, $e > l/2$
SLU 56	110	-2853	38968	0	0	0	No, $e > l/2$
SLU 56	1437	-57	653	0	0	0	No, $e > l/2$
SLU 55	110	-2746	37961	0	0	0	No, $e > l/2$
SLU 55	1437	-51	380	0	0	0	No, $e > l/2$
SLU 61	110	-2754	38164	0	0	0	No, $e > l/2$
SLU 61	1437	-36	213	0.09	266	1.249	Si
SLU 1	110	-1887	26045	0	0	0	No, $e > l/2$
SLU 1	1437	-28	162	0.07	209	1.289	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 11	110	-874	16469	0	0	0	No, $e > l/2$
SLV 11	1437	-45	-2403	0	0	0	No, $e > l/2$
SLV 12	110	-874	16469	0	0	0	No, $e > l/2$
SLV 12	1437	-45	-2403	0	0	0	No, $e > l/2$
SLV 8	110	-206	7022	0	0	0	No, $e > l/2$
SLV 8	1437	-26	-1949	0	0	0	No, $e > l/2$
SLV 10	110	-3804	48190	0	0	0	No, $e > l/2$
SLV 10	1437	-33	2400	0	0	0	No, $e > l/2$
SLV 13	110	-3557	48110	0	0	0	No, $e > l/2$
SLV 13	1437	-61	189	0.14	449	2.379	Si
SLV 6	110	-3136	38743	0	0	0	No, $e > l/2$
SLV 6	1437	-14	2854	0	0	0	No, $e > l/2$
SLD 1	110	-1717	22924	0	0	0	No, $e > l/2$
SLD 1	1437	-15	845	0	0	0	No, $e > l/2$
SLV 7	110	-206	7022	0	0	0	No, $e > l/2$
SLV 7	1437	-26	-1949	0	0	0	No, $e > l/2$
SLV 9	110	-3804	48190	0	0	0	No, $e > l/2$
SLV 9	1437	-33	2400	0	0	0	No, $e > l/2$
SLV 14	110	-3557	48110	0	0	0	No, $e > l/2$
SLV 14	1437	-61	189	0.14	449	2.379	Si



Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 1	110	-1887	150	26045		0	0	0.56	0			0	No, Vu<V
SLU 1	1437	-28	-4	162		0.19	5.19	0.58	84			22.66	Si
SLU 54	110	-2741	218	37809		0	0	0.56	0			0	No, Vu<V
SLU 54	1437	-47	-30	386		0	0	0.56	0			0	No, Vu<V
SLU 53	110	-2748	209	37739		0	0	0.56	0			0	No, Vu<V
SLU 53	1437	-45	-33	429		0	0	0.56	0			0	No, Vu<V
SLU 59	110	-2855	217	39144		0	0	0.56	0			0	No, Vu<V
SLU 59	1437	-62	-62	634		0	0	0.56	0			0	No, Vu<V
SLU 56	110	-2853	208	38968		0	0	0.56	0			0	No, Vu<V
SLU 56	1437	-57	-60	653		0	0	0.56	0			0	No, Vu<V
SLU 58	110	-2862	208	39075		0	0	0.56	0			0	No, Vu<V
SLU 58	1437	-59	-64	676		0	0	0.56	0			0	No, Vu<V
SLU 55	110	-2746	224	37961		0	0	0.56	0			0	No, Vu<V
SLU 55	1437	-51	-32	380		0	0	0.56	0			0	No, Vu<V
SLU 61	110	-2754	225	38164		0	0	0.56	0			0	No, Vu<V
SLU 61	1437	-36	-10	213		0.27	4.67	0.59	77			7.59	Si
SLU 60	110	-2761	217	38095		0	0	0.56	0			0	No, Vu<V
SLU 60	1437	-33	-13	256		0	0	0.56	0			0	No, Vu<V
SLU 57	110	-2846	217	39037		0	0	0.56	0			0	No, Vu<V
SLU 57	1437	-60	-58	611		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 14	110	-3557	266	48110		0	0	0.83	0			0	No, Vu<V
SLV 14	1437	-61	7	189		0.16	13.16	0.87	319			47.13	Si
SLV 13	110	-3557	266	48110		0	0	0.83	0			0	No, Vu<V
SLV 13	1437	-61	7	189		0.16	13.16	0.87	319			47.13	Si
SLD 1	110	-1717	96	22924		0	0	0.83	0			0	No, Vu<V
SLD 1	1437	-15	-98	845		0	0	0.83	0			0	No, Vu<V
SLV 10	110	-3804	146	48190		0	0	0.83	0			0	No, Vu<V
SLV 10	1437	-33	-288	2400		0	0	0.83	0			0	No, Vu<V
SLV 11	110	-874	240	16469		0	0	0.83	0			0	No, Vu<V
SLV 11	1437	-45	331	-2403		0	0	0.83	0			0	No, Vu<V
SLV 12	110	-874	240	16469		0	0	0.83	0			0	No, Vu<V
SLV 12	1437	-45	331	-2403		0	0	0.83	0			0	No, Vu<V
SLV 6	110	-3136	71	38743		0	0	0.83	0			0	No, Vu<V
SLV 6	1437	-14	-355	2854		0	0	0.83	0			0	No, Vu<V
SLV 8	110	-206	165	7022		0	0	0.83	0			0	No, Vu<V
SLV 8	1437	-26	264	-1949		0	0	0.83	0			0	No, Vu<V
SLV 7	110	-206	165	7022		0	0	0.83	0			0	No, Vu<V
SLV 7	1437	-26	264	-1949		0	0	0.83	0			0	No, Vu<V
SLV 9	110	-3804	146	48190		0	0	0.83	0			0	No, Vu<V
SLV 9	1437	-33	-288	2400		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 773.3 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 1	14	0.41	0	-848	23722	0	0	No, $e>t/2$
SLV 6	14	0.41	0	-1096	23722	0	0	No, $e>t/2$
SLV 10	14	0.41	0	-1079	23722	0	0	No, $e>t/2$
SLV 8	14	0.41	0	-327	23722	0	0	No, $e>t/2$
SLV 2	14	0.41	0	-848	23722	0	0	No, $e>t/2$
SLV 4	14	0.41	0	-617	23722	0	0	No, $e>t/2$
SLV 9	14	0.41	0	-1079	23722	0	0	No, $e>t/2$
SLV 7	14	0.41	0	-327	23722	0	0	No, $e>t/2$
SLV 3	14	0.41	0	-617	23722	0	0	No, $e>t/2$
SLV 5	14	0.41	0	-1096	23722	0	0	No, $e>t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzaria = 773.3 Wa = 0.05 Ta = 1.055

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 9	-33	-3804	-47	0	1.029	0.972	0	239.674	No
SLV 10	-33	-3804	-47	0	1.029	0.972	0	239.674	No
SLV 7	-26	-206	48	0	1.027	0.977	0	239.674	No
SLV 2	5	-1331	18	0	0	0	0	239.674	No, Trazione
SLV 3	1	-452	42	0	0	0	0	239.674	No, Trazione
SLV 4	1	-452	42	0	0	0	0	239.674	No, Trazione
SLV 5	-14	-3136	-30	0	1.026	0.987	0	239.674	No
SLV 6	-14	-3136	-30	0	1.026	0.987	0	239.674	No
SLV 1	5	-1331	18	0	0	0	0	239.674	No, Trazione
SLV 8	-26	-206	48	0	1.027	0.977	0	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 1	No
V_SLU	0	SLU 1	No
PF_SLV	0	SLV 4	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 4	No



Maschio 252

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-470.9	-1100.3	-350.9	Z medio 312 cm	F1	120	28	1159.2	1131.5	1187			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 45	312	-13393	-22185	3.99	410363	18.497	Si
SLU 45	1444	-629	14601	0.19	36858	2.524	Si
SLU 1	312	-10169	-15579	3.03	383451	24.614	Si
SLU 1	1444	-332	8176	0.1	19695	2.409	Si
SLU 2	312	-10121	-14985	3.01	382705	25.54	Si
SLU 2	1444	-327	7703	0.1	19405	2.519	Si
SLU 47	312	-13363	-22407	3.98	410323	18.312	Si
SLU 47	1444	-645	14360	0.19	37776	2.631	Si
SLU 46	312	-13364	-21829	3.98	410324	18.797	Si
SLU 46	1444	-626	14317	0.19	36688	2.563	Si
SLU 43	312	-12889	-20033	3.84	409162	20.425	Si
SLU 43	1444	-378	9810	0.11	22358	2.279	Si
SLU 64	312	-13854	-20673	4.12	410488	19.856	Si
SLU 64	1444	-536	12197	0.16	31511	2.583	Si
SLU 52	312	-14202	-24025	4.23	409963	17.064	Si
SLU 52	1444	-410	9341	0.12	24215	2.592	Si
SLU 60	312	-14834	-26585	4.41	407657	15.334	Si
SLU 60	1444	-430	9815	0.13	25419	2.59	Si
SLU 44	312	-12841	-19439	3.82	408989	21.04	Si
SLU 44	1444	-373	9337	0.11	22070	2.364	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 4	312	-9275	-76331	2.76	430784	5.644	Si
SLV 4	1444	-91	-14000	0	0	0	No, e>l/2
SLV 11	312	-4671	54079	1.39	248357	4.592	Si
SLV 11	1444	1293	-4488	0	0	0	No, Trazione
SLV 12	312	-4671	54079	1.39	248357	4.592	Si
SLV 12	1444	1293	-4488	0	0	0	No, Trazione
SLV 8	312	-4831	9710	1.44	255732	26.337	Si
SLV 8	1444	1179	-14867	0	0	0	No, Trazione
SLV 15	312	-8742	71566	2.6	412836	5.769	Si
SLV 15	1444	290	20596	0	0	0	No, Trazione
SLD 15	312	-9945	20659	2.96	452172	21.887	Si
SLD 15	1444	-98	13717	0	0	0	No, e>l/2
SLD 12	312	-8225	12982	2.45	394621	30.398	Si
SLD 12	1444	327	3193	0	0	0	No, Trazione
SLD 16	312	-9945	20659	2.96	452172	21.887	Si
SLD 16	1444	-98	13717	0	0	0	No, e>l/2
SLV 3	312	-9275	-76331	2.76	430784	5.644	Si
SLV 3	1444	-91	-14000	0	0	0	No, e>l/2
SLV 7	312	-4831	9710	1.44	255732	26.337	Si
SLV 7	1444	1179	-14867	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 30	312	-12148	-865	-21799		3.62	120	1.04	3486			4.03	Si
SLU 30	1444	-1031	-742	20324		0.31	120	0.6	2004			2.7	Si
SLU 36	312	-13492	-1080	-25569		4.02	120	1.08	3640			3.37	Si
SLU 36	1444	-1047	-772	20097		0.31	120	0.6	2006			2.6	Si
SLU 38	312	-13510	-1085	-26386		4.02	120	1.08	3640			3.35	Si
SLU 38	1444	-1068	-796	20328		0.32	120	0.6	2009			2.52	Si
SLU 78	312	-16212	-1184	-30024		4.82	120	1.08	3640			3.07	Si
SLU 78	1444	-1092	-763	21731		0.33	120	0.6	2012			2.64	Si
SLU 35	312	-13520	-1114	-25926		4.02	120	1.08	3640			3.27	Si
SLU 35	1444	-1050	-766	20380		0.31	120	0.6	2007			2.62	Si
SLU 79	312	-16259	-1222	-31196		4.84	120	1.08	3640			2.98	Si
SLU 79	1444	-1116	-781	22246		0.33	120	0.6	2015			2.58	Si
SLU 80	312	-16230	-1189	-30840		4.83	120	1.08	3640			3.06	Si
SLU 80	1444	-1113	-787	21962		0.33	120	0.6	2015			2.56	Si
SLU 72	312	-14868	-968	-26253		4.43	120	1.08	3640			3.76	Si
SLU 72	1444	-1076	-733	21959		0.32	118.8	0.6	1992			2.72	Si
SLU 77	312	-16241	-1217	-30380		4.83	120	1.08	3640			2.99	Si
SLU 77	1444	-1095	-756	22014		0.33	119.7	0.6	2008			2.65	Si
SLU 37	312	-13538	-1118	-26742		4.03	120	1.08	3640			3.25	Si
SLU 37	1444	-1071	-790	20612		0.32	120	0.6	2009			2.54	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	312	-9945	564	20659		2.96	120	1.43	4789			8.5	Si



Comb.	Quota	N	V par	M	$\sigma 0$	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLD 15	1444	-98	516	13717		0	0	0.83	0			0	No, Vu<V
SLV 8	312	-4831	1102	9710		1.44	120	1.12	3766			3.42	Si
SLV 8	1444	1179	437	-14867		0	0	0.83	0			0	No, Vu<V
SLV 12	312	-4671	2354	54079		1.39	120	1.11	3734			1.59	Si
SLV 12	1444	1293	1246	-4488		0	0	0.83	0			0	No, Vu<V
SLV 15	312	-8742	2167	71566		2.6	120	1.35	4548			2.1	Si
SLV 15	1444	290	1471	20596		0	0	0.83	0			0	No, Vu<V
SLV 7	312	-4831	1102	9710		1.44	120	1.12	3766			3.42	Si
SLV 7	1444	1179	437	-14867		0	0	0.83	0			0	No, Vu<V
SLD 16	312	-9945	564	20659		2.96	120	1.43	4789			8.5	Si
SLD 16	1444	-98	516	13717		0	0	0.83	0			0	No, Vu<V
SLV 11	312	-4671	2354	54079		1.39	120	1.11	3734			1.59	Si
SLV 11	1444	1293	1246	-4488		0	0	0.83	0			0	No, Vu<V
SLV 3	312	-9275	-2009	-76331		2.76	120	1.39	4655			2.32	Si
SLV 3	1444	-91	-1227	-14000		0	0	0.83	0			0	No, Vu<V
SLV 4	312	-9275	-2009	-76331		2.76	120	1.39	4655			2.32	Si
SLV 4	1444	-91	-1227	-14000		0	0	0.83	0			0	No, Vu<V
SLD 12	312	-8225	638	12982		2.45	120	1.32	4445			6.96	Si
SLD 12	1444	327	422	3193		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 877.8 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	14	0.43	0	-7246	151926	0	0	No, e>t/2
SLV 1	14	0.43	0	-6428	151926	0	0	No, e>t/2
SLV 4	14	0.43	0	-5241	151926	0	0	No, e>t/2
SLV 3	14	0.43	0	-5241	151926	0	0	No, e>t/2
SLV 5	14	0.43	0	-7246	151926	0	0	No, e>t/2
SLV 8	14	0.43	0	-3287	151926	0	0	No, e>t/2
SLV 9	14	0.43	0	-6759	151926	0	0	No, e>t/2
SLV 7	14	0.43	0	-3287	151926	0	0	No, e>t/2
SLV 10	14	0.43	0	-6759	151926	0	0	No, e>t/2
SLV 2	14	0.43	0	-6428	151926	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 877.8 Wa = 0.05 Ta = 0.8015

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 15	290	-8742	-2	0	0	0	0	239.674	No, Trazione
SLV 11	1293	-4671	25	0	0	0	0	239.674	No, Trazione
SLV 16	290	-8742	-2	0	0	0	0	239.674	No, Trazione
SLV 12	1293	-4671	25	0	0	0	0	239.674	No, Trazione
SLV 8	1179	-4831	30	0	0	0	0	239.674	No, Trazione
SLV 7	1179	-4831	30	0	0	0	0	239.674	No, Trazione
SLV 9	-1955	-16837	-38	0.013	8.197	0.897	20.782	239.674	No
SLV 10	-1955	-16837	-38	0.013	8.197	0.897	20.782	239.674	No
SLV 5	-2069	-16996	-34	0.014	8.289	0.895	22.102	239.674	No
SLV 6	-2069	-16996	-34	0.014	8.289	0.895	22.102	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.279	SLU 43	Si
V_SLU	2.523	SLU 38	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 7	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

Maschio 253

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-350.9	-1100.3	-331.4	Z medio 312 cm	L5	19.5	28	523	523	523			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 79	312	-2197	-9163	4.02	10839	1.183	Si
SLU 79	835	-1557	-2067	2.85	9867	4.772	Si
SLU 62	312	-2017	-9315	3.69	10747	1.154	Si
SLU 62	835	-1434	-2288	2.63	9472	4.14	Si
SLU 84	312	-2155	-9789	3.95	10831	1.106	Si
SLU 84	835	-1549	-2392	2.84	9842	4.115	Si
SLU 83	312	-2160	-9978	3.96	10832	1.086	Si
SLU 83	835	-1543	-2298	2.83	9826	4.276	Si
SLU 82	312	-2085	-9216	3.82	10799	1.172	Si
SLU 82	835	-1485	-2584	2.72	9645	3.733	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 63	312	-2011	-9126	3.68	10742	1.177	Si
SLU 63	835	-1439	-2382	2.64	9491	3.985	Si
SLU 42	312	-1769	-9014	3.24	10387	1.152	Si
SLU 42	835	-1300	-1851	2.38	8971	4.845	Si
SLU 81	312	-2090	-9405	3.83	10802	1.149	Si
SLU 81	835	-1480	-2490	2.71	9627	3.866	Si
SLU 41	312	-1774	-9203	3.25	10398	1.13	Si
SLU 41	835	-1295	-1757	2.37	8948	5.092	Si
SLU 20	312	-1631	-8540	2.99	10071	1.179	Si
SLU 20	835	-1185	-1747	2.17	8475	4.85	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	312	-2057	-14861	3.77	13873	0.934	No, M>Mu
SLV 6	835	-1427	2089	2.61	10936	5.234	Si
SLV 10	312	-2305	-14800	4.22	14708	0.994	No, M>Mu
SLV 10	835	-1372	638	2.51	10626	16.653	Si
SLV 8	312	-723	5889	1.32	6283	1.067	Si
SLV 8	835	-666	-4320	1.22	5847	1.354	Si
SLV 7	312	-723	5889	1.32	6283	1.067	Si
SLV 7	835	-666	-4320	1.22	5847	1.354	Si
SLV 5	312	-2057	-14861	3.77	13873	0.934	No, M>Mu
SLV 5	835	-1427	2089	2.61	10936	5.234	Si
SLV 1	312	-1302	-7670	2.38	10217	1.332	Si
SLV 1	835	-1225	1539	2.24	9749	6.333	Si
SLV 9	312	-2305	-14800	4.22	14708	0.994	No, M>Mu
SLV 9	835	-1372	638	2.51	10626	16.653	Si
SLV 12	312	-970	5951	1.78	8082	1.358	Si
SLV 12	835	-611	-5771	1.12	5414	0.938	No, M>Mu
SLV 2	312	-1302	-7670	2.38	10217	1.332	Si
SLV 2	835	-1225	1539	2.24	9749	6.333	Si
SLV 11	312	-970	5951	1.78	8082	1.358	Si
SLV 11	835	-611	-5771	1.12	5414	0.938	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 84	312	-2155	-156	-9789		4.93	15.62	1.08	474			3.04	Si
SLU 84	835	-1549	-51	-2392		2.84	19.5	0.93	510			9.95	Si
SLU 83	312	-2160	-165	-9978		5.01	15.39	1.08	467			2.84	Si
SLU 83	835	-1543	-55	-2298		2.83	19.5	0.93	509			9.28	Si
SLU 20	312	-1631	-143	-8540		4.3	13.54	1.08	411			2.87	Si
SLU 20	835	-1185	-45	-1747		2.17	19.5	0.84	461			10.37	Si
SLU 37	312	-1811	-156	-8388		4.21	15.36	1.08	466			2.98	Si
SLU 37	835	-1308	-70	-1527		2.4	19.5	0.88	478			6.85	Si
SLU 21	312	-1625	-134	-8351		4.2	13.84	1.08	420			3.13	Si
SLU 21	835	-1190	-41	-1842		2.18	19.5	0.85	462			11.3	Si
SLU 41	312	-1774	-157	-9203		4.63	13.69	1.08	415			2.65	Si
SLU 41	835	-1295	-53	-1757		2.37	19.5	0.87	476			8.95	Si
SLU 35	312	-1814	-154	-8323		4.18	15.49	1.08	470			3.05	Si
SLU 35	835	-1313	-67	-1542		2.41	19.5	0.88	478			7.12	Si
SLU 79	312	-2197	-164	-9163		4.69	16.74	1.08	508			3.09	Si
SLU 79	835	-1557	-71	-2067		2.85	19.5	0.94	511			7.16	Si
SLU 62	312	-2017	-151	-9315		4.68	15.4	1.08	467			3.09	Si
SLU 62	835	-1434	-46	-2288		2.63	19.5	0.91	494			10.71	Si
SLU 42	312	-1769	-148	-9014		4.52	13.96	1.08	423			2.86	Si
SLU 42	835	-1300	-50	-1851		2.38	19.5	0.87	477			9.62	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	312	-723	480	5889		5.37	4.8	1.63	219			0.46	No, Vu<V
SLV 8	835	-666	333	-4320		2.43	9.8	1.32	362			1.09	Si
SLV 7	312	-723	480	5889		5.37	4.8	1.63	219			0.46	No, Vu<V
SLV 7	835	-666	333	-4320		2.43	9.8	1.32	362			1.09	Si
SLV 9	312	-2305	-603	-14800		8.24	9.98	1.63	454			0.75	No, Vu<V
SLV 9	835	-1372	-373	638		2.51	19.5	1.34	729			1.95	Si
SLV 6	312	-2057	-602	-14861		9.69	7.58	1.63	345			0.57	No, Vu<V
SLV 6	835	-1427	-498	2089		2.61	19.5	1.36	740			1.49	Si
SLV 15	312	-1725	100	-1241		3.16	19.5	1.47	800			7.98	Si
SLV 15	835	-813	314	-5221		2.91	10	1.41	396			1.26	Si
SLV 16	312	-1725	100	-1241		3.16	19.5	1.47	800			7.98	Si
SLV 16	835	-813	314	-5221		2.91	10	1.41	396			1.26	Si
SLV 12	312	-970	480	5951		3.19	10.84	1.47	447			0.93	No, Vu<V
SLV 12	835	-611	459	-5771		23.44	0.93	1.63	42			0.09	No, Vu<V
SLV 5	312	-2057	-602	-14861		9.69	7.58	1.63	345			0.57	No, Vu<V
SLV 5	835	-1427	-498	2089		2.61	19.5	1.36	740			1.49	Si
SLV 10	312	-2305	-603	-14800		8.24	9.98	1.63	454			0.75	No, Vu<V
SLV 10	835	-1372	-373	638		2.51	19.5	1.34	729			1.95	Si
SLV 11	312	-970	480	5951		3.19	10.84	1.47	447			0.93	No, Vu<V
SLV 11	835	-611	459	-5771		23.44	0.93	1.63	42			0.09	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 573.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 11	14	0.36	1.65	-900	4277	10900	2.55	Si
SLV 12	14	0.36	1.65	-900	4277	10900	2.55	Si
SLV 8	14	0.36	1.77	-967	4277	11576	2.71	Si
SLV 7	14	0.36	1.77	-967	4277	11576	2.71	Si



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 15	14	0.36	1.9	-1037	4277	12258	2.87	Si
SLV 16	14	0.36	1.9	-1037	4277	12258	2.87	Si
SLV 13	14	0.36	2.24	-1221	4277	13963	3.26	Si
SLV 14	14	0.36	2.24	-1221	4277	13963	3.26	Si
SLV 4	14	0.36	2.31	-1260	4277	14309	3.35	Si
SLV 3	14	0.36	2.31	-1260	4277	14309	3.35	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 573.5 Wa = 0.05 Ta = 0.1631

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 12	-611	-970	24	0.007	1.039	0.906	11.101	1591.321	No
SLV 11	-611	-970	24	0.007	1.039	0.906	11.101	1591.321	No
SLV 8	-666	-723	25	0.008	1.093	0.909	12.165	1591.321	No
SLV 7	-666	-723	25	0.008	1.093	0.909	12.165	1591.321	No
SLV 9	-1372	-2305	-24	0.017	1.803	0.938	25.653	1591.321	No
SLV 10	-1372	-2305	-24	0.017	1.803	0.938	25.653	1591.321	No
SLV 5	-1427	-2057	-23	0.017	1.858	0.939	26.543	1591.321	No
SLV 6	-1427	-2057	-23	0.017	1.858	0.939	26.543	1591.321	No
SLV 3	-997	-902	8	0.026	1.424	0.925	40.134	1591.321	No
SLV 4	-997	-902	8	0.026	1.424	0.925	40.134	1591.321	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.086	SLU 83	Si
V_SLU	2.648	SLU 41	Si
PF_SLV	0.934	SLV 5	No
V_SLV	0.092	SLV 11	No
PFFP_SLV	2.549	SLV 11	Si
R_SLV	0.007	SLV 11	No

Maschio 254

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-331.4	-1100.3	-35.4	Z medio 398 cm	Z medio 746 cm	296	28	348.5	174	352			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 24	483	-26307	97303	3.17	2376309	24.422	Si
SLU 24	657	-22890	102686	2.76	2239120	21.806	Si
SLU 69	483	-32876	98636	3.97	2496262	25.308	Si
SLU 69	657	-28615	117003	3.45	2440005	20.854	Si
SLU 27	483	-27239	86769	3.29	2404857	27.716	Si
SLU 27	657	-23807	105999	2.87	2280977	21.519	Si
SLU 71	483	-32607	88032	3.93	2495066	28.343	Si
SLU 71	657	-28338	107421	3.42	2433596	22.655	Si
SLU 65	483	-30739	110745	3.71	2478000	22.376	Si
SLU 65	657	-26492	96768	3.2	2382287	24.619	Si
SLU 67	483	-31941	110157	3.85	2490740	22.611	Si
SLU 67	657	-27691	111274	3.34	2417308	21.724	Si
SLU 66	483	-31944	109170	3.85	2490757	22.815	Si
SLU 66	657	-27697	113689	3.34	2417482	21.264	Si
SLU 70	483	-32874	99623	3.97	2496253	25.057	Si
SLU 70	657	-28608	114587	3.45	2439858	21.293	Si
SLU 25	483	-26305	98290	3.17	2376239	24.176	Si
SLU 25	657	-22884	100270	2.76	2238809	22.328	Si
SLU 28	483	-27237	87756	3.29	2404796	27.403	Si
SLU 28	657	-23801	103584	2.87	2280692	22.018	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 11	483	-22777	253872	2.75	2612761	10.292	Si
SLD 11	657	-20192	96177	2.44	2392574	24.877	Si
SLV 8	483	-20781	433594	2.51	2444415	5.638	Si
SLV 8	657	-18348	96011	2.21	2223547	23.159	Si
SLV 5	483	-26909	-343782	3.25	2924295	8.506	Si
SLV 5	657	-22251	-12918	2.68	2569594	198.922	Si
SLV 16	483	-23624	296524	2.85	2680709	9.04	Si
SLV 16	657	-21883	155163	2.64	2538837	16.362	Si
SLV 7	483	-20781	433594	2.51	2444415	5.638	Si
SLV 7	657	-18348	96011	2.21	2223547	23.159	Si
SLV 12	483	-21103	495907	2.55	2472389	4.986	Si
SLV 12	657	-19349	140908	2.33	2316532	16.44	Si
SLV 15	483	-23624	296524	2.85	2680709	9.04	Si
SLV 15	657	-21883	155163	2.64	2538837	16.362	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLD 12	483	-22777	253872	2.75	2612761	10.292	Si
SLD 12	657	-20192	96177	2.44	2392574	24.877	Si
SLV 11	483	-21103	495907	2.55	2472389	4.986	Si
SLV 11	657	-19349	140908	2.33	2316532	16.44	Si
SLV 6	483	-26909	-343782	3.25	2924295	8.506	Si
SLV 6	657	-22251	-12918	2.68	2569594	198.922	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 27	483	-27239	-865	86769		3.29	296	0.99	8236			9.52	Si
SLU 27	657	-23807	-640	105999		2.87	296	0.94	7779			12.16	Si
SLU 71	483	-32607	-889	88032		3.93	296	1.08	8952			10.07	Si
SLU 71	657	-28338	-632	107421		3.42	296	1.01	8383			13.27	Si
SLU 16	483	-27543	-866	42441		3.32	296	1	8277			9.56	Si
SLU 16	657	-24366	-449	43315		2.94	296	0.95	7853			17.5	Si
SLU 37	483	-30491	-939	69358		3.68	296	1.05	8670			9.23	Si
SLU 37	657	-27013	-472	68101		3.26	296	0.99	8206			17.4	Si
SLU 35	483	-30760	-874	79961		3.71	296	1.05	8706			9.96	Si
SLU 35	657	-27290	-396	77683		3.29	296	0.99	8243			20.81	Si
SLU 79	483	-36128	-898	81224		4.36	296	1.08	8979			10	Si
SLU 79	657	-31820	-388	79104		3.84	296	1.07	8847			22.79	Si
SLU 29	483	-26971	-930	76165		3.25	296	0.99	8201			8.82	Si
SLU 29	657	-23531	-715	96417		2.84	296	0.93	7742			10.83	Si
SLU 52	483	-31311	334	77021		3.78	296	1.06	8779			26.29	Si
SLU 52	657	-27328	807	43666		3.3	296	1	8248			10.22	Si
SLU 6	483	-24291	-792	59852		2.93	296	0.95	7843			9.91	Si
SLU 6	657	-21160	-617	81214		2.55	296	0.9	7426			12.04	Si
SLU 8	483	-24023	-857	49249		2.9	296	0.94	7807			9.11	Si
SLU 8	657	-20884	-692	71632		2.52	296	0.89	7389			10.67	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	483	-26909	-8009	-343782		3.25	296	1.48	12288			1.53	Si
SLV 5	657	-22251	-7685	-12918		2.68	296	1.37	11357			1.48	Si
SLV 6	483	-26909	-8009	-343782		3.25	296	1.48	12288			1.53	Si
SLV 6	657	-22251	-7685	-12918		2.68	296	1.37	11357			1.48	Si
SLV 11	483	-21103	8068	495907		2.55	296	1.34	11127			1.38	Si
SLV 11	657	-19349	8315	140908		2.33	296	1.3	10777			1.3	Si
SLV 3	483	-22549	5289	88814		2.72	296	1.38	11417			2.16	Si
SLV 3	657	-18547	5776	5506		2.24	296	1.28	10616			1.84	Si
SLV 7	483	-20781	9635	433594		2.51	296	1.33	11063			1.15	Si
SLV 7	657	-18348	10000	96011		2.21	296	1.28	10576			1.06	Si
SLV 4	483	-22549	5289	88814		2.72	296	1.38	11417			2.16	Si
SLV 4	657	-18547	5776	5506		2.24	296	1.28	10616			1.84	Si
SLV 8	483	-20781	9635	433594		2.51	296	1.33	11063			1.15	Si
SLV 8	657	-18348	10000	96011		2.21	296	1.28	10576			1.06	Si
SLV 9	483	-27231	-9577	-281469		3.29	296	1.49	12353			1.29	Si
SLV 9	657	-23252	-9370	31979		2.81	296	1.39	11557			1.23	Si
SLV 10	483	-27231	-9577	-281469		3.29	296	1.49	12353			1.29	Si
SLV 10	657	-23252	-9370	31979		2.81	296	1.39	11557			1.23	Si
SLV 12	483	-21103	8068	495907		2.55	296	1.34	11127			1.38	Si
SLV 12	657	-19349	8315	140908		2.33	296	1.3	10777			1.3	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 570 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 7	14	0.36	2.44	-20201	28769	226400	7.87	Si
SLV 8	14	0.36	2.44	-20201	28769	226400	7.87	Si
SLV 3	14	0.36	2.48	-20591	28769	229659	7.98	Si
SLV 4	14	0.36	2.48	-20591	28769	229659	7.98	Si
SLV 12	14	0.36	2.54	-21039	28769	233356	8.11	Si
SLV 11	14	0.36	2.54	-21039	28769	233356	8.11	Si
SLV 2	14	0.36	2.63	-21763	28769	239207	8.31	Si
SLV 1	14	0.36	2.63	-21763	28769	239207	8.31	Si
SLV 15	14	0.36	2.82	-23385	28769	251789	8.75	Si
SLV 16	14	0.36	2.82	-23385	28769	251789	8.75	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 570 Wa = 0.05 Ta = 0.0724

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 4	-18547	-22549	-229	0.034	22.968	0.949	52.528	910.763	No
SLV 3	-18547	-22549	-229	0.034	22.968	0.949	52.528	910.763	No
SLV 7	-18348	-20781	-246	0.033	22.766	0.948	51.197	832.399	No
SLV 8	-18348	-20781	-246	0.033	22.766	0.948	51.197	832.399	No
SLV 1	-19718	-24388	-169	0.037	24.156	0.951	56.941	910.763	No
SLV 2	-19718	-24388	-169	0.037	24.156	0.951	56.941	910.763	No
SLV 11	-19349	-21103	-202	0.036	23.782	0.95	54.664	832.399	No
SLV 12	-19349	-21103	-202	0.036	23.782	0.95	54.664	832.399	No
SLV 16	-21883	-23624	-80	0.041	26.356	0.955	62.647	910.763	No
SLV 15	-21883	-23624	-80	0.041	26.356	0.955	62.647	910.763	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLU	20.854	SLU 69	Si
V SLU	8.817	SLU 29	Si
PF SLV	4.986	SLV 11	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLV	1.058	SLV 7	Si
PFFP_SLV	7.87	SLV 7	Si
R_SLV	0.058	SLV 3	No

Maschio 255

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1100.3	-35.4	-1100.3	104.6	L3	L5	140	28	725	725	725			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 83	110	-22276	131556	5.68	471523	3.584	Si
SLU 83	835	-15955	-34370	4.07	558808	16.258	Si
SLU 82	110	-22133	137574	5.65	475421	3.456	Si
SLU 82	835	-15431	-37945	3.94	558181	14.71	Si
SLU 81	110	-22099	135524	5.64	476355	3.515	Si
SLU 81	835	-15470	-36891	3.95	558269	15.133	Si
SLU 78	110	-21542	124006	5.5	490636	3.957	Si
SLU 78	835	-15876	-24286	4.05	558790	23.009	Si
SLU 75	110	-21365	127973	5.45	494898	3.867	Si
SLU 75	835	-15391	-26807	3.93	558083	20.819	Si
SLU 76	110	-21154	126237	5.4	499794	3.959	Si
SLU 76	835	-15088	-27863	3.85	557120	19.995	Si
SLU 73	110	-20977	130205	5.35	503755	3.869	Si
SLU 73	835	-14603	-30384	3.73	554736	18.257	Si
SLU 74	110	-21331	125923	5.44	495715	3.937	Si
SLU 74	835	-15430	-25753	3.94	558178	21.674	Si
SLU 77	110	-21508	121956	5.49	491480	4.03	Si
SLU 77	835	-15915	-23232	4.06	558802	24.053	Si
SLU 84	110	-22311	133606	5.69	470562	3.522	Si
SLU 84	835	-15916	-35424	4.06	558803	15.775	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	110	-19611	244455	5	810714	3.316	Si
SLV 8	835	-9844	-49960	2.51	547446	10.958	Si
SLD 12	110	-15514	139233	3.96	734246	5.274	Si
SLD 12	835	-10212	-34165	2.61	562438	16.462	Si
SLV 7	110	-19611	244455	5	810714	3.316	Si
SLV 7	835	-9844	-49960	2.51	547446	10.958	Si
SLD 8	110	-16522	152348	4.21	757610	4.973	Si
SLD 8	835	-9955	-28859	2.54	552020	19.128	Si
SLD 7	110	-16522	152348	4.21	757610	4.973	Si
SLD 7	835	-9955	-28859	2.54	552020	19.128	Si
SLV 12	110	-17161	214011	4.38	770886	3.602	Si
SLV 12	835	-10446	-62542	2.66	571749	9.142	Si
SLV 3	110	-19599	178775	5	810561	4.534	Si
SLV 3	835	-9067	-5356	2.31	514554	96.075	Si
SLV 4	110	-19599	178775	5	810561	4.534	Si
SLV 4	835	-9067	-5356	2.31	514554	96.075	Si
SLV 11	110	-17161	214011	4.38	770886	3.602	Si
SLV 11	835	-10446	-62542	2.66	571749	9.142	Si
SLD 11	110	-15514	139233	3.96	734246	5.274	Si
SLD 11	835	-10212	-34165	2.61	562438	16.462	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 28	110	-15667	-546	85832		4	140	1.08	4247			7.78	Si
SLU 28	835	-11814	-962	-1046		3.01	140	0.96	3753			3.9	Si
SLU 27	110	-15633	-617	83782		3.99	140	1.08	4247			6.88	Si
SLU 27	835	-11853	-1006	7		3.02	140	0.96	3758			3.74	Si
SLU 71	110	-18522	-647	98469		4.73	140	1.08	4247			6.56	Si
SLU 71	835	-13767	-1054	-4308		3.51	140	1.02	4013			3.81	Si
SLU 72	110	-18557	-575	100519		4.73	140	1.08	4247			7.38	Si
SLU 72	835	-13729	-1010	-5361		3.5	140	1.02	4008			3.97	Si
SLU 70	110	-18791	-546	103622		4.79	140	1.08	4247			7.77	Si
SLU 70	835	-14005	-982	-5006		3.57	140	1.03	4045			4.12	Si
SLU 35	110	-18384	-665	104166		4.69	140	1.08	4247			6.39	Si
SLU 35	835	-13724	-916	-19272		3.5	140	1.02	4008			4.37	Si
SLU 30	110	-15433	-574	82729		3.94	140	1.08	4236			7.37	Si
SLU 30	835	-11537	-989	-1401		2.94	140	0.95	3716			3.76	Si
SLU 29	110	-15399	-646	80679		3.93	140	1.08	4231			6.55	Si
SLU 29	835	-11576	-1034	-348		2.95	140	0.95	3721			3.6	Si
SLU 37	110	-18150	-694	101063		4.63	140	1.08	4247			6.12	Si
SLU 37	835	-13448	-944	-19627		3.43	140	1.01	3971			4.21	Si
SLU 69	110	-18756	-618	101572		4.78	140	1.08	4247			6.87	Si



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	835	-14044	-1026	-3953		3.58	140	1.03	4050			3.95	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	110	-17161	3223	214011		4.38	140	1.63	6370			1.98	Si
SLV 12	835	-10446	2847	-62542		2.66	140	1.37	5356			1.88	Si
SLV 9	110	-8962	-4057	-75122		2.29	140	1.29	5059			1.25	Si
SLV 9	835	-10235	-4327	22957		2.61	140	1.36	5314			1.23	Si
SLV 11	110	-17161	3223	214011		4.38	140	1.63	6370			1.98	Si
SLV 11	835	-10446	2847	-62542		2.66	140	1.37	5356			1.88	Si
SLV 6	110	-11411	-3715	-44678		2.91	140	1.42	5549			1.49	Si
SLV 6	835	-9633	-3604	35539		2.46	140	1.32	5193			1.44	Si
SLV 7	110	-19611	3565	244455		5	140	1.63	6370			1.79	Si
SLV 7	835	-9844	3571	-49960		2.51	140	1.34	5235			1.47	Si
SLV 5	110	-11411	-3715	-44678		2.91	140	1.42	5549			1.49	Si
SLV 5	835	-9633	-3604	35539		2.46	140	1.32	5193			1.44	Si
SLV 10	110	-8962	-4057	-75122		2.29	140	1.29	5059			1.25	Si
SLV 10	835	-10235	-4327	22957		2.61	140	1.36	5314			1.23	Si
SLV 14	110	-8974	-1908	-9443		2.29	140	1.29	5061			2.65	Si
SLV 14	835	-11012	-2661	-21647		2.81	140	1.4	5469			2.06	Si
SLV 8	110	-19611	3565	244455		5	140	1.63	6370			1.79	Si
SLV 8	835	-9844	3571	-49960		2.51	140	1.34	5235			1.47	Si
SLV 13	110	-8974	-1908	-9443		2.29	140	1.29	5061			2.65	Si
SLV 13	835	-11012	-2661	-21647		2.81	140	1.4	5469			2.06	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 472.5 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 5	14	0.34	2.76	-10800	55581	117109	2.11	Si
SLV 6	14	0.34	2.76	-10800	55581	117109	2.11	Si
SLV 1	14	0.34	2.91	-11426	55581	121803	2.19	Si
SLV 2	14	0.34	2.91	-11426	55581	121803	2.19	Si
SLV 9	14	0.34	2.96	-11600	55581	123070	2.21	Si
SLV 10	14	0.34	2.96	-11600	55581	123070	2.21	Si
SLV 4	14	0.34	3.26	-12762	55581	131062	2.36	Si
SLV 3	14	0.34	3.26	-12762	55581	131062	2.36	Si
SLV 14	14	0.34	3.59	-14092	55581	139244	2.51	Si
SLV 13	14	0.34	3.59	-14092	55581	139244	2.51	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 472.5 Wa = 0.05 Ta = 0.3135

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 3	-9067	-19599	268	0	13.315	0.921	0.75	917.222	No
SLV 4	-9067	-19599	268	0	13.315	0.921	0.75	917.222	No
SLV 14	-11012	-8974	-291	0.002	15.272	0.929	2.364	917.222	No
SLV 13	-11012	-8974	-291	0.002	15.272	0.929	2.364	917.222	No
SLV 2	-9004	-17139	215	0.005	13.252	0.921	7.878	917.222	No
SLV 1	-9004	-17139	215	0.005	13.252	0.921	7.878	917.222	No
SLV 16	-11075	-11434	-238	0.006	15.335	0.929	8.619	917.222	No
SLV 15	-11075	-11434	-238	0.006	15.335	0.929	8.619	917.222	No
SLV 9	-10235	-8962	-176	0.009	14.489	0.926	14.756	1130.615	No
SLV 10	-10235	-8962	-176	0.009	14.489	0.926	14.756	1130.615	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.456	SLU 82	Si
V_SLU	3.601	SLU 29	Si
PF_SLV	3.316	SLV 7	Si
V_SLV	1.228	SLV 9	Si
PFFP_SLV	2.107	SLV 5	Si
R_SLV	0.001	SLV 3	No

Maschio 256

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-1051.8	-485.9	-1100.3	-485.9	L3	F1	48.5	30	1326.6	1326.5	1326.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 52	1187	-1085	2275	0.75	23870	10.491	Si
SLU 52	1399	-278	-3664	0.19	6571	1.793	Si
SLU 64	1187	-1083	2819	0.75	23847	8.459	Si
SLU 64	1399	-310	-3746	0.21	7321	1.954	Si
SLU 23	1187	-918	1778	0.63	20515	11.539	Si
SLU 23	1399	-244	-3020	0.17	5795	1.919	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 46	1187	-1122	2947	0.77	24597	8.346	Si
SLU 46	1399	-328	-3969	0.23	7717	1.944	Si
SLU 2	1187	-828	2406	0.57	18662	7.755	Si
SLU 2	1399	-224	-3426	0.15	5315	1.551	Si
SLU 43	1187	-994	3448	0.68	22055	6.397	Si
SLU 43	1399	-290	-4152	0.2	6847	1.649	Si
SLU 1	1187	-788	2486	0.54	17822	7.168	Si
SLU 1	1399	-228	-3087	0.16	5424	1.757	Si
SLU 47	1187	-1159	2812	0.8	25331	9.008	Si
SLU 47	1399	-333	-3992	0.23	7839	1.964	Si
SLU 65	1187	-1124	2739	0.77	24639	8.995	Si
SLU 65	1399	-306	-4085	0.21	7214	1.766	Si
SLU 44	1187	-1034	3368	0.71	22861	6.788	Si
SLU 44	1399	-285	-4491	0.2	6739	1.501	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 13	1187	-229	-7770	0	0	0	No, $e \geq l/2$
SLV 13	1399	-111	19768	0	0	0	No, $e \geq l/2$
SLV 7	1187	-551	5134	0.38	12935	2.519	Si
SLV 7	1399	-183	-15737	0	0	0	No, $e \geq l/2$
SLV 11	1187	-101	-683	0.07	2430	3.557	Si
SLV 11	1399	-93	-3472	0	0	0	No, $e \geq l/2$
SLV 12	1187	-101	-683	0.07	2430	3.557	Si
SLV 12	1399	-93	-3472	0	0	0	No, $e \geq l/2$
SLV 9	1187	-1105	-1145	0.76	25114	21.931	Si
SLV 9	1399	-282	10268	0	0	0	No, $e \geq l/2$
SLD 1	1187	-1212	6115	0.83	27358	4.474	Si
SLD 1	1399	-307	-10569	0	0	0	No, $e \geq l/2$
SLV 4	1187	-1428	11760	0.98	31809	2.705	Si
SLV 4	1399	-353	-25237	0	0	0	No, $e \geq l/2$
SLV 8	1187	-551	5134	0.38	12935	2.519	Si
SLV 8	1399	-183	-15737	0	0	0	No, $e \geq l/2$
SLV 14	1187	-229	-7770	0	0	0	No, $e \geq l/2$
SLV 14	1399	-111	19768	0	0	0	No, $e \geq l/2$
SLV 10	1187	-1105	-1145	0.76	25114	21.931	Si
SLV 10	1399	-282	10268	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 43	1187	-994	86	3448		0.68	48.45	0.65	940			10.93	Si
SLU 43	1399	-290	-109	-4152		0.33	29.68	0.6	533			4.9	Si
SLU 73	1187	-1174	26	1647		0.81	48.45	0.66	964			37.53	Si
SLU 73	1399	-298	-121	-3258		0.25	39.92	0.59	705			5.83	Si
SLU 47	1187	-1159	59	2812		0.8	48.45	0.66	962			16.26	Si
SLU 47	1399	-333	-129	-3992		0.3	36.71	0.6	656			5.09	Si
SLU 23	1187	-918	35	1778		0.63	48.45	0.64	930			26.47	Si
SLU 23	1399	-244	-124	-3020		0.23	35.59	0.59	626			5.04	Si
SLU 52	1187	-1085	51	2275		0.75	48.45	0.66	952			18.56	Si
SLU 52	1399	-278	-146	-3664		0.28	33.1	0.59	589			4.05	Si
SLU 10	1187	-879	25	1314		0.6	48.45	0.64	925			37.46	Si
SLU 10	1399	-216	-114	-2599		0.2	36.64	0.58	640			5.61	Si
SLU 46	1187	-1122	64	2947		0.77	48.45	0.66	957			15.06	Si
SLU 46	1399	-328	-111	-3969		0.3	36.33	0.6	649			5.85	Si
SLU 65	1187	-1124	62	2739		0.77	48.45	0.66	957			15.51	Si
SLU 65	1399	-306	-156	-4085		0.31	32.59	0.6	584			3.75	Si
SLU 2	1187	-828	61	2406		0.57	48.45	0.63	918			15.11	Si
SLU 2	1399	-224	-149	-3426		0.28	26.72	0.59	475			3.2	Si
SLU 44	1187	-1034	87	3368		0.71	48.45	0.65	945			10.82	Si
SLU 44	1399	-285	-180	-4491		0.37	25.41	0.61	461			2.56	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	1187	-1428	1033	11760		0.99	47.97	1.03	1485			1.44	Si
SLV 4	1399	-353	655	-25237		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	-1105	-476	-1145		0.76	48.45	0.99	1432			3.01	Si
SLV 9	1399	-282	75	10268		0	0	0.83	0			0	No, $V_u < V$
SLV 7	1187	-551	560	5134		0.41	44.73	0.92	1228			2.19	Si
SLV 7	1399	-183	-195	-15737		0	0	0.83	0			0	No, $V_u < V$
SLV 8	1187	-551	560	5134		0.41	44.73	0.92	1228			2.19	Si
SLV 8	1399	-183	-195	-15737		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-229	-950	-7770		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1399	-111	-776	19768		0	0	0.83	0			0	No, $V_u < V$
SLV 11	1187	-101	9	-683		0.07	48.45	0.85	1232			143.45	Si
SLV 11	1399	-93	-694	-3472		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-229	-950	-7770		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1399	-111	-776	19768		0	0	0.83	0			0	No, $V_u < V$
SLD 1	1187	-1212	402	6115		0.83	48.45	1	1454			3.62	Si
SLD 1	1399	-307	342	-10569		0	0	0.83	0			0	No, $V_u < V$
SLV 12	1187	-101	9	-683		0.07	48.45	0.85	1232			143.45	Si
SLV 12	1399	-93	-694	-3472		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1187	-1105	-476	-1145		0.76	48.45	0.99	1432			3.01	Si
SLV 10	1399	-282	75	10268		0	0	0.83	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 773.3 Wa 0.05 denominatore 8 $\gamma_M = 2$



Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.41	0	-1798	77957	0	0	No, $e>t/2$
SLV 6	14	0.41	0	-3618	77957	0	0	No, $e>t/2$
SLV 2	14	0.41	0	-2508	77957	0	0	No, $e>t/2$
SLV 1	14	0.41	0	-2508	77957	0	0	No, $e>t/2$
SLV 7	14	0.41	0	-1252	77957	0	0	No, $e>t/2$
SLV 9	14	0.41	0	-3859	77957	0	0	No, $e>t/2$
SLV 5	14	0.41	0	-3618	77957	0	0	No, $e>t/2$
SLV 10	14	0.41	0	-3859	77957	0	0	No, $e>t/2$
SLV 8	14	0.41	0	-1252	77957	0	0	No, $e>t/2$
SLV 3	14	0.41	0	-1798	77957	0	0	No, $e>t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 773.3 $W_a = 0.05$ $T_a = 0.9796$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	-47	1038	-12	0	0	0	0	239.674	No, Trazione
SLV 4	-49	1699	-1	0	0	0	0	239.674	No, Trazione
SLV 7	-47	1038	-12	0	0	0	0	239.674	No, Trazione
SLV 3	-49	1699	-1	0	0	0	0	239.674	No, Trazione
SLV 5	-61	-7422	18	0.012	3.542	0.984	18.258	239.674	No
SLV 6	-61	-7422	18	0.012	3.542	0.984	18.258	239.674	No
SLV 10	-64	-10527	17	0.013	3.543	0.983	18.595	239.674	No
SLV 9	-64	-10527	17	0.013	3.543	0.983	18.595	239.674	No
SLV 11	-50	-2067	-12	0.015	3.541	0.986	22.765	239.674	No
SLV 12	-50	-2067	-12	0.015	3.541	0.986	22.765	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.501	SLU 44	Si
V_SLU	2.56	SLU 44	Si
PF_SLV	0	SLV 16	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 8	No

Maschio 257

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-772.3	-485.9	-867.8	-485.9	L3	F1	95.5	30	1326.4	1326.3	1326.4			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 31	1187	-2461	3596	0.86	105189	29.248	Si
SLU 31	1399	-919	-14983	0.32	42157	2.814	Si
SLU 44	1187	-2744	5342	0.96	115693	21.658	Si
SLU 44	1399	-906	-17001	0.32	41624	2.448	Si
SLU 10	1187	-2376	3897	0.83	101940	26.158	Si
SLU 10	1399	-861	-15978	0.3	39637	2.481	Si
SLU 23	1187	-2323	4676	0.81	99948	21.376	Si
SLU 23	1399	-840	-14905	0.29	38691	2.596	Si
SLU 52	1187	-2882	4263	1.01	120696	28.315	Si
SLU 52	1399	-985	-17078	0.34	45068	2.639	Si
SLU 73	1187	-2968	3962	1.04	123768	31.239	Si
SLU 73	1399	-1042	-16083	0.36	47559	2.957	Si
SLU 2	1187	-2238	4976	0.78	96651	19.422	Si
SLU 2	1399	-783	-15900	0.27	36153	2.274	Si
SLU 29	1187	-1878	-1458	0.66	82495	56.588	Si
SLU 29	1399	-554	8968	0.19	25854	2.883	Si
SLU 65	1187	-2830	5041	0.99	118813	23.568	Si
SLU 65	1399	-964	-16005	0.34	44133	2.757	Si
SLU 8	1187	-1792	-1157	0.63	79041	68.305	Si
SLU 8	1399	-497	7973	0.17	23248	2.916	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	1187	-1522	87638	0	0	0	No, $e>l/2$
SLV 6	1399	1895	96541	0	0	0	No, Trazione
SLV 5	1187	-1522	87638	0	0	0	No, $e>l/2$
SLV 5	1399	1895	96541	0	0	0	No, Trazione
SLV 1	1187	-324	39752	0	0	0	No, $e>l/2$
SLV 1	1399	1035	8655	0	0	0	No, Trazione
SLV 14	1187	-3463	10907	1.21	149081	13.668	Si
SLV 14	1399	-783	49798	0	0	0	No, $e>l/2$
SLD 10	1187	-2106	30941	0.73	94549	3.056	Si
SLD 10	1399	195	41910	0	0	0	No, Trazione
SLV 8	1187	-1239	-78023	0	0	0	No, $e>l/2$



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 8	1399	-2381	-113420	0.83	106019	0.935	No, M>Mu
SLD 1	1187	-1211	16639	0.42	55851	3.357	Si
SLD 1	1399	111	978	0	0	0	No, Trazione
SLV 13	1187	-3463	10907	1.21	149081	13.668	Si
SLV 13	1399	-783	49798	0	0	0	No, e>l/2
SLV 2	1187	-324	39752	0	0	0	No, e>l/2
SLV 2	1399	1035	8655	0	0	0	No, Trazione
SLV 7	1187	-1239	-78023	0	0	0	No, e>l/2
SLV 7	1399	-2381	-113420	0.83	106019	0.935	No, M>Mu

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	1187	-2343	16	477		0.82	95.55	0.66	1905			118.27	Si
SLU 42	1399	-840	194	-4416		0.29	95.55	0.59	1704			8.79	Si
SLU 36	1187	-2291	-24	250		0.8	95.55	0.66	1898			78.93	Si
SLU 36	1399	-820	191	-295		0.29	95.55	0.59	1702			8.89	Si
SLU 38	1187	-2286	-37	-76		0.8	95.55	0.66	1897			51.36	Si
SLU 38	1399	-817	195	868		0.28	95.55	0.59	1701			8.73	Si
SLU 84	1187	-2849	38	843		0.99	95.55	0.69	1972			52.19	Si
SLU 84	1399	-963	181	-5516		0.34	95.55	0.6	1721			9.53	Si
SLU 76	1187	-2970	93	2946		1.04	95.55	0.69	1989			21.36	Si
SLU 76	1399	-1052	191	-10831		0.37	95.55	0.6	1733			9.06	Si
SLU 80	1187	-2793	-15	289		0.97	95.55	0.69	1965			128.83	Si
SLU 80	1399	-940	182	-232		0.33	95.55	0.6	1718			9.45	Si
SLU 78	1187	-2798	-2	616		0.98	95.55	0.69	1965			833.49	Si
SLU 78	1399	-943	178	-1396		0.33	95.55	0.6	1718			9.64	Si
SLU 31	1187	-2461	132	3596		0.86	95.55	0.67	1921			14.56	Si
SLU 31	1399	-919	179	-14983		0.32	94.39	0.6	1696			9.47	Si
SLU 34	1187	-2464	71	2580		0.86	95.55	0.67	1921			26.91	Si
SLU 34	1399	-929	205	-9731		0.32	95.55	0.6	1716			8.39	Si
SLU 40	1187	-2340	77	1493		0.82	95.55	0.66	1904			24.86	Si
SLU 40	1399	-830	168	-9667		0.29	95.55	0.59	1703			10.12	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	1187	-1239	654	-78023		0	0	0.83	0			0	No, Vu<V
SLV 7	1399	-2381	-459	-113420		189.7	0.42	1.63	20			0.04	No, Vu<V
SLV 6	1187	-1522	-149	87638		0	0	0.83	0			0	No, Vu<V
SLV 6	1399	1895	-211	96541		0	0	0.83	0			0	No, Vu<V
SLV 5	1187	-1522	-149	87638		0	0	0.83	0			0	No, Vu<V
SLV 5	1399	1895	-211	96541		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-1211	294	16639		0.42	95.55	0.92	2631			8.94	Si
SLD 1	1399	111	-467	978		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	-2464	-576	78984		1.74	47.13	1.18	1671			2.9	Si
SLV 10	1399	1350	508	108884		0	0	0.83	0			0	No, Vu<V
SLV 2	1187	-324	630	39752		0	0	0.83	0			0	No, Vu<V
SLV 2	1399	1035	-1136	8655		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-1239	654	-78023		0	0	0.83	0			0	No, Vu<V
SLV 8	1399	-2381	-459	-113420		189.7	0.42	1.63	20			0.04	No, Vu<V
SLV 1	1187	-324	630	39752		0	0	0.83	0			0	No, Vu<V
SLV 1	1399	1035	-1136	8655		0	0	0.83	0			0	No, Vu<V
SLD 10	1187	-2106	-214	30941		0.73	95.55	0.98	2810			13.13	Si
SLD 10	1399	195	235	41910		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	-2464	-576	78984		1.74	47.13	1.18	1671			2.9	Si
SLV 9	1399	1350	508	108884		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 773.2 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 3	14	0.41	0	-1525	153674	0	0	No, e>t/2
SLV 9	14	0.41	0	-9090	153674	0	0	No, e>t/2
SLV 10	14	0.41	0	-9090	153674	0	0	No, e>t/2
SLV 5	14	0.41	0	-7909	153674	0	0	No, e>t/2
SLV 4	14	0.41	0	-1525	153674	0	0	No, e>t/2
SLV 7	14	0.41	0	-207	153674	0	0	No, e>t/2
SLV 2	14	0.41	0	-3835	153674	0	0	No, e>t/2
SLV 1	14	0.41	0	-3835	153674	0	0	No, e>t/2
SLV 6	14	0.41	0	-7909	153674	0	0	No, e>t/2
SLV 8	14	0.41	0	-207	153674	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 773.2 Wa = 0.05 Ta = 0.9793

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 6	1024	-12045	-15	0	0	0	0	239.674	No, Trazione
SLV 10	880	-13966	14	0	0	0	0	239.674	No, Trazione
SLV 1	431	-6783	-54	0	0	0	0	239.674	No, Trazione
SLV 2	431	-6783	-54	0	0	0	0	239.674	No, Trazione
SLV 5	1024	-12045	-15	0	0	0	0	239.674	No, Trazione
SLV 9	880	-13966	14	0	0	0	0	239.674	No, Trazione
SLV 3	-220	-4193	-59	0.006	7.002	0.972	8.664	239.674	No
SLV 4	-220	-4193	-59	0.006	7.002	0.972	8.664	239.674	No
SLV 13	-47	-13186	44	0.01	6.977	0.993	14.424	239.674	No
SLV 14	-47	-13186	44	0.01	6.977	0.993	14.424	239.674	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.274	SLU 2	Si
V_SLU	8.392	SLU 34	Si
PF_SLV	0	SLV 10	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 10	No

Maschio 258

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-772.3	-500.9	-772.3	-486.1	L3	F1	14.7	30	1322.8	1319.4	1326.2			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 69	1187	-159	954	0.36	1122	1.176	Si
SLU 69	1399	-7	179	0	0	0	No, e>l/2
SLU 28	1187	-128	753	0.29	909	1.208	Si
SLU 28	1399	-18	298	0	0	0	No, e>l/2
SLU 37	1187	-121	740	0.27	866	1.17	Si
SLU 37	1399	14	209	0	0	0	No, Trazione
SLU 58	1187	-162	972	0.37	1141	1.173	Si
SLU 58	1399	-15	169	0	0	0	No, e>l/2
SLU 41	1187	-126	768	0.29	900	1.173	Si
SLU 41	1399	-22	177	0	0	0	No, e>l/2
SLU 35	1187	-121	738	0.27	863	1.17	Si
SLU 35	1399	10	204	0	0	0	No, Trazione
SLU 36	1187	-129	768	0.29	918	1.196	Si
SLU 36	1399	-23	325	0	0	0	No, e>l/2
SLU 50	1187	-161	957	0.36	1132	1.182	Si
SLU 50	1399	-11	142	0	0	0	No, e>l/2
SLU 38	1187	-129	769	0.29	921	1.196	Si
SLU 38	1399	-18	330	0	0	0	No, e>l/2
SLU 48	1187	-160	955	0.36	1129	1.182	Si
SLU 48	1399	-15	137	0	0	0	No, e>l/2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	1187	-637	2603	1.44	4144	1.592	Si
SLV 8	1399	-391	19371	0	0	0	No, e>l/2
SLV 12	1187	-560	2328	1.27	3702	1.591	Si
SLV 12	1399	-347	20035	0	0	0	No, e>l/2
SLV 13	1187	138	-194	0	0	0	No, Trazione
SLV 13	1399	109	-4709	0	0	0	No, Trazione
SLV 14	1187	138	-194	0	0	0	No, Trazione
SLV 14	1399	109	-4709	0	0	0	No, Trazione
SLV 6	1187	300	-783	0	0	0	No, Trazione
SLV 6	1399	232	-19890	0	0	0	No, Trazione
SLV 9	1187	377	-1058	0	0	0	No, Trazione
SLV 9	1399	276	-19225	0	0	0	No, Trazione
SLD 1	1187	-126	759	0.29	910	1.199	Si
SLD 1	1399	-56	-2699	0	0	0	No, e>l/2
SLV 11	1187	-560	2328	1.27	3702	1.591	Si
SLV 11	1399	-347	20035	0	0	0	No, e>l/2
SLV 10	1187	377	-1058	0	0	0	No, Trazione
SLV 10	1399	276	-19225	0	0	0	No, Trazione
SLV 7	1187	-637	2603	1.44	4144	1.592	Si
SLV 7	1399	-391	19371	0	0	0	No, e>l/2

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 29	1187	-120	10	725		1	4.02	0.69	83			7.94	Si
SLU 29	1399	18	20	182		0	0	0.56	0			0	No, Vu<V
SLU 36	1187	-129	8	768		1	4.29	0.69	89			11.04	Si
SLU 36	1399	-23	70	325		0	0	0.56	0			0	No, Vu<V
SLU 35	1187	-121	9	738		1.05	3.84	0.7	80			8.54	Si
SLU 35	1399	10	36	204		0	0	0.56	0			0	No, Vu<V
SLU 27	1187	-120	10	723		0.99	4.02	0.69	83			8.15	Si
SLU 27	1399	14	23	177		0	0	0.56	0			0	No, Vu<V
SLU 37	1187	-121	10	740		1.05	3.85	0.7	80			8.31	Si
SLU 37	1399	14	33	209		0	0	0.56	0			0	No, Vu<V
SLU 28	1187	-128	9	753		0.96	4.46	0.68	91			10.35	Si
SLU 28	1399	-18	58	298		0	0	0.56	0			0	No, Vu<V
SLU 38	1187	-129	8	769		1	4.3	0.69	89			10.68	Si
SLU 38	1399	-18	68	330		0	0	0.56	0			0	No, Vu<V



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 30	1187	-128	9	755		0.96	4.46	0.68	91			10.05	Si
SLU 30	1399	-14	55	302		0	0	0.56	0			0	No, Vu<V
SLU 50	1187	-161	14	957		1.26	4.25	0.72	92			6.59	Si
SLU 50	1399	-11	18	142		0	0	0.56	0			0	No, Vu<V
SLU 58	1187	-162	13	972		1.31	4.11	0.73	90			6.82	Si
SLU 58	1399	-15	31	169		0	0	0.56	0			0	No, Vu<V

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	1187	-637	47	2603		2.15	9.87	1.26	374			8.04	Si
SLV 7	1399	-391	221	19371		0	0	0.83	0			0	No, Vu<V
SLV 14	1187	138	-4	-194		0	0	0.83	0			0	No, Vu<V
SLV 14	1399	109	75	-4709		0	0	0.83	0			0	No, Vu<V
SLV 8	1187	-637	47	2603		2.15	9.87	1.26	374			8.04	Si
SLV 8	1399	-391	221	19371		0	0	0.83	0			0	No, Vu<V
SLD 1	1187	-126	7	759		1.03	4.1	1.04	128			19.21	Si
SLD 1	1399	-56	-41	-2699		0	0	0.83	0			0	No, Vu<V
SLV 6	1187	300	-25	-783		0	0	0.83	0			0	No, Vu<V
SLV 6	1399	232	-226	-19890		0	0	0.83	0			0	No, Vu<V
SLV 9	1187	377	-27	-1058		0	0	0.83	0			0	No, Vu<V
SLV 9	1399	276	-160	-19225		0	0	0.83	0			0	No, Vu<V
SLV 11	1187	-560	45	2328		1.93	9.66	1.22	353			7.92	Si
SLV 11	1399	-347	288	20035		0	0	0.83	0			0	No, Vu<V
SLV 12	1187	-560	45	2328		1.93	9.66	1.22	353			7.92	Si
SLV 12	1399	-347	288	20035		0	0	0.83	0			0	No, Vu<V
SLV 13	1187	138	-4	-194		0	0	0.83	0			0	No, Vu<V
SLV 13	1399	109	75	-4709		0	0	0.83	0			0	No, Vu<V
SLV 10	1187	377	-27	-1058		0	0	0.83	0			0	No, Vu<V
SLV 10	1399	276	-160	-19225		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 769.7 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 4	14	0.41	0	-354	23554	0	0	No, $e > t/2$
SLV 10	14	0.41	0	-142	23554	0	0	No, $e > t/2$
SLV 9	14	0.41	0	-142	23554	0	0	No, $e > t/2$
SLV 5	14	0.41	0	-125	23554	0	0	No, $e > t/2$
SLV 7	14	0.41	0	-507	23554	0	0	No, $e > t/2$
SLV 2	14	0.41	0	-240	23554	0	0	No, $e > t/2$
SLV 3	14	0.41	0	-354	23554	0	0	No, $e > t/2$
SLV 6	14	0.41	0	-125	23554	0	0	No, $e > t/2$
SLV 1	14	0.41	0	-240	23554	0	0	No, $e > t/2$
SLV 8	14	0.41	0	-507	23554	0	0	No, $e > t/2$

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 769.7 Wa = 0.05 Ta = 0.974

Comb.	N top	N base	V orto	α_0	M*	e*	α_0^*	aLim	Verifica
SLV 10	260	-2787	-6	0	0	0	0	239.674	No, Trazione
SLV 1	157	-866	-14	0	0	0	0	239.674	No, Trazione
SLV 3	-17	392	-8	0	0	0	0	239.674	No, Trazione
SLV 5	306	-2577	-13	0	0	0	0	239.674	No, Trazione
SLV 4	-17	392	-8	0	0	0	0	239.674	No, Trazione
SLV 8	-274	1614	6	0	0	0	0	239.674	No, Trazione
SLV 7	-274	1614	6	0	0	0	0	239.674	No, Trazione
SLV 2	157	-866	-14	0	0	0	0	239.674	No, Trazione
SLV 9	260	-2787	-6	0	0	0	0	239.674	No, Trazione
SLV 6	306	-2577	-13	0	0	0	0	239.674	No, Trazione

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 37	No
V_SLU	0	SLU 6	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 14	No

Maschio 259

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-772.3	-377.1	-772.3	-349.9	L3	F1	27.3	30	1382.9	1376.6	1389.2			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
60			34.5	0.9	2	0.58	0.77	3.25	32000	12800	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	1187	-607	-3196	0.74	7519	2.353	Si



Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLU 60	1399	0	1787	0	0	0	No, $e \geq l/2$
SLU 52	1187	-829	-8968	1.01	9891	1.103	Si
SLU 52	1399	359	4049	0	0	0	No, Trazione
SLU 55	1187	-905	-8670	1.11	10656	1.229	Si
SLU 55	1399	321	3969	0	0	0	No, Trazione
SLU 59	1187	-895	-5880	1.09	10553	1.795	Si
SLU 59	1399	126	2910	0	0	0	No, Trazione
SLU 57	1187	-923	-6063	1.13	10837	1.787	Si
SLU 57	1399	103	3053	0	0	0	No, Trazione
SLU 49	1187	-937	-5001	1.15	10972	2.194	Si
SLU 49	1399	16	2615	0	0	0	No, Trazione
SLU 53	1187	-718	-2625	0.88	8726	3.324	Si
SLU 53	1399	-98	1663	0	0	0	No, $e \geq l/2$
SLU 42	1187	-703	-7195	0.86	8568	1.191	Si
SLU 42	1399	289	3340	0	0	0	No, Trazione
SLU 51	1187	-909	-4817	1.11	10690	2.219	Si
SLU 51	1399	39	2471	0	0	0	No, Trazione
SLU 54	1187	-847	-6362	1.04	10077	1.584	Si
SLU 54	1399	140	3133	0	0	0	No, Trazione

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	σ_0	Mu	c.s.	Verifica
SLV 6	1187	3432	34207	0	0	0	No, Trazione
SLV 6	1399	2254	29873	0	0	0	No, Trazione
SLV 10	1187	2723	29963	0	0	0	No, Trazione
SLV 10	1399	2591	31103	0	0	0	No, Trazione
SLV 1	1187	1758	15294	0	0	0	No, Trazione
SLV 1	1399	133	7939	0	0	0	No, Trazione
SLV 5	1187	3432	34207	0	0	0	No, Trazione
SLV 5	1399	2254	29873	0	0	0	No, Trazione
SLV 9	1187	2723	29963	0	0	0	No, Trazione
SLV 9	1399	2591	31103	0	0	0	No, Trazione
SLV 14	1187	-602	1147	0.74	7713	6.722	Si
SLV 14	1399	1258	12041	0	0	0	No, Trazione
SLV 15	1187	-2745	-19307	3.36	27123	1.405	Si
SLV 15	1399	-223	-5528	0	0	0	No, $e \geq l/2$
SLD 1	1187	425	4834	0	0	0	No, Trazione
SLD 1	1399	18	3842	0	0	0	No, Trazione
SLV 2	1187	1758	15294	0	0	0	No, Trazione
SLV 2	1399	133	7939	0	0	0	No, Trazione
SLV 13	1187	-602	1147	0.74	7713	6.722	Si
SLV 13	1399	1258	12041	0	0	0	No, Trazione

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 57	1187	-923	-216	-6063		1.45	21.18	0.75	476			2.21	Si
SLU 57	1399	103	186	3053		0	0	0.56	0			0	No, $V_u < V$
SLU 52	1187	-829	-306	-8968		3.28	8.43	0.99	251			0.82	No, $V_u < V$
SLU 52	1399	359	318	4049		0	0	0.56	0			0	No, $V_u < V$
SLU 49	1187	-937	-173	-5001		1.26	24.87	0.72	539			3.11	Si
SLU 49	1399	16	146	2615		0	0	0.56	0			0	No, $V_u < V$
SLU 60	1187	-607	-115	-3196		0.81	25.09	0.66	499			4.32	Si
SLU 60	1399	0	160	1787		0	0	0.56	0			0	No, $V_u < V$
SLU 42	1187	-703	-262	-7195		2.3	10.17	0.86	263			1	Si
SLU 42	1399	289	226	3340		0	0	0.56	0			0	No, $V_u < V$
SLU 54	1187	-847	-222	-6362		1.54	18.35	0.76	419			1.89	Si
SLU 54	1399	140	221	3133		0	0	0.56	0			0	No, $V_u < V$
SLU 51	1187	-909	-168	-4817		1.21	24.97	0.72	537			3.2	Si
SLU 51	1399	39	137	2471		0	0	0.56	0			0	No, $V_u < V$
SLU 53	1187	-718	-97	-2625		0.88	27.25	0.67	550			5.7	Si
SLU 53	1399	-98	116	1663		0	0	0.56	0			0	No, $V_u < V$
SLU 59	1187	-895	-210	-5880		1.41	21.16	0.74	472			2.24	Si
SLU 59	1399	126	177	2910		0	0	0.56	0			0	No, $V_u < V$
SLU 55	1187	-905	-300	-8670		2.49	12.14	0.89	323			1.08	Si
SLU 55	1399	321	282	3969		0	0	0.56	0			0	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	1187	3432	-837	34207		0	0	0.83	0			0	No, $V_u < V$
SLV 5	1399	2254	2129	29873		0	0	0.83	0			0	No, $V_u < V$
SLV 13	1187	-602	-817	1147		0.74	27.25	0.98	802			0.98	No, $V_u < V$
SLV 13	1399	1258	870	12041		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1187	2723	-1121	29963		0	0	0.83	0			0	No, $V_u < V$
SLV 10	1399	2591	2218	31103		0	0	0.83	0			0	No, $V_u < V$
SLV 1	1187	1758	129	15294		0	0	0.83	0			0	No, $V_u < V$
SLV 1	1399	133	574	7939		0	0	0.83	0			0	No, $V_u < V$
SLV 14	1187	-602	-817	1147		0.74	27.25	0.98	802			0.98	No, $V_u < V$
SLV 14	1399	1258	870	12041		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1187	2723	-1121	29963		0	0	0.83	0			0	No, $V_u < V$
SLV 9	1399	2591	2218	31103		0	0	0.83	0			0	No, $V_u < V$
SLD 1	1187	425	15	4834		0	0	0.83	0			0	No, $V_u < V$
SLD 1	1399	18	287	3842		0	0	0.83	0			0	No, $V_u < V$
SLV 15	1187	-2745	-273	-19307		4.63	19.77	1.63	964			3.53	Si
SLV 15	1399	-223	-374	-5528		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1187	1758	129	15294		0	0	0.83	0			0	No, $V_u < V$
SLV 2	1399	133	574	7939		0	0	0.83	0			0	No, $V_u < V$
SLV 6	1187	3432	-837	34207		0	0	0.83	0			0	No, $V_u < V$



Comb.	Quota	N	V par	M	σ_0	σ_N	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	1399	2254	2129	29873		0	0	0.83	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 798.3 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ_0	N	M	Mc	Coeff.s.	Verifica
SLV 9	14	0.41	0	-260	48259	0	0	No, e>t/2
SLV 1	14	0.41	0	-777	48259	0	0	No, e>t/2
SLV 10	14	0.41	0	-260	48259	0	0	No, e>t/2
SLV 4	14	0.41	0	-1448	48259	0	0	No, e>t/2
SLV 8	14	0.41	0	-2375	48259	0	0	No, e>t/2
SLV 5	14	0.41	0	-137	48259	0	0	No, e>t/2
SLV 7	14	0.41	0	-2375	48259	0	0	No, e>t/2
SLV 6	14	0.41	0	-137	48259	0	0	No, e>t/2
SLV 2	14	0.41	0	-777	48259	0	0	No, e>t/2
SLV 3	14	0.41	0	-1448	48259	0	0	No, e>t/2

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 798.3 Wa = 0.05 Ta = 1.0645

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 8	342	6433	-43	0	0	0	0	239.674	No, Trazione
SLV 10	-5	-15753	22	0	2.074	0.997	0	239.674	No
SLV 6	103	-14897	7	0	0	0	0	239.674	No, Trazione
SLV 7	342	6433	-43	0	0	0	0	239.674	No, Trazione
SLV 1	314	-6434	-28	0	0	0	0	239.674	No, Trazione
SLV 4	385	-34	-43	0	0	0	0	239.674	No, Trazione
SLV 2	314	-6434	-28	0	0	0	0	239.674	No, Trazione
SLV 5	103	-14897	7	0	0	0	0	239.674	No, Trazione
SLV 3	385	-34	-43	0	0	0	0	239.674	No, Trazione
SLV 9	-5	-15753	22	0	2.074	0.997	0	239.674	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 84	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLV 14	No
V_SLV	0	SLD 1	No
PFFP_SLV	0	SLV 1	No
R_SLV	0	SLV 16	No

1.6 Verifiche travi di accoppiamento in muratura

Le unità di misura elencate nel capitolo sono in [cm, daN] ove non espressamente specificato.

X ini.: coordinata punto iniziale. [cm]

Y ini.: coordinata punto iniziale. [cm]

Z ini.inf.: coordinata punto iniziale. [cm]

Z ini.sup.: coordinata punto iniziale. [cm]

H ini.: altezza della sezione iniziale. [cm]

X fin.: coordinata punto finale. [cm]

Y fin.: coordinata punto finale. [cm]

Z fin.inf.: coordinata punto finale. [cm]

Z fin.sup.: coordinata punto finale. [cm]

H fin.: altezza della sezione finale. [cm]

Luce: lunghezza della trave. [cm]

Spessore: spessore. [cm]

R. Trazione: resistenza a trazione dell'elemento teso disposto orizzontalmente. [daN]

fb: resistenza normalizzata a compressione in direzione orizzontale dei blocchi. [daN/cm²]

fhk: resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/cm²]

fvk0: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/cm²]

fhmedio: resistenza media a compressione della muratura utilizzata in direzione orizzontale. [daN/cm²]

τ_0 : resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/cm²]

fv0: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/cm²]

μ : coefficiente di attrito [C8.7.1.17].

ϕ : coefficiente di ammorsamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

fvk,lim: valore caratteristico massimo della resistenza a taglio che può essere impiegata nel calcolo (§11.10.3.3). [daN/cm²]

E: modulo di elasticità longitudinale della muratura utilizzato. [daN/cm²]

G: modulo di elasticità tangenziale della muratura utilizzato. [daN/cm²]

FC: fattore di confidenza della muratura.

Sezione: sezione di verifica.

γ_M : fattore parziale di sicurezza del materiale.

N: sforzo normale. [daN]

M: momento flettente nel piano. [daN*cm]

Mu: momento ultimo. [daN*cm]

Comb.: combinazione.



c.s.: coefficiente di sicurezza.

Verifica: stato di verifica.

M: momento flettente. [daN*cm]

V: taglio nel piano. [daN]

Vt: resistenza a taglio secondo [7.8.4]. [daN]

Vp: resistenza a taglio secondo [7.8.6]. [daN]

Vt fess. diag.: resistenza a taglio per fessurazione diagonale secondo §C8.7.1.3.1.1 formule [C8.7.1.16] ovvero [C8.7.1.17]. [daN]

Vt,lim: taglio limite [C8.1.7.18]. [daN]

Stato limite: pF_SLV=Presso flessione per azioni sismiche; V_SLV=Taglio per azioni sismiche.

Coeff.s.: coefficiente di sicurezza.

Trave di accoppiamento 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2465.3	227.1	61	110	49	-2465.3	127.1	61	110	49	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{mk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-874	-36721	52331	SLU 79	1.43	Si
fin.	3	973	-5315	52331	SLU 79	9.85	Si
ini.	3	-919	-36487	52331	SLU 78	1.43	Si
fin.	3	841	-5783	52331	SLU 78	9.05	Si
ini.	3	-959	-37686	52331	SLU 84	1.39	Si
fin.	3	870	-4857	52331	SLU 84	10.78	Si
ini.	3	-920	-37955	52331	SLU 81	1.38	Si
fin.	3	1007	-3999	52331	SLU 81	13.09	Si
ini.	3	-917	-36152	52331	SLU 75	1.45	Si
fin.	3	830	-5469	52331	SLU 75	9.57	Si
ini.	3	-882	-37091	52331	SLU 77	1.41	Si
fin.	3	988	-5240	52331	SLU 77	9.99	Si
ini.	3	-880	-36756	52331	SLU 74	1.42	Si
fin.	3	978	-4925	52331	SLU 74	10.63	Si
ini.	3	-910	-36118	52331	SLU 80	1.45	Si
fin.	3	826	-5859	52331	SLU 80	8.93	Si
ini.	3	-922	-38289	52331	SLU 83	1.37	Si
fin.	3	1017	-4313	52331	SLU 83	12.13	Si
ini.	3	-957	-37351	52331	SLU 82	1.4	Si
fin.	3	859	-4542	52331	SLU 82	11.52	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-37091	3948			566	213	SLU 77	0.05	No
fin.	3	0	-5240	-1490			566	213	SLU 77	0.14	No
ini.	3	0	-36152	3828			566	213	SLU 75	0.06	No
fin.	3	0	-5469	-1506			566	213	SLU 75	0.14	No
ini.	3	0	-37351	3906			566	213	SLU 82	0.05	No
fin.	3	0	-4542	-1458			566	213	SLU 82	0.15	No
ini.	3	0	-36721	3913			566	213	SLU 79	0.05	No
fin.	3	0	-5315	-1488			566	213	SLU 79	0.14	No
ini.	3	0	-38289	4026			566	213	SLU 83	0.05	No
fin.	3	0	-4313	-1443			566	213	SLU 83	0.15	No
ini.	3	0	-36118	3838			566	213	SLU 80	0.06	No
fin.	3	0	-5859	-1536			566	213	SLU 80	0.14	No
ini.	3	0	-36756	3903			566	213	SLU 74	0.05	No
fin.	3	0	-4925	-1458			566	213	SLU 74	0.15	No
ini.	3	0	-36487	3873			566	213	SLU 78	0.06	No
fin.	3	0	-5783	-1538			566	213	SLU 78	0.14	No
ini.	3	0	-37686	3951			566	213	SLU 84	0.05	No
fin.	3	0	-4857	-1491			566	213	SLU 84	0.14	No
ini.	3	0	-37955	3981			566	213	SLU 81	0.05	No
fin.	3	0	-3999	-1410			566	213	SLU 81	0.15	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	742	80	63471	SLV 6	796.56	Si
fin.	2	1034	-52733	63471	SLV 6	1.2	Si
ini.	2	-1920	-49456	63471	SLV 11	1.28	Si
fin.	2	251	43537	63471	SLV 11	1.46	Si
ini.	2	-2702	-54655	63471	SLV 7	1.16	Si
fin.	2	2678	23514	63471	SLV 7	2.7	Si
ini.	2	-1920	-49456	63471	SLV 12	1.28	Si
fin.	2	251	43537	63471	SLV 12	1.46	Si
ini.	2	-1376	-25143	63471	SLV 1	2.52	Si
fin.	2	4441	-49406	63471	SLV 1	1.28	Si
ini.	2	-2702	-54655	63471	SLV 8	1.16	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	2678	23514	63471	SLV 8	2.7	Si
ini.	2	-2409	-41563	63471	SLV 4	1.53	Si
fin.	2	4934	-26532	63471	SLV 4	2.39	Si
ini.	2	742	80	63471	SLV 5	796.56	Si
fin.	2	1034	-52733	63471	SLV 5	1.2	Si
ini.	2	-1376	-25143	63471	SLV 2	2.52	Si
fin.	2	4441	-49406	63471	SLV 2	1.28	Si
ini.	2	-2409	-41563	63471	SLV 3	1.53	Si
fin.	2	4934	-26532	63471	SLV 3	2.39	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-7813	77			849	320	SLV 14	4.15	Si
fin.	2	0	17336	-4815			849	320	SLV 14	0.07	No
ini.	2	0	-54655	5374			849	320	SLV 8	0.06	No
fin.	2	0	23514	1837			849	320	SLV 8	0.17	No
ini.	2	0	5279	-12			849	320	SLV 9	27.5	Si
fin.	2	0	-32711	-4050			849	320	SLV 9	0.08	No
ini.	2	0	-7813	77			849	320	SLV 13	4.15	Si
fin.	2	0	17336	-4815			849	320	SLV 13	0.07	No
ini.	2	0	-49456	4189			849	320	SLV 11	0.08	No
fin.	2	0	43537	-26			849	320	SLV 11	12.17	Si
ini.	2	0	-49456	4189			849	320	SLV 12	0.08	No
fin.	2	0	43537	-26			849	320	SLV 12	12.17	Si
ini.	2	0	-41563	5285			849	320	SLV 4	0.06	No
fin.	2	0	-26532	2603			849	320	SLV 4	0.12	No
ini.	2	0	-54655	5374			849	320	SLV 7	0.06	No
fin.	2	0	23514	1837			849	320	SLV 7	0.17	No
ini.	2	0	-41563	5285			849	320	SLV 3	0.06	No
fin.	2	0	-26532	2603			849	320	SLV 3	0.12	No
ini.	2	0	5279	-12			849	320	SLV 10	27.5	Si
fin.	2	0	-32711	-4050			849	320	SLV 10	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.161	SLV 7	Si
V_SLV	0.059	SLV 7	No
PF_SLU	1.367	SLU 83	Si
V_SLU	0.053	SLU 83	No

Trave di accoppiamento 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2176.3	587.6	-159	41	200	-2276.3	587.6	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	fhk	fvk0	fhmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1316	-211363	316581	SLU 81	1.5	Si
fin.	3	-735	-122208	316581	SLU 81	2.59	Si
ini.	3	-1339	-212352	316581	SLU 83	1.49	Si
fin.	3	-723	-125026	316581	SLU 83	2.53	Si
ini.	3	-1314	-204879	316581	SLU 79	1.55	Si
fin.	3	-693	-122997	316581	SLU 79	2.57	Si
ini.	3	-1334	-212311	316581	SLU 84	1.49	Si
fin.	3	-720	-123810	316581	SLU 84	2.56	Si
ini.	3	-1319	-206320	316581	SLU 77	1.53	Si
fin.	3	-696	-123635	316581	SLU 77	2.56	Si
ini.	3	-1297	-205331	316581	SLU 74	1.54	Si
fin.	3	-708	-120817	316581	SLU 74	2.62	Si
ini.	3	-1291	-205291	316581	SLU 75	1.54	Si
fin.	3	-705	-119601	316581	SLU 75	2.65	Si
ini.	3	-1314	-206280	316581	SLU 78	1.53	Si
fin.	3	-693	-122419	316581	SLU 78	2.59	Si
ini.	3	-1311	-211323	316581	SLU 82	1.5	Si
fin.	3	-732	-120992	316581	SLU 82	2.62	Si
ini.	3	-1309	-204839	316581	SLU 80	1.55	Si
fin.	3	-690	-121781	316581	SLU 80	2.6	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-212311	-2313			3466	1304	SLU 84	0.56	No
fin.	3	0	-123810	3470			3466	1304	SLU 84	0.38	No
ini.	3	0	-205291	-2179			3466	1304	SLU 75	0.6	No
fin.	3	0	-119601	3324			3466	1304	SLU 75	0.39	No
ini.	3	0	-206280	-2261			3466	1304	SLU 78	0.58	No
fin.	3	0	-122419	3301			3466	1304	SLU 78	0.4	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-211363	-2254			3466	1304	SLU 81	0.58	No
fin.	3	0	-122208	3492			3466	1304	SLU 81	0.37	No
ini.	3	0	-205331	-2201			3466	1304	SLU 74	0.59	No
fin.	3	0	-120817	3323			3466	1304	SLU 74	0.39	No
ini.	3	0	-206320	-2283			3466	1304	SLU 77	0.57	No
fin.	3	0	-123635	3299			3466	1304	SLU 77	0.4	No
ini.	3	0	-211323	-2232			3466	1304	SLU 82	0.58	No
fin.	3	0	-120992	3494			3466	1304	SLU 82	0.37	No
ini.	3	0	-203823	-2157			3466	1304	SLU 76	0.6	No
fin.	3	0	-118153	3306			3466	1304	SLU 76	0.39	No
ini.	3	0	-202834	-2075			3466	1304	SLU 73	0.63	No
fin.	3	0	-115335	3330			3466	1304	SLU 73	0.39	No
ini.	3	0	-212352	-2335			3466	1304	SLU 83	0.56	No
fin.	3	0	-125026	3469			3466	1304	SLU 83	0.38	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2297	-483638	327721	SLV 13	0.68	No
fin.	2	-3243	245406	327721	SLV 13	1.34	Si
ini.	2	2297	-483638	327721	SLV 14	0.68	No
fin.	2	-3243	245406	327721	SLV 14	1.34	Si
ini.	2	-7195	397687	327721	SLV 7	0.82	No
fin.	2	1441	-488822	327721	SLV 7	0.67	No
ini.	2	-4090	198519	327721	SLV 3	1.65	Si
fin.	2	2196	-409900	327721	SLV 3	0.8	No
ini.	2	4542	-564781	327721	SLV 5	0.58	No
fin.	2	-1084	188714	327721	SLV 5	1.74	Si
ini.	2	-7195	397687	327721	SLV 8	0.82	No
fin.	2	1441	-488822	327721	SLV 8	0.67	No
ini.	2	-4090	198519	327721	SLV 4	1.65	Si
fin.	2	2196	-409900	327721	SLV 4	0.8	No
ini.	2	4542	-564781	327721	SLV 6	0.58	No
fin.	2	-1084	188714	327721	SLV 6	1.74	Si
ini.	2	5402	-682806	327721	SLV 9	0.48	No
fin.	2	-2489	324328	327721	SLV 9	1.01	Si
ini.	2	5402	-682806	327721	SLV 10	0.48	No
fin.	2	-2489	324328	327721	SLV 10	1.01	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	198519	-11056			5199	1957	SLV 4	0.18	No
fin.	2	0	-409900	-7093			5199	1957	SLV 4	0.28	No
ini.	2	0	-682806	6111			5199	1957	SLV 9	0.32	No
fin.	2	0	324328	9803			5199	1957	SLV 9	0.2	No
ini.	2	0	-682806	6111			5199	1957	SLV 10	0.32	No
fin.	2	0	324328	9803			5199	1957	SLV 10	0.2	No
ini.	2	0	198519	-11056			5199	1957	SLV 3	0.18	No
fin.	2	0	-409900	-7093			5199	1957	SLV 3	0.28	No
ini.	2	0	-483638	8267			5199	1957	SLV 13	0.24	No
fin.	2	0	245406	11707			5199	1957	SLV 13	0.17	No
ini.	2	0	397687	-8900			5199	1957	SLV 8	0.22	No
fin.	2	0	-488822	-5189			5199	1957	SLV 8	0.38	No
ini.	2	0	-194897	5230			5199	1957	SLV 15	0.37	No
fin.	2	0	42146	8623			5199	1957	SLV 15	0.23	No
ini.	2	0	-483638	8267			5199	1957	SLV 14	0.24	No
fin.	2	0	245406	11707			5199	1957	SLV 14	0.17	No
ini.	2	0	-194897	5230			5199	1957	SLV 16	0.37	No
fin.	2	0	42146	8623			5199	1957	SLV 16	0.23	No
ini.	2	0	397687	-8900			5199	1957	SLV 7	0.22	No
fin.	2	0	-488822	-5189			5199	1957	SLV 7	0.38	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.48	SLV 9	No
V_SLV	0.167	SLV 13	No
PF_SLU	1.491	SLU 83	Si
V_SLU	0.373	SLU 82	No

Trave di accoppiamento 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2176.3	587.6	81	110	29	-2276.3	587.6	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fkhmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1154	-27159	19201	SLU 82	0.71	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	998	-13131	19201	SLU 82	1.46	Si
ini.	3	1194	-27125	19201	SLU 83	0.71	No
fin.	3	1013	-13440	19201	SLU 83	1.43	Si
ini.	3	1198	-25742	19201	SLU 78	0.75	No
fin.	3	1012	-12500	19201	SLU 78	1.54	Si
ini.	3	1186	-25626	19201	SLU 80	0.75	No
fin.	3	1000	-12510	19201	SLU 80	1.53	Si
ini.	3	1177	-25613	19201	SLU 74	0.75	No
fin.	3	1005	-12350	19201	SLU 74	1.55	Si
ini.	3	1164	-27078	19201	SLU 81	0.71	No
fin.	3	1002	-13211	19201	SLU 81	1.45	Si
ini.	3	1184	-27206	19201	SLU 84	0.71	No
fin.	3	1008	-13360	19201	SLU 84	1.44	Si
ini.	3	1149	-25632	19201	SLU 76	0.75	No
fin.	3	987	-12228	19201	SLU 76	1.57	Si
ini.	3	1207	-25660	19201	SLU 77	0.75	No
fin.	3	1016	-12580	19201	SLU 77	1.53	Si
ini.	3	1167	-25694	19201	SLU 75	0.75	No
fin.	3	1001	-12270	19201	SLU 75	1.56	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-25626	1542			335	126	SLU 80	0.08	No
fin.	3	0	-12510	-912			335	126	SLU 80	0.14	No
ini.	3	0	-25660	1545			335	126	SLU 77	0.08	No
fin.	3	0	-12580	-916			335	126	SLU 77	0.14	No
ini.	3	0	-25545	1539			335	126	SLU 79	0.08	No
fin.	3	0	-12590	-915			335	126	SLU 79	0.14	No
ini.	3	0	-27078	1617			335	126	SLU 81	0.08	No
fin.	3	0	-13211	-966			335	126	SLU 81	0.13	No
ini.	3	0	-25613	1537			335	126	SLU 74	0.08	No
fin.	3	0	-12350	-907			335	126	SLU 74	0.14	No
ini.	3	0	-27125	1626			335	126	SLU 83	0.08	No
fin.	3	0	-13440	-975			335	126	SLU 83	0.13	No
ini.	3	0	-27206	1629			335	126	SLU 84	0.08	No
fin.	3	0	-13360	-972			335	126	SLU 84	0.13	No
ini.	3	0	-27159	1621			335	126	SLU 82	0.08	No
fin.	3	0	-13131	-963			335	126	SLU 82	0.13	No
ini.	3	0	-25694	1540			335	126	SLU 75	0.08	No
fin.	3	0	-12270	-903			335	126	SLU 75	0.14	No
ini.	3	0	-25742	1548			335	126	SLU 78	0.08	No
fin.	3	0	-12500	-912			335	126	SLU 78	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-116	-83262	28471	SLV 14	0.34	No
fin.	2	3718	25104	28471	SLV 14	1.13	Si
ini.	2	-195	76603	28471	SLV 11	0.37	No
fin.	2	-6668	9350	28471	SLV 11	3.05	Si
ini.	2	-116	-83262	28471	SLV 13	0.34	No
fin.	2	3718	25104	28471	SLV 13	1.13	Si
ini.	2	1152	-131707	28471	SLV 10	0.22	No
fin.	2	8540	-3840	28471	SLV 10	7.41	Si
ini.	2	1835	-110738	28471	SLV 6	0.26	No
fin.	2	8110	-24692	28471	SLV 6	1.15	Si
ini.	2	1835	-110738	28471	SLV 5	0.26	No
fin.	2	8110	-24692	28471	SLV 5	1.15	Si
ini.	2	1152	-131707	28471	SLV 9	0.22	No
fin.	2	8540	-3840	28471	SLV 9	7.41	Si
ini.	2	-195	76603	28471	SLV 12	0.37	No
fin.	2	-6668	9350	28471	SLV 12	3.05	Si
ini.	2	488	97572	28471	SLV 8	0.29	No
fin.	2	-7098	-11502	28471	SLV 8	2.48	Si
ini.	2	488	97572	28471	SLV 7	0.29	No
fin.	2	-7098	-11502	28471	SLV 7	2.48	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-20769	1656			503	189	SLV 16	0.11	No
fin.	2	0	29060	335			503	189	SLV 16	0.57	No
ini.	2	0	-20769	1656			503	189	SLV 15	0.11	No
fin.	2	0	29060	335			503	189	SLV 15	0.57	No
ini.	2	0	49127	-193			503	189	SLV 4	0.98	No
fin.	2	0	-40446	-1770			503	189	SLV 4	0.11	No
ini.	2	0	49127	-193			503	189	SLV 3	0.98	No
fin.	2	0	-40446	-1770			503	189	SLV 3	0.11	No
ini.	2	0	-131707	2272			503	189	SLV 10	0.08	No
fin.	2	0	-3840	177			503	189	SLV 10	1.07	Si
ini.	2	0	-110738	1717			503	189	SLV 5	0.11	No
fin.	2	0	-24692	-454			503	189	SLV 5	0.42	No
ini.	2	0	-83262	2239			503	189	SLV 13	0.08	No
fin.	2	0	25104	602			503	189	SLV 13	0.31	No
ini.	2	0	-131707	2272			503	189	SLV 9	0.08	No
fin.	2	0	-3840	177			503	189	SLV 9	1.07	Si
ini.	2	0	-83262	2239			503	189	SLV 14	0.08	No
fin.	2	0	25104	602			503	189	SLV 14	0.31	No
ini.	2	0	-110738	1717			503	189	SLV 6	0.11	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	-24692	-454			503	189	SLV 6	0.42	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.216	SLV 9	No
V_SLV	0.083	SLV 9	No
PF_SLU	0.706	SLU 84	No
V_SLU	0.077	SLU 84	No

Trave di accoppiamento 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1961.8	127.1	41	110	69	-1961.8	207.1	41	110	69	80	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{mk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	407	6455	70622	SLU 84	10.94	Si
fin.	3	-318	-80301	70622	SLU 84	0.88	No
ini.	3	428	5658	70622	SLU 77	12.48	Si
fin.	3	-263	-78272	70622	SLU 77	0.9	No
ini.	3	432	5381	70622	SLU 78	13.13	Si
fin.	3	-249	-77423	70622	SLU 78	0.91	No
ini.	3	404	6732	70622	SLU 83	10.49	Si
fin.	3	-331	-81150	70622	SLU 83	0.87	No
ini.	3	433	5380	70622	SLU 79	13.13	Si
fin.	3	-245	-77332	70622	SLU 79	0.91	No
ini.	3	393	6070	70622	SLU 75	11.63	Si
fin.	3	-298	-76821	70622	SLU 75	0.92	No
ini.	3	390	6347	70622	SLU 74	11.13	Si
fin.	3	-311	-77670	70622	SLU 74	0.91	No
ini.	3	437	5103	70622	SLU 80	13.84	Si
fin.	3	-231	-76482	70622	SLU 80	0.92	No
ini.	3	365	7421	70622	SLU 81	9.52	Si
fin.	3	-380	-80548	70622	SLU 81	0.88	No
ini.	3	368	7144	70622	SLU 82	9.89	Si
fin.	3	-366	-79699	70622	SLU 82	0.89	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	6455	316			688	259	SLU 84	0.82	No
fin.	3	0	-80301	-3215			688	259	SLU 84	0.08	No
ini.	3	0	5658	334			688	259	SLU 77	0.77	No
fin.	3	0	-78272	-3132			688	259	SLU 77	0.08	No
ini.	3	0	6732	308			688	259	SLU 83	0.84	No
fin.	3	0	-81150	-3245			688	259	SLU 83	0.08	No
ini.	3	0	5380	343			688	259	SLU 79	0.75	No
fin.	3	0	-77332	-3099			688	259	SLU 79	0.08	No
ini.	3	0	5103	351			688	259	SLU 80	0.74	No
fin.	3	0	-76482	-3069			688	259	SLU 80	0.08	No
ini.	3	0	7144	280			688	259	SLU 82	0.92	No
fin.	3	0	-79699	-3188			688	259	SLU 82	0.08	No
ini.	3	0	5381	342			688	259	SLU 78	0.76	No
fin.	3	0	-77423	-3102			688	259	SLU 78	0.08	No
ini.	3	0	6070	307			688	259	SLU 75	0.84	No
fin.	3	0	-76821	-3076			688	259	SLU 75	0.08	No
ini.	3	0	6347	299			688	259	SLU 74	0.87	No
fin.	3	0	-77670	-3106			688	259	SLU 74	0.08	No
ini.	3	0	7421	272			688	259	SLU 81	0.95	No
fin.	3	0	-80548	-3218			688	259	SLU 81	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1497	30265	87331	SLV 11	2.89	Si
fin.	2	-2872	-124271	87331	SLV 11	0.7	No
ini.	2	-1740	43647	87331	SLV 7	2	Si
fin.	2	-3519	-146365	87331	SLV 7	0.6	No
ini.	2	-1740	43647	87331	SLV 8	2	Si
fin.	2	-3519	-146365	87331	SLV 8	0.6	No
ini.	2	-582	20980	87331	SLD 8	4.16	Si
fin.	2	-1609	-91735	87331	SLD 8	0.95	No
ini.	2	-582	20980	87331	SLD 7	4.16	Si
fin.	2	-1609	-91735	87331	SLD 7	0.95	No
ini.	2	-711	36376	87331	SLV 3	2.4	Si
fin.	2	-2185	-113526	87331	SLV 3	0.77	No
ini.	2	-479	15327	87331	SLD 11	5.7	Si
fin.	2	-1334	-82315	87331	SLD 11	1.06	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-711	36376	87331	SLV 4	2.4	Si
fin.	2	-2185	-113526	87331	SLV 4	0.77	No
ini.	2	-1497	30265	87331	SLV 12	2.89	Si
fin.	2	-2872	-124271	87331	SLV 12	0.7	No
ini.	2	-479	15327	87331	SLD 12	5.7	Si
fin.	2	-1334	-82315	87331	SLD 12	1.06	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	20980	-589			1031	388	SLD 8	0.66	No
fin.	2	0	-91735	-3330			1031	388	SLD 8	0.12	No
ini.	2	0	15327	-448			1031	388	SLD 11	0.87	No
fin.	2	0	-82315	-2988			1031	388	SLD 11	0.13	No
ini.	2	0	43647	-1687			1031	388	SLV 7	0.23	No
fin.	2	0	-146365	-5041			1031	388	SLV 7	0.08	No
ini.	2	0	43647	-1687			1031	388	SLV 8	0.23	No
fin.	2	0	-146365	-5041			1031	388	SLV 8	0.08	No
ini.	2	0	36376	-862			1031	388	SLV 3	0.45	No
fin.	2	0	-113526	-4174			1031	388	SLV 3	0.09	No
ini.	2	0	15327	-448			1031	388	SLD 12	0.87	No
fin.	2	0	-82315	-2988			1031	388	SLD 12	0.13	No
ini.	2	0	36376	-862			1031	388	SLV 4	0.45	No
fin.	2	0	-113526	-4174			1031	388	SLV 4	0.09	No
ini.	2	0	30265	-1358			1031	388	SLV 11	0.29	No
fin.	2	0	-124271	-4241			1031	388	SLV 11	0.09	No
ini.	2	0	30265	-1358			1031	388	SLV 12	0.29	No
fin.	2	0	-124271	-4241			1031	388	SLV 12	0.09	No
ini.	2	0	20980	-589			1031	388	SLD 7	0.66	No
fin.	2	0	-91735	-3330			1031	388	SLD 7	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.597	SLV 7	No
V_SLV	0.077	SLV 7	No
PF_SLU	0.87	SLU 83	No
V_SLU	0.08	SLU 83	No

Trave di accoppiamento 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1961.8	485.1	41	110	69	-1961.8	565.1	41	110	69	80	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2453	-24372	70622	SLU 84	2.9	Si
fin.	3	-2294	290	70622	SLU 84	243.69	Si
ini.	3	-2335	-24119	70622	SLU 80	2.93	Si
fin.	3	-2178	626	70622	SLU 80	112.83	Si
ini.	3	-2342	-24179	70622	SLU 79	2.92	Si
fin.	3	-2182	612	70622	SLU 79	115.47	Si
ini.	3	-2357	-23611	70622	SLU 75	2.99	Si
fin.	3	-2211	341	70622	SLU 75	207.17	Si
ini.	3	-2459	-23857	70622	SLU 81	2.96	Si
fin.	3	-2303	161	70622	SLU 81	438.78	Si
ini.	3	-2356	-24187	70622	SLU 78	2.92	Si
fin.	3	-2205	455	70622	SLU 78	155.05	Si
ini.	3	-2363	-23672	70622	SLU 74	2.98	Si
fin.	3	-2214	327	70622	SLU 74	216.22	Si
ini.	3	-2363	-24247	70622	SLU 77	2.91	Si
fin.	3	-2209	441	70622	SLU 77	160.06	Si
ini.	3	-2459	-24432	70622	SLU 83	2.89	Si
fin.	3	-2297	276	70622	SLU 83	256.31	Si
ini.	3	-2453	-23796	70622	SLU 82	2.97	Si
fin.	3	-2299	175	70622	SLU 82	403.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-24119	7788			688	259	SLU 80	0.03	No
fin.	3	0	626	-3146			688	259	SLU 80	0.08	No
ini.	3	0	-23611	7673			688	259	SLU 75	0.03	No
fin.	3	0	341	-3121			688	259	SLU 75	0.08	No
ini.	3	0	-23796	7822			688	259	SLU 82	0.03	No
fin.	3	0	175	-3188			688	259	SLU 82	0.08	No
ini.	3	0	-23672	7684			688	259	SLU 74	0.03	No
fin.	3	0	327	-3123			688	259	SLU 74	0.08	No
ini.	3	0	-23857	7834			688	259	SLU 81	0.03	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	161	-3190			688	259	SLU 81	0.08	No
ini.	3	0	-24432	7992			688	259	SLU 83	0.03	No
fin.	3	0	276	-3241			688	259	SLU 83	0.08	No
ini.	3	0	-24247	7842			688	259	SLU 77	0.03	No
fin.	3	0	441	-3175			688	259	SLU 77	0.08	No
ini.	3	0	-24179	7799			688	259	SLU 79	0.03	No
fin.	3	0	612	-3148			688	259	SLU 79	0.08	No
ini.	3	0	-24372	7980			688	259	SLU 84	0.03	No
fin.	3	0	290	-3239			688	259	SLU 84	0.08	No
ini.	3	0	-24187	7831			688	259	SLU 78	0.03	No
fin.	3	0	455	-3173			688	259	SLU 78	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3884	-63519	87331	SLV 6	1.37	Si
fin.	2	-569	78115	87331	SLV 6	1.12	Si
ini.	2	-2553	-56418	87331	SLV 13	1.55	Si
fin.	2	-312	58299	87331	SLV 13	1.5	Si
ini.	2	785	45116	87331	SLV 8	1.94	Si
fin.	2	-2962	-95769	87331	SLV 8	0.91	No
ini.	2	-4024	-77790	87331	SLV 9	1.12	Si
fin.	2	-64	97058	87331	SLV 9	0.9	No
ini.	2	785	45116	87331	SLV 7	1.94	Si
fin.	2	-2962	-95769	87331	SLV 7	0.91	No
ini.	2	645	30845	87331	SLV 11	2.83	Si
fin.	2	-2457	-76826	87331	SLV 11	1.14	Si
ini.	2	-2553	-56418	87331	SLV 14	1.55	Si
fin.	2	-312	58299	87331	SLV 14	1.5	Si
ini.	2	-4024	-77790	87331	SLV 10	1.12	Si
fin.	2	-64	97058	87331	SLV 10	0.9	No
ini.	2	-3884	-63519	87331	SLV 5	1.37	Si
fin.	2	-569	78115	87331	SLV 5	1.12	Si
ini.	2	645	30845	87331	SLV 12	2.83	Si
fin.	2	-2457	-76826	87331	SLV 12	1.14	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-77790	8750			1031	388	SLV 10	0.04	No
fin.	2	0	97058	1416			1031	388	SLV 10	0.27	No
ini.	2	0	-36445	6473			1031	388	SLD 5	0.06	No
fin.	2	0	33243	-466			1031	388	SLD 5	0.83	No
ini.	2	0	-77790	8750			1031	388	SLV 9	0.04	No
fin.	2	0	97058	1416			1031	388	SLV 9	0.27	No
ini.	2	0	-63519	8214			1031	388	SLV 6	0.05	No
fin.	2	0	78115	1787			1031	388	SLV 6	0.22	No
ini.	2	0	-63519	8214			1031	388	SLV 5	0.05	No
fin.	2	0	78115	1787			1031	388	SLV 5	0.22	No
ini.	2	0	-36445	6473			1031	388	SLD 6	0.06	No
fin.	2	0	33243	-466			1031	388	SLD 6	0.83	No
ini.	2	0	-56418	7070			1031	388	SLV 14	0.05	No
fin.	2	0	58299	-1613			1031	388	SLV 14	0.24	No
ini.	2	0	-56418	7070			1031	388	SLV 13	0.05	No
fin.	2	0	58299	-1613			1031	388	SLV 13	0.24	No
ini.	2	0	-42394	6697			1031	388	SLD 9	0.06	No
fin.	2	0	41262	-624			1031	388	SLD 9	0.62	No
ini.	2	0	-42394	6697			1031	388	SLD 10	0.06	No
fin.	2	0	41262	-624			1031	388	SLD 10	0.62	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.9	SLV 9	No
V_SLV	0.044	SLV 9	No
PF_SLU	2.891	SLU 83	Si
V_SLU	0.032	SLU 83	No

Trave di accoppiamento 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2154.3	-328.4	-159	41	200	-2254.3	-328.4	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1699	-32334	316581	SLU 81	9.79	Si
fin.	3	42	-151521	316581	SLU 81	2.09	Si
ini.	3	-1738	-28117	316581	SLU 83	11.26	Si
fin.	3	89	-155688	316581	SLU 83	2.03	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1705	-23483	316581	SLU 77	13.48	Si
fin.	3	134	-154971	316581	SLU 77	2.04	Si
ini.	3	-1620	-27615	316581	SLU 62	11.46	Si
fin.	3	25	-141399	316581	SLU 62	2.24	Si
ini.	3	-1587	-22980	316581	SLU 56	13.78	Si
fin.	3	70	-140682	316581	SLU 56	2.25	Si
ini.	3	-1550	-20184	316581	SLU 71	15.68	Si
fin.	3	115	-140972	316581	SLU 71	2.25	Si
ini.	3	-1708	-22786	316581	SLU 79	13.89	Si
fin.	3	129	-154190	316581	SLU 79	2.05	Si
ini.	3	-1546	-20881	316581	SLU 69	15.16	Si
fin.	3	119	-141753	316581	SLU 69	2.23	Si
ini.	3	-1667	-27699	316581	SLU 74	11.43	Si
fin.	3	87	-150804	316581	SLU 74	2.1	Si
ini.	3	-1590	-22283	316581	SLU 58	14.21	Si
fin.	3	65	-139901	316581	SLU 58	2.26	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	3	0	15150	-4886			3466	1304	SLU 80	0.27	No
fin.	3	0	-112915	-176			3466	1304	SLU 80	7.42	Si
ini.	3	0	9818	-4951			3466	1304	SLU 84	0.26	No
fin.	3	0	-114413	16			3466	1304	SLU 84	83.76	Si
ini.	3	0	-28117	-5078			3466	1304	SLU 83	0.26	No
fin.	3	0	-155688	-48			3466	1304	SLU 83	27.21	Si
ini.	3	0	5601	-4776			3466	1304	SLU 82	0.27	No
fin.	3	0	-110246	169			3466	1304	SLU 82	7.71	Si
ini.	3	0	10236	-4723			3466	1304	SLU 75	0.28	No
fin.	3	0	-109528	-14			3466	1304	SLU 75	94.89	Si
ini.	3	0	-27699	-4849			3466	1304	SLU 74	0.27	No
fin.	3	0	-150804	-77			3466	1304	SLU 74	16.88	Si
ini.	3	0	-32334	-4903			3466	1304	SLU 81	0.27	No
fin.	3	0	-151521	106			3466	1304	SLU 81	12.34	Si
ini.	3	0	-22786	-5013			3466	1304	SLU 79	0.26	No
fin.	3	0	-154190	-239			3466	1304	SLU 79	5.45	Si
ini.	3	0	14453	-4897			3466	1304	SLU 78	0.27	No
fin.	3	0	-113695	-167			3466	1304	SLU 78	7.79	Si
ini.	3	0	-23483	-5024			3466	1304	SLU 77	0.26	No
fin.	3	0	-154971	-231			3466	1304	SLU 77	5.65	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	6082	-421462	327721	SLV 11	0.78	No
fin.	2	6548	-394461	327721	SLV 11	0.83	No
ini.	2	-8387	376169	327721	SLV 5	0.87	No
fin.	2	-6535	189129	327721	SLV 5	1.73	Si
ini.	2	3316	-399507	327721	SLV 16	0.82	No
fin.	2	-703	17464	327721	SLV 16	18.77	Si
ini.	2	6082	-421462	327721	SLV 12	0.78	No
fin.	2	6548	-394461	327721	SLV 12	0.83	No
ini.	2	-1734	165802	327721	SLV 3	1.98	Si
fin.	2	5169	-438950	327721	SLV 3	0.75	No
ini.	2	4567	-251870	327721	SLV 8	1.3	Si
fin.	2	8310	-531385	327721	SLV 8	0.62	No
ini.	2	-8387	376169	327721	SLV 6	0.87	No
fin.	2	-6535	189129	327721	SLV 6	1.73	Si
ini.	2	3316	-399507	327721	SLV 15	0.82	No
fin.	2	-703	17464	327721	SLV 15	18.77	Si
ini.	2	-1734	165802	327721	SLV 4	1.98	Si
fin.	2	5169	-438950	327721	SLV 4	0.75	No
ini.	2	4567	-251870	327721	SLV 7	1.3	Si
fin.	2	8310	-531385	327721	SLV 7	0.62	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	165802	-13247			5199	1957	SLV 4	0.15	No
fin.	2	0	-438950	-9712			5199	1957	SLV 4	0.2	No
ini.	2	0	-399507	7905			5199	1957	SLV 15	0.25	No
fin.	2	0	17464	10767			5199	1957	SLV 15	0.18	No
ini.	2	0	354213	-14301			5199	1957	SLV 1	0.14	No
fin.	2	0	-222795	-10735			5199	1957	SLV 1	0.18	No
ini.	2	0	376169	-8126			5199	1957	SLV 6	0.24	No
fin.	2	0	189129	-4761			5199	1957	SLV 6	0.41	No
ini.	2	0	354213	-14301			5199	1957	SLV 2	0.14	No
fin.	2	0	-222795	-10735			5199	1957	SLV 2	0.18	No
ini.	2	0	-211095	6852			5199	1957	SLV 13	0.29	No
fin.	2	0	233618	9744			5199	1957	SLV 13	0.2	No
ini.	2	0	376169	-8126			5199	1957	SLV 5	0.24	No
fin.	2	0	189129	-4761			5199	1957	SLV 5	0.41	No
ini.	2	0	165802	-13247			5199	1957	SLV 3	0.15	No
fin.	2	0	-438950	-9712			5199	1957	SLV 3	0.2	No
ini.	2	0	-399507	7905			5199	1957	SLV 16	0.25	No
fin.	2	0	17464	10767			5199	1957	SLV 16	0.18	No
ini.	2	0	-211095	6852			5199	1957	SLV 14	0.29	No
fin.	2	0	233618	9744			5199	1957	SLV 14	0.2	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.617	SLV 7	No
V_SLV	0.137	SLV 1	No
PF_SLU	2.033	SLU 83	Si
V_SLU	0.257	SLU 83	No

Trave di accoppiamento 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2154.3	-328.4	81	110	29	-2254.3	-328.4	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	595	-11770	19201	SLU 81	1.63	Si
fin.	3	-53	-15695	19201	SLU 81	1.22	Si
ini.	3	509	-9771	19201	SLU 41	1.97	Si
fin.	3	-91	-14708	19201	SLU 41	1.31	Si
ini.	3	482	-10377	19201	SLU 39	1.85	Si
fin.	3	-76	-14042	19201	SLU 39	1.37	Si
ini.	3	539	-8311	19201	SLU 35	2.31	Si
fin.	3	-78	-14259	19201	SLU 35	1.35	Si
ini.	3	652	-9705	19201	SLU 77	1.98	Si
fin.	3	-55	-15912	19201	SLU 77	1.21	Si
ini.	3	645	-9630	19201	SLU 79	1.99	Si
fin.	3	-61	-15946	19201	SLU 79	1.2	Si
ini.	3	625	-10311	19201	SLU 74	1.86	Si
fin.	3	-40	-15246	19201	SLU 74	1.26	Si
ini.	3	622	-11164	19201	SLU 83	1.72	Si
fin.	3	-68	-16361	19201	SLU 83	1.17	Si
ini.	3	532	-8237	19201	SLU 37	2.33	Si
fin.	3	-84	-14293	19201	SLU 37	1.34	Si
ini.	3	579	-9932	19201	SLU 62	1.93	Si
fin.	3	-32	-14061	19201	SLU 62	1.37	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-9003	1142			335	126	SLU 82	0.11	No
fin.	3	0	-10283	-691			335	126	SLU 82	0.18	No
ini.	3	0	-9705	1237			335	126	SLU 77	0.1	No
fin.	3	0	-15912	-987			335	126	SLU 77	0.13	No
ini.	3	0	-11164	1333			335	126	SLU 83	0.09	No
fin.	3	0	-16361	-1030			335	126	SLU 83	0.12	No
ini.	3	0	-10311	1256			335	126	SLU 74	0.1	No
fin.	3	0	-15246	-964			335	126	SLU 74	0.13	No
ini.	3	0	-10377	1172			335	126	SLU 39	0.11	No
fin.	3	0	-14042	-889			335	126	SLU 39	0.14	No
ini.	3	0	-9932	1194			335	126	SLU 62	0.11	No
fin.	3	0	-14061	-901			335	126	SLU 62	0.14	No
ini.	3	0	-11770	1351			335	126	SLU 81	0.09	No
fin.	3	0	-15695	-1007			335	126	SLU 81	0.13	No
ini.	3	0	-10539	1213			335	126	SLU 60	0.1	No
fin.	3	0	-13395	-878			335	126	SLU 60	0.14	No
ini.	3	0	-9771	1154			335	126	SLU 41	0.11	No
fin.	3	0	-14708	-912			335	126	SLU 41	0.14	No
ini.	3	0	-9630	1230			335	126	SLU 79	0.1	No
fin.	3	0	-15946	-987			335	126	SLU 79	0.13	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	431	-49905	28471	SLV 16	0.57	No
fin.	2	2552	28193	28471	SLV 16	1.01	Si
ini.	2	3777	39514	28471	SLV 3	0.72	No
fin.	2	114	-60823	28471	SLV 3	0.47	No
ini.	2	6487	12481	28471	SLV 7	2.28	Si
fin.	2	4056	-45530	28471	SLV 7	0.63	No
ini.	2	450	35859	28471	SLV 2	0.79	No
fin.	2	-2533	-47226	28471	SLV 2	0.6	No
ini.	2	3777	39514	28471	SLV 4	0.72	No
fin.	2	114	-60823	28471	SLV 4	0.47	No
ini.	2	-2896	-53560	28471	SLV 13	0.53	No
fin.	2	-95	41789	28471	SLV 13	0.68	No
ini.	2	450	35859	28471	SLV 1	0.79	No
fin.	2	-2533	-47226	28471	SLV 1	0.6	No
ini.	2	6487	12481	28471	SLV 8	2.28	Si
fin.	2	4056	-45530	28471	SLV 8	0.63	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2896	-53560	28471	SLV 14	0.53	No
fin.	2	-95	41789	28471	SLV 14	0.68	No
ini.	2	431	-49905	28471	SLV 15	0.57	No
fin.	2	2552	28193	28471	SLV 15	1.01	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	39514	-540			503	189	SLV 4	0.35	No
fin.	2	0	-60823	-2665			503	189	SLV 4	0.07	No
ini.	2	0	12481	648			503	189	SLV 7	0.29	No
fin.	2	0	-45530	-2585			503	189	SLV 7	0.07	No
ini.	2	0	-49905	2382			503	189	SLV 16	0.08	No
fin.	2	0	28193	532			503	189	SLV 16	0.36	No
ini.	2	0	-53560	2240			503	189	SLV 13	0.08	No
fin.	2	0	41789	1422			503	189	SLV 13	0.13	No
ini.	2	0	-53560	2240			503	189	SLV 14	0.08	No
fin.	2	0	41789	1422			503	189	SLV 14	0.13	No
ini.	2	0	12481	648			503	189	SLV 8	0.29	No
fin.	2	0	-45530	-2585			503	189	SLV 8	0.07	No
ini.	2	0	35859	-682			503	189	SLV 1	0.28	No
fin.	2	0	-47226	-1774			503	189	SLV 1	0.11	No
ini.	2	0	39514	-540			503	189	SLV 3	0.35	No
fin.	2	0	-60823	-2665			503	189	SLV 3	0.07	No
ini.	2	0	35859	-682			503	189	SLV 2	0.28	No
fin.	2	0	-47226	-1774			503	189	SLV 2	0.11	No
ini.	2	0	-49905	2382			503	189	SLV 15	0.08	No
fin.	2	0	28193	532			503	189	SLV 15	0.36	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	0.468	SLV 3	No
V SLV	0.071	SLV 3	No
PF SLU	1.174	SLU 83	Si
V SLU	0.093	SLU 81	No

Trave di accoppiamento 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1731.3	-328.4	-159	41	200	-1831.3	-328.4	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fmed	t0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	191	-488214	316581	SLU 84	0.65	No
fin.	3	613	-346476	316581	SLU 84	0.91	No
ini.	3	286	-496991	316581	SLU 82	0.64	No
fin.	3	596	-342722	316581	SLU 82	0.92	No
ini.	3	620	-506625	316581	SLU 73	0.62	No
fin.	3	1038	-355336	316581	SLU 73	0.89	No
ini.	3	637	-470843	316581	SLU 52	0.67	No
fin.	3	1011	-329977	316581	SLU 52	0.96	No
ini.	3	184	-467200	316581	SLU 78	0.68	No
fin.	3	677	-339628	316581	SLU 78	0.93	No
ini.	3	732	-464903	316581	SLU 65	0.68	No
fin.	3	1104	-326661	316581	SLU 65	0.97	No
ini.	3	542	-462066	316581	SLU 55	0.69	No
fin.	3	1029	-333732	316581	SLU 55	0.95	No
ini.	3	525	-497848	316581	SLU 76	0.64	No
fin.	3	1056	-359091	316581	SLU 76	0.88	No
ini.	3	144	-461556	316581	SLU 80	0.69	No
fin.	3	659	-337941	316581	SLU 80	0.94	No
ini.	3	279	-475976	316581	SLU 75	0.67	No
fin.	3	659	-335873	316581	SLU 75	0.94	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-475976	-8081			3466	1304	SLU 75	0.16	No
fin.	3	0	-335873	7861			3466	1304	SLU 75	0.17	No
ini.	3	0	-506625	-8123			3466	1304	SLU 73	0.16	No
fin.	3	0	-355336	8039			3466	1304	SLU 73	0.16	No
ini.	3	0	-488214	-8459			3466	1304	SLU 84	0.15	No
fin.	3	0	-346476	8095			3466	1304	SLU 84	0.16	No
ini.	3	0	-497848	-8340			3466	1304	SLU 76	0.16	No
fin.	3	0	-359091	7778			3466	1304	SLU 76	0.17	No
ini.	3	0	-420283	-7915			3466	1304	SLU 79	0.16	No
fin.	3	0	-300585	7454			3466	1304	SLU 79	0.17	No
ini.	3	0	-455717	-7856			3466	1304	SLU 81	0.17	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-305365	8318			3466	1304	SLU 81	0.16	No
ini.	3	0	-496991	-8242			3466	1304	SLU 82	0.16	No
fin.	3	0	-342722	8356			3466	1304	SLU 82	0.16	No
ini.	3	0	-467200	-8298			3466	1304	SLU 78	0.16	No
fin.	3	0	-339628	7600			3466	1304	SLU 78	0.17	No
ini.	3	0	-461556	-8301			3466	1304	SLU 80	0.16	No
fin.	3	0	-337941	7491			3466	1304	SLU 80	0.17	No
ini.	3	0	-446941	-8074			3466	1304	SLU 83	0.16	No
fin.	3	0	-309120	8057			3466	1304	SLU 83	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	4189	-718434	327721	SLV 15	0.46	No
ini.	2	-73	-129778	327721	SLV 15	2.53	Si
fin.	2	2697	-763741	327721	SLV 9	0.43	No
ini.	2	-1035	-155394	327721	SLV 9	2.11	Si
fin.	2	4987	-901230	327721	SLV 14	0.36	No
ini.	2	-641	-114506	327721	SLV 14	2.86	Si
fin.	2	2697	-763741	327721	SLV 10	0.43	No
ini.	2	-1035	-155394	327721	SLV 10	2.11	Si
fin.	2	2115	-560062	327721	SLD 14	0.59	No
ini.	2	-245	-167576	327721	SLD 14	1.96	Si
fin.	2	4189	-718434	327721	SLV 16	0.46	No
ini.	2	-73	-129778	327721	SLV 16	2.53	Si
fin.	2	1120	-496864	327721	SLD 9	0.66	No
ini.	2	-386	-186196	327721	SLD 9	1.76	Si
fin.	2	2115	-560062	327721	SLD 13	0.59	No
ini.	2	-245	-167576	327721	SLD 13	1.96	Si
fin.	2	4987	-901230	327721	SLV 13	0.36	No
ini.	2	-641	-114506	327721	SLV 13	2.86	Si
fin.	2	1120	-496864	327721	SLD 10	0.66	No
ini.	2	-386	-186196	327721	SLD 10	1.76	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	100914	-14394			5199	1957	SLV 1	0.14	No
ini.	2	0	-282232	-5095			5199	1957	SLV 1	0.38	No
fin.	2	0	-763741	-4355			5199	1957	SLV 10	0.45	No
ini.	2	0	-155394	12854			5199	1957	SLV 10	0.15	No
fin.	2	0	-901230	2962			5199	1957	SLV 14	0.66	No
ini.	2	0	-114506	18546			5199	1957	SLV 14	0.11	No
fin.	2	0	283710	-13330			5199	1957	SLV 4	0.15	No
ini.	2	0	-297503	-7309			5199	1957	SLV 4	0.27	No
fin.	2	0	283710	-13330			5199	1957	SLV 3	0.15	No
ini.	2	0	-297503	-7309			5199	1957	SLV 3	0.27	No
fin.	2	0	-718434	4026			5199	1957	SLV 15	0.49	No
ini.	2	0	-129778	16332			5199	1957	SLV 15	0.12	No
fin.	2	0	-763741	-4355			5199	1957	SLV 9	0.45	No
ini.	2	0	-155394	12854			5199	1957	SLV 9	0.15	No
fin.	2	0	-718434	4026			5199	1957	SLV 16	0.49	No
ini.	2	0	-129778	16332			5199	1957	SLV 16	0.12	No
fin.	2	0	-901230	2962			5199	1957	SLV 13	0.66	No
ini.	2	0	-114506	18546			5199	1957	SLV 13	0.11	No
fin.	2	0	100914	-14394			5199	1957	SLV 2	0.14	No
ini.	2	0	-282232	-5095			5199	1957	SLV 2	0.38	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.364	SLV 13	No
V_SLV	0.105	SLV 13	No
PF_SLU	0.625	SLU 73	No
V_SLU	0.154	SLU 84	No

Trave di accoppiamento 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1731.3	-328.4	81	110	29	-1831.3	-328.4	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	t ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1768	-22771	19201	SLU 79	0.84	No
fin.	3	2137	-34164	19201	SLU 79	0.56	No
ini.	3	1857	-25227	19201	SLU 83	0.76	No
fin.	3	2292	-35010	19201	SLU 83	0.55	No
ini.	3	1901	-23962	19201	SLU 80	0.8	No
fin.	3	2862	-34662	19201	SLU 80	0.55	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1854	-25998	19201	SLU 81	0.74	No
fin.	3	2351	-34036	19201	SLU 81	0.56	No
ini.	3	1910	-24245	19201	SLU 78	0.79	No
fin.	3	2895	-34634	19201	SLU 78	0.55	No
ini.	3	1987	-25527	19201	SLU 76	0.75	No
fin.	3	3405	-34020	19201	SLU 76	0.56	No
ini.	3	1776	-23054	19201	SLU 77	0.83	No
fin.	3	2170	-34136	19201	SLU 77	0.56	No
ini.	3	1990	-26418	19201	SLU 84	0.73	No
fin.	3	3017	-35508	19201	SLU 84	0.54	No
ini.	3	1987	-27189	19201	SLU 82	0.71	No
fin.	3	3076	-34534	19201	SLU 82	0.56	No
ini.	3	1907	-25016	19201	SLU 75	0.77	No
fin.	3	2954	-33659	19201	SLU 75	0.57	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-26418	2350			335	126	SLU 84	0.05	No
fin.	3	0	-35508	-4084			335	126	SLU 84	0.03	No
ini.	3	0	-22771	2039			335	126	SLU 79	0.06	No
fin.	3	0	-34164	-3882			335	126	SLU 79	0.03	No
ini.	3	0	-23962	2203			335	126	SLU 80	0.06	No
fin.	3	0	-34662	-3917			335	126	SLU 80	0.03	No
ini.	3	0	-25998	2206			335	126	SLU 81	0.06	No
fin.	3	0	-34036	-4010			335	126	SLU 81	0.03	No
ini.	3	0	-25527	2333			335	126	SLU 76	0.05	No
fin.	3	0	-34020	-3901			335	126	SLU 76	0.03	No
ini.	3	0	-24245	2218			335	126	SLU 78	0.06	No
fin.	3	0	-34634	-3932			335	126	SLU 78	0.03	No
ini.	3	0	-23054	2054			335	126	SLU 77	0.06	No
fin.	3	0	-34136	-3897			335	126	SLU 77	0.03	No
ini.	3	0	-25016	2239			335	126	SLU 75	0.06	No
fin.	3	0	-33659	-3893			335	126	SLU 75	0.03	No
ini.	3	0	-27189	2370			335	126	SLU 82	0.05	No
fin.	3	0	-34534	-4045			335	126	SLU 82	0.03	No
ini.	3	0	-25227	2186			335	126	SLU 83	0.06	No
fin.	3	0	-35010	-4049			335	126	SLU 83	0.03	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1278	-69765	28471	SLV 14	0.41	No
fin.	2	6388	19263	28471	SLV 14	1.48	Si
ini.	2	1572	-83554	28471	SLV 9	0.34	No
fin.	2	4657	61615	28471	SLV 9	0.46	No
ini.	2	1151	37456	28471	SLV 3	0.76	No
fin.	2	-3221	-63268	28471	SLV 3	0.45	No
ini.	2	827	29229	28471	SLV 12	0.97	No
fin.	2	1070	-94951	28471	SLV 12	0.3	No
ini.	2	856	51245	28471	SLV 8	0.56	No
fin.	2	-1490	-105620	28471	SLV 8	0.27	No
ini.	2	856	51245	28471	SLV 7	0.56	No
fin.	2	-1490	-105620	28471	SLV 7	0.27	No
ini.	2	827	29229	28471	SLV 11	0.97	No
fin.	2	1070	-94951	28471	SLV 11	0.3	No
ini.	2	1572	-83554	28471	SLV 10	0.34	No
fin.	2	4657	61615	28471	SLV 10	0.46	No
ini.	2	1278	-69765	28471	SLV 13	0.41	No
fin.	2	6388	19263	28471	SLV 13	1.48	Si
ini.	2	1151	37456	28471	SLV 4	0.76	No
fin.	2	-3221	-63268	28471	SLV 4	0.45	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-61539	1196			503	189	SLV 6	0.16	No
fin.	2	0	50946	-3999			503	189	SLV 6	0.05	No
ini.	2	0	37456	213			503	189	SLV 3	0.89	No
fin.	2	0	-63268	-3507			503	189	SLV 3	0.05	No
ini.	2	0	-7541	929			503	189	SLD 2	0.2	No
fin.	2	0	-20568	-3249			503	189	SLD 2	0.06	No
ini.	2	0	3621	293			503	189	SLV 2	0.65	No
fin.	2	0	-16298	-4124			503	189	SLV 2	0.05	No
ini.	2	0	37456	213			503	189	SLV 4	0.89	No
fin.	2	0	-63268	-3507			503	189	SLV 4	0.05	No
ini.	2	0	3621	293			503	189	SLV 1	0.65	No
fin.	2	0	-16298	-4124			503	189	SLV 1	0.05	No
ini.	2	0	-7541	929			503	189	SLD 1	0.2	No
fin.	2	0	-20568	-3249			503	189	SLD 1	0.06	No
ini.	2	0	-83554	1890			503	189	SLV 9	0.1	No
fin.	2	0	61615	-3275			503	189	SLV 9	0.06	No
ini.	2	0	-83554	1890			503	189	SLV 10	0.1	No
fin.	2	0	61615	-3275			503	189	SLV 10	0.06	No
ini.	2	0	-61539	1196			503	189	SLV 5	0.16	No
fin.	2	0	50946	-3999			503	189	SLV 5	0.05	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.27	SLV 7	No



Stato limite	Coeff.s.	Comb.	Verifica
V_SLV	0.046	SLV 1	No
PF_SLU	0.541	SLU 84	No
V_SLU	0.031	SLU 84	No

Trave di accoppiamento 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1422.3	-328.4	51	110	59	-1652.3	-328.4	51	110	59	230	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1220	-139743	69831	SLU 81	0.5	No
fin.	3	3104	-70844	69831	SLU 81	0.99	No
ini.	3	1244	-142739	69831	SLU 84	0.49	No
fin.	3	3115	-69285	69831	SLU 84	1.01	Si
ini.	3	1221	-136639	69831	SLU 75	0.51	No
fin.	3	3023	-63731	69831	SLU 75	1.1	Si
ini.	3	1238	-138125	69831	SLU 76	0.51	No
fin.	3	3028	-61254	69831	SLU 76	1.14	Si
ini.	3	1274	-143379	69831	SLU 82	0.49	No
fin.	3	3163	-66047	69831	SLU 82	1.06	Si
ini.	3	1267	-138765	69831	SLU 73	0.5	No
fin.	3	3076	-58016	69831	SLU 73	1.2	Si
ini.	3	1173	-135061	69831	SLU 80	0.52	No
fin.	3	2940	-67690	69831	SLU 80	1.03	Si
ini.	3	1167	-133003	69831	SLU 74	0.53	No
fin.	3	2964	-68528	69831	SLU 74	1.02	Si
ini.	3	1191	-139103	69831	SLU 83	0.5	No
fin.	3	3056	-74082	69831	SLU 83	0.94	No
ini.	3	1191	-135999	69831	SLU 78	0.51	No
fin.	3	2975	-66969	69831	SLU 78	1.04	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-138125	3645			682	257	SLU 76	0.07	No
fin.	3	0	-61254	-2897			682	257	SLU 76	0.09	No
ini.	3	0	-135999	3621			682	257	SLU 78	0.07	No
fin.	3	0	-66969	-2938			682	257	SLU 78	0.09	No
ini.	3	0	-142739	3799			682	257	SLU 84	0.07	No
fin.	3	0	-69285	-3092			682	257	SLU 84	0.08	No
ini.	3	0	-136639	3625			682	257	SLU 75	0.07	No
fin.	3	0	-63731	-2893			682	257	SLU 75	0.09	No
ini.	3	0	-139743	3748			682	257	SLU 81	0.07	No
fin.	3	0	-70844	-3045			682	257	SLU 81	0.08	No
ini.	3	0	-135061	3604			682	257	SLU 80	0.07	No
fin.	3	0	-67690	-2941			682	257	SLU 80	0.09	No
ini.	3	0	-138765	3649			682	257	SLU 73	0.07	No
fin.	3	0	-58016	-2852			682	257	SLU 73	0.09	No
ini.	3	0	-133003	3570			682	257	SLU 74	0.07	No
fin.	3	0	-68528	-2891			682	257	SLU 74	0.09	No
ini.	3	0	-143379	3803			682	257	SLU 82	0.07	No
fin.	3	0	-66047	-3047			682	257	SLU 82	0.08	No
ini.	3	0	-139103	3744			682	257	SLU 83	0.07	No
fin.	3	0	-74082	-3090			682	257	SLU 83	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3161	-158950	80971	SLV 16	0.51	No
fin.	2	4210	80281	80971	SLV 16	1.01	Si
ini.	2	1703	-160039	80971	SLV 9	0.51	No
fin.	2	4221	11581	80971	SLV 9	6.99	Si
ini.	2	-1482	-24204	80971	SLV 1	3.35	Si
fin.	2	-28	-167917	80971	SLV 1	0.48	No
ini.	2	-1574	2356	80971	SLV 3	34.37	Si
fin.	2	-851	-177919	80971	SLV 3	0.46	No
ini.	2	-1574	2356	80971	SLV 4	34.37	Si
fin.	2	-851	-177919	80971	SLV 4	0.46	No
ini.	2	3161	-158950	80971	SLV 15	0.51	No
fin.	2	4210	80281	80971	SLV 15	1.01	Si
ini.	2	3254	-185510	80971	SLV 14	0.44	No
fin.	2	5033	90283	80971	SLV 14	0.9	No
ini.	2	-1482	-24204	80971	SLV 2	3.35	Si
fin.	2	-28	-167917	80971	SLV 2	0.48	No
ini.	2	1703	-160039	80971	SLV 10	0.51	No
fin.	2	4221	11581	80971	SLV 10	6.99	Si
ini.	2	3254	-185510	80971	SLV 13	0.44	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	5033	90283	80971	SLV 13	0.9	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-158950	3954			1022	385	SLV 16	0.1	No
fin.	2	0	80281	-1193			1022	385	SLV 16	0.32	No
ini.	2	0	-158950	3954			1022	385	SLV 15	0.1	No
fin.	2	0	80281	-1193			1022	385	SLV 15	0.32	No
ini.	2	0	2356	857			1022	385	SLV 4	0.45	No
fin.	2	0	-177919	-3406			1022	385	SLV 4	0.11	No
ini.	2	0	-185510	4040			1022	385	SLV 13	0.1	No
fin.	2	0	90283	-392			1022	385	SLV 13	0.98	No
ini.	2	0	-131513	3126			1022	385	SLD 13	0.12	No
fin.	2	0	13372	-1261			1022	385	SLD 13	0.31	No
ini.	2	0	2356	857			1022	385	SLV 3	0.45	No
fin.	2	0	-177919	-3406			1022	385	SLV 3	0.11	No
ini.	2	0	-131513	3126			1022	385	SLD 14	0.12	No
fin.	2	0	13372	-1261			1022	385	SLD 14	0.31	No
ini.	2	0	-23115	1841			1022	385	SLV 8	0.21	No
fin.	2	0	-99217	-3566			1022	385	SLV 8	0.11	No
ini.	2	0	-23115	1841			1022	385	SLV 7	0.21	No
fin.	2	0	-99217	-3566			1022	385	SLV 7	0.11	No
ini.	2	0	-185510	4040			1022	385	SLV 14	0.1	No
fin.	2	0	90283	-392			1022	385	SLV 14	0.98	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.436	SLV 13	No
V_SLV	0.095	SLV 13	No
PF_SLU	0.487	SLU 82	No
V_SLU	0.067	SLU 82	No

Trave di accoppiamento 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1505.7	127.1	61	110	49	-1505.7	220.1	61	110	49	93	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	t ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-25	-1050	36545	SLU 74	34.81	Si
fin.	3	933	-47309	36545	SLU 74	0.77	No
ini.	3	-10	-2031	36545	SLU 78	18	Si
fin.	3	1002	-52015	36545	SLU 78	0.7	No
ini.	3	-24	-1068	36545	SLU 75	34.22	Si
fin.	3	932	-47225	36545	SLU 75	0.77	No
ini.	3	-9	-2089	36545	SLU 79	17.5	Si
fin.	3	1007	-52576	36545	SLU 79	0.7	No
ini.	3	-29	-929	36545	SLU 83	39.35	Si
fin.	3	991	-50463	36545	SLU 83	0.72	No
ini.	3	-8	-2107	36545	SLU 80	17.35	Si
fin.	3	1006	-52492	36545	SLU 80	0.7	No
ini.	3	-28	-947	36545	SLU 84	38.6	Si
fin.	3	990	-50379	36545	SLU 84	0.73	No
ini.	3	-22	-1156	36545	SLU 76	31.61	Si
fin.	3	936	-47646	36545	SLU 76	0.77	No
ini.	3	-11	-2013	36545	SLU 77	18.16	Si
fin.	3	1002	-52099	36545	SLU 77	0.7	No
ini.	3	-6	-1981	36545	SLU 37	18.45	Si
fin.	3	895	-47271	36545	SLU 37	0.77	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-2107	-97			377	142	SLU 80	1.46	Si
fin.	3	0	-52492	-412			377	142	SLU 80	0.34	No
ini.	3	0	-1923	-90			377	142	SLU 36	1.58	Si
fin.	3	0	-46709	-385			377	142	SLU 36	0.37	No
ini.	3	0	-2089	-99			377	142	SLU 79	1.44	Si
fin.	3	0	-52576	-413			377	142	SLU 79	0.34	No
ini.	3	0	-1999	-95			377	142	SLU 38	1.5	Si
fin.	3	0	-47186	-403			377	142	SLU 38	0.35	No
ini.	3	0	-1905	-91			377	142	SLU 35	1.56	Si
fin.	3	0	-46794	-386			377	142	SLU 35	0.37	No
ini.	3	0	-929	-34			377	142	SLU 83	4.17	Si
fin.	3	0	-50463	-373			377	142	SLU 83	0.38	No
ini.	3	0	-2031	-93			377	142	SLU 78	1.53	Si
fin.	3	0	-52015	-394			377	142	SLU 78	0.36	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-947	-33			377	142	SLU 84	4.36	Si
fin.	3	0	-50379	-372			377	142	SLU 84	0.38	No
ini.	3	0	-2013	-94			377	142	SLU 77	1.51	Si
fin.	3	0	-52099	-395			377	142	SLU 77	0.36	No
ini.	3	0	-1981	-96			377	142	SLU 37	1.48	Si
fin.	3	0	-47271	-404			377	142	SLU 37	0.35	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1054	14658	52331	SLV 12	3.57	Si
fin.	2	562	-101208	52331	SLV 12	0.52	No
ini.	2	-512	9099	52331	SLD 7	5.75	Si
fin.	2	467	-53730	52331	SLD 7	0.97	No
ini.	2	-101	-7918	52331	SLV 16	6.61	Si
fin.	2	937	-68940	52331	SLV 16	0.76	No
ini.	2	-449	5782	52331	SLD 12	9.05	Si
fin.	2	568	-58889	52331	SLD 12	0.89	No
ini.	2	-1206	22625	52331	SLV 7	2.31	Si
fin.	2	324	-88992	52331	SLV 7	0.59	No
ini.	2	-1206	22625	52331	SLV 8	2.31	Si
fin.	2	324	-88992	52331	SLV 8	0.59	No
ini.	2	-449	5782	52331	SLD 11	9.05	Si
fin.	2	568	-58889	52331	SLD 11	0.89	No
ini.	2	-101	-7918	52331	SLV 15	6.61	Si
fin.	2	937	-68940	52331	SLV 15	0.76	No
ini.	2	-1054	14658	52331	SLV 11	3.57	Si
fin.	2	562	-101208	52331	SLV 11	0.52	No
ini.	2	-512	9099	52331	SLD 8	5.75	Si
fin.	2	467	-53730	52331	SLD 8	0.97	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	14658	-1209			566	213	SLV 11	0.18	No
fin.	2	0	-101208	-1057			566	213	SLV 11	0.2	No
ini.	2	0	22625	-1029			566	213	SLV 8	0.21	No
fin.	2	0	-88992	-954			566	213	SLV 8	0.22	No
ini.	2	0	-23289	1018			566	213	SLV 10	0.21	No
fin.	2	0	31706	648			566	213	SLV 10	0.33	No
ini.	2	0	-7918	-640			566	213	SLV 15	0.33	No
fin.	2	0	-68940	-580			566	213	SLV 15	0.37	No
ini.	2	0	-23289	1018			566	213	SLV 9	0.21	No
fin.	2	0	31706	648			566	213	SLV 9	0.33	No
ini.	2	0	22625	-1029			566	213	SLV 7	0.21	No
fin.	2	0	-88992	-954			566	213	SLV 7	0.22	No
ini.	2	0	-15323	1198			566	213	SLV 6	0.18	No
fin.	2	0	43922	751			566	213	SLV 6	0.28	No
ini.	2	0	14658	-1209			566	213	SLV 12	0.18	No
fin.	2	0	-101208	-1057			566	213	SLV 12	0.2	No
ini.	2	0	-15323	1198			566	213	SLV 5	0.18	No
fin.	2	0	43922	751			566	213	SLV 5	0.28	No
ini.	2	0	-7918	-640			566	213	SLV 16	0.33	No
fin.	2	0	-68940	-580			566	213	SLV 16	0.37	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.517	SLV 11	No
V_SLV	0.176	SLV 11	No
PF_SLU	0.695	SLU 79	No
V_SLU	0.344	SLU 79	No

Trave di accoppiamento 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1883.8	104.6	51	110	59	-1963.8	104.6	51	110	59	80	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fkhmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3233	-48244	69831	SLU 76	1.45	Si
fin.	3	-4822	-9450	69831	SLU 76	7.39	Si
ini.	3	-3390	-48640	69831	SLU 83	1.44	Si
fin.	3	-5230	-11150	69831	SLU 83	6.26	Si
ini.	3	-3206	-47392	69831	SLU 73	1.47	Si
fin.	3	-4773	-9944	69831	SLU 73	7.02	Si
ini.	3	-3251	-48270	69831	SLU 80	1.45	Si
fin.	3	-4922	-9344	69831	SLU 80	7.47	Si
ini.	3	-3270	-48283	69831	SLU 78	1.45	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-4980	-9613	69831	SLU 78	7.26	Si
ini.	3	-3363	-47788	69831	SLU 81	1.46	Si
fin.	3	-5182	-11644	69831	SLU 81	6	Si
ini.	3	-3243	-47431	69831	SLU 75	1.47	Si
fin.	3	-4932	-10107	69831	SLU 75	6.91	Si
ini.	3	-3404	-49879	69831	SLU 84	1.4	Si
fin.	3	-5152	-10567	69831	SLU 84	6.61	Si
ini.	3	-3377	-49027	69831	SLU 82	1.42	Si
fin.	3	-5103	-11061	69831	SLU 82	6.31	Si
ini.	3	-3256	-47044	69831	SLU 77	1.48	Si
fin.	3	-5058	-10196	69831	SLU 77	6.85	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-47431	6150			754	284	SLU 75	0.05	No
fin.	3	0	-10107	-11705			754	284	SLU 75	0.02	No
ini.	3	0	-49879	6432			754	284	SLU 84	0.04	No
fin.	3	0	-10567	-12215			754	284	SLU 84	0.02	No
ini.	3	0	-46192	6130			754	284	SLU 74	0.05	No
fin.	3	0	-10690	-11862			754	284	SLU 74	0.02	No
ini.	3	0	-49027	6267			754	284	SLU 82	0.05	No
fin.	3	0	-11061	-11903			754	284	SLU 82	0.02	No
ini.	3	0	-47030	6270			754	284	SLU 79	0.05	No
fin.	3	0	-9927	-12072			754	284	SLU 79	0.02	No
ini.	3	0	-48283	6315			754	284	SLU 78	0.04	No
fin.	3	0	-9613	-12017			754	284	SLU 78	0.02	No
ini.	3	0	-48640	6413			754	284	SLU 83	0.04	No
fin.	3	0	-11150	-12372			754	284	SLU 83	0.02	No
ini.	3	0	-48270	6289			754	284	SLU 80	0.05	No
fin.	3	0	-9344	-11915			754	284	SLU 80	0.02	No
ini.	3	0	-47044	6296			754	284	SLU 77	0.05	No
fin.	3	0	-10196	-12174			754	284	SLU 77	0.02	No
ini.	3	0	-47788	6247			754	284	SLU 81	0.05	No
fin.	3	0	-11644	-12060			754	284	SLU 81	0.02	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1604	-61089	80971	SLD 16	1.33	Si
fin.	2	-84	4733	80971	SLD 16	17.11	Si
ini.	2	-2213	-79961	80971	SLV 9	1.01	Si
fin.	2	808	16760	80971	SLV 9	4.83	Si
ini.	2	-1091	-116808	80971	SLV 14	0.69	No
fin.	2	5298	29678	80971	SLV 14	2.73	Si
ini.	2	-2213	-79961	80971	SLV 10	1.01	Si
fin.	2	808	16760	80971	SLV 10	4.83	Si
ini.	2	-848	-101467	80971	SLV 16	0.8	No
fin.	2	4271	21088	80971	SLV 16	3.84	Si
ini.	2	-1707	-67602	80971	SLD 13	1.2	Si
fin.	2	347	8483	80971	SLD 13	9.54	Si
ini.	2	-848	-101467	80971	SLV 15	0.8	No
fin.	2	4271	21088	80971	SLV 15	3.84	Si
ini.	2	-1604	-61089	80971	SLD 15	1.33	Si
fin.	2	-84	4733	80971	SLD 15	17.11	Si
ini.	2	-1707	-67602	80971	SLD 14	1.2	Si
fin.	2	347	8483	80971	SLD 14	9.54	Si
ini.	2	-1091	-116808	80971	SLV 13	0.69	No
fin.	2	5298	29678	80971	SLV 13	2.73	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	39605	1161			1131	426	SLV 1	0.37	No
fin.	2	0	-35863	-15186			1131	426	SLV 1	0.03	No
ini.	2	0	5741	2394			1131	426	SLD 4	0.18	No
fin.	2	0	-23258	-11166			1131	426	SLD 4	0.04	No
ini.	2	0	-772	2819			1131	426	SLD 2	0.15	No
fin.	2	0	-19508	-10972			1131	426	SLD 2	0.04	No
ini.	2	0	39605	1161			1131	426	SLV 2	0.37	No
fin.	2	0	-35863	-15186			1131	426	SLV 2	0.03	No
ini.	2	0	18100	1348			1131	426	SLV 8	0.32	No
fin.	2	0	-31535	-10891			1131	426	SLV 8	0.04	No
ini.	2	0	5741	2394			1131	426	SLD 3	0.18	No
fin.	2	0	-23258	-11166			1131	426	SLD 3	0.04	No
ini.	2	0	54947	146			1131	426	SLV 4	2.92	Si
fin.	2	0	-44453	-15662			1131	426	SLV 4	0.03	No
ini.	2	0	54947	146			1131	426	SLV 3	2.92	Si
fin.	2	0	-44453	-15662			1131	426	SLV 3	0.03	No
ini.	2	0	-772	2819			1131	426	SLD 1	0.15	No
fin.	2	0	-19508	-10972			1131	426	SLD 1	0.04	No
ini.	2	0	18100	1348			1131	426	SLV 7	0.32	No
fin.	2	0	-31535	-10891			1131	426	SLV 7	0.04	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.693	SLV 13	No
V_SLV	0.027	SLV 3	No
PF_SLU	1.4	SLU 84	Si
V_SLU	0.023	SLU 83	No



Trave di accoppiamento 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1406.3	104.6	51	110	59	-1506.3	104.6	51	110	59	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2646	-58530	69831	SLU 84	1.19	Si
fin.	3	-2431	-101056	69831	SLU 84	0.69	No
ini.	3	-2601	-57655	69831	SLU 77	1.21	Si
fin.	3	-2290	-96556	69831	SLU 77	0.72	No
ini.	3	-2554	-56858	69831	SLU 80	1.23	Si
fin.	3	-2260	-95680	69831	SLU 80	0.73	No
ini.	3	-2643	-57628	69831	SLU 81	1.21	Si
fin.	3	-2465	-100379	69831	SLU 81	0.7	No
ini.	3	-2562	-57353	69831	SLU 78	1.22	Si
fin.	3	-2287	-96926	69831	SLU 78	0.72	No
ini.	3	-2685	-58832	69831	SLU 83	1.19	Si
fin.	3	-2434	-100686	69831	SLU 83	0.69	No
ini.	3	-2605	-57326	69831	SLU 82	1.22	Si
fin.	3	-2462	-100749	69831	SLU 82	0.69	No
ini.	3	-2560	-56451	69831	SLU 74	1.24	Si
fin.	3	-2321	-96249	69831	SLU 74	0.73	No
ini.	3	-2487	-55453	69831	SLU 76	1.26	Si
fin.	3	-2289	-95619	69831	SLU 76	0.73	No
ini.	3	-2521	-56149	69831	SLU 75	1.24	Si
fin.	3	-2318	-96618	69831	SLU 75	0.72	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-57160	10753			682	257	SLU 79	0.02	No
fin.	3	0	-95311	-5731			682	257	SLU 79	0.04	No
ini.	3	0	-56149	10624			682	257	SLU 75	0.02	No
fin.	3	0	-96618	-5756			682	257	SLU 75	0.04	No
ini.	3	0	-58832	11149			682	257	SLU 83	0.02	No
fin.	3	0	-100686	-6009			682	257	SLU 83	0.04	No
ini.	3	0	-57326	10931			682	257	SLU 82	0.02	No
fin.	3	0	-100749	-5971			682	257	SLU 82	0.04	No
ini.	3	0	-57628	10952			682	257	SLU 81	0.02	No
fin.	3	0	-100379	-5957			682	257	SLU 81	0.04	No
ini.	3	0	-57353	10821			682	257	SLU 78	0.02	No
fin.	3	0	-96926	-5808			682	257	SLU 78	0.04	No
ini.	3	0	-58530	11129			682	257	SLU 84	0.02	No
fin.	3	0	-101056	-6023			682	257	SLU 84	0.04	No
ini.	3	0	-56858	10732			682	257	SLU 80	0.02	No
fin.	3	0	-95680	-5745			682	257	SLU 80	0.04	No
ini.	3	0	-56451	10644			682	257	SLU 74	0.02	No
fin.	3	0	-96249	-5742			682	257	SLU 74	0.04	No
ini.	3	0	-57655	10842			682	257	SLU 77	0.02	No
fin.	3	0	-96556	-5794			682	257	SLU 77	0.04	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2333	-15118	80971	SLD 3	5.36	Si
fin.	2	-4671	-120310	80971	SLD 3	0.67	No
ini.	2	-3164	15095	80971	SLV 4	5.36	Si
fin.	2	-8812	-195262	80971	SLV 4	0.41	No
ini.	2	-2333	-15118	80971	SLD 4	5.36	Si
fin.	2	-4671	-120310	80971	SLD 4	0.67	No
ini.	2	-2703	-16721	80971	SLD 2	4.84	Si
fin.	2	-4682	-112224	80971	SLD 2	0.72	No
ini.	2	-4036	11350	80971	SLV 1	7.13	Si
fin.	2	-8830	-175958	80971	SLV 1	0.46	No
ini.	2	-826	-16092	80971	SLV 7	5.03	Si
fin.	2	-3725	-132913	80971	SLV 7	0.61	No
ini.	2	-826	-16092	80971	SLV 8	5.03	Si
fin.	2	-3725	-132913	80971	SLV 8	0.61	No
ini.	2	-3164	15095	80971	SLV 3	5.36	Si
fin.	2	-8812	-195262	80971	SLV 3	0.41	No
ini.	2	-4036	11350	80971	SLV 2	7.13	Si
fin.	2	-8830	-175958	80971	SLV 2	0.46	No
ini.	2	-2703	-16721	80971	SLD 1	4.84	Si
fin.	2	-4682	-112224	80971	SLD 1	0.72	No



Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-90241	11475			1022	385	SLV 13	0.03	No
fin.	2	0	66528	366			1022	385	SLV 13	1.05	Si
ini.	2	0	-86495	11915			1022	385	SLV 15	0.03	No
fin.	2	0	47224	-354			1022	385	SLV 15	1.09	Si
ini.	2	0	-90241	11475			1022	385	SLV 14	0.03	No
fin.	2	0	66528	366			1022	385	SLV 14	1.05	Si
ini.	2	0	-58425	9113			1022	385	SLD 16	0.04	No
fin.	2	0	-16510	-2337			1022	385	SLD 16	0.16	No
ini.	2	0	-60027	8932			1022	385	SLD 14	0.04	No
fin.	2	0	-8425	-2038			1022	385	SLD 14	0.19	No
ini.	2	0	-58425	9113			1022	385	SLD 15	0.04	No
fin.	2	0	-16510	-2337			1022	385	SLD 15	0.16	No
ini.	2	0	-46569	9163			1022	385	SLV 11	0.04	No
fin.	2	0	-60168	-3878			1022	385	SLV 11	0.1	No
ini.	2	0	-86495	11915			1022	385	SLV 16	0.03	No
fin.	2	0	47224	-354			1022	385	SLV 16	1.09	Si
ini.	2	0	-46569	9163			1022	385	SLV 12	0.04	No
fin.	2	0	-60168	-3878			1022	385	SLV 12	0.1	No
ini.	2	0	-60027	8932			1022	385	SLD 13	0.04	No
fin.	2	0	-8425	-2038			1022	385	SLD 13	0.19	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.415	SLV 3	No
V_SLV	0.032	SLV 15	No
PF_SLU	0.691	SLU 84	No
V_SLU	0.023	SLU 83	No

Trave di accoppiamento 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1261.3	104.6	57	110	53	-1358.3	104.6	57	110	53	97	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	t ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2877	-13799	59331	SLU 83	4.3	Si
fin.	3	-1670	-102237	59331	SLU 83	0.58	No
ini.	3	-2790	-12175	59331	SLU 80	4.87	Si
fin.	3	-1581	-97882	59331	SLU 80	0.61	No
ini.	3	-2780	-12278	59331	SLU 78	4.83	Si
fin.	3	-1578	-98809	59331	SLU 78	0.6	No
ini.	3	-2727	-12688	59331	SLU 74	4.68	Si
fin.	3	-1586	-97679	59331	SLU 74	0.61	No
ini.	3	-2693	-12802	59331	SLU 75	4.63	Si
fin.	3	-1549	-97401	59331	SLU 75	0.61	No
ini.	3	-2843	-13913	59331	SLU 84	4.26	Si
fin.	3	-1634	-101959	59331	SLU 84	0.58	No
ini.	3	-2755	-14437	59331	SLU 82	4.11	Si
fin.	3	-1605	-100551	59331	SLU 82	0.59	No
ini.	3	-2790	-14323	59331	SLU 81	4.14	Si
fin.	3	-1641	-100829	59331	SLU 81	0.59	No
ini.	3	-2814	-12164	59331	SLU 77	4.88	Si
fin.	3	-1614	-99087	59331	SLU 77	0.6	No
ini.	3	-2824	-12061	59331	SLU 79	4.92	Si
fin.	3	-1617	-98160	59331	SLU 79	0.6	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-13799	11856			612	230	SLU 83	0.02	No
fin.	3	0	-102237	-7351			612	230	SLU 83	0.03	No
ini.	3	0	-12061	11386			612	230	SLU 79	0.02	No
fin.	3	0	-98160	-7058			612	230	SLU 79	0.03	No
ini.	3	0	-12688	11337			612	230	SLU 74	0.02	No
fin.	3	0	-97679	-7038			612	230	SLU 74	0.03	No
ini.	3	0	-14323	11697			612	230	SLU 81	0.02	No
fin.	3	0	-100829	-7259			612	230	SLU 81	0.03	No
ini.	3	0	-14437	11710			612	230	SLU 82	0.02	No
fin.	3	0	-100551	-7256			612	230	SLU 82	0.03	No
ini.	3	0	-12164	11497			612	230	SLU 77	0.02	No
fin.	3	0	-99087	-7131			612	230	SLU 77	0.03	No
ini.	3	0	-12278	11510			612	230	SLU 78	0.02	No
fin.	3	0	-98809	-7129			612	230	SLU 78	0.03	No
ini.	3	0	-12802	11350			612	230	SLU 75	0.02	No
fin.	3	0	-97401	-7036			612	230	SLU 75	0.03	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-13913	11869			612	230	SLU 84	0.02	No
fin.	3	0	-101959	-7349			612	230	SLU 84	0.03	No
ini.	3	0	-12175	11399			612	230	SLU 80	0.02	No
fin.	3	0	-97882	-7056			612	230	SLU 80	0.03	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2306	17463	70471	SLV 9	4.04	Si
fin.	2	-1672	-70125	70471	SLV 9	1	Si
ini.	2	-1676	27785	70471	SLV 14	2.54	Si
fin.	2	590	-71918	70471	SLV 14	0.98	No
ini.	2	-1748	6991	70471	SLD 14	10.08	Si
fin.	2	-355	-67838	70471	SLD 14	1.04	Si
ini.	2	-2010	2504	70471	SLD 9	28.14	Si
fin.	2	-1316	-67140	70471	SLD 9	1.05	Si
ini.	2	-1316	17928	70471	SLV 16	3.93	Si
fin.	2	1319	-69815	70471	SLV 16	1.01	Si
ini.	2	-1748	6991	70471	SLD 13	10.08	Si
fin.	2	-355	-67838	70471	SLD 13	1.04	Si
ini.	2	-1676	27785	70471	SLV 13	2.54	Si
fin.	2	590	-71918	70471	SLV 13	0.98	No
ini.	2	-1316	17928	70471	SLV 15	3.93	Si
fin.	2	1319	-69815	70471	SLV 15	1.01	Si
ini.	2	-2010	2504	70471	SLD 10	28.14	Si
fin.	2	-1316	-67140	70471	SLD 10	1.05	Si
ini.	2	-2306	17463	70471	SLV 10	4.04	Si
fin.	2	-1672	-70125	70471	SLV 10	1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-15392	9912			919	346	SLV 11	0.03	No
fin.	2	0	-63117	-5469			919	346	SLV 11	0.06	No
ini.	2	0	6991	8829			919	346	SLD 13	0.04	No
fin.	2	0	-67838	-5147			919	346	SLD 13	0.07	No
ini.	2	0	27785	10550			919	346	SLV 13	0.03	No
fin.	2	0	-71918	-5750			919	346	SLV 13	0.06	No
ini.	2	0	17928	11359			919	346	SLV 16	0.03	No
fin.	2	0	-69815	-6002			919	346	SLV 16	0.06	No
ini.	2	0	2885	9159			919	346	SLD 15	0.04	No
fin.	2	0	-66897	-5247			919	346	SLD 15	0.07	No
ini.	2	0	17928	11359			919	346	SLV 15	0.03	No
fin.	2	0	-69815	-6002			919	346	SLV 15	0.06	No
ini.	2	0	27785	10550			919	346	SLV 14	0.03	No
fin.	2	0	-71918	-5750			919	346	SLV 14	0.06	No
ini.	2	0	-15392	9912			919	346	SLV 12	0.03	No
fin.	2	0	-63117	-5469			919	346	SLV 12	0.06	No
ini.	2	0	6991	8829			919	346	SLD 14	0.04	No
fin.	2	0	-67838	-5147			919	346	SLD 14	0.07	No
ini.	2	0	2885	9159			919	346	SLD 16	0.04	No
fin.	2	0	-66897	-5247			919	346	SLD 16	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.98	SLV 13	No
V_SLV	0.03	SLV 15	No
PF_SLU	0.58	SLU 83	No
V_SLU	0.019	SLU 84	No

Trave di accoppiamento 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1123.8	104.6	57	110	53	-1223.8	104.6	57	110	53	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2515	-36387	59331	SLU 83	1.63	Si
fin.	3	-2851	27325	59331	SLU 83	2.17	Si
ini.	3	-2360	-34673	59331	SLU 75	1.71	Si
fin.	3	-2688	26241	59331	SLU 75	2.26	Si
ini.	3	-2410	-35309	59331	SLU 82	1.68	Si
fin.	3	-2690	25129	59331	SLU 82	2.36	Si
ini.	3	-2445	-35261	59331	SLU 80	1.68	Si
fin.	3	-2818	28022	59331	SLU 80	2.12	Si
ini.	3	-2484	-36284	59331	SLU 84	1.64	Si
fin.	3	-2810	26838	59331	SLU 84	2.21	Si
ini.	3	-2391	-34775	59331	SLU 74	1.71	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2729	26728	59331	SLU 74	2.22	Si
ini.	3	-2435	-35648	59331	SLU 78	1.66	Si
fin.	3	-2808	27949	59331	SLU 78	2.12	Si
ini.	3	-2466	-35751	59331	SLU 77	1.66	Si
fin.	3	-2849	28436	59331	SLU 77	2.09	Si
ini.	3	-2441	-35411	59331	SLU 81	1.68	Si
fin.	3	-2731	25617	59331	SLU 81	2.32	Si
ini.	3	-2476	-35363	59331	SLU 79	1.68	Si
fin.	3	-2859	28509	59331	SLU 79	2.08	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-35751	336			612	230	SLU 77	0.69	No
fin.	3	0	28436	1878			612	230	SLU 77	0.12	No
ini.	3	0	-35648	329			612	230	SLU 78	0.7	No
fin.	3	0	27949	1872			612	230	SLU 78	0.12	No
ini.	3	0	-36284	338			612	230	SLU 84	0.68	No
fin.	3	0	26838	1870			612	230	SLU 84	0.12	No
ini.	3	0	-35411	325			612	230	SLU 81	0.71	No
fin.	3	0	25617	1825			612	230	SLU 81	0.13	No
ini.	3	0	-35309	319			612	230	SLU 82	0.72	No
fin.	3	0	25129	1818			612	230	SLU 82	0.13	No
ini.	3	0	-34775	316			612	230	SLU 74	0.73	No
fin.	3	0	26728	1826			612	230	SLU 74	0.13	No
ini.	3	0	-36387	345			612	230	SLU 83	0.67	No
fin.	3	0	27325	1877			612	230	SLU 83	0.12	No
ini.	3	0	-35261	335			612	230	SLU 80	0.69	No
fin.	3	0	28022	1851			612	230	SLU 80	0.12	No
ini.	3	0	-34673	310			612	230	SLU 75	0.74	No
fin.	3	0	26241	1820			612	230	SLU 75	0.13	No
ini.	3	0	-35363	341			612	230	SLU 79	0.68	No
fin.	3	0	28509	1857			612	230	SLU 79	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1162	-50641	70471	SLD 13	1.39	Si
fin.	2	-2877	47259	70471	SLD 13	1.49	Si
ini.	2	-540	-78816	70471	SLV 15	0.89	No
fin.	2	-3675	71972	70471	SLV 15	0.98	No
ini.	2	-1363	-56476	70471	SLV 9	1.25	Si
fin.	2	-3519	60708	70471	SLV 9	1.16	Si
ini.	2	-540	-78816	70471	SLV 16	0.89	No
fin.	2	-3675	71972	70471	SLV 16	0.98	No
ini.	2	-2582	42641	70471	SLV 4	1.65	Si
fin.	2	689	-50476	70471	SLV 4	1.4	Si
ini.	2	-590	-88125	70471	SLV 13	0.8	No
fin.	2	-4308	86553	70471	SLV 13	0.81	No
ini.	2	-590	-88125	70471	SLV 14	0.8	No
fin.	2	-4308	86553	70471	SLV 14	0.81	No
ini.	2	-1162	-50641	70471	SLD 14	1.39	Si
fin.	2	-2877	47259	70471	SLD 14	1.49	Si
ini.	2	-1363	-56476	70471	SLV 10	1.25	Si
fin.	2	-3519	60708	70471	SLV 10	1.16	Si
ini.	2	-2582	42641	70471	SLV 3	1.65	Si
fin.	2	689	-50476	70471	SLV 3	1.4	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-25446	66			919	346	SLV 11	5.25	Si
fin.	2	0	12105	2151			919	346	SLV 11	0.16	No
ini.	2	0	-46672	832			919	346	SLD 15	0.42	No
fin.	2	0	41118	2053			919	346	SLD 15	0.17	No
ini.	2	0	-88125	2058			919	346	SLV 14	0.17	No
fin.	2	0	86553	2935			919	346	SLV 14	0.12	No
ini.	2	0	-78816	1676			919	346	SLV 15	0.21	No
fin.	2	0	71972	3162			919	346	SLV 15	0.11	No
ini.	2	0	-46672	832			919	346	SLD 16	0.42	No
fin.	2	0	41118	2053			919	346	SLD 16	0.17	No
ini.	2	0	-50641	995			919	346	SLD 13	0.35	No
fin.	2	0	47259	1955			919	346	SLD 13	0.18	No
ini.	2	0	-88125	2058			919	346	SLV 13	0.17	No
fin.	2	0	86553	2935			919	346	SLV 13	0.12	No
ini.	2	0	-78816	1676			919	346	SLV 16	0.21	No
fin.	2	0	71972	3162			919	346	SLV 16	0.11	No
ini.	2	0	-50641	995			919	346	SLD 14	0.35	No
fin.	2	0	47259	1955			919	346	SLD 14	0.18	No
ini.	2	0	-25446	66			919	346	SLV 12	5.25	Si
fin.	2	0	12105	2151			919	346	SLV 12	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.8	SLV 13	No
V_SLV	0.109	SLV 15	No
PF_SLU	1.631	SLU 83	Si
V_SLU	0.123	SLU 77	No



Trave di accoppiamento 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-971.3	104.6	51	110	59	-1071.3	104.6	51	110	59	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-4274	-53430	69831	SLU 81	1.31	Si
fin.	3	-1895	-55266	69831	SLU 81	1.26	Si
ini.	3	-4164	-52579	69831	SLU 79	1.33	Si
fin.	3	-2010	-55507	69831	SLU 79	1.26	Si
ini.	3	-4160	-52520	69831	SLU 75	1.33	Si
fin.	3	-1862	-53160	69831	SLU 75	1.31	Si
ini.	3	-4197	-53114	69831	SLU 77	1.31	Si
fin.	3	-1993	-55636	69831	SLU 77	1.26	Si
ini.	3	-4326	-54362	69831	SLU 83	1.28	Si
fin.	3	-1990	-56914	69831	SLU 83	1.23	Si
ini.	3	-4213	-53451	69831	SLU 78	1.31	Si
fin.	3	-1957	-54808	69831	SLU 78	1.27	Si
ini.	3	-4144	-52182	69831	SLU 74	1.34	Si
fin.	3	-1898	-53988	69831	SLU 74	1.29	Si
ini.	3	-4180	-52917	69831	SLU 80	1.32	Si
fin.	3	-1974	-54680	69831	SLU 80	1.28	Si
ini.	3	-4342	-54700	69831	SLU 84	1.28	Si
fin.	3	-1954	-56086	69831	SLU 84	1.25	Si
ini.	3	-4290	-53768	69831	SLU 82	1.3	Si
fin.	3	-1858	-54438	69831	SLU 82	1.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-53114	11970			682	257	SLU 77	0.02	No
fin.	3	0	-55636	-5219			682	257	SLU 77	0.05	No
ini.	3	0	-53430	12372			682	257	SLU 81	0.02	No
fin.	3	0	-55266	-5327			682	257	SLU 81	0.05	No
ini.	3	0	-53768	12398			682	257	SLU 82	0.02	No
fin.	3	0	-54438	-5297			682	257	SLU 82	0.05	No
ini.	3	0	-52182	11876			682	257	SLU 74	0.02	No
fin.	3	0	-53988	-5139			682	257	SLU 74	0.05	No
ini.	3	0	-53451	11996			682	257	SLU 78	0.02	No
fin.	3	0	-54808	-5188			682	257	SLU 78	0.05	No
ini.	3	0	-52579	11843			682	257	SLU 79	0.02	No
fin.	3	0	-55507	-5184			682	257	SLU 79	0.05	No
ini.	3	0	-52917	11868			682	257	SLU 80	0.02	No
fin.	3	0	-54680	-5154			682	257	SLU 80	0.05	No
ini.	3	0	-54362	12467			682	257	SLU 83	0.02	No
fin.	3	0	-56914	-5408			682	257	SLU 83	0.05	No
ini.	3	0	-54700	12492			682	257	SLU 84	0.02	No
fin.	3	0	-56086	-5377			682	257	SLU 84	0.05	No
ini.	3	0	-52520	11902			682	257	SLU 75	0.02	No
fin.	3	0	-53160	-5108			682	257	SLU 75	0.05	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-5930	-74219	80971	SLD 16	1.09	Si
fin.	2	-1999	-23590	80971	SLD 16	3.43	Si
ini.	2	-6321	-91074	80971	SLV 12	0.89	No
fin.	2	-943	-2248	80971	SLV 12	36.02	Si
ini.	2	-9267	-108286	80971	SLV 13	0.75	No
fin.	2	-3539	-24729	80971	SLV 13	3.27	Si
ini.	2	-10140	-127114	80971	SLV 15	0.64	No
fin.	2	-2988	-8311	80971	SLV 15	9.74	Si
ini.	2	-9267	-108286	80971	SLV 14	0.75	No
fin.	2	-3539	-24729	80971	SLV 14	3.27	Si
ini.	2	-6321	-91074	80971	SLV 11	0.89	No
fin.	2	-943	-2248	80971	SLV 11	36.02	Si
ini.	2	-5930	-74219	80971	SLD 15	1.09	Si
fin.	2	-1999	-23590	80971	SLD 15	3.43	Si
ini.	2	737	21408	80971	SLV 6	3.78	Si
fin.	2	-1579	-68193	80971	SLV 6	1.19	Si
ini.	2	737	21408	80971	SLV 5	3.78	Si
fin.	2	-1579	-68193	80971	SLV 5	1.19	Si
ini.	2	-10140	-127114	80971	SLV 16	0.64	No
fin.	2	-2988	-8311	80971	SLV 16	9.74	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-58738	9735			1022	385	SLD 12	0.04	No
fin.	2	0	-21132	-3043			1022	385	SLD 12	0.13	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-108286	11333			1022	385	SLV 13	0.03	No
fin.	2	0	-24729	-1010			1022	385	SLV 13	0.38	No
ini.	2	0	-127114	13192			1022	385	SLV 16	0.03	No
fin.	2	0	-8311	-963			1022	385	SLV 16	0.4	No
ini.	2	0	-91074	12281			1022	385	SLV 11	0.03	No
fin.	2	0	-2248	-2586			1022	385	SLV 11	0.15	No
ini.	2	0	-74219	10132			1022	385	SLD 15	0.04	No
fin.	2	0	-23590	-2349			1022	385	SLD 15	0.16	No
ini.	2	0	-58738	9735			1022	385	SLD 11	0.04	No
fin.	2	0	-21132	-3043			1022	385	SLD 11	0.13	No
ini.	2	0	-74219	10132			1022	385	SLD 16	0.04	No
fin.	2	0	-23590	-2349			1022	385	SLD 16	0.16	No
ini.	2	0	-91074	12281			1022	385	SLV 12	0.03	No
fin.	2	0	-2248	-2586			1022	385	SLV 12	0.15	No
ini.	2	0	-108286	11333			1022	385	SLV 14	0.03	No
fin.	2	0	-24729	-1010			1022	385	SLV 14	0.38	No
ini.	2	0	-127114	13192			1022	385	SLV 15	0.03	No
fin.	2	0	-8311	-963			1022	385	SLV 15	0.4	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.637	SLV 15	No
V_SLV	0.029	SLV 15	No
PF_SLU	1.227	SLU 83	Si
V_SLU	0.021	SLU 84	No

Trave di accoppiamento 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-652.8	104.6	51	110	59	-742.8	104.6	51	110	59	90	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{mk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3531	-76919	69831	SLU 84	0.91	No
fin.	3	-1891	-33509	69831	SLU 84	2.08	Si
ini.	3	-3352	-73441	69831	SLU 80	0.95	No
fin.	3	-1814	-32949	69831	SLU 80	2.12	Si
ini.	3	-3421	-75820	69831	SLU 83	0.92	No
fin.	3	-1890	-36147	69831	SLU 83	1.93	Si
ini.	3	-3417	-73347	69831	SLU 76	0.95	No
fin.	3	-1811	-30429	69831	SLU 76	2.29	Si
ini.	3	-3412	-74994	69831	SLU 81	0.93	No
fin.	3	-1888	-35386	69831	SLU 81	1.97	Si
ini.	3	-3268	-73004	69831	SLU 77	0.96	No
fin.	3	-1815	-35461	69831	SLU 77	1.97	Si
ini.	3	-3379	-74103	69831	SLU 78	0.94	No
fin.	3	-1815	-32823	69831	SLU 78	2.13	Si
ini.	3	-3409	-72520	69831	SLU 73	0.96	No
fin.	3	-1809	-29668	69831	SLU 73	2.35	Si
ini.	3	-3522	-76092	69831	SLU 82	0.92	No
fin.	3	-1888	-32748	69831	SLU 82	2.13	Si
ini.	3	-3370	-73276	69831	SLU 75	0.95	No
fin.	3	-1812	-32061	69831	SLU 75	2.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-73276	8275			682	257	SLU 75	0.03	No
fin.	3	0	-32061	-2979			682	257	SLU 75	0.09	No
ini.	3	0	-72178	8243			682	257	SLU 74	0.03	No
fin.	3	0	-34699	-3085			682	257	SLU 74	0.08	No
ini.	3	0	-73004	8368			682	257	SLU 77	0.03	No
fin.	3	0	-35461	-3145			682	257	SLU 77	0.08	No
ini.	3	0	-75820	8651			682	257	SLU 83	0.03	No
fin.	3	0	-36147	-3220			682	257	SLU 83	0.08	No
ini.	3	0	-73441	8326			682	257	SLU 80	0.03	No
fin.	3	0	-32949	-3028			682	257	SLU 80	0.08	No
ini.	3	0	-74994	8526			682	257	SLU 81	0.03	No
fin.	3	0	-35386	-3160			682	257	SLU 81	0.08	No
ini.	3	0	-76092	8559			682	257	SLU 82	0.03	No
fin.	3	0	-32748	-3055			682	257	SLU 82	0.08	No
ini.	3	0	-74103	8400			682	257	SLU 78	0.03	No
fin.	3	0	-32823	-3040			682	257	SLU 78	0.08	No
ini.	3	0	-72342	8294			682	257	SLU 79	0.03	No
fin.	3	0	-35587	-3134			682	257	SLU 79	0.08	No
ini.	3	0	-76919	8684			682	257	SLU 84	0.03	No
fin.	3	0	-33509	-3115			682	257	SLU 84	0.08	No



Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-5313	-81850	80971	SLV 16	0.99	No
fin.	2	64	107834	80971	SLV 16	0.75	No
ini.	2	-5784	-82974	80971	SLV 13	0.98	No
fin.	2	-265	105757	80971	SLV 13	0.77	No
ini.	2	921	-13416	80971	SLV 1	6.04	Si
fin.	2	-2598	-155507	80971	SLV 1	0.52	No
ini.	2	-864	-33041	80971	SLD 2	2.45	Si
fin.	2	-1833	-80032	80971	SLD 2	1.01	Si
ini.	2	921	-13416	80971	SLV 2	6.04	Si
fin.	2	-2598	-155507	80971	SLV 2	0.52	No
ini.	2	1392	-12293	80971	SLV 3	6.59	Si
fin.	2	-2269	-153430	80971	SLV 3	0.53	No
ini.	2	-864	-33041	80971	SLD 1	2.45	Si
fin.	2	-1833	-80032	80971	SLD 1	1.01	Si
ini.	2	1392	-12293	80971	SLV 4	6.59	Si
fin.	2	-2269	-153430	80971	SLV 4	0.53	No
ini.	2	-5313	-81850	80971	SLV 15	0.99	No
fin.	2	64	107834	80971	SLV 15	0.75	No
ini.	2	-5784	-82974	80971	SLV 14	0.98	No
fin.	2	-265	105757	80971	SLV 14	0.77	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-62701	6476			1022	385	SLD 13	0.06	No
fin.	2	0	31497	-246			1022	385	SLD 13	1.56	Si
ini.	2	0	-82974	7888			1022	385	SLV 14	0.05	No
fin.	2	0	105757	2213			1022	385	SLV 14	0.17	No
ini.	2	0	-81850	8205			1022	385	SLV 16	0.05	No
fin.	2	0	107834	1897			1022	385	SLV 16	0.2	No
ini.	2	0	-62226	6610			1022	385	SLD 16	0.06	No
fin.	2	0	32359	-377			1022	385	SLD 16	1.02	Si
ini.	2	0	-62226	6610			1022	385	SLD 15	0.06	No
fin.	2	0	32359	-377			1022	385	SLD 15	1.02	Si
ini.	2	0	-56194	6739			1022	385	SLV 11	0.06	No
fin.	2	0	18815	-1362			1022	385	SLV 11	0.28	No
ini.	2	0	-82974	7888			1022	385	SLV 13	0.05	No
fin.	2	0	105757	2213			1022	385	SLV 13	0.17	No
ini.	2	0	-81850	8205			1022	385	SLV 15	0.05	No
fin.	2	0	107834	1897			1022	385	SLV 15	0.2	No
ini.	2	0	-56194	6739			1022	385	SLV 12	0.06	No
fin.	2	0	18815	-1362			1022	385	SLV 12	0.28	No
ini.	2	0	-62701	6476			1022	385	SLD 14	0.06	No
fin.	2	0	31497	-246			1022	385	SLD 14	1.56	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.521	SLV 1	No
V_SLV	0.047	SLV 15	No
PF_SLU	0.908	SLU 84	No
V_SLU	0.03	SLU 84	No

Trave di accoppiamento 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-508.8	104.6	51	110	59	-598.8	104.6	51	110	59	90	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-5989	-54399	69831	SLU 79	1.28	Si
fin.	3	-3531	-47884	69831	SLU 79	1.46	Si
ini.	3	-6069	-54145	69831	SLU 82	1.29	Si
fin.	3	-3828	-51610	69831	SLU 82	1.35	Si
ini.	3	-5963	-53478	69831	SLU 80	1.31	Si
fin.	3	-3645	-48983	69831	SLU 80	1.43	Si
ini.	3	-6052	-55035	69831	SLU 77	1.27	Si
fin.	3	-3563	-48237	69831	SLU 77	1.45	Si
ini.	3	-6205	-56123	69831	SLU 83	1.24	Si
fin.	3	-3727	-50688	69831	SLU 83	1.38	Si
ini.	3	-6096	-55066	69831	SLU 81	1.27	Si
fin.	3	-3714	-50511	69831	SLU 81	1.38	Si
ini.	3	-5915	-53056	69831	SLU 75	1.32	Si
fin.	3	-3664	-49159	69831	SLU 75	1.42	Si
ini.	3	-5942	-53977	69831	SLU 74	1.29	Si
fin.	3	-3550	-48060	69831	SLU 74	1.45	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-6178	-55202	69831	SLU 84	1.27	Si
fin.	3	-3840	-51786	69831	SLU 84	1.35	Si
ini.	3	-6025	-54114	69831	SLU 78	1.29	Si
fin.	3	-3676	-49336	69831	SLU 78	1.42	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-53478	11589			682	257	SLU 80	0.02	No
fin.	3	0	-48983	-7688			682	257	SLU 80	0.03	No
ini.	3	0	-54399	11761			682	257	SLU 79	0.02	No
fin.	3	0	-47884	-7674			682	257	SLU 79	0.03	No
ini.	3	0	-53056	11401			682	257	SLU 75	0.02	No
fin.	3	0	-49159	-7621			682	257	SLU 75	0.03	No
ini.	3	0	-54145	11626			682	257	SLU 82	0.02	No
fin.	3	0	-51610	-7872			682	257	SLU 82	0.03	No
ini.	3	0	-53977	11573			682	257	SLU 74	0.02	No
fin.	3	0	-48060	-7607			682	257	SLU 74	0.03	No
ini.	3	0	-54114	11686			682	257	SLU 78	0.02	No
fin.	3	0	-49336	-7741			682	257	SLU 78	0.03	No
ini.	3	0	-55202	11911			682	257	SLU 84	0.02	No
fin.	3	0	-51786	-7992			682	257	SLU 84	0.03	No
ini.	3	0	-55066	11798			682	257	SLU 81	0.02	No
fin.	3	0	-50511	-7858			682	257	SLU 81	0.03	No
ini.	3	0	-55035	11858			682	257	SLU 77	0.02	No
fin.	3	0	-48237	-7727			682	257	SLU 77	0.03	No
ini.	3	0	-56123	12083			682	257	SLU 83	0.02	No
fin.	3	0	-50688	-7978			682	257	SLU 83	0.03	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-8029	-62059	80971	SLD 14	1.3	Si
fin.	2	-4261	-30582	80971	SLD 14	2.65	Si
ini.	2	-13511	-97170	80971	SLV 14	0.83	No
fin.	2	-6786	-28816	80971	SLV 14	2.81	Si
ini.	2	-14840	-118358	80971	SLV 15	0.68	No
fin.	2	-6538	-22585	80971	SLV 15	3.59	Si
ini.	2	-9221	-92719	80971	SLV 12	0.87	No
fin.	2	-3252	-19676	80971	SLV 12	4.12	Si
ini.	2	-13511	-97170	80971	SLV 13	0.83	No
fin.	2	-6786	-28816	80971	SLV 13	2.81	Si
ini.	2	-8589	-70947	80971	SLD 15	1.14	Si
fin.	2	-4157	-27956	80971	SLD 15	2.9	Si
ini.	2	-14840	-118358	80971	SLV 16	0.68	No
fin.	2	-6538	-22585	80971	SLV 16	3.59	Si
ini.	2	-9221	-92719	80971	SLV 11	0.87	No
fin.	2	-3252	-19676	80971	SLV 11	4.12	Si
ini.	2	-8029	-62059	80971	SLD 13	1.3	Si
fin.	2	-4261	-30582	80971	SLD 13	2.65	Si
ini.	2	-8589	-70947	80971	SLD 16	1.14	Si
fin.	2	-4157	-27956	80971	SLD 16	2.9	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-97170	13042			1022	385	SLV 14	0.03	No
fin.	2	0	-28816	-3328			1022	385	SLV 14	0.12	No
ini.	2	0	-92719	11180			1022	385	SLV 11	0.03	No
fin.	2	0	-19676	-2852			1022	385	SLV 11	0.13	No
ini.	2	0	-62059	9950			1022	385	SLD 13	0.04	No
fin.	2	0	-30582	-4305			1022	385	SLD 13	0.09	No
ini.	2	0	-70947	10384			1022	385	SLD 16	0.04	No
fin.	2	0	-27956	-3917			1022	385	SLD 16	0.1	No
ini.	2	0	-92719	11180			1022	385	SLV 12	0.03	No
fin.	2	0	-19676	-2852			1022	385	SLV 12	0.13	No
ini.	2	0	-118358	14105			1022	385	SLV 15	0.03	No
fin.	2	0	-22585	-2406			1022	385	SLV 15	0.16	No
ini.	2	0	-118358	14105			1022	385	SLV 16	0.03	No
fin.	2	0	-22585	-2406			1022	385	SLV 16	0.16	No
ini.	2	0	-97170	13042			1022	385	SLV 13	0.03	No
fin.	2	0	-28816	-3328			1022	385	SLV 13	0.12	No
ini.	2	0	-70947	10384			1022	385	SLD 15	0.04	No
fin.	2	0	-27956	-3917			1022	385	SLD 15	0.1	No
ini.	2	0	-62059	9950			1022	385	SLD 14	0.04	No
fin.	2	0	-30582	-4305			1022	385	SLD 14	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.684	SLV 15	No
V_SLV	0.027	SLV 15	No
PF_SLU	1.244	SLU 83	Si
V_SLU	0.021	SLU 83	No

Trave di accoppiamento 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1239.3	318.1	61	110	49	-1239.3	127.1	61	110	49	191	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2391	-13504	36545	SLU 83	2.71	Si
fin.	3	1724	-24776	36545	SLU 83	1.47	Si
ini.	3	2242	-12738	36545	SLU 80	2.87	Si
fin.	3	1660	-23860	36545	SLU 80	1.53	Si
ini.	3	2286	-12972	36545	SLU 77	2.82	Si
fin.	3	1678	-24125	36545	SLU 77	1.51	Si
ini.	3	2289	-12997	36545	SLU 78	2.81	Si
fin.	3	1686	-24266	36545	SLU 78	1.51	Si
ini.	3	2292	-12927	36545	SLU 76	2.83	Si
fin.	3	1656	-23853	36545	SLU 76	1.53	Si
ini.	3	2334	-13144	36545	SLU 74	2.78	Si
fin.	3	1670	-24023	36545	SLU 74	1.52	Si
ini.	3	2443	-13701	36545	SLU 82	2.67	Si
fin.	3	1724	-24817	36545	SLU 82	1.47	Si
ini.	3	2338	-13170	36545	SLU 75	2.77	Si
fin.	3	1677	-24165	36545	SLU 75	1.51	Si
ini.	3	2395	-13529	36545	SLU 84	2.7	Si
fin.	3	1732	-24918	36545	SLU 84	1.47	Si
ini.	3	2439	-13676	36545	SLU 81	2.67	Si
fin.	3	1716	-24675	36545	SLU 81	1.48	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-13676	3893			377	142	SLU 81	0.04	No
fin.	3	0	-24675	-873			377	142	SLU 81	0.16	No
ini.	3	0	-13504	3818			377	142	SLU 83	0.04	No
fin.	3	0	-24776	-863			377	142	SLU 83	0.16	No
ini.	3	0	-12997	3656			377	142	SLU 78	0.04	No
fin.	3	0	-24266	-831			377	142	SLU 78	0.17	No
ini.	3	0	-13144	3726			377	142	SLU 74	0.04	No
fin.	3	0	-24023	-842			377	142	SLU 74	0.17	No
ini.	3	0	-13529	3823			377	142	SLU 84	0.04	No
fin.	3	0	-24918	-863			377	142	SLU 84	0.16	No
ini.	3	0	-13701	3898			377	142	SLU 82	0.04	No
fin.	3	0	-24817	-874			377	142	SLU 82	0.16	No
ini.	3	0	-12972	3651			377	142	SLU 77	0.04	No
fin.	3	0	-24125	-831			377	142	SLU 77	0.17	No
ini.	3	0	-13099	3735			377	142	SLU 73	0.04	No
fin.	3	0	-23752	-837			377	142	SLU 73	0.17	No
ini.	3	0	-13170	3731			377	142	SLU 75	0.04	No
fin.	3	0	-24165	-842			377	142	SLU 75	0.17	No
ini.	3	0	-12927	3660			377	142	SLU 76	0.04	No
fin.	3	0	-23853	-827			377	142	SLU 76	0.17	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-574	-6551	52331	SLV 9	7.99	Si
fin.	2	-4007	83912	52331	SLV 9	0.62	No
ini.	2	3845	-11624	52331	SLV 7	4.5	Si
fin.	2	6268	-116388	52331	SLV 7	0.45	No
ini.	2	3127	-13771	52331	SLV 3	3.8	Si
fin.	2	4687	-84468	52331	SLV 3	0.62	No
ini.	2	-28	-9137	52331	SLV 6	5.73	Si
fin.	2	-2678	58735	52331	SLV 6	0.89	No
ini.	2	-574	-6551	52331	SLV 10	7.99	Si
fin.	2	-4007	83912	52331	SLV 10	0.62	No
ini.	2	3299	-9037	52331	SLV 12	5.79	Si
fin.	2	4939	-91211	52331	SLV 12	0.57	No
ini.	2	-28	-9137	52331	SLV 5	5.73	Si
fin.	2	-2678	58735	52331	SLV 5	0.89	No
ini.	2	3127	-13771	52331	SLV 4	3.8	Si
fin.	2	4687	-84468	52331	SLV 4	0.62	No
ini.	2	3299	-9037	52331	SLV 11	5.79	Si
fin.	2	4939	-91211	52331	SLV 11	0.57	No
ini.	2	3845	-11624	52331	SLV 8	4.5	Si
fin.	2	6268	-116388	52331	SLV 8	0.45	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-10384	3564			566	213	SLD 7	0.06	No
fin.	2	0	-58728	-435			566	213	SLD 7	0.49	No
ini.	2	0	-11170	3383			566	213	SLD 3	0.06	No
fin.	2	0	-45268	-462			566	213	SLD 3	0.46	No
ini.	2	0	-11624	4866			566	213	SLV 7	0.04	No
fin.	2	0	-116388	-227			566	213	SLV 7	0.94	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-13771	4430			566	213	SLV 3	0.05	No
fin.	2	0	-84468	-287			566	213	SLV 3	0.74	No
ini.	2	0	-13771	4430			566	213	SLV 4	0.05	No
fin.	2	0	-84468	-287			566	213	SLV 4	0.74	No
ini.	2	0	-11624	4866			566	213	SLV 8	0.04	No
fin.	2	0	-116388	-227			566	213	SLV 8	0.94	No
ini.	2	0	-11170	3383			566	213	SLD 4	0.06	No
fin.	2	0	-45268	-462			566	213	SLD 4	0.46	No
ini.	2	0	-10384	3564			566	213	SLD 8	0.06	No
fin.	2	0	-58728	-435			566	213	SLD 8	0.49	No
ini.	2	0	-9037	4113			566	213	SLV 12	0.05	No
fin.	2	0	-91211	-355			566	213	SLV 12	0.6	No
ini.	2	0	-9037	4113			566	213	SLV 11	0.05	No
fin.	2	0	-91211	-355			566	213	SLV 11	0.6	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.45	SLV 7	No
V_SLV	0.044	SLV 7	No
PF_SLU	1.467	SLU 84	Si
V_SLU	0.036	SLU 82	No

Trave di accoppiamento 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1475.8	333.1	61	110	49	-1375.8	333.1	61	110	49	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	45	-3318	36545	SLU 81	11.01	Si
fin.	3	645	-17166	36545	SLU 81	2.13	Si
ini.	3	59	-3345	36545	SLU 61	10.93	Si
fin.	3	595	-15796	36545	SLU 61	2.31	Si
ini.	3	45	-3319	36545	SLU 82	11.01	Si
fin.	3	645	-17172	36545	SLU 82	2.13	Si
ini.	3	32	-2984	36545	SLU 83	12.25	Si
fin.	3	615	-16360	36545	SLU 83	2.23	Si
ini.	3	41	-3064	36545	SLU 76	11.93	Si
fin.	3	586	-15580	36545	SLU 76	2.35	Si
ini.	3	59	-3344	36545	SLU 60	10.93	Si
fin.	3	595	-15790	36545	SLU 60	2.31	Si
ini.	3	47	-3255	36545	SLU 75	11.23	Si
fin.	3	599	-15947	36545	SLU 75	2.29	Si
ini.	3	47	-3254	36545	SLU 74	11.23	Si
fin.	3	599	-15942	36545	SLU 74	2.29	Si
ini.	3	54	-3399	36545	SLU 73	10.75	Si
fin.	3	616	-16386	36545	SLU 73	2.23	Si
ini.	3	32	-2984	36545	SLU 84	12.24	Si
fin.	3	615	-16366	36545	SLU 84	2.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-2480	714			377	142	SLU 40	0.2	No
fin.	3	0	-14498	-742			377	142	SLU 40	0.19	No
ini.	3	0	-2984	769			377	142	SLU 83	0.18	No
fin.	3	0	-16360	-814			377	142	SLU 83	0.17	No
ini.	3	0	-2145	729			377	142	SLU 42	0.19	No
fin.	3	0	-13692	-746			377	142	SLU 42	0.19	No
ini.	3	0	-2984	769			377	142	SLU 84	0.18	No
fin.	3	0	-16366	-814			377	142	SLU 84	0.17	No
ini.	3	0	-2729	701			377	142	SLU 80	0.2	No
fin.	3	0	-14770	-743			377	142	SLU 80	0.19	No
ini.	3	0	-3318	754			377	142	SLU 81	0.19	No
fin.	3	0	-17166	-810			377	142	SLU 81	0.18	No
ini.	3	0	-3319	754			377	142	SLU 82	0.19	No
fin.	3	0	-17172	-810			377	142	SLU 82	0.18	No
ini.	3	0	-2479	714			377	142	SLU 39	0.2	No
fin.	3	0	-14492	-742			377	142	SLU 39	0.19	No
ini.	3	0	-2144	729			377	142	SLU 41	0.19	No
fin.	3	0	-13686	-746			377	142	SLU 41	0.19	No
ini.	3	0	-2728	701			377	142	SLU 79	0.2	No
fin.	3	0	-14765	-743			377	142	SLU 79	0.19	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	985	-18746	52331	SLV 2	2.79	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1776	-7707	52331	SLV 2	6.79	Si
ini.	2	-69	-3808	52331	SLD 10	13.74	Si
fin.	2	388	-16549	52331	SLD 10	3.16	Si
ini.	2	-234	-5500	52331	SLV 9	9.51	Si
fin.	2	345	-23753	52331	SLV 9	2.2	Si
ini.	2	-881	9144	52331	SLV 14	5.72	Si
fin.	2	-742	-21289	52331	SLV 14	2.46	Si
ini.	2	326	-13867	52331	SLV 6	3.77	Si
fin.	2	1100	-19678	52331	SLV 6	2.66	Si
ini.	2	985	-18746	52331	SLV 1	2.79	Si
fin.	2	1776	-7707	52331	SLV 1	6.79	Si
ini.	2	-234	-5500	52331	SLV 10	9.51	Si
fin.	2	345	-23753	52331	SLV 10	2.2	Si
ini.	2	-881	9144	52331	SLV 13	5.72	Si
fin.	2	-742	-21289	52331	SLV 13	2.46	Si
ini.	2	-69	-3808	52331	SLD 9	13.74	Si
fin.	2	388	-16549	52331	SLD 9	3.16	Si
ini.	2	326	-13867	52331	SLV 5	3.77	Si
fin.	2	1100	-19678	52331	SLV 5	2.66	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-18746	689			566	213	SLV 2	0.31	No
fin.	2	0	-7707	-172			566	213	SLV 2	1.24	Si
ini.	2	0	-18746	689			566	213	SLV 1	0.31	No
fin.	2	0	-7707	-172			566	213	SLV 1	1.24	Si
ini.	2	0	-14560	780			566	213	SLV 3	0.27	No
fin.	2	0	-1521	-219			566	213	SLV 3	0.97	No
ini.	2	0	84	646			566	213	SLV 7	0.33	No
fin.	2	0	943	-456			566	213	SLV 7	0.47	No
ini.	2	0	9144	1			566	213	SLV 14	177.5	Si
fin.	2	0	-21289	-690			566	213	SLV 14	0.31	No
ini.	2	0	84	646			566	213	SLV 8	0.33	No
fin.	2	0	943	-456			566	213	SLV 8	0.47	No
ini.	2	0	13329	93			566	213	SLV 16	2.3	Si
fin.	2	0	-15103	-738			566	213	SLV 16	0.29	No
ini.	2	0	13329	93			566	213	SLV 15	2.3	Si
fin.	2	0	-15103	-738			566	213	SLV 15	0.29	No
ini.	2	0	9144	1			566	213	SLV 13	177.5	Si
fin.	2	0	-21289	-690			566	213	SLV 13	0.31	No
ini.	2	0	-14560	780			566	213	SLV 4	0.27	No
fin.	2	0	-1521	-219			566	213	SLV 4	0.97	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.203	SLV 9	Si
V_SLV	0.273	SLV 3	No
PF_SLU	2.128	SLU 82	Si
V_SLU	0.175	SLU 84	No

Trave di accoppiamento 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1776.8	657.6	-159	41	200	-1676.8	657.6	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3835	-259775	316581	SLU 78	1.22	Si
fin.	3	-7089	-13288	316581	SLU 78	23.82	Si
ini.	3	-3821	-256937	316581	SLU 79	1.23	Si
fin.	3	-7045	-13406	316581	SLU 79	23.62	Si
ini.	3	-3756	-258541	316581	SLU 74	1.22	Si
fin.	3	-6974	-13276	316581	SLU 74	23.85	Si
ini.	3	-3785	-266666	316581	SLU 82	1.19	Si
fin.	3	-7090	-13210	316581	SLU 82	23.96	Si
ini.	3	-3753	-258667	316581	SLU 75	1.22	Si
fin.	3	-6971	-13276	316581	SLU 75	23.85	Si
ini.	3	-3838	-259648	316581	SLU 77	1.22	Si
fin.	3	-7092	-13288	316581	SLU 77	23.82	Si
ini.	3	-3818	-257064	316581	SLU 80	1.23	Si
fin.	3	-7042	-13406	316581	SLU 80	23.61	Si
ini.	3	-3871	-267647	316581	SLU 83	1.18	Si
fin.	3	-7210	-13222	316581	SLU 83	23.94	Si
ini.	3	-3789	-266540	316581	SLU 81	1.19	Si
fin.	3	-7093	-13210	316581	SLU 81	23.97	Si
ini.	3	-3867	-267774	316581	SLU 84	1.18	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-7207	-13222	316581	SLU 84	23.94	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-257064	1704			3466	1304	SLU 80	0.77	No
fin.	3	0	-13406	11652			3466	1304	SLU 80	0.11	No
ini.	3	0	-266540	1834			3466	1304	SLU 81	0.71	No
fin.	3	0	-13210	11883			3466	1304	SLU 81	0.11	No
ini.	3	0	-256937	1702			3466	1304	SLU 79	0.77	No
fin.	3	0	-13406	11653			3466	1304	SLU 79	0.11	No
ini.	3	0	-259775	1730			3466	1304	SLU 78	0.75	No
fin.	3	0	-13288	11753			3466	1304	SLU 78	0.11	No
ini.	3	0	-267774	1819			3466	1304	SLU 84	0.72	No
fin.	3	0	-13222	12020			3466	1304	SLU 84	0.11	No
ini.	3	0	-259648	1728			3466	1304	SLU 77	0.76	No
fin.	3	0	-13288	11754			3466	1304	SLU 77	0.11	No
ini.	3	0	-267647	1817			3466	1304	SLU 83	0.72	No
fin.	3	0	-13222	12020			3466	1304	SLU 83	0.11	No
ini.	3	0	-266666	1837			3466	1304	SLU 82	0.71	No
fin.	3	0	-13210	11883			3466	1304	SLU 82	0.11	No
ini.	3	0	-258541	1745			3466	1304	SLU 74	0.75	No
fin.	3	0	-13276	11617			3466	1304	SLU 74	0.11	No
ini.	3	0	-258667	1748			3466	1304	SLU 75	0.75	No
fin.	3	0	-13276	11616			3466	1304	SLU 75	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3342	-365488	327721	SLV 8	0.9	No
fin.	2	-8282	107907	327721	SLV 8	3.04	Si
ini.	2	-902	-377942	327721	SLV 2	0.87	No
fin.	2	-6289	118807	327721	SLV 2	2.76	Si
ini.	2	-902	-377942	327721	SLV 1	0.87	No
fin.	2	-6289	118807	327721	SLV 1	2.76	Si
ini.	2	-2165	-292885	327721	SLD 4	1.12	Si
fin.	2	-6139	63428	327721	SLD 4	5.17	Si
ini.	2	-1592	-448464	327721	SLV 3	0.73	No
fin.	2	-7968	162648	327721	SLV 3	2.01	Si
ini.	2	-3342	-365488	327721	SLV 7	0.9	No
fin.	2	-8282	107907	327721	SLV 7	3.04	Si
ini.	2	-2165	-292885	327721	SLD 3	1.12	Si
fin.	2	-6139	63428	327721	SLD 3	5.17	Si
ini.	2	-1592	-448464	327721	SLV 4	0.73	No
fin.	2	-7968	162648	327721	SLV 4	2.01	Si
ini.	2	-1866	-263889	327721	SLD 1	1.24	Si
fin.	2	-5429	44929	327721	SLD 1	7.29	Si
ini.	2	-1866	-263889	327721	SLD 2	1.24	Si
fin.	2	-5429	44929	327721	SLD 2	7.29	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-263889	4369			5199	1957	SLD 1	0.45	No
fin.	2	0	44929	11016			5199	1957	SLD 1	0.18	No
ini.	2	0	-448464	8641			5199	1957	SLV 3	0.23	No
fin.	2	0	162648	17295			5199	1957	SLV 3	0.11	No
ini.	2	0	-292885	4383			5199	1957	SLD 3	0.45	No
fin.	2	0	63428	11941			5199	1957	SLD 3	0.16	No
ini.	2	0	-365488	3471			5199	1957	SLV 8	0.56	No
fin.	2	0	107907	14066			5199	1957	SLV 8	0.14	No
ini.	2	0	-448464	8641			5199	1957	SLV 4	0.23	No
fin.	2	0	162648	17295			5199	1957	SLV 4	0.11	No
ini.	2	0	-377942	8609			5199	1957	SLV 2	0.23	No
fin.	2	0	118807	15105			5199	1957	SLV 2	0.13	No
ini.	2	0	-292885	4383			5199	1957	SLD 4	0.45	No
fin.	2	0	63428	11941			5199	1957	SLD 4	0.16	No
ini.	2	0	-365488	3471			5199	1957	SLV 7	0.56	No
fin.	2	0	107907	14066			5199	1957	SLV 7	0.14	No
ini.	2	0	-377942	8609			5199	1957	SLV 1	0.23	No
fin.	2	0	118807	15105			5199	1957	SLV 1	0.13	No
ini.	2	0	-263889	4369			5199	1957	SLD 2	0.45	No
fin.	2	0	44929	11016			5199	1957	SLD 2	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.731	SLV 3	No
V_SLV	0.113	SLV 3	No
PF_SLU	1.182	SLU 84	Si
V_SLU	0.109	SLU 83	No

Trave di accoppiamento 22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1776.8	657.6	81	110	29	-1676.8	657.6	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1195	-28880	19201	SLU 77	0.66	No
fin.	3	2100	1233	19201	SLU 77	15.57	Si
ini.	3	1182	-28669	19201	SLU 74	0.67	No
fin.	3	2087	1400	19201	SLU 74	13.71	Si
ini.	3	1215	-29434	19201	SLU 81	0.65	No
fin.	3	2155	1704	19201	SLU 81	11.27	Si
ini.	3	1182	-28679	19201	SLU 75	0.67	No
fin.	3	2088	1416	19201	SLU 75	13.56	Si
ini.	3	1228	-29645	19201	SLU 83	0.65	No
fin.	3	2168	1537	19201	SLU 83	12.5	Si
ini.	3	1184	-28603	19201	SLU 80	0.67	No
fin.	3	2079	1168	19201	SLU 80	16.44	Si
ini.	3	1228	-29654	19201	SLU 84	0.65	No
fin.	3	2169	1552	19201	SLU 84	12.37	Si
ini.	3	1184	-28594	19201	SLU 79	0.67	No
fin.	3	2078	1152	19201	SLU 79	16.66	Si
ini.	3	1195	-28889	19201	SLU 78	0.66	No
fin.	3	2101	1249	19201	SLU 78	15.38	Si
ini.	3	1215	-29444	19201	SLU 82	0.65	No
fin.	3	2156	1719	19201	SLU 82	11.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-28669	1380			335	126	SLU 74	0.09	No
fin.	3	0	1400	-322			335	126	SLU 74	0.39	No
ini.	3	0	-28603	1379			335	126	SLU 80	0.09	No
fin.	3	0	1168	-331			335	126	SLU 80	0.38	No
ini.	3	0	-28679	1380			335	126	SLU 75	0.09	No
fin.	3	0	1416	-321			335	126	SLU 75	0.39	No
ini.	3	0	-29654	1424			335	126	SLU 84	0.09	No
fin.	3	0	1552	-327			335	126	SLU 84	0.39	No
ini.	3	0	-29434	1413			335	126	SLU 81	0.09	No
fin.	3	0	1704	-317			335	126	SLU 81	0.4	No
ini.	3	0	-28889	1391			335	126	SLU 78	0.09	No
fin.	3	0	1249	-331			335	126	SLU 78	0.38	No
ini.	3	0	-29444	1413			335	126	SLU 82	0.09	No
fin.	3	0	1719	-317			335	126	SLU 82	0.4	No
ini.	3	0	-28594	1378			335	126	SLU 79	0.09	No
fin.	3	0	1152	-332			335	126	SLU 79	0.38	No
ini.	3	0	-28880	1391			335	126	SLU 77	0.09	No
fin.	3	0	1233	-331			335	126	SLU 77	0.38	No
ini.	3	0	-29645	1424			335	126	SLU 83	0.09	No
fin.	3	0	1537	-327			335	126	SLU 83	0.39	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	602	-48403	28471	SLV 3	0.59	No
fin.	2	3234	33130	28471	SLV 3	0.86	No
ini.	2	335	-32039	28471	SLD 2	0.89	No
fin.	2	1748	12414	28471	SLD 2	2.29	Si
ini.	2	-288	-48502	28471	SLV 1	0.59	No
fin.	2	2170	27841	28471	SLV 1	1.02	Si
ini.	2	998	9102	28471	SLV 14	3.13	Si
fin.	2	-407	-31477	28471	SLV 14	0.9	No
ini.	2	602	-48403	28471	SLV 4	0.59	No
fin.	2	3234	33130	28471	SLV 4	0.86	No
ini.	2	998	9102	28471	SLV 13	3.13	Si
fin.	2	-407	-31477	28471	SLV 13	0.9	No
ini.	2	711	-31924	28471	SLD 4	0.89	No
fin.	2	2187	14516	28471	SLD 4	1.96	Si
ini.	2	-288	-48502	28471	SLV 2	0.59	No
fin.	2	2170	27841	28471	SLV 2	1.02	Si
ini.	2	711	-31924	28471	SLD 3	0.89	No
fin.	2	2187	14516	28471	SLD 3	1.96	Si
ini.	2	335	-32039	28471	SLD 1	0.89	No
fin.	2	1748	12414	28471	SLD 1	2.29	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-31924	1411			503	189	SLD 3	0.13	No
fin.	2	0	14516	77			503	189	SLD 3	2.44	Si
ini.	2	0	-48502	1787			503	189	SLV 2	0.11	No
fin.	2	0	27841	666			503	189	SLV 2	0.28	No
ini.	2	0	-48403	2025			503	189	SLV 4	0.09	No
fin.	2	0	33130	489			503	189	SLV 4	0.39	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-32039	1311			503	189	SLD 1	0.14	No
fin.	2	0	12414	153			503	189	SLD 1	1.24	Si
ini.	2	0	-31924	1411			503	189	SLD 4	0.13	No
fin.	2	0	14516	77			503	189	SLD 4	2.44	Si
ini.	2	0	-28127	1635			503	189	SLV 8	0.12	No
fin.	2	0	18541	-283			503	189	SLV 8	0.67	No
ini.	2	0	-48502	1787			503	189	SLV 1	0.11	No
fin.	2	0	27841	666			503	189	SLV 1	0.28	No
ini.	2	0	-48403	2025			503	189	SLV 3	0.09	No
fin.	2	0	33130	489			503	189	SLV 3	0.39	No
ini.	2	0	-32039	1311			503	189	SLD 2	0.14	No
fin.	2	0	12414	153			503	189	SLD 2	1.24	Si
ini.	2	0	-28127	1635			503	189	SLV 7	0.12	No
fin.	2	0	18541	-283			503	189	SLV 7	0.67	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.587	SLV 1	No
V_SLV	0.093	SLV 3	No
PF_SLU	0.647	SLU 84	No
V_SLU	0.089	SLU 84	No

Trave di accoppiamento 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1288.8	657.6	-159	41	200	-1188.8	657.6	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-6857	-44100	316581	SLU 81	7.18	Si
fin.	3	-6872	-27108	316581	SLU 81	11.68	Si
ini.	3	-6851	-42800	316581	SLU 79	7.4	Si
fin.	3	-6882	-26933	316581	SLU 79	11.75	Si
ini.	3	-6754	-43011	316581	SLU 74	7.36	Si
fin.	3	-6774	-26762	316581	SLU 74	11.83	Si
ini.	3	-6748	-43072	316581	SLU 75	7.35	Si
fin.	3	-6765	-26879	316581	SLU 75	11.78	Si
ini.	3	-6882	-43239	316581	SLU 78	7.32	Si
fin.	3	-6909	-27219	316581	SLU 78	11.63	Si
ini.	3	-6991	-44267	316581	SLU 83	7.15	Si
fin.	3	-7015	-27449	316581	SLU 83	11.53	Si
ini.	3	-6851	-44160	316581	SLU 82	7.17	Si
fin.	3	-6863	-27226	316581	SLU 82	11.63	Si
ini.	3	-6845	-42861	316581	SLU 80	7.39	Si
fin.	3	-6873	-27050	316581	SLU 80	11.7	Si
ini.	3	-6985	-44327	316581	SLU 84	7.14	Si
fin.	3	-7007	-27566	316581	SLU 84	11.48	Si
ini.	3	-6888	-43179	316581	SLU 77	7.33	Si
fin.	3	-6918	-27102	316581	SLU 77	11.68	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-43239	-5893			3466	1304	SLU 78	0.22	No
fin.	3	0	-27219	5944			3466	1304	SLU 78	0.22	No
ini.	3	0	-43072	-5801			3466	1304	SLU 75	0.22	No
fin.	3	0	-26879	5833			3466	1304	SLU 75	0.22	No
ini.	3	0	-43011	-5802			3466	1304	SLU 74	0.22	No
fin.	3	0	-26762	5841			3466	1304	SLU 74	0.22	No
ini.	3	0	-44267	-6034			3466	1304	SLU 83	0.22	No
fin.	3	0	-27449	6088			3466	1304	SLU 83	0.21	No
ini.	3	0	-43179	-5894			3466	1304	SLU 77	0.22	No
fin.	3	0	-27102	5951			3466	1304	SLU 77	0.22	No
ini.	3	0	-42800	-5860			3466	1304	SLU 79	0.22	No
fin.	3	0	-26933	5918			3466	1304	SLU 79	0.22	No
ini.	3	0	-44160	-5941			3466	1304	SLU 82	0.22	No
fin.	3	0	-27226	5970			3466	1304	SLU 82	0.22	No
ini.	3	0	-44327	-6033			3466	1304	SLU 84	0.22	No
fin.	3	0	-27566	6081			3466	1304	SLU 84	0.21	No
ini.	3	0	-42861	-5859			3466	1304	SLU 80	0.22	No
fin.	3	0	-27050	5910			3466	1304	SLU 80	0.22	No
ini.	3	0	-44100	-5942			3466	1304	SLU 81	0.22	No
fin.	3	0	-27108	5978			3466	1304	SLU 81	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1215	-294666	327721	SLV 5	1.11	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-46	-166353	327721	SLV 5	1.97	Si
ini.	2	-928	-266483	327721	SLV 2	1.23	Si
fin.	2	-5069	100089	327721	SLV 2	3.27	Si
ini.	2	-63	-191155	327721	SLV 9	1.71	Si
fin.	2	1155	-273939	327721	SLV 9	1.2	Si
ini.	2	-63	-191155	327721	SLV 10	1.71	Si
fin.	2	1155	-273939	327721	SLV 10	1.2	Si
ini.	2	1215	-294666	327721	SLV 6	1.11	Si
fin.	2	-46	-166353	327721	SLV 6	1.97	Si
ini.	2	-928	-266483	327721	SLV 1	1.23	Si
fin.	2	-5069	100089	327721	SLV 1	3.27	Si
ini.	2	-5188	78553	327721	SLV 13	4.17	Si
fin.	2	-1067	-258531	327721	SLV 13	1.27	Si
ini.	2	-9168	130892	327721	SLV 8	2.5	Si
fin.	2	-10395	236289	327721	SLV 8	1.39	Si
ini.	2	-5188	78553	327721	SLV 14	4.17	Si
fin.	2	-1067	-258531	327721	SLV 14	1.27	Si
ini.	2	-9168	130892	327721	SLV 7	2.5	Si
fin.	2	-10395	236289	327721	SLV 7	1.39	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-266483	4160			5199	1957	SLV 2	0.47	No
fin.	2	0	100089	10731			5199	1957	SLV 2	0.18	No
ini.	2	0	78553	-10944			5199	1957	SLV 13	0.18	No
fin.	2	0	-258531	-3908			5199	1957	SLV 13	0.5	No
ini.	2	0	206221	-12037			5199	1957	SLV 16	0.16	No
fin.	2	0	-137738	-2866			5199	1957	SLV 16	0.68	No
ini.	2	0	234403	-8024			5199	1957	SLV 11	0.24	No
fin.	2	0	128703	3473			5199	1957	SLV 11	0.56	No
ini.	2	0	-266483	4160			5199	1957	SLV 1	0.47	No
fin.	2	0	100089	10731			5199	1957	SLV 1	0.18	No
ini.	2	0	234403	-8024			5199	1957	SLV 12	0.24	No
fin.	2	0	128703	3473			5199	1957	SLV 12	0.56	No
ini.	2	0	-138816	3068			5199	1957	SLV 3	0.64	No
fin.	2	0	220881	11772			5199	1957	SLV 3	0.17	No
ini.	2	0	206221	-12037			5199	1957	SLV 15	0.16	No
fin.	2	0	-137738	-2866			5199	1957	SLV 15	0.68	No
ini.	2	0	-138816	3068			5199	1957	SLV 4	0.64	No
fin.	2	0	220881	11772			5199	1957	SLV 4	0.17	No
ini.	2	0	78553	-10944			5199	1957	SLV 14	0.18	No
fin.	2	0	-258531	-3908			5199	1957	SLV 14	0.5	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.112	SLV 5	Si
V_SLV	0.163	SLV 15	No
PF_SLU	7.142	SLU 84	Si
V_SLU	0.214	SLU 83	No

Trave di accoppiamento 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1288.8	657.6	81	110	29	-1188.8	657.6	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	57	-22106	19201	SLU 75	0.87	No
fin.	3	152	-22072	19201	SLU 75	0.87	No
ini.	3	62	-22193	19201	SLU 80	0.87	No
fin.	3	161	-22287	19201	SLU 80	0.86	No
ini.	3	30	-23166	19201	SLU 81	0.83	No
fin.	3	125	-23050	19201	SLU 81	0.83	No
ini.	3	65	-22308	19201	SLU 78	0.86	No
fin.	3	165	-22375	19201	SLU 78	0.86	No
ini.	3	39	-23356	19201	SLU 84	0.82	No
fin.	3	139	-23342	19201	SLU 84	0.82	No
ini.	3	61	-22205	19201	SLU 79	0.86	No
fin.	3	160	-22298	19201	SLU 79	0.86	No
ini.	3	64	-22320	19201	SLU 77	0.86	No
fin.	3	164	-22386	19201	SLU 77	0.86	No
ini.	3	31	-23154	19201	SLU 82	0.83	No
fin.	3	126	-23039	19201	SLU 82	0.83	No
ini.	3	38	-23368	19201	SLU 83	0.82	No
fin.	3	138	-23354	19201	SLU 83	0.82	No
ini.	3	56	-22118	19201	SLU 74	0.87	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	152	-22083	19201	SLU 74	0.87	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-22118	1312			335	126	SLU 74	0.1	No
fin.	3	0	-22083	-1329			335	126	SLU 74	0.09	No
ini.	3	0	-23356	1383			335	126	SLU 84	0.09	No
fin.	3	0	-23342	-1402			335	126	SLU 84	0.09	No
ini.	3	0	-22320	1322			335	126	SLU 77	0.1	No
fin.	3	0	-22386	-1346			335	126	SLU 77	0.09	No
ini.	3	0	-22308	1322			335	126	SLU 78	0.1	No
fin.	3	0	-22375	-1345			335	126	SLU 78	0.09	No
ini.	3	0	-23368	1384			335	126	SLU 83	0.09	No
fin.	3	0	-23354	-1402			335	126	SLU 83	0.09	No
ini.	3	0	-23166	1373			335	126	SLU 81	0.09	No
fin.	3	0	-23050	-1386			335	126	SLU 81	0.09	No
ini.	3	0	-23154	1373			335	126	SLU 82	0.09	No
fin.	3	0	-23039	-1385			335	126	SLU 82	0.09	No
ini.	3	0	-22205	1316			335	126	SLU 79	0.1	No
fin.	3	0	-22298	-1340			335	126	SLU 79	0.09	No
ini.	3	0	-22106	1311			335	126	SLU 75	0.1	No
fin.	3	0	-22072	-1328			335	126	SLU 75	0.09	No
ini.	3	0	-22193	1315			335	126	SLU 80	0.1	No
fin.	3	0	-22287	-1340			335	126	SLU 80	0.09	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3745	-30974	28471	SLV 6	0.92	No
fin.	2	4444	-12587	28471	SLV 6	2.26	Si
ini.	2	181	-44738	28471	SLV 1	0.64	No
fin.	2	2510	12639	28471	SLV 1	2.25	Si
ini.	2	3745	-30974	28471	SLV 5	0.92	No
fin.	2	4444	-12587	28471	SLV 5	2.26	Si
ini.	2	-2229	-39928	28471	SLV 4	0.71	No
fin.	2	129	16717	28471	SLV 4	1.7	Si
ini.	2	-76	15433	28471	SLV 16	1.84	Si
fin.	2	-2280	-41764	28471	SLV 16	0.68	No
ini.	2	-2229	-39928	28471	SLV 3	0.71	No
fin.	2	129	16717	28471	SLV 3	1.7	Si
ini.	2	2334	10622	28471	SLV 14	2.68	Si
fin.	2	101	-45843	28471	SLV 14	0.62	No
ini.	2	2334	10622	28471	SLV 13	2.68	Si
fin.	2	101	-45843	28471	SLV 13	0.62	No
ini.	2	181	-44738	28471	SLV 2	0.64	No
fin.	2	2510	12639	28471	SLV 2	2.25	Si
ini.	2	-76	15433	28471	SLV 15	1.84	Si
fin.	2	-2280	-41764	28471	SLV 15	0.68	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	10622	-235			503	189	SLV 13	0.81	No
fin.	2	0	-45843	-1708			503	189	SLV 13	0.11	No
ini.	2	0	1669	1106			503	189	SLV 12	0.17	No
fin.	2	0	-16538	-1675			503	189	SLV 12	0.11	No
ini.	2	0	-14940	1678			503	189	SLV 7	0.11	No
fin.	2	0	1006	-1090			503	189	SLV 7	0.17	No
ini.	2	0	-39928	1982			503	189	SLV 3	0.1	No
fin.	2	0	16717	-56			503	189	SLV 3	3.4	Si
ini.	2	0	15433	76			503	189	SLV 16	2.49	Si
fin.	2	0	-41764	-2008			503	189	SLV 16	0.09	No
ini.	2	0	1669	1106			503	189	SLV 11	0.17	No
fin.	2	0	-16538	-1675			503	189	SLV 11	0.11	No
ini.	2	0	-14940	1678			503	189	SLV 8	0.11	No
fin.	2	0	1006	-1090			503	189	SLV 8	0.17	No
ini.	2	0	15433	76			503	189	SLV 15	2.49	Si
fin.	2	0	-41764	-2008			503	189	SLV 15	0.09	No
ini.	2	0	-39928	1982			503	189	SLV 4	0.1	No
fin.	2	0	16717	-56			503	189	SLV 4	3.4	Si
ini.	2	0	10622	-235			503	189	SLV 14	0.81	No
fin.	2	0	-45843	-1708			503	189	SLV 14	0.11	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.621	SLV 13	No
V_SLV	0.094	SLV 15	No
PF_SLU	0.822	SLU 83	No
V_SLU	0.09	SLU 83	No

Trave di accoppiamento 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-800.8	657.6	-159	41	200	-700.8	657.6	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-5832	76932	316581	SLU 79	4.12	Si
fin.	3	-3356	-173887	316581	SLU 79	1.82	Si
ini.	3	-5906	78542	316581	SLU 84	4.03	Si
fin.	3	-3381	-177645	316581	SLU 84	1.78	Si
ini.	3	-5771	76082	316581	SLU 81	4.16	Si
fin.	3	-3306	-173501	316581	SLU 81	1.82	Si
ini.	3	-5716	75099	316581	SLU 74	4.22	Si
fin.	3	-3286	-171289	316581	SLU 74	1.85	Si
ini.	3	-5708	75113	316581	SLU 75	4.21	Si
fin.	3	-3277	-171590	316581	SLU 75	1.84	Si
ini.	3	-5762	76096	316581	SLU 82	4.16	Si
fin.	3	-3298	-173802	316581	SLU 82	1.82	Si
ini.	3	-5861	77545	316581	SLU 77	4.08	Si
fin.	3	-3369	-175132	316581	SLU 77	1.81	Si
ini.	3	-5915	78528	316581	SLU 83	4.03	Si
fin.	3	-3389	-177344	316581	SLU 83	1.79	Si
ini.	3	-5824	76947	316581	SLU 80	4.11	Si
fin.	3	-3347	-174188	316581	SLU 80	1.82	Si
ini.	3	-5852	77559	316581	SLU 78	4.08	Si
fin.	3	-3360	-175433	316581	SLU 78	1.8	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	77559	-8170			3466	1304	SLU 78	0.16	No
fin.	3	0	-175433	-1946			3466	1304	SLU 78	0.67	No
ini.	3	0	76932	-8119			3466	1304	SLU 79	0.16	No
fin.	3	0	-173887	-1921			3466	1304	SLU 79	0.68	No
ini.	3	0	77545	-8172			3466	1304	SLU 77	0.16	No
fin.	3	0	-175132	-1937			3466	1304	SLU 77	0.67	No
ini.	3	0	76096	-8048			3466	1304	SLU 82	0.16	No
fin.	3	0	-173802	-1948			3466	1304	SLU 82	0.67	No
ini.	3	0	76947	-8117			3466	1304	SLU 80	0.16	No
fin.	3	0	-174188	-1930			3466	1304	SLU 80	0.68	No
ini.	3	0	78528	-8265			3466	1304	SLU 83	0.16	No
fin.	3	0	-177344	-1976			3466	1304	SLU 83	0.66	No
ini.	3	0	75099	-7957			3466	1304	SLU 74	0.16	No
fin.	3	0	-171289	-1901			3466	1304	SLU 74	0.69	No
ini.	3	0	75113	-7955			3466	1304	SLU 75	0.16	No
fin.	3	0	-171590	-1910			3466	1304	SLU 75	0.68	No
ini.	3	0	76082	-8050			3466	1304	SLU 81	0.16	No
fin.	3	0	-173501	-1940			3466	1304	SLU 81	0.67	No
ini.	3	0	78542	-8263			3466	1304	SLU 84	0.16	No
fin.	3	0	-177645	-1984			3466	1304	SLU 84	0.66	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1265	38405	327721	SLV 9	8.53	Si
fin.	2	1278	-321292	327721	SLV 9	1.02	Si
ini.	2	-6464	275446	327721	SLV 15	1.19	Si
fin.	2	-1965	-415754	327721	SLV 15	0.79	No
ini.	2	-3187	-134704	327721	SLV 3	2.43	Si
fin.	2	-4454	247105	327721	SLV 3	1.33	Si
ini.	2	-3187	-134704	327721	SLV 4	2.43	Si
fin.	2	-4454	247105	327721	SLV 4	1.33	Si
ini.	2	-4198	127597	327721	SLD 14	2.57	Si
fin.	2	-1328	-271321	327721	SLD 14	1.21	Si
ini.	2	-4594	232298	327721	SLV 13	1.41	Si
fin.	2	-66	-479233	327721	SLV 13	0.68	No
ini.	2	-6464	275446	327721	SLV 16	1.19	Si
fin.	2	-1965	-415754	327721	SLV 16	0.79	No
ini.	2	-1265	38405	327721	SLV 10	8.53	Si
fin.	2	1278	-321292	327721	SLV 10	1.02	Si
ini.	2	-4594	232298	327721	SLV 14	1.41	Si
fin.	2	-66	-479233	327721	SLV 14	0.68	No
ini.	2	-4198	127597	327721	SLD 13	2.57	Si
fin.	2	-1328	-271321	327721	SLD 13	1.21	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	232298	-13659			5199	1957	SLV 14	0.14	No
fin.	2	0	-479233	-9086			5199	1957	SLV 14	0.22	No
ini.	2	0	145831	-9385			5199	1957	SLD 15	0.21	No
fin.	2	0	-244988	-4509			5199	1957	SLD 15	0.43	No
ini.	2	0	145831	-9385			5199	1957	SLD 16	0.21	No
fin.	2	0	-244988	-4509			5199	1957	SLD 16	0.43	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	127597	-8899			5199	1957	SLD 13	0.22	No
fin.	2	0	-271321	-4626			5199	1957	SLD 13	0.42	No
ini.	2	0	232298	-13659			5199	1957	SLV 13	0.14	No
fin.	2	0	-479233	-9086			5199	1957	SLV 13	0.22	No
ini.	2	0	275446	-14812			5199	1957	SLV 15	0.13	No
fin.	2	0	-415754	-8811			5199	1957	SLV 15	0.22	No
ini.	2	0	275446	-14812			5199	1957	SLV 16	0.13	No
fin.	2	0	-415754	-8811			5199	1957	SLV 16	0.22	No
ini.	2	0	127597	-8899			5199	1957	SLD 14	0.22	No
fin.	2	0	-271321	-4626			5199	1957	SLD 14	0.42	No
ini.	2	0	182234	-9918			5199	1957	SLV 11	0.2	No
fin.	2	0	-109694	-3121			5199	1957	SLV 11	0.63	No
ini.	2	0	182234	-9918			5199	1957	SLV 12	0.2	No
fin.	2	0	-109694	-3121			5199	1957	SLV 12	0.63	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.684	SLV 13	No
V_SLV	0.132	SLV 15	No
PF_SLU	1.782	SLU 84	Si
V_SLU	0.158	SLU 83	No

Trave di accoppiamento 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-800.8	657.6	81	110	29	-700.8	657.6	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	896	-614	19201	SLU 79	31.26	Si
fin.	3	-164	-29696	19201	SLU 79	0.65	No
ini.	3	904	-595	19201	SLU 77	32.3	Si
fin.	3	-165	-29882	19201	SLU 77	0.64	No
ini.	3	899	-619	19201	SLU 81	31.01	Si
fin.	3	-154	-29318	19201	SLU 81	0.65	No
ini.	3	885	-615	19201	SLU 75	31.24	Si
fin.	3	-156	-29056	19201	SLU 75	0.66	No
ini.	3	882	-642	19201	SLU 74	29.9	Si
fin.	3	-157	-29077	19201	SLU 74	0.66	No
ini.	3	906	-567	19201	SLU 78	33.86	Si
fin.	3	-163	-29861	19201	SLU 78	0.64	No
ini.	3	921	-572	19201	SLU 83	33.59	Si
fin.	3	-161	-30123	19201	SLU 83	0.64	No
ini.	3	924	-544	19201	SLU 84	35.29	Si
fin.	3	-160	-30103	19201	SLU 84	0.64	No
ini.	3	899	-587	19201	SLU 80	32.72	Si
fin.	3	-163	-29675	19201	SLU 80	0.65	No
ini.	3	902	-592	19201	SLU 82	32.45	Si
fin.	3	-153	-29298	19201	SLU 82	0.66	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-587	361			335	126	SLU 80	0.35	No
fin.	3	0	-29675	-1530			335	126	SLU 80	0.08	No
ini.	3	0	-595	363			335	126	SLU 77	0.35	No
fin.	3	0	-29882	-1540			335	126	SLU 77	0.08	No
ini.	3	0	-615	357			335	126	SLU 75	0.35	No
fin.	3	0	-29056	-1499			335	126	SLU 75	0.08	No
ini.	3	0	-544	364			335	126	SLU 84	0.35	No
fin.	3	0	-30103	-1550			335	126	SLU 84	0.08	No
ini.	3	0	-614	361			335	126	SLU 79	0.35	No
fin.	3	0	-29696	-1532			335	126	SLU 79	0.08	No
ini.	3	0	-572	365			335	126	SLU 83	0.35	No
fin.	3	0	-30123	-1551			335	126	SLU 83	0.08	No
ini.	3	0	-567	362			335	126	SLU 78	0.35	No
fin.	3	0	-29861	-1539			335	126	SLU 78	0.08	No
ini.	3	0	-619	360			335	126	SLU 81	0.35	No
fin.	3	0	-29318	-1511			335	126	SLU 81	0.08	No
ini.	3	0	-642	358			335	126	SLU 74	0.35	No
fin.	3	0	-29077	-1501			335	126	SLU 74	0.08	No
ini.	3	0	-592	359			335	126	SLU 82	0.35	No
fin.	3	0	-29298	-1510			335	126	SLU 82	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-482	-35951	28471	SLV 1	0.79	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	920	12799	28471	SLV 1	2.22	Si
ini.	2	2878	31977	28471	SLV 14	0.89	No
fin.	2	221	-48592	28471	SLV 14	0.59	No
ini.	2	-963	13857	28471	SLV 12	2.05	Si
fin.	2	-2469	-34393	28471	SLV 12	0.83	No
ini.	2	2878	31977	28471	SLV 13	0.89	No
fin.	2	221	-48592	28471	SLV 13	0.59	No
ini.	2	-482	-35951	28471	SLV 2	0.79	No
fin.	2	920	12799	28471	SLV 2	2.22	Si
ini.	2	1049	14428	28471	SLD 15	1.97	Si
fin.	2	-545	-33454	28471	SLD 15	0.85	No
ini.	2	1648	34587	28471	SLV 16	0.82	No
fin.	2	-1133	-51956	28471	SLV 16	0.55	No
ini.	2	1648	34587	28471	SLV 15	0.82	No
fin.	2	-1133	-51956	28471	SLV 15	0.55	No
ini.	2	-963	13857	28471	SLV 11	2.05	Si
fin.	2	-2469	-34393	28471	SLV 11	0.83	No
ini.	2	1049	14428	28471	SLD 16	1.97	Si
fin.	2	-545	-33454	28471	SLD 16	0.85	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	14428	-100			503	189	SLD 15	1.9	Si
fin.	2	0	-33454	-1534			503	189	SLD 15	0.12	No
ini.	2	0	13218	-178			503	189	SLD 13	1.06	Si
fin.	2	0	-32000	-1440			503	189	SLD 13	0.13	No
ini.	2	0	31977	-762			503	189	SLV 13	0.25	No
fin.	2	0	-48592	-2001			503	189	SLV 13	0.09	No
ini.	2	0	14428	-100			503	189	SLD 16	1.9	Si
fin.	2	0	-33454	-1534			503	189	SLD 16	0.12	No
ini.	2	0	13857	286			503	189	SLV 12	0.66	No
fin.	2	0	-34393	-1718			503	189	SLV 12	0.11	No
ini.	2	0	34587	-578			503	189	SLV 15	0.33	No
fin.	2	0	-51956	-2224			503	189	SLV 15	0.09	No
ini.	2	0	13218	-178			503	189	SLD 14	1.06	Si
fin.	2	0	-32000	-1440			503	189	SLD 14	0.13	No
ini.	2	0	13857	286			503	189	SLV 11	0.66	No
fin.	2	0	-34393	-1718			503	189	SLV 11	0.11	No
ini.	2	0	34587	-578			503	189	SLV 16	0.33	No
fin.	2	0	-51956	-2224			503	189	SLV 16	0.09	No
ini.	2	0	31977	-762			503	189	SLV 14	0.25	No
fin.	2	0	-48592	-2001			503	189	SLV 14	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.548	SLV 15	No
V_SLV	0.085	SLV 15	No
PF_SLU	0.637	SLU 83	No
V_SLU	0.081	SLU 83	No

Trave di accoppiamento 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-972.8	127.1	61	110	49	-972.8	220.1	61	110	49	93	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2	-993	36545	SLU 75	36.78	Si
fin.	3	560	-67456	36545	SLU 75	0.54	No
ini.	3	-6	-897	36545	SLU 83	40.75	Si
fin.	3	595	-72258	36545	SLU 83	0.51	No
ini.	3	16	-2127	36545	SLU 77	17.19	Si
fin.	3	618	-74145	36545	SLU 77	0.49	No
ini.	3	16	-2114	36545	SLU 78	17.29	Si
fin.	3	616	-73863	36545	SLU 78	0.49	No
ini.	3	18	-2236	36545	SLU 80	16.34	Si
fin.	3	622	-74553	36545	SLU 80	0.49	No
ini.	3	19	-2289	36545	SLU 37	15.97	Si
fin.	3	561	-67696	36545	SLU 37	0.54	No
ini.	3	-6	-884	36545	SLU 84	41.32	Si
fin.	3	594	-71977	36545	SLU 84	0.51	No
ini.	3	1	-1107	36545	SLU 76	33.01	Si
fin.	3	565	-67958	36545	SLU 76	0.54	No
ini.	3	18	-2248	36545	SLU 79	16.25	Si
fin.	3	623	-74834	36545	SLU 79	0.49	No
ini.	3	-2	-1006	36545	SLU 74	36.33	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	562	-67737	36545	SLU 74	0.54	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1006	-124			377	142	SLU 74	1.15	Si
fin.	3	0	-67737	-1262			377	142	SLU 74	0.11	No
ini.	3	0	-2248	-193			377	142	SLU 79	0.74	No
fin.	3	0	-74834	-1339			377	142	SLU 79	0.11	No
ini.	3	0	-884	-120			377	142	SLU 84	1.18	Si
fin.	3	0	-71977	-1358			377	142	SLU 84	0.1	No
ini.	3	0	-2127	-186			377	142	SLU 77	0.76	No
fin.	3	0	-74145	-1329			377	142	SLU 77	0.11	No
ini.	3	0	-897	-123			377	142	SLU 83	1.15	Si
fin.	3	0	-72258	-1361			377	142	SLU 83	0.1	No
ini.	3	0	-2114	-183			377	142	SLU 78	0.78	No
fin.	3	0	-73863	-1326			377	142	SLU 78	0.11	No
ini.	3	0	236	-58			377	142	SLU 82	2.46	Si
fin.	3	0	-65569	-1290			377	142	SLU 82	0.11	No
ini.	3	0	-1107	-125			377	142	SLU 76	1.14	Si
fin.	3	0	-67958	-1266			377	142	SLU 76	0.11	No
ini.	3	0	-2236	-189			377	142	SLU 80	0.75	No
fin.	3	0	-74553	-1335			377	142	SLU 80	0.11	No
ini.	3	0	224	-61			377	142	SLU 81	2.33	Si
fin.	3	0	-65850	-1293			377	142	SLU 81	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-905	14967	52331	SLV 8	3.5	Si
fin.	2	154	-125704	52331	SLV 8	0.42	No
ini.	2	-430	8556	52331	SLD 11	6.12	Si
fin.	2	210	-71261	52331	SLD 11	0.73	No
ini.	2	-1035	21323	52331	SLV 12	2.45	Si
fin.	2	33	-113128	52331	SLV 12	0.46	No
ini.	2	-80	-5284	52331	SLV 4	9.9	Si
fin.	2	469	-85565	52331	SLV 4	0.61	No
ini.	2	-430	8556	52331	SLD 12	6.12	Si
fin.	2	210	-71261	52331	SLD 12	0.73	No
ini.	2	-377	5919	52331	SLD 8	8.84	Si
fin.	2	260	-76588	52331	SLD 8	0.68	No
ini.	2	-80	-5284	52331	SLV 3	9.9	Si
fin.	2	469	-85565	52331	SLV 3	0.61	No
ini.	2	-377	5919	52331	SLD 7	8.84	Si
fin.	2	260	-76588	52331	SLD 7	0.68	No
ini.	2	-905	14967	52331	SLV 7	3.5	Si
fin.	2	154	-125704	52331	SLV 7	0.42	No
ini.	2	-1035	21323	52331	SLV 11	2.45	Si
fin.	2	33	-113128	52331	SLV 11	0.46	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	14967	-1187			566	213	SLV 8	0.18	No
fin.	2	0	-125704	-1372			566	213	SLV 8	0.16	No
ini.	2	0	5919	-526			566	213	SLD 8	0.4	No
fin.	2	0	-76588	-1024			566	213	SLD 8	0.21	No
ini.	2	0	5919	-526			566	213	SLD 7	0.4	No
fin.	2	0	-76588	-1024			566	213	SLD 7	0.21	No
ini.	2	0	21323	-1011			566	213	SLV 12	0.21	No
fin.	2	0	-113128	-1314			566	213	SLV 12	0.16	No
ini.	2	0	-5284	-661			566	213	SLV 4	0.32	No
fin.	2	0	-85565	-1048			566	213	SLV 4	0.2	No
ini.	2	0	21323	-1011			566	213	SLV 11	0.21	No
fin.	2	0	-113128	-1314			566	213	SLV 11	0.16	No
ini.	2	0	14967	-1187			566	213	SLV 7	0.18	No
fin.	2	0	-125704	-1372			566	213	SLV 7	0.16	No
ini.	2	0	-5284	-661			566	213	SLV 3	0.32	No
fin.	2	0	-85565	-1048			566	213	SLV 3	0.2	No
ini.	2	0	-15352	1079			566	213	SLV 10	0.2	No
fin.	2	0	43476	-194			566	213	SLV 10	1.1	Si
ini.	2	0	-15352	1079			566	213	SLV 9	0.2	No
fin.	2	0	43476	-194			566	213	SLV 9	1.1	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.416	SLV 7	No
V_SLV	0.155	SLV 7	No
PF_SLU	0.488	SLU 79	No
V_SLU	0.104	SLU 83	No

Trave di accoppiamento 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1055.3	-328.4	46	110	64	-825.3	-328.4	46	110	64	230	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	596	-96890	78581	SLU 75	0.81	No
fin.	3	1985	-83299	78581	SLU 75	0.94	No
ini.	3	584	-97215	78581	SLU 80	0.81	No
fin.	3	1981	-86459	78581	SLU 80	0.91	No
ini.	3	576	-97976	78581	SLU 83	0.8	No
fin.	3	2049	-92764	78581	SLU 83	0.85	No
ini.	3	592	-97652	78581	SLU 78	0.8	No
fin.	3	1993	-86098	78581	SLU 78	0.91	No
ini.	3	565	-94774	78581	SLU 77	0.83	No
fin.	3	1982	-90048	78581	SLU 77	0.87	No
ini.	3	608	-100091	78581	SLU 82	0.79	No
fin.	3	2052	-86015	78581	SLU 82	0.91	No
ini.	3	607	-98371	78581	SLU 76	0.8	No
fin.	3	1980	-81027	78581	SLU 76	0.97	No
ini.	3	581	-97213	78581	SLU 81	0.81	No
fin.	3	2041	-89964	78581	SLU 81	0.87	No
ini.	3	603	-100853	78581	SLU 84	0.78	No
fin.	3	2059	-88814	78581	SLU 84	0.88	No
ini.	3	611	-97609	78581	SLU 73	0.81	No
fin.	3	1973	-78227	78581	SLU 73	1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-98371	3410			739	278	SLU 76	0.08	No
fin.	3	0	-81027	-2576			739	278	SLU 76	0.11	No
ini.	3	0	-97976	3515			739	278	SLU 83	0.08	No
fin.	3	0	-92764	-2691			739	278	SLU 83	0.1	No
ini.	3	0	-97652	3424			739	278	SLU 78	0.08	No
fin.	3	0	-86098	-2615			739	278	SLU 78	0.11	No
ini.	3	0	-94774	3384			739	278	SLU 77	0.08	No
fin.	3	0	-90048	-2610			739	278	SLU 77	0.11	No
ini.	3	0	-100853	3555			739	278	SLU 84	0.08	No
fin.	3	0	-88814	-2697			739	278	SLU 84	0.1	No
ini.	3	0	-94337	3376			739	278	SLU 79	0.08	No
fin.	3	0	-90409	-2610			739	278	SLU 79	0.11	No
ini.	3	0	-97215	3417			739	278	SLU 80	0.08	No
fin.	3	0	-86459	-2615			739	278	SLU 80	0.11	No
ini.	3	0	-100091	3522			739	278	SLU 82	0.08	No
fin.	3	0	-86015	-2654			739	278	SLU 82	0.1	No
ini.	3	0	-96890	3390			739	278	SLU 75	0.08	No
fin.	3	0	-83299	-2573			739	278	SLU 75	0.11	No
ini.	3	0	-97213	3481			739	278	SLU 81	0.08	No
fin.	3	0	-89964	-2649			739	278	SLU 81	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-7	-76780	89721	SLV 10	1.17	Si
fin.	2	2196	-161695	89721	SLV 10	0.55	No
ini.	2	-1663	38677	89721	SLV 15	2.32	Si
fin.	2	-2402	-189888	89721	SLV 15	0.47	No
ini.	2	-7	-76780	89721	SLV 9	1.17	Si
fin.	2	2196	-161695	89721	SLV 9	0.55	No
ini.	2	2481	-167888	89721	SLV 1	0.53	No
fin.	2	5133	74185	89721	SLV 1	1.21	Si
ini.	2	2368	-144131	89721	SLV 3	0.62	No
fin.	2	4054	109542	89721	SLV 3	0.82	No
ini.	2	2368	-144131	89721	SLV 4	0.62	No
fin.	2	4054	109542	89721	SLV 4	0.82	No
ini.	2	2481	-167888	89721	SLV 2	0.53	No
fin.	2	5133	74185	89721	SLV 2	1.21	Si
ini.	2	-1663	38677	89721	SLV 16	2.32	Si
fin.	2	-2402	-189888	89721	SLV 16	0.47	No
ini.	2	-1550	14920	89721	SLV 14	6.01	Si
fin.	2	-1323	-225246	89721	SLV 14	0.4	No
ini.	2	-1550	14920	89721	SLV 13	6.01	Si
fin.	2	-1323	-225246	89721	SLV 13	0.4	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	38677	506			1109	417	SLV 16	0.82	No
fin.	2	0	-189888	-3617			1109	417	SLV 16	0.12	No
ini.	2	0	-108435	3038			1109	417	SLD 2	0.14	No
fin.	2	0	-1127	-961			1109	417	SLD 2	0.43	No
ini.	2	0	-144131	3932			1109	417	SLV 4	0.11	No
fin.	2	0	109542	174			1109	417	SLV 4	2.4	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	38677	506			1109	417	SLV 15	0.82	No
fin.	2	0	-189888	-3617			1109	417	SLV 15	0.12	No
ini.	2	0	-108435	3038			1109	417	SLD 1	0.14	No
fin.	2	0	-1127	-961			1109	417	SLD 1	0.43	No
ini.	2	0	-167888	4060			1109	417	SLV 1	0.1	No
fin.	2	0	74185	104			1109	417	SLV 1	4.02	Si
ini.	2	0	14920	634			1109	417	SLV 14	0.66	No
fin.	2	0	-225246	-3688			1109	417	SLV 14	0.11	No
ini.	2	0	14920	634			1109	417	SLV 13	0.66	No
fin.	2	0	-225246	-3688			1109	417	SLV 13	0.11	No
ini.	2	0	-144131	3932			1109	417	SLV 3	0.11	No
fin.	2	0	109542	174			1109	417	SLV 3	2.4	Si
ini.	2	0	-167888	4060			1109	417	SLV 2	0.1	No
fin.	2	0	74185	104			1109	417	SLV 2	4.02	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.398	SLV 13	No
V_SLV	0.103	SLV 1	No
PF_SLU	0.779	SLU 84	No
V_SLU	0.078	SLU 84	No

Trave di accoppiamento 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-746.3	-328.4	-159	41	200	-646.3	-328.4	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-628	-414100	316581	SLU 78	0.76	No
fin.	3	-506	-244176	316581	SLU 78	1.3	Si
ini.	3	-264	-402793	316581	SLU 52	0.79	No
fin.	3	-122	-237054	316581	SLU 52	1.34	Si
ini.	3	-646	-410902	316581	SLU 80	0.77	No
fin.	3	-510	-243440	316581	SLU 80	1.3	Si
ini.	3	-158	-400768	316581	SLU 65	0.79	No
fin.	3	-38	-234895	316581	SLU 65	1.35	Si
ini.	3	-316	-402434	316581	SLU 55	0.79	No
fin.	3	-116	-241263	316581	SLU 55	1.31	Si
ini.	3	-358	-435785	316581	SLU 76	0.73	No
fin.	3	-164	-260382	316581	SLU 76	1.22	Si
ini.	3	-576	-414459	316581	SLU 75	0.76	No
fin.	3	-512	-239968	316581	SLU 75	1.32	Si
ini.	3	-657	-426421	316581	SLU 84	0.74	No
fin.	3	-572	-248351	316581	SLU 84	1.27	Si
ini.	3	-306	-436143	316581	SLU 73	0.73	No
fin.	3	-170	-256173	316581	SLU 73	1.24	Si
ini.	3	-605	-426780	316581	SLU 82	0.74	No
fin.	3	-578	-244143	316581	SLU 82	1.3	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-426421	-7204			3466	1304	SLU 84	0.18	No
fin.	3	0	-248351	9083			3466	1304	SLU 84	0.14	No
ini.	3	0	-410902	-7064			3466	1304	SLU 80	0.18	No
fin.	3	0	-243440	8674			3466	1304	SLU 80	0.15	No
ini.	3	0	-389993	-6645			3466	1304	SLU 81	0.2	No
fin.	3	0	-212418	9027			3466	1304	SLU 81	0.14	No
ini.	3	0	-377672	-6509			3466	1304	SLU 74	0.2	No
fin.	3	0	-208243	8695			3466	1304	SLU 74	0.15	No
ini.	3	0	-436143	-6955			3466	1304	SLU 73	0.19	No
fin.	3	0	-256173	8845			3466	1304	SLU 73	0.15	No
ini.	3	0	-414100	-7068			3466	1304	SLU 78	0.18	No
fin.	3	0	-244176	8751			3466	1304	SLU 78	0.15	No
ini.	3	0	-414459	-6888			3466	1304	SLU 75	0.19	No
fin.	3	0	-239968	8801			3466	1304	SLU 75	0.15	No
ini.	3	0	-426780	-7024			3466	1304	SLU 82	0.19	No
fin.	3	0	-244143	9133			3466	1304	SLU 82	0.14	No
ini.	3	0	-389634	-6826			3466	1304	SLU 83	0.19	No
fin.	3	0	-216626	8977			3466	1304	SLU 83	0.15	No
ini.	3	0	-435785	-7136			3466	1304	SLU 76	0.18	No
fin.	3	0	-260382	8795			3466	1304	SLU 76	0.15	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3690	-668988	327721	SLV 3	0.49	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-421	-76763	327721	SLV 3	4.27	Si
ini.	2	261	-454358	327721	SLD 5	0.72	No
fin.	2	-1637	-97138	327721	SLD 5	3.37	Si
ini.	2	1488	-720772	327721	SLV 5	0.45	No
fin.	2	-3009	-27860	327721	SLV 5	11.76	Si
ini.	2	4133	-853583	327721	SLV 1	0.38	No
fin.	2	-1725	-24748	327721	SLV 1	13.24	Si
ini.	2	1413	-514608	327721	SLD 2	0.64	No
fin.	2	-1136	-93148	327721	SLD 2	3.52	Si
ini.	2	4133	-853583	327721	SLV 2	0.38	No
fin.	2	-1725	-24748	327721	SLV 2	13.24	Si
ini.	2	261	-454358	327721	SLD 6	0.72	No
fin.	2	-1637	-97138	327721	SLD 6	3.37	Si
ini.	2	1413	-514608	327721	SLD 1	0.64	No
fin.	2	-1136	-93148	327721	SLD 1	3.52	Si
ini.	2	3690	-668988	327721	SLV 4	0.49	No
fin.	2	-421	-76763	327721	SLV 4	4.27	Si
ini.	2	1488	-720772	327721	SLV 6	0.45	No
fin.	2	-3009	-27860	327721	SLV 6	11.76	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	141191	-14629			5199	1957	SLV 13	0.13	No
fin.	2	0	-207023	-4685			5199	1957	SLV 13	0.42	No
ini.	2	0	-853583	4509			5199	1957	SLV 1	0.43	No
fin.	2	0	-24748	19279			5199	1957	SLV 1	0.1	No
ini.	2	0	-720772	-3779			5199	1957	SLV 5	0.52	No
fin.	2	0	-27860	13674			5199	1957	SLV 5	0.14	No
ini.	2	0	325786	-13266			5199	1957	SLV 16	0.15	No
fin.	2	0	-259038	-7070			5199	1957	SLV 16	0.28	No
ini.	2	0	-668988	5872			5199	1957	SLV 4	0.33	No
fin.	2	0	-76763	16895			5199	1957	SLV 4	0.12	No
ini.	2	0	-853583	4509			5199	1957	SLV 2	0.43	No
fin.	2	0	-24748	19279			5199	1957	SLV 2	0.1	No
ini.	2	0	-668988	5872			5199	1957	SLV 3	0.33	No
fin.	2	0	-76763	16895			5199	1957	SLV 3	0.12	No
ini.	2	0	141191	-14629			5199	1957	SLV 14	0.13	No
fin.	2	0	-207023	-4685			5199	1957	SLV 14	0.42	No
ini.	2	0	325786	-13266			5199	1957	SLV 15	0.15	No
fin.	2	0	-259038	-7070			5199	1957	SLV 15	0.28	No
ini.	2	0	-720772	-3779			5199	1957	SLV 6	0.52	No
fin.	2	0	-27860	13674			5199	1957	SLV 6	0.14	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.384	SLV 1	No
V_SLV	0.101	SLV 1	No
PF_SLU	0.726	SLU 73	No
V_SLU	0.143	SLU 82	No

Trave di accoppiamento 30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-746.3	-328.4	81	110	29	-646.3	-328.4	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1324	-29340	19201	SLU 82	0.65	No
fin.	3	2126	-19106	19201	SLU 82	1	Si
ini.	3	1299	-26986	19201	SLU 80	0.71	No
fin.	3	2049	-19293	19201	SLU 80	1	No
ini.	3	1338	-28621	19201	SLU 73	0.67	No
fin.	3	2454	-16960	19201	SLU 73	1.13	Si
ini.	3	1356	-28254	19201	SLU 76	0.68	No
fin.	3	2445	-17739	19201	SLU 76	1.08	Si
ini.	3	1282	-27576	19201	SLU 75	0.7	No
fin.	3	2075	-18396	19201	SLU 75	1.04	Si
ini.	3	1206	-26294	19201	SLU 61	0.73	No
fin.	3	1984	-16841	19201	SLU 61	1.14	Si
ini.	3	1342	-28973	19201	SLU 84	0.66	No
fin.	3	2116	-19886	19201	SLU 84	0.97	No
ini.	3	1230	-27621	19201	SLU 83	0.7	No
fin.	3	1538	-21048	19201	SLU 83	0.91	No
ini.	3	1212	-27987	19201	SLU 81	0.69	No
fin.	3	1547	-20268	19201	SLU 81	0.95	No
ini.	3	1300	-27210	19201	SLU 78	0.71	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	2066	-19175	19201	SLU 78	1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27621	2258			335	126	SLU 83	0.06	No
fin.	3	0	-21048	-1931			335	126	SLU 83	0.07	No
ini.	3	0	-28621	2390			335	126	SLU 73	0.05	No
fin.	3	0	-16960	-1753			335	126	SLU 73	0.07	No
ini.	3	0	-25928	2185			335	126	SLU 63	0.06	No
fin.	3	0	-17621	-1720			335	126	SLU 63	0.07	No
ini.	3	0	-28973	2410			335	126	SLU 84	0.05	No
fin.	3	0	-19886	-1909			335	126	SLU 84	0.07	No
ini.	3	0	-26986	2291			335	126	SLU 80	0.06	No
fin.	3	0	-19293	-1838			335	126	SLU 80	0.07	No
ini.	3	0	-27576	2301			335	126	SLU 75	0.05	No
fin.	3	0	-18396	-1805			335	126	SLU 75	0.07	No
ini.	3	0	-27987	2257			335	126	SLU 81	0.06	No
fin.	3	0	-20268	-1896			335	126	SLU 81	0.07	No
ini.	3	0	-27210	2303			335	126	SLU 78	0.05	No
fin.	3	0	-19175	-1840			335	126	SLU 78	0.07	No
ini.	3	0	-28254	2391			335	126	SLU 76	0.05	No
fin.	3	0	-17739	-1788			335	126	SLU 76	0.07	No
ini.	3	0	-29340	2409			335	126	SLU 82	0.05	No
fin.	3	0	-19106	-1874			335	126	SLU 82	0.07	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	920	36478	28471	SLV 15	0.78	No
fin.	2	-4163	-59306	28471	SLV 15	0.48	No
ini.	2	663	-72048	28471	SLV 1	0.4	No
fin.	2	6265	34325	28471	SLV 1	0.83	No
ini.	2	1317	-68844	28471	SLV 10	0.41	No
fin.	2	5445	-4706	28471	SLV 10	6.05	Si
ini.	2	423	54712	28471	SLV 11	0.52	No
fin.	2	-5488	-44759	28471	SLV 11	0.64	No
ini.	2	1160	-90282	28471	SLV 6	0.32	No
fin.	2	7589	19778	28471	SLV 6	1.44	Si
ini.	2	663	-72048	28471	SLV 2	0.4	No
fin.	2	6265	34325	28471	SLV 2	0.83	No
ini.	2	920	36478	28471	SLV 16	0.78	No
fin.	2	-4163	-59306	28471	SLV 16	0.48	No
ini.	2	423	54712	28471	SLV 12	0.52	No
fin.	2	-5488	-44759	28471	SLV 12	0.64	No
ini.	2	1317	-68844	28471	SLV 9	0.41	No
fin.	2	5445	-4706	28471	SLV 9	6.05	Si
ini.	2	1160	-90282	28471	SLV 5	0.32	No
fin.	2	7589	19778	28471	SLV 5	1.44	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-34982	3714			503	189	SLV 3	0.05	No
fin.	2	0	22309	348			503	189	SLV 3	0.54	No
ini.	2	0	-589	-798			503	189	SLV 13	0.24	No
fin.	2	0	-47290	-2781			503	189	SLV 13	0.07	No
ini.	2	0	-40643	2446			503	189	SLD 1	0.08	No
fin.	2	0	7341	-641			503	189	SLD 1	0.29	No
ini.	2	0	-589	-798			503	189	SLV 14	0.24	No
fin.	2	0	-47290	-2781			503	189	SLV 14	0.07	No
ini.	2	0	36478	-898			503	189	SLV 16	0.21	No
fin.	2	0	-59306	-2560			503	189	SLV 16	0.07	No
ini.	2	0	-40643	2446			503	189	SLD 2	0.08	No
fin.	2	0	7341	-641			503	189	SLD 2	0.29	No
ini.	2	0	-72048	3814			503	189	SLV 2	0.05	No
fin.	2	0	34325	127			503	189	SLV 2	1.49	Si
ini.	2	0	36478	-898			503	189	SLV 15	0.21	No
fin.	2	0	-59306	-2560			503	189	SLV 15	0.07	No
ini.	2	0	-34982	3714			503	189	SLV 4	0.05	No
fin.	2	0	22309	348			503	189	SLV 4	0.54	No
ini.	2	0	-72048	3814			503	189	SLV 1	0.05	No
fin.	2	0	34325	127			503	189	SLV 1	1.49	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.315	SLV 5	No
V_SLV	0.05	SLV 1	No
PF_SLU	0.654	SLU 82	No
V_SLU	0.052	SLU 84	No

Trave di accoppiamento 31

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-323.3	-328.4	-159	41	200	-223.3	-328.4	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2851	-28426	316581	SLU 56	11.14	Si
fin.	3	-2031	-216510	316581	SLU 56	1.46	Si
ini.	3	-2803	-28362	316581	SLU 69	11.16	Si
fin.	3	-2000	-216322	316581	SLU 69	1.46	Si
ini.	3	-2871	-31105	316581	SLU 60	10.18	Si
fin.	3	-2051	-215782	316581	SLU 60	1.47	Si
ini.	3	-2841	-28167	316581	SLU 58	11.24	Si
fin.	3	-2025	-214921	316581	SLU 58	1.47	Si
ini.	3	-3040	-31380	316581	SLU 74	10.09	Si
fin.	3	-2156	-233528	316581	SLU 74	1.36	Si
ini.	3	-3076	-30074	316581	SLU 79	10.53	Si
fin.	3	-2175	-236086	316581	SLU 79	1.34	Si
ini.	3	-3105	-33012	316581	SLU 81	9.59	Si
fin.	3	-2201	-236946	316581	SLU 81	1.34	Si
ini.	3	-2917	-30058	316581	SLU 62	10.53	Si
fin.	3	-2077	-219927	316581	SLU 62	1.44	Si
ini.	3	-3086	-30333	316581	SLU 77	10.44	Si
fin.	3	-2182	-237674	316581	SLU 77	1.33	Si
ini.	3	-3151	-31966	316581	SLU 83	9.9	Si
fin.	3	-2227	-241091	316581	SLU 83	1.31	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-31966	-5845			3466	1304	SLU 83	0.22	No
fin.	3	0	-241091	-994			3466	1304	SLU 83	1.31	Si
ini.	3	0	2172	-5648			3466	1304	SLU 82	0.23	No
fin.	3	0	-196719	-838			3466	1304	SLU 82	1.56	Si
ini.	3	0	4851	-5612			3466	1304	SLU 78	0.23	No
fin.	3	0	-197446	-926			3466	1304	SLU 78	1.41	Si
ini.	3	0	5110	-5581			3466	1304	SLU 80	0.23	No
fin.	3	0	-195858	-921			3466	1304	SLU 80	1.42	Si
ini.	3	0	3218	-5753			3466	1304	SLU 84	0.23	No
fin.	3	0	-200864	-880			3466	1304	SLU 84	1.48	Si
ini.	3	0	-31380	-5599			3466	1304	SLU 74	0.23	No
fin.	3	0	-233528	-998			3466	1304	SLU 74	1.31	Si
ini.	3	0	-33012	-5740			3466	1304	SLU 81	0.23	No
fin.	3	0	-236946	-952			3466	1304	SLU 81	1.37	Si
ini.	3	0	-30333	-5704			3466	1304	SLU 77	0.23	No
fin.	3	0	-237674	-1040			3466	1304	SLU 77	1.25	Si
ini.	3	0	3804	-5507			3466	1304	SLU 75	0.24	No
fin.	3	0	-193301	-884			3466	1304	SLU 75	1.48	Si
ini.	3	0	-30074	-5673			3466	1304	SLU 79	0.23	No
fin.	3	0	-236086	-1035			3466	1304	SLU 79	1.26	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-10234	310729	327721	SLV 9	1.05	Si
fin.	2	-4275	-417713	327721	SLV 9	0.78	No
ini.	2	3073	-371010	327721	SLV 3	0.88	No
fin.	2	-1448	258042	327721	SLV 3	1.27	Si
ini.	2	-10234	310729	327721	SLV 10	1.05	Si
fin.	2	-4275	-417713	327721	SLV 10	0.78	No
ini.	2	-2952	172742	327721	SLV 15	1.9	Si
fin.	2	231	-491529	327721	SLV 15	0.67	No
ini.	2	-7286	324265	327721	SLV 13	1.01	Si
fin.	2	-1577	-578544	327721	SLV 13	0.57	No
ini.	2	6021	-357474	327721	SLV 8	0.92	No
fin.	2	1250	97210	327721	SLV 8	3.37	Si
ini.	2	6021	-357474	327721	SLV 7	0.92	No
fin.	2	1250	97210	327721	SLV 7	3.37	Si
ini.	2	-7286	324265	327721	SLV 14	1.01	Si
fin.	2	-1577	-578544	327721	SLV 14	0.57	No
ini.	2	-2952	172742	327721	SLV 16	1.9	Si
fin.	2	231	-491529	327721	SLV 16	0.67	No
ini.	2	3073	-371010	327721	SLV 4	0.88	No
fin.	2	-1448	258042	327721	SLV 4	1.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	122524	-8561			5199	1957	SLD 13	0.23	No
fin.	2	0	-337551	-4678			5199	1957	SLD 13	0.42	No
ini.	2	0	-371010	7455			5199	1957	SLV 4	0.26	No
fin.	2	0	258042	8483			5199	1957	SLV 4	0.23	No
ini.	2	0	122524	-8561			5199	1957	SLD 14	0.23	No
fin.	2	0	-337551	-4678			5199	1957	SLD 14	0.42	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	324265	-14978			5199	1957	SLV 13	0.13	No
fin.	2	0	-578544	-9933			5199	1957	SLV 13	0.2	No
ini.	2	0	172742	-14385			5199	1957	SLV 16	0.14	No
fin.	2	0	-491529	-11062			5199	1957	SLV 16	0.18	No
ini.	2	0	-371010	7455			5199	1957	SLV 3	0.26	No
fin.	2	0	258042	8483			5199	1957	SLV 3	0.23	No
ini.	2	0	324265	-14978			5199	1957	SLV 14	0.13	No
fin.	2	0	-578544	-9933			5199	1957	SLV 14	0.2	No
ini.	2	0	-219486	6862			5199	1957	SLV 2	0.29	No
fin.	2	0	171026	9612			5199	1957	SLV 2	0.2	No
ini.	2	0	172742	-14385			5199	1957	SLV 15	0.14	No
fin.	2	0	-491529	-11062			5199	1957	SLV 15	0.18	No
ini.	2	0	-219486	6862			5199	1957	SLV 1	0.29	No
fin.	2	0	171026	9612			5199	1957	SLV 1	0.2	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.566	SLV 13	No
V_SLV	0.131	SLV 13	No
PF_SLU	1.313	SLU 83	Si
V_SLU	0.223	SLU 83	No

Trave di accoppiamento 32

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-323.3	-328.4	81	110	29	-223.3	-328.4	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	971	-10507	19201	SLU 60	1.83	Si
fin.	3	553	-18880	19201	SLU 60	1.02	Si
ini.	3	1071	-10828	19201	SLU 79	1.77	Si
fin.	3	601	-20914	19201	SLU 79	0.92	No
ini.	3	879	-10545	19201	SLU 41	1.82	Si
fin.	3	467	-19210	19201	SLU 41	1	No
ini.	3	994	-10384	19201	SLU 62	1.85	Si
fin.	3	564	-19239	19201	SLU 62	1	No
ini.	3	1068	-11871	19201	SLU 83	1.62	Si
fin.	3	589	-21866	19201	SLU 83	0.88	No
ini.	3	1008	-9345	19201	SLU 56	2.05	Si
fin.	3	584	-18368	19201	SLU 56	1.05	Si
ini.	3	1045	-11993	19201	SLU 81	1.6	Si
fin.	3	578	-21507	19201	SLU 81	0.89	No
ini.	3	856	-10668	19201	SLU 39	1.8	Si
fin.	3	456	-18851	19201	SLU 39	1.02	Si
ini.	3	1060	-10954	19201	SLU 74	1.75	Si
fin.	3	598	-20636	19201	SLU 74	0.93	No
ini.	3	1083	-10831	19201	SLU 77	1.77	Si
fin.	3	609	-20995	19201	SLU 77	0.91	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-11871	1362			335	126	SLU 83	0.09	No
fin.	3	0	-21866	-1407			335	126	SLU 83	0.09	No
ini.	3	0	-10507	1212			335	126	SLU 60	0.1	No
fin.	3	0	-18880	-1234			335	126	SLU 60	0.1	No
ini.	3	0	-10831	1285			335	126	SLU 77	0.1	No
fin.	3	0	-20995	-1347			335	126	SLU 77	0.09	No
ini.	3	0	-10828	1281			335	126	SLU 79	0.1	No
fin.	3	0	-20914	-1343			335	126	SLU 79	0.09	No
ini.	3	0	-10384	1214			335	126	SLU 62	0.1	No
fin.	3	0	-19239	-1250			335	126	SLU 62	0.1	No
ini.	3	0	-10668	1184			335	126	SLU 39	0.11	No
fin.	3	0	-18851	-1209			335	126	SLU 39	0.1	No
ini.	3	0	-10545	1185			335	126	SLU 41	0.11	No
fin.	3	0	-19210	-1225			335	126	SLU 41	0.1	No
ini.	3	0	-11993	1360			335	126	SLU 81	0.09	No
fin.	3	0	-21507	-1390			335	126	SLU 81	0.09	No
ini.	3	0	-10954	1283			335	126	SLU 74	0.1	No
fin.	3	0	-20636	-1331			335	126	SLU 74	0.09	No
ini.	3	0	-9345	1136			335	126	SLU 56	0.11	No
fin.	3	0	-18368	-1190			335	126	SLU 56	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1705	89407	28471	SLV 10	0.32	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2236	36718	28471	SLV 10	0.78	No
ini.	2	-207	-103713	28471	SLV 7	0.27	No
fin.	2	3118	-63678	28471	SLV 7	0.45	No
ini.	2	1705	89407	28471	SLV 9	0.32	No
fin.	2	-2236	36718	28471	SLV 9	0.78	No
ini.	2	2449	14104	28471	SLV 15	2.02	Si
fin.	2	-161	-85805	28471	SLV 15	0.33	No
ini.	2	-1196	-78053	28471	SLV 4	0.36	No
fin.	2	2418	19269	28471	SLV 4	1.48	Si
ini.	2	-1196	-78053	28471	SLV 3	0.36	No
fin.	2	2418	19269	28471	SLV 3	1.48	Si
ini.	2	2449	14104	28471	SLV 16	2.02	Si
fin.	2	-161	-85805	28471	SLV 16	0.33	No
ini.	2	887	-76066	28471	SLV 12	0.37	No
fin.	2	2345	-95200	28471	SLV 12	0.3	No
ini.	2	887	-76066	28471	SLV 11	0.37	No
fin.	2	2345	-95200	28471	SLV 11	0.3	No
ini.	2	-207	-103713	28471	SLV 8	0.27	No
fin.	2	3118	-63678	28471	SLV 8	0.45	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-76066	1555			503	189	SLV 11	0.12	No
fin.	2	0	-95200	-2271			503	189	SLV 11	0.08	No
ini.	2	0	-78053	2530			503	189	SLV 3	0.07	No
fin.	2	0	19269	602			503	189	SLV 3	0.31	No
ini.	2	0	14104	-156			503	189	SLV 15	1.21	Si
fin.	2	0	-85805	-2886			503	189	SLV 15	0.07	No
ini.	2	0	63746	-817			503	189	SLV 14	0.23	No
fin.	2	0	-46229	-2367			503	189	SLV 14	0.08	No
ini.	2	0	-103713	2361			503	189	SLV 8	0.08	No
fin.	2	0	-63678	-1225			503	189	SLV 8	0.15	No
ini.	2	0	63746	-817			503	189	SLV 13	0.23	No
fin.	2	0	-46229	-2367			503	189	SLV 13	0.08	No
ini.	2	0	-103713	2361			503	189	SLV 7	0.08	No
fin.	2	0	-63678	-1225			503	189	SLV 7	0.15	No
ini.	2	0	-76066	1555			503	189	SLV 12	0.12	No
fin.	2	0	-95200	-2271			503	189	SLV 12	0.08	No
ini.	2	0	-78053	2530			503	189	SLV 4	0.07	No
fin.	2	0	19269	602			503	189	SLV 4	0.31	No
ini.	2	0	14104	-156			503	189	SLV 16	1.21	Si
fin.	2	0	-85805	-2886			503	189	SLV 16	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.275	SLV 7	No
V_SLV	0.066	SLV 15	No
PF_SLU	0.878	SLU 83	No
V_SLU	0.09	SLU 83	No

Trave di accoppiamento 33

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	127.1	51	110	59	-515.8	207.1	51	110	59	80	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	386	16223	52983	SLU 81	3.27	Si
fin.	3	-667	-74465	52983	SLU 81	0.71	No
ini.	3	401	15747	52983	SLU 79	3.36	Si
fin.	3	-629	-73469	52983	SLU 79	0.72	No
ini.	3	402	15909	52983	SLU 77	3.33	Si
fin.	3	-638	-74058	52983	SLU 77	0.72	No
ini.	3	400	16492	52983	SLU 83	3.21	Si
fin.	3	-672	-75971	52983	SLU 83	0.7	No
ini.	3	410	15454	52983	SLU 78	3.43	Si
fin.	3	-609	-72919	52983	SLU 78	0.73	No
ini.	3	397	15185	52983	SLU 75	3.49	Si
fin.	3	-604	-71413	52983	SLU 75	0.74	No
ini.	3	408	16037	52983	SLU 84	3.3	Si
fin.	3	-643	-74833	52983	SLU 84	0.71	No
ini.	3	389	15640	52983	SLU 74	3.39	Si
fin.	3	-632	-72552	52983	SLU 74	0.73	No
ini.	3	409	15293	52983	SLU 80	3.46	Si
fin.	3	-600	-72330	52983	SLU 80	0.73	No
ini.	3	394	15769	52983	SLU 82	3.36	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-638	-73327	52983	SLU 82	0.72	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	15185	261			503	189	SLU 75	0.72	No
fin.	3	0	-71413	-3188			503	189	SLU 75	0.06	No
ini.	3	0	15769	259			503	189	SLU 82	0.73	No
fin.	3	0	-73327	-3272			503	189	SLU 82	0.06	No
ini.	3	0	16492	253			503	189	SLU 83	0.75	No
fin.	3	0	-75971	-3380			503	189	SLU 83	0.06	No
ini.	3	0	16037	266			503	189	SLU 84	0.71	No
fin.	3	0	-74833	-3338			503	189	SLU 84	0.06	No
ini.	3	0	15640	248			503	189	SLU 74	0.76	No
fin.	3	0	-72552	-3230			503	189	SLU 74	0.06	No
ini.	3	0	15747	257			503	189	SLU 79	0.74	No
fin.	3	0	-73469	-3272			503	189	SLU 79	0.06	No
ini.	3	0	15454	268			503	189	SLU 78	0.7	No
fin.	3	0	-72919	-3253			503	189	SLU 78	0.06	No
ini.	3	0	15293	270			503	189	SLU 80	0.7	No
fin.	3	0	-72330	-3229			503	189	SLU 80	0.06	No
ini.	3	0	15909	255			503	189	SLU 77	0.74	No
fin.	3	0	-74058	-3296			503	189	SLU 77	0.06	No
ini.	3	0	16223	246			503	189	SLU 81	0.77	No
fin.	3	0	-74465	-3315			503	189	SLU 81	0.06	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-500	18640	69831	SLD 8	3.75	Si
fin.	2	-1604	-71209	69831	SLD 8	0.98	No
ini.	2	-1563	29983	69831	SLV 7	2.33	Si
fin.	2	-3254	-103086	69831	SLV 7	0.68	No
ini.	2	-1563	29983	69831	SLV 8	2.33	Si
fin.	2	-3254	-103086	69831	SLV 8	0.68	No
ini.	2	-1871	36734	69831	SLV 12	1.9	Si
fin.	2	-3728	-112216	69831	SLV 12	0.62	No
ini.	2	-842	28332	69831	SLV 16	2.46	Si
fin.	2	-2118	-80932	69831	SLV 16	0.86	No
ini.	2	-627	21570	69831	SLD 12	3.24	Si
fin.	2	-1805	-75111	69831	SLD 12	0.93	No
ini.	2	-500	18640	69831	SLD 7	3.75	Si
fin.	2	-1604	-71209	69831	SLD 7	0.98	No
ini.	2	-1871	36734	69831	SLV 11	1.9	Si
fin.	2	-3728	-112216	69831	SLV 11	0.62	No
ini.	2	-842	28332	69831	SLV 15	2.46	Si
fin.	2	-2118	-80932	69831	SLV 15	0.86	No
ini.	2	-627	21570	69831	SLD 11	3.24	Si
fin.	2	-1805	-75111	69831	SLD 11	0.93	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	18640	-328			754	284	SLD 7	0.86	No
fin.	2	0	-71209	-2884			754	284	SLD 7	0.1	No
ini.	2	0	21570	-386			754	284	SLD 11	0.74	No
fin.	2	0	-75111	-3067			754	284	SLD 11	0.09	No
ini.	2	0	21570	-386			754	284	SLD 12	0.74	No
fin.	2	0	-75111	-3067			754	284	SLD 12	0.09	No
ini.	2	0	36734	-1169			754	284	SLV 12	0.24	No
fin.	2	0	-112216	-4337			754	284	SLV 12	0.07	No
ini.	2	0	36734	-1169			754	284	SLV 11	0.24	No
fin.	2	0	-112216	-4337			754	284	SLV 11	0.07	No
ini.	2	0	18640	-328			754	284	SLD 8	0.86	No
fin.	2	0	-71209	-2884			754	284	SLD 8	0.1	No
ini.	2	0	29983	-1035			754	284	SLV 8	0.27	No
fin.	2	0	-103086	-3907			754	284	SLV 8	0.07	No
ini.	2	0	28332	-428			754	284	SLV 15	0.66	No
fin.	2	0	-80932	-3447			754	284	SLV 15	0.08	No
ini.	2	0	29983	-1035			754	284	SLV 7	0.27	No
fin.	2	0	-103086	-3907			754	284	SLV 7	0.07	No
ini.	2	0	28332	-428			754	284	SLV 16	0.66	No
fin.	2	0	-80932	-3447			754	284	SLV 16	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.622	SLV 11	No
V_SLV	0.065	SLV 11	No
PF_SLU	0.697	SLU 83	No
V_SLU	0.056	SLU 83	No

Trave di accoppiamento 34

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-301.3	587.6	-159	41	200	-201.3	587.6	-159	41	200	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2668	-8803	316581	SLU 75	35.96	Si
fin.	3	-2195	-192633	316581	SLU 75	1.64	Si
ini.	3	-2751	-9959	316581	SLU 84	31.79	Si
fin.	3	-2260	-198785	316581	SLU 84	1.59	Si
ini.	3	-2722	-10703	316581	SLU 79	29.58	Si
fin.	3	-2270	-192717	316581	SLU 79	1.64	Si
ini.	3	-2761	-8538	316581	SLU 81	37.08	Si
fin.	3	-2280	-201921	316581	SLU 81	1.57	Si
ini.	3	-2710	-8590	316581	SLU 74	36.85	Si
fin.	3	-2248	-195229	316581	SLU 74	1.62	Si
ini.	3	-2792	-9746	316581	SLU 83	32.48	Si
fin.	3	-2313	-201381	316581	SLU 83	1.57	Si
ini.	3	-2681	-10916	316581	SLU 80	29	Si
fin.	3	-2218	-190122	316581	SLU 80	1.67	Si
ini.	3	-2720	-8751	316581	SLU 82	36.17	Si
fin.	3	-2228	-199325	316581	SLU 82	1.59	Si
ini.	3	-2700	-10011	316581	SLU 78	31.62	Si
fin.	3	-2228	-192094	316581	SLU 78	1.65	Si
ini.	3	-2741	-9798	316581	SLU 77	32.31	Si
fin.	3	-2281	-194689	316581	SLU 77	1.63	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-8803	-4845			3466	1304	SLU 75	0.27	No
fin.	3	0	-192633	-295			3466	1304	SLU 75	4.42	Si
ini.	3	0	-8751	-5029			3466	1304	SLU 82	0.26	No
fin.	3	0	-199325	-300			3466	1304	SLU 82	4.35	Si
ini.	3	0	-9746	-5101			3466	1304	SLU 83	0.26	No
fin.	3	0	-201381	-237			3466	1304	SLU 83	5.52	Si
ini.	3	0	-9798	-4918			3466	1304	SLU 77	0.27	No
fin.	3	0	-194689	-232			3466	1304	SLU 77	5.62	Si
ini.	3	0	-9959	-5050			3466	1304	SLU 84	0.26	No
fin.	3	0	-198785	-251			3466	1304	SLU 84	5.2	Si
ini.	3	0	-8590	-4897			3466	1304	SLU 74	0.27	No
fin.	3	0	-195229	-281			3466	1304	SLU 74	4.65	Si
ini.	3	0	-10703	-4867			3466	1304	SLU 79	0.27	No
fin.	3	0	-192717	-207			3466	1304	SLU 79	6.29	Si
ini.	3	0	-8538	-5080			3466	1304	SLU 81	0.26	No
fin.	3	0	-201921	-285			3466	1304	SLU 81	4.57	Si
ini.	3	0	-10916	-4815			3466	1304	SLU 80	0.27	No
fin.	3	0	-190122	-222			3466	1304	SLU 80	5.88	Si
ini.	3	0	-10011	-4866			3466	1304	SLU 78	0.27	No
fin.	3	0	-192094	-246			3466	1304	SLU 78	5.29	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	4448	-495523	327721	SLV 9	0.66	No
fin.	2	2477	-13234	327721	SLV 9	24.76	Si
ini.	2	4448	-495523	327721	SLV 10	0.66	No
fin.	2	2477	-13234	327721	SLV 10	24.76	Si
ini.	2	-8214	483416	327721	SLV 8	0.68	No
fin.	2	-5624	-259298	327721	SLV 8	1.26	Si
ini.	2	5452	-674457	327721	SLV 6	0.49	No
fin.	2	1881	195418	327721	SLV 6	1.68	Si
ini.	2	-5607	465850	327721	SLV 16	0.7	No
fin.	2	-1706	-552226	327721	SLV 16	0.59	No
ini.	2	5452	-674457	327721	SLV 5	0.49	No
fin.	2	1881	195418	327721	SLV 5	1.68	Si
ini.	2	-9219	662349	327721	SLV 11	0.49	No
fin.	2	-5028	-467950	327721	SLV 11	0.7	No
ini.	2	-8214	483416	327721	SLV 7	0.68	No
fin.	2	-5624	-259298	327721	SLV 7	1.26	Si
ini.	2	-9219	662349	327721	SLV 12	0.49	No
fin.	2	-5028	-467950	327721	SLV 12	0.7	No
ini.	2	-5607	465850	327721	SLV 15	0.7	No
fin.	2	-1706	-552226	327721	SLV 15	0.59	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	118488	-11781			5199	1957	SLV 13	0.17	No
fin.	2	0	-415812	-9031			5199	1957	SLV 13	0.22	No
ini.	2	0	465850	-14353			5199	1957	SLV 15	0.14	No
fin.	2	0	-552226	-10251			5199	1957	SLV 15	0.19	No
ini.	2	0	662349	-10522			5199	1957	SLV 12	0.19	No
fin.	2	0	-467950	-5111			5199	1957	SLV 12	0.38	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	662349	-10522			5199	1957	SLV 11	0.19	No
fin.	2	0	-467950	-5111			5199	1957	SLV 11	0.38	No
ini.	2	0	-130596	5165			5199	1957	SLV 4	0.38	No
fin.	2	0	143280	8500			5199	1957	SLV 4	0.23	No
ini.	2	0	465850	-14353			5199	1957	SLV 16	0.14	No
fin.	2	0	-552226	-10251			5199	1957	SLV 16	0.19	No
ini.	2	0	-477958	7737			5199	1957	SLV 1	0.25	No
fin.	2	0	279695	9720			5199	1957	SLV 1	0.2	No
ini.	2	0	-130596	5165			5199	1957	SLV 3	0.38	No
fin.	2	0	143280	8500			5199	1957	SLV 3	0.23	No
ini.	2	0	118488	-11781			5199	1957	SLV 14	0.17	No
fin.	2	0	-415812	-9031			5199	1957	SLV 14	0.22	No
ini.	2	0	-477958	7737			5199	1957	SLV 2	0.25	No
fin.	2	0	279695	9720			5199	1957	SLV 2	0.2	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.486	SLV 5	No
V_SLV	0.136	SLV 15	No
PF_SLU	1.568	SLU 81	Si
V_SLU	0.256	SLU 83	No

Trave di accoppiamento 35

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-301.3	587.6	81	110	29	-201.3	587.6	81	110	29	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	310	-19774	19201	SLU 75	0.97	No
fin.	3	104	-24372	19201	SLU 75	0.79	No
ini.	3	300	-19304	19201	SLU 73	0.99	No
fin.	3	91	-24119	19201	SLU 73	0.8	No
ini.	3	307	-20622	19201	SLU 82	0.93	No
fin.	3	83	-25915	19201	SLU 82	0.74	No
ini.	3	308	-20311	19201	SLU 79	0.95	No
fin.	3	120	-24350	19201	SLU 79	0.79	No
ini.	3	314	-21111	19201	SLU 83	0.91	No
fin.	3	101	-26082	19201	SLU 83	0.74	No
ini.	3	329	-19685	19201	SLU 74	0.98	No
fin.	3	122	-24681	19201	SLU 74	0.78	No
ini.	3	294	-21199	19201	SLU 84	0.91	No
fin.	3	83	-25773	19201	SLU 84	0.74	No
ini.	3	297	-20350	19201	SLU 78	0.94	No
fin.	3	104	-24230	19201	SLU 78	0.79	No
ini.	3	326	-20534	19201	SLU 81	0.94	No
fin.	3	101	-26224	19201	SLU 81	0.73	No
ini.	3	317	-20262	19201	SLU 77	0.95	No
fin.	3	122	-24539	19201	SLU 77	0.78	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-21199	1540			335	126	SLU 84	0.08	No
fin.	3	0	-25773	-1403			335	126	SLU 84	0.09	No
ini.	3	0	-20534	1506			335	126	SLU 81	0.08	No
fin.	3	0	-26224	-1424			335	126	SLU 81	0.09	No
ini.	3	0	-19774	1449			335	126	SLU 75	0.09	No
fin.	3	0	-24372	-1325			335	126	SLU 75	0.1	No
ini.	3	0	-20350	1482			335	126	SLU 78	0.09	No
fin.	3	0	-24230	-1319			335	126	SLU 78	0.1	No
ini.	3	0	-20311	1479			335	126	SLU 79	0.09	No
fin.	3	0	-24350	-1327			335	126	SLU 79	0.1	No
ini.	3	0	-20262	1480			335	126	SLU 77	0.09	No
fin.	3	0	-24539	-1335			335	126	SLU 77	0.09	No
ini.	3	0	-19881	1450			335	126	SLU 76	0.09	No
fin.	3	0	-23977	-1306			335	126	SLU 76	0.1	No
ini.	3	0	-21111	1538			335	126	SLU 83	0.08	No
fin.	3	0	-26082	-1419			335	126	SLU 83	0.09	No
ini.	3	0	-20622	1508			335	126	SLU 82	0.08	No
fin.	3	0	-25915	-1409			335	126	SLU 82	0.09	No
ini.	3	0	-20399	1481			335	126	SLU 80	0.09	No
fin.	3	0	-24041	-1311			335	126	SLU 80	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	124	-146226	28471	SLV 6	0.19	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	7758	-13485	28471	SLV 6	2.11	Si
ini.	2	124	-146226	28471	SLV 5	0.19	No
fin.	2	7758	-13485	28471	SLV 5	2.11	Si
ini.	2	-225	97200	28471	SLV 8	0.29	No
fin.	2	-6909	6215	28471	SLV 8	4.58	Si
ini.	2	755	-122365	28471	SLV 9	0.23	No
fin.	2	7150	-39247	28471	SLV 9	0.73	No
ini.	2	755	-122365	28471	SLV 10	0.23	No
fin.	2	7150	-39247	28471	SLV 10	0.73	No
ini.	2	-225	97200	28471	SLV 7	0.29	No
fin.	2	-6909	6215	28471	SLV 7	4.58	Si
ini.	2	-735	-88865	28471	SLV 1	0.32	No
fin.	2	3334	23466	28471	SLV 1	1.21	Si
ini.	2	-735	-88865	28471	SLV 2	0.32	No
fin.	2	3334	23466	28471	SLV 2	1.21	Si
ini.	2	406	121061	28471	SLV 11	0.24	No
fin.	2	-7518	-19548	28471	SLV 11	1.46	Si
ini.	2	406	121061	28471	SLV 12	0.24	No
fin.	2	-7518	-19548	28471	SLV 12	1.46	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-88865	2313			503	189	SLV 1	0.08	No
fin.	2	0	23466	589			503	189	SLV 1	0.32	No
ini.	2	0	63700	-423			503	189	SLV 16	0.45	No
fin.	2	0	-56499	-2383			503	189	SLV 16	0.08	No
ini.	2	0	121061	-313			503	189	SLV 12	0.6	No
fin.	2	0	-19548	-1856			503	189	SLV 12	0.1	No
ini.	2	0	-9328	137			503	189	SLV 14	1.38	Si
fin.	2	0	-62409	-2045			503	189	SLV 14	0.09	No
ini.	2	0	63700	-423			503	189	SLV 15	0.45	No
fin.	2	0	-56499	-2383			503	189	SLV 15	0.08	No
ini.	2	0	-88865	2313			503	189	SLV 2	0.08	No
fin.	2	0	23466	589			503	189	SLV 2	0.32	No
ini.	2	0	-146226	2203			503	189	SLV 6	0.09	No
fin.	2	0	-13485	62			503	189	SLV 6	3.03	Si
ini.	2	0	-9328	137			503	189	SLV 13	1.38	Si
fin.	2	0	-62409	-2045			503	189	SLV 13	0.09	No
ini.	2	0	-146226	2203			503	189	SLV 5	0.09	No
fin.	2	0	-13485	62			503	189	SLV 5	3.03	Si
ini.	2	0	121061	-313			503	189	SLV 11	0.6	No
fin.	2	0	-19548	-1856			503	189	SLV 11	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.195	SLV 5	No
V_SLV	0.079	SLV 15	No
PF_SLU	0.732	SLU 81	No
V_SLU	0.082	SLU 84	No

Trave di accoppiamento 36

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-12.3	227.1	61	110	49	-12.3	127.1	61	110	49	100	45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1348	-64482	52331	SLU 79	0.81	No
fin.	3	-1760	-49784	52331	SLU 79	1.05	Si
ini.	3	-1372	-63332	52331	SLU 78	0.83	No
fin.	3	-1863	-51736	52331	SLU 78	1.01	Si
ini.	3	-1402	-64248	52331	SLU 82	0.81	No
fin.	3	-1870	-51652	52331	SLU 82	1.01	Si
ini.	3	-1352	-64339	52331	SLU 74	0.81	No
fin.	3	-1762	-49710	52331	SLU 74	1.05	Si
ini.	3	-1409	-65004	52331	SLU 84	0.81	No
fin.	3	-1879	-52138	52331	SLU 84	1	Si
ini.	3	-1396	-66768	52331	SLU 83	0.78	No
fin.	3	-1789	-50598	52331	SLU 83	1.03	Si
ini.	3	-1389	-66012	52331	SLU 81	0.79	No
fin.	3	-1779	-50112	52331	SLU 81	1.04	Si
ini.	3	-1359	-65095	52331	SLU 77	0.8	No
fin.	3	-1772	-50196	52331	SLU 77	1.04	Si
ini.	3	-1365	-62575	52331	SLU 75	0.84	No
fin.	3	-1853	-51250	52331	SLU 75	1.02	Si
ini.	3	-1361	-62718	52331	SLU 80	0.83	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1850	-51324	52331	SLU 80	1.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-65095	1968			566	213	SLU 77	0.11	No
fin.	3	0	-50196	-4371			566	213	SLU 77	0.05	No
ini.	3	0	-63332	1914			566	213	SLU 78	0.11	No
fin.	3	0	-51736	-4465			566	213	SLU 78	0.05	No
ini.	3	0	-65004	1961			566	213	SLU 84	0.11	No
fin.	3	0	-52138	-4506			566	213	SLU 84	0.05	No
ini.	3	0	-66012	1993			566	213	SLU 81	0.11	No
fin.	3	0	-50112	-4366			566	213	SLU 81	0.05	No
ini.	3	0	-62718	1896			566	213	SLU 80	0.11	No
fin.	3	0	-51324	-4429			566	213	SLU 80	0.05	No
ini.	3	0	-62575	1891			566	213	SLU 75	0.11	No
fin.	3	0	-51250	-4419			566	213	SLU 75	0.05	No
ini.	3	0	-60029	1814			566	213	SLU 73	0.12	No
fin.	3	0	-51379	-4401			566	213	SLU 73	0.05	No
ini.	3	0	-66768	2016			566	213	SLU 83	0.11	No
fin.	3	0	-50598	-4412			566	213	SLU 83	0.05	No
ini.	3	0	-60786	1837			566	213	SLU 76	0.12	No
fin.	3	0	-51865	-4446			566	213	SLU 76	0.05	No
ini.	3	0	-64248	1938			566	213	SLU 82	0.11	No
fin.	3	0	-51652	-4460			566	213	SLU 82	0.05	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1312	-68551	63471	SLD 12	0.93	No
fin.	2	-935	-23371	63471	SLD 12	2.72	Si
ini.	2	-1324	-80000	63471	SLV 7	0.79	No
fin.	2	-24	2518	63471	SLV 7	25.21	Si
ini.	2	-553	-7074	63471	SLV 9	8.97	Si
fin.	2	-2520	-73217	63471	SLV 9	0.87	No
ini.	2	-1324	-80000	63471	SLV 8	0.79	No
fin.	2	-24	2518	63471	SLV 8	25.21	Si
ini.	2	-553	-7074	63471	SLV 10	8.97	Si
fin.	2	-2520	-73217	63471	SLV 10	0.87	No
ini.	2	-1812	-101985	63471	SLV 11	0.62	No
fin.	2	-491	-7441	63471	SLV 11	8.53	Si
ini.	2	-1941	-94415	63471	SLV 15	0.67	No
fin.	2	-1744	-42081	63471	SLV 15	1.51	Si
ini.	2	-1812	-101985	63471	SLV 12	0.62	No
fin.	2	-491	-7441	63471	SLV 12	8.53	Si
ini.	2	-1941	-94415	63471	SLV 16	0.67	No
fin.	2	-1744	-42081	63471	SLV 16	1.51	Si
ini.	2	-1312	-68551	63471	SLD 11	0.93	No
fin.	2	-935	-23371	63471	SLD 11	2.72	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-65942	1983			849	320	SLV 13	0.16	No
fin.	2	0	-61814	-5115			849	320	SLV 13	0.06	No
ini.	2	0	-94415	2738			849	320	SLV 16	0.12	No
fin.	2	0	-42081	-4098			849	320	SLV 16	0.08	No
ini.	2	0	-7074	375			849	320	SLV 10	0.85	No
fin.	2	0	-73217	-5220			849	320	SLV 10	0.06	No
ini.	2	0	-27911	916			849	320	SLD 9	0.35	No
fin.	2	0	-51588	-3985			849	320	SLD 9	0.08	No
ini.	2	0	-7074	375			849	320	SLV 9	0.85	No
fin.	2	0	-73217	-5220			849	320	SLV 9	0.06	No
ini.	2	0	14911	-247			849	320	SLV 6	1.29	Si
fin.	2	0	-63257	-4292			849	320	SLV 6	0.07	No
ini.	2	0	-94415	2738			849	320	SLV 15	0.12	No
fin.	2	0	-42081	-4098			849	320	SLV 15	0.08	No
ini.	2	0	-27911	916			849	320	SLD 10	0.35	No
fin.	2	0	-51588	-3985			849	320	SLD 10	0.08	No
ini.	2	0	14911	-247			849	320	SLV 5	1.29	Si
fin.	2	0	-63257	-4292			849	320	SLV 5	0.07	No
ini.	2	0	-65942	1983			849	320	SLV 14	0.16	No
fin.	2	0	-61814	-5115			849	320	SLV 14	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.622	SLV 11	No
V_SLV	0.061	SLV 9	No
PF_SLU	0.784	SLU 83	No
V_SLU	0.047	SLU 84	No

Trave di accoppiamento 37

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2176.3	595.1	110	200	90	-2276.3	595.1	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	5042	96336	103792	SLU 77	1.08	Si
fin.	3	5233	-42884	103792	SLU 77	2.42	Si
ini.	3	4920	92226	103792	SLU 75	1.13	Si
fin.	3	5087	-40662	103792	SLU 75	2.55	Si
ini.	3	5092	95540	103792	SLU 84	1.09	Si
fin.	3	5267	-42598	103792	SLU 84	2.44	Si
ini.	3	4963	95983	103792	SLU 80	1.08	Si
fin.	3	5148	-42914	103792	SLU 80	2.42	Si
ini.	3	5009	95898	103792	SLU 79	1.08	Si
fin.	3	5200	-42673	103792	SLU 79	2.43	Si
ini.	3	5137	95455	103792	SLU 83	1.09	Si
fin.	3	5319	-42358	103792	SLU 83	2.45	Si
ini.	3	4996	96421	103792	SLU 78	1.08	Si
fin.	3	5181	-43125	103792	SLU 78	2.41	Si
ini.	3	4966	92141	103792	SLU 74	1.13	Si
fin.	3	5138	-40421	103792	SLU 74	2.57	Si
ini.	3	4857	91845	103792	SLU 76	1.13	Si
fin.	3	5019	-40612	103792	SLU 76	2.56	Si
ini.	3	5016	91345	103792	SLU 82	1.14	Si
fin.	3	5172	-40136	103792	SLU 82	2.59	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	92141	-1621			873	329	SLU 74	0.2	No
fin.	3	0	-40421	-1659			873	329	SLU 74	0.2	No
ini.	3	0	95455	-1686			873	329	SLU 83	0.2	No
fin.	3	0	-42358	-1724			873	329	SLU 83	0.19	No
ini.	3	0	91345	-1599			873	329	SLU 82	0.21	No
fin.	3	0	-40136	-1655			873	329	SLU 82	0.2	No
ini.	3	0	95540	-1687			873	329	SLU 84	0.19	No
fin.	3	0	-42598	-1726			873	329	SLU 84	0.19	No
ini.	3	0	96421	-1712			873	329	SLU 78	0.19	No
fin.	3	0	-43125	-1732			873	329	SLU 78	0.19	No
ini.	3	0	95983	-1700			873	329	SLU 80	0.19	No
fin.	3	0	-42914	-1727			873	329	SLU 80	0.19	No
ini.	3	0	91845	-1613			873	329	SLU 76	0.2	No
fin.	3	0	-40612	-1658			873	329	SLU 76	0.2	No
ini.	3	0	95898	-1698			873	329	SLU 79	0.19	No
fin.	3	0	-42673	-1725			873	329	SLU 79	0.19	No
ini.	3	0	92226	-1623			873	329	SLU 75	0.2	No
fin.	3	0	-40662	-1661			873	329	SLU 75	0.2	No
ini.	3	0	96336	-1710			873	329	SLU 77	0.19	No
fin.	3	0	-42884	-1730			873	329	SLU 77	0.19	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	13913	610089	121694	SLV 7	0.2	No
fin.	2	22609	872	121694	SLV 7	139.54	Si
ini.	2	13913	610089	121694	SLV 8	0.2	No
fin.	2	22609	872	121694	SLV 8	139.54	Si
ini.	2	14734	487937	121694	SLV 12	0.25	No
fin.	2	22533	130466	121694	SLV 12	0.93	No
ini.	2	5311	410880	121694	SLV 3	0.3	No
fin.	2	9350	-214037	121694	SLV 3	0.57	No
ini.	2	-7927	-366257	121694	SLV 5	0.33	No
fin.	2	-15527	-181175	121694	SLV 5	0.67	No
ini.	2	-7927	-366257	121694	SLV 6	0.33	No
fin.	2	-15527	-181175	121694	SLV 6	0.67	No
ini.	2	5311	410880	121694	SLV 4	0.3	No
fin.	2	9350	-214037	121694	SLV 4	0.57	No
ini.	2	-7106	-488409	121694	SLV 9	0.25	No
fin.	2	-15603	-51581	121694	SLV 9	2.36	Si
ini.	2	14734	487937	121694	SLV 11	0.25	No
fin.	2	22533	130466	121694	SLV 11	0.93	No
ini.	2	-7106	-488409	121694	SLV 10	0.25	No
fin.	2	-15603	-51581	121694	SLV 10	2.36	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	487937	-4962			1310	493	SLV 12	0.1	No
fin.	2	0	130466	-2826			1310	493	SLV 12	0.17	No
ini.	2	0	610089	-7959			1310	493	SLV 8	0.06	No
fin.	2	0	872	-5638			1310	493	SLV 8	0.09	No
ini.	2	0	610089	-7959			1310	493	SLV 7	0.06	No
fin.	2	0	872	-5638			1310	493	SLV 7	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-488409	5880			1310	493	SLV 9	0.08	No
fin.	2	0	-51581	3438			1310	493	SLV 9	0.14	No
ini.	2	0	-289200	5583			1310	493	SLV 14	0.09	No
fin.	2	0	163327	4526			1310	493	SLV 14	0.11	No
ini.	2	0	487937	-4962			1310	493	SLV 11	0.1	No
fin.	2	0	130466	-2826			1310	493	SLV 11	0.17	No
ini.	2	0	410880	-7662			1310	493	SLV 4	0.06	No
fin.	2	0	-214037	-6727			1310	493	SLV 4	0.07	No
ini.	2	0	-289200	5583			1310	493	SLV 13	0.09	No
fin.	2	0	163327	4526			1310	493	SLV 13	0.11	No
ini.	2	0	410880	-7662			1310	493	SLV 3	0.06	No
fin.	2	0	-214037	-6727			1310	493	SLV 3	0.07	No
ini.	2	0	-488409	5880			1310	493	SLV 10	0.08	No
fin.	2	0	-51581	3438			1310	493	SLV 10	0.14	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.199	SLV 7	No
V_SLV	0.062	SLV 7	No
PF_SLU	1.076	SLU 78	Si
V_SLU	0.19	SLU 78	No

Trave di accoppiamento 38

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2176.3	595.1	390	483	93	-2276.3	595.1	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-625	8806	109042	SLU 84	12.38	Si
fin.	3	-309	-13223	109042	SLU 84	8.25	Si
ini.	3	-750	9427	109042	SLU 80	11.57	Si
fin.	3	-434	-14242	109042	SLU 80	7.66	Si
ini.	3	-756	9288	109042	SLU 79	11.74	Si
fin.	3	-413	-13655	109042	SLU 79	7.99	Si
ini.	3	-660	8836	109042	SLU 37	12.34	Si
fin.	3	-414	-12760	109042	SLU 37	8.55	Si
ini.	3	-729	9380	109042	SLU 78	11.62	Si
fin.	3	-414	-14244	109042	SLU 78	7.66	Si
ini.	3	-633	8928	109042	SLU 36	12.21	Si
fin.	3	-416	-13349	109042	SLU 36	8.17	Si
ini.	3	-639	8789	109042	SLU 35	12.41	Si
fin.	3	-395	-12762	109042	SLU 35	8.54	Si
ini.	3	-654	8976	109042	SLU 38	12.15	Si
fin.	3	-436	-13347	109042	SLU 38	8.17	Si
ini.	3	-626	8340	109042	SLU 76	13.08	Si
fin.	3	-320	-12954	109042	SLU 76	8.42	Si
ini.	3	-735	9240	109042	SLU 77	11.8	Si
fin.	3	-393	-13658	109042	SLU 77	7.98	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	8060	2577			933	351	SLU 74	0.14	No
fin.	3	0	-11978	-3260			933	351	SLU 74	0.11	No
ini.	3	0	9427	2532			933	351	SLU 80	0.14	No
fin.	3	0	-14242	-3335			933	351	SLU 80	0.11	No
ini.	3	0	7486	2663			933	351	SLU 81	0.13	No
fin.	3	0	-10956	-3315			933	351	SLU 81	0.11	No
ini.	3	0	8199	2542			933	351	SLU 75	0.14	No
fin.	3	0	-12565	-3256			933	351	SLU 75	0.11	No
ini.	3	0	7626	2628			933	351	SLU 82	0.13	No
fin.	3	0	-11543	-3312			933	351	SLU 82	0.11	No
ini.	3	0	9380	2551			933	351	SLU 78	0.14	No
fin.	3	0	-14244	-3356			933	351	SLU 78	0.1	No
ini.	3	0	9240	2586			933	351	SLU 77	0.14	No
fin.	3	0	-13658	-3359			933	351	SLU 77	0.1	No
ini.	3	0	8806	2637			933	351	SLU 84	0.13	No
fin.	3	0	-13223	-3411			933	351	SLU 84	0.1	No
ini.	3	0	9288	2567			933	351	SLU 79	0.14	No
fin.	3	0	-13655	-3338			933	351	SLU 79	0.11	No
ini.	3	0	8667	2672			933	351	SLU 83	0.13	No
fin.	3	0	-12636	-3415			933	351	SLU 83	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3467	-122360	126944	SLV 15	1.04	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	2465	90798	126944	SLV 15	1.4	Si
ini.	2	2684	131002	126944	SLV 1	0.97	No
fin.	2	-2666	-104149	126944	SLV 1	1.22	Si
ini.	2	2622	152439	126944	SLV 3	0.83	No
fin.	2	-3100	-111403	126944	SLV 3	1.14	Si
ini.	2	-3404	-143797	126944	SLV 13	0.88	No
fin.	2	2899	98052	126944	SLV 13	1.29	Si
ini.	2	417	81269	126944	SLV 8	1.56	Si
fin.	2	-1658	-49095	126944	SLV 8	2.59	Si
ini.	2	417	81269	126944	SLV 7	1.56	Si
fin.	2	-1658	-49095	126944	SLV 7	2.59	Si
ini.	2	2622	152439	126944	SLV 4	0.83	No
fin.	2	-3100	-111403	126944	SLV 4	1.14	Si
ini.	2	-3467	-122360	126944	SLV 16	1.04	Si
fin.	2	2465	90798	126944	SLV 16	1.4	Si
ini.	2	-3404	-143797	126944	SLV 14	0.88	No
fin.	2	2899	98052	126944	SLV 14	1.29	Si
ini.	2	2684	131002	126944	SLV 2	0.97	No
fin.	2	-2666	-104149	126944	SLV 2	1.22	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-143797	6864			1399	526	SLV 14	0.08	No
fin.	2	0	98052	3623			1399	526	SLV 14	0.15	No
ini.	2	0	81269	213			1399	526	SLV 7	2.47	Si
fin.	2	0	-49095	-5114			1399	526	SLV 7	0.1	No
ini.	2	0	81269	213			1399	526	SLV 8	2.47	Si
fin.	2	0	-49095	-5114			1399	526	SLV 8	0.1	No
ini.	2	0	131002	-3276			1399	526	SLV 1	0.16	No
fin.	2	0	-104149	-7043			1399	526	SLV 1	0.07	No
ini.	2	0	131002	-3276			1399	526	SLV 2	0.16	No
fin.	2	0	-104149	-7043			1399	526	SLV 2	0.07	No
ini.	2	0	-143797	6864			1399	526	SLV 13	0.08	No
fin.	2	0	98052	3623			1399	526	SLV 13	0.15	No
ini.	2	0	-122360	6836			1399	526	SLV 15	0.08	No
fin.	2	0	90798	2791			1399	526	SLV 15	0.19	No
ini.	2	0	152439	-3304			1399	526	SLV 4	0.16	No
fin.	2	0	-111403	-7876			1399	526	SLV 4	0.07	No
ini.	2	0	-122360	6836			1399	526	SLV 16	0.08	No
fin.	2	0	90798	2791			1399	526	SLV 16	0.19	No
ini.	2	0	152439	-3304			1399	526	SLV 3	0.16	No
fin.	2	0	-111403	-7876			1399	526	SLV 3	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.833	SLV 3	No
V_SLV	0.067	SLV 3	No
PF_SLU	7.655	SLU 78	Si
V_SLU	0.103	SLU 83	No

Trave di accoppiamento 39

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2154.3	-335.9	110	200	90	-2254.3	-335.9	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	10085	143801	103792	SLU 55	0.72	No
fin.	3	10600	-103316	103792	SLU 55	1	Si
ini.	3	10655	156919	103792	SLU 76	0.66	No
fin.	3	11248	-116192	103792	SLU 76	0.89	No
ini.	3	8958	148186	103792	SLU 75	0.7	No
fin.	3	9580	-118147	103792	SLU 75	0.88	No
ini.	3	10043	143993	103792	SLU 68	0.72	No
fin.	3	10574	-103975	103792	SLU 68	1	No
ini.	3	10626	153472	103792	SLU 73	0.68	No
fin.	3	11177	-112773	103792	SLU 73	0.92	No
ini.	3	10014	140546	103792	SLU 65	0.74	No
fin.	3	10503	-100555	103792	SLU 65	1.03	Si
ini.	3	8986	151632	103792	SLU 78	0.68	No
fin.	3	9651	-121566	103792	SLU 78	0.85	No
ini.	3	8931	150792	103792	SLU 80	0.69	No
fin.	3	9595	-120723	103792	SLU 80	0.86	No
ini.	3	9165	152885	103792	SLU 84	0.68	No
fin.	3	9813	-122540	103792	SLU 84	0.85	No
ini.	3	9137	149438	103792	SLU 82	0.69	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	9742	-119120	103792	SLU 82	0.87	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	152885	-3004			873	329	SLU 84	0.11	No
fin.	3	0	-122540	-3678			873	329	SLU 84	0.09	No
ini.	3	0	149438	-2916			873	329	SLU 82	0.11	No
fin.	3	0	-119120	-3595			873	329	SLU 82	0.09	No
ini.	3	0	140546	-2370			873	329	SLU 65	0.14	No
fin.	3	0	-100555	-3419			873	329	SLU 65	0.1	No
ini.	3	0	156919	-2778			873	329	SLU 76	0.12	No
fin.	3	0	-116192	-3808			873	329	SLU 76	0.09	No
ini.	3	0	143993	-2458			873	329	SLU 68	0.13	No
fin.	3	0	-103975	-3503			873	329	SLU 68	0.09	No
ini.	3	0	151632	-2978			873	329	SLU 78	0.11	No
fin.	3	0	-121566	-3648			873	329	SLU 78	0.09	No
ini.	3	0	150792	-2955			873	329	SLU 80	0.11	No
fin.	3	0	-120723	-3631			873	329	SLU 80	0.09	No
ini.	3	0	153472	-2690			873	329	SLU 73	0.12	No
fin.	3	0	-112773	-3725			873	329	SLU 73	0.09	No
ini.	3	0	143801	-2448			873	329	SLU 55	0.13	No
fin.	3	0	-103316	-3494			873	329	SLU 55	0.09	No
ini.	3	0	148186	-2890			873	329	SLU 75	0.11	No
fin.	3	0	-118147	-3564			873	329	SLU 75	0.09	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	7390	362569	121694	SLV 2	0.34	No
fin.	2	10924	-340502	121694	SLV 2	0.36	No
ini.	2	-2577	328181	121694	SLV 4	0.37	No
fin.	2	1493	-362929	121694	SLV 4	0.34	No
ini.	2	5495	205851	121694	SLD 1	0.59	No
fin.	2	7275	-191139	121694	SLD 1	0.64	No
ini.	2	11346	-147161	121694	SLV 13	0.83	No
fin.	2	8137	202633	121694	SLV 13	0.6	No
ini.	2	11346	-147161	121694	SLV 14	0.83	No
fin.	2	8137	202633	121694	SLV 14	0.6	No
ini.	2	20404	224284	121694	SLV 5	0.54	No
fin.	2	20951	-124240	121694	SLV 5	0.98	No
ini.	2	20404	224284	121694	SLV 6	0.54	No
fin.	2	20951	-124240	121694	SLV 6	0.98	No
ini.	2	-2577	328181	121694	SLV 3	0.37	No
fin.	2	1493	-362929	121694	SLV 3	0.34	No
ini.	2	5495	205851	121694	SLD 2	0.59	No
fin.	2	7275	-191139	121694	SLD 2	0.64	No
ini.	2	7390	362569	121694	SLV 1	0.34	No
fin.	2	10924	-340502	121694	SLV 1	0.36	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-181549	5037			1310	493	SLV 16	0.1	No
fin.	2	0	180207	5047			1310	493	SLV 16	0.1	No
ini.	2	0	328181	-8090			1310	493	SLV 3	0.06	No
fin.	2	0	-362929	-8136			1310	493	SLV 3	0.06	No
ini.	2	0	224284	-5604			1310	493	SLV 6	0.09	No
fin.	2	0	-124240	-6128			1310	493	SLV 6	0.08	No
ini.	2	0	362569	-9063			1310	493	SLV 1	0.05	No
fin.	2	0	-340502	-9339			1310	493	SLV 1	0.05	No
ini.	2	0	-181549	5037			1310	493	SLV 15	0.1	No
fin.	2	0	180207	5047			1310	493	SLV 15	0.1	No
ini.	2	0	205851	-5011			1310	493	SLD 1	0.1	No
fin.	2	0	-191139	-5197			1310	493	SLD 1	0.09	No
ini.	2	0	205851	-5011			1310	493	SLD 2	0.1	No
fin.	2	0	-191139	-5197			1310	493	SLD 2	0.09	No
ini.	2	0	362569	-9063			1310	493	SLV 2	0.05	No
fin.	2	0	-340502	-9339			1310	493	SLV 2	0.05	No
ini.	2	0	224284	-5604			1310	493	SLV 5	0.09	No
fin.	2	0	-124240	-6128			1310	493	SLV 5	0.08	No
ini.	2	0	328181	-8090			1310	493	SLV 4	0.06	No
fin.	2	0	-362929	-8136			1310	493	SLV 4	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.335	SLV 3	No
V_SLV	0.053	SLV 1	No
PF_SLU	0.661	SLU 76	No
V_SLU	0.086	SLU 76	No

Trave di accoppiamento 40

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2154.3	-335.9	390	483	93	-2254.3	-335.9	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1942	87048	109042	SLU 82	1.25	Si
fin.	3	-1234	-33185	109042	SLU 82	3.29	Si
ini.	3	1962	89035	109042	SLU 84	1.22	Si
fin.	3	-1282	-34458	109042	SLU 84	3.16	Si
ini.	3	1906	86439	109042	SLU 75	1.26	Si
fin.	3	-1231	-33145	109042	SLU 75	3.29	Si
ini.	3	1772	84306	109042	SLU 55	1.29	Si
fin.	3	-1180	-28319	109042	SLU 55	3.85	Si
ini.	3	1801	85074	109042	SLU 68	1.28	Si
fin.	3	-1177	-28535	109042	SLU 68	3.82	Si
ini.	3	1978	90504	109042	SLU 73	1.2	Si
fin.	3	-1246	-30896	109042	SLU 73	3.53	Si
ini.	3	1926	88426	109042	SLU 78	1.23	Si
fin.	3	-1279	-34418	109042	SLU 78	3.17	Si
ini.	3	1897	87843	109042	SLU 80	1.24	Si
fin.	3	-1279	-34174	109042	SLU 80	3.19	Si
ini.	3	1782	83087	109042	SLU 65	1.31	Si
fin.	3	-1129	-27262	109042	SLU 65	4	Si
ini.	3	1998	92490	109042	SLU 76	1.18	Si
fin.	3	-1294	-32169	109042	SLU 76	3.39	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	77893	-155			933	351	SLU 79	2.27	Si
fin.	3	0	-35272	-5769			933	351	SLU 79	0.06	No
ini.	3	0	86439	-493			933	351	SLU 75	0.71	No
fin.	3	0	-33145	-5714			933	351	SLU 75	0.06	No
ini.	3	0	78475	-156			933	351	SLU 77	2.24	Si
fin.	3	0	-35516	-5815			933	351	SLU 77	0.06	No
ini.	3	0	77098	-72			933	351	SLU 81	4.91	Si
fin.	3	0	-34283	-5810			933	351	SLU 81	0.06	No
ini.	3	0	76488	-119			933	351	SLU 74	2.95	Si
fin.	3	0	-34243	-5698			933	351	SLU 74	0.06	No
ini.	3	0	87843	-529			933	351	SLU 80	0.66	No
fin.	3	0	-34174	-5785			933	351	SLU 80	0.06	No
ini.	3	0	88426	-530			933	351	SLU 78	0.66	No
fin.	3	0	-34418	-5831			933	351	SLU 78	0.06	No
ini.	3	0	89035	-483			933	351	SLU 84	0.73	No
fin.	3	0	-34458	-5944			933	351	SLU 84	0.06	No
ini.	3	0	79084	-109			933	351	SLU 83	3.22	Si
fin.	3	0	-35556	-5928			933	351	SLU 83	0.06	No
ini.	3	0	87048	-446			933	351	SLU 82	0.79	No
fin.	3	0	-33185	-5826			933	351	SLU 82	0.06	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	5037	248200	126944	SLV 1	0.51	No
fin.	2	-5825	-163112	126944	SLV 1	0.78	No
ini.	2	4155	222534	126944	SLV 4	0.57	No
fin.	2	-5459	-155260	126944	SLV 4	0.82	No
ini.	2	2792	135141	126944	SLD 1	0.94	No
fin.	2	-2921	-82486	126944	SLD 1	1.54	Si
ini.	2	4155	222534	126944	SLV 3	0.57	No
fin.	2	-5459	-155260	126944	SLV 3	0.82	No
ini.	2	-2745	-145247	126944	SLV 16	0.87	No
fin.	2	4313	117972	126944	SLV 16	1.08	Si
ini.	2	2792	135141	126944	SLD 2	0.94	No
fin.	2	-2921	-82486	126944	SLD 2	1.54	Si
ini.	2	3653	149419	126944	SLV 5	0.85	No
fin.	2	-2833	-76641	126944	SLV 5	1.66	Si
ini.	2	-2745	-145247	126944	SLV 15	0.87	No
fin.	2	4313	117972	126944	SLV 15	1.08	Si
ini.	2	3653	149419	126944	SLV 6	0.85	No
fin.	2	-2833	-76641	126944	SLV 6	1.66	Si
ini.	2	5037	248200	126944	SLV 2	0.51	No
fin.	2	-5825	-163112	126944	SLV 2	0.78	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-145247	7540			1399	526	SLV 16	0.07	No
fin.	2	0	117972	4305			1399	526	SLV 16	0.12	No
ini.	2	0	149419	-4460			1399	526	SLV 6	0.12	No
fin.	2	0	-76641	-7109			1399	526	SLV 6	0.07	No
ini.	2	0	-145247	7540			1399	526	SLV 15	0.07	No
fin.	2	0	117972	4305			1399	526	SLV 15	0.12	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	222534	-6276			1399	526	SLV 3	0.08	No
fin.	2	0	-155260	-11340			1399	526	SLV 3	0.05	No
ini.	2	0	135141	-3290			1399	526	SLD 1	0.16	No
fin.	2	0	-82486	-7263			1399	526	SLD 1	0.07	No
ini.	2	0	149419	-4460			1399	526	SLV 5	0.12	No
fin.	2	0	-76641	-7109			1399	526	SLV 5	0.07	No
ini.	2	0	135141	-3290			1399	526	SLD 2	0.16	No
fin.	2	0	-82486	-7263			1399	526	SLD 2	0.07	No
ini.	2	0	248200	-7670			1399	526	SLV 1	0.07	No
fin.	2	0	-163112	-11914			1399	526	SLV 1	0.04	No
ini.	2	0	248200	-7670			1399	526	SLV 2	0.07	No
fin.	2	0	-163112	-11914			1399	526	SLV 2	0.04	No
ini.	2	0	222534	-6276			1399	526	SLV 4	0.08	No
fin.	2	0	-155260	-11340			1399	526	SLV 4	0.05	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.511	SLV 1	No
V_SLV	0.044	SLV 1	No
PF_SLU	1.179	SLU 76	Si
V_SLU	0.059	SLU 84	No

Trave di accoppiamento 41

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	110	310	200	-1936.8	-335.9	110	310	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2571	-148066	296292	SLU 78	2	Si
fin.	3	1140	408078	296292	SLU 78	0.73	No
ini.	3	-3008	-199197	296292	SLU 73	1.49	Si
fin.	3	1330	419616	296292	SLU 73	0.71	No
ini.	3	-1751	-63285	296292	SLU 74	4.68	Si
fin.	3	834	392168	296292	SLU 74	0.76	No
ini.	3	-3044	-201007	296292	SLU 76	1.47	Si
fin.	3	1333	417848	296292	SLU 76	0.71	No
ini.	3	-2559	-147503	296292	SLU 80	2.01	Si
fin.	3	1132	404294	296292	SLU 80	0.73	No
ini.	3	-2564	-146734	296292	SLU 84	2.02	Si
fin.	3	1185	423032	296292	SLU 84	0.7	No
ini.	3	-2534	-146256	296292	SLU 75	2.03	Si
fin.	3	1138	409846	296292	SLU 75	0.72	No
ini.	3	-1745	-61953	296292	SLU 81	4.78	Si
fin.	3	879	407122	296292	SLU 81	0.73	No
ini.	3	-2528	-144924	296292	SLU 82	2.04	Si
fin.	3	1183	424801	296292	SLU 82	0.7	No
ini.	3	-1781	-63763	296292	SLU 83	4.65	Si
fin.	3	881	405354	296292	SLU 83	0.73	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-63285	1417			2157	812	SLU 74	0.57	No
fin.	3	0	392168	7120			2157	812	SLU 74	0.11	No
ini.	3	0	-201007	1293			2157	812	SLU 76	0.63	No
fin.	3	0	417848	6978			2157	812	SLU 76	0.12	No
ini.	3	0	-146256	1356			2157	812	SLU 75	0.6	No
fin.	3	0	409846	7082			2157	812	SLU 75	0.11	No
ini.	3	0	-144924	1459			2157	812	SLU 82	0.56	No
fin.	3	0	424801	7377			2157	812	SLU 82	0.11	No
ini.	3	0	-146734	1386			2157	812	SLU 84	0.59	No
fin.	3	0	423032	7306			2157	812	SLU 84	0.11	No
ini.	3	0	-65095	1344			2157	812	SLU 77	0.6	No
fin.	3	0	390400	7049			2157	812	SLU 77	0.12	No
ini.	3	0	-199197	1367			2157	812	SLU 73	0.59	No
fin.	3	0	419616	7049			2157	812	SLU 73	0.12	No
ini.	3	0	-63763	1447			2157	812	SLU 83	0.56	No
fin.	3	0	405354	7344			2157	812	SLU 83	0.11	No
ini.	3	0	-61953	1521			2157	812	SLU 81	0.53	No
fin.	3	0	407122	7415			2157	812	SLU 81	0.11	No
ini.	3	0	-148066	1282			2157	812	SLU 78	0.63	No
fin.	3	0	408078	7011			2157	812	SLU 78	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	8088	538113	314194	SLV 11	0.58	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1	263788	314194	SLV 11	1.19	Si
ini.	2	-10077	-625706	314194	SLV 9	0.5	No
fin.	2	-333	420371	314194	SLV 9	0.75	No
ini.	2	7589	535986	314194	SLV 7	0.59	No
fin.	2	1418	127111	314194	SLV 7	2.47	Si
ini.	2	-3137	-215888	314194	SLV 13	1.46	Si
fin.	2	-1872	525024	314194	SLV 13	0.6	No
ini.	2	-10576	-627833	314194	SLV 6	0.5	No
fin.	2	1086	283693	314194	SLV 6	1.11	Si
ini.	2	8088	538113	314194	SLV 12	0.58	No
fin.	2	-1	263788	314194	SLV 12	1.19	Si
ini.	2	-10576	-627833	314194	SLV 5	0.5	No
fin.	2	1086	283693	314194	SLV 5	1.11	Si
ini.	2	-10077	-625706	314194	SLV 10	0.5	No
fin.	2	-333	420371	314194	SLV 10	0.75	No
ini.	2	-3137	-215888	314194	SLV 14	1.46	Si
fin.	2	-1872	525024	314194	SLV 14	0.6	No
ini.	2	7589	535986	314194	SLV 8	0.59	No
fin.	2	1418	127111	314194	SLV 8	2.47	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-625706	2437			3235	1217	SLV 9	0.5	No
fin.	2	0	420371	10565			3235	1217	SLV 9	0.12	No
ini.	2	0	-625706	2437			3235	1217	SLV 10	0.5	No
fin.	2	0	420371	10565			3235	1217	SLV 10	0.12	No
ini.	2	0	-215888	10806			3235	1217	SLV 14	0.11	No
fin.	2	0	525024	16699			3235	1217	SLV 14	0.07	No
ini.	2	0	-112509	5229			3235	1217	SLD 13	0.23	No
fin.	2	0	381630	9975			3235	1217	SLD 13	0.12	No
ini.	2	0	-215888	10806			3235	1217	SLV 13	0.11	No
fin.	2	0	525024	16699			3235	1217	SLV 13	0.07	No
ini.	2	0	133258	11824			3235	1217	SLV 15	0.1	No
fin.	2	0	478049	15345			3235	1217	SLV 15	0.08	No
ini.	2	0	-112509	5229			3235	1217	SLD 14	0.23	No
fin.	2	0	381630	9975			3235	1217	SLD 14	0.12	No
ini.	2	0	-222978	-9713			3235	1217	SLV 1	0.13	No
fin.	2	0	69432	-5339			3235	1217	SLV 1	0.23	No
ini.	2	0	-222978	-9713			3235	1217	SLV 2	0.13	No
fin.	2	0	69432	-5339			3235	1217	SLV 2	0.23	No
ini.	2	0	133258	11824			3235	1217	SLV 16	0.1	No
fin.	2	0	478049	15345			3235	1217	SLV 16	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.5	SLV 5	No
V_SLV	0.073	SLV 13	No
PF_SLU	0.697	SLU 82	No
V_SLU	0.109	SLU 81	No

Trave di accoppiamento 42

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	390	483	93	-1936.8	-335.9	390	483	93	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2321	-17537	109042	SLU 82	6.22	Si
fin.	3	2670	61131	109042	SLU 82	1.78	Si
ini.	3	2147	-16035	109042	SLU 61	6.8	Si
fin.	3	2470	57093	109042	SLU 61	1.91	Si
ini.	3	2277	-19057	109042	SLU 76	5.72	Si
fin.	3	2660	62426	109042	SLU 76	1.75	Si
ini.	3	2176	-17884	109042	SLU 75	6.1	Si
fin.	3	2522	58067	109042	SLU 75	1.88	Si
ini.	3	2182	-19226	109042	SLU 84	5.67	Si
fin.	3	2547	59094	109042	SLU 84	1.85	Si
ini.	3	2244	-15106	109042	SLU 65	7.22	Si
fin.	3	2575	59796	109042	SLU 65	1.82	Si
ini.	3	2104	-17554	109042	SLU 55	6.21	Si
fin.	3	2460	58387	109042	SLU 55	1.87	Si
ini.	3	2243	-15865	109042	SLU 52	6.87	Si
fin.	3	2584	60424	109042	SLU 52	1.8	Si
ini.	3	2416	-17368	109042	SLU 73	6.28	Si
fin.	3	2783	64462	109042	SLU 73	1.69	Si
ini.	3	2106	-16795	109042	SLU 68	6.49	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	2451	57759	109042	SLU 68	1.89	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-16337	2897			1003	377	SLU 81	0.13	No
fin.	3	0	53135	-213			1003	377	SLU 81	1.77	Si
ini.	3	0	-17554	2862			1003	377	SLU 55	0.13	No
fin.	3	0	58387	336			1003	377	SLU 55	1.12	Si
ini.	3	0	-18027	2909			1003	377	SLU 83	0.13	No
fin.	3	0	51098	-215			1003	377	SLU 83	1.76	Si
ini.	3	0	-19573	3009			1003	377	SLU 78	0.13	No
fin.	3	0	56030	84			1003	377	SLU 78	4.48	Si
ini.	3	0	-19057	3104			1003	377	SLU 76	0.12	No
fin.	3	0	62426	292			1003	377	SLU 76	1.29	Si
ini.	3	0	-17537	3091			1003	377	SLU 82	0.12	No
fin.	3	0	61131	80			1003	377	SLU 82	4.7	Si
ini.	3	0	-19946	2987			1003	377	SLU 80	0.13	No
fin.	3	0	55058	94			1003	377	SLU 80	4	Si
ini.	3	0	-17368	3092			1003	377	SLU 73	0.12	No
fin.	3	0	64462	293			1003	377	SLU 73	1.29	Si
ini.	3	0	-19226	3104			1003	377	SLU 84	0.12	No
fin.	3	0	59094	78			1003	377	SLU 84	4.81	Si
ini.	3	0	-17884	2996			1003	377	SLU 75	0.13	No
fin.	3	0	58067	86			1003	377	SLU 75	4.38	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4366	-17370	126944	SLV 3	7.31	Si
fin.	2	-4848	-106180	126944	SLV 3	1.2	Si
ini.	2	7191	-3425	126944	SLV 13	37.06	Si
fin.	2	8060	178561	126944	SLV 13	0.71	No
ini.	2	5583	38734	126944	SLV 9	3.28	Si
fin.	2	5948	129010	126944	SLV 9	0.98	No
ini.	2	5583	38734	126944	SLV 10	3.28	Si
fin.	2	5948	129010	126944	SLV 10	0.98	No
ini.	2	7191	-3425	126944	SLV 14	37.06	Si
fin.	2	8060	178561	126944	SLV 14	0.71	No
ini.	2	3859	-7873	126944	SLD 14	16.12	Si
fin.	2	4341	96500	126944	SLD 14	1.32	Si
ini.	2	-4366	-17370	126944	SLV 4	7.31	Si
fin.	2	-4848	-106180	126944	SLV 4	1.2	Si
ini.	2	3859	-7873	126944	SLD 13	16.12	Si
fin.	2	4341	96500	126944	SLD 13	1.32	Si
ini.	2	5584	-34441	126944	SLV 15	3.69	Si
fin.	2	6475	145523	126944	SLV 15	0.87	No
ini.	2	5584	-34441	126944	SLV 16	3.69	Si
fin.	2	6475	145523	126944	SLV 16	0.87	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-7873	3506			1504	566	SLD 13	0.16	No
fin.	2	0	96500	1209			1504	566	SLD 13	0.47	No
ini.	2	0	13645	-1786			1504	566	SLV 1	0.32	No
fin.	2	0	-73142	-4411			1504	566	SLV 1	0.13	No
ini.	2	0	-20502	3523			1504	566	SLD 16	0.16	No
fin.	2	0	83461	1699			1504	566	SLD 16	0.33	No
ini.	2	0	-20502	3523			1504	566	SLD 15	0.16	No
fin.	2	0	83461	1699			1504	566	SLD 15	0.33	No
ini.	2	0	-3425	5639			1504	566	SLV 14	0.1	No
fin.	2	0	178561	2953			1504	566	SLV 14	0.19	No
ini.	2	0	13645	-1786			1504	566	SLV 2	0.32	No
fin.	2	0	-73142	-4411			1504	566	SLV 2	0.13	No
ini.	2	0	-34441	5647			1504	566	SLV 16	0.1	No
fin.	2	0	145523	4170			1504	566	SLV 16	0.14	No
ini.	2	0	-34441	5647			1504	566	SLV 15	0.1	No
fin.	2	0	145523	4170			1504	566	SLV 15	0.14	No
ini.	2	0	-3425	5639			1504	566	SLV 13	0.1	No
fin.	2	0	178561	2953			1504	566	SLV 13	0.19	No
ini.	2	0	-7873	3506			1504	566	SLD 14	0.16	No
fin.	2	0	96500	1209			1504	566	SLD 14	0.47	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.711	SLV 13	No
V_SLV	0.1	SLV 15	No
PF_SLU	1.692	SLU 73	Si
V_SLU	0.122	SLU 76	No

Trave di accoppiamento 43

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1731.3	-335.9	110	200	90	-1831.3	-335.9	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2424	-158112	103792	SLU 52	0.66	No
fin.	3	-3878	-46778	103792	SLU 52	2.22	Si
ini.	3	-1959	-159430	103792	SLU 81	0.65	No
fin.	3	-2456	-14071	103792	SLU 81	7.38	Si
ini.	3	-2347	-169759	103792	SLU 82	0.61	No
fin.	3	-3436	-35385	103792	SLU 82	2.93	Si
ini.	3	-2360	-160482	103792	SLU 75	0.65	No
fin.	3	-3407	-38471	103792	SLU 75	2.7	Si
ini.	3	-2449	-154134	103792	SLU 78	0.67	No
fin.	3	-3434	-43166	103792	SLU 78	2.4	Si
ini.	3	-2234	-157329	103792	SLU 61	0.66	No
fin.	3	-3298	-33181	103792	SLU 61	3.13	Si
ini.	3	-2626	-164194	103792	SLU 76	0.63	No
fin.	3	-4043	-53677	103792	SLU 76	1.93	Si
ini.	3	-2436	-163411	103792	SLU 84	0.64	No
fin.	3	-3463	-40079	103792	SLU 84	2.59	Si
ini.	3	-2537	-170542	103792	SLU 73	0.61	No
fin.	3	-4016	-48982	103792	SLU 73	2.12	Si
ini.	3	-2376	-156301	103792	SLU 65	0.66	No
fin.	3	-3846	-47554	103792	SLU 65	2.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-164194	1007			873	329	SLU 76	0.33	No
fin.	3	0	-53677	4229			873	329	SLU 76	0.08	No
ini.	3	0	-169759	1121			873	329	SLU 82	0.29	No
fin.	3	0	-35385	4315			873	329	SLU 82	0.08	No
ini.	3	0	-156301	1088			873	329	SLU 65	0.3	No
fin.	3	0	-47554	4004			873	329	SLU 65	0.08	No
ini.	3	0	-160482	994			873	329	SLU 75	0.33	No
fin.	3	0	-38471	4113			873	329	SLU 75	0.08	No
ini.	3	0	-154134	850			873	329	SLU 78	0.39	No
fin.	3	0	-43166	3988			873	329	SLU 78	0.08	No
ini.	3	0	-170542	1151			873	329	SLU 73	0.29	No
fin.	3	0	-48982	4354			873	329	SLU 73	0.08	No
ini.	3	0	-159430	1036			873	329	SLU 81	0.32	No
fin.	3	0	-14071	4031			873	329	SLU 81	0.08	No
ini.	3	0	-157329	1064			873	329	SLU 61	0.31	No
fin.	3	0	-33181	4018			873	329	SLU 61	0.08	No
ini.	3	0	-158112	1093			873	329	SLU 52	0.3	No
fin.	3	0	-46778	4058			873	329	SLU 52	0.08	No
ini.	3	0	-163411	977			873	329	SLU 84	0.34	No
fin.	3	0	-40079	4190			873	329	SLU 84	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1110	-230231	121694	SLD 13	0.53	No
fin.	2	-2998	57877	121694	SLD 13	2.1	Si
ini.	2	-7340	-290290	121694	SLV 9	0.42	No
fin.	2	-11699	-959	121694	SLV 9	126.91	Si
ini.	2	-7340	-290290	121694	SLV 10	0.42	No
fin.	2	-11699	-959	121694	SLV 10	126.91	Si
ini.	2	-849	-392520	121694	SLV 14	0.31	No
fin.	2	-4882	146352	121694	SLV 14	0.83	No
ini.	2	570	-202256	121694	SLD 15	0.6	No
fin.	2	-629	66545	121694	SLD 15	1.83	Si
ini.	2	-849	-392520	121694	SLV 13	0.31	No
fin.	2	-4882	146352	121694	SLV 13	0.83	No
ini.	2	-1110	-230231	121694	SLD 14	0.53	No
fin.	2	-2998	57877	121694	SLD 14	2.1	Si
ini.	2	570	-202256	121694	SLD 16	0.6	No
fin.	2	-629	66545	121694	SLD 16	1.83	Si
ini.	2	3198	-328758	121694	SLV 16	0.37	No
fin.	2	1072	171697	121694	SLV 16	0.71	No
ini.	2	3198	-328758	121694	SLV 15	0.37	No
fin.	2	1072	171697	121694	SLV 15	0.71	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-328758	4645			1310	493	SLV 16	0.11	No
fin.	2	0	171697	7539			1310	493	SLV 16	0.07	No
ini.	2	0	175869	-7186			1310	493	SLV 4	0.07	No
fin.	2	0	-164708	-3839			1310	493	SLV 4	0.13	No
ini.	2	0	175869	-7186			1310	493	SLV 3	0.07	No
fin.	2	0	-164708	-3839			1310	493	SLV 3	0.13	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-328758	4645			1310	493	SLV 15	0.11	No
fin.	2	0	171697	7539			1310	493	SLV 15	0.07	No
ini.	2	0	-290290	9186			1310	493	SLV 10	0.05	No
fin.	2	0	-959	7459			1310	493	SLV 10	0.07	No
ini.	2	0	-392520	8652			1310	493	SLV 14	0.06	No
fin.	2	0	146352	9340			1310	493	SLV 14	0.05	No
ini.	2	0	-392520	8652			1310	493	SLV 13	0.06	No
fin.	2	0	146352	9340			1310	493	SLV 13	0.05	No
ini.	2	0	73639	-7720			1310	493	SLV 8	0.06	No
fin.	2	0	-17398	-1958			1310	493	SLV 8	0.25	No
ini.	2	0	-290290	9186			1310	493	SLV 9	0.05	No
fin.	2	0	-959	7459			1310	493	SLV 9	0.07	No
ini.	2	0	73639	-7720			1310	493	SLV 7	0.06	No
fin.	2	0	-17398	-1958			1310	493	SLV 7	0.25	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.31	SLV 13	No
V_SLV	0.053	SLV 13	No
PF_SLU	0.609	SLU 73	No
V_SLU	0.075	SLU 73	No

Trave di accoppiamento 44

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1731.3	-335.9	390	483	93	-1831.3	-335.9	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	307	-22987	109042	SLU 73	4.74	Si
fin.	3	2443	37223	109042	SLU 73	2.93	Si
ini.	3	244	-21334	109042	SLU 55	5.11	Si
fin.	3	2103	31471	109042	SLU 55	3.46	Si
ini.	3	283	-19551	109042	SLU 68	5.58	Si
fin.	3	2114	31610	109042	SLU 68	3.45	Si
ini.	3	323	-17253	109042	SLU 31	6.32	Si
fin.	3	2110	31580	109042	SLU 31	3.45	Si
ini.	3	276	-20482	109042	SLU 65	5.32	Si
fin.	3	2279	35704	109042	SLU 65	3.05	Si
ini.	3	205	-19762	109042	SLU 44	5.52	Si
fin.	3	2103	34047	109042	SLU 44	3.2	Si
ini.	3	172	-25702	109042	SLU 61	4.24	Si
fin.	3	2155	33138	109042	SLU 61	3.29	Si
ini.	3	315	-22055	109042	SLU 76	4.94	Si
fin.	3	2279	33129	109042	SLU 76	3.29	Si
ini.	3	236	-22266	109042	SLU 52	4.9	Si
fin.	3	2268	35566	109042	SLU 52	3.07	Si
ini.	3	243	-26423	109042	SLU 82	4.13	Si
fin.	3	2330	34795	109042	SLU 82	3.13	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-29967	4547			933	351	SLU 81	0.08	No
fin.	3	0	30177	-1609			933	351	SLU 81	0.22	No
ini.	3	0	-23836	4291			933	351	SLU 78	0.08	No
fin.	3	0	27302	-1668			933	351	SLU 78	0.21	No
ini.	3	0	-29035	4457			933	351	SLU 83	0.08	No
fin.	3	0	26083	-1766			933	351	SLU 83	0.2	No
ini.	3	0	-25491	4504			933	351	SLU 84	0.08	No
fin.	3	0	30701	-1637			933	351	SLU 84	0.21	No
ini.	3	0	-22987	4442			933	351	SLU 73	0.08	No
fin.	3	0	37223	-1293			933	351	SLU 73	0.27	No
ini.	3	0	-24768	4381			933	351	SLU 75	0.08	No
fin.	3	0	31396	-1510			933	351	SLU 75	0.23	No
ini.	3	0	-28312	4334			933	351	SLU 74	0.08	No
fin.	3	0	26778	-1640			933	351	SLU 74	0.21	No
ini.	3	0	-22055	4352			933	351	SLU 76	0.08	No
fin.	3	0	33129	-1450			933	351	SLU 76	0.24	No
ini.	3	0	-25702	4265			933	351	SLU 61	0.08	No
fin.	3	0	33138	-1285			933	351	SLU 61	0.27	No
ini.	3	0	-26423	4593			933	351	SLU 82	0.08	No
fin.	3	0	34795	-1479			933	351	SLU 82	0.24	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1124	-102305	126944	SLV 13	1.24	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	7321	176629	126944	SLV 13	0.72	No
ini.	2	1237	60591	126944	SLV 4	2.1	Si
fin.	2	-4505	-133402	126944	SLV 4	0.95	No
ini.	2	-94	-33614	126944	SLV 16	3.78	Si
fin.	2	5765	135014	126944	SLV 16	0.94	No
ini.	2	-94	-33614	126944	SLV 15	3.78	Si
fin.	2	5765	135014	126944	SLV 15	0.94	No
ini.	2	1237	60591	126944	SLV 3	2.1	Si
fin.	2	-4505	-133402	126944	SLV 3	0.95	No
ini.	2	-1461	-121210	126944	SLV 6	1.05	Si
fin.	2	2460	50709	126944	SLV 6	2.5	Si
ini.	2	-1860	-149472	126944	SLV 10	0.85	No
fin.	2	5541	131233	126944	SLV 10	0.97	No
ini.	2	-1461	-121210	126944	SLV 5	1.05	Si
fin.	2	2460	50709	126944	SLV 5	2.5	Si
ini.	2	-1860	-149472	126944	SLV 9	0.85	No
fin.	2	5541	131233	126944	SLV 9	0.97	No
ini.	2	-1124	-102305	126944	SLV 14	1.24	Si
fin.	2	7321	176629	126944	SLV 14	0.72	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-33614	5572			1399	526	SLV 16	0.09	No
fin.	2	0	135014	3112			1399	526	SLV 16	0.17	No
ini.	2	0	-102305	7838			1399	526	SLV 13	0.07	No
fin.	2	0	176629	4800			1399	526	SLV 13	0.11	No
ini.	2	0	60591	-1682			1399	526	SLV 4	0.31	No
fin.	2	0	-133402	-6808			1399	526	SLV 4	0.08	No
ini.	2	0	-121210	5768			1399	526	SLV 6	0.09	No
fin.	2	0	50709	321			1399	526	SLV 6	1.64	Si
ini.	2	0	60591	-1682			1399	526	SLV 3	0.31	No
fin.	2	0	-133402	-6808			1399	526	SLV 3	0.08	No
ini.	2	0	-149472	7944			1399	526	SLV 10	0.07	No
fin.	2	0	131233	3297			1399	526	SLV 10	0.16	No
ini.	2	0	-102305	7838			1399	526	SLV 14	0.07	No
fin.	2	0	176629	4800			1399	526	SLV 14	0.11	No
ini.	2	0	-149472	7944			1399	526	SLV 9	0.07	No
fin.	2	0	131233	3297			1399	526	SLV 9	0.16	No
ini.	2	0	-121210	5768			1399	526	SLV 5	0.09	No
fin.	2	0	50709	321			1399	526	SLV 5	1.64	Si
ini.	2	0	-33614	5572			1399	526	SLV 15	0.09	No
fin.	2	0	135014	3112			1399	526	SLV 15	0.17	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.719	SLV 13	No
V_SLV	0.066	SLV 9	No
PF_SLU	2.929	SLU 73	Si
V_SLU	0.076	SLU 82	No

Trave di accoppiamento 45

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1705.3	-486.2	436	483	47	-1705.3	-377.2	436	483	47	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-587	1049	33622	SLU 23	32.06	Si
fin.	3	880	-19831	33622	SLU 23	1.7	Si
ini.	3	-733	1675	33622	SLU 65	20.07	Si
fin.	3	952	-20536	33622	SLU 65	1.64	Si
ini.	3	-732	1485	33622	SLU 68	22.64	Si
fin.	3	1024	-23001	33622	SLU 68	1.46	Si
ini.	3	-586	858	33622	SLU 26	39.17	Si
fin.	3	952	-22296	33622	SLU 26	1.51	Si
ini.	3	-580	951	33622	SLU 2	35.34	Si
fin.	3	910	-21348	33622	SLU 2	1.57	Si
ini.	3	-593	988	33622	SLU 13	34.03	Si
fin.	3	907	-20569	33622	SLU 13	1.63	Si
ini.	3	-725	1388	33622	SLU 47	24.23	Si
fin.	3	1054	-24517	33622	SLU 47	1.37	Si
ini.	3	-739	1615	33622	SLU 55	20.82	Si
fin.	3	980	-21274	33622	SLU 55	1.58	Si
ini.	3	-579	761	33622	SLU 5	44.18	Si
fin.	3	981	-23812	33622	SLU 5	1.41	Si
ini.	3	-726	1578	33622	SLU 44	21.31	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	982	-22053	33622	SLU 44	1.52	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2269	-327			362	136	SLU 75	0.42	No
fin.	3	0	-10669	1103			362	136	SLU 75	0.12	No
ini.	3	0	3248	-130			362	136	SLU 81	1.05	Si
fin.	3	0	4829	1097			362	136	SLU 81	0.12	No
ini.	3	0	1712	-448			362	136	SLU 76	0.3	No
fin.	3	0	-19757	1129			362	136	SLU 76	0.12	No
ini.	3	0	2021	-357			362	136	SLU 80	0.38	No
fin.	3	0	-13929	1063			362	136	SLU 80	0.13	No
ini.	3	0	1902	-425			362	136	SLU 73	0.32	No
fin.	3	0	-17293	1148			362	136	SLU 73	0.12	No
ini.	3	0	2309	-323			362	136	SLU 84	0.42	No
fin.	3	0	-10074	1148			362	136	SLU 84	0.12	No
ini.	3	0	3058	-153			362	136	SLU 83	0.89	No
fin.	3	0	2365	1078			362	136	SLU 83	0.13	No
ini.	3	0	2079	-350			362	136	SLU 78	0.39	No
fin.	3	0	-13134	1083			362	136	SLU 78	0.13	No
ini.	3	0	2402	-311			362	136	SLU 61	0.44	No
fin.	3	0	-9127	1055			362	136	SLU 61	0.13	No
ini.	3	0	2499	-300			362	136	SLU 82	0.45	No
fin.	3	0	-7610	1167			362	136	SLU 82	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	599	-10152	48831	SLV 10	4.81	Si
fin.	2	-5991	199846	48831	SLV 10	0.24	No
ini.	2	-1385	16112	48831	SLV 11	3.03	Si
fin.	2	5714	-178189	48831	SLV 11	0.27	No
ini.	2	-1601	14737	48831	SLV 8	3.31	Si
fin.	2	6345	-198359	48831	SLV 8	0.25	No
ini.	2	-1385	16112	48831	SLV 12	3.03	Si
fin.	2	5714	-178189	48831	SLV 12	0.27	No
ini.	2	599	-10152	48831	SLV 9	4.81	Si
fin.	2	-5991	199846	48831	SLV 9	0.24	No
ini.	2	382	-11526	48831	SLV 6	4.24	Si
fin.	2	-5360	179676	48831	SLV 6	0.27	No
ini.	2	157	645	48831	SLV 14	75.76	Si
fin.	2	-2630	91065	48831	SLV 14	0.54	No
ini.	2	-1601	14737	48831	SLV 7	3.31	Si
fin.	2	6345	-198359	48831	SLV 7	0.25	No
ini.	2	382	-11526	48831	SLV 5	4.24	Si
fin.	2	-5360	179676	48831	SLV 5	0.27	No
ini.	2	157	645	48831	SLV 13	75.76	Si
fin.	2	-2630	91065	48831	SLV 13	0.54	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-10152	2465			543	204	SLV 10	0.08	No
fin.	2	0	199846	666			543	204	SLV 10	0.31	No
ini.	2	0	-11526	2231			543	204	SLV 6	0.09	No
fin.	2	0	179676	531			543	204	SLV 6	0.39	No
ini.	2	0	3941	-1255			543	204	SLV 3	0.16	No
fin.	2	0	-89578	499			543	204	SLV 3	0.41	No
ini.	2	0	14737	-2712			543	204	SLV 7	0.08	No
fin.	2	0	-198359	725			543	204	SLV 7	0.28	No
ini.	2	0	16112	-2478			543	204	SLV 12	0.08	No
fin.	2	0	-178189	860			543	204	SLV 12	0.24	No
ini.	2	0	-10152	2465			543	204	SLV 9	0.08	No
fin.	2	0	199846	666			543	204	SLV 9	0.31	No
ini.	2	0	3941	-1255			543	204	SLV 4	0.16	No
fin.	2	0	-89578	499			543	204	SLV 4	0.41	No
ini.	2	0	16112	-2478			543	204	SLV 11	0.08	No
fin.	2	0	-178189	860			543	204	SLV 11	0.24	No
ini.	2	0	-11526	2231			543	204	SLV 5	0.09	No
fin.	2	0	179676	531			543	204	SLV 5	0.39	No
ini.	2	0	14737	-2712			543	204	SLV 8	0.08	No
fin.	2	0	-198359	725			543	204	SLV 8	0.28	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.244	SLV 9	No
V_SLV	0.075	SLV 7	No
PF_SLU	1.371	SLU 47	Si
V_SLU	0.117	SLU 82	No

Trave di accoppiamento 46

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1548.3	-335.9	320	483	163	-1638.3	-335.9	320	483	163	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2280	-109908	231542	SLU 80	2.11	Si
fin.	3	-1933	-152255	231542	SLU 80	1.52	Si
ini.	3	-2289	-130308	231542	SLU 84	1.78	Si
fin.	3	-1919	-148887	231542	SLU 84	1.56	Si
ini.	3	-2266	-116160	231542	SLU 78	1.99	Si
fin.	3	-1909	-151419	231542	SLU 78	1.53	Si
ini.	3	-2205	-95445	231542	SLU 59	2.43	Si
fin.	3	-1878	-145023	231542	SLU 59	1.6	Si
ini.	3	-2229	-146086	231542	SLU 82	1.58	Si
fin.	3	-1839	-139854	231542	SLU 82	1.66	Si
ini.	3	-2245	-90842	231542	SLU 77	2.55	Si
fin.	3	-1936	-150405	231542	SLU 77	1.54	Si
ini.	3	-2268	-104991	231542	SLU 83	2.21	Si
fin.	3	-1947	-147872	231542	SLU 83	1.57	Si
ini.	3	-2175	-158342	231542	SLU 73	1.46	Si
fin.	3	-1754	-134867	231542	SLU 73	1.72	Si
ini.	3	-2016	-147556	231542	SLU 65	1.57	Si
fin.	3	-1600	-121652	231542	SLU 65	1.9	Si
ini.	3	-2259	-84591	231542	SLU 79	2.74	Si
fin.	3	-1960	-151241	231542	SLU 79	1.53	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-120768	1310			1758	661	SLU 81	0.5	No
fin.	3	0	-138840	-4940			1758	661	SLU 81	0.13	No
ini.	3	0	-84591	661			1758	661	SLU 79	1	Si
fin.	3	0	-151241	-5182			1758	661	SLU 79	0.13	No
ini.	3	0	-104991	1013			1758	661	SLU 83	0.65	No
fin.	3	0	-147872	-5189			1758	661	SLU 83	0.13	No
ini.	3	0	-70127	436			1758	661	SLU 58	1.52	Si
fin.	3	0	-144009	-4783			1758	661	SLU 58	0.14	No
ini.	3	0	-106620	1049			1758	661	SLU 74	0.63	No
fin.	3	0	-141372	-4904			1758	661	SLU 74	0.13	No
ini.	3	0	-109908	982			1758	661	SLU 80	0.67	No
fin.	3	0	-152255	-4975			1758	661	SLU 80	0.13	No
ini.	3	0	-90842	752			1758	661	SLU 77	0.88	No
fin.	3	0	-150405	-5153			1758	661	SLU 77	0.13	No
ini.	3	0	-116160	1072			1758	661	SLU 78	0.62	No
fin.	3	0	-151419	-4946			1758	661	SLU 78	0.13	No
ini.	3	0	-130308	1334			1758	661	SLU 84	0.5	No
fin.	3	0	-148887	-4982			1758	661	SLU 84	0.13	No
ini.	3	0	-90527	788			1758	661	SLU 62	0.84	No
fin.	3	0	-140640	-4791			1758	661	SLU 62	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3525	482489	249444	SLV 2	0.52	No
fin.	2	-4450	-452482	249444	SLV 2	0.55	No
ini.	2	-3453	-456587	249444	SLV 9	0.55	No
fin.	2	-2786	-179005	249444	SLV 9	1.39	Si
ini.	2	-953	-758115	249444	SLV 13	0.33	No
fin.	2	515	157896	249444	SLV 13	1.58	Si
ini.	2	-2153	596217	249444	SLV 4	0.42	No
fin.	2	-3111	-346823	249444	SLV 4	0.72	No
ini.	2	-3525	482489	249444	SLV 1	0.52	No
fin.	2	-4450	-452482	249444	SLV 1	0.55	No
ini.	2	419	-644387	249444	SLV 16	0.39	No
fin.	2	1854	263555	249444	SLV 16	0.95	No
ini.	2	-953	-758115	249444	SLV 14	0.33	No
fin.	2	515	157896	249444	SLV 14	1.58	Si
ini.	2	-3453	-456587	249444	SLV 10	0.55	No
fin.	2	-2786	-179005	249444	SLV 10	1.39	Si
ini.	2	-2153	596217	249444	SLV 3	0.42	No
fin.	2	-3111	-346823	249444	SLV 3	0.72	No
ini.	2	419	-644387	249444	SLV 15	0.39	No
fin.	2	1854	263555	249444	SLV 15	0.95	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-758115	11883			2637	992	SLV 13	0.08	No
fin.	2	0	157896	4636			2637	992	SLV 13	0.21	No
ini.	2	0	-758115	11883			2637	992	SLV 14	0.08	No
fin.	2	0	157896	4636			2637	992	SLV 14	0.21	No
ini.	2	0	482489	-11041			2637	992	SLV 2	0.09	No
fin.	2	0	-452482	-12605			2637	992	SLV 2	0.08	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	482489	-11041			2637	992	SLV 1	0.09	No
fin.	2	0	-452482	-12605			2637	992	SLV 1	0.08	No
ini.	2	0	596217	-10174			2637	992	SLV 3	0.1	No
fin.	2	0	-346823	-11087			2637	992	SLV 3	0.09	No
ini.	2	0	596217	-10174			2637	992	SLV 4	0.1	No
fin.	2	0	-346823	-11087			2637	992	SLV 4	0.09	No
ini.	2	0	-84406	-4029			2637	992	SLV 6	0.25	No
fin.	2	0	-362119	-8342			2637	992	SLV 6	0.12	No
ini.	2	0	-644387	12750			2637	992	SLV 16	0.08	No
fin.	2	0	263555	6154			2637	992	SLV 16	0.16	No
ini.	2	0	-84406	-4029			2637	992	SLV 5	0.25	No
fin.	2	0	-362119	-8342			2637	992	SLV 5	0.12	No
ini.	2	0	-644387	12750			2637	992	SLV 15	0.08	No
fin.	2	0	263555	6154			2637	992	SLV 15	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.329	SLV 13	No
V_SLV	0.078	SLV 15	No
PF_SLU	1.462	SLU 73	Si
V_SLU	0.127	SLU 83	No

Trave di accoppiamento 47

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1443.8	-485.9	436	483	47	-1627.8	-485.9	436	483	47	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	135	-12017	33622	SLU 46	2.8	Si
fin.	3	-133	4210	33622	SLU 46	7.99	Si
ini.	3	135	-11739	33622	SLU 47	2.86	Si
fin.	3	-131	4384	33622	SLU 47	7.67	Si
ini.	3	163	-13976	33622	SLU 43	2.41	Si
fin.	3	-157	5383	33622	SLU 43	6.25	Si
ini.	3	175	-13997	33622	SLU 44	2.4	Si
fin.	3	-160	6491	33622	SLU 44	5.18	Si
ini.	3	95	-9759	33622	SLU 49	3.45	Si
fin.	3	-104	2102	33622	SLU 49	15.99	Si
ini.	3	128	-12004	33622	SLU 45	2.8	Si
fin.	3	-132	3545	33622	SLU 45	9.48	Si
ini.	3	123	-11151	33622	SLU 65	3.02	Si
fin.	3	-125	3867	33622	SLU 65	8.69	Si
ini.	3	111	-11130	33622	SLU 64	3.02	Si
fin.	3	-122	2759	33622	SLU 64	12.19	Si
ini.	3	124	-10021	33622	SLU 2	3.36	Si
fin.	3	-115	4557	33622	SLU 2	7.38	Si
ini.	3	112	-10000	33622	SLU 1	3.36	Si
fin.	3	-111	3449	33622	SLU 1	9.75	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-13976	229			362	136	SLU 43	0.59	No
fin.	3	0	5383	-35			362	136	SLU 43	3.85	Si
ini.	3	0	-9472	183			362	136	SLU 51	0.74	No
fin.	3	0	1833	-80			362	136	SLU 51	1.7	Si
ini.	3	0	-11130	194			362	136	SLU 64	0.7	No
fin.	3	0	2759	-61			362	136	SLU 64	2.24	Si
ini.	3	0	-11151	202			362	136	SLU 65	0.67	No
fin.	3	0	3867	-54			362	136	SLU 65	2.5	Si
ini.	3	0	-12017	211			362	136	SLU 46	0.64	No
fin.	3	0	4210	-52			362	136	SLU 46	2.61	Si
ini.	3	0	-9746	181			362	136	SLU 48	0.75	No
fin.	3	0	1438	-80			362	136	SLU 48	1.7	Si
ini.	3	0	-12004	206			362	136	SLU 45	0.66	No
fin.	3	0	3545	-56			362	136	SLU 45	2.43	Si
ini.	3	0	-11739	212			362	136	SLU 47	0.64	No
fin.	3	0	4384	-53			362	136	SLU 47	2.56	Si
ini.	3	0	-13997	238			362	136	SLU 44	0.57	No
fin.	3	0	6491	-29			362	136	SLU 44	4.69	Si
ini.	3	0	-9759	186			362	136	SLU 49	0.73	No
fin.	3	0	2102	-76			362	136	SLU 49	1.78	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2715	142439	48831	SLV 2	0.34	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1845	-146829	48831	SLV 2	0.33	No
ini.	2	-2162	112377	48831	SLV 4	0.43	No
fin.	2	1435	-117344	48831	SLV 4	0.42	No
ini.	2	2859	-158125	48831	SLV 16	0.31	No
fin.	2	-2015	149754	48831	SLV 16	0.33	No
ini.	2	1748	-98522	48831	SLV 11	0.5	No
fin.	2	-1286	90668	48831	SLV 11	0.54	No
ini.	2	2859	-158125	48831	SLV 15	0.31	No
fin.	2	-2015	149754	48831	SLV 15	0.33	No
ini.	2	2306	-128063	48831	SLV 14	0.38	No
fin.	2	-1605	120269	48831	SLV 14	0.41	No
ini.	2	-2162	112377	48831	SLV 3	0.43	No
fin.	2	1435	-117344	48831	SLV 3	0.42	No
ini.	2	2306	-128063	48831	SLV 13	0.38	No
fin.	2	-1605	120269	48831	SLV 13	0.41	No
ini.	2	1748	-98522	48831	SLV 12	0.5	No
fin.	2	-1286	90668	48831	SLV 12	0.54	No
ini.	2	-2715	142439	48831	SLV 1	0.34	No
fin.	2	1845	-146829	48831	SLV 1	0.33	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-128063	1538			543	204	SLV 13	0.13	No
fin.	2	0	120269	1320			543	204	SLV 13	0.15	No
ini.	2	0	-128063	1538			543	204	SLV 14	0.13	No
fin.	2	0	120269	1320			543	204	SLV 14	0.15	No
ini.	2	0	112377	-1257			543	204	SLV 4	0.16	No
fin.	2	0	-117344	-1426			543	204	SLV 4	0.14	No
ini.	2	0	-98522	939			543	204	SLV 11	0.22	No
fin.	2	0	90668	559			543	204	SLV 11	0.37	No
ini.	2	0	-158125	1746			543	204	SLV 16	0.12	No
fin.	2	0	149754	1430			543	204	SLV 16	0.14	No
ini.	2	0	142439	-1466			543	204	SLV 1	0.14	No
fin.	2	0	-146829	-1536			543	204	SLV 1	0.13	No
ini.	2	0	142439	-1466			543	204	SLV 2	0.14	No
fin.	2	0	-146829	-1536			543	204	SLV 2	0.13	No
ini.	2	0	-158125	1746			543	204	SLV 15	0.12	No
fin.	2	0	149754	1430			543	204	SLV 15	0.14	No
ini.	2	0	112377	-1257			543	204	SLV 3	0.16	No
fin.	2	0	-117344	-1426			543	204	SLV 3	0.14	No
ini.	2	0	-98522	939			543	204	SLV 12	0.22	No
fin.	2	0	90668	559			543	204	SLV 12	0.37	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.309	SLV 15	No
V_SLV	0.117	SLV 15	No
PF_SLU	2.402	SLU 44	Si
V_SLU	0.574	SLU 44	No

Trave di accoppiamento 48

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1375.3	-22.8	320	483	163	-1375.3	67.2	320	483	163	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	72	-172063	231542	SLU 29	1.35	Si
fin.	3	72	42359	231542	SLU 29	5.47	Si
ini.	3	147	-170397	231542	SLU 77	1.36	Si
fin.	3	147	53598	231542	SLU 77	4.32	Si
ini.	3	108	-162376	231542	SLU 37	1.43	Si
fin.	3	108	45945	231542	SLU 37	5.04	Si
ini.	3	110	-181675	231542	SLU 71	1.27	Si
fin.	3	110	49583	231542	SLU 71	4.67	Si
ini.	3	72	-170472	231542	SLU 27	1.36	Si
fin.	3	72	42788	231542	SLU 27	5.41	Si
ini.	3	147	-171988	231542	SLU 79	1.35	Si
fin.	3	147	53169	231542	SLU 79	4.35	Si
ini.	3	109	-160786	231542	SLU 35	1.44	Si
fin.	3	109	46374	231542	SLU 35	4.99	Si
ini.	3	111	-164940	231542	SLU 70	1.4	Si
fin.	3	111	49141	231542	SLU 70	4.71	Si
ini.	3	110	-180084	231542	SLU 69	1.29	Si
fin.	3	110	50012	231542	SLU 69	4.63	Si
ini.	3	111	-166531	231542	SLU 72	1.39	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	111	48712	231542	SLU 72	4.75	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-164940	2889			1758	661	SLU 70	0.23	No
fin.	3	0	49141	1922			1758	661	SLU 70	0.34	No
ini.	3	0	-170472	2767			1758	661	SLU 27	0.24	No
fin.	3	0	42788	2012			1758	661	SLU 27	0.33	No
ini.	3	0	-172063	2780			1758	661	SLU 29	0.24	No
fin.	3	0	42359	2025			1758	661	SLU 29	0.33	No
ini.	3	0	-156844	2834			1758	661	SLU 80	0.23	No
fin.	3	0	52298	1867			1758	661	SLU 80	0.35	No
ini.	3	0	-166531	2901			1758	661	SLU 72	0.23	No
fin.	3	0	48712	1935			1758	661	SLU 72	0.34	No
ini.	3	0	-171988	3012			1758	661	SLU 79	0.22	No
fin.	3	0	53169	2045			1758	661	SLU 79	0.32	No
ini.	3	0	-170397	2999			1758	661	SLU 77	0.22	No
fin.	3	0	53598	2032			1758	661	SLU 77	0.33	No
ini.	3	0	-155253	2821			1758	661	SLU 78	0.23	No
fin.	3	0	52727	1854			1758	661	SLU 78	0.36	No
ini.	3	0	-180084	3066			1758	661	SLU 69	0.22	No
fin.	3	0	50012	2100			1758	661	SLU 69	0.32	No
ini.	3	0	-181675	3079			1758	661	SLU 71	0.21	No
fin.	3	0	49583	2113			1758	661	SLU 71	0.31	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-780	-750565	249444	SLV 10	0.33	No
fin.	2	-1003	131560	249444	SLV 10	1.9	Si
ini.	2	1031	590870	249444	SLV 8	0.42	No
fin.	2	1255	-64214	249444	SLV 8	3.88	Si
ini.	2	-1654	-956285	249444	SLV 6	0.26	No
fin.	2	-1412	117563	249444	SLV 6	2.12	Si
ini.	2	-1735	-654787	249444	SLV 1	0.38	No
fin.	2	-956	37611	249444	SLV 1	6.63	Si
ini.	2	1906	796590	249444	SLV 12	0.31	No
fin.	2	1664	-50217	249444	SLV 12	4.97	Si
ini.	2	-1654	-956285	249444	SLV 5	0.26	No
fin.	2	-1412	117563	249444	SLV 5	2.12	Si
ini.	2	1906	796590	249444	SLV 11	0.31	No
fin.	2	1664	-50217	249444	SLV 11	4.97	Si
ini.	2	1031	590870	249444	SLV 7	0.42	No
fin.	2	1255	-64214	249444	SLV 7	3.88	Si
ini.	2	-780	-750565	249444	SLV 9	0.33	No
fin.	2	-1003	131560	249444	SLV 9	1.9	Si
ini.	2	-1735	-654787	249444	SLV 2	0.38	No
fin.	2	-956	37611	249444	SLV 2	6.63	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	590870	-6638			2637	992	SLV 8	0.15	No
fin.	2	0	-64214	-7634			2637	992	SLV 8	0.13	No
ini.	2	0	-750565	9940			2637	992	SLV 10	0.1	No
fin.	2	0	131560	9459			2637	992	SLV 10	0.1	No
ini.	2	0	796590	-9270			2637	992	SLV 12	0.11	No
fin.	2	0	-50217	-9450			2637	992	SLV 12	0.1	No
ini.	2	0	-654787	8921			2637	992	SLV 1	0.11	No
fin.	2	0	37611	6776			2637	992	SLV 1	0.15	No
ini.	2	0	-654787	8921			2637	992	SLV 2	0.11	No
fin.	2	0	37611	6776			2637	992	SLV 2	0.15	No
ini.	2	0	-956285	12573			2637	992	SLV 6	0.08	No
fin.	2	0	117563	11275			2637	992	SLV 6	0.09	No
ini.	2	0	-750565	9940			2637	992	SLV 9	0.1	No
fin.	2	0	131560	9459			2637	992	SLV 9	0.1	No
ini.	2	0	-956285	12573			2637	992	SLV 5	0.08	No
fin.	2	0	117563	11275			2637	992	SLV 5	0.09	No
ini.	2	0	590870	-6638			2637	992	SLV 7	0.15	No
fin.	2	0	-64214	-7634			2637	992	SLV 7	0.13	No
ini.	2	0	796590	-9270			2637	992	SLV 11	0.11	No
fin.	2	0	-50217	-9450			2637	992	SLV 11	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.261	SLV 5	No
V_SLV	0.079	SLV 5	No
PF_SLU	1.274	SLU 71	Si
V_SLU	0.215	SLU 71	No

Trave di accoppiamento 49

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1986.8	104.6	320	483	163	-2066.8	104.6	320	483	163	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1190	80597	231542	SLU 83	2.87	Si
fin.	3	-1190	-208265	231542	SLU 83	1.11	Si
ini.	3	-1202	71814	231542	SLU 75	3.22	Si
fin.	3	-1202	-192918	231542	SLU 75	1.2	Si
ini.	3	-1126	84452	231542	SLU 78	2.74	Si
fin.	3	-1126	-207848	231542	SLU 78	1.11	Si
ini.	3	-1230	73438	231542	SLU 84	3.15	Si
fin.	3	-1230	-199618	231542	SLU 84	1.16	Si
ini.	3	-1030	86426	231542	SLU 69	2.68	Si
fin.	3	-1030	-194932	231542	SLU 69	1.19	Si
ini.	3	-1089	91013	231542	SLU 79	2.54	Si
fin.	3	-1089	-213953	231542	SLU 79	1.08	Si
ini.	3	-1129	83855	231542	SLU 80	2.76	Si
fin.	3	-1129	-205306	231542	SLU 80	1.13	Si
ini.	3	-1163	78973	231542	SLU 74	2.93	Si
fin.	3	-1163	-201565	231542	SLU 74	1.15	Si
ini.	3	-1267	67959	231542	SLU 81	3.41	Si
fin.	3	-1267	-193335	231542	SLU 81	1.2	Si
ini.	3	-1086	91611	231542	SLU 77	2.53	Si
fin.	3	-1086	-216495	231542	SLU 77	1.07	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	83438	-2547			1758	661	SLU 35	0.26	No
fin.	3	0	-192197	-4382			1758	661	SLU 35	0.15	No
ini.	3	0	67959	-2179			1758	661	SLU 81	0.3	No
fin.	3	0	-193335	-4405			1758	661	SLU 81	0.15	No
ini.	3	0	73438	-2326			1758	661	SLU 84	0.28	No
fin.	3	0	-199618	-4552			1758	661	SLU 84	0.15	No
ini.	3	0	86426	-2710			1758	661	SLU 69	0.24	No
fin.	3	0	-194932	-4377			1758	661	SLU 69	0.15	No
ini.	3	0	84452	-2651			1758	661	SLU 78	0.25	No
fin.	3	0	-207848	-4709			1758	661	SLU 78	0.14	No
ini.	3	0	83855	-2612			1758	661	SLU 80	0.25	No
fin.	3	0	-205306	-4670			1758	661	SLU 80	0.14	No
ini.	3	0	91013	-2809			1758	661	SLU 79	0.24	No
fin.	3	0	-213953	-4867			1758	661	SLU 79	0.14	No
ini.	3	0	78973	-2504			1758	661	SLU 74	0.26	No
fin.	3	0	-201565	-4562			1758	661	SLU 74	0.14	No
ini.	3	0	91611	-2848			1758	661	SLU 77	0.23	No
fin.	3	0	-216495	-4907			1758	661	SLU 77	0.13	No
ini.	3	0	80597	-2524			1758	661	SLU 83	0.26	No
fin.	3	0	-208265	-4750			1758	661	SLU 83	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2185	605598	249444	SLV 3	0.41	No
fin.	2	-2438	-820822	249444	SLV 3	0.3	No
ini.	2	-2185	605598	249444	SLV 4	0.41	No
fin.	2	-2438	-820822	249444	SLV 4	0.3	No
ini.	2	-1464	285324	249444	SLD 4	0.87	No
fin.	2	-1568	-422671	249444	SLD 4	0.59	No
ini.	2	-1560	637571	249444	SLV 1	0.39	No
fin.	2	-1491	-818087	249444	SLV 1	0.3	No
ini.	2	-1560	637571	249444	SLV 2	0.39	No
fin.	2	-1491	-818087	249444	SLV 2	0.3	No
ini.	2	-315	-546608	249444	SLV 16	0.46	No
fin.	2	-384	567460	249444	SLV 16	0.44	No
ini.	2	-1464	285324	249444	SLD 3	0.87	No
fin.	2	-1568	-422671	249444	SLD 3	0.59	No
ini.	2	310	-514635	249444	SLV 14	0.48	No
fin.	2	562	570194	249444	SLV 14	0.44	No
ini.	2	310	-514635	249444	SLV 13	0.48	No
fin.	2	562	570194	249444	SLV 13	0.44	No
ini.	2	-315	-546608	249444	SLV 15	0.46	No
fin.	2	-384	567460	249444	SLV 15	0.44	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-514635	14486			2637	992	SLV 14	0.07	No
fin.	2	0	570194	13201			2637	992	SLV 14	0.08	No
ini.	2	0	-514635	14486			2637	992	SLV 13	0.07	No
fin.	2	0	570194	13201			2637	992	SLV 13	0.08	No
ini.	2	0	605598	-17475			2637	992	SLV 4	0.06	No
fin.	2	0	-820822	-18835			2637	992	SLV 4	0.05	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	285324	-8323			2637	992	SLD 4	0.12	No
fin.	2	0	-422671	-9663			2637	992	SLD 4	0.1	No
ini.	2	0	605598	-17475			2637	992	SLV 3	0.06	No
fin.	2	0	-820822	-18835			2637	992	SLV 3	0.05	No
ini.	2	0	-546608	14443			2637	992	SLV 15	0.07	No
fin.	2	0	567460	13063			2637	992	SLV 15	0.08	No
ini.	2	0	-546608	14443			2637	992	SLV 16	0.07	No
fin.	2	0	567460	13063			2637	992	SLV 16	0.08	No
ini.	2	0	637571	-17432			2637	992	SLV 2	0.06	No
fin.	2	0	-818087	-18697			2637	992	SLV 2	0.05	No
ini.	2	0	285324	-8323			2637	992	SLD 3	0.12	No
fin.	2	0	-422671	-9663			2637	992	SLD 3	0.1	No
ini.	2	0	637571	-17432			2637	992	SLV 1	0.06	No
fin.	2	0	-818087	-18697			2637	992	SLV 1	0.05	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.304	SLV 3	No
V_SLV	0.053	SLV 3	No
PF_SLU	1.07	SLU 77	Si
V_SLU	0.135	SLU 77	No

Trave di accoppiamento 50

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1116.3	104.6	360	483	123	-1228.3	104.6	360	483	123	112	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-5713	-122989	161542	SLU 72	1.31	Si
fin.	3	-5713	117743	161542	SLU 72	1.37	Si
ini.	3	-6527	-130408	161542	SLU 80	1.24	Si
fin.	3	-6527	119217	161542	SLU 80	1.36	Si
ini.	3	-6421	-132060	161542	SLU 79	1.22	Si
fin.	3	-6421	118208	161542	SLU 79	1.37	Si
ini.	3	-6571	-129127	161542	SLU 78	1.25	Si
fin.	3	-6571	119224	161542	SLU 78	1.35	Si
ini.	3	-6717	-122887	161542	SLU 83	1.31	Si
fin.	3	-6717	107676	161542	SLU 83	1.5	Si
ini.	3	-6823	-121234	161542	SLU 84	1.33	Si
fin.	3	-6823	108685	161542	SLU 84	1.49	Si
ini.	3	-6465	-130779	161542	SLU 77	1.24	Si
fin.	3	-6465	118216	161542	SLU 77	1.37	Si
ini.	3	-5607	-124641	161542	SLU 71	1.3	Si
fin.	3	-5607	116734	161542	SLU 71	1.38	Si
ini.	3	-5651	-123360	161542	SLU 69	1.31	Si
fin.	3	-5651	116741	161542	SLU 69	1.38	Si
ini.	3	-5757	-121708	161542	SLU 70	1.33	Si
fin.	3	-5757	117750	161542	SLU 70	1.37	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-118426	3455			1326	499	SLU 74	0.14	No
fin.	3	0	107052	582			1326	499	SLU 74	0.86	No
ini.	3	0	-129127	3660			1326	499	SLU 78	0.14	No
fin.	3	0	119224	786			1326	499	SLU 78	0.63	No
ini.	3	0	-110533	3447			1326	499	SLU 81	0.14	No
fin.	3	0	96512	271			1326	499	SLU 81	1.84	Si
ini.	3	0	-116773	3450			1326	499	SLU 75	0.14	No
fin.	3	0	108061	576			1326	499	SLU 75	0.87	No
ini.	3	0	-122887	3657			1326	499	SLU 83	0.14	No
fin.	3	0	107676	481			1326	499	SLU 83	1.04	Si
ini.	3	0	-130408	3671			1326	499	SLU 80	0.14	No
fin.	3	0	119217	798			1326	499	SLU 80	0.63	No
ini.	3	0	-121234	3651			1326	499	SLU 84	0.14	No
fin.	3	0	108685	475			1326	499	SLU 84	1.05	Si
ini.	3	0	-130779	3665			1326	499	SLU 77	0.14	No
fin.	3	0	118216	792			1326	499	SLU 77	0.63	No
ini.	3	0	-116953	3457			1326	499	SLU 76	0.14	No
fin.	3	0	108726	584			1326	499	SLU 76	0.85	No
ini.	3	0	-132060	3677			1326	499	SLU 79	0.14	No
fin.	3	0	118208	804			1326	499	SLU 79	0.62	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-10226	-477823	179444	SLV 16	0.38	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-10143	664889	179444	SLV 16	0.27	No
ini.	2	1599	326168	179444	SLV 2	0.55	No
fin.	2	1516	-520931	179444	SLV 2	0.34	No
ini.	2	-10226	-477823	179444	SLV 15	0.38	No
fin.	2	-10143	664889	179444	SLV 15	0.27	No
ini.	2	-5872	-440163	179444	SLV 10	0.41	No
fin.	2	-5814	482758	179444	SLV 10	0.37	No
ini.	2	-10107	-611990	179444	SLV 13	0.29	No
fin.	2	-10006	793094	179444	SLV 13	0.23	No
ini.	2	-5872	-440163	179444	SLV 9	0.41	No
fin.	2	-5814	482758	179444	SLV 9	0.37	No
ini.	2	1481	460335	179444	SLV 3	0.39	No
fin.	2	1380	-649137	179444	SLV 3	0.28	No
ini.	2	1599	326168	179444	SLV 1	0.55	No
fin.	2	1516	-520931	179444	SLV 1	0.34	No
ini.	2	-10107	-611990	179444	SLV 14	0.29	No
fin.	2	-10006	793094	179444	SLV 14	0.23	No
ini.	2	1481	460335	179444	SLV 4	0.39	No
fin.	2	1380	-649137	179444	SLV 4	0.28	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	326168	-6668			1990	749	SLV 2	0.11	No
fin.	2	0	-520931	-8343			1990	749	SLV 2	0.09	No
ini.	2	0	-611990	13446			1990	749	SLV 14	0.06	No
fin.	2	0	793094	11552			1990	749	SLV 14	0.06	No
ini.	2	0	460335	-9042			1990	749	SLV 3	0.08	No
fin.	2	0	-649137	-10688			1990	749	SLV 3	0.07	No
ini.	2	0	-477823	11072			1990	749	SLV 16	0.07	No
fin.	2	0	664889	9208			1990	749	SLV 16	0.08	No
ini.	2	0	-440163	9175			1990	749	SLV 9	0.08	No
fin.	2	0	482758	7324			1990	749	SLV 9	0.1	No
ini.	2	0	-440163	9175			1990	749	SLV 10	0.08	No
fin.	2	0	482758	7324			1990	749	SLV 10	0.1	No
ini.	2	0	-477823	11072			1990	749	SLV 15	0.07	No
fin.	2	0	664889	9208			1990	749	SLV 15	0.08	No
ini.	2	0	460335	-9042			1990	749	SLV 4	0.08	No
fin.	2	0	-649137	-10688			1990	749	SLV 4	0.07	No
ini.	2	0	326168	-6668			1990	749	SLV 1	0.11	No
fin.	2	0	-520931	-8343			1990	749	SLV 1	0.09	No
ini.	2	0	-611990	13446			1990	749	SLV 13	0.06	No
fin.	2	0	793094	11552			1990	749	SLV 13	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.226	SLV 13	No
V_SLV	0.056	SLV 13	No
PF_SLU	1.223	SLU 79	Si
V_SLU	0.136	SLU 79	No

Trave di accoppiamento 51

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-416.8	104.6	320	483	163	-496.8	104.6	320	483	163	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2189	-175454	231542	SLU 74	1.32	Si
fin.	3	-2189	115196	231542	SLU 74	2.01	Si
ini.	3	-2216	-187165	231542	SLU 79	1.24	Si
fin.	3	-2216	128558	231542	SLU 79	1.8	Si
ini.	3	-2010	-168405	231542	SLU 71	1.37	Si
fin.	3	-2010	117385	231542	SLU 71	1.97	Si
ini.	3	-2237	-178853	231542	SLU 80	1.29	Si
fin.	3	-2237	118396	231542	SLU 80	1.96	Si
ini.	3	-2315	-172606	231542	SLU 84	1.34	Si
fin.	3	-2315	108696	231542	SLU 84	2.13	Si
ini.	3	-2295	-180918	231542	SLU 83	1.28	Si
fin.	3	-2295	118858	231542	SLU 83	1.95	Si
ini.	3	-1987	-168288	231542	SLU 56	1.38	Si
fin.	3	-1987	112671	231542	SLU 56	2.06	Si
ini.	3	-2199	-189741	231542	SLU 77	1.22	Si
fin.	3	-2199	129685	231542	SLU 77	1.79	Si
ini.	3	-2219	-181429	231542	SLU 78	1.28	Si
fin.	3	-2219	119523	231542	SLU 78	1.94	Si
ini.	3	-1993	-170981	231542	SLU 69	1.35	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1993	118511	231542	SLU 69	1.95	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-166631	4533			1758	661	SLU 81	0.15	No
fin.	3	0	104370	2323			1758	661	SLU 81	0.28	No
ini.	3	0	-181429	4824			1758	661	SLU 78	0.14	No
fin.	3	0	119523	2782			1758	661	SLU 78	0.24	No
ini.	3	0	-189741	5055			1758	661	SLU 77	0.13	No
fin.	3	0	129685	3013			1758	661	SLU 77	0.22	No
ini.	3	0	-178853	4777			1758	661	SLU 80	0.14	No
fin.	3	0	118396	2735			1758	661	SLU 80	0.24	No
ini.	3	0	-180918	4893			1758	661	SLU 83	0.14	No
fin.	3	0	118858	2683			1758	661	SLU 83	0.25	No
ini.	3	0	-168081	4514			1758	661	SLU 35	0.15	No
fin.	3	0	117696	2691			1758	661	SLU 35	0.25	No
ini.	3	0	-172606	4662			1758	661	SLU 84	0.14	No
fin.	3	0	108696	2452			1758	661	SLU 84	0.27	No
ini.	3	0	-170981	4485			1758	661	SLU 69	0.15	No
fin.	3	0	118511	2834			1758	661	SLU 69	0.23	No
ini.	3	0	-187165	5008			1758	661	SLU 79	0.13	No
fin.	3	0	128558	2966			1758	661	SLU 79	0.22	No
ini.	3	0	-175454	4695			1758	661	SLU 74	0.14	No
fin.	3	0	115196	2653			1758	661	SLU 74	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	274	-767396	249444	SLV 15	0.33	No
fin.	2	515	451854	249444	SLV 15	0.55	No
ini.	2	-768	-389759	249444	SLD 15	0.64	No
fin.	2	-667	232044	249444	SLD 15	1.07	Si
ini.	2	274	-767396	249444	SLV 16	0.33	No
fin.	2	515	451854	249444	SLV 16	0.55	No
ini.	2	185	-729939	249444	SLV 13	0.34	No
fin.	2	222	490646	249444	SLV 13	0.51	No
ini.	2	185	-729939	249444	SLV 14	0.34	No
fin.	2	222	490646	249444	SLV 14	0.51	No
ini.	2	-3272	513525	249444	SLV 4	0.49	No
fin.	2	-3309	-355728	249444	SLV 4	0.7	No
ini.	2	-3361	550981	249444	SLV 1	0.45	No
fin.	2	-3601	-316935	249444	SLV 1	0.79	No
ini.	2	-3272	513525	249444	SLV 3	0.49	No
fin.	2	-3309	-355728	249444	SLV 3	0.7	No
ini.	2	-768	-389759	249444	SLD 16	0.64	No
fin.	2	-667	232044	249444	SLD 16	1.07	Si
ini.	2	-3361	550981	249444	SLV 2	0.45	No
fin.	2	-3601	-316935	249444	SLV 2	0.79	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	550981	-10374			2637	992	SLV 2	0.1	No
fin.	2	0	-316935	-11552			2637	992	SLV 2	0.09	No
ini.	2	0	-729939	16013			2637	992	SLV 13	0.06	No
fin.	2	0	490646	14730			2637	992	SLV 13	0.07	No
ini.	2	0	513525	-10248			2637	992	SLV 4	0.1	No
fin.	2	0	-355728	-11585			2637	992	SLV 4	0.09	No
ini.	2	0	-389759	8548			2637	992	SLD 15	0.12	No
fin.	2	0	232044	7181			2637	992	SLD 15	0.14	No
ini.	2	0	-767396	16139			2637	992	SLV 16	0.06	No
fin.	2	0	451854	14697			2637	992	SLV 16	0.07	No
ini.	2	0	513525	-10248			2637	992	SLV 3	0.1	No
fin.	2	0	-355728	-11585			2637	992	SLV 3	0.09	No
ini.	2	0	-389759	8548			2637	992	SLD 16	0.12	No
fin.	2	0	232044	7181			2637	992	SLD 16	0.14	No
ini.	2	0	-767396	16139			2637	992	SLV 15	0.06	No
fin.	2	0	451854	14697			2637	992	SLV 15	0.07	No
ini.	2	0	550981	-10374			2637	992	SLV 1	0.1	No
fin.	2	0	-316935	-11552			2637	992	SLV 1	0.09	No
ini.	2	0	-729939	16013			2637	992	SLV 14	0.06	No
fin.	2	0	490646	14730			2637	992	SLV 14	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.325	SLV 15	No
V_SLV	0.061	SLV 15	No
PF_SLU	1.22	SLU 77	Si
V_SLU	0.131	SLU 77	No

Trave di accoppiamento 52

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1776.8	666.1	110	200	90	-1676.8	666.1	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	3793	81787	103792	SLU 83	1.27	Si
fin.	3	2852	45985	103792	SLU 83	2.26	Si
ini.	3	3839	79719	103792	SLU 82	1.3	Si
fin.	3	2899	45649	103792	SLU 82	2.27	Si
ini.	3	3565	80809	103792	SLU 80	1.28	Si
fin.	3	2670	44228	103792	SLU 80	2.35	Si
ini.	3	3561	80979	103792	SLU 79	1.28	Si
fin.	3	2667	44130	103792	SLU 79	2.35	Si
ini.	3	3616	81278	103792	SLU 78	1.28	Si
fin.	3	2710	44745	103792	SLU 78	2.32	Si
ini.	3	3613	81448	103792	SLU 77	1.27	Si
fin.	3	2708	44646	103792	SLU 77	2.32	Si
ini.	3	3657	79550	103792	SLU 74	1.3	Si
fin.	3	2752	44211	103792	SLU 74	2.35	Si
ini.	3	3796	81617	103792	SLU 84	1.27	Si
fin.	3	2854	46084	103792	SLU 84	2.25	Si
ini.	3	3660	79379	103792	SLU 75	1.31	Si
fin.	3	2754	44310	103792	SLU 75	2.34	Si
ini.	3	3836	79889	103792	SLU 81	1.3	Si
fin.	3	2896	45550	103792	SLU 81	2.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	81617	-371			873	329	SLU 84	0.89	No
fin.	3	0	46084	404			873	329	SLU 84	0.81	No
ini.	3	0	67066	-311			873	329	SLU 39	1.06	Si
fin.	3	0	39125	382			873	329	SLU 39	0.86	No
ini.	3	0	81787	-374			873	329	SLU 83	0.88	No
fin.	3	0	45985	401			873	329	SLU 83	0.82	No
ini.	3	0	66896	-308			873	329	SLU 40	1.07	Si
fin.	3	0	39224	385			873	329	SLU 40	0.85	No
ini.	3	0	81278	-380			873	329	SLU 78	0.87	No
fin.	3	0	44745	367			873	329	SLU 78	0.9	No
ini.	3	0	79889	-349			873	329	SLU 81	0.94	No
fin.	3	0	45550	405			873	329	SLU 81	0.81	No
ini.	3	0	79719	-346			873	329	SLU 82	0.95	No
fin.	3	0	45649	408			873	329	SLU 82	0.81	No
ini.	3	0	81448	-383			873	329	SLU 77	0.86	No
fin.	3	0	44646	364			873	329	SLU 77	0.9	No
ini.	3	0	68794	-333			873	329	SLU 42	0.99	No
fin.	3	0	39659	381			873	329	SLU 42	0.86	No
ini.	3	0	80979	-381			873	329	SLU 79	0.86	No
fin.	3	0	44130	353			873	329	SLU 79	0.93	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	42	216276	121694	SLV 14	0.56	No
fin.	2	938	-184648	121694	SLV 14	0.66	No
ini.	2	4849	251258	121694	SLV 12	0.48	No
fin.	2	7234	7744	121694	SLV 12	15.71	Si
ini.	2	4987	-106778	121694	SLV 3	1.14	Si
fin.	2	2863	243966	121694	SLV 3	0.5	No
ini.	2	3294	-188273	121694	SLV 2	0.65	No
fin.	2	-231	220639	121694	SLV 2	0.55	No
ini.	2	42	216276	121694	SLV 13	0.56	No
fin.	2	938	-184648	121694	SLV 13	0.66	No
ini.	2	1735	297772	121694	SLV 15	0.41	No
fin.	2	4033	-161321	121694	SLV 15	0.75	No
ini.	2	3294	-188273	121694	SLV 1	0.65	No
fin.	2	-231	220639	121694	SLV 1	0.55	No
ini.	2	1735	297772	121694	SLV 16	0.41	No
fin.	2	4033	-161321	121694	SLV 16	0.75	No
ini.	2	4987	-106778	121694	SLV 4	1.14	Si
fin.	2	2863	243966	121694	SLV 4	0.5	No
ini.	2	4849	251258	121694	SLV 11	0.48	No
fin.	2	7234	7744	121694	SLV 11	15.71	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	216276	-4710			1310	493	SLV 13	0.1	No
fin.	2	0	-184648	-4615			1310	493	SLV 13	0.11	No
ini.	2	0	-106778	4266			1310	493	SLV 3	0.12	No
fin.	2	0	243966	5041			1310	493	SLV 3	0.1	No
ini.	2	0	297772	-5173			1310	493	SLV 15	0.1	No
fin.	2	0	-161321	-5059			1310	493	SLV 15	0.1	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-106778	4266			1310	493	SLV 4	0.12	No
fin.	2	0	243966	5041			1310	493	SLV 4	0.1	No
ini.	2	0	297772	-5173			1310	493	SLV 16	0.1	No
fin.	2	0	-161321	-5059			1310	493	SLV 16	0.1	No
ini.	2	0	-188273	4729			1310	493	SLV 2	0.1	No
fin.	2	0	220639	5485			1310	493	SLV 2	0.09	No
ini.	2	0	-48831	1897			1310	493	SLD 2	0.26	No
fin.	2	0	111336	2469			1310	493	SLD 2	0.2	No
ini.	2	0	-48831	1897			1310	493	SLD 1	0.26	No
fin.	2	0	111336	2469			1310	493	SLD 1	0.2	No
ini.	2	0	-188273	4729			1310	493	SLV 1	0.1	No
fin.	2	0	220639	5485			1310	493	SLV 1	0.09	No
ini.	2	0	216276	-4710			1310	493	SLV 14	0.1	No
fin.	2	0	-184648	-4615			1310	493	SLV 14	0.11	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.409	SLV 15	No
V_SLV	0.09	SLV 1	No
PF_SLU	1.269	SLU 83	Si
V_SLU	0.806	SLU 82	No

Trave di accoppiamento 53

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1776.8	666.1	390	483	93	-1676.8	666.1	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2159	-31487	109042	SLU 84	3.46	Si
fin.	3	-2488	-48628	109042	SLU 84	2.24	Si
ini.	3	-2140	-31577	109042	SLU 77	3.45	Si
fin.	3	-2418	-47993	109042	SLU 77	2.27	Si
ini.	3	-2105	-30207	109042	SLU 82	3.61	Si
fin.	3	-2475	-47890	109042	SLU 82	2.28	Si
ini.	3	-2105	-30125	109042	SLU 81	3.62	Si
fin.	3	-2481	-48013	109042	SLU 81	2.27	Si
ini.	3	-2124	-31374	109042	SLU 79	3.48	Si
fin.	3	-2393	-47544	109042	SLU 79	2.29	Si
ini.	3	-2125	-31457	109042	SLU 80	3.47	Si
fin.	3	-2387	-47421	109042	SLU 80	2.3	Si
ini.	3	-2140	-31660	109042	SLU 78	3.44	Si
fin.	3	-2411	-47870	109042	SLU 78	2.28	Si
ini.	3	-2086	-30298	109042	SLU 74	3.6	Si
fin.	3	-2404	-47255	109042	SLU 74	2.31	Si
ini.	3	-2086	-30381	109042	SLU 75	3.59	Si
fin.	3	-2398	-47132	109042	SLU 75	2.31	Si
ini.	3	-2159	-31404	109042	SLU 83	3.47	Si
fin.	3	-2495	-48751	109042	SLU 83	2.24	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-30207	3072			933	351	SLU 82	0.11	No
fin.	3	0	-47890	-5204			933	351	SLU 82	0.07	No
ini.	3	0	-31457	2956			933	351	SLU 80	0.12	No
fin.	3	0	-47421	-4922			933	351	SLU 80	0.07	No
ini.	3	0	-31660	2990			933	351	SLU 78	0.12	No
fin.	3	0	-47870	-4985			933	351	SLU 78	0.07	No
ini.	3	0	-31577	2986			933	351	SLU 77	0.12	No
fin.	3	0	-47993	-4991			933	351	SLU 77	0.07	No
ini.	3	0	-30381	2966			933	351	SLU 75	0.12	No
fin.	3	0	-47132	-4985			933	351	SLU 75	0.07	No
ini.	3	0	-30125	3068			933	351	SLU 81	0.11	No
fin.	3	0	-48013	-5210			933	351	SLU 81	0.07	No
ini.	3	0	-31404	3092			933	351	SLU 83	0.11	No
fin.	3	0	-48751	-5209			933	351	SLU 83	0.07	No
ini.	3	0	-31487	3096			933	351	SLU 84	0.11	No
fin.	3	0	-48628	-5203			933	351	SLU 84	0.07	No
ini.	3	0	-31374	2952			933	351	SLU 79	0.12	No
fin.	3	0	-47544	-4929			933	351	SLU 79	0.07	No
ini.	3	0	-30298	2962			933	351	SLU 74	0.12	No
fin.	3	0	-47255	-4991			933	351	SLU 74	0.07	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4797	-151927	126944	SLV 2	0.84	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1999	85230	126944	SLV 2	1.49	Si
ini.	2	-1480	8642	126944	SLV 11	14.69	Si
fin.	2	-3840	-90309	126944	SLV 11	1.41	Si
ini.	2	-5518	-159162	126944	SLV 3	0.8	No
fin.	2	1264	70157	126944	SLV 3	1.81	Si
ini.	2	1988	111985	126944	SLV 15	1.13	Si
fin.	2	-5269	-149661	126944	SLV 15	0.85	No
ini.	2	-1480	8642	126944	SLV 12	14.69	Si
fin.	2	-3840	-90309	126944	SLV 12	1.41	Si
ini.	2	1988	111985	126944	SLV 16	1.13	Si
fin.	2	-5269	-149661	126944	SLV 16	0.85	No
ini.	2	-5518	-159162	126944	SLV 4	0.8	No
fin.	2	1264	70157	126944	SLV 4	1.81	Si
ini.	2	2709	119221	126944	SLV 14	1.06	Si
fin.	2	-4534	-134588	126944	SLV 14	0.94	No
ini.	2	-4797	-151927	126944	SLV 1	0.84	No
fin.	2	1999	85230	126944	SLV 1	1.49	Si
ini.	2	2709	119221	126944	SLV 13	1.06	Si
fin.	2	-4534	-134588	126944	SLV 13	0.94	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	119221	-4387			1399	526	SLV 13	0.12	No
fin.	2	0	-134588	-8283			1399	526	SLV 13	0.06	No
ini.	2	0	8642	943			1399	526	SLV 12	0.56	No
fin.	2	0	-90309	-5949			1399	526	SLV 12	0.09	No
ini.	2	0	-151927	7855			1399	526	SLV 2	0.07	No
fin.	2	0	85230	2202			1399	526	SLV 2	0.24	No
ini.	2	0	111985	-3904			1399	526	SLV 15	0.13	No
fin.	2	0	-149661	-8900			1399	526	SLV 15	0.06	No
ini.	2	0	119221	-4387			1399	526	SLV 14	0.12	No
fin.	2	0	-134588	-8283			1399	526	SLV 14	0.06	No
ini.	2	0	-159162	8337			1399	526	SLV 4	0.06	No
fin.	2	0	70157	1586			1399	526	SLV 4	0.33	No
ini.	2	0	-159162	8337			1399	526	SLV 3	0.06	No
fin.	2	0	70157	1586			1399	526	SLV 3	0.33	No
ini.	2	0	111985	-3904			1399	526	SLV 16	0.13	No
fin.	2	0	-149661	-8900			1399	526	SLV 16	0.06	No
ini.	2	0	8642	943			1399	526	SLV 11	0.56	No
fin.	2	0	-90309	-5949			1399	526	SLV 11	0.09	No
ini.	2	0	-151927	7855			1399	526	SLV 1	0.07	No
fin.	2	0	85230	2202			1399	526	SLV 1	0.24	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.798	SLV 3	No
V_SLV	0.059	SLV 15	No
PF_SLU	2.237	SLU 83	Si
V_SLU	0.067	SLU 81	No

Trave di accoppiamento 54

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1288.8	666.1	110	200	90	-1188.8	666.1	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2722	52726	103792	SLU 78	1.97	Si
fin.	3	2623	66207	103792	SLU 78	1.57	Si
ini.	3	2772	54332	103792	SLU 84	1.91	Si
fin.	3	2673	67311	103792	SLU 84	1.54	Si
ini.	3	2719	52774	103792	SLU 77	1.97	Si
fin.	3	2619	66313	103792	SLU 77	1.57	Si
ini.	3	2700	52202	103792	SLU 80	1.99	Si
fin.	3	2601	65700	103792	SLU 80	1.58	Si
ini.	3	2729	54035	103792	SLU 82	1.92	Si
fin.	3	2634	65928	103792	SLU 82	1.57	Si
ini.	3	2696	52250	103792	SLU 79	1.99	Si
fin.	3	2596	65806	103792	SLU 79	1.58	Si
ini.	3	2725	54083	103792	SLU 81	1.92	Si
fin.	3	2630	66033	103792	SLU 81	1.57	Si
ini.	3	2676	52477	103792	SLU 74	1.98	Si
fin.	3	2580	64929	103792	SLU 74	1.6	Si
ini.	3	2768	54380	103792	SLU 83	1.91	Si
fin.	3	2668	67417	103792	SLU 83	1.54	Si
ini.	3	2680	52429	103792	SLU 75	1.98	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	2584	64824	103792	SLU 75	1.6	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	54332	-165			873	329	SLU 84	1.99	Si
fin.	3	0	67311	462			873	329	SLU 84	0.71	No
ini.	3	0	52726	-155			873	329	SLU 78	2.13	Si
fin.	3	0	66207	464			873	329	SLU 78	0.71	No
ini.	3	0	52477	-156			873	329	SLU 74	2.11	Si
fin.	3	0	64929	437			873	329	SLU 74	0.75	No
ini.	3	0	52250	-148			873	329	SLU 79	2.22	Si
fin.	3	0	65806	460			873	329	SLU 79	0.71	No
ini.	3	0	52202	-149			873	329	SLU 80	2.21	Si
fin.	3	0	65700	459			873	329	SLU 80	0.72	No
ini.	3	0	54083	-166			873	329	SLU 81	1.98	Si
fin.	3	0	66033	434			873	329	SLU 81	0.76	No
ini.	3	0	52429	-156			873	329	SLU 75	2.1	Si
fin.	3	0	64824	435			873	329	SLU 75	0.76	No
ini.	3	0	54035	-167			873	329	SLU 82	1.97	Si
fin.	3	0	65928	432			873	329	SLU 82	0.76	No
ini.	3	0	52774	-154			873	329	SLU 77	2.13	Si
fin.	3	0	66313	466			873	329	SLU 77	0.71	No
ini.	3	0	54380	-165			873	329	SLU 83	2	Si
fin.	3	0	67417	463			873	329	SLU 83	0.71	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	5883	-155415	121694	SLV 3	0.78	No
fin.	2	2514	331943	121694	SLV 3	0.37	No
ini.	2	-2239	226962	121694	SLV 13	0.54	No
fin.	2	1004	-244584	121694	SLV 13	0.5	No
ini.	2	5883	-155415	121694	SLV 4	0.78	No
fin.	2	2514	331943	121694	SLV 4	0.37	No
ini.	2	13209	47973	121694	SLV 7	2.54	Si
fin.	2	8058	365757	121694	SLV 7	0.33	No
ini.	2	-9565	23574	121694	SLV 9	5.16	Si
fin.	2	-4540	-278399	121694	SLV 9	0.44	No
ini.	2	-9565	23574	121694	SLV 10	5.16	Si
fin.	2	-4540	-278399	121694	SLV 10	0.44	No
ini.	2	4466	272823	121694	SLV 16	0.45	No
fin.	2	5008	-89244	121694	SLV 16	1.36	Si
ini.	2	4466	272823	121694	SLV 15	0.45	No
fin.	2	5008	-89244	121694	SLV 15	1.36	Si
ini.	2	13209	47973	121694	SLV 8	2.54	Si
fin.	2	8058	365757	121694	SLV 8	0.33	No
ini.	2	-2239	226962	121694	SLV 14	0.54	No
fin.	2	1004	-244584	121694	SLV 14	0.5	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	226962	-5247			1310	493	SLV 14	0.09	No
fin.	2	0	-244584	-5262			1310	493	SLV 14	0.09	No
ini.	2	0	47973	959			1310	493	SLV 8	0.51	No
fin.	2	0	365757	2695			1310	493	SLV 8	0.18	No
ini.	2	0	47973	959			1310	493	SLV 7	0.51	No
fin.	2	0	365757	2695			1310	493	SLV 7	0.18	No
ini.	2	0	272823	-5574			1310	493	SLV 15	0.09	No
fin.	2	0	-89244	-4747			1310	493	SLV 15	0.1	No
ini.	2	0	-201276	5391			1310	493	SLV 2	0.09	No
fin.	2	0	176602	5261			1310	493	SLV 2	0.09	No
ini.	2	0	226962	-5247			1310	493	SLV 13	0.09	No
fin.	2	0	-244584	-5262			1310	493	SLV 13	0.09	No
ini.	2	0	-155415	5064			1310	493	SLV 4	0.1	No
fin.	2	0	331943	5777			1310	493	SLV 4	0.09	No
ini.	2	0	272823	-5574			1310	493	SLV 16	0.09	No
fin.	2	0	-89244	-4747			1310	493	SLV 16	0.1	No
ini.	2	0	-201276	5391			1310	493	SLV 1	0.09	No
fin.	2	0	176602	5261			1310	493	SLV 1	0.09	No
ini.	2	0	-155415	5064			1310	493	SLV 3	0.1	No
fin.	2	0	331943	5777			1310	493	SLV 3	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.333	SLV 7	No
V_SLV	0.085	SLV 3	No
PF_SLU	1.54	SLU 83	Si
V_SLU	0.705	SLU 77	No

Trave di accoppiamento 55

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1288.8	666.1	390	483	93	-1188.8	666.1	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2773	-43445	109042	SLU 75	2.51	Si
fin.	3	-2724	-40851	109042	SLU 75	2.67	Si
ini.	3	-2754	-44382	109042	SLU 78	2.46	Si
fin.	3	-2698	-41458	109042	SLU 78	2.63	Si
ini.	3	-2760	-44444	109042	SLU 77	2.45	Si
fin.	3	-2704	-41535	109042	SLU 77	2.63	Si
ini.	3	-2917	-44274	109042	SLU 82	2.46	Si
fin.	3	-2871	-41879	109042	SLU 82	2.6	Si
ini.	3	-2904	-45273	109042	SLU 83	2.41	Si
fin.	3	-2852	-42563	109042	SLU 83	2.56	Si
ini.	3	-2722	-44031	109042	SLU 79	2.48	Si
fin.	3	-2667	-41122	109042	SLU 79	2.65	Si
ini.	3	-2898	-45211	109042	SLU 84	2.41	Si
fin.	3	-2845	-42486	109042	SLU 84	2.57	Si
ini.	3	-2716	-43968	109042	SLU 80	2.48	Si
fin.	3	-2660	-41045	109042	SLU 80	2.66	Si
ini.	3	-2779	-43508	109042	SLU 74	2.51	Si
fin.	3	-2730	-40928	109042	SLU 74	2.66	Si
ini.	3	-2923	-44337	109042	SLU 81	2.46	Si
fin.	3	-2877	-41956	109042	SLU 81	2.6	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-44031	4248			933	351	SLU 79	0.08	No
fin.	3	0	-41122	-4026			933	351	SLU 79	0.09	No
ini.	3	0	-43445	4223			933	351	SLU 75	0.08	No
fin.	3	0	-40851	-4010			933	351	SLU 75	0.09	No
ini.	3	0	-44444	4290			933	351	SLU 77	0.08	No
fin.	3	0	-41535	-4066			933	351	SLU 77	0.09	No
ini.	3	0	-44274	4351			933	351	SLU 82	0.08	No
fin.	3	0	-41879	-4139			933	351	SLU 82	0.08	No
ini.	3	0	-45273	4418			933	351	SLU 83	0.08	No
fin.	3	0	-42563	-4195			933	351	SLU 83	0.08	No
ini.	3	0	-44337	4353			933	351	SLU 81	0.08	No
fin.	3	0	-41956	-4142			933	351	SLU 81	0.08	No
ini.	3	0	-43968	4246			933	351	SLU 80	0.08	No
fin.	3	0	-41045	-4023			933	351	SLU 80	0.09	No
ini.	3	0	-43508	4226			933	351	SLU 74	0.08	No
fin.	3	0	-40928	-4013			933	351	SLU 74	0.09	No
ini.	3	0	-44382	4288			933	351	SLU 78	0.08	No
fin.	3	0	-41458	-4063			933	351	SLU 78	0.09	No
ini.	3	0	-45211	4415			933	351	SLU 84	0.08	No
fin.	3	0	-42486	-4192			933	351	SLU 84	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1950	92362	126944	SLV 15	1.37	Si
fin.	2	-6077	-159374	126944	SLV 15	0.8	No
ini.	2	-6406	-161726	126944	SLV 3	0.78	No
fin.	2	1793	96387	126944	SLV 3	1.32	Si
ini.	2	-5689	-150218	126944	SLV 1	0.85	No
fin.	2	2395	104704	126944	SLV 1	1.21	Si
ini.	2	2666	103870	126944	SLV 14	1.22	Si
fin.	2	-5474	-151057	126944	SLV 14	0.84	No
ini.	2	-4317	-86222	126944	SLV 8	1.47	Si
fin.	2	-1664	-2833	126944	SLV 8	44.81	Si
ini.	2	2666	103870	126944	SLV 13	1.22	Si
fin.	2	-5474	-151057	126944	SLV 13	0.84	No
ini.	2	-4317	-86222	126944	SLV 7	1.47	Si
fin.	2	-1664	-2833	126944	SLV 7	44.81	Si
ini.	2	1950	92362	126944	SLV 16	1.37	Si
fin.	2	-6077	-159374	126944	SLV 16	0.8	No
ini.	2	-5689	-150218	126944	SLV 2	0.85	No
fin.	2	2395	104704	126944	SLV 2	1.21	Si
ini.	2	-6406	-161726	126944	SLV 4	0.78	No
fin.	2	1793	96387	126944	SLV 4	1.32	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-150218	8873			1399	526	SLV 1	0.06	No
fin.	2	0	104704	4027			1399	526	SLV 1	0.13	No
ini.	2	0	-161726	9519			1399	526	SLV 4	0.06	No
fin.	2	0	96387	3563			1399	526	SLV 4	0.15	No
ini.	2	0	-150218	8873			1399	526	SLV 2	0.06	No
fin.	2	0	104704	4027			1399	526	SLV 2	0.13	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	103870	-3927			1399	526	SLV 14	0.13	No
fin.	2	0	-151057	-8880			1399	526	SLV 14	0.06	No
ini.	2	0	-86222	5792			1399	526	SLV 7	0.09	No
fin.	2	0	-2833	-1495			1399	526	SLV 7	0.35	No
ini.	2	0	92362	-3281			1399	526	SLV 15	0.16	No
fin.	2	0	-159374	-9343			1399	526	SLV 15	0.06	No
ini.	2	0	-86222	5792			1399	526	SLV 8	0.09	No
fin.	2	0	-2833	-1495			1399	526	SLV 8	0.35	No
ini.	2	0	-161726	9519			1399	526	SLV 3	0.06	No
fin.	2	0	96387	3563			1399	526	SLV 3	0.15	No
ini.	2	0	92362	-3281			1399	526	SLV 16	0.16	No
fin.	2	0	-159374	-9343			1399	526	SLV 16	0.06	No
ini.	2	0	103870	-3927			1399	526	SLV 13	0.13	No
fin.	2	0	-151057	-8880			1399	526	SLV 13	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.785	SLV 3	No
V_SLV	0.055	SLV 3	No
PF_SLU	2.409	SLU 83	Si
V_SLU	0.079	SLU 83	No

Trave di accoppiamento 56

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-800.8	666.1	110	200	90	-700.8	666.1	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	3115	42466	103792	SLU 82	2.44	Si
fin.	3	4170	93521	103792	SLU 82	1.11	Si
ini.	3	3097	44144	103792	SLU 80	2.35	Si
fin.	3	4159	94706	103792	SLU 80	1.1	Si
ini.	3	3098	43945	103792	SLU 79	2.36	Si
fin.	3	4159	95235	103792	SLU 79	1.09	Si
ini.	3	3125	44161	103792	SLU 77	2.35	Si
fin.	3	4193	95830	103792	SLU 77	1.08	Si
ini.	3	3179	44326	103792	SLU 84	2.34	Si
fin.	3	4263	95786	103792	SLU 84	1.08	Si
ini.	3	3060	42500	103792	SLU 75	2.44	Si
fin.	3	4101	93037	103792	SLU 75	1.12	Si
ini.	3	3180	44127	103792	SLU 83	2.35	Si
fin.	3	4262	96315	103792	SLU 83	1.08	Si
ini.	3	3124	44359	103792	SLU 78	2.34	Si
fin.	3	4193	95302	103792	SLU 78	1.09	Si
ini.	3	3061	42301	103792	SLU 74	2.45	Si
fin.	3	4100	93566	103792	SLU 74	1.11	Si
ini.	3	3116	42268	103792	SLU 81	2.46	Si
fin.	3	4170	94050	103792	SLU 81	1.1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	42466	-320			873	329	SLU 82	1.03	Si
fin.	3	0	93521	572			873	329	SLU 82	0.57	No
ini.	3	0	44326	-345			873	329	SLU 84	0.95	No
fin.	3	0	95786	591			873	329	SLU 84	0.56	No
ini.	3	0	44127	-338			873	329	SLU 83	0.97	No
fin.	3	0	96315	601			873	329	SLU 83	0.55	No
ini.	3	0	44161	-331			873	329	SLU 77	0.99	No
fin.	3	0	95830	596			873	329	SLU 77	0.55	No
ini.	3	0	43945	-327			873	329	SLU 79	1.01	Si
fin.	3	0	95235	590			873	329	SLU 79	0.56	No
ini.	3	0	44359	-338			873	329	SLU 78	0.97	No
fin.	3	0	95302	586			873	329	SLU 78	0.56	No
ini.	3	0	44144	-334			873	329	SLU 80	0.98	No
fin.	3	0	94706	580			873	329	SLU 80	0.57	No
ini.	3	0	42500	-312			873	329	SLU 75	1.05	Si
fin.	3	0	93037	567			873	329	SLU 75	0.58	No
ini.	3	0	42268	-312			873	329	SLU 81	1.05	Si
fin.	3	0	94050	582			873	329	SLU 81	0.56	No
ini.	3	0	42301	-305			873	329	SLU 74	1.08	Si
fin.	3	0	93566	577			873	329	SLU 74	0.57	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3853	242198	121694	SLV 15	0.5	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	5890	-66152	121694	SLV 15	1.84	Si
ini.	2	893	220056	121694	SLV 13	0.55	No
fin.	2	4845	-179747	121694	SLV 13	0.68	No
ini.	2	7079	125579	121694	SLV 11	0.97	No
fin.	2	5270	197281	121694	SLV 11	0.62	No
ini.	2	6885	3478	121694	SLV 8	34.99	Si
fin.	2	3693	309486	121694	SLV 8	0.39	No
ini.	2	7079	125579	121694	SLV 12	0.97	No
fin.	2	5270	197281	121694	SLV 12	0.62	No
ini.	2	6885	3478	121694	SLV 7	34.99	Si
fin.	2	3693	309486	121694	SLV 7	0.39	No
ini.	2	3206	-164804	121694	SLV 4	0.74	No
fin.	2	634	307864	121694	SLV 4	0.4	No
ini.	2	3206	-164804	121694	SLV 3	0.74	No
fin.	2	634	307864	121694	SLV 3	0.4	No
ini.	2	893	220056	121694	SLV 14	0.55	No
fin.	2	4845	-179747	121694	SLV 14	0.68	No
ini.	2	3853	242198	121694	SLV 16	0.5	No
fin.	2	5890	-66152	121694	SLV 16	1.84	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	51773	-2737			1310	493	SLV 10	0.18	No
fin.	2	0	-181369	-1897			1310	493	SLV 10	0.26	No
ini.	2	0	-186946	4497			1310	493	SLV 2	0.11	No
fin.	2	0	194269	4862			1310	493	SLV 2	0.1	No
ini.	2	0	220056	-5458			1310	493	SLV 14	0.09	No
fin.	2	0	-179747	-4623			1310	493	SLV 14	0.11	No
ini.	2	0	242198	-4804			1310	493	SLV 16	0.1	No
fin.	2	0	-66152	-4114			1310	493	SLV 16	0.12	No
ini.	2	0	-164804	5151			1310	493	SLV 4	0.1	No
fin.	2	0	307864	5371			1310	493	SLV 4	0.09	No
ini.	2	0	220056	-5458			1310	493	SLV 13	0.09	No
fin.	2	0	-179747	-4623			1310	493	SLV 13	0.11	No
ini.	2	0	51773	-2737			1310	493	SLV 9	0.18	No
fin.	2	0	-181369	-1897			1310	493	SLV 9	0.26	No
ini.	2	0	-186946	4497			1310	493	SLV 1	0.11	No
fin.	2	0	194269	4862			1310	493	SLV 1	0.1	No
ini.	2	0	242198	-4804			1310	493	SLV 15	0.1	No
fin.	2	0	-66152	-4114			1310	493	SLV 15	0.12	No
ini.	2	0	-164804	5151			1310	493	SLV 3	0.1	No
fin.	2	0	307864	5371			1310	493	SLV 3	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.393	SLV 7	No
V_SLV	0.09	SLV 13	No
PF_SLU	1.078	SLU 83	Si
V_SLU	0.547	SLU 83	No

Trave di accoppiamento 57

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-800.8	666.1	390	483	93	-700.8	666.1	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2942	-45261	109042	SLU 78	2.41	Si
fin.	3	-2990	-42905	109042	SLU 78	2.54	Si
ini.	3	-2917	-44594	109042	SLU 75	2.45	Si
fin.	3	-2869	-39940	109042	SLU 75	2.73	Si
ini.	3	-2931	-44859	109042	SLU 74	2.43	Si
fin.	3	-2875	-39884	109042	SLU 74	2.73	Si
ini.	3	-2956	-45526	109042	SLU 77	2.4	Si
fin.	3	-2996	-42850	109042	SLU 77	2.54	Si
ini.	3	-2926	-45085	109042	SLU 79	2.42	Si
fin.	3	-2982	-42869	109042	SLU 79	2.54	Si
ini.	3	-2912	-44820	109042	SLU 80	2.43	Si
fin.	3	-2977	-42925	109042	SLU 80	2.54	Si
ini.	3	-3017	-45549	109042	SLU 81	2.39	Si
fin.	3	-2858	-38482	109042	SLU 81	2.83	Si
ini.	3	-3041	-46215	109042	SLU 83	2.36	Si
fin.	3	-2979	-41447	109042	SLU 83	2.63	Si
ini.	3	-3027	-45950	109042	SLU 84	2.37	Si
fin.	3	-2974	-41503	109042	SLU 84	2.63	Si
ini.	3	-3003	-45284	109042	SLU 82	2.41	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2853	-38538	109042	SLU 82	2.83	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-45284	5499			933	351	SLU 82	0.06	No
fin.	3	0	-38538	-3059			933	351	SLU 82	0.11	No
ini.	3	0	-46215	5565			933	351	SLU 83	0.06	No
fin.	3	0	-41447	-3184			933	351	SLU 83	0.11	No
ini.	3	0	-45950	5551			933	351	SLU 84	0.06	No
fin.	3	0	-41503	-3187			933	351	SLU 84	0.11	No
ini.	3	0	-45526	5379			933	351	SLU 77	0.07	No
fin.	3	0	-42850	-3175			933	351	SLU 77	0.11	No
ini.	3	0	-45085	5321			933	351	SLU 79	0.07	No
fin.	3	0	-42869	-3160			933	351	SLU 79	0.11	No
ini.	3	0	-44859	5326			933	351	SLU 74	0.07	No
fin.	3	0	-39884	-3047			933	351	SLU 74	0.12	No
ini.	3	0	-45261	5365			933	351	SLU 78	0.07	No
fin.	3	0	-42905	-3178			933	351	SLU 78	0.11	No
ini.	3	0	-45549	5513			933	351	SLU 81	0.06	No
fin.	3	0	-38482	-3056			933	351	SLU 81	0.11	No
ini.	3	0	-44594	5313			933	351	SLU 75	0.07	No
fin.	3	0	-39940	-3050			933	351	SLU 75	0.12	No
ini.	3	0	-44820	5307			933	351	SLU 80	0.07	No
fin.	3	0	-42925	-3163			933	351	SLU 80	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	856	58188	126944	SLV 16	2.18	Si
fin.	2	-5569	-171231	126944	SLV 16	0.74	No
ini.	2	1741	73969	126944	SLV 13	1.72	Si
fin.	2	-4830	-168711	126944	SLV 13	0.75	No
ini.	2	-763	7437	126944	SLD 15	17.07	Si
fin.	2	-3471	-87981	126944	SLD 15	1.44	Si
ini.	2	-5709	-135252	126944	SLV 3	0.94	No
fin.	2	1013	117270	126944	SLV 3	1.08	Si
ini.	2	-4824	-119471	126944	SLV 1	1.06	Si
fin.	2	1752	119790	126944	SLV 1	1.06	Si
ini.	2	-5709	-135252	126944	SLV 4	0.94	No
fin.	2	1013	117270	126944	SLV 4	1.08	Si
ini.	2	1741	73969	126944	SLV 14	1.72	Si
fin.	2	-4830	-168711	126944	SLV 14	0.75	No
ini.	2	-4824	-119471	126944	SLV 2	1.06	Si
fin.	2	1752	119790	126944	SLV 2	1.06	Si
ini.	2	-763	7437	126944	SLD 16	17.07	Si
fin.	2	-3471	-87981	126944	SLD 16	1.44	Si
ini.	2	856	58188	126944	SLV 15	2.18	Si
fin.	2	-5569	-171231	126944	SLV 15	0.74	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-119471	8034			1399	526	SLV 2	0.07	No
fin.	2	0	119790	4087			1399	526	SLV 2	0.13	No
ini.	2	0	73969	-1743			1399	526	SLV 14	0.3	No
fin.	2	0	-168711	-7677			1399	526	SLV 14	0.07	No
ini.	2	0	58188	-960			1399	526	SLV 15	0.55	No
fin.	2	0	-171231	-8060			1399	526	SLV 15	0.07	No
ini.	2	0	-135252	8817			1399	526	SLV 3	0.06	No
fin.	2	0	117270	3704			1399	526	SLV 3	0.14	No
ini.	2	0	-85959	6308			1399	526	SLV 7	0.08	No
fin.	2	0	13355	-861			1399	526	SLV 7	0.61	No
ini.	2	0	73969	-1743			1399	526	SLV 13	0.3	No
fin.	2	0	-168711	-7677			1399	526	SLV 13	0.07	No
ini.	2	0	-85959	6308			1399	526	SLV 8	0.08	No
fin.	2	0	13355	-861			1399	526	SLV 8	0.61	No
ini.	2	0	-135252	8817			1399	526	SLV 4	0.06	No
fin.	2	0	117270	3704			1399	526	SLV 4	0.14	No
ini.	2	0	58188	-960			1399	526	SLV 16	0.55	No
fin.	2	0	-171231	-8060			1399	526	SLV 16	0.07	No
ini.	2	0	-119471	8034			1399	526	SLV 1	0.07	No
fin.	2	0	119790	4087			1399	526	SLV 1	0.13	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.741	SLV 15	No
V_SLV	0.06	SLV 3	No
PF_SLU	2.359	SLU 83	Si
V_SLU	0.063	SLU 83	No

Trave di accoppiamento 58

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-867.8	-485.9	436	483	47	-1051.8	-485.9	436	483	47	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-203	-8202	33622	SLU 79	4.1	Si
fin.	3	-208	6414	33622	SLU 79	5.24	Si
ini.	3	-214	-7534	33622	SLU 77	4.46	Si
fin.	3	-194	5998	33622	SLU 77	5.61	Si
ini.	3	-133	-7663	33622	SLU 16	4.39	Si
fin.	3	-191	5795	33622	SLU 16	5.8	Si
ini.	3	-108	-9386	33622	SLU 38	3.58	Si
fin.	3	-245	7364	33622	SLU 38	4.57	Si
ini.	3	-99	-10710	33622	SLU 37	3.14	Si
fin.	3	-275	7995	33622	SLU 37	4.21	Si
ini.	3	-427	9592	33622	SLU 44	3.51	Si
fin.	3	244	-5389	33622	SLU 44	6.24	Si
ini.	3	-119	-8718	33622	SLU 36	3.86	Si
fin.	3	-230	6948	33622	SLU 36	4.84	Si
ini.	3	-110	-10042	33622	SLU 35	3.35	Si
fin.	3	-261	7579	33622	SLU 35	4.44	Si
ini.	3	-412	7386	33622	SLU 43	4.55	Si
fin.	3	193	-4337	33622	SLU 43	7.75	Si
ini.	3	-137	-8631	33622	SLU 41	3.9	Si
fin.	3	-232	6778	33622	SLU 41	4.96	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1982	77			362	136	SLU 76	1.78	Si
fin.	3	0	2734	1067			362	136	SLU 76	0.13	No
ini.	3	0	-5155	116			362	136	SLU 58	1.18	Si
fin.	3	0	4214	1077			362	136	SLU 58	0.13	No
ini.	3	0	-8202	144			362	136	SLU 79	0.95	No
fin.	3	0	6414	1166			362	136	SLU 79	0.12	No
ini.	3	0	-6878	130			362	136	SLU 80	1.05	Si
fin.	3	0	5783	1152			362	136	SLU 80	0.12	No
ini.	3	0	-3521	92			362	136	SLU 74	1.48	Si
fin.	3	0	3369	1080			362	136	SLU 74	0.13	No
ini.	3	0	-6123	118			362	136	SLU 83	1.16	Si
fin.	3	0	5197	1149			362	136	SLU 83	0.12	No
ini.	3	0	-4799	104			362	136	SLU 84	1.31	Si
fin.	3	0	4566	1135			362	136	SLU 84	0.12	No
ini.	3	0	-7534	136			362	136	SLU 77	1	Si
fin.	3	0	5998	1156			362	136	SLU 77	0.12	No
ini.	3	0	-2110	74			362	136	SLU 81	1.85	Si
fin.	3	0	2568	1073			362	136	SLU 81	0.13	No
ini.	3	0	-6211	122			362	136	SLU 78	1.12	Si
fin.	3	0	5367	1142			362	136	SLU 78	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1546	-163784	48831	SLV 13	0.3	No
fin.	2	-4420	106751	48831	SLV 13	0.46	No
ini.	2	-1440	103239	48831	SLV 7	0.47	No
fin.	2	2727	-65974	48831	SLV 7	0.74	No
ini.	2	1546	-163784	48831	SLV 14	0.3	No
fin.	2	-4420	106751	48831	SLV 14	0.46	No
ini.	2	-1440	103239	48831	SLV 8	0.47	No
fin.	2	2727	-65974	48831	SLV 8	0.74	No
ini.	2	1145	-130440	48831	SLV 16	0.37	No
fin.	2	-3553	85383	48831	SLV 16	0.57	No
ini.	2	-2112	169219	48831	SLV 4	0.29	No
fin.	2	4553	-109123	48831	SLV 4	0.45	No
ini.	2	1145	-130440	48831	SLV 15	0.37	No
fin.	2	-3553	85383	48831	SLV 15	0.57	No
ini.	2	-1711	135875	48831	SLV 2	0.36	No
fin.	2	3687	-87756	48831	SLV 2	0.56	No
ini.	2	-1711	135875	48831	SLV 1	0.36	No
fin.	2	3687	-87756	48831	SLV 1	0.56	No
ini.	2	-2112	169219	48831	SLV 3	0.29	No
fin.	2	4553	-109123	48831	SLV 3	0.45	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-97804	649			543	204	SLV 9	0.32	No
fin.	2	0	63602	2157			543	204	SLV 9	0.09	No
ini.	2	0	-130440	1619			543	204	SLV 16	0.13	No
fin.	2	0	85383	2335			543	204	SLV 16	0.09	No
ini.	2	0	-97804	649			543	204	SLV 10	0.32	No
fin.	2	0	63602	2157			543	204	SLV 10	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-130440	1619			543	204	SLV 15	0.13	No
fin.	2	0	85383	2335			543	204	SLV 15	0.09	No
ini.	2	0	169219	-1670			543	204	SLV 4	0.12	No
fin.	2	0	-109123	-1483			543	204	SLV 4	0.14	No
ini.	2	0	-68227	735			543	204	SLD 13	0.28	No
fin.	2	0	44805	1620			543	204	SLD 13	0.13	No
ini.	2	0	-68227	735			543	204	SLD 14	0.28	No
fin.	2	0	44805	1620			543	204	SLD 14	0.13	No
ini.	2	0	-163784	1702			543	204	SLV 14	0.12	No
fin.	2	0	106751	2870			543	204	SLV 14	0.07	No
ini.	2	0	169219	-1670			543	204	SLV 3	0.12	No
fin.	2	0	-109123	-1483			543	204	SLV 3	0.14	No
ini.	2	0	-163784	1702			543	204	SLV 13	0.12	No
fin.	2	0	106751	2870			543	204	SLV 13	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.289	SLV 3	No
V_SLV	0.071	SLV 13	No
PF_SLU	3.139	SLU 37	Si
V_SLU	0.117	SLU 79	No

Trave di accoppiamento 59

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-854.8	-335.9	320	483	163	-944.8	-335.9	320	483	163	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2795	-227413	231542	SLU 78	1.02	Si
fin.	3	-2795	-25061	231542	SLU 78	9.24	Si
ini.	3	-2655	-214322	231542	SLU 59	1.08	Si
fin.	3	-2655	-13816	231542	SLU 59	16.76	Si
ini.	3	-2776	-215050	231542	SLU 82	1.08	Si
fin.	3	-2776	-41691	231542	SLU 82	5.55	Si
ini.	3	-2753	-221217	231542	SLU 77	1.05	Si
fin.	3	-2753	-6914	231542	SLU 77	33.49	Si
ini.	3	-2723	-216429	231542	SLU 75	1.07	Si
fin.	3	-2723	-34823	231542	SLU 75	6.65	Si
ini.	3	-2757	-221666	231542	SLU 79	1.04	Si
fin.	3	-2757	-3420	231542	SLU 79	67.7	Si
ini.	3	-2805	-219839	231542	SLU 83	1.05	Si
fin.	3	-2805	-13782	231542	SLU 83	16.8	Si
ini.	3	-2847	-226034	231542	SLU 84	1.02	Si
fin.	3	-2847	-31929	231542	SLU 84	7.25	Si
ini.	3	-2755	-221008	231542	SLU 76	1.05	Si
fin.	3	-2755	-43427	231542	SLU 76	5.33	Si
ini.	3	-2799	-227862	231542	SLU 80	1.02	Si
fin.	3	-2799	-21567	231542	SLU 80	10.74	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-219839	3199			1758	661	SLU 83	0.21	No
fin.	3	0	-13782	1447			1758	661	SLU 83	0.46	No
ini.	3	0	-227862	3154			1758	661	SLU 80	0.21	No
fin.	3	0	-21567	1498			1758	661	SLU 80	0.44	No
ini.	3	0	-206299	3043			1758	661	SLU 62	0.22	No
fin.	3	0	-6031	1478			1758	661	SLU 62	0.45	No
ini.	3	0	-210233	3013			1758	661	SLU 74	0.22	No
fin.	3	0	-16676	1356			1758	661	SLU 74	0.49	No
ini.	3	0	-226034	3066			1758	661	SLU 84	0.22	No
fin.	3	0	-31929	1315			1758	661	SLU 84	0.5	No
ini.	3	0	-208127	3131			1758	661	SLU 58	0.21	No
fin.	3	0	4331	1661			1758	661	SLU 58	0.4	No
ini.	3	0	-221666	3287			1758	661	SLU 79	0.2	No
fin.	3	0	-3420	1630			1758	661	SLU 79	0.41	No
ini.	3	0	-221217	3243			1758	661	SLU 77	0.2	No
fin.	3	0	-6914	1587			1758	661	SLU 77	0.42	No
ini.	3	0	-207678	3088			1758	661	SLU 56	0.21	No
fin.	3	0	837	1617			1758	661	SLU 56	0.41	No
ini.	3	0	-227413	3110			1758	661	SLU 78	0.21	No
fin.	3	0	-25061	1454			1758	661	SLU 78	0.45	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	25	435724	249444	SLV 3	0.57	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	540	-649902	249444	SLV 3	0.38	No
ini.	2	-723	245663	249444	SLV 2	1.02	Si
fin.	2	-1576	-708761	249444	SLV 2	0.35	No
ini.	2	25	435724	249444	SLV 4	0.57	No
fin.	2	540	-649902	249444	SLV 4	0.38	No
ini.	2	-2966	-526278	249444	SLV 15	0.47	No
fin.	2	-2113	678225	249444	SLV 15	0.37	No
ini.	2	-3714	-716339	249444	SLV 14	0.35	No
fin.	2	-4230	619366	249444	SLV 14	0.4	No
ini.	2	-3540	-601376	249444	SLV 9	0.41	No
fin.	2	-5770	85853	249444	SLV 9	2.91	Si
ini.	2	-723	245663	249444	SLV 1	1.02	Si
fin.	2	-1576	-708761	249444	SLV 1	0.35	No
ini.	2	-3714	-716339	249444	SLV 13	0.35	No
fin.	2	-4230	619366	249444	SLV 13	0.4	No
ini.	2	-3540	-601376	249444	SLV 10	0.41	No
fin.	2	-5770	85853	249444	SLV 10	2.91	Si
ini.	2	-2966	-526278	249444	SLV 16	0.47	No
fin.	2	-2113	678225	249444	SLV 16	0.37	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-716339	14908			2637	992	SLV 14	0.07	No
fin.	2	0	619366	14223			2637	992	SLV 14	0.07	No
ini.	2	0	-526278	14064			2637	992	SLV 16	0.07	No
fin.	2	0	678225	12982			2637	992	SLV 16	0.08	No
ini.	2	0	435724	-10950			2637	992	SLV 3	0.09	No
fin.	2	0	-649902	-12518			2637	992	SLV 3	0.08	No
ini.	2	0	-716339	14908			2637	992	SLV 13	0.07	No
fin.	2	0	619366	14223			2637	992	SLV 13	0.07	No
ini.	2	0	245663	-10106			2637	992	SLV 2	0.1	No
fin.	2	0	-708761	-11277			2637	992	SLV 2	0.09	No
ini.	2	0	-526278	14064			2637	992	SLV 15	0.07	No
fin.	2	0	678225	12982			2637	992	SLV 15	0.08	No
ini.	2	0	435724	-10950			2637	992	SLV 4	0.09	No
fin.	2	0	-649902	-12518			2637	992	SLV 4	0.08	No
ini.	2	0	-384683	7501			2637	992	SLD 14	0.13	No
fin.	2	0	256293	6562			2637	992	SLD 14	0.15	No
ini.	2	0	-384683	7501			2637	992	SLD 13	0.13	No
fin.	2	0	256293	6562			2637	992	SLD 13	0.15	No
ini.	2	0	245663	-10106			2637	992	SLV 1	0.1	No
fin.	2	0	-708761	-11277			2637	992	SLV 1	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.348	SLV 13	No
V_SLV	0.067	SLV 13	No
PF_SLU	1.016	SLU 80	Si
V_SLU	0.201	SLU 79	No

Trave di accoppiamento 60

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-772.3	-486.1	436	483	47	-772.3	-377.1	436	483	47	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-494	1871	33622	SLU 44	17.97	Si
fin.	3	660	-12783	33622	SLU 44	2.63	Si
ini.	3	-403	1221	33622	SLU 2	27.54	Si
fin.	3	638	-13510	33622	SLU 2	2.49	Si
ini.	3	-399	3570	33622	SLU 81	9.42	Si
fin.	3	-225	14583	33622	SLU 81	2.31	Si
ini.	3	-405	3504	33622	SLU 83	9.59	Si
fin.	3	-189	13477	33622	SLU 83	2.49	Si
ini.	3	-409	1156	33622	SLU 5	29.1	Si
fin.	3	674	-14616	33622	SLU 5	2.3	Si
ini.	3	-307	2919	33622	SLU 39	11.52	Si
fin.	3	-246	13856	33622	SLU 39	2.43	Si
ini.	3	-314	2854	33622	SLU 41	11.78	Si
fin.	3	-211	12750	33622	SLU 41	2.64	Si
ini.	3	-410	1326	33622	SLU 26	25.36	Si
fin.	3	602	-11955	33622	SLU 26	2.81	Si
ini.	3	-500	1806	33622	SLU 47	18.62	Si
fin.	3	696	-13889	33622	SLU 47	2.42	Si
ini.	3	-403	3424	33622	SLU 74	9.82	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-157	12377	33622	SLU 74	2.72	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2674	-242			362	136	SLU 78	0.56	No
fin.	3	0	-114	1405			362	136	SLU 78	0.1	No
ini.	3	0	2885	-204			362	136	SLU 82	0.67	No
fin.	3	0	3198	1447			362	136	SLU 82	0.09	No
ini.	3	0	2739	-228			362	136	SLU 75	0.6	No
fin.	3	0	992	1394			362	136	SLU 75	0.1	No
ini.	3	0	2638	-248			362	136	SLU 80	0.55	No
fin.	3	0	-733	1389			362	136	SLU 80	0.1	No
ini.	3	0	3504	-64			362	136	SLU 83	2.14	Si
fin.	3	0	13477	1396			362	136	SLU 83	0.1	No
ini.	3	0	3570	-50			362	136	SLU 81	2.74	Si
fin.	3	0	14583	1386			362	136	SLU 81	0.1	No
ini.	3	0	2247	-337			362	136	SLU 76	0.4	No
fin.	3	0	-7217	1420			362	136	SLU 76	0.1	No
ini.	3	0	2819	-218			362	136	SLU 84	0.62	No
fin.	3	0	2092	1457			362	136	SLU 84	0.09	No
ini.	3	0	2312	-323			362	136	SLU 73	0.42	No
fin.	3	0	-6111	1409			362	136	SLU 73	0.1	No
ini.	3	0	3359	-87			362	136	SLU 77	1.57	Si
fin.	3	0	11271	1344			362	136	SLU 77	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-905	-21001	48831	SLV 7	2.33	Si
fin.	2	5742	-180541	48831	SLV 7	0.27	No
ini.	2	-905	-21001	48831	SLV 8	2.33	Si
fin.	2	5742	-180541	48831	SLV 8	0.27	No
ini.	2	475	27603	48831	SLV 5	1.77	Si
fin.	2	-6679	221275	48831	SLV 5	0.22	No
ini.	2	293	25978	48831	SLV 9	1.88	Si
fin.	2	-5871	195284	48831	SLV 9	0.25	No
ini.	2	293	25978	48831	SLV 10	1.88	Si
fin.	2	-5871	195284	48831	SLV 10	0.25	No
ini.	2	475	27603	48831	SLV 6	1.77	Si
fin.	2	-6679	221275	48831	SLV 6	0.22	No
ini.	2	-1086	-22626	48831	SLV 11	2.16	Si
fin.	2	6551	-206532	48831	SLV 11	0.24	No
ini.	2	-1086	-22626	48831	SLV 12	2.16	Si
fin.	2	6551	-206532	48831	SLV 12	0.24	No
ini.	2	204	12488	48831	SLV 1	3.91	Si
fin.	2	-3274	110962	48831	SLV 1	0.44	No
ini.	2	204	12488	48831	SLV 2	3.91	Si
fin.	2	-3274	110962	48831	SLV 2	0.44	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	25978	2338			543	204	SLV 9	0.09	No
fin.	2	0	195284	950			543	204	SLV 9	0.22	No
ini.	2	0	-22626	-2809			543	204	SLV 11	0.07	No
fin.	2	0	-206532	635			543	204	SLV 11	0.32	No
ini.	2	0	-7511	-1387			543	204	SLV 16	0.15	No
fin.	2	0	-96219	530			543	204	SLV 16	0.39	No
ini.	2	0	-7511	-1387			543	204	SLV 15	0.15	No
fin.	2	0	-96219	530			543	204	SLV 15	0.39	No
ini.	2	0	-21001	-2485			543	204	SLV 7	0.08	No
fin.	2	0	-180541	820			543	204	SLV 7	0.25	No
ini.	2	0	27603	2662			543	204	SLV 6	0.08	No
fin.	2	0	221275	1135			543	204	SLV 6	0.18	No
ini.	2	0	25978	2338			543	204	SLV 10	0.09	No
fin.	2	0	195284	950			543	204	SLV 10	0.22	No
ini.	2	0	27603	2662			543	204	SLV 5	0.08	No
fin.	2	0	221275	1135			543	204	SLV 5	0.18	No
ini.	2	0	-22626	-2809			543	204	SLV 12	0.07	No
fin.	2	0	-206532	635			543	204	SLV 12	0.32	No
ini.	2	0	-21001	-2485			543	204	SLV 8	0.08	No
fin.	2	0	-180541	820			543	204	SLV 8	0.25	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.221	SLV 5	No
V_SLV	0.073	SLV 11	No
PF_SLU	2.3	SLU 5	Si
V_SLU	0.093	SLU 84	No

Trave di accoppiamento 61

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	110	310	200	-515.8	650.6	110	310	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	731	-287533	296292	SLU 74	1.03	Si
fin.	3	-458	-188340	296292	SLU 74	1.57	Si
ini.	3	751	-293071	296292	SLU 82	1.01	Si
fin.	3	-470	-187974	296292	SLU 82	1.58	Si
ini.	3	762	-298405	296292	SLU 83	0.99	No
fin.	3	-475	-195040	296292	SLU 83	1.52	Si
ini.	3	764	-298891	296292	SLU 84	0.99	No
fin.	3	-476	-194633	296292	SLU 84	1.52	Si
ini.	3	746	-293839	296292	SLU 78	1.01	Si
fin.	3	-464	-194592	296292	SLU 78	1.52	Si
ini.	3	739	-290493	296292	SLU 79	1.02	Si
fin.	3	-457	-193961	296292	SLU 79	1.53	Si
ini.	3	733	-288019	296292	SLU 75	1.03	Si
fin.	3	-459	-187933	296292	SLU 75	1.58	Si
ini.	3	741	-290979	296292	SLU 80	1.02	Si
fin.	3	-458	-193554	296292	SLU 80	1.53	Si
ini.	3	744	-293353	296292	SLU 77	1.01	Si
fin.	3	-463	-194999	296292	SLU 77	1.52	Si
ini.	3	750	-292585	296292	SLU 81	1.01	Si
fin.	3	-469	-188381	296292	SLU 81	1.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-293839	-3356			2157	812	SLU 78	0.24	No
fin.	3	0	-194592	18379			2157	812	SLU 78	0.04	No
ini.	3	0	-287533	-3156			2157	812	SLU 74	0.26	No
fin.	3	0	-188340	17913			2157	812	SLU 74	0.05	No
ini.	3	0	-298405	-3250			2157	812	SLU 83	0.25	No
fin.	3	0	-195040	18580			2157	812	SLU 83	0.04	No
ini.	3	0	-290493	-3421			2157	812	SLU 79	0.24	No
fin.	3	0	-193961	18257			2157	812	SLU 79	0.04	No
ini.	3	0	-293353	-3405			2157	812	SLU 77	0.24	No
fin.	3	0	-194999	18393			2157	812	SLU 77	0.04	No
ini.	3	0	-293071	-2952			2157	812	SLU 82	0.27	No
fin.	3	0	-187974	18087			2157	812	SLU 82	0.04	No
ini.	3	0	-290979	-3372			2157	812	SLU 80	0.24	No
fin.	3	0	-193554	18244			2157	812	SLU 80	0.04	No
ini.	3	0	-298891	-3201			2157	812	SLU 84	0.25	No
fin.	3	0	-194633	18566			2157	812	SLU 84	0.04	No
ini.	3	0	-288019	-3107			2157	812	SLU 75	0.26	No
fin.	3	0	-187933	17900			2157	812	SLU 75	0.05	No
ini.	3	0	-292585	-3001			2157	812	SLU 81	0.27	No
fin.	3	0	-188381	18100			2157	812	SLU 81	0.04	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1613	-565977	314194	SLV 14	0.56	No
fin.	2	-1010	-180105	314194	SLV 14	1.74	Si
ini.	2	771	-324704	314194	SLD 15	0.97	No
fin.	2	-679	-160118	314194	SLD 15	1.96	Si
ini.	2	1142	-500961	314194	SLV 16	0.63	No
fin.	2	-1175	-205881	314194	SLV 16	1.53	Si
ini.	2	1613	-565977	314194	SLV 13	0.56	No
fin.	2	-1010	-180105	314194	SLV 13	1.74	Si
ini.	2	968	-351796	314194	SLD 13	0.89	No
fin.	2	-609	-149208	314194	SLD 13	2.11	Si
ini.	2	968	-351796	314194	SLD 14	0.89	No
fin.	2	-609	-149208	314194	SLD 14	2.11	Si
ini.	2	1142	-500961	314194	SLV 15	0.63	No
fin.	2	-1175	-205881	314194	SLV 15	1.53	Si
ini.	2	771	-324704	314194	SLD 16	0.97	No
fin.	2	-679	-160118	314194	SLD 16	1.96	Si
ini.	2	1543	-403054	314194	SLV 9	0.78	No
fin.	2	-269	-103102	314194	SLV 9	3.05	Si
ini.	2	1543	-403054	314194	SLV 10	0.78	No
fin.	2	-269	-103102	314194	SLV 10	3.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-324704	1030			3235	1217	SLD 16	1.18	Si
fin.	2	0	-160118	17160			3235	1217	SLD 16	0.07	No
ini.	2	0	-500961	5221			3235	1217	SLV 16	0.23	No
fin.	2	0	-205881	24095			3235	1217	SLV 16	0.05	No
ini.	2	0	-565977	7320			3235	1217	SLV 13	0.17	No
fin.	2	0	-180105	22909			3235	1217	SLV 13	0.05	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-186335	-3078			3235	1217	SLV 11	0.4	No
fin.	2	0	-189024	17421			3235	1217	SLV 11	0.07	No
ini.	2	0	-351796	1929			3235	1217	SLD 13	0.63	No
fin.	2	0	-149208	16665			3235	1217	SLD 13	0.07	No
ini.	2	0	-500961	5221			3235	1217	SLV 15	0.23	No
fin.	2	0	-205881	24095			3235	1217	SLV 15	0.05	No
ini.	2	0	-324704	1030			3235	1217	SLD 15	1.18	Si
fin.	2	0	-160118	17160			3235	1217	SLD 15	0.07	No
ini.	2	0	-351796	1929			3235	1217	SLD 14	0.63	No
fin.	2	0	-149208	16665			3235	1217	SLD 14	0.07	No
ini.	2	0	-565977	7320			3235	1217	SLV 14	0.17	No
fin.	2	0	-180105	22909			3235	1217	SLV 14	0.05	No
ini.	2	0	-186335	-3078			3235	1217	SLV 12	0.4	No
fin.	2	0	-189024	17421			3235	1217	SLV 12	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.555	SLV 13	No
V_SLV	0.051	SLV 15	No
PF_SLU	0.991	SLU 84	No
V_SLU	0.044	SLU 83	No

Trave di accoppiamento 62

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	390	483	93	-515.8	650.6	390	483	93	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-723	-40792	109042	SLU 75	2.67	Si
fin.	3	-33	29808	109042	SLU 75	3.66	Si
ini.	3	-808	-43971	109042	SLU 82	2.48	Si
fin.	3	-65	29786	109042	SLU 82	3.66	Si
ini.	3	-704	-40011	109042	SLU 76	2.73	Si
fin.	3	-27	29617	109042	SLU 76	3.68	Si
ini.	3	-752	-41383	109042	SLU 73	2.63	Si
fin.	3	-53	28484	109042	SLU 73	3.83	Si
ini.	3	-714	-40351	109042	SLU 74	2.7	Si
fin.	3	-31	29852	109042	SLU 74	3.65	Si
ini.	3	-800	-43530	109042	SLU 81	2.5	Si
fin.	3	-63	29830	109042	SLU 81	3.66	Si
ini.	3	-760	-42598	109042	SLU 84	2.56	Si
fin.	3	-40	30918	109042	SLU 84	3.53	Si
ini.	3	-751	-42157	109042	SLU 83	2.59	Si
fin.	3	-37	30962	109042	SLU 83	3.52	Si
ini.	3	-674	-39419	109042	SLU 78	2.77	Si
fin.	3	-8	30940	109042	SLU 78	3.52	Si
ini.	3	-723	-39426	109042	SLU 61	2.77	Si
fin.	3	-55	26598	109042	SLU 61	4.1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-43971	3909			1003	377	SLU 82	0.1	No
fin.	3	0	29786	71			1003	377	SLU 82	5.32	Si
ini.	3	0	-43530	3904			1003	377	SLU 81	0.1	No
fin.	3	0	29830	41			1003	377	SLU 81	9.2	Si
ini.	3	0	-37904	3921			1003	377	SLU 79	0.1	No
fin.	3	0	30822	-480			1003	377	SLU 79	0.79	No
ini.	3	0	-40351	3861			1003	377	SLU 74	0.1	No
fin.	3	0	29852	-204			1003	377	SLU 74	1.85	Si
ini.	3	0	-38978	3959			1003	377	SLU 77	0.1	No
fin.	3	0	30984	-427			1003	377	SLU 77	0.88	No
ini.	3	0	-42157	4002			1003	377	SLU 83	0.09	No
fin.	3	0	30962	-182			1003	377	SLU 83	2.07	Si
ini.	3	0	-39419	3964			1003	377	SLU 78	0.1	No
fin.	3	0	30940	-397			1003	377	SLU 78	0.95	No
ini.	3	0	-40792	3866			1003	377	SLU 75	0.1	No
fin.	3	0	29808	-174			1003	377	SLU 75	2.17	Si
ini.	3	0	-38344	3925			1003	377	SLU 80	0.1	No
fin.	3	0	30778	-450			1003	377	SLU 80	0.84	No
ini.	3	0	-42598	4007			1003	377	SLU 84	0.09	No
fin.	3	0	30918	-152			1003	377	SLU 84	2.47	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1772	90892	126944	SLV 2	1.4	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	290	4044	126944	SLV 2	31.39	Si
ini.	2	-3359	-169391	126944	SLV 14	0.75	No
fin.	2	-590	28557	126944	SLV 14	4.45	Si
ini.	2	-2297	-106827	126944	SLV 9	1.19	Si
fin.	2	-586	11737	126944	SLV 9	10.82	Si
ini.	2	-3359	-169391	126944	SLV 13	0.75	No
fin.	2	-590	28557	126944	SLV 13	4.45	Si
ini.	2	-2730	-144932	126944	SLV 15	0.88	No
fin.	2	-329	35620	126944	SLV 15	3.56	Si
ini.	2	-2730	-144932	126944	SLV 16	0.88	No
fin.	2	-329	35620	126944	SLV 16	3.56	Si
ini.	2	2402	115351	126944	SLV 4	1.1	Si
fin.	2	551	11108	126944	SLV 4	11.43	Si
ini.	2	-2297	-106827	126944	SLV 10	1.19	Si
fin.	2	-586	11737	126944	SLV 10	10.82	Si
ini.	2	1772	90892	126944	SLV 1	1.4	Si
fin.	2	290	4044	126944	SLV 1	31.39	Si
ini.	2	2402	115351	126944	SLV 3	1.1	Si
fin.	2	551	11108	126944	SLV 3	11.43	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-144932	6412			1504	566	SLV 15	0.09	No
fin.	2	0	35620	6141			1504	566	SLV 15	0.09	No
ini.	2	0	-144932	6412			1504	566	SLV 16	0.09	No
fin.	2	0	35620	6141			1504	566	SLV 16	0.09	No
ini.	2	0	-169391	6446			1504	566	SLV 13	0.09	No
fin.	2	0	28557	7464			1504	566	SLV 13	0.08	No
ini.	2	0	115351	-1297			1504	566	SLV 3	0.44	No
fin.	2	0	11108	-7679			1504	566	SLV 3	0.07	No
ini.	2	0	52787	1361			1504	566	SLV 8	0.42	No
fin.	2	0	27928	-4385			1504	566	SLV 8	0.13	No
ini.	2	0	52787	1361			1504	566	SLV 7	0.42	No
fin.	2	0	27928	-4385			1504	566	SLV 7	0.13	No
ini.	2	0	-169391	6446			1504	566	SLV 14	0.09	No
fin.	2	0	28557	7464			1504	566	SLV 14	0.08	No
ini.	2	0	90892	-1263			1504	566	SLV 2	0.45	No
fin.	2	0	4044	-6356			1504	566	SLV 2	0.09	No
ini.	2	0	115351	-1297			1504	566	SLV 4	0.44	No
fin.	2	0	11108	-7679			1504	566	SLV 4	0.07	No
ini.	2	0	90892	-1263			1504	566	SLV 1	0.45	No
fin.	2	0	4044	-6356			1504	566	SLV 1	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.749	SLV 13	No
V_SLV	0.074	SLV 3	No
PF_SLU	2.48	SLU 82	Si
V_SLU	0.094	SLU 84	No

Trave di accoppiamento 63

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-646.3	-335.9	110	200	90	-746.3	-335.9	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-5144	-173901	103792	SLU 55	0.6	No
fin.	3	-4079	-61035	103792	SLU 55	1.7	Si
ini.	3	-4933	-176624	103792	SLU 78	0.59	No
fin.	3	-4167	-62785	103792	SLU 78	1.65	Si
ini.	3	-5362	-182579	103792	SLU 73	0.57	No
fin.	3	-4245	-70778	103792	SLU 73	1.47	Si
ini.	3	-5103	-172398	103792	SLU 68	0.6	No
fin.	3	-4005	-61512	103792	SLU 68	1.69	Si
ini.	3	-5451	-187202	103792	SLU 76	0.55	No
fin.	3	-4362	-67657	103792	SLU 76	1.53	Si
ini.	3	-5055	-169278	103792	SLU 52	0.61	No
fin.	3	-3962	-64156	103792	SLU 52	1.62	Si
ini.	3	-4843	-172001	103792	SLU 75	0.6	No
fin.	3	-4050	-65906	103792	SLU 75	1.57	Si
ini.	3	-4883	-173462	103792	SLU 82	0.6	No
fin.	3	-4081	-70158	103792	SLU 82	1.48	Si
ini.	3	-4913	-176364	103792	SLU 80	0.59	No
fin.	3	-4162	-61283	103792	SLU 80	1.69	Si
ini.	3	-4973	-178085	103792	SLU 84	0.58	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-4198	-67037	103792	SLU 84	1.55	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-176624	-128			873	329	SLU 78	2.57	Si
fin.	3	0	-62785	1500			873	329	SLU 78	0.22	No
ini.	3	0	-187202	-237			873	329	SLU 76	1.39	Si
fin.	3	0	-67657	1429			873	329	SLU 76	0.23	No
ini.	3	0	-172001	-198			873	329	SLU 75	1.66	Si
fin.	3	0	-65906	1394			873	329	SLU 75	0.24	No
ini.	3	0	-176364	-102			873	329	SLU 80	3.23	Si
fin.	3	0	-61283	1514			873	329	SLU 80	0.22	No
ini.	3	0	-154893	-73			873	329	SLU 83	4.52	Si
fin.	3	0	-62157	1444			873	329	SLU 83	0.23	No
ini.	3	0	-163323	-108			873	329	SLU 57	3.04	Si
fin.	3	0	-56163	1384			873	329	SLU 57	0.24	No
ini.	3	0	-163063	-82			873	329	SLU 59	4.01	Si
fin.	3	0	-54661	1398			873	329	SLU 59	0.24	No
ini.	3	0	-178085	-170			873	329	SLU 84	1.93	Si
fin.	3	0	-67037	1476			873	329	SLU 84	0.22	No
ini.	3	0	-153432	-31			873	329	SLU 77	10.77	Si
fin.	3	0	-57905	1468			873	329	SLU 77	0.22	No
ini.	3	0	-153172	-4			873	329	SLU 79	77.58	Si
fin.	3	0	-56403	1482			873	329	SLU 79	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	590	107355	121694	SLV 4	1.13	Si
fin.	2	2406	-255469	121694	SLV 4	0.48	No
ini.	2	-5310	77555	121694	SLV 1	1.57	Si
fin.	2	-1991	-376053	121694	SLV 1	0.32	No
ini.	2	590	107355	121694	SLV 3	1.13	Si
fin.	2	2406	-255469	121694	SLV 3	0.48	No
ini.	2	-53	-278816	121694	SLV 16	0.44	No
fin.	2	-2853	288530	121694	SLV 16	0.42	No
ini.	2	-12418	-92371	121694	SLV 5	1.32	Si
fin.	2	-8962	-326336	121694	SLV 5	0.37	No
ini.	2	-5953	-308616	121694	SLV 13	0.39	No
fin.	2	-7250	167945	121694	SLV 13	0.72	No
ini.	2	-5953	-308616	121694	SLV 14	0.39	No
fin.	2	-7250	167945	121694	SLV 14	0.72	No
ini.	2	-12418	-92371	121694	SLV 6	1.32	Si
fin.	2	-8962	-326336	121694	SLV 6	0.37	No
ini.	2	-53	-278816	121694	SLV 15	0.44	No
fin.	2	-2853	288530	121694	SLV 15	0.42	No
ini.	2	-5310	77555	121694	SLV 2	1.57	Si
fin.	2	-1991	-376053	121694	SLV 2	0.32	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-278816	6307			1310	493	SLV 16	0.08	No
fin.	2	0	288530	6732			1310	493	SLV 16	0.07	No
ini.	2	0	-208223	86			1310	493	SLV 10	5.75	Si
fin.	2	0	-163136	4300			1310	493	SLV 10	0.11	No
ini.	2	0	-308616	5355			1310	493	SLV 13	0.09	No
fin.	2	0	167945	7651			1310	493	SLV 13	0.06	No
ini.	2	0	-208223	86			1310	493	SLV 9	5.75	Si
fin.	2	0	-163136	4300			1310	493	SLV 9	0.11	No
ini.	2	0	77555	-6526			1310	493	SLV 1	0.08	No
fin.	2	0	-376053	-4988			1310	493	SLV 1	0.1	No
ini.	2	0	-278816	6307			1310	493	SLV 15	0.08	No
fin.	2	0	288530	6732			1310	493	SLV 15	0.07	No
ini.	2	0	77555	-6526			1310	493	SLV 2	0.08	No
fin.	2	0	-376053	-4988			1310	493	SLV 2	0.1	No
ini.	2	0	107355	-5573			1310	493	SLV 3	0.09	No
fin.	2	0	-255469	-5906			1310	493	SLV 3	0.08	No
ini.	2	0	-308616	5355			1310	493	SLV 14	0.09	No
fin.	2	0	167945	7651			1310	493	SLV 14	0.06	No
ini.	2	0	107355	-5573			1310	493	SLV 4	0.09	No
fin.	2	0	-255469	-5906			1310	493	SLV 4	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.324	SLV 1	No
V_SLV	0.064	SLV 13	No
PF_SLU	0.554	SLU 76	No
V_SLU	0.217	SLU 80	No

Trave di accoppiamento 64

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-646.3	-335.9	390	483	93	-746.3	-335.9	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	361	-39650	109042	SLU 56	2.75	Si
fin.	3	825	8316	109042	SLU 56	13.11	Si
ini.	3	318	-40002	109042	SLU 58	2.73	Si
fin.	3	816	8503	109042	SLU 58	12.82	Si
ini.	3	383	-43823	109042	SLU 79	2.49	Si
fin.	3	948	10361	109042	SLU 79	10.52	Si
ini.	3	639	-42097	109042	SLU 80	2.59	Si
fin.	3	1087	13722	109042	SLU 80	7.95	Si
ini.	3	527	-40655	109042	SLU 74	2.68	Si
fin.	3	935	9335	109042	SLU 74	11.68	Si
ini.	3	426	-43470	109042	SLU 77	2.51	Si
fin.	3	956	10174	109042	SLU 77	10.72	Si
ini.	3	584	-40400	109042	SLU 81	2.7	Si
fin.	3	944	9184	109042	SLU 81	11.87	Si
ini.	3	682	-41744	109042	SLU 78	2.61	Si
fin.	3	1096	13535	109042	SLU 78	8.06	Si
ini.	3	483	-43215	109042	SLU 83	2.52	Si
fin.	3	965	10023	109042	SLU 83	10.88	Si
ini.	3	739	-41489	109042	SLU 84	2.63	Si
fin.	3	1104	13385	109042	SLU 84	8.15	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-38929	4386			933	351	SLU 75	0.08	No
fin.	3	0	12697	-2430			933	351	SLU 75	0.14	No
ini.	3	0	-43470	4583			933	351	SLU 77	0.08	No
fin.	3	0	10174	-2370			933	351	SLU 77	0.15	No
ini.	3	0	-41489	4614			933	351	SLU 84	0.08	No
fin.	3	0	13385	-2493			933	351	SLU 84	0.14	No
ini.	3	0	-41744	4548			933	351	SLU 78	0.08	No
fin.	3	0	13535	-2404			933	351	SLU 78	0.15	No
ini.	3	0	-40655	4420			933	351	SLU 74	0.08	No
fin.	3	0	9335	-2397			933	351	SLU 74	0.15	No
ini.	3	0	-38675	4451			933	351	SLU 82	0.08	No
fin.	3	0	12546	-2520			933	351	SLU 82	0.14	No
ini.	3	0	-42097	4549			933	351	SLU 80	0.08	No
fin.	3	0	13722	-2370			933	351	SLU 80	0.15	No
ini.	3	0	-40400	4486			933	351	SLU 81	0.08	No
fin.	3	0	9184	-2487			933	351	SLU 81	0.14	No
ini.	3	0	-43823	4583			933	351	SLU 79	0.08	No
fin.	3	0	10361	-2337			933	351	SLU 79	0.15	No
ini.	3	0	-43215	4648			933	351	SLU 83	0.08	No
fin.	3	0	10023	-2460			933	351	SLU 83	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3966	-101974	126944	SLV 11	1.24	Si
fin.	2	1276	152561	126944	SLV 11	0.83	No
ini.	2	-5575	-154128	126944	SLV 15	0.82	No
fin.	2	1915	107234	126944	SLV 15	1.18	Si
ini.	2	-3861	-129403	126944	SLV 14	0.98	No
fin.	2	1741	30489	126944	SLV 14	4.16	Si
ini.	2	-873	-32544	126944	SLV 8	3.9	Si
fin.	2	554	114668	126944	SLV 8	1.11	Si
ini.	2	4841	49875	126944	SLV 5	2.55	Si
fin.	2	-26	-141152	126944	SLV 5	0.9	No
ini.	2	-873	-32544	126944	SLV 7	3.9	Si
fin.	2	554	114668	126944	SLV 7	1.11	Si
ini.	2	-3966	-101974	126944	SLV 12	1.24	Si
fin.	2	1276	152561	126944	SLV 12	0.83	No
ini.	2	4841	49875	126944	SLV 6	2.55	Si
fin.	2	-26	-141152	126944	SLV 6	0.9	No
ini.	2	-3861	-129403	126944	SLV 13	0.98	No
fin.	2	1741	30489	126944	SLV 13	4.16	Si
ini.	2	-5575	-154128	126944	SLV 16	0.82	No
fin.	2	1915	107234	126944	SLV 16	1.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-154128	8480			1399	526	SLV 16	0.06	No
fin.	2	0	107234	3208			1399	526	SLV 16	0.16	No
ini.	2	0	-154128	8480			1399	526	SLV 15	0.06	No
fin.	2	0	107234	3208			1399	526	SLV 15	0.16	No
ini.	2	0	49875	-240			1399	526	SLV 6	2.2	Si
fin.	2	0	-141152	-5815			1399	526	SLV 6	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	49875	-240			1399	526	SLV 5	2.2	Si
fin.	2	0	-141152	-5815			1399	526	SLV 5	0.09	No
ini.	2	0	-129403	7497			1399	526	SLV 13	0.07	No
fin.	2	0	30489	1456			1399	526	SLV 13	0.36	No
ini.	2	0	-101974	6078			1399	526	SLV 11	0.09	No
fin.	2	0	152561	2436			1399	526	SLV 11	0.22	No
ini.	2	0	102029	-2642			1399	526	SLV 1	0.2	No
fin.	2	0	-95824	-6586			1399	526	SLV 1	0.08	No
ini.	2	0	-129403	7497			1399	526	SLV 14	0.07	No
fin.	2	0	30489	1456			1399	526	SLV 14	0.36	No
ini.	2	0	102029	-2642			1399	526	SLV 2	0.2	No
fin.	2	0	-95824	-6586			1399	526	SLV 2	0.08	No
ini.	2	0	-101974	6078			1399	526	SLV 12	0.09	No
fin.	2	0	152561	2436			1399	526	SLV 12	0.22	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.824	SLV 15	No
V_SLV	0.062	SLV 15	No
PF_SLU	2.488	SLU 79	Si
V_SLU	0.076	SLU 83	No

Trave di accoppiamento 65

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	110	310	200	-600.8	-335.9	110	310	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1413	363828	296292	SLU 84	0.81	No
fin.	3	-3555	-232730	296292	SLU 84	1.27	Si
ini.	3	-1183	372050	296292	SLU 81	0.8	No
fin.	3	-2741	-157634	296292	SLU 81	1.88	Si
ini.	3	-1381	350899	296292	SLU 75	0.84	No
fin.	3	-3477	-228460	296292	SLU 75	1.3	Si
ini.	3	-1426	351256	296292	SLU 80	0.84	No
fin.	3	-3534	-231627	296292	SLU 80	1.28	Si
ini.	3	-1365	360744	296292	SLU 82	0.82	No
fin.	3	-3483	-228608	296292	SLU 82	1.3	Si
ini.	3	-1231	375134	296292	SLU 83	0.79	No
fin.	3	-2813	-161756	296292	SLU 83	1.83	Si
ini.	3	-1247	365288	296292	SLU 77	0.81	No
fin.	3	-2807	-161608	296292	SLU 77	1.83	Si
ini.	3	-1199	362205	296292	SLU 74	0.82	No
fin.	3	-2735	-157486	296292	SLU 74	1.88	Si
ini.	3	-1244	362562	296292	SLU 79	0.82	No
fin.	3	-2792	-160653	296292	SLU 79	1.84	Si
ini.	3	-1429	353982	296292	SLU 78	0.84	No
fin.	3	-3549	-232582	296292	SLU 78	1.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	337551	-9121			2157	812	SLU 73	0.09	No
fin.	3	0	-270699	-6212			2157	812	SLU 73	0.13	No
ini.	3	0	340635	-9242			2157	812	SLU 76	0.09	No
fin.	3	0	-274821	-6293			2157	812	SLU 76	0.13	No
ini.	3	0	351256	-9233			2157	812	SLU 80	0.09	No
fin.	3	0	-231627	-6293			2157	812	SLU 80	0.13	No
ini.	3	0	360744	-9374			2157	812	SLU 82	0.09	No
fin.	3	0	-228608	-6382			2157	812	SLU 82	0.13	No
ini.	3	0	375134	-9300			2157	812	SLU 83	0.09	No
fin.	3	0	-161756	-6340			2157	812	SLU 83	0.13	No
ini.	3	0	365288	-9105			2157	812	SLU 77	0.09	No
fin.	3	0	-161608	-6212			2157	812	SLU 77	0.13	No
ini.	3	0	372050	-9180			2157	812	SLU 81	0.09	No
fin.	3	0	-157634	-6259			2157	812	SLU 81	0.13	No
ini.	3	0	350899	-9179			2157	812	SLU 75	0.09	No
fin.	3	0	-228460	-6253			2157	812	SLU 75	0.13	No
ini.	3	0	363828	-9495			2157	812	SLU 84	0.09	No
fin.	3	0	-232730	-6463			2157	812	SLU 84	0.13	No
ini.	3	0	353982	-9300			2157	812	SLU 78	0.09	No
fin.	3	0	-232582	-6334			2157	812	SLU 78	0.13	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4552	25097	314194	SLV 9	12.52	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-10505	-618524	314194	SLV 9	0.51	No
ini.	2	-4552	25097	314194	SLV 10	12.52	Si
fin.	2	-10505	-618524	314194	SLV 10	0.51	No
ini.	2	-1337	642794	314194	SLV 4	0.49	No
fin.	2	422	33082	314194	SLV 4	9.5	Si
ini.	2	-3893	572901	314194	SLV 1	0.55	No
fin.	2	-4800	-275133	314194	SLV 1	1.14	Si
ini.	2	-3893	572901	314194	SLV 2	0.55	No
fin.	2	-4800	-275133	314194	SLV 2	1.14	Si
ini.	2	2897	473272	314194	SLV 7	0.66	No
fin.	2	6723	401386	314194	SLV 7	0.78	No
ini.	2	-5625	240295	314194	SLV 6	1.31	Si
fin.	2	-10683	-625998	314194	SLV 6	0.5	No
ini.	2	-1337	642794	314194	SLV 3	0.49	No
fin.	2	422	33082	314194	SLV 3	9.5	Si
ini.	2	-5625	240295	314194	SLV 5	1.31	Si
fin.	2	-10683	-625998	314194	SLV 5	0.5	No
ini.	2	2897	473272	314194	SLV 8	0.66	No
fin.	2	6723	401386	314194	SLV 8	0.78	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	572901	-17354			3235	1217	SLV 1	0.07	No
fin.	2	0	-275133	-14609			3235	1217	SLV 1	0.08	No
ini.	2	0	642794	-15962			3235	1217	SLV 3	0.08	No
fin.	2	0	33082	-14594			3235	1217	SLV 3	0.08	No
ini.	2	0	389967	-10918			3235	1217	SLD 1	0.11	No
fin.	2	0	-173992	-8652			3235	1217	SLD 1	0.14	No
ini.	2	0	389967	-10918			3235	1217	SLD 2	0.11	No
fin.	2	0	-173992	-8652			3235	1217	SLD 2	0.14	No
ini.	2	0	572901	-17354			3235	1217	SLV 2	0.07	No
fin.	2	0	-275133	-14609			3235	1217	SLV 2	0.08	No
ini.	2	0	642794	-15962			3235	1217	SLV 4	0.08	No
fin.	2	0	33082	-14594			3235	1217	SLV 4	0.08	No
ini.	2	0	240295	-11624			3235	1217	SLV 6	0.1	No
fin.	2	0	-625998	-7357			3235	1217	SLV 6	0.17	No
ini.	2	0	240295	-11624			3235	1217	SLV 5	0.1	No
fin.	2	0	-625998	-7357			3235	1217	SLV 5	0.17	No
ini.	2	0	415984	-10360			3235	1217	SLD 3	0.12	No
fin.	2	0	-53628	-8639			3235	1217	SLD 3	0.14	No
ini.	2	0	415984	-10360			3235	1217	SLD 4	0.12	No
fin.	2	0	-53628	-8639			3235	1217	SLD 4	0.14	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.489	SLV 3	No
V_SLV	0.07	SLV 1	No
PF_SLU	0.79	SLU 83	No
V_SLU	0.085	SLU 84	No

Trave di accoppiamento 66

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	390	483	93	-600.8	-335.9	390	483	93	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1180	59311	109042	SLU 77	1.84	Si
fin.	3	278	-66883	109042	SLU 77	1.63	Si
ini.	3	1581	69482	109042	SLU 82	1.57	Si
fin.	3	639	-66894	109042	SLU 82	1.63	Si
ini.	3	1518	67595	109042	SLU 75	1.61	Si
fin.	3	591	-66197	109042	SLU 75	1.65	Si
ini.	3	1446	67402	109042	SLU 78	1.62	Si
fin.	3	494	-68541	109042	SLU 78	1.59	Si
ini.	3	1509	69289	109042	SLU 84	1.57	Si
fin.	3	542	-69237	109042	SLU 84	1.57	Si
ini.	3	1724	72453	109042	SLU 73	1.5	Si
fin.	3	790	-64922	109042	SLU 73	1.68	Si
ini.	3	1401	66674	109042	SLU 80	1.64	Si
fin.	3	452	-68504	109042	SLU 80	1.59	Si
ini.	3	1651	72260	109042	SLU 76	1.51	Si
fin.	3	693	-67265	109042	SLU 76	1.62	Si
ini.	3	1243	61198	109042	SLU 83	1.78	Si
fin.	3	326	-67580	109042	SLU 83	1.61	Si
ini.	3	1135	58583	109042	SLU 79	1.86	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	236	-66846	109042	SLU 79	1.63	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	67595	-2201			1003	377	SLU 75	0.17	No
fin.	3	0	-66197	-6375			1003	377	SLU 75	0.06	No
ini.	3	0	69482	-2238			1003	377	SLU 82	0.17	No
fin.	3	0	-66894	-6508			1003	377	SLU 82	0.06	No
ini.	3	0	61391	-1989			1003	377	SLU 81	0.19	No
fin.	3	0	-65236	-6283			1003	377	SLU 81	0.06	No
ini.	3	0	61198	-2034			1003	377	SLU 83	0.19	No
fin.	3	0	-67580	-6395			1003	377	SLU 83	0.06	No
ini.	3	0	72453	-2314			1003	377	SLU 73	0.16	No
fin.	3	0	-64922	-6372			1003	377	SLU 73	0.06	No
ini.	3	0	59311	-1998			1003	377	SLU 77	0.19	No
fin.	3	0	-66883	-6262			1003	377	SLU 77	0.06	No
ini.	3	0	72260	-2360			1003	377	SLU 76	0.16	No
fin.	3	0	-67265	-6485			1003	377	SLU 76	0.06	No
ini.	3	0	69289	-2284			1003	377	SLU 84	0.17	No
fin.	3	0	-69237	-6621			1003	377	SLU 84	0.06	No
ini.	3	0	66674	-2239			1003	377	SLU 80	0.17	No
fin.	3	0	-68504	-6447			1003	377	SLU 80	0.06	No
ini.	3	0	67402	-2247			1003	377	SLU 78	0.17	No
fin.	3	0	-68541	-6488			1003	377	SLU 78	0.06	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	5642	171729	126944	SLV 4	0.74	No
fin.	2	3791	-20914	126944	SLV 4	6.07	Si
ini.	2	-5337	-134101	126944	SLV 16	0.95	No
fin.	2	-5025	-67942	126944	SLV 16	1.87	Si
ini.	2	5112	162408	126944	SLV 5	0.78	No
fin.	2	4809	-31132	126944	SLV 5	4.08	Si
ini.	2	7171	216830	126944	SLV 1	0.59	No
fin.	2	5685	-18033	126944	SLV 1	7.04	Si
ini.	2	5642	171729	126944	SLV 3	0.74	No
fin.	2	3791	-20914	126944	SLV 3	6.07	Si
ini.	2	5112	162408	126944	SLV 6	0.78	No
fin.	2	4809	-31132	126944	SLV 6	4.08	Si
ini.	2	3572	115520	126944	SLD 1	1.1	Si
fin.	2	2599	-32286	126944	SLD 1	3.93	Si
ini.	2	3572	115520	126944	SLD 2	1.1	Si
fin.	2	2599	-32286	126944	SLD 2	3.93	Si
ini.	2	-5337	-134101	126944	SLV 15	0.95	No
fin.	2	-5025	-67942	126944	SLV 15	1.87	Si
ini.	2	7171	216830	126944	SLV 2	0.59	No
fin.	2	5685	-18033	126944	SLV 2	7.04	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	97844	-2778			1504	566	SLD 4	0.2	No
fin.	2	0	-33632	-5464			1504	566	SLD 4	0.1	No
ini.	2	0	97844	-2778			1504	566	SLD 3	0.2	No
fin.	2	0	-33632	-5464			1504	566	SLD 3	0.1	No
ini.	2	0	162408	-1343			1504	566	SLV 6	0.42	No
fin.	2	0	-31132	-6528			1504	566	SLV 6	0.09	No
ini.	2	0	171729	-4743			1504	566	SLV 3	0.12	No
fin.	2	0	-20914	-7175			1504	566	SLV 3	0.08	No
ini.	2	0	216830	-4192			1504	566	SLV 1	0.14	No
fin.	2	0	-18033	-7982			1504	566	SLV 1	0.07	No
ini.	2	0	115520	-2549			1504	566	SLD 1	0.22	No
fin.	2	0	-32286	-5769			1504	566	SLD 1	0.1	No
ini.	2	0	162408	-1343			1504	566	SLV 5	0.42	No
fin.	2	0	-31132	-6528			1504	566	SLV 5	0.09	No
ini.	2	0	115520	-2549			1504	566	SLD 2	0.22	No
fin.	2	0	-32286	-5769			1504	566	SLD 2	0.1	No
ini.	2	0	171729	-4743			1504	566	SLV 4	0.12	No
fin.	2	0	-20914	-7175			1504	566	SLV 4	0.08	No
ini.	2	0	216830	-4192			1504	566	SLV 2	0.14	No
fin.	2	0	-18033	-7982			1504	566	SLV 2	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.585	SLV 1	No
V_SLV	0.071	SLV 1	No
PF_SLU	1.505	SLU 73	Si
V_SLU	0.057	SLU 84	No

Trave di accoppiamento 67

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-223.3	-335.9	110	200	90	-323.3	-335.9	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	12199	-13909	103792	SLU 76	7.46	Si
fin.	3	11820	115111	103792	SLU 76	0.9	No
ini.	3	10818	-19984	103792	SLU 84	5.19	Si
fin.	3	10386	110455	103792	SLU 84	0.94	No
ini.	3	10711	-20116	103792	SLU 82	5.16	Si
fin.	3	10291	109128	103792	SLU 82	0.95	No
ini.	3	10604	-18082	103792	SLU 80	5.74	Si
fin.	3	10182	107630	103792	SLU 80	0.96	No
ini.	3	11450	-9779	103792	SLU 68	10.61	Si
fin.	3	11120	105424	103792	SLU 68	0.98	No
ini.	3	10559	-18537	103792	SLU 75	5.6	Si
fin.	3	10145	107022	103792	SLU 75	0.97	No
ini.	3	12092	-14041	103792	SLU 73	7.39	Si
fin.	3	11725	113784	103792	SLU 73	0.91	No
ini.	3	11349	-10690	103792	SLU 52	9.71	Si
fin.	3	11031	104972	103792	SLU 52	0.99	No
ini.	3	10666	-18404	103792	SLU 78	5.64	Si
fin.	3	10240	108348	103792	SLU 78	0.96	No
ini.	3	11456	-10557	103792	SLU 55	9.83	Si
fin.	3	11126	106299	103792	SLU 55	0.98	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-9912	1732			873	329	SLU 65	0.19	No
fin.	3	0	104097	1056			873	329	SLU 65	0.31	No
ini.	3	0	-18537	1699			873	329	SLU 75	0.19	No
fin.	3	0	107022	1427			873	329	SLU 75	0.23	No
ini.	3	0	-9779	1740			873	329	SLU 68	0.19	No
fin.	3	0	105424	1082			873	329	SLU 68	0.3	No
ini.	3	0	-20116	1750			873	329	SLU 82	0.19	No
fin.	3	0	109128	1471			873	329	SLU 82	0.22	No
ini.	3	0	-18404	1707			873	329	SLU 78	0.19	No
fin.	3	0	108348	1453			873	329	SLU 78	0.23	No
ini.	3	0	-19984	1758			873	329	SLU 84	0.19	No
fin.	3	0	110455	1497			873	329	SLU 84	0.22	No
ini.	3	0	-13909	1897			873	329	SLU 76	0.17	No
fin.	3	0	115111	1285			873	329	SLU 76	0.26	No
ini.	3	0	-10557	1766			873	329	SLU 55	0.19	No
fin.	3	0	106299	1100			873	329	SLU 55	0.3	No
ini.	3	0	-14041	1889			873	329	SLU 73	0.17	No
fin.	3	0	113784	1260			873	329	SLU 73	0.26	No
ini.	3	0	-10690	1758			873	329	SLU 52	0.19	No
fin.	3	0	104972	1074			873	329	SLU 52	0.31	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	11804	-229902	121694	SLV 13	0.53	No
fin.	2	9816	309652	121694	SLV 13	0.39	No
ini.	2	21730	-25798	121694	SLV 9	4.72	Si
fin.	2	21746	180472	121694	SLV 9	0.67	No
ini.	2	-799	197208	121694	SLV 3	0.62	No
fin.	2	574	-181714	121694	SLV 3	0.67	No
ini.	2	2352	-265912	121694	SLV 16	0.46	No
fin.	2	-183	281433	121694	SLV 16	0.43	No
ini.	2	8654	233218	121694	SLV 2	0.52	No
fin.	2	10573	-153495	121694	SLV 2	0.79	No
ini.	2	-799	197208	121694	SLV 4	0.62	No
fin.	2	574	-181714	121694	SLV 4	0.67	No
ini.	2	8654	233218	121694	SLV 1	0.52	No
fin.	2	10573	-153495	121694	SLV 1	0.79	No
ini.	2	2352	-265912	121694	SLV 15	0.46	No
fin.	2	-183	281433	121694	SLV 15	0.43	No
ini.	2	21730	-25798	121694	SLV 10	4.72	Si
fin.	2	21746	180472	121694	SLV 10	0.67	No
ini.	2	11804	-229902	121694	SLV 14	0.53	No
fin.	2	9816	309652	121694	SLV 14	0.39	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-25798	4829			1310	493	SLV 9	0.1	No
fin.	2	0	180472	2502			1310	493	SLV 9	0.2	No
ini.	2	0	-229902	7232			1310	493	SLV 13	0.07	No
fin.	2	0	309652	6891			1310	493	SLV 13	0.07	No
ini.	2	0	-265912	5919			1310	493	SLV 15	0.08	No
fin.	2	0	281433	7097			1310	493	SLV 15	0.07	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	197208	-5328			1310	493	SLV 3	0.09	No
fin.	2	0	-181714	-4753			1310	493	SLV 3	0.1	No
ini.	2	0	-229902	7232			1310	493	SLV 14	0.07	No
fin.	2	0	309652	6891			1310	493	SLV 14	0.07	No
ini.	2	0	-265912	5919			1310	493	SLV 16	0.08	No
fin.	2	0	281433	7097			1310	493	SLV 16	0.07	No
ini.	2	0	197208	-5328			1310	493	SLV 4	0.09	No
fin.	2	0	-181714	-4753			1310	493	SLV 4	0.1	No
ini.	2	0	-25798	4829			1310	493	SLV 10	0.1	No
fin.	2	0	180472	2502			1310	493	SLV 10	0.2	No
ini.	2	0	233218	-4014			1310	493	SLV 2	0.12	No
fin.	2	0	-153495	-4960			1310	493	SLV 2	0.1	No
ini.	2	0	233218	-4014			1310	493	SLV 1	0.12	No
fin.	2	0	-153495	-4960			1310	493	SLV 1	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.393	SLV 13	No
V_SLV	0.068	SLV 13	No
PF_SLU	0.902	SLU 76	No
V_SLU	0.173	SLU 76	No

Trave di accoppiamento 68

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-223.3	-335.9	390	483	93	-323.3	-335.9	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2726	-83918	109042	SLU 82	1.3	Si
fin.	3	-671	31464	109042	SLU 82	3.47	Si
ini.	3	-2548	-79782	109042	SLU 81	1.37	Si
fin.	3	-697	23700	109042	SLU 81	4.6	Si
ini.	3	-2748	-83119	109042	SLU 73	1.31	Si
fin.	3	-639	35553	109042	SLU 73	3.07	Si
ini.	3	-2805	-84039	109042	SLU 76	1.3	Si
fin.	3	-690	35236	109042	SLU 76	3.09	Si
ini.	3	-2784	-84838	109042	SLU 84	1.29	Si
fin.	3	-722	31147	109042	SLU 84	3.5	Si
ini.	3	-2580	-78864	109042	SLU 77	1.38	Si
fin.	3	-773	22338	109042	SLU 77	4.88	Si
ini.	3	-2701	-82080	109042	SLU 75	1.33	Si
fin.	3	-696	30420	109042	SLU 75	3.58	Si
ini.	3	-2744	-82201	109042	SLU 80	1.33	Si
fin.	3	-757	29742	109042	SLU 80	3.67	Si
ini.	3	-2759	-83000	109042	SLU 78	1.31	Si
fin.	3	-747	30102	109042	SLU 78	3.62	Si
ini.	3	-2605	-80702	109042	SLU 83	1.35	Si
fin.	3	-747	23383	109042	SLU 83	4.66	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-84039	3975			933	351	SLU 76	0.09	No
fin.	3	0	35236	61			933	351	SLU 76	5.73	Si
ini.	3	0	-83000	3973			933	351	SLU 78	0.09	No
fin.	3	0	30102	-188			933	351	SLU 78	1.87	Si
ini.	3	0	-80702	3953			933	351	SLU 83	0.09	No
fin.	3	0	23383	-537			933	351	SLU 83	0.65	No
ini.	3	0	-84838	4074			933	351	SLU 84	0.09	No
fin.	3	0	31147	-197			933	351	SLU 84	1.78	Si
ini.	3	0	-79782	3912			933	351	SLU 81	0.09	No
fin.	3	0	23700	-508			933	351	SLU 81	0.69	No
ini.	3	0	-82201	3936			933	351	SLU 80	0.09	No
fin.	3	0	29742	-193			933	351	SLU 80	1.82	Si
ini.	3	0	-83119	3934			933	351	SLU 73	0.09	No
fin.	3	0	35553	89			933	351	SLU 73	3.93	Si
ini.	3	0	-78864	3853			933	351	SLU 77	0.09	No
fin.	3	0	22338	-527			933	351	SLU 77	0.67	No
ini.	3	0	-82080	3932			933	351	SLU 75	0.09	No
fin.	3	0	30420	-160			933	351	SLU 75	2.2	Si
ini.	3	0	-83918	4033			933	351	SLU 82	0.09	No
fin.	3	0	31464	-169			933	351	SLU 82	2.07	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3506	-145486	126944	SLD 13	0.87	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	352	83869	126944	SLD 13	1.51	Si
ini.	2	-5075	-254377	126944	SLV 16	0.5	No
fin.	2	2500	190429	126944	SLV 16	0.67	No
ini.	2	-5891	-269814	126944	SLV 13	0.47	No
fin.	2	1481	174816	126944	SLV 13	0.73	No
ini.	2	1620	148680	126944	SLV 2	0.85	No
fin.	2	-3506	-159207	126944	SLV 2	0.8	No
ini.	2	-3506	-145486	126944	SLD 14	0.87	No
fin.	2	352	83869	126944	SLD 14	1.51	Si
ini.	2	2437	164117	126944	SLV 3	0.77	No
fin.	2	-2487	-143594	126944	SLV 3	0.88	No
ini.	2	-5891	-269814	126944	SLV 14	0.47	No
fin.	2	1481	174816	126944	SLV 14	0.73	No
ini.	2	1620	148680	126944	SLV 1	0.85	No
fin.	2	-3506	-159207	126944	SLV 1	0.8	No
ini.	2	-5075	-254377	126944	SLV 15	0.5	No
fin.	2	2500	190429	126944	SLV 15	0.67	No
ini.	2	2437	164117	126944	SLV 4	0.77	No
fin.	2	-2487	-143594	126944	SLV 4	0.88	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-269814	9728			1399	526	SLV 13	0.05	No
fin.	2	0	174816	6126			1399	526	SLV 13	0.09	No
ini.	2	0	-145486	5635			1399	526	SLD 14	0.09	No
fin.	2	0	83869	2436			1399	526	SLD 14	0.22	No
ini.	2	0	148680	-4218			1399	526	SLV 1	0.12	No
fin.	2	0	-159207	-6856			1399	526	SLV 1	0.08	No
ini.	2	0	148680	-4218			1399	526	SLV 2	0.12	No
fin.	2	0	-159207	-6856			1399	526	SLV 2	0.08	No
ini.	2	0	-254377	9378			1399	526	SLV 15	0.06	No
fin.	2	0	190429	6223			1399	526	SLV 15	0.08	No
ini.	2	0	-254377	9378			1399	526	SLV 16	0.06	No
fin.	2	0	190429	6223			1399	526	SLV 16	0.08	No
ini.	2	0	-269814	9728			1399	526	SLV 14	0.05	No
fin.	2	0	174816	6126			1399	526	SLV 14	0.09	No
ini.	2	0	164117	-4568			1399	526	SLV 4	0.12	No
fin.	2	0	-143594	-6759			1399	526	SLV 4	0.08	No
ini.	2	0	-145486	5635			1399	526	SLD 13	0.09	No
fin.	2	0	83869	2436			1399	526	SLD 13	0.22	No
ini.	2	0	164117	-4568			1399	526	SLV 3	0.12	No
fin.	2	0	-143594	-6759			1399	526	SLV 3	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.47	SLV 13	No
V_SLV	0.054	SLV 13	No
PF_SLU	1.285	SLU 84	Si
V_SLU	0.086	SLU 84	No

Trave di accoppiamento 69

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-201.3	595.1	110	200	90	-301.3	595.1	110	200	90	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	6549	2791	103792	SLU 82	37.19	Si
fin.	3	6326	97301	103792	SLU 82	1.07	Si
ini.	3	6745	4830	103792	SLU 83	21.49	Si
fin.	3	6532	99743	103792	SLU 83	1.04	Si
ini.	3	6308	1059	103792	SLU 76	97.96	Si
fin.	3	6111	96683	103792	SLU 76	1.07	Si
ini.	3	6423	2737	103792	SLU 75	37.92	Si
fin.	3	6218	97018	103792	SLU 75	1.07	Si
ini.	3	6643	2170	103792	SLU 84	47.83	Si
fin.	3	6432	100347	103792	SLU 84	1.03	Si
ini.	3	6470	2212	103792	SLU 80	46.92	Si
fin.	3	6284	99326	103792	SLU 80	1.04	Si
ini.	3	6651	5452	103792	SLU 81	19.04	Si
fin.	3	6426	96697	103792	SLU 81	1.07	Si
ini.	3	6517	2116	103792	SLU 78	49.06	Si
fin.	3	6324	100064	103792	SLU 78	1.04	Si
ini.	3	6619	4776	103792	SLU 77	21.73	Si
fin.	3	6424	99459	103792	SLU 77	1.04	Si
ini.	3	6572	4873	103792	SLU 79	21.3	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	6384	98721	103792	SLU 79	1.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	4873	1048			873	329	SLU 79	0.31	No
fin.	3	0	98721	1367			873	329	SLU 79	0.24	No
ini.	3	0	2737	1071			873	329	SLU 75	0.31	No
fin.	3	0	97018	1357			873	329	SLU 75	0.24	No
ini.	3	0	2116	1099			873	329	SLU 78	0.3	No
fin.	3	0	100064	1411			873	329	SLU 78	0.23	No
ini.	3	0	4830	1070			873	329	SLU 83	0.31	No
fin.	3	0	99743	1381			873	329	SLU 83	0.24	No
ini.	3	0	4776	1055			873	329	SLU 77	0.31	No
fin.	3	0	99459	1382			873	329	SLU 77	0.24	No
ini.	3	0	2212	1092			873	329	SLU 80	0.3	No
fin.	3	0	99326	1396			873	329	SLU 80	0.24	No
ini.	3	0	1059	1093			873	329	SLU 76	0.3	No
fin.	3	0	96683	1361			873	329	SLU 76	0.24	No
ini.	3	0	2791	1086			873	329	SLU 82	0.3	No
fin.	3	0	97301	1356			873	329	SLU 82	0.24	No
ini.	3	0	2170	1114			873	329	SLU 84	0.3	No
fin.	3	0	100347	1411			873	329	SLU 84	0.23	No
ini.	3	0	5398	1028			873	329	SLU 74	0.32	No
fin.	3	0	96414	1328			873	329	SLU 74	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	10024	247733	121694	SLV 3	0.49	No
fin.	2	11591	-108994	121694	SLV 3	1.12	Si
ini.	2	-1074	-236132	121694	SLV 13	0.52	No
fin.	2	-2931	237817	121694	SLV 13	0.51	No
ini.	2	-1074	-236132	121694	SLV 14	0.52	No
fin.	2	-2931	237817	121694	SLV 14	0.51	No
ini.	2	10024	247733	121694	SLV 4	0.49	No
fin.	2	11591	-108994	121694	SLV 4	1.12	Si
ini.	2	22561	66215	121694	SLV 11	1.84	Si
fin.	2	22676	233480	121694	SLV 11	0.52	No
ini.	2	22628	189412	121694	SLV 8	0.64	No
fin.	2	23644	110108	121694	SLV 8	1.11	Si
ini.	2	22561	66215	121694	SLV 12	1.84	Si
fin.	2	22676	233480	121694	SLV 12	0.52	No
ini.	2	22628	189412	121694	SLV 7	0.64	No
fin.	2	23644	110108	121694	SLV 7	1.11	Si
ini.	2	9798	-162925	121694	SLV 15	0.75	No
fin.	2	8367	302246	121694	SLV 15	0.4	No
ini.	2	9798	-162925	121694	SLV 16	0.75	No
fin.	2	8367	302246	121694	SLV 16	0.4	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-236132	4335			1310	493	SLV 14	0.11	No
fin.	2	0	237817	4539			1310	493	SLV 14	0.11	No
ini.	2	0	174526	-5268			1310	493	SLV 2	0.09	No
fin.	2	0	-173423	-5075			1310	493	SLV 2	0.1	No
ini.	2	0	66215	5957			1310	493	SLV 11	0.08	No
fin.	2	0	233480	6022			1310	493	SLV 11	0.08	No
ini.	2	0	-236132	4335			1310	493	SLV 13	0.11	No
fin.	2	0	237817	4539			1310	493	SLV 13	0.11	No
ini.	2	0	174526	-5268			1310	493	SLV 1	0.09	No
fin.	2	0	-173423	-5075			1310	493	SLV 1	0.1	No
ini.	2	0	-54613	-4591			1310	493	SLV 6	0.11	No
fin.	2	0	-104656	-4320			1310	493	SLV 6	0.11	No
ini.	2	0	66215	5957			1310	493	SLV 12	0.08	No
fin.	2	0	233480	6022			1310	493	SLV 12	0.08	No
ini.	2	0	-54613	-4591			1310	493	SLV 5	0.11	No
fin.	2	0	-104656	-4320			1310	493	SLV 5	0.11	No
ini.	2	0	-162925	6635			1310	493	SLV 15	0.07	No
fin.	2	0	302246	6776			1310	493	SLV 15	0.07	No
ini.	2	0	-162925	6635			1310	493	SLV 16	0.07	No
fin.	2	0	302246	6776			1310	493	SLV 16	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.403	SLV 15	No
V_SLV	0.073	SLV 15	No
PF_SLU	1.034	SLU 84	Si
V_SLU	0.233	SLU 78	No

Trave di accoppiamento 70

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-201.3	595.1	390	483	93	-301.3	595.1	390	483	93	100	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2727	-60248	109042	SLU 81	1.81	Si
fin.	3	-2103	-2602	109042	SLU 81	41.91	Si
ini.	3	-2784	-60600	109042	SLU 84	1.8	Si
fin.	3	-2201	-2265	109042	SLU 84	48.14	Si
ini.	3	-2703	-58610	109042	SLU 75	1.86	Si
fin.	3	-2134	-2639	109042	SLU 75	41.31	Si
ini.	3	-2829	-60632	109042	SLU 83	1.8	Si
fin.	3	-2265	-3183	109042	SLU 83	34.26	Si
ini.	3	-2849	-59026	109042	SLU 77	1.85	Si
fin.	3	-2360	-4138	109042	SLU 77	26.35	Si
ini.	3	-2747	-58642	109042	SLU 74	1.86	Si
fin.	3	-2197	-3557	109042	SLU 74	30.65	Si
ini.	3	-2837	-58251	109042	SLU 79	1.87	Si
fin.	3	-2373	-4221	109042	SLU 79	25.83	Si
ini.	3	-2805	-58994	109042	SLU 78	1.85	Si
fin.	3	-2296	-3220	109042	SLU 78	33.86	Si
ini.	3	-2682	-60216	109042	SLU 82	1.81	Si
fin.	3	-2039	-1684	109042	SLU 82	64.75	Si
ini.	3	-2792	-58218	109042	SLU 80	1.87	Si
fin.	3	-2309	-3304	109042	SLU 80	33.01	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-58251	3233			933	351	SLU 79	0.11	No
fin.	3	0	-4221	-3413			933	351	SLU 79	0.1	No
ini.	3	0	-58610	3245			933	351	SLU 75	0.11	No
fin.	3	0	-2639	-3256			933	351	SLU 75	0.11	No
ini.	3	0	-60632	3385			933	351	SLU 83	0.1	No
fin.	3	0	-3183	-3469			933	351	SLU 83	0.1	No
ini.	3	0	-60600	3375			933	351	SLU 84	0.1	No
fin.	3	0	-2265	-3406			933	351	SLU 84	0.1	No
ini.	3	0	-58642	3256			933	351	SLU 74	0.11	No
fin.	3	0	-3557	-3319			933	351	SLU 74	0.11	No
ini.	3	0	-60248	3371			933	351	SLU 81	0.1	No
fin.	3	0	-2602	-3362			933	351	SLU 81	0.1	No
ini.	3	0	-60216	3360			933	351	SLU 82	0.1	No
fin.	3	0	-1684	-3299			933	351	SLU 82	0.11	No
ini.	3	0	-58218	3223			933	351	SLU 80	0.11	No
fin.	3	0	-3304	-3351			933	351	SLU 80	0.1	No
ini.	3	0	-58994	3259			933	351	SLU 78	0.11	No
fin.	3	0	-3220	-3362			933	351	SLU 78	0.1	No
ini.	3	0	-59026	3270			933	351	SLU 77	0.11	No
fin.	3	0	-4138	-3425			933	351	SLU 77	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-5682	-202766	126944	SLV 15	0.63	No
fin.	2	1187	74806	126944	SLV 15	1.7	Si
ini.	2	-5281	-115840	126944	SLV 11	1.1	Si
fin.	2	-2599	514	126944	SLV 11	246.91	Si
ini.	2	1956	123257	126944	SLV 2	1.03	Si
fin.	2	-4128	-80779	126944	SLV 2	1.57	Si
ini.	2	1956	123257	126944	SLV 1	1.03	Si
fin.	2	-4128	-80779	126944	SLV 1	1.57	Si
ini.	2	-3489	-109250	126944	SLD 15	1.16	Si
fin.	2	-330	30258	126944	SLD 15	4.2	Si
ini.	2	-4183	-184844	126944	SLV 14	0.69	No
fin.	2	2457	87886	126944	SLV 14	1.44	Si
ini.	2	-3489	-109250	126944	SLD 16	1.16	Si
fin.	2	-330	30258	126944	SLD 16	4.2	Si
ini.	2	-5682	-202766	126944	SLV 16	0.63	No
fin.	2	1187	74806	126944	SLV 16	1.7	Si
ini.	2	-4183	-184844	126944	SLV 13	0.69	No
fin.	2	2457	87886	126944	SLV 13	1.44	Si
ini.	2	-5281	-115840	126944	SLV 12	1.1	Si
fin.	2	-2599	514	126944	SLV 12	246.91	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-202766	8146			1399	526	SLV 15	0.06	No
fin.	2	0	74806	2497			1399	526	SLV 15	0.21	No
ini.	2	0	105335	-2996			1399	526	SLV 4	0.18	No
fin.	2	0	-93858	-8172			1399	526	SLV 4	0.06	No
ini.	2	0	-184844	7395			1399	526	SLV 13	0.07	No
fin.	2	0	87886	3784			1399	526	SLV 13	0.14	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	123257	-3747			1399	526	SLV 1	0.14	No
fin.	2	0	-80779	-6885			1399	526	SLV 1	0.08	No
ini.	2	0	-23409	1780			1399	526	SLV 8	0.3	No
fin.	2	0	-50085	-5939			1399	526	SLV 8	0.09	No
ini.	2	0	-202766	8146			1399	526	SLV 16	0.06	No
fin.	2	0	74806	2497			1399	526	SLV 16	0.21	No
ini.	2	0	123257	-3747			1399	526	SLV 2	0.14	No
fin.	2	0	-80779	-6885			1399	526	SLV 2	0.08	No
ini.	2	0	-23409	1780			1399	526	SLV 7	0.3	No
fin.	2	0	-50085	-5939			1399	526	SLV 7	0.09	No
ini.	2	0	-184844	7395			1399	526	SLV 14	0.07	No
fin.	2	0	87886	3784			1399	526	SLV 14	0.14	No
ini.	2	0	105335	-2996			1399	526	SLV 3	0.18	No
fin.	2	0	-93858	-8172			1399	526	SLV 3	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.626	SLV 15	No
V_SLV	0.064	SLV 3	No
PF_SLU	1.798	SLU 83	Si
V_SLU	0.101	SLU 83	No

Trave di accoppiamento 71

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2467.8	126.6	693	835	142	-2467.8	206.6	693	835	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-6095	139884	194792	SLU 77	1.39	Si
fin.	3	-6095	-150406	194792	SLU 77	1.3	Si
ini.	3	-5780	154413	194792	SLU 81	1.26	Si
fin.	3	-5780	-170470	194792	SLU 81	1.14	Si
ini.	3	-6062	135703	194792	SLU 79	1.44	Si
fin.	3	-6062	-146034	194792	SLU 79	1.33	Si
ini.	3	-5087	142816	194792	SLU 41	1.36	Si
fin.	3	-5087	-152519	194792	SLU 41	1.28	Si
ini.	3	-5859	141800	194792	SLU 74	1.37	Si
fin.	3	-5859	-155017	194792	SLU 74	1.26	Si
ini.	3	-5683	139080	194792	SLU 82	1.4	Si
fin.	3	-5683	-156687	194792	SLU 82	1.24	Si
ini.	3	-4851	144732	194792	SLU 39	1.35	Si
fin.	3	-4851	-157130	194792	SLU 39	1.24	Si
ini.	3	-5918	137164	194792	SLU 84	1.42	Si
fin.	3	-5918	-152075	194792	SLU 84	1.28	Si
ini.	3	-6016	152497	194792	SLU 83	1.28	Si
fin.	3	-6016	-165859	194792	SLU 83	1.17	Si
ini.	3	-4754	129399	194792	SLU 40	1.51	Si
fin.	3	-4754	-143347	194792	SLU 40	1.36	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	139884	-3301			1531	576	SLU 77	0.17	No
fin.	3	0	-150406	-4012			1531	576	SLU 77	0.14	No
ini.	3	0	152497	-3652			1531	576	SLU 83	0.16	No
fin.	3	0	-165859	-4363			1531	576	SLU 83	0.13	No
ini.	3	0	135703	-3194			1531	576	SLU 79	0.18	No
fin.	3	0	-146034	-3905			1531	576	SLU 79	0.15	No
ini.	3	0	137164	-3288			1531	576	SLU 84	0.18	No
fin.	3	0	-152075	-3999			1531	576	SLU 84	0.14	No
ini.	3	0	139080	-3370			1531	576	SLU 82	0.17	No
fin.	3	0	-156687	-4081			1531	576	SLU 82	0.14	No
ini.	3	0	144732	-3519			1531	576	SLU 39	0.16	No
fin.	3	0	-157130	-4070			1531	576	SLU 39	0.14	No
ini.	3	0	142816	-3438			1531	576	SLU 41	0.17	No
fin.	3	0	-152519	-3988			1531	576	SLU 41	0.14	No
ini.	3	0	154413	-3734			1531	576	SLU 81	0.15	No
fin.	3	0	-170470	-4445			1531	576	SLU 81	0.13	No
ini.	3	0	141800	-3383			1531	576	SLU 74	0.17	No
fin.	3	0	-155017	-4094			1531	576	SLU 74	0.14	No
ini.	3	0	126467	-3019			1531	576	SLU 75	0.19	No
fin.	3	0	-141234	-3730			1531	576	SLU 75	0.15	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-6136	314580	212694	SLV 3	0.68	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-6168	-327216	212694	SLV 3	0.65	No
ini.	2	-5922	197442	212694	SLV 1	1.08	Si
fin.	2	-5940	-208914	212694	SLV 1	1.02	Si
ini.	2	-4945	330903	212694	SLV 8	0.64	No
fin.	2	-4975	-344726	212694	SLV 8	0.62	No
ini.	2	-4392	188974	212694	SLD 8	1.13	Si
fin.	2	-4404	-201811	212694	SLD 8	1.05	Si
ini.	2	-5922	197442	212694	SLV 2	1.08	Si
fin.	2	-5940	-208914	212694	SLV 2	1.02	Si
ini.	2	-6136	314580	212694	SLV 4	0.68	No
fin.	2	-6168	-327216	212694	SLV 4	0.65	No
ini.	2	-4392	188974	212694	SLD 7	1.13	Si
fin.	2	-4404	-201811	212694	SLD 7	1.05	Si
ini.	2	-3710	227756	212694	SLV 11	0.93	No
fin.	2	-3725	-241434	212694	SLV 11	0.88	No
ini.	2	-4945	330903	212694	SLV 7	0.64	No
fin.	2	-4975	-344726	212694	SLV 7	0.62	No
ini.	2	-3710	227756	212694	SLV 12	0.93	No
fin.	2	-3725	-241434	212694	SLV 12	0.88	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	330903	-8143			2297	864	SLV 8	0.11	No
fin.	2	0	-344726	-8705			2297	864	SLV 8	0.1	No
ini.	2	0	197442	-4538			2297	864	SLV 2	0.19	No
fin.	2	0	-208914	-5045			2297	864	SLV 2	0.17	No
ini.	2	0	314580	-7501			2297	864	SLV 4	0.12	No
fin.	2	0	-327216	-8023			2297	864	SLV 4	0.11	No
ini.	2	0	188974	-4615			2297	864	SLD 7	0.19	No
fin.	2	0	-201811	-5168			2297	864	SLD 7	0.17	No
ini.	2	0	197442	-4538			2297	864	SLV 1	0.19	No
fin.	2	0	-208914	-5045			2297	864	SLV 1	0.17	No
ini.	2	0	227756	-5730			2297	864	SLV 11	0.15	No
fin.	2	0	-241434	-6311			2297	864	SLV 11	0.14	No
ini.	2	0	227756	-5730			2297	864	SLV 12	0.15	No
fin.	2	0	-241434	-6311			2297	864	SLV 12	0.14	No
ini.	2	0	330903	-8143			2297	864	SLV 7	0.11	No
fin.	2	0	-344726	-8705			2297	864	SLV 7	0.1	No
ini.	2	0	314580	-7501			2297	864	SLV 3	0.12	No
fin.	2	0	-327216	-8023			2297	864	SLV 3	0.11	No
ini.	2	0	188974	-4615			2297	864	SLD 8	0.19	No
fin.	2	0	-201811	-5168			2297	864	SLD 8	0.17	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.617	SLV 7	No
V_SLV	0.099	SLV 7	No
PF_SLU	1.143	SLU 81	Si
V_SLU	0.13	SLU 81	No

Trave di accoppiamento 72

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	483	573	90	-2271.3	595.1	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2750	37096	103792	SLU 69	2.8	Si
fin.	3	-3112	46334	103792	SLU 69	2.24	Si
ini.	3	-2769	36800	103792	SLU 71	2.82	Si
fin.	3	-3132	46641	103792	SLU 71	2.23	Si
ini.	3	-2895	40948	103792	SLU 77	2.53	Si
fin.	3	-3236	48908	103792	SLU 77	2.12	Si
ini.	3	-2876	40234	103792	SLU 80	2.58	Si
fin.	3	-3192	48322	103792	SLU 80	2.15	Si
ini.	3	-2731	36381	103792	SLU 72	2.85	Si
fin.	3	-3067	45749	103792	SLU 72	2.27	Si
ini.	3	-2914	40652	103792	SLU 79	2.55	Si
fin.	3	-3257	49214	103792	SLU 79	2.11	Si
ini.	3	-2701	40573	103792	SLU 84	2.56	Si
fin.	3	-3017	46134	103792	SLU 84	2.25	Si
ini.	3	-2739	40992	103792	SLU 83	2.53	Si
fin.	3	-3082	47026	103792	SLU 83	2.21	Si
ini.	3	-2857	40530	103792	SLU 78	2.56	Si
fin.	3	-3171	48015	103792	SLU 78	2.16	Si
ini.	3	-2658	39637	103792	SLU 74	2.62	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-3008	45616	103792	SLU 74	2.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	40652	-1038			970	365	SLU 79	0.35	No
fin.	3	0	49214	2050			970	365	SLU 79	0.18	No
ini.	3	0	36800	-956			970	365	SLU 71	0.38	No
fin.	3	0	46641	2006			970	365	SLU 71	0.18	No
ini.	3	0	40992	-1050			970	365	SLU 83	0.35	No
fin.	3	0	47026	1983			970	365	SLU 83	0.18	No
ini.	3	0	40530	-1068			970	365	SLU 78	0.34	No
fin.	3	0	48015	2021			970	365	SLU 78	0.18	No
ini.	3	0	40948	-1064			970	365	SLU 77	0.34	No
fin.	3	0	48908	2064			970	365	SLU 77	0.18	No
ini.	3	0	37096	-983			970	365	SLU 69	0.37	No
fin.	3	0	46334	2019			970	365	SLU 69	0.18	No
ini.	3	0	36795	-968			970	365	SLU 56	0.38	No
fin.	3	0	44952	1964			970	365	SLU 56	0.19	No
ini.	3	0	39637	-1042			970	365	SLU 74	0.35	No
fin.	3	0	45616	1978			970	365	SLU 74	0.18	No
ini.	3	0	40234	-1042			970	365	SLU 80	0.35	No
fin.	3	0	48322	2008			970	365	SLU 80	0.18	No
ini.	3	0	36677	-987			970	365	SLU 70	0.37	No
fin.	3	0	45442	1977			970	365	SLU 70	0.18	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4516	128332	121694	SLV 1	0.95	No
fin.	2	679	-35998	121694	SLV 1	3.38	Si
ini.	2	-5876	149219	121694	SLV 4	0.82	No
fin.	2	-333	-25046	121694	SLV 4	4.86	Si
ini.	2	-4516	128332	121694	SLV 2	0.95	No
fin.	2	679	-35998	121694	SLV 2	3.38	Si
ini.	2	-5052	94978	121694	SLV 8	1.28	Si
fin.	2	-3065	30572	121694	SLV 8	3.98	Si
ini.	2	1013	-75376	121694	SLV 15	1.61	Si
fin.	2	-4764	97358	121694	SLV 15	1.25	Si
ini.	2	1013	-75376	121694	SLV 16	1.61	Si
fin.	2	-4764	97358	121694	SLV 16	1.25	Si
ini.	2	2373	-96263	121694	SLV 14	1.26	Si
fin.	2	-3751	86406	121694	SLV 14	1.41	Si
ini.	2	2373	-96263	121694	SLV 13	1.26	Si
fin.	2	-3751	86406	121694	SLV 13	1.41	Si
ini.	2	-5052	94978	121694	SLV 7	1.28	Si
fin.	2	-3065	30572	121694	SLV 7	3.98	Si
ini.	2	-5876	149219	121694	SLV 3	0.82	No
fin.	2	-333	-25046	121694	SLV 3	4.86	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	128332	-5235			1456	548	SLV 2	0.1	No
fin.	2	0	-35998	-3328			1456	548	SLV 2	0.16	No
ini.	2	0	149219	-5859			1456	548	SLV 3	0.09	No
fin.	2	0	-25046	-2823			1456	548	SLV 3	0.19	No
ini.	2	0	149219	-5859			1456	548	SLV 4	0.09	No
fin.	2	0	-25046	-2823			1456	548	SLV 4	0.19	No
ini.	2	0	-75376	3828			1456	548	SLV 16	0.14	No
fin.	2	0	97358	6130			1456	548	SLV 16	0.09	No
ini.	2	0	27600	-290			1456	548	SLV 11	1.89	Si
fin.	2	0	67293	3585			1456	548	SLV 11	0.15	No
ini.	2	0	128332	-5235			1456	548	SLV 1	0.1	No
fin.	2	0	-35998	-3328			1456	548	SLV 1	0.16	No
ini.	2	0	27600	-290			1456	548	SLV 12	1.89	Si
fin.	2	0	67293	3585			1456	548	SLV 12	0.15	No
ini.	2	0	-96263	4451			1456	548	SLV 13	0.12	No
fin.	2	0	86406	5625			1456	548	SLV 13	0.1	No
ini.	2	0	-96263	4451			1456	548	SLV 14	0.12	No
fin.	2	0	86406	5625			1456	548	SLV 14	0.1	No
ini.	2	0	-75376	3828			1456	548	SLV 15	0.14	No
fin.	2	0	97358	6130			1456	548	SLV 15	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.816	SLV 3	No
V_SLV	0.089	SLV 15	No
PF_SLU	2.109	SLU 79	Si
V_SLU	0.177	SLU 77	No

Trave di accoppiamento 73

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	753	835	82	-2271.3	595.1	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1108	-15334	89792	SLU 73	5.86	Si
fin.	3	-2150	-39118	89792	SLU 73	2.3	Si
ini.	3	-1478	-26622	89792	SLU 79	3.37	Si
fin.	3	-2147	-38976	89792	SLU 79	2.3	Si
ini.	3	-1422	-25302	89792	SLU 78	3.55	Si
fin.	3	-2138	-39079	89792	SLU 78	2.3	Si
ini.	3	-1258	-19976	89792	SLU 75	4.5	Si
fin.	3	-2169	-39648	89792	SLU 75	2.26	Si
ini.	3	-1186	-15911	89792	SLU 81	5.64	Si
fin.	3	-2324	-41972	89792	SLU 81	2.14	Si
ini.	3	-1350	-21237	89792	SLU 83	4.23	Si
fin.	3	-2292	-41403	89792	SLU 83	2.17	Si
ini.	3	-1447	-25683	89792	SLU 77	3.5	Si
fin.	3	-2173	-39676	89792	SLU 77	2.26	Si
ini.	3	-1325	-20857	89792	SLU 84	4.31	Si
fin.	3	-2257	-40806	89792	SLU 84	2.2	Si
ini.	3	-1161	-15530	89792	SLU 82	5.78	Si
fin.	3	-2288	-41375	89792	SLU 82	2.17	Si
ini.	3	-1283	-20356	89792	SLU 74	4.41	Si
fin.	3	-2205	-40245	89792	SLU 74	2.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-15530	1496			806	303	SLU 82	0.2	No
fin.	3	0	-41375	-3940			806	303	SLU 82	0.08	No
ini.	3	0	-20661	1553			806	303	SLU 76	0.2	No
fin.	3	0	-38549	-3528			806	303	SLU 76	0.09	No
ini.	3	0	-19976	1554			806	303	SLU 75	0.2	No
fin.	3	0	-39648	-3645			806	303	SLU 75	0.08	No
ini.	3	0	-20356	1563			806	303	SLU 74	0.19	No
fin.	3	0	-40245	-3680			806	303	SLU 74	0.08	No
ini.	3	0	-21237	1630			806	303	SLU 83	0.19	No
fin.	3	0	-41403	-3802			806	303	SLU 83	0.08	No
ini.	3	0	-13120	1311			806	303	SLU 61	0.23	No
fin.	3	0	-37650	-3569			806	303	SLU 61	0.08	No
ini.	3	0	-15911	1505			806	303	SLU 81	0.2	No
fin.	3	0	-41972	-3975			806	303	SLU 81	0.08	No
ini.	3	0	-15334	1428			806	303	SLU 73	0.21	No
fin.	3	0	-39118	-3701			806	303	SLU 73	0.08	No
ini.	3	0	-20857	1621			806	303	SLU 84	0.19	No
fin.	3	0	-40806	-3767			806	303	SLU 84	0.08	No
ini.	3	0	-13501	1320			806	303	SLU 60	0.23	No
fin.	3	0	-38247	-3604			806	303	SLU 60	0.08	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-661	-2934	107694	SLV 8	36.71	Si
fin.	2	-3561	-76484	107694	SLV 8	1.41	Si
ini.	2	-3581	-97150	107694	SLV 16	1.11	Si
fin.	2	1212	45061	107694	SLV 16	2.39	Si
ini.	2	1956	73511	107694	SLV 2	1.47	Si
fin.	2	-4259	-100943	107694	SLV 2	1.07	Si
ini.	2	1956	73511	107694	SLV 1	1.47	Si
fin.	2	-4259	-100943	107694	SLV 1	1.07	Si
ini.	2	1582	64311	107694	SLV 3	1.67	Si
fin.	2	-4929	-115608	107694	SLV 3	0.93	No
ini.	2	-3581	-97150	107694	SLV 15	1.11	Si
fin.	2	1212	45061	107694	SLV 15	2.39	Si
ini.	2	-3208	-87950	107694	SLV 14	1.22	Si
fin.	2	1882	59726	107694	SLV 14	1.8	Si
ini.	2	-3208	-87950	107694	SLV 13	1.22	Si
fin.	2	1882	59726	107694	SLV 13	1.8	Si
ini.	2	1582	64311	107694	SLV 4	1.67	Si
fin.	2	-4929	-115608	107694	SLV 4	0.93	No
ini.	2	-661	-2934	107694	SLV 7	36.71	Si
fin.	2	-3561	-76484	107694	SLV 7	1.41	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-2934	-922			1208	455	SLV 8	0.49	No
fin.	2	0	-76484	-5204			1208	455	SLV 8	0.09	No
ini.	2	0	64311	-3543			1208	455	SLV 3	0.13	No
fin.	2	0	-115608	-7629			1208	455	SLV 3	0.06	No
ini.	2	0	-97150	5173			1208	455	SLV 15	0.09	No
fin.	2	0	45061	1760			1208	455	SLV 15	0.26	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	73511	-3175			1208	455	SLV 1	0.14	No
fin.	2	0	-100943	-6892			1208	455	SLV 1	0.07	No
ini.	2	0	-87950	5541			1208	455	SLV 13	0.08	No
fin.	2	0	59726	2497			1208	455	SLV 13	0.18	No
ini.	2	0	-2934	-922			1208	455	SLV 7	0.49	No
fin.	2	0	-76484	-5204			1208	455	SLV 7	0.09	No
ini.	2	0	73511	-3175			1208	455	SLV 2	0.14	No
fin.	2	0	-100943	-6892			1208	455	SLV 2	0.07	No
ini.	2	0	-97150	5173			1208	455	SLV 16	0.09	No
fin.	2	0	45061	1760			1208	455	SLV 16	0.26	No
ini.	2	0	-87950	5541			1208	455	SLV 14	0.08	No
fin.	2	0	59726	2497			1208	455	SLV 14	0.18	No
ini.	2	0	64311	-3543			1208	455	SLV 4	0.13	No
fin.	2	0	-115608	-7629			1208	455	SLV 4	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.932	SLV 3	No
V_SLV	0.06	SLV 3	No
PF_SLU	2.139	SLU 81	Si
V_SLU	0.076	SLU 81	No

Trave di accoppiamento 74

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	483	573	90	-2249.3	-335.9	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-4541	109308	103792	SLU 84	0.95	No
fin.	3	-1298	10027	103792	SLU 84	10.35	Si
ini.	3	-4196	102929	103792	SLU 83	1.01	Si
fin.	3	-1226	10618	103792	SLU 83	9.77	Si
ini.	3	-4533	107580	103792	SLU 73	0.96	No
fin.	3	-1308	9329	103792	SLU 73	11.13	Si
ini.	3	-4638	109575	103792	SLU 76	0.95	No
fin.	3	-1346	9523	103792	SLU 76	10.9	Si
ini.	3	-4188	101869	103792	SLU 77	1.02	Si
fin.	3	-1258	10530	103792	SLU 77	9.86	Si
ini.	3	-4168	100939	103792	SLU 79	1.03	Si
fin.	3	-1266	10703	103792	SLU 79	9.7	Si
ini.	3	-4428	106253	103792	SLU 75	0.98	No
fin.	3	-1291	9744	103792	SLU 75	10.65	Si
ini.	3	-4534	108248	103792	SLU 78	0.96	No
fin.	3	-1330	9938	103792	SLU 78	10.44	Si
ini.	3	-4436	107312	103792	SLU 82	0.97	No
fin.	3	-1259	9833	103792	SLU 82	10.56	Si
ini.	3	-4513	107318	103792	SLU 80	0.97	No
fin.	3	-1337	10111	103792	SLU 80	10.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	107312	-3518			970	365	SLU 82	0.1	No
fin.	3	0	9833	-1110			970	365	SLU 82	0.33	No
ini.	3	0	102929	-3537			970	365	SLU 83	0.1	No
fin.	3	0	10618	-691			970	365	SLU 83	0.53	No
ini.	3	0	109575	-3508			970	365	SLU 76	0.1	No
fin.	3	0	9523	-1311			970	365	SLU 76	0.28	No
ini.	3	0	101869	-3533			970	365	SLU 77	0.1	No
fin.	3	0	10530	-615			970	365	SLU 77	0.59	No
ini.	3	0	107318	-3547			970	365	SLU 80	0.1	No
fin.	3	0	10111	-1031			970	365	SLU 80	0.35	No
ini.	3	0	108248	-3592			970	365	SLU 78	0.1	No
fin.	3	0	9938	-1032			970	365	SLU 78	0.35	No
ini.	3	0	109308	-3596			970	365	SLU 84	0.1	No
fin.	3	0	10027	-1108			970	365	SLU 84	0.33	No
ini.	3	0	106253	-3514			970	365	SLU 75	0.1	No
fin.	3	0	9744	-1034			970	365	SLU 75	0.35	No
ini.	3	0	100933	-3459			970	365	SLU 81	0.11	No
fin.	3	0	10424	-692			970	365	SLU 81	0.53	No
ini.	3	0	100939	-3488			970	365	SLU 79	0.1	No
fin.	3	0	10703	-614			970	365	SLU 79	0.6	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-6056	147024	121694	SLV 6	0.83	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1109	1522	121694	SLV 6	79.95	Si
ini.	2	-4753	120477	121694	SLD 4	1.01	Si
fin.	2	515	-23502	121694	SLD 4	5.18	Si
ini.	2	-5178	129955	121694	SLD 2	0.94	No
fin.	2	249	-20014	121694	SLD 2	6.08	Si
ini.	2	-6056	147024	121694	SLV 5	0.83	No
fin.	2	-1109	1522	121694	SLV 5	79.95	Si
ini.	2	-8361	213829	121694	SLV 2	0.57	No
fin.	2	1794	-57053	121694	SLV 2	2.13	Si
ini.	2	-7323	190513	121694	SLV 4	0.64	No
fin.	2	2457	-65721	121694	SLV 4	1.85	Si
ini.	2	-5178	129955	121694	SLD 1	0.94	No
fin.	2	249	-20014	121694	SLD 1	6.08	Si
ini.	2	-8361	213829	121694	SLV 1	0.57	No
fin.	2	1794	-57053	121694	SLV 1	2.13	Si
ini.	2	-7323	190513	121694	SLV 3	0.64	No
fin.	2	2457	-65721	121694	SLV 3	1.85	Si
ini.	2	-4753	120477	121694	SLD 3	1.01	Si
fin.	2	515	-23502	121694	SLD 3	5.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-54760	3975			1456	548	SLV 14	0.14	No
fin.	2	0	81414	5399			1456	548	SLV 14	0.1	No
ini.	2	0	129955	-5241			1456	548	SLD 2	0.1	No
fin.	2	0	-20014	-2721			1456	548	SLD 2	0.2	No
ini.	2	0	213829	-9129			1456	548	SLV 1	0.06	No
fin.	2	0	-57053	-5892			1456	548	SLV 1	0.09	No
ini.	2	0	-54760	3975			1456	548	SLV 13	0.14	No
fin.	2	0	81414	5399			1456	548	SLV 13	0.1	No
ini.	2	0	-78075	4443			1456	548	SLV 16	0.12	No
fin.	2	0	72746	5187			1456	548	SLV 16	0.11	No
ini.	2	0	-78075	4443			1456	548	SLV 15	0.12	No
fin.	2	0	72746	5187			1456	548	SLV 15	0.11	No
ini.	2	0	190513	-8661			1456	548	SLV 4	0.06	No
fin.	2	0	-65721	-6104			1456	548	SLV 4	0.09	No
ini.	2	0	190513	-8661			1456	548	SLV 3	0.06	No
fin.	2	0	-65721	-6104			1456	548	SLV 3	0.09	No
ini.	2	0	129955	-5241			1456	548	SLD 1	0.1	No
fin.	2	0	-20014	-2721			1456	548	SLD 1	0.2	No
ini.	2	0	213829	-9129			1456	548	SLV 2	0.06	No
fin.	2	0	-57053	-5892			1456	548	SLV 2	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.569	SLV 1	No
V_SLV	0.06	SLV 1	No
PF_SLU	0.947	SLU 76	No
V_SLU	0.102	SLU 84	No

Trave di accoppiamento 75

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	753	835	82	-2249.3	-335.9	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1179	23930	89792	SLU 84	3.75	Si
fin.	3	-5630	-83074	89792	SLU 84	1.08	Si
ini.	3	-1107	21043	89792	SLU 83	4.27	Si
fin.	3	-5261	-77824	89792	SLU 83	1.15	Si
ini.	3	-1177	23205	89792	SLU 80	3.87	Si
fin.	3	-5530	-81797	89792	SLU 80	1.1	Si
ini.	3	-1158	23578	89792	SLU 78	3.81	Si
fin.	3	-5562	-82518	89792	SLU 78	1.09	Si
ini.	3	-1164	24431	89792	SLU 73	3.68	Si
fin.	3	-5551	-81987	89792	SLU 73	1.1	Si
ini.	3	-1149	23581	89792	SLU 82	3.81	Si
fin.	3	-5517	-81419	89792	SLU 82	1.1	Si
ini.	3	-1127	23229	89792	SLU 75	3.87	Si
fin.	3	-5450	-80863	89792	SLU 75	1.11	Si
ini.	3	-1085	20691	89792	SLU 77	4.34	Si
fin.	3	-5194	-77268	89792	SLU 77	1.16	Si
ini.	3	-1195	24781	89792	SLU 76	3.62	Si
fin.	3	-5663	-83642	89792	SLU 76	1.07	Si
ini.	3	-1118	22275	89792	SLU 68	4.03	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-5169	-76803	89792	SLU 68	1.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	23930	-802			806	303	SLU 84	0.38	No
fin.	3	0	-83074	-7118			806	303	SLU 84	0.04	No
ini.	3	0	20694	-537			806	303	SLU 81	0.56	No
fin.	3	0	-76169	-6751			806	303	SLU 81	0.04	No
ini.	3	0	23229	-797			806	303	SLU 75	0.38	No
fin.	3	0	-80863	-6893			806	303	SLU 75	0.04	No
ini.	3	0	21043	-558			806	303	SLU 83	0.54	No
fin.	3	0	-77824	-6884			806	303	SLU 83	0.04	No
ini.	3	0	24431	-932			806	303	SLU 73	0.33	No
fin.	3	0	-81987	-6839			806	303	SLU 73	0.04	No
ini.	3	0	23578	-818			806	303	SLU 78	0.37	No
fin.	3	0	-82518	-7026			806	303	SLU 78	0.04	No
ini.	3	0	23205	-812			806	303	SLU 80	0.37	No
fin.	3	0	-81797	-6949			806	303	SLU 80	0.04	No
ini.	3	0	20691	-574			806	303	SLU 77	0.53	No
fin.	3	0	-77268	-6792			806	303	SLU 77	0.04	No
ini.	3	0	24781	-953			806	303	SLU 76	0.32	No
fin.	3	0	-83642	-6972			806	303	SLU 76	0.04	No
ini.	3	0	23581	-781			806	303	SLU 82	0.39	No
fin.	3	0	-81419	-6985			806	303	SLU 82	0.04	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-80	56416	107694	SLV 5	1.91	Si
fin.	2	-6733	-108294	107694	SLV 5	0.99	No
ini.	2	71	56851	107694	SLD 2	1.89	Si
fin.	2	-5759	-95102	107694	SLD 2	1.13	Si
ini.	2	-2690	-89269	107694	SLV 15	1.21	Si
fin.	2	1998	51321	107694	SLV 15	2.1	Si
ini.	2	71	56851	107694	SLD 1	1.89	Si
fin.	2	-5759	-95102	107694	SLD 1	1.13	Si
ini.	2	-80	56416	107694	SLV 6	1.91	Si
fin.	2	-6733	-108294	107694	SLV 6	0.99	No
ini.	2	1117	107345	107694	SLV 4	1	Si
fin.	2	-7793	-136841	107694	SLV 4	0.79	No
ini.	2	1117	107345	107694	SLV 3	1	Si
fin.	2	-7793	-136841	107694	SLV 3	0.79	No
ini.	2	1180	115600	107694	SLV 1	0.93	No
fin.	2	-8885	-154061	107694	SLV 1	0.7	No
ini.	2	1180	115600	107694	SLV 2	0.93	No
fin.	2	-8885	-154061	107694	SLV 2	0.7	No
ini.	2	-2690	-89269	107694	SLV 16	1.21	Si
fin.	2	1998	51321	107694	SLV 16	2.1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	115600	-5722			1208	455	SLV 1	0.08	No
fin.	2	0	-154061	-11039			1208	455	SLV 1	0.04	No
ini.	2	0	56416	-2950			1208	455	SLV 5	0.15	No
fin.	2	0	-108294	-7966			1208	455	SLV 5	0.06	No
ini.	2	0	115600	-5722			1208	455	SLV 2	0.08	No
fin.	2	0	-154061	-11039			1208	455	SLV 2	0.04	No
ini.	2	0	107345	-5080			1208	455	SLV 4	0.09	No
fin.	2	0	-136841	-10028			1208	455	SLV 4	0.05	No
ini.	2	0	53460	-2390			1208	455	SLD 3	0.19	No
fin.	2	0	-88037	-6842			1208	455	SLD 3	0.07	No
ini.	2	0	56851	-2650			1208	455	SLD 2	0.17	No
fin.	2	0	-95102	-7266			1208	455	SLD 2	0.06	No
ini.	2	0	56416	-2950			1208	455	SLV 6	0.15	No
fin.	2	0	-108294	-7966			1208	455	SLV 6	0.06	No
ini.	2	0	53460	-2390			1208	455	SLD 4	0.19	No
fin.	2	0	-88037	-6842			1208	455	SLD 4	0.07	No
ini.	2	0	107345	-5080			1208	455	SLV 3	0.09	No
fin.	2	0	-136841	-10028			1208	455	SLV 3	0.05	No
ini.	2	0	56851	-2650			1208	455	SLD 1	0.17	No
fin.	2	0	-95102	-7266			1208	455	SLD 1	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.699	SLV 1	No
V_SLV	0.041	SLV 1	No
PF_SLU	1.074	SLU 76	Si
V_SLU	0.043	SLU 84	No

Trave di accoppiamento 76

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	483	683	200	-1936.8	-335.9	483	683	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2211	4647	296292	SLU 73	63.76	Si
fin.	3	-2579	92151	296292	SLU 73	3.22	Si
ini.	3	-2104	16572	296292	SLU 83	17.88	Si
fin.	3	-2418	92034	296292	SLU 83	3.22	Si
ini.	3	-2179	12965	296292	SLU 84	22.85	Si
fin.	3	-2544	95260	296292	SLU 84	3.11	Si
ini.	3	-2211	8295	296292	SLU 82	35.72	Si
fin.	3	-2561	95232	296292	SLU 82	3.11	Si
ini.	3	-2046	19376	296292	SLU 77	15.29	Si
fin.	3	-2356	87583	296292	SLU 77	3.38	Si
ini.	3	-2121	15769	296292	SLU 78	18.79	Si
fin.	3	-2482	90809	296292	SLU 78	3.26	Si
ini.	3	-2179	9317	296292	SLU 76	31.8	Si
fin.	3	-2562	92180	296292	SLU 76	3.21	Si
ini.	3	-2097	16391	296292	SLU 80	18.08	Si
fin.	3	-2461	90058	296292	SLU 80	3.29	Si
ini.	3	-2153	11099	296292	SLU 75	26.69	Si
fin.	3	-2499	90780	296292	SLU 75	3.26	Si
ini.	3	-2136	11902	296292	SLU 81	24.89	Si
fin.	3	-2435	92006	296292	SLU 81	3.22	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	8295	2024			2157	812	SLU 82	0.4	No
fin.	3	0	95232	3240			2157	812	SLU 82	0.25	No
ini.	3	0	11099	1881			2157	812	SLU 75	0.43	No
fin.	3	0	90780	3074			2157	812	SLU 75	0.26	No
ini.	3	0	16391	1803			2157	812	SLU 80	0.45	No
fin.	3	0	90058	2978			2157	812	SLU 80	0.27	No
ini.	3	0	16572	1681			2157	812	SLU 83	0.48	No
fin.	3	0	92034	3011			2157	812	SLU 83	0.27	No
ini.	3	0	9317	2054			2157	812	SLU 76	0.4	No
fin.	3	0	92180	3149			2157	812	SLU 76	0.26	No
ini.	3	0	4647	2122			2157	812	SLU 73	0.38	No
fin.	3	0	92151	3203			2157	812	SLU 73	0.25	No
ini.	3	0	15769	1813			2157	812	SLU 78	0.45	No
fin.	3	0	90809	3020			2157	812	SLU 78	0.27	No
ini.	3	0	12965	1956			2157	812	SLU 84	0.41	No
fin.	3	0	95260	3187			2157	812	SLU 84	0.25	No
ini.	3	0	4113	1915			2157	812	SLU 61	0.42	No
fin.	3	0	85708	2995			2157	812	SLU 61	0.27	No
ini.	3	0	11902	1749			2157	812	SLU 81	0.46	No
fin.	3	0	92006	3064			2157	812	SLU 81	0.26	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2988	-211854	314194	SLV 13	1.48	Si
fin.	2	-3999	198783	314194	SLV 13	1.58	Si
ini.	2	-2988	-211854	314194	SLV 14	1.48	Si
fin.	2	-3999	198783	314194	SLV 14	1.58	Si
ini.	2	-345	11098	314194	SLV 12	28.31	Si
fin.	2	-540	158795	314194	SLV 12	1.98	Si
ini.	2	-961	184779	314194	SLV 1	1.7	Si
fin.	2	-471	-113218	314194	SLV 1	2.78	Si
ini.	2	-961	184779	314194	SLV 2	1.7	Si
fin.	2	-471	-113218	314194	SLV 2	2.78	Si
ini.	2	-2096	-173025	314194	SLV 16	1.82	Si
fin.	2	-2973	230727	314194	SLV 16	1.36	Si
ini.	2	-68	223609	314194	SLV 3	1.41	Si
fin.	2	555	-81274	314194	SLV 3	3.87	Si
ini.	2	-345	11098	314194	SLV 11	28.31	Si
fin.	2	-540	158795	314194	SLV 11	1.98	Si
ini.	2	-2096	-173025	314194	SLV 15	1.82	Si
fin.	2	-2973	230727	314194	SLV 15	1.36	Si
ini.	2	-68	223609	314194	SLV 4	1.41	Si
fin.	2	555	-81274	314194	SLV 4	3.87	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-71352	5074			3235	1217	SLD 15	0.24	No
fin.	2	0	131990	5745			3235	1217	SLD 15	0.21	No
ini.	2	0	223609	-7300			3235	1217	SLV 3	0.17	No
fin.	2	0	-81274	-6518			3235	1217	SLV 3	0.19	No
ini.	2	0	-173025	10328			3235	1217	SLV 16	0.12	No
fin.	2	0	230727	10754			3235	1217	SLV 16	0.11	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-173025	10328			3235	1217	SLV 15	0.12	No
fin.	2	0	230727	10754			3235	1217	SLV 15	0.11	No
ini.	2	0	-211854	9620			3235	1217	SLV 13	0.13	No
fin.	2	0	198783	10537			3235	1217	SLV 13	0.12	No
ini.	2	0	-211854	9620			3235	1217	SLV 14	0.13	No
fin.	2	0	198783	10537			3235	1217	SLV 14	0.12	No
ini.	2	0	223609	-7300			3235	1217	SLV 4	0.17	No
fin.	2	0	-81274	-6518			3235	1217	SLV 4	0.19	No
ini.	2	0	184779	-8008			3235	1217	SLV 1	0.15	No
fin.	2	0	-113218	-6735			3235	1217	SLV 1	0.18	No
ini.	2	0	184779	-8008			3235	1217	SLV 2	0.15	No
fin.	2	0	-113218	-6735			3235	1217	SLV 2	0.18	No
ini.	2	0	-71352	5074			3235	1217	SLD 16	0.24	No
fin.	2	0	131990	5745			3235	1217	SLD 16	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.362	SLV 15	Si
V_SLV	0.113	SLV 15	No
PF_SLU	3.11	SLU 84	Si
V_SLU	0.25	SLU 82	No

Trave di accoppiamento 77

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	763	835	72	-1936.8	-335.9	763	835	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-261	-7195	72292	SLU 56	10.05	Si
fin.	3	-277	527	72292	SLU 56	137.3	Si
ini.	3	-254	-7349	72292	SLU 41	9.84	Si
fin.	3	-253	1459	72292	SLU 41	49.55	Si
ini.	3	-305	-7023	72292	SLU 16	10.29	Si
fin.	3	-304	-498	72292	SLU 16	145.3	Si
ini.	3	-343	-8449	72292	SLU 79	8.56	Si
fin.	3	-351	167	72292	SLU 79	433.16	Si
ini.	3	-252	-7785	72292	SLU 83	9.29	Si
fin.	3	-262	2125	72292	SLU 83	34.02	Si
ini.	3	-301	-8186	72292	SLU 77	8.83	Si
fin.	3	-314	525	72292	SLU 77	137.76	Si
ini.	3	-303	-7751	72292	SLU 35	9.33	Si
fin.	3	-304	-141	72292	SLU 35	511.2	Si
ini.	3	-319	-6947	72292	SLU 80	10.41	Si
fin.	3	-336	1923	72292	SLU 80	37.6	Si
ini.	3	-345	-8014	72292	SLU 37	9.02	Si
fin.	3	-342	-499	72292	SLU 37	144.79	Si
ini.	3	-302	-7458	72292	SLU 58	9.69	Si
fin.	3	-314	169	72292	SLU 58	428.68	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-7785	977			776	292	SLU 83	0.3	No
fin.	3	0	2125	-1078			776	292	SLU 83	0.27	No
ini.	3	0	-6804	930			776	292	SLU 74	0.31	No
fin.	3	0	2206	-1070			776	292	SLU 74	0.27	No
ini.	3	0	-8449	923			776	292	SLU 79	0.32	No
fin.	3	0	167	-1055			776	292	SLU 79	0.28	No
ini.	3	0	-6402	972			776	292	SLU 81	0.3	No
fin.	3	0	3806	-1071			776	292	SLU 81	0.27	No
ini.	3	0	-8186	936			776	292	SLU 77	0.31	No
fin.	3	0	525	-1078			776	292	SLU 77	0.27	No
ini.	3	0	-6684	895			776	292	SLU 78	0.33	No
fin.	3	0	2281	-1012			776	292	SLU 78	0.29	No
ini.	3	0	-6283	936			776	292	SLU 84	0.31	No
fin.	3	0	3881	-1012			776	292	SLU 84	0.29	No
ini.	3	0	-6510	797			776	292	SLU 69	0.37	No
fin.	3	0	-121	-1005			776	292	SLU 69	0.29	No
ini.	3	0	-4901	931			776	292	SLU 82	0.31	No
fin.	3	0	5562	-1005			776	292	SLU 82	0.29	No
ini.	3	0	-5302	889			776	292	SLU 75	0.33	No
fin.	3	0	3962	-1004			776	292	SLU 75	0.29	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3695	-8646	90194	SLV 13	10.43	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	4333	80460	90194	SLV 13	1.12	Si
ini.	2	-3821	1957	90194	SLV 3	46.09	Si
fin.	2	-4520	-75654	90194	SLV 3	1.19	Si
ini.	2	2171	26454	90194	SLV 9	3.41	Si
fin.	2	2326	47591	90194	SLV 9	1.9	Si
ini.	2	2966	-29342	90194	SLV 15	3.07	Si
fin.	2	3614	66105	90194	SLV 15	1.36	Si
ini.	2	2171	26454	90194	SLV 10	3.41	Si
fin.	2	2326	47591	90194	SLV 10	1.9	Si
ini.	2	3695	-8646	90194	SLV 14	10.43	Si
fin.	2	4333	80460	90194	SLV 14	1.12	Si
ini.	2	-3092	22653	90194	SLV 2	3.98	Si
fin.	2	-3800	-61299	90194	SLV 2	1.47	Si
ini.	2	2966	-29342	90194	SLV 16	3.07	Si
fin.	2	3614	66105	90194	SLV 16	1.36	Si
ini.	2	-3092	22653	90194	SLV 1	3.98	Si
fin.	2	-3800	-61299	90194	SLV 1	1.47	Si
ini.	2	-3821	1957	90194	SLV 4	46.09	Si
fin.	2	-4520	-75654	90194	SLV 4	1.19	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	22653	-2078			1165	438	SLV 2	0.21	No
fin.	2	0	-61299	-3815			1165	438	SLV 2	0.11	No
ini.	2	0	-8646	2561			1165	438	SLV 14	0.17	No
fin.	2	0	80460	1610			1165	438	SLV 14	0.27	No
ini.	2	0	35844	-1326			1165	438	SLV 6	0.33	No
fin.	2	0	5064	-2753			1165	438	SLV 6	0.16	No
ini.	2	0	35844	-1326			1165	438	SLV 5	0.33	No
fin.	2	0	5064	-2753			1165	438	SLV 5	0.16	No
ini.	2	0	-8646	2561			1165	438	SLV 13	0.17	No
fin.	2	0	80460	1610			1165	438	SLV 13	0.27	No
ini.	2	0	1957	-1331			1165	438	SLV 4	0.33	No
fin.	2	0	-75654	-3098			1165	438	SLV 4	0.14	No
ini.	2	0	1957	-1331			1165	438	SLV 3	0.33	No
fin.	2	0	-75654	-3098			1165	438	SLV 3	0.14	No
ini.	2	0	-29342	3307			1165	438	SLV 15	0.13	No
fin.	2	0	66105	2327			1165	438	SLV 15	0.19	No
ini.	2	0	22653	-2078			1165	438	SLV 1	0.21	No
fin.	2	0	-61299	-3815			1165	438	SLV 1	0.11	No
ini.	2	0	-29342	3307			1165	438	SLV 16	0.13	No
fin.	2	0	66105	2327			1165	438	SLV 16	0.19	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.121	SLV 13	Si
V_SLV	0.115	SLV 1	No
PF_SLU	8.556	SLU 79	Si
V_SLU	0.271	SLU 83	No

Trave di accoppiamento 78

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	483	573	90	-1826.3	-335.9	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	387	-32075	103792	SLU 61	3.24	Si
fin.	3	-1595	64005	103792	SLU 61	1.62	Si
ini.	3	383	-32190	103792	SLU 76	3.22	Si
fin.	3	-1581	65101	103792	SLU 76	1.59	Si
ini.	3	416	-35199	103792	SLU 65	2.95	Si
fin.	3	-1587	63966	103792	SLU 65	1.62	Si
ini.	3	441	-34171	103792	SLU 82	3.04	Si
fin.	3	-1646	68158	103792	SLU 82	1.52	Si
ini.	3	360	-30002	103792	SLU 75	3.46	Si
fin.	3	-1559	63604	103792	SLU 75	1.63	Si
ini.	3	357	-28467	103792	SLU 81	3.65	Si
fin.	3	-1570	63529	103792	SLU 81	1.63	Si
ini.	3	418	-35045	103792	SLU 52	2.96	Si
fin.	3	-1613	64908	103792	SLU 52	1.6	Si
ini.	3	329	-30093	103792	SLU 55	3.45	Si
fin.	3	-1531	60948	103792	SLU 55	1.7	Si
ini.	3	351	-29219	103792	SLU 84	3.55	Si
fin.	3	-1564	64199	103792	SLU 84	1.62	Si
ini.	3	473	-37142	103792	SLU 73	2.79	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1663	69061	103792	SLU 73	1.5	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-35045	675			970	365	SLU 52	0.54	No
fin.	3	0	64908	3595			970	365	SLU 52	0.1	No
ini.	3	0	-29219	363			970	365	SLU 84	1.01	Si
fin.	3	0	64199	3638			970	365	SLU 84	0.1	No
ini.	3	0	-28467	357			970	365	SLU 81	1.02	Si
fin.	3	0	63529	3648			970	365	SLU 81	0.1	No
ini.	3	0	-30002	396			970	365	SLU 75	0.92	No
fin.	3	0	63604	3619			970	365	SLU 75	0.1	No
ini.	3	0	-23515	131			970	365	SLU 83	2.79	Si
fin.	3	0	59570	3489			970	365	SLU 83	0.1	No
ini.	3	0	-34171	589			970	365	SLU 82	0.62	No
fin.	3	0	68158	3797			970	365	SLU 82	0.1	No
ini.	3	0	-32190	499			970	365	SLU 76	0.73	No
fin.	3	0	65101	3632			970	365	SLU 76	0.1	No
ini.	3	0	-37142	725			970	365	SLU 73	0.5	No
fin.	3	0	69061	3791			970	365	SLU 73	0.1	No
ini.	3	0	-32075	539			970	365	SLU 61	0.68	No
fin.	3	0	64005	3601			970	365	SLU 61	0.1	No
ini.	3	0	-35199	681			970	365	SLU 65	0.54	No
fin.	3	0	63966	3545			970	365	SLU 65	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2638	-166029	121694	SLV 15	0.73	No
fin.	2	-3021	133339	121694	SLV 15	0.91	No
ini.	2	-3201	155353	121694	SLV 4	0.78	No
fin.	2	1397	-83336	121694	SLV 4	1.46	Si
ini.	2	-2205	126315	121694	SLV 1	0.96	No
fin.	2	751	-45714	121694	SLV 1	2.66	Si
ini.	2	-3201	155353	121694	SLV 3	0.78	No
fin.	2	1397	-83336	121694	SLV 3	1.46	Si
ini.	2	3635	-195066	121694	SLV 14	0.62	No
fin.	2	-3667	170961	121694	SLV 14	0.71	No
ini.	2	2753	-116459	121694	SLV 9	1.04	Si
fin.	2	-2874	139017	121694	SLV 9	0.88	No
ini.	2	3635	-195066	121694	SLV 13	0.62	No
fin.	2	-3667	170961	121694	SLV 13	0.71	No
ini.	2	2638	-166029	121694	SLV 16	0.73	No
fin.	2	-3021	133339	121694	SLV 16	0.91	No
ini.	2	-2205	126315	121694	SLV 2	0.96	No
fin.	2	751	-45714	121694	SLV 2	2.66	Si
ini.	2	2753	-116459	121694	SLV 10	1.04	Si
fin.	2	-2874	139017	121694	SLV 10	0.88	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	126315	-5354			1456	548	SLV 1	0.1	No
fin.	2	0	-45714	-1505			1456	548	SLV 1	0.36	No
ini.	2	0	-116459	4906			1456	548	SLV 10	0.11	No
fin.	2	0	139017	7494			1456	548	SLV 10	0.07	No
ini.	2	0	-195066	7464			1456	548	SLV 13	0.07	No
fin.	2	0	170961	8673			1456	548	SLV 13	0.06	No
ini.	2	0	155353	-7008			1456	548	SLV 3	0.08	No
fin.	2	0	-83336	-3547			1456	548	SLV 3	0.15	No
ini.	2	0	-195066	7464			1456	548	SLV 14	0.07	No
fin.	2	0	170961	8673			1456	548	SLV 14	0.06	No
ini.	2	0	155353	-7008			1456	548	SLV 4	0.08	No
fin.	2	0	-83336	-3547			1456	548	SLV 4	0.15	No
ini.	2	0	126315	-5354			1456	548	SLV 2	0.1	No
fin.	2	0	-45714	-1505			1456	548	SLV 2	0.36	No
ini.	2	0	-116459	4906			1456	548	SLV 9	0.11	No
fin.	2	0	139017	7494			1456	548	SLV 9	0.07	No
ini.	2	0	-166029	5811			1456	548	SLV 15	0.09	No
fin.	2	0	133339	6630			1456	548	SLV 15	0.08	No
ini.	2	0	-166029	5811			1456	548	SLV 16	0.09	No
fin.	2	0	133339	6630			1456	548	SLV 16	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.624	SLV 13	No
V_SLV	0.063	SLV 13	No
PF_SLU	1.503	SLU 73	Si
V_SLU	0.096	SLU 82	No

Trave di accoppiamento 79

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	753	835	82	-1826.3	-335.9	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1207	-28125	89792	SLU 73	3.19	Si
fin.	3	-136	15199	89792	SLU 73	5.91	Si
ini.	3	-1190	-28727	89792	SLU 82	3.13	Si
fin.	3	-217	11765	89792	SLU 82	7.63	Si
ini.	3	-1164	-27035	89792	SLU 52	3.32	Si
fin.	3	-91	15769	89792	SLU 52	5.69	Si
ini.	3	-1081	-27696	89792	SLU 81	3.24	Si
fin.	3	-295	6780	89792	SLU 81	13.24	Si
ini.	3	-1030	-25419	89792	SLU 75	3.53	Si
fin.	3	-271	8436	89792	SLU 75	10.64	Si
ini.	3	-1076	-25115	89792	SLU 65	3.58	Si
fin.	3	-68	15457	89792	SLU 65	5.81	Si
ini.	3	-1068	-25934	89792	SLU 84	3.46	Si
fin.	3	-339	7363	89792	SLU 84	12.19	Si
ini.	3	-1038	-26606	89792	SLU 60	3.37	Si
fin.	3	-250	7350	89792	SLU 60	12.22	Si
ini.	3	-1085	-25332	89792	SLU 76	3.54	Si
fin.	3	-258	10797	89792	SLU 76	8.32	Si
ini.	3	-1148	-27637	89792	SLU 61	3.25	Si
fin.	3	-172	12335	89792	SLU 61	7.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27696	2633			806	303	SLU 81	0.12	No
fin.	3	0	6780	-1110			806	303	SLU 81	0.27	No
ini.	3	0	-25332	2464			806	303	SLU 76	0.12	No
fin.	3	0	10797	-854			806	303	SLU 76	0.35	No
ini.	3	0	-27035	2454			806	303	SLU 52	0.12	No
fin.	3	0	15769	-472			806	303	SLU 52	0.64	No
ini.	3	0	-26606	2460			806	303	SLU 60	0.12	No
fin.	3	0	7350	-940			806	303	SLU 60	0.32	No
ini.	3	0	-28125	2627			806	303	SLU 73	0.12	No
fin.	3	0	15199	-642			806	303	SLU 73	0.47	No
ini.	3	0	-27637	2523			806	303	SLU 61	0.12	No
fin.	3	0	12335	-698			806	303	SLU 61	0.43	No
ini.	3	0	-24903	2469			806	303	SLU 83	0.12	No
fin.	3	0	2378	-1322			806	303	SLU 83	0.23	No
ini.	3	0	-25419	2486			806	303	SLU 75	0.12	No
fin.	3	0	8436	-991			806	303	SLU 75	0.31	No
ini.	3	0	-28727	2696			806	303	SLU 82	0.11	No
fin.	3	0	11765	-868			806	303	SLU 82	0.35	No
ini.	3	0	-25934	2533			806	303	SLU 84	0.12	No
fin.	3	0	7363	-1080			806	303	SLU 84	0.28	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-495	18891	107694	SLV 2	5.7	Si
fin.	2	-3780	-97316	107694	SLV 2	1.11	Si
ini.	2	-935	-56126	107694	SLV 16	1.92	Si
fin.	2	3456	108416	107694	SLV 16	0.99	No
ini.	2	-1021	-78449	107694	SLV 13	1.37	Si
fin.	2	4391	133272	107694	SLV 13	0.81	No
ini.	2	-937	-70423	107694	SLV 10	1.53	Si
fin.	2	2622	81564	107694	SLV 10	1.32	Si
ini.	2	-495	18891	107694	SLV 1	5.7	Si
fin.	2	-3780	-97316	107694	SLV 1	1.11	Si
ini.	2	-937	-70423	107694	SLV 9	1.53	Si
fin.	2	2622	81564	107694	SLV 9	1.32	Si
ini.	2	-409	41214	107694	SLV 4	2.61	Si
fin.	2	-4714	-122171	107694	SLV 4	0.88	No
ini.	2	-409	41214	107694	SLV 3	2.61	Si
fin.	2	-4714	-122171	107694	SLV 3	0.88	No
ini.	2	-1021	-78449	107694	SLV 14	1.37	Si
fin.	2	4391	133272	107694	SLV 14	0.81	No
ini.	2	-935	-56126	107694	SLV 15	1.92	Si
fin.	2	3456	108416	107694	SLV 15	0.99	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	41214	-2477			1208	455	SLV 3	0.18	No
fin.	2	0	-122171	-5443			1208	455	SLV 3	0.08	No
ini.	2	0	-70423	6494			1208	455	SLV 10	0.07	No
fin.	2	0	81564	2341			1208	455	SLV 10	0.19	No
ini.	2	0	18891	-208			1208	455	SLV 1	2.19	Si
fin.	2	0	-97316	-4382			1208	455	SLV 1	0.1	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-41221	4623			1208	455	SLV 5	0.1	No
fin.	2	0	12387	-191			1208	455	SLV 5	2.38	Si
ini.	2	0	-70423	6494			1208	455	SLV 9	0.07	No
fin.	2	0	81564	2341			1208	455	SLV 9	0.19	No
ini.	2	0	-41221	4623			1208	455	SLV 6	0.1	No
fin.	2	0	12387	-191			1208	455	SLV 6	2.38	Si
ini.	2	0	-78449	6029			1208	455	SLV 14	0.08	No
fin.	2	0	133272	4057			1208	455	SLV 14	0.11	No
ini.	2	0	41214	-2477			1208	455	SLV 4	0.18	No
fin.	2	0	-122171	-5443			1208	455	SLV 4	0.08	No
ini.	2	0	-78449	6029			1208	455	SLV 13	0.08	No
fin.	2	0	133272	4057			1208	455	SLV 13	0.11	No
ini.	2	0	18891	-208			1208	455	SLV 2	2.19	Si
fin.	2	0	-97316	-4382			1208	455	SLV 2	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.808	SLV 13	No
V_SLV	0.07	SLV 9	No
PF_SLU	3.126	SLU 82	Si
V_SLU	0.112	SLU 82	No

Trave di accoppiamento 80

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1705.3	-486.2	809	835	26	-1705.3	-377.2	809	835	26	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2	1618	10289	SLU 81	6.36	Si
fin.	3	2	5808	10289	SLU 81	1.77	Si
ini.	3	1	1099	10289	SLU 39	9.36	Si
fin.	3	1	6336	10289	SLU 39	1.62	Si
ini.	3	3	2500	10289	SLU 50	4.12	Si
fin.	3	3	-4593	10289	SLU 50	2.24	Si
ini.	3	7	2519	10289	SLU 9	4.08	Si
fin.	3	7	-4342	10289	SLU 9	2.37	Si
ini.	3	7	1637	10289	SLU 40	6.28	Si
fin.	3	7	6059	10289	SLU 40	1.7	Si
ini.	3	10	2101	10289	SLU 31	4.9	Si
fin.	3	10	4519	10289	SLU 31	2.28	Si
ini.	3	1	1231	10289	SLU 18	8.36	Si
fin.	3	1	4666	10289	SLU 18	2.2	Si
ini.	3	8	3039	10289	SLU 51	3.39	Si
fin.	3	8	-4870	10289	SLU 51	2.11	Si
ini.	3	7	2157	10289	SLU 82	4.77	Si
fin.	3	7	5531	10289	SLU 82	1.86	Si
ini.	3	6	1770	10289	SLU 19	5.81	Si
fin.	3	6	4389	10289	SLU 19	2.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2367	25			200	75	SLU 71	3	Si
fin.	3	0	-2923	-122			200	75	SLU 71	0.62	No
ini.	3	0	2430	16			200	75	SLU 48	4.71	Si
fin.	3	0	-3850	-131			200	75	SLU 48	0.57	No
ini.	3	0	2519	-6			200	75	SLU 9	11.95	Si
fin.	3	0	-4342	-120			200	75	SLU 9	0.63	No
ini.	3	0	2906	18			200	75	SLU 72	4.28	Si
fin.	3	0	-3200	-130			200	75	SLU 72	0.58	No
ini.	3	0	2500	9			200	75	SLU 50	8.8	Si
fin.	3	0	-4593	-139			200	75	SLU 50	0.54	No
ini.	3	0	2969	9			200	75	SLU 49	8.83	Si
fin.	3	0	-4127	-139			200	75	SLU 49	0.54	No
ini.	3	0	3039	1			200	75	SLU 51	70.18	Si
fin.	3	0	-4870	-146			200	75	SLU 51	0.52	No
ini.	3	0	3198	17			200	75	SLU 47	4.37	Si
fin.	3	0	-2949	-130			200	75	SLU 47	0.58	No
ini.	3	0	2769	30			200	75	SLU 46	2.54	Si
fin.	3	0	-2021	-118			200	75	SLU 46	0.64	No
ini.	3	0	2836	25			200	75	SLU 70	3.01	Si
fin.	3	0	-2457	-122			200	75	SLU 70	0.62	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-56	7718	15434	SLV 8	2	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-139	-53072	15434	SLV 8	0.29	No
ini.	2	59	-4773	15434	SLV 10	3.23	Si
fin.	2	142	56130	15434	SLV 10	0.27	No
ini.	2	28	-3114	15434	SLV 14	4.96	Si
fin.	2	45	40084	15434	SLV 14	0.39	No
ini.	2	-50	5930	15434	SLV 11	2.6	Si
fin.	2	-138	-38451	15434	SLV 11	0.4	No
ini.	2	-50	5930	15434	SLV 12	2.6	Si
fin.	2	-138	-38451	15434	SLV 12	0.4	No
ini.	2	52	-2984	15434	SLV 5	5.17	Si
fin.	2	141	41509	15434	SLV 5	0.37	No
ini.	2	-56	7718	15434	SLV 7	2	Si
fin.	2	-139	-53072	15434	SLV 7	0.29	No
ini.	2	52	-2984	15434	SLV 6	5.17	Si
fin.	2	141	41509	15434	SLV 6	0.37	No
ini.	2	59	-4773	15434	SLV 9	3.23	Si
fin.	2	142	56130	15434	SLV 9	0.27	No
ini.	2	28	-3114	15434	SLV 13	4.96	Si
fin.	2	45	40084	15434	SLV 13	0.39	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	5930	-290			300	113	SLV 11	0.39	No
fin.	2	0	-38451	-402			300	113	SLV 11	0.28	No
ini.	2	0	-2984	404			300	113	SLV 5	0.28	No
fin.	2	0	41509	290			300	113	SLV 5	0.39	No
ini.	2	0	-4773	545			300	113	SLV 9	0.21	No
fin.	2	0	56130	377			300	113	SLV 9	0.3	No
ini.	2	0	-3114	417			300	113	SLV 14	0.27	No
fin.	2	0	40084	206			300	113	SLV 14	0.55	No
ini.	2	0	-2984	404			300	113	SLV 6	0.28	No
fin.	2	0	41509	290			300	113	SLV 6	0.39	No
ini.	2	0	7718	-431			300	113	SLV 7	0.26	No
fin.	2	0	-53072	-489			300	113	SLV 7	0.23	No
ini.	2	0	7718	-431			300	113	SLV 8	0.26	No
fin.	2	0	-53072	-489			300	113	SLV 8	0.23	No
ini.	2	0	5930	-290			300	113	SLV 12	0.39	No
fin.	2	0	-38451	-402			300	113	SLV 12	0.28	No
ini.	2	0	-3114	417			300	113	SLV 13	0.27	No
fin.	2	0	40084	206			300	113	SLV 13	0.55	No
ini.	2	0	-4773	545			300	113	SLV 10	0.21	No
fin.	2	0	56130	377			300	113	SLV 10	0.3	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.275	SLV 9	No
V_SLV	0.207	SLV 9	No
PF_SLU	1.624	SLU 39	Si
V_SLU	0.516	SLU 51	No

Trave di accoppiamento 81

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1543.3	-335.9	693	835	142	-1633.3	-335.9	693	835	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1138	-140231	194792	SLU 31	1.39	Si
fin.	3	-1138	143785	194792	SLU 31	1.35	Si
ini.	3	-1408	-148160	194792	SLU 81	1.31	Si
fin.	3	-1408	146722	194792	SLU 81	1.33	Si
ini.	3	-1400	-145706	194792	SLU 61	1.34	Si
fin.	3	-1400	146049	194792	SLU 61	1.33	Si
ini.	3	-1352	-148751	194792	SLU 52	1.31	Si
fin.	3	-1352	149671	194792	SLU 52	1.3	Si
ini.	3	-1351	-147677	194792	SLU 84	1.32	Si
fin.	3	-1351	149224	194792	SLU 84	1.31	Si
ini.	3	-1286	-148017	194792	SLU 75	1.32	Si
fin.	3	-1286	147594	194792	SLU 75	1.32	Si
ini.	3	-1232	-151573	194792	SLU 65	1.29	Si
fin.	3	-1232	150562	194792	SLU 65	1.29	Si
ini.	3	-1391	-163333	194792	SLU 73	1.19	Si
fin.	3	-1391	165166	194792	SLU 73	1.18	Si
ini.	3	-1439	-160288	194792	SLU 82	1.22	Si
fin.	3	-1439	161544	194792	SLU 82	1.21	Si
ini.	3	-1303	-150723	194792	SLU 76	1.29	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1303	152846	194792	SLU 76	1.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-148751	3974			1531	576	SLU 52	0.15	No
fin.	3	0	149671	2615			1531	576	SLU 52	0.22	No
ini.	3	0	-163333	4401			1531	576	SLU 73	0.13	No
fin.	3	0	165166	2858			1531	576	SLU 73	0.2	No
ini.	3	0	-148160	4075			1531	576	SLU 81	0.14	No
fin.	3	0	146722	2437			1531	576	SLU 81	0.24	No
ini.	3	0	-160288	4374			1531	576	SLU 82	0.13	No
fin.	3	0	161544	2736			1531	576	SLU 82	0.21	No
ini.	3	0	-147677	4097			1531	576	SLU 84	0.14	No
fin.	3	0	149224	2459			1531	576	SLU 84	0.23	No
ini.	3	0	-140231	3805			1531	576	SLU 31	0.15	No
fin.	3	0	143785	2475			1531	576	SLU 31	0.23	No
ini.	3	0	-148017	4035			1531	576	SLU 75	0.14	No
fin.	3	0	147594	2492			1531	576	SLU 75	0.23	No
ini.	3	0	-145706	3947			1531	576	SLU 61	0.15	No
fin.	3	0	146049	2493			1531	576	SLU 61	0.23	No
ini.	3	0	-150723	4124			1531	576	SLU 76	0.14	No
fin.	3	0	152846	2581			1531	576	SLU 76	0.22	No
ini.	3	0	-151573	3997			1531	576	SLU 65	0.14	No
fin.	3	0	150562	2675			1531	576	SLU 65	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3372	377720	212694	SLV 4	0.56	No
fin.	2	-3744	-231114	212694	SLV 4	0.92	No
ini.	2	1481	-580121	212694	SLV 13	0.37	No
fin.	2	1853	426278	212694	SLV 13	0.5	No
ini.	2	751	-362629	212694	SLV 10	0.59	No
fin.	2	955	203327	212694	SLV 10	1.05	Si
ini.	2	87	-305391	212694	SLD 14	0.7	No
fin.	2	243	237991	212694	SLD 14	0.89	No
ini.	2	-3372	377720	212694	SLV 3	0.56	No
fin.	2	-3744	-231114	212694	SLV 3	0.92	No
ini.	2	842	-502483	212694	SLV 15	0.42	No
fin.	2	1154	421572	212694	SLV 15	0.5	No
ini.	2	751	-362629	212694	SLV 9	0.59	No
fin.	2	955	203327	212694	SLV 9	1.05	Si
ini.	2	1481	-580121	212694	SLV 14	0.37	No
fin.	2	1853	426278	212694	SLV 14	0.5	No
ini.	2	842	-502483	212694	SLV 16	0.42	No
fin.	2	1154	421572	212694	SLV 16	0.5	No
ini.	2	87	-305391	212694	SLD 13	0.7	No
fin.	2	243	237991	212694	SLD 13	0.89	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-502483	10794			2297	864	SLV 15	0.08	No
fin.	2	0	421572	9571			2297	864	SLV 15	0.09	No
ini.	2	0	-580121	12019			2297	864	SLV 14	0.07	No
fin.	2	0	426278	10978			2297	864	SLV 14	0.08	No
ini.	2	0	-362629	7363			2297	864	SLV 10	0.12	No
fin.	2	0	203327	6598			2297	864	SLV 10	0.13	No
ini.	2	0	377720	-6594			2297	864	SLV 3	0.13	No
fin.	2	0	-231114	-7632			2297	864	SLV 3	0.11	No
ini.	2	0	-580121	12019			2297	864	SLV 13	0.07	No
fin.	2	0	426278	10978			2297	864	SLV 13	0.08	No
ini.	2	0	-362629	7363			2297	864	SLV 9	0.12	No
fin.	2	0	203327	6598			2297	864	SLV 9	0.13	No
ini.	2	0	377720	-6594			2297	864	SLV 4	0.13	No
fin.	2	0	-231114	-7632			2297	864	SLV 4	0.11	No
ini.	2	0	-305391	6688			2297	864	SLD 14	0.13	No
fin.	2	0	237991	5634			2297	864	SLD 14	0.15	No
ini.	2	0	-305391	6688			2297	864	SLD 13	0.13	No
fin.	2	0	237991	5634			2297	864	SLD 13	0.15	No
ini.	2	0	-502483	10794			2297	864	SLV 16	0.08	No
fin.	2	0	421572	9571			2297	864	SLV 16	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.367	SLV 13	No
V_SLV	0.072	SLV 13	No
PF_SLU	1.179	SLU 73	Si
V_SLU	0.131	SLU 73	No

Trave di accoppiamento 82

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1443.8	-485.9	809	835	26	-1627.8	-485.9	809	835	26	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-12	-1297	10289	SLU 80	7.93	Si
fin.	3	-12	-6427	10289	SLU 80	1.6	Si
ini.	3	-6	-6580	10289	SLU 43	1.56	Si
fin.	3	-6	-1094	10289	SLU 43	9.4	Si
ini.	3	-5	700	10289	SLU 35	14.69	Si
fin.	3	-5	-6642	10289	SLU 35	1.55	Si
ini.	3	-11	559	10289	SLU 38	18.4	Si
fin.	3	-11	-6518	10289	SLU 38	1.58	Si
ini.	3	-9	375	10289	SLU 41	27.41	Si
fin.	3	-9	-6338	10289	SLU 41	1.62	Si
ini.	3	-4	853	10289	SLU 37	12.06	Si
fin.	3	-4	-6790	10289	SLU 37	1.52	Si
ini.	3	-5	-1003	10289	SLU 79	10.25	Si
fin.	3	-5	-6699	10289	SLU 79	1.54	Si
ini.	3	-6	-1156	10289	SLU 77	8.9	Si
fin.	3	-6	-6551	10289	SLU 77	1.57	Si
ini.	3	-17	-7070	10289	SLU 44	1.46	Si
fin.	3	-17	-641	10289	SLU 44	16.06	Si
ini.	3	-11	406	10289	SLU 36	25.31	Si
fin.	3	-11	-6369	10289	SLU 36	1.62	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1003	92			200	75	SLU 79	0.82	No
fin.	3	0	-6699	-154			200	75	SLU 79	0.49	No
ini.	3	0	-1481	97			200	75	SLU 83	0.78	No
fin.	3	0	-6247	-149			200	75	SLU 83	0.51	No
ini.	3	0	-1775	100			200	75	SLU 84	0.75	No
fin.	3	0	-5975	-146			200	75	SLU 84	0.52	No
ini.	3	0	-7070	158			200	75	SLU 44	0.48	No
fin.	3	0	-641	-88			200	75	SLU 44	0.85	No
ini.	3	0	-1297	95			200	75	SLU 80	0.79	No
fin.	3	0	-6427	-151			200	75	SLU 80	0.5	No
ini.	3	0	-1450	97			200	75	SLU 78	0.78	No
fin.	3	0	-6279	-149			200	75	SLU 78	0.5	No
ini.	3	0	-5821	145			200	75	SLU 47	0.52	No
fin.	3	0	-1877	-102			200	75	SLU 47	0.74	No
ini.	3	0	-5778	144			200	75	SLU 46	0.52	No
fin.	3	0	-1910	-102			200	75	SLU 46	0.74	No
ini.	3	0	-6580	153			200	75	SLU 43	0.49	No
fin.	3	0	-1094	-93			200	75	SLU 43	0.81	No
ini.	3	0	-1156	94			200	75	SLU 77	0.8	No
fin.	3	0	-6551	-152			200	75	SLU 77	0.49	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-97	-38597	15434	SLV 12	0.4	No
fin.	2	-137	31945	15434	SLV 12	0.48	No
ini.	2	-221	-54628	15434	SLV 15	0.28	No
fin.	2	-212	46990	15434	SLV 15	0.33	No
ini.	2	208	46941	15434	SLV 1	0.33	No
fin.	2	198	-51149	15434	SLV 1	0.3	No
ini.	2	208	46941	15434	SLV 2	0.33	No
fin.	2	198	-51149	15434	SLV 2	0.3	No
ini.	2	-204	-41759	15434	SLV 13	0.37	No
fin.	2	-166	34263	15434	SLV 13	0.45	No
ini.	2	-221	-54628	15434	SLV 16	0.28	No
fin.	2	-212	46990	15434	SLV 16	0.33	No
ini.	2	-204	-41759	15434	SLV 14	0.37	No
fin.	2	-166	34263	15434	SLV 14	0.45	No
ini.	2	191	34072	15434	SLV 4	0.45	No
fin.	2	153	-38422	15434	SLV 4	0.4	No
ini.	2	-97	-38597	15434	SLV 11	0.4	No
fin.	2	-137	31945	15434	SLV 11	0.48	No
ini.	2	191	34072	15434	SLV 3	0.45	No
fin.	2	153	-38422	15434	SLV 3	0.4	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	46941	-426			300	113	SLV 1	0.27	No
fin.	2	0	-51149	-577			300	113	SLV 1	0.2	No
ini.	2	0	-54628	635			300	113	SLV 15	0.18	No
fin.	2	0	46990	406			300	113	SLV 15	0.28	No
ini.	2	0	-41759	553			300	113	SLV 14	0.2	No
fin.	2	0	34263	371			300	113	SLV 14	0.3	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-38597	388			300	113	SLV 11	0.29	No
fin.	2	0	31945	116			300	113	SLV 11	0.98	No
ini.	2	0	34072	-344			300	113	SLV 4	0.33	No
fin.	2	0	-38422	-541			300	113	SLV 4	0.21	No
ini.	2	0	46941	-426			300	113	SLV 2	0.27	No
fin.	2	0	-51149	-577			300	113	SLV 2	0.2	No
ini.	2	0	-54628	635			300	113	SLV 16	0.18	No
fin.	2	0	46990	406			300	113	SLV 16	0.28	No
ini.	2	0	-38597	388			300	113	SLV 12	0.29	No
fin.	2	0	31945	116			300	113	SLV 12	0.98	No
ini.	2	0	34072	-344			300	113	SLV 3	0.33	No
fin.	2	0	-38422	-541			300	113	SLV 3	0.21	No
ini.	2	0	-41759	553			300	113	SLV 13	0.2	No
fin.	2	0	34263	371			300	113	SLV 13	0.3	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.283	SLV 15	No
V_SLV	0.178	SLV 15	No
PF_SLU	1.455	SLU 44	Si
V_SLU	0.477	SLU 44	No

Trave di accoppiamento 83

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1375.3	-22.8	693	835	142	-1375.3	67.2	693	835	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-116	-160066	194792	SLU 69	1.22	Si
fin.	3	-116	57010	194792	SLU 69	3.42	Si
ini.	3	-115	-149278	194792	SLU 72	1.3	Si
fin.	3	-115	54225	194792	SLU 72	3.59	Si
ini.	3	-120	-142544	194792	SLU 30	1.37	Si
fin.	3	-120	50792	194792	SLU 30	3.84	Si
ini.	3	-83	-137990	194792	SLU 77	1.41	Si
fin.	3	-83	57525	194792	SLU 77	3.39	Si
ini.	3	-82	-135731	194792	SLU 79	1.44	Si
fin.	3	-82	57925	194792	SLU 79	3.36	Si
ini.	3	-120	-151073	194792	SLU 29	1.29	Si
fin.	3	-120	53976	194792	SLU 29	3.61	Si
ini.	3	-121	-153332	194792	SLU 27	1.27	Si
fin.	3	-121	53576	194792	SLU 27	3.64	Si
ini.	3	-121	-144803	194792	SLU 28	1.35	Si
fin.	3	-121	50392	194792	SLU 28	3.87	Si
ini.	3	-115	-157807	194792	SLU 71	1.23	Si
fin.	3	-115	57410	194792	SLU 71	3.39	Si
ini.	3	-116	-151537	194792	SLU 70	1.29	Si
fin.	3	-116	53825	194792	SLU 70	3.62	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-151073	2620			1531	576	SLU 29	0.22	No
fin.	3	0	53976	1969			1531	576	SLU 29	0.29	No
ini.	3	0	-157807	2829			1531	576	SLU 71	0.2	No
fin.	3	0	57410	1997			1531	576	SLU 71	0.29	No
ini.	3	0	-160066	2849			1531	576	SLU 69	0.2	No
fin.	3	0	57010	2018			1531	576	SLU 69	0.29	No
ini.	3	0	-151537	2719			1531	576	SLU 70	0.21	No
fin.	3	0	53825	1888			1531	576	SLU 70	0.31	No
ini.	3	0	-153332	2641			1531	576	SLU 27	0.22	No
fin.	3	0	53576	1990			1531	576	SLU 27	0.29	No
ini.	3	0	-144803	2511			1531	576	SLU 28	0.23	No
fin.	3	0	50392	1860			1531	576	SLU 28	0.31	No
ini.	3	0	-137990	2610			1531	576	SLU 77	0.22	No
fin.	3	0	57525	1778			1531	576	SLU 77	0.32	No
ini.	3	0	-135731	2589			1531	576	SLU 79	0.22	No
fin.	3	0	57925	1758			1531	576	SLU 79	0.33	No
ini.	3	0	-149278	2699			1531	576	SLU 72	0.21	No
fin.	3	0	54225	1867			1531	576	SLU 72	0.31	No
ini.	3	0	-142544	2490			1531	576	SLU 30	0.23	No
fin.	3	0	50792	1839			1531	576	SLU 30	0.31	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1341	-465430	212694	SLV 9	0.46	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1114	221267	212694	SLV 9	0.96	No
ini.	2	-1236	-408580	212694	SLV 1	0.52	No
fin.	2	-1994	91462	212694	SLV 1	2.33	Si
ini.	2	-1801	-588702	212694	SLV 6	0.36	No
fin.	2	-2028	225377	212694	SLV 6	0.94	No
ini.	2	1342	336842	212694	SLV 8	0.63	No
fin.	2	1115	-170935	212694	SLV 8	1.24	Si
ini.	2	-1236	-408580	212694	SLV 2	0.52	No
fin.	2	-1994	91462	212694	SLV 2	2.33	Si
ini.	2	1342	336842	212694	SLV 7	0.63	No
fin.	2	1115	-170935	212694	SLV 7	1.24	Si
ini.	2	-1341	-465430	212694	SLV 10	0.46	No
fin.	2	-1114	221267	212694	SLV 10	0.96	No
ini.	2	1801	460115	212694	SLV 12	0.46	No
fin.	2	2029	-175045	212694	SLV 12	1.22	Si
ini.	2	-1801	-588702	212694	SLV 5	0.36	No
fin.	2	-2028	225377	212694	SLV 5	0.94	No
ini.	2	1801	460115	212694	SLV 11	0.46	No
fin.	2	2029	-175045	212694	SLV 11	1.22	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	460115	-6592			2297	864	SLV 11	0.13	No
fin.	2	0	-175045	-7378			2297	864	SLV 11	0.12	No
ini.	2	0	-408580	6244			2297	864	SLV 1	0.14	No
fin.	2	0	91462	5935			2297	864	SLV 1	0.15	No
ini.	2	0	336842	-4918			2297	864	SLV 7	0.18	No
fin.	2	0	-170935	-5519			2297	864	SLV 7	0.16	No
ini.	2	0	-465430	7574			2297	864	SLV 9	0.11	No
fin.	2	0	221267	6907			2297	864	SLV 9	0.13	No
ini.	2	0	-588702	9249			2297	864	SLV 5	0.09	No
fin.	2	0	225377	8766			2297	864	SLV 5	0.1	No
ini.	2	0	-588702	9249			2297	864	SLV 6	0.09	No
fin.	2	0	225377	8766			2297	864	SLV 6	0.1	No
ini.	2	0	-465430	7574			2297	864	SLV 10	0.11	No
fin.	2	0	221267	6907			2297	864	SLV 10	0.13	No
ini.	2	0	460115	-6592			2297	864	SLV 12	0.13	No
fin.	2	0	-175045	-7378			2297	864	SLV 12	0.12	No
ini.	2	0	-408580	6244			2297	864	SLV 2	0.14	No
fin.	2	0	91462	5935			2297	864	SLV 2	0.15	No
ini.	2	0	336842	-4918			2297	864	SLV 8	0.18	No
fin.	2	0	-170935	-5519			2297	864	SLV 8	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.361	SLV 5	No
V_SLV	0.093	SLV 5	No
PF_SLU	1.217	SLU 69	Si
V_SLU	0.202	SLU 69	No

Trave di accoppiamento 84

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1074.8	333.1	673	835	162	-994.8	333.1	673	835	162	80	14	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	276	649185	176083	SLU 81	0.27	No
fin.	3	276	132122	176083	SLU 81	1.33	Si
ini.	3	267	615648	176083	SLU 79	0.29	No
fin.	3	267	123114	176083	SLU 79	1.43	Si
ini.	3	272	627386	176083	SLU 77	0.28	No
fin.	3	272	125210	176083	SLU 77	1.41	Si
ini.	3	276	649824	176083	SLU 82	0.27	No
fin.	3	276	132235	176083	SLU 82	1.33	Si
ini.	3	267	624599	176083	SLU 74	0.28	No
fin.	3	267	125629	176083	SLU 74	1.4	Si
ini.	3	267	625238	176083	SLU 75	0.28	No
fin.	3	267	125742	176083	SLU 75	1.4	Si
ini.	3	267	616288	176083	SLU 80	0.29	No
fin.	3	267	123228	176083	SLU 80	1.43	Si
ini.	3	281	652610	176083	SLU 84	0.27	No
fin.	3	281	131816	176083	SLU 84	1.34	Si
ini.	3	272	628025	176083	SLU 78	0.28	No
fin.	3	272	125323	176083	SLU 78	1.41	Si
ini.	3	281	651971	176083	SLU 83	0.27	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	281	131703	176083	SLU 83	1.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	651971	-5880			873	329	SLU 83	0.06	No
fin.	3	0	131703	-7116			873	329	SLU 83	0.05	No
ini.	3	0	649185	-5839			873	329	SLU 81	0.06	No
fin.	3	0	132122	-7076			873	329	SLU 81	0.05	No
ini.	3	0	649824	-5846			873	329	SLU 82	0.06	No
fin.	3	0	132235	-7082			873	329	SLU 82	0.05	No
ini.	3	0	652610	-5886			873	329	SLU 84	0.06	No
fin.	3	0	131816	-7122			873	329	SLU 84	0.05	No
ini.	3	0	625238	-5670			873	329	SLU 75	0.06	No
fin.	3	0	125742	-6805			873	329	SLU 75	0.05	No
ini.	3	0	616288	-5590			873	329	SLU 80	0.06	No
fin.	3	0	123228	-6725			873	329	SLU 80	0.05	No
ini.	3	0	615648	-5583			873	329	SLU 79	0.06	No
fin.	3	0	123114	-6718			873	329	SLU 79	0.05	No
ini.	3	0	627386	-5704			873	329	SLU 77	0.06	No
fin.	3	0	125210	-6839			873	329	SLU 77	0.05	No
ini.	3	0	624599	-5664			873	329	SLU 74	0.06	No
fin.	3	0	125629	-6799			873	329	SLU 74	0.05	No
ini.	3	0	628025	-5710			873	329	SLU 78	0.06	No
fin.	3	0	125323	-6846			873	329	SLU 78	0.05	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	391	847567	211889	SLV 11	0.25	No
fin.	2	173	177110	211889	SLV 11	1.2	Si
ini.	2	859	966267	211889	SLV 7	0.22	No
fin.	2	-19	219420	211889	SLV 7	0.97	No
ini.	2	391	847567	211889	SLV 12	0.25	No
fin.	2	173	177110	211889	SLV 12	1.2	Si
ini.	2	253	594826	211889	SLD 12	0.36	No
fin.	2	178	122109	211889	SLD 12	1.74	Si
ini.	2	253	594826	211889	SLD 11	0.36	No
fin.	2	178	122109	211889	SLD 11	1.74	Si
ini.	2	449	645157	211889	SLD 8	0.33	No
fin.	2	99	139370	211889	SLD 8	1.52	Si
ini.	2	859	966267	211889	SLV 8	0.22	No
fin.	2	-19	219420	211889	SLV 8	0.97	No
ini.	2	1085	755895	211889	SLV 4	0.28	No
fin.	2	-178	187931	211889	SLV 4	1.13	Si
ini.	2	449	645157	211889	SLD 7	0.33	No
fin.	2	99	139370	211889	SLD 7	1.52	Si
ini.	2	1085	755895	211889	SLV 3	0.28	No
fin.	2	-178	187931	211889	SLV 3	1.13	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	645157	-5847			1310	493	SLD 8	0.08	No
fin.	2	0	139370	-6872			1310	493	SLD 8	0.07	No
ini.	2	0	645157	-5847			1310	493	SLD 7	0.08	No
fin.	2	0	139370	-6872			1310	493	SLD 7	0.07	No
ini.	2	0	847567	-8747			1310	493	SLV 12	0.06	No
fin.	2	0	177110	-10010			1310	493	SLV 12	0.05	No
ini.	2	0	966267	-8731			1310	493	SLV 7	0.06	No
fin.	2	0	219420	-10225			1310	493	SLV 7	0.05	No
ini.	2	0	755895	-5191			1310	493	SLV 3	0.09	No
fin.	2	0	187931	-6493			1310	493	SLV 3	0.08	No
ini.	2	0	847567	-8747			1310	493	SLV 11	0.06	No
fin.	2	0	177110	-10010			1310	493	SLV 11	0.05	No
ini.	2	0	755895	-5191			1310	493	SLV 4	0.09	No
fin.	2	0	187931	-6493			1310	493	SLV 4	0.08	No
ini.	2	0	594826	-5852			1310	493	SLD 11	0.08	No
fin.	2	0	122109	-6771			1310	493	SLD 11	0.07	No
ini.	2	0	966267	-8731			1310	493	SLV 8	0.06	No
fin.	2	0	219420	-10225			1310	493	SLV 8	0.05	No
ini.	2	0	594826	-5852			1310	493	SLD 12	0.08	No
fin.	2	0	122109	-6771			1310	493	SLD 12	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.219	SLV 7	No
V_SLV	0.048	SLV 7	No
PF_SLU	0.27	SLU 84	No
V_SLU	0.046	SLU 84	No

Trave di accoppiamento 85

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	483	573	90	-1681.8	666.1	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1472	9711	103792	SLU 82	10.69	Si
fin.	3	-1102	16869	103792	SLU 82	6.15	Si
ini.	3	-1440	8369	103792	SLU 83	12.4	Si
fin.	3	-1104	17039	103792	SLU 83	6.09	Si
ini.	3	-1366	6633	103792	SLU 78	15.65	Si
fin.	3	-1095	16722	103792	SLU 78	6.21	Si
ini.	3	-1344	6320	103792	SLU 79	16.42	Si
fin.	3	-1075	16450	103792	SLU 79	6.31	Si
ini.	3	-1435	8215	103792	SLU 84	12.64	Si
fin.	3	-1105	17131	103792	SLU 84	6.06	Si
ini.	3	-1477	9865	103792	SLU 81	10.52	Si
fin.	3	-1100	16777	103792	SLU 81	6.19	Si
ini.	3	-1404	8129	103792	SLU 75	12.77	Si
fin.	3	-1092	16460	103792	SLU 75	6.31	Si
ini.	3	-1372	6788	103792	SLU 77	15.29	Si
fin.	3	-1094	16631	103792	SLU 77	6.24	Si
ini.	3	-1339	6166	103792	SLU 80	16.83	Si
fin.	3	-1077	16542	103792	SLU 80	6.27	Si
ini.	3	-1409	8284	103792	SLU 74	12.53	Si
fin.	3	-1090	16369	103792	SLU 74	6.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	9711	-1819			970	365	SLU 82	0.2	No
fin.	3	0	16869	2970			970	365	SLU 82	0.12	No
ini.	3	0	6166	-1667			970	365	SLU 80	0.22	No
fin.	3	0	16542	3008			970	365	SLU 80	0.12	No
ini.	3	0	9865	-1826			970	365	SLU 81	0.2	No
fin.	3	0	16777	2965			970	365	SLU 81	0.12	No
ini.	3	0	6633	-1715			970	365	SLU 78	0.21	No
fin.	3	0	16722	3057			970	365	SLU 78	0.12	No
ini.	3	0	8215	-1777			970	365	SLU 84	0.21	No
fin.	3	0	17131	3035			970	365	SLU 84	0.12	No
ini.	3	0	8369	-1784			970	365	SLU 83	0.2	No
fin.	3	0	17039	3030			970	365	SLU 83	0.12	No
ini.	3	0	6320	-1674			970	365	SLU 79	0.22	No
fin.	3	0	16450	3003			970	365	SLU 79	0.12	No
ini.	3	0	8129	-1757			970	365	SLU 75	0.21	No
fin.	3	0	16460	2992			970	365	SLU 75	0.12	No
ini.	3	0	6788	-1722			970	365	SLU 77	0.21	No
fin.	3	0	16631	3052			970	365	SLU 77	0.12	No
ini.	3	0	8284	-1763			970	365	SLU 74	0.21	No
fin.	3	0	16369	2987			970	365	SLU 74	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	787	-107598	121694	SLV 3	1.13	Si
fin.	2	-5882	120914	121694	SLV 3	1.01	Si
ini.	2	-1963	58189	121694	SLD 16	2.09	Si
fin.	2	1132	-32528	121694	SLD 16	3.74	Si
ini.	2	-3264	127809	121694	SLV 15	0.95	No
fin.	2	3670	-90624	121694	SLV 15	1.34	Si
ini.	2	1266	-115013	121694	SLV 2	1.06	Si
fin.	2	-5209	112456	121694	SLV 2	1.08	Si
ini.	2	787	-107598	121694	SLV 4	1.13	Si
fin.	2	-5882	120914	121694	SLV 4	1.01	Si
ini.	2	-3264	127809	121694	SLV 16	0.95	No
fin.	2	3670	-90624	121694	SLV 16	1.34	Si
ini.	2	1266	-115013	121694	SLV 1	1.06	Si
fin.	2	-5209	112456	121694	SLV 1	1.08	Si
ini.	2	-2786	120393	121694	SLV 13	1.01	Si
fin.	2	4343	-99082	121694	SLV 13	1.23	Si
ini.	2	-2786	120393	121694	SLV 14	1.01	Si
fin.	2	4343	-99082	121694	SLV 14	1.23	Si
ini.	2	-1963	58189	121694	SLD 15	2.09	Si
fin.	2	1132	-32528	121694	SLD 15	3.74	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-115013	4397			1456	548	SLV 2	0.12	No
fin.	2	0	112456	8144			1456	548	SLV 2	0.07	No
ini.	2	0	127809	-6882			1456	548	SLV 16	0.08	No
fin.	2	0	-90624	-4033			1456	548	SLV 16	0.14	No
ini.	2	0	127809	-6882			1456	548	SLV 15	0.08	No
fin.	2	0	-90624	-4033			1456	548	SLV 15	0.14	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	120393	-6530			1456	548	SLV 14	0.08	No
fin.	2	0	-99082	-4687			1456	548	SLV 14	0.12	No
ini.	2	0	-115013	4397			1456	548	SLV 1	0.12	No
fin.	2	0	112456	8144			1456	548	SLV 1	0.07	No
ini.	2	0	-16554	-190			1456	548	SLV 7	2.88	Si
fin.	2	0	56743	5071			1456	548	SLV 7	0.11	No
ini.	2	0	-107598	4045			1456	548	SLV 3	0.14	No
fin.	2	0	120914	8799			1456	548	SLV 3	0.06	No
ini.	2	0	-107598	4045			1456	548	SLV 4	0.14	No
fin.	2	0	120914	8799			1456	548	SLV 4	0.06	No
ini.	2	0	-16554	-190			1456	548	SLV 8	2.88	Si
fin.	2	0	56743	5071			1456	548	SLV 8	0.11	No
ini.	2	0	120393	-6530			1456	548	SLV 13	0.08	No
fin.	2	0	-99082	-4687			1456	548	SLV 13	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.952	SLV 15	No
V_SLV	0.062	SLV 3	No
PF_SLU	6.059	SLU 84	Si
V_SLU	0.119	SLU 78	No

Trave di accoppiamento 86

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	753	835	82	-1681.8	666.1	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-409	-18763	89792	SLU 71	4.79	Si
fin.	3	133	-1776	89792	SLU 71	50.56	Si
ini.	3	-411	-18868	89792	SLU 72	4.76	Si
fin.	3	139	-1652	89792	SLU 72	54.36	Si
ini.	3	-480	-20351	89792	SLU 80	4.41	Si
fin.	3	8	-2756	89792	SLU 80	32.58	Si
ini.	3	-405	-18658	89792	SLU 69	4.81	Si
fin.	3	85	-2332	89792	SLU 69	38.5	Si
ini.	3	-474	-20141	89792	SLU 77	4.46	Si
fin.	3	-45	-3436	89792	SLU 77	26.13	Si
ini.	3	-478	-20246	89792	SLU 79	4.44	Si
fin.	3	3	-2880	89792	SLU 79	31.18	Si
ini.	3	-407	-18763	89792	SLU 70	4.79	Si
fin.	3	91	-2208	89792	SLU 70	40.67	Si
ini.	3	-476	-20246	89792	SLU 78	4.43	Si
fin.	3	-40	-3312	89792	SLU 78	27.11	Si
ini.	3	-472	-18783	89792	SLU 83	4.78	Si
fin.	3	-262	-5070	89792	SLU 83	17.71	Si
ini.	3	-474	-18888	89792	SLU 84	4.75	Si
fin.	3	-257	-4945	89792	SLU 84	18.16	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-16790	2691			806	303	SLU 82	0.11	No
fin.	3	0	-6662	-3156			806	303	SLU 82	0.1	No
ini.	3	0	-18888	2746			806	303	SLU 84	0.11	No
fin.	3	0	-4945	-2931			806	303	SLU 84	0.1	No
ini.	3	0	-14622	2377			806	303	SLU 61	0.13	No
fin.	3	0	-6300	-2848			806	303	SLU 61	0.11	No
ini.	3	0	-18148	2639			806	303	SLU 75	0.11	No
fin.	3	0	-5028	-2839			806	303	SLU 75	0.11	No
ini.	3	0	-16685	2685			806	303	SLU 81	0.11	No
fin.	3	0	-6786	-3162			806	303	SLU 81	0.1	No
ini.	3	0	-14395	2332			806	303	SLU 39	0.13	No
fin.	3	0	-5763	-2736			806	303	SLU 39	0.11	No
ini.	3	0	-14517	2372			806	303	SLU 60	0.13	No
fin.	3	0	-6424	-2855			806	303	SLU 60	0.11	No
ini.	3	0	-16225	2551			806	303	SLU 73	0.12	No
fin.	3	0	-6106	-2955			806	303	SLU 73	0.1	No
ini.	3	0	-18783	2740			806	303	SLU 83	0.11	No
fin.	3	0	-5070	-2937			806	303	SLU 83	0.1	No
ini.	3	0	-18043	2633			806	303	SLU 74	0.12	No
fin.	3	0	-5153	-2846			806	303	SLU 74	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1547	-59787	107694	SLD 4	1.8	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	860	27588	107694	SLD 4	3.9	Si
ini.	2	-1547	-59787	107694	SLD 3	1.8	Si
fin.	2	860	27588	107694	SLD 3	3.9	Si
ini.	2	2317	93151	107694	SLV 16	1.16	Si
fin.	2	-3243	-87283	107694	SLV 16	1.23	Si
ini.	2	2742	102680	107694	SLV 14	1.05	Si
fin.	2	-2845	-78409	107694	SLV 14	1.37	Si
ini.	2	-3270	-124984	107694	SLV 4	0.86	No
fin.	2	2340	69924	107694	SLV 4	1.54	Si
ini.	2	-3270	-124984	107694	SLV 3	0.86	No
fin.	2	2340	69924	107694	SLV 3	1.54	Si
ini.	2	-2845	-115455	107694	SLV 1	0.93	No
fin.	2	2738	78798	107694	SLV 1	1.37	Si
ini.	2	-2845	-115455	107694	SLV 2	0.93	No
fin.	2	2738	78798	107694	SLV 2	1.37	Si
ini.	2	2742	102680	107694	SLV 13	1.05	Si
fin.	2	-2845	-78409	107694	SLV 13	1.37	Si
ini.	2	2317	93151	107694	SLV 15	1.16	Si
fin.	2	-3243	-87283	107694	SLV 15	1.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	-59753	4171			1208	455	SLV 7	0.11	No
fin.	2	0	4549	-1010			1208	455	SLV 7	0.45	No
ini.	2	0	102680	-3898			1208	455	SLV 14	0.12	No
fin.	2	0	-78409	-6263			1208	455	SLV 14	0.07	No
ini.	2	0	-115455	6845			1208	455	SLV 1	0.07	No
fin.	2	0	78798	2473			1208	455	SLV 1	0.18	No
ini.	2	0	-124984	7346			1208	455	SLV 4	0.06	No
fin.	2	0	69924	2277			1208	455	SLV 4	0.2	No
ini.	2	0	93151	-3397			1208	455	SLV 16	0.13	No
fin.	2	0	-87283	-6460			1208	455	SLV 16	0.07	No
ini.	2	0	-115455	6845			1208	455	SLV 2	0.07	No
fin.	2	0	78798	2473			1208	455	SLV 2	0.18	No
ini.	2	0	-59753	4171			1208	455	SLV 8	0.11	No
fin.	2	0	4549	-1010			1208	455	SLV 8	0.45	No
ini.	2	0	102680	-3898			1208	455	SLV 13	0.12	No
fin.	2	0	-78409	-6263			1208	455	SLV 13	0.07	No
ini.	2	0	-124984	7346			1208	455	SLV 3	0.06	No
fin.	2	0	69924	2277			1208	455	SLV 3	0.2	No
ini.	2	0	93151	-3397			1208	455	SLV 15	0.13	No
fin.	2	0	-87283	-6460			1208	455	SLV 15	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.862	SLV 3	No
V_SLV	0.062	SLV 3	No
PF_SLU	4.412	SLU 80	Si
V_SLU	0.096	SLU 81	No

Trave di accoppiamento 87

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	483	573	90	-1193.8	666.1	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1689	19779	103792	SLU 60	5.25	Si
fin.	3	-1740	19506	103792	SLU 60	5.32	Si
ini.	3	-1709	19931	103792	SLU 75	5.21	Si
fin.	3	-1758	19157	103792	SLU 75	5.42	Si
ini.	3	-1751	20542	103792	SLU 84	5.05	Si
fin.	3	-1804	19761	103792	SLU 84	5.25	Si
ini.	3	-1750	20650	103792	SLU 73	5.03	Si
fin.	3	-1792	19894	103792	SLU 73	5.22	Si
ini.	3	-1684	19748	103792	SLU 61	5.26	Si
fin.	3	-1736	19491	103792	SLU 61	5.33	Si
ini.	3	-1840	21857	103792	SLU 82	4.75	Si
fin.	3	-1886	21111	103792	SLU 82	4.92	Si
ini.	3	-1755	20572	103792	SLU 83	5.05	Si
fin.	3	-1808	19776	103792	SLU 83	5.25	Si
ini.	3	-1660	19334	103792	SLU 76	5.37	Si
fin.	3	-1710	18543	103792	SLU 76	5.6	Si
ini.	3	-1714	19961	103792	SLU 74	5.2	Si
fin.	3	-1762	19173	103792	SLU 74	5.41	Si
ini.	3	-1845	21888	103792	SLU 81	4.74	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1890	21127	103792	SLU 81	4.91	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	18039	-2496			970	365	SLU 80	0.15	No
fin.	3	0	17203	2441			970	365	SLU 80	0.15	No
ini.	3	0	20542	-2518			970	365	SLU 84	0.15	No
fin.	3	0	19761	2455			970	365	SLU 84	0.15	No
ini.	3	0	18616	-2538			970	365	SLU 78	0.14	No
fin.	3	0	17807	2482			970	365	SLU 78	0.15	No
ini.	3	0	21857	-2463			970	365	SLU 82	0.15	No
fin.	3	0	21111	2393			970	365	SLU 82	0.15	No
ini.	3	0	18646	-2541			970	365	SLU 77	0.14	No
fin.	3	0	17822	2484			970	365	SLU 77	0.15	No
ini.	3	0	20572	-2521			970	365	SLU 83	0.14	No
fin.	3	0	19776	2458			970	365	SLU 83	0.15	No
ini.	3	0	19931	-2483			970	365	SLU 75	0.15	No
fin.	3	0	19157	2419			970	365	SLU 75	0.15	No
ini.	3	0	18070	-2500			970	365	SLU 79	0.15	No
fin.	3	0	17219	2444			970	365	SLU 79	0.15	No
ini.	3	0	19961	-2487			970	365	SLU 74	0.15	No
fin.	3	0	19173	2422			970	365	SLU 74	0.15	No
ini.	3	0	21888	-2466			970	365	SLU 81	0.15	No
fin.	3	0	21127	2395			970	365	SLU 81	0.15	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-5389	132076	121694	SLV 15	0.92	No
fin.	2	2444	-97068	121694	SLV 15	1.25	Si
ini.	2	-4853	122852	121694	SLV 14	0.99	No
fin.	2	3008	-106353	121694	SLV 14	1.14	Si
ini.	2	2416	-94611	121694	SLV 3	1.29	Si
fin.	2	-5504	133564	121694	SLV 3	0.91	No
ini.	2	339	-32384	121694	SLD 3	3.76	Si
fin.	2	-3064	64845	121694	SLD 3	1.88	Si
ini.	2	-4853	122852	121694	SLV 13	0.99	No
fin.	2	3008	-106353	121694	SLV 13	1.14	Si
ini.	2	2952	-103834	121694	SLV 2	1.17	Si
fin.	2	-4939	124278	121694	SLV 2	0.98	No
ini.	2	-5389	132076	121694	SLV 16	0.92	No
fin.	2	2444	-97068	121694	SLV 16	1.25	Si
ini.	2	339	-32384	121694	SLD 4	3.76	Si
fin.	2	-3064	64845	121694	SLD 4	1.88	Si
ini.	2	2952	-103834	121694	SLV 1	1.17	Si
fin.	2	-4939	124278	121694	SLV 1	0.98	No
ini.	2	2416	-94611	121694	SLV 4	1.29	Si
fin.	2	-5504	133564	121694	SLV 4	0.91	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-94611	4437			1456	548	SLV 3	0.12	No
fin.	2	0	133564	8325			1456	548	SLV 3	0.07	No
ini.	2	0	122852	-7849			1456	548	SLV 13	0.07	No
fin.	2	0	-106353	-5016			1456	548	SLV 13	0.11	No
ini.	2	0	-4510	-665			1456	548	SLV 7	0.82	No
fin.	2	0	63676	4644			1456	548	SLV 7	0.12	No
ini.	2	0	-4510	-665			1456	548	SLV 8	0.82	No
fin.	2	0	63676	4644			1456	548	SLV 8	0.12	No
ini.	2	0	132076	-8377			1456	548	SLV 15	0.07	No
fin.	2	0	-97068	-4364			1456	548	SLV 15	0.13	No
ini.	2	0	122852	-7849			1456	548	SLV 14	0.07	No
fin.	2	0	-106353	-5016			1456	548	SLV 14	0.11	No
ini.	2	0	132076	-8377			1456	548	SLV 16	0.07	No
fin.	2	0	-97068	-4364			1456	548	SLV 16	0.13	No
ini.	2	0	-94611	4437			1456	548	SLV 4	0.12	No
fin.	2	0	133564	8325			1456	548	SLV 4	0.07	No
ini.	2	0	-103834	4966			1456	548	SLV 2	0.11	No
fin.	2	0	124278	7674			1456	548	SLV 2	0.07	No
ini.	2	0	-103834	4966			1456	548	SLV 1	0.11	No
fin.	2	0	124278	7674			1456	548	SLV 1	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.911	SLV 3	No
V_SLV	0.065	SLV 15	No
PF_SLU	4.742	SLU 81	Si
V_SLU	0.144	SLU 77	No

Trave di accoppiamento 88

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	753	835	82	-1193.8	666.1	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-870	-16152	89792	SLU 84	5.56	Si
fin.	3	-1020	-19891	89792	SLU 84	4.51	Si
ini.	3	-872	-16180	89792	SLU 83	5.55	Si
fin.	3	-1022	-19922	89792	SLU 83	4.51	Si
ini.	3	-841	-15644	89792	SLU 75	5.74	Si
fin.	3	-985	-19276	89792	SLU 75	4.66	Si
ini.	3	-980	-16106	89792	SLU 73	5.57	Si
fin.	3	-1096	-19370	89792	SLU 73	4.64	Si
ini.	3	-1066	-17184	89792	SLU 82	5.23	Si
fin.	3	-1184	-20501	89792	SLU 82	4.38	Si
ini.	3	-646	-14639	89792	SLU 77	6.13	Si
fin.	3	-823	-18698	89792	SLU 77	4.8	Si
ini.	3	-645	-14611	89792	SLU 78	6.15	Si
fin.	3	-822	-18667	89792	SLU 78	4.81	Si
ini.	3	-1068	-17213	89792	SLU 81	5.22	Si
fin.	3	-1185	-20532	89792	SLU 81	4.37	Si
ini.	3	-784	-15073	89792	SLU 76	5.96	Si
fin.	3	-933	-18761	89792	SLU 76	4.79	Si
ini.	3	-842	-15672	89792	SLU 74	5.73	Si
fin.	3	-986	-19308	89792	SLU 74	4.65	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-15644	2856			806	303	SLU 75	0.11	No
fin.	3	0	-19276	-3028			806	303	SLU 75	0.1	No
ini.	3	0	-14060	2842			806	303	SLU 80	0.11	No
fin.	3	0	-18172	-3055			806	303	SLU 80	0.1	No
ini.	3	0	-17184	2913			806	303	SLU 82	0.1	No
fin.	3	0	-20501	-3056			806	303	SLU 82	0.1	No
ini.	3	0	-16180	2949			806	303	SLU 83	0.1	No
fin.	3	0	-19922	-3127			806	303	SLU 83	0.1	No
ini.	3	0	-16152	2948			806	303	SLU 84	0.1	No
fin.	3	0	-19891	-3125			806	303	SLU 84	0.1	No
ini.	3	0	-15672	2857			806	303	SLU 74	0.11	No
fin.	3	0	-19308	-3030			806	303	SLU 74	0.1	No
ini.	3	0	-14611	2890			806	303	SLU 78	0.1	No
fin.	3	0	-18667	-3097			806	303	SLU 78	0.1	No
ini.	3	0	-14088	2843			806	303	SLU 79	0.11	No
fin.	3	0	-18203	-3057			806	303	SLU 79	0.1	No
ini.	3	0	-17213	2915			806	303	SLU 81	0.1	No
fin.	3	0	-20532	-3058			806	303	SLU 81	0.1	No
ini.	3	0	-14639	2892			806	303	SLU 77	0.1	No
fin.	3	0	-18698	-3099			806	303	SLU 77	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4150	-108426	107694	SLV 2	0.99	No
fin.	2	2854	98056	107694	SLV 2	1.1	Si
ini.	2	-4385	-119953	107694	SLV 4	0.9	No
fin.	2	2681	83706	107694	SLV 4	1.29	Si
ini.	2	2865	86619	107694	SLV 15	1.24	Si
fin.	2	-4302	-124426	107694	SLV 15	0.87	No
ini.	2	3100	98147	107694	SLV 13	1.1	Si
fin.	2	-4128	-110076	107694	SLV 13	0.98	No
ini.	2	3100	98147	107694	SLV 14	1.1	Si
fin.	2	-4128	-110076	107694	SLV 14	0.98	No
ini.	2	54	869	107694	SLV 12	123.86	Si
fin.	2	-2060	-68321	107694	SLV 12	1.58	Si
ini.	2	-4385	-119953	107694	SLV 3	0.9	No
fin.	2	2681	83706	107694	SLV 3	1.29	Si
ini.	2	2865	86619	107694	SLV 16	1.24	Si
fin.	2	-4302	-124426	107694	SLV 16	0.87	No
ini.	2	-4150	-108426	107694	SLV 1	0.99	No
fin.	2	2854	98056	107694	SLV 1	1.1	Si
ini.	2	54	869	107694	SLV 11	123.86	Si
fin.	2	-2060	-68321	107694	SLV 11	1.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	86619	-3640			1208	455	SLV 16	0.12	No
fin.	2	0	-124426	-7951			1208	455	SLV 16	0.06	No
ini.	2	0	-119953	7789			1208	455	SLV 3	0.06	No
fin.	2	0	83706	3579			1208	455	SLV 3	0.13	No
ini.	2	0	30858	-462			1208	455	SLD 15	0.98	No
fin.	2	0	-60666	-4552			1208	455	SLD 15	0.1	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	86619	-3640			1208	455	SLV 15	0.12	No
fin.	2	0	-124426	-7951			1208	455	SLV 15	0.06	No
ini.	2	0	98147	-3966			1208	455	SLV 14	0.11	No
fin.	2	0	-110076	-7611			1208	455	SLV 14	0.06	No
ini.	2	0	30858	-462			1208	455	SLD 16	0.98	No
fin.	2	0	-60666	-4552			1208	455	SLD 16	0.1	No
ini.	2	0	-119953	7789			1208	455	SLV 4	0.06	No
fin.	2	0	83706	3579			1208	455	SLV 4	0.13	No
ini.	2	0	-108426	7463			1208	455	SLV 1	0.06	No
fin.	2	0	98056	3918			1208	455	SLV 1	0.12	No
ini.	2	0	-108426	7463			1208	455	SLV 2	0.06	No
fin.	2	0	98056	3918			1208	455	SLV 2	0.12	No
ini.	2	0	98147	-3966			1208	455	SLV 13	0.11	No
fin.	2	0	-110076	-7611			1208	455	SLV 13	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.866	SLV 15	No
V_SLV	0.057	SLV 15	No
PF_SLU	4.373	SLU 81	Si
V_SLU	0.097	SLU 83	No

Trave di accoppiamento 89

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	483	573	90	-705.8	666.1	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1480	11443	103792	SLU 59	9.07	Si
fin.	3	-1290	-4562	103792	SLU 59	22.75	Si
ini.	3	-1618	12044	103792	SLU 80	8.62	Si
fin.	3	-1419	-4845	103792	SLU 80	21.42	Si
ini.	3	-1486	11895	103792	SLU 71	8.73	Si
fin.	3	-1284	-5132	103792	SLU 71	20.23	Si
ini.	3	-1501	11559	103792	SLU 69	8.98	Si
fin.	3	-1310	-4612	103792	SLU 69	22.5	Si
ini.	3	-1633	11443	103792	SLU 77	9.07	Si
fin.	3	-1451	-4120	103792	SLU 77	25.19	Si
ini.	3	-1618	11779	103792	SLU 79	8.81	Si
fin.	3	-1425	-4639	103792	SLU 79	22.37	Si
ini.	3	-1486	12160	103792	SLU 72	8.54	Si
fin.	3	-1277	-5337	103792	SLU 72	19.45	Si
ini.	3	-1633	11707	103792	SLU 78	8.87	Si
fin.	3	-1444	-4326	103792	SLU 78	23.99	Si
ini.	3	-1500	11823	103792	SLU 70	8.78	Si
fin.	3	-1303	-4818	103792	SLU 70	21.54	Si
ini.	3	-1347	11559	103792	SLU 51	8.98	Si
fin.	3	-1149	-5054	103792	SLU 51	20.54	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	8916	-1352			970	365	SLU 83	0.27	No
fin.	3	0	-1870	1510			970	365	SLU 83	0.24	No
ini.	3	0	6102	-1213			970	365	SLU 81	0.3	No
fin.	3	0	689	1547			970	365	SLU 81	0.24	No
ini.	3	0	6593	-1188			970	365	SLU 73	0.31	No
fin.	3	0	135	1468			970	365	SLU 73	0.25	No
ini.	3	0	11707	-1467			970	365	SLU 78	0.25	No
fin.	3	0	-4326	1444			970	365	SLU 78	0.25	No
ini.	3	0	8629	-1322			970	365	SLU 74	0.28	No
fin.	3	0	-1562	1493			970	365	SLU 74	0.24	No
ini.	3	0	6367	-1219			970	365	SLU 82	0.3	No
fin.	3	0	483	1534			970	365	SLU 82	0.24	No
ini.	3	0	9180	-1358			970	365	SLU 84	0.27	No
fin.	3	0	-2076	1497			970	365	SLU 84	0.24	No
ini.	3	0	8894	-1327			970	365	SLU 75	0.28	No
fin.	3	0	-1767	1481			970	365	SLU 75	0.25	No
ini.	3	0	12044	-1463			970	365	SLU 80	0.25	No
fin.	3	0	-4845	1403			970	365	SLU 80	0.26	No
ini.	3	0	11443	-1461			970	365	SLU 77	0.25	No
fin.	3	0	-4120	1456			970	365	SLU 77	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2054	89008	121694	SLV 10	1.37	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	213	-54776	121694	SLV 10	2.22	Si
ini.	2	-2054	89008	121694	SLV 9	1.37	Si
fin.	2	213	-54776	121694	SLV 9	2.22	Si
ini.	2	1960	-168813	121694	SLV 1	0.72	No
fin.	2	-2366	124212	121694	SLV 1	0.98	No
ini.	2	2000	-186599	121694	SLV 4	0.65	No
fin.	2	-2828	133989	121694	SLV 4	0.91	No
ini.	2	-4105	178125	121694	SLV 16	0.68	No
fin.	2	309	-123827	121694	SLV 16	0.98	No
ini.	2	1960	-168813	121694	SLV 2	0.72	No
fin.	2	-2366	124212	121694	SLV 2	0.98	No
ini.	2	-4145	195911	121694	SLV 13	0.62	No
fin.	2	772	-133605	121694	SLV 13	0.91	No
ini.	2	-4105	178125	121694	SLV 15	0.68	No
fin.	2	309	-123827	121694	SLV 15	0.98	No
ini.	2	2000	-186599	121694	SLV 3	0.65	No
fin.	2	-2828	133989	121694	SLV 3	0.91	No
ini.	2	-4145	195911	121694	SLV 14	0.62	No
fin.	2	772	-133605	121694	SLV 14	0.91	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	178125	-6996			1456	548	SLV 15	0.08	No
fin.	2	0	-123827	-3997			1456	548	SLV 15	0.14	No
ini.	2	0	195911	-6815			1456	548	SLV 13	0.08	No
fin.	2	0	-133605	-4463			1456	548	SLV 13	0.12	No
ini.	2	0	78926	-3472			1456	548	SLD 15	0.16	No
fin.	2	0	-52929	-1110			1456	548	SLD 15	0.49	No
ini.	2	0	195911	-6815			1456	548	SLV 14	0.08	No
fin.	2	0	-133605	-4463			1456	548	SLV 14	0.12	No
ini.	2	0	178125	-6996			1456	548	SLV 16	0.08	No
fin.	2	0	-123827	-3997			1456	548	SLV 16	0.14	No
ini.	2	0	78926	-3472			1456	548	SLD 16	0.16	No
fin.	2	0	-52929	-1110			1456	548	SLD 16	0.49	No
ini.	2	0	-186599	5134			1456	548	SLV 3	0.11	No
fin.	2	0	133989	6565			1456	548	SLV 3	0.08	No
ini.	2	0	-186599	5134			1456	548	SLV 4	0.11	No
fin.	2	0	133989	6565			1456	548	SLV 4	0.08	No
ini.	2	0	-168813	5315			1456	548	SLV 1	0.1	No
fin.	2	0	124212	6099			1456	548	SLV 1	0.09	No
ini.	2	0	-168813	5315			1456	548	SLV 2	0.1	No
fin.	2	0	124212	6099			1456	548	SLV 2	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.621	SLV 13	No
V_SLV	0.078	SLV 15	No
PF_SLU	8.536	SLU 72	Si
V_SLU	0.236	SLU 81	No

Trave di accoppiamento 90

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	753	835	82	-705.8	666.1	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	35	-107	89792	SLU 38	838.07	Si
fin.	3	-456	-19855	89792	SLU 38	4.52	Si
ini.	3	110	-140	89792	SLU 71	641.24	Si
fin.	3	-428	-20722	89792	SLU 71	4.33	Si
ini.	3	73	-572	89792	SLU 70	156.88	Si
fin.	3	-420	-20550	89792	SLU 70	4.37	Si
ini.	3	-55	-1680	89792	SLU 77	53.44	Si
fin.	3	-473	-21668	89792	SLU 77	4.14	Si
ini.	3	26	-607	89792	SLU 59	147.86	Si
fin.	3	-421	-19942	89792	SLU 59	4.5	Si
ini.	3	115	29	89792	SLU 72	3078.47	Si
fin.	3	-432	-20853	89792	SLU 72	4.31	Si
ini.	3	68	-742	89792	SLU 69	121.08	Si
fin.	3	-417	-20419	89792	SLU 69	4.4	Si
ini.	3	-7	-910	89792	SLU 80	98.72	Si
fin.	3	-488	-22102	89792	SLU 80	4.06	Si
ini.	3	-50	-1511	89792	SLU 78	59.42	Si
fin.	3	-477	-21799	89792	SLU 78	4.12	Si
ini.	3	-13	-1079	89792	SLU 79	83.24	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-484	-21971	89792	SLU 79	4.09	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1680	2936			806	303	SLU 77	0.1	No
fin.	3	0	-21668	-3043			806	303	SLU 77	0.1	No
ini.	3	0	-910	2836			806	303	SLU 80	0.11	No
fin.	3	0	-22102	-3032			806	303	SLU 80	0.1	No
ini.	3	0	-3304	3167			806	303	SLU 84	0.1	No
fin.	3	0	-19460	-2995			806	303	SLU 84	0.1	No
ini.	3	0	-5297	3300			806	303	SLU 82	0.09	No
fin.	3	0	-16282	-2816			806	303	SLU 82	0.11	No
ini.	3	0	-3473	3178			806	303	SLU 83	0.1	No
fin.	3	0	-19328	-2990			806	303	SLU 83	0.1	No
ini.	3	0	-1511	2926			806	303	SLU 78	0.1	No
fin.	3	0	-21799	-3048			806	303	SLU 78	0.1	No
ini.	3	0	-5466	3310			806	303	SLU 81	0.09	No
fin.	3	0	-16151	-2810			806	303	SLU 81	0.11	No
ini.	3	0	-3503	3058			806	303	SLU 75	0.1	No
fin.	3	0	-18622	-2869			806	303	SLU 75	0.11	No
ini.	3	0	-3673	3068			806	303	SLU 74	0.1	No
fin.	3	0	-18491	-2863			806	303	SLU 74	0.11	No
ini.	3	0	-4782	3093			806	303	SLU 73	0.1	No
fin.	3	0	-15834	-2676			806	303	SLU 73	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	915	28391	107694	SLD 16	3.79	Si
fin.	2	-1487	-58694	107694	SLD 16	1.83	Si
ini.	2	2827	78589	107694	SLV 13	1.37	Si
fin.	2	-2661	-115925	107694	SLV 13	0.93	No
ini.	2	-2877	-77443	107694	SLV 2	1.39	Si
fin.	2	2758	100778	107694	SLV 2	1.07	Si
ini.	2	2431	70693	107694	SLV 16	1.52	Si
fin.	2	-3193	-122645	107694	SLV 16	0.88	No
ini.	2	2431	70693	107694	SLV 15	1.52	Si
fin.	2	-3193	-122645	107694	SLV 15	0.88	No
ini.	2	-3273	-85338	107694	SLV 4	1.26	Si
fin.	2	2226	94059	107694	SLV 4	1.14	Si
ini.	2	915	28391	107694	SLD 15	3.79	Si
fin.	2	-1487	-58694	107694	SLD 15	1.83	Si
ini.	2	-3273	-85338	107694	SLV 3	1.26	Si
fin.	2	2226	94059	107694	SLV 3	1.14	Si
ini.	2	-2877	-77443	107694	SLV 1	1.39	Si
fin.	2	2758	100778	107694	SLV 1	1.07	Si
ini.	2	2827	78589	107694	SLV 14	1.37	Si
fin.	2	-2661	-115925	107694	SLV 14	0.93	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	70693	-2009			1208	455	SLV 16	0.23	No
fin.	2	0	-122645	-7307			1208	455	SLV 16	0.06	No
ini.	2	0	-77443	6184			1208	455	SLV 2	0.07	No
fin.	2	0	100778	3682			1208	455	SLV 2	0.12	No
ini.	2	0	28391	334			1208	455	SLD 15	1.36	Si
fin.	2	0	-58694	-4161			1208	455	SLD 15	0.11	No
ini.	2	0	-85338	6485			1208	455	SLV 4	0.07	No
fin.	2	0	94059	3319			1208	455	SLV 4	0.14	No
ini.	2	0	78589	-2310			1208	455	SLV 14	0.2	No
fin.	2	0	-115925	-6944			1208	455	SLV 14	0.07	No
ini.	2	0	28391	334			1208	455	SLD 16	1.36	Si
fin.	2	0	-58694	-4161			1208	455	SLD 16	0.11	No
ini.	2	0	70693	-2009			1208	455	SLV 15	0.23	No
fin.	2	0	-122645	-7307			1208	455	SLV 15	0.06	No
ini.	2	0	-77443	6184			1208	455	SLV 1	0.07	No
fin.	2	0	100778	3682			1208	455	SLV 1	0.12	No
ini.	2	0	-85338	6485			1208	455	SLV 3	0.07	No
fin.	2	0	94059	3319			1208	455	SLV 3	0.14	No
ini.	2	0	78589	-2310			1208	455	SLV 13	0.2	No
fin.	2	0	-115925	-6944			1208	455	SLV 13	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.878	SLV 15	No
V_SLV	0.062	SLV 15	No
PF_SLU	4.063	SLU 80	Si
V_SLU	0.092	SLU 81	No

Trave di accoppiamento 91

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1986.8	104.6	693	835	142	-2066.8	104.6	693	835	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	797	103476	194792	SLU 77	1.88	Si
fin.	3	797	-69310	194792	SLU 77	2.81	Si
ini.	3	656	99285	194792	SLU 71	1.96	Si
fin.	3	656	-74018	194792	SLU 71	2.63	Si
ini.	3	747	94280	194792	SLU 35	2.07	Si
fin.	3	747	-61299	194792	SLU 35	3.18	Si
ini.	3	763	103704	194792	SLU 79	1.88	Si
fin.	3	763	-69891	194792	SLU 79	2.79	Si
ini.	3	600	93293	194792	SLU 72	2.09	Si
fin.	3	600	-68530	194792	SLU 72	2.84	Si
ini.	3	707	97713	194792	SLU 80	1.99	Si
fin.	3	707	-64403	194792	SLU 80	3.02	Si
ini.	3	713	94509	194792	SLU 37	2.06	Si
fin.	3	713	-61880	194792	SLU 37	3.15	Si
ini.	3	634	93064	194792	SLU 70	2.09	Si
fin.	3	634	-67949	194792	SLU 70	2.87	Si
ini.	3	689	99056	194792	SLU 69	1.97	Si
fin.	3	689	-73437	194792	SLU 69	2.65	Si
ini.	3	741	97484	194792	SLU 78	2	Si
fin.	3	741	-63822	194792	SLU 78	3.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	94280	-1086			1531	576	SLU 35	0.53	No
fin.	3	0	-61299	-2837			1531	576	SLU 35	0.2	No
ini.	3	0	94509	-1096			1531	576	SLU 37	0.53	No
fin.	3	0	-61880	-2847			1531	576	SLU 37	0.2	No
ini.	3	0	103704	-1218			1531	576	SLU 79	0.47	No
fin.	3	0	-69891	-3168			1531	576	SLU 79	0.18	No
ini.	3	0	97713	-1075			1531	576	SLU 80	0.54	No
fin.	3	0	-64403	-3025			1531	576	SLU 80	0.19	No
ini.	3	0	99056	-1400			1531	576	SLU 69	0.41	No
fin.	3	0	-73437	-2959			1531	576	SLU 69	0.19	No
ini.	3	0	97484	-1065			1531	576	SLU 78	0.54	No
fin.	3	0	-63822	-3015			1531	576	SLU 78	0.19	No
ini.	3	0	89994	-760			1531	576	SLU 83	0.76	No
fin.	3	0	-53623	-2877			1531	576	SLU 83	0.2	No
ini.	3	0	103476	-1208			1531	576	SLU 77	0.48	No
fin.	3	0	-69310	-3158			1531	576	SLU 77	0.18	No
ini.	3	0	99285	-1410			1531	576	SLU 71	0.41	No
fin.	3	0	-74018	-2969			1531	576	SLU 71	0.19	No
ini.	3	0	93293	-1267			1531	576	SLU 72	0.45	No
fin.	3	0	-68530	-2826			1531	576	SLU 72	0.2	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	715	268019	212694	SLD 2	0.79	No
fin.	2	599	-249202	212694	SLD 2	0.85	No
ini.	2	1379	530519	212694	SLV 4	0.4	No
fin.	2	972	-509626	212694	SLV 4	0.42	No
ini.	2	1132	559490	212694	SLV 1	0.38	No
fin.	2	865	-540135	212694	SLV 1	0.39	No
ini.	2	1132	559490	212694	SLV 2	0.38	No
fin.	2	865	-540135	212694	SLV 2	0.39	No
ini.	2	715	268019	212694	SLD 1	0.79	No
fin.	2	599	-249202	212694	SLD 1	0.85	No
ini.	2	-329	-458023	212694	SLV 15	0.46	No
fin.	2	-61	475346	212694	SLV 15	0.45	No
ini.	2	-575	-429052	212694	SLV 14	0.5	No
fin.	2	-168	444837	212694	SLV 14	0.48	No
ini.	2	-329	-458023	212694	SLV 16	0.46	No
fin.	2	-61	475346	212694	SLV 16	0.45	No
ini.	2	1379	530519	212694	SLV 3	0.4	No
fin.	2	972	-509626	212694	SLV 3	0.42	No
ini.	2	-575	-429052	212694	SLV 13	0.5	No
fin.	2	-168	444837	212694	SLV 13	0.48	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	559490	-12987			2297	864	SLV 1	0.07	No
fin.	2	0	-540135	-14173			2297	864	SLV 1	0.06	No
ini.	2	0	-458023	12111			2297	864	SLV 15	0.07	No
fin.	2	0	475346	10819			2297	864	SLV 15	0.08	No
ini.	2	0	-429052	12051			2297	864	SLV 13	0.07	No
fin.	2	0	444837	10910			2297	864	SLV 13	0.08	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-429052	12051			2297	864	SLV 14	0.07	No
fin.	2	0	444837	10910			2297	864	SLV 14	0.08	No
ini.	2	0	530519	-12927			2297	864	SLV 4	0.07	No
fin.	2	0	-509626	-14264			2297	864	SLV 4	0.06	No
ini.	2	0	256382	-5781			2297	864	SLD 4	0.15	No
fin.	2	0	-236988	-7060			2297	864	SLD 4	0.12	No
ini.	2	0	256382	-5781			2297	864	SLD 3	0.15	No
fin.	2	0	-236988	-7060			2297	864	SLD 3	0.12	No
ini.	2	0	-458023	12111			2297	864	SLV 16	0.07	No
fin.	2	0	475346	10819			2297	864	SLV 16	0.08	No
ini.	2	0	559490	-12987			2297	864	SLV 2	0.07	No
fin.	2	0	-540135	-14173			2297	864	SLV 2	0.06	No
ini.	2	0	530519	-12927			2297	864	SLV 3	0.07	No
fin.	2	0	-509626	-14264			2297	864	SLV 3	0.06	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.38	SLV 1	No
V_SLV	0.061	SLV 3	No
PF_SLU	1.878	SLU 79	Si
V_SLU	0.182	SLU 79	No

Trave di accoppiamento 92

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1116.3	104.6	733	835	102	-1228.3	104.6	733	835	102	112	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1830	-101915	124792	SLU 77	1.22	Si
fin.	3	-1830	58324	124792	SLU 77	2.14	Si
ini.	3	-1888	-101402	124792	SLU 80	1.23	Si
fin.	3	-1888	59818	124792	SLU 80	2.09	Si
ini.	3	-1624	-93696	124792	SLU 35	1.33	Si
fin.	3	-1624	48038	124792	SLU 35	2.6	Si
ini.	3	-1524	-96845	124792	SLU 71	1.29	Si
fin.	3	-1524	66128	124792	SLU 71	1.89	Si
ini.	3	-1893	-100098	124792	SLU 78	1.25	Si
fin.	3	-1893	59092	124792	SLU 78	2.11	Si
ini.	3	-1619	-95000	124792	SLU 37	1.31	Si
fin.	3	-1619	48764	124792	SLU 37	2.56	Si
ini.	3	-1529	-95541	124792	SLU 69	1.31	Si
fin.	3	-1529	65403	124792	SLU 69	1.91	Si
ini.	3	-1593	-93724	124792	SLU 70	1.33	Si
fin.	3	-1593	66171	124792	SLU 70	1.89	Si
ini.	3	-1825	-103219	124792	SLU 79	1.21	Si
fin.	3	-1825	59050	124792	SLU 79	2.11	Si
ini.	3	-1588	-95028	124792	SLU 72	1.31	Si
fin.	3	-1588	66897	124792	SLU 72	1.87	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-96845	2137			1002	377	SLU 71	0.18	No
fin.	3	0	66128	753			1002	377	SLU 71	0.5	No
ini.	3	0	-92741	2217			1002	377	SLU 83	0.17	No
fin.	3	0	44696	237			1002	377	SLU 83	1.59	Si
ini.	3	0	-90924	2208			1002	377	SLU 84	0.17	No
fin.	3	0	45465	228			1002	377	SLU 84	1.66	Si
ini.	3	0	-101915	2328			1002	377	SLU 77	0.16	No
fin.	3	0	58324	527			1002	377	SLU 77	0.72	No
ini.	3	0	-100098	2319			1002	377	SLU 78	0.16	No
fin.	3	0	59092	518			1002	377	SLU 78	0.73	No
ini.	3	0	-86982	2112			1002	377	SLU 76	0.18	No
fin.	3	0	49011	310			1002	377	SLU 76	1.21	Si
ini.	3	0	-101402	2337			1002	377	SLU 80	0.16	No
fin.	3	0	59818	536			1002	377	SLU 80	0.7	No
ini.	3	0	-103219	2346			1002	377	SLU 79	0.16	No
fin.	3	0	59050	545			1002	377	SLU 79	0.69	No
ini.	3	0	-95541	2119			1002	377	SLU 69	0.18	No
fin.	3	0	65403	735			1002	377	SLU 69	0.51	No
ini.	3	0	-95028	2128			1002	377	SLU 72	0.18	No
fin.	3	0	66897	744			1002	377	SLU 72	0.51	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-580	-303983	142694	SLV 9	0.47	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-642	350984	142694	SLV 9	0.41	No
ini.	2	-2695	133156	142694	SLV 2	1.07	Si
fin.	2	-2647	-430960	142694	SLV 2	0.33	No
ini.	2	366	-238007	142694	SLV 16	0.6	No
fin.	2	318	494043	142694	SLV 16	0.29	No
ini.	2	-2764	240982	142694	SLV 4	0.59	No
fin.	2	-2690	-530423	142694	SLV 4	0.27	No
ini.	2	-2764	240982	142694	SLV 3	0.59	No
fin.	2	-2690	-530423	142694	SLV 3	0.27	No
ini.	2	-2695	133156	142694	SLV 1	1.07	Si
fin.	2	-2647	-430960	142694	SLV 1	0.33	No
ini.	2	435	-345832	142694	SLV 13	0.41	No
fin.	2	361	593506	142694	SLV 13	0.24	No
ini.	2	366	-238007	142694	SLV 15	0.6	No
fin.	2	318	494043	142694	SLV 15	0.29	No
ini.	2	-580	-303983	142694	SLV 10	0.47	No
fin.	2	-642	350984	142694	SLV 10	0.41	No
ini.	2	435	-345832	142694	SLV 14	0.41	No
fin.	2	361	593506	142694	SLV 14	0.24	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	133156	-4600			1503	565	SLV 1	0.12	No
fin.	2	0	-430960	-5733			1503	565	SLV 1	0.1	No
ini.	2	0	-303983	6427			1503	565	SLV 10	0.09	No
fin.	2	0	350984	5221			1503	565	SLV 10	0.11	No
ini.	2	0	240982	-6439			1503	565	SLV 3	0.09	No
fin.	2	0	-530423	-7534			1503	565	SLV 3	0.08	No
ini.	2	0	-238007	7223			1503	565	SLV 15	0.08	No
fin.	2	0	494043	6084			1503	565	SLV 15	0.09	No
ini.	2	0	-238007	7223			1503	565	SLV 16	0.08	No
fin.	2	0	494043	6084			1503	565	SLV 16	0.09	No
ini.	2	0	-303983	6427			1503	565	SLV 9	0.09	No
fin.	2	0	350984	5221			1503	565	SLV 9	0.11	No
ini.	2	0	240982	-6439			1503	565	SLV 4	0.09	No
fin.	2	0	-530423	-7534			1503	565	SLV 4	0.08	No
ini.	2	0	-345832	9063			1503	565	SLV 13	0.06	No
fin.	2	0	593506	7885			1503	565	SLV 13	0.07	No
ini.	2	0	-345832	9063			1503	565	SLV 14	0.06	No
fin.	2	0	593506	7885			1503	565	SLV 14	0.07	No
ini.	2	0	133156	-4600			1503	565	SLV 2	0.12	No
fin.	2	0	-430960	-5733			1503	565	SLV 2	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.24	SLV 13	No
V_SLV	0.062	SLV 13	No
PF_SLU	1.209	SLU 79	Si
V_SLU	0.161	SLU 79	No

Trave di accoppiamento 93

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-938.6	104.6	733	835	102	-1046.6	104.6	733	835	102	108	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1406	11250	124792	SLU 77	11.09	Si
fin.	3	-1406	-50840	124792	SLU 77	2.45	Si
ini.	3	-1247	24372	124792	SLU 37	5.12	Si
fin.	3	-1247	-55529	124792	SLU 37	2.25	Si
ini.	3	-1307	19381	124792	SLU 38	6.44	Si
fin.	3	-1307	-51719	124792	SLU 38	2.41	Si
ini.	3	-1305	18086	124792	SLU 36	6.9	Si
fin.	3	-1305	-49999	124792	SLU 36	2.5	Si
ini.	3	-1408	12544	124792	SLU 79	9.95	Si
fin.	3	-1408	-52561	124792	SLU 79	2.37	Si
ini.	3	-996	17723	124792	SLU 27	7.04	Si
fin.	3	-996	-49251	124792	SLU 27	2.53	Si
ini.	3	-1469	7554	124792	SLU 80	16.52	Si
fin.	3	-1469	-48752	124792	SLU 80	2.56	Si
ini.	3	-1160	7190	124792	SLU 71	17.36	Si
fin.	3	-1160	-48004	124792	SLU 71	2.6	Si
ini.	3	-998	19017	124792	SLU 29	6.56	Si
fin.	3	-998	-50972	124792	SLU 29	2.45	Si
ini.	3	-1245	23077	124792	SLU 35	5.41	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1245	-53808	124792	SLU 35	2.32	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	13050	790			1039	391	SLU 42	0.49	No
fin.	3	0	-41786	-1729			1039	391	SLU 42	0.23	No
ini.	3	0	24372	434			1039	391	SLU 37	0.9	No
fin.	3	0	-55529	-1845			1039	391	SLU 37	0.21	No
ini.	3	0	18040	709			1039	391	SLU 41	0.55	No
fin.	3	0	-45596	-1810			1039	391	SLU 41	0.22	No
ini.	3	0	18086	543			1039	391	SLU 36	0.72	No
fin.	3	0	-49999	-1735			1039	391	SLU 36	0.23	No
ini.	3	0	11250	712			1039	391	SLU 77	0.55	No
fin.	3	0	-50840	-1787			1039	391	SLU 77	0.22	No
ini.	3	0	19381	515			1039	391	SLU 38	0.76	No
fin.	3	0	-51719	-1763			1039	391	SLU 38	0.22	No
ini.	3	0	7554	765			1039	391	SLU 80	0.51	No
fin.	3	0	-48752	-1734			1039	391	SLU 80	0.23	No
ini.	3	0	23077	462			1039	391	SLU 35	0.85	No
fin.	3	0	-53808	-1817			1039	391	SLU 35	0.22	No
ini.	3	0	6213	959			1039	391	SLU 83	0.41	No
fin.	3	0	-42628	-1781			1039	391	SLU 83	0.22	No
ini.	3	0	12544	684			1039	391	SLU 79	0.57	No
fin.	3	0	-52561	-1815			1039	391	SLU 79	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1261	483690	142694	SLV 2	0.3	No
fin.	2	-1561	-203892	142694	SLV 2	0.7	No
ini.	2	-565	-504559	142694	SLV 16	0.28	No
fin.	2	-265	171618	142694	SLV 16	0.83	No
ini.	2	-740	-448073	142694	SLV 14	0.32	No
fin.	2	-282	84208	142694	SLV 14	1.69	Si
ini.	2	-1261	483690	142694	SLV 1	0.3	No
fin.	2	-1561	-203892	142694	SLV 1	0.7	No
ini.	2	-1087	427204	142694	SLV 4	0.33	No
fin.	2	-1545	-116482	142694	SLV 4	1.23	Si
ini.	2	-565	-504559	142694	SLV 15	0.28	No
fin.	2	-265	171618	142694	SLV 15	0.83	No
ini.	2	-740	-448073	142694	SLV 13	0.32	No
fin.	2	-282	84208	142694	SLV 13	1.69	Si
ini.	2	-544	-244342	142694	SLV 11	0.58	No
fin.	2	-694	172762	142694	SLV 11	0.83	No
ini.	2	-1087	427204	142694	SLV 3	0.33	No
fin.	2	-1545	-116482	142694	SLV 3	1.23	Si
ini.	2	-544	-244342	142694	SLV 12	0.58	No
fin.	2	-694	172762	142694	SLV 12	0.83	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	483690	-5648			1558	586	SLV 2	0.1	No
fin.	2	0	-203892	-7148			1558	586	SLV 2	0.08	No
ini.	2	0	-504559	7137			1558	586	SLV 16	0.08	No
fin.	2	0	171618	5538			1558	586	SLV 16	0.11	No
ini.	2	0	-448073	5880			1558	586	SLV 13	0.1	No
fin.	2	0	84208	4204			1558	586	SLV 13	0.14	No
ini.	2	0	483690	-5648			1558	586	SLV 1	0.1	No
fin.	2	0	-203892	-7148			1558	586	SLV 1	0.08	No
ini.	2	0	427204	-4392			1558	586	SLV 3	0.13	No
fin.	2	0	-116482	-5814			1558	586	SLV 3	0.1	No
ini.	2	0	-504559	7137			1558	586	SLV 15	0.08	No
fin.	2	0	171618	5538			1558	586	SLV 15	0.11	No
ini.	2	0	-448073	5880			1558	586	SLV 14	0.1	No
fin.	2	0	84208	4204			1558	586	SLV 14	0.14	No
ini.	2	0	427204	-4392			1558	586	SLV 4	0.13	No
fin.	2	0	-116482	-5814			1558	586	SLV 4	0.1	No
ini.	2	0	223473	-3079			1558	586	SLV 6	0.19	No
fin.	2	0	-205036	-4731			1558	586	SLV 6	0.12	No
ini.	2	0	223473	-3079			1558	586	SLV 5	0.19	No
fin.	2	0	-205036	-4731			1558	586	SLV 5	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.283	SLV 15	No
V_SLV	0.082	SLV 1	No
PF_SLU	2.247	SLU 37	Si
V_SLU	0.212	SLU 37	No

Trave di accoppiamento 94

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-647.8	104.6	693	835	142	-727.8	104.6	693	835	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-987	-106687	194792	SLU 61	1.83	Si
fin.	3	-987	117072	194792	SLU 61	1.66	Si
ini.	3	-1135	-107768	194792	SLU 81	1.81	Si
fin.	3	-1135	123988	194792	SLU 81	1.57	Si
ini.	3	-1102	-112112	194792	SLU 84	1.74	Si
fin.	3	-1102	130226	194792	SLU 84	1.5	Si
ini.	3	-999	-99233	194792	SLU 80	1.96	Si
fin.	3	-999	119368	194792	SLU 80	1.63	Si
ini.	3	-1019	-108587	194792	SLU 76	1.79	Si
fin.	3	-1019	124222	194792	SLU 76	1.57	Si
ini.	3	-985	-101911	194792	SLU 78	1.91	Si
fin.	3	-985	122655	194792	SLU 78	1.59	Si
ini.	3	-1110	-103893	194792	SLU 83	1.87	Si
fin.	3	-1110	123571	194792	SLU 83	1.58	Si
ini.	3	-1044	-112462	194792	SLU 73	1.73	Si
fin.	3	-1044	124640	194792	SLU 73	1.56	Si
ini.	3	-1127	-115987	194792	SLU 82	1.68	Si
fin.	3	-1127	130644	194792	SLU 82	1.49	Si
ini.	3	-1011	-105786	194792	SLU 75	1.84	Si
fin.	3	-1011	123073	194792	SLU 75	1.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-99233	3716			1531	576	SLU 80	0.16	No
fin.	3	0	119368	1677			1531	576	SLU 80	0.34	No
ini.	3	0	-115987	4156			1531	576	SLU 82	0.14	No
fin.	3	0	130644	1937			1531	576	SLU 82	0.3	No
ini.	3	0	-112462	3947			1531	576	SLU 73	0.15	No
fin.	3	0	124640	1908			1531	576	SLU 73	0.3	No
ini.	3	0	-112112	4103			1531	576	SLU 84	0.14	No
fin.	3	0	130226	1884			1531	576	SLU 84	0.31	No
ini.	3	0	-103893	3917			1531	576	SLU 83	0.15	No
fin.	3	0	123571	1698			1531	576	SLU 83	0.34	No
ini.	3	0	-108587	3893			1531	576	SLU 76	0.15	No
fin.	3	0	124222	1855			1531	576	SLU 76	0.31	No
ini.	3	0	-107768	3970			1531	576	SLU 81	0.15	No
fin.	3	0	123988	1751			1531	576	SLU 81	0.33	No
ini.	3	0	-101911	3790			1531	576	SLU 78	0.15	No
fin.	3	0	122655	1752			1531	576	SLU 78	0.33	No
ini.	3	0	-102643	3725			1531	576	SLU 40	0.15	No
fin.	3	0	116775	1707			1531	576	SLU 40	0.34	No
ini.	3	0	-105786	3844			1531	576	SLU 75	0.15	No
fin.	3	0	123073	1805			1531	576	SLU 75	0.32	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-687	271160	212694	SLV 4	0.78	No
fin.	2	-1051	-416004	212694	SLV 4	0.51	No
ini.	2	-687	271160	212694	SLV 3	0.78	No
fin.	2	-1051	-416004	212694	SLV 3	0.51	No
ini.	2	-713	303797	212694	SLV 2	0.7	No
fin.	2	-1087	-442711	212694	SLV 2	0.48	No
ini.	2	-713	303797	212694	SLV 1	0.7	No
fin.	2	-1087	-442711	212694	SLV 1	0.48	No
ini.	2	-677	-431336	212694	SLV 15	0.49	No
fin.	2	-302	587873	212694	SLV 15	0.36	No
ini.	2	-677	-431336	212694	SLV 16	0.49	No
fin.	2	-302	587873	212694	SLV 16	0.36	No
ini.	2	-687	-220603	212694	SLD 15	0.96	No
fin.	2	-526	292714	212694	SLD 15	0.73	No
ini.	2	-687	-220603	212694	SLD 16	0.96	No
fin.	2	-526	292714	212694	SLD 16	0.73	No
ini.	2	-703	-398699	212694	SLV 13	0.53	No
fin.	2	-339	561166	212694	SLV 13	0.38	No
ini.	2	-703	-398699	212694	SLV 14	0.53	No
fin.	2	-339	561166	212694	SLV 14	0.38	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	303797	-8951			2297	864	SLV 1	0.1	No
fin.	2	0	-442711	-10145			2297	864	SLV 1	0.09	No
ini.	2	0	-431336	13591			2297	864	SLV 15	0.06	No
fin.	2	0	587873	12209			2297	864	SLV 15	0.07	No
ini.	2	0	-220603	7132			2297	864	SLD 15	0.12	No
fin.	2	0	292714	5806			2297	864	SLD 15	0.15	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	303797	-8951			2297	864	SLV 2	0.1	No
fin.	2	0	-442711	-10145			2297	864	SLV 2	0.09	No
ini.	2	0	271160	-8169			2297	864	SLV 3	0.11	No
fin.	2	0	-416004	-9531			2297	864	SLV 3	0.09	No
ini.	2	0	-398699	12809			2297	864	SLV 13	0.07	No
fin.	2	0	561166	11595			2297	864	SLV 13	0.07	No
ini.	2	0	271160	-8169			2297	864	SLV 4	0.11	No
fin.	2	0	-416004	-9531			2297	864	SLV 4	0.09	No
ini.	2	0	-220603	7132			2297	864	SLD 16	0.12	No
fin.	2	0	292714	5806			2297	864	SLD 16	0.15	No
ini.	2	0	-431336	13591			2297	864	SLV 16	0.06	No
fin.	2	0	587873	12209			2297	864	SLV 16	0.07	No
ini.	2	0	-398699	12809			2297	864	SLV 14	0.07	No
fin.	2	0	561166	11595			2297	864	SLV 14	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.362	SLV 15	No
V_SLV	0.064	SLV 15	No
PF_SLU	1.491	SLU 82	Si
V_SLU	0.139	SLU 82	No

Trave di accoppiamento 95

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-416.8	104.6	693	835	142	-496.8	104.6	693	835	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-821	-109139	194792	SLU 69	1.78	Si
fin.	3	-821	68387	194792	SLU 69	2.85	Si
ini.	3	-1018	-109944	194792	SLU 78	1.77	Si
fin.	3	-1018	59660	194792	SLU 78	3.27	Si
ini.	3	-874	-103565	194792	SLU 58	1.88	Si
fin.	3	-874	61248	194792	SLU 58	3.18	Si
ini.	3	-1053	-108830	194792	SLU 80	1.79	Si
fin.	3	-1053	60121	194792	SLU 80	3.24	Si
ini.	3	-890	-104367	194792	SLU 70	1.87	Si
fin.	3	-890	61723	194792	SLU 70	3.16	Si
ini.	3	-839	-104680	194792	SLU 56	1.86	Si
fin.	3	-839	60788	194792	SLU 56	3.2	Si
ini.	3	-950	-114716	194792	SLU 77	1.7	Si
fin.	3	-950	66324	194792	SLU 77	2.94	Si
ini.	3	-857	-108025	194792	SLU 71	1.8	Si
fin.	3	-857	68847	194792	SLU 71	2.83	Si
ini.	3	-985	-113602	194792	SLU 79	1.71	Si
fin.	3	-985	66784	194792	SLU 79	2.92	Si
ini.	3	-925	-103252	194792	SLU 72	1.89	Si
fin.	3	-925	62183	194792	SLU 72	3.13	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-104680	2913			1531	576	SLU 56	0.2	No
fin.	3	0	60788	1296			1531	576	SLU 56	0.44	No
ini.	3	0	-101069	2983			1531	576	SLU 83	0.19	No
fin.	3	0	50279	871			1531	576	SLU 83	0.66	No
ini.	3	0	-114716	3270			1531	576	SLU 77	0.18	No
fin.	3	0	66324	1326			1531	576	SLU 77	0.43	No
ini.	3	0	-108025	3023			1531	576	SLU 71	0.19	No
fin.	3	0	68847	1470			1531	576	SLU 71	0.39	No
ini.	3	0	-101638	2926			1531	576	SLU 35	0.2	No
fin.	3	0	60383	1178			1531	576	SLU 35	0.49	No
ini.	3	0	-108830	3119			1531	576	SLU 80	0.18	No
fin.	3	0	60121	1175			1531	576	SLU 80	0.49	No
ini.	3	0	-113602	3262			1531	576	SLU 79	0.18	No
fin.	3	0	66784	1318			1531	576	SLU 79	0.44	No
ini.	3	0	-100524	2918			1531	576	SLU 37	0.2	No
fin.	3	0	60844	1170			1531	576	SLU 37	0.49	No
ini.	3	0	-109139	3031			1531	576	SLU 69	0.19	No
fin.	3	0	68387	1478			1531	576	SLU 69	0.39	No
ini.	3	0	-109944	3128			1531	576	SLU 78	0.18	No
fin.	3	0	59660	1183			1531	576	SLU 78	0.49	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-134	441993	212694	SLV 4	0.48	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-552	-344641	212694	SLV 4	0.62	No
ini.	2	-1143	-561042	212694	SLV 13	0.38	No
fin.	2	-725	398882	212694	SLV 13	0.53	No
ini.	2	-965	-590043	212694	SLV 15	0.36	No
fin.	2	-626	425916	212694	SLV 15	0.5	No
ini.	2	-311	470994	212694	SLV 2	0.45	No
fin.	2	-650	-371676	212694	SLV 2	0.57	No
ini.	2	-1143	-561042	212694	SLV 14	0.38	No
fin.	2	-725	398882	212694	SLV 14	0.53	No
ini.	2	-965	-590043	212694	SLV 16	0.36	No
fin.	2	-626	425916	212694	SLV 16	0.5	No
ini.	2	-134	441993	212694	SLV 3	0.48	No
fin.	2	-552	-344641	212694	SLV 3	0.62	No
ini.	2	-782	-286360	212694	SLD 16	0.74	No
fin.	2	-637	197452	212694	SLD 16	1.08	Si
ini.	2	-782	-286360	212694	SLD 15	0.74	No
fin.	2	-637	197452	212694	SLD 15	1.08	Si
ini.	2	-311	470994	212694	SLV 1	0.45	No
fin.	2	-650	-371676	212694	SLV 1	0.57	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	441993	-9465			2297	864	SLV 3	0.09	No
fin.	2	0	-344641	-10881			2297	864	SLV 3	0.08	No
ini.	2	0	-590043	13529			2297	864	SLV 15	0.06	No
fin.	2	0	425916	12093			2297	864	SLV 15	0.07	No
ini.	2	0	-561042	12921			2297	864	SLV 13	0.07	No
fin.	2	0	398882	11867			2297	864	SLV 13	0.07	No
ini.	2	0	-561042	12921			2297	864	SLV 14	0.07	No
fin.	2	0	398882	11867			2297	864	SLV 14	0.07	No
ini.	2	0	441993	-9465			2297	864	SLV 4	0.09	No
fin.	2	0	-344641	-10881			2297	864	SLV 4	0.08	No
ini.	2	0	-590043	13529			2297	864	SLV 16	0.06	No
fin.	2	0	425916	12093			2297	864	SLV 16	0.07	No
ini.	2	0	-286360	6770			2297	864	SLD 16	0.13	No
fin.	2	0	197452	5452			2297	864	SLD 16	0.16	No
ini.	2	0	470994	-10074			2297	864	SLV 2	0.09	No
fin.	2	0	-371676	-11106			2297	864	SLV 2	0.08	No
ini.	2	0	-286360	6770			2297	864	SLD 15	0.13	No
fin.	2	0	197452	5452			2297	864	SLD 15	0.16	No
ini.	2	0	470994	-10074			2297	864	SLV 1	0.09	No
fin.	2	0	-371676	-11106			2297	864	SLV 1	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.36	SLV 15	No
V_SLV	0.064	SLV 15	No
PF_SLU	1.698	SLU 77	Si
V_SLU	0.176	SLU 77	No

Trave di accoppiamento 96

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-867.8	-485.9	809	835	26	-1051.8	-485.9	809	835	26	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-9	6	10289	SLU 43	1646.41	Si
fin.	3	-9	-7691	10289	SLU 43	1.34	Si
ini.	3	-25	-1035	10289	SLU 47	9.94	Si
fin.	3	-25	-6729	10289	SLU 47	1.53	Si
ini.	3	-22	802	10289	SLU 44	12.82	Si
fin.	3	-22	-8528	10289	SLU 44	1.21	Si
ini.	3	-18	-6749	10289	SLU 35	1.52	Si
fin.	3	-18	695	10289	SLU 35	14.81	Si
ini.	3	-19	-1011	10289	SLU 46	10.18	Si
fin.	3	-19	-6732	10289	SLU 46	1.53	Si
ini.	3	-18	-7092	10289	SLU 37	1.45	Si
fin.	3	-18	1033	10289	SLU 37	9.96	Si
ini.	3	-26	-6614	10289	SLU 38	1.56	Si
fin.	3	-26	530	10289	SLU 38	19.42	Si
ini.	3	-23	-445	10289	SLU 65	23.13	Si
fin.	3	-23	-7310	10289	SLU 65	1.41	Si
ini.	3	-20	-6761	10289	SLU 79	1.52	Si
fin.	3	-20	-1064	10289	SLU 79	9.67	Si
ini.	3	-26	-1043	10289	SLU 52	9.87	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-26	-6719	10289	SLU 52	1.53	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	802	72			200	75	SLU 44	1.04	Si
fin.	3	0	-8528	-174			200	75	SLU 44	0.43	No
ini.	3	0	6	81			200	75	SLU 43	0.93	No
fin.	3	0	-7691	-165			200	75	SLU 43	0.46	No
ini.	3	0	-1043	92			200	75	SLU 52	0.82	No
fin.	3	0	-6719	-154			200	75	SLU 52	0.49	No
ini.	3	0	-1241	95			200	75	SLU 64	0.8	No
fin.	3	0	-6472	-152			200	75	SLU 64	0.5	No
ini.	3	0	-6419	150			200	75	SLU 77	0.5	No
fin.	3	0	-1401	-96			200	75	SLU 77	0.79	No
ini.	3	0	-1011	92			200	75	SLU 46	0.82	No
fin.	3	0	-6732	-154			200	75	SLU 46	0.49	No
ini.	3	0	-6761	154			200	75	SLU 79	0.49	No
fin.	3	0	-1064	-92			200	75	SLU 79	0.82	No
ini.	3	0	-445	86			200	75	SLU 65	0.88	No
fin.	3	0	-7310	-160			200	75	SLU 65	0.47	No
ini.	3	0	-1035	92			200	75	SLU 47	0.82	No
fin.	3	0	-6729	-154			200	75	SLU 47	0.49	No
ini.	3	0	-1489	97			200	75	SLU 45	0.77	No
fin.	3	0	-6229	-149			200	75	SLU 45	0.51	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	257	-51317	15434	SLV 13	0.3	No
fin.	2	251	47374	15434	SLV 13	0.33	No
ini.	2	194	-39458	15434	SLV 16	0.39	No
fin.	2	234	35207	15434	SLV 16	0.44	No
ini.	2	257	-51317	15434	SLV 14	0.3	No
fin.	2	251	47374	15434	SLV 14	0.33	No
ini.	2	-211	37042	15434	SLV 2	0.42	No
fin.	2	-252	-44665	15434	SLV 2	0.35	No
ini.	2	-185	31812	15434	SLV 7	0.49	No
fin.	2	-112	-38814	15434	SLV 7	0.4	No
ini.	2	194	-39458	15434	SLV 15	0.39	No
fin.	2	234	35207	15434	SLV 15	0.44	No
ini.	2	-275	48902	15434	SLV 4	0.32	No
fin.	2	-269	-56833	15434	SLV 4	0.27	No
ini.	2	-185	31812	15434	SLV 8	0.49	No
fin.	2	-112	-38814	15434	SLV 8	0.4	No
ini.	2	-275	48902	15434	SLV 3	0.32	No
fin.	2	-269	-56833	15434	SLV 3	0.27	No
ini.	2	-211	37042	15434	SLV 1	0.42	No
fin.	2	-252	-44665	15434	SLV 1	0.35	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	37042	-404			300	113	SLV 1	0.28	No
fin.	2	0	-44665	-540			300	113	SLV 1	0.21	No
ini.	2	0	-39458	555			300	113	SLV 15	0.2	No
fin.	2	0	35207	312			300	113	SLV 15	0.36	No
ini.	2	0	-51317	589			300	113	SLV 14	0.19	No
fin.	2	0	47374	452			300	113	SLV 14	0.25	No
ini.	2	0	-51317	589			300	113	SLV 13	0.19	No
fin.	2	0	47374	452			300	113	SLV 13	0.25	No
ini.	2	0	37042	-404			300	113	SLV 2	0.28	No
fin.	2	0	-44665	-540			300	113	SLV 2	0.21	No
ini.	2	0	31812	-129			300	113	SLV 8	0.88	No
fin.	2	0	-38814	-496			300	113	SLV 8	0.23	No
ini.	2	0	48902	-438			300	113	SLV 4	0.26	No
fin.	2	0	-56833	-680			300	113	SLV 4	0.17	No
ini.	2	0	31812	-129			300	113	SLV 7	0.88	No
fin.	2	0	-38814	-496			300	113	SLV 7	0.23	No
ini.	2	0	48902	-438			300	113	SLV 3	0.26	No
fin.	2	0	-56833	-680			300	113	SLV 3	0.17	No
ini.	2	0	-39458	555			300	113	SLV 16	0.2	No
fin.	2	0	35207	312			300	113	SLV 16	0.36	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.272	SLV 3	No
V_SLV	0.166	SLV 3	No
PF_SLU	1.206	SLU 44	Si
V_SLU	0.434	SLU 44	No

Trave di accoppiamento 97

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-854.8	-335.9	693	835	142	-944.8	-335.9	693	835	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-695	46796	194792	SLU 52	4.16	Si
fin.	3	-695	-79859	194792	SLU 52	2.44	Si
ini.	3	-596	46844	194792	SLU 40	4.16	Si
fin.	3	-596	-78499	194792	SLU 40	2.48	Si
ini.	3	-591	49882	194792	SLU 65	3.91	Si
fin.	3	-591	-85826	194792	SLU 65	2.27	Si
ini.	3	-540	50877	194792	SLU 31	3.83	Si
fin.	3	-540	-80979	194792	SLU 31	2.41	Si
ini.	3	-639	42191	194792	SLU 75	4.62	Si
fin.	3	-639	-82275	194792	SLU 75	2.37	Si
ini.	3	-636	45451	194792	SLU 76	4.29	Si
fin.	3	-636	-82723	194792	SLU 76	2.35	Si
ini.	3	-766	41574	194792	SLU 81	4.69	Si
fin.	3	-766	-81795	194792	SLU 81	2.38	Si
ini.	3	-744	50817	194792	SLU 82	3.83	Si
fin.	3	-744	-89419	194792	SLU 82	2.18	Si
ini.	3	-692	41418	194792	SLU 84	4.7	Si
fin.	3	-692	-80243	194792	SLU 84	2.43	Si
ini.	3	-688	54850	194792	SLU 73	3.55	Si
fin.	3	-688	-91899	194792	SLU 73	2.12	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	46844	-663			1531	576	SLU 40	0.87	No
fin.	3	0	-78499	-2078			1531	576	SLU 40	0.28	No
ini.	3	0	54850	-835			1531	576	SLU 73	0.69	No
fin.	3	0	-91899	-2367			1531	576	SLU 73	0.24	No
ini.	3	0	46796	-702			1531	576	SLU 52	0.82	No
fin.	3	0	-79859	-2049			1531	576	SLU 52	0.28	No
ini.	3	0	49882	-823			1531	576	SLU 65	0.7	No
fin.	3	0	-85826	-2133			1531	576	SLU 65	0.27	No
ini.	3	0	41418	-508			1531	576	SLU 84	1.13	Si
fin.	3	0	-80243	-2135			1531	576	SLU 84	0.27	No
ini.	3	0	50817	-715			1531	576	SLU 82	0.81	No
fin.	3	0	-89419	-2342			1531	576	SLU 82	0.25	No
ini.	3	0	45451	-628			1531	576	SLU 76	0.92	No
fin.	3	0	-82723	-2160			1531	576	SLU 76	0.27	No
ini.	3	0	42191	-587			1531	576	SLU 75	0.98	No
fin.	3	0	-82275	-2119			1531	576	SLU 75	0.27	No
ini.	3	0	41574	-527			1531	576	SLU 81	1.09	Si
fin.	3	0	-81795	-2154			1531	576	SLU 81	0.27	No
ini.	3	0	50877	-782			1531	576	SLU 31	0.74	No
fin.	3	0	-80979	-2103			1531	576	SLU 31	0.27	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2469	-352392	212694	SLV 15	0.6	No
fin.	2	-1885	370623	212694	SLV 15	0.57	No
ini.	2	-1400	161119	212694	SLV 8	1.32	Si
fin.	2	-547	-296581	212694	SLV 8	0.72	No
ini.	2	1444	404730	212694	SLV 1	0.53	No
fin.	2	861	-481294	212694	SLV 1	0.44	No
ini.	2	-1400	161119	212694	SLV 7	1.32	Si
fin.	2	-547	-296581	212694	SLV 7	0.72	No
ini.	2	-1657	-364161	212694	SLV 14	0.58	No
fin.	2	-1639	433077	212694	SLV 14	0.49	No
ini.	2	633	416500	212694	SLV 4	0.51	No
fin.	2	615	-543748	212694	SLV 4	0.39	No
ini.	2	1444	404730	212694	SLV 2	0.53	No
fin.	2	861	-481294	212694	SLV 2	0.44	No
ini.	2	-1657	-364161	212694	SLV 13	0.58	No
fin.	2	-1639	433077	212694	SLV 13	0.49	No
ini.	2	-2469	-352392	212694	SLV 16	0.6	No
fin.	2	-1885	370623	212694	SLV 16	0.57	No
ini.	2	633	416500	212694	SLV 3	0.51	No
fin.	2	615	-543748	212694	SLV 3	0.39	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	416500	-10896			2297	864	SLV 4	0.08	No
fin.	2	0	-543748	-10975			2297	864	SLV 4	0.08	No
ini.	2	0	161119	-6529			2297	864	SLV 7	0.13	No
fin.	2	0	-296581	-4947			2297	864	SLV 7	0.17	No
ini.	2	0	404730	-8915			2297	864	SLV 2	0.1	No
fin.	2	0	-481294	-10529			2297	864	SLV 2	0.08	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	161119	-6529			2297	864	SLV 8	0.13	No
fin.	2	0	-296581	-4947			2297	864	SLV 8	0.17	No
ini.	2	0	-364161	10162			2297	864	SLV 13	0.09	No
fin.	2	0	433077	8180			2297	864	SLV 13	0.11	No
ini.	2	0	-352392	8182			2297	864	SLV 16	0.11	No
fin.	2	0	370623	7734			2297	864	SLV 16	0.11	No
ini.	2	0	-364161	10162			2297	864	SLV 14	0.09	No
fin.	2	0	433077	8180			2297	864	SLV 14	0.11	No
ini.	2	0	404730	-8915			2297	864	SLV 1	0.1	No
fin.	2	0	-481294	-10529			2297	864	SLV 1	0.08	No
ini.	2	0	-352392	8182			2297	864	SLV 15	0.11	No
fin.	2	0	370623	7734			2297	864	SLV 15	0.11	No
ini.	2	0	416500	-10896			2297	864	SLV 3	0.08	No
fin.	2	0	-543748	-10975			2297	864	SLV 3	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.391	SLV 3	No
V_SLV	0.079	SLV 3	No
PF_SLU	2.12	SLU 73	Si
V_SLU	0.243	SLU 73	No

Trave di accoppiamento 98

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-772.3	-486.1	809	835	26	-772.3	-377.1	809	835	26	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	3	934	10289	SLU 83	11.01	Si
fin.	3	3	11824	10289	SLU 83	0.87	No
ini.	3	7	1269	10289	SLU 82	8.11	Si
fin.	3	7	12643	10289	SLU 82	0.81	No
ini.	3	7	1007	10289	SLU 42	10.22	Si
fin.	3	7	10949	10289	SLU 42	0.94	No
ini.	3	11	1711	10289	SLU 73	6.01	Si
fin.	3	11	11056	10289	SLU 73	0.93	No
ini.	3	2	409	10289	SLU 39	25.13	Si
fin.	3	2	12136	10289	SLU 39	0.85	No
ini.	3	2	541	10289	SLU 41	19.04	Si
fin.	3	2	11133	10289	SLU 41	0.92	No
ini.	3	2	803	10289	SLU 81	12.81	Si
fin.	3	2	12826	10289	SLU 81	0.8	No
ini.	3	7	875	10289	SLU 40	11.75	Si
fin.	3	7	11952	10289	SLU 40	0.86	No
ini.	3	3	997	10289	SLU 74	10.32	Si
fin.	3	3	10960	10289	SLU 74	0.94	No
ini.	3	8	1400	10289	SLU 84	7.35	Si
fin.	3	8	11640	10289	SLU 84	0.88	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	934	174			200	75	SLU 83	0.43	No
fin.	3	0	11824	26			200	75	SLU 83	2.87	Si
ini.	3	0	1269	178			200	75	SLU 82	0.42	No
fin.	3	0	12643	31			200	75	SLU 82	2.45	Si
ini.	3	0	409	164			200	75	SLU 39	0.46	No
fin.	3	0	12136	51			200	75	SLU 39	1.48	Si
ini.	3	0	1400	168			200	75	SLU 84	0.45	No
fin.	3	0	11640	20			200	75	SLU 84	3.71	Si
ini.	3	0	1711	159			200	75	SLU 73	0.47	No
fin.	3	0	11056	12			200	75	SLU 73	6.22	Si
ini.	3	0	803	184			200	75	SLU 81	0.41	No
fin.	3	0	12826	37			200	75	SLU 81	2.05	Si
ini.	3	0	997	165			200	75	SLU 74	0.46	No
fin.	3	0	10960	18			200	75	SLU 74	4.24	Si
ini.	3	0	875	158			200	75	SLU 40	0.48	No
fin.	3	0	11952	45			200	75	SLU 40	1.68	Si
ini.	3	0	1021	161			200	75	SLU 60	0.47	No
fin.	3	0	10514	13			200	75	SLU 60	5.6	Si
ini.	3	0	1463	159			200	75	SLU 75	0.47	No
fin.	3	0	10776	12			200	75	SLU 75	6.38	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	54	-4289	15434	SLV 10	3.6	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	130	57127	15434	SLV 10	0.27	No
ini.	2	26	-3461	15434	SLV 1	4.46	Si
fin.	2	111	45861	15434	SLV 1	0.34	No
ini.	2	-50	6116	15434	SLV 7	2.52	Si
fin.	2	-127	-43965	15434	SLV 7	0.35	No
ini.	2	59	-5838	15434	SLV 5	2.64	Si
fin.	2	169	70402	15434	SLV 5	0.22	No
ini.	2	54	-4289	15434	SLV 9	3.6	Si
fin.	2	130	57127	15434	SLV 9	0.27	No
ini.	2	26	-3461	15434	SLV 2	4.46	Si
fin.	2	111	45861	15434	SLV 2	0.34	No
ini.	2	-50	6116	15434	SLV 8	2.52	Si
fin.	2	-127	-43965	15434	SLV 8	0.35	No
ini.	2	59	-5838	15434	SLV 6	2.64	Si
fin.	2	169	70402	15434	SLV 6	0.22	No
ini.	2	-55	7665	15434	SLV 11	2.01	Si
fin.	2	-165	-57240	15434	SLV 11	0.27	No
ini.	2	-55	7665	15434	SLV 12	2.01	Si
fin.	2	-165	-57240	15434	SLV 12	0.27	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-5838	664			300	113	SLV 5	0.17	No
fin.	2	0	70402	478			300	113	SLV 5	0.24	No
ini.	2	0	-4289	553			300	113	SLV 9	0.2	No
fin.	2	0	57127	395			300	113	SLV 9	0.29	No
ini.	2	0	7665	-447			300	113	SLV 11	0.25	No
fin.	2	0	-57240	-487			300	113	SLV 11	0.23	No
ini.	2	0	-3461	444			300	113	SLV 1	0.25	No
fin.	2	0	45861	266			300	113	SLV 1	0.42	No
ini.	2	0	-5838	664			300	113	SLV 6	0.17	No
fin.	2	0	70402	478			300	113	SLV 6	0.24	No
ini.	2	0	-3461	444			300	113	SLV 2	0.25	No
fin.	2	0	45861	266			300	113	SLV 2	0.42	No
ini.	2	0	-4289	553			300	113	SLV 10	0.2	No
fin.	2	0	57127	395			300	113	SLV 10	0.29	No
ini.	2	0	6116	-336			300	113	SLV 8	0.34	No
fin.	2	0	-43965	-404			300	113	SLV 8	0.28	No
ini.	2	0	7665	-447			300	113	SLV 12	0.25	No
fin.	2	0	-57240	-487			300	113	SLV 12	0.23	No
ini.	2	0	6116	-336			300	113	SLV 7	0.34	No
fin.	2	0	-43965	-404			300	113	SLV 7	0.28	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.219	SLV 5	No
V_SLV	0.17	SLV 5	No
PF_SLU	0.802	SLU 81	No
V_SLU	0.41	SLU 81	No

Trave di accoppiamento 99

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	483	683	200	-515.8	650.6	483	683	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1086	21514	296292	SLU 61	13.77	Si
fin.	3	418	22788	296292	SLU 61	13	Si
ini.	3	1202	24298	296292	SLU 81	12.19	Si
fin.	3	465	25036	296292	SLU 81	11.83	Si
ini.	3	1051	21293	296292	SLU 39	13.92	Si
fin.	3	410	22140	296292	SLU 39	13.38	Si
ini.	3	1135	22726	296292	SLU 73	13.04	Si
fin.	3	435	23419	296292	SLU 73	12.65	Si
ini.	3	1160	23152	296292	SLU 84	12.8	Si
fin.	3	440	22861	296292	SLU 84	12.96	Si
ini.	3	1212	24307	296292	SLU 82	12.19	Si
fin.	3	469	25332	296292	SLU 82	11.7	Si
ini.	3	1061	21303	296292	SLU 40	13.91	Si
fin.	3	414	22435	296292	SLU 40	13.21	Si
ini.	3	1108	22069	296292	SLU 75	13.43	Si
fin.	3	418	21664	296292	SLU 75	13.68	Si
ini.	3	1150	23143	296292	SLU 83	12.8	Si
fin.	3	436	22566	296292	SLU 83	13.13	Si
ini.	3	1076	21504	296292	SLU 60	13.78	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	414	22492	296292	SLU 60	13.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	20400	-107			2157	812	SLU 79	7.55	Si
fin.	3	0	17985	3300			2157	812	SLU 79	0.25	No
ini.	3	0	23143	144			2157	812	SLU 83	5.63	Si
fin.	3	0	22566	3335			2157	812	SLU 83	0.24	No
ini.	3	0	23152	172			2157	812	SLU 84	4.73	Si
fin.	3	0	22861	3337			2157	812	SLU 84	0.24	No
ini.	3	0	20410	-80			2157	812	SLU 80	10.13	Si
fin.	3	0	18281	3302			2157	812	SLU 80	0.25	No
ini.	3	0	24298	341			2157	812	SLU 81	2.38	Si
fin.	3	0	25036	3210			2157	812	SLU 81	0.25	No
ini.	3	0	22069	162			2157	812	SLU 75	5.01	Si
fin.	3	0	21664	3208			2157	812	SLU 75	0.25	No
ini.	3	0	20904	-62			2157	812	SLU 77	13.07	Si
fin.	3	0	18898	3331			2157	812	SLU 77	0.24	No
ini.	3	0	20914	-35			2157	812	SLU 78	23.36	Si
fin.	3	0	19193	3333			2157	812	SLU 78	0.24	No
ini.	3	0	24307	368			2157	812	SLU 82	2.2	Si
fin.	3	0	25332	3213			2157	812	SLU 82	0.25	No
ini.	3	0	22059	134			2157	812	SLU 74	6.03	Si
fin.	3	0	21368	3206			2157	812	SLU 74	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2611	85021	314194	SLV 3	3.7	Si
fin.	2	-1060	-57246	314194	SLV 3	5.49	Si
ini.	2	-1057	75733	314194	SLV 7	4.15	Si
fin.	2	-764	-5585	314194	SLV 7	56.26	Si
ini.	2	-2090	58857	314194	SLV 1	5.34	Si
fin.	2	-637	-58104	314194	SLV 1	5.41	Si
ini.	2	-2611	85021	314194	SLV 4	3.7	Si
fin.	2	-1060	-57246	314194	SLV 4	5.49	Si
ini.	2	4088	-54892	314194	SLV 13	5.72	Si
fin.	2	1618	86638	314194	SLV 13	3.63	Si
ini.	2	4088	-54892	314194	SLV 14	5.72	Si
fin.	2	1618	86638	314194	SLV 14	3.63	Si
ini.	2	3567	-28728	314194	SLV 16	10.94	Si
fin.	2	1194	87497	314194	SLV 16	3.59	Si
ini.	2	-1057	75733	314194	SLV 8	4.15	Si
fin.	2	-764	-5585	314194	SLV 8	56.26	Si
ini.	2	3567	-28728	314194	SLV 15	10.94	Si
fin.	2	1194	87497	314194	SLV 15	3.59	Si
ini.	2	-2090	58857	314194	SLV 2	5.34	Si
fin.	2	-637	-58104	314194	SLV 2	5.41	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-45605	4839			3235	1217	SLV 10	0.25	No
fin.	2	0	34977	4269			3235	1217	SLV 10	0.29	No
ini.	2	0	85021	-8384			3235	1217	SLV 3	0.15	No
fin.	2	0	-57246	-2796			3235	1217	SLV 3	0.44	No
ini.	2	0	58857	-6992			3235	1217	SLV 2	0.17	No
fin.	2	0	-58104	-2322			3235	1217	SLV 2	0.52	No
ini.	2	0	-45605	4839			3235	1217	SLV 9	0.25	No
fin.	2	0	34977	4269			3235	1217	SLV 9	0.29	No
ini.	2	0	-54892	8711			3235	1217	SLV 14	0.14	No
fin.	2	0	86638	6968			3235	1217	SLV 14	0.17	No
ini.	2	0	85021	-8384			3235	1217	SLV 4	0.15	No
fin.	2	0	-57246	-2796			3235	1217	SLV 4	0.44	No
ini.	2	0	58857	-6992			3235	1217	SLV 1	0.17	No
fin.	2	0	-58104	-2322			3235	1217	SLV 1	0.52	No
ini.	2	0	-28728	7319			3235	1217	SLV 16	0.17	No
fin.	2	0	87497	6495			3235	1217	SLV 16	0.19	No
ini.	2	0	-54892	8711			3235	1217	SLV 13	0.14	No
fin.	2	0	86638	6968			3235	1217	SLV 13	0.17	No
ini.	2	0	-28728	7319			3235	1217	SLV 15	0.17	No
fin.	2	0	87497	6495			3235	1217	SLV 15	0.19	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.591	SLV 15	Si
V_SLV	0.14	SLV 13	No
PF_SLU	11.696	SLU 82	Si
V_SLU	0.243	SLU 84	No

Trave di accoppiamento 100

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	763	835	72	-515.8	650.6	763	835	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	57	-35721	72292	SLU 37	2.02	Si
fin.	3	163	2976	72292	SLU 37	24.29	Si
ini.	3	126	-36983	72292	SLU 71	1.95	Si
fin.	3	250	3306	72292	SLU 71	21.87	Si
ini.	3	112	-36992	72292	SLU 72	1.95	Si
fin.	3	236	3289	72292	SLU 72	21.98	Si
ini.	3	-44	-38218	72292	SLU 78	1.89	Si
fin.	3	46	3931	72292	SLU 78	18.39	Si
ini.	3	43	-35731	72292	SLU 38	2.02	Si
fin.	3	149	2959	72292	SLU 38	24.43	Si
ini.	3	-31	-38208	72292	SLU 77	1.89	Si
fin.	3	61	3948	72292	SLU 77	18.31	Si
ini.	3	82	-36211	72292	SLU 69	2	Si
fin.	3	193	3459	72292	SLU 69	20.9	Si
ini.	3	0	-38989	72292	SLU 80	1.85	Si
fin.	3	104	3778	72292	SLU 80	19.14	Si
ini.	3	13	-38979	72292	SLU 79	1.85	Si
fin.	3	118	3795	72292	SLU 79	19.05	Si
ini.	3	68	-36221	72292	SLU 70	2	Si
fin.	3	178	3442	72292	SLU 70	21	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-33725	2729			776	292	SLU 29	0.11	No
fin.	3	0	2487	-723			776	292	SLU 29	0.4	No
ini.	3	0	-36221	2822			776	292	SLU 70	0.1	No
fin.	3	0	3442	-683			776	292	SLU 70	0.43	No
ini.	3	0	-38979	2939			776	292	SLU 79	0.1	No
fin.	3	0	3795	-663			776	292	SLU 79	0.44	No
ini.	3	0	-35721	2711			776	292	SLU 37	0.11	No
fin.	3	0	2976	-630			776	292	SLU 37	0.46	No
ini.	3	0	-36211	2847			776	292	SLU 69	0.1	No
fin.	3	0	3459	-702			776	292	SLU 69	0.42	No
ini.	3	0	-38989	2915			776	292	SLU 80	0.1	No
fin.	3	0	3778	-643			776	292	SLU 80	0.45	No
ini.	3	0	-38218	2804			776	292	SLU 78	0.1	No
fin.	3	0	3931	-590			776	292	SLU 78	0.49	No
ini.	3	0	-36992	2932			776	292	SLU 72	0.1	No
fin.	3	0	3289	-736			776	292	SLU 72	0.4	No
ini.	3	0	-36983	2957			776	292	SLU 71	0.1	No
fin.	3	0	3306	-755			776	292	SLU 71	0.39	No
ini.	3	0	-38208	2829			776	292	SLU 77	0.1	No
fin.	3	0	3948	-610			776	292	SLU 77	0.48	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2599	-129233	90194	SLV 13	0.7	No
fin.	2	-1934	20501	90194	SLV 13	4.4	Si
ini.	2	2228	93623	90194	SLV 3	0.96	No
fin.	2	1567	-13992	90194	SLV 3	6.45	Si
ini.	2	1310	98376	90194	SLV 1	0.92	No
fin.	2	1193	4405	90194	SLV 1	20.48	Si
ini.	2	-2599	-129233	90194	SLV 14	0.7	No
fin.	2	-1934	20501	90194	SLV 14	4.4	Si
ini.	2	-837	-67497	90194	SLD 15	1.34	Si
fin.	2	-782	3151	90194	SLD 15	28.62	Si
ini.	2	-1681	-133986	90194	SLV 15	0.67	No
fin.	2	-1560	2105	90194	SLV 15	42.85	Si
ini.	2	-837	-67497	90194	SLD 16	1.34	Si
fin.	2	-782	3151	90194	SLD 16	28.62	Si
ini.	2	-1681	-133986	90194	SLV 16	0.67	No
fin.	2	-1560	2105	90194	SLV 16	42.85	Si
ini.	2	2228	93623	90194	SLV 4	0.96	No
fin.	2	1567	-13992	90194	SLV 4	6.45	Si
ini.	2	1310	98376	90194	SLV 2	0.92	No
fin.	2	1193	4405	90194	SLV 2	20.48	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-133986	4087			1165	438	SLV 15	0.11	No
fin.	2	0	2105	2354			1165	438	SLV 15	0.19	No
ini.	2	0	-44025	2654			1165	438	SLV 9	0.17	No
fin.	2	0	36330	1807			1165	438	SLV 9	0.24	No
ini.	2	0	-133986	4087			1165	438	SLV 16	0.11	No
fin.	2	0	2105	2354			1165	438	SLV 16	0.19	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	98376	-1713			1165	438	SLV 1	0.26	No
fin.	2	0	4405	-2687			1165	438	SLV 1	0.16	No
ini.	2	0	-44025	2654			1165	438	SLV 10	0.17	No
fin.	2	0	36330	1807			1165	438	SLV 10	0.24	No
ini.	2	0	93623	-2041			1165	438	SLV 4	0.21	No
fin.	2	0	-13992	-3357			1165	438	SLV 4	0.13	No
ini.	2	0	-129233	4416			1165	438	SLV 13	0.1	No
fin.	2	0	20501	3024			1165	438	SLV 13	0.14	No
ini.	2	0	93623	-2041			1165	438	SLV 3	0.21	No
fin.	2	0	-13992	-3357			1165	438	SLV 3	0.13	No
ini.	2	0	-129233	4416			1165	438	SLV 14	0.1	No
fin.	2	0	20501	3024			1165	438	SLV 14	0.14	No
ini.	2	0	98376	-1713			1165	438	SLV 2	0.26	No
fin.	2	0	4405	-2687			1165	438	SLV 2	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.673	SLV 15	No
V_SLV	0.099	SLV 13	No
PF_SLU	1.854	SLU 80	Si
V_SLU	0.099	SLU 71	No

Trave di accoppiamento 101

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	483	573	90	-741.3	-335.9	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	384	24260	103792	SLU 82	4.28	Si
fin.	3	142	2997	103792	SLU 82	34.63	Si
ini.	3	224	24624	103792	SLU 52	4.22	Si
fin.	3	166	-526	103792	SLU 52	197.3	Si
ini.	3	277	22917	103792	SLU 61	4.53	Si
fin.	3	101	2931	103792	SLU 61	35.42	Si
ini.	3	331	25967	103792	SLU 73	4	Si
fin.	3	206	-459	103792	SLU 73	225.98	Si
ini.	3	125	23313	103792	SLU 44	4.45	Si
fin.	3	158	-1658	103792	SLU 44	62.61	Si
ini.	3	392	22468	103792	SLU 75	4.62	Si
fin.	3	101	4952	103792	SLU 75	20.96	Si
ini.	3	387	23971	103792	SLU 76	4.33	Si
fin.	3	140	3012	103792	SLU 76	34.46	Si
ini.	3	288	22661	103792	SLU 68	4.58	Si
fin.	3	133	1880	103792	SLU 68	55.21	Si
ini.	3	280	22628	103792	SLU 55	4.59	Si
fin.	3	99	2945	103792	SLU 55	35.24	Si
ini.	3	232	24656	103792	SLU 65	4.21	Si
fin.	3	199	-1591	103792	SLU 65	65.24	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	23971	-2569			970	365	SLU 76	0.14	No
fin.	3	0	3012	1608			970	365	SLU 76	0.23	No
ini.	3	0	20473	-2475			970	365	SLU 78	0.15	No
fin.	3	0	8423	1872			970	365	SLU 78	0.2	No
ini.	3	0	24260	-2574			970	365	SLU 82	0.14	No
fin.	3	0	2997	1585			970	365	SLU 82	0.23	No
ini.	3	0	24624	-2489			970	365	SLU 52	0.15	No
fin.	3	0	-526	1308			970	365	SLU 52	0.28	No
ini.	3	0	24656	-2497			970	365	SLU 65	0.15	No
fin.	3	0	-1591	1270			970	365	SLU 65	0.29	No
ini.	3	0	22661	-2445			970	365	SLU 68	0.15	No
fin.	3	0	1880	1458			970	365	SLU 68	0.25	No
ini.	3	0	22917	-2442			970	365	SLU 61	0.15	No
fin.	3	0	2931	1473			970	365	SLU 61	0.25	No
ini.	3	0	25967	-2621			970	365	SLU 73	0.14	No
fin.	3	0	-459	1420			970	365	SLU 73	0.26	No
ini.	3	0	22264	-2522			970	365	SLU 84	0.14	No
fin.	3	0	6468	1773			970	365	SLU 84	0.21	No
ini.	3	0	22468	-2527			970	365	SLU 75	0.14	No
fin.	3	0	4952	1683			970	365	SLU 75	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2711	-77960	121694	SLV 13	1.56	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2681	161864	121694	SLV 13	0.75	No
ini.	2	1597	-60265	121694	SLV 11	2.02	Si
fin.	2	-2485	100240	121694	SLV 11	1.21	Si
ini.	2	-2303	107327	121694	SLV 3	1.13	Si
fin.	2	2713	-152264	121694	SLV 3	0.8	No
ini.	2	-2656	133284	121694	SLV 2	0.91	No
fin.	2	3645	-178863	121694	SLV 2	0.68	No
ini.	2	2711	-77960	121694	SLV 14	1.56	Si
fin.	2	-2681	161864	121694	SLV 14	0.75	No
ini.	2	1597	-60265	121694	SLV 12	2.02	Si
fin.	2	-2485	100240	121694	SLV 12	1.21	Si
ini.	2	3064	-103917	121694	SLV 16	1.17	Si
fin.	2	-3613	188463	121694	SLV 16	0.65	No
ini.	2	-2303	107327	121694	SLV 4	1.13	Si
fin.	2	2713	-152264	121694	SLV 4	0.8	No
ini.	2	3064	-103917	121694	SLV 15	1.17	Si
fin.	2	-3613	188463	121694	SLV 15	0.65	No
ini.	2	-2656	133284	121694	SLV 1	0.91	No
fin.	2	3645	-178863	121694	SLV 1	0.68	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	-103917	4714			1456	548	SLV 16	0.12	No
fin.	2	0	188463	8772			1456	548	SLV 16	0.06	No
ini.	2	0	-103917	4714			1456	548	SLV 15	0.12	No
fin.	2	0	188463	8772			1456	548	SLV 15	0.06	No
ini.	2	0	133284	-8183			1456	548	SLV 1	0.07	No
fin.	2	0	-178863	-6393			1456	548	SLV 1	0.09	No
ini.	2	0	133284	-8183			1456	548	SLV 2	0.07	No
fin.	2	0	-178863	-6393			1456	548	SLV 2	0.09	No
ini.	2	0	107327	-6449			1456	548	SLV 4	0.08	No
fin.	2	0	-152264	-4808			1456	548	SLV 4	0.11	No
ini.	2	0	89631	-6299			1456	548	SLV 6	0.09	No
fin.	2	0	-90641	-3489			1456	548	SLV 6	0.16	No
ini.	2	0	107327	-6449			1456	548	SLV 3	0.08	No
fin.	2	0	-152264	-4808			1456	548	SLV 3	0.11	No
ini.	2	0	89631	-6299			1456	548	SLV 5	0.09	No
fin.	2	0	-90641	-3489			1456	548	SLV 5	0.16	No
ini.	2	0	-77960	2980			1456	548	SLV 14	0.18	No
fin.	2	0	161864	7187			1456	548	SLV 14	0.08	No
ini.	2	0	-77960	2980			1456	548	SLV 13	0.18	No
fin.	2	0	161864	7187			1456	548	SLV 13	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.646	SLV 15	No
V_SLV	0.062	SLV 15	No
PF_SLU	3.997	SLU 73	Si
V_SLU	0.139	SLU 73	No

Trave di accoppiamento 102

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	753	835	82	-741.3	-335.9	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-188	-18339	89792	SLU 69	4.9	Si
fin.	3	29	-11938	89792	SLU 69	7.52	Si
ini.	3	-267	-19221	89792	SLU 58	4.67	Si
fin.	3	-28	-12482	89792	SLU 58	7.19	Si
ini.	3	-275	-19205	89792	SLU 37	4.68	Si
fin.	3	29	-10267	89792	SLU 37	8.75	Si
ini.	3	-247	-20878	89792	SLU 77	4.3	Si
fin.	3	-13	-13726	89792	SLU 77	6.54	Si
ini.	3	-232	-19671	89792	SLU 83	4.56	Si
fin.	3	-109	-15409	89792	SLU 83	5.83	Si
ini.	3	-224	-18735	89792	SLU 71	4.79	Si
fin.	3	33	-11419	89792	SLU 71	7.86	Si
ini.	3	-239	-18810	89792	SLU 35	4.77	Si
fin.	3	26	-10787	89792	SLU 35	8.32	Si
ini.	3	-232	-18826	89792	SLU 56	4.77	Si
fin.	3	-32	-13002	89792	SLU 56	6.91	Si
ini.	3	-171	-18189	89792	SLU 74	4.94	Si
fin.	3	-95	-15162	89792	SLU 74	5.92	Si
ini.	3	-283	-21273	89792	SLU 79	4.22	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-10	-13207	89792	SLU 79	6.8	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-21273	2495			806	303	SLU 79	0.12	No
fin.	3	0	-13207	-1786			806	303	SLU 79	0.17	No
ini.	3	0	-19671	2439			806	303	SLU 83	0.12	No
fin.	3	0	-15409	-1934			806	303	SLU 83	0.16	No
ini.	3	0	-19221	2237			806	303	SLU 58	0.14	No
fin.	3	0	-12482	-1633			806	303	SLU 58	0.19	No
ini.	3	0	-18189	2313			806	303	SLU 74	0.13	No
fin.	3	0	-15162	-1894			806	303	SLU 74	0.16	No
ini.	3	0	-17254	2280			806	303	SLU 78	0.13	No
fin.	3	0	-14835	-1884			806	303	SLU 78	0.16	No
ini.	3	0	-16982	2266			806	303	SLU 81	0.13	No
fin.	3	0	-16844	-2000			806	303	SLU 81	0.15	No
ini.	3	0	-20878	2486			806	303	SLU 77	0.12	No
fin.	3	0	-13726	-1828			806	303	SLU 77	0.17	No
ini.	3	0	-18826	2228			806	303	SLU 56	0.14	No
fin.	3	0	-13002	-1675			806	303	SLU 56	0.18	No
ini.	3	0	-16048	2233			806	303	SLU 84	0.14	No
fin.	3	0	-16517	-1990			806	303	SLU 84	0.15	No
ini.	3	0	-17649	2289			806	303	SLU 80	0.13	No
fin.	3	0	-14315	-1842			806	303	SLU 80	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4099	-117469	107694	SLV 15	0.92	No
fin.	2	1092	72225	107694	SLV 15	1.49	Si
ini.	2	-3304	-100269	107694	SLV 14	1.07	Si
fin.	2	962	35054	107694	SLV 14	3.07	Si
ini.	2	2346	47615	107694	SLV 5	2.26	Si
fin.	2	-677	-92791	107694	SLV 5	1.16	Si
ini.	2	3963	96372	107694	SLV 2	1.12	Si
fin.	2	-1325	-94913	107694	SLV 2	1.13	Si
ini.	2	-3304	-100269	107694	SLV 13	1.07	Si
fin.	2	962	35054	107694	SLV 13	3.07	Si
ini.	2	2346	47615	107694	SLV 6	2.26	Si
fin.	2	-677	-92791	107694	SLV 6	1.16	Si
ini.	2	3963	96372	107694	SLV 1	1.12	Si
fin.	2	-1325	-94913	107694	SLV 1	1.13	Si
ini.	2	3168	79172	107694	SLV 3	1.36	Si
fin.	2	-1194	-57742	107694	SLV 3	1.87	Si
ini.	2	3168	79172	107694	SLV 4	1.36	Si
fin.	2	-1194	-57742	107694	SLV 4	1.87	Si
ini.	2	-4099	-117469	107694	SLV 16	0.92	No
fin.	2	1092	72225	107694	SLV 16	1.49	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	96372	-3635			1208	455	SLV 2	0.13	No
fin.	2	0	-94913	-5555			1208	455	SLV 2	0.08	No
ini.	2	0	96372	-3635			1208	455	SLV 1	0.13	No
fin.	2	0	-94913	-5555			1208	455	SLV 1	0.08	No
ini.	2	0	-117469	6563			1208	455	SLV 16	0.07	No
fin.	2	0	72225	2855			1208	455	SLV 16	0.16	No
ini.	2	0	47615	-1910			1208	455	SLV 5	0.24	No
fin.	2	0	-92791	-4771			1208	455	SLV 5	0.1	No
ini.	2	0	-100269	5347			1208	455	SLV 13	0.09	No
fin.	2	0	35054	1432			1208	455	SLV 13	0.32	No
ini.	2	0	47615	-1910			1208	455	SLV 6	0.24	No
fin.	2	0	-92791	-4771			1208	455	SLV 6	0.1	No
ini.	2	0	-68712	4837			1208	455	SLV 11	0.09	No
fin.	2	0	70103	2071			1208	455	SLV 11	0.22	No
ini.	2	0	-68712	4837			1208	455	SLV 12	0.09	No
fin.	2	0	70103	2071			1208	455	SLV 12	0.22	No
ini.	2	0	-117469	6563			1208	455	SLV 15	0.07	No
fin.	2	0	72225	2855			1208	455	SLV 15	0.16	No
ini.	2	0	-100269	5347			1208	455	SLV 14	0.09	No
fin.	2	0	35054	1432			1208	455	SLV 14	0.32	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.917	SLV 15	No
V_SLV	0.069	SLV 15	No
PF_SLU	4.221	SLU 79	Si
V_SLU	0.122	SLU 79	No

Trave di accoppiamento 103

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	483	683	200	-600.8	-335.9	483	683	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-890	145616	296292	SLU 81	2.03	Si
fin.	3	2	99690	296292	SLU 81	2.97	Si
ini.	3	-935	153421	296292	SLU 84	1.93	Si
fin.	3	32	104347	296292	SLU 84	2.84	Si
ini.	3	-929	149607	296292	SLU 78	1.98	Si
fin.	3	23	103888	296292	SLU 78	2.85	Si
ini.	3	-933	146340	296292	SLU 75	2.02	Si
fin.	3	-5	99741	296292	SLU 75	2.97	Si
ini.	3	-958	148758	296292	SLU 76	1.99	Si
fin.	3	1	99912	296292	SLU 76	2.97	Si
ini.	3	-939	150154	296292	SLU 82	1.97	Si
fin.	3	3	100200	296292	SLU 82	2.96	Si
ini.	3	-962	145492	296292	SLU 73	2.04	Si
fin.	3	-28	95766	296292	SLU 73	3.09	Si
ini.	3	-921	148999	296292	SLU 80	1.99	Si
fin.	3	29	103720	296292	SLU 80	2.86	Si
ini.	3	-879	145069	296292	SLU 77	2.04	Si
fin.	3	22	103379	296292	SLU 77	2.87	Si
ini.	3	-886	148883	296292	SLU 83	1.99	Si
fin.	3	31	103837	296292	SLU 83	2.85	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	150154	-3518			2157	812	SLU 82	0.23	No
fin.	3	0	100200	-780			2157	812	SLU 82	1.04	Si
ini.	3	0	146340	-3418			2157	812	SLU 75	0.24	No
fin.	3	0	99741	-691			2157	812	SLU 75	1.17	Si
ini.	3	0	145069	-3294			2157	812	SLU 77	0.25	No
fin.	3	0	103379	-477			2157	812	SLU 77	1.7	Si
ini.	3	0	148758	-3511			2157	812	SLU 76	0.23	No
fin.	3	0	99912	-832			2157	812	SLU 76	0.98	No
ini.	3	0	148883	-3394			2157	812	SLU 83	0.24	No
fin.	3	0	103837	-566			2157	812	SLU 83	1.43	Si
ini.	3	0	149607	-3470			2157	812	SLU 78	0.23	No
fin.	3	0	103888	-676			2157	812	SLU 78	1.2	Si
ini.	3	0	153421	-3569			2157	812	SLU 84	0.23	No
fin.	3	0	104347	-765			2157	812	SLU 84	1.06	Si
ini.	3	0	145492	-3459			2157	812	SLU 73	0.23	No
fin.	3	0	95766	-847			2157	812	SLU 73	0.96	No
ini.	3	0	145616	-3343			2157	812	SLU 81	0.24	No
fin.	3	0	99690	-582			2157	812	SLU 81	1.4	Si
ini.	3	0	148999	-3445			2157	812	SLU 80	0.24	No
fin.	3	0	103720	-684			2157	812	SLU 80	1.19	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	γM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2074	-75804	314194	SLV 15	4.14	Si
fin.	2	1801	214297	314194	SLV 15	1.47	Si
ini.	2	-44	204417	314194	SLV 8	1.54	Si
fin.	2	1627	60685	314194	SLV 8	5.18	Si
ini.	2	-44	204417	314194	SLV 7	1.54	Si
fin.	2	1627	60685	314194	SLV 7	5.18	Si
ini.	2	1281	-108583	314194	SLV 13	2.89	Si
fin.	2	554	192155	314194	SLV 13	1.64	Si
ini.	2	2074	-75804	314194	SLV 16	4.14	Si
fin.	2	1801	214297	314194	SLV 16	1.47	Si
ini.	2	-3400	263693	314194	SLV 1	1.19	Si
fin.	2	-1952	-83914	314194	SLV 1	3.74	Si
ini.	2	-3400	263693	314194	SLV 2	1.19	Si
fin.	2	-1952	-83914	314194	SLV 2	3.74	Si
ini.	2	-2607	296472	314194	SLV 4	1.06	Si
fin.	2	-705	-61772	314194	SLV 4	5.09	Si
ini.	2	1281	-108583	314194	SLV 14	2.89	Si
fin.	2	554	192155	314194	SLV 14	1.64	Si
ini.	2	-2607	296472	314194	SLV 3	1.06	Si
fin.	2	-705	-61772	314194	SLV 3	5.09	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	γM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-108583	6281			3235	1217	SLV 14	0.19	No
fin.	2	0	192155	9011			3235	1217	SLV 14	0.14	No
ini.	2	0	263693	-10262			3235	1217	SLV 2	0.12	No
fin.	2	0	-83914	-8832			3235	1217	SLV 2	0.14	No
ini.	2	0	-75804	5933			3235	1217	SLV 16	0.21	No
fin.	2	0	214297	8230			3235	1217	SLV 16	0.15	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	296472	-10610			3235	1217	SLV 4	0.11	No
fin.	2	0	-61772	-9613			3235	1217	SLV 4	0.13	No
ini.	2	0	180050	-5787			3235	1217	SLD 4	0.21	No
fin.	2	0	9962	-4295			3235	1217	SLD 4	0.28	No
ini.	2	0	-108583	6281			3235	1217	SLV 13	0.19	No
fin.	2	0	192155	9011			3235	1217	SLV 13	0.14	No
ini.	2	0	296472	-10610			3235	1217	SLV 3	0.11	No
fin.	2	0	-61772	-9613			3235	1217	SLV 3	0.13	No
ini.	2	0	180050	-5787			3235	1217	SLD 3	0.21	No
fin.	2	0	9962	-4295			3235	1217	SLD 3	0.28	No
ini.	2	0	-75804	5933			3235	1217	SLV 15	0.21	No
fin.	2	0	214297	8230			3235	1217	SLV 15	0.15	No
ini.	2	0	263693	-10262			3235	1217	SLV 1	0.12	No
fin.	2	0	-83914	-8832			3235	1217	SLV 1	0.14	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.06	SLV 3	Si
V_SLV	0.115	SLV 3	No
PF_SLU	1.931	SLU 84	Si
V_SLU	0.227	SLU 84	No

Trave di accoppiamento 104

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	763	835	72	-600.8	-335.9	763	835	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	227	11290	72292	SLU 77	6.4	Si
fin.	3	-57	-19226	72292	SLU 77	3.76	Si
ini.	3	284	13290	72292	SLU 84	5.44	Si
fin.	3	11	-17351	72292	SLU 84	4.17	Si
ini.	3	270	12288	72292	SLU 78	5.88	Si
fin.	3	4	-17594	72292	SLU 78	4.11	Si
ini.	3	233	11971	72292	SLU 80	6.04	Si
fin.	3	-35	-17763	72292	SLU 80	4.07	Si
ini.	3	135	9395	72292	SLU 37	7.69	Si
fin.	3	-121	-17252	72292	SLU 37	4.19	Si
ini.	3	241	12292	72292	SLU 83	5.88	Si
fin.	3	-49	-18983	72292	SLU 83	3.81	Si
ini.	3	189	10973	72292	SLU 79	6.59	Si
fin.	3	-95	-19395	72292	SLU 79	3.73	Si
ini.	3	291	12775	72292	SLU 81	5.66	Si
fin.	3	18	-17457	72292	SLU 81	4.14	Si
ini.	3	277	11773	72292	SLU 74	6.14	Si
fin.	3	11	-17700	72292	SLU 74	4.08	Si
ini.	3	166	9502	72292	SLU 58	7.61	Si
fin.	3	-84	-17317	72292	SLU 58	4.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	12775	82			776	292	SLU 81	3.56	Si
fin.	3	0	-17457	-2631			776	292	SLU 81	0.11	No
ini.	3	0	11971	66			776	292	SLU 80	4.41	Si
fin.	3	0	-17763	-2548			776	292	SLU 80	0.11	No
ini.	3	0	13773	79			776	292	SLU 82	3.7	Si
fin.	3	0	-15825	-2540			776	292	SLU 82	0.12	No
ini.	3	0	12771	90			776	292	SLU 75	3.26	Si
fin.	3	0	-16068	-2500			776	292	SLU 75	0.12	No
ini.	3	0	10973	69			776	292	SLU 79	4.21	Si
fin.	3	0	-19395	-2639			776	292	SLU 79	0.11	No
ini.	3	0	11290	78			776	292	SLU 77	3.77	Si
fin.	3	0	-19226	-2666			776	292	SLU 77	0.11	No
ini.	3	0	13290	64			776	292	SLU 84	4.57	Si
fin.	3	0	-17351	-2615			776	292	SLU 84	0.11	No
ini.	3	0	12288	75			776	292	SLU 78	3.92	Si
fin.	3	0	-17594	-2575			776	292	SLU 78	0.11	No
ini.	3	0	12292	67			776	292	SLU 83	4.36	Si
fin.	3	0	-18983	-2705			776	292	SLU 83	0.11	No
ini.	3	0	11773	93			776	292	SLU 74	3.15	Si
fin.	3	0	-17700	-2591			776	292	SLU 74	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2516	49947	90194	SLV 6	1.81	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1853	13091	90194	SLV 6	6.89	Si
ini.	2	4393	97529	90194	SLV 1	0.92	No
fin.	2	3256	1382	90194	SLV 1	65.28	Si
ini.	2	-3959	-81692	90194	SLV 16	1.1	Si
fin.	2	-3142	-23097	90194	SLV 16	3.9	Si
ini.	2	3703	87542	90194	SLV 3	1.03	Si
fin.	2	2704	-11988	90194	SLV 3	7.52	Si
ini.	2	2516	49947	90194	SLV 5	1.81	Si
fin.	2	1853	13091	90194	SLV 5	6.89	Si
ini.	2	-3959	-81692	90194	SLV 15	1.1	Si
fin.	2	-3142	-23097	90194	SLV 15	3.9	Si
ini.	2	-3269	-71706	90194	SLV 14	1.26	Si
fin.	2	-2591	-9728	90194	SLV 14	9.27	Si
ini.	2	4393	97529	90194	SLV 2	0.92	No
fin.	2	3256	1382	90194	SLV 2	65.28	Si
ini.	2	-3269	-71706	90194	SLV 13	1.26	Si
fin.	2	-2591	-9728	90194	SLV 13	9.27	Si
ini.	2	3703	87542	90194	SLV 4	1.03	Si
fin.	2	2704	-11988	90194	SLV 4	7.52	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	42196	-1029			1165	438	SLD 4	0.43	No
fin.	2	0	-11162	-2661			1165	438	SLD 4	0.16	No
ini.	2	0	87542	-2549			1165	438	SLV 4	0.17	No
fin.	2	0	-11988	-3979			1165	438	SLV 4	0.11	No
ini.	2	0	97529	-1741			1165	438	SLV 1	0.25	No
fin.	2	0	1382	-3308			1165	438	SLV 1	0.13	No
ini.	2	0	97529	-1741			1165	438	SLV 2	0.25	No
fin.	2	0	1382	-3308			1165	438	SLV 2	0.13	No
ini.	2	0	-71706	2749			1165	438	SLV 14	0.16	No
fin.	2	0	-9728	594			1165	438	SLV 14	0.74	No
ini.	2	0	42196	-1029			1165	438	SLD 3	0.43	No
fin.	2	0	-11162	-2661			1165	438	SLD 3	0.16	No
ini.	2	0	16659	-1921			1165	438	SLV 7	0.23	No
fin.	2	0	-31474	-3396			1165	438	SLV 7	0.13	No
ini.	2	0	87542	-2549			1165	438	SLV 3	0.17	No
fin.	2	0	-11988	-3979			1165	438	SLV 3	0.11	No
ini.	2	0	16659	-1921			1165	438	SLV 8	0.23	No
fin.	2	0	-31474	-3396			1165	438	SLV 8	0.13	No
ini.	2	0	-71706	2749			1165	438	SLV 13	0.16	No
fin.	2	0	-9728	594			1165	438	SLV 13	0.74	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.925	SLV 1	No
V_SLV	0.11	SLV 3	No
PF_SLU	3.727	SLU 79	Si
V_SLU	0.108	SLU 83	No

Trave di accoppiamento 105

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	483	573	90	-318.3	-335.9	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-927	-41848	103792	SLU 73	2.48	Si
fin.	3	-3035	69219	103792	SLU 73	1.5	Si
ini.	3	-901	-40088	103792	SLU 84	2.59	Si
fin.	3	-2964	68879	103792	SLU 84	1.51	Si
ini.	3	-969	-36893	103792	SLU 55	2.81	Si
fin.	3	-2886	63491	103792	SLU 55	1.63	Si
ini.	3	-859	-40408	103792	SLU 82	2.57	Si
fin.	3	-2914	68350	103792	SLU 82	1.52	Si
ini.	3	-933	-38551	103792	SLU 78	2.69	Si
fin.	3	-2945	67662	103792	SLU 78	1.53	Si
ini.	3	-891	-38871	103792	SLU 75	2.67	Si
fin.	3	-2896	67133	103792	SLU 75	1.55	Si
ini.	3	-798	-35105	103792	SLU 83	2.96	Si
fin.	3	-2656	63778	103792	SLU 83	1.63	Si
ini.	3	-969	-41528	103792	SLU 76	2.5	Si
fin.	3	-3085	69748	103792	SLU 76	1.49	Si
ini.	3	-966	-37137	103792	SLU 68	2.79	Si
fin.	3	-2890	63842	103792	SLU 68	1.63	Si
ini.	3	-942	-37886	103792	SLU 80	2.74	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2929	66876	103792	SLU 80	1.55	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-37886	1454			970	365	SLU 80	0.25	No
fin.	3	0	66876	3190			970	365	SLU 80	0.11	No
ini.	3	0	-41528	1683			970	365	SLU 76	0.22	No
fin.	3	0	69748	3204			970	365	SLU 76	0.11	No
ini.	3	0	-35105	1247			970	365	SLU 83	0.29	No
fin.	3	0	63778	3171			970	365	SLU 83	0.12	No
ini.	3	0	-40088	1553			970	365	SLU 84	0.24	No
fin.	3	0	68879	3258			970	365	SLU 84	0.11	No
ini.	3	0	-41848	1709			970	365	SLU 73	0.21	No
fin.	3	0	69219	3161			970	365	SLU 73	0.12	No
ini.	3	0	-38871	1495			970	365	SLU 75	0.24	No
fin.	3	0	67133	3193			970	365	SLU 75	0.11	No
ini.	3	0	-33568	1163			970	365	SLU 77	0.31	No
fin.	3	0	62562	3150			970	365	SLU 77	0.12	No
ini.	3	0	-38551	1469			970	365	SLU 78	0.25	No
fin.	3	0	67662	3237			970	365	SLU 78	0.11	No
ini.	3	0	-35425	1273			970	365	SLU 81	0.29	No
fin.	3	0	63250	3128			970	365	SLU 81	0.12	No
ini.	3	0	-40408	1579			970	365	SLU 82	0.23	No
fin.	3	0	68350	3215			970	365	SLU 82	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1263	-178855	121694	SLV 14	0.68	No
fin.	2	-6332	172926	121694	SLV 14	0.7	No
ini.	2	1263	-178855	121694	SLV 13	0.68	No
fin.	2	-6332	172926	121694	SLV 13	0.7	No
ini.	2	-2421	133534	121694	SLV 4	0.91	No
fin.	2	2725	-87974	121694	SLV 4	1.38	Si
ini.	2	-753	-90018	121694	SLV 9	1.35	Si
fin.	2	-4805	106664	121694	SLV 9	1.14	Si
ini.	2	-2901	120018	121694	SLV 2	1.01	Si
fin.	2	1642	-71455	121694	SLV 2	1.7	Si
ini.	2	-2421	133534	121694	SLV 3	0.91	No
fin.	2	2725	-87974	121694	SLV 3	1.38	Si
ini.	2	1743	-165340	121694	SLV 15	0.74	No
fin.	2	-5248	156408	121694	SLV 15	0.78	No
ini.	2	-2901	120018	121694	SLV 1	1.01	Si
fin.	2	1642	-71455	121694	SLV 1	1.7	Si
ini.	2	-753	-90018	121694	SLV 10	1.35	Si
fin.	2	-4805	106664	121694	SLV 10	1.14	Si
ini.	2	1743	-165340	121694	SLV 16	0.74	No
fin.	2	-5248	156408	121694	SLV 16	0.78	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-178855	6315			1456	548	SLV 14	0.09	No
fin.	2	0	172926	8631			1456	548	SLV 14	0.06	No
ini.	2	0	-89253	3171			1456	548	SLD 13	0.17	No
fin.	2	0	98032	4908			1456	548	SLD 13	0.11	No
ini.	2	0	120018	-5301			1456	548	SLV 1	0.1	No
fin.	2	0	-71455	-3876			1456	548	SLV 1	0.14	No
ini.	2	0	-165340	6911			1456	548	SLV 16	0.08	No
fin.	2	0	156408	8134			1456	548	SLV 16	0.07	No
ini.	2	0	120018	-5301			1456	548	SLV 2	0.1	No
fin.	2	0	-71455	-3876			1456	548	SLV 2	0.14	No
ini.	2	0	-165340	6911			1456	548	SLV 15	0.08	No
fin.	2	0	156408	8134			1456	548	SLV 15	0.07	No
ini.	2	0	-90018	1553			1456	548	SLV 10	0.35	No
fin.	2	0	106664	4834			1456	548	SLV 10	0.11	No
ini.	2	0	-90018	1553			1456	548	SLV 9	0.35	No
fin.	2	0	106664	4834			1456	548	SLV 9	0.11	No
ini.	2	0	-178855	6315			1456	548	SLV 13	0.09	No
fin.	2	0	172926	8631			1456	548	SLV 13	0.06	No
ini.	2	0	-89253	3171			1456	548	SLD 14	0.17	No
fin.	2	0	98032	4908			1456	548	SLD 14	0.11	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.68	SLV 13	No
V_SLV	0.063	SLV 13	No
PF_SLU	1.488	SLU 76	Si
V_SLU	0.112	SLU 84	No

Trave di accoppiamento 106

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	753	835	82	-318.3	-335.9	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1820	-57416	89792	SLU 68	1.56	Si
fin.	3	-359	7867	89792	SLU 68	11.41	Si
ini.	3	-1753	-57743	89792	SLU 83	1.56	Si
fin.	3	-350	4505	89792	SLU 83	19.93	Si
ini.	3	-1934	-62525	89792	SLU 82	1.44	Si
fin.	3	-348	7962	89792	SLU 82	11.28	Si
ini.	3	-1880	-61104	89792	SLU 75	1.47	Si
fin.	3	-340	7209	89792	SLU 75	12.45	Si
ini.	3	-2002	-63586	89792	SLU 76	1.41	Si
fin.	3	-383	8614	89792	SLU 76	10.42	Si
ini.	3	-1886	-60502	89792	SLU 80	1.48	Si
fin.	3	-394	6043	89792	SLU 80	14.86	Si
ini.	3	-1895	-61415	89792	SLU 78	1.46	Si
fin.	3	-368	6410	89792	SLU 78	14.01	Si
ini.	3	-1949	-62836	89792	SLU 84	1.43	Si
fin.	3	-376	7162	89792	SLU 84	12.54	Si
ini.	3	-1738	-57432	89792	SLU 81	1.56	Si
fin.	3	-322	5305	89792	SLU 81	16.93	Si
ini.	3	-1987	-63275	89792	SLU 73	1.42	Si
fin.	3	-355	9413	89792	SLU 73	9.54	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-57432	3138			806	303	SLU 81	0.1	No
fin.	3	0	5305	-698			806	303	SLU 81	0.43	No
ini.	3	0	-62836	3318			806	303	SLU 84	0.09	No
fin.	3	0	7162	-564			806	303	SLU 84	0.54	No
ini.	3	0	-63275	3253			806	303	SLU 73	0.09	No
fin.	3	0	9413	-346			806	303	SLU 73	0.88	No
ini.	3	0	-61104	3222			806	303	SLU 75	0.09	No
fin.	3	0	7209	-521			806	303	SLU 75	0.58	No
ini.	3	0	-62525	3294			806	303	SLU 82	0.09	No
fin.	3	0	7962	-509			806	303	SLU 82	0.6	No
ini.	3	0	-61415	3246			806	303	SLU 78	0.09	No
fin.	3	0	6410	-576			806	303	SLU 78	0.53	No
ini.	3	0	-56323	3090			806	303	SLU 77	0.1	No
fin.	3	0	3753	-765			806	303	SLU 77	0.4	No
ini.	3	0	-57743	3162			806	303	SLU 83	0.1	No
fin.	3	0	4505	-753			806	303	SLU 83	0.4	No
ini.	3	0	-63586	3277			806	303	SLU 76	0.09	No
fin.	3	0	8614	-401			806	303	SLU 76	0.76	No
ini.	3	0	-60502	3197			806	303	SLU 80	0.09	No
fin.	3	0	6043	-582			806	303	SLU 80	0.52	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3755	-162575	107694	SLV 14	0.66	No
fin.	2	2017	98131	107694	SLV 14	1.1	Si
ini.	2	946	71269	107694	SLV 2	1.51	Si
fin.	2	-2501	-91172	107694	SLV 2	1.18	Si
ini.	2	-3246	-146684	107694	SLV 15	0.73	No
fin.	2	2041	97586	107694	SLV 15	1.1	Si
ini.	2	946	71269	107694	SLV 1	1.51	Si
fin.	2	-2501	-91172	107694	SLV 1	1.18	Si
ini.	2	-2702	-99269	107694	SLV 10	1.08	Si
fin.	2	407	32511	107694	SLV 10	3.31	Si
ini.	2	-3755	-162575	107694	SLV 13	0.66	No
fin.	2	2017	98131	107694	SLV 13	1.1	Si
ini.	2	1454	87160	107694	SLV 4	1.24	Si
fin.	2	-2477	-91718	107694	SLV 4	1.17	Si
ini.	2	-3246	-146684	107694	SLV 16	0.73	No
fin.	2	2041	97586	107694	SLV 16	1.1	Si
ini.	2	1454	87160	107694	SLV 3	1.24	Si
fin.	2	-2477	-91718	107694	SLV 3	1.17	Si
ini.	2	-2702	-99269	107694	SLV 9	1.08	Si
fin.	2	407	32511	107694	SLV 9	3.31	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	71269	-2290			1208	455	SLV 2	0.2	No
fin.	2	0	-91172	-5119			1208	455	SLV 2	0.09	No
ini.	2	0	-146684	6410			1208	455	SLV 15	0.07	No
fin.	2	0	97586	4210			1208	455	SLV 15	0.11	No
ini.	2	0	71269	-2290			1208	455	SLV 1	0.2	No
fin.	2	0	-91172	-5119			1208	455	SLV 1	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-146684	6410			1208	455	SLV 16	0.07	No
fin.	2	0	97586	4210			1208	455	SLV 16	0.11	No
ini.	2	0	-99269	4210			1208	455	SLV 9	0.11	No
fin.	2	0	32511	401			1208	455	SLV 9	1.13	Si
ini.	2	0	87160	-2755			1208	455	SLV 3	0.17	No
fin.	2	0	-91718	-4820			1208	455	SLV 3	0.09	No
ini.	2	0	-99269	4210			1208	455	SLV 10	0.11	No
fin.	2	0	32511	401			1208	455	SLV 10	1.13	Si
ini.	2	0	-162575	6875			1208	455	SLV 14	0.07	No
fin.	2	0	98131	3911			1208	455	SLV 14	0.12	No
ini.	2	0	87160	-2755			1208	455	SLV 4	0.17	No
fin.	2	0	-91718	-4820			1208	455	SLV 4	0.09	No
ini.	2	0	-162575	6875			1208	455	SLV 13	0.07	No
fin.	2	0	98131	3911			1208	455	SLV 13	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.662	SLV 13	No
V_SLV	0.066	SLV 13	No
PF_SLU	1.412	SLU 76	Si
V_SLU	0.091	SLU 84	No

Trave di accoppiamento 107

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	483	573	90	-296.3	595.1	483	573	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1035	-831	103792	SLU 81	124.86	Si
fin.	3	-1706	22429	103792	SLU 81	4.63	Si
ini.	3	-1154	2226	103792	SLU 75	46.62	Si
fin.	3	-1774	21150	103792	SLU 75	4.91	Si
ini.	3	-1225	2844	103792	SLU 83	36.5	Si
fin.	3	-1854	21616	103792	SLU 83	4.8	Si
ini.	3	-898	-1574	103792	SLU 61	65.94	Si
fin.	3	-1516	20477	103792	SLU 61	5.07	Si
ini.	3	-1180	2257	103792	SLU 84	45.99	Si
fin.	3	-1822	21742	103792	SLU 84	4.77	Si
ini.	3	-964	-998	103792	SLU 73	104	Si
fin.	3	-1617	21497	103792	SLU 73	4.83	Si
ini.	3	-989	-1418	103792	SLU 82	73.17	Si
fin.	3	-1674	22554	103792	SLU 82	4.6	Si
ini.	3	-1199	2813	103792	SLU 74	36.89	Si
fin.	3	-1806	21025	103792	SLU 74	4.94	Si
ini.	3	-943	-987	103792	SLU 60	105.18	Si
fin.	3	-1547	20351	103792	SLU 60	5.1	Si
ini.	3	-1155	2677	103792	SLU 76	38.77	Si
fin.	3	-1764	20685	103792	SLU 76	5.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	6489	-741			970	365	SLU 77	0.49	No
fin.	3	0	20212	1279			970	365	SLU 77	0.29	No
ini.	3	0	5901	-697			970	365	SLU 78	0.52	No
fin.	3	0	20338	1272			970	365	SLU 78	0.29	No
ini.	3	0	2844	-614			970	365	SLU 83	0.59	No
fin.	3	0	21616	1338			970	365	SLU 83	0.27	No
ini.	3	0	2226	-582			970	365	SLU 75	0.63	No
fin.	3	0	21150	1311			970	365	SLU 75	0.28	No
ini.	3	0	-998	-447			970	365	SLU 73	0.82	No
fin.	3	0	21497	1306			970	365	SLU 73	0.28	No
ini.	3	0	2257	-571			970	365	SLU 84	0.64	No
fin.	3	0	21742	1332			970	365	SLU 84	0.27	No
ini.	3	0	-1418	-455			970	365	SLU 82	0.8	No
fin.	3	0	22554	1370			970	365	SLU 82	0.27	No
ini.	3	0	2813	-625			970	365	SLU 74	0.58	No
fin.	3	0	21025	1317			970	365	SLU 74	0.28	No
ini.	3	0	-831	-498			970	365	SLU 81	0.73	No
fin.	3	0	22429	1376			970	365	SLU 81	0.27	No
ini.	3	0	2677	-562			970	365	SLU 76	0.65	No
fin.	3	0	20685	1268			970	365	SLU 76	0.29	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1859	-103267	121694	SLV 13	1.18	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2933	143812	121694	SLV 13	0.85	No
ini.	2	-2735	122175	121694	SLV 1	1	No
fin.	2	1322	-129691	121694	SLV 1	0.94	No
ini.	2	-1258	-61573	121694	SLV 11	1.98	Si
fin.	2	-3188	80894	121694	SLV 11	1.5	Si
ini.	2	-3431	105001	121694	SLV 3	1.16	Si
fin.	2	517	-114549	121694	SLV 3	1.06	Si
ini.	2	1859	-103267	121694	SLV 14	1.18	Si
fin.	2	-2933	143812	121694	SLV 14	0.85	No
ini.	2	-1258	-61573	121694	SLV 12	1.98	Si
fin.	2	-3188	80894	121694	SLV 12	1.5	Si
ini.	2	1163	-120441	121694	SLV 16	1.01	Si
fin.	2	-3738	158954	121694	SLV 16	0.77	No
ini.	2	-3431	105001	121694	SLV 4	1.16	Si
fin.	2	517	-114549	121694	SLV 4	1.06	Si
ini.	2	1163	-120441	121694	SLV 15	1.01	Si
fin.	2	-3738	158954	121694	SLV 15	0.77	No
ini.	2	-2735	122175	121694	SLV 2	1	No
fin.	2	1322	-129691	121694	SLV 2	0.94	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	122175	-4867			1456	548	SLV 1	0.11	No
fin.	2	0	-129691	-4430			1456	548	SLV 1	0.12	No
ini.	2	0	105001	-5571			1456	548	SLV 4	0.1	No
fin.	2	0	-114549	-3984			1456	548	SLV 4	0.14	No
ini.	2	0	-103267	4736			1456	548	SLV 13	0.12	No
fin.	2	0	143812	5824			1456	548	SLV 13	0.09	No
ini.	2	0	105001	-5571			1456	548	SLV 3	0.1	No
fin.	2	0	-114549	-3984			1456	548	SLV 3	0.14	No
ini.	2	0	122175	-4867			1456	548	SLV 2	0.11	No
fin.	2	0	-129691	-4430			1456	548	SLV 2	0.12	No
ini.	2	0	-120441	4032			1456	548	SLV 15	0.14	No
fin.	2	0	158954	6271			1456	548	SLV 15	0.09	No
ini.	2	0	-50903	1488			1456	548	SLD 15	0.37	No
fin.	2	0	76234	3207			1456	548	SLD 15	0.17	No
ini.	2	0	-50903	1488			1456	548	SLD 16	0.37	No
fin.	2	0	76234	3207			1456	548	SLD 16	0.17	No
ini.	2	0	-120441	4032			1456	548	SLV 16	0.14	No
fin.	2	0	158954	6271			1456	548	SLV 16	0.09	No
ini.	2	0	-103267	4736			1456	548	SLV 14	0.12	No
fin.	2	0	143812	5824			1456	548	SLV 14	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.766	SLV 15	No
V_SLV	0.087	SLV 15	No
PF_SLU	4.602	SLU 82	Si
V_SLU	0.265	SLU 81	No

Trave di accoppiamento 108

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	753	835	82	-296.3	595.1	753	835	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-770	-26686	89792	SLU 74	3.36	Si
fin.	3	-519	-9345	89792	SLU 74	9.61	Si
ini.	3	-768	-26665	89792	SLU 75	3.37	Si
fin.	3	-504	-8778	89792	SLU 75	10.23	Si
ini.	3	-757	-27350	89792	SLU 61	3.28	Si
fin.	3	-328	-1625	89792	SLU 61	55.24	Si
ini.	3	-791	-28148	89792	SLU 73	3.19	Si
fin.	3	-390	-3546	89792	SLU 73	25.32	Si
ini.	3	-811	-27492	89792	SLU 83	3.27	Si
fin.	3	-561	-10048	89792	SLU 83	8.94	Si
ini.	3	-849	-30018	89792	SLU 81	2.99	Si
fin.	3	-425	-3853	89792	SLU 81	23.31	Si
ini.	3	-739	-25812	89792	SLU 39	3.48	Si
fin.	3	-376	-3294	89792	SLU 39	27.26	Si
ini.	3	-846	-29998	89792	SLU 82	2.99	Si
fin.	3	-410	-3286	89792	SLU 82	27.33	Si
ini.	3	-808	-27471	89792	SLU 84	3.27	Si
fin.	3	-546	-9481	89792	SLU 84	9.47	Si
ini.	3	-759	-27371	89792	SLU 60	3.28	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-342	-2192	89792	SLU 60	40.96	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27492	2192			806	303	SLU 83	0.14	No
fin.	3	0	-10048	-1221			806	303	SLU 83	0.25	No
ini.	3	0	-27350	2160			806	303	SLU 61	0.14	No
fin.	3	0	-1625	-887			806	303	SLU 61	0.34	No
ini.	3	0	-27371	2167			806	303	SLU 60	0.14	No
fin.	3	0	-2192	-912			806	303	SLU 60	0.33	No
ini.	3	0	-26665	2117			806	303	SLU 75	0.14	No
fin.	3	0	-8778	-1143			806	303	SLU 75	0.27	No
ini.	3	0	-26686	2123			806	303	SLU 74	0.14	No
fin.	3	0	-9345	-1168			806	303	SLU 74	0.26	No
ini.	3	0	-30018	2378			806	303	SLU 81	0.13	No
fin.	3	0	-3853	-1052			806	303	SLU 81	0.29	No
ini.	3	0	-27471	2185			806	303	SLU 84	0.14	No
fin.	3	0	-9481	-1196			806	303	SLU 84	0.25	No
ini.	3	0	-25812	2044			806	303	SLU 39	0.15	No
fin.	3	0	-3294	-900			806	303	SLU 39	0.34	No
ini.	3	0	-28148	2223			806	303	SLU 73	0.14	No
fin.	3	0	-3546	-982			806	303	SLU 73	0.31	No
ini.	3	0	-29998	2372			806	303	SLU 82	0.13	No
fin.	3	0	-3286	-1027			806	303	SLU 82	0.3	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1289	79354	107694	SLV 1	1.36	Si
fin.	2	-2681	-120737	107694	SLV 1	0.89	No
ini.	2	-1579	-72721	107694	SLV 12	1.48	Si
fin.	2	949	61096	107694	SLV 12	1.76	Si
ini.	2	-2022	-101461	107694	SLV 13	1.06	Si
fin.	2	1760	93450	107694	SLV 13	1.15	Si
ini.	2	-2022	-101461	107694	SLV 14	1.06	Si
fin.	2	1760	93450	107694	SLV 14	1.15	Si
ini.	2	-2352	-117405	107694	SLV 15	0.92	No
fin.	2	2103	113117	107694	SLV 15	0.95	No
ini.	2	958	63410	107694	SLV 4	1.7	Si
fin.	2	-2338	-101070	107694	SLV 4	1.07	Si
ini.	2	-1579	-72721	107694	SLV 11	1.48	Si
fin.	2	949	61096	107694	SLV 11	1.76	Si
ini.	2	958	63410	107694	SLV 3	1.7	Si
fin.	2	-2338	-101070	107694	SLV 3	1.07	Si
ini.	2	-2352	-117405	107694	SLV 16	0.92	No
fin.	2	2103	113117	107694	SLV 16	0.95	No
ini.	2	1289	79354	107694	SLV 2	1.36	Si
fin.	2	-2681	-120737	107694	SLV 2	0.89	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-101461	5229			1208	455	SLV 13	0.09	No
fin.	2	0	93450	3414			1208	455	SLV 13	0.13	No
ini.	2	0	-117405	5797			1208	455	SLV 15	0.08	No
fin.	2	0	113117	2984			1208	455	SLV 15	0.15	No
ini.	2	0	79354	-2779			1208	455	SLV 1	0.16	No
fin.	2	0	-120737	-4432			1208	455	SLV 1	0.1	No
ini.	2	0	79354	-2779			1208	455	SLV 2	0.16	No
fin.	2	0	-120737	-4432			1208	455	SLV 2	0.1	No
ini.	2	0	-117405	5797			1208	455	SLV 16	0.08	No
fin.	2	0	113117	2984			1208	455	SLV 16	0.15	No
ini.	2	0	63410	-2210			1208	455	SLV 3	0.21	No
fin.	2	0	-101070	-4861			1208	455	SLV 3	0.09	No
ini.	2	0	-72721	3657			1208	455	SLV 12	0.12	No
fin.	2	0	61096	-263			1208	455	SLV 12	1.73	Si
ini.	2	0	63410	-2210			1208	455	SLV 4	0.21	No
fin.	2	0	-101070	-4861			1208	455	SLV 4	0.09	No
ini.	2	0	-101461	5229			1208	455	SLV 14	0.09	No
fin.	2	0	93450	3414			1208	455	SLV 14	0.13	No
ini.	2	0	-72721	3657			1208	455	SLV 11	0.12	No
fin.	2	0	61096	-263			1208	455	SLV 11	1.73	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.892	SLV 1	No
V_SLV	0.078	SLV 15	No
PF_SLU	2.991	SLU 81	Si
V_SLU	0.128	SLU 81	No

Trave di accoppiamento 109

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2467.8	126.6	1045	1187	142	-2467.8	206.6	1045	1187	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2303	75756	194792	SLU 79	2.57	Si
fin.	3	-2303	-183730	194792	SLU 79	1.06	Si
ini.	3	-2217	86072	194792	SLU 84	2.26	Si
fin.	3	-2217	-184722	194792	SLU 84	1.05	Si
ini.	3	-2045	95540	194792	SLU 41	2.04	Si
fin.	3	-2045	-180709	194792	SLU 41	1.08	Si
ini.	3	-2184	68964	194792	SLU 78	2.82	Si
fin.	3	-2184	-176727	194792	SLU 78	1.1	Si
ini.	3	-2394	99274	194792	SLU 83	1.96	Si
fin.	3	-2394	-197026	194792	SLU 83	0.99	No
ini.	3	-2380	109466	194792	SLU 81	1.78	Si
fin.	3	-2380	-194622	194792	SLU 81	1	Si
ini.	3	-2361	82166	194792	SLU 77	2.37	Si
fin.	3	-2361	-189032	194792	SLU 77	1.03	Si
ini.	3	-2030	105732	194792	SLU 39	1.84	Si
fin.	3	-2030	-178304	194792	SLU 39	1.09	Si
ini.	3	-2203	96264	194792	SLU 82	2.02	Si
fin.	3	-2203	-182318	194792	SLU 82	1.07	Si
ini.	3	-2346	92358	194792	SLU 74	2.11	Si
fin.	3	-2346	-186627	194792	SLU 74	1.04	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	92358	-3160			1531	576	SLU 74	0.18	No
fin.	3	0	-186627	-3871			1531	576	SLU 74	0.15	No
ini.	3	0	105732	-3296			1531	576	SLU 39	0.17	No
fin.	3	0	-178304	-3847			1531	576	SLU 39	0.15	No
ini.	3	0	96264	-3155			1531	576	SLU 82	0.18	No
fin.	3	0	-182318	-3866			1531	576	SLU 82	0.15	No
ini.	3	0	95540	-3199			1531	576	SLU 41	0.18	No
fin.	3	0	-180709	-3749			1531	576	SLU 41	0.15	No
ini.	3	0	75756	-2916			1531	576	SLU 79	0.2	No
fin.	3	0	-183730	-3627			1531	576	SLU 79	0.16	No
ini.	3	0	109466	-3474			1531	576	SLU 81	0.17	No
fin.	3	0	-194622	-4185			1531	576	SLU 81	0.14	No
ini.	3	0	82166	-3063			1531	576	SLU 77	0.19	No
fin.	3	0	-189032	-3774			1531	576	SLU 77	0.15	No
ini.	3	0	86072	-3058			1531	576	SLU 84	0.19	No
fin.	3	0	-184722	-3768			1531	576	SLU 84	0.15	No
ini.	3	0	79156	-2841			1531	576	SLU 75	0.2	No
fin.	3	0	-174323	-3552			1531	576	SLU 75	0.16	No
ini.	3	0	99274	-3376			1531	576	SLU 83	0.17	No
fin.	3	0	-197026	-4087			1531	576	SLU 83	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1663	273276	212694	SLV 7	0.78	No
fin.	2	-2080	-346341	212694	SLV 7	0.61	No
ini.	2	-1611	146944	212694	SLD 8	1.45	Si
fin.	2	-1786	-212210	212694	SLD 8	1	Si
ini.	2	-1779	120272	212694	SLD 3	1.77	Si
fin.	2	-1906	-195822	212694	SLD 3	1.09	Si
ini.	2	-1611	146944	212694	SLD 7	1.45	Si
fin.	2	-1786	-212210	212694	SLD 7	1	Si
ini.	2	-1663	273276	212694	SLV 8	0.78	No
fin.	2	-2080	-346341	212694	SLV 8	0.61	No
ini.	2	-2050	209777	212694	SLV 3	1.01	Si
fin.	2	-2358	-307664	212694	SLV 3	0.69	No
ini.	2	-1368	213896	212694	SLV 12	0.99	No
fin.	2	-1666	-263952	212694	SLV 12	0.81	No
ini.	2	-1779	120272	212694	SLD 4	1.77	Si
fin.	2	-1906	-195822	212694	SLD 4	1.09	Si
ini.	2	-2050	209777	212694	SLV 4	1.01	Si
fin.	2	-2358	-307664	212694	SLV 4	0.69	No
ini.	2	-1368	213896	212694	SLV 11	0.99	No
fin.	2	-1666	-263952	212694	SLV 11	0.81	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	213896	-5738			2297	864	SLV 12	0.15	No
fin.	2	0	-263952	-6292			2297	864	SLV 12	0.14	No
ini.	2	0	273276	-7471			2297	864	SLV 7	0.12	No
fin.	2	0	-346341	-8015			2297	864	SLV 7	0.11	No
ini.	2	0	120272	-3674			2297	864	SLD 4	0.24	No
fin.	2	0	-195822	-4213			2297	864	SLD 4	0.21	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	209777	-6151			2297	864	SLV 4	0.14	No
fin.	2	0	-307664	-6680			2297	864	SLV 4	0.13	No
ini.	2	0	273276	-7471			2297	864	SLV 8	0.12	No
fin.	2	0	-346341	-8015			2297	864	SLV 8	0.11	No
ini.	2	0	146944	-4230			2297	864	SLD 7	0.2	No
fin.	2	0	-212210	-4776			2297	864	SLD 7	0.18	No
ini.	2	0	213896	-5738			2297	864	SLV 11	0.15	No
fin.	2	0	-263952	-6292			2297	864	SLV 11	0.14	No
ini.	2	0	209777	-6151			2297	864	SLV 3	0.14	No
fin.	2	0	-307664	-6680			2297	864	SLV 3	0.13	No
ini.	2	0	146944	-4230			2297	864	SLD 8	0.2	No
fin.	2	0	-212210	-4776			2297	864	SLD 8	0.18	No
ini.	2	0	120272	-3674			2297	864	SLD 3	0.24	No
fin.	2	0	-195822	-4213			2297	864	SLD 3	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.614	SLV 7	No
V_SLV	0.108	SLV 7	No
PF_SLU	0.989	SLU 83	No
V_SLU	0.138	SLU 81	No

Trave di accoppiamento 110

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	835	925	90	-2271.3	595.1	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-585	19026	103792	SLU 74	5.46	Si
fin.	3	337	-11877	103792	SLU 74	8.74	Si
ini.	3	-829	22075	103792	SLU 61	4.7	Si
fin.	3	223	-9038	103792	SLU 61	11.48	Si
ini.	3	-702	19663	103792	SLU 39	5.28	Si
fin.	3	270	-9233	103792	SLU 39	11.24	Si
ini.	3	-847	23438	103792	SLU 81	4.43	Si
fin.	3	291	-10770	103792	SLU 81	9.64	Si
ini.	3	-840	22328	103792	SLU 60	4.65	Si
fin.	3	223	-9316	103792	SLU 60	11.14	Si
ini.	3	-593	19213	103792	SLU 83	5.4	Si
fin.	3	349	-12246	103792	SLU 83	8.48	Si
ini.	3	-762	20495	103792	SLU 52	5.06	Si
fin.	3	205	-8553	103792	SLU 52	12.13	Si
ini.	3	-769	21606	103792	SLU 73	4.8	Si
fin.	3	273	-10007	103792	SLU 73	10.37	Si
ini.	3	-692	19411	103792	SLU 40	5.35	Si
fin.	3	270	-8956	103792	SLU 40	11.59	Si
ini.	3	-837	23185	103792	SLU 82	4.48	Si
fin.	3	290	-10492	103792	SLU 82	9.89	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	22075	-1871			970	365	SLU 61	0.2	No
fin.	3	0	-9038	647			970	365	SLU 61	0.56	No
ini.	3	0	21606	-1881			970	365	SLU 73	0.19	No
fin.	3	0	-10007	671			970	365	SLU 73	0.54	No
ini.	3	0	19026	-1850			970	365	SLU 74	0.2	No
fin.	3	0	-11877	816			970	365	SLU 74	0.45	No
ini.	3	0	18961	-1815			970	365	SLU 84	0.2	No
fin.	3	0	-11969	761			970	365	SLU 84	0.48	No
ini.	3	0	20495	-1780			970	365	SLU 52	0.21	No
fin.	3	0	-8553	667			970	365	SLU 52	0.55	No
ini.	3	0	18773	-1822			970	365	SLU 75	0.2	No
fin.	3	0	-11599	800			970	365	SLU 75	0.46	No
ini.	3	0	23185	-1972			970	365	SLU 82	0.19	No
fin.	3	0	-10492	651			970	365	SLU 82	0.56	No
ini.	3	0	19213	-1842			970	365	SLU 83	0.2	No
fin.	3	0	-12246	778			970	365	SLU 83	0.47	No
ini.	3	0	22328	-1898			970	365	SLU 60	0.19	No
fin.	3	0	-9316	664			970	365	SLU 60	0.55	No
ini.	3	0	23438	-1999			970	365	SLU 81	0.18	No
fin.	3	0	-10770	668			970	365	SLU 81	0.55	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2034	89451	121694	SLV 1	1.36	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	3427	-77581	121694	SLV 1	1.57	Si
ini.	2	1091	-68972	121694	SLV 14	1.76	Si
fin.	2	-3712	75879	121694	SLV 14	1.6	Si
ini.	2	964	-59236	121694	SLV 16	2.05	Si
fin.	2	-3075	62787	121694	SLV 16	1.94	Si
ini.	2	964	-59236	121694	SLV 15	2.05	Si
fin.	2	-3075	62787	121694	SLV 15	1.94	Si
ini.	2	-1215	55098	121694	SLV 8	2.21	Si
fin.	2	2309	-52235	121694	SLV 8	2.33	Si
ini.	2	-2161	99187	121694	SLV 4	1.23	Si
fin.	2	4064	-90672	121694	SLV 4	1.34	Si
ini.	2	-2034	89451	121694	SLV 2	1.36	Si
fin.	2	3427	-77581	121694	SLV 2	1.57	Si
ini.	2	1091	-68972	121694	SLV 13	1.76	Si
fin.	2	-3712	75879	121694	SLV 13	1.6	Si
ini.	2	-1215	55098	121694	SLV 7	2.21	Si
fin.	2	2309	-52235	121694	SLV 7	2.33	Si
ini.	2	-2161	99187	121694	SLV 3	1.23	Si
fin.	2	4064	-90672	121694	SLV 3	1.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	99187	-6123			1456	548	SLV 4	0.09	No
fin.	2	0	-90672	-3541			1456	548	SLV 4	0.15	No
ini.	2	0	55098	-3899			1456	548	SLV 7	0.14	No
fin.	2	0	-52235	-845			1456	548	SLV 7	0.65	No
ini.	2	0	-68972	3369			1456	548	SLV 13	0.16	No
fin.	2	0	75879	4684			1456	548	SLV 13	0.12	No
ini.	2	0	99187	-6123			1456	548	SLV 3	0.09	No
fin.	2	0	-90672	-3541			1456	548	SLV 3	0.15	No
ini.	2	0	89451	-5399			1456	548	SLV 1	0.1	No
fin.	2	0	-77581	-3420			1456	548	SLV 1	0.16	No
ini.	2	0	89451	-5399			1456	548	SLV 2	0.1	No
fin.	2	0	-77581	-3420			1456	548	SLV 2	0.16	No
ini.	2	0	-68972	3369			1456	548	SLV 14	0.16	No
fin.	2	0	75879	4684			1456	548	SLV 14	0.12	No
ini.	2	0	55098	-3899			1456	548	SLV 8	0.14	No
fin.	2	0	-52235	-845			1456	548	SLV 8	0.65	No
ini.	2	0	-59236	2644			1456	548	SLV 16	0.21	No
fin.	2	0	62787	4564			1456	548	SLV 16	0.12	No
ini.	2	0	-59236	2644			1456	548	SLV 15	0.21	No
fin.	2	0	62787	4564			1456	548	SLV 15	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.227	SLV 3	Si
V_SLV	0.089	SLV 3	No
PF_SLU	4.428	SLU 81	Si
V_SLU	0.183	SLU 81	No

Trave di accoppiamento 111

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	1105	1187	82	-2271.3	595.1	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	867	13303	89792	SLU 82	6.75	Si
fin.	3	-460	-22064	89792	SLU 82	4.07	Si
ini.	3	883	13521	89792	SLU 81	6.64	Si
fin.	3	-463	-22322	89792	SLU 81	4.02	Si
ini.	3	1179	14461	89792	SLU 74	6.21	Si
fin.	3	-227	-20980	89792	SLU 74	4.28	Si
ini.	3	1188	14800	89792	SLU 84	6.07	Si
fin.	3	-258	-21312	89792	SLU 84	4.21	Si
ini.	3	736	11832	89792	SLU 60	7.59	Si
fin.	3	-440	-20077	89792	SLU 60	4.47	Si
ini.	3	1499	15958	89792	SLU 77	5.63	Si
fin.	3	-25	-20229	89792	SLU 77	4.44	Si
ini.	3	862	12747	89792	SLU 73	7.04	Si
fin.	3	-401	-20692	89792	SLU 73	4.34	Si
ini.	3	1162	14243	89792	SLU 75	6.3	Si
fin.	3	-224	-20722	89792	SLU 75	4.33	Si
ini.	3	1204	15018	89792	SLU 83	5.98	Si
fin.	3	-261	-21570	89792	SLU 83	4.16	Si
ini.	3	1483	15740	89792	SLU 78	5.7	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-22	-19971	89792	SLU 78	4.5	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	14244	366			806	303	SLU 76	0.83	No
fin.	3	0	-19941	-2142			806	303	SLU 76	0.14	No
ini.	3	0	15018	402			806	303	SLU 83	0.75	No
fin.	3	0	-21570	-2289			806	303	SLU 83	0.13	No
ini.	3	0	14461	421			806	303	SLU 74	0.72	No
fin.	3	0	-20980	-2230			806	303	SLU 74	0.14	No
ini.	3	0	13303	628			806	303	SLU 82	0.48	No
fin.	3	0	-22064	-2310			806	303	SLU 82	0.13	No
ini.	3	0	14243	437			806	303	SLU 75	0.69	No
fin.	3	0	-20722	-2215			806	303	SLU 75	0.14	No
ini.	3	0	15958	210			806	303	SLU 77	1.44	Si
fin.	3	0	-20229	-2193			806	303	SLU 77	0.14	No
ini.	3	0	13521	613			806	303	SLU 81	0.49	No
fin.	3	0	-22322	-2326			806	303	SLU 81	0.13	No
ini.	3	0	12747	577			806	303	SLU 73	0.53	No
fin.	3	0	-20692	-2179			806	303	SLU 73	0.14	No
ini.	3	0	14800	417			806	303	SLU 84	0.73	No
fin.	3	0	-21312	-2274			806	303	SLU 84	0.13	No
ini.	3	0	15740	225			806	303	SLU 78	1.34	Si
fin.	3	0	-19971	-2178			806	303	SLU 78	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3568	79483	107694	SLV 4	1.35	Si
fin.	2	-2106	-84251	107694	SLV 4	1.28	Si
ini.	2	2510	49803	107694	SLV 7	2.16	Si
fin.	2	-1251	-52761	107694	SLV 7	2.04	Si
ini.	2	3568	79483	107694	SLV 3	1.35	Si
fin.	2	-2106	-84251	107694	SLV 3	1.28	Si
ini.	2	2510	49803	107694	SLV 8	2.16	Si
fin.	2	-1251	-52761	107694	SLV 8	2.04	Si
ini.	2	2922	66637	107694	SLV 1	1.62	Si
fin.	2	-1809	-72776	107694	SLV 1	1.48	Si
ini.	2	-1609	-48137	107694	SLV 16	2.24	Si
fin.	2	1327	43973	107694	SLV 16	2.45	Si
ini.	2	2922	66637	107694	SLV 2	1.62	Si
fin.	2	-1809	-72776	107694	SLV 2	1.48	Si
ini.	2	-2255	-60983	107694	SLV 14	1.77	Si
fin.	2	1624	55449	107694	SLV 14	1.94	Si
ini.	2	-2255	-60983	107694	SLV 13	1.77	Si
fin.	2	1624	55449	107694	SLV 13	1.94	Si
ini.	2	-1609	-48137	107694	SLV 15	2.24	Si
fin.	2	1327	43973	107694	SLV 15	2.45	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	66637	-2997			1208	455	SLV 1	0.15	No
fin.	2	0	-72776	-4546			1208	455	SLV 1	0.1	No
ini.	2	0	79483	-3720			1208	455	SLV 4	0.12	No
fin.	2	0	-84251	-5270			1208	455	SLV 4	0.09	No
ini.	2	0	-48137	3697			1208	455	SLV 16	0.12	No
fin.	2	0	43973	1535			1208	455	SLV 16	0.3	No
ini.	2	0	-48137	3697			1208	455	SLV 15	0.12	No
fin.	2	0	43973	1535			1208	455	SLV 15	0.3	No
ini.	2	0	49803	-1967			1208	455	SLV 7	0.23	No
fin.	2	0	-52761	-3732			1208	455	SLV 7	0.12	No
ini.	2	0	66637	-2997			1208	455	SLV 2	0.15	No
fin.	2	0	-72776	-4546			1208	455	SLV 2	0.1	No
ini.	2	0	-60983	4420			1208	455	SLV 13	0.1	No
fin.	2	0	55449	2259			1208	455	SLV 13	0.2	No
ini.	2	0	-60983	4420			1208	455	SLV 14	0.1	No
fin.	2	0	55449	2259			1208	455	SLV 14	0.2	No
ini.	2	0	49803	-1967			1208	455	SLV 8	0.23	No
fin.	2	0	-52761	-3732			1208	455	SLV 8	0.12	No
ini.	2	0	79483	-3720			1208	455	SLV 3	0.12	No
fin.	2	0	-84251	-5270			1208	455	SLV 3	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.278	SLV 3	Si
V_SLV	0.086	SLV 3	No
PF_SLU	4.023	SLU 81	Si
V_SLU	0.13	SLU 81	No

Trave di accoppiamento 112

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	835	925	90	-2249.3	-335.9	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3782	73833	103792	SLU 78	1.41	Si
fin.	3	623	-31813	103792	SLU 78	3.26	Si
ini.	3	-3555	70347	103792	SLU 83	1.48	Si
fin.	3	600	-28964	103792	SLU 83	3.58	Si
ini.	3	-3505	68937	103792	SLU 79	1.51	Si
fin.	3	552	-28611	103792	SLU 79	3.63	Si
ini.	3	-3857	74142	103792	SLU 76	1.4	Si
fin.	3	611	-32225	103792	SLU 76	3.22	Si
ini.	3	-3700	72337	103792	SLU 75	1.43	Si
fin.	3	622	-31014	103792	SLU 75	3.35	Si
ini.	3	-3521	69812	103792	SLU 77	1.49	Si
fin.	3	587	-29165	103792	SLU 77	3.56	Si
ini.	3	-3815	74367	103792	SLU 84	1.4	Si
fin.	3	636	-31612	103792	SLU 84	3.28	Si
ini.	3	-3776	72646	103792	SLU 73	1.43	Si
fin.	3	611	-31426	103792	SLU 73	3.3	Si
ini.	3	-3733	72871	103792	SLU 82	1.42	Si
fin.	3	635	-30813	103792	SLU 82	3.37	Si
ini.	3	-3765	72958	103792	SLU 80	1.42	Si
fin.	3	588	-31259	103792	SLU 80	3.32	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	72646	-4474			970	365	SLU 73	0.08	No
fin.	3	0	-31426	-1149			970	365	SLU 73	0.32	No
ini.	3	0	70347	-4391			970	365	SLU 83	0.08	No
fin.	3	0	-28964	-879			970	365	SLU 83	0.42	No
ini.	3	0	72958	-4547			970	365	SLU 80	0.08	No
fin.	3	0	-31259	-993			970	365	SLU 80	0.37	No
ini.	3	0	68937	-4344			970	365	SLU 79	0.08	No
fin.	3	0	-28611	-780			970	365	SLU 79	0.47	No
ini.	3	0	69812	-4415			970	365	SLU 77	0.08	No
fin.	3	0	-29165	-780			970	365	SLU 77	0.47	No
ini.	3	0	72871	-4489			970	365	SLU 82	0.08	No
fin.	3	0	-30813	-1100			970	365	SLU 82	0.33	No
ini.	3	0	73833	-4618			970	365	SLU 78	0.08	No
fin.	3	0	-31813	-993			970	365	SLU 78	0.37	No
ini.	3	0	74142	-4578			970	365	SLU 76	0.08	No
fin.	3	0	-32225	-1142			970	365	SLU 76	0.32	No
ini.	3	0	74367	-4594			970	365	SLU 84	0.08	No
fin.	3	0	-31612	-1093			970	365	SLU 84	0.33	No
ini.	3	0	72337	-4513			970	365	SLU 75	0.08	No
fin.	3	0	-31014	-1000			970	365	SLU 75	0.37	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3721	76795	121694	SLD 3	1.58	Si
fin.	2	1432	-40995	121694	SLD 3	2.97	Si
ini.	2	-4025	82611	121694	SLD 1	1.47	Si
fin.	2	1554	-45828	121694	SLD 1	2.66	Si
ini.	2	-4025	82611	121694	SLD 2	1.47	Si
fin.	2	1554	-45828	121694	SLD 2	2.66	Si
ini.	2	-4664	92982	121694	SLV 6	1.31	Si
fin.	2	1632	-55625	121694	SLV 6	2.19	Si
ini.	2	-5539	118213	121694	SLV 4	1.03	Si
fin.	2	2899	-70745	121694	SLV 4	1.72	Si
ini.	2	-6286	132254	121694	SLV 2	0.92	No
fin.	2	3188	-82477	121694	SLV 2	1.48	Si
ini.	2	-3721	76795	121694	SLD 4	1.58	Si
fin.	2	1432	-40995	121694	SLD 4	2.97	Si
ini.	2	-4664	92982	121694	SLV 5	1.31	Si
fin.	2	1632	-55625	121694	SLV 5	2.19	Si
ini.	2	-6286	132254	121694	SLV 1	0.92	No
fin.	2	3188	-82477	121694	SLV 1	1.48	Si
ini.	2	-5539	118213	121694	SLV 3	1.03	Si
fin.	2	2899	-70745	121694	SLV 3	1.72	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	76795	-4801			1456	548	SLD 4	0.11	No
fin.	2	0	-40995	-2017			1456	548	SLD 4	0.27	No
ini.	2	0	132254	-8172			1456	548	SLV 2	0.07	No
fin.	2	0	-82477	-4353			1456	548	SLV 2	0.13	No
ini.	2	0	92982	-5788			1456	548	SLV 6	0.09	No
fin.	2	0	-55625	-2001			1456	548	SLV 6	0.27	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	76795	-4801			1456	548	SLD 3	0.11	No
fin.	2	0	-40995	-2017			1456	548	SLD 3	0.27	No
ini.	2	0	82611	-5159			1456	548	SLD 2	0.11	No
fin.	2	0	-45828	-2120			1456	548	SLD 2	0.26	No
ini.	2	0	118213	-7318			1456	548	SLV 4	0.07	No
fin.	2	0	-70745	-4106			1456	548	SLV 4	0.13	No
ini.	2	0	82611	-5159			1456	548	SLD 1	0.11	No
fin.	2	0	-45828	-2120			1456	548	SLD 1	0.26	No
ini.	2	0	92982	-5788			1456	548	SLV 5	0.09	No
fin.	2	0	-55625	-2001			1456	548	SLV 5	0.27	No
ini.	2	0	132254	-8172			1456	548	SLV 1	0.07	No
fin.	2	0	-82477	-4353			1456	548	SLV 1	0.13	No
ini.	2	0	118213	-7318			1456	548	SLV 3	0.07	No
fin.	2	0	-70745	-4106			1456	548	SLV 3	0.13	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.92	SLV 1	No
V_SLV	0.067	SLV 1	No
PF_SLU	1.396	SLU 84	Si
V_SLU	0.079	SLU 78	No

Trave di accoppiamento 113

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	1105	1187	82	-2249.3	-335.9	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	445	30307	89792	SLU 75	2.96	Si
fin.	3	-2621	-43192	89792	SLU 75	2.08	Si
ini.	3	309	30271	89792	SLU 82	2.97	Si
fin.	3	-2688	-42669	89792	SLU 82	2.1	Si
ini.	3	378	28380	89792	SLU 83	3.16	Si
fin.	3	-2586	-41783	89792	SLU 83	2.15	Si
ini.	3	427	31173	89792	SLU 84	2.88	Si
fin.	3	-2746	-44520	89792	SLU 84	2.02	Si
ini.	3	350	30891	89792	SLU 73	2.91	Si
fin.	3	-2657	-42811	89792	SLU 73	2.1	Si
ini.	3	468	31792	89792	SLU 76	2.82	Si
fin.	3	-2716	-44661	89792	SLU 76	2.01	Si
ini.	3	553	30832	89792	SLU 80	2.91	Si
fin.	3	-2667	-44687	89792	SLU 80	2.01	Si
ini.	3	562	31208	89792	SLU 78	2.88	Si
fin.	3	-2680	-45043	89792	SLU 78	1.99	Si
ini.	3	504	28040	89792	SLU 79	3.2	Si
fin.	3	-2507	-41950	89792	SLU 79	2.14	Si
ini.	3	514	28416	89792	SLU 77	3.16	Si
fin.	3	-2520	-42305	89792	SLU 77	2.12	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	27479	-573			806	303	SLU 81	0.53	No
fin.	3	0	-39932	-4159			806	303	SLU 81	0.07	No
ini.	3	0	28380	-687			806	303	SLU 83	0.44	No
fin.	3	0	-41783	-4244			806	303	SLU 83	0.07	No
ini.	3	0	31208	-929			806	303	SLU 78	0.33	No
fin.	3	0	-45043	-4367			806	303	SLU 78	0.07	No
ini.	3	0	30891	-839			806	303	SLU 73	0.36	No
fin.	3	0	-42811	-4209			806	303	SLU 73	0.07	No
ini.	3	0	30307	-815			806	303	SLU 75	0.37	No
fin.	3	0	-43192	-4282			806	303	SLU 75	0.07	No
ini.	3	0	28416	-759			806	303	SLU 77	0.4	No
fin.	3	0	-42305	-4218			806	303	SLU 77	0.07	No
ini.	3	0	31792	-953			806	303	SLU 76	0.32	No
fin.	3	0	-44661	-4294			806	303	SLU 76	0.07	No
ini.	3	0	30832	-954			806	303	SLU 80	0.32	No
fin.	3	0	-44687	-4280			806	303	SLU 80	0.07	No
ini.	3	0	30271	-743			806	303	SLU 82	0.41	No
fin.	3	0	-42669	-4309			806	303	SLU 82	0.07	No
ini.	3	0	31173	-857			806	303	SLU 84	0.35	No
fin.	3	0	-44520	-4394			806	303	SLU 84	0.07	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1527	69496	107694	SLV 3	1.55	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-3361	-70301	107694	SLV 3	1.53	Si
ini.	2	1936	81283	107694	SLV 1	1.32	Si
fin.	2	-3966	-81585	107694	SLV 1	1.32	Si
ini.	2	1936	81283	107694	SLV 2	1.32	Si
fin.	2	-3966	-81585	107694	SLV 2	1.32	Si
ini.	2	1527	69496	107694	SLV 4	1.55	Si
fin.	2	-3361	-70301	107694	SLV 4	1.53	Si
ini.	2	-1527	-45435	107694	SLV 16	2.37	Si
fin.	2	752	28757	107694	SLV 16	3.74	Si
ini.	2	943	44958	107694	SLD 1	2.4	Si
fin.	2	-2609	-49919	107694	SLD 1	2.16	Si
ini.	2	1343	54809	107694	SLV 5	1.96	Si
fin.	2	-3232	-60079	107694	SLV 5	1.79	Si
ini.	2	-1527	-45435	107694	SLV 15	2.37	Si
fin.	2	752	28757	107694	SLV 15	3.74	Si
ini.	2	1343	54809	107694	SLV 6	1.96	Si
fin.	2	-3232	-60079	107694	SLV 6	1.79	Si
ini.	2	943	44958	107694	SLD 2	2.4	Si
fin.	2	-2609	-49919	107694	SLD 2	2.16	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	81283	-3569			1208	455	SLV 2	0.13	No
fin.	2	0	-81585	-6137			1208	455	SLV 2	0.07	No
ini.	2	0	44958	-1741			1208	455	SLD 2	0.26	No
fin.	2	0	-49919	-4169			1208	455	SLD 2	0.11	No
ini.	2	0	44958	-1741			1208	455	SLD 1	0.26	No
fin.	2	0	-49919	-4169			1208	455	SLD 1	0.11	No
ini.	2	0	69496	-2910			1208	455	SLV 3	0.16	No
fin.	2	0	-70301	-5404			1208	455	SLV 3	0.08	No
ini.	2	0	40015	-1466			1208	455	SLD 3	0.31	No
fin.	2	0	-45272	-3866			1208	455	SLD 3	0.12	No
ini.	2	0	54809	-2338			1208	455	SLV 5	0.19	No
fin.	2	0	-60079	-4850			1208	455	SLV 5	0.09	No
ini.	2	0	54809	-2338			1208	455	SLV 6	0.19	No
fin.	2	0	-60079	-4850			1208	455	SLV 6	0.09	No
ini.	2	0	81283	-3569			1208	455	SLV 1	0.13	No
fin.	2	0	-81585	-6137			1208	455	SLV 1	0.07	No
ini.	2	0	69496	-2910			1208	455	SLV 4	0.16	No
fin.	2	0	-70301	-5404			1208	455	SLV 4	0.08	No
ini.	2	0	40015	-1466			1208	455	SLD 4	0.31	No
fin.	2	0	-45272	-3866			1208	455	SLD 4	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.32	SLV 1	Si
V_SLV	0.074	SLV 1	No
PF_SLU	1.993	SLU 78	Si
V_SLU	0.069	SLU 84	No

Trave di accoppiamento 114

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	835	1035	200	-1936.8	-335.9	835	1035	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2229	-16860	296292	SLU 10	17.57	Si
fin.	3	-2196	-7263	296292	SLU 10	40.8	Si
ini.	3	-1841	16075	296292	SLU 35	18.43	Si
fin.	3	-1841	118	296292	SLU 35	2518.55	Si
ini.	3	-1634	16738	296292	SLU 27	17.7	Si
fin.	3	-1615	-3907	296292	SLU 27	75.83	Si
ini.	3	-2473	-18489	296292	SLU 44	16.03	Si
fin.	3	-2410	-12402	296292	SLU 44	23.89	Si
ini.	3	-1581	17860	296292	SLU 29	16.59	Si
fin.	3	-1566	-5048	296292	SLU 29	58.69	Si
ini.	3	-2021	-16198	296292	SLU 2	18.29	Si
fin.	3	-1970	-11288	296292	SLU 2	26.25	Si
ini.	3	-2680	-19151	296292	SLU 52	15.47	Si
fin.	3	-2636	-8377	296292	SLU 52	35.37	Si
ini.	3	-1788	17198	296292	SLU 37	17.23	Si
fin.	3	-1791	-1023	296292	SLU 37	289.52	Si
ini.	3	-2032	15569	296292	SLU 71	19.03	Si
fin.	3	-2006	-6163	296292	SLU 71	48.08	Si
ini.	3	-2841	-15677	296292	SLU 73	18.9	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2799	-7086	296292	SLU 73	41.81	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	17860	-517			2157	812	SLU 29	1.57	Si
fin.	3	0	-5048	-124			2157	812	SLU 29	6.53	Si
ini.	3	0	15569	-516			2157	812	SLU 71	1.57	Si
fin.	3	0	-6163	-33			2157	812	SLU 71	24.73	Si
ini.	3	0	-1138	65			2157	812	SLU 39	12.48	Si
fin.	3	0	4801	477			2157	812	SLU 39	1.7	Si
ini.	3	0	-14422	180			2157	812	SLU 61	4.5	Si
fin.	3	0	-3033	546			2157	812	SLU 61	1.49	Si
ini.	3	0	14447	-492			2157	812	SLU 69	1.65	Si
fin.	3	0	-5022	27			2157	812	SLU 69	30.11	Si
ini.	3	0	-4612	115			2157	812	SLU 18	7.09	Si
fin.	3	0	3510	496			2157	812	SLU 18	1.63	Si
ini.	3	0	16738	-493			2157	812	SLU 27	1.64	Si
fin.	3	0	-3907	-65			2157	812	SLU 27	12.57	Si
ini.	3	0	-3429	66			2157	812	SLU 81	12.3	Si
fin.	3	0	3686	569			2157	812	SLU 81	1.43	Si
ini.	3	0	-6903	116			2157	812	SLU 60	7.03	Si
fin.	3	0	2395	588			2157	812	SLU 60	1.38	Si
ini.	3	0	-10948	131			2157	812	SLU 82	6.21	Si
fin.	3	0	-1742	526			2157	812	SLU 82	1.54	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1959	-143309	314194	SLV 16	2.19	Si
fin.	2	-2464	156567	314194	SLV 16	2.01	Si
ini.	2	-917	119558	314194	SLV 4	2.63	Si
fin.	2	-1073	-132352	314194	SLV 4	2.37	Si
ini.	2	-1630	137584	314194	SLV 1	2.28	Si
fin.	2	-1064	-158009	314194	SLV 1	1.99	Si
ini.	2	-917	119558	314194	SLV 3	2.63	Si
fin.	2	-1073	-132352	314194	SLV 3	2.37	Si
ini.	2	-2672	-125283	314194	SLV 14	2.51	Si
fin.	2	-2455	130910	314194	SLV 14	2.4	Si
ini.	2	-2826	66611	314194	SLV 5	4.72	Si
fin.	2	-1540	-86821	314194	SLV 5	3.62	Si
ini.	2	-2672	-125283	314194	SLV 13	2.51	Si
fin.	2	-2455	130910	314194	SLV 13	2.4	Si
ini.	2	-2826	66611	314194	SLV 6	4.72	Si
fin.	2	-1540	-86821	314194	SLV 6	3.62	Si
ini.	2	-1959	-143309	314194	SLV 15	2.19	Si
fin.	2	-2464	156567	314194	SLV 15	2.01	Si
ini.	2	-1630	137584	314194	SLV 2	2.28	Si
fin.	2	-1064	-158009	314194	SLV 2	1.99	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-72337	5043			3235	1217	SLV 11	0.24	No
fin.	2	0	85378	5113			3235	1217	SLV 11	0.24	No
ini.	2	0	137584	-7528			3235	1217	SLV 2	0.16	No
fin.	2	0	-158009	-6538			3235	1217	SLV 2	0.19	No
ini.	2	0	-125283	5594			3235	1217	SLV 13	0.22	No
fin.	2	0	130910	5375			3235	1217	SLV 13	0.23	No
ini.	2	0	119558	-5662			3235	1217	SLV 4	0.21	No
fin.	2	0	-132352	-4734			3235	1217	SLV 4	0.26	No
ini.	2	0	-143309	7460			3235	1217	SLV 16	0.16	No
fin.	2	0	156567	7179			3235	1217	SLV 16	0.17	No
ini.	2	0	137584	-7528			3235	1217	SLV 1	0.16	No
fin.	2	0	-158009	-6538			3235	1217	SLV 1	0.19	No
ini.	2	0	-143309	7460			3235	1217	SLV 15	0.16	No
fin.	2	0	156567	7179			3235	1217	SLV 15	0.17	No
ini.	2	0	-72337	5043			3235	1217	SLV 12	0.24	No
fin.	2	0	85378	5113			3235	1217	SLV 12	0.24	No
ini.	2	0	119558	-5662			3235	1217	SLV 3	0.21	No
fin.	2	0	-132352	-4734			3235	1217	SLV 3	0.26	No
ini.	2	0	-125283	5594			3235	1217	SLV 14	0.22	No
fin.	2	0	130910	5375			3235	1217	SLV 14	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.988	SLV 1	Si
V_SLV	0.162	SLV 1	No
PF_SLU	15.471	SLU 52	Si
V_SLU	1.38	SLU 60	Si

Trave di accoppiamento 115

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	1115	1187	72	-1936.8	-335.9	1115	1187	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-882	-681	72292	SLU 78	106.19	Si
fin.	3	-963	-14716	72292	SLU 78	4.91	Si
ini.	3	-780	-1995	72292	SLU 58	36.23	Si
fin.	3	-845	-13890	72292	SLU 58	5.2	Si
ini.	3	-837	-3087	72292	SLU 37	23.42	Si
fin.	3	-883	-14080	72292	SLU 37	5.13	Si
ini.	3	-795	-1624	72292	SLU 71	44.53	Si
fin.	3	-872	-15085	72292	SLU 71	4.79	Si
ini.	3	-762	192	72292	SLU 70	377.3	Si
fin.	3	-853	-14213	72292	SLU 70	5.09	Si
ini.	3	-915	-2496	72292	SLU 79	28.96	Si
fin.	3	-982	-15588	72292	SLU 79	4.64	Si
ini.	3	-899	-696	72292	SLU 80	103.89	Si
fin.	3	-982	-15018	72292	SLU 80	4.81	Si
ini.	3	-779	176	72292	SLU 72	409.59	Si
fin.	3	-872	-14515	72292	SLU 72	4.98	Si
ini.	3	-778	-1608	72292	SLU 69	44.94	Si
fin.	3	-853	-14783	72292	SLU 69	4.89	Si
ini.	3	-898	-2481	72292	SLU 77	29.14	Si
fin.	3	-963	-15286	72292	SLU 77	4.73	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	874	164			776	292	SLU 75	1.78	Si
fin.	3	0	-12261	-1032			776	292	SLU 75	0.28	No
ini.	3	0	-681	154			776	292	SLU 78	1.9	Si
fin.	3	0	-14716	-1042			776	292	SLU 78	0.28	No
ini.	3	0	-2481	214			776	292	SLU 77	1.36	Si
fin.	3	0	-15286	-1046			776	292	SLU 77	0.28	No
ini.	3	0	-1315	225			776	292	SLU 83	1.3	Si
fin.	3	0	-13349	-1041			776	292	SLU 83	0.28	No
ini.	3	0	2041	175			776	292	SLU 82	1.67	Si
fin.	3	0	-10324	-1027			776	292	SLU 82	0.28	No
ini.	3	0	-926	224			776	292	SLU 74	1.3	Si
fin.	3	0	-12831	-1037			776	292	SLU 74	0.28	No
ini.	3	0	485	165			776	292	SLU 84	1.77	Si
fin.	3	0	-12779	-1036			776	292	SLU 84	0.28	No
ini.	3	0	-696	128			776	292	SLU 80	2.29	Si
fin.	3	0	-15018	-1018			776	292	SLU 80	0.29	No
ini.	3	0	-2496	188			776	292	SLU 79	1.55	Si
fin.	3	0	-15588	-1022			776	292	SLU 79	0.29	No
ini.	3	0	241	235			776	292	SLU 81	1.24	Si
fin.	3	0	-10894	-1031			776	292	SLU 81	0.28	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-749	28179	90194	SLV 5	3.2	Si
fin.	2	-1153	-31627	90194	SLV 5	2.85	Si
ini.	2	-2558	14928	90194	SLV 2	6.04	Si
fin.	2	-3040	-61825	90194	SLV 2	1.46	Si
ini.	2	1823	2244	90194	SLV 13	40.2	Si
fin.	2	2022	41514	90194	SLV 13	2.17	Si
ini.	2	-749	28179	90194	SLV 6	3.2	Si
fin.	2	-1153	-31627	90194	SLV 6	2.85	Si
ini.	2	1587	-12919	90194	SLV 15	6.98	Si
fin.	2	1924	46631	90194	SLV 15	1.93	Si
ini.	2	-2794	-235	90194	SLV 4	384.18	Si
fin.	2	-3138	-56708	90194	SLV 4	1.59	Si
ini.	2	1587	-12919	90194	SLV 16	6.98	Si
fin.	2	1924	46631	90194	SLV 16	1.93	Si
ini.	2	1823	2244	90194	SLV 14	40.2	Si
fin.	2	2022	41514	90194	SLV 14	2.17	Si
ini.	2	-2794	-235	90194	SLV 3	384.18	Si
fin.	2	-3138	-56708	90194	SLV 3	1.59	Si
ini.	2	-2558	14928	90194	SLV 1	6.04	Si
fin.	2	-3040	-61825	90194	SLV 1	1.46	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-235	-882			1165	438	SLV 4	0.5	No
fin.	2	0	-56708	-2041			1165	438	SLV 4	0.21	No
ini.	2	0	28179	-1500			1165	438	SLV 5	0.29	No
fin.	2	0	-31627	-2366			1165	438	SLV 5	0.19	No
ini.	2	0	14928	-1611			1165	438	SLV 1	0.27	No
fin.	2	0	-61825	-2730			1165	438	SLV 1	0.16	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-12919	1862			1165	438	SLV 15	0.24	No
fin.	2	0	46631	1294			1165	438	SLV 15	0.34	No
ini.	2	0	-235	-882			1165	438	SLV 3	0.5	No
fin.	2	0	-56708	-2041			1165	438	SLV 3	0.21	No
ini.	2	0	14928	-1611			1165	438	SLV 2	0.27	No
fin.	2	0	-61825	-2730			1165	438	SLV 2	0.16	No
ini.	2	0	-12919	1862			1165	438	SLV 16	0.24	No
fin.	2	0	46631	1294			1165	438	SLV 16	0.34	No
ini.	2	0	28179	-1500			1165	438	SLV 6	0.29	No
fin.	2	0	-31627	-2366			1165	438	SLV 6	0.19	No
ini.	2	0	-26170	1752			1165	438	SLV 11	0.25	No
fin.	2	0	16433	931			1165	438	SLV 11	0.47	No
ini.	2	0	-26170	1752			1165	438	SLV 12	0.25	No
fin.	2	0	16433	931			1165	438	SLV 12	0.47	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.459	SLV 1	Si
V_SLV	0.161	SLV 1	No
PF_SLU	4.638	SLU 79	Si
V_SLU	0.279	SLU 77	No

Trave di accoppiamento 116

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	835	925	90	-1826.3	-335.9	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1169	-10870	103792	SLU 76	9.55	Si
fin.	3	-1996	41048	103792	SLU 76	2.53	Si
ini.	3	-1123	-15675	103792	SLU 82	6.62	Si
fin.	3	-2097	46170	103792	SLU 82	2.25	Si
ini.	3	-1090	-10771	103792	SLU 81	9.64	Si
fin.	3	-1875	41428	103792	SLU 81	2.51	Si
ini.	3	-931	-16127	103792	SLU 31	6.44	Si
fin.	3	-1841	40174	103792	SLU 31	2.58	Si
ini.	3	-998	-11177	103792	SLU 60	9.29	Si
fin.	3	-1786	39958	103792	SLU 60	2.6	Si
ini.	3	-1032	-16081	103792	SLU 61	6.45	Si
fin.	3	-2007	44699	103792	SLU 61	2.32	Si
ini.	3	-1028	-17063	103792	SLU 65	6.08	Si
fin.	3	-2036	44659	103792	SLU 65	2.32	Si
ini.	3	-1019	-18785	103792	SLU 52	5.53	Si
fin.	3	-2092	46458	103792	SLU 52	2.23	Si
ini.	3	-1110	-18379	103792	SLU 73	5.65	Si
fin.	3	-2182	47929	103792	SLU 73	2.17	Si
ini.	3	-937	-17469	103792	SLU 44	5.94	Si
fin.	3	-1946	43188	103792	SLU 44	2.4	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-10771	386			970	365	SLU 81	0.95	No
fin.	3	0	41428	1428			970	365	SLU 81	0.26	No
ini.	3	0	-17063	754			970	365	SLU 65	0.48	No
fin.	3	0	44659	1494			970	365	SLU 65	0.24	No
ini.	3	0	-9304	382			970	365	SLU 75	0.96	No
fin.	3	0	39929	1335			970	365	SLU 75	0.27	No
ini.	3	0	-17469	748			970	365	SLU 44	0.49	No
fin.	3	0	43188	1481			970	365	SLU 44	0.25	No
ini.	3	0	-9711	377			970	365	SLU 54	0.97	No
fin.	3	0	38458	1322			970	365	SLU 54	0.28	No
ini.	3	0	-16081	670			970	365	SLU 61	0.55	No
fin.	3	0	44699	1527			970	365	SLU 61	0.24	No
ini.	3	0	-11177	380			970	365	SLU 60	0.96	No
fin.	3	0	39958	1415			970	365	SLU 60	0.26	No
ini.	3	0	-18785	828			970	365	SLU 52	0.44	No
fin.	3	0	46458	1565			970	365	SLU 52	0.23	No
ini.	3	0	-18379	834			970	365	SLU 73	0.44	No
fin.	3	0	47929	1578			970	365	SLU 73	0.23	No
ini.	3	0	-15675	676			970	365	SLU 82	0.54	No
fin.	3	0	46170	1540			970	365	SLU 82	0.24	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2161	-154336	121694	SLV 13	0.79	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2578	131952	121694	SLV 13	0.92	No
ini.	2	1328	-82549	121694	SLV 9	1.47	Si
fin.	2	-1887	90108	121694	SLV 9	1.35	Si
ini.	2	1366	-133807	121694	SLV 16	0.91	No
fin.	2	-2446	111972	121694	SLV 16	1.09	Si
ini.	2	-2868	119198	121694	SLV 2	1.02	Si
fin.	2	-162	-54201	121694	SLV 2	2.25	Si
ini.	2	1366	-133807	121694	SLV 15	0.91	No
fin.	2	-2446	111972	121694	SLV 15	1.09	Si
ini.	2	2161	-154336	121694	SLV 14	0.79	No
fin.	2	-2578	131952	121694	SLV 14	0.92	No
ini.	2	-2868	119198	121694	SLV 1	1.02	Si
fin.	2	-162	-54201	121694	SLV 1	2.25	Si
ini.	2	-3663	139727	121694	SLV 4	0.87	No
fin.	2	-30	-74181	121694	SLV 4	1.64	Si
ini.	2	-3663	139727	121694	SLV 3	0.87	No
fin.	2	-30	-74181	121694	SLV 3	1.64	Si
ini.	2	1328	-82549	121694	SLV 10	1.47	Si
fin.	2	-1887	90108	121694	SLV 10	1.35	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	-133807	4594			1456	548	SLV 16	0.12	No
fin.	2	0	111972	4360			1456	548	SLV 16	0.13	No
ini.	2	0	119198	-4134			1456	548	SLV 2	0.13	No
fin.	2	0	-54201	-2304			1456	548	SLV 2	0.24	No
ini.	2	0	-133807	4594			1456	548	SLV 15	0.12	No
fin.	2	0	111972	4360			1456	548	SLV 15	0.13	No
ini.	2	0	-154336	6076			1456	548	SLV 14	0.09	No
fin.	2	0	131952	5554			1456	548	SLV 14	0.1	No
ini.	2	0	-154336	6076			1456	548	SLV 13	0.09	No
fin.	2	0	131952	5554			1456	548	SLV 13	0.1	No
ini.	2	0	-82549	4232			1456	548	SLV 9	0.13	No
fin.	2	0	90108	4198			1456	548	SLV 9	0.13	No
ini.	2	0	139727	-5616			1456	548	SLV 4	0.1	No
fin.	2	0	-74181	-3499			1456	548	SLV 4	0.16	No
ini.	2	0	139727	-5616			1456	548	SLV 3	0.1	No
fin.	2	0	-74181	-3499			1456	548	SLV 3	0.16	No
ini.	2	0	-82549	4232			1456	548	SLV 10	0.13	No
fin.	2	0	90108	4198			1456	548	SLV 10	0.13	No
ini.	2	0	119198	-4134			1456	548	SLV 1	0.13	No
fin.	2	0	-54201	-2304			1456	548	SLV 1	0.24	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.789	SLV 13	No
V_SLV	0.09	SLV 13	No
PF_SLU	2.166	SLU 73	Si
V_SLU	0.231	SLU 73	No

Trave di accoppiamento 117

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	1105	1187	82	-1826.3	-335.9	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-285	5133	89792	SLU 69	17.49	Si
fin.	3	-1055	-21938	89792	SLU 69	4.09	Si
ini.	3	-61	8039	89792	SLU 29	11.17	Si
fin.	3	-932	-21761	89792	SLU 29	4.13	Si
ini.	3	-395	4454	89792	SLU 79	20.16	Si
fin.	3	-1199	-23884	89792	SLU 79	3.76	Si
ini.	3	-229	6270	89792	SLU 71	14.32	Si
fin.	3	-1058	-22665	89792	SLU 71	3.96	Si
ini.	3	-451	3317	89792	SLU 77	27.07	Si
fin.	3	-1196	-23157	89792	SLU 77	3.88	Si
ini.	3	-338	3697	89792	SLU 58	24.29	Si
fin.	3	-1043	-21015	89792	SLU 58	4.27	Si
ini.	3	-561	574	89792	SLU 80	156.32	Si
fin.	3	-1180	-20317	89792	SLU 80	4.42	Si
ini.	3	-227	6223	89792	SLU 37	14.43	Si
fin.	3	-1074	-22980	89792	SLU 37	3.91	Si
ini.	3	-284	5086	89792	SLU 35	17.65	Si
fin.	3	-1071	-22254	89792	SLU 35	4.03	Si
ini.	3	-118	6903	89792	SLU 27	13.01	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-930	-21034	89792	SLU 27	4.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	6270	480			806	303	SLU 71	0.63	No
fin.	3	0	-22665	-1797			806	303	SLU 71	0.17	No
ini.	3	0	3317	718			806	303	SLU 77	0.42	No
fin.	3	0	-23157	-1917			806	303	SLU 77	0.16	No
ini.	3	0	5086	492			806	303	SLU 35	0.62	No
fin.	3	0	-22254	-1762			806	303	SLU 35	0.17	No
ini.	3	0	2560	673			806	303	SLU 56	0.45	No
fin.	3	0	-20288	-1697			806	303	SLU 56	0.18	No
ini.	3	0	574	765			806	303	SLU 80	0.4	No
fin.	3	0	-20317	-1719			806	303	SLU 80	0.18	No
ini.	3	0	-562	845			806	303	SLU 78	0.36	No
fin.	3	0	-19590	-1707			806	303	SLU 78	0.18	No
ini.	3	0	3697	592			806	303	SLU 58	0.51	No
fin.	3	0	-21015	-1709			806	303	SLU 58	0.18	No
ini.	3	0	5133	561			806	303	SLU 69	0.54	No
fin.	3	0	-21938	-1785			806	303	SLU 69	0.17	No
ini.	3	0	4454	637			806	303	SLU 79	0.48	No
fin.	3	0	-23884	-1929			806	303	SLU 79	0.16	No
ini.	3	0	6223	412			806	303	SLU 37	0.74	No
fin.	3	0	-22980	-1774			806	303	SLU 37	0.17	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-322	-40776	107694	SLV 13	2.64	Si
fin.	2	2746	86918	107694	SLV 13	1.24	Si
ini.	2	-2319	-11534	107694	SLV 8	9.34	Si
fin.	2	-3216	-52029	107694	SLV 8	2.07	Si
ini.	2	-1327	-51873	107694	SLV 16	2.08	Si
fin.	2	1752	76200	107694	SLV 16	1.41	Si
ini.	2	-1050	30104	107694	SLV 3	3.58	Si
fin.	2	-4108	-101837	107694	SLV 3	1.06	Si
ini.	2	-322	-40776	107694	SLV 14	2.64	Si
fin.	2	2746	86918	107694	SLV 14	1.24	Si
ini.	2	-2319	-11534	107694	SLV 7	9.34	Si
fin.	2	-3216	-52029	107694	SLV 7	2.07	Si
ini.	2	-45	41202	107694	SLV 1	2.61	Si
fin.	2	-3114	-91119	107694	SLV 1	1.18	Si
ini.	2	-45	41202	107694	SLV 2	2.61	Si
fin.	2	-3114	-91119	107694	SLV 2	1.18	Si
ini.	2	-1050	30104	107694	SLV 4	3.58	Si
fin.	2	-4108	-101837	107694	SLV 4	1.06	Si
ini.	2	-1327	-51873	107694	SLV 15	2.08	Si
fin.	2	1752	76200	107694	SLV 15	1.41	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-11534	-274			1208	455	SLV 8	1.66	Si
fin.	2	0	-52029	-2789			1208	455	SLV 8	0.16	No
ini.	2	0	41202	-1358			1208	455	SLV 2	0.33	No
fin.	2	0	-91119	-3509			1208	455	SLV 2	0.13	No
ini.	2	0	-40776	3339			1208	455	SLV 13	0.14	No
fin.	2	0	86918	2396			1208	455	SLV 13	0.19	No
ini.	2	0	-51873	3080			1208	455	SLV 15	0.15	No
fin.	2	0	76200	1774			1208	455	SLV 15	0.26	No
ini.	2	0	41202	-1358			1208	455	SLV 1	0.33	No
fin.	2	0	-91119	-3509			1208	455	SLV 1	0.13	No
ini.	2	0	-40776	3339			1208	455	SLV 14	0.14	No
fin.	2	0	86918	2396			1208	455	SLV 14	0.19	No
ini.	2	0	-11534	-274			1208	455	SLV 7	1.66	Si
fin.	2	0	-52029	-2789			1208	455	SLV 7	0.16	No
ini.	2	0	30104	-1616			1208	455	SLV 4	0.28	No
fin.	2	0	-101837	-4131			1208	455	SLV 4	0.11	No
ini.	2	0	30104	-1616			1208	455	SLV 3	0.28	No
fin.	2	0	-101837	-4131			1208	455	SLV 3	0.11	No
ini.	2	0	-51873	3080			1208	455	SLV 16	0.15	No
fin.	2	0	76200	1774			1208	455	SLV 16	0.26	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.058	SLV 3	Si
V_SLV	0.11	SLV 3	No
PF_SLU	3.759	SLU 79	Si
V_SLU	0.157	SLU 79	No

Trave di accoppiamento 118

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1705.3	-486.2	1161	1187	26	-1705.3	-377.2	1161	1187	26	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	5	149	10289	SLU 13	69.18	Si
fin.	3	5	13076	10289	SLU 13	0.79	No
ini.	3	5	8	10289	SLU 34	1274.15	Si
fin.	3	5	14469	10289	SLU 34	0.71	No
ini.	3	2	-57	10289	SLU 40	179.19	Si
fin.	3	2	12800	10289	SLU 40	0.8	No
ini.	3	4	-199	10289	SLU 31	51.68	Si
fin.	3	4	16409	10289	SLU 31	0.63	No
ini.	3	4	368	10289	SLU 65	27.94	Si
fin.	3	4	13315	10289	SLU 65	0.77	No
ini.	3	4	243	10289	SLU 52	42.26	Si
fin.	3	4	14645	10289	SLU 52	0.7	No
ini.	3	4	103	10289	SLU 73	100.08	Si
fin.	3	4	16038	10289	SLU 73	0.64	No
ini.	3	5	310	10289	SLU 76	33.19	Si
fin.	3	5	14097	10289	SLU 76	0.73	No
ini.	3	4	-58	10289	SLU 10	176.07	Si
fin.	3	4	15016	10289	SLU 10	0.69	No
ini.	3	4	66	10289	SLU 23	155.08	Si
fin.	3	4	13687	10289	SLU 23	0.75	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	243	206			200	75	SLU 52	0.37	No
fin.	3	0	14645	58			200	75	SLU 52	1.29	Si
ini.	3	0	66	182			200	75	SLU 23	0.42	No
fin.	3	0	13687	68			200	75	SLU 23	1.1	Si
ini.	3	0	368	192			200	75	SLU 65	0.39	No
fin.	3	0	13315	45			200	75	SLU 65	1.67	Si
ini.	3	0	310	200			200	75	SLU 76	0.38	No
fin.	3	0	14097	53			200	75	SLU 76	1.43	Si
ini.	3	0	8	189			200	75	SLU 34	0.4	No
fin.	3	0	14469	76			200	75	SLU 34	0.99	No
ini.	3	0	-58	195			200	75	SLU 10	0.39	No
fin.	3	0	15016	82			200	75	SLU 10	0.92	No
ini.	3	0	244	185			200	75	SLU 82	0.41	No
fin.	3	0	12428	38			200	75	SLU 82	1.98	Si
ini.	3	0	103	220			200	75	SLU 73	0.34	No
fin.	3	0	16038	73			200	75	SLU 73	1.04	Si
ini.	3	0	-199	209			200	75	SLU 31	0.36	No
fin.	3	0	16409	96			200	75	SLU 31	0.79	No
ini.	3	0	451	186			200	75	SLU 55	0.41	No
fin.	3	0	12705	39			200	75	SLU 55	1.94	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	932	22944	15434	SLV 5	0.67	No
fin.	2	-176	63800	15434	SLV 5	0.24	No
ini.	2	-931	-21485	15434	SLV 12	0.72	No
fin.	2	176	-60742	15434	SLV 12	0.25	No
ini.	2	932	22944	15434	SLV 6	0.67	No
fin.	2	-176	63800	15434	SLV 6	0.24	No
ini.	2	257	4575	15434	SLV 14	3.37	Si
fin.	2	13	38149	15434	SLV 14	0.4	No
ini.	2	-919	-19933	15434	SLV 7	0.77	No
fin.	2	140	-70616	15434	SLV 7	0.22	No
ini.	2	257	4575	15434	SLV 13	3.37	Si
fin.	2	13	38149	15434	SLV 13	0.4	No
ini.	2	-919	-19933	15434	SLV 8	0.77	No
fin.	2	140	-70616	15434	SLV 8	0.22	No
ini.	2	919	21392	15434	SLV 9	0.72	No
fin.	2	-139	73674	15434	SLV 9	0.21	No
ini.	2	919	21392	15434	SLV 10	0.72	No
fin.	2	-139	73674	15434	SLV 10	0.21	No
ini.	2	-931	-21485	15434	SLV 11	0.72	No
fin.	2	176	-60742	15434	SLV 11	0.25	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	22944	1044			300	113	SLV 6	0.11	No
fin.	2	0	63800	-334			300	113	SLV 6	0.34	No
ini.	2	0	21392	1109			300	113	SLV 10	0.1	No
fin.	2	0	73674	-285			300	113	SLV 10	0.4	No
ini.	2	0	-21485	-916			300	113	SLV 11	0.12	No
fin.	2	0	-60742	236			300	113	SLV 11	0.48	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	22944	1044			300	113	SLV 5	0.11	No
fin.	2	0	63800	-334			300	113	SLV 5	0.34	No
ini.	2	0	8996	482			300	113	SLD 9	0.23	No
fin.	2	0	30148	-134			300	113	SLD 9	0.85	No
ini.	2	0	21392	1109			300	113	SLV 9	0.1	No
fin.	2	0	73674	-285			300	113	SLV 9	0.4	No
ini.	2	0	-19933	-981			300	113	SLV 8	0.12	No
fin.	2	0	-70616	186			300	113	SLV 8	0.61	No
ini.	2	0	8996	482			300	113	SLD 10	0.23	No
fin.	2	0	30148	-134			300	113	SLD 10	0.85	No
ini.	2	0	-21485	-916			300	113	SLV 12	0.12	No
fin.	2	0	-60742	236			300	113	SLV 12	0.48	No
ini.	2	0	-19933	-981			300	113	SLV 7	0.12	No
fin.	2	0	-70616	186			300	113	SLV 7	0.61	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.209	SLV 9	No
V_SLV	0.102	SLV 9	No
PF_SLU	0.627	SLU 31	No
V_SLU	0.343	SLU 73	No

Trave di accoppiamento 119

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1543.3	-335.9	1045	1187	142	-1633.3	-335.9	1045	1187	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1986	-129023	194792	SLU 73	1.51	Si
fin.	3	-1986	116195	194792	SLU 73	1.68	Si
ini.	3	-1943	-130101	194792	SLU 81	1.5	Si
fin.	3	-1943	114875	194792	SLU 81	1.7	Si
ini.	3	-1735	-114903	194792	SLU 65	1.7	Si
fin.	3	-1735	103884	194792	SLU 65	1.88	Si
ini.	3	-1849	-118362	194792	SLU 52	1.65	Si
fin.	3	-1849	103490	194792	SLU 52	1.88	Si
ini.	3	-1806	-119439	194792	SLU 60	1.63	Si
fin.	3	-1806	102170	194792	SLU 60	1.91	Si
ini.	3	-1897	-122424	194792	SLU 61	1.59	Si
fin.	3	-1897	106128	194792	SLU 61	1.84	Si
ini.	3	-1663	-118370	194792	SLU 75	1.65	Si
fin.	3	-1663	105783	194792	SLU 75	1.84	Si
ini.	3	-1572	-115385	194792	SLU 74	1.69	Si
fin.	3	-1572	101825	194792	SLU 74	1.91	Si
ini.	3	-1700	-117655	194792	SLU 84	1.66	Si
fin.	3	-1700	106586	194792	SLU 84	1.83	Si
ini.	3	-2034	-133085	194792	SLU 82	1.46	Si
fin.	3	-2034	118833	194792	SLU 82	1.64	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-115385	3347			1531	576	SLU 74	0.17	No
fin.	3	0	101825	1499			1531	576	SLU 74	0.38	No
ini.	3	0	-130101	3718			1531	576	SLU 81	0.15	No
fin.	3	0	114875	1745			1531	576	SLU 81	0.33	No
ini.	3	0	-133085	3795			1531	576	SLU 82	0.15	No
fin.	3	0	118833	1822			1531	576	SLU 82	0.32	No
ini.	3	0	-113593	3350			1531	576	SLU 76	0.17	No
fin.	3	0	103948	1503			1531	576	SLU 76	0.38	No
ini.	3	0	-117655	3488			1531	576	SLU 84	0.17	No
fin.	3	0	106586	1514			1531	576	SLU 84	0.38	No
ini.	3	0	-114670	3411			1531	576	SLU 83	0.17	No
fin.	3	0	102628	1437			1531	576	SLU 83	0.4	No
ini.	3	0	-118370	3424			1531	576	SLU 75	0.17	No
fin.	3	0	105783	1577			1531	576	SLU 75	0.37	No
ini.	3	0	-122424	3414			1531	576	SLU 61	0.17	No
fin.	3	0	106128	1683			1531	576	SLU 61	0.34	No
ini.	3	0	-129023	3658			1531	576	SLU 73	0.16	No
fin.	3	0	116195	1811			1531	576	SLU 73	0.32	No
ini.	3	0	-119439	3337			1531	576	SLU 60	0.17	No
fin.	3	0	102170	1606			1531	576	SLU 60	0.36	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2229	-175094	212694	SLV 9	1.21	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1584	294714	212694	SLV 9	0.72	No
ini.	2	-1077	-338908	212694	SLV 16	0.63	No
fin.	2	-418	265342	212694	SLV 16	0.8	No
ini.	2	-3332	173586	212694	SLV 3	1.23	Si
fin.	2	-3528	-203513	212694	SLV 3	1.05	Si
ini.	2	-3332	173586	212694	SLV 4	1.23	Si
fin.	2	-3528	-203513	212694	SLV 4	1.05	Si
ini.	2	-389	-197109	212694	SLD 14	1.08	Si
fin.	2	-297	193723	212694	SLD 14	1.1	Si
ini.	2	813	-346089	212694	SLV 13	0.61	No
fin.	2	1008	354636	212694	SLV 13	0.6	No
ini.	2	813	-346089	212694	SLV 14	0.61	No
fin.	2	1008	354636	212694	SLV 14	0.6	No
ini.	2	-389	-197109	212694	SLD 13	1.08	Si
fin.	2	-297	193723	212694	SLD 13	1.1	Si
ini.	2	-1077	-338908	212694	SLV 15	0.63	No
fin.	2	-418	265342	212694	SLV 15	0.8	No
ini.	2	2229	-175094	212694	SLV 10	1.21	Si
fin.	2	1584	294714	212694	SLV 10	0.72	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-197109	5014			2297	864	SLD 13	0.17	No
fin.	2	0	193723	3888			2297	864	SLD 13	0.22	No
ini.	2	0	-175094	5737			2297	864	SLV 9	0.15	No
fin.	2	0	294714	5059			2297	864	SLV 9	0.17	No
ini.	2	0	-346089	8505			2297	864	SLV 14	0.1	No
fin.	2	0	354636	7531			2297	864	SLV 14	0.11	No
ini.	2	0	173586	-3670			2297	864	SLV 3	0.24	No
fin.	2	0	-203513	-5146			2297	864	SLV 3	0.17	No
ini.	2	0	173586	-3670			2297	864	SLV 4	0.24	No
fin.	2	0	-203513	-5146			2297	864	SLV 4	0.17	No
ini.	2	0	-175094	5737			2297	864	SLV 10	0.15	No
fin.	2	0	294714	5059			2297	864	SLV 10	0.17	No
ini.	2	0	-346089	8505			2297	864	SLV 13	0.1	No
fin.	2	0	354636	7531			2297	864	SLV 13	0.11	No
ini.	2	0	-338908	7521			2297	864	SLV 15	0.11	No
fin.	2	0	265342	6236			2297	864	SLV 15	0.14	No
ini.	2	0	-338908	7521			2297	864	SLV 16	0.11	No
fin.	2	0	265342	6236			2297	864	SLV 16	0.14	No
ini.	2	0	-197109	5014			2297	864	SLD 14	0.17	No
fin.	2	0	193723	3888			2297	864	SLD 14	0.22	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.6	SLV 13	No
V_SLV	0.102	SLV 13	No
PF_SLU	1.464	SLU 82	Si
V_SLU	0.152	SLU 82	No

Trave di accoppiamento 120

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1443.8	-485.9	1161	1187	26	-1627.8	-485.9	1161	1187	26	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fkhmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	47	-399	10289	SLU 78	25.79	Si
fin.	3	47	-6969	10289	SLU 78	1.48	Si
ini.	3	77	2500	10289	SLU 35	4.12	Si
fin.	3	77	-7945	10289	SLU 35	1.3	Si
ini.	3	52	-79	10289	SLU 80	129.42	Si
fin.	3	52	-7258	10289	SLU 80	1.42	Si
ini.	3	55	1884	10289	SLU 38	5.46	Si
fin.	3	55	-7447	10289	SLU 38	1.38	Si
ini.	3	-43	-8296	10289	SLU 44	1.24	Si
fin.	3	-43	430	10289	SLU 44	23.94	Si
ini.	3	55	1404	10289	SLU 41	7.33	Si
fin.	3	55	-6972	10289	SLU 41	1.48	Si
ini.	3	80	856	10289	SLU 79	12.02	Si
fin.	3	80	-8045	10289	SLU 79	1.28	Si
ini.	3	50	1564	10289	SLU 36	6.58	Si
fin.	3	50	-7158	10289	SLU 36	1.44	Si
ini.	3	82	2819	10289	SLU 37	3.65	Si
fin.	3	82	-8234	10289	SLU 37	1.25	Si
ini.	3	75	537	10289	SLU 77	19.17	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	75	-7756	10289	SLU 77	1.33	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-693	91			200	75	SLU 58	0.83	No
fin.	3	0	-6557	-155			200	75	SLU 58	0.49	No
ini.	3	0	-6736	155			200	75	SLU 43	0.49	No
fin.	3	0	-882	-91			200	75	SLU 43	0.83	No
ini.	3	0	-559	89			200	75	SLU 83	0.84	No
fin.	3	0	-6783	-157			200	75	SLU 83	0.48	No
ini.	3	0	2819	35			200	75	SLU 37	2.18	Si
fin.	3	0	-8234	-155			200	75	SLU 37	0.49	No
ini.	3	0	-8296	171			200	75	SLU 44	0.44	No
fin.	3	0	430	-76			200	75	SLU 44	1	No
ini.	3	0	537	78			200	75	SLU 77	0.97	No
fin.	3	0	-7756	-168			200	75	SLU 77	0.45	No
ini.	3	0	-6747	154			200	75	SLU 65	0.49	No
fin.	3	0	-1058	-92			200	75	SLU 65	0.82	No
ini.	3	0	856	75			200	75	SLU 79	1.01	Si
fin.	3	0	-8045	-171			200	75	SLU 79	0.44	No
ini.	3	0	-79	84			200	75	SLU 80	0.9	No
fin.	3	0	-7258	-162			200	75	SLU 80	0.46	No
ini.	3	0	-399	87			200	75	SLU 78	0.86	No
fin.	3	0	-6969	-159			200	75	SLU 78	0.47	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-358	-32525	15434	SLV 13	0.47	No
fin.	2	-306	24732	15434	SLV 13	0.62	No
ini.	2	-532	-50275	15434	SLV 15	0.31	No
fin.	2	-526	41110	15434	SLV 15	0.38	No
ini.	2	435	37017	15434	SLV 5	0.42	No
fin.	2	504	-39748	15434	SLV 5	0.39	No
ini.	2	-415	-44689	15434	SLV 12	0.35	No
fin.	2	-484	35787	15434	SLV 12	0.43	No
ini.	2	551	42603	15434	SLV 1	0.36	No
fin.	2	546	-45071	15434	SLV 1	0.34	No
ini.	2	435	37017	15434	SLV 6	0.42	No
fin.	2	504	-39748	15434	SLV 6	0.39	No
ini.	2	-415	-44689	15434	SLV 11	0.35	No
fin.	2	-484	35787	15434	SLV 11	0.43	No
ini.	2	551	42603	15434	SLV 2	0.36	No
fin.	2	546	-45071	15434	SLV 2	0.34	No
ini.	2	-358	-32525	15434	SLV 14	0.47	No
fin.	2	-306	24732	15434	SLV 14	0.62	No
ini.	2	-532	-50275	15434	SLV 16	0.31	No
fin.	2	-526	41110	15434	SLV 16	0.38	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-44689	609			300	113	SLV 11	0.19	No
fin.	2	0	35787	532			300	113	SLV 11	0.21	No
ini.	2	0	-44689	609			300	113	SLV 12	0.19	No
fin.	2	0	35787	532			300	113	SLV 12	0.21	No
ini.	2	0	37017	-399			300	113	SLV 6	0.28	No
fin.	2	0	-39748	-701			300	113	SLV 6	0.16	No
ini.	2	0	14478	-146			300	113	SLV 10	0.78	No
fin.	2	0	-18807	-462			300	113	SLV 10	0.24	No
ini.	2	0	14478	-146			300	113	SLV 9	0.78	No
fin.	2	0	-18807	-462			300	113	SLV 9	0.24	No
ini.	2	0	-50275	641			300	113	SLV 16	0.18	No
fin.	2	0	41110	463			300	113	SLV 16	0.24	No
ini.	2	0	37017	-399			300	113	SLV 5	0.28	No
fin.	2	0	-39748	-701			300	113	SLV 5	0.16	No
ini.	2	0	-50275	641			300	113	SLV 15	0.18	No
fin.	2	0	41110	463			300	113	SLV 15	0.24	No
ini.	2	0	42603	-431			300	113	SLV 1	0.26	No
fin.	2	0	-45071	-632			300	113	SLV 1	0.18	No
ini.	2	0	42603	-431			300	113	SLV 2	0.26	No
fin.	2	0	-45071	-632			300	113	SLV 2	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.307	SLV 15	No
V_SLV	0.161	SLV 5	No
PF_SLU	1.24	SLU 44	Si
V_SLU	0.44	SLU 79	No

Trave di accoppiamento 121

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1375.3	-22.8	1045	1187	142	-1375.3	67.2	1045	1187	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	436	-58891	194792	SLU 72	3.31	Si
fin.	3	436	26422	194792	SLU 72	7.37	Si
ini.	3	416	-62297	194792	SLU 30	3.13	Si
fin.	3	416	22516	194792	SLU 30	8.65	Si
ini.	3	419	-61537	194792	SLU 28	3.17	Si
fin.	3	419	22168	194792	SLU 28	8.79	Si
ini.	3	444	-67296	194792	SLU 29	2.89	Si
fin.	3	444	23570	194792	SLU 29	8.26	Si
ini.	3	353	-53979	194792	SLU 8	3.61	Si
fin.	3	353	20266	194792	SLU 8	9.61	Si
ini.	3	467	-63130	194792	SLU 69	3.09	Si
fin.	3	467	27128	194792	SLU 69	7.18	Si
ini.	3	357	-53219	194792	SLU 6	3.66	Si
fin.	3	357	19918	194792	SLU 6	9.78	Si
ini.	3	464	-63890	194792	SLU 71	3.05	Si
fin.	3	464	27476	194792	SLU 71	7.09	Si
ini.	3	447	-66537	194792	SLU 27	2.93	Si
fin.	3	447	23222	194792	SLU 27	8.39	Si
ini.	3	439	-58131	194792	SLU 70	3.35	Si
fin.	3	439	26074	194792	SLU 70	7.47	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-49813	1265			1531	576	SLU 48	0.46	No
fin.	3	0	23824	431			1531	576	SLU 48	1.34	Si
ini.	3	0	-58891	1405			1531	576	SLU 72	0.41	No
fin.	3	0	26422	548			1531	576	SLU 72	1.05	Si
ini.	3	0	-58131	1393			1531	576	SLU 70	0.41	No
fin.	3	0	26074	535			1531	576	SLU 70	1.08	Si
ini.	3	0	-63890	1472			1531	576	SLU 71	0.39	No
fin.	3	0	27476	615			1531	576	SLU 71	0.94	No
ini.	3	0	-61537	1287			1531	576	SLU 28	0.45	No
fin.	3	0	22168	616			1531	576	SLU 28	0.94	No
ini.	3	0	-66537	1354			1531	576	SLU 27	0.43	No
fin.	3	0	23222	683			1531	576	SLU 27	0.84	No
ini.	3	0	-67296	1366			1531	576	SLU 29	0.42	No
fin.	3	0	23570	696			1531	576	SLU 29	0.83	No
ini.	3	0	-63130	1460			1531	576	SLU 69	0.39	No
fin.	3	0	27128	603			1531	576	SLU 69	0.96	No
ini.	3	0	-50572	1278			1531	576	SLU 50	0.45	No
fin.	3	0	24171	443			1531	576	SLU 50	1.3	Si
ini.	3	0	-62297	1299			1531	576	SLU 30	0.44	No
fin.	3	0	22516	628			1531	576	SLU 30	0.92	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	122	-357925	212694	SLV 5	0.59	No
fin.	2	-897	113994	212694	SLV 5	1.87	Si
ini.	2	358	266408	212694	SLV 8	0.8	No
fin.	2	450	-96576	212694	SLV 8	2.2	Si
ini.	2	122	-357925	212694	SLV 6	0.59	No
fin.	2	-897	113994	212694	SLV 6	1.87	Si
ini.	2	20	-271404	212694	SLV 10	0.78	No
fin.	2	-72	131422	212694	SLV 10	1.62	Si
ini.	2	20	-271404	212694	SLV 9	0.78	No
fin.	2	-72	131422	212694	SLV 9	1.62	Si
ini.	2	323	-240349	212694	SLV 2	0.88	No
fin.	2	-1388	19962	212694	SLV 2	10.65	Si
ini.	2	255	352929	212694	SLV 12	0.6	No
fin.	2	1274	-79148	212694	SLV 12	2.69	Si
ini.	2	358	266408	212694	SLV 7	0.8	No
fin.	2	450	-96576	212694	SLV 7	2.2	Si
ini.	2	255	352929	212694	SLV 11	0.6	No
fin.	2	1274	-79148	212694	SLV 11	2.69	Si
ini.	2	323	-240349	212694	SLV 1	0.88	No
fin.	2	-1388	19962	212694	SLV 1	10.65	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	352929	-4132			2297	864	SLV 12	0.21	No
fin.	2	0	-79148	-5114			2297	864	SLV 12	0.17	No
ini.	2	0	266408	-3199			2297	864	SLV 8	0.27	No
fin.	2	0	-96576	-4362			2297	864	SLV 8	0.2	No
ini.	2	0	-240349	3397			2297	864	SLV 1	0.25	No
fin.	2	0	19962	2565			2297	864	SLV 1	0.34	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-271404	4340			2297	864	SLV 10	0.2	No
fin.	2	0	131422	4195			2297	864	SLV 10	0.21	No
ini.	2	0	-357925	5274			2297	864	SLV 6	0.16	No
fin.	2	0	113994	4947			2297	864	SLV 6	0.17	No
ini.	2	0	266408	-3199			2297	864	SLV 7	0.27	No
fin.	2	0	-96576	-4362			2297	864	SLV 7	0.2	No
ini.	2	0	352929	-4132			2297	864	SLV 11	0.21	No
fin.	2	0	-79148	-5114			2297	864	SLV 11	0.17	No
ini.	2	0	-357925	5274			2297	864	SLV 5	0.16	No
fin.	2	0	113994	4947			2297	864	SLV 5	0.17	No
ini.	2	0	-271404	4340			2297	864	SLV 9	0.2	No
fin.	2	0	131422	4195			2297	864	SLV 9	0.21	No
ini.	2	0	-240349	3397			2297	864	SLV 2	0.25	No
fin.	2	0	19962	2565			2297	864	SLV 2	0.34	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.594	SLV 5	No
V_SLV	0.164	SLV 5	No
PF_SLU	2.895	SLU 29	Si
V_SLU	0.391	SLU 71	No

Trave di accoppiamento 122

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1074.8	333.1	1025	1187	162	-994.8	333.1	1025	1187	162	80	14	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-113	345118	176083	SLU 82	0.51	No
fin.	3	-113	31588	176083	SLU 82	5.57	Si
ini.	3	-112	353684	176083	SLU 84	0.5	No
fin.	3	-112	32223	176083	SLU 84	5.46	Si
ini.	3	-104	336821	176083	SLU 75	0.52	No
fin.	3	-104	29502	176083	SLU 75	5.97	Si
ini.	3	-112	353357	176083	SLU 83	0.5	No
fin.	3	-112	32205	176083	SLU 83	5.47	Si
ini.	3	-106	336704	176083	SLU 80	0.52	No
fin.	3	-106	29977	176083	SLU 80	5.87	Si
ini.	3	-104	345387	176083	SLU 78	0.51	No
fin.	3	-104	30137	176083	SLU 78	5.84	Si
ini.	3	-104	345060	176083	SLU 77	0.51	No
fin.	3	-104	30119	176083	SLU 77	5.85	Si
ini.	3	-113	344791	176083	SLU 81	0.51	No
fin.	3	-113	31570	176083	SLU 81	5.58	Si
ini.	3	-104	336494	176083	SLU 74	0.52	No
fin.	3	-104	29484	176083	SLU 74	5.97	Si
ini.	3	-106	336377	176083	SLU 79	0.52	No
fin.	3	-106	29960	176083	SLU 79	5.88	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	345118	-3283			873	329	SLU 82	0.1	No
fin.	3	0	31588	-4515			873	329	SLU 82	0.07	No
ini.	3	0	345387	-3355			873	329	SLU 78	0.1	No
fin.	3	0	30137	-4486			873	329	SLU 78	0.07	No
ini.	3	0	336704	-3248			873	329	SLU 80	0.1	No
fin.	3	0	29977	-4379			873	329	SLU 80	0.08	No
ini.	3	0	336377	-3244			873	329	SLU 79	0.1	No
fin.	3	0	29960	-4375			873	329	SLU 79	0.08	No
ini.	3	0	336821	-3255			873	329	SLU 75	0.1	No
fin.	3	0	29502	-4387			873	329	SLU 75	0.07	No
ini.	3	0	336494	-3252			873	329	SLU 74	0.1	No
fin.	3	0	29484	-4383			873	329	SLU 74	0.07	No
ini.	3	0	353357	-3378			873	329	SLU 83	0.1	No
fin.	3	0	32205	-4610			873	329	SLU 83	0.07	No
ini.	3	0	353684	-3382			873	329	SLU 84	0.1	No
fin.	3	0	32223	-4614			873	329	SLU 84	0.07	No
ini.	3	0	344791	-3279			873	329	SLU 81	0.1	No
fin.	3	0	31570	-4511			873	329	SLU 81	0.07	No
ini.	3	0	345060	-3351			873	329	SLU 77	0.1	No
fin.	3	0	30119	-4482			873	329	SLU 77	0.07	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	85	493864	211889	SLV 12	0.43	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-232	40461	211889	SLV 12	5.24	Si
ini.	2	-135	365208	211889	SLD 7	0.58	No
fin.	2	-154	29411	211889	SLD 7	7.2	Si
ini.	2	-566	450984	211889	SLV 3	0.47	No
fin.	2	-210	34931	211889	SLV 3	6.07	Si
ini.	2	-566	450984	211889	SLV 4	0.47	No
fin.	2	-210	34931	211889	SLV 4	6.07	Si
ini.	2	-213	581352	211889	SLV 7	0.36	No
fin.	2	-281	46223	211889	SLV 7	4.58	Si
ini.	2	-213	581352	211889	SLV 8	0.36	No
fin.	2	-281	46223	211889	SLV 8	4.58	Si
ini.	2	-135	365208	211889	SLD 8	0.58	No
fin.	2	-154	29411	211889	SLD 8	7.2	Si
ini.	2	-9	328037	211889	SLD 11	0.65	No
fin.	2	-135	26990	211889	SLD 11	7.85	Si
ini.	2	85	493864	211889	SLV 11	0.43	No
fin.	2	-232	40461	211889	SLV 11	5.24	Si
ini.	2	-9	328037	211889	SLD 12	0.65	No
fin.	2	-135	26990	211889	SLD 12	7.85	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	450984	-4153			1310	493	SLV 3	0.12	No
fin.	2	0	34931	-5066			1310	493	SLV 3	0.1	No
ini.	2	0	581352	-6110			1310	493	SLV 7	0.08	No
fin.	2	0	46223	-6862			1310	493	SLV 7	0.07	No
ini.	2	0	450984	-4153			1310	493	SLV 4	0.12	No
fin.	2	0	34931	-5066			1310	493	SLV 4	0.1	No
ini.	2	0	365208	-3735			1310	493	SLD 7	0.13	No
fin.	2	0	29411	-4468			1310	493	SLD 7	0.11	No
ini.	2	0	328037	-3472			1310	493	SLD 12	0.14	No
fin.	2	0	26990	-4152			1310	493	SLD 12	0.12	No
ini.	2	0	365208	-3735			1310	493	SLD 8	0.13	No
fin.	2	0	29411	-4468			1310	493	SLD 8	0.11	No
ini.	2	0	493864	-5492			1310	493	SLV 11	0.09	No
fin.	2	0	40461	-6121			1310	493	SLV 11	0.08	No
ini.	2	0	493864	-5492			1310	493	SLV 12	0.09	No
fin.	2	0	40461	-6121			1310	493	SLV 12	0.08	No
ini.	2	0	581352	-6110			1310	493	SLV 8	0.08	No
fin.	2	0	46223	-6862			1310	493	SLV 8	0.07	No
ini.	2	0	328037	-3472			1310	493	SLD 11	0.14	No
fin.	2	0	26990	-4152			1310	493	SLD 11	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.364	SLV 7	No
V_SLV	0.072	SLV 7	No
PF_SLU	0.498	SLU 84	No
V_SLU	0.071	SLU 84	No

Trave di accoppiamento 123

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	835	925	90	-1681.8	666.1	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	389	873	103792	SLU 84	118.84	Si
fin.	3	172	11777	103792	SLU 84	8.81	Si
ini.	3	386	980	103792	SLU 83	105.86	Si
fin.	3	176	11674	103792	SLU 83	8.89	Si
ini.	3	674	-5736	103792	SLU 77	18.09	Si
fin.	3	245	11995	103792	SLU 77	8.65	Si
ini.	3	341	1683	103792	SLU 75	61.67	Si
fin.	3	149	11288	103792	SLU 75	9.19	Si
ini.	3	742	-7482	103792	SLU 79	13.87	Si
fin.	3	261	12010	103792	SLU 79	8.64	Si
ini.	3	814	-11547	103792	SLU 29	8.99	Si
fin.	3	259	9370	103792	SLU 29	11.08	Si
ini.	3	411	-134	103792	SLU 76	774.46	Si
fin.	3	162	11372	103792	SLU 76	9.13	Si
ini.	3	817	-11654	103792	SLU 30	8.91	Si
fin.	3	256	9473	103792	SLU 30	10.96	Si
ini.	3	678	-5843	103792	SLU 78	17.76	Si
fin.	3	241	12098	103792	SLU 78	8.58	Si
ini.	3	745	-7589	103792	SLU 80	13.68	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	257	12113	103792	SLU 80	8.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-8027	-426			970	365	SLU 70	0.86	No
fin.	3	0	10993	1771			970	365	SLU 70	0.21	No
ini.	3	0	-9773	-313			970	365	SLU 72	1.17	Si
fin.	3	0	11009	1743			970	365	SLU 72	0.21	No
ini.	3	0	-7589	-410			970	365	SLU 80	0.89	No
fin.	3	0	12113	1768			970	365	SLU 80	0.21	No
ini.	3	0	-7482	-416			970	365	SLU 79	0.88	No
fin.	3	0	12010	1763			970	365	SLU 79	0.21	No
ini.	3	0	-9666	-319			970	365	SLU 71	1.14	Si
fin.	3	0	10905	1738			970	365	SLU 71	0.21	No
ini.	3	0	-4553	-552			970	365	SLU 57	0.66	No
fin.	3	0	10870	1690			970	365	SLU 57	0.22	No
ini.	3	0	-5843	-522			970	365	SLU 78	0.7	No
fin.	3	0	12098	1796			970	365	SLU 78	0.2	No
ini.	3	0	-5736	-528			970	365	SLU 77	0.69	No
fin.	3	0	11995	1791			970	365	SLU 77	0.2	No
ini.	3	0	-4446	-558			970	365	SLU 56	0.65	No
fin.	3	0	10766	1685			970	365	SLU 56	0.22	No
ini.	3	0	-7920	-432			970	365	SLU 69	0.85	No
fin.	3	0	10890	1766			970	365	SLU 69	0.21	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2161	-63126	121694	SLV 4	1.93	Si
fin.	2	-2814	61828	121694	SLV 4	1.97	Si
ini.	2	-1845	64736	121694	SLV 15	1.88	Si
fin.	2	2947	-60423	121694	SLV 15	2.01	Si
ini.	2	1943	-54633	121694	SLV 2	2.23	Si
fin.	2	-2872	74799	121694	SLV 2	1.63	Si
ini.	2	2161	-63126	121694	SLV 3	1.93	Si
fin.	2	-2814	61828	121694	SLV 3	1.97	Si
ini.	2	287	26	121694	SLV 6	4733.83	Si
fin.	2	-924	47145	121694	SLV 6	2.58	Si
ini.	2	-2063	73228	121694	SLV 14	1.66	Si
fin.	2	2888	-47452	121694	SLV 14	2.56	Si
ini.	2	-1845	64736	121694	SLV 16	1.88	Si
fin.	2	2947	-60423	121694	SLV 16	2.01	Si
ini.	2	287	26	121694	SLV 5	4733.83	Si
fin.	2	-924	47145	121694	SLV 5	2.58	Si
ini.	2	1943	-54633	121694	SLV 1	2.23	Si
fin.	2	-2872	74799	121694	SLV 1	1.63	Si
ini.	2	-2063	73228	121694	SLV 13	1.66	Si
fin.	2	2888	-47452	121694	SLV 13	2.56	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-63126	2299			1456	548	SLV 4	0.24	No
fin.	2	0	61828	5465			1456	548	SLV 4	0.1	No
ini.	2	0	-54633	2393			1456	548	SLV 2	0.23	No
fin.	2	0	74799	5021			1456	548	SLV 2	0.11	No
ini.	2	0	73228	-3826			1456	548	SLV 13	0.14	No
fin.	2	0	-47452	-3266			1456	548	SLV 13	0.17	No
ini.	2	0	73228	-3826			1456	548	SLV 14	0.14	No
fin.	2	0	-47452	-3266			1456	548	SLV 14	0.17	No
ini.	2	0	64736	-3920			1456	548	SLV 16	0.14	No
fin.	2	0	-60423	-2822			1456	548	SLV 16	0.19	No
ini.	2	0	-54633	2393			1456	548	SLV 1	0.23	No
fin.	2	0	74799	5021			1456	548	SLV 1	0.11	No
ini.	2	0	-28282	13			1456	548	SLV 8	43.31	Si
fin.	2	0	3907	3083			1456	548	SLV 8	0.18	No
ini.	2	0	-63126	2299			1456	548	SLV 3	0.24	No
fin.	2	0	61828	5465			1456	548	SLV 3	0.1	No
ini.	2	0	64736	-3920			1456	548	SLV 15	0.14	No
fin.	2	0	-60423	-2822			1456	548	SLV 15	0.19	No
ini.	2	0	-28282	13			1456	548	SLV 7	43.31	Si
fin.	2	0	3907	3083			1456	548	SLV 7	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.627	SLV 1	Si
V_SLV	0.1	SLV 3	No
PF_SLU	8.568	SLU 80	Si
V_SLU	0.203	SLU 78	No

Trave di accoppiamento 124

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	1105	1187	82	-1681.8	666.1	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	617	-12056	89792	SLU 72	7.45	Si
fin.	3	1269	11519	89792	SLU 72	7.8	Si
ini.	3	603	-11234	89792	SLU 30	7.99	Si
fin.	3	1278	12182	89792	SLU 30	7.37	Si
ini.	3	567	-12646	89792	SLU 80	7.1	Si
fin.	3	1159	10371	89792	SLU 80	8.66	Si
ini.	3	596	-11900	89792	SLU 70	7.55	Si
fin.	3	1188	10170	89792	SLU 70	8.83	Si
ini.	3	545	-12490	89792	SLU 78	7.19	Si
fin.	3	1077	9022	89792	SLU 78	9.95	Si
ini.	3	552	-11824	89792	SLU 38	7.59	Si
fin.	3	1167	11034	89792	SLU 38	8.14	Si
ini.	3	621	-11949	89792	SLU 71	7.51	Si
fin.	3	1265	11422	89792	SLU 71	7.86	Si
ini.	3	570	-12538	89792	SLU 79	7.16	Si
fin.	3	1154	10274	89792	SLU 79	8.74	Si
ini.	3	607	-11127	89792	SLU 29	8.07	Si
fin.	3	1274	12085	89792	SLU 29	7.43	Si
ini.	3	549	-12383	89792	SLU 77	7.25	Si
fin.	3	1073	8925	89792	SLU 77	10.06	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-7864	1540			806	303	SLU 82	0.2	No
fin.	3	0	-1439	-1753			806	303	SLU 82	0.17	No
ini.	3	0	-10274	1662			806	303	SLU 83	0.18	No
fin.	3	0	4123	-1440			806	303	SLU 83	0.21	No
ini.	3	0	-7757	1534			806	303	SLU 81	0.2	No
fin.	3	0	-1536	-1759			806	303	SLU 81	0.17	No
ini.	3	0	-6191	1319			806	303	SLU 60	0.23	No
fin.	3	0	-2926	-1636			806	303	SLU 60	0.19	No
ini.	3	0	-12383	1740			806	303	SLU 77	0.17	No
fin.	3	0	8925	-1121			806	303	SLU 77	0.27	No
ini.	3	0	-12490	1746			806	303	SLU 78	0.17	No
fin.	3	0	9022	-1115			806	303	SLU 78	0.27	No
ini.	3	0	-10381	1668			806	303	SLU 84	0.18	No
fin.	3	0	4220	-1434			806	303	SLU 84	0.21	No
ini.	3	0	-12646	1719			806	303	SLU 80	0.18	No
fin.	3	0	10371	-989			806	303	SLU 80	0.31	No
ini.	3	0	-12538	1714			806	303	SLU 79	0.18	No
fin.	3	0	10274	-995			806	303	SLU 79	0.3	No
ini.	3	0	-6298	1324			806	303	SLU 61	0.23	No
fin.	3	0	-2830	-1629			806	303	SLU 61	0.19	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1422	54935	107694	SLV 13	1.96	Si
fin.	2	-2320	-45729	107694	SLV 13	2.36	Si
ini.	2	-1334	-59572	107694	SLV 1	1.81	Si
fin.	2	2178	41695	107694	SLV 1	2.58	Si
ini.	2	1569	49286	107694	SLV 15	2.19	Si
fin.	2	-1920	-42803	107694	SLV 15	2.52	Si
ini.	2	-1334	-59572	107694	SLV 2	1.81	Si
fin.	2	2178	41695	107694	SLV 2	2.58	Si
ini.	2	-1186	-65221	107694	SLV 3	1.65	Si
fin.	2	2579	44622	107694	SLV 3	2.41	Si
ini.	2	1422	54935	107694	SLV 14	1.96	Si
fin.	2	-2320	-45729	107694	SLV 14	2.36	Si
ini.	2	-1186	-65221	107694	SLV 4	1.65	Si
fin.	2	2579	44622	107694	SLV 4	2.41	Si
ini.	2	-49	-31734	107694	SLV 8	3.39	Si
fin.	2	1472	17437	107694	SLV 8	6.18	Si
ini.	2	-49	-31734	107694	SLV 7	3.39	Si
fin.	2	1472	17437	107694	SLV 7	6.18	Si
ini.	2	1569	49286	107694	SLV 16	2.19	Si
fin.	2	-1920	-42803	107694	SLV 16	2.52	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	21448	234			1208	455	SLV 10	1.94	Si
fin.	2	0	-18545	-2578			1208	455	SLV 10	0.18	No
ini.	2	0	-59572	3931			1208	455	SLV 2	0.12	No
fin.	2	0	41695	1580			1208	455	SLV 2	0.29	No
ini.	2	0	54935	-1886			1208	455	SLV 14	0.24	No
fin.	2	0	-45729	-4136			1208	455	SLV 14	0.11	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-65221	3858			1208	455	SLV 4	0.12	No
fin.	2	0	44622	1958			1208	455	SLV 4	0.23	No
ini.	2	0	54935	-1886			1208	455	SLV 13	0.24	No
fin.	2	0	-45729	-4136			1208	455	SLV 13	0.11	No
ini.	2	0	-65221	3858			1208	455	SLV 3	0.12	No
fin.	2	0	44622	1958			1208	455	SLV 3	0.23	No
ini.	2	0	49286	-1958			1208	455	SLV 16	0.23	No
fin.	2	0	-42803	-3757			1208	455	SLV 16	0.12	No
ini.	2	0	49286	-1958			1208	455	SLV 15	0.23	No
fin.	2	0	-42803	-3757			1208	455	SLV 15	0.12	No
ini.	2	0	21448	234			1208	455	SLV 9	1.94	Si
fin.	2	0	-18545	-2578			1208	455	SLV 9	0.18	No
ini.	2	0	-59572	3931			1208	455	SLV 1	0.12	No
fin.	2	0	41695	1580			1208	455	SLV 1	0.29	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.651	SLV 3	Si
V_SLV	0.11	SLV 13	No
PF_SLU	7.101	SLU 80	Si
V_SLU	0.172	SLU 81	No

Trave di accoppiamento 125

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	835	925	90	-1193.8	666.1	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-443	12076	103792	SLU 61	8.59	Si
fin.	3	-360	9859	103792	SLU 61	10.53	Si
ini.	3	-214	12546	103792	SLU 83	8.27	Si
fin.	3	-64	7940	103792	SLU 83	13.07	Si
ini.	3	-425	13162	103792	SLU 81	7.89	Si
fin.	3	-308	9876	103792	SLU 81	10.51	Si
ini.	3	-443	12066	103792	SLU 60	8.6	Si
fin.	3	-361	9868	103792	SLU 60	10.52	Si
ini.	3	-214	12556	103792	SLU 84	8.27	Si
fin.	3	-64	7931	103792	SLU 84	13.09	Si
ini.	3	-236	12449	103792	SLU 75	8.34	Si
fin.	3	-92	8059	103792	SLU 75	12.88	Si
ini.	3	-425	13173	103792	SLU 82	7.88	Si
fin.	3	-308	9866	103792	SLU 82	10.52	Si
ini.	3	-393	12638	103792	SLU 73	8.21	Si
fin.	3	-276	9339	103792	SLU 73	11.11	Si
ini.	3	-236	12439	103792	SLU 74	8.34	Si
fin.	3	-92	8069	103792	SLU 74	12.86	Si
ini.	3	-181	12022	103792	SLU 76	8.63	Si
fin.	3	-32	7404	103792	SLU 76	14.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	12439	-1930			970	365	SLU 74	0.19	No
fin.	3	0	8069	1621			970	365	SLU 74	0.23	No
ini.	3	0	12546	-1937			970	365	SLU 83	0.19	No
fin.	3	0	7940	1617			970	365	SLU 83	0.23	No
ini.	3	0	11823	-2015			970	365	SLU 77	0.18	No
fin.	3	0	6133	1639			970	365	SLU 77	0.22	No
ini.	3	0	11388	-1974			970	365	SLU 79	0.19	No
fin.	3	0	5484	1590			970	365	SLU 79	0.23	No
ini.	3	0	11399	-1973			970	365	SLU 80	0.19	No
fin.	3	0	5475	1587			970	365	SLU 80	0.23	No
ini.	3	0	10559	-1902			970	365	SLU 69	0.19	No
fin.	3	0	4918	1534			970	365	SLU 69	0.24	No
ini.	3	0	12556	-1936			970	365	SLU 84	0.19	No
fin.	3	0	7931	1614			970	365	SLU 84	0.23	No
ini.	3	0	12449	-1928			970	365	SLU 75	0.19	No
fin.	3	0	8059	1619			970	365	SLU 75	0.23	No
ini.	3	0	11833	-2013			970	365	SLU 78	0.18	No
fin.	3	0	6124	1637			970	365	SLU 78	0.22	No
ini.	3	0	10569	-1901			970	365	SLU 70	0.19	No
fin.	3	0	4909	1531			970	365	SLU 70	0.24	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2886	-61085	121694	SLV 1	1.99	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-3594	89486	121694	SLV 1	1.36	Si
ini.	2	2886	-61085	121694	SLV 2	1.99	Si
fin.	2	-3594	89486	121694	SLV 2	1.36	Si
ini.	2	3100	-72332	121694	SLV 3	1.68	Si
fin.	2	-3388	78829	121694	SLV 3	1.54	Si
ini.	2	-1605	50271	121694	SLV 9	2.42	Si
fin.	2	459	1103	121694	SLV 9	110.32	Si
ini.	2	-1605	50271	121694	SLV 10	2.42	Si
fin.	2	459	1103	121694	SLV 10	110.32	Si
ini.	2	3100	-72332	121694	SLV 4	1.68	Si
fin.	2	-3388	78829	121694	SLV 4	1.54	Si
ini.	2	-3426	78797	121694	SLV 16	1.54	Si
fin.	2	3216	-76272	121694	SLV 16	1.6	Si
ini.	2	-3426	78797	121694	SLV 15	1.54	Si
fin.	2	3216	-76272	121694	SLV 15	1.6	Si
ini.	2	-3640	90044	121694	SLV 14	1.35	Si
fin.	2	3010	-65615	121694	SLV 14	1.85	Si
ini.	2	-3640	90044	121694	SLV 13	1.35	Si
fin.	2	3010	-65615	121694	SLV 13	1.85	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	78797	-6277			1456	548	SLV 16	0.09	No
fin.	2	0	-76272	-3525			1456	548	SLV 16	0.16	No
ini.	2	0	38794	-3424			1456	548	SLD 15	0.16	No
fin.	2	0	-28762	-865			1456	548	SLD 15	0.63	No
ini.	2	0	-72332	3431			1456	548	SLV 4	0.16	No
fin.	2	0	78829	6070			1456	548	SLV 4	0.09	No
ini.	2	0	-61085	3684			1456	548	SLV 2	0.15	No
fin.	2	0	89486	5768			1456	548	SLV 2	0.09	No
ini.	2	0	90044	-6024			1456	548	SLV 13	0.09	No
fin.	2	0	-65615	-3827			1456	548	SLV 13	0.14	No
ini.	2	0	-72332	3431			1456	548	SLV 3	0.16	No
fin.	2	0	78829	6070			1456	548	SLV 3	0.09	No
ini.	2	0	38794	-3424			1456	548	SLD 16	0.16	No
fin.	2	0	-28762	-865			1456	548	SLD 16	0.63	No
ini.	2	0	-61085	3684			1456	548	SLV 1	0.15	No
fin.	2	0	89486	5768			1456	548	SLV 1	0.09	No
ini.	2	0	90044	-6024			1456	548	SLV 14	0.09	No
fin.	2	0	-65615	-3827			1456	548	SLV 14	0.14	No
ini.	2	0	78797	-6277			1456	548	SLV 15	0.09	No
fin.	2	0	-76272	-3525			1456	548	SLV 15	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.351	SLV 13	Si
V_SLV	0.087	SLV 15	No
PF_SLU	7.879	SLU 82	Si
V_SLU	0.181	SLU 77	No

Trave di accoppiamento 126

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	1105	1187	82	-1193.8	666.1	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	470	835	89792	SLU 77	107.53	Si
fin.	3	72	-7269	89792	SLU 77	12.35	Si
ini.	3	468	853	89792	SLU 78	105.28	Si
fin.	3	69	-7278	89792	SLU 78	12.34	Si
ini.	3	78	-3362	89792	SLU 82	26.71	Si
fin.	3	-130	-8089	89792	SLU 82	11.1	Si
ini.	3	284	-1102	89792	SLU 83	81.47	Si
fin.	3	-26	-7666	89792	SLU 83	11.71	Si
ini.	3	92	-2990	89792	SLU 73	30.03	Si
fin.	3	-115	-7683	89792	SLU 73	11.69	Si
ini.	3	263	-1425	89792	SLU 75	63.01	Si
fin.	3	-32	-7692	89792	SLU 75	11.67	Si
ini.	3	264	-1443	89792	SLU 74	62.23	Si
fin.	3	-29	-7682	89792	SLU 74	11.69	Si
ini.	3	283	-1084	89792	SLU 84	82.81	Si
fin.	3	-29	-7675	89792	SLU 84	11.7	Si
ini.	3	79	-3380	89792	SLU 81	26.56	Si
fin.	3	-127	-8079	89792	SLU 81	11.11	Si
ini.	3	298	-712	89792	SLU 76	126.06	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-14	-7270	89792	SLU 76	12.35	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	853	1526			806	303	SLU 78	0.2	No
fin.	3	0	-7278	-1998			806	303	SLU 78	0.15	No
ini.	3	0	835	1527			806	303	SLU 77	0.2	No
fin.	3	0	-7269	-1997			806	303	SLU 77	0.15	No
ini.	3	0	1536	1486			806	303	SLU 79	0.2	No
fin.	3	0	-6841	-1976			806	303	SLU 79	0.15	No
ini.	3	0	1554	1485			806	303	SLU 80	0.2	No
fin.	3	0	-6850	-1977			806	303	SLU 80	0.15	No
ini.	3	0	-1084	1533			806	303	SLU 84	0.2	No
fin.	3	0	-7675	-1899			806	303	SLU 84	0.16	No
ini.	3	0	-1443	1504			806	303	SLU 74	0.2	No
fin.	3	0	-7682	-1848			806	303	SLU 74	0.16	No
ini.	3	0	1676	1362			806	303	SLU 69	0.22	No
fin.	3	0	-6308	-1832			806	303	SLU 69	0.17	No
ini.	3	0	-1425	1503			806	303	SLU 75	0.2	No
fin.	3	0	-7692	-1849			806	303	SLU 75	0.16	No
ini.	3	0	-1102	1533			806	303	SLU 83	0.2	No
fin.	3	0	-7666	-1898			806	303	SLU 83	0.16	No
ini.	3	0	1693	1361			806	303	SLU 70	0.22	No
fin.	3	0	-6318	-1832			806	303	SLU 70	0.17	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2327	-63797	107694	SLV 4	1.69	Si
fin.	2	2621	61360	107694	SLV 4	1.76	Si
ini.	2	1100	24409	107694	SLD 13	4.41	Si
fin.	2	-1218	-33685	107694	SLD 13	3.2	Si
ini.	2	2472	59762	107694	SLV 14	1.8	Si
fin.	2	-2759	-71827	107694	SLV 14	1.5	Si
ini.	2	2802	63440	107694	SLV 16	1.7	Si
fin.	2	-2396	-68017	107694	SLV 16	1.58	Si
ini.	2	2472	59762	107694	SLV 13	1.8	Si
fin.	2	-2759	-71827	107694	SLV 13	1.5	Si
ini.	2	2802	63440	107694	SLV 15	1.7	Si
fin.	2	-2396	-68017	107694	SLV 15	1.58	Si
ini.	2	1100	24409	107694	SLD 14	4.41	Si
fin.	2	-1218	-33685	107694	SLD 14	3.2	Si
ini.	2	-2657	-67475	107694	SLV 1	1.6	Si
fin.	2	2258	57550	107694	SLV 1	1.87	Si
ini.	2	-2657	-67475	107694	SLV 2	1.6	Si
fin.	2	2258	57550	107694	SLV 2	1.87	Si
ini.	2	-2327	-63797	107694	SLV 3	1.69	Si
fin.	2	2621	61360	107694	SLV 3	1.76	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	63440	-2998			1208	455	SLV 16	0.15	No
fin.	2	0	-68017	-4894			1208	455	SLV 16	0.09	No
ini.	2	0	-67475	4989			1208	455	SLV 1	0.09	No
fin.	2	0	57550	2571			1208	455	SLV 1	0.18	No
ini.	2	0	-67475	4989			1208	455	SLV 2	0.09	No
fin.	2	0	57550	2571			1208	455	SLV 2	0.18	No
ini.	2	0	59762	-2713			1208	455	SLV 14	0.17	No
fin.	2	0	-71827	-5163			1208	455	SLV 14	0.09	No
ini.	2	0	59762	-2713			1208	455	SLV 13	0.17	No
fin.	2	0	-71827	-5163			1208	455	SLV 13	0.09	No
ini.	2	0	63440	-2998			1208	455	SLV 15	0.15	No
fin.	2	0	-68017	-4894			1208	455	SLV 15	0.09	No
ini.	2	0	24409	-590			1208	455	SLD 13	0.77	No
fin.	2	0	-33685	-2871			1208	455	SLD 13	0.16	No
ini.	2	0	24409	-590			1208	455	SLD 14	0.77	No
fin.	2	0	-33685	-2871			1208	455	SLD 14	0.16	No
ini.	2	0	-63797	4704			1208	455	SLV 4	0.1	No
fin.	2	0	61360	2840			1208	455	SLV 4	0.16	No
ini.	2	0	-63797	4704			1208	455	SLV 3	0.1	No
fin.	2	0	61360	2840			1208	455	SLV 3	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.499	SLV 13	Si
V_SLV	0.088	SLV 13	No
PF_SLU	11.101	SLU 82	Si
V_SLU	0.152	SLU 78	No

Trave di accoppiamento 127

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	835	925	90	-705.8	666.1	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-17	15572	103792	SLU 80	6.67	Si
fin.	3	463	130	103792	SLU 80	800.51	Si
ini.	3	-16	15307	103792	SLU 78	6.78	Si
fin.	3	411	1564	103792	SLU 78	66.37	Si
ini.	3	-36	14420	103792	SLU 71	7.2	Si
fin.	3	502	-2069	103792	SLU 71	50.17	Si
ini.	3	-43	14301	103792	SLU 70	7.26	Si
fin.	3	451	-747	103792	SLU 70	138.9	Si
ini.	3	1	14063	103792	SLU 38	7.38	Si
fin.	3	491	-1913	103792	SLU 38	54.25	Si
ini.	3	-48	14022	103792	SLU 59	7.4	Si
fin.	3	399	168	103792	SLU 59	616.33	Si
ini.	3	-35	14154	103792	SLU 69	7.33	Si
fin.	3	449	634	103792	SLU 69	163.61	Si
ini.	3	-43	14566	103792	SLU 72	7.13	Si
fin.	3	503	-2181	103792	SLU 72	47.58	Si
ini.	3	-10	15426	103792	SLU 79	6.73	Si
fin.	3	462	243	103792	SLU 79	427.98	Si
ini.	3	-9	15160	103792	SLU 77	6.85	Si
fin.	3	409	1677	103792	SLU 77	61.9	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	15160	-2069			970	365	SLU 77	0.18	No
fin.	3	0	1677	908			970	365	SLU 77	0.4	No
ini.	3	0	15426	-2059			970	365	SLU 79	0.18	No
fin.	3	0	243	812			970	365	SLU 79	0.45	No
ini.	3	0	15572	-2064			970	365	SLU 80	0.18	No
fin.	3	0	130	803			970	365	SLU 80	0.45	No
ini.	3	0	14420	-2039			970	365	SLU 71	0.18	No
fin.	3	0	-2069	705			970	365	SLU 71	0.52	No
ini.	3	0	14301	-2053			970	365	SLU 70	0.18	No
fin.	3	0	-747	792			970	365	SLU 70	0.46	No
ini.	3	0	14566	-2043			970	365	SLU 72	0.18	No
fin.	3	0	-2181	696			970	365	SLU 72	0.52	No
ini.	3	0	13610	-1937			970	365	SLU 56	0.19	No
fin.	3	0	1715	874			970	365	SLU 56	0.42	No
ini.	3	0	13757	-1941			970	365	SLU 57	0.19	No
fin.	3	0	1603	864			970	365	SLU 57	0.42	No
ini.	3	0	14154	-2049			970	365	SLU 69	0.18	No
fin.	3	0	-634	801			970	365	SLU 69	0.46	No
ini.	3	0	15307	-2074			970	365	SLU 78	0.18	No
fin.	3	0	1564	899			970	365	SLU 78	0.41	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2766	61507	121694	SLV 15	1.98	Si
fin.	2	2085	-59542	121694	SLV 15	2.04	Si
ini.	2	2764	-55950	121694	SLV 4	2.18	Si
fin.	2	-2024	68774	121694	SLV 4	1.77	Si
ini.	2	2749	-46442	121694	SLV 2	2.62	Si
fin.	2	-2113	74370	121694	SLV 2	1.64	Si
ini.	2	-863	40997	121694	SLV 10	2.97	Si
fin.	2	455	-2507	121694	SLV 10	48.54	Si
ini.	2	-2766	61507	121694	SLV 16	1.98	Si
fin.	2	2085	-59542	121694	SLV 16	2.04	Si
ini.	2	2764	-55950	121694	SLV 3	2.18	Si
fin.	2	-2024	68774	121694	SLV 3	1.77	Si
ini.	2	-2781	71014	121694	SLV 14	1.71	Si
fin.	2	1997	-53946	121694	SLV 14	2.26	Si
ini.	2	2749	-46442	121694	SLV 1	2.62	Si
fin.	2	-2113	74370	121694	SLV 1	1.64	Si
ini.	2	-2781	71014	121694	SLV 13	1.71	Si
fin.	2	1997	-53946	121694	SLV 13	2.26	Si
ini.	2	-863	40997	121694	SLV 9	2.97	Si
fin.	2	455	-2507	121694	SLV 9	48.54	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	30654	-3011			1456	548	SLD 16	0.18	No
fin.	2	0	-21165	-412			1456	548	SLD 16	1.33	Si
ini.	2	0	61507	-5499			1456	548	SLV 16	0.1	No
fin.	2	0	-59542	-2145			1456	548	SLV 16	0.26	No
ini.	2	0	-55950	2865			1456	548	SLV 4	0.19	No
fin.	2	0	68774	4046			1456	548	SLV 4	0.14	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	30654	-3011			1456	548	SLD 15	0.18	No
fin.	2	0	-21165	-412			1456	548	SLD 15	1.33	Si
ini.	2	0	-46442	3192			1456	548	SLV 1	0.17	No
fin.	2	0	74370	3913			1456	548	SLV 1	0.14	No
ini.	2	0	-46442	3192			1456	548	SLV 2	0.17	No
fin.	2	0	74370	3913			1456	548	SLV 2	0.14	No
ini.	2	0	61507	-5499			1456	548	SLV 15	0.1	No
fin.	2	0	-59542	-2145			1456	548	SLV 15	0.26	No
ini.	2	0	-55950	2865			1456	548	SLV 3	0.19	No
fin.	2	0	68774	4046			1456	548	SLV 3	0.14	No
ini.	2	0	71014	-5171			1456	548	SLV 14	0.11	No
fin.	2	0	-53946	-2278			1456	548	SLV 14	0.24	No
ini.	2	0	71014	-5171			1456	548	SLV 13	0.11	No
fin.	2	0	-53946	-2278			1456	548	SLV 13	0.24	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.636	SLV 1	Si
V_SLV	0.1	SLV 15	No
PF_SLU	6.665	SLU 80	Si
V_SLU	0.176	SLU 78	No

Trave di accoppiamento 128

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	1105	1187	82	-705.8	666.1	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	882	9937	89792	SLU 72	9.04	Si
fin.	3	281	-16960	89792	SLU 72	5.29	Si
ini.	3	703	7397	89792	SLU 77	12.14	Si
fin.	3	246	-16695	89792	SLU 77	5.38	Si
ini.	3	768	8793	89792	SLU 80	10.21	Si
fin.	3	238	-17370	89792	SLU 80	5.17	Si
ini.	3	764	8695	89792	SLU 79	10.33	Si
fin.	3	245	-17213	89792	SLU 79	5.22	Si
ini.	3	878	9838	89792	SLU 71	9.13	Si
fin.	3	288	-16802	89792	SLU 71	5.34	Si
ini.	3	707	7496	89792	SLU 78	11.98	Si
fin.	3	239	-16853	89792	SLU 78	5.33	Si
ini.	3	774	9340	89792	SLU 37	9.61	Si
fin.	3	228	-16437	89792	SLU 37	5.46	Si
ini.	3	817	8540	89792	SLU 69	10.51	Si
fin.	3	289	-16285	89792	SLU 69	5.51	Si
ini.	3	778	9439	89792	SLU 38	9.51	Si
fin.	3	222	-16594	89792	SLU 38	5.41	Si
ini.	3	821	8639	89792	SLU 70	10.39	Si
fin.	3	282	-16442	89792	SLU 70	5.46	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-2179	1900			806	303	SLU 82	0.16	No
fin.	3	0	-8467	-1565			806	303	SLU 82	0.19	No
ini.	3	0	8639	1082			806	303	SLU 70	0.28	No
fin.	3	0	-16442	-1787			806	303	SLU 70	0.17	No
ini.	3	0	7496	1387			806	303	SLU 78	0.22	No
fin.	3	0	-16853	-1960			806	303	SLU 78	0.15	No
ini.	3	0	-2278	1909			806	303	SLU 81	0.16	No
fin.	3	0	-8310	-1559			806	303	SLU 81	0.19	No
ini.	3	0	8793	1271			806	303	SLU 80	0.24	No
fin.	3	0	-17370	-1952			806	303	SLU 80	0.16	No
ini.	3	0	3062	1650			806	303	SLU 84	0.18	No
fin.	3	0	-13007	-1796			806	303	SLU 84	0.17	No
ini.	3	0	2963	1660			806	303	SLU 83	0.18	No
fin.	3	0	-12849	-1789			806	303	SLU 83	0.17	No
ini.	3	0	8695	1280			806	303	SLU 79	0.24	No
fin.	3	0	-17213	-1946			806	303	SLU 79	0.16	No
ini.	3	0	8540	1092			806	303	SLU 69	0.28	No
fin.	3	0	-16285	-1781			806	303	SLU 69	0.17	No
ini.	3	0	7397	1396			806	303	SLU 77	0.22	No
fin.	3	0	-16695	-1954			806	303	SLU 77	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2216	41578	107694	SLV 13	2.59	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1432	-64942	107694	SLV 13	1.66	Si
ini.	2	2495	44422	107694	SLV 15	2.42	Si
fin.	2	-1109	-59615	107694	SLV 15	1.81	Si
ini.	2	-2427	-46509	107694	SLV 2	2.32	Si
fin.	2	1251	48393	107694	SLV 2	2.23	Si
ini.	2	-2148	-43664	107694	SLV 4	2.47	Si
fin.	2	1575	53719	107694	SLV 4	2	Si
ini.	2	2495	44422	107694	SLV 16	2.42	Si
fin.	2	-1109	-59615	107694	SLV 16	1.81	Si
ini.	2	266	7428	107694	SLV 10	14.5	Si
fin.	2	-870	-31489	107694	SLV 10	3.42	Si
ini.	2	2216	41578	107694	SLV 14	2.59	Si
fin.	2	-1432	-64942	107694	SLV 14	1.66	Si
ini.	2	-2148	-43664	107694	SLV 3	2.47	Si
fin.	2	1575	53719	107694	SLV 3	2	Si
ini.	2	266	7428	107694	SLV 9	14.5	Si
fin.	2	-870	-31489	107694	SLV 9	3.42	Si
ini.	2	-2427	-46509	107694	SLV 1	2.32	Si
fin.	2	1251	48393	107694	SLV 1	2.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	44422	-1803			1208	455	SLV 15	0.25	No
fin.	2	0	-59615	-3762			1208	455	SLV 15	0.12	No
ini.	2	0	44422	-1803			1208	455	SLV 16	0.25	No
fin.	2	0	-59615	-3762			1208	455	SLV 16	0.12	No
ini.	2	0	-43664	3858			1208	455	SLV 4	0.12	No
fin.	2	0	53719	2006			1208	455	SLV 4	0.23	No
ini.	2	0	41578	-1492			1208	455	SLV 14	0.3	No
fin.	2	0	-64942	-4019			1208	455	SLV 14	0.11	No
ini.	2	0	41578	-1492			1208	455	SLV 13	0.3	No
fin.	2	0	-64942	-4019			1208	455	SLV 13	0.11	No
ini.	2	0	-46509	4170			1208	455	SLV 1	0.11	No
fin.	2	0	48393	1750			1208	455	SLV 1	0.26	No
ini.	2	0	-18997	2552			1208	455	SLV 5	0.18	No
fin.	2	0	2511	-568			1208	455	SLV 5	0.8	No
ini.	2	0	-18997	2552			1208	455	SLV 6	0.18	No
fin.	2	0	2511	-568			1208	455	SLV 6	0.8	No
ini.	2	0	-43664	3858			1208	455	SLV 3	0.12	No
fin.	2	0	53719	2006			1208	455	SLV 3	0.23	No
ini.	2	0	-46509	4170			1208	455	SLV 2	0.11	No
fin.	2	0	48393	1750			1208	455	SLV 2	0.26	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.658	SLV 13	Si
V_SLV	0.109	SLV 1	No
PF_SLU	5.169	SLU 80	Si
V_SLU	0.155	SLU 78	No

Trave di accoppiamento 129

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1986.8	104.6	1045	1187	142	-2066.8	104.6	1045	1187	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1581	92778	194792	SLU 71	2.1	Si
fin.	3	-1581	-38030	194792	SLU 71	5.12	Si
ini.	3	-2148	94356	194792	SLU 78	2.06	Si
fin.	3	-2148	-23695	194792	SLU 78	8.22	Si
ini.	3	-1626	88470	194792	SLU 70	2.2	Si
fin.	3	-1626	-32820	194792	SLU 70	5.94	Si
ini.	3	-1642	91742	194792	SLU 69	2.12	Si
fin.	3	-1642	-34283	194792	SLU 69	5.68	Si
ini.	3	-1565	89506	194792	SLU 72	2.18	Si
fin.	3	-1565	-36567	194792	SLU 72	5.33	Si
ini.	3	-2102	98664	194792	SLU 79	1.97	Si
fin.	3	-2102	-28906	194792	SLU 79	6.74	Si
ini.	3	-2086	95393	194792	SLU 80	2.04	Si
fin.	3	-2086	-27443	194792	SLU 80	7.1	Si
ini.	3	-1980	88929	194792	SLU 37	2.19	Si
fin.	3	-1980	-24451	194792	SLU 37	7.97	Si
ini.	3	-2307	88921	194792	SLU 83	2.19	Si
fin.	3	-2307	-13770	194792	SLU 83	14.15	Si
ini.	3	-2163	97628	194792	SLU 77	2	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2163	-25158	194792	SLU 77	7.74	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	88921	-265			1531	576	SLU 83	2.17	Si
fin.	3	0	-13770	-2363			1531	576	SLU 83	0.24	No
ini.	3	0	92778	-896			1531	576	SLU 71	0.64	No
fin.	3	0	-38030	-2435			1531	576	SLU 71	0.24	No
ini.	3	0	97628	-600			1531	576	SLU 77	0.96	No
fin.	3	0	-25158	-2531			1531	576	SLU 77	0.23	No
ini.	3	0	95393	-601			1531	576	SLU 80	0.96	No
fin.	3	0	-27443	-2531			1531	576	SLU 80	0.23	No
ini.	3	0	98664	-660			1531	576	SLU 79	0.87	No
fin.	3	0	-28906	-2591			1531	576	SLU 79	0.22	No
ini.	3	0	89506	-837			1531	576	SLU 72	0.69	No
fin.	3	0	-36567	-2376			1531	576	SLU 72	0.24	No
ini.	3	0	88929	-572			1531	576	SLU 37	1.01	Si
fin.	3	0	-24451	-2309			1531	576	SLU 37	0.25	No
ini.	3	0	94356	-541			1531	576	SLU 78	1.06	Si
fin.	3	0	-23695	-2472			1531	576	SLU 78	0.23	No
ini.	3	0	91742	-836			1531	576	SLU 69	0.69	No
fin.	3	0	-34283	-2376			1531	576	SLU 69	0.24	No
ini.	3	0	88470	-777			1531	576	SLU 70	0.74	No
fin.	3	0	-32820	-2317			1531	576	SLU 70	0.25	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1656	399235	212694	SLV 1	0.53	No
fin.	2	-2133	-336350	212694	SLV 1	0.63	No
ini.	2	-1408	200200	212694	SLD 1	1.06	Si
fin.	2	-1614	-149527	212694	SLD 1	1.42	Si
ini.	2	-809	-296223	212694	SLV 15	0.72	No
fin.	2	-332	316832	212694	SLV 15	0.67	No
ini.	2	-1088	393410	212694	SLV 3	0.54	No
fin.	2	-1598	-328380	212694	SLV 3	0.65	No
ini.	2	-1088	393410	212694	SLV 4	0.54	No
fin.	2	-1598	-328380	212694	SLV 4	0.65	No
ini.	2	-1377	-290399	212694	SLV 14	0.73	No
fin.	2	-867	308863	212694	SLV 14	0.69	No
ini.	2	-809	-296223	212694	SLV 16	0.72	No
fin.	2	-332	316832	212694	SLV 16	0.67	No
ini.	2	-1656	399235	212694	SLV 2	0.53	No
fin.	2	-2133	-336350	212694	SLV 2	0.63	No
ini.	2	-1377	-290399	212694	SLV 13	0.73	No
fin.	2	-867	308863	212694	SLV 13	0.69	No
ini.	2	-1408	200200	212694	SLD 2	1.06	Si
fin.	2	-1614	-149527	212694	SLD 2	1.42	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	399235	-9065			2297	864	SLV 1	0.1	No
fin.	2	0	-336350	-10264			2297	864	SLV 1	0.08	No
ini.	2	0	-290399	8162			2297	864	SLV 14	0.11	No
fin.	2	0	308863	6950			2297	864	SLV 14	0.12	No
ini.	2	0	393410	-8517			2297	864	SLV 4	0.1	No
fin.	2	0	-328380	-9753			2297	864	SLV 4	0.09	No
ini.	2	0	399235	-9065			2297	864	SLV 2	0.1	No
fin.	2	0	-336350	-10264			2297	864	SLV 2	0.08	No
ini.	2	0	393410	-8517			2297	864	SLV 3	0.1	No
fin.	2	0	-328380	-9753			2297	864	SLV 3	0.09	No
ini.	2	0	-290399	8162			2297	864	SLV 13	0.11	No
fin.	2	0	308863	6950			2297	864	SLV 13	0.12	No
ini.	2	0	200200	-3974			2297	864	SLD 1	0.22	No
fin.	2	0	-149527	-5188			2297	864	SLD 1	0.17	No
ini.	2	0	-296223	8710			2297	864	SLV 16	0.1	No
fin.	2	0	316832	7461			2297	864	SLV 16	0.12	No
ini.	2	0	-296223	8710			2297	864	SLV 15	0.1	No
fin.	2	0	316832	7461			2297	864	SLV 15	0.12	No
ini.	2	0	200200	-3974			2297	864	SLD 2	0.22	No
fin.	2	0	-149527	-5188			2297	864	SLD 2	0.17	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.533	SLV 1	No
V_SLV	0.084	SLV 1	No
PF_SLU	1.974	SLU 79	Si
V_SLU	0.222	SLU 79	No

Trave di accoppiamento 130

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1116.3	104.6	1085	1187	102	-1228.3	104.6	1085	1187	102	112	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1980	-100823	124792	SLU 78	1.24	Si
fin.	3	-1980	58469	124792	SLU 78	2.13	Si
ini.	3	-1918	-102920	124792	SLU 79	1.21	Si
fin.	3	-1918	58864	124792	SLU 79	2.12	Si
ini.	3	-1599	-96526	124792	SLU 72	1.29	Si
fin.	3	-1599	67707	124792	SLU 72	1.84	Si
ini.	3	-1946	-101796	124792	SLU 80	1.23	Si
fin.	3	-1946	59081	124792	SLU 80	2.11	Si
ini.	3	-1841	-94676	124792	SLU 35	1.32	Si
fin.	3	-1841	48279	124792	SLU 35	2.58	Si
ini.	3	-1952	-101947	124792	SLU 77	1.22	Si
fin.	3	-1952	58252	124792	SLU 77	2.14	Si
ini.	3	-1807	-95649	124792	SLU 37	1.3	Si
fin.	3	-1807	48890	124792	SLU 37	2.55	Si
ini.	3	-1633	-95553	124792	SLU 70	1.31	Si
fin.	3	-1633	67095	124792	SLU 70	1.86	Si
ini.	3	-1571	-97650	124792	SLU 71	1.28	Si
fin.	3	-1571	67490	124792	SLU 71	1.85	Si
ini.	3	-1605	-96677	124792	SLU 69	1.29	Si
fin.	3	-1605	66878	124792	SLU 69	1.87	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-88889	2164			1002	377	SLU 84	0.17	No
fin.	3	0	42605	184			1002	377	SLU 84	2.05	Si
ini.	3	0	-97650	2157			1002	377	SLU 71	0.17	No
fin.	3	0	67490	773			1002	377	SLU 71	0.49	No
ini.	3	0	-100823	2320			1002	377	SLU 78	0.16	No
fin.	3	0	58469	519			1002	377	SLU 78	0.73	No
ini.	3	0	-96526	2149			1002	377	SLU 72	0.18	No
fin.	3	0	67707	764			1002	377	SLU 72	0.49	No
ini.	3	0	-95553	2135			1002	377	SLU 70	0.18	No
fin.	3	0	67095	750			1002	377	SLU 70	0.5	No
ini.	3	0	-101947	2328			1002	377	SLU 77	0.16	No
fin.	3	0	58252	527			1002	377	SLU 77	0.72	No
ini.	3	0	-90013	2172			1002	377	SLU 83	0.17	No
fin.	3	0	42388	192			1002	377	SLU 83	1.96	Si
ini.	3	0	-96677	2143			1002	377	SLU 69	0.18	No
fin.	3	0	66878	758			1002	377	SLU 69	0.5	No
ini.	3	0	-102920	2342			1002	377	SLU 79	0.16	No
fin.	3	0	58864	541			1002	377	SLU 79	0.7	No
ini.	3	0	-101796	2334			1002	377	SLU 80	0.16	No
fin.	3	0	59081	533			1002	377	SLU 80	0.71	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2489	-283244	142694	SLV 13	0.5	No
fin.	2	3080	492668	142694	SLV 13	0.29	No
ini.	2	-4177	100114	142694	SLV 1	1.43	Si
fin.	2	-4713	-355178	142694	SLV 1	0.4	No
ini.	2	2239	-199344	142694	SLV 15	0.72	No
fin.	2	2774	415025	142694	SLV 15	0.34	No
ini.	2	-4177	100114	142694	SLV 2	1.43	Si
fin.	2	-4713	-355178	142694	SLV 2	0.4	No
ini.	2	-4428	184013	142694	SLV 4	0.78	No
fin.	2	-5019	-432821	142694	SLV 4	0.33	No
ini.	2	2239	-199344	142694	SLV 16	0.72	No
fin.	2	2774	415025	142694	SLV 16	0.34	No
ini.	2	449	-246951	142694	SLV 9	0.58	No
fin.	2	710	286506	142694	SLV 9	0.5	No
ini.	2	449	-246951	142694	SLV 10	0.58	No
fin.	2	710	286506	142694	SLV 10	0.5	No
ini.	2	2489	-283244	142694	SLV 14	0.5	No
fin.	2	3080	492668	142694	SLV 14	0.29	No
ini.	2	-4428	184013	142694	SLV 3	0.78	No
fin.	2	-5019	-432821	142694	SLV 3	0.33	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-199344	6119			1503	565	SLV 16	0.09	No
fin.	2	0	415025	4982			1503	565	SLV 16	0.11	No
ini.	2	0	184013	-5013			1503	565	SLV 4	0.11	No
fin.	2	0	-432821	-6116			1503	565	SLV 4	0.09	No
ini.	2	0	184013	-5013			1503	565	SLV 3	0.11	No
fin.	2	0	-432821	-6116			1503	565	SLV 3	0.09	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-283244	7557			1503	565	SLV 13	0.07	No
fin.	2	0	492668	6388			1503	565	SLV 13	0.09	No
ini.	2	0	-246951	5338			1503	565	SLV 10	0.11	No
fin.	2	0	286506	4144			1503	565	SLV 10	0.14	No
ini.	2	0	-246951	5338			1503	565	SLV 9	0.11	No
fin.	2	0	286506	4144			1503	565	SLV 9	0.14	No
ini.	2	0	-199344	6119			1503	565	SLV 15	0.09	No
fin.	2	0	415025	4982			1503	565	SLV 15	0.11	No
ini.	2	0	-283244	7557			1503	565	SLV 14	0.07	No
fin.	2	0	492668	6388			1503	565	SLV 14	0.09	No
ini.	2	0	100114	-3575			1503	565	SLV 2	0.16	No
fin.	2	0	-355178	-4710			1503	565	SLV 2	0.12	No
ini.	2	0	100114	-3575			1503	565	SLV 1	0.16	No
fin.	2	0	-355178	-4710			1503	565	SLV 1	0.12	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.29	SLV 13	No
V_SLV	0.075	SLV 13	No
PF_SLU	1.213	SLU 79	Si
V_SLU	0.161	SLU 79	No

Trave di accoppiamento 131

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-938.6	104.6	1085	1187	102	-1046.6	104.6	1085	1187	102	108	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1813	58277	124792	SLU 77	2.14	Si
fin.	3	-1813	-81894	124792	SLU 77	1.52	Si
ini.	3	-1810	54785	124792	SLU 80	2.28	Si
fin.	3	-1810	-79975	124792	SLU 80	1.56	Si
ini.	3	-1788	58417	124792	SLU 79	2.14	Si
fin.	3	-1788	-82619	124792	SLU 79	1.51	Si
ini.	3	-1753	61617	124792	SLU 36	2.03	Si
fin.	3	-1753	-78662	124792	SLU 36	1.59	Si
ini.	3	-1727	61757	124792	SLU 38	2.02	Si
fin.	3	-1727	-79387	124792	SLU 38	1.57	Si
ini.	3	-1730	65249	124792	SLU 35	1.91	Si
fin.	3	-1730	-81306	124792	SLU 35	1.53	Si
ini.	3	-1330	57391	124792	SLU 29	2.17	Si
fin.	3	-1330	-75895	124792	SLU 29	1.64	Si
ini.	3	-1705	65388	124792	SLU 37	1.91	Si
fin.	3	-1705	-82031	124792	SLU 37	1.52	Si
ini.	3	-1413	50420	124792	SLU 71	2.48	Si
fin.	3	-1413	-76483	124792	SLU 71	1.63	Si
ini.	3	-1836	54646	124792	SLU 78	2.28	Si
fin.	3	-1836	-79250	124792	SLU 78	1.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	54785	39			1039	391	SLU 80	10.12	Si
fin.	3	0	-79975	-2460			1039	391	SLU 80	0.16	No
ini.	3	0	65249	-183			1039	391	SLU 35	2.13	Si
fin.	3	0	-81306	-2462			1039	391	SLU 35	0.16	No
ini.	3	0	61617	-125			1039	391	SLU 36	3.12	Si
fin.	3	0	-78662	-2404			1039	391	SLU 36	0.16	No
ini.	3	0	54646	47			1039	391	SLU 78	8.38	Si
fin.	3	0	-79250	-2452			1039	391	SLU 78	0.16	No
ini.	3	0	61757	-133			1039	391	SLU 38	2.93	Si
fin.	3	0	-79387	-2412			1039	391	SLU 38	0.16	No
ini.	3	0	47432	322			1039	391	SLU 83	1.21	Si
fin.	3	0	-70186	-2418			1039	391	SLU 83	0.16	No
ini.	3	0	58277	-11			1039	391	SLU 77	34.1	Si
fin.	3	0	-81894	-2510			1039	391	SLU 77	0.16	No
ini.	3	0	65388	-191			1039	391	SLU 37	2.04	Si
fin.	3	0	-82031	-2470			1039	391	SLU 37	0.16	No
ini.	3	0	54404	150			1039	391	SLU 41	2.61	Si
fin.	3	0	-69599	-2369			1039	391	SLU 41	0.16	No
ini.	3	0	58417	-19			1039	391	SLU 79	20.08	Si
fin.	3	0	-82619	-2518			1039	391	SLU 79	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2848	406449	142694	SLV 2	0.35	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-3395	-190505	142694	SLV 2	0.75	No
ini.	2	-1164	208086	142694	SLV 6	0.69	No
fin.	2	-1459	-190681	142694	SLV 6	0.75	No
ini.	2	1258	-328747	142694	SLV 13	0.43	No
fin.	2	1719	51818	142694	SLV 13	2.75	Si
ini.	2	-1164	208086	142694	SLV 5	0.69	No
fin.	2	-1459	-190681	142694	SLV 5	0.75	No
ini.	2	-2848	406449	142694	SLV 1	0.35	No
fin.	2	-3395	-190505	142694	SLV 1	0.75	No
ini.	2	-3059	355916	142694	SLV 4	0.4	No
fin.	2	-3520	-117657	142694	SLV 4	1.21	Si
ini.	2	1258	-328747	142694	SLV 14	0.43	No
fin.	2	1719	51818	142694	SLV 14	2.75	Si
ini.	2	-3059	355916	142694	SLV 3	0.4	No
fin.	2	-3520	-117657	142694	SLV 3	1.21	Si
ini.	2	1047	-379280	142694	SLV 15	0.38	No
fin.	2	1594	124666	142694	SLV 15	1.14	Si
ini.	2	1047	-379280	142694	SLV 16	0.38	No
fin.	2	1594	124666	142694	SLV 16	1.14	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	406449	-4856			1558	586	SLV 2	0.12	No
fin.	2	0	-190505	-6362			1558	586	SLV 2	0.09	No
ini.	2	0	355916	-3738			1558	586	SLV 3	0.16	No
fin.	2	0	-117657	-5218			1558	586	SLV 3	0.11	No
ini.	2	0	-379280	5589			1558	586	SLV 16	0.1	No
fin.	2	0	124666	3996			1558	586	SLV 16	0.15	No
ini.	2	0	406449	-4856			1558	586	SLV 1	0.12	No
fin.	2	0	-190505	-6362			1558	586	SLV 1	0.09	No
ini.	2	0	-328747	4471			1558	586	SLV 14	0.13	No
fin.	2	0	51818	2852			1558	586	SLV 14	0.21	No
ini.	2	0	355916	-3738			1558	586	SLV 4	0.16	No
fin.	2	0	-117657	-5218			1558	586	SLV 4	0.11	No
ini.	2	0	-328747	4471			1558	586	SLV 13	0.13	No
fin.	2	0	51818	2852			1558	586	SLV 13	0.21	No
ini.	2	0	208086	-2897			1558	586	SLV 5	0.2	No
fin.	2	0	-190681	-4473			1558	586	SLV 5	0.13	No
ini.	2	0	208086	-2897			1558	586	SLV 6	0.2	No
fin.	2	0	-190681	-4473			1558	586	SLV 6	0.13	No
ini.	2	0	-379280	5589			1558	586	SLV 15	0.1	No
fin.	2	0	124666	3996			1558	586	SLV 15	0.15	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.351	SLV 1	No
V_SLV	0.092	SLV 1	No
PF_SLU	1.51	SLU 79	Si
V_SLU	0.155	SLU 79	No

Trave di accoppiamento 132

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-647.8	104.6	1045	1187	142	-727.8	104.6	1045	1187	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1147	-77760	194792	SLU 73	2.51	Si
fin.	3	-1147	114069	194792	SLU 73	1.71	Si
ini.	3	-1358	-80339	194792	SLU 81	2.42	Si
fin.	3	-1358	120902	194792	SLU 81	1.61	Si
ini.	3	-1191	-70562	194792	SLU 75	2.76	Si
fin.	3	-1191	116463	194792	SLU 75	1.67	Si
ini.	3	-1319	-82947	194792	SLU 82	2.35	Si
fin.	3	-1319	122456	194792	SLU 82	1.59	Si
ini.	3	-1300	-74180	194792	SLU 84	2.63	Si
fin.	3	-1300	121845	194792	SLU 84	1.6	Si
ini.	3	-1129	-68993	194792	SLU 76	2.82	Si
fin.	3	-1129	113458	194792	SLU 76	1.72	Si
ini.	3	-1339	-71572	194792	SLU 83	2.72	Si
fin.	3	-1339	120291	194792	SLU 83	1.62	Si
ini.	3	-1210	-59187	194792	SLU 77	3.29	Si
fin.	3	-1210	114298	194792	SLU 77	1.7	Si
ini.	3	-1172	-61794	194792	SLU 78	3.15	Si
fin.	3	-1172	115852	194792	SLU 78	1.68	Si
ini.	3	-1229	-67954	194792	SLU 74	2.87	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1229	114909	194792	SLU 74	1.7	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-80290	3290			1531	576	SLU 61	0.18	No
fin.	3	0	111173	1420			1531	576	SLU 61	0.41	No
ini.	3	0	-77683	3238			1531	576	SLU 60	0.18	No
fin.	3	0	109619	1368			1531	576	SLU 60	0.42	No
ini.	3	0	-80339	3589			1531	576	SLU 81	0.16	No
fin.	3	0	120902	1370			1531	576	SLU 81	0.42	No
ini.	3	0	-67954	3269			1531	576	SLU 74	0.18	No
fin.	3	0	114909	1230			1531	576	SLU 74	0.47	No
ini.	3	0	-71572	3472			1531	576	SLU 83	0.17	No
fin.	3	0	120291	1253			1531	576	SLU 83	0.46	No
ini.	3	0	-77760	3381			1531	576	SLU 73	0.17	No
fin.	3	0	114069	1342			1531	576	SLU 73	0.43	No
ini.	3	0	-74180	3524			1531	576	SLU 84	0.16	No
fin.	3	0	121845	1305			1531	576	SLU 84	0.44	No
ini.	3	0	-68993	3264			1531	576	SLU 76	0.18	No
fin.	3	0	113458	1225			1531	576	SLU 76	0.47	No
ini.	3	0	-70562	3321			1531	576	SLU 75	0.17	No
fin.	3	0	116463	1282			1531	576	SLU 75	0.45	No
ini.	3	0	-82947	3641			1531	576	SLU 82	0.16	No
fin.	3	0	122456	1422			1531	576	SLU 82	0.41	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-235	202692	212694	SLV 4	1.05	Si
fin.	2	-851	-245347	212694	SLV 4	0.87	No
ini.	2	-832	-186477	212694	SLV 11	1.14	Si
fin.	2	-899	236685	212694	SLV 11	0.9	No
ini.	2	-1185	-298843	212694	SLV 14	0.71	No
fin.	2	-569	390632	212694	SLV 14	0.54	No
ini.	2	-235	202692	212694	SLV 3	1.05	Si
fin.	2	-851	-245347	212694	SLV 3	0.87	No
ini.	2	-246	237465	212694	SLV 2	0.9	No
fin.	2	-723	-283134	212694	SLV 2	0.75	No
ini.	2	-832	-186477	212694	SLV 12	1.14	Si
fin.	2	-899	236685	212694	SLV 12	0.9	No
ini.	2	-1174	-333616	212694	SLV 15	0.64	No
fin.	2	-696	428419	212694	SLV 15	0.5	No
ini.	2	-1174	-333616	212694	SLV 16	0.64	No
fin.	2	-696	428419	212694	SLV 16	0.5	No
ini.	2	-246	237465	212694	SLV 1	0.9	No
fin.	2	-723	-283134	212694	SLV 1	0.75	No
ini.	2	-1185	-298843	212694	SLV 13	0.71	No
fin.	2	-569	390632	212694	SLV 13	0.54	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	202692	-5307			2297	864	SLV 3	0.16	No
fin.	2	0	-245347	-6607			2297	864	SLV 3	0.13	No
ini.	2	0	-333616	10434			2297	864	SLV 15	0.08	No
fin.	2	0	428419	9118			2297	864	SLV 15	0.09	No
ini.	2	0	202692	-5307			2297	864	SLV 4	0.16	No
fin.	2	0	-245347	-6607			2297	864	SLV 4	0.13	No
ini.	2	0	237465	-6184			2297	864	SLV 1	0.14	No
fin.	2	0	-283134	-7445			2297	864	SLV 1	0.12	No
ini.	2	0	-333616	10434			2297	864	SLV 16	0.08	No
fin.	2	0	428419	9118			2297	864	SLV 16	0.09	No
ini.	2	0	-186477	5949			2297	864	SLV 11	0.15	No
fin.	2	0	236685	4592			2297	864	SLV 11	0.19	No
ini.	2	0	237465	-6184			2297	864	SLV 2	0.14	No
fin.	2	0	-283134	-7445			2297	864	SLV 2	0.12	No
ini.	2	0	-186477	5949			2297	864	SLV 12	0.15	No
fin.	2	0	236685	4592			2297	864	SLV 12	0.19	No
ini.	2	0	-298843	9556			2297	864	SLV 13	0.09	No
fin.	2	0	390632	8280			2297	864	SLV 13	0.1	No
ini.	2	0	-298843	9556			2297	864	SLV 14	0.09	No
fin.	2	0	390632	8280			2297	864	SLV 14	0.1	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.496	SLV 15	No
V_SLV	0.083	SLV 15	No
PF_SLU	1.591	SLU 82	Si
V_SLU	0.158	SLU 82	No

Trave di accoppiamento 133

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-416.8	104.6	1045	1187	142	-496.8	104.6	1045	1187	142	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-511	-86452	194792	SLU 50	2.25	Si
fin.	3	-511	59274	194792	SLU 50	3.29	Si
ini.	3	-715	-90590	194792	SLU 71	2.15	Si
fin.	3	-715	64181	194792	SLU 71	3.04	Si
ini.	3	-728	-86632	194792	SLU 70	2.25	Si
fin.	3	-728	59577	194792	SLU 70	3.27	Si
ini.	3	-1014	-85178	194792	SLU 78	2.29	Si
fin.	3	-1014	59524	194792	SLU 78	3.27	Si
ini.	3	-720	-87831	194792	SLU 69	2.22	Si
fin.	3	-720	63160	194792	SLU 69	3.08	Si
ini.	3	-1006	-86377	194792	SLU 77	2.26	Si
fin.	3	-1006	63108	194792	SLU 77	3.09	Si
ini.	3	-723	-89391	194792	SLU 72	2.18	Si
fin.	3	-723	60598	194792	SLU 72	3.21	Si
ini.	3	-1000	-89136	194792	SLU 79	2.19	Si
fin.	3	-1000	64129	194792	SLU 79	3.04	Si
ini.	3	-1009	-87937	194792	SLU 80	2.22	Si
fin.	3	-1009	60545	194792	SLU 80	3.22	Si
ini.	3	-519	-85253	194792	SLU 51	2.28	Si
fin.	3	-519	55690	194792	SLU 51	3.5	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-84998	2645			1531	576	SLU 58	0.22	No
fin.	3	0	59221	1035			1531	576	SLU 58	0.56	No
ini.	3	0	-85178	2812			1531	576	SLU 78	0.2	No
fin.	3	0	59524	877			1531	576	SLU 78	0.66	No
ini.	3	0	-89136	2919			1531	576	SLU 79	0.2	No
fin.	3	0	64129	984			1531	576	SLU 79	0.59	No
ini.	3	0	-87831	2695			1531	576	SLU 69	0.21	No
fin.	3	0	63160	1151			1531	576	SLU 69	0.5	No
ini.	3	0	-72800	2663			1531	576	SLU 83	0.22	No
fin.	3	0	53296	560			1531	576	SLU 83	1.03	Si
ini.	3	0	-86632	2635			1531	576	SLU 70	0.22	No
fin.	3	0	59577	1091			1531	576	SLU 70	0.53	No
ini.	3	0	-87937	2859			1531	576	SLU 80	0.2	No
fin.	3	0	60545	924			1531	576	SLU 80	0.62	No
ini.	3	0	-89391	2682			1531	576	SLU 72	0.21	No
fin.	3	0	60598	1138			1531	576	SLU 72	0.51	No
ini.	3	0	-90590	2742			1531	576	SLU 71	0.21	No
fin.	3	0	64181	1198			1531	576	SLU 71	0.48	No
ini.	3	0	-86377	2872			1531	576	SLU 77	0.2	No
fin.	3	0	63108	937			1531	576	SLU 77	0.62	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	413	295913	212694	SLV 3	0.72	No
fin.	2	-185	-190473	212694	SLV 3	1.12	Si
ini.	2	-1021	-199855	212694	SLD 16	1.06	Si
fin.	2	-821	134759	212694	SLD 16	1.58	Si
ini.	2	331	319909	212694	SLV 2	0.66	No
fin.	2	-136	-209830	212694	SLV 2	1.01	Si
ini.	2	-1642	-384285	212694	SLV 13	0.55	No
fin.	2	-1044	253765	212694	SLV 13	0.84	No
ini.	2	-1560	-408281	212694	SLV 15	0.52	No
fin.	2	-1093	273122	212694	SLV 15	0.78	No
ini.	2	-1021	-199855	212694	SLD 15	1.06	Si
fin.	2	-821	134759	212694	SLD 15	1.58	Si
ini.	2	-1560	-408281	212694	SLV 16	0.52	No
fin.	2	-1093	273122	212694	SLV 16	0.78	No
ini.	2	331	319909	212694	SLV 1	0.66	No
fin.	2	-136	-209830	212694	SLV 1	1.01	Si
ini.	2	-1642	-384285	212694	SLV 14	0.55	No
fin.	2	-1044	253765	212694	SLV 14	0.84	No
ini.	2	413	295913	212694	SLV 4	0.72	No
fin.	2	-185	-190473	212694	SLV 4	1.12	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	295913	-5772			2297	864	SLV 4	0.15	No
fin.	2	0	-190473	-7004			2297	864	SLV 4	0.12	No
ini.	2	0	295913	-5772			2297	864	SLV 3	0.15	No
fin.	2	0	-190473	-7004			2297	864	SLV 3	0.12	No
ini.	2	0	319909	-6223			2297	864	SLV 2	0.14	No
fin.	2	0	-209830	-7448			2297	864	SLV 2	0.12	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-199855	4928			2297	864	SLD 16	0.18	No
fin.	2	0	134759	3699			2297	864	SLD 16	0.23	No
ini.	2	0	-408281	9402			2297	864	SLV 16	0.09	No
fin.	2	0	273122	8171			2297	864	SLV 16	0.11	No
ini.	2	0	319909	-6223			2297	864	SLV 1	0.14	No
fin.	2	0	-209830	-7448			2297	864	SLV 1	0.12	No
ini.	2	0	-384285	8951			2297	864	SLV 13	0.1	No
fin.	2	0	253765	7727			2297	864	SLV 13	0.11	No
ini.	2	0	-199855	4928			2297	864	SLD 15	0.18	No
fin.	2	0	134759	3699			2297	864	SLD 15	0.23	No
ini.	2	0	-384285	8951			2297	864	SLV 14	0.1	No
fin.	2	0	253765	7727			2297	864	SLV 14	0.11	No
ini.	2	0	-408281	9402			2297	864	SLV 15	0.09	No
fin.	2	0	273122	8171			2297	864	SLV 15	0.11	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.521	SLV 15	No
V_SLV	0.092	SLV 15	No
PF_SLU	2.15	SLU 71	Si
V_SLU	0.197	SLU 79	No

Trave di accoppiamento 134

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-867.8	-485.9	1161	1187	26	-1051.8	-485.9	1161	1187	26	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	260	-2625	10289	SLU 16	3.92	Si
fin.	3	64	1019	10289	SLU 16	10.1	Si
ini.	3	-98	4452	10289	SLU 44	2.31	Si
fin.	3	324	-2650	10289	SLU 44	3.88	Si
ini.	3	-12	2804	10289	SLU 43	3.67	Si
fin.	3	328	-2346	10289	SLU 43	4.39	Si
ini.	3	-44	3508	10289	SLU 65	2.93	Si
fin.	3	279	-2004	10289	SLU 65	5.13	Si
ini.	3	296	-3243	10289	SLU 35	3.17	Si
fin.	3	30	1494	10289	SLU 35	6.89	Si
ini.	3	-29	3153	10289	SLU 52	3.26	Si
fin.	3	256	-1788	10289	SLU 52	5.76	Si
ini.	3	-5	2835	10289	SLU 47	3.63	Si
fin.	3	269	-1754	10289	SLU 47	5.87	Si
ini.	3	-81	3556	10289	SLU 2	2.89	Si
fin.	3	236	-1938	10289	SLU 2	5.31	Si
ini.	3	314	-3569	10289	SLU 37	2.88	Si
fin.	3	19	1665	10289	SLU 37	6.18	Si
ini.	3	297	-2673	10289	SLU 79	3.85	Si
fin.	3	107	953	10289	SLU 79	10.8	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1536	-272			200	75	SLU 55	0.28	No
fin.	3	0	-892	101			200	75	SLU 55	0.74	No
ini.	3	0	3508	-282			200	75	SLU 65	0.27	No
fin.	3	0	-2004	97			200	75	SLU 65	0.77	No
ini.	3	0	2210	-287			200	75	SLU 73	0.26	No
fin.	3	0	-1142	103			200	75	SLU 73	0.73	No
ini.	3	0	1938	-255			200	75	SLU 61	0.29	No
fin.	3	0	-1297	91			200	75	SLU 61	0.83	No
ini.	3	0	4452	-279			200	75	SLU 44	0.27	No
fin.	3	0	-2650	89			200	75	SLU 44	0.85	No
ini.	3	0	994	-259			200	75	SLU 82	0.29	No
fin.	3	0	-651	99			200	75	SLU 82	0.76	No
ini.	3	0	2835	-268			200	75	SLU 47	0.28	No
fin.	3	0	-1754	96			200	75	SLU 47	0.79	No
ini.	3	0	3153	-283			200	75	SLU 52	0.27	No
fin.	3	0	-1788	94			200	75	SLU 52	0.8	No
ini.	3	0	593	-275			200	75	SLU 76	0.27	No
fin.	3	0	-246	110			200	75	SLU 76	0.69	No
ini.	3	0	1891	-271			200	75	SLU 68	0.28	No
fin.	3	0	-1108	104			200	75	SLU 68	0.72	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2097	-29349	15434	SLV 13	0.53	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-728	17479	15434	SLV 13	0.88	No
ini.	2	1464	-21962	15434	SLV 16	0.7	No
fin.	2	-539	11317	15434	SLV 16	1.36	Si
ini.	2	-1383	24496	15434	SLV 2	0.63	No
fin.	2	957	-13724	15434	SLV 2	1.12	Si
ini.	2	2097	-29349	15434	SLV 14	0.53	No
fin.	2	-728	17479	15434	SLV 14	0.88	No
ini.	2	-1535	21655	15434	SLV 7	0.71	No
fin.	2	776	-16153	15434	SLV 7	0.96	No
ini.	2	-1535	21655	15434	SLV 8	0.71	No
fin.	2	776	-16153	15434	SLV 8	0.96	No
ini.	2	-2016	31883	15434	SLV 3	0.48	No
fin.	2	1145	-19886	15434	SLV 3	0.78	No
ini.	2	-1383	24496	15434	SLV 1	0.63	No
fin.	2	957	-13724	15434	SLV 1	1.12	Si
ini.	2	1464	-21962	15434	SLV 15	0.7	No
fin.	2	-539	11317	15434	SLV 15	1.36	Si
ini.	2	-2016	31883	15434	SLV 4	0.48	No
fin.	2	1145	-19886	15434	SLV 4	0.78	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	31883	-254			300	113	SLV 4	0.44	No
fin.	2	0	-19886	107			300	113	SLV 4	1.06	Si
ini.	2	0	-2968	-131			300	113	SLV 5	0.86	No
fin.	2	0	4385	195			300	113	SLV 5	0.58	No
ini.	2	0	14319	-201			300	113	SLD 4	0.56	No
fin.	2	0	-9101	82			300	113	SLD 4	1.37	Si
ini.	2	0	31883	-254			300	113	SLV 3	0.44	No
fin.	2	0	-19886	107			300	113	SLV 3	1.06	Si
ini.	2	0	-2968	-131			300	113	SLV 6	0.86	No
fin.	2	0	4385	195			300	113	SLV 6	0.58	No
ini.	2	0	24496	-222			300	113	SLV 2	0.51	No
fin.	2	0	-13724	172			300	113	SLV 2	0.66	No
ini.	2	0	21655	-238			300	113	SLV 8	0.48	No
fin.	2	0	-16153	-23			300	113	SLV 8	4.94	Si
ini.	2	0	24496	-222			300	113	SLV 1	0.51	No
fin.	2	0	-13724	172			300	113	SLV 1	0.66	No
ini.	2	0	14319	-201			300	113	SLD 3	0.56	No
fin.	2	0	-9101	82			300	113	SLD 3	1.37	Si
ini.	2	0	21655	-238			300	113	SLV 7	0.48	No
fin.	2	0	-16153	-23			300	113	SLV 7	4.94	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.484	SLV 3	No
V_SLV	0.445	SLV 3	No
PF_SLU	2.311	SLU 44	Si
V_SLU	0.263	SLU 73	No

Trave di accoppiamento 135

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-854.8	-335.9	1045	1187	142	-944.8	-335.9	1045	1187	142	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-751	61882	194792	SLU 60	3.15	Si
fin.	3	-751	-72844	194792	SLU 60	2.67	Si
ini.	3	-592	63784	194792	SLU 83	3.05	Si
fin.	3	-592	-72972	194792	SLU 83	2.67	Si
ini.	3	-825	76362	194792	SLU 82	2.55	Si
fin.	3	-825	-81741	194792	SLU 82	2.38	Si
ini.	3	-552	64146	194792	SLU 74	3.04	Si
fin.	3	-552	-74180	194792	SLU 74	2.63	Si
ini.	3	-794	73560	194792	SLU 81	2.65	Si
fin.	3	-794	-81346	194792	SLU 81	2.39	Si
ini.	3	-583	66948	194792	SLU 75	2.91	Si
fin.	3	-583	-74575	194792	SLU 75	2.61	Si
ini.	3	-803	74407	194792	SLU 73	2.62	Si
fin.	3	-803	-78113	194792	SLU 73	2.49	Si
ini.	3	-697	68102	194792	SLU 40	2.86	Si
fin.	3	-697	-70167	194792	SLU 40	2.78	Si
ini.	3	-623	66586	194792	SLU 84	2.93	Si
fin.	3	-623	-73367	194792	SLU 84	2.66	Si
ini.	3	-782	64684	194792	SLU 61	3.01	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-782	-73238	194792	SLU 61	2.66	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	66586	-712			1531	576	SLU 84	0.81	No
fin.	3	0	-73367	-2339			1531	576	SLU 84	0.25	No
ini.	3	0	76362	-913			1531	576	SLU 82	0.63	No
fin.	3	0	-81741	-2540			1531	576	SLU 82	0.23	No
ini.	3	0	64684	-780			1531	576	SLU 61	0.74	No
fin.	3	0	-73238	-2222			1531	576	SLU 61	0.26	No
ini.	3	0	73560	-878			1531	576	SLU 81	0.66	No
fin.	3	0	-81346	-2505			1531	576	SLU 81	0.23	No
ini.	3	0	64146	-741			1531	576	SLU 74	0.78	No
fin.	3	0	-74180	-2273			1531	576	SLU 74	0.25	No
ini.	3	0	63784	-676			1531	576	SLU 83	0.85	No
fin.	3	0	-72972	-2303			1531	576	SLU 83	0.25	No
ini.	3	0	74407	-899			1531	576	SLU 73	0.64	No
fin.	3	0	-78113	-2431			1531	576	SLU 73	0.24	No
ini.	3	0	66948	-777			1531	576	SLU 75	0.74	No
fin.	3	0	-74575	-2309			1531	576	SLU 75	0.25	No
ini.	3	0	64632	-697			1531	576	SLU 76	0.83	No
fin.	3	0	-69738	-2229			1531	576	SLU 76	0.26	No
ini.	3	0	68102	-806			1531	576	SLU 40	0.71	No
fin.	3	0	-70167	-2222			1531	576	SLU 40	0.26	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2117	-217376	212694	SLV 16	0.98	No
fin.	2	-1279	198206	212694	SLV 16	1.07	Si
ini.	2	1078	310905	212694	SLV 1	0.68	No
fin.	2	240	-304849	212694	SLV 1	0.7	No
ini.	2	-708	-227149	212694	SLV 14	0.94	No
fin.	2	-714	253523	212694	SLV 14	0.84	No
ini.	2	-708	-227149	212694	SLV 13	0.94	No
fin.	2	-714	253523	212694	SLV 13	0.84	No
ini.	2	-332	320678	212694	SLV 3	0.66	No
fin.	2	-326	-360166	212694	SLV 3	0.59	No
ini.	2	-2601	143760	212694	SLV 8	1.48	Si
fin.	2	-1319	-229273	212694	SLV 8	0.93	No
ini.	2	-2601	143760	212694	SLV 7	1.48	Si
fin.	2	-1319	-229273	212694	SLV 7	0.93	No
ini.	2	1078	310905	212694	SLV 2	0.68	No
fin.	2	240	-304849	212694	SLV 2	0.7	No
ini.	2	-332	320678	212694	SLV 4	0.66	No
fin.	2	-326	-360166	212694	SLV 4	0.59	No
ini.	2	-2117	-217376	212694	SLV 15	0.98	No
fin.	2	-1279	198206	212694	SLV 15	1.07	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-227149	5493			2297	864	SLV 14	0.16	No
fin.	2	0	253523	4557			2297	864	SLV 14	0.19	No
ini.	2	0	-217376	5967			2297	864	SLV 15	0.14	No
fin.	2	0	198206	4896			2297	864	SLV 15	0.18	No
ini.	2	0	310905	-7113			2297	864	SLV 1	0.12	No
fin.	2	0	-304849	-8104			2297	864	SLV 1	0.11	No
ini.	2	0	320678	-6639			2297	864	SLV 3	0.13	No
fin.	2	0	-360166	-7765			2297	864	SLV 3	0.11	No
ini.	2	0	310905	-7113			2297	864	SLV 2	0.12	No
fin.	2	0	-304849	-8104			2297	864	SLV 2	0.11	No
ini.	2	0	159840	-3352			2297	864	SLD 2	0.26	No
fin.	2	0	-161422	-4377			2297	864	SLD 2	0.2	No
ini.	2	0	159840	-3352			2297	864	SLD 1	0.26	No
fin.	2	0	-161422	-4377			2297	864	SLD 1	0.2	No
ini.	2	0	320678	-6639			2297	864	SLV 4	0.13	No
fin.	2	0	-360166	-7765			2297	864	SLV 4	0.11	No
ini.	2	0	-227149	5493			2297	864	SLV 13	0.16	No
fin.	2	0	253523	4557			2297	864	SLV 13	0.19	No
ini.	2	0	-217376	5967			2297	864	SLV 16	0.14	No
fin.	2	0	198206	4896			2297	864	SLV 16	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.591	SLV 3	No
V_SLV	0.107	SLV 1	No
PF_SLU	2.383	SLU 82	Si
V_SLU	0.227	SLU 82	No

Trave di accoppiamento 136

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-772.3	-486.1	1161	1187	26	-772.3	-377.1	1161	1187	26	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	3	-682	10289	SLU 34	15.09	Si
fin.	3	3	18990	10289	SLU 34	0.54	No
ini.	3	4	-297	10289	SLU 65	34.65	Si
fin.	3	4	17686	10289	SLU 65	0.58	No
ini.	3	4	-381	10289	SLU 52	27.02	Si
fin.	3	4	18635	10289	SLU 52	0.55	No
ini.	3	2	-461	10289	SLU 82	22.3	Si
fin.	3	2	17249	10289	SLU 82	0.6	No
ini.	3	4	-286	10289	SLU 55	36.04	Si
fin.	3	4	17688	10289	SLU 55	0.58	No
ini.	3	4	-565	10289	SLU 10	18.2	Si
fin.	3	4	18061	10289	SLU 10	0.57	No
ini.	3	4	-592	10289	SLU 73	17.37	Si
fin.	3	4	20511	10289	SLU 73	0.5	No
ini.	3	4	-497	10289	SLU 76	20.7	Si
fin.	3	4	19564	10289	SLU 76	0.53	No
ini.	3	3	-777	10289	SLU 31	13.24	Si
fin.	3	3	19937	10289	SLU 31	0.52	No
ini.	3	4	-470	10289	SLU 13	21.88	Si
fin.	3	4	17114	10289	SLU 13	0.6	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-381	248			200	75	SLU 52	0.3	No
fin.	3	0	18635	101			200	75	SLU 52	0.75	No
ini.	3	0	-297	239			200	75	SLU 65	0.32	No
fin.	3	0	17686	91			200	75	SLU 65	0.82	No
ini.	3	0	-682	237			200	75	SLU 34	0.32	No
fin.	3	0	18990	124			200	75	SLU 34	0.61	No
ini.	3	0	-565	228			200	75	SLU 10	0.33	No
fin.	3	0	18061	114			200	75	SLU 10	0.66	No
ini.	3	0	-497	258			200	75	SLU 76	0.29	No
fin.	3	0	19564	110			200	75	SLU 76	0.68	No
ini.	3	0	-777	247			200	75	SLU 31	0.31	No
fin.	3	0	19937	133			200	75	SLU 31	0.56	No
ini.	3	0	-202	229			200	75	SLU 68	0.33	No
fin.	3	0	16739	82			200	75	SLU 68	0.92	No
ini.	3	0	-461	236			200	75	SLU 82	0.32	No
fin.	3	0	17249	89			200	75	SLU 82	0.85	No
ini.	3	0	-592	267			200	75	SLU 73	0.28	No
fin.	3	0	20511	120			200	75	SLU 73	0.63	No
ini.	3	0	-286	239			200	75	SLU 55	0.32	No
fin.	3	0	17688	91			200	75	SLU 55	0.83	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	292	2218	15434	SLV 13	6.96	Si
fin.	2	-29	40840	15434	SLV 13	0.38	No
ini.	2	-1010	-19124	15434	SLV 7	0.81	No
fin.	2	112	-65330	15434	SLV 7	0.24	No
ini.	2	-1017	-21640	15434	SLV 11	0.71	No
fin.	2	115	-55952	15434	SLV 11	0.28	No
ini.	2	1018	22098	15434	SLV 6	0.7	No
fin.	2	-115	66751	15434	SLV 6	0.23	No
ini.	2	1010	19581	15434	SLV 9	0.79	No
fin.	2	-112	76128	15434	SLV 9	0.2	No
ini.	2	-1017	-21640	15434	SLV 12	0.71	No
fin.	2	115	-55952	15434	SLV 12	0.28	No
ini.	2	1010	19581	15434	SLV 10	0.79	No
fin.	2	-112	76128	15434	SLV 10	0.2	No
ini.	2	1018	22098	15434	SLV 5	0.7	No
fin.	2	-115	66751	15434	SLV 5	0.23	No
ini.	2	-1010	-19124	15434	SLV 8	0.81	No
fin.	2	112	-65330	15434	SLV 8	0.24	No
ini.	2	292	2218	15434	SLV 14	6.96	Si
fin.	2	-29	40840	15434	SLV 14	0.38	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	19581	1187			300	113	SLV 9	0.1	No
fin.	2	0	76128	-231			300	113	SLV 9	0.49	No
ini.	2	0	-21640	-894			300	113	SLV 11	0.13	No
fin.	2	0	-55952	202			300	113	SLV 11	0.56	No
ini.	2	0	-19124	-979			300	113	SLV 7	0.12	No
fin.	2	0	-65330	213			300	113	SLV 7	0.53	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	19581	1187			300	113	SLV 10	0.1	No
fin.	2	0	76128	-231			300	113	SLV 10	0.49	No
ini.	2	0	-21640	-894			300	113	SLV 12	0.13	No
fin.	2	0	-55952	202			300	113	SLV 12	0.56	No
ini.	2	0	22098	1102			300	113	SLV 5	0.1	No
fin.	2	0	66751	-220			300	113	SLV 5	0.51	No
ini.	2	0	2218	557			300	113	SLV 14	0.2	No
fin.	2	0	40840	-92			300	113	SLV 14	1.22	Si
ini.	2	0	-19124	-979			300	113	SLV 8	0.12	No
fin.	2	0	-65330	213			300	113	SLV 8	0.53	No
ini.	2	0	2218	557			300	113	SLV 13	0.2	No
fin.	2	0	40840	-92			300	113	SLV 13	1.22	Si
ini.	2	0	22098	1102			300	113	SLV 6	0.1	No
fin.	2	0	66751	-220			300	113	SLV 6	0.51	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.203	SLV 9	No
V_SLV	0.095	SLV 9	No
PF_SLU	0.502	SLU 73	No
V_SLU	0.282	SLU 73	No

Trave di accoppiamento 137

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	835	1035	200	-515.8	650.6	835	1035	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	42	94149	296292	SLU 79	3.15	Si
fin.	3	-64	-4309	296292	SLU 79	68.76	Si
ini.	3	84	90784	296292	SLU 77	3.26	Si
fin.	3	-8	943	296292	SLU 77	314.23	Si
ini.	3	-5	88297	296292	SLU 37	3.36	Si
fin.	3	-111	-8968	296292	SLU 37	33.04	Si
ini.	3	-60	92041	296292	SLU 72	3.22	Si
fin.	3	-184	-15864	296292	SLU 72	18.68	Si
ini.	3	9	87447	296292	SLU 38	3.39	Si
fin.	3	-96	-7556	296292	SLU 38	39.21	Si
ini.	3	-32	89527	296292	SLU 69	3.31	Si
fin.	3	-143	-12023	296292	SLU 69	24.64	Si
ini.	3	98	89934	296292	SLU 78	3.29	Si
fin.	3	7	2354	296292	SLU 78	125.85	Si
ini.	3	-74	92892	296292	SLU 71	3.19	Si
fin.	3	-199	-17275	296292	SLU 71	17.15	Si
ini.	3	-18	88677	296292	SLU 70	3.34	Si
fin.	3	-128	-10612	296292	SLU 70	27.92	Si
ini.	3	55	93299	296292	SLU 80	3.18	Si
fin.	3	-49	-2897	296292	SLU 80	102.26	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	92892	-3476			2157	812	SLU 71	0.23	No
fin.	3	0	-17275	-750			2157	812	SLU 71	1.08	Si
ini.	3	0	86190	-3355			2157	812	SLU 30	0.24	No
fin.	3	0	-20523	-715			2157	812	SLU 30	1.13	Si
ini.	3	0	92041	-3409			2157	812	SLU 72	0.24	No
fin.	3	0	-15864	-728			2157	812	SLU 72	1.12	Si
ini.	3	0	89527	-3241			2157	812	SLU 69	0.25	No
fin.	3	0	-12023	-679			2157	812	SLU 69	1.2	Si
ini.	3	0	83675	-3187			2157	812	SLU 27	0.25	No
fin.	3	0	-16682	-667			2157	812	SLU 27	1.22	Si
ini.	3	0	93299	-3160			2157	812	SLU 80	0.26	No
fin.	3	0	-2897	-589			2157	812	SLU 80	1.38	Si
ini.	3	0	94149	-3227			2157	812	SLU 79	0.25	No
fin.	3	0	-4309	-611			2157	812	SLU 79	1.33	Si
ini.	3	0	88297	-3173			2157	812	SLU 37	0.26	No
fin.	3	0	-8968	-599			2157	812	SLU 37	1.35	Si
ini.	3	0	87040	-3422			2157	812	SLU 29	0.24	No
fin.	3	0	-21934	-738			2157	812	SLU 29	1.1	Si
ini.	3	0	88677	-3174			2157	812	SLU 70	0.26	No
fin.	3	0	-10612	-656			2157	812	SLU 70	1.24	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1273	42105	314194	SLV 9	7.46	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	1722	119381	314194	SLV 9	2.63	Si
ini.	2	-1879	-85700	314194	SLV 2	3.67	Si
fin.	2	-1105	-137800	314194	SLV 2	2.28	Si
ini.	2	-2123	-69115	314194	SLV 3	4.55	Si
fin.	2	-1725	-166353	314194	SLV 3	1.89	Si
ini.	2	1273	42105	314194	SLV 10	7.46	Si
fin.	2	1722	119381	314194	SLV 10	2.63	Si
ini.	2	-2123	-69115	314194	SLV 4	4.55	Si
fin.	2	-1725	-166353	314194	SLV 4	1.89	Si
ini.	2	2291	157276	314194	SLV 15	2	Si
fin.	2	1512	178059	314194	SLV 15	1.76	Si
ini.	2	2534	140691	314194	SLV 14	2.23	Si
fin.	2	2132	206613	314194	SLV 14	1.52	Si
ini.	2	2534	140691	314194	SLV 13	2.23	Si
fin.	2	2132	206613	314194	SLV 13	1.52	Si
ini.	2	-1879	-85700	314194	SLV 1	3.67	Si
fin.	2	-1105	-137800	314194	SLV 1	2.28	Si
ini.	2	2291	157276	314194	SLV 16	2	Si
fin.	2	1512	178059	314194	SLV 16	1.76	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	42105	1957			3235	1217	SLV 10	0.62	No
fin.	2	0	119381	1361			3235	1217	SLV 10	0.89	No
ini.	2	0	-69115	-2350			3235	1217	SLV 4	0.52	No
fin.	2	0	-166353	-2198			3235	1217	SLV 4	0.55	No
ini.	2	0	42105	1957			3235	1217	SLV 9	0.62	No
fin.	2	0	119381	1361			3235	1217	SLV 9	0.89	No
ini.	2	0	29471	-3277			3235	1217	SLV 8	0.37	No
fin.	2	0	-79121	-1484			3235	1217	SLV 8	0.82	No
ini.	2	0	97388	-2680			3235	1217	SLV 12	0.45	No
fin.	2	0	24202	-357			3235	1217	SLV 12	3.41	Si
ini.	2	0	29471	-3277			3235	1217	SLV 7	0.37	No
fin.	2	0	-79121	-1484			3235	1217	SLV 7	0.82	No
ini.	2	0	-69115	-2350			3235	1217	SLV 3	0.52	No
fin.	2	0	-166353	-2198			3235	1217	SLV 3	0.55	No
ini.	2	0	140691	1031			3235	1217	SLV 13	1.18	Si
fin.	2	0	206613	2075			3235	1217	SLV 13	0.59	No
ini.	2	0	97388	-2680			3235	1217	SLV 11	0.45	No
fin.	2	0	24202	-357			3235	1217	SLV 11	3.41	Si
ini.	2	0	140691	1031			3235	1217	SLV 14	1.18	Si
fin.	2	0	206613	2075			3235	1217	SLV 14	0.59	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.521	SLV 13	Si
V_SLV	0.372	SLV 7	No
PF_SLU	3.147	SLU 79	Si
V_SLU	0.234	SLU 71	No

Trave di accoppiamento 138

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	1115	1187	72	-515.8	650.6	1115	1187	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-797	-30668	72292	SLU 38	2.36	Si
fin.	3	-170	6903	72292	SLU 38	10.47	Si
ini.	3	-813	-30992	72292	SLU 77	2.33	Si
fin.	3	-170	6854	72292	SLU 77	10.55	Si
ini.	3	-800	-30912	72292	SLU 37	2.34	Si
fin.	3	-170	6925	72292	SLU 37	10.44	Si
ini.	3	-809	-30748	72292	SLU 78	2.35	Si
fin.	3	-169	6832	72292	SLU 78	10.58	Si
ini.	3	-839	-32121	72292	SLU 80	2.25	Si
fin.	3	-177	7171	72292	SLU 80	10.08	Si
ini.	3	-795	-30662	72292	SLU 69	2.36	Si
fin.	3	-169	6848	72292	SLU 69	10.56	Si
ini.	3	-821	-31792	72292	SLU 72	2.27	Si
fin.	3	-176	7165	72292	SLU 72	10.09	Si
ini.	3	-782	-30582	72292	SLU 29	2.36	Si
fin.	3	-169	6919	72292	SLU 29	10.45	Si
ini.	3	-824	-32036	72292	SLU 71	2.26	Si
fin.	3	-177	7187	72292	SLU 71	10.06	Si
ini.	3	-842	-32365	72292	SLU 79	2.23	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-178	7193	72292	SLU 79	10.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-31792	4236			776	292	SLU 72	0.07	No
fin.	3	0	7165	-77			776	292	SLU 72	3.8	Si
ini.	3	0	-32365	4300			776	292	SLU 79	0.07	No
fin.	3	0	7193	-67			776	292	SLU 79	4.34	Si
ini.	3	0	-30748	4093			776	292	SLU 78	0.07	No
fin.	3	0	6832	-61			776	292	SLU 78	4.83	Si
ini.	3	0	-32121	4271			776	292	SLU 80	0.07	No
fin.	3	0	7171	-65			776	292	SLU 80	4.5	Si
ini.	3	0	-32036	4265			776	292	SLU 71	0.07	No
fin.	3	0	7187	-79			776	292	SLU 71	3.69	Si
ini.	3	0	-30912	4102			776	292	SLU 37	0.07	No
fin.	3	0	6925	-54			776	292	SLU 37	5.4	Si
ini.	3	0	-30582	4067			776	292	SLU 29	0.07	No
fin.	3	0	6919	-66			776	292	SLU 29	4.43	Si
ini.	3	0	-30992	4121			776	292	SLU 77	0.07	No
fin.	3	0	6854	-63			776	292	SLU 77	4.64	Si
ini.	3	0	-30662	4086			776	292	SLU 69	0.07	No
fin.	3	0	6848	-75			776	292	SLU 69	3.91	Si
ini.	3	0	-30668	4073			776	292	SLU 38	0.07	No
fin.	3	0	6903	-52			776	292	SLU 38	5.65	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-172	-18176	90194	SLV 11	4.96	Si
fin.	2	254	6298	90194	SLV 11	14.32	Si
ini.	2	-172	-18176	90194	SLV 12	4.96	Si
fin.	2	254	6298	90194	SLV 12	14.32	Si
ini.	2	-245	-13675	90194	SLD 12	6.6	Si
fin.	2	68	3817	90194	SLD 12	23.63	Si
ini.	2	-245	-13675	90194	SLD 11	6.6	Si
fin.	2	68	3817	90194	SLD 11	23.63	Si
ini.	2	-273	-15755	90194	SLV 16	5.72	Si
fin.	2	122	4071	90194	SLV 16	22.15	Si
ini.	2	-241	-12946	90194	SLD 7	6.97	Si
fin.	2	45	3643	90194	SLD 7	24.76	Si
ini.	2	-162	-16344	90194	SLV 7	5.52	Si
fin.	2	198	5871	90194	SLV 7	15.36	Si
ini.	2	-241	-12946	90194	SLD 8	6.97	Si
fin.	2	45	3643	90194	SLD 8	24.76	Si
ini.	2	-273	-15755	90194	SLV 15	5.72	Si
fin.	2	122	4071	90194	SLV 15	22.15	Si
ini.	2	-162	-16344	90194	SLV 8	5.52	Si
fin.	2	198	5871	90194	SLV 8	15.36	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-18176	1897			1165	438	SLV 12	0.23	No
fin.	2	0	6298	-215			1165	438	SLV 12	2.04	Si
ini.	2	0	-15755	1728			1165	438	SLV 15	0.25	No
fin.	2	0	4071	-87			1165	438	SLV 15	5.04	Si
ini.	2	0	-13675	1614			1165	438	SLD 12	0.27	No
fin.	2	0	3817	-111			1165	438	SLD 12	3.95	Si
ini.	2	0	-18176	1897			1165	438	SLV 11	0.23	No
fin.	2	0	6298	-215			1165	438	SLV 11	2.04	Si
ini.	2	0	-13675	1614			1165	438	SLD 11	0.27	No
fin.	2	0	3817	-111			1165	438	SLD 11	3.95	Si
ini.	2	0	-16344	1795			1165	438	SLV 7	0.24	No
fin.	2	0	5871	-218			1165	438	SLV 7	2.01	Si
ini.	2	0	-15755	1728			1165	438	SLV 16	0.25	No
fin.	2	0	4071	-87			1165	438	SLV 16	5.04	Si
ini.	2	0	-12946	1573			1165	438	SLD 7	0.28	No
fin.	2	0	3643	-112			1165	438	SLD 7	3.91	Si
ini.	2	0	-12946	1573			1165	438	SLD 8	0.28	No
fin.	2	0	3643	-112			1165	438	SLD 8	3.91	Si
ini.	2	0	-16344	1795			1165	438	SLV 8	0.24	No
fin.	2	0	5871	-218			1165	438	SLV 8	2.01	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.962	SLV 11	Si
V_SLV	0.231	SLV 11	No
PF_SLU	2.234	SLU 79	Si
V_SLU	0.068	SLU 79	No

Trave di accoppiamento 139

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	835	925	90	-741.3	-335.9	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-700	27804	103792	SLU 65	3.73	Si
fin.	3	-371	-5260	103792	SLU 65	19.73	Si
ini.	3	-492	24557	103792	SLU 75	4.23	Si
fin.	3	-406	1173	103792	SLU 75	88.45	Si
ini.	3	-717	28099	103792	SLU 52	3.69	Si
fin.	3	-371	-5656	103792	SLU 52	18.35	Si
ini.	3	-720	26661	103792	SLU 44	3.89	Si
fin.	3	-357	-5511	103792	SLU 44	18.83	Si
ini.	3	-610	26274	103792	SLU 61	3.95	Si
fin.	3	-379	-2774	103792	SLU 61	37.42	Si
ini.	3	-587	24798	103792	SLU 31	4.19	Si
fin.	3	-305	-5765	103792	SLU 31	18	Si
ini.	3	-590	27416	103792	SLU 82	3.79	Si
fin.	3	-393	-2522	103792	SLU 82	41.15	Si
ini.	3	-697	29241	103792	SLU 73	3.55	Si
fin.	3	-385	-5404	103792	SLU 73	19.2	Si
ini.	3	-582	25847	103792	SLU 76	4.02	Si
fin.	3	-427	-425	103792	SLU 76	244.16	Si
ini.	3	-602	24705	103792	SLU 55	4.2	Si
fin.	3	-413	-677	103792	SLU 55	153.37	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	23415	-1266			970	365	SLU 54	0.29	No
fin.	3	0	922	356			970	365	SLU 54	1.03	Si
ini.	3	0	29241	-1406			970	365	SLU 73	0.26	No
fin.	3	0	-5404	37			970	365	SLU 73	10	Si
ini.	3	0	26661	-1345			970	365	SLU 44	0.27	No
fin.	3	0	-5511	1			970	365	SLU 44	255.25	Si
ini.	3	0	28099	-1377			970	365	SLU 52	0.27	No
fin.	3	0	-5656	5			970	365	SLU 52	75.23	Si
ini.	3	0	26274	-1330			970	365	SLU 61	0.27	No
fin.	3	0	-2774	167			970	365	SLU 61	2.19	Si
ini.	3	0	25847	-1290			970	365	SLU 76	0.28	No
fin.	3	0	-425	260			970	365	SLU 76	1.4	Si
ini.	3	0	24557	-1295			970	365	SLU 75	0.28	No
fin.	3	0	1173	388			970	365	SLU 75	0.94	No
ini.	3	0	23755	-1268			970	365	SLU 81	0.29	No
fin.	3	0	1895	440			970	365	SLU 81	0.83	No
ini.	3	0	27804	-1374			970	365	SLU 65	0.27	No
fin.	3	0	-5260	33			970	365	SLU 65	11.03	Si
ini.	3	0	27416	-1360			970	365	SLU 82	0.27	No
fin.	3	0	-2522	199			970	365	SLU 82	1.84	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1397	-67455	121694	SLV 14	1.8	Si
fin.	2	-2389	139396	121694	SLV 14	0.87	No
ini.	2	1397	-67455	121694	SLV 13	1.8	Si
fin.	2	-2389	139396	121694	SLV 13	0.87	No
ini.	2	1755	-88517	121694	SLV 16	1.37	Si
fin.	2	-2970	152728	121694	SLV 16	0.8	No
ini.	2	1755	-88517	121694	SLV 15	1.37	Si
fin.	2	-2970	152728	121694	SLV 15	0.8	No
ini.	2	-2074	101161	121694	SLV 4	1.2	Si
fin.	2	1809	-136356	121694	SLV 4	0.89	No
ini.	2	-2432	122224	121694	SLV 1	1	No
fin.	2	2390	-149688	121694	SLV 1	0.81	No
ini.	2	-1509	80410	121694	SLV 5	1.51	Si
fin.	2	1395	-64062	121694	SLV 5	1.9	Si
ini.	2	-2432	122224	121694	SLV 2	1	No
fin.	2	2390	-149688	121694	SLV 2	0.81	No
ini.	2	-2074	101161	121694	SLV 3	1.2	Si
fin.	2	1809	-136356	121694	SLV 3	0.89	No
ini.	2	-1509	80410	121694	SLV 6	1.51	Si
fin.	2	1395	-64062	121694	SLV 6	1.9	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-88517	3989			1456	548	SLV 16	0.14	No
fin.	2	0	152728	6473			1456	548	SLV 16	0.08	No
ini.	2	0	101161	-4683			1456	548	SLV 3	0.12	No
fin.	2	0	-136356	-4392			1456	548	SLV 3	0.12	No
ini.	2	0	-46703	2345			1456	548	SLV 11	0.23	No
fin.	2	0	67102	4330			1456	548	SLV 11	0.13	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-67455	2797			1456	548	SLV 13	0.2	No
fin.	2	0	139396	5050			1456	548	SLV 13	0.11	No
ini.	2	0	101161	-4683			1456	548	SLV 4	0.12	No
fin.	2	0	-136356	-4392			1456	548	SLV 4	0.12	No
ini.	2	0	122224	-5875			1456	548	SLV 1	0.09	No
fin.	2	0	-149688	-5815			1456	548	SLV 1	0.09	No
ini.	2	0	-46703	2345			1456	548	SLV 12	0.23	No
fin.	2	0	67102	4330			1456	548	SLV 12	0.13	No
ini.	2	0	-88517	3989			1456	548	SLV 15	0.14	No
fin.	2	0	152728	6473			1456	548	SLV 15	0.08	No
ini.	2	0	-67455	2797			1456	548	SLV 14	0.2	No
fin.	2	0	139396	5050			1456	548	SLV 14	0.11	No
ini.	2	0	122224	-5875			1456	548	SLV 2	0.09	No
fin.	2	0	-149688	-5815			1456	548	SLV 2	0.09	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.797	SLV 15	No
V_SLV	0.085	SLV 15	No
PF_SLU	3.55	SLU 73	Si
V_SLU	0.26	SLU 73	No

Trave di accoppiamento 140

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	1105	1187	82	-741.3	-335.9	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-531	-15059	89792	SLU 56	5.96	Si
fin.	3	112	562	89792	SLU 56	159.74	Si
ini.	3	-496	-14730	89792	SLU 29	6.1	Si
fin.	3	219	3488	89792	SLU 29	25.74	Si
ini.	3	-619	-16880	89792	SLU 77	5.32	Si
fin.	3	106	859	89792	SLU 77	104.5	Si
ini.	3	-634	-17213	89792	SLU 79	5.22	Si
fin.	3	116	1316	89792	SLU 79	68.21	Si
ini.	3	-579	-16054	89792	SLU 37	5.59	Si
fin.	3	159	2481	89792	SLU 37	36.2	Si
ini.	3	-536	-15556	89792	SLU 69	5.77	Si
fin.	3	166	1867	89792	SLU 69	48.1	Si
ini.	3	-547	-15391	89792	SLU 58	5.83	Si
fin.	3	122	1019	89792	SLU 58	88.1	Si
ini.	3	-564	-15721	89792	SLU 35	5.71	Si
fin.	3	149	2024	89792	SLU 35	44.37	Si
ini.	3	-551	-15889	89792	SLU 71	5.65	Si
fin.	3	176	2324	89792	SLU 71	38.64	Si
ini.	3	-481	-14397	89792	SLU 27	6.24	Si
fin.	3	209	3031	89792	SLU 27	29.62	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-14354	1823			806	303	SLU 80	0.17	No
fin.	3	0	-2091	-933			806	303	SLU 80	0.33	No
ini.	3	0	-14298	1862			806	303	SLU 83	0.16	No
fin.	3	0	-2482	-1025			806	303	SLU 83	0.3	No
ini.	3	0	-17213	2010			806	303	SLU 79	0.15	No
fin.	3	0	1316	-825			806	303	SLU 79	0.37	No
ini.	3	0	-15721	1819			806	303	SLU 35	0.17	No
fin.	3	0	2024	-681			806	303	SLU 35	0.45	No
ini.	3	0	-16880	2023			806	303	SLU 77	0.15	No
fin.	3	0	859	-873			806	303	SLU 77	0.35	No
ini.	3	0	-15556	1838			806	303	SLU 69	0.16	No
fin.	3	0	1867	-749			806	303	SLU 69	0.4	No
ini.	3	0	-15059	1798			806	303	SLU 56	0.17	No
fin.	3	0	562	-795			806	303	SLU 56	0.38	No
ini.	3	0	-15889	1825			806	303	SLU 71	0.17	No
fin.	3	0	2324	-701			806	303	SLU 71	0.43	No
ini.	3	0	-14021	1837			806	303	SLU 78	0.17	No
fin.	3	0	-2548	-981			806	303	SLU 78	0.31	No
ini.	3	0	-16054	1805			806	303	SLU 37	0.17	No
fin.	3	0	2481	-633			806	303	SLU 37	0.48	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3201	-80950	107694	SLV 15	1.33	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	742	63322	107694	SLV 15	1.7	Si
ini.	2	1159	26695	107694	SLV 5	4.03	Si
fin.	2	-970	-79105	107694	SLV 5	1.36	Si
ini.	2	-3201	-80950	107694	SLV 16	1.33	Si
fin.	2	742	63322	107694	SLV 16	1.7	Si
ini.	2	-2786	-73495	107694	SLV 14	1.47	Si
fin.	2	395	26900	107694	SLV 14	4	Si
ini.	2	-2786	-73495	107694	SLV 13	1.47	Si
fin.	2	395	26900	107694	SLV 13	4	Si
ini.	2	-1821	-40381	107694	SLV 11	2.67	Si
fin.	2	631	71615	107694	SLV 11	1.5	Si
ini.	2	2539	67264	107694	SLV 1	1.6	Si
fin.	2	-1082	-70811	107694	SLV 1	1.52	Si
ini.	2	2539	67264	107694	SLV 2	1.6	Si
fin.	2	-1082	-70811	107694	SLV 2	1.52	Si
ini.	2	1159	26695	107694	SLV 6	4.03	Si
fin.	2	-970	-79105	107694	SLV 6	1.36	Si
ini.	2	-1821	-40381	107694	SLV 12	2.67	Si
fin.	2	631	71615	107694	SLV 12	1.5	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	59809	-1541			1208	455	SLV 4	0.3	No
fin.	2	0	-34389	-3169			1208	455	SLV 4	0.14	No
ini.	2	0	59809	-1541			1208	455	SLV 3	0.3	No
fin.	2	0	-34389	-3169			1208	455	SLV 3	0.14	No
ini.	2	0	-73495	3656			1208	455	SLV 13	0.12	No
fin.	2	0	26900	1600			1208	455	SLV 13	0.28	No
ini.	2	0	67264	-2254			1208	455	SLV 1	0.2	No
fin.	2	0	-70811	-3577			1208	455	SLV 1	0.13	No
ini.	2	0	-40381	3133			1208	455	SLV 11	0.15	No
fin.	2	0	71615	673			1208	455	SLV 11	0.68	No
ini.	2	0	-73495	3656			1208	455	SLV 14	0.12	No
fin.	2	0	26900	1600			1208	455	SLV 14	0.28	No
ini.	2	0	-40381	3133			1208	455	SLV 12	0.15	No
fin.	2	0	71615	673			1208	455	SLV 12	0.68	No
ini.	2	0	-80950	4369			1208	455	SLV 15	0.1	No
fin.	2	0	63322	2008			1208	455	SLV 15	0.23	No
ini.	2	0	-80950	4369			1208	455	SLV 16	0.1	No
fin.	2	0	63322	2008			1208	455	SLV 16	0.23	No
ini.	2	0	67264	-2254			1208	455	SLV 2	0.2	No
fin.	2	0	-70811	-3577			1208	455	SLV 2	0.13	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.33	SLV 15	Si
V_SLV	0.104	SLV 15	No
PF_SLU	5.217	SLU 79	Si
V_SLU	0.15	SLU 77	No

Trave di accoppiamento 141

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	835	1035	200	-600.8	-335.9	835	1035	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-845	61860	296292	SLU 77	4.79	Si
fin.	3	-561	53229	296292	SLU 77	5.57	Si
ini.	3	-971	57315	296292	SLU 78	5.17	Si
fin.	3	-704	46026	296292	SLU 78	6.44	Si
ini.	3	-921	59415	296292	SLU 74	4.99	Si
fin.	3	-654	47103	296292	SLU 74	6.29	Si
ini.	3	-825	60874	296292	SLU 79	4.87	Si
fin.	3	-540	53072	296292	SLU 79	5.58	Si
ini.	3	-736	56282	296292	SLU 41	5.26	Si
fin.	3	-475	44109	296292	SLU 41	6.72	Si
ini.	3	-951	56328	296292	SLU 80	5.26	Si
fin.	3	-683	45869	296292	SLU 80	6.46	Si
ini.	3	-927	62783	296292	SLU 83	4.72	Si
fin.	3	-638	49123	296292	SLU 83	6.03	Si
ini.	3	-1003	60338	296292	SLU 81	4.91	Si
fin.	3	-730	42998	296292	SLU 81	6.89	Si
ini.	3	-1054	58237	296292	SLU 84	5.09	Si
fin.	3	-781	41920	296292	SLU 84	7.07	Si
ini.	3	-1129	55793	296292	SLU 82	5.31	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-874	35794	296292	SLU 82	8.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	59415	-985			2157	812	SLU 74	0.82	No
fin.	3	0	47103	306			2157	812	SLU 74	2.65	Si
ini.	3	0	49292	-966			2157	812	SLU 40	0.84	No
fin.	3	0	30781	-31			2157	812	SLU 40	25.8	Si
ini.	3	0	62783	-1059			2157	812	SLU 83	0.77	No
fin.	3	0	49123	235			2157	812	SLU 83	3.45	Si
ini.	3	0	55793	-1072			2157	812	SLU 82	0.76	No
fin.	3	0	35794	69			2157	812	SLU 82	11.78	Si
ini.	3	0	58237	-1050			2157	812	SLU 84	0.77	No
fin.	3	0	41920	150			2157	812	SLU 84	5.4	Si
ini.	3	0	54870	-976			2157	812	SLU 75	0.83	No
fin.	3	0	39900	221			2157	812	SLU 75	3.67	Si
ini.	3	0	53837	-974			2157	812	SLU 39	0.83	No
fin.	3	0	37984	54			2157	812	SLU 39	15.11	Si
ini.	3	0	61860	-963			2157	812	SLU 77	0.84	No
fin.	3	0	53229	388			2157	812	SLU 77	2.09	Si
ini.	3	0	48408	-967			2157	812	SLU 73	0.84	No
fin.	3	0	28816	74			2157	812	SLU 73	11.01	Si
ini.	3	0	60338	-1080			2157	812	SLU 81	0.75	No
fin.	3	0	42998	154			2157	812	SLU 81	5.27	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2347	190527	314194	SLV 4	1.65	Si
fin.	2	-1339	-50682	314194	SLV 4	6.2	Si
ini.	2	-2347	190527	314194	SLV 3	1.65	Si
fin.	2	-1339	-50682	314194	SLV 3	6.2	Si
ini.	2	1136	-85830	314194	SLV 15	3.66	Si
fin.	2	889	126528	314194	SLV 15	2.48	Si
ini.	2	-880	131152	314194	SLV 7	2.4	Si
fin.	2	205	35645	314194	SLV 7	8.81	Si
ini.	2	923	-117844	314194	SLV 13	2.67	Si
fin.	2	235	105697	314194	SLV 13	2.97	Si
ini.	2	-2560	158513	314194	SLV 1	1.98	Si
fin.	2	-1994	-71514	314194	SLV 1	4.39	Si
ini.	2	-880	131152	314194	SLV 8	2.4	Si
fin.	2	205	35645	314194	SLV 8	8.81	Si
ini.	2	-2560	158513	314194	SLV 2	1.98	Si
fin.	2	-1994	-71514	314194	SLV 2	4.39	Si
ini.	2	923	-117844	314194	SLV 14	2.67	Si
fin.	2	235	105697	314194	SLV 14	2.97	Si
ini.	2	1136	-85830	314194	SLV 16	3.66	Si
fin.	2	889	126528	314194	SLV 16	2.48	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	190527	-7140			3235	1217	SLV 3	0.17	No
fin.	2	0	-50682	-6777			3235	1217	SLV 3	0.18	No
ini.	2	0	-117844	5914			3235	1217	SLV 13	0.21	No
fin.	2	0	105697	7263			3235	1217	SLV 13	0.17	No
ini.	2	0	-85830	4228			3235	1217	SLV 16	0.29	No
fin.	2	0	126528	5892			3235	1217	SLV 16	0.21	No
ini.	2	0	-85830	4228			3235	1217	SLV 15	0.29	No
fin.	2	0	126528	5892			3235	1217	SLV 15	0.21	No
ini.	2	0	131152	-5130			3235	1217	SLV 7	0.24	No
fin.	2	0	35645	-3942			3235	1217	SLV 7	0.31	No
ini.	2	0	131152	-5130			3235	1217	SLV 8	0.24	No
fin.	2	0	35645	-3942			3235	1217	SLV 8	0.31	No
ini.	2	0	-117844	5914			3235	1217	SLV 14	0.21	No
fin.	2	0	105697	7263			3235	1217	SLV 14	0.17	No
ini.	2	0	158513	-5454			3235	1217	SLV 1	0.22	No
fin.	2	0	-71514	-5406			3235	1217	SLV 1	0.23	No
ini.	2	0	158513	-5454			3235	1217	SLV 2	0.22	No
fin.	2	0	-71514	-5406			3235	1217	SLV 2	0.23	No
ini.	2	0	190527	-7140			3235	1217	SLV 4	0.17	No
fin.	2	0	-50682	-6777			3235	1217	SLV 4	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.649	SLV 3	Si
V_SLV	0.168	SLV 13	No
PF_SLU	4.719	SLU 83	Si
V_SLU	0.751	SLU 81	No

Trave di accoppiamento 142

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	1115	1187	72	-600.8	-335.9	1115	1187	72	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-315	-142	72292	SLU 71	508.8	Si
fin.	3	-445	-10082	72292	SLU 71	7.17	Si
ini.	3	-350	1224	72292	SLU 80	59.06	Si
fin.	3	-498	-9963	72292	SLU 80	7.26	Si
ini.	3	-367	1976	72292	SLU 83	36.58	Si
fin.	3	-515	-10517	72292	SLU 83	6.87	Si
ini.	3	-330	1074	72292	SLU 35	67.31	Si
fin.	3	-484	-10786	72292	SLU 35	6.7	Si
ini.	3	-287	965	72292	SLU 56	74.93	Si
fin.	3	-429	-10169	72292	SLU 56	7.11	Si
ini.	3	-351	718	72292	SLU 37	100.72	Si
fin.	3	-502	-10851	72292	SLU 37	6.66	Si
ini.	3	-375	868	72292	SLU 79	83.27	Si
fin.	3	-534	-11647	72292	SLU 79	6.21	Si
ini.	3	-307	609	72292	SLU 58	118.79	Si
fin.	3	-446	-10233	72292	SLU 58	7.06	Si
ini.	3	-294	214	72292	SLU 69	337.54	Si
fin.	3	-427	-10017	72292	SLU 69	7.22	Si
ini.	3	-354	1224	72292	SLU 77	59.04	Si
fin.	3	-517	-11582	72292	SLU 77	6.24	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1900	194			776	292	SLU 74	1.5	Si
fin.	3	0	-9781	-1348			776	292	SLU 74	0.22	No
ini.	3	0	1224	166			776	292	SLU 77	1.76	Si
fin.	3	0	-11582	-1416			776	292	SLU 77	0.21	No
ini.	3	0	1224	174			776	292	SLU 80	1.68	Si
fin.	3	0	-9963	-1293			776	292	SLU 80	0.23	No
ini.	3	0	2332	191			776	292	SLU 84	1.53	Si
fin.	3	0	-8833	-1304			776	292	SLU 84	0.22	No
ini.	3	0	965	167			776	292	SLU 56	1.75	Si
fin.	3	0	-10169	-1256			776	292	SLU 56	0.23	No
ini.	3	0	2255	208			776	292	SLU 75	1.41	Si
fin.	3	0	-8097	-1265			776	292	SLU 75	0.23	No
ini.	3	0	868	160			776	292	SLU 79	1.83	Si
fin.	3	0	-11647	-1376			776	292	SLU 79	0.21	No
ini.	3	0	1976	177			776	292	SLU 83	1.65	Si
fin.	3	0	-10517	-1387			776	292	SLU 83	0.21	No
ini.	3	0	1580	180			776	292	SLU 78	1.63	Si
fin.	3	0	-9899	-1333			776	292	SLU 78	0.22	No
ini.	3	0	2651	206			776	292	SLU 81	1.42	Si
fin.	3	0	-8715	-1319			776	292	SLU 81	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	437	34222	90194	SLV 7	2.64	Si
fin.	2	-260	-17255	90194	SLV 7	5.23	Si
ini.	2	2230	60992	90194	SLV 4	1.48	Si
fin.	2	1598	745	90194	SLV 4	121.11	Si
ini.	2	2293	51029	90194	SLV 1	1.77	Si
fin.	2	1966	9906	90194	SLV 1	9.11	Si
ini.	2	-2680	-48707	90194	SLV 15	1.85	Si
fin.	2	-2484	-20147	90194	SLV 15	4.48	Si
ini.	2	437	34222	90194	SLV 8	2.64	Si
fin.	2	-260	-17255	90194	SLV 8	5.23	Si
ini.	2	-2616	-58671	90194	SLV 13	1.54	Si
fin.	2	-2116	-10986	90194	SLV 13	8.21	Si
ini.	2	2293	51029	90194	SLV 2	1.77	Si
fin.	2	1966	9906	90194	SLV 2	9.11	Si
ini.	2	2230	60992	90194	SLV 3	1.48	Si
fin.	2	1598	745	90194	SLV 3	121.11	Si
ini.	2	-2616	-58671	90194	SLV 14	1.54	Si
fin.	2	-2116	-10986	90194	SLV 14	8.21	Si
ini.	2	-2680	-48707	90194	SLV 16	1.85	Si
fin.	2	-2484	-20147	90194	SLV 16	4.48	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	60992	-1343			1165	438	SLV 3	0.33	No
fin.	2	0	745	-1964			1165	438	SLV 3	0.22	No
ini.	2	0	60992	-1343			1165	438	SLV 4	0.33	No
fin.	2	0	745	-1964			1165	438	SLV 4	0.22	No
ini.	2	0	34222	-1268			1165	438	SLV 8	0.35	No
fin.	2	0	-17255	-2098			1165	438	SLV 8	0.21	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	1312	-550			1165	438	SLV 11	0.8	No
fin.	2	0	-23522	-1601			1165	438	SLV 11	0.27	No
ini.	2	0	34222	-1268			1165	438	SLV 7	0.35	No
fin.	2	0	-17255	-2098			1165	438	SLV 7	0.21	No
ini.	2	0	-58671	1701			1165	438	SLV 13	0.26	No
fin.	2	0	-10986	306			1165	438	SLV 13	1.43	Si
ini.	2	0	-31900	1625			1165	438	SLV 10	0.27	No
fin.	2	0	7014	441			1165	438	SLV 10	0.99	No
ini.	2	0	-31900	1625			1165	438	SLV 9	0.27	No
fin.	2	0	7014	441			1165	438	SLV 9	0.99	No
ini.	2	0	1312	-550			1165	438	SLV 12	0.8	No
fin.	2	0	-23522	-1601			1165	438	SLV 12	0.27	No
ini.	2	0	-58671	1701			1165	438	SLV 14	0.26	No
fin.	2	0	-10986	306			1165	438	SLV 14	1.43	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.479	SLV 3	Si
V_SLV	0.209	SLV 7	No
PF_SLU	6.207	SLU 79	Si
V_SLU	0.206	SLU 77	No

Trave di accoppiamento 143

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	835	925	90	-318.3	-335.9	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-4	-34350	103792	SLU 84	3.02	Si
fin.	3	-1578	46798	103792	SLU 84	2.22	Si
ini.	3	-7	-30140	103792	SLU 83	3.44	Si
fin.	3	-1410	43707	103792	SLU 83	2.37	Si
ini.	3	8	-33626	103792	SLU 75	3.09	Si
fin.	3	-1532	45869	103792	SLU 75	2.26	Si
ini.	3	5	-34759	103792	SLU 82	2.99	Si
fin.	3	-1581	46809	103792	SLU 82	2.22	Si
ini.	3	-19	-35430	103792	SLU 76	2.93	Si
fin.	3	-1638	46992	103792	SLU 76	2.21	Si
ini.	3	5	-29415	103792	SLU 74	3.53	Si
fin.	3	-1365	42778	103792	SLU 74	2.43	Si
ini.	3	-10	-35839	103792	SLU 73	2.9	Si
fin.	3	-1642	47004	103792	SLU 73	2.21	Si
ini.	3	-30	-32215	103792	SLU 80	3.22	Si
fin.	3	-1523	44921	103792	SLU 80	2.31	Si
ini.	3	2	-30548	103792	SLU 81	3.4	Si
fin.	3	-1414	43718	103792	SLU 81	2.37	Si
ini.	3	-2	-33217	103792	SLU 78	3.12	Si
fin.	3	-1529	45858	103792	SLU 78	2.26	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-30140	895			970	365	SLU 83	0.41	No
fin.	3	0	43707	2413			970	365	SLU 83	0.15	No
ini.	3	0	-33217	974			970	365	SLU 78	0.38	No
fin.	3	0	45858	2571			970	365	SLU 78	0.14	No
ini.	3	0	-34759	1115			970	365	SLU 82	0.33	No
fin.	3	0	46809	2521			970	365	SLU 82	0.14	No
ini.	3	0	-29415	847			970	365	SLU 74	0.43	No
fin.	3	0	42778	2398			970	365	SLU 74	0.15	No
ini.	3	0	-34350	1069			970	365	SLU 84	0.34	No
fin.	3	0	46798	2554			970	365	SLU 84	0.14	No
ini.	3	0	-35430	1116			970	365	SLU 76	0.33	No
fin.	3	0	46992	2570			970	365	SLU 76	0.14	No
ini.	3	0	-35839	1162			970	365	SLU 73	0.31	No
fin.	3	0	47004	2537			970	365	SLU 73	0.14	No
ini.	3	0	-32215	953			970	365	SLU 80	0.38	No
fin.	3	0	44921	2508			970	365	SLU 80	0.15	No
ini.	3	0	-29007	800			970	365	SLU 77	0.46	No
fin.	3	0	42767	2430			970	365	SLU 77	0.15	No
ini.	3	0	-33626	1020			970	365	SLU 75	0.36	No
fin.	3	0	45869	2538			970	365	SLU 75	0.14	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	708	-71276	121694	SLV 9	1.71	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2532	68878	121694	SLV 9	1.77	Si
ini.	2	1539	-115327	121694	SLV 16	1.06	Si
fin.	2	-3215	98730	121694	SLV 16	1.23	Si
ini.	2	1539	-115327	121694	SLV 15	1.06	Si
fin.	2	-3215	98730	121694	SLV 15	1.23	Si
ini.	2	-1772	89761	121694	SLV 3	1.36	Si
fin.	2	1784	-51241	121694	SLV 3	2.37	Si
ini.	2	-1772	89761	121694	SLV 4	1.36	Si
fin.	2	1784	-51241	121694	SLV 4	2.37	Si
ini.	2	-1621	76963	121694	SLV 1	1.58	Si
fin.	2	1292	-40793	121694	SLV 1	2.98	Si
ini.	2	1690	-128126	121694	SLV 14	0.95	No
fin.	2	-3707	109178	121694	SLV 14	1.11	Si
ini.	2	-1621	76963	121694	SLV 2	1.58	Si
fin.	2	1292	-40793	121694	SLV 2	2.98	Si
ini.	2	1690	-128126	121694	SLV 13	0.95	No
fin.	2	-3707	109178	121694	SLV 13	1.11	Si
ini.	2	708	-71276	121694	SLV 10	1.71	Si
fin.	2	-2532	68878	121694	SLV 10	1.77	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-65576	2224			1456	548	SLD 13	0.25	No
fin.	2	0	63147	3442			1456	548	SLD 13	0.16	No
ini.	2	0	-115327	4544			1456	548	SLV 16	0.12	No
fin.	2	0	98730	5378			1456	548	SLV 16	0.1	No
ini.	2	0	-128126	4450			1456	548	SLV 13	0.12	No
fin.	2	0	109178	5877			1456	548	SLV 13	0.09	No
ini.	2	0	-71276	1584			1456	548	SLV 9	0.35	No
fin.	2	0	68878	3662			1456	548	SLV 9	0.15	No
ini.	2	0	76963	-3427			1456	548	SLV 1	0.16	No
fin.	2	0	-40793	-2119			1456	548	SLV 1	0.26	No
ini.	2	0	-128126	4450			1456	548	SLV 14	0.12	No
fin.	2	0	109178	5877			1456	548	SLV 14	0.09	No
ini.	2	0	-71276	1584			1456	548	SLV 10	0.35	No
fin.	2	0	68878	3662			1456	548	SLV 10	0.15	No
ini.	2	0	-115327	4544			1456	548	SLV 15	0.12	No
fin.	2	0	98730	5378			1456	548	SLV 15	0.1	No
ini.	2	0	76963	-3427			1456	548	SLV 2	0.16	No
fin.	2	0	-40793	-2119			1456	548	SLV 2	0.26	No
ini.	2	0	-65576	2224			1456	548	SLD 14	0.25	No
fin.	2	0	63147	3442			1456	548	SLD 14	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.95	SLV 13	No
V_SLV	0.093	SLV 13	No
PF_SLU	2.208	SLU 73	Si
V_SLU	0.142	SLU 78	No

Trave di accoppiamento 144

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	1105	1187	82	-318.3	-335.9	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1176	-40955	89792	SLU 76	2.19	Si
fin.	3	103	12874	89792	SLU 76	6.97	Si
ini.	3	-1107	-37826	89792	SLU 83	2.37	Si
fin.	3	12	9280	89792	SLU 83	9.68	Si
ini.	3	-1215	-40811	89792	SLU 73	2.2	Si
fin.	3	37	13389	89792	SLU 73	6.71	Si
ini.	3	-1081	-39068	89792	SLU 80	2.3	Si
fin.	3	139	10707	89792	SLU 80	8.39	Si
ini.	3	-1192	-40872	89792	SLU 84	2.2	Si
fin.	3	57	11759	89792	SLU 84	7.64	Si
ini.	3	-1089	-40014	89792	SLU 78	2.24	Si
fin.	3	160	11162	89792	SLU 78	8.04	Si
ini.	3	-1146	-37682	89792	SLU 81	2.38	Si
fin.	3	-54	9795	89792	SLU 81	9.17	Si
ini.	3	-1128	-39870	89792	SLU 75	2.25	Si
fin.	3	94	11677	89792	SLU 75	7.69	Si
ini.	3	-1231	-40728	89792	SLU 82	2.2	Si
fin.	3	-10	12273	89792	SLU 82	7.32	Si
ini.	3	-1005	-36968	89792	SLU 77	2.43	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	115	8684	89792	SLU 77	10.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-37826	2267			806	303	SLU 83	0.13	No
fin.	3	0	9280	-356			806	303	SLU 83	0.85	No
ini.	3	0	-39870	2328			806	303	SLU 75	0.13	No
fin.	3	0	11677	-211			806	303	SLU 75	1.44	Si
ini.	3	0	-40872	2380			806	303	SLU 84	0.13	No
fin.	3	0	11759	-221			806	303	SLU 84	1.37	Si
ini.	3	0	-40811	2321			806	303	SLU 73	0.13	No
fin.	3	0	13389	-94			806	303	SLU 73	3.21	Si
ini.	3	0	-39068	2295			806	303	SLU 80	0.13	No
fin.	3	0	10707	-222			806	303	SLU 80	1.36	Si
ini.	3	0	-40014	2353			806	303	SLU 78	0.13	No
fin.	3	0	11162	-230			806	303	SLU 78	1.32	Si
ini.	3	0	-37682	2242			806	303	SLU 81	0.14	No
fin.	3	0	9795	-337			806	303	SLU 81	0.9	No
ini.	3	0	-36968	2240			806	303	SLU 77	0.14	No
fin.	3	0	8684	-365			806	303	SLU 77	0.83	No
ini.	3	0	-40955	2346			806	303	SLU 76	0.13	No
fin.	3	0	12874	-114			806	303	SLU 76	2.67	Si
ini.	3	0	-40728	2355			806	303	SLU 82	0.13	No
fin.	3	0	12273	-202			806	303	SLU 82	1.5	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1186	-52956	107694	SLD 13	2.03	Si
fin.	2	667	32337	107694	SLD 13	3.33	Si
ini.	2	-1595	-81531	107694	SLV 16	1.32	Si
fin.	2	1364	58369	107694	SLV 16	1.85	Si
ini.	2	-1833	-91767	107694	SLV 13	1.17	Si
fin.	2	1577	67724	107694	SLV 13	1.59	Si
ini.	2	-1186	-52956	107694	SLD 14	2.03	Si
fin.	2	667	32337	107694	SLD 14	3.33	Si
ini.	2	-1408	-59951	107694	SLV 10	1.8	Si
fin.	2	788	38783	107694	SLV 10	2.78	Si
ini.	2	413	43490	107694	SLV 4	2.48	Si
fin.	2	-1603	-55499	107694	SLV 4	1.94	Si
ini.	2	-1595	-81531	107694	SLV 15	1.32	Si
fin.	2	1364	58369	107694	SLV 15	1.85	Si
ini.	2	-1833	-91767	107694	SLV 14	1.17	Si
fin.	2	1577	67724	107694	SLV 14	1.59	Si
ini.	2	413	43490	107694	SLV 3	2.48	Si
fin.	2	-1603	-55499	107694	SLV 3	1.94	Si
ini.	2	-1408	-59951	107694	SLV 9	1.8	Si
fin.	2	788	38783	107694	SLV 9	2.78	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-91767	4032			1208	455	SLV 13	0.11	No
fin.	2	0	67724	2546			1208	455	SLV 13	0.18	No
ini.	2	0	-91767	4032			1208	455	SLV 14	0.11	No
fin.	2	0	67724	2546			1208	455	SLV 14	0.18	No
ini.	2	0	-59951	2813			1208	455	SLV 10	0.16	No
fin.	2	0	38783	1444			1208	455	SLV 10	0.31	No
ini.	2	0	-81531	3645			1208	455	SLV 15	0.12	No
fin.	2	0	58369	1995			1208	455	SLV 15	0.23	No
ini.	2	0	-52956	2552			1208	455	SLD 14	0.18	No
fin.	2	0	32337	956			1208	455	SLD 14	0.48	No
ini.	2	0	-52956	2552			1208	455	SLD 13	0.18	No
fin.	2	0	32337	956			1208	455	SLD 13	0.48	No
ini.	2	0	43490	-1124			1208	455	SLV 4	0.4	No
fin.	2	0	-55499	-2993			1208	455	SLV 4	0.15	No
ini.	2	0	-59951	2813			1208	455	SLV 9	0.16	No
fin.	2	0	38783	1444			1208	455	SLV 9	0.31	No
ini.	2	0	43490	-1124			1208	455	SLV 3	0.4	No
fin.	2	0	-55499	-2993			1208	455	SLV 3	0.15	No
ini.	2	0	-81531	3645			1208	455	SLV 16	0.12	No
fin.	2	0	58369	1995			1208	455	SLV 16	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.174	SLV 13	Si
V_SLV	0.113	SLV 13	No
PF_SLU	2.192	SLU 76	Si
V_SLU	0.127	SLU 84	No

Trave di accoppiamento 145

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	835	925	90	-296.3	595.1	835	925	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	29	-2750	103792	SLU 52	37.74	Si
fin.	3	-365	12591	103792	SLU 52	8.24	Si
ini.	3	24	-2670	103792	SLU 60	38.87	Si
fin.	3	-392	13303	103792	SLU 60	7.8	Si
ini.	3	56	-3052	103792	SLU 40	34.01	Si
fin.	3	-319	11449	103792	SLU 40	9.07	Si
ini.	3	52	-2975	103792	SLU 73	34.89	Si
fin.	3	-349	12518	103792	SLU 73	8.29	Si
ini.	3	30	-3010	103792	SLU 61	34.48	Si
fin.	3	-399	13636	103792	SLU 61	7.61	Si
ini.	3	28	-2488	103792	SLU 18	41.72	Si
fin.	3	-327	11189	103792	SLU 18	9.28	Si
ini.	3	53	-3235	103792	SLU 82	32.08	Si
fin.	3	-383	13564	103792	SLU 82	7.65	Si
ini.	3	47	-2895	103792	SLU 81	35.85	Si
fin.	3	-376	13231	103792	SLU 81	7.84	Si
ini.	3	33	-2827	103792	SLU 19	36.71	Si
fin.	3	-334	11522	103792	SLU 19	9.01	Si
ini.	3	51	-2713	103792	SLU 39	38.26	Si
fin.	3	-312	11117	103792	SLU 39	9.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2152	-673			970	365	SLU 71	0.54	No
fin.	3	0	-2649	304			970	365	SLU 71	1.2	Si
ini.	3	0	2377	-661			970	365	SLU 50	0.55	No
fin.	3	0	-2577	286			970	365	SLU 50	1.28	Si
ini.	3	0	-2895	-227			970	365	SLU 81	1.61	Si
fin.	3	0	13231	800			970	365	SLU 81	0.46	No
ini.	3	0	-1274	-352			970	365	SLU 64	1.04	Si
fin.	3	0	9008	659			970	365	SLU 64	0.55	No
ini.	3	0	-1840	-300			970	365	SLU 65	1.22	Si
fin.	3	0	9562	660			970	365	SLU 65	0.55	No
ini.	3	0	-2975	-212			970	365	SLU 73	1.72	Si
fin.	3	0	12518	759			970	365	SLU 73	0.48	No
ini.	3	0	-2670	-215			970	365	SLU 60	1.7	Si
fin.	3	0	13303	782			970	365	SLU 60	0.47	No
ini.	3	0	-3010	-183			970	365	SLU 61	1.99	Si
fin.	3	0	13636	783			970	365	SLU 61	0.47	No
ini.	3	0	-3235	-195			970	365	SLU 82	1.87	Si
fin.	3	0	13564	801			970	365	SLU 82	0.46	No
ini.	3	0	-2750	-200			970	365	SLU 52	1.83	Si
fin.	3	0	12591	741			970	365	SLU 52	0.49	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2527	-89266	121694	SLV 13	1.36	Si
fin.	2	-882	104795	121694	SLV 13	1.16	Si
ini.	2	3130	-105161	121694	SLV 15	1.16	Si
fin.	2	-942	122832	121694	SLV 15	0.99	No
ini.	2	1870	-56533	121694	SLV 11	2.15	Si
fin.	2	-528	69658	121694	SLV 11	1.75	Si
ini.	2	2527	-89266	121694	SLV 14	1.36	Si
fin.	2	-882	104795	121694	SLV 14	1.16	Si
ini.	2	-2479	86757	121694	SLV 3	1.4	Si
fin.	2	444	-89216	121694	SLV 3	1.36	Si
ini.	2	-2479	86757	121694	SLV 4	1.4	Si
fin.	2	444	-89216	121694	SLV 4	1.36	Si
ini.	2	3130	-105161	121694	SLV 16	1.16	Si
fin.	2	-942	122832	121694	SLV 16	0.99	No
ini.	2	-3082	102651	121694	SLV 1	1.19	Si
fin.	2	504	-107253	121694	SLV 1	1.13	Si
ini.	2	-3082	102651	121694	SLV 2	1.19	Si
fin.	2	504	-107253	121694	SLV 2	1.13	Si
ini.	2	1870	-56533	121694	SLV 12	2.15	Si
fin.	2	-528	69658	121694	SLV 12	1.75	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	102651	-4204			1456	548	SLV 1	0.13	No
fin.	2	0	-107253	-3639			1456	548	SLV 1	0.15	No
ini.	2	0	-105161	3718			1456	548	SLV 15	0.15	No
fin.	2	0	122832	4702			1456	548	SLV 15	0.12	No
ini.	2	0	86757	-4246			1456	548	SLV 4	0.13	No
fin.	2	0	-89216	-3271			1456	548	SLV 4	0.17	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-56533	881			1456	548	SLV 12	0.62	No
fin.	2	0	69658	2342			1456	548	SLV 12	0.23	No
ini.	2	0	-56533	881			1456	548	SLV 11	0.62	No
fin.	2	0	69658	2342			1456	548	SLV 11	0.23	No
ini.	2	0	-105161	3718			1456	548	SLV 16	0.15	No
fin.	2	0	122832	4702			1456	548	SLV 16	0.12	No
ini.	2	0	86757	-4246			1456	548	SLV 3	0.13	No
fin.	2	0	-89216	-3271			1456	548	SLV 3	0.17	No
ini.	2	0	102651	-4204			1456	548	SLV 2	0.13	No
fin.	2	0	-107253	-3639			1456	548	SLV 2	0.15	No
ini.	2	0	-89266	3760			1456	548	SLV 13	0.15	No
fin.	2	0	104795	4333			1456	548	SLV 13	0.13	No
ini.	2	0	-89266	3760			1456	548	SLV 14	0.15	No
fin.	2	0	104795	4333			1456	548	SLV 14	0.13	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.991	SLV 15	No
V_SLV	0.117	SLV 15	No
PF_SLU	7.612	SLU 61	Si
V_SLU	0.456	SLU 82	No

Trave di accoppiamento 146

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	1105	1187	82	-296.3	595.1	1105	1187	82	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-319	-18337	89792	SLU 73	4.9	Si
fin.	3	275	7489	89792	SLU 73	11.99	Si
ini.	3	-353	-17498	89792	SLU 60	5.13	Si
fin.	3	201	7023	89792	SLU 60	12.78	Si
ini.	3	-363	-19392	89792	SLU 82	4.63	Si
fin.	3	253	7522	89792	SLU 82	11.94	Si
ini.	3	-366	-17754	89792	SLU 61	5.06	Si
fin.	3	203	7307	89792	SLU 61	12.29	Si
ini.	3	-116	-17033	89792	SLU 83	5.27	Si
fin.	3	437	6282	89792	SLU 83	14.29	Si
ini.	3	-104	-16924	89792	SLU 75	5.31	Si
fin.	3	449	6641	89792	SLU 75	13.52	Si
ini.	3	-322	-16728	89792	SLU 40	5.37	Si
fin.	3	204	6130	89792	SLU 40	14.65	Si
ini.	3	-321	-16699	89792	SLU 52	5.38	Si
fin.	3	224	7273	89792	SLU 52	12.35	Si
ini.	3	-350	-19136	89792	SLU 81	4.69	Si
fin.	3	252	7239	89792	SLU 81	12.4	Si
ini.	3	-129	-17289	89792	SLU 84	5.19	Si
fin.	3	439	6565	89792	SLU 84	13.68	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-17033	1622			806	303	SLU 83	0.19	No
fin.	3	0	6282	-413			806	303	SLU 83	0.73	No
ini.	3	0	-17754	1589			806	303	SLU 61	0.19	No
fin.	3	0	7307	-343			806	303	SLU 61	0.88	No
ini.	3	0	-19392	1744			806	303	SLU 82	0.17	No
fin.	3	0	7522	-390			806	303	SLU 82	0.78	No
ini.	3	0	-19136	1734			806	303	SLU 81	0.17	No
fin.	3	0	7239	-403			806	303	SLU 81	0.75	No
ini.	3	0	-16235	1542			806	303	SLU 76	0.2	No
fin.	3	0	6531	-368			806	303	SLU 76	0.82	No
ini.	3	0	-18337	1654			806	303	SLU 73	0.18	No
fin.	3	0	7489	-358			806	303	SLU 73	0.85	No
ini.	3	0	-16924	1600			806	303	SLU 75	0.19	No
fin.	3	0	6641	-391			806	303	SLU 75	0.78	No
ini.	3	0	-17498	1579			806	303	SLU 60	0.19	No
fin.	3	0	7023	-357			806	303	SLU 60	0.85	No
ini.	3	0	-16668	1590			806	303	SLU 74	0.19	No
fin.	3	0	6358	-405			806	303	SLU 74	0.75	No
ini.	3	0	-17289	1632			806	303	SLU 84	0.19	No
fin.	3	0	6565	-399			806	303	SLU 84	0.76	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1280	61820	107694	SLV 1	1.74	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1381	-88326	107694	SLV 1	1.22	Si
ini.	2	-938	-52906	107694	SLV 11	2.04	Si
fin.	2	1289	59998	107694	SLV 11	1.79	Si
ini.	2	-1619	-85892	107694	SLV 15	1.25	Si
fin.	2	1825	98524	107694	SLV 15	1.09	Si
ini.	2	1280	61820	107694	SLV 2	1.74	Si
fin.	2	-1381	-88326	107694	SLV 2	1.22	Si
ini.	2	-1619	-85892	107694	SLV 16	1.25	Si
fin.	2	1825	98524	107694	SLV 16	1.09	Si
ini.	2	1059	49482	107694	SLV 3	2.18	Si
fin.	2	-995	-70609	107694	SLV 3	1.53	Si
ini.	2	-1399	-73554	107694	SLV 13	1.46	Si
fin.	2	1438	80806	107694	SLV 13	1.33	Si
ini.	2	-938	-52906	107694	SLV 12	2.04	Si
fin.	2	1289	59998	107694	SLV 12	1.79	Si
ini.	2	1059	49482	107694	SLV 4	2.18	Si
fin.	2	-995	-70609	107694	SLV 4	1.53	Si
ini.	2	-1399	-73554	107694	SLV 14	1.46	Si
fin.	2	1438	80806	107694	SLV 14	1.33	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	49482	-1539			1208	455	SLV 3	0.3	No
fin.	2	0	-70609	-3004			1208	455	SLV 3	0.15	No
ini.	2	0	61820	-2137			1208	455	SLV 2	0.21	No
fin.	2	0	-88326	-3600			1208	455	SLV 2	0.13	No
ini.	2	0	-85892	4370			1208	455	SLV 16	0.1	No
fin.	2	0	98524	3084			1208	455	SLV 16	0.15	No
ini.	2	0	-85892	4370			1208	455	SLV 15	0.1	No
fin.	2	0	98524	3084			1208	455	SLV 15	0.15	No
ini.	2	0	61820	-2137			1208	455	SLV 1	0.21	No
fin.	2	0	-88326	-3600			1208	455	SLV 1	0.13	No
ini.	2	0	49482	-1539			1208	455	SLV 4	0.3	No
fin.	2	0	-70609	-3004			1208	455	SLV 4	0.15	No
ini.	2	0	-52906	3000			1208	455	SLV 12	0.15	No
fin.	2	0	59998	1648			1208	455	SLV 12	0.28	No
ini.	2	0	-52906	3000			1208	455	SLV 11	0.15	No
fin.	2	0	59998	1648			1208	455	SLV 11	0.28	No
ini.	2	0	-73554	3772			1208	455	SLV 14	0.12	No
fin.	2	0	80806	2488			1208	455	SLV 14	0.18	No
ini.	2	0	-73554	3772			1208	455	SLV 13	0.12	No
fin.	2	0	80806	2488			1208	455	SLV 13	0.18	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.093	SLV 15	Si
V_SLV	0.104	SLV 15	No
PF_SLU	4.63	SLU 82	Si
V_SLU	0.174	SLU 82	No

Trave di accoppiamento 147

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2467.8	126.6	1397	1503	106	-2467.8	206.6	1397	1503	106	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	3527	34432	131792	SLU 79	3.83	Si
fin.	3	3540	-17758	131792	SLU 79	7.42	Si
ini.	3	2043	36415	131792	SLU 81	3.62	Si
fin.	3	2047	-29552	131792	SLU 81	4.46	Si
ini.	3	2587	33719	131792	SLU 41	3.91	Si
fin.	3	2595	-23125	131792	SLU 41	5.7	Si
ini.	3	2198	33711	131792	SLU 82	3.91	Si
fin.	3	2202	-24571	131792	SLU 82	5.36	Si
ini.	3	2964	34163	131792	SLU 84	3.86	Si
fin.	3	2973	-20242	131792	SLU 84	6.51	Si
ini.	3	3447	35314	131792	SLU 77	3.73	Si
fin.	3	3460	-19721	131792	SLU 77	6.68	Si
ini.	3	3602	32610	131792	SLU 78	4.04	Si
fin.	3	3615	-14740	131792	SLU 78	8.94	Si
ini.	3	2681	34862	131792	SLU 74	3.78	Si
fin.	3	2689	-24050	131792	SLU 74	5.48	Si
ini.	3	2809	36867	131792	SLU 83	3.57	Si
fin.	3	2818	-25223	131792	SLU 83	5.23	Si
ini.	3	1821	33266	131792	SLU 39	3.96	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	1825	-27455	131792	SLU 39	4.8	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	35314	-470			1143	430	SLU 77	0.91	No
fin.	3	0	-19721	-935			1143	430	SLU 77	0.46	No
ini.	3	0	34163	-465			1143	430	SLU 84	0.93	No
fin.	3	0	-20242	-936			1143	430	SLU 84	0.46	No
ini.	3	0	36415	-610			1143	430	SLU 81	0.71	No
fin.	3	0	-29552	-1091			1143	430	SLU 81	0.39	No
ini.	3	0	36867	-560			1143	430	SLU 83	0.77	No
fin.	3	0	-25223	-1032			1143	430	SLU 83	0.42	No
ini.	3	0	33719	-542			1143	430	SLU 41	0.79	No
fin.	3	0	-23125	-905			1143	430	SLU 41	0.48	No
ini.	3	0	30279	-479			1143	430	SLU 60	0.9	No
fin.	3	0	-24881	-957			1143	430	SLU 60	0.45	No
ini.	3	0	34862	-520			1143	430	SLU 74	0.83	No
fin.	3	0	-24050	-994			1143	430	SLU 74	0.43	No
ini.	3	0	30732	-429			1143	430	SLU 62	1	Si
fin.	3	0	-20551	-898			1143	430	SLU 62	0.48	No
ini.	3	0	33711	-515			1143	430	SLU 82	0.84	No
fin.	3	0	-24571	-994			1143	430	SLU 82	0.43	No
ini.	3	0	33266	-592			1143	430	SLU 39	0.73	No
fin.	3	0	-27455	-963			1143	430	SLU 39	0.45	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	675	-51281	149694	SLV 9	2.92	Si
fin.	2	710	52234	149694	SLV 9	2.87	Si
ini.	2	2413	64578	149694	SLV 4	2.32	Si
fin.	2	2428	-55575	149694	SLV 4	2.69	Si
ini.	2	675	-51281	149694	SLV 10	2.92	Si
fin.	2	710	52234	149694	SLV 10	2.87	Si
ini.	2	2097	93650	149694	SLV 8	1.6	Si
fin.	2	2068	-83746	149694	SLV 8	1.79	Si
ini.	2	1697	51951	149694	SLD 8	2.88	Si
fin.	2	1676	-44757	149694	SLD 8	3.34	Si
ini.	2	1561	79373	149694	SLV 11	1.89	Si
fin.	2	1517	-70940	149694	SLV 11	2.11	Si
ini.	2	2413	64578	149694	SLV 3	2.32	Si
fin.	2	2428	-55575	149694	SLV 3	2.69	Si
ini.	2	1561	79373	149694	SLV 12	1.89	Si
fin.	2	1517	-70940	149694	SLV 12	2.11	Si
ini.	2	2097	93650	149694	SLV 7	1.6	Si
fin.	2	2068	-83746	149694	SLV 7	1.79	Si
ini.	2	1697	51951	149694	SLD 7	2.88	Si
fin.	2	1676	-44757	149694	SLD 7	3.34	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	51951	-1052			1715	645	SLD 8	0.61	No
fin.	2	0	-44757	-1413			1715	645	SLD 8	0.46	No
ini.	2	0	79373	-1733			1715	645	SLV 12	0.37	No
fin.	2	0	-70940	-2030			1715	645	SLV 12	0.32	No
ini.	2	0	64578	-1343			1715	645	SLV 4	0.48	No
fin.	2	0	-55575	-1786			1715	645	SLV 4	0.36	No
ini.	2	0	79373	-1733			1715	645	SLV 11	0.37	No
fin.	2	0	-70940	-2030			1715	645	SLV 11	0.32	No
ini.	2	0	93650	-2072			1715	645	SLV 8	0.31	No
fin.	2	0	-83746	-2421			1715	645	SLV 8	0.27	No
ini.	2	0	51951	-1052			1715	645	SLD 7	0.61	No
fin.	2	0	-44757	-1413			1715	645	SLD 7	0.46	No
ini.	2	0	64578	-1343			1715	645	SLV 3	0.48	No
fin.	2	0	-55575	-1786			1715	645	SLV 3	0.36	No
ini.	2	0	93650	-2072			1715	645	SLV 7	0.31	No
fin.	2	0	-83746	-2421			1715	645	SLV 7	0.27	No
ini.	2	0	-51281	1477			1715	645	SLV 10	0.44	No
fin.	2	0	52234	1087			1715	645	SLV 10	0.59	No
ini.	2	0	-51281	1477			1715	645	SLV 9	0.44	No
fin.	2	0	52234	1087			1715	645	SLV 9	0.59	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.598	SLV 7	Si
V_SLV	0.267	SLV 7	No
PF_SLU	3.575	SLU 83	Si
V_SLU	0.394	SLU 81	No

Trave di accoppiamento 148

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	1187	1277	90	-2271.3	595.1	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	540	20492	103792	SLU 71	5.07	Si
fin.	3	1947	-44482	103792	SLU 71	2.33	Si
ini.	3	498	20700	103792	SLU 69	5.01	Si
fin.	3	1899	-43002	103792	SLU 69	2.41	Si
ini.	3	414	23850	103792	SLU 77	4.35	Si
fin.	3	1938	-45152	103792	SLU 77	2.3	Si
ini.	3	495	20687	103792	SLU 70	5.02	Si
fin.	3	1877	-42472	103792	SLU 70	2.44	Si
ini.	3	536	20479	103792	SLU 72	5.07	Si
fin.	3	1924	-43952	103792	SLU 72	2.36	Si
ini.	3	528	20165	103792	SLU 37	5.15	Si
fin.	3	1873	-43654	103792	SLU 37	2.38	Si
ini.	3	410	23836	103792	SLU 78	4.35	Si
fin.	3	1915	-44621	103792	SLU 78	2.33	Si
ini.	3	455	23641	103792	SLU 79	4.39	Si
fin.	3	1986	-46631	103792	SLU 79	2.23	Si
ini.	3	524	20152	103792	SLU 38	5.15	Si
fin.	3	1850	-43124	103792	SLU 38	2.41	Si
ini.	3	451	23628	103792	SLU 80	4.39	Si
fin.	3	1963	-46101	103792	SLU 80	2.25	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	23850	-1384			970	365	SLU 77	0.26	No
fin.	3	0	-45152	-1660			970	365	SLU 77	0.22	No
ini.	3	0	23641	-1318			970	365	SLU 79	0.28	No
fin.	3	0	-46631	-1738			970	365	SLU 79	0.21	No
ini.	3	0	23836	-1369			970	365	SLU 78	0.27	No
fin.	3	0	-44621	-1646			970	365	SLU 78	0.22	No
ini.	3	0	25256	-1326			970	365	SLU 83	0.28	No
fin.	3	0	-38211	-1561			970	365	SLU 83	0.23	No
ini.	3	0	20152	-1052			970	365	SLU 38	0.35	No
fin.	3	0	-43124	-1622			970	365	SLU 38	0.23	No
ini.	3	0	20373	-1131			970	365	SLU 35	0.32	No
fin.	3	0	-42175	-1558			970	365	SLU 35	0.23	No
ini.	3	0	25242	-1312			970	365	SLU 84	0.28	No
fin.	3	0	-37681	-1547			970	365	SLU 84	0.24	No
ini.	3	0	23628	-1304			970	365	SLU 80	0.28	No
fin.	3	0	-46101	-1723			970	365	SLU 80	0.21	No
ini.	3	0	20360	-1117			970	365	SLU 36	0.33	No
fin.	3	0	-41645	-1544			970	365	SLU 36	0.24	No
ini.	3	0	20165	-1066			970	365	SLU 37	0.34	No
fin.	3	0	-43654	-1636			970	365	SLU 37	0.22	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-734	30717	121694	SLD 8	3.96	Si
fin.	2	1233	-34764	121694	SLD 8	3.5	Si
ini.	2	-734	30717	121694	SLD 7	3.96	Si
fin.	2	1233	-34764	121694	SLD 7	3.5	Si
ini.	2	-2338	63354	121694	SLV 3	1.92	Si
fin.	2	2449	-67634	121694	SLV 3	1.8	Si
ini.	2	-1091	36427	121694	SLD 3	3.34	Si
fin.	2	1468	-39892	121694	SLD 3	3.05	Si
ini.	2	-1518	50333	121694	SLV 7	2.42	Si
fin.	2	1900	-55868	121694	SLV 7	2.18	Si
ini.	2	-1874	50295	121694	SLV 2	2.42	Si
fin.	2	2020	-53009	121694	SLV 2	2.3	Si
ini.	2	-2338	63354	121694	SLV 4	1.92	Si
fin.	2	2449	-67634	121694	SLV 4	1.8	Si
ini.	2	-1518	50333	121694	SLV 8	2.42	Si
fin.	2	1900	-55868	121694	SLV 8	2.18	Si
ini.	2	-1091	36427	121694	SLD 4	3.34	Si
fin.	2	1468	-39892	121694	SLD 4	3.05	Si
ini.	2	-1874	50295	121694	SLV 1	2.42	Si
fin.	2	2020	-53009	121694	SLV 1	2.3	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	50295	-2978			1456	548	SLV 2	0.18	No
fin.	2	0	-53009	-3032			1456	548	SLV 2	0.18	No
ini.	2	0	63354	-3785			1456	548	SLV 3	0.14	No
fin.	2	0	-67634	-3750			1456	548	SLV 3	0.15	No
ini.	2	0	50333	-3031			1456	548	SLV 8	0.18	No
fin.	2	0	-55868	-2762			1456	548	SLV 8	0.2	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	36427	-2164			1456	548	SLD 4	0.25	No
fin.	2	0	-39892	-2052			1456	548	SLD 4	0.27	No
ini.	2	0	-30436	1867			1456	548	SLV 13	0.29	No
fin.	2	0	29361	2181			1456	548	SLV 13	0.25	No
ini.	2	0	50295	-2978			1456	548	SLV 1	0.18	No
fin.	2	0	-53009	-3032			1456	548	SLV 1	0.18	No
ini.	2	0	50333	-3031			1456	548	SLV 7	0.18	No
fin.	2	0	-55868	-2762			1456	548	SLV 7	0.2	No
ini.	2	0	36427	-2164			1456	548	SLD 3	0.25	No
fin.	2	0	-39892	-2052			1456	548	SLD 3	0.27	No
ini.	2	0	63354	-3785			1456	548	SLV 4	0.14	No
fin.	2	0	-67634	-3750			1456	548	SLV 4	0.15	No
ini.	2	0	-30436	1867			1456	548	SLV 14	0.29	No
fin.	2	0	29361	2181			1456	548	SLV 14	0.25	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.799	SLV 3	Si
V_SLV	0.145	SLV 3	No
PF_SLU	2.226	SLU 79	Si
V_SLU	0.21	SLU 79	No

Trave di accoppiamento 149

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2181.3	595.1	1457	1503	46	-2271.3	595.1	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	212	34811	30060	SLU 38	0.86	No
fin.	3	199	-34081	30060	SLU 38	0.88	No
ini.	3	215	33783	30060	SLU 70	0.89	No
fin.	3	202	-34304	30060	SLU 70	0.88	No
ini.	3	282	35395	30060	SLU 72	0.85	No
fin.	3	267	-34759	30060	SLU 72	0.86	No
ini.	3	281	35138	30060	SLU 37	0.86	No
fin.	3	268	-34152	30060	SLU 37	0.88	No
ini.	3	351	35722	30060	SLU 71	0.84	No
fin.	3	336	-34829	30060	SLU 71	0.86	No
ini.	3	190	35629	30060	SLU 78	0.84	No
fin.	3	178	-36375	30060	SLU 78	0.83	No
ini.	3	257	37242	30060	SLU 80	0.81	No
fin.	3	243	-36830	30060	SLU 80	0.82	No
ini.	3	260	35956	30060	SLU 77	0.84	No
fin.	3	246	-36445	30060	SLU 77	0.82	No
ini.	3	326	37568	30060	SLU 79	0.8	No
fin.	3	312	-36900	30060	SLU 79	0.81	No
ini.	3	284	34109	30060	SLU 69	0.88	No
fin.	3	270	-34374	30060	SLU 69	0.87	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	35395	-312			331	124	SLU 72	0.4	No
fin.	3	0	-34759	-1104			331	124	SLU 72	0.11	No
ini.	3	0	35722	-317			331	124	SLU 71	0.39	No
fin.	3	0	-34829	-1108			331	124	SLU 71	0.11	No
ini.	3	0	37568	-360			331	124	SLU 79	0.35	No
fin.	3	0	-36900	-1152			331	124	SLU 79	0.11	No
ini.	3	0	35956	-228			331	124	SLU 77	0.55	No
fin.	3	0	-36445	-1192			331	124	SLU 77	0.1	No
ini.	3	0	37242	-355			331	124	SLU 80	0.35	No
fin.	3	0	-36830	-1147			331	124	SLU 80	0.11	No
ini.	3	0	34109	-185			331	124	SLU 69	0.67	No
fin.	3	0	-34374	-1148			331	124	SLU 69	0.11	No
ini.	3	0	35629	-223			331	124	SLU 78	0.56	No
fin.	3	0	-36375	-1187			331	124	SLU 78	0.1	No
ini.	3	0	33783	-179			331	124	SLU 70	0.69	No
fin.	3	0	-34304	-1144			331	124	SLU 70	0.11	No
ini.	3	0	33199	-230			331	124	SLU 36	0.54	No
fin.	3	0	-33626	-1078			331	124	SLU 36	0.12	No
ini.	3	0	33525	-235			331	124	SLU 35	0.53	No
fin.	3	0	-33697	-1083			331	124	SLU 35	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	798	41275	44694	SLV 4	1.08	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	572	-42291	44694	SLV 4	1.06	Si
ini.	2	798	41275	44694	SLV 3	1.08	Si
fin.	2	572	-42291	44694	SLV 3	1.06	Si
ini.	2	1403	33823	44694	SLV 7	1.32	Si
fin.	2	1310	-30311	44694	SLV 7	1.47	Si
ini.	2	431	26383	44694	SLD 3	1.69	Si
fin.	2	331	-27437	44694	SLD 3	1.63	Si
ini.	2	102	34291	44694	SLV 1	1.3	Si
fin.	2	-109	-38281	44694	SLV 1	1.17	Si
ini.	2	141	23357	44694	SLD 1	1.91	Si
fin.	2	48	-25625	44694	SLD 1	1.74	Si
ini.	2	1403	33823	44694	SLV 8	1.32	Si
fin.	2	1310	-30311	44694	SLV 8	1.47	Si
ini.	2	141	23357	44694	SLD 2	1.91	Si
fin.	2	48	-25625	44694	SLD 2	1.74	Si
ini.	2	431	26383	44694	SLD 4	1.69	Si
fin.	2	331	-27437	44694	SLD 4	1.63	Si
ini.	2	102	34291	44694	SLV 2	1.3	Si
fin.	2	-109	-38281	44694	SLV 2	1.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	33823	-635			496	187	SLV 8	0.29	No
fin.	2	0	-30311	-880			496	187	SLV 8	0.21	No
ini.	2	0	41275	-768			496	187	SLV 4	0.24	No
fin.	2	0	-42291	-1120			496	187	SLV 4	0.17	No
ini.	2	0	23357	-276			496	187	SLD 2	0.68	No
fin.	2	0	-25625	-755			496	187	SLD 2	0.25	No
ini.	2	0	41275	-768			496	187	SLV 3	0.24	No
fin.	2	0	-42291	-1120			496	187	SLV 3	0.17	No
ini.	2	0	34291	-537			496	187	SLV 2	0.35	No
fin.	2	0	-38281	-1020			496	187	SLV 2	0.18	No
ini.	2	0	26383	-372			496	187	SLD 4	0.5	No
fin.	2	0	-27437	-798			496	187	SLD 4	0.23	No
ini.	2	0	33823	-635			496	187	SLV 7	0.29	No
fin.	2	0	-30311	-880			496	187	SLV 7	0.21	No
ini.	2	0	26383	-372			496	187	SLD 3	0.5	No
fin.	2	0	-27437	-798			496	187	SLD 3	0.23	No
ini.	2	0	34291	-537			496	187	SLV 1	0.35	No
fin.	2	0	-38281	-1020			496	187	SLV 1	0.18	No
ini.	2	0	23357	-276			496	187	SLD 1	0.68	No
fin.	2	0	-25625	-755			496	187	SLD 1	0.25	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.057	SLV 3	Si
V_SLV	0.167	SLV 3	No
PF_SLU	0.8	SLU 79	No
V_SLU	0.104	SLU 77	No

Trave di accoppiamento 150

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	1187	1277	90	-2249.3	-335.9	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1964	49872	103792	SLU 84	2.08	Si
fin.	3	1209	-31145	103792	SLU 84	3.33	Si
ini.	3	-1905	48610	103792	SLU 75	2.14	Si
fin.	3	1161	-29547	103792	SLU 75	3.51	Si
ini.	3	-1636	46372	103792	SLU 77	2.24	Si
fin.	3	1397	-34127	103792	SLU 77	3.04	Si
ini.	3	-2097	49076	103792	SLU 82	2.11	Si
fin.	3	900	-24322	103792	SLU 82	4.27	Si
ini.	3	-2081	48862	103792	SLU 73	2.12	Si
fin.	3	927	-25168	103792	SLU 73	4.12	Si
ini.	3	-1949	49659	103792	SLU 76	2.09	Si
fin.	3	1235	-31992	103792	SLU 76	3.24	Si
ini.	3	-1960	46041	103792	SLU 81	2.25	Si
fin.	3	828	-22078	103792	SLU 81	4.7	Si
ini.	3	-1773	49407	103792	SLU 78	2.1	Si
fin.	3	1470	-36370	103792	SLU 78	2.85	Si
ini.	3	-1725	48432	103792	SLU 80	2.14	Si
fin.	3	1495	-37320	103792	SLU 80	2.78	Si
ini.	3	-1828	46838	103792	SLU 83	2.22	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	1136	-28902	103792	SLU 83	3.59	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	46372	-2676			970	365	SLU 77	0.14	No
fin.	3	0	-34127	-1821			970	365	SLU 77	0.2	No
ini.	3	0	43348	-2540			970	365	SLU 57	0.14	No
fin.	3	0	-31895	-1642			970	365	SLU 57	0.22	No
ini.	3	0	44188	-2656			970	365	SLU 70	0.14	No
fin.	3	0	-34856	-1706			970	365	SLU 70	0.21	No
ini.	3	0	49872	-2676			970	365	SLU 84	0.14	No
fin.	3	0	-31145	-1973			970	365	SLU 84	0.19	No
ini.	3	0	48432	-2772			970	365	SLU 80	0.13	No
fin.	3	0	-37320	-2049			970	365	SLU 80	0.18	No
ini.	3	0	49407	-2827			970	365	SLU 78	0.13	No
fin.	3	0	-36370	-1991			970	365	SLU 78	0.18	No
ini.	3	0	45398	-2622			970	365	SLU 79	0.14	No
fin.	3	0	-35076	-1879			970	365	SLU 79	0.19	No
ini.	3	0	49659	-2703			970	365	SLU 76	0.14	No
fin.	3	0	-31992	-1965			970	365	SLU 76	0.19	No
ini.	3	0	43213	-2602			970	365	SLU 72	0.14	No
fin.	3	0	-35805	-1764			970	365	SLU 72	0.21	No
ini.	3	0	48610	-2658			970	365	SLU 75	0.14	No
fin.	3	0	-29547	-1793			970	365	SLU 75	0.2	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1968	45355	121694	SLV 4	2.68	Si
fin.	2	2069	-38143	121694	SLV 4	3.19	Si
ini.	2	-1746	48829	121694	SLV 10	2.49	Si
fin.	2	899	-29644	121694	SLV 10	4.11	Si
ini.	2	-2431	60944	121694	SLV 2	2	Si
fin.	2	2597	-52574	121694	SLV 2	2.31	Si
ini.	2	-1688	43600	121694	SLD 5	2.79	Si
fin.	2	1158	-28841	121694	SLD 5	4.22	Si
ini.	2	-2312	62815	121694	SLV 5	1.94	Si
fin.	2	1966	-47999	121694	SLV 5	2.54	Si
ini.	2	-2431	60944	121694	SLV 1	2	Si
fin.	2	2597	-52574	121694	SLV 1	2.31	Si
ini.	2	-1968	45355	121694	SLV 3	2.68	Si
fin.	2	2069	-38143	121694	SLV 3	3.19	Si
ini.	2	-1688	43600	121694	SLD 6	2.79	Si
fin.	2	1158	-28841	121694	SLD 6	4.22	Si
ini.	2	-2312	62815	121694	SLV 6	1.94	Si
fin.	2	1966	-47999	121694	SLV 6	2.54	Si
ini.	2	-1746	48829	121694	SLV 9	2.49	Si
fin.	2	899	-29644	121694	SLV 9	4.11	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	43003	-2616			1456	548	SLD 1	0.21	No
fin.	2	0	-30878	-1809			1456	548	SLD 1	0.3	No
ini.	2	0	60944	-3975			1456	548	SLV 1	0.14	No
fin.	2	0	-52574	-2997			1456	548	SLV 1	0.18	No
ini.	2	0	62815	-3670			1456	548	SLV 6	0.15	No
fin.	2	0	-47999	-2607			1456	548	SLV 6	0.21	No
ini.	2	0	45355	-3085			1456	548	SLV 3	0.18	No
fin.	2	0	-38143	-2299			1456	548	SLV 3	0.24	No
ini.	2	0	43003	-2616			1456	548	SLD 2	0.21	No
fin.	2	0	-30878	-1809			1456	548	SLD 2	0.3	No
ini.	2	0	60944	-3975			1456	548	SLV 2	0.14	No
fin.	2	0	-52574	-2997			1456	548	SLV 2	0.18	No
ini.	2	0	48829	-2518			1456	548	SLV 10	0.22	No
fin.	2	0	-29644	-1574			1456	548	SLV 10	0.35	No
ini.	2	0	48829	-2518			1456	548	SLV 9	0.22	No
fin.	2	0	-29644	-1574			1456	548	SLV 9	0.35	No
ini.	2	0	45355	-3085			1456	548	SLV 4	0.18	No
fin.	2	0	-38143	-2299			1456	548	SLV 4	0.24	No
ini.	2	0	62815	-3670			1456	548	SLV 5	0.15	No
fin.	2	0	-47999	-2607			1456	548	SLV 5	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.937	SLV 5	Si
V_SLV	0.138	SLV 1	No
PF_SLU	2.081	SLU 84	Si
V_SLU	0.129	SLU 78	No

Trave di accoppiamento 151

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-2159.3	-335.9	1457	1503	46	-2249.3	-335.9	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1212	28377	30060	SLU 38	1.06	Si
fin.	3	1218	-25690	30060	SLU 38	1.17	Si
ini.	3	1136	28556	30060	SLU 79	1.05	Si
fin.	3	1141	-26796	30060	SLU 79	1.12	Si
ini.	3	1059	27242	30060	SLU 36	1.1	Si
fin.	3	1064	-26077	30060	SLU 36	1.15	Si
ini.	3	982	27421	30060	SLU 77	1.1	Si
fin.	3	987	-27182	30060	SLU 77	1.11	Si
ini.	3	1193	30573	30060	SLU 80	0.98	No
fin.	3	1198	-28500	30060	SLU 80	1.05	Si
ini.	3	1274	28460	30060	SLU 72	1.06	Si
fin.	3	1280	-25832	30060	SLU 72	1.16	Si
ini.	3	705	27545	30060	SLU 76	1.09	Si
fin.	3	708	-27601	30060	SLU 76	1.09	Si
ini.	3	632	27106	30060	SLU 84	1.11	Si
fin.	3	635	-27608	30060	SLU 84	1.09	Si
ini.	3	1040	29437	30060	SLU 78	1.02	Si
fin.	3	1045	-28886	30060	SLU 78	1.04	Si
ini.	3	1121	27324	30060	SLU 70	1.1	Si
fin.	3	1126	-26218	30060	SLU 70	1.15	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	29437	-237			331	124	SLU 78	0.52	No
fin.	3	0	-28886	-920			331	124	SLU 78	0.14	No
ini.	3	0	27421	-168			331	124	SLU 77	0.74	No
fin.	3	0	-27182	-889			331	124	SLU 77	0.14	No
ini.	3	0	28556	-238			331	124	SLU 79	0.52	No
fin.	3	0	-26796	-845			331	124	SLU 79	0.15	No
ini.	3	0	25065	-191			331	124	SLU 75	0.65	No
fin.	3	0	-26852	-845			331	124	SLU 75	0.15	No
ini.	3	0	28460	-254			331	124	SLU 72	0.49	No
fin.	3	0	-25832	-823			331	124	SLU 72	0.15	No
ini.	3	0	25308	-115			331	124	SLU 69	1.09	Si
fin.	3	0	-24514	-836			331	124	SLU 69	0.15	No
ini.	3	0	27324	-184			331	124	SLU 70	0.68	No
fin.	3	0	-26218	-867			331	124	SLU 70	0.14	No
ini.	3	0	30573	-307			331	124	SLU 80	0.41	No
fin.	3	0	-28500	-877			331	124	SLU 80	0.14	No
ini.	3	0	25619	-177			331	124	SLU 57	0.7	No
fin.	3	0	-25207	-824			331	124	SLU 57	0.15	No
ini.	3	0	27106	-284			331	124	SLU 84	0.44	No
fin.	3	0	-27608	-823			331	124	SLU 84	0.15	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1384	22659	44694	SLV 4	1.97	Si
fin.	2	860	-27630	44694	SLV 4	1.62	Si
ini.	2	1384	22659	44694	SLV 3	1.97	Si
fin.	2	860	-27630	44694	SLV 3	1.62	Si
ini.	2	444	31978	44694	SLV 10	1.4	Si
fin.	2	511	-29915	44694	SLV 10	1.49	Si
ini.	2	633	25381	44694	SLD 6	1.76	Si
fin.	2	523	-26091	44694	SLD 6	1.71	Si
ini.	2	1883	36758	44694	SLV 2	1.22	Si
fin.	2	1299	-39634	44694	SLV 2	1.13	Si
ini.	2	1883	36758	44694	SLV 1	1.22	Si
fin.	2	1299	-39634	44694	SLV 1	1.13	Si
ini.	2	633	25381	44694	SLD 5	1.76	Si
fin.	2	523	-26091	44694	SLD 5	1.71	Si
ini.	2	444	31978	44694	SLV 9	1.4	Si
fin.	2	511	-29915	44694	SLV 9	1.49	Si
ini.	2	1378	41776	44694	SLV 6	1.07	Si
fin.	2	1112	-40864	44694	SLV 6	1.09	Si
ini.	2	1378	41776	44694	SLV 5	1.07	Si
fin.	2	1112	-40864	44694	SLV 5	1.09	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	36758	-615			496	187	SLV 2	0.3	No
fin.	2	0	-39634	-988			496	187	SLV 2	0.19	No
ini.	2	0	41776	-606			496	187	SLV 5	0.31	No
fin.	2	0	-40864	-952			496	187	SLV 5	0.2	No
ini.	2	0	23362	-304			496	187	SLD 2	0.61	No
fin.	2	0	-25658	-700			496	187	SLD 2	0.27	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	22659	-371			496	187	SLV 3	0.5	No
fin.	2	0	-27630	-780			496	187	SLV 3	0.24	No
ini.	2	0	36758	-615			496	187	SLV 1	0.3	No
fin.	2	0	-39634	-988			496	187	SLV 1	0.19	No
ini.	2	0	22659	-371			496	187	SLV 4	0.5	No
fin.	2	0	-27630	-780			496	187	SLV 4	0.24	No
ini.	2	0	31978	-354			496	187	SLV 9	0.53	No
fin.	2	0	-29915	-714			496	187	SLV 9	0.26	No
ini.	2	0	23362	-304			496	187	SLD 1	0.61	No
fin.	2	0	-25658	-700			496	187	SLD 1	0.27	No
ini.	2	0	41776	-606			496	187	SLV 6	0.31	No
fin.	2	0	-40864	-952			496	187	SLV 6	0.2	No
ini.	2	0	31978	-354			496	187	SLV 10	0.53	No
fin.	2	0	-29915	-714			496	187	SLV 10	0.26	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.07	SLV 5	Si
V_SLV	0.189	SLV 1	No
PF_SLU	0.983	SLU 80	No
V_SLU	0.135	SLU 78	No

Trave di accoppiamento 152

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	1187	1387	200	-1936.8	-335.9	1187	1387	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-650	4679	296292	SLU 51	63.32	Si
fin.	3	-561	-14168	296292	SLU 51	20.91	Si
ini.	3	-730	7005	296292	SLU 72	42.3	Si
fin.	3	-637	-14786	296292	SLU 72	20.04	Si
ini.	3	-559	10844	296292	SLU 71	27.32	Si
fin.	3	-483	-13872	296292	SLU 71	21.36	Si
ini.	3	-881	12563	296292	SLU 77	23.59	Si
fin.	3	-816	-7586	296292	SLU 77	39.06	Si
ini.	3	-431	7408	296292	SLU 30	39.99	Si
fin.	3	-360	-14773	296292	SLU 30	20.06	Si
ini.	3	-352	5082	296292	SLU 9	58.3	Si
fin.	3	-284	-14155	296292	SLU 9	20.93	Si
ini.	3	-181	8922	296292	SLU 8	33.21	Si
fin.	3	-129	-13242	296292	SLU 8	22.38	Si
ini.	3	-261	11247	296292	SLU 29	26.34	Si
fin.	3	-206	-13860	296292	SLU 29	21.38	Si
ini.	3	-582	12966	296292	SLU 35	22.85	Si
fin.	3	-539	-7574	296292	SLU 35	39.12	Si
ini.	3	-480	8518	296292	SLU 50	34.78	Si
fin.	3	-406	-13254	296292	SLU 50	22.35	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	7408	-404			2157	812	SLU 30	2.01	Si
fin.	3	0	-14773	-599			2157	812	SLU 30	1.36	Si
ini.	3	0	7005	-401			2157	812	SLU 72	2.03	Si
fin.	3	0	-14786	-611			2157	812	SLU 72	1.33	Si
ini.	3	0	8255	-328			2157	812	SLU 38	2.47	Si
fin.	3	0	-12043	-575			2157	812	SLU 38	1.41	Si
ini.	3	0	7852	-325			2157	812	SLU 80	2.49	Si
fin.	3	0	-12056	-587			2157	812	SLU 80	1.38	Si
ini.	3	0	11691	-376			2157	812	SLU 79	2.16	Si
fin.	3	0	-11142	-573			2157	812	SLU 79	1.42	Si
ini.	3	0	7877	-362			2157	812	SLU 70	2.24	Si
fin.	3	0	-11230	-522			2157	812	SLU 70	1.56	Si
ini.	3	0	12094	-379			2157	812	SLU 37	2.14	Si
fin.	3	0	-11129	-561			2157	812	SLU 37	1.45	Si
ini.	3	0	4679	-351			2157	812	SLU 51	2.31	Si
fin.	3	0	-14168	-523			2157	812	SLU 51	1.55	Si
ini.	3	0	11247	-455			2157	812	SLU 29	1.78	Si
fin.	3	0	-13860	-585			2157	812	SLU 29	1.39	Si
ini.	3	0	10844	-452			2157	812	SLU 71	1.8	Si
fin.	3	0	-13872	-597			2157	812	SLU 71	1.36	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1451	94090	314194	SLV 6	3.34	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-997	-36260	314194	SLV 6	8.67	Si
ini.	2	-872	-89649	314194	SLV 11	3.5	Si
fin.	2	-1180	35970	314194	SLV 11	8.73	Si
ini.	2	-2119	74103	314194	SLV 10	4.24	Si
fin.	2	-1600	518	314194	SLV 10	606.44	Si
ini.	2	-872	-89649	314194	SLV 12	3.5	Si
fin.	2	-1180	35970	314194	SLV 12	8.73	Si
ini.	2	-1451	94090	314194	SLV 5	3.34	Si
fin.	2	-997	-36260	314194	SLV 5	8.67	Si
ini.	2	-203	-69661	314194	SLV 8	4.51	Si
fin.	2	-577	-808	314194	SLV 8	388.97	Si
ini.	2	-2119	74103	314194	SLV 9	4.24	Si
fin.	2	-1600	518	314194	SLV 9	606.44	Si
ini.	2	-235	60096	314194	SLV 2	5.23	Si
fin.	2	-146	-66759	314194	SLV 2	4.71	Si
ini.	2	-235	60096	314194	SLV 1	5.23	Si
fin.	2	-146	-66759	314194	SLV 1	4.71	Si
ini.	2	-203	-69661	314194	SLV 7	4.51	Si
fin.	2	-577	-808	314194	SLV 7	388.97	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	74103	-2296			3235	1217	SLV 10	0.53	No
fin.	2	0	518	-2520			3235	1217	SLV 10	0.48	No
ini.	2	0	60096	-3386			3235	1217	SLV 2	0.36	No
fin.	2	0	-66759	-3069			3235	1217	SLV 2	0.4	No
ini.	2	0	-55654	3307			3235	1217	SLV 15	0.37	No
fin.	2	0	66469	2754			3235	1217	SLV 15	0.44	No
ini.	2	0	-89649	3686			3235	1217	SLV 11	0.33	No
fin.	2	0	35970	3417			3235	1217	SLV 11	0.36	No
ini.	2	0	-55654	3307			3235	1217	SLV 16	0.37	No
fin.	2	0	66469	2754			3235	1217	SLV 16	0.44	No
ini.	2	0	94090	-3765			3235	1217	SLV 5	0.32	No
fin.	2	0	-36260	-3732			3235	1217	SLV 5	0.33	No
ini.	2	0	-89649	3686			3235	1217	SLV 12	0.33	No
fin.	2	0	35970	3417			3235	1217	SLV 12	0.36	No
ini.	2	0	94090	-3765			3235	1217	SLV 6	0.32	No
fin.	2	0	-36260	-3732			3235	1217	SLV 6	0.33	No
ini.	2	0	60096	-3386			3235	1217	SLV 1	0.36	No
fin.	2	0	-66759	-3069			3235	1217	SLV 1	0.4	No
ini.	2	0	74103	-2296			3235	1217	SLV 9	0.53	No
fin.	2	0	518	-2520			3235	1217	SLV 9	0.48	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.339	SLV 5	Si
V_SLV	0.323	SLV 5	No
PF_SLU	20.039	SLU 72	Si
V_SLU	1.329	SLU 72	Si

Trave di accoppiamento 153

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1886.8	-335.9	1467	1503	36	-1936.8	-335.9	1467	1503	36	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-979	-114	18411	SLU 73	162.05	Si
fin.	3	-980	-4111	18411	SLU 73	4.48	Si
ini.	3	-776	-234	18411	SLU 64	78.78	Si
fin.	3	-777	-3900	18411	SLU 64	4.72	Si
ini.	3	-893	-322	18411	SLU 40	57.18	Si
fin.	3	-893	-3788	18411	SLU 40	4.86	Si
ini.	3	-882	24	18411	SLU 60	755.78	Si
fin.	3	-883	-4218	18411	SLU 60	4.37	Si
ini.	3	-1020	-208	18411	SLU 82	88.34	Si
fin.	3	-1021	-4469	18411	SLU 82	4.12	Si
ini.	3	-793	-1627	18411	SLU 74	11.31	Si
fin.	3	-793	-3730	18411	SLU 74	4.94	Si
ini.	3	-987	-314	18411	SLU 81	58.57	Si
fin.	3	-987	-4661	18411	SLU 81	3.95	Si
ini.	3	-860	-428	18411	SLU 39	43.03	Si
fin.	3	-860	-3981	18411	SLU 39	4.62	Si
ini.	3	-792	-1501	18411	SLU 83	12.26	Si
fin.	3	-792	-3713	18411	SLU 83	4.96	Si
ini.	3	-916	130	18411	SLU 61	141.32	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-916	-4025	18411	SLU 61	4.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-2607	252			280	105	SLU 71	0.42	No
fin.	3	0	-2002	-233			280	105	SLU 71	0.45	No
ini.	3	0	-2501	249			280	105	SLU 72	0.42	No
fin.	3	0	-1809	-226			280	105	SLU 72	0.46	No
ini.	3	0	-2652	260			280	105	SLU 70	0.4	No
fin.	3	0	-2055	-243			280	105	SLU 70	0.43	No
ini.	3	0	-2708	252			280	105	SLU 78	0.42	No
fin.	3	0	-2588	-252			280	105	SLU 78	0.42	No
ini.	3	0	-2814	254			280	105	SLU 77	0.41	No
fin.	3	0	-2781	-258			280	105	SLU 77	0.41	No
ini.	3	0	-2928	250			280	105	SLU 35	0.42	No
fin.	3	0	-2101	-221			280	105	SLU 35	0.48	No
ini.	3	0	-2758	263			280	105	SLU 69	0.4	No
fin.	3	0	-2248	-249			280	105	SLU 69	0.42	No
ini.	3	0	-1627	163			280	105	SLU 74	0.64	No
fin.	3	0	-3730	-252			280	105	SLU 74	0.42	No
ini.	3	0	-2765	256			280	105	SLU 28	0.41	No
fin.	3	0	-1375	-205			280	105	SLU 28	0.51	No
ini.	3	0	-2871	259			280	105	SLU 27	0.41	No
fin.	3	0	-1568	-211			280	105	SLU 27	0.5	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2574	7192	27616	SLV 10	3.84	Si
fin.	2	-2368	-14072	27616	SLV 10	1.96	Si
ini.	2	-2574	7192	27616	SLV 9	3.84	Si
fin.	2	-2368	-14072	27616	SLV 9	1.96	Si
ini.	2	-2116	7387	27616	SLV 5	3.74	Si
fin.	2	-2350	-22407	27616	SLV 5	1.23	Si
ini.	2	-370	2427	27616	SLV 1	11.38	Si
fin.	2	-1110	-21503	27616	SLV 1	1.28	Si
ini.	2	-2116	7387	27616	SLV 6	3.74	Si
fin.	2	-2350	-22407	27616	SLV 6	1.23	Si
ini.	2	-863	-2670	27616	SLV 16	10.34	Si
fin.	2	-124	15394	27616	SLV 16	1.79	Si
ini.	2	883	-7630	27616	SLV 11	3.62	Si
fin.	2	1117	16298	27616	SLV 11	1.69	Si
ini.	2	-863	-2670	27616	SLV 15	10.34	Si
fin.	2	-124	15394	27616	SLV 15	1.79	Si
ini.	2	883	-7630	27616	SLV 12	3.62	Si
fin.	2	1117	16298	27616	SLV 12	1.69	Si
ini.	2	-370	2427	27616	SLV 2	11.38	Si
fin.	2	-1110	-21503	27616	SLV 2	1.28	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	7192	-405			419	158	SLV 9	0.39	No
fin.	2	0	-14072	-606			419	158	SLV 9	0.26	No
ini.	2	0	-7435	496			419	158	SLV 7	0.32	No
fin.	2	0	7963	274			419	158	SLV 7	0.58	No
ini.	2	0	7387	-515			419	158	SLV 6	0.31	No
fin.	2	0	-22407	-687			419	158	SLV 6	0.23	No
ini.	2	0	7387	-515			419	158	SLV 5	0.31	No
fin.	2	0	-22407	-687			419	158	SLV 5	0.23	No
ini.	2	0	-7435	496			419	158	SLV 8	0.32	No
fin.	2	0	7963	274			419	158	SLV 8	0.58	No
ini.	2	0	7192	-405			419	158	SLV 10	0.39	No
fin.	2	0	-14072	-606			419	158	SLV 10	0.26	No
ini.	2	0	-7630	607			419	158	SLV 12	0.26	No
fin.	2	0	16298	355			419	158	SLV 12	0.44	No
ini.	2	0	2427	-289			419	158	SLV 2	0.55	No
fin.	2	0	-21503	-446			419	158	SLV 2	0.35	No
ini.	2	0	-7630	607			419	158	SLV 11	0.26	No
fin.	2	0	16298	355			419	158	SLV 11	0.44	No
ini.	2	0	2427	-289			419	158	SLV 1	0.55	No
fin.	2	0	-21503	-446			419	158	SLV 1	0.35	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.232	SLV 5	Si
V_SLV	0.23	SLV 5	No
PF_SLU	3.95	SLU 81	Si
V_SLU	0.4	SLU 69	No

Trave di accoppiamento 154

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	1187	1277	90	-1826.3	-335.9	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1447	26997	103792	SLU 77	3.84	Si
fin.	3	-701	-5719	103792	SLU 77	18.15	Si
ini.	3	-1236	26778	103792	SLU 35	3.88	Si
fin.	3	-449	-9502	103792	SLU 35	10.92	Si
ini.	3	-1060	25171	103792	SLU 30	4.12	Si
fin.	3	-374	-10161	103792	SLU 30	10.21	Si
ini.	3	-1270	25390	103792	SLU 72	4.09	Si
fin.	3	-627	-6378	103792	SLU 72	16.27	Si
ini.	3	-1299	28313	103792	SLU 71	3.67	Si
fin.	3	-470	-9572	103792	SLU 71	10.84	Si
ini.	3	-1335	27242	103792	SLU 69	3.81	Si
fin.	3	-565	-7093	103792	SLU 69	14.63	Si
ini.	3	-1088	28094	103792	SLU 29	3.69	Si
fin.	3	-218	-13355	103792	SLU 29	7.77	Si
ini.	3	-1124	27023	103792	SLU 27	3.84	Si
fin.	3	-313	-10876	103792	SLU 27	9.54	Si
ini.	3	-1200	27849	103792	SLU 37	3.73	Si
fin.	3	-354	-11980	103792	SLU 37	8.66	Si
ini.	3	-1411	28068	103792	SLU 79	3.7	Si
fin.	3	-606	-8197	103792	SLU 79	12.66	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	24896	-942			970	365	SLU 8	0.39	No
fin.	3	0	-11745	-769			970	365	SLU 8	0.48	No
ini.	3	0	28068	-904			970	365	SLU 79	0.4	No
fin.	3	0	-8197	-863			970	365	SLU 79	0.42	No
ini.	3	0	27849	-923			970	365	SLU 37	0.4	No
fin.	3	0	-11980	-939			970	365	SLU 37	0.39	No
ini.	3	0	27242	-958			970	365	SLU 69	0.38	No
fin.	3	0	-7093	-729			970	365	SLU 69	0.5	No
ini.	3	0	25115	-923			970	365	SLU 50	0.4	No
fin.	3	0	-7962	-692			970	365	SLU 50	0.53	No
ini.	3	0	23825	-905			970	365	SLU 6	0.4	No
fin.	3	0	-9267	-664			970	365	SLU 6	0.55	No
ini.	3	0	24044	-887			970	365	SLU 48	0.41	No
fin.	3	0	-5484	-587			970	365	SLU 48	0.62	No
ini.	3	0	28094	-1013			970	365	SLU 29	0.36	No
fin.	3	0	-13355	-910			970	365	SLU 29	0.4	No
ini.	3	0	28313	-994			970	365	SLU 71	0.37	No
fin.	3	0	-9572	-833			970	365	SLU 71	0.44	No
ini.	3	0	27023	-976			970	365	SLU 27	0.37	No
fin.	3	0	-10876	-805			970	365	SLU 27	0.45	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-952	-21046	121694	SLV 9	5.78	Si
fin.	2	-2069	56109	121694	SLV 9	2.17	Si
ini.	2	-2125	63320	121694	SLV 2	1.92	Si
fin.	2	-37	-43778	121694	SLV 2	2.78	Si
ini.	2	207	-52862	121694	SLV 15	2.3	Si
fin.	2	-1889	65186	121694	SLV 15	1.87	Si
ini.	2	19	-57732	121694	SLV 14	2.11	Si
fin.	2	-2345	81183	121694	SLV 14	1.5	Si
ini.	2	207	-52862	121694	SLV 16	2.3	Si
fin.	2	-1889	65186	121694	SLV 16	1.87	Si
ini.	2	-1936	68190	121694	SLV 3	1.78	Si
fin.	2	419	-59775	121694	SLV 3	2.04	Si
ini.	2	-1936	68190	121694	SLV 4	1.78	Si
fin.	2	419	-59775	121694	SLV 4	2.04	Si
ini.	2	-2125	63320	121694	SLV 1	1.92	Si
fin.	2	-37	-43778	121694	SLV 1	2.78	Si
ini.	2	19	-57732	121694	SLV 13	2.11	Si
fin.	2	-2345	81183	121694	SLV 13	1.5	Si
ini.	2	-952	-21046	121694	SLV 10	5.78	Si
fin.	2	-2069	56109	121694	SLV 10	2.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	63320	-2573			1456	548	SLV 1	0.21	No
fin.	2	0	-43778	-1964			1456	548	SLV 1	0.28	No
ini.	2	0	63320	-2573			1456	548	SLV 2	0.21	No
fin.	2	0	-43778	-1964			1456	548	SLV 2	0.28	No
ini.	2	0	31504	-1906			1456	548	SLV 8	0.29	No
fin.	2	0	-34702	-1358			1456	548	SLV 8	0.4	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-57732	3166			1456	548	SLV 13	0.17	No
fin.	2	0	81183	2493			1456	548	SLV 13	0.22	No
ini.	2	0	-57732	3166			1456	548	SLV 14	0.17	No
fin.	2	0	81183	2493			1456	548	SLV 14	0.22	No
ini.	2	0	68190	-3192			1456	548	SLV 3	0.17	No
fin.	2	0	-59775	-2404			1456	548	SLV 3	0.23	No
ini.	2	0	68190	-3192			1456	548	SLV 4	0.17	No
fin.	2	0	-59775	-2404			1456	548	SLV 4	0.23	No
ini.	2	0	31504	-1906			1456	548	SLV 7	0.29	No
fin.	2	0	-34702	-1358			1456	548	SLV 7	0.4	No
ini.	2	0	-52862	2547			1456	548	SLV 15	0.22	No
fin.	2	0	65186	2053			1456	548	SLV 15	0.27	No
ini.	2	0	-52862	2547			1456	548	SLV 16	0.22	No
fin.	2	0	65186	2053			1456	548	SLV 16	0.27	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.499	SLV 13	Si
V_SLV	0.172	SLV 3	No
PF_SLU	3.666	SLU 71	Si
V_SLU	0.361	SLU 29	No

Trave di accoppiamento 155

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1736.3	-335.9	1457	1503	46	-1826.3	-335.9	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-903	11071	30060	SLU 70	2.72	Si
fin.	3	-899	-28421	30060	SLU 70	1.06	Si
ini.	3	-901	11586	30060	SLU 36	2.59	Si
fin.	3	-897	-27972	30060	SLU 36	1.07	Si
ini.	3	-798	11996	30060	SLU 71	2.51	Si
fin.	3	-796	-28222	30060	SLU 71	1.07	Si
ini.	3	-1083	11451	30060	SLU 78	2.63	Si
fin.	3	-1079	-29183	30060	SLU 78	1.03	Si
ini.	3	-876	10827	30060	SLU 69	2.78	Si
fin.	3	-874	-28082	30060	SLU 69	1.07	Si
ini.	3	-823	12755	30060	SLU 38	2.36	Si
fin.	3	-819	-28112	30060	SLU 38	1.07	Si
ini.	3	-1005	12621	30060	SLU 80	2.38	Si
fin.	3	-1001	-29322	30060	SLU 80	1.03	Si
ini.	3	-1056	11206	30060	SLU 77	2.68	Si
fin.	3	-1054	-28844	30060	SLU 77	1.04	Si
ini.	3	-825	12241	30060	SLU 72	2.46	Si
fin.	3	-821	-28561	30060	SLU 72	1.05	Si
ini.	3	-978	12376	30060	SLU 79	2.43	Si
fin.	3	-976	-28983	30060	SLU 79	1.04	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	12376	53			331	124	SLU 79	2.35	Si
fin.	3	0	-28983	-913			331	124	SLU 79	0.14	No
ini.	3	0	11206	113			331	124	SLU 28	1.1	Si
fin.	3	0	-27210	-904			331	124	SLU 28	0.14	No
ini.	3	0	11451	142			331	124	SLU 78	0.88	No
fin.	3	0	-29183	-979			331	124	SLU 78	0.13	No
ini.	3	0	11586	102			331	124	SLU 36	1.23	Si
fin.	3	0	-27972	-917			331	124	SLU 36	0.14	No
ini.	3	0	10827	153			331	124	SLU 69	0.81	No
fin.	3	0	-28082	-955			331	124	SLU 69	0.13	No
ini.	3	0	11206	141			331	124	SLU 77	0.88	No
fin.	3	0	-28844	-968			331	124	SLU 77	0.13	No
ini.	3	0	11341	101			331	124	SLU 35	1.23	Si
fin.	3	0	-27633	-907			331	124	SLU 35	0.14	No
ini.	3	0	12241	65			331	124	SLU 72	1.91	Si
fin.	3	0	-28561	-909			331	124	SLU 72	0.14	No
ini.	3	0	12621	54			331	124	SLU 80	2.32	Si
fin.	3	0	-29322	-923			331	124	SLU 80	0.13	No
ini.	3	0	11071	154			331	124	SLU 70	0.81	No
fin.	3	0	-28421	-965			331	124	SLU 70	0.13	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2040	-18273	44694	SLV 13	2.45	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2084	10802	44694	SLV 13	4.14	Si
ini.	2	-1041	9133	44694	SLD 1	4.89	Si
fin.	2	-1036	-18025	44694	SLD 1	2.48	Si
ini.	2	257	22389	44694	SLV 4	2	Si
fin.	2	302	-30025	44694	SLV 4	1.49	Si
ini.	2	-1278	18584	44694	SLV 2	2.4	Si
fin.	2	-1262	-29263	44694	SLV 2	1.53	Si
ini.	2	-2040	-18273	44694	SLV 14	2.45	Si
fin.	2	-2084	10802	44694	SLV 14	4.14	Si
ini.	2	-1278	18584	44694	SLV 1	2.4	Si
fin.	2	-1262	-29263	44694	SLV 1	1.53	Si
ini.	2	-1041	9133	44694	SLD 2	4.89	Si
fin.	2	-1036	-18025	44694	SLD 2	2.48	Si
ini.	2	257	22389	44694	SLV 3	2	Si
fin.	2	302	-30025	44694	SLV 3	1.49	Si
ini.	2	-411	10654	44694	SLD 3	4.2	Si
fin.	2	-394	-18272	44694	SLD 3	2.45	Si
ini.	2	-411	10654	44694	SLD 4	4.2	Si
fin.	2	-394	-18272	44694	SLD 4	2.45	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	10654	-55			496	187	SLD 4	3.39	Si
fin.	2	0	-18272	-542			496	187	SLD 4	0.34	No
ini.	2	0	-18273	536			496	187	SLV 13	0.35	No
fin.	2	0	10802	64			496	187	SLV 13	2.91	Si
ini.	2	0	10654	-55			496	187	SLD 3	3.39	Si
fin.	2	0	-18272	-542			496	187	SLD 3	0.34	No
ini.	2	0	13929	-28			496	187	SLV 7	6.63	Si
fin.	2	0	-16890	-576			496	187	SLV 7	0.32	No
ini.	2	0	-18273	536			496	187	SLV 14	0.35	No
fin.	2	0	10802	64			496	187	SLV 14	2.91	Si
ini.	2	0	18584	-275			496	187	SLV 1	0.68	No
fin.	2	0	-29263	-727			496	187	SLV 1	0.26	No
ini.	2	0	13929	-28			496	187	SLV 8	6.63	Si
fin.	2	0	-16890	-576			496	187	SLV 8	0.32	No
ini.	2	0	18584	-275			496	187	SLV 2	0.68	No
fin.	2	0	-29263	-727			496	187	SLV 2	0.26	No
ini.	2	0	22389	-292			496	187	SLV 4	0.64	No
fin.	2	0	-30025	-785			496	187	SLV 4	0.24	No
ini.	2	0	22389	-292			496	187	SLV 3	0.64	No
fin.	2	0	-30025	-785			496	187	SLV 3	0.24	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV		SLV 3	Si
V_SLV	0.238	SLV 3	No
PF_SLU	1.025	SLU 80	Si
V_SLU	0.127	SLU 78	No

Trave di accoppiamento 156

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1375.3	-22.8	1397	1503	106	-1375.3	67.2	1397	1503	106	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	247	-8519	131792	SLU 78	15.47	Si
fin.	3	247	-17153	131792	SLU 78	7.68	Si
ini.	3	263	-14693	131792	SLU 72	8.97	Si
fin.	3	263	-17598	131792	SLU 72	7.49	Si
ini.	3	257	-16152	131792	SLU 30	8.16	Si
fin.	3	257	-17215	131792	SLU 30	7.66	Si
ini.	3	260	-9840	131792	SLU 80	13.39	Si
fin.	3	260	-17900	131792	SLU 80	7.36	Si
ini.	3	253	-11299	131792	SLU 38	11.66	Si
fin.	3	253	-17517	131792	SLU 38	7.52	Si
ini.	3	253	-11982	131792	SLU 37	11	Si
fin.	3	253	-17255	131792	SLU 37	7.64	Si
ini.	3	256	-16835	131792	SLU 29	7.83	Si
fin.	3	256	-16953	131792	SLU 29	7.77	Si
ini.	3	260	-10522	131792	SLU 79	12.53	Si
fin.	3	260	-17639	131792	SLU 79	7.47	Si
ini.	3	246	-9201	131792	SLU 77	14.32	Si
fin.	3	246	-16892	131792	SLU 77	7.8	Si
ini.	3	263	-15375	131792	SLU 71	8.57	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	263	-17336	131792	SLU 71	7.6	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2861	165			1143	430	SLU 63	2.61	Si
fin.	3	0	-10367	-453			1143	430	SLU 63	0.95	No
ini.	3	0	8657	158			1143	430	SLU 52	2.73	Si
fin.	3	0	-5197	-460			1143	430	SLU 52	0.94	No
ini.	3	0	5455	173			1143	430	SLU 73	2.48	Si
fin.	3	0	-7646	-461			1143	430	SLU 73	0.93	No
ini.	3	0	-340	180			1143	430	SLU 84	2.39	Si
fin.	3	0	-12815	-454			1143	430	SLU 84	0.95	No
ini.	3	0	10281	140			1143	430	SLU 61	3.07	Si
fin.	3	0	-5152	-477			1143	430	SLU 61	0.9	No
ini.	3	0	6398	166			1143	430	SLU 81	2.59	Si
fin.	3	0	-7339	-468			1143	430	SLU 81	0.92	No
ini.	3	0	-1022	191			1143	430	SLU 83	2.26	Si
fin.	3	0	-12554	-444			1143	430	SLU 83	0.97	No
ini.	3	0	9599	151			1143	430	SLU 60	2.85	Si
fin.	3	0	-4891	-467			1143	430	SLU 60	0.92	No
ini.	3	0	2179	175			1143	430	SLU 62	2.46	Si
fin.	3	0	-10105	-442			1143	430	SLU 62	0.97	No
ini.	3	0	7080	156			1143	430	SLU 82	2.76	Si
fin.	3	0	-7601	-479			1143	430	SLU 82	0.9	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	932	50261	149694	SLV 16	2.98	Si
fin.	2	704	27148	149694	SLV 16	5.51	Si
ini.	2	-1481	-58987	149694	SLV 9	2.54	Si
fin.	2	-1495	12762	149694	SLV 9	11.73	Si
ini.	2	1622	62345	149694	SLV 8	2.4	Si
fin.	2	1636	-22485	149694	SLV 8	6.66	Si
ini.	2	-1481	-58987	149694	SLV 10	2.54	Si
fin.	2	-1495	12762	149694	SLV 10	11.73	Si
ini.	2	932	50261	149694	SLV 15	2.98	Si
fin.	2	704	27148	149694	SLV 15	5.51	Si
ini.	2	-1699	-75712	149694	SLV 6	1.98	Si
fin.	2	-1585	-7768	149694	SLV 6	19.27	Si
ini.	2	1622	62345	149694	SLV 7	2.4	Si
fin.	2	1636	-22485	149694	SLV 7	6.66	Si
ini.	2	-1699	-75712	149694	SLV 5	1.98	Si
fin.	2	-1585	-7768	149694	SLV 5	19.27	Si
ini.	2	1840	79069	149694	SLV 12	1.89	Si
fin.	2	1726	-1955	149694	SLV 12	76.58	Si
ini.	2	1840	79069	149694	SLV 11	1.89	Si
fin.	2	1726	-1955	149694	SLV 11	76.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-75712	1044			1715	645	SLV 5	0.62	No
fin.	2	0	-7768	552			1715	645	SLV 5	1.17	Si
ini.	2	0	-58987	903			1715	645	SLV 10	0.71	No
fin.	2	0	12762	598			1715	645	SLV 10	1.08	Si
ini.	2	0	-58987	903			1715	645	SLV 9	0.71	No
fin.	2	0	12762	598			1715	645	SLV 9	1.08	Si
ini.	2	0	79069	-702			1715	645	SLV 11	0.92	No
fin.	2	0	-1955	-1179			1715	645	SLV 11	0.55	No
ini.	2	0	-75712	1044			1715	645	SLV 6	0.62	No
fin.	2	0	-7768	552			1715	645	SLV 6	1.17	Si
ini.	2	0	62345	-561			1715	645	SLV 8	1.15	Si
fin.	2	0	-22485	-1225			1715	645	SLV 8	0.53	No
ini.	2	0	27296	-139			1715	645	SLD 8	4.63	Si
fin.	2	0	-12506	-697			1715	645	SLD 8	0.93	No
ini.	2	0	79069	-702			1715	645	SLV 12	0.92	No
fin.	2	0	-1955	-1179			1715	645	SLV 12	0.55	No
ini.	2	0	27296	-139			1715	645	SLD 7	4.63	Si
fin.	2	0	-12506	-697			1715	645	SLD 7	0.93	No
ini.	2	0	62345	-561			1715	645	SLV 7	1.15	Si
fin.	2	0	-22485	-1225			1715	645	SLV 7	0.53	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.893	SLV 11	Si
V_SLV	0.527	SLV 7	No
PF_SLU	7.363	SLU 80	Si
V_SLU	0.898	SLU 82	No

Trave di accoppiamento 157

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1074.8	333.1	1377	1503	126	-994.8	333.1	1377	1503	126	80	14	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-166	120113	112766	SLU 79	0.94	No
fin.	3	-166	10653	112766	SLU 79	10.59	Si
ini.	3	-174	125068	112766	SLU 84	0.9	No
fin.	3	-174	10750	112766	SLU 84	10.49	Si
ini.	3	-167	124938	112766	SLU 74	0.9	No
fin.	3	-167	12748	112766	SLU 74	8.85	Si
ini.	3	-167	121292	112766	SLU 82	0.93	No
fin.	3	-167	10573	112766	SLU 82	10.67	Si
ini.	3	-167	125046	112766	SLU 75	0.9	No
fin.	3	-167	12753	112766	SLU 75	8.84	Si
ini.	3	-174	128823	112766	SLU 78	0.88	No
fin.	3	-174	12930	112766	SLU 78	8.72	Si
ini.	3	-173	124960	112766	SLU 83	0.9	No
fin.	3	-173	10744	112766	SLU 83	10.5	Si
ini.	3	-167	121183	112766	SLU 81	0.93	No
fin.	3	-167	10567	112766	SLU 81	10.67	Si
ini.	3	-173	128714	112766	SLU 77	0.88	No
fin.	3	-173	12925	112766	SLU 77	8.72	Si
ini.	3	-167	120222	112766	SLU 80	0.94	No
fin.	3	-167	10658	112766	SLU 80	10.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	121292	-1085			679	256	SLU 82	0.24	No
fin.	3	0	10573	-1647			679	256	SLU 82	0.16	No
ini.	3	0	124960	-1129			679	256	SLU 83	0.23	No
fin.	3	0	10744	-1690			679	256	SLU 83	0.15	No
ini.	3	0	120113	-1069			679	256	SLU 79	0.24	No
fin.	3	0	10653	-1631			679	256	SLU 79	0.16	No
ini.	3	0	125068	-1130			679	256	SLU 84	0.23	No
fin.	3	0	10750	-1692			679	256	SLU 84	0.15	No
ini.	3	0	128714	-1078			679	256	SLU 77	0.24	No
fin.	3	0	12925	-1800			679	256	SLU 77	0.14	No
ini.	3	0	128823	-1079			679	256	SLU 78	0.24	No
fin.	3	0	12930	-1801			679	256	SLU 78	0.14	No
ini.	3	0	124938	-1033			679	256	SLU 74	0.25	No
fin.	3	0	12748	-1755			679	256	SLU 74	0.15	No
ini.	3	0	125046	-1034			679	256	SLU 75	0.25	No
fin.	3	0	12753	-1756			679	256	SLU 75	0.15	No
ini.	3	0	121183	-1084			679	256	SLU 81	0.24	No
fin.	3	0	10567	-1645			679	256	SLU 81	0.16	No
ini.	3	0	120222	-1070			679	256	SLU 80	0.24	No
fin.	3	0	10658	-1632			679	256	SLU 80	0.16	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1100	122718	148889	SLV 15	1.21	Si
fin.	2	399	10268	148889	SLV 15	14.5	Si
ini.	2	-254	122998	148889	SLD 8	1.21	Si
fin.	2	-184	8618	148889	SLD 8	17.28	Si
ini.	2	1100	122718	148889	SLV 16	1.21	Si
fin.	2	399	10268	148889	SLV 16	14.5	Si
ini.	2	252	199323	148889	SLV 11	0.75	No
fin.	2	7	10978	148889	SLV 11	13.56	Si
ini.	2	50	126343	148889	SLD 12	1.18	Si
fin.	2	-56	9042	148889	SLD 12	16.47	Si
ini.	2	50	126343	148889	SLD 11	1.18	Si
fin.	2	-56	9042	148889	SLD 11	16.47	Si
ini.	2	-254	122998	148889	SLD 7	1.21	Si
fin.	2	-184	8618	148889	SLD 7	17.28	Si
ini.	2	252	199323	148889	SLV 12	0.75	No
fin.	2	7	10978	148889	SLV 12	13.56	Si
ini.	2	-468	191463	148889	SLV 8	0.78	No
fin.	2	-300	9806	148889	SLV 8	15.18	Si
ini.	2	-468	191463	148889	SLV 7	0.78	No
fin.	2	-300	9806	148889	SLV 7	15.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	122998	-1240			1019	383	SLD 7	0.31	No
fin.	2	0	8618	-1705			1019	383	SLD 7	0.22	No
ini.	2	0	199323	-1751			1019	383	SLV 11	0.22	No
fin.	2	0	10978	-2489			1019	383	SLV 11	0.15	No
ini.	2	0	126343	-1086			1019	383	SLD 11	0.35	No
fin.	2	0	9042	-1636			1019	383	SLD 11	0.23	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	191463	-2114			1019	383	SLV 7	0.18	No
fin.	2	0	9806	-2651			1019	383	SLV 7	0.14	No
ini.	2	0	96518	-1598			1019	383	SLV 3	0.24	No
fin.	2	0	6360	-1753			1019	383	SLV 3	0.22	No
ini.	2	0	122998	-1240			1019	383	SLD 8	0.31	No
fin.	2	0	8618	-1705			1019	383	SLD 8	0.22	No
ini.	2	0	191463	-2114			1019	383	SLV 8	0.18	No
fin.	2	0	9806	-2651			1019	383	SLV 8	0.14	No
ini.	2	0	126343	-1086			1019	383	SLD 12	0.35	No
fin.	2	0	9042	-1636			1019	383	SLD 12	0.23	No
ini.	2	0	96518	-1598			1019	383	SLV 4	0.24	No
fin.	2	0	6360	-1753			1019	383	SLV 4	0.22	No
ini.	2	0	199323	-1751			1019	383	SLV 12	0.22	No
fin.	2	0	10978	-2489			1019	383	SLV 12	0.15	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.747	SLV 11	No
V_SLV	0.145	SLV 7	No
PF_SLU	0.875	SLU 78	No
V_SLU	0.142	SLU 78	No

Trave di accoppiamento 158

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	1187	1277	90	-1681.8	666.1	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1586	-9281	103792	SLU 72	11.18	Si
fin.	3	935	-386	103792	SLU 72	268.63	Si
ini.	3	1592	-9952	103792	SLU 38	10.43	Si
fin.	3	977	-894	103792	SLU 38	116.08	Si
ini.	3	1583	-9181	103792	SLU 71	11.3	Si
fin.	3	939	-489	103792	SLU 71	212.14	Si
ini.	3	1589	-9852	103792	SLU 37	10.54	Si
fin.	3	982	-997	103792	SLU 37	104.1	Si
ini.	3	1572	-10357	103792	SLU 29	10.02	Si
fin.	3	906	-814	103792	SLU 29	127.56	Si
ini.	3	1535	-8931	103792	SLU 36	11.62	Si
fin.	3	980	-1048	103792	SLU 36	99.04	Si
ini.	3	1515	-9336	103792	SLU 27	11.12	Si
fin.	3	908	-967	103792	SLU 27	107.28	Si
ini.	3	1519	-9436	103792	SLU 28	11	Si
fin.	3	904	-865	103792	SLU 28	120.05	Si
ini.	3	1576	-10457	103792	SLU 30	9.93	Si
fin.	3	902	-711	103792	SLU 30	146.02	Si
ini.	3	1532	-8831	103792	SLU 35	11.75	Si
fin.	3	984	-1151	103792	SLU 35	90.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-8776	570			970	365	SLU 80	0.64	No
fin.	3	0	-570	290			970	365	SLU 80	1.26	Si
ini.	3	0	-8931	551			970	365	SLU 36	0.66	No
fin.	3	0	-1048	250			970	365	SLU 36	1.46	Si
ini.	3	0	-8831	545			970	365	SLU 35	0.67	No
fin.	3	0	-1151	245			970	365	SLU 35	1.49	Si
ini.	3	0	-6485	249			970	365	SLU 49	1.46	Si
fin.	3	0	-180	530			970	365	SLU 49	0.69	No
ini.	3	0	-9852	658			970	365	SLU 37	0.56	No
fin.	3	0	-997	206			970	365	SLU 37	1.78	Si
ini.	3	0	-8676	564			970	365	SLU 79	0.65	No
fin.	3	0	-673	285			970	365	SLU 79	1.28	Si
ini.	3	0	-9952	664			970	365	SLU 38	0.55	No
fin.	3	0	-894	211			970	365	SLU 38	1.73	Si
ini.	3	0	-6385	243			970	365	SLU 48	1.5	Si
fin.	3	0	-283	524			970	365	SLU 48	0.7	No
ini.	3	0	-10457	610			970	365	SLU 30	0.6	No
fin.	3	0	-711	356			970	365	SLU 30	1.03	Si
ini.	3	0	-10357	603			970	365	SLU 29	0.61	No
fin.	3	0	-814	351			970	365	SLU 29	1.04	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2143	-33985	121694	SLV 2	3.58	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-348	18252	121694	SLV 2	6.67	Si
ini.	2	2534	-47428	121694	SLV 4	2.57	Si
fin.	2	63	16905	121694	SLV 4	7.2	Si
ini.	2	-1387	37036	121694	SLV 15	3.29	Si
fin.	2	1080	-17223	121694	SLV 15	7.07	Si
ini.	2	2534	-47428	121694	SLV 3	2.57	Si
fin.	2	63	16905	121694	SLV 3	7.2	Si
ini.	2	2143	-33985	121694	SLV 1	3.58	Si
fin.	2	-348	18252	121694	SLV 1	6.67	Si
ini.	2	-862	36601	121694	SLV 9	3.32	Si
fin.	2	-166	-2360	121694	SLV 9	51.57	Si
ini.	2	-1778	50480	121694	SLV 14	2.41	Si
fin.	2	670	-15876	121694	SLV 14	7.67	Si
ini.	2	-1778	50480	121694	SLV 13	2.41	Si
fin.	2	670	-15876	121694	SLV 13	7.67	Si
ini.	2	-1387	37036	121694	SLV 16	3.29	Si
fin.	2	1080	-17223	121694	SLV 16	7.07	Si
ini.	2	-862	36601	121694	SLV 10	3.32	Si
fin.	2	-166	-2360	121694	SLV 10	51.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-33985	1646			1456	548	SLV 1	0.33	No
fin.	2	0	18252	1839			1456	548	SLV 1	0.3	No
ini.	2	0	-47428	2025			1456	548	SLV 4	0.27	No
fin.	2	0	16905	2273			1456	548	SLV 4	0.24	No
ini.	2	0	50480	-2181			1456	548	SLV 13	0.25	No
fin.	2	0	-15876	-1987			1456	548	SLV 13	0.28	No
ini.	2	0	-33550	1127			1456	548	SLV 7	0.49	No
fin.	2	0	3388	1441			1456	548	SLV 7	0.38	No
ini.	2	0	37036	-1803			1456	548	SLV 15	0.3	No
fin.	2	0	-17223	-1552			1456	548	SLV 15	0.35	No
ini.	2	0	-47428	2025			1456	548	SLV 3	0.27	No
fin.	2	0	16905	2273			1456	548	SLV 3	0.24	No
ini.	2	0	37036	-1803			1456	548	SLV 16	0.3	No
fin.	2	0	-17223	-1552			1456	548	SLV 16	0.35	No
ini.	2	0	-33985	1646			1456	548	SLV 2	0.33	No
fin.	2	0	18252	1839			1456	548	SLV 2	0.3	No
ini.	2	0	50480	-2181			1456	548	SLV 14	0.25	No
fin.	2	0	-15876	-1987			1456	548	SLV 14	0.28	No
ini.	2	0	-33550	1127			1456	548	SLV 8	0.49	No
fin.	2	0	3388	1441			1456	548	SLV 8	0.38	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.411	SLV 13	Si
V_SLV	0.241	SLV 3	No
PF_SLU	9.926	SLU 30	Si
V_SLU	0.55	SLU 38	No

Trave di accoppiamento 159

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1771.8	666.1	1457	1503	46	-1681.8	666.1	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1979	8331	30060	SLU 79	3.61	Si
fin.	3	-1974	-11728	30060	SLU 79	2.56	Si
ini.	3	-1853	7295	30060	SLU 35	4.12	Si
fin.	3	-1849	-11123	30060	SLU 35	2.7	Si
ini.	3	-1982	8290	30060	SLU 80	3.63	Si
fin.	3	-1977	-11696	30060	SLU 80	2.57	Si
ini.	3	-1919	7352	30060	SLU 78	4.09	Si
fin.	3	-1914	-11843	30060	SLU 78	2.54	Si
ini.	3	-1983	8068	30060	SLU 71	3.73	Si
fin.	3	-1978	-11592	30060	SLU 71	2.59	Si
ini.	3	-1916	7393	30060	SLU 77	4.07	Si
fin.	3	-1911	-11874	30060	SLU 77	2.53	Si
ini.	3	-1856	7254	30060	SLU 36	4.14	Si
fin.	3	-1851	-11092	30060	SLU 36	2.71	Si
ini.	3	-1986	8027	30060	SLU 72	3.74	Si
fin.	3	-1981	-11560	30060	SLU 72	2.6	Si
ini.	3	-1922	7090	30060	SLU 70	4.24	Si
fin.	3	-1918	-11706	30060	SLU 70	2.57	Si
ini.	3	-1920	7131	30060	SLU 69	4.22	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1915	-11738	30060	SLU 69	2.56	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	8331	96			331	124	SLU 79	1.3	Si
fin.	3	0	-11728	-599			331	124	SLU 79	0.21	No
ini.	3	0	8068	100			331	124	SLU 71	1.24	Si
fin.	3	0	-11592	-595			331	124	SLU 71	0.21	No
ini.	3	0	7131	178			331	124	SLU 69	0.7	No
fin.	3	0	-11738	-650			331	124	SLU 69	0.19	No
ini.	3	0	7090	179			331	124	SLU 70	0.7	No
fin.	3	0	-11706	-649			331	124	SLU 70	0.19	No
ini.	3	0	8027	101			331	124	SLU 72	1.23	Si
fin.	3	0	-11560	-594			331	124	SLU 72	0.21	No
ini.	3	0	7352	174			331	124	SLU 78	0.71	No
fin.	3	0	-11843	-653			331	124	SLU 78	0.19	No
ini.	3	0	8290	97			331	124	SLU 80	1.29	Si
fin.	3	0	-11696	-598			331	124	SLU 80	0.21	No
ini.	3	0	6217	180			331	124	SLU 56	0.69	No
fin.	3	0	-10526	-595			331	124	SLU 56	0.21	No
ini.	3	0	6176	181			331	124	SLU 57	0.69	No
fin.	3	0	-10495	-594			331	124	SLU 57	0.21	No
ini.	3	0	7393	174			331	124	SLU 77	0.72	No
fin.	3	0	-11874	-654			331	124	SLU 77	0.19	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2582	19896	44694	SLV 9	2.25	Si
fin.	2	-2665	-32100	44694	SLV 9	1.39	Si
ini.	2	1448	-15733	44694	SLV 7	2.84	Si
fin.	2	1534	23163	44694	SLV 7	1.93	Si
ini.	2	1448	-15733	44694	SLV 8	2.84	Si
fin.	2	1534	23163	44694	SLV 8	1.93	Si
ini.	2	-580	27241	44694	SLV 15	1.64	Si
fin.	2	-883	-31889	44694	SLV 15	1.4	Si
ini.	2	553	-28730	44694	SLV 4	1.56	Si
fin.	2	855	33635	44694	SLV 4	1.33	Si
ini.	2	-1687	32893	44694	SLV 14	1.36	Si
fin.	2	-1986	-42571	44694	SLV 14	1.05	Si
ini.	2	-580	27241	44694	SLV 16	1.64	Si
fin.	2	-883	-31889	44694	SLV 16	1.4	Si
ini.	2	-2582	19896	44694	SLV 10	2.25	Si
fin.	2	-2665	-32100	44694	SLV 10	1.39	Si
ini.	2	553	-28730	44694	SLV 3	1.56	Si
fin.	2	855	33635	44694	SLV 3	1.33	Si
ini.	2	-1687	32893	44694	SLV 13	1.36	Si
fin.	2	-1986	-42571	44694	SLV 13	1.05	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	19896	-284			496	187	SLV 9	0.66	No
fin.	2	0	-32100	-821			496	187	SLV 9	0.23	No
ini.	2	0	27241	-194			496	187	SLV 15	0.96	No
fin.	2	0	-31889	-654			496	187	SLV 15	0.29	No
ini.	2	0	27241	-194			496	187	SLV 16	0.96	No
fin.	2	0	-31889	-654			496	187	SLV 16	0.29	No
ini.	2	0	-15733	559			496	187	SLV 7	0.33	No
fin.	2	0	23163	241			496	187	SLV 7	0.77	No
ini.	2	0	-15733	559			496	187	SLV 8	0.33	No
fin.	2	0	23163	241			496	187	SLV 8	0.77	No
ini.	2	0	32893	-371			496	187	SLV 14	0.5	No
fin.	2	0	-42571	-886			496	187	SLV 14	0.21	No
ini.	2	0	-28730	646			496	187	SLV 4	0.29	No
fin.	2	0	33635	306			496	187	SLV 4	0.61	No
ini.	2	0	32893	-371			496	187	SLV 13	0.5	No
fin.	2	0	-42571	-886			496	187	SLV 13	0.21	No
ini.	2	0	-28730	646			496	187	SLV 3	0.29	No
fin.	2	0	33635	306			496	187	SLV 3	0.61	No
ini.	2	0	19896	-284			496	187	SLV 10	0.66	No
fin.	2	0	-32100	-821			496	187	SLV 10	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.05	SLV 13	Si
V_SLV	0.211	SLV 13	No
PF_SLU	2.532	SLU 77	Si
V_SLU	0.19	SLU 77	No

Trave di accoppiamento 160

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	1187	1277	90	-1193.8	666.1	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	35	12218	103792	SLU 69	8.5	Si
fin.	3	431	1369	103792	SLU 69	75.82	Si
ini.	3	116	12069	103792	SLU 79	8.6	Si
fin.	3	530	654	103792	SLU 79	158.62	Si
ini.	3	2	12280	103792	SLU 29	8.45	Si
fin.	3	400	1284	103792	SLU 29	80.8	Si
ini.	3	111	12139	103792	SLU 80	8.55	Si
fin.	3	526	684	103792	SLU 80	151.76	Si
ini.	3	1	13087	103792	SLU 72	7.93	Si
fin.	3	414	1721	103792	SLU 72	60.29	Si
ini.	3	-3	12349	103792	SLU 30	8.4	Si
fin.	3	397	1314	103792	SLU 30	78.99	Si
ini.	3	-63	12101	103792	SLU 51	8.58	Si
fin.	3	283	2563	103792	SLU 51	40.5	Si
ini.	3	30	12288	103792	SLU 70	8.45	Si
fin.	3	427	1399	103792	SLU 70	74.22	Si
ini.	3	-58	12031	103792	SLU 50	8.63	Si
fin.	3	287	2533	103792	SLU 50	40.97	Si
ini.	3	6	13017	103792	SLU 71	7.97	Si
fin.	3	418	1692	103792	SLU 71	61.35	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	11340	-982			970	365	SLU 78	0.37	No
fin.	3	0	361	284			970	365	SLU 78	1.29	Si
ini.	3	0	12218	-1031			970	365	SLU 69	0.35	No
fin.	3	0	1369	338			970	365	SLU 69	1.08	Si
ini.	3	0	13017	-1013			970	365	SLU 71	0.36	No
fin.	3	0	1692	294			970	365	SLU 71	1.24	Si
ini.	3	0	12069	-963			970	365	SLU 79	0.38	No
fin.	3	0	654	241			970	365	SLU 79	1.52	Si
ini.	3	0	13087	-1014			970	365	SLU 72	0.36	No
fin.	3	0	1721	292			970	365	SLU 72	1.25	Si
ini.	3	0	12288	-1032			970	365	SLU 70	0.35	No
fin.	3	0	1399	337			970	365	SLU 70	1.08	Si
ini.	3	0	11232	-967			970	365	SLU 48	0.38	No
fin.	3	0	2210	387			970	365	SLU 48	0.94	No
ini.	3	0	12139	-965			970	365	SLU 80	0.38	No
fin.	3	0	684	239			970	365	SLU 80	1.53	Si
ini.	3	0	11302	-968			970	365	SLU 49	0.38	No
fin.	3	0	2240	386			970	365	SLU 49	0.95	No
ini.	3	0	11270	-981			970	365	SLU 77	0.37	No
fin.	3	0	331	285			970	365	SLU 77	1.28	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2007	-35898	121694	SLV 1	3.39	Si
fin.	2	-2023	43975	121694	SLV 1	2.77	Si
ini.	2	-1740	43089	121694	SLV 16	2.82	Si
fin.	2	2574	-44255	121694	SLV 16	2.75	Si
ini.	2	-2253	48455	121694	SLV 13	2.51	Si
fin.	2	2130	-41031	121694	SLV 13	2.97	Si
ini.	2	-1740	43089	121694	SLV 15	2.82	Si
fin.	2	2574	-44255	121694	SLV 15	2.75	Si
ini.	2	-1361	25191	121694	SLV 10	4.83	Si
fin.	2	158	-7518	121694	SLV 10	16.19	Si
ini.	2	2007	-35898	121694	SLV 2	3.39	Si
fin.	2	-2023	43975	121694	SLV 2	2.77	Si
ini.	2	-1361	25191	121694	SLV 9	4.83	Si
fin.	2	158	-7518	121694	SLV 9	16.19	Si
ini.	2	2520	-41264	121694	SLV 3	2.95	Si
fin.	2	-1579	40750	121694	SLV 3	2.99	Si
ini.	2	-2253	48455	121694	SLV 14	2.51	Si
fin.	2	2130	-41031	121694	SLV 14	2.97	Si
ini.	2	2520	-41264	121694	SLV 4	2.95	Si
fin.	2	-1579	40750	121694	SLV 4	2.99	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	22764	-1793			1456	548	SLD 13	0.31	No
fin.	2	0	-17629	-1022			1456	548	SLD 13	0.54	No
ini.	2	0	-35898	2409			1456	548	SLV 2	0.23	No
fin.	2	0	43975	3237			1456	548	SLV 2	0.17	No
ini.	2	0	-35898	2409			1456	548	SLV 1	0.23	No
fin.	2	0	43975	3237			1456	548	SLV 1	0.17	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	48455	-3555			1456	548	SLV 13	0.15	No
fin.	2	0	-41031	-2698			1456	548	SLV 13	0.2	No
ini.	2	0	43089	-3366			1456	548	SLV 15	0.16	No
fin.	2	0	-44255	-2778			1456	548	SLV 15	0.2	No
ini.	2	0	-41264	2597			1456	548	SLV 4	0.21	No
fin.	2	0	40750	3157			1456	548	SLV 4	0.17	No
ini.	2	0	-41264	2597			1456	548	SLV 3	0.21	No
fin.	2	0	40750	3157			1456	548	SLV 3	0.17	No
ini.	2	0	22764	-1793			1456	548	SLD 14	0.31	No
fin.	2	0	-17629	-1022			1456	548	SLD 14	0.54	No
ini.	2	0	48455	-3555			1456	548	SLV 14	0.15	No
fin.	2	0	-41031	-2698			1456	548	SLV 14	0.2	No
ini.	2	0	43089	-3366			1456	548	SLV 16	0.16	No
fin.	2	0	-44255	-2778			1456	548	SLV 16	0.2	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.512	SLV 13	Si
V_SLV	0.154	SLV 13	No
PF_SLU	7.931	SLU 72	Si
V_SLU	0.354	SLU 70	No

Trave di accoppiamento 161

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1283.8	666.1	1457	1503	46	-1193.8	666.1	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-536	-504	30060	SLU 70	59.69	Si
fin.	3	-535	-7219	30060	SLU 70	4.16	Si
ini.	3	-600	-410	30060	SLU 71	73.36	Si
fin.	3	-599	-7430	30060	SLU 71	4.05	Si
ini.	3	-501	-40	30060	SLU 80	747.52	Si
fin.	3	-499	-7120	30060	SLU 80	4.22	Si
ini.	3	-610	-382	30060	SLU 30	78.73	Si
fin.	3	-608	-7231	30060	SLU 30	4.16	Si
ini.	3	-540	-468	30060	SLU 28	64.25	Si
fin.	3	-538	-6993	30060	SLU 28	4.3	Si
ini.	3	-606	-418	30060	SLU 72	71.99	Si
fin.	3	-604	-7457	30060	SLU 72	4.03	Si
ini.	3	-495	-32	30060	SLU 79	926.16	Si
fin.	3	-494	-7093	30060	SLU 79	4.24	Si
ini.	3	-531	-496	30060	SLU 69	60.62	Si
fin.	3	-529	-7192	30060	SLU 69	4.18	Si
ini.	3	-534	-460	30060	SLU 27	65.33	Si
fin.	3	-533	-6966	30060	SLU 27	4.32	Si
ini.	3	-604	-374	30060	SLU 29	80.36	Si
fin.	3	-602	-7203	30060	SLU 29	4.17	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-390	268			331	124	SLU 56	0.46	No
fin.	3	0	-6015	-407			331	124	SLU 56	0.31	No
ini.	3	0	-410	259			331	124	SLU 71	0.48	No
fin.	3	0	-7430	-429			331	124	SLU 71	0.29	No
ini.	3	0	-418	259			331	124	SLU 72	0.48	No
fin.	3	0	-7457	-429			331	124	SLU 72	0.29	No
ini.	3	0	-40	258			331	124	SLU 80	0.48	No
fin.	3	0	-7120	-430			331	124	SLU 80	0.29	No
ini.	3	0	-126	283			331	124	SLU 78	0.44	No
fin.	3	0	-6882	-449			331	124	SLU 78	0.28	No
ini.	3	0	-32	258			331	124	SLU 79	0.48	No
fin.	3	0	-7093	-429			331	124	SLU 79	0.29	No
ini.	3	0	-504	283			331	124	SLU 70	0.44	No
fin.	3	0	-7219	-448			331	124	SLU 70	0.28	No
ini.	3	0	-398	268			331	124	SLU 57	0.47	No
fin.	3	0	-6042	-407			331	124	SLU 57	0.31	No
ini.	3	0	-496	283			331	124	SLU 69	0.44	No
fin.	3	0	-7192	-448			331	124	SLU 69	0.28	No
ini.	3	0	-119	283			331	124	SLU 77	0.44	No
fin.	3	0	-6855	-449			331	124	SLU 77	0.28	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	237	-24910	44694	SLV 4	1.79	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	352	25539	44694	SLV 4	1.75	Si
ini.	2	-210	25664	44694	SLV 14	1.74	Si
fin.	2	-325	-29255	44694	SLV 14	1.53	Si
ini.	2	284	27013	44694	SLV 16	1.65	Si
fin.	2	170	-26756	44694	SLV 16	1.67	Si
ini.	2	-803	5918	44694	SLV 9	7.55	Si
fin.	2	-838	-13867	44694	SLV 9	3.22	Si
ini.	2	-803	5918	44694	SLV 10	7.55	Si
fin.	2	-838	-13867	44694	SLV 10	3.22	Si
ini.	2	284	27013	44694	SLV 15	1.65	Si
fin.	2	170	-26756	44694	SLV 15	1.67	Si
ini.	2	-258	-26258	44694	SLV 2	1.7	Si
fin.	2	-143	23040	44694	SLV 2	1.94	Si
ini.	2	-258	-26258	44694	SLV 1	1.7	Si
fin.	2	-143	23040	44694	SLV 1	1.94	Si
ini.	2	237	-24910	44694	SLV 3	1.79	Si
fin.	2	352	25539	44694	SLV 3	1.75	Si
ini.	2	-210	25664	44694	SLV 13	1.74	Si
fin.	2	-325	-29255	44694	SLV 13	1.53	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-24910	719			496	187	SLV 4	0.26	No
fin.	2	0	25539	417			496	187	SLV 4	0.45	No
ini.	2	0	-24910	719			496	187	SLV 3	0.26	No
fin.	2	0	25539	417			496	187	SLV 3	0.45	No
ini.	2	0	25664	-418			496	187	SLV 13	0.45	No
fin.	2	0	-29255	-829			496	187	SLV 13	0.23	No
ini.	2	0	-26258	747			496	187	SLV 1	0.25	No
fin.	2	0	23040	349			496	187	SLV 1	0.54	No
ini.	2	0	25664	-418			496	187	SLV 14	0.45	No
fin.	2	0	-29255	-829			496	187	SLV 14	0.23	No
ini.	2	0	27013	-446			496	187	SLV 16	0.42	No
fin.	2	0	-26756	-761			496	187	SLV 16	0.25	No
ini.	2	0	27013	-446			496	187	SLV 15	0.42	No
fin.	2	0	-26756	-761			496	187	SLV 15	0.25	No
ini.	2	0	5918	23			496	187	SLV 9	8.21	Si
fin.	2	0	-13867	-497			496	187	SLV 9	0.38	No
ini.	2	0	5918	23			496	187	SLV 10	8.21	Si
fin.	2	0	-13867	-497			496	187	SLV 10	0.38	No
ini.	2	0	-26258	747			496	187	SLV 2	0.25	No
fin.	2	0	23040	349			496	187	SLV 2	0.54	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.528	SLV 13	Si
V_SLV	0.225	SLV 13	No
PF_SLU	4.031	SLU 72	Si
V_SLU	0.277	SLU 78	No

Trave di accoppiamento 162

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	1187	1277	90	-705.8	666.1	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	592	4989	103792	SLU 28	20.8	Si
fin.	3	1158	-12979	103792	SLU 28	8	Si
ini.	3	647	5381	103792	SLU 38	19.29	Si
fin.	3	1204	-13609	103792	SLU 38	7.63	Si
ini.	3	574	5544	103792	SLU 29	18.72	Si
fin.	3	1191	-14001	103792	SLU 29	7.41	Si
ini.	3	604	5836	103792	SLU 72	17.78	Si
fin.	3	1205	-13220	103792	SLU 72	7.85	Si
ini.	3	608	5766	103792	SLU 71	18	Si
fin.	3	1198	-13043	103792	SLU 71	7.96	Si
ini.	3	681	5603	103792	SLU 80	18.52	Si
fin.	3	1211	-12652	103792	SLU 80	8.2	Si
ini.	3	570	5614	103792	SLU 30	18.49	Si
fin.	3	1197	-14178	103792	SLU 30	7.32	Si
ini.	3	596	4919	103792	SLU 27	21.1	Si
fin.	3	1151	-12802	103792	SLU 27	8.11	Si
ini.	3	651	5311	103792	SLU 37	19.54	Si
fin.	3	1197	-13432	103792	SLU 37	7.73	Si
ini.	3	685	5533	103792	SLU 79	18.76	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	1205	-12474	103792	SLU 79	8.32	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	5766	-801			970	365	SLU 71	0.46	No
fin.	3	0	-13043	-356			970	365	SLU 71	1.03	Si
ini.	3	0	5211	-824			970	365	SLU 70	0.44	No
fin.	3	0	-12021	-259			970	365	SLU 70	1.41	Si
ini.	3	0	4845	-843			970	365	SLU 49	0.43	No
fin.	3	0	-9882	-139			970	365	SLU 49	2.63	Si
ini.	3	0	5399	-820			970	365	SLU 50	0.45	No
fin.	3	0	-10903	-236			970	365	SLU 50	1.55	Si
ini.	3	0	5141	-817			970	365	SLU 69	0.45	No
fin.	3	0	-11844	-249			970	365	SLU 69	1.47	Si
ini.	3	0	5469	-827			970	365	SLU 51	0.44	No
fin.	3	0	-11081	-246			970	365	SLU 51	1.49	Si
ini.	3	0	4623	-758			970	365	SLU 7	0.48	No
fin.	3	0	-10840	-234			970	365	SLU 7	1.56	Si
ini.	3	0	4553	-752			970	365	SLU 6	0.49	No
fin.	3	0	-10663	-224			970	365	SLU 6	1.63	Si
ini.	3	0	4775	-837			970	365	SLU 48	0.44	No
fin.	3	0	-9705	-129			970	365	SLU 48	2.83	Si
ini.	3	0	5836	-807			970	365	SLU 72	0.45	No
fin.	3	0	-13220	-366			970	365	SLU 72	1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1091	-14286	121694	SLV 4	8.52	Si
fin.	2	-1523	33836	121694	SLV 4	3.6	Si
ini.	2	-454	16681	121694	SLV 13	7.3	Si
fin.	2	2086	-33238	121694	SLV 13	3.66	Si
ini.	2	-454	16681	121694	SLV 14	7.3	Si
fin.	2	2086	-33238	121694	SLV 14	3.66	Si
ini.	2	-79	18328	121694	SLV 16	6.64	Si
fin.	2	2435	-42414	121694	SLV 16	2.87	Si
ini.	2	716	-15932	121694	SLV 2	7.64	Si
fin.	2	-1873	43013	121694	SLV 2	2.83	Si
ini.	2	-132	-6439	121694	SLV 6	18.9	Si
fin.	2	-895	27032	121694	SLV 6	4.5	Si
ini.	2	716	-15932	121694	SLV 1	7.64	Si
fin.	2	-1873	43013	121694	SLV 1	2.83	Si
ini.	2	-132	-6439	121694	SLV 5	18.9	Si
fin.	2	-895	27032	121694	SLV 5	4.5	Si
ini.	2	1091	-14286	121694	SLV 3	8.52	Si
fin.	2	-1523	33836	121694	SLV 3	3.6	Si
ini.	2	-79	18328	121694	SLV 15	6.64	Si
fin.	2	2435	-42414	121694	SLV 15	2.87	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	8834	-1298			1456	548	SLV 12	0.42	No
fin.	2	0	-26433	-892			1456	548	SLV 12	0.61	No
ini.	2	0	18328	-2268			1456	548	SLV 16	0.24	No
fin.	2	0	-42414	-1847			1456	548	SLV 16	0.3	No
ini.	2	0	-14286	1534			1456	548	SLV 3	0.36	No
fin.	2	0	33836	1829			1456	548	SLV 3	0.3	No
ini.	2	0	-15932	1844			1456	548	SLV 2	0.3	No
fin.	2	0	43013	2113			1456	548	SLV 2	0.26	No
ini.	2	0	-15932	1844			1456	548	SLV 1	0.3	No
fin.	2	0	43013	2113			1456	548	SLV 1	0.26	No
ini.	2	0	18328	-2268			1456	548	SLV 15	0.24	No
fin.	2	0	-42414	-1847			1456	548	SLV 15	0.3	No
ini.	2	0	16681	-1959			1456	548	SLV 14	0.28	No
fin.	2	0	-33238	-1563			1456	548	SLV 14	0.35	No
ini.	2	0	-14286	1534			1456	548	SLV 4	0.36	No
fin.	2	0	33836	1829			1456	548	SLV 4	0.3	No
ini.	2	0	8834	-1298			1456	548	SLV 11	0.42	No
fin.	2	0	-26433	-892			1456	548	SLV 11	0.61	No
ini.	2	0	16681	-1959			1456	548	SLV 13	0.28	No
fin.	2	0	-33238	-1563			1456	548	SLV 13	0.35	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.829	SLV 1	Si
V_SLV	0.242	SLV 15	No
PF_SLU	7.321	SLU 30	Si
V_SLU	0.433	SLU 49	No

Trave di accoppiamento 163

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-795.8	666.1	1457	1503	46	-705.8	666.1	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-426	-4534	30060	SLU 74	6.63	Si
fin.	3	-429	795	30060	SLU 74	37.8	Si
ini.	3	-597	-4917	30060	SLU 69	6.11	Si
fin.	3	-602	891	30060	SLU 69	33.75	Si
ini.	3	-591	-4646	30060	SLU 79	6.47	Si
fin.	3	-595	1846	30060	SLU 79	16.28	Si
ini.	3	-597	-4849	30060	SLU 70	6.2	Si
fin.	3	-601	841	30060	SLU 70	35.72	Si
ini.	3	-541	-4564	30060	SLU 57	6.59	Si
fin.	3	-545	756	30060	SLU 57	39.74	Si
ini.	3	-595	-5083	30060	SLU 77	5.91	Si
fin.	3	-599	1187	30060	SLU 77	25.32	Si
ini.	3	-542	-4632	30060	SLU 56	6.49	Si
fin.	3	-545	805	30060	SLU 56	37.32	Si
ini.	3	-590	-4578	30060	SLU 80	6.57	Si
fin.	3	-595	1797	30060	SLU 80	16.73	Si
ini.	3	-594	-5015	30060	SLU 78	5.99	Si
fin.	3	-598	1138	30060	SLU 78	26.42	Si
ini.	3	-561	-4524	30060	SLU 35	6.64	Si
fin.	3	-566	1199	30060	SLU 35	25.07	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-4849	481			331	124	SLU 70	0.26	No
fin.	3	0	841	-354			331	124	SLU 70	0.35	No
ini.	3	0	-5015	486			331	124	SLU 78	0.26	No
fin.	3	0	1138	-348			331	124	SLU 78	0.36	No
ini.	3	0	-4564	448			331	124	SLU 57	0.28	No
fin.	3	0	756	-334			331	124	SLU 57	0.37	No
ini.	3	0	-4467	438			331	124	SLU 75	0.28	No
fin.	3	0	746	-338			331	124	SLU 75	0.37	No
ini.	3	0	-4632	450			331	124	SLU 56	0.28	No
fin.	3	0	805	-333			331	124	SLU 56	0.37	No
ini.	3	0	-5083	487			331	124	SLU 77	0.26	No
fin.	3	0	1187	-347			331	124	SLU 77	0.36	No
ini.	3	0	-4399	444			331	124	SLU 49	0.28	No
fin.	3	0	460	-339			331	124	SLU 49	0.37	No
ini.	3	0	-4917	483			331	124	SLU 69	0.26	No
fin.	3	0	891	-352			331	124	SLU 69	0.35	No
ini.	3	0	-4467	445			331	124	SLU 48	0.28	No
fin.	3	0	509	-338			331	124	SLU 48	0.37	No
ini.	3	0	-4534	439			331	124	SLU 74	0.28	No
fin.	3	0	795	-337			331	124	SLU 74	0.37	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2037	-20054	44694	SLV 6	2.23	Si
fin.	2	-1989	9925	44694	SLV 6	4.5	Si
ini.	2	-1998	-22668	44694	SLV 2	1.97	Si
fin.	2	-1838	11560	44694	SLV 2	3.87	Si
ini.	2	1627	17565	44694	SLV 15	2.54	Si
fin.	2	1465	-10380	44694	SLV 15	4.31	Si
ini.	2	1666	14951	44694	SLV 11	2.99	Si
fin.	2	1616	-8744	44694	SLV 11	5.11	Si
ini.	2	-1998	-22668	44694	SLV 1	1.97	Si
fin.	2	-1838	11560	44694	SLV 1	3.87	Si
ini.	2	-1136	-15107	44694	SLV 4	2.96	Si
fin.	2	-976	7575	44694	SLV 4	5.9	Si
ini.	2	-2037	-20054	44694	SLV 5	2.23	Si
fin.	2	-1989	9925	44694	SLV 5	4.5	Si
ini.	2	1627	17565	44694	SLV 16	2.54	Si
fin.	2	1465	-10380	44694	SLV 16	4.31	Si
ini.	2	-1136	-15107	44694	SLV 3	2.96	Si
fin.	2	-976	7575	44694	SLV 3	5.9	Si
ini.	2	1666	14951	44694	SLV 12	2.99	Si
fin.	2	1616	-8744	44694	SLV 12	5.11	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-15107	618			496	187	SLV 4	0.3	No
fin.	2	0	7575	276			496	187	SLV 4	0.68	No
ini.	2	0	-20054	671			496	187	SLV 6	0.28	No
fin.	2	0	9925	-104			496	187	SLV 6	1.8	Si
ini.	2	0	10004	-128			496	187	SLV 14	1.45	Si
fin.	2	0	-6395	-656			496	187	SLV 14	0.28	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	17565	-301			496	187	SLV 16	0.62	No
fin.	2	0	-10380	-626			496	187	SLV 16	0.3	No
ini.	2	0	17565	-301			496	187	SLV 15	0.62	No
fin.	2	0	-10380	-626			496	187	SLV 15	0.3	No
ini.	2	0	-22668	791			496	187	SLV 2	0.24	No
fin.	2	0	11560	246			496	187	SLV 2	0.76	No
ini.	2	0	-20054	671			496	187	SLV 5	0.28	No
fin.	2	0	9925	-104			496	187	SLV 5	1.8	Si
ini.	2	0	-22668	791			496	187	SLV 1	0.24	No
fin.	2	0	11560	246			496	187	SLV 1	0.76	No
ini.	2	0	10004	-128			496	187	SLV 13	1.45	Si
fin.	2	0	-6395	-656			496	187	SLV 13	0.28	No
ini.	2	0	-15107	618			496	187	SLV 3	0.3	No
fin.	2	0	7575	276			496	187	SLV 3	0.68	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.972	SLV 1	Si
V_SLV	0.236	SLV 1	No
PF_SLU	5.914	SLU 77	Si
V_SLU	0.255	SLU 77	No

Trave di accoppiamento 164

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1986.8	104.6	1397	1503	106	-2066.8	104.6	1397	1503	106	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3131	35533	131792	SLU 37	3.71	Si
fin.	3	-4720	-43247	131792	SLU 37	3.05	Si
ini.	3	-3083	36342	131792	SLU 38	3.63	Si
fin.	3	-4669	-42976	131792	SLU 38	3.07	Si
ini.	3	-2823	37677	131792	SLU 69	3.5	Si
fin.	3	-4284	-42451	131792	SLU 69	3.1	Si
ini.	3	-3490	34868	131792	SLU 77	3.78	Si
fin.	3	-5157	-45027	131792	SLU 77	2.93	Si
ini.	3	-2776	38487	131792	SLU 70	3.42	Si
fin.	3	-4233	-42180	131792	SLU 70	3.12	Si
ini.	3	-2691	41155	131792	SLU 71	3.2	Si
fin.	3	-4197	-44253	131792	SLU 71	2.98	Si
ini.	3	-3358	38345	131792	SLU 79	3.44	Si
fin.	3	-5070	-46829	131792	SLU 79	2.81	Si
ini.	3	-3311	39155	131792	SLU 80	3.37	Si
fin.	3	-5018	-46557	131792	SLU 80	2.83	Si
ini.	3	-3443	35677	131792	SLU 78	3.69	Si
fin.	3	-5105	-44755	131792	SLU 78	2.94	Si
ini.	3	-2643	41964	131792	SLU 72	3.14	Si
fin.	3	-4146	-43982	131792	SLU 72	3	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	39155	1595			1143	430	SLU 80	0.27	No
fin.	3	0	-46557	-3502			1143	430	SLU 80	0.12	No
ini.	3	0	41964	1671			1143	430	SLU 72	0.26	No
fin.	3	0	-43982	-3338			1143	430	SLU 72	0.13	No
ini.	3	0	35677	1709			1143	430	SLU 78	0.25	No
fin.	3	0	-44755	-3528			1143	430	SLU 78	0.12	No
ini.	3	0	38487	1785			1143	430	SLU 70	0.24	No
fin.	3	0	-42180	-3364			1143	430	SLU 70	0.13	No
ini.	3	0	37677	1731			1143	430	SLU 69	0.25	No
fin.	3	0	-42451	-3348			1143	430	SLU 69	0.13	No
ini.	3	0	38345	1541			1143	430	SLU 79	0.28	No
fin.	3	0	-46829	-3486			1143	430	SLU 79	0.12	No
ini.	3	0	32865	1628			1143	430	SLU 36	0.26	No
fin.	3	0	-41174	-3231			1143	430	SLU 36	0.13	No
ini.	3	0	34868	1655			1143	430	SLU 77	0.26	No
fin.	3	0	-45027	-3512			1143	430	SLU 77	0.12	No
ini.	3	0	32055	1573			1143	430	SLU 35	0.27	No
fin.	3	0	-41445	-3216			1143	430	SLU 35	0.13	No
ini.	3	0	41155	1617			1143	430	SLU 71	0.27	No
fin.	3	0	-44253	-3322			1143	430	SLU 71	0.13	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2130	93660	149694	SLV 1	1.6	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-4714	-106676	149694	SLV 1	1.4	Si
ini.	2	-1675	-68902	149694	SLV 16	2.17	Si
fin.	2	-786	64284	149694	SLV 16	2.33	Si
ini.	2	-1763	92739	149694	SLV 3	1.61	Si
fin.	2	-4372	-96059	149694	SLV 3	1.56	Si
ini.	2	-1763	92739	149694	SLV 4	1.61	Si
fin.	2	-4372	-96059	149694	SLV 4	1.56	Si
ini.	2	-2042	-67981	149694	SLV 14	2.2	Si
fin.	2	-1128	53667	149694	SLV 14	2.79	Si
ini.	2	-2527	38159	149694	SLV 6	3.92	Si
fin.	2	-3858	-62943	149694	SLV 6	2.38	Si
ini.	2	-2042	-67981	149694	SLV 13	2.2	Si
fin.	2	-1128	53667	149694	SLV 13	2.79	Si
ini.	2	-2527	38159	149694	SLV 5	3.92	Si
fin.	2	-3858	-62943	149694	SLV 5	2.38	Si
ini.	2	-2130	93660	149694	SLV 2	1.6	Si
fin.	2	-4714	-106676	149694	SLV 2	1.4	Si
ini.	2	-1675	-68902	149694	SLV 15	2.17	Si
fin.	2	-786	64284	149694	SLV 15	2.33	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	93660	-1524			1715	645	SLV 2	0.42	No
fin.	2	0	-106676	-4983			1715	645	SLV 2	0.13	No
ini.	2	0	35091	64			1715	645	SLV 8	10.16	Si
fin.	2	0	-27552	-2857			1715	645	SLV 8	0.23	No
ini.	2	0	93660	-1524			1715	645	SLV 1	0.42	No
fin.	2	0	-106676	-4983			1715	645	SLV 1	0.13	No
ini.	2	0	35091	64			1715	645	SLV 7	10.16	Si
fin.	2	0	-27552	-2857			1715	645	SLV 7	0.23	No
ini.	2	0	92739	-1425			1715	645	SLV 3	0.45	No
fin.	2	0	-96059	-5098			1715	645	SLV 3	0.13	No
ini.	2	0	47111	-373			1715	645	SLD 2	1.73	Si
fin.	2	0	-57639	-3076			1715	645	SLD 2	0.21	No
ini.	2	0	46786	-331			1715	645	SLD 3	1.95	Si
fin.	2	0	-53456	-3122			1715	645	SLD 3	0.21	No
ini.	2	0	92739	-1425			1715	645	SLV 4	0.45	No
fin.	2	0	-96059	-5098			1715	645	SLV 4	0.13	No
ini.	2	0	46786	-331			1715	645	SLD 4	1.95	Si
fin.	2	0	-53456	-3122			1715	645	SLD 4	0.21	No
ini.	2	0	47111	-373			1715	645	SLD 1	1.73	Si
fin.	2	0	-57639	-3076			1715	645	SLD 1	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.403	SLV 1	Si
V_SLV	0.127	SLV 3	No
PF_SLU	2.814	SLU 79	Si
V_SLU	0.122	SLU 78	No

Trave di accoppiamento 165

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1116.3	104.6	1437	1503	66	-1228.3	104.6	1437	1503	66	112	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2258	-29390	61792	SLU 70	2.1	Si
fin.	3	-1409	-11619	61792	SLU 70	5.32	Si
ini.	3	-1904	-27197	61792	SLU 48	2.27	Si
fin.	3	-1077	-8539	61792	SLU 48	7.24	Si
ini.	3	-2231	-28622	61792	SLU 71	2.16	Si
fin.	3	-1377	-10514	61792	SLU 71	5.88	Si
ini.	3	-2284	-29498	61792	SLU 69	2.09	Si
fin.	3	-1437	-11841	61792	SLU 69	5.22	Si
ini.	3	-2427	-27589	61792	SLU 80	2.24	Si
fin.	3	-1680	-13045	61792	SLU 80	4.74	Si
ini.	3	-2480	-28466	61792	SLU 78	2.17	Si
fin.	3	-1740	-14372	61792	SLU 78	4.3	Si
ini.	3	-2452	-27697	61792	SLU 79	2.23	Si
fin.	3	-1708	-13267	61792	SLU 79	4.66	Si
ini.	3	-2505	-28574	61792	SLU 77	2.16	Si
fin.	3	-1768	-14594	61792	SLU 77	4.23	Si
ini.	3	-2205	-28514	61792	SLU 72	2.17	Si
fin.	3	-1350	-10292	61792	SLU 72	6	Si
ini.	3	-1879	-27089	61792	SLU 49	2.28	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1050	-8317	61792	SLU 49	7.43	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-28514	2885			474	179	SLU 72	0.06	No
fin.	3	0	-10292	-1337			474	179	SLU 72	0.13	No
ini.	3	0	-28574	2965			474	179	SLU 77	0.06	No
fin.	3	0	-14594	-1581			474	179	SLU 77	0.11	No
ini.	3	0	-27697	2832			474	179	SLU 79	0.06	No
fin.	3	0	-13267	-1453			474	179	SLU 79	0.12	No
ini.	3	0	-28622	2896			474	179	SLU 71	0.06	No
fin.	3	0	-10514	-1348			474	179	SLU 71	0.13	No
ini.	3	0	-29390	3018			474	179	SLU 70	0.06	No
fin.	3	0	-11619	-1464			474	179	SLU 70	0.12	No
ini.	3	0	-27197	2794			474	179	SLU 48	0.06	No
fin.	3	0	-8539	-1282			474	179	SLU 48	0.14	No
ini.	3	0	-27089	2783			474	179	SLU 49	0.06	No
fin.	3	0	-8317	-1270			474	179	SLU 49	0.14	No
ini.	3	0	-29498	3030			474	179	SLU 69	0.06	No
fin.	3	0	-11841	-1476			474	179	SLU 69	0.12	No
ini.	3	0	-27589	2821			474	179	SLU 80	0.06	No
fin.	3	0	-13045	-1442			474	179	SLU 80	0.12	No
ini.	3	0	-28466	2954			474	179	SLU 78	0.06	No
fin.	3	0	-14372	-1569			474	179	SLU 78	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-60	-45768	79694	SLV 16	1.74	Si
fin.	2	4809	83954	79694	SLV 16	0.95	No
ini.	2	-2273	17044	79694	SLV 2	4.68	Si
fin.	2	-6387	-96707	79694	SLV 2	0.82	No
ini.	2	-385	-58073	79694	SLV 14	1.37	Si
fin.	2	5448	97069	79694	SLV 14	0.82	No
ini.	2	-60	-45768	79694	SLV 15	1.74	Si
fin.	2	4809	83954	79694	SLV 15	0.95	No
ini.	2	-2273	17044	79694	SLV 1	4.68	Si
fin.	2	-6387	-96707	79694	SLV 1	0.82	No
ini.	2	-1948	29349	79694	SLV 4	2.72	Si
fin.	2	-7026	-109822	79694	SLV 4	0.73	No
ini.	2	-385	-58073	79694	SLV 13	1.37	Si
fin.	2	5448	97069	79694	SLV 13	0.82	No
ini.	2	-909	17415	79694	SLV 8	4.58	Si
fin.	2	-3630	-57301	79694	SLV 8	1.39	Si
ini.	2	-1948	29349	79694	SLV 3	2.72	Si
fin.	2	-7026	-109822	79694	SLV 3	0.73	No
ini.	2	-909	17415	79694	SLV 7	4.58	Si
fin.	2	-3630	-57301	79694	SLV 7	1.39	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	29349	-1538			712	268	SLV 4	0.17	No
fin.	2	0	-109822	-5051			712	268	SLV 4	0.05	No
ini.	2	0	-58073	4633			712	268	SLV 14	0.06	No
fin.	2	0	97069	3416			712	268	SLV 14	0.08	No
ini.	2	0	-58073	4633			712	268	SLV 13	0.06	No
fin.	2	0	97069	3416			712	268	SLV 13	0.08	No
ini.	2	0	17044	-656			712	268	SLV 2	0.41	No
fin.	2	0	-96707	-4389			712	268	SLV 2	0.06	No
ini.	2	0	-46139	3810			712	268	SLV 9	0.07	No
fin.	2	0	44548	1455			712	268	SLV 9	0.18	No
ini.	2	0	-45768	3751			712	268	SLV 16	0.07	No
fin.	2	0	83954	2754			712	268	SLV 16	0.1	No
ini.	2	0	-45768	3751			712	268	SLV 15	0.07	No
fin.	2	0	83954	2754			712	268	SLV 15	0.1	No
ini.	2	0	17044	-656			712	268	SLV 1	0.41	No
fin.	2	0	-96707	-4389			712	268	SLV 1	0.06	No
ini.	2	0	-46139	3810			712	268	SLV 10	0.07	No
fin.	2	0	44548	1455			712	268	SLV 10	0.18	No
ini.	2	0	29349	-1538			712	268	SLV 3	0.17	No
fin.	2	0	-109822	-5051			712	268	SLV 3	0.05	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.726	SLV 3	No
V_SLV	0.053	SLV 3	No
PF_SLU	2.095	SLU 69	Si
V_SLU	0.059	SLU 69	No

Trave di accoppiamento 166

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-938.6	104.6	1437	1503	66	-1046.6	104.6	1437	1503	66	108	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1668	-9080	61792	SLU 79	6.81	Si
fin.	3	-2159	-35110	61792	SLU 79	1.76	Si
ini.	3	-1702	-10423	61792	SLU 78	5.93	Si
fin.	3	-2179	-35605	61792	SLU 78	1.74	Si
ini.	3	-1525	-5318	61792	SLU 37	11.62	Si
fin.	3	-2046	-33327	61792	SLU 37	1.85	Si
ini.	3	-1488	-10676	61792	SLU 69	5.79	Si
fin.	3	-1949	-34879	61792	SLU 69	1.77	Si
ini.	3	-1559	-6661	61792	SLU 36	9.28	Si
fin.	3	-2066	-33822	61792	SLU 36	1.83	Si
ini.	3	-1464	-10100	61792	SLU 71	6.12	Si
fin.	3	-1912	-33708	61792	SLU 71	1.83	Si
ini.	3	-1678	-9847	61792	SLU 80	6.28	Si
fin.	3	-2141	-34434	61792	SLU 80	1.79	Si
ini.	3	-1549	-5894	61792	SLU 35	10.48	Si
fin.	3	-2083	-34498	61792	SLU 35	1.79	Si
ini.	3	-1691	-9656	61792	SLU 77	6.4	Si
fin.	3	-2197	-36281	61792	SLU 77	1.7	Si
ini.	3	-1499	-11443	61792	SLU 70	5.4	Si
fin.	3	-1931	-34203	61792	SLU 70	1.81	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-10676	788			474	179	SLU 69	0.23	No
fin.	3	0	-34879	-1593			474	179	SLU 69	0.11	No
ini.	3	0	-9847	717			474	179	SLU 80	0.25	No
fin.	3	0	-34434	-1537			474	179	SLU 80	0.12	No
ini.	3	0	-9656	738			474	179	SLU 77	0.24	No
fin.	3	0	-36281	-1622			474	179	SLU 77	0.11	No
ini.	3	0	-10423	760			474	179	SLU 78	0.23	No
fin.	3	0	-35605	-1597			474	179	SLU 78	0.11	No
ini.	3	0	-5894	541			474	179	SLU 35	0.33	No
fin.	3	0	-34498	-1482			474	179	SLU 35	0.12	No
ini.	3	0	-10866	767			474	179	SLU 72	0.23	No
fin.	3	0	-33032	-1508			474	179	SLU 72	0.12	No
ini.	3	0	-9080	695			474	179	SLU 79	0.26	No
fin.	3	0	-35110	-1562			474	179	SLU 79	0.11	No
ini.	3	0	-6661	563			474	179	SLU 36	0.32	No
fin.	3	0	-33822	-1457			474	179	SLU 36	0.12	No
ini.	3	0	-10100	745			474	179	SLU 71	0.24	No
fin.	3	0	-33708	-1533			474	179	SLU 71	0.12	No
ini.	3	0	-11443	810			474	179	SLU 70	0.22	No
fin.	3	0	-34203	-1568			474	179	SLU 70	0.11	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2947	-94115	79694	SLV 16	0.85	No
fin.	2	-385	37138	79694	SLV 16	2.15	Si
ini.	2	888	65349	79694	SLV 4	1.22	Si
fin.	2	-1437	-53723	79694	SLV 4	1.48	Si
ini.	2	500	38035	79694	SLV 6	2.1	Si
fin.	2	-1379	-56075	79694	SLV 6	1.42	Si
ini.	2	888	65349	79694	SLV 3	1.22	Si
fin.	2	-1437	-53723	79694	SLV 3	1.48	Si
ini.	2	500	38035	79694	SLV 5	2.1	Si
fin.	2	-1379	-56075	79694	SLV 5	1.42	Si
ini.	2	-2507	-80962	79694	SLV 13	0.98	No
fin.	2	-528	21375	79694	SLV 13	3.73	Si
ini.	2	1328	78502	79694	SLV 1	1.02	Si
fin.	2	-1580	-69486	79694	SLV 1	1.15	Si
ini.	2	1328	78502	79694	SLV 2	1.02	Si
fin.	2	-1580	-69486	79694	SLV 2	1.15	Si
ini.	2	-2947	-94115	79694	SLV 15	0.85	No
fin.	2	-385	37138	79694	SLV 15	2.15	Si
ini.	2	-2507	-80962	79694	SLV 14	0.98	No
fin.	2	-528	21375	79694	SLV 14	3.73	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	78502	-2129			712	268	SLV 1	0.13	No
fin.	2	0	-69486	-2500			712	268	SLV 1	0.11	No
ini.	2	0	-94115	3164			712	268	SLV 16	0.08	No
fin.	2	0	37138	884			712	268	SLV 16	0.3	No
ini.	2	0	-80962	2744			712	268	SLV 14	0.1	No
fin.	2	0	21375	408			712	268	SLV 14	0.66	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	38035	-913			712	268	SLV 6	0.29	No
fin.	2	0	-56075	-2037			712	268	SLV 6	0.13	No
ini.	2	0	78502	-2129			712	268	SLV 2	0.13	No
fin.	2	0	-69486	-2500			712	268	SLV 2	0.11	No
ini.	2	0	65349	-1709			712	268	SLV 4	0.16	No
fin.	2	0	-53723	-2024			712	268	SLV 4	0.13	No
ini.	2	0	-94115	3164			712	268	SLV 15	0.08	No
fin.	2	0	37138	884			712	268	SLV 15	0.3	No
ini.	2	0	65349	-1709			712	268	SLV 3	0.16	No
fin.	2	0	-53723	-2024			712	268	SLV 3	0.13	No
ini.	2	0	-80962	2744			712	268	SLV 13	0.1	No
fin.	2	0	21375	408			712	268	SLV 13	0.66	No
ini.	2	0	38035	-913			712	268	SLV 5	0.29	No
fin.	2	0	-56075	-2037			712	268	SLV 5	0.13	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.847	SLV 15	No
V_SLV	0.085	SLV 15	No
PF_SLU	1.703	SLU 77	Si
V_SLU	0.11	SLU 77	No

Trave di accoppiamento 167

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-647.8	104.6	1397	1503	106	-727.8	104.6	1397	1503	106	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1860	-32773	131792	SLU 60	4.02	Si
fin.	3	-1089	23640	131792	SLU 60	5.57	Si
ini.	3	-2465	-30241	131792	SLU 84	4.36	Si
fin.	3	-1851	18537	131792	SLU 84	7.11	Si
ini.	3	-2006	-30685	131792	SLU 73	4.29	Si
fin.	3	-1329	20801	131792	SLU 73	6.34	Si
ini.	3	-1809	-32227	131792	SLU 61	4.09	Si
fin.	3	-1069	23487	131792	SLU 61	5.61	Si
ini.	3	-2379	-30724	131792	SLU 75	4.29	Si
fin.	3	-1779	17318	131792	SLU 75	7.61	Si
ini.	3	-2240	-33687	131792	SLU 82	3.91	Si
fin.	3	-1453	23009	131792	SLU 82	5.73	Si
ini.	3	-2291	-34233	131792	SLU 81	3.85	Si
fin.	3	-1473	23162	131792	SLU 81	5.69	Si
ini.	3	-2517	-30788	131792	SLU 83	4.28	Si
fin.	3	-1872	18690	131792	SLU 83	7.05	Si
ini.	3	-2000	-29810	131792	SLU 53	4.42	Si
fin.	3	-1415	17949	131792	SLU 53	7.34	Si
ini.	3	-2431	-31270	131792	SLU 74	4.21	Si
fin.	3	-1799	17471	131792	SLU 74	7.54	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27278	2618			1143	430	SLU 78	0.16	No
fin.	3	0	12846	-836			1143	430	SLU 78	0.51	No
ini.	3	0	-30724	2606			1143	430	SLU 75	0.17	No
fin.	3	0	17318	-443			1143	430	SLU 75	0.97	No
ini.	3	0	-30241	2515			1143	430	SLU 84	0.17	No
fin.	3	0	18537	-323			1143	430	SLU 84	1.33	Si
ini.	3	0	-27824	2638			1143	430	SLU 77	0.16	No
fin.	3	0	12999	-801			1143	430	SLU 77	0.54	No
ini.	3	0	-30788	2535			1143	430	SLU 83	0.17	No
fin.	3	0	18690	-288			1143	430	SLU 83	1.49	Si
ini.	3	0	-34233	2523			1143	430	SLU 81	0.17	No
fin.	3	0	23162	105			1143	430	SLU 81	4.1	Si
ini.	3	0	-29810	2457			1143	430	SLU 53	0.18	No
fin.	3	0	17949	-359			1143	430	SLU 53	1.2	Si
ini.	3	0	-31270	2627			1143	430	SLU 74	0.16	No
fin.	3	0	17471	-408			1143	430	SLU 74	1.06	Si
ini.	3	0	-33687	2503			1143	430	SLU 82	0.17	No
fin.	3	0	23009	70			1143	430	SLU 82	6.14	Si
ini.	3	0	-26364	2469			1143	430	SLU 56	0.17	No
fin.	3	0	13477	-752			1143	430	SLU 56	0.57	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-369	50522	149694	SLV 2	2.96	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1007	-57194	149694	SLV 2	2.62	Si
ini.	2	-2277	-64472	149694	SLV 12	2.32	Si
fin.	2	-1150	64331	149694	SLV 12	2.33	Si
ini.	2	-369	50522	149694	SLV 1	2.96	Si
fin.	2	-1007	-57194	149694	SLV 1	2.62	Si
ini.	2	-1744	-78028	149694	SLV 14	1.92	Si
fin.	2	-434	65882	149694	SLV 14	2.27	Si
ini.	2	-1683	-51539	149694	SLD 16	2.9	Si
fin.	2	-766	44227	149694	SLD 16	3.38	Si
ini.	2	-2213	-92537	149694	SLV 15	1.62	Si
fin.	2	-672	85048	149694	SLV 15	1.76	Si
ini.	2	-2277	-64472	149694	SLV 11	2.32	Si
fin.	2	-1150	64331	149694	SLV 11	2.33	Si
ini.	2	-1744	-78028	149694	SLV 13	1.92	Si
fin.	2	-434	65882	149694	SLV 13	2.27	Si
ini.	2	-2213	-92537	149694	SLV 16	1.62	Si
fin.	2	-672	85048	149694	SLV 16	1.76	Si
ini.	2	-1683	-51539	149694	SLD 15	2.9	Si
fin.	2	-766	44227	149694	SLD 15	3.38	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-78028	3564			1715	645	SLV 13	0.18	No
fin.	2	0	65882	1660			1715	645	SLV 13	0.39	No
ini.	2	0	-92537	4220			1715	645	SLV 16	0.15	No
fin.	2	0	85048	2279			1715	645	SLV 16	0.28	No
ini.	2	0	-78028	3564			1715	645	SLV 14	0.18	No
fin.	2	0	65882	1660			1715	645	SLV 14	0.39	No
ini.	2	0	50522	-850			1715	645	SLV 2	0.76	No
fin.	2	0	-57194	-2580			1715	645	SLV 2	0.25	No
ini.	2	0	-51539	2767			1715	645	SLD 15	0.23	No
fin.	2	0	44227	886			1715	645	SLD 15	0.73	No
ini.	2	0	-92537	4220			1715	645	SLV 15	0.15	No
fin.	2	0	85048	2279			1715	645	SLV 15	0.28	No
ini.	2	0	-51539	2767			1715	645	SLD 16	0.23	No
fin.	2	0	44227	886			1715	645	SLD 16	0.73	No
ini.	2	0	-64472	3441			1715	645	SLV 11	0.19	No
fin.	2	0	64331	1518			1715	645	SLV 11	0.43	No
ini.	2	0	-64472	3441			1715	645	SLV 12	0.19	No
fin.	2	0	64331	1518			1715	645	SLV 12	0.43	No
ini.	2	0	50522	-850			1715	645	SLV 1	0.76	No
fin.	2	0	-57194	-2580			1715	645	SLV 1	0.25	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.618	SLV 15	Si
V_SLV	0.153	SLV 15	No
PF_SLU	3.85	SLU 81	Si
V_SLU	0.163	SLU 77	No

Trave di accoppiamento 168

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-416.8	104.6	1397	1503	106	-496.8	104.6	1397	1503	106	80	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3266	-52134	131792	SLU 79	2.53	Si
fin.	3	-1989	54022	131792	SLU 79	2.44	Si
ini.	3	-2219	-51000	131792	SLU 72	2.58	Si
fin.	3	-1152	51502	131792	SLU 72	2.56	Si
ini.	3	-2956	-46275	131792	SLU 38	2.85	Si
fin.	3	-1765	50253	131792	SLU 38	2.62	Si
ini.	3	-3081	-46215	131792	SLU 37	2.85	Si
fin.	3	-1873	50348	131792	SLU 37	2.62	Si
ini.	3	-2345	-50940	131792	SLU 71	2.59	Si
fin.	3	-1260	51598	131792	SLU 71	2.55	Si
ini.	3	-3140	-52194	131792	SLU 80	2.53	Si
fin.	3	-1882	53927	131792	SLU 80	2.44	Si
ini.	3	-2544	-48641	131792	SLU 69	2.71	Si
fin.	3	-1477	47815	131792	SLU 69	2.76	Si
ini.	3	-3466	-49836	131792	SLU 77	2.64	Si
fin.	3	-2207	50239	131792	SLU 77	2.62	Si
ini.	3	-2419	-48701	131792	SLU 70	2.71	Si
fin.	3	-1370	47719	131792	SLU 70	2.76	Si
ini.	3	-3340	-49896	131792	SLU 78	2.64	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-2100	50144	131792	SLU 78	2.63	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-49896	3564			1143	430	SLU 78	0.12	No
fin.	3	0	50144	-518			1143	430	SLU 78	0.83	No
ini.	3	0	-43977	3241			1143	430	SLU 36	0.13	No
fin.	3	0	46470	-484			1143	430	SLU 36	0.89	No
ini.	3	0	-49836	3569			1143	430	SLU 77	0.12	No
fin.	3	0	50239	-488			1143	430	SLU 77	0.88	No
ini.	3	0	-52194	3542			1143	430	SLU 80	0.12	No
fin.	3	0	53927	-375			1143	430	SLU 80	1.15	Si
ini.	3	0	-52134	3548			1143	430	SLU 79	0.12	No
fin.	3	0	54022	-344			1143	430	SLU 79	1.25	Si
ini.	3	0	-48641	3356			1143	430	SLU 69	0.13	No
fin.	3	0	47815	-561			1143	430	SLU 69	0.77	No
ini.	3	0	-48701	3350			1143	430	SLU 70	0.13	No
fin.	3	0	47719	-591			1143	430	SLU 70	0.73	No
ini.	3	0	-50940	3334			1143	430	SLU 71	0.13	No
fin.	3	0	51598	-417			1143	430	SLU 71	1.03	Si
ini.	3	0	-51000	3328			1143	430	SLU 72	0.13	No
fin.	3	0	51502	-448			1143	430	SLU 72	0.96	No
ini.	3	0	-43917	3247			1143	430	SLU 35	0.13	No
fin.	3	0	46565	-454			1143	430	SLU 35	0.95	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3048	66057	149694	SLV 1	2.27	Si
fin.	2	-2704	-41093	149694	SLV 1	3.64	Si
ini.	2	-267	-111684	149694	SLV 14	1.34	Si
fin.	2	406	72659	149694	SLV 14	2.06	Si
ini.	2	-3048	66057	149694	SLV 2	2.27	Si
fin.	2	-2704	-41093	149694	SLV 2	3.64	Si
ini.	2	-267	-111684	149694	SLV 13	1.34	Si
fin.	2	406	72659	149694	SLV 13	2.06	Si
ini.	2	-1453	-64467	149694	SLD 16	2.32	Si
fin.	2	-737	49515	149694	SLD 16	3.02	Si
ini.	2	-820	-116833	149694	SLV 15	1.28	Si
fin.	2	46	86047	149694	SLV 15	1.74	Si
ini.	2	-1225	-62273	149694	SLD 14	2.4	Si
fin.	2	-588	44030	149694	SLD 14	3.4	Si
ini.	2	-1453	-64467	149694	SLD 15	2.32	Si
fin.	2	-737	49515	149694	SLD 15	3.02	Si
ini.	2	-1225	-62273	149694	SLD 13	2.4	Si
fin.	2	-588	44030	149694	SLD 13	3.4	Si
ini.	2	-820	-116833	149694	SLV 16	1.28	Si
fin.	2	46	86047	149694	SLV 16	1.74	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-116833	3629			1715	645	SLV 15	0.18	No
fin.	2	0	86047	1748			1715	645	SLV 15	0.37	No
ini.	2	0	-111684	3135			1715	645	SLV 14	0.21	No
fin.	2	0	72659	1596			1715	645	SLV 14	0.4	No
ini.	2	0	-111684	3135			1715	645	SLV 13	0.21	No
fin.	2	0	72659	1596			1715	645	SLV 13	0.4	No
ini.	2	0	-60631	3054			1715	645	SLV 11	0.21	No
fin.	2	0	61853	655			1715	645	SLV 11	0.98	No
ini.	2	0	-116833	3629			1715	645	SLV 16	0.18	No
fin.	2	0	86047	1748			1715	645	SLV 16	0.37	No
ini.	2	0	-64467	2544			1715	645	SLD 15	0.25	No
fin.	2	0	49515	666			1715	645	SLD 15	0.97	No
ini.	2	0	-64467	2544			1715	645	SLD 16	0.25	No
fin.	2	0	49515	666			1715	645	SLD 16	0.97	No
ini.	2	0	-62273	2341			1715	645	SLD 14	0.28	No
fin.	2	0	44030	603			1715	645	SLD 14	1.07	Si
ini.	2	0	-62273	2341			1715	645	SLD 13	0.28	No
fin.	2	0	44030	603			1715	645	SLD 13	1.07	Si
ini.	2	0	-60631	3054			1715	645	SLV 12	0.21	No
fin.	2	0	61853	655			1715	645	SLV 12	0.98	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.281	SLV 15	Si
V_SLV	0.178	SLV 15	No
PF_SLU	2.44	SLU 79	Si
V_SLU	0.121	SLU 77	No

Trave di accoppiamento 169

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	1187	1387	200	-515.8	650.6	1187	1387	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	823	82255	296292	SLU 71	3.6	Si
fin.	3	175	16517	296292	SLU 71	17.94	Si
ini.	3	820	81102	296292	SLU 72	3.65	Si
fin.	3	174	16420	296292	SLU 72	18.04	Si
ini.	3	778	79548	296292	SLU 30	3.72	Si
fin.	3	167	15679	296292	SLU 30	18.9	Si
ini.	3	811	76760	296292	SLU 77	3.86	Si
fin.	3	168	15889	296292	SLU 77	18.65	Si
ini.	3	837	80319	296292	SLU 80	3.69	Si
fin.	3	175	16514	296292	SLU 80	17.94	Si
ini.	3	841	81471	296292	SLU 79	3.64	Si
fin.	3	176	16610	296292	SLU 79	17.84	Si
ini.	3	793	77544	296292	SLU 69	3.82	Si
fin.	3	167	15795	296292	SLU 69	18.76	Si
ini.	3	795	78764	296292	SLU 38	3.76	Si
fin.	3	168	15773	296292	SLU 38	18.78	Si
ini.	3	799	79917	296292	SLU 37	3.71	Si
fin.	3	169	15869	296292	SLU 37	18.67	Si
ini.	3	781	80700	296292	SLU 29	3.67	Si
fin.	3	168	15776	296292	SLU 29	18.78	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	79548	-2592			2157	812	SLU 30	0.31	No
fin.	3	0	15679	817			2157	812	SLU 30	0.99	No
ini.	3	0	78764	-2557			2157	812	SLU 38	0.32	No
fin.	3	0	15773	875			2157	812	SLU 38	0.93	No
ini.	3	0	77544	-2464			2157	812	SLU 69	0.33	No
fin.	3	0	15795	809			2157	812	SLU 69	1	Si
ini.	3	0	81102	-2590			2157	812	SLU 72	0.31	No
fin.	3	0	16420	834			2157	812	SLU 72	0.97	No
ini.	3	0	75989	-2465			2157	812	SLU 27	0.33	No
fin.	3	0	15054	792			2157	812	SLU 27	1.03	Si
ini.	3	0	81471	-2593			2157	812	SLU 79	0.31	No
fin.	3	0	16610	885			2157	812	SLU 79	0.92	No
ini.	3	0	79917	-2595			2157	812	SLU 37	0.31	No
fin.	3	0	15869	868			2157	812	SLU 37	0.93	No
ini.	3	0	80700	-2629			2157	812	SLU 29	0.31	No
fin.	3	0	15776	810			2157	812	SLU 29	1	Si
ini.	3	0	82255	-2628			2157	812	SLU 71	0.31	No
fin.	3	0	16517	827			2157	812	SLU 71	0.98	No
ini.	3	0	80319	-2555			2157	812	SLU 80	0.32	No
fin.	3	0	16514	892			2157	812	SLU 80	0.91	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	680	40369	314194	SLD 12	7.78	Si
fin.	2	91	11973	314194	SLD 12	26.24	Si
ini.	2	1153	76049	314194	SLV 7	4.13	Si
fin.	2	100	19975	314194	SLV 7	15.73	Si
ini.	2	1250	70640	314194	SLV 12	4.45	Si
fin.	2	144	21901	314194	SLV 12	14.35	Si
ini.	2	680	40369	314194	SLD 11	7.78	Si
fin.	2	91	11973	314194	SLD 11	26.24	Si
ini.	2	1153	76049	314194	SLV 8	4.13	Si
fin.	2	100	19975	314194	SLV 8	15.73	Si
ini.	2	405	45324	314194	SLV 4	6.93	Si
fin.	2	2	6874	314194	SLV 4	45.71	Si
ini.	2	405	45324	314194	SLV 3	6.93	Si
fin.	2	2	6874	314194	SLV 3	45.71	Si
ini.	2	1250	70640	314194	SLV 11	4.45	Si
fin.	2	144	21901	314194	SLV 11	14.35	Si
ini.	2	639	42735	314194	SLD 7	7.35	Si
fin.	2	74	11180	314194	SLD 7	28.1	Si
ini.	2	639	42735	314194	SLD 8	7.35	Si
fin.	2	74	11180	314194	SLD 8	28.1	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	70640	-1012			3235	1217	SLV 12	1.2	Si
fin.	2	0	21901	524			3235	1217	SLV 12	2.33	Si
ini.	2	0	42735	-675			3235	1217	SLD 8	1.8	Si
fin.	2	0	11180	286			3235	1217	SLD 8	4.25	Si
ini.	2	0	40369	-712			3235	1217	SLD 12	1.71	Si
fin.	2	0	11973	381			3235	1217	SLD 12	3.19	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	27295	-805			3235	1217	SLV 16	1.51	Si
fin.	2	0	13293	689			3235	1217	SLV 16	1.77	Si
ini.	2	0	76049	-920			3235	1217	SLV 7	1.32	Si
fin.	2	0	19975	300			3235	1217	SLV 7	4.05	Si
ini.	2	0	42735	-675			3235	1217	SLD 7	1.8	Si
fin.	2	0	11180	286			3235	1217	SLD 7	4.25	Si
ini.	2	0	27295	-805			3235	1217	SLV 15	1.51	Si
fin.	2	0	13293	689			3235	1217	SLV 15	1.77	Si
ini.	2	0	40369	-712			3235	1217	SLD 11	1.71	Si
fin.	2	0	11973	381			3235	1217	SLD 11	3.19	Si
ini.	2	0	76049	-920			3235	1217	SLV 8	1.32	Si
fin.	2	0	19975	300			3235	1217	SLV 8	4.05	Si
ini.	2	0	70640	-1012			3235	1217	SLV 11	1.2	Si
fin.	2	0	21901	524			3235	1217	SLV 11	2.33	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.131	SLV 7	Si
V_SLV	1.203	SLV 11	Si
PF_SLU	3.602	SLU 71	Si
V_SLU	0.309	SLU 29	No

Trave di accoppiamento 170

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-515.8	600.6	1467	1503	36	-515.8	650.6	1467	1503	36	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1883	-148792	18411	SLU 37	0.12	No
fin.	3	1883	105135	18411	SLU 37	0.18	No
ini.	3	1855	-152776	18411	SLU 72	0.12	No
fin.	3	1855	106917	18411	SLU 72	0.17	No
ini.	3	1833	-147796	18411	SLU 30	0.12	No
fin.	3	1833	106558	18411	SLU 30	0.17	No
ini.	3	1906	-153772	18411	SLU 79	0.12	No
fin.	3	1906	105494	18411	SLU 79	0.17	No
ini.	3	1918	-155863	18411	SLU 80	0.12	No
fin.	3	1918	104857	18411	SLU 80	0.18	No
ini.	3	1822	-147576	18411	SLU 77	0.12	No
fin.	3	1822	98748	18411	SLU 77	0.19	No
ini.	3	1835	-149668	18411	SLU 78	0.12	No
fin.	3	1835	98111	18411	SLU 78	0.19	No
ini.	3	1772	-146580	18411	SLU 70	0.13	No
fin.	3	1772	100171	18411	SLU 70	0.18	No
ini.	3	1843	-150684	18411	SLU 71	0.12	No
fin.	3	1843	107553	18411	SLU 71	0.17	No
ini.	3	1896	-150884	18411	SLU 38	0.12	No
fin.	3	1896	104499	18411	SLU 38	0.18	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-153772	5242			280	105	SLU 79	0.02	No
fin.	3	0	105494	5122			280	105	SLU 79	0.02	No
ini.	3	0	-155863	5271			280	105	SLU 80	0.02	No
fin.	3	0	104857	5151			280	105	SLU 80	0.02	No
ini.	3	0	-147796	5131			280	105	SLU 30	0.02	No
fin.	3	0	106558	5038			280	105	SLU 30	0.02	No
ini.	3	0	-146580	4991			280	105	SLU 70	0.02	No
fin.	3	0	100171	4872			280	105	SLU 70	0.02	No
ini.	3	0	-148792	5122			280	105	SLU 37	0.02	No
fin.	3	0	105135	5030			280	105	SLU 37	0.02	No
ini.	3	0	-150684	5221			280	105	SLU 71	0.02	No
fin.	3	0	107553	5101			280	105	SLU 71	0.02	No
ini.	3	0	-149668	5012			280	105	SLU 78	0.02	No
fin.	3	0	98111	4892			280	105	SLU 78	0.02	No
ini.	3	0	-150884	5152			280	105	SLU 38	0.02	No
fin.	3	0	104499	5059			280	105	SLU 38	0.02	No
ini.	3	0	-145705	5102			280	105	SLU 29	0.02	No
fin.	3	0	107194	5009			280	105	SLU 29	0.02	No
ini.	3	0	-152776	5250			280	105	SLU 72	0.02	No
fin.	3	0	106917	5130			280	105	SLU 72	0.02	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1059	-62160	27616	SLV 10	0.44	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-1299	25424	27616	SLV 10	1.09	Si
ini.	2	-877	-21339	27616	SLV 3	1.29	Si
fin.	2	858	57958	27616	SLV 3	0.48	No
ini.	2	3249	-67830	27616	SLV 16	0.41	No
fin.	2	1330	-26404	27616	SLV 16	1.05	Si
ini.	2	1927	-72723	27616	SLV 13	0.38	No
fin.	2	193	-16111	27616	SLV 13	1.71	Si
ini.	2	3249	-67830	27616	SLV 15	0.41	No
fin.	2	1330	-26404	27616	SLV 15	1.05	Si
ini.	2	-1059	-62160	27616	SLV 9	0.44	No
fin.	2	-1299	25424	27616	SLV 9	1.09	Si
ini.	2	-2199	-26232	27616	SLV 2	1.05	Si
fin.	2	-279	68251	27616	SLV 2	0.4	No
ini.	2	1927	-72723	27616	SLV 14	0.38	No
fin.	2	193	-16111	27616	SLV 14	1.71	Si
ini.	2	-2199	-26232	27616	SLV 1	1.05	Si
fin.	2	-279	68251	27616	SLV 1	0.4	No
ini.	2	-877	-21339	27616	SLV 4	1.29	Si
fin.	2	858	57958	27616	SLV 4	0.48	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-31902	1616			419	158	SLV 7	0.1	No
fin.	2	0	16423	1868			419	158	SLV 7	0.08	No
ini.	2	0	-67830	1615			419	158	SLV 15	0.1	No
fin.	2	0	-26404	1832			419	158	SLV 15	0.09	No
ini.	2	0	-40758	1496			419	158	SLD 8	0.11	No
fin.	2	0	18575	1537			419	158	SLD 8	0.1	No
ini.	2	0	-67830	1615			419	158	SLV 16	0.1	No
fin.	2	0	-26404	1832			419	158	SLV 16	0.09	No
ini.	2	0	-45849	1698			419	158	SLV 12	0.09	No
fin.	2	0	-8886	2063			419	158	SLV 12	0.08	No
ini.	2	0	-46691	1532			419	158	SLD 12	0.1	No
fin.	2	0	7769	1620			419	158	SLD 12	0.1	No
ini.	2	0	-40758	1496			419	158	SLD 7	0.11	No
fin.	2	0	18575	1537			419	158	SLD 7	0.1	No
ini.	2	0	-31902	1616			419	158	SLV 8	0.1	No
fin.	2	0	16423	1868			419	158	SLV 8	0.08	No
ini.	2	0	-46691	1532			419	158	SLD 11	0.1	No
fin.	2	0	7769	1620			419	158	SLD 11	0.1	No
ini.	2	0	-45849	1698			419	158	SLV 11	0.09	No
fin.	2	0	-8886	2063			419	158	SLV 11	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.38	SLV 13	No
V_SLV	0.076	SLV 11	No
PF_SLU	0.118	SLU 80	No
V_SLU	0.02	SLU 80	No

Trave di accoppiamento 171

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	1187	1277	90	-296.3	595.1	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1062	-25037	103792	SLU 72	4.15	Si
fin.	3	652	14654	103792	SLU 72	7.08	Si
ini.	3	1001	-24367	103792	SLU 36	4.26	Si
fin.	3	589	14669	103792	SLU 36	7.08	Si
ini.	3	1063	-27101	103792	SLU 80	3.83	Si
fin.	3	578	17456	103792	SLU 80	5.95	Si
ini.	3	1023	-24568	103792	SLU 37	4.22	Si
fin.	3	643	13505	103792	SLU 37	7.69	Si
ini.	3	1049	-26204	103792	SLU 77	3.96	Si
fin.	3	560	17215	103792	SLU 77	6.03	Si
ini.	3	1043	-24488	103792	SLU 70	4.24	Si
fin.	3	616	15115	103792	SLU 70	6.87	Si
ini.	3	1066	-24689	103792	SLU 71	4.2	Si
fin.	3	670	13952	103792	SLU 71	7.44	Si
ini.	3	1020	-24916	103792	SLU 38	4.17	Si
fin.	3	625	14207	103792	SLU 38	7.31	Si
ini.	3	1045	-26552	103792	SLU 78	3.91	Si
fin.	3	542	17917	103792	SLU 78	5.79	Si
ini.	3	1067	-26753	103792	SLU 79	3.88	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	596	16754	103792	SLU 79	6.2	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27101	954			970	365	SLU 80	0.38	No
fin.	3	0	17456	509			970	365	SLU 80	0.72	No
ini.	3	0	-20177	915			970	365	SLU 82	0.4	No
fin.	3	0	22533	627			970	365	SLU 82	0.58	No
ini.	3	0	-26204	897			970	365	SLU 77	0.41	No
fin.	3	0	17215	534			970	365	SLU 77	0.68	No
ini.	3	0	-26753	933			970	365	SLU 79	0.39	No
fin.	3	0	16754	492			970	365	SLU 79	0.74	No
ini.	3	0	-23734	947			970	365	SLU 83	0.39	No
fin.	3	0	19892	560			970	365	SLU 83	0.65	No
ini.	3	0	-24081	968			970	365	SLU 84	0.38	No
fin.	3	0	20595	577			970	365	SLU 84	0.63	No
ini.	3	0	-26552	918			970	365	SLU 78	0.4	No
fin.	3	0	17917	552			970	365	SLU 78	0.66	No
ini.	3	0	-19829	894			970	365	SLU 81	0.41	No
fin.	3	0	21830	610			970	365	SLU 81	0.6	No
ini.	3	0	-21896	887			970	365	SLU 42	0.41	No
fin.	3	0	17346	465			970	365	SLU 42	0.79	No
ini.	3	0	-23429	915			970	365	SLU 76	0.4	No
fin.	3	0	19862	571			970	365	SLU 76	0.64	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1059	-44202	121694	SLV 11	2.75	Si
fin.	2	-809	60701	121694	SLV 11	2	Si
ini.	2	1264	-51895	121694	SLV 14	2.34	Si
fin.	2	-1048	69349	121694	SLV 14	1.75	Si
ini.	2	-835	37089	121694	SLV 1	3.28	Si
fin.	2	1190	-57607	121694	SLV 1	2.11	Si
ini.	2	838	-34148	121694	SLD 15	3.56	Si
fin.	2	-586	44756	121694	SLD 15	2.72	Si
ini.	2	1508	-62719	121694	SLV 15	1.94	Si
fin.	2	-1299	85866	121694	SLV 15	1.42	Si
ini.	2	1508	-62719	121694	SLV 16	1.94	Si
fin.	2	-1299	85866	121694	SLV 16	1.42	Si
ini.	2	1264	-51895	121694	SLV 13	2.34	Si
fin.	2	-1048	69349	121694	SLV 13	1.75	Si
ini.	2	-835	37089	121694	SLV 2	3.28	Si
fin.	2	1190	-57607	121694	SLV 2	2.11	Si
ini.	2	838	-34148	121694	SLD 16	3.56	Si
fin.	2	-586	44756	121694	SLD 16	2.72	Si
ini.	2	1059	-44202	121694	SLV 12	2.75	Si
fin.	2	-809	60701	121694	SLV 12	2	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-51895	2621			1456	548	SLV 14	0.21	No
fin.	2	0	69349	2393			1456	548	SLV 14	0.23	No
ini.	2	0	-44202	2083			1456	548	SLV 11	0.26	No
fin.	2	0	60701	2074			1456	548	SLV 11	0.26	No
ini.	2	0	-62719	3132			1456	548	SLV 16	0.17	No
fin.	2	0	85866	2975			1456	548	SLV 16	0.18	No
ini.	2	0	-51895	2621			1456	548	SLV 13	0.21	No
fin.	2	0	69349	2393			1456	548	SLV 13	0.23	No
ini.	2	0	-34148	1641			1456	548	SLD 16	0.33	No
fin.	2	0	44756	1516			1456	548	SLD 16	0.36	No
ini.	2	0	37089	-2077			1456	548	SLV 2	0.26	No
fin.	2	0	-57607	-2118			1456	548	SLV 2	0.26	No
ini.	2	0	-62719	3132			1456	548	SLV 15	0.17	No
fin.	2	0	85866	2975			1456	548	SLV 15	0.18	No
ini.	2	0	-44202	2083			1456	548	SLV 12	0.26	No
fin.	2	0	60701	2074			1456	548	SLV 12	0.26	No
ini.	2	0	37089	-2077			1456	548	SLV 1	0.26	No
fin.	2	0	-57607	-2118			1456	548	SLV 1	0.26	No
ini.	2	0	-34148	1641			1456	548	SLD 15	0.33	No
fin.	2	0	44756	1516			1456	548	SLD 15	0.36	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.417	SLV 15	Si
V_SLV	0.175	SLV 15	No
PF_SLU	3.83	SLU 80	Si
V_SLU	0.377	SLU 84	No

Trave di accoppiamento 172

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-206.3	595.1	1457	1503	46	-296.3	595.1	1457	1503	46	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-187	-30494	30060	SLU 79	0.99	No
fin.	3	-159	23724	30060	SLU 79	1.27	Si
ini.	3	-243	-30990	30060	SLU 80	0.97	No
fin.	3	-216	23938	30060	SLU 80	1.26	Si
ini.	3	-239	-28837	30060	SLU 38	1.04	Si
fin.	3	-213	22230	30060	SLU 38	1.35	Si
ini.	3	-181	-29095	30060	SLU 72	1.03	Si
fin.	3	-154	22494	30060	SLU 72	1.34	Si
ini.	3	-188	-28498	30060	SLU 69	1.05	Si
fin.	3	-162	21100	30060	SLU 69	1.42	Si
ini.	3	-125	-28600	30060	SLU 71	1.05	Si
fin.	3	-97	22280	30060	SLU 71	1.35	Si
ini.	3	-306	-30888	30060	SLU 78	0.97	No
fin.	3	-280	22758	30060	SLU 78	1.32	Si
ini.	3	-244	-28993	30060	SLU 70	1.04	Si
fin.	3	-218	21314	30060	SLU 70	1.41	Si
ini.	3	-302	-28735	30060	SLU 36	1.05	Si
fin.	3	-277	21050	30060	SLU 36	1.43	Si
ini.	3	-250	-30392	30060	SLU 77	0.99	No
fin.	3	-224	22544	30060	SLU 77	1.33	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-29095	1017			331	124	SLU 72	0.12	No
fin.	3	0	22494	141			331	124	SLU 72	0.88	No
ini.	3	0	-26356	1005			331	124	SLU 56	0.12	No
fin.	3	0	19569	14			331	124	SLU 56	9.12	Si
ini.	3	0	-28498	1075			331	124	SLU 69	0.12	No
fin.	3	0	21100	15			331	124	SLU 69	8.05	Si
ini.	3	0	-30990	1054			331	124	SLU 80	0.12	No
fin.	3	0	23938	177			331	124	SLU 80	0.7	No
ini.	3	0	-30392	1112			331	124	SLU 77	0.11	No
fin.	3	0	22544	52			331	124	SLU 77	2.39	Si
ini.	3	0	-28600	1009			331	124	SLU 71	0.12	No
fin.	3	0	22280	134			331	124	SLU 71	0.93	No
ini.	3	0	-28993	1083			331	124	SLU 70	0.11	No
fin.	3	0	21314	22			331	124	SLU 70	5.63	Si
ini.	3	0	-26852	1013			331	124	SLU 57	0.12	No
fin.	3	0	19783	20			331	124	SLU 57	6.14	Si
ini.	3	0	-30888	1120			331	124	SLU 78	0.11	No
fin.	3	0	22758	59			331	124	SLU 78	2.12	Si
ini.	3	0	-30494	1046			331	124	SLU 79	0.12	No
fin.	3	0	23724	171			331	124	SLU 79	0.73	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-349	-31049	44694	SLV 13	1.44	Si
fin.	2	-1158	8010	44694	SLV 13	5.58	Si
ini.	2	4	-22089	44694	SLD 16	2.02	Si
fin.	2	-329	10024	44694	SLD 16	4.46	Si
ini.	2	-205	-20870	44694	SLD 13	2.14	Si
fin.	2	-546	9272	44694	SLD 13	4.82	Si
ini.	2	161	-33667	44694	SLV 15	1.33	Si
fin.	2	-632	9638	44694	SLV 15	4.64	Si
ini.	2	161	-33667	44694	SLV 16	1.33	Si
fin.	2	-632	9638	44694	SLV 16	4.64	Si
ini.	2	-205	-20870	44694	SLD 14	2.14	Si
fin.	2	-546	9272	44694	SLD 14	4.82	Si
ini.	2	4	-22089	44694	SLD 15	2.02	Si
fin.	2	-329	10024	44694	SLD 15	4.46	Si
ini.	2	743	-23508	44694	SLV 12	1.9	Si
fin.	2	535	12610	44694	SLV 12	3.54	Si
ini.	2	743	-23508	44694	SLV 11	1.9	Si
fin.	2	535	12610	44694	SLV 11	3.54	Si
ini.	2	-349	-31049	44694	SLV 14	1.44	Si
fin.	2	-1158	8010	44694	SLV 14	5.58	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-33667	967			496	187	SLV 16	0.19	No
fin.	2	0	9638	565			496	187	SLV 16	0.33	No
ini.	2	0	-20870	699			496	187	SLD 14	0.27	No
fin.	2	0	9272	179			496	187	SLD 14	1.05	Si
ini.	2	0	-23508	777			496	187	SLV 11	0.24	No
fin.	2	0	12610	419			496	187	SLV 11	0.45	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-20870	699			496	187	SLD 13	0.27	No
fin.	2	0	9272	179			496	187	SLD 13	1.05	Si
ini.	2	0	-33667	967			496	187	SLV 15	0.19	No
fin.	2	0	9638	565			496	187	SLV 15	0.33	No
ini.	2	0	-31049	900			496	187	SLV 13	0.21	No
fin.	2	0	8010	405			496	187	SLV 13	0.46	No
ini.	2	0	-22089	728			496	187	SLD 16	0.26	No
fin.	2	0	10024	246			496	187	SLD 16	0.76	No
ini.	2	0	-31049	900			496	187	SLV 14	0.21	No
fin.	2	0	8010	405			496	187	SLV 14	0.46	No
ini.	2	0	-22089	728			496	187	SLD 15	0.26	No
fin.	2	0	10024	246			496	187	SLD 15	0.76	No
ini.	2	0	-23508	777			496	187	SLV 12	0.24	No
fin.	2	0	12610	419			496	187	SLV 12	0.45	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.328	SLV 15	Si
V_SLV	0.193	SLV 15	No
PF_SLU	0.97	SLU 80	No
V_SLU	0.111	SLU 78	No

Trave di accoppiamento 173

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1705.3	-486.2	1399	1436.9	37.9	-1705.3	-377.2	1399	1487.3	88.3	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-176	1355	21841	SLU 27	16.11	Si
fin.	3	38	-23610	104315	SLU 27	4.42	Si
ini.	3	-194	1721	21841	SLU 50	12.69	Si
fin.	3	60	-25015	104315	SLU 50	4.17	Si
ini.	3	62	2105	21841	SLU 10	10.37	Si
fin.	3	-153	27785	104315	SLU 10	3.75	Si
ini.	3	47	2505	21841	SLU 52	8.72	Si
fin.	3	-147	27215	104315	SLU 52	3.83	Si
ini.	3	-191	1755	21841	SLU 69	12.44	Si
fin.	3	44	-24180	104315	SLU 69	4.31	Si
ini.	3	-189	1358	21841	SLU 29	16.08	Si
fin.	3	43	-25394	104315	SLU 29	4.11	Si
ini.	3	-180	1321	21841	SLU 8	16.53	Si
fin.	3	54	-24445	104315	SLU 8	4.27	Si
ini.	3	38	2541	21841	SLU 73	8.59	Si
fin.	3	-158	26265	104315	SLU 73	3.97	Si
ini.	3	53	2142	21841	SLU 31	10.2	Si
fin.	3	-164	26835	104315	SLU 31	3.89	Si
ini.	3	-203	1758	21841	SLU 71	12.43	Si
fin.	3	49	-25965	104315	SLU 71	4.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2042	431			292	110	SLU 23	0.25	No
fin.	3	0	22449	-24			826	311	SLU 23	13.2	Si
ini.	3	0	2405	464			292	110	SLU 44	0.24	No
fin.	3	0	22828	-86			826	311	SLU 44	3.63	Si
ini.	3	0	2505	516			292	110	SLU 52	0.21	No
fin.	3	0	27215	-53			826	311	SLU 52	5.81	Si
ini.	3	0	2541	521			292	110	SLU 73	0.21	No
fin.	3	0	26265	-55			826	311	SLU 73	5.63	Si
ini.	3	0	2479	434			292	110	SLU 55	0.25	No
fin.	3	0	16485	-119			826	311	SLU 55	2.61	Si
ini.	3	0	2142	483			292	110	SLU 31	0.23	No
fin.	3	0	26835	9			826	311	SLU 31	36.35	Si
ini.	3	0	2442	469			292	110	SLU 65	0.23	No
fin.	3	0	21879	-87			826	311	SLU 65	3.56	Si
ini.	3	0	2105	478			292	110	SLU 10	0.23	No
fin.	3	0	27785	10			826	311	SLU 10	30.27	Si
ini.	3	0	2515	440			292	110	SLU 76	0.25	No
fin.	3	0	15536	-121			826	311	SLU 76	2.58	Si
ini.	3	0	2332	427			292	110	SLU 82	0.26	No
fin.	3	0	17591	-118			826	311	SLU 82	2.62	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	528	-15386	32761	SLV 9	2.13	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-2130	128995	121024	SLV 9	0.94	No
ini.	2	-639	18211	32761	SLV 7	1.8	Si
fin.	2	2126	-133003	121024	SLV 7	0.91	No
ini.	2	-639	18211	32761	SLV 8	1.8	Si
fin.	2	2126	-133003	121024	SLV 8	0.91	No
ini.	2	528	-15386	32761	SLV 10	2.13	Si
fin.	2	-2130	128995	121024	SLV 10	0.94	No
ini.	2	-389	7589	32761	SLD 12	4.32	Si
fin.	2	817	-54996	121024	SLD 12	2.2	Si
ini.	2	-891	17132	32761	SLV 12	1.91	Si
fin.	2	2083	-137070	121024	SLV 12	0.88	No
ini.	2	780	-14307	32761	SLV 5	2.29	Si
fin.	2	-2087	133062	121024	SLV 5	0.91	No
ini.	2	780	-14307	32761	SLV 6	2.29	Si
fin.	2	-2087	133062	121024	SLV 6	0.91	No
ini.	2	-389	7589	32761	SLD 11	4.32	Si
fin.	2	817	-54996	121024	SLD 11	2.2	Si
ini.	2	-891	17132	32761	SLV 11	1.91	Si
fin.	2	2083	-137070	121024	SLV 11	0.88	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt _{lim}	Comb.	c.s.	Verifica
ini.	2	0	8031	957			438	165	SLD 8	0.17	No
fin.	2	0	-53401	-661			1238	466	SLD 8	0.71	No
ini.	2	0	-14307	-1819			438	165	SLV 6	0.09	No
fin.	2	0	133062	994			1238	466	SLV 6	0.47	No
ini.	2	0	17132	2118			438	165	SLV 12	0.08	No
fin.	2	0	-137070	-1405			1238	466	SLV 12	0.33	No
ini.	2	0	8031	957			438	165	SLD 7	0.17	No
fin.	2	0	-53401	-661			1238	466	SLD 7	0.71	No
ini.	2	0	18211	2205			438	165	SLV 8	0.07	No
fin.	2	0	-133003	-1366			1238	466	SLV 8	0.34	No
ini.	2	0	17132	2118			438	165	SLV 11	0.08	No
fin.	2	0	-137070	-1405			1238	466	SLV 11	0.33	No
ini.	2	0	18211	2205			438	165	SLV 7	0.07	No
fin.	2	0	-133003	-1366			1238	466	SLV 7	0.34	No
ini.	2	0	-15386	-1906			438	165	SLV 9	0.09	No
fin.	2	0	128995	955			1238	466	SLV 9	0.49	No
ini.	2	0	-14307	-1819			438	165	SLV 5	0.09	No
fin.	2	0	133062	994			1238	466	SLV 5	0.47	No
ini.	2	0	-15386	-1906			438	165	SLV 10	0.09	No
fin.	2	0	128995	955			1238	466	SLV 10	0.49	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.883	SLV 11	No
V_SLV	0.075	SLV 7	No
PF_SLU	3.754	SLU 10	Si
V_SLU	0.211	SLU 73	No

Trave di accoppiamento 174

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1543.3	-335.9	1397	1506.2	109.2	-1633.3	-335.9	1397	1506.3	109.3	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1175	-30109	137383	SLU 31	4.56	Si
fin.	3	-1179	26642	137500	SLU 31	5.16	Si
ini.	3	-1174	-31455	137383	SLU 60	4.37	Si
fin.	3	-1180	30831	137500	SLU 60	4.46	Si
ini.	3	-1236	-29676	137383	SLU 39	4.63	Si
fin.	3	-1240	29014	137500	SLU 39	4.74	Si
ini.	3	-1400	-36036	137383	SLU 82	3.81	Si
fin.	3	-1405	33587	137500	SLU 82	4.09	Si
ini.	3	-1395	-34710	137383	SLU 81	3.96	Si
fin.	3	-1401	34098	137500	SLU 81	4.03	Si
ini.	3	-1241	-31002	137383	SLU 40	4.43	Si
fin.	3	-1245	28503	137500	SLU 40	4.82	Si
ini.	3	-1179	-32781	137383	SLU 61	4.19	Si
fin.	3	-1184	30320	137500	SLU 61	4.53	Si
ini.	3	-1335	-35143	137383	SLU 73	3.91	Si
fin.	3	-1339	31726	137500	SLU 73	4.33	Si
ini.	3	-1174	-30995	137383	SLU 65	4.43	Si
fin.	3	-1178	28179	137500	SLU 65	4.88	Si
ini.	3	-1113	-31888	137383	SLU 52	4.31	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1118	28459	137500	SLU 52	4.83	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-29119	1337			1177	443	SLU 84	0.33	No
fin.	3	0	28949	-56			1178	443	SLU 84	7.91	Si
ini.	3	0	-20425	1316			1177	443	SLU 80	0.34	No
fin.	3	0	22792	-337			1178	443	SLU 80	1.32	Si
ini.	3	0	-27793	1328			1177	443	SLU 83	0.33	No
fin.	3	0	29460	-65			1178	443	SLU 83	6.83	Si
ini.	3	0	-28530	1363			1177	443	SLU 75	0.33	No
fin.	3	0	29089	-105			1178	443	SLU 75	4.21	Si
ini.	3	0	-36036	1321			1177	443	SLU 82	0.34	No
fin.	3	0	33587	188			1178	443	SLU 82	2.36	Si
ini.	3	0	-20287	1370			1177	443	SLU 77	0.32	No
fin.	3	0	24962	-358			1178	443	SLU 77	1.24	Si
ini.	3	0	-21613	1379			1177	443	SLU 78	0.32	No
fin.	3	0	24451	-350			1178	443	SLU 78	1.27	Si
ini.	3	0	-19098	1307			1177	443	SLU 79	0.34	No
fin.	3	0	23302	-346			1178	443	SLU 79	1.28	Si
ini.	3	0	-34710	1312			1177	443	SLU 81	0.34	No
fin.	3	0	34098	179			1178	443	SLU 81	2.47	Si
ini.	3	0	-27204	1354			1177	443	SLU 74	0.33	No
fin.	3	0	29600	-114			1178	443	SLU 74	3.89	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-111	38909	155285	SLV 4	3.99	Si
fin.	2	-445	-79763	155403	SLV 4	1.95	Si
ini.	2	-1217	-48520	155285	SLD 13	3.2	Si
fin.	2	-1080	65840	155403	SLD 13	2.36	Si
ini.	2	-111	38909	155285	SLV 3	3.99	Si
fin.	2	-445	-79763	155403	SLV 3	1.95	Si
ini.	2	-1677	-84133	155285	SLV 13	1.85	Si
fin.	2	-1351	125016	155403	SLV 13	1.24	Si
ini.	2	-101	-71851	155285	SLV 15	2.16	Si
fin.	2	64	87956	155403	SLV 15	1.77	Si
ini.	2	-3518	-59696	155285	SLV 9	2.6	Si
fin.	2	-3178	109552	155403	SLV 9	1.42	Si
ini.	2	-101	-71851	155285	SLV 16	2.16	Si
fin.	2	64	87956	155403	SLV 16	1.77	Si
ini.	2	-3518	-59696	155285	SLV 10	2.6	Si
fin.	2	-3178	109552	155403	SLV 10	1.42	Si
ini.	2	-1217	-48520	155285	SLD 14	3.2	Si
fin.	2	-1080	65840	155403	SLD 14	2.36	Si
ini.	2	-1677	-84133	155285	SLV 14	1.85	Si
fin.	2	-1351	125016	155403	SLV 14	1.24	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-59696	2409			1766	665	SLV 10	0.28	No
fin.	2	0	109552	1641			1767	665	SLV 10	0.41	No
ini.	2	0	-71851	2104			1766	665	SLV 16	0.32	No
fin.	2	0	87956	1233			1767	665	SLV 16	0.54	No
ini.	2	0	38909	-919			1766	665	SLV 4	0.72	No
fin.	2	0	-79763	-1773			1767	665	SLV 4	0.38	No
ini.	2	0	-48520	1678			1766	665	SLD 13	0.4	No
fin.	2	0	65840	843			1767	665	SLD 13	0.79	No
ini.	2	0	38909	-919			1766	665	SLV 3	0.72	No
fin.	2	0	-79763	-1773			1767	665	SLV 3	0.38	No
ini.	2	0	-84133	2733			1766	665	SLV 14	0.24	No
fin.	2	0	125016	1907			1767	665	SLV 14	0.35	No
ini.	2	0	-59696	2409			1766	665	SLV 9	0.28	No
fin.	2	0	109552	1641			1767	665	SLV 9	0.41	No
ini.	2	0	-48520	1678			1766	665	SLD 14	0.4	No
fin.	2	0	65840	843			1767	665	SLD 14	0.79	No
ini.	2	0	-71851	2104			1766	665	SLV 15	0.32	No
fin.	2	0	87956	1233			1767	665	SLV 15	0.54	No
ini.	2	0	-84133	2733			1766	665	SLV 13	0.24	No
fin.	2	0	125016	1907			1767	665	SLV 13	0.35	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.243	SLV 13	Si
V_SLV	0.243	SLV 13	No
PF_SLU	3.812	SLU 82	Si
V_SLU	0.321	SLU 78	No

Trave di accoppiamento 175

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1443.8	-485.9	1399	1436.8	37.8	-1627.8	-485.9	1399	1437	38	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-73	520	21786	SLU 36	41.88	Si
fin.	3	-80	-11361	21944	SLU 36	1.93	Si
ini.	3	-127	1652	21786	SLU 37	13.19	Si
fin.	3	-134	-12365	21944	SLU 37	1.77	Si
ini.	3	-80	839	21786	SLU 38	25.97	Si
fin.	3	-88	-11804	21944	SLU 38	1.86	Si
ini.	3	64	-12176	21786	SLU 44	1.79	Si
fin.	3	69	766	21944	SLU 44	28.65	Si
ini.	3	-126	-1383	21786	SLU 79	15.76	Si
fin.	3	-131	-11753	21944	SLU 79	1.87	Si
ini.	3	-14	-10821	21786	SLU 43	2.01	Si
fin.	3	-8	-168	21944	SLU 43	130.58	Si
ini.	3	-79	-2196	21786	SLU 80	9.92	Si
fin.	3	-85	-11192	21944	SLU 80	1.96	Si
ini.	3	-119	-1701	21786	SLU 77	12.81	Si
fin.	3	-123	-11309	21944	SLU 77	1.94	Si
ini.	3	-72	-2515	21786	SLU 78	8.66	Si
fin.	3	-77	-10749	21944	SLU 78	2.04	Si
ini.	3	-120	1333	21786	SLU 35	16.34	Si
fin.	3	-126	-11921	21944	SLU 35	1.84	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1701	199			291	110	SLU 77	0.55	No
fin.	3	0	-11309	-327			292	110	SLU 77	0.34	No
ini.	3	0	-2196	204			291	110	SLU 80	0.54	No
fin.	3	0	-11192	-327			292	110	SLU 80	0.34	No
ini.	3	0	-2515	205			291	110	SLU 78	0.53	No
fin.	3	0	-10749	-319			292	110	SLU 78	0.35	No
ini.	3	0	1652	132			291	110	SLU 37	0.83	No
fin.	3	0	-12365	-306			292	110	SLU 37	0.36	No
ini.	3	0	-4965	234			291	110	SLU 72	0.47	No
fin.	3	0	-8333	-296			292	110	SLU 72	0.37	No
ini.	3	0	-1383	198			291	110	SLU 79	0.55	No
fin.	3	0	-11753	-335			292	110	SLU 79	0.33	No
ini.	3	0	839	138			291	110	SLU 38	0.79	No
fin.	3	0	-11804	-298			292	110	SLU 38	0.37	No
ini.	3	0	1333	133			291	110	SLU 35	0.82	No
fin.	3	0	-11921	-298			292	110	SLU 35	0.37	No
ini.	3	0	-3421	214			291	110	SLU 58	0.51	No
fin.	3	0	-9284	-300			292	110	SLU 58	0.37	No
ini.	3	0	-4152	228			291	110	SLU 71	0.48	No
fin.	3	0	-8893	-304			292	110	SLU 71	0.36	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	282	-73016		32678		32678	164	SLV 16	0.45	No
fin.	2	329	60814		32916		32916	165	SLV 16	0.54	No
ini.	2	48	-44846		32678		32678	164	SLV 13	0.73	No
fin.	2	158	33660		32916		32916	165	SLV 13	0.98	No
ini.	2	422	-69117		32678		32678	164	SLV 11	0.47	No
fin.	2	344	57815		32916		32916	165	SLV 11	0.57	No
ini.	2	422	-69117		32678		32678	164	SLV 12	0.47	No
fin.	2	344	57815		32916		32916	165	SLV 12	0.57	No
ini.	2	282	-73016		32678		32678	164	SLV 15	0.45	No
fin.	2	329	60814		32916		32916	165	SLV 15	0.54	No
ini.	2	48	-44846		32678		32678	164	SLV 14	0.73	No
fin.	2	158	33660		32916		32916	165	SLV 14	0.98	No
ini.	2	-329	60192		32678		32678	164	SLV 2	0.54	No
fin.	2	-369	-65419		32916		32916	165	SLV 2	0.5	No
ini.	2	-329	60192		32678		32678	164	SLV 1	0.54	No
fin.	2	-369	-65419		32916		32916	165	SLV 1	0.5	No
ini.	2	-470	56293		32678		32678	164	SLV 6	0.58	No
fin.	2	-384	-62421		32916		32916	165	SLV 6	0.53	No
ini.	2	-470	56293		32678		32678	164	SLV 5	0.58	No
fin.	2	-384	-62421		32916		32916	165	SLV 5	0.53	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-44846	568			437	164	SLV 13	0.29	No
fin.	2	0	33660	246			439	165	SLV 13	0.67	No
ini.	2	0	56293	-513			437	164	SLV 5	0.32	No
fin.	2	0	-62421	-778			439	165	SLV 5	0.21	No
ini.	2	0	-44846	568			437	164	SLV 14	0.29	No
fin.	2	0	33660	246			439	165	SLV 14	0.67	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-69117	889			437	164	SLV 11	0.19	No
fin.	2	0	57815	471			439	165	SLV 11	0.35	No
ini.	2	0	-73016	891			437	164	SLV 16	0.18	No
fin.	2	0	60814	523			439	165	SLV 16	0.32	No
ini.	2	0	-69117	889			437	164	SLV 12	0.19	No
fin.	2	0	57815	471			439	165	SLV 12	0.35	No
ini.	2	0	60192	-515			437	164	SLV 2	0.32	No
fin.	2	0	-65419	-830			439	165	SLV 2	0.2	No
ini.	2	0	60192	-515			437	164	SLV 1	0.32	No
fin.	2	0	-65419	-830			439	165	SLV 1	0.2	No
ini.	2	0	-73016	891			437	164	SLV 15	0.18	No
fin.	2	0	60814	523			439	165	SLV 15	0.32	No
ini.	2	0	56293	-513			437	164	SLV 6	0.32	No
fin.	2	0	-62421	-778			439	165	SLV 6	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.448	SLV 15	No
V_SLV	0.185	SLV 15	No
PF_SLU	1.775	SLU 37	Si
V_SLU	0.329	SLU 79	No

Trave di accoppiamento 176

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-867.8	-485.9	1399	1436.4	37.4	-1051.8	-485.9	1399	1436.5	37.5	184	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	127	1973	21293	SLU 44	10.79	Si
fin.	3	623	-5904	21449	SLU 44	3.63	Si
ini.	3	180	-6101	21293	SLU 41	3.49	Si
fin.	3	28	-212	21449	SLU 41	101.12	Si
ini.	3	179	-7183	21293	SLU 37	2.96	Si
fin.	3	-30	172	21449	SLU 37	124.76	Si
ini.	3	233	-6984	21293	SLU 38	3.05	Si
fin.	3	48	-313	21449	SLU 38	68.43	Si
ini.	3	234	-5902	21293	SLU 42	3.61	Si
fin.	3	106	-697	21449	SLU 42	30.75	Si
ini.	3	230	-6590	21293	SLU 36	3.23	Si
fin.	3	71	-515	21449	SLU 36	41.63	Si
ini.	3	176	-6789	21293	SLU 35	3.14	Si
fin.	3	-7	-30	21449	SLU 35	719.27	Si
ini.	3	175	-5992	21293	SLU 77	3.55	Si
fin.	3	125	-1396	21449	SLU 77	15.37	Si
ini.	3	231	-6188	21293	SLU 80	3.44	Si
fin.	3	179	-1679	21449	SLU 80	12.77	Si
ini.	3	178	-6387	21293	SLU 79	3.33	Si
fin.	3	102	-1194	21449	SLU 79	17.97	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-4208	147			288	108	SLU 57	0.74	No
fin.	3	0	-2602	-32			289	109	SLU 57	3.41	Si
ini.	3	0	-4603	148			288	108	SLU 59	0.73	No
fin.	3	0	-2400	-35			289	109	SLU 59	3.08	Si
ini.	3	0	-5106	151			288	108	SLU 84	0.72	No
fin.	3	0	-2063	-34			289	109	SLU 84	3.17	Si
ini.	3	0	-5305	148			288	108	SLU 83	0.73	No
fin.	3	0	-1578	-43			289	109	SLU 83	2.52	Si
ini.	3	0	-6188	155			288	108	SLU 80	0.7	No
fin.	3	0	-1679	-48			289	109	SLU 80	2.28	Si
ini.	3	0	-5793	154			288	108	SLU 78	0.7	No
fin.	3	0	-1881	-44			289	109	SLU 78	2.46	Si
ini.	3	0	-3985	151			288	108	SLU 76	0.72	No
fin.	3	0	-2944	-22			289	109	SLU 76	4.93	Si
ini.	3	0	-6387	151			288	108	SLU 79	0.72	No
fin.	3	0	-1194	-57			289	109	SLU 79	1.92	Si
ini.	3	0	-3723	147			288	108	SLU 75	0.74	No
fin.	3	0	-2822	-25			289	109	SLU 75	4.43	Si
ini.	3	0	-5992	150			288	108	SLU 77	0.72	No
fin.	3	0	-1396	-53			289	109	SLU 77	2.05	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-633	32456	31939	SLV 1	0.98	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	887	-31543	32174	SLV 1	1.02	Si
ini.	2	-1019	42489	31939	SLV 4	0.75	No
fin.	2	1069	-43195	32174	SLV 4	0.74	No
ini.	2	1150	-43022	31939	SLV 13	0.74	No
fin.	2	-447	36891	32174	SLV 13	0.87	No
ini.	2	764	-32988	31939	SLV 15	0.97	No
fin.	2	-266	25239	32174	SLV 15	1.27	Si
ini.	2	-1019	42489	31939	SLV 3	0.75	No
fin.	2	1069	-43195	32174	SLV 3	0.74	No
ini.	2	-846	27777	31939	SLV 7	1.15	Si
fin.	2	813	-32837	32174	SLV 7	0.98	No
ini.	2	-633	32456	31939	SLV 2	0.98	No
fin.	2	887	-31543	32174	SLV 2	1.02	Si
ini.	2	-846	27777	31939	SLV 8	1.15	Si
fin.	2	813	-32837	32174	SLV 8	0.98	No
ini.	2	1150	-43022	31939	SLV 14	0.74	No
fin.	2	-447	36891	32174	SLV 14	0.87	No
ini.	2	764	-32988	31939	SLV 16	0.97	No
fin.	2	-266	25239	32174	SLV 16	1.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	27777	145			432	163	SLV 7	1.12	Si
fin.	2	0	-32837	283			434	163	SLV 7	0.58	No
ini.	2	0	27777	145			432	163	SLV 8	1.12	Si
fin.	2	0	-32837	283			434	163	SLV 8	0.58	No
ini.	2	0	42489	42			432	163	SLV 4	3.9	Si
fin.	2	0	-43195	343			434	163	SLV 4	0.48	No
ini.	2	0	42489	42			432	163	SLV 3	3.9	Si
fin.	2	0	-43195	343			434	163	SLV 3	0.48	No
ini.	2	0	-32988	199			432	163	SLV 15	0.82	No
fin.	2	0	25239	-230			434	163	SLV 15	0.71	No
ini.	2	0	-28310	54			432	163	SLV 10	2.99	Si
fin.	2	0	26532	-289			434	163	SLV 10	0.56	No
ini.	2	0	-32988	199			432	163	SLV 16	0.82	No
fin.	2	0	25239	-230			434	163	SLV 16	0.71	No
ini.	2	0	-43022	158			432	163	SLV 13	1.03	Si
fin.	2	0	36891	-350			434	163	SLV 13	0.47	No
ini.	2	0	-28310	54			432	163	SLV 9	2.99	Si
fin.	2	0	26532	-289			434	163	SLV 9	0.56	No
ini.	2	0	-43022	158			432	163	SLV 14	1.03	Si
fin.	2	0	36891	-350			434	163	SLV 14	0.47	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.742	SLV 13	No
V_SLV	0.466	SLV 13	No
PF_SLU	2.964	SLU 37	Si
V_SLU	0.699	SLU 80	No

Trave di accoppiamento 177

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-854.8	-335.9	1397	1505.7	108.7	-944.8	-335.9	1397	1505.8	108.8	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1048	23775	136538	SLU 60	5.74	Si
fin.	3	-1051	-18141	136656	SLU 60	7.53	Si
ini.	3	-1279	26205	136538	SLU 82	5.21	Si
fin.	3	-1284	-22153	136656	SLU 82	6.17	Si
ini.	3	-1217	24296	136538	SLU 73	5.62	Si
fin.	3	-1223	-21413	136656	SLU 73	6.38	Si
ini.	3	-1278	23918	136538	SLU 74	5.71	Si
fin.	3	-1284	-15449	136656	SLU 74	8.85	Si
ini.	3	-1136	23547	136538	SLU 39	5.8	Si
fin.	3	-1140	-18916	136656	SLU 39	7.22	Si
ini.	3	-1291	22961	136538	SLU 75	5.95	Si
fin.	3	-1297	-16351	136656	SLU 75	8.36	Si
ini.	3	-1061	22818	136538	SLU 61	5.98	Si
fin.	3	-1065	-19043	136656	SLU 61	7.18	Si
ini.	3	-1033	22924	136538	SLU 64	5.96	Si
fin.	3	-1037	-16783	136656	SLU 64	8.14	Si
ini.	3	-1266	27162	136538	SLU 81	5.03	Si
fin.	3	-1271	-21252	136656	SLU 81	6.43	Si
ini.	3	-1267	23262	136538	SLU 83	5.87	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1273	-16416	136656	SLU 83	8.32	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	18090	572			1172	441	SLU 79	0.77	No
fin.	3	0	-10239	-1167			1173	441	SLU 79	0.38	No
ini.	3	0	19060	612			1172	441	SLU 78	0.72	No
fin.	3	0	-11515	-1255			1173	441	SLU 78	0.35	No
ini.	3	0	23918	358			1172	441	SLU 74	1.23	Si
fin.	3	0	-15449	-1201			1173	441	SLU 74	0.37	No
ini.	3	0	17051	679			1172	441	SLU 69	0.65	No
fin.	3	0	-7486	-1187			1173	441	SLU 69	0.37	No
ini.	3	0	16094	679			1172	441	SLU 70	0.65	No
fin.	3	0	-8387	-1187			1173	441	SLU 70	0.37	No
ini.	3	0	22305	291			1172	441	SLU 84	1.52	Si
fin.	3	0	-17317	-1142			1173	441	SLU 84	0.39	No
ini.	3	0	17133	573			1172	441	SLU 80	0.77	No
fin.	3	0	-11141	-1166			1173	441	SLU 80	0.38	No
ini.	3	0	20017	611			1172	441	SLU 77	0.72	No
fin.	3	0	-10613	-1255			1173	441	SLU 77	0.35	No
ini.	3	0	23262	290			1172	441	SLU 83	1.52	Si
fin.	3	0	-16416	-1142			1173	441	SLU 83	0.39	No
ini.	3	0	22961	359			1172	441	SLU 75	1.23	Si
fin.	3	0	-16351	-1201			1173	441	SLU 75	0.37	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-642	-69833	154441	SLV 13	2.21	Si
fin.	2	-412	31981	154559	SLV 13	4.83	Si
ini.	2	-1583	-62757	154441	SLV 16	2.46	Si
fin.	2	-663	58743	154559	SLV 16	2.63	Si
ini.	2	870	31154	154441	SLV 6	4.96	Si
fin.	2	-456	-75268	154559	SLV 6	2.05	Si
ini.	2	-642	-69833	154441	SLV 14	2.21	Si
fin.	2	-412	31981	154559	SLV 14	4.83	Si
ini.	2	-1583	-62757	154441	SLV 15	2.46	Si
fin.	2	-663	58743	154559	SLV 15	2.63	Si
ini.	2	-4	98231	154441	SLV 2	1.57	Si
fin.	2	-930	-84984	154559	SLV 2	1.82	Si
ini.	2	870	31154	154441	SLV 5	4.96	Si
fin.	2	-456	-75268	154559	SLV 5	2.05	Si
ini.	2	-945	105307	154441	SLV 3	1.47	Si
fin.	2	-1181	-58222	154559	SLV 3	2.65	Si
ini.	2	-945	105307	154441	SLV 4	1.47	Si
fin.	2	-1181	-58222	154559	SLV 4	2.65	Si
ini.	2	-4	98231	154441	SLV 1	1.57	Si
fin.	2	-930	-84984	154559	SLV 1	1.82	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	105307	-1297			1758	662	SLV 3	0.51	No
fin.	2	0	-58222	-2088			1760	662	SLV 3	0.32	No
ini.	2	0	98231	-1915			1758	662	SLV 1	0.35	No
fin.	2	0	-84984	-2784			1760	662	SLV 1	0.24	No
ini.	2	0	4321	1617			1758	662	SLV 12	0.41	No
fin.	2	0	49027	918			1760	662	SLV 12	0.72	No
ini.	2	0	105307	-1297			1758	662	SLV 4	0.51	No
fin.	2	0	-58222	-2088			1760	662	SLV 4	0.32	No
ini.	2	0	-62757	2076			1758	662	SLV 15	0.32	No
fin.	2	0	58743	1289			1760	662	SLV 15	0.51	No
ini.	2	0	98231	-1915			1758	662	SLV 2	0.35	No
fin.	2	0	-84984	-2784			1760	662	SLV 2	0.24	No
ini.	2	0	31154	-1456			1758	662	SLV 6	0.45	No
fin.	2	0	-75268	-2414			1760	662	SLV 6	0.27	No
ini.	2	0	-62757	2076			1758	662	SLV 16	0.32	No
fin.	2	0	58743	1289			1760	662	SLV 16	0.51	No
ini.	2	0	31154	-1456			1758	662	SLV 5	0.45	No
fin.	2	0	-75268	-2414			1760	662	SLV 5	0.27	No
ini.	2	0	4321	1617			1758	662	SLV 11	0.41	No
fin.	2	0	49027	918			1760	662	SLV 11	0.72	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.467	SLV 3	Si
V_SLV	0.238	SLV 1	No
PF_SLU	5.027	SLU 81	Si
V_SLU	0.352	SLU 77	No

Trave di accoppiamento 178

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-772.3	-486.1	1399	1436.2	37.2	-772.3	-377.1	1399	1486.6	87.6	109	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	214	1142	21080	SLU 82	18.46	Si
fin.	3	-288	28059	103151	SLU 82	3.68	Si
ini.	3	196	1206	21080	SLU 2	17.48	Si
fin.	3	-248	29018	103151	SLU 2	3.55	Si
ini.	3	254	1381	21080	SLU 73	15.27	Si
fin.	3	-329	35585	103151	SLU 73	2.9	Si
ini.	3	211	1394	21080	SLU 44	15.12	Si
fin.	3	-272	30397	103151	SLU 44	3.39	Si
ini.	3	228	1246	21080	SLU 10	16.92	Si
fin.	3	-278	33544	103151	SLU 10	3.08	Si
ini.	3	243	1434	21080	SLU 52	14.7	Si
fin.	3	-302	34923	103151	SLU 52	2.95	Si
ini.	3	207	1153	21080	SLU 23	18.28	Si
fin.	3	-275	29680	103151	SLU 23	3.48	Si
ini.	3	209	1282	21080	SLU 76	16.45	Si
fin.	3	-326	28355	103151	SLU 76	3.64	Si
ini.	3	221	1341	21080	SLU 65	15.72	Si
fin.	3	-299	31059	103151	SLU 65	3.32	Si
ini.	3	239	1193	21080	SLU 31	17.67	Si
fin.	3	-304	34207	103151	SLU 31	3.02	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1193	508			287	108	SLU 31	0.21	No
fin.	3	0	34207	90			813	306	SLU 31	3.42	Si
ini.	3	0	1394	483			287	108	SLU 44	0.22	No
fin.	3	0	30397	4			813	306	SLU 44	77.96	Si
ini.	3	0	1282	495			287	108	SLU 76	0.22	No
fin.	3	0	28355	1			813	306	SLU 76	324.53	Si
ini.	3	0	1341	498			287	108	SLU 65	0.22	No
fin.	3	0	31059	13			813	306	SLU 65	24.41	Si
ini.	3	0	1434	535			287	108	SLU 52	0.2	No
fin.	3	0	34923	39			813	306	SLU 52	7.93	Si
ini.	3	0	1335	480			287	108	SLU 55	0.22	No
fin.	3	0	27692	-8			813	306	SLU 55	39.9	Si
ini.	3	0	1142	460			287	108	SLU 82	0.23	No
fin.	3	0	28059	-9			813	306	SLU 82	33.98	Si
ini.	3	0	1153	456			287	108	SLU 23	0.24	No
fin.	3	0	29680	55			813	306	SLU 23	5.58	Si
ini.	3	0	1381	551			287	108	SLU 73	0.2	No
fin.	3	0	35585	47			813	306	SLU 73	6.49	Si
ini.	3	0	1246	493			287	108	SLU 10	0.22	No
fin.	3	0	33544	81			813	306	SLU 10	3.78	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1125	5633	31621	SLV 9	5.61	Si
fin.	2	-1610	151815	119860	SLV 9	0.79	No
ini.	2	-1125	-1181	31621	SLV 12	26.77	Si
fin.	2	1202	-114937	119860	SLV 12	1.04	Si
ini.	2	1272	2306	31621	SLV 5	13.71	Si
fin.	2	-1459	128608	119860	SLV 5	0.93	No
ini.	2	1125	5633	31621	SLV 10	5.61	Si
fin.	2	-1610	151815	119860	SLV 10	0.79	No
ini.	2	-978	-4509	31621	SLV 8	7.01	Si
fin.	2	1353	-138144	119860	SLV 8	0.87	No
ini.	2	1272	2306	31621	SLV 6	13.71	Si
fin.	2	-1459	128608	119860	SLV 6	0.93	No
ini.	2	-1125	-1181	31621	SLV 11	26.77	Si
fin.	2	1202	-114937	119860	SLV 11	1.04	Si
ini.	2	166	7130	31621	SLV 13	4.43	Si
fin.	2	-803	85527	119860	SLV 13	1.4	Si
ini.	2	166	7130	31621	SLV 14	4.43	Si
fin.	2	-803	85527	119860	SLV 14	1.4	Si
ini.	2	-978	-4509	31621	SLV 7	7.01	Si
fin.	2	1353	-138144	119860	SLV 7	0.87	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	5086	1482			430	162	SLV 16	0.11	No
fin.	2	0	5501	-396			1220	459	SLV 16	1.16	Si
ini.	2	0	-1181	2417			430	162	SLV 11	0.07	No
fin.	2	0	-114937	-1297			1220	459	SLV 11	0.35	No
ini.	2	0	5086	1482			430	162	SLV 15	0.11	No
fin.	2	0	5501	-396			1220	459	SLV 15	1.16	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-4509	1999			430	162	SLV 7	0.08	No
fin.	2	0	-138144	-1347			1220	459	SLV 7	0.34	No
ini.	2	0	2306	-2063			430	162	SLV 5	0.08	No
fin.	2	0	128608	1059			1220	459	SLV 5	0.43	No
ini.	2	0	5633	-1645			430	162	SLV 10	0.1	No
fin.	2	0	151815	1109			1220	459	SLV 10	0.41	No
ini.	2	0	2306	-2063			430	162	SLV 6	0.08	No
fin.	2	0	128608	1059			1220	459	SLV 6	0.43	No
ini.	2	0	-4509	1999			430	162	SLV 8	0.08	No
fin.	2	0	-138144	-1347			1220	459	SLV 8	0.34	No
ini.	2	0	-1181	2417			430	162	SLV 12	0.07	No
fin.	2	0	-114937	-1297			1220	459	SLV 12	0.35	No
ini.	2	0	5633	-1645			430	162	SLV 9	0.1	No
fin.	2	0	151815	1109			1220	459	SLV 9	0.41	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.79	SLV 9	No
V_SLV	0.067	SLV 11	No
PF_SLU	2.899	SLU 73	Si
V_SLU	0.196	SLU 73	No

Trave di accoppiamento 179

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	1187	1277	90	-741.3	-335.9	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-121	-3395	103792	SLU 79	30.57	Si
fin.	3	-870	27123	103792	SLU 79	3.83	Si
ini.	3	-22	-4639	103792	SLU 27	22.37	Si
fin.	3	-713	24603	103792	SLU 27	4.22	Si
ini.	3	-236	-1117	103792	SLU 80	92.93	Si
fin.	3	-825	24513	103792	SLU 80	4.23	Si
ini.	3	-294	390	103792	SLU 78	266.01	Si
fin.	3	-858	24538	103792	SLU 78	4.23	Si
ini.	3	-141	-2461	103792	SLU 69	42.17	Si
fin.	3	-842	26329	103792	SLU 69	3.94	Si
ini.	3	-61	-4066	103792	SLU 35	25.53	Si
fin.	3	-774	25422	103792	SLU 35	4.08	Si
ini.	3	-3	-5573	103792	SLU 37	18.62	Si
fin.	3	-741	25397	103792	SLU 37	4.09	Si
ini.	3	36	-6146	103792	SLU 29	16.89	Si
fin.	3	-680	24577	103792	SLU 29	4.22	Si
ini.	3	-179	-1888	103792	SLU 77	54.97	Si
fin.	3	-903	27149	103792	SLU 77	3.82	Si
ini.	3	-83	-3968	103792	SLU 71	26.16	Si
fin.	3	-809	26304	103792	SLU 71	3.95	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-2106	182			970	365	SLU 48	2.01	Si
fin.	3	0	23559	871			970	365	SLU 48	0.42	No
ini.	3	0	-3395	423			970	365	SLU 79	0.86	No
fin.	3	0	27123	884			970	365	SLU 79	0.41	No
ini.	3	0	-6146	423			970	365	SLU 29	0.86	No
fin.	3	0	24577	883			970	365	SLU 29	0.41	No
ini.	3	0	-5573	500			970	365	SLU 37	0.73	No
fin.	3	0	25397	840			970	365	SLU 37	0.43	No
ini.	3	0	-4066	437			970	365	SLU 35	0.83	No
fin.	3	0	25422	839			970	365	SLU 35	0.44	No
ini.	3	0	-3968	346			970	365	SLU 71	1.05	Si
fin.	3	0	26304	926			970	365	SLU 71	0.39	No
ini.	3	0	-1888	360			970	365	SLU 77	1.01	Si
fin.	3	0	27149	883			970	365	SLU 77	0.41	No
ini.	3	0	-4639	360			970	365	SLU 27	1.01	Si
fin.	3	0	24603	881			970	365	SLU 27	0.41	No
ini.	3	0	-2461	283			970	365	SLU 69	1.29	Si
fin.	3	0	26329	925			970	365	SLU 69	0.39	No
ini.	3	0	-3613	244			970	365	SLU 50	1.49	Si
fin.	3	0	23534	872			970	365	SLU 50	0.42	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1586	46418	121694	SLV 5	2.62	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	988	-25067	121694	SLV 5	4.85	Si
ini.	2	-2289	77320	121694	SLV 1	1.57	Si
fin.	2	803	-63308	121694	SLV 1	1.92	Si
ini.	2	1012	-51368	121694	SLV 14	2.37	Si
fin.	2	-1242	74605	121694	SLV 14	1.63	Si
ini.	2	1012	-51368	121694	SLV 13	2.37	Si
fin.	2	-1242	74605	121694	SLV 13	1.63	Si
ini.	2	-1901	65201	121694	SLV 4	1.87	Si
fin.	2	31	-54712	121694	SLV 4	2.22	Si
ini.	2	1400	-63487	121694	SLV 16	1.92	Si
fin.	2	-2014	83201	121694	SLV 16	1.46	Si
ini.	2	-1586	46418	121694	SLV 6	2.62	Si
fin.	2	988	-25067	121694	SLV 6	4.85	Si
ini.	2	1400	-63487	121694	SLV 15	1.92	Si
fin.	2	-2014	83201	121694	SLV 15	1.46	Si
ini.	2	-1901	65201	121694	SLV 3	1.87	Si
fin.	2	31	-54712	121694	SLV 3	2.22	Si
ini.	2	-2289	77320	121694	SLV 2	1.57	Si
fin.	2	803	-63308	121694	SLV 2	1.92	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	77320	-2970			1456	548	SLV 1	0.18	No
fin.	2	0	-63308	-3241			1456	548	SLV 1	0.17	No
ini.	2	0	-32584	1643			1456	548	SLV 12	0.33	No
fin.	2	0	44960	2266			1456	548	SLV 12	0.24	No
ini.	2	0	77320	-2970			1456	548	SLV 2	0.18	No
fin.	2	0	-63308	-3241			1456	548	SLV 2	0.17	No
ini.	2	0	-63487	2792			1456	548	SLV 16	0.2	No
fin.	2	0	83201	3662			1456	548	SLV 16	0.15	No
ini.	2	0	-51368	2219			1456	548	SLV 13	0.25	No
fin.	2	0	74605	2989			1456	548	SLV 13	0.18	No
ini.	2	0	65201	-2398			1456	548	SLV 3	0.23	No
fin.	2	0	-54712	-2568			1456	548	SLV 3	0.21	No
ini.	2	0	-63487	2792			1456	548	SLV 15	0.2	No
fin.	2	0	83201	3662			1456	548	SLV 15	0.15	No
ini.	2	0	-51368	2219			1456	548	SLV 14	0.25	No
fin.	2	0	74605	2989			1456	548	SLV 14	0.18	No
ini.	2	0	-32584	1643			1456	548	SLV 11	0.33	No
fin.	2	0	44960	2266			1456	548	SLV 11	0.24	No
ini.	2	0	65201	-2398			1456	548	SLV 4	0.23	No
fin.	2	0	-54712	-2568			1456	548	SLV 4	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.463	SLV 15	Si
V_SLV	0.15	SLV 15	No
PF_SLU	3.823	SLU 77	Si
V_SLU	0.394	SLU 71	No

Trave di accoppiamento 180

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-651.3	-335.9	1457	1505.6	48.6	-741.3	-335.9	1457	1505.6	48.6	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb_	fhk	fvk0	fhmmedio	τ0	fν0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-758	-22623	33499	SLU 36	1.48	Si
fin.	3	-763	9201	33592	SLU 36	3.65	Si
ini.	3	-628	-22874	33499	SLU 72	1.46	Si
fin.	3	-633	9731	33592	SLU 72	3.45	Si
ini.	3	-769	-23470	33499	SLU 79	1.43	Si
fin.	3	-772	10024	33592	SLU 79	3.35	Si
ini.	3	-859	-23634	33499	SLU 77	1.42	Si
fin.	3	-862	9193	33592	SLU 77	3.65	Si
ini.	3	-883	-23921	33499	SLU 78	1.4	Si
fin.	3	-888	9558	33592	SLU 78	3.51	Si
ini.	3	-694	-22751	33499	SLU 69	1.47	Si
fin.	3	-697	8534	33592	SLU 69	3.94	Si
ini.	3	-668	-22459	33499	SLU 38	1.49	Si
fin.	3	-673	10033	33592	SLU 38	3.35	Si
ini.	3	-604	-22586	33499	SLU 71	1.48	Si
fin.	3	-607	9365	33592	SLU 71	3.59	Si
ini.	3	-718	-23038	33499	SLU 70	1.45	Si
fin.	3	-723	8899	33592	SLU 70	3.77	Si
ini.	3	-793	-23757	33499	SLU 80	1.41	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-798	10390	33592	SLU 80	3.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-23757	1008			349	131	SLU 80	0.13	No
fin.	3	0	10390	-266			350	132	SLU 80	0.5	No
ini.	3	0	-22623	1000			349	131	SLU 36	0.13	No
fin.	3	0	9201	-297			350	132	SLU 36	0.44	No
ini.	3	0	-23038	1056			349	131	SLU 70	0.12	No
fin.	3	0	8899	-356			350	132	SLU 70	0.37	No
ini.	3	0	-22874	991			349	131	SLU 72	0.13	No
fin.	3	0	9731	-282			350	132	SLU 72	0.47	No
ini.	3	0	-22336	989			349	131	SLU 35	0.13	No
fin.	3	0	8835	-298			350	132	SLU 35	0.44	No
ini.	3	0	-23634	1062			349	131	SLU 77	0.12	No
fin.	3	0	9193	-340			350	132	SLU 77	0.39	No
ini.	3	0	-21740	983			349	131	SLU 28	0.13	No
fin.	3	0	8542	-314			350	132	SLU 28	0.42	No
ini.	3	0	-22751	1045			349	131	SLU 69	0.13	No
fin.	3	0	8534	-356			350	132	SLU 69	0.37	No
ini.	3	0	-23470	997			349	131	SLU 79	0.13	No
fin.	3	0	10024	-266			350	132	SLU 79	0.49	No
ini.	3	0	-23921	1073			349	131	SLU 78	0.12	No
fin.	3	0	9558	-339			350	132	SLU 78	0.39	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	144	-37279	49175	SLV 16	1.32	Si
fin.	2	46	37758	49293	SLV 16	1.31	Si
ini.	2	-1777	15348	49175	SLV 6	3.2	Si
fin.	2	-1295	-36479	49293	SLV 6	1.35	Si
ini.	2	-7	-18777	49175	SLV 8	2.62	Si
fin.	2	-523	27266	49293	SLV 8	1.81	Si
ini.	2	-7	-18777	49175	SLV 7	2.62	Si
fin.	2	-523	27266	49293	SLV 7	1.81	Si
ini.	2	348	-32829	49175	SLV 12	1.5	Si
fin.	2	-136	42406	49293	SLV 12	1.16	Si
ini.	2	-1777	15348	49175	SLV 5	3.2	Si
fin.	2	-1295	-36479	49293	SLV 5	1.35	Si
ini.	2	-1572	19798	49175	SLV 1	2.48	Si
fin.	2	-1476	-31832	49293	SLV 1	1.55	Si
ini.	2	-1572	19798	49175	SLV 2	2.48	Si
fin.	2	-1476	-31832	49293	SLV 2	1.55	Si
ini.	2	348	-32829	49175	SLV 11	1.5	Si
fin.	2	-136	42406	49293	SLV 11	1.16	Si
ini.	2	144	-37279	49175	SLV 15	1.32	Si
fin.	2	46	37758	49293	SLV 15	1.31	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-37279	936			524	197	SLV 15	0.21	No
fin.	2	0	37758	418			524	197	SLV 15	0.47	No
ini.	2	0	19798	-115			524	197	SLV 1	1.72	Si
fin.	2	0	-31832	-749			524	197	SLV 1	0.26	No
ini.	2	0	-37279	936			524	197	SLV 16	0.21	No
fin.	2	0	37758	418			524	197	SLV 16	0.47	No
ini.	2	0	-27042	818			524	197	SLV 14	0.24	No
fin.	2	0	18634	332			524	197	SLV 14	0.59	No
ini.	2	0	9561	4			524	197	SLV 4	53	Si
fin.	2	0	-12708	-664			524	197	SLV 4	0.3	No
ini.	2	0	-32829	748			524	197	SLV 12	0.26	No
fin.	2	0	42406	139			524	197	SLV 12	1.42	Si
ini.	2	0	9561	4			524	197	SLV 3	53	Si
fin.	2	0	-12708	-664			524	197	SLV 3	0.3	No
ini.	2	0	-27042	818			524	197	SLV 13	0.24	No
fin.	2	0	18634	332			524	197	SLV 13	0.59	No
ini.	2	0	-32829	748			524	197	SLV 11	0.26	No
fin.	2	0	42406	139			524	197	SLV 11	1.42	Si
ini.	2	0	19798	-115			524	197	SLV 2	1.72	Si
fin.	2	0	-31832	-749			524	197	SLV 2	0.26	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.162	SLV 11	Si
V_SLV	0.21	SLV 15	No
PF_SLU	1.4	SLU 78	Si
V_SLU	0.122	SLU 78	No

Trave di accoppiamento 181

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	1187	1387	200	-600.8	-335.9	1187	1387	200	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-487	42083	296292	SLU 36	7.04	Si
fin.	3	-344	33194	296292	SLU 36	8.93	Si
ini.	3	-553	43412	296292	SLU 80	6.83	Si
fin.	3	-404	33893	296292	SLU 80	8.74	Si
ini.	3	-706	43032	296292	SLU 83	6.89	Si
fin.	3	-558	32725	296292	SLU 83	9.05	Si
ini.	3	-517	46550	296292	SLU 77	6.36	Si
fin.	3	-354	38867	296292	SLU 77	7.62	Si
ini.	3	-832	42639	296292	SLU 84	6.95	Si
fin.	3	-695	29571	296292	SLU 84	10.02	Si
ini.	3	-361	42476	296292	SLU 35	6.98	Si
fin.	3	-206	36349	296292	SLU 35	8.15	Si
ini.	3	-643	46157	296292	SLU 78	6.42	Si
fin.	3	-491	35713	296292	SLU 78	8.3	Si
ini.	3	-760	43086	296292	SLU 74	6.88	Si
fin.	3	-622	32966	296292	SLU 74	8.99	Si
ini.	3	-886	42693	296292	SLU 75	6.94	Si
fin.	3	-759	29811	296292	SLU 75	9.94	Si
ini.	3	-427	43806	296292	SLU 79	6.76	Si
fin.	3	-267	37048	296292	SLU 79	8	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	39175	-393			2157	812	SLU 82	2.06	Si
fin.	3	0	23669	-372			2157	812	SLU 82	2.18	Si
ini.	3	0	35100	-367			2157	812	SLU 40	2.21	Si
fin.	3	0	21150	-386			2157	812	SLU 40	2.1	Si
ini.	3	0	46550	-402			2157	812	SLU 77	2.02	Si
fin.	3	0	38867	-167			2157	812	SLU 77	4.86	Si
ini.	3	0	46157	-414			2157	812	SLU 78	1.96	Si
fin.	3	0	35713	-249			2157	812	SLU 78	3.26	Si
ini.	3	0	42693	-402			2157	812	SLU 75	2.02	Si
fin.	3	0	29811	-276			2157	812	SLU 75	2.94	Si
ini.	3	0	42639	-406			2157	812	SLU 84	2	Si
fin.	3	0	29571	-345			2157	812	SLU 84	2.35	Si
ini.	3	0	43032	-394			2157	812	SLU 83	2.06	Si
fin.	3	0	32725	-263			2157	812	SLU 83	3.09	Si
ini.	3	0	43086	-390			2157	812	SLU 74	2.08	Si
fin.	3	0	32966	-195			2157	812	SLU 74	4.17	Si
ini.	3	0	42083	-388			2157	812	SLU 36	2.09	Si
fin.	3	0	33194	-262			2157	812	SLU 36	3.09	Si
ini.	3	0	39568	-381			2157	812	SLU 81	2.13	Si
fin.	3	0	26823	-291			2157	812	SLU 81	2.79	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1227	52189	314194	SLD 3	6.02	Si
fin.	2	-1233	4277	314194	SLD 3	73.47	Si
ini.	2	-1765	62569	314194	SLV 2	5.02	Si
fin.	2	-2164	-3281	314194	SLV 2	95.76	Si
ini.	2	-653	54359	314194	SLV 12	5.78	Si
fin.	2	2	8143	314194	SLV 12	38.58	Si
ini.	2	-1227	52189	314194	SLD 4	6.02	Si
fin.	2	-1233	4277	314194	SLD 4	73.47	Si
ini.	2	-1765	62569	314194	SLV 1	5.02	Si
fin.	2	-2164	-3281	314194	SLV 1	95.76	Si
ini.	2	-1992	90211	314194	SLV 3	3.48	Si
fin.	2	-2093	-12742	314194	SLV 3	24.66	Si
ini.	2	-653	54359	314194	SLV 11	5.78	Si
fin.	2	2	8143	314194	SLV 11	38.58	Si
ini.	2	-1992	90211	314194	SLV 4	3.48	Si
fin.	2	-2093	-12742	314194	SLV 4	24.66	Si
ini.	2	-1393	85790	314194	SLV 8	3.66	Si
fin.	2	-927	-6590	314194	SLV 8	47.68	Si
ini.	2	-1393	85790	314194	SLV 7	3.66	Si
fin.	2	-927	-6590	314194	SLV 7	47.68	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	54359	-1834			3235	1217	SLV 11	0.66	No
fin.	2	0	8143	-1580			3235	1217	SLV 11	0.77	No
ini.	2	0	-37781	2497			3235	1217	SLV 9	0.49	No
fin.	2	0	39679	2720			3235	1217	SLV 9	0.45	No
ini.	2	0	-42202	2221			3235	1217	SLV 13	0.55	No
fin.	2	0	45831	2762			3235	1217	SLV 13	0.44	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	85790	-2897			3235	1217	SLV 7	0.42	No
fin.	2	0	-6590	-2907			3235	1217	SLV 7	0.42	No
ini.	2	0	90211	-2621			3235	1217	SLV 4	0.46	No
fin.	2	0	-12742	-2949			3235	1217	SLV 4	0.41	No
ini.	2	0	90211	-2621			3235	1217	SLV 3	0.46	No
fin.	2	0	-12742	-2949			3235	1217	SLV 3	0.41	No
ini.	2	0	-42202	2221			3235	1217	SLV 14	0.55	No
fin.	2	0	45831	2762			3235	1217	SLV 14	0.44	No
ini.	2	0	54359	-1834			3235	1217	SLV 12	0.66	No
fin.	2	0	8143	-1580			3235	1217	SLV 12	0.77	No
ini.	2	0	-37781	2497			3235	1217	SLV 10	0.49	No
fin.	2	0	39679	2720			3235	1217	SLV 10	0.45	No
ini.	2	0	85790	-2897			3235	1217	SLV 8	0.42	No
fin.	2	0	-6590	-2907			3235	1217	SLV 8	0.42	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.483	SLV 3	Si
V_SLV	0.413	SLV 3	No
PF_SLU	6.365	SLU 77	Si
V_SLU	1.96	SLU 78	Si

Trave di accoppiamento 182

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-550.8	-335.9	1467	1505.5	38.5	-600.8	-335.9	1467	1505.5	38.5	50	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-459	2767	21041	SLU 79	7.6	Si
fin.	3	-462	-10432	21081	SLU 79	2.02	Si
ini.	3	-343	3537	21041	SLU 72	5.95	Si
fin.	3	-345	-10368	21081	SLU 72	2.03	Si
ini.	3	-317	3197	21041	SLU 71	6.58	Si
fin.	3	-320	-10055	21081	SLU 71	2.1	Si
ini.	3	-528	2220	21041	SLU 77	9.48	Si
fin.	3	-531	-10280	21081	SLU 77	2.05	Si
ini.	3	-484	3106	21041	SLU 80	6.77	Si
fin.	3	-487	-10745	21081	SLU 80	1.96	Si
ini.	3	-461	2727	21041	SLU 36	7.72	Si
fin.	3	-464	-10152	21081	SLU 36	2.08	Si
ini.	3	-553	2560	21041	SLU 78	8.22	Si
fin.	3	-556	-10594	21081	SLU 78	1.99	Si
ini.	3	-412	2991	21041	SLU 70	7.04	Si
fin.	3	-415	-10217	21081	SLU 70	2.06	Si
ini.	3	-392	3273	21041	SLU 38	6.43	Si
fin.	3	-395	-10304	21081	SLU 38	2.05	Si
ini.	3	-366	2934	21041	SLU 37	7.17	Si
fin.	3	-370	-9990	21081	SLU 37	2.11	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	3273	89			319	120	SLU 38	1.34	Si
fin.	3	0	-10304	-414			320	120	SLU 38	0.29	No
ini.	3	0	2220	181			319	120	SLU 77	0.67	No
fin.	3	0	-10280	-421			320	120	SLU 77	0.29	No
ini.	3	0	3197	129			319	120	SLU 71	0.93	No
fin.	3	0	-10055	-426			320	120	SLU 71	0.28	No
ini.	3	0	2651	179			319	120	SLU 69	0.67	No
fin.	3	0	-9903	-422			320	120	SLU 69	0.29	No
ini.	3	0	3106	111			319	120	SLU 80	1.08	Si
fin.	3	0	-10745	-437			320	120	SLU 80	0.28	No
ini.	3	0	2767	130			319	120	SLU 79	0.92	No
fin.	3	0	-10432	-426			320	120	SLU 79	0.28	No
ini.	3	0	2560	162			319	120	SLU 78	0.74	No
fin.	3	0	-10594	-433			320	120	SLU 78	0.28	No
ini.	3	0	3537	110			319	120	SLU 72	1.09	Si
fin.	3	0	-10368	-437			320	120	SLU 72	0.28	No
ini.	3	0	3704	88			319	120	SLU 30	1.37	Si
fin.	3	0	-9927	-414			320	120	SLU 30	0.29	No
ini.	3	0	2991	160			319	120	SLU 70	0.75	No
fin.	3	0	-10217	-433			320	120	SLU 70	0.28	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-155	33305	31561	SLV 7	0.95	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-527	-29015	31622	SLV 7	1.09	Si
ini.	2	-697	-25343	31561	SLV 13	1.25	Si
fin.	2	202	1680	31622	SLV 13	18.82	Si
ini.	2	-868	-25405	31561	SLV 6	1.24	Si
fin.	2	-1019	24197	31622	SLV 6	1.31	Si
ini.	2	-191	23849	31561	SLV 12	1.32	Si
fin.	2	-43	-30811	31622	SLV 12	1.03	Si
ini.	2	-868	-25405	31561	SLV 5	1.24	Si
fin.	2	-1019	24197	31622	SLV 5	1.31	Si
ini.	2	-905	-34861	31561	SLV 10	0.91	No
fin.	2	-535	22400	31622	SLV 10	1.41	Si
ini.	2	-155	33305	31561	SLV 8	0.95	No
fin.	2	-527	-29015	31622	SLV 8	1.09	Si
ini.	2	-191	23849	31561	SLV 11	1.32	Si
fin.	2	-43	-30811	31622	SLV 11	1.03	Si
ini.	2	-697	-25343	31561	SLV 14	1.25	Si
fin.	2	202	1680	31622	SLV 14	18.82	Si
ini.	2	-905	-34861	31561	SLV 9	0.91	No
fin.	2	-535	22400	31622	SLV 9	1.41	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	33305	-461			479	180	SLV 7	0.39	No
fin.	2	0	-29015	-638			480	181	SLV 7	0.28	No
ini.	2	0	-25343	407			479	180	SLV 13	0.44	No
fin.	2	0	1680	44			480	181	SLV 13	4.13	Si
ini.	2	0	-25405	592			479	180	SLV 6	0.3	No
fin.	2	0	24197	359			480	181	SLV 6	0.5	No
ini.	2	0	33305	-461			479	180	SLV 8	0.39	No
fin.	2	0	-29015	-638			480	181	SLV 8	0.28	No
ini.	2	0	-34861	677			479	180	SLV 9	0.27	No
fin.	2	0	22400	374			480	181	SLV 9	0.48	No
ini.	2	0	-25343	407			479	180	SLV 14	0.44	No
fin.	2	0	1680	44			480	181	SLV 14	4.13	Si
ini.	2	0	23849	-377			479	180	SLV 11	0.48	No
fin.	2	0	-30811	-623			480	181	SLV 11	0.29	No
ini.	2	0	-25405	592			479	180	SLV 5	0.3	No
fin.	2	0	24197	359			480	181	SLV 5	0.5	No
ini.	2	0	23849	-377			479	180	SLV 12	0.48	No
fin.	2	0	-30811	-623			480	181	SLV 12	0.29	No
ini.	2	0	-34861	677			479	180	SLV 10	0.27	No
fin.	2	0	22400	374			480	181	SLV 10	0.48	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.905	SLV 9	No
V_SLV	0.266	SLV 9	No
PF_SLU	1.962	SLU 80	Si
V_SLU	0.275	SLU 72	No

Trave di accoppiamento 183

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	1187	1277	90	-318.3	-335.9	1187	1277	90	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	fhk	fvk0	fhmmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-156	-20036	103792	SLU 81	5.18	Si
fin.	3	-1248	32513	103792	SLU 81	3.19	Si
ini.	3	42	-25993	103792	SLU 84	3.99	Si
fin.	3	-1206	34244	103792	SLU 84	3.03	Si
ini.	3	11	-22729	103792	SLU 83	4.57	Si
fin.	3	-1108	31635	103792	SLU 83	3.28	Si
ini.	3	49	-24759	103792	SLU 75	4.19	Si
fin.	3	-1173	33821	103792	SLU 75	3.07	Si
ini.	3	-124	-23300	103792	SLU 82	4.45	Si
fin.	3	-1346	35123	103792	SLU 82	2.96	Si
ini.	3	-87	-24310	103792	SLU 73	4.27	Si
fin.	3	-1339	35210	103792	SLU 73	2.95	Si
ini.	3	-49	-21590	103792	SLU 65	4.81	Si
fin.	3	-1173	31357	103792	SLU 65	3.31	Si
ini.	3	80	-27003	103792	SLU 76	3.84	Si
fin.	3	-1200	34332	103792	SLU 76	3.02	Si
ini.	3	216	-27451	103792	SLU 78	3.78	Si
fin.	3	-1034	32942	103792	SLU 78	3.15	Si
ini.	3	225	-27520	103792	SLU 80	3.77	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-996	31714	103792	SLU 80	3.27	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-27003	1335			970	365	SLU 76	0.27	No
fin.	3	0	34332	1413			970	365	SLU 76	0.26	No
ini.	3	0	-24732	1076			970	365	SLU 70	0.34	No
fin.	3	0	29089	1383			970	365	SLU 70	0.26	No
ini.	3	0	-22039	1059			970	365	SLU 67	0.35	No
fin.	3	0	29967	1322			970	365	SLU 67	0.28	No
ini.	3	0	-24310	1317			970	365	SLU 73	0.28	No
fin.	3	0	35210	1352			970	365	SLU 73	0.27	No
ini.	3	0	-27520	1260			970	365	SLU 80	0.29	No
fin.	3	0	31714	1397			970	365	SLU 80	0.26	No
ini.	3	0	-24283	1151			970	365	SLU 68	0.32	No
fin.	3	0	30478	1335			970	365	SLU 68	0.27	No
ini.	3	0	-24759	1242			970	365	SLU 75	0.29	No
fin.	3	0	33821	1400			970	365	SLU 75	0.26	No
ini.	3	0	-27451	1259			970	365	SLU 78	0.29	No
fin.	3	0	32942	1461			970	365	SLU 78	0.25	No
ini.	3	0	-24188	1122			970	365	SLU 77	0.33	No
fin.	3	0	30333	1345			970	365	SLU 77	0.27	No
ini.	3	0	-25993	1322			970	365	SLU 84	0.28	No
fin.	3	0	34244	1369			970	365	SLU 84	0.27	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	473	-33748	121694	SLD 14	3.61	Si
fin.	2	-1057	31705	121694	SLD 14	3.84	Si
ini.	2	829	-46695	121694	SLV 16	2.61	Si
fin.	2	-1438	39107	121694	SLV 16	3.11	Si
ini.	2	-1419	37996	121694	SLV 4	3.2	Si
fin.	2	-161	-4501	121694	SLV 4	27.04	Si
ini.	2	1230	-62616	121694	SLV 14	1.94	Si
fin.	2	-1423	46378	121694	SLV 14	2.62	Si
ini.	2	1230	-62616	121694	SLV 13	1.94	Si
fin.	2	-1423	46378	121694	SLV 13	2.62	Si
ini.	2	473	-33748	121694	SLD 13	3.61	Si
fin.	2	-1057	31705	121694	SLD 13	3.84	Si
ini.	2	909	-51550	121694	SLV 9	2.36	Si
fin.	2	-960	39598	121694	SLV 9	3.07	Si
ini.	2	829	-46695	121694	SLV 15	2.61	Si
fin.	2	-1438	39107	121694	SLV 15	3.11	Si
ini.	2	-1419	37996	121694	SLV 3	3.2	Si
fin.	2	-161	-4501	121694	SLV 3	27.04	Si
ini.	2	909	-51550	121694	SLV 10	2.36	Si
fin.	2	-960	39598	121694	SLV 10	3.07	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-33748	1500			1456	548	SLD 14	0.37	No
fin.	2	0	31705	1564			1456	548	SLD 14	0.35	No
ini.	2	0	-62616	2568			1456	548	SLV 13	0.21	No
fin.	2	0	46378	2571			1456	548	SLV 13	0.21	No
ini.	2	0	-51550	1773			1456	548	SLV 10	0.31	No
fin.	2	0	39598	1999			1456	548	SLV 10	0.27	No
ini.	2	0	-33748	1500			1456	548	SLD 13	0.37	No
fin.	2	0	31705	1564			1456	548	SLD 13	0.35	No
ini.	2	0	-46695	2233			1456	548	SLV 15	0.25	No
fin.	2	0	39107	2140			1456	548	SLV 15	0.26	No
ini.	2	0	-27080	1361			1456	548	SLD 15	0.4	No
fin.	2	0	28725	1387			1456	548	SLD 15	0.39	No
ini.	2	0	-51550	1773			1456	548	SLV 9	0.31	No
fin.	2	0	39598	1999			1456	548	SLV 9	0.27	No
ini.	2	0	-62616	2568			1456	548	SLV 14	0.21	No
fin.	2	0	46378	2571			1456	548	SLV 14	0.21	No
ini.	2	0	-46695	2233			1456	548	SLV 16	0.25	No
fin.	2	0	39107	2140			1456	548	SLV 16	0.26	No
ini.	2	0	-27080	1361			1456	548	SLD 16	0.4	No
fin.	2	0	28725	1387			1456	548	SLD 16	0.39	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.943	SLV 13	Si
V_SLV	0.213	SLV 13	No
PF_SLU	2.948	SLU 73	Si
V_SLU	0.25	SLU 78	No

Trave di accoppiamento 184

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-228.3	-335.9	1457	1505.2	48.2	-318.3	-335.9	1457	1505.3	48.3	90	28	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-573	-15982	33064	SLU 31	2.07	Si
fin.	3	-575	9529	33157	SLU 31	3.48	Si
ini.	3	-407	-17368	33064	SLU 78	1.9	Si
fin.	3	-412	9796	33157	SLU 78	3.38	Si
ini.	3	-763	-17766	33064	SLU 82	1.86	Si
fin.	3	-764	9648	33157	SLU 82	3.44	Si
ini.	3	-611	-17504	33064	SLU 75	1.89	Si
fin.	3	-614	9235	33157	SLU 75	3.59	Si
ini.	3	-671	-17859	33064	SLU 73	1.85	Si
fin.	3	-672	10297	33157	SLU 73	3.22	Si
ini.	3	-559	-17631	33064	SLU 84	1.88	Si
fin.	3	-562	10209	33157	SLU 84	3.25	Si
ini.	3	-813	-16240	33064	SLU 81	2.04	Si
fin.	3	-814	7897	33157	SLU 81	4.2	Si
ini.	3	-608	-16105	33064	SLU 83	2.05	Si
fin.	3	-611	8458	33157	SLU 83	3.92	Si
ini.	3	-467	-17724	33064	SLU 76	1.87	Si
fin.	3	-470	10858	33157	SLU 76	3.05	Si
ini.	3	-296	-16571	33064	SLU 80	2	Si
fin.	3	-301	10252	33157	SLU 80	3.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-16571	691			347	131	SLU 80	0.19	No
fin.	3	0	10252	-120			347	131	SLU 80	1.09	Si
ini.	3	0	-15045	667			347	131	SLU 79	0.2	No
fin.	3	0	8501	-184			347	131	SLU 79	0.71	No
ini.	3	0	-15977	660			347	131	SLU 74	0.2	No
fin.	3	0	7484	-169			347	131	SLU 74	0.77	No
ini.	3	0	-17368	744			347	131	SLU 78	0.18	No
fin.	3	0	9796	-166			347	131	SLU 78	0.79	No
ini.	3	0	-15842	720			347	131	SLU 77	0.18	No
fin.	3	0	8045	-230			347	131	SLU 77	0.57	No
ini.	3	0	-15024	669			347	131	SLU 57	0.2	No
fin.	3	0	8469	-167			347	131	SLU 57	0.78	No
ini.	3	0	-15211	706			347	131	SLU 70	0.18	No
fin.	3	0	8586	-204			347	131	SLU 70	0.64	No
ini.	3	0	-17504	684			347	131	SLU 75	0.19	No
fin.	3	0	9235	-105			347	131	SLU 75	1.24	Si
ini.	3	0	-15491	664			347	131	SLU 36	0.2	No
fin.	3	0	9029	-142			347	131	SLU 36	0.92	No
ini.	3	0	-13685	682			347	131	SLU 69	0.19	No
fin.	3	0	6835	-268			347	131	SLU 69	0.49	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-674	-32244	48622	SLV 15	1.51	Si
fin.	2	-141	20541	48740	SLV 15	2.37	Si
ini.	2	1242	-21375	48622	SLV 10	2.27	Si
fin.	2	1433	21809	48740	SLV 10	2.23	Si
ini.	2	-567	-19564	48622	SLD 16	2.49	Si
fin.	2	-341	11497	48740	SLD 16	4.24	Si
ini.	2	311	-34747	48622	SLV 13	1.4	Si
fin.	2	862	27305	48740	SLV 13	1.79	Si
ini.	2	-567	-19564	48622	SLD 15	2.49	Si
fin.	2	-341	11497	48740	SLD 15	4.24	Si
ini.	2	-148	-20652	48622	SLD 13	2.35	Si
fin.	2	86	14395	48740	SLD 13	3.39	Si
ini.	2	-148	-20652	48622	SLD 14	2.35	Si
fin.	2	86	14395	48740	SLD 14	3.39	Si
ini.	2	-674	-32244	48622	SLV 16	1.51	Si
fin.	2	-141	20541	48740	SLV 16	2.37	Si
ini.	2	311	-34747	48622	SLV 14	1.4	Si
fin.	2	862	27305	48740	SLV 14	1.79	Si
ini.	2	1242	-21375	48622	SLV 9	2.27	Si
fin.	2	1433	21809	48740	SLV 9	2.23	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-19564	531			520	196	SLD 16	0.37	No
fin.	2	0	11497	95			521	196	SLD 16	2.07	Si
ini.	2	0	-19564	531			520	196	SLD 15	0.37	No
fin.	2	0	11497	95			521	196	SLD 15	2.07	Si
ini.	2	0	-32244	723			520	196	SLV 16	0.27	No
fin.	2	0	20541	309			521	196	SLV 16	0.64	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-34747	721			520	196	SLV 13	0.27	No
fin.	2	0	27305	468			521	196	SLV 13	0.42	No
ini.	2	0	-34747	721			520	196	SLV 14	0.27	No
fin.	2	0	27305	468			521	196	SLV 14	0.42	No
ini.	2	0	14300	52			520	196	SLV 4	3.8	Si
fin.	2	0	-17707	-600			521	196	SLV 4	0.33	No
ini.	2	0	-20652	529			520	196	SLD 14	0.37	No
fin.	2	0	14395	161			521	196	SLD 14	1.22	Si
ini.	2	0	14300	52			520	196	SLV 3	3.8	Si
fin.	2	0	-17707	-600			521	196	SLV 3	0.33	No
ini.	2	0	-32244	723			520	196	SLV 15	0.27	No
fin.	2	0	20541	309			521	196	SLV 15	0.64	No
ini.	2	0	-20652	529			520	196	SLD 13	0.37	No
fin.	2	0	14395	161			521	196	SLD 13	1.22	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.399	SLV 13	Si
V_SLV	0.271	SLV 15	No
PF_SLU	1.851	SLU 73	Si
V_SLU	0.175	SLU 78	No

Trave di accoppiamento 185

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1314.3	-485.9	289	312	23	-1174.3	-485.9	289	312	23	140	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-514	-20519	8052	SLU 83	0.39	No
fin.	3	-229	-14981	8052	SLU 83	0.54	No
ini.	3	-521	-19839	8052	SLU 75	0.41	No
fin.	3	-249	-14506	8052	SLU 75	0.56	No
ini.	3	-540	-20051	8052	SLU 76	0.4	No
fin.	3	-258	-14585	8052	SLU 76	0.55	No
ini.	3	-528	-20482	8052	SLU 79	0.39	No
fin.	3	-208	-14549	8052	SLU 79	0.55	No
ini.	3	-537	-20703	8052	SLU 84	0.39	No
fin.	3	-251	-15128	8052	SLU 84	0.53	No
ini.	3	-524	-20393	8052	SLU 77	0.39	No
fin.	3	-213	-14569	8052	SLU 77	0.55	No
ini.	3	-511	-19965	8052	SLU 82	0.4	No
fin.	3	-266	-14918	8052	SLU 82	0.54	No
ini.	3	-488	-19781	8052	SLU 81	0.41	No
fin.	3	-245	-14771	8052	SLU 81	0.55	No
ini.	3	-547	-20577	8052	SLU 78	0.39	No
fin.	3	-234	-14716	8052	SLU 78	0.55	No
ini.	3	-551	-20666	8052	SLU 80	0.39	No
fin.	3	-229	-14697	8052	SLU 80	0.55	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-20666	858			177	67	SLU 80	0.08	No
fin.	3	0	-14697	-635			177	67	SLU 80	0.11	No
ini.	3	0	-19965	832			177	67	SLU 82	0.08	No
fin.	3	0	-14918	-642			177	67	SLU 82	0.1	No
ini.	3	0	-20519	854			177	67	SLU 83	0.08	No
fin.	3	0	-14981	-647			177	67	SLU 83	0.1	No
ini.	3	0	-19839	826			177	67	SLU 75	0.08	No
fin.	3	0	-14506	-626			177	67	SLU 75	0.11	No
ini.	3	0	-20051	834			177	67	SLU 76	0.08	No
fin.	3	0	-14585	-628			177	67	SLU 76	0.11	No
ini.	3	0	-20482	851			177	67	SLU 79	0.08	No
fin.	3	0	-14549	-630			177	67	SLU 79	0.11	No
ini.	3	0	-20703	861			177	67	SLU 84	0.08	No
fin.	3	0	-15128	-651			177	67	SLU 84	0.1	No
ini.	3	0	-20577	854			177	67	SLU 78	0.08	No
fin.	3	0	-14716	-635			177	67	SLU 78	0.1	No
ini.	3	0	-20393	848			177	67	SLU 77	0.08	No
fin.	3	0	-14569	-631			177	67	SLU 77	0.11	No
ini.	3	0	-19781	826			177	67	SLU 81	0.08	No
fin.	3	0	-14771	-637			177	67	SLU 81	0.1	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2911	-53703	12078	SLV 6	0.22	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	-276	-13586	12078	SLV 6	0.89	No
ini.	2	3405	39126	12078	SLV 13	0.31	No
fin.	2	-4459	-74953	12078	SLV 13	0.16	No
ini.	2	-4894	-79614	12078	SLV 2	0.15	No
fin.	2	3348	42285	12078	SLV 2	0.29	No
ini.	2	-2911	-53703	12078	SLV 5	0.22	No
fin.	2	-276	-13586	12078	SLV 5	0.89	No
ini.	2	4195	52539	12078	SLV 16	0.23	No
fin.	2	-3695	-62235	12078	SLV 16	0.19	No
ini.	2	-4894	-79614	12078	SLV 1	0.15	No
fin.	2	3348	42285	12078	SLV 1	0.29	No
ini.	2	-4105	-66202	12078	SLV 4	0.18	No
fin.	2	4112	55003	12078	SLV 4	0.22	No
ini.	2	-4105	-66202	12078	SLV 3	0.18	No
fin.	2	4112	55003	12078	SLV 3	0.22	No
ini.	2	4195	52539	12078	SLV 15	0.23	No
fin.	2	-3695	-62235	12078	SLV 15	0.19	No
ini.	2	3405	39126	12078	SLV 14	0.31	No
fin.	2	-4459	-74953	12078	SLV 14	0.16	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	39126	-1342			266	100	SLV 13	0.07	No
fin.	2	0	-74953	-2770			266	100	SLV 13	0.04	No
ini.	2	0	39126	-1342			266	100	SLV 14	0.07	No
fin.	2	0	-74953	-2770			266	100	SLV 14	0.04	No
ini.	2	0	-79614	2920			266	100	SLV 1	0.03	No
fin.	2	0	42285	1479			266	100	SLV 1	0.07	No
ini.	2	0	-53703	1944			266	100	SLV 6	0.05	No
fin.	2	0	-13586	-504			266	100	SLV 6	0.2	No
ini.	2	0	52539	-1785			266	100	SLV 16	0.06	No
fin.	2	0	-62235	-2345			266	100	SLV 16	0.04	No
ini.	2	0	-53703	1944			266	100	SLV 5	0.05	No
fin.	2	0	-13586	-504			266	100	SLV 5	0.2	No
ini.	2	0	-66202	2478			266	100	SLV 4	0.04	No
fin.	2	0	55003	1904			266	100	SLV 4	0.05	No
ini.	2	0	-79614	2920			266	100	SLV 2	0.03	No
fin.	2	0	42285	1479			266	100	SLV 2	0.07	No
ini.	2	0	-66202	2478			266	100	SLV 3	0.04	No
fin.	2	0	55003	1904			266	100	SLV 3	0.05	No
ini.	2	0	52539	-1785			266	100	SLV 15	0.06	No
fin.	2	0	-62235	-2345			266	100	SLV 15	0.04	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.152	SLV 1	No
V_SLV	0.034	SLV 1	No
PF_SLU	0.389	SLU 84	No
V_SLU	0.077	SLU 84	No

Trave di accoppiamento 186

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	312	407	95	-1193.3	-485.9	312	407	95	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-887	14993	116122	SLU 83	7.74	Si
fin.	3	-1172	25407	116122	SLU 83	4.57	Si
ini.	3	-823	12597	116122	SLU 56	9.22	Si
fin.	3	-1128	25084	116122	SLU 56	4.63	Si
ini.	3	-815	12313	116122	SLU 58	9.43	Si
fin.	3	-1129	25456	116122	SLU 58	4.56	Si
ini.	3	-863	13021	116122	SLU 80	8.92	Si
fin.	3	-1185	26245	116122	SLU 80	4.42	Si
ini.	3	-904	14563	116122	SLU 84	7.97	Si
fin.	3	-1190	24996	116122	SLU 84	4.65	Si
ini.	3	-793	11588	116122	SLU 71	10.02	Si
fin.	3	-1101	24874	116122	SLU 71	4.67	Si
ini.	3	-870	13305	116122	SLU 78	8.73	Si
fin.	3	-1183	25874	116122	SLU 78	4.49	Si
ini.	3	-854	13736	116122	SLU 77	8.45	Si
fin.	3	-1165	26285	116122	SLU 77	4.42	Si
ini.	3	-846	13451	116122	SLU 79	8.63	Si
fin.	3	-1167	26657	116122	SLU 79	4.36	Si
ini.	3	-832	11882	116122	SLU 59	9.77	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-1147	25045	116122	SLU 59	4.64	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	10019	136			1043	392	SLU 51	2.89	Si
fin.	3	0	23263	278			1043	392	SLU 51	1.41	Si
ini.	3	0	10304	127			1043	392	SLU 49	3.09	Si
fin.	3	0	22891	266			1043	392	SLU 49	1.47	Si
ini.	3	0	11442	114			1043	392	SLU 70	3.43	Si
fin.	3	0	24092	282			1043	392	SLU 70	1.39	Si
ini.	3	0	8703	99			1043	392	SLU 30	3.97	Si
fin.	3	0	20246	264			1043	392	SLU 30	1.49	Si
ini.	3	0	9134	104			1043	392	SLU 29	3.77	Si
fin.	3	0	20657	258			1043	392	SLU 29	1.52	Si
ini.	3	0	10734	132			1043	392	SLU 48	2.97	Si
fin.	3	0	23302	260			1043	392	SLU 48	1.51	Si
ini.	3	0	10450	141			1043	392	SLU 50	2.78	Si
fin.	3	0	23674	272			1043	392	SLU 50	1.44	Si
ini.	3	0	11873	120			1043	392	SLU 69	3.28	Si
fin.	3	0	24503	276			1043	392	SLU 69	1.42	Si
ini.	3	0	11588	129			1043	392	SLU 71	3.05	Si
fin.	3	0	24874	288			1043	392	SLU 71	1.36	Si
ini.	3	0	11158	123			1043	392	SLU 72	3.18	Si
fin.	3	0	24463	294			1043	392	SLU 72	1.34	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3951	261548	132831	SLV 16	0.51	No
fin.	2	3867	-256373	132831	SLV 16	0.52	No
ini.	2	-1975	-23501	132831	SLV 6	5.65	Si
fin.	2	-4566	136138	132831	SLV 6	0.98	No
ini.	2	4190	-268243	132831	SLV 4	0.5	No
fin.	2	-3970	263845	132831	SLV 4	0.5	No
ini.	2	-5481	288924	132831	SLV 13	0.46	No
fin.	2	2326	-231279	132831	SLV 13	0.57	No
ini.	2	4190	-268243	132831	SLV 3	0.5	No
fin.	2	-3970	263845	132831	SLV 3	0.5	No
ini.	2	-1975	-23501	132831	SLV 5	5.65	Si
fin.	2	-4566	136138	132831	SLV 5	0.98	No
ini.	2	2660	-240867	132831	SLV 2	0.55	No
fin.	2	-5511	288938	132831	SLV 2	0.46	No
ini.	2	2660	-240867	132831	SLV 1	0.55	No
fin.	2	-5511	288938	132831	SLV 1	0.46	No
ini.	2	-3951	261548	132831	SLV 15	0.51	No
fin.	2	3867	-256373	132831	SLV 15	0.52	No
ini.	2	-5481	288924	132831	SLV 14	0.46	No
fin.	2	2326	-231279	132831	SLV 14	0.57	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	288924	-8287			1564	589	SLV 14	0.07	No
fin.	2	0	-231279	-8124			1564	589	SLV 14	0.07	No
ini.	2	0	-96901	3557			1564	589	SLD 2	0.17	No
fin.	2	0	132673	3712			1564	589	SLD 2	0.16	No
ini.	2	0	261548	-8064			1564	589	SLV 15	0.07	No
fin.	2	0	-256373	-8340			1564	589	SLV 15	0.07	No
ini.	2	0	288924	-8287			1564	589	SLV 13	0.07	No
fin.	2	0	-231279	-8124			1564	589	SLV 13	0.07	No
ini.	2	0	-240867	8224			1564	589	SLV 2	0.07	No
fin.	2	0	288938	8553			1564	589	SLV 2	0.07	No
ini.	2	0	-96901	3557			1564	589	SLD 1	0.17	No
fin.	2	0	132673	3712			1564	589	SLD 1	0.16	No
ini.	2	0	-268243	8446			1564	589	SLV 4	0.07	No
fin.	2	0	263845	8336			1564	589	SLV 4	0.07	No
ini.	2	0	-240867	8224			1564	589	SLV 1	0.07	No
fin.	2	0	288938	8553			1564	589	SLV 1	0.07	No
ini.	2	0	-268243	8446			1564	589	SLV 3	0.07	No
fin.	2	0	263845	8336			1564	589	SLV 3	0.07	No
ini.	2	0	261548	-8064			1564	589	SLV 16	0.07	No
fin.	2	0	-256373	-8340			1564	589	SLV 16	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.46	SLV 1	No
V_SLV	0.069	SLV 1	No
PF_SLU	4.356	SLU 79	Si
V_SLU	1.336	SLU 72	Si

Trave di accoppiamento 187

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	607	657	50	-1193.3	-485.9	607	657	50	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	84	-13396	38051	SLU 80	2.84	Si
fin.	3	-13	-15740	38051	SLU 80	2.42	Si
ini.	3	90	-13206	38051	SLU 77	2.88	Si
fin.	3	-18	-15860	38051	SLU 77	2.4	Si
ini.	3	101	-12878	38051	SLU 83	2.95	Si
fin.	3	-33	-16379	38051	SLU 83	2.32	Si
ini.	3	127	-11776	38051	SLU 82	3.23	Si
fin.	3	-32	-16074	38051	SLU 82	2.37	Si
ini.	3	84	-13413	38051	SLU 79	2.84	Si
fin.	3	-15	-15809	38051	SLU 79	2.41	Si
ini.	3	101	-12861	38051	SLU 84	2.96	Si
fin.	3	-31	-16311	38051	SLU 84	2.33	Si
ini.	3	90	-13189	38051	SLU 78	2.89	Si
fin.	3	-16	-15791	38051	SLU 78	2.41	Si
ini.	3	115	-12121	38051	SLU 74	3.14	Si
fin.	3	-18	-15624	38051	SLU 74	2.44	Si
ini.	3	126	-11793	38051	SLU 81	3.23	Si
fin.	3	-34	-16143	38051	SLU 81	2.36	Si
ini.	3	116	-12104	38051	SLU 75	3.14	Si
fin.	3	-16	-15555	38051	SLU 75	2.45	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-11793	967			385	145	SLU 81	0.15	No
fin.	3	0	-16143	-1125			385	145	SLU 81	0.13	No
ini.	3	0	-11776	968			385	145	SLU 82	0.15	No
fin.	3	0	-16074	-1125			385	145	SLU 82	0.13	No
ini.	3	0	-13413	1042			385	145	SLU 79	0.14	No
fin.	3	0	-15809	-1123			385	145	SLU 79	0.13	No
ini.	3	0	-13206	1032			385	145	SLU 77	0.14	No
fin.	3	0	-15860	-1124			385	145	SLU 77	0.13	No
ini.	3	0	-12121	976			385	145	SLU 74	0.15	No
fin.	3	0	-15624	-1101			385	145	SLU 74	0.13	No
ini.	3	0	-12104	977			385	145	SLU 75	0.15	No
fin.	3	0	-15555	-1100			385	145	SLU 75	0.13	No
ini.	3	0	-13189	1033			385	145	SLU 78	0.14	No
fin.	3	0	-15791	-1123			385	145	SLU 78	0.13	No
ini.	3	0	-12878	1023			385	145	SLU 83	0.14	No
fin.	3	0	-16379	-1148			385	145	SLU 83	0.13	No
ini.	3	0	-13396	1043			385	145	SLU 80	0.14	No
fin.	3	0	-15740	-1123			385	145	SLU 80	0.13	No
ini.	3	0	-12861	1024			385	145	SLU 84	0.14	No
fin.	3	0	-16311	-1147			385	145	SLU 84	0.13	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2971	81353	54081	SLV 14	0.66	No
fin.	2	-3638	-122728	54081	SLV 14	0.44	No
ini.	2	-2738	-97099	54081	SLV 3	0.56	No
fin.	2	3664	101421	54081	SLV 3	0.53	No
ini.	2	-3278	-117245	54081	SLV 1	0.46	No
fin.	2	3077	80287	54081	SLV 1	0.67	No
ini.	2	154	-11660	54081	SLV 10	4.64	Si
fin.	2	-1973	-76330	54081	SLV 10	0.71	No
ini.	2	3511	101499	54081	SLV 15	0.53	No
fin.	2	-3051	-101594	54081	SLV 15	0.53	No
ini.	2	3511	101499	54081	SLV 16	0.53	No
fin.	2	-3051	-101594	54081	SLV 16	0.53	No
ini.	2	2971	81353	54081	SLV 13	0.66	No
fin.	2	-3638	-122728	54081	SLV 13	0.44	No
ini.	2	154	-11660	54081	SLV 9	4.64	Si
fin.	2	-1973	-76330	54081	SLV 9	0.71	No
ini.	2	-3278	-117245	54081	SLV 2	0.46	No
fin.	2	3077	80287	54081	SLV 2	0.67	No
ini.	2	-2738	-97099	54081	SLV 4	0.56	No
fin.	2	3664	101421	54081	SLV 4	0.53	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	81353	-3043			578	217	SLV 13	0.07	No
fin.	2	0	-122728	-5009			578	217	SLV 13	0.04	No
ini.	2	0	101499	-3515			578	217	SLV 15	0.06	No
fin.	2	0	-101594	-4465			578	217	SLV 15	0.05	No
ini.	2	0	-97099	4367			578	217	SLV 4	0.05	No
fin.	2	0	101421	3484			578	217	SLV 4	0.06	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	101499	-3515			578	217	SLV 16	0.06	No
fin.	2	0	-101594	-4465			578	217	SLV 16	0.05	No
ini.	2	0	81353	-3043			578	217	SLV 14	0.07	No
fin.	2	0	-122728	-5009			578	217	SLV 14	0.04	No
ini.	2	0	-11660	266			578	217	SLV 9	0.82	No
fin.	2	0	-76330	-2861			578	217	SLV 9	0.08	No
ini.	2	0	-97099	4367			578	217	SLV 3	0.05	No
fin.	2	0	101421	3484			578	217	SLV 3	0.06	No
ini.	2	0	-117245	4838			578	217	SLV 1	0.04	No
fin.	2	0	80287	2941			578	217	SLV 1	0.07	No
ini.	2	0	-117245	4838			578	217	SLV 2	0.04	No
fin.	2	0	80287	2941			578	217	SLV 2	0.07	No
ini.	2	0	-11660	266			578	217	SLV 10	0.82	No
fin.	2	0	-76330	-2861			578	217	SLV 10	0.08	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.441	SLV 13	No
V_SLV	0.043	SLV 13	No
PF_SLU	2.323	SLU 83	Si
V_SLU	0.126	SLU 83	No

Trave di accoppiamento 188

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	657	752	95	-1193.3	-485.9	657	752	95	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-407	3247	116122	SLU 83	35.76	Si
fin.	3	-273	-7660	116122	SLU 83	15.16	Si
ini.	3	-438	4416	116122	SLU 82	26.29	Si
fin.	3	-279	-7994	116122	SLU 82	14.53	Si
ini.	3	-390	3832	116122	SLU 60	30.3	Si
fin.	3	-243	-7753	116122	SLU 60	14.98	Si
ini.	3	-414	4115	116122	SLU 61	28.22	Si
fin.	3	-267	-7445	116122	SLU 61	15.6	Si
ini.	3	-415	4133	116122	SLU 81	28.09	Si
fin.	3	-254	-8302	116122	SLU 81	13.99	Si
ini.	3	-434	4418	116122	SLU 73	26.28	Si
fin.	3	-285	-7347	116122	SLU 73	15.81	Si
ini.	3	-383	2946	116122	SLU 62	39.42	Si
fin.	3	-261	-7111	116122	SLU 62	16.33	Si
ini.	3	-415	3622	116122	SLU 75	32.06	Si
fin.	3	-283	-7124	116122	SLU 75	16.3	Si
ini.	3	-392	3339	116122	SLU 74	34.77	Si
fin.	3	-259	-7431	116122	SLU 74	15.63	Si
ini.	3	-430	3530	116122	SLU 84	32.9	Si
fin.	3	-298	-7352	116122	SLU 84	15.79	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	3247	-552			1043	392	SLU 83	0.71	No
fin.	3	0	-7660	197			1043	392	SLU 83	2	Si
ini.	3	0	4416	-538			1043	392	SLU 82	0.73	No
fin.	3	0	-7994	132			1043	392	SLU 82	2.96	Si
ini.	3	0	2175	-550			1043	392	SLU 79	0.71	No
fin.	3	0	-6575	267			1043	392	SLU 79	1.47	Si
ini.	3	0	4133	-538			1043	392	SLU 81	0.73	No
fin.	3	0	-8302	131			1043	392	SLU 81	2.99	Si
ini.	3	0	3530	-551			1043	392	SLU 84	0.71	No
fin.	3	0	-7352	198			1043	392	SLU 84	1.98	Si
ini.	3	0	2457	-549			1043	392	SLU 80	0.71	No
fin.	3	0	-6268	269			1043	392	SLU 80	1.46	Si
ini.	3	0	3622	-540			1043	392	SLU 75	0.73	No
fin.	3	0	-7124	190			1043	392	SLU 75	2.06	Si
ini.	3	0	2453	-554			1043	392	SLU 77	0.71	No
fin.	3	0	-6790	254			1043	392	SLU 77	1.54	Si
ini.	3	0	3339	-540			1043	392	SLU 74	0.73	No
fin.	3	0	-7431	189			1043	392	SLU 74	2.08	Si
ini.	3	0	2736	-553			1043	392	SLU 78	0.71	No
fin.	3	0	-6482	256			1043	392	SLU 78	1.54	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3099	184505	132831	SLV 15	0.72	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	3205	-197715	132831	SLV 15	0.67	No
ini.	2	3443	-194487	132831	SLV 4	0.68	No
fin.	2	-2707	172741	132831	SLV 4	0.77	No
ini.	2	-1481	80347	132831	SLD 16	1.65	Si
fin.	2	1269	-87538	132831	SLD 16	1.52	Si
ini.	2	-1481	80347	132831	SLD 15	1.65	Si
fin.	2	1269	-87538	132831	SLD 15	1.52	Si
ini.	2	-3996	200006	132831	SLV 14	0.66	No
fin.	2	2362	-183592	132831	SLV 14	0.72	No
ini.	2	-3099	184505	132831	SLV 16	0.72	No
fin.	2	3205	-197715	132831	SLV 16	0.67	No
ini.	2	3443	-194487	132831	SLV 3	0.68	No
fin.	2	-2707	172741	132831	SLV 3	0.77	No
ini.	2	2545	-178986	132831	SLV 2	0.74	No
fin.	2	-3551	186864	132831	SLV 2	0.71	No
ini.	2	2545	-178986	132831	SLV 1	0.74	No
fin.	2	-3551	186864	132831	SLV 1	0.71	No
ini.	2	-3996	200006	132831	SLV 13	0.66	No
fin.	2	2362	-183592	132831	SLV 13	0.72	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	86974	-3338			1564	589	SLD 13	0.18	No
fin.	2	0	-81488	-2581			1564	589	SLD 13	0.23	No
ini.	2	0	-178986	6020			1564	589	SLV 1	0.1	No
fin.	2	0	186864	6727			1564	589	SLV 1	0.09	No
ini.	2	0	-194487	6574			1564	589	SLV 4	0.09	No
fin.	2	0	172741	6400			1564	589	SLV 4	0.09	No
ini.	2	0	200006	-7321			1564	589	SLV 14	0.08	No
fin.	2	0	-183592	-6188			1564	589	SLV 14	0.1	No
ini.	2	0	-178986	6020			1564	589	SLV 2	0.1	No
fin.	2	0	186864	6727			1564	589	SLV 2	0.09	No
ini.	2	0	184505	-6766			1564	589	SLV 15	0.09	No
fin.	2	0	-197715	-6515			1564	589	SLV 15	0.09	No
ini.	2	0	184505	-6766			1564	589	SLV 16	0.09	No
fin.	2	0	-197715	-6515			1564	589	SLV 16	0.09	No
ini.	2	0	200006	-7321			1564	589	SLV 13	0.08	No
fin.	2	0	-183592	-6188			1564	589	SLV 13	0.1	No
ini.	2	0	-194487	6574			1564	589	SLV 3	0.09	No
fin.	2	0	172741	6400			1564	589	SLV 3	0.09	No
ini.	2	0	86974	-3338			1564	589	SLD 14	0.18	No
fin.	2	0	-81488	-2581			1564	589	SLD 14	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.664	SLV 13	No
V_SLV	0.08	SLV 13	No
PF_SLU	13.988	SLU 81	Si
V_SLU	0.708	SLU 77	No

Trave di accoppiamento 189

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	952	1009	57	-1193.3	-485.9	952	1009	57	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	322	-5015	49452	SLU 74	9.86	Si
fin.	3	182	-9780	49452	SLU 74	5.06	Si
ini.	3	308	-4575	49452	SLU 82	10.81	Si
fin.	3	159	-9808	49452	SLU 82	5.04	Si
ini.	3	303	-5963	49452	SLU 78	8.29	Si
fin.	3	170	-10372	49452	SLU 78	4.77	Si
ini.	3	327	-5406	49452	SLU 83	9.15	Si
fin.	3	185	-10258	49452	SLU 83	4.82	Si
ini.	3	300	-6186	49452	SLU 80	7.99	Si
fin.	3	172	-10418	49452	SLU 80	4.75	Si
ini.	3	308	-5464	49452	SLU 84	9.05	Si
fin.	3	166	-10329	49452	SLU 84	4.79	Si
ini.	3	287	-5335	49452	SLU 76	9.27	Si
fin.	3	152	-9944	49452	SLU 76	4.97	Si
ini.	3	303	-5073	49452	SLU 75	9.75	Si
fin.	3	164	-9851	49452	SLU 75	5.02	Si
ini.	3	322	-5905	49452	SLU 77	8.38	Si
fin.	3	189	-10301	49452	SLU 77	4.8	Si
ini.	3	319	-6128	49452	SLU 79	8.07	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	190	-10347	49452	SLU 79	4.78	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-5335	659			439	165	SLU 76	0.25	No
fin.	3	0	-9944	-841			439	165	SLU 76	0.2	No
ini.	3	0	-5406	675			439	165	SLU 83	0.24	No
fin.	3	0	-10258	-866			439	165	SLU 83	0.19	No
ini.	3	0	-5015	643			439	165	SLU 74	0.26	No
fin.	3	0	-9780	-831			439	165	SLU 74	0.2	No
ini.	3	0	-5464	677			439	165	SLU 84	0.24	No
fin.	3	0	-10329	-870			439	165	SLU 84	0.19	No
ini.	3	0	-5963	698			439	165	SLU 78	0.24	No
fin.	3	0	-10372	-870			439	165	SLU 78	0.19	No
ini.	3	0	-5905	696			439	165	SLU 77	0.24	No
fin.	3	0	-10301	-867			439	165	SLU 77	0.19	No
ini.	3	0	-4575	625			439	165	SLU 82	0.26	No
fin.	3	0	-9808	-834			439	165	SLU 82	0.2	No
ini.	3	0	-6186	710			439	165	SLU 80	0.23	No
fin.	3	0	-10418	-875			439	165	SLU 80	0.19	No
ini.	3	0	-6128	708			439	165	SLU 79	0.23	No
fin.	3	0	-10347	-871			439	165	SLU 79	0.19	No
ini.	3	0	-5073	645			439	165	SLU 75	0.26	No
fin.	3	0	-9851	-834			439	165	SLU 75	0.2	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	2009	67379	66331	SLV 15	0.98	No
fin.	2	-1493	-71060	66331	SLV 15	0.93	No
ini.	2	1707	36981	66331	SLV 9	1.79	Si
fin.	2	-1069	-58331	66331	SLV 9	1.14	Si
ini.	2	-2063	-84004	66331	SLV 4	0.79	No
fin.	2	2155	75892	66331	SLV 4	0.87	No
ini.	2	-2063	-84004	66331	SLV 3	0.79	No
fin.	2	2155	75892	66331	SLV 3	0.87	No
ini.	2	-1545	-73580	66331	SLV 2	0.9	No
fin.	2	1762	58029	66331	SLV 2	1.14	Si
ini.	2	2009	67379	66331	SLV 16	0.98	No
fin.	2	-1493	-71060	66331	SLV 16	0.93	No
ini.	2	-1545	-73580	66331	SLV 1	0.9	No
fin.	2	1762	58029	66331	SLV 1	1.14	Si
ini.	2	2527	77804	66331	SLV 14	0.85	No
fin.	2	-1887	-88924	66331	SLV 14	0.75	No
ini.	2	1707	36981	66331	SLV 10	1.79	Si
fin.	2	-1069	-58331	66331	SLV 10	1.14	Si
ini.	2	2527	77804	66331	SLV 13	0.85	No
fin.	2	-1887	-88924	66331	SLV 13	0.75	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	77804	-2298			659	248	SLV 14	0.11	No
fin.	2	0	-88924	-3712			659	248	SLV 14	0.07	No
ini.	2	0	67379	-2579			659	248	SLV 15	0.1	No
fin.	2	0	-71060	-2997			659	248	SLV 15	0.08	No
ini.	2	0	-73580	3450			659	248	SLV 2	0.07	No
fin.	2	0	58029	1856			659	248	SLV 2	0.13	No
ini.	2	0	36981	43			659	248	SLV 9	5.83	Si
fin.	2	0	-58331	-2597			659	248	SLV 9	0.1	No
ini.	2	0	67379	-2579			659	248	SLV 16	0.1	No
fin.	2	0	-71060	-2997			659	248	SLV 16	0.08	No
ini.	2	0	-84004	3168			659	248	SLV 4	0.08	No
fin.	2	0	75892	2570			659	248	SLV 4	0.1	No
ini.	2	0	-73580	3450			659	248	SLV 1	0.07	No
fin.	2	0	58029	1856			659	248	SLV 1	0.13	No
ini.	2	0	-84004	3168			659	248	SLV 3	0.08	No
fin.	2	0	75892	2570			659	248	SLV 3	0.1	No
ini.	2	0	36981	43			659	248	SLV 10	5.83	Si
fin.	2	0	-58331	-2597			659	248	SLV 10	0.1	No
ini.	2	0	77804	-2298			659	248	SLV 13	0.11	No
fin.	2	0	-88924	-3712			659	248	SLV 13	0.07	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.746	SLV 13	No
V_SLV	0.067	SLV 13	No
PF_SLU	4.747	SLU 80	Si
V_SLU	0.189	SLU 80	No

Trave di accoppiamento 190

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	1009	1104	95	-1193.3	-485.9	1009	1104	95	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb _m	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-69	1187	116122	SLU 35	97.8	Si
fin.	3	43	-8185	116122	SLU 35	14.19	Si
ini.	3	-121	1343	116122	SLU 71	86.47	Si
fin.	3	-9	-8372	116122	SLU 71	13.87	Si
ini.	3	-38	206	116122	SLU 29	563.47	Si
fin.	3	52	-7800	116122	SLU 29	14.89	Si
ini.	3	-214	3101	116122	SLU 78	37.45	Si
fin.	3	-81	-7931	116122	SLU 78	14.64	Si
ini.	3	-151	2324	116122	SLU 77	49.96	Si
fin.	3	-18	-8756	116122	SLU 77	13.26	Si
ini.	3	-135	1901	116122	SLU 79	61.07	Si
fin.	3	-6	-8936	116122	SLU 79	13	Si
ini.	3	-53	765	116122	SLU 37	151.87	Si
fin.	3	54	-8364	116122	SLU 37	13.88	Si
ini.	3	-198	2678	116122	SLU 80	43.36	Si
fin.	3	-69	-8111	116122	SLU 80	14.32	Si
ini.	3	-164	2005	116122	SLU 58	57.91	Si
fin.	3	-49	-7681	116122	SLU 58	15.12	Si
ini.	3	-137	1766	116122	SLU 69	65.77	Si
fin.	3	-20	-8192	116122	SLU 69	14.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	2542	-291			1043	392	SLU 70	1.35	Si
fin.	3	0	-7367	-11			1043	392	SLU 70	35.67	Si
ini.	3	0	3101	-280			1043	392	SLU 78	1.4	Si
fin.	3	0	-7931	-57			1043	392	SLU 78	6.89	Si
ini.	3	0	1901	-283			1043	392	SLU 79	1.39	Si
fin.	3	0	-8936	-49			1043	392	SLU 79	7.93	Si
ini.	3	0	983	-265			1043	392	SLU 30	1.48	Si
fin.	3	0	-6975	23			1043	392	SLU 30	17.22	Si
ini.	3	0	2678	-285			1043	392	SLU 80	1.38	Si
fin.	3	0	-8111	-45			1043	392	SLU 80	8.7	Si
ini.	3	0	1766	-289			1043	392	SLU 69	1.36	Si
fin.	3	0	-8192	-15			1043	392	SLU 69	25.51	Si
ini.	3	0	2120	-295			1043	392	SLU 72	1.33	Si
fin.	3	0	-7546	1			1043	392	SLU 72	448.89	Si
ini.	3	0	206	-263			1043	392	SLU 29	1.49	Si
fin.	3	0	-7800	18			1043	392	SLU 29	21.32	Si
ini.	3	0	2324	-278			1043	392	SLU 77	1.41	Si
fin.	3	0	-8756	-61			1043	392	SLU 77	6.4	Si
ini.	3	0	1343	-293			1043	392	SLU 71	1.34	Si
fin.	3	0	-8372	-4			1043	392	SLU 71	111.79	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1828	98870	132831	SLV 15	1.34	Si
fin.	2	1347	-90836	132831	SLV 15	1.46	Si
ini.	2	-1731	60489	132831	SLV 10	2.2	Si
fin.	2	1153	-69957	132831	SLV 10	1.9	Si
ini.	2	-1828	98870	132831	SLV 16	1.34	Si
fin.	2	1347	-90836	132831	SLV 16	1.46	Si
ini.	2	-1731	60489	132831	SLV 9	2.2	Si
fin.	2	1153	-69957	132831	SLV 9	1.9	Si
ini.	2	1912	-106774	132831	SLV 3	1.24	Si
fin.	2	-2093	105143	132831	SLV 3	1.26	Si
ini.	2	1912	-106774	132831	SLV 4	1.24	Si
fin.	2	-2093	105143	132831	SLV 4	1.26	Si
ini.	2	1352	-91269	132831	SLV 1	1.46	Si
fin.	2	-1627	83121	132831	SLV 1	1.6	Si
ini.	2	1352	-91269	132831	SLV 2	1.46	Si
fin.	2	-1627	83121	132831	SLV 2	1.6	Si
ini.	2	-2387	114375	132831	SLV 13	1.16	Si
fin.	2	1814	-112858	132831	SLV 13	1.18	Si
ini.	2	-2387	114375	132831	SLV 14	1.16	Si
fin.	2	1814	-112858	132831	SLV 14	1.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	60489	-2297			1564	589	SLV 10	0.26	No
fin.	2	0	-69957	-1179			1564	589	SLV 10	0.5	No
ini.	2	0	98870	-3443			1564	589	SLV 15	0.17	No
fin.	2	0	-90836	-3675			1564	589	SLV 15	0.16	No
ini.	2	0	114375	-4082			1564	589	SLV 14	0.14	No
fin.	2	0	-112858	-3684			1564	589	SLV 14	0.16	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	114375	-4082			1564	589	SLV 13	0.14	No
fin.	2	0	-112858	-3684			1564	589	SLV 13	0.16	No
ini.	2	0	60489	-2297			1564	589	SLV 9	0.26	No
fin.	2	0	-69957	-1179			1564	589	SLV 9	0.5	No
ini.	2	0	-106774	3786			1564	589	SLV 4	0.16	No
fin.	2	0	105143	3514			1564	589	SLV 4	0.17	No
ini.	2	0	-91269	3147			1564	589	SLV 2	0.19	No
fin.	2	0	83121	3504			1564	589	SLV 2	0.17	No
ini.	2	0	-106774	3786			1564	589	SLV 3	0.16	No
fin.	2	0	105143	3514			1564	589	SLV 3	0.17	No
ini.	2	0	-91269	3147			1564	589	SLV 1	0.19	No
fin.	2	0	83121	3504			1564	589	SLV 1	0.17	No
ini.	2	0	98870	-3443			1564	589	SLV 16	0.17	No
fin.	2	0	-90836	-3675			1564	589	SLV 16	0.16	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.161	SLV 13	Si
V_SLV	0.144	SLV 13	No
PF_SLU	12.995	SLU 79	Si
V_SLU	1.33	SLU 72	Si

Trave di accoppiamento 191

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-1293.3	-485.9	1304	1436.7	132.7	-1193.3	-485.9	1304	1436.6	132.6	100	30	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
12			17.25	0.9	2	0.577	0.767	0.65	32000	12800	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-175	25556	182133	SLU 29	7.13	Si
fin.	3	-175	10366	182002	SLU 29	17.56	Si
ini.	3	-202	27034	182133	SLU 79	6.74	Si
fin.	3	-202	8608	182002	SLU 79	21.14	Si
ini.	3	-174	24767	182133	SLU 38	7.35	Si
fin.	3	-174	8529	182002	SLU 38	21.34	Si
ini.	3	-159	24220	182133	SLU 27	7.52	Si
fin.	3	-159	8892	182002	SLU 27	20.47	Si
ini.	3	-186	25697	182133	SLU 77	7.09	Si
fin.	3	-186	7133	182002	SLU 77	25.52	Si
ini.	3	-236	27742	182133	SLU 37	6.57	Si
fin.	3	-236	11531	182002	SLU 37	15.78	Si
ini.	3	-125	23511	182133	SLU 69	7.75	Si
fin.	3	-125	5968	182002	SLU 69	30.5	Si
ini.	3	-220	26406	182133	SLU 35	6.9	Si
fin.	3	-220	10057	182002	SLU 35	18.1	Si
ini.	3	-141	24059	182133	SLU 80	7.57	Si
fin.	3	-140	5606	182002	SLU 80	32.47	Si
ini.	3	-141	24847	182133	SLU 71	7.33	Si
fin.	3	-141	7443	182002	SLU 71	24.45	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	22127	555			1533	577	SLU 58	1.04	Si
fin.	3	0	5891	-1053			1533	577	SLU 58	0.55	No
ini.	3	0	27034	585			1533	577	SLU 79	0.99	No
fin.	3	0	8608	-1139			1533	577	SLU 79	0.51	No
ini.	3	0	23511	576			1533	577	SLU 69	1	Si
fin.	3	0	5968	-1107			1533	577	SLU 69	0.52	No
ini.	3	0	22722	570			1533	577	SLU 78	1.01	Si
fin.	3	0	4131	-1122			1533	577	SLU 78	0.51	No
ini.	3	0	25697	566			1533	577	SLU 77	1.02	Si
fin.	3	0	7133	-1117			1533	577	SLU 77	0.52	No
ini.	3	0	19152	559			1533	577	SLU 59	1.03	Si
fin.	3	0	2889	-1059			1533	577	SLU 59	0.54	No
ini.	3	0	21872	599			1533	577	SLU 72	0.96	No
fin.	3	0	4441	-1134			1533	577	SLU 72	0.51	No
ini.	3	0	20536	580			1533	577	SLU 70	1	No
fin.	3	0	2966	-1112			1533	577	SLU 70	0.52	No
ini.	3	0	24847	595			1533	577	SLU 71	0.97	No
fin.	3	0	7443	-1128			1533	577	SLU 71	0.51	No
ini.	3	0	24059	589			1533	577	SLU 80	0.98	No
fin.	3	0	5606	-1144			1533	577	SLU 80	0.5	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	94	60091	198842	SLV 16	3.31	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	60	-70561	198711	SLV 16	2.82	Si
ini.	2	-133	109926	198842	SLV 13	1.81	Si
fin.	2	-154	-97892	198711	SLV 13	2.03	Si
ini.	2	-133	109926	198842	SLV 14	1.81	Si
fin.	2	-154	-97892	198711	SLV 14	2.03	Si
ini.	2	-367	112253	198842	SLV 10	1.77	Si
fin.	2	-354	-74692	198711	SLV 10	2.66	Si
ini.	2	415	-101708	198842	SLV 7	1.96	Si
fin.	2	402	63629	198711	SLV 7	3.12	Si
ini.	2	182	-99382	198842	SLV 3	2	Si
fin.	2	202	86829	198711	SLV 3	2.29	Si
ini.	2	182	-99382	198842	SLV 4	2	Si
fin.	2	202	86829	198711	SLV 4	2.29	Si
ini.	2	94	60091	198842	SLV 15	3.31	Si
fin.	2	60	-70561	198711	SLV 15	2.82	Si
ini.	2	415	-101708	198842	SLV 8	1.96	Si
fin.	2	402	63629	198711	SLV 8	3.12	Si
ini.	2	-367	112253	198842	SLV 9	1.77	Si
fin.	2	-354	-74692	198711	SLV 9	2.66	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	109926	-1441			2300	866	SLV 13	0.6	No
fin.	2	0	-97892	-2533			2299	865	SLV 13	0.34	No
ini.	2	0	112253	-1336			2300	866	SLV 10	0.65	No
fin.	2	0	-74692	-2244			2299	865	SLV 10	0.39	No
ini.	2	0	60091	-703			2300	866	SLV 15	1.23	Si
fin.	2	0	-70561	-1838			2299	865	SLV 15	0.47	No
ini.	2	0	60091	-703			2300	866	SLV 16	1.23	Si
fin.	2	0	-70561	-1838			2299	865	SLV 16	0.47	No
ini.	2	0	112253	-1336			2300	866	SLV 9	0.65	No
fin.	2	0	-74692	-2244			2299	865	SLV 9	0.39	No
ini.	2	0	-99382	2055			2300	866	SLV 4	0.42	No
fin.	2	0	86829	1303			2299	865	SLV 4	0.66	No
ini.	2	0	-101708	1951			2300	866	SLV 7	0.44	No
fin.	2	0	63629	1014			2299	865	SLV 7	0.85	No
ini.	2	0	-99382	2055			2300	866	SLV 3	0.42	No
fin.	2	0	86829	1303			2299	865	SLV 3	0.66	No
ini.	2	0	-101708	1951			2300	866	SLV 8	0.44	No
fin.	2	0	63629	1014			2299	865	SLV 8	0.85	No
ini.	2	0	109926	-1441			2300	866	SLV 14	0.6	No
fin.	2	0	-97892	-2533			2299	865	SLV 14	0.34	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.771	SLV 9	Si
V_SLV	0.342	SLV 13	No
PF_SLU	6.565	SLU 37	Si
V_SLU	0.504	SLU 80	No