Regione Siciliana

PO FEAMP

Comunità Europea

COMUNE DI LIPARI

ASSESSORATO REGIONALE DELL'AGRICOLTURA, DELLO SVILUPPO RURALE E DELLA PESCA MEDITERRANEA

DIPARTIMENTO DELLA PESCA MEDITERRANEA - BANDO DI ATTUAZIONE DELLA MISURA 1.43 PORTI, LUOGHI DI SBARCO, SALE PER LA VENDITA ALL'ASTA E RIPARI DI PESCA

PROGETTO

PROGETTO PER L'AMPLIAMENTO DELLA BANCHINA DEL PORTO DI SOTTOMONASTERO, PER LA REALIZZAZIONE DI UN' AREA DESTINATA ALL'ORMEGGIO DELLA MARINERIA, PER LA VENDITA DEL PESCATO FRESCO E ZONA DI ALAGGIO E VARO DELL'ISOLA DI LIPARI.

PROGETTISTA

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P.I. 03524570839

GIOSA srl
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C.F./P.IVA 03524570839

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Ordine degli Architetti - Provincia di Ragusa
DIELI SALVATORE N. 262 ANNO 1994

IL R.U.P.
Geom. Carmelo Meduri

PROGETTO ESECUTIVO

1. RELAZIONE TECNICA
2. VALUTAZIONE INCIDENZA AMBIENTALE
3. RELAZIONE IDRAULICO MARINO
4. RELAZIONE ARCHEOLOGICA
5. RELAZIONE GEOLOGICA
6. RELAZIONE DI CALCOLO
7. FASCICOLO DEI CALCOLI
8. RELAZIONE SUI MATERIALI
9. RELAZIONE GEOTECNICA
10. RELAZIONE SULLE FONDAZIONI
11. ZONIZZAZIONE, INQUADRAMENTO TERRITORIALE
12. STATO DI FATTO - PLANIMETRIE
13. STATO DI FATTO - RILIEVO TOPOGRAFICO, PROFILI E SEZIONI
14. STATO DI PROGETTO - PLANIMETRIE E SEZIONI
15. STATO DI PROGETTO - SEZIONI DI PROGETTO
16. STATO DI PROGETTO - PLANIMETRIE CASSONI
17. STATO DI PROGETTO - SEZIONI DEI CASSONI
18. STATO DI PROGETTO - IMPIANTI
19. STATO DI PROGETTO - ESECUTIVI PALI E SOLETTONE
20. ELENCO PREZZI
21. ANALISI PREZZI
22. COMPUTO METRICO
23. INCIDENZA SICUREZZA
24. INCIDENZA MANODOPERA
25. QUADRO TECNICO ECONOMICO
26. PIANO DELLA SICUREZZA
27. CRONOPROGRAMMA
28. PIANO DELLE MANUTENZIONI
29. CAPITOLATO GENERALE E SPECIALE D'APPALTO
30. DISTINTA SPESE TECNICHE
31. SCHEMA DI CONTRATTO

N. 06

VISTO

COMUNE DI LIPARI
Piazza Mazzini, 1, 98055 (ME)
ITALIA

1) VERIFICA DI STABILITA' GLOBALE

2) CASSONI FORATI

3) CELLE ANTIRIFLETTENTI

1) VERIFICA DI STABILITA' GLOBALE

VERIFICA STABILITA' GLOBALE CASSONI IMBASATI A QUOTA -2,50 [m.s.l.m.m.]

DATI GEOMETRICI MASSI CELLULARI PREFABBRICATI

Altezza	2,00 [m]	N° celle trasv.	2
Larghezza	6,00 [m]	N° celle long.	3
Lunghezza	8,00 [m]	Spes/par/est	0,25 [m]
Peso/vol C.A.	2,50 [t/mc]	Spes/par/int	0,20 [m]
Peso/vol riemp	2,40 [t/mc]	Diametro fori	0,60 [m]
Peso/vol acqua	1,03 [t/mc]	N° fori/front.	12
Altezza elemento base	1,00 [m]	N° fori/int.	4
Largh/ala base	0,00 [m]	Largh/cella	2,675
Alt/ala base	0,000 [m]	Lungh/cella	2,400

CARATTERISTICHE BANCHINA

N° Elem/forati	1
N° Elem/pieni	1
Quota/banchina	1,50 [m.s.l.m.m.]
Spes/solettone	0,50 [m]

Quota imbasamento	-2,50 [m.s.l.m.m.]
Larghez/base	6,00 [m]

CARICHI ACCIDENTALI

Sovraccarico	5,00	[t/mq]
Tiro bitta	5,00	[t/ml]
Coef/sismico	0,10	
Moto ondoso	2,00	[m]

TERRENO DI FONDAZIONE

Profondità piano fondazione	2,50	[m]
Peso/Vol terreno fondazione	0,90	[t/mc]
Angolo d'attrito terreno fondazione	35,00	[°]
Coesione terreno fondazione	0,00	[t/mq]

PARAMETRI GEOTECNICI/COEFFICIENTI DI SPINTA

		NC	57,75
Alfa	41,44	NQ	41,44
		NG	46,52

ANALISI CARICHI MASSI CELLULARI

		Lungh	Largh	Alt	Peso	Brac/x	Mom/x	Brac/y	Mom/y
Par/long	1	8,00	0,25	4,00	20,00	0,13	2,50	2,00	40,00
	1	8,00	0,20	4,00	16,00	3,03	48,40	2,00	32,00
	1	8,00	0,20	4,00	16,00	5,90	94,40	2,00	32,00
	12	0,28	0,25		-2,12	0,13	-0,27	10,00	-21,21
Par/long_impal	1	7,00	0,25	4,00	17,50	0,13	2,19	10,00	175,00
	1	7,00	0,20	4,00	14,00	3,03	42,35	10,00	140,00
	1	7,00	0,20	4,00	14,00	5,90	82,60	10,00	140,00
	36	0,28	0,25		-6,36	0,13	-0,80	10,00	-63,62
Par/trasv.	4	2,68	0,20	4,00	21,40	1,59	33,97	2,00	42,80
	4	2,68	0,20	4,00	21,40	4,51	96,57	2,00	42,80
	4	0,28	0,20		-0,57	1,59	-0,90	10,00	-5,65
Par/trasv_impal	4	2,68	0,20	4,00	21,40	1,59	33,97	10,00	214,00
	4	2,68	0,20	4,00	21,40	4,51	96,57	10,00	214,00
	12	0,28	0,20		-1,70	1,59	-2,69	10,00	-16,96
Celle piene cls	3	2,40	2,68	6,00	277,34	1,59	440,28	3,00	832,03
	3	2,40	2,68	12,00	554,69	4,51	2.503,03	6,00	3.328,13
Celle con acqua	3	2,40	2,68	-3,5	-69,43	1,59	-110,22	4,25	-295,09
Solettone_Impalc		7,00	6,00	0,50	52,50	3,00	157,50	12,25	643,13
Solettone		8,00	6,00	0,50	60,00	3,00	180,00	4,25	255,00
					1.047,46	3,53	3.699,46	5,47	5.728,36
Sottospinta		8,00	6,00	-2,50	-123,60	3,00	-370,80		
					923,86	3,60	3.328,66		

MOTO ONDOSO

Spinta interna	25,75		-25,75			0,83	-21,46	
Spinta esterna	83,43		83,43			1,50	125,15	
Sottospinta	49,44	-49,44		4,00	197,76			
		-49,44	57,68	4,00	197,76	1,80	103,69	

RIEPILOGO CARICHI AGENTI

		S/vert(t)	S/oriz(t)	Brac/x	Mom/x	Brac/y	Mom/y
Permanenti	1	923,86		3,60	3.328,66		
Sisma/masse	1		111,69			5,47	610,81
Sovr/banchina	1	240,00		3,00	720,00		
Sisma sovr/ban	1		24,00			4,00	96,00
Moto ondoso	1	-49,44	57,68	4,00	-197,76	1,80	103,69
Tiro/bitta	1		40,00			4,00	160,00

CONDIZIONE DI CARICO 1) - Permanenti + sisma

		S/vert(t)	S/oriz(t)	Brac/x	Mom/x	Brac/y	Mom/y
Permanenti	1	923,86	0,00	3,60	3.328,66	0,00	0,00
Sisma/masse	1	0,00	111,69	0,00	0,00	5,47	610,81
Sovr/banchina	0	0,00	0,00	3,00	0,00	0,00	0,00
Sisma sovr/ban	0	0,00	0,00	0,00	0,00	4,00	0,00
Moto ondoso	0	0,00	0,00	4,00	0,00	1,80	0,00
Tiro/bitta	0	0,00	0,00	0,00	0,00	4,00	0,00
		923,86	111,69		3.328,66		610,81

Coeff/Ribaltamento	5,45	>	1,5
Coeff/Scorrimento	4,96	>	1,3
u	2,94		
Eccentricità	0,06	<	1,00
Pressione Equivalente (t/mq)	19,63		
Pressione max/min (t/mq)	20,37		18,13
Inclinazione carichi	0,12		
Pressione Limite (t/mq)	119,26		
Rapporto Carico Limite/Equivalente	6,08	>	3

CONDIZIONE DI CARICO 2) - Permanenti + moto ondoso

		S/vert(t)	S/oriz(t)	Brac/x	Mom/x	Brac/y	Mom/y
Permanenti	1	923,86	0,00	3,60	3.328,66	0,00	0,00
Sisma/masse	0	0,00	0,00	0,00	0,00	5,47	0,00
Sovr/banchina	0	0,00	0,00	3,00	0,00	0,00	0,00
Sisma sovr/ban	0	0,00	0,00	0,00	0,00	4,00	0,00
Moto ondoso	1	-49,44	57,68	4,00	-197,76	1,80	103,69
Tiro/bitta	0	0,00	0,00	0,00	0,00	4,00	0,00
		874,42	57,68		3.130,90		103,69

Coeff/Ribaltamento	30,20	>	1,5
Coeff/Scorrimento	9,10	>	1,3
u	3,46		
Eccentricità	-0,46	<	1,00
Pressione Equivalente (t/mq)	15,79		
Pressione max/min (t/mq)	9,80		26,63
Inclinazione carichi	0,07		
Pressione Limite (t/mq)	128,38		
Rapporto Carico Limite/Equivalente	8,13	>	3

CONDIZIONE DI CARICO 3) - Permanenti + sovraccarico accidentale + tiro bitta

		S/vert(t)	S/oriz(t)	Brac/x	Mom/x	Brac/y	Mom/y
Permanenti	1	923,86	0,00	3,60	3.328,66	0,00	0,00
Sisma/masse	0	0,00	0,00	0,00	0,00	5,47	0,00
Sovr/banchina	1	240,00	0,00	3,00	720,00	0,00	0,00
Sisma sovr/ban	0	0,00	0,00	0,00	0,00	4,00	0,00
Moto ondoso	0	0,00	0,00	4,00	0,00	1,80	0,00
Tiro/bitta	1	0,00	40,00	0,00	0,00	4,00	160,00
		1.163,86	40,00		4.048,66		160,00

Coeff/Ribaltamento	25,30	>	1,5
Coeff/Scorrimento	17,46	>	1,3
u	3,34		
Eccentricità	-0,34	<	1,00
Pressione Equivalente (t/mq)	21,77		
Pressione max/min (t/mq)	15,97		32,52
Inclinazione carichi	0,03		
Pressione Limite (t/mq)	133,81		
Rapporto Carico Limite/Equivalente	6,15	>	3

2) CASSONI FORATI

PREMESSE

Nell'ambito del *progetto per l'ampliamento della banchina di sottomonastero, per la realizzazione di un'area destinata all'ormeggio della marineria, per la vendita del pescato fresco e zona di alaggio e varo dell'isola di Lipari,* si è eseguita la verifica strutturale del cassone cellulare forato in fase di varo.

Per i dettagli grafici, non riportati negli schemi di calcolo allegati alla presente relazione, si rimanda agli elaborati di progetto che vanno considerati parte integrante della presente relazione di calcolo.

NORMATIVA DI CALCOLO

-Istruzioni CNR 10024-84 "Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo".

-D.M. 11/03/1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione ed il collaudo delle opere di sostegno delle terre e delle opere di fondazione".

-NTC - D.M. 17/01/2018 "Aggiornamento Norme tecniche per le costruzioni in zone sismiche".

MODELLO DI CALCOLO

Per il calcolo si è utilizzato un modello di calcolo ad elementi finiti ed in particolare la modellazione è stata effettuata con elementi "guscio" .

Predimensionati gli elementi della struttura e assegnate le relative caratteristiche e vincoli congruenti all'analisi progettuale, si é utilizzato il programma NOLIAN, che consente l'analisi statica e dinamica di strutture tridimensionali del tutto generali a comportamento elastico lineare con il metodo degli elementi finiti.

Analisi statica: Calcolo ed assemblaggio delle matrici di rigidezza degli elementi su memoria di massa. Fattorizzazione a blocchi della matrice di rigidezza con la tecnica dello skyline con il metodo Gauss-Jordan modificato. Valutazione dello zero algoritmico tramite la norma euclidea della matrice e controllo del condizionamento della matrice. Ottimizzazione dell'ampiezza di semibanda con l'algoritmo di Cuthill e McKee.

Analisi dinamica: Analisi modale tramite il subspace iteration method. Calcolo degli autovalori ed autovettori nel sottospazio con il metodo di Jacobi modificato. Controllo di convergenza, di ortogonalità, di precisione, di definizione della matrice dinamica. Calcolo die coefficienti di partecipazione modale e del contributo massimo del modo iesimo tramite la tecnica dello spettro di risposta. Combinazione dei massimi effetti associati a ciascun modo di vibrare tramite la formula del valore efficace, secondo normativa italiana vigente, applicato a livello di effetti.

Nel nostro caso si è eseguita semplicemente l'analisi statica. tenendo conto delle sollecitazioni più gravose che riguardano la fase di varo.
Si è studiato un modello ad elementi finiti ipotizzato appeso ai sei nodi centrali; tale modello rappresenta efficacemente il comportamento in fase di varo sotto l’azione del peso proprio che è stato considerato di valore doppio per tener conto del sovraccarico dinamico causato da brusche manovre.

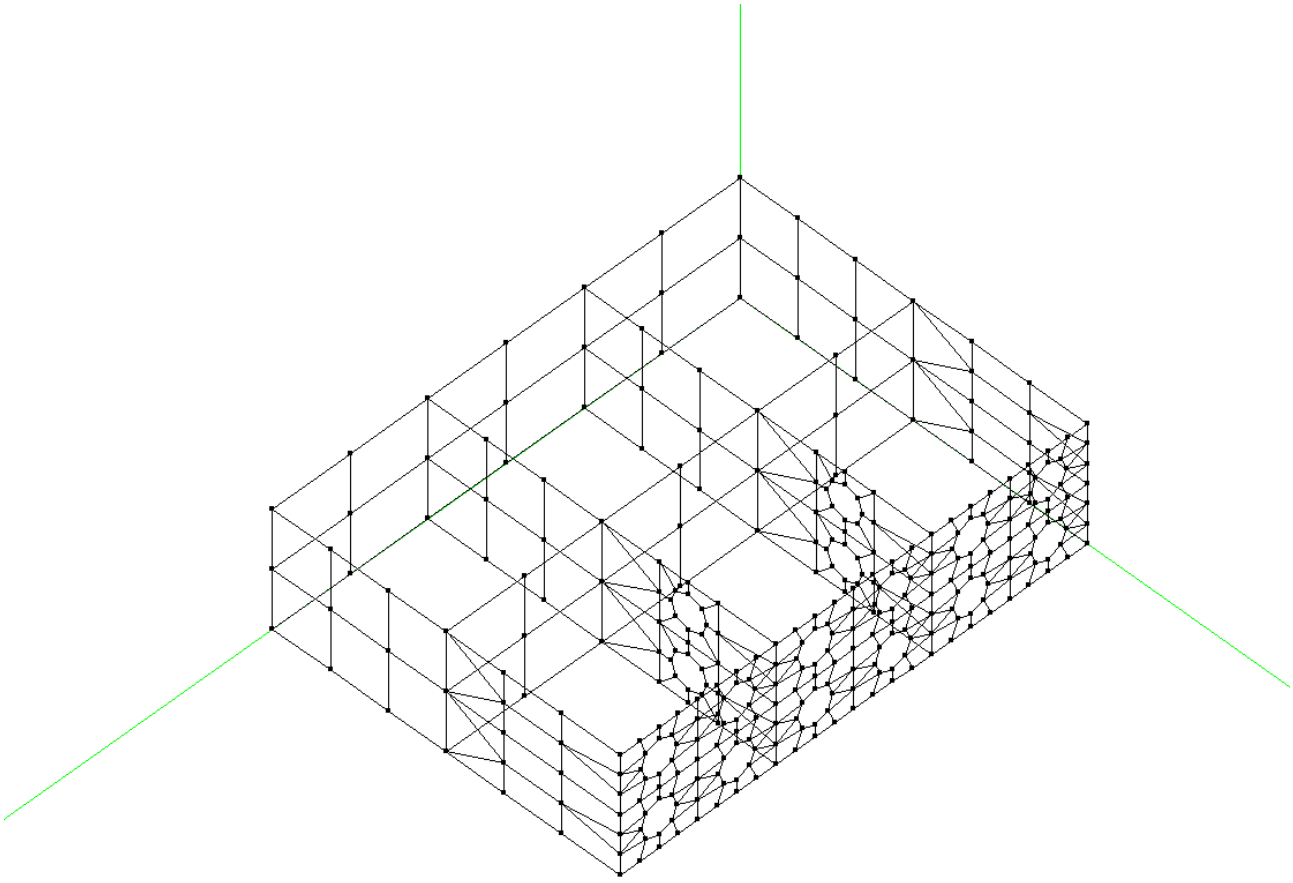
Esplicitazione delle condizioni di carico che compaiono nei tabulati:

Peso proprio

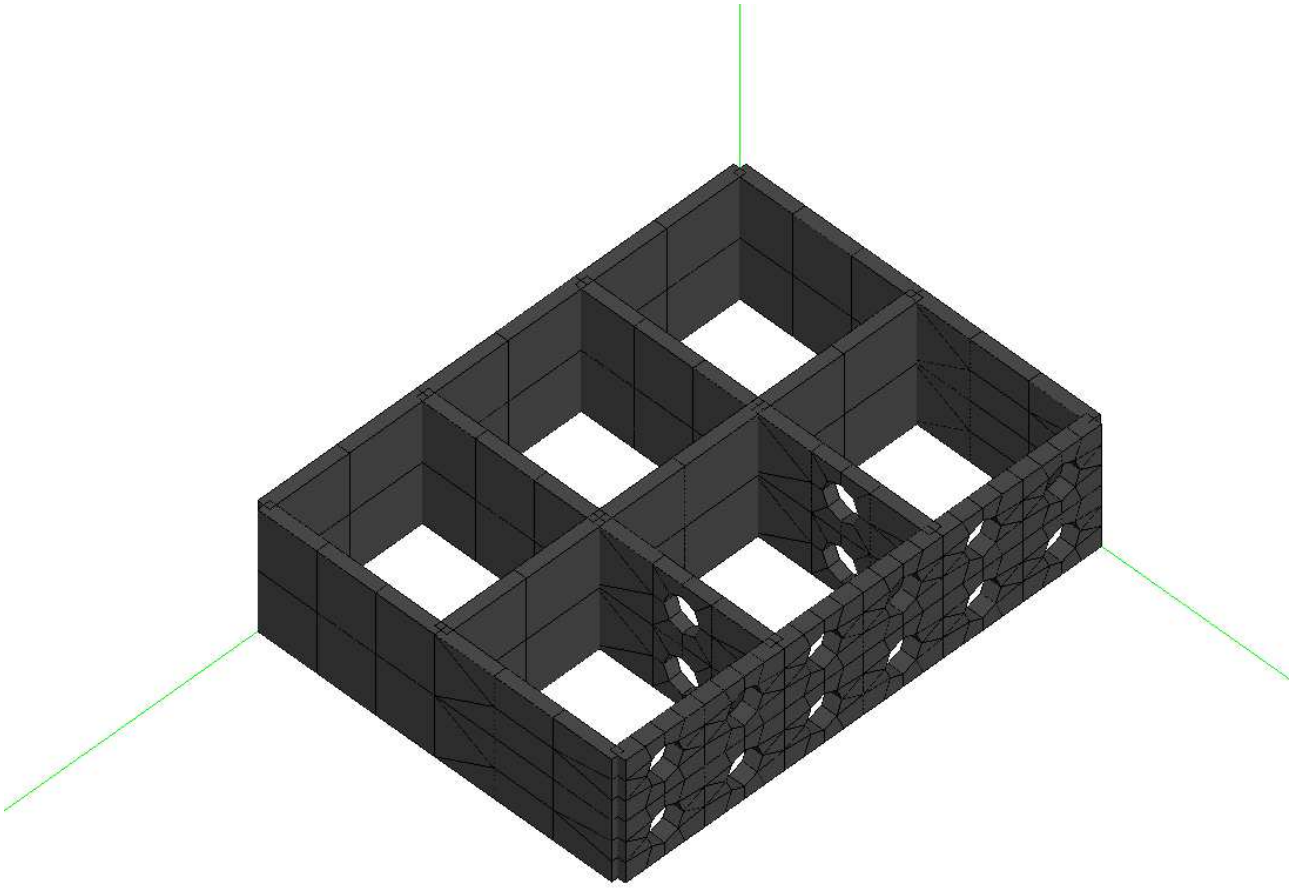
Peso/volume cls	5.0 e-3 kg/cmc
Simbologia tabulato di calcolo	#1-Peso proprio

Di seguito si riportano i tabulati di calcolo (da cui si evincono le condizioni di carico e la geometria degli elementi) e le relative verifiche del c.a.

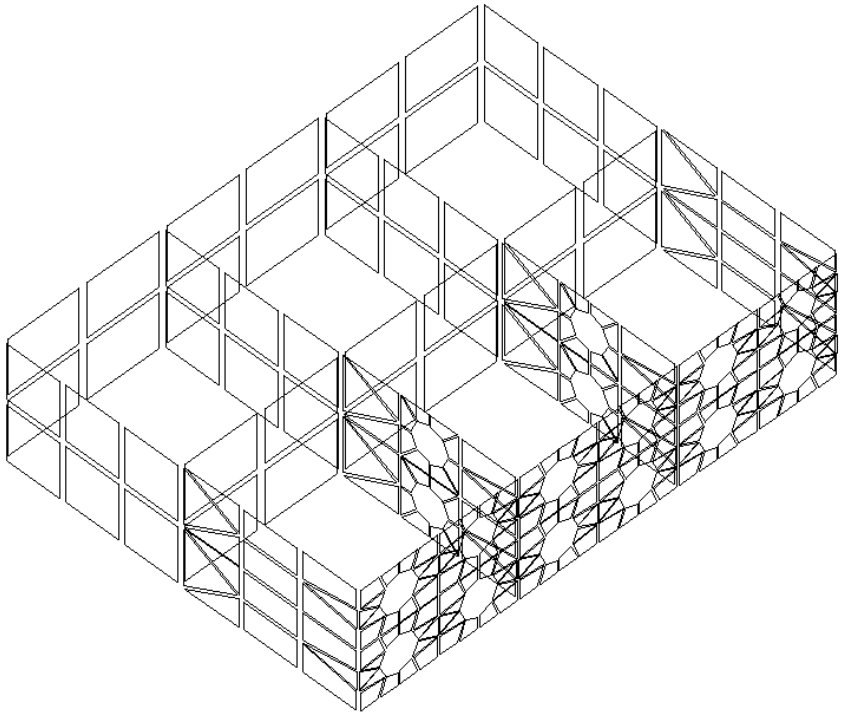
FEM – MODELLO DI CALCOLO



FEM – MODELLO DI CALCOLO - RENDERING MODELLO SOLIDO



FEM – MODELLO DI CALCOLO - RENDERING SHRINK



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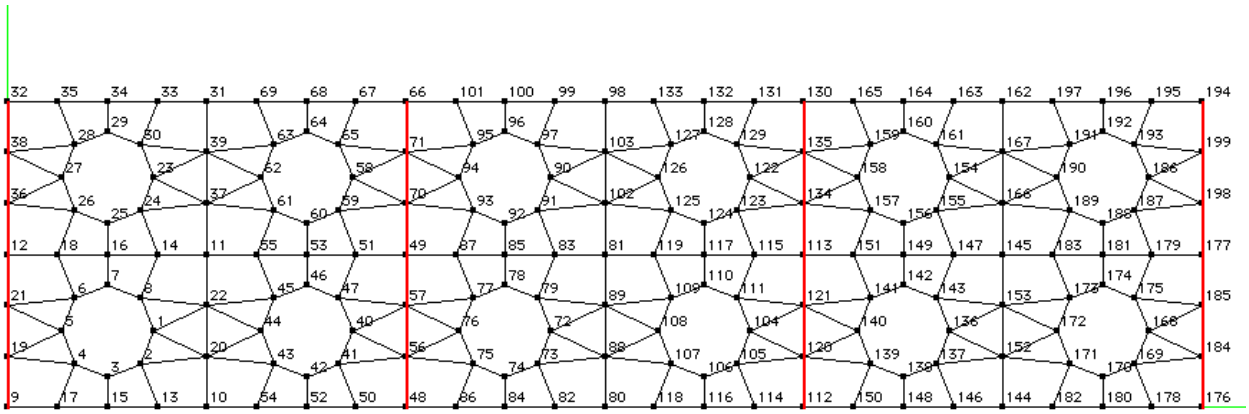
FEM – NUMERAZIONE NODI - ELEMENTI



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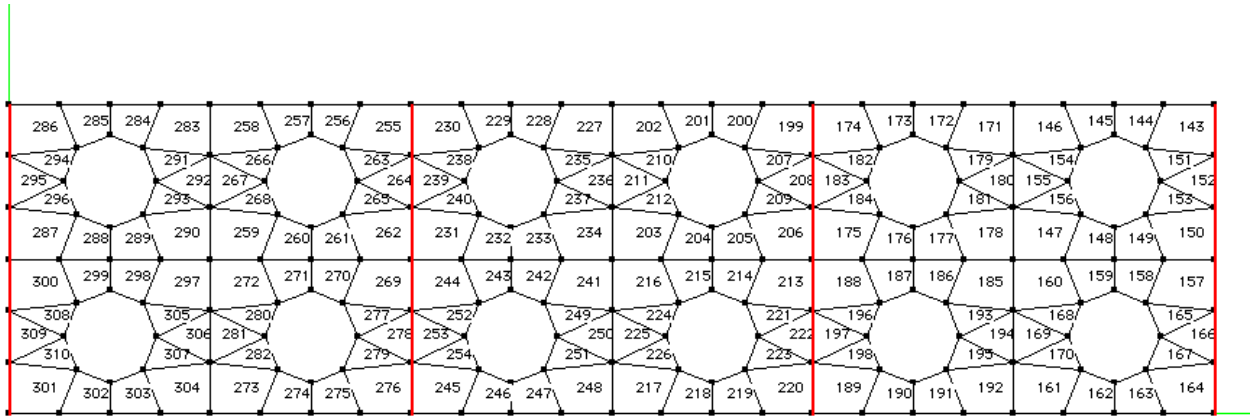

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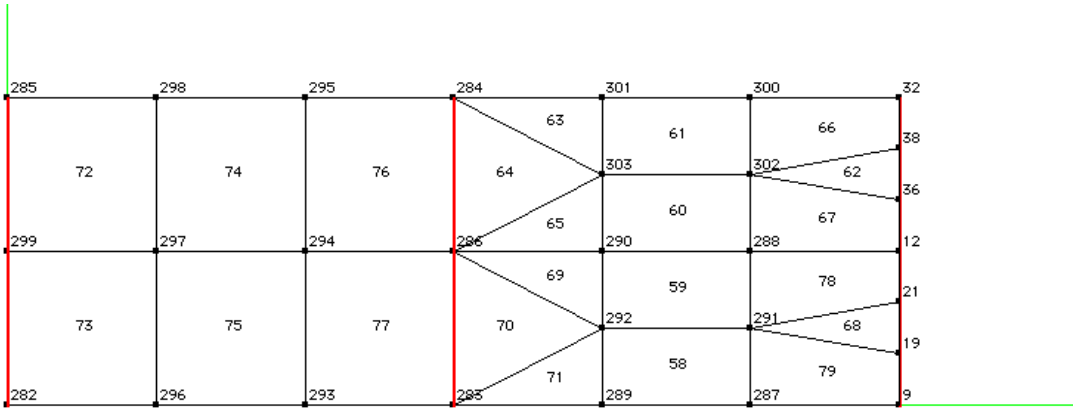

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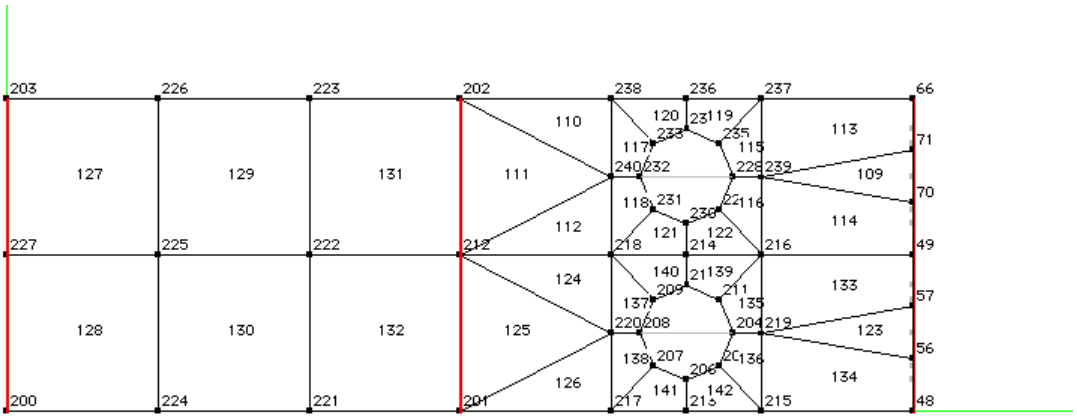
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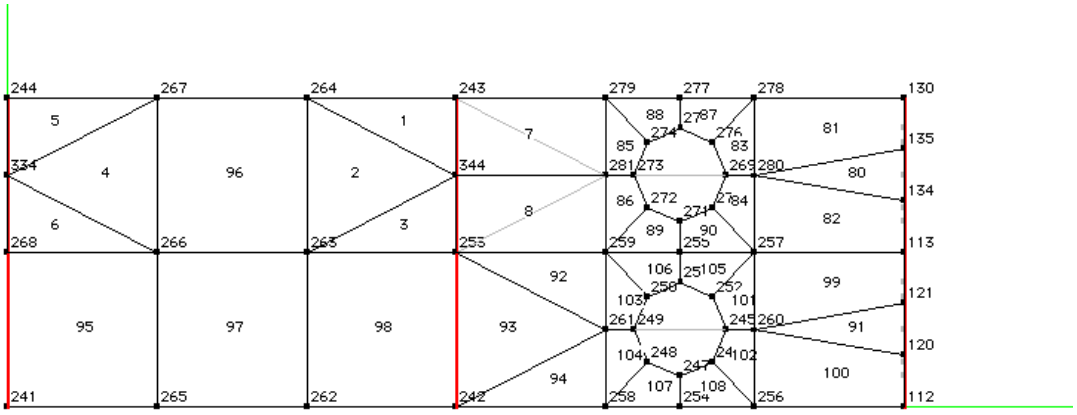
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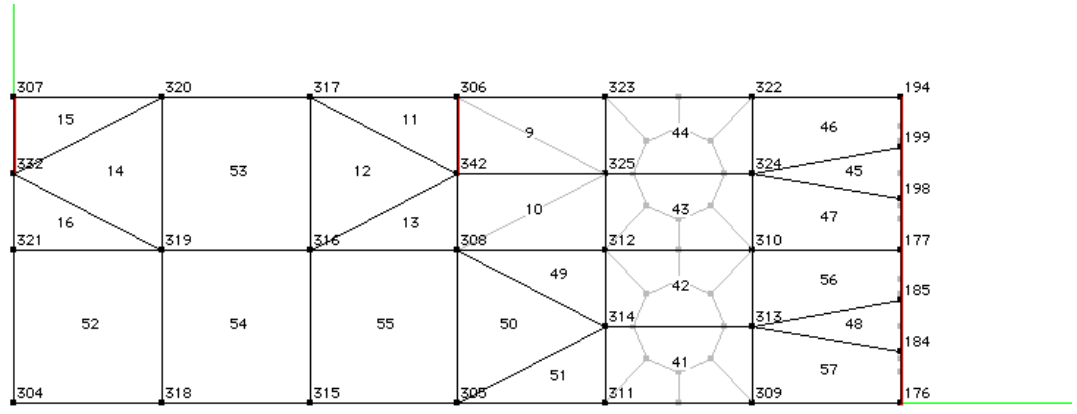
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332 342 325 324 321 319 316 308 312 310 199 198 177
44 43
49 50 51 56 48 57
52 54 55 314 313 185 184
42 41
304 318 315 305 311 309 176

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FEM – ANALISI STRUTTURALE

Nolian 8.0 (12.7.1998)

COORDINATE E DATI DEI NODI

Nodo	x	y	z	tx	ty	tz	rx	ry	rz	ms	fz	mm
1	9.5000e+01	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
2	8.6213e+01	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
3	6.5000e+01	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
4	4.3787e+01	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
5	3.5000e+01	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
6	4.3787e+01	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
7	6.5000e+01	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
8	8.6213e+01	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
9	0.0000e+00	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
10	1.3000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
11	1.3000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
12	0.0000e+00	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
13	9.7500e+01	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
14	9.7500e+01	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
15	6.5000e+01	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
16	6.5000e+01	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
17	3.2500e+01	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
18	3.2500e+01	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
19	0.0000e+00	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
20	1.3000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
21	0.0000e+00	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
22	1.3000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
23	9.5000e+01	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
24	8.6213e+01	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
25	6.5000e+01	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
26	4.3787e+01	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
27	3.5000e+01	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
28	4.3787e+01	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
29	6.5000e+01	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
30	8.6213e+01	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
31	1.3000e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
32	0.0000e+00	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
33	9.7500e+01	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
34	6.5000e+01	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
35	3.2500e+01	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
36	0.0000e+00	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
37	1.3000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
38	0.0000e+00	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
39	1.3000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
40	2.2500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
41	2.1621e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
42	1.9500e+02	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
43	1.7379e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
44	1.6500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
45	1.7379e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
46	1.9500e+02	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
47	2.1621e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
48	2.6000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
49	2.6000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0

50	2.2750e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
51	2.2750e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
52	1.9500e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
53	1.9500e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
54	1.6250e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
55	1.6250e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
56	2.6000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
57	2.6000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
58	2.2500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
59	2.1621e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
60	1.9500e+02	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
61	1.7379e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
62	1.6500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
63	1.7379e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
64	1.9500e+02	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
65	2.1621e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
66	2.6000e+02	5.8000e+02	2.0000e+02	1	1	1	0	1	0	0	0	0
67	2.2750e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
68	1.9500e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
69	1.6250e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
70	2.6000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
71	2.6000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
72	3.5500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
73	3.4621e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
74	3.2500e+02	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
75	3.0379e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
76	2.9500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
77	3.0379e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
78	3.2500e+02	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
79	3.4621e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
80	3.9000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
81	3.9000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
82	3.5750e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
83	3.5750e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
84	3.2500e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
85	3.2500e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
86	2.9250e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
87	2.9250e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
88	3.9000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
89	3.9000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
90	3.5500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
91	3.4621e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
92	3.2500e+02	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
93	3.0379e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
94	2.9500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
95	3.0379e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
96	3.2500e+02	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
97	3.4621e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
98	3.9000e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
99	3.5750e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
100	3.2500e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
101	2.9250e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
102	3.9000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
103	3.9000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
104	4.8500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
105	4.7621e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
106	4.5500e+02	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
107	4.3379e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
108	4.2500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
109	4.3379e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
110	4.5500e+02	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
111	4.7621e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
112	5.2000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0

113	5.2000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
114	4.8750e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
115	4.8750e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
116	4.5500e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
117	4.5500e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
118	4.2250e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
119	4.2250e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
120	5.2000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
121	5.2000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
122	4.8500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
123	4.7621e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
124	4.5500e+02	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
125	4.3379e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
126	4.2500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
127	4.3379e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
128	4.5500e+02	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
129	4.7621e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
130	5.2000e+02	5.8000e+02	2.0000e+02	1	1	1	0	1	0	0	0	0
131	4.8750e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
132	4.5500e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
133	4.2250e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
134	5.2000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
135	5.2000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
136	6.1500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
137	6.0621e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
138	5.8500e+02	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
139	5.6379e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
140	5.5500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
141	5.6379e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
142	5.8500e+02	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
143	6.0621e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
144	6.5000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
145	6.5000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
146	6.1750e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
147	6.1750e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
148	5.8500e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
149	5.8500e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
150	5.5250e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
151	5.5250e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
152	6.5000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
153	6.5000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
154	6.1500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
155	6.0621e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
156	5.8500e+02	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
157	5.6379e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
158	5.5500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
159	5.6379e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
160	5.8500e+02	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
161	6.0621e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
162	6.5000e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
163	6.1750e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
164	5.8500e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
165	5.5250e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
166	6.5000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
167	6.5000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
168	7.4500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
169	7.3621e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
170	7.1500e+02	5.8000e+02	2.0000e+01	0	0	0	0	1	0	0	0	0
171	6.9379e+02	5.8000e+02	2.8787e+01	0	0	0	0	1	0	0	0	0
172	6.8500e+02	5.8000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0
173	6.9379e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0
174	7.1500e+02	5.8000e+02	8.0000e+01	0	0	0	0	1	0	0	0	0
175	7.3621e+02	5.8000e+02	7.1213e+01	0	0	0	0	1	0	0	0	0

176	7.8000e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
177	7.8000e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
178	7.4750e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
179	7.4750e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
180	7.1500e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
181	7.1500e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
182	6.8250e+02	5.8000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
183	6.8250e+02	5.8000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
184	7.8000e+02	5.8000e+02	3.3333e+01	0	0	0	0	1	0	0	0	0
185	7.8000e+02	5.8000e+02	6.6667e+01	0	0	0	0	1	0	0	0	0
186	7.4500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
187	7.3621e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
188	7.1500e+02	5.8000e+02	1.2000e+02	0	0	0	0	1	0	0	0	0
189	6.9379e+02	5.8000e+02	1.2879e+02	0	0	0	0	1	0	0	0	0
190	6.8500e+02	5.8000e+02	1.5000e+02	0	0	0	0	1	0	0	0	0
191	6.9379e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
192	7.1500e+02	5.8000e+02	1.8000e+02	0	0	0	0	1	0	0	0	0
193	7.3621e+02	5.8000e+02	1.7121e+02	0	0	0	0	1	0	0	0	0
194	7.8000e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
195	7.4750e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
196	7.1500e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
197	6.8250e+02	5.8000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
198	7.8000e+02	5.8000e+02	1.3333e+02	0	0	0	0	1	0	0	0	0
199	7.8000e+02	5.8000e+02	1.6667e+02	0	0	0	0	1	0	0	0	0
200	2.6000e+02	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
201	2.6000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
202	2.6000e+02	2.9000e+02	2.0000e+02	1	1	1	0	1	0	0	0	0
203	2.6000e+02	0.0000e+00	2.0000e+02	1	1	1	0	1	0	0	0	0
204	2.6000e+02	4.6500e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
205	2.6000e+02	4.5621e+02	2.8787e+01	0	0	0	1	0	0	0	0	0
206	2.6000e+02	4.3500e+02	2.0000e+01	0	0	0	1	0	0	0	0	0
207	2.6000e+02	4.1379e+02	2.8787e+01	0	0	0	1	0	0	0	0	0
208	2.6000e+02	4.0500e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
209	2.6000e+02	4.1379e+02	7.1213e+01	0	0	0	1	0	0	0	0	0
210	2.6000e+02	4.3500e+02	8.0000e+01	0	0	0	1	0	0	0	0	0
211	2.6000e+02	4.5621e+02	7.1213e+01	0	0	0	1	0	0	0	0	0
212	2.6000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
213	2.6000e+02	4.3500e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
214	2.6000e+02	4.3500e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
215	2.6000e+02	4.8333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
216	2.6000e+02	4.8333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
217	2.6000e+02	3.8667e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
218	2.6000e+02	3.8667e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
219	2.6000e+02	4.8333e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
220	2.6000e+02	3.8667e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
221	2.6000e+02	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
222	2.6000e+02	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
223	2.6000e+02	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
224	2.6000e+02	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0	0
225	2.6000e+02	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0	0
226	2.6000e+02	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0	0
227	2.6000e+02	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
228	2.6000e+02	4.6500e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
229	2.6000e+02	4.5621e+02	1.2879e+02	0	0	0	1	0	0	0	0	0
230	2.6000e+02	4.3500e+02	1.2000e+02	0	0	0	1	0	0	0	0	0
231	2.6000e+02	4.1379e+02	1.2879e+02	0	0	0	1	0	0	0	0	0
232	2.6000e+02	4.0500e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
233	2.6000e+02	4.1379e+02	1.7121e+02	0	0	0	1	0	0	0	0	0
234	2.6000e+02	4.3500e+02	1.8000e+02	0	0	0	1	0	0	0	0	0
235	2.6000e+02	4.5621e+02	1.7121e+02	0	0	0	1	0	0	0	0	0
236	2.6000e+02	4.3500e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
237	2.6000e+02	4.8333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
238	2.6000e+02	3.8667e+02	2.0000e+02	0	0	0	1	0	0	0	0	0

239	2.6000e+02	4.8333e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
240	2.6000e+02	3.8667e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
241	5.2000e+02	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
242	5.2000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
243	5.2000e+02	2.9000e+02	2.0000e+02	1	1	1	0	1	0	0	0	0
244	5.2000e+02	0.0000e+00	2.0000e+02	1	1	1	0	1	0	0	0	0
245	5.2000e+02	4.6500e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
246	5.2000e+02	4.5621e+02	2.8787e+01	0	0	0	1	0	0	0	0	0
247	5.2000e+02	4.3500e+02	2.0000e+01	0	0	0	1	0	0	0	0	0
248	5.2000e+02	4.1379e+02	2.8787e+01	0	0	0	1	0	0	0	0	0
249	5.2000e+02	4.0500e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
250	5.2000e+02	4.1379e+02	7.1213e+01	0	0	0	1	0	0	0	0	0
251	5.2000e+02	4.3500e+02	8.0000e+01	0	0	0	1	0	0	0	0	0
252	5.2000e+02	4.5621e+02	7.1213e+01	0	0	0	1	0	0	0	0	0
253	5.2000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
254	5.2000e+02	4.3500e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
255	5.2000e+02	4.3500e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
256	5.2000e+02	4.8333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
257	5.2000e+02	4.8333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
258	5.2000e+02	3.8667e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
259	5.2000e+02	3.8667e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
260	5.2000e+02	4.8333e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
261	5.2000e+02	3.8667e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
262	5.2000e+02	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
263	5.2000e+02	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
264	5.2000e+02	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
265	5.2000e+02	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0	0
266	5.2000e+02	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0	0
267	5.2000e+02	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0	0
268	5.2000e+02	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
269	5.2000e+02	4.6500e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
270	5.2000e+02	4.5621e+02	1.2879e+02	0	0	0	1	0	0	0	0	0
271	5.2000e+02	4.3500e+02	1.2000e+02	0	0	0	1	0	0	0	0	0
272	5.2000e+02	4.1379e+02	1.2879e+02	0	0	0	1	0	0	0	0	0
273	5.2000e+02	4.0500e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
274	5.2000e+02	4.1379e+02	1.7121e+02	0	0	0	1	0	0	0	0	0
275	5.2000e+02	4.3500e+02	1.8000e+02	0	0	0	1	0	0	0	0	0
276	5.2000e+02	4.5621e+02	1.7121e+02	0	0	0	1	0	0	0	0	0
277	5.2000e+02	4.3500e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
278	5.2000e+02	4.8333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
279	5.2000e+02	3.8667e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
280	5.2000e+02	4.8333e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
281	5.2000e+02	3.8667e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
282	0.0000e+00	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
283	0.0000e+00	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
284	0.0000e+00	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
285	0.0000e+00	0.0000e+00	2.0000e+02	0	0	0	0	1	0	0	0	0
286	0.0000e+00	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
287	0.0000e+00	4.8333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
288	0.0000e+00	4.8333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
289	0.0000e+00	3.8667e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
290	0.0000e+00	3.8667e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
291	0.0000e+00	4.8333e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
292	0.0000e+00	3.8667e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
293	0.0000e+00	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
294	0.0000e+00	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
295	0.0000e+00	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
296	0.0000e+00	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0	0
297	0.0000e+00	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0	0
298	0.0000e+00	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0	0
299	0.0000e+00	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
300	0.0000e+00	4.8333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
301	0.0000e+00	3.8667e+02	2.0000e+02	0	0	0	1	0	0	0	0	0

302	0.0000e+00	4.8333e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
303	0.0000e+00	3.8667e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
304	7.8000e+02	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
305	7.8000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
306	7.8000e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
307	7.8000e+02	0.0000e+00	2.0000e+02	0	0	0	0	1	0	0	0	0
308	7.8000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
309	7.8000e+02	4.8333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
310	7.8000e+02	4.8333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
311	7.8000e+02	3.8667e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
312	7.8000e+02	3.8667e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
313	7.8000e+02	4.8333e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
314	7.8000e+02	3.8667e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
315	7.8000e+02	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
316	7.8000e+02	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
317	7.8000e+02	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
318	7.8000e+02	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0	0
319	7.8000e+02	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0	0
320	7.8000e+02	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0	0
321	7.8000e+02	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
322	7.8000e+02	4.8333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
323	7.8000e+02	3.8667e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
324	7.8000e+02	4.8333e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
325	7.8000e+02	3.8667e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
326	1.3000e+02	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
327	1.3000e+02	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
328	1.3000e+02	0.0000e+00	2.0000e+02	0	0	0	0	1	0	0	0	0
329	3.9000e+02	0.0000e+00	0.0000e+00	0	0	0	0	1	0	0	0	0
330	3.9000e+02	0.0000e+00	1.0000e+02	0	0	0	0	1	0	0	0	0
331	3.9000e+02	0.0000e+00	2.0000e+02	0	0	0	0	1	0	0	0	0
332	7.8000e+02	0.0000e+00	1.5000e+02	0	0	0	0	0	0	0	0	0
333	6.5000e+02	0.0000e+00	2.0000e+02	0	0	0	0	0	0	0	0	0
334	5.2000e+02	0.0000e+00	1.5000e+02	0	0	0	0	0	0	0	0	0
335	1.3000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
336	1.3000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
337	1.3000e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
338	3.9000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0	0
339	3.9000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0	0
340	3.9000e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0	0
341	6.5000e+02	2.9000e+02	1.5000e+02	0	0	0	0	0	0	0	0	0
342	7.8000e+02	2.9000e+02	1.5000e+02	0	0	0	0	0	0	0	0	0
343	6.5000e+02	2.9000e+02	2.0000e+02	0	0	0	0	0	0	0	0	0
344	5.2000e+02	2.9000e+02	1.5000e+02	0	0	0	0	0	0	0	0	0
345	6.5000e+02	0.0000e+00	1.5000e+02	0	0	0	0	0	0	0	0	0

ESTREMI E DATI DEGLI ELEMENTI

Elemento	estremi				te	tc	kn	ms
1	344	264	243		1	1	0	0
2	263	264	344		1	1	0	0
3	344	253	263		1	1	0	0
4	267	266	334		1	1	0	0
5	334	244	267		1	1	0	0
6	266	268	334		1	1	0	0
7	281	344	243	279	1	1	0	0
8	259	253	344	281	1	1	0	0
9	325	342	306	323	1	1	0	0
10	312	308	342	325	1	1	0	0
11	342	317	306		1	1	0	0
12	316	317	342		1	1	0	0

13	342	308	316		1	1	0	0
14	320	319	332		1	1	0	0
15	332	307	320		1	1	0	0
16	319	321	332		1	1	0	0
17	344	340	243		1	1	0	0
18	339	340	344		1	1	0	0
19	344	253	339		1	1	0	0
20	334	331	244		1	1	0	0
21	330	331	334		1	1	0	0
22	334	268	330		1	1	0	0
23	345	334	244	333	1	1	0	0
24	332	345	333	307	1	1	0	0
25	341	344	243	343	1	1	0	0
26	342	341	343	306	1	1	0	0
27	338	242	253	339	1	1	0	1
28	212	339	340	202	1	1	0	1
29	201	338	339	212	1	1	0	1
30	336	212	202	337	1	1	0	1
31	335	201	212	336	1	1	0	1
32	286	336	337	284	1	1	0	1
33	283	335	336	286	1	1	0	1
34	329	241	268	330	1	1	0	1
35	227	330	331	203	1	1	0	1
36	200	329	330	227	1	1	0	1
37	327	227	203	328	1	1	0	1
38	326	200	227	327	1	1	0	1
39	299	327	328	285	1	1	0	1
40	282	326	327	299	1	1	0	1
41	309	311	314	313	1	1	0	1
42	313	314	312	310	1	1	0	1
43	310	312	325	324	1	1	0	1
44	324	325	323	322	1	1	0	1
45	198	324	199		1	1	0	1
46	199	324	322	194	1	1	0	1
47	177	310	324	198	1	1	0	1
48	184	313	185		1	1	0	1
49	314	308	312		1	1	0	1
50	314	305	308		1	1	0	1
51	311	305	314		1	1	0	1
52	318	304	321	319	1	1	0	1
53	316	319	320	317	1	1	0	1
54	315	318	319	316	1	1	0	1
55	305	315	316	308	1	1	0	1
56	185	313	310	177	1	1	0	1
57	176	309	313	184	1	1	0	1
58	287	289	292	291	1	1	0	1
59	291	292	290	288	1	1	0	1
60	288	290	303	302	1	1	0	1
61	302	303	301	300	1	1	0	1
62	36	302	38		1	1	0	1
63	303	284	301		1	1	0	1
64	303	286	284		1	1	0	1
65	290	286	303		1	1	0	1
66	38	302	300	32	1	1	0	1
67	12	288	302	36	1	1	0	1
68	19	291	21		1	1	0	1
69	292	286	290		1	1	0	1
70	292	283	286		1	1	0	1
71	289	283	292		1	1	0	1
72	297	299	285	298	1	1	0	1
73	296	282	299	297	1	1	0	1
74	294	297	298	295	1	1	0	1
75	293	296	297	294	1	1	0	1

76	286	294	295	284	1	1	0	1
77	283	293	294	286	1	1	0	1
78	21	291	288	12	1	1	0	1
79	9	287	291	19	1	1	0	1
80	134	280	135		1	1	0	1
81	135	280	278	130	1	1	0	1
82	113	257	280	134	1	1	0	1
83	280	269	276	278	1	1	0	1
84	257	270	269	280	1	1	0	1
85	273	281	279	274	1	1	0	1
86	272	259	281	273	1	1	0	1
87	276	275	277	278	1	1	0	1
88	275	274	279	277	1	1	0	1
89	255	259	272	271	1	1	0	1
90	257	255	271	270	1	1	0	1
91	120	260	121		1	1	0	1
92	261	253	259		1	1	0	1
93	261	242	253		1	1	0	1
94	258	242	261		1	1	0	1
95	265	241	268	266	1	1	0	1
96	263	266	267	264	1	1	0	1
97	262	265	266	263	1	1	0	1
98	242	262	263	253	1	1	0	1
99	121	260	257	113	1	1	0	1
100	112	256	260	120	1	1	0	1
101	260	245	252	257	1	1	0	1
102	256	246	245	260	1	1	0	1
103	249	261	259	250	1	1	0	1
104	248	258	261	249	1	1	0	1
105	252	251	255	257	1	1	0	1
106	251	250	259	255	1	1	0	1
107	254	258	248	247	1	1	0	1
108	256	254	247	246	1	1	0	1
109	70	239	71		1	1	0	1
110	240	202	238		1	1	0	1
111	240	212	202		1	1	0	1
112	218	212	240		1	1	0	1
113	71	239	237	66	1	1	0	1
114	49	216	239	70	1	1	0	1
115	239	228	235	237	1	1	0	1
116	216	229	228	239	1	1	0	1
117	232	240	238	233	1	1	0	1
118	231	218	240	232	1	1	0	1
119	235	234	236	237	1	1	0	1
120	234	233	238	236	1	1	0	1
121	214	218	231	230	1	1	0	1
122	216	214	230	229	1	1	0	1
123	56	219	57		1	1	0	1
124	220	212	218		1	1	0	1
125	220	201	212		1	1	0	1
126	217	201	220		1	1	0	1
127	225	227	203	226	1	1	0	1
128	224	200	227	225	1	1	0	1
129	222	225	226	223	1	1	0	1
130	221	224	225	222	1	1	0	1
131	212	222	223	202	1	1	0	1
132	201	221	222	212	1	1	0	1
133	57	219	216	49	1	1	0	1
134	48	215	219	56	1	1	0	1
135	219	204	211	216	1	1	0	1
136	215	205	204	219	1	1	0	1
137	208	220	218	209	1	1	0	1
138	207	217	220	208	1	1	0	1

139	211	210	214	216	1	1	0	1
140	210	209	218	214	1	1	0	1
141	213	217	207	206	1	1	0	1
142	215	213	206	205	1	1	0	1
143	199	193	195	194	2	1	0	1
144	193	192	196	195	2	1	0	1
145	192	191	197	196	2	1	0	1
146	191	167	162	197	2	1	0	1
147	183	145	166	189	2	1	0	1
148	181	183	189	188	2	1	0	1
149	179	181	188	187	2	1	0	1
150	177	179	187	198	2	1	0	1
151	199	186	193		2	1	0	1
152	198	186	199		2	1	0	1
153	198	187	186		2	1	0	1
154	190	167	191		2	1	0	1
155	190	166	167		2	1	0	1
156	189	166	190		2	1	0	1
157	185	175	179	177	2	1	0	1
158	175	174	181	179	2	1	0	1
159	174	173	183	181	2	1	0	1
160	173	153	145	183	2	1	0	1
161	182	144	152	171	2	1	0	1
162	180	182	171	170	2	1	0	1
163	178	180	170	169	2	1	0	1
164	176	178	169	184	2	1	0	1
165	185	168	175		2	1	0	1
166	184	168	185		2	1	0	1
167	184	169	168		2	1	0	1
168	172	153	173		2	1	0	1
169	172	152	153		2	1	0	1
170	171	152	172		2	1	0	1
171	167	161	163	162	2	1	0	1
172	161	160	164	163	2	1	0	1
173	160	159	165	164	2	1	0	1
174	159	135	130	165	2	1	0	1
175	151	113	134	157	2	1	0	1
176	149	151	157	156	2	1	0	1
177	147	149	156	155	2	1	0	1
178	145	147	155	166	2	1	0	1
179	167	154	161		2	1	0	1
180	166	154	167		2	1	0	1
181	166	155	154		2	1	0	1
182	158	135	159		2	1	0	1
183	158	134	135		2	1	0	1
184	157	134	158		2	1	0	1
185	153	143	147	145	2	1	0	1
186	143	142	149	147	2	1	0	1
187	142	141	151	149	2	1	0	1
188	141	121	113	151	2	1	0	1
189	150	112	120	139	2	1	0	1
190	148	150	139	138	2	1	0	1
191	146	148	138	137	2	1	0	1
192	144	146	137	152	2	1	0	1
193	153	136	143		2	1	0	1
194	152	136	153		2	1	0	1
195	152	137	136		2	1	0	1
196	140	121	141		2	1	0	1
197	140	120	121		2	1	0	1
198	139	120	140		2	1	0	1
199	135	129	131	130	2	1	0	1
200	129	128	132	131	2	1	0	1
201	128	127	133	132	2	1	0	1

202	127	103	98	133	2	1	0	1
203	119	81	102	125	2	1	0	1
204	117	119	125	124	2	1	0	1
205	115	117	124	123	2	1	0	1
206	113	115	123	134	2	1	0	1
207	135	122	129		2	1	0	1
208	134	122	135		2	1	0	1
209	134	123	122		2	1	0	1
210	126	103	127		2	1	0	1
211	126	102	103		2	1	0	1
212	125	102	126		2	1	0	1
213	121	111	115	113	2	1	0	1
214	111	110	117	115	2	1	0	1
215	110	109	119	117	2	1	0	1
216	109	89	81	119	2	1	0	1
217	118	80	88	107	2	1	0	1
218	116	118	107	106	2	1	0	1
219	114	116	106	105	2	1	0	1
220	112	114	105	120	2	1	0	1
221	121	104	111		2	1	0	1
222	120	104	121		2	1	0	1
223	120	105	104		2	1	0	1
224	108	89	109		2	1	0	1
225	108	88	89		2	1	0	1
226	107	88	108		2	1	0	1
227	103	97	99	98	2	1	0	1
228	97	96	100	99	2	1	0	1
229	96	95	101	100	2	1	0	1
230	95	71	66	101	2	1	0	1
231	87	49	70	93	2	1	0	1
232	85	87	93	92	2	1	0	1
233	83	85	92	91	2	1	0	1
234	81	83	91	102	2	1	0	1
235	103	90	97		2	1	0	1
236	102	90	103		2	1	0	1
237	102	91	90		2	1	0	1
238	94	71	95		2	1	0	1
239	94	70	71		2	1	0	1
240	93	70	94		2	1	0	1
241	89	79	83	81	2	1	0	1
242	79	78	85	83	2	1	0	1
243	78	77	87	85	2	1	0	1
244	77	57	49	87	2	1	0	1
245	86	48	56	75	2	1	0	1
246	84	86	75	74	2	1	0	1
247	82	84	74	73	2	1	0	1
248	80	82	73	88	2	1	0	1
249	89	72	79		2	1	0	1
250	88	72	89		2	1	0	1
251	88	73	72		2	1	0	1
252	76	57	77		2	1	0	1
253	76	56	57		2	1	0	1
254	75	56	76		2	1	0	1
255	71	65	67	66	2	1	0	1
256	65	64	68	67	2	1	0	1
257	64	63	69	68	2	1	0	1
258	63	39	31	69	2	1	0	1
259	55	11	37	61	2	1	0	1
260	53	55	61	60	2	1	0	1
261	51	53	60	59	2	1	0	1
262	49	51	59	70	2	1	0	1
263	71	58	65		2	1	0	1
264	70	58	71		2	1	0	1

265	70	59	58		2	1	0	1
266	62	39	63		2	1	0	1
267	62	37	39		2	1	0	1
268	61	37	62		2	1	0	1
269	57	47	51	49	2	1	0	1
270	47	46	53	51	2	1	0	1
271	46	45	55	53	2	1	0	1
272	45	22	11	55	2	1	0	1
273	54	10	20	43	2	1	0	1
274	52	54	43	42	2	1	0	1
275	50	52	42	41	2	1	0	1
276	48	50	41	56	2	1	0	1
277	57	40	47		2	1	0	1
278	56	40	57		2	1	0	1
279	56	41	40		2	1	0	1
280	44	22	45		2	1	0	1
281	44	20	22		2	1	0	1
282	43	20	44		2	1	0	1
283	39	30	33	31	2	1	0	1
284	30	29	34	33	2	1	0	1
285	29	28	35	34	2	1	0	1
286	28	38	32	35	2	1	0	1
287	18	12	36	26	2	1	0	1
288	16	18	26	25	2	1	0	1
289	14	16	25	24	2	1	0	1
290	11	14	24	37	2	1	0	1
291	39	23	30		2	1	0	1
292	37	23	39		2	1	0	1
293	37	24	23		2	1	0	1
294	27	38	28		2	1	0	1
295	27	36	38		2	1	0	1
296	26	36	27		2	1	0	1
297	22	8	14	11	2	1	0	1
298	8	7	16	14	2	1	0	1
299	7	6	18	16	2	1	0	1
300	6	21	12	18	2	1	0	1
301	17	9	19	4	2	1	0	1
302	15	17	4	3	2	1	0	1
303	13	15	3	2	2	1	0	1
304	10	13	2	20	2	1	0	1
305	22	1	8		2	1	0	1
306	20	1	22		2	1	0	1
307	20	2	1		2	1	0	1
308	5	21	6		2	1	0	1
309	5	19	21		2	1	0	1
310	4	19	5		2	1	0	1

ELEMENTI TIPO

GUSCIO

Tipo Tk

Materiale: E= 300000.000

1 20.00000

2 25.00000

CARICHI TIPO

Tipo: 1

Condizione di carico: #1 - peso proprio

Proprio	gm	gx	gy	gz
	5.0000e-03	0.0000e+00	0.0000e+00	-1.0000e+00

MASSE TIPO

Tipo	dn	md
1	2.5000e-06	0.0000e+00

INFORMAZIONI

Equazioni	1715
Semibanda	220
Numero blocchi	2
Zero algoritmico	3.31654e-07
Tempo analisi statica (sec)	19.48333
Tempo totale analisi (sec)	19.51667

SPOSTAMENTI NODALI

Nodo	Tx	Ty	Tz	Rx	Ry	Rz
Condizione di carico: #1 - peso proprio						
284	-1.0954e-04	7.7730e-05	-3.6127e-03	3.3950e-07	0.0000e+00	-2.8987e-07
285	-6.9003e-05	6.8921e-04	-2.7974e-03	-1.7082e-05	0.0000e+00	-6.3985e-07
306	3.4196e-04	-1.7302e-03	-1.5632e-02	3.4074e-05	0.0000e+00	1.3385e-06
307	4.9056e-04	-3.6893e-04	-1.9075e-02	8.0945e-06	0.0000e+00	3.6764e-06

VERIFICHE C.A. PARETE RIDOTTA

EasyWall 3.0 (13.5.1998)

Armatura a doppia maglia quadra ø10/20" Aa = 3.93 cmq

Armatura aggiuntiva correnti orizzontali ø16/20" Aa = 7.70 cmq

Caratteristiche dei materiali

Metodo delle tensioni ammissibili

Resistenza caratteristica calcestruzzo	kg/cm2	250.00
Tensione ammissibile calcestruzzo	kg/cm2	85.00
Tensione ammissibile acciaio	kg/cm2	2600.00
Rapporto moduli elastici		15.00

Tipi delle condizioni di carico

#1 - peso proprio Permanente favorevole

Combinazioni di progetto dei carichi

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(1) 1.00 * #1 - peso proprio

Elemento 25

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx kg/cm2	Ny kg/cm2	Nxy kg/cm2	Mx kg	My kg	Mxy kg
#1 - peso proprio						
	-6.0732e+00	3.7613e-01	5.2007e-01	8.1983e+00	6.5336e+00	-2.4328e+01
	-6.0732e+00	2.8735e+00	-3.4682e-01	-8.1976e-01	1.2413e+02	-1.2443e+01
	5.7321e+00	2.8735e+00	1.3510e+00	1.7539e+01	-1.5973e+02	-1.7812e+01
	5.7321e+00	3.7613e-01	2.2179e+00	-1.0180e+00	-1.4220e+01	-2.9697e+01

Verifica delle armature

Massima tns. cls. -37.71 vtx 4 cmb 1
Massima tns. acc. 642.82 vtx 3 cmb 1

Verifica a fessurazione

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nodo	superiore ampiezza (mm)	superiore distanza (mm)	superiore incl. (°)	inferiore ampiezza (mm)	inferiore distanza (mm)	inferiore incl. (°)
0	0.002	190.946	-46.5	0.001	190.946	42.2
1	0.007	190.946	-4.9	0.001	190.946	75.6
2	0.002	190.946	-84.5	0.009	190.946	0.9

3	0.002	190.946	-61.6	0.003	190.946	35.0

Elemento 26

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx kg/cm2	Ny kg/cm2	Nxy kg/cm2	Mx kg	My kg	Mxy kg
#1 - peso proprio						
	4.8130e+00	4.9511e-01	-2.1116e+00	9.1156e+00	-1.7531e+02	-3.1131e+00
	4.8130e+00	3.7613e-01	-4.9196e-01	-1.3256e+01	-1.0966e+01	-3.2142e+01
	-4.9430e+00	3.7613e-01	2.6142e+00	1.0228e+01	1.6768e+01	-3.0652e+01
	-4.9430e+00	4.9511e-01	9.9453e-01	-3.6698e+01	1.7336e+02	-1.6232e+00

Verifica delle armature

Massima tns. cls. -37.71 vtx 3 cmb 1
Massima tns. acc. 909.51 vtx 1 cmb 1

Verifica a fessurazione

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nodo	superiore ampiezza (mm)	superiore distanza (mm)	superiore incl. (°)	inferiore ampiezza (mm)	inferiore distanza (mm)	inferiore incl. (°)
0	0.001	190.946	-74.4	0.009	190.946	1.1
1	0.001	190.946	-41.7	0.003	190.946	46.5
2	0.003	190.946	-40.8	0.001	190.946	55.8
3	0.008	190.946	-1.1	0.002	190.946	84.9

Elemento 23

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx kg/cm2	Ny kg/cm2	Nxy kg/cm2	Mx kg	My kg	Mxy kg
#1 - peso proprio						
	-7.1504e+00	9.2130e-01	6.4466e-01	6.9922e+00	3.9798e+00	-5.6421e+00
	-7.1504e+00	2.0849e+00	-5.0109e-01	-1.0561e+01	-1.1787e+01	-2.7522e+00
	6.7856e+00	2.0849e+00	1.5394e+00	6.6242e+00	2.2687e+00	-4.2859e+00
	6.7856e+00	9.2130e-01	2.6851e+00	-7.9701e+00	-5.5233e+00	-7.1758e+00

Verifica delle armature

Massima tns. cls. -41.68 vtx 4 cmb 1
Massima tns. acc. 621.37 vtx 4 cmb 1

Verifica a fessurazione

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nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.001	190.946	-52.7	0.000	190.946	-51.3
1	0.000	190.946	45.0	0.001	190.946	42.5
2	0.001	190.946	-59.0	0.000	190.946	-51.3
3	0.000	190.946	51.3	0.001	190.946	50.0

Elemento 24

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx kg/cm2	Ny kg/cm2	Nxy kg/cm2	Mx kg	My kg	Mxy kg
#1 - peso proprio						
	5.3706e+00	5.3724e-01	-3.1849e+00	1.8537e+01	-1.1981e+01	9.8543e+00
	5.3706e+00	9.2130e-01	-7.4121e-01	-1.4280e+01	-7.2572e+00	-8.9325e+00
	-5.6535e+00	9.2130e-01	3.6370e+00	1.1734e+01	8.3234e+00	-8.7284e+00
	-5.6535e+00	5.3724e-01	1.1933e+00	-2.1928e+01	1.1986e+01	1.0058e+01

Verifica delle armature

Massima tns. cls. -41.68 vtx 3 cmb 1
Massima tns. acc. 1118.62 vtx 1 cmb 1

Verifica a fessurazione

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nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.001	190.946	83.2	0.001	190.946	-8.9
1	0.000	190.946	51.3	0.001	190.946	55.1
2	0.001	190.946	-50.2	0.000	190.946	-51.3
3	0.001	190.946	8.8	0.002	190.946	-83.9

3) CELLE ANTIRIFLETTENTI

PREMESSE

Nell'ambito del *progetto per l'ampliamento della banchina di sottomonastero, per la realizzazione di un'area destinata all'ormeggio della marineria, per la vendita del pescato fresco e zona di alaggio e varo dell'isola di Lipari* si è eseguita la verifica strutturale dei cassoni cellulari forati con particolare riguardo alle camere di smorzamento forate.

Per i dettagli grafici, non riportati negli schemi di calcolo allegati alla presente relazione, si rimanda agli elaborati di progetto che vanno considerati parte integrante della presente relazione di calcolo.

NORMATIVA DI CALCOLO

--Istruzioni CNR 10024-84 "Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo".

-D.M. 11/03/1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione ed il collaudo delle opere di sostegno delle terre e delle opere di fondazione".

-NTC - D.M. 17/01/2018 "Aggiornamento Norme tecniche per le costruzioni in zone sismiche".

MODELLO DI CALCOLO

Per il calcolo si è utilizzato un modello di calcolo ad elementi finiti ed in particolare la modellazione è stata effettuata con elementi "guscio" .

Predimensionati gli elementi della struttura e assegnate le relative caratteristiche e vincoli congruenti all'analisi progettuale, si é utilizzato il programma NOLIAN, che consente l'analisi statica e dinamica di strutture tridimensionali del tutto generali a comportamento elastico lineare con il metodo degli elementi finiti.

Analisi statica: Calcolo ed assemblaggio delle matrici di rigidezza degli elementi su memoria di massa. Fattorizzazione a blocchi della matrice di rigidezza con la tecnica dello skyline con il metodo Gauss-Jordan modificato. Valutazione dello zero algoritmico tramite la norma euclidea della matrice e controllo del condizionamento della matrice. Ottimizzazione dell'ampiezza di semibanda con l'algoritmo di Cuthill e McKee.

Analisi dinamica: Analisi modale tramite il subspace iteration method. Calcolo degli autovalori ed autovettori nel sottospazio con il metodo di Jacobi modificato. Controllo di convergenza, di ortogonalità, di precisione, di definizione della matrice dinamica. Calcolo die coefficienti di partecipazione modale e del contributo massimo del modo iesimo tramite la tecnica dello spettro di risposta. Combinazione dei massimi effetti associati a ciascun modo di vibrare tramite la formula del valore efficace, secondo normativa italiana vigente, applicato a livello di effetti.

Nel nostro caso si è eseguita semplicemente l'analisi statica..

Tenuto conto che i cassoni cellulari costituenti la banchina, divisi in sei celle e delle dimensioni 8.00x6.00x2.00, vengono impilati per essere posti in opera e successivamente riempiti con cls subacqueo nelle celle delimitate da pareti piene, si è ritenuto opportuno modellare ad elementi finiti le camere di smorzamento del fenomeno di riflessione del moto ondoso delimitate da pareti forate.

Le sollecitazioni più gravose riguardano tre fasi:

1) Varo dei cassoni;

2) In opera sollecitazione del moto ondoso;
3) Sbalzo termico lineare.

Si è studiato un modello ad elementi finiti costituito dall'insieme delle pareti forate incastrate lateralmente che riproducono le tre camere di smorzamento di un singolo cassone; tale modello è una mensola che rappresenta efficacemente il comportamento in fase di varo sotto l'azione del peso proprio e consente inoltre di valutare gli effetti del moto ondoso e dello sbalzo termico senza considerare la mutua collaborazione tra i cassoni.

Esplicitazione delle condizioni di carico che compaiono nei tabulati:

1) Peso proprio

Peso/volume cls	2.5e-3 kg/cmc
Simbologia tabulato di calcolo	#1-Peso proprio

2) Moto ondoso -

Si è considerata la spinta idrostatica calcolata nel baricentro dell'elemento finito ed agente in modo uniforme sull'elemento stesso nell'ipotesi più gravosa che la lama d'acqua sia a quota +1,00 m.s.l.m. ed abbia un sovraccarico dinamico equivalente ad 1 m. di altezza d'acqua:

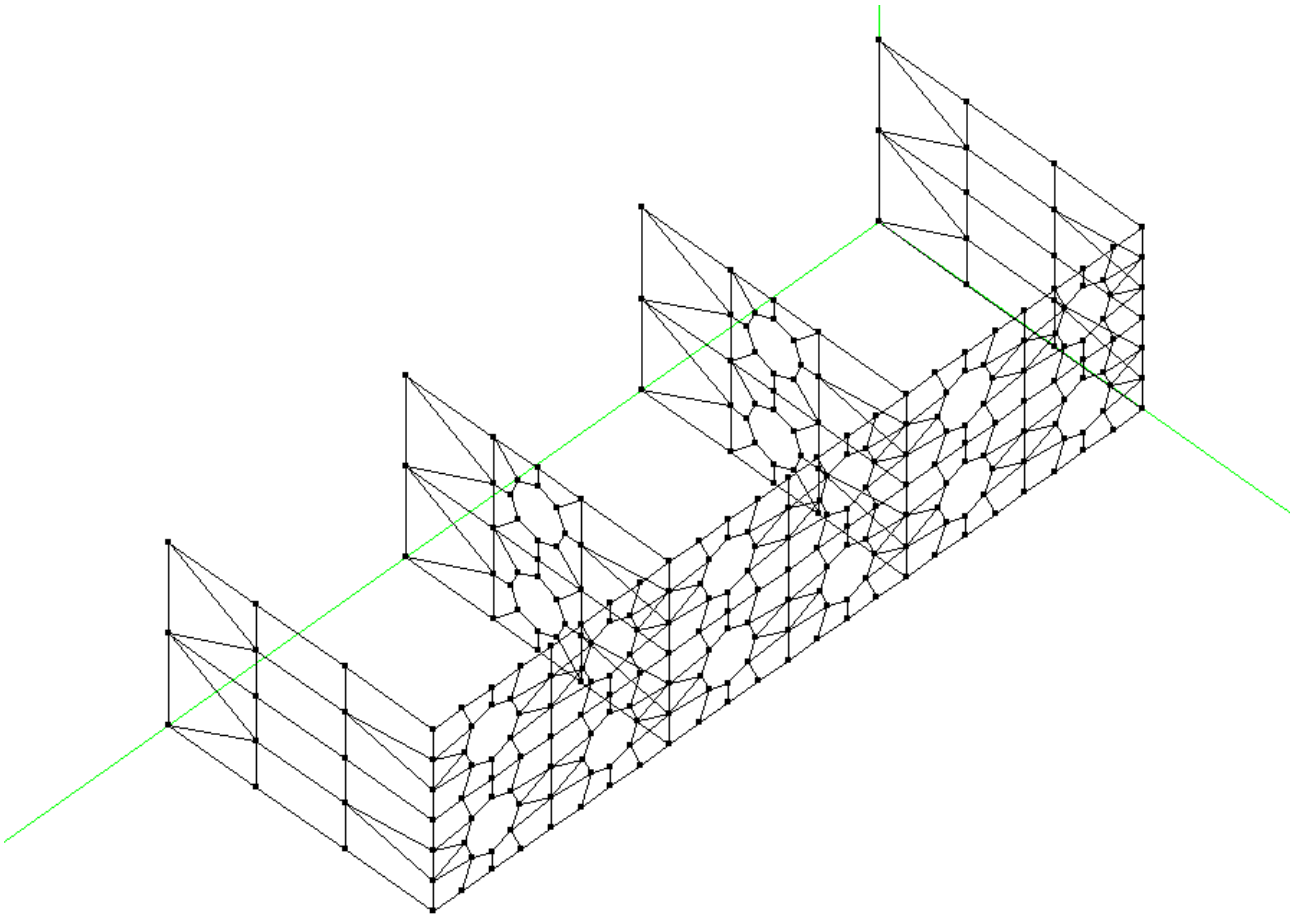
Elemento di calcolo	Baricentro	Spinta uniforme	Simbologia tabulato
1	-0,90 m.s.l.m.	3.0 e-1 kg/cmq	#2-Moto ondoso

3) Sbalzo termico -

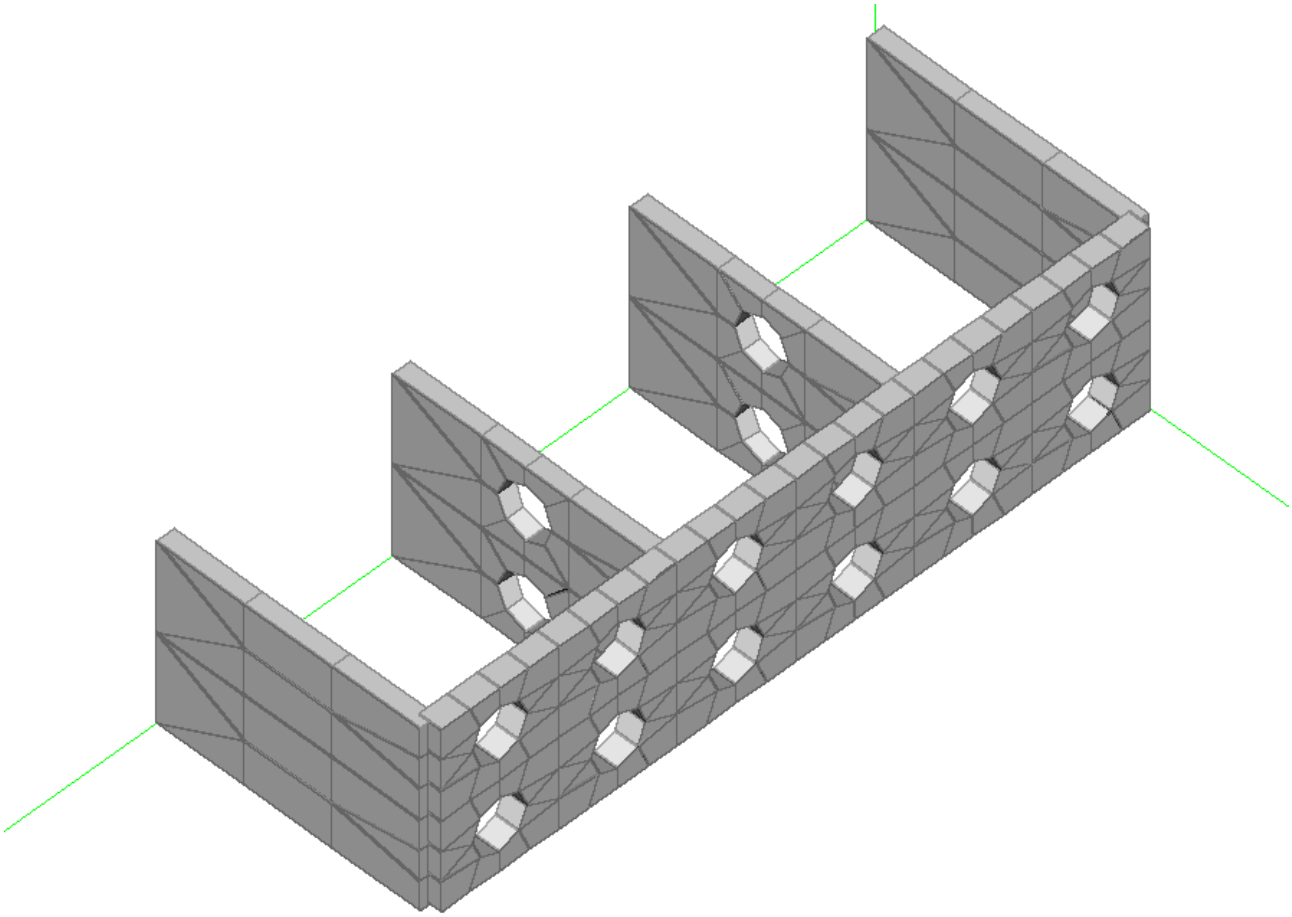
Coefficiente di dilatazione termica	af	1.2e-5
Variazione lineare di temperatura	dtl	5°
Simbologia tabulato di calcolo		#3-Termico

Di seguito si riportano i tabulati di calcolo (da cui si evincono le condizioni di carico e la geometria degli elementi) e le relative verifiche del c.a.

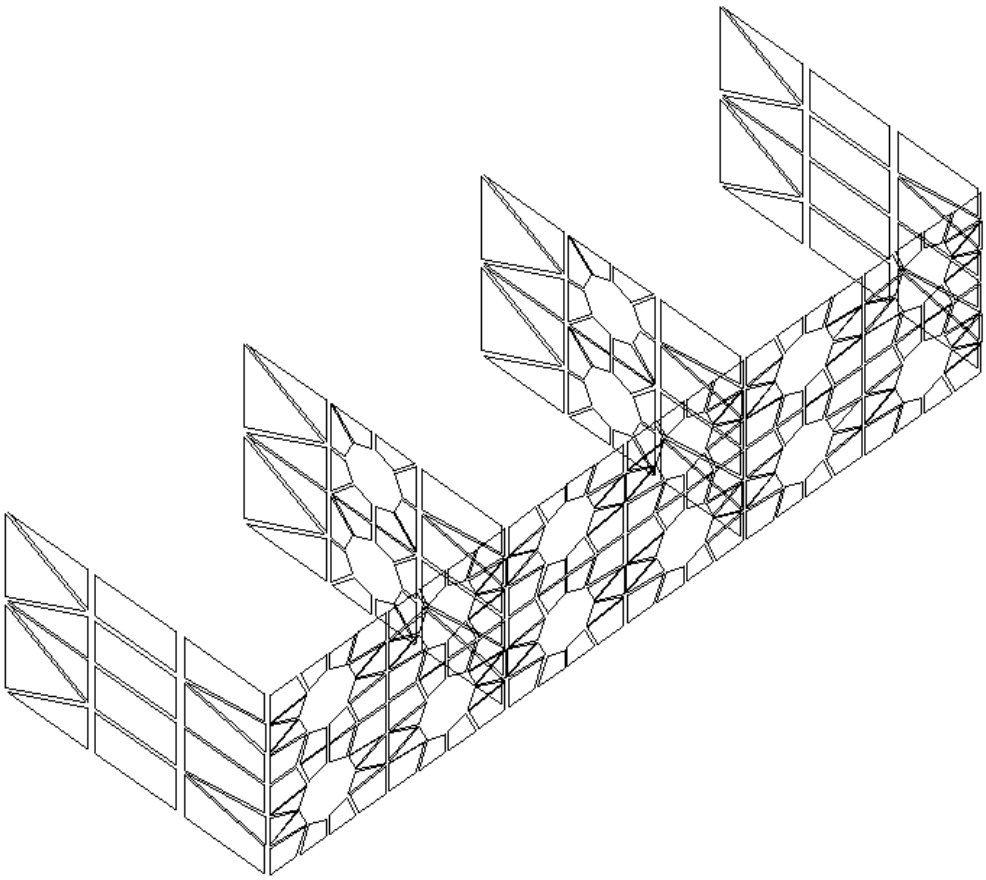
FEM – MODELLO DI CALCOLO



FEM – MODELLO DI CALCOLO - RENDERING MODELLO SOLIDO



FEM – MODELLO DI CALCOLO - RENDERING SHRINK



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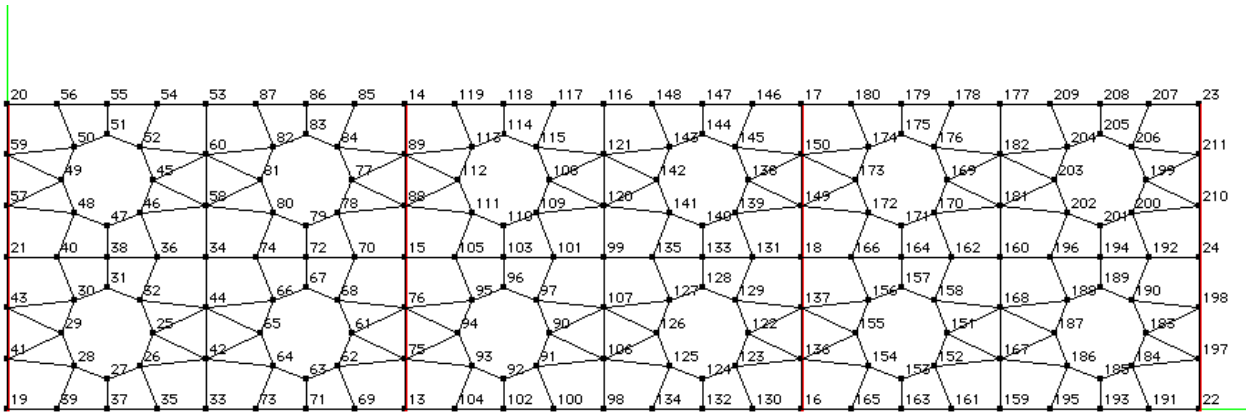
FEM – NUMERAZIONE NODI - ELEMENTI



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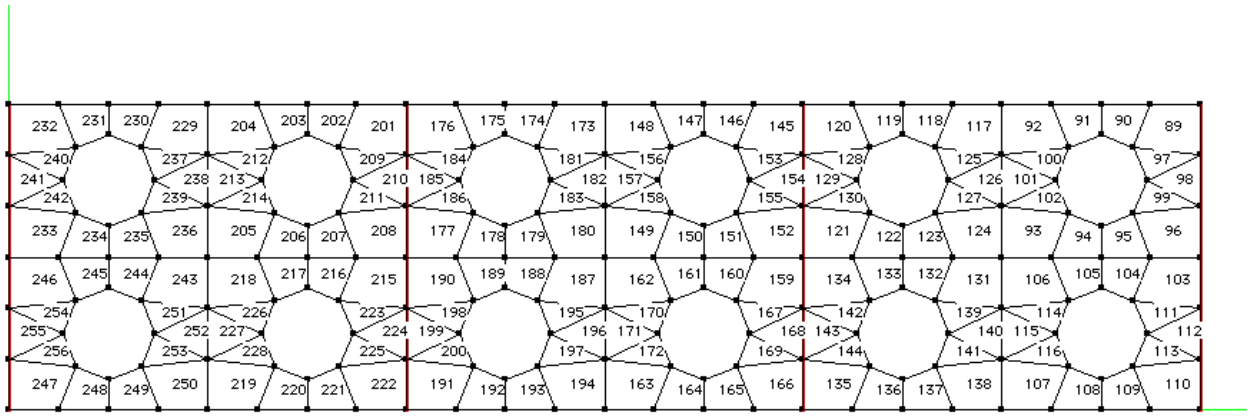

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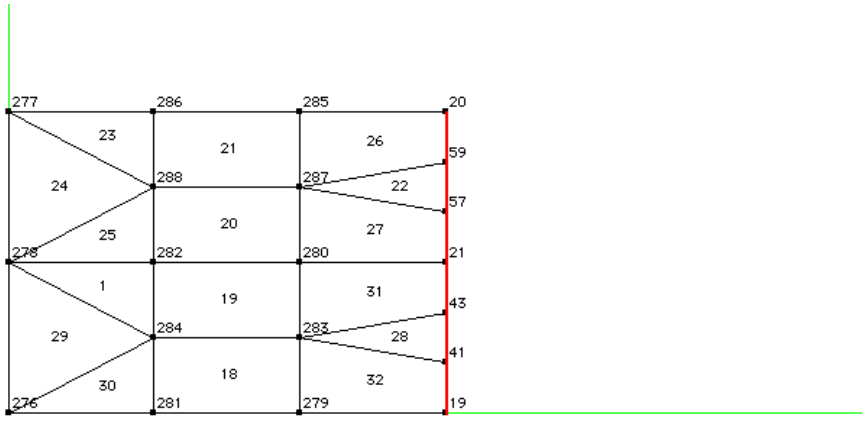

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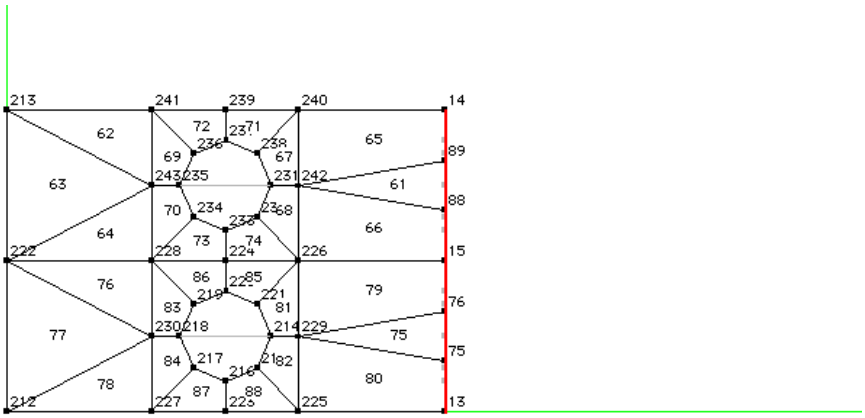
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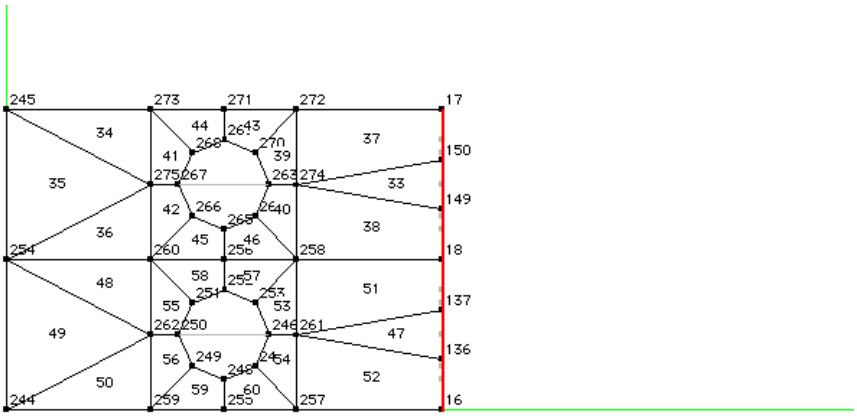
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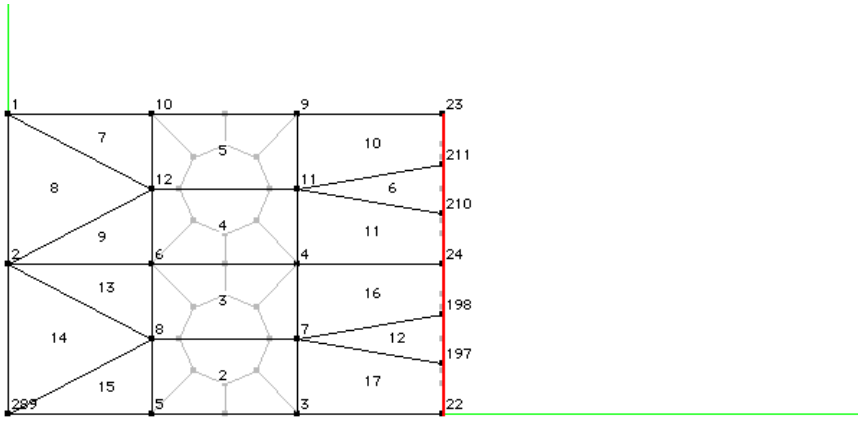
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FEM – ANALISI STRUTTURALE CAMERE FORATE DI SMORZAMENTO

COORDINATE E DATI DEI NODI

Nodo	x	y	z	tx	ty	tz	rx	ry	rz	ms	fz	mm
1	7.8000e+02	0.0000e+00	2.0000e+02	1	1	1	1	1	1	0	0	0
2	7.8000e+02	0.0000e+00	1.0000e+02	1	1	1	1	1	1	0	0	0
3	7.8000e+02	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
4	7.8000e+02	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
5	7.8000e+02	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0	0
6	7.8000e+02	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0	0
7	7.8000e+02	1.9333e+02	5.0000e+01	0	0	0	1	0	0	0	0	0
8	7.8000e+02	9.6667e+01	5.0000e+01	0	0	0	1	0	0	0	0	0
9	7.8000e+02	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
10	7.8000e+02	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0	0
11	7.8000e+02	1.9333e+02	1.5000e+02	0	0	0	1	0	0	0	0	0
12	7.8000e+02	9.6667e+01	1.5000e+02	0	0	0	1	0	0	0	0	0
13	2.6000e+02	2.9000e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
14	2.6000e+02	2.9000e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
15	2.6000e+02	2.9000e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
16	5.2000e+02	2.9000e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
17	5.2000e+02	2.9000e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
18	5.2000e+02	2.9000e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
19	0.0000e+00	2.9000e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
20	0.0000e+00	2.9000e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
21	0.0000e+00	2.9000e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
22	7.8000e+02	2.9000e+02	0.0000e+00	0	0	0	1	0	0	0	0	0
23	7.8000e+02	2.9000e+02	2.0000e+02	0	0	0	1	0	0	0	0	0
24	7.8000e+02	2.9000e+02	1.0000e+02	0	0	0	1	0	0	0	0	0
25	9.5000e+01	2.9000e+02	5.0000e+01	0	0	0	0	1	0	0	0	0

```
  26     8.6213e+01  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
  27     6.5000e+01  2.9000e+02  2.0000e+01    0  0  0  0  1  0    0
0     0
  28     4.3787e+01  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
  29     3.5000e+01  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
  30     4.3787e+01  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
  31     6.5000e+01  2.9000e+02  8.0000e+01    0  0  0  0  1  0    0
0     0
  32     8.6213e+01  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
  33     1.3000e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
  34     1.3000e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
  35     9.7500e+01  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
  36     9.7500e+01  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
  37     6.5000e+01  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
  38     6.5000e+01  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
  39     3.2500e+01  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
  40     3.2500e+01  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
  41     0.0000e+00  2.9000e+02  3.3333e+01    0  0  0  1  0  0    0
0     0
  42     1.3000e+02  2.9000e+02  3.3333e+01    0  0  0  0  1  0    0
0     0
  43     0.0000e+00  2.9000e+02  6.6667e+01    0  0  0  1  0  0    0
0     0
  44     1.3000e+02  2.9000e+02  6.6667e+01    0  0  0  0  1  0    0
0     0
  45     9.5000e+01  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
  46     8.6213e+01  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
  47     6.5000e+01  2.9000e+02  1.2000e+02    0  0  0  0  1  0    0
0     0
  48     4.3787e+01  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
  49     3.5000e+01  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
  50     4.3787e+01  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
  51     6.5000e+01  2.9000e+02  1.8000e+02    0  0  0  0  1  0    0
0     0
  52     8.6213e+01  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
  53     1.3000e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
  54     9.7500e+01  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
  55     6.5000e+01  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
  56     3.2500e+01  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
```

57	0.0000e+00	2.9000e+02	1.3333e+02	0	0	0	1	0	0	0	0
58	1.3000e+02	2.9000e+02	1.3333e+02	0	0	0	0	1	0	0	0
59	0.0000e+00	2.9000e+02	1.6667e+02	0	0	0	1	0	0	0	0
60	1.3000e+02	2.9000e+02	1.6667e+02	0	0	0	0	1	0	0	0
61	2.2500e+02	2.9000e+02	5.0000e+01	0	0	0	0	1	0	0	0
62	2.1621e+02	2.9000e+02	2.8787e+01	0	0	0	0	1	0	0	0
63	1.9500e+02	2.9000e+02	2.0000e+01	0	0	0	0	1	0	0	0
64	1.7379e+02	2.9000e+02	2.8787e+01	0	0	0	0	1	0	0	0
65	1.6500e+02	2.9000e+02	5.0000e+01	0	0	0	0	1	0	0	0
66	1.7379e+02	2.9000e+02	7.1213e+01	0	0	0	0	1	0	0	0
67	1.9500e+02	2.9000e+02	8.0000e+01	0	0	0	0	1	0	0	0
68	2.1621e+02	2.9000e+02	7.1213e+01	0	0	0	0	1	0	0	0
69	2.2750e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
70	2.2750e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
71	1.9500e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
72	1.9500e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
73	1.6250e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
74	1.6250e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
75	2.6000e+02	2.9000e+02	3.3333e+01	0	0	0	1	0	0	0	0
76	2.6000e+02	2.9000e+02	6.6667e+01	0	0	0	1	0	0	0	0
77	2.2500e+02	2.9000e+02	1.5000e+02	0	0	0	0	1	0	0	0
78	2.1621e+02	2.9000e+02	1.2879e+02	0	0	0	0	1	0	0	0
79	1.9500e+02	2.9000e+02	1.2000e+02	0	0	0	0	1	0	0	0
80	1.7379e+02	2.9000e+02	1.2879e+02	0	0	0	0	1	0	0	0
81	1.6500e+02	2.9000e+02	1.5000e+02	0	0	0	0	1	0	0	0
82	1.7379e+02	2.9000e+02	1.7121e+02	0	0	0	0	1	0	0	0
83	1.9500e+02	2.9000e+02	1.8000e+02	0	0	0	0	1	0	0	0
84	2.1621e+02	2.9000e+02	1.7121e+02	0	0	0	0	1	0	0	0
85	2.2750e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0
86	1.9500e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0
87	1.6250e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0

88	2.6000e+02	2.9000e+02	1.3333e+02	0	0	0	1	0	0	0	0
89	2.6000e+02	2.9000e+02	1.6667e+02	0	0	0	1	0	0	0	0
90	3.5500e+02	2.9000e+02	5.0000e+01	0	0	0	0	1	0	0	0
91	3.4621e+02	2.9000e+02	2.8787e+01	0	0	0	0	1	0	0	0
92	3.2500e+02	2.9000e+02	2.0000e+01	0	0	0	0	1	0	0	0
93	3.0379e+02	2.9000e+02	2.8787e+01	0	0	0	0	1	0	0	0
94	2.9500e+02	2.9000e+02	5.0000e+01	0	0	0	0	1	0	0	0
95	3.0379e+02	2.9000e+02	7.1213e+01	0	0	0	0	1	0	0	0
96	3.2500e+02	2.9000e+02	8.0000e+01	0	0	0	0	1	0	0	0
97	3.4621e+02	2.9000e+02	7.1213e+01	0	0	0	0	1	0	0	0
98	3.9000e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
99	3.9000e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
100	3.5750e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
101	3.5750e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
102	3.2500e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
103	3.2500e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
104	2.9250e+02	2.9000e+02	0.0000e+00	0	0	0	0	1	0	0	0
105	2.9250e+02	2.9000e+02	1.0000e+02	0	0	0	0	1	0	0	0
106	3.9000e+02	2.9000e+02	3.3333e+01	0	0	0	0	1	0	0	0
107	3.9000e+02	2.9000e+02	6.6667e+01	0	0	0	0	1	0	0	0
108	3.5500e+02	2.9000e+02	1.5000e+02	0	0	0	0	1	0	0	0
109	3.4621e+02	2.9000e+02	1.2879e+02	0	0	0	0	1	0	0	0
110	3.2500e+02	2.9000e+02	1.2000e+02	0	0	0	0	1	0	0	0
111	3.0379e+02	2.9000e+02	1.2879e+02	0	0	0	0	1	0	0	0
112	2.9500e+02	2.9000e+02	1.5000e+02	0	0	0	0	1	0	0	0
113	3.0379e+02	2.9000e+02	1.7121e+02	0	0	0	0	1	0	0	0
114	3.2500e+02	2.9000e+02	1.8000e+02	0	0	0	0	1	0	0	0
115	3.4621e+02	2.9000e+02	1.7121e+02	0	0	0	0	1	0	0	0
116	3.9000e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0
117	3.5750e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0
118	3.2500e+02	2.9000e+02	2.0000e+02	0	0	0	0	1	0	0	0

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0     0
 120     3.9000e+02  2.9000e+02  1.3333e+02    0  0  0  0  1  0    0
0     0
 121     3.9000e+02  2.9000e+02  1.6667e+02    0  0  0  0  1  0    0
0     0
 122     4.8500e+02  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
 123     4.7621e+02  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
 124     4.5500e+02  2.9000e+02  2.0000e+01    0  0  0  0  1  0    0
0     0
 125     4.3379e+02  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
 126     4.2500e+02  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
 127     4.3379e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 128     4.5500e+02  2.9000e+02  8.0000e+01    0  0  0  0  1  0    0
0     0
 129     4.7621e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 130     4.8750e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 131     4.8750e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
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0     0
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0     0
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0     0
 136     5.2000e+02  2.9000e+02  3.3333e+01    0  0  0  1  0  0    0
0     0
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0     0
 138     4.8500e+02  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
 139     4.7621e+02  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
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0     0
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0     0
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0     0
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0     0
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0     0
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0     0
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0     0
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0     0
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0     0
```

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0     0
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0     0
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0     0
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0     0
 154     5.6379e+02  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
 155     5.5500e+02  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
 156     5.6379e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 157     5.8500e+02  2.9000e+02  8.0000e+01    0  0  0  0  1  0    0
0     0
 158     6.0621e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 159     6.5000e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 160     6.5000e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 161     6.1750e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 162     6.1750e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 163     5.8500e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 164     5.8500e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 165     5.5250e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 166     5.5250e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 167     6.5000e+02  2.9000e+02  3.3333e+01    0  0  0  0  1  0    0
0     0
 168     6.5000e+02  2.9000e+02  6.6667e+01    0  0  0  0  1  0    0
0     0
 169     6.1500e+02  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
 170     6.0621e+02  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
 171     5.8500e+02  2.9000e+02  1.2000e+02    0  0  0  0  1  0    0
0     0
 172     5.6379e+02  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
 173     5.5500e+02  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
 174     5.6379e+02  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
 175     5.8500e+02  2.9000e+02  1.8000e+02    0  0  0  0  1  0    0
0     0
 176     6.0621e+02  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
 177     6.5000e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 178     6.1750e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 179     5.8500e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 180     5.5250e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
```

```
 181     6.5000e+02  2.9000e+02  1.3333e+02    0  0  0  0  1  0    0
0     0
 182     6.5000e+02  2.9000e+02  1.6667e+02    0  0  0  0  1  0    0
0     0
 183     7.4500e+02  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
 184     7.3621e+02  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
 185     7.1500e+02  2.9000e+02  2.0000e+01    0  0  0  0  1  0    0
0     0
 186     6.9379e+02  2.9000e+02  2.8787e+01    0  0  0  0  1  0    0
0     0
 187     6.8500e+02  2.9000e+02  5.0000e+01    0  0  0  0  1  0    0
0     0
 188     6.9379e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 189     7.1500e+02  2.9000e+02  8.0000e+01    0  0  0  0  1  0    0
0     0
 190     7.3621e+02  2.9000e+02  7.1213e+01    0  0  0  0  1  0    0
0     0
 191     7.4750e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 192     7.4750e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 193     7.1500e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 194     7.1500e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 195     6.8250e+02  2.9000e+02  0.0000e+00    0  0  0  0  1  0    0
0     0
 196     6.8250e+02  2.9000e+02  1.0000e+02    0  0  0  0  1  0    0
0     0
 197     7.8000e+02  2.9000e+02  3.3333e+01    0  0  0  1  0  0    0
0     0
 198     7.8000e+02  2.9000e+02  6.6667e+01    0  0  0  1  0  0    0
0     0
 199     7.4500e+02  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
 200     7.3621e+02  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
 201     7.1500e+02  2.9000e+02  1.2000e+02    0  0  0  0  1  0    0
0     0
 202     6.9379e+02  2.9000e+02  1.2879e+02    0  0  0  0  1  0    0
0     0
 203     6.8500e+02  2.9000e+02  1.5000e+02    0  0  0  0  1  0    0
0     0
 204     6.9379e+02  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
 205     7.1500e+02  2.9000e+02  1.8000e+02    0  0  0  0  1  0    0
0     0
 206     7.3621e+02  2.9000e+02  1.7121e+02    0  0  0  0  1  0    0
0     0
 207     7.4750e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 208     7.1500e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 209     6.8250e+02  2.9000e+02  2.0000e+02    0  0  0  0  1  0    0
0     0
 210     7.8000e+02  2.9000e+02  1.3333e+02    0  0  0  1  0  0    0
0     0
 211     7.8000e+02  2.9000e+02  1.6667e+02    0  0  0  1  0  0    0
0     0
```

```
 212     2.6000e+02  0.0000e+00  0.0000e+00    1  1  1  1  1  1    0
0     0
 213     2.6000e+02  0.0000e+00  2.0000e+02    1  1  1  1  1  1    0
0     0
 214     2.6000e+02  1.7500e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 215     2.6000e+02  1.6621e+02  2.8787e+01    0  0  0  1  0  0    0
0     0
 216     2.6000e+02  1.4500e+02  2.0000e+01    0  0  0  1  0  0    0
0     0
 217     2.6000e+02  1.2379e+02  2.8787e+01    0  0  0  1  0  0    0
0     0
 218     2.6000e+02  1.1500e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 219     2.6000e+02  1.2379e+02  7.1213e+01    0  0  0  1  0  0    0
0     0
 220     2.6000e+02  1.4500e+02  8.0000e+01    0  0  0  1  0  0    0
0     0
 221     2.6000e+02  1.6621e+02  7.1213e+01    0  0  0  1  0  0    0
0     0
 222     2.6000e+02  0.0000e+00  1.0000e+02    1  1  1  1  1  1    0
0     0
 223     2.6000e+02  1.4500e+02  0.0000e+00    0  0  0  1  0  0    0
0     0
 224     2.6000e+02  1.4500e+02  1.0000e+02    0  0  0  1  0  0    0
0     0
 225     2.6000e+02  1.9333e+02  0.0000e+00    0  0  0  1  0  0    0
0     0
 226     2.6000e+02  1.9333e+02  1.0000e+02    0  0  0  1  0  0    0
0     0
 227     2.6000e+02  9.6667e+01  0.0000e+00    0  0  0  1  0  0    0
0     0
 228     2.6000e+02  9.6667e+01  1.0000e+02    0  0  0  1  0  0    0
0     0
 229     2.6000e+02  1.9333e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 230     2.6000e+02  9.6667e+01  5.0000e+01    0  0  0  1  0  0    0
0     0
 231     2.6000e+02  1.7500e+02  1.5000e+02    0  0  0  1  0  0    0
0     0
 232     2.6000e+02  1.6621e+02  1.2879e+02    0  0  0  1  0  0    0
0     0
 233     2.6000e+02  1.4500e+02  1.2000e+02    0  0  0  1  0  0    0
0     0
 234     2.6000e+02  1.2379e+02  1.2879e+02    0  0  0  1  0  0    0
0     0
 235     2.6000e+02  1.1500e+02  1.5000e+02    0  0  0  1  0  0    0
0     0
 236     2.6000e+02  1.2379e+02  1.7121e+02    0  0  0  1  0  0    0
0     0
 237     2.6000e+02  1.4500e+02  1.8000e+02    0  0  0  1  0  0    0
0     0
 238     2.6000e+02  1.6621e+02  1.7121e+02    0  0  0  1  0  0    0
0     0
 239     2.6000e+02  1.4500e+02  2.0000e+02    0  0  0  1  0  0    0
0     0
 240     2.6000e+02  1.9333e+02  2.0000e+02    0  0  0  1  0  0    0
0     0
 241     2.6000e+02  9.6667e+01  2.0000e+02    0  0  0  1  0  0    0
0     0
 242     2.6000e+02  1.9333e+02  1.5000e+02    0  0  0  1  0  0    0
0     0
```

```
 243     2.6000e+02  9.6667e+01  1.5000e+02    0  0  0  1  0  0    0
0     0
 244     5.2000e+02  0.0000e+00  0.0000e+00    1  1  1  1  1  1    0
0     0
 245     5.2000e+02  0.0000e+00  2.0000e+02    1  1  1  1  1  1    0
0     0
 246     5.2000e+02  1.7500e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 247     5.2000e+02  1.6621e+02  2.8787e+01    0  0  0  1  0  0    0
0     0
 248     5.2000e+02  1.4500e+02  2.0000e+01    0  0  0  1  0  0    0
0     0
 249     5.2000e+02  1.2379e+02  2.8787e+01    0  0  0  1  0  0    0
0     0
 250     5.2000e+02  1.1500e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 251     5.2000e+02  1.2379e+02  7.1213e+01    0  0  0  1  0  0    0
0     0
 252     5.2000e+02  1.4500e+02  8.0000e+01    0  0  0  1  0  0    0
0     0
 253     5.2000e+02  1.6621e+02  7.1213e+01    0  0  0  1  0  0    0
0     0
 254     5.2000e+02  0.0000e+00  1.0000e+02    1  1  1  1  1  1    0
0     0
 255     5.2000e+02  1.4500e+02  0.0000e+00    0  0  0  1  0  0    0
0     0
 256     5.2000e+02  1.4500e+02  1.0000e+02    0  0  0  1  0  0    0
0     0
 257     5.2000e+02  1.9333e+02  0.0000e+00    0  0  0  1  0  0    0
0     0
 258     5.2000e+02  1.9333e+02  1.0000e+02    0  0  0  1  0  0    0
0     0
 259     5.2000e+02  9.6667e+01  0.0000e+00    0  0  0  1  0  0    0
0     0
 260     5.2000e+02  9.6667e+01  1.0000e+02    0  0  0  1  0  0    0
0     0
 261     5.2000e+02  1.9333e+02  5.0000e+01    0  0  0  1  0  0    0
0     0
 262     5.2000e+02  9.6667e+01  5.0000e+01    0  0  0  1  0  0    0
0     0
 263     5.2000e+02  1.7500e+02  1.5000e+02    0  0  0  1  0  0    0
0     0
 264     5.2000e+02  1.6621e+02  1.2879e+02    0  0  0  1  0  0    0
0     0
 265     5.2000e+02  1.4500e+02  1.2000e+02    0  0  0  1  0  0    0
0     0
 266     5.2000e+02  1.2379e+02  1.2879e+02    0  0  0  1  0  0    0
0     0
 267     5.2000e+02  1.1500e+02  1.5000e+02    0  0  0  1  0  0    0
0     0
 268     5.2000e+02  1.2379e+02  1.7121e+02    0  0  0  1  0  0    0
0     0
 269     5.2000e+02  1.4500e+02  1.8000e+02    0  0  0  1  0  0    0
0     0
 270     5.2000e+02  1.6621e+02  1.7121e+02    0  0  0  1  0  0    0
0     0
 271     5.2000e+02  1.4500e+02  2.0000e+02    0  0  0  1  0  0    0
0     0
 272     5.2000e+02  1.9333e+02  2.0000e+02    0  0  0  1  0  0    0
0     0
 273     5.2000e+02  9.6667e+01  2.0000e+02    0  0  0  1  0  0    0
0     0
```

274	5.2000e+02	1.9333e+02	1.5000e+02	0	0	0	1	0	0	0	0
275	5.2000e+02	9.6667e+01	1.5000e+02	0	0	0	1	0	0	0	0
276	0.0000e+00	0.0000e+00	0.0000e+00	1	1	1	1	1	1	0	0
277	0.0000e+00	0.0000e+00	2.0000e+02	1	1	1	1	1	1	0	0
278	0.0000e+00	0.0000e+00	1.0000e+02	1	1	1	1	1	1	0	0
279	0.0000e+00	1.9333e+02	0.0000e+00	0	0	0	1	0	0	0	0
280	0.0000e+00	1.9333e+02	1.0000e+02	0	0	0	1	0	0	0	0
281	0.0000e+00	9.6667e+01	0.0000e+00	0	0	0	1	0	0	0	0
282	0.0000e+00	9.6667e+01	1.0000e+02	0	0	0	1	0	0	0	0
283	0.0000e+00	1.9333e+02	5.0000e+01	0	0	0	1	0	0	0	0
284	0.0000e+00	9.6667e+01	5.0000e+01	0	0	0	1	0	0	0	0
285	0.0000e+00	1.9333e+02	2.0000e+02	0	0	0	1	0	0	0	0
286	0.0000e+00	9.6667e+01	2.0000e+02	0	0	0	1	0	0	0	0
287	0.0000e+00	1.9333e+02	1.5000e+02	0	0	0	1	0	0	0	0
288	0.0000e+00	9.6667e+01	1.5000e+02	0	0	0	1	0	0	0	0
289	7.8000e+02	0.0000e+00	0.0000e+00	1	1	1	1	1	1	0	0

ESTREMI E DATI DEGLI ELEMENTI

Elemento	estremi				te	tc	kn ms
1	284	278	282		2	2	0 0
2	3	5	8	7	2	2	0 0
3	7	8	6	4	2	2	0 0
4	4	6	12	11	2	2	0 0
5	11	12	10	9	2	2	0 0
6	210	11	211		2	2	0 0
7	12	1	10		2	2	0 0
8	12	2	1		2	2	0 0
9	6	2	12		2	2	0 0
10	211	11	9	23	2	2	0 0
11	24	4	11	210	2	2	0 0

12	197	7	198			2	2	0	0
13	8	2	6			2	2	0	0
14	8	289	2			2	2	0	0
15	5	289	8			2	2	0	0
16	198	7	4	24		2	2	0	0
17	22	3	7	197		2	2	0	0
18	279	281	284	283		2	2	0	0
19	283	284	282	280		2	2	0	0
20	280	282	288	287		2	2	0	0
21	287	288	286	285		2	2	0	0
22	57	287	59			2	2	0	0
23	288	277	286			2	2	0	0
24	288	278	277			2	2	0	0
25	282	278	288			2	2	0	0
26	59	287	285	20		2	2	0	0
27	21	280	287	57		2	2	0	0
28	41	283	43			2	2	0	0
29	284	276	278			2	2	0	0
30	281	276	284			2	2	0	0
31	43	283	280	21		2	2	0	0
32	19	279	283	41		2	2	0	0
33	149	274	150			2	2	0	0
34	275	245	273			2	2	0	0
35	275	254	245			2	2	0	0
36	260	254	275			2	2	0	0
37	150	274	272	17		2	2	0	0
38	18	258	274	149		2	2	0	0
39	274	263	270	272		2	2	0	0
40	258	264	263	274		2	2	0	0
41	267	275	273	268		2	2	0	0
42	266	260	275	267		2	2	0	0

43	270	269	271	272		2	2	0
0								
44	269	268	273	271		2	2	0
0								
45	256	260	266	265		2	2	0
0								
46	258	256	265	264		2	2	0
0								
47	136	261	137			2	2	0
0								
48	262	254	260			2	2	0
0								
49	262	244	254			2	2	0
0								
50	259	244	262			2	2	0
0								
51	137	261	258	18		2	2	0
0								
52	16	257	261	136		2	2	0
0								
53	261	246	253	258		2	2	0
0								
54	257	247	246	261		2	2	0
0								
55	250	262	260	251		2	2	0
0								
56	249	259	262	250		2	2	0
0								
57	253	252	256	258		2	2	0
0								
58	252	251	260	256		2	2	0
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59	255	259	249	248		2	2	0
0								
60	257	255	248	247		2	2	0
0								
61	88	242	89			2	2	0
0								
62	243	213	241			2	2	0
0								
63	243	222	213			2	2	0
0								
64	228	222	243			2	2	0
0								
65	89	242	240	14		2	2	0
0								
66	15	226	242	88		2	2	0
0								
67	242	231	238	240		2	2	0
0								
68	226	232	231	242		2	2	0
0								
69	235	243	241	236		2	2	0
0								
70	234	228	243	235		2	2	0
0								
71	238	237	239	240		2	2	0
0								
72	237	236	241	239		2	2	0
0								
73	224	228	234	233		2	2	0
0								

74	226	224	233	232		2	2	0
0								
75	75	229	76			2	2	0
0								
76	230	222	228			2	2	0
0								
77	230	212	222			2	2	0
0								
78	227	212	230			2	2	0
0								
79	76	229	226	15		2	2	0
0								
80	13	225	229	75		2	2	0
0								
81	229	214	221	226		2	2	0
0								
82	225	215	214	229		2	2	0
0								
83	218	230	228	219		2	2	0
0								
84	217	227	230	218		2	2	0
0								
85	221	220	224	226		2	2	0
0								
86	220	219	228	224		2	2	0
0								
87	223	227	217	216		2	2	0
0								
88	225	223	216	215		2	2	0
0								
89	211	206	207	23		1	1	0
0								
90	206	205	208	207		1	1	0
0								
91	205	204	209	208		1	1	0
0								
92	204	182	177	209		1	1	0
0								
93	196	160	181	202		1	1	0
0								
94	194	196	202	201		1	1	0
0								
95	192	194	201	200		1	1	0
0								
96	24	192	200	210		1	1	0
0								
97	211	199	206			1	1	0
0								
98	210	199	211			1	1	0
0								
99	210	200	199			1	1	0
0								
100	203	182	204			1	1	0
0								
101	203	181	182			1	1	0
0								
102	202	181	203			1	1	0
0								
103	198	190	192	24		1	1	0
0								
104	190	189	194	192		1	1	0
0								

105	189	188	196	194		1	1	0
0								
106	188	168	160	196		1	1	0
0								
107	195	159	167	186		1	1	0
0								
108	193	195	186	185		1	1	0
0								
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0								
110	22	191	184	197		1	1	0
0								
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113	197	184	183			1	1	0
0								
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0								
115	187	167	168			1	1	0
0								
116	186	167	187			1	1	0
0								
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0								
119	175	174	180	179		1	1	0
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130	172	149	173			1	1	0
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133	157	156	166	164		1	1	0
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0								
144	154	136	155			1	1	0
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157	142	120	121			1	1	0
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158	141	120	142			1	1	0
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162	127	107	99	135		1	1	0
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163	134	98	106	125		1	1	0
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164	132	134	125	124		1	1	0
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169	136	123	122				1	1	0
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185	112	88	89				1	1	0
0									
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0									
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0									

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199	94	75	76			1	1	0
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226	65	44	66			1	1	0
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227	65	42	44			1	1	0
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228	64	42	65			1	1	0
0								

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231	51	50	56	55		1	1	0
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253	42	26	25			1	1	0
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254	29	43	30			1	1	0
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255	29	41	43			1	1	0
0								
256	28	41	29			1	1	0
0								

ELEMENTI TIPO

_____

GUSCIO

Tipo   Tk

Materiale: E= 300000.000

  1   25.00000

  2   20.00000

CARICHI TIPO

Tipo: 1

Condizione di carico: #1 - peso proprio

Proprio   gm   gx   gy   gz

      2.5000e-03 0.0000e+00 0.0000e+00 -1.0000e+00

Condizione di carico: #2 - moto ondoso

Uniforme cdx   cdy   cdz   ref   lato

      0.0000e+00 -3.0000e-01 0.0000e+00 gbl   0

Condizione di carico: #3 - sbalzo termico

Termico   af   dtc   dtl

      1.2000e-05 0.0000e+00 5.0000e+00

Tipo: 2

Condizione di carico: #1 - peso proprio

Proprio   gm   gx   gy   gz

      2.5000e-03 0.0000e+00 0.0000e+00 -1.0000e+00

Condizione di carico: #3 - sbalzo termico

Termico   af   dtc   dtl

      1.2000e-05 0.0000e+00 5.0000e+00

INFORMAZIONI

Equazioni.....   1385
Semibanda.....   105
Numero blocchi.....   1
Zero algoritmico..... 3.12042e-07
Tempo analisi statica (sec)......   4.18333
Tempo totale analisi (sec).......   4.18333

SPOSTAMENTI NODALI

Nodo	Tx	Ty	Tz	Rx	Ry	Rz

Condizione di carico: #1 - peso proprio

1	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
2	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
3	4.2236e-04	-1.1188e-03	-2.4076e-03	0.0000e+00	-4.2138e-06	-3.1543e-06
4	8.1392e-17	-1.0283e-17	-2.3971e-03	0.0000e+00	-4.4143e-06	3.5425e-19
5	1.5080e-04	-8.1061e-04	-1.0234e-03	0.0000e+00	-1.4133e-06	-2.4543e-06
6	4.7070e-17	-4.9975e-18	-1.0254e-03	0.0000e+00	-1.4310e-06	-8.1730e-19
7	2.1291e-04	-4.9697e-04	-2.4099e-03	0.0000e+00	-3.9689e-06	-1.5290e-06
8	7.7051e-05	-3.5144e-04	-9.9667e-04	0.0000e+00	-1.4322e-06	-1.2142e-06
9	-4.2236e-04	1.1188e-03	-2.4076e-03	0.0000e+00	-4.2138e-06	3.1543e-06
10	-1.5080e-04	8.1061e-04	-1.0234e-03	0.0000e+00	-1.4133e-06	2.4543e-06
11	-2.1291e-04	4.9697e-04	-2.4099e-03	0.0000e+00	-3.9689e-06	1.5290e-06
12	-7.7051e-05	3.5144e-04	-9.9667e-04	0.0000e+00	-1.4322e-06	1.2142e-06
13	-2.8592e-04	-8.7513e-04	-5.1750e-03	0.0000e+00	2.9543e-06	1.4440e-07
14	2.8592e-04	8.7513e-04	-5.1750e-03	0.0000e+00	2.9543e-06	-1.4440e-07
15	-7.4519e-17	3.9777e-18	-5.1757e-03	0.0000e+00	2.9850e-06	1.7158e-18
16	2.8592e-04	-8.7513e-04	-5.1750e-03	0.0000e+00	-2.9543e-06	-1.4440e-07
17	-2.8592e-04	8.7513e-04	-5.1750e-03	0.0000e+00	-2.9543e-06	1.4440e-07
18	-5.8818e-17	1.4867e-17	-5.1757e-03	0.0000e+00	-2.9850e-06	-1.6136e-18
19	-7.6108e-04	-9.0168e-04	-3.6918e-03	0.0000e+00	8.2987e-06	3.4861e-06
20	7.6108e-04	9.0168e-04	-3.6918e-03	0.0000e+00	8.2987e-06	-3.4861e-06
21	-8.2110e-17	-2.3243e-18	-3.6899e-03	0.0000e+00	8.2928e-06	-1.8540e-18
22	7.6108e-04	-9.0168e-04	-3.6918e-03	0.0000e+00	-8.2987e-06	-3.4861e-06
23	-7.6108e-04	9.0168e-04	-3.6918e-03	0.0000e+00	-8.2987e-06	3.4861e-06
24	-5.1412e-17	-1.5518e-17	-3.6899e-03	0.0000e+00	-8.2928e-06	2.2564e-18
25	-2.8792e-04	-4.9511e-04	-4.6261e-03	-9.8723e-06	0.0000e+00	-4.2436e-07
26	-4.1654e-04	-6.9696e-04	-4.5598e-03	-9.7416e-06	0.0000e+00	-7.5865e-07
27	-5.2416e-04	-7.6109e-04	-4.3254e-03	-9.6665e-06	0.0000e+00	-1.2013e-06

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  28 -5.0197e-04 -6.5596e-04 -4.0908e-03 -9.3663e-06  0.0000e+00 -
2.3511e-07
  29 -3.7421e-04 -4.5928e-04 -4.0062e-03 -1.3627e-05  0.0000e+00 -
2.9587e-07
  30 -2.3842e-04 -2.7037e-04 -4.0972e-03 -9.8626e-06  0.0000e+00 -
1.3710e-06
  31 -1.7059e-04 -1.9565e-04 -4.3425e-03 -9.8151e-06  0.0000e+00
1.0537e-08
  32 -1.9576e-04 -2.8374e-04 -4.5606e-03 -9.8584e-06  0.0000e+00 -
1.8924e-07
  33 -5.4897e-04 -1.0083e-03 -4.8625e-03 -9.9365e-06  0.0000e+00 -
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  35 -6.4089e-04 -9.8714e-04 -4.6461e-03 -9.7934e-06  0.0000e+00 -
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2.4287e-06
  42 -3.6460e-04 -6.7589e-04 -4.8578e-03 -1.0048e-05  0.0000e+00 -
3.8729e-07
  43 -2.4893e-04 -3.2829e-04 -3.6884e-03  0.0000e+00  7.0025e-06
1.0338e-07
  44 -1.8416e-04 -3.3937e-04 -4.8458e-03 -1.0162e-05  0.0000e+00 -
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4.2436e-07
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  47  1.7059e-04  1.9565e-04 -4.3425e-03 -9.8151e-06  0.0000e+00 -
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1.3710e-06
  49  3.7421e-04  4.5928e-04 -4.0062e-03 -1.3627e-05  0.0000e+00
2.9587e-07
  50  5.0197e-04  6.5596e-04 -4.0908e-03 -9.3663e-06  0.0000e+00
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  51  5.2416e-04  7.6109e-04 -4.3254e-03 -9.6665e-06  0.0000e+00
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  57  2.4893e-04  3.2829e-04 -3.6884e-03  0.0000e+00  7.0025e-06 -
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  77  1.4936e-04  4.9487e-04 -5.1117e-03 -1.4173e-05  0.0000e+00 -
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0.0000e+00
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0.0000e+00
 246 9.3369e-05 -6.1869e-04 -3.3043e-03 0.0000e+00 -1.9499e-06 -
6.3727e-07
 247 1.2563e-04 -8.0780e-04 -3.0552e-03 0.0000e+00 -1.7608e-06 -
1.0304e-06
 248 1.1424e-04 -8.3091e-04 -2.4084e-03 0.0000e+00 -1.3997e-06 -
1.3424e-06
 249 7.7925e-05 -6.1485e-04 -1.7394e-03 0.0000e+00 -1.0516e-06 -
1.0515e-06
 250 4.9870e-05 -4.0369e-04 -1.4724e-03 0.0000e+00 -9.0357e-07 -
6.6326e-07
 251 3.3072e-05 -3.6341e-04 -1.7116e-03 0.0000e+00 -1.1220e-06 -
3.7324e-07
 252 2.8728e-05 -3.7955e-04 -2.3485e-03 0.0000e+00 -1.4352e-06 -
2.5471e-07
 253 4.9494e-05 -4.6614e-04 -3.0282e-03 0.0000e+00 -1.7534e-06 -
3.6306e-07
 254 0.0000e+00 0.0000e+00 0.0000e+00 0.0000e+00 0.0000e+00
0.0000e+00
 255 1.4222e-04 -1.3770e-03 -2.4034e-03 0.0000e+00 -1.3990e-06 -
1.6481e-06
 256 -1.8071e-18 7.9011e-18 -2.3457e-03 0.0000e+00 -1.4389e-06
5.7514e-19
 257 2.0975e-04 -1.3390e-03 -3.6484e-03 0.0000e+00 -2.0611e-06 -
1.1235e-06
 258 -4.7241e-17 1.1167e-17 -3.6178e-03 0.0000e+00 -2.0762e-06
1.1895e-18
 259 7.2665e-05 -9.2744e-04 -1.2015e-03 0.0000e+00 -7.0380e-07 -
1.1999e-06
 260 8.1488e-18 4.4317e-18 -1.2148e-03 0.0000e+00 -7.5975e-07 -
6.8927e-20
 261 1.0472e-04 -6.0451e-04 -3.6193e-03 0.0000e+00 -2.1951e-06 -
5.9640e-07
 262 3.8062e-05 -3.8162e-04 -1.1895e-03 0.0000e+00 -6.5149e-07 -
6.2433e-07
 263 -9.3369e-05 6.1869e-04 -3.3043e-03 0.0000e+00 -1.9499e-06
6.3727e-07
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3.6306e-07
 265 -2.8728e-05 3.7955e-04 -2.3485e-03 0.0000e+00 -1.4352e-06
2.5471e-07
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3.7324e-07
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6.6326e-07
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1.0515e-06
 269 -1.1424e-04 8.3091e-04 -2.4084e-03 0.0000e+00 -1.3997e-06
1.3424e-06
 270 -1.2563e-04 8.0780e-04 -3.0552e-03 0.0000e+00 -1.7608e-06
1.0304e-06
 271 -1.4222e-04 1.3770e-03 -2.4034e-03 0.0000e+00 -1.3990e-06
1.6481e-06
 272 -2.0975e-04 1.3390e-03 -3.6484e-03 0.0000e+00 -2.0611e-06
1.1235e-06
 273 -7.2665e-05 9.2744e-04 -1.2015e-03 0.0000e+00 -7.0380e-07
1.1999e-06
 274 -1.0472e-04 6.0451e-04 -3.6193e-03 0.0000e+00 -2.1951e-06
5.9640e-07
 275 -3.8062e-05 3.8162e-04 -1.1895e-03 0.0000e+00 -6.5149e-07
6.2433e-07

```
 276  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 277  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 278  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 279 -4.2236e-04 -1.1188e-03 -2.4076e-03  0.0000e+00  4.2138e-06
3.1543e-06
 280 -1.6296e-16 -1.6534e-18 -2.3971e-03  0.0000e+00  4.4143e-06
2.6430e-19
 281 -1.5080e-04 -8.1061e-04 -1.0234e-03  0.0000e+00  1.4133e-06
2.4543e-06
 282 -7.2690e-17 -8.4703e-19 -1.0254e-03  0.0000e+00  1.4310e-06
1.3132e-18
 283 -2.1291e-04 -4.9697e-04 -2.4099e-03  0.0000e+00  3.9689e-06
1.5290e-06
 284 -7.7051e-05 -3.5144e-04 -9.9667e-04  0.0000e+00  1.4322e-06
1.2142e-06
 285  4.2236e-04  1.1188e-03 -2.4076e-03  0.0000e+00  4.2138e-06 -
3.1543e-06
 286  1.5080e-04  8.1061e-04 -1.0234e-03  0.0000e+00  1.4133e-06 -
2.4543e-06
 287  2.1291e-04  4.9697e-04 -2.4099e-03  0.0000e+00  3.9689e-06 -
1.5290e-06
 288  7.7051e-05  3.5144e-04 -9.9667e-04  0.0000e+00  1.4322e-06 -
1.2142e-06
 289  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00

Condizione di carico: #2 - moto ondoso

   1  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
   2  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
   3  8.8385e-03 -8.8771e-04  1.5522e-06  0.0000e+00  8.1883e-07 -
4.6540e-06
   4  8.8857e-03 -8.8811e-04 -4.2218e-17  0.0000e+00 -1.1448e-17 -
4.3484e-06
   5  4.1386e-03 -4.4426e-04 -2.2349e-07  0.0000e+00  1.9244e-06 -
7.4618e-05
   6  4.1994e-03 -4.4447e-04 -7.3300e-18  0.0000e+00 -5.0297e-18 -
7.5154e-05
   7  8.8605e-03 -8.8949e-04  2.6083e-07  0.0000e+00  5.8030e-07 -
3.4256e-06
   8  4.2391e-03 -4.4434e-04 -1.8390e-08  0.0000e+00  5.5842e-07 -
7.3164e-05
   9  8.8385e-03 -8.8771e-04 -1.5522e-06  0.0000e+00 -8.1883e-07 -
4.6540e-06
  10  4.1386e-03 -4.4426e-04  2.2349e-07  0.0000e+00 -1.9244e-06 -
7.4618e-05
  11  8.8605e-03 -8.8949e-04 -2.6083e-07  0.0000e+00 -5.8030e-07 -
3.4256e-06
  12  4.2391e-03 -4.4434e-04  1.8390e-08  0.0000e+00 -5.5842e-07 -
7.3164e-05
  13  6.5569e-05 -4.0247e-03  1.9838e-05  0.0000e+00  1.0365e-07
4.5352e-05
  14  6.5569e-05 -4.0247e-03 -1.9838e-05  0.0000e+00 -1.0365e-07
4.5352e-05
  15  6.5392e-05 -4.0236e-03 -1.4720e-16  0.0000e+00 -2.2345e-18
4.5655e-05
  16 -6.5569e-05 -4.0247e-03  1.9838e-05  0.0000e+00 -1.0365e-07 -
4.5352e-05
```

```
  17 -6.5569e-05 -4.0247e-03 -1.9838e-05  0.0000e+00  1.0365e-07 -
4.5352e-05
  18 -6.5392e-05 -4.0236e-03 -1.2119e-16  0.0000e+00  1.1596e-18 -
4.5655e-05
  19  2.3367e-04 -1.3406e-03 -1.0840e-06  0.0000e+00 -5.8196e-07 -
2.0965e-04
  20  2.3367e-04 -1.3406e-03  1.0840e-06  0.0000e+00  5.8196e-07 -
2.0965e-04
  21  2.3290e-04 -1.3471e-03 -1.3958e-16  0.0000e+00  3.9777e-18 -
2.1091e-04
  22 -2.3367e-04 -1.3406e-03 -1.0840e-06  0.0000e+00  5.8196e-07
2.0965e-04
  23 -2.3367e-04 -1.3406e-03  1.0840e-06  0.0000e+00 -5.8196e-07
2.0965e-04
  24 -2.3290e-04 -1.3471e-03 -1.1607e-16  0.0000e+00 -3.4762e-18
2.1091e-04
  25  1.5588e-04 -1.8399e-02 -1.4414e-06  1.1876e-06  0.0000e+00 -
4.4328e-05
  26  1.6510e-04 -1.7743e-02 -4.3095e-06  7.6312e-06  0.0000e+00 -
7.4733e-05
  27  1.9051e-04 -1.5111e-02 -1.1026e-05  1.1695e-05  0.0000e+00 -
1.6356e-04
  28  2.1532e-04 -1.1005e-02 -4.3379e-06 -7.1771e-07  0.0000e+00 -
2.2069e-04
  29  2.2361e-04 -9.0533e-03 -1.9348e-06  5.1802e-07  0.0000e+00 -
2.2443e-04
  30  2.1487e-04 -1.1032e-02 -2.4789e-07  2.9767e-06  0.0000e+00 -
2.2064e-04
  31  1.9053e-04 -1.5163e-02  2.6049e-06 -7.8439e-06  0.0000e+00 -
1.6434e-04
  32  1.6595e-04 -1.7789e-02  3.0388e-07 -4.4373e-06  0.0000e+00 -
7.5705e-05
  33  1.4978e-04 -1.8639e-02  2.3280e-06  6.0783e-07  0.0000e+00
3.2742e-05
  34  1.4851e-04 -1.8741e-02 -1.7647e-16 -4.7286e-17  0.0000e+00
3.3875e-05
  35  1.7121e-04 -1.8337e-02 -2.3450e-06  3.4651e-06  0.0000e+00 -
5.2590e-05
  36  1.6859e-04 -1.8485e-02 -1.7578e-16 -4.4921e-17  0.0000e+00 -
5.1074e-05
  37  1.9060e-04 -1.4915e-02 -1.0793e-05  1.0244e-05  0.0000e+00 -
1.6050e-04
  38  1.9047e-04 -1.5090e-02 -1.7325e-16 -3.2174e-17  0.0000e+00 -
1.6213e-04
  39  2.1059e-04 -8.5043e-03 -2.5744e-06  7.0950e-08  0.0000e+00 -
2.2337e-04
  40  2.1269e-04 -8.5696e-03 -1.6014e-16 -1.2556e-17  0.0000e+00 -
2.2631e-04
  41  2.2954e-04 -1.3265e-03 -2.3280e-07  0.0000e+00 -1.3496e-06 -
2.0993e-04
  42  1.4909e-04 -1.8648e-02  1.7412e-06 -1.3311e-06  0.0000e+00
3.3049e-05
  43  2.3211e-04 -1.3288e-03 -1.8313e-07  0.0000e+00  1.2241e-06 -
2.1035e-04
  44  1.4862e-04 -1.8687e-02 -1.7893e-06  3.7013e-06  0.0000e+00
3.3426e-05
  45  1.5588e-04 -1.8399e-02  1.4414e-06 -1.1876e-06  0.0000e+00 -
4.4328e-05
  46  1.6595e-04 -1.7789e-02 -3.0388e-07  4.4373e-06  0.0000e+00 -
7.5705e-05
  47  1.9053e-04 -1.5163e-02 -2.6049e-06  7.8439e-06  0.0000e+00 -
1.6434e-04
```

```
  48  2.1487e-04 -1.1032e-02  2.4789e-07 -2.9767e-06  0.0000e+00 -
2.2064e-04
  49  2.2361e-04 -9.0533e-03  1.9348e-06 -5.1802e-07  0.0000e+00 -
2.2443e-04
  50  2.1532e-04 -1.1005e-02  4.3379e-06  7.1771e-07  0.0000e+00 -
2.2069e-04
  51  1.9051e-04 -1.5111e-02  1.1026e-05 -1.1695e-05  0.0000e+00 -
1.6356e-04
  52  1.6510e-04 -1.7743e-02  4.3095e-06 -7.6312e-06  0.0000e+00 -
7.4733e-05
  53  1.4978e-04 -1.8639e-02 -2.3280e-06 -6.0783e-07  0.0000e+00
3.2742e-05
  54  1.7121e-04 -1.8337e-02  2.3450e-06 -3.4651e-06  0.0000e+00 -
5.2590e-05
  55  1.9060e-04 -1.4915e-02  1.0793e-05 -1.0244e-05  0.0000e+00 -
1.6050e-04
  56  2.1059e-04 -8.5043e-03  2.5744e-06 -7.0950e-08  0.0000e+00 -
2.2337e-04
  57  2.3211e-04 -1.3288e-03  1.8313e-07  0.0000e+00 -1.2241e-06 -
2.1035e-04
  58  1.4862e-04 -1.8687e-02  1.7893e-06 -3.7013e-06  0.0000e+00
3.3426e-05
  59  2.2954e-04 -1.3265e-03  2.3280e-07  0.0000e+00  1.3496e-06 -
2.0993e-04
  60  1.4909e-04 -1.8648e-02 -1.7412e-06  1.3311e-06  0.0000e+00
3.3049e-05
  61  7.1709e-05 -7.2536e-03  4.8962e-06  5.4908e-07  0.0000e+00
1.2913e-04
  62  8.1145e-05 -8.5837e-03  3.1169e-06 -7.5389e-06  0.0000e+00
1.4990e-04
  63  1.0777e-04 -1.2016e-02 -7.0231e-06  7.2740e-07  0.0000e+00
1.6250e-04
  64  1.3307e-04 -1.5147e-02 -2.7381e-06  5.9185e-06  0.0000e+00
1.2307e-04
  65  1.4166e-04 -1.6229e-02 -6.2865e-07  7.6366e-07  0.0000e+00
1.0008e-04
  66  1.3122e-04 -1.5173e-02  7.1580e-07 -4.8140e-06  0.0000e+00
1.2363e-04
  67  1.0664e-04 -1.2038e-02  2.8662e-06 -4.3650e-07  0.0000e+00
1.6306e-04
  68  8.2161e-05 -8.6003e-03  2.7571e-06  8.0162e-06  0.0000e+00
1.5002e-04
  69  9.0943e-05 -7.1053e-03  7.1876e-06 -3.4930e-06  0.0000e+00
1.3525e-04
  70  8.4442e-05 -7.0902e-03 -1.5914e-16 -1.7495e-17  0.0000e+00
1.3551e-04
  71  1.1035e-04 -1.2007e-02 -6.8900e-06  7.1181e-07  0.0000e+00
1.5754e-04
  72  1.0635e-04 -1.2037e-02 -1.7084e-16 -3.0920e-17  0.0000e+00
1.5934e-04
  73  1.2868e-04 -1.6357e-02 -1.2479e-06  2.0172e-06  0.0000e+00
1.0572e-04
  74  1.2843e-04 -1.6433e-02 -1.7571e-16 -4.2992e-17  0.0000e+00
1.0672e-04
  75  6.5714e-05 -3.9879e-03  1.4958e-05  0.0000e+00  2.6822e-07
4.5403e-05
  76  6.5337e-05 -3.9946e-03  4.0666e-06  0.0000e+00 -2.7595e-07
4.5501e-05
  77  7.1709e-05 -7.2536e-03 -4.8962e-06 -5.4908e-07  0.0000e+00
1.2913e-04
  78  8.2161e-05 -8.6003e-03 -2.7571e-06 -8.0162e-06  0.0000e+00
1.5002e-04
```

```
  79  1.0664e-04 -1.2038e-02 -2.8662e-06  4.3650e-07  0.0000e+00
1.6306e-04
  80  1.3122e-04 -1.5173e-02 -7.1580e-07  4.8140e-06  0.0000e+00
1.2363e-04
  81  1.4166e-04 -1.6229e-02  6.2865e-07 -7.6366e-07  0.0000e+00
1.0008e-04
  82  1.3307e-04 -1.5147e-02  2.7381e-06 -5.9185e-06  0.0000e+00
1.2307e-04
  83  1.0777e-04 -1.2016e-02  7.0231e-06 -7.2740e-07  0.0000e+00
1.6250e-04
  84  8.1145e-05 -8.5837e-03 -3.1169e-06  7.5389e-06  0.0000e+00
1.4990e-04
  85  9.0943e-05 -7.1053e-03 -7.1876e-06  3.4930e-06  0.0000e+00
1.3525e-04
  86  1.1035e-04 -1.2007e-02  6.8900e-06 -7.1181e-07  0.0000e+00
1.5754e-04
  87  1.2868e-04 -1.6357e-02  1.2479e-06 -2.0172e-06  0.0000e+00
1.0572e-04
  88  6.5337e-05 -3.9946e-03 -4.0666e-06  0.0000e+00  2.7595e-07
4.5501e-05
  89  6.5714e-05 -3.9879e-03 -1.4958e-05  0.0000e+00 -2.6822e-07
4.5403e-05
  90  5.7149e-06 -7.9389e-03 -5.3877e-07 -1.5217e-07  0.0000e+00 -
4.2483e-05
  91  1.2709e-05 -7.4429e-03 -2.1368e-06  3.3731e-06  0.0000e+00 -
5.7238e-05
  92  3.2533e-05 -5.9550e-03 -4.7511e-06 -2.1239e-06  0.0000e+00 -
7.6685e-05
  93  5.3613e-05 -4.4566e-03  4.1444e-06 -7.4242e-06  0.0000e+00 -
5.4155e-05
  94  6.0977e-05 -3.9670e-03  5.3677e-06  3.4958e-07  0.0000e+00 -
3.3509e-05
  95  5.2325e-05 -4.4610e-03  2.8306e-06  7.1571e-06  0.0000e+00 -
5.4044e-05
  96  3.3030e-05 -5.9483e-03  2.2930e-06  1.1659e-06  0.0000e+00 -
7.6591e-05
  97  1.3738e-05 -7.4374e-03  5.0556e-07 -3.7578e-06  0.0000e+00 -
5.7144e-05
  98 -3.8275e-15 -8.7453e-03  1.8490e-06  3.1688e-07  0.0000e+00
2.5468e-17
  99 -3.8348e-15 -8.7457e-03 -1.1002e-16  1.2542e-17  0.0000e+00
3.1487e-17
 100  1.5958e-05 -7.9865e-03 -1.0345e-06  8.6888e-07  0.0000e+00 -
4.5707e-05
 101  1.5874e-05 -7.9827e-03 -1.1395e-16  1.1864e-17  0.0000e+00 -
4.6245e-05
 102  2.9803e-05 -5.9942e-03 -4.6718e-06 -1.7612e-06  0.0000e+00 -
7.2683e-05
 103  3.3357e-05 -5.9620e-03 -1.2127e-16  1.6060e-17  0.0000e+00 -
7.3512e-05
 104  4.4948e-05 -4.0601e-03  7.8341e-06 -3.6673e-06  0.0000e+00 -
3.9881e-05
 105  5.0514e-05 -4.0219e-03 -1.3393e-16  1.0342e-17  0.0000e+00 -
3.9161e-05
 106 -3.8310e-15 -8.7461e-03  1.4028e-06 -9.3523e-07  0.0000e+00
2.6728e-17
 107 -3.8327e-15 -8.7428e-03 -1.3236e-06  8.0214e-07  0.0000e+00
3.0601e-17
 108  5.7149e-06 -7.9389e-03  5.3877e-07  1.5217e-07  0.0000e+00 -
4.2483e-05
 109  1.3738e-05 -7.4374e-03 -5.0556e-07  3.7578e-06  0.0000e+00 -
5.7144e-05
```

 110 3.3030e-05 -5.9483e-03 -2.2930e-06 -1.1659e-06 0.0000e+00 -
7.6591e-05
 111 5.2325e-05 -4.4610e-03 -2.8306e-06 -7.1571e-06 0.0000e+00 -
5.4044e-05
 112 6.0977e-05 -3.9670e-03 -5.3677e-06 -3.4958e-07 0.0000e+00 -
3.3509e-05
 113 5.3613e-05 -4.4566e-03 -4.1444e-06 7.4242e-06 0.0000e+00 -
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0.0000e+00
 279 -8.8385e-03 -8.8771e-04  1.5522e-06  0.0000e+00 -8.1883e-07
4.6540e-06
 280 -8.8857e-03 -8.8811e-04 -5.6448e-17  0.0000e+00  1.4002e-17
4.3484e-06
 281 -4.1386e-03 -4.4426e-04 -2.2349e-07  0.0000e+00 -1.9244e-06
7.4618e-05
 282 -4.1994e-03 -4.4447e-04 -1.1905e-17  0.0000e+00  6.2714e-18
7.5154e-05
 283 -8.8605e-03 -8.8949e-04  2.6083e-07  0.0000e+00 -5.8030e-07
3.4256e-06
 284 -4.2391e-03 -4.4434e-04 -1.8390e-08  0.0000e+00 -5.5842e-07
7.3164e-05
 285 -8.8385e-03 -8.8771e-04 -1.5522e-06  0.0000e+00  8.1883e-07
4.6540e-06
 286 -4.1386e-03 -4.4426e-04  2.2349e-07  0.0000e+00  1.9244e-06
7.4618e-05
 287 -8.8605e-03 -8.8949e-04 -2.6083e-07  0.0000e+00  5.8030e-07
3.4256e-06
 288 -4.2391e-03 -4.4434e-04  1.8390e-08  0.0000e+00  5.5842e-07
7.3164e-05
 289  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00

Condizione di carico: #3 - sbalzo termico

   1  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
   2  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
   3 -2.3976e-03  1.4421e-04 -3.7413e-05  0.0000e+00  1.8139e-04
2.0351e-05
   4  4.6168e-03  1.6544e-04 -2.6826e-16  0.0000e+00  2.3954e-18
4.8495e-05
   5 -1.5440e-03  7.5869e-05  1.3150e-06  0.0000e+00  1.6051e-04
1.3403e-05
```

```
   6  4.2656e-03  8.5837e-05 -9.6750e-17  0.0000e+00  8.2332e-19 -
4.5317e-05
   7  3.1105e-03  1.7079e-04 -2.7101e-05  0.0000e+00  6.6541e-05
4.2784e-05
   8  3.0589e-03  8.1956e-05  1.0542e-06  0.0000e+00  5.6751e-05 -
3.3907e-05
   9 -2.3976e-03  1.4421e-04  3.7413e-05  0.0000e+00 -1.8139e-04
2.0351e-05
  10 -1.5440e-03  7.5869e-05 -1.3150e-06  0.0000e+00 -1.6051e-04
1.3403e-05
  11  3.1105e-03  1.7079e-04  2.7101e-05  0.0000e+00 -6.6541e-05
4.2784e-05
  12  3.0589e-03  8.1956e-05 -1.0542e-06  0.0000e+00 -5.6751e-05 -
3.3907e-05
  13 -8.6822e-03  2.9471e-04  5.2327e-05  0.0000e+00  3.3689e-05
3.7299e-05
  14 -8.6822e-03  2.9471e-04 -5.2327e-05  0.0000e+00 -3.3689e-05
3.7299e-05
  15 -8.3002e-03 -1.7582e-04  6.4710e-17  0.0000e+00  1.2875e-19
6.2577e-05
  16 -8.7416e-03  1.1213e-04  5.5279e-05  0.0000e+00  3.3505e-05 -
1.1013e-05
  17 -8.7416e-03  1.1213e-04 -5.5279e-05  0.0000e+00 -3.3505e-05 -
1.1013e-05
  18 -8.3605e-03 -3.5946e-04 -2.7464e-16  0.0000e+00 -1.2019e-18
1.3499e-05
  19 -9.0187e-03  2.2110e-04  2.2570e-04  0.0000e+00  4.4938e-05 -
1.4298e-05
  20 -9.0187e-03  2.2110e-04 -2.2570e-04  0.0000e+00 -4.4938e-05 -
1.4298e-05
  21 -8.0570e-03 -1.9171e-04  4.3729e-16  0.0000e+00  3.9272e-18 -
5.6723e-06
  22 -9.1242e-03  3.8544e-04 -1.0176e-04  0.0000e+00  5.4312e-05
1.4309e-04
  23 -9.1242e-03  3.8544e-04  1.0176e-04  0.0000e+00 -5.4312e-05
1.4309e-04
  24 -8.3555e-03  1.9365e-04 -4.7683e-16  0.0000e+00 -1.0164e-20
2.1480e-04
  25 -8.3798e-03 -1.4588e-03 -1.0201e-05  4.3056e-05  0.0000e+00 -
5.4838e-05
  26 -8.4461e-03 -8.6196e-05 -4.6427e-05  5.3762e-05  0.0000e+00 -
4.0444e-05
  27 -8.4929e-03  7.7567e-04 -1.6335e-04  3.7618e-05  0.0000e+00
1.4404e-06
  28 -8.4374e-03  2.8639e-04 -1.9041e-04  8.6898e-06  0.0000e+00
2.3047e-05
  29 -8.1917e-03  2.0784e-05 -6.5109e-05  5.8746e-06  0.0000e+00
1.8172e-05
  30 -8.1390e-03 -2.9803e-04 -4.5927e-05  2.3277e-05  0.0000e+00
3.1239e-07
  31 -8.2073e-03 -9.6424e-04  5.0780e-06  3.6051e-05  0.0000e+00 -
3.8916e-05
  32 -8.2990e-03 -1.7614e-03  6.9949e-06  3.4426e-05  0.0000e+00 -
6.1125e-05
  33 -8.4010e-03  1.5918e-03 -1.9069e-05  1.3168e-04  0.0000e+00 -
1.1896e-05
  34 -8.3142e-03 -3.8625e-03  2.5907e-16  2.5145e-18  0.0000e+00 -
1.5459e-05
  35 -8.4101e-03  2.0283e-03 -4.7205e-05  1.1797e-04  0.0000e+00 -
1.3971e-05
  36 -8.2736e-03 -2.8303e-03  3.1023e-16 -3.2187e-19  0.0000e+00 -
4.6750e-05
```

```
  37 -8.4572e-03  2.0287e-03 -1.6247e-04  8.5743e-05  0.0000e+00
2.0632e-05
  38 -8.2133e-03 -1.2911e-03  3.3328e-16 -1.7923e-18  0.0000e+00 -
4.0441e-05
  39 -8.6567e-03  9.4825e-04 -1.5567e-04  5.7652e-05  0.0000e+00
3.9359e-05
  40 -8.1203e-03 -5.0496e-04  3.6894e-16 -7.4920e-19  0.0000e+00 -
1.3661e-05
  41 -8.2383e-03 -4.6105e-05  1.7105e-04  0.0000e+00 -1.5046e-06 -
1.0124e-05
  42 -8.4006e-03 -1.6709e-03 -1.8223e-05  7.1954e-05  0.0000e+00 -
1.3682e-05
  43 -8.0824e-03 -1.4653e-04  9.3972e-05  0.0000e+00 -4.4020e-06 -
2.2728e-06
  44 -8.3485e-03 -3.3332e-03 -1.3804e-05  3.1060e-05  0.0000e+00 -
1.4916e-05
  45 -8.3798e-03 -1.4588e-03  1.0201e-05 -4.3056e-05  0.0000e+00 -
5.4838e-05
  46 -8.2990e-03 -1.7614e-03 -6.9949e-06 -3.4426e-05  0.0000e+00 -
6.1125e-05
  47 -8.2073e-03 -9.6424e-04 -5.0780e-06 -3.6051e-05  0.0000e+00 -
3.8916e-05
  48 -8.1390e-03 -2.9803e-04  4.5927e-05 -2.3277e-05  0.0000e+00
3.1239e-07
  49 -8.1917e-03  2.0784e-05  6.5109e-05 -5.8746e-06  0.0000e+00
1.8172e-05
  50 -8.4374e-03  2.8639e-04  1.9041e-04 -8.6898e-06  0.0000e+00
2.3047e-05
  51 -8.4929e-03  7.7567e-04  1.6335e-04 -3.7618e-05  0.0000e+00
1.4404e-06
  52 -8.4461e-03 -8.6196e-05  4.6427e-05 -5.3762e-05  0.0000e+00 -
4.0444e-05
  53 -8.4010e-03  1.5918e-03  1.9069e-05 -1.3168e-04  0.0000e+00 -
1.1896e-05
  54 -8.4101e-03  2.0283e-03  4.7205e-05 -1.1797e-04  0.0000e+00 -
1.3971e-05
  55 -8.4572e-03  2.0287e-03  1.6247e-04 -8.5743e-05  0.0000e+00
2.0632e-05
  56 -8.6567e-03  9.4825e-04  1.5567e-04 -5.7652e-05  0.0000e+00
3.9359e-05
  57 -8.0824e-03 -1.4653e-04 -9.3972e-05  0.0000e+00  4.4020e-06 -
2.2728e-06
  58 -8.3485e-03 -3.3332e-03  1.3804e-05 -3.1060e-05  0.0000e+00 -
1.4916e-05
  59 -8.2383e-03 -4.6105e-05 -1.7105e-04  0.0000e+00  1.5046e-06 -
1.0124e-05
  60 -8.4006e-03 -1.6709e-03  1.8223e-05 -7.1954e-05  0.0000e+00 -
1.3682e-05
  61 -8.3304e-03 -1.2351e-03  7.7135e-05  1.3894e-05  0.0000e+00
6.8415e-06
  62 -8.4288e-03 -9.5975e-04  1.3910e-04  2.0914e-05  0.0000e+00 -
5.9017e-06
  63 -8.4410e-03 -5.0121e-04  8.8883e-05  4.8202e-05  0.0000e+00 -
5.1098e-06
  64 -8.4194e-03 -1.1598e-03  6.3835e-06  5.8590e-05  0.0000e+00
2.0003e-05
  65 -8.3809e-03 -2.4145e-03 -1.3770e-05  4.5635e-05  0.0000e+00
2.9570e-05
  66 -8.3430e-03 -2.9846e-03 -1.1700e-05  3.6349e-05  0.0000e+00
3.6533e-05
  67 -8.3233e-03 -2.5623e-03 -8.1937e-07  3.5048e-05  0.0000e+00
3.0371e-05
```

```
  68 -8.3123e-03 -1.8102e-03  3.4779e-05  2.5336e-05  0.0000e+00
1.6225e-05
  69 -8.4847e-03  2.0303e-04  1.4609e-04  6.7745e-05  0.0000e+00 -
1.9172e-05
  70 -8.3123e-03 -1.8213e-03  1.3720e-16  4.6727e-18  0.0000e+00
3.8365e-05
  71 -8.3956e-03  9.5086e-04  8.7429e-05  9.5743e-05  0.0000e+00 -
2.1531e-05
  72 -8.3294e-03 -2.8821e-03  1.7870e-16  6.1698e-18  0.0000e+00
3.2061e-05
  73 -8.3904e-03  1.3109e-03  2.1511e-06  1.2209e-04  0.0000e+00 -
5.2667e-06
  74 -8.3307e-03 -3.7916e-03  2.0899e-16  4.6633e-18  0.0000e+00
1.9336e-05
  75 -8.3310e-03 -2.0398e-05  4.2001e-05  0.0000e+00 -6.8070e-06
5.3522e-05
  76 -8.2954e-03 -1.1394e-04  2.6764e-05  0.0000e+00 -4.3766e-06
6.1088e-05
  77 -8.3304e-03 -1.2351e-03 -7.7135e-05 -1.3894e-05  0.0000e+00
6.8415e-06
  78 -8.3123e-03 -1.8102e-03 -3.4779e-05 -2.5336e-05  0.0000e+00
1.6225e-05
  79 -8.3233e-03 -2.5623e-03  8.1937e-07 -3.5048e-05  0.0000e+00
3.0371e-05
  80 -8.3430e-03 -2.9846e-03  1.1700e-05 -3.6349e-05  0.0000e+00
3.6533e-05
  81 -8.3809e-03 -2.4145e-03  1.3770e-05 -4.5635e-05  0.0000e+00
2.9570e-05
  82 -8.4194e-03 -1.1598e-03 -6.3835e-06 -5.8590e-05  0.0000e+00
2.0003e-05
  83 -8.4410e-03 -5.0121e-04 -8.8883e-05 -4.8202e-05  0.0000e+00 -
5.1098e-06
  84 -8.4288e-03 -9.5975e-04 -1.3910e-04 -2.0914e-05  0.0000e+00 -
5.9017e-06
  85 -8.4847e-03  2.0303e-04 -1.4609e-04 -6.7745e-05  0.0000e+00 -
1.9172e-05
  86 -8.3956e-03  9.5086e-04 -8.7429e-05 -9.5743e-05  0.0000e+00 -
2.1531e-05
  87 -8.3904e-03  1.3109e-03 -2.1511e-06 -1.2209e-04  0.0000e+00 -
5.2667e-06
  88 -8.2954e-03 -1.1394e-04 -2.6764e-05  0.0000e+00  4.3766e-06
6.1088e-05
  89 -8.3310e-03 -2.0398e-05 -4.2001e-05  0.0000e+00  6.8070e-06
5.3522e-05
  90 -8.4317e-03  2.0907e-03 -2.1641e-06  4.1398e-05  0.0000e+00 -
5.0328e-05
  91 -8.4545e-03  3.3490e-03 -2.1081e-05  5.0807e-05  0.0000e+00 -
3.1249e-05
  92 -8.4637e-03  3.8067e-03 -8.1032e-05  3.2189e-05  0.0000e+00
2.7523e-05
  93 -8.4339e-03  2.6164e-03 -9.7520e-05  4.7179e-06  0.0000e+00
6.6713e-05
  94 -8.3327e-03  2.0075e-03 -3.6666e-05  4.1872e-06  0.0000e+00
6.7403e-05
  95 -8.3228e-03  2.1107e-03 -2.0117e-05  2.2953e-05  0.0000e+00
4.4481e-05
  96 -8.3559e-03  2.1824e-03  2.9576e-06  3.7700e-05  0.0000e+00 -
1.3240e-05
  97 -8.3965e-03  1.7478e-03  3.8493e-06  3.3955e-05  0.0000e+00 -
5.2438e-05
  98 -8.4356e-03  5.0664e-03  1.2451e-06  1.3037e-04  0.0000e+00 -
1.6769e-05
```

```
  99 -8.4006e-03 -2.7837e-04 -1.0302e-16 -2.2407e-18  0.0000e+00 -
2.1275e-05
 100 -8.4307e-03  5.4789e-03 -1.8729e-05  1.1559e-04  0.0000e+00 -
7.2610e-06
 101 -8.3854e-03  7.7119e-04 -5.5654e-17 -6.7051e-18  0.0000e+00 -
4.1626e-05
 102 -8.4411e-03  4.9609e-03 -8.0089e-05  8.0757e-05  0.0000e+00
4.7179e-05
 103 -8.3588e-03  1.8406e-03 -3.6014e-17 -9.3983e-18  0.0000e+00 -
1.4718e-05
 104 -8.5186e-03  2.6763e-03 -9.0233e-05  5.4164e-05  0.0000e+00
8.5674e-05
 105 -8.3208e-03  1.3879e-03 -1.5610e-18 -6.5696e-18  0.0000e+00
3.5304e-05
 106 -8.4432e-03  1.8451e-03  1.0113e-06  7.1016e-05  0.0000e+00 -
1.9009e-05
 107 -8.4188e-03  2.2474e-04 -1.3666e-07  2.9543e-05  0.0000e+00 -
2.0576e-05
 108 -8.4317e-03  2.0907e-03  2.1641e-06 -4.1398e-05  0.0000e+00 -
5.0328e-05
 109 -8.3965e-03  1.7478e-03 -3.8493e-06 -3.3955e-05  0.0000e+00 -
5.2438e-05
 110 -8.3559e-03  2.1824e-03 -2.9576e-06 -3.7700e-05  0.0000e+00 -
1.3240e-05
 111 -8.3228e-03  2.1107e-03  2.0117e-05 -2.2953e-05  0.0000e+00
4.4481e-05
 112 -8.3327e-03  2.0075e-03  3.6666e-05 -4.1872e-06  0.0000e+00
6.7403e-05
 113 -8.4339e-03  2.6164e-03  9.7520e-05 -4.7179e-06  0.0000e+00
6.6713e-05
 114 -8.4637e-03  3.8067e-03  8.1032e-05 -3.2189e-05  0.0000e+00
2.7523e-05
 115 -8.4545e-03  3.3490e-03  2.1081e-05 -5.0807e-05  0.0000e+00 -
3.1249e-05
 116 -8.4356e-03  5.0664e-03 -1.2451e-06 -1.3037e-04  0.0000e+00 -
1.6769e-05
 117 -8.4307e-03  5.4789e-03  1.8729e-05 -1.1559e-04  0.0000e+00 -
7.2610e-06
 118 -8.4411e-03  4.9609e-03  8.0089e-05 -8.0757e-05  0.0000e+00
4.7179e-05
 119 -8.5186e-03  2.6763e-03  9.0233e-05 -5.4164e-05  0.0000e+00
8.5674e-05
 120 -8.4188e-03  2.2474e-04  1.3666e-07 -2.9543e-05  0.0000e+00 -
2.0576e-05
 121 -8.4432e-03  1.8451e-03 -1.0113e-06 -7.1016e-05  0.0000e+00 -
1.9009e-05
 122 -8.3892e-03  1.8358e-04  7.9294e-05  1.3717e-05  0.0000e+00 -
3.5982e-05
 123 -8.4842e-03  8.0734e-04  1.4339e-04  1.9960e-05  0.0000e+00 -
4.5979e-05
 124 -8.4917e-03  1.9915e-03  1.0102e-04  4.5615e-05  0.0000e+00 -
3.4387e-05
 125 -8.4670e-03  1.8474e-03  2.6564e-05  5.6892e-05  0.0000e+00
2.3284e-06
 126 -8.4385e-03  7.6571e-04  5.0257e-06  4.4673e-05  0.0000e+00
1.5166e-05
 127 -8.4111e-03  5.6782e-05 -2.0076e-06  3.6404e-05  0.0000e+00
1.8275e-05
 128 -8.3895e-03 -3.7358e-05 -2.0885e-07  3.6271e-05  0.0000e+00
3.8672e-07
 129 -8.3742e-03 -3.0137e-05  3.5280e-05  2.5508e-05  0.0000e+00 -
2.4174e-05
```

 130 -8.5428e-03 1.4870e-03 1.5009e-04 6.7076e-05 0.0000e+00 -
6.0796e-05
 131 -8.3749e-03 -5.0871e-04 -2.0420e-16 5.0755e-18 0.0000e+00 -
4.3265e-06
 132 -8.4517e-03 3.3980e-03 9.9561e-05 9.3426e-05 0.0000e+00 -
5.0523e-05
 133 -8.3944e-03 -3.6858e-04 -1.7144e-16 5.9410e-18 0.0000e+00
2.0974e-06
 134 -8.4372e-03 4.4622e-03 2.2759e-05 1.2075e-04 0.0000e+00 -
2.0292e-05
 135 -8.4019e-03 -5.5374e-04 -1.5027e-16 2.6079e-18 0.0000e+00
3.7436e-06
 136 -8.3906e-03 -2.0202e-04 4.4613e-05 0.0000e+00 -7.1852e-06
4.8777e-06
 137 -8.3551e-03 -2.9644e-04 2.8237e-05 0.0000e+00 -4.1393e-06
1.2224e-05
 138 -8.3892e-03 1.8358e-04 -7.9294e-05 -1.3717e-05 0.0000e+00 -
3.5982e-05
 139 -8.3742e-03 -3.0137e-05 -3.5280e-05 -2.5508e-05 0.0000e+00 -
2.4174e-05
 140 -8.3895e-03 -3.7358e-05 2.0885e-07 -3.6271e-05 0.0000e+00
3.8672e-07
 141 -8.4111e-03 5.6782e-05 2.0076e-06 -3.6404e-05 0.0000e+00
1.8275e-05
 142 -8.4385e-03 7.6571e-04 -5.0257e-06 -4.4673e-05 0.0000e+00
1.5166e-05
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2.3284e-06
 144 -8.4917e-03 1.9915e-03 -1.0102e-04 -4.5615e-05 0.0000e+00 -
3.4387e-05
 145 -8.4842e-03 8.0734e-04 -1.4339e-04 -1.9960e-05 0.0000e+00 -
4.5979e-05
 146 -8.5428e-03 1.4870e-03 -1.5009e-04 -6.7076e-05 0.0000e+00 -
6.0796e-05
 147 -8.4517e-03 3.3980e-03 -9.9561e-05 -9.3426e-05 0.0000e+00 -
5.0523e-05
 148 -8.4372e-03 4.4622e-03 -2.2759e-05 -1.2075e-04 0.0000e+00 -
2.0292e-05
 149 -8.3551e-03 -2.9644e-04 -2.8237e-05 0.0000e+00 4.1393e-06
1.2224e-05
 150 -8.3906e-03 -2.0202e-04 -4.4613e-05 0.0000e+00 7.1852e-06
4.8777e-06
 151 -8.5112e-03 -3.7693e-03 1.0172e-05 4.3649e-05 0.0000e+00 -
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 152 -8.5384e-03 -1.9683e-03 -8.4753e-06 5.4183e-05 0.0000e+00 -
8.7690e-05
 153 -8.5393e-03 -1.9879e-04 -7.5303e-05 3.4133e-05 0.0000e+00 -
3.6287e-05
 154 -8.5002e-03 -3.9363e-05 -9.5149e-05 4.4825e-06 0.0000e+00
4.0163e-06
 155 -8.3947e-03 -1.0605e-04 -3.5056e-05 4.5830e-06 0.0000e+00
7.2691e-06
 156 -8.3854e-03 -5.7105e-04 -1.9468e-05 2.4304e-05 0.0000e+00 -
1.9093e-05
 157 -8.4215e-03 -1.8898e-03 4.0316e-06 3.7704e-05 0.0000e+00 -
7.8812e-05
 158 -8.4666e-03 -3.6472e-03 1.0430e-05 3.3844e-05 0.0000e+00 -
1.1023e-04
 159 -8.5318e-03 -2.2230e-03 1.5798e-05 1.3385e-04 0.0000e+00 -
5.1972e-05
 160 -8.4627e-03 -7.8475e-03 -4.3563e-16 -1.7684e-17 0.0000e+00 -
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 161 -8.5135e-03 -3.7011e-04 -5.3235e-06 1.1839e-04 0.0000e+00 -
5.9603e-05
 162 -8.4528e-03 -5.2660e-03 -4.0748e-16 -2.0158e-17 0.0000e+00 -
9.6537e-05
 163 -8.5131e-03 9.9269e-04 -7.4307e-05 8.2635e-05 0.0000e+00 -
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 164 -8.4251e-03 -2.2322e-03 -3.9247e-16 -1.7930e-17 0.0000e+00 -
7.9752e-05
 165 -8.5844e-03 7.1936e-04 -8.7585e-05 5.4474e-05 0.0000e+00
2.5754e-05
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4.0163e-06
 175 -8.5393e-03 -1.9879e-04 7.5303e-05 -3.4133e-05 0.0000e+00 -
3.6287e-05
 176 -8.5384e-03 -1.9683e-03 8.4753e-06 -5.4183e-05 0.0000e+00 -
8.7690e-05
 177 -8.5318e-03 -2.2230e-03 -1.5798e-05 -1.3385e-04 0.0000e+00 -
5.1972e-05
 178 -8.5135e-03 -3.7011e-04 5.3235e-06 -1.1839e-04 0.0000e+00 -
5.9603e-05
 179 -8.5131e-03 9.9269e-04 7.4307e-05 -8.2635e-05 0.0000e+00 -
1.5267e-05
 180 -8.5844e-03 7.1936e-04 8.7585e-05 -5.4474e-05 0.0000e+00
2.5754e-05
 181 -8.4916e-03 -7.2824e-03 -8.7239e-06 -3.3141e-05 0.0000e+00 -
5.8409e-05
 182 -8.5343e-03 -5.5549e-03 -1.4608e-05 -7.3657e-05 0.0000e+00 -
5.5638e-05
 183 -8.4204e-03 -4.9025e-03 8.3822e-05 1.8571e-05 0.0000e+00
9.7388e-05
 184 -8.6138e-03 -5.1584e-03 1.9642e-04 3.2383e-05 0.0000e+00
6.6907e-05
 185 -8.6390e-03 -5.6057e-03 1.5312e-04 6.1851e-05 0.0000e+00
1.8269e-05
 186 -8.5844e-03 -6.3858e-03 4.3284e-05 6.4805e-05 0.0000e+00
2.5762e-06
 187 -8.5251e-03 -7.5612e-03 1.0550e-05 4.9259e-05 0.0000e+00
2.6022e-06
 188 -8.4700e-03 -8.3843e-03 -3.7783e-06 3.8181e-05 0.0000e+00
1.6799e-05
 189 -8.4206e-03 -7.9666e-03 -1.9309e-06 3.0833e-05 0.0000e+00
5.1534e-05
 190 -8.3858e-03 -6.2222e-03 4.4494e-05 2.5842e-05 0.0000e+00
9.0342e-05
 191 -8.7757e-03 -2.8770e-03 1.8347e-04 7.5526e-05 0.0000e+00
6.2770e-05

```
 192 -8.3787e-03 -5.3376e-03 -4.5939e-16 -4.8569e-18  0.0000e+00
1.2774e-04
 193 -8.5941e-03 -3.9078e-03  1.5161e-04  1.0814e-04  0.0000e+00
3.6630e-06
 194 -8.4265e-03 -8.2485e-03 -4.6544e-16 -7.0439e-18  0.0000e+00
5.3727e-05
 195 -8.5483e-03 -3.5349e-03  4.2312e-05  1.2723e-04  0.0000e+00 -
2.6795e-05
 196 -8.4518e-03 -8.9679e-03 -4.6300e-16 -1.1367e-17  0.0000e+00 -
7.9045e-06
 197 -8.4419e-03  2.2724e-04 -6.8531e-05  0.0000e+00  6.7617e-06
1.8594e-04
 198 -8.3486e-03  2.1585e-04 -2.9094e-05  0.0000e+00 -2.4698e-06
2.0693e-04
 199 -8.4204e-03 -4.9025e-03 -8.3822e-05 -1.8571e-05  0.0000e+00
9.7388e-05
 200 -8.3858e-03 -6.2222e-03 -4.4494e-05 -2.5842e-05  0.0000e+00
9.0342e-05
 201 -8.4206e-03 -7.9666e-03  1.9309e-06 -3.0833e-05  0.0000e+00
5.1534e-05
 202 -8.4700e-03 -8.3843e-03  3.7783e-06 -3.8181e-05  0.0000e+00
1.6799e-05
 203 -8.5251e-03 -7.5612e-03 -1.0550e-05 -4.9259e-05  0.0000e+00
2.6022e-06
 204 -8.5844e-03 -6.3858e-03 -4.3284e-05 -6.4805e-05  0.0000e+00
2.5762e-06
 205 -8.6390e-03 -5.6057e-03 -1.5312e-04 -6.1851e-05  0.0000e+00
1.8269e-05
 206 -8.6138e-03 -5.1584e-03 -1.9642e-04 -3.2383e-05  0.0000e+00
6.6907e-05
 207 -8.7757e-03 -2.8770e-03 -1.8347e-04 -7.5526e-05  0.0000e+00
6.2770e-05
 208 -8.5941e-03 -3.9078e-03 -1.5161e-04 -1.0814e-04  0.0000e+00
3.6630e-06
 209 -8.5483e-03 -3.5349e-03 -4.2312e-05 -1.2723e-04  0.0000e+00 -
2.6795e-05
 210 -8.3486e-03  2.1585e-04  2.9094e-05  0.0000e+00  2.4698e-06
2.0693e-04
 211 -8.4419e-03  2.2724e-04  6.8531e-05  0.0000e+00 -6.7617e-06
1.8594e-04
 212  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 213  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
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2.5761e-05
 215 -6.5266e-03 -1.9725e-06 -6.5919e-05  0.0000e+00  7.9448e-05 -
1.3027e-05
 216 -7.0899e-03 -5.3929e-07 -4.5860e-05  0.0000e+00  8.4008e-05
3.3554e-05
 217 -5.1379e-03 -1.4101e-06 -1.9890e-05  0.0000e+00  7.5856e-05
7.7444e-05
 218 -3.1201e-03 -2.7831e-06 -6.2150e-06  0.0000e+00  4.8183e-05
8.7463e-05
 219 -2.7881e-03 -1.0984e-05 -9.9481e-07  0.0000e+00  4.2424e-05
6.4507e-05
 220 -3.3868e-03 -2.2421e-05 -2.4087e-06  0.0000e+00  5.2956e-05
3.0761e-05
 221 -4.0924e-03 -2.7151e-05 -2.4707e-05  0.0000e+00  4.4190e-05 -
3.8025e-06
 222  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
```

```
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 224 -2.9117e-03 -1.9071e-05  3.2245e-17  0.0000e+00  5.0951e-17
3.0627e-05
 225 -9.3563e-03  9.8838e-06 -8.7451e-05  0.0000e+00  1.5598e-04 -
1.9995e-05
 226 -3.6686e-03 -4.8236e-05  4.9497e-17  0.0000e+00  5.2139e-17
1.3869e-05
 227 -5.7467e-03 -9.8656e-06 -5.8144e-06  0.0000e+00  1.4214e-04
9.8460e-05
 228 -8.0106e-04 -8.5080e-06  1.5892e-17  0.0000e+00  2.8359e-17
4.3540e-05
 229 -4.8387e-03 -1.7938e-05 -5.9296e-05  0.0000e+00  4.7320e-05
1.1025e-06
 230 -1.8541e-03 -3.6234e-06 -4.7513e-06  0.0000e+00  4.3984e-05
5.6184e-05
 231 -5.0053e-03 -1.8046e-05  5.4758e-05  0.0000e+00 -5.0841e-05 -
2.5761e-05
 232 -4.0924e-03 -2.7151e-05  2.4707e-05  0.0000e+00 -4.4190e-05 -
3.8025e-06
 233 -3.3868e-03 -2.2421e-05  2.4087e-06  0.0000e+00 -5.2956e-05
3.0761e-05
 234 -2.7881e-03 -1.0984e-05  9.9481e-07  0.0000e+00 -4.2424e-05
6.4507e-05
 235 -3.1201e-03 -2.7831e-06  6.2150e-06  0.0000e+00 -4.8183e-05
8.7463e-05
 236 -5.1379e-03 -1.4101e-06  1.9890e-05  0.0000e+00 -7.5856e-05
7.7444e-05
 237 -7.0899e-03 -5.3929e-07  4.5860e-05  0.0000e+00 -8.4008e-05
3.3554e-05
 238 -6.5266e-03 -1.9725e-06  6.5919e-05  0.0000e+00 -7.9448e-05 -
1.3027e-05
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3.5170e-05
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1.9995e-05
 241 -5.7467e-03 -9.8656e-06  5.8144e-06  0.0000e+00 -1.4214e-04
9.8460e-05
 242 -4.8387e-03 -1.7938e-05  5.9296e-05  0.0000e+00 -4.7320e-05
1.1025e-06
 243 -1.8541e-03 -3.6234e-06  4.7513e-06  0.0000e+00 -4.3984e-05
5.6184e-05
 244  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 245  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 246 -7.2757e-03 -1.5315e-04 -5.6952e-05  0.0000e+00  5.0492e-05 -
2.3492e-05
 247 -8.7398e-03 -1.2251e-04 -7.3837e-05  0.0000e+00  7.8185e-05 -
6.7309e-06
 248 -9.0637e-03 -9.1285e-05 -6.0940e-05  0.0000e+00  8.2111e-05
4.8270e-05
 249 -6.7601e-03 -6.2886e-05 -2.7678e-05  0.0000e+00  7.5156e-05
9.6275e-05
 250 -4.5854e-03 -5.0804e-05 -8.4116e-06  0.0000e+00  4.7882e-05
1.0676e-04
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8.3200e-05
 252 -5.3791e-03 -1.1378e-04  3.9820e-07  0.0000e+00  5.3894e-05
4.5439e-05
 253 -6.3195e-03 -1.4730e-04 -2.4118e-05  0.0000e+00  4.4664e-05
2.6635e-06
```

```
 254  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
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4.9803e-05
 256 -4.8960e-03 -1.1046e-04 -8.2595e-17  0.0000e+00  7.4365e-17
4.5124e-05
 257 -1.1628e-02 -1.1772e-04 -8.8202e-05  0.0000e+00  1.5586e-04 -
2.1082e-05
 258 -5.9661e-03 -1.7941e-04 -1.4873e-16  0.0000e+00  7.3349e-17
1.2367e-05
 259 -6.8187e-03 -6.2676e-05 -7.3837e-06  0.0000e+00  1.4148e-04
1.1802e-04
 260 -1.9041e-03 -5.9680e-05 -4.0546e-17  0.0000e+00  4.2806e-17
6.3531e-05
 261 -7.1208e-03 -1.5573e-04 -6.0521e-05  0.0000e+00  4.6966e-05 -
5.9495e-07
 262 -2.9638e-03 -4.9280e-05 -6.1286e-06  0.0000e+00  4.3684e-05
7.5672e-05
 263 -7.2757e-03 -1.5315e-04  5.6952e-05  0.0000e+00 -5.0492e-05 -
2.3492e-05
 264 -6.3195e-03 -1.4730e-04  2.4118e-05  0.0000e+00 -4.4664e-05
2.6635e-06
 265 -5.3791e-03 -1.1378e-04 -3.9820e-07  0.0000e+00 -5.3894e-05
4.5439e-05
 266 -4.4239e-03 -7.3735e-05  5.5587e-07  0.0000e+00 -4.2288e-05
8.3200e-05
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1.0676e-04
 268 -6.7601e-03 -6.2886e-05  2.7678e-05  0.0000e+00 -7.5156e-05
9.6275e-05
 269 -9.0637e-03 -9.1285e-05  6.0940e-05  0.0000e+00 -8.2111e-05
4.8270e-05
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6.7309e-06
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4.9803e-05
 272 -1.1628e-02 -1.1772e-04  8.8202e-05  0.0000e+00 -1.5586e-04 -
2.1082e-05
 273 -6.8187e-03 -6.2676e-05  7.3837e-06  0.0000e+00 -1.4148e-04
1.1802e-04
 274 -7.1208e-03 -1.5573e-04  6.0521e-05  0.0000e+00 -4.6966e-05 -
5.9495e-07
 275 -2.9638e-03 -4.9280e-05  6.1286e-06  0.0000e+00 -4.3684e-05
7.5672e-05
 276  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 277  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 278  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
 279 -1.0346e-02  6.7526e-06 -4.3979e-05  0.0000e+00  1.6962e-04
2.8804e-05
 280 -4.0670e-03 -7.4819e-05  2.5690e-16  0.0000e+00  1.1636e-17
5.1432e-05
 281 -5.3028e-03 -2.4712e-05 -1.1931e-05  0.0000e+00  1.5427e-04
8.1639e-05
 282  1.7277e-04 -1.8993e-05  9.6960e-17  0.0000e+00  4.8366e-18
2.7057e-05
 283 -5.3176e-03 -4.5049e-05 -2.9155e-05  0.0000e+00  5.6195e-05
4.4475e-05
 284 -9.8087e-04 -1.7689e-05 -8.5241e-06  0.0000e+00  5.3052e-05
3.5219e-05
```

```
 285 -1.0346e-02  6.7526e-06  4.3979e-05  0.0000e+00 -1.6962e-04
2.8804e-05
 286 -5.3028e-03 -2.4712e-05  1.1931e-05  0.0000e+00 -1.5427e-04
8.1639e-05
 287 -5.3176e-03 -4.5049e-05  2.9155e-05  0.0000e+00 -5.6195e-05
4.4475e-05
 288 -9.8087e-04 -1.7689e-05  8.5241e-06  0.0000e+00 -5.3052e-05
3.5219e-05
 289  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00  0.0000e+00
0.0000e+00
```

VERIFICHE C.A. PARETE CONTRO MARE FORATA

Armatura a doppia maglia quadra ø16/20” Aa = 10,05 cmq

Caratteristiche dei materiali

Resistenza caratteristica calcestruzzo	kg/cm2	250.00
Tensione ammissibile calcestruzzo	kg/cm2	85.00
Tensione ammissibile acciaio	kg/cm2	2600.00
Rapporto moduli elastici		15.00

Tipi delle condizioni di carico

#3 - sbalzo termico	Variabile
#2 - moto ondoso	Variabile
#1 - peso proprio	Permanente favorevole

Combinazioni di progetto dei carichi

(4) 1.00 * #1 - peso proprio + 1.00 * #2 - moto ondoso + 1.00 * #3 - sbalzo termico
(3) 1.00 * #1 - peso proprio + 1.00 * #2 - moto ondoso
(2) 1.00 * #1 - peso proprio + 1.00 * #3 - sbalzo termico
(1) 1.00 * #1 - peso proprio

Elemento 191

Spessore cm 25.000000

Sollecitazioni ai vertici dell'elemento

	Nx	Ny	Nxy	Mx	My	Mxy
	kg/cm2	kg/cm2	kg/cm2	kg	kg	kg
#3 - sbalzo termico						
	8.2310e-01	1.9451e-02	-2.1841e-01	8.2499e+02	2.0621e+02	-7.6868e+02
	9.4642e-01	-9.0028e-02	-6.5889e-01	-1.8288e+02	1.0900e+03	-1.6861e+02
	-6.4213e-02	2.7367e-01	-7.0632e-01	8.6627e+02	5.3274e+02	1.9976e+02
	-1.8754e-01	3.8315e-01	-2.6583e-01	7.0216e+02	2.5906e+02	-1.6968e+02
#2 - moto ondoso						
	-1.5653e-01	-1.9546e-03	7.7446e-03	7.5604e+02	6.4380e+01	3.7365e+01

```
         -1.5428e-01 -2.8147e-02  3.4673e-02  1.2886e+03 -3.3178e+01 -
5.8999e+01
         -9.8210e-02 -4.6907e-02  2.9136e-02  1.2286e+03 -7.2581e+00 -
3.5170e+01
         -1.0046e-01 -2.0715e-02  2.2079e-03  5.8086e+02 -9.4412e+01
8.9333e+00
#1 - peso proprio
          2.6932e-01  2.0563e-02  1.2274e-01  1.2040e+02  4.7487e+01
1.0049e+02
          2.7643e-01 -2.1207e-02  1.4857e-01  9.3415e-01 -4.5158e+02
1.1048e+01
          3.2732e-01 -3.7442e-02  1.3899e-01  6.7000e+01  5.0180e+02
2.3921e+01
          3.2021e-01  4.3275e-03  1.1316e-01 -8.9689e+01 -2.3946e+01
7.6742e+01

Verifica delle armature
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Massima tns. cls.    -44.30   vtx 3   cmb 4
Massima tns. acc.   1305.95   vtx 1   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.031     239.472       -71.6      0.000     239.472       -
54.8
1      0.016     239.472       -92.7      0.008     239.472        -
2.0
2      0.043     239.472        43.6      0.000     239.472
41.6
3      0.012     239.472        80.1      0.000     239.472
41.6


Elemento 200
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
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               Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -5.9897e-01  5.0343e-01 -2.9825e-02  8.2493e+02  5.3948e+02 -
7.2378e+01
         -5.9897e-01  5.0343e-01 -2.9825e-02  8.2042e+02  1.0333e+03 -
4.4454e+01
         -5.9897e-01  5.0343e-01 -2.9825e-02  8.3662e+02  1.1240e+03
1.6106e+02
#2 - moto ondoso
```

```
         -7.4416e-02 -1.4910e-02  7.5786e-03  5.5726e+02  5.1732e+01
1.0995e+01
         -7.4416e-02 -1.4910e-02  7.5786e-03  1.2011e+03  4.0810e+02 -
2.2492e+01
         -7.4416e-02 -1.4910e-02  7.5786e-03  7.0176e+02  1.8336e+02
1.6614e+02
#1 - peso proprio
          3.5514e-01 -6.9358e-02  3.6815e-01 -5.3040e+01  1.3950e+02
1.1457e+02
          3.5514e-01 -6.9358e-02  3.6815e-01  8.7101e+01 -1.8165e+02
1.2220e+02
          3.5514e-01 -6.9358e-02  3.6815e-01 -1.4745e+01 -2.4021e+02 -
3.0844e+01

Verifica delle armature
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Massima tns. cls.    -44.12   vtx 2   cmb 4
Massima tns. acc.   1167.37   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.024     239.472        44.6      0.000     239.472
39.1
1      0.033     239.472        63.4      0.000     239.472
39.1
2      0.021     239.472        64.3      0.000     239.472
39.1


Elemento 199
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -2.7335e-01 -3.0631e-02  7.9393e-02  7.4688e+02  6.7930e+02 -
1.0002e+02
         -2.7335e-01 -3.0631e-02  7.9393e-02  9.4417e+02  1.0851e+03 -
4.2673e+01
         -2.7335e-01 -3.0631e-02  7.9393e-02  9.1575e+02  8.8879e+02
2.5120e+02
#2 - moto ondoso
         -6.5011e-02 -7.2002e-02  3.5176e-02  4.3029e+02 -1.2550e+02
3.4195e+02
         -6.5011e-02 -7.2002e-02  3.5176e-02  1.0595e+03  1.0077e+02
4.3132e+02
```

```
         -6.5011e-02 -7.2002e-02  3.5176e-02  8.9629e+02  2.3632e+02
5.7394e+02
#1 - peso proprio
         -8.7421e-02  1.6451e-01  1.2322e-01  6.0268e+01 -5.3181e+01 -
3.8762e+01
         -8.7421e-02  1.6451e-01  1.2322e-01 -4.0471e+01 -5.8252e+02
2.0594e+02
         -8.7421e-02  1.6451e-01  1.2322e-01  1.8675e+02  4.6279e+02 -
2.9547e+02

Verifica delle armature
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Massima tns. cls.    -49.16   vtx 3   cmb 4
Massima tns. acc.   1148.01   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.023     239.472        80.1      0.000     239.472
70.5
1      0.039     239.472        70.3      0.020     239.472       -
19.9
2      0.047     239.472       -20.6      0.000     239.472
70.5


Elemento 198
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -4.9361e-02  2.2174e-01  2.7301e-01  6.5769e+02  1.7024e+03 -
9.5382e+01
         -4.9361e-02  2.2174e-01  2.7301e-01  1.1578e+03  1.4288e+03
1.3259e+02
         -4.9361e-02  2.2174e-01  2.7301e-01  8.0786e+02  9.4561e+02 -
2.5021e+02
#2 - moto ondoso
         -3.4799e-02 -7.8911e-02  4.7570e-02  4.0945e+02  4.5923e+02 -
3.1241e+02
         -3.4799e-02 -7.8911e-02  4.7570e-02  1.0045e+03  5.9152e+02 -
3.5114e+02
         -3.4799e-02 -7.8911e-02  4.7570e-02  4.0476e+02  1.8157e+02 -
2.3535e+02
#1 - peso proprio
```

```
          1.8502e-01 -3.9351e-01  1.8365e-01  6.5291e+01  2.0444e+02
7.2864e+01
          1.8502e-01 -3.9351e-01  1.8365e-01  1.1898e+02 -1.7948e+01
1.7259e+02
          1.8502e-01 -3.9351e-01  1.8365e-01  1.2592e+02 -2.2032e+02 -
5.5629e+01

Verifica delle armature
_____________________________________________________________________
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Massima tns. cls.    -49.19   vtx 3   cmb 4
Massima tns. acc.   1199.64   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.045     239.472         6.0      0.000     239.472
19.5
1      0.040     239.472       -82.1      0.000     239.472
19.5
2      0.033     239.472       -66.6      0.000     239.472
26.8


Elemento 190
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -2.2896e-01  5.0416e-02  1.3182e-01  1.0185e+03  5.4462e+02 -
2.0694e+02
         -1.7643e-01 -1.3424e-01  1.1989e-01  1.2349e+03  9.4090e+02 -
9.3492e+01
         -1.7120e-01 -1.4422e-01  7.3046e-02  1.3404e+03  8.6404e+02
6.9431e+01
         -2.2373e-01  4.0440e-02  8.4970e-02  1.1389e+03  8.4727e+02 -
3.6919e+01
#2 - moto ondoso
         -9.8500e-02 -3.2933e-02  1.7576e-02  5.6686e+02 -1.0941e+02
1.0849e-01
         -9.9224e-02 -3.8605e-02  5.8641e-03  1.2362e+03 -1.9544e+01
3.4119e+01
         -1.2461e-01 -2.9841e-02  4.9231e-03  1.2548e+03 -3.5780e+01
8.5387e+01
         -1.2388e-01 -2.4169e-02  1.6635e-02  7.6292e+02  2.7851e+00
9.8227e-02
#1 - peso proprio
```

```
         -9.5729e-02 -2.5851e-02  1.7814e-01  1.3353e+02  2.0576e+01
6.7636e+01
         -1.0292e-01  1.5000e-02  2.0227e-01 -4.1712e+01 -6.7237e+02
2.7071e+01
         -5.5693e-02  2.4384e-05  2.1169e-01  2.8169e+01  6.0197e+02
1.7578e+01
         -4.8500e-02 -4.0827e-02  1.8756e-01 -7.2540e+01 -4.7245e+01
9.6635e+01

Verifica delle armature
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Massima tns. cls.    -46.09   vtx 2   cmb 4
Massima tns. acc.   1298.30   vtx 3   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.027     239.472        77.2      0.000     239.472
48.4
1      0.031     239.472        93.0      0.019     239.472
2.8
2      0.051     239.472        46.5      0.000     239.472
48.4
3      0.027     239.472        64.8      0.000     239.472
48.4


Elemento 177
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
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              Nx          Ny          Nxy           Mx          My
Mxy
           kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -2.2373e-01  4.0440e-02 -8.4970e-02  1.1389e+03  8.4727e+02
3.6919e+01
         -1.7120e-01 -1.4422e-01 -7.3046e-02  1.3404e+03  8.6404e+02 -
6.9431e+01
         -1.7643e-01 -1.3424e-01 -1.1989e-01  1.2349e+03  9.4090e+02
9.3492e+01
         -2.2896e-01  5.0416e-02 -1.3182e-01  1.0185e+03  5.4462e+02
2.0694e+02
#2 - moto ondoso
         -1.2388e-01 -2.4169e-02 -1.6635e-02  7.6292e+02  2.7851e+00 -
9.8227e-02
         -1.2461e-01 -2.9841e-02 -4.9231e-03  1.2548e+03 -3.5780e+01 -
8.5387e+01
```

```
         -9.9224e-02 -3.8605e-02 -5.8641e-03  1.2362e+03 -1.9544e+01 -
3.4119e+01
         -9.8500e-02 -3.2933e-02 -1.7576e-02  5.6686e+02 -1.0941e+02 -
1.0849e-01
#1 - peso proprio
          4.8500e-02  4.0827e-02  1.8756e-01  7.2540e+01  4.7245e+01
9.6635e+01
          5.5693e-02 -2.4384e-05  2.1169e-01 -2.8169e+01 -6.0197e+02
1.7578e+01
          1.0292e-01 -1.5000e-02  2.0227e-01  4.1712e+01  6.7237e+02
2.7071e+01
          9.5729e-02  2.5851e-02  1.7814e-01 -1.3353e+02 -2.0576e+01
6.7636e+01

Verifica delle armature
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Massima tns. cls.    -48.50   vtx 3   cmb 4
Massima tns. acc.   1309.31   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.033     239.472        59.6      0.000     239.472       -
48.4
1      0.034     239.472       -93.1      0.018     239.472        -
2.7
2      0.053     239.472        36.8      0.000     239.472
41.6
3      0.021     239.472        62.5      0.001     239.472       -
18.1


Elemento 186
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -2.1858e-01  3.9096e-01 -4.3211e-03  1.0677e+03  6.8572e+02
1.7569e+02
         -2.1858e-01  3.9096e-01 -4.3211e-03  1.1134e+03  1.4732e+03
5.9873e+01
         -2.1858e-01  3.9096e-01 -4.3211e-03  1.0259e+03  1.3341e+03
5.0812e+02
#2 - moto ondoso
         -8.9070e-02 -2.4640e-02 -4.1371e-02  5.5349e+02  3.2834e+01
8.4004e+00
```

```
         -8.9070e-02 -2.4640e-02 -4.1371e-02  1.2047e+03  3.9130e+02 -
2.3019e+01
         -8.9070e-02 -2.4640e-02 -4.1371e-02  7.0077e+02  1.6791e+02
1.6502e+02
#1 - peso proprio
          1.3526e-01  7.3235e-02  3.4123e-01 -8.1450e+01  1.7585e+02
1.2851e+02
          1.3526e-01  7.3235e-02  3.4123e-01  7.1646e+01 -1.7268e+02
1.3982e+02
          1.3526e-01  7.3235e-02  3.4123e-01 -3.8248e+01 -2.3149e+02 -
2.8547e+01

Verifica delle armature
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Massima tns. cls.    -48.32   vtx 2   cmb 4
Massima tns. acc.   1276.87   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.033     239.472        43.5      0.000     239.472
39.1
1      0.041     239.472        56.6      0.000     239.472
39.1
2      0.029     239.472        57.4      0.000     239.472
39.1


Elemento 185
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
           kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -4.9361e-02 -2.5462e-01 -1.0246e-01  6.0826e+02  8.1791e+02
1.2524e+01
         -4.9361e-02 -2.5462e-01 -1.0246e-01  1.1453e+03  6.5919e+02
6.4794e+01
         -4.9361e-02 -2.5462e-01 -1.0246e-01  9.8737e+02  1.0419e+03 -
7.7751e+01
#2 - moto ondoso
         -3.4799e-02 -1.0221e-01  1.0647e-02  4.2998e+02 -1.2518e+02
3.4221e+02
         -3.4799e-02 -1.0221e-01  1.0647e-02  1.0602e+03  7.2382e+01
4.4084e+02
         -3.4799e-02 -1.0221e-01  1.0647e-02  9.0381e+02  2.5651e+02
5.5776e+02
```

#1 - peso proprio
-1.8502e-01 1.0793e-01 9.7969e-02 4.6043e+01 -5.3131e+01 -4.7553e+01
-1.8502e-01 1.0793e-01 9.7969e-02 -6.3952e+01 -5.8558e+02 1.9577e+02
-1.8502e-01 1.0793e-01 9.7969e-02 1.6561e+02 4.5738e+02 -3.0755e+02

Verifica delle armature

Massima tns. cls. -48.91 vtx 2 cmb 4
Massima tns. acc. 1209.76 vtx 2 cmb 4

Verifica a fessurazione

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nodo	superiore ampiezza (mm)	superiore distanza (mm)	superiore incl. (°)	inferiore ampiezza (mm)	inferiore distanza (mm)	inferiore incl. (°)
0	0.021	239.472	73.3	0.000	239.472	70.5
1	0.041	239.472	73.2	0.028	239.472	-15.5
2	0.054	239.472	-25.1	0.000	239.472	-19.5

Elemento 184

Spessore cm 25.000000

Sollecitazioni ai vertici dell'elemento

	Nx kg/cm2	Ny kg/cm2	Nxy kg/cm2	Mx kg	My kg	Mxy kg
#3 - sbalzo termico						
	-2.7335e-01	1.7781e-01	5.0381e-01	7.7135e+02	1.1892e+03	5.4106e+01
	-2.7335e-01	1.7781e-01	5.0381e-01	9.1771e+02	9.3601e+02	1.1499e+02
	-2.7335e-01	1.7781e-01	5.0381e-01	8.1184e+02	5.5256e+02	-9.3818e+01
#2 - moto ondoso						
	-6.5011e-02	-2.4316e-02	2.2992e-02	4.1337e+02	4.7176e+02	-3.0649e+02
	-6.5011e-02	-2.4316e-02	2.2992e-02	1.0059e+03	6.0326e+02	-3.4231e+02
	-6.5011e-02	-2.4316e-02	2.2992e-02	4.1032e+02	1.9867e+02	-2.2980e+02
#1 - peso proprio						
	8.7421e-02	-3.7321e-01	3.5713e-01	4.8489e+01	2.0647e+02	8.6145e+01

```
          8.7421e-02 -3.7321e-01  3.5713e-01  9.4485e+01  6.7660e-02
1.7539e+02
          8.7421e-02 -3.7321e-01  3.5713e-01  1.0269e+02 -1.8915e+02 -
3.3211e+01

Verifica delle armature
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Massima tns. cls.    -49.37   vtx 2   cmb 4
Massima tns. acc.   1072.74   vtx 2   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.039     239.472        12.2      0.000     239.472
19.5
1      0.034     239.472       -84.9      0.000     239.472
19.5
2      0.029     239.472       -74.5      0.001     239.472       -
16.7


Elemento 176
_____________________________________________________________________
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Spessore  cm  25.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
          -1.8754e-01  3.8315e-01  2.6583e-01  7.0216e+02  2.5906e+02
1.6968e+02
          -6.4213e-02  2.7367e-01  7.0632e-01  8.6627e+02  5.3274e+02 -
1.9976e+02
           9.4642e-01 -9.0028e-02  6.5889e-01 -1.8288e+02  1.0900e+03
1.6861e+02
           8.2310e-01  1.9451e-02  2.1841e-01  8.2499e+02  2.0621e+02
7.6868e+02
#2 - moto ondoso
          -1.0046e-01 -2.0715e-02 -2.2079e-03  5.8086e+02 -9.4412e+01 -
8.9333e+00
          -9.8210e-02 -4.6907e-02 -2.9136e-02  1.2286e+03 -7.2581e+00
3.5170e+01
          -1.5428e-01 -2.8147e-02 -3.4673e-02  1.2886e+03 -3.3178e+01
5.8999e+01
          -1.5653e-01 -1.9546e-03 -7.7446e-03  7.5604e+02  6.4380e+01 -
3.7365e+01
#1 - peso proprio
          -3.2021e-01 -4.3275e-03  1.1316e-01  8.9689e+01  2.3946e+01
7.6742e+01
```

```
         -3.2732e-01  3.7442e-02  1.3899e-01 -6.7000e+01 -5.0180e+02
2.3921e+01
         -2.7643e-01  2.1207e-02  1.4857e-01 -9.3415e-01  4.5158e+02
1.1048e+01
         -2.6932e-01 -2.0563e-02  1.2274e-01 -1.2040e+02 -4.7487e+01
1.0049e+02
```

Verifica delle armature

Massima tns. cls. -46.58 vtx 3 cmb 4
Massima tns. acc. 1235.92 vtx 4 cmb 4

Verifica a fessurazione

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nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.026	239.472	72.0	0.002	239.472	-1.6
1	0.023	239.472	92.9	0.015	239.472	2.6
2	0.037	239.472	27.8	0.000	239.472	48.4
3	0.031	239.472	61.3	0.011	239.472	-1.3

VERIFICHE C.A. SETTI TRASVERSALI

Armatura a doppia maglia quadra (rete elettrosaldata) ø10/20” Aa = 3,93 cmq

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Caratteristiche dei materiali

Metodo delle tensioni ammissibili

Resistenza caratteristica calcestruzzo	kg/cm2	250.00
Tensione ammissibile calcestruzzo	kg/cm2	85.00
Tensione ammissibile acciaio	kg/cm2	2600.00
Rapporto moduli elastici		15.00

Tipi delle condizioni di carico

#3 - sbalzo termico	Variabile
#2 - moto ondoso	Variabile
#1 - peso proprio	Permanente favorevole

Combinazioni di progetto dei carichi

(4) 1.00 * #1 - peso proprio + 1.00 * #2 - moto ondoso
+ 1.00 * #3 - sbalzo termico
(3) 1.00 * #1 - peso proprio + 1.00 * #2 - moto ondoso
(2) 1.00 * #1 - peso proprio + 1.00 * #3 - sbalzo termico
(1) 1.00 * #1 - peso proprio

Elemento 66

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx	Ny	Nxy	Mx	My	Mxy
	kg/cm2	kg/cm2	kg/cm2	kg	kg	kg
#3 - sbalzo termico						
	-3.5796e-01	-2.1923e-02	-1.3612e-01	6.2693e+02	5.7034e+02	5.3486e+00
	-3.8927e-01	2.6106e-01	-3.2896e-02	3.5984e+02	4.5242e+02	-7.8584e+00
	-3.0167e-01	2.2880e-01	-1.5318e-02	3.5839e+02	4.3349e+02	-8.0224e+01
	-2.7035e-01	-5.4183e-02	-1.1854e-01	5.9285e+02	6.1094e+02	-4.8729e+01
#2 - moto ondoso						
	-3.4007e+00	3.6308e-02	3.6153e-01	-1.1539e+02	-6.5491e+00	8.0879e+00

```
         -3.3938e+00  8.3937e-02  6.3466e-01 -6.5663e+01  7.5567e-02
4.1289e+00
         -3.1502e+00 -2.5750e-02  6.4119e-01 -6.3690e+01  3.0634e+00
9.0352e+00
         -3.1571e+00 -7.3379e-02  3.6806e-01 -1.1524e+02 -3.0348e+00
8.8758e+00
#1 - peso proprio
          6.8747e-02 -1.6789e-01  7.9854e-01 -4.1959e-01 -6.5369e-01 -
7.7061e-01
          6.0051e-02 -1.4940e-01  6.6554e-01 -4.2772e-01  7.2195e-01 -
2.1728e+00
         -5.9279e-02 -9.4548e-02  6.6474e-01 -4.6746e-01  8.8844e-01 -
1.8612e+00
         -5.0582e-02 -1.1303e-01  7.9774e-01 -1.5271e+00  4.3279e-01 -
4.3121e-01

Verifica delle armature
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Massima tns. cls.    -45.68   vtx 4   cmb 4
Massima tns. acc.   1277.94   vtx 1   cmb 4

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.030     225.493        37.6      0.000     225.493
40.1
1      0.021     225.493        27.8      0.000     225.493
40.1
2      0.024     225.493       -38.7      0.000     225.493
40.1
3      0.031     225.493       -42.5      0.000     225.493
40.1


Elemento 68
_____________________________________________________________________
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Spessore  cm  20.000000

Sollecitazioni ai vertici dell'elemento
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              Nx          Ny          Nxy           Mx          My
Mxy
           kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -5.0838e-02  3.7278e-01  1.2027e-01  4.6660e+02  5.2081e+02 -
9.7459e+01
         -4.7474e-02  3.7653e-01  1.2916e-01  4.4140e+02  6.7294e+02 -
2.3247e+02
         -1.8021e-02  3.7115e-01  1.2417e-01  2.6422e+02  5.6747e+02
2.4369e+00
```

```
         -2.1385e-02  3.6740e-01  1.1529e-01  4.2004e+02  4.1209e+02 -
2.7273e+01
#2 - moto ondoso
         -2.0265e+00 -1.1518e+00  1.9053e+00 -4.5360e+01 -2.0600e+01
2.6949e+01
         -1.7606e+00 -1.3680e+00  2.2191e+00 -3.5928e+01 -2.7473e+01
3.6349e+01
         -2.8539e-01 -1.5370e+00  1.7135e+00 -2.1105e+01 -2.1527e+01
1.9104e+01
         -5.5127e-01 -1.3208e+00  1.3997e+00 -4.1484e+01 -1.0689e+01
2.5458e+01
#1 - peso proprio
          3.3163e-01 -1.7240e+00  1.1603e+00 -2.8316e+00  1.5848e+00 -
9.5166e-01
          5.1189e-01 -2.4052e+00  9.6788e-01 -1.4916e+00  3.2918e+00 -
9.9878e-01
          6.2315e-01 -2.2526e+00  5.0885e-01 -2.3202e+00  2.5041e+00 -
6.6904e-01
          4.4289e-01 -1.5713e+00  7.0125e-01 -2.2042e+00  3.0548e+00 -
2.3327e-01

Verifica delle armature
_____________________________________________________________________
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Massima tns. cls.    -55.61   vtx 2   cmb 4
Massima tns. acc.   1250.49   vtx 1   cmb 2

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.026     225.493         2.2      0.000     225.493
12.7
1      0.033     225.493       -10.2      0.000     225.493
12.7
2      0.030     225.493         7.4      0.000     225.493
12.7
3      0.022     225.493        11.1      0.000     225.493
12.7


Elemento 74
_____________________________________________________________________
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Spessore  cm  20.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
            kg/cm2      kg/cm2      kg/cm2          kg          kg
kg
#3 - sbalzo termico
         -1.6714e-01  2.3817e-01 -8.1699e-02  4.7824e+02  3.7352e+02
3.1699e+01
```

```
         -1.3321e-01  1.2085e-01 -6.7743e-02  7.7291e+02  1.4910e+02
1.3515e+02
         -6.9919e-02  1.0656e-01 -1.0879e-01  8.7039e+02  1.3130e+02
3.4695e+01
         -1.0385e-01  2.2389e-01 -1.2274e-01  7.9317e+02  5.3158e+02 -
1.8863e+02
#2 - moto ondoso
         -5.8987e+00 -5.8755e-02  4.0465e-01 -5.9365e+01 -5.1542e+00 -
7.4453e+00
         -5.9404e+00 -7.7406e-01 -3.1676e-01 -5.9502e+01  8.3190e+00 -
1.1638e+01
         -7.1396e+00 -4.2599e-01 -3.6262e-01 -6.2825e+01  6.8045e+00 -
1.1092e+01
         -7.0979e+00  2.8932e-01  3.5878e-01 -7.1052e+01 -3.7012e+00
2.1889e+00
#1 - peso proprio
         -4.2865e-01 -8.7157e-01  1.6334e+00  9.0095e-01 -1.2385e+00 -
2.7738e+00
         -6.3540e-01 -2.3613e-01  1.4833e+00  7.2985e-01 -6.7999e-01 -
2.5576e+00
         -1.1246e+00 -1.1857e-01  1.7245e+00  8.2198e-01 -3.1527e-01 -
2.7161e+00
         -9.1785e-01 -7.5401e-01  1.8746e+00  5.6381e-01 -9.7402e-02 -
2.4947e+00

Verifica delle armature
_____________________________________________________________________
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Massima tns. cls.    -58.61   vtx 4   cmb 4
Massima tns. acc.   2070.81   vtx 3   cmb 2

Verifica a fessurazione
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nodo             superiore                          inferiore
     ampiezza    distanza      incl.    ampiezza    distanza     incl.
       (mm)        (mm)        (°)        (mm)        (mm)        (°)

0      0.022     225.493        55.5      0.000     225.493
52.2
1      0.036     225.493        73.7      0.000     225.493
52.2
2      0.036     225.493        81.6      0.000     225.493
52.2
3      0.044     225.493       -48.1      0.000     225.493
52.2


Elemento 73
_____________________________________________________________________
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Spessore  cm  20.000000

Sollecitazioni ai vertici dell'elemento
_____________________________________________________________________
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              Nx          Ny          Nxy           Mx          My
Mxy
```

	kg/cm2	kg/cm2	kg/cm2	kg	kg	kg
#3 - sbalzo termico						
	-8.3939e-02	1.7200e-02	1.7510e-02	7.5446e+02	1.4622e+02	-1.3385e+02
	-7.5949e-02	1.1280e-02	-3.5614e-03	4.6171e+02	3.9678e+02	-2.7920e+01
	-1.1917e-01	2.2990e-02	-1.0794e-02	7.8072e+02	5.4893e+02	2.0632e+02
	-1.2716e-01	2.8910e-02	1.0278e-02	8.6008e+02	1.3723e+02	-2.6358e+01
#2 - moto ondoso						
	-5.9812e+00	-7.4985e-01	3.4467e-01	-4.0993e+01	7.7827e+00	7.0713e+00
	-5.9530e+00	-1.5763e-02	-3.4821e-01	3.9558e+00	3.5275e+00	2.7298e+00
	-7.0904e+00	3.1584e-01	-2.8911e-01	-2.0553e+01	-1.6589e+01	-2.6671e+00
	-7.1186e+00	-4.1825e-01	4.0377e-01	-4.3923e+01	1.7048e+00	1.3057e+00
#1 - peso proprio						
	8.4070e-01	3.6655e-01	1.2694e+00	-8.3888e-01	6.2506e-01	-2.6689e+00
	5.4690e-01	1.0211e+00	1.6863e+00	-9.8161e-01	1.6069e+00	-2.9445e+00
	1.5663e+00	7.5845e-01	2.0011e+00	-5.9873e-01	2.8130e-01	-2.4251e+00
	1.8601e+00	1.0393e-01	1.5843e+00	-9.8958e-01	3.0634e-01	-2.6702e+00

Verifica delle armature

Massima tns. cls. -57.11 vtx 4 cmb 4
Massima tns. acc. 2199.06 vtx 3 cmb 2

Verifica a fessurazione

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nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.037	225.493	-72.5	0.000	225.493	-58.5
1	0.026	225.493	-54.5	0.000	225.493	-52.2
2	0.045	225.493	48.8	0.000	225.493	37.8
3	0.036	225.493	-80.4	0.000	225.493	-52.2

Elemento 64

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx	Ny	Nxy	Mx	My	Mxy
	kg/cm2	kg/cm2	kg/cm2	kg	kg	kg
#3 - sbalzo termico						
	-2.6404e-02	2.8508e-02	-1.4654e-02	3.2946e+02	4.9528e+02	2.5287e+01
	-2.6404e-02	2.8508e-02	-1.4654e-02	6.7473e+02	6.2274e+02	-9.9345e+00
	-2.6404e-02	2.8508e-02	-1.4654e-02	3.1124e+02	4.4102e+02	9.1215e+01
#2 - moto ondoso						
	-3.4815e+00	1.7619e-01	-3.5848e-01	2.1815e+01	7.1187e+00	9.2014e-01
	-3.4815e+00	1.7619e-01	-3.5848e-01	5.5414e+01	1.5484e+01	1.5666e+00
	-3.4815e+00	1.7619e-01	-3.5848e-01	2.2150e+01	-4.0792e+00	5.2472e+00
#1 - peso proprio						
	3.2386e-15	1.5196e-01	7.4020e-01	2.3933e-01	7.2402e-03	-2.0346e+00
	3.2386e-15	1.5196e-01	7.4020e-01	1.8625e-01	-1.2842e+00	-8.5174e-01
	3.2386e-15	1.5196e-01	7.4020e-01	8.5116e-01	-1.9663e+00	-2.7026e+00

Verifica delle armature

Massima tns. cls. -46.70 vtx 2 cmb 4
Massima tns. acc. 1504.60 vtx 2 cmb 2

Verifica a fessurazione

nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.024	225.493	35.4	0.000	225.493	45.0
1	0.038	225.493	-49.0	0.000	225.493	45.0
2	0.026	225.493	39.3	0.000	225.493	45.0

Elemento 63

Spessore cm 20.000000

Sollecitazioni ai vertici dell'elemento

	Nx	Ny	Nxy	Mx	My	Mxy
	kg/cm2	kg/cm2	kg/cm2	kg	kg	kg
#3 - sbalzo termico						
	-2.8544e-03	-8.3905e-03	-8.8491e-03	2.4524e+02	6.6397e+02	7.7026e+01
	-2.8544e-03	-8.3905e-03	-8.8491e-03	6.7464e+02	6.0668e+02	3.2723e+01
	-2.8544e-03	-8.3905e-03	-8.8491e-03	4.5721e+02	5.9492e+02	4.6649e+00
#2 - moto ondoso						
	-2.4169e+00	-6.9376e-01	-1.2957e+00	1.2869e+01	-6.8846e+00	1.6102e+01
	-2.4169e+00	-6.9376e-01	-1.2957e+00	4.9296e+01	4.1392e+00	2.1493e+01
	-2.4169e+00	-6.9376e-01	-1.2957e+00	3.8318e+01	1.3793e+01	2.8214e+01
#1 - peso proprio						
	-5.7203e-01	1.7564e+00	1.5499e+00	2.8238e+00	-3.1300e+00	-1.3164e+00
	-5.7203e-01	1.7564e+00	1.5499e+00	1.0883e+00	-7.3438e-01	1.0910e-01
	-5.7203e-01	1.7564e+00	1.5499e+00	2.9843e+00	7.6419e-01	1.4625e+00

Verifica delle armature

Massima tns. cls.	-50.10	vtx 2	cmb 4
Massima tns. acc.	1570.14	vtx 2	cmb 2

Verifica a fessurazione

nodo	superiore			inferiore		
	ampiezza (mm)	distanza (mm)	incl. (°)	ampiezza (mm)	distanza (mm)	incl. (°)
0	0.032	225.493	0.3	0.000	225.493	72.3
1	0.041	225.493	71.6	0.000	225.493	72.3
2	0.032	225.493	-11.6	0.000	225.493	72.3

Verifiche pali

Modalità di verifica

Il comportamento del palo è caratterizzato definendo il suo funzionamento per attrito laterale, resistenza di punta e rigidezza trasversale.

E' possibile tenere conto dell'efficienza del palo isolato o del gruppo di pali, sia alle azioni orizzontali che verticali.

E' possibile tenere conto della presenza di uno zoccolo rigido in sommità al palo o al gruppo di pali. Tale elemento influenza unicamente l'entità dei momenti di trasporto.

Le coordinate del centro del gruppo di pali possono essere coincidenti con il baricentro geometrico dei pali o fissate dall'utente.

La distanza minima di interferenza fra pali è misurata fra i centri ed è stabilita dall'Utente.

L'angolo di carico flessionale definisce la semiampiezza del cono di carico del palo nella direzione dello spostamento. Se non vi sono pali nel cono di carico a distanza inferiore alla distanza di interferenza minima il palo viene considerato isolato.

Viene condotta la verifica a presso/tensoflessione deviata dei pali in c.a. La verifica viene condotta in ciascuno dei conci in cui è diviso il fusto del palo.

Non viene condotta la verifica a taglio.

Dati Generali

- Lunghezza dei pali 9.00 [m]
- Altezza dello zoccolo di fondazione 0.00 [m]
- Centro della palificata 0.00 0.00 [m]
- Efficienza assiale dei pali esterni 1
- Efficienza assiale dei pali interni 1
- Efficienza flessionale dei pali esterni 1
- Efficienza flessionale dei pali interni 1
- Angolo di carico flessionale 90.00 [°]
- Distanza d'interazione flessionale 3.00 [m]

Sezione Circolare D=80 [cm]

- D 80 [cm]
- Circonferenza 251 [cm]
- Area 5026.55 [cm²]
- J 2010619 [cm^4]
- Jt 4021239 [cm^4]
- X 1.00

Materiale

- E 300000.0 [kg/cm²]
- v 0.12

Dati relativi al terreno:

Dati per il calcolo della rigidezza assiale:

Variazione delle costanti di Winkler assiali con la profondita'

z [m]	kv [kg/cm³]
0.00	0.5

Rigidezza per punta 1250000.0

Dati per il calcolo della rigidezza flessionale:

Variazione delle costanti di Winkler laterali con la profondita'

z [m]	kh [kg/cm³]
0.00	1.0

Dati relativi al progetto-verifica delle armature:

Calcestruzzo *C 28/35* :

- Tensione ammissibile : 110.0 [kg/cm²]
- Tensione tangenziale τ_{bo} : 6.7 [kg/cm²]
- Tensione tangenziale τ_{b1} : 19.7 [kg/cm²]

Acciaio *B 450 C* :

- Tensione ammissibile : 2600.0 [kg/cm²]

Criterio di verifica:

- Copriferro : 3.50 [cm]
- Numero minimo di barre : 6
- Numero massimo di barre : 12
- Diametri [mm] : 20

Geometria palificata:

Palo	x [m]	y [m]	Inclinazione xy [°]	Inclinazione vert. [°] [°]
1	0.00	0.00	0.00	0.00

Azioni di verifica:

Cond.	Commento	x [m]	y [m]	Px [kg]	Py [kg]	Pz [kg]	Mx [kgm]	My [kgm]	Mz [kgm]
1	nodo 518 (1)			-495.6	-405.2	-10575.8	-1894.4	2316.9	-0.0
2	nodo 518 (2)			-426.6	-430.4	-10515.0	-2012.2	1994.4	-0.0
3	nodo 518 (3)			-1468.7	-60.7	-7671.9	-283.7	6866.4	-0.0
4	nodo 518 (4)			-1351.7	654.0	-5880.8	3057.7	6319.3	0.0
5	nodo 518 (5)			-1595.2	1.0	-7626.2	4.5	7457.7	0.0
6	nodo 518 (6)			-1478.1	715.7	-5835.2	3345.9	6910.6	0.0
7	nodo 518 (7)			-940.0	-1362.6	-10721.4	-6370.5	4394.6	-0.0
8	nodo 518 (8)			-347.3	-1739.4	-11458.2	-8131.9	1623.8	-0.0
9	nodo 518 (9)			-1014.0	-1243.9	-10475.1	-5815.4	4740.6	-0.0
10	nodo 518 (10)			-421.3	-1620.7	-11212.0	-7576.9	1969.8	-0.0

11	nodo 518 (11)	506.9	-1316.6	-10128.0	-6155.2	-2369.7	-0.0
12	nodo 518 (12)	623.9	-601.8	-8336.9	-2813.7	-2916.7	-0.0
13	nodo 518 (13)	380.4	-1254.9	-10082.3	-5866.9	-1778.4	-0.0
14	nodo 518 (14)	497.4	-540.2	-8291.3	-2525.5	-2325.5	-0.0
15	nodo 518 (15)	-549.9	1019.8	-4751.2	4767.6	2571.1	0.0
16	nodo 518 (16)	42.7	643.0	-5488.0	3006.2	-199.7	0.0
17	nodo 518 (17)	-624.0	1138.5	-4504.9	5322.7	2917.1	0.0
18	nodo 518 (18)	-31.3	761.7	-5241.8	3561.2	146.3	0.0
19	nodo 515 (1)	108.9	182.1	-11866.1	851.6	-509.2	0.0
20	nodo 515 (2)	100.5	120.5	-11666.0	563.5	-469.6	0.0
21	nodo 515 (3)	-506.9	274.6	-8407.1	1284.0	2369.6	0.0
22	nodo 515 (4)	-508.9	436.0	-7697.8	2038.5	2379.4	0.0
23	nodo 515 (5)	-656.9	292.0	-8285.0	1365.0	3071.0	0.0
24	nodo 515 (6)	-659.0	453.3	-7575.8	2119.5	3080.8	0.0
25	nodo 515 (7)	23.8	-48.9	-10010.5	-228.4	-111.2	-0.0
26	nodo 515 (8)	432.6	-160.8	-10666.9	-751.6	-2022.5	-0.0
27	nodo 515 (9)	-228.7	-22.3	-9868.3	-104.1	1069.4	-0.0
28	nodo 515 (10)	180.1	-134.2	-10524.7	-627.3	-841.9	-0.0
29	nodo 515 (11)	855.9	-98.4	-10595.2	-460.1	-4001.4	-0.0
30	nodo 515 (12)	853.8	63.0	-9886.0	294.4	-3991.7	0.0
31	nodo 515 (13)	705.9	-81.1	-10473.2	-379.1	-3300.0	-0.0
32	nodo 515 (14)	703.8	80.3	-9764.0	375.4	-3290.3	0.0
33	nodo 515 (15)	16.8	489.1	-7646.4	2286.7	-78.7	0.0
34	nodo 515 (16)	425.7	377.2	-8302.8	1763.4	-1990.1	0.0
35	nodo 515 (17)	-235.7	515.7	-7504.1	2411.0	1101.9	0.0
36	nodo 515 (18)	173.1	403.8	-8160.6	1887.8	-809.4	0.0
37	nodo 512 (1)	16.1	-880.0	-8326.2	-4114.1	-75.4	-0.0
38	nodo 512 (2)	23.3	-877.3	-8276.2	-4101.4	-108.8	-0.0

39	nodo 512 (3)	189.7	-750.1	-6390.1	-3507.0	-886.9	-0.0
40	nodo 512 (4)	228.5	-713.7	-6272.3	-3336.7	-1068.2	-0.0
41	nodo 512 (5)	223.5	-755.4	-6409.5	-3531.6	-1044.9	-0.0
42	nodo 512 (6)	262.3	-719.0	-6291.7	-3361.3	-1226.1	-0.0
43	nodo 512 (7)	-3.8	-811.1	-6576.2	-3792.1	17.7	-0.0
44	nodo 512 (8)	-137.1	-824.8	-6611.5	-3856.0	640.8	-0.0
45	nodo 512 (9)	15.6	-811.3	-6580.5	-3793.1	-72.8	-0.0
46	nodo 512 (10)	-117.7	-825.0	-6615.8	-3857.1	550.3	-0.0
47	nodo 512 (11)	-254.5	-795.7	-6507.7	-3720.1	1189.9	-0.0
48	nodo 512 (12)	-215.8	-759.3	-6390.0	-3549.8	1008.7	-0.0
49	nodo 512 (13)	-220.7	-801.0	-6527.1	-3744.8	1032.0	-0.0
50	nodo 512 (14)	-182.0	-764.6	-6409.4	-3574.5	850.7	-0.0
51	nodo 512 (15)	125.4	-689.7	-6183.6	-3224.4	-586.5	-0.0
52	nodo 512 (16)	-7.8	-703.4	-6218.9	-3288.3	36.6	-0.0
53	nodo 512 (17)	144.8	-689.9	-6188.0	-3225.5	-677.0	-0.0
54	nodo 512 (18)	11.5	-703.6	-6223.3	-3289.4	-53.9	-0.0
55	nodo 509 (1)	-135.7	208.0	-11784.6	972.5	634.5	0.0
56	nodo 509 (2)	-139.2	246.4	-11697.6	1151.8	650.8	0.0
57	nodo 509 (3)	-775.8	-2.9	-9613.1	-13.7	3627.0	-0.0
58	nodo 509 (4)	-890.7	32.3	-9355.0	150.9	4164.2	0.0
59	nodo 509 (5)	-879.7	-30.3	-9805.1	-141.7	4112.7	-0.0
60	nodo 509 (6)	-994.6	4.9	-9546.9	22.9	4649.9	0.0
61	nodo 509 (7)	-120.8	-8.6	-9465.6	-40.2	564.9	-0.0
62	nodo 509 (8)	344.9	28.7	-9051.7	134.1	-1612.5	0.0
63	nodo 509 (9)	-179.8	-19.8	-9589.2	-92.5	840.8	-0.0
64	nodo 509 (10)	285.9	17.5	-9175.3	81.7	-1336.6	0.0
65	nodo 509 (11)	776.7	121.3	-8233.4	567.2	-3631.0	0.0
66	nodo 509 (12)	661.8	156.5	-7975.2	731.8	-3093.8	0.0

67	nodo 509 (13)	672.8	93.9	-8425.3	439.2	-3145.3	0.0
68	nodo 509 (14)	557.9	129.1	-8167.1	603.8	-2608.1	0.0
69	nodo 509 (15)	-503.8	108.7	-8605.0	508.4	2355.5	0.0
70	nodo 509 (16)	-38.1	146.0	-8191.1	682.6	178.1	0.0
71	nodo 509 (17)	-562.8	97.5	-8728.6	456.0	2631.4	0.0
72	nodo 509 (18)	-97.1	134.8	-8314.7	630.3	454.0	0.0
73	nodo 506 (1)	582.8	-626.3	-10100.9	-2928.0	-2724.7	-0.0
74	nodo 506 (2)	523.9	-587.0	-9952.4	-2744.2	-2449.1	-0.0
75	nodo 506 (3)	-303.0	-971.6	-8133.5	-4542.4	1416.5	-0.0
76	nodo 506 (4)	-462.4	-821.5	-7660.3	-3840.6	2161.7	-0.0
77	nodo 506 (5)	-424.5	-1127.6	-8302.7	-5271.7	1984.5	-0.0
78	nodo 506 (6)	-583.9	-977.5	-7829.5	-4570.0	2729.7	-0.0
79	nodo 506 (7)	541.3	-886.2	-8502.2	-4143.0	-2530.5	-0.0
80	nodo 506 (8)	1125.2	-634.0	-8336.3	-2964.0	-5260.7	-0.0
81	nodo 506 (9)	465.8	-974.8	-8651.1	-4557.5	-2177.7	-0.0
82	nodo 506 (10)	1049.8	-722.6	-8485.2	-3378.4	-4907.9	-0.0
83	nodo 506 (11)	1643.6	-130.9	-7580.5	-612.2	-7684.2	-0.0
84	nodo 506 (12)	1484.2	19.2	-7107.3	89.6	-6939.0	0.0
85	nodo 506 (13)	1522.1	-287.0	-7749.7	-1341.6	-7116.2	-0.0
86	nodo 506 (14)	1362.7	-136.9	-7276.5	-639.8	-6371.0	-0.0
87	nodo 506 (15)	10.0	-385.8	-6924.8	-1803.8	-46.6	-0.0
88	nodo 506 (16)	593.9	-133.6	-6758.8	-624.7	-2776.8	-0.0
89	nodo 506 (17)	-65.5	-474.5	-7073.7	-2218.2	306.3	-0.0
90	nodo 506 (18)	518.5	-222.3	-6907.8	-1039.2	-2424.0	-0.0
91	nodo 474 (1)	446.0	-854.4	-10113.7	-3994.3	-2085.2	-0.0
92	nodo 474 (2)	434.0	-786.0	-9981.6	-3674.9	-2028.9	-0.0
93	nodo 474 (3)	-786.0	-611.1	-5250.5	-2857.1	3674.6	-0.0
94	nodo 474 (4)	-793.8	-492.6	-4765.3	-2302.9	3711.3	-0.0

95	nodo 474 (5)	-1213.8	-645.2	-4922.6	-3016.6	5674.9	-0.0
96	nodo 474 (6)	-1221.7	-526.7	-4437.4	-2462.4	5711.6	-0.0
97	nodo 474 (7)	332.6	-894.5	-7746.7	-4181.7	-1555.2	-0.0
98	nodo 474 (8)	1156.7	-1011.7	-9451.4	-4729.8	-5407.8	-0.0
99	nodo 474 (9)	-391.4	-912.0	-7536.3	-4263.9	1829.6	-0.0
100	nodo 474 (10)	432.7	-1029.3	-9241.0	-4812.0	-2023.0	-0.0
101	nodo 474 (11)	1960.9	-1001.9	-10933.0	-4684.0	-9167.4	-0.0
102	nodo 474 (12)	1953.0	-883.4	-10447.8	-4129.8	-9130.8	-0.0
103	nodo 474 (13)	1533.0	-1036.0	-10605.1	-4843.5	-7167.1	-0.0
104	nodo 474 (14)	1525.2	-917.5	-10119.9	-4289.3	-7130.4	-0.0
105	nodo 474 (15)	306.5	-499.3	-6129.4	-2334.4	-1432.9	-0.0
106	nodo 474 (16)	1130.5	-616.6	-7834.1	-2882.5	-5285.5	-0.0
107	nodo 474 (17)	-417.5	-516.9	-5919.0	-2416.6	1951.9	-0.0
108	nodo 474 (18)	406.6	-634.1	-7623.8	-2964.7	-1900.7	-0.0
109	nodo 467 (1)	-381.1	-481.1	-10535.6	-2249.4	1781.7	-0.0
110	nodo 467 (2)	-401.6	-427.4	-10438.9	-1998.1	1877.6	-0.0
111	nodo 467 (3)	-1210.8	-1162.8	-10553.8	-5436.5	5660.8	-0.0
112	nodo 467 (4)	-1687.4	-716.8	-11610.4	-3350.9	7888.9	-0.0
113	nodo 467 (5)	-1399.4	-1159.5	-11053.9	-5420.9	6542.7	-0.0
114	nodo 467 (6)	-1876.0	-713.4	-12110.6	-3335.4	8770.8	-0.0
115	nodo 467 (7)	203.3	-1356.2	-7050.9	-6340.4	-950.3	-0.0
116	nodo 467 (8)	952.7	-1065.5	-5057.3	-4981.5	-4453.8	-0.0
117	nodo 467 (9)	47.0	-1328.8	-7439.3	-6212.5	-220.0	-0.0
118	nodo 467 (10)	796.4	-1038.2	-5445.7	-4853.6	-3723.5	-0.0
119	nodo 467 (11)	1287.1	-193.9	-3908.3	-906.7	-6017.5	-0.0
120	nodo 467 (12)	810.5	252.1	-4965.0	1178.8	-3789.4	0.0
121	nodo 467 (13)	1098.5	-190.6	-4408.5	-891.2	-5135.7	-0.0
122	nodo 467 (14)	621.9	255.5	-5465.2	1194.4	-2907.6	0.0

123	nodo 467 (15)	-1385.3	130.8	-10573.2	611.5	6476.7	0.0
124	nodo 467 (16)	-636.0	421.5	-8579.6	1970.4	2973.2	0.0
125	nodo 467 (17)	-1541.6	158.1	-10961.6	739.4	7207.0	0.0
126	nodo 467 (18)	-792.2	448.8	-8968.0	2098.3	3703.5	0.0
127	nodo 393 (1)	-350.4	334.3	-10754.0	1562.8	1638.2	0.0
128	nodo 393 (2)	-407.9	263.4	-10752.3	1231.5	1907.2	0.0
129	nodo 393 (3)	-333.1	383.7	-7194.0	1793.9	1557.3	0.0
130	nodo 393 (4)	-674.6	597.2	-5579.5	2792.0	3154.0	0.0
131	nodo 393 (5)	-150.7	317.3	-8037.6	1483.3	704.7	0.0
132	nodo 393 (6)	-492.3	530.8	-6423.1	2481.4	2301.4	0.0
133	nodo 393 (7)	272.1	52.5	-10002.4	245.4	-1272.2	0.0
134	nodo 393 (8)	421.4	-13.3	-10672.1	-62.3	-1970.3	-0.0
135	nodo 393 (9)	389.3	-3.2	-10559.3	-15.0	-1820.3	-0.0
136	nodo 393 (10)	538.7	-69.0	-11229.0	-322.7	-2518.3	-0.0
137	nodo 393 (11)	164.6	164.3	-9426.4	768.2	-769.6	0.0
138	nodo 393 (12)	-176.9	377.8	-7811.9	1766.3	827.1	0.0
139	nodo 393 (13)	347.0	97.9	-10270.0	457.6	-1622.2	0.0
140	nodo 393 (14)	5.5	311.4	-8655.5	1455.7	-25.5	0.0
141	nodo 393 (15)	-866.3	764.1	-4620.5	3572.3	4050.1	0.0
142	nodo 393 (16)	-717.0	698.3	-5290.2	3264.6	3352.0	0.0
143	nodo 393 (17)	-749.1	708.4	-5177.4	3311.9	3502.0	0.0
144	nodo 393 (18)	-599.8	642.6	-5847.1	3004.2	2804.0	0.0
145	nodo 390 (1)	227.8	25.9	-11987.2	121.3	-1064.8	0.0
146	nodo 390 (2)	103.9	21.8	-11616.9	101.8	-485.9	0.0
147	nodo 390 (3)	79.5	-348.6	-10122.5	-1629.6	-371.5	-0.0
148	nodo 390 (4)	-21.0	-11.8	-10755.8	-55.1	98.3	-0.0
149	nodo 390 (5)	45.6	-298.8	-10254.1	-1396.9	-213.2	-0.0
150	nodo 390 (6)	-54.9	38.0	-10887.4	177.6	256.5	0.0

151	nodo 390 (7)	386.6	-612.2	-8578.4	-2861.9	-1807.5	-0.0
152	nodo 390 (8)	551.5	-503.1	-7890.9	-2351.9	-2578.6	-0.0
153	nodo 390 (9)	357.7	-566.4	-8716.3	-2648.2	-1672.4	-0.0
154	nodo 390 (10)	522.7	-457.4	-8028.8	-2138.2	-2443.5	-0.0
155	nodo 390 (11)	629.2	15.1	-7830.8	70.5	-2941.7	0.0
156	nodo 390 (12)	528.7	351.8	-8464.1	1644.9	-2472.0	0.0
157	nodo 390 (13)	595.4	64.9	-7962.4	303.2	-2783.4	0.0
158	nodo 390 (14)	494.9	401.6	-8595.7	1877.7	-2313.7	0.0
159	nodo 390 (15)	51.7	510.4	-10689.4	2386.3	-241.7	0.0
160	nodo 390 (16)	216.6	619.5	-10001.9	2896.3	-1012.7	0.0
161	nodo 390 (17)	22.8	556.1	-10827.3	2600.0	-106.6	0.0
162	nodo 390 (18)	187.7	665.2	-10139.8	3110.0	-877.7	0.0
163	nodo 335 (1)	-199.1	-731.0	-9921.1	-3417.7	930.8	-0.0
164	nodo 335 (2)	-245.3	-691.4	-9858.2	-3232.4	1146.8	-0.0
165	nodo 335 (3)	-288.8	-438.7	-6744.3	-2050.9	1350.2	-0.0
166	nodo 335 (4)	-341.3	-114.9	-7286.7	-537.0	1595.8	-0.0
167	nodo 335 (5)	-269.3	-616.5	-6408.9	-2882.3	1259.1	-0.0
168	nodo 335 (6)	-321.8	-292.7	-6951.3	-1368.3	1504.7	-0.0
169	nodo 335 (7)	-56.1	-1021.8	-6448.8	-4777.0	262.1	-0.0
170	nodo 335 (8)	87.9	-1170.8	-6790.9	-5473.6	-411.1	-0.0
171	nodo 335 (9)	-43.5	-1136.7	-6236.9	-5314.1	203.5	-0.0
172	nodo 335 (10)	100.5	-1285.7	-6579.0	-6010.7	-469.7	-0.0
173	nodo 335 (11)	191.1	-935.3	-7884.5	-4372.8	-893.6	-0.0
174	nodo 335 (12)	138.6	-611.5	-8426.9	-2858.8	-648.1	-0.0
175	nodo 335 (13)	210.6	-1113.1	-7549.1	-5204.1	-984.8	-0.0
176	nodo 335 (14)	158.1	-789.3	-8091.5	-3690.2	-739.2	-0.0
177	nodo 335 (15)	-231.2	57.7	-8256.9	269.6	1080.7	0.0
178	nodo 335 (16)	-87.2	-91.3	-8598.9	-427.0	407.5	-0.0

179	nodo 335 (17)	-218.6	-57.2	-8045.0	-267.5	1022.1	-0.0
180	nodo 335 (18)	-74.6	-206.2	-8387.1	-964.1	348.9	-0.0
181	nodo 266 (1)	-794.1	-2.8	-7754.2	-13.3	3712.8	-0.0
182	nodo 266 (2)	-849.1	-2.7	-7809.4	-12.5	3969.5	-0.0
183	nodo 266 (3)	-725.6	-66.8	-6073.0	-312.2	3392.3	-0.0
184	nodo 266 (4)	-722.1	-5.9	-6067.3	-27.8	3376.1	-0.0
185	nodo 266 (5)	-729.7	-7.1	-6080.2	-33.4	3411.6	-0.0
186	nodo 266 (6)	-726.3	53.7	-6074.5	251.0	3395.5	0.0
187	nodo 266 (7)	-652.4	-116.9	-5926.2	-546.4	3049.9	-0.0
188	nodo 266 (8)	-586.1	-114.5	-5795.1	-535.1	2740.1	-0.0
189	nodo 266 (9)	-656.4	-93.4	-5934.7	-436.7	3069.0	-0.0
190	nodo 266 (10)	-590.2	-91.0	-5803.6	-425.4	2759.3	-0.0
191	nodo 266 (11)	-504.7	-58.7	-5636.1	-274.6	2359.8	-0.0
192	nodo 266 (12)	-501.3	2.1	-5630.3	9.8	2343.6	0.0
193	nodo 266 (13)	-508.9	0.9	-5643.3	4.2	2379.1	0.0
194	nodo 266 (14)	-505.4	61.7	-5637.5	288.6	2363.0	0.0
195	nodo 266 (15)	-640.8	85.9	-5906.9	401.8	2996.0	0.0
196	nodo 266 (16)	-574.6	88.4	-5775.8	413.1	2686.2	0.0
197	nodo 266 (17)	-644.9	109.4	-5915.4	511.5	3015.1	0.0
198	nodo 266 (18)	-578.7	111.8	-5784.3	522.8	2705.3	0.0
199	nodo 210 (1)	-200.0	731.2	-9930.4	3418.7	935.0	0.0
200	nodo 210 (2)	-246.4	691.1	-9867.6	3230.9	1151.9	0.0
201	nodo 210 (3)	-330.7	223.4	-7076.6	1044.7	1545.9	0.0
202	nodo 210 (4)	-271.8	552.1	-6541.3	2581.2	1270.9	0.0
203	nodo 210 (5)	-359.1	54.1	-7411.4	253.1	1678.7	0.0
204	nodo 210 (6)	-300.2	382.8	-6876.1	1789.6	1403.6	0.0
205	nodo 210 (7)	-231.7	30.2	-8073.1	141.3	1083.3	0.0
206	nodo 210 (8)	-82.0	218.1	-8339.9	1019.8	383.2	0.0

207	nodo 210 (9)	-245.9	-81.1	-8286.3	-379.0	1149.4	-0.0
208	nodo 210 (10)	-96.1	106.8	-8553.1	499.5	449.3	0.0
209	nodo 210 (11)	168.5	849.8	-7965.9	3973.0	-787.8	0.0
210	nodo 210 (12)	227.3	1178.5	-7430.6	5509.5	-1062.9	0.0
211	nodo 210 (13)	140.1	680.5	-8300.7	3181.4	-655.1	0.0
212	nodo 210 (14)	198.9	1009.1	-7765.4	4717.9	-930.1	0.0
213	nodo 210 (15)	-35.6	1125.7	-6288.9	5263.0	166.5	0.0
214	nodo 210 (16)	114.1	1313.6	-6555.7	6141.5	-533.6	0.0
215	nodo 210 (17)	-49.7	1014.5	-6502.1	4742.8	232.6	0.0
216	nodo 210 (18)	100.0	1202.4	-6768.9	5621.3	-467.5	0.0
217	nodo 153 (1)	169.9	52.3	-12265.3	244.4	-794.3	0.0
218	nodo 153 (2)	45.6	57.9	-11897.4	270.6	-213.4	0.0
219	nodo 153 (3)	-37.3	-311.8	-10861.5	-1457.7	174.5	-0.0
220	nodo 153 (4)	70.0	21.6	-10209.2	101.0	-327.3	0.0
221	nodo 153 (5)	-13.1	20.8	-10737.7	97.2	61.5	0.0
222	nodo 153 (6)	94.2	354.2	-10085.4	1655.9	-440.3	0.0
223	nodo 153 (7)	-16.7	-586.7	-10996.8	-2743.1	78.3	-0.0
224	nodo 153 (8)	108.9	-574.4	-10455.9	-2685.6	-509.2	-0.0
225	nodo 153 (9)	9.1	-453.5	-10862.3	-2120.1	-42.5	-0.0
226	nodo 153 (10)	134.7	-441.2	-10321.5	-2062.6	-629.9	-0.0
227	nodo 153 (11)	381.6	-270.8	-9058.6	-1266.0	-1783.8	-0.0
228	nodo 153 (12)	488.9	62.6	-8406.3	292.7	-2285.6	0.0
229	nodo 153 (13)	405.7	61.8	-8934.8	289.0	-1896.8	0.0
230	nodo 153 (14)	513.0	395.2	-8282.5	1847.7	-2398.6	0.0
231	nodo 153 (15)	341.0	524.6	-8822.5	2452.6	-1594.2	0.0
232	nodo 153 (16)	466.6	536.9	-8281.7	2510.1	-2181.6	0.0
233	nodo 153 (17)	366.8	657.8	-8688.1	3075.5	-1714.9	0.0
234	nodo 153 (18)	492.5	670.1	-8147.2	3133.0	-2302.4	0.0

235	nodo 149 (1)	-349.7	-339.4	-10756.1	-1586.9	1634.9	-0.0
236	nodo 149 (2)	-408.2	-269.4	-10752.0	-1259.3	1908.4	-0.0
237	nodo 149 (3)	-561.2	-555.0	-6101.0	-2594.7	2623.9	-0.0
238	nodo 149 (4)	-215.7	-340.2	-7735.0	-1590.4	1008.3	-0.0
239	nodo 149 (5)	-734.7	-624.3	-5301.5	-2918.6	3435.1	-0.0
240	nodo 149 (6)	-389.2	-409.5	-6935.5	-1914.3	1819.5	-0.0
241	nodo 149 (7)	-774.4	-719.1	-5056.7	-3362.1	3620.7	-0.0
242	nodo 149 (8)	-585.9	-639.4	-5907.3	-2989.4	2739.1	-0.0
243	nodo 149 (9)	-887.9	-775.4	-4517.8	-3625.1	4151.0	-0.0
244	nodo 149 (10)	-699.3	-695.7	-5368.5	-3252.4	3269.4	-0.0
245	nodo 149 (11)	67.3	-289.3	-8936.4	-1352.4	-314.7	-0.0
246	nodo 149 (12)	412.9	-74.4	-10570.4	-348.1	-1930.3	-0.0
247	nodo 149 (13)	-106.2	-358.6	-8136.9	-1676.3	496.5	-0.0
248	nodo 149 (14)	239.4	-143.7	-9770.9	-672.0	-1119.1	-0.0
249	nodo 149 (15)	377.4	-3.1	-10503.4	-14.3	-1764.6	-0.0
250	nodo 149 (16)	566.0	76.7	-11354.1	358.4	-2646.2	0.0
251	nodo 149 (17)	264.0	-59.3	-9964.6	-277.3	-1234.3	-0.0
252	nodo 149 (18)	452.6	20.4	-10815.3	95.4	-2115.8	0.0
253	nodo 79 (1)	-416.2	653.7	-12874.7	3056.0	1946.0	0.0
254	nodo 79 (2)	-440.2	611.5	-12794.4	2858.7	2058.0	0.0
255	nodo 79 (3)	-1504.8	623.7	-12075.5	2915.8	7035.4	0.0
256	nodo 79 (4)	-1144.4	970.5	-10714.8	4537.2	5350.3	0.0
257	nodo 79 (5)	-1376.1	595.3	-11769.2	2783.2	6433.4	0.0
258	nodo 79 (6)	-1015.6	942.1	-10408.5	4404.6	4748.3	0.0
259	nodo 79 (7)	-1272.8	70.5	-12704.0	329.7	5950.7	0.0
260	nodo 79 (8)	-717.0	-33.3	-11882.2	-155.7	3351.9	-0.0
261	nodo 79 (9)	-1152.1	96.9	-12398.3	453.2	5386.2	0.0
262	nodo 79 (10)	-596.2	-6.9	-11576.5	-32.3	2787.5	-0.0

263	nodo 79 (11)	348.0	277.5	-9336.2	1297.5	-1627.1	0.0
264	nodo 79 (12)	708.5	624.3	-7975.5	2918.9	-3312.2	0.0
265	nodo 79 (13)	476.8	249.2	-9029.9	1164.9	-2229.1	0.0
266	nodo 79 (14)	837.2	596.0	-7669.2	2786.3	-3914.2	0.0
267	nodo 79 (15)	-71.4	1226.6	-8168.2	5734.4	333.7	0.0
268	nodo 79 (16)	484.5	1122.7	-7346.4	5248.9	-2265.0	0.0
269	nodo 79 (17)	49.4	1253.0	-7862.5	5857.8	-230.7	0.0
270	nodo 79 (18)	605.2	1149.1	-7040.7	5372.4	-2829.5	0.0
271	nodo 60 (1)	435.8	854.6	-10083.6	3995.3	-2037.3	0.0
272	nodo 60 (2)	423.8	786.7	-9952.9	3677.8	-1981.2	0.0
273	nodo 60 (3)	-1126.2	511.2	-4544.9	2390.1	5265.2	0.0
274	nodo 60 (4)	-1111.0	634.0	-5095.5	2963.9	5194.2	0.0
275	nodo 60 (5)	-730.8	478.3	-4782.3	2236.0	3416.6	0.0
276	nodo 60 (6)	-715.6	601.0	-5332.9	2809.8	3345.6	0.0
277	nodo 60 (7)	-436.2	505.2	-5823.7	2361.8	2039.3	0.0
278	nodo 60 (8)	333.5	630.1	-7459.2	2945.9	-1559.0	0.0
279	nodo 60 (9)	339.7	489.4	-6034.9	2288.2	-1587.9	0.0
280	nodo 60 (10)	1109.3	614.4	-7670.4	2872.2	-5186.3	0.0
281	nodo 60 (11)	1439.4	927.7	-9996.5	4336.9	-6729.3	0.0
282	nodo 60 (12)	1454.6	1050.4	-10547.1	4910.8	-6800.3	0.0
283	nodo 60 (13)	1834.8	894.7	-10233.9	4182.8	-8577.9	0.0
284	nodo 60 (14)	1850.0	1017.4	-10784.5	4756.6	-8648.9	0.0
285	nodo 60 (15)	-385.6	914.3	-7659.0	4274.5	1802.6	0.0
286	nodo 60 (16)	384.1	1039.2	-9294.5	4858.6	-1795.8	0.0
287	nodo 60 (17)	390.3	898.5	-7870.2	4200.9	-1824.7	0.0
288	nodo 60 (18)	1160.0	1023.5	-9505.7	4784.9	-5423.1	0.0
289	nodo 39 (1)	-191.4	246.7	-14957.9	1153.2	895.0	0.0
290	nodo 39 (2)	-289.3	259.3	-14984.3	1212.4	1352.5	0.0

291	nodo 39 (3)	-1582.8	-533.0	-16666.3	-2491.9	7400.1	-0.0
292	nodo 39 (4)	-1270.0	156.2	-16621.7	730.2	5937.4	0.0
293	nodo 39 (5)	-1426.1	146.4	-15641.3	684.4	6667.5	0.0
294	nodo 39 (6)	-1113.3	835.6	-15596.7	3906.5	5204.8	0.0
295	nodo 39 (7)	-1026.3	-1105.7	-13949.8	-5169.3	4797.9	-0.0
296	nodo 39 (8)	-246.5	-1078.2	-11105.4	-5040.8	1152.6	-0.0
297	nodo 39 (9)	-893.4	-824.9	-11824.9	-3856.5	4176.6	-0.0
298	nodo 39 (10)	-113.6	-797.4	-8980.6	-3728.0	531.2	-0.0
299	nodo 39 (11)	1016.2	-441.4	-7185.1	-2063.4	-4751.1	-0.0
300	nodo 39 (12)	1329.1	247.8	-7140.5	1158.7	-6213.7	0.0
301	nodo 39 (13)	1172.9	238.0	-6160.0	1112.8	-5483.7	0.0
302	nodo 39 (14)	1485.8	927.2	-6115.4	4334.9	-6946.3	0.0
303	nodo 39 (15)	16.6	1191.6	-13801.2	5571.0	-77.5	0.0
304	nodo 39 (16)	796.3	1219.1	-10956.8	5699.5	-3722.9	0.0
305	nodo 39 (17)	149.5	1472.4	-11676.3	6883.8	-698.9	0.0
306	nodo 39 (18)	929.2	1499.9	-8831.9	7012.3	-4344.2	0.0
307	nodo 35 (1)	-666.8	418.0	-12856.4	1954.3	3117.2	0.0
308	nodo 35 (2)	-611.0	444.3	-12803.1	2077.3	2856.5	0.0
309	nodo 35 (3)	-1364.3	-440.0	-7241.2	-2056.9	6378.4	-0.0
310	nodo 35 (4)	-1255.0	142.4	-8243.7	665.8	5867.5	0.0
311	nodo 35 (5)	-1295.6	-320.7	-7542.2	-1499.5	6057.0	-0.0
312	nodo 35 (6)	-1186.3	261.6	-8544.7	1223.2	5546.1	0.0
313	nodo 35 (7)	-1037.0	-824.7	-7427.7	-3855.5	4848.2	-0.0
314	nodo 35 (8)	-654.2	-573.2	-8586.2	-2679.6	3058.7	-0.0
315	nodo 35 (9)	-984.8	-708.0	-7720.2	-3310.0	4604.0	-0.0
316	nodo 35 (10)	-602.0	-456.5	-8878.8	-2134.1	2814.5	-0.0
317	nodo 35 (11)	-88.4	398.4	-11103.2	1862.7	413.5	0.0
318	nodo 35 (12)	20.9	980.8	-12105.7	4585.4	-97.5	0.0

319	nodo 35 (13)	-19.7	517.7	-11404.2	2420.2	92.1	0.0
320	nodo 35 (14)	89.6	1100.0	-12406.6	5142.9	-418.9	0.0
321	nodo 35 (15)	-672.7	1116.6	-10769.1	5220.1	3145.0	0.0
322	nodo 35 (16)	-289.9	1368.1	-11927.7	6396.0	1355.5	0.0
323	nodo 35 (17)	-620.5	1233.2	-11061.6	5765.6	2900.8	0.0
324	nodo 35 (18)	-237.7	1484.7	-12220.2	6941.5	1111.3	0.0
325	nodo 32 (1)	37.5	-120.0	-12210.1	-561.2	-175.5	-0.0
326	nodo 32 (2)	28.1	-57.7	-12008.0	-269.9	-131.2	-0.0
327	nodo 32 (3)	-701.8	-409.1	-7849.2	-1912.4	3281.1	-0.0
328	nodo 32 (4)	-596.9	-272.3	-8473.6	-1273.2	2790.6	-0.0
329	nodo 32 (5)	-634.6	-380.8	-7989.7	-1780.5	2967.0	-0.0
330	nodo 32 (6)	-529.7	-244.1	-8614.1	-1141.3	2476.5	-0.0
331	nodo 32 (7)	-358.4	-425.9	-7907.5	-1991.0	1675.4	-0.0
332	nodo 32 (8)	33.2	-302.8	-8585.6	-1415.8	-155.4	-0.0
333	nodo 32 (9)	-309.1	-396.0	-8056.9	-1851.2	1445.2	-0.0
334	nodo 32 (10)	82.5	-272.9	-8735.0	-1276.0	-385.7	-0.0
335	nodo 32 (11)	603.6	1.1	-10109.6	5.0	-2821.7	0.0
336	nodo 32 (12)	708.5	137.8	-10734.0	644.2	-3312.2	0.0
337	nodo 32 (13)	670.7	29.3	-10250.1	136.9	-3135.8	0.0
338	nodo 32 (14)	775.7	166.0	-10874.5	776.1	-3626.3	0.0
339	nodo 32 (15)	-8.6	29.9	-9988.7	139.7	40.4	0.0
340	nodo 32 (16)	383.0	152.9	-10666.8	714.9	-1790.4	0.0
341	nodo 32 (17)	40.6	59.8	-10138.1	279.4	-189.8	0.0
342	nodo 32 (18)	432.2	182.8	-10816.2	854.7	-2020.7	0.0
343	nodo 29 (1)	8.7	894.3	-8337.1	4181.0	-40.5	0.0
344	nodo 29 (2)	16.6	891.7	-8287.6	4169.0	-77.4	0.0
345	nodo 29 (3)	241.4	726.5	-6288.2	3396.6	-1128.4	0.0
346	nodo 29 (4)	198.9	758.2	-6401.2	3544.6	-929.8	0.0

347	nodo 29 (5)	214.8	725.6	-6290.7	3392.4	-1004.3	0.0
348	nodo 29 (6)	172.3	757.3	-6403.6	3540.4	-805.7	0.0
349	nodo 29 (7)	140.3	708.5	-6200.9	3312.2	-655.8	0.0
350	nodo 29 (8)	14.2	725.5	-6238.9	3391.8	-66.4	0.0
351	nodo 29 (9)	120.8	709.5	-6203.1	3317.1	-564.8	0.0
352	nodo 29 (10)	-5.3	726.5	-6241.1	3396.6	24.6	0.0
353	nodo 29 (11)	-178.9	783.2	-6414.8	3661.7	836.3	0.0
354	nodo 29 (12)	-221.4	814.9	-6527.7	3809.6	1034.9	0.0
355	nodo 29 (13)	-205.4	782.3	-6417.3	3657.5	960.4	0.0
356	nodo 29 (14)	-247.9	814.0	-6530.2	3805.5	1159.0	0.0
357	nodo 29 (15)	-1.3	814.0	-6577.4	3805.4	6.0	0.0
358	nodo 29 (16)	-127.4	831.0	-6615.3	3885.0	595.4	0.0
359	nodo 29 (17)	-20.7	815.0	-6579.6	3810.3	96.9	0.0
360	nodo 29 (18)	-146.8	832.0	-6617.5	3889.8	686.4	0.0
361	nodo 26 (1)	-135.2	-212.0	-11780.5	-991.3	632.3	-0.0
362	nodo 26 (2)	-140.0	-249.8	-11694.5	-1167.8	654.6	-0.0
363	nodo 26 (3)	-949.4	-20.5	-9477.3	-96.0	4438.7	-0.0
364	nodo 26 (4)	-817.3	13.8	-9722.1	64.7	3821.2	0.0
365	nodo 26 (5)	-871.0	-45.3	-9304.1	-212.0	4072.1	-0.0
366	nodo 26 (6)	-738.9	-11.0	-9548.9	-51.3	3454.6	-0.0
367	nodo 26 (7)	-578.6	-103.0	-8728.7	-481.5	2704.9	-0.0
368	nodo 26 (8)	-136.3	-133.0	-8354.1	-621.6	637.0	-0.0
369	nodo 26 (9)	-518.0	-113.0	-8607.6	-528.4	2421.9	-0.0
370	nodo 26 (10)	-75.7	-143.0	-8233.1	-668.5	354.1	-0.0
371	nodo 26 (11)	524.9	-120.5	-8228.8	-563.2	-2454.0	-0.0
372	nodo 26 (12)	657.0	-86.1	-8473.6	-402.5	-3071.5	-0.0
373	nodo 26 (13)	603.3	-145.3	-8055.6	-679.1	-2820.6	-0.0
374	nodo 26 (14)	735.4	-110.9	-8300.4	-518.5	-3438.2	-0.0

375	nodo 26 (15)	-138.3	11.6	-9544.6	54.0	646.5	0.0
376	nodo 26 (16)	304.0	-18.4	-9170.1	-86.1	-1421.4	-0.0
377	nodo 26 (17)	-77.8	1.5	-9423.6	7.2	363.5	0.0
378	nodo 26 (18)	364.5	-28.4	-9049.0	-133.0	-1704.3	-0.0
379	nodo 23 (1)	573.9	627.5	-10091.2	2933.5	-2683.1	0.0
380	nodo 23 (2)	515.2	588.4	-9944.6	2750.7	-2408.6	0.0
381	nodo 23 (3)	-546.6	915.5	-7750.0	4280.3	2555.6	0.0
382	nodo 23 (4)	-365.0	1060.9	-8220.8	4960.1	1706.3	0.0
383	nodo 23 (5)	-455.4	776.7	-7238.1	3631.0	2129.2	0.0
384	nodo 23 (6)	-273.8	922.1	-7708.9	4310.8	1279.9	0.0
385	nodo 23 (7)	-97.9	462.8	-7049.0	2163.8	457.8	0.0
386	nodo 23 (8)	462.2	244.7	-7030.3	1144.1	-2160.7	0.0
387	nodo 23 (9)	-21.2	381.2	-6797.0	1782.2	99.0	0.0
388	nodo 23 (10)	538.9	163.1	-6778.3	762.5	-2519.5	0.0
389	nodo 23 (11)	1320.3	188.5	-7687.7	881.4	-6172.6	0.0
390	nodo 23 (12)	1502.0	333.9	-8158.5	1561.2	-7021.9	0.0
391	nodo 23 (13)	1411.5	49.6	-7175.8	232.1	-6599.0	0.0
392	nodo 23 (14)	1593.2	195.0	-7646.6	911.9	-7448.3	0.0
393	nodo 23 (15)	507.6	947.5	-8618.3	4429.7	-2373.3	0.0
394	nodo 23 (16)	1067.7	729.4	-8599.6	3410.0	-4991.7	0.0
395	nodo 23 (17)	584.4	865.9	-8366.3	4048.1	-2732.0	0.0
396	nodo 23 (18)	1144.4	647.8	-8347.6	3028.4	-5350.5	0.0
397	nodo 4 (1)	-281.0	185.6	-14952.6	867.8	1313.6	0.0
398	nodo 4 (2)	-289.0	288.5	-14995.7	1348.8	1351.1	0.0
399	nodo 4 (3)	-1618.3	-793.0	-11701.0	-3707.4	7565.9	-0.0
400	nodo 4 (4)	-1382.8	-28.2	-14214.4	-132.0	6464.9	-0.0
401	nodo 4 (5)	-1481.7	-653.3	-11546.2	-3054.4	6927.0	-0.0
402	nodo 4 (6)	-1246.2	111.4	-14059.6	521.0	5826.0	0.0

403	nodo 4 (7)	-1039.9	-1418.5	-7537.8	-6631.6	4861.8	-0.0
404	nodo 4 (8)	-320.7	-1193.0	-6626.5	-5577.7	1499.2	-0.0
405	nodo 4 (9)	-931.3	-1286.3	-7718.5	-6013.5	4354.1	-0.0
406	nodo 4 (10)	-212.1	-1060.8	-6807.2	-4959.6	991.5	-0.0
407	nodo 4 (11)	779.1	-41.5	-8663.4	-194.2	-3642.6	-0.0
408	nodo 4 (12)	1014.6	723.2	-11176.9	3381.2	-4743.6	0.0
409	nodo 4 (13)	915.8	98.1	-8508.7	458.7	-4281.5	0.0
410	nodo 4 (14)	1151.3	862.9	-11022.1	4034.2	-5382.5	0.0
411	nodo 4 (15)	-254.9	1130.7	-15915.8	5286.4	1191.9	0.0
412	nodo 4 (16)	464.3	1356.2	-15004.6	6340.3	-2170.7	0.0
413	nodo 4 (17)	-146.3	1262.9	-16096.5	5904.5	684.2	0.0
414	nodo 4 (18)	572.9	1488.4	-15185.3	6958.4	-2678.3	0.0

Armature pali:

Armature pali nodo 518 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
1	1	0.00	-10478.9	0.0	-2316.9	-7.2	-3.1	57.4	-89.3	7 ø 20

Armature pali nodo 518 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
2	2	0.00	-10418.7	-2012.2	0.0	-6.2	-2.7	33.1	-82.4	7 ø 20

Armature pali nodo 518 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

3	3	0.00	-7601.6	0.0	-6866.4	-29.2	-12.0	966.3	-273.8	7 ø 20

Armature pali nodo 518 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
4	4	0.00	-5826.9	0.0	-6319.3	-27.2	-11.2	948.6	-249.5	7 ø 20

Armature pali nodo 518 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
5	5	0.00	-7556.4	0.0	-7457.7	-31.9	-13.1	1084.8	-295.9	7 ø 20

Armature pali nodo 518 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
6	6	0.00	-5781.7	0.0	-6910.6	-29.9	-12.3	1067.6	-271.3	7 ø 20

Armature pali nodo 518 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
7	7	0.00	-10623.2	-6370.5	0.0	-25.9	-10.7	709.7	-296.9	7 ø 20

Armature pali nodo 518 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
8	8	0.00	-11353.3	-8131.9	0.0	-33.8	-13.9	1010.1	-380.9	7 ø 20

Armature pali nodo 518 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
9	9	0.00	-10379.2	-5815.4	0.0	-23.4	-9.7	616.6	-270.2	7 ø 20

Armature pali nodo 518 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
10	10	0.00	-11109.3	-7576.9	0.0	-31.4	-12.9	915.7	-354.5	7 ø 20

Armature pali nodo 518 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
11	11	0.00	-10035.2	-6155.2	0.0	-25.1	-10.4	696.3	-287.1	7 ø 20

Armature pali nodo 518 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
12	12	0.00	-8260.6	0.0	2916.7	-10.5	-4.4	173.7	-133.1	7 ø 20

Armature pali nodo 518 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
13	13	0.00	-9990.0	-5866.9	0.0	-23.8	-9.8	644.0	-273.2	7 ø 20

Armature pali nodo 518 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
14	14	0.00	-8215.3	-2525.5	0.0	-8.7	-3.7	127.1	-109.0	7 ø 20

Armature pali nodo 518 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
15	15	0.00	-4707.7	4767.6	0.0	-20.4	-8.4	688.0	-223.5	7 ø 20

Armature pali nodo 518 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

16	16	0.00	-5437.8	3006.2	0.0	-12.1	-5.0	315.4	-139.6	7 ø 20

Armature pali nodo 518 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
17	17	0.00	-4463.7	5322.7	0.0	-23.0	-9.4	808.2	-249.1	7 ø 20

Armature pali nodo 518 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
18	18	0.00	-5193.8	3561.2	0.0	-14.7	-6.1	431.7	-166.7	7 ø 20

Armature pali nodo 515 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
19	19	0.00	-11757.5	851.6	0.0	-3.8	-2.2	-13.3	-52.8	7 ø 20

Armature pali nodo 515 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
20	20	0.00	-11559.1	563.5	0.0	-3.2	-2.2	-19.5	-45.5	7 ø 20

Armature pali nodo 515 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
21	21	0.00	-8330.1	0.0	-2369.6	-8.0	-3.4	105.0	-93.0	7 ø 20

Armature pali nodo 515 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
22	22	0.00	-7627.3	0.0	-2379.4	-8.2	-3.5	125.9	-94.4	7 ø 20

Armature pali nodo 515 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
23	23	0.00	-8209.2	0.0	-3071.0	-11.3	-4.7	217.4	-123.9	7 ø 20

Armature pali nodo 515 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
24	24	0.00	-7506.4	0.0	-3080.8	-11.6	-4.8	246.1	-124.9	7 ø 20

Armature pali nodo 515 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
25	25	0.00	-9918.8	-228.4	0.0	-2.3	-1.9	-22.6	-33.2	7 ø 20

Armature pali nodo 515 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
26	26	0.00	-10569.2	0.0	2022.5	-6.2	-2.7	27.9	-84.3	7 ø 20

Armature pali nodo 515 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
27	27	0.00	-9777.9	0.0	-1069.4	-3.8	-1.8	-2.1	-50.4	7 ø 20

Armature pali nodo 515 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
28	28	0.00	-10428.3	0.0	841.9	-3.5	-2.0	-11.3	-49.3	7 ø 20

Armature pali nodo 515 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

29	29	0.00	-10498.2	0.0	4001.4	-14.8	-6.2	267.0	-185.2	7 ø 20

Armature pali nodo 515 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
30	30	0.00	-9795.5	0.0	3991.7	-15.0	-6.2	291.2	-186.7	7 ø 20

Armature pali nodo 515 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
31	31	0.00	-10377.3	0.0	3300.0	-11.5	-4.8	164.5	-147.4	7 ø 20

Armature pali nodo 515 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
32	32	0.00	-9674.5	0.0	3290.3	-11.7	-4.9	184.4	-149.0	7 ø 20

Armature pali nodo 515 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
33	33	0.00	-7576.3	2286.7	0.0	-7.8	-3.3	111.1	-98.3	7 ø 20

Armature pali nodo 515 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
34	34	0.00	-8226.8	0.0	1990.1	-6.4	-2.7	54.4	-84.2	7 ø 20

Armature pali nodo 515 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
35	35	0.00	-7435.4	2411.0	0.0	-8.5	-3.6	133.5	-105.1	7 ø 20

Armature pali nodo 515 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
36	36	0.00	-8085.9	1887.8	0.0	-6.0	-2.6	52.0	-77.8	7 ø 20

Armature pali nodo 512 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
37	37	0.00	-8250.0	-4114.1	0.0	-16.2	-6.7	395.8	-189.8	7 ø 20

Armature pali nodo 512 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
38	38	0.00	-8200.4	-4101.4	0.0	-16.2	-6.7	395.6	-189.2	7 ø 20

Armature pali nodo 512 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
39	39	0.00	-6331.6	-3507.0	0.0	-14.1	-5.8	368.5	-162.9	7 ø 20

Armature pali nodo 512 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
40	40	0.00	-6214.9	-3336.7	0.0	-13.3	-5.5	342.0	-154.7	7 ø 20

Armature pali nodo 512 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
41	41	0.00	-6350.8	-3531.6	0.0	-14.2	-5.9	372.3	-164.0	7 ø 20

Armature pali nodo 512 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

42	42	0.00	-6234.1	-3361.3	0.0	-13.4	-5.6	345.8	-155.9	7 ø 20

Armature pali nodo 512 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
43	43	0.00	-6516.0	-3792.1	0.0	-15.4	-6.3	413.6	-176.5	7 ø 20

Armature pali nodo 512 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
44	44	0.00	-6550.9	-3856.0	0.0	-15.6	-6.5	424.0	-179.6	7 ø 20

Armature pali nodo 512 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
45	45	0.00	-6520.3	-3793.1	0.0	-15.4	-6.3	413.6	-176.6	7 ø 20

Armature pali nodo 512 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
46	46	0.00	-6555.2	-3857.1	0.0	-15.6	-6.5	424.0	-179.6	7 ø 20

Armature pali nodo 512 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
47	47	0.00	-6448.1	-3720.1	0.0	-15.0	-6.2	403.1	-173.1	7 ø 20

Armature pali nodo 512 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
48	48	0.00	-6331.4	-3549.8	0.0	-14.3	-5.9	376.5	-164.9	7 ø 20

Armature pali nodo 512 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
49	49	0.00	-6467.3	-3744.8	0.0	-15.2	-6.3	406.9	-174.3	7 ø 20

Armature pali nodo 512 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
50	50	0.00	-6350.6	-3574.5	0.0	-14.4	-5.9	380.3	-166.1	7 ø 20

Armature pali nodo 512 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
51	51	0.00	-6127.0	-3224.4	0.0	-12.8	-5.3	325.1	-149.3	7 ø 20

Armature pali nodo 512 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
52	52	0.00	-6161.9	-3288.3	0.0	-13.1	-5.4	335.4	-152.4	7 ø 20

Armature pali nodo 512 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
53	53	0.00	-6131.3	-3225.5	0.0	-12.8	-5.3	325.1	-149.3	7 ø 20

Armature pali nodo 512 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
54	54	0.00	-6166.2	-3289.4	0.0	-13.1	-5.4	335.4	-152.4	7 ø 20

Armature pali nodo 509 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

55	55	0.00	-11676.7	972.5	0.0	-4.0	-2.2	-10.3	-55.3	7 ø 20

Armature pali nodo 509 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
56	56	0.00	-11590.5	1151.8	0.0	-4.3	-2.2	-5.9	-59.2	7 ø 20

Armature pali nodo 509 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
57	57	0.00	-9525.1	0.0	-3627.0	-13.4	-5.6	263.1	-146.5	7 ø 20

Armature pali nodo 509 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
58	58	0.00	-9269.3	0.0	-4164.2	-16.0	-6.7	368.6	-169.4	7 ø 20

Armature pali nodo 509 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
59	59	0.00	-9715.3	0.0	-4112.7	-15.6	-6.5	340.8	-167.0	7 ø 20

Armature pali nodo 509 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
60	60	0.00	-9459.4	0.0	-4649.9	-18.3	-7.6	449.9	-189.4	7 ø 20

Armature pali nodo 509 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
61	61	0.00	-9378.9	0.0	-564.9	-2.8	-1.8	-13.0	-38.4	7 ø 20

Armature pali nodo 509 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
62	62	0.00	-8968.8	0.0	1612.5	-5.0	-2.2	17.9	-67.6	7 ø 20

Armature pali nodo 509 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
63	63	0.00	-9501.4	0.0	-840.8	-3.3	-1.8	-6.8	-44.7	7 ø 20

Armature pali nodo 509 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
64	64	0.00	-9091.3	0.0	1336.6	-4.2	-1.9	5.2	-58.4	7 ø 20

Armature pali nodo 509 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
65	65	0.00	-8158.0	0.0	3631.0	-14.0	-5.8	293.9	-171.9	7 ø 20

Armature pali nodo 509 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
66	66	0.00	-7902.2	0.0	3093.8	-11.5	-4.8	214.2	-143.8	7 ø 20

Armature pali nodo 509 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
67	67	0.00	-8348.2	0.0	3145.3	-11.6	-4.8	206.5	-145.2	7 ø 20

Armature pali nodo 509 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

68	68	0.00	-8092.3	0.0	2608.1	-9.1	-3.8	133.2	-116.8	7 ø 20

Armature pali nodo 509 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
69	69	0.00	-8526.2	0.0	-2355.5	-7.8	-3.3	98.3	-92.2	7 ø 20

Armature pali nodo 509 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
70	70	0.00	-8116.0	682.6	0.0	-2.8	-1.5	-7.0	-38.6	7 ø 20

Armature pali nodo 509 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
71	71	0.00	-8648.7	0.0	-2631.4	-9.0	-3.8	133.0	-104.1	7 ø 20

Armature pali nodo 509 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
72	72	0.00	-8238.5	630.3	0.0	-2.7	-1.5	-8.6	-37.7	7 ø 20

Armature pali nodo 506 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
73	73	0.00	-10008.4	-2928.0	0.0	-9.9	-4.2	133.9	-125.1	7 ø 20

Armature pali nodo 506 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
74	74	0.00	-9861.3	-2744.2	0.0	-9.1	-3.9	113.3	-116.2	7 ø 20

Armature pali nodo 506 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
75	75	0.00	-8059.0	-4542.4	0.0	-18.3	-7.6	483.8	-211.1	7 ø 20

Armature pali nodo 506 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
76	76	0.00	-7590.1	-3840.6	0.0	-15.2	-6.3	374.3	-177.3	7 ø 20

Armature pali nodo 506 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
77	77	0.00	-8226.7	-5271.7	0.0	-21.6	-8.9	613.6	-246.3	7 ø 20

Armature pali nodo 506 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
78	78	0.00	-7757.8	-4570.0	0.0	-18.5	-7.7	502.8	-212.8	7 ø 20

Armature pali nodo 506 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
79	79	0.00	-8424.3	-4143.0	0.0	-16.3	-6.7	393.5	-190.9	7 ø 20

Armature pali nodo 506 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
80	80	0.00	-8259.9	0.0	5260.7	-21.6	-8.9	577.5	-256.7	7 ø 20

Armature pali nodo 506 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

81	81	0.00	-8571.9	-4557.5	0.0	-18.2	-7.5	463.5	-211.1	7 ø 20

Armature pali nodo 506 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
82	82	0.00	-8407.5	0.0	4907.9	-19.9	-8.2	507.4	-238.3	7 ø 20

Armature pali nodo 506 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
83	83	0.00	-7511.1	0.0	7684.2	-33.0	-13.5	1056.9	-379.1	7 ø 20

Armature pali nodo 506 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
84	84	0.00	-7042.2	0.0	6939.0	-29.7	-12.2	941.9	-342.3	7 ø 20

Armature pali nodo 506 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
85	85	0.00	-7678.7	0.0	7116.2	-30.3	-12.4	944.0	-350.8	7 ø 20

Armature pali nodo 506 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
86	86	0.00	-7209.8	0.0	6371.0	-27.0	-11.1	829.1	-313.9	7 ø 20

Armature pali nodo 506 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
87	87	0.00	-6861.3	-1803.8	0.0	-5.9	-2.5	65.8	-75.6	7 ø 20

Armature pali nodo 506 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
88	88	0.00	-6696.9	0.0	2776.8	-10.5	-4.4	207.0	-130.2	7 ø 20

Armature pali nodo 506 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
89	89	0.00	-7008.9	-2218.2	0.0	-7.7	-3.2	117.7	-96.2	7 ø 20

Armature pali nodo 506 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
90	90	0.00	-6844.5	0.0	2424.0	-8.7	-3.7	145.1	-110.7	7 ø 20

Armature pali nodo 474 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
91	91	0.00	-10021.1	-3994.3	0.0	-14.9	-6.2	301.4	-180.0	7 ø 20

Armature pali nodo 474 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
92	92	0.00	-9890.2	-3674.9	0.0	-13.5	-5.6	252.3	-163.9	7 ø 20

Armature pali nodo 474 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
93	93	0.00	-5202.4	0.0	-3674.6	-15.3	-6.3	461.0	-148.4	7 ø 20

Armature pali nodo 474 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

94	94	0.00	-4721.7	0.0	-3711.3	-15.6	-6.4	491.7	-149.1	7 ø 20

Armature pali nodo 474 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
95	95	0.00	-4877.5	0.0	-5674.9	-24.5	-10.1	870.0	-223.1	7 ø 20

Armature pali nodo 474 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
96	96	0.00	-4396.8	0.0	-5711.6	-24.8	-10.2	902.1	-223.2	7 ø 20

Armature pali nodo 474 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
97	97	0.00	-7675.7	-4181.7	0.0	-16.8	-6.9	433.8	-194.0	7 ø 20

Armature pali nodo 474 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
98	98	0.00	-9364.8	0.0	5407.8	-21.9	-9.0	554.6	-262.4	7 ø 20

Armature pali nodo 474 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
99	99	0.00	-7467.3	-4263.9	0.0	-17.2	-7.1	458.6	-198.3	7 ø 20

Armature pali nodo 474 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
100	100	0.00	-9156.4	-4812.0	0.0	-19.2	-7.9	484.6	-222.8	7 ø 20

Armature pali nodo 474 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
101	101	0.00	-10832.9	0.0	9167.4	-38.8	-15.9	1171.3	-451.4	7 ø 20

Armature pali nodo 474 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
102	102	0.00	-10352.1	0.0	9130.8	-38.8	-15.9	1187.4	-449.9	7 ø 20

Armature pali nodo 474 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
103	103	0.00	-10508.0	0.0	7167.1	-29.7	-12.2	820.7	-350.8	7 ø 20

Armature pali nodo 474 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
104	104	0.00	-10027.2	0.0	7130.4	-29.7	-12.2	836.1	-349.6	7 ø 20

Armature pali nodo 474 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
105	105	0.00	-6073.2	-2334.4	0.0	-8.6	-3.6	168.0	-104.7	7 ø 20

Armature pali nodo 474 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
106	106	0.00	-7762.4	0.0	5285.5	-21.9	-9.0	604.6	-258.7	7 ø 20

Armature pali nodo 474 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

107	107	0.00	-5864.8	-2416.6	0.0	-9.1	-3.8	190.1	-109.4	7 ø 20

Armature pali nodo 474 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
108	108	0.00	-7553.9	-2964.7	0.0	-11.0	-4.6	219.3	-133.3	7 ø 20

Armature pali nodo 467 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
109	109	0.00	-10439.1	-2249.4	0.0	-7.0	-3.0	50.3	-92.1	7 ø 20

Armature pali nodo 467 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
110	110	0.00	-10343.3	-1998.1	0.0	-6.2	-2.7	32.8	-81.8	7 ø 20

Armature pali nodo 467 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
111	111	0.00	-10457.1	0.0	-5660.8	-22.7	-9.4	595.1	-230.4	7 ø 20

Armature pali nodo 467 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
112	112	0.00	-11504.1	0.0	-7888.9	-32.7	-13.5	973.5	-318.9	7 ø 20

Armature pali nodo 467 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
113	113	0.00	-10952.7	0.0	-6542.7	-26.6	-11.0	740.1	-265.8	7 ø 20

Armature pali nodo 467 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
114	114	0.00	-11999.7	0.0	-8770.8	-36.6	-15.1	1120.7	-353.5	7 ø 20

Armature pali nodo 467 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
115	115	0.00	-6986.3	-6340.4	0.0	-27.0	-11.1	878.8	-297.4	7 ø 20

Armature pali nodo 467 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
116	116	0.00	-5011.0	-4981.5	0.0	-21.3	-8.8	714.3	-233.6	7 ø 20

Armature pali nodo 467 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
117	117	0.00	-7371.2	-6212.5	0.0	-26.3	-10.8	835.1	-291.4	7 ø 20

Armature pali nodo 467 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
118	118	0.00	-5395.8	-4853.6	0.0	-20.6	-8.5	670.3	-227.7	7 ø 20

Armature pali nodo 467 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
119	119	0.00	-3872.5	0.0	6017.5	-26.3	-10.8	926.2	-296.7	7 ø 20

Armature pali nodo 467 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

120	120	0.00	-4919.5	0.0	3789.4	-15.9	-6.5	463.4	-186.2	7 ø 20

Armature pali nodo 467 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
121	121	0.00	-4368.1	0.0	5135.7	-22.2	-9.1	738.1	-253.5	7 ø 20

Armature pali nodo 467 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
122	122	0.00	-5415.1	0.0	2907.6	-11.6	-4.8	281.7	-140.3	7 ø 20

Armature pali nodo 467 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
123	123	0.00	-10476.4	0.0	-6476.7	-26.5	-10.9	749.9	-262.8	7 ø 20

Armature pali nodo 467 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
124	124	0.00	-8501.0	0.0	-2973.2	-10.7	-4.5	190.6	-119.3	7 ø 20

Armature pali nodo 467 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
125	125	0.00	-10861.2	0.0	-7207.0	-29.7	-12.2	872.4	-291.7	7 ø 20

Armature pali nodo 467 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
126	126	0.00	-8885.8	0.0	-3703.5	-14.0	-5.8	301.3	-150.3	7 ø 20

Armature pali nodo 393 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
127	127	0.00	-10655.5	0.0	-1638.2	-5.1	-2.3	12.9	-66.6	7 ø 20

Armature pali nodo 393 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
128	128	0.00	-10653.8	0.0	-1907.2	-5.9	-2.6	26.0	-74.7	7 ø 20

Armature pali nodo 393 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
129	129	0.00	-7128.2	1793.9	0.0	-5.8	-2.5	59.2	-74.6	7 ø 20

Armature pali nodo 393 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
130	130	0.00	-5528.4	0.0	-3154.0	-12.7	-5.3	345.2	-128.3	7 ø 20

Armature pali nodo 393 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
131	131	0.00	-7964.0	1483.3	0.0	-4.6	-2.0	21.8	-60.9	7 ø 20

Armature pali nodo 393 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
132	132	0.00	-6364.2	2481.4	0.0	-9.2	-3.8	182.0	-111.5	7 ø 20

Armature pali nodo 393 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

133	133	0.00	-9910.8	0.0	1272.2	-4.2	-2.0	-0.0	-58.4	7 ø 20

Armature pali nodo 393 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
134	134	0.00	-10574.4	0.0	1970.3	-6.1	-2.7	24.8	-82.3	7 ø 20

Armature pali nodo 393 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
135	135	0.00	-10462.6	0.0	1820.3	-5.6	-2.5	17.8	-76.6	7 ø 20

Armature pali nodo 393 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
136	136	0.00	-11126.2	0.0	2518.3	-7.9	-3.4	57.7	-105.6	7 ø 20

Armature pali nodo 393 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
137	137	0.00	-9340.1	0.0	769.6	-3.2	-1.8	-9.8	-44.5	7 ø 20

Armature pali nodo 393 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
138	138	0.00	-7740.3	1766.3	0.0	-5.6	-2.4	45.9	-72.6	7 ø 20

Armature pali nodo 393 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
139	139	0.00	-10176.0	0.0	1622.2	-5.1	-2.3	10.6	-69.4	7 ø 20

Armature pali nodo 393 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
140	140	0.00	-8576.2	1455.7	0.0	-4.5	-2.0	15.7	-60.5	7 ø 20

Armature pali nodo 393 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
141	141	0.00	-4578.2	0.0	-4050.1	-17.2	-7.1	565.2	-161.7	7 ø 20

Armature pali nodo 393 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
142	142	0.00	-5241.8	0.0	-3352.0	-13.8	-5.7	396.7	-135.9	7 ø 20

Armature pali nodo 393 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
143	143	0.00	-5130.0	0.0	-3502.0	-14.5	-6.0	431.0	-141.6	7 ø 20

Armature pali nodo 393 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
144	144	0.00	-5793.5	3004.2	0.0	-11.9	-4.9	299.1	-139.0	7 ø 20

Armature pali nodo 390 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
145	145	0.00	-11877.4	0.0	1064.8	-4.2	-2.2	-10.6	-58.7	7 ø 20

Armature pali nodo 390 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

146	146	0.00	-11510.5	101.8	0.0	-2.3	-2.2	-30.0	-34.7	7 ø 20

Armature pali nodo 390 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
147	147	0.00	-10029.8	-1629.6	0.0	-5.1	-2.3	14.9	-68.3	7 ø 20

Armature pali nodo 390 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
148	148	0.00	-10657.3	-55.1	0.0	-2.1	-2.0	-28.7	-31.2	7 ø 20

Armature pali nodo 390 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
149	149	0.00	-10160.2	-1396.9	0.0	-4.5	-2.1	5.2	-61.6	7 ø 20

Armature pali nodo 390 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
150	150	0.00	-10787.7	177.6	0.0	-2.3	-2.0	-26.2	-34.4	7 ø 20

Armature pali nodo 390 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
151	151	0.00	-8499.8	-2861.9	0.0	-10.2	-4.3	168.9	-125.6	7 ø 20

Armature pali nodo 390 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
152	152	0.00	-7818.6	0.0	2578.6	-9.1	-3.8	137.2	-116.1	7 ø 20

Armature pali nodo 390 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
153	153	0.00	-8636.5	-2648.2	0.0	-9.1	-3.8	132.6	-114.2	7 ø 20

Armature pali nodo 390 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
154	154	0.00	-7955.3	0.0	2443.5	-8.4	-3.5	114.1	-108.3	7 ø 20

Armature pali nodo 390 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
155	155	0.00	-7759.1	0.0	2941.7	-10.8	-4.5	194.9	-136.0	7 ø 20

Armature pali nodo 390 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
156	156	0.00	-8386.6	0.0	2472.0	-8.4	-3.5	106.4	-108.6	7 ø 20

Armature pali nodo 390 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
157	157	0.00	-7889.5	0.0	2783.4	-10.0	-4.2	165.6	-127.0	7 ø 20

Armature pali nodo 390 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
158	158	0.00	-8517.0	0.0	2313.7	-7.6	-3.2	83.6	-99.9	7 ø 20

Armature pali nodo 390 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

159	159	0.00	-10591.5	2386.3	0.0	-7.5	-3.2	60.0	-98.0	7 ø 20

Armature pali nodo 390 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
160	160	0.00	-9910.3	2896.3	0.0	-9.8	-4.1	132.2	-123.8	7 ø 20

Armature pali nodo 390 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
161	161	0.00	-10728.2	2600.0	0.0	-8.3	-3.6	78.5	-107.6	7 ø 20

Armature pali nodo 390 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
162	162	0.00	-10047.0	3110.0	0.0	-10.7	-4.5	158.5	-134.4	7 ø 20

Armature pali nodo 335 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
163	163	0.00	-9830.3	-3417.7	0.0	-12.3	-5.1	212.4	-150.8	7 ø 20

Armature pali nodo 335 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
164	164	0.00	-9767.9	-3232.4	0.0	-11.4	-4.8	185.4	-141.4	7 ø 20

Armature pali nodo 335 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
165	165	0.00	-6682.5	-2050.9	0.0	-7.1	-3.0	102.9	-88.5	7 ø 20

Armature pali nodo 335 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
166	166	0.00	-7220.0	0.0	-1595.8	-5.0	-2.2	39.5	-61.5	7 ø 20

Armature pali nodo 335 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
167	167	0.00	-6350.2	-2882.3	0.0	-11.1	-4.6	252.9	-131.9	7 ø 20

Armature pali nodo 335 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
168	168	0.00	-6887.7	0.0	-1504.7	-4.7	-2.0	36.2	-58.0	7 ø 20

Armature pali nodo 335 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
169	169	0.00	-6389.7	-4777.0	0.0	-20.0	-8.2	606.9	-223.9	7 ø 20

Armature pali nodo 335 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
170	170	0.00	-6728.7	-5473.6	0.0	-23.1	-9.5	724.2	-256.7	7 ø 20

Armature pali nodo 335 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
171	171	0.00	-6179.8	-5314.1	0.0	-22.5	-9.2	720.5	-249.3	7 ø 20

Armature pali nodo 335 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

172	172	0.00	-6518.7	-6010.7	0.0	-25.6	-10.5	838.3	-281.9	7 ø 20

Armature pali nodo 335 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
173	173	0.00	-7812.3	-4372.8	0.0	-17.6	-7.3	463.3	-203.2	7 ø 20

Armature pali nodo 335 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
174	174	0.00	-8349.7	-2858.8	0.0	-10.2	-4.3	173.4	-125.8	7 ø 20

Armature pali nodo 335 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
175	175	0.00	-7480.0	-5204.1	0.0	-21.6	-8.9	636.2	-243.6	7 ø 20

Armature pali nodo 335 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
176	176	0.00	-8017.4	-3690.2	0.0	-14.3	-5.9	328.5	-169.1	7 ø 20

Armature pali nodo 335 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
177	177	0.00	-8181.2	0.0	-1080.7	-3.5	-1.6	3.4	-46.4	7 ø 20

Armature pali nodo 335 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
178	178	0.00	-8520.2	-427.0	0.0	-2.4	-1.6	-14.1	-33.8	7 ø 20

Armature pali nodo 335 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
179	179	0.00	-7971.3	0.0	-1022.1	-3.4	-1.6	2.4	-44.5	7 ø 20

Armature pali nodo 335 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
180	180	0.00	-8310.2	-964.1	0.0	-3.3	-1.6	-0.9	-45.7	7 ø 20

Armature pali nodo 266 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
181	181	0.00	-7683.2	0.0	-3712.8	-14.5	-6.0	353.5	-151.2	7 ø 20

Armature pali nodo 266 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
182	182	0.00	-7737.9	0.0	-3969.5	-15.7	-6.5	399.0	-161.7	7 ø 20

Armature pali nodo 266 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
183	183	0.00	-6017.4	0.0	-3392.3	-13.7	-5.6	368.0	-138.0	7 ø 20

Armature pali nodo 266 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
184	184	0.00	-6011.7	0.0	-3376.1	-13.6	-5.6	365.2	-137.3	7 ø 20

Armature pali nodo 266 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

185	185	0.00	-6024.6	0.0	-3411.6	-13.8	-5.7	371.4	-138.8	7 ø 20

Armature pali nodo 266 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
186	186	0.00	-6018.8	0.0	-3395.5	-13.7	-5.7	368.6	-138.1	7 ø 20

Armature pali nodo 266 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
187	187	0.00	-5871.9	0.0	-3049.9	-12.1	-5.0	309.8	-124.2	7 ø 20

Armature pali nodo 266 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
188	188	0.00	-5742.0	0.0	-2740.1	-10.7	-4.4	257.8	-111.6	7 ø 20

Armature pali nodo 266 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
189	189	0.00	-5880.4	0.0	-3069.0	-12.2	-5.0	313.1	-125.0	7 ø 20

Armature pali nodo 266 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
190	190	0.00	-5750.5	0.0	-2759.3	-10.8	-4.5	261.0	-112.4	7 ø 20

Armature pali nodo 266 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
191	191	0.00	-5584.5	0.0	-2359.8	-9.0	-3.7	195.1	-95.8	7 ø 20

Armature pali nodo 266 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
192	192	0.00	-5578.7	0.0	-2343.6	-8.9	-3.7	192.5	-95.1	7 ø 20

Armature pali nodo 266 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
193	193	0.00	-5591.6	0.0	-2379.1	-9.0	-3.8	198.3	-96.6	7 ø 20

Armature pali nodo 266 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
194	194	0.00	-5585.9	0.0	-2363.0	-9.0	-3.7	195.6	-95.9	7 ø 20

Armature pali nodo 266 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
195	195	0.00	-5852.8	0.0	-2996.0	-11.9	-4.9	300.6	-122.0	7 ø 20

Armature pali nodo 266 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
196	196	0.00	-5722.9	0.0	-2686.2	-10.5	-4.3	248.7	-109.4	7 ø 20

Armature pali nodo 266 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
197	197	0.00	-5861.2	0.0	-3015.1	-12.0	-4.9	303.8	-122.8	7 ø 20

Armature pali nodo 266 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

198	198	0.00	-5731.4	0.0	-2705.3	-10.5	-4.4	251.8	-110.1	7 ø 20

Armature pali nodo 210 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
199	199	0.00	-9839.4	3418.7	0.0	-12.3	-5.1	212.2	-150.8	7 ø 20

Armature pali nodo 210 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
200	200	0.00	-9777.2	3230.9	0.0	-11.4	-4.8	184.8	-141.3	7 ø 20

Armature pali nodo 210 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
201	201	0.00	-7011.8	0.0	-1545.9	-4.8	-2.1	38.0	-59.6	7 ø 20

Armature pali nodo 210 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
202	202	0.00	-6481.4	2581.2	0.0	-9.6	-4.0	194.6	-116.3	7 ø 20

Armature pali nodo 210 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
203	203	0.00	-7343.5	0.0	-1678.7	-5.3	-2.3	45.3	-64.7	7 ø 20

Armature pali nodo 210 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
204	204	0.00	-6813.2	1789.6	0.0	-5.9	-2.5	65.2	-75.0	7 ø 20

Armature pali nodo 210 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
205	205	0.00	-7999.2	0.0	-1083.3	-3.5	-1.6	4.2	-46.1	7 ø 20

Armature pali nodo 210 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
206	206	0.00	-8263.5	1019.8	0.0	-3.4	-1.6	0.7	-47.0	7 ø 20

Armature pali nodo 210 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
207	207	0.00	-8210.4	0.0	-1149.4	-3.7	-1.7	5.6	-48.3	7 ø 20

Armature pali nodo 210 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
208	208	0.00	-8474.8	499.5	0.0	-2.5	-1.6	-12.3	-35.4	7 ø 20

Armature pali nodo 210 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
209	209	0.00	-7892.9	3973.0	0.0	-15.7	-6.5	385.4	-183.4	7 ø 20

Armature pali nodo 210 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
210	210	0.00	-7362.6	5509.5	0.0	-23.0	-9.5	700.2	-258.2	7 ø 20

Armature pali nodo 210 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

211	211	0.00	-8224.7	3181.4	0.0	-11.8	-4.9	230.9	-142.8	7 ø 20

Armature pali nodo 210 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
212	212	0.00	-7694.3	4717.9	0.0	-19.3	-7.9	533.6	-220.1	7 ø 20

Armature pali nodo 210 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
213	213	0.00	-6231.3	5263.0	0.0	-22.3	-9.1	708.1	-246.9	7 ø 20

Armature pali nodo 210 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
214	214	0.00	-6495.7	6141.5	0.0	-26.2	-10.8	864.7	-288.0	7 ø 20

Armature pali nodo 210 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
215	215	0.00	-6442.5	4742.8	0.0	-19.8	-8.1	597.7	-222.2	7 ø 20

Armature pali nodo 210 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
216	216	0.00	-6706.9	5621.3	0.0	-23.8	-9.8	753.8	-263.7	7 ø 20

Armature pali nodo 153 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
217	217	0.00	-12153.0	0.0	794.3	-3.7	-2.3	-17.2	-53.0	7 ø 20

Armature pali nodo 153 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
218	218	0.00	-11788.4	270.6	0.0	-2.7	-2.2	-26.9	-39.4	7 ø 20

Armature pali nodo 153 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
219	219	0.00	-10762.0	-1457.7	0.0	-4.7	-2.2	4.8	-64.6	7 ø 20

Armature pali nodo 153 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
220	220	0.00	-10115.7	101.0	0.0	-2.1	-1.9	-26.1	-30.8	7 ø 20

Armature pali nodo 153 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
221	221	0.00	-10639.3	97.2	0.0	-2.2	-2.0	-27.7	-32.2	7 ø 20

Armature pali nodo 153 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
222	222	0.00	-9993.0	1655.9	0.0	-5.1	-2.3	16.3	-69.2	7 ø 20

Armature pali nodo 153 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
223	223	0.00	-10896.1	-2743.1	0.0	-8.9	-3.8	90.6	-114.1	7 ø 20

Armature pali nodo 153 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

224	224	0.00	-10360.2	-2685.6	0.0	-8.7	-3.7	94.9	-112.3	7 ø 20

Armature pali nodo 153 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
225	225	0.00	-10762.8	-2120.1	0.0	-6.5	-2.9	36.9	-86.7	7 ø 20

Armature pali nodo 153 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
226	226	0.00	-10226.9	-2062.6	0.0	-6.4	-2.8	38.4	-84.3	7 ø 20

Armature pali nodo 153 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
227	227	0.00	-8975.6	0.0	1783.8	-5.5	-2.4	27.9	-74.3	7 ø 20

Armature pali nodo 153 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
228	228	0.00	-8329.3	0.0	2285.6	-7.6	-3.2	84.5	-98.9	7 ø 20

Armature pali nodo 153 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
229	229	0.00	-8853.0	0.0	1896.8	-5.9	-2.6	37.3	-79.1	7 ø 20

Armature pali nodo 153 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
230	230	0.00	-8206.7	0.0	2398.6	-8.1	-3.4	101.5	-105.2	7 ø 20

Armature pali nodo 153 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
231	231	0.00	-8741.7	2452.6	0.0	-8.2	-3.5	103.0	-104.0	7 ø 20

Armature pali nodo 153 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
232	232	0.00	-8205.8	2510.1	0.0	-8.6	-3.6	125.1	-108.2	7 ø 20

Armature pali nodo 153 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
233	233	0.00	-8608.5	3075.5	0.0	-11.1	-4.7	199.3	-136.3	7 ø 20

Armature pali nodo 153 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
234	234	0.00	-8072.6	3133.0	0.0	-11.6	-4.8	228.4	-140.7	7 ø 20

Armature pali nodo 149 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
235	235	0.00	-10657.6	0.0	-1634.9	-5.1	-2.3	12.7	-66.5	7 ø 20

Armature pali nodo 149 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
236	236	0.00	-10653.6	0.0	-1908.4	-5.9	-2.6	26.1	-74.7	7 ø 20

Armature pali nodo 149 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

237	237	0.00	-6045.1	0.0	-2623.9	-10.0	-4.2	223.7	-106.6	7 ø 20

Armature pali nodo 149 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
238	238	0.00	-7664.2	-1590.4	0.0	-4.9	-2.1	32.1	-65.0	7 ø 20

Armature pali nodo 149 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
239	239	0.00	-5252.9	0.0	-3435.1	-14.1	-5.8	412.2	-139.1	7 ø 20

Armature pali nodo 149 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
240	240	0.00	-6872.0	-1914.3	0.0	-6.4	-2.7	79.2	-81.1	7 ø 20

Armature pali nodo 149 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
241	241	0.00	-5010.3	0.0	-3620.7	-15.1	-6.2	459.9	-146.0	7 ø 20

Armature pali nodo 149 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
242	242	0.00	-5853.2	-2989.4	0.0	-11.8	-4.9	293.8	-138.1	7 ø 20

Armature pali nodo 149 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
243	243	0.00	-4476.5	0.0	-4151.0	-17.7	-7.3	590.1	-165.3	7 ø 20

Armature pali nodo 149 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
244	244	0.00	-5319.3	0.0	-3269.4	-13.3	-5.5	377.1	-132.7	7 ø 20

Armature pali nodo 149 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
245	245	0.00	-8854.6	-1352.4	0.0	-4.2	-1.9	9.5	-57.6	7 ø 20

Armature pali nodo 149 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
246	246	0.00	-10473.6	0.0	1930.3	-5.9	-2.6	23.4	-80.7	7 ø 20

Armature pali nodo 149 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
247	247	0.00	-8062.4	-1676.3	0.0	-5.2	-2.3	34.0	-68.5	7 ø 20

Armature pali nodo 149 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
248	248	0.00	-9681.4	0.0	1119.1	-3.9	-1.9	-3.2	-53.8	7 ø 20

Armature pali nodo 149 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
249	249	0.00	-10407.2	0.0	1764.6	-5.5	-2.4	15.5	-74.6	7 ø 20

Armature pali nodo 149 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

250	250	0.00	-11250.1	0.0	2646.2	-8.4	-3.6	67.3	-111.4	7 ø 20

Armature pali nodo 149 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
251	251	0.00	-9873.4	0.0	1234.3	-4.1	-1.9	-0.9	-57.3	7 ø 20

Armature pali nodo 149 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
252	252	0.00	-10716.2	0.0	2115.8	-6.5	-2.9	32.4	-88.1	7 ø 20

Armature pali nodo 79 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
253	253	0.00	-12756.8	3056.0	0.0	-9.7	-4.2	89.7	-126.3	7 ø 20

Armature pali nodo 79 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
254	254	0.00	-12677.3	2858.7	0.0	-9.0	-3.9	72.1	-117.4	7 ø 20

Armature pali nodo 79 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
255	255	0.00	-11964.9	0.0	-7035.4	-28.5	-11.8	787.1	-285.9	7 ø 20

Armature pali nodo 79 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
256	256	0.00	-10616.6	0.0	-5350.3	-21.1	-8.7	529.5	-217.9	7 ø 20

Armature pali nodo 79 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
257	257	0.00	-11661.4	0.0	-6433.4	-25.8	-10.7	686.4	-261.8	7 ø 20

Armature pali nodo 79 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
258	258	0.00	-10313.2	0.0	-4748.3	-18.4	-7.6	431.1	-193.2	7 ø 20

Armature pali nodo 79 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
259	259	0.00	-12587.6	0.0	-5950.7	-23.2	-9.6	554.7	-242.3	7 ø 20

Armature pali nodo 79 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
260	260	0.00	-11773.3	0.0	-3351.9	-11.2	-4.8	148.8	-131.6	7 ø 20

Armature pali nodo 79 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
261	261	0.00	-12284.8	0.0	-5386.2	-20.6	-8.6	464.4	-219.0	7 ø 20

Armature pali nodo 79 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
262	262	0.00	-11470.5	0.0	-2787.5	-8.9	-3.8	87.3	-107.8	7 ø 20

Armature pali nodo 79 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

263	263	0.00	-9250.7	0.0	1627.1	-5.0	-2.2	16.6	-68.4	7 ø 20

Armature pali nodo 79 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
264	264	0.00	-7902.4	0.0	3312.2	-12.5	-5.2	250.1	-155.6	7 ø 20

Armature pali nodo 79 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
265	265	0.00	-8947.2	0.0	2229.1	-7.2	-3.1	65.6	-94.7	7 ø 20

Armature pali nodo 79 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
266	266	0.00	-7598.9	0.0	3914.2	-15.5	-6.4	366.0	-188.3	7 ø 20

Armature pali nodo 79 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
267	267	0.00	-8093.3	5734.4	0.0	-23.8	-9.8	708.1	-268.5	7 ø 20

Armature pali nodo 79 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
268	268	0.00	-7279.1	5248.9	0.0	-21.9	-9.0	654.4	-245.9	7 ø 20

Armature pali nodo 79 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
269	269	0.00	-7790.5	5857.8	0.0	-24.5	-10.1	746.3	-274.5	7 ø 20

Armature pali nodo 79 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
270	270	0.00	-6976.2	5372.4	0.0	-22.5	-9.3	692.7	-251.8	7 ø 20

Armature pali nodo 60 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
271	271	0.00	-9991.3	3995.3	0.0	-14.9	-6.2	302.8	-180.1	7 ø 20

Armature pali nodo 60 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
272	272	0.00	-9861.8	3677.8	0.0	-13.5	-5.6	253.8	-164.2	7 ø 20

Armature pali nodo 60 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
273	273	0.00	-4503.3	0.0	-5265.2	-22.8	-9.3	808.4	-207.0	7 ø 20

Armature pali nodo 60 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
274	274	0.00	-5048.9	0.0	-5194.2	-22.3	-9.1	766.4	-205.6	7 ø 20

Armature pali nodo 60 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
275	275	0.00	-4738.5	0.0	-3416.6	-14.2	-5.9	433.4	-137.8	7 ø 20

Armature pali nodo 60 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

276	276	0.00	-5284.0	0.0	-3345.6	-13.7	-5.7	393.4	-135.7	7 ø 20

Armature pali nodo 60 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
277	277	0.00	-5770.3	2361.8	0.0	-8.9	-3.7	184.3	-106.8	7 ø 20

Armature pali nodo 60 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
278	278	0.00	-7390.8	2945.9	0.0	-11.0	-4.6	222.3	-132.8	7 ø 20

Armature pali nodo 60 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
279	279	0.00	-5979.7	2288.2	0.0	-8.5	-3.5	163.6	-102.5	7 ø 20

Armature pali nodo 60 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
280	280	0.00	-7600.2	0.0	5186.3	-21.5	-8.8	594.0	-253.9	7 ø 20

Armature pali nodo 60 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
281	281	0.00	-9905.0	0.0	6729.3	-27.8	-11.5	768.7	-329.3	7 ø 20

Armature pali nodo 60 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
282	282	0.00	-10450.5	0.0	6800.3	-28.0	-11.5	756.8	-332.2	7 ø 20

Armature pali nodo 60 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
283	283	0.00	-10140.1	0.0	8577.9	-36.3	-14.9	1095.8	-422.4	7 ø 20

Armature pali nodo 60 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
284	284	0.00	-10685.7	0.0	8648.9	-36.4	-15.0	1083.1	-425.5	7 ø 20

Armature pali nodo 60 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
285	285	0.00	-7588.8	4274.5	0.0	-17.2	-7.1	455.0	-198.7	7 ø 20

Armature pali nodo 60 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
286	286	0.00	-9209.3	4858.6	0.0	-19.4	-8.0	490.9	-225.0	7 ø 20

Armature pali nodo 60 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
287	287	0.00	-7798.1	4200.9	0.0	-16.8	-6.9	431.8	-194.8	7 ø 20

Armature pali nodo 60 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
288	288	0.00	-9418.6	0.0	5423.1	-21.9	-9.1	555.0	-263.1	7 ø 20

Armature pali nodo 39 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

289	289	0.00	-14820.9	1153.2	0.0	-4.9	-2.8	-15.0	-68.4	7 ø 20

Armature pali nodo 39 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
290	290	0.00	-14847.0	0.0	-1352.5	-5.2	-2.8	-9.6	-70.7	7 ø 20

Armature pali nodo 39 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
291	291	0.00	-16513.6	0.0	-7400.1	-28.5	-11.8	653.2	-301.0	7 ø 20

Armature pali nodo 39 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
292	292	0.00	-16469.5	0.0	-5937.4	-21.5	-9.0	398.4	-238.8	7 ø 20

Armature pali nodo 39 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
293	293	0.00	-15498.0	0.0	-6667.5	-25.4	-10.6	562.8	-270.9	7 ø 20

Armature pali nodo 39 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
294	294	0.00	-15453.8	0.0	-5204.8	-18.5	-7.7	314.2	-208.1	7 ø 20

Armature pali nodo 39 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
295	295	0.00	-13822.0	-5169.3	0.0	-19.0	-7.9	358.1	-230.8	7 ø 20

Armature pali nodo 39 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
296	296	0.00	-11003.7	-5040.8	0.0	-19.5	-8.1	446.6	-230.8	7 ø 20

Armature pali nodo 39 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
297	297	0.00	-11716.6	0.0	-4176.6	-15.1	-6.3	275.6	-167.8	7 ø 20

Armature pali nodo 39 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
298	298	0.00	-8898.3	-3728.0	0.0	-14.1	-5.9	299.2	-169.1	7 ø 20

Armature pali nodo 39 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
299	299	0.00	-7119.3	0.0	4751.1	-19.6	-8.1	537.0	-232.3	7 ø 20

Armature pali nodo 39 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
300	300	0.00	-7075.1	0.0	6213.7	-26.4	-10.8	806.6	-306.1	7 ø 20

Armature pali nodo 39 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
301	301	0.00	-6103.6	0.0	5483.7	-23.3	-9.6	718.5	-270.2	7 ø 20

Armature pali nodo 39 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

302	302	0.00	-6059.4	0.0	6946.3	-30.0	-12.3	990.9	-342.8	7 ø 20

Armature pali nodo 39 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
303	303	0.00	-13674.8	5571.0	0.0	-20.9	-8.7	432.2	-251.8	7 ø 20

Armature pali nodo 39 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
304	304	0.00	-10856.4	5699.5	0.0	-22.7	-9.4	573.5	-263.8	7 ø 20

Armature pali nodo 39 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
305	305	0.00	-11569.4	6883.8	0.0	-28.0	-11.5	762.7	-320.7	7 ø 20

Armature pali nodo 39 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
306	306	0.00	-8751.0	7012.3	0.0	-29.5	-12.1	921.4	-328.8	7 ø 20

Armature pali nodo 35 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
307	307	0.00	-12738.6	0.0	-3117.2	-10.0	-4.3	99.2	-120.6	7 ø 20

Armature pali nodo 35 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
308	308	0.00	-12685.8	0.0	-2856.5	-9.0	-3.9	74.2	-110.1	7 ø 20

Armature pali nodo 35 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
309	309	0.00	-7174.9	0.0	-6378.4	-27.1	-11.1	891.9	-254.6	7 ø 20

Armature pali nodo 35 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
310	310	0.00	-8168.2	0.0	-5867.5	-24.4	-10.1	742.9	-236.7	7 ø 20

Armature pali nodo 35 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
311	311	0.00	-7473.1	0.0	-6057.0	-25.5	-10.5	814.0	-242.9	7 ø 20

Armature pali nodo 35 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
312	312	0.00	-8466.4	0.0	-5546.1	-22.8	-9.4	666.2	-224.6	7 ø 20

Armature pali nodo 35 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
313	313	0.00	-7359.6	0.0	-4848.2	-20.0	-8.2	584.3	-196.3	7 ø 20

Armature pali nodo 35 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
314	314	0.00	-8507.6	0.0	-3058.7	-11.1	-4.6	204.4	-123.0	7 ø 20

Armature pali nodo 35 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

315	315	0.00	-7649.5	0.0	-4604.0	-18.7	-7.7	523.6	-187.0	7 ø 20

Armature pali nodo 35 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
316	316	0.00	-8797.4	0.0	-2814.5	-9.8	-4.1	155.8	-111.9	7 ø 20

Armature pali nodo 35 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
317	317	0.00	-11001.5	1862.7	0.0	-5.8	-2.6	19.9	-77.5	7 ø 20

Armature pali nodo 35 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
318	318	0.00	-11994.8	4585.4	0.0	-16.9	-7.1	327.5	-205.4	7 ø 20

Armature pali nodo 35 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
319	319	0.00	-11299.7	2420.2	0.0	-7.5	-3.3	53.3	-99.0	7 ø 20

Armature pali nodo 35 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
320	320	0.00	-12293.0	5142.9	0.0	-19.5	-8.1	412.0	-233.2	7 ø 20

Armature pali nodo 35 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
321	321	0.00	-10670.5	5220.1	0.0	-20.5	-8.5	493.4	-240.4	7 ø 20

Armature pali nodo 35 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
322	322	0.00	-11818.5	6396.0	0.0	-25.6	-10.6	659.9	-296.6	7 ø 20

Armature pali nodo 35 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
323	323	0.00	-10960.3	5765.6	0.0	-23.0	-9.5	581.1	-266.9	7 ø 20

Armature pali nodo 35 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
324	324	0.00	-12108.3	6941.5	0.0	-28.0	-11.6	748.7	-322.9	7 ø 20

Armature pali nodo 32 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
325	325	0.00	-12098.3	-561.2	0.0	-3.3	-2.3	-21.0	-47.0	7 ø 20

Armature pali nodo 32 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
326	326	0.00	-11898.1	-269.9	0.0	-2.7	-2.2	-27.2	-39.7	7 ø 20

Armature pali nodo 32 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
327	327	0.00	-7777.4	0.0	-3281.1	-12.4	-5.2	270.8	-133.2	7 ø 20

Armature pali nodo 32 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

328	328	0.00	-8396.0	0.0	-2790.6	-9.9	-4.1	164.9	-111.4	7 ø 20

Armature pali nodo 32 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
329	329	0.00	-7916.5	0.0	-2967.0	-10.9	-4.5	210.5	-119.7	7 ø 20

Armature pali nodo 32 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
330	330	0.00	-8535.2	0.0	-2476.5	-8.4	-3.5	114.2	-97.4	7 ø 20

Armature pali nodo 32 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
331	331	0.00	-7835.1	-1991.0	0.0	-6.4	-2.8	67.2	-83.0	7 ø 20

Armature pali nodo 32 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
332	332	0.00	-8507.0	-1415.8	0.0	-4.4	-2.0	14.2	-59.1	7 ø 20

Armature pali nodo 32 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
333	333	0.00	-7983.1	-1851.2	0.0	-5.8	-2.5	50.1	-76.2	7 ø 20

Armature pali nodo 32 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
334	334	0.00	-8655.0	-1276.0	0.0	-4.0	-1.8	7.5	-54.9	7 ø 20

Armature pali nodo 32 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
335	335	0.00	-10017.0	0.0	2821.7	-9.4	-4.0	110.4	-122.8	7 ø 20

Armature pali nodo 32 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
336	336	0.00	-10635.7	0.0	3312.2	-11.5	-4.8	158.8	-147.3	7 ø 20

Armature pali nodo 32 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
337	337	0.00	-10156.2	0.0	3135.8	-10.8	-4.6	147.9	-139.2	7 ø 20

Armature pali nodo 32 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
338	338	0.00	-10774.8	0.0	3626.3	-12.9	-5.4	199.7	-163.9	7 ø 20

Armature pali nodo 32 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
339	339	0.00	-9897.2	139.7	0.0	-2.1	-1.9	-24.6	-31.1	7 ø 20

Armature pali nodo 32 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
340	340	0.00	-10569.1	0.0	1790.4	-5.5	-2.5	15.6	-75.7	7 ø 20

Armature pali nodo 32 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

341	341	0.00	-10045.2	279.4	0.0	-2.4	-1.9	-21.8	-34.7	7 ø 20

Armature pali nodo 32 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
342	342	0.00	-10717.1	0.0	2020.7	-6.2	-2.7	26.5	-84.3	7 ø 20

Armature pali nodo 29 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
343	343	0.00	-8260.7	4181.0	0.0	-16.5	-6.8	407.6	-193.1	7 ø 20

Armature pali nodo 29 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
344	344	0.00	-8211.7	4169.0	0.0	-16.5	-6.8	407.5	-192.5	7 ø 20

Armature pali nodo 29 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
345	345	0.00	-6230.6	3396.6	0.0	-13.6	-5.6	352.5	-157.6	7 ø 20

Armature pali nodo 29 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
346	346	0.00	-6342.5	3544.6	0.0	-14.3	-5.9	375.1	-164.7	7 ø 20

Armature pali nodo 29 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
347	347	0.00	-6233.1	3392.4	0.0	-13.6	-5.6	351.6	-157.4	7 ø 20

Armature pali nodo 29 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
348	348	0.00	-6345.0	3540.4	0.0	-14.2	-5.9	374.2	-164.5	7 ø 20

Armature pali nodo 29 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
349	349	0.00	-6144.1	3312.2	0.0	-13.2	-5.5	340.7	-153.6	7 ø 20

Armature pali nodo 29 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
350	350	0.00	-6181.7	3391.8	0.0	-13.6	-5.6	353.8	-157.4	7 ø 20

Armature pali nodo 29 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
351	351	0.00	-6146.3	3317.1	0.0	-13.3	-5.5	341.5	-153.8	7 ø 20

Armature pali nodo 29 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
352	352	0.00	-6183.9	3396.6	0.0	-13.6	-5.6	354.6	-157.7	7 ø 20

Armature pali nodo 29 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
353	353	0.00	-6356.0	3661.7	0.0	-14.8	-6.1	396.4	-170.4	7 ø 20

Armature pali nodo 29 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

354	354	0.00	-6468.0	3809.6	0.0	-15.5	-6.4	419.1	-177.4	7 ø 20

Armature pali nodo 29 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
355	355	0.00	-6358.5	3657.5	0.0	-14.8	-6.1	395.5	-170.2	7 ø 20

Armature pali nodo 29 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
356	356	0.00	-6470.4	3805.5	0.0	-15.4	-6.4	418.2	-177.2	7 ø 20

Armature pali nodo 29 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
357	357	0.00	-6517.1	3805.4	0.0	-15.4	-6.4	416.0	-177.2	7 ø 20

Armature pali nodo 29 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
358	358	0.00	-6554.7	3885.0	0.0	-15.8	-6.5	429.2	-181.0	7 ø 20

Armature pali nodo 29 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
359	359	0.00	-6519.3	3810.3	0.0	-15.4	-6.4	416.8	-177.4	7 ø 20

Armature pali nodo 29 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
360	360	0.00	-6556.9	3889.8	0.0	-15.8	-6.5	430.1	-181.2	7 ø 20

Armature pali nodo 26 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
361	361	0.00	-11672.6	-991.3	0.0	-4.0	-2.2	-9.9	-55.8	7 ø 20

Armature pali nodo 26 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
362	362	0.00	-11587.3	-1167.8	0.0	-4.3	-2.2	-5.5	-59.6	7 ø 20

Armature pali nodo 26 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
363	363	0.00	-9390.5	0.0	-4438.7	-17.3	-7.2	413.7	-180.7	7 ø 20

Armature pali nodo 26 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
364	364	0.00	-9633.0	0.0	-3821.2	-14.3	-5.9	292.5	-154.7	7 ø 20

Armature pali nodo 26 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
365	365	0.00	-9218.9	0.0	-4072.1	-15.6	-6.5	353.9	-165.6	7 ø 20

Armature pali nodo 26 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
366	366	0.00	-9461.4	0.0	-3454.6	-12.6	-5.3	236.2	-139.1	7 ø 20

Armature pali nodo 26 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

367	367	0.00	-8648.7	0.0	-2704.9	-9.4	-3.9	143.8	-107.3	7 ø 20

Armature pali nodo 26 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
368	368	0.00	-8277.6	0.0	-637.0	-2.7	-1.6	-8.1	-36.9	7 ø 20

Armature pali nodo 26 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
369	369	0.00	-8528.8	0.0	-2421.9	-8.1	-3.4	107.0	-95.1	7 ø 20

Armature pali nodo 26 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
370	370	0.00	-8157.7	-668.5	0.0	-2.7	-1.5	-7.5	-38.4	7 ø 20

Armature pali nodo 26 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
371	371	0.00	-8153.4	0.0	2454.0	-8.4	-3.5	110.1	-108.3	7 ø 20

Armature pali nodo 26 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
372	372	0.00	-8396.0	0.0	3071.5	-11.2	-4.7	193.2	-141.1	7 ø 20

Armature pali nodo 26 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
373	373	0.00	-7981.8	0.0	2820.6	-10.2	-4.3	168.2	-128.7	7 ø 20

Armature pali nodo 26 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
374	374	0.00	-8224.3	0.0	3438.2	-13.0	-5.4	258.8	-161.4	7 ø 20

Armature pali nodo 26 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
375	375	0.00	-9457.2	0.0	-646.5	-3.0	-1.8	-11.2	-40.4	7 ø 20

Armature pali nodo 26 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
376	376	0.00	-9086.1	0.0	1421.4	-4.4	-2.0	8.4	-61.1	7 ø 20

Armature pali nodo 26 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
377	377	0.00	-9337.3	7.2	0.0	-1.8	-1.7	-26.1	-26.4	7 ø 20

Armature pali nodo 26 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
378	378	0.00	-8966.1	0.0	1704.3	-5.2	-2.3	23.0	-71.1	7 ø 20

Armature pali nodo 23 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
379	379	0.00	-9998.8	2933.5	0.0	-9.9	-4.2	134.9	-125.4	7 ø 20

Armature pali nodo 23 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

380	380	0.00	-9853.5	2750.7	0.0	-9.2	-3.9	114.3	-116.5	7 ø 20

Armature pali nodo 23 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
381	381	0.00	-7679.0	4280.3	0.0	-17.2	-7.1	452.0	-198.8	7 ø 20

Armature pali nodo 23 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
382	382	0.00	-8145.5	4960.1	0.0	-20.2	-8.3	558.4	-231.3	7 ø 20

Armature pali nodo 23 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
383	383	0.00	-7171.8	3631.0	0.0	-14.3	-5.9	354.1	-167.7	7 ø 20

Armature pali nodo 23 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
384	384	0.00	-7638.3	4310.8	0.0	-17.4	-7.2	459.6	-200.4	7 ø 20

Armature pali nodo 23 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
385	385	0.00	-6984.5	2163.8	0.0	-7.5	-3.1	110.4	-93.5	7 ø 20

Armature pali nodo 23 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
386	386	0.00	-6965.9	0.0	2160.7	-7.5	-3.1	102.8	-96.0	7 ø 20

Armature pali nodo 23 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
387	387	0.00	-6734.7	1782.2	0.0	-5.8	-2.5	66.0	-74.8	7 ø 20

Armature pali nodo 23 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
388	388	0.00	-6716.2	0.0	2519.5	-9.3	-3.9	164.4	-116.3	7 ø 20

Armature pali nodo 23 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
389	389	0.00	-7617.3	0.0	6172.6	-26.0	-10.7	773.4	-303.7	7 ø 20

Armature pali nodo 23 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
390	390	0.00	-8083.8	0.0	7021.9	-29.8	-12.2	907.3	-345.9	7 ø 20

Armature pali nodo 23 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
391	391	0.00	-7110.1	0.0	6599.0	-28.1	-11.5	875.9	-325.3	7 ø 20

Armature pali nodo 23 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
392	392	0.00	-7576.6	0.0	7448.3	-31.9	-13.1	1010.2	-367.4	7 ø 20

Armature pali nodo 23 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

393	393	0.00	-8539.4	4429.7	0.0	-17.6	-7.3	441.2	-204.9	7 ø 20

Armature pali nodo 23 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
394	394	0.00	-8520.9	0.0	4991.7	-20.2	-8.4	517.4	-242.5	7 ø 20

Armature pali nodo 23 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
395	395	0.00	-8289.6	4048.1	0.0	-15.9	-6.6	382.0	-186.4	7 ø 20

Armature pali nodo 23 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
396	396	0.00	-8271.1	0.0	5350.5	-22.0	-9.1	593.2	-261.3	7 ø 20

Armature pali nodo 4 (1)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
397	397	0.00	-14815.7	0.0	-1313.6	-5.2	-2.8	-10.5	-69.7	7 ø 20

Armature pali nodo 4 (2)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
398	398	0.00	-14858.3	0.0	-1351.1	-5.2	-2.8	-9.7	-70.7	7 ø 20

Armature pali nodo 4 (3)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
399	399	0.00	-11593.8	0.0	-7565.9	-31.1	-12.8	906.7	-306.4	7 ø 20

Armature pali nodo 4 (4)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
400	400	0.00	-14084.2	0.0	-6464.9	-25.0	-10.4	585.1	-263.1	7 ø 20

Armature pali nodo 4 (5)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
401	401	0.00	-11440.4	0.0	-6927.0	-28.2	-11.6	790.9	-281.3	7 ø 20

Armature pali nodo 4 (6)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
402	402	0.00	-13930.8	0.0	-5826.0	-22.1	-9.2	475.9	-236.4	7 ø 20

Armature pali nodo 4 (7)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
403	403	0.00	-7468.7	-6631.6	0.0	-28.2	-11.6	911.1	-311.1	7 ø 20

Armature pali nodo 4 (8)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
404	404	0.00	-6565.8	-5577.7	0.0	-23.6	-9.7	752.3	-261.6	7 ø 20

Armature pali nodo 4 (9)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
405	405	0.00	-7647.8	-6013.5	0.0	-25.3	-10.4	783.2	-282.0	7 ø 20

Armature pali nodo 4 (10)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature

406	406	0.00	-6744.9	-4959.6	0.0	-20.7	-8.5	624.7	-232.4	7 ø 20

Armature pali nodo 4 (11)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
407	407	0.00	-8584.1	0.0	3642.6	-13.8	-5.8	279.2	-171.4	7 ø 20

Armature pali nodo 4 (12)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
408	408	0.00	-11074.5	0.0	4743.6	-18.1	-7.5	367.6	-223.5	7 ø 20

Armature pali nodo 4 (13)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
409	409	0.00	-8430.7	0.0	4281.5	-16.9	-7.0	395.3	-205.7	7 ø 20

Armature pali nodo 4 (14)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
410	410	0.00	-10921.1	0.0	5382.5	-21.2	-8.8	483.4	-257.8	7 ø 20

Armature pali nodo 4 (15)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
411	411	0.00	-15770.0	5286.4	0.0	-18.7	-7.9	309.8	-231.8	7 ø 20

Armature pali nodo 4 (16)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
412	412	0.00	-14867.1	6340.3	0.0	-24.1	-10.0	519.5	-288.1	7 ø 20

Armature pali nodo 4 (17)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
413	413	0.00	-15949.1	5904.5	0.0	-21.6	-9.0	403.2	-263.2	7 ø 20

Armature pali nodo 4 (18)

Palo	Comb. Critica	Quota [m]	N [kg]	Mx [kgm]	My [kgm]	fbClsMax [kg/cm²]	fbClsMed [kg/cm²]	fyMax [kg/cm²]	fyMin [kg/cm²]	Armature
414	414	0.00	-15046.2	6958.4	0.0	-27.0	-11.2	622.5	-318.9	7 ø 20

Diagrammi di sollecitazione nei pali

Condizione di Carico 1 nodo 518 (1)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.00	0.00	-0.09	0.0	0.0	-0.0	10478.9	-498.0	407.2	-1894.4	-2316.9
-0.18	0.00	0.00	-0.09	0.0	0.0	-0.0	10285.5	-500.7	409.4	-1821.1	-2227.3
-0.36	0.00	0.00	-0.09	0.0	0.0	-0.0	10092.2	-501.3	409.9	-1747.4	-2137.2
-0.54	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9899.3	-500.0	408.8	-1673.7	-2046.9
-0.72	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9706.5	-497.0	406.3	-1600.1	-1956.9
-0.90	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9514.0	-492.4	402.6	-1526.9	-1867.5
-1.08	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9321.8	-486.3	397.7	-1454.5	-1778.9
-1.26	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	9129.8	-479.0	391.7	-1382.9	-1691.3
-1.44	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	8938.0	-470.5	384.7	-1312.4	-1605.1
-1.62	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8746.4	-461.0	376.9	-1243.1	-1520.4
-1.80	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8555.1	-450.5	368.3	-1175.3	-1437.4
-1.98	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8363.9	-439.2	359.1	-1109.0	-1356.3
-2.16	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8173.0	-427.2	349.3	-1044.4	-1277.3
-2.34	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7982.3	-414.6	339.0	-981.5	-1200.4
-2.52	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7791.7	-401.4	328.2	-920.5	-1125.8

-2.70	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7601.4	-387.9	317.1	-861.4	-1053.5
-2.88	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7411.3	-373.9	305.7	-804.3	-983.7
-3.06	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7221.3	-359.7	294.1	-749.3	-916.4
-3.24	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7031.5	-345.3	282.3	-696.3	-851.6
-3.42	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6841.9	-330.8	270.4	-645.5	-789.5
-3.60	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6652.5	-316.1	258.5	-596.8	-730.0
-3.78	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6463.2	-301.5	246.5	-550.3	-673.1
-3.96	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6274.1	-286.8	234.5	-505.9	-618.8
-4.14	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6085.1	-272.3	222.6	-463.7	-567.2
-4.32	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5896.3	-257.8	210.8	-423.7	-518.1
-4.50	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5707.7	-243.5	199.1	-385.7	-471.7
-4.68	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5519.2	-229.4	187.6	-349.9	-427.9
-4.86	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5330.8	-215.6	176.3	-316.1	-386.6
-5.04	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5142.6	-202.0	165.1	-284.4	-347.8
-5.22	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4954.4	-188.6	154.2	-254.6	-311.4
-5.40	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4766.4	-175.6	143.6	-226.9	-277.5
-5.58	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4578.6	-162.9	133.2	-201.0	-245.9
-5.76	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4390.8	-150.5	123.1	-177.1	-216.6
-5.94	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4203.2	-138.5	113.2	-154.9	-189.5
-6.12	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4015.6	-126.9	103.7	-134.5	-164.5
-6.30	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3828.2	-115.6	94.5	-115.9	-141.7
-6.48	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3640.8	-104.8	85.7	-98.8	-120.9
-6.66	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3453.6	-94.3	77.1	-83.4	-102.0
-6.84	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3266.4	-84.3	68.9	-69.5	-85.1
-7.02	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3079.3	-74.7	61.1	-57.1	-69.9
-7.20	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2892.3	-65.5	53.6	-46.1	-56.4
-7.38	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	2705.3	-56.8	46.4	-36.5	-44.6
-7.56	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	2518.5	-48.4	39.6	-28.1	-34.4

-7.74	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	2331.6	-40.6	33.2	-21.0	-25.7
-7.92	-0.01	-0.00	-0.09	-0.0	-0.0	-0.0	2144.9	-33.1	27.1	-15.0	-18.4
-8.10	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1958.2	-26.1	21.3	-10.2	-12.4
-8.28	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1771.5	-19.5	16.0	-6.3	-7.7
-8.46	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1584.9	-13.4	10.9	-3.5	-4.2
-8.64	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1398.3	-7.7	6.3	-1.5	-1.8
-8.82	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1211.8	-2.4	2.0	-0.4	-0.4
-9.00	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1211.8	-2.4	2.0	0.0	0.0

Condizione di Carico 2 nodo 518 (2)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.00	0.00	-0.09	0.0	0.0	-0.0	10418.7	-428.7	432.5	-2012.2	-1994.4
-0.18	0.00	0.00	-0.09	0.0	0.0	-0.0	10226.3	-431.0	434.8	-1934.4	-1917.2
-0.36	0.00	0.00	-0.09	0.0	0.0	-0.0	10034.2	-431.5	435.4	-1856.1	-1839.7
-0.54	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9842.3	-430.4	434.2	-1777.8	-1762.0
-0.72	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9650.7	-427.8	431.6	-1699.6	-1684.5
-0.90	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9459.3	-423.8	427.6	-1621.9	-1607.5
-1.08	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9268.2	-418.6	422.4	-1544.9	-1531.2
-1.26	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9077.3	-412.3	416.0	-1468.9	-1455.9
-1.44	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8886.6	-405.0	408.6	-1394.0	-1381.7
-1.62	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8696.1	-396.8	400.3	-1320.5	-1308.8
-1.80	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8505.9	-387.8	391.2	-1248.4	-1237.3
-1.98	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8315.8	-378.0	381.4	-1178.0	-1167.5
-2.16	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8126.0	-367.7	371.0	-1109.3	-1099.5
-2.34	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7936.4	-356.9	360.0	-1042.5	-1033.3
-2.52	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7746.9	-345.5	348.6	-977.7	-969.1

-2.70	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7557.7	-333.9	336.9	-915.0	-906.9
-2.88	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7368.6	-321.9	324.8	-854.3	-846.8
-3.06	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	7179.8	-309.7	312.4	-795.9	-788.8
-3.24	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6991.1	-297.2	299.9	-739.7	-733.1
-3.42	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6802.6	-284.7	287.3	-685.7	-679.6
-3.60	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6614.2	-272.1	274.6	-634.0	-628.3
-3.78	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6426.0	-259.5	261.8	-584.5	-579.4
-3.96	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6238.0	-246.9	249.1	-537.4	-532.6
-4.14	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	6050.2	-234.4	236.5	-492.6	-488.2
-4.32	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5862.4	-221.9	223.9	-450.0	-446.0
-4.50	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5674.9	-209.6	211.5	-409.7	-406.1
-4.68	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5487.4	-197.5	199.3	-371.6	-368.3
-4.86	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5300.1	-185.6	187.2	-335.8	-332.8
-5.04	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	5113.0	-173.8	175.4	-302.1	-299.4
-5.22	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4926.0	-162.4	163.8	-270.5	-268.1
-5.40	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4739.0	-151.1	152.5	-241.0	-238.9
-5.58	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4552.2	-140.2	141.5	-213.6	-211.7
-5.76	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4365.6	-129.6	130.7	-188.1	-186.4
-5.94	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	4179.0	-119.2	120.3	-164.6	-163.1
-6.12	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3992.5	-109.2	110.2	-142.9	-141.6
-6.30	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3806.2	-99.5	100.4	-123.1	-122.0
-6.48	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3619.9	-90.2	91.0	-105.0	-104.1
-6.66	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3433.7	-81.2	81.9	-88.6	-87.8
-6.84	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3247.6	-72.6	73.2	-73.9	-73.2
-7.02	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	3061.6	-64.3	64.9	-60.7	-60.1
-7.20	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2875.6	-56.4	56.9	-49.0	-48.6
-7.38	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2689.8	-48.9	49.3	-38.8	-38.4
-7.56	-0.00	-0.01	-0.09	-0.0	-0.0	-0.0	2504.0	-41.7	42.1	-29.9	-29.6

-7.74	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	2318.2	-34.9	35.2	-22.3	-22.1
-7.92	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	2132.6	-28.5	28.8	-16.0	-15.8
-8.10	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1946.9	-22.5	22.7	-10.8	-10.7
-8.28	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1761.3	-16.8	16.9	-6.7	-6.7
-8.46	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1575.8	-11.5	11.6	-3.7	-3.6
-8.64	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1390.3	-6.6	6.7	-1.6	-1.6
-8.82	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1204.8	-2.1	2.1	-0.4	-0.4
-9.00	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	1204.8	-2.1	2.1	0.0	0.0

Condizione di Carico 3 nodo 518 (3)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	0.00	-0.07	0.0	0.0	-0.0	7601.6	-1475.9	61.0	-283.7	-6866.4
-0.18	0.01	0.00	-0.07	0.0	0.0	-0.0	7461.2	-1483.8	61.3	-272.8	-6600.7
-0.36	0.00	0.00	-0.07	0.0	0.0	-0.0	7321.1	-1485.6	61.4	-261.7	-6333.7
-0.54	-0.00	-0.00	-0.07	-0.0	-0.0	-0.0	7181.1	-1481.8	61.2	-250.7	-6066.2
-0.72	-0.01	-0.00	-0.07	-0.0	-0.0	-0.0	7041.3	-1472.8	60.9	-239.6	-5799.5
-0.90	-0.01	-0.00	-0.07	-0.0	-0.0	-0.0	6901.6	-1459.2	60.3	-228.7	-5534.4
-1.08	-0.01	-0.00	-0.07	-0.0	-0.0	-0.0	6762.2	-1441.3	59.6	-217.8	-5271.8
-1.26	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	6622.9	-1419.6	58.7	-207.1	-5012.3
-1.44	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	6483.8	-1394.4	57.6	-196.6	-4756.8
-1.62	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	6344.8	-1366.1	56.4	-186.2	-4505.8
-1.80	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	6206.0	-1335.0	55.2	-176.0	-4259.9
-1.98	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	6067.3	-1301.6	53.8	-166.1	-4019.6
-2.16	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	5928.8	-1266.0	52.3	-156.4	-3785.4
-2.34	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5790.5	-1228.6	50.8	-147.0	-3557.5
-2.52	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5652.3	-1189.7	49.2	-137.9	-3336.3

-2.70	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5514.2	-1149.4	47.5	-129.0	-3122.2
-2.88	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5376.3	-1108.2	45.8	-120.5	-2915.3
-3.06	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5238.5	-1066.1	44.1	-112.2	-2715.8
-3.24	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	5100.8	-1023.4	42.3	-104.3	-2523.9
-3.42	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4963.2	-980.2	40.5	-96.7	-2339.7
-3.60	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4825.8	-936.9	38.7	-89.4	-2163.3
-3.78	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4688.5	-893.4	36.9	-82.4	-1994.6
-3.96	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4551.3	-850.1	35.1	-75.8	-1833.8
-4.14	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4414.3	-806.9	33.3	-69.5	-1680.8
-4.32	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4277.3	-764.1	31.6	-63.5	-1535.6
-4.50	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4140.5	-721.8	29.8	-57.8	-1398.0
-4.68	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	4003.7	-680.0	28.1	-52.4	-1268.1
-4.86	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3867.1	-638.9	26.4	-47.3	-1145.7
-5.04	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3730.5	-598.5	24.7	-42.6	-1030.7
-5.22	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3594.0	-559.0	23.1	-38.1	-923.0
-5.40	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3457.7	-520.4	21.5	-34.0	-822.4
-5.58	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3321.4	-482.7	19.9	-30.1	-728.7
-5.76	-0.03	-0.00	-0.07	-0.0	-0.0	-0.0	3185.2	-446.1	18.4	-26.5	-641.8
-5.94	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	3049.0	-410.5	17.0	-23.2	-561.5
-6.12	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2913.0	-376.0	15.5	-20.2	-487.6
-6.30	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2777.0	-342.7	14.2	-17.4	-420.0
-6.48	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2641.1	-310.5	12.8	-14.8	-358.3
-6.66	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2505.3	-279.6	11.6	-12.5	-302.4
-6.84	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2369.5	-249.9	10.3	-10.4	-252.1
-7.02	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2233.8	-221.4	9.1	-8.6	-207.1
-7.20	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	2098.1	-194.2	8.0	-6.9	-167.2
-7.38	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	1962.5	-168.2	7.0	-5.5	-132.3
-7.56	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	1826.9	-143.6	5.9	-4.2	-102.0

-7.74	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	1691.4	-120.2	5.0	-3.1	-76.1
-7.92	-0.02	-0.00	-0.07	-0.0	-0.0	-0.0	1555.9	-98.1	4.1	-2.3	-54.5
-8.10	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	1420.5	-77.3	3.2	-1.5	-36.8
-8.28	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	1285.1	-57.8	2.4	-0.9	-22.9
-8.46	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	1149.7	-39.6	1.6	-0.5	-12.5
-8.64	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	1014.4	-22.7	0.9	-0.2	-5.4
-8.82	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	879.1	-7.1	0.3	-0.1	-1.3
-9.00	-0.01	-0.00	-0.06	-0.0	-0.0	-0.0	879.1	-7.1	0.3	0.0	0.0

Condizione di Carico 4 nodo 518 (4)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	-0.00	-0.05	0.0	-0.0	-0.0	5826.9	-1358.3	-657.3	3057.7	-6319.3
-0.18	0.01	-0.00	-0.05	0.0	-0.0	-0.0	5719.4	-1365.6	-660.8	2939.4	-6074.8
-0.36	0.00	-0.00	-0.05	0.0	-0.0	-0.0	5611.9	-1367.2	-661.6	2820.5	-5829.0
-0.54	-0.00	0.00	-0.05	-0.0	0.0	-0.0	5504.6	-1363.7	-659.9	2701.4	-5582.9
-0.72	-0.01	0.00	-0.05	-0.0	0.0	-0.0	5397.4	-1355.5	-655.9	2582.6	-5337.5
-0.90	-0.01	0.00	-0.05	-0.0	0.0	-0.0	5290.4	-1342.9	-649.8	2464.6	-5093.5
-1.08	-0.01	0.01	-0.05	-0.0	0.0	-0.0	5183.5	-1326.5	-641.8	2347.6	-4851.8
-1.26	-0.01	0.01	-0.05	-0.0	0.0	-0.0	5076.7	-1306.5	-632.2	2232.1	-4613.0
-1.44	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4970.1	-1283.3	-620.9	2118.3	-4377.8
-1.62	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4863.6	-1257.2	-608.3	2006.5	-4146.8
-1.80	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4757.1	-1228.7	-594.5	1897.0	-3920.5
-1.98	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4650.9	-1197.9	-579.6	1790.0	-3699.4
-2.16	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4544.7	-1165.1	-563.8	1685.7	-3483.8
-2.34	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4438.6	-1130.7	-547.1	1584.2	-3274.0
-2.52	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4332.7	-1094.9	-529.8	1485.7	-3070.5

-2.70	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4226.9	-1057.9	-511.9	1390.4	-2873.4
-2.88	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4121.1	-1019.9	-493.5	1298.2	-2683.0
-3.06	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4015.5	-981.1	-474.7	1209.4	-2499.4
-3.24	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3910.0	-941.8	-455.7	1123.9	-2322.8
-3.42	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3804.5	-902.1	-436.5	1041.9	-2153.3
-3.60	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3699.2	-862.2	-417.2	963.3	-1990.9
-3.78	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3593.9	-822.2	-397.9	888.2	-1835.7
-3.96	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3488.8	-782.3	-378.5	816.6	-1687.7
-4.14	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3383.7	-742.6	-359.3	748.5	-1546.9
-4.32	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3278.7	-703.2	-340.3	683.8	-1413.2
-4.50	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3173.8	-664.2	-321.4	622.6	-1286.6
-4.68	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3069.0	-625.8	-302.8	564.7	-1167.1
-4.86	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2964.3	-588.0	-284.5	510.2	-1054.4
-5.04	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2859.6	-550.8	-266.5	459.0	-948.6
-5.22	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2755.0	-514.4	-248.9	411.0	-849.4
-5.40	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2650.4	-478.9	-231.7	366.2	-756.8
-5.58	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2546.0	-444.2	-215.0	324.5	-670.6
-5.76	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2441.6	-410.5	-198.6	285.8	-590.7
-5.94	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2337.2	-377.8	-182.8	250.1	-516.8
-6.12	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2232.9	-346.0	-167.4	217.2	-448.8
-6.30	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2128.7	-315.4	-152.6	187.0	-386.5
-6.48	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2024.5	-285.8	-138.3	159.5	-329.7
-6.66	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1920.4	-257.3	-124.5	134.7	-278.3
-6.84	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1816.3	-230.0	-111.3	112.2	-232.0
-7.02	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1712.3	-203.8	-98.6	92.2	-190.6
-7.20	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1608.3	-178.7	-86.5	74.5	-153.9
-7.38	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1504.3	-154.8	-74.9	58.9	-121.7
-7.56	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1400.4	-132.1	-63.9	45.4	-93.9

-7.74	-0.01	0.01	-0.05	-0.0	0.0	-0.0	1296.5	-110.6	-53.5	33.9	-70.1
-7.92	-0.01	0.01	-0.05	-0.0	0.0	-0.0	1192.7	-90.3	-43.7	24.3	-50.2
-8.10	-0.01	0.01	-0.05	-0.0	0.0	-0.0	1088.9	-71.2	-34.4	16.4	-33.9
-8.28	-0.01	0.01	-0.05	-0.0	0.0	-0.0	985.1	-53.2	-25.8	10.2	-21.1
-8.46	-0.01	0.01	-0.05	-0.0	0.0	-0.0	881.3	-36.5	-17.7	5.6	-11.5
-8.64	-0.01	0.01	-0.05	-0.0	0.0	-0.0	777.6	-20.9	-10.1	2.4	-5.0
-8.82	-0.01	0.00	-0.05	-0.0	0.0	-0.0	673.8	-6.6	-3.2	0.6	-1.2
-9.00	-0.01	0.00	-0.05	-0.0	0.0	-0.0	673.8	-6.6	-3.2	0.0	0.0

Condizione di Carico 5 nodo 518 (5)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	-0.00	-0.07	0.0	-0.0	-0.0	7556.4	-1603.0	-1.0	4.5	-7457.7
-0.18	0.01	-0.00	-0.07	0.0	-0.0	-0.0	7416.9	-1611.6	-1.0	4.3	-7169.1
-0.36	0.00	-0.00	-0.07	0.0	-0.0	-0.0	7277.5	-1613.5	-1.0	4.2	-6879.0
-0.54	-0.00	0.00	-0.07	-0.0	0.0	-0.0	7138.4	-1609.4	-1.0	4.0	-6588.6
-0.72	-0.01	0.00	-0.07	-0.0	0.0	-0.0	6999.4	-1599.6	-1.0	3.8	-6298.9
-0.90	-0.01	0.00	-0.07	-0.0	0.0	-0.0	6860.6	-1584.8	-1.0	3.6	-6011.0
-1.08	-0.01	0.00	-0.07	-0.0	0.0	-0.0	6722.0	-1565.4	-0.9	3.5	-5725.7
-1.26	-0.02	0.00	-0.07	-0.0	0.0	-0.0	6583.5	-1541.8	-0.9	3.3	-5443.9
-1.44	-0.02	0.00	-0.07	-0.0	0.0	-0.0	6445.2	-1514.4	-0.9	3.1	-5166.4
-1.62	-0.02	0.00	-0.07	-0.0	0.0	-0.0	6307.0	-1483.7	-0.9	3.0	-4893.8
-1.80	-0.02	0.00	-0.07	-0.0	0.0	-0.0	6169.1	-1450.0	-0.9	2.8	-4626.7
-1.98	-0.03	0.00	-0.07	-0.0	0.0	-0.0	6031.2	-1413.6	-0.9	2.6	-4365.7
-2.16	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5893.6	-1375.0	-0.8	2.5	-4111.3
-2.34	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5756.0	-1334.4	-0.8	2.3	-3863.8
-2.52	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5618.6	-1292.1	-0.8	2.2	-3623.6

-2.70	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5481.4	-1248.4	-0.8	2.0	-3391.0
-2.88	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5344.3	-1203.6	-0.7	1.9	-3166.3
-3.06	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5207.3	-1157.9	-0.7	1.8	-2949.7
-3.24	-0.03	0.00	-0.07	-0.0	0.0	-0.0	5070.4	-1111.5	-0.7	1.7	-2741.2
-3.42	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4933.7	-1064.7	-0.6	1.5	-2541.2
-3.60	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4797.1	-1017.5	-0.6	1.4	-2349.5
-3.78	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4660.6	-970.4	-0.6	1.3	-2166.4
-3.96	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4524.3	-923.3	-0.6	1.2	-1991.7
-4.14	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4388.0	-876.4	-0.5	1.1	-1825.5
-4.32	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4251.9	-829.9	-0.5	1.0	-1667.8
-4.50	-0.03	0.00	-0.07	-0.0	0.0	-0.0	4115.8	-783.9	-0.5	0.9	-1518.4
-4.68	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3979.9	-738.5	-0.4	0.8	-1377.3
-4.86	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3844.0	-693.9	-0.4	0.8	-1244.4
-5.04	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3708.3	-650.0	-0.4	0.7	-1119.5
-5.22	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3572.7	-607.1	-0.4	0.6	-1002.5
-5.40	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3437.1	-565.2	-0.3	0.5	-893.2
-5.58	-0.03	0.00	-0.07	-0.0	0.0	-0.0	3301.6	-524.3	-0.3	0.5	-791.4
-5.76	-0.03	0.00	-0.06	-0.0	0.0	-0.0	3166.2	-484.5	-0.3	0.4	-697.1
-5.94	-0.03	0.00	-0.06	-0.0	0.0	-0.0	3030.9	-445.8	-0.3	0.4	-609.9
-6.12	-0.03	0.00	-0.06	-0.0	0.0	-0.0	2895.7	-408.4	-0.2	0.3	-529.6
-6.30	-0.03	0.00	-0.06	-0.0	0.0	-0.0	2760.5	-372.2	-0.2	0.3	-456.1
-6.48	-0.02	0.00	-0.06	-0.0	0.0	-0.0	2625.4	-337.3	-0.2	0.2	-389.1
-6.66	-0.02	0.00	-0.06	-0.0	0.0	-0.0	2490.4	-303.7	-0.2	0.2	-328.4
-6.84	-0.02	0.00	-0.06	-0.0	0.0	-0.0	2355.4	-271.4	-0.2	0.2	-273.8
-7.02	-0.02	0.00	-0.06	-0.0	0.0	-0.0	2220.5	-240.5	-0.1	0.1	-224.9
-7.20	-0.02	0.00	-0.06	-0.0	0.0	-0.0	2085.6	-210.9	-0.1	0.1	-181.6
-7.38	-0.02	0.00	-0.06	-0.0	0.0	-0.0	1950.8	-182.7	-0.1	0.1	-143.7
-7.56	-0.02	0.00	-0.06	-0.0	0.0	-0.0	1816.1	-155.9	-0.1	0.1	-110.8

-7.74	-0.02	0.00	-0.06	-0.0	0.0	-0.0	1681.3	-130.6	-0.1	0.0	-82.7
-7.92	-0.02	0.00	-0.06	-0.0	0.0	-0.0	1546.7	-106.6	-0.1	0.0	-59.2
-8.10	-0.02	0.00	-0.06	-0.0	0.0	-0.0	1412.0	-84.0	-0.1	0.0	-40.0
-8.28	-0.01	0.00	-0.06	-0.0	0.0	-0.0	1277.4	-62.8	-0.0	0.0	-24.9
-8.46	-0.01	0.00	-0.06	-0.0	0.0	-0.0	1142.9	-43.1	-0.0	0.0	-13.6
-8.64	-0.01	0.00	-0.06	-0.0	0.0	-0.0	1008.3	-24.7	-0.0	0.0	-5.8
-8.82	-0.01	0.00	-0.06	-0.0	0.0	-0.0	873.8	-7.8	-0.0	0.0	-1.4
-9.00	-0.01	0.00	-0.06	-0.0	0.0	-0.0	873.8	-7.8	-0.0	0.0	0.0

Condizione di Carico 6 nodo 518 (6)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	-0.00	-0.05	0.0	-0.0	-0.0	5781.7	-1485.4	-719.2	3345.9	-6910.6
-0.18	0.01	-0.00	-0.05	0.0	-0.0	-0.0	5675.0	-1493.4	-723.0	3216.5	-6643.2
-0.36	0.00	-0.00	-0.05	0.0	-0.0	-0.0	5568.4	-1495.1	-723.9	3086.3	-6374.4
-0.54	-0.00	0.00	-0.05	-0.0	0.0	-0.0	5461.9	-1491.3	-722.1	2956.0	-6105.3
-0.72	-0.01	0.00	-0.05	-0.0	0.0	-0.0	5355.5	-1482.3	-717.7	2826.1	-5836.8
-0.90	-0.01	0.00	-0.05	-0.0	0.0	-0.0	5249.3	-1468.6	-711.1	2696.9	-5570.0
-1.08	-0.01	0.01	-0.05	-0.0	0.0	-0.0	5143.3	-1450.6	-702.3	2568.9	-5305.7
-1.26	-0.02	0.01	-0.05	-0.0	0.0	-0.0	5037.3	-1428.7	-691.7	2442.5	-5044.6
-1.44	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4931.5	-1403.3	-679.5	2318.0	-4787.4
-1.62	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4825.8	-1374.9	-665.7	2195.7	-4534.8
-1.80	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4720.2	-1343.6	-650.5	2075.8	-4287.3
-1.98	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4614.8	-1309.9	-634.2	1958.7	-4045.5
-2.16	-0.02	0.01	-0.05	-0.0	0.0	-0.0	4509.4	-1274.1	-616.9	1844.6	-3809.7
-2.34	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4404.2	-1236.5	-598.7	1733.5	-3580.4
-2.52	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4299.1	-1197.3	-579.7	1625.8	-3357.8

-2.70	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4194.0	-1156.8	-560.1	1521.4	-3142.3
-2.88	-0.03	0.01	-0.05	-0.0	0.0	-0.0	4089.1	-1115.3	-540.0	1420.6	-2934.0
-3.06	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3984.3	-1072.9	-519.5	1323.4	-2733.3
-3.24	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3879.6	-1030.0	-498.7	1229.9	-2540.2
-3.42	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3775.0	-986.6	-477.7	1140.1	-2354.8
-3.60	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3670.5	-942.9	-456.5	1054.1	-2177.2
-3.78	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3566.1	-899.2	-435.4	972.0	-2007.5
-3.96	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3461.7	-855.5	-414.2	893.6	-1845.6
-4.14	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3357.5	-812.1	-393.2	819.0	-1691.6
-4.32	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3253.3	-769.0	-372.3	748.3	-1545.4
-4.50	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3149.2	-726.4	-351.7	681.2	-1407.0
-4.68	-0.03	0.01	-0.05	-0.0	0.0	-0.0	3045.2	-684.4	-331.3	617.9	-1276.3
-4.86	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2941.2	-643.0	-311.3	558.3	-1153.1
-5.04	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2837.4	-602.4	-291.6	502.3	-1037.3
-5.22	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2733.6	-562.6	-272.4	449.8	-928.9
-5.40	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2629.9	-523.7	-253.6	400.7	-827.7
-5.58	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2526.2	-485.8	-235.2	355.1	-733.4
-5.76	-0.03	0.01	-0.05	-0.0	0.0	-0.0	2422.6	-448.9	-217.4	312.8	-645.9
-5.94	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2319.1	-413.1	-200.0	273.6	-565.1
-6.12	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2215.6	-378.4	-183.2	237.6	-490.8
-6.30	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2112.2	-344.9	-167.0	204.6	-422.7
-6.48	-0.02	0.01	-0.05	-0.0	0.0	-0.0	2008.8	-312.5	-151.3	174.6	-360.6
-6.66	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1905.5	-281.4	-136.2	147.3	-304.3
-6.84	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1802.2	-251.5	-121.8	122.8	-253.7
-7.02	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1699.0	-222.8	-107.9	100.9	-208.4
-7.20	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1595.8	-195.4	-94.6	81.5	-168.3
-7.38	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1492.7	-169.3	-82.0	64.5	-133.1
-7.56	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1389.5	-144.5	-70.0	49.7	-102.6

-7.74	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1286.5	-121.0	-58.6	37.1	-76.6
-7.92	-0.02	0.01	-0.05	-0.0	0.0	-0.0	1183.4	-98.7	-47.8	26.6	-54.9
-8.10	-0.01	0.01	-0.05	-0.0	0.0	-0.0	1080.4	-77.8	-37.7	18.0	-37.1
-8.28	-0.01	0.01	-0.05	-0.0	0.0	-0.0	977.4	-58.2	-28.2	11.2	-23.1
-8.46	-0.01	0.01	-0.05	-0.0	0.0	-0.0	874.5	-39.9	-19.3	6.1	-12.6
-8.64	-0.01	0.01	-0.05	-0.0	0.0	-0.0	771.5	-22.9	-11.1	2.6	-5.4
-8.82	-0.01	0.01	-0.05	-0.0	0.0	-0.0	668.6	-7.2	-3.5	0.6	-1.3
-9.00	-0.01	0.00	-0.05	-0.0	0.0	-0.0	668.6	-7.2	-3.5	0.0	0.0

Condizione di Carico 7 nodo 518 (7)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	0.01	-0.09	0.0	0.0	-0.0	10623.2	-944.6	1369.3	-6370.5	-4394.6
-0.18	0.00	0.01	-0.09	0.0	0.0	-0.0	10427.0	-949.7	1376.6	-6124.0	-4224.6
-0.36	0.00	0.00	-0.09	0.0	0.0	-0.0	10231.2	-950.8	1378.3	-5876.2	-4053.7
-0.54	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	10035.5	-948.4	1374.7	-5628.1	-3882.5
-0.72	-0.00	-0.01	-0.09	-0.0	-0.0	-0.0	9840.1	-942.6	1366.4	-5380.6	-3711.8
-0.90	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9645.0	-933.9	1353.8	-5134.7	-3542.1
-1.08	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9450.1	-922.5	1337.2	-4891.0	-3374.0
-1.26	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9255.4	-908.5	1317.0	-4650.3	-3208.0
-1.44	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	9061.0	-892.4	1293.7	-4413.2	-3044.4
-1.62	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	8866.8	-874.3	1267.4	-4180.4	-2883.8
-1.80	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	8672.8	-854.4	1238.6	-3952.3	-2726.4
-1.98	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	8479.1	-833.0	1207.6	-3729.3	-2572.6
-2.16	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	8285.5	-810.3	1174.6	-3511.9	-2422.7
-2.34	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	8092.1	-786.3	1139.9	-3300.5	-2276.8
-2.52	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	7899.0	-761.4	1103.7	-3095.4	-2135.3

-2.70	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	7706.0	-735.7	1066.4	-2896.7	-1998.3
-2.88	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	7513.3	-709.3	1028.1	-2704.7	-1865.8
-3.06	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	7320.7	-682.3	989.1	-2519.7	-1738.2
-3.24	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	7128.3	-655.0	949.5	-2341.6	-1615.4
-3.42	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6936.1	-627.4	909.4	-2170.7	-1497.5
-3.60	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6744.1	-599.6	869.2	-2007.0	-1384.5
-3.78	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6552.2	-571.8	828.9	-1850.6	-1276.6
-3.96	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6360.5	-544.1	788.7	-1701.4	-1173.7
-4.14	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6168.9	-516.4	748.6	-1559.4	-1075.7
-4.32	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5977.5	-489.0	708.9	-1424.7	-982.8
-4.50	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5786.3	-461.9	669.6	-1297.0	-894.8
-4.68	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5595.1	-435.2	630.9	-1176.5	-811.6
-4.86	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5404.2	-408.9	592.7	-1063.0	-733.3
-5.04	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5213.3	-383.1	555.3	-956.3	-659.7
-5.22	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5022.6	-357.8	518.6	-856.3	-590.7
-5.40	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4832.1	-333.0	482.8	-763.0	-526.3
-5.58	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4641.6	-308.9	447.8	-676.1	-466.4
-5.76	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4451.3	-285.5	413.8	-595.5	-410.8
-5.94	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4261.0	-262.7	380.8	-521.0	-359.4
-6.12	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4070.9	-240.7	348.8	-452.4	-312.1
-6.30	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3880.9	-219.3	317.9	-389.6	-268.8
-6.48	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3690.9	-198.8	288.1	-332.4	-229.3
-6.66	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3501.1	-178.9	259.4	-280.5	-193.5
-6.84	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3311.3	-159.9	231.8	-233.8	-161.3
-7.02	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3121.7	-141.7	205.4	-192.1	-132.5
-7.20	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2932.1	-124.3	180.2	-155.1	-107.0
-7.38	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2742.6	-107.7	156.1	-122.7	-84.7
-7.56	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2553.1	-91.9	133.2	-94.6	-65.3

-7.74	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2363.7	-76.9	111.5	-70.6	-48.7
-7.92	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2174.4	-62.8	91.0	-50.6	-34.9
-8.10	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1985.1	-49.5	71.7	-34.2	-23.6
-8.28	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1795.9	-37.0	53.7	-21.3	-14.7
-8.46	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1606.7	-25.4	36.8	-11.6	-8.0
-8.64	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1417.6	-14.6	21.1	-5.0	-3.4
-8.82	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1228.5	-4.6	6.6	-1.2	-0.8
-9.00	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1228.5	-4.6	6.6	0.0	0.0

Condizione di Carico 8 nodo 518 (8)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.00	0.01	-0.10	0.0	0.0	-0.0	11353.3	-349.0	1747.9	-8131.9	-1623.8
-0.18	0.00	0.01	-0.10	0.0	0.0	-0.0	11143.6	-350.9	1757.3	-7817.3	-1561.0
-0.36	0.00	0.00	-0.10	0.0	0.0	-0.0	10934.3	-351.3	1759.4	-7501.0	-1497.8
-0.54	-0.00	-0.00	-0.10	-0.0	-0.0	-0.0	10725.2	-350.4	1754.9	-7184.3	-1434.6
-0.72	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	10516.4	-348.3	1744.3	-6868.4	-1371.5
-0.90	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	10307.9	-345.1	1728.1	-6554.4	-1308.8
-1.08	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	10099.6	-340.8	1706.9	-6243.4	-1246.7
-1.26	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	9891.5	-335.7	1681.2	-5936.1	-1185.3
-1.44	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	9683.7	-329.7	1651.3	-5633.5	-1124.9
-1.62	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	9476.2	-323.1	1617.8	-5336.3	-1065.6
-1.80	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	9268.9	-315.7	1581.1	-5045.1	-1007.4
-1.98	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	9061.8	-307.8	1541.4	-4760.5	-950.6
-2.16	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8854.9	-299.4	1499.3	-4483.0	-895.2
-2.34	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8648.3	-290.5	1455.0	-4213.1	-841.3
-2.52	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8441.9	-281.3	1408.9	-3951.2	-789.0

-2.70	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8235.6	-271.8	1361.3	-3697.6	-738.3
-2.88	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8029.6	-262.1	1312.4	-3452.6	-689.4
-3.06	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7823.8	-252.1	1262.6	-3216.3	-642.2
-3.24	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	7618.2	-242.0	1212.0	-2989.1	-596.9
-3.42	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	7412.8	-231.8	1160.9	-2770.9	-553.3
-3.60	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	7207.5	-221.6	1109.5	-2562.0	-511.6
-3.78	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	7002.5	-211.3	1058.1	-2362.2	-471.7
-3.96	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	6797.6	-201.0	1006.7	-2171.8	-433.7
-4.14	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	6592.9	-190.8	955.6	-1990.6	-397.5
-4.32	-0.01	-0.04	-0.10	-0.0	-0.0	-0.0	6388.3	-180.7	904.9	-1818.6	-363.1
-4.50	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6183.9	-170.7	854.8	-1655.7	-330.6
-4.68	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5979.7	-160.8	805.3	-1501.8	-299.9
-4.86	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5775.6	-151.1	756.6	-1356.9	-270.9
-5.04	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5571.6	-141.5	708.8	-1220.7	-243.7
-5.22	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5367.8	-132.2	662.0	-1093.1	-218.3
-5.40	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5164.1	-123.1	616.3	-973.9	-194.5
-5.58	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4960.6	-114.1	571.7	-863.0	-172.3
-5.76	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4757.2	-105.5	528.3	-760.1	-151.8
-5.94	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4553.9	-97.1	486.1	-665.0	-132.8
-6.12	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4350.7	-88.9	445.3	-577.5	-115.3
-6.30	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4147.6	-81.0	405.8	-497.4	-99.3
-6.48	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	3944.6	-73.4	367.8	-424.3	-84.7
-6.66	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	3741.7	-66.1	331.1	-358.1	-71.5
-6.84	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	3538.9	-59.1	295.9	-298.5	-59.6
-7.02	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	3336.2	-52.4	262.2	-245.2	-49.0
-7.20	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	3133.6	-45.9	230.0	-198.0	-39.5
-7.38	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2931.1	-39.8	199.3	-156.6	-31.3
-7.56	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2728.6	-34.0	170.0	-120.8	-24.1

-7.74	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2526.2	-28.4	142.4	-90.2	-18.0
-7.92	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2323.8	-23.2	116.2	-64.6	-12.9
-8.10	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2121.6	-18.3	91.6	-43.6	-8.7
-8.28	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	1919.3	-13.7	68.5	-27.2	-5.4
-8.46	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	1717.2	-9.4	46.9	-14.8	-3.0
-8.64	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	1515.0	-5.4	26.9	-6.4	-1.3
-8.82	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	1312.9	-1.7	8.5	-1.5	-0.3
-9.00	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	1312.9	-1.7	8.5	0.0	0.0

Condizione di Carico 9 nodo 518 (9)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.01	0.01	-0.09	0.0	0.0	-0.0	10379.2	-1019.0	1250.0	-5815.4	-4740.6
-0.18	0.00	0.00	-0.09	0.0	0.0	-0.0	10187.5	-1024.4	1256.7	-5590.4	-4557.2
-0.36	0.00	0.00	-0.09	0.0	0.0	-0.0	9996.2	-1025.7	1258.2	-5364.2	-4372.8
-0.54	-0.00	-0.00	-0.09	-0.0	-0.0	-0.0	9805.0	-1023.0	1255.0	-5137.8	-4188.2
-0.72	-0.00	-0.01	-0.09	-0.0	-0.0	-0.0	9614.1	-1016.9	1247.4	-4911.9	-4004.1
-0.90	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9423.5	-1007.4	1235.8	-4687.3	-3821.0
-1.08	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9233.1	-995.1	1220.7	-4464.9	-3639.7
-1.26	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	9042.9	-980.1	1202.3	-4245.2	-3460.6
-1.44	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	8852.9	-962.7	1180.9	-4028.7	-3284.2
-1.62	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	8663.2	-943.1	1157.0	-3816.2	-3110.9
-1.80	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	8473.6	-921.7	1130.7	-3607.9	-2941.1
-1.98	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	8284.3	-898.6	1102.3	-3404.4	-2775.2
-2.16	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	8095.2	-874.1	1072.2	-3206.0	-2613.4
-2.34	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	7906.3	-848.2	1040.6	-3013.0	-2456.1
-2.52	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	7717.6	-821.4	1007.6	-2825.7	-2303.4

-2.70	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	7529.0	-793.6	973.5	-2644.3	-2155.6
-2.88	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	7340.7	-765.1	938.6	-2469.1	-2012.7
-3.06	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	7152.6	-736.0	902.9	-2300.1	-1875.0
-3.24	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6964.6	-706.5	866.7	-2137.6	-1742.5
-3.42	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6776.8	-676.8	830.2	-1981.6	-1615.4
-3.60	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6589.2	-646.8	793.5	-1832.2	-1493.5
-3.78	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6401.7	-616.8	756.7	-1689.3	-1377.1
-3.96	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6214.4	-586.9	719.9	-1553.1	-1266.1
-4.14	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	6027.2	-557.1	683.4	-1423.5	-1160.4
-4.32	-0.02	-0.03	-0.09	-0.0	-0.0	-0.0	5840.2	-527.5	647.1	-1300.5	-1060.2
-4.50	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	5653.4	-498.3	611.3	-1184.0	-965.2
-4.68	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	5466.6	-469.5	575.9	-1074.0	-875.5
-4.86	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	5280.1	-441.1	541.1	-970.4	-791.0
-5.04	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	5093.6	-413.2	506.9	-873.0	-711.6
-5.22	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4907.3	-385.9	473.4	-781.7	-637.2
-5.40	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4721.1	-359.3	440.7	-696.5	-567.8
-5.58	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4535.0	-333.3	408.8	-617.2	-503.1
-5.76	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4349.0	-308.0	377.8	-543.6	-443.1
-5.94	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	4163.2	-283.4	347.6	-475.6	-387.7
-6.12	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	3977.4	-259.6	318.5	-413.0	-336.7
-6.30	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	3791.7	-236.6	290.2	-355.7	-289.9
-6.48	-0.02	-0.02	-0.09	-0.0	-0.0	-0.0	3606.2	-214.4	263.0	-303.4	-247.4
-6.66	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3420.7	-193.0	236.8	-256.1	-208.8
-6.84	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3235.3	-172.5	211.6	-213.5	-174.0
-7.02	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	3050.0	-152.9	187.5	-175.4	-143.0
-7.20	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2864.7	-134.1	164.5	-141.6	-115.5
-7.38	-0.01	-0.02	-0.09	-0.0	-0.0	-0.0	2679.6	-116.2	142.5	-112.0	-91.3
-7.56	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2494.5	-99.1	121.6	-86.4	-70.4

-7.74	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2309.4	-83.0	101.8	-64.5	-52.6
-7.92	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	2124.5	-67.7	83.1	-46.2	-37.6
-8.10	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1939.5	-53.4	65.5	-31.2	-25.4
-8.28	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1754.7	-39.9	49.0	-19.4	-15.8
-8.46	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1569.8	-27.4	33.6	-10.6	-8.6
-8.64	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1385.0	-15.7	19.3	-4.6	-3.7
-8.82	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1200.3	-4.9	6.1	-1.1	-0.9
-9.00	-0.01	-0.01	-0.09	-0.0	-0.0	-0.0	1200.3	-4.9	6.1	0.0	-0.0

Condizione di Carico 10 nodo 518 (10)

Palo 1 0.00 0.00 [m]

Quota [m]	Ux [cm]	Uy [cm]	Uv [cm]	Px [kg/cm²]	Py [kg/cm²]	Pv [kg/cm²]	N [kg]	Vx [kg]	Vy [kg]	Mx [kgm]	My [kgm]
0.00	0.00	0.01	-0.10	0.0	0.0	-0.0	11109.3	-423.4	1628.6	-7576.9	-1969.8
-0.18	0.00	0.01	-0.10	0.0	0.0	-0.0	10904.2	-425.7	1637.3	-7283.7	-1893.6
-0.36	0.00	0.00	-0.10	0.0	0.0	-0.0	10699.3	-426.2	1639.3	-6989.0	-1817.0
-0.54	-0.00	-0.00	-0.10	-0.0	-0.0	-0.0	10494.7	-425.1	1635.1	-6693.9	-1740.3
-0.72	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	10290.4	-422.5	1625.2	-6399.6	-1663.7
-0.90	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	10086.3	-418.6	1610.2	-6107.1	-1587.7
-1.08	-0.00	-0.01	-0.10	-0.0	-0.0	-0.0	9882.5	-413.5	1590.4	-5817.2	-1512.3
-1.26	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	9679.0	-407.2	1566.4	-5531.0	-1437.9
-1.44	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	9475.6	-400.0	1538.6	-5249.0	-1364.6
-1.62	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	9272.5	-391.9	1507.4	-4972.0	-1292.6
-1.80	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	9069.7	-383.0	1473.2	-4700.7	-1222.1
-1.98	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8867.0	-373.4	1436.2	-4435.5	-1153.1
-2.16	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8664.6	-363.2	1397.0	-4177.0	-1085.9
-2.34	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8462.4	-352.5	1355.7	-3925.6	-1020.6
-2.52	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8260.4	-341.3	1312.8	-3681.5	-957.1

-2.70	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	8058.6	-329.7	1268.4	-3445.2	-895.7
-2.88	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7857.1	-317.9	1222.8	-3216.9	-836.3
-3.06	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7655.7	-305.8	1176.4	-2996.8	-779.1
-3.24	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7454.5	-293.6	1129.3	-2785.1	-724.1
-3.42	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7253.5	-281.2	1081.7	-2581.8	-671.2
-3.60	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	7052.6	-268.8	1033.8	-2387.1	-620.6
-3.78	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6852.0	-256.3	985.9	-2201.0	-572.2
-3.96	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6651.5	-243.9	938.0	-2023.6	-526.1
-4.14	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6451.2	-231.5	890.4	-1854.7	-482.2
-4.32	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6251.0	-219.2	843.2	-1694.4	-440.5
-4.50	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	6051.0	-207.1	796.4	-1542.7	-401.1
-4.68	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5851.2	-195.1	750.3	-1399.3	-363.8
-4.86	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5651.5	-183.3	705.0	-1264.3	-328.7
-5.04	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5451.9	-171.7	660.4	-1137.4	-295.7
-5.22	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5252.5	-160.4	616.8	-1018.5	-264.8
-5.40	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	5053.2	-149.3	574.2	-907.5	-235.9
-5.58	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4854.0	-138.5	532.6	-804.1	-209.0
-5.76	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4654.9	-128.0	492.2	-708.2	-184.1
-5.94	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4456.0	-117.8	452.9	-619.6	-161.1
-6.12	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4257.2	-107.9	414.9	-538.1	-139.9
-6.30	-0.01	-0.03	-0.10	-0.0	-0.0	-0.0	4058.4	-98.3	378.1	-463.4	-120.5
-6.48	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	3859.8	-89.1	342.7	-395.3	-102.8
-6.66	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	3661.3	-80.2	308.5	-333.7	-86.7
-6.84	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	3462.9	-71.7	275.7	-278.1	-72.3
-7.02	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	3264.5	-63.5	244.3	-228.5	-59.4
-7.20	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	3066.3	-55.7	214.3	-184.5	-48.0
-7.38	-0.01	-0.02	-0.10	-0.0	-0.0	-0.0	2868.1	-48.3	185.7	-146.0	-37.9
-7.56	-0.00	-0.02	-0.10	-0.0	-0.0	-0.0	2669.9	-41.2	158.4	-112.5	-29.3