



POLITECNICO DI MILANO

Area Tecnico Edilizia

P.zza Leonardo da Vinci, 32 - 20133 M I L A N O

PHONE: +39 02 2399.1 www.polimi.it

Campus:
Via La Masa

Edificio N°: 22
Via La Masa 20 - Milano

Struttura:
Dipartimento di Meccanica

Codice Lavoro:
1023_10

Oggetto:
Ristrutturazione e Riqualificazione impiantistica edificio 22 (ex PPG)
Lotto funzionale n.2

Progetto ESECUTIVO

Progettazione: **arch. Dario Poli - A.T.E. - Politecnico di Milano**

Responsabile Unico del Procedimento: **arch. Riccardo Licari - A.T.E. - Politecnico di Milano**

Consulenza progettazione architettonica: **Ardea s.r.l. - Ing. Arturo Montanelli**

Consulenza opere strutturali: **Ing. Christian Amigoni**

Consulenza impianti: **Studiogamma s.r.l.**

Titolo Tavola
**CALCOLI E DIMENSIONAMENTO
OPERE STRUTTURALI 2 di 2**

Categoria Tavola
**OPERE
STRUTTURALI**

Codice Tavola

SCALA: - PLOTTAGGIO: - FORMATO: **A4/A3**

NOME FILE: **PEGR - 0101A00 - 020 - 00 - Calcoli2_2.doc**

REVISIONE
PEGR 0101A00 020 00

NOTE:

3					
2					
1					
0	EMISSIONE E STAMPA	23.03.2012	CA	CA	DP
REV.	DESCRIZIONE	DATA	REDATTO	VERIFICATO	APPROVATO

4.1.1 Verifiche Momento e Taglio – Stato di fatto

- Fattori di amplificazione dei momenti

- Dati di verifica

- γ_{EL} 1.50
- ϵ_U travi 4.00%
- ϵ_U pilastri 4.00%
- Fattore di confidenza sulle rotazioni 1.35

- γ Materiali sezioni impiegate

- γ Materiali sezioni Pilastro

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 25x40 [cm] 25x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 70x40 [cm] 70x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 35x40 [cm] 35x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x40 [cm] 30x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 45x40 [cm] 45x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 Rett. 20x20 [cm] 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 30x30 [cm] 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 40x45 [cm] 40x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 70x45 [cm] 70x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 60x45 [cm] 60x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 Rett. 25x30 [cm] P1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 Rett. 30x30 [cm] P2 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 35x27 [cm] P3 35x27	1.15	1.50	0.85	0.60	1.00	0.45	0.80
14 Rett. 35x30 [cm] P4 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 25x35 [cm] P5 25x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
16 Rett. 30x35 [cm] P6 30x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
17 Rett. 35x35 [cm] P7 35x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
18 Rett. 20x20 [cm] P8	1.15	1.50	0.85	0.60	1.00	0.45	0.80

20x20							
19 Rett. 30x45 [cm] P9 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
20 Rett. 35x45 [cm] P10 35x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 25x30 [cm] S1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 Rett. 35x30 [cm] S2 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 Rett. 35x25 [cm] S3 35x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 30x25 [cm] S4 30x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 22x30 [cm] S5 22x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 20x20 [cm] S6 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 Rett. 30x30 [cm] S7 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 Rett. 30x45 [cm] S8 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
29 Rett. 35x30 [cm] S9 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- γ Materiali sezioni Trave

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q. Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 20x75 [cm] 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 30x250 [cm] 30x250	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 30x85 [cm] 30x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x115 [cm] 30x115	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 20x24 [cm] 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 a ~ 36x75x18x24 [cm] 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 45x85 [cm] 45x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 33x50 [cm] 33x50	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 30x24 [cm] 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 33x85 [cm] 33x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 a T 60x52x40x24 [cm] 40/60x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 a T 70x85x50x24 [cm] 50/80x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 60x85 [cm] 60x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80

14 a ~ 36x75x18x24 [cm] 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 20x24 [cm] AUSILIARIA	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 20x75 [cm] P1 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 a ~ 36x75x18x24 [cm] P2 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 a ~ 38x75x18x24 [cm] P3 20+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 20x24 [cm] P4 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 30x24 [cm] P5 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 40x24 [cm] P6 40x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 a T 55x52x35x24 [cm] P7 35/55x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 a ~ 36x75x18x24 [cm] P8 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
31 a ~ 65x75x25x24 [cm] S1 40+25x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
32 Rett. 20x75 [cm] S2 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
33 Rett. 20x24 [cm] S3 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
34 Rett. 25x24 [cm] S4 25x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
35 Rett. 40x34 [cm] S5 40x34	1.15	1.50	0.85	0.60	1.00	0.45	0.80
36 Rett. 30x24 [cm] S6 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
37 a T 50x70x30x34 [cm] S7 30/50x70	1.15	1.50	0.85	0.60	1.00	0.45	0.80
38 a ~ 50x75x12x24 [cm] S8 10+40x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- Legenda

M_G	Momento da carichi gravitazionali
M_E	Momento da carichi sismici
M_R	Momento resistente ultimo
α	$(M_R - M_G) / M_E$

- Danno Severo

- Pilastri

N.B. I momenti resistenti nei due piani sono valutati indipendentemente assumendo per N il valore medio dell'azione assiale nelle combinazioni di carico analizzate.

Pilastro Nodi	Sezione	Mx				α	My				α
		Comb. Critica	M_G [kgm]	M_E [kgm]	M_R [kgm]		Comb. Critica	M_G [kgm]	M_E [kgm]	M_R [kgm]	

1 200	9	9	1279.3	3490.2	26307.3	7.17	3	7376.6	-3167.1	-39533.7	14.81
2 210	9	9	1071.3	3398.2	26126.0	7.37	8	-7536.9	3273.3	39290.9	14.31
3 214	10	10	25.9	1545.8	18904.1	12.21	4	653.5	-2227.0	24841.4	10.86
4 218	10	10	87.0	1614.2	20981.0	12.94	3	545.4	-2342.7	27368.4	11.45
5 222	8	10	66.2	1240.4	13340.5	10.70	3	-982.5	-778.3	11762.8	16.37
6 224	8	9	90.3	1191.8	12456.7	10.38	3	589.8	-651.6	10977.1	15.94
7 303	4	6	-184.7	-1125.5	-8627.9	7.50	5	-508.8	376.8	6386.2	18.30
8 307	5	6	977.8	1887.2	25442.0	12.96	6	-10828.5	-874.6	28922.6	45.45
9 309	5	5	1306.1	1841.8	25312.4	13.03	3	-4578.8	-650.3	28800.4	51.33
10 313	4	5	870.9	1398.9	10722.9	7.04	4	255.0	-214.2	-8568.4	41.19
11 317	3	5	-317.7	-962.1	-14579.9	14.82	3	502.1	-311.9	-12650.0	42.17
12 321	1	5	-12.0	-600.2	-9650.3	16.06	4	-756.2	-120.4	6273.9	58.39
13 333	6	6	65.5	109.0	2651.4	23.72	4	229.9	-30.2	-2668.7	96.09
14 62	6	5	-22.9	-81.2	-1967.0	23.95	3	10.0	-50.4	1967.0	38.84
20 353	7	5	345.5	469.1	4534.5	8.93	7	-34.5	86.8	-4627.6	52.91
41 88	1	6	-10.9	-456.2	-6427.2	14.06	9	48.3	-263.6	3821.9	14.32
45 92	2	6	-97.5	-2537.9	-19605.2	7.69	4	5911.2	-2239.1	-33736.0	17.71
46 93	2	9	202.0	1982.8	13844.9	6.88	7	-269.3	1770.0	-24584.0	13.74
51 98	3	5	-63.6	-1128.9	-8533.0	7.50	10	-84.2	319.6	-7314.4	22.62
60 107	3	5	-44.2	-703.9	-9050.8	12.79	8	-27.9	339.9	-7808.8	22.89
61 426	4	5	-6.5	-675.6	-9275.2	13.72	4	1064.3	167.2	-6994.1	48.20
62 108	6	5	-7.6	-44.3	-1976.2	44.41	6	18.4	5.4	-1970.4	371.69
88 134	1	9	6.8	295.5	6296.1	21.28	9	-16.4	84.3	-3720.2	43.95
92 138	2	6	-34.1	-1460.6	-19536.1	13.35	4	1692.4	-1171.3	-33641.2	30.17
93 139	2	9	15.8	1234.0	13977.9	11.31	7	-342.3	588.0	-24800.7	41.60
98 144	3	10	30.4	351.3	8509.5	24.14	9	-81.3	470.0	-7294.3	15.35
107 153	3	5	-5.2	-517.3	-9036.2	17.46	5	-47.6	72.0	-7754.8	107.00
108 154	6	6	-17.1	-13.0	-2034.8	155.53	4	-22.5	-6.1	2028.9	336.80
134 180	1	9	10.7	212.5	6197.3	29.11	9	2.1	-70.7	3679.1	52.02
138 399	2	6	175.8	2064.9	19304.9	9.26	3	-12282.2	2494.2	33326.0	18.29
139 184	2	5	-177.1	-503.6	-14681.7	28.80	4	-911.8	-449.3	25945.6	59.78
144 188	3	10	1.6	570.1	8692.0	15.24	9	112.3	-826.7	7491.8	8.93
153 197	3	10	23.2	318.2	9226.2	28.92	10	39.2	-97.9	7926.5	80.54
154 343	6	5	148.1	106.0	2336.1	20.64	4	310.7	13.4	-2336.1	198.12
180 393	1	9	9.5	139.0	6118.2	43.95	9	-5.6	60.9	-3610.9	59.24
184 408	2	9	-729.7	-1183.9	-15194.6	12.22	4	13134.8	761.6	-26779.3	52.41
188 413	3	10	26.7	360.7	8661.6	23.94	7	188.7	-421.9	7411.8	17.12
197 422	3	10	60.6	112.8	9625.5	84.76	7	-1678.1	-125.1	8265.3	79.51
200 569	20	9	1432.4	1732.0	19443.0	10.40	6	4645.1	780.1	-14844.4	24.98
210 579	20	9	1441.2	1489.3	19409.8	12.07	10	-4600.7	869.4	14818.5	22.34
214 583	20	10	99.9	594.8	13441.8	22.43	5	-850.8	918.6	-10264.2	10.25
218 587	20	9	219.2	1203.3	14910.4	12.21	5	-285.6	964.6	-11406.1	11.53
222 591	19	9	290.1	1435.8	9427.8	6.36	10	-1389.5	561.0	6312.0	13.73
224 593	19	9	38.3	570.0	8737.2	15.26	10	788.5	422.1	-5804.1	15.62
303 650	15	6	1055.5	1138.6	6429.0	4.72	5	-885.4	441.9	4518.0	12.23
307 654	16	6	-661.5	-1430.2	-13382.3	8.89	6	-3017.5	-687.5	14264.2	25.14
308 659	16	6	-637.0	-984.8	-6964.2	6.42	7	51.3	-343.2	5943.8	17.17
309 664	17	5	-1453.1	-1521.7	-14378.0	8.49	5	4589.3	389.6	-14350.3	48.61
313 668	16	5	1555.3	2021.5	8043.5	3.21	6	-509.2	-353.7	7233.8	21.89
317 672	16	5	1186.2	797.2	8895.2	9.67	4	-914.8	251.2	8493.6	37.46
321 676	15	3	245.5	287.6	7301.4	24.53	7	-2008.7	147.9	5410.2	50.17

	12	5	-610.0	-828.0	-4155.2	4.28	9	59.7	-66.1	4155.0	61.99
393 453	11	9	4.0	64.5	2994.1	46.35	9	1.8	-111.4	2451.0	21.98
399 459	12	6	-49.5	-478.9	-4346.1	8.97	6	1639.0	103.9	-4346.1	57.61
413 465	14	10	17.5	169.1	4533.6	26.71	10	-37.2	180.6	-5380.3	29.59
422 474	14	5	-24.8	-129.6	-4290.5	32.91	3	1459.5	-132.6	-5093.9	49.41
426 766	12	9	35.9	316.9	4762.9	14.92	4	1115.7	212.4	-4762.9	27.68
427 475	18	5	-2.6	-52.8	-1731.6	32.72	6	-1.8	7.9	-1731.6	219.00
453 501	11	9	5.1	55.8	2971.5	53.12	6	1.6	-53.1	2418.0	45.53
459 507	12	6	-7.3	-255.8	-5380.1	21.00	8	-607.9	232.8	5362.4	25.64
460 508	14	9	135.6	218.1	5075.9	22.66	3	52.2	-36.8	-5986.6	163.94
465 513	14	10	18.0	152.5	4451.5	29.08	9	-7.2	130.8	-5253.0	40.12
474 522	14	5	-0.8	-145.6	-4608.4	31.64	4	-32.9	-21.2	5498.7	261.02
475 523	18	5	33.7	20.6	1809.0	86.11	9	1.6	-5.1	1809.0	355.50
501 549	11	9	3.2	110.3	2931.9	26.56	6	-4.0	38.0	-2401.2	63.02
507 739	12	9	11.2	296.5	10064.0	33.91	3	-3082.1	545.0	10042.9	24.08
508 553	14	10	-59.7	-89.7	-5675.5	62.62	4	-340.3	-49.6	6602.3	139.86
513 557	14	10	14.6	237.9	4448.6	18.64	6	-49.2	622.4	-5280.3	8.41
522 566	14	9	11.9	223.2	4909.0	21.95	4	64.5	-23.7	-5834.2	249.18
523 687	18	5	134.9	176.8	1887.0	9.91	6	-13.1	9.2	1894.8	206.60
549 733	11	9	3.0	226.6	2887.3	12.73	9	-3.7	27.2	-2350.5	86.38
553 748	14	6	-489.3	307.7	-6630.1	19.96	4	2514.0	231.7	-7495.3	43.20
557 753	14	10	16.5	141.1	4506.3	31.83	7	120.6	-474.6	5307.9	10.93
566 762	14	9	33.8	262.5	5317.6	20.13	4	-1390.3	145.8	6205.9	52.09
569 832	28	9	260.2	450.4	13997.5	30.50	6	-4861.4	-988.5	9242.6	14.27
574 836	29	6	-234.5	90.9	-4687.6	49.00	9	-154.5	1044.6	-5559.7	5.17
579 840	28	6	-1580.2	822.3	-14565.9	15.79	9	5137.7	1060.6	-9950.0	14.23
583 844	28	10	125.4	591.1	9448.8	15.77	5	-972.5	1129.4	-6043.0	4.49
587 848	28	9	265.5	1249.2	10380.0	8.10	5	-538.2	1217.1	-6778.6	5.13
591 852	28	9	320.3	1533.8	8372.9	5.25	10	-1888.9	970.2	5402.1	7.51
593 854	28	9	43.6	614.3	8013.3	12.97	9	751.1	-802.8	5153.7	5.48
650 907	25	6	-970.9	-1185.8	-8861.1	6.65	6	-1258.2	395.2	6545.4	19.75
654 911	21	6	649.8	1002.1	9643.6	8.98	6	3258.0	348.3	-10066.0	38.25
664 919	21	5	1326.4	1004.0	9585.5	8.23	10	5168.9	-446.6	-9853.2	33.64
668 923	21	5	1183.2	2180.8	4373.2	1.46	6	553.4	219.1	-3605.7	18.98
672 927	21	5	1135.5	1432.9	5253.6	2.87	6	937.5	209.4	-4329.6	25.15
676 931	25	5	-60.5	-679.5	-8922.9	13.04	6	-2432.8	116.3	6949.3	80.68
697 955	27	5	672.0	1935.0	3474.5	1.45	6	521.5	-212.9	-3474.5	18.77
733 767	21	9	7.7	348.9	2926.3	8.36	6	-22.4	32.0	-2396.7	74.24
739 773	22	6	-215.7	-199.8	-7476.5	36.34	3	2907.3	-133.2	-8903.8	88.70
744 1011	23	6	68.3	129.5	3575.8	27.08	4	533.0	476.2	-5235.5	12.11
748 774	22	9	514.2	533.2	6918.1	12.01	4	-2947.8	133.7	8238.0	83.65
753 779	22	10	23.2	156.3	4387.4	27.93	10	-19.4	104.2	-5208.3	49.78
766 1033	24	10	48.7	416.3	3245.3	7.68	4	1261.6	338.3	-3925.3	15.33
767 789	21	9	10.5	282.0	3032.2	10.72	6	17.7	-21.4	2451.7	113.67
773 795	22	6	-48.1	-49.9	-5354.8	106.32	3	90.3	-207.7	6252.9	29.68
774 796	22	6	197.1	-181.8	4908.2	25.91	4	661.6	-45.2	-5776.4	142.31
779 801	22	9	23.1	129.0	4356.3	33.58	6	-56.7	157.5	-5171.6	32.48
788 810	22	10	67.5	403.4	4670.2	11.41	5	-172.3	34.5	5510.1	164.92
789 811	21	9	9.0	71.2	3043.2	42.62	5	13.4	-6.9	-2460.5	357.98
795 1007	22	6	372.9	267.7	13668.6	49.66	8	4716.8	703.3	-16328.9	29.92
796 815	22	5	9.4	92.3	5924.1	64.05	4	-109.0	-86.1	6842.3	80.77

	22	10	21.4	184.7	4374.9	23.57	6	-82.4	598.3	-5193.5	8.54
810 828	22	10	100.3	169.4	5163.8	29.89	9	26.2	-41.6	6052.7	144.97
811 1001	21	6	3.7	75.8	2923.1	38.52	9	-0.1	12.8	-2398.8	187.85
815 1015	22	9	-156.9	-249.7	-9081.1	35.75	4	4358.9	373.7	-10154.2	38.84
819 1020	22	10	-23.1	-174.4	-4487.4	25.59	6	230.5	-441.4	5326.1	11.54
828 1029	22	5	108.4	411.0	5879.6	14.04	9	446.1	-343.9	-6832.0	21.16

- Travi

Trave Nodi	Sezione	M				
		Comb. Critica	M _G [kgm]	M _E [kgm]	M _R [kgm]	α
224 200	14	3	902.2	-809.1	22619.0	26.84
200 202	2	6	29018.0	2701.9	144866.4	42.88
202 204	3	6	8331.4	1455.7	29421.3	14.49
204 206	4	6	-13578.5	-1303.3	-19252.6	4.35
206 208	3	5	7818.8	1542.3	24822.5	11.02
208 210	2	5	28336.6	2824.6	103465.2	26.60
210 214	14	9	11005.5	-1148.0	24895.8	12.10
214 218	14	5	5648.9	1129.2	21802.2	14.31
218 222	14	5	1922.1	987.9	11028.4	9.22
593 569	28	5	486.6	-1059.4	-17288.8	16.78
569 574	28	6	28123.9	653.9	60372.0	49.32
574 579	28	6	-23491.3	546.3	-45262.1	39.85
579 583	28	6	2348.6	-813.0	42253.4	49.08
583 587	28	5	5997.3	829.3	28981.7	27.71
587 591	28	10	1904.8	-1282.1	8327.6	5.01
650 654	27	6	10468.3	-1221.1	40244.3	24.38
654 659	27	9	17967.7	698.0	40244.3	31.91
659 664	27	6	17823.8	-407.3	40244.3	55.05
664 668	27	10	9086.8	440.0	40244.3	70.82
668 672	27	6	7502.5	-237.6	29412.9	92.20
672 676	27	6	1251.8	-219.0	14955.4	62.57
698 699	24	6	147.9	97.2	1170.7	10.53
714 716	24	9	50.1	130.3	1322.0	9.76
733 739	21	7	10436.6	781.6	55768.6	58.00
739 744	22	7	25213.1	1329.1	55606.8	22.87
744 748	22	4	27800.5	1602.5	55606.8	17.35
748 753	21	6	414.1	-2029.5	-17066.2	8.61
762 766	23	7	7245.6	608.4	22619.0	25.27
854 832	38	9	49.7	-757.7	-29608.0	39.14
832 836	38	10	-16563.6	-447.9	-70559.1	120.56
836 840	38	6	21727.8	-341.5	57723.8	105.42
840 844	38	9	3929.9	467.7	37642.6	72.08
844 848	38	5	4362.9	-618.4	37642.6	53.82
848 852	38	5	645.1	902.5	23094.0	24.87
907 911	35	9	15445.3	1485.6	50720.8	23.75
911 919	37	6	19609.3	-1591.7	110690.4	57.22
919 923	35	5	12020.8	-570.7	33025.9	36.81
923 927	35	6	7397.3	-196.9	23512.7	81.86
927 931	35	4	7628.5	-225.6	23512.7	70.40

957 956	33	9	105.6	-82.3	1304.4	14.57
303 307	11	6	16691.4	-1235.5	40097.9	18.95
969 971	33	9	909.2	176.6	1817.3	5.14
1001 1004	32	6	-435.4	-1269.0	-22704.8	17.55
1004 1007	32	10	262.0	1382.9	22590.0	16.15
1007 1011	31	3	-22500.0	987.0	-45664.5	23.47
1011 1015	31	7	31107.6	-2296.6	71634.1	17.65
1015 1020	32	4	311.5	1611.4	3876.9	2.21
1029 1033	31	9	7242.3	-1252.1	15079.9	6.26
200 292	7	9	2858.6	4091.2	39366.6	8.92
292 307	7	6	-2099.3	2044.3	-103964.8	49.83
307 323	7	6	-2454.1	-322.9	-103964.8	314.38
323 399	7	6	483.9	2988.9	39366.6	13.01
297 328	13	9	-1149.5	-436.5	-52489.2	117.61
210 300	7	9	2583.1	3765.4	33034.8	8.09
300 309	7	6	-5916.3	2025.1	-32909.6	13.33
309 322	10	3	-5212.1	-1507.6	-32740.2	18.26
322 343	7	3	4334.9	925.1	26454.9	23.91
343 408	8	9	-49.7	-1421.6	-14341.0	10.05
317 353	9	5	-89.7	-135.5	-2234.8	15.83
353 422	9	5	100.1	238.1	2234.8	8.97
292 300	12	4	22199.8	594.2	80801.7	98.63
569 654	25	9	301.1	305.2	2234.8	6.34
654 739	25	6	286.0	326.0	2234.8	5.98
579 664	26	9	437.6	362.2	2334.8	5.24
664 687	26	5	-223.0	-158.3	-4255.2	25.46
687 748	25	6	59.1	252.0	2234.8	8.63
672 716	25	10	253.9	334.0	5253.4	14.97
716 762	25	5	126.5	587.7	2803.5	4.56
832 911	34	6	306.2	-278.3	2311.4	7.21
911 1007	34	6	147.0	189.6	2251.2	11.10
323 322	12	4	24727.1	736.0	67417.2	58.01
840 919	35	6	908.1	-742.1	4811.1	5.26
919 945	35	5	826.4	263.2	4811.1	15.14
945 1015	36	9	-317.1	-336.1	-2303.9	5.91
949 1019	33	5	264.7	-221.7	1184.4	4.15
927 971	36	10	335.5	386.1	5253.4	12.74
971 1029	36	10	33.1	-876.9	-2241.2	2.59
309 313	11	5	13322.7	-548.0	29444.1	29.42
313 317	11	4	8737.3	248.8	36708.9	112.41
317 321	11	4	742.0	215.6	18642.8	83.03
358 359	5	6	182.4	74.0	1869.0	22.79
370 372	5	6	25.0	-67.8	-1271.0	19.12
422 426	6	7	6748.7	403.2	18405.6	28.91
393 396	1	6	1.8	285.5	11333.6	39.69
396 399	1	3	1085.7	-949.4	11285.2	10.74
399 401	2	7	27194.2	1567.1	102326.7	47.94
401 403	3	6	5829.3	1029.3	25469.9	19.08
403 405	4	3	-11652.0	605.3	-36673.8	41.34
405 406	3	7	10189.6	-735.0	29505.2	26.28
406 408	2	6	33300.0	-800.1	98803.9	81.87
...						

	1	9	405.1	1567.2	11285.2	6.94
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4.1.2 Verifiche meccanismi fragili (taglio) – stato di fatto

- Valutazione moltiplicatori meccanismi fragili (taglio)

- Dati di verifica

- γ_{EL} 1.50
- ϵ_u travi 4.00%
- ϵ_u pilastri 4.00%
- Fattore di confidenza sulle rotazioni 1.35

- γ Materiali sezioni impiegate

- γ Materiali sezioni Pilastro

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 25x40 [cm] 25x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 70x40 [cm] 70x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 35x40 [cm] 35x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x40 [cm] 30x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 45x40 [cm] 45x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 Rett. 20x20 [cm] 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 30x30 [cm] 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 40x45 [cm] 40x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 70x45 [cm] 70x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 60x45 [cm] 60x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 Rett. 25x30 [cm] P1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 Rett. 30x30 [cm] P2 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 35x27 [cm] P3 35x27	1.15	1.50	0.85	0.60	1.00	0.45	0.80
14 Rett. 35x30 [cm] P4 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 25x35 [cm] P5 25x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
16 Rett. 30x35 [cm] P6 30x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
17 Rett. 35x35 [cm] P7 35x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
18 Rett. 20x20 [cm] P8 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
19 Rett. 30x45 [cm] P9 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
20 Rett. 35x45 [cm] P10 35x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 25x30 [cm] S1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 Rett. 35x30 [cm] S2 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 Rett. 35x25 [cm] S3 35x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 30x25 [cm] S4 30x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 22x30 [cm] S5 22x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 20x20 [cm] S6 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 Rett. 30x30 [cm] S7 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 Rett. 30x45 [cm] S8 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
29 Rett. 35x30 [cm] S9 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- γ Materiali sezioni Trave

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 20x75 [cm] 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 30x250 [cm] 30x250	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 30x85 [cm] 30x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x115 [cm] 30x115	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 20x24 [cm] 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 a ~ 36x75x18x24 [cm] 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 45x85 [cm] 45x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 33x50 [cm] 33x50	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 30x24 [cm] 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 33x85 [cm] 33x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 a T 60x52x40x24 [cm] 40/60x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 a T 70x85x50x24 [cm] 50/80x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 60x85 [cm] 60x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80

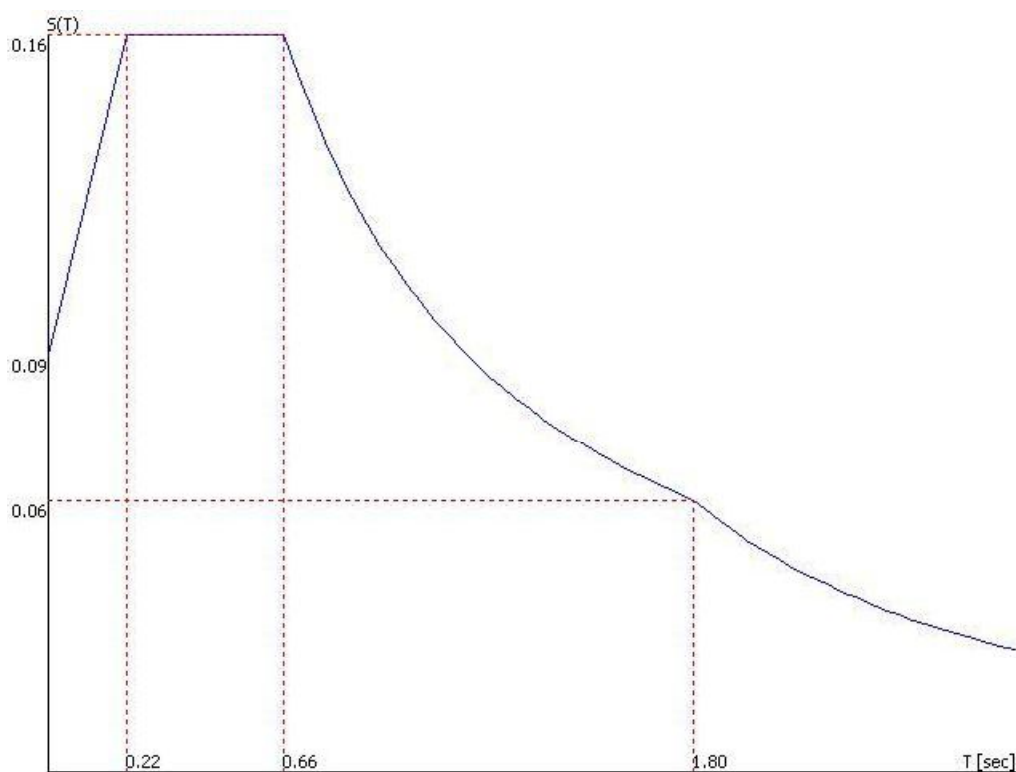
14 a ~ 36x75x18x24 [cm] 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 20x24 [cm] AUSILIARIA	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 20x75 [cm] P1 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 a ~ 36x75x18x24 [cm] P2 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 a ~ 38x75x18x24 [cm] P3 20+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 20x24 [cm] P4 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 30x24 [cm] P5 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 40x24 [cm] P6 40x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 a T 55x52x35x24 [cm] P7 35/55x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 a ~ 36x75x18x24 [cm] P8 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
31 a ~ 65x75x25x24 [cm] S1 40+25x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
32 Rett. 20x75 [cm] S2 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
33 Rett. 20x24 [cm] S3 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
34 Rett. 25x24 [cm] S4 25x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
35 Rett. 40x34 [cm] S5 40x34	1.15	1.50	0.85	0.60	1.00	0.45	0.80
36 Rett. 30x24 [cm] S6 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
37 a T 50x70x30x34 [cm] S7 30/50x70	1.15	1.50	0.85	0.60	1.00	0.45	0.80
38 a ~ 50x75x12x24 [cm] S8 10+40x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- Spettro in accordo con TU 2008

- Milano MI Longitudine 9.1900 Latitudine 45.4658
- Tipo di Terreno D
- Coefficiente di amplificazione topografica (S_T) 1.0000
- Vita nominale della costruzione (V_N) 50.0 anni
- Classe d'uso II° coefficiente C_U 1.0
- Classe di duttilità impostata Bassa
- Fattore di struttura massimo q_o per sisma orizzontale 1.50
- Fattore di duttilità K_R per sisma orizzontale 1.00
- Fattore riduttivo regolarità in altezza K_R 1.00
- Fattore riduttivo per la presenza di setti K_W 1.00
- Fattore di struttura q per sisma orizzontale 1.50
- Fattore di struttura q per sisma verticale 1.50
- Smorzamento Viscoso (0.05 = 5%) 0.05

- TU 2008 SLV H

- Probabilità di superamento (P_{VR}) 10.0 e periodo di ritorno (T_R) 475 (anni)
- S_s 1.8
- T_B 0.22 [sec]
- T_C 0.66 [sec]
- T_D 1.80 [sec]
- a_g/g 0.0507
- F_o 2.6581
- T_C^* 0.2800



- Rotazioni valutate nel riferimento '*convected*'

- Legenda

V_G	Taglio da carichi gravitazionali
V_E	Taglio da carichi sismici
V_R	Taglio resistente ultimo
α	$(V_R - V_G) / V_E$

- Danno Severo

- Pilastri

Nodi Sezione	Luce [m]	Piano 1-2 Base					Piano 1-3 Base				Piano 1-2 Sommità				Piano 1-3 Sommità			
		V _G	V _E	V _R	α	V _G	V _E	V _R	α	V _G	V _E	V _R	α	V _G	V _E	V _R	α	
		[kg]	[kg]	[kg]		[kg]	[kg]	[kg]		[kg]	[kg]	[kg]		[kg]	[kg]	[kg]		
1 200	9	3.45	1152.2	15338.2	21115.2	1.302	6928.1	17845.8	33506.7	1.489	1152.2	15338.2	21115.2	1.302	6928.1	17845.8	33506.7	1.489
2 210	9	3.45	1017.0	15350.8	21115.2	1.309	7113.0	17495.8	33506.7	1.509	1017.0	15350.8	21115.2	1.309	7113.0	17495.8	33506.7	1.509
3 214	10	3.45	13.7	11662.3	16892.1	1.447	517.8	14852.6	22840.1	1.503	13.7	11662.3	16892.1	1.447	517.8	14852.6	22840.1	1.503
4 218	10	3.45	39.3	12967.9	16892.1	1.300	436.3	16561.1	22840.1	1.353	39.3	12967.9	16892.1	1.300	436.3	16561.1	22840.1	1.353
5 222	8	3.45	31.2	8296.6	16892.1	2.032	888.8	6454.7	14909.5	2.172	31.2	8296.6	16892.1	2.032	888.8	6454.7	14909.5	2.172
6 224	8	3.45	49.3	7705.4	16892.1	2.186	541.6	6292.6	14909.5	2.283	49.3	7705.4	16892.1	2.186	541.6	6292.6	14909.5	2.283
7 303	4	3.45	172.9	5558.7	7454.7	1.310	221.5	4147.3	10944.2	2.585	172.9	5558.7	7454.7	1.310	221.5	4147.3	10944.2	2.585
8 307	5	3.45	423.8	15491.9	14909.5	0.935	4653.9	13438.3	16892.1	0.911	423.8	15491.9	14909.5	0.935	4653.9	13438.3	16892.1	0.911
9 309	5	3.45	577.1	15271.0	14909.5	0.939	4099.5	13919.3	16892.1	0.919	577.1	15271.0	14909.5	0.939	4099.5	13919.3	16892.1	0.919
10 313	4	3.45	374.6	6657.6	7454.7	1.063	220.3	5606.9	10944.2	1.913	374.6	6657.6	7454.7	1.063	220.3	5606.9	10944.2	1.913
11 317	3	3.45	286.7	8919.4	9318.4	1.013	439.0	7549.2	16158.6	2.082	286.7	8919.4	9318.4	1.013	439.0	7549.2	16158.6	2.082

12 321	1	3.45	19.6	6004.5	7454.7	1.238	663.5	3248.8	8961.6	2.554	19.6	6004.5	7454.7	1.238	663.5	3248.8	8961.6	2.554
13 333	6	3.45	28.5	1655.1	3489.5	2.091	200.1	1483.5	3489.5	2.217	28.5	1655.1	3489.5	2.091	200.1	1483.5	3489.5	2.217
14 62	6	0.80	8.4	8628.6	8723.6	1.010	29.4	8607.5	8723.6	1.010	8.4	8628.6	8723.6	1.010	29.4	8607.5	8723.6	1.010
20 353	7	3.45	148.7	2911.2	6840.1	2.299	31.7	3028.2	6840.1	2.248	148.7	2911.2	6840.1	2.299	31.7	3028.2	6840.1	2.248
41 88	1	0.80	14.0	33251.5	12424.6	0.373	92.1	21093.3	14935.9	0.704	14.0	33251.5	12424.6	0.373	92.1	21093.3	14935.9	0.704
45 92	2	0.80	79.2	76819.9	24849.2	0.322	5273.5	125533.2	44675.6	0.314	79.2	76819.9	24849.2	0.322	5273.5	125533.2	44675.6	0.314
46 93	2	0.80	161.2	62109.9	24849.2	0.397	11.3	108790.0	44675.6	0.411	161.2	62109.9	24849.2	0.397	11.3	108790.0	44675.6	0.411
51 98	3	0.80	128.3	41997.6	12424.6	0.293	167.6	36306.2	21544.7	0.589	128.3	41997.6	12424.6	0.293	167.6	36306.2	21544.7	0.589
60 107	3	0.80	38.0	40089.4	12424.6	0.309	87.3	34636.7	21544.7	0.620	38.0	40089.4	12424.6	0.309	87.3	34636.7	21544.7	0.620
61 426	4	3.45	9.2	5832.3	7454.7	1.277	460.5	4012.2	10944.2	2.613	9.2	5832.3	7454.7	1.277	460.5	4012.2	10944.2	2.613
62 108	6	0.80	9.3	8306.2	5815.8	0.699	28.0	8287.5	5815.8	0.698	9.3	8306.2	5815.8	0.699	28.0	8287.5	5815.8	0.698
88 134	1	0.80	4.8	31893.6	12424.6	0.389	18.9	20018.5	14935.9	0.745	4.8	31893.6	12424.6	0.389	18.9	20018.5	14935.9	0.745
92 138	2	0.80	79.2	76702.0	24849.2	0.323	5273.5	125204.2	44675.6	0.315	79.2	76702.0	24849.2	0.323	5273.5	125204.2	44675.6	0.315
93 139	2	0.80	167.6	61066.5	24849.2	0.404	655.3	106470.7	44675.6	0.413	167.6	61066.5	24849.2	0.404	655.3	106470.7	44675.6	0.413
98 144	3	0.80	39.1	41435.9	12424.6	0.299	170.4	35733.4	21544.7	0.598	39.1	41435.9	12424.6	0.299	170.4	35733.4	21544.7	0.598
107 153	3	0.80	31.3	38835.9	12424.6	0.319	89.5	33532.6	21544.7	0.640	31.3	38835.9	12424.6	0.319	89.5	33532.6	21544.7	0.640
108 154	6	0.80	1.8	8289.4	5815.8	0.701	11.7	8279.5	5815.8	0.701	1.8	8289.4	5815.8	0.701	11.7	8279.5	5815.8	0.701
134 180	1	0.80	3.1	30760.2	12424.6	0.404	13.5	19054.1	14935.9	0.783	3.1	30760.2	12424.6	0.404	13.5	19054.1	14935.9	0.783
138 399	2	1.85	79.2	26185.8	24849.2	0.946	5273.5	39390.0	44675.6	1.000	79.2	26185.8	24849.2	0.946	5273.5	39390.0	44675.6	1.000
139 184	2	0.80	171.1	61579.0	24849.2	0.401	2453.4	105506.4	44675.6	0.400	171.1	61579.0	24849.2	0.401	2453.4	105506.4	44675.6	0.400
144 188	3	0.80	26.5	44014.7	12424.6	0.282	224.5	37921.0	21544.7	0.562	26.5	44014.7	12424.6	0.282	224.5	37921.0	21544.7	0.562
153 197	3	0.80	27.2	38367.2	12424.6	0.323	54.8	33153.6	21544.7	0.648	27.2	38367.2	12424.6	0.323	54.8	33153.6	21544.7	0.648
154 343	6	1.05	42.2	6226.3	5815.8	0.927	385.0	5883.5	5815.8	0.923	42.2	6226.3	5815.8	0.927	385.0	5883.5	5815.8	0.923
180 393	1	1.05	2.8	20289.6	12424.6	0.612	3.2	12419.2	14935.9	1.202	2.8	20289.6	12424.6	0.612	3.2	12419.2	14935.9	1.202
184 408	2	1.05	263.1	42328.8	24849.2	0.581	10895.7	63550.3	44675.6	0.532	263.1	42328.8	24849.2	0.581	10895.7	63550.3	44675.6	0.532
188 413	3	1.05	33.8	27847.3	12424.6	0.445	267.0	23862.6	21544.7	0.892	33.8	27847.3	12424.6	0.445	267.0	23862.6	21544.7	0.892
197 422	3	1.05	50.4	26621.2	12424.6	0.465	2042.5	21029.3	21544.7	0.927	50.4	26621.2	12424.6	0.465	2042.5	21029.3	21544.7	0.927
200 569	20	3.45	568.0	11580.1	10557.6	0.863	3042.7	6232.0	16158.6	2.105	568.0	11580.1	10557.6	0.863	3042.7	6232.0	16158.6	2.105
210 579	20	3.45	561.1	11564.7	10557.6	0.864	3031.2	6226.3	16158.6	2.108	561.1	11564.7	10557.6	0.864	3031.2	6226.3	16158.6	2.108
214 583	20	3.45	11.6	8451.9	10557.6	1.248	416.5	6048.1	16158.6	2.603	11.6	8451.9	10557.6	1.248	416.5	6048.1	16158.6	2.603
218 587	20	3.45	70.0	9319.8	10557.6	1.125	168.8	7015.0	16158.6	2.279	70.0	9319.8	10557.6	1.125	168.8	7015.0	16158.6	2.279
222 591	19	3.45	92.3	5902.3	8446.1	1.415	825.6	3099.9	10944.2	3.264	92.3	5902.3	8446.1	1.415	825.6	3099.9	10944.2	3.264
224 593	19	3.45	11.9	5543.4	8446.1	1.521	408.2	3195.7	10944.2	3.297	11.9	5543.4	8446.1	1.521	408.2	3195.7	10944.2	3.297
303 650	15	3.45	506.5	3749.7	8079.3	2.020	442.8	2588.9	5601.0	1.992	506.5	3749.7	8079.3	2.020	442.8	2588.9	5601.0	1.992
307 654	16	3.45	412.0	7972.2	8079.3	0.962	1939.9	7005.1	6840.1	0.700	412.0	7972.2	8079.3	0.962	1939.9	7005.1	6840.1	0.700

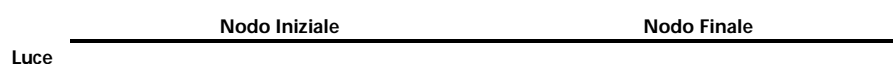
308 659	16	3.45	367.2	3987.2	8079.3	1.934	30.3	3739.9	6840.1	1.821	367.2	3987.2	8079.3	1.934	30.3	3739.9	6840.1	1.821
309 664	17	3.45	1041.2	7975.1	8079.3	0.883	2858.7	6157.5	8079.3	0.848	1041.2	7975.1	8079.3	0.883	2858.7	6157.5	8079.3	0.848
313 668	16	3.45	787.4	4615.6	8079.3	1.580	319.0	4659.1	6840.1	1.400	787.4	4615.6	8079.3	1.580	319.0	4659.1	6840.1	1.400
317 672	16	3.45	587.3	5054.5	8079.3	1.482	520.9	4943.5	6840.1	1.278	587.3	5054.5	8079.3	1.482	520.9	4943.5	6840.1	1.278
321 676	15	3.45	103.4	4488.5	8079.3	1.777	1168.6	2199.2	5601.0	2.015	103.4	4488.5	8079.3	1.777	1168.6	2199.2	5601.0	2.015
343 427	18	0.80	Errore calcolo capacità ultime															
353 697	12	3.45	395.4	2314.7	5472.1	2.193	83.5	2626.6	5472.1	2.052	395.4	2314.7	5472.1	2.193	83.5	2626.6	5472.1	2.052
393 453	11	0.80	1.5	15227.9	9120.2	0.599	7.2	12349.3	7468.0	0.604	1.5	15227.9	9120.2	0.599	7.2	12349.3	7468.0	0.604
399 459	12	0.80	30.0	18140.7	9120.2	0.501	2430.9	15739.8	9120.2	0.425	30.0	18140.7	9120.2	0.501	2430.9	15739.8	9120.2	0.425
408 460	14	0.80	Errore calcolo capacità ultime															
413 465	14	0.80	20.5	20430.9	9120.2	0.445	64.1	23809.0	10772.4	0.450	20.5	20430.9	9120.2	0.445	64.1	23809.0	10772.4	0.450
422 474	14	0.80	3.9	18102.2	9120.2	0.504	2115.0	19260.4	10772.4	0.449	3.9	18102.2	9120.2	0.504	2115.0	19260.4	10772.4	0.449
426 766	12	3.45	7.3	3050.0	5472.1	1.792	657.4	2399.9	5472.1	2.006	7.3	3050.0	5472.1	1.792	657.4	2399.9	5472.1	2.006
427 475	18	0.80	18.3	6853.8	8723.6	1.270	40.8	6831.3	8723.6	1.271	18.3	6853.8	8723.6	1.270	40.8	6831.3	8723.6	1.271
453 501	11	0.80	4.2	14138.7	9120.2	0.645	4.5	11476.3	7468.0	0.650	4.2	14138.7	9120.2	0.645	4.5	11476.3	7468.0	0.650
459 507	12	0.80	17.7	21422.0	9120.2	0.425	651.0	20922.5	9120.2	0.405	17.7	21422.0	9120.2	0.425	651.0	20922.5	9120.2	0.405
460 508	14	0.80	107.2	20735.6	9120.2	0.435	468.7	23797.4	10772.4	0.433	107.2	20735.6	9120.2	0.435	468.7	23797.4	10772.4	0.433
465 513	14	0.80	13.1	19948.8	9120.2	0.457	33.0	23339.9	10772.4	0.460	13.1	19948.8	9120.2	0.457	33.0	23339.9	10772.4	0.460
474 522	14	0.80	7.2	18811.3	9120.2	0.484	88.4	22083.6	10772.4	0.484	7.2	18811.3	9120.2	0.484	88.4	22083.6	10772.4	0.484
475 523	18	0.80	17.1	7023.3	8723.6	1.240	25.6	7014.8	8723.6	1.240	17.1	7023.3	8723.6	1.240	25.6	7014.8	8723.6	1.240
501 549	11	0.80	6.1	13179.0	9120.2	0.692	5.4	10703.2	7468.0	0.697	6.1	13179.0	9120.2	0.692	5.4	10703.2	7468.0	0.697
507 739	12	1.85	57.8	12920.6	5472.1	0.419	2978.5	9999.9	5472.1	0.249	57.8	12920.6	5472.1	0.419	2978.5	9999.9	5472.1	0.249
508 553	14	0.80	96.3	22345.4	9120.2	0.404	222.9	25592.6	10772.4	0.412	96.3	22345.4	9120.2	0.404	222.9	25592.6	10772.4	0.412
513 557	14	0.80	7.6	21503.3	9120.2	0.424	42.2	24882.7	10772.4	0.431	7.6	21503.3	9120.2	0.424	42.2	24882.7	10772.4	0.431
522 566	14	0.80	4.6	19461.0	9120.2	0.468	38.3	22818.9	10772.4	0.470	4.6	19461.0	9120.2	0.468	38.3	22818.9	10772.4	0.470
523 687	18	1.05	23.3	4916.8	5815.8	1.178	47.9	4892.1	5815.8	1.179	23.3	4916.8	5815.8	1.178	47.9	4892.1	5815.8	1.179
549 733	11	1.05	6.6	8432.8	9120.2	1.081	8.9	6848.6	7468.0	1.089	6.6	8432.8	9120.2	1.081	8.9	6848.6	7468.0	1.089
553 748	14	1.05	120.2	17206.8	9120.2	0.523	2751.9	16699.6	10772.4	0.480	120.2	17206.8	9120.2	0.523	2751.9	16699.6	10772.4	0.480
557 753	14	1.05	19.3	13100.9	9120.2	0.695	149.1	15288.4	10772.4	0.695	19.3	13100.9	9120.2	0.695	149.1	15288.4	10772.4	0.695
566 762	14	1.05	25.2	14029.7	9120.2	0.648	1705.0	14702.3	10772.4	0.617	25.2	14029.7	9120.2	0.648	1705.0	14702.3	10772.4	0.617
569 832	28	3.45	279.7	8440.8	8446.1	0.967	2749.4	3070.9	10944.2	2.669	279.7	8440.8	8446.1	0.967	2749.4	3070.9	10944.2	2.669
574 836	29	3.45	65.5	2885.9	3420.1	1.162	80.5	3410.1	4039.6	1.161	65.5	2885.9	3420.1	1.162	80.5	3410.1	4039.6	1.161
579 840	28	3.45	639.5	8526.5	8446.1	0.916	2868.4	3399.5	10944.2	2.376	639.5	8526.5	8446.1	0.916	2868.4	3399.5	10944.2	2.376
583 844	28	3.45	67.8	5766.3	8446.1	1.453	540.2	3266.2	10944.2	3.185	67.8	5766.3	8446.1	1.453	540.2	3266.2	10944.2	3.185
587 848	28	3.45	106.4	6326.6	8446.1	1.318	278.3	3984.4	10944.2	2.677	106.4	6326.6	8446.1	1.318	278.3	3984.4	10944.2	2.677

591 852	28	3.45	115.5	5045.2	8446.1	1.651	1253.0	2076.7	10944.2	4.667	115.5	5045.2	8446.1	1.651	1253.0	2076.7	10944.2	4.667
593 854	28	3.45	29.1	4893.4	8446.1	1.720	540.9	2630.4	10944.2	3.955	29.1	4893.4	8446.1	1.720	540.9	2630.4	10944.2	3.955
650 907	25	3.45	623.1	4921.6	6840.1	1.263	639.6	3514.5	4857.5	1.200	623.1	4921.6	6840.1	1.263	639.6	3514.5	4857.5	1.200
654 911	21	3.45	343.7	5700.5	6840.1	1.140	2507.7	3817.2	5601.0	0.810	343.7	5700.5	6840.1	1.140	2507.7	3817.2	5601.0	0.810
664 919	21	3.45	756.7	5246.8	6840.1	1.159	2420.6	3781.7	5601.0	0.841	756.7	5246.8	6840.1	1.159	2420.6	3781.7	5601.0	0.841
668 923	21	3.45	651.5	2302.7	6840.1	2.688	419.4	1982.7	5601.0	2.613	651.5	2302.7	6840.1	2.688	419.4	1982.7	5601.0	2.613
672 927	21	3.45	582.0	2802.0	6840.1	2.233	679.8	2080.5	5601.0	2.365	582.0	2802.0	6840.1	2.233	679.8	2080.5	5601.0	2.365
676 931	25	3.45	60.8	5514.5	6840.1	1.229	1778.5	2553.6	4857.5	1.206	60.8	5514.5	6840.1	1.229	1778.5	2553.6	4857.5	1.206
697 955	27	3.45	389.6	1846.6	5472.1	2.752	170.3	2065.9	5472.1	2.566	389.6	1846.6	5472.1	2.752	170.3	2065.9	5472.1	2.566
733 767	21	0.80	0.2	11771.6	9120.2	0.775	33.6	9534.3	7468.0	0.780	0.2	11771.6	9120.2	0.775	33.6	9534.3	7468.0	0.780
739 773	22	0.80	117.2	28233.4	9120.2	0.319	3849.6	29873.3	10772.4	0.232	117.2	28233.4	9120.2	0.319	3849.6	29873.3	10772.4	0.232
744 1011	23	3.45	4.6	2249.9	2800.5	1.243	284.7	3005.9	4039.6	1.249	4.6	2249.9	2800.5	1.243	284.7	3005.9	4039.6	1.249
748 774	22	0.80	189.1	25959.3	9120.2	0.344	3975.0	27161.2	10772.4	0.250	189.1	25959.3	9120.2	0.344	3975.0	27161.2	10772.4	0.250
753 779	22	0.80	28.1	17644.3	9120.2	0.515	36.8	20844.1	10772.4	0.515	28.1	17644.3	9120.2	0.515	36.8	20844.1	10772.4	0.515
762 788	22	0.80	Errore calcolo capacità ultime															
766 1033	24	3.45	6.5	2029.9	4480.8	2.204	687.3	1821.8	5472.1	2.626	6.5	2029.9	4480.8	2.204	687.3	1821.8	5472.1	2.626
767 789	21	0.80	2.1	11582.5	9120.2	0.787	23.8	9392.8	7468.0	0.793	2.1	11582.5	9120.2	0.787	23.8	9392.8	7468.0	0.793
773 795	22	0.80	43.6	20446.4	9120.2	0.444	176.1	23736.0	10772.4	0.446	43.6	20446.4	9120.2	0.444	176.1	23736.0	10772.4	0.446
774 796	22	0.80	80.6	18925.9	9120.2	0.478	823.5	21548.9	10772.4	0.462	80.6	18925.9	9120.2	0.478	823.5	21548.9	10772.4	0.462
779 801	22	0.80	29.8	17360.5	9120.2	0.524	66.7	20492.1	10772.4	0.522	29.8	17360.5	9120.2	0.524	66.7	20492.1	10772.4	0.522
788 810	22	0.80	21.0	17925.4	9120.2	0.508	172.7	21020.6	10772.4	0.504	21.0	17925.4	9120.2	0.508	172.7	21020.6	10772.4	0.504
789 811	21	0.80	7.2	11264.3	9120.2	0.809	10.9	9152.6	7468.0	0.815	7.2	11264.3	9120.2	0.809	10.9	9152.6	7468.0	0.815
795 1007	22	1.85	207.3	16928.4	6840.1	0.392	6767.6	13688.6	8079.3	0.096	207.3	16928.4	6840.1	0.392	6767.6	13688.6	8079.3	0.096
796 815	22	0.80	60.7	22561.8	9120.2	0.402	572.1	25412.6	10772.4	0.401	60.7	22561.8	9120.2	0.402	572.1	25412.6	10772.4	0.401
801 819	22	0.80	43.3	18065.3	9120.2	0.502	130.0	21248.0	10772.4	0.501	43.3	18065.3	9120.2	0.502	130.0	21248.0	10772.4	0.501
810 828	22	0.80	4.0	19648.0	9120.2	0.464	82.5	22969.4	10772.4	0.465	4.0	19648.0	9120.2	0.464	82.5	22969.4	10772.4	0.465
811 1001	21	1.05	2.3	7348.4	9120.2	1.241	9.0	5968.7	7468.0	1.250	2.3	7348.4	9120.2	1.241	9.0	5968.7	7468.0	1.250
815 1015	22	1.05	50.0	23013.7	9120.2	0.394	4645.2	21050.8	10772.4	0.291	50.0	23013.7	9120.2	0.394	4645.2	21050.8	10772.4	0.291
819 1020	22	1.05	29.2	11473.9	9120.2	0.792	90.9	13525.5	10772.4	0.790	29.2	11473.9	9120.2	0.792	90.9	13525.5	10772.4	0.790
828 1029	22	1.05	8.4	15099.8	9120.2	0.603	2977.9	14466.5	10772.4	0.539	8.4	15099.8	9120.2	0.603	2977.9	14466.5	10772.4	0.539

- Pilastro più sollecitato

Pilastro 795 1007 α_{Min} 0.096

- Travi



Nodi	Sezione	[m]	V _G [kg]	V _E [kg]	V _R [kg]	α	V _G [kg]	V _E [kg]	V _R [kg]	α
224 200	14	6.20	3881.2	9592.3	18225.9	1.495	6775.8	9283.0	18225.9	1.233
200 202	2	1.55	15675.3	146555.6	47552.5	0.218	11060.7	151170.3	47552.5	0.241
202 204	3	3.70	9813.6	14869.3	20807.4	0.739	2137.8	19078.8	20807.4	0.979
204 206	4	1.50	1627.4	41718.9	13705.0	0.290	1514.3	41832.0	13705.0	0.291
206 208	3	3.70	2027.6	18303.7	20807.4	1.026	9705.6	14279.1	20807.4	0.777
208 210	2	1.55	10944.8	122306.8	40578.1	0.242	15559.3	117692.3	40578.1	0.213
210 214	14	6.00	6269.4	10528.9	18225.9	1.136	4162.1	10220.2	18225.9	1.376
214 218	14	6.00	5066.8	12242.1	18225.9	1.075	5340.0	10920.3	18225.9	1.180
218 222	14	6.20	5936.8	7402.7	18225.9	1.660	4719.1	9635.1	18225.9	1.402
593 569	28	6.20	3172.5	14985.2	18225.9	1.005	7560.4	12258.4	18225.9	0.870
569 574	28	6.00	14955.9	9954.4	33620.6	1.875	2388.3	22522.0	33620.6	1.387
574 579	28	6.00	2298.2	21639.2	33620.6	1.447	14871.1	9832.7	33620.6	1.907
579 583	28	6.00	7249.9	14538.6	18225.9	0.755	3272.2	16541.4	18225.9	0.904
583 587	28	6.00	4893.1	14930.5	18225.9	0.893	5597.0	10938.8	18225.9	1.154
587 591	28	6.20	6098.4	8447.8	18225.9	1.436	4846.7	9056.0	18225.9	1.477
650 654	27	6.20	3729.1	14993.5	12288.3	0.571	7172.2	12658.6	12288.3	0.404
654 659	27	6.00	11989.7	12820.7	36864.8	1.940	5432.8	18751.2	36864.8	1.676
659 664	27	6.00	5493.2	18690.8	24576.5	1.021	11535.8	13274.6	24576.5	0.982
664 668	27	6.00	5073.0	15309.7	12288.3	0.471	3875.8	17133.5	12288.3	0.491
668 672	27	6.00	5002.0	15843.7	18432.4	0.848	5592.9	13372.5	18432.4	0.960
672 676	27	6.20	7035.1	12171.6	18432.4	0.936	5844.9	13359.4	18432.4	0.942
698 699	24	1.26	297.1	3597.7	3238.3	0.818	528.6	3366.2	3238.3	0.805
714 716	24	2.60	689.4	2311.9	3238.3	1.103	643.5	2357.8	3238.3	1.101
733 739	21	6.20	49.0	12954.5	21871.1	1.685	10685.3	6730.1	21871.1	1.662
739 744	22	6.00	14207.5	10702.9	27338.8	1.227	570.1	24340.2	27338.8	1.100
744 748	22	6.00	1026.7	23883.6	27338.8	1.102	11544.3	12537.2	27338.8	1.260
748 753	21	6.00	7921.8	5823.2	18225.9	1.769	558.8	11400.6	18225.9	1.550
762 766	23	6.20	7459.9	6054.4	18225.9	1.778	4775.0	8739.4	18225.9	1.539
854 832	38	6.20	4535.8	20144.6	18613.1	0.699	10114.5	13769.4	18613.1	0.617
832 836	38	6.00	12591.1	21244.8	22335.7	0.459	1427.8	32408.1	22335.7	0.645
836 840	38	6.00	1611.0	29278.4	22335.7	0.708	12439.9	18449.4	22335.7	0.536
840 844	38	6.00	8950.9	17723.0	18613.1	0.545	4656.4	20554.1	18613.1	0.679
844 848	38	6.00	6250.5	16921.3	13959.8	0.456	7412.9	15920.0	13959.8	0.411
848 852	38	6.20	8126.7	11049.5	13959.8	0.528	5992.3	14531.3	13959.8	0.548
907 911	35	6.20	2601.5	15180.1	12043.0	0.622	6035.7	15919.6	12043.0	0.377
911 919	37	12.00	17253.5	19651.9	34644.7	0.885	17504.4	19470.6	34644.7	0.880
919 923	35	6.00	4299.7	14058.1	12043.0	0.551	2851.8	11832.5	12043.0	0.777
923 927	35	6.00	3549.4	14475.6	12043.0	0.587	4133.0	13892.0	12043.0	0.569
927 931	35	6.20	5442.6	12928.9	12043.0	0.511	4425.4	13946.1	12043.0	0.546
957 956	33	1.26	610.0	4083.1	3238.3	0.644	311.1	4382.1	3238.3	0.668
303 307	11	6.20	2264.7	12810.3	18432.4	1.262	7697.6	10588.5	18432.4	1.014
969 971	33	2.60	307.6	3775.9	3238.3	0.776	1151.8	2931.6	3238.3	0.712
1001 1004	32	3.06	776.0	9928.9	11664.6	1.097	343.6	10976.7	11664.6	1.031
1004 1007	32	3.14	1500.1	29768.7	18225.9	0.562	8433.3	29814.0	18225.9	0.328
1007 1011	31	6.00	14998.6	19422.8	27338.8	0.635	1442.8	32978.6	27338.8	0.785
1011 1015	31	6.00	45.5	32414.9	36451.8	1.123	16337.3	13215.7	36451.8	1.522
1015 1020	32	6.00	12919.0	4741.2	27338.8	3.041	1705.9	9055.7	27338.8	2.831
1029 1033	31	6.20	10732.8	5455.4	36451.8	4.714	7322.7	8865.5	36451.8	3.286
200 292	7	4.57	4136.5	31186.8	62422.3	1.869	409.4	38547.8	62422.3	1.609
292 307	7	0.43	18067.9	687575.5	62422.3	0.065	18240.0	687403.3	62422.3	0.064
307 323	7	0.43	17900.0	687743.4	62422.3	0.065	17727.8	687915.5	62422.3	0.065
323 399	7	4.57	7060.9	31896.3	62422.3	1.736	784.8	34538.5	62422.3	1.785
297 328	13	0.86	7568.6	131045.5	62422.3	0.419	7773.2	130840.8	62422.3	0.418
210 300	7	4.57	4164.8	13325.1	13316.8	0.687	450.1	20673.7	13316.8	0.622
300 309	7	0.43	18596.3	281704.2	41614.9	0.082	18768.4	281532.1	41614.9	0.081
309 322	10	0.43	18113.9	280240.2	41614.9	0.084	17987.7	280366.5	41614.9	0.084
322 343	7	1.57	8504.0	46223.6	31211.2	0.491	9766.2	44961.4	31211.2	0.477
343 408	8	3.00	1566.1	9430.9	7534.1	0.633	431.8	10565.2	7534.1	0.672
317 353	9	2.00	35.9	3765.7	3238.3	0.850	279.1	3522.4	3238.3	0.840
353 422	9	3.00	439.6	2126.8	3238.3	1.316	153.0	2413.4	3238.3	1.278
292 300	12	12.00	18975.0	11869.5	31791.7	1.080	19545.0	11299.5	31791.7	1.084
569 654	25	5.00	225.5	1544.5	3238.3	1.951	146.5	1623.5	3238.3	1.904

654 739	25	5.00	178.4	1591.6	3238.3	1.923	264.1	1506.0	3238.3	1.975
579 664	26	5.00	328.2	1629.7	3238.3	1.786	298.7	1659.2	3238.3	1.772
664 687	26	2.00	236.7	4836.4	3238.3	0.621	656.7	4416.4	3238.3	0.585
687 748	25	3.00	390.3	2176.1	3238.3	1.309	104.7	2461.7	3238.3	1.273
672 716	25	2.55	10.7	3541.2	3238.3	0.911	582.6	2969.3	3238.3	0.894
716 762	25	2.45	89.9	3596.0	3238.3	0.876	529.3	3156.5	3238.3	0.858
832 911	34	5.00	139.9	1844.9	3238.3	1.679	134.3	1850.6	3238.3	1.677
911 1007	34	5.00	163.0	1760.2	3238.3	1.747	112.8	1810.5	3238.3	1.726
323 322	12	12.00	19500.5	11276.9	31791.7	1.090	19409.5	11367.9	31791.7	1.089
840 919	35	5.00	590.5	3210.0	5138.4	1.417	248.3	3552.2	5138.4	1.377
919 945	35	2.00	965.4	7456.0	5138.4	0.560	1560.4	6861.0	5138.4	0.521
945 1015	36	3.00	247.1	1857.7	3238.3	1.610	28.7	2076.1	3238.3	1.546
949 1019	33	3.00	233.0	1735.7	3238.3	1.731	369.6	1599.1	3238.3	1.794
927 971	36	2.55	20.5	3315.7	3238.3	0.971	1583.8	1752.3	3238.3	0.944
971 1029	36	2.45	209.1	3252.6	3238.3	0.931	315.5	3146.2	3238.3	0.929
309 313	11	6.00	4867.5	14464.9	12288.3	0.513	4012.6	15316.7	12288.3	0.540
313 317	11	6.00	5464.7	18102.6	18432.4	0.716	6600.3	14462.0	18432.4	0.818
317 321	11	6.20	8552.2	12086.4	18432.4	0.817	6500.3	14137.6	18432.4	0.844
358 359	5	1.26	316.8	3283.2	4857.5	1.383	508.9	3091.1	4857.5	1.407
370 372	5	2.60	699.3	2306.5	3238.3	1.101	643.2	2362.6	3238.3	1.098
422 426	6	6.20	6915.8	5851.3	18225.9	1.933	4996.1	7771.0	18225.9	1.702
393 396	1	3.06	126.7	10249.4	11829.8	1.142	345.9	10077.1	11829.8	1.140
396 399	1	3.14	1775.2	11763.6	22180.8	1.735	10865.9	7485.5	22180.8	1.512
399 401	2	1.55	15191.3	117320.9	40578.1	0.216	10355.7	122156.5	40578.1	0.247
401 403	3	3.70	7632.6	15426.2	20807.4	0.854	1165.4	23718.4	20807.4	0.828
403 405	4	1.50	881.9	67995.9	18273.4	0.256	1824.1	67053.7	18273.4	0.245
405 406	3	3.70	2092.2	22777.0	20807.4	0.822	8358.3	13969.9	20807.4	0.891
406 408	2	1.55	11687.0	119766.8	40578.1	0.241	15116.3	116337.5	40578.1	0.219
408 413	1	6.00	6736.2	3493.0	18484.0	3.363	739.2	5438.8	18484.0	3.263

- Trave più sollecitata

Trave 292 307 α_{Min} 0.064

- Nodi

- Nodi

Nodo Pilastro Sezione			Ingombro nodo			A _g [cm²]	f _{cd,Pilastro} [kg/cm²]	Direzione x						Direzione y					
			B [cm]	H [cm]	Comb. Critica			N _d [kg]	σ _{nc} [kg/cm²]	M _G [kgm]	M _E [kgm]	α	Comb. Critica	N _d [kg]	σ _{nc} [kg/cm²]	M _G [kgm]	M _E [kgm]	α	
200	200 569	20	35	45	2362.50	141.1	5	58109.2	24.6	-18061.5	-990.8	15.327	3	58109.2	24.6	3373.3	188.7	183.508	
210	210 579	20	35	45	2362.50	141.1	6	57485.1	24.3	18507.9	838.2	116.234	8	57485.1	24.3	3110.0	246.4	141.016	
214	214 583	20	35	45	2137.50	141.1	5	27111.6	12.7	-1470.5	485.6	47.590							
218	218 587	20	35	45	2137.50	141.1	7	37798.5	17.7	-1011.8	-1182.0	22.008							
222	222 591	19	30	45	1575.00	141.1	4	16238.0	10.3	2527.6	533.7	27.479							
224	224 593	19	30	45	1575.00	141.1	6	12095.3	7.7	-1395.7	442.0	33.293							
303	303 650	15	25	35	1037.50	141.1	4	11755.1	11.3	-792.5	172.5	40.524							
307	307 654	16	30	35	1425.00	141.1	3	65140.7	45.7	17665.7	188.7	3.679	3	65140.7	45.7	-397.4	132.7	214.628	
309	309 664	17	35	35	1512.50	141.1	4	53626.8	35.5	-13941.7	95.3	24.875	4	53626.8	35.5	-2742.4	495.6	50.490	
313	313 668	16	30	35	1125.00	141.1	10	26282.7	23.4	-714.0	129.3	75.236							
317	317 672	16	30	35	1225.00	141.1	5	41829.1	34.1	-1065.4	91.3	131.040	7	41829.1	34.1	-83.8	31.1	166.810	
321	321	15	25	35	937.50	141.1	5	20666.4	22.0	1579.1	-88.8	78.351							

[illegible]

1001	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1007	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1011	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1015	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1020	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1029	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1033	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.

- Nodo più sollecitato

Nodo 399 α_{Min} 0.188

- Indicatori di rischio

Oggetto	Nodi	Spettro di riferimento	PGA_C	$T_{R,C}$	PGA_C/PGA_D	$(T_{R,C}/T_{R,D})^{0.41}$
Pilastro (duttile)	654 911	TU 2008 SLV H	12.29	2475.00	24.73	1.97
Pilastro (fragile)	795 1007	TU 2008 SLV H	0.05	30.00	0.10	0.32
Trave (duttile)	307 323	TU 2008 SLV H	-3092.87	30.00	-6223.28	0.32
Trave (fragile)	292 307	TU 2008 SLV H	0.03	30.00	0.06	0.32
Nodo (fragile)	399	TU 2008 SLV H	0.09	30.00	0.19	0.32

4.1.3 Verifica globale – stato di fatto

- **En.Ex.Sys. WinStrand**

- Structural Analysis & Design

Ditta produttrice:

En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:

WinStrand

Piattaforma software:

Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:

Manuale teorico - Manuale d'uso

Campo di applicazione:

Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastr).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T .
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. *"Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica"*.
- Legge n. 64 del 2 Febbraio 1974. *"Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche"*.
- D.M. del 3 Marzo 1975. *"Approvazione delle norme tecniche per le costruzioni in zone sismiche"*.
- D.M. del 3 Marzo 1975. *"Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche"*.
- D.M. del 3 Ottobre 1978. *"Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi"*.
- D.M. del 14 Febbraio 1992. *"Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche"*.
- Istruzioni per la valutazione delle: Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. *"Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche"*.
- D.M. del 16 Gennaio 1996. *"Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»"*.
- D.M. del 16 Gennaio 1996. *"Norme tecniche per le costruzioni in zone sismiche"*
- Ordinanza n. 3274 del 20 Marzo 2003. *"Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"*
- Ordinanza n. 3316. *"Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"*
- D.M. del 14 Gennaio 2008 *"Approvazione delle nuove norme tecniche per le costruzioni"*

- Indice

- [Dati relativi ai nodi della struttura](#)
- [Elementi tipo pilastro](#)
- [Elementi tipo trave](#)
- [Elementi a 4 nodi](#)
- [Elementi triangolari](#)
- [Condizioni e combinazioni di carico](#)
- [Carichi e coppie applicati ai nodi](#)
- [Dati relativi alle aree di carico](#)
- [Carichi applicati agli elementi](#)
- [Analisi dinamica](#)
- [Spostamenti nodali](#)
- [Sollecitazioni nei pilastri](#)
- [Sollecitazioni nelle travi](#)
- [Sollecitazioni negli elementi triangolari](#)
- [Sollecitazioni negli elementi triangolari](#)
- [Sollecitazioni negli elementi a 4 nodi](#)
- [Sollecitazioni negli elementi a 4 nodi](#)

- Dati relativi ai nodi della struttura

- Convenzioni adottate

La terna di riferimento generale è destrorsa.

I nodi vengono numerati, con riferimento a una sezione orizzontale, da sinistra a destra, dal basso verso l'alto e per quote crescenti.

L'impalcato di appartenenza di un nodo è definito, in generale, dalla prima delle tre cifre che ne definiscono il numero, possono tuttavia presentarsi casi in cui si hanno più di 100 nodi per solaio nel qual caso il solaio di appartenenza è specificato dall'ultimo valore stampato nella riga dei dati relativi al nodo.

La maschera dei vincoli è costituita dai valori 0 e 1. Il valore 1 indica che per il nodo in riferimento il grado di libertà correlativo è soppresso mentre il valore 0 indica che è libero.

Nel caso di edifici civili multipiano l'asse z generale coincide con l'asse verticale rivolto verso l'alto.

- Nodi

Nodo	x [m]	y [m]	z [m]	Ux	Uy	Uz	Rx	Ry	Rz	Solaio
1	6.20	0.00	0.00	1	1	1	1	1	1	0
2	18.20	0.00	0.00	1	1	1	1	1	1	0
3	24.20	0.00	0.00	1	1	1	1	1	1	0
4	30.20	0.00	0.00	1	1	1	1	1	1	0
5	36.40	0.00	0.00	1	1	1	1	1	1	0
6	0.00	0.00	0.00	1	1	1	1	1	1	0
7	0.00	5.00	0.00	1	1	1	1	1	1	0
8	6.20	5.00	0.00	1	1	1	1	1	1	0
9	18.20	5.00	0.00	1	1	1	1	1	1	0
10	24.20	5.00	0.00	1	1	1	1	1	1	0
11	30.20	5.00	0.00	1	1	1	1	1	1	0
12	36.40	5.00	0.00	1	1	1	1	1	1	0
13	6.20	7.00	0.00	1	1	1	1	1	1	0
14	18.20	7.00	0.00	1	1	1	1	1	1	0
15	19.30	7.00	0.00	1	1	1	1	1	1	0
16	20.40	7.00	0.00	1	1	1	1	1	1	0
17	21.50	7.00	0.00	1	1	1	1	1	1	0
18	22.60	7.00	0.00	1	1	1	1	1	1	0
19	24.20	7.00	0.00	1	1	1	1	1	1	0
20	30.20	7.00	0.00	1	1	1	1	1	1	0
21	1.26	7.36	0.00	1	1	1	1	1	1	0
22	1.70	7.36	0.00	1	1	1	1	1	1	0
23	2.62	7.36	0.00	1	1	1	1	1	1	0
24	3.06	7.36	0.00	1	1	1	1	1	1	0
25	24.20	7.55	0.00	1	1	1	1	1	1	0
26	24.72	7.55	0.00	1	1	1	1	1	1	0
27	25.52	7.55	0.00	1	1	1	1	1	1	0
28	26.30	7.55	0.00	1	1	1	1	1	1	0
29	27.02	7.55	0.00	1	1	1	1	1	1	0
30	27.60	7.55	0.00	1	1	1	1	1	1	0
31	1.26	8.02	0.00	1	1	1	1	1	1	0
32	3.06	8.02	0.00	1	1	1	1	1	1	0
33	24.20	8.36	0.00	1	1	1	1	1	1	0
34	27.60	8.36	0.00	1	1	1	1	1	1	0
35	1.26	8.68	0.00	1	1	1	1	1	1	0
36	3.06	8.68	0.00	1	1	1	1	1	1	0
37	24.20	9.17	0.00	1	1	1	1	1	1	0
38	27.60	9.17	0.00	1	1	1	1	1	1	0

39	1.26	9.34	0.00	1	1	1	1	1	1	0
40	3.06	9.34	0.00	1	1	1	1	1	1	0
41	0.00	10.00	0.00	1	1	1	1	1	1	0
42	1.26	10.00	0.00	1	1	1	1	1	1	0
43	2.16	10.00	0.00	1	1	1	1	1	1	0
44	3.06	10.00	0.00	1	1	1	1	1	1	0
45	6.20	10.00	0.00	1	1	1	1	1	1	0
46	18.20	10.00	0.00	1	1	1	1	1	1	0
47	19.30	10.00	0.00	1	1	1	1	1	1	0
48	20.40	10.00	0.00	1	1	1	1	1	1	0
49	21.40	10.00	0.00	1	1	1	1	1	1	0
50	22.60	10.00	0.00	1	1	1	1	1	1	0
51	24.20	10.00	0.00	1	1	1	1	1	1	0
52	24.72	10.00	0.00	1	1	1	1	1	1	0
53	25.52	10.00	0.00	1	1	1	1	1	1	0
54	26.30	10.00	0.00	1	1	1	1	1	1	0
55	27.02	10.00	0.00	1	1	1	1	1	1	0
56	27.60	10.00	0.00	1	1	1	1	1	1	0
57	28.25	10.00	0.00	1	1	1	1	1	1	0
58	28.90	10.00	0.00	1	1	1	1	1	1	0
59	29.55	10.00	0.00	1	1	1	1	1	1	0
60	30.20	10.00	0.00	1	1	1	1	1	1	0
61	36.40	10.00	0.00	1	1	1	1	1	1	0
62	18.20	7.00	0.80	0	0	0	0	0	0	0
63	19.30	7.00	0.80	0	0	0	0	0	0	0
64	20.40	7.00	0.80	0	0	0	0	0	0	0
65	21.50	7.00	0.80	0	0	0	0	0	0	0
66	22.60	7.00	0.80	0	0	0	0	0	0	0
67	24.20	7.00	0.80	0	0	0	0	0	0	0
68	1.26	7.36	0.80	0	0	0	0	0	0	0
69	1.70	7.36	0.80	0	0	0	0	0	0	0
70	2.62	7.36	0.80	0	0	0	0	0	0	0
71	3.06	7.36	0.80	0	0	0	0	0	0	0
72	24.20	7.55	0.80	0	0	0	0	0	0	0
73	24.72	7.55	0.80	0	0	0	0	0	0	0
74	25.52	7.55	0.80	0	0	0	0	0	0	0
75	26.30	7.55	0.80	0	0	0	0	0	0	0
76	27.02	7.55	0.80	0	0	0	0	0	0	0
77	27.60	7.55	0.80	0	0	0	0	0	0	0
78	1.26	8.02	0.80	0	0	0	0	0	0	0
79	3.06	8.02	0.80	0	0	0	0	0	0	0
80	24.20	8.36	0.80	0	0	0	0	0	0	0
81	27.60	8.36	0.80	0	0	0	0	0	0	0
82	1.26	8.68	0.80	0	0	0	0	0	0	0
83	3.06	8.68	0.80	0	0	0	0	0	0	0
84	24.20	9.17	0.80	0	0	0	0	0	0	0
85	27.60	9.17	0.80	0	0	0	0	0	0	0
86	1.26	9.34	0.80	0	0	0	0	0	0	0
87	3.06	9.34	0.80	0	0	0	0	0	0	0
88	0.00	10.00	0.80	0	0	0	0	0	0	0
89	1.26	10.00	0.80	0	0	0	0	0	0	0
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	2.16	10.00	0.80	0	0	0	0	0	0	0
91	3.06	10.00	0.80	0	0	0	0	0	0	0
92	6.20	10.00	0.80	0	0	0	0	0	0	0
93	18.20	10.00	0.80	0	0	0	0	0	0	0
94	19.30	10.00	0.80	0	0	0	0	0	0	0
95	20.40	10.00	0.80	0	0	0	0	0	0	0
96	21.40	10.00	0.80	0	0	0	0	0	0	0
97	22.60	10.00	0.80	0	0	0	0	0	0	0
98	24.20	10.00	0.80	0	0	0	0	0	0	0
99	24.72	10.00	0.80	0	0	0	0	0	0	0
100	25.52	10.00	0.80	0	0	0	0	0	0	0
101	26.30	10.00	0.80	0	0	0	0	0	0	0
102	27.02	10.00	0.80	0	0	0	0	0	0	0
103	27.60	10.00	0.80	0	0	0	0	0	0	0
104	28.25	10.00	0.80	0	0	0	0	0	0	0
105	28.90	10.00	0.80	0	0	0	0	0	0	0
106	29.55	10.00	0.80	0	0	0	0	0	0	0
107	30.20	10.00	0.80	0	0	0	0	0	0	0
108	18.20	7.00	1.60	0	0	0	0	0	0	0
109	19.30	7.00	1.60	0	0	0	0	0	0	0
110	20.40	7.00	1.60	0	0	0	0	0	0	0
111	21.50	7.00	1.60	0	0	0	0	0	0	0
112	22.60	7.00	1.60	0	0	0	0	0	0	0
113	24.20	7.00	1.60	0	0	0	0	0	0	0
114	1.26	7.36	1.60	0	0	0	0	0	0	0
115	1.70	7.36	1.60	0	0	0	0	0	0	0
116	2.62	7.36	1.60	0	0	0	0	0	0	0
117	3.06	7.36	1.60	0	0	0	0	0	0	0
118	24.20	7.55	1.60	0	0	0	0	0	0	0
119	24.72	7.55	1.60	0	0	0	0	0	0	0
120	25.52	7.55	1.60	0	0	0	0	0	0	0
121	26.30	7.55	1.60	0	0	0	0	0	0	0
122	27.02	7.55	1.60	0	0	0	0	0	0	0
123	27.60	7.55	1.60	0	0	0	0	0	0	0
124	1.26	8.02	1.60	0	0	0	0	0	0	0
125	3.06	8.02	1.60	0	0	0	0	0	0	0
126	24.20	8.36	1.60	0	0	0	0	0	0	0
127	27.60	8.36	1.60	0	0	0	0	0	0	0
128	1.26	8.68	1.60	0	0	0	0	0	0	0
129	3.06	8.68	1.60	0	0	0	0	0	0	0
130	24.20	9.17	1.60	0	0	0	0	0	0	0
131	27.60	9.17	1.60	0	0	0	0	0	0	0
132	1.26	9.34	1.60	0	0	0	0	0	0	0
133	3.06	9.34	1.60	0	0	0	0	0	0	0
134	0.00	10.00	1.60	0	0	0	0	0	0	0
135	1.26	10.00	1.60	0	0	0	0	0	0	0
136	2.16	10.00	1.60	0	0	0	0	0	0	0
137	3.06	10.00	1.60	0	0	0	0	0	0	0
138	6.20	10.00	1.60	0	0	0	0	0	0	0
139	18.20	10.00	1.60	0	0	0	0	0	0	0
140	19.30	10.00	1.60	0	0	0	0	0	0	0
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	20.40	10.00	1.60	0	0	0	0	0	0	0
142	21.40	10.00	1.60	0	0	0	0	0	0	0
143	22.60	10.00	1.60	0	0	0	0	0	0	0
144	24.20	10.00	1.60	0	0	0	0	0	0	0
145	24.72	10.00	1.60	0	0	0	0	0	0	0
146	25.52	10.00	1.60	0	0	0	0	0	0	0
147	26.30	10.00	1.60	0	0	0	0	0	0	0
148	27.02	10.00	1.60	0	0	0	0	0	0	0
149	27.60	10.00	1.60	0	0	0	0	0	0	0
150	28.25	10.00	1.60	0	0	0	0	0	0	0
151	28.90	10.00	1.60	0	0	0	0	0	0	0
152	29.55	10.00	1.60	0	0	0	0	0	0	0
153	30.20	10.00	1.60	0	0	0	0	0	0	0
154	18.20	7.00	2.40	0	0	0	0	0	0	0
155	19.30	7.00	2.40	0	0	0	0	0	0	0
156	20.40	7.00	2.40	0	0	0	0	0	0	0
157	21.50	7.00	2.40	0	0	0	0	0	0	0
158	22.60	7.00	2.40	0	0	0	0	0	0	0
159	24.20	7.00	2.40	0	0	0	0	0	0	0
160	1.26	7.36	2.40	0	0	0	0	0	0	0
161	1.70	7.36	2.40	0	0	0	0	0	0	0
162	2.62	7.36	2.40	0	0	0	0	0	0	0
163	3.06	7.36	2.40	0	0	0	0	0	0	0
164	24.20	7.55	2.40	0	0	0	0	0	0	0
165	24.72	7.55	2.40	0	0	0	0	0	0	0
166	25.52	7.55	2.40	0	0	0	0	0	0	0
167	26.30	7.55	2.40	0	0	0	0	0	0	0
168	27.02	7.55	2.40	0	0	0	0	0	0	0
169	27.60	7.55	2.40	0	0	0	0	0	0	0
170	1.26	8.02	2.40	0	0	0	0	0	0	0
171	3.06	8.02	2.40	0	0	0	0	0	0	0
172	24.20	8.36	2.40	0	0	0	0	0	0	0
173	27.60	8.36	2.40	0	0	0	0	0	0	0
174	1.26	8.68	2.40	0	0	0	0	0	0	0
175	3.06	8.68	2.40	0	0	0	0	0	0	0
176	24.20	9.17	2.40	0	0	0	0	0	0	0
177	27.60	9.17	2.40	0	0	0	0	0	0	0
178	1.26	9.34	2.40	0	0	0	0	0	0	0
179	3.06	9.34	2.40	0	0	0	0	0	0	0
180	0.00	10.00	2.40	0	0	0	0	0	0	0
181	1.26	10.00	2.40	0	0	0	0	0	0	0
182	2.16	10.00	2.40	0	0	0	0	0	0	0
183	3.06	10.00	2.40	0	0	0	0	0	0	0
184	18.20	10.00	2.40	0	0	0	0	0	0	0
185	19.30	10.00	2.40	0	0	0	0	0	0	0
186	20.40	10.00	2.40	0	0	0	0	0	0	0
187	21.40	10.00	2.40	0	0	0	0	0	0	0
188	24.20	10.00	2.40	0	0	0	0	0	0	0
189	24.72	10.00	2.40	0	0	0	0	0	0	0
190	25.52	10.00	2.40	0	0	0	0	0	0	0
191	26.30	10.00	2.40	0	0	0	0	0	0	0
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	27.02	10.00	2.40	0	0	0	0	0	0	0
193	27.60	10.00	2.40	0	0	0	0	0	0	0
194	28.25	10.00	2.40	0	0	0	0	0	0	0
195	28.90	10.00	2.40	0	0	0	0	0	0	0
196	29.55	10.00	2.40	0	0	0	0	0	0	0
197	30.20	10.00	2.40	0	0	0	0	0	0	0
198	3.06	-0.00	3.45	0	0	0	0	0	0	0
199	4.63	-0.00	3.45	0	0	0	0	0	0	0
200	6.20	0.00	3.45	0	0	0	0	0	0	0
201	6.95	0.00	3.45	0	0	0	0	0	0	0
202	7.75	0.00	3.45	0	0	0	0	0	0	0
203	9.95	0.00	3.45	0	0	0	0	0	0	0
204	11.45	0.00	3.45	0	0	0	0	0	0	0
205	12.20	0.00	3.45	0	0	0	0	0	0	0
206	12.95	0.00	3.45	0	0	0	0	0	0	0
207	14.45	0.00	3.45	0	0	0	0	0	0	0
208	16.65	0.00	3.45	0	0	0	0	0	0	0
209	17.45	0.00	3.45	0	0	0	0	0	0	0
210	18.20	0.00	3.45	0	0	0	0	0	0	0
211	19.70	0.00	3.45	0	0	0	0	0	0	0
212	21.20	0.00	3.45	0	0	0	0	0	0	0
213	22.70	0.00	3.45	0	0	0	0	0	0	0
214	24.20	0.00	3.45	0	0	0	0	0	0	0
215	25.70	0.00	3.45	0	0	0	0	0	0	0
216	27.20	0.00	3.45	0	0	0	0	0	0	0
217	28.70	0.00	3.45	0	0	0	0	0	0	0
218	30.20	0.00	3.45	0	0	0	0	0	0	0
219	31.75	0.00	3.45	0	0	0	0	0	0	0
220	33.30	0.00	3.45	0	0	0	0	0	0	0
221	34.85	0.00	3.45	0	0	0	0	0	0	0
222	36.40	0.00	3.45	0	0	0	0	0	0	0
223	1.53	0.00	3.45	0	0	0	0	0	0	0
224	0.00	0.00	3.45	0	0	0	0	0	0	0
225	12.20	0.45	3.45	0	0	0	0	0	0	0
226	6.43	0.45	3.45	0	0	0	0	0	0	0
227	7.75	0.45	3.45	0	0	0	0	0	0	0
228	9.95	0.45	3.45	0	0	0	0	0	0	0
229	11.45	0.45	3.45	0	0	0	0	0	0	0
230	14.45	0.45	3.45	0	0	0	0	0	0	0
231	16.65	0.45	3.45	0	0	0	0	0	0	0
232	17.45	0.45	3.45	0	0	0	0	0	0	0
233	6.95	0.45	3.45	0	0	0	0	0	0	0
234	12.95	0.45	3.45	0	0	0	0	0	0	0
235	17.98	0.45	3.45	0	0	0	0	0	0	0
236	17.98	2.31	3.45	0	0	0	0	0	0	0
237	18.20	2.31	3.45	0	0	0	0	0	0	0
238	4.63	2.31	3.45	0	0	0	0	0	0	0
239	6.95	2.31	3.45	0	0	0	0	0	0	0
240	7.75	2.31	3.45	0	0	0	0	0	0	0
241	9.95	2.31	3.45	0	0	0	0	0	0	0
242	11.45	2.31	3.45	0	0	0	0	0	0	0

	12.20	2.31	3.45	0	0	0	0	0	0	0
244	12.95	2.31	3.45	0	0	0	0	0	0	0
245	14.45	2.31	3.45	0	0	0	0	0	0	0
246	16.65	2.31	3.45	0	0	0	0	0	0	0
247	17.45	2.31	3.45	0	0	0	0	0	0	0
248	19.70	2.31	3.45	0	0	0	0	0	0	0
249	21.20	2.31	3.45	0	0	0	0	0	0	0
250	22.70	2.31	3.45	0	0	0	0	0	0	0
251	24.20	2.31	3.45	0	0	0	0	0	0	0
252	25.70	2.31	3.45	0	0	0	0	0	0	0
253	27.20	2.31	3.45	0	0	0	0	0	0	0
254	28.70	2.31	3.45	0	0	0	0	0	0	0
255	30.20	2.31	3.45	0	0	0	0	0	0	0
256	31.75	2.31	3.45	0	0	0	0	0	0	0
257	33.30	2.31	3.45	0	0	0	0	0	0	0
258	34.85	2.31	3.45	0	0	0	0	0	0	0
259	36.40	2.31	3.45	0	0	0	0	0	0	0
260	1.53	2.31	3.45	0	0	0	0	0	0	0
261	6.43	2.31	3.45	0	0	0	0	0	0	0
262	-0.00	2.31	3.45	0	0	0	0	0	0	0
263	3.06	2.31	3.45	0	0	0	0	0	0	0
264	6.20	2.31	3.45	0	0	0	0	0	0	0
265	19.70	3.82	3.45	0	0	0	0	0	0	0
266	21.20	3.82	3.45	0	0	0	0	0	0	0
267	22.70	3.82	3.45	0	0	0	0	0	0	0
268	24.20	3.82	3.45	0	0	0	0	0	0	0
269	25.70	3.82	3.45	0	0	0	0	0	0	0
270	27.20	3.82	3.45	0	0	0	0	0	0	0
271	28.70	3.82	3.45	0	0	0	0	0	0	0
272	30.20	3.82	3.45	0	0	0	0	0	0	0
273	31.75	3.82	3.45	0	0	0	0	0	0	0
274	33.30	3.82	3.45	0	0	0	0	0	0	0
275	34.85	3.82	3.45	0	0	0	0	0	0	0
276	36.40	3.82	3.45	0	0	0	0	0	0	0
277	-0.00	3.87	3.45	0	0	0	0	0	0	0
278	1.53	3.87	3.45	0	0	0	0	0	0	0
279	3.06	3.87	3.45	0	0	0	0	0	0	0
280	4.63	3.87	3.45	0	0	0	0	0	0	0
281	6.43	4.17	3.45	0	0	0	0	0	0	0
282	6.95	4.17	3.45	0	0	0	0	0	0	0
283	7.75	4.17	3.45	0	0	0	0	0	0	0
284	9.95	4.17	3.45	0	0	0	0	0	0	0
285	11.45	4.17	3.45	0	0	0	0	0	0	0
286	12.20	4.17	3.45	0	0	0	0	0	0	0
287	12.95	4.17	3.45	0	0	0	0	0	0	0
288	14.45	4.17	3.45	0	0	0	0	0	0	0
289	16.65	4.17	3.45	0	0	0	0	0	0	0
290	17.45	4.17	3.45	0	0	0	0	0	0	0
291	17.97	4.17	3.45	0	0	0	0	0	0	0
292	6.20	4.57	3.45	0	0	0	0	0	0	0
293	6.95	4.57	3.45	0	0	0	0	0	0	0
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	7.75	4.57	3.45	0	0	0	0	0	0	0
295	9.95	4.57	3.45	0	0	0	0	0	0	0
296	11.45	4.57	3.45	0	0	0	0	0	0	0
297	12.20	4.57	3.45	0	0	0	0	0	0	0
298	12.95	4.57	3.45	0	0	0	0	0	0	0
299	17.45	4.57	3.45	0	0	0	0	0	0	0
300	18.20	4.57	3.45	0	0	0	0	0	0	0
301	14.45	4.57	3.45	0	0	0	0	0	0	0
302	16.65	4.57	3.45	0	0	0	0	0	0	0
303	0.00	5.00	3.45	0	0	0	0	0	0	0
304	1.26	5.00	3.45	0	0	0	0	0	0	0
305	3.06	5.00	3.45	0	0	0	0	0	0	0
306	4.63	5.00	3.45	0	0	0	0	0	0	0
307	6.20	5.00	3.45	0	0	0	0	0	0	0
308	12.20	5.00	3.45	0	0	0	0	0	0	0
309	18.20	5.00	3.45	0	0	0	0	0	0	0
310	19.70	5.00	3.45	0	0	0	0	0	0	0
311	21.20	5.00	3.45	0	0	0	0	0	0	0
312	22.70	5.00	3.45	0	0	0	0	0	0	0
313	24.20	5.00	3.45	0	0	0	0	0	0	0
314	25.70	5.00	3.45	0	0	0	0	0	0	0
315	27.20	5.00	3.45	0	0	0	0	0	0	0
316	28.70	5.00	3.45	0	0	0	0	0	0	0
317	30.20	5.00	3.45	0	0	0	0	0	0	0
318	31.75	5.00	3.45	0	0	0	0	0	0	0
319	33.30	5.00	3.45	0	0	0	0	0	0	0
320	34.85	5.00	3.45	0	0	0	0	0	0	0
321	36.40	5.00	3.45	0	0	0	0	0	0	0
322	18.20	5.43	3.45	0	0	0	0	0	0	0
323	6.20	5.43	3.45	0	0	0	0	0	0	0
324	6.95	5.43	3.45	0	0	0	0	0	0	0
325	7.75	5.43	3.45	0	0	0	0	0	0	0
326	9.95	5.43	3.45	0	0	0	0	0	0	0
327	11.45	5.43	3.45	0	0	0	0	0	0	0
328	12.20	5.43	3.45	0	0	0	0	0	0	0
329	12.95	5.43	3.45	0	0	0	0	0	0	0
330	17.45	5.43	3.45	0	0	0	0	0	0	0
331	14.45	5.43	3.45	0	0	0	0	0	0	0
332	16.65	5.43	3.45	0	0	0	0	0	0	0
333	6.20	7.00	3.45	0	0	0	0	0	0	0
334	6.95	7.00	3.45	0	0	0	0	0	0	0
335	7.75	7.00	3.45	0	0	0	0	0	0	0
336	9.95	7.00	3.45	0	0	0	0	0	0	0
337	11.45	7.00	3.45	0	0	0	0	0	0	0
338	12.20	7.00	3.45	0	0	0	0	0	0	0
339	12.95	7.00	3.45	0	0	0	0	0	0	0
340	14.45	7.00	3.45	0	0	0	0	0	0	0
341	16.65	7.00	3.45	0	0	0	0	0	0	0
342	17.45	7.00	3.45	0	0	0	0	0	0	0
343	18.20	7.00	3.45	0	0	0	0	0	0	0
344	19.30	7.00	3.45	0	0	0	0	0	0	0

	20.40	7.00	3.45	0	0	0	0	0	0	0
346	21.50	7.00	3.45	0	0	0	0	0	0	0
347	22.60	7.00	3.45	0	0	0	0	0	0	0
348	24.20	7.00	3.45	0	0	0	0	0	0	0
349	25.52	7.00	3.45	0	0	0	0	0	0	0
350	26.30	7.00	3.45	0	0	0	0	0	0	0
351	27.60	7.00	3.45	0	0	0	0	0	0	0
352	28.90	7.00	3.45	0	0	0	0	0	0	0
353	30.20	7.00	3.45	0	0	0	0	0	0	0
354	31.75	7.00	3.45	0	0	0	0	0	0	0
355	33.30	7.00	3.45	0	0	0	0	0	0	0
356	34.85	7.00	3.45	0	0	0	0	0	0	0
357	36.40	7.00	3.45	0	0	0	0	0	0	0
358	0.00	7.36	3.45	0	0	0	0	0	0	0
359	1.26	7.36	3.45	0	0	0	0	0	0	0
360	1.70	7.36	3.45	0	0	0	0	0	0	0
361	2.62	7.36	3.45	0	0	0	0	0	0	0
362	3.06	7.36	3.45	0	0	0	0	0	0	0
363	4.11	7.36	3.45	0	0	0	0	0	0	0
364	5.16	7.36	3.45	0	0	0	0	0	0	0
365	24.20	7.55	3.45	0	0	0	0	0	0	0
366	24.72	7.55	3.45	0	0	0	0	0	0	0
367	25.52	7.55	3.45	0	0	0	0	0	0	0
368	26.30	7.55	3.45	0	0	0	0	0	0	0
369	27.02	7.55	3.45	0	0	0	0	0	0	0
370	27.60	7.55	3.45	0	0	0	0	0	0	0
371	28.90	7.55	3.45	0	0	0	0	0	0	0
372	30.20	7.55	3.45	0	0	0	0	0	0	0
373	1.26	8.02	3.45	0	0	0	0	0	0	0
374	3.06	8.02	3.45	0	0	0	0	0	0	0
375	30.20	8.34	3.45	0	0	0	0	0	0	0
376	24.20	8.36	3.45	0	0	0	0	0	0	0
377	27.60	8.36	3.45	0	0	0	0	0	0	0
378	1.26	8.68	3.45	0	0	0	0	0	0	0
379	3.06	8.68	3.45	0	0	0	0	0	0	0
380	4.11	8.68	3.45	0	0	0	0	0	0	0
381	5.15	8.68	3.45	0	0	0	0	0	0	0
382	6.20	8.68	3.45	0	0	0	0	0	0	0
383	31.75	8.70	3.45	0	0	0	0	0	0	0
384	33.30	8.70	3.45	0	0	0	0	0	0	0
385	34.85	8.70	3.45	0	0	0	0	0	0	0
386	36.40	8.70	3.45	0	0	0	0	0	0	0
387	30.20	9.17	3.45	0	0	0	0	0	0	0
388	24.20	9.17	3.45	0	0	0	0	0	0	0
389	27.60	9.17	3.45	0	0	0	0	0	0	0
390	1.26	9.34	3.45	0	0	0	0	0	0	0
391	3.06	9.34	3.45	0	0	0	0	0	0	0
392	14.45	10.00	3.45	0	0	0	0	0	0	0
393	0.00	10.00	3.45	0	0	0	0	0	0	0
394	1.26	10.00	3.45	0	0	0	0	0	0	0
395	2.16	10.00	3.45	0	0	0	0	0	0	0
...										

	3.06	10.00	3.45	0	0	0	0	0	0	0
397	4.11	10.00	3.45	0	0	0	0	0	0	0
398	5.15	10.00	3.45	0	0	0	0	0	0	0
399	6.20	10.00	3.45	0	0	0	0	0	0	0
400	6.95	10.00	3.45	0	0	0	0	0	0	0
401	7.75	10.00	3.45	0	0	0	0	0	0	0
402	9.95	10.00	3.45	0	0	0	0	0	0	0
403	11.45	10.00	3.45	0	0	0	0	0	0	0
404	12.20	10.00	3.45	0	0	0	0	0	0	0
405	12.95	10.00	3.45	0	0	0	0	0	0	0
406	16.65	10.00	3.45	0	0	0	0	0	0	0
407	17.45	10.00	3.45	0	0	0	0	0	0	0
408	18.20	10.00	3.45	0	0	0	0	0	0	0
409	19.30	10.00	3.45	0	0	0	0	0	0	0
410	20.40	10.00	3.45	0	0	0	0	0	0	0
411	21.40	10.00	3.45	0	0	0	0	0	0	0
412	22.60	10.00	3.45	0	0	0	0	0	0	0
413	24.20	10.00	3.45	0	0	0	0	0	0	0
414	24.72	10.00	3.45	0	0	0	0	0	0	0
415	25.52	10.00	3.45	0	0	0	0	0	0	0
416	26.30	10.00	3.45	0	0	0	0	0	0	0
417	27.02	10.00	3.45	0	0	0	0	0	0	0
418	27.60	10.00	3.45	0	0	0	0	0	0	0
419	28.25	10.00	3.45	0	0	0	0	0	0	0
420	28.90	10.00	3.45	0	0	0	0	0	0	0
421	29.55	10.00	3.45	0	0	0	0	0	0	0
422	30.20	10.00	3.45	0	0	0	0	0	0	0
423	31.75	10.00	3.45	0	0	0	0	0	0	0
424	33.30	10.00	3.45	0	0	0	0	0	0	0
425	34.85	10.00	3.45	0	0	0	0	0	0	0
426	36.40	10.00	3.45	0	0	0	0	0	0	0
427	18.20	7.00	4.25	0	0	0	0	0	0	0
428	19.30	7.00	4.25	0	0	0	0	0	0	0
429	20.40	7.00	4.25	0	0	0	0	0	0	0
430	21.50	7.00	4.25	0	0	0	0	0	0	0
431	22.60	7.00	4.25	0	0	0	0	0	0	0
432	24.20	7.00	4.25	0	0	0	0	0	0	0
433	1.26	7.36	4.25	0	0	0	0	0	0	0
434	1.70	7.36	4.25	0	0	0	0	0	0	0
435	2.62	7.36	4.25	0	0	0	0	0	0	0
436	3.06	7.36	4.25	0	0	0	0	0	0	0
437	24.20	7.55	4.25	0	0	0	0	0	0	0
438	24.72	7.55	4.25	0	0	0	0	0	0	0
439	25.52	7.55	4.25	0	0	0	0	0	0	0
440	26.30	7.55	4.25	0	0	0	0	0	0	0
441	27.02	7.55	4.25	0	0	0	0	0	0	0
442	27.60	7.55	4.25	0	0	0	0	0	0	0
443	1.26	8.02	4.25	0	0	0	0	0	0	0
444	3.06	8.02	4.25	0	0	0	0	0	0	0
445	24.20	8.36	4.25	0	0	0	0	0	0	0
446	27.60	8.36	4.25	0	0	0	0	0	0	0
...										

	1.26	8.68	4.25	0	0	0	0	0	0	0
448	3.06	8.68	4.25	0	0	0	0	0	0	0
449	24.20	9.17	4.25	0	0	0	0	0	0	0
450	27.60	9.17	4.25	0	0	0	0	0	0	0
451	1.26	9.34	4.25	0	0	0	0	0	0	0
452	3.06	9.34	4.25	0	0	0	0	0	0	0
453	0.00	10.00	4.25	0	0	0	0	0	0	0
454	1.26	10.00	4.25	0	0	0	0	0	0	0
455	2.16	10.00	4.25	0	0	0	0	0	0	0
456	3.06	10.00	4.25	0	0	0	0	0	0	0
457	4.11	10.00	4.25	0	0	0	0	0	0	0
458	5.15	10.00	4.25	0	0	0	0	0	0	0
459	6.20	10.00	4.25	0	0	0	0	0	0	0
460	18.20	10.00	4.25	0	0	0	0	0	0	0
461	19.30	10.00	4.25	0	0	0	0	0	0	0
462	20.40	10.00	4.25	0	0	0	0	0	0	0
463	21.40	10.00	4.25	0	0	0	0	0	0	0
464	22.60	10.00	4.25	0	0	0	0	0	0	0
465	24.20	10.00	4.25	0	0	0	0	0	0	0
466	24.72	10.00	4.25	0	0	0	0	0	0	0
467	25.52	10.00	4.25	0	0	0	0	0	0	0
468	26.30	10.00	4.25	0	0	0	0	0	0	0
469	27.02	10.00	4.25	0	0	0	0	0	0	0
470	27.60	10.00	4.25	0	0	0	0	0	0	0
471	28.25	10.00	4.25	0	0	0	0	0	0	0
472	28.90	10.00	4.25	0	0	0	0	0	0	0
473	29.55	10.00	4.25	0	0	0	0	0	0	0
474	30.20	10.00	4.25	0	0	0	0	0	0	0
475	18.20	7.00	5.05	0	0	0	0	0	0	0
476	19.30	7.00	5.05	0	0	0	0	0	0	0
477	20.40	7.00	5.05	0	0	0	0	0	0	0
478	21.50	7.00	5.05	0	0	0	0	0	0	0
479	22.60	7.00	5.05	0	0	0	0	0	0	0
480	24.20	7.00	5.05	0	0	0	0	0	0	0
481	1.26	7.36	5.05	0	0	0	0	0	0	0
482	1.70	7.36	5.05	0	0	0	0	0	0	0
483	2.62	7.36	5.05	0	0	0	0	0	0	0
484	3.06	7.36	5.05	0	0	0	0	0	0	0
485	24.20	7.55	5.05	0	0	0	0	0	0	0
486	24.72	7.55	5.05	0	0	0	0	0	0	0
487	25.52	7.55	5.05	0	0	0	0	0	0	0
488	26.30	7.55	5.05	0	0	0	0	0	0	0
489	27.02	7.55	5.05	0	0	0	0	0	0	0
490	27.60	7.55	5.05	0	0	0	0	0	0	0
491	1.26	8.02	5.05	0	0	0	0	0	0	0
492	3.06	8.02	5.05	0	0	0	0	0	0	0
493	24.20	8.36	5.05	0	0	0	0	0	0	0
494	27.60	8.36	5.05	0	0	0	0	0	0	0
495	1.26	8.68	5.05	0	0	0	0	0	0	0
496	3.06	8.68	5.05	0	0	0	0	0	0	0
497	24.20	9.17	5.05	0	0	0	0	0	0	0
...										

	27.60	9.17	5.05	0	0	0	0	0	0	0
499	1.26	9.34	5.05	0	0	0	0	0	0	0
500	3.06	9.34	5.05	0	0	0	0	0	0	0
501	0.00	10.00	5.05	0	0	0	0	0	0	0
502	1.26	10.00	5.05	0	0	0	0	0	0	0
503	2.16	10.00	5.05	0	0	0	0	0	0	0
504	3.06	10.00	5.05	0	0	0	0	0	0	0
505	4.11	10.00	5.05	0	0	0	0	0	0	0
506	5.15	10.00	5.05	0	0	0	0	0	0	0
507	6.20	10.00	5.05	0	0	0	0	0	0	0
508	18.20	10.00	5.05	0	0	0	0	0	0	0
509	19.30	10.00	5.05	0	0	0	0	0	0	0
510	20.40	10.00	5.05	0	0	0	0	0	0	0
511	21.40	10.00	5.05	0	0	0	0	0	0	0
512	22.60	10.00	5.05	0	0	0	0	0	0	0
513	24.20	10.00	5.05	0	0	0	0	0	0	0
514	24.72	10.00	5.05	0	0	0	0	0	0	0
515	25.52	10.00	5.05	0	0	0	0	0	0	0
516	26.30	10.00	5.05	0	0	0	0	0	0	0
517	27.02	10.00	5.05	0	0	0	0	0	0	0
518	27.60	10.00	5.05	0	0	0	0	0	0	0
519	28.25	10.00	5.05	0	0	0	0	0	0	0
520	28.90	10.00	5.05	0	0	0	0	0	0	0
521	29.55	10.00	5.05	0	0	0	0	0	0	0
522	30.20	10.00	5.05	0	0	0	0	0	0	0
523	18.20	7.00	5.85	0	0	0	0	0	0	0
524	19.30	7.00	5.85	0	0	0	0	0	0	0
525	20.40	7.00	5.85	0	0	0	0	0	0	0
526	21.50	7.00	5.85	0	0	0	0	0	0	0
527	22.60	7.00	5.85	0	0	0	0	0	0	0
528	24.20	7.00	5.85	0	0	0	0	0	0	0
529	1.26	7.36	5.85	0	0	0	0	0	0	0
530	1.70	7.36	5.85	0	0	0	0	0	0	0
531	2.62	7.36	5.85	0	0	0	0	0	0	0
532	3.06	7.36	5.85	0	0	0	0	0	0	0
533	24.20	7.55	5.85	0	0	0	0	0	0	0
534	24.72	7.55	5.85	0	0	0	0	0	0	0
535	25.52	7.55	5.85	0	0	0	0	0	0	0
536	26.30	7.55	5.85	0	0	0	0	0	0	0
537	27.02	7.55	5.85	0	0	0	0	0	0	0
538	27.60	7.55	5.85	0	0	0	0	0	0	0
539	1.26	8.02	5.85	0	0	0	0	0	0	0
540	3.06	8.02	5.85	0	0	0	0	0	0	0
541	24.20	8.36	5.85	0	0	0	0	0	0	0
542	27.60	8.36	5.85	0	0	0	0	0	0	0
543	1.26	8.68	5.85	0	0	0	0	0	0	0
544	3.06	8.68	5.85	0	0	0	0	0	0	0
545	24.20	9.17	5.85	0	0	0	0	0	0	0
546	27.60	9.17	5.85	0	0	0	0	0	0	0
547	1.26	9.34	5.85	0	0	0	0	0	0	0
548	3.06	9.34	5.85	0	0	0	0	0	0	0

	0.00	10.00	5.85	0	0	0	0	0	0	0
550	1.26	10.00	5.85	0	0	0	0	0	0	0
551	2.16	10.00	5.85	0	0	0	0	0	0	0
552	3.06	10.00	5.85	0	0	0	0	0	0	0
553	18.20	10.00	5.85	0	0	0	0	0	0	0
554	19.30	10.00	5.85	0	0	0	0	0	0	0
555	20.40	10.00	5.85	0	0	0	0	0	0	0
556	21.40	10.00	5.85	0	0	0	0	0	0	0
557	24.20	10.00	5.85	0	0	0	0	0	0	0
558	24.72	10.00	5.85	0	0	0	0	0	0	0
559	25.52	10.00	5.85	0	0	0	0	0	0	0
560	26.30	10.00	5.85	0	0	0	0	0	0	0
561	27.02	10.00	5.85	0	0	0	0	0	0	0
562	27.60	10.00	5.85	0	0	0	0	0	0	0
563	28.25	10.00	5.85	0	0	0	0	0	0	0
564	28.90	10.00	5.85	0	0	0	0	0	0	0
565	29.55	10.00	5.85	0	0	0	0	0	0	0
566	30.20	10.00	5.85	0	0	0	0	0	0	0
567	3.06	-0.00	6.90	0	0	0	0	0	0	0
568	4.70	-0.00	6.90	0	0	0	0	0	0	0
569	6.20	0.00	6.90	0	0	0	0	0	0	0
570	6.95	0.00	6.90	0	0	0	0	0	0	0
571	8.45	0.00	6.90	0	0	0	0	0	0	0
572	9.95	0.00	6.90	0	0	0	0	0	0	0
573	11.45	0.00	6.90	0	0	0	0	0	0	0
574	12.20	0.00	6.90	0	0	0	0	0	0	0
575	12.95	0.00	6.90	0	0	0	0	0	0	0
576	14.45	0.00	6.90	0	0	0	0	0	0	0
577	15.95	0.00	6.90	0	0	0	0	0	0	0
578	17.45	0.00	6.90	0	0	0	0	0	0	0
579	18.20	0.00	6.90	0	0	0	0	0	0	0
580	19.70	0.00	6.90	0	0	0	0	0	0	0
581	21.20	0.00	6.90	0	0	0	0	0	0	0
582	22.70	0.00	6.90	0	0	0	0	0	0	0
583	24.20	0.00	6.90	0	0	0	0	0	0	0
584	25.70	0.00	6.90	0	0	0	0	0	0	0
585	27.20	0.00	6.90	0	0	0	0	0	0	0
586	28.70	0.00	6.90	0	0	0	0	0	0	0
587	30.20	0.00	6.90	0	0	0	0	0	0	0
588	31.70	0.00	6.90	0	0	0	0	0	0	0
589	33.30	0.00	6.90	0	0	0	0	0	0	0
590	34.90	0.00	6.90	0	0	0	0	0	0	0
591	36.40	0.00	6.90	0	0	0	0	0	0	0
592	1.50	0.00	6.90	0	0	0	0	0	0	0
593	0.00	0.00	6.90	0	0	0	0	0	0	0
594	12.20	0.45	6.90	0	0	0	0	0	0	0
595	6.40	0.45	6.90	0	0	0	0	0	0	0
596	8.45	0.45	6.90	0	0	0	0	0	0	0
597	9.95	0.45	6.90	0	0	0	0	0	0	0
598	11.45	0.45	6.90	0	0	0	0	0	0	0
599	14.45	0.45	6.90	0	0	0	0	0	0	0

	15.95	0.45	6.90	0	0	0	0	0	0	0
601	17.45	0.45	6.90	0	0	0	0	0	0	0
602	6.95	0.45	6.90	0	0	0	0	0	0	0
603	12.95	0.45	6.90	0	0	0	0	0	0	0
604	18.01	0.45	6.90	0	0	0	0	0	0	0
605	18.01	2.31	6.90	0	0	0	0	0	0	0
606	18.20	2.31	6.90	0	0	0	0	0	0	0
607	-0.00	2.31	6.90	0	0	0	0	0	0	0
608	4.63	2.31	6.90	0	0	0	0	0	0	0
609	6.95	2.31	6.90	0	0	0	0	0	0	0
610	8.45	2.31	6.90	0	0	0	0	0	0	0
611	9.95	2.31	6.90	0	0	0	0	0	0	0
612	11.45	2.31	6.90	0	0	0	0	0	0	0
613	12.20	2.31	6.90	0	0	0	0	0	0	0
614	12.95	2.31	6.90	0	0	0	0	0	0	0
615	14.45	2.31	6.90	0	0	0	0	0	0	0
616	15.95	2.31	6.90	0	0	0	0	0	0	0
617	17.45	2.31	6.90	0	0	0	0	0	0	0
618	1.53	2.31	6.90	0	0	0	0	0	0	0
619	6.40	2.31	6.90	0	0	0	0	0	0	0
620	3.06	2.31	6.90	0	0	0	0	0	0	0
621	6.20	2.31	6.90	0	0	0	0	0	0	0
622	19.70	2.50	6.90	0	0	0	0	0	0	0
623	21.20	2.50	6.90	0	0	0	0	0	0	0
624	22.70	2.50	6.90	0	0	0	0	0	0	0
625	24.20	2.50	6.90	0	0	0	0	0	0	0
626	25.70	2.50	6.90	0	0	0	0	0	0	0
627	27.20	2.50	6.90	0	0	0	0	0	0	0
628	28.70	2.50	6.90	0	0	0	0	0	0	0
629	30.20	2.50	6.90	0	0	0	0	0	0	0
630	31.70	2.50	6.90	0	0	0	0	0	0	0
631	33.30	2.50	6.90	0	0	0	0	0	0	0
632	34.90	2.50	6.90	0	0	0	0	0	0	0
633	36.40	2.50	6.90	0	0	0	0	0	0	0
634	-0.00	3.87	6.90	0	0	0	0	0	0	0
635	1.53	3.87	6.90	0	0	0	0	0	0	0
636	3.06	3.87	6.90	0	0	0	0	0	0	0
637	4.63	3.87	6.90	0	0	0	0	0	0	0
638	6.20	3.87	6.90	0	0	0	0	0	0	0
639	6.40	4.73	6.90	0	0	0	0	0	0	0
640	6.95	4.73	6.90	0	0	0	0	0	0	0
641	8.45	4.73	6.90	0	0	0	0	0	0	0
642	9.95	4.73	6.90	0	0	0	0	0	0	0
643	11.45	4.73	6.90	0	0	0	0	0	0	0
644	12.20	4.73	6.90	0	0	0	0	0	0	0
645	12.95	4.73	6.90	0	0	0	0	0	0	0
646	14.45	4.73	6.90	0	0	0	0	0	0	0
647	15.95	4.73	6.90	0	0	0	0	0	0	0
648	17.45	4.73	6.90	0	0	0	0	0	0	0
649	18.00	4.73	6.90	0	0	0	0	0	0	0
650	0.00	5.00	6.90	0	0	0	0	0	0	0

	1.26	5.00	6.90	0	0	0	0	0	0	0
652	3.06	5.00	6.90	0	0	0	0	0	0	0
653	4.63	5.00	6.90	0	0	0	0	0	0	0
654	6.20	5.00	6.90	0	0	0	0	0	0	0
655	6.95	5.00	6.90	0	0	0	0	0	0	0
656	8.45	5.00	6.90	0	0	0	0	0	0	0
657	9.95	5.00	6.90	0	0	0	0	0	0	0
658	11.45	5.00	6.90	0	0	0	0	0	0	0
659	12.20	5.00	6.90	0	0	0	0	0	0	0
660	12.95	5.00	6.90	0	0	0	0	0	0	0
661	14.45	5.00	6.90	0	0	0	0	0	0	0
662	15.95	5.00	6.90	0	0	0	0	0	0	0
663	17.45	5.00	6.90	0	0	0	0	0	0	0
664	18.20	5.00	6.90	0	0	0	0	0	0	0
665	19.70	5.00	6.90	0	0	0	0	0	0	0
666	21.20	5.00	6.90	0	0	0	0	0	0	0
667	22.70	5.00	6.90	0	0	0	0	0	0	0
668	24.20	5.00	6.90	0	0	0	0	0	0	0
669	25.70	5.00	6.90	0	0	0	0	0	0	0
670	27.20	5.00	6.90	0	0	0	0	0	0	0
671	28.70	5.00	6.90	0	0	0	0	0	0	0
672	30.20	5.00	6.90	0	0	0	0	0	0	0
673	31.80	5.00	6.90	0	0	0	0	0	0	0
674	33.30	5.00	6.90	0	0	0	0	0	0	0
675	34.90	5.00	6.90	0	0	0	0	0	0	0
676	36.40	5.00	6.90	0	0	0	0	0	0	0
677	6.20	7.00	6.90	0	0	0	0	0	0	0
678	6.95	7.00	6.90	0	0	0	0	0	0	0
679	8.45	7.00	6.90	0	0	0	0	0	0	0
680	9.95	7.00	6.90	0	0	0	0	0	0	0
681	11.45	7.00	6.90	0	0	0	0	0	0	0
682	12.20	7.00	6.90	0	0	0	0	0	0	0
683	12.95	7.00	6.90	0	0	0	0	0	0	0
684	14.45	7.00	6.90	0	0	0	0	0	0	0
685	15.95	7.00	6.90	0	0	0	0	0	0	0
686	17.45	7.00	6.90	0	0	0	0	0	0	0
687	18.20	7.00	6.90	0	0	0	0	0	0	0
688	19.30	7.00	6.90	0	0	0	0	0	0	0
689	20.40	7.00	6.90	0	0	0	0	0	0	0
690	21.50	7.00	6.90	0	0	0	0	0	0	0
691	22.60	7.00	6.90	0	0	0	0	0	0	0
692	24.20	7.00	6.90	0	0	0	0	0	0	0
693	25.52	7.00	6.90	0	0	0	0	0	0	0
694	26.30	7.00	6.90	0	0	0	0	0	0	0
695	27.60	7.00	6.90	0	0	0	0	0	0	0
696	28.90	7.00	6.90	0	0	0	0	0	0	0
697	30.20	7.00	6.90	0	0	0	0	0	0	0
698	0.00	7.36	6.90	0	0	0	0	0	0	0
699	1.26	7.36	6.90	0	0	0	0	0	0	0
700	1.70	7.36	6.90	0	0	0	0	0	0	0
701	2.62	7.36	6.90	0	0	0	0	0	0	0

	3.06	7.36	6.90	0	0	0	0	0	0	0
703	4.11	7.36	6.90	0	0	0	0	0	0	0
704	5.16	7.36	6.90	0	0	0	0	0	0	0
705	31.80	7.50	6.90	0	0	0	0	0	0	0
706	33.30	7.50	6.90	0	0	0	0	0	0	0
707	34.90	7.50	6.90	0	0	0	0	0	0	0
708	36.40	7.50	6.90	0	0	0	0	0	0	0
709	24.20	7.55	6.90	0	0	0	0	0	0	0
710	24.72	7.55	6.90	0	0	0	0	0	0	0
711	25.52	7.55	6.90	0	0	0	0	0	0	0
712	26.30	7.55	6.90	0	0	0	0	0	0	0
713	27.02	7.55	6.90	0	0	0	0	0	0	0
714	27.60	7.55	6.90	0	0	0	0	0	0	0
715	28.90	7.55	6.90	0	0	0	0	0	0	0
716	30.20	7.55	6.90	0	0	0	0	0	0	0
717	1.26	8.02	6.90	0	0	0	0	0	0	0
718	3.06	8.02	6.90	0	0	0	0	0	0	0
719	30.20	8.34	6.90	0	0	0	0	0	0	0
720	24.20	8.36	6.90	0	0	0	0	0	0	0
721	27.60	8.36	6.90	0	0	0	0	0	0	0
722	1.26	8.68	6.90	0	0	0	0	0	0	0
723	3.06	8.68	6.90	0	0	0	0	0	0	0
724	4.11	8.68	6.90	0	0	0	0	0	0	0
725	5.15	8.68	6.90	0	0	0	0	0	0	0
726	6.20	8.68	6.90	0	0	0	0	0	0	0
727	30.20	9.17	6.90	0	0	0	0	0	0	0
728	24.20	9.17	6.90	0	0	0	0	0	0	0
729	27.60	9.17	6.90	0	0	0	0	0	0	0
730	1.26	9.34	6.90	0	0	0	0	0	0	0
731	3.06	9.34	6.90	0	0	0	0	0	0	0
732	14.45	10.00	6.90	0	0	0	0	0	0	0
733	0.00	10.00	6.90	0	0	0	0	0	0	0
734	1.26	10.00	6.90	0	0	0	0	0	0	0
735	2.16	10.00	6.90	0	0	0	0	0	0	0
736	3.06	10.00	6.90	0	0	0	0	0	0	0
737	4.11	10.00	6.90	0	0	0	0	0	0	0
738	5.15	10.00	6.90	0	0	0	0	0	0	0
739	6.20	10.00	6.90	0	0	0	0	0	0	0
740	6.95	10.00	6.90	0	0	0	0	0	0	0
741	8.45	10.00	6.90	0	0	0	0	0	0	0
742	9.95	10.00	6.90	0	0	0	0	0	0	0
743	11.45	10.00	6.90	0	0	0	0	0	0	0
744	12.20	10.00	6.90	0	0	0	0	0	0	0
745	12.95	10.00	6.90	0	0	0	0	0	0	0
746	15.95	10.00	6.90	0	0	0	0	0	0	0
747	17.45	10.00	6.90	0	0	0	0	0	0	0
748	18.20	10.00	6.90	0	0	0	0	0	0	0
749	19.30	10.00	6.90	0	0	0	0	0	0	0
750	20.40	10.00	6.90	0	0	0	0	0	0	0
751	21.40	10.00	6.90	0	0	0	0	0	0	0
752	22.60	10.00	6.90	0	0	0	0	0	0	0

	24.20	10.00	6.90	0	0	0	0	0	0	0
754	24.72	10.00	6.90	0	0	0	0	0	0	0
755	25.52	10.00	6.90	0	0	0	0	0	0	0
756	26.30	10.00	6.90	0	0	0	0	0	0	0
757	27.02	10.00	6.90	0	0	0	0	0	0	0
758	27.60	10.00	6.90	0	0	0	0	0	0	0
759	28.25	10.00	6.90	0	0	0	0	0	0	0
760	28.90	10.00	6.90	0	0	0	0	0	0	0
761	29.55	10.00	6.90	0	0	0	0	0	0	0
762	30.20	10.00	6.90	0	0	0	0	0	0	0
763	31.70	10.00	6.90	0	0	0	0	0	0	0
764	33.30	10.00	6.90	0	0	0	0	0	0	0
765	34.90	10.00	6.90	0	0	0	0	0	0	0
766	36.40	10.00	6.90	0	0	0	0	0	0	0
767	0.00	10.00	7.70	0	0	0	0	0	0	0
768	1.26	10.00	7.70	0	0	0	0	0	0	0
769	2.16	10.00	7.70	0	0	0	0	0	0	0
770	3.06	10.00	7.70	0	0	0	0	0	0	0
771	4.11	10.00	7.70	0	0	0	0	0	0	0
772	5.15	10.00	7.70	0	0	0	0	0	0	0
773	6.20	10.00	7.70	0	0	0	0	0	0	0
774	18.20	10.00	7.70	0	0	0	0	0	0	0
775	19.30	10.00	7.70	0	0	0	0	0	0	0
776	20.40	10.00	7.70	0	0	0	0	0	0	0
777	21.40	10.00	7.70	0	0	0	0	0	0	0
778	22.60	10.00	7.70	0	0	0	0	0	0	0
779	24.20	10.00	7.70	0	0	0	0	0	0	0
780	24.72	10.00	7.70	0	0	0	0	0	0	0
781	25.52	10.00	7.70	0	0	0	0	0	0	0
782	26.30	10.00	7.70	0	0	0	0	0	0	0
783	27.02	10.00	7.70	0	0	0	0	0	0	0
784	27.60	10.00	7.70	0	0	0	0	0	0	0
785	28.25	10.00	7.70	0	0	0	0	0	0	0
786	28.90	10.00	7.70	0	0	0	0	0	0	0
787	29.55	10.00	7.70	0	0	0	0	0	0	0
788	30.20	10.00	7.70	0	0	0	0	0	0	0
789	0.00	10.00	8.50	0	0	0	0	0	0	0
790	1.26	10.00	8.50	0	0	0	0	0	0	0
791	2.16	10.00	8.50	0	0	0	0	0	0	0
792	3.06	10.00	8.50	0	0	0	0	0	0	0
793	4.11	10.00	8.50	0	0	0	0	0	0	0
794	5.15	10.00	8.50	0	0	0	0	0	0	0
795	6.20	10.00	8.50	0	0	0	0	0	0	0
796	18.20	10.00	8.50	0	0	0	0	0	0	0
797	19.30	10.00	8.50	0	0	0	0	0	0	0
798	20.40	10.00	8.50	0	0	0	0	0	0	0
799	21.40	10.00	8.50	0	0	0	0	0	0	0
800	22.60	10.00	8.50	0	0	0	0	0	0	0
801	24.20	10.00	8.50	0	0	0	0	0	0	0
802	24.72	10.00	8.50	0	0	0	0	0	0	0
803	25.52	10.00	8.50	0	0	0	0	0	0	0
...										

	26.30	10.00	8.50	0	0	0	0	0	0	0
805	27.02	10.00	8.50	0	0	0	0	0	0	0
806	27.60	10.00	8.50	0	0	0	0	0	0	0
807	28.25	10.00	8.50	0	0	0	0	0	0	0
808	28.90	10.00	8.50	0	0	0	0	0	0	0
809	29.55	10.00	8.50	0	0	0	0	0	0	0
810	30.20	10.00	8.50	0	0	0	0	0	0	0
811	0.00	10.00	9.30	0	0	0	0	0	0	0
812	1.26	10.00	9.30	0	0	0	0	0	0	0
813	2.16	10.00	9.30	0	0	0	0	0	0	0
814	3.06	10.00	9.30	0	0	0	0	0	0	0
815	18.20	10.00	9.30	0	0	0	0	0	0	0
816	19.30	10.00	9.30	0	0	0	0	0	0	0
817	20.40	10.00	9.30	0	0	0	0	0	0	0
818	21.40	10.00	9.30	0	0	0	0	0	0	0
819	24.20	10.00	9.30	0	0	0	0	0	0	0
820	24.72	10.00	9.30	0	0	0	0	0	0	0
821	25.52	10.00	9.30	0	0	0	0	0	0	0
822	26.30	10.00	9.30	0	0	0	0	0	0	0
823	27.02	10.00	9.30	0	0	0	0	0	0	0
824	27.60	10.00	9.30	0	0	0	0	0	0	0
825	28.25	10.00	9.30	0	0	0	0	0	0	0
826	28.90	10.00	9.30	0	0	0	0	0	0	0
827	29.55	10.00	9.30	0	0	0	0	0	0	0
828	30.20	10.00	9.30	0	0	0	0	0	0	0
829	2.66	-0.00	10.35	0	0	0	0	0	0	0
830	3.91	0.00	10.35	0	0	0	0	0	0	0
831	5.06	0.00	10.35	0	0	0	0	0	0	0
832	6.20	0.00	10.35	0	0	0	0	0	0	0
833	7.70	0.00	10.35	0	0	0	0	0	0	0
834	9.20	0.00	10.35	0	0	0	0	0	0	0
835	10.70	0.00	10.35	0	0	0	0	0	0	0
836	12.20	0.00	10.35	0	0	0	0	0	0	0
837	13.70	0.00	10.35	0	0	0	0	0	0	0
838	15.20	0.00	10.35	0	0	0	0	0	0	0
839	16.70	0.00	10.35	0	0	0	0	0	0	0
840	18.20	0.00	10.35	0	0	0	0	0	0	0
841	19.70	0.00	10.35	0	0	0	0	0	0	0
842	21.20	0.00	10.35	0	0	0	0	0	0	0
843	22.70	0.00	10.35	0	0	0	0	0	0	0
844	24.20	0.00	10.35	0	0	0	0	0	0	0
845	25.70	0.00	10.35	0	0	0	0	0	0	0
846	27.20	0.00	10.35	0	0	0	0	0	0	0
847	28.70	0.00	10.35	0	0	0	0	0	0	0
848	30.20	0.00	10.35	0	0	0	0	0	0	0
849	31.75	0.00	10.35	0	0	0	0	0	0	0
850	33.30	0.00	10.35	0	0	0	0	0	0	0
851	34.85	0.00	10.35	0	0	0	0	0	0	0
852	36.40	0.00	10.35	0	0	0	0	0	0	0
853	1.26	0.00	10.35	0	0	0	0	0	0	0
854	0.00	0.00	10.35	0	0	0	0	0	0	0

	-0.00	1.67	10.35	0	0	0	0	0	0	0
856	2.66	1.67	10.35	0	0	0	0	0	0	0
857	3.91	1.67	10.35	0	0	0	0	0	0	0
858	5.06	1.67	10.35	0	0	0	0	0	0	0
859	6.20	1.67	10.35	0	0	0	0	0	0	0
860	7.70	1.67	10.35	0	0	0	0	0	0	0
861	10.70	1.67	10.35	0	0	0	0	0	0	0
862	12.20	1.67	10.35	0	0	0	0	0	0	0
863	13.70	1.67	10.35	0	0	0	0	0	0	0
864	16.70	1.67	10.35	0	0	0	0	0	0	0
865	18.20	1.67	10.35	0	0	0	0	0	0	0
866	19.70	1.67	10.35	0	0	0	0	0	0	0
867	21.20	1.67	10.35	0	0	0	0	0	0	0
868	22.70	1.67	10.35	0	0	0	0	0	0	0
869	24.20	1.67	10.35	0	0	0	0	0	0	0
870	25.70	1.67	10.35	0	0	0	0	0	0	0
871	27.20	1.67	10.35	0	0	0	0	0	0	0
872	28.70	1.67	10.35	0	0	0	0	0	0	0
873	30.20	1.67	10.35	0	0	0	0	0	0	0
874	31.75	1.67	10.35	0	0	0	0	0	0	0
875	33.30	1.67	10.35	0	0	0	0	0	0	0
876	34.85	1.67	10.35	0	0	0	0	0	0	0
877	36.40	1.67	10.35	0	0	0	0	0	0	0
878	1.26	1.67	10.35	0	0	0	0	0	0	0
879	9.20	1.67	10.35	0	0	0	0	0	0	0
880	15.20	1.67	10.35	0	0	0	0	0	0	0
881	3.91	3.33	10.35	0	0	0	0	0	0	0
882	-0.00	3.33	10.35	0	0	0	0	0	0	0
883	1.26	3.33	10.35	0	0	0	0	0	0	0
884	2.66	3.33	10.35	0	0	0	0	0	0	0
885	6.20	3.33	10.35	0	0	0	0	0	0	0
886	7.70	3.33	10.35	0	0	0	0	0	0	0
887	10.70	3.33	10.35	0	0	0	0	0	0	0
888	12.20	3.33	10.35	0	0	0	0	0	0	0
889	13.70	3.33	10.35	0	0	0	0	0	0	0
890	16.70	3.33	10.35	0	0	0	0	0	0	0
891	18.20	3.33	10.35	0	0	0	0	0	0	0
892	19.70	3.33	10.35	0	0	0	0	0	0	0
893	21.20	3.33	10.35	0	0	0	0	0	0	0
894	22.70	3.33	10.35	0	0	0	0	0	0	0
895	24.20	3.33	10.35	0	0	0	0	0	0	0
896	25.70	3.33	10.35	0	0	0	0	0	0	0
897	27.20	3.33	10.35	0	0	0	0	0	0	0
898	28.70	3.33	10.35	0	0	0	0	0	0	0
899	30.20	3.33	10.35	0	0	0	0	0	0	0
900	31.75	3.33	10.35	0	0	0	0	0	0	0
901	33.30	3.33	10.35	0	0	0	0	0	0	0
902	34.85	3.33	10.35	0	0	0	0	0	0	0
903	36.40	3.33	10.35	0	0	0	0	0	0	0
904	9.20	3.33	10.35	0	0	0	0	0	0	0
905	15.20	3.33	10.35	0	0	0	0	0	0	0
...										

	5.06	3.33	10.35	0	0	0	0	0	0	0
907	0.00	5.00	10.35	0	0	0	0	0	0	0
908	1.26	5.00	10.35	0	0	0	0	0	0	0
909	2.66	5.00	10.35	0	0	0	0	0	0	0
910	3.91	5.00	10.35	0	0	0	0	0	0	0
911	6.20	5.00	10.35	0	0	0	0	0	0	0
912	7.70	5.00	10.35	0	0	0	0	0	0	0
913	9.20	5.00	10.35	0	0	0	0	0	0	0
914	10.70	5.00	10.35	0	0	0	0	0	0	0
915	12.20	5.00	10.35	0	0	0	0	0	0	0
916	13.70	5.00	10.35	0	0	0	0	0	0	0
917	15.20	5.00	10.35	0	0	0	0	0	0	0
918	16.70	5.00	10.35	0	0	0	0	0	0	0
919	18.20	5.00	10.35	0	0	0	0	0	0	0
920	19.70	5.00	10.35	0	0	0	0	0	0	0
921	21.20	5.00	10.35	0	0	0	0	0	0	0
922	22.60	5.00	10.35	0	0	0	0	0	0	0
923	24.20	5.00	10.35	0	0	0	0	0	0	0
924	25.70	5.00	10.35	0	0	0	0	0	0	0
925	27.20	5.00	10.35	0	0	0	0	0	0	0
926	28.70	5.00	10.35	0	0	0	0	0	0	0
927	30.20	5.00	10.35	0	0	0	0	0	0	0
928	31.75	5.00	10.35	0	0	0	0	0	0	0
929	33.30	5.00	10.35	0	0	0	0	0	0	0
930	34.85	5.00	10.35	0	0	0	0	0	0	0
931	36.40	5.00	10.35	0	0	0	0	0	0	0
932	5.06	5.00	10.35	0	0	0	0	0	0	0
933	6.20	6.67	10.35	0	0	0	0	0	0	0
934	7.70	6.67	10.35	0	0	0	0	0	0	0
935	10.70	6.67	10.35	0	0	0	0	0	0	0
936	12.20	6.67	10.35	0	0	0	0	0	0	0
937	13.70	6.67	10.35	0	0	0	0	0	0	0
938	16.70	6.67	10.35	0	0	0	0	0	0	0
939	9.20	6.67	10.35	0	0	0	0	0	0	0
940	15.20	6.67	10.35	0	0	0	0	0	0	0
941	31.75	6.67	10.35	0	0	0	0	0	0	0
942	33.30	6.67	10.35	0	0	0	0	0	0	0
943	34.85	6.67	10.35	0	0	0	0	0	0	0
944	36.40	6.67	10.35	0	0	0	0	0	0	0
945	18.20	7.00	10.35	0	0	0	0	0	0	0
946	19.30	7.00	10.35	0	0	0	0	0	0	0
947	20.40	7.00	10.35	0	0	0	0	0	0	0
948	21.50	7.00	10.35	0	0	0	0	0	0	0
949	22.60	7.00	10.35	0	0	0	0	0	0	0
950	24.20	7.00	10.35	0	0	0	0	0	0	0
951	25.52	7.00	10.35	0	0	0	0	0	0	0
952	26.30	7.00	10.35	0	0	0	0	0	0	0
953	27.60	7.00	10.35	0	0	0	0	0	0	0
954	28.90	7.00	10.35	0	0	0	0	0	0	0
955	30.20	7.00	10.35	0	0	0	0	0	0	0
956	0.00	7.36	10.35	0	0	0	0	0	0	0

	1.26	7.36	10.35	0	0	0	0	0	0	0
958	1.70	7.36	10.35	0	0	0	0	0	0	0
959	2.62	7.36	10.35	0	0	0	0	0	0	0
960	3.06	7.36	10.35	0	0	0	0	0	0	0
961	4.11	7.36	10.35	0	0	0	0	0	0	0
962	5.16	7.36	10.35	0	0	0	0	0	0	0
963	22.60	7.51	10.35	0	0	0	0	0	0	0
964	24.20	7.55	10.35	0	0	0	0	0	0	0
965	24.72	7.55	10.35	0	0	0	0	0	0	0
966	25.52	7.55	10.35	0	0	0	0	0	0	0
967	26.30	7.55	10.35	0	0	0	0	0	0	0
968	27.02	7.55	10.35	0	0	0	0	0	0	0
969	27.60	7.55	10.35	0	0	0	0	0	0	0
970	28.90	7.55	10.35	0	0	0	0	0	0	0
971	30.20	7.55	10.35	0	0	0	0	0	0	0
972	1.26	8.02	10.35	0	0	0	0	0	0	0
973	3.06	8.02	10.35	0	0	0	0	0	0	0
974	6.20	8.33	10.35	0	0	0	0	0	0	0
975	7.70	8.33	10.35	0	0	0	0	0	0	0
976	10.70	8.33	10.35	0	0	0	0	0	0	0
977	12.20	8.33	10.35	0	0	0	0	0	0	0
978	13.70	8.33	10.35	0	0	0	0	0	0	0
979	16.70	8.33	10.35	0	0	0	0	0	0	0
980	18.20	8.33	10.35	0	0	0	0	0	0	0
981	9.20	8.33	10.35	0	0	0	0	0	0	0
982	15.20	8.33	10.35	0	0	0	0	0	0	0
983	22.60	8.34	10.35	0	0	0	0	0	0	0
984	30.20	8.34	10.35	0	0	0	0	0	0	0
985	31.75	8.34	10.35	0	0	0	0	0	0	0
986	33.30	8.34	10.35	0	0	0	0	0	0	0
987	34.85	8.34	10.35	0	0	0	0	0	0	0
988	36.40	8.34	10.35	0	0	0	0	0	0	0
989	24.20	8.36	10.35	0	0	0	0	0	0	0
990	27.60	8.36	10.35	0	0	0	0	0	0	0
991	1.26	8.68	10.35	0	0	0	0	0	0	0
992	3.06	8.68	10.35	0	0	0	0	0	0	0
993	4.11	8.68	10.35	0	0	0	0	0	0	0
994	5.15	8.68	10.35	0	0	0	0	0	0	0
995	22.60	9.17	10.35	0	0	0	0	0	0	0
996	30.20	9.17	10.35	0	0	0	0	0	0	0
997	24.20	9.17	10.35	0	0	0	0	0	0	0
998	27.60	9.17	10.35	0	0	0	0	0	0	0
999	1.26	9.34	10.35	0	0	0	0	0	0	0
1000	3.06	9.34	10.35	0	0	0	0	0	0	0
1001	0.00	10.00	10.35	0	0	0	0	0	0	0
1002	1.26	10.00	10.35	0	0	0	0	0	0	0
1003	2.16	10.00	10.35	0	0	0	0	0	0	0
1004	3.06	10.00	10.35	0	0	0	0	0	0	0
1005	4.11	10.00	10.35	0	0	0	0	0	0	0
1006	5.15	10.00	10.35	0	0	0	0	0	0	0
1007	6.20	10.00	10.35	0	0	0	0	0	0	0

	7.70	10.00	10.35	0	0	0	0	0	0	0
1009	9.20	10.00	10.35	0	0	0	0	0	0	0
1010	10.70	10.00	10.35	0	0	0	0	0	0	0
1011	12.20	10.00	10.35	0	0	0	0	0	0	0
1012	13.70	10.00	10.35	0	0	0	0	0	0	0
1013	15.20	10.00	10.35	0	0	0	0	0	0	0
1014	16.70	10.00	10.35	0	0	0	0	0	0	0
1015	18.20	10.00	10.35	0	0	0	0	0	0	0
1016	19.30	10.00	10.35	0	0	0	0	0	0	0
1017	20.40	10.00	10.35	0	0	0	0	0	0	0
1018	21.40	10.00	10.35	0	0	0	0	0	0	0
1019	22.60	10.00	10.35	0	0	0	0	0	0	0
1020	24.20	10.00	10.35	0	0	0	0	0	0	0
1021	24.72	10.00	10.35	0	0	0	0	0	0	0
1022	25.52	10.00	10.35	0	0	0	0	0	0	0
1023	26.30	10.00	10.35	0	0	0	0	0	0	0
1024	27.02	10.00	10.35	0	0	0	0	0	0	0
1025	27.60	10.00	10.35	0	0	0	0	0	0	0
1026	28.25	10.00	10.35	0	0	0	0	0	0	0
1027	28.90	10.00	10.35	0	0	0	0	0	0	0
1028	29.55	10.00	10.35	0	0	0	0	0	0	0
1029	30.20	10.00	10.35	0	0	0	0	0	0	0
1030	31.75	10.00	10.35	0	0	0	0	0	0	0
1031	33.30	10.00	10.35	0	0	0	0	0	0	0
1032	34.85	10.00	10.35	0	0	0	0	0	0	0
1033	36.40	10.00	10.35	0	0	0	0	0	0	0
1354	18.20	7.00	7.70	0	0	0	0	0	0	0
1355	18.20	7.00	8.50	0	0	0	0	0	0	0
1356	18.20	7.00	9.30	0	0	0	0	0	0	0
1357	19.30	7.00	7.70	0	0	0	0	0	0	0
1358	20.40	7.00	7.70	0	0	0	0	0	0	0
1359	21.50	7.00	7.70	0	0	0	0	0	0	0
1360	22.60	7.00	7.70	0	0	0	0	0	0	0
1361	19.30	7.00	8.50	0	0	0	0	0	0	0
1362	20.40	7.00	8.50	0	0	0	0	0	0	0
1363	21.50	7.00	8.50	0	0	0	0	0	0	0
1364	22.60	7.00	8.50	0	0	0	0	0	0	0
1365	19.30	7.00	9.30	0	0	0	0	0	0	0
1366	20.40	7.00	9.30	0	0	0	0	0	0	0
1367	21.50	7.00	9.30	0	0	0	0	0	0	0
1368	22.60	7.00	9.30	0	0	0	0	0	0	0
1369	24.20	7.00	7.70	0	0	0	0	0	0	0
1370	24.20	7.00	8.50	0	0	0	0	0	0	0
1371	24.20	7.00	9.30	0	0	0	0	0	0	0
1372	24.20	7.55	7.70	0	0	0	0	0	0	0
1373	24.20	8.36	7.70	0	0	0	0	0	0	0
1374	24.20	9.17	7.70	0	0	0	0	0	0	0
1375	24.20	9.17	8.50	0	0	0	0	0	0	0
1376	24.20	8.36	8.50	0	0	0	0	0	0	0
1377	24.20	7.55	8.50	0	0	0	0	0	0	0
1378	24.20	7.55	9.30	0	0	0	0	0	0	0

	24.20	8.36	9.30	0	0	0	0	0	0	0
1380	24.20	9.17	9.30	0	0	0	0	0	0	0
1381	1.26	7.36	7.70	0	0	0	0	0	0	0
1382	1.70	7.36	7.70	0	0	0	0	0	0	0
1383	2.62	7.36	7.70	0	0	0	0	0	0	0
1384	3.06	7.36	7.70	0	0	0	0	0	0	0
1385	1.26	7.36	8.50	0	0	0	0	0	0	0
1386	1.70	7.36	8.50	0	0	0	0	0	0	0
1387	2.62	7.36	8.50	0	0	0	0	0	0	0
1388	3.06	7.36	8.50	0	0	0	0	0	0	0
1389	3.06	7.36	9.30	0	0	0	0	0	0	0
1390	2.62	7.36	9.30	0	0	0	0	0	0	0
1391	1.70	7.36	9.30	0	0	0	0	0	0	0
1392	1.26	7.36	9.30	0	0	0	0	0	0	0
1393	3.06	8.02	7.70	0	0	0	0	0	0	0
1394	3.06	8.68	7.70	0	0	0	0	0	0	0
1395	3.06	9.34	7.70	0	0	0	0	0	0	0
1396	3.06	9.34	8.50	0	0	0	0	0	0	0
1397	3.06	8.68	8.50	0	0	0	0	0	0	0
1398	3.06	8.02	8.50	0	0	0	0	0	0	0
1399	3.06	8.02	9.30	0	0	0	0	0	0	0
1400	3.06	8.68	9.30	0	0	0	0	0	0	0
1401	3.06	9.34	9.30	0	0	0	0	0	0	0
10000	12.20	200.00	6.90	1	1	1	1	1	1	0
10001	1.26	0.00	210.35	1	1	1	1	1	1	0
10002	2.66	-0.00	210.35	1	1	1	1	1	1	0
10003	3.91	0.00	210.35	1	1	1	1	1	1	0
10004	6.10	5.00	210.35	1	1	1	1	1	1	0
10005	4.86	5.00	210.35	1	1	1	1	1	1	0
10006	3.51	5.00	210.35	1	1	1	1	1	1	0
10007	3.81	5.00	210.35	1	1	1	1	1	1	0
10008	6.20	7.00	203.45	1	1	1	1	1	1	0
10009	6.20	0.00	203.45	1	1	1	1	1	1	0
10010	18.20	0.00	203.45	1	1	1	1	1	1	0
10011	12.20	205.00	3.45	1	1	1	1	1	1	0
10012	28.90	7.55	210.35	1	1	1	1	1	1	0
10013	30.20	7.55	210.35	1	1	1	1	1	1	0
10014	30.20	9.17	210.35	1	1	1	1	1	1	0
10015	30.20	8.34	210.35	1	1	1	1	1	1	0
10016	30.20	7.55	210.35	1	1	1	1	1	1	0
10017	30.20	7.00	210.35	1	1	1	1	1	1	0
10018	26.30	10.00	210.35	1	1	1	1	1	1	0
10019	27.02	10.00	210.35	1	1	1	1	1	1	0
10020	28.25	10.00	210.35	1	1	1	1	1	1	0
10021	29.55	10.00	210.35	1	1	1	1	1	1	0
10022	30.20	10.00	210.35	1	1	1	1	1	1	0
10023	3.06	10.00	210.35	1	1	1	1	1	1	0
10024	4.11	10.00	210.35	1	1	1	1	1	1	0
10025	5.15	10.00	210.35	1	1	1	1	1	1	0
10026	6.20	10.00	210.35	1	1	1	1	1	1	0
10027	6.20	8.33	210.35	1	1	1	1	1	1	0

	6.20	6.67	210.35	1	1	1	1	1	1	0
10029	6.20	5.00	210.35	1	1	1	1	1	1	0
10030	24.20	5.00	210.35	1	1	1	1	1	1	0
10031	33.30	5.00	210.35	1	1	1	1	1	1	0
10032	16.20	5.00	210.35	1	1	1	1	1	1	0
10033	1.26	5.00	210.35	1	1	1	1	1	1	0
10034	1.26	7.36	210.35	1	1	1	1	1	1	0
10035	33.30	10.00	210.35	1	1	1	1	1	1	0
10036	19.30	10.00	210.35	1	1	1	1	1	1	0
10037	20.40	10.00	210.35	1	1	1	1	1	1	0
10038	21.40	10.00	210.35	1	1	1	1	1	1	0
10039	10.20	10.00	210.35	1	1	1	1	1	1	0
10040	36.40	210.00	6.90	1	1	1	1	1	1	0
10041	6.20	205.00	6.90	1	1	1	1	1	1	0
10042	6.20	210.00	6.90	1	1	1	1	1	1	0
10043	18.20	210.00	6.90	1	1	1	1	1	1	0
10044	18.20	207.00	6.90	1	1	1	1	1	1	0
10045	18.20	205.00	6.90	1	1	1	1	1	1	0
10046	24.20	205.00	6.90	1	1	1	1	1	1	0
10047	24.20	210.00	6.90	1	1	1	1	1	1	0
10048	30.20	210.00	6.90	1	1	1	1	1	1	0
10049	30.20	207.00	6.90	1	1	1	1	1	1	0
10050	30.20	205.00	6.90	1	1	1	1	1	1	0
10051	36.40	205.00	6.90	1	1	1	1	1	1	0
10052	36.40	200.00	6.90	1	1	1	1	1	1	0
10053	30.20	200.00	6.90	1	1	1	1	1	1	0
10054	24.20	200.00	6.90	1	1	1	1	1	1	0
10055	18.20	200.00	6.90	1	1	1	1	1	1	0
10056	6.20	200.00	6.90	1	1	1	1	1	1	0
10057	6.20	200.00	3.45	1	1	1	1	1	1	0
10058	18.20	200.00	3.45	1	1	1	1	1	1	0
10059	24.20	200.00	3.45	1	1	1	1	1	1	0
10060	30.20	200.00	3.45	1	1	1	1	1	1	0
10061	36.40	200.00	3.45	1	1	1	1	1	1	0
10062	6.20	205.00	3.45	1	1	1	1	1	1	0
10063	18.20	205.00	3.45	1	1	1	1	1	1	0
10064	24.20	205.00	3.45	1	1	1	1	1	1	0
10065	30.20	205.00	3.45	1	1	1	1	1	1	0
10066	36.40	205.00	3.45	1	1	1	1	1	1	0
10067	30.20	207.00	3.45	1	1	1	1	1	1	0
10068	6.20	210.00	3.45	1	1	1	1	1	1	0
10069	36.40	210.00	3.45	1	1	1	1	1	1	0
10070	18.20	207.00	3.45	1	1	1	1	1	1	0
10071	18.20	207.00	3.45	1	1	1	1	1	1	0
10072	18.20	210.00	3.45	1	1	1	1	1	1	0
10073	18.20	210.00	3.45	1	1	1	1	1	1	0
10074	24.20	210.00	3.45	1	1	1	1	1	1	0
10075	24.20	210.00	3.45	1	1	1	1	1	1	0
10076	30.20	210.00	3.45	1	1	1	1	1	1	0
10077	30.20	210.00	3.45	1	1	1	1	1	1	0
10078	18.20	207.00	3.45	1	1	1	1	1	1	0

	18.20	207.00	3.45	1	1	1	1	1	1	0
10080	18.20	210.00	3.45	1	1	1	1	1	1	0
10081	18.20	210.00	3.45	1	1	1	1	1	1	0
10082	24.20	210.00	3.45	1	1	1	1	1	1	0
10083	24.20	210.00	3.45	1	1	1	1	1	1	0
10084	30.20	210.00	3.45	1	1	1	1	1	1	0
10085	30.20	210.00	3.45	1	1	1	1	1	1	0
10086	0.00	200.00	0.00	1	1	1	1	1	1	0
10087	6.20	200.00	0.00	1	1	1	1	1	1	0
10088	18.20	200.00	0.00	1	1	1	1	1	1	0
10089	24.20	200.00	0.00	1	1	1	1	1	1	0
10090	30.20	200.00	0.00	1	1	1	1	1	1	0
10091	36.40	200.00	0.00	1	1	1	1	1	1	0
10092	36.40	205.00	0.00	1	1	1	1	1	1	0
10093	30.20	205.00	0.00	1	1	1	1	1	1	0
10094	24.20	205.00	0.00	1	1	1	1	1	1	0
10095	18.20	205.00	0.00	1	1	1	1	1	1	0
10096	6.20	205.00	0.00	1	1	1	1	1	1	0
10097	6.20	207.00	0.00	1	1	1	1	1	1	0
10098	18.20	207.00	0.00	1	1	1	1	1	1	0
10099	30.20	207.00	0.00	1	1	1	1	1	1	0
10100	36.40	210.00	0.00	1	1	1	1	1	1	0
10101	30.20	210.00	0.00	1	1	1	1	1	1	0
10102	24.20	210.00	0.00	1	1	1	1	1	1	0
10103	18.20	210.00	0.00	1	1	1	1	1	1	0
10104	6.20	210.00	0.00	1	1	1	1	1	1	0
10105	27.60	9.17	210.35	1	1	1	1	1	1	0
10106	27.60	8.36	210.35	1	1	1	1	1	1	0
10107	27.60	7.55	210.35	1	1	1	1	1	1	0
10108	24.20	9.17	210.35	1	1	1	1	1	1	0
10109	24.20	8.36	210.35	1	1	1	1	1	1	0
10110	24.20	7.55	210.35	1	1	1	1	1	1	0
10111	3.06	9.34	210.35	1	1	1	1	1	1	0
10112	3.06	8.68	210.35	1	1	1	1	1	1	0
10113	3.06	8.68	210.35	1	1	1	1	1	1	0
10114	3.06	7.36	210.35	1	1	1	1	1	1	0
10115	1.26	9.34	210.35	1	1	1	1	1	1	0
10116	1.26	8.68	210.35	1	1	1	1	1	1	0
10117	1.26	8.02	210.35	1	1	1	1	1	1	0
10118	1.26	7.36	210.35	1	1	1	1	1	1	0
10119	27.02	7.55	210.35	1	1	1	1	1	1	0
10120	26.30	7.55	210.35	1	1	1	1	1	1	0
10121	25.52	7.55	210.35	1	1	1	1	1	1	0
10122	24.72	7.55	210.35	1	1	1	1	1	1	0
10123	24.20	7.55	210.35	1	1	1	1	1	1	0
10124	22.60	7.00	210.35	1	1	1	1	1	1	0
10125	21.50	7.00	210.35	1	1	1	1	1	1	0
10126	20.40	7.00	210.35	1	1	1	1	1	1	0
10127	19.30	7.00	210.35	1	1	1	1	1	1	0
10128	18.20	7.00	210.35	1	1	1	1	1	1	0
10129	2.62	7.36	210.35	1	1	1	1	1	1	0

	2.62	7.36	210.35	1	1	1	1	1	1	0
10131	1.26	7.36	210.35	1	1	1	1	1	1	0
10132	6.20	0.00	210.35	1	1	1	1	1	1	0
10133	6.20	1.67	210.35	1	1	1	1	1	1	0
10134	6.20	3.33	210.35	1	1	1	1	1	1	0
10135	18.20	0.00	210.35	1	1	1	1	1	1	0
10136	18.20	1.67	210.35	1	1	1	1	1	1	0
10137	18.20	3.33	210.35	1	1	1	1	1	1	0
10138	18.20	5.00	210.35	1	1	1	1	1	1	0
10139	18.20	7.00	210.35	1	1	1	1	1	1	0
10140	18.20	8.33	210.35	1	1	1	1	1	1	0
10141	22.60	7.00	210.35	1	1	1	1	1	1	0
10142	22.60	7.51	210.35	1	1	1	1	1	1	0
10143	22.60	8.34	210.35	1	1	1	1	1	1	0
10144	22.60	9.17	210.35	1	1	1	1	1	1	0
10145	24.20	7.00	210.35	1	1	1	1	1	1	0
10146	14.45	10.00	203.45	1	1	1	1	1	1	0
10147	16.65	10.00	203.45	1	1	1	1	1	1	0
10148	9.95	10.00	203.45	1	1	1	1	1	1	0
10149	7.75	10.00	203.45	1	1	1	1	1	1	0
10150	17.45	10.00	203.45	1	1	1	1	1	1	0
10151	9.25	4.57	203.45	1	1	1	1	1	1	0
10152	7.75	4.57	203.45	1	1	1	1	1	1	0
10153	9.25	5.43	203.45	1	1	1	1	1	1	0
10154	7.75	5.43	203.45	1	1	1	1	1	1	0
10155	18.15	4.57	203.45	1	1	1	1	1	1	0
10156	16.65	4.57	203.45	1	1	1	1	1	1	0
10157	18.15	5.43	203.45	1	1	1	1	1	1	0
10158	16.65	5.43	203.45	1	1	1	1	1	1	0
10159	28.90	7.55	203.45	1	1	1	1	1	1	0
10160	30.20	7.55	203.45	1	1	1	1	1	1	0
10161	2.62	7.36	203.45	1	1	1	1	1	1	0
10162	28.90	10.00	203.45	1	1	1	1	1	1	0
10163	27.60	10.00	203.45	1	1	1	1	1	1	0
10164	26.30	10.00	203.45	1	1	1	1	1	1	0
10165	25.52	10.00	203.45	1	1	1	1	1	1	0
10166	24.72	10.00	203.45	1	1	1	1	1	1	0
10167	27.60	9.17	203.45	1	1	1	1	1	1	0
10168	27.60	8.36	203.45	1	1	1	1	1	1	0
10169	27.60	7.55	203.45	1	1	1	1	1	1	0
10170	27.02	7.55	203.45	1	1	1	1	1	1	0
10171	26.30	7.55	203.45	1	1	1	1	1	1	0
10172	25.52	7.55	203.45	1	1	1	1	1	1	0
10173	24.72	7.55	203.45	1	1	1	1	1	1	0
10174	24.20	7.55	203.45	1	1	1	1	1	1	0
10175	19.30	10.00	203.45	1	1	1	1	1	1	0
10176	20.40	10.00	203.45	1	1	1	1	1	1	0
10177	21.40	10.00	203.45	1	1	1	1	1	1	0
10178	24.20	9.17	203.45	1	1	1	1	1	1	0
10179	24.20	8.36	203.45	1	1	1	1	1	1	0
10180	24.20	7.55	203.45	1	1	1	1	1	1	0

	24.20	7.00	203.45	1	1	1	1	1	1	0
10182	22.60	7.00	203.45	1	1	1	1	1	1	0
10183	21.50	7.00	203.45	1	1	1	1	1	1	0
10184	20.40	7.00	203.45	1	1	1	1	1	1	0
10185	19.30	7.00	203.45	1	1	1	1	1	1	0
10186	18.20	7.00	203.45	1	1	1	1	1	1	0
10187	3.06	9.34	203.45	1	1	1	1	1	1	0
10188	3.06	8.68	203.45	1	1	1	1	1	1	0
10189	3.06	7.36	203.45	1	1	1	1	1	1	0
10190	2.62	7.36	203.45	1	1	1	1	1	1	0
10191	1.26	7.36	203.45	1	1	1	1	1	1	0
10192	1.26	9.34	203.45	1	1	1	1	1	1	0
10193	1.26	8.68	203.45	1	1	1	1	1	1	0
10194	1.26	8.02	203.45	1	1	1	1	1	1	0
10195	1.26	7.36	203.45	1	1	1	1	1	1	0
10196	3.06	10.00	203.45	1	1	1	1	1	1	0
10197	1.26	7.36	203.45	1	1	1	1	1	1	0
10198	30.20	7.55	203.45	1	1	1	1	1	1	0
10199	30.20	7.00	203.45	1	1	1	1	1	1	0
10200	30.20	5.00	203.45	1	1	1	1	1	1	0
10201	1.26	5.00	203.45	1	1	1	1	1	1	0
10202	6.20	5.00	203.45	1	1	1	1	1	1	0
10203	4.11	10.00	203.45	1	1	1	1	1	1	0
10204	5.15	10.00	203.45	1	1	1	1	1	1	0
10205	6.20	10.00	203.45	1	1	1	1	1	1	0
10206	12.20	5.00	203.45	1	1	1	1	1	1	0
10207	12.20	4.57	203.45	1	1	1	1	1	1	0
10208	18.20	7.00	203.45	1	1	1	1	1	1	0
10209	18.20	5.00	203.45	1	1	1	1	1	1	0
10210	18.20	4.57	203.45	1	1	1	1	1	1	0
10211	18.20	0.00	203.45	1	1	1	1	1	1	0
10212	6.20	8.68	203.45	1	1	1	1	1	1	0
10213	6.20	5.00	203.45	1	1	1	1	1	1	0
10214	6.20	4.57	203.45	1	1	1	1	1	1	0
10215	18.20	2.31	203.45	1	1	1	1	1	1	0
10216	18.20	5.43	203.45	1	1	1	1	1	1	0
10217	18.20	4.57	203.45	1	1	1	1	1	1	0
10218	14.45	4.57	203.45	1	1	1	1	1	1	0
10219	12.95	4.57	203.45	1	1	1	1	1	1	0
10220	12.20	4.57	203.45	1	1	1	1	1	1	0
10221	11.45	4.57	203.45	1	1	1	1	1	1	0
10222	6.95	4.57	203.45	1	1	1	1	1	1	0
10223	18.20	5.43	203.45	1	1	1	1	1	1	0
10224	14.45	5.43	203.45	1	1	1	1	1	1	0
10225	12.95	5.43	203.45	1	1	1	1	1	1	0
10226	12.20	5.43	203.45	1	1	1	1	1	1	0
10227	11.45	5.43	203.45	1	1	1	1	1	1	0
10228	6.95	5.43	203.45	1	1	1	1	1	1	0
10229	6.20	5.43	203.45	1	1	1	1	1	1	0
10230	4.63	5.00	203.45	1	1	1	1	1	1	0
10231	6.20	2.31	203.45	1	1	1	1	1	1	0

	25.70	5.00	203.45	1	1	1	1	1	1	0
10233	27.20	5.00	206.90	1	1	1	1	1	1	0
10234	25.70	5.00	206.90	1	1	1	1	1	1	0
10235	21.20	5.00	206.90	1	1	1	1	1	1	0
10236	6.20	3.87	206.90	1	1	1	1	1	1	0
10237	6.20	3.87	206.90	1	1	1	1	1	1	0
10238	6.20	7.00	206.90	1	1	1	1	1	1	0
10239	6.20	0.00	206.90	1	1	1	1	1	1	0
10240	6.20	5.00	206.90	1	1	1	1	1	1	0
10241	14.45	10.00	206.90	1	1	1	1	1	1	0
10242	18.20	5.00	206.90	1	1	1	1	1	1	0
10243	6.20	5.00	206.90	1	1	1	1	1	1	0
10244	17.45	5.00	206.90	1	1	1	1	1	1	0
10245	30.20	5.00	210.35	1	1	1	1	1	1	0
10246	25.52	10.00	210.35	1	1	1	1	1	1	0
10247	18.20	7.00	206.90	1	1	1	1	1	1	0
10248	6.20	8.68	206.90	1	1	1	1	1	1	0
10249	33.30	5.00	206.90	1	1	1	1	1	1	0
10250	1.26	5.00	206.90	1	1	1	1	1	1	0
10251	1.26	7.36	206.90	1	1	1	1	1	1	0
10252	1.26	7.36	206.90	1	1	1	1	1	1	0
10253	2.62	7.36	206.90	1	1	1	1	1	1	0
10254	2.62	7.36	206.90	1	1	1	1	1	1	0
10255	18.20	7.00	206.90	1	1	1	1	1	1	0
10256	19.30	7.00	206.90	1	1	1	1	1	1	0
10257	20.40	7.00	206.90	1	1	1	1	1	1	0
10258	21.50	7.00	206.90	1	1	1	1	1	1	0
10259	22.60	7.00	206.90	1	1	1	1	1	1	0
10260	24.20	7.55	206.90	1	1	1	1	1	1	0
10261	24.72	7.55	206.90	1	1	1	1	1	1	0
10262	25.52	7.55	206.90	1	1	1	1	1	1	0
10263	26.30	7.55	206.90	1	1	1	1	1	1	0
10264	27.02	7.55	206.90	1	1	1	1	1	1	0
10265	3.06	10.00	206.90	1	1	1	1	1	1	0
10266	4.11	10.00	206.90	1	1	1	1	1	1	0
10267	5.15	10.00	206.90	1	1	1	1	1	1	0
10268	6.20	10.00	206.90	1	1	1	1	1	1	0
10269	19.30	10.00	206.90	1	1	1	1	1	1	0
10270	20.40	10.00	206.90	1	1	1	1	1	1	0
10271	21.40	10.00	206.90	1	1	1	1	1	1	0
10272	24.72	10.00	206.90	1	1	1	1	1	1	0
10273	25.52	10.00	206.90	1	1	1	1	1	1	0
10274	26.30	10.00	206.90	1	1	1	1	1	1	0
10275	27.60	10.00	206.90	1	1	1	1	1	1	0
10276	28.90	10.00	206.90	1	1	1	1	1	1	0
10277	29.55	10.00	206.90	1	1	1	1	1	1	0
10278	4.11	10.00	206.90	1	1	1	1	1	1	0
10279	1.26	7.36	206.90	1	1	1	1	1	1	0
10280	1.26	8.02	206.90	1	1	1	1	1	1	0
10281	1.26	8.68	206.90	1	1	1	1	1	1	0
10282	1.26	9.34	206.90	1	1	1	1	1	1	0

	3.06	7.36	206.90	1	1	1	1	1	1	0
10284	3.06	8.68	206.90	1	1	1	1	1	1	0
10285	3.06	9.34	206.90	1	1	1	1	1	1	0
10286	6.20	0.00	206.90	1	1	1	1	1	1	0
10287	24.20	7.00	206.90	1	1	1	1	1	1	0
10288	24.20	7.55	206.90	1	1	1	1	1	1	0
10289	24.20	8.36	206.90	1	1	1	1	1	1	0
10290	24.20	9.17	206.90	1	1	1	1	1	1	0
10291	27.60	7.55	206.90	1	1	1	1	1	1	0
10292	27.60	8.36	206.90	1	1	1	1	1	1	0
10293	27.60	9.17	206.90	1	1	1	1	1	1	0
10294	30.20	5.00	206.90	1	1	1	1	1	1	0
10295	30.20	7.00	206.90	1	1	1	1	1	1	0
10296	30.20	7.55	206.90	1	1	1	1	1	1	0
10297	30.20	7.55	206.90	1	1	1	1	1	1	0
10298	30.20	7.55	206.90	1	1	1	1	1	1	0
10299	30.20	7.55	206.90	1	1	1	1	1	1	0
10300	28.90	7.55	206.90	1	1	1	1	1	1	0
10301	18.20	2.31	206.90	1	1	1	1	1	1	0
10302	15.95	10.00	206.90	1	1	1	1	1	1	0
10303	18.20	0.00	206.90	1	1	1	1	1	1	0
10304	29.55	10.00	203.45	1	1	1	1	1	1	0
10305	3.06	-0.00	203.45	1	1	1	1	1	1	0
10306	6.20	0.00	203.45	1	1	1	1	1	1	0
10307	0.66	5.00	203.45	1	1	1	1	1	1	0
10308	1.26	5.00	206.90	1	1	1	1	1	1	0
10309	18.20	0.00	206.90	1	1	1	1	1	1	0
10310	21.20	5.00	210.35	1	1	1	1	1	1	0
10311	9.70	10.00	210.35	1	1	1	1	1	1	0
10312	7.37	10.00	206.90	1	1	1	1	1	1	0
10313	6.37	10.00	206.90	1	1	1	1	1	1	0
10314	6.37	10.00	206.90	1	1	1	1	1	1	0
10315	15.70	5.00	210.35	1	1	1	1	1	1	0
10316	7.37	10.00	206.90	1	1	1	1	1	1	0
10317	7.37	10.00	206.90	1	1	1	1	1	1	0
10318	16.20	5.00	210.35	1	1	1	1	1	1	0
10319	12.20	210.00	6.90	1	1	1	1	1	1	0

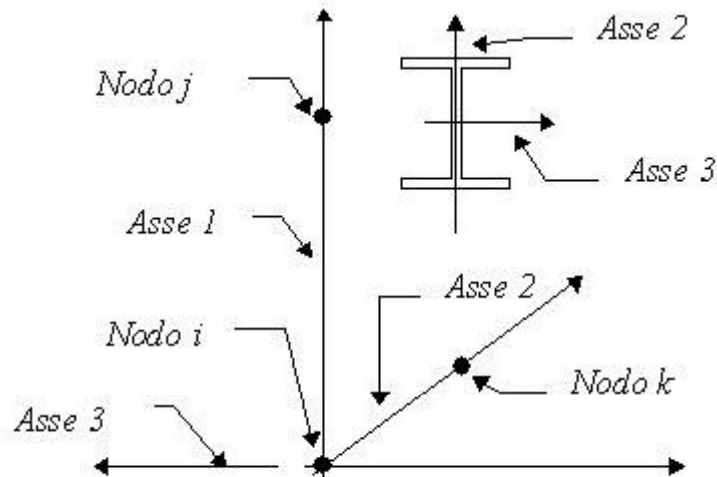
- Elementi tipo pilastro

- Convenzioni adottate

Ogni elemento tipo pilastro viene identificato da:

- Il nodo iniziale **i**;
- Il nodo finale **j**;
- Il nodo **k** che definisce l'orientamento nello spazio della terna riferimento locale dell'elemento.

La terna di riferimento locale del pilastro risulta quindi essere così disposta:



Sistema di riferimento locale

Vengono riportati i valori di efficacia dei vincoli flessionali alle estremità dell'elemento (variabili fra lo **0%** e il **100%**), nei due piani **1-2** e **1-3** del pilastro in corrispondenza dei nodi, dando quindi la possibilità di considerare aste non perfettamente incastrate alle estremità (coefficienti **Vi12 - Vj12 - Vi13 - Vj13**).

In generale, se non diversamente disposto, l'asse 2 coincide, per i pilastri, con l'asse **y** globale e pertanto la disposizione della sezione coincide con quella che si avrebbe in una vista in pianta.

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Rett.	B= 25 H= 40 [cm] 25x40
2	1	Rett.	B= 70 H= 40 [cm] 70x40
3	1	Rett.	B= 35 H= 40 [cm] 35x40
4	1	Rett.	B= 30 H= 40 [cm] 30x40
5	1	Rett.	B= 45 H= 40 [cm] 45x40
6	1	Rett.	B= 20 H= 20 [cm] 20x20
7	1	Rett.	B= 30 H= 30 [cm] 30x30
8	1	Rett.	B= 40 H= 45 [cm] 40x45
9	1	Rett.	B= 70 H= 45 [cm] 70x45
10	1	Rett.	B= 60 H= 45 [cm] 60x45
11	1	Rett.	B= 25 H= 30 [cm] P1 25x30
12	1	Rett.	B= 30 H= 30 [cm] P2 30x30
13	1	Rett.	B= 35 H= 27 [cm] P3 35x27
14	1	Rett.	B= 35 H= 30 [cm] P4 35x30
15	1	Rett.	B= 25 H= 35 [cm] P5 25x35

16	1	Rett.	B= 30 H= 35 [cm] P6 30x35
17	1	Rett.	B= 35 H= 35 [cm] P7 35x35
18	1	Rett.	B= 20 H= 20 [cm] P8 20x20
19	1	Rett.	B= 30 H= 45 [cm] P9 30x45
20	1	Rett.	B= 35 H= 45 [cm] P10 35x45
21	1	Rett.	B= 25 H= 30 [cm] S1 25x30
22	1	Rett.	B= 35 H= 30 [cm] S2 35x30
23	1	Rett.	B= 35 H= 25 [cm] S3 35x25
24	1	Rett.	B= 30 H= 25 [cm] S4 30x25
25	1	Rett.	B= 22 H= 30 [cm] S5 22x30
26	1	Rett.	B= 20 H= 20 [cm] S6 20x20
27	1	Rett.	B= 30 H= 30 [cm] S7 30x30
28	1	Rett.	B= 30 H= 45 [cm] S8 30x45
29	1	Rett.	B= 35 H= 30 [cm] S9 35x30

- Caratteristiche Inerziali:

Sezione	Materiale	Area [cm²]	Jt [cm ⁴]	J2 [cm ⁴]	J3 [cm ⁴]	J23 [cm ⁴]	Xx	Xy
1	1	1000.00	123101	133333	52083	0	1.2	1.2
2	1	2800.00	939269	373333	1143333	-0	1.2	1.2
3	1	1400.00	264625	186667	142917	-0	1.2	1.2
4	1	1200.00	186385	160000	90000	0	1.2	1.2
5	1	1800.00	439420	240000	303750	0	1.2	1.2
6	1	400.00	22492	13333	13333	0	1.2	1.2
7	1	900.00	113866	67500	67500	0	1.2	1.2
8	1	1800.00	439420	303750	240000	0	1.2	1.2
9	1	3150.00	1231378	531562	1286250	0	1.2	1.2
10	1	2700.00	943573	455625	810000	0	1.2	1.2
11	1	750.00	74913	56250	39062	0	1.2	1.2
12	1	900.00	113866	67500	67500	0	1.2	1.2
13	1	945.00	116464	57409	96469	0	1.2	1.2
14	1	1050.00	147986	78750	107187	0	1.2	1.2
15	1	875.00	97809	89323	45573	0	1.2	1.2
16	1	1050.00	147986	107187	78750	0	1.2	1.2
17	1	1225.00	210952	125052	125052	0	1.2	1.2
18	1	400.00	22492	13333	13333	0	1.2	1.2
19	1	1350.00	228488	227812	101250	0	1.2	1.2
20	1	1575.00	324225	265781	160781	0	1.2	1.2
21	1	750.00	74913	56250	39062	0	1.2	1.2
22	1	1050.00	147986	78750	107187	0	1.2	1.2
23	1	875.00	97809	45573	89323	0	1.2	1.2
24	1	750.00	74913	39062	56250	0	1.2	1.2
25	1	660.00	56043	49500	26620	0	1.2	1.2
26	1	400.00	22492	13333	13333	0	1.2	1.2
27	1	900.00	113866	67500	67500	0	1.2	1.2
28	1	1350.00	228488	227812	101250	0	1.2	1.2
29	1	1050.00	147986	78750	107187	0	1.2	1.2

Piano	Pilastro	Nodo i	Nodo j	Nodo k	Materiale	Sezione	Luce [m]	Vi12	Vj12	Vi13	Vj13

0	1	1	200	10087	1	9	3.45	100	100	100	100
2	200	200	569	10057	1	20	3.45	100	100	100	100
5	569	569	832	10056	1	28	3.45	100	100	100	100
0	2	2	210	10088	1	9	3.45	100	100	100	100
2	210	210	579	10058	1	20	3.45	100	100	100	100
5	579	579	840	10055	1	28	3.45	100	100	100	100
0	3	3	214	10089	1	10	3.45	100	100	100	100
2	214	214	583	10059	1	20	3.45	100	100	100	100
5	583	583	844	10054	1	28	3.45	100	100	100	100
0	4	4	218	10090	1	10	3.45	100	100	100	100
2	218	218	587	10060	1	20	3.45	100	100	100	100
5	587	587	848	10053	1	28	3.45	100	100	100	100
0	5	5	222	10091	1	8	3.45	100	100	100	100
2	222	222	591	10061	1	19	3.45	100	100	100	100
5	591	591	852	10052	1	28	3.45	100	100	100	100
0	6	6	224	10086	1	8	3.45	100	100	100	100
2	224	224	593	10086	1	19	3.45	100	100	100	100
5	593	593	854	10086	1	28	3.45	100	100	100	100
0	7	7	303	10086	1	4	3.45	100	100	100	100
3	303	303	650	10086	1	15	3.45	100	100	100	100
6	650	650	907	10086	1	25	3.45	100	100	100	100
0	8	8	307	10096	1	5	3.45	100	100	100	100
3	307	307	654	10062	1	16	3.45	100	100	100	100
6	654	654	911	10041	1	21	3.45	100	100	100	100
0	9	9	309	10095	1	5	3.45	100	100	100	100
3	309	309	664	10063	1	17	3.45	100	100	100	100
6	664	664	919	10045	1	21	3.45	100	100	100	100
0	10	10	313	10094	1	4	3.45	100	100	100	100
3	313	313	668	10064	1	16	3.45	100	100	100	100
6	668	668	923	10046	1	21	3.45	100	100	100	100
0	11	11	317	10093	1	3	3.45	100	100	100	100
3	317	317	672	10065	1	16	3.45	100	100	100	100
6	672	672	927	10050	1	21	3.45	100	100	100	100
0	12	12	321	10092	1	1	3.45	100	100	100	100
3	321	321	676	10066	1	15	3.45	100	100	100	100
6	676	676	931	10051	1	25	3.45	100	100	100	100
0	13	13	333	10097	1	6	3.45	100	100	100	100
0	14	14	62	10098	1	6	0.80	100	100	100	100
0	62	62	108	10098	1	6	0.80	100	100	100	100
1	108	108	154	10098	1	6	0.80	100	100	100	100
1	154	154	343	10098	1	6	1.05	100	100	100	100
3	343	343	427	10070	1	18	0.80	100	100	100	100
4	427	427	475	10071	1	18	0.80	100	100	100	100
4	475	475	523	10078	1	18	0.80	100	100	100	100
5	523	523	687	10079	1	18	1.05	100	100	100	100
6	687	687	1354	10044	1	26	0.80	100	100	100	100
6	687	1354	1355	10044	1	26	0.80	100	100	100	100
6	687	1355	1356	10044	1	26	0.80	100	100	100	100
6	687	1356	945	10044	1	26	1.05	100	100	100	100
0	20	20	353	10099	1	7	3.45	100	100	100	100
3	353	353	697	10067	1	12	3.45	100	100	100	100
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	697	697	955	10049	1	27	3.45	100	100	100	100
0	41	41	88	10086	1	1	0.80	100	100	100	100
0	88	88	134	10086	1	1	0.80	100	100	100	100
1	134	134	180	10086	1	1	0.80	100	100	100	100
1	180	180	393	10086	1	1	1.05	100	100	100	100
3	393	393	453	10086	1	11	0.80	100	100	100	100
4	453	453	501	10086	1	11	0.80	100	100	100	100
5	501	501	549	10086	1	11	0.80	100	100	100	100
5	549	549	733	10086	1	11	1.05	100	100	100	100
7	733	733	767	10086	1	21	0.80	100	100	100	100
7	767	767	789	10086	1	21	0.80	100	100	100	100
7	789	789	811	10086	1	21	0.80	100	100	100	100
8	811	811	1001	10086	1	21	1.05	100	100	100	100
0	45	45	92	10104	1	2	0.80	100	100	100	100
0	92	92	138	10104	1	2	0.80	100	100	100	100
1	138	138	399	10104	1	2	1.85	100	100	100	100
3	399	399	459	10068	1	12	0.80	100	100	100	100
4	459	459	507	10068	1	12	0.80	100	100	100	100
5	507	507	739	10068	1	12	1.85	100	100	100	100
7	739	739	773	10042	1	22	0.80	100	100	100	100
7	773	773	795	10042	1	22	0.80	100	100	100	100
7	795	795	1007	10042	1	22	1.85	100	100	100	100
0	46	46	93	10103	1	2	0.80	100	100	100	100
0	93	93	139	10103	1	2	0.80	100	100	100	100
1	139	139	184	10103	1	2	0.80	100	100	100	100
1	184	184	408	10103	1	2	1.05	100	100	100	100
4	408	408	460	10072	1	14	0.80	100	100	100	100
4	460	460	508	10073	1	14	0.80	100	100	100	100
5	508	508	553	10080	1	14	0.80	100	100	100	100
5	553	553	748	10081	1	14	1.05	100	100	100	100
7	748	748	774	10043	1	22	0.80	100	100	100	100
7	774	774	796	10043	1	22	0.80	100	100	100	100
7	796	796	815	10043	1	22	0.80	100	100	100	100
8	815	815	1015	10043	1	22	1.05	100	100	100	100
0	51	51	98	10102	1	3	0.80	100	100	100	100
0	98	98	144	10102	1	3	0.80	100	100	100	100
1	144	144	188	10102	1	3	0.80	100	100	100	100
1	188	188	413	10102	1	3	1.05	100	100	100	100
4	413	413	465	10074	1	14	0.80	100	100	100	100
4	465	465	513	10075	1	14	0.80	100	100	100	100
5	513	513	557	10082	1	14	0.80	100	100	100	100
5	557	557	753	10083	1	14	1.05	100	100	100	100
7	753	753	779	10047	1	22	0.80	100	100	100	100
7	779	779	801	10047	1	22	0.80	100	100	100	100
8	801	801	819	10047	1	22	0.80	100	100	100	100
8	819	819	1020	10047	1	22	1.05	100	100	100	100
0	60	60	107	10101	1	3	0.80	100	100	100	100
1	107	107	153	10101	1	3	0.80	100	100	100	100
1	153	153	197	10101	1	3	0.80	100	100	100	100
1	197	197	422	10101	1	3	1.05	100	100	100	100
4	422	422	474	10076	1	14	0.80	100	100	100	100
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	474	474	522	10077	1	14	0.80	100	100	100	100
5	522	522	566	10084	1	14	0.80	100	100	100	100
5	566	566	762	10085	1	14	1.05	100	100	100	100
7	762	762	788	10048	1	22	0.80	100	100	100	100
7	788	788	810	10048	1	22	0.80	100	100	100	100
8	810	810	828	10048	1	22	0.80	100	100	100	100
8	828	828	1029	10048	1	22	1.05	100	100	100	100
0	61	61	426	10100	1	4	3.45	100	100	100	100
4	426	426	766	10069	1	12	3.45	100	100	100	100
7	766	766	1033	10040	1	24	3.45	100	100	100	100
3	308	308	659	10011	1	16	3.45	100	100	100	100
5	574	574	836	10000	1	29	3.45	100	100	100	100
7	744	744	1011	10319	1	23	3.45	100	100	100	100

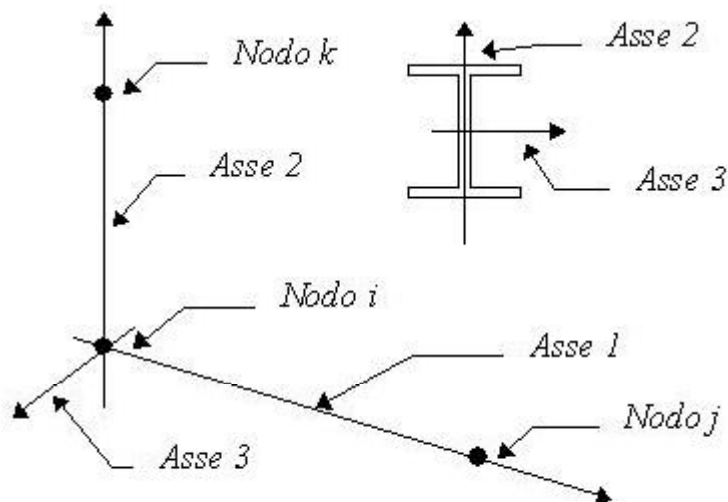
- Elementi tipo trave

- Convenzioni adottate

Ogni elemento tipo trave viene identificato da:

- Il nodo iniziale **i**;
- Il nodo finale **j**;
- Il nodo **k** che definisce l'orientamento nello spazio della terna riferimento locale dell'elemento.

La terna di riferimento locale della trave risulta essere così disposta:



Vengono riportati i valori di efficacia dei vincoli alle estremità dello elemento (variabili fra 0 e 100%), nei due piani **1-2** e **1-3** della trave in corrispondenza dei nodi, dando quindi la possibilità di considerare aste non perfettamente incastrate (coefficienti **Vi12**, **Vj12**, **Vi13**, **Vj13**).

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio

3	300000.0	0.200	0.001000	1.0	Ausiliaria
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- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Rett.	B= 20 H= 75 [cm] 20x75
2	1	Rett.	B= 30 H= 250 [cm] 30x250
3	1	Rett.	B= 30 H= 85 [cm] 30x85
4	1	Rett.	B= 30 H= 115 [cm] 30x115
5	1	Rett.	B= 20 H= 24 [cm] 20x24
6	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] 18+18x75D
7	1	Rett.	B= 45 H= 85 [cm] 45x85
8	1	Rett.	B= 33 H= 50 [cm] 33x50
9	1	Rett.	B= 30 H= 24 [cm] 30x24
10	1	Rett.	B= 33 H= 85 [cm] 33x85
11	1	a T	B= 60 H= 52 b= 40 h= 24 [cm] 40/60x52
12	1	a T	B= 70 H= 85 b= 50 h= 24 [cm] 50/80x85
13	1	Rett.	B= 60 H= 85 [cm] 60x85
14	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] 18+18x75S
15	1	Rett.	B= 20 H= 24 [cm] AUSILIARIA
16	3	Rett.	B= 12 H= 20 [cm] TRAVETTO
21	1	Rett.	B= 20 H= 75 [cm] P1 20x75
22	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] P2 18+18x75D
23	1	a ~	B= 38 H= 75 b= 18 h= 24 [cm] P3 20+18x75D
24	1	Rett.	B= 20 H= 24 [cm] P4 20x24
25	1	Rett.	B= 30 H= 24 [cm] P5 30x24
26	1	Rett.	B= 40 H= 24 [cm] P6 40x24
27	1	a T	B= 55 H= 52 b= 35 h= 24 [cm] P7 35/55x52
28	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] P8 18+18x75S
31	1	a ~	B= 65 H= 75 b= 25 h= 24 [cm] S1 40+25x75D
32	1	Rett.	B= 20 H= 75 [cm] S2 20x75
33	1	Rett.	B= 20 H= 24 [cm] S3 20x24
34	1	Rett.	B= 25 H= 24 [cm] S4 25x24
35	1	Rett.	B= 40 H= 34 [cm] S5 40x34
36	1	Rett.	B= 30 H= 24 [cm] S6 30x24
37	1	a T	B= 50 H= 70 b= 30 h= 34 [cm] S7 30/50x70
38	1	a ~	B= 50 H= 75 b= 12 h= 24 [cm] S8 10+40x75S

- Caratteristiche Inerziali:

Sezione	Materiale	Area [cm²]	Jt [cm⁴]	J2 [cm⁴]	J3 [cm⁴]	J23 [cm⁴]	Xx	Xy
1	1	1500.00	181667	703125	50000	0	1.2	1.2
2	1	7500.00	2257527	39062497	562500	0	1.2	1.2
3	1	2550.00	631218	1535312	191250	0	1.2	1.2
4	1	3450.00	945536	3802187	258750	-0	1.2	1.2
5	1	480.00	30684	23040	16000	0	1.2	1.2
6	1	1782.00	247033	866358	154150	-150218	1.2	1.2
7	1	3825.00	1708919	2302969	645469	-0	1.2	1.2
8	1	1650.00	340370	343750	149737	0	1.2	1.2

9	1	720.00	68274	34560	54000	0	1.2	1.2
10	1	2805.00	804639	1688844	254554	0	1.2	1.2
11	1	2560.00	934089	568173	581333	0	1.2	1.2
12	1	4730.00	2907101	2983101	1321417	-0	1.2	1.2
13	1	5100.00	3312203	3070625	1530000	0	1.2	1.2
14	1	1782.00	247033	866358	154150	150218	1.2	1.2
15	1	480.00	30684	23040	16000	0	1.2	1.2
16	3	240.00	7006	8000	2880	0	1.2	1.2
21	1	1500.00	181667	703125	50000	0	1.2	1.2
22	1	1782.00	247033	866358	154150	-150218	1.2	1.2
23	1	1830.00	262924	886105	180280	-171561	1.2	1.2
24	1	480.00	30684	23040	16000	0	1.2	1.2
25	1	720.00	68274	34560	54000	0	1.2	1.2
26	1	960.00	112090	46080	128000	0	1.2	1.2
27	1	2300.00	743954	507593	432792	0	1.2	1.2
28	1	1782.00	247033	866358	154150	150218	1.2	1.2
31	1	2835.00	722841	1337843	896291	-526190	1.2	1.2
32	1	1500.00	181667	703125	50000	0	1.2	1.2
33	1	480.00	30684	23040	16000	0	1.2	1.2
34	1	600.00	49958	28800	31250	0	1.2	1.2
35	1	1360.00	247686	131013	181333	0	1.2	1.2
36	1	720.00	68274	34560	54000	0	1.2	1.2
37	1	2780.00	979406	1089435	435167	0	1.2	1.2
38	1	1812.00	231565	760201	403657	288775	1.2	1.2

Travata	Trave	Nodo i	Nodo j	Nodo k	Materiale	Sezione	Luce [m]	Vi12	Vj12	Vi13	Vj13
1	1	223	224	10305	1	14	1.53	100	100	100	100
1	2	198	223	10305	1	14	1.53	100	100	100	100
1	3	199	198	10306	1	14	1.57	100	100	100	100
1	4	200	199	10306	1	14	1.57	100	100	100	100
1	5	201	200	10303	1	2	0.75	100	100	100	100
1	6	202	201	10303	1	2	0.80	100	100	100	100
1	7	203	202	10303	1	3	2.20	100	100	100	100
1	8	204	203	10303	1	3	1.50	100	100	100	100
1	9	205	204	10303	1	4	0.75	100	100	100	100
1	10	206	205	10303	1	4	0.75	100	100	100	100
1	11	207	206	10303	1	3	1.50	100	100	100	100
1	12	208	207	10303	1	3	2.20	100	100	100	100
1	13	209	208	10303	1	2	0.80	100	100	100	100
1	14	210	209	10303	1	2	0.75	100	100	100	100
1	15	211	210	10306	1	14	1.50	100	100	100	100
1	16	212	211	10306	1	14	1.50	100	100	100	100
1	17	213	212	10211	1	14	1.50	100	100	100	100
1	18	214	213	10211	1	14	1.50	100	100	100	100
1	19	215	214	10306	1	14	1.50	100	100	100	100
1	20	216	215	10306	1	14	1.50	100	100	100	100
1	21	217	216	10211	1	14	1.50	100	100	100	100
1	22	218	217	10211	1	14	1.50	100	100	100	100
1	23	219	218	10211	1	14	1.55	100	100	100	100
1	24	220	219	10211	1	14	1.55	100	100	100	100

1	25	221	220	10211	1	14	1.55	100	100	100	100
1	26	222	221	10211	1	14	1.55	100	100	100	100
2	1	304	303	10201	1	11	1.26	100	100	100	100
2	2	305	304	10202	1	11	1.80	100	100	100	100
2	3	306	305	10213	1	11	1.57	100	100	100	100
2	4	307	306	10230	1	11	1.57	100	100	100	100
3	1	293	292	10222	1	12	0.75	100	100	100	100
3	2	294	293	10152	1	12	0.80	100	100	100	100
3	3	295	294	10151	1	12	2.20	100	100	100	100
3	4	296	295	10221	1	12	1.50	100	100	100	100
3	5	297	296	10220	1	12	0.75	100	100	100	100
3	6	298	297	10219	1	12	0.75	100	100	100	100
3	7	301	298	10218	1	12	1.50	100	100	100	100
3	8	302	301	10156	1	12	2.20	100	100	100	100
3	9	299	302	10155	1	12	0.80	100	100	100	100
3	10	300	299	10217	1	12	0.75	100	100	100	100
4	1	324	323	10228	1	12	0.75	100	100	100	100
4	2	325	324	10154	1	12	0.80	100	100	100	100
4	3	326	325	10153	1	12	2.20	100	100	100	100
4	4	327	326	10227	1	12	1.50	100	100	100	100
4	5	328	327	10226	1	12	0.75	100	100	100	100
4	6	329	328	10225	1	12	0.75	100	100	100	100
4	7	331	329	10224	1	12	1.50	100	100	100	100
4	8	332	331	10158	1	12	2.20	100	100	100	100
4	9	330	332	10157	1	12	0.80	100	100	100	100
4	10	322	330	10223	1	12	0.75	100	100	100	100
5	1	310	309	10230	1	11	1.50	100	100	100	100
5	2	311	310	10230	1	11	1.50	100	100	100	100
5	3	312	311	10230	1	11	1.50	100	100	100	100
5	4	313	312	10230	1	11	1.50	100	100	100	100
5	5	314	313	10232	1	11	1.50	100	100	100	100
5	6	315	314	10307	1	11	1.50	100	100	100	100
5	7	316	315	10201	1	11	1.50	100	100	100	100
5	8	317	316	10201	1	11	1.50	100	100	100	100
5	9	318	317	10201	1	11	1.55	100	100	100	100
5	10	319	318	10201	1	11	1.55	100	100	100	100
5	11	320	319	10201	1	11	1.55	100	100	100	100
5	12	321	320	10201	1	11	1.55	100	100	100	100
6	1	359	358	10197	1	5	1.26	100	100	100	100
6	2	359	360	10191	1	15	0.44	100	100	100	100
6	3	361	360	10161	1	15	0.92	100	100	100	100
6	4	361	362	10190	1	15	0.44	100	100	100	100
7	1	343	344	10186	1	15	1.10	100	100	100	100
7	2	344	345	10185	1	15	1.10	100	100	100	100
7	3	345	346	10184	1	15	1.10	100	100	100	100
7	4	346	347	10183	1	15	1.10	100	100	100	100
7	5	347	348	10182	1	15	1.60	100	100	100	100
8	1	365	366	10174	1	15	0.52	100	100	100	100
8	2	366	367	10173	1	15	0.80	100	100	100	100
8	3	367	368	10172	1	15	0.78	100	100	100	100
8	4	368	369	10171	1	15	0.72	100	100	100	100
-											

	5	369	370	10170	1	15	0.58	100	100	100	100
8	6	371	370	10159	1	5	1.30	100	100	100	100
8	7	372	371	10160	1	5	1.30	100	100	100	100
9	1	394	393	10196	1	1	1.26	100	100	100	100
9	2	395	394	10196	1	1	0.90	100	100	100	100
9	3	396	395	10196	1	1	0.90	100	100	100	100
9	4	397	396	10203	1	1	1.05	100	100	100	100
9	5	398	397	10204	1	1	1.05	100	100	100	100
9	6	399	398	10205	1	1	1.05	100	100	100	100
9	7	400	399	10149	1	2	0.75	100	100	100	100
9	8	401	400	10149	1	2	0.80	100	100	100	100
9	9	402	401	10148	1	3	2.20	100	100	100	100
9	10	403	402	10149	1	3	1.50	100	100	100	100
9	11	404	403	10149	1	4	0.75	100	100	100	100
9	12	405	404	10149	1	4	0.75	100	100	100	100
9	13	392	405	10146	1	3	1.50	100	100	100	100
9	14	406	392	10147	1	3	2.20	100	100	100	100
9	15	407	406	10150	1	2	0.80	100	100	100	100
9	16	408	407	10302	1	2	0.75	100	100	100	100
9	17	409	408	10175	1	1	1.10	100	100	100	100
9	18	410	409	10176	1	1	1.10	100	100	100	100
9	19	411	410	10177	1	1	1.00	100	100	100	100
9	20	412	411	10203	1	1	1.20	100	100	100	100
9	21	413	412	10203	1	1	1.60	100	100	100	100
9	22	413	414	10175	1	15	0.52	100	100	100	100
9	23	414	415	10166	1	15	0.80	100	100	100	100
9	24	415	416	10165	1	15	0.78	100	100	100	100
9	25	416	417	10164	1	15	0.72	100	100	100	100
9	26	417	418	10164	1	15	0.58	100	100	100	100
9	27	418	419	10163	1	15	0.65	100	100	100	100
9	28	419	420	10163	1	15	0.65	100	100	100	100
9	29	420	421	10162	1	15	0.65	100	100	100	100
9	30	421	422	10304	1	15	0.65	100	100	100	100
9	31	423	422	10203	1	6	1.55	100	100	100	100
9	32	424	423	10203	1	6	1.55	100	100	100	100
9	33	425	424	10203	1	6	1.55	100	100	100	100
9	34	426	425	10203	1	6	1.55	100	100	100	100
10	1	592	593	10305	1	28	1.50	100	100	100	100
10	2	567	592	10305	1	28	1.56	100	100	100	100
10	3	568	567	10286	1	28	1.64	100	100	100	100
10	4	569	568	10286	1	28	1.50	100	100	100	100
10	5	570	569	10303	1	28	0.75	100	100	100	100
10	6	571	570	10303	1	28	1.50	100	100	100	100
10	7	572	571	10303	1	28	1.50	100	100	100	100
10	8	573	572	10303	1	28	1.50	100	100	100	100
10	9	574	573	10303	1	28	0.75	100	100	100	100
10	10	575	574	10303	1	28	0.75	100	100	100	100
10	11	576	575	10303	1	28	1.50	100	100	100	100
10	12	577	576	10303	1	28	1.50	100	100	100	100
10	13	578	577	10303	1	28	1.50	100	100	100	100
10	14	579	578	10303	1	28	0.75	100	100	100	100

	15	580	579	10306	1	28	1.50	100	100	100	100
10	16	581	580	10306	1	28	1.50	100	100	100	100
10	17	582	581	10286	1	28	1.50	100	100	100	100
10	18	583	582	10286	1	28	1.50	100	100	100	100
10	19	584	583	10239	1	28	1.50	100	100	100	100
10	20	585	584	10239	1	28	1.50	100	100	100	100
10	21	586	585	10286	1	28	1.50	100	100	100	100
10	22	587	586	10286	1	28	1.50	100	100	100	100
10	23	588	587	10286	1	28	1.50	100	100	100	100
10	24	589	588	10286	1	28	1.60	100	100	100	100
10	25	590	589	10286	1	28	1.60	100	100	100	100
10	26	591	590	10286	1	28	1.50	100	100	100	100
11	1	651	650	10308	1	27	1.26	100	100	100	100
11	2	652	651	10307	1	27	1.80	100	100	100	100
11	3	653	652	10307	1	27	1.57	100	100	100	100
11	4	654	653	10240	1	27	1.57	100	100	100	100
11	5	655	654	10244	1	27	0.75	100	100	100	100
11	6	656	655	10244	1	27	1.50	100	100	100	100
11	7	657	656	10244	1	27	1.50	100	100	100	100
11	8	658	657	10244	1	27	1.50	100	100	100	100
11	9	659	658	10244	1	27	0.75	100	100	100	100
11	10	660	659	10244	1	27	0.75	100	100	100	100
11	11	661	660	10244	1	27	1.50	100	100	100	100
11	12	662	661	10244	1	27	1.50	100	100	100	100
11	13	663	662	10244	1	27	1.50	100	100	100	100
11	14	664	663	10245	1	27	0.75	100	100	100	100
11	15	665	664	10240	1	27	1.50	100	100	100	100
11	16	666	665	10235	1	27	1.50	100	100	100	100
11	17	667	666	10235	1	27	1.50	100	100	100	100
11	18	668	667	10235	1	27	1.50	100	100	100	100
11	19	669	668	10234	1	27	1.50	100	100	100	100
11	20	670	669	10233	1	27	1.50	100	100	100	100
11	21	671	670	10233	1	27	1.50	100	100	100	100
11	22	672	671	10233	1	27	1.50	100	100	100	100
11	23	673	672	10249	1	27	1.60	100	100	100	100
11	24	674	673	10249	1	27	1.50	100	100	100	100
11	25	675	674	10250	1	27	1.60	100	100	100	100
11	26	676	675	10250	1	27	1.50	100	100	100	100
12	1	699	698	10251	1	24	1.26	100	100	100	100
12	2	699	700	10252	1	15	0.44	100	100	100	100
12	3	701	700	10253	1	15	0.92	100	100	100	100
12	4	701	702	10254	1	15	0.44	100	100	100	100
13	1	687	688	10255	1	15	1.10	100	100	100	100
13	2	688	689	10256	1	15	1.10	100	100	100	100
13	3	689	690	10257	1	15	1.10	100	100	100	100
13	4	690	691	10258	1	15	1.10	100	100	100	100
13	5	691	692	10259	1	15	1.60	100	100	100	100
14	1	709	710	10260	1	15	0.52	100	100	100	100
14	2	710	711	10261	1	15	0.80	100	100	100	100
14	3	711	712	10262	1	15	0.78	100	100	100	100
14	4	712	713	10263	1	15	0.72	100	100	100	100

	5	713	714	10264	1	15	0.58	100	100	100	100
14	6	715	714	10300	1	24	1.30	100	100	100	100
14	7	716	715	10299	1	24	1.30	100	100	100	100
15	1	734	733	10265	1	21	1.26	100	100	100	100
15	2	735	734	10265	1	21	0.90	100	100	100	100
15	3	736	735	10265	1	21	0.90	100	100	100	100
15	4	737	736	10266	1	21	1.05	100	100	100	100
15	5	738	737	10267	1	21	1.05	100	100	100	100
15	6	739	738	10268	1	21	1.05	100	100	100	100
15	7	740	739	10302	1	22	0.75	100	100	100	100
15	8	741	740	10302	1	22	1.50	100	100	100	100
15	9	742	741	10302	1	22	1.50	100	100	100	100
15	10	743	742	10302	1	22	1.50	100	100	100	100
15	11	744	743	10302	1	22	0.75	100	100	100	100
15	12	745	744	10302	1	22	0.75	100	100	100	100
15	13	732	745	10241	1	22	1.50	100	100	100	100
15	14	746	732	10302	1	22	1.50	100	100	100	100
15	15	747	746	10246	1	22	1.50	100	100	100	100
15	16	748	747	10246	1	22	0.75	100	100	100	100
15	17	749	748	10269	1	21	1.10	100	100	100	100
15	18	750	749	10270	1	21	1.10	100	100	100	100
15	19	751	750	10271	1	21	1.00	100	100	100	100
15	20	752	751	10272	1	21	1.20	100	100	100	100
15	21	753	752	10272	1	21	1.60	100	100	100	100
15	22	753	754	10272	1	15	0.52	100	100	100	100
15	23	754	755	10272	1	15	0.80	100	100	100	100
15	24	755	756	10273	1	15	0.78	100	100	100	100
15	25	756	757	10274	1	15	0.72	100	100	100	100
15	26	757	758	10275	1	15	0.58	100	100	100	100
15	27	758	759	10275	1	15	0.65	100	100	100	100
15	28	759	760	10276	1	15	0.65	100	100	100	100
15	29	760	761	10276	1	15	0.65	100	100	100	100
15	30	761	762	10277	1	15	0.65	100	100	100	100
15	31	763	762	10278	1	23	1.50	100	100	100	100
15	32	764	763	10278	1	23	1.60	100	100	100	100
15	33	765	764	10304	1	23	1.60	100	100	100	100
15	34	766	765	10304	1	23	1.50	100	100	100	100
16	1	853	854	10001	1	38	1.26	100	100	100	100
16	2	829	853	10002	1	38	1.40	100	100	100	100
16	3	830	829	10003	1	38	1.25	100	100	100	100
16	4	831	830	10009	1	38	1.15	100	100	100	100
16	5	832	831	10009	1	38	1.14	100	100	100	100
16	6	833	832	10309	1	38	1.50	100	100	100	100
16	7	834	833	10309	1	38	1.50	100	100	100	100
16	8	835	834	10309	1	38	1.50	100	100	100	100
16	9	836	835	10309	1	38	1.50	100	100	100	100
16	10	837	836	10309	1	38	1.50	100	100	100	100
16	11	838	837	10309	1	38	1.50	100	100	100	100
16	12	839	838	10309	1	38	1.50	100	100	100	100
16	13	840	839	10309	1	38	1.50	100	100	100	100
16	14	841	840	10009	1	38	1.50	100	100	100	100

	15	842	841	10009	1	38	1.50	100	100	100	100
16	16	843	842	10303	1	38	1.50	100	100	100	100
16	17	844	843	10303	1	38	1.50	100	100	100	100
16	18	845	844	10009	1	38	1.50	100	100	100	100
16	19	846	845	10009	1	38	1.50	100	100	100	100
16	20	847	846	10303	1	38	1.50	100	100	100	100
16	21	848	847	10303	1	38	1.50	100	100	100	100
16	22	849	848	10303	1	38	1.55	100	100	100	100
16	23	850	849	10303	1	38	1.55	100	100	100	100
16	24	851	850	10303	1	38	1.55	100	100	100	100
16	25	852	851	10303	1	38	1.55	100	100	100	100
17	1	908	907	10033	1	35	1.26	100	100	100	100
17	2	909	908	10007	1	35	1.40	100	100	100	100
17	3	910	909	10006	1	35	1.25	100	100	100	100
17	4	932	910	10005	1	35	1.15	100	100	100	100
17	5	911	932	10004	1	35	1.14	100	100	100	100
17	6	912	911	10310	1	37	1.50	100	100	100	100
17	7	913	912	10310	1	37	1.50	100	100	100	100
17	8	914	913	10310	1	37	1.50	100	100	100	100
17	9	915	914	10310	1	37	1.50	100	100	100	100
17	10	916	915	10315	1	37	1.50	100	100	100	100
17	11	917	916	10318	1	37	1.50	100	100	100	100
17	12	918	917	10318	1	37	1.50	100	100	100	100
17	13	919	918	10315	1	37	1.50	100	100	100	100
17	14	920	919	10308	1	35	1.50	100	100	100	100
17	15	921	920	10310	1	35	1.50	100	100	100	100
17	16	922	921	10310	1	35	1.40	100	100	100	100
17	17	923	922	10030	1	35	1.60	100	100	100	100
17	18	924	923	10310	1	35	1.50	100	100	100	100
17	19	925	924	10310	1	35	1.50	100	100	100	100
17	20	926	925	10310	1	35	1.50	100	100	100	100
17	21	927	926	10031	1	35	1.50	100	100	100	100
17	22	928	927	10031	1	35	1.55	100	100	100	100
17	23	929	928	10031	1	35	1.55	100	100	100	100
17	24	930	929	10032	1	35	1.55	100	100	100	100
17	25	931	930	10032	1	35	1.55	100	100	100	100
18	1	957	956	10034	1	33	1.26	100	100	100	100
18	2	957	958	10131	1	15	0.44	100	100	100	100
18	3	959	958	10130	1	15	0.92	100	100	100	100
18	4	959	960	10129	1	15	0.44	100	100	100	100
19	1	945	946	10128	1	15	1.10	100	100	100	100
19	2	946	947	10127	1	15	1.10	100	100	100	100
19	3	947	948	10126	1	15	1.10	100	100	100	100
19	4	948	949	10125	1	15	1.10	100	100	100	100
19	5	949	950	10124	1	15	1.60	100	100	100	100
20	1	964	965	10123	1	15	0.52	100	100	100	100
20	2	965	966	10122	1	15	0.80	100	100	100	100
20	3	966	967	10121	1	15	0.78	100	100	100	100
20	4	967	968	10120	1	15	0.72	100	100	100	100
20	5	968	969	10119	1	15	0.58	100	100	100	100
20	6	970	969	10012	1	33	1.30	100	100	100	100

	7	971	970	10013	1	33	1.30	100	100	100	100
21	1	1002	1001	10023	1	32	1.26	100	100	100	100
21	2	1003	1002	10023	1	32	0.90	100	100	100	100
21	3	1004	1003	10023	1	32	0.90	100	100	100	100
21	4	1005	1004	10024	1	32	1.05	100	100	100	100
21	5	1006	1005	10025	1	32	1.05	100	100	100	100
21	6	1007	1006	10026	1	32	1.05	100	100	100	100
21	7	1008	1007	10311	1	31	1.50	100	100	100	100
21	8	1009	1008	10311	1	31	1.50	100	100	100	100
21	9	1010	1009	10311	1	31	1.50	100	100	100	100
21	10	1011	1010	10312	1	31	1.50	100	100	100	100
21	11	1012	1011	10314	1	31	1.50	100	100	100	100
21	12	1013	1012	10313	1	31	1.50	100	100	100	100
21	13	1014	1013	10317	1	31	1.50	100	100	100	100
21	14	1015	1014	10316	1	31	1.50	100	100	100	100
21	15	1016	1015	10036	1	32	1.10	100	100	100	100
21	16	1017	1016	10037	1	32	1.10	100	100	100	100
21	17	1018	1017	10038	1	32	1.00	100	100	100	100
21	18	1019	1018	10039	1	32	1.20	100	100	100	100
21	19	1020	1019	10039	1	32	1.60	100	100	100	100
21	20	1021	1020	10246	1	15	0.52	100	100	100	100
21	21	1022	1021	10246	1	15	0.80	100	100	100	100
21	22	1023	1022	10018	1	15	0.78	100	100	100	100
21	23	1024	1023	10019	1	15	0.72	100	100	100	100
21	24	1025	1024	10020	1	15	0.58	100	100	100	100
21	25	1026	1025	10020	1	15	0.65	100	100	100	100
21	26	1027	1026	10021	1	15	0.65	100	100	100	100
21	27	1028	1027	10021	1	15	0.65	100	100	100	100
21	28	1029	1028	10022	1	15	0.65	100	100	100	100
21	29	1030	1029	10035	1	31	1.55	100	100	100	100
21	30	1031	1030	10035	1	31	1.55	100	100	100	100
21	31	1032	1031	10036	1	31	1.55	100	100	100	100
21	32	1033	1032	10036	1	31	1.55	100	100	100	100
22	1	359	373	10195	1	15	0.66	100	100	100	100
22	2	373	378	10194	1	15	0.66	100	100	100	100
22	3	378	390	10193	1	15	0.66	100	100	100	100
22	4	390	394	10192	1	15	0.66	100	100	100	100
23	1	362	374	10189	1	15	0.66	100	100	100	100
23	2	374	379	10196	1	15	0.66	100	100	100	100
23	3	379	391	10188	1	15	0.66	100	100	100	100
23	4	391	396	10187	1	15	0.66	100	100	100	100
24	1	200	264	10009	1	7	2.31	100	100	100	100
24	2	264	292	10231	1	7	2.26	100	100	100	100
24	3	292	307	10214	1	7	0.43	100	100	100	100
24	4	307	323	10213	1	7	0.43	100	100	100	100
24	5	323	333	10229	1	7	1.57	100	100	100	100
24	6	333	382	10008	1	7	1.68	100	100	100	100
24	7	382	399	10212	1	7	1.32	100	100	100	100
25	1	297	308	10207	1	13	0.43	100	100	100	100
25	2	308	328	10206	1	13	0.43	100	100	100	100
26	1	210	237	10010	1	7	2.31	100	100	100	100

	2	237	300	10215	1	7	2.26	100	100	100	100
26	3	300	309	10210	1	7	0.43	100	100	100	100
26	4	309	322	10209	1	10	0.43	100	100	100	100
26	5	322	343	10216	1	7	1.57	100	100	100	100
26	6	343	408	10208	1	8	3.00	100	100	100	100
27	1	348	365	10181	1	15	0.55	100	100	100	100
27	2	365	376	10180	1	15	0.81	100	100	100	100
27	3	376	388	10179	1	15	0.81	100	100	100	100
27	4	388	413	10178	1	15	0.83	100	100	100	100
28	1	370	377	10169	1	15	0.81	100	100	100	100
28	2	377	389	10168	1	15	0.81	100	100	100	100
28	3	389	418	10167	1	15	0.83	100	100	100	100
29	1	317	353	10200	1	9	2.00	100	100	100	100
29	2	353	372	10199	1	9	0.55	100	100	100	100
29	3	372	375	10198	1	9	0.79	100	100	100	100
29	4	375	387	10198	1	9	0.83	100	100	100	100
29	5	387	422	10198	1	9	0.83	100	100	100	100
30	1	699	717	10279	1	15	0.66	100	100	100	100
30	2	717	722	10280	1	15	0.66	100	100	100	100
30	3	722	730	10281	1	15	0.66	100	100	100	100
30	4	730	734	10282	1	15	0.66	100	100	100	100
31	1	702	718	10283	1	15	0.66	100	100	100	100
31	2	718	723	10284	1	15	0.66	100	100	100	100
31	3	723	731	10284	1	15	0.66	100	100	100	100
31	4	731	736	10285	1	15	0.66	100	100	100	100
32	1	569	621	10239	1	25	2.31	100	100	100	100
32	2	621	638	10236	1	25	1.56	100	100	100	100
32	3	638	654	10237	1	25	1.13	100	100	100	100
32	4	654	677	10243	1	25	2.00	100	100	100	100
32	5	677	726	10238	1	25	1.68	100	100	100	100
32	6	726	739	10248	1	25	1.32	100	100	100	100
33	1	579	606	10309	1	26	2.31	100	100	100	100
33	2	606	664	10301	1	26	2.69	100	100	100	100
33	3	664	687	10242	1	26	2.00	100	100	100	100
33	4	687	748	10247	1	25	3.00	100	100	100	100
34	1	692	709	10287	1	15	0.55	100	100	100	100
34	2	709	720	10288	1	15	0.81	100	100	100	100
34	3	720	728	10289	1	15	0.81	100	100	100	100
34	4	728	753	10290	1	15	0.83	100	100	100	100
35	1	714	721	10291	1	15	0.81	100	100	100	100
35	2	721	729	10292	1	15	0.81	100	100	100	100
35	3	729	758	10293	1	15	0.83	100	100	100	100
36	1	672	697	10294	1	25	2.00	100	100	100	100
36	2	697	716	10295	1	25	0.55	100	100	100	100
36	3	716	719	10297	1	25	0.79	100	100	100	100
36	4	719	727	10298	1	25	0.83	100	100	100	100
36	5	727	762	10296	1	25	0.83	100	100	100	100
37	1	957	972	10118	1	15	0.66	100	100	100	100
37	2	972	991	10117	1	15	0.66	100	100	100	100
37	3	991	999	10116	1	15	0.66	100	100	100	100
37	4	999	1002	10115	1	15	0.66	100	100	100	100

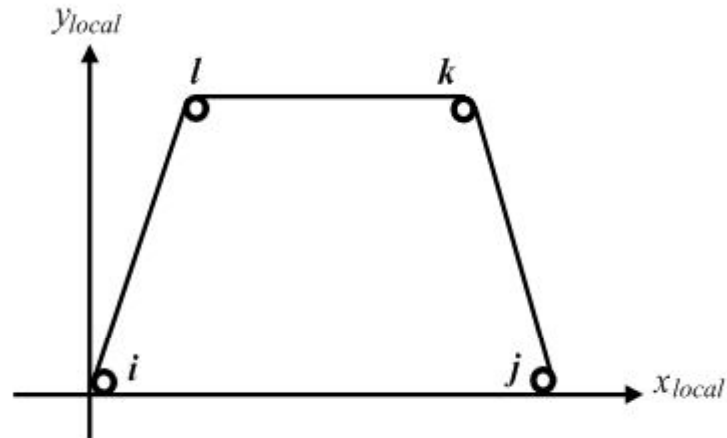
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38	2	973	992	10113	1	15	0.66	100	100	100	100
38	3	992	1000	10112	1	15	0.66	100	100	100	100
38	4	1000	1004	10111	1	15	0.66	100	100	100	100
39	1	832	859	10132	1	34	1.67	100	100	100	100
39	2	859	885	10133	1	34	1.67	100	100	100	100
39	3	885	911	10134	1	34	1.67	100	100	100	100
39	4	911	933	10029	1	34	1.67	100	100	100	100
39	5	933	974	10028	1	34	1.67	100	100	100	100
39	6	974	1007	10027	1	34	1.67	100	100	100	100
40	1	840	865	10135	1	35	1.67	100	100	100	100
40	2	865	891	10136	1	35	1.67	100	100	100	100
40	3	891	919	10137	1	35	1.67	100	100	100	100
40	4	919	945	10138	1	35	2.00	100	100	100	100
40	5	945	980	10139	1	36	1.33	100	100	100	100
40	6	980	1015	10140	1	36	1.67	100	100	100	100
41	1	949	963	10141	1	33	0.51	100	100	100	100
41	2	963	983	10142	1	33	0.83	100	100	100	100
41	3	983	995	10143	1	33	0.83	100	100	100	100
41	4	995	1019	10144	1	33	0.83	100	100	100	100
42	1	950	964	10145	1	15	0.55	100	100	100	100
42	2	964	989	10110	1	15	0.81	100	100	100	100
42	3	989	997	10109	1	15	0.81	100	100	100	100
42	4	997	1020	10108	1	15	0.83	100	100	100	100
43	1	969	990	10107	1	15	0.81	100	100	100	100
43	2	990	998	10106	1	15	0.81	100	100	100	100
43	3	998	1025	10105	1	15	0.83	100	100	100	100
44	1	927	955	10245	1	36	2.00	100	100	100	100
44	2	955	971	10017	1	36	0.55	100	100	100	100
44	3	971	984	10016	1	36	0.79	100	100	100	100
44	4	984	996	10015	1	36	0.83	100	100	100	100
44	5	996	1029	10014	1	36	0.83	100	100	100	100

- Elementi a 4 nodi

- Convenzioni adottate

L'elemento a 4 nodi è individuato tramite il numero dei quattro nodi di vertice dello stesso.

Gli assi del sistema di riferimento locale risultano così disposti:



- L'asse x_{locale} ha direzione parallela alla retta congiungente i nodi i e j , è passante per i medesimi nodi ed ha verso positivo da i a j .
- L'asse y_{locale} è ortogonale all'asse x_{locale} , passa per il nodo i ed ha verso positivo dalla parte del nodo l .
- L'asse z_{locale} è ottenuto per prodotto vettoriale fra x_{locale} e y_{locale} .

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Mesh isotropa	s= 20 [cm] PARETE 20
2	3	Mesh isotropa	s= 4 [cm] SOLAIO
3	3	Mesh isotropa	s= 24 [cm] TRAVE 24
4	3	Mesh isotropa	s= 4 [cm] SOLAIO PARTE CENTRALE

Nodo i	Nodo j	Nodo k	Nodo l	Materiale	Sezione
68	69	22	21	1	1
65	66	18	17	1	1
64	65	17	16	1	1
63	64	16	15	1	1
62	63	15	14	1	1
114	115	69	68	1	1
70	71	24	23	1	1
88	89	42	41	1	1
89	90	43	42	1	1
77	81	34	30	1	1
81	85	38	34	1	1
82	86	39	35	1	1
86	89	42	39	1	1

90	91	44	43	1	1
93	94	47	46	1	1
94	95	48	47	1	1
95	96	49	48	1	1
98	99	52	51	1	1
96	97	50	49	1	1
97	98	51	50	1	1
100	101	54	53	1	1
99	100	53	52	1	1
101	102	55	54	1	1
102	103	56	55	1	1
76	77	30	29	1	1
68	78	31	21	1	1
78	82	35	31	1	1
72	73	26	25	1	1
75	76	29	28	1	1
74	75	28	27	1	1
72	80	33	25	1	1
80	84	37	33	1	1
84	98	51	37	1	1
67	72	25	19	1	1
83	87	40	36	1	1
79	83	36	32	1	1
87	91	44	40	1	1
71	79	32	24	1	1
160	161	115	114	1	1
157	158	112	111	1	1
156	157	111	110	1	1
155	156	110	109	1	1
154	155	109	108	1	1
162	163	117	116	1	1
164	165	119	118	1	1
159	164	118	113	1	1
166	167	121	120	1	1
168	169	123	122	1	1
152	153	107	106	1	1
169	173	127	123	1	1
170	174	128	124	1	1
151	152	106	105	1	1
150	151	105	104	1	1
149	150	104	103	1	1
148	149	103	102	1	1
147	148	102	101	1	1
146	147	101	100	1	1
128	132	86	82	1	1
136	137	91	90	1	1
139	140	94	93	1	1
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141	142	96	95	1	1
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134	135	89	88	1	1

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132	135	89	86	1	1
129	133	87	83	1	1
127	131	85	81	1	1
126	130	84	80	1	1
124	128	82	78	1	1
123	127	81	77	1	1
118	126	80	72	1	1
122	123	77	76	1	1
121	122	76	75	1	1
120	121	75	74	1	1
118	119	73	72	1	1
113	118	72	67	1	1
125	129	83	79	1	1
114	124	78	68	1	1
116	117	71	70	1	1
106	107	60	59	1	1
105	106	59	58	1	1
104	105	58	57	1	1
103	104	57	56	1	1
85	103	56	38	1	1
108	109	63	62	1	1
110	111	65	64	1	1
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111	112	66	65	1	1
117	125	79	71	1	1
186	187	142	141	1	1
144	145	99	98	1	1
142	143	97	96	1	1
143	144	98	97	1	1
130	144	98	84	1	1
188	189	145	144	1	1
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189	190	146	145	1	1
160	170	124	114	1	1
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178	181	135	132	1	1
184	185	140	139	1	1
185	186	141	140	1	1
131	149	103	85	1	1
177	193	149	131	1	1
164	172	126	118	1	1
172	176	130	126	1	1
176	188	144	130	1	1
175	179	133	129	1	1
179	183	137	133	1	1
171	175	129	125	1	1
163	171	125	117	1	1
200	226	233	201	3	2

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284	295	296	285	3	2
303	358	359	304	3	2
433	434	360	359	1	1
427	428	344	343	1	1
428	429	345	344	1	1
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414	415	190	189	1	1
413	414	189	188	1	1
388	413	188	176	1	1
174	178	132	128	1	1
173	177	131	127	1	1
410	411	187	186	1	1
409	410	186	185	1	1
408	409	185	184	1	1
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195	196	152	151	1	1
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192	193	149	148	1	1
191	192	148	147	1	1
190	191	147	146	1	1
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203	228	229	204	3	2
204	229	225	205	3	2
205	225	234	206	3	2
241	284	285	242	3	2
242	285	286	243	3	2
239	282	283	240	3	2
261	281	282	239	3	2
198	263	238	199	3	2
263	279	280	238	3	2
260	278	279	263	3	2
258	275	276	259	3	2
262	277	278	260	3	2
199	238	264	200	3	2
226	261	239	233	3	2
233	239	240	227	3	2
213	250	251	214	3	2
212	249	250	213	3	2
211	248	249	212	3	2
210	237	248	211	3	2
232	247	236	235	3	2
227	240	241	228	3	2
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230	245	246	231	3	2
228	241	242	229	3	2
229	242	243	225	3	2
225	243	244	234	3	2
214	251	252	215	3	2
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217	254	255	218	3	2
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248	265	266	249	3	2
200	264	261	226	3	2
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285	296	297	286	3	2
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237	300	265	248	3	2
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278	304	305	279	3	2
283	294	295	284	3	2
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271	316	317	272	3	2
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380	397	398	381	3	2
391	396	183	179	1	1
379	391	179	175	1	1
315	351	352	316	3	2
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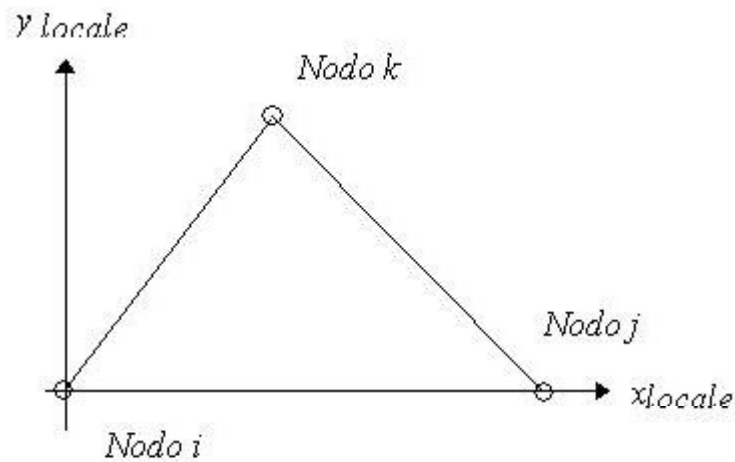
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- Elementi triangolari

- Convenzioni adottate

L'elemento trinangolare è individuato tramite il numero dei nodi di vertice dello stesso.

Gli assi del sistema di riferimento locale risultano così disposti:



- L'asse x_{locale} ha direzione parallela alla retta congiungente i nodi **i** e **j**, è passante per i medesimi nodi ed ha verso positivo da **i** a **j**.
- L'asse y_{locale} è ortogonale all'asse x_{locale} , passa per il nodo **i** ed ha verso positivo dalla parte del nodo **k**.
- L'asse z_{locale} è ottenuto per prodotto vettoriale fra x_{locale} e y_{locale} .

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Mesh isotropa	s= 20 [cm] PARETE 20
2	1	Mesh isotropa	s= 4 [cm] SOLAIO
3	3	Mesh isotropa	s= 24 [cm] TRAVE 24
4	1	Mesh isotropa	s= 4 [cm] SOLAIO PARTE CENTRALE

Nodo 1	Nodo 2	Nodo 3	Materiale	Sezione
308	297	298	1	2
308	298	329	1	2
296	327	308	1	2
327	328	308	1	2
328	308	329	1	2
299	309	300	1	2
330	299	309	1	2
293	307	292	1	2
330	322	309	1	2
293	307	324	1	2
306	307	323	1	2
324	323	307	1	2
308	296	297	1	2

310	322	309	1	2
333	334	382	1	2
382	399	400	1	2
334	382	400	1	2
305	361	362	1	2
304	359	360	1	2
310	344	345	1	2
349	350	314	1	2
362	374	363	1	2
306	363	364	1	2
363	374	380	1	2
366	365	348	1	2
348	366	349	1	2
349	366	367	1	2
349	367	368	1	2
368	349	350	1	2
314	350	315	1	2
350	315	351	1	2
350	368	369	1	2
369	350	351	1	2
369	351	370	1	2
380	379	374	1	2
379	391	380	1	2
380	391	397	1	2
375	372	383	1	2
375	383	387	1	2
397	396	391	1	2
638	639	654	1	2
648	663	649	1	2
649	663	664	1	2
665	689	688	1	2
665	689	666	1	2
666	689	690	1	2
710	709	692	1	2
692	710	693	1	2
694	693	669	1	2
710	693	711	1	2
693	712	711	1	2
693	694	712	1	2
669	694	670	1	2
670	694	695	1	2
694	712	713	1	2
694	695	713	1	2
713	695	714	1	2
716	697	705	1	2
651	699	700	1	2
652	701	702	1	2
718	702	703	1	2
653	703	704	1	2
724	723	718	1	2
716	705	719	1	2

	731	724	1	2
703	718	724	1	2
737	736	731	1	2
724	731	737	1	2
726	678	677	1	2
726	740	739	1	2
726	678	740	1	2
727	762	763	1	2
971	955	941	1	2
941	971	985	1	2
909	959	960	1	2
908	957	958	1	2
920	946	947	1	2
920	947	921	1	2
921	947	948	1	2
952	951	924	1	2
960	973	961	1	2
964	965	950	1	2
950	965	951	1	2
965	951	966	1	2
951	966	967	1	2
967	951	952	1	2
924	952	925	1	2
925	952	953	1	2
968	967	952	1	2
952	968	953	1	2
968	969	953	1	2
984	971	985	1	2
992	1000	993	1	2
996	985	984	1	2
985	1030	996	1	2
996	1029	1030	1	2

- Condizioni e combinazioni di carico

- Convenzioni adottate

Nel seguito vengono riportate il numero di condizioni di carico statiche e dinamiche che sollecitano la struttura. Si noti che:

- Per quanto riguarda le condizioni di carico dinamiche, il programma assimila ogni direzione di ingresso del sisma, definita dal progettista, ad una condizione di carico. Pertanto qualora agiscano sulla struttura n condizioni di carico statiche e il progettista abbia supposto che la struttura venga sollecitata da un sisma entrante in m direzioni, la struttura stessa viene considerata del programma come soggetta ad $n + m$ condizioni di carico.
- Le combinazioni di carico, definite dal progettista, combinano fra loro le $n + m$ condizioni di carico ognuna partecipante alla combinazione i -esima secondo i fattori di partecipazione nel seguito riportati. N.B.: se la condizione j -esima ha fattore di partecipazione unitario, allora partecipa per intero alla combinazione i -esima.
- Le prime n condizioni sono sempre statiche mentre sono di origine dinamica le (eventuali) condizioni da $n+1$ a $n+m$.

- Condizioni di carico definite:

- Cond. 1 PROPRI
- Cond. 2 PERMANENTI
- Cond. 3 VARIABILI
- Cond. 4 NEVE
- Cond. 5 PERMANENTI TRAVI BORDO
- Cond. 6 Sisma 0SLV
- Cond. 7 Sisma 90SLV
- Cond. 8 Sisma 180SLV
- Cond. 9 Sisma 270SLV

- Combinazioni agli Stati Limite Ultimi

Combinazione di carico numero

	1
	2

Comb.\Cond	1	2	3	4	5
1	1.3000	1.3000	1.5000	0.7500	1.3000
2	1.3000	1.3000	1.0500	1.5000	1.3000

- Combinazioni agli Stati Limite di Salvaguardia della Vita

Combinazione di carico numero

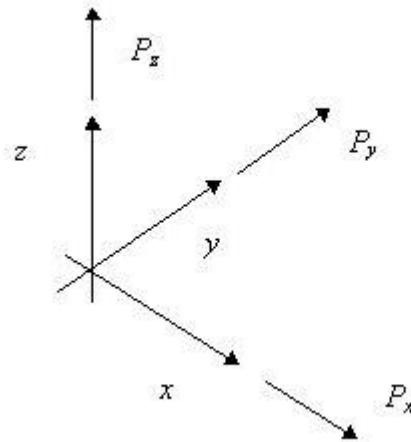
3	Sisma 0 / 90
4	Sisma 0 / 270
5	Sisma 90 / 0
6	Sisma 90 / 180
7	Sisma 180 / 90
8	Sisma 180 / 270
9	Sisma 270 / 0
10	Sisma 270 / 180

Comb.\Cond	1	2	3	4	5	6	7	8	9
3	1.0000	1.0000	0.2000	1.0000	1.0000	1.0000	0.3000	0.0000	0.0000
4	1.0000	1.0000	0.2000	1.0000	1.0000	1.0000	0.0000	0.0000	0.3000
5	1.0000	1.0000	0.2000	1.0000	1.0000	0.3000	1.0000	0.0000	0.0000
6	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	1.0000	0.3000	0.0000
7	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.3000	1.0000	0.0000
8	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.0000	1.0000	0.3000
9	1.0000	1.0000	0.2000	1.0000	1.0000	0.3000	0.0000	0.0000	1.0000
10	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.0000	0.3000	1.0000

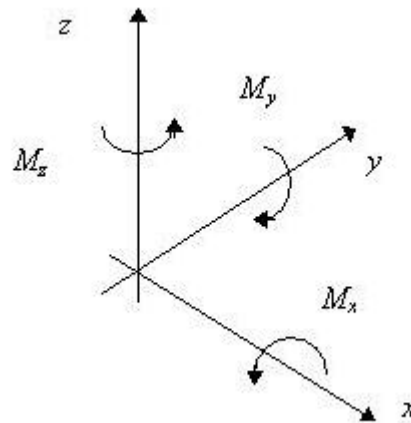
- Carichi e coppie applicati ai nodi

- Convenzioni adottate

La terna di riferimento generale è destrorsa per cui si hanno i seguenti segni positivi per i carichi o per le coppie direttamente applicati ai nodi:



Versi positivi delle forze concentrate applicate ai nodi.



Versi positivi delle coppie concentrate applicate ai nodi.

Nel seguito vengono riportati per ogni nodo, su cui agiscono carichi concentrati, le componenti del carico (P_x , P_y , P_z , M_x , M_y , M_z) e la condizione di carico cui esse fanno riferimento.

Nodo	Cond.	Px [kg]	Py [kg]	Pz [kg]	Mx [kgm]	My [kgm]	Mz [kgm]
224	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
262	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
277	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
303	2	0.0	0.0	-2104.9	0.0	0.0	0.0
	3	0.0	0.0	-765.4	0.0	0.0	0.0
305	2	0.0	0.0	-2104.9	0.0	0.0	0.0
	3	0.0	0.0	-765.4	0.0	0.0	0.0
829	2	0.0	0.0	-1652.1	0.0	0.0	0.0
	4	0.0	0.0	-360.5	0.0	0.0	0.0
831	2	0.0	0.0	-1652.1	0.0	0.0	0.0
	4	0.0	0.0	-360.5	0.0	0.0	0.0
854	2	0.0	0.0	-0.5	0.0	0.0	0.0

	4	0.0	0.0	-0.1	0.0	0.0	0.0
855	2	0.0	0.0	-0.5	0.0	0.0	0.0
	4	0.0	0.0	-0.1	0.0	0.0	0.0
882	2	0.0	0.0	-0.5	0.0	0.0	0.0
	4	0.0	0.0	-0.1	0.0	0.0	0.0

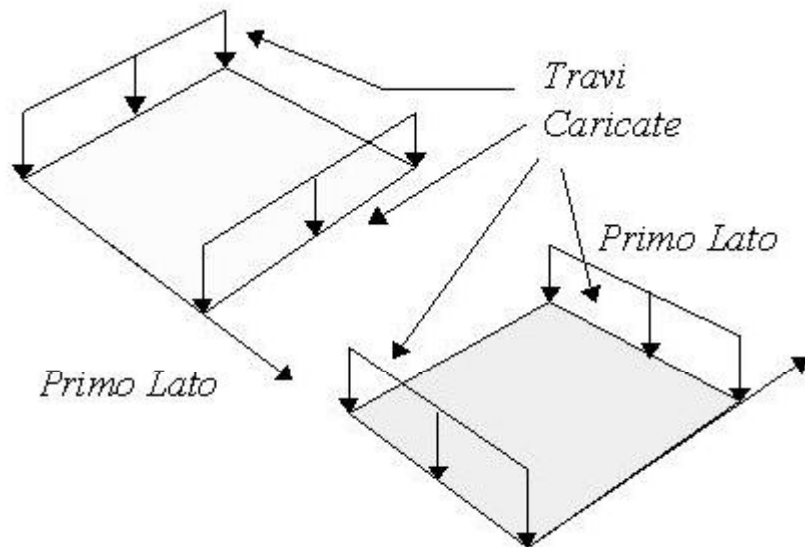
- Dati relativi alle aree di carico

- Convenzioni adottate

Nel seguito sono riportate le *aree di carico* definite nel progetto.

Un'*area di carico* è definita da una superficie contornata da travi di bordo ed i carichi superficiali su essa agenti vengono riportati dal programma sulle travi perimetrali in ragione dell'area di influenza relativa ad ogni trave e della direzione di orditura della superficie.

È importante rilevare che **la direzione di orditura viene assunta dal programma con riferimento al primo lato della superficie di carico e non con riferimento all'asse x globale della struttura.**



Esempio: *direzione di orditura 0 gradi.*

In particolare ricordiamo che le *aree di carico* fungono esclusivamente da supporto per il calcolo dei carichi di tipo superficiale in quanto i carichi definiti tramite tali *aree di carico* in effetti vengono trasferiti (sotto forma di carichi lineari o carichi nodali concentrati nei nodi) sulle travi perimetrali che contornano l'area di carico stessa.

A seguire vengono riportati per ogni tipologia definita i carichi agenti nelle varie condizioni di carico. La dizione:

Globale

indica che il carico è definito nel sistema di riferimento globale della struttura.

Globale Proiettato

indica che il carico è definito nel sistema di riferimento globale della struttura ma il valore viene computato in proiezione.

Locale

indica che il carico è definito nel sistema di riferimento locale della superficie di carico.

Area di Carico Numero	Commento
1	Solaio 1
2	Solaio 2
3	Solaio 3

Tipo	Alfa	Condizione	Carico Trasmesso	Riferimento	qx [kg/m²] Qx [kg]	qy [kg/m²] Qy [kg]	qz [kg/m²] Qz [kg]
1	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					-0.0	0.0	177771.3
1	0.00	3	Alle Travi	Globale	0.0	0.0	200.0
					-0.0	-0.0	64644.1
2	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					0.0	-0.0	177769.6
2	0.00	3	Alle Travi	Globale	0.0	0.0	200.0
					-0.0	-0.0	64643.5
3	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					0.0	0.0	180411.0
3	0.00	4	Alle Travi	Globale	0.0	0.0	120.0
					0.0	-0.0	39362.4

Tipologia	Nodi
1	317 272 255 218 219 220 221 222 259 276 321
	320 319 318 317
1	309 300 237 210 211 212 213 214 251 268 313
	312 311 310 309
1	303 277 262 224 223 198 199 200 264 292 307
	306 305 303
1	297 286 243 225 205 206 207 208 209 210 237
	300 299 302 301 298 297
1	292 264 200 201 202 203 204 205 225 243 286
	297 296 295 294 293 292
1	313 268 251 214 215 216 217 218 255 272 317
	316 315 314 313
1	422 387 375 372 353 317 318 319 320 321 357
	386 426 425 424 423 422
1	365 348 313 314 315 316 317 353 372 371 370
	369 368 367 366 365
	343 322 309 310 311 312 313 348

1	347 346 345
	344 343
1	328 308 297 298 301 302 299 300 309 322 330
	332 331 329 328
1	404 338 328 329 331 332 330 322 343 408 407
	406 392 405 404
1	323 307 292 293 294 295 296 297 308 328 327
	326 325 324 323
1	399 382 333 323 324 325 326 327 328 338 404
	403 402 401 400 399
1	358 303 304 305 306 307 323 333 382 399 398
	397 396 391 379 374 362 361 360 359 358
2	650 634 607 593 592 567 568 569 621 638 654
	653 652 651 650
2	698 650 651 652 653 654 677 726 739 738 737
	736 731 723 718 702 701 700 699 698
2	654 638 621 569 570 571 572 573 574 594 613
	644 659 658 657 656 655 654
2	739 726 677 654 655 656 657 658 659 682 744
	743 742 741 740 739
2	659 644 613 594 574 575 576 577 578 579 606
	664 663 662 661 660 659
2	744 682 659 660 661 662 663 664 687 748 747
	746 732 745 744
2	664 606 579 580 581 582 583 625 668 667 666
	665 664
2	687 664 665 666 667 668 692 691 690 689 688
	687
2	668 625 583 584 585 586 587 629 672 671 670
	669 668
2	709 692 668 669 670 671 672 697 716 715 714
	713 712 711 710 709
2	672 629 587 588 589 590 591 633 676 675 674
	673 672
2	762 727 719 716 697 672 673 674 675 676 708

	766 765 764 763 762
3	923 895 869 844 845 846 847 848 873 899 927
	926 925 924 923
3	919 891 865 840 841 842 843 844 869 895 923
	922 921 920 919
3	915 888 862 836 837 838 839 840 865 891 919
	918 917 916 915
3	911 885 859 832 833 834 835 836 862 888 915
	914 913 912 911
3	964 950 923 924 925 926 927 955 971 970 969
	968 967 966 965 964
3	945 919 920 921 922 923 950 949 948 947 946
	945
3	907 882 855 854 853 829 831 832 859 885 911
	932 910 909 908 907
3	927 899 873 848 849 850 851 852 877 903 931
	930 929 928 927
3	949 950 964 989 997 1020 1019 995 983 963 949
3	1011 977 936 915 916 917 918 919 945 980 1015
	1014 1013 1012 1011
3	1007 974 933 911 912 913 914 915 936 977 1011
	1010 1009 1008 1007
3	956 907 908 909 910 932 911 933 974 1007 1006
	1005 1004 1000 992 973 960 959 958 957 956
3	1029 996 984 971 955 927 928 929 930 931 944
	988 1033 1032 1031 1030 1029

- Carichi applicati agli elementi

- Convenzioni adottate

I carichi applicati vengono raccolti nella tabella riportata alla fine del paragrafo e si intendono applicati nel sistema di riferimento locale dell'elemento.

Per la lettura della tabella si definiscono:

NodoI, NodoJ

I nodi iniziale/finale dell'asta o lato dell'elemento cui afferisce il carico

L

La distanza fra i suddetti nodi.

qxi, ..., qzj

Le componenti di un carico distribuito costante o variabile linearmente iniziali (indice i) e finale (indice j).

xi, xj

Le distanze, misurate a partire dal Nodol, dei punti di applicazione dei carichi qxi..qzj relativi a carichi distribuiti applicati su porzioni di un'asta.

Px, ..., Pz xApp

Le componenti di un Carico Concentrato applicato a distanza xApp dal Nodol.

Mx, ..., Mz xApp

Le componenti di una Coppia Concentrata applicata a distanza xApp dal Nodol.

Var Termica Assiale, ..., Var Termica Farfalla 13

Le variazioni termiche (Assiali ed a Farfalla) misurate in gradi Celsius.

mxi, ..., mzj

Le componenti di coppie distribuite costanti o variabili linearmente iniziali (indice i) e finale (indice j).

qS_x, qS_y, qS_z

carichi, per unità di superficie, applicati su elementi superficiali o facce di elementi solidi

Peso Proprio

Il valore del carico derivante dal peso proprio dell'elemento

- Carichi distribuiti

Nodo I	Nodo J	L [m]	Condizione di carico	xi [m]	qxi [kg/m]	qyi [kg/m]	qzi [kg/m]	xj [m]	qxj [kg/m]	qyj [kg/m]	qzj [kg/m]
1	200	3.45	1	0.00	787.5	0.0	0.0	3.45	787.5	0.0	0.0
223	224	1.53	5	0.00	0.0	354.0	0.0	1.53	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.53	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.53	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.53	0.0	500.0	0.0
200	569	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
198	223	1.53	5	0.00	0.0	354.0	0.0	1.53	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.53	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.53	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.53	0.0	500.0	0.0
569	832	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
199	198	1.57	5	0.00	0.0	354.0	0.0	1.57	0.0	354.0	0.0
			1	0.00	0.0	445.5	-0.0	1.57	0.0	445.5	-0.0
			2	0.00	0.0	1375.0	-0.0	1.57	0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	1.57	0.0	500.0	-0.0
2	210	3.45	1	0.00	787.5	0.0	0.0	3.45	787.5	0.0	0.0
200	199	1.57	5	0.00	0.0	354.0	0.0	1.57	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.57	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
210	579	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0

201	200	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
579	840	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
202	201	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	0.0	1256.7	0.0	0.80	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.80	0.0	457.0	0.0
3	214	3.45	1	0.00	675.0	0.0	0.0	3.45	675.0	0.0	0.0
203	202	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	0.0	1256.8	0.0	2.20	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	2.20	0.0	457.0	0.0
214	583	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
204	203	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	1.50	0.0	457.0	0.0
583	844	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
205	204	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	0.0	1256.8	0.0	0.75	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
4	218	3.45	1	0.00	675.0	0.0	0.0	3.45	675.0	0.0	0.0
206	205	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
218	587	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
207	206	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	-0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	1.50	-0.0	457.0	0.0
587	848	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
208	207	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	0.0	1256.8	0.0	2.20	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	2.20	-0.0	457.0	0.0
5	222	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
209	208	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	-0.0	1256.8	0.0	0.80	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.80	0.0	457.0	0.0
222	591	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
210	209	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
			2	0.00	-0.0	1256.7	0.0	0.75	-0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
591	852	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
211	210	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0

			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
6	224	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
212	211	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
224	593	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
213	212	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
593	854	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
214	213	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
7	303	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
215	214	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
303	650	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
216	215	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	1.50	0.0	1374.9	0.0	1.50	0.0	1374.9	0.0
			3	1.50	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
650	907	3.45	1	0.00	165.0	0.0	0.0	3.45	165.0	0.0	0.0
217	216	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
8	307	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
218	217	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
307	654	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
219	218	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
654	911	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
220	219	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
9	309	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0

	220	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
309	664	3.45	1	0.00	306.3	0.0	0.0	3.45	306.3	0.0	0.0
222	221	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
664	919	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
304	303	1.26	1	0.00	0.0	640.0	0.0	1.26	0.0	640.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
10	313	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
305	304	1.80	1	0.00	0.0	640.0	0.0	1.80	0.0	640.0	0.0
			2	1.36	0.0	649.0	0.0	1.80	0.0	649.0	0.0
			3	1.36	-0.0	236.0	0.0	1.80	-0.0	236.0	0.0
			2	0.44	0.0	649.0	0.0	1.36	0.0	649.0	0.0
			3	0.44	0.0	236.0	0.0	1.36	0.0	236.0	0.0
			2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
313	668	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
306	305	1.57	1	0.00	0.0	640.0	0.0	1.57	0.0	640.0	0.0
			2	0.52	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.52	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
668	923	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
307	306	1.57	1	0.00	0.0	640.0	0.0	1.57	0.0	640.0	0.0
			2	1.05	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	1.05	-0.0	500.0	0.0	1.57	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.05	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
11	317	3.45	1	0.00	350.0	0.0	0.0	3.45	350.0	0.0	0.0
293	292	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
			2	0.00	0.0	1256.8	0.0	0.75	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
317	672	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
294	293	0.80	1	0.00	0.0	1182.5	0.0	0.80	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.80	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.80	0.0	86.0	0.0
			2	0.00	0.0	1256.8	0.0	0.80	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.80	0.0	457.0	0.0
672	927	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
295	294	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0

			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
			2	0.00	0.0	1256.8	0.0	2.20	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	2.20	0.0	457.0	0.0
12	321	3.45	1	0.00	250.0	0.0	0.0	3.45	250.0	0.0	0.0
296	295	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
			2	0.00	0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	1.50	0.0	457.0	0.0
321	676	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
297	296	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
676	931	3.45	1	0.00	165.0	0.0	0.0	3.45	165.0	0.0	0.0
298	297	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
13	333	3.45	1	0.00	100.0	0.0	0.0	3.45	100.0	0.0	0.0
301	298	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
			2	0.00	0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	-0.0	1.50	-0.0	457.0	-0.0
14	62	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
302	301	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
			2	0.00	-0.0	1256.8	0.0	2.20	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	2.20	0.0	457.0	0.0
62	108	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
299	302	0.80	1	0.00	0.0	1182.5	-0.0	0.80	0.0	1182.5	-0.0
			2	0.00	0.0	236.5	-0.0	0.80	0.0	236.5	-0.0
			3	0.00	0.0	86.0	-0.0	0.80	0.0	86.0	-0.0
			2	0.00	-0.0	1256.8	-0.0	0.80	-0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	0.80	0.0	457.0	-0.0
108	154	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
300	299	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
154	343	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
324	323	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0

			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
343	427	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
325	324	0.80	1	0.00	0.0	1182.5	0.0	0.80	0.0	1182.5	0.0
			2	0.00	0.0	1256.7	0.0	0.80	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	0.80	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.80	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.80	0.0	86.0	0.0
427	475	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
326	325	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	0.0	1256.7	0.0	2.20	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	2.20	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
475	523	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
327	326	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	1.50	-0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	1.50	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
523	687	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
328	327	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
687	1354	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
329	328	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	-0.0	0.75	-0.0	1256.7	0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
1354	1355	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
331	329	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	-0.0	1.50	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	1.50	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
1355	1356	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
332	331	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	0.0	2.20	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	-0.0	2.20	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
1356	945	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
330	332	0.80	1	0.00	0.0	1182.5	-0.0	0.80	0.0	1182.5	-0.0
			2	0.00	-0.0	1256.7	-0.0	0.80	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	-0.0	0.80	0.0	457.0	-0.0
			2	0.00	0.0	236.5	-0.0	0.80	0.0	236.5	-0.0
			3	0.00	0.0	86.0	-0.0	0.80	0.0	86.0	-0.0
20	353	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
322	330	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0

			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
353	697	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
310	309	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
697	955	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
311	310	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
41	88	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
312	311	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.20	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	1.20	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.10	0.0	550.0	0.0	1.20	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.20	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
88	134	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
313	312	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.00	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
134	180	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
314	313	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			3	0.98	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.98	0.0	255.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.1	0.0	0.00	0.0	1375.1	0.0
			3	0.00	0.0	500.0	0.0	0.00	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
180	393	1.05	1	0.00	250.0	0.0	0.0	1.05	250.0	0.0	0.0
315	314	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.90	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0

			3	0.90	-0.0	255.0	0.0	1.50	-0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.90	0.0	255.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
393	453	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
316	315	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			3	1.10	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	1.10	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
453	501	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
317	316	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	1.30	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
501	549	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
318	317	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
549	733	1.05	1	0.00	187.5	0.0	0.0	1.05	187.5	0.0	0.0
319	318	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
733	767	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
320	319	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
767	789	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
321	320	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.55	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
789	811	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
359	358	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0

	1001	1.05	1	0.00	187.5	0.0	0.0	1.05	187.5	0.0	0.0
359	360	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.44	0.0	236.0	0.0
45	92	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
361	360	0.92	2	0.00	0.0	649.0	0.0	0.92	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.92	0.0	236.0	0.0
92	138	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
361	362	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
138	399	1.85	1	0.00	700.0	0.0	0.0	1.85	700.0	0.0	0.0
343	344	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
399	459	0.80	1	0.00	225.0	0.0	0.0	0.80	225.0	0.0	0.0
344	345	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
459	507	0.80	1	0.00	225.0	0.0	0.0	0.80	225.0	0.0	0.0
345	346	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
507	739	1.85	1	0.00	225.0	0.0	0.0	1.85	225.0	0.0	0.0
346	347	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
739	773	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
347	348	1.60	2	0.10	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.60	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
773	795	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
365	366	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.52	0.0	255.0	0.0
795	1007	1.85	1	0.00	262.5	0.0	0.0	1.85	262.5	0.0	0.0
366	367	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.80	0.0	255.0	0.0
46	93	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
367	368	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			3	0.18	0.0	255.0	0.0	0.78	0.0	255.0	0.0
			2	0.00	0.0	701.2	0.0	0.18	0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	0.18	-0.0	255.0	0.0
93	139	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
368	369	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	0.72	-0.0	255.0	0.0
139	184	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
369	370	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			3	0.18	-0.0	255.0	0.0	0.58	-0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
184	408	1.05	1	0.00	700.0	0.0	0.0	1.05	700.0	0.0	0.0
371	370	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0

			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	0.20	0.0	255.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.20	0.0	255.0	0.0	1.30	0.0	255.0	0.0
408	460	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
372	371	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
460	508	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
394	393	1.26	1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
508	553	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
395	394	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
553	748	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
396	395	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
748	774	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
397	396	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
774	796	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
398	397	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
			2	0.52	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.05	0.0	500.0	0.0
796	815	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
399	398	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
815	1015	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
400	399	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
			2	0.00	0.0	1256.8	0.0	0.75	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
51	98	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
401	400	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	0.0	1256.8	0.0	0.80	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.80	-0.0	457.0	0.0
98	144	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
402	401	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	0.0	1256.7	0.0	2.20	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	2.20	-0.0	457.0	0.0
144	188	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
403	402	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	1.50	-0.0	457.0	0.0

	413	1.05	1	0.00	350.0	0.0	0.0	1.05	350.0	0.0	0.0
404	403	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
413	465	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
405	404	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
465	513	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
392	405	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	-0.0	1256.7	0.0	1.50	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	1.50	0.0	457.0	-0.0
513	557	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
406	392	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	-0.0	1256.7	-0.0	2.20	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	0.0	2.20	0.0	457.0	0.0
557	753	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
407	406	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	-0.0	1256.7	0.0	0.80	-0.0	1256.7	0.0
			3	0.00	0.0	457.0	-0.0	0.80	0.0	457.0	-0.0
753	779	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
408	407	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
779	801	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
409	408	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
801	819	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
410	409	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
819	1020	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
411	410	1.00	1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
60	107	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
412	411	1.20	1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
107	153	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
413	412	1.60	1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
153	197	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
197	422	1.05	1	0.00	350.0	0.0	0.0	1.05	350.0	0.0	0.0
422	474	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
474	522	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
522	566	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
566	762	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
762	788	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
788	810	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
810	828	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
828	1029	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
423	422	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0

			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
61	426	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
424	423	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
426	766	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
425	424	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.55	0.0	500.0	0.0
766	1033	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
426	425	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
308	659	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
592	593	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	-0.0	1.50	0.0	445.5	-0.0
			2	0.24	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.24	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
			2	0.00	0.0	1375.0	-0.0	0.24	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.24	-0.0	500.0	-0.0
574	836	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
567	592	1.56	5	0.00	0.0	354.0	0.0	1.56	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.56	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.56	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.56	-0.0	500.0	-0.0
744	1011	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
568	567	1.64	5	0.00	0.0	354.0	0.0	1.64	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.64	0.0	445.5	0.0
			2	0.07	0.0	1375.0	0.0	1.64	0.0	1375.0	0.0
			3	0.07	-0.0	500.0	0.0	1.64	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.07	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.07	0.0	500.0	0.0
569	568	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	0.0
570	569	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
571	570	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
572	571	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0

			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
573	572	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
574	573	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
575	574	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
576	575	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
577	576	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
578	577	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
579	578	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
580	579	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
581	580	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
582	581	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
583	582	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
584	583	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
585	584	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0

			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
586	585	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
587	586	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
588	587	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
589	588	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.60	0.0	445.5	0.0
			2	1.50	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
590	589	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.60	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.60	-0.0	500.0	0.0
591	590	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
651	650	1.26	1	0.00	0.0	575.0	0.0	1.26	0.0	575.0	0.0
			2	0.00	-0.0	649.0	0.0	1.26	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.26	-0.0	500.0	-0.0
652	651	1.80	1	0.00	0.0	575.0	0.0	1.80	0.0	575.0	0.0
			2	1.36	0.0	649.0	0.0	1.80	0.0	649.0	0.0
			3	1.36	-0.0	236.0	0.0	1.80	-0.0	236.0	0.0
			2	0.44	-0.0	649.0	0.0	1.36	-0.0	649.0	0.0
			3	0.44	0.0	236.0	0.0	1.36	0.0	236.0	0.0
			2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.56	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.56	-0.0	500.0	-0.0
			2	1.56	0.0	1375.0	-0.0	1.80	0.0	1375.0	-0.0
			3	1.56	-0.0	500.0	-0.0	1.80	-0.0	500.0	-0.0
653	652	1.57	1	0.00	0.0	575.0	0.0	1.57	0.0	575.0	0.0
			2	0.52	-0.0	1375.0	0.0	1.57	-0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.57	0.0	1375.0	-0.0

			3	0.00	-0.0	500.0	-0.0	1.57	-0.0	500.0	-0.0
654	653	1.57	1	0.00	0.0	575.0	0.0	1.57	0.0	575.0	0.0
			2	1.05	-0.0	1375.0	0.0	1.57	-0.0	1375.0	0.0
			3	1.05	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.05	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
			2	1.50	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.57	0.0	500.0	0.0
655	654	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
656	655	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
657	656	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
658	657	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
659	658	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
660	659	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	-0.0	1375.0	-0.0	0.75	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
661	660	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
662	661	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
663	662	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0

			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
664	663	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	-0.0	0.75	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
665	664	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
666	665	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
667	666	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.20	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	1.20	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.10	0.0	550.0	0.0	1.20	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.20	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
668	667	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
669	668	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			3	0.98	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.98	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
670	669	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.90	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	0.90	-0.0	255.0	0.0	1.50	-0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.90	0.0	255.0	0.0

			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
671	670	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			3	1.10	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	1.10	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
672	671	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	1.30	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
673	672	1.60	1	0.00	0.0	575.0	0.0	1.60	0.0	575.0	0.0
			2	0.10	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.10	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.10	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.10	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.10	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.10	0.0	500.0	0.0
			2	0.10	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	0.10	0.0	500.0	0.0	1.60	0.0	500.0	0.0
674	673	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
675	674	1.60	1	0.00	0.0	575.0	0.0	1.60	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
676	675	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
699	698	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	-0.0	649.0	0.0	1.26	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
699	700	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.44	0.0	236.0	0.0
701	700	0.92	2	0.00	-0.0	649.0	0.0	0.92	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.92	0.0	236.0	0.0
701	702	0.44	2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0

	688	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
688	689	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
689	690	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
690	691	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
691	692	1.60	2	0.10	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.60	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
709	710	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.52	0.0	255.0	0.0
710	711	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.80	0.0	255.0	0.0
711	712	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			3	0.18	0.0	255.0	0.0	0.78	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
712	713	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	0.72	-0.0	255.0	0.0
713	714	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			3	0.18	-0.0	255.0	0.0	0.58	-0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
715	714	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	0.20	0.0	255.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.20	0.0	255.0	0.0	1.30	0.0	255.0	0.0
716	715	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
734	733	1.26	1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
735	734	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
736	735	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
737	736	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
738	737	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.52	-0.0	500.0	0.0
			2	0.52	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.05	0.0	500.0	0.0

	738	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
740	739	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
741	740	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
742	741	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
743	742	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
744	743	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
745	744	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	0.75	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	0.75	0.0	500.0	-0.0
732	745	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
746	732	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
747	746	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
748	747	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	0.75	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
749	748	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
750	749	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
751	750	1.00	1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
752	751	1.20	1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
753	752	1.60	1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
763	762	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.50	0.0	457.5	0.0

			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
764	763	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.60	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	1.50	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.60	0.0	500.0	0.0
765	764	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.60	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
766	765	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.50	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
853	854	1.26	5	0.00	0.0	800.0	0.0	1.26	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.26	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.26	0.0	300.0	-0.0
829	853	1.40	5	0.00	0.0	800.0	0.0	1.40	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.40	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.40	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.40	0.0	300.0	-0.0
830	829	1.25	5	0.00	0.0	800.0	0.0	1.25	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.25	0.0	453.0	0.0
831	830	1.15	5	0.00	0.0	800.0	0.0	1.15	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.15	0.0	453.0	0.0
832	831	1.14	5	0.00	0.0	800.0	0.0	1.14	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.14	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.14	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.14	0.0	300.0	0.0
833	832	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
834	833	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
835	834	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
836	835	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
837	836	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0

			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
838	837	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
839	838	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
840	839	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
841	840	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
842	841	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
843	842	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.10	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.10	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	0.10	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	0.10	-0.0	300.0	0.0
844	843	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
845	844	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	-0.0	1.50	0.0	300.0	-0.0
846	845	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
847	846	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
848	847	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
849	848	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0

	849	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
851	850	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
852	851	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
908	907	1.26	1	0.00	0.0	340.0	0.0	1.26	0.0	340.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	1.26	0.0	141.6	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	0.0	1.26	0.0	300.0	0.0
909	908	1.40	1	0.00	0.0	340.0	0.0	1.40	0.0	340.0	0.0
			2	0.96	0.0	649.0	0.0	1.40	0.0	649.0	0.0
			4	0.96	0.0	141.6	0.0	1.40	0.0	141.6	0.0
			2	0.04	0.0	649.0	0.0	0.96	0.0	649.0	0.0
			4	0.04	0.0	141.6	0.0	0.96	0.0	141.6	0.0
			2	0.00	0.0	649.0	0.0	0.04	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.04	0.0	141.6	0.0
			2	0.00	0.0	1375.0	-0.0	1.40	-0.0	1375.0	-0.0
			4	0.00	-0.0	300.0	-0.0	1.40	0.0	300.0	0.0
910	909	1.25	1	0.00	0.0	340.0	0.0	1.25	0.0	340.0	0.0
			2	0.85	0.0	649.0	0.0	1.25	0.0	649.0	0.0
			4	0.85	0.0	141.6	0.0	1.25	0.0	141.6	0.0
			2	0.00	0.0	1375.0	0.0	0.85	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.85	0.0	300.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.25	0.0	1375.0	-0.0
			4	0.00	-0.0	300.0	-0.0	1.25	-0.0	300.0	-0.0
932	910	1.15	1	0.00	0.0	340.0	-0.0	1.15	0.0	340.0	-0.0
			2	0.96	0.0	1375.0	-0.0	1.15	0.0	1375.0	-0.0
			4	0.96	0.0	300.0	-0.0	1.15	0.0	300.0	-0.0
			2	0.00	0.0	1375.0	-0.0	0.96	0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	0.96	0.0	300.0	-0.0
			2	0.00	0.0	1375.0	-0.0	1.15	0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.15	0.0	300.0	-0.0
911	932	1.14	1	0.00	0.0	340.0	0.0	1.14	0.0	340.0	0.0
			2	1.05	0.0	1375.0	0.0	1.14	0.0	1375.0	0.0
			4	1.05	0.0	300.0	0.0	1.14	0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.05	0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.14	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.14	0.0	300.0	0.0
912	911	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0

			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
913	912	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
914	913	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
915	914	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
916	915	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
917	916	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
918	917	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
919	918	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
920	919	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			4	0.40	0.0	120.0	0.0	1.50	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.40	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
921	920	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			4	0.80	0.0	120.0	0.0	1.50	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.80	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
922	921	1.40	1	0.00	0.0	340.0	0.0	1.40	0.0	340.0	0.0

			2	1.10	0.0	550.0	0.0	1.40	0.0	550.0	0.0
			4	1.10	0.0	120.0	0.0	1.40	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.40	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.40	-0.0	300.0	0.0
923	922	1.60	1	0.00	0.0	340.0	0.0	1.60	0.0	340.0	0.0
			2	0.00	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.60	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
			2	1.50	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			4	1.50	-0.0	300.0	0.0	1.60	-0.0	300.0	0.0
924	923	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			4	0.98	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0
			4	0.18	-0.0	153.0	0.0	0.98	-0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.18	0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
925	924	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.90	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			4	0.90	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			4	0.18	0.0	153.0	0.0	0.90	0.0	153.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	0.18	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
926	925	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			4	1.10	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			4	0.00	-0.0	153.0	0.0	1.10	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
927	926	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			4	1.30	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
928	927	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
929	928	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0

			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
930	929	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
931	930	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
957	956	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	1.26	0.0	141.6	0.0
957	958	0.44	2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.44	0.0	141.6	0.0
959	958	0.92	2	0.00	0.0	649.0	0.0	0.92	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.92	0.0	141.6	0.0
959	960	0.44	2	0.04	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			4	0.04	0.0	141.6	0.0	0.44	0.0	141.6	0.0
			2	0.00	0.0	649.0	0.0	0.04	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.04	0.0	141.6	0.0
945	946	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
946	947	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.40	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.40	0.0	120.0	0.0
947	948	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.80	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.80	0.0	120.0	0.0
948	949	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
949	950	1.60	2	0.00	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.60	0.0	120.0	0.0
964	965	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.52	0.0	153.0	0.0
965	966	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.80	0.0	153.0	0.0
966	967	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			4	0.18	0.0	153.0	0.0	0.78	0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	0.18	-0.0	153.0	0.0
967	968	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.72	0.0	153.0	0.0
968	969	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			4	0.18	0.0	153.0	0.0	0.58	0.0	153.0	0.0

			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.18	0.0	153.0	0.0
970	969	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			4	0.00	0.0	153.0	0.0	0.20	0.0	153.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			4	0.20	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
971	970	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			4	0.00	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
1002	1001	1.26	5	0.00	0.0	800.0	0.0	1.26	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
1003	1002	0.90	5	0.00	0.0	800.0	0.0	0.90	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
1004	1003	0.90	5	0.00	0.0	800.0	0.0	0.90	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
1005	1004	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	0.20	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.20	0.0	300.0	0.0
			2	0.20	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.20	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1006	1005	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	0.09	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.09	0.0	300.0	0.0
			2	0.09	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.09	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1007	1006	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1008	1007	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1009	1008	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1010	1009	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1011	1010	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1012	1011	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0

			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1013	1012	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1014	1013	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1015	1014	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1016	1015	1.10	5	0.00	0.0	800.0	0.0	1.10	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
1017	1016	1.10	5	0.00	0.0	800.0	0.0	1.10	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
1018	1017	1.00	5	0.00	0.0	800.0	0.0	1.00	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
1019	1018	1.20	5	0.00	0.0	800.0	0.0	1.20	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
1020	1019	1.60	5	0.00	0.0	800.0	0.0	1.60	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
1021	1020	0.52	5	0.00	0.0	800.0	0.0	0.52	0.0	800.0	0.0
1022	1021	0.80	5	0.00	0.0	800.0	0.0	0.80	0.0	800.0	0.0
1023	1022	0.78	5	0.00	0.0	800.0	0.0	0.78	0.0	800.0	0.0
1024	1023	0.72	5	0.00	0.0	800.0	0.0	0.72	0.0	800.0	0.0
1025	1024	0.58	5	0.00	0.0	800.0	0.0	0.58	0.0	800.0	0.0
1026	1025	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1027	1026	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1028	1027	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1029	1028	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1030	1029	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1031	1030	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1032	1031	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1033	1032	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
200	264	2.31	1	0.00	0.0	956.2	0.0	2.31	0.0	956.2	0.0
264	292	2.26	1	0.00	0.0	956.2	0.0	2.26	0.0	956.2	0.0
292	307	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0

	323	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0
323	333	1.57	1	0.00	0.0	956.2	0.0	1.57	0.0	956.2	0.0
333	382	1.68	1	0.00	0.0	956.2	0.0	1.68	0.0	956.2	0.0
382	399	1.32	1	0.00	0.0	956.2	0.0	1.32	0.0	956.2	0.0
297	308	0.43	1	0.00	0.0	1275.0	0.0	0.43	0.0	1275.0	0.0
308	328	0.43	1	0.00	0.0	1275.0	0.0	0.43	0.0	1275.0	0.0
210	237	2.31	1	0.00	0.0	956.2	0.0	2.31	0.0	956.2	0.0
237	300	2.26	1	0.00	0.0	956.2	0.0	2.26	0.0	956.2	0.0
300	309	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0
309	322	0.43	1	0.00	0.0	701.2	0.0	0.43	0.0	701.2	0.0
322	343	1.57	1	0.00	0.0	956.2	0.0	1.57	0.0	956.2	0.0
343	408	3.00	1	0.00	0.0	412.5	0.0	3.00	0.0	412.5	0.0
317	353	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
353	372	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
372	375	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
375	387	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
387	422	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
569	621	2.31	1	0.00	0.0	180.0	0.0	2.31	0.0	180.0	0.0
621	638	1.56	1	0.00	0.0	180.0	0.0	1.56	0.0	180.0	0.0
638	654	1.13	1	0.00	0.0	180.0	0.0	1.13	0.0	180.0	0.0
654	677	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
677	726	1.68	1	0.00	0.0	180.0	0.0	1.68	0.0	180.0	0.0
726	739	1.32	1	0.00	0.0	180.0	0.0	1.32	0.0	180.0	0.0
579	606	2.31	1	0.00	0.0	240.0	0.0	2.31	0.0	240.0	0.0
606	664	2.69	1	0.00	0.0	240.0	0.0	2.69	0.0	240.0	0.0
664	687	2.00	1	0.00	0.0	240.0	0.0	2.00	0.0	240.0	0.0
687	748	3.00	1	0.00	0.0	180.0	0.0	3.00	0.0	180.0	0.0
672	697	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
697	716	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
716	719	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
719	727	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
727	762	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
832	859	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
859	885	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
885	911	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
911	933	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
933	974	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
974	1007	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
840	865	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
865	891	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
891	919	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
919	945	2.00	1	0.00	0.0	340.0	0.0	2.00	0.0	340.0	0.0
945	980	1.33	1	0.00	0.0	180.0	0.0	1.33	0.0	180.0	0.0
980	1015	1.67	1	0.00	0.0	180.0	0.0	1.67	0.0	180.0	0.0
949	963	0.51	1	0.00	0.0	120.0	0.0	0.51	0.0	120.0	0.0
			2	0.00	0.0	440.0	0.0	0.51	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.51	0.0	96.0	0.0
963	983	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0
			2	0.04	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.04	0.0	96.0	0.0	0.83	0.0	96.0	0.0
			2	0.00	0.0	440.0	0.0	0.04	0.0	440.0	0.0

			4	0.00	0.0	96.0	0.0	0.04	0.0	96.0	0.0
983	995	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0
			2	0.02	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.02	0.0	96.0	0.0	0.83	0.0	96.0	0.0
			2	0.00	0.0	440.0	0.0	0.02	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.02	0.0	96.0	0.0
995	1019	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0
			2	0.00	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.83	0.0	96.0	0.0
950	964	0.55	2	0.00	0.0	440.0	0.0	0.51	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.51	0.0	96.0	0.0
			2	0.51	0.0	440.0	0.0	0.55	0.0	440.0	0.0
			4	0.51	0.0	96.0	0.0	0.55	0.0	96.0	0.0
964	989	0.81	2	0.00	0.0	440.0	0.0	0.79	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.79	0.0	96.0	0.0
			2	0.79	0.0	440.0	0.0	0.81	0.0	440.0	0.0
			4	0.79	0.0	96.0	0.0	0.81	0.0	96.0	0.0
989	997	0.81	2	0.00	0.0	440.0	0.0	0.81	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.81	0.0	96.0	0.0
997	1020	0.83	2	0.00	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.83	0.0	96.0	0.0
927	955	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
955	971	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
971	984	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
984	996	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
996	1029	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0

- [En.Ex.Sys. WinStrand](#)
- [Dati relativi ai nodi della struttura](#)
- [Elementi tipo pilastro](#)
- [Elementi tipo trave](#)
- [Elementi a 4 nodi](#)
- [Elementi triangolari](#)
- [Condizioni e combinazioni di carico](#)
- [Carichi e coppie applicati ai nodi](#)
- [Dati relativi alle aree di carico](#)
- [Carichi applicati agli elementi](#)

4.1.4 Verifica pilastri – stato di fatto

- En.Ex.Sys. WinStrand

- Structural Analysis & Design

Ditta produttrice:

En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:

WinStrand

Piattaforma software:

Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:

Manuale teorico - Manuale d'uso

Campo di applicazione:

Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastrini).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T .
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. "Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica".
- Legge n. 64 del 2 Febbraio 1974. "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche".
- D.M. del 3 Marzo 1975. "Approvazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Marzo 1975. "Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Ottobre 1978. "Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi".
- D.M. del 14 Febbraio 1992. "Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche".
- Istruzioni per la valutazione delle: Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. "Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
- D.M. del 16 Gennaio 1996. "Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»".
- D.M. del 16 Gennaio 1996. "Norme tecniche per le costruzioni in zone sismiche"
- Ordinanza n. 3274 del 20 Marzo 2003. "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"
- Ordinanza n. 3316. "Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"
- D.M. del 14 Gennaio 2008 "Approvazione delle nuove norme tecniche per le costruzioni"

- Verifiche pilastri

- Modalità di verifica

I pilastri vengono verificati (a discrezione dell'operatore) secondo le seguenti modalità:

- Presso-tenso flessione deviata.
- Presso-tenso flessione retta. In tale caso viene svolta prima la verifica a presso-tenso flessione considerando come azioni agenti lo sforzo normale ed il momento M_x agente sulla sezione poi, disgiuntamente, considerando come azioni agenti lo sforzo normale e l'altro momento M_y . A discrezione dell'operatore tali momenti (a favore della sicurezza) possono essere incrementati di un fattore di amplificazione anch'esso a discrezione dell'utente.

Per ogni pilastro le verifiche vengono svolte sia nella sezione di sommità che in quella di base in tutte le combinazioni di carico.

Nelle stampe vengono quindi riportate per le due sezioni di verifica succitate:

La combinazione di carico, le sollecitazioni (sforzo normale e momenti) che inducono le massime tensioni nel calcestruzzo, nel ferro teso e nel ferro compresso.

Il programma, per ogni sezione, una volta posizionati i ferri d'angolo sulla sezione, introduce lungo i bordi eventuali ferri di completamento così da rispettare l'interasse massimo fra i ferri imposto dall'operatore.

La verifica procede considerando (quanto a diametri) fissi i ferri di bordo, eventualmente introdotti, ed incrementando negli angoli il numero di ferri presenti ovvero il diametro degli stessi.

Tutti gli angoli della sezione vengono armati nella stesso modo sia quanto a diametro dei ferri presenti che quanto a numero di ferri.

Si noti che in ottemperanza a quanto prescritto nel punto **3.1.3** del *D.M. 14 febbraio 1992*, il programma, qualora la tensione media dell'intera sezione superi la tensione ammissibile per compressione semplice, considera tale situazione non verificata benchè possa risultare soddisfatta la verifica a pressoflessione utilizzando la sigma massima del calcestruzzo impiegato.

- Sezioni Impiegate:

Sezione Numero	Info	Dimensioni	Criterio	Calcestruzzo	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Acciaio	f_{yd} [kg/cm ²]	σ_{yRARE} [kg/cm ²]	σ_{yFREQ} [kg/cm ²]	σ_{yOP} [kg/cm ²]	Copriferro [cm]	Verifica	cotg (θ)
9	Rett. 70x45	B 70 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
20	Rett. P10 35x45	B 35 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
28	Rett. S8 30x45	B 30 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
10	Rett. 60x45	B 60 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
8	Rett. 40x45	B 40 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
19	Rett. P9 30x45	B 30 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
4	Rett. 30x40	B 30 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
15	Rett. P5 25x35	B 25 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
25	Rett. S5 22x30	B 22 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
5	Rett. 45x40	B 45 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
16	Rett. P6 30x35	B 30 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
21	Rett. S1 25x30	B 25 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
17	Rett. P7 35x35	B 35 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
3	Rett. 35x40	B 35 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
1	Rett. 25x40	B 25 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
6	Rett. 20x20	B 20 [cm] H 20 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
	Rett.	B 20 [cm] H								FeB						Retta	

18	P8 20x20	20 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	32k	2739.1	2520.0	3150.0	3150.0	1.00	(N/Mx - N/My)	1.0
7	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
12	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
27	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
11	Rett. 25x30	B 25 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
2	Rett. 70x40	B 70 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
22	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
14	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
24	Rett. 30x25	B 30 [cm] H 25 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx*1.33 - N/My*1.33)	1.0
29	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
23	Rett. 35x25	B 35 [cm] H 25 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0

- Verifiche Pilastri:

Fattore di sovraresistenza $\gamma_{R,d}=1.00$ Nella verifica a presso-flessione è ignorato il metodo α per il calcolo delle azioni di progetto. Il controllo della gerarchia delle resistenti è demandato al controllo dell'equilibrio nodale.

- Pilastro: 1/200 / L 3.20[m] / Sezione 9 B 70 [cm]H 45 [cm] NON VERIFICATO

Af: $10 \varnothing 16$ Af=20.11 [cm²] < $1\phi 16 \times 4 V + 2\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8$ 4br./7.5' x 70.0+ $\varnothing 8$ 4br./10.0' x 180.0+ $\varnothing 8$ 4br./7.5' x 70.0 Ast/s=0.268083 < 0.08 fcd bst/fyd 0.276932

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
1	1	-129410.4	0.0	11275.0	1.00	1.00	0.35
200	1	-125878.5	0.0	-25307.0	1.00	1.00	0.51

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.82	16490.4	28153.6	24774.0	44675.6	$\varnothing 8$ 4br./7.5'
0.82	2.63	16490.4	21115.2	24774.0	33506.7	$\varnothing 8$ 4br./10.0'
2.63	3.33	16490.4	28153.6	24774.0	44675.6	$\varnothing 8$ 4br./7.5'

- Pilastro: 200/569 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 4 \varnothing 16$ Af=20.61 [cm²] < $1\phi 20 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8$ 2br.x4br./7.5' x 53.3+ $\varnothing 8$ 2br.x4br./10.0' x 213.3+ $\varnothing 8$ 2br.x4br./7.5' x 53.3 Vsd 12148.0 > $VR_{s,d}$ 10557.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
200	1	-80220.5	0.0	6711.3	1.00	1.00	0.49
569	1	-78454.6	0.0	-8151.1	1.00	1.00	0.54

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	12148.0	14076.8	9274.8	21544.7	$\varnothing 8$ 2br.x4br./7.5'

0.66	2.79	12148.0	10557.6	9274.8	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	12148.0	14076.8	9274.8	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 569/832 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 4 ø 20 + 2 ø 16 Af=16.59 [cm²] < 1φ20 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 8720.6 > VR_{s,d} 8446.1

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
569	6	-30008.7	0.0	5583.2	1.00	1.00	0.60
832	6	-28844.3	0.0	-5849.9	1.00	1.00	0.64

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8720.6	14076.8	5820.3	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	8720.6	8446.1	5820.3	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	8720.6	14076.8	5820.3	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 2/210 / L 3.20[m] / Sezione 9 B 70 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 70.0+ø 8 4br./10.0' x 180.0+ø 8 4br./7.5' x 70.0 Ast/s=0.268083 < 0.08 fcd bst/fyd 0.276932

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
2	1	-127064.1	0.0	-11562.7	1.00	1.00	0.35
210	1	-123532.2	0.0	26075.5	1.00	1.00	0.52

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.82	16367.8	28153.6	24608.7	44675.6	ø 8 4br./7.5'
0.82	2.63	16367.8	21115.2	24608.7	33506.7	ø 8 4br./10.0'
2.63	3.33	16367.8	28153.6	24608.7	44675.6	ø 8 4br./7.5'

- Pilastro: 210/579 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 4 ø 20 + 4 ø 16 Af=20.61 [cm²] < 1φ20 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 12125.8 > VR_{s,d} 10557.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
210	1	-79305.4	0.0	-6703.4	1.00	1.00	0.49
579	1	-77539.4	0.0	8255.6	1.00	1.00	0.55

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	12125.8	14076.8	9257.5	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	12125.8	10557.6	9257.5	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	12125.8	14076.8	9257.5	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 579/840 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 20 Af=18.85 [cm²] < 1φ20 x 4 V + 0φ20 x 2 B + 1φ20 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 9165.9 > VR_{s,d} 8446.1

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr

579	9	-30293.3	0.0	-5780.5	1.00	1.00	0.57
840	9	-29128.9	0.0	6198.3	1.00	1.00	0.62

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9165.9	14076.8	6267.9	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	9165.9	8446.1	6267.9	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	9165.9	14076.8	6267.9	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 3/214 / L 3.20[m] / Sezione 10 B 60 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 60.0+ø 8 4br./12.5' x 200.0+ø 8 4br./7.5' x 60.0 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.235722

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
3	1	-59471.1	0.0	1011.6	1.00	1.00	0.15
214	1	-56443.7	0.0	-1772.9	1.00	1.00	0.15

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.72	11676.0	28153.6	15370.4	38066.8	ø 8 4br./7.5'
0.72	2.73	11676.0	16892.1	15370.4	22840.1	ø 8 4br./12.5'
2.73	3.33	11676.0	28153.6	15370.4	38066.8	ø 8 4br./7.5'

- Pilastro: 214/583 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
214	1	-37502.9	0.0	845.5	1.00	1.00	0.17
583	10	-25863.5	0.0	-1769.4	1.00	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8463.5	14076.8	6464.5	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	8463.5	10557.6	6464.5	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	8463.5	14076.8	6464.5	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 583/844 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
583	10	-15288.7	0.0	2007.8	1.00	1.00	0.33
844	10	-14124.3	0.0	-2101.9	1.00	1.00	0.35

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5834.2	14076.8	3806.4	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5834.2	8446.1	3806.4	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5834.2	14076.8	3806.4	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 4/218 / L 3.20[m] / Sezione 10 B 60 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 60.0+ø 8 4br./12.5' x 200.0+ø 8 4br./7.5' x 60.0 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.235722

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
4	1	-78655.1	0.0	835.0	1.00	1.00	0.19
218	1	-75627.7	0.0	-1479.8	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.72	13007.3	28153.6	16997.4	38066.8	ø 8 4br./7.5'
0.72	2.73	13007.3	16892.1	16997.4	22840.1	ø 8 4br./12.5'
2.73	3.33	13007.3	28153.6	16997.4	38066.8	ø 8 4br./7.5'

- Pilastro: 218/587 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
218	1	-52157.5	0.0	494.1	1.00	1.00	0.21
587	1	-50391.5	0.0	-509.9	1.00	1.00	0.20

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9389.8	14076.8	7183.9	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	9389.8	10557.6	7183.9	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	9389.8	14076.8	7183.9	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 587/848 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
587	10	-21181.5	0.0	1613.7	1.00	1.00	0.24
848	10	-20017.1	0.0	-1755.3	1.00	1.00	0.26

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6433.0	14076.8	4262.6	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	6433.0	8446.1	4262.6	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	6433.0	14076.8	4262.6	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 5/222 / L 3.20[m] / Sezione 8 B 40 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 53.3+ø 8 4br./12.5' x 213.3+ø 8 4br./7.5' x 53.3 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.173907

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
5	3	-24835.9	0.0	-1760.9	1.00	1.00	0.15
222	3	-23283.4	0.0	2687.8	1.00	1.00	0.23

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]	
0.13	0.66	8327.8	28153.6	7343.5	24849.2	ø 8 4br./7.5'
0.66	2.79	8327.8	16892.1	7343.5	14909.5	ø 8 4br./12.5'
2.79	3.33	8327.8	28153.6	7343.5	24849.2	ø 8 4br./7.5'

- Pilastro: 222/591 / L 3.20[m] / Sezione 19 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
222	5	-16862.1	0.0	-1950.5	1.00	1.00	0.31
591	5	-15697.7	0.0	1979.3	1.00	1.00	0.32

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5994.5	14076.8	3925.5	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5994.5	8446.1	3925.5	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5994.5	14076.8	3925.5	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 591/852 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
591	5	-9076.1	0.0	-2859.1	1.00	1.00	0.53
852	5	-7911.8	0.0	3410.0	1.00	1.00	0.65

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5160.7	14076.8	3329.6	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5160.7	8446.1	3329.6	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5160.7	14076.8	3329.6	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 6/224 / L 3.20[m] / Sezione 8 B 40 [cm]H 45 [cm] NON VERIFICATO

Af: $8 \text{ } \phi 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 1 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 4br./7.5' x 53.3} + \phi 8 \text{ 4br./12.5' x 213.3} + \phi 8 \text{ 4br./7.5' x 53.3}$ Ast/s=0.160850 < 0.08 fcd bst/fyd 0.173907

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
6	8	-19408.1	0.0	1241.4	1.00	1.00	0.11
224	8	-17855.6	0.0	-1787.9	1.00	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	7754.8	28153.6	6834.2	24849.2	ø 8 4br./7.5'
0.66	2.79	7754.8	16892.1	6834.2	14909.5	ø 8 4br./12.5'
2.79	3.33	7754.8	28153.6	6834.2	24849.2	ø 8 4br./7.5'

- Pilastro: 224/593 / L 3.20[m] / Sezione 19 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
224	10	-11746.1	0.0	1210.7	1.00	1.00	0.21
593	10	-10581.7	0.0	-1001.5	1.00	1.00	0.18

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5555.3	14076.8	3603.9	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5555.3	8446.1	3603.9	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5555.3	14076.8	3603.9	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 593/854 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' } \times 53.3 + \phi 8 \text{ 2br.x4br./12.5' } \times 213.3 + \phi 8 \text{ 2br.x4br./7.5' } \times 53.3 \text{ Ast/s}=0.080425 < 0.08 \text{ fcd bst/fyd } 0.112092$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
593	6	-7039.9	0.0	1553.9	1.00	1.00	0.30
854	6	-5875.5	0.0	-1920.3	1.00	1.00	0.38

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	4922.5	14076.8	3171.3	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	4922.5	8446.1	3171.3	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	4922.5	14076.8	3171.3	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 7/303 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' } \times 53.3 + \phi 8 \text{ 2br.x4br./12.5' } \times 213.3 + \phi 8 \text{ 2br.x4br./7.5' } \times 53.3 \text{ Ast/s}=0.080425 < 0.08 \text{ fcd bst/fyd } 0.112092$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
7	6	-13207.3	-1310.2	0.0	1.00	1.00	0.17
303	6	-12172.3	1367.6	0.0	1.00	1.00	0.18

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5731.6	12424.6	4368.9	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5731.6	7454.7	4368.9	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5731.6	12424.6	4368.9	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 303/650 / L 3.20[m] / Sezione 15 B 25 [cm]H 35 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 7/5' } \times 53.3 + \phi 8 \text{ 10/0' } \times 213.3 + \phi 8 \text{ 7/5' } \times 53.3 \text{ Ast/s}=0.100531 < 0.08 \text{ fcd bst/fyd } 0.132697$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
303	6	-8524.0	-1831.8	0.0	1.00	1.00	0.30
650	6	-7769.4	2194.1	0.0	1.00	1.00	0.36

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	4256.2	10772.4	3031.7	7468.0	ø 8/7.5'
0.66	2.79	4256.2	8079.3	3031.7	5601.0	ø 8/10.0'
2.79	3.33	4256.2	10772.4	3031.7	7468.0	ø 8/7.5'

- Pilastro: 650/907 / L 3.20[m] / Sezione 25 B 22 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
650	6	-4726.9	-2156.8	0.0	1.00	1.00	0.24
907	6	-4157.6	2284.2	0.0	1.00	1.00	0.26

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5544.7	9120.2	4154.1	6476.6	ϕ 8/7.5'
0.66	2.79	5544.7	6840.1	4154.1	4857.5	ϕ 8/10.0'
2.79	3.33	5544.7	9120.2	4154.1	6476.6	ϕ 8/7.5'

- Pilastro: 8/307 / L 3.20[m] / Sezione 5 B 45 [cm]H 40 [cm] NON VERIFICATO

Af: 12 ϕ 20 Af=37.70 [cm²] < 1 ϕ 20 x 4 V + 2 ϕ 20 x 2 B + 2 ϕ 20 x 2 H >

Staffe: ϕ 8 4br./7.5' x 53.3+ ϕ 8 4br./12.5' x 213.3+ ϕ 8 4br./7.5' x 53.3 VSd 15915.7 > VR_{s,d} 14909.5

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
8	1	-165727.3	0.0	8096.8	1.00	1.00	0.60
307	1	-163709.0	0.0	-16782.1	1.00	1.00	0.76

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	15915.7	24849.2	18092.2	28153.6	ϕ 8 4br./7.5'
0.66	2.79	15915.7	14909.5	18092.2	16892.1	ϕ 8 4br./12.5'
2.79	3.33	15915.7	24849.2	18092.2	28153.6	ϕ 8 4br./7.5'

- Pilastro: 307/654 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 VSd 8384.2 > VR_{s,d} 8079.3

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
307	1	-90298.4	0.0	5730.4	1.00	1.00	0.64
654	1	-89121.1	0.0	-4752.9	1.00	1.00	0.59

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8384.2	10772.4	8945.0	9120.2	ϕ 8/7.5'
0.66	2.79	8384.2	8079.3	8945.0	6840.1	ϕ 8/10.0'
2.79	3.33	8384.2	10772.4	8945.0	9120.2	ϕ 8/7.5'

- Pilastro: 654/911 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 VSd 6325.0 > VR_{s,d} 5601.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
654	2	-50680.4	0.0	4455.1	1.00	1.00	0.57
911	2	-49839.4	0.0	-7234.4	1.00	1.00	0.76

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6044.2	9120.2	6325.0	7468.0	ø 8/7.5'
0.66	2.79	6044.2	6840.1	6325.0	5601.0	ø 8/10.0'
2.79	3.33	6044.2	9120.2	6325.0	7468.0	ø 8/7.5'

- Pilastro: 9/309 / L 3.20[m] / Sezione 5 B 45 [cm]H 40 [cm] NON VERIFICATO

Af: 12 ø 20 Af=37.70 [cm²] < 1φ20 x 4 V + 2φ20 x 2 B + 2φ20 x 2 H >

Staffe: ø 8 4br./7.5' x 53.3+ø 8 4br./12.5' x 213.3+ø 8 4br./7.5' x 53.3 VSd 15848.1 > VR_{s,d} 14909.5

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
9	1	-144940.4	0.0	-7115.3	1.00	1.00	0.52
309	1	-142922.1	0.0	14854.7	1.00	1.00	0.67

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	15848.1	24849.2	18018.7	28153.6	ø 8 4br./7.5'
0.66	2.79	15848.1	14909.5	18018.7	16892.1	ø 8 4br./12.5'
2.79	3.33	15848.1	24849.2	18018.7	28153.6	ø 8 4br./7.5'

- Pilastro: 309/664 / L 3.20[m] / Sezione 17 B 35 [cm]H 35 [cm] NON VERIFICATO

Af: 8 ø 20 Af=25.13 [cm²] < 1φ20 x 4 V + 1φ20 x 2 B + 1φ20 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 VSd 9016.3 > VR_{s,d} 8079.3

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
309	1	-73679.5	0.0	-8293.8	1.00	1.00	0.61
664	1	-72306.0	0.0	7341.7	1.00	1.00	0.56

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9016.3	10772.4	9016.3	10772.4	ø 8/7.5'
0.66	2.79	9016.3	8079.3	9016.3	8079.3	ø 8/10.0'
2.79	3.33	9016.3	10772.4	9016.3	10772.4	ø 8/7.5'

- Pilastro: 664/919 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ø 24 Af=27.14 [cm²] < 1φ24 x 4 V + 0φ24 x 2 B + 1φ24 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 VSd 6202.3 > VR_{s,d} 5601.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
664	2	-44024.8	0.0	-4381.5	1.00	1.00	0.53
919	2	-43183.8	0.0	6952.4	1.00	1.00	0.71

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6003.5	9120.2	6202.3	7468.0	ø 8/7.5'
0.66	2.79	6003.5	6840.1	6202.3	5601.0	ø 8/10.0'
2.79	3.33	6003.5	9120.2	6202.3	7468.0	ø 8/7.5'

- Pilastro: 10/313 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
10	1	-57832.4	-630.1	0.0	1.00	1.00	0.31
313	1	-56486.9	1308.0	0.0	1.00	1.00	0.32

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	7032.2	12424.6	5827.2	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	7032.2	7454.7	5827.2	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	7032.2	12424.6	5827.2	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 313/668 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 53.3 + \phi 8/10.0' \times 213.3 + \phi 8/7.5' \times 53.3 \text{ Ast/s}=0.100531 < 0.08 \text{ fcd bst/fyd } 0.112092$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
313	5	-18483.9	-3002.7	0.0	1.00	1.00	0.41
668	5	-17578.3	3576.8	0.0	1.00	1.00	0.49

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5403.0	10772.4	4978.1	9120.2	ø 8/7.5'
0.66	2.79	5403.0	8079.3	4978.1	6840.1	ø 8/10.0'
2.79	3.33	5403.0	10772.4	4978.1	9120.2	ø 8/7.5'

- Pilastro: 668/923 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \text{ } \phi 16 \text{ Af}=8.04 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 0 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 53.3 + \phi 8/10.0' \times 213.3 + \phi 8/7.5' \times 53.3 \text{ Ast/s}=0.100531 < 0.08 \text{ fcd bst/fyd } 0.112092$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
668	5	-10651.2	-2941.3	0.0	1.00	1.00	0.71
923	5	-10004.3	3363.9	0.0	1.00	1.00	0.83

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2954.2	9120.2	2402.1	7468.0	ø 8/7.5'
0.66	2.79	2954.2	6840.1	2402.1	5601.0	ø 8/10.0'
2.79	3.33	2954.2	9120.2	2402.1	7468.0	ø 8/7.5'

- Pilastro: 11/317 / L 3.20[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \text{ } \phi 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 1 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5'} \times 53.3 + \phi 8 \text{ 2br.x4br./10.0'} \times 213.3 + \phi 8 \text{ 2br.x4br./7.5'} \times 53.3 \text{ Ast/s}=0.100531 < 0.08 \text{ fcd bst/fyd } 0.132697$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
11	1	-95082.3	0.0	842.1	1.00	1.00	0.42
317	1	-93512.6	0.0	-1700.5	1.00	1.00	0.44

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9206.1	12424.6	7988.2	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	9206.1	9318.4	7988.2	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	9206.1	12424.6	7988.2	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 317/672 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
317	1	-59283.5	0.0	1512.4	1.00	1.00	0.40
672	1	-58106.2	0.0	-1599.7	1.00	1.00	0.40

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5641.8	10772.4	5464.5	9120.2	ø 8/7.5'
0.66	2.79	5641.8	8079.3	5464.5	6840.1	ø 8/10.0'
2.79	3.33	5641.8	10772.4	5464.5	9120.2	ø 8/7.5'

- Pilastro: 672/927 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
672	5	-20250.6	-2316.3	0.0	1.00	1.00	0.45
927	5	-19603.7	2568.4	0.0	1.00	1.00	0.50

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3384.0	9120.2	2760.3	7468.0	ø 8/7.5'
0.66	2.79	3384.0	6840.1	2760.3	5601.0	ø 8/10.0'
2.79	3.33	3384.0	9120.2	2760.3	7468.0	ø 8/7.5'

- Pilastro: 12/321 / L 3.20[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.091487

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
12	1	-46048.8	0.0	-1240.7	1.00	1.00	0.34
321	1	-44927.5	0.0	2513.7	1.00	1.00	0.43

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6024.1	12424.6	3912.3	14935.9	ø 8 2br.x4br./7.5'
0.66	2.79	6024.1	7454.7	3912.3	8961.6	ø 8 2br.x4br./12.5'
2.79	3.33	6024.1	12424.6	3912.3	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 321/676 / L 3.20[m] / Sezione 15 B 25 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
321	1	-29275.4	0.0	-3346.4	1.00	1.00	0.48
676	1	-28294.4	0.0	3425.3	1.00	1.00	0.49

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]	
0.13	0.66	4591.9	10772.4	3367.8	7468.0	ø 8/7.5'
0.66	2.79	4591.9	8079.3	3367.8	5601.0	ø 8/10.0'
2.79	3.33	4591.9	10772.4	3367.8	7468.0	ø 8/7.5'

- Pilastro: 676/931 / L 3.20[m] / Sezione 25 B 22 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \phi 24$ Af=27.14 [cm²] < $1\phi 24 \times 4 V + 0\phi 24 \times 2 B + 1\phi 24 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 53.3 + \phi 8/10.0' \times 213.3 + \phi 8/7.5' \times 53.3$ Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
676	2	-13750.8	0.0	-3409.1	1.00	1.00	0.41
931	2	-13010.8	0.0	5001.6	1.00	1.00	0.65

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5575.3	9120.2	4332.1	6476.6	ø 8/7.5'
0.66	2.79	5575.3	6840.1	4332.1	4857.5	ø 8/10.0'
2.79	3.33	5575.3	9120.2	4332.1	6476.6	ø 8/7.5'

- Pilastro: 13/333 / L 3.20[m] / Sezione 6 B 20 [cm]H 20 [cm]

Af: $4 \phi 16$ Af=8.04 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 53.3 + \phi 8/12.5' \times 213.3 + \phi 8/7.5' \times 53.3$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
13	1	-20212.1	0.0	357.1	1.00	1.00	0.32
333	1	-19763.6	0.0	-715.9	1.00	1.00	0.38

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	1683.6	5815.8	1683.6	5815.8	ø 8/7.5'
0.66	2.79	1683.6	3489.5	1683.6	3489.5	ø 8/12.5'
2.79	3.33	1683.6	5815.8	1683.6	5815.8	ø 8/7.5'

- Pilastro: 14/62 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm]

Af: $4 \phi 16$ Af=8.04 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/5.0' \times 55.0$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
14	1	-4620.2	-31.8	0.0	1.00	1.00	0.06
62	1	-4516.2	-22.3	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8636.9	8723.6	8637.0	8723.6	ø 8/5.0'

- Pilastro: 62/108 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: $4 \phi 16$ Af=8.04 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 55.0$ VSd 8315.5 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
62	1	-4851.0	-10.8	0.0	1.00	1.00	0.06

108	1	-4747.0	0.0	28.6	1.00	1.00	0.07
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- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8315.5	5815.8	8315.5	5815.8	ø 8/7.5'

- Pilastro: 108/154 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 8291.3 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
108	1	-6081.7	-28.2	0.0	1.00	1.00	0.08
154	1	-5977.7	0.0	-35.2	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8291.3	5815.8	8291.2	5815.8	ø 8/7.5'

- Pilastro: 154/343 / L 0.80[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0 VSd 6268.5 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
154	1	-12641.1	153.0	0.0	1.00	1.00	0.19
343	1	-12504.6	0.0	480.3	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	6268.5	5815.8	6268.5	5815.8	ø 8/7.5'

- Pilastro: 343/427 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
343	1	7595.6	0.0	-584.9	1.00	1.00	0.68
427	1	7699.6	-196.0	0.0	1.00	1.00	0.46

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	5750.0	5815.8	5750.0	5815.8	ø 8/7.5'

- Pilastro: 427/475 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
427	4	2106.2	-1.0	0.0	1.00	1.00	0.10

475	1	191.4	0.0	47.6	1.00	1.00	0.04
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- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6872.1	8723.6	6872.1	8723.6	ø 8/5.0'

- Pilastro: 475/523 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
475	2	-1667.4	0.0	-27.6	1.00	1.00	0.03
523	5	-1955.3	54.3	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	7040.4	8723.6	7040.4	8723.6	ø 8/5.0'

- Pilastro: 523/687 / L 0.80[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
523	5	-2996.6	251.8	0.0	1.00	1.00	0.13
687	5	-2891.6	311.7	0.0	1.00	1.00	0.16

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	4940.0	5815.8	4940.1	5815.8	ø 8/7.5'

- Pilastro: 687/1354 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
687	5	-552.8	-430.8	0.0	1.00	1.00	0.24
1354	5	-472.8	-340.1	0.0	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6531.0	8723.6	6531.0	8723.6	ø 8/5.0'

- Pilastro: 1354/1355 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
1354	5	-1358.2	-125.2	0.0	1.00	1.00	0.07
1355	5	-1278.2	-69.4	0.0	1.00	1.00	0.04

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	6706.6	8723.6	6706.6	8723.6	ø 8/5.0'

- Pilastro: 1355/1356 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
1355	2	-2449.5	-77.3	0.0	1.00	1.00	0.05
1356	10	-1382.5	-87.8	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6903.0	8723.6	6903.0	8723.6	ø 8/5.0'

- Pilastro: 1356/945 / L 0.80[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
1356	5	-5076.2	429.9	0.0	1.00	1.00	0.21
945	5	-4971.2	591.3	0.0	1.00	1.00	0.28

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	5415.4	5815.8	5415.4	5815.8	ø 8/7.5'

- Pilastro: 20/353 / L 3.20[m] / Sezione 7 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
20	1	-20124.9	-252.4	0.0	1.00	1.00	0.15
353	5	-16430.0	814.6	0.0	1.00	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3059.9	9120.2	3059.9	9120.2	ø 8/7.5'
0.66	2.79	3059.9	6840.1	3059.9	6840.1	ø 8/10.0'
2.79	3.33	3059.9	9120.2	3059.9	9120.2	ø 8/7.5'

- Pilastro: 353/697 / L 3.20[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/12.5' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
353	5	-12478.8	-1438.0	0.0	1.00	1.00	0.33
697	5	-11702.5	1491.8	0.0	1.00	1.00	0.35

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2710.1	9120.2	2710.1	9120.2	ø 8/7.5'
0.66	2.79	2710.1	5472.1	2710.1	5472.1	ø 8/12.5'
2.79	3.33	2710.1	9120.2	2710.1	9120.2	ø 8/7.5'

- Pilastro: 697/955 / L 3.20[m] / Sezione 27 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/12.5' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
697	5	-6263.3	-2595.3	0.0	1.00	1.00	0.72
955	5	-5487.0	2606.9	0.0	1.00	1.00	0.74

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2236.2	9120.2	2236.2	9120.2	ø 8/7.5'
0.66	2.79	2236.2	5472.1	2236.2	5472.1	ø 8/12.5'
2.79	3.33	2236.2	9120.2	2236.2	9120.2	ø 8/7.5'

- Pilastro: 41/88 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 33265.4 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
41	9	17737.9	0.0	-215.3	1.00	1.00	0.17
88	9	17937.9	445.4	0.0	1.00	1.00	0.18

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	33265.4	12424.6	21185.3	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 88/134 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 31898.4 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
88	9	15646.4	291.3	0.0	1.00	1.00	0.11
134	9	15846.4	302.2	0.0	1.00	1.00	0.11

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	31898.4	12424.6	20037.4	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 134/180 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 30763.4 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
134	9	14038.3	0.0	-68.6	1.00	1.00	0.08
180	9	14238.3	223.2	0.0	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	30763.4	12424.6	19067.6	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 180/393 / L 0.80[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 80.0 VSd 20292.4 > VR_{s,d} 12424.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
180	9	12046.5	0.0	-43.0	1.00	1.00	0.06
393	9	12309.0	0.0	55.2	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	20292.4	12424.6	12422.5	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 393/453 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 15229.3 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
393	9	8491.7	0.0	-109.6	1.00	1.00	0.10
453	9	8641.7	0.0	58.5	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	15229.3	9120.2	12356.4	7468.0	ø 8/7.5'

- Pilastro: 453/501 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 14142.9 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
453	9	6371.0	0.0	-38.3	1.00	1.00	0.05
501	9	6521.0	0.0	54.6	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	14142.9	9120.2	11480.8	7468.0	ø 8/7.5'

- Pilastro: 501/549 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 13185.2 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
501	9	4844.0	0.0	-42.1	1.00	1.00	0.04
549	9	4994.0	113.5	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	13185.2	9120.2	10708.5	7468.0	\varnothing 8/7.5'

- Pilastro: 549/733 / L 0.80[m] / Sezione 11 B 25 [cm]H 30 [cm]

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
549	9	3458.4	218.6	0.0	1.00	1.00	0.09
733	9	3655.3	229.7	0.0	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	8439.4	9120.2	6857.5	7468.0	\varnothing 8/7.5'

- Pilastro: 733/767 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11771.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
733	9	1785.4	332.3	0.0	1.00	1.00	0.13
767	9	1935.4	356.6	0.0	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	11771.8	9120.2	9567.8	7468.0	\varnothing 8/7.5'

- Pilastro: 767/789 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11584.6 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
767	9	-31.2	292.5	0.0	1.00	1.00	0.10
789	9	118.8	212.7	0.0	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	11584.6	9120.2	9416.6	7468.0	\varnothing 8/7.5'

- Pilastro: 789/811 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11271.5 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
789	9	-962.4	80.2	0.0	1.00	1.00	0.03
811	1	-1961.2	0.0	18.9	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	11271.5	9120.2	9163.5	7468.0	ø 8/7.5'

- Pilastro: 811/1001 / L 0.80[m] / Sezione 21 B 25 [cm]H 30 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
811	6	-804.7	55.3	0.0	1.00	1.00	0.02
1001	6	-607.8	79.5	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	7350.7	9120.2	5977.7	7468.0	ø 8/7.5'

- Pilastro: 45/92 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 55.0 VSd 76899.1 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
45	1	-89389.9	0.0	9055.2	1.00	1.00	0.28
92	1	-88661.9	0.0	2575.5	1.00	1.00	0.22

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	76899.1	24849.2	130806.7	44675.6	ø 8 4br./7.5'

- Pilastro: 92/138 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 55.0 VSd 76781.3 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
92	1	-88661.9	0.0	2575.5	1.00	1.00	0.22
138	1	-87933.9	0.0	-3904.2	1.00	1.00	0.23

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	76781.3	24849.2	130477.7	44675.6	ø 8 4br./7.5'

- Pilastro: 138/399 / L 1.60[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 160.0 VSd 26265.0 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
138	1	-87933.9	0.0	-3904.2	1.00	1.00	0.23
399	8	-46680.0	0.0	-14776.4	1.00	1.00	0.49

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.12	1.73	26265.0	24849.2	44663.5	44675.6	ø 8 4br./7.5'

- Pilastro: 399/459 / L 0.55[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 18170.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
399	8	-6104.7	0.0	1665.5	1.00	1.00	0.46
459	2	-15501.2	0.0	-431.3	1.00	1.00	0.13

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	18170.8	9120.2	18170.8	9120.2	ø 8/7.5'

- Pilastro: 459/507 / L 0.55[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 21439.7 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
459	2	-29177.9	0.0	-124.2	1.00	1.00	0.20
507	2	-28943.9	0.0	-850.1	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	21439.7	9120.2	21573.5	9120.2	ø 8/7.5'

- Pilastro: 507/739 / L 1.60[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 24 Af=18.10 [cm²] < 1φ24 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 45.0+ø 8/12.5' x 70.0+ø 8/7.5' x 45.0 VSd 12978.4 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
507	1	-56584.6	0.0	3444.1	1.00	1.00	0.50
739	1	-56043.5	0.0	-4372.2	1.00	1.00	0.55

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.57	12978.4	9120.2	12978.4	9120.2	ø 8/7.5'
0.57	1.27	12978.4	5472.1	12978.4	5472.1	ø 8/12.5'
1.27	1.72	12978.4	9120.2	12978.4	9120.2	ø 8/7.5'

- Pilastro: 739/773 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 24 + 2 ø 16 Af=22.12 [cm²] < 1φ24 x 4 V + 1φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 28350.6 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
739	1	2111.0	0.0	4143.8	1.00	1.00	0.50
773	1	2384.0	0.0	-225.9	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	28350.6	9120.2	33723.0	10772.4	ø 8/7.5'

- Pilastro: 773/795 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 1 \phi 16 \times 2 \text{ B} + 0 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 55.0 \text{ VSd } 20490.1 > \text{VR}_{s,d} \text{ } 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
773	2	-11551.4	0.0	319.1	1.00	1.00	0.08
795	2	-11278.4	0.0	130.3	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	20490.1	9120.2	23912.2	10772.4	ø 8/7.5'

- Pilastro: 795/1007 / L 1.60[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $8 \text{ } \phi 24 \text{ Af}=36.19 \text{ [cm}^2\text{]} < 1 \phi 24 \times 4 \text{ V} + 1 \phi 24 \times 2 \text{ B} + 1 \phi 24 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 45.0 + \phi 8/10.0' \times 70.0 + \phi 8/7.5' \times 45.0 \text{ VSd } 17135.8 > \text{VR}_{s,d} \text{ } 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
795	2	-38882.2	0.0	6488.6	1.00	1.00	0.39
1007	2	-38250.9	0.0	-10718.4	1.00	1.00	0.63

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.57	17135.8	9120.2	20456.3	10772.4	ø 8/7.5'
0.57	1.28	17135.8	6840.1	20456.3	8079.3	ø 8/10.0'
1.28	1.73	17135.8	9120.2	20456.3	10772.4	ø 8/7.5'

- Pilastro: 46/93 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \text{ } \phi 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 2 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 4br./7.5'} \times 55.0 \text{ VSd } 62271.1 > \text{VR}_{s,d} \text{ } 24849.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
46	9	-3945.5	2184.8	0.0	1.00	1.00	0.21
93	9	-3385.5	1538.9	0.0	1.00	1.00	0.15

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	62271.1	24849.2	108801.3	44675.6	ø 8 4br./7.5'

- Pilastro: 93/139 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \text{ } \phi 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 2 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 55.0 VSd } 61234.1 > VR_{s,d} \text{ 24849.2}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
93	9	-7289.5	1249.8	0.0	1.00	1.00	0.11
139	1	-32451.6	0.0	320.1	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	61234.1	24849.2	107126.0	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 139/184 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \varnothing 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 2\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 55.0 VSd } 61750.1 > VR_{s,d} \text{ 24849.2}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
139	1	-40019.6	0.0	-1366.1	1.00	1.00	0.10
184	1	-39291.6	0.0	1644.8	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	61750.1	24849.2	107959.7	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 184/408 / L 0.80[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \varnothing 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 2\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 80.0 VSd } 42591.9 > VR_{s,d} \text{ 24849.2}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
184	1	-46308.7	0.0	2605.4	1.00	1.00	0.12
408	4	-18954.0	0.0	13896.5	1.00	1.00	0.59

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	42591.9	24849.2	74445.9	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 408/460 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 2 \varnothing 16 \text{ Af}=16.59 \text{ [cm}^2\text{]} < 1\phi 20 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \text{ x 55.0 VSd } 23616.6 > VR_{s,d} \text{ 9120.2}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
408	1	2204.4	0.0	-3526.8	1.00	1.00	0.57
460	9	6814.6	666.0	0.0	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	23616.6	9120.2	27974.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 460/508 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 20842.8 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
460	9	-1542.2	353.7	0.0	1.00	1.00	0.08
508	9	-1332.2	0.0	434.3	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	20842.8	9120.2	24266.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 508/553 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 22441.7 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
508	1	-15547.1	0.0	-495.3	1.00	1.00	0.11
553	2	-15327.1	0.0	-226.0	1.00	1.00	0.09

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	22441.7	9120.2	25815.6	10772.4	$\varnothing 8/7.5'$

- Pilastro: 553/748 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 17327.0 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
553	1	-27483.4	-518.2	0.0	1.00	1.00	0.18
748	4	-16736.6	0.0	2745.7	1.00	1.00	0.38

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	17327.0	9120.2	19451.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 748/774 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 24 + 2 \varnothing 16$ Af=22.12 [cm²] < $1\phi 24 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 26148.4 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
748	1	8035.9	0.0	-4175.4	1.00	1.00	0.60
774	1	8308.9	520.3	0.0	1.00	1.00	0.21

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	26148.4	9120.2	31136.1	10772.4	$\varnothing 8/7.5'$

- Pilastro: 774/796 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19006.5 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
774	9	-3103.1	378.9	0.0	1.00	1.00	0.08
796	5	-5664.0	0.0	675.1	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	19006.5	9120.2	22372.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 796/815 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 22622.5 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
796	2	-18496.2	0.0	-780.0	1.00	1.00	0.14
815	2	-18223.2	0.0	-150.7	1.00	1.00	0.11

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	22622.5	9120.2	25984.7	10772.4	$\varnothing 8/7.5'$

- Pilastro: 815/1015 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 2 \varnothing 16$ Af=16.59 [cm²] < $1\phi 20 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 23063.6 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
815	2	-40450.4	0.0	-709.1	1.00	1.00	0.24
1015	2	-40092.1	0.0	5962.8	1.00	1.00	0.52

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	23063.6	9120.2	25696.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 51/98 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' } \times 55.0$ VSd 42125.9 > $VR_{c,d}$ 41779.7

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
51	10	16807.6	1065.3	0.0	1.00	1.00	0.22
98	10	17087.6	0.0	235.3	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	42125.9	12424.6	36473.8	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 98/144 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 41475.0 > VR_{s,d} \text{ 12424.6}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
98	10	15696.1	381.7	0.0	1.00	1.00	0.08
144	9	12425.1	0.0	388.7	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	41475.0	12424.6	35903.7	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 144/188 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 44041.3 > VR_{c,d} \text{ 41779.7}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
144	9	19247.1	0.0	-714.4	1.00	1.00	0.19
188	9	19527.1	0.0	-75.6	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	44041.3	12424.6	38145.5	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 188/413 / L 0.80[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 80.0 VSd } 27881.1 > VR_{s,d} \text{ 12424.6}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
188	10	12054.0	387.4	0.0	1.00	1.00	0.07
413	9	9469.1	0.0	500.4	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	27881.1	12424.6	24129.6	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 413/465 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 7.5' x 55.0 VSd } 20451.4 > VR_{s,d} \text{ 9120.2}$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
413	10	6958.1	186.6	0.0	1.00	1.00	0.06
465	10	7168.1	-34.2	0.0	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	20451.4	9120.2	23873.1	10772.4	$\varnothing 8 \text{ 7.5'}$

- Pilastro: 465/513 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19961.8 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
465	10	7173.6	170.4	0.0	1.00	1.00	0.06
513	9	5636.4	0.0	123.5	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19961.8	9120.2	23373.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 513/557 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 21510.9 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
513	9	10738.6	0.0	-671.6	1.00	1.00	0.20
557	9	10948.6	-38.5	0.0	1.00	1.00	0.04

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	21510.9	9120.2	24924.9	10772.4	$\varnothing 8/7.5'$

- Pilastro: 557/753 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 13120.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
557	10	4349.3	157.5	0.0	1.00	1.00	0.04
753	9	3316.9	0.0	555.2	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	13120.2	9120.2	15437.5	10772.4	$\varnothing 8/7.5'$

- Pilastro: 753/779 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 17672.5 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
753	10	3082.5	179.5	0.0	1.00	1.00	0.05
779	10	3292.5	-53.7	0.0	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	17672.5	9120.2	20880.9	10772.4	$\varnothing 8/7.5'$

- Pilastro: 779/801 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 17390.3 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
779	9	2957.8	0.0	-214.2	1.00	1.00	0.05
801	4	1944.3	0.4	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17390.3	9120.2	20558.8	10772.4	$\varnothing 8/7.5'$

- Pilastro: 801/819 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 18108.6 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
801	9	4253.9	0.0	-680.8	1.00	1.00	0.16
819	10	2899.1	-126.1	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	18108.6	9120.2	21378.1	10772.4	$\varnothing 8/7.5'$

- Pilastro: 819/1020 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 11503.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
819	10	-3097.8	0.0	420.4	1.00	1.00	0.08
1020	9	-2586.9	0.0	671.9	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	11503.2	9120.2	13616.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 60/107 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' } \times 55.0$ VSd 40127.4 > $VR_{s,d}$ 12424.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
60	10	1584.6	659.8	0.0	1.00	1.00	0.09
107	10	1864.6	566.6	0.0	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	40127.4	12424.6	34724.0	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 107/153 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 38867.2 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
107	10	-297.6	512.1	0.0	1.00	1.00	0.07
153	10	-17.6	397.9	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	38867.2	12424.6	33622.1	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 153/197 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 38394.5 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
153	1	-11757.8	0.0	123.6	1.00	1.00	0.05
197	1	-11393.8	0.0	56.6	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	38394.5	12424.6	33208.4	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 197/422 / L 0.80[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 80.0 VSd } 26671.6 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
197	1	-15769.3	0.0	726.4	1.00	1.00	0.09
422	8	-3037.3	0.0	-1781.4	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	26671.6	12424.6	23071.8	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 422/474 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \text{ x 55.0 VSd } 18106.2 > VR_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
422	1	654.6	0.0	2290.3	1.00	1.00	0.48
474	1	927.6	0.0	-366.5	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	18106.2	9120.2	21375.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 474/522 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 18818.5 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
474	5	-5545.8	-140.9	0.0	1.00	1.00	0.03
522	10	-286.0	144.8	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	18818.5	9120.2	22172.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 522/566 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19465.6 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
522	1	-7477.2	0.0	99.6	1.00	1.00	0.05
566	9	-5317.0	235.1	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19465.6	9120.2	22857.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 566/762 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 14054.9 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
566	1	-12229.3	0.0	625.4	1.00	1.00	0.10
762	7	-5965.2	0.0	-1536.1	1.00	1.00	0.26

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	14054.9	9120.2	16407.3	10772.4	$\varnothing 8/7.5'$

- Pilastro: 762/788 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 16375.9 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
762	1	1963.4	0.0	2431.5	1.00	1.00	0.54
788	1	2236.4	0.0	-398.5	1.00	1.00	0.15

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	16375.9	9120.2	19397.5	10772.4	$\varnothing 8/7.5'$

- Pilastro: 788/810 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 17946.4 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
788	10	-4066.0	470.9	0.0	1.00	1.00	0.10
810	10	-3856.0	343.1	0.0	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17946.4	9120.2	21193.3	10772.4	$\varnothing 8/7.5'$

- Pilastro: 810/828 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19652.0 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
810	2	-9541.4	133.7	0.0	1.00	1.00	0.06
828	2	-9268.4	136.0	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19652.0	9120.2	23051.9	10772.4	$\varnothing 8/7.5'$

- Pilastro: 828/1029 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 15108.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
828	2	-17652.7	0.0	589.3	1.00	1.00	0.12
1029	6	-11927.6	0.0	-2968.3	1.00	1.00	0.45

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	15108.2	9120.2	17444.3	10772.4	$\varnothing 8/7.5'$

- Pilastro: 61/426 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' } \times 53.3 + \varnothing 8 \text{ 2br.x4br./12.5' } \times 213.3 + \varnothing 8 \text{ 2br.x4br./7.5' } \times 53.3$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
61	1	-33253.8	0.0	-827.8	1.00	1.00	0.20
426	1	-31908.3	0.0	1680.9	1.00	1.00	0.24

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5841.5	12424.6	4472.7	18240.3	$\varnothing 8 \text{ 2br.x4br./7.5' }$
0.66	2.79	5841.5	7454.7	4472.7	10944.2	$\varnothing 8 \text{ 2br.x4br./12.5' }$
2.79	3.33	5841.5	12424.6	4472.7	18240.3	$\varnothing 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 426/766 / L 3.20[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ϕ 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/12.5' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
426	1	-22332.5	0.0	-1836.4	1.00	1.00	0.28
766	4	-16394.5	0.0	1328.1	1.00	1.00	0.28

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3057.4	9120.2	3057.3	9120.2	ϕ 8/7.5'
0.66	2.79	3057.4	5472.1	3057.3	5472.1	ϕ 8/12.5'
2.79	3.33	3057.4	9120.2	3057.3	9120.2	ϕ 8/7.5'

- Pilastro: 766/1033 / L 3.20[m] / Sezione 24 B 30 [cm]H 25 [cm] NON VERIFICATO

Af: 4 ϕ 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/12.5' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
766	4	-9960.8	0.0	-1864.5	1.00	1.00	0.46
1033	4	-9314.0	0.0	2127.8	1.00	1.00	0.54

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2036.4	7468.0	2509.2	9120.2	ϕ 8/7.5'
0.66	2.79	2036.4	4480.8	2509.2	5472.1	ϕ 8/12.5'
2.79	3.33	2036.4	7468.0	2509.2	9120.2	ϕ 8/7.5'

- Pilastro: 308/659 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ϕ 16 Af=12.06 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 1 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
308	6	-15105.3		-1621.8	0.0	1.00	0.23
659	6	-14199.7		1151.2	0.0	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	4354.4	10772.4	3770.2	9120.2	ϕ 8/7.5'
0.66	2.79	4354.4	8079.3	3770.2	6840.1	ϕ 8/10.0'
2.79	3.33	4354.4	10772.4	3770.2	9120.2	ϕ 8/7.5'

- Pilastro: 574/836 / L 3.20[m] / Sezione 29 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 16 Af=12.06 [cm²] < 1 ϕ 16 x 4 V + 1 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/20.0' x 320.0 20.00 > 12.80 [cm]

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
574	6	-4384.7	0.0	1196.3	1.00	1.00	0.21
836	6	-3479.1	0.0	-1199.1	1.00	1.00	0.22

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]
0.13	3.33	2951.4	3420.1	3490.7	4039.6

- Pilastro: 744/1011 / L 3.20[m] / Sezione 23 B 35 [cm]H 25 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1ø16 x 4 V + 1ø16 x 2 B + 0ø16 x 2 H >

Staffe: ø 8/20.0' x 320.0 20.00 > 12.50 [cm]

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
744	4	-2088.0	0.0	-898.4	1.00	1.00	0.17
1011	4	-1333.3	0.0	1009.2	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	3.33	2254.5	2800.5	3290.6	4039.6	ø 8/20.0'

- [En.Ex.Sys. WinStrand](#)
- [Verifiche pilastri](#)

4.1.5 Verifica spostamenti – stato di fatto

- Spostamenti Max nella combinazione 1:

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	852	-0.02 [cm]	794	0.03 [cm]	794	0.03 [cm]
Uy	852	-0.07 [cm]	154	0.01 [cm]	852	-0.07 [cm]
Uz	915	-2.40 [cm]	920	0.05 [cm]	915	-2.40 [cm]
Rx	862	-0.19 [°]	936	0.24 [°]	936	0.24 [°]
Ry	938	-0.35 [°]	912	0.29 [°]	938	-0.35 [°]
Rz	1356	-0.02 [°]	427	0.01 [°]	1356	-0.02 [°]

- Spostamenti Max nella combinazione 2:

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	852	-0.03 [cm]	794	0.03 [cm]	794	0.03 [cm]
Uy	852	-0.07 [cm]	154	0.01 [cm]	852	-0.07 [cm]
Uz	915	-2.59 [cm]	920	0.07 [cm]	915	-2.59 [cm]
Rx	862	-0.22 [°]	936	0.27 [°]	936	0.27 [°]
Ry	938	-0.37 [°]	912	0.32 [°]	938	-0.37 [°]
Rz	1356	-0.03 [°]	427	0.01 [°]	1356	-0.03 [°]

- Spostamenti Max nella combinazione 3: Sisma 0 / 90

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	138	-0.01 [cm]	849	0.12 [cm]	849	0.12 [cm]
Uy	854	-0.06 [cm]	877	0.27 [cm]	877	0.27 [cm]
Uz	915	-1.92 [cm]	920	0.07 [cm]	915	-1.92 [cm]
Rx	861	-0.17 [°]	936	0.20 [°]	936	0.20 [°]
Ry	938	-0.28 [°]	912	0.24 [°]	938	-0.28 [°]
Rz	1356	-0.02 [°]	1026	0.01 [°]	1356	-0.02 [°]

- Spostamenti Max nella combinazione 4: Sisma 0 / 270

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	138	-0.01 [cm]	865	0.10 [cm]	865	0.10 [cm]
Uy	854	-0.25 [cm]	1033	0.04 [cm]	854	-0.25 [cm]
Uz	915	-1.86 [cm]	920	0.06 [cm]	915	-1.86 [cm]
Rx	888	-0.18 [°]	936	0.19 [°]	936	0.19 [°]
Ry	938	-0.29 [°]	912	0.23 [°]	938	-0.29 [°]
Rz	1356	-0.01 [°]	1018	0.01 [°]	1018	0.01 [°]

- Spostamenti Max nella combinazione 5: Sisma 90 / 0

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	866	-0.09 [cm]	849	0.14 [cm]	849	0.14 [cm]
Uy	1	0.00 [cm]	877	0.40 [cm]	877	0.40 [cm]
Uz	915	-2.03 [cm]	920	0.08 [cm]	915	-2.03 [cm]
Rx	862	-0.19 [°]	936	0.22 [°]	936	0.22 [°]
Ry	938	-0.26 [°]	912	0.25 [°]	938	-0.26 [°]

Rz	1356	-0.02	[°]	1023	0.02	[°]	1356	-0.02	[°]
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- Spostamenti Max nella combinazione 6: Sisma 90 / 180

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	866	-0.13 [cm]	846	0.08 [cm]	866	-0.13 [cm]
Uy	1	0.00 [cm]	1001	0.36 [cm]	1001	0.36 [cm]
Uz	915	-2.06 [cm]	961	0.08 [cm]	915	-2.06 [cm]
Rx	862	-0.19 [°]	936	0.22 [°]	936	0.22 [°]
Ry	938	-0.26 [°]	912	0.25 [°]	938	-0.26 [°]
Rz	1356	-0.03 [°]	735	0.01 [°]	1356	-0.03 [°]

- Spostamenti Max nella combinazione 7: Sisma 180 / 90

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	866	-0.12 [cm]	1	0.00 [cm]	866	-0.12 [cm]
Uy	852	-0.14 [cm]	855	0.23 [cm]	855	0.23 [cm]
Uz	915	-2.02 [cm]	920	0.06 [cm]	915	-2.02 [cm]
Rx	862	-0.18 [°]	936	0.22 [°]	936	0.22 [°]
Ry	938	-0.27 [°]	912	0.25 [°]	938	-0.27 [°]
Rz	1356	-0.03 [°]	530	0.01 [°]	1356	-0.03 [°]

- Spostamenti Max nella combinazione 8: Sisma 180 / 270

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	852	-0.16 [cm]	507	0.00 [cm]	852	-0.16 [cm]
Uy	852	-0.37 [cm]	855	0.04 [cm]	852	-0.37 [cm]
Uz	915	-1.96 [cm]	892	0.05 [cm]	915	-1.96 [cm]
Rx	862	-0.17 [°]	936	0.21 [°]	936	0.21 [°]
Ry	938	-0.28 [°]	912	0.24 [°]	938	-0.28 [°]
Rz	1356	-0.02 [°]	527	0.01 [°]	1356	-0.02 [°]

- Spostamenti Max nella combinazione 9: Sisma 270 / 0

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	852	-0.12 [cm]	866	0.11 [cm]	852	-0.12 [cm]
Uy	852	-0.38 [cm]	1	0.00 [cm]	852	-0.38 [cm]
Uz	915	-1.82 [cm]	892	0.05 [cm]	915	-1.82 [cm]
Rx	888	-0.19 [°]	936	0.19 [°]	888	-0.19 [°]
Ry	938	-0.30 [°]	912	0.22 [°]	938	-0.30 [°]
Rz	1015	-0.02 [°]	1018	0.02 [°]	1018	0.02 [°]

- Spostamenti Max nella combinazione 10: Sisma 270 / 180

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	852	-0.18 [cm]	866	0.06 [cm]	852	-0.18 [cm]
Uy	852	-0.50 [cm]	1	0.00 [cm]	852	-0.50 [cm]
Uz	915	-1.85 [cm]	892	0.06 [cm]	915	-1.85 [cm]
Rx	888	-0.19 [°]	936	0.19 [°]	936	0.19 [°]
Ry	938	-0.29 [°]	912	0.23 [°]	938	-0.29 [°]
Rz	1024	-0.02 [°]	1018	0.01 [°]	1024	-0.02 [°]

4.1.6 Verifica travi – stato di fatto

- En.Ex.Sys. WinStrand

- Structural Analysis & Design

Ditta produttrice:
En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:
WinStrand

Piattaforma software:
Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:
Manuale teorico - Manuale d'uso

Campo di applicazione:
Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastri).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T.
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. "Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica".
- Legge n. 64 del 2 Febbraio 1974. "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche".
- D.M. del 3 Marzo 1975. "Approvazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Marzo 1975. "Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Ottobre 1978. "Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi".
- D.M. del 14 Febbraio 1992. "Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche".
- Istruzioni per la valutazione delle Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. "Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
- D.M. del 16 Gennaio 1996. "Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»".
- D.M. del 16 Gennaio 1996. "Norme tecniche per le costruzioni in zone sismiche"
- Ordinanza n. 3274 del 20 Marzo 2003. "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"
- Ordinanza n. 3316. "Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"
- D.M. del 14 Gennaio 2008 "Approvazione delle nuove norme tecniche per le costruzioni"

- Verifiche travi

- Modalità di verifica

Le travi vengono progettate-verificate a flessione retta e taglio nel piano longitudinale della trave sulla base dell'involuppo delle sollecitazioni, in conformità al *Decreto Legge del 26 Marzo 1980* e successivi aggiornamenti.

Viene comunque sempre predisposta l'armatura minima mentre gli sforzi di taglio vengono integralmente assorbiti dalle staffe.

Le operazioni di progetto-verifica vengono condotte, per ogni asta, in tre diverse sezioni e precisamente in corrispondenza dei fili esterni dei pilastri e della sezione in campata nella quale viene riscontrato il massimo momento positivo (negativo).

I momenti si intendono positivi se tendono le fibre di intradosso (inferiori).

Per quanto concerne il progetto e la verifica delle travi a taglio esse vengono condotte nel modo seguente:

- Si controlla se la trave necessita o meno di armatura aggiuntiva a taglio:
 1. Se non occorre armatura aggiuntiva a taglio si procede a disporre la staffatura minima di regolamento e la progettazione ha termine.
 2. Se occorre armatura aggiuntiva a taglio la staffatura viene progettata andando a suddividere la trave, a seconda del caso, in uno, tre o cinque conci:

- due tronchi in prossimità degli appoggi di lunghezza pari all'altezza della sezione;
 - due altri (eventuali) tronchi dall'ascissa precedente a quella in cui il taglio può essere assorbito con la sola staffatura minima da regolamento
 - un restante (eventuale) concio di chiusura centrale.
- In ogni caso l'armatura a taglio si intende simmetrica rispetto alla mezzeria della trave e viene progettata considerando, rispetto alla mezzeria, la zona della trave più sollecitata.

Per quanto concerne le verifiche a taglio esse vengono condotte suddividendo la trave in cinque conci:

due tronchi in prossimità degli appoggi di lunghezza pari all'altezza della sezione; due altri (eventuali) tronchi dall'ascissa precedente a quella in cui il taglio può essere assorbito con la sola staffatura minima da regolamento; il restante (eventuale) concio di chiusura centrale.

L'armatura a taglio si intende simmetrica rispetto alla mezzeria della trave e viene progettata considerando, rispetto alla mezzeria, la zona della trave più sollecitata.

Simbologia utilizzata:

Af Es.

Area di ferro all'estradosso

Af In.

Area di ferro all'intradosso

Sigb.Es.

Tensione del calcestruzzo estradosso

Sigb. In.

Tensione del calcestruzzo intradosso

Sigf. Es.

Tensione dell'acciaio estradosso

Sigf. In.

Tensione dell'acciaio intradosso

- Sezioni Impiegate: Trave

Sezione Numero	Info	Dimensioni	Criterio	Calcestruzzo	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Calcestruzzo Appoggi	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Acciaio	f_{yd} [kg/cm ²]	σ_{yRARE} [kg/cm ²]
1	Rett. 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
2	Rett. 30x250	B 30 [cm] H 250 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
3	Rett. 30x85	B 30 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
4	Rett. 30x115	B 30 [cm] H 115 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
5	Rett. 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
6	a - 18+18x75D	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
7	Rett. 45x85	B 45 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
8	Rett. 33x50	B 33 [cm] H 50 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
9	Rett. 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
10	Rett. 33x85	B 33 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
11	a T 40/60x52	B 60 [cm] H 52 [cm] b 40 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
13	Rett. 60x85	B 60 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
14	a ~ 18+18x75S	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
21	Rett. P1 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
22	a - P2 18+18x75D	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
23	a - P3 20+18x75D	B 38 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
24	Rett. P4 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
25	Rett. P5 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
26	Rett. P6 40x24	B 40 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
27	a T P7 35/55x52	B 55 [cm] H 52 [cm] b 35 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
28	a ~ P8 18+18x75S	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0

31	a ~ S1 40+25x75D	B 65 [cm] H 75 [cm] b 25 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
32	Rett. S2 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
33	Rett. S3 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
34	Rett. S4 25x24	B 25 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
36	Rett. S6 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
35	Rett. S5 40x34	B 40 [cm] H 34 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
37	a T S7 30/50x70	B 50 [cm] H 70 [cm] b 30 [cm] h 34 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
38	a ~ S8 10+40x75S	B 50 [cm] H 75 [cm] b 12 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
12	a T 50/80x85	B 70 [cm] H 85 [cm] b 50 [cm] h 24 [cm]	Vertrav	Rbk 300	141.1	3.0	149.4	249.0	112.0		FeB 32k	2739.1	2520.0

EC2. 4.3.2.4.4. Verifica a taglio con il metodo dell'inclinazione variabile del traliccio. $\cotg \theta = 1.00$

Verifica a fessurazione indiretta

Fattore di sovrarresistenza Travi $\gamma_{R,d}=1.00$

Fattore di sovrarresistenza Fondazioni $\gamma_{R,d}=1.00$

- Verifiche Tratte :

- Travata: 1 Travata 224 200 202 204 206 208 210 214 218 222

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{re} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 14 a ~ 36x75x18x24 [cm] 18+18x75S Afli < Afe/2																
224	0.13	12.57	9.42			1711.3	22619.0	0.10	-970.9	-17290.2	0.08					
Camp.	3.10	12.57	9.42	3576.8	8593.4	0.0	22619.0	0.10	-8589.3	-17290.2	0.08					
200	6.07	21.99	9.42			18845.4	37998.4	0.29	0.0	-17286.9	0.08					
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento																
200	0.12	21.99	12.57			44346.2	144866.4	0.04	0.0	-82989.9	0.03					
Camp.	0.84	21.99	12.57	5217.0	783.4	44346.2	144866.4	0.04	-772.1	-82989.9	0.03					
202	1.55	15.80	12.57			37170.2	104259.0	0.03	0.0	-82999.4	0.03					
Trave Sez. 3 Rett. 30x85 [cm] 30x85 Afli < Afe/2																
202	0.13	14.11	15.71			12814.3	29421.3	0.08	0.0	-32695.4	0.08					
Camp.	1.85	9.42	15.71	3608.2	3087.3	0.0	19787.5	0.07	-12057.4	-32677.7	0.09					
204	3.57	12.73	20.16			0.0	26578.0	0.07	-19793.7	-41810.9	0.10					
Trave Sez. 4 Rett. 30x115 [cm] 30x115 Afli < Afe/2																
204	0.00	14.73	6.54			0.0	42881.6	0.07	-21371.8	-19252.0	0.05					
Camp.	0.75	18.85	12.57	3900.7	548.5	0.0	54789.8	0.07	-21503.9	-36674.5	0.05					
206	1.50	13.25	6.54			0.0	38627.8	0.06	-21415.1	-19252.6	0.05					
Trave Sez. 3 Rett. 30x85 [cm] 30x85 Afli < Afe/2																
206	0.12	11.25	21.29			0.0	23528.7	0.07	-19940.7	-44001.0	0.12					
Camp.	1.85	9.42	15.71	3608.2	3087.3	0.0	19787.5	0.07	-12444.5	-32677.7	0.09					
208	3.57	11.87	15.71			12037.4	24822.5	0.07	0.0	-32690.5	0.09					
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento																
208	0.00	13.14	12.57			36193.4	86886.9	0.03	0.0	-83105.4	0.03					
Camp.	0.71	17.93	12.57	5217.0	783.4	43314.4	118425.5	0.03	-772.1	-83100.3	0.03					
210	1.43	15.66	12.57			43314.4	103465.2	0.03	0.0	-83103.3	0.03					
Trave Sez. 14 a ~ 36x75x18x24 [cm] 18+18x75S																
210	0.13	13.85	9.42			17134.9	24895.8	0.11	0.0	-17289.6	0.08					
Camp.	3.00	9.42	9.42	3576.8	8047.9	0.0	17036.7	0.09	-8047.9	-17292.0	0.08					
214	5.87	15.46	18.85			5150.0	27808.6	0.09	0.0	-34094.4	0.09					
Trave Sez. 14 a ~ 36x75x18x24 [cm] 18+18x75S Afli < Afe/2																
214	0.13	15.46	18.85			7225.0	27808.6	0.09	0.0	-34094.4	0.09					
Camp.	3.00	6.03	9.42	3576.8	8047.9	0.0	11028.4	0.08	-8047.9	-17306.1	0.08					
218	5.87	12.06	18.85			8913.2	21802.2	0.09	0.0	-34117.2	0.10					
Trave Sez. 14 a ~ 36x75x18x24 [cm] 18+18x75S Afli < Afe/2																
218	0.13	12.06	18.85			10396.7	21802.2	0.09	0.0	-34117.2	0.10					
Camp.	3.10	6.03	9.42	3576.9	8593.4	0.0	11028.4	0.08	-8593.4	-17306.1	0.08					
222	6.08	6.03	9.42			3016.3	11028.4	0.08	-383.6	-17306.1	0.08					

Da [m]	A [m]	Dx [m]	V _{Sd} [kg]	V _{Rd} _c [kg]	V _{Rd} _{max} [kg]	V _{Rd} _s [kg]	Staffe
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Trave 224 200 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	13473.5	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	14774.2	5812.0	33620.6	13669.4	ø 10 2br. 20.0'
5.51	6.07	0.56	16058.8	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
Trave 200 202 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 162230.9 > VR _{s,d} 47552.5							
0.12	1.55	1.43	162230.9	17318.8	194929.6	47552.5	ø 10 2br. 20.0'
Trave 202 204 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 24682.9 > VR _{s,d} 20807.4							
0.13	0.77	0.64	24682.9	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	23174.3	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
2.93	3.57	0.64	21216.6	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
Trave 204 206 Sez. 4 Rett. 30x115 [cm] 30x115 VSd 43346.3 > VR _{s,d} 13705.0							
0.00	1.50	1.50	43346.3	9045.5	87781.8	13705.0	ø 8 2br. 20.0'
Trave 206 208 Sez. 3 Rett. 30x85 [cm] 30x85 64.48 < 85.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.77	0.64	20331.3	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	22476.1	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
2.93	3.57	0.64	23984.7	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
Trave 208 210 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 133251.6 > VR _{s,d} 40578.1							
0.00	1.43	1.43	133251.6	17318.8	194929.6	40578.1	ø 8 2br. 15.0'
Trave 210 214 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	16798.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	15513.7	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	14382.3	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 214 218 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	17308.9	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	16024.2	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	16260.3	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 218 222 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	13339.5	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	13069.5	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.51	6.08	0.56	14354.1	5812.0	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 10 Travata 593 569 574 579 583 587 591

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
593	0.13	15.71	9.42			1546.1	28108.4	0.14	-1400.2	-17288.8	0.08					
Camp.	3.10	15.71	9.42	3576.8	8593.4	1411.3	28108.4	0.14	-8591.3	-17288.8	0.08					
569	6.07	34.56	21.99			24911.1	60372.0	0.29	0.0	-39668.6	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
569	0.13	34.56	21.99			40303.7	60372.0	0.29	0.0	-39668.6	0.08					
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-13890.4	-22886.3	0.08					
574	5.88	37.70	25.13			0.0	65965.4	0.29	-32177.6	-45262.1	0.09					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755																
574	0.13	37.70	25.13			0.0	65965.4	0.29	-32025.8	-45262.1	0.09					
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-14173.5	-22886.3	0.08					
579	5.88	34.56	18.85			39490.9	59184.3	0.36	0.0	-34074.1	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
579	0.13	34.56	18.85			24161.5	59184.3	0.36	0.0	-34074.1	0.08					
Camp.	3.00	15.71	6.28	3576.8	8047.9	3024.0	27639.8	0.22	-8047.9	-11687.2	0.07					
583	5.87	23.75	15.71			4184.7	42253.4	0.18	0.0	-28499.2	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755																
583	0.13	23.75	15.71			5740.9	42253.4	0.18	0.0	-28499.2	0.08					
Camp.	3.00	8.04	9.42	3576.8	8047.9	0.0	14620.6	0.09	-8047.9	-17304.9	0.08					
587	5.87	16.08	18.85			9509.3	28981.7	0.09	0.0	-34132.4	0.09					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
587	0.13	16.08	18.85			10380.8	28981.7	0.09	0.0	-34132.4	0.09					
Camp.	3.10	8.04	9.42	3576.9	8593.4	0.0	14620.6	0.09	-8593.4	-17304.9	0.08					
591	6.08	4.52	9.42			3186.9	8327.6	0.07	-729.6	-17306.3	0.08					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 593 569 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 72.05 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.85	0.72	18157.7	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.85	5.35	4.51	18180.2	5812.0	33620.6	13669.4	ø 10 2br. 20.0'
5.35	6.07	0.72	19818.9	7708.7	33620.6	18225.9	ø 10 2br. 15.0'
Trave 569 574 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	24910.3	7708.7	33620.6	36451.8	ø 10 2br. 7.5'

0.69	5.31	4.62	23625.7	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
5.31	5.88	0.56	24910.3	8059.6	33620.6	36451.8	ø 10 2br. 7.5'
Trave 574 579 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	23937.4	8059.6	33620.6	36451.8	ø 10 2br. 7.5'
0.69	5.31	4.62	23419.1	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
5.31	5.88	0.56	24703.8	7322.6	33620.6	36451.8	ø 10 2br. 7.5'
Trave 579 583 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S VSd 21788.5 > VR_{s,d} 18225.9							
0.13	0.69	0.56	21788.5	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	20503.8	5077.2	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	19813.5	6890.9	33620.6	18225.9	ø 10 2br. 15.0'
Trave 583 587 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S VSd 19823.7 > VR_{s,d} 18225.9 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	19823.7	6890.9	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	18539.0	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	16535.8	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 587 591 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	14546.1	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	13261.5	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.51	6.08	0.56	13902.8	5812.0	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 11 Travata 650 654 659 664 668 672 676

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{re} [kg/cm²]	σ _{ri} [kg/cm²]	w mm
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
650	0.12	15.71	15.71			959.5	18571.1	0.13	-419.2	-18854.9	0.12					
Camp.	3.10	15.71	15.71	5160.9	12399.1	93.6	18571.1	0.13	-12389.9	-18854.9	0.12					
654	6.07	34.56	34.56			17722.2	40244.3	0.15	0.0	-40536.3	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
654	0.13	34.56	34.56			28958.7	40244.3	0.15	0.0	-40536.3	0.14					
Camp.	3.00	18.85	18.85	5822.5	13100.6	0.0	22183.6	0.14	-13100.6	-22471.5	0.13					
659	5.88	34.56	37.70			0.0	40249.0	0.14	-6316.8	-44142.9	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
659	0.13	34.56	37.70			0.0	40249.0	0.14	-6434.8	-44142.9	0.14					
Camp.	3.00	15.71	18.85	5822.5	13100.6	0.0	18571.6	0.13	-13100.6	-22471.8	0.13					
664	5.88	34.56	34.56			28548.3	40244.3	0.15	0.0	-40536.3	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
664	0.13	34.56	34.56			15174.3	40244.3	0.15	0.0	-40536.3	0.14					
Camp.	3.00	18.85	15.71	4300.0	9675.0	0.0	22179.1	0.14	-9675.0	-18853.2	0.12					
668	5.88	31.42	28.27			6394.5	36624.9	0.15	0.0	-33313.5	0.13					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
668	0.12	31.42	28.27			7120.5	36624.9	0.15	0.0	-33313.5	0.13					
Camp.	3.00	12.57	12.57	4579.1	10303.0	0.0	14957.3	0.13	-10303.0	-15234.4	0.11					
672	5.87	25.13	31.42			12682.9	29412.9	0.13	0.0	-36912.8	0.15					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
672	0.12	25.13	31.42			13074.8	29412.9	0.13	0.0	-36912.8	0.15					
Camp.	3.10	12.57	18.85	5822.5	13988.6	0.0	14955.4	0.12	-13988.6	-22470.3	0.13					
676	6.08	12.57	18.85			1663.2	14955.4	0.12	-442.3	-22470.3	0.13					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 650 654 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 18722.6 > VR_{s,d} 12288.3							
0.12	0.51	0.38	18722.6	8878.8	44076.1	12288.3	ø 10 2br. 15.0'
0.51	5.69	5.19	18488.5	8878.8	44076.1	12288.3	ø 10 2br. 15.0'
5.69	6.07	0.38	19830.8	11408.2	44076.1	12288.3	ø 10 2br. 15.0'
Trave 654 659 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20721.7 > VR_{s,d} 18432.4							
0.13	1.28	1.16	24810.4	10153.3	44076.1	36864.8	ø 10 2br. 5.0'
1.28	4.72	3.43	20721.7	9435.1	44076.1	18432.4	ø 10 2br. 10.0'
4.72	5.88	1.16	24184.0	10262.3	44076.1	36864.8	ø 10 2br. 5.0'
Trave 659 664 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20851.6 > VR_{s,d} 18432.4							
0.13	1.25	1.12	24184.0	10429.6	44076.1	24576.5	ø 10 2br. 7.5'
1.25	4.75	3.50	20851.6	9435.1	44076.1	18432.4	ø 10 2br. 10.0'
4.75	5.88	1.12	24810.4	10323.6	44076.1	24576.5	ø 10 2br. 7.5'
Trave 664 668 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20382.7 > VR_{s,d} 12288.3							
0.13	0.51	0.38	20382.7	11408.2	44076.1	12288.3	ø 10 2br. 15.0'
0.51	5.49	4.99	20004.0	8878.8	44076.1	12288.3	ø 10 2br. 15.0'
5.49	5.88	0.38	21009.3	10800.5	44076.1	12288.3	ø 10 2br. 15.0'
Trave 668 672 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20845.6 > VR_{s,d} 18432.4							
0.12	0.51	0.38	20845.6	10800.5	44076.1	18432.4	ø 10 2br. 10.0'

0.51	5.49	4.99	19778.5	8242.4	44076.1	12288.3	ø 10 2br. 15.0'
5.49	5.87	0.38	18965.4	11186.6	44076.1	18432.4	ø 10 2br. 10.0'
Trave 672 676 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 19206.7 > VR _{s,d} 18432.4							
0.12	0.51	0.38	19206.7	11186.6	44076.1	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	17864.4	9435.1	44076.1	12288.3	ø 10 2br. 15.0'
5.69	6.08	0.38	19204.2	9435.1	44076.1	18432.4	ø 10 2br. 10.0'

- Travata: 12 Travata 698 699 702

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 24 Rett. 20x24 [cm] P4 20x24																
698	0.05	2.32	2.71			284.1	1170.7	0.21	0.0	-1333.6	0.22					
Camp.	0.66	5.58	5.44	1353.7	134.7	208.6	2524.5	0.27	-134.1	-2466.5	0.26					
699	1.26	6.16	6.16			552.8	2761.5	0.27	0.0	-2761.5	0.27					
Trave 699 702 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA																

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 698 699 Sez. 24 Rett. 20x24 [cm] P4 20x24 VSd 3894.8 > VR _{s,d} 3238.3							
0.05	1.26	1.21	3894.8	2284.7	10370.8	3238.3	ø 8 2br. 15.0'
Trave 699 702 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA							

- Travata: 13 Travata 687 688 689 690 691 692

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 687 688 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 688 689 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 689 690 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 690 691 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 691 692 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 687 688 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 688 689 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 689 690 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 690 691 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 691 692 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 14 Travata 709 714 716

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 709 714 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 24 Rett. 20x24 [cm] P4 20x24												
714	0.00	8.04	8.04			533.6	3502.3	0.29	0.0	-3502.3	0.29	
Camp.	1.28	4.02	4.02	1450.1	612.7	128.5	1869.0	0.25	-611.8	-1869.0	0.25	
716	2.55	2.69	2.54			236.3	1322.0	0.23	-90.5	-1259.6	0.22	

Da [m]	A [m]	Dx [m]	V [kg]	τ_v [kg/cm ²]	σ_{str} [kg/cm ²]	Staffe
Trave 709 714 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 714 716 Sez. 24 Rett. 20x24 [cm] P4 20x24 15.00 > 4.90 [cm]						
0.00	2.55	2.55	3001.3	2236.6	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 15 Travata 753 754

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 753 754 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 753 754 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 754 755

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 754 755 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 754 755 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 755 756

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 755 756 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 755 756 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 756 757

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 756 757 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 756 757 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 757 758

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 757 758 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 757 758 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 758 759

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 758 759 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 758 759 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 759 760

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 759 760 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 759 760 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 760 761

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 760 761 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 760 761 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 761 762

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 761 762 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ _V	σ _{Str}	Staffe						
[m]	[m]	[m]	[kg]	[kg/cm ²]	[kg/cm ²]							
Trave 761 762 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 15 Travata 733 739 744 748 753

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 21 Rett. 20x75 [cm] P1 20x75 Afh < Afe/2																
733	0.12	12.57	9.42			165.2	22649.4	0.10	-350.5	-17066.2	0.08					
Camp.	3.10	12.57	9.42	2004.9	4816.8	4462.5	22649.4	0.10	-4813.2	-17066.2	0.08					
739	6.07	31.42	21.99			14880.3	55768.6	0.19	0.0	-39439.1	0.09					
Trave Sez. 22 a - 36x75x18x24 [cm] P2 18+18x75D																
739	0.13	31.42	21.99			35636.1	55606.8	0.22	0.0	-39668.7	0.09					
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-11215.4	-22886.3	0.08					

744	5.88	37.70	25.13			0.0	65965.4	0.29	-24621.3	-45262.1	0.09	
Trave Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D												
744	0.13	37.70	25.13			0.0	65965.4	0.29	-25101.6	-45262.1	0.09	
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-9191.4	-22886.3	0.08	
748	5.88	31.42	21.99			39255.3	55606.8	0.22	0.0	-39668.7	0.09	
Trave Sez. 21 Rett. 20x75 [cm] P1 20x75 Af1 < Afe/2												
748	0.12	31.42	21.99			12543.8	55768.6	0.19	0.0	-39439.1	0.09	
Camp.	3.00	12.57	9.42	487.5	1096.9	1893.9	22764.4	0.10	-2356.6	-17147.1	0.08	
753	5.88	12.57	9.42			2443.6	22649.4	0.10	-1615.4	-17066.2	0.08	

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 733 739 Sez. 21 Rett. 20x75 [cm] P1 20x75 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.69	0.56	13003.5	6234.9	37356.2	21871.1	ø 10 2br. 12.5'
0.69	5.51	4.82	16170.6	6234.9	37356.2	18225.9	ø 10 2br. 15.0'
5.51	6.07	0.56	17415.5	8269.7	37356.2	21871.1	ø 10 2br. 12.5'
Trave 739 744 Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D							
0.13	5.88	5.75	24910.3	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
Trave 744 748 Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D 49.57 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.62	0.50	24910.3	8059.6	33620.6	27338.8	ø 10 2br. 10.0'
0.62	5.38	4.76	23782.9	6396.9	33620.6	21871.1	ø 10 2br. 12.5'
5.38	5.88	0.50	24081.6	7708.7	33620.6	27338.8	ø 10 2br. 10.0'
Trave 748 753 Sez. 21 Rett. 20x75 [cm] P1 20x75 VSD 13374.4 > VR_{s,d} 6998.7							
0.12	1.11	0.99	13745.0	8207.8	37356.2	18225.9	ø 10 2br. 15.0'
1.11	4.89	3.77	13374.4	6234.9	37356.2	6998.7	ø 8 2br. 25.0'
4.89	5.88	0.99	11959.4	6234.9	37356.2	18225.9	ø 10 2br. 15.0'

- Travata: 15 Travata 762 766

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 23 a -/ 38x75x18x24 [cm] P3 20+18x75D																
762	0.13	12.57	9.42			11329.4	22619.0	0.10	0.0	-17317.5	0.08					
Camp.	3.10	12.57	9.42	3592.5	8630.9	0.0	22619.0	0.10	-9231.4	-17317.5	0.08					
766	6.08	12.57	9.42			1254.1	22619.0	0.10	-997.0	-17317.5	0.08					

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 762 766 Sez. 23 a -/ 38x75x18x24 [cm] P3 20+18x75D							
0.13	0.88	0.75	13514.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.88	5.33	4.45	11799.5	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.33	6.08	0.75	13514.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 16 Travata 854 832 836 840 844 848 852

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S Af1 < Afe/2																
854	0.13	21.29	15.71			807.4	39331.5	0.19	-1992.6	-29608.0	0.06					
Camp.	3.10	21.99	15.71	2999.2	7205.5	614.5	40691.1	0.21	-7204.5	-29741.3	0.05					
832	6.08	40.84	34.56			26902.0	75594.0	0.21	0.0	-64714.2	0.06					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
832	0.13	40.84	34.56			31185.2	75594.0	0.21	0.0	-64714.2	0.06					
Camp.	3.00	18.85	18.85	3866.4	8699.4	0.0	35188.6	0.07	-14614.0	-35458.3	0.06					
836	5.88	37.70	37.70			0.0	70296.2	0.08	-23973.8	-70559.1	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
836	0.13	37.70	37.70			0.0	70296.2	0.08	-23901.3	-70559.1	0.07					
Camp.	3.00	18.85	18.85	3866.4	8699.4	0.0	35188.6	0.07	-15182.4	-35458.3	0.06					
840	5.88	30.91	31.42			29674.2	57723.8	0.07	0.0	-58914.3	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
840	0.13	30.91	31.42			26004.6	57723.8	0.07	0.0	-58914.3	0.07					
Camp.	3.00	12.06	12.57	3866.4	8699.4	3242.6	22740.4	0.07	-8699.4	-23887.5	0.05					
844	5.88	20.11	25.13			5058.1	37642.6	0.07	0.0	-47248.1	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
844	0.13	20.11	25.13			5652.8	37642.6	0.07	0.0	-47248.1	0.07					
Camp.	3.00	8.04	12.57	3866.4	8699.4	0.0	15186.9	0.06	-8699.4	-23884.4	0.06					
848	5.88	20.61	25.13			11159.8	38512.5	0.07	0.0	-47192.0	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
848	0.13	20.61	25.13			11433.9	38512.5	0.07	0.0	-47192.0	0.07					
Camp.	3.10	12.57	12.57	3866.4	9289.0	0.0	23615.3	0.07	-9843.9	-23855.4	0.06					
852	6.08	12.36	12.57			1547.7	23094.0	0.07	-2015.3	-23756.6	0.06					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 854 832 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 24680.3 > VR _{c,d} 22889.9							
0.13	2.89	2.77	24680.3	5313.6	22889.9	18613.1	ø 10 2br. 15.0'
2.89	3.31	0.42	18725.9	5313.6	22889.9	7147.4	ø 8 2br. 25.0'
3.31	6.08	2.77	23883.8	5313.6	22889.9	18613.1	ø 10 2br. 15.0'
Trave 832 836 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 33835.9 > VR _{c,d} 22889.9							
0.13	5.88	5.75	33835.9	5487.8	22889.9	22335.7	ø 10 2br. 12.5'
Trave 836 840 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 30889.4 > VR _{c,d} 22889.9							
0.13	5.88	5.75	30889.4	5487.8	22889.9	22335.7	ø 10 2br. 12.5'
Trave 840 844 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 26674.0 > VR _{c,d} 22889.9							
0.13	0.70	0.58	26674.0	5487.8	22889.9	18613.1	ø 10 2br. 15.0'
0.70	2.24	1.54	24985.1	4932.7	22889.9	13959.8	ø 10 2br. 20.0'
2.24	3.76	1.53	20489.3	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
3.76	5.30	1.54	23521.6	4932.7	22889.9	13959.8	ø 10 2br. 20.0'
5.30	5.88	0.58	25210.5	5487.8	22889.9	18613.1	ø 10 2br. 15.0'
Trave 844 848 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 23171.8 > VR _{c,d} 22889.9							
0.13	0.70	0.58	23171.8	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
0.70	1.64	0.94	21483.0	5103.3	22889.9	11167.9	ø 10 2br. 25.0'
1.64	4.36	2.72	18891.4	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
4.36	5.30	0.94	21644.0	5124.7	22889.9	11167.9	ø 10 2br. 25.0'
5.30	5.88	0.58	23332.9	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
Trave 848 852 Sez. 38 a / ~ 50x75x12x24 [cm] S8 10+40x75S Vsd 19176.2 > VR _{s,d} 13959.8							
0.13	0.70	0.58	19176.2	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
0.70	1.90	1.19	17487.3	4932.7	22889.9	11167.9	ø 10 2br. 25.0'
1.90	4.30	2.41	15337.7	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
4.30	5.50	1.19	18834.7	4932.7	22889.9	11167.9	ø 10 2br. 25.0'
5.50	6.08	0.58	20523.6	4932.7	22889.9	13959.8	ø 10 2br. 20.0'

- Travata: 17 Travata 907 911 919 923 927 931

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 AfI < Afe/2																
907	0.12	25.13	25.13			0.0	18861.7	0.16	-922.0	-18861.7	0.16					
Camp.	3.10	25.13	25.13	4333.6	10411.5	0.0	19106.0	0.15	-10409.4	-19106.0	0.15					
911	6.07	81.68	43.98			20474.4	50720.8	0.74	0.0	-32808.1	0.14					
Trave Sez. 37 a T 50x70x30x34 [cm] S7 30/50x70 AfI < Afe/2																
911	0.12	81.68	25.13			26050.0	110690.4	0.73	0.0	-43717.8	0.06					
Camp.	6.00	37.70	50.27	5378.5	48406.5	0.0	65653.5	0.07	-60876.3	-87391.8	0.11					
919	11.88	87.96	25.13			30656.0	111507.0	0.74	0.0	-43717.5	0.06					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 AfI < Afe/2																
919	0.13	87.96	18.85			15962.5	33025.9	0.82	0.0	-14217.0	0.12					
Camp.	3.00	18.85	18.85	3574.5	8042.6	129.4	14217.9	0.15	-8042.6	-14217.9	0.15					
923	5.88	34.56	37.70			3513.7	25831.7	0.16	0.0	-28145.3	0.17					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 AfI < Afe/2																
923	0.12	34.56	37.70			3776.1	25831.7	0.16	0.0	-28145.3	0.17					
Camp.	3.00	15.71	18.85	3820.6	8596.4	0.0	11897.1	0.14	-8596.4	-14213.2	0.16					
927	5.87	31.42	40.84			9813.0	23512.7	0.15	0.0	-30379.8	0.22					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 AfI < Afe/2																
927	0.13	31.42	40.84			10145.0	23512.7	0.15	0.0	-30379.8	0.22					
Camp.	3.10	15.71	21.99	4917.0	11813.1	0.0	11897.4	0.14	-11813.1	-16523.6	0.18					
931	6.08	17.97	24.25			0.0	13613.0	0.14	-1506.0	-18246.1	0.17					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 907 911 Sez. 35 Rett. 40x34 [cm] S5 40x34 Vsd 17781.7 > VR _{s,d} 12043.0							
0.12	0.37	0.25	17781.7	9313.0	32911.6	12043.0	ø 10 2br. 10.0'
0.37	5.83	5.45	21037.2	9313.0	32911.6	3853.8	ø 8 2br. 20.0'
5.83	6.07	0.25	21955.3	9313.0	32911.6	12043.0	ø 10 2br. 10.0'
Trave 911 919 Sez. 37 a T 50x70x30x34 [cm] S7 30/50x70 Vsd 36905.5 > VR _{s,d} 34644.7							
0.12	2.62	2.50	36905.5	11049.9	53256.4	34644.7	ø 10 2br. 7.5'
2.62	9.38	6.76	26878.3	12381.0	53256.4	6651.8	ø 8 2br. 25.0'
9.38	11.88	2.50	36975.0	11049.9	53256.4	34644.7	ø 10 2br. 7.5'
Trave 919 923 Sez. 35 Rett. 40x34 [cm] S5 40x34 Vsd 18357.8 > VR _{s,d} 12043.0							
0.13	0.37	0.25	18357.8	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
0.37	5.63	5.25	17689.8	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
5.63	5.88	0.25	14684.4	9313.0	32911.6	12043.0	ø 10 2br. 10.0'

Trave 923 927 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 18025.0 > VR _{s,d} 12043.0							
0.12	5.87	5.75	18025.0	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
Trave 927 931 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 18371.5 > VR _{s,d} 12043.0							
0.13	6.08	5.95	18371.5	8937.6	32911.6	12043.0	ø 10 2br. 10.0'

- Travata: 18 Travata 960 957 956

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 960 957 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24												
957	0.00	8.04	8.04			452.4	3502.3	0.29	0.0	-3502.3	0.29	
Camp.	0.61	6.88	6.72	1212.1	120.6	166.4	3031.7	0.29	-120.1	-2966.5	0.28	
956	1.21	2.65	3.09			215.0	1304.4	0.23	0.0	-1488.1	0.23	

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 960 957 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 957 956 Sez. 33 Rett. 20x24 [cm] S3 20x24 VSd 4693.2 > VR _{s,d} 3238.3						
0.00	1.21	1.21	4693.2	2388.7	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 19 Travata 945 946 947 948 949 950

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 945 946 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 946 947 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 947 948 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 948 949 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 949 950 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 945 946 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 946 947 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 947 948 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 948 949 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 949 950 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 2 Travata 303 307

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52 Af1 < Afe/2																
303	0.12	36.19	12.57			854.4	40097.9	0.36	-276.1	-15293.9	0.11					
Camp.	3.10	36.19	12.57	3992.4	9591.6	0.0	40097.9	0.36	-9584.6	-15293.9	0.11					
307	6.07	36.19	12.57			26705.6	40097.9	0.36	0.0	-15293.9	0.11					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 303 307 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 38.08 < 52.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.51	0.38	15075.0	9009.8	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	16919.0	9009.8	50372.7	18432.4	ø 10 2br. 10.0'
5.69	6.07	0.38	18286.1	9009.8	50372.7	18432.4	ø 10 2br. 10.0'

- Travata: 20 Travata 964 969 971

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 964 969 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24 Af1 < Afe/2												
969	0.00	12.06	12.06			0.0	5130.3	0.31	-1032.6	-5130.3	0.31	
Camp.	1.28	6.15	6.03	1297.1	548.0	329.5	2735.1	0.28	-757.9	-2687.1	0.28	
971	2.55	3.90	4.47			1328.4	1817.3	0.25	0.0	-2052.9	0.26	

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 964 969 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 969 971 Sez. 33 Rett. 20x24 [cm] S3 20x24 VSd 4083.5 > VR _{s,d} 3238.3						
0.00	2.55	2.55	4083.5	2701.1	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 21 Travata 1021 1020

x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ _{be}	σ _{bi}	σ _{fe}	σ _{fi}
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Nodo	[m]	[cm ²]	[cm ²]	[cm ²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm ²]	[kg/cm ²]	[kg/cm ²]	[kg/cm ²]
Trave 1021 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V									Staffe
[m]	[m]	[m]	[kg]							[kg/cm ²]		
Trave 1021 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1022 1021

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1022 1021 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _v [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe						
Trave 1022 1021 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1023 1022

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1023 1022 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 1023 1022 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1024 1023

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1024 1023 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]				τ _V [kg/cm ²]			σ _{Str} [kg/cm ²]		Staffe
Trave 1024 1023 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1025 1024

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1025 1024 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 1025 1024 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1026 1025

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1026 1025 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 1026 1025 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1027 1026

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1027 1026 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 1027 1026 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1028 1027

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 1028 1027 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ _V	σ _{Str}	Staffe						
[m]	[m]	[m]	[kg]	[kg/cm ²]	[kg/cm ²]							
Trave 1028 1027 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 21 Travata 1029 1028

Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
[m]	[cm ²]	[cm ²]	[cm ²]	[cm ²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm ²]	[kg/cm ²]	[kg/cm ²]	[kg/cm ²]
Trave 1029 1028 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ_v [kg/cm ²]	σ_{str} [kg/cm ²]	Staffe
Trave 1029 1028 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 21 Travata 1001 1004 1007 1011 1015 1020

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afli < Afe/2																
1001	0.12	2.03	2.78			219.9	3880.4	0.06	-141.6	-5256.4	0.06					
Camp.	1.59	8.95	6.56	1527.5	894.9	274.3	16340.8	0.09	-891.7	-12044.3	0.08					
1004	3.06	12.50	12.50			1097.7	22704.8	0.09	-1865.7	-22704.8	0.09					
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afli < Afe/2																
1004	0.00	12.50	12.50			1883.4	22590.0	0.09	-1363.5	-22590.0	0.09					
Camp.	1.51	27.20	10.30	3765.0	2317.7	9763.0	46067.9	0.35	-2308.9	-18624.9	0.08					
1007	3.01	50.27	21.99			22484.4	80261.0	0.58	0.0	-39439.4	0.08					
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afli < Afe/2																
1007	0.12	50.27	21.99			30455.3	82882.1	0.46	0.0	-40073.6	0.08					
Camp.	3.00	40.84	18.84	4198.9	9447.5	0.0	69377.6	0.36	-20985.4	-34454.5	0.08					
1011	5.87	81.68	25.13			0.0	105218.4	0.75	-32273.7	-45664.5	0.08					
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afli < Afe/2																
1011	0.12	81.68	25.13			0.0	105218.4	0.75	-32440.4	-45664.5	0.08					
Camp.	3.00	40.84	19.73	4198.9	9447.5	0.0	69760.3	0.35	-15781.5	-36045.6	0.08					
1015	5.87	43.92	15.65			42632.4	71634.1	0.46	0.0	-28797.2	0.07					
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afli < Afe/2																
1015	0.12	43.92	15.65			21596.3	69012.9	0.58	0.0	-28174.9	0.08					
Camp.	3.00	3.08	3.08	1527.5	3436.9	2669.9	5790.7	0.06	-3436.9	-5790.7	0.06					
1020	5.88	2.03	2.78			1922.8	3876.9	0.06	-1446.6	-5244.9	0.06					

Da [m]	A [m]	Dx [m]	V _{Sd} [kg]	V _{rd_c} [kg]	V _{rd_max} [kg]	V _{rd_s} [kg]	Staffe
Trave 1001 1004 Sez. 32 Rett. 20x75 [cm] S2 20x75 15.00 > 11.20 [cm]							
0.12	0.69	0.56	10704.9	4269.8	37356.2	11664.6	ø 8 2br. 15.0'
0.69	2.50	1.81	10656.7	4294.0	37356.2	6998.7	ø 8 2br. 25.0'
2.50	3.06	0.56	11320.3	6850.9	37356.2	11664.6	ø 8 2br. 15.0'
Trave 1004 1007 Sez. 32 Rett. 20x75 [cm] S2 20x75 V _{Sd} 31268.8 > V _{Sd} 18225.9							
0.00	0.56	0.56	31268.8	6850.9	37356.2	18225.9	ø 10 2br. 15.0'
0.56	2.45	1.88	36637.6	6243.2	37356.2	18225.9	ø 10 2br. 15.0'
2.45	3.01	0.56	38247.2	8269.7	37356.2	18225.9	ø 10 2br. 15.0'
Trave 1007 1011 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D V _{Sd} 34421.4 > V _{Sd} 27338.8							
0.12	5.87	5.75	34421.4	7963.1	46695.3	27338.8	ø 10 2br. 10.0'
Trave 1011 1015 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D 60.47 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.73	0.60	32460.3	10032.9	46695.3	36451.8	ø 10 2br. 7.5'
0.73	5.27	4.54	30535.0	7963.1	46695.3	27338.8	ø 10 2br. 10.0'
5.27	5.87	0.60	29553.0	8566.5	46695.3	36451.8	ø 10 2br. 7.5'
Trave 1015 1020 Sez. 32 Rett. 20x75 [cm] S2 20x75 V _{Sd} 15585.5 > V _{Sd} 6998.7							
0.12	1.17	1.04	17660.2	7093.3	37356.2	27338.8	ø 10 2br. 10.0'
1.17	4.83	3.66	15585.5	4294.0	37356.2	6998.7	ø 8 2br. 25.0'
4.83	5.88	1.04	10761.7	4269.8	37356.2	27338.8	ø 10 2br. 10.0'

- Travata: 21 Travata 1029 1033

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afli < Afe/2																
1029	0.12	8.27	12.57			9585.7	15079.9	0.08	0.0	-23286.1	0.07					
Camp.	3.10	12.57	12.57	4198.9	10087.8	0.0	22730.2	0.09	-13912.2	-23283.9	0.07					
1033	6.08	9.17	11.48			0.0	16677.3	0.08	-3464.9	-21335.7	0.07					

Da [m]	A [m]	Dx [m]	V _{Sd} [kg]	V _{rd_c} [kg]	V _{rd_max} [kg]	V _{rd_s} [kg]	Staffe
Trave 1029 1033 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D							
0.12	6.08	5.95	16188.2	7725.6	46695.3	36451.8	ø 10 2br. 7.5'

- Travata: 22 Travata 359 373 378 390 394

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{IT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]
Trave 359 373 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 373 378 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 378 390 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 390 394 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ_v [kg/cm ²]	σ_{str} [kg/cm ²]	Staffe
Trave 359 373 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 373 378 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 378 390 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 390 394 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 23 Travata 362 374 379 391 396

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]
Trave 362 374 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 374 379 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 379 391 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 391 396 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ_v [kg/cm ²]	σ_{str} [kg/cm ²]	Staffe
Trave 362 374 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 374 379 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 379 391 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 391 396 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 24 Travata 200 292 307 323 399

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 7 Rett. 45x85 [cm] 45x85																
200	0.12	18.85	25.13			6949.7	39366.6	0.07	-2272.0	-52258.9	0.09					
Camp.	2.35	18.85	25.13	1243.1	1622.7	0.0	39366.6	0.07	-8458.7	-52258.9	0.09					
292	4.57	53.78	50.27			0.0	111193.6	0.09	-12178.4	-103964.8	0.09					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 Area tirante a taglio insufficiente																
292	0.00	53.78	50.27			0.0	111193.6	0.09	-11594.7	-103964.8	0.09					
Camp.	0.15	53.78	50.27	1243.1	14.4	0.0	111193.6	0.09	-11594.7	-103964.8	0.09					
307	0.30	53.78	50.27			0.0	111193.6	0.09	-11594.7	-103964.8	0.09					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 Area tirante a taglio insufficiente																
307	0.13	53.78	50.27			0.0	111193.6	0.09	-12124.0	-103964.8	0.09					
Camp.	0.28	53.78	50.27	1243.1	14.4	0.0	111193.6	0.09	-12124.0	-103964.8	0.09					
323	0.43	53.78	50.27			0.0	111193.6	0.09	-12124.0	-103964.8	0.09					
Trave Sez. 7 Rett. 45x85 [cm] 45x85																
323	0.00	53.78	50.27			0.0	111193.6	0.09	-8749.7	-103964.8	0.09					
Camp.	2.22	18.85	25.13	1243.1	1622.7	8682.4	39366.6	0.07	-1618.7	-52258.9	0.09					
399	4.45	18.85	25.13			3472.8	39366.6	0.07	-2504.9	-52258.9	0.09					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 200 292 Sez. 7 Rett. 45x85 [cm] 45x85 64.48 < 85.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.77	0.64	35323.3	15855.6	95956.8	62422.3	ø 10 2br. 5.0'
0.77	3.93	3.16	37336.4	15855.6	95956.8	20807.4	ø 10 2br. 15.0'
3.93	4.57	0.64	38957.3	19888.9	95956.8	62422.3	ø 10 2br. 5.0'
Trave 292 307 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 705643.4 > VR _{c,d} 95956.8							
0.00	0.30	0.30	705643.4	19976.8	95956.8	62422.3	ø 10 2br. 5.0'
Trave 307 323 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 705643.4 > VR _{c,d} 95956.8							
0.13	0.43	0.30	705643.4	19976.8	95956.8	62422.3	ø 10 2br. 5.0'
Trave 323 399 Sez. 7 Rett. 45x85 [cm] 45x85 64.48 < 85.00 Dimensione Concio Terminale Inferiore al minimo							
0.00	0.64	0.64	38957.3	19976.8	95956.8	62422.3	ø 10 2br. 5.0'
0.64	3.80	3.16	37455.9	15855.6	95956.8	20807.4	ø 10 2br. 15.0'
3.80	4.45	0.64	35323.3	15855.6	95956.8	62422.3	ø 10 2br. 5.0'

- Travata: 25 Travata 297 328

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 13 Rett. 60x85 [cm] 60x85 Area tirante a taglio insufficiente																
297	0.05	25.13	25.13			0.0	52489.2	0.08	-5473.8	-52489.2	0.08					
Camp.	0.43	25.13	25.13	1657.5	76.6	0.0	52489.2	0.08	-6536.3	-52489.2	0.08					
328	0.81	25.13	25.13			0.0	52489.2	0.08	-6400.9	-52489.2	0.08					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 297 328 Sez. 13 Rett. 60x85 [cm] 60x85 VSd 138614.1 > VR _{c,d} 127942.4							
0.05	0.81	0.76	138614.1	19207.7	127942.4	62422.3	ø 10 2br. 5.0'

- Travata: 26 Travata 210 300 309 322 343 408

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
210	0.12	15.71	15.71			6348.5	33034.8	0.07	-2210.7	-33034.8	0.07					
Camp.	2.35	15.71	15.71	1243.1	1622.7	0.0	33034.8	0.07	-8913.6	-33034.8	0.07					
300	4.57	24.49	15.71			0.0	51148.1	0.09	-12701.5	-33032.4	0.07					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
300	0.00	26.02	15.71			0.0	54056.1	0.09	-12401.3	-32909.6	0.07					
Camp.	0.15	27.59	15.71	1243.1	14.4	0.0	57254.6	0.10	-12401.3	-32909.1	0.07					
309	0.30	28.27	15.71			0.0	58655.8	0.10	-12401.3	-32908.8	0.07					
Trave Sez. 10 Rett. 33x85 [cm] 33x85 Area tirante a taglio insufficiente																
309	0.13	28.27	15.71			0.0	58237.4	0.14	-16307.3	-32740.2	0.07					
Camp.	0.28	25.50	15.71	911.6	10.5	0.0	52783.0	0.11	-16307.3	-32740.8	0.07					
322	0.43	23.55	15.71			0.0	48808.9	0.10	-16307.3	-32741.2	0.07					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
322	0.00	21.64	15.71			0.0	45083.7	0.08	-13352.6	-32911.1	0.07					
Camp.	0.72	12.57	15.71	1243.1	191.5	1415.2	26454.9	0.07	-8764.9	-32913.0	0.08					
343	1.45	12.57	15.71			6370.9	26454.9	0.07	0.0	-32913.0	0.08					
Trave Sez. 8 Rett. 33x50 [cm] 33x50																
343	0.13	12.57	12.57			3907.0	14341.0	0.13	0.0	-14341.0	0.13					
Camp.	1.50	12.57	12.57	536.2	301.6	1728.1	14341.0	0.13	-301.6	-14341.0	0.13					
408	2.88	12.57	12.57			1371.8	14341.0	0.13	-1471.3	-14341.0	0.13					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 210 300 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 17489.9 > VR _{s,d} 13316.8							
0.12	0.77	0.64	17489.9	13556.4	95956.8	13316.8	ø 8 2br. 15.0'
0.77	3.93	3.16	20507.2	13556.4	95956.8	7990.1	ø 8 2br. 25.0'
3.93	4.57	0.64	21123.8	13556.4	95956.8	13316.8	ø 8 2br. 15.0'
Trave 300 309 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 300300.5 > VR _{c,d} 95956.8							
0.00	0.30	0.30	300300.5	13556.4	95956.8	41614.9	ø 10 2br. 7.5'
Trave 309 322 Sez. 10 Rett. 33x85 [cm] 33x85 VSd 298354.1 > VR _{c,d} 70368.3							
0.13	0.43	0.30	298354.1	11024.1	70368.3	41614.9	ø 10 2br. 7.5'
Trave 322 343 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 54727.6 > VR _{s,d} 31211.2							
0.00	1.45	1.45	54727.6	13556.4	95956.8	31211.2	ø 10 2br. 10.0'
Trave 343 408 Sez. 8 Rett. 33x50 [cm] 33x50 VSd 10997.0 > VR _{s,d} 7534.1							
0.13	0.49	0.36	10997.0	7767.4	39811.4	7534.1	ø 8 2br. 15.0'
0.49	2.51	2.02	10846.5	7767.4	39811.4	4520.4	ø 8 2br. 25.0'
2.51	2.88	0.36	10997.0	7767.4	39811.4	7534.1	ø 8 2br. 15.0'

- Travata: 27 Travata 348 365 376 388 413

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 348 365 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 365 376 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 376 388 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 388 413 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 348 365 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 365 376 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 376 388 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 388 413 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 28 Travata 370 377 389 418

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]		
Trave 370 377 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														
Trave 377 389 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														
Trave 389 418 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														
Da	A	Dx	V	τ _V [kg/cm ²]									σ _{str} [kg/cm ²]	Staffe
[m]	[m]	[m]	[kg]											
Trave 370 377 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														
Trave 377 389 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														
Trave 389 418 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA														

- Travata: 29 Travata 317 353 422

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm²]	σ _{str} [kg/cm²]	Staffe
Trave 317 353 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 353 422 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 9 Rett. 30x24 [cm] 30x24																
317	0.13	4.62	4.62			45.9	2234.8	0.23	-225.2	-2234.8	0.23					
Camp.	1.00	6.28	5.81	234.0	58.5	9.4	2924.2	0.25	-126.5	-2731.1	0.24					
353	1.88	9.24	9.24			182.8	4142.3	0.27	0.0	-4142.3	0.27					
Trave Sez. 9 Rett. 30x24 [cm] 30x24																
353	0.13	9.24	9.24			586.4	4142.3	0.27	0.0	-4142.3	0.27					
Camp.	1.50	4.62	4.62	234.0	131.6	3.5	2234.8	0.23	-172.4	-2234.8	0.23					
422	2.88	4.62	4.62			338.2	2234.8	0.23	-145.9	-2234.8	0.23					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 317 353 Sez. 9 Rett. 30x24 [cm] 30x24 VSd 3801.5 > VR_{s,d} 3238.3							
0.13	1.88	1.75	3801.5	3577.9	15556.3	3238.3	ø 8 2br. 15.0'
Trave 353 422 Sez. 9 Rett. 30x24 [cm] 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2566.4	3577.9	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 3 Travata 292 300

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 12 a T 70x85x50x24 [cm] 50/80x85																
292	0.05	37.70	40.72			32855.3	80801.7	0.06	0.0	-87343.0	0.06					
Camp.	6.00	56.55	81.43	4293.0	38636.8	0.0	120974.6	0.06	-79552.3	-173498.1	0.10					
300	11.95	37.70	40.72			37270.2	80801.7	0.06	0.0	-87343.0	0.06					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 292 300 Sez. 12 a T 70x85x50x24 [cm] 50/80x85							
0.05	11.95	11.90	30844.5	21425.5	130323.5	31791.7	ø 10 2br. 10.0'

- Travata: 30 Travata 699 717 722 730 734

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 699 717 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 717 722 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 722 730 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 730 734 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{stf} [kg/cm ²]	Staffe
Trave 699 717 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 717 722 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 722 730 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 730 734 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 31 Travata 702 718 723 731 736

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 702 718 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 718 723 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 723 731 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 731 736 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{stf} [kg/cm ²]	Staffe
Trave 702 718 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 718 723 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 723 731 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 731 736 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 32 Travata 569 654 739

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
569	0.12	4.62	4.62			608.4	2234.8	0.23	-25.4	-2234.8	0.23					
Camp.	2.50	4.62	4.62	234.0	365.6	0.0	2234.8	0.23	-374.0	-2234.8	0.23					
654	4.88	9.24	9.24			191.1	4142.3	0.27	-439.5	-4142.3	0.27					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
654	0.13	9.24	9.24			311.6	4142.3	0.27	-106.9	-4142.3	0.27					
Camp.	2.50	4.62	4.62	234.0	365.6	0.0	2234.8	0.23	-365.6	-2234.8	0.23					
739	4.88	4.62	4.62			614.4	2234.8	0.23	-59.7	-2234.8	0.23					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 569 654 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.12	4.88	4.75	1770.0	3577.9	15556.3	3238.3	ø 8 2br. 15.0'
Trave 654 739 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1770.0	3577.9	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 33 Travata 579 664 687 748

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 26 Rett. 40x24 [cm] P6 40x24																
579	0.13	4.62	4.62			800.1	2334.8	0.21	0.0	-2334.8	0.21					
Camp.	2.50	4.62	4.62	312.0	487.5	0.0	2334.8	0.21	-564.1	-2334.8	0.21					
664	4.87	9.24	9.24			0.0	4255.2	0.25	-564.4	-4255.2	0.25					
Trave Sez. 26 Rett. 40x24 [cm] P6 40x24																
664	0.13	9.24	9.24			0.0	4255.2	0.25	-381.3	-4255.2	0.25					
Camp.	1.00	6.28	4.62	312.0	78.0	176.5	3030.5	0.23	-78.0	-2337.6	0.22					
687	1.88	9.24	9.24			801.8	4255.2	0.25	0.0	-4255.2	0.25					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
687	0.13	9.24	9.24			623.4	4142.3	0.27	0.0	-4142.3	0.27					
Camp.	1.50	4.62	4.62	234.0	131.6	166.1	2234.8	0.23	-131.6	-2234.8	0.23					
748	2.88	4.62	4.62			311.1	2234.8	0.23	-192.9	-2234.8	0.23					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 579 664 Sez. 26 Rett. 40x24 [cm] P6 40x24 15.00 > 4.90 [cm]							
0.13	4.87	4.75	1958.0	4334.3	20741.7	3238.3	ø 8 2br. 15.0'
Trave 664 687 Sez. 26 Rett. 40x24 [cm] P6 40x24 Vsd 5073.1 > VR _{s,d} 3238.3							
0.13	1.88	1.75	5073.1	4334.3	20741.7	3238.3	ø 8 2br. 15.0'
Trave 687 748 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2566.4	3577.9	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 34 Travata 692 709 720 728 753

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 692 709 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 709 720 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 720 728 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 728 753 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 692 709 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 709 720 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 720 728 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 728 753 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 35 Travata 714 721 729 758

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 714 721 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 721 729 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 729 758 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 714 721 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 721 729 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 729 758 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 36 Travata 672 716 762

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
672	0.13	6.03	6.03			76.5	2803.5	0.25	-234.4	-2803.5	0.25					
Camp.	1.34	6.03	6.03	234.0	95.1	104.1	2803.5	0.25	-94.4	-2803.5	0.25					
716	2.55	12.06	12.06			555.9	5253.4	0.29	-92.5	-5253.4	0.29					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
716	0.00	12.06	12.06			326.6	5253.4	0.29	-188.0	-5253.4	0.29					
Camp.	1.16	6.03	6.03	234.0	87.8	194.2	2803.5	0.25	-251.0	-2803.5	0.25					
762	2.32	6.03	6.03			714.2	2803.5	0.25	-477.9	-2803.5	0.25					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 672 716 Sez. 25 Rett. 30x24 [cm] P5 30x24 VSd 3551.9 > VR _{s,d} 3238.3							
0.13	2.55	2.43	3551.9	3911.0	15556.3	3238.3	ø 8 2br. 15.0'
Trave 716 762 Sez. 25 Rett. 30x24 [cm] P5 30x24 VSd 3685.8 > VR _{s,d} 3238.3							
0.00	2.32	2.32	3685.8	3911.0	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 37 Travata 957 972 991 999 1002

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{TT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 957 972 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 972 991 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 991 999 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 999 1002 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 957 972 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 972 991 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 991 999 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 999 1002 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 38 Travata 960 973 992 1000 1004

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{TT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 960 973 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 973 992 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 992 1000 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1000 1004 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 960 973 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 973 992 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 992 1000 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1000 1004 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 39 Travata 832 911 1007

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 34 Rett. 25x24 [cm] S4 25x24																
832	0.13	4.97	5.53			585.7	2311.4	0.25	0.0	-2543.9	0.26					
Camp.	2.50	6.03	6.03	195.0	304.7	0.0	2746.1	0.26	-335.6	-2746.1	0.26					
911	4.88	12.06	12.06			0.0	5192.1	0.30	-346.5	-5192.1	0.30					
Trave Sez. 34 Rett. 25x24 [cm] S4 25x24																
911	0.13	12.06	12.06			251.7	5192.1	0.30	0.0	-5192.1	0.30					
Camp.	2.50	6.03	6.03	195.0	304.7	0.0	2746.1	0.26	-304.7	-2746.1	0.26					
1007	4.88	4.82	4.74			337.6	2251.2	0.25	-51.7	-2221.0	0.25					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 832 911 Sez. 34 Rett. 25x24 [cm] S4 25x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1984.9	3365.4	12963.6	3238.3	ø 8 2br. 15.0'
Trave 911 1007 Sez. 34 Rett. 25x24 [cm] S4 25x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1923.2	3197.1	12963.6	3238.3	ø 8 2br. 15.0'

- Travata: 4 Travata 323 322

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 12 a T 70x85x50x24 [cm] 50/80x85																
323	0.05	31.42	40.72			36564.6	67417.2	0.06	0.0	-87329.2	0.06					
Camp.	6.00	50.27	81.43	4293.0	38636.8	0.0	107586.4	0.06	-80431.9	-172725.9	0.13					
322	11.95	31.42	40.72			41131.5	67417.2	0.06	0.0	-87329.2	0.06					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 323 322 Sez. 12 a T 70x85x50x24 [cm] 50/80x85							
0.05	11.95	11.90	30777.4	21425.5	130323.5	31791.7	ø 10 2br. 10.0'

- Travata: 40 Travata 840 919 945 1015

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afli < Afe/2																
840	0.13	6.03	6.03			1650.2	4811.1	0.11	0.0	-4811.1	0.11					
Camp.	1.00	6.03	6.03	442.0	690.6	0.0	4811.1	0.11	-1264.1	-4811.1	0.11					
919	4.88	12.06	12.06			0.0	9405.7	0.13	-1903.5	-9405.7	0.13					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afli < Afe/2																
919	0.13	12.06	12.06			0.0	9405.7	0.13	-1905.6	-9405.7	0.13					
Camp.	1.00	12.06	12.06	442.0	110.5	0.0	9405.7	0.13	-811.0	-9405.7	0.13					
945	1.88	6.03	6.03			1113.5	4811.1	0.11	0.0	-4811.1	0.11					
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
945	0.13	6.03	6.03			1250.6	2803.5	0.25	0.0	-2803.5	0.25					
Camp.	1.50	6.03	6.03	234.0	131.6	160.1	2803.5	0.25	-386.5	-2803.5	0.25					
1015	2.88	4.81	4.81			19.0	2304.1	0.24	-653.2	-2303.9	0.24					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 840 919 Sez. 35 Rett. 40x34 [cm] S5 40x34 15.00 > 7.78 [cm]							
0.13	0.37	0.25	3800.5	5807.0	32911.6	5138.4	ø 8 2br. 15.0'
0.37	4.63	4.25	3715.9	5807.0	32911.6	3853.8	ø 8 2br. 20.0'
4.63	4.88	0.25	3800.5	7316.4	32911.6	5138.4	ø 8 2br. 15.0'
Trave 919 945 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 8421.4 > VRd _s 5138.4							
0.13	0.37	0.25	8421.4	7316.4	32911.6	5138.4	ø 8 2br. 15.0'
0.37	1.63	1.25	8336.8	5807.0	32911.6	3853.8	ø 8 2br. 20.0'
1.63	1.88	0.25	8421.4	5807.0	32911.6	5138.4	ø 8 2br. 15.0'
Trave 945 1015 Sez. 36 Rett. 30x24 [cm] S6 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2104.8	3627.4	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 41 Travata 949 1019

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24 Afli < Afe/2																
949	0.05	2.32	3.82			501.4	1184.4	0.23	0.0	-1767.1	0.25					
Camp.	1.50	3.08	6.28	872.0	490.5	0.0	1494.9	0.24	-490.3	-2758.6	0.31					
1019	2.95	2.32	3.31			264.7	1183.6	0.23	-83.3	-1561.2	0.24					
Trave 949 1019 Sez. 33 Rett. 20x24 [cm] S3 20x24 15.00 > 4.90 [cm]																
0.05	2.95	2.90		1968.7	2444.8	10370.8	3238.3									

- Travata: 42 Travata 950 964 989 997 1020

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 950 964 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 964 989 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 989 997 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 997 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 950 964 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 964 989 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 989 997 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 997 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 43 Travata 969 990 998 1025

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 969 990 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 990 998 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 998 1025 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe						
Trave 969 990 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 990 998 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 998 1025 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 44 Travata 927 971 1029

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 927 971 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 971 1029 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
927	0.13	4.89	4.66			195.6	2334.7	0.24	-57.2	-2241.2	0.24					
Camp.	1.34	6.03	6.03	234.0	95.1		270.4	0.25	-94.4	-2803.5	0.25					
971	2.55	12.06	12.06			659.5	5253.4	0.29	-189.8	-5253.4	0.29					
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
971	0.00	12.06	12.06			325.7	5253.4	0.29	-274.7	-5253.4	0.29					
Camp.	1.16	6.03	6.03	234.0	87.8	211.4	2803.5	0.25	-480.4	-2803.5	0.25					
1029	2.32	4.89	4.66			910.0	2334.7	0.24	-843.8	-2241.2	0.24					

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 927 971 Sez. 36 Rett. 30x24 [cm] S6 30x24 VSD 3336.1 > VR_{s,d} 3238.3							
0.13	2.55	2.43	3336.1	3588.6	15556.3	3238.3	ø 8 2br. 15.0'
Trave 971 1029 Sez. 36 Rett. 30x24 [cm] S6 30x24 VSD 3461.7 > VR_{s,d} 3238.3							
0.00	2.32	2.32	3461.7	3588.6	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 5 Travata 309 313 317 321

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
309	0.12	25.13	15.71			21136.0	29444.1	0.16	0.0	-18919.1	0.11					
Camp.	3.00	25.13	15.71	4384.5	9865.1	500.9	29444.1	0.16	-9865.1	-18919.1	0.11					
313	5.88	40.84	31.42			5565.5	47507.7	0.17	0.0	-37000.1	0.13					
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
313	0.13	40.84	31.42			6435.5	47507.7	0.17	0.0	-37000.1	0.13					
Camp.	3.00	15.71	15.71	4663.6	10493.1	0.0	18643.0	0.13	-10493.1	-18924.0	0.12					
317	5.87	31.42	34.56			14288.9	36708.9	0.14	0.0	-40605.1	0.14					
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
317	0.13	31.42	34.56			15685.7	36708.9	0.14	0.0	-40605.1	0.14					
Camp.	3.10	15.71	18.85	5907.0	14191.6	0.0	18642.8	0.13	-14256.4	-22543.1	0.13					
321	6.08	15.71	18.85			1251.2	18642.8	0.13	-944.0	-22543.1	0.13					

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 309 313 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 VSD 19332.4 > VR_{s,d} 12288.3							
0.12	0.51	0.38	19332.4	9705.5	50372.7	12288.3	ø 10 2br. 15.0'
0.51	5.49	4.99	18302.3	9705.5	50372.7	12288.3	ø 10 2br. 15.0'
5.49	5.88	0.38	19329.3	12228.1	50372.7	12288.3	ø 10 2br. 15.0'
Trave 313 317 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 VSD 23567.3 > VR_{s,d} 18432.4							
0.13	0.51	0.38	23567.3	12228.1	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.49	4.99	22475.5	9705.5	50372.7	12288.3	ø 10 2br. 15.0'
5.49	5.87	0.38	21062.3	12622.8	50372.7	18432.4	ø 10 2br. 10.0'
Trave 317 321 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 VSD 20638.6 > VR_{s,d} 18432.4							
0.13	0.51	0.38	20638.6	12622.8	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	19271.5	10313.6	50372.7	18432.4	ø 10 2br. 10.0'
5.69	6.08	0.38	20637.9	10313.6	50372.7	18432.4	ø 10 2br. 10.0'

- Travata: 6 Travata 358 359 362

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 5 Rett. 20x24 [cm] 20x24																
358	0.05	4.02	4.02			345.9	1869.0	0.25	0.0	-1869.0	0.25					
Camp.	0.66	4.02	4.02	1353.7	134.7	237.0	1869.0	0.25	-134.1	-1869.0	0.25					
359	1.26	4.02	4.02			574.1	1869.0	0.25	0.0	-1869.0	0.25					
Trave 359 362 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA																

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 358 359 Sez. 5 Rett. 20x24 [cm] 20x24 10.00 > 4.90 [cm]							
0.05	1.26	1.21	3600.0	2607.3	10370.8	4857.5	ø 8 2br. 10.0'
Trave 359 362 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA							

- Travata: 7 Travata 343 344 345 346 347 348

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{TT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 343 344 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

403	0.00	21.99	12.57			0.0	63757.8	0.08	-19083.9	-36673.8	0.05
Camp.	0.75	21.99	12.57	3900.7	548.5	0.0	63757.8	0.08	-19083.9	-36673.8	0.05
405	1.50	21.99	12.57			0.0	63757.8	0.08	-18664.2	-36673.8	0.05
Trave Sez. 3 Rett. 30x85 [cm] 30x85											
405	0.12	21.99	16.15			0.0	45582.1	0.09	-16095.0	-33603.3	0.08
Camp.	1.85	12.57	12.57	3608.2	3087.3	1795.1	26244.6	0.08	-8460.2	-26244.6	0.08
406	3.57	14.13	12.57			15647.0	29505.2	0.08	0.0	-26293.1	0.07
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento											
406	0.00	15.14	12.57			43988.6	100146.5	0.03	0.0	-83159.1	0.03
Camp.	0.71	18.60	12.57	5217.0	783.4	50902.6	122983.8	0.04	-772.1	-83207.0	0.03
408	1.43	14.92	12.57			50902.6	98803.9	0.03	0.0	-83224.8	0.03
Trave Sez. 1 Rett. 20x75 [cm] 20x75 Af1 < Af2											
408	0.12	12.51	9.42			10771.0	22984.8	0.08	0.0	-17473.4	0.08
Camp.	3.00	6.03	9.42	487.5	1096.9	1436.3	11285.2	0.06	-1880.7	-17502.7	0.08
413	5.88	6.03	9.42			1972.3	11285.2	0.06	-1162.1	-17502.7	0.08

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 393 396 Sez. 1 Rett. 20x75 [cm] 20x75 57.28 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.70	0.57	10376.1	6278.3	37885.3	11829.8	ø 8 2br. 15.0'
0.70	2.49	1.79	10208.2	6278.3	37885.3	7097.9	ø 8 2br. 25.0'
2.49	3.06	0.57	10423.0	6278.3	37885.3	11829.8	ø 8 2br. 15.0'
Trave 396 399 Sez. 1 Rett. 20x75 [cm] 20x75 VSd 16522.5 > VR_{s,d} 7097.9							
0.00	0.83	0.83	13538.8	6278.3	37885.3	22180.8	ø 10 2br. 12.5'
0.83	2.18	1.35	16522.5	6278.3	37885.3	7097.9	ø 8 2br. 25.0'
2.18	3.01	0.83	18351.4	6278.3	37885.3	22180.8	ø 10 2br. 12.5'
Trave 399 401 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 132512.2 > VR_{s,d} 40578.1							
0.13	1.55	1.43	132512.2	17318.8	194929.6	40578.1	ø 8 2br. 15.0'
Trave 401 403 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 23058.8 > VR_{s,d} 20807.4							
0.13	0.77	0.64	23058.8	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	23375.2	9603.9	63971.2	15605.6	ø 10 2br. 20.0'
2.93	3.57	0.64	24883.8	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
Trave 403 405 Sez. 4 Rett. 30x115 [cm] 30x115 VSd 68877.8 > VR_{s,d} 18273.4							
0.00	1.50	1.50	68877.8	11282.3	87781.8	18273.4	ø 8 2br. 15.0'
Trave 405 406 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 24869.3 > VR_{s,d} 20807.4							
0.12	0.77	0.64	24869.3	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	23360.7	9603.9	63971.2	15605.6	ø 10 2br. 20.0'
2.93	3.57	0.64	22328.2	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
Trave 406 408 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 131453.8 > VR_{s,d} 40578.1							
0.00	1.43	1.43	131453.8	17318.8	194929.6	40578.1	ø 8 2br. 15.0'
Trave 408 413 Sez. 1 Rett. 20x75 [cm] 20x75 57.28 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.70	0.57	10229.2	6278.3	37885.3	18484.0	ø 10 2br. 15.0'
0.70	5.30	4.60	9949.9	6278.3	37885.3	18484.0	ø 10 2br. 15.0'
5.30	5.88	0.57	6178.0	6278.3	37885.3	18484.0	ø 10 2br. 15.0'

- [En.Ex.Sys. WinStrand](#)
- [Verifiche travi](#)

4.1.7 Verifiche Momento e Taglio – Stato di progetto

\\Workstation1\giorgio\39_ViaLaMasa_Milano\3_Strutture\MODELLO\2012_01_16\2012_01_16_SDP(ViaLaMasa)_SL_201_PROVAHEA240.dt
- 01 February 2012 - WinStrand (Service Pack 032)

- Fattori di amplificazione dei momenti

- Dati di verifica

- γ_{EL} 1.50
- ϵ_U travi 4.00%
- ϵ_U pilastri 4.00%
- Fattore di confidenza sulle rotazioni 1.35

- γ Materiali sezioni impiegate

- γ Materiali sezioni Pilastro

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 25x40 [cm] 25x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 70x40 [cm] 70x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 35x40 [cm] 35x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x40 [cm] 30x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 45x40 [cm] 45x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 Rett. 20x20 [cm] 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 30x30 [cm] 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 40x45 [cm] 40x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 70x45 [cm] 70x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 60x45 [cm] 60x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 Rett. 25x30 [cm] P1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 Rett. 30x30 [cm] P2 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 35x27 [cm] P3 35x27	1.15	1.50	0.85	0.60	1.00	0.45	0.80
14 Rett. 35x30 [cm] P4 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 25x35 [cm] P5 25x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
16 Rett. 30x35 [cm] P6 30x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
17 Rett. 35x35 [cm] P7 35x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
18 Rett. 20x20 [cm] P8	1.15	1.50	0.85	0.60	1.00	0.45	0.80

20x20							
19 Rett. 30x45 [cm] P9 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
20 Rett. 35x45 [cm] P10 35x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 25x30 [cm] S1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 Rett. 35x30 [cm] S2 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 Rett. 35x25 [cm] S3 35x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 30x25 [cm] S4 30x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 22x30 [cm] S5 22x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 20x20 [cm] S6 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 Rett. 30x30 [cm] S7 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 Rett. 30x45 [cm] S8 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
29 Rett. 35x30 [cm] S9 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- γ Materiali sezioni Trave

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q. Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 20x75 [cm] 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 30x250 [cm] 30x250	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 30x85 [cm] 30x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x115 [cm] 30x115	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 20x24 [cm] 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 a ~ 36x75x18x24 [cm] 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 45x85 [cm] 45x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 33x50 [cm] 33x50	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 30x24 [cm] 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 33x85 [cm] 33x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 a T 60x52x40x24 [cm] 40/60x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 a T 70x85x50x24 [cm] 50/80x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 60x85 [cm] 60x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80

14 a ~ 36x75x18x24 [cm] 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 20x24 [cm] AUSILIARIA	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 20x75 [cm] P1 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 a ~ 36x75x18x24 [cm] P2 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 a ~ 38x75x18x24 [cm] P3 20+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 20x24 [cm] P4 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 30x24 [cm] P5 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 40x24 [cm] P6 40x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 a T 55x52x35x24 [cm] P7 35/55x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 a ~ 36x75x18x24 [cm] P8 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
31 a ~ 65x75x25x24 [cm] S1 40+25x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
32 Rett. 20x75 [cm] S2 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
33 Rett. 20x24 [cm] S3 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
34 Rett. 25x24 [cm] S4 25x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
35 Rett. 40x34 [cm] S5 40x34	1.15	1.50	0.85	0.60	1.00	0.45	0.80
36 Rett. 30x24 [cm] S6 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
37 a T 50x70x30x34 [cm] S7 30/50x70	1.15	1.50	0.85	0.60	1.00	0.45	0.80
38 a ~ 50x75x12x24 [cm] S8 10+40x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- Legenda

M_G	Momento da carichi gravitazionali
M_E	Momento da carichi sismici
M_R	Momento resistente ultimo
α	$(M_R - M_G) / M_E$

- Danno Severo

- Pilastri

N.B. I momenti resistenti nei due piani sono valutati indipendentemente assumendo per N il valore medio dell'azione assiale nelle combinazioni di carico analizzate.

Pilastro Nodi	Sezione	Mx				α	My				α
		Comb. Critica	M_G [kgm]	M_E [kgm]	M_R [kgm]		Comb. Critica	M_G [kgm]	M_E [kgm]	M_R [kgm]	

1 200	9	9	1180.9	3159.7	23985.1	7.22	5	2990.9	-3021.7	36523.3	11.10
2 210	9	9	953.9	3299.3	23692.4	6.89	10	-3049.8	3227.9	-36159.4	10.26
3 214	10	10	36.1	1469.1	19352.9	13.15	9	294.5	-2215.9	25389.9	11.32
4 218	10	10	83.2	1542.4	20929.5	13.52	3	524.4	-2302.2	27306.2	11.63
5 222	8	10	58.3	1198.3	13348.3	11.09	3	-998.7	-760.1	11769.7	16.80
6 224	8	9	73.3	1147.2	12811.7	11.10	3	864.1	-592.7	-11292.7	20.51
7 294	4	6	-272.7	-1077.0	-8695.1	7.82	10	-699.1	-352.5	6449.3	20.28
8 298	5	6	688.8	1711.1	25295.3	14.38	6	-7340.5	-784.7	28762.5	46.01
9 300	5	5	1029.6	1764.6	24822.8	13.48	3	-3130.3	-563.3	28293.0	55.79
10 304	4	5	945.0	1335.6	10787.6	7.37	4	207.2	-194.0	-8631.7	45.56
11 308	3	5	-322.6	-922.7	-14575.6	15.45	3	508.7	-276.8	-12646.2	47.52
12 312	1	5	-16.1	-579.5	-9651.1	16.63	4	-759.5	-109.4	6275.1	64.29
13 324	6	6	50.8	99.2	2588.8	25.59	4	169.3	-26.2	-2607.5	106.00
14 62	6	6	-21.6	-78.5	-1959.2	24.67	3	11.1	-44.1	1959.2	44.14
20 344	7	5	344.1	453.0	4532.9	9.25	7	-35.2	76.7	-4625.9	59.84
41 88	1	6	-8.7	-436.8	-6403.4	14.64	9	47.1	-247.2	3807.0	15.21
45 92	2	6	-26.1	-2315.6	-19602.4	8.45	4	5659.5	-2116.8	-33732.2	18.61
46 93	2	9	189.6	1929.9	13833.5	7.07	7	-277.5	1676.6	-24565.4	14.49
51 98	3	5	-59.4	-1071.1	-8520.3	7.90	10	-83.3	306.9	-7303.5	23.53
60 107	3	5	-45.9	-676.8	-9074.3	13.34	8	-31.5	316.8	-7830.0	24.61
61 417	4	5	-10.3	-652.5	-9275.9	14.20	7	1065.9	-159.2	-6994.7	50.62
62 108	6	6	-5.9	-42.6	-1961.0	45.84	9	13.0	-5.1	-1955.1	389.28
88 134	1	9	9.5	282.5	6273.1	22.17	9	-16.2	78.9	-3705.9	46.79
92 138	2	6	-0.3	-1334.6	-19533.3	14.64	4	1621.4	-1102.2	-33637.3	31.99
93 139	2	9	23.3	1194.9	13968.6	11.67	7	-346.1	554.8	-24785.5	44.05
98 144	3	10	31.6	335.1	8498.6	25.27	9	-79.1	452.2	-7284.9	15.93
107 153	3	5	-6.3	-498.7	-9055.7	18.15	5	-47.2	68.5	-7772.5	112.71
108 154	6	6	-8.2	-12.4	-2004.8	161.66	4	-15.1	-5.4	1998.9	375.26
134 180	1	9	13.5	202.8	6174.5	30.38	9	1.7	-66.3	3665.1	55.29
138 390	2	6	85.1	1877.1	19302.1	10.24	3	-11755.1	2373.4	33322.1	18.99
139 184	2	5	-149.6	-476.3	-14671.4	30.49	4	-908.0	-421.3	25929.0	63.69
144 188	3	10	3.3	543.8	8679.8	15.96	9	106.3	-795.4	7481.3	9.27
153 197	3	10	22.4	309.4	9241.8	29.80	10	39.8	-93.0	7940.0	84.94
154 334	6	5	119.1	100.6	2232.4	21.00	4	230.0	12.4	-2232.4	199.17
180 384	1	9	11.6	132.2	6096.8	46.02	9	-5.4	57.3	-3597.9	62.65
184 399	2	9	-642.9	-1156.9	-15185.8	12.57	4	13014.4	703.2	-26765.0	56.57
188 404	3	10	27.2	342.6	8661.6	25.20	7	195.7	-404.4	7411.8	17.84
197 413	3	10	60.1	117.3	9637.5	81.66	4	-1677.1	135.0	8275.8	73.72
200 560	20	9	1385.2	1568.4	18696.5	11.04	5	2277.4	-881.5	-14263.7	18.76
210 570	20	9	1376.4	1441.5	18591.8	11.94	5	-2359.8	-954.9	14182.1	17.32
214 574	20	10	86.1	581.6	13722.6	23.45	5	-481.4	1005.7	-10482.6	9.94
218 578	20	9	219.6	1189.1	14875.8	12.33	5	-313.6	1035.9	-11379.2	10.68
222 582	19	9	294.8	1439.1	9433.6	6.35	10	-1404.9	602.5	6316.3	12.82
224 584	19	9	17.7	538.7	8979.6	16.63	5	1093.3	-491.9	-5979.4	14.38
294 632	15	6	1265.6	1103.1	6462.5	4.71	5	-1057.3	416.2	4547.6	13.47
298 636	16	6	-632.2	-1338.5	-13311.8	9.47	9	-1544.2	627.1	14143.2	25.02
299 641	16	6	-226.9	-923.6	-6155.8	6.42	8	-24.2	290.8	-5235.7	17.92
300 646	17	5	-1292.8	-1415.1	-14256.5	9.16	5	2639.0	365.6	-14227.2	46.13
304 650	16	5	1648.2	1927.1	8074.8	3.33	6	-370.0	-348.1	7269.1	21.95
308 654	16	5	1195.0	781.5	8893.6	9.85	4	-932.2	249.5	8490.5	37.77
312 658	15	3	249.4	331.7	7302.2	21.26	4	-2016.2	-147.6	5410.9	50.33

	12	5	-607.7	-816.4	-4154.1	4.34	9	60.2	-63.9	4154.1	64.04
384 444	11	9	4.9	62.3	2982.1	47.82	9	0.6	-106.1	2441.4	23.00
390 450	12	6	-35.8	-440.3	-4393.9	9.90	6	1553.7	98.1	-4393.6	60.61
404 456	14	10	17.9	161.3	4533.7	27.99	10	-37.3	173.4	-5380.5	30.81
413 465	14	5	-25.4	-138.0	-4298.1	30.96	4	1457.1	-124.2	-5103.0	52.81
417 748	12	9	37.2	319.4	4763.3	14.80	4	1117.6	198.5	-4763.3	29.62
418 466	18	5	-7.2	-49.4	-1746.3	35.20	6	-3.4	7.5	-1746.3	231.74
444 492	11	9	5.6	54.3	2962.4	54.49	6	2.1	-50.6	2410.7	47.64
450 498	12	6	-1.2	-236.0	-5384.9	22.81	8	-595.5	223.0	5366.9	26.74
451 499	14	9	120.2	210.2	5076.5	23.58	4	51.1	-34.4	-5987.2	175.55
456 504	14	10	18.3	145.9	4451.2	30.38	9	-6.7	125.4	-5252.7	41.84
465 513	14	5	-0.8	-142.6	-4614.0	32.34	4	-33.0	-21.3	5505.3	260.15
466 514	18	6	33.6	20.0	1804.4	88.35	9	1.1	-4.8	1804.4	376.52
492 540	11	9	3.8	107.8	2925.3	27.11	6	-4.6	35.9	-2395.9	66.61
498 721	12	9	13.1	277.7	10061.3	36.18	3	-3066.9	526.7	10040.1	24.88
499 544	14	6	-113.7	95.4	-5653.5	58.07	4	-340.7	-46.9	6606.0	148.08
504 548	14	10	14.9	228.1	4447.2	19.43	6	-54.5	596.1	-5278.7	8.76
513 557	14	9	12.1	219.5	4913.0	22.33	4	64.3	-22.3	-5838.6	264.79
514 669	18	6	100.2	166.2	1864.4	10.61	6	-10.9	9.6	1872.1	197.08
540 715	11	9	4.4	220.4	2882.7	13.06	9	-3.4	25.3	-2346.8	92.52
544 730	14	6	-407.6	307.0	-6640.7	20.30	4	2523.5	225.4	-7505.1	44.49
548 735	14	10	16.0	136.4	4512.0	32.97	7	127.0	-452.9	5314.7	11.45
557 744	14	9	34.1	260.3	5320.5	20.31	4	-1389.5	158.9	6208.9	47.81
560 862	28	9	462.2	620.5	13664.5	21.28	6	-3212.2	-953.5	8969.3	12.78
565 866	29	6	-309.4	81.2	-5192.7	60.13	5	121.7	-1041.1	6227.3	5.86
570 870	28	10	-1545.9	-810.7	-14245.6	15.66	10	3565.9	-1043.3	-9660.2	12.68
574 874	28	10	125.1	578.4	9570.8	16.33	5	-724.4	1130.3	-6136.2	4.79
578 878	28	9	266.4	1233.0	10364.2	8.19	5	-564.6	1223.1	-6765.6	5.07
582 882	28	9	324.2	1533.5	8375.2	5.25	10	-1903.2	975.9	5403.9	7.49
584 884	28	9	43.9	587.2	8117.6	13.75	9	1167.7	-766.8	-5225.2	8.34
632 937	25	6	-1036.8	-1142.7	-8861.1	6.85	5	-1266.8	377.0	6545.0	20.72
636 941	21	6	605.7	1001.6	9644.0	9.02	6	2754.1	337.7	-10067.0	37.96
646 949	21	5	1208.8	983.1	9590.0	8.53	5	4947.6	433.8	-9869.3	34.15
650 953	21	5	1208.0	2096.2	4362.7	1.50	6	513.1	218.3	-3596.8	18.83
654 957	21	5	1136.6	1397.1	5254.6	2.95	6	940.1	204.1	-4330.3	25.83
658 961	25	5	-60.5	-673.2	-8922.9	13.16	6	-2435.5	111.4	6949.2	84.21
679 985	27	5	670.4	1889.5	3474.5	1.48	6	524.3	-191.7	-3474.5	20.86
715 765	21	9	9.6	339.7	2922.9	8.58	6	-22.8	31.4	-2394.0	75.45
721 771	22	6	-188.2	-208.0	-7481.1	35.06	8	2897.4	130.0	-8909.3	90.84
726 1041	23	6	55.1	125.1	3577.7	28.16	4	535.2	452.9	-5238.3	12.75
730 772	22	9	430.5	511.6	6914.3	12.67	4	-2944.8	143.1	8233.4	78.14
735 777	22	10	22.9	151.1	4390.3	28.90	10	-19.5	101.7	-5211.7	51.05
748 1063	24	10	49.0	414.8	3245.5	7.71	4	1264.2	304.2	-3925.5	17.06
765 803	21	9	12.0	274.4	3029.6	11.00	6	17.7	-20.8	2449.6	116.77
771 809	22	6	-34.2	-52.2	-5356.1	101.88	3	89.6	-200.1	6254.2	30.81
772 810	22	9	160.7	177.0	4904.2	26.80	4	660.9	-45.3	-5772.0	141.87
777 815	22	10	23.0	124.2	4357.2	34.90	6	-57.3	151.3	-5172.7	33.82
786 824	22	9	67.7	396.7	4672.0	11.61	10	-172.2	-35.2	5512.2	161.48
803 841	21	9	9.0	69.2	3041.5	43.80	10	13.4	6.7	-2459.1	370.76
809 1037	22	6	354.0	276.4	13668.2	48.18	3	4706.9	-681.8	-16328.5	30.85
810 845	22	6	4.6	90.3	5920.8	65.52	4	-109.3	-82.8	6839.2	83.93

	22	10	21.3	177.9	4373.5	24.47	6	-85.6	572.5	-5191.9	8.92
824 858	22	10	100.1	168.8	5165.2	30.00	9	26.0	-40.3	6054.1	149.68
841 1031	21	6	3.0	74.5	2922.6	39.20	9	-0.1	12.6	-2398.4	189.99
845 1045	22	9	-131.6	-237.8	-9079.9	37.62	4	4358.7	350.4	-10153.3	41.41
849 1050	22	10	-22.9	-169.1	-4487.9	26.41	6	233.9	-422.1	5326.6	12.07
858 1059	22	5	107.9	399.1	5880.1	14.46	9	443.8	-331.6	-6832.5	21.94

- Travi

Trave Nodi	Sezione	M				
		Comb. Critica	M _G [kgm]	M _E [kgm]	M _R [kgm]	α
224 200	14	5	1511.1	-813.6	10420.1	10.95
200 202	2	5	6103.6	-1509.0	104206.8	65.01
202 204	3	10	4577.0	1406.6	29421.3	17.66
204 206	4	9	-6280.7	280.2	-19252.6	46.29
206 208	3	8	3912.2	-1392.9	24822.5	15.0
208 210	2	5	14194.6	1970.2	103438.3	45.30
210 214	14	6	7603.0	1024.5	24895.8	16.88
214 218	14	5	5579.1	1162.7	21802.2	13.95
218 222	14	5	1947.2	1018.0	6528.7	4.50
584 560	28	10	1021.0	1064.4	13140.8	11.39
560 565	28	5	-19459.7	495.0	-45262.1	52.12
565 570	28	5	19532.9	747.1	59184.3	53.07
570 574	28	6	3363.4	-830.2	42253.4	46.84
574 578	28	5	5870.2	842.3	28981.7	27.44
578 582	28	5	1930.8	1294.9	8328.9	4.94
632 636	27	9	7538.3	1220.2	40244.3	26.80
636 641	27	9	13380.7	745.3	40244.3	36.04
641 646	27	6	12796.7	-447.2	40244.3	61.37
646 650	27	5	6357.5	-430.6	40244.3	78.70
650 654	27	6	7450.1	-236.9	29412.9	92.71
654 658	27	9	1258.4	216.2	7065.7	26.87
680 681	24	6	137.5	92.7	1170.7	11.15
696 698	24	9	51.0	124.9	1322.0	10.17
715 721	21	6	-93.9	245.3	10592.2	43.56
721 726	22	4	25188.3	-1263.7	55606.8	24.07
726 730	22	7	27805.9	-1503.9	55606.8	18.49
730 735	21	9	430.5	1941.3	10592.2	5.23
744 748	23	4	7238.3	-553.4	22619.0	27.79
884 862	38	9	315.1	-725.7	-29608.0	41.23
862 866	38	5	-9878.9	449.0	-70559.1	135.16
866 870	38	5	17255.5	350.5	57723.8	115.45
870 874	38	6	4476.8	-466.6	37642.6	71.08
874 878	38	10	4810.3	619.5	37642.6	53.00
878 882	38	5	655.6	907.4	23094.0	24.73
937 941	35	9	15544.1	1447.3	50720.8	24.30
941 949	37	6	19530.8	-1539.0	110690.4	59.23
949 953	35	6	12086.0	563.3	33025.9	37.17
953 957	35	6	2790.1	272.0	25831.7	84.72
957 961	35	7	7637.0	220.1	23512.7	72.14

987 986	33	6	109.0	79.7	1304.4	15.00
294 298	11	6	13620.7	-1212.7	16667.5	2.51
999 1001	33	9	909.8	161.5	1817.3	5.62
1031 1034	32	6	-434.5	-1246.2	-22704.8	17.87
1034 1037	32	10	254.5	1335.8	22590.0	16.72
1037 1041	31	3	-22464.7	935.1	-45664.5	24.81
1041 1045	31	7	31091.2	-2144.8	71634.1	18.90
1045 1050	32	4	327.3	1511.1	3876.9	2.35
1059 1063	31	9	7230.2	-1200.0	15079.9	6.54
200 283	7	9	2479.7	3724.5	18467.7	4.29
283 298	7	6	-2430.9	1866.5	-103964.8	54.40
298 314	7	6	-2143.9	-307.2	-103964.8	331.43
314 390	7	6	339.6	2743.0	18467.7	6.61
288 319	13	6	-394.0	420.9	14954.2	36.47
210 291	7	9	2182.1	3634.5	12523.7	2.85
291 300	7	6	-2961.4	2201.8	-32909.9	13.60
300 313	10	3	-4483.7	-1377.8	-32740.9	20.51
313 334	7	3	3504.6	867.3	26458.2	26.46
334 399	8	6	-59.8	1377.6	6830.2	5.00
308 344	9	5	-88.4	-132.6	-1993.3	14.36
344 413	9	5	100.7	234.1	2092.1	8.51
283 291	12	4	16101.3	622.2	37900.4	35.03
560 636	25	6	322.3	-311.0	2092.1	5.69
636 721	25	6	241.6	309.7	2053.3	5.85
570 646	26	6	421.4	-347.4	2158.4	5.00
646 669	26	5	-82.3	-149.3	-4255.2	27.95
669 730	25	6	53.4	240.4	2092.1	8.48
654 698	25	5	-76.8	-152.8	-2241.2	14.17
698 744	25	5	127.1	572.0	2334.7	3.86
862 941	34	6	305.0	-284.1	2311.4	7.06
941 1037	34	6	130.8	187.3	2251.2	11.32
314 313	12	4	18308.5	781.2	42695.0	31.22
870 949	35	5	894.3	-724.3	4811.1	5.41
949 975	35	10	776.9	-259.1	4811.1	15.57
975 1045	36	9	-299.6	-323.1	-2303.9	6.20
979 1049	33	5	259.4	-219.3	1184.4	4.22
957 1001	36	10	335.7	375.7	5253.4	13.09
1001 1059	36	10	32.8	-856.0	-2241.2	2.66
300 304	11	10	10412.5	542.8	13543.6	5.77
304 308	11	7	8675.1	-230.8	29485.0	90.18
308 312	11	4	750.3	204.8	7270.7	31.84
349 350	5	6	176.2	71.0	1288.7	15.68
361 363	5	9	25.6	65.1	1322.0	19.90
413 417	6	4	6743.1	-382.2	9657.1	7.62
384 387	1	6	-0.0	266.5	6747.4	25.32
387 390	1	3	1108.0	-902.1	11285.2	11.28
390 392	2	4	27525.5	-1483.5	102301.4	50.41
392 394	3	6	6064.3	970.4	25469.9	20.00
394 396	4	3	-11563.1	583.4	-14528.6	5.08
396 397	3	3	-10388.7	610.3	-27148.1	27.46
397 399	2	6	33064.7	-751.4	98622.2	87.25

	1	9	423.2	1504.2	6725.6	4.19
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4.1.8 Verifiche meccanismi fragili (taglio) – Stato di progetto

- Valutazione moltiplicatori meccanismi fragili (taglio)

- Dati di verifica

- γ_{EL} 1.50
- ϵ_u travi 4.00%
- ϵ_u pilastri 4.00%
- Fattore di confidenza sulle rotazioni 1.35

- γ Materiali sezioni impiegate

- γ Materiali sezioni Pilastro

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 25x40 [cm] 25x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 70x40 [cm] 70x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 35x40 [cm] 35x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x40 [cm] 30x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 45x40 [cm] 45x40	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 Rett. 20x20 [cm] 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 30x30 [cm] 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 40x45 [cm] 40x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 70x45 [cm] 70x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 60x45 [cm] 60x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 Rett. 25x30 [cm] P1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 Rett. 30x30 [cm] P2 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
13 Rett. 35x27 [cm] P3 35x27	1.15	1.50	0.85	0.60	1.00	0.45	0.80
14 Rett. 35x30 [cm] P4 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 25x35 [cm] P5 25x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
16 Rett. 30x35 [cm] P6 30x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
17 Rett. 35x35 [cm] P7 35x35	1.15	1.50	0.85	0.60	1.00	0.45	0.80
18 Rett. 20x20 [cm] P8 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
19 Rett. 30x45 [cm] P9 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
20 Rett. 35x45 [cm] P10 35x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 25x30 [cm] S1 25x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 Rett. 35x30 [cm] S2 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 Rett. 35x25 [cm] S3 35x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 30x25 [cm] S4 30x25	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 22x30 [cm] S5 22x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 20x20 [cm] S6 20x20	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 Rett. 30x30 [cm] S7 30x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 Rett. 30x45 [cm] S8 30x45	1.15	1.50	0.85	0.60	1.00	0.45	0.80
29 Rett. 35x30 [cm] S9 35x30	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- γ Materiali sezioni Trave

Sezione	γ Acciaio	γ Calcestruzzo	α_{cc} Calcestruzzo	γ Rare Calcestruzzo	γ Frequenti Calcestruzzo	γ Q.Permanenti Calcestruzzo	γ Rare Acciaio
1 Rett. 20x75 [cm] 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
2 Rett. 30x250 [cm] 30x250	1.15	1.50	0.85	0.60	1.00	0.45	0.80
3 Rett. 30x85 [cm] 30x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
4 Rett. 30x115 [cm] 30x115	1.15	1.50	0.85	0.60	1.00	0.45	0.80
5 Rett. 20x24 [cm] 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
6 a - 36x75x18x24 [cm] 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
7 Rett. 45x85 [cm] 45x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
8 Rett. 33x50 [cm] 33x50	1.15	1.50	0.85	0.60	1.00	0.45	0.80
9 Rett. 30x24 [cm] 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
10 Rett. 33x85 [cm] 33x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
11 a T 60x52x40x24 [cm] 40/60x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
12 a T 70x85x50x24 [cm] 50/80x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80

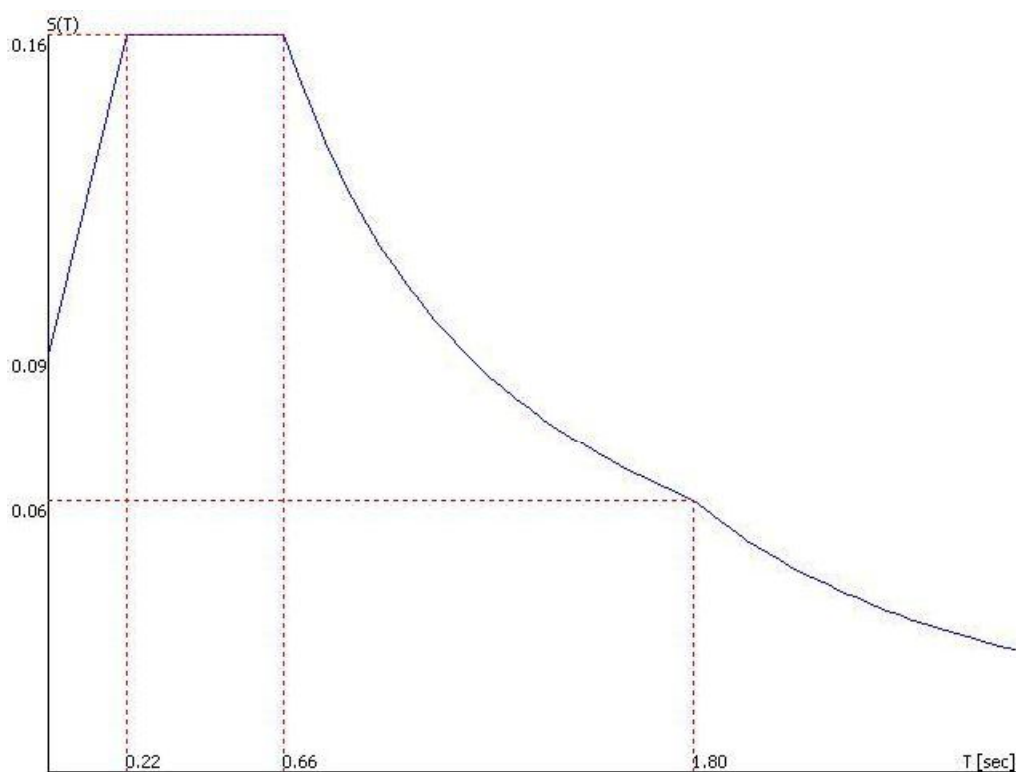
13 Rett. 60x85 [cm] 60x85	1.15	1.50	0.85	0.60	1.00	0.45	0.80
14 a ~ 36x75x18x24 [cm] 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
15 Rett. 20x24 [cm] AUSILIARIA	1.15	1.50	0.85	0.60	1.00	0.45	0.80
21 Rett. 20x75 [cm] P1 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
22 a ~ 36x75x18x24 [cm] P2 18+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
23 a ~ 38x75x18x24 [cm] P3 20+18x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
24 Rett. 20x24 [cm] P4 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
25 Rett. 30x24 [cm] P5 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
26 Rett. 40x24 [cm] P6 40x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
27 a T 55x52x35x24 [cm] P7 35/55x52	1.15	1.50	0.85	0.60	1.00	0.45	0.80
28 a ~ 36x75x18x24 [cm] P8 18+18x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80
31 a ~ 65x75x25x24 [cm] S1 40+25x75D	1.15	1.50	0.85	0.60	1.00	0.45	0.80
32 Rett. 20x75 [cm] S2 20x75	1.15	1.50	0.85	0.60	1.00	0.45	0.80
33 Rett. 20x24 [cm] S3 20x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
34 Rett. 25x24 [cm] S4 25x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
35 Rett. 40x34 [cm] S5 40x34	1.15	1.50	0.85	0.60	1.00	0.45	0.80
36 Rett. 30x24 [cm] S6 30x24	1.15	1.50	0.85	0.60	1.00	0.45	0.80
37 a T 50x70x30x34 [cm] S7 30/50x70	1.15	1.50	0.85	0.60	1.00	0.45	0.80
38 a ~ 50x75x12x24 [cm] S8 10+40x75S	1.15	1.50	0.85	0.60	1.00	0.45	0.80

- Spettro in accordo con TU 2008

- Milano MI Longitudine 9.1900 Latitudine 45.4658
- Tipo di Terreno D
- Coefficiente di amplificazione topografica (S_T) 1.0000
- Vita nominale della costruzione (V_N) 50.0 anni
- Classe d'uso II° coefficiente C_U 1.0
- Classe di duttilità impostata Bassa
- Fattore di struttura massimo q_o per sisma orizzontale 1.50
- Fattore di duttilità K_R per sisma orizzontale 1.00
- Fattore riduttivo regolarità in altezza K_R 1.00
- Fattore riduttivo per la presenza di setti K_W 1.00
- Fattore di struttura q per sisma orizzontale 1.50
- Fattore di struttura q per sisma verticale 1.50
- Smorzamento Viscoso (0.05 = 5%) 0.05

- TU 2008 SLV H

- Probabilità di superamento (P_{VR}) 10.0 e periodo di ritorno (T_R) 475 (anni)
- S_s 1.8
- T_B 0.22 [sec]
- T_C 0.66 [sec]
- T_D 1.80 [sec]
- a_g/g 0.0507
- F_o 2.6581
- T_C^* 0.2800



- Rotazioni valutate nel riferimento '*convected*'

- Legenda

V_G	Taglio da carichi gravitazionali
V_E	Taglio da carichi sismici
V_R	Taglio resistente ultimo
α	$(V_R - V_G) / V_E$

- Danno Severo

- Pilastri

Nodi Sezione		Luce [m]	Piano 1-2 Base				Piano 1-3 Base				Piano 1-2 Sommità				Piano 1-3 Sommità			
			V _G [kg]	V _E [kg]	V _R [kg]	α	V _G [kg]	V _E [kg]	V _R [kg]	α	V _G [kg]	V _E [kg]	V _R [kg]	α	V _G [kg]	V _E [kg]	V _R [kg]	α
1 200	9	3.45	1039.5	13980.5	21115.2	1.436	2763.2	20108.8	33506.7	1.529	1039.5	13980.5	21115.2	1.436	2763.2	20108.8	33506.7	1.529
2 210	9	3.45	897.1	13922.2	21115.2	1.452	2919.6	19708.1	33506.7	1.552	897.1	13922.2	21115.2	1.452	2919.6	19708.1	33506.7	1.552
3 214	10	3.45	15.2	11942.4	16892.1	1.413	212.9	15503.0	22840.1	1.460	15.2	11942.4	16892.1	1.413	212.9	15503.0	22840.1	1.460
4 218	10	3.45	38.4	12937.0	16892.1	1.303	437.3	16521.8	22840.1	1.356	38.4	12937.0	16892.1	1.303	437.3	16521.8	22840.1	1.356
5 222	8	3.45	29.7	8303.0	16892.1	2.031	897.4	6450.5	14909.5	2.172	29.7	8303.0	16892.1	2.031	897.4	6450.5	14909.5	2.172
6 224	8	3.45	35.5	7941.2	16892.1	2.123	767.1	6264.4	14909.5	2.258	35.5	7941.2	16892.1	2.123	767.1	6264.4	14909.5	2.258
7 294	4	3.45	250.7	5503.6	7454.7	1.309	304.4	4086.0	10944.2	2.604	250.7	5503.6	7454.7	1.309	304.4	4086.0	10944.2	2.604
8 298	5	3.45	294.0	15543.4	14909.5	0.940	3157.0	14850.0	16892.1	0.925	294.0	15543.4	14909.5	0.940	3157.0	14850.0	16892.1	0.925
9 300	5	3.45	454.2	15187.2	14909.5	0.952	2806.2	14962.1	16892.1	0.941	454.2	15187.2	14909.5	0.952	2806.2	14962.1	16892.1	0.941
10 304	4	3.45	405.8	6634.6	7454.7	1.062	179.2	5660.3	10944.2	1.902	405.8	6634.6	7454.7	1.062	179.2	5660.3	10944.2	1.902
11 308	3	3.45	290.2	8910.8	9318.4	1.013	446.5	7537.2	16158.6	2.085	290.2	8910.8	9318.4	1.013	446.5	7537.2	16158.6	2.085

12 312	1	3.45	21.0	6003.4	7454.7	1.238	665.7	3246.9	8961.6	2.555	21.0	6003.4	7454.7	1.238	665.7	3246.9	8961.6	2.555
13 324	6	3.45	21.9	1623.5	3489.5	2.136	147.2	1498.3	3489.5	2.231	21.9	1623.5	3489.5	2.136	147.2	1498.3	3489.5	2.231
14 62	6	0.80	7.0	8447.1	8723.6	1.032	29.0	8425.0	8723.6	1.032	7.0	8447.1	8723.6	1.032	29.0	8425.0	8723.6	1.032
20 344	7	3.45	148.2	2905.7	6840.1	2.303	31.7	3022.2	6840.1	2.253	148.2	2905.7	6840.1	2.303	31.7	3022.2	6840.1	2.253
41 88	1	0.80	12.6	32805.2	12424.6	0.378	89.9	20715.6	14935.9	0.717	12.6	32805.2	12424.6	0.378	89.9	20715.6	14935.9	0.717
45 92	2	0.80	32.2	76609.5	24849.2	0.324	5047.7	125393.7	44675.6	0.316	32.2	76609.5	24849.2	0.324	5047.7	125393.7	44675.6	0.316
46 93	2	0.80	143.9	61471.4	24849.2	0.402	5.7	107736.2	44675.6	0.415	143.9	61471.4	24849.2	0.402	5.7	107736.2	44675.6	0.415
51 98	3	0.80	124.1	41564.9	12424.6	0.296	163.6	35927.6	21544.7	0.595	124.1	41564.9	12424.6	0.296	163.6	35927.6	21544.7	0.595
60 107	3	0.80	38.6	39608.5	12424.6	0.313	92.3	34211.6	21544.7	0.627	38.6	39608.5	12424.6	0.313	92.3	34211.6	21544.7	0.627
61 417	4	3.45	10.0	5825.2	7454.7	1.278	461.4	4005.5	10944.2	2.617	10.0	5825.2	7454.7	1.278	461.4	4005.5	10944.2	2.617
62 108	6	0.80	8.4	8147.1	5815.8	0.713	21.0	8134.4	5815.8	0.712	8.4	8147.1	5815.8	0.713	21.0	8134.4	5815.8	0.712
88 134	1	0.80	5.5	31476.4	12424.6	0.395	18.6	19660.1	14935.9	0.759	5.5	31476.4	12424.6	0.395	18.6	19660.1	14935.9	0.759
92 138	2	0.80	32.2	76499.6	24849.2	0.324	5047.7	125063.9	44675.6	0.317	32.2	76499.6	24849.2	0.324	5047.7	125063.9	44675.6	0.317
93 139	2	0.80	150.0	60502.1	24849.2	0.408	655.7	105530.3	44675.6	0.417	150.0	60502.1	24849.2	0.408	655.7	105530.3	44675.6	0.417
98 144	3	0.80	37.1	41026.7	12424.6	0.302	164.9	35378.8	21544.7	0.604	37.1	41026.7	12424.6	0.302	164.9	35378.8	21544.7	0.604
107 153	3	0.80	31.8	38406.1	12424.6	0.323	88.2	32203.9	21544.7	0.666	31.8	38406.1	12424.6	0.323	88.2	32203.9	21544.7	0.666
108 154	6	0.80	0.7	8112.8	5815.8	0.717	6.7	8106.7	5815.8	0.717	0.7	8112.8	5815.8	0.717	6.7	8106.7	5815.8	0.717
134 180	1	0.80	3.6	30378.8	12424.6	0.409	12.8	18740.4	14935.9	0.796	3.6	30378.8	12424.6	0.409	12.8	18740.4	14935.9	0.796
138 390	2	1.85	32.2	26146.3	24849.2	0.949	5047.7	39489.4	44675.6	1.004	32.2	26146.3	24849.2	0.949	5047.7	39489.4	44675.6	1.004
139 184	2	0.80	153.0	61113.3	24849.2	0.404	2439.3	104738.9	44675.6	0.403	153.0	61113.3	24849.2	0.404	2439.3	104738.9	44675.6	0.403
144 188	3	0.80	24.5	43570.5	12424.6	0.285	217.2	37537.8	21544.7	0.568	24.5	43570.5	12424.6	0.285	217.2	37537.8	21544.7	0.568
153 197	3	0.80	27.6	37983.1	12424.6	0.326	53.3	32819.3	21544.7	0.655	27.6	37983.1	12424.6	0.326	53.3	32819.3	21544.7	0.655
154 334	6	1.05	32.3	5980.4	5815.8	0.967	286.5	5726.2	5815.8	0.966	32.3	5980.4	5815.8	0.967	286.5	5726.2	5815.8	0.966
180 384	1	1.05	3.0	20054.5	12424.6	0.619	3.9	12239.7	14935.9	1.220	3.0	20054.5	12424.6	0.619	3.9	12239.7	14935.9	1.220
184 399	2	1.05	234.5	42104.4	24849.2	0.585	10795.8	63241.4	44675.6	0.536	234.5	42104.4	24849.2	0.585	10795.8	63241.4	44675.6	0.536
188 404	3	1.05	35.2	27615.1	12424.6	0.449	275.8	23651.9	21544.7	0.899	35.2	27615.1	12424.6	0.449	275.8	23651.9	21544.7	0.899
197 413	3	1.05	50.6	26381.5	12424.6	0.469	2041.4	20820.9	21544.7	0.937	50.6	26381.5	12424.6	0.469	2041.4	20820.9	21544.7	0.937
200 560	20	3.45	612.7	11065.1	10557.6	0.899	1588.9	7320.2	16158.6	1.990	612.7	11065.1	10557.6	0.899	1588.9	7320.2	16158.6	1.990
210 570	20	3.45	580.0	11024.7	10557.6	0.905	1652.7	7199.6	16158.6	2.015	580.0	11024.7	10557.6	0.905	1652.7	7199.6	16158.6	2.015
214 574	20	3.45	7.5	8633.4	10557.6	1.222	224.8	6377.8	16158.6	2.498	7.5	8633.4	10557.6	1.222	224.8	6377.8	16158.6	2.498
218 578	20	3.45	70.5	9298.1	10557.6	1.128	181.1	6986.3	16158.6	2.287	70.5	9298.1	10557.6	1.128	181.1	6986.3	16158.6	2.287
222 582	19	3.45	94.7	5903.6	8446.1	1.415	835.4	3092.8	10944.2	3.268	94.7	5903.6	8446.1	1.415	835.4	3092.8	10944.2	3.268
224 584	19	3.45	1.1	5704.0	8446.1	1.481	601.6	3110.3	10944.2	3.325	1.1	5704.0	8446.1	1.481	601.6	3110.3	10944.2	3.325
294 632	15	3.45	616.3	3650.0	8079.3	2.045	537.0	2504.4	5601.0	2.022	616.3	3650.0	8079.3	2.045	537.0	2504.4	5601.0	2.022
298 636	16	3.45	439.3	7905.0	8079.3	0.966	1098.1	7798.1	6840.1	0.736	439.3	7905.0	8079.3	0.966	1098.1	7798.1	6840.1	0.736

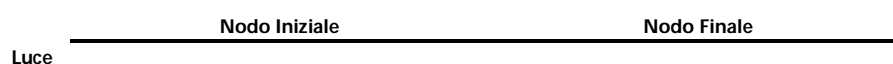
299 641	16	3.45	238.5	3593.0	8079.3	2.182	10.2	3243.7	6840.1	2.106	238.5	3593.0	8079.3	2.182	10.2	3243.7	6840.1	2.106
300 646	17	3.45	962.4	7978.4	8079.3	0.892	1740.9	7199.9	8079.3	0.880	962.4	7978.4	8079.3	0.892	1740.9	7199.9	8079.3	0.880
304 650	16	3.45	838.5	4566.2	8079.3	1.586	240.2	4741.6	6840.1	1.392	838.5	4566.2	8079.3	1.586	240.2	4741.6	6840.1	1.392
308 654	16	3.45	592.1	5047.5	8079.3	1.483	530.4	4930.0	6840.1	1.280	592.1	5047.5	8079.3	1.483	530.4	4930.0	6840.1	1.280
312 658	15	3.45	105.6	4485.6	8079.3	1.778	1173.1	2194.1	5601.0	2.018	105.6	4485.6	8079.3	1.778	1173.1	2194.1	5601.0	2.018
334 418	18	0.80	Errore calcolo capacità ultime															
344 679	12	3.45	393.8	2312.8	5472.1	2.196	84.1	2622.5	5472.1	2.055	393.8	2312.8	5472.1	2.196	84.1	2622.5	5472.1	2.055
384 444	11	0.80	1.9	15009.7	9120.2	0.607	4.9	12176.0	7468.0	0.613	1.9	15009.7	9120.2	0.607	4.9	12176.0	7468.0	0.613
390 450	12	0.80	26.3	17904.2	9120.2	0.508	2315.1	15916.8	9120.2	0.428	26.3	17904.2	9120.2	0.508	2315.1	15916.8	9120.2	0.428
399 451	14	0.80	Errore calcolo capacità ultime															
404 456	14	0.80	21.5	20271.8	9120.2	0.449	64.5	23648.1	10772.4	0.453	21.5	20271.8	9120.2	0.449	64.5	23648.1	10772.4	0.453
413 465	14	0.80	4.4	17841.8	9120.2	0.511	2111.1	18968.0	10772.4	0.457	4.4	17841.8	9120.2	0.511	2111.1	18968.0	10772.4	0.457
417 748	12	3.45	8.2	3043.8	5472.1	1.795	658.5	2393.5	5472.1	2.011	8.2	3043.8	5472.1	1.795	658.5	2393.5	5472.1	2.011
418 466	18	0.80	15.0	6902.7	8723.6	1.262	32.5	6799.6	8723.6	1.278	15.0	6902.7	8723.6	1.262	32.5	6799.6	8723.6	1.278
444 492	11	0.80	4.7	13981.4	9120.2	0.652	5.9	11348.4	7468.0	0.658	4.7	13981.4	9120.2	0.652	5.9	11348.4	7468.0	0.658
450 498	12	0.80	14.2	21364.6	9120.2	0.426	639.8	20871.2	9120.2	0.406	14.2	21364.6	9120.2	0.426	639.8	20871.2	9120.2	0.406
451 499	14	0.80	91.0	20368.8	9120.2	0.443	468.1	23659.1	10772.4	0.436	91.0	20368.8	9120.2	0.443	468.1	23659.1	10772.4	0.436
456 504	14	0.80	14.1	19796.6	9120.2	0.460	35.5	23181.3	10772.4	0.463	14.1	19796.6	9120.2	0.460	35.5	23181.3	10772.4	0.463
465 513	14	0.80	7.5	18591.6	9120.2	0.490	88.1	21846.9	10772.4	0.489	7.5	18591.6	9120.2	0.490	88.1	21846.9	10772.4	0.489
466 514	18	0.80	17.2	7014.2	8723.6	1.241	18.5	7012.9	8723.6	1.241	17.2	7014.2	8723.6	1.241	18.5	7012.9	8723.6	1.241
492 540	11	0.80	6.9	13075.9	9120.2	0.697	6.5	10619.5	7468.0	0.703	6.9	13075.9	9120.2	0.697	6.5	10619.5	7468.0	0.703
498 721	12	1.85	42.0	12921.5	5472.1	0.420	2960.8	10002.6	5472.1	0.251	42.0	12921.5	5472.1	0.420	2960.8	10002.6	5472.1	0.251
499 544	14	0.80	81.2	22269.2	9120.2	0.406	223.2	25506.4	10772.4	0.414	81.2	22269.2	9120.2	0.406	223.2	25506.4	10772.4	0.414
504 548	14	0.80	8.1	21286.0	9120.2	0.428	49.5	24663.2	10772.4	0.435	8.1	21286.0	9120.2	0.428	49.5	24663.2	10772.4	0.435
513 557	14	0.80	5.0	19273.1	9120.2	0.473	38.1	22622.0	10772.4	0.475	5.0	19273.1	9120.2	0.473	38.1	22622.0	10772.4	0.475
514 669	18	1.05	13.3	4884.4	5815.8	1.188	37.1	4860.6	5815.8	1.189	13.3	4884.4	5815.8	1.188	37.1	4860.6	5815.8	1.189
540 715	11	1.05	6.9	8398.4	9120.2	1.085	9.4	6820.6	7468.0	1.094	6.9	8398.4	9120.2	1.085	9.4	6820.6	7468.0	1.094
544 730	14	1.05	97.9	17217.8	9120.2	0.524	2765.6	16675.8	10772.4	0.480	97.9	17217.8	9120.2	0.524	2765.6	16675.8	10772.4	0.480
548 735	14	1.05	19.4	13078.1	9120.2	0.696	157.2	15256.4	10772.4	0.696	19.4	13078.1	9120.2	0.696	157.2	15256.4	10772.4	0.696
557 744	14	1.05	25.6	13927.2	9120.2	0.653	1704.3	14599.2	10772.4	0.621	25.6	13927.2	9120.2	0.653	1704.3	14599.2	10772.4	0.621
560 862	28	3.45	337.8	8171.3	8446.1	0.992	1767.9	3879.5	10944.2	2.365	337.8	8171.3	8446.1	0.992	1767.9	3879.5	10944.2	2.365
565 866	29	3.45	147.8	3118.9	3420.1	1.049	80.4	3764.8	4039.6	1.052	147.8	3118.9	3420.1	1.049	80.4	3764.8	4039.6	1.052
570 870	28	3.45	660.2	8306.3	8446.1	0.937	1928.5	4154.7	10944.2	2.170	660.2	8306.3	8446.1	0.937	1928.5	4154.7	10944.2	2.170
574 874	28	3.45	65.7	5846.9	8446.1	1.433	392.7	3471.8	10944.2	3.039	65.7	5846.9	8446.1	1.433	392.7	3471.8	10944.2	3.039
578 878	28	3.45	106.6	6316.5	8446.1	1.320	294.5	3960.3	10944.2	2.689	106.6	6316.5	8446.1	1.320	294.5	3960.3	10944.2	2.689

582 882	28	3.45	116.6	5045.5	8446.1	1.651	1261.2	2069.4	10944.2	4.679	116.6	5045.5	8446.1	1.651	1261.2	2069.4	10944.2	4.679
584 884	28	3.45	26.5	4962.0	8446.1	1.697	775.7	2439.4	10944.2	4.168	26.5	4962.0	8446.1	1.697	775.7	2439.4	10944.2	4.168
632 937	25	3.45	638.1	4906.3	6840.1	1.264	660.0	3492.2	4857.5	1.202	638.1	4906.3	6840.1	1.264	660.0	3492.2	4857.5	1.202
636 941	21	3.45	345.4	5698.7	6840.1	1.140	2289.6	4035.1	5601.0	0.821	345.4	5698.7	6840.1	1.140	2289.6	4035.1	5601.0	0.821
646 949	21	3.45	703.2	5302.7	6840.1	1.157	2232.2	3977.8	5601.0	0.847	703.2	5302.7	6840.1	1.157	2232.2	3977.8	5601.0	0.847
650 953	21	3.45	670.8	2274.7	6840.1	2.712	405.7	1989.0	5601.0	2.612	670.8	2274.7	6840.1	2.712	405.7	1989.0	5601.0	2.612
654 957	21	3.45	583.1	2800.9	6840.1	2.234	679.1	2081.2	5601.0	2.365	583.1	2800.9	6840.1	2.234	679.1	2081.2	5601.0	2.365
658 961	25	3.45	60.9	5514.2	6840.1	1.229	1779.4	2551.8	4857.5	1.206	60.9	5514.2	6840.1	1.229	1779.4	2551.8	4857.5	1.206
679 985	27	3.45	388.2	1847.0	5472.1	2.753	171.4	2063.9	5472.1	2.568	388.2	1847.0	5472.1	2.753	171.4	2063.9	5472.1	2.568
715 765	21	0.80	0.2	11755.5	9120.2	0.776	34.1	9520.8	7468.0	0.781	0.2	11755.5	9120.2	0.776	34.1	9520.8	7468.0	0.781
721 771	22	0.80	109.0	28217.9	9120.2	0.319	3836.4	29858.8	10772.4	0.232	109.0	28217.9	9120.2	0.319	3836.4	29858.8	10772.4	0.232
726 1041	23	3.45	7.0	2248.5	2800.5	1.242	285.9	3007.7	4039.6	1.248	7.0	2248.5	2800.5	1.242	285.9	3007.7	4039.6	1.248
730 772	22	0.80	161.7	25905.1	9120.2	0.346	3967.9	27072.3	10772.4	0.251	161.7	25905.1	9120.2	0.346	3967.9	27072.3	10772.4	0.251
735 777	22	0.80	28.1	17606.1	9120.2	0.516	37.3	20799.9	10772.4	0.516	28.1	17606.1	9120.2	0.516	37.3	20799.9	10772.4	0.516
744 786	22	0.80	Errore calcolo capacità ultime															
748 1063	24	3.45	6.4	2026.9	4480.8	2.207	688.8	1816.6	5472.1	2.633	6.4	2026.9	4480.8	2.207	688.8	1816.6	5472.1	2.633
765 803	21	0.80	1.5	11580.0	9120.2	0.787	24.1	9390.0	7468.0	0.793	1.5	11580.0	9120.2	0.787	24.1	9390.0	7468.0	0.793
771 809	22	0.80	40.0	20413.5	9120.2	0.445	176.5	23698.8	10772.4	0.447	40.0	20413.5	9120.2	0.445	176.5	23698.8	10772.4	0.447
772 810	22	0.80	67.3	18862.7	9120.2	0.480	824.8	21466.2	10772.4	0.463	67.3	18862.7	9120.2	0.480	824.8	21466.2	10772.4	0.463
777 815	22	0.80	29.5	17298.7	9120.2	0.526	67.4	20420.4	10772.4	0.524	29.5	17298.7	9120.2	0.526	67.4	20420.4	10772.4	0.524
786 824	22	0.80	20.9	17792.2	9120.2	0.511	172.8	20868.5	10772.4	0.508	20.9	17792.2	9120.2	0.511	172.8	20868.5	10772.4	0.508
803 841	21	0.80	7.7	11266.7	9120.2	0.809	11.0	9154.8	7468.0	0.815	7.7	11266.7	9120.2	0.809	11.0	9154.8	7468.0	0.815
809 1037	22	1.85	190.4	16942.9	6840.1	0.392	6754.7	13698.7	8079.3	0.097	190.4	16942.9	6840.1	0.392	6754.7	13698.7	8079.3	0.097
810 845	22	0.80	48.8	22520.5	9120.2	0.403	572.1	25362.9	10772.4	0.402	48.8	22520.5	9120.2	0.403	572.1	25362.9	10772.4	0.402
815 849	22	0.80	42.5	17956.2	9120.2	0.506	134.4	21118.5	10772.4	0.504	42.5	17956.2	9120.2	0.506	134.4	21118.5	10772.4	0.504
824 858	22	0.80	3.9	19534.3	9120.2	0.467	82.7	22850.5	10772.4	0.468	3.9	19534.3	9120.2	0.467	82.7	22850.5	10772.4	0.468
841 1031	21	1.05	2.3	7347.6	9120.2	1.241	8.9	5968.1	7468.0	1.250	2.3	7347.6	9120.2	1.241	8.9	5968.1	7468.0	1.250
845 1045	22	1.05	38.3	22947.3	9120.2	0.396	4647.0	21041.6	10772.4	0.291	38.3	22947.3	9120.2	0.396	4647.0	21041.6	10772.4	0.291
849 1050	22	1.05	28.6	11466.1	9120.2	0.793	95.7	13511.0	10772.4	0.790	28.6	11466.1	9120.2	0.793	95.7	13511.0	10772.4	0.790
858 1059	22	1.05	8.3	15054.0	9120.2	0.605	2972.8	14427.6	10772.4	0.541	8.3	15054.0	9120.2	0.605	2972.8	14427.6	10772.4	0.541

- Pilastro più sollecitato

Pilastro 809 1037 α_{Min} 0.097

- Travi



Nodi	Sezione	[m]	V _G [kg]	V _E [kg]	V _R [kg]	α	V _G [kg]	V _E [kg]	V _R [kg]	α
224 200	14	6.20	4376.0	7047.3	18225.9	1.965	6283.1	8739.1	18225.9	1.367
200 202	2	1.55	8369.2	129486.8	47552.5	0.303	5427.9	132428.1	47552.5	0.318
202 204	3	3.70	4652.0	17705.4	20807.4	0.912	1185.5	18390.5	20807.4	1.067
204 206	4	1.50	825.4	41509.8	13705.0	0.310	676.5	41658.6	13705.0	0.313
206 208	3	3.70	1040.3	17837.5	20807.4	1.108	4505.5	17153.7	20807.4	0.950
208 210	2	1.55	5268.7	103792.9	40578.1	0.340	8210.6	100851.0	40578.1	0.321
210 214	14	6.00	5656.5	11141.9	18225.9	1.128	4771.5	9610.8	18225.9	1.400
214 218	14	6.00	5116.8	12192.1	18225.9	1.075	5287.8	10972.6	18225.9	1.179
218 222	14	6.20	5926.7	6372.6	18225.9	1.930	4728.3	8869.6	18225.9	1.522
584 560	28	6.20	3799.8	11842.3	18225.9	1.218	6930.3	11852.3	18225.9	0.953
560 565	28	6.00	9293.5	11376.2	33620.6	2.138	4184.0	16485.7	33620.6	1.786
565 570	28	6.00	4079.9	15616.8	33620.6	1.892	9200.6	11262.5	33620.6	2.168
570 574	28	6.00	6475.3	15313.2	18225.9	0.767	4006.0	15807.6	18225.9	0.900
574 578	28	6.00	4993.5	14830.2	18225.9	0.892	5491.2	11044.7	18225.9	1.153
578 582	28	6.20	6080.6	7425.4	18225.9	1.636	4863.4	9039.6	18225.9	1.478
632 636	27	6.20	3914.3	13165.3	12288.3	0.636	6700.6	12013.1	12288.3	0.465
636 641	27	6.00	8234.0	12335.8	36864.8	2.321	2635.7	17307.6	36864.8	1.978
641 646	27	6.00	2751.2	17192.2	24576.5	1.269	7827.2	12742.6	24576.5	1.314
646 650	27	6.00	4559.4	15823.2	12288.3	0.488	4034.9	16974.5	12288.3	0.486
650 654	27	6.00	5036.6	15809.0	18432.4	0.847	5557.1	13408.3	18432.4	0.960
654 658	27	6.20	7028.5	10840.5	18432.4	1.052	5850.3	12027.9	18432.4	1.046
680 681	24	1.26	293.8	3601.0	3238.3	0.818	531.8	3363.0	3238.3	0.805
696 698	24	2.60	689.3	2312.1	3238.3	1.103	643.6	2357.7	3238.3	1.101
715 721	21	6.20	51.7	10925.3	21871.1	1.997	10659.1	5721.5	21871.1	1.960
721 726	22	6.00	14179.6	10730.8	27338.8	1.226	644.2	24266.1	27338.8	1.100
726 730	22	6.00	1116.6	23793.8	27338.8	1.102	11593.0	12488.6	27338.8	1.261
730 735	21	6.00	7913.7	4760.6	18225.9	2.166	573.4	10315.2	18225.9	1.711
744 748	23	6.20	7458.4	6055.9	18225.9	1.778	4776.7	8737.7	18225.9	1.539
884 862	38	6.20	5000.4	19680.0	18613.1	0.692	9627.1	14256.8	18613.1	0.630
862 866	38	6.00	11036.7	22799.2	22335.7	0.496	3008.5	30827.4	22335.7	0.627
866 870	38	6.00	3210.4	27679.0	22335.7	0.691	10865.0	20024.4	22335.7	0.573
870 874	38	6.00	8415.2	18258.8	18613.1	0.559	5169.8	20040.7	18613.1	0.671
874 878	38	6.00	6319.5	16852.3	13959.8	0.453	7337.2	15995.7	13959.8	0.414
878 882	38	6.20	8115.4	11060.8	13959.8	0.528	6002.0	14521.6	13959.8	0.548
937 941	35	6.20	2601.2	15180.4	12043.0	0.622	6055.4	15899.9	12043.0	0.377
941 949	37	12.00	17237.9	19667.6	34644.7	0.885	17505.3	19469.7	34644.7	0.880
949 953	35	6.00	4325.5	14032.3	12043.0	0.550	2848.5	11835.8	12043.0	0.777
953 957	35	6.00	3547.1	14477.9	12043.0	0.587	4136.7	13888.3	12043.0	0.569
957 961	35	6.20	5443.7	12927.8	12043.0	0.510	4425.1	13946.4	12043.0	0.546
987 986	33	1.26	610.8	4082.4	3238.3	0.644	310.4	4382.8	3238.3	0.668
294 298	11	6.20	2403.4	8076.8	18432.4	1.985	7529.4	5928.2	18432.4	1.839
999 1001	33	2.60	307.3	3776.2	3238.3	0.776	1152.1	2931.4	3238.3	0.712
1031 1034	32	3.06	774.4	9930.4	11664.6	1.097	341.9	10978.4	11664.6	1.031
1034 1037	32	3.14	1502.6	29766.2	18225.9	0.562	8434.2	29813.1	18225.9	0.328
1037 1041	31	6.00	14989.5	19431.9	27338.8	0.636	1452.9	32968.5	27338.8	0.785
1041 1045	31	6.00	53.5	32406.9	36451.8	1.123	16329.7	13223.4	36451.8	1.522
1045 1050	32	6.00	12903.1	4732.0	27338.8	3.051	1716.0	9045.6	27338.8	2.833
1059 1063	31	6.20	10730.3	5457.9	36451.8	4.713	7324.8	8863.4	36451.8	3.286
200 283	7	4.57	3695.6	27368.5	62422.3	2.146	185.7	34512.3	62422.3	1.803
283 298	7	0.43	13297.9	692345.4	62422.3	0.071	13470.1	692173.3	62422.3	0.071
298 314	7	0.43	13216.5	692426.8	62422.3	0.071	13044.4	692599.0	62422.3	0.071
314 390	7	4.57	6317.5	28380.5	62422.3	1.977	477.3	30586.7	62422.3	2.025
288 319	13	0.86	5505.0	69050.8	62422.3	0.824	3174.8	71381.0	62422.3	0.830
210 291	7	4.57	3720.1	9636.0	13316.8	0.996	145.3	16844.7	13316.8	0.782
291 300	7	0.43	13695.4	265578.5	41614.9	0.105	13867.5	265406.3	41614.9	0.105
300 313	10	0.43	12818.4	265216.2	41614.9	0.109	12692.2	265342.4	41614.9	0.109
313 334	7	1.57	7352.1	36600.8	31211.2	0.652	8614.4	35338.5	31211.2	0.639
334 399	8	3.00	1450.0	7691.2	7534.1	0.791	315.6	7950.2	7534.1	0.908
308 344	9	2.00	36.3	3683.7	3238.3	0.869	278.7	3441.2	3238.3	0.860
344 413	9	3.00	439.8	2074.8	3238.3	1.349	153.2	2361.3	3238.3	1.307
283 291	12	12.00	13292.8	7214.2	31791.7	2.564	13740.0	6767.0	31791.7	2.668
560 636	25	5.00	242.5	1497.5	3238.3	2.001	21.0	1719.0	3238.3	1.872

636 721	25	5.00	179.6	1552.2	3238.3	1.971	259.3	1472.5	3238.3	2.023
570 646	26	5.00	333.9	1623.8	3238.3	1.789	304.7	1653.1	3238.3	1.775
646 669	26	2.00	118.5	4954.6	3238.3	0.630	538.5	4534.6	3238.3	0.595
669 730	25	3.00	371.6	2142.9	3238.3	1.338	123.4	2391.1	3238.3	1.303
654 698	25	2.55	11.4	3324.7	3238.3	0.971	582.5	2753.7	3238.3	0.964
698 744	25	2.45	91.5	3370.2	3238.3	0.934	529.8	2931.9	3238.3	0.924
862 941	34	5.00	138.3	1846.6	3238.3	1.679	135.5	1849.4	3238.3	1.678
941 1037	34	5.00	164.2	1759.1	3238.3	1.748	111.6	1811.6	3238.3	1.726
314 313	12	12.00	15044.5	9208.8	31791.7	1.819	14819.2	9434.1	31791.7	1.799
870 949	35	5.00	577.6	3222.9	5138.4	1.415	259.8	3540.7	5138.4	1.378
949 975	35	2.00	915.1	7506.3	5138.4	0.563	1510.1	6911.3	5138.4	0.525
975 1045	36	3.00	235.5	1869.3	3238.3	1.606	20.0	2084.8	3238.3	1.544
979 1049	33	3.00	228.8	1739.9	3238.3	1.730	369.8	1598.8	3238.3	1.794
957 1001	36	2.55	20.5	3315.6	3238.3	0.971	1584.3	1751.8	3238.3	0.944
1001 1059	36	2.45	209.4	3252.3	3238.3	0.931	315.2	3146.5	3238.3	0.929
300 304	11	6.00	4707.9	10601.8	12288.3	0.715	4183.5	13187.9	12288.3	0.615
304 308	11	6.00	5508.8	16784.0	18432.4	0.770	6562.7	11985.9	18432.4	0.990
308 312	11	6.20	8547.0	9538.4	18432.4	1.036	6506.3	11612.3	18432.4	1.027
349 350	5	1.26	314.4	2941.5	4857.5	1.544	511.3	2744.6	4857.5	1.584
361 363	5	2.60	699.2	2306.6	3238.3	1.101	643.3	2362.5	3238.3	1.098
413 417	6	6.20	6914.7	3938.5	18225.9	2.872	4997.3	5534.3	18225.9	2.390
384 387	1	3.06	119.6	8694.7	11829.8	1.347	360.2	7974.6	11829.8	1.438
387 390	1	3.14	1815.0	11723.8	22180.8	1.737	10475.6	7875.8	22180.8	1.486
390 392	2	1.55	15217.2	93953.5	40578.1	0.270	10327.4	98843.3	40578.1	0.306
392 394	3	3.70	7615.6	14422.3	20807.4	0.915	1163.7	16239.4	20807.4	1.210
394 396	4	1.50	936.0	52369.6	18273.4	0.331	1795.8	51509.8	18273.4	0.320
396 397	3	3.70	1996.2	20982.7	20807.4	0.897	8277.5	12177.5	20807.4	1.029
397 399	2	1.55	11501.1	104169.2	40578.1	0.279	15129.7	100540.5	40578.1	0.253
399 404	1	6.00	6661.8	3437.3	18484.0	3.439	754.8	4531.8	18484.0	3.912

- Trave più sollecitata

Trave 283 298 α_{Min} 0.071

- Nodi

- Nodi

Nodo		Pilastrino		Sezione		Ingombro nodo		A _g [cm ²]	f _{cd,Pilastrino} [kg/cm ²]	Direzione x						Direzione y					
						B [cm]	H [cm]			Comb. Critica	N _d [kg]	σ _{nc} [kg/cm ²]	M _G [kgm]	M _E [kgm]	α	Comb. Critica	N _d [kg]	σ _{nc} [kg/cm ²]	M _G [kgm]	M _E [kgm]	α
200	200 560	20	35	45	2362.50	141.1	7	48675.9	20.6	-6450.7	1434.1	17.356	3	48675.9	20.6	2939.4	206.2	159.472			
210	210 570	20	35	45	2362.50	141.1	9	47648.8	20.2	6917.2	-63.8	1598.510	8	47648.8	20.2	2653.4	198.1	166.185			
214	214 574	20	35	45	2137.50	141.1	6	29028.6	13.6	-634.1	-436.5	55.912									
218	218 578	20	35	45	2137.50	141.1	7	37525.5	17.6	-1039.4	1144.6	22.653									
222	222 582	19	30	45	1575.00	141.1	4	16273.9	10.3	2553.8	519.8	28.178									
224	224 584	19	30	45	1575.00	141.1	4	13521.0	8.6	-2066.4	438.2	32.921									
294	294 632	15	25	35	1037.50	141.1	7	12058.0	11.6	-1089.9	-154.2	43.729									
298	298 636	16	30	35	1425.00	141.1	3	59651.4	41.9	14573.9	172.9	10.490	3	59651.4	41.9	255.3	148.8	185.706			
300	300 646	17	35	35	1512.50	141.1	4	49086.7	32.5	11011.6	82.6	57.723	4	49086.7	32.5	1655.4	657.6	38.326			
304	304 650	16	30	35	1125.00	141.1	10	26645.5	23.7	-558.5	114.4	86.867									
308	308 654	16	30	35	1225.00	141.1	5	41780.6	34.1	-1088.8	94.7	125.976	7	41780.6	34.1	-82.4	39.6	130.878			
312	312	15	25	35	937.50	141.1	5	20675.2	22.1	1588.2	-96.4	72.085									

[illegible]

1031	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1037	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1041	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1045	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1050	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1059	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.
1063	Nodo all'ultimo piano. Nessuna colonna sovrastante. Verificato.

- Nodo più sollecitato

Nodo 744 $\alpha_{Min} 0.150$

- Indicatori di rischio

Oggetto	Nodi	Spettro di riferimento	PGA_C	$T_{R,C}$	PGA_C/PGA_D	$(T_{R,C}/T_{R,D})^{0.41}$
Pilastro (duttile)	636 941	TU 2008 SLV H	12.87	2475.00	25.90	1.97
Pilastro (fragile)	809 1037	TU 2008 SLV H	0.05	30.00	0.10	0.32
Trave (duttile)	298 314	TU 2008 SLV H	-3200.17	30.00	-6439.18	0.32
Trave (fragile)	283 298	TU 2008 SLV H	0.04	30.00	0.07	0.32
Nodo (fragile)	744	TU 2008 SLV H	0.07	30.00	0.15	0.32

4.1.9 Verifica globale – Stato di progetto

- **En.Ex.Sys. WinStrand**

- Structural Analysis & Design

Ditta produttrice:

En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:

WinStrand

Piattaforma software:

Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:

Manuale teorico - Manuale d'uso

Campo di applicazione:

Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastr).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T.
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. *"Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica"*.
- Legge n. 64 del 2 Febbraio 1974. *"Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche"*.
- D.M. del 3 Marzo 1975. *"Approvazione delle norme tecniche per le costruzioni in zone sismiche"*.
- D.M. del 3 Marzo 1975. *"Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche"*.
- D.M. del 3 Ottobre 1978. *"Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi"*.
- D.M. del 14 Febbraio 1992. *"Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche"*.
- Istruzioni per la valutazione delle: Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. *"Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche"*.
- D.M. del 16 Gennaio 1996. *"Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»"*.
- D.M. del 16 Gennaio 1996. *"Norme tecniche per le costruzioni in zone sismiche"*
- Ordinanza n. 3274 del 20 Marzo 2003. *"Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"*
- Ordinanza n. 3316. *"Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"*
- D.M. del 14 Gennaio 2008 *"Approvazione delle nuove norme tecniche per le costruzioni"*

- Indice

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- [Elementi tipo pilastro](#)
- [Elementi tipo trave](#)
- [Elementi a 4 nodi](#)
- [Elementi triangolari](#)
- [Condizioni e combinazioni di carico](#)
- [Carichi e coppie applicati ai nodi](#)
- [Dati relativi alle aree di carico](#)
- [Carichi applicati agli elementi](#)
- [Analisi dinamica](#)
- [Spostamenti nodali](#)
- [Sollecitazioni nei pilastri](#)
- [Sollecitazioni nelle travi](#)
- [Sollecitazioni negli elementi triangolari](#)
- [Sollecitazioni negli elementi triangolari](#)
- [Sollecitazioni negli elementi a 4 nodi](#)
- [Sollecitazioni negli elementi a 4 nodi](#)

- Dati relativi ai nodi della struttura

- Convenzioni adottate

La terna di riferimento generale è destrorsa.

I nodi vengono numerati, con riferimento a una sezione orizzontale, da sinistra a destra, dal basso verso l'alto e per quote crescenti.

L'impalcato di appartenenza di un nodo è definito, in generale, dalla prima delle tre cifre che ne definiscono il numero, possono tuttavia presentarsi casi in cui si hanno più di 100 nodi per solaio nel qual caso il solaio di appartenenza è specificato dall'ultimo valore stampato nella riga dei dati relativi al nodo.

La maschera dei vincoli è costituita dai valori 0 e 1. Il valore 1 indica che per il nodo in riferimento il grado di libertà correlativo è soppresso mentre il valore 0 indica che è libero.

Nel caso di edifici civili multipiano l'asse z generale coincide con l'asse verticale rivolto verso l'alto.

- Nodi

Nodo	x [m]	y [m]	z [m]	Ux	Uy	Uz	Rx	Ry	Rz	Solaio
1	6.20	0.00	0.00	1	1	1	1	1	1	0
2	18.20	0.00	0.00	1	1	1	1	1	1	0
3	24.20	0.00	0.00	1	1	1	1	1	1	0
4	30.20	0.00	0.00	1	1	1	1	1	1	0
5	36.40	0.00	0.00	1	1	1	1	1	1	0
6	0.00	0.00	0.00	1	1	1	1	1	1	0
7	0.00	5.00	0.00	1	1	1	1	1	1	0
8	6.20	5.00	0.00	1	1	1	1	1	1	0
9	18.20	5.00	0.00	1	1	1	1	1	1	0
10	24.20	5.00	0.00	1	1	1	1	1	1	0
11	30.20	5.00	0.00	1	1	1	1	1	1	0
12	36.40	5.00	0.00	1	1	1	1	1	1	0
13	6.20	7.00	0.00	1	1	1	1	1	1	0
14	18.20	7.00	0.00	1	1	1	1	1	1	0
15	19.30	7.00	0.00	1	1	1	1	1	1	0
16	20.40	7.00	0.00	1	1	1	1	1	1	0
17	21.50	7.00	0.00	1	1	1	1	1	1	0
18	22.60	7.00	0.00	1	1	1	1	1	1	0
19	24.20	7.00	0.00	1	1	1	1	1	1	0
20	30.20	7.00	0.00	1	1	1	1	1	1	0
21	1.26	7.36	0.00	1	1	1	1	1	1	0
22	1.70	7.36	0.00	1	1	1	1	1	1	0
23	2.62	7.36	0.00	1	1	1	1	1	1	0
24	3.06	7.36	0.00	1	1	1	1	1	1	0
25	24.20	7.55	0.00	1	1	1	1	1	1	0
26	24.72	7.55	0.00	1	1	1	1	1	1	0
27	25.52	7.55	0.00	1	1	1	1	1	1	0
28	26.30	7.55	0.00	1	1	1	1	1	1	0
29	27.02	7.55	0.00	1	1	1	1	1	1	0
30	27.60	7.55	0.00	1	1	1	1	1	1	0
31	1.26	8.02	0.00	1	1	1	1	1	1	0
32	3.06	8.02	0.00	1	1	1	1	1	1	0
33	24.20	8.36	0.00	1	1	1	1	1	1	0
34	27.60	8.36	0.00	1	1	1	1	1	1	0
35	1.26	8.68	0.00	1	1	1	1	1	1	0
36	3.06	8.68	0.00	1	1	1	1	1	1	0
37	24.20	9.17	0.00	1	1	1	1	1	1	0
38	27.60	9.17	0.00	1	1	1	1	1	1	0

39	1.26	9.34	0.00	1	1	1	1	1	1	0
40	3.06	9.34	0.00	1	1	1	1	1	1	0
41	0.00	10.00	0.00	1	1	1	1	1	1	0
42	1.26	10.00	0.00	1	1	1	1	1	1	0
43	2.16	10.00	0.00	1	1	1	1	1	1	0
44	3.06	10.00	0.00	1	1	1	1	1	1	0
45	6.20	10.00	0.00	1	1	1	1	1	1	0
46	18.20	10.00	0.00	1	1	1	1	1	1	0
47	19.30	10.00	0.00	1	1	1	1	1	1	0
48	20.40	10.00	0.00	1	1	1	1	1	1	0
49	21.40	10.00	0.00	1	1	1	1	1	1	0
50	22.60	10.00	0.00	1	1	1	1	1	1	0
51	24.20	10.00	0.00	1	1	1	1	1	1	0
52	24.72	10.00	0.00	1	1	1	1	1	1	0
53	25.52	10.00	0.00	1	1	1	1	1	1	0
54	26.30	10.00	0.00	1	1	1	1	1	1	0
55	27.02	10.00	0.00	1	1	1	1	1	1	0
56	27.60	10.00	0.00	1	1	1	1	1	1	0
57	28.25	10.00	0.00	1	1	1	1	1	1	0
58	28.90	10.00	0.00	1	1	1	1	1	1	0
59	29.55	10.00	0.00	1	1	1	1	1	1	0
60	30.20	10.00	0.00	1	1	1	1	1	1	0
61	36.40	10.00	0.00	1	1	1	1	1	1	0
62	18.20	7.00	0.80	0	0	0	0	0	0	0
63	19.30	7.00	0.80	0	0	0	0	0	0	0
64	20.40	7.00	0.80	0	0	0	0	0	0	0
65	21.50	7.00	0.80	0	0	0	0	0	0	0
66	22.60	7.00	0.80	0	0	0	0	0	0	0
67	24.20	7.00	0.80	0	0	0	0	0	0	0
68	1.26	7.36	0.80	0	0	0	0	0	0	0
69	1.70	7.36	0.80	0	0	0	0	0	0	0
70	2.62	7.36	0.80	0	0	0	0	0	0	0
71	3.06	7.36	0.80	0	0	0	0	0	0	0
72	24.20	7.55	0.80	0	0	0	0	0	0	0
73	24.72	7.55	0.80	0	0	0	0	0	0	0
74	25.52	7.55	0.80	0	0	0	0	0	0	0
75	26.30	7.55	0.80	0	0	0	0	0	0	0
76	27.02	7.55	0.80	0	0	0	0	0	0	0
77	27.60	7.55	0.80	0	0	0	0	0	0	0
78	1.26	8.02	0.80	0	0	0	0	0	0	0
79	3.06	8.02	0.80	0	0	0	0	0	0	0
80	24.20	8.36	0.80	0	0	0	0	0	0	0
81	27.60	8.36	0.80	0	0	0	0	0	0	0
82	1.26	8.68	0.80	0	0	0	0	0	0	0
83	3.06	8.68	0.80	0	0	0	0	0	0	0
84	24.20	9.17	0.80	0	0	0	0	0	0	0
85	27.60	9.17	0.80	0	0	0	0	0	0	0
86	1.26	9.34	0.80	0	0	0	0	0	0	0
87	3.06	9.34	0.80	0	0	0	0	0	0	0
88	0.00	10.00	0.80	0	0	0	0	0	0	0
89	1.26	10.00	0.80	0	0	0	0	0	0	0

	2.16	10.00	0.80	0	0	0	0	0	0	0
91	3.06	10.00	0.80	0	0	0	0	0	0	0
92	6.20	10.00	0.80	0	0	0	0	0	0	0
93	18.20	10.00	0.80	0	0	0	0	0	0	0
94	19.30	10.00	0.80	0	0	0	0	0	0	0
95	20.40	10.00	0.80	0	0	0	0	0	0	0
96	21.40	10.00	0.80	0	0	0	0	0	0	0
97	22.60	10.00	0.80	0	0	0	0	0	0	0
98	24.20	10.00	0.80	0	0	0	0	0	0	0
99	24.72	10.00	0.80	0	0	0	0	0	0	0
100	25.52	10.00	0.80	0	0	0	0	0	0	0
101	26.30	10.00	0.80	0	0	0	0	0	0	0
102	27.02	10.00	0.80	0	0	0	0	0	0	0
103	27.60	10.00	0.80	0	0	0	0	0	0	0
104	28.25	10.00	0.80	0	0	0	0	0	0	0
105	28.90	10.00	0.80	0	0	0	0	0	0	0
106	29.55	10.00	0.80	0	0	0	0	0	0	0
107	30.20	10.00	0.80	0	0	0	0	0	0	0
108	18.20	7.00	1.60	0	0	0	0	0	0	0
109	19.30	7.00	1.60	0	0	0	0	0	0	0
110	20.40	7.00	1.60	0	0	0	0	0	0	0
111	21.50	7.00	1.60	0	0	0	0	0	0	0
112	22.60	7.00	1.60	0	0	0	0	0	0	0
113	24.20	7.00	1.60	0	0	0	0	0	0	0
114	1.26	7.36	1.60	0	0	0	0	0	0	0
115	1.70	7.36	1.60	0	0	0	0	0	0	0
116	2.62	7.36	1.60	0	0	0	0	0	0	0
117	3.06	7.36	1.60	0	0	0	0	0	0	0
118	24.20	7.55	1.60	0	0	0	0	0	0	0
119	24.72	7.55	1.60	0	0	0	0	0	0	0
120	25.52	7.55	1.60	0	0	0	0	0	0	0
121	26.30	7.55	1.60	0	0	0	0	0	0	0
122	27.02	7.55	1.60	0	0	0	0	0	0	0
123	27.60	7.55	1.60	0	0	0	0	0	0	0
124	1.26	8.02	1.60	0	0	0	0	0	0	0
125	3.06	8.02	1.60	0	0	0	0	0	0	0
126	24.20	8.36	1.60	0	0	0	0	0	0	0
127	27.60	8.36	1.60	0	0	0	0	0	0	0
128	1.26	8.68	1.60	0	0	0	0	0	0	0
129	3.06	8.68	1.60	0	0	0	0	0	0	0
130	24.20	9.17	1.60	0	0	0	0	0	0	0
131	27.60	9.17	1.60	0	0	0	0	0	0	0
132	1.26	9.34	1.60	0	0	0	0	0	0	0
133	3.06	9.34	1.60	0	0	0	0	0	0	0
134	0.00	10.00	1.60	0	0	0	0	0	0	0
135	1.26	10.00	1.60	0	0	0	0	0	0	0
136	2.16	10.00	1.60	0	0	0	0	0	0	0
137	3.06	10.00	1.60	0	0	0	0	0	0	0
138	6.20	10.00	1.60	0	0	0	0	0	0	0
139	18.20	10.00	1.60	0	0	0	0	0	0	0
140	19.30	10.00	1.60	0	0	0	0	0	0	0
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	20.40	10.00	1.60	0	0	0	0	0	0	0
142	21.40	10.00	1.60	0	0	0	0	0	0	0
143	22.60	10.00	1.60	0	0	0	0	0	0	0
144	24.20	10.00	1.60	0	0	0	0	0	0	0
145	24.72	10.00	1.60	0	0	0	0	0	0	0
146	25.52	10.00	1.60	0	0	0	0	0	0	0
147	26.30	10.00	1.60	0	0	0	0	0	0	0
148	27.02	10.00	1.60	0	0	0	0	0	0	0
149	27.60	10.00	1.60	0	0	0	0	0	0	0
150	28.25	10.00	1.60	0	0	0	0	0	0	0
151	28.90	10.00	1.60	0	0	0	0	0	0	0
152	29.55	10.00	1.60	0	0	0	0	0	0	0
153	30.20	10.00	1.60	0	0	0	0	0	0	0
154	18.20	7.00	2.40	0	0	0	0	0	0	0
155	19.30	7.00	2.40	0	0	0	0	0	0	0
156	20.40	7.00	2.40	0	0	0	0	0	0	0
157	21.50	7.00	2.40	0	0	0	0	0	0	0
158	22.60	7.00	2.40	0	0	0	0	0	0	0
159	24.20	7.00	2.40	0	0	0	0	0	0	0
160	1.26	7.36	2.40	0	0	0	0	0	0	0
161	1.70	7.36	2.40	0	0	0	0	0	0	0
162	2.62	7.36	2.40	0	0	0	0	0	0	0
163	3.06	7.36	2.40	0	0	0	0	0	0	0
164	24.20	7.55	2.40	0	0	0	0	0	0	0
165	24.72	7.55	2.40	0	0	0	0	0	0	0
166	25.52	7.55	2.40	0	0	0	0	0	0	0
167	26.30	7.55	2.40	0	0	0	0	0	0	0
168	27.02	7.55	2.40	0	0	0	0	0	0	0
169	27.60	7.55	2.40	0	0	0	0	0	0	0
170	1.26	8.02	2.40	0	0	0	0	0	0	0
171	3.06	8.02	2.40	0	0	0	0	0	0	0
172	24.20	8.36	2.40	0	0	0	0	0	0	0
173	27.60	8.36	2.40	0	0	0	0	0	0	0
174	1.26	8.68	2.40	0	0	0	0	0	0	0
175	3.06	8.68	2.40	0	0	0	0	0	0	0
176	24.20	9.17	2.40	0	0	0	0	0	0	0
177	27.60	9.17	2.40	0	0	0	0	0	0	0
178	1.26	9.34	2.40	0	0	0	0	0	0	0
179	3.06	9.34	2.40	0	0	0	0	0	0	0
180	0.00	10.00	2.40	0	0	0	0	0	0	0
181	1.26	10.00	2.40	0	0	0	0	0	0	0
182	2.16	10.00	2.40	0	0	0	0	0	0	0
183	3.06	10.00	2.40	0	0	0	0	0	0	0
184	18.20	10.00	2.40	0	0	0	0	0	0	0
185	19.30	10.00	2.40	0	0	0	0	0	0	0
186	20.40	10.00	2.40	0	0	0	0	0	0	0
187	21.40	10.00	2.40	0	0	0	0	0	0	0
188	24.20	10.00	2.40	0	0	0	0	0	0	0
189	24.72	10.00	2.40	0	0	0	0	0	0	0
190	25.52	10.00	2.40	0	0	0	0	0	0	0
191	26.30	10.00	2.40	0	0	0	0	0	0	0
192										

	27.02	10.00	2.40	0	0	0	0	0	0	0
193	27.60	10.00	2.40	0	0	0	0	0	0	0
194	28.25	10.00	2.40	0	0	0	0	0	0	0
195	28.90	10.00	2.40	0	0	0	0	0	0	0
196	29.55	10.00	2.40	0	0	0	0	0	0	0
197	30.20	10.00	2.40	0	0	0	0	0	0	0
198	3.06	-0.00	3.45	0	0	0	0	0	0	0
199	4.63	-0.00	3.45	0	0	0	0	0	0	0
200	6.20	0.00	3.45	0	0	0	0	0	0	0
201	6.95	0.00	3.45	0	0	0	0	0	0	0
202	7.75	0.00	3.45	0	0	0	0	0	0	0
203	9.95	0.00	3.45	0	0	0	0	0	0	0
204	11.45	0.00	3.45	0	0	0	0	0	0	0
205	12.20	0.00	3.45	0	0	0	0	0	0	0
206	12.95	0.00	3.45	0	0	0	0	0	0	0
207	14.45	0.00	3.45	0	0	0	0	0	0	0
208	16.65	0.00	3.45	0	0	0	0	0	0	0
209	17.45	0.00	3.45	0	0	0	0	0	0	0
210	18.20	0.00	3.45	0	0	0	0	0	0	0
211	19.70	0.00	3.45	0	0	0	0	0	0	0
212	21.20	0.00	3.45	0	0	0	0	0	0	0
213	22.70	0.00	3.45	0	0	0	0	0	0	0
214	24.20	0.00	3.45	0	0	0	0	0	0	0
215	25.70	0.00	3.45	0	0	0	0	0	0	0
216	27.20	0.00	3.45	0	0	0	0	0	0	0
217	28.70	0.00	3.45	0	0	0	0	0	0	0
218	30.20	0.00	3.45	0	0	0	0	0	0	0
219	31.75	0.00	3.45	0	0	0	0	0	0	0
220	33.30	0.00	3.45	0	0	0	0	0	0	0
221	34.85	0.00	3.45	0	0	0	0	0	0	0
222	36.40	0.00	3.45	0	0	0	0	0	0	0
223	1.53	0.00	3.45	0	0	0	0	0	0	0
224	0.00	0.00	3.45	0	0	0	0	0	0	0
225	12.20	0.45	3.45	0	0	0	0	0	0	0
226	6.43	0.45	3.45	0	0	0	0	0	0	0
227	7.75	0.45	3.45	0	0	0	0	0	0	0
228	9.95	0.45	3.45	0	0	0	0	0	0	0
229	11.45	0.45	3.45	0	0	0	0	0	0	0
230	14.45	0.45	3.45	0	0	0	0	0	0	0
231	16.65	0.45	3.45	0	0	0	0	0	0	0
232	17.45	0.45	3.45	0	0	0	0	0	0	0
233	6.95	0.45	3.45	0	0	0	0	0	0	0
234	12.95	0.45	3.45	0	0	0	0	0	0	0
235	17.98	0.45	3.45	0	0	0	0	0	0	0
236	17.98	2.31	3.45	0	0	0	0	0	0	0
237	18.20	2.31	3.45	0	0	0	0	0	0	0
238	4.63	2.31	3.45	0	0	0	0	0	0	0
239	19.70	2.31	3.45	0	0	0	0	0	0	0
240	21.20	2.31	3.45	0	0	0	0	0	0	0
241	22.70	2.31	3.45	0	0	0	0	0	0	0
242	24.20	2.31	3.45	0	0	0	0	0	0	0
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	25.70	2.31	3.45	0	0	0	0	0	0	0
244	27.20	2.31	3.45	0	0	0	0	0	0	0
245	28.70	2.31	3.45	0	0	0	0	0	0	0
246	30.20	2.31	3.45	0	0	0	0	0	0	0
247	31.75	2.31	3.45	0	0	0	0	0	0	0
248	33.30	2.31	3.45	0	0	0	0	0	0	0
249	34.85	2.31	3.45	0	0	0	0	0	0	0
250	36.40	2.31	3.45	0	0	0	0	0	0	0
251	1.53	2.31	3.45	0	0	0	0	0	0	0
252	6.43	2.31	3.45	0	0	0	0	0	0	0
253	-0.00	2.31	3.45	0	0	0	0	0	0	0
254	3.06	2.31	3.45	0	0	0	0	0	0	0
255	6.20	2.31	3.45	0	0	0	0	0	0	0
256	19.70	3.82	3.45	0	0	0	0	0	0	0
257	21.20	3.82	3.45	0	0	0	0	0	0	0
258	22.70	3.82	3.45	0	0	0	0	0	0	0
259	24.20	3.82	3.45	0	0	0	0	0	0	0
260	25.70	3.82	3.45	0	0	0	0	0	0	0
261	27.20	3.82	3.45	0	0	0	0	0	0	0
262	28.70	3.82	3.45	0	0	0	0	0	0	0
263	30.20	3.82	3.45	0	0	0	0	0	0	0
264	31.75	3.82	3.45	0	0	0	0	0	0	0
265	33.30	3.82	3.45	0	0	0	0	0	0	0
266	34.85	3.82	3.45	0	0	0	0	0	0	0
267	36.40	3.82	3.45	0	0	0	0	0	0	0
268	-0.00	3.87	3.45	0	0	0	0	0	0	0
269	1.53	3.87	3.45	0	0	0	0	0	0	0
270	3.06	3.87	3.45	0	0	0	0	0	0	0
271	4.63	3.87	3.45	0	0	0	0	0	0	0
272	6.43	4.17	3.45	0	0	0	0	0	0	0
273	6.95	4.17	3.45	0	0	0	0	0	0	0
274	7.75	4.17	3.45	0	0	0	0	0	0	0
275	9.95	4.17	3.45	0	0	0	0	0	0	0
276	11.45	4.17	3.45	0	0	0	0	0	0	0
277	12.20	4.17	3.45	0	0	0	0	0	0	0
278	12.95	4.17	3.45	0	0	0	0	0	0	0
279	14.45	4.17	3.45	0	0	0	0	0	0	0
280	16.65	4.17	3.45	0	0	0	0	0	0	0
281	17.45	4.17	3.45	0	0	0	0	0	0	0
282	17.97	4.17	3.45	0	0	0	0	0	0	0
283	6.20	4.57	3.45	0	0	0	0	0	0	0
284	6.95	4.57	3.45	0	0	0	0	0	0	0
285	7.75	4.57	3.45	0	0	0	0	0	0	0
286	9.95	4.57	3.45	0	0	0	0	0	0	0
287	11.45	4.57	3.45	0	0	0	0	0	0	0
288	12.20	4.57	3.45	0	0	0	0	0	0	0
289	12.95	4.57	3.45	0	0	0	0	0	0	0
290	17.45	4.57	3.45	0	0	0	0	0	0	0
291	18.20	4.57	3.45	0	0	0	0	0	0	0
292	14.45	4.57	3.45	0	0	0	0	0	0	0
293	16.65	4.57	3.45	0	0	0	0	0	0	0

	0.00	5.00	3.45	0	0	0	0	0	0	0
295	1.26	5.00	3.45	0	0	0	0	0	0	0
296	3.06	5.00	3.45	0	0	0	0	0	0	0
297	4.63	5.00	3.45	0	0	0	0	0	0	0
298	6.20	5.00	3.45	0	0	0	0	0	0	0
299	12.20	5.00	3.45	0	0	0	0	0	0	0
300	18.20	5.00	3.45	0	0	0	0	0	0	0
301	19.70	5.00	3.45	0	0	0	0	0	0	0
302	21.20	5.00	3.45	0	0	0	0	0	0	0
303	22.70	5.00	3.45	0	0	0	0	0	0	0
304	24.20	5.00	3.45	0	0	0	0	0	0	0
305	25.70	5.00	3.45	0	0	0	0	0	0	0
306	27.20	5.00	3.45	0	0	0	0	0	0	0
307	28.70	5.00	3.45	0	0	0	0	0	0	0
308	30.20	5.00	3.45	0	0	0	0	0	0	0
309	31.75	5.00	3.45	0	0	0	0	0	0	0
310	33.30	5.00	3.45	0	0	0	0	0	0	0
311	34.85	5.00	3.45	0	0	0	0	0	0	0
312	36.40	5.00	3.45	0	0	0	0	0	0	0
313	18.20	5.43	3.45	0	0	0	0	0	0	0
314	6.20	5.43	3.45	0	0	0	0	0	0	0
315	6.95	5.43	3.45	0	0	0	0	0	0	0
316	7.75	5.43	3.45	0	0	0	0	0	0	0
317	9.95	5.43	3.45	0	0	0	0	0	0	0
318	11.45	5.43	3.45	0	0	0	0	0	0	0
319	12.20	5.43	3.45	0	0	0	0	0	0	0
320	12.95	5.43	3.45	0	0	0	0	0	0	0
321	17.45	5.43	3.45	0	0	0	0	0	0	0
322	14.45	5.43	3.45	0	0	0	0	0	0	0
323	16.65	5.43	3.45	0	0	0	0	0	0	0
324	6.20	7.00	3.45	0	0	0	0	0	0	0
325	6.95	7.00	3.45	0	0	0	0	0	0	0
326	7.75	7.00	3.45	0	0	0	0	0	0	0
327	9.95	7.00	3.45	0	0	0	0	0	0	0
328	11.45	7.00	3.45	0	0	0	0	0	0	0
329	12.20	7.00	3.45	0	0	0	0	0	0	0
330	12.95	7.00	3.45	0	0	0	0	0	0	0
331	14.45	7.00	3.45	0	0	0	0	0	0	0
332	16.65	7.00	3.45	0	0	0	0	0	0	0
333	17.45	7.00	3.45	0	0	0	0	0	0	0
334	18.20	7.00	3.45	0	0	0	0	0	0	0
335	19.30	7.00	3.45	0	0	0	0	0	0	0
336	20.40	7.00	3.45	0	0	0	0	0	0	0
337	21.50	7.00	3.45	0	0	0	0	0	0	0
338	22.60	7.00	3.45	0	0	0	0	0	0	0
339	24.20	7.00	3.45	0	0	0	0	0	0	0
340	25.52	7.00	3.45	0	0	0	0	0	0	0
341	26.30	7.00	3.45	0	0	0	0	0	0	0
342	27.60	7.00	3.45	0	0	0	0	0	0	0
343	28.90	7.00	3.45	0	0	0	0	0	0	0
344	30.20	7.00	3.45	0	0	0	0	0	0	0
...										

	31.75	7.00	3.45	0	0	0	0	0	0	0
346	33.30	7.00	3.45	0	0	0	0	0	0	0
347	34.85	7.00	3.45	0	0	0	0	0	0	0
348	36.40	7.00	3.45	0	0	0	0	0	0	0
349	0.00	7.36	3.45	0	0	0	0	0	0	0
350	1.26	7.36	3.45	0	0	0	0	0	0	0
351	1.70	7.36	3.45	0	0	0	0	0	0	0
352	2.62	7.36	3.45	0	0	0	0	0	0	0
353	3.06	7.36	3.45	0	0	0	0	0	0	0
354	4.11	7.36	3.45	0	0	0	0	0	0	0
355	5.16	7.36	3.45	0	0	0	0	0	0	0
356	24.20	7.55	3.45	0	0	0	0	0	0	0
357	24.72	7.55	3.45	0	0	0	0	0	0	0
358	25.52	7.55	3.45	0	0	0	0	0	0	0
359	26.30	7.55	3.45	0	0	0	0	0	0	0
360	27.02	7.55	3.45	0	0	0	0	0	0	0
361	27.60	7.55	3.45	0	0	0	0	0	0	0
362	28.90	7.55	3.45	0	0	0	0	0	0	0
363	30.20	7.55	3.45	0	0	0	0	0	0	0
364	1.26	8.02	3.45	0	0	0	0	0	0	0
365	3.06	8.02	3.45	0	0	0	0	0	0	0
366	30.20	8.34	3.45	0	0	0	0	0	0	0
367	24.20	8.36	3.45	0	0	0	0	0	0	0
368	27.60	8.36	3.45	0	0	0	0	0	0	0
369	1.26	8.68	3.45	0	0	0	0	0	0	0
370	3.06	8.68	3.45	0	0	0	0	0	0	0
371	4.11	8.68	3.45	0	0	0	0	0	0	0
372	5.15	8.68	3.45	0	0	0	0	0	0	0
373	6.20	8.68	3.45	0	0	0	0	0	0	0
374	31.75	8.70	3.45	0	0	0	0	0	0	0
375	33.30	8.70	3.45	0	0	0	0	0	0	0
376	34.85	8.70	3.45	0	0	0	0	0	0	0
377	36.40	8.70	3.45	0	0	0	0	0	0	0
378	30.20	9.17	3.45	0	0	0	0	0	0	0
379	24.20	9.17	3.45	0	0	0	0	0	0	0
380	27.60	9.17	3.45	0	0	0	0	0	0	0
381	1.26	9.34	3.45	0	0	0	0	0	0	0
382	3.06	9.34	3.45	0	0	0	0	0	0	0
383	14.45	10.00	3.45	0	0	0	0	0	0	0
384	0.00	10.00	3.45	0	0	0	0	0	0	0
385	1.26	10.00	3.45	0	0	0	0	0	0	0
386	2.16	10.00	3.45	0	0	0	0	0	0	0
387	3.06	10.00	3.45	0	0	0	0	0	0	0
388	4.11	10.00	3.45	0	0	0	0	0	0	0
389	5.15	10.00	3.45	0	0	0	0	0	0	0
390	6.20	10.00	3.45	0	0	0	0	0	0	0
391	6.95	10.00	3.45	0	0	0	0	0	0	0
392	7.75	10.00	3.45	0	0	0	0	0	0	0
393	9.95	10.00	3.45	0	0	0	0	0	0	0
394	11.45	10.00	3.45	0	0	0	0	0	0	0
395	12.20	10.00	3.45	0	0	0	0	0	0	0

	12.95	10.00	3.45	0	0	0	0	0	0	0
397	16.65	10.00	3.45	0	0	0	0	0	0	0
398	17.45	10.00	3.45	0	0	0	0	0	0	0
399	18.20	10.00	3.45	0	0	0	0	0	0	0
400	19.30	10.00	3.45	0	0	0	0	0	0	0
401	20.40	10.00	3.45	0	0	0	0	0	0	0
402	21.40	10.00	3.45	0	0	0	0	0	0	0
403	22.60	10.00	3.45	0	0	0	0	0	0	0
404	24.20	10.00	3.45	0	0	0	0	0	0	0
405	24.72	10.00	3.45	0	0	0	0	0	0	0
406	25.52	10.00	3.45	0	0	0	0	0	0	0
407	26.30	10.00	3.45	0	0	0	0	0	0	0
408	27.02	10.00	3.45	0	0	0	0	0	0	0
409	27.60	10.00	3.45	0	0	0	0	0	0	0
410	28.25	10.00	3.45	0	0	0	0	0	0	0
411	28.90	10.00	3.45	0	0	0	0	0	0	0
412	29.55	10.00	3.45	0	0	0	0	0	0	0
413	30.20	10.00	3.45	0	0	0	0	0	0	0
414	31.75	10.00	3.45	0	0	0	0	0	0	0
415	33.30	10.00	3.45	0	0	0	0	0	0	0
416	34.85	10.00	3.45	0	0	0	0	0	0	0
417	36.40	10.00	3.45	0	0	0	0	0	0	0
418	18.20	7.00	4.25	0	0	0	0	0	0	0
419	19.30	7.00	4.25	0	0	0	0	0	0	0
420	20.40	7.00	4.25	0	0	0	0	0	0	0
421	21.50	7.00	4.25	0	0	0	0	0	0	0
422	22.60	7.00	4.25	0	0	0	0	0	0	0
423	24.20	7.00	4.25	0	0	0	0	0	0	0
424	1.26	7.36	4.25	0	0	0	0	0	0	0
425	1.70	7.36	4.25	0	0	0	0	0	0	0
426	2.62	7.36	4.25	0	0	0	0	0	0	0
427	3.06	7.36	4.25	0	0	0	0	0	0	0
428	24.20	7.55	4.25	0	0	0	0	0	0	0
429	24.72	7.55	4.25	0	0	0	0	0	0	0
430	25.52	7.55	4.25	0	0	0	0	0	0	0
431	26.30	7.55	4.25	0	0	0	0	0	0	0
432	27.02	7.55	4.25	0	0	0	0	0	0	0
433	27.60	7.55	4.25	0	0	0	0	0	0	0
434	1.26	8.02	4.25	0	0	0	0	0	0	0
435	3.06	8.02	4.25	0	0	0	0	0	0	0
436	24.20	8.36	4.25	0	0	0	0	0	0	0
437	27.60	8.36	4.25	0	0	0	0	0	0	0
438	1.26	8.68	4.25	0	0	0	0	0	0	0
439	3.06	8.68	4.25	0	0	0	0	0	0	0
440	24.20	9.17	4.25	0	0	0	0	0	0	0
441	27.60	9.17	4.25	0	0	0	0	0	0	0
442	1.26	9.34	4.25	0	0	0	0	0	0	0
443	3.06	9.34	4.25	0	0	0	0	0	0	0
444	0.00	10.00	4.25	0	0	0	0	0	0	0
445	1.26	10.00	4.25	0	0	0	0	0	0	0
446	2.16	10.00	4.25	0	0	0	0	0	0	0
...										

	3.06	10.00	4.25	0	0	0	0	0	0	0
448	4.11	10.00	4.25	0	0	0	0	0	0	0
449	5.15	10.00	4.25	0	0	0	0	0	0	0
450	6.20	10.00	4.25	0	0	0	0	0	0	0
451	18.20	10.00	4.25	0	0	0	0	0	0	0
452	19.30	10.00	4.25	0	0	0	0	0	0	0
453	20.40	10.00	4.25	0	0	0	0	0	0	0
454	21.40	10.00	4.25	0	0	0	0	0	0	0
455	22.60	10.00	4.25	0	0	0	0	0	0	0
456	24.20	10.00	4.25	0	0	0	0	0	0	0
457	24.72	10.00	4.25	0	0	0	0	0	0	0
458	25.52	10.00	4.25	0	0	0	0	0	0	0
459	26.30	10.00	4.25	0	0	0	0	0	0	0
460	27.02	10.00	4.25	0	0	0	0	0	0	0
461	27.60	10.00	4.25	0	0	0	0	0	0	0
462	28.25	10.00	4.25	0	0	0	0	0	0	0
463	28.90	10.00	4.25	0	0	0	0	0	0	0
464	29.55	10.00	4.25	0	0	0	0	0	0	0
465	30.20	10.00	4.25	0	0	0	0	0	0	0
466	18.20	7.00	5.05	0	0	0	0	0	0	0
467	19.30	7.00	5.05	0	0	0	0	0	0	0
468	20.40	7.00	5.05	0	0	0	0	0	0	0
469	21.50	7.00	5.05	0	0	0	0	0	0	0
470	22.60	7.00	5.05	0	0	0	0	0	0	0
471	24.20	7.00	5.05	0	0	0	0	0	0	0
472	1.26	7.36	5.05	0	0	0	0	0	0	0
473	1.70	7.36	5.05	0	0	0	0	0	0	0
474	2.62	7.36	5.05	0	0	0	0	0	0	0
475	3.06	7.36	5.05	0	0	0	0	0	0	0
476	24.20	7.55	5.05	0	0	0	0	0	0	0
477	24.72	7.55	5.05	0	0	0	0	0	0	0
478	25.52	7.55	5.05	0	0	0	0	0	0	0
479	26.30	7.55	5.05	0	0	0	0	0	0	0
480	27.02	7.55	5.05	0	0	0	0	0	0	0
481	27.60	7.55	5.05	0	0	0	0	0	0	0
482	1.26	8.02	5.05	0	0	0	0	0	0	0
483	3.06	8.02	5.05	0	0	0	0	0	0	0
484	24.20	8.36	5.05	0	0	0	0	0	0	0
485	27.60	8.36	5.05	0	0	0	0	0	0	0
486	1.26	8.68	5.05	0	0	0	0	0	0	0
487	3.06	8.68	5.05	0	0	0	0	0	0	0
488	24.20	9.17	5.05	0	0	0	0	0	0	0
489	27.60	9.17	5.05	0	0	0	0	0	0	0
490	1.26	9.34	5.05	0	0	0	0	0	0	0
491	3.06	9.34	5.05	0	0	0	0	0	0	0
492	0.00	10.00	5.05	0	0	0	0	0	0	0
493	1.26	10.00	5.05	0	0	0	0	0	0	0
494	2.16	10.00	5.05	0	0	0	0	0	0	0
495	3.06	10.00	5.05	0	0	0	0	0	0	0
496	4.11	10.00	5.05	0	0	0	0	0	0	0
497	5.15	10.00	5.05	0	0	0	0	0	0	0

	6.20	10.00	5.05	0	0	0	0	0	0	0
499	18.20	10.00	5.05	0	0	0	0	0	0	0
500	19.30	10.00	5.05	0	0	0	0	0	0	0
501	20.40	10.00	5.05	0	0	0	0	0	0	0
502	21.40	10.00	5.05	0	0	0	0	0	0	0
503	22.60	10.00	5.05	0	0	0	0	0	0	0
504	24.20	10.00	5.05	0	0	0	0	0	0	0
505	24.72	10.00	5.05	0	0	0	0	0	0	0
506	25.52	10.00	5.05	0	0	0	0	0	0	0
507	26.30	10.00	5.05	0	0	0	0	0	0	0
508	27.02	10.00	5.05	0	0	0	0	0	0	0
509	27.60	10.00	5.05	0	0	0	0	0	0	0
510	28.25	10.00	5.05	0	0	0	0	0	0	0
511	28.90	10.00	5.05	0	0	0	0	0	0	0
512	29.55	10.00	5.05	0	0	0	0	0	0	0
513	30.20	10.00	5.05	0	0	0	0	0	0	0
514	18.20	7.00	5.85	0	0	0	0	0	0	0
515	19.30	7.00	5.85	0	0	0	0	0	0	0
516	20.40	7.00	5.85	0	0	0	0	0	0	0
517	21.50	7.00	5.85	0	0	0	0	0	0	0
518	22.60	7.00	5.85	0	0	0	0	0	0	0
519	24.20	7.00	5.85	0	0	0	0	0	0	0
520	1.26	7.36	5.85	0	0	0	0	0	0	0
521	1.70	7.36	5.85	0	0	0	0	0	0	0
522	2.62	7.36	5.85	0	0	0	0	0	0	0
523	3.06	7.36	5.85	0	0	0	0	0	0	0
524	24.20	7.55	5.85	0	0	0	0	0	0	0
525	24.72	7.55	5.85	0	0	0	0	0	0	0
526	25.52	7.55	5.85	0	0	0	0	0	0	0
527	26.30	7.55	5.85	0	0	0	0	0	0	0
528	27.02	7.55	5.85	0	0	0	0	0	0	0
529	27.60	7.55	5.85	0	0	0	0	0	0	0
530	1.26	8.02	5.85	0	0	0	0	0	0	0
531	3.06	8.02	5.85	0	0	0	0	0	0	0
532	24.20	8.36	5.85	0	0	0	0	0	0	0
533	27.60	8.36	5.85	0	0	0	0	0	0	0
534	1.26	8.68	5.85	0	0	0	0	0	0	0
535	3.06	8.68	5.85	0	0	0	0	0	0	0
536	24.20	9.17	5.85	0	0	0	0	0	0	0
537	27.60	9.17	5.85	0	0	0	0	0	0	0
538	1.26	9.34	5.85	0	0	0	0	0	0	0
539	3.06	9.34	5.85	0	0	0	0	0	0	0
540	0.00	10.00	5.85	0	0	0	0	0	0	0
541	1.26	10.00	5.85	0	0	0	0	0	0	0
542	2.16	10.00	5.85	0	0	0	0	0	0	0
543	3.06	10.00	5.85	0	0	0	0	0	0	0
544	18.20	10.00	5.85	0	0	0	0	0	0	0
545	19.30	10.00	5.85	0	0	0	0	0	0	0
546	20.40	10.00	5.85	0	0	0	0	0	0	0
547	21.40	10.00	5.85	0	0	0	0	0	0	0
548	24.20	10.00	5.85	0	0	0	0	0	0	0
...										

	24.72	10.00	5.85	0	0	0	0	0	0	0
550	25.52	10.00	5.85	0	0	0	0	0	0	0
551	26.30	10.00	5.85	0	0	0	0	0	0	0
552	27.02	10.00	5.85	0	0	0	0	0	0	0
553	27.60	10.00	5.85	0	0	0	0	0	0	0
554	28.25	10.00	5.85	0	0	0	0	0	0	0
555	28.90	10.00	5.85	0	0	0	0	0	0	0
556	29.55	10.00	5.85	0	0	0	0	0	0	0
557	30.20	10.00	5.85	0	0	0	0	0	0	0
558	3.06	-0.00	6.90	0	0	0	0	0	0	0
559	4.70	-0.00	6.90	0	0	0	0	0	0	0
560	6.20	0.00	6.90	0	0	0	0	0	0	0
561	6.95	0.00	6.90	0	0	0	0	0	0	0
562	8.45	0.00	6.90	0	0	0	0	0	0	0
563	9.95	0.00	6.90	0	0	0	0	0	0	0
564	11.45	0.00	6.90	0	0	0	0	0	0	0
565	12.20	0.00	6.90	0	0	0	0	0	0	0
566	12.95	0.00	6.90	0	0	0	0	0	0	0
567	14.45	0.00	6.90	0	0	0	0	0	0	0
568	15.95	0.00	6.90	0	0	0	0	0	0	0
569	17.45	0.00	6.90	0	0	0	0	0	0	0
570	18.20	0.00	6.90	0	0	0	0	0	0	0
571	19.70	0.00	6.90	0	0	0	0	0	0	0
572	21.20	0.00	6.90	0	0	0	0	0	0	0
573	22.70	0.00	6.90	0	0	0	0	0	0	0
574	24.20	0.00	6.90	0	0	0	0	0	0	0
575	25.70	0.00	6.90	0	0	0	0	0	0	0
576	27.20	0.00	6.90	0	0	0	0	0	0	0
577	28.70	0.00	6.90	0	0	0	0	0	0	0
578	30.20	0.00	6.90	0	0	0	0	0	0	0
579	31.70	0.00	6.90	0	0	0	0	0	0	0
580	33.30	0.00	6.90	0	0	0	0	0	0	0
581	34.90	0.00	6.90	0	0	0	0	0	0	0
582	36.40	0.00	6.90	0	0	0	0	0	0	0
583	1.50	0.00	6.90	0	0	0	0	0	0	0
584	0.00	0.00	6.90	0	0	0	0	0	0	0
585	12.20	0.45	6.90	0	0	0	0	0	0	0
586	6.40	0.45	6.90	0	0	0	0	0	0	0
587	8.45	0.45	6.90	0	0	0	0	0	0	0
588	9.95	0.45	6.90	0	0	0	0	0	0	0
589	11.45	0.45	6.90	0	0	0	0	0	0	0
590	14.45	0.45	6.90	0	0	0	0	0	0	0
591	15.95	0.45	6.90	0	0	0	0	0	0	0
592	17.45	0.45	6.90	0	0	0	0	0	0	0
593	6.95	0.45	6.90	0	0	0	0	0	0	0
594	12.95	0.45	6.90	0	0	0	0	0	0	0
595	18.01	0.45	6.90	0	0	0	0	0	0	0
596	18.01	2.31	6.90	0	0	0	0	0	0	0
597	18.20	2.31	6.90	0	0	0	0	0	0	0
598	-0.00	2.31	6.90	0	0	0	0	0	0	0
599	4.63	2.31	6.90	0	0	0	0	0	0	0

	1.53	2.31	6.90	0	0	0	0	0	0	0
601	6.40	2.31	6.90	0	0	0	0	0	0	0
602	3.06	2.31	6.90	0	0	0	0	0	0	0
603	6.20	2.31	6.90	0	0	0	0	0	0	0
604	19.70	2.50	6.90	0	0	0	0	0	0	0
605	21.20	2.50	6.90	0	0	0	0	0	0	0
606	22.70	2.50	6.90	0	0	0	0	0	0	0
607	24.20	2.50	6.90	0	0	0	0	0	0	0
608	25.70	2.50	6.90	0	0	0	0	0	0	0
609	27.20	2.50	6.90	0	0	0	0	0	0	0
610	28.70	2.50	6.90	0	0	0	0	0	0	0
611	30.20	2.50	6.90	0	0	0	0	0	0	0
612	31.70	2.50	6.90	0	0	0	0	0	0	0
613	33.30	2.50	6.90	0	0	0	0	0	0	0
614	34.90	2.50	6.90	0	0	0	0	0	0	0
615	36.40	2.50	6.90	0	0	0	0	0	0	0
616	-0.00	3.87	6.90	0	0	0	0	0	0	0
617	1.53	3.87	6.90	0	0	0	0	0	0	0
618	3.06	3.87	6.90	0	0	0	0	0	0	0
619	4.63	3.87	6.90	0	0	0	0	0	0	0
620	6.20	3.87	6.90	0	0	0	0	0	0	0
621	6.40	4.73	6.90	0	0	0	0	0	0	0
622	6.95	4.73	6.90	0	0	0	0	0	0	0
623	8.45	4.73	6.90	0	0	0	0	0	0	0
624	9.95	4.73	6.90	0	0	0	0	0	0	0
625	11.45	4.73	6.90	0	0	0	0	0	0	0
626	12.20	4.73	6.90	0	0	0	0	0	0	0
627	12.95	4.73	6.90	0	0	0	0	0	0	0
628	14.45	4.73	6.90	0	0	0	0	0	0	0
629	15.95	4.73	6.90	0	0	0	0	0	0	0
630	17.45	4.73	6.90	0	0	0	0	0	0	0
631	18.00	4.73	6.90	0	0	0	0	0	0	0
632	0.00	5.00	6.90	0	0	0	0	0	0	0
633	1.26	5.00	6.90	0	0	0	0	0	0	0
634	3.06	5.00	6.90	0	0	0	0	0	0	0
635	4.63	5.00	6.90	0	0	0	0	0	0	0
636	6.20	5.00	6.90	0	0	0	0	0	0	0
637	6.95	5.00	6.90	0	0	0	0	0	0	0
638	8.45	5.00	6.90	0	0	0	0	0	0	0
639	9.95	5.00	6.90	0	0	0	0	0	0	0
640	11.45	5.00	6.90	0	0	0	0	0	0	0
641	12.20	5.00	6.90	0	0	0	0	0	0	0
642	12.95	5.00	6.90	0	0	0	0	0	0	0
643	14.45	5.00	6.90	0	0	0	0	0	0	0
644	15.95	5.00	6.90	0	0	0	0	0	0	0
645	17.45	5.00	6.90	0	0	0	0	0	0	0
646	18.20	5.00	6.90	0	0	0	0	0	0	0
647	19.70	5.00	6.90	0	0	0	0	0	0	0
648	21.20	5.00	6.90	0	0	0	0	0	0	0
649	22.70	5.00	6.90	0	0	0	0	0	0	0
650	24.20	5.00	6.90	0	0	0	0	0	0	0
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	25.70	5.00	6.90	0	0	0	0	0	0	0
652	27.20	5.00	6.90	0	0	0	0	0	0	0
653	28.70	5.00	6.90	0	0	0	0	0	0	0
654	30.20	5.00	6.90	0	0	0	0	0	0	0
655	31.80	5.00	6.90	0	0	0	0	0	0	0
656	33.30	5.00	6.90	0	0	0	0	0	0	0
657	34.90	5.00	6.90	0	0	0	0	0	0	0
658	36.40	5.00	6.90	0	0	0	0	0	0	0
659	6.20	7.00	6.90	0	0	0	0	0	0	0
660	6.95	7.00	6.90	0	0	0	0	0	0	0
661	8.45	7.00	6.90	0	0	0	0	0	0	0
662	9.95	7.00	6.90	0	0	0	0	0	0	0
663	11.45	7.00	6.90	0	0	0	0	0	0	0
664	12.20	7.00	6.90	0	0	0	0	0	0	0
665	12.95	7.00	6.90	0	0	0	0	0	0	0
666	14.45	7.00	6.90	0	0	0	0	0	0	0
667	15.95	7.00	6.90	0	0	0	0	0	0	0
668	17.45	7.00	6.90	0	0	0	0	0	0	0
669	18.20	7.00	6.90	0	0	0	0	0	0	0
670	19.30	7.00	6.90	0	0	0	0	0	0	0
671	20.40	7.00	6.90	0	0	0	0	0	0	0
672	21.50	7.00	6.90	0	0	0	0	0	0	0
673	22.60	7.00	6.90	0	0	0	0	0	0	0
674	24.20	7.00	6.90	0	0	0	0	0	0	0
675	25.52	7.00	6.90	0	0	0	0	0	0	0
676	26.30	7.00	6.90	0	0	0	0	0	0	0
677	27.60	7.00	6.90	0	0	0	0	0	0	0
678	28.90	7.00	6.90	0	0	0	0	0	0	0
679	30.20	7.00	6.90	0	0	0	0	0	0	0
680	0.00	7.36	6.90	0	0	0	0	0	0	0
681	1.26	7.36	6.90	0	0	0	0	0	0	0
682	1.70	7.36	6.90	0	0	0	0	0	0	0
683	2.62	7.36	6.90	0	0	0	0	0	0	0
684	3.06	7.36	6.90	0	0	0	0	0	0	0
685	4.11	7.36	6.90	0	0	0	0	0	0	0
686	5.16	7.36	6.90	0	0	0	0	0	0	0
687	31.80	7.50	6.90	0	0	0	0	0	0	0
688	33.30	7.50	6.90	0	0	0	0	0	0	0
689	34.90	7.50	6.90	0	0	0	0	0	0	0
690	36.40	7.50	6.90	0	0	0	0	0	0	0
691	24.20	7.55	6.90	0	0	0	0	0	0	0
692	24.72	7.55	6.90	0	0	0	0	0	0	0
693	25.52	7.55	6.90	0	0	0	0	0	0	0
694	26.30	7.55	6.90	0	0	0	0	0	0	0
695	27.02	7.55	6.90	0	0	0	0	0	0	0
696	27.60	7.55	6.90	0	0	0	0	0	0	0
697	28.90	7.55	6.90	0	0	0	0	0	0	0
698	30.20	7.55	6.90	0	0	0	0	0	0	0
699	1.26	8.02	6.90	0	0	0	0	0	0	0
700	3.06	8.02	6.90	0	0	0	0	0	0	0
701	30.20	8.34	6.90	0	0	0	0	0	0	0

	24.20	8.36	6.90	0	0	0	0	0	0	0
703	27.60	8.36	6.90	0	0	0	0	0	0	0
704	1.26	8.68	6.90	0	0	0	0	0	0	0
705	3.06	8.68	6.90	0	0	0	0	0	0	0
706	4.11	8.68	6.90	0	0	0	0	0	0	0
707	5.15	8.68	6.90	0	0	0	0	0	0	0
708	6.20	8.68	6.90	0	0	0	0	0	0	0
709	30.20	9.17	6.90	0	0	0	0	0	0	0
710	24.20	9.17	6.90	0	0	0	0	0	0	0
711	27.60	9.17	6.90	0	0	0	0	0	0	0
712	1.26	9.34	6.90	0	0	0	0	0	0	0
713	3.06	9.34	6.90	0	0	0	0	0	0	0
714	14.45	10.00	6.90	0	0	0	0	0	0	0
715	0.00	10.00	6.90	0	0	0	0	0	0	0
716	1.26	10.00	6.90	0	0	0	0	0	0	0
717	2.16	10.00	6.90	0	0	0	0	0	0	0
718	3.06	10.00	6.90	0	0	0	0	0	0	0
719	4.11	10.00	6.90	0	0	0	0	0	0	0
720	5.15	10.00	6.90	0	0	0	0	0	0	0
721	6.20	10.00	6.90	0	0	0	0	0	0	0
722	6.95	10.00	6.90	0	0	0	0	0	0	0
723	8.45	10.00	6.90	0	0	0	0	0	0	0
724	9.95	10.00	6.90	0	0	0	0	0	0	0
725	11.45	10.00	6.90	0	0	0	0	0	0	0
726	12.20	10.00	6.90	0	0	0	0	0	0	0
727	12.95	10.00	6.90	0	0	0	0	0	0	0
728	15.95	10.00	6.90	0	0	0	0	0	0	0
729	17.45	10.00	6.90	0	0	0	0	0	0	0
730	18.20	10.00	6.90	0	0	0	0	0	0	0
731	19.30	10.00	6.90	0	0	0	0	0	0	0
732	20.40	10.00	6.90	0	0	0	0	0	0	0
733	21.40	10.00	6.90	0	0	0	0	0	0	0
734	22.60	10.00	6.90	0	0	0	0	0	0	0
735	24.20	10.00	6.90	0	0	0	0	0	0	0
736	24.72	10.00	6.90	0	0	0	0	0	0	0
737	25.52	10.00	6.90	0	0	0	0	0	0	0
738	26.30	10.00	6.90	0	0	0	0	0	0	0
739	27.02	10.00	6.90	0	0	0	0	0	0	0
740	27.60	10.00	6.90	0	0	0	0	0	0	0
741	28.25	10.00	6.90	0	0	0	0	0	0	0
742	28.90	10.00	6.90	0	0	0	0	0	0	0
743	29.55	10.00	6.90	0	0	0	0	0	0	0
744	30.20	10.00	6.90	0	0	0	0	0	0	0
745	31.70	10.00	6.90	0	0	0	0	0	0	0
746	33.30	10.00	6.90	0	0	0	0	0	0	0
747	34.90	10.00	6.90	0	0	0	0	0	0	0
748	36.40	10.00	6.90	0	0	0	0	0	0	0
749	18.20	7.00	7.70	0	0	0	0	0	0	0
750	19.30	7.00	7.70	0	0	0	0	0	0	0
751	20.40	7.00	7.70	0	0	0	0	0	0	0
752	21.50	7.00	7.70	0	0	0	0	0	0	0

	22.60	7.00	7.70	0	0	0	0	0	0	0
754	24.20	7.00	7.70	0	0	0	0	0	0	0
755	1.26	7.36	7.70	0	0	0	0	0	0	0
756	1.70	7.36	7.70	0	0	0	0	0	0	0
757	2.62	7.36	7.70	0	0	0	0	0	0	0
758	3.06	7.36	7.70	0	0	0	0	0	0	0
759	24.20	7.55	7.70	0	0	0	0	0	0	0
760	3.06	8.02	7.70	0	0	0	0	0	0	0
761	24.20	8.36	7.70	0	0	0	0	0	0	0
762	3.06	8.68	7.70	0	0	0	0	0	0	0
763	24.20	9.17	7.70	0	0	0	0	0	0	0
764	3.06	9.34	7.70	0	0	0	0	0	0	0
765	0.00	10.00	7.70	0	0	0	0	0	0	0
766	1.26	10.00	7.70	0	0	0	0	0	0	0
767	2.16	10.00	7.70	0	0	0	0	0	0	0
768	3.06	10.00	7.70	0	0	0	0	0	0	0
769	4.11	10.00	7.70	0	0	0	0	0	0	0
770	5.15	10.00	7.70	0	0	0	0	0	0	0
771	6.20	10.00	7.70	0	0	0	0	0	0	0
772	18.20	10.00	7.70	0	0	0	0	0	0	0
773	19.30	10.00	7.70	0	0	0	0	0	0	0
774	20.40	10.00	7.70	0	0	0	0	0	0	0
775	21.40	10.00	7.70	0	0	0	0	0	0	0
776	22.60	10.00	7.70	0	0	0	0	0	0	0
777	24.20	10.00	7.70	0	0	0	0	0	0	0
778	24.72	10.00	7.70	0	0	0	0	0	0	0
779	25.52	10.00	7.70	0	0	0	0	0	0	0
780	26.30	10.00	7.70	0	0	0	0	0	0	0
781	27.02	10.00	7.70	0	0	0	0	0	0	0
782	27.60	10.00	7.70	0	0	0	0	0	0	0
783	28.25	10.00	7.70	0	0	0	0	0	0	0
784	28.90	10.00	7.70	0	0	0	0	0	0	0
785	29.55	10.00	7.70	0	0	0	0	0	0	0
786	30.20	10.00	7.70	0	0	0	0	0	0	0
787	18.20	7.00	8.50	0	0	0	0	0	0	0
788	19.30	7.00	8.50	0	0	0	0	0	0	0
789	20.40	7.00	8.50	0	0	0	0	0	0	0
790	21.50	7.00	8.50	0	0	0	0	0	0	0
791	22.60	7.00	8.50	0	0	0	0	0	0	0
792	24.20	7.00	8.50	0	0	0	0	0	0	0
793	1.26	7.36	8.50	0	0	0	0	0	0	0
794	1.70	7.36	8.50	0	0	0	0	0	0	0
795	2.62	7.36	8.50	0	0	0	0	0	0	0
796	3.06	7.36	8.50	0	0	0	0	0	0	0
797	24.20	7.55	8.50	0	0	0	0	0	0	0
798	3.06	8.02	8.50	0	0	0	0	0	0	0
799	24.20	8.36	8.50	0	0	0	0	0	0	0
800	3.06	8.68	8.50	0	0	0	0	0	0	0
801	24.20	9.17	8.50	0	0	0	0	0	0	0
802	3.06	9.34	8.50	0	0	0	0	0	0	0
803	0.00	10.00	8.50	0	0	0	0	0	0	0
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	1.26	10.00	8.50	0	0	0	0	0	0	0
805	2.16	10.00	8.50	0	0	0	0	0	0	0
806	3.06	10.00	8.50	0	0	0	0	0	0	0
807	4.11	10.00	8.50	0	0	0	0	0	0	0
808	5.15	10.00	8.50	0	0	0	0	0	0	0
809	6.20	10.00	8.50	0	0	0	0	0	0	0
810	18.20	10.00	8.50	0	0	0	0	0	0	0
811	19.30	10.00	8.50	0	0	0	0	0	0	0
812	20.40	10.00	8.50	0	0	0	0	0	0	0
813	21.40	10.00	8.50	0	0	0	0	0	0	0
814	22.60	10.00	8.50	0	0	0	0	0	0	0
815	24.20	10.00	8.50	0	0	0	0	0	0	0
816	24.72	10.00	8.50	0	0	0	0	0	0	0
817	25.52	10.00	8.50	0	0	0	0	0	0	0
818	26.30	10.00	8.50	0	0	0	0	0	0	0
819	27.02	10.00	8.50	0	0	0	0	0	0	0
820	27.60	10.00	8.50	0	0	0	0	0	0	0
821	28.25	10.00	8.50	0	0	0	0	0	0	0
822	28.90	10.00	8.50	0	0	0	0	0	0	0
823	29.55	10.00	8.50	0	0	0	0	0	0	0
824	30.20	10.00	8.50	0	0	0	0	0	0	0
825	18.20	7.00	9.30	0	0	0	0	0	0	0
826	19.30	7.00	9.30	0	0	0	0	0	0	0
827	20.40	7.00	9.30	0	0	0	0	0	0	0
828	21.50	7.00	9.30	0	0	0	0	0	0	0
829	22.60	7.00	9.30	0	0	0	0	0	0	0
830	24.20	7.00	9.30	0	0	0	0	0	0	0
831	1.26	7.36	9.30	0	0	0	0	0	0	0
832	1.70	7.36	9.30	0	0	0	0	0	0	0
833	2.62	7.36	9.30	0	0	0	0	0	0	0
834	3.06	7.36	9.30	0	0	0	0	0	0	0
835	24.20	7.55	9.30	0	0	0	0	0	0	0
836	3.06	8.02	9.30	0	0	0	0	0	0	0
837	24.20	8.36	9.30	0	0	0	0	0	0	0
838	3.06	8.68	9.30	0	0	0	0	0	0	0
839	24.20	9.17	9.30	0	0	0	0	0	0	0
840	3.06	9.34	9.30	0	0	0	0	0	0	0
841	0.00	10.00	9.30	0	0	0	0	0	0	0
842	1.26	10.00	9.30	0	0	0	0	0	0	0
843	2.16	10.00	9.30	0	0	0	0	0	0	0
844	3.06	10.00	9.30	0	0	0	0	0	0	0
845	18.20	10.00	9.30	0	0	0	0	0	0	0
846	19.30	10.00	9.30	0	0	0	0	0	0	0
847	20.40	10.00	9.30	0	0	0	0	0	0	0
848	21.40	10.00	9.30	0	0	0	0	0	0	0
849	24.20	10.00	9.30	0	0	0	0	0	0	0
850	24.72	10.00	9.30	0	0	0	0	0	0	0
851	25.52	10.00	9.30	0	0	0	0	0	0	0
852	26.30	10.00	9.30	0	0	0	0	0	0	0
853	27.02	10.00	9.30	0	0	0	0	0	0	0
854	27.60	10.00	9.30	0	0	0	0	0	0	0

	28.25	10.00	9.30	0	0	0	0	0	0	0
856	28.90	10.00	9.30	0	0	0	0	0	0	0
857	29.55	10.00	9.30	0	0	0	0	0	0	0
858	30.20	10.00	9.30	0	0	0	0	0	0	0
859	2.66	-0.00	10.35	0	0	0	0	0	0	0
860	3.91	0.00	10.35	0	0	0	0	0	0	0
861	5.06	0.00	10.35	0	0	0	0	0	0	0
862	6.20	0.00	10.35	0	0	0	0	0	0	0
863	7.70	0.00	10.35	0	0	0	0	0	0	0
864	9.20	0.00	10.35	0	0	0	0	0	0	0
865	10.70	0.00	10.35	0	0	0	0	0	0	0
866	12.20	0.00	10.35	0	0	0	0	0	0	0
867	13.70	0.00	10.35	0	0	0	0	0	0	0
868	15.20	0.00	10.35	0	0	0	0	0	0	0
869	16.70	0.00	10.35	0	0	0	0	0	0	0
870	18.20	0.00	10.35	0	0	0	0	0	0	0
871	19.70	0.00	10.35	0	0	0	0	0	0	0
872	21.20	0.00	10.35	0	0	0	0	0	0	0
873	22.70	0.00	10.35	0	0	0	0	0	0	0
874	24.20	0.00	10.35	0	0	0	0	0	0	0
875	25.70	0.00	10.35	0	0	0	0	0	0	0
876	27.20	0.00	10.35	0	0	0	0	0	0	0
877	28.70	0.00	10.35	0	0	0	0	0	0	0
878	30.20	0.00	10.35	0	0	0	0	0	0	0
879	31.75	0.00	10.35	0	0	0	0	0	0	0
880	33.30	0.00	10.35	0	0	0	0	0	0	0
881	34.85	0.00	10.35	0	0	0	0	0	0	0
882	36.40	0.00	10.35	0	0	0	0	0	0	0
883	1.26	0.00	10.35	0	0	0	0	0	0	0
884	0.00	0.00	10.35	0	0	0	0	0	0	0
885	-0.00	1.67	10.35	0	0	0	0	0	0	0
886	2.66	1.67	10.35	0	0	0	0	0	0	0
887	3.91	1.67	10.35	0	0	0	0	0	0	0
888	5.06	1.67	10.35	0	0	0	0	0	0	0
889	6.20	1.67	10.35	0	0	0	0	0	0	0
890	7.70	1.67	10.35	0	0	0	0	0	0	0
891	10.70	1.67	10.35	0	0	0	0	0	0	0
892	12.20	1.67	10.35	0	0	0	0	0	0	0
893	13.70	1.67	10.35	0	0	0	0	0	0	0
894	16.70	1.67	10.35	0	0	0	0	0	0	0
895	18.20	1.67	10.35	0	0	0	0	0	0	0
896	19.70	1.67	10.35	0	0	0	0	0	0	0
897	21.20	1.67	10.35	0	0	0	0	0	0	0
898	22.70	1.67	10.35	0	0	0	0	0	0	0
899	24.20	1.67	10.35	0	0	0	0	0	0	0
900	25.70	1.67	10.35	0	0	0	0	0	0	0
901	27.20	1.67	10.35	0	0	0	0	0	0	0
902	28.70	1.67	10.35	0	0	0	0	0	0	0
903	30.20	1.67	10.35	0	0	0	0	0	0	0
904	31.75	1.67	10.35	0	0	0	0	0	0	0
905	33.30	1.67	10.35	0	0	0	0	0	0	0

	34.85	1.67	10.35	0	0	0	0	0	0	0
907	36.40	1.67	10.35	0	0	0	0	0	0	0
908	1.26	1.67	10.35	0	0	0	0	0	0	0
909	9.20	1.67	10.35	0	0	0	0	0	0	0
910	15.20	1.67	10.35	0	0	0	0	0	0	0
911	3.91	3.33	10.35	0	0	0	0	0	0	0
912	-0.00	3.33	10.35	0	0	0	0	0	0	0
913	1.26	3.33	10.35	0	0	0	0	0	0	0
914	2.66	3.33	10.35	0	0	0	0	0	0	0
915	6.20	3.33	10.35	0	0	0	0	0	0	0
916	7.70	3.33	10.35	0	0	0	0	0	0	0
917	10.70	3.33	10.35	0	0	0	0	0	0	0
918	12.20	3.33	10.35	0	0	0	0	0	0	0
919	13.70	3.33	10.35	0	0	0	0	0	0	0
920	16.70	3.33	10.35	0	0	0	0	0	0	0
921	18.20	3.33	10.35	0	0	0	0	0	0	0
922	19.70	3.33	10.35	0	0	0	0	0	0	0
923	21.20	3.33	10.35	0	0	0	0	0	0	0
924	22.70	3.33	10.35	0	0	0	0	0	0	0
925	24.20	3.33	10.35	0	0	0	0	0	0	0
926	25.70	3.33	10.35	0	0	0	0	0	0	0
927	27.20	3.33	10.35	0	0	0	0	0	0	0
928	28.70	3.33	10.35	0	0	0	0	0	0	0
929	30.20	3.33	10.35	0	0	0	0	0	0	0
930	31.75	3.33	10.35	0	0	0	0	0	0	0
931	33.30	3.33	10.35	0	0	0	0	0	0	0
932	34.85	3.33	10.35	0	0	0	0	0	0	0
933	36.40	3.33	10.35	0	0	0	0	0	0	0
934	9.20	3.33	10.35	0	0	0	0	0	0	0
935	15.20	3.33	10.35	0	0	0	0	0	0	0
936	5.06	3.33	10.35	0	0	0	0	0	0	0
937	0.00	5.00	10.35	0	0	0	0	0	0	0
938	1.26	5.00	10.35	0	0	0	0	0	0	0
939	2.66	5.00	10.35	0	0	0	0	0	0	0
940	3.91	5.00	10.35	0	0	0	0	0	0	0
941	6.20	5.00	10.35	0	0	0	0	0	0	0
942	7.70	5.00	10.35	0	0	0	0	0	0	0
943	9.20	5.00	10.35	0	0	0	0	0	0	0
944	10.70	5.00	10.35	0	0	0	0	0	0	0
945	12.20	5.00	10.35	0	0	0	0	0	0	0
946	13.70	5.00	10.35	0	0	0	0	0	0	0
947	15.20	5.00	10.35	0	0	0	0	0	0	0
948	16.70	5.00	10.35	0	0	0	0	0	0	0
949	18.20	5.00	10.35	0	0	0	0	0	0	0
950	19.70	5.00	10.35	0	0	0	0	0	0	0
951	21.20	5.00	10.35	0	0	0	0	0	0	0
952	22.60	5.00	10.35	0	0	0	0	0	0	0
953	24.20	5.00	10.35	0	0	0	0	0	0	0
954	25.70	5.00	10.35	0	0	0	0	0	0	0
955	27.20	5.00	10.35	0	0	0	0	0	0	0
956	28.70	5.00	10.35	0	0	0	0	0	0	0

	30.20	5.00	10.35	0	0	0	0	0	0	0
958	31.75	5.00	10.35	0	0	0	0	0	0	0
959	33.30	5.00	10.35	0	0	0	0	0	0	0
960	34.85	5.00	10.35	0	0	0	0	0	0	0
961	36.40	5.00	10.35	0	0	0	0	0	0	0
962	5.06	5.00	10.35	0	0	0	0	0	0	0
963	6.20	6.67	10.35	0	0	0	0	0	0	0
964	7.70	6.67	10.35	0	0	0	0	0	0	0
965	10.70	6.67	10.35	0	0	0	0	0	0	0
966	12.20	6.67	10.35	0	0	0	0	0	0	0
967	13.70	6.67	10.35	0	0	0	0	0	0	0
968	16.70	6.67	10.35	0	0	0	0	0	0	0
969	9.20	6.67	10.35	0	0	0	0	0	0	0
970	15.20	6.67	10.35	0	0	0	0	0	0	0
971	31.75	6.67	10.35	0	0	0	0	0	0	0
972	33.30	6.67	10.35	0	0	0	0	0	0	0
973	34.85	6.67	10.35	0	0	0	0	0	0	0
974	36.40	6.67	10.35	0	0	0	0	0	0	0
975	18.20	7.00	10.35	0	0	0	0	0	0	0
976	19.30	7.00	10.35	0	0	0	0	0	0	0
977	20.40	7.00	10.35	0	0	0	0	0	0	0
978	21.50	7.00	10.35	0	0	0	0	0	0	0
979	22.60	7.00	10.35	0	0	0	0	0	0	0
980	24.20	7.00	10.35	0	0	0	0	0	0	0
981	25.52	7.00	10.35	0	0	0	0	0	0	0
982	26.30	7.00	10.35	0	0	0	0	0	0	0
983	27.60	7.00	10.35	0	0	0	0	0	0	0
984	28.90	7.00	10.35	0	0	0	0	0	0	0
985	30.20	7.00	10.35	0	0	0	0	0	0	0
986	0.00	7.36	10.35	0	0	0	0	0	0	0
987	1.26	7.36	10.35	0	0	0	0	0	0	0
988	1.70	7.36	10.35	0	0	0	0	0	0	0
989	2.62	7.36	10.35	0	0	0	0	0	0	0
990	3.06	7.36	10.35	0	0	0	0	0	0	0
991	4.11	7.36	10.35	0	0	0	0	0	0	0
992	5.16	7.36	10.35	0	0	0	0	0	0	0
993	22.60	7.51	10.35	0	0	0	0	0	0	0
994	24.20	7.55	10.35	0	0	0	0	0	0	0
995	24.72	7.55	10.35	0	0	0	0	0	0	0
996	25.52	7.55	10.35	0	0	0	0	0	0	0
997	26.30	7.55	10.35	0	0	0	0	0	0	0
998	27.02	7.55	10.35	0	0	0	0	0	0	0
999	27.60	7.55	10.35	0	0	0	0	0	0	0
1000	28.90	7.55	10.35	0	0	0	0	0	0	0
1001	30.20	7.55	10.35	0	0	0	0	0	0	0
1002	1.26	8.02	10.35	0	0	0	0	0	0	0
1003	3.06	8.02	10.35	0	0	0	0	0	0	0
1004	6.20	8.33	10.35	0	0	0	0	0	0	0
1005	7.70	8.33	10.35	0	0	0	0	0	0	0
1006	10.70	8.33	10.35	0	0	0	0	0	0	0
1007	12.20	8.33	10.35	0	0	0	0	0	0	0

	13.70	8.33	10.35	0	0	0	0	0	0	0
1009	16.70	8.33	10.35	0	0	0	0	0	0	0
1010	18.20	8.33	10.35	0	0	0	0	0	0	0
1011	9.20	8.33	10.35	0	0	0	0	0	0	0
1012	15.20	8.33	10.35	0	0	0	0	0	0	0
1013	22.60	8.34	10.35	0	0	0	0	0	0	0
1014	30.20	8.34	10.35	0	0	0	0	0	0	0
1015	31.75	8.34	10.35	0	0	0	0	0	0	0
1016	33.30	8.34	10.35	0	0	0	0	0	0	0
1017	34.85	8.34	10.35	0	0	0	0	0	0	0
1018	36.40	8.34	10.35	0	0	0	0	0	0	0
1019	24.20	8.36	10.35	0	0	0	0	0	0	0
1020	27.60	8.36	10.35	0	0	0	0	0	0	0
1021	1.26	8.68	10.35	0	0	0	0	0	0	0
1022	3.06	8.68	10.35	0	0	0	0	0	0	0
1023	4.11	8.68	10.35	0	0	0	0	0	0	0
1024	5.15	8.68	10.35	0	0	0	0	0	0	0
1025	22.60	9.17	10.35	0	0	0	0	0	0	0
1026	30.20	9.17	10.35	0	0	0	0	0	0	0
1027	24.20	9.17	10.35	0	0	0	0	0	0	0
1028	27.60	9.17	10.35	0	0	0	0	0	0	0
1029	1.26	9.34	10.35	0	0	0	0	0	0	0
1030	3.06	9.34	10.35	0	0	0	0	0	0	0
1031	0.00	10.00	10.35	0	0	0	0	0	0	0
1032	1.26	10.00	10.35	0	0	0	0	0	0	0
1033	2.16	10.00	10.35	0	0	0	0	0	0	0
1034	3.06	10.00	10.35	0	0	0	0	0	0	0
1035	4.11	10.00	10.35	0	0	0	0	0	0	0
1036	5.15	10.00	10.35	0	0	0	0	0	0	0
1037	6.20	10.00	10.35	0	0	0	0	0	0	0
1038	7.70	10.00	10.35	0	0	0	0	0	0	0
1039	9.20	10.00	10.35	0	0	0	0	0	0	0
1040	10.70	10.00	10.35	0	0	0	0	0	0	0
1041	12.20	10.00	10.35	0	0	0	0	0	0	0
1042	13.70	10.00	10.35	0	0	0	0	0	0	0
1043	15.20	10.00	10.35	0	0	0	0	0	0	0
1044	16.70	10.00	10.35	0	0	0	0	0	0	0
1045	18.20	10.00	10.35	0	0	0	0	0	0	0
1046	19.30	10.00	10.35	0	0	0	0	0	0	0
1047	20.40	10.00	10.35	0	0	0	0	0	0	0
1048	21.40	10.00	10.35	0	0	0	0	0	0	0
1049	22.60	10.00	10.35	0	0	0	0	0	0	0
1050	24.20	10.00	10.35	0	0	0	0	0	0	0
1051	24.72	10.00	10.35	0	0	0	0	0	0	0
1052	25.52	10.00	10.35	0	0	0	0	0	0	0
1053	26.30	10.00	10.35	0	0	0	0	0	0	0
1054	27.02	10.00	10.35	0	0	0	0	0	0	0
1055	27.60	10.00	10.35	0	0	0	0	0	0	0
1056	28.25	10.00	10.35	0	0	0	0	0	0	0
1057	28.90	10.00	10.35	0	0	0	0	0	0	0
1058	29.55	10.00	10.35	0	0	0	0	0	0	0

	30.20	10.00	10.35	0	0	0	0	0	0	0
1060	31.75	10.00	10.35	0	0	0	0	0	0	0
1061	33.30	10.00	10.35	0	0	0	0	0	0	0
1062	34.85	10.00	10.35	0	0	0	0	0	0	0
1063	36.40	10.00	10.35	0	0	0	0	0	0	0
10000	212.20	0.45	3.45	1	1	1	1	1	1	0
10001	-182.02	0.45	3.45	1	1	1	1	1	1	0
10002	-182.02	2.31	3.45	1	1	1	1	1	1	0
10003	17.97	-195.83	3.45	1	1	1	1	1	1	0
10004	17.45	-195.83	3.45	1	1	1	1	1	1	0
10005	16.65	-195.83	3.45	1	1	1	1	1	1	0
10006	14.45	-195.83	3.45	1	1	1	1	1	1	0
10007	12.95	-195.83	3.45	1	1	1	1	1	1	0
10008	12.20	-195.83	3.45	1	1	1	1	1	1	0
10009	11.45	-195.83	3.45	1	1	1	1	1	1	0
10010	9.95	-195.83	3.45	1	1	1	1	1	1	0
10011	7.75	-195.83	3.45	1	1	1	1	1	1	0
10012	6.95	-195.83	3.45	1	1	1	1	1	1	0
10013	206.43	4.17	3.45	1	1	1	1	1	1	0
10014	206.43	2.31	3.45	1	1	1	1	1	1	0
10015	6.95	200.45	3.45	1	1	1	1	1	1	0
10016	7.75	200.45	3.45	1	1	1	1	1	1	0
10017	9.95	200.45	3.45	1	1	1	1	1	1	0
10018	11.45	200.45	3.45	1	1	1	1	1	1	0
10019	12.20	200.45	3.45	1	1	1	1	1	1	0
10020	12.95	200.45	3.45	1	1	1	1	1	1	0
10021	14.45	200.45	3.45	1	1	1	1	1	1	0
10022	16.65	200.45	3.45	1	1	1	1	1	1	0
10023	17.45	200.45	3.45	1	1	1	1	1	1	0
10024	17.97	200.45	3.45	1	1	1	1	1	1	0
10025	12.20	200.00	6.90	1	1	1	1	1	1	0
10026	1.26	0.00	210.35	1	1	1	1	1	1	0
10027	2.66	-0.00	210.35	1	1	1	1	1	1	0
10028	3.91	0.00	210.35	1	1	1	1	1	1	0
10029	6.10	5.00	210.35	1	1	1	1	1	1	0
10030	4.86	5.00	210.35	1	1	1	1	1	1	0
10031	3.51	5.00	210.35	1	1	1	1	1	1	0
10032	3.81	5.00	210.35	1	1	1	1	1	1	0
10033	6.20	7.00	203.45	1	1	1	1	1	1	0
10034	6.20	0.00	203.45	1	1	1	1	1	1	0
10035	18.20	0.00	203.45	1	1	1	1	1	1	0
10036	12.20	205.00	3.45	1	1	1	1	1	1	0
10037	28.90	7.55	210.35	1	1	1	1	1	1	0
10038	30.20	7.55	210.35	1	1	1	1	1	1	0
10039	30.20	9.17	210.35	1	1	1	1	1	1	0
10040	30.20	8.34	210.35	1	1	1	1	1	1	0
10041	30.20	7.55	210.35	1	1	1	1	1	1	0
10042	30.20	7.00	210.35	1	1	1	1	1	1	0
10043	26.30	10.00	210.35	1	1	1	1	1	1	0
10044	27.02	10.00	210.35	1	1	1	1	1	1	0
10045	28.25	10.00	210.35	1	1	1	1	1	1	0

	29.55	10.00	210.35	1	1	1	1	1	1	0
10047	30.20	10.00	210.35	1	1	1	1	1	1	0
10048	3.06	10.00	210.35	1	1	1	1	1	1	0
10049	4.11	10.00	210.35	1	1	1	1	1	1	0
10050	5.15	10.00	210.35	1	1	1	1	1	1	0
10051	6.20	10.00	210.35	1	1	1	1	1	1	0
10052	6.20	8.33	210.35	1	1	1	1	1	1	0
10053	6.20	6.67	210.35	1	1	1	1	1	1	0
10054	6.20	5.00	210.35	1	1	1	1	1	1	0
10055	24.20	5.00	210.35	1	1	1	1	1	1	0
10056	33.30	5.00	210.35	1	1	1	1	1	1	0
10057	16.20	5.00	210.35	1	1	1	1	1	1	0
10058	1.26	5.00	210.35	1	1	1	1	1	1	0
10059	1.26	7.36	210.35	1	1	1	1	1	1	0
10060	33.30	10.00	210.35	1	1	1	1	1	1	0
10061	19.30	10.00	210.35	1	1	1	1	1	1	0
10062	20.40	10.00	210.35	1	1	1	1	1	1	0
10063	21.40	10.00	210.35	1	1	1	1	1	1	0
10064	10.20	10.00	210.35	1	1	1	1	1	1	0
10065	36.40	210.00	6.90	1	1	1	1	1	1	0
10066	6.20	205.00	6.90	1	1	1	1	1	1	0
10067	6.20	210.00	6.90	1	1	1	1	1	1	0
10068	18.20	210.00	6.90	1	1	1	1	1	1	0
10069	18.20	207.00	6.90	1	1	1	1	1	1	0
10070	18.20	205.00	6.90	1	1	1	1	1	1	0
10071	24.20	205.00	6.90	1	1	1	1	1	1	0
10072	24.20	210.00	6.90	1	1	1	1	1	1	0
10073	30.20	210.00	6.90	1	1	1	1	1	1	0
10074	30.20	207.00	6.90	1	1	1	1	1	1	0
10075	30.20	205.00	6.90	1	1	1	1	1	1	0
10076	36.40	205.00	6.90	1	1	1	1	1	1	0
10077	36.40	200.00	6.90	1	1	1	1	1	1	0
10078	30.20	200.00	6.90	1	1	1	1	1	1	0
10079	24.20	200.00	6.90	1	1	1	1	1	1	0
10080	18.20	200.00	6.90	1	1	1	1	1	1	0
10081	6.20	200.00	6.90	1	1	1	1	1	1	0
10082	6.20	200.00	3.45	1	1	1	1	1	1	0
10083	18.20	200.00	3.45	1	1	1	1	1	1	0
10084	24.20	200.00	3.45	1	1	1	1	1	1	0
10085	30.20	200.00	3.45	1	1	1	1	1	1	0
10086	36.40	200.00	3.45	1	1	1	1	1	1	0
10087	6.20	205.00	3.45	1	1	1	1	1	1	0
10088	18.20	205.00	3.45	1	1	1	1	1	1	0
10089	24.20	205.00	3.45	1	1	1	1	1	1	0
10090	30.20	205.00	3.45	1	1	1	1	1	1	0
10091	36.40	205.00	3.45	1	1	1	1	1	1	0
10092	30.20	207.00	3.45	1	1	1	1	1	1	0
10093	6.20	210.00	3.45	1	1	1	1	1	1	0
10094	36.40	210.00	3.45	1	1	1	1	1	1	0
10095	18.20	207.00	3.45	1	1	1	1	1	1	0
10096	18.20	207.00	3.45	1	1	1	1	1	1	0

	18.20	210.00	3.45	1	1	1	1	1	1	0
10098	18.20	210.00	3.45	1	1	1	1	1	1	0
10099	24.20	210.00	3.45	1	1	1	1	1	1	0
10100	24.20	210.00	3.45	1	1	1	1	1	1	0
10101	30.20	210.00	3.45	1	1	1	1	1	1	0
10102	30.20	210.00	3.45	1	1	1	1	1	1	0
10103	18.20	207.00	3.45	1	1	1	1	1	1	0
10104	18.20	207.00	3.45	1	1	1	1	1	1	0
10105	18.20	210.00	3.45	1	1	1	1	1	1	0
10106	18.20	210.00	3.45	1	1	1	1	1	1	0
10107	24.20	210.00	3.45	1	1	1	1	1	1	0
10108	24.20	210.00	3.45	1	1	1	1	1	1	0
10109	30.20	210.00	3.45	1	1	1	1	1	1	0
10110	30.20	210.00	3.45	1	1	1	1	1	1	0
10111	0.00	200.00	0.00	1	1	1	1	1	1	0
10112	6.20	200.00	0.00	1	1	1	1	1	1	0
10113	18.20	200.00	0.00	1	1	1	1	1	1	0
10114	24.20	200.00	0.00	1	1	1	1	1	1	0
10115	30.20	200.00	0.00	1	1	1	1	1	1	0
10116	36.40	200.00	0.00	1	1	1	1	1	1	0
10117	36.40	205.00	0.00	1	1	1	1	1	1	0
10118	30.20	205.00	0.00	1	1	1	1	1	1	0
10119	24.20	205.00	0.00	1	1	1	1	1	1	0
10120	18.20	205.00	0.00	1	1	1	1	1	1	0
10121	6.20	205.00	0.00	1	1	1	1	1	1	0
10122	6.20	207.00	0.00	1	1	1	1	1	1	0
10123	18.20	207.00	0.00	1	1	1	1	1	1	0
10124	30.20	207.00	0.00	1	1	1	1	1	1	0
10125	36.40	210.00	0.00	1	1	1	1	1	1	0
10126	30.20	210.00	0.00	1	1	1	1	1	1	0
10127	24.20	210.00	0.00	1	1	1	1	1	1	0
10128	18.20	210.00	0.00	1	1	1	1	1	1	0
10129	6.20	210.00	0.00	1	1	1	1	1	1	0
10130	27.60	9.17	210.35	1	1	1	1	1	1	0
10131	27.60	8.36	210.35	1	1	1	1	1	1	0
10132	27.60	7.55	210.35	1	1	1	1	1	1	0
10133	24.20	9.17	210.35	1	1	1	1	1	1	0
10134	24.20	8.36	210.35	1	1	1	1	1	1	0
10135	24.20	7.55	210.35	1	1	1	1	1	1	0
10136	3.06	9.34	210.35	1	1	1	1	1	1	0
10137	3.06	8.68	210.35	1	1	1	1	1	1	0
10138	3.06	8.68	210.35	1	1	1	1	1	1	0
10139	3.06	7.36	210.35	1	1	1	1	1	1	0
10140	1.26	9.34	210.35	1	1	1	1	1	1	0
10141	1.26	8.68	210.35	1	1	1	1	1	1	0
10142	1.26	8.02	210.35	1	1	1	1	1	1	0
10143	1.26	7.36	210.35	1	1	1	1	1	1	0
10144	27.02	7.55	210.35	1	1	1	1	1	1	0
10145	26.30	7.55	210.35	1	1	1	1	1	1	0
10146	25.52	7.55	210.35	1	1	1	1	1	1	0
10147	24.72	7.55	210.35	1	1	1	1	1	1	0

	24.20	7.55	210.35	1	1	1	1	1	1	0
10149	22.60	7.00	210.35	1	1	1	1	1	1	0
10150	21.50	7.00	210.35	1	1	1	1	1	1	0
10151	20.40	7.00	210.35	1	1	1	1	1	1	0
10152	19.30	7.00	210.35	1	1	1	1	1	1	0
10153	18.20	7.00	210.35	1	1	1	1	1	1	0
10154	2.62	7.36	210.35	1	1	1	1	1	1	0
10155	2.62	7.36	210.35	1	1	1	1	1	1	0
10156	1.26	7.36	210.35	1	1	1	1	1	1	0
10157	6.20	0.00	210.35	1	1	1	1	1	1	0
10158	6.20	1.67	210.35	1	1	1	1	1	1	0
10159	6.20	3.33	210.35	1	1	1	1	1	1	0
10160	18.20	0.00	210.35	1	1	1	1	1	1	0
10161	18.20	1.67	210.35	1	1	1	1	1	1	0
10162	18.20	3.33	210.35	1	1	1	1	1	1	0
10163	18.20	5.00	210.35	1	1	1	1	1	1	0
10164	18.20	7.00	210.35	1	1	1	1	1	1	0
10165	18.20	8.33	210.35	1	1	1	1	1	1	0
10166	22.60	7.00	210.35	1	1	1	1	1	1	0
10167	22.60	7.51	210.35	1	1	1	1	1	1	0
10168	22.60	8.34	210.35	1	1	1	1	1	1	0
10169	22.60	9.17	210.35	1	1	1	1	1	1	0
10170	24.20	7.00	210.35	1	1	1	1	1	1	0
10171	14.45	10.00	203.45	1	1	1	1	1	1	0
10172	16.65	10.00	203.45	1	1	1	1	1	1	0
10173	9.95	10.00	203.45	1	1	1	1	1	1	0
10174	7.75	10.00	203.45	1	1	1	1	1	1	0
10175	17.45	10.00	203.45	1	1	1	1	1	1	0
10176	9.25	4.57	203.45	1	1	1	1	1	1	0
10177	7.75	4.57	203.45	1	1	1	1	1	1	0
10178	9.25	5.43	203.45	1	1	1	1	1	1	0
10179	7.75	5.43	203.45	1	1	1	1	1	1	0
10180	18.15	4.57	203.45	1	1	1	1	1	1	0
10181	16.65	4.57	203.45	1	1	1	1	1	1	0
10182	18.15	5.43	203.45	1	1	1	1	1	1	0
10183	16.65	5.43	203.45	1	1	1	1	1	1	0
10184	28.90	7.55	203.45	1	1	1	1	1	1	0
10185	30.20	7.55	203.45	1	1	1	1	1	1	0
10186	2.62	7.36	203.45	1	1	1	1	1	1	0
10187	28.90	10.00	203.45	1	1	1	1	1	1	0
10188	27.60	10.00	203.45	1	1	1	1	1	1	0
10189	26.30	10.00	203.45	1	1	1	1	1	1	0
10190	25.52	10.00	203.45	1	1	1	1	1	1	0
10191	24.72	10.00	203.45	1	1	1	1	1	1	0
10192	27.60	9.17	203.45	1	1	1	1	1	1	0
10193	27.60	8.36	203.45	1	1	1	1	1	1	0
10194	27.60	7.55	203.45	1	1	1	1	1	1	0
10195	27.02	7.55	203.45	1	1	1	1	1	1	0
10196	26.30	7.55	203.45	1	1	1	1	1	1	0
10197	25.52	7.55	203.45	1	1	1	1	1	1	0
10198	24.72	7.55	203.45	1	1	1	1	1	1	0

	24.20	7.55	203.45	1	1	1	1	1	1	0
10200	19.30	10.00	203.45	1	1	1	1	1	1	0
10201	20.40	10.00	203.45	1	1	1	1	1	1	0
10202	21.40	10.00	203.45	1	1	1	1	1	1	0
10203	24.20	9.17	203.45	1	1	1	1	1	1	0
10204	24.20	8.36	203.45	1	1	1	1	1	1	0
10205	24.20	7.55	203.45	1	1	1	1	1	1	0
10206	24.20	7.00	203.45	1	1	1	1	1	1	0
10207	22.60	7.00	203.45	1	1	1	1	1	1	0
10208	21.50	7.00	203.45	1	1	1	1	1	1	0
10209	20.40	7.00	203.45	1	1	1	1	1	1	0
10210	19.30	7.00	203.45	1	1	1	1	1	1	0
10211	18.20	7.00	203.45	1	1	1	1	1	1	0
10212	3.06	9.34	203.45	1	1	1	1	1	1	0
10213	3.06	8.68	203.45	1	1	1	1	1	1	0
10214	3.06	7.36	203.45	1	1	1	1	1	1	0
10215	2.62	7.36	203.45	1	1	1	1	1	1	0
10216	1.26	7.36	203.45	1	1	1	1	1	1	0
10217	1.26	9.34	203.45	1	1	1	1	1	1	0
10218	1.26	8.68	203.45	1	1	1	1	1	1	0
10219	1.26	8.02	203.45	1	1	1	1	1	1	0
10220	1.26	7.36	203.45	1	1	1	1	1	1	0
10221	3.06	10.00	203.45	1	1	1	1	1	1	0
10222	1.26	7.36	203.45	1	1	1	1	1	1	0
10223	30.20	7.55	203.45	1	1	1	1	1	1	0
10224	30.20	7.00	203.45	1	1	1	1	1	1	0
10225	30.20	5.00	203.45	1	1	1	1	1	1	0
10226	1.26	5.00	203.45	1	1	1	1	1	1	0
10227	6.20	5.00	203.45	1	1	1	1	1	1	0
10228	4.11	10.00	203.45	1	1	1	1	1	1	0
10229	5.15	10.00	203.45	1	1	1	1	1	1	0
10230	6.20	10.00	203.45	1	1	1	1	1	1	0
10231	12.20	5.00	203.45	1	1	1	1	1	1	0
10232	12.20	4.57	203.45	1	1	1	1	1	1	0
10233	18.20	7.00	203.45	1	1	1	1	1	1	0
10234	18.20	5.00	203.45	1	1	1	1	1	1	0
10235	18.20	4.57	203.45	1	1	1	1	1	1	0
10236	18.20	0.00	203.45	1	1	1	1	1	1	0
10237	6.20	8.68	203.45	1	1	1	1	1	1	0
10238	6.20	5.00	203.45	1	1	1	1	1	1	0
10239	6.20	4.57	203.45	1	1	1	1	1	1	0
10240	18.20	2.31	203.45	1	1	1	1	1	1	0
10241	18.20	5.43	203.45	1	1	1	1	1	1	0
10242	18.20	4.57	203.45	1	1	1	1	1	1	0
10243	14.45	4.57	203.45	1	1	1	1	1	1	0
10244	12.95	4.57	203.45	1	1	1	1	1	1	0
10245	12.20	4.57	203.45	1	1	1	1	1	1	0
10246	11.45	4.57	203.45	1	1	1	1	1	1	0
10247	6.95	4.57	203.45	1	1	1	1	1	1	0
10248	18.20	5.43	203.45	1	1	1	1	1	1	0
10249	14.45	5.43	203.45	1	1	1	1	1	1	0

	12.95	5.43	203.45	1	1	1	1	1	1	0
10251	12.20	5.43	203.45	1	1	1	1	1	1	0
10252	11.45	5.43	203.45	1	1	1	1	1	1	0
10253	6.95	5.43	203.45	1	1	1	1	1	1	0
10254	6.20	5.43	203.45	1	1	1	1	1	1	0
10255	4.63	5.00	203.45	1	1	1	1	1	1	0
10256	6.20	2.31	203.45	1	1	1	1	1	1	0
10257	25.70	5.00	203.45	1	1	1	1	1	1	0
10258	27.20	5.00	206.90	1	1	1	1	1	1	0
10259	25.70	5.00	206.90	1	1	1	1	1	1	0
10260	21.20	5.00	206.90	1	1	1	1	1	1	0
10261	6.20	3.87	206.90	1	1	1	1	1	1	0
10262	6.20	3.87	206.90	1	1	1	1	1	1	0
10263	6.20	7.00	206.90	1	1	1	1	1	1	0
10264	6.20	0.00	206.90	1	1	1	1	1	1	0
10265	6.20	5.00	206.90	1	1	1	1	1	1	0
10266	14.45	10.00	206.90	1	1	1	1	1	1	0
10267	18.20	5.00	206.90	1	1	1	1	1	1	0
10268	6.20	5.00	206.90	1	1	1	1	1	1	0
10269	17.45	5.00	206.90	1	1	1	1	1	1	0
10270	30.20	5.00	210.35	1	1	1	1	1	1	0
10271	25.52	10.00	210.35	1	1	1	1	1	1	0
10272	18.20	7.00	206.90	1	1	1	1	1	1	0
10273	6.20	8.68	206.90	1	1	1	1	1	1	0
10274	33.30	5.00	206.90	1	1	1	1	1	1	0
10275	1.26	5.00	206.90	1	1	1	1	1	1	0
10276	1.26	7.36	206.90	1	1	1	1	1	1	0
10277	1.26	7.36	206.90	1	1	1	1	1	1	0
10278	2.62	7.36	206.90	1	1	1	1	1	1	0
10279	2.62	7.36	206.90	1	1	1	1	1	1	0
10280	18.20	7.00	206.90	1	1	1	1	1	1	0
10281	19.30	7.00	206.90	1	1	1	1	1	1	0
10282	20.40	7.00	206.90	1	1	1	1	1	1	0
10283	21.50	7.00	206.90	1	1	1	1	1	1	0
10284	22.60	7.00	206.90	1	1	1	1	1	1	0
10285	24.20	7.55	206.90	1	1	1	1	1	1	0
10286	24.72	7.55	206.90	1	1	1	1	1	1	0
10287	25.52	7.55	206.90	1	1	1	1	1	1	0
10288	26.30	7.55	206.90	1	1	1	1	1	1	0
10289	27.02	7.55	206.90	1	1	1	1	1	1	0
10290	3.06	10.00	206.90	1	1	1	1	1	1	0
10291	4.11	10.00	206.90	1	1	1	1	1	1	0
10292	5.15	10.00	206.90	1	1	1	1	1	1	0
10293	6.20	10.00	206.90	1	1	1	1	1	1	0
10294	19.30	10.00	206.90	1	1	1	1	1	1	0
10295	20.40	10.00	206.90	1	1	1	1	1	1	0
10296	21.40	10.00	206.90	1	1	1	1	1	1	0
10297	24.72	10.00	206.90	1	1	1	1	1	1	0
10298	25.52	10.00	206.90	1	1	1	1	1	1	0
10299	26.30	10.00	206.90	1	1	1	1	1	1	0
10300	27.60	10.00	206.90	1	1	1	1	1	1	0

	28.90	10.00	206.90	1	1	1	1	1	1	0
10302	29.55	10.00	206.90	1	1	1	1	1	1	0
10303	4.11	10.00	206.90	1	1	1	1	1	1	0
10304	1.26	7.36	206.90	1	1	1	1	1	1	0
10305	1.26	8.02	206.90	1	1	1	1	1	1	0
10306	1.26	8.68	206.90	1	1	1	1	1	1	0
10307	1.26	9.34	206.90	1	1	1	1	1	1	0
10308	3.06	7.36	206.90	1	1	1	1	1	1	0
10309	3.06	8.68	206.90	1	1	1	1	1	1	0
10310	3.06	9.34	206.90	1	1	1	1	1	1	0
10311	6.20	0.00	206.90	1	1	1	1	1	1	0
10312	24.20	7.00	206.90	1	1	1	1	1	1	0
10313	24.20	7.55	206.90	1	1	1	1	1	1	0
10314	24.20	8.36	206.90	1	1	1	1	1	1	0
10315	24.20	9.17	206.90	1	1	1	1	1	1	0
10316	27.60	7.55	206.90	1	1	1	1	1	1	0
10317	27.60	8.36	206.90	1	1	1	1	1	1	0
10318	27.60	9.17	206.90	1	1	1	1	1	1	0
10319	30.20	5.00	206.90	1	1	1	1	1	1	0
10320	30.20	7.00	206.90	1	1	1	1	1	1	0
10321	30.20	7.55	206.90	1	1	1	1	1	1	0
10322	30.20	7.55	206.90	1	1	1	1	1	1	0
10323	30.20	7.55	206.90	1	1	1	1	1	1	0
10324	30.20	7.55	206.90	1	1	1	1	1	1	0
10325	28.90	7.55	206.90	1	1	1	1	1	1	0
10326	18.20	2.31	206.90	1	1	1	1	1	1	0
10327	15.95	10.00	206.90	1	1	1	1	1	1	0
10328	18.20	0.00	206.90	1	1	1	1	1	1	0
10329	29.55	10.00	203.45	1	1	1	1	1	1	0
10330	3.06	-0.00	203.45	1	1	1	1	1	1	0
10331	6.20	0.00	203.45	1	1	1	1	1	1	0
10332	0.66	5.00	203.45	1	1	1	1	1	1	0
10333	1.26	5.00	206.90	1	1	1	1	1	1	0
10334	18.20	0.00	206.90	1	1	1	1	1	1	0
10335	21.20	5.00	210.35	1	1	1	1	1	1	0
10336	9.70	10.00	210.35	1	1	1	1	1	1	0
10337	7.37	10.00	206.90	1	1	1	1	1	1	0
10338	6.37	10.00	206.90	1	1	1	1	1	1	0
10339	6.37	10.00	206.90	1	1	1	1	1	1	0
10340	15.70	5.00	210.35	1	1	1	1	1	1	0
10341	7.37	10.00	206.90	1	1	1	1	1	1	0
10342	7.37	10.00	206.90	1	1	1	1	1	1	0
10343	16.20	5.00	210.35	1	1	1	1	1	1	0
10344	12.20	210.00	6.90	1	1	1	1	1	1	0
10345	212.20	0.45	6.90	1	1	1	1	1	1	0
10346	206.40	0.45	6.90	1	1	1	1	1	1	0
10347	206.40	2.31	6.90	1	1	1	1	1	1	0
10348	18.00	-195.27	6.90	1	1	1	1	1	1	0
10349	17.45	-195.27	6.90	1	1	1	1	1	1	0
10350	15.95	-195.27	6.90	1	1	1	1	1	1	0
10351	14.45	-195.27	6.90	1	1	1	1	1	1	0

	12.95	-195.27	6.90	1	1	1	1	1	1	0
10353	12.20	-195.27	6.90	1	1	1	1	1	1	0
10354	11.45	-195.27	6.90	1	1	1	1	1	1	0
10355	9.95	-195.27	6.90	1	1	1	1	1	1	0
10356	8.45	-195.27	6.90	1	1	1	1	1	1	0
10357	6.95	-195.27	6.90	1	1	1	1	1	1	0
10358	-181.99	0.45	6.90	1	1	1	1	1	1	0
10359	-181.99	2.31	6.90	1	1	1	1	1	1	0
10360	6.95	200.45	6.90	1	1	1	1	1	1	0
10361	8.45	200.45	6.90	1	1	1	1	1	1	0
10362	9.95	200.45	6.90	1	1	1	1	1	1	0
10363	11.45	200.45	6.90	1	1	1	1	1	1	0
10364	12.20	200.45	6.90	1	1	1	1	1	1	0
10365	12.95	200.45	6.90	1	1	1	1	1	1	0
10366	14.45	200.45	6.90	1	1	1	1	1	1	0
10367	15.95	200.45	6.90	1	1	1	1	1	1	0
10368	17.45	200.45	6.90	1	1	1	1	1	1	0
10369	18.00	200.45	6.90	1	1	1	1	1	1	0

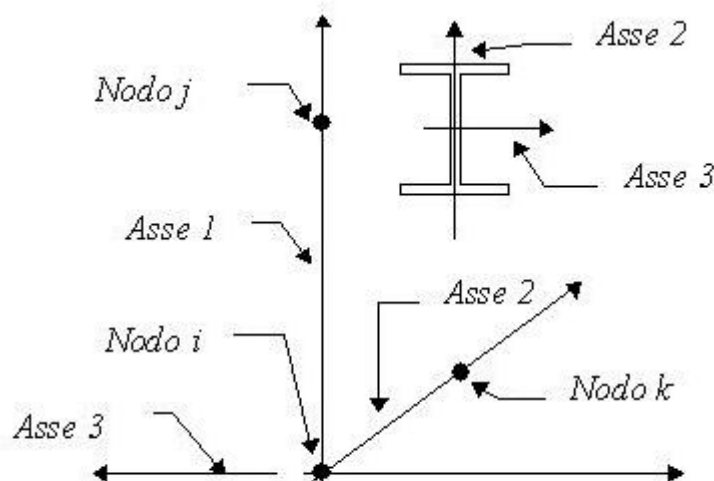
- Elementi tipo pilastro

- Convenzioni adottate

Ogni elemento tipo pilastro viene identificato da:

- Il nodo iniziale **i**;
- Il nodo finale **j**;
- Il nodo **k** che definisce l'orientamento nello spazio della terna riferimento locale dell'elemento.

La terna di riferimento locale del pilastro risulta quindi essere così disposta:



Sistema di riferimento locale

Vengono riportati i valori di efficacia dei vincoli flessionali alle estremità dell'elemento (variabili fra lo **0%** e il **100%**), nei due piani **1-2** e **1-3** del pilastro in corrispondenza dei nodi, dando quindi la possibilità di considerare aste non perfettamente incastrate alle estremità (coefficienti **V_{i12} - V_{j12} - V_{i13} - V_{j13}**).

In generale, se non diversamente disposto, l'asse 2 coincide, per i pilastri, con l'asse **y** globale e pertanto la disposizione della sezione coincide con quella che si avrebbe in una vista in pianta.

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Rett.	B= 25 H= 40 [cm] 25x40
2	1	Rett.	B= 70 H= 40 [cm] 70x40
3	1	Rett.	B= 35 H= 40 [cm] 35x40
4	1	Rett.	B= 30 H= 40 [cm] 30x40
5	1	Rett.	B= 45 H= 40 [cm] 45x40
6	1	Rett.	B= 20 H= 20 [cm] 20x20
7	1	Rett.	B= 30 H= 30 [cm] 30x30
8	1	Rett.	B= 40 H= 45 [cm] 40x45
9	1	Rett.	B= 70 H= 45 [cm] 70x45
10	1	Rett.	B= 60 H= 45 [cm] 60x45
11	1	Rett.	B= 25 H= 30 [cm] P1 25x30
12	1	Rett.	B= 30 H= 30 [cm] P2 30x30
13	1	Rett.	B= 35 H= 27 [cm] P3 35x27
14	1	Rett.	B= 35 H= 30 [cm] P4 35x30
15	1	Rett.	B= 25 H= 35 [cm] P5 25x35
16	1	Rett.	B= 30 H= 35 [cm] P6 30x35
17	1	Rett.	B= 35 H= 35 [cm] P7 35x35
18	1	Rett.	B= 20 H= 20 [cm] P8 20x20
19	1	Rett.	B= 30 H= 45 [cm] P9 30x45
20	1	Rett.	B= 35 H= 45 [cm] P10 35x45
21	1	Rett.	B= 25 H= 30 [cm] S1 25x30
22	1	Rett.	B= 35 H= 30 [cm] S2 35x30
23	1	Rett.	B= 35 H= 25 [cm] S3 35x25
24	1	Rett.	B= 30 H= 25 [cm] S4 30x25
25	1	Rett.	B= 22 H= 30 [cm] S5 22x30
26	1	Rett.	B= 20 H= 20 [cm] S6 20x20
27	1	Rett.	B= 30 H= 30 [cm] S7 30x30
28	1	Rett.	B= 30 H= 45 [cm] S8 30x45
29	1	Rett.	B= 35 H= 30 [cm] S9 35x30

- Caratteristiche Inerziali:

Sezione	Materiale	Area [cm ²]	Jt [cm ⁴]	J2 [cm ⁴]	J3 [cm ⁴]	J23 [cm ⁴]	Xx	Xy
1	1	1000.00	123101	133333	52083	0	1.2	1.2
2	1	2800.00	939269	373333	1143333	-0	1.2	1.2
3	1	1400.00	264625	186667	142917	-0	1.2	1.2

4	1	1200.00	186385	160000	90000	0	1.2	1.2
5	1	1800.00	439420	240000	303750	0	1.2	1.2
6	1	400.00	22492	13333	13333	0	1.2	1.2
7	1	900.00	113866	67500	67500	0	1.2	1.2
8	1	1800.00	439420	303750	240000	0	1.2	1.2
9	1	3150.00	1231378	531562	1286250	0	1.2	1.2
10	1	2700.00	943573	455625	810000	0	1.2	1.2
11	1	750.00	74913	56250	39062	0	1.2	1.2
12	1	900.00	113866	67500	67500	0	1.2	1.2
13	1	945.00	116464	57409	96469	0	1.2	1.2
14	1	1050.00	147986	78750	107187	0	1.2	1.2
15	1	875.00	97809	89323	45573	0	1.2	1.2
16	1	1050.00	147986	107187	78750	0	1.2	1.2
17	1	1225.00	210952	125052	125052	0	1.2	1.2
18	1	400.00	22492	13333	13333	0	1.2	1.2
19	1	1350.00	228488	227812	101250	0	1.2	1.2
20	1	1575.00	324225	265781	160781	0	1.2	1.2
21	1	750.00	74913	56250	39062	0	1.2	1.2
22	1	1050.00	147986	78750	107187	0	1.2	1.2
23	1	875.00	97809	45573	89323	0	1.2	1.2
24	1	750.00	74913	39062	56250	0	1.2	1.2
25	1	660.00	56043	49500	26620	0	1.2	1.2
26	1	400.00	22492	13333	13333	0	1.2	1.2
27	1	900.00	113866	67500	67500	0	1.2	1.2
28	1	1350.00	228488	227812	101250	0	1.2	1.2
29	1	1050.00	147986	78750	107187	0	1.2	1.2

Piano	Pilastro	Nodo i	Nodo j	Nodo k	Materiale	Sezione	Luce [m]	Vi12	Vj12	Vi13	Vj13
0	1	1	200	10112	1	9	3.45	100	100	100	100
2	200	200	560	10082	1	20	3.45	100	100	100	100
5	560	560	862	10081	1	28	3.45	100	100	100	100
0	2	2	210	10113	1	9	3.45	100	100	100	100
2	210	210	570	10083	1	20	3.45	100	100	100	100
5	570	570	870	10080	1	28	3.45	100	100	100	100
0	3	3	214	10114	1	10	3.45	100	100	100	100
2	214	214	574	10084	1	20	3.45	100	100	100	100
5	574	574	874	10079	1	28	3.45	100	100	100	100
0	4	4	218	10115	1	10	3.45	100	100	100	100
2	218	218	578	10085	1	20	3.45	100	100	100	100
5	578	578	878	10078	1	28	3.45	100	100	100	100
0	5	5	222	10116	1	8	3.45	100	100	100	100
2	222	222	582	10086	1	19	3.45	100	100	100	100
5	582	582	882	10077	1	28	3.45	100	100	100	100
0	6	6	224	10111	1	8	3.45	100	100	100	100
2	224	224	584	10111	1	19	3.45	100	100	100	100
5	584	584	884	10111	1	28	3.45	100	100	100	100
0	7	7	294	10111	1	4	3.45	100	100	100	100
2	294	294	632	10111	1	15	3.45	100	100	100	100
6	632	632	937	10111	1	25	3.45	100	100	100	100
0	8	8	298	10121	1	5	3.45	100	100	100	100

2	298	298	636	10087	1	16	3.45	100	100	100	100
6	636	636	941	10066	1	21	3.45	100	100	100	100
0	9	9	300	10120	1	5	3.45	100	100	100	100
3	300	300	646	10088	1	17	3.45	100	100	100	100
6	646	646	949	10070	1	21	3.45	100	100	100	100
0	10	10	304	10119	1	4	3.45	100	100	100	100
3	304	304	650	10089	1	16	3.45	100	100	100	100
6	650	650	953	10071	1	21	3.45	100	100	100	100
0	11	11	308	10118	1	3	3.45	100	100	100	100
3	308	308	654	10090	1	16	3.45	100	100	100	100
6	654	654	957	10075	1	21	3.45	100	100	100	100
0	12	12	312	10117	1	1	3.45	100	100	100	100
3	312	312	658	10091	1	15	3.45	100	100	100	100
6	658	658	961	10076	1	25	3.45	100	100	100	100
0	13	13	324	10122	1	6	3.45	100	100	100	100
0	14	14	62	10123	1	6	0.80	100	100	100	100
0	62	62	108	10123	1	6	0.80	100	100	100	100
1	108	108	154	10123	1	6	0.80	100	100	100	100
1	154	154	334	10123	1	6	1.05	100	100	100	100
3	334	334	418	10095	1	18	0.80	100	100	100	100
4	418	418	466	10096	1	18	0.80	100	100	100	100
4	466	466	514	10103	1	18	0.80	100	100	100	100
5	514	514	669	10104	1	18	1.05	100	100	100	100
6	669	669	749	10069	1	26	0.80	100	100	100	100
7	749	749	787	10069	1	26	0.80	100	100	100	100
7	787	787	825	10069	1	26	0.80	100	100	100	100
8	825	825	975	10069	1	26	1.05	100	100	100	100
0	20	20	344	10124	1	7	3.45	100	100	100	100
3	344	344	679	10092	1	12	3.45	100	100	100	100
6	679	679	985	10074	1	27	3.45	100	100	100	100
0	41	41	88	10111	1	1	0.80	100	100	100	100
0	88	88	134	10111	1	1	0.80	100	100	100	100
1	134	134	180	10111	1	1	0.80	100	100	100	100
1	180	180	384	10111	1	1	1.05	100	100	100	100
3	384	384	444	10111	1	11	0.80	100	100	100	100
4	444	444	492	10111	1	11	0.80	100	100	100	100
4	492	492	540	10111	1	11	0.80	100	100	100	100
5	540	540	715	10111	1	11	1.05	100	100	100	100
7	715	715	765	10111	1	21	0.80	100	100	100	100
7	765	765	803	10111	1	21	0.80	100	100	100	100
8	803	803	841	10111	1	21	0.80	100	100	100	100
8	841	841	1031	10111	1	21	1.05	100	100	100	100
0	45	45	92	10129	1	2	0.80	100	100	100	100
0	92	92	138	10129	1	2	0.80	100	100	100	100
1	138	138	390	10129	1	2	1.85	100	100	100	100
3	390	390	450	10093	1	12	0.80	100	100	100	100
4	450	450	498	10093	1	12	0.80	100	100	100	100
4	498	498	721	10093	1	12	1.85	100	100	100	100
7	721	721	771	10067	1	22	0.80	100	100	100	100
7	771	771	809	10067	1	22	0.80	100	100	100	100
8	809	809	1037	10067	1	22	1.85	100	100	100	100
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	46	46	93	10128	1	2	0.80	100	100	100	100
0	93	93	139	10128	1	2	0.80	100	100	100	100
1	139	139	184	10128	1	2	0.80	100	100	100	100
1	184	184	399	10128	1	2	1.05	100	100	100	100
3	399	399	451	10097	1	14	0.80	100	100	100	100
4	451	451	499	10098	1	14	0.80	100	100	100	100
4	499	499	544	10105	1	14	0.80	100	100	100	100
5	544	544	730	10106	1	14	1.05	100	100	100	100
7	730	730	772	10068	1	22	0.80	100	100	100	100
7	772	772	810	10068	1	22	0.80	100	100	100	100
8	810	810	845	10068	1	22	0.80	100	100	100	100
8	845	845	1045	10068	1	22	1.05	100	100	100	100
0	51	51	98	10127	1	3	0.80	100	100	100	100
0	98	98	144	10127	1	3	0.80	100	100	100	100
1	144	144	188	10127	1	3	0.80	100	100	100	100
1	188	188	404	10127	1	3	1.05	100	100	100	100
4	404	404	456	10099	1	14	0.80	100	100	100	100
4	456	456	504	10100	1	14	0.80	100	100	100	100
5	504	504	548	10107	1	14	0.80	100	100	100	100
5	548	548	735	10108	1	14	1.05	100	100	100	100
7	735	735	777	10072	1	22	0.80	100	100	100	100
7	777	777	815	10072	1	22	0.80	100	100	100	100
8	815	815	849	10072	1	22	0.80	100	100	100	100
8	849	849	1050	10072	1	22	1.05	100	100	100	100
0	60	60	107	10126	1	3	0.80	100	100	100	100
1	107	107	153	10126	1	3	0.80	100	100	100	100
1	153	153	197	10126	1	3	0.80	100	100	100	100
1	197	197	413	10126	1	3	1.05	100	100	100	100
4	413	413	465	10101	1	14	0.80	100	100	100	100
4	465	465	513	10102	1	14	0.80	100	100	100	100
5	513	513	557	10109	1	14	0.80	100	100	100	100
5	557	557	744	10110	1	14	1.05	100	100	100	100
7	744	744	786	10073	1	22	0.80	100	100	100	100
7	786	786	824	10073	1	22	0.80	100	100	100	100
8	824	824	858	10073	1	22	0.80	100	100	100	100
8	858	858	1059	10073	1	22	1.05	100	100	100	100
0	61	61	417	10125	1	4	3.45	100	100	100	100
4	417	417	748	10094	1	12	3.45	100	100	100	100
7	748	748	1063	10065	1	24	3.45	100	100	100	100
2	299	299	641	10036	1	16	3.45	100	100	100	100
5	565	565	866	10025	1	29	3.45	100	100	100	100
7	726	726	1041	10344	1	23	3.45	100	100	100	100

- Elementi tipo trave

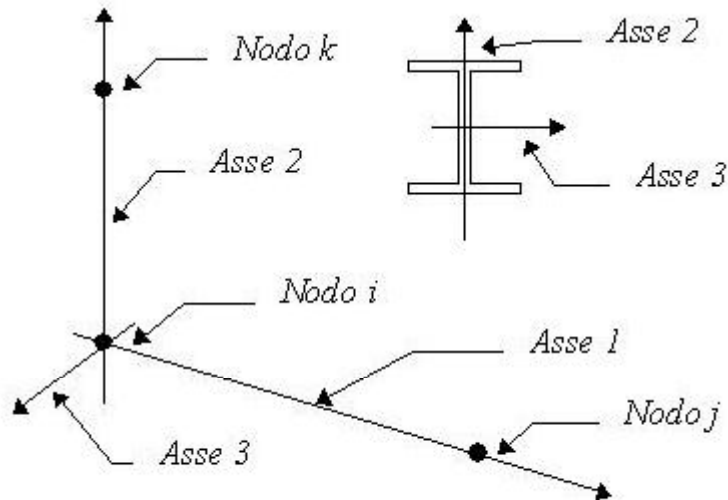
- Convenzioni adottate

Ogni elemento tipo trave viene identificato da:

- Il nodo iniziale **i**;
- Il nodo finale **j**;

- Il nodo **k** che definisce l'orientamento nello spazio della terna riferimento locale dell'elemento.

La terna di riferimento locale della trave risulta essere così disposta:



Vengono riportati i valori di efficacia dei vincoli alle estremità dello elemento (variabili fra 0 e 100%), nei due piani **1-2** e **1-3** della trave in corrispondenza dei nodi, dando quindi la possibilità di considerare aste non perfettamente incastrate (coefficienti **Vi12**, **Vj12**, **Vi13**, **Vj13**).

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Rett.	B= 20 H= 75 [cm] 20x75
2	1	Rett.	B= 30 H= 250 [cm] 30x250
3	1	Rett.	B= 30 H= 85 [cm] 30x85
4	1	Rett.	B= 30 H= 115 [cm] 30x115
5	1	Rett.	B= 20 H= 24 [cm] 20x24
6	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] 18+18x75D
7	1	Rett.	B= 45 H= 85 [cm] 45x85
8	1	Rett.	B= 33 H= 50 [cm] 33x50
9	1	Rett.	B= 30 H= 24 [cm] 30x24
10	1	Rett.	B= 33 H= 85 [cm] 33x85
11	1	a T	B= 60 H= 52 b= 40 h= 24 [cm] 40/60x52
12	1	a T	B= 70 H= 85 b= 50 h= 24 [cm] 50/80x85
13	1	Rett.	B= 60 H= 85 [cm] 60x85
14	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] 18+18x75S
15	1	Rett.	B= 20 H= 24 [cm] AUSILIARIA
16	3	Rett.	B= 12 H= 20 [cm] TRAVETTO

21	1	Rett.	B= 20 H= 75 [cm] P1 20x75
22	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] P2 18+18x75D
23	1	a ~	B= 38 H= 75 b= 18 h= 24 [cm] P3 20+18x75D
24	1	Rett.	B= 20 H= 24 [cm] P4 20x24
25	1	Rett.	B= 30 H= 24 [cm] P5 30x24
26	1	Rett.	B= 40 H= 24 [cm] P6 40x24
27	1	a T	B= 55 H= 52 b= 35 h= 24 [cm] P7 35/55x52
28	1	a ~	B= 36 H= 75 b= 18 h= 24 [cm] P8 18+18x75S
31	1	a ~	B= 65 H= 75 b= 25 h= 24 [cm] S1 40+25x75D
32	1	Rett.	B= 20 H= 75 [cm] S2 20x75
33	1	Rett.	B= 20 H= 24 [cm] S3 20x24
34	1	Rett.	B= 25 H= 24 [cm] S4 25x24
35	1	Rett.	B= 40 H= 34 [cm] S5 40x34
36	1	Rett.	B= 30 H= 24 [cm] S6 30x24
37	1	a T	B= 50 H= 70 b= 30 h= 34 [cm] S7 30/50x70
38	1	a ~	B= 50 H= 75 b= 12 h= 24 [cm] S8 10+40x75S
41	2	HEB 240	CERCHIATURA LATERALE
42	2	HEB 240	CERCHIATURA CENTRALE

- Caratteristiche Inerziali:

Sezione	Materiale	Area [cm ²]	Jt [cm ⁴]	J2 [cm ⁴]	J3 [cm ⁴]	J23 [cm ⁴]	Xx	Xy
1	1	1500.00	181667	703125	50000	0	1.2	1.2
2	1	7500.00	2257527	39062497	562500	0	1.2	1.2
3	1	2550.00	631218	1535312	191250	0	1.2	1.2
4	1	3450.00	945536	3802187	258750	-0	1.2	1.2
5	1	480.00	30684	23040	16000	0	1.2	1.2
6	1	1782.00	247033	866358	154150	-150218	1.2	1.2
7	1	3825.00	1708919	2302969	645469	-0	1.2	1.2
8	1	1650.00	340370	343750	149737	0	1.2	1.2
9	1	720.00	68274	34560	54000	0	1.2	1.2
10	1	2805.00	804639	1688844	254554	0	1.2	1.2
11	1	2560.00	934089	568173	581333	0	1.2	1.2
12	1	4730.00	2907101	2983101	1321417	-0	1.2	1.2
13	1	5100.00	3312203	3070625	1530000	0	1.2	1.2
14	1	1782.00	247033	866358	154150	150218	1.2	1.2
15	1	480.00	30684	23040	16000	0	1.2	1.2
16	3	240.00	7006	8000	2880	0	1.2	1.2
21	1	1500.00	181667	703125	50000	0	1.2	1.2
22	1	1782.00	247033	866358	154150	-150218	1.2	1.2
23	1	1830.00	262924	886105	180280	-171561	1.2	1.2
24	1	480.00	30684	23040	16000	0	1.2	1.2
25	1	720.00	68274	34560	54000	0	1.2	1.2
26	1	960.00	112090	46080	128000	0	1.2	1.2
27	1	2300.00	743954	507593	432792	0	1.2	1.2
28	1	1782.00	247033	866358	154150	150218	1.2	1.2
31	1	2835.00	722841	1337843	896291	-526190	1.2	1.2
32	1	1500.00	181667	703125	50000	0	1.2	1.2
33	1	480.00	30684	23040	16000	0	1.2	1.2
34	1	600.00	49958	28800	31250	0	1.2	1.2

35	1	1360.00	247686	131013	181333	0	1.2	1.2
36	1	720.00	68274	34560	54000	0	1.2	1.2
37	1	2780.00	979406	1089435	435167	0	1.2	1.2
38	1	1812.00	231565	760201	403657	288775	1.2	1.2
41	2	106.14	103	11274	3923	0	4.2	1.4
42	2	106.14	103	11274	3923	0	4.2	1.4

Travata	Trave	Nodo i	Nodo j	Nodo k	Materiale	Sezione	Luce [m]	Vi12	Vj12	Vi13	Vj13
1	1	223	224	10330	1	14	1.53	100	100	100	100
1	2	198	223	10330	1	14	1.53	100	100	100	100
1	3	199	198	10331	1	14	1.57	100	100	100	100
1	4	200	199	10331	1	14	1.57	100	100	100	100
1	5	201	200	10328	1	2	0.75	100	100	100	100
2	1	233	226	10015	2	41	0.52	100	100	100	100
3	1	202	201	10328	1	2	0.80	100	100	100	100
4	1	227	233	10016	2	41	0.80	100	100	100	100
5	1	203	202	10328	1	3	2.20	100	100	100	100
6	1	228	227	10017	2	41	2.20	100	100	100	100
7	1	204	203	10328	1	3	1.50	100	100	100	100
8	1	229	228	10018	2	41	1.50	100	100	100	100
9	1	205	204	10328	1	4	0.75	100	100	100	100
10	1	225	229	10019	2	41	0.75	100	100	100	100
10	2	234	225	10020	2	41	0.75	100	100	100	100
11	1	206	205	10328	1	4	0.75	100	100	100	100
11	2	207	206	10328	1	3	1.50	100	100	100	100
12	1	230	234	10021	2	41	1.50	100	100	100	100
13	1	208	207	10328	1	3	2.20	100	100	100	100
14	1	231	230	10022	2	41	2.20	100	100	100	100
15	1	209	208	10328	1	2	0.80	100	100	100	100
16	1	232	231	10023	2	41	0.80	100	100	100	100
17	1	210	209	10328	1	2	0.75	100	100	100	100
18	1	235	232	10024	2	41	0.52	100	100	100	100
19	1	211	210	10331	1	14	1.50	100	100	100	100
19	2	212	211	10331	1	14	1.50	100	100	100	100
19	3	213	212	10236	1	14	1.50	100	100	100	100
19	4	214	213	10236	1	14	1.50	100	100	100	100
19	5	215	214	10331	1	14	1.50	100	100	100	100
19	6	216	215	10331	1	14	1.50	100	100	100	100
19	7	217	216	10236	1	14	1.50	100	100	100	100
19	8	218	217	10236	1	14	1.50	100	100	100	100
19	9	219	218	10236	1	14	1.55	100	100	100	100
19	10	220	219	10236	1	14	1.55	100	100	100	100
19	11	221	220	10236	1	14	1.55	100	100	100	100
19	12	222	221	10236	1	14	1.55	100	100	100	100
20	1	273	272	10012	2	41	0.52	100	100	100	100
20	2	274	273	10011	2	41	0.80	100	100	100	100
20	3	275	274	10010	2	41	2.20	100	100	100	100
20	4	276	275	10009	2	41	1.50	100	100	100	100
20	5	277	276	10008	2	41	0.75	100	100	100	100
20	6	278	277	10007	2	41	0.75	100	100	100	100

20	7	279	278	10006	2	41	1.50	100	100	100	100
20	8	280	279	10005	2	41	2.20	100	100	100	100
20	9	281	280	10004	2	41	0.80	100	100	100	100
20	10	282	281	10003	2	41	0.52	100	100	100	100
21	1	295	294	10226	1	11	1.26	100	100	100	100
21	2	296	295	10227	1	11	1.80	100	100	100	100
21	3	297	296	10238	1	11	1.57	100	100	100	100
21	4	298	297	10255	1	11	1.57	100	100	100	100
22	1	284	283	10247	1	12	0.75	100	100	100	100
22	2	285	284	10177	1	12	0.80	100	100	100	100
22	3	286	285	10176	1	12	2.20	100	100	100	100
22	4	287	286	10246	1	12	1.50	100	100	100	100
22	5	288	287	10245	1	12	0.75	100	100	100	100
22	6	289	288	10244	1	12	0.75	100	100	100	100
22	7	292	289	10243	1	12	1.50	100	100	100	100
22	8	293	292	10181	1	12	2.20	100	100	100	100
22	9	290	293	10180	1	12	0.80	100	100	100	100
22	10	291	290	10242	1	12	0.75	100	100	100	100
23	1	315	314	10253	1	12	0.75	100	100	100	100
23	2	316	315	10179	1	12	0.80	100	100	100	100
23	3	317	316	10178	1	12	2.20	100	100	100	100
23	4	318	317	10252	1	12	1.50	100	100	100	100
23	5	319	318	10251	1	12	0.75	100	100	100	100
23	6	320	319	10250	1	12	0.75	100	100	100	100
23	7	322	320	10249	1	12	1.50	100	100	100	100
23	8	323	322	10183	1	12	2.20	100	100	100	100
23	9	321	323	10182	1	12	0.80	100	100	100	100
23	10	313	321	10248	1	12	0.75	100	100	100	100
24	1	301	300	10255	1	11	1.50	100	100	100	100
24	2	302	301	10255	1	11	1.50	100	100	100	100
24	3	303	302	10255	1	11	1.50	100	100	100	100
24	4	304	303	10255	1	11	1.50	100	100	100	100
24	5	305	304	10257	1	11	1.50	100	100	100	100
24	6	306	305	10332	1	11	1.50	100	100	100	100
24	7	307	306	10226	1	11	1.50	100	100	100	100
24	8	308	307	10226	1	11	1.50	100	100	100	100
24	9	309	308	10226	1	11	1.55	100	100	100	100
24	10	310	309	10226	1	11	1.55	100	100	100	100
24	11	311	310	10226	1	11	1.55	100	100	100	100
24	12	312	311	10226	1	11	1.55	100	100	100	100
25	1	350	349	10222	1	5	1.26	100	100	100	100
25	2	350	351	10216	1	15	0.44	100	100	100	100
25	3	352	351	10186	1	15	0.92	100	100	100	100
25	4	352	353	10215	1	15	0.44	100	100	100	100
26	1	334	335	10211	1	15	1.10	100	100	100	100
26	2	335	336	10210	1	15	1.10	100	100	100	100
26	3	336	337	10209	1	15	1.10	100	100	100	100
26	4	337	338	10208	1	15	1.10	100	100	100	100
26	5	338	339	10207	1	15	1.60	100	100	100	100
27	1	356	357	10199	1	15	0.52	100	100	100	100
27	2	357	358	10198	1	15	0.80	100	100	100	100
28											

	3	358	359	10197	1	15	0.78	100	100	100	100
27	4	359	360	10196	1	15	0.72	100	100	100	100
27	5	360	361	10195	1	15	0.58	100	100	100	100
27	6	362	361	10184	1	5	1.30	100	100	100	100
27	7	363	362	10185	1	5	1.30	100	100	100	100
28	1	385	384	10221	1	1	1.26	100	100	100	100
28	2	386	385	10221	1	1	0.90	100	100	100	100
28	3	387	386	10221	1	1	0.90	100	100	100	100
28	4	388	387	10228	1	1	1.05	100	100	100	100
28	5	389	388	10229	1	1	1.05	100	100	100	100
28	6	390	389	10230	1	1	1.05	100	100	100	100
28	7	391	390	10174	1	2	0.75	100	100	100	100
28	8	392	391	10174	1	2	0.80	100	100	100	100
28	9	393	392	10173	1	3	2.20	100	100	100	100
28	10	394	393	10174	1	3	1.50	100	100	100	100
28	11	395	394	10174	1	4	0.75	100	100	100	100
28	12	396	395	10174	1	4	0.75	100	100	100	100
28	13	383	396	10171	1	3	1.50	100	100	100	100
28	14	397	383	10172	1	3	2.20	100	100	100	100
28	15	398	397	10175	1	2	0.80	100	100	100	100
28	16	399	398	10327	1	2	0.75	100	100	100	100
28	17	400	399	10200	1	1	1.10	100	100	100	100
28	18	401	400	10201	1	1	1.10	100	100	100	100
28	19	402	401	10202	1	1	1.00	100	100	100	100
28	20	403	402	10228	1	1	1.20	100	100	100	100
28	21	404	403	10228	1	1	1.60	100	100	100	100
28	22	404	405	10200	1	15	0.52	100	100	100	100
28	23	405	406	10191	1	15	0.80	100	100	100	100
28	24	406	407	10190	1	15	0.78	100	100	100	100
28	25	407	408	10189	1	15	0.72	100	100	100	100
28	26	408	409	10189	1	15	0.58	100	100	100	100
28	27	409	410	10188	1	15	0.65	100	100	100	100
28	28	410	411	10188	1	15	0.65	100	100	100	100
28	29	411	412	10187	1	15	0.65	100	100	100	100
28	30	412	413	10329	1	15	0.65	100	100	100	100
28	31	414	413	10228	1	6	1.55	100	100	100	100
28	32	415	414	10228	1	6	1.55	100	100	100	100
28	33	416	415	10228	1	6	1.55	100	100	100	100
28	34	417	416	10228	1	6	1.55	100	100	100	100
29	1	583	584	10330	1	28	1.50	100	100	100	100
29	2	558	583	10330	1	28	1.56	100	100	100	100
29	3	559	558	10311	1	28	1.64	100	100	100	100
29	4	560	559	10311	1	28	1.50	100	100	100	100
29	5	561	560	10328	1	28	0.75	100	100	100	100
30	1	593	586	10360	2	41	0.55	100	100	100	100
31	1	562	561	10328	1	28	1.50	100	100	100	100
32	1	587	593	10361	2	41	1.50	100	100	100	100
33	1	563	562	10328	1	28	1.50	100	100	100	100
34	1	588	587	10362	2	41	1.50	100	100	100	100
35	1	564	563	10328	1	28	1.50	100	100	100	100
36	1	589	588	10363	2	41	1.50	100	100	100	100
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	1	565	564	10328	1	28	0.75	100	100	100	100
38	1	585	589	10364	2	41	0.75	100	100	100	100
38	2	594	585	10365	2	41	0.75	100	100	100	100
39	1	566	565	10328	1	28	0.75	100	100	100	100
39	2	567	566	10328	1	28	1.50	100	100	100	100
40	1	590	594	10366	2	41	1.50	100	100	100	100
41	1	568	567	10328	1	28	1.50	100	100	100	100
42	1	591	590	10367	2	41	1.50	100	100	100	100
43	1	569	568	10328	1	28	1.50	100	100	100	100
44	1	592	591	10368	2	41	1.50	100	100	100	100
45	1	570	569	10328	1	28	0.75	100	100	100	100
46	1	595	592	10369	2	41	0.56	100	100	100	100
47	1	571	570	10331	1	28	1.50	100	100	100	100
47	2	572	571	10331	1	28	1.50	100	100	100	100
47	3	573	572	10311	1	28	1.50	100	100	100	100
47	4	574	573	10311	1	28	1.50	100	100	100	100
47	5	575	574	10264	1	28	1.50	100	100	100	100
47	6	576	575	10264	1	28	1.50	100	100	100	100
47	7	577	576	10311	1	28	1.50	100	100	100	100
47	8	578	577	10311	1	28	1.50	100	100	100	100
47	9	579	578	10311	1	28	1.50	100	100	100	100
47	10	580	579	10311	1	28	1.60	100	100	100	100
47	11	581	580	10311	1	28	1.60	100	100	100	100
47	12	582	581	10311	1	28	1.50	100	100	100	100
48	1	633	632	10333	1	27	1.26	100	100	100	100
48	2	634	633	10332	1	27	1.80	100	100	100	100
48	3	635	634	10332	1	27	1.57	100	100	100	100
48	4	636	635	10265	1	27	1.57	100	100	100	100
48	5	637	636	10269	1	27	0.75	100	100	100	100
49	1	622	621	10357	2	41	0.55	100	100	100	100
50	1	638	637	10269	1	27	1.50	100	100	100	100
51	1	623	622	10356	2	41	1.50	100	100	100	100
52	1	639	638	10269	1	27	1.50	100	100	100	100
53	1	624	623	10355	2	41	1.50	100	100	100	100
54	1	640	639	10269	1	27	1.50	100	100	100	100
55	1	625	624	10354	2	41	1.50	100	100	100	100
55	2	626	625	10353	2	41	0.75	100	100	100	100
56	1	641	640	10269	1	27	0.75	100	100	100	100
56	2	642	641	10269	1	27	0.75	100	100	100	100
57	1	627	626	10352	2	41	0.75	100	100	100	100
58	1	643	642	10269	1	27	1.50	100	100	100	100
59	1	628	627	10351	2	41	1.50	100	100	100	100
60	1	644	643	10269	1	27	1.50	100	100	100	100
61	1	629	628	10350	2	41	1.50	100	100	100	100
62	1	645	644	10269	1	27	1.50	100	100	100	100
63	1	630	629	10349	2	41	1.50	100	100	100	100
64	1	646	645	10270	1	27	0.75	100	100	100	100
65	1	631	630	10348	2	41	0.55	100	100	100	100
66	1	647	646	10265	1	27	1.50	100	100	100	100
66	2	648	647	10260	1	27	1.50	100	100	100	100
66	3	649	648	10260	1	27	1.50	100	100	100	100
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	4	650	649	10260	1	27	1.50	100	100	100	100
66	5	651	650	10259	1	27	1.50	100	100	100	100
66	6	652	651	10258	1	27	1.50	100	100	100	100
66	7	653	652	10258	1	27	1.50	100	100	100	100
66	8	654	653	10258	1	27	1.50	100	100	100	100
66	9	655	654	10274	1	27	1.60	100	100	100	100
66	10	656	655	10274	1	27	1.50	100	100	100	100
66	11	657	656	10275	1	27	1.60	100	100	100	100
66	12	658	657	10275	1	27	1.50	100	100	100	100
67	1	681	680	10276	1	24	1.26	100	100	100	100
67	2	681	682	10277	1	15	0.44	100	100	100	100
67	3	683	682	10278	1	15	0.92	100	100	100	100
67	4	683	684	10279	1	15	0.44	100	100	100	100
68	1	669	670	10280	1	15	1.10	100	100	100	100
68	2	670	671	10281	1	15	1.10	100	100	100	100
68	3	671	672	10282	1	15	1.10	100	100	100	100
68	4	672	673	10283	1	15	1.10	100	100	100	100
68	5	673	674	10284	1	15	1.60	100	100	100	100
69	1	691	692	10285	1	15	0.52	100	100	100	100
69	2	692	693	10286	1	15	0.80	100	100	100	100
69	3	693	694	10287	1	15	0.78	100	100	100	100
69	4	694	695	10288	1	15	0.72	100	100	100	100
69	5	695	696	10289	1	15	0.58	100	100	100	100
69	6	697	696	10325	1	24	1.30	100	100	100	100
69	7	698	697	10324	1	24	1.30	100	100	100	100
70	1	716	715	10290	1	21	1.26	100	100	100	100
70	2	717	716	10290	1	21	0.90	100	100	100	100
70	3	718	717	10290	1	21	0.90	100	100	100	100
70	4	719	718	10291	1	21	1.05	100	100	100	100
70	5	720	719	10292	1	21	1.05	100	100	100	100
70	6	721	720	10293	1	21	1.05	100	100	100	100
70	7	722	721	10327	1	22	0.75	100	100	100	100
70	8	723	722	10327	1	22	1.50	100	100	100	100
70	9	724	723	10327	1	22	1.50	100	100	100	100
70	10	725	724	10327	1	22	1.50	100	100	100	100
70	11	726	725	10327	1	22	0.75	100	100	100	100
70	12	727	726	10327	1	22	0.75	100	100	100	100
70	13	714	727	10266	1	22	1.50	100	100	100	100
70	14	728	714	10327	1	22	1.50	100	100	100	100
70	15	729	728	10271	1	22	1.50	100	100	100	100
70	16	730	729	10271	1	22	0.75	100	100	100	100
70	17	731	730	10294	1	21	1.10	100	100	100	100
70	18	732	731	10295	1	21	1.10	100	100	100	100
70	19	733	732	10296	1	21	1.00	100	100	100	100
70	20	734	733	10297	1	21	1.20	100	100	100	100
70	21	735	734	10297	1	21	1.60	100	100	100	100
70	22	735	736	10297	1	15	0.52	100	100	100	100
70	23	736	737	10297	1	15	0.80	100	100	100	100
70	24	737	738	10298	1	15	0.78	100	100	100	100
70	25	738	739	10299	1	15	0.72	100	100	100	100
70	26	739	740	10300	1	15	0.58	100	100	100	100
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	27	740	741	10300	1	15	0.65	100	100	100	100
70	28	741	742	10301	1	15	0.65	100	100	100	100
70	29	742	743	10301	1	15	0.65	100	100	100	100
70	30	743	744	10302	1	15	0.65	100	100	100	100
70	31	745	744	10303	1	23	1.50	100	100	100	100
70	32	746	745	10303	1	23	1.60	100	100	100	100
70	33	747	746	10329	1	23	1.60	100	100	100	100
70	34	748	747	10329	1	23	1.50	100	100	100	100
71	1	883	884	10026	1	38	1.26	100	100	100	100
71	2	859	883	10027	1	38	1.40	100	100	100	100
71	3	860	859	10028	1	38	1.25	100	100	100	100
71	4	861	860	10034	1	38	1.15	100	100	100	100
71	5	862	861	10034	1	38	1.14	100	100	100	100
71	6	863	862	10334	1	38	1.50	100	100	100	100
71	7	864	863	10334	1	38	1.50	100	100	100	100
71	8	865	864	10334	1	38	1.50	100	100	100	100
71	9	866	865	10334	1	38	1.50	100	100	100	100
71	10	867	866	10334	1	38	1.50	100	100	100	100
71	11	868	867	10334	1	38	1.50	100	100	100	100
71	12	869	868	10334	1	38	1.50	100	100	100	100
71	13	870	869	10334	1	38	1.50	100	100	100	100
71	14	871	870	10034	1	38	1.50	100	100	100	100
71	15	872	871	10034	1	38	1.50	100	100	100	100
71	16	873	872	10328	1	38	1.50	100	100	100	100
71	17	874	873	10328	1	38	1.50	100	100	100	100
71	18	875	874	10034	1	38	1.50	100	100	100	100
71	19	876	875	10034	1	38	1.50	100	100	100	100
71	20	877	876	10328	1	38	1.50	100	100	100	100
71	21	878	877	10328	1	38	1.50	100	100	100	100
71	22	879	878	10328	1	38	1.55	100	100	100	100
71	23	880	879	10328	1	38	1.55	100	100	100	100
71	24	881	880	10328	1	38	1.55	100	100	100	100
71	25	882	881	10328	1	38	1.55	100	100	100	100
72	1	938	937	10058	1	35	1.26	100	100	100	100
72	2	939	938	10032	1	35	1.40	100	100	100	100
72	3	940	939	10031	1	35	1.25	100	100	100	100
72	4	962	940	10030	1	35	1.15	100	100	100	100
72	5	941	962	10029	1	35	1.14	100	100	100	100
72	6	942	941	10335	1	37	1.50	100	100	100	100
72	7	943	942	10335	1	37	1.50	100	100	100	100
72	8	944	943	10335	1	37	1.50	100	100	100	100
72	9	945	944	10335	1	37	1.50	100	100	100	100
72	10	946	945	10340	1	37	1.50	100	100	100	100
72	11	947	946	10343	1	37	1.50	100	100	100	100
72	12	948	947	10343	1	37	1.50	100	100	100	100
72	13	949	948	10340	1	37	1.50	100	100	100	100
72	14	950	949	10333	1	35	1.50	100	100	100	100
72	15	951	950	10335	1	35	1.50	100	100	100	100
72	16	952	951	10335	1	35	1.40	100	100	100	100
72	17	953	952	10055	1	35	1.60	100	100	100	100
72	18	954	953	10335	1	35	1.50	100	100	100	100
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	19	955	954	10335	1	35	1.50	100	100	100	100
72	20	956	955	10335	1	35	1.50	100	100	100	100
72	21	957	956	10056	1	35	1.50	100	100	100	100
72	22	958	957	10056	1	35	1.55	100	100	100	100
72	23	959	958	10056	1	35	1.55	100	100	100	100
72	24	960	959	10057	1	35	1.55	100	100	100	100
72	25	961	960	10057	1	35	1.55	100	100	100	100
73	1	987	986	10059	1	33	1.26	100	100	100	100
73	2	987	988	10156	1	15	0.44	100	100	100	100
73	3	989	988	10155	1	15	0.92	100	100	100	100
73	4	989	990	10154	1	15	0.44	100	100	100	100
74	1	975	976	10153	1	15	1.10	100	100	100	100
74	2	976	977	10152	1	15	1.10	100	100	100	100
74	3	977	978	10151	1	15	1.10	100	100	100	100
74	4	978	979	10150	1	15	1.10	100	100	100	100
74	5	979	980	10149	1	15	1.60	100	100	100	100
75	1	994	995	10148	1	15	0.52	100	100	100	100
75	2	995	996	10147	1	15	0.80	100	100	100	100
75	3	996	997	10146	1	15	0.78	100	100	100	100
75	4	997	998	10145	1	15	0.72	100	100	100	100
75	5	998	999	10144	1	15	0.58	100	100	100	100
75	6	1000	999	10037	1	33	1.30	100	100	100	100
75	7	1001	1000	10038	1	33	1.30	100	100	100	100
76	1	1032	1031	10048	1	32	1.26	100	100	100	100
76	2	1033	1032	10048	1	32	0.90	100	100	100	100
76	3	1034	1033	10048	1	32	0.90	100	100	100	100
76	4	1035	1034	10049	1	32	1.05	100	100	100	100
76	5	1036	1035	10050	1	32	1.05	100	100	100	100
76	6	1037	1036	10051	1	32	1.05	100	100	100	100
76	7	1038	1037	10336	1	31	1.50	100	100	100	100
76	8	1039	1038	10336	1	31	1.50	100	100	100	100
76	9	1040	1039	10336	1	31	1.50	100	100	100	100
76	10	1041	1040	10337	1	31	1.50	100	100	100	100
76	11	1042	1041	10339	1	31	1.50	100	100	100	100
76	12	1043	1042	10338	1	31	1.50	100	100	100	100
76	13	1044	1043	10342	1	31	1.50	100	100	100	100
76	14	1045	1044	10341	1	31	1.50	100	100	100	100
76	15	1046	1045	10061	1	32	1.10	100	100	100	100
76	16	1047	1046	10062	1	32	1.10	100	100	100	100
76	17	1048	1047	10063	1	32	1.00	100	100	100	100
76	18	1049	1048	10064	1	32	1.20	100	100	100	100
76	19	1050	1049	10064	1	32	1.60	100	100	100	100
76	20	1051	1050	10271	1	15	0.52	100	100	100	100
76	21	1052	1051	10271	1	15	0.80	100	100	100	100
76	22	1053	1052	10043	1	15	0.78	100	100	100	100
76	23	1054	1053	10044	1	15	0.72	100	100	100	100
76	24	1055	1054	10045	1	15	0.58	100	100	100	100
76	25	1056	1055	10045	1	15	0.65	100	100	100	100
76	26	1057	1056	10046	1	15	0.65	100	100	100	100
76	27	1058	1057	10046	1	15	0.65	100	100	100	100
76	28	1059	1058	10047	1	15	0.65	100	100	100	100
76	29	1060	1059	10047	1	15	0.65	100	100	100	100

	29	1060	1059	10060	1	31	1.55	100	100	100	100
76	30	1061	1060	10060	1	31	1.55	100	100	100	100
76	31	1062	1061	10061	1	31	1.55	100	100	100	100
76	32	1063	1062	10061	1	31	1.55	100	100	100	100
77	1	350	364	10220	1	15	0.66	100	100	100	100
77	2	364	369	10219	1	15	0.66	100	100	100	100
77	3	369	381	10218	1	15	0.66	100	100	100	100
77	4	381	385	10217	1	15	0.66	100	100	100	100
78	1	353	365	10214	1	15	0.66	100	100	100	100
78	2	365	370	10221	1	15	0.66	100	100	100	100
78	3	370	382	10213	1	15	0.66	100	100	100	100
78	4	382	387	10212	1	15	0.66	100	100	100	100
79	1	200	255	10034	1	7	2.31	100	100	100	100
80	1	252	226	10014	2	41	1.86	100	100	100	100
80	2	272	252	10013	2	41	1.86	100	100	100	100
81	1	255	283	10256	1	7	2.26	100	100	100	100
81	2	283	298	10239	1	7	0.43	100	100	100	100
81	3	298	314	10238	1	7	0.43	100	100	100	100
81	4	314	324	10254	1	7	1.57	100	100	100	100
81	5	324	373	10033	1	7	1.68	100	100	100	100
81	6	373	390	10237	1	7	1.32	100	100	100	100
82	1	225	277	10000	2	42	3.72	100	100	100	100
83	1	288	299	10232	1	13	0.43	100	100	100	100
83	2	299	319	10231	1	13	0.43	100	100	100	100
84	1	210	237	10035	1	7	2.31	100	100	100	100
85	1	235	236	10001	2	41	1.86	100	100	100	100
86	1	237	291	10240	1	7	2.26	100	100	100	100
87	1	236	282	10002	2	41	1.86	100	100	100	100
88	1	291	300	10235	1	7	0.43	100	100	100	100
88	2	300	313	10234	1	10	0.43	100	100	100	100
88	3	313	334	10241	1	7	1.57	100	100	100	100
88	4	334	399	10233	1	8	3.00	100	100	100	100
89	1	339	356	10206	1	15	0.55	100	100	100	100
89	2	356	367	10205	1	15	0.81	100	100	100	100
89	3	367	379	10204	1	15	0.81	100	100	100	100
89	4	379	404	10203	1	15	0.83	100	100	100	100
90	1	361	368	10194	1	15	0.81	100	100	100	100
90	2	368	380	10193	1	15	0.81	100	100	100	100
90	3	380	409	10192	1	15	0.83	100	100	100	100
91	1	308	344	10225	1	9	2.00	100	100	100	100
91	2	344	363	10224	1	9	0.55	100	100	100	100
91	3	363	366	10223	1	9	0.79	100	100	100	100
91	4	366	378	10223	1	9	0.83	100	100	100	100
91	5	378	413	10223	1	9	0.83	100	100	100	100
92	1	681	699	10304	1	15	0.66	100	100	100	100
92	2	699	704	10305	1	15	0.66	100	100	100	100
92	3	704	712	10306	1	15	0.66	100	100	100	100
92	4	712	716	10307	1	15	0.66	100	100	100	100
93	1	684	700	10308	1	15	0.66	100	100	100	100
93	2	700	705	10309	1	15	0.66	100	100	100	100
93	3	705	713	10309	1	15	0.66	100	100	100	100

	4	713	718	10310	1	15	0.66	100	100	100	100
94	1	560	603	10264	1	25	2.31	100	100	100	100
95	1	586	601	10346	2	41	1.86	100	100	100	100
95	2	601	621	10347	2	41	2.42	100	100	100	100
96	1	603	620	10261	1	25	1.56	100	100	100	100
96	2	620	636	10262	1	25	1.13	100	100	100	100
96	3	636	659	10268	1	25	2.00	100	100	100	100
96	4	659	708	10263	1	25	1.68	100	100	100	100
96	5	708	721	10273	1	25	1.32	100	100	100	100
97	1	585	626	10345	2	42	4.28	100	100	100	100
98	1	570	597	10334	1	26	2.31	100	100	100	100
99	1	595	596	10358	2	41	1.86	100	100	100	100
100	1	597	646	10326	1	26	2.69	100	100	100	100
101	1	596	631	10359	2	41	2.42	100	100	100	100
102	1	646	669	10267	1	26	2.00	100	100	100	100
102	2	669	730	10272	1	25	3.00	100	100	100	100
103	1	674	691	10312	1	15	0.55	100	100	100	100
103	2	691	702	10313	1	15	0.81	100	100	100	100
103	3	702	710	10314	1	15	0.81	100	100	100	100
103	4	710	735	10315	1	15	0.83	100	100	100	100
104	1	696	703	10316	1	15	0.81	100	100	100	100
104	2	703	711	10317	1	15	0.81	100	100	100	100
104	3	711	740	10318	1	15	0.83	100	100	100	100
105	1	654	679	10319	1	25	2.00	100	100	100	100
105	2	679	698	10320	1	25	0.55	100	100	100	100
105	3	698	701	10322	1	25	0.79	100	100	100	100
105	4	701	709	10323	1	25	0.83	100	100	100	100
105	5	709	744	10321	1	25	0.83	100	100	100	100
106	1	987	1002	10143	1	15	0.66	100	100	100	100
106	2	1002	1021	10142	1	15	0.66	100	100	100	100
106	3	1021	1029	10141	1	15	0.66	100	100	100	100
106	4	1029	1032	10140	1	15	0.66	100	100	100	100
107	1	990	1003	10139	1	15	0.66	100	100	100	100
107	2	1003	1022	10138	1	15	0.66	100	100	100	100
107	3	1022	1030	10137	1	15	0.66	100	100	100	100
107	4	1030	1034	10136	1	15	0.66	100	100	100	100
108	1	862	889	10157	1	34	1.67	100	100	100	100
108	2	889	915	10158	1	34	1.67	100	100	100	100
108	3	915	941	10159	1	34	1.67	100	100	100	100
108	4	941	963	10054	1	34	1.67	100	100	100	100
108	5	963	1004	10053	1	34	1.67	100	100	100	100
108	6	1004	1037	10052	1	34	1.67	100	100	100	100
109	1	870	895	10160	1	35	1.67	100	100	100	100
109	2	895	921	10161	1	35	1.67	100	100	100	100
109	3	921	949	10162	1	35	1.67	100	100	100	100
109	4	949	975	10163	1	35	2.00	100	100	100	100
109	5	975	1010	10164	1	36	1.33	100	100	100	100
109	6	1010	1045	10165	1	36	1.67	100	100	100	100
110	1	979	993	10166	1	33	0.51	100	100	100	100
110	2	993	1013	10167	1	33	0.83	100	100	100	100
110	3	1013	1025	10168	1	33	0.83	100	100	100	100

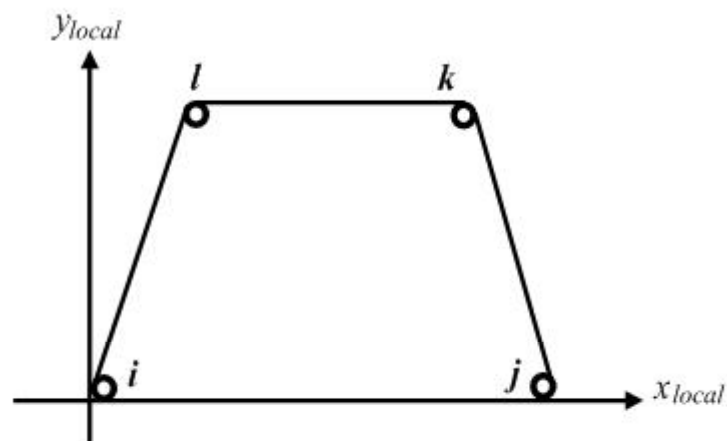
	4	1025	1049	10169	1	33	0.83	100	100	100	100
111	1	980	994	10170	1	15	0.55	100	100	100	100
111	2	994	1019	10135	1	15	0.81	100	100	100	100
111	3	1019	1027	10134	1	15	0.81	100	100	100	100
111	4	1027	1050	10133	1	15	0.83	100	100	100	100
112	1	999	1020	10132	1	15	0.81	100	100	100	100
112	2	1020	1028	10131	1	15	0.81	100	100	100	100
112	3	1028	1055	10130	1	15	0.83	100	100	100	100
113	1	957	985	10270	1	36	2.00	100	100	100	100
113	2	985	1001	10042	1	36	0.55	100	100	100	100
113	3	1001	1014	10041	1	36	0.79	100	100	100	100
113	4	1014	1026	10040	1	36	0.83	100	100	100	100
113	5	1026	1059	10039	1	36	0.83	100	100	100	100

- Elementi a 4 nodi

- Convenzioni adottate

L'elemento a 4 nodi è individuato tramite il numero dei quattro nodi di vertice dello stesso.

Gli assi del sistema di riferimento locale risultano così disposti:



- L'asse x_{locale} ha direzione parallela alla retta congiungente i nodi **i** e **j**, è passante per i medesimi nodi ed ha verso positivo da **i** a **j**.
- L'asse y_{locale} è ortogonale all'asse x_{locale} , passa per il nodo **i** ed ha verso positivo dalla parte del nodo **l**.
- L'asse z_{locale} è ottenuto per prodotto vettoriale fra x_{locale} e y_{locale} .

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento
1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Mesh isotropa	s= 20 [cm] PARETE 20
2	3	Mesh isotropa	s= 4 [cm] SOLAIO
3	3	Mesh isotropa	s= 24 [cm] TRAVE 24
4	3	Mesh isotropa	s= 4 [cm] SOLAIO PARTE CENTRALE

Nodo i	Nodo j	Nodo k	Nodo l	Materiale	Sezione
68	69	22	21	1	1
65	66	18	17	1	1
64	65	17	16	1	1
63	64	16	15	1	1
62	63	15	14	1	1
70	71	24	23	1	1
88	89	42	41	1	1
89	90	43	42	1	1
77	81	34	30	1	1
81	85	38	34	1	1
82	86	39	35	1	1
86	89	42	39	1	1
90	91	44	43	1	1
93	94	47	46	1	1
94	95	48	47	1	1
95	96	49	48	1	1
98	99	52	51	1	1
96	97	50	49	1	1
97	98	51	50	1	1
100	101	54	53	1	1
99	100	53	52	1	1
101	102	55	54	1	1
102	103	56	55	1	1
76	77	30	29	1	1
68	78	31	21	1	1
78	82	35	31	1	1
72	73	26	25	1	1
75	76	29	28	1	1
74	75	28	27	1	1
72	80	33	25	1	1
80	84	37	33	1	1
84	98	51	37	1	1
67	72	25	19	1	1
83	87	40	36	1	1
79	83	36	32	1	1
87	91	44	40	1	1
71	79	32	24	1	1
106	107	60	59	1	1
105	106	59	58	1	1
104	105	58	57	1	1
103	104	57	56	1	1
85	103	56	38	1	1

154	155	109	108	1	1
334	335	155	154	1	1
160	161	115	114	1	1
157	158	112	111	1	1
156	157	111	110	1	1
155	156	110	109	1	1
162	163	117	116	1	1
164	165	119	118	1	1
159	164	118	113	1	1
166	167	121	120	1	1
168	169	123	122	1	1
152	153	107	106	1	1
169	173	127	123	1	1
170	174	128	124	1	1
151	152	106	105	1	1
150	151	105	104	1	1
149	150	104	103	1	1
148	149	103	102	1	1
147	148	102	101	1	1
146	147	101	100	1	1
141	142	96	95	1	1
144	145	99	98	1	1
142	143	97	96	1	1
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855	856	822	821	1	1
856	857	823	822	1	1
857	858	824	823	1	1
891	917	918	892	3	2
892	918	919	893	3	2
883	908	886	859	3	2
908	913	914	886	3	2
886	914	911	887	3	2
889	915	916	890	3	2
867	893	910	868	3	2
884	885	908	883	3	2
885	912	913	908	3	2
881	906	907	882	3	2
864	909	891	865	3	2
868	910	894	869	3	2
863	890	909	864	3	2
880	905	906	881	3	2
879	904	905	880	3	2
878	903	904	879	3	2
862	889	890	863	3	2
861	888	889	862	3	2
865	891	892	866	3	2
859	886	887	860	3	2
860	887	888	861	3	2
866	892	893	867	3	2
877	902	903	878	3	2
876	901	902	877	3	2
875	900	901	876	3	2
874	899	900	875	3	2
873	898	899	874	3	2
872	897	898	873	3	2

	896	897	872	3	2
870	895	896	871	3	2
869	894	895	870	3	2
893	919	935	910	3	2
919	946	947	935	3	2
894	920	921	895	3	2
920	948	949	921	3	2
895	921	922	896	3	2
921	949	950	922	3	2
896	922	923	897	3	2
922	950	951	923	3	2
897	923	924	898	3	2
923	951	952	924	3	2
898	924	925	899	3	2
924	952	953	925	3	2
899	925	926	900	3	2
925	953	954	926	3	2
900	926	927	901	3	2
926	954	955	927	3	2
927	955	956	928	3	2
918	945	946	919	3	2
935	947	948	920	3	2
917	944	945	918	3	2
928	956	957	929	3	2
909	934	917	891	3	2
934	943	944	917	3	2
890	916	934	909	3	2
916	942	943	934	3	2
915	941	942	916	3	2
901	927	928	902	3	2
912	937	938	913	3	2
888	936	915	889	3	2
887	911	936	888	3	2
913	938	939	914	3	2
914	939	940	911	3	2
910	935	920	894	3	2
905	931	932	906	3	2
906	932	933	907	3	2
904	930	931	905	3	2
903	929	930	904	3	2
902	928	929	903	3	2
949	975	976	950	3	2
948	968	975	949	3	2
929	957	958	930	3	2
930	958	959	931	3	2
931	959	960	932	3	2
959	972	973	960	3	2
932	960	961	933	3	2
960	973	974	961	3	2
946	967	970	947	3	2
942	964	969	943	3	2

	971	972	959	3	2
943	969	965	944	3	2
947	970	968	948	3	2
951	978	979	952	3	2
952	979	980	953	3	2
941	963	964	942	3	2
944	965	966	945	3	2
945	966	967	946	3	2
975	976	826	825	1	1
936	962	941	915	3	2
911	940	962	936	3	2
976	977	827	826	1	1
977	978	828	827	1	1
978	979	829	828	1	1
979	980	830	829	1	1
979	993	994	980	3	2
980	994	835	830	1	1
963	1004	1005	964	3	2
956	984	985	957	3	2
953	980	981	954	3	2
955	983	984	956	3	2
984	1000	1001	985	3	2
983	999	1000	984	3	2
965	1006	1007	966	3	2
962	992	963	941	3	2
938	988	989	939	3	2
940	991	992	962	3	2
939	990	991	940	3	2
937	986	987	938	3	2
957	985	971	958	3	2
989	990	834	833	1	1
988	989	833	832	1	1
987	988	832	831	1	1
990	1003	836	834	1	1
1008	1042	1043	1012	3	2
969	1011	1006	965	3	2
1011	1039	1040	1006	3	2
1005	1038	1039	1011	3	2
1004	1037	1038	1005	3	2
1006	1040	1041	1007	3	2
1007	1041	1042	1008	3	2
1009	1044	1045	1010	3	2
992	1024	1004	963	3	2
1024	1036	1037	1004	3	2
991	1023	1024	992	3	2
1003	1022	1023	991	3	2
993	1013	1019	994	3	2
973	1017	1018	974	3	2
994	1019	837	835	1	1
1003	1022	838	836	1	1
964	1005	1011	969	3	2

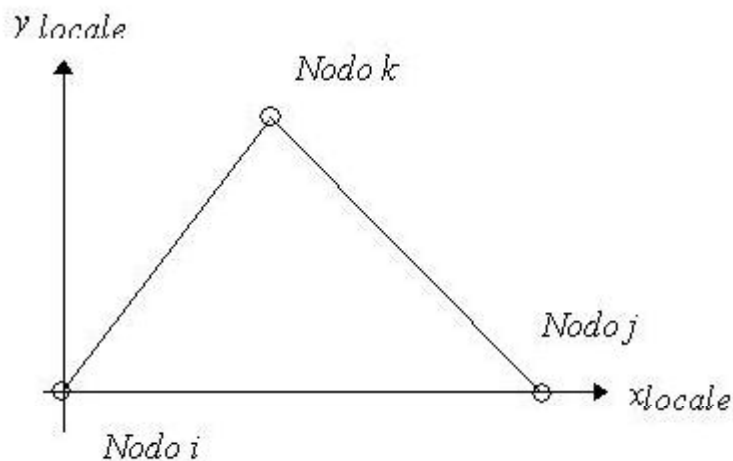
	1015	1016	972	3	2
967	1008	1012	970	3	2
972	1016	1017	973	3	2
966	1007	1008	967	3	2
968	1009	1010	975	3	2
970	1012	1009	968	3	2
1023	1035	1036	1024	3	2
1030	1034	1035	1023	3	2
1013	1025	1027	1019	3	2
1025	1049	1050	1027	3	2
1015	1060	1061	1016	3	2
1016	1061	1062	1017	3	2
1017	1062	1063	1018	3	2
1012	1043	1044	1009	3	2
1019	1027	839	837	1	1
1027	1050	849	839	1	1
1022	1030	840	838	1	1
1030	1034	844	840	1	1

- Elementi triangolari

- Convenzioni adottate

L'elemento triangolare è individuato tramite il numero dei nodi di vertice dello stesso.

Gli assi del sistema di riferimento locale risultano così disposti:



- L'asse x_{locale} ha direzione parallela alla retta congiungente i nodi **i** e **j**, è passante per i medesimi nodi ed ha verso positivo da **i** a **j**.
- L'asse y_{locale} è ortogonale all'asse x_{locale} , passa per il nodo **i** ed ha verso positivo dalla parte del nodo **k**.
- L'asse z_{locale} è ottenuto per prodotto vettoriale fra x_{locale} e y_{locale} .

- Caratteristiche dei Materiali:

Tipo	Modulo Elastico [kg/cm ²]	ν	alfa [1/°C]	Peso Specifico [kg/m ³]	Commento

1	300000.0	0.200	0.001000	2500.0	Calcestruzzo
2	2100000.0	0.025	0.001000	7850.0	Acciaio
3	300000.0	0.200	0.001000	1.0	Ausiliaria

- Sezioni Impiegate:

Sezione	Materiale	Tipo di Sezione	Parametri Dimensionali Commenti
1	1	Mesh isotropa	s= 20 [cm] PARETE 20
2	1	Mesh isotropa	s= 4 [cm] SOLAIO
3	3	Mesh isotropa	s= 24 [cm] TRAVE 24
4	1	Mesh isotropa	s= 4 [cm] SOLAIO PARTE CENTRALE

Nodo 1	Nodo 2	Nodo 3	Materiale	Sezione
299	288	289	1	2
299	289	320	1	2
299	287	288	1	2
287	318	299	1	2
284	298	283	1	2
318	319	299	1	2
319	299	320	1	2
290	300	291	1	2
321	290	300	1	2
321	313	300	1	2
284	298	315	1	2
297	298	314	1	2
315	314	298	1	2
301	313	300	1	2
324	325	373	1	2
296	352	353	1	2
295	350	351	1	2
301	335	336	1	2
340	341	305	1	2
353	365	354	1	2
297	354	355	1	2
354	365	371	1	2
357	356	339	1	2
339	357	340	1	2
340	357	358	1	2
340	358	359	1	2
359	340	341	1	2
305	341	306	1	2
341	306	342	1	2
341	359	360	1	2
360	341	342	1	2
360	342	361	1	2
371	370	365	1	2
373	390	391	1	2
325	373	391	1	2
370	382	371	1	2

371	382	388	1	2
366	363	374	1	2
366	374	378	1	2
388	387	382	1	2
620	621	636	1	2
630	645	631	1	2
631	645	646	1	2
647	671	670	1	2
647	671	648	1	2
648	671	672	1	2
692	691	674	1	2
674	692	675	1	2
676	675	651	1	2
692	675	693	1	2
675	694	693	1	2
675	676	694	1	2
651	676	652	1	2
652	676	677	1	2
676	694	695	1	2
676	677	695	1	2
695	677	696	1	2
633	681	682	1	2
634	683	684	1	2
700	684	685	1	2
698	679	687	1	2
635	685	686	1	2
706	705	700	1	2
698	687	701	1	2
705	713	706	1	2
685	700	706	1	2
708	660	659	1	2
719	718	713	1	2
706	713	719	1	2
708	722	721	1	2
708	660	722	1	2
709	744	745	1	2
1001	985	971	1	2
971	1001	1015	1	2
939	989	990	1	2
938	987	988	1	2
954	982	955	1	2
955	982	983	1	2
950	976	977	1	2
950	977	951	1	2
951	977	978	1	2
982	981	954	1	2
990	1003	991	1	2
994	995	980	1	2
980	995	981	1	2
995	981	996	1	2
981	996	997	1	2

	981	982	1	2
998	997	982	1	2
982	998	983	1	2
998	999	983	1	2
1014	1001	1015	1	2
1022	1030	1023	1	2
1026	1015	1014	1	2
1015	1060	1026	1	2
1026	1059	1060	1	2

- Condizioni e combinazioni di carico

- Convenzioni adottate

Nel seguito vengono riportate il numero di condizioni di carico statiche e dinamiche che sollecitano la struttura. Si noti che:

- Per quanto riguarda le condizioni di carico dinamiche, il programma assimila ogni direzione di ingresso del sisma, definita dal progettista, ad una condizione di carico. Pertanto qualora agiscano sulla struttura n condizioni di carico statiche e il progettista abbia supposto che la struttura venga sollecitata da un sisma entrante in m direzioni, la struttura stessa viene considerata del programma come soggetta ad $n + m$ condizioni di carico.
- Le combinazioni di carico, definite dal progettista, combinano fra loro le $n + m$ condizioni di carico ognuna partecipante alla combinazione i -esima secondo i fattori di partecipazione nel seguito riportati. N.B.: se la condizione j -esima ha fattore di partecipazione unitario, allora partecipa per intero alla combinazione i -esima.
- Le prime n condizioni sono sempre statiche mentre sono di origine dinamica le (eventuali) condizioni da $n+1$ a $n+m$.

- Condizioni di carico definite:

- Cond. 1 PROPRI
- Cond. 2 PERMANENTI
- Cond. 3 VARIABILI
- Cond. 4 NEVE
- Cond. 5 PERMANENTI TRAVI BORDO
- Cond. 6 Sisma 0SLV
- Cond. 7 Sisma 90SLV
- Cond. 8 Sisma 180SLV
- Cond. 9 Sisma 270SLV

- Combinazioni agli Stati Limite Ultimi

Combinazione di carico numero

1
2

Comb.\Cond	1	2	3	4	5
1	1.3000	1.3000	1.5000	0.7500	1.3000
2	1.3000	1.3000	1.0500	1.5000	1.3000

- Combinazioni agli Stati Limite di Salvaguardia della Vita

Combinazione di carico numero

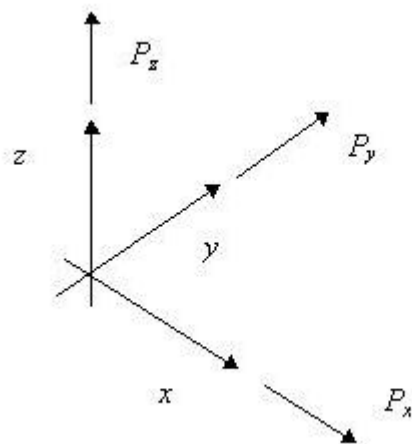
	3	Sisma 0 / 90
	4	Sisma 0 / 270
	5	Sisma 90 / 0
	6	Sisma 90 / 180
	7	Sisma 180 / 90
	8	Sisma 180 / 270
	9	Sisma 270 / 0
	10	Sisma 270 / 180

Comb.\Cond	1	2	3	4	5	6	7	8	9
3	1.0000	1.0000	0.2000	1.0000	1.0000	1.0000	0.3000	0.0000	0.0000
4	1.0000	1.0000	0.2000	1.0000	1.0000	1.0000	0.0000	0.0000	0.3000
5	1.0000	1.0000	0.2000	1.0000	1.0000	0.3000	1.0000	0.0000	0.0000
6	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	1.0000	0.3000	0.0000
7	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.3000	1.0000	0.0000
8	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.0000	1.0000	0.3000
9	1.0000	1.0000	0.2000	1.0000	1.0000	0.3000	0.0000	0.0000	1.0000
10	1.0000	1.0000	0.2000	1.0000	1.0000	0.0000	0.0000	0.3000	1.0000

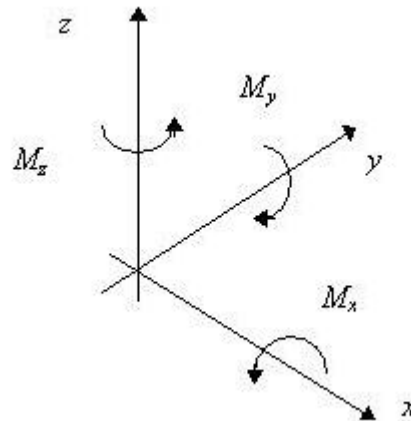
- Carichi e coppie applicati ai nodi

- Convenzioni adottate

La terna di riferimento generale è destrorsa per cui si hanno i seguenti segni positivi per i carichi o per le coppie direttamente applicati ai nodi:



Versi positivi delle forze concentrate applicate ai nodi.



Versi positivi delle coppie concentrate applicate ai nodi.

Nel seguito vengono riportati per ogni nodo, su cui agiscono carichi concentrati, le componenti del carico (P_x , P_y , P_z , M_x , M_y , M_z) e la condizione di carico cui esse fanno riferimento.

Nodo	Cond.	P_x [kg]	P_y [kg]	P_z [kg]	M_x [kgm]	M_y [kgm]	M_z [kgm]
224	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
253	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
268	2	0.0	0.0	-0.6	0.0	0.0	0.0
	3	0.0	0.0	-0.2	0.0	0.0	0.0
294	2	0.0	0.0	-2104.9	0.0	0.0	0.0
	3	0.0	0.0	-765.4	0.0	0.0	0.0
296	2	0.0	0.0	-2104.9	0.0	0.0	0.0
	3	0.0	0.0	-765.4	0.0	0.0	0.0
859	2	0.0	0.0	-1652.1	0.0	0.0	0.0
	4	0.0	0.0	-360.5	0.0	0.0	0.0
861	2	0.0	0.0	-1652.1	0.0	0.0	0.0
	4	0.0	0.0	-360.5	0.0	0.0	0.0
884	2	0.0	0.0	-0.5	0.0	0.0	0.0
	4	0.0	0.0	-0.1	0.0	0.0	0.0
885	2	0.0	0.0	-0.5	0.0	0.0	0.0
	4	0.0	0.0	-0.1	0.0	0.0	0.0
912	2	0.0	0.0	-0.5	0.0	0.0	0.0
	4	0.0	0.0	-0.1	0.0	0.0	0.0

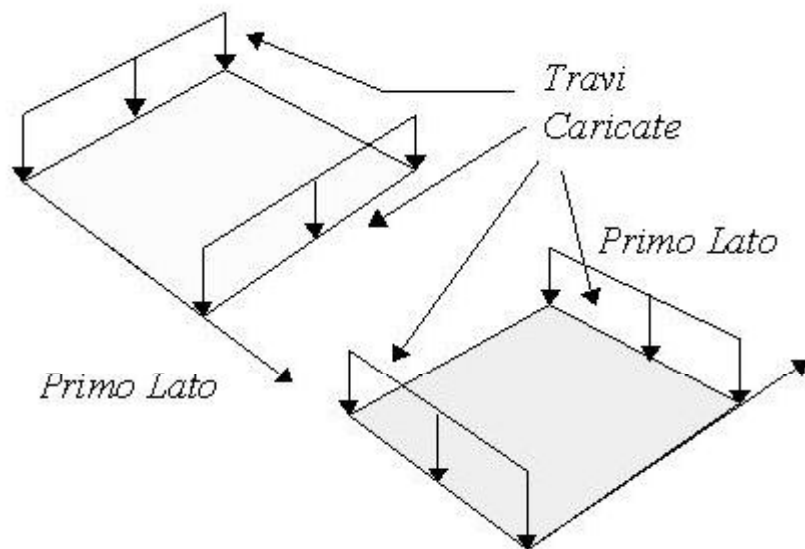
- Dati relativi alle aree di carico

- Convenzioni adottate

Nel seguito sono riportate le *aree di carico* definite nel progetto.

Un'*area di carico* è definita da una superficie contornata da travi di bordo ed i carichi superficiali su essa agenti vengono riportati dal programma sulle travi perimetrali in ragione dell'area di influenza relativa ad ogni trave e della direzione di orditura della superficie.

È importante rilevare che **la direzione di orditura viene assunta dal programma con riferimento al primo lato della superficie di carico e non con riferimento all'asse x globale della struttura.**



Esempio: *direzione di orditura 0 gradi.*

In particolare ricordiamo che le *aree di carico* fungono esclusivamente da supporto per il calcolo dei carichi di tipo superficiale in quanto i carichi definiti tramite tali *aree di carico* in effetti vengono trasferiti (sotto forma di carichi lineari o carichi nodali concentrati nei nodi) sulle travi perimetrali che contornano l'area di carico stessa.

A seguire vengono riportati per ogni tipologia definita i carichi agenti nelle varie condizioni di carico. La dizione:

Globale

indica che il carico è definito nel sistema di riferimento globale della struttura.

Globale Proiettato

indica che il carico è definito nel sistema di riferimento globale della struttura ma il valore viene computato in proiezione.

Locale

indica che il carico è definito nel sistema di riferimento locale della superficie di carico.

Area di Carico Numero	Commento
1	Solaio 1
2	Solaio 2
3	Solaio 3

Tipo	Alfa	Condizione	Carico Trasmesso	Riferimento	qx	qy	qz
					[kg/m²] Qx [kg]	[kg/m²] Qy [kg]	[kg/m²] Qz [kg]
1	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					-0.0	0.0	147609.3
1	0.00	3	Alle Travi	Globale	0.0	0.0	200.0
					-0.0	-0.0	53676.1

2	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					0.0	-0.0	144769.6
2	0.00	3	Alle Travi	Globale	0.0	0.0	200.0
					-0.0	-0.0	52643.5
3	0.00	2	Alle Travi	Globale	0.0	0.0	550.0
					0.0	0.0	180411.0
3	0.00	4	Alle Travi	Globale	0.0	0.0	120.0
					0.0	-0.0	39362.4

Tipologia**Nodi**

1	349 294 295 296 297 298 314 324 373 390 389
	388 387 382 370 365 353 352 351 350 349
1	314 298 283 284 285 286 287 288 299 319 318
	317 316 315 314
1	304 259 242 214 215 216 217 218 246 263 308
	307 306 305 304
1	294 268 253 224 223 198 199 200 255 283 298
	297 296 294
1	300 291 237 210 211 212 213 214 242 259 304
	303 302 301 300
1	308 263 246 218 219 220 221 222 250 267 312
	311 310 309 308
1	390 373 324 314 315 316 317 318 319 329 395
	394 393 392 391 390
1	319 299 288 289 292 293 290 291 300 313 321
	323 322 320 319
1	395 329 319 320 322 323 321 313 334 399 398
	397 383 396 395
1	334 313 300 301 302 303 304 339 338 337 336
	335 334
1	356 339 304 305 306 307 308 344 363 362 361
	360 359 358 357 356
1	413 378 366 363 344 308 309 310 311 312 348
	377 417 416 415 414 413
2	654 611 578 579 580 581 582 615 658 657 656
	655 654
2	650 607 574 575 576 577 578 611 654 653 652

	651 650
2	646 597 570 571 572 573 574 607 650 649 648
	647 646
2	632 616 598 584 583 558 559 560 603 620 636
	635 634 633 632
2	744 709 701 698 679 654 655 656 657 658 690
	748 747 746 745 744
2	691 674 650 651 652 653 654 679 698 697 696
	695 694 693 692 691
2	669 646 647 648 649 650 674 673 672 671 670
	669
2	726 664 641 642 643 644 645 646 669 730 729
	728 714 727 726
2	721 708 659 636 637 638 639 640 641 664 726
	725 724 723 722 721
2	680 632 633 634 635 636 659 708 721 720 719
	718 713 705 700 684 683 682 681 680
3	957 929 903 878 879 880 881 882 907 933 961
	960 959 958 957
3	941 915 889 862 863 864 865 866 892 918 945
	944 943 942 941
3	945 918 892 866 867 868 869 870 895 921 949
	948 947 946 945
3	949 921 895 870 871 872 873 874 899 925 953
	952 951 950 949
3	953 925 899 874 875 876 877 878 903 929 957
	956 955 954 953
3	1059 1026 1014 1001 985 957 958 959 960 961 974
	1018 1063 1062 1061 1060 1059
3	937 912 885 884 883 859 861 862 889 915 941
	962 940 939 938 937
3	986 937 938 939 940 962 941 963 1004 1037 1036
	1035 1034 1030 1022 1003 990 989 988 987 986
3	1037 1004 963 941 942 943 944 945 966 1007 1041
	1040 1039 1038 1037

3	1041 1007 966 945 946 947 948 949 975 1010 1045
	1044 1043 1042 1041
3	975 949 950 951 952 953 980 979 978 977 976
	975
3	979 980 994 1019 1027 1050 1049 1025 1013 993 979
3	994 980 953 954 955 956 957 985 1001 1000 999
	998 997 996 995 994

- Carichi applicati agli elementi

- Convenzioni adottate

I carichi applicati vengono raccolti nella tabella riportata alla fine del paragrafo e si intendono applicati nel sistema di riferimento locale dell'elemento.

Per la lettura della tabella si definiscono:

Nodol, Nodol

I nodi iniziale/finale dell'asta o lato dell'elemento cui afferisce il carico

L

La distanza fra i suddetti nodi.

qxi, ..., qzj

Le componenti di un carico distribuito costante o variabile linearmente iniziali (indice i) e finale (indice j).

xi, xj

Le distanze, misurate a partire dal Nodol, dei punti di applicazione dei carichi qxi..qzj relativi a carichi distribuiti applicati su porzioni di un'asta.

Px, ..., Pz xApp

Le componenti di un Carico Concentrato applicato a distanza xApp dal Nodol.

Mx, ..., Mz xApp

Le componenti di una Coppia Concentrata applicata a distanza xApp dal Nodol.

Var Termica Assiale, ..., Var Termica Farfalla 13

Le variazioni termiche (Assiali ed a Farfalla) misurate in gradi Celsius.

mxi, ..., mzj

Le componenti di coppie distribuite costanti o variabili linearmente iniziali (indice i) e finale (indice j).

qS_x, qS_y, qS_z

carichi, per unità di superficie, applicati su elementi superficiali o facce di elementi solidi

Peso Proprio

Il valore del carico derivante dal peso proprio dell'elemento

- Carichi distribuiti

Nodo I	Nodo J	L [m]	Condizione di carico	xi [m]	qxi [kg/m]	qyi [kg/m]	qzi [kg/m]	xj [m]	qxj [kg/m]	qyj [kg/m]	qzj [kg/m]
1	200	3.45	1	0.00	787.5	0.0	0.0	3.45	787.5	0.0	0.0
223	224	1.53	5	0.00	0.0	354.0	0.0	1.53	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.53	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.53	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.53	0.0	500.0	0.0
200	560	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
198	223	1.53	5	0.00	0.0	354.0	0.0	1.53	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.53	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.53	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.53	0.0	500.0	0.0
560	862	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
199	198	1.57	5	0.00	0.0	354.0	0.0	1.57	0.0	354.0	0.0
			1	0.00	0.0	445.5	-0.0	1.57	0.0	445.5	-0.0
			2	0.00	0.0	1375.0	-0.0	1.57	0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	1.57	0.0	500.0	-0.0
2	210	3.45	1	0.00	787.5	0.0	0.0	3.45	787.5	0.0	0.0
200	199	1.57	5	0.00	0.0	354.0	0.0	1.57	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.57	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
210	570	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
201	200	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
570	870	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
233	226	0.52	1	0.00	0.0	0.0	-83.3	0.52	0.0	0.0	-83.3
3	214	3.45	1	0.00	675.0	0.0	0.0	3.45	675.0	0.0	0.0
202	201	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
214	574	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
227	233	0.80	1	0.00	0.0	0.0	-83.3	0.80	0.0	0.0	-83.3
574	874	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
203	202	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
4	218	3.45	1	0.00	675.0	0.0	0.0	3.45	675.0	0.0	0.0
228	227	2.20	1	0.00	0.0	0.0	-83.3	2.20	0.0	0.0	-83.3
218	578	3.45	1	0.00	393.8	0.0	0.0	3.45	393.8	0.0	0.0
204	203	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
578	878	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
229	228	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
5	222	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
205	204	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
222	582	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
225	229	0.75	1	0.00	0.0	0.0	-83.3	0.75	0.0	0.0	-83.3
582	882	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
234	225	0.75	1	0.00	0.0	0.0	-83.3	0.75	0.0	0.0	-83.3
6	224	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
206	205	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0

			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
224	584	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
207	206	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
584	884	3.45	1	0.00	337.5	0.0	0.0	3.45	337.5	0.0	0.0
230	234	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
7	294	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
208	207	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
294	632	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
231	230	2.20	1	0.00	0.0	0.0	-83.3	2.20	0.0	0.0	-83.3
632	937	3.45	1	0.00	165.0	0.0	0.0	3.45	165.0	0.0	0.0
209	208	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
8	298	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
232	231	0.80	1	0.00	0.0	0.0	-83.3	0.80	0.0	0.0	-83.3
298	636	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
210	209	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
636	941	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
235	232	0.52	1	0.00	0.0	0.0	-83.3	0.52	0.0	0.0	-83.3
9	300	3.45	1	0.00	450.0	0.0	0.0	3.45	450.0	0.0	0.0
211	210	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
300	646	3.45	1	0.00	306.3	0.0	0.0	3.45	306.3	0.0	0.0
212	211	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
646	949	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
213	212	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
10	304	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
214	213	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
304	650	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
215	214	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
650	953	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
216	215	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	1.50	0.0	1374.9	0.0	1.50	0.0	1374.9	0.0
			3	1.50	0.0	500.0	0.0	1.50	0.0	500.0	0.0

			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
11	308	3.45	1	0.00	350.0	0.0	0.0	3.45	350.0	0.0	0.0
217	216	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
308	654	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
218	217	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
654	957	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
219	218	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
12	312	3.45	1	0.00	250.0	0.0	0.0	3.45	250.0	0.0	0.0
220	219	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
312	658	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
221	220	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
658	961	3.45	1	0.00	165.0	0.0	0.0	3.45	165.0	0.0	0.0
222	221	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
13	324	3.45	1	0.00	100.0	0.0	0.0	3.45	100.0	0.0	0.0
273	272	0.52	1	0.00	0.0	0.0	83.3	0.52	0.0	0.0	83.3
14	62	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
274	273	0.80	1	0.00	0.0	0.0	83.3	0.80	0.0	0.0	83.3
62	108	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
275	274	2.20	1	0.00	0.0	0.0	83.3	2.20	0.0	0.0	83.3
108	154	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
276	275	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
154	334	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
277	276	0.75	1	0.00	0.0	0.0	83.3	0.75	0.0	0.0	83.3
334	418	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
278	277	0.75	1	0.00	0.0	0.0	83.3	0.75	0.0	0.0	83.3
418	466	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
279	278	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
466	514	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
280	279	2.20	1	0.00	0.0	0.0	83.3	2.20	0.0	0.0	83.3
514	669	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
281	280	0.80	1	0.00	0.0	0.0	83.3	0.80	0.0	0.0	83.3
669	749	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0

	281	0.52	1	0.00	0.0	0.0	83.3	0.52	0.0	0.0	83.3
749	787	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
295	294	1.26	1	0.00	0.0	640.0	0.0	1.26	0.0	640.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
787	825	0.80	1	0.00	100.0	0.0	0.0	0.80	100.0	0.0	0.0
296	295	1.80	1	0.00	0.0	640.0	0.0	1.80	0.0	640.0	0.0
			2	1.36	0.0	649.0	0.0	1.80	0.0	649.0	0.0
			3	1.36	-0.0	236.0	0.0	1.80	-0.0	236.0	0.0
			2	0.44	0.0	649.0	0.0	1.36	0.0	649.0	0.0
			3	0.44	0.0	236.0	0.0	1.36	0.0	236.0	0.0
			2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
825	975	1.05	1	0.00	100.0	0.0	0.0	1.05	100.0	0.0	0.0
297	296	1.57	1	0.00	0.0	640.0	0.0	1.57	0.0	640.0	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.52	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.52	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
20	344	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
298	297	1.57	1	0.00	0.0	640.0	0.0	1.57	0.0	640.0	0.0
			2	0.00	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	1.05	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	1.05	-0.0	500.0	0.0	1.57	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.05	-0.0	500.0	0.0
344	679	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
284	283	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
679	985	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
285	284	0.80	1	0.00	0.0	1182.5	0.0	0.80	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.80	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.80	0.0	86.0	0.0
41	88	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
286	285	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
88	134	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
287	286	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
134	180	0.80	1	0.00	250.0	0.0	0.0	0.80	250.0	0.0	0.0
288	287	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
180	384	1.05	1	0.00	250.0	0.0	0.0	1.05	250.0	0.0	0.0
289	288	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0

			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
384	444	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
292	289	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
444	492	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
293	292	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
492	540	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
290	293	0.80	1	0.00	0.0	1182.5	-0.0	0.80	0.0	1182.5	-0.0
			2	0.00	0.0	236.5	-0.0	0.80	0.0	236.5	-0.0
			3	0.00	0.0	86.0	-0.0	0.80	0.0	86.0	-0.0
540	715	1.05	1	0.00	187.5	0.0	0.0	1.05	187.5	0.0	0.0
291	290	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
715	765	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
315	314	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
765	803	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
316	315	0.80	1	0.00	0.0	1182.5	0.0	0.80	0.0	1182.5	0.0
			2	0.00	0.0	1256.7	0.0	0.80	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	0.80	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.80	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.80	0.0	86.0	0.0
803	841	0.80	1	0.00	187.5	0.0	0.0	0.80	187.5	0.0	0.0
317	316	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	0.0	1256.7	0.0	2.20	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	2.20	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
841	1031	1.05	1	0.00	187.5	0.0	0.0	1.05	187.5	0.0	0.0
318	317	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	1.50	-0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	1.50	-0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
45	92	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
319	318	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	0.0	0.75	0.0	457.0	0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
92	138	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
320	319	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	-0.0	0.75	-0.0	1256.7	0.0

			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
138	390	1.85	1	0.00	700.0	0.0	0.0	1.85	700.0	0.0	0.0
322	320	1.50	1	0.00	0.0	1182.5	0.0	1.50	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	-0.0	1.50	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	1.50	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	1.50	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	1.50	0.0	86.0	0.0
390	450	0.80	1	0.00	225.0	0.0	0.0	0.80	225.0	0.0	0.0
323	322	2.20	1	0.00	0.0	1182.5	0.0	2.20	0.0	1182.5	0.0
			2	0.00	-0.0	1256.7	0.0	2.20	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	-0.0	2.20	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	2.20	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	2.20	0.0	86.0	0.0
450	498	0.80	1	0.00	225.0	0.0	0.0	0.80	225.0	0.0	0.0
321	323	0.80	1	0.00	0.0	1182.5	-0.0	0.80	0.0	1182.5	-0.0
			2	0.00	-0.0	1256.7	-0.0	0.80	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	-0.0	0.80	0.0	457.0	-0.0
			2	0.00	0.0	236.5	-0.0	0.80	0.0	236.5	-0.0
			3	0.00	0.0	86.0	-0.0	0.80	0.0	86.0	-0.0
498	721	1.85	1	0.00	225.0	0.0	0.0	1.85	225.0	0.0	0.0
313	321	0.75	1	0.00	0.0	1182.5	0.0	0.75	0.0	1182.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
			2	0.00	0.0	236.5	0.0	0.75	0.0	236.5	0.0
			3	0.00	0.0	86.0	0.0	0.75	0.0	86.0	0.0
721	771	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
301	300	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
771	809	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
302	301	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
809	1037	1.85	1	0.00	262.5	0.0	0.0	1.85	262.5	0.0	0.0
303	302	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.20	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	1.20	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.10	0.0	550.0	0.0	1.20	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.20	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0

			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
46	93	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
304	303	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.00	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
93	139	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
305	304	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			3	0.98	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.98	0.0	255.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.1	0.0	0.00	0.0	1375.1	0.0
			3	0.00	0.0	500.0	0.0	0.00	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
139	184	0.80	1	0.00	700.0	0.0	0.0	0.80	700.0	0.0	0.0
306	305	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	0.90	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			3	0.90	-0.0	255.0	0.0	1.50	-0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.90	0.0	255.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
184	399	1.05	1	0.00	700.0	0.0	0.0	1.05	700.0	0.0	0.0
307	306	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			3	1.10	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	1.10	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
399	451	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
308	307	1.50	1	0.00	0.0	640.0	0.0	1.50	0.0	640.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	1.30	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
451	499	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
309	308	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0

			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
499	544	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
310	309	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
544	730	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
311	310	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
730	772	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
312	311	1.55	1	0.00	0.0	640.0	0.0	1.55	0.0	640.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.55	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
772	810	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
350	349	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
810	845	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
350	351	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.44	0.0	236.0	0.0
845	1045	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
352	351	0.92	2	0.00	0.0	649.0	0.0	0.92	0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.92	0.0	236.0	0.0
51	98	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
352	353	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
98	144	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
334	335	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
144	188	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
335	336	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
188	404	1.05	1	0.00	350.0	0.0	0.0	1.05	350.0	0.0	0.0
336	337	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
404	456	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
337	338	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
456	504	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
338	339	1.60	2	0.10	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.60	0.0	200.0	0.0

			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
504	548	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
356	357	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.52	0.0	255.0	0.0
548	735	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
357	358	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.80	0.0	255.0	0.0
735	777	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
358	359	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			3	0.18	0.0	255.0	0.0	0.78	0.0	255.0	0.0
			2	0.00	0.0	701.2	0.0	0.18	0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	0.18	-0.0	255.0	0.0
777	815	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
359	360	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	0.72	-0.0	255.0	0.0
815	849	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
360	361	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			3	0.18	-0.0	255.0	0.0	0.58	-0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
849	1050	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
362	361	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	0.20	0.0	255.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.20	0.0	255.0	0.0	1.30	0.0	255.0	0.0
60	107	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
363	362	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
107	153	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
385	384	1.26	1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
153	197	0.80	1	0.00	350.0	0.0	0.0	0.80	350.0	0.0	0.0
386	385	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
197	413	1.05	1	0.00	350.0	0.0	0.0	1.05	350.0	0.0	0.0
387	386	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
413	465	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
388	387	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
465	513	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
389	388	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
			2	0.52	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.05	0.0	500.0	0.0
513	557	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
390	389	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0

			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
557	744	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
391	390	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0
			2	0.00	0.0	1256.8	0.0	0.75	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
744	786	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
392	391	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	0.0	1256.8	0.0	0.80	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	0.80	-0.0	457.0	0.0
786	824	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
393	392	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	0.0	1256.7	0.0	2.20	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	2.20	-0.0	457.0	0.0
824	858	0.80	1	0.00	262.5	0.0	0.0	0.80	262.5	0.0	0.0
394	393	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	0.0	1256.8	0.0	1.50	0.0	1256.8	0.0
			3	0.00	-0.0	457.0	0.0	1.50	-0.0	457.0	0.0
858	1059	1.05	1	0.00	262.5	0.0	0.0	1.05	262.5	0.0	0.0
395	394	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	0.0	1256.7	0.0	0.75	0.0	1256.7	0.0
			3	0.00	-0.0	457.0	0.0	0.75	-0.0	457.0	0.0
61	417	3.45	1	0.00	300.0	0.0	0.0	3.45	300.0	0.0	0.0
396	395	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	862.5	0.0	0.75	0.0	862.5	0.0
			2	0.00	-0.0	1256.8	0.0	0.75	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
417	748	3.45	1	0.00	225.0	0.0	0.0	3.45	225.0	0.0	0.0
383	396	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	1.50	0.0	637.5	0.0
			2	0.00	-0.0	1256.7	0.0	1.50	0.0	1256.8	-0.0
			3	0.00	0.0	457.0	-0.0	1.50	0.0	457.0	-0.0
748	1063	3.45	1	0.00	187.5	0.0	0.0	3.45	187.5	0.0	0.0
397	383	2.20	5	0.00	0.0	354.0	0.0	2.20	0.0	354.0	0.0
			1	0.00	0.0	637.5	0.0	2.20	0.0	637.5	0.0
			2	0.00	-0.0	1256.7	-0.0	2.20	-0.0	1256.7	-0.0
			3	0.00	0.0	457.0	0.0	2.20	0.0	457.0	0.0
299	641	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
398	397	0.80	5	0.00	0.0	354.0	0.0	0.80	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.80	0.0	1875.0	0.0
			2	0.00	-0.0	1256.7	0.0	0.80	-0.0	1256.7	0.0
			3	0.00	0.0	457.0	-0.0	0.80	0.0	457.0	-0.0
565	866	3.45	1	0.00	262.5	0.0	0.0	3.45	262.5	0.0	0.0
399	398	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	1875.0	0.0	0.75	0.0	1875.0	0.0

			2	0.00	-0.0	1256.8	0.0	0.75	-0.0	1256.8	0.0
			3	0.00	0.0	457.0	-0.0	0.75	0.0	457.0	-0.0
726	1041	3.45	1	0.00	218.8	0.0	0.0	3.45	218.8	0.0	0.0
400	399	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
401	400	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
402	401	1.00	1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
403	402	1.20	1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
404	403	1.60	1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
414	413	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
415	414	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
416	415	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.55	0.0	500.0	0.0
417	416	1.55	5	0.00	0.0	354.0	0.0	1.55	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.55	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.55	-0.0	500.0	0.0
583	584	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	-0.0	1.50	0.0	445.5	-0.0
			2	0.24	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.24	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
			2	0.00	0.0	1375.0	-0.0	0.24	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.24	-0.0	500.0	-0.0
558	583	1.56	5	0.00	0.0	354.0	0.0	1.56	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.56	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.56	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.56	-0.0	500.0	-0.0
559	558	1.64	5	0.00	0.0	354.0	0.0	1.64	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.64	0.0	445.5	0.0
			2	0.07	0.0	1375.0	0.0	1.64	0.0	1375.0	0.0
			3	0.07	-0.0	500.0	0.0	1.64	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.07	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.07	0.0	500.0	0.0
560	559	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	0.0
561	560	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
593	586	0.55	1	0.00	0.0	0.0	-83.3	0.55	0.0	0.0	-83.3
562	561	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
587	593	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
563	562	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0

			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
588	587	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
564	563	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
589	588	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
565	564	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
585	589	0.75	1	0.00	0.0	0.0	-83.3	0.75	0.0	0.0	-83.3
594	585	0.75	1	0.00	0.0	0.0	-83.3	0.75	0.0	0.0	-83.3
566	565	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
567	566	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
590	594	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
568	567	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
591	590	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
569	568	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
592	591	1.50	1	0.00	0.0	0.0	-83.3	1.50	0.0	0.0	-83.3
570	569	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
595	592	0.56	1	0.00	0.0	0.0	-83.3	0.56	0.0	0.0	-83.3
571	570	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
572	571	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
573	572	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
574	573	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
575	574	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
576	575	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
577	576	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0

	577	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
579	578	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
580	579	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.60	0.0	445.5	0.0
			2	1.50	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
581	580	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.60	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.60	-0.0	500.0	0.0
582	581	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
633	632	1.26	1	0.00	0.0	575.0	0.0	1.26	0.0	575.0	0.0
			2	0.00	-0.0	649.0	0.0	1.26	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.26	-0.0	500.0	-0.0
634	633	1.80	1	0.00	0.0	575.0	0.0	1.80	0.0	575.0	0.0
			2	1.36	0.0	649.0	0.0	1.80	0.0	649.0	0.0
			3	1.36	-0.0	236.0	0.0	1.80	-0.0	236.0	0.0
			2	0.44	-0.0	649.0	0.0	1.36	-0.0	649.0	0.0
			3	0.44	0.0	236.0	0.0	1.36	0.0	236.0	0.0
			2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.56	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.56	-0.0	500.0	-0.0
			2	1.56	0.0	1375.0	-0.0	1.80	0.0	1375.0	-0.0
			3	1.56	-0.0	500.0	-0.0	1.80	-0.0	500.0	-0.0
635	634	1.57	1	0.00	0.0	575.0	0.0	1.57	0.0	575.0	0.0
			2	0.52	-0.0	1375.0	0.0	1.57	-0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.52	0.0	500.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.57	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.57	-0.0	500.0	-0.0
636	635	1.57	1	0.00	0.0	575.0	0.0	1.57	0.0	575.0	0.0
			2	1.05	-0.0	1375.0	0.0	1.57	-0.0	1375.0	0.0
			3	1.05	0.0	500.0	0.0	1.57	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.05	-0.0	500.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	0.0	1375.0	-0.0

			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
			2	1.50	0.0	1375.0	0.0	1.57	0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.57	0.0	500.0	0.0
637	636	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
622	621	0.55	1	0.00	0.0	0.0	83.3	0.55	0.0	0.0	83.3
638	637	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
623	622	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
639	638	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
624	623	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
640	639	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
625	624	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
626	625	0.75	1	0.00	0.0	0.0	83.3	0.75	0.0	0.0	83.3
641	640	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
642	641	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	-0.0	1375.0	-0.0	0.75	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
627	626	0.75	1	0.00	0.0	0.0	83.3	0.75	0.0	0.0	83.3
643	642	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
628	627	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
644	643	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
629	628	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
645	644	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
630	629	1.50	1	0.00	0.0	0.0	83.3	1.50	0.0	0.0	83.3
646	645	0.75	1	0.00	0.0	575.0	0.0	0.75	0.0	575.0	0.0
			2	0.00	0.0	1375.0	-0.0	0.75	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
631	630	0.55	1	0.00	0.0	0.0	83.3	0.55	0.0	0.0	83.3
647	646	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
648	647	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0

			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
649	648	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.20	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	1.20	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.10	0.0	550.0	0.0	1.20	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.20	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
650	649	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.50	0.0	200.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
651	650	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			3	0.98	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.98	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
652	651	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.90	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	0.90	-0.0	255.0	0.0	1.50	-0.0	255.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			3	0.18	0.0	255.0	0.0	0.90	0.0	255.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
653	652	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			3	1.10	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	1.10	0.0	255.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
654	653	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			3	1.30	0.0	255.0	0.0	1.50	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0

			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
655	654	1.60	1	0.00	0.0	575.0	0.0	1.60	0.0	575.0	0.0
			2	0.10	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.10	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	0.10	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.10	0.0	500.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.10	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.10	0.0	500.0	0.0
			2	0.10	-0.0	1375.0	0.0	1.60	-0.0	1375.0	0.0
			3	0.10	0.0	500.0	0.0	1.60	0.0	500.0	0.0
656	655	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
657	656	1.60	1	0.00	0.0	575.0	0.0	1.60	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
658	657	1.50	1	0.00	0.0	575.0	0.0	1.50	0.0	575.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	1.50	-0.0	500.0	0.0
681	680	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	-0.0	649.0	0.0	1.26	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	1.26	0.0	236.0	0.0
681	682	0.44	2	0.00	-0.0	649.0	0.0	0.44	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.44	0.0	236.0	0.0
683	682	0.92	2	0.00	-0.0	649.0	0.0	0.92	-0.0	649.0	0.0
			3	0.00	0.0	236.0	0.0	0.92	0.0	236.0	0.0
683	684	0.44	2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			3	0.00	-0.0	236.0	0.0	0.44	-0.0	236.0	0.0
669	670	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
670	671	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.40	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.40	0.0	200.0	0.0
671	672	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.80	0.0	200.0	0.0	1.10	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.80	0.0	200.0	0.0
672	673	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	1.10	0.0	200.0	0.0
673	674	1.60	2	0.10	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			3	0.10	0.0	200.0	0.0	1.60	0.0	200.0	0.0
			2	0.00	0.0	550.0	0.0	0.10	0.0	550.0	0.0
			3	0.00	0.0	200.0	0.0	0.10	0.0	200.0	0.0
691	692	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0

			3	0.00	0.0	255.0	0.0	0.52	0.0	255.0	0.0
692	693	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.80	0.0	255.0	0.0
693	694	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			3	0.18	0.0	255.0	0.0	0.78	0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
694	695	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			3	0.00	-0.0	255.0	0.0	0.72	-0.0	255.0	0.0
695	696	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			3	0.18	-0.0	255.0	0.0	0.58	-0.0	255.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			3	0.00	0.0	255.0	0.0	0.18	0.0	255.0	0.0
697	696	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			3	0.00	0.0	255.0	0.0	0.20	0.0	255.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			3	0.20	0.0	255.0	0.0	1.30	0.0	255.0	0.0
698	697	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			3	0.00	-0.0	255.0	0.0	1.30	-0.0	255.0	0.0
716	715	1.26	1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
717	716	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
718	717	0.90	1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
719	718	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
720	719	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	0.52	-0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.52	-0.0	500.0	0.0
			2	0.52	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.52	0.0	500.0	0.0	1.05	0.0	500.0	0.0
721	720	1.05	5	0.00	0.0	354.0	0.0	1.05	0.0	354.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.05	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.05	0.0	500.0	0.0
722	721	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	0.75	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	0.75	0.0	500.0	0.0
723	722	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
724	723	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
725	724	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0

			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
726	725	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	0.0	0.75	0.0	1375.0	0.0
			3	0.00	-0.0	500.0	0.0	0.75	-0.0	500.0	0.0
727	726	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	0.75	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	0.75	0.0	500.0	-0.0
714	727	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
728	714	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	0.0	500.0	-0.0
729	728	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	1.50	0.0	445.5	0.0
			2	0.00	-0.0	1375.0	-0.0	1.50	-0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	1.50	-0.0	500.0	-0.0
730	729	0.75	5	0.00	0.0	354.0	0.0	0.75	0.0	354.0	0.0
			1	0.00	0.0	445.5	0.0	0.75	0.0	445.5	0.0
			2	0.00	0.0	1375.0	-0.0	0.75	0.0	1375.0	-0.0
			3	0.00	-0.0	500.0	-0.0	0.75	-0.0	500.0	-0.0
731	730	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
732	731	1.10	1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
733	732	1.00	1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
734	733	1.20	1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
735	734	1.60	1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
745	744	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.50	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
746	745	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.60	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
			2	1.50	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	1.50	0.0	500.0	0.0	1.60	0.0	500.0	0.0
747	746	1.60	5	0.00	0.0	354.0	0.0	1.60	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.60	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.60	0.0	500.0	0.0
748	747	1.50	5	0.00	0.0	354.0	0.0	1.50	0.0	354.0	0.0
			1	0.00	0.0	457.5	0.0	1.50	0.0	457.5	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			3	0.00	0.0	500.0	0.0	1.50	0.0	500.0	0.0
883	884	1.26	5	0.00	0.0	800.0	0.0	1.26	0.0	800.0	0.0

			1	0.00	0.0	453.0	0.0	1.26	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.26	0.0	300.0	-0.0
859	883	1.40	5	0.00	0.0	800.0	0.0	1.40	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.40	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	-0.0	1.40	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.40	0.0	300.0	-0.0
860	859	1.25	5	0.00	0.0	800.0	0.0	1.25	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.25	0.0	453.0	0.0
861	860	1.15	5	0.00	0.0	800.0	0.0	1.15	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.15	0.0	453.0	0.0
862	861	1.14	5	0.00	0.0	800.0	0.0	1.14	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.14	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.14	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.14	0.0	300.0	0.0
863	862	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
864	863	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
865	864	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
866	865	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
867	866	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
868	867	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
869	868	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
870	869	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
871	870	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0

	871	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
873	872	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.10	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.10	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	0.10	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	0.10	-0.0	300.0	0.0
874	873	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
875	874	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	-0.0	1.50	0.0	300.0	-0.0
876	875	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
877	876	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
878	877	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.50	0.0	453.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
879	878	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
880	879	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
881	880	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
882	881	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	453.0	0.0	1.55	0.0	453.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
938	937	1.26	1	0.00	0.0	340.0	0.0	1.26	0.0	340.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	1.26	0.0	141.6	0.0
			2	0.00	-0.0	1375.0	-0.0	1.26	-0.0	1375.0	-0.0
			4	0.00	0.0	300.0	0.0	1.26	0.0	300.0	0.0

	938	1.40	1	0.00	0.0	340.0	0.0	1.40	0.0	340.0	0.0
			2	0.96	0.0	649.0	0.0	1.40	0.0	649.0	0.0
			4	0.96	0.0	141.6	0.0	1.40	0.0	141.6	0.0
			2	0.04	0.0	649.0	0.0	0.96	0.0	649.0	0.0
			4	0.04	0.0	141.6	0.0	0.96	0.0	141.6	0.0
			2	0.00	0.0	649.0	0.0	0.04	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.04	0.0	141.6	0.0
			2	0.00	0.0	1375.0	-0.0	1.40	-0.0	1375.0	-0.0
			4	0.00	-0.0	300.0	-0.0	1.40	0.0	300.0	0.0
940	939	1.25	1	0.00	0.0	340.0	0.0	1.25	0.0	340.0	0.0
			2	0.85	0.0	649.0	0.0	1.25	0.0	649.0	0.0
			4	0.85	0.0	141.6	0.0	1.25	0.0	141.6	0.0
			2	0.00	0.0	1375.0	0.0	0.85	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.85	0.0	300.0	0.0
			2	0.00	0.0	1375.0	-0.0	1.25	0.0	1375.0	-0.0
			4	0.00	-0.0	300.0	-0.0	1.25	-0.0	300.0	-0.0
962	940	1.15	1	0.00	0.0	340.0	-0.0	1.15	0.0	340.0	-0.0
			2	0.96	0.0	1375.0	-0.0	1.15	0.0	1375.0	-0.0
			4	0.96	0.0	300.0	-0.0	1.15	0.0	300.0	-0.0
			2	0.00	0.0	1375.0	-0.0	0.96	0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	0.96	0.0	300.0	-0.0
			2	0.00	0.0	1375.0	-0.0	1.15	0.0	1375.0	-0.0
			4	0.00	0.0	300.0	-0.0	1.15	0.0	300.0	-0.0
941	962	1.14	1	0.00	0.0	340.0	0.0	1.14	0.0	340.0	0.0
			2	1.05	0.0	1375.0	0.0	1.14	0.0	1375.0	0.0
			4	1.05	0.0	300.0	0.0	1.14	0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.05	0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.14	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.14	0.0	300.0	0.0
942	941	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
943	942	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
944	943	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
945	944	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
946	945	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0

			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
947	946	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
948	947	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
949	948	1.50	1	0.00	0.0	695.0	0.0	1.50	0.0	695.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
950	949	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.40	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			4	0.40	0.0	120.0	0.0	1.50	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.40	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
951	950	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.80	0.0	550.0	0.0	1.50	0.0	550.0	0.0
			4	0.80	0.0	120.0	0.0	1.50	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.80	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
952	951	1.40	1	0.00	0.0	340.0	0.0	1.40	0.0	340.0	0.0
			2	1.10	0.0	550.0	0.0	1.40	0.0	550.0	0.0
			4	1.10	0.0	120.0	0.0	1.40	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.40	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.40	-0.0	300.0	0.0
953	952	1.60	1	0.00	0.0	340.0	0.0	1.60	0.0	340.0	0.0
			2	0.00	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.60	0.0	120.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
			2	1.50	0.0	1375.0	0.0	1.60	0.0	1375.0	0.0
			4	1.50	-0.0	300.0	0.0	1.60	-0.0	300.0	0.0
954	953	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.98	-0.0	701.3	0.0	1.50	-0.0	701.3	0.0
			4	0.98	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.18	-0.0	701.3	0.0	0.98	-0.0	701.3	0.0

			4	0.18	-0.0	153.0	0.0	0.98	-0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.18	0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
955	954	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	0.90	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			4	0.90	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.18	-0.0	701.3	0.0	0.90	-0.0	701.3	0.0
			4	0.18	0.0	153.0	0.0	0.90	0.0	153.0	0.0
			2	0.00	-0.0	701.3	0.0	0.18	-0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	0.18	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
956	955	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	1.10	-0.0	701.2	0.0	1.50	-0.0	701.2	0.0
			4	1.10	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.00	-0.0	701.2	0.0	1.10	-0.0	701.2	0.0
			4	0.00	-0.0	153.0	0.0	1.10	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.50	0.0	300.0	0.0
957	956	1.50	1	0.00	0.0	340.0	0.0	1.50	0.0	340.0	0.0
			2	1.30	0.0	701.3	0.0	1.50	0.0	701.3	0.0
			4	1.30	-0.0	153.0	0.0	1.50	-0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	-0.0	1.50	-0.0	300.0	-0.0
958	957	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
959	958	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.55	0.0	300.0	0.0
960	959	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
961	960	1.55	1	0.00	0.0	340.0	0.0	1.55	0.0	340.0	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
			2	0.00	0.0	1375.0	0.0	1.55	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
987	986	1.26	1	0.00	0.0	120.0	0.0	1.26	0.0	120.0	0.0
			2	0.00	0.0	649.0	0.0	1.26	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	1.26	0.0	141.6	0.0

	988	0.44	2	0.00	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.44	0.0	141.6	0.0
989	988	0.92	2	0.00	0.0	649.0	0.0	0.92	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.92	0.0	141.6	0.0
989	990	0.44	2	0.04	0.0	649.0	0.0	0.44	0.0	649.0	0.0
			4	0.04	0.0	141.6	0.0	0.44	0.0	141.6	0.0
			2	0.00	0.0	649.0	0.0	0.04	0.0	649.0	0.0
			4	0.00	0.0	141.6	0.0	0.04	0.0	141.6	0.0
975	976	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
976	977	1.10	2	0.40	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.40	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.40	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.40	0.0	120.0	0.0
977	978	1.10	2	0.80	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.80	0.0	120.0	0.0	1.10	0.0	120.0	0.0
			2	0.00	0.0	550.0	0.0	0.80	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	0.80	0.0	120.0	0.0
978	979	1.10	2	0.00	0.0	550.0	0.0	1.10	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.10	0.0	120.0	0.0
979	980	1.60	2	0.00	0.0	550.0	0.0	1.60	0.0	550.0	0.0
			4	0.00	0.0	120.0	0.0	1.60	0.0	120.0	0.0
994	995	0.52	2	0.00	-0.0	701.3	0.0	0.52	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.52	0.0	153.0	0.0
995	996	0.80	2	0.00	-0.0	701.3	0.0	0.80	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.80	0.0	153.0	0.0
996	997	0.78	2	0.18	0.0	701.2	0.0	0.78	0.0	701.2	0.0
			4	0.18	0.0	153.0	0.0	0.78	0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	-0.0	153.0	0.0	0.18	-0.0	153.0	0.0
997	998	0.72	2	0.00	-0.0	701.3	0.0	0.72	-0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.72	0.0	153.0	0.0
998	999	0.58	2	0.18	-0.0	701.2	0.0	0.58	-0.0	701.2	0.0
			4	0.18	0.0	153.0	0.0	0.58	0.0	153.0	0.0
			2	0.00	0.0	701.3	0.0	0.18	0.0	701.3	0.0
			4	0.00	0.0	153.0	0.0	0.18	0.0	153.0	0.0
1000	999	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	0.0	701.2	0.0	0.20	0.0	701.2	0.0
			4	0.00	0.0	153.0	0.0	0.20	0.0	153.0	0.0
			2	0.20	0.0	701.3	0.0	1.30	0.0	701.3	0.0
			4	0.20	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
1001	1000	1.30	1	0.00	0.0	120.0	0.0	1.30	0.0	120.0	0.0
			2	0.00	-0.0	701.2	0.0	1.30	-0.0	701.2	0.0
			4	0.00	-0.0	153.0	0.0	1.30	-0.0	153.0	0.0
1032	1031	1.26	5	0.00	0.0	800.0	0.0	1.26	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.26	0.0	375.0	0.0
1033	1032	0.90	5	0.00	0.0	800.0	0.0	0.90	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
1034	1033	0.90	5	0.00	0.0	800.0	0.0	0.90	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	0.90	0.0	375.0	0.0
1035	1034	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0

			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	0.20	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.20	0.0	300.0	0.0
			2	0.20	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.20	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1036	1035	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	0.09	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	0.09	0.0	300.0	0.0
			2	0.09	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.09	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1037	1036	1.05	5	0.00	0.0	800.0	0.0	1.05	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.05	0.0	375.0	0.0
			2	0.00	0.0	1375.0	0.0	1.05	0.0	1375.0	0.0
			4	0.00	0.0	300.0	0.0	1.05	0.0	300.0	0.0
1038	1037	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1039	1038	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1040	1039	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1041	1040	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.50	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1042	1041	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1043	1042	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1044	1043	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1045	1044	1.50	5	0.00	0.0	800.0	0.0	1.50	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.50	0.0	708.7	0.0
			2	0.00	0.0	1375.0	0.0	1.50	0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.50	-0.0	300.0	0.0
1046	1045	1.10	5	0.00	0.0	800.0	0.0	1.10	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0
1047	1046	1.10	5	0.00	0.0	800.0	0.0	1.10	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.10	0.0	375.0	0.0

	1047	1.00	5	0.00	0.0	800.0	0.0	1.00	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.00	0.0	375.0	0.0
1049	1048	1.20	5	0.00	0.0	800.0	0.0	1.20	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.20	0.0	375.0	0.0
1050	1049	1.60	5	0.00	0.0	800.0	0.0	1.60	0.0	800.0	0.0
			1	0.00	0.0	375.0	0.0	1.60	0.0	375.0	0.0
1051	1050	0.52	5	0.00	0.0	800.0	0.0	0.52	0.0	800.0	0.0
1052	1051	0.80	5	0.00	0.0	800.0	0.0	0.80	0.0	800.0	0.0
1053	1052	0.78	5	0.00	0.0	800.0	0.0	0.78	0.0	800.0	0.0
1054	1053	0.72	5	0.00	0.0	800.0	0.0	0.72	0.0	800.0	0.0
1055	1054	0.58	5	0.00	0.0	800.0	0.0	0.58	0.0	800.0	0.0
1056	1055	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1057	1056	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1058	1057	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1059	1058	0.65	5	0.00	0.0	800.0	0.0	0.65	0.0	800.0	0.0
1060	1059	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1061	1060	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1062	1061	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
1063	1062	1.55	5	0.00	0.0	800.0	0.0	1.55	0.0	800.0	0.0
			1	0.00	0.0	708.7	0.0	1.55	0.0	708.7	0.0
			2	0.00	-0.0	1375.0	0.0	1.55	-0.0	1375.0	0.0
			4	0.00	-0.0	300.0	0.0	1.55	-0.0	300.0	0.0
200	255	2.31	1	0.00	0.0	956.2	0.0	2.31	0.0	956.2	0.0
252	226	1.86	1	0.00	0.0	0.0	83.3	1.86	0.0	0.0	83.3
272	252	1.86	1	0.00	0.0	0.0	83.3	1.86	0.0	0.0	83.3
255	283	2.26	1	0.00	0.0	956.2	0.0	2.26	0.0	956.2	0.0
283	298	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0
298	314	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0
314	324	1.57	1	0.00	0.0	956.2	0.0	1.57	0.0	956.2	0.0
324	373	1.68	1	0.00	0.0	956.2	0.0	1.68	0.0	956.2	0.0
373	390	1.32	1	0.00	0.0	956.2	0.0	1.32	0.0	956.2	0.0
225	277	3.72	1	0.00	0.0	0.0	-83.3	3.72	0.0	0.0	-83.3
288	299	0.43	1	0.00	0.0	1275.0	0.0	0.43	0.0	1275.0	0.0
299	319	0.43	1	0.00	0.0	1275.0	0.0	0.43	0.0	1275.0	0.0
210	237	2.31	1	0.00	0.0	956.2	0.0	2.31	0.0	956.2	0.0
235	236	1.86	1	0.00	0.0	0.0	83.3	1.86	0.0	0.0	83.3
237	291	2.26	1	0.00	0.0	956.2	0.0	2.26	0.0	956.2	0.0
236	282	1.86	1	0.00	0.0	0.0	83.3	1.86	0.0	0.0	83.3
291	300	0.43	1	0.00	0.0	956.2	0.0	0.43	0.0	956.2	0.0
300	313	0.43	1	0.00	0.0	701.2	0.0	0.43	0.0	701.2	0.0
313	334	1.57	1	0.00	0.0	956.2	0.0	1.57	0.0	956.2	0.0
334	399	3.00	1	0.00	0.0	412.5	0.0	3.00	0.0	412.5	0.0

	344	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
344	363	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
363	366	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
366	378	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
378	413	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
560	603	2.31	1	0.00	0.0	180.0	0.0	2.31	0.0	180.0	0.0
586	601	1.86	1	0.00	0.0	0.0	-83.3	1.86	0.0	0.0	-83.3
601	621	2.42	1	0.00	0.0	0.0	-83.3	2.42	0.0	0.0	-83.3
603	620	1.56	1	0.00	0.0	180.0	0.0	1.56	0.0	180.0	0.0
620	636	1.13	1	0.00	0.0	180.0	0.0	1.13	0.0	180.0	0.0
636	659	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
659	708	1.68	1	0.00	0.0	180.0	0.0	1.68	0.0	180.0	0.0
708	721	1.32	1	0.00	0.0	180.0	0.0	1.32	0.0	180.0	0.0
585	626	4.28	1	0.00	0.0	0.0	-83.3	4.28	0.0	0.0	-83.3
570	597	2.31	1	0.00	0.0	240.0	0.0	2.31	0.0	240.0	0.0
595	596	1.86	1	0.00	0.0	0.0	83.3	1.86	0.0	0.0	83.3
597	646	2.69	1	0.00	0.0	240.0	0.0	2.69	0.0	240.0	0.0
596	631	2.42	1	0.00	0.0	0.0	83.3	2.42	0.0	0.0	83.3
646	669	2.00	1	0.00	0.0	240.0	0.0	2.00	0.0	240.0	0.0
669	730	3.00	1	0.00	0.0	180.0	0.0	3.00	0.0	180.0	0.0
654	679	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
679	698	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
698	701	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
701	709	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
709	744	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
862	889	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
889	915	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
915	941	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
941	963	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
963	1004	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
1004	1037	1.67	1	0.00	0.0	150.0	0.0	1.67	0.0	150.0	0.0
870	895	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
895	921	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
921	949	1.67	1	0.00	0.0	340.0	0.0	1.67	0.0	340.0	0.0
949	975	2.00	1	0.00	0.0	340.0	0.0	2.00	0.0	340.0	0.0
975	1010	1.33	1	0.00	0.0	180.0	0.0	1.33	0.0	180.0	0.0
1010	1045	1.67	1	0.00	0.0	180.0	0.0	1.67	0.0	180.0	0.0
979	993	0.51	1	0.00	0.0	120.0	0.0	0.51	0.0	120.0	0.0
			2	0.00	0.0	440.0	0.0	0.51	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.51	0.0	96.0	0.0
993	1013	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0
			2	0.04	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.04	0.0	96.0	0.0	0.83	0.0	96.0	0.0
			2	0.00	0.0	440.0	0.0	0.04	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.04	0.0	96.0	0.0
1013	1025	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0
			2	0.02	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.02	0.0	96.0	0.0	0.83	0.0	96.0	0.0
			2	0.00	0.0	440.0	0.0	0.02	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.02	0.0	96.0	0.0
1025	1049	0.83	1	0.00	0.0	120.0	0.0	0.83	0.0	120.0	0.0

			2	0.00	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.83	0.0	96.0	0.0
980	994	0.55	2	0.00	0.0	440.0	0.0	0.51	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.51	0.0	96.0	0.0
			2	0.51	0.0	440.0	0.0	0.55	0.0	440.0	0.0
			4	0.51	0.0	96.0	0.0	0.55	0.0	96.0	0.0
994	1019	0.81	2	0.00	0.0	440.0	0.0	0.79	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.79	0.0	96.0	0.0
			2	0.79	0.0	440.0	0.0	0.81	0.0	440.0	0.0
			4	0.79	0.0	96.0	0.0	0.81	0.0	96.0	0.0
1019	1027	0.81	2	0.00	0.0	440.0	0.0	0.81	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.81	0.0	96.0	0.0
1027	1050	0.83	2	0.00	0.0	440.0	0.0	0.83	0.0	440.0	0.0
			4	0.00	0.0	96.0	0.0	0.83	0.0	96.0	0.0
957	985	2.00	1	0.00	0.0	180.0	0.0	2.00	0.0	180.0	0.0
985	1001	0.55	1	0.00	0.0	180.0	0.0	0.55	0.0	180.0	0.0
1001	1014	0.79	1	0.00	0.0	180.0	0.0	0.79	0.0	180.0	0.0
1014	1026	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0
1026	1059	0.83	1	0.00	0.0	180.0	0.0	0.83	0.0	180.0	0.0

- [En.Ex.Sys. WinStrand](#)
- [Dati relativi ai nodi della struttura](#)
- [Elementi tipo pilastro](#)
- [Elementi tipo trave](#)
- [Elementi a 4 nodi](#)
- [Elementi triangolari](#)
- [Condizioni e combinazioni di carico](#)
- [Carichi e coppie applicati ai nodi](#)
- [Dati relativi alle aree di carico](#)
- [Carichi applicati agli elementi](#)

4.1.10 Verifica pilastri – Stato di progetto

- En.Ex.Sys. WinStrand

- Structural Analysis & Design

Ditta produttrice:

En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:

WinStrand

Piattaforma software:

Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:

Manuale teorico - Manuale d'uso

Campo di applicazione:

Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastr).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T .
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. "Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica".
- Legge n. 64 del 2 Febbraio 1974. "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche".
- D.M. del 3 Marzo 1975. "Approvazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Marzo 1975. "Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Ottobre 1978. "Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi".
- D.M. del 14 Febbraio 1992. "Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche".
- Istruzioni per la valutazione delle: Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. "Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
- D.M. del 16 Gennaio 1996. "Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»".
- D.M. del 16 Gennaio 1996. "Norme tecniche per le costruzioni in zone sismiche"
- Ordinanza n. 3274 del 20 Marzo 2003. "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"
- Ordinanza n. 3316. "Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"
- D.M. del 14 Gennaio 2008 "Approvazione delle nuove norme tecniche per le costruzioni"

- Verifiche pilastri

- Modalità di verifica

I pilastri vengono verificati (a discrezione dell'operatore) secondo le seguenti modalità:

- Presso-tenso flessione deviata.
- Presso-tenso flessione retta. In tale caso viene svolta prima la verifica a presso-tenso flessione considerando come azioni agenti lo sforzo normale ed il momento M_x agente sulla sezione poi, disgiuntamente, considerando come azioni agenti lo sforzo normale e l'altro momento M_y . A discrezione dell'operatore tali momenti (a favore della sicurezza) possono essere incrementati di un fattore di amplificazione anch'esso a discrezione dell'utente.

Per ogni pilastro le verifiche vengono svolte sia nella sezione di sommità che in quella di base in tutte le combinazioni di carico.

Nelle stampe vengono quindi riportate per le due sezioni di verifica succitate:

La combinazione di carico, le sollecitazioni (sforzo normale e momenti) che inducono le massime tensioni nel calcestruzzo, nel ferro teso e nel ferro compresso.

Il programma, per ogni sezione, una volta posizionati i ferri d'angolo sulla sezione, introduce lungo i bordi eventuali ferri di completamento così da rispettare l'interasse massimo fra i ferri imposto dall'operatore.

La verifica procede considerando (quanto a diametri) fissi i ferri di bordo, eventualmente introdotti, ed incrementando negli angoli il numero di ferri presenti ovvero il diametro degli stessi.

Tutti gli angoli della sezione vengono armati nella stesso modo sia quanto a diametro dei ferri presenti che quanto a numero di ferri.

Si noti che in ottemperanza a quanto prescritto nel punto **3.1.3** del *D.M. 14 febbraio 1992*, il programma, qualora la tensione media dell'intera sezione superi la tensione ammissibile per compressione semplice, considera tale situazione non verificata benchè possa risultare soddisfatta la verifica a pressoflessione utilizzando la sigma massima del calcestruzzo impiegato.

- Sezioni Impiegate:

Sezione Numero	Info	Dimensioni	Criterio	Calcestruzzo	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Acciaio	f_{yd} [kg/cm ²]	σ_{yRARE} [kg/cm ²]	σ_{yFREQ} [kg/cm ²]	σ_{yOP} [kg/cm ²]	Copriferro [cm]	Verifica	cotg (θ)
9	Rett. 70x45	B 70 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
20	Rett. P10 35x45	B 35 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
28	Rett. S8 30x45	B 30 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
10	Rett. 60x45	B 60 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
8	Rett. 40x45	B 40 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
19	Rett. P9 30x45	B 30 [cm] H 45 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
4	Rett. 30x40	B 30 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
15	Rett. P5 25x35	B 25 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
25	Rett. S5 22x30	B 22 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
5	Rett. 45x40	B 45 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
16	Rett. P6 30x35	B 30 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
21	Rett. S1 25x30	B 25 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
17	Rett. P7 35x35	B 35 [cm] H 35 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
3	Rett. 35x40	B 35 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
1	Rett. 25x40	B 25 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
6	Rett. 20x20	B 20 [cm] H 20 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
	Rett.	B 20 [cm] H								FeB						Retta	

18	P8 20x20	20 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	32k	2739.1	2520.0	3150.0	3150.0	1.00	(N/Mx - N/My)	1.0
7	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
12	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
27	Rett. 30x30	B 30 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
11	Rett. 25x30	B 25 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
2	Rett. 70x40	B 70 [cm] H 40 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
22	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
14	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
24	Rett. 30x25	B 30 [cm] H 25 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx*1.33 - N/My*1.33)	1.0
29	Rett. 35x30	B 35 [cm] H 30 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0
23	Rett. 35x25	B 35 [cm] H 25 [cm]	Verpil	Rbk 300	141.1	2.8	149.4	249.0	112.0	FeB 32k	2739.1	2520.0	3150.0	3150.0	1.00	Retta (N/Mx - N/My)	1.0

- Verifiche Pilastri:

Fattore di sovraresistenza $\gamma_{R,d}=1.00$ Nella verifica a presso-flessione è ignorato il metodo α per il calcolo delle azioni di progetto. Il controllo della gerarchia delle resistenti è demandato al controllo dell'equilibrio nodale.

- Pilastro: 1/200 / L 3.20[m] / Sezione 9 B 70 [cm]H 45 [cm] NON VERIFICATO

Af: $10 \varnothing 16$ Af=20.11 [cm²] < $1\phi 16 \times 4 V + 2\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8$ 4br./7.5' x 70.0+ $\varnothing 8$ 4br./10.0' x 180.0+ $\varnothing 8$ 4br./7.5' x 70.0 Ast/s=0.268083 < 0.08 fcd bst/fyd 0.276932

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
1	2	-98359.3	0.0	3671.5	1.00	1.00	0.22
200	2	-94827.4	0.0	-8011.6	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.82	15020.0	28153.6	22871.9	44675.6	$\varnothing 8$ 4br./7.5'
0.82	2.63	15020.0	21115.2	22871.9	33506.7	$\varnothing 8$ 4br./10.0'
2.63	3.33	15020.0	28153.6	22871.9	44675.6	$\varnothing 8$ 4br./7.5'

- Pilastro: 200/560 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 4 \varnothing 16$ Af=20.61 [cm²] < $1\phi 20 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8$ 2br.x4br./7.5' x 53.3+ $\varnothing 8$ 2br.x4br./10.0' x 213.3+ $\varnothing 8$ 2br.x4br./7.5' x 53.3 Vsd 11677.9 > $VR_{s,d}$ 10557.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
200	2	-65247.2	0.0	2787.8	1.00	1.00	0.31
560	2	-63481.2	0.0	-3916.8	1.00	1.00	0.34

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	11677.9	14076.8	8909.1	21544.7	$\varnothing 8$ 2br.x4br./7.5'

0.66	2.79	11677.9	10557.6	8909.1	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	11677.9	14076.8	8909.1	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 560/862 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 4 ø 20 + 2 ø 16 Af=16.59 [cm²] < 1φ20 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 8509.1 > VR_{s,d} 8446.1

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
560	6	-27431.1	0.0	3808.7	1.00	1.00	0.42
862	6	-26266.7	0.0	-4165.8	1.00	1.00	0.47

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8509.1	14076.8	5647.5	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	8509.1	8446.1	5647.5	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	8509.1	14076.8	5647.5	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 2/210 / L 3.20[m] / Sezione 9 B 70 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 70.0+ø 8 4br./10.0' x 180.0+ø 8 4br./7.5' x 70.0 Ast/s=0.268083 < 0.08 fcd bst/fyd 0.276932

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
2	2	-95177.8	0.0	-3786.6	1.00	1.00	0.22
210	5	-66724.3	0.0	9321.1	1.00	1.00	0.26

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.82	14819.3	28153.6	22627.7	44675.6	ø 8 4br./7.5'
0.82	2.63	14819.3	21115.2	22627.7	33506.7	ø 8 4br./10.0'
2.63	3.33	14819.3	28153.6	22627.7	44675.6	ø 8 4br./7.5'

- Pilastro: 210/570 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 4 ø 20 + 4 ø 16 Af=20.61 [cm²] < 1φ20 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 11604.8 > VR_{s,d} 10557.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
210	2	-63708.7	0.0	-2946.9	1.00	1.00	0.31
570	2	-61942.8	0.0	4175.1	1.00	1.00	0.34

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	11604.8	14076.8	8852.3	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	11604.8	10557.6	8852.3	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	11604.8	14076.8	8852.3	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 570/870 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 20 Af=18.85 [cm²] < 1φ20 x 4 V + 0φ20 x 2 B + 1φ20 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 VSd 8966.6 > VR_{s,d} 8446.1

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr

570	5	-27014.8	0.0	-4095.2	1.00	1.00	0.42
870	5	-25850.4	0.0	4609.1	1.00	1.00	0.48

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8966.6	14076.8	6083.2	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	8966.6	8446.1	6083.2	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	8966.6	14076.8	6083.2	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 3/214 / L 3.20[m] / Sezione 10 B 60 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 60.0+ø 8 4br./12.5' x 200.0+ø 8 4br./7.5' x 60.0 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.235722

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
3	1	-64391.5	0.0	377.7	1.00	1.00	0.15
214	1	-61364.1	0.0	-554.0	1.00	1.00	0.15

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.72	11957.6	28153.6	15715.9	38066.8	ø 8 4br./7.5'
0.72	2.73	11957.6	16892.1	15715.9	22840.1	ø 8 4br./12.5'
2.73	3.33	11957.6	28153.6	15715.9	38066.8	ø 8 4br./7.5'

- Pilastro: 214/574 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
214	1	-40852.4	0.0	339.6	1.00	1.00	0.16
574	2	-38716.5	0.0	-595.2	1.00	1.00	0.16

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8640.9	14076.8	6602.6	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	8640.9	10557.6	6602.6	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	8640.9	14076.8	6602.6	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 574/874 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
574	10	-16054.0	0.0	1747.8	1.00	1.00	0.28
874	10	-14889.6	0.0	-1854.7	1.00	1.00	0.30

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5912.6	14076.8	3864.4	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5912.6	8446.1	3864.4	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5912.6	14076.8	3864.4	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 4/218 / L 3.20[m] / Sezione 10 B 60 [cm]H 45 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 60.0+ø 8 4br./12.5' x 200.0+ø 8 4br./7.5' x 60.0 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.235722

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
4	1	-78034.2	0.0	795.2	1.00	1.00	0.19
218	1	-75006.8	0.0	-1519.1	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.72	12975.4	28153.6	16959.1	38066.8	ø 8 4br./7.5'
0.72	2.73	12975.4	16892.1	16959.1	22840.1	ø 8 4br./12.5'
2.73	3.33	12975.4	28153.6	16959.1	38066.8	ø 8 4br./7.5'

- Pilastro: 218/578 / L 3.20[m] / Sezione 20 B 35 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
218	1	-51680.5	0.0	523.0	1.00	1.00	0.21
578	1	-49914.5	0.0	-563.0	1.00	1.00	0.20

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9368.6	14076.8	7167.4	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	9368.6	10557.6	7167.4	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	9368.6	14076.8	7167.4	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 578/878 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
578	10	-21081.9	0.0	1649.7	1.00	1.00	0.24
878	10	-19917.6	0.0	-1787.7	1.00	1.00	0.27

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6423.1	14076.8	4254.9	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	6423.1	8446.1	4254.9	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	6423.1	14076.8	4254.9	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 5/222 / L 3.20[m] / Sezione 8 B 40 [cm]H 45 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 53.3+ø 8 4br./12.5' x 213.3+ø 8 4br./7.5' x 53.3 Ast/s=0.160850 < 0.08 fcd bst/fyd 0.173907

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
5	1	-34246.4	0.0	-1570.1	1.00	1.00	0.15
222	9	-21901.2	0.0	2661.5	1.00	1.00	0.23

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]	
0.13	0.66	8332.7	28153.6	7347.9	24849.2	ø 8 4br./7.5'
0.66	2.79	8332.7	16892.1	7347.9	14909.5	ø 8 4br./12.5'
2.79	3.33	8332.7	28153.6	7347.9	24849.2	ø 8 4br./7.5'

- Pilastro: 222/582 / L 3.20[m] / Sezione 19 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
222	5	-16898.9	0.0	-2007.4	1.00	1.00	0.32
582	5	-15734.6	0.0	2045.1	1.00	1.00	0.33

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5998.3	14076.8	3928.3	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5998.3	8446.1	3928.3	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5998.3	14076.8	3928.3	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 582/882 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
582	5	-9087.7	0.0	-2879.2	1.00	1.00	0.53
882	5	-7923.3	0.0	3428.6	1.00	1.00	0.65

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5162.1	14076.8	3330.5	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5162.1	8446.1	3330.5	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5162.1	14076.8	3330.5	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 6/224 / L 3.20[m] / Sezione 8 B 40 [cm]H 45 [cm] NON VERIFICATO

Af: $8 \text{ } \phi 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 1 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 4br./7.5' x 53.3} + \phi 8 \text{ 4br./12.5' x 213.3} + \phi 8 \text{ 4br./7.5' x 53.3}$ Ast/s=0.160850 < 0.08 fcd bst/fyd 0.173907

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
6	1	-30295.1	0.0	1391.7	1.00	1.00	0.13
224	8	-19912.9	0.0	-2216.2	1.00	1.00	0.20

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	7976.7	28153.6	7031.5	24849.2	ø 8 4br./7.5'
0.66	2.79	7976.7	16892.1	7031.5	14909.5	ø 8 4br./12.5'
2.79	3.33	7976.7	28153.6	7031.5	24849.2	ø 8 4br./7.5'

- Pilastro: 224/584 / L 3.20[m] / Sezione 19 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 0 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 2br.x4br./7.5' x 53.3} + \phi 8 \text{ 2br.x4br./12.5' x 213.3} + \phi 8 \text{ 2br.x4br./7.5' x 53.3}$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
224	10	-14047.2	0.0	1585.2	1.00	1.00	0.26
584	10	-12882.8	0.0	-1445.8	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5705.0	14076.8	3711.9	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5705.0	8446.1	3711.9	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5705.0	14076.8	3711.9	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 584/884 / L 3.20[m] / Sezione 28 B 30 [cm]H 45 [cm] NON VERIFICATO

Af: $6 \phi 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
584	6	-7281.3	0.0	1934.6	1.00	1.00	0.37
884	6	-6116.9	0.0	-2278.6	1.00	1.00	0.45

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	4988.5	14076.8	3215.1	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	4988.5	8446.1	3215.1	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	4988.5	14076.8	3215.1	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 7/294 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: $6 \phi 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
7	6	-13945.4	-1349.7	0.0	1.00	1.00	0.17
294	6	-12910.4	1502.9	0.0	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5754.3	12424.6	4390.5	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	5754.3	7454.7	4390.5	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	5754.3	12424.6	4390.5	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 294/632 / L 3.20[m] / Sezione 15 B 25 [cm]H 35 [cm] NON VERIFICATO

Af: $6 \phi 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
294	6	-8968.8	-1962.3	0.0	1.00	1.00	0.32
632	6	-8214.1	2368.7	0.0	1.00	1.00	0.39

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	4266.3	10772.4	3041.3	7468.0	ø 8/7.5'
0.66	2.79	4266.3	8079.3	3041.3	5601.0	ø 8/10.0'
2.79	3.33	4266.3	10772.4	3041.3	7468.0	ø 8/7.5'

- Pilastro: 632/937 / L 3.20[m] / Sezione 25 B 22 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
632	6	-4754.7	-2179.5	0.0	1.00	1.00	0.25
937	6	-4185.4	2226.6	0.0	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5544.4	9120.2	4152.2	6476.6	ϕ 8/7.5'
0.66	2.79	5544.4	6840.1	4152.2	4857.5	ϕ 8/10.0'
2.79	3.33	5544.4	9120.2	4152.2	6476.6	ϕ 8/7.5'

- Pilastro: 8/298 / L 3.20[m] / Sezione 5 B 45 [cm]H 40 [cm] NON VERIFICATO

Af: 12 ϕ 20 Af=37.70 [cm²] < 1 ϕ 20 x 4 V + 2 ϕ 20 x 2 B + 2 ϕ 20 x 2 H >

Staffe: ϕ 8 4br./7.5' x 53.3+ ϕ 8 4br./12.5' x 213.3+ ϕ 8 4br./7.5' x 53.3 VSd 15837.4 > VR_{s,d} 14909.5

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
8	1	-138443.4	0.0	5161.0	1.00	1.00	0.47
298	1	-136425.2	0.0	-10671.5	1.00	1.00	0.57

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	15837.4	24849.2	18007.1	28153.6	ϕ 8 4br./7.5'
0.66	2.79	15837.4	14909.5	18007.1	16892.1	ϕ 8 4br./12.5'
2.79	3.33	15837.4	24849.2	18007.1	28153.6	ϕ 8 4br./7.5'

- Pilastro: 298/636 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 VSd 8344.4 > VR_{s,d} 8079.3

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
298	2	-82511.8	0.0	3110.6	1.00	1.00	0.49
636	2	-81334.5	0.0	-2101.4	1.00	1.00	0.45

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8344.4	10772.4	8896.2	9120.2	ϕ 8/7.5'
0.66	2.79	8344.4	8079.3	8896.2	6840.1	ϕ 8/10.0'
2.79	3.33	8344.4	10772.4	8896.2	9120.2	ϕ 8/7.5'

- Pilastro: 636/941 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 24 Af=27.14 [cm²] < 1 ϕ 24 x 4 V + 0 ϕ 24 x 2 B + 1 ϕ 24 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 VSd 6324.7 > VR_{s,d} 5601.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
636	2	-50732.4	0.0	3653.7	1.00	1.00	0.51
941	2	-49891.4	0.0	-6838.8	1.00	1.00	0.73

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6044.1	9120.2	6324.7	7468.0	ø 8/7.5'
0.66	2.79	6044.1	6840.1	6324.7	5601.0	ø 8/10.0'
2.79	3.33	6044.1	9120.2	6324.7	7468.0	ø 8/7.5'

- Pilastro: 9/300 / L 3.20[m] / Sezione 5 B 45 [cm]H 40 [cm] NON VERIFICATO

Af: 12 ø 20 Af=37.70 [cm²] < 1φ20 x 4 V + 2φ20 x 2 B + 2φ20 x 2 H >

Staffe: ø 8 4br./7.5' x 53.3+ø 8 4br./12.5' x 213.3+ø 8 4br./7.5' x 53.3 VSd 15641.4 > VR_{s,d} 14909.5

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
9	1	-117976.3	0.0	-4576.9	1.00	1.00	0.40
300	1	-115958.0	0.0	9574.8	1.00	1.00	0.49

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	15641.4	24849.2	17768.3	28153.6	ø 8 4br./7.5'
0.66	2.79	15641.4	14909.5	17768.3	16892.1	ø 8 4br./12.5'
2.79	3.33	15641.4	24849.2	17768.3	28153.6	ø 8 4br./7.5'

- Pilastro: 300/646 / L 3.20[m] / Sezione 17 B 35 [cm]H 35 [cm] NON VERIFICATO

Af: 8 ø 20 Af=25.13 [cm²] < 1φ20 x 4 V + 1φ20 x 2 B + 1φ20 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 VSd 8940.9 > VR_{s,d} 8079.3

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
300	1	-65635.7	0.0	-4953.5	1.00	1.00	0.44
646	1	-64262.2	0.0	3922.3	1.00	1.00	0.39

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	8940.9	10772.4	8940.8	10772.4	ø 8/7.5'
0.66	2.79	8940.9	8079.3	8940.8	8079.3	ø 8/10.0'
2.79	3.33	8940.9	10772.4	8940.8	10772.4	ø 8/7.5'

- Pilastro: 646/949 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ø 24 Af=27.14 [cm²] < 1φ24 x 4 V + 0φ24 x 2 B + 1φ24 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 VSd 6210.0 > VR_{s,d} 5601.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
646	2	-44599.0	0.0	-3699.5	1.00	1.00	0.49
949	2	-43758.0	0.0	6600.3	1.00	1.00	0.68

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6005.8	9120.2	6210.0	7468.0	ø 8/7.5'
0.66	2.79	6005.8	6840.1	6210.0	5601.0	ø 8/10.0'
2.79	3.33	6005.8	9120.2	6210.0	7468.0	ø 8/7.5'

- Pilastro: 10/304 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
10	1	-59247.8	-687.8	0.0	1.00	1.00	0.32
304	1	-57902.3	1436.8	0.0	1.00	1.00	0.33

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	7040.3	12424.6	5839.5	18240.3	ø 8 2br.x4br./7.5'
0.66	2.79	7040.3	7454.7	5839.5	10944.2	ø 8 2br.x4br./12.5'
2.79	3.33	7040.3	12424.6	5839.5	18240.3	ø 8 2br.x4br./7.5'

- Pilastro: 304/650 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
304	5	-19133.9	-3000.0	0.0	1.00	1.00	0.40
650	5	-18228.2	3575.2	0.0	1.00	1.00	0.49

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5404.7	10772.4	4981.9	9120.2	ø 8/7.5'
0.66	2.79	5404.7	8079.3	4981.9	6840.1	ø 8/10.0'
2.79	3.33	5404.7	10772.4	4981.9	9120.2	ø 8/7.5'

- Pilastro: 650/953 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
650	5	-10040.6	-2911.0	0.0	1.00	1.00	0.72
953	5	-9393.7	3304.2	0.0	1.00	1.00	0.83

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2945.6	9120.2	2394.7	7468.0	ø 8/7.5'
0.66	2.79	2945.6	6840.1	2394.7	5601.0	ø 8/10.0'
2.79	3.33	2945.6	9120.2	2394.7	7468.0	ø 8/7.5'

- Pilastro: 11/308 / L 3.20[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: 8 ø 16 Af=16.08 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./10.0' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
11	1	-94886.4	0.0	853.3	1.00	1.00	0.42
308	1	-93316.7	0.0	-1734.0	1.00	1.00	0.44

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	9201.0	12424.6	7983.7	21544.7	ø 8 2br.x4br./7.5'
0.66	2.79	9201.0	9318.4	7983.7	16158.6	ø 8 2br.x4br./10.0'
2.79	3.33	9201.0	12424.6	7983.7	21544.7	ø 8 2br.x4br./7.5'

- Pilastro: 308/654 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
308	1	-59198.7	0.0	1539.7	1.00	1.00	0.40
654	1	-58021.4	0.0	-1630.5	1.00	1.00	0.40

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5639.6	10772.4	5460.4	9120.2	ø 8/7.5'
0.66	2.79	5639.6	8079.3	5460.4	6840.1	ø 8/10.0'
2.79	3.33	5639.6	10772.4	5460.4	9120.2	ø 8/7.5'

- Pilastro: 654/957 / L 3.20[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
654	5	-20272.5	-2284.0	0.0	1.00	1.00	0.44
957	5	-19625.6	2533.7	0.0	1.00	1.00	0.50

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3384.0	9120.2	2760.4	7468.0	ø 8/7.5'
0.66	2.79	3384.0	6840.1	2760.4	5601.0	ø 8/10.0'
2.79	3.33	3384.0	9120.2	2760.4	7468.0	ø 8/7.5'

- Pilastro: 12/312 / L 3.20[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 53.3+ø 8 2br.x4br./12.5' x 213.3+ø 8 2br.x4br./7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.091487

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
12	1	-46080.8	0.0	-1246.5	1.00	1.00	0.34
312	1	-44959.5	0.0	2521.5	1.00	1.00	0.43

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	6024.3	12424.6	3912.6	14935.9	ø 8 2br.x4br./7.5'
0.66	2.79	6024.3	7454.7	3912.6	8961.6	ø 8 2br.x4br./12.5'
2.79	3.33	6024.3	12424.6	3912.6	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 312/658 / L 3.20[m] / Sezione 15 B 25 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.132697

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
312	1	-29290.9	0.0	-3359.2	1.00	1.00	0.48
658	1	-28309.8	0.0	3438.9	1.00	1.00	0.49

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]	
0.13	0.66	4591.2	10772.4	3367.2	7468.0	ø 8/7.5'
0.66	2.79	4591.2	8079.3	3367.2	5601.0	ø 8/10.0'
2.79	3.33	4591.2	10772.4	3367.2	7468.0	ø 8/7.5'

- Pilastro: 658/961 / L 3.20[m] / Sezione 25 B 22 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \text{ ø } 24 \text{ Af}=27.14 \text{ [cm}^2\text{]} < 1\phi 24 \times 4 \text{ V} + 0\phi 24 \times 2 \text{ B} + 1\phi 24 \times 2 \text{ H} >$

Staffe: $\text{ø } 8/7.5' \times 53.3 + \text{ø } 8/10.0' \times 213.3 + \text{ø } 8/7.5' \times 53.3 \text{ Ast/s}=0.100531 < 0.08 \text{ fcd bst/fyd } 0.112092$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
658	2	-13748.8	0.0	-3413.4	1.00	1.00	0.41
961	2	-13008.8	0.0	5002.6	1.00	1.00	0.65

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5575.2	9120.2	4331.2	6476.6	ø 8/7.5'
0.66	2.79	5575.2	6840.1	4331.2	4857.5	ø 8/10.0'
2.79	3.33	5575.2	9120.2	4331.2	6476.6	ø 8/7.5'

- Pilastro: 13/324 / L 3.20[m] / Sezione 6 B 20 [cm]H 20 [cm]

Af: $4 \text{ ø } 16 \text{ Af}=8.04 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 0\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\text{ø } 8/7.5' \times 53.3 + \text{ø } 8/12.5' \times 213.3 + \text{ø } 8/7.5' \times 53.3$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
13	1	-18146.5	0.0	251.1	1.00	1.00	0.28
324	1	-17698.0	0.0	-502.1	1.00	1.00	0.32

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	1645.4	5815.8	1645.4	5815.8	ø 8/7.5'
0.66	2.79	1645.4	3489.5	1645.4	3489.5	ø 8/12.5'
2.79	3.33	1645.4	5815.8	1645.4	5815.8	ø 8/7.5'

- Pilastro: 14/62 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm]

Af: $4 \text{ ø } 16 \text{ Af}=8.04 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 0\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\text{ø } 8/5.0' \times 55.0$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
14	1	-4434.3	-29.4	0.0	1.00	1.00	0.06
62	1	-4330.3	-21.9	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8454.0	8723.6	8454.1	8723.6	ø 8/5.0'

- Pilastro: 62/108 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: $4 \text{ ø } 16 \text{ Af}=8.04 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 0\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\text{ø } 8/7.5' \times 55.0 \text{ VSd } 8155.5 > \text{VR}_{s,d} 5815.8$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
62	1	-4489.5	-7.8	0.0	1.00	1.00	0.06

108	1	-4385.5	0.0	19.2	1.00	1.00	0.06
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- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8155.5	5815.8	8155.5	5815.8	ø 8/7.5'

- Pilastro: 108/154 / L 0.55[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 8113.5 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
108	1	-5369.6	0.0	-14.3	1.00	1.00	0.07
154	1	-5265.6	0.0	-22.2	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	8113.5	5815.8	8113.5	5815.8	ø 8/7.5'

- Pilastro: 154/334 / L 0.80[m] / Sezione 6 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0 VSd 6012.7 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
154	1	-10125.0	120.3	0.0	1.00	1.00	0.15
334	1	-9988.5	0.0	339.1	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	6012.7	5815.8	6012.7	5815.8	ø 8/7.5'

- Pilastro: 334/418 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 6113.1 > VR_{s,d} 5815.8

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
334	1	5137.7	0.0	-411.9	1.00	1.00	0.47
418	1	5241.7	-151.9	0.0	1.00	1.00	0.33

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	6113.1	5815.8	6113.1	5815.8	ø 8/7.5'

- Pilastro: 418/466 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
418	7	-2510.7	0.0	0.6	1.00	1.00	0.03

466	9	1640.6	29.4	0.0	1.00	1.00	0.02
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- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6917.6	8723.6	6832.1	8723.6	ø 8/5.0'

- Pilastro: 466/514 / L 0.55[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
466	2	-1572.0	26.8	0.0	1.00	1.00	0.02
514	6	-2699.5	53.6	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	7031.4	8723.6	7031.4	8723.6	ø 8/5.0'

- Pilastro: 514/669 / L 0.80[m] / Sezione 18 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
514	6	-3239.4	219.0	0.0	1.00	1.00	0.11
669	6	-3134.4	266.4	0.0	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	4897.7	5815.8	4897.7	5815.8	ø 8/7.5'

- Pilastro: 669/749 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
669	5	-762.6	-373.3	0.0	1.00	1.00	0.21
749	5	-682.6	-300.6	0.0	1.00	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6622.1	8723.6	6622.0	8723.6	ø 8/5.0'

- Pilastro: 749/787 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
749	5	-1396.2	-121.3	0.0	1.00	1.00	0.07
787	5	-1316.2	-69.0	0.0	1.00	1.00	0.04

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	6728.9	8723.6	6728.9	8723.6	ø 8/5.0'

- Pilastro: 787/825 / L 0.55[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/5.0' x 55.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
787	2	-2435.1	-82.8	0.0	1.00	1.00	0.05
825	10	-1366.3	-93.8	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	6908.8	8723.6	6908.8	8723.6	ø 8/5.0'

- Pilastro: 825/975 / L 0.80[m] / Sezione 26 B 20 [cm]H 20 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
825	5	-4988.0	403.4	0.0	1.00	1.00	0.19
975	5	-4883.0	560.1	0.0	1.00	1.00	0.27

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	5398.8	5815.8	5398.8	5815.8	ø 8/7.5'

- Pilastro: 20/344 / L 3.20[m] / Sezione 7 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/10.0' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
20	1	-20098.3	-251.9	0.0	1.00	1.00	0.15
344	5	-16346.7	797.1	0.0	1.00	1.00	0.17

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3054.0	9120.2	3054.0	9120.2	ø 8/7.5'
0.66	2.79	3054.0	6840.1	3054.0	6840.1	ø 8/10.0'
2.79	3.33	3054.0	9120.2	3054.0	9120.2	ø 8/7.5'

- Pilastro: 344/679 / L 3.20[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/12.5' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
344	5	-12432.0	-1424.1	0.0	1.00	1.00	0.33
679	5	-11655.8	1481.8	0.0	1.00	1.00	0.35

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2706.6	9120.2	2706.6	9120.2	ø 8/7.5'
0.66	2.79	2706.6	5472.1	2706.6	5472.1	ø 8/12.5'
2.79	3.33	2706.6	9120.2	2706.6	9120.2	ø 8/7.5'

- Pilastro: 679/985 / L 3.20[m] / Sezione 27 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 53.3+ø 8/12.5' x 213.3+ø 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
679	5	-6250.2	-2546.9	0.0	1.00	1.00	0.70
985	5	-5473.9	2559.9	0.0	1.00	1.00	0.73

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2235.2	9120.2	2235.2	9120.2	ø 8/7.5'
0.66	2.79	2235.2	5472.1	2235.2	5472.1	ø 8/12.5'
2.79	3.33	2235.2	9120.2	2235.2	9120.2	ø 8/7.5'

- Pilastro: 41/88 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 32817.8 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
41	9	16768.6	0.0	-200.0	1.00	1.00	0.15
88	9	16968.6	428.1	0.0	1.00	1.00	0.16

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	32817.8	12424.6	20805.5	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 88/134 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 31481.9 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α ₁₂	α ₁₃	Sd/Sr
88	9	14868.9	281.8	0.0	1.00	1.00	0.10
134	9	15068.9	291.9	0.0	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	31481.9	12424.6	19678.6	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 134/180 / L 0.55[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 55.0 VSd 30382.4 > VR_{c,d} 29842.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
134	9	13412.1	0.0	-64.6	1.00	1.00	0.07
180	9	13612.1	216.3	0.0	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	30382.4	12424.6	18753.2	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 180/384 / L 0.80[m] / Sezione 1 B 25 [cm]H 40 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 2br.x4br./7.5' x 80.0 VSd 20057.5 > VR_{s,d} 12424.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
180	9	11564.4	0.0	-41.7	1.00	1.00	0.05
384	9	11826.9	0.0	51.9	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	20057.5	12424.6	12243.6	14935.9	ø 8 2br.x4br./7.5'

- Pilastro: 384/444 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 15011.5 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
384	9	8184.7	0.0	-105.6	1.00	1.00	0.09
444	9	8334.7	0.0	56.4	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	15011.5	9120.2	12180.9	7468.0	ø 8/7.5'

- Pilastro: 444/492 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 13986.1 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
444	9	6161.5	0.0	-37.1	1.00	1.00	0.04
492	9	6311.5	0.0	52.6	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	13986.1	9120.2	11354.3	7468.0	ø 8/7.5'

- Pilastro: 492/540 / L 0.55[m] / Sezione 11 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 13082.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
492	9	4721.3	0.0	-40.5	1.00	1.00	0.03
540	9	4871.3	111.6	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	13082.8	9120.2	10626.0	7468.0	\varnothing 8/7.5'

- Pilastro: 540/715 / L 0.80[m] / Sezione 11 B 25 [cm]H 30 [cm]

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
540	9	3422.3	214.7	0.0	1.00	1.00	0.09
715	9	3619.1	224.7	0.0	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	8405.3	9120.2	6830.0	7468.0	\varnothing 8/7.5'

- Pilastro: 715/765 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11755.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
715	9	1804.5	326.6	0.0	1.00	1.00	0.13
765	9	1954.5	349.3	0.0	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	11755.8	9120.2	9554.9	7468.0	\varnothing 8/7.5'

- Pilastro: 765/803 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11581.5 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
765	9	3.4	286.4	0.0	1.00	1.00	0.10
803	9	153.4	208.1	0.0	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	11581.5	9120.2	9414.1	7468.0	\varnothing 8/7.5'

- Pilastro: 803/841 / L 0.55[m] / Sezione 21 B 25 [cm]H 30 [cm] NON VERIFICATO

Af: 4 \varnothing 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: \varnothing 8/7.5' x 55.0 VSd 11274.4 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
803	9	-936.4	78.2	0.0	1.00	1.00	0.03
841	1	-1940.3	0.0	18.9	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	11274.4	9120.2	9165.9	7468.0	ø 8/7.5'

- Pilastro: 841/1031 / L 0.80[m] / Sezione 21 B 25 [cm]H 30 [cm]

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 80.0

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
841	6	-917.5	53.9	0.0	1.00	1.00	0.02
1031	6	-720.6	77.5	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	7349.8	9120.2	5977.0	7468.0	ø 8/7.5'

- Pilastro: 45/92 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 55.0 VSd 76641.7 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
45	1	-89350.6	0.0	8612.8	1.00	1.00	0.28
92	1	-88622.6	0.0	2450.0	1.00	1.00	0.22

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	76641.7	24849.2	130441.4	44675.6	ø 8 4br./7.5'

- Pilastro: 92/138 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 55.0 VSd 76531.8 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
92	1	-88622.6	0.0	2450.0	1.00	1.00	0.22
138	1	-87894.6	0.0	-3712.9	1.00	1.00	0.23

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	76531.8	24849.2	130111.6	44675.6	ø 8 4br./7.5'

- Pilastro: 138/390 / L 1.60[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: 10 ø 16 Af=20.11 [cm²] < 1φ16 x 4 V + 2φ16 x 2 B + 1φ16 x 2 H >

Staffe: ø 8 4br./7.5' x 160.0 VSd 26178.5 > VR_{s,d} 24849.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
138	1	-87894.6	0.0	-3712.9	1.00	1.00	0.23
390	8	-47258.1	0.0	-14128.4	1.00	1.00	0.46

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.12	1.73	26178.5	24849.2	44537.1	44675.6	ø 8 4br./7.5'

- Pilastro: 390/450 / L 0.55[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 17930.4 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
390	8	-6736.9	0.0	1579.9	1.00	1.00	0.43
450	2	-16123.9	0.0	-419.6	1.00	1.00	0.13

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17930.4	9120.2	18231.9	9120.2	ø 8/7.5'

- Pilastro: 450/498 / L 0.55[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 16 Af=8.04 [cm²] < 1φ16 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 21378.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
450	2	-29252.9	0.0	-118.6	1.00	1.00	0.20
498	2	-29018.9	0.0	-830.3	1.00	1.00	0.24

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	21378.8	9120.2	21511.0	9120.2	ø 8/7.5'

- Pilastro: 498/721 / L 1.60[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 24 Af=18.10 [cm²] < 1φ24 x 4 V + 0φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 45.0+ø 8/12.5' x 70.0+ø 8/7.5' x 45.0 VSd 12963.4 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
498	1	-56478.3	0.0	3412.5	1.00	1.00	0.50
721	1	-55937.1	0.0	-4344.6	1.00	1.00	0.55

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.57	12963.4	9120.2	12963.4	9120.2	ø 8/7.5'
0.57	1.27	12963.4	5472.1	12963.4	5472.1	ø 8/12.5'
1.27	1.72	12963.4	9120.2	12963.4	9120.2	ø 8/7.5'

- Pilastro: 721/771 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ø 24 + 2 ø 16 Af=22.12 [cm²] < 1φ24 x 4 V + 1φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/7.5' x 55.0 VSd 28326.9 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
721	1	2049.0	0.0	4127.1	1.00	1.00	0.50
771	1	2322.0	0.0	-225.1	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	28326.9	9120.2	33695.2	10772.4	ø 8/7.5'

- Pilastro: 771/809 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \text{ } \phi 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 1 \phi 16 \times 2 \text{ B} + 0 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 55.0 \text{ VSd } 20453.5 > \text{VR}_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
771	2	-11566.6	0.0	318.4	1.00	1.00	0.08
809	2	-11293.6	0.0	129.4	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	20453.5	9120.2	23875.2	10772.4	ø 8/7.5'

- Pilastro: 809/1037 / L 1.60[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $8 \text{ } \phi 24 \text{ Af}=36.19 \text{ [cm}^2\text{]} < 1 \phi 24 \times 4 \text{ V} + 1 \phi 24 \times 2 \text{ B} + 1 \phi 24 \times 2 \text{ H} >$

Staffe: $\phi 8/7.5' \times 45.0 + \phi 8/10.0' \times 70.0 + \phi 8/7.5' \times 45.0 \text{ VSd } 17133.3 > \text{VR}_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
809	2	-38850.2	0.0	6473.5	1.00	1.00	0.39
1037	2	-38218.9	0.0	-10697.0	1.00	1.00	0.63

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.57	17133.3	9120.2	20453.4	10772.4	ø 8/7.5'
0.57	1.28	17133.3	6840.1	20453.4	8079.3	ø 8/10.0'
1.28	1.73	17133.3	9120.2	20453.4	10772.4	ø 8/7.5'

- Pilastro: 46/93 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \text{ } \phi 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 2 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\phi 8 \text{ 4br./7.5'} \times 55.0 \text{ VSd } 61615.3 > \text{VR}_{s,d} 24849.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
46	9	-4716.5	2119.6	0.0	1.00	1.00	0.20
93	9	-4156.5	1497.6	0.0	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	61615.3	24849.2	107741.9	44675.6	ø 8 4br./7.5'

- Pilastro: 93/139 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \text{ } \phi 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1 \phi 16 \times 4 \text{ V} + 2 \phi 16 \times 2 \text{ B} + 1 \phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 55.0 VSd } 60652.2 > VR_{s,d} 24849.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
93	9	-7969.3	1218.2	0.0	1.00	1.00	0.11
139	1	-32366.3	0.0	314.3	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	60652.2	24849.2	106186.1	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 139/184 / L 0.55[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \varnothing 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 2\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 55.0 VSd } 61266.3 > VR_{s,d} 24849.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
139	1	-39919.6	0.0	-1359.1	1.00	1.00	0.10
184	1	-39191.6	0.0	1631.8	1.00	1.00	0.10

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	61266.3	24849.2	107178.2	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 184/399 / L 0.80[m] / Sezione 2 B 70 [cm]H 40 [cm] NON VERIFICATO

Af: $10 \varnothing 16 \text{ Af}=20.11 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 2\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 4br./7.5' x 80.0 VSd } 42338.9 > VR_{s,d} 24849.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
184	1	-46219.5	0.0	2578.1	1.00	1.00	0.12
399	4	-19537.8	0.0	13717.7	1.00	1.00	0.58

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	42338.9	24849.2	74037.2	44675.6	$\varnothing 8 \text{ 4br./7.5'}$

- Pilastro: 399/451 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 2 \varnothing 16 \text{ Af}=16.59 \text{ [cm}^2\text{]} < 1\phi 20 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \text{ x 55.0 VSd } 23447.2 > VR_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
399	1	2180.5	0.0	-3499.1	1.00	1.00	0.56
451	9	6500.2	617.7	0.0	1.00	1.00	0.13

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	23447.2	9120.2	27777.8	10772.4	$\varnothing 8/7.5'$

- Pilastro: 451/499 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 20459.8 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
451	9	-1789.8	330.4	0.0	1.00	1.00	0.07
499	9	-1579.8	0.0	432.9	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	20459.8	9120.2	24127.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 499/544 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 22350.3 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
499	1	-15594.9	0.0	-495.6	1.00	1.00	0.11
544	2	-15372.2	0.0	-226.2	1.00	1.00	0.09

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	22350.3	9120.2	25729.6	10772.4	$\varnothing 8/7.5'$

- Pilastro: 544/730 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 17315.7 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
544	1	-27637.8	0.0	-540.3	1.00	1.00	0.18
730	4	-16974.6	0.0	2748.9	1.00	1.00	0.38

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	17315.7	9120.2	19441.3	10772.4	$\varnothing 8/7.5'$

- Pilastro: 730/772 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 24 + 2 \varnothing 16$ Af=22.12 [cm²] < $1\phi 24 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 26066.8 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
730	1	8105.3	0.0	-4172.1	1.00	1.00	0.60
772	1	8378.3	414.9	0.0	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	26066.8	9120.2	31040.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 772/810 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 18930.0 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
772	9	-3173.6	337.7	0.0	1.00	1.00	0.07
810	6	-7012.0	0.0	697.3	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	18930.0	9120.2	22291.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 810/845 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 22569.3 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
810	2	-18451.7	0.0	-780.6	1.00	1.00	0.14
845	2	-18178.7	0.0	-151.2	1.00	1.00	0.11

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	22569.3	9120.2	25935.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 845/1045 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $4 \varnothing 20 + 2 \varnothing 16$ Af=16.59 [cm²] < $1\phi 20 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 22985.6 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
845	2	-40428.4	0.0	-712.6	1.00	1.00	0.24
1045	2	-40070.1	0.0	5962.6	1.00	1.00	0.52

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	22985.6	9120.2	25688.6	10772.4	$\varnothing 8/7.5'$

- Pilastro: 51/98 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' } \times 55.0$ VSd 41688.9 > $VR_{s,d}$ 12424.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
51	10	16022.9	1011.7	0.0	1.00	1.00	0.21
98	10	16302.9	276.1	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	41688.9	12424.6	36091.2	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 98/144 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\emptyset 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 41063.8 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
98	10	14964.0	366.6	0.0	1.00	1.00	0.08
144	9	11705.5	0.0	373.2	1.00	1.00	0.08

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	41063.8	12424.6	35543.7	21544.7	$\emptyset 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 144/188 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \emptyset 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\emptyset 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 43595.0 > VR_{c,d} 41779.7$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
144	9	18344.2	0.0	-689.0	1.00	1.00	0.18
188	9	18624.2	0.0	-76.4	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	43595.0	12424.6	37755.0	21544.7	$\emptyset 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 188/404 / L 0.80[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \emptyset 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\emptyset 8 \text{ 2br.x4br./7.5' x 80.0 VSd } 27650.3 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
188	10	11372.2	369.8	0.0	1.00	1.00	0.07
404	9	8892.8	0.0	494.4	1.00	1.00	0.09

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	27650.3	12424.6	23927.6	21544.7	$\emptyset 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 404/456 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \emptyset 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\emptyset 8/7.5' \text{ x 55.0 VSd } 20293.4 > VR_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
404	10	6598.3	179.2	0.0	1.00	1.00	0.06
456	10	6808.3	-31.7	0.0	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	20293.4	9120.2	23712.6	10772.4	$\emptyset 8/7.5'$

- Pilastro: 456/504 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \emptyset 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19810.7 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
456	10	6837.6	164.3	0.0	1.00	1.00	0.05
504	9	5429.3	0.0	118.6	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19810.7	9120.2	23216.8	10772.4	$\varnothing 8/7.5'$

- Pilastro: 504/548 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 21294.0 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
504	9	10265.1	0.0	-650.6	1.00	1.00	0.19
548	9	10475.1	-36.5	0.0	1.00	1.00	0.04

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	21294.0	9120.2	24712.7	10772.4	$\varnothing 8/7.5'$

- Pilastro: 548/735 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 13097.6 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
548	10	4182.4	152.4	0.0	1.00	1.00	0.04
735	9	3136.8	0.0	542.6	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	13097.6	9120.2	15413.6	10772.4	$\varnothing 8/7.5'$

- Pilastro: 735/777 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 17634.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
735	10	2951.8	174.0	0.0	1.00	1.00	0.05
777	10	3161.8	-51.2	0.0	1.00	1.00	0.02

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	17634.2	9120.2	20837.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 777/815 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 55.0$ VSd 17328.1 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
777	9	2805.5	0.0	-208.6	1.00	1.00	0.05
815	4	1700.4	0.5	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17328.1	9120.2	20487.8	10772.4	$\phi 8/7.5'$

- Pilastro: 815/849 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \phi 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 55.0$ VSd 17998.7 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
815	9	4031.4	0.0	-658.1	1.00	1.00	0.15
849	10	2875.5	-122.8	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	17998.7	9120.2	21252.9	10772.4	$\phi 8/7.5'$

- Pilastro: 849/1050 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \phi 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\phi 8/7.5' \times 80.0$ VSd 11494.7 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
849	10	-3070.6	0.0	412.2	1.00	1.00	0.08
1050	9	-2569.8	0.0	656.0	1.00	1.00	0.12

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	11494.7	9120.2	13606.7	10772.4	$\phi 8/7.5'$

- Pilastro: 60/107 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \phi 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\phi 8 \text{ 2br.x4br./7.5' } \times 55.0$ VSd 39647.0 > $VR_{s,d}$ 12424.6

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
60	10	719.5	630.9	0.0	1.00	1.00	0.08
107	10	999.5	543.7	0.0	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	39647.0	12424.6	34303.9	21544.7	$\phi 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 107/153 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \phi 16$ Af=16.08 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 38437.9 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
107	10	-1023.4	492.4	0.0	1.00	1.00	0.06
153	3	-17285.6	0.0	-0.4	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	38437.9	12424.6	32292.1	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 153/197 / L 0.55[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 55.0 VSd } 38010.7 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
153	1	-11921.4	0.0	122.5	1.00	1.00	0.05
197	1	-11557.4	0.0	57.5	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	38010.7	12424.6	32872.6	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 197/413 / L 0.80[m] / Sezione 3 B 35 [cm]H 40 [cm] NON VERIFICATO

Af: $8 \varnothing 16 \text{ Af}=16.08 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 1\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' x 80.0 VSd } 26432.1 > VR_{s,d} 12424.6$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
197	1	-15899.8	0.0	726.1	1.00	1.00	0.09
413	8	-3865.7	0.0	-1792.5	1.00	1.00	0.25

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	26432.1	12424.6	22862.3	21544.7	$\varnothing 8 \text{ 2br.x4br./7.5'}$

- Pilastro: 413/465 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \text{ x } 55.0 \text{ VSd } 17846.2 > VR_{s,d} 9120.2$

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
413	1	550.4	0.0	2286.4	1.00	1.00	0.47
465	7	4197.1	-0.1	0.0	1.00	1.00	0.13

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17846.2	9120.2	21079.1	10772.4	$\varnothing 8/7.5'$

- Pilastro: 465/513 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16 \text{ Af}=12.06 \text{ [cm}^2\text{]} < 1\phi 16 \times 4 \text{ V} + 1\phi 16 \times 2 \text{ B} + 0\phi 16 \times 2 \text{ H} >$

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 18599.1 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
465	5	-5287.6	-140.2	0.0	1.00	1.00	0.03
513	10	-634.5	141.8	0.0	1.00	1.00	0.03

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	18599.1	9120.2	21935.0	10772.4	$\varnothing 8/7.5'$

- Pilastro: 513/557 / L 0.55[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19278.2 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
513	1	-7532.8	0.0	99.3	1.00	1.00	0.05
557	9	-5333.0	231.6	0.0	1.00	1.00	0.05

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19278.2	9120.2	22660.1	10772.4	$\varnothing 8/7.5'$

- Pilastro: 557/744 / L 0.80[m] / Sezione 14 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 13952.8 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
557	1	-12267.9	0.0	625.2	1.00	1.00	0.10
744	7	-6301.7	0.0	-1548.4	1.00	1.00	0.26

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.92	13952.8	9120.2	16303.5	10772.4	$\varnothing 8/7.5'$

- Pilastro: 744/786 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 16235.6 > VR_{s,d} 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
744	1	1926.1	0.0	2428.3	1.00	1.00	0.54
786	1	2199.1	0.0	-397.6	1.00	1.00	0.14

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	16235.6	9120.2	19236.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 786/824 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 17813.1 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
786	9	-5199.9	464.4	0.0	1.00	1.00	0.10
824	9	-4989.9	339.8	0.0	1.00	1.00	0.07

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.67	17813.1	9120.2	21041.3	10772.4	$\varnothing 8/7.5'$

- Pilastro: 824/858 / L 0.55[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 55.0$ VSd 19538.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
824	2	-9559.3	133.4	0.0	1.00	1.00	0.06
858	2	-9286.3	135.7	0.0	1.00	1.00	0.06

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.68	19538.2	9120.2	22933.2	10772.4	$\varnothing 8/7.5'$

- Pilastro: 858/1059 / L 0.80[m] / Sezione 22 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 1\phi 16 \times 2 B + 0\phi 16 \times 2 H$ >

Staffe: $\varnothing 8/7.5' \times 80.0$ VSd 15062.2 > $VR_{s,d}$ 9120.2

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
858	2	-17659.4	0.0	585.6	1.00	1.00	0.12
1059	6	-11942.6	0.0	-2952.7	1.00	1.00	0.44

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.93	15062.2	9120.2	17400.4	10772.4	$\varnothing 8/7.5'$

- Pilastro: 61/417 / L 3.20[m] / Sezione 4 B 30 [cm]H 40 [cm] NON VERIFICATO

Af: $6 \varnothing 16$ Af=12.06 [cm²] < $1\phi 16 \times 4 V + 0\phi 16 \times 2 B + 1\phi 16 \times 2 H$ >

Staffe: $\varnothing 8 \text{ 2br.x4br./7.5' } \times 53.3 + \varnothing 8 \text{ 2br.x4br./12.5' } \times 213.3 + \varnothing 8 \text{ 2br.x4br./7.5' } \times 53.3$ Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
61	1	-33264.2	0.0	-830.2	1.00	1.00	0.20
417	1	-31918.7	0.0	1683.6	1.00	1.00	0.24

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	5835.3	12424.6	4466.8	18240.3	$\varnothing 8 \text{ 2br.x4br./7.5' }$
0.66	2.79	5835.3	7454.7	4466.8	10944.2	$\varnothing 8 \text{ 2br.x4br./12.5' }$
2.79	3.33	5835.3	12424.6	4466.8	18240.3	$\varnothing 8 \text{ 2br.x4br./7.5' }$

- Pilastro: 417/748 / L 3.20[m] / Sezione 12 B 30 [cm]H 30 [cm] NON VERIFICATO

Af: 4 ϕ 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/12.5' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
417	1	-22340.2	0.0	-1839.5	1.00	1.00	0.28
748	4	-16319.5	0.0	1316.2	1.00	1.00	0.27

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3052.0	9120.2	3052.0	9120.2	ϕ 8/7.5'
0.66	2.79	3052.0	5472.1	3052.0	5472.1	ϕ 8/12.5'
2.79	3.33	3052.0	9120.2	3052.0	9120.2	ϕ 8/7.5'

- Pilastro: 748/1063 / L 3.20[m] / Sezione 24 B 30 [cm]H 25 [cm] NON VERIFICATO

Af: 4 ϕ 16 Af=8.04 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/12.5' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.080425 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
748	4	-9910.5	0.0	-1828.9	1.00	1.00	0.45
1063	4	-9263.6	0.0	2086.0	1.00	1.00	0.53

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	2033.4	7468.0	2505.4	9120.2	ϕ 8/7.5'
0.66	2.79	2033.4	4480.8	2505.4	5472.1	ϕ 8/12.5'
2.79	3.33	2033.4	7468.0	2505.4	9120.2	ϕ 8/7.5'

- Pilastro: 299/641 / L 3.20[m] / Sezione 16 B 30 [cm]H 35 [cm] NON VERIFICATO

Af: 6 ϕ 16 Af=12.06 [cm²] < 1 ϕ 16 x 4 V + 0 ϕ 16 x 2 B + 1 ϕ 16 x 2 H >

Staffe: ϕ 8/7.5' x 53.3+ ϕ 8/10.0' x 213.3+ ϕ 8/7.5' x 53.3 Ast/s=0.100531 < 0.08 fcd bst/fyd 0.112092

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
299	6	-8300.0	-1150.5	0.0	1.00	1.00	0.19
641	6	-7394.3	1089.8	0.0	1.00	1.00	0.18

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	0.66	3831.5	10772.4	3253.9	9120.2	ϕ 8/7.5'
0.66	2.79	3831.5	8079.3	3253.9	6840.1	ϕ 8/10.0'
2.79	3.33	3831.5	10772.4	3253.9	9120.2	ϕ 8/7.5'

- Pilastro: 565/866 / L 3.20[m] / Sezione 29 B 35 [cm]H 30 [cm] NON VERIFICATO

Af: 6 ϕ 16 Af=12.06 [cm²] < 1 ϕ 16 x 4 V + 1 ϕ 16 x 2 B + 0 ϕ 16 x 2 H >

Staffe: ϕ 8/20.0' x 320.0 20.00 > 12.80 [cm]

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
565	10	-8455.3	0.0	1162.8	1.00	1.00	0.19
866	10	-7549.6	0.0	-1169.8	1.00	1.00	0.19

- Verifiche a Taglio

Da	A	Vdx	Vrx	Vdy	Vry	Staffe
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[m]	[m]	[kg]	[kg]	[kg]	[kg]
0.13	3.33	3266.8	3420.1	3845.2	4039.6

- Pilastro: 726/1041 / L 3.20[m] / Sezione 23 B 35 [cm]H 25 [cm] NON VERIFICATO

Af: 6 ø 16 Af=12.06 [cm²] < 1φ16 x 4 V + 1φ16 x 2 B + 0φ16 x 2 H >

Staffe: ø 8/20.0' x 320.0 20.00 > 12.50 [cm]

- Verifiche a Presso-Flessione S.L.U.

Nodo	Comb	N	Mx	My	α_{12}	α_{13}	Sd/Sr
726	4	-2112.3	0.0	-877.8	1.00	1.00	0.17
1041	4	-1357.7	0.0	988.1	1.00	1.00	0.19

- Verifiche a Taglio

Da [m]	A [m]	Vdx [kg]	Vrx [kg]	Vdy [kg]	Vry [kg]	Staffe
0.13	3.33	2255.5	2800.5	3293.6	4039.6	ø 8/20.0'

- [En.Ex.Sys. WinStrand](#)
- [Verifiche pilastri](#)

4.1.11 Verifica spostamenti – Stato di progetto

- Spostamenti Max nella combinazione 1:

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	138	-0.02 [cm]	808	0.03 [cm]	808	0.03 [cm]
Uy	882	-0.07 [cm]	154	0.01 [cm]	882	-0.07 [cm]
Uz	945	-2.37 [cm]	950	0.07 [cm]	945	-2.37 [cm]
Rx	892	-0.26 [°]	966	0.23 [°]	892	-0.26 [°]
Ry	968	-0.34 [°]	942	0.29 [°]	968	-0.34 [°]
Rz	825	-0.02 [°]	721	0.01 [°]	825	-0.02 [°]

- Spostamenti Max nella combinazione 2:

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	882	-0.02 [cm]	808	0.03 [cm]	808	0.03 [cm]
Uy	882	-0.07 [cm]	154	0.01 [cm]	882	-0.07 [cm]
Uz	945	-2.56 [cm]	950	0.09 [cm]	945	-2.56 [cm]
Rx	892	-0.29 [°]	966	0.27 [°]	892	-0.29 [°]
Ry	968	-0.37 [°]	942	0.32 [°]	968	-0.37 [°]
Rz	825	-0.03 [°]	1037	0.01 [°]	825	-0.03 [°]

- Spostamenti Max nella combinazione 3: Sisma 0 / 90

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	138	-0.01 [cm]	879	0.12 [cm]	879	0.12 [cm]
Uy	884	-0.06 [cm]	907	0.25 [cm]	907	0.25 [cm]
Uz	945	-1.91 [cm]	950	0.07 [cm]	945	-1.91 [cm]
Rx	892	-0.21 [°]	967	0.20 [°]	892	-0.21 [°]
Ry	968	-0.28 [°]	942	0.24 [°]	968	-0.28 [°]
Rz	825	-0.02 [°]	1056	0.01 [°]	825	-0.02 [°]

- Spostamenti Max nella combinazione 4: Sisma 0 / 270

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	138	-0.01 [cm]	932	0.08 [cm]	932	0.08 [cm]
Uy	884	-0.24 [cm]	615	0.04 [cm]	884	-0.24 [cm]
Uz	945	-1.85 [cm]	950	0.08 [cm]	945	-1.85 [cm]
Rx	917	-0.21 [°]	967	0.19 [°]	917	-0.21 [°]
Ry	968	-0.29 [°]	942	0.23 [°]	968	-0.29 [°]
Rz	825	-0.01 [°]	1048	0.01 [°]	1048	0.01 [°]

- Spostamenti Max nella combinazione 5: Sisma 90 / 0

Componente	Nodo Min	Valore	Nodo Max	Valore	Nodo Max	Valore
Ux	932	-0.07 [cm]	879	0.15 [cm]	879	0.15 [cm]
Uy	1	0.00 [cm]	907	0.39 [cm]	907	0.39 [cm]
Uz	945	-2.00 [cm]	991	0.07 [cm]	945	-2.00 [cm]
Rx	892	-0.23 [°]	966	0.22 [°]	892	-0.23 [°]
Ry	968	-0.26 [°]	942	0.25 [°]	968	-0.26 [°]

Rz	825	-0.02	[°]	1053	0.02	[°]	825	-0.02	[°]
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- Spostamenti Max nella combinazione 6: Sisma 90 / 180

Componente	Nodo Min	Valore		Nodo Max	Valore		Nodo Max	Valore	
Ux	932	-0.11	[cm]	876	0.09	[cm]	932	-0.11	[cm]
Uy	1	0.00	[cm]	1031	0.34	[cm]	1031	0.34	[cm]
Uz	945	-2.03	[cm]	991	0.08	[cm]	945	-2.03	[cm]
Rx	892	-0.23	[°]	966	0.22	[°]	892	-0.23	[°]
Ry	968	-0.26	[°]	942	0.25	[°]	968	-0.26	[°]
Rz	825	-0.03	[°]	1052	0.01	[°]	825	-0.03	[°]

- Spostamenti Max nella combinazione 7: Sisma 180 / 90

Componente	Nodo Min	Valore		Nodo Max	Valore		Nodo Max	Valore	
Ux	932	-0.10	[cm]	1	0.00	[cm]	932	-0.10	[cm]
Uy	882	-0.12	[cm]	1031	0.22	[cm]	1031	0.22	[cm]
Uz	945	-1.99	[cm]	991	0.06	[cm]	945	-1.99	[cm]
Rx	892	-0.23	[°]	966	0.22	[°]	892	-0.23	[°]
Ry	968	-0.27	[°]	942	0.25	[°]	968	-0.27	[°]
Rz	825	-0.03	[°]	521	0.01	[°]	825	-0.03	[°]

- Spostamenti Max nella combinazione 8: Sisma 180 / 270

Componente	Nodo Min	Valore		Nodo Max	Valore		Nodo Max	Valore	
Ux	882	-0.15	[cm]	498	0.00	[cm]	882	-0.15	[cm]
Uy	882	-0.35	[cm]	831	0.04	[cm]	882	-0.35	[cm]
Uz	945	-1.94	[cm]	950	0.07	[cm]	945	-1.94	[cm]
Rx	918	-0.22	[°]	966	0.21	[°]	918	-0.22	[°]
Ry	968	-0.28	[°]	942	0.24	[°]	968	-0.28	[°]
Rz	825	-0.02	[°]	526	0.01	[°]	825	-0.02	[°]

- Spostamenti Max nella combinazione 9: Sisma 270 / 0

Componente	Nodo Min	Valore		Nodo Max	Valore		Nodo Max	Valore	
Ux	882	-0.12	[cm]	932	0.09	[cm]	882	-0.12	[cm]
Uy	882	-0.37	[cm]	1	0.00	[cm]	882	-0.37	[cm]
Uz	945	-1.82	[cm]	950	0.09	[cm]	945	-1.82	[cm]
Rx	918	-0.23	[°]	968	0.19	[°]	918	-0.23	[°]
Ry	968	-0.29	[°]	942	0.23	[°]	968	-0.29	[°]
Rz	1045	-0.02	[°]	1048	0.02	[°]	1045	-0.02	[°]

- Spostamenti Max nella combinazione 10: Sisma 270 / 180

Componente	Nodo Min	Valore		Nodo Max	Valore		Nodo Max	Valore	
Ux	882	-0.18	[cm]	932	0.05	[cm]	882	-0.18	[cm]
Uy	882	-0.49	[cm]	1	0.00	[cm]	882	-0.49	[cm]
Uz	945	-1.84	[cm]	950	0.09	[cm]	945	-1.84	[cm]
Rx	918	-0.23	[°]	966	0.19	[°]	918	-0.23	[°]
Ry	968	-0.29	[°]	942	0.23	[°]	968	-0.29	[°]
Rz	1054	-0.02	[°]	1048	0.01	[°]	1054	-0.02	[°]

4.1.12 Verifica travi – Stato di progetto

- En.Ex.Sys. WinStrand

- Structural Analysis & Design

Ditta produttrice:

En.Ex.Sys. s.r.l. - Via Tizzano 46/2 - Casalecchio di Reno (Bologna)

Sigla:

WinStrand

Piattaforma software:

Microsoft Windows XP Home, Microsoft Windows XP Home Professional

Documentazione in uso:

Manuale teorico - Manuale d'uso

Campo di applicazione:

Analisi statica e dinamica di strutture in campo elastico lineare.

- Elementi finiti implementati

- Truss.
- Beam (Modellazione di Travi e Pilastri).
- Travi su suolo elastico alla Winckler.
- Plinti su suolo elastico alla Winckler.
- Elementi Shear Wall per la modellazione di pareti di taglio.
- Elementi shell (lastra/piastra) equivalenti.
- Elementi Isoparametrici a 8 Nodi Shell (lastra/piastra).

- Schemi di Carico

- Carichi nodali concentrati.
- Carichi applicati direttamente agli elementi.
- Carichi Superficiali.

- Tipo di Risoluzione

- Analisi statica e/o dinamica in campo lineare con il metodo dell'equilibrio.
- Fattorizzazione LDL^T.
- Analisi Statica:
 - modellazione generale 6 gradi di libertà per nodo.
 - ipotesi di solai infinitamente rigidi nel proprio piano (3 gradi di libertà per nodo + 3 per impalcato).
- Analisi dinamica. (Nel caso di analisi modale gli autovettori ed autovalori possono essere calcolati mediante *subspace iteration* oppure tramite il *metodo dei vettori di Ritz*):
 - - Via statica equivalente.
 - Modale con il metodo dello spettro di risposta.

- Normativa di riferimento

La normativa italiana cui viene fatto riferimento nelle fasi di calcolo e progettazione è la seguente:

- Legge n. 1086 del 5 Novembre 1971. "Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso, ed a struttura metallica".
- Legge n. 64 del 2 Febbraio 1974. "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche".
- D.M. del 3 Marzo 1975. "Approvazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Marzo 1975. "Disposizioni concernenti l'applicazione delle norme tecniche per le costruzioni in zone sismiche".
- D.M. del 3 Ottobre 1978. "Criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e sovraccarichi".
- D.M. del 14 Febbraio 1992. "Norme Tecniche per l'esecuzione delle opere in C.A. normale e precompresso e per le strutture metalliche".
- Istruzioni per la valutazione delle Azioni sulle Costruzioni. (C.N.R. 10012/85)
- D.M. del 9 Gennaio 1996. "Norme Tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
- D.M. del 16 Gennaio 1996. "Norme tecniche relative ai «Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi»".
- D.M. del 16 Gennaio 1996. "Norme tecniche per le costruzioni in zone sismiche"
- Ordinanza n. 3274 del 20 Marzo 2003. "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"
- Ordinanza n. 3316. "Modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 Marzo 2003"
- D.M. del 14 Gennaio 2008 "Approvazione delle nuove norme tecniche per le costruzioni"

- Verifiche travi

- Modalità di verifica

Le travi vengono progettate-verificate a flessione retta e taglio nel piano longitudinale della trave sulla base dell'involuppo delle sollecitazioni, in conformità al *Decreto Legge del 26 Marzo 1980* e successivi aggiornamenti.

Viene comunque sempre predisposta l'armatura minima mentre gli sforzi di taglio vengono integralmente assorbiti dalle staffe.

Le operazioni di progetto-verifica vengono condotte, per ogni asta, in tre diverse sezioni e precisamente in corrispondenza dei fili esterni dei pilastri e della sezione in campata nella quale viene riscontrato il massimo momento positivo (negativo).

I momenti si intendono positivi se tendono le fibre di intradosso (inferiori).

Per quanto concerne il progetto e la verifica delle travi a taglio esse vengono condotte nel modo seguente:

- Si controlla se la trave necessita o meno di armatura aggiuntiva a taglio:
 1. Se non occorre armatura aggiuntiva a taglio si procede a disporre la staffatura minima di regolamento e la progettazione ha termine.
 2. Se occorre armatura aggiuntiva a taglio la staffatura viene progettata andando a suddividere la trave, a seconda del caso, in uno, tre o cinque conci:

- due tronchi in prossimità degli appoggi di lunghezza pari all'altezza della sezione;
 - due altri (eventuali) tronchi dall'ascissa precedente a quella in cui il taglio può essere assorbito con la sola staffatura minima da regolamento
 - un restante (eventuale) concio di chiusura centrale.
- In ogni caso l'armatura a taglio si intende simmetrica rispetto alla mezzeria della trave e viene progettata considerando, rispetto alla mezzeria, la zona della trave più sollecitata.

Per quanto concerne le verifiche a taglio esse vengono condotte suddividendo la trave in cinque conci:

due tronchi in prossimità degli appoggi di lunghezza pari all'altezza della sezione; due altri (eventuali) tronchi dall'ascissa precedente a quella in cui il taglio può essere assorbito con la sola staffatura minima da regolamento; il restante (eventuale) concio di chiusura centrale.

L'armatura a taglio si intende simmetrica rispetto alla mezzeria della trave e viene progettata considerando, rispetto alla mezzeria, la zona della trave più sollecitata.

Simbologia utilizzata:

Af Es.

Area di ferro all'estradosso

Af In.

Area di ferro all'intradosso

Sigb.Es.

Tensione del calcestruzzo estradosso

Sigb. In.

Tensione del calcestruzzo intradosso

Sigf. Es.

Tensione dell'acciaio estradosso

Sigf. In.

Tensione dell'acciaio intradosso

- Sezioni Impiegate: Trave

Sezione Numero	Info	Dimensioni	Criterio	Calcestruzzo	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Calcestruzzo Appoggi	f_{cd} [kg/cm ²]	τ_{rd} [kg/cm ²]	σ_{RARE} [kg/cm ²]	σ_{FREQ} [kg/cm ²]	σ_{OP} [kg/cm ²]	Acciaio	f_{yd} [kg/cm ²]	σ_{yRARE} [kg/cm ²]
1	Rett. 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
2	Rett. 30x250	B 30 [cm] H 250 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
3	Rett. 30x85	B 30 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
4	Rett. 30x115	B 30 [cm] H 115 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
5	Rett. 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
6	a - 18+18x75D	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
7	Rett. 45x85	B 45 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
8	Rett. 33x50	B 33 [cm] H 50 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
9	Rett. 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
10	Rett. 33x85	B 33 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
11	a T 40/60x52	B 60 [cm] H 52 [cm] b 40 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
13	Rett. 60x85	B 60 [cm] H 85 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
14	a ~ 18+18x75S	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
21	Rett. P1 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
22	a - P2 18+18x75D	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
23	a - P3 20+18x75D	B 38 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
24	Rett. P4 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
25	Rett. P5 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
26	Rett. P6 40x24	B 40 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
27	a T P7 35/55x52	B 55 [cm] H 52 [cm] b 35 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0
28	a ~ P8 18+18x75S	B 36 [cm] H 75 [cm] b 18 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4							FeB 32k	2739.1	2520.0

31	a - S1 40+25x75D	B 65 [cm] H 75 [cm] b 25 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
32	Rett. S2 20x75	B 20 [cm] H 75 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
33	Rett. S3 20x24	B 20 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
34	Rett. S4 25x24	B 25 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
36	Rett. S6 30x24	B 30 [cm] H 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
35	Rett. S5 40x34	B 40 [cm] H 34 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
37	a T S7 30/50x70	B 50 [cm] H 70 [cm] b 30 [cm] h 34 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
38	a - S8 10+40x75S	B 50 [cm] H 75 [cm] b 12 [cm] h 24 [cm]	Vertrav	Rbk 250	117.6	2.6	124.5	207.5	93.4		FeB 32k	2739.1	2520.0
12	a T 50/80x85	B 70 [cm] H 85 [cm] b 50 [cm] h 24 [cm]	Vertrav	Rbk 300	141.1	3.0	149.4	249.0	112.0		FeB 32k	2739.1	2520.0

EC2. 4.3.2.4.4. Verifica a taglio con il metodo dell'inclinazione variabile del traliccio. $\cotg \theta = 1.00$

Verifica a fessurazione indiretta

Fattore di sovrarresistenza Travi $\gamma_{R,d}=1.00$

Fattore di sovrarresistenza Fondazioni $\gamma_{R,d}=1.00$

- Verifiche Tratte :

- Travata: 1 Travata 224 200 202 204 206 208 210 214 218 222

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 14 a - 36x75x18x24 [cm] 18+18x75S Afi < Afe/2																
224	0.13	5.71	5.97			2520.5	10420.1	0.08	-530.1	-11122.3	0.07					
Camp.	3.10	12.57	9.42	3576.8	8593.4	0.0	22619.0	0.10	-8589.3	-17290.2	0.08					
200	6.07	21.99	9.42			13306.2	37998.4	0.29	0.0	-17286.9	0.08					
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento																
200	0.12	21.99	9.17			19957.2	144526.8	0.05	0.0	-60617.7	0.02					
Camp.	0.84	21.99	12.57	2897.7	435.1	19957.2	144866.4	0.04	-428.8	-82989.9	0.03					
202	1.55	15.80	7.53			16678.6	104206.8	0.04	0.0	-49853.5	0.02					
Trave Sez. 3 Rett. 30x85 [cm] 30x85 Afi < Afe/2																
202	0.13	14.11	15.71			6220.5	29421.3	0.08	0.0	-32695.4	0.08					
Camp.	1.85	9.42	15.71	1288.9	1102.9	180.5	19787.5	0.07	-4188.8	-32677.7	0.09					
204	3.57	12.73	20.16			0.0	26578.0	0.07	-7474.3	-41810.9	0.10					
Trave Sez. 4 Rett. 30x115 [cm] 30x115 Afi < Afe/2																
204	0.00	14.73	6.54			0.0	42881.6	0.07	-8201.0	-19252.0	0.05					
Camp.	0.75	18.85	12.57	1581.4	222.4	0.0	54789.8	0.07	-8277.3	-36674.5	0.05					
206	1.50	13.25	6.54			0.0	38627.8	0.06	-8256.9	-19252.6	0.05					
Trave Sez. 3 Rett. 30x85 [cm] 30x85 Afi < Afe/2																
206	0.12	11.25	21.29			0.0	23528.7	0.07	-7673.4	-44001.0	0.12					
Camp.	1.85	9.42	15.71	1288.9	1102.9	0.0	19787.5	0.07	-4683.6	-32677.7	0.09					
208	3.57	11.87	15.71			5305.0	24822.5	0.07	0.0	-32690.5	0.09					
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento																
208	0.00	13.14	7.53			15328.7	86867.7	0.03	0.0	-49910.3	0.02					
Camp.	0.71	17.93	12.57	2897.7	435.1	18529.5	118425.5	0.03	-428.8	-83100.3	0.03					
210	1.43	15.66	9.17			18529.5	103438.3	0.04	0.0	-60697.5	0.02					
Trave Sez. 14 a - 36x75x18x24 [cm] 18+18x75S																
210	0.13	13.85	9.42			11171.0	24895.8	0.11	0.0	-17289.6	0.08					
Camp.	3.00	9.42	9.42	3576.8	8047.9	0.0	17036.7	0.09	-8047.9	-17292.0	0.08					
214	5.87	15.46	18.85			7027.7	27808.6	0.09	0.0	-34094.4	0.09					
Trave Sez. 14 a - 36x75x18x24 [cm] 18+18x75S Afi < Afe/2																
214	0.13	15.46	18.85			7760.2	27808.6	0.09	0.0	-34094.4	0.09					
Camp.	3.00	6.03	9.42	3576.8	8047.9	0.0	11028.4	0.08	-8047.9	-17306.1	0.08					
218	5.87	12.06	18.85			8790.5	21802.2	0.09	0.0	-34117.2	0.10					
Trave Sez. 14 a - 36x75x18x24 [cm] 18+18x75S Afi < Afe/2																
218	0.13	12.06	18.85			10313.9	21802.2	0.09	0.0	-34117.2	0.10					
Camp.	3.10	6.03	9.42	3576.9	8593.4	0.0	11028.4	0.08	-8593.4	-17306.1	0.08					
222	6.08	3.51	5.97			3059.3	6528.7	0.07	-389.4	-11117.4	0.07					

Da [m]	A [m]	Dx [m]	V _{Sd} [kg]	V _{Rd} [kg]	V _{Rd} _{max} [kg]	V _{Rd} _i [kg]	Staffe
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Trave 224 200 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	11423.3	4990.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	13737.6	5812.0	33620.6	13669.4	ø 10 2br. 20.0'
5.51	6.07	0.56	15022.2	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
Trave 200 202 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 137856.0 > VR _{s,d} 47552.5							
0.12	1.55	1.43	137856.0	17118.5	194929.6	47552.5	ø 10 2br. 20.0'
Trave 202 204 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 22357.4 > VR _{s,d} 20807.4 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.77	0.64	22357.4	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	21718.0	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
2.93	3.57	0.64	19576.0	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
Trave 204 206 Sez. 4 Rett. 30x115 [cm] 30x115 VSd 42335.2 > VR _{s,d} 13705.0							
0.00	1.50	1.50	42335.2	9045.5	87781.8	13705.0	ø 8 2br. 20.0'
Trave 206 208 Sez. 3 Rett. 30x85 [cm] 30x85 64.48 < 85.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.77	0.64	18877.8	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	21019.9	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
2.93	3.57	0.64	21659.2	10345.4	63971.2	20807.4	ø 10 2br. 15.0'
Trave 208 210 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 109061.7 > VR _{s,d} 40578.1							
0.00	1.43	1.43	109061.7	17118.5	194929.6	40578.1	ø 8 2br. 15.0'
Trave 210 214 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	16798.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	15513.7	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	14382.3	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 214 218 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	17308.9	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	16024.2	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	16260.3	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 218 222 Sez. 14 a / - 36x75x18x24 [cm] 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	12299.3	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	12313.3	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.51	6.08	0.56	13597.9	4990.6	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 10 Travata 584 560 565 570 574 578 582

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
584	0.13	7.24	5.97			2085.4	13140.8	0.09	-1073.4	-11122.6	0.07					
Camp.	3.10	15.71	9.42	3576.8	8593.4	0.0	28108.4	0.14	-8591.3	-17288.8	0.08					
560	6.07	34.56	21.99			17584.4	60372.0	0.29	0.0	-39668.6	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
560	0.13	34.56	21.99			26780.9	60372.0	0.29	0.0	-39668.6	0.08					
Camp.	3.00	18.85	12.57	1039.3	2338.5	0.0	33701.8	0.14	-7034.6	-22886.3	0.08					
565	5.88	37.70	25.13			0.0	65965.4	0.29	-25628.5	-45262.1	0.09					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755																
565	0.13	37.70	25.13			0.0	65965.4	0.29	-25483.7	-45262.1	0.09					
Camp.	3.00	18.85	12.57	1039.3	2338.5	0.0	33701.8	0.14	-7323.6	-22886.3	0.08					
570	5.88	34.56	18.85			25957.0	59184.3	0.36	0.0	-34074.1	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
570	0.13	34.56	18.85			16562.1	59184.3	0.36	0.0	-34074.1	0.08					
Camp.	3.00	15.71	6.28	3576.8	8047.9	371.1	27639.8	0.22	-8047.9	-11687.2	0.07					
574	5.87	23.75	15.71			5959.1	42253.4	0.18	0.0	-28499.2	0.08					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
574	0.13	23.75	15.71			6864.1	42253.4	0.18	0.0	-28499.2	0.08					
Camp.	3.00	8.04	9.42	3576.8	8047.9	0.0	14620.6	0.09	-8047.9	-17304.9	0.08					
578	5.87	16.08	18.85			9286.2	28981.7	0.09	0.0	-34132.4	0.09					
Trave Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 Afi < Afe/2																
578	0.13	16.08	18.85			10198.7	28981.7	0.09	0.0	-34132.4	0.09					
Camp.	3.10	8.04	9.42	3576.9	8593.4	0.0	14620.6	0.09	-8593.4	-17304.9	0.08					
582	6.08	4.52	5.97			3225.6	8328.9	0.08	-720.9	-11117.4	0.07					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 584 560 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 72.05 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.85	0.72	15642.2	4990.6	33620.6	18225.9	ø 10 2br. 15.0'
0.85	5.35	4.51	17143.8	5812.0	33620.6	13669.4	ø 10 2br. 20.0'
5.35	6.07	0.72	18782.5	7708.7	33620.6	18225.9	ø 10 2br. 15.0'
Trave 560 565 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x755 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	20669.7	7708.7	33620.6	36451.8	ø 10 2br. 7.5'

0.69	5.31	4.62	20218.1	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
5.31	5.88	0.56	20669.7	8059.6	33620.6	36451.8	ø 10 2br. 7.5'
Trave 565 570 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	19696.7	8059.6	33620.6	36451.8	ø 10 2br. 7.5'
0.69	5.31	4.62	20011.6	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
5.31	5.88	0.56	20463.1	7322.6	33620.6	36451.8	ø 10 2br. 7.5'
Trave 570 574 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S VSd 21788.5 > VR_{s,d} 18225.9							
0.13	0.69	0.56	21788.5	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	20503.8	5077.2	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	19813.5	6890.9	33620.6	18225.9	ø 10 2br. 15.0'
Trave 574 578 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S VSd 19823.7 > VR_{s,d} 18225.9 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	19823.7	6890.9	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.31	4.62	18539.0	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.31	5.87	0.56	16535.8	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
Trave 578 582 Sez. 28 a / - 36x75x18x24 [cm] P8 18+18x75S 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.69	0.56	13506.0	7322.6	33620.6	18225.9	ø 10 2br. 15.0'
0.69	5.51	4.82	12618.3	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
5.51	6.08	0.56	13903.0	4990.6	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 11 Travata 632 636 641 646 650 654 658

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{re} [kg/cm ²]	σ _{ri} [kg/cm ²]	w mm
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
632	0.12	7.22	9.94			1166.8	8795.4	0.11	-328.5	-12208.3	0.11					
Camp.	3.10	15.71	15.71	5160.9	12399.1	0.0	18571.1	0.13	-12389.9	-18854.9	0.12					
636	6.07	34.56	34.56			12577.7	40244.3	0.15	0.0	-40536.3	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
636	0.13	34.56	34.56			20922.7	40244.3	0.15	0.0	-40536.3	0.14					
Camp.	3.00	18.85	18.85	3285.0	7391.2	0.0	22183.6	0.14	-7391.2	-22471.5	0.13					
641	5.88	34.56	37.70			0.0	40249.0	0.14	-5992.1	-44142.9	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
641	0.13	34.56	37.70			0.0	40249.0	0.14	-6081.7	-44142.9	0.14					
Camp.	3.00	15.71	18.85	3285.0	7391.2	0.0	18571.6	0.13	-7391.2	-22471.8	0.13					
646	5.88	34.56	34.56			19738.8	40244.3	0.15	0.0	-40536.3	0.14					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
646	0.13	34.56	34.56			10382.5	40244.3	0.15	0.0	-40536.3	0.14					
Camp.	3.00	18.85	15.71	4300.0	9675.0	0.0	22179.1	0.14	-9675.0	-18853.2	0.12					
650	5.88	31.42	28.27			7020.7	36624.9	0.15	0.0	-33313.5	0.13					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
650	0.12	31.42	28.27			7576.8	36624.9	0.15	0.0	-33313.5	0.13					
Camp.	3.00	12.57	12.57	4579.1	10303.0	0.0	14957.3	0.13	-10303.0	-15234.4	0.11					
654	5.87	25.13	31.42			12591.4	29412.9	0.13	0.0	-36912.8	0.15					
Trave Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52																
654	0.12	25.13	31.42			12990.1	29412.9	0.13	0.0	-36912.8	0.15					
Camp.	3.10	12.57	18.85	5822.5	13988.6	0.0	14955.4	0.12	-13988.6	-22470.3	0.13					
658	6.08	5.72	11.93			1673.6	7065.7	0.11	-433.0	-14510.4	0.12					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 632 636 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 17079.6 > VR_{s,d} 12288.3							
0.12	0.51	0.38	17079.6	7624.0	44076.1	12288.3	ø 10 2br. 15.0'
0.51	5.69	5.19	17371.4	8878.8	44076.1	12288.3	ø 10 2br. 15.0'
5.69	6.07	0.38	18713.7	11408.2	44076.1	12288.3	ø 10 2br. 15.0'
Trave 636 641 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52							
0.13	1.28	1.16	20569.8	10153.3	44076.1	36864.8	ø 10 2br. 5.0'
1.28	4.72	3.43	18192.0	9435.1	44076.1	18432.4	ø 10 2br. 10.0'
4.72	5.88	1.16	19943.4	10262.3	44076.1	36864.8	ø 10 2br. 5.0'
Trave 641 646 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52							
0.13	1.25	1.12	19943.3	10429.6	44076.1	24576.5	ø 10 2br. 7.5'
1.25	4.75	3.50	18267.5	9435.1	44076.1	18432.4	ø 10 2br. 10.0'
4.75	5.88	1.12	20569.8	10323.6	44076.1	24576.5	ø 10 2br. 7.5'
Trave 646 650 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20382.7 > VR_{s,d} 12288.3							
0.13	0.51	0.38	20382.7	11408.2	44076.1	12288.3	ø 10 2br. 15.0'
0.51	5.49	4.99	20004.0	8878.8	44076.1	12288.3	ø 10 2br. 15.0'
5.49	5.88	0.38	21009.3	10800.5	44076.1	12288.3	ø 10 2br. 15.0'
Trave 650 654 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 VSd 20845.6 > VR_{s,d} 18432.4							
0.12	0.51	0.38	20845.6	10800.5	44076.1	18432.4	ø 10 2br. 10.0'
0.51	5.49	4.99	19778.5	8242.4	44076.1	12288.3	ø 10 2br. 15.0'

5.49	5.87	0.38	18965.4	11186.6	44076.1	18432.4	ø 10 2br. 10.0'
Trave 654 658 Sez. 27 a T 55x52x35x24 [cm] P7 35/55x52 38.08 < 52.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.51	0.38	17869.0	11186.6	44076.1	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	16535.9	9435.1	44076.1	12288.3	ø 10 2br. 15.0'
5.69	6.08	0.38	17878.2	8101.7	44076.1	18432.4	ø 10 2br. 10.0'

- Travata: 12 Travata 680 681 684

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 24 Rett. 20x24 [cm] P4 20x24																
680	0.05	2.32	2.71			265.4	1170.7	0.21	0.0	-1333.6	0.22					
Camp.	0.66	5.58	5.44	1353.7	134.7	196.3	2524.5	0.27	-134.1	-2466.5	0.26					
681	1.26	6.16	6.16			541.0	2761.5	0.27	0.0	-2761.5	0.27					
Trave 681 684 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA																

Da [m]	A [m]	Dx [m]	V _{Sd} [kg]	V _{rd} _c [kg]	V _{rd} _{max} [kg]	V _{rd} _s [kg]	Staffe
Trave 680 681 Sez. 24 Rett. 20x24 [cm] P4 20x24 V_{Sd} 3894.8 > V_{Sd} 3238.3							
0.05	1.26	1.21	3894.8	2284.7	10370.8	3238.3	ø 8 2br. 15.0'
Trave 681 684 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA							

- Travata: 13 Travata 669 670 671 672 673 674

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{IT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 669 670 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 670 671 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 671 672 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 672 673 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 673 674 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 669 670 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 670 671 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 671 672 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 672 673 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 673 674 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 14 Travata 691 696 698

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{IT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 691 696 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 24 Rett. 20x24 [cm] P4 20x24												
696	0.00	8.04	8.04			532.0	3502.3	0.29	0.0	-3502.3	0.29	
Camp.	1.28	4.02	4.02	1450.1	612.7	124.8	1869.0	0.25	-611.8	-1869.0	0.25	
698	2.55	2.69	2.54			231.7	1322.0	0.23	-84.4	-1259.6	0.22	

Da [m]	A [m]	Dx [m]	V [kg]	τ_v [kg/cm ²]	σ_{Stf} [kg/cm ²]	Staffe
Trave 691 696 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 696 698 Sez. 24 Rett. 20x24 [cm] P4 20x24 15.00 > 4.90 [cm]						
0.00	2.55	2.55	3001.3	2236.6	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 15 Travata 735 736

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{IT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 735 736 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 735 736 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 736 737

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{IT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 736 737 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 736 737 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 737 738

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 737 738 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 737 738 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 737 738 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 738 739

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 738 739 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 738 739 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 739 740

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 739 740 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 739 740 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 740 741

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 740 741 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 740 741 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 741 742

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 741 742 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 741 742 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 742 743

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 742 743 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 742 743 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 743 744

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 743 744 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 743 744 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 15 Travata 715 721 726 730 735

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 21 Rett. 20x75 [cm] P1 20x75 Af1 < Afe/2																
715	0.12	5.79	5.97			151.4	10592.2	0.08	-339.3	-10909.3	0.08					
Camp.	3.10	12.57	9.42	2004.9	4816.8	4425.0	22649.4	0.10	-4813.2	-17066.2	0.08					
721	6.07	31.42	21.99			14823.9	55768.6	0.19	0.0	-39439.1	0.09					
Trave Sez. 22 a - 36x75x18x24 [cm] P2 18+18x75D																
721	0.13	31.42	21.99			35593.0	55606.8	0.22	0.0	-39668.7	0.09					
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-11186.8	-22886.3	0.08					
726	5.88	37.70	25.13			0.0	65965.4	0.29	-24639.9	-45262.1	0.09					

Trave Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D											
726	0.13	37.70	25.13			0.0	65965.4	0.29	-25117.7	-45262.1	0.09
Camp.	3.00	18.85	12.57	3576.8	8047.9	0.0	33701.8	0.14	-9176.5	-22886.3	0.08
730	5.88	31.42	21.99			39262.1	55606.8	0.22	0.0	-39668.7	0.09
Trave Sez. 21 Rett. 20x75 [cm] P1 20x75 Afli < Afe/2											
730	0.12	31.42	21.99			12546.9	55768.6	0.19	0.0	-39439.1	0.09
Camp.	3.00	12.57	9.42	487.5	1096.9	1786.5	22764.4	0.10	-2278.6	-17147.1	0.08
735	5.88	5.79	5.97			2371.7	10592.2	0.08	-1510.8	-10909.3	0.08

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 715 721 Sez. 21 Rett. 20x75 [cm] P1 20x75 56.48 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.69	0.56	10977.0	5353.7	37356.2	21871.1	ø 10 2br. 12.5'
0.69	5.51	4.82	15135.9	6234.9	37356.2	18225.9	ø 10 2br. 15.0'
5.51	6.07	0.56	16380.7	8269.7	37356.2	21871.1	ø 10 2br. 12.5'
Trave 721 726 Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D							
0.13	5.88	5.75	24910.3	6396.9	33620.6	27338.8	ø 10 2br. 10.0'
Trave 726 730 Sez. 22 a -/ 36x75x18x24 [cm] P2 18+18x75D 49.57 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.62	0.50	24910.3	8059.6	33620.6	27338.8	ø 10 2br. 10.0'
0.62	5.38	4.76	23782.9	6396.9	33620.6	21871.1	ø 10 2br. 12.5'
5.38	5.88	0.50	24081.6	7708.7	33620.6	27338.8	ø 10 2br. 10.0'
Trave 730 735 Sez. 21 Rett. 20x75 [cm] P1 20x75 VSd 12303.6 > VR _{s,d} 6998.7							
0.12	1.11	0.99	12674.3	8207.8	37356.2	18225.9	ø 10 2br. 15.0'
1.11	4.89	3.77	12303.6	6234.9	37356.2	6998.7	ø 8 2br. 25.0'
4.89	5.88	0.99	10888.6	5353.7	37356.2	18225.9	ø 10 2br. 15.0'

- Travata: 15 Travata 744 748

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 23 a -/ 38x75x18x24 [cm] P3 20+18x75D																
744	0.13	12.57	9.42			11316.8	22619.0	0.10	0.0	-17317.5	0.08					
Camp.	3.10	12.57	9.42	3592.5	8630.9	0.0	22619.0	0.10	-9233.4	-17317.5	0.08					
748	6.08	12.57	9.42			1241.4	22619.0	0.10	-991.4	-17317.5	0.08					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 744 748 Sez. 23 a -/ 38x75x18x24 [cm] P3 20+18x75D							
0.13	0.88	0.75	13514.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'
0.88	5.33	4.45	11799.5	5812.0	33620.6	13669.4	ø 10 2br. 20.0'
5.33	6.08	0.75	13514.4	5812.0	33620.6	18225.9	ø 10 2br. 15.0'

- Travata: 16 Travata 884 862 866 870 874 878 882

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S Afli < Afe/2																
884	0.13	21.29	15.71			1040.8	39331.5	0.19	-1852.9	-29608.0	0.06					
Camp.	3.10	21.99	15.71	2999.2	7205.5	0.0	40691.1	0.21	-7204.5	-29741.3	0.05					
862	6.08	40.84	34.56			22038.4	75594.0	0.21	0.0	-64714.2	0.06					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
862	0.13	40.84	34.56			24316.4	75594.0	0.21	0.0	-64714.2	0.06					
Camp.	3.00	18.85	18.85	3866.4	8699.4	0.0	35188.6	0.07	-11436.7	-35458.3	0.06					
866	5.88	37.70	37.70			0.0	70296.2	0.08	-13869.6	-70559.1	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
866	0.13	37.70	37.70			0.0	70296.2	0.08	-13840.4	-70559.1	0.07					
Camp.	3.00	18.85	18.85	3866.4	8699.4	0.0	35188.6	0.07	-12100.1	-35458.3	0.06					
870	5.88	30.91	31.42			22590.1	57723.8	0.07	0.0	-58914.3	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
870	0.13	30.91	31.42			21087.8	57723.8	0.07	0.0	-58914.3	0.07					
Camp.	3.00	12.06	12.57	3866.4	8699.4	548.5	22740.4	0.07	-8699.4	-23887.5	0.05					
874	5.88	20.11	25.13			5923.6	37642.6	0.07	0.0	-47248.1	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
874	0.13	20.11	25.13			6359.4	37642.6	0.07	0.0	-47248.1	0.07					
Camp.	3.00	8.04	12.57	3866.4	8699.4	0.0	15186.9	0.06	-8699.4	-23884.4	0.06					
878	5.88	20.61	25.13			11051.9	38512.5	0.07	0.0	-47192.0	0.07					
Trave Sez. 38 a -/ 50x75x12x24 [cm] S8 10+40x75S																
878	0.13	20.61	25.13			11332.9	38512.5	0.07	0.0	-47192.0	0.07					
Camp.	3.10	12.57	12.57	3866.4	9289.0	0.0	23615.3	0.07	-9876.6	-23855.4	0.06					
882	6.08	12.36	12.57			1563.0	23094.0	0.07	-2013.0	-23756.6	0.06					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 864 862 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 24680.3 > VR_{c,d} 22889.9							
0.13	2.89	2.77	24680.3	5313.6	22889.9	18613.1	ø 10 2br. 15.0'
2.89	3.31	0.42	18725.9	5313.6	22889.9	7147.4	ø 8 2br. 25.0'
3.31	6.08	2.77	23883.8	5313.6	22889.9	18613.1	ø 10 2br. 15.0'
Trave 862 866 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 33835.9 > VR_{c,d} 22889.9							
0.13	5.88	5.75	33835.9	5487.8	22889.9	22335.7	ø 10 2br. 12.5'
Trave 866 870 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 30889.4 > VR_{c,d} 22889.9							
0.13	5.88	5.75	30889.4	5487.8	22889.9	22335.7	ø 10 2br. 12.5'
Trave 870 874 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 26674.0 > VR_{c,d} 22889.9							
0.13	0.70	0.58	26674.0	5487.8	22889.9	18613.1	ø 10 2br. 15.0'
0.70	2.24	1.54	24985.1	4932.7	22889.9	13959.8	ø 10 2br. 20.0'
2.24	3.76	1.53	20489.3	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
3.76	5.30	1.54	23521.6	4932.7	22889.9	13959.8	ø 10 2br. 20.0'
5.30	5.88	0.58	25210.5	5487.8	22889.9	18613.1	ø 10 2br. 15.0'
Trave 874 878 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 23171.8 > VR_{c,d} 22889.9							
0.13	0.70	0.58	23171.8	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
0.70	1.64	0.94	21483.0	5103.3	22889.9	11167.9	ø 10 2br. 25.0'
1.64	4.36	2.72	18891.4	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
4.36	5.30	0.94	21644.0	5124.7	22889.9	11167.9	ø 10 2br. 25.0'
5.30	5.88	0.58	23332.9	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
Trave 878 882 Sez. 38 a /~ 50x75x12x24 [cm] S8 10+40x75S VSd 19176.2 > VR_{s,d} 13959.8							
0.13	0.70	0.58	19176.2	5487.8	22889.9	13959.8	ø 10 2br. 20.0'
0.70	1.90	1.19	17487.3	4932.7	22889.9	11167.9	ø 10 2br. 25.0'
1.90	4.30	2.41	15337.7	4932.7	22889.9	7147.4	ø 8 2br. 25.0'
4.30	5.50	1.19	18834.7	4932.7	22889.9	11167.9	ø 10 2br. 25.0'
5.50	6.08	0.58	20523.6	4932.7	22889.9	13959.8	ø 10 2br. 20.0'

- Travata: 17 Travata 937 941 949 953 957 961

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	α _{be} [kg/cm²]	α _{bi} [kg/cm²]	α _{fe} [kg/cm²]	α _{fi} [kg/cm²]	w mm
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afì < Afe/2																
937	0.12	25.13	25.13			0.0	18861.7	0.16	-910.2	-18861.7	0.16					
Camp.	3.10	25.13	25.13	4333.6	10411.5	0.0	19106.0	0.15	-10409.4	-19106.0	0.15					
941	6.07	81.68	43.98			20632.7	50720.8	0.74	0.0	-32808.1	0.14					
Trave Sez. 37 a T 50x70x30x34 [cm] S7 30/50x70 Afì < Afe/2																
941	0.12	81.68	25.13			25926.0	110690.4	0.73	0.0	-43717.8	0.06					
Camp.	6.00	37.70	50.27	5378.5	48406.5	0.0	65653.5	0.07	-60819.8	-87391.8	0.11					
949	11.88	87.96	25.13			30750.7	111507.0	0.74	0.0	-43717.5	0.06					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afì < Afe/2																
949	0.13	87.96	18.85			16067.2	33025.9	0.82	0.0	-14217.0	0.12					
Camp.	3.00	18.85	18.85	3574.5	8042.6	270.4	14217.9	0.15	-8042.6	-14217.9	0.15					
953	5.88	34.56	37.70			3470.4	25831.7	0.16	0.0	-28145.3	0.17					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afì < Afe/2																
953	0.12	34.56	37.70			3719.5	25831.7	0.16	0.0	-28145.3	0.17					
Camp.	3.00	15.71	18.85	3820.6	8596.4	0.0	11897.1	0.14	-8596.4	-14213.2	0.16					
957	5.87	31.42	40.84			9830.3	23512.7	0.15	0.0	-30379.8	0.22					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afì < Afe/2																
957	0.13	31.42	40.84			10158.4	23512.7	0.15	0.0	-30379.8	0.22					
Camp.	3.10	15.71	21.99	4917.0	11813.1	0.0	11897.4	0.14	-11813.1	-16523.6	0.18					
961	6.08	17.97	24.25			0.0	13613.0	0.14	-1504.2	-18246.1	0.17					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 937 941 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 17781.7 > VR_{s,d} 12043.0							
0.12	0.37	0.25	17781.7	9313.0	32911.6	12043.0	ø 10 2br. 10.0'
0.37	5.83	5.45	21037.2	9313.0	32911.6	3853.8	ø 8 2br. 20.0'
5.83	6.07	0.25	21955.3	9313.0	32911.6	12043.0	ø 10 2br. 10.0'
Trave 941 949 Sez. 37 a T 50x70x30x34 [cm] S7 30/50x70 VSd 36905.5 > VR_{s,d} 34644.7							
0.12	2.62	2.50	36905.5	11049.9	53256.4	34644.7	ø 10 2br. 7.5'
2.62	9.38	6.76	26878.3	12381.0	53256.4	6651.8	ø 8 2br. 25.0'
9.38	11.88	2.50	36975.0	11049.9	53256.4	34644.7	ø 10 2br. 7.5'
Trave 949 953 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 18357.8 > VR_{s,d} 12043.0							
0.13	0.37	0.25	18357.8	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
0.37	5.63	5.25	17689.8	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
5.63	5.88	0.25	14684.4	9313.0	32911.6	12043.0	ø 10 2br. 10.0'

Trave 953 957 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 18025.0 > VR _{s,d} 12043.0							
0.12	5.87	5.75	18025.0	8489.9	32911.6	12043.0	ø 10 2br. 10.0'
Trave 957 961 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 18371.5 > VR _{s,d} 12043.0							
0.13	6.08	5.95	18371.5	8937.6	32911.6	12043.0	ø 10 2br. 10.0'

- Travata: 18 Travata 990 987 986

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 990 987 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24												
987	0.00	8.04	8.04			459.0	3502.3	0.29	0.0	-3502.3	0.29	
Camp.	0.61	6.88	6.72	1212.1	120.6	167.7	3031.7	0.29	-120.1	-2966.5	0.28	
986	1.21	2.65	3.09			215.7	1304.4	0.23	0.0	-1488.1	0.23	

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 990 987 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 987 986 Sez. 33 Rett. 20x24 [cm] S3 20x24 VSd 4693.2 > VR _{s,d} 3238.3						
0.00	1.21	1.21	4693.2	2388.7	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 19 Travata 975 976 977 978 979 980

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 975 976 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 976 977 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 977 978 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 978 979 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 979 980 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 975 976 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 976 977 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 977 978 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 978 979 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 979 980 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 2 Travata 294 298

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52 Afli < Afe/2																
294	0.12	14.06	7.96			1344.8	16665.1	0.14	-57.1	-9994.4	0.10					
Camp.	3.10	36.19	12.57	3992.4	9591.6	0.0	40097.9	0.36	-9584.6	-15293.9	0.11					
298	6.07	14.06	9.17			21326.1	16667.5	0.14	0.0	-11387.6	0.11					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 294 298 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 38.08 < 52.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.51	0.38	10480.2	7736.4	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	12090.5	9009.8	50372.7	18432.4	ø 10 2br. 10.0'
5.69	6.07	0.38	13457.5	8110.4	50372.7	18432.4	ø 10 2br. 10.0'

- Travata: 20 Travata 994 999 1001

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 994 999 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24 Afli < Afe/2												
999	0.00	12.06	12.06			0.0	5130.3	0.31	-1033.2	-5130.3	0.31	
Camp.	1.28	6.15	6.03	1297.1	548.0	323.5	2735.1	0.28	-758.0	-2687.1	0.28	
1001	2.55	3.90	4.47			1329.4	1817.3	0.25	0.0	-2052.9	0.26	

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 994 999 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 999 1001 Sez. 33 Rett. 20x24 [cm] S3 20x24 VSd 4083.5 > VR _{s,d} 3238.3						
0.00	2.55	2.55	4083.5	2701.1	10370.8	3238.3 ø 8 2br. 15.0'

- Travata: 21 Travata 1051 1050

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
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Trave 1051 1050 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1051 1050 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1052 1051												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1052 1051 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1052 1051 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1053 1052												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1053 1052 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1053 1052 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1054 1053												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1054 1053 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1054 1053 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1055 1054												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1055 1054 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1055 1054 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1056 1055												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1056 1055 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1056 1055 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1057 1056												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1057 1056 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1057 1056 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1058 1057												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1058 1057 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da	A	Dx	V	τ_V					σ_{Str}		Staffe	
[m]	[m]	[m]	[kg]	[kg/cm²]					[kg/cm²]			
Trave 1058 1057 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
- Travata: 21 Travata 1059 1058												
Nodo	x	A _{fe}	A _{fi}	(A _{ff})	q _T	M _{rif}	M _e	M _i	σ_{be}	σ_{bi}	σ_{fe}	σ_{fi}
	[m]	[cm²]	[cm²]	[cm²]	[kg/m]	[kgm]	[kgm]	[kgm]	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm²]
Trave 1059 1058 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	T_V [kg/cm ²]	σ_{Str} [kg/cm ²]	Staffe
Trave 1059 1058 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 21 Travata 1031 1034 1037 1041 1045 1050

Nodo	x [m]	A_{fe} [cm ²]	A_{fi} [cm ²]	q_T [kg/m]	M_{rif} [kgm]	M_{de} [kgm]	M_{re} [kgm]	x/d	M_{di} [kgm]	M_{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afi < Afe/2																
1031	0.12	2.03	2.78			219.5	3880.4	0.06	-141.9	-5256.4	0.06					
Camp.	1.59	8.95	6.56	1527.5	894.9	271.3	16340.8	0.09	-891.7	-12044.3	0.08					
1034	3.06	12.50	12.50			1071.9	22704.8	0.09	-1838.4	-22704.8	0.09					
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afi < Afe/2																
1034	0.00	12.50	12.50			1834.6	22590.0	0.09	-1320.9	-22590.0	0.09					
Camp.	1.51	27.20	10.30	3765.0	2317.7	9744.8	46067.9	0.35	-2308.9	-18624.9	0.08					
1037	3.01	50.27	21.99			22463.8	80261.0	0.58	0.0	-39439.4	0.08					
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afi < Afe/2																
1037	0.12	50.27	21.99			30414.2	82882.1	0.46	0.0	-40073.6	0.08					
Camp.	3.00	40.84	18.84	4198.9	9447.5	0.0	69377.6	0.36	-20971.7	-34454.5	0.08					
1041	5.87	81.68	25.13			0.0	105218.4	0.75	-32217.4	-45664.5	0.08					
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afi < Afe/2																
1041	0.12	81.68	25.13			0.0	105218.4	0.75	-32383.5	-45664.5	0.08					
Camp.	3.00	40.84	19.73	4198.9	9447.5	0.0	69760.3	0.35	-15762.9	-36045.6	0.08					
1045	5.87	43.92	15.65			42607.7	71634.1	0.46	0.0	-28797.2	0.07					
Trave Sez. 32 Rett. 20x75 [cm] S2 20x75 Afi < Afe/2																
1045	0.12	43.92	15.65			21571.0	69012.9	0.58	0.0	-28174.9	0.08					
Camp.	3.00	3.08	3.08	1527.5	3436.9	2557.5	5790.7	0.06	-3436.9	-5790.7	0.06					
1050	5.88	2.03	2.78			1838.4	3876.9	0.06	-1354.9	-5244.9	0.06					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 1031 1034 Sez. 32 Rett. 20x75 [cm] S2 20x75 15.00 > 11.20 [cm]							
0.12	0.69	0.56	10704.9	4269.8	37356.2	11664.6	ø 8 2br. 15.0'
0.69	2.50	1.81	10656.7	4294.0	37356.2	6998.7	ø 8 2br. 25.0'
2.50	3.06	0.56	11320.3	6850.9	37356.2	11664.6	ø 8 2br. 15.0'
Trave 1034 1037 Sez. 32 Rett. 20x75 [cm] S2 20x75 Vsd 31268.8 > VR _{s,d} 18225.9							
0.00	0.56	0.56	31268.8	6850.9	37356.2	18225.9	ø 10 2br. 15.0'
0.56	2.45	1.88	36637.6	6243.2	37356.2	18225.9	ø 10 2br. 15.0'
2.45	3.01	0.56	38247.2	8269.7	37356.2	18225.9	ø 10 2br. 15.0'
Trave 1037 1041 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Vsd 34421.4 > VR _{s,d} 27338.8							
0.12	5.87	5.75	34421.4	7963.1	46695.3	27338.8	ø 10 2br. 10.0'
Trave 1041 1045 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D 60.47 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.73	0.60	32460.3	10032.9	46695.3	36451.8	ø 10 2br. 7.5'
0.73	5.27	4.54	30535.0	7963.1	46695.3	27338.8	ø 10 2br. 10.0'
5.27	5.87	0.60	29553.0	8566.5	46695.3	36451.8	ø 10 2br. 7.5'
Trave 1045 1050 Sez. 32 Rett. 20x75 [cm] S2 20x75 Vsd 15572.8 > VR _{s,d} 6998.7							
0.12	1.17	1.04	17635.1	7093.3	37356.2	27338.8	ø 10 2br. 10.0'
1.17	4.83	3.66	15572.8	4294.0	37356.2	6998.7	ø 8 2br. 25.0'
4.83	5.88	1.04	10761.7	4269.8	37356.2	27338.8	ø 10 2br. 10.0'

- Travata: 21 Travata 1059 1063

Nodo	x [m]	A_{fe} [cm ²]	A_{fi} [cm ²]	q_T [kg/m]	M_{rif} [kgm]	M_{de} [kgm]	M_{re} [kgm]	x/d	M_{di} [kgm]	M_{ri} [kgm]	x/d	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]	w mm
Trave Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D Afi < Afe/2																
1059	0.12	8.27	12.57			9566.6	15079.9	0.08	0.0	-23286.1	0.07					
Camp.	3.10	12.57	12.57	4198.9	10087.8	0.0	22730.2	0.09	-13918.7	-23283.9	0.07					
1063	6.08	9.17	11.48			0.0	16677.3	0.08	-3462.7	-21335.7	0.07					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 1059 1063 Sez. 31 a - / 65x75x25x24 [cm] S1 40+25x75D							
0.12	6.08	5.95	16188.2	7725.6	46695.3	36451.8	ø 10 2br. 7.5'

- Travata: 22 Travata 350 364 369 381 385

Nodo	x [m]	A_{fe} [cm ²]	A_{fi} [cm ²]	(A_T) [cm ²]	q_T [kg/m]	M_{rif} [kgm]	M_e [kgm]	M_i [kgm]	σ_{be} [kg/cm ²]	σ_{bi} [kg/cm ²]	σ_{fe} [kg/cm ²]	σ_{fi} [kg/cm ²]
Trave 350 364 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 364 369 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 369 381 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 381 385 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 26 Travata 210 291 300 313 334 399

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
210	0.12	5.79	9.94			5816.6	12523.7	0.06	-2334.1	-21129.4	0.07					
Camp.	2.35	12.57	15.71	1243.1	1622.7	0.0	26543.1	0.07	-7005.5	-33034.4	0.07					
291	4.57	21.35	15.71			0.0	44678.9	0.08	-8921.2	-33033.4	0.07					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
291	0.00	22.88	15.71			0.0	47627.3	0.09	-10540.0	-32910.7	0.07					
Camp.	0.15	24.44	15.71	1243.1	14.4	0.0	50833.5	0.09	-10540.0	-32910.1	0.07					
300	0.30	25.13	15.71			0.0	52241.6	0.09	-10540.0	-32909.9	0.07					
Trave Sez. 10 Rett. 33x85 [cm] 33x85 Area tirante a taglio insufficiente																
300	0.13	25.13	15.71			0.0	52039.6	0.10	-12238.1	-32740.9	0.07					
Camp.	0.28	22.92	15.71	911.6	10.5	0.0	47519.8	0.09	-12238.1	-32741.3	0.07					
313	0.43	21.35	15.71			0.0	44314.2	0.09	-12238.1	-32741.5	0.07					
Trave Sez. 7 Rett. 45x85 [cm] 45x85 AfI < Afe/2																
313	0.00	19.82	15.71			0.0	41363.1	0.08	-11934.8	-32911.8	0.07					
Camp.	0.72	12.57	15.71	1243.1	191.5	0.0	969.1	0.07	-8051.9	-32913.0	0.08					
334	1.45	12.57	9.94			4907.4	26458.2	0.07	-111.4	-21064.2	0.07					
Trave Sez. 8 Rett. 33x50 [cm] 33x50																
334	0.13	12.57	12.57			3326.2	14341.0	0.13	0.0	-14341.0	0.13					
Camp.	1.50	12.57	12.57	536.2	301.6	1385.2	14341.0	0.13	-301.6	-14341.0	0.13					
399	2.88	5.79	7.96			1317.8	6830.2	0.11	-1437.5	-9237.5	0.12					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	Vrd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 210 291 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 13356.1 > VR _{s,d} 13316.8							
0.12	0.77	0.64	13356.1	11640.5	95956.8	13316.8	ø 8 2br. 15.0'
0.77	3.93	3.16	16373.5	13556.4	95956.8	7990.1	ø 8 2br. 25.0'
3.93	4.57	0.64	16990.0	13556.4	95956.8	13316.8	ø 8 2br. 15.0'
Trave 291 300 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 279273.9 > VR _{c,d} 95956.8							
0.00	0.30	0.30	279273.9	13556.4	95956.8	41614.9	ø 10 2br. 7.5'
Trave 300 313 Sez. 10 Rett. 33x85 [cm] 33x85 VSd 278034.6 > VR _{c,d} 70368.3							
0.13	0.43	0.30	278034.6	11024.1	70368.3	41614.9	ø 10 2br. 7.5'
Trave 313 334 Sez. 7 Rett. 45x85 [cm] 45x85 VSd 43952.9 > VR _{s,d} 31211.2							
0.00	1.45	1.45	43952.9	11640.5	95956.8	31211.2	ø 10 2br. 10.0'
Trave 334 399 Sez. 8 Rett. 33x50 [cm] 33x50 VSd 9141.2 > VR _{s,d} 7534.1							
0.13	0.49	0.36	9141.2	7767.4	39811.4	7534.1	ø 8 2br. 15.0'
0.49	2.51	2.02	8990.7	7767.4	39811.4	4520.4	ø 8 2br. 25.0'
2.51	2.88	0.36	8265.8	6669.7	39811.4	7534.1	ø 8 2br. 15.0'

- Travata: 27 Travata 339 356 367 379 404

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	(A _{fi}) [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]
Trave 339 356 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 356 367 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 367 379 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 379 404 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm²]	σ _{str} [kg/cm²]	Staffe
Trave 339 356 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 356 367 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 367 379 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 379 404 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 28 Travata 361 368 380 409

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	(A _{fi}) [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]
Trave 361 368 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 368 380 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 380 409 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm²]	σ _{str} [kg/cm²]	Staffe
Trave 361 368 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 368 380 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 380 409 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 29 Travata 308 344 413

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Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 9 Rett. 30x24 [cm] 30x24																
308	0.13	4.28	4.04			44.3	2092.0	0.22	-221.0	-1993.3	0.22					
Camp.	1.00	6.28	5.81	234.0	58.5	9.3	2924.2	0.25	-124.2	-2731.1	0.24					
344	1.88	9.24	9.24			183.7	4142.3	0.27	0.0	-4142.3	0.27					
Trave Sez. 9 Rett. 30x24 [cm] 30x24																
344	0.13	9.24	9.24			585.1	4142.3	0.27	0.0	-4142.3	0.27					
Camp.	1.50	4.62	4.62	234.0	131.6	2.4	2234.8	0.23	-173.2	-2234.8	0.23					
413	2.88	4.28	4.18			334.8	2092.1	0.22	-141.4	-2053.2	0.22					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 308 344 Sez. 9 Rett. 30x24 [cm] 30x24 VSd 3720.0 > VR_{s,d} 3238.3							
0.13	1.88	1.75	3720.0	3421.8	15556.3	3238.3	ø 8 2br. 15.0'
Trave 344 413 Sez. 9 Rett. 30x24 [cm] 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2514.6	3461.8	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 3 Travata 283 291

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 12 a T 70x85x50x24 [cm] 50/80x85 Afi < Afe/2																
283	0.05	17.67	22.59			23174.4	38175.9	0.05	0.0	-48774.1	0.05					
Camp.	6.00	22.84	81.43	1973.7	17763.3	0.0	49289.5	0.05	-53181.3	-165901.6	0.25					
291	11.95	17.55	22.59			25826.4	37900.4	0.05	0.0	-48759.3	0.05					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 283 291 Sez. 12 a T 70x85x50x24 [cm] 50/80x85							
0.05	11.95	11.90	20507.0	17606.7	130323.5	31791.7	ø 10 2br. 10.0'

- Travata: 30 Travata 681 699 704 712 716

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 681 699 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 699 704 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 704 712 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 712 716 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{stf} [kg/cm ²]	Staffe
Trave 681 699 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 699 704 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 704 712 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 712 716 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 31 Travata 684 700 705 713 718

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fi}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 684 700 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 700 705 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 705 713 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 713 718 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{stf} [kg/cm ²]	Staffe
Trave 684 700 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 700 705 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 705 713 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 713 718 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 32 Travata 560 636 721

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
560	0.12	4.28	4.17			635.7	2092.1	0.22	-13.6	-2048.1	0.22					
Camp.	2.50	4.62	4.62	234.0	365.6	0.0	2234.8	0.23	-544.2	-2234.8	0.23					
636	4.88	9.24	9.24			162.6	4142.3	0.27	-425.9	-4142.3	0.27					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
636	0.13	9.24	9.24			349.7	4142.3	0.27	-30.0	-4142.3	0.27					
Camp.	2.50	4.62	4.62	234.0	365.6	0.0	2234.8	0.23	-365.6	-2234.8	0.23					
721	4.88	4.18	4.00			553.6	2053.3	0.22	-87.8	-1975.6	0.22					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 560 636 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.12	4.88	4.75	1740.0	3458.4	15556.3	3238.3	ø 8 2br. 15.0'
Trave 636 721 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1731.8	3409.8	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 33 Travata 570 646 669 730

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 26 Rett. 40x24 [cm] P6 40x24																
570	0.13	4.20	4.62			769.1	2158.4	0.21	0.0	-2333.9	0.21					
Camp.	2.50	4.62	4.62	312.0	487.5	0.0	2334.8	0.21	-548.5	-2334.8	0.21					
646	4.87	9.24	9.24			0.0	4255.2	0.25	-536.4	-4255.2	0.25					
Trave Sez. 26 Rett. 40x24 [cm] P6 40x24																
646	0.13	9.24	9.24			67.2	4255.2	0.25	-231.6	-4255.2	0.25					
Camp.	1.00	6.28	4.62	312.0	78.0	217.0	3030.5	0.23	-78.0	-2337.6	0.22					
669	1.88	9.24	9.24			682.9	4255.2	0.25	0.0	-4255.2	0.25					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
669	0.13	9.24	9.24			533.0	4142.3	0.27	0.0	-4142.3	0.27					
Camp.	1.50	4.62	4.62	234.0	131.6	128.1	2234.8	0.23	-131.6	-2234.8	0.23					
730	2.88	4.28	4.08			293.7	2092.1	0.22	-187.0	-2009.1	0.22					

Da [m]	A [m]	Dx [m]	Vsd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 570 646 Sez. 26 Rett. 40x24 [cm] P6 40x24 15.00 > 4.90 [cm]							
0.13	4.87	4.75	1957.8	4334.3	20741.7	3238.3	ø 8 2br. 15.0'
Trave 646 669 Sez. 26 Rett. 40x24 [cm] P6 40x24 Vsd 5073.1 > VR _{s,d} 3238.3							
0.13	1.88	1.75	5073.1	4334.3	20741.7	3238.3	ø 8 2br. 15.0'
Trave 669 730 Sez. 25 Rett. 30x24 [cm] P5 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2514.5	3432.4	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 34 Travata 674 691 702 710 735

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 674 691 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 691 702 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 702 710 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 710 735 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 674 691 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 691 702 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 702 710 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 710 735 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 35 Travata 696 703 711 740

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{ff}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 696 703 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 703 711 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 711 740 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 696 703 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 703 711 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 711 740 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 36 Travata 654 698 744

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
654	0.13	4.89	4.66			76.0	2334.7	0.24	-229.5	-2241.2	0.24					
Camp.	1.34	6.03	6.03	234.0	95.1	105.3	2803.5	0.25	-94.4	-2803.5	0.25					
698	2.55	12.06	12.06			545.1	5253.4	0.29	-86.0	-5253.4	0.29					
Trave Sez. 25 Rett. 30x24 [cm] P5 30x24																
698	0.00	12.06	12.06			317.8	5253.4	0.29	-182.4	-5253.4	0.29					
Camp.	1.16	6.03	6.03	234.0	87.8	188.4	2803.5	0.25	-245.6	-2803.5	0.25					
744	2.32	4.89	4.66			699.1	2334.7	0.24	-462.7	-2241.2	0.24					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 654 698 Sez. 25 Rett. 30x24 [cm] P5 30x24 VSd 3336.1 > VR _{s,d} 3238.3							
0.13	2.55	2.43	3336.1	3588.6	15556.3	3238.3	ø 8 2br. 15.0'
Trave 698 744 Sez. 25 Rett. 30x24 [cm] P5 30x24 VSd 3461.7 > VR _{s,d} 3238.3							
0.00	2.32	2.32	3461.7	3588.6	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 37 Travata 987 1002 1021 1029 1032

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{TT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 987 1002 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1002 1021 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1021 1029 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1029 1032 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 987 1002 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1002 1021 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1021 1029 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1029 1032 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 38 Travata 990 1003 1022 1030 1034

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{TT}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 990 1003 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1003 1022 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1022 1030 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1030 1034 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Stf} [kg/cm ²]	Staffe
Trave 990 1003 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1003 1022 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1022 1030 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1030 1034 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 39 Travata 862 941 1037

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 34 Rett. 25x24 [cm] S4 25x24																
862	0.13	4.97	5.53			590.2	2311.4	0.25	0.0	-2543.9	0.26					
Camp.	2.50	6.03	6.03	195.0	304.7	0.0	2746.1	0.26	-318.5	-2746.1	0.26					
941	4.88	12.06	12.06			10.3	5192.1	0.30	-329.6	-5192.1	0.30					
Trave Sez. 34 Rett. 25x24 [cm] S4 25x24																
941	0.13	12.06	12.06			255.0	5192.1	0.30	0.0	-5192.1	0.30					
Camp.	2.50	6.03	6.03	195.0	304.7	0.0	2746.1	0.26	-304.7	-2746.1	0.26					
1037	4.88	4.82	4.74			319.1	2251.2	0.25	-65.5	-2221.0	0.25					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 862 941 Sez. 34 Rett. 25x24 [cm] S4 25x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1984.9	3365.4	12963.6	3238.3	ø 8 2br. 15.0'
Trave 941 1037 Sez. 34 Rett. 25x24 [cm] S4 25x24 15.00 > 4.90 [cm]							
0.13	4.88	4.75	1923.2	3197.1	12963.6	3238.3	ø 8 2br. 15.0'

- Travata: 4 Travata 314 313

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 12 a T 70x85x50x24 [cm] 50/80x85																
314	0.05	17.67	22.59			27154.2	38184.8	0.05	0.0	-48774.1	0.05					
Camp.	6.00	61.04	81.43	4293.0	38636.8	0.0	130635.0	0.06	-53217.9	-173949.8	0.09					
313	11.95	19.79	22.59			29293.7	42695.0	0.05	0.0	-48764.8	0.05					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 314 313 Sez. 12 a T 70x85x50x24 [cm] 50/80x85							
0.05	11.95	11.90	24253.3	17606.7	130323.5	31791.7	ø 10 2br. 10.0'

- Travata: 40 Travata 870 949 975 1045

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]	w mm
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afli < Afe/2																
870	0.13	6.03	6.03			1618.6	4811.1	0.11	0.0	-4811.1	0.11					
Camp.	2.50	6.03	6.03	442.0	690.6	0.0	4811.1	0.11	-1170.2	-4811.1	0.11					
949	4.88	12.06	12.06			0.0	9405.7	0.13	-1704.9	-9405.7	0.13					
Trave Sez. 35 Rett. 40x34 [cm] S5 40x34 Afli < Afe/2																
949	0.13	12.06	12.06			0.0	9405.7	0.13	-1841.4	-9405.7	0.13					
Camp.	1.00	12.06	12.06	442.0	110.5	0.0	9405.7	0.13	-805.8	-9405.7	0.13					
975	1.88	6.03	6.03			1036.0	4811.1	0.11	0.0	-4811.1	0.11					
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
975	0.13	6.03	6.03			1148.1	2803.5	0.25	0.0	-2803.5	0.25					
Camp.	1.50	6.03	6.03	234.0	131.6	156.8	2803.5	0.25	-371.4	-2803.5	0.25					
1045	2.88	4.81	4.81			23.6	2304.1	0.24	-622.7	-2303.9	0.24					

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 870 949 Sez. 35 Rett. 40x34 [cm] S5 40x34 15.00 > 7.78 [cm]							
0.13	0.37	0.25	3800.5	5807.0	32911.6	5138.4	ø 8 2br. 15.0'
0.37	4.63	4.25	3715.9	5807.0	32911.6	3853.8	ø 8 2br. 20.0'
4.63	4.88	0.25	3800.5	7316.4	32911.6	5138.4	ø 8 2br. 15.0'
Trave 949 975 Sez. 35 Rett. 40x34 [cm] S5 40x34 VSd 8421.4 > VRd _s 5138.4							
0.13	0.37	0.25	8421.4	7316.4	32911.6	5138.4	ø 8 2br. 15.0'
0.37	1.63	1.25	8336.8	5807.0	32911.6	3853.8	ø 8 2br. 20.0'
1.63	1.88	0.25	8421.4	5807.0	32911.6	5138.4	ø 8 2br. 15.0'
Trave 975 1045 Sez. 36 Rett. 30x24 [cm] S6 30x24 15.00 > 4.90 [cm]							
0.13	2.88	2.75	2104.8	3627.4	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 41 Travata 979 1049

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 33 Rett. 20x24 [cm] S3 20x24 Afi < Afe/2																
979	0.05	2.32	3.82			493.6	1184.4	0.23	0.0	-1767.1	0.25					
Camp.	1.50	3.08	6.28	872.0	490.5	0.0	1494.9	0.24	-490.3	-2758.6	0.31					
1049	2.95	2.32	3.31			261.6	1183.6	0.23	-77.1	-1561.2	0.24					

- Travata: 42 Travata 980 994 1019 1027 1050

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 980 994 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 994 1019 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1019 1027 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1027 1050 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{Str} [kg/cm ²]	Staffe						
Trave 980 994 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 994 1019 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1019 1027 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1027 1050 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

- Travata: 43 Travata 999 1020 1028 1055

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 999 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1020 1028 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1028 1055 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Da [m]	A [m]	Dx [m]	V [kg]	τ _V [kg/cm ²]	σ _{str} [kg/cm ²]	Staffe
Trave 999 1020 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1020 1028 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						
Trave 1028 1055 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA						

- Travata: 44 Travata 957 1001 1059

Nodo	x [m]	A _{fe} [cm ²]	A _{fi} [cm ²]	(A _{fl}) [cm ²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm ²]	σ _{bi} [kg/cm ²]	σ _{fe} [kg/cm ²]	σ _{fi} [kg/cm ²]
Trave 957 1001 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												
Trave 1001 1059 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
957	0.13	4.89	4.66			193.5	2334.7	0.24	-55.2	-2241.2	0.24					
Camp.	1.34	6.03	6.03	234.0	95.1		270.1	0.25	-94.4	-2803.5	0.25					
1001	2.55	12.06	12.06			649.8	5253.4	0.29	-181.5	-5253.4	0.29					
Trave Sez. 36 Rett. 30x24 [cm] S6 30x24																
1001	0.00	12.06	12.06			318.5	5253.4	0.29	-266.8	-5253.4	0.29					
Camp.	1.16	6.03	6.03	234.0	87.8	203.2	2803.5	0.25	-472.2	-2803.5	0.25					
1059	2.32	4.89	4.66			888.7	2334.7	0.24	-823.2	-2241.2	0.24					

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 957 1001 Sez. 36 Rett. 30x24 [cm] S6 30x24 VSD 3336.1 > VR_{s,d} 3238.3							
0.13	2.55	2.43	3336.1	3588.6	15556.3	3238.3	ø 8 2br. 15.0'
Trave 1001 1059 Sez. 36 Rett. 30x24 [cm] S6 30x24 VSD 3461.7 > VR_{s,d} 3238.3							
0.00	2.32	2.32	3461.7	3588.6	15556.3	3238.3	ø 8 2br. 15.0'

- Travata: 5 Travata 300 304 308 312

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
300	0.12	11.28	9.17			16036.7	13543.6	0.12	0.0	-11371.4	0.10					
Camp.	3.00	25.13	12.57	4384.5	9865.1	0.0	29340.2	0.19	-9865.1	-15297.0	0.11					
304	5.88	37.70	25.13			6271.5	43797.0	0.19	0.0	-29770.1	0.12					
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
304	0.13	37.70	25.13			6897.7	43797.0	0.19	0.0	-29770.1	0.12					
Camp.	3.00	12.57	12.57	4663.6	10493.1	0.0	15028.0	0.12	-10493.1	-15301.2	0.11					
308	5.87	25.13	31.42			14180.2	29485.0	0.13	0.0	-36987.6	0.14					
Trave Sez. 11 a T 60x52x40x24 [cm] 40/60x52																
308	0.13	25.13	31.42			15610.9	29485.0	0.13	0.0	-36987.6	0.14					
Camp.	3.10	12.57	18.85	5907.0	14191.6	0.0	15025.3	0.12	-14279.3	-22543.1	0.13					
312	6.08	5.84	11.93			1265.6	7270.7	0.10	-932.0	-14575.4	0.11					

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 300 304 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 VSD 15309.7 > VR_{s,d} 12288.3							
0.12	0.51	0.38	15309.7	8110.4	50372.7	12288.3	ø 10 2br. 15.0'
0.51	5.49	4.99	16341.3	9009.8	50372.7	12288.3	ø 10 2br. 15.0'
5.49	5.88	0.38	17371.4	11351.6	50372.7	12288.3	ø 10 2br. 15.0'
Trave 304 308 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 VSD 22292.8 > VR_{s,d} 18432.4							
0.13	0.51	0.38	22292.8	11351.6	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.49	4.99	21201.0	9009.8	50372.7	12288.3	ø 10 2br. 15.0'
5.49	5.87	0.38	18548.6	12228.1	50372.7	18432.4	ø 10 2br. 10.0'
Trave 308 312 Sez. 11 a T 60x52x40x24 [cm] 40/60x52 38.08 < 52.00 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.51	0.38	18085.4	12228.1	50372.7	18432.4	ø 10 2br. 10.0'
0.51	5.69	5.19	16751.5	10313.6	50372.7	18432.4	ø 10 2br. 10.0'
5.69	6.08	0.38	18118.6	8856.0	50372.7	18432.4	ø 10 2br. 10.0'

- Travata: 6 Travata 349 350 353

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _{de} [kgm]	M _{re} [kgm]	x/d	M _{di} [kgm]	M _{ri} [kgm]	x/d	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]	w mm
Trave Sez. 5 Rett. 20x24 [cm] 20x24																
349	0.05	2.61	3.00			334.8	1288.7	0.23	0.0	-1452.1	0.23					
Camp.	0.66	4.02	4.02	1353.7	134.7	228.8	1869.0	0.25	-134.1	-1869.0	0.25					
350	1.26	4.02	4.02			568.0	1869.0	0.25	0.0	-1869.0	0.25					
Trave 350 353 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA																

Da [m]	A [m]	Dx [m]	VSD [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 349 350 Sez. 5 Rett. 20x24 [cm] 20x24 10.00 > 4.90 [cm]							
0.05	1.26	1.21	3255.9	2366.0	10370.8	4857.5	ø 8 2br. 10.0'
Trave 350 353 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA							

- Travata: 7 Travata 334 335 336 337 338 339

Nodo	x [m]	A _{fe} [cm²]	A _{fi} [cm²]	(A _{ff}) [cm²]	q _T [kg/m]	M _{rif} [kgm]	M _e [kgm]	M _i [kgm]	σ _{be} [kg/cm²]	σ _{bi} [kg/cm²]	σ _{fe} [kg/cm²]	σ _{fi} [kg/cm²]
Trave 334 335 Sez. 15 Rett. 20x24 [cm] AUSILIARIA TRAVE AUSILIARIA												

394	0.00	10.28	4.90			0.0	30078.0	0.06	-18866.0	-14528.8	0.04	
Camp.	0.75	20.98	9.42	3900.7	548.5	0.0	60624.1	0.10	-18866.0	-27599.3	0.05	
396	1.50	21.99	4.90			0.0	62544.4	0.15	-18490.2	-14528.6	0.04	
Trave Sez. 3 Rett. 30x85 [cm] 30x85 Afi < Afe/2												
396	0.12	21.99	13.01			0.0	45525.7	0.11	-15944.2	-27148.1	0.07	
Camp.	1.85	12.57	9.42	3608.2	3087.3	1691.8	26242.0	0.08	-8537.5	-19788.8	0.07	
397	3.57	14.13	9.42			15354.6	29497.9	0.08	0.0	-19827.5	0.07	
Trave Sez. 2 Rett. 30x250 [cm] 30x250 Armatura inferiore al minimo di regolamento												
397	0.00	15.14	7.53			43568.4	100100.3	0.04	0.0	-49936.1	0.02	
Camp.	0.71	18.60	12.57	5217.0	783.4	50489.7	122983.8	0.04	-772.1	-83207.0	0.03	
399	1.43	14.90	9.17			50489.7	98622.2	0.03	0.0	-60779.4	0.02	
Trave Sez. 1 Rett. 20x75 [cm] 20x75 Afi < Afe/2												
399	0.12	12.48	9.42			10645.8	22940.7	0.08	0.0	-17473.5	0.08	
Camp.	3.00	6.03	9.42	487.5	1096.9	1348.2	11285.2	0.06	-1833.2	-17502.7	0.08	
404	5.88	3.56	6.11			1927.5	6725.6	0.06	-1081.0	-11407.3	0.07	

Da [m]	A [m]	Dx [m]	VSd [kg]	Vrd _c [kg]	VRd _{max} [kg]	Vrd _s [kg]	Staffe
Trave 384 387 Sez. 1 Rett. 20x75 [cm] 20x75 57.28 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.70	0.57	8814.3	5433.5	37885.3	11829.8	ø 8 2br. 15.0'
0.70	2.49	1.79	8599.5	6278.3	37885.3	7097.9	ø 8 2br. 25.0'
2.49	3.06	0.57	8334.8	6278.3	37885.3	11829.8	ø 8 2br. 15.0'
Trave 387 390 Sez. 1 Rett. 20x75 [cm] 20x75 VSd 16522.5 > VR_{s,d} 7097.9							
0.00	0.83	0.83	13538.8	6278.3	37885.3	22180.8	ø 10 2br. 12.5'
0.83	2.18	1.35	16522.5	6278.3	37885.3	7097.9	ø 8 2br. 25.0'
2.18	3.01	0.83	18351.4	6278.3	37885.3	22180.8	ø 10 2br. 12.5'
Trave 390 392 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 109170.7 > VR_{s,d} 40578.1							
0.13	1.55	1.43	109170.7	17118.5	194929.6	40578.1	ø 8 2br. 15.0'
Trave 392 394 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 22038.0 > VR_{s,d} 20807.4 Dimensione Concio Terminale Inferiore al minimo							
0.13	0.77	0.64	22038.0	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	20529.4	9603.9	63971.2	15605.6	ø 10 2br. 20.0'
2.93	3.57	0.64	17403.0	9603.9	63971.2	20807.4	ø 10 2br. 15.0'
Trave 394 396 Sez. 4 Rett. 30x115 [cm] 30x115 VSd 53305.6 > VR_{s,d} 18273.4							
0.00	1.50	1.50	53305.6	9000.9	87781.8	18273.4	ø 8 2br. 15.0'
Trave 396 397 Sez. 3 Rett. 30x85 [cm] 30x85 VSd 22978.9 > VR_{s,d} 20807.4 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.77	0.64	22978.9	8725.7	63971.2	20807.4	ø 10 2br. 15.0'
0.77	2.93	2.16	21470.3	8725.7	63971.2	15605.6	ø 10 2br. 20.0'
2.93	3.57	0.64	20455.0	8725.7	63971.2	20807.4	ø 10 2br. 15.0'
Trave 397 399 Sez. 2 Rett. 30x250 [cm] 30x250 VSd 115670.2 > VR_{s,d} 40578.1							
0.00	1.43	1.43	115670.2	17118.5	194929.6	40578.1	ø 8 2br. 15.0'
Trave 399 404 Sez. 1 Rett. 20x75 [cm] 20x75 57.28 < 75.00 Dimensione Concio Terminale Inferiore al minimo							
0.12	0.70	0.57	10099.2	6278.3	37885.3	18484.0	ø 10 2br. 15.0'
0.70	5.30	4.60	9819.9	6278.3	37885.3	18484.0	ø 10 2br. 15.0'
5.30	5.88	0.57	5286.7	5433.5	37885.3	18484.0	ø 10 2br. 15.0'

- [En.Ex.Sys. WinStrand](#)
- [Verifiche travi](#)

4.1.13 Verifica globale nuova scala – Stato di progetto

- Percentuale di sfruttamento dei profilati metallici

Nel seguito sono riportati, per ogni profilato impiegato la percentuale di profili che sviluppano uno stato di sollecitazione massimo rispettivamente:

- I Campo: minore del 33% della capacità resistente massima.
- II Campo: minore del 66% della capacità resistente massima.
- III Campo: NON superiore alla massima capacità resistente.
- IV Campo: SUPERIORE alla massima capacità resistente (Aste NON verificate).

- Distribuzione degli elementi (n. di elementi in ogni campo)

Sezione Numero	Sezione tipo	I Campo	II Campo	III Campo	IV Campo
1	UPN 200/COSCIALI UPN200	1.00 (17)	0.00 (0)	0.00 (0)	0.00 (0)
2	HEA 120/TRAVI HEA120	1.00 (1)	0.00 (0)	0.00 (0)	0.00 (0)
3	HEA 120/PILASTRI HEA120	1.00 (4)	0.00 (0)	0.00 (0)	0.00 (0)
4	Tubi Ret V 60x100x4.0/TUBI	1.00 (4)	0.00 (0)	0.00 (0)	0.00 (0)

- Elementi maggiormente sollecitati

- Elementi Trave

Sezione	Min Elemento nodi	Min S_D/S_R	Max Elemento nodi	Max S_D/S_R
1 UPN 200/COSCIALI UPN200	13 20	0.03	21 15	0.09
2 HEA 120/TRAVI HEA120	19 21	0.05	19 21	0.05
3 HEA 120/PILASTRI HEA120	1 19	0.06	4 22	0.08
4 Tubi Ret V 60x100x4.0/TUBI	13 18	0.09	10 15	0.21

4.1.14 Verifica profili metallici 1 nuova scala – Stato di progetto

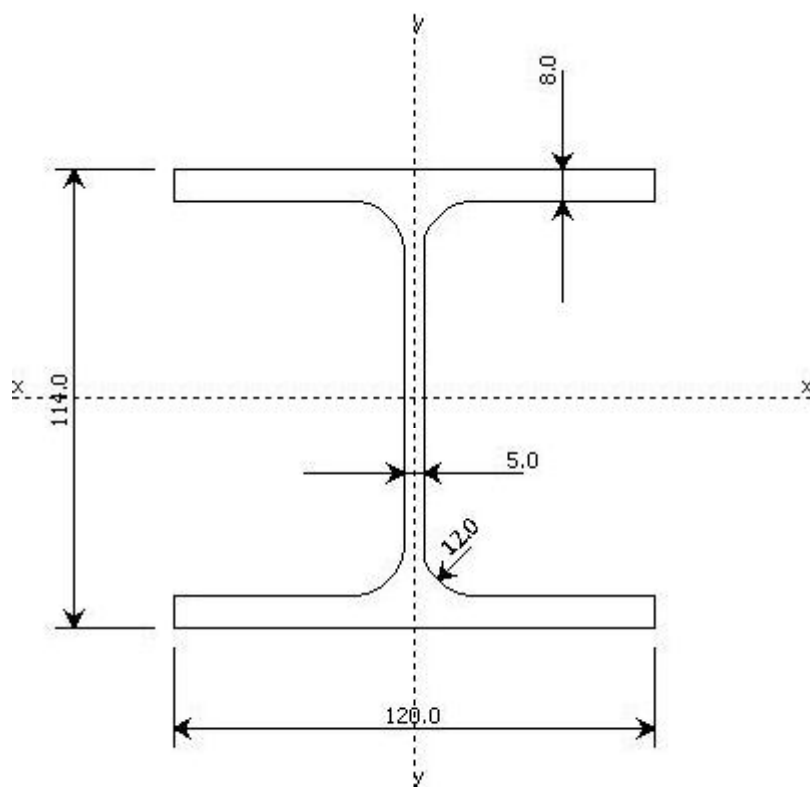
- VERIFICHE ASTA DAL NODO 19 AL NODO 21

- DATI GENERALI

Luce dell'asta : 1.60 [m]

- Sezione numero : 2 / HEA 120 (TRAVI HEA120)
- Materiale : **Acciaio**
- Tensione di snervamento : 2350.0 [kg/cm²]
- Tensione di rottura : 3600.0 [kg/cm²]

- DATI INERZIALI PROFILO : HEA 120



Area	25.39 [cm ²]	A.Traz	25.39 [cm ²]	L collegamento	0 [mm]
Jx	607 [cm ⁴]	ix	4.89 [cm]		
Wx	107 [cm ³]	Zx	120 [cm ³]		
Jy	231 [cm ⁴]	iy	3.02 [cm]		
Wy	38 [cm ³]	Zy	59 [cm ³]		
Jt	6 [cm ⁴]				
Cw	6472 [cm ⁶]				

Curva di instabilità piano 1-2 : **b**

Curva di instabilità piano 1-3 : **c**

- Doppio T

- B 120.0 [mm]
- H 114.0 [mm]
- t_f 8.0 [mm]
- t_w 5.0 [mm]
- r 12.0 [mm]

- β_{12} : 1.00
- β_{13} : 1.00

- Materiale *Acciaio*

- f_y : 2350.0 [kg/cm²]
- f_u : 3600.0 [kg/cm²]
- Epsilon : 1.000

- Coefficienti di sicurezza:

- γ_{Mo} 1.10
- γ_{M1} : 1.10
- γ_{M2} : 1.25

- Classificazione generale della sezione:

- Compressione : **1**
- Flessione Mx : **1**
- Flessione My : **1**

- VERIFICA DI RESISTENZA**- Ms/Mr Max nella Combinazione 17. All'Ascissa 0.00 [m]****- Caratteristiche inerziali della sezione trasversale:**Classe sezione : **1**

- Area : 25.39 [cm²]
- W_x : 120 [cm³]
- W_y : 59 [cm³]

Azione Sollecitante	Sd/Sr	
Sforzo Normale	32.1 [kg]	0.00
Momento Flettente Mx	100.0 [kgm]	0.04
Momento Flettente My	16.9 [kgm]	0.01
Taglio Ty	235.3 [kg]	0.02
Ratio Massimo riscontrato		0.04 VERIFICATA

- N.B.

L'area resistente a taglio è pari a 8.51 [cm²]

- VERIFICA DI INSTABILITÀ DA SFORZO NORMALE

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha (Lc = Betha * Lnetta) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 4.89 [cm]
- Snellezza dell'Asta : 32.72
- Snellezza ridotta : 0.35
- Curva di Instabilità : b
- Coeff. di Riduzione X : **0.95**

Sforzo Normale Massimo	60.5 [kg]	Comb. 1
Nsd/Nrd	0.00	VERIFICATA

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha (Lc = Betha * Lnetta) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.02 [cm]
- Snellezza dell'Asta : 53.05
- Snellezza ridotta : 0.56
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.81**

Sforzo Normale Massimo	60.5 [kg]	Comb. 1
Nsd/Nrd	0.00	VERIFICATA

- VERIFICA DI INSTABILITÀ FLESSOTORSIONALE (SVERGOLAMENTO)

- Dati di Verifica

- Luce dell'asta libera di svergolare : 1.60 [m]
- Fattore di lunghezza effettiva **k** : 1.00

- Fattore di ritegno torsionale d'estremità k_w : 1.00
- Eccentricità fra il centro di taglio ed il

punto di applicazione dei carichi esterni z_g : 5.70 [cm]

- Fattore z_j : 0.00 [cm]

Andamento del diagramma del momento flettente	NON Lineare	
Coefficienti di interazione carico vincoli		
C_1	1.285	
C_2	1.562	
C_3	0.753	
Momento critico d'instabilità M_{cr}	6444.1 [kgm]	
Snellezza adimensionale	0.661	
Curva di instabilità	a	
Coefficiente di riduzione per instabilità X_{LT}	0.865	
Sezione in Classe	1	
Momento massimo agente nella combinazione 17	100.0 [kgm]	
M_{sd}/M_{brd}	0.045	VERIFICATA

- VERIFICA DI INSTABILITA A PRESSO-FLESSIONE

- Caratteristiche inerziali della sezione trasversale:

Classe sezione : 1

- Area : 25.39 [cm²]
- W_x : 120 [cm³]
- W_y : 59 [cm³]

- Piano di Verifica 1-2 :

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.60 [m]
- β_{Lc} ($L_c = \beta_{Lc} \cdot L_{netta}$) : 1.00
- Coeff. di Riduzione β_A : 1.00
- Raggio d'Inerzia i : 4.89 [cm]
- Snellezza dell'Asta : 32.72
- Snellezza ridotta : 0.35
- Curva di Instabilità : b
- Coeff. di Riduzione X : **0.95**

Sforzo Normale Massimo	32.1 [kg]	Comb. 17
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- Piano di Verifica 1-3 :

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.02 [cm]
- Snellezza dell'Asta : 53.05
- Snellezza ridotta : 0.56
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.81**

Sforzo Normale Massimo	32.1 [kg]	Comb. 17

Verifica condotta in accordo a EC3 UNI EN 1993-1-1:2005 paragrafo 6.3.3 e appendice A.

- Snellezze e Fattori di interazione dei momenti flettenti

Piano	λ	X	μ	C_m
1-2	0.35	0.95	1.00	1.000 NON Lineare
1-3	0.56	0.81	1.00	0.585 Lineare
LT_o	0.45	0.94		
LT	0.66	0.87		0.990

- Fattori di Interazione

- a_{LT} 0.990
- b_{LT} 0.000
- c_{LT} 0.018
- d_{LT} 0.005
- e_{LT} 0.170

C_{yy}	1.00	C_{yz}	0.99
C_{zy}	1.00	C_{zz}	0.92
k_{yy}	0.99	k_{yz}	0.41
k_{zy}	0.51	k_{zz}	0.64

- Ratio Max nella Combinazione **17**

Azione Sollecitante	Sd/Sr	
Sforzo Normale	32.1 [kg]	0.00
Momento Flettente Mx	100.0 [kgm]	0.04

Momento Flettente M_y	16.9 [kgm]	0.01
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Ratio Massimo riscontrato	0.05	VERIFICATA
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- Instabilità Flesso-Torsionale

4.1.15 Verifica profili metallici 2 nuova scala – Stato di progetto

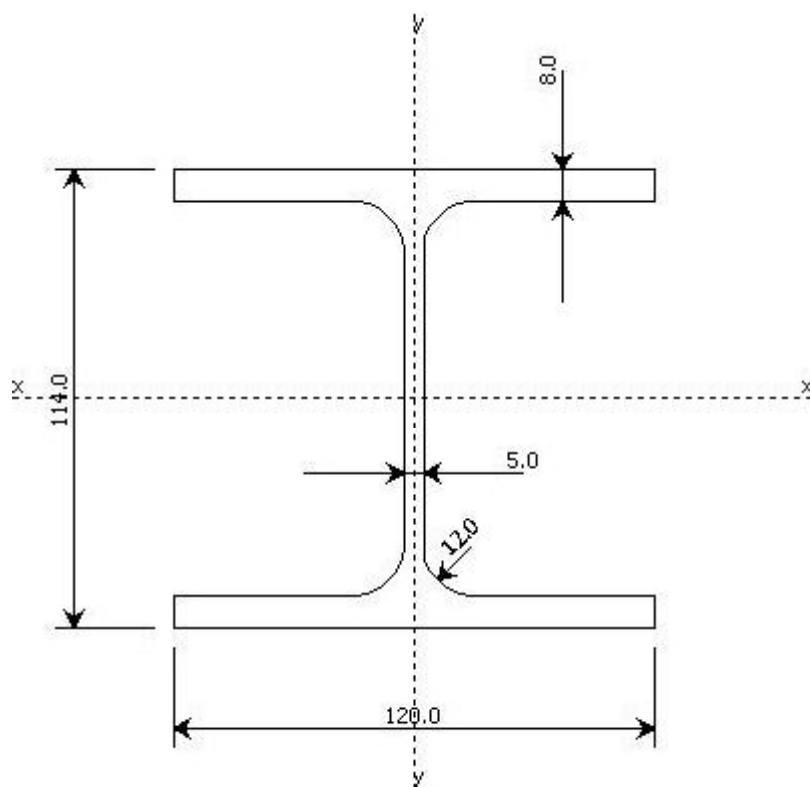
- VERIFICHE ASTA DAL NODO 4 AL NODO 22

- DATI GENERALI

Luce dell'asta : 1.25 [m]

- Sezione numero : 3 / HEA 120 (PILASTRI HEA120)
- Materiale : **Acciaio**
- Tensione di snervamento : 2350.0 [kg/cm²]
- Tensione di rottura : 3600.0 [kg/cm²]

- DATI INERZIALI PROFILO : HEA 120



Area	25.39 [cm ²]	A.Traz	25.39 [cm ²]	L collegamento	0 [mm]
Jx	607 [cm ⁴]	ix	4.89 [cm]		
Wx	107 [cm ³]	Zx	120 [cm ³]		
Jy	231 [cm ⁴]	iy	3.02 [cm]		
Wy	38 [cm ³]	Zy	59 [cm ³]		
Jt	6 [cm ⁴]				
Cw	6472 [cm ⁶]				

Curva di instabilità piano 1-2 : **b**

Curva di instabilità piano 1-3 : **c**

- Doppio T

- B 120.0 [mm]
- H 114.0 [mm]
- tf 8.0 [mm]
- tw 5.0 [mm]
- r 12.0 [mm]

- β_{12} : 1.00
- β_{13} : 1.00

- Materiale Acciaio

- f_y : 2350.0 [kg/cm²]
- f_u : 3600.0 [kg/cm²]
- Epsilon : 1.000

- Coefficienti di sicurezza:

- γ_{Mo} 1.10
- γ_{M1} : 1.10
- γ_{M2} : 1.25

- Classificazione generale della sezione:

- Compressione : 1
- Flessione Mx : 1
- Flessione My : 1

- VERIFICA DI RESISTENZA**- Ms/Mr Max nella Combinazione 1. All'Ascissa 1.25 [m]****- Caratteristiche inerziali della sezione trasversale:**

Classe sezione : 1

- Area : 25.39 [cm²]
- Wx : 120 [cm³]
- Wy : 59 [cm³]

Azione Sollecitante		Sd/Sr
Sforzo Normale	1004.3 [kg]	0.02
Momento Flettente Mx	22.0 [kgm]	0.01
Momento Flettente My	-94.8 [kgm]	0.08
Taglio Ty	-25.3 [kg]	0.00
Ratio Massimo riscontrato		0.08 VERIFICATA

- N.B.

L'area resistente a taglio è pari a 8.51 [cm²]

- VERIFICA DI INSTABILITÀ DA SFORZO NORMALE

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.25 [m]
- Betha (Lc = Betha * Lnetta) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 4.89 [cm]
- Snellezza dell'Asta : 25.55
- Snellezza ridotta : 0.27
- Curva di Instabilità : b
- Coeff. di Riduzione X : **0.97**

Sforzo Normale Massimo	1036.7 [kg]	Comb. 1
Nsd/Nrd	0.02	VERIFICATA

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.25 [m]
- Betha (Lc = Betha * Lnetta) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.02 [cm]
- Snellezza dell'Asta : 41.42
- Snellezza ridotta : 0.44
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.88**

Sforzo Normale Massimo	1036.7 [kg]	Comb. 1
Nsd/Nrd	0.02	VERIFICATA

- VERIFICA DI INSTABILITÀ FLESSOTORSIONALE (SVERGOLAMENTO)

- Dati di Verifica

- Luce dell'asta libera di svergolare : 1.25 [m]
- Fattore di lunghezza effettiva **k** : 1.00

- Fattore di ritegno torsionale d'estremità k_w : 1.00
- Eccentricità fra il centro di taglio ed il

punto di applicazione dei carichi esterni z_g : 5.70 [cm]

- Fattore z_j : 0.00 [cm]

Andamento del diagramma del momento flettente	Lineare	
Coefficienti di interazione carico vincoli		
C_1	2.763	
C_2	0.000	
C_3	0.012	
Momento critico d'instabilità M_{cr}	56473.2 [kgm]	
Snellezza adimensionale	0.223	
Curva di instabilità	a	
Coefficiente di riduzione per instabilità X_{LT}	1.000	
Sezione in Classe	1	
Momento massimo agente nella combinazione 13	63.4 [kgm]	
M_{sd}/M_{brd}	0.025	VERIFICATA

- VERIFICA DI INSTABILITA A PRESSO-FLESSIONE

- Caratteristiche inerziali della sezione trasversale:

Classe sezione : 1

- Area : 25.39 [cm²]
- W_x : 120 [cm³]
- W_y : 59 [cm³]

- Piano di Verifica 1-2 :

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.25 [m]
- β_{Lc} ($L_c = \beta_{Lc} \cdot L_{netta}$) : 1.00
- Coeff. di Riduzione β_{Lc} A : 1.00
- Raggio d'Inerzia i : 4.89 [cm]
- Snellezza dell'Asta : 25.55
- Snellezza ridotta : 0.27
- Curva di Instabilità : b
- Coeff. di Riduzione X : **0.97**

Sforzo Normale Massimo	1004.3 [kg]	Comb. 1
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- Piano di Verifica 1-3 :

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.25 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.02 [cm]
- Snellezza dell'Asta : 41.42
- Snellezza ridotta : 0.44
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.88**

Sforzo Normale Massimo	1004.3 [kg]	Comb. 1

Verifica condotta in accordo a EC3 UNI EN 1993-1-1:2005 paragrafo 6.3.3 e appendice A.

- Snellezze e Fattori di interazione dei momenti flettenti

Piano	λ	X	μ	C_m
1-2	0.27	0.97	1.00	0.819 Lineare
1-3	0.44	0.88	1.00	0.680 Lineare
LT_o	0.37	1.00		
LT	0.23	1.00		0.666

- Fattori di Interazione

- a_{LT} 0.990
- b_{LT} 0.000
- c_{LT} 0.003
- d_{LT} 0.006
- e_{LT} 0.048

C_{yy}	1.00	C_{yz}	1.02
C_{zy}	1.00	C_{zz}	0.99
k_{yy}	0.54	k_{yz}	0.47
k_{zy}	0.28	k_{zz}	0.69

- Ratio Max nella Combinazione 1

Azione Sollecitante	Sd/Sr	
Sforzo Normale	1004.3 [kg]	0.02
Momento Flettente Mx	22.0 [kgm]	0.00

Momento Flettente My	-94.8 [kgm]	0.05
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Ratio Massimo riscontrato	0.08 VERIFICATA
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- Instabilità Flesso-Torsionale

4.1.16 Verifica profili metallici 3 nuova scala – Stato di progetto

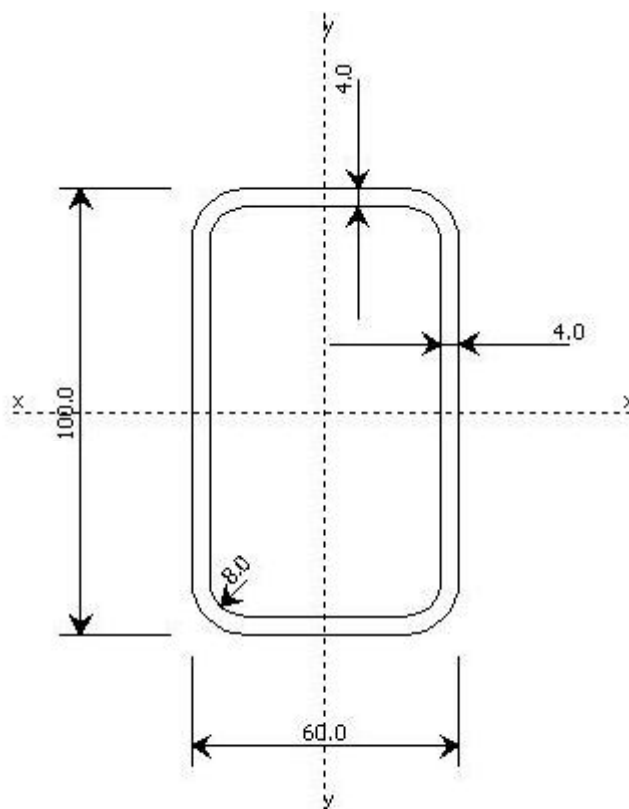
- VERIFICHE ASTA DAL NODO 10 AL NODO 15

- DATI GENERALI

Luce dell'asta : 1.60 [m]

- Sezione numero : 4 / *Tubi Ret V 60x100x4.0 (TUBI)*
- Materiale : **Acciaio**
- Tensione di snervamento : 2350.0 [kg/cm²]
- Tensione di rottura : 3600.0 [kg/cm²]

- DATI INERZIALI PROFILO : *Tubi Ret V 60x100x4.0*



Area	11.46 [cm ²]	A.Traz	11.46 [cm ²]	L collegamento	0 [mm]
Jx	145 [cm ⁴]	ix	3.56 [cm]		
Wx	29 [cm ³]	Zx	36 [cm ³]		
Jy	66 [cm ⁴]	iy	2.40 [cm]		
Wy	22 [cm ³]	Zy	26 [cm ³]		
Jt	155 [cm ⁴]				
Cw	48 [cm ⁶]				

Curva di instabilità piano 1-2 : c

Curva di instabilità piano 1-3 : c

- Tubo quadro

- B 60.0 [mm]
- H 100.0 [mm]
- tb 4.0 [mm]
- tw 4.0 [mm]
- r 8.0 [mm]

- β_{12} : 1.00
- β_{13} : 1.00

- Materiale Acciaio

- f_y : 2350.0 [kg/cm²]
- f_u : 3600.0 [kg/cm²]
- Epsilon : 1.000

- Coefficienti di sicurezza:

- γ_{Mo} 1.10
- γ_{M1} : 1.10
- γ_{M2} : 1.25

- Classificazione generale della sezione:

- Compressione : **1**
- Flessione Mx : **1**
- Flessione My : **1**

- VERIFICA DI RESISTENZA**- Ms/Mr Max nella Combinazione 1. All'Ascissa 0.80 [m]****- Caratteristiche inerziali della sezione trasversale:**Classe sezione : **1**

- Area : 11.46 [cm²]
- Wx : 36 [cm³]
- Wy : 26 [cm³]

Azione Sollecitante		Sd/Sr
Sforzo Normale	-1.5 [kg]	0.00
Momento Flettente Mx	-165.8 [kgm]	0.21
Momento Flettente My	-0.0 [kgm]	0.00
Ratio Massimo riscontrato		0.21 VERIFICATA

- VERIFICA DI INSTABILITA DA SFORZO NORMALE

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.56 [cm]
- Snellezza dell'Asta : 44.94
- Snellezza ridotta : 0.48
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.85**

Sforzo Normale Massimo	1.9 [kg]	Comb. 16
<i>Nsd/Nrd</i>	<u>0.00</u>	VERIFICATA

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 2.40 [cm]
- Snellezza dell'Asta : 66.65
- Snellezza ridotta : 0.71
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.72**

Sforzo Normale Massimo	1.9 [kg]	Comb. 16
<i>Nsd/Nrd</i>	<u>0.00</u>	VERIFICATA

- VERIFICA DI INSTABILITA A PRESSO-FLESSIONE

- Caratteristiche inerziali della sezione trasversale:

Classe sezione : 1

- Area : 11.46 [cm²]
- Wx : 36 [cm³]
- Wy : 26 [cm³]

- Piano di Verifica 1-2 :

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 3.56 [cm]
- Snellezza dell'Asta : 44.94
- Snellezza ridotta : 0.48
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.85**

Sforzo Normale Massimo	1.9 [kg]	Comb. 16

- Piano di Verifica 1-3 :

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 1.60 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 2.40 [cm]
- Snellezza dell'Asta : 66.65
- Snellezza ridotta : 0.71
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.72**

Sforzo Normale Massimo	1.9 [kg]	Comb. 16

Verifica condotta in accordo a EC3 UNI EN 1993-1-1:2005 paragrafo 6.3.3 e appendice A.

- Snellezze e Fattori di interazione dei momenti flettenti

Piano	λ	X	μ	C_m
1-2	0.48	0.85	1.00	1.000 NON Lineare
1-3	0.71	0.72	1.00	0.580 Lineare

- Fattori di Interazione

- a_{LT} 0.000
- b_{LT} 0.000
- c_{LT} 0.000
- d_{LT} 0.000
- e_{LT} 0.000

C_{yy}	1.00	C_{yz}	1.00
	1.00		1.00

C_{zy}		C_{zz}	
k_{yy}	1.00	k_{yz}	0.34
k_{zy}	0.62	k_{zz}	0.58

- Ratio Max nella Combinazione **16**

Azione Sollecitante		Sd/Sr
Sforzo Normale	1.9 [kg]	0.00
Momento Flettente Mx	85.8 [kgm]	0.11
Momento Flettente My	0.0 [kgm]	0.00
Ratio Massimo riscontrato		0.11 VERIFICATA

- Instabilità Flesso-Torsionale

4.1.17 Verifica profili metallici 4 nuova scala – Stato di progetto

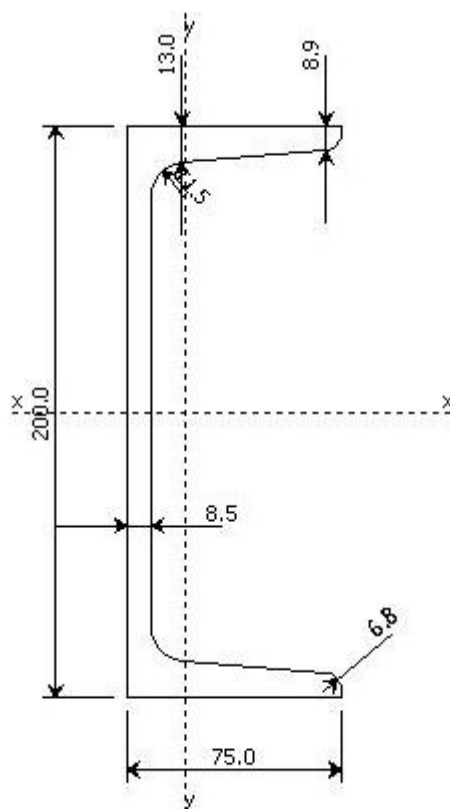
- VERIFICHE ASTA DAL NODO 21 AL NODO 15

- DATI GENERALI

Luce dell'asta : 0.63 [m]

- Sezione numero : 1 / *UPN 200 (COSCIALI UPN200)*
- Materiale : **Acciaio**
- Tensione di snervamento : 2350.0 [kg/cm²]
- Tensione di rottura : 3600.0 [kg/cm²]

- DATI INERZIALI PROFILO : *UPN 200*



Area	32.20 [cm ²]	A.Traz	32.20 [cm ²]	L collegamento	0 [mm]
Jx	1912 [cm ⁴]	ix	7.71 [cm]		
Wx	191 [cm ³]	Zx	228 [cm ³]		
Jy	148 [cm ⁴]	iy	2.14 [cm]		
Wy	27 [cm ³]	Zy	52 [cm ³]		
Jt	11 [cm ⁴]				
Cw	9834 [cm ⁶]				

Curva di instabilità piano 1-2 : **c**

Curva di instabilità piano 1-3 : **c**

- C o UPN

- B 75.0 [mm]
- H 200.0 [mm]
- tf max 14.5 [mm]
- tf min 8.5 [mm]
- tw 8.5 [mm]
- r 11.5 [mm]
- r smusso 6.0 [mm]
- β_{12} : 1.00
- β_{13} : 1.00

- Materiale *Acciaio*

- f_y : 2350.0 [kg/cm²]
- f_u : 3600.0 [kg/cm²]
- Epsilon : 1.000

- Coefficienti di sicurezza:

- γ_{Mo} 1.10
- γ_{M1} : 1.10
- γ_{M2} : 1.25

- Classificazione generale della sezione:

- Compressione : **1**
- Flessione Mx : **1**
- Flessione My : **1**

- VERIFICA DI RESISTENZA**- Ms/Mr Max nella Combinazione 1. All'Ascissa 0.00 [m]****- Caratteristiche inerziali della sezione trasversale:**Classe sezione : **1**

- Area : 32.20 [cm²]
- Wx : 228 [cm³]
- Wy : 52 [cm³]

Azione Sollecitante		Sd/Sr
Sforzo Normale	114.9 [kg]	0.00
Momento Flettente Mx	-440.2 [kgm]	0.09
Momento Flettente My	0.8 [kgm]	0.00

Ratio Massimo riscontrato

0.09**VERIFICATA****- VERIFICA DI INSTABILITA DA SFORZO NORMALE****- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo***

- Luce : 0.63 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 7.71 [cm]
- Snellezza dell'Asta : 8.20
- Snellezza ridotta : 0.09
- Curva di Instabilità : c
- Coeff. di Riduzione X : **1.00**

Sforzo Normale Massimo	217.4 [kg]	Comb. 15
<i>Nsd/Nrd</i>	<u>0.00</u>	VERIFICATA

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 0.63 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 2.14 [cm]
- Snellezza dell'Asta : 29.52
- Snellezza ridotta : 0.31
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.94**

Sforzo Normale Massimo	217.4 [kg]	Comb. 15
<i>Nsd/Nrd</i>	<u>0.00</u>	VERIFICATA

- VERIFICA DI INSTABILITA A PRESSO-FLESSIONE**- Caratteristiche inerziali della sezione trasversale:**Classe sezione : **1**

- Area : 32.20 [cm²]
- Wx : 228 [cm³]
- Wy : 52 [cm³]

- Piano di Verifica 1-2 :

- Verifica di Instabilità nel Piano 1/2 / *Profilo Singolo*

- Luce : 0.63 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 7.71 [cm]
- Snellezza dell'Asta : 8.20
- Snellezza ridotta : 0.09
- Curva di Instabilità : c
- Coeff. di Riduzione X : **1.00**

Sforzo Normale Massimo	114.9 [kg]	Comb. 1

- Piano di Verifica 1-3 :

- Verifica di Instabilità nel Piano 1/3 / *Profilo Singolo*

- Luce : 0.63 [m]
- Betha ($L_c = \text{Betha} * L_{\text{netta}}$) : 1.00
- Coeff. di Riduzione Betha A : 1.00
- Raggio d'Inerzia i : 2.14 [cm]
- Snellezza dell'Asta : 29.52
- Snellezza ridotta : 0.31
- Curva di Instabilità : c
- Coeff. di Riduzione X : **0.94**

Sforzo Normale Massimo	114.9 [kg]	Comb. 1

Verifica condotta in accordo a EC3 UNI EN 1993-1-1:2005 paragrafo 6.3.3 e appendice A.

- Snellezze e Fattori di interazione dei momenti flettenti

Piano	λ	X	μ	C_m
1-2	0.09	1.00	1.00	1.000 NON Lineare
1-3	0.31	0.94	1.00	0.767 Lineare

- Fattori di Interazione

- a_{LT} 0.994
- b_{LT} 0.000
- c_{LT} 0.000
- d_{LT} 0.000

- $e_{LT} 0.000$

C_{yy}	1.00	C_{yz}	1.00
C_{zy}	1.00	C_{zz}	1.00
k_{yy}	1.00	k_{yz}	0.52
k_{zy}	0.53	k_{zz}	0.77

- Ratio Max nella Combinazione 1

Azione Sollecitante		Sd/Sr
Sforzo Normale	114.9 [kg]	0.00
Momento Flettente Mx	440.2 [kgm]	0.09
Momento Flettente My	0.8 [kgm]	0.00
Ratio Massimo riscontrato		0.09 VERIFICATA

- Instabilità Flesso-Torsionale

4.1.18 Verifica profili metallici - Riassunto

- VERIFICA TRAVI SEZIONE 1 PROFILO UPN 200 COSCIALI UPN200

- Tipo di verifica da eseguire:

- Resistenza (Componenti Azioni Interna)..... : N - Mx - My
- Instabilità Nel Piano 1/2 : Pr. singolo
- Instabilità Nel Piano 1/3 : Pr. singolo
- Pressoflessione (Componenti Azioni Interna) : N - Mx - My
- Instabilità Flesso-Torsionale : Nessuna verifica

- Acciaio tipo : **Acciaio**
- Tensione di Snervamento : 2350.0 [kg/cm²]
- Tensione di Rottura : 3600.0 [kg/cm²]

Asta Nodi		Luce A [m]	Snellezza nel Piano		Resistenza Sd/Sr	Instabilità Sd/Sr		Pressoflessione Sd/Sr	Svergolamento Sd/Sr
Da	A		1/2	1/3		1/2	1/3		
20	22	1.60	20.8	74.7	0.028 (13)	0.000 (1)	0.000 (1)	0.018 (16)	0.000 (0)
18	22	0.04	0.6	2.1	0.029 (16)	0.002 (1)	0.002 (1)	0.023 (16)	0.000 (0)
17	18	0.59	7.6	27.4	0.063 (1)	0.002 (1)	0.002 (1)	0.063 (1)	0.000 (0)
16	17	0.57	7.4	26.7	0.076 (1)	0.002 (15)	0.002 (15)	0.076 (1)	0.000 (0)
15	16	0.57	7.4	26.7	0.076 (1)	0.003 (15)	0.003 (15)	0.076 (1)	0.000 (0)
21	15	0.63	8.2	29.5	0.093 (1)	0.003 (15)	0.003 (15)	0.092 (1)	0.000 (0)
14	21	0.09	1.1	4.1	0.088 (1)	0.003 (15)	0.003 (15)	0.087 (1)	0.000 (0)
13	20	0.04	0.6	2.1	0.027 (16)	0.001 (1)	0.001 (1)	0.022 (13)	0.000 (0)
12	13	0.59	7.6	27.4	0.054 (1)	0.001 (1)	0.002 (1)	0.054 (1)	0.000 (0)
11	12	0.57	7.4	26.7	0.065 (1)	0.002 (14)	0.002 (14)	0.065 (1)	0.000 (0)
10	11	0.57	7.4	26.7	0.065 (1)	0.002 (14)	0.002 (14)	0.065 (1)	0.000 (0)
19	10	0.63	8.2	29.5	0.084 (1)	0.003 (14)	0.003 (14)	0.084 (1)	0.000 (0)
9	19	0.09	1.1	4.1	0.081 (1)	0.003 (14)	0.003 (14)	0.081 (1)	0.000 (0)
5	7	0.25	3.2	11.6	0.047 (1)	0.012 (1)	0.012 (1)	0.046 (1)	0.000 (0)
7	9	1.99	25.8	93.0	0.069 (1)	0.007 (14)	0.013 (14)	0.042 (1)	0.000 (0)
6	8	0.25	3.2	11.6	0.044 (1)	0.012 (1)	0.012 (1)	0.043 (1)	0.000 (0)
8	14	1.99	25.8	93.0	0.075 (1)	0.008 (15)	0.014 (15)	0.041 (15)	0.000 (0)

- VERIFICA TRAVI SEZIONE 2 PROFILO HEA 120 TRAVI HEA120

- Tipo di verifica da eseguire:

- Resistenza (Componenti Azioni Interna)..... : N - Ty - Mx - My
- Instabilità Nel Piano 1/2 : Pr. singolo
- Instabilità Nel Piano 1/3 : Pr. singolo
- Pressoflessione (Componenti Azioni Interna) : N - Mx - My
- Instabilità Flesso-Torsionale : A doppio T

- Acciaio tipo : **Acciaio**

- Tensione di Snervamento : 2350.0 [kg/cm²]
- Tensione di Rottura : 3600.0 [kg/cm²]

Asta Nodi		Luce	Snellezza nel Piano		Resistenza	Instabilità Sd/Sr		Pressoflessione	Svergolamento
Da	A	[m]	1/2	1/3	Sd/Sr	1/2	1/3	Sd/Sr	Sd/Sr
19	21	1.60	32.7	53.1	0.039 (17)	0.001 (1)	0.001 (1)	0.051 (17)	0.045 (17)

- VERIFICA TRAVI SEZIONE 3 PROFILO HEA 120 PILASTRI HEA120

- Tipo di verifica da eseguire:

- Resistenza (Componenti Azioni Interna)..... : - N - Ty - Mx - My
- Instabilità Nel Piano 1/2 : Pr. singolo
- Instabilità Nel Piano 1/3 : Pr. singolo
- Pressoflessione (Componenti Azioni Interna). : N - Mx - My
- Instabilità Flesso-Torsionale : A doppio T

- Acciaio tipo : **Acciaio**
- Tensione di Snervamento : 2350.0 [kg/cm²]
- Tensione di Rottura : 3600.0 [kg/cm²]

Asta Nodi		Luce	Snellezza nel Piano		Resistenza	Instabilità Sd/Sr		Pressoflessione	Svergolamento
Da	A	[m]	1/2	1/3	Sd/Sr	1/2	1/3	Sd/Sr	Sd/Sr
3	20	1.25	25.5	41.4	0.065 (1)	0.017 (1)	0.019 (1)	0.065 (1)	0.025 (16)
2	21	1.25	25.5	41.4	0.048 (12)	0.042 (1)	0.046 (1)	0.065 (1)	0.048 (12)
1	19	1.25	25.5	41.4	0.048 (17)	0.040 (1)	0.044 (1)	0.059 (1)	0.048 (17)
4	22	1.25	25.5	41.4	0.075 (1)	0.020 (1)	0.022 (1)	0.075 (1)	0.025 (13)

- VERIFICA TRAVI SEZIONE 4 PROFILO Tubi Ret V 60x100x4.0 TUBI

- Tipo di verifica da eseguire:

- Resistenza (Componenti Azioni Interna)..... : - N - Mx - My
- Instabilità Nel Piano 1/2 : Pr. singolo
- Instabilità Nel Piano 1/3 : Pr. singolo
- Pressoflessione (Componenti Azioni Interna). : N - Mx - My
- Instabilità Flesso-Torsionale : Nessuna verifica

- Acciaio tipo : **Acciaio**
- Tensione di Snervamento : 2350.0 [kg/cm²]
- Tensione di Rottura : 3600.0 [kg/cm²]

Asta Nodi		Luce	Snellezza nel Piano		Resistenza	Instabilità Sd/Sr		Pressoflessione	Svergolamento
Da	A	[m]	1/2	1/3	Sd/Sr	1/2	1/3	Sd/Sr	Sd/Sr

13	18	1.60	44.9	66.7	0.088 (1)	0.000 (1)	0.000 (1)	0.088 (1)	0.000 (0)
12	17	1.60	44.9	66.7	0.206 (1)	0.000 (17)	0.000 (17)	0.107 (17)	0.000 (0)
11	16	1.60	44.9	66.7	0.207 (1)	0.000 (17)	0.000 (17)	0.207 (1)	0.000 (0)
10	15	1.60	44.9	66.7	0.213 (1)	0.000 (16)	0.000 (16)	0.110 (16)	0.000 (0)