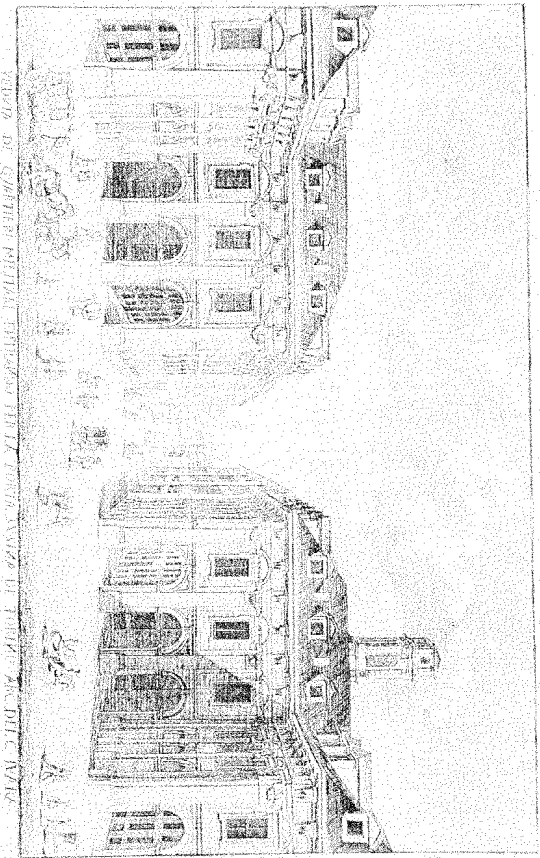


RECUPERO FUNZIONALE

DELL'EDIFICIO DI VIA DEL CARMINE 14

AD USO ARCHIVI ED ATTIVITA' CULTURALI



PROGETTO ESECUTIVO

Responsabile Unico di Procedimento e Dirigente del Settore	Arch. Rosalba Stura
Progettista opere architettoniche	Arch. Emanuela Lavezzo
Progettista opere strutturali	Ing. Gianfranco Giovagnetti
Progettista opere impiantistiche	Ing. Alfonso Famà
Progettista della sicurezza – Collaboratore alle opere strutturali	Ing. Flavio Aquilano
Supporto al R.U.P. per le opere strutturali	Ing. Elena Grilone
Collaboratore progetto opere architettoniche e strutturali	Geom. Bartolo Saullo
Collaboratore progetto opere architettoniche e sicurezza	Geom. Fabrizio Passantino
Collaboratore progetto opere architettoniche	Arch. Michelina Pirrone
Collaboratori progetto opere impiantistiche	P.I. Francesco Ferrari
	P.I. Maurizio Genovese

PROGETTO OPERE STRUTTURALI

SCALA		ARMATURA TRAVI E SOLAI QUARTO PIANO	S 24
SCALA PLOT		(copertura piano Terzo)	
REV	MODIFICHE	DATA	DISEGNATORE
	Revisione	18/11/2010	Ing. G. GIOVAGNETTI/Ing. L. GIOVAGNETTI

MATERIALI DA UTILIZZARE PER LE NUOVE TRAVI E I NUOVI SOLAI

Calcestruzzo classe di resistenza minima C25 / 30

Consistenza S3 per rampe scale e strutture inclinate e S4 per setti, travi e solai

Granulometria inerti :

sabbia da 0 a 3 mm / ghiaia da 0 a 16 mm.

Acciaio B450 C

MATERIALI DA UTILIZZARE PER IL RINFORZO DELLE TRAVI ESISTENTI

Calcestruzzo speciale auto compattante (SCC) a prestazione garantita, in accordo alla UNI EN 206-1 e UNI 11040 per strutture in elevazione confezionato con aggregati ben lavati, privi di impurità, non reattivi con gli alcali, aventi diametro massimo 16 mm. Consistenza S5 UNI EN 12350 / 2, resistenza a compressione a 28 gg. > 40 MPa (Classe 32/40)

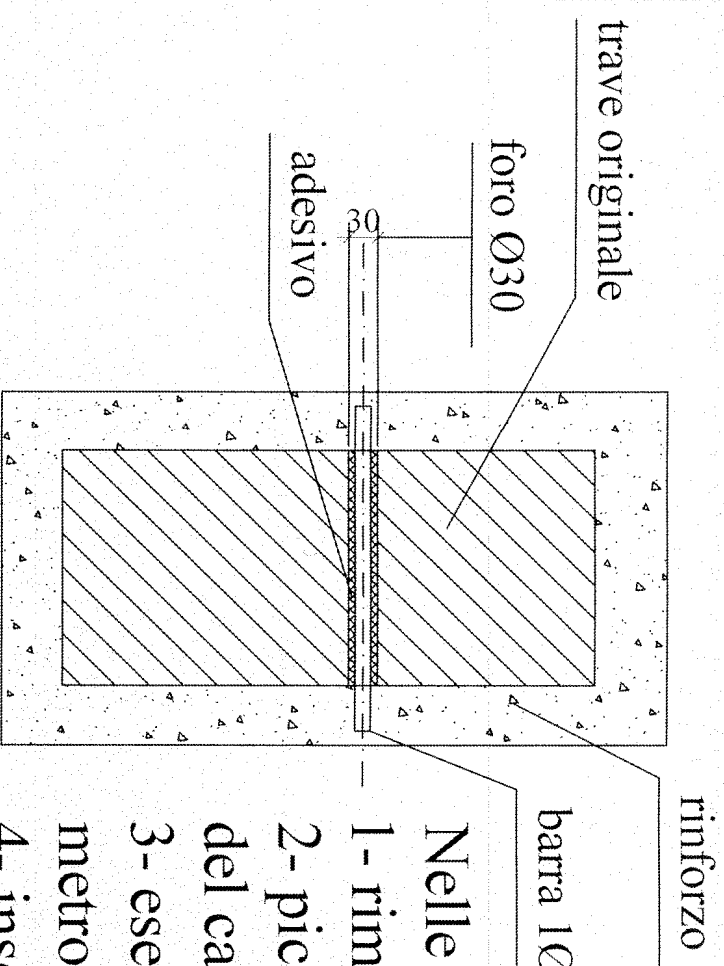
Acciaio armature lente: B450C

Acciaio piastre e profili: S275 Uni 10025-2

Bulloni e tasselli classe 8.8

Saldature classe I

Le piastre per supporto delle travi rinforzate, dovranno essere poste in opera sopra gli interventi di placcaggio delle murature.



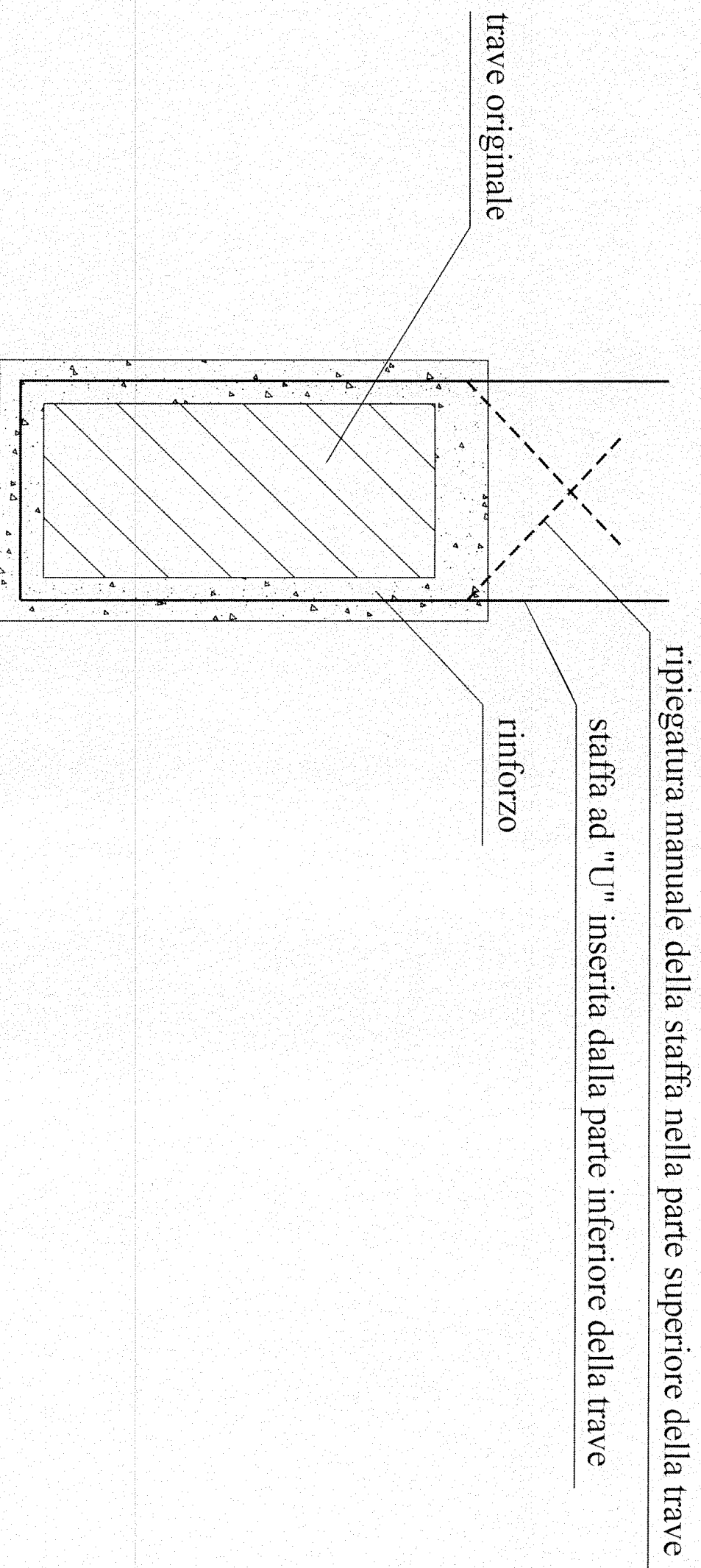
Preparazione travi esistenti

barra l Ø16 ogni metro

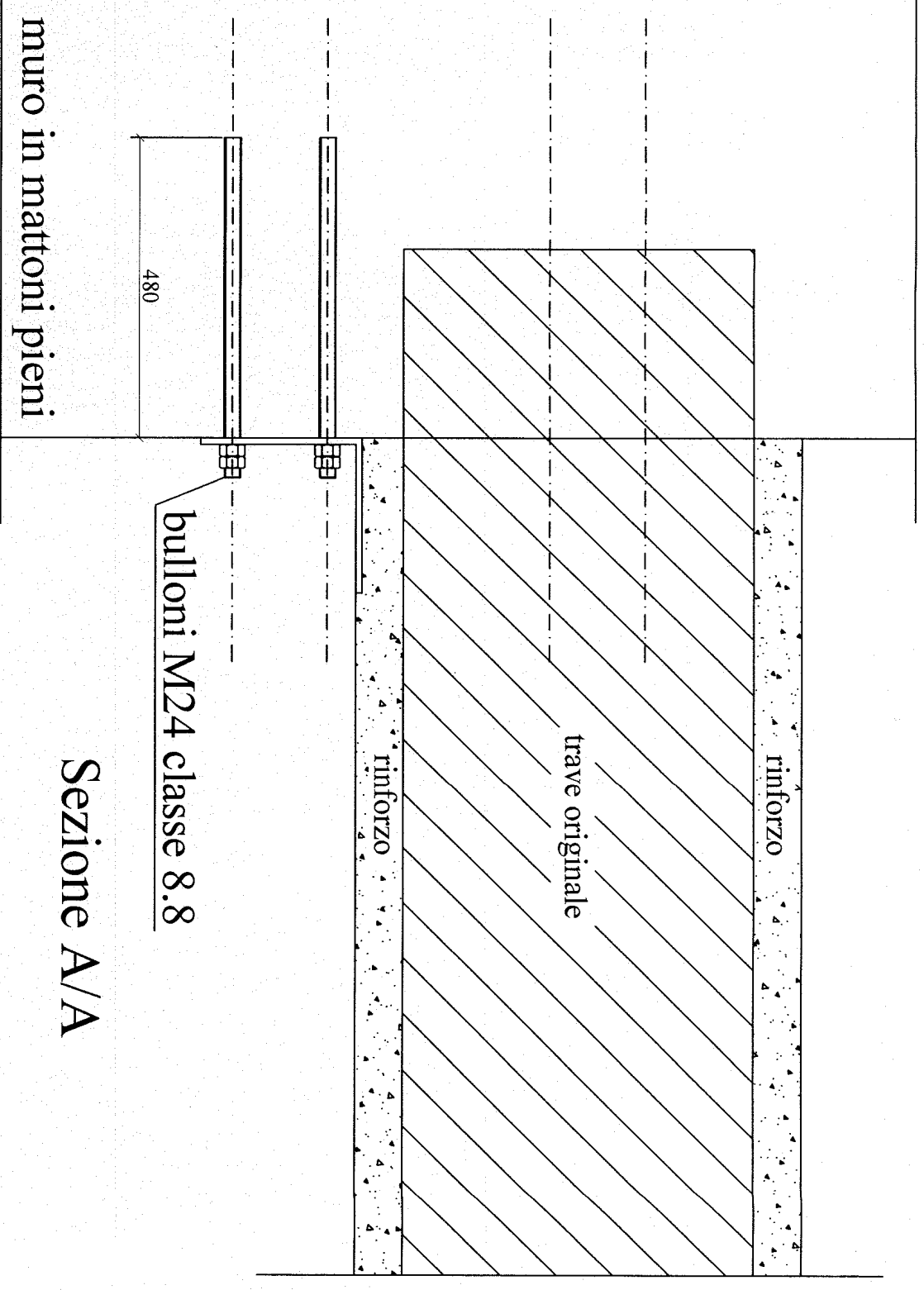
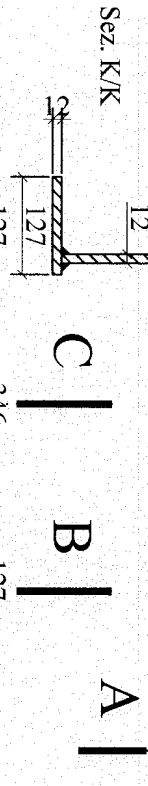
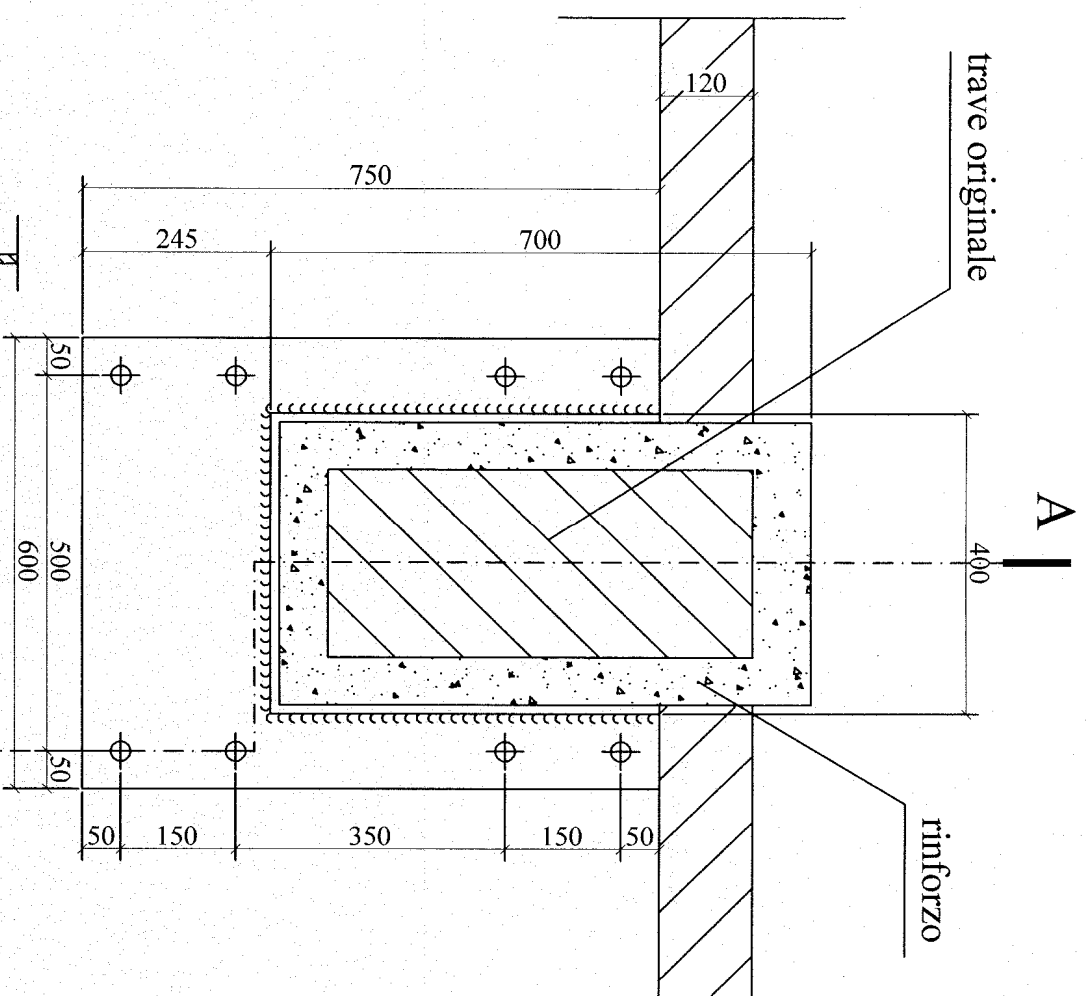
Nelle travi esistenti si devono eseguire la seguenti lavorazioni :

- 1- rimuovere l'intonaco dalla trave;
- 2- picchettare la trave con la martellina per un migliore aggrappo del calcestruzzo di rinforzo;
- 3- eseguire un foro Ø30 mm passante a metà altezza trave ogni metro;
- 4- inserire una barra Ø16 in ogni foro
- 5- iniettare, nel foro in cui è stata inserita la barra Ø16, adesivo epossidico bicomponente fluido, leggermente tixotropico, privo di solventi.

Particolare staffatura delle travi esistenti

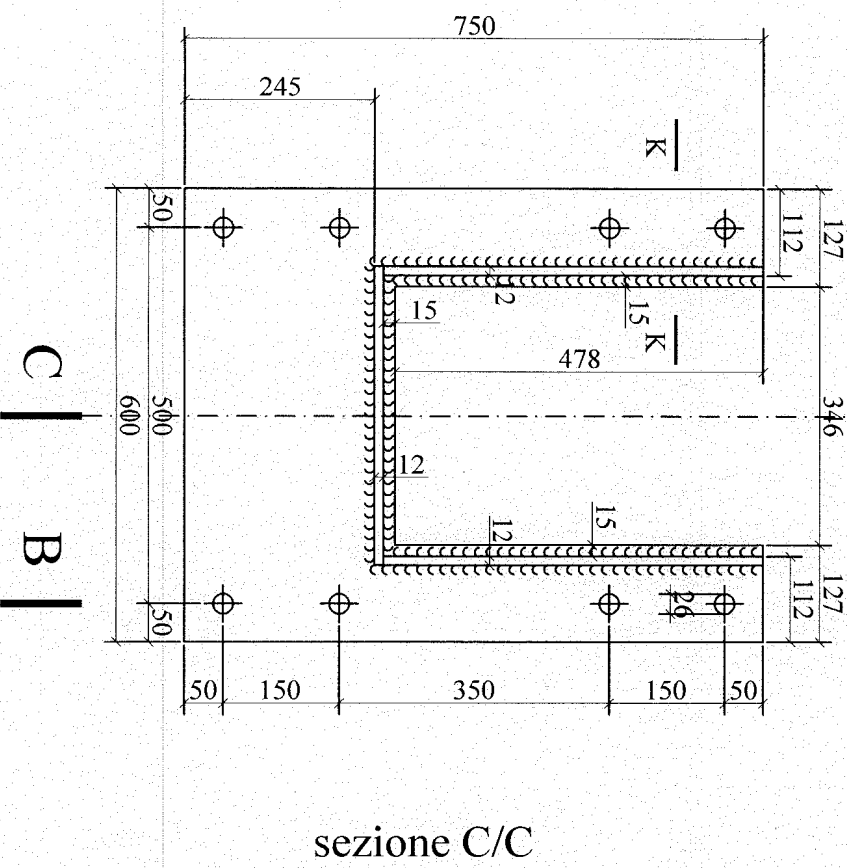


1 - Particolare piastre per supporto travi 40x70

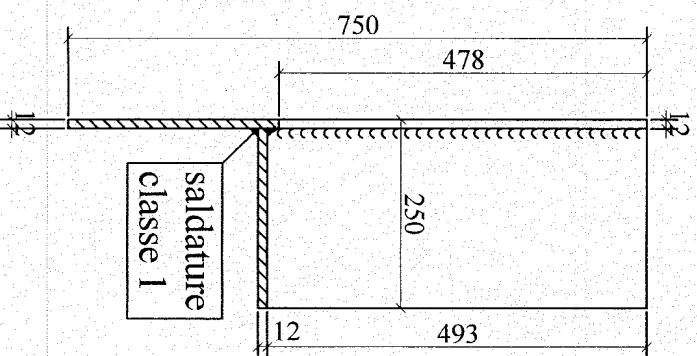


Sezione A/A

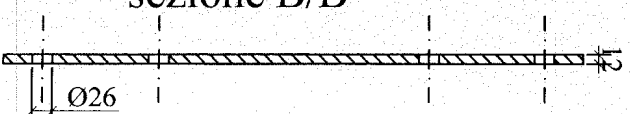
muro in mattoni pieni



sezione C/C

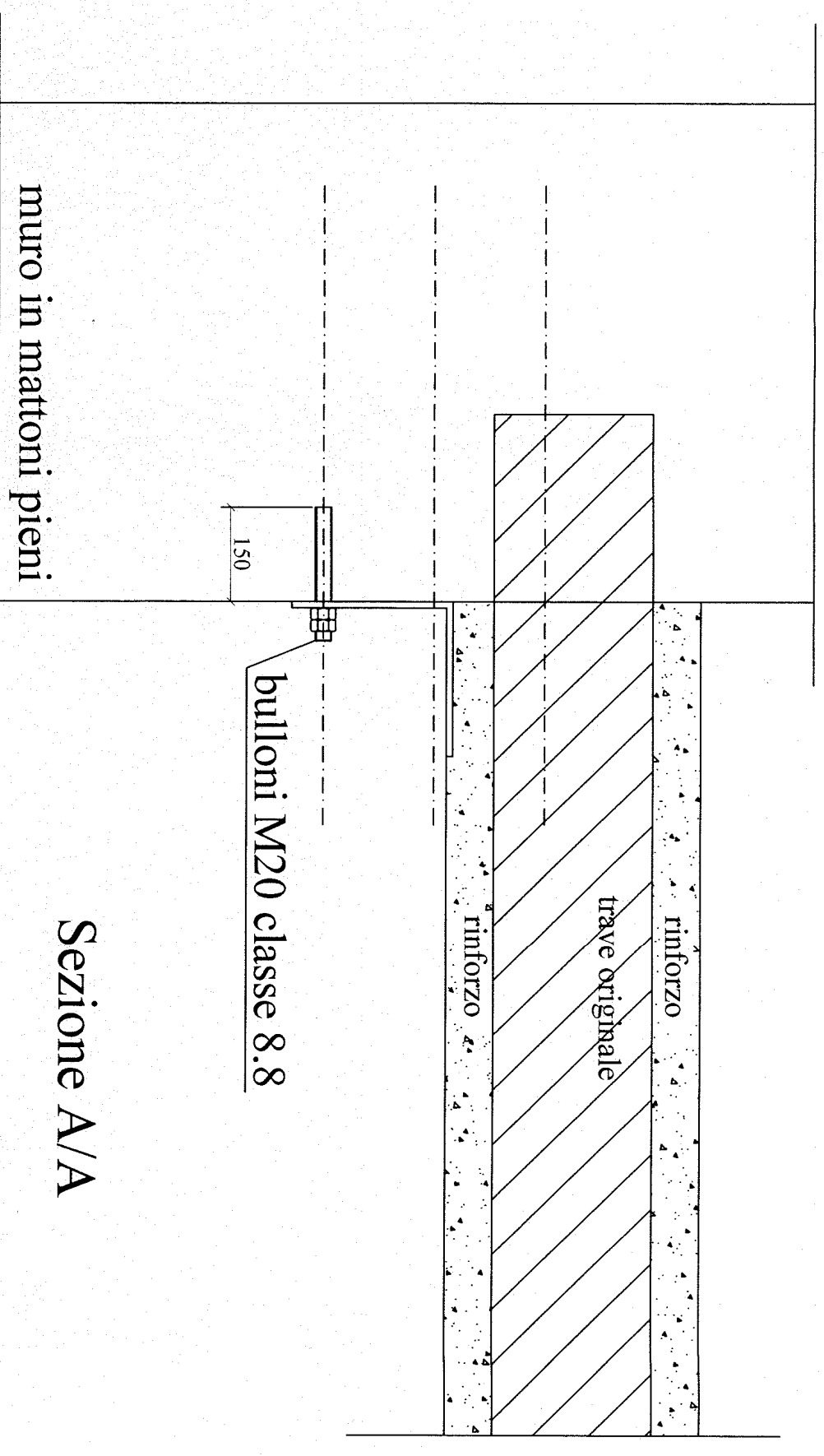
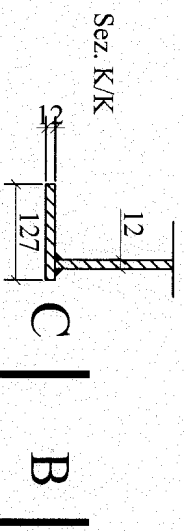
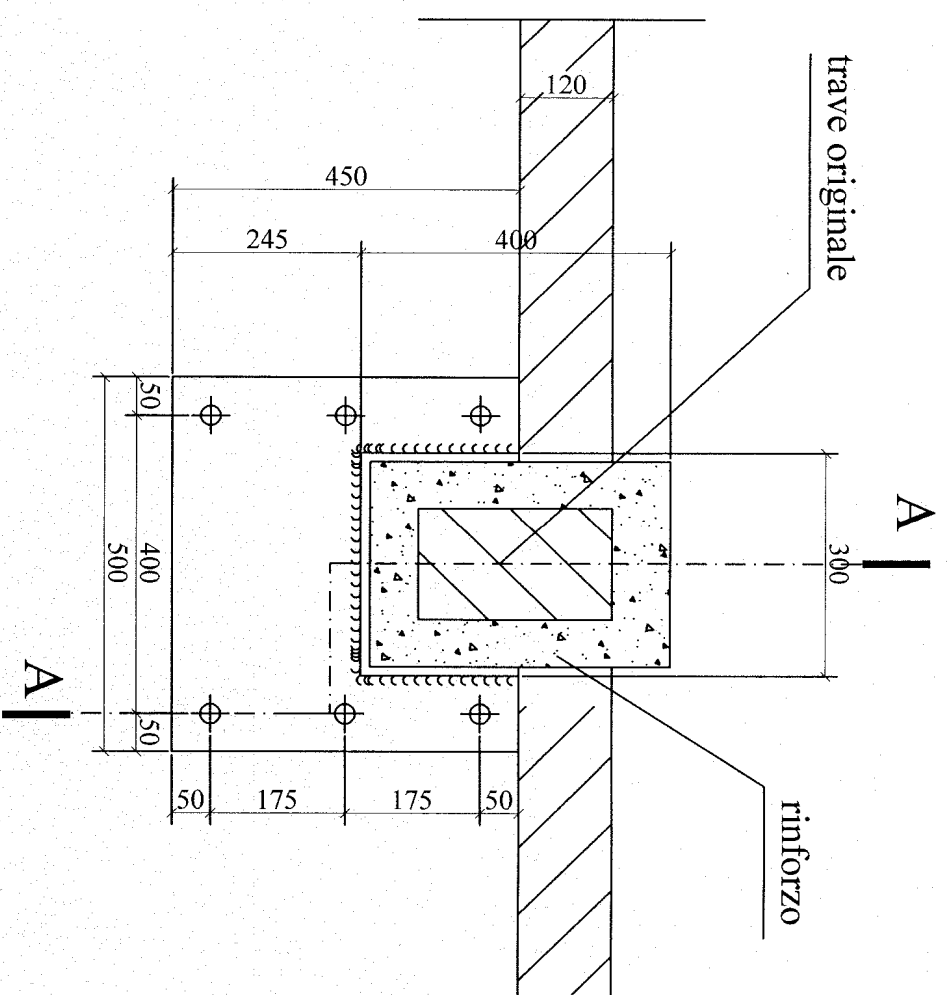


sezione B/B

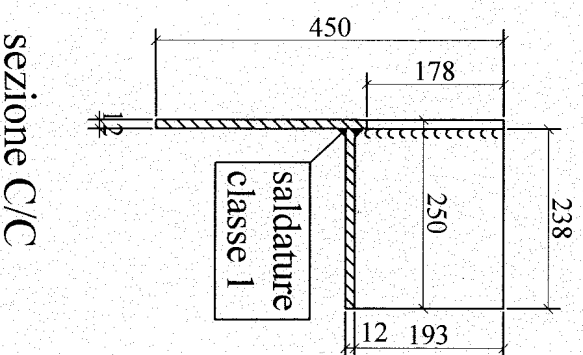
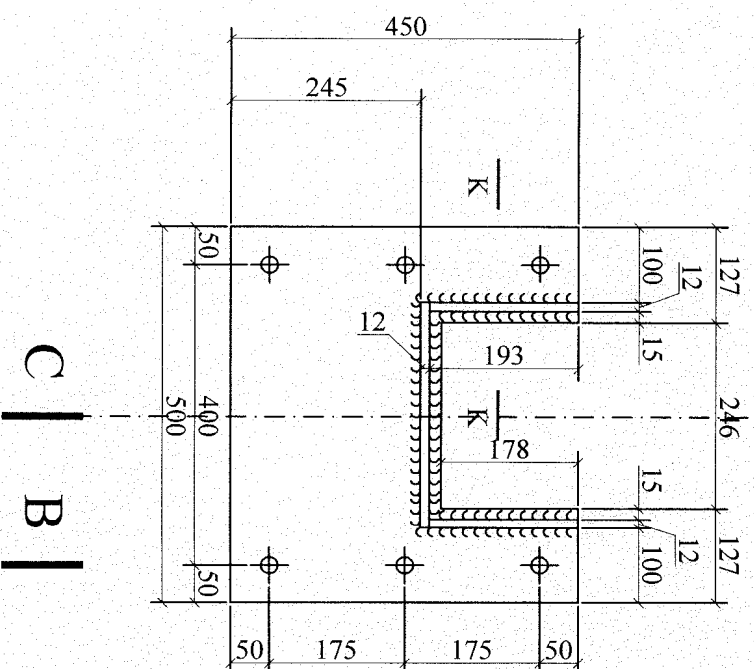


L'ancoraggio dei bulloni al muro deve essere realizzato tramite adesivo composto da una resina base epossidica bisfenolo A/F (esente da stirene) con riempitivo inorganico e da una miscela indurente con poliammine, polvere di quarzo e cemento. Per garantire la tenuta del fissaggio con la resina, occorre, una volta forata la la muratura pulire accuratamente il foro con un getto di aria compressa poi con uno scovolino e poi di nuovo con un getto di aria compressa. Visto che il foro in oggetto è molto profondo, collegare un tubo miscelatore in plastica all'estremità dell'ugello erogatore della resina. Verificare e rispettare, in ogni caso, le norme d'impiego dettate dalla ditta fornitrice del prodotto.

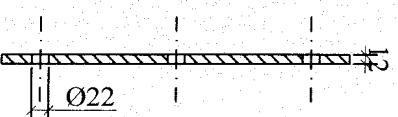
2 - Particolare piastre per supporto travi 30x40



Sezione A/A



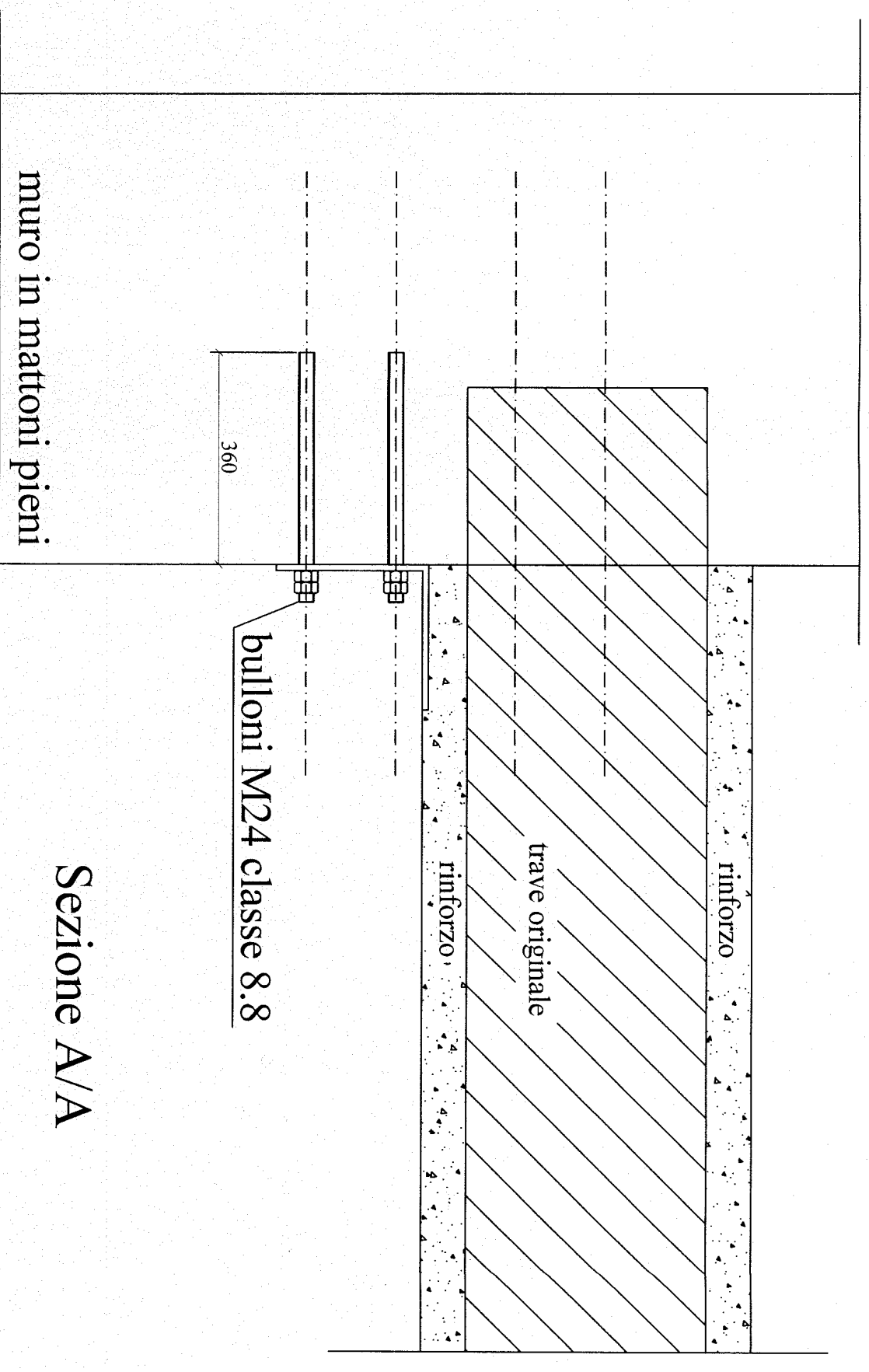
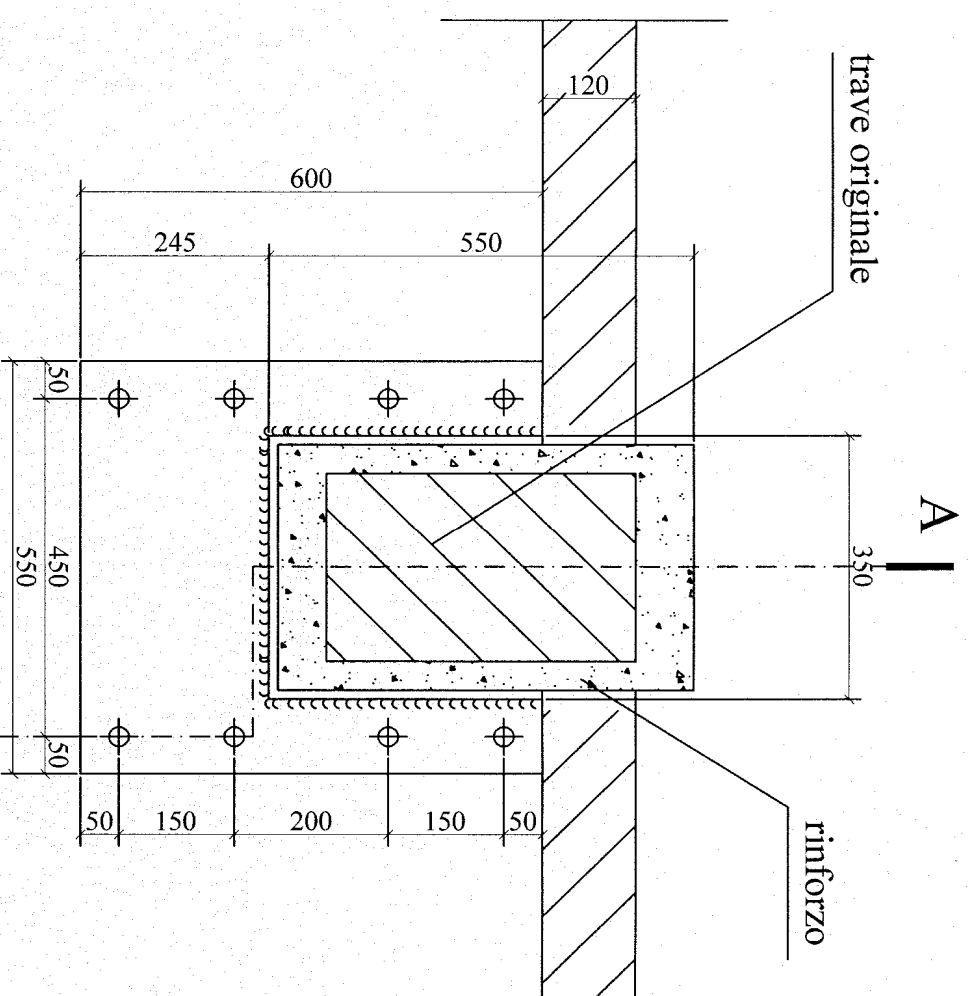
sezione C/C



sezione B/B

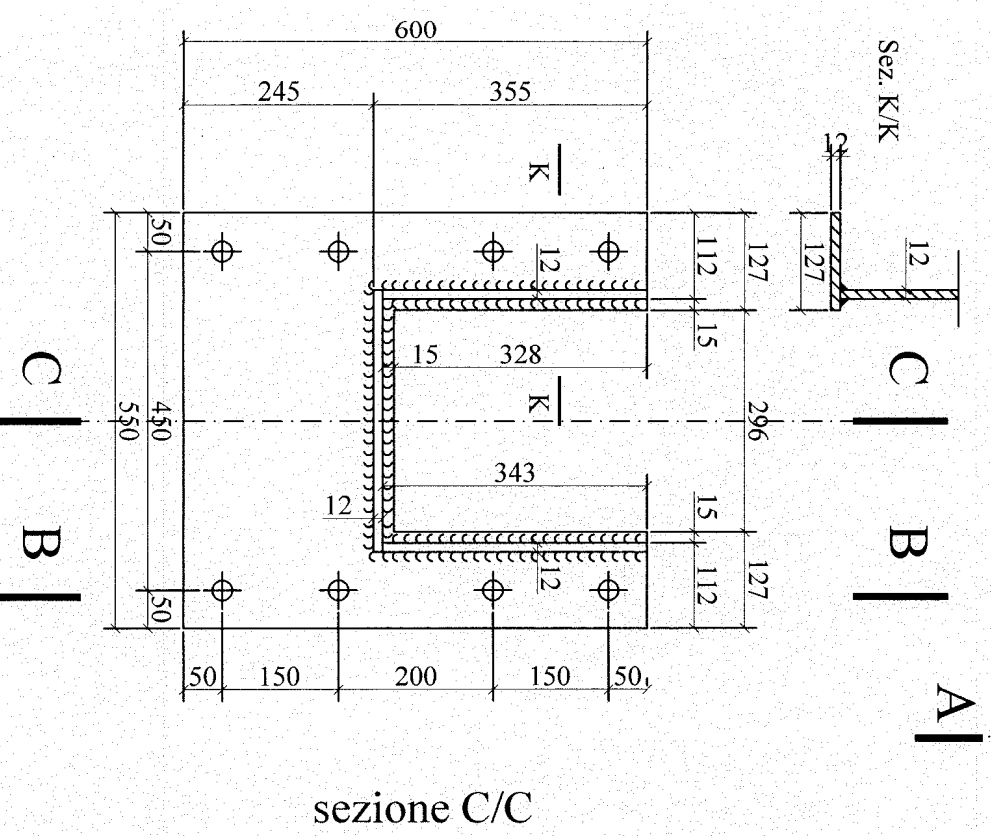
L'ancoraggio dei bulloni al muro deve essere realizzato tramite adesivo composto da una resina base epossidica bisfenolo A/F (esente da stirene) con riempitivo inorganico e da una miscela indurente con poliammine, polvere di quarzo e cemento. Per garantire la tenuta del fissaggio con la resina, occorre, una volta forata la muratura pulire accuratamente il foro con un getto di aria compressa poi con uno scovolino e poi di nuovo con un getto di aria compressa. Visto che il foro in oggetto è molto profondo, collegare un tubo miscelatore in plastica all'estremità dell'ugello erogatore della resina. Verificare e rispettare, in ogni caso, le norme d'impiego dettate dalla ditta fornitrice del prodotto.

3 - Particolare piastre per supporto travi 35x55

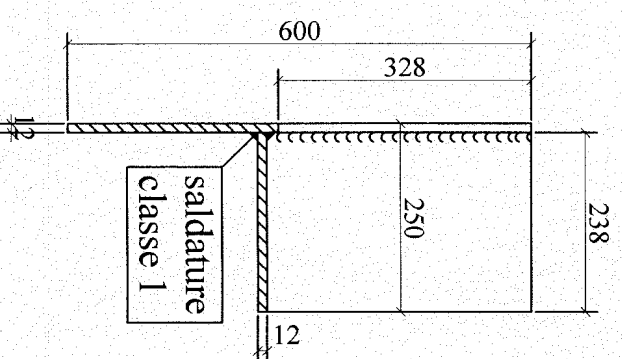


Sezione A/A

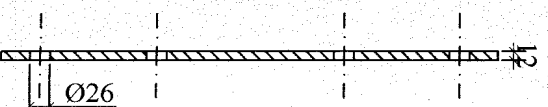
muro in mattoni pieni



sezione C/C

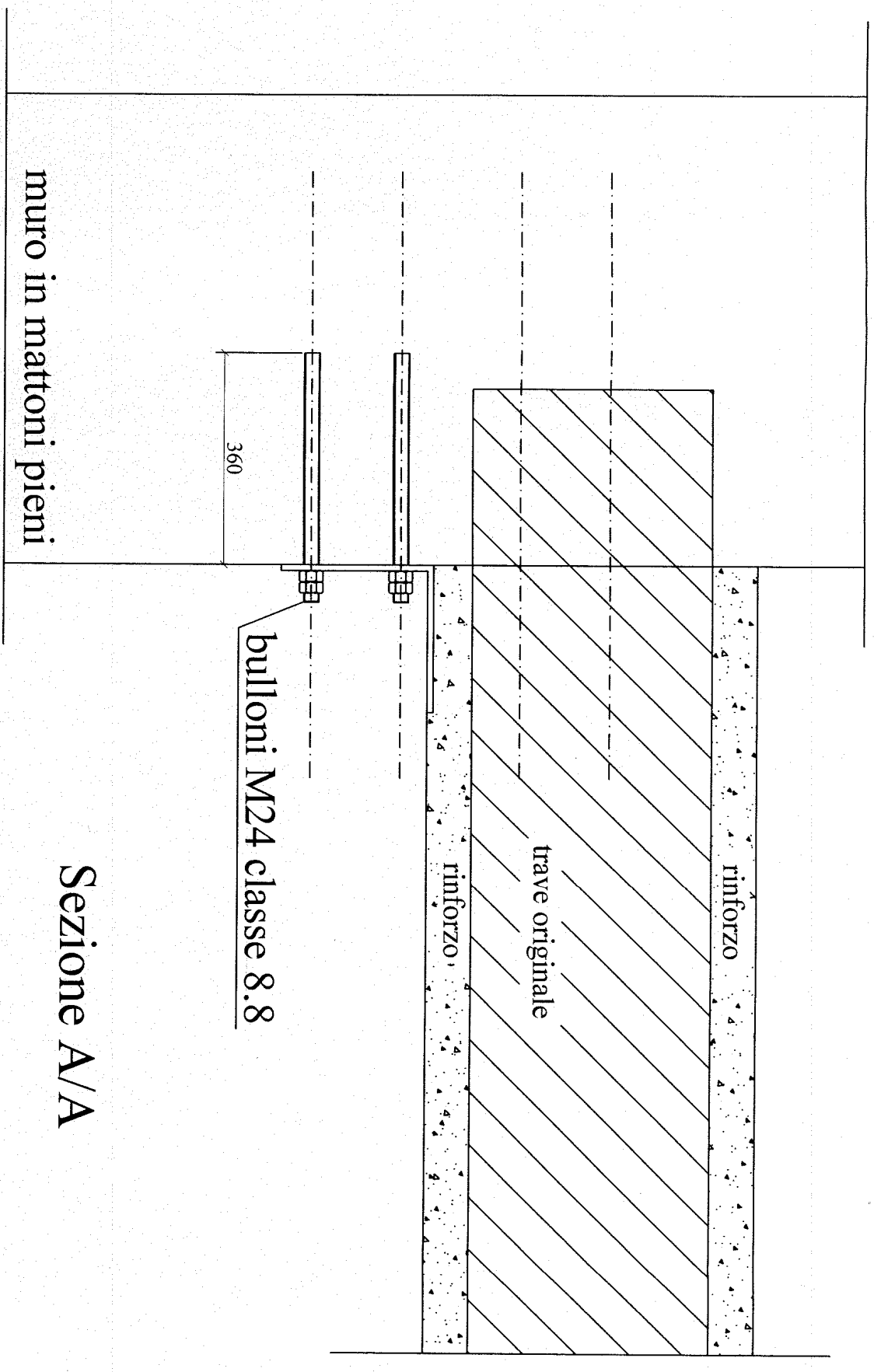
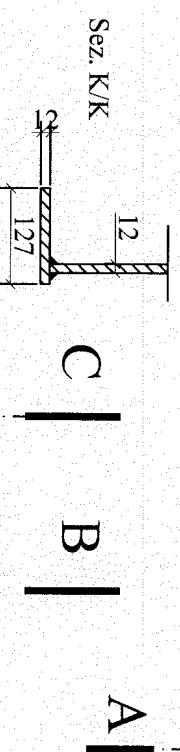
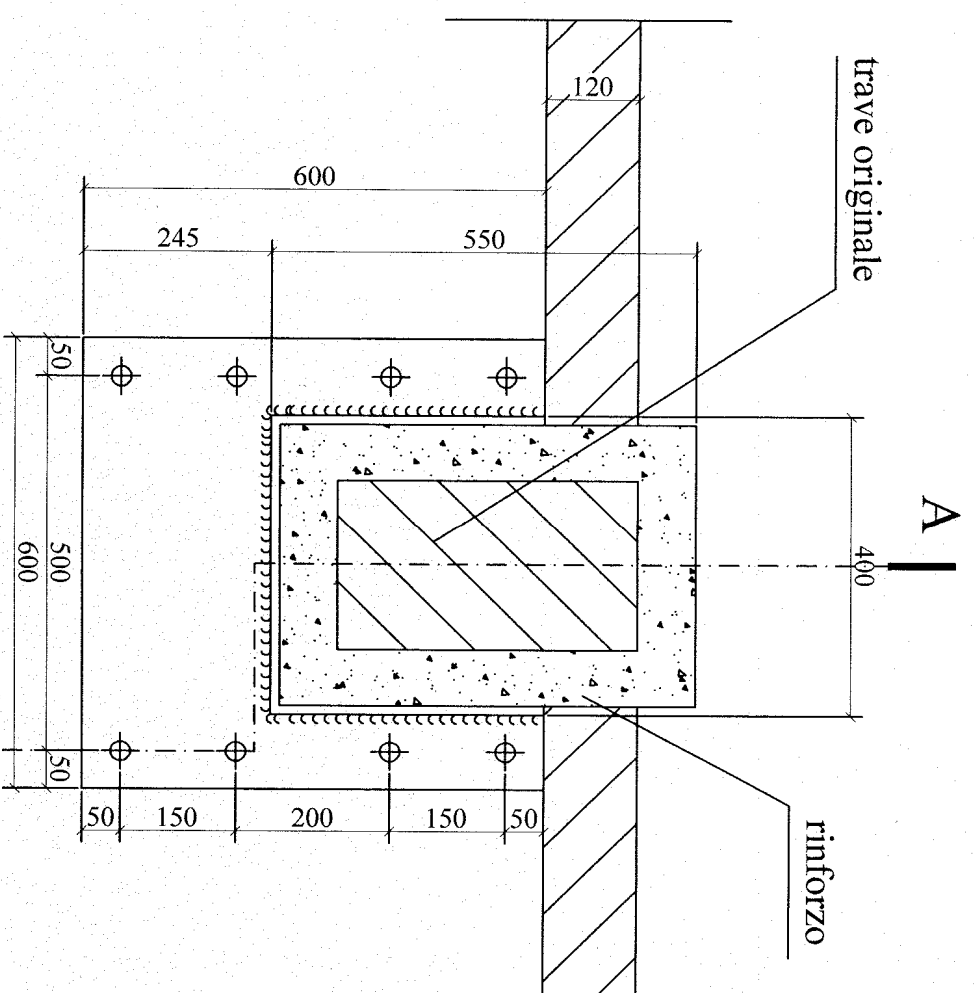


sezione B/B



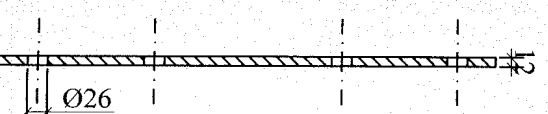
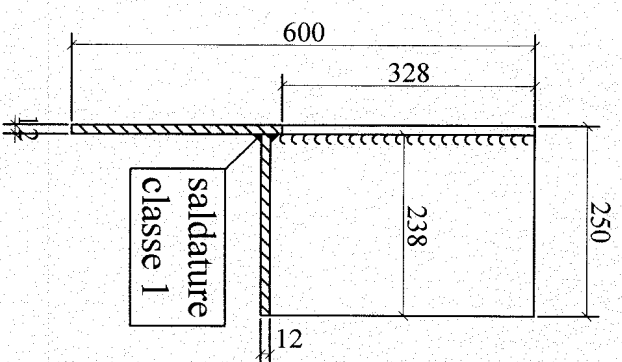
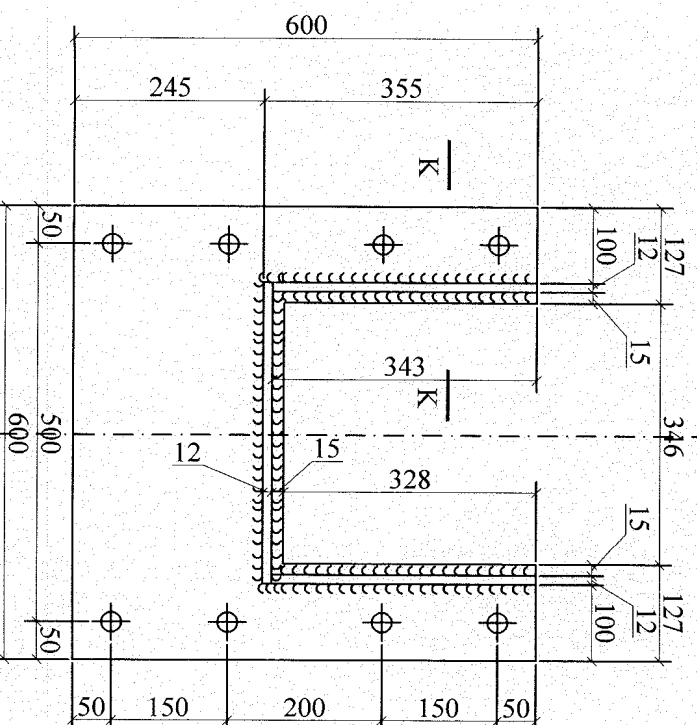
L'ancoraggio dei bulloni al muro deve essere realizzato tramite adesivo composto da una resina base epossidica bisfenolo A/F (esente da stirene) con riempitivo inorganico e da una miscela indurente con poliammine, polvere di quarzo e cemento. Per garantire la tenuta del fissaggio con la resina, occorre, una volta forata la muratura pulire accuratamente il foro con un getto di aria compressa poi con uno scovolino e poi di nuovo con un getto di aria compressa. Visto che il foro in oggetto è molto profondo, collegare un tubo miscelatore in plastica all'estremità dell'ugello erogatore della resina. Verificare e rispettare, in ogni caso, le norme d'impiego dettate dalla ditta fornitrice del prodotto.

9 - Particolare piastre per supporto travi 40x55



muro in mattoni pieni

Sezione A/A



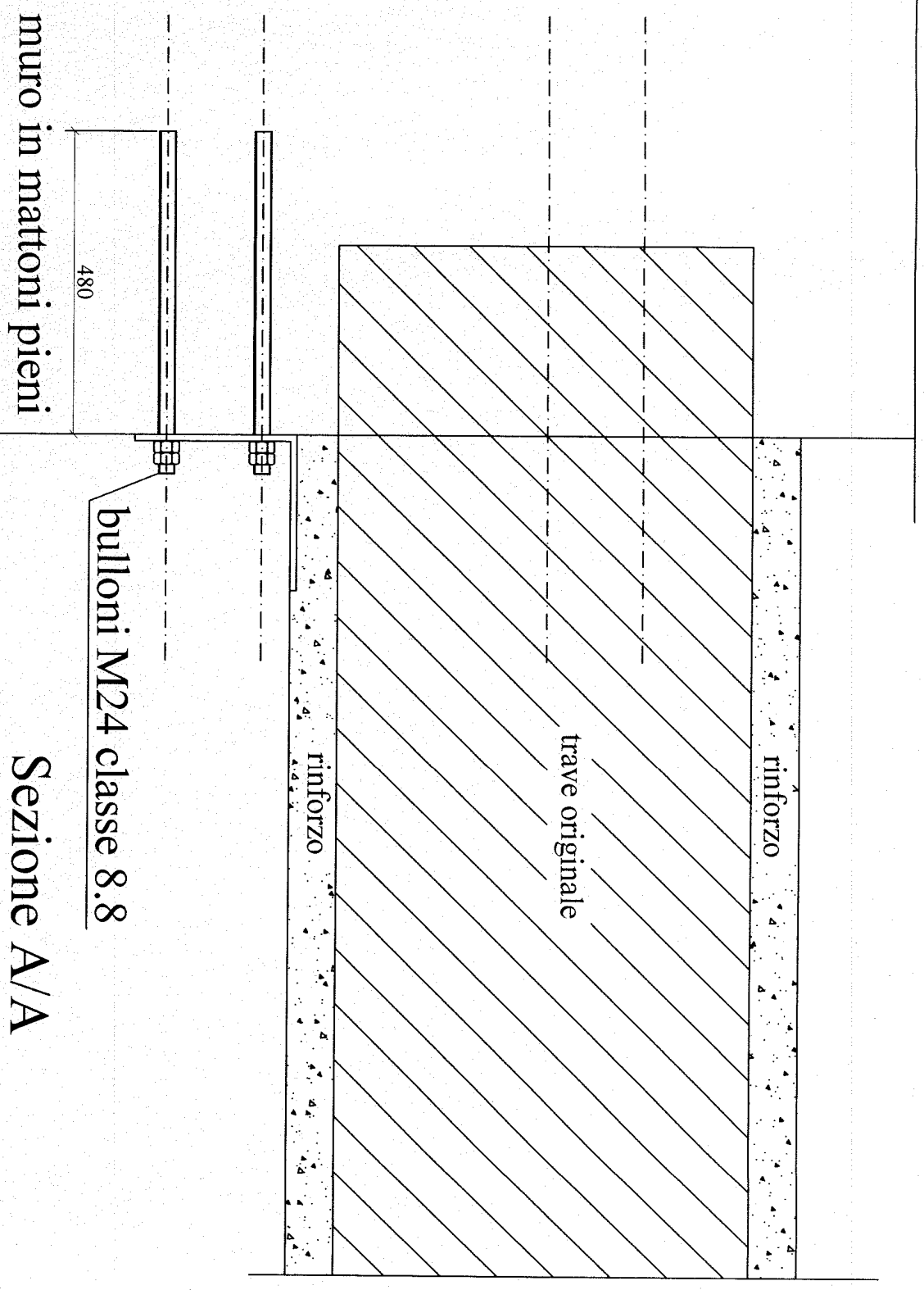
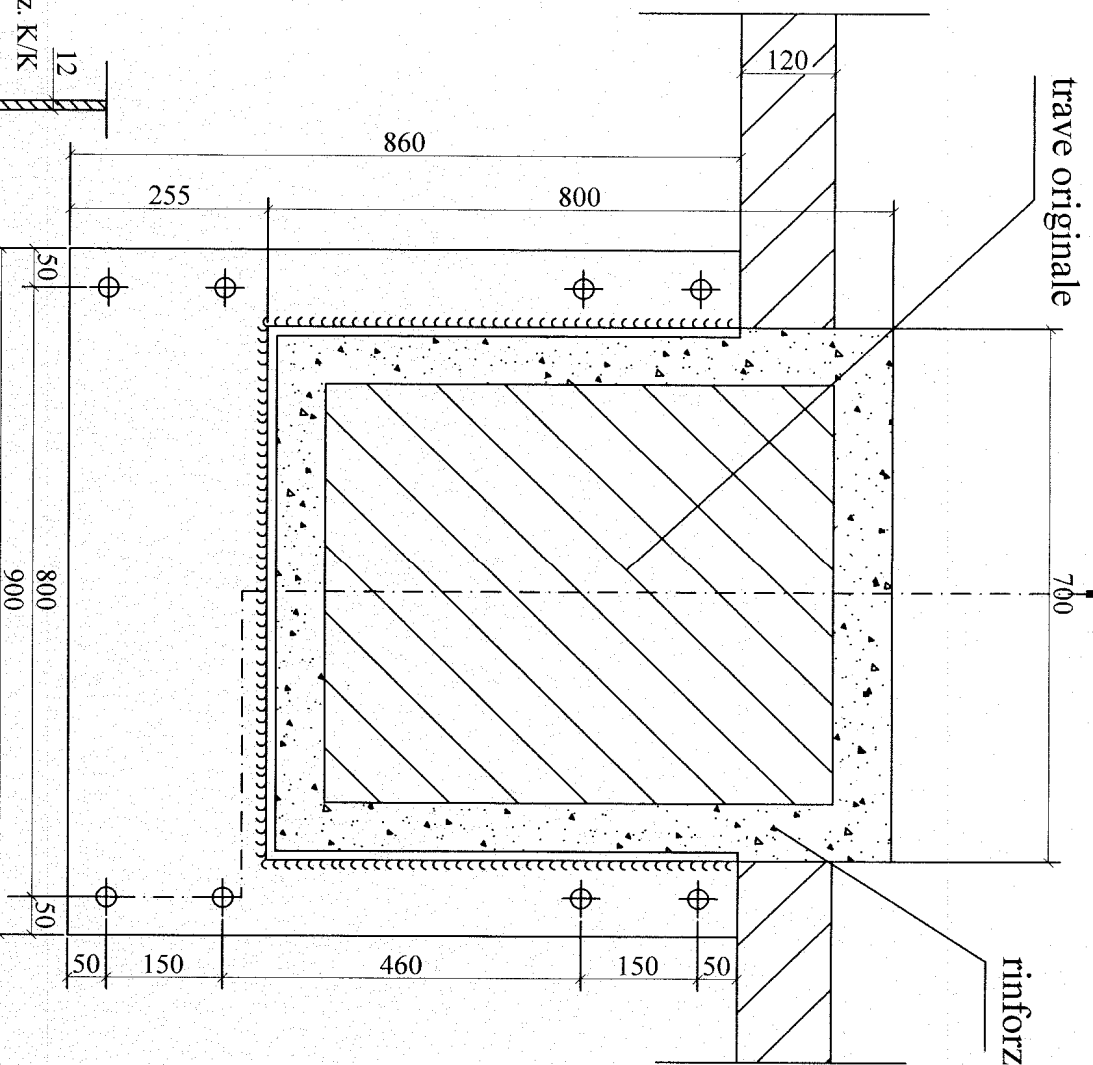
L'ancoraggio dei bulloni al muro deve essere realizzato tramite adesivo composto da una resina base epossidica bisfenolo A/F (esente da stirene) con riempitivo inorganico e da una miscela indurente con poliammine, polvere di quarzo e cemento. Per garantire la tenuta del fissaggio con la resina, occorre, una volta forata la la muratura pulire accuratamente il foro con un getto di aria compressa poi con uno scovolino e poi di nuovo con un getto di aria compressa. Visto che il foro in oggetto è molto profondo, collegare un tubo miscelatore in plastica all'estremità dell'ugello erogatore della resina. Verificare e rispettare, in ogni caso, le norme d'impiego dettate dalla ditta fornitrice del prodotto.

sezione C/C

sezione B/B

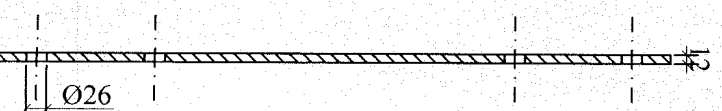
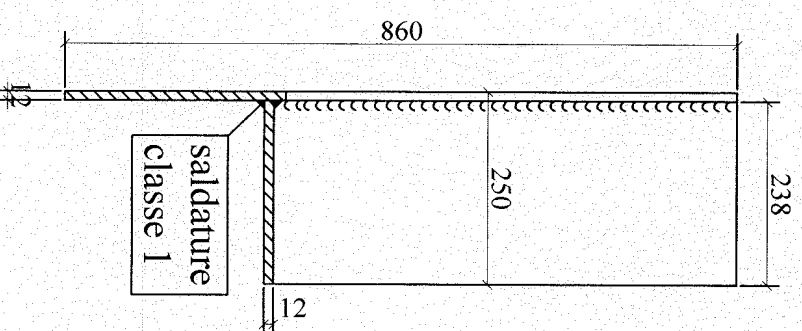
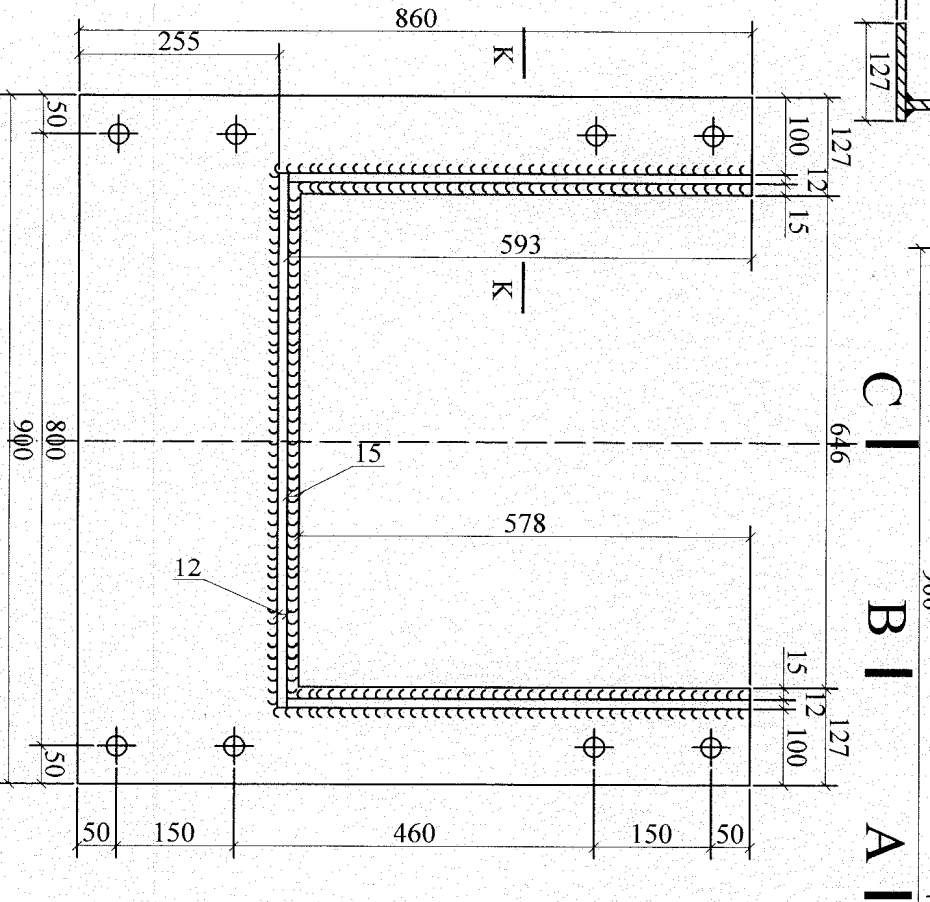
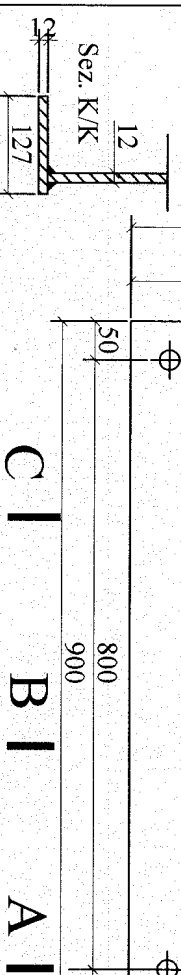
A

11 - Particolare piastre per supporto travi 70x80



muro in mattoni pieni

Sezione A/A



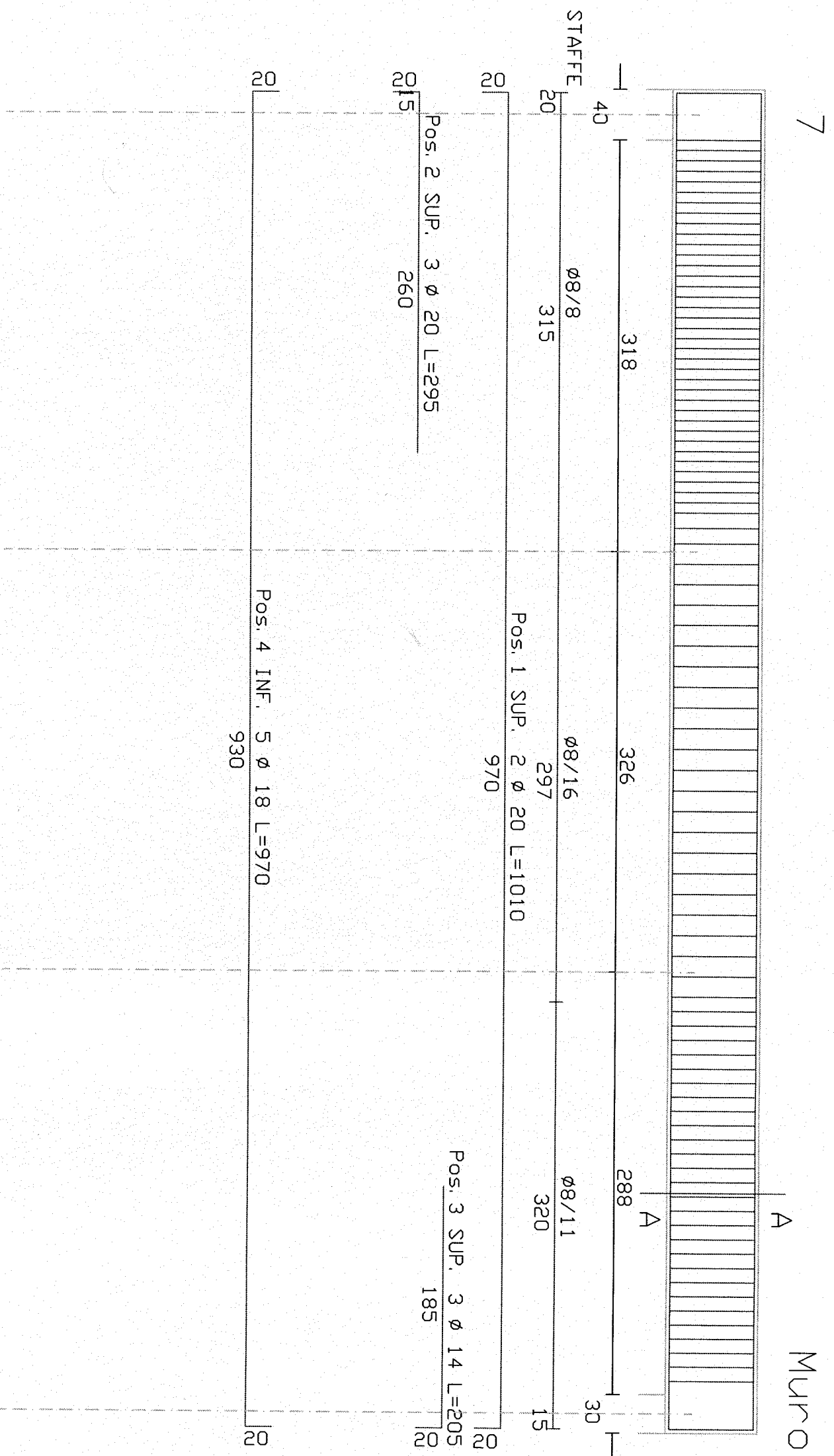
L'ancoraggio dei bulloni al muro deve essere realizzato tramite adesivo composto da una resina base epossidica bisfenolo A/F (essente da stirene) con riempitivo inorganico e da una miscela indurente con poliammine, polvere di quarzo e cemento. Per garantire la tenuta del fissaggio con la resina, occorre, una volta forata la la muratura pulire accuratamente il foro con un getto di aria compressa poi con uno scovolino e poi di nuovo con un getto di aria compressa. Visto che il foro in oggetto è molto profondo, collegare un tubo miscelatore in plastica all'estremità dell'ugello erogatore della resina. Verificare e rispettare, in ogni caso, le norme d'impiego dettate dalla ditta fornitrice del prodotto.

sezione C/C

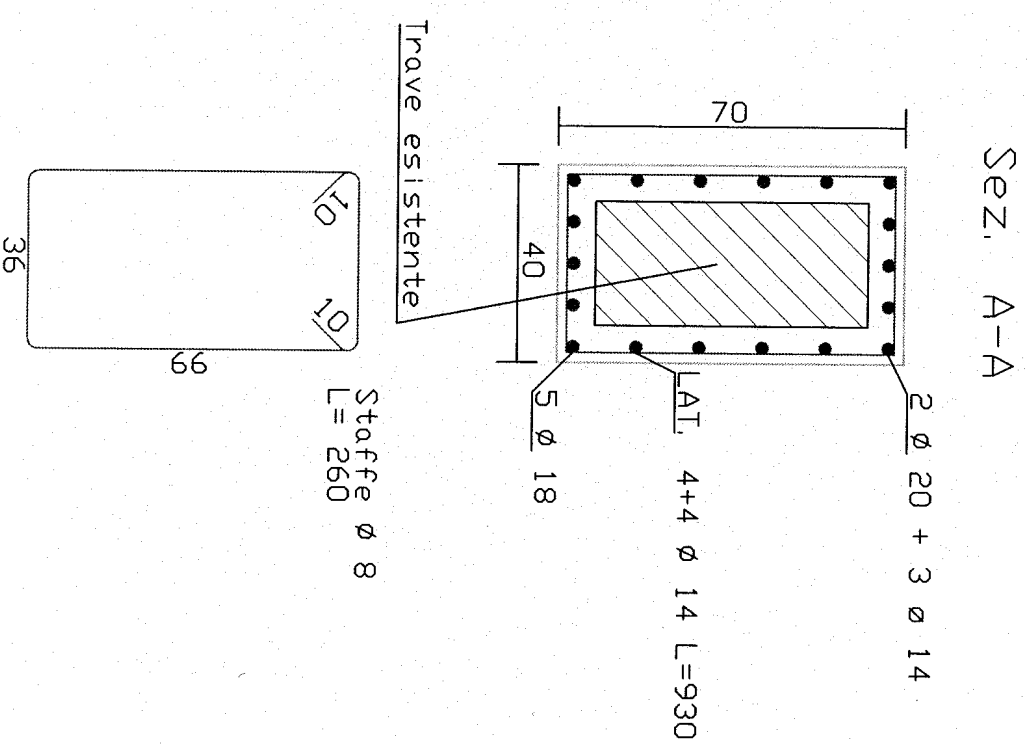
sezione B/B

SOLAIO 1 IN TUTTO N° 5 TRAVETTI $h = 16 + 4 = 20\text{ cm}$	SOLAIO 2 IN TUTTO N° 5 TRAVETTI $h = 16 + 4 = 20\text{ cm}$	SOLAIO 3 IN TUTTO N° 4 TRAVETTI $h = 16 + 4 = 20\text{ cm}$
SOLAIO 4 IN TUTTO N° 5 TRAVETTI $h = 16 + 4 = 20\text{ cm}$	SOLAIO 5 IN TUTTO N° 5 TRAVETTI $h = 16 + 4 = 20\text{ cm}$	SOLAIO 6 IN TUTTO N° 4 TRAVETTI $h = 16 + 4 = 20\text{ cm}$
SOLAIO 7 IN TUTTO N° 6 TRAVETTI $h = 18 + 4 = 22\text{ cm}$	SBALZO 1 IN TUTTO N° 6 TRAVETTI $h = 18 + 4 = 22\text{ cm}$	SOLETTA 1 IN TUTTO N° 20 FERRI <u>Ripartitori Ø8/20 cm L = 236</u>

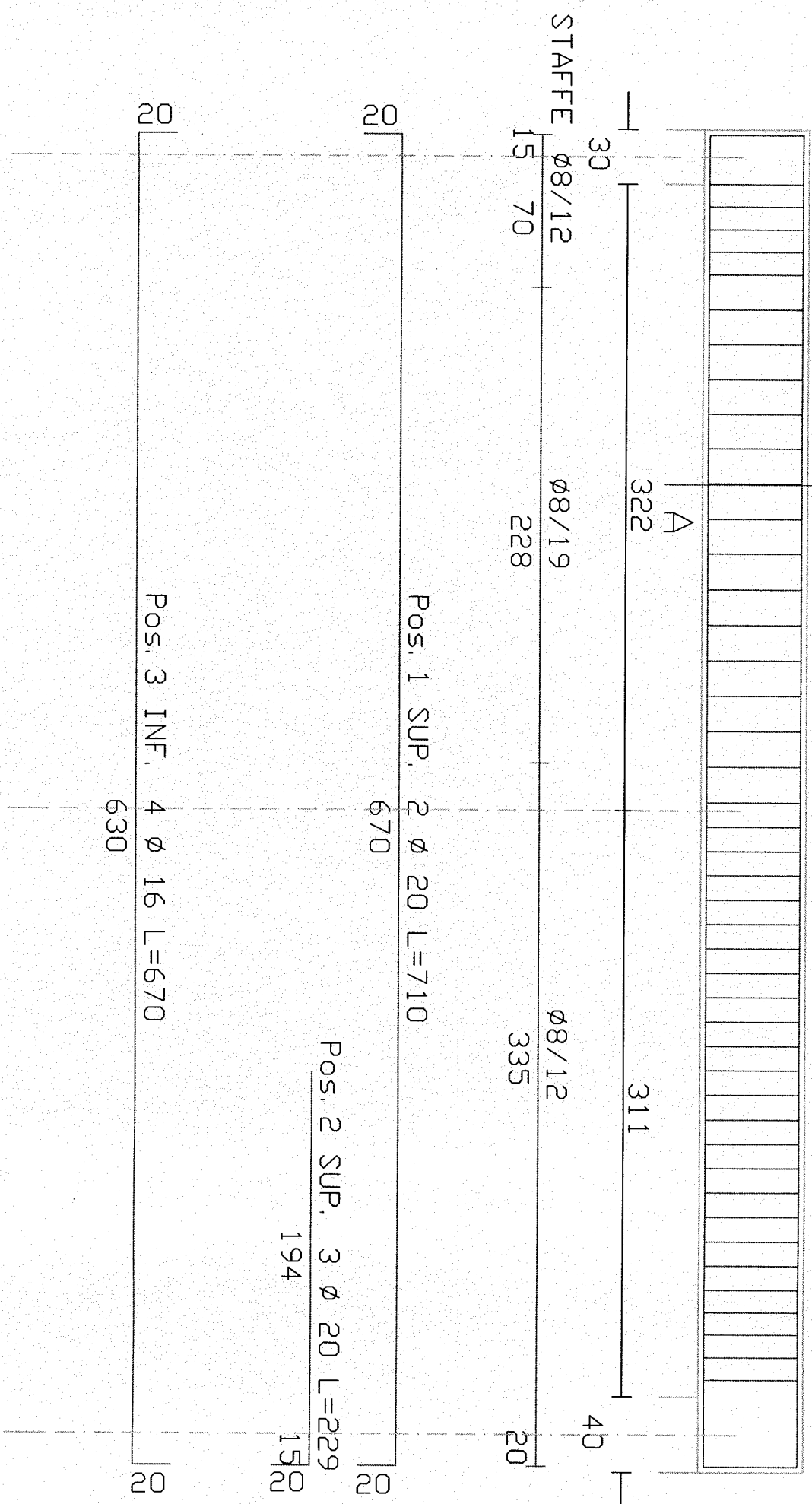
Trave 1 (40x70)



POS	DIAM $\varnothing$ (mm)	LENGTH (cm)
1 SUP.	2 $\varnothing$ 20	L=1010
2 SUP.	3 $\varnothing$ 20	L=295
3 SUP.	3 $\varnothing$ 14	L=205
4 INF.	5 $\varnothing$ 18	L=970
5 LAT.	4 + 4 $\varnothing$ 14	L=930

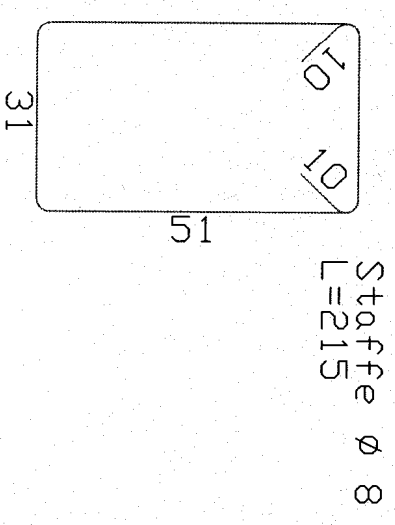
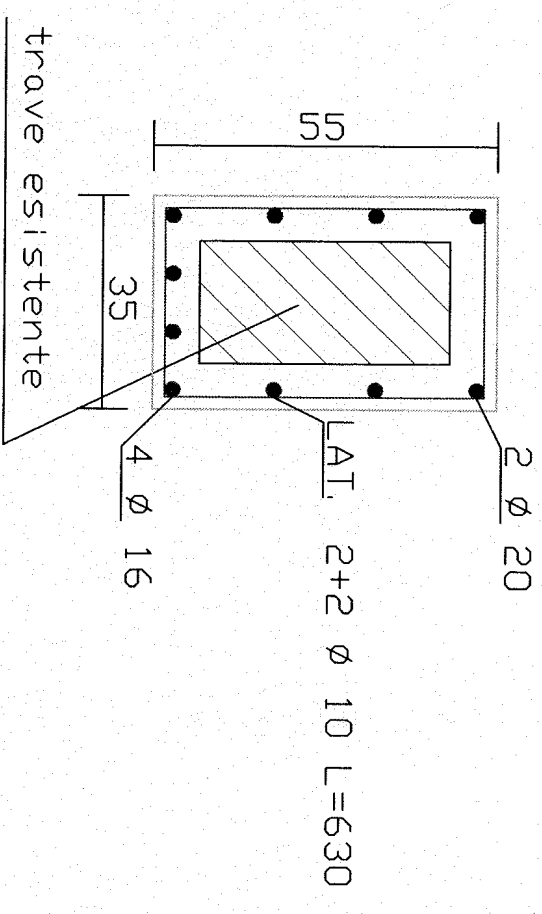


✓

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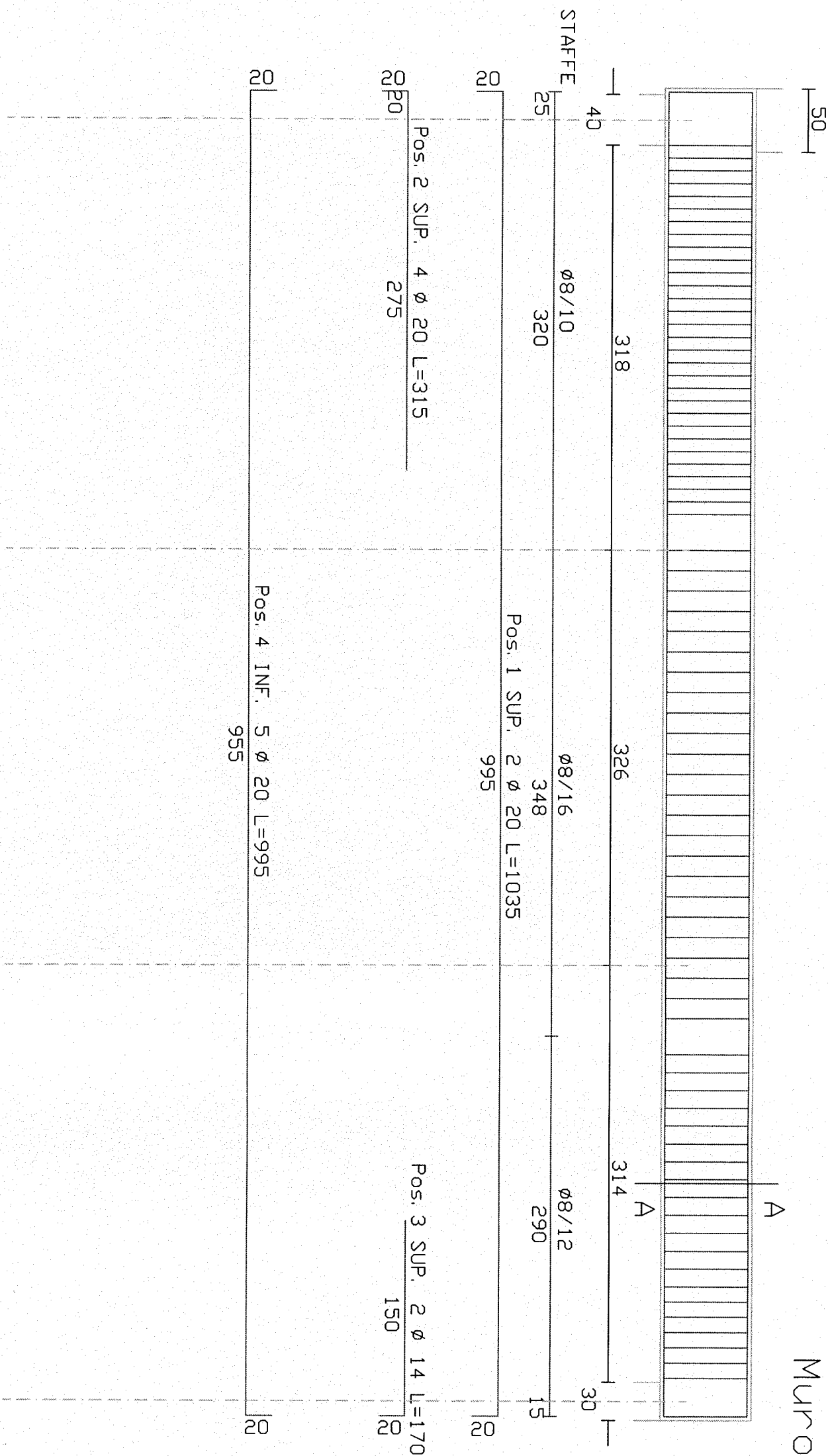
PODS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	2 Ø 20	L=710
2 SUP.	3 Ø 20	L=229
3 INF.	4 Ø 16	L=670
4 LAT.	2 + 2 Ø 10	L=630

See: A-A



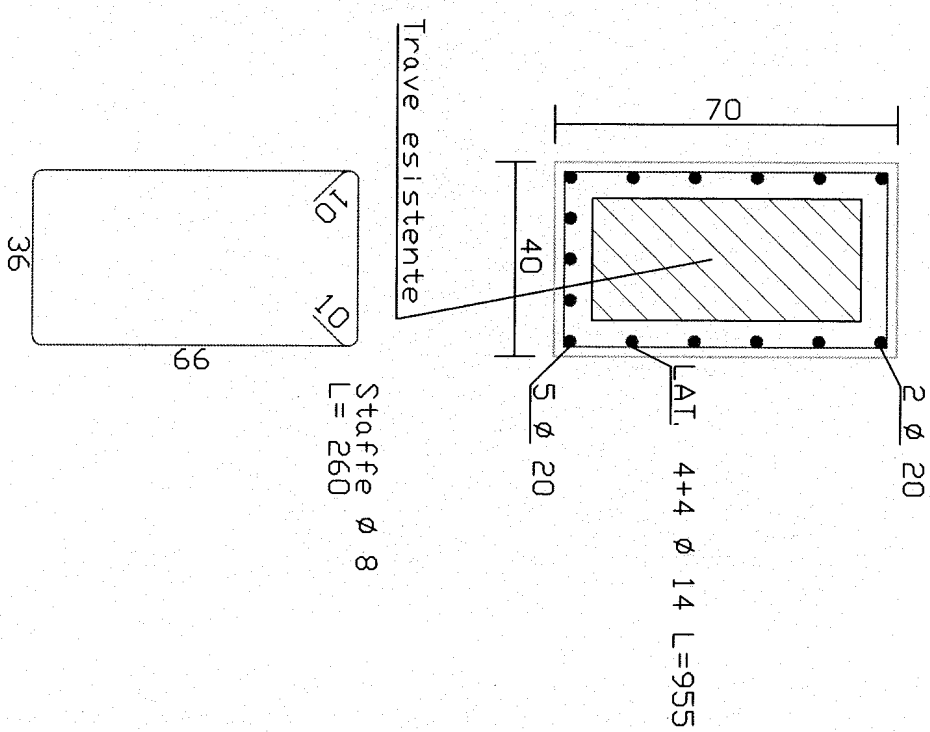
6

Trave 3 (40x70)

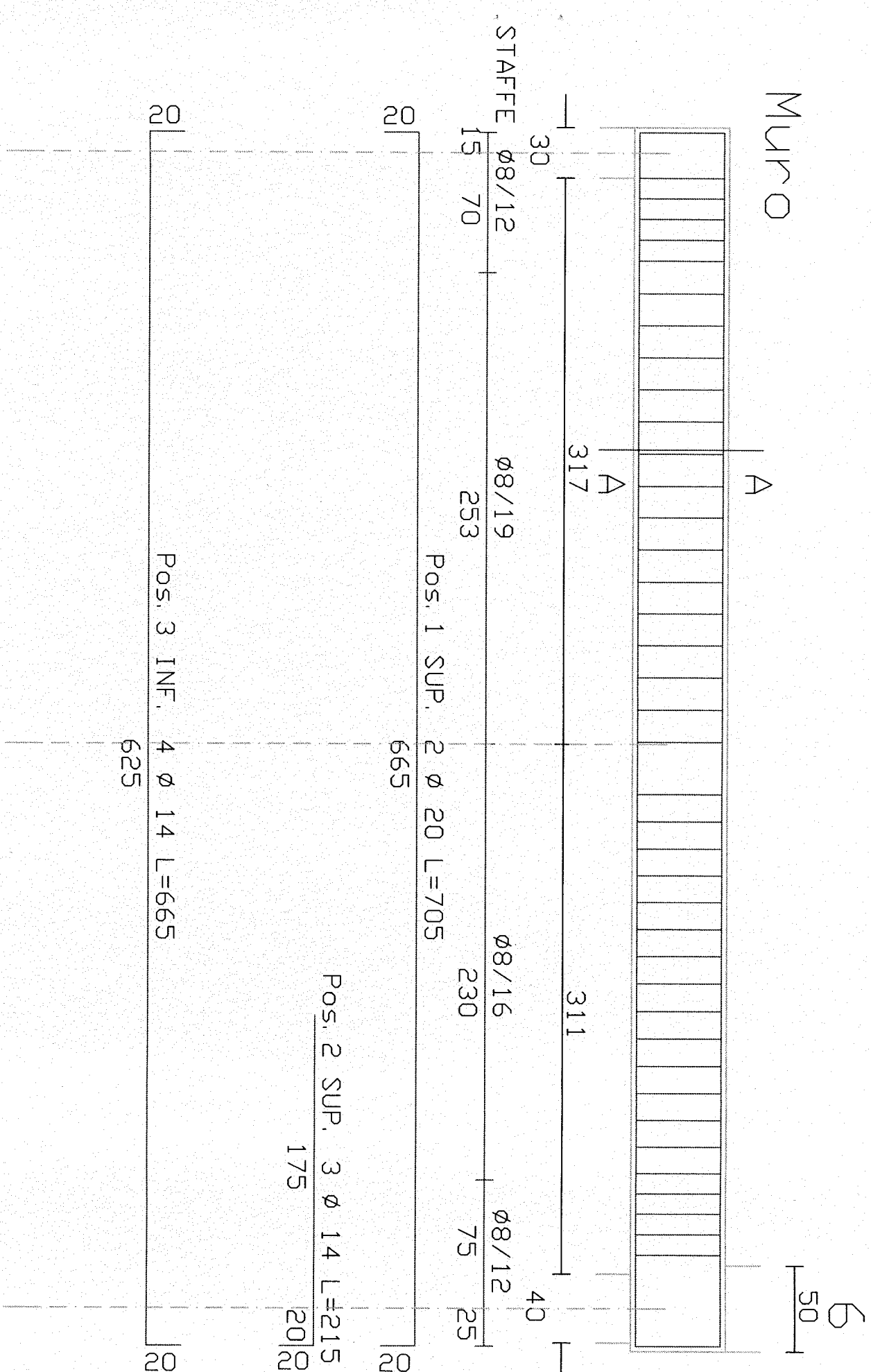


POS	DIAM ø (mm)	LUNGH (cm)
1 SUP.	2 ø 20	L=1035
2 SUP.	4 ø 20	L=315
3 SUP.	2 ø 14	L=170
4 INF.	5 ø 20	L=995
5 LAT.	4 + 4 ø 14	L=955

Sez. A-A

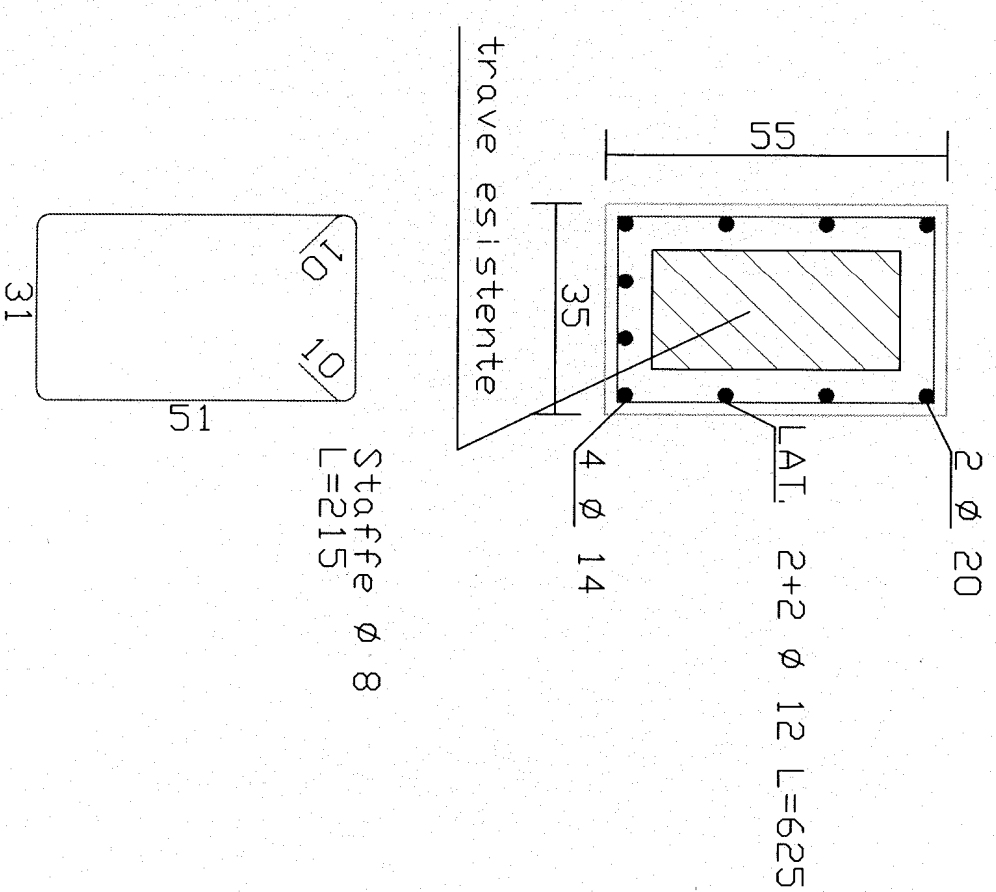


Trave 4 (35x55)

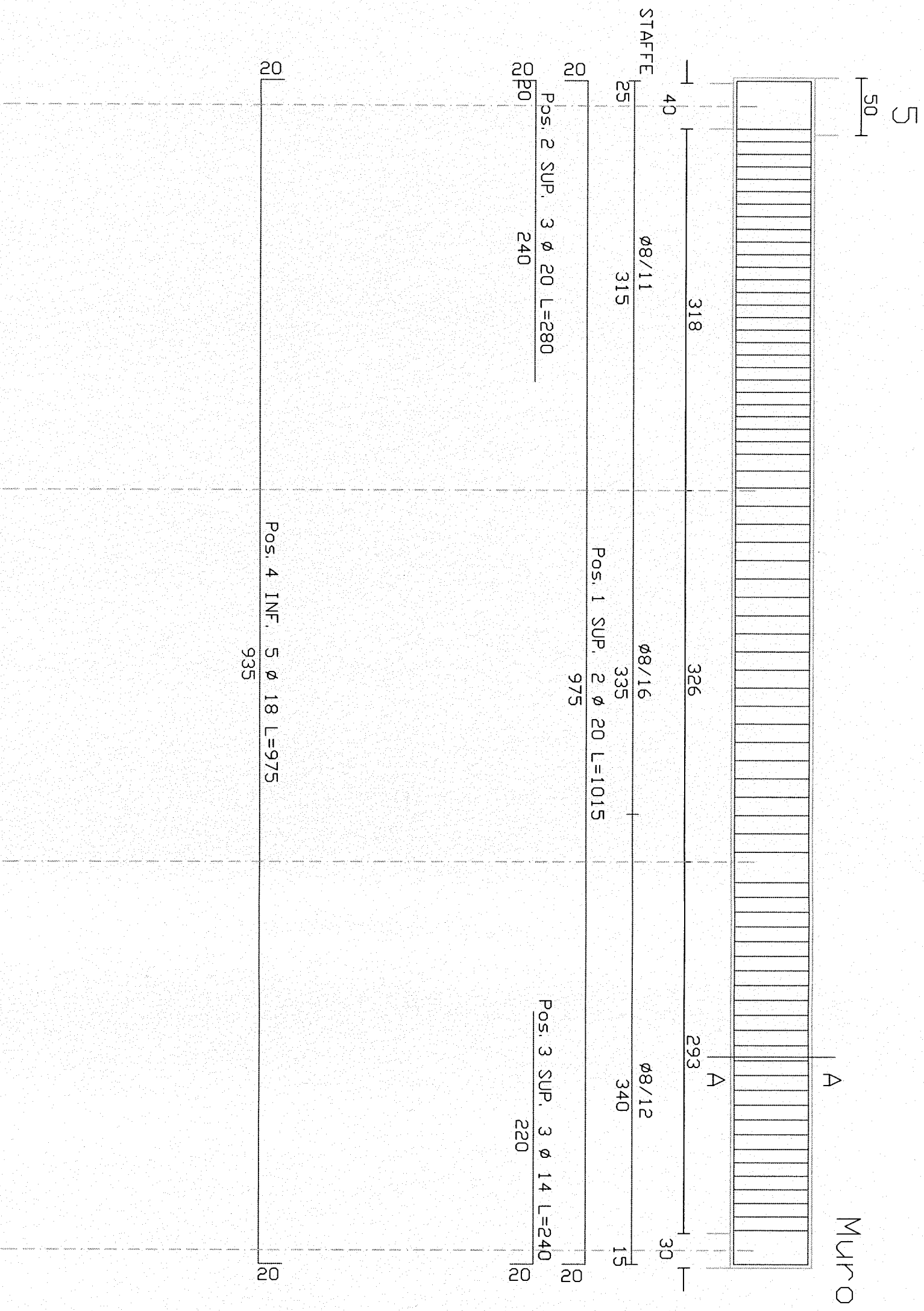


POS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	2 Ø 20	L=705
2 SUP.	3 Ø 14	L=215
3 INF.	4 Ø 14	L=665
4 LAT.	2 + 2 Ø 12	L=625

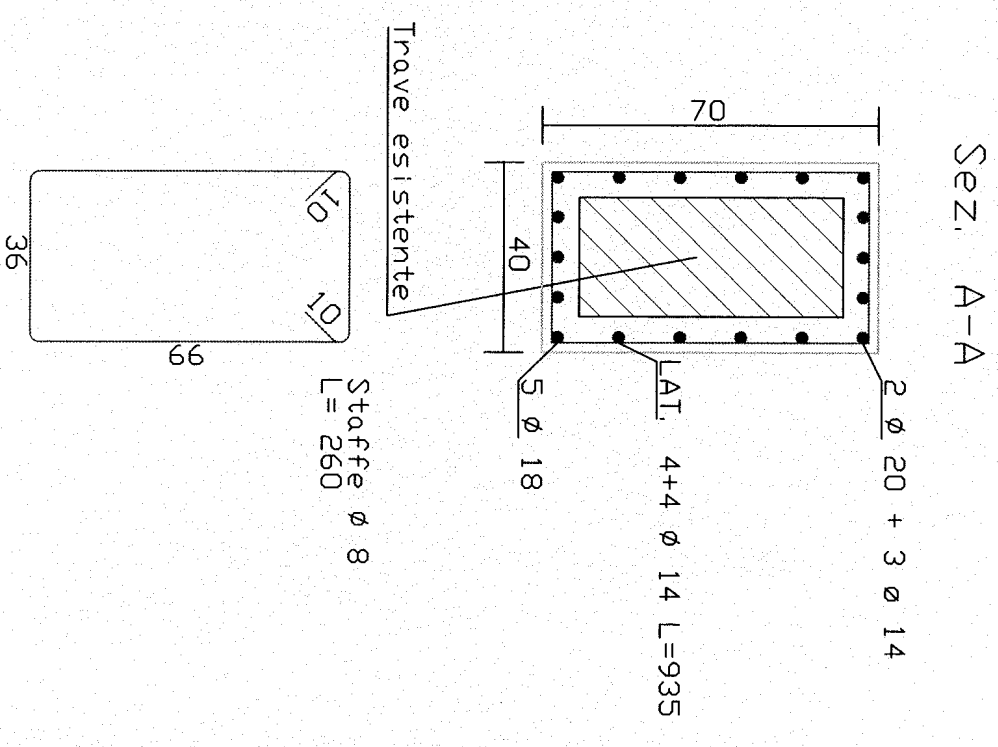
Sen-A-A



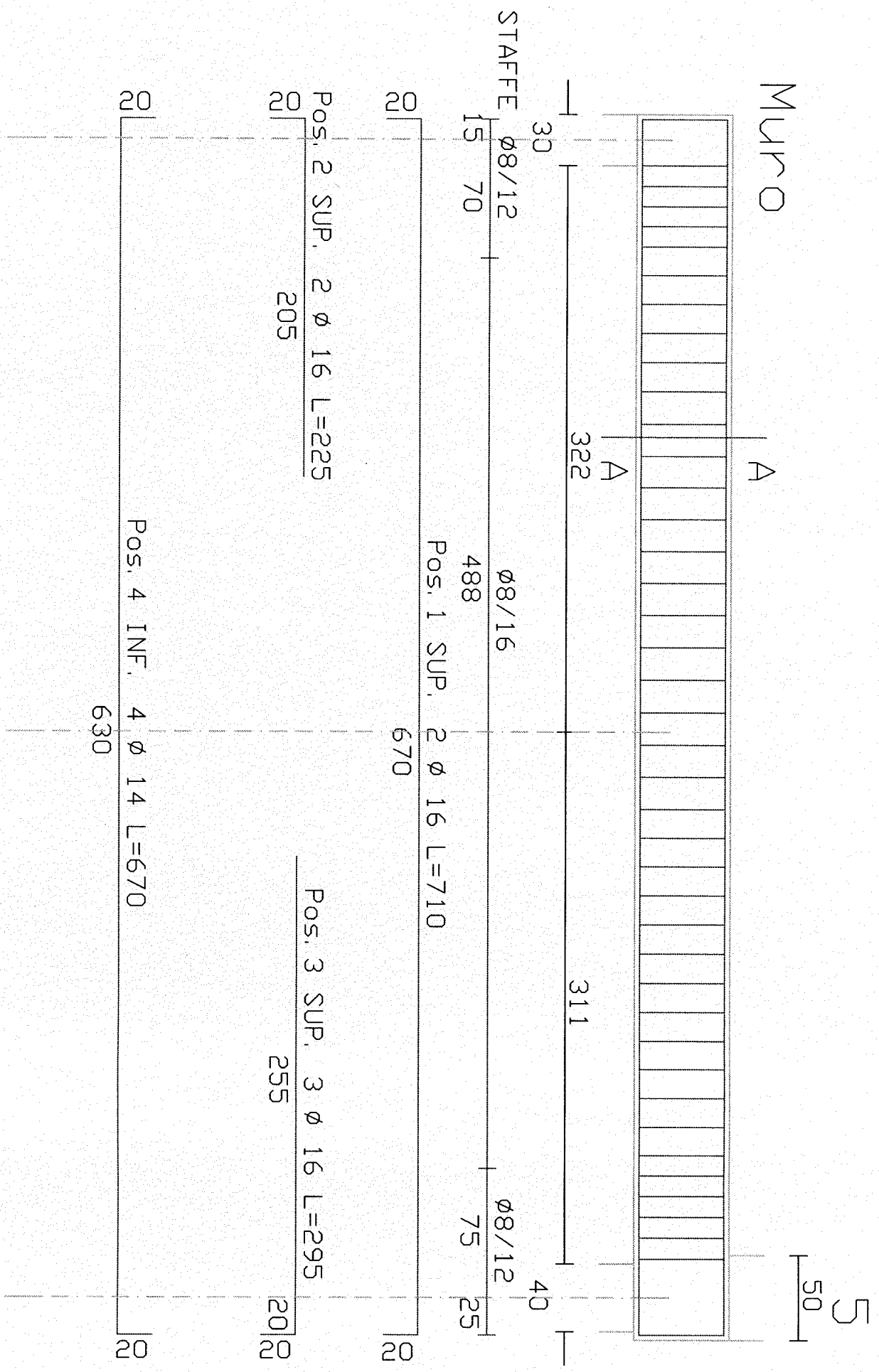
Trave 5 (40x70)



POS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP.	2 $\varnothing$ 20	L=1015
2 SUP.	3 $\varnothing$ 20	L=280
3 SUP.	3 $\varnothing$ 14	L=240
4 INF.	5 $\varnothing$ 18	L=975
5 LAT.	4 + 4 $\varnothing$ 14	L=935

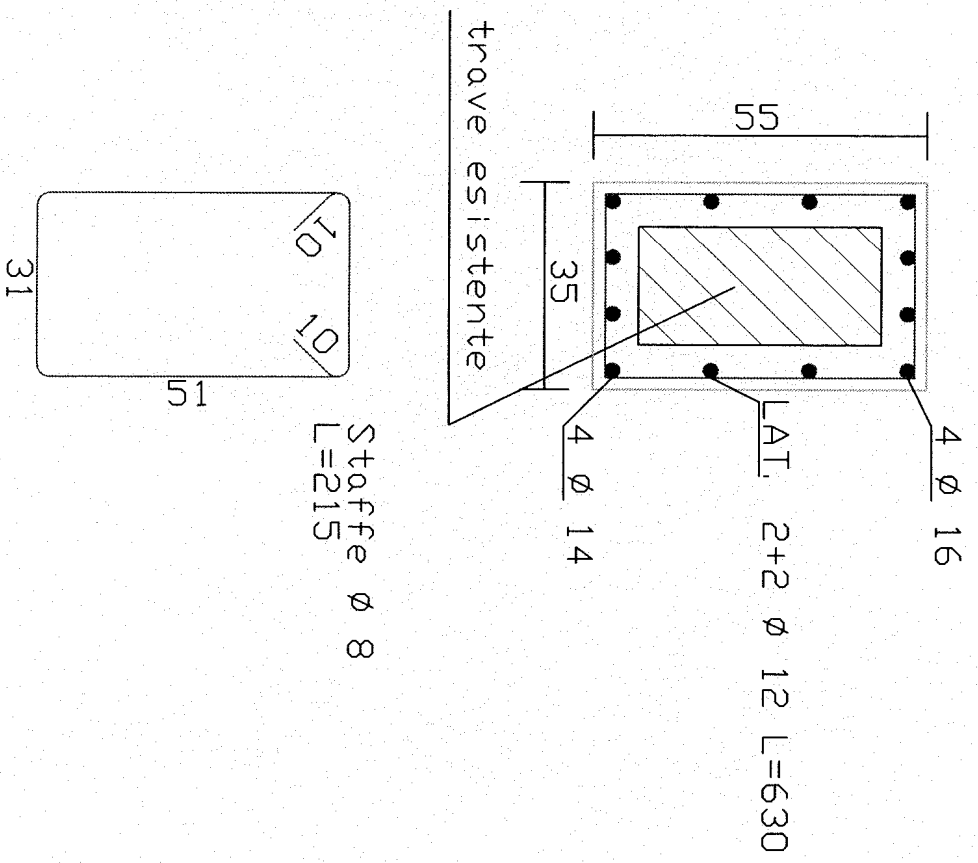


Trave 6 (35x55)

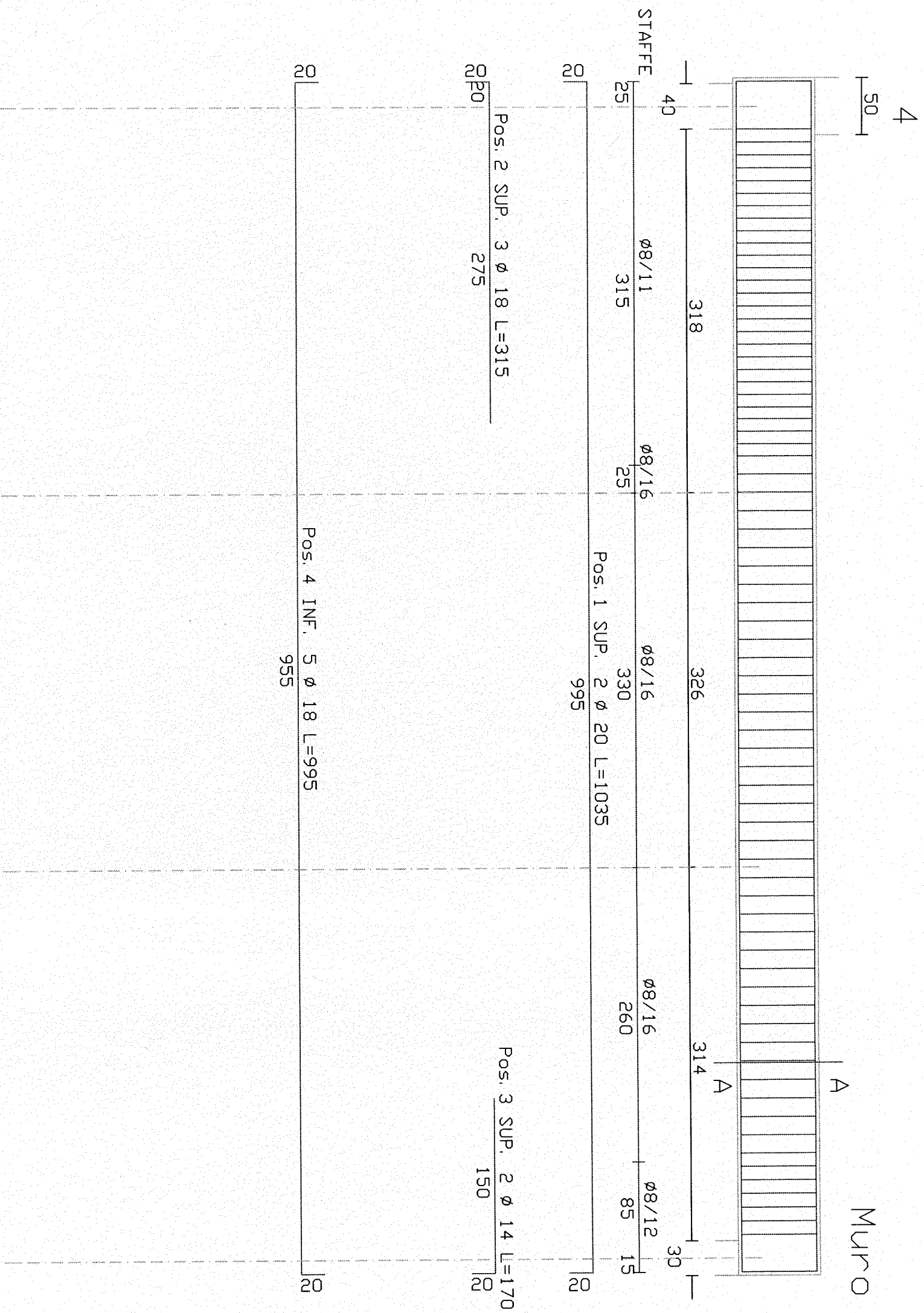


POS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	2 Ø 16	L=710
2 SUP.	2 Ø 16	L=225
3 SUP.	3 Ø 16	L=295
4 INF.	4 Ø 14	L=670
5 LAT.	2 + 2 Ø 12	L=630

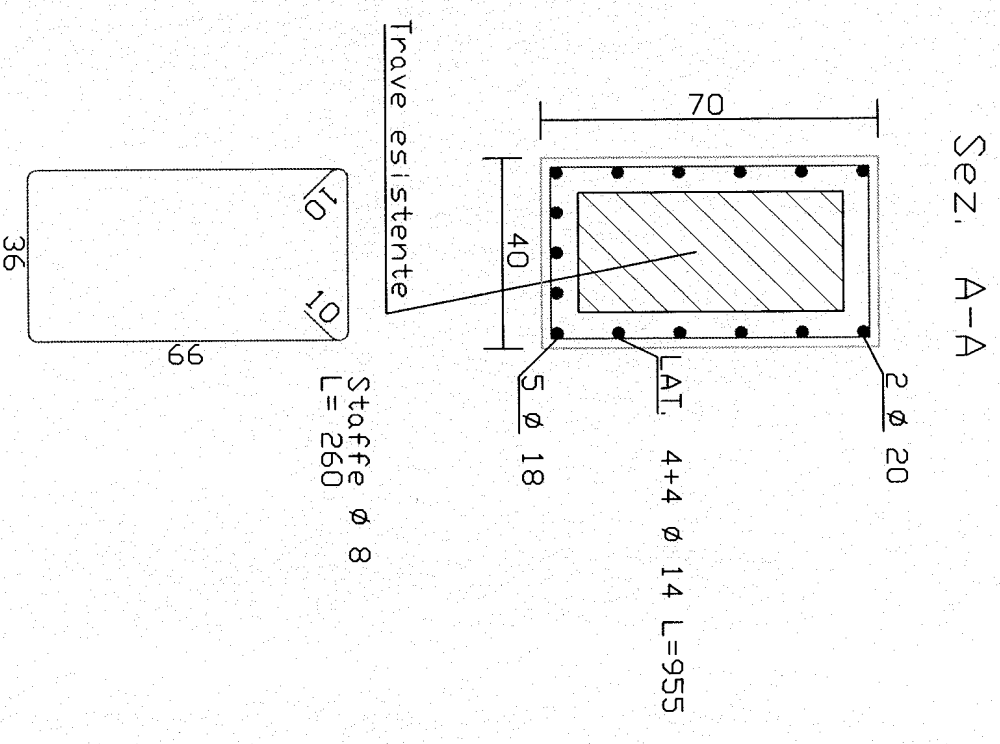
Sez. A-A



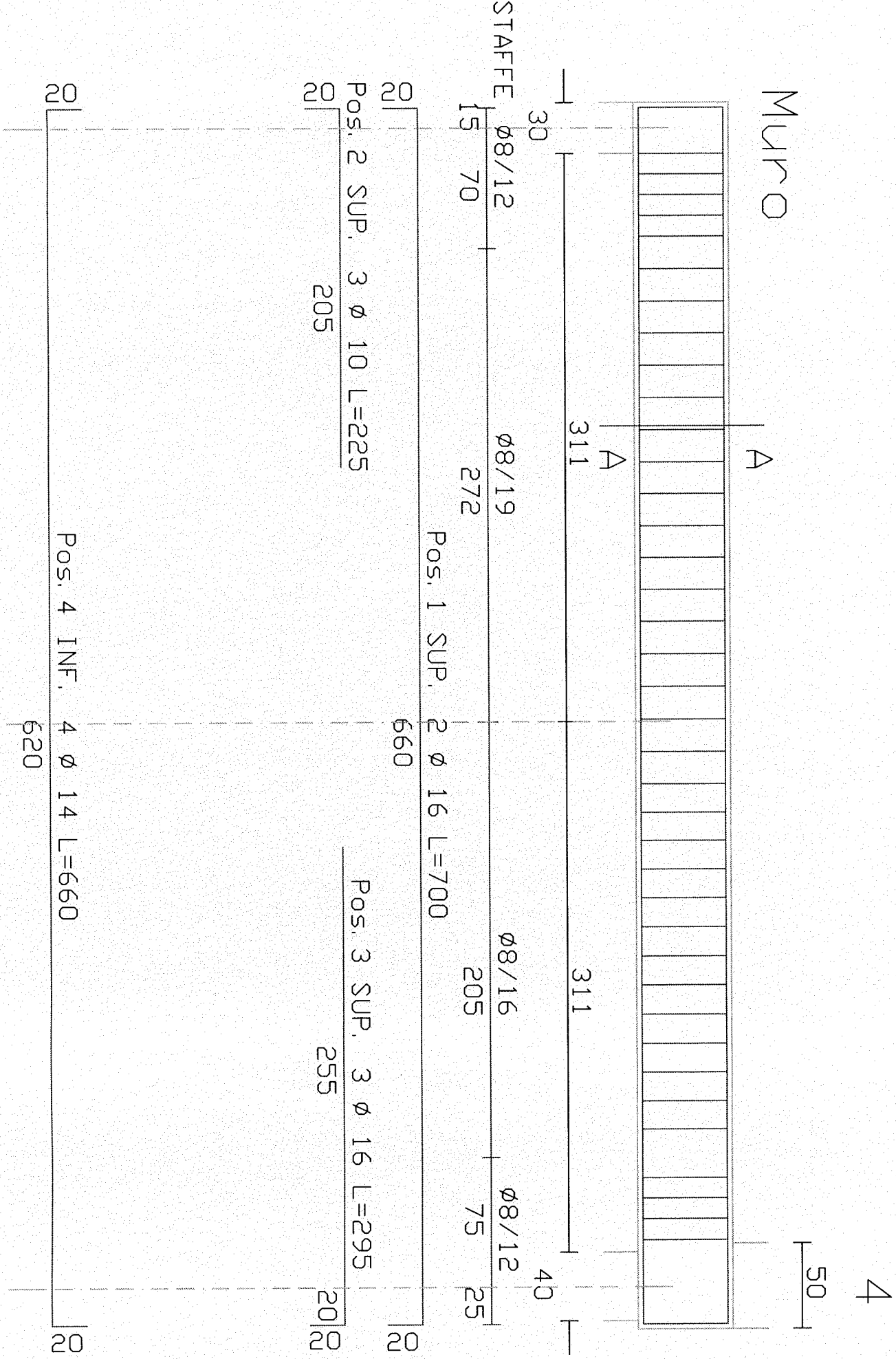
Travel 7 (40x70)



POS	DIAM ϕ (mm)	LENGTH (cm)
1 SUP.	2 ϕ 20	L=1035
2 SUP.	3 ϕ 18	L=315
3 SUP.	2 ϕ 14	L=170
4 INF.	5 ϕ 18	L=995
5 LAT.	4 + 4 ϕ 14	L=955

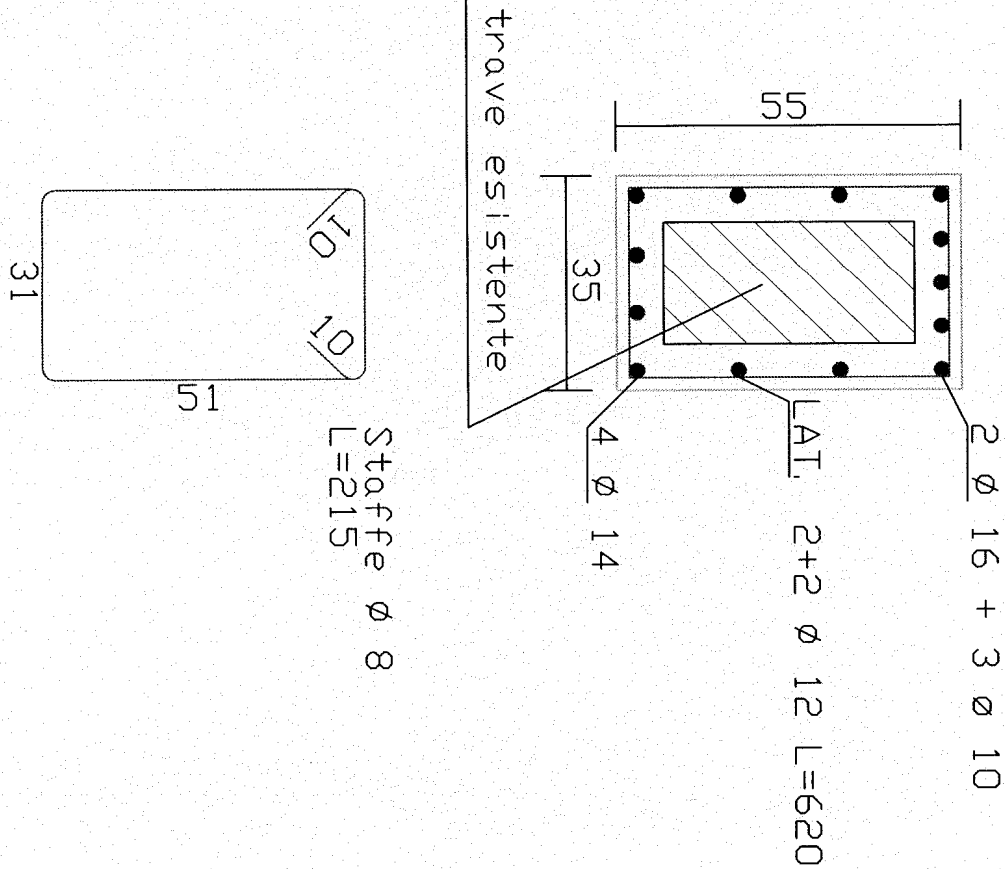


Trave 8 (35x55)

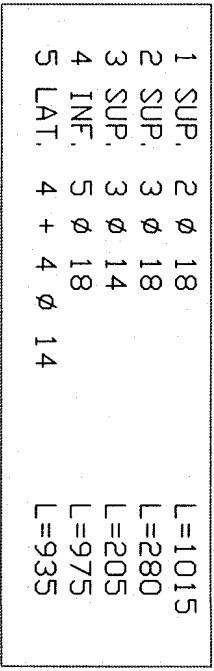


POS	DIAM Ø (mm)		LUNGH (cm)
1	SUP.	2 Ø 16	L=700
2	SUP.	3 Ø 10	L=225
3	SUP.	3 Ø 16	L=295
4	INF.	4 Ø 14	L=660
5	LAT.	2 + 2 Ø 12	L=620

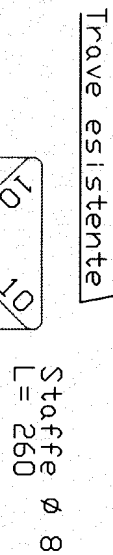
Sez. A-A



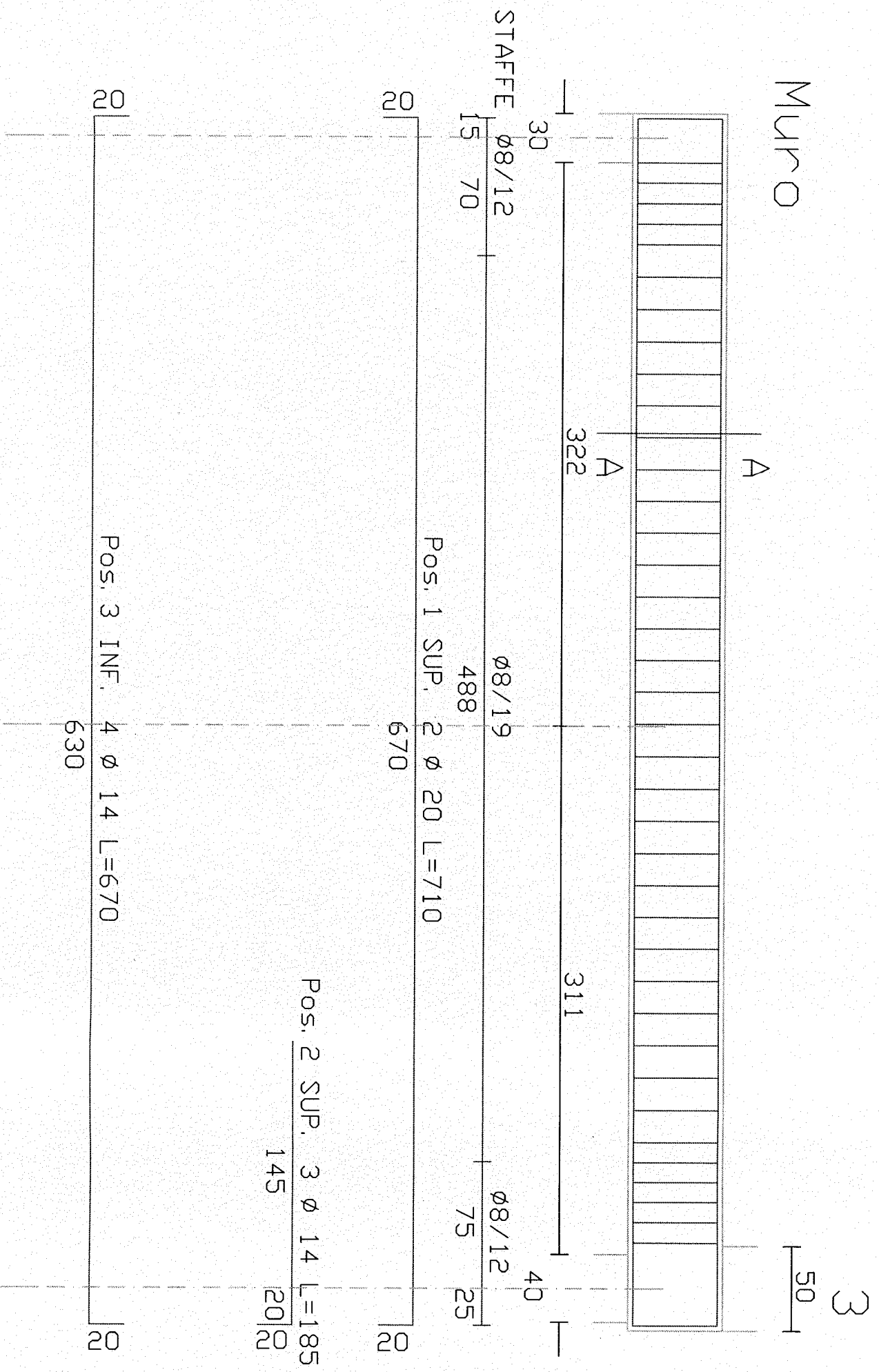
POS	DIAM ϕ (mm)	LENGTH (cm)
1	1.0	1.0
2	1.0	1.0
3	1.0	1.0
4	1.0	1.0
5	1.0	1.0
6	1.0	1.0
7	1.0	1.0
8	1.0	1.0
9	1.0	1.0
10	1.0	1.0
11	1.0	1.0
12	1.0	1.0
13	1.0	1.0
14	1.0	1.0
15	1.0	1.0
16	1.0	1.0
17	1.0	1.0
18	1.0	1.0
19	1.0	1.0
20	1.0	1.0
21	1.0	1.0
22	1.0	1.0
23	1.0	1.0
24	1.0	1.0
25	1.0	1.0
26	1.0	1.0
27	1.0	1.0
28	1.0	1.0
29	1.0	1.0
30	1.0	1.0
31	1.0	1.0
32	1.0	1.0
33	1.0	1.0
34	1.0	1.0
35	1.0	1.0
36	1.0	1.0
37	1.0	1.0
38	1.0	1.0
39	1.0	1.0
40	1.0	1.0
41	1.0	1.0
42	1.0	1.0
43	1.0	1.0
44	1.0	1.0
45	1.0	1.0
46	1.0	1.0
47	1.0	1.0
48	1.0	1.0
49	1.0	1.0
50	1.0	1.0
51	1.0	1.0
52	1.0	1.0
53	1.0	1.0
54	1.0	1.0
55	1.0	1.0
56	1.0	1.0
57	1.0	1.0
58	1.0	1.0
59	1.0	1.0
60	1.0	1.0
61	1.0	1.0
62	1.0	1.0
63	1.0	1.0
64	1.0	1.0
65	1.0	1.0
66	1.0	1.0
67	1.0	1.0
68	1.0	1.0
69	1.0	1.0
70	1.0	1.0
71	1.0	1.0
72	1.0	1.0
73	1.0	1.0
74	1.0	1.0
75	1.0	1.0
76	1.0	1.0
77	1.0	1.0
78	1.0	1.0
79	1.0	1.0
80	1.0	1.0
81	1.0	1.0
82	1.0	1.0
83	1.0	1.0
84	1.0	1.0
85	1.0	1.0
86	1.0	1.0
87	1.0	1.0
88	1.0	1.0
89	1.0	1.0
90	1.0	1.0
91	1.0	1.0
92	1.0	1.0
93	1.0	1.0
94	1.0	1.0
95	1.0	1.0
96	1.0	1.0
97	1.0	1.0
98	1.0	1.0
99	1.0	1.0
100	1.0	1.0



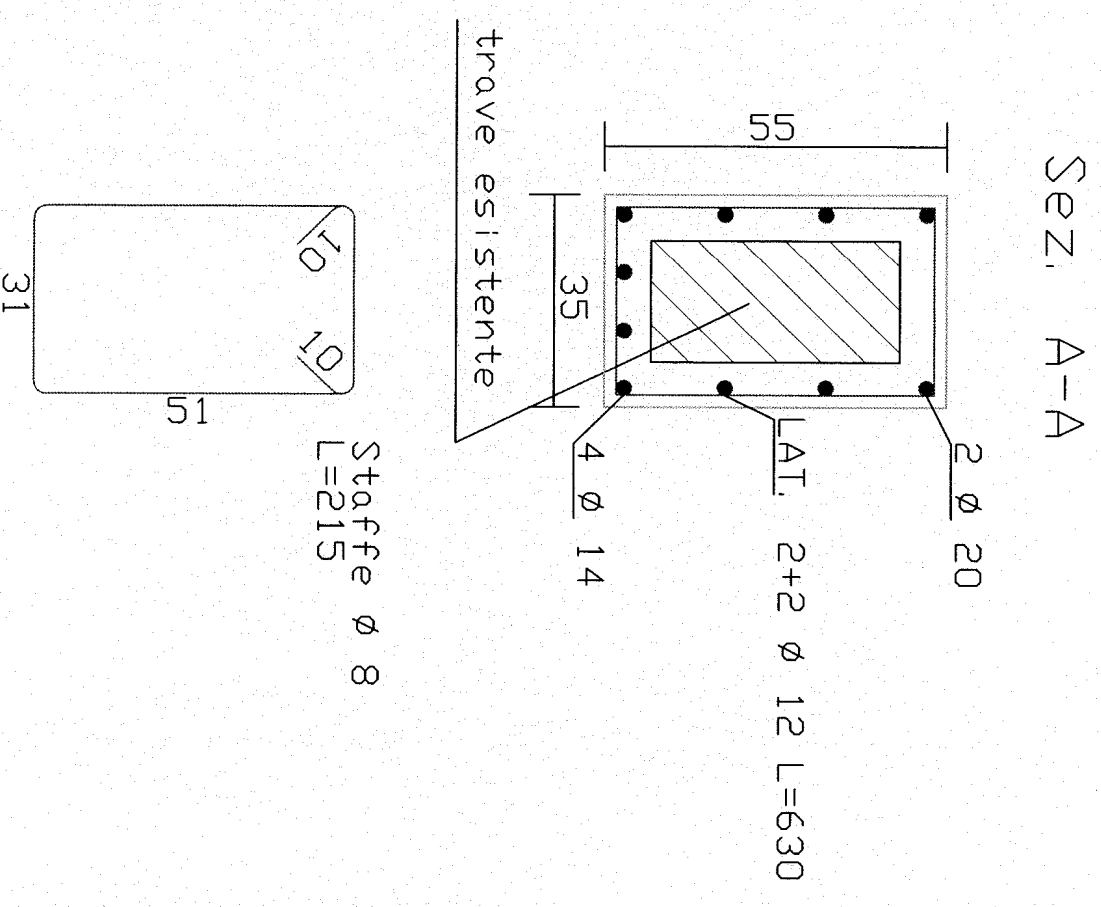
Sez. A-A



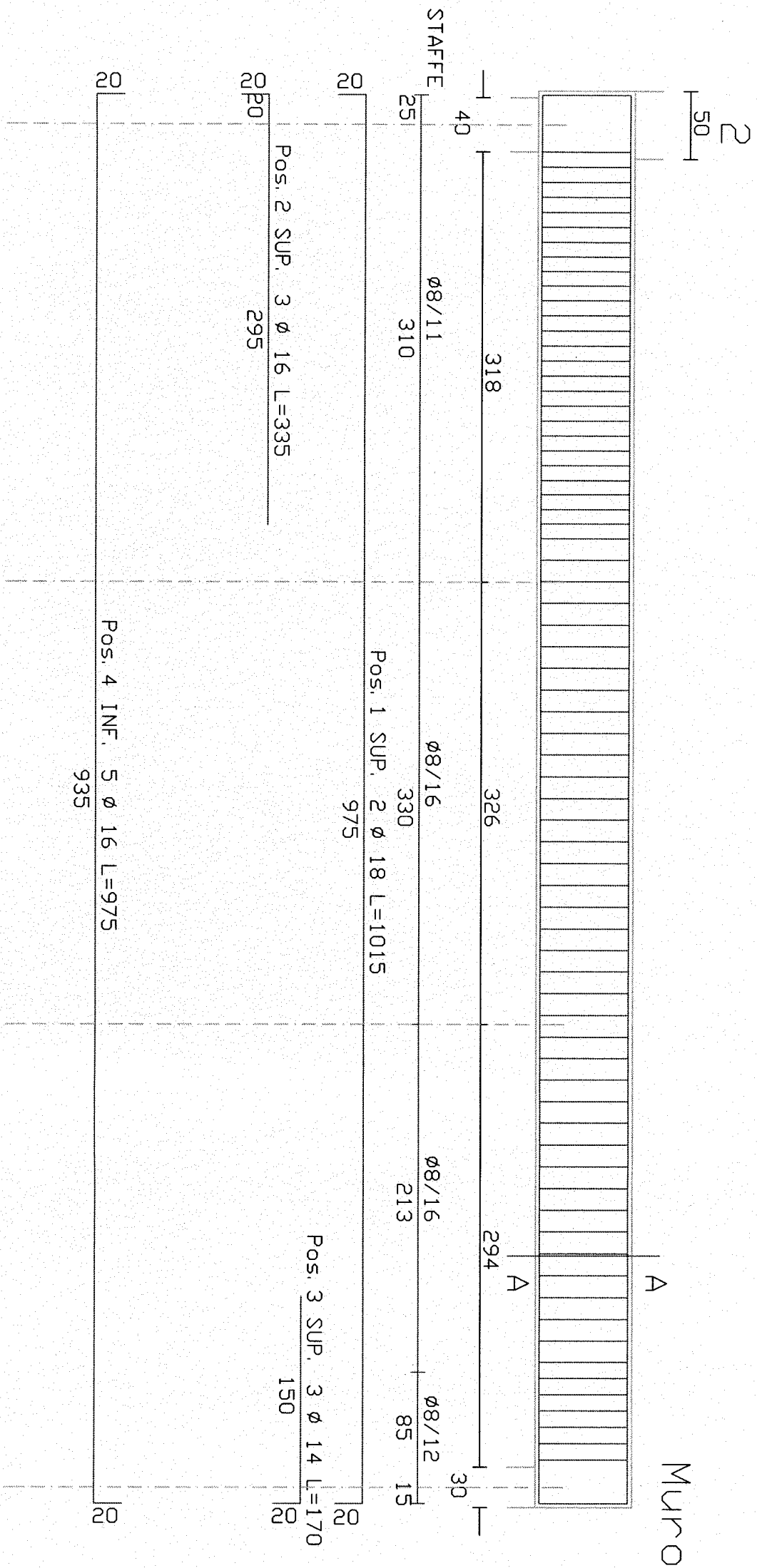
I have 10 (35x55)



POS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP.	2 $\varnothing$ 20	L=710
2 SUP.	3 $\varnothing$ 14	L=185
3 INF.	4 $\varnothing$ 14	L=670
4 LAT.	2 + 2 $\varnothing$ 12	L=630

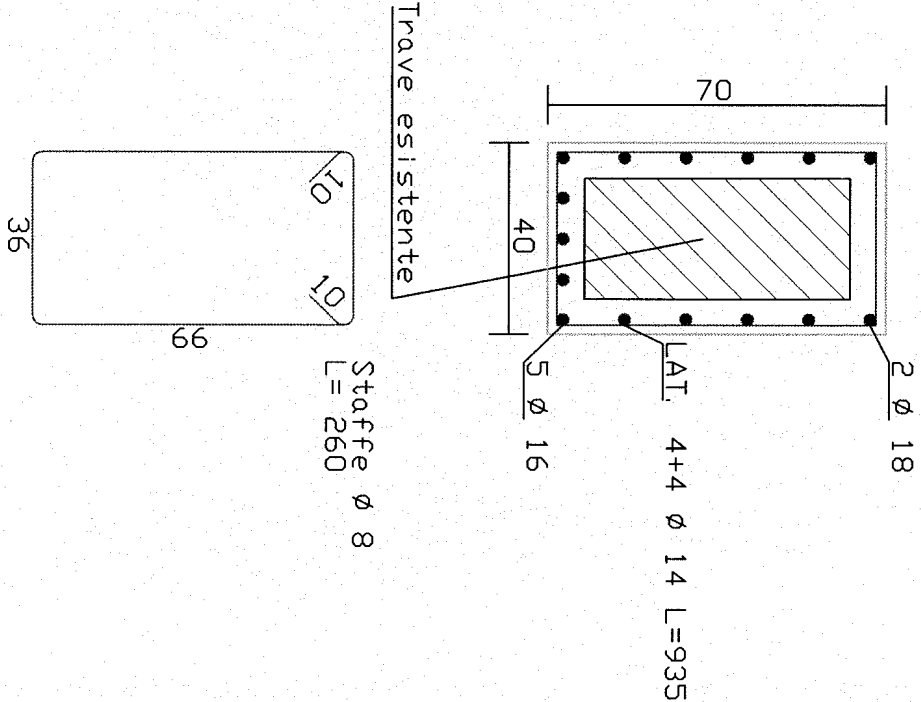


Trave 11 (40x70)



POS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	2 Ø 18	L=1015
2 SUP.	3 Ø 16	L=335
3 SUP.	3 Ø 14	L=170
4 INF.	5 Ø 16	L=975
5 LAT.	4 + 4 Ø 14	L=935

Sez. A-A

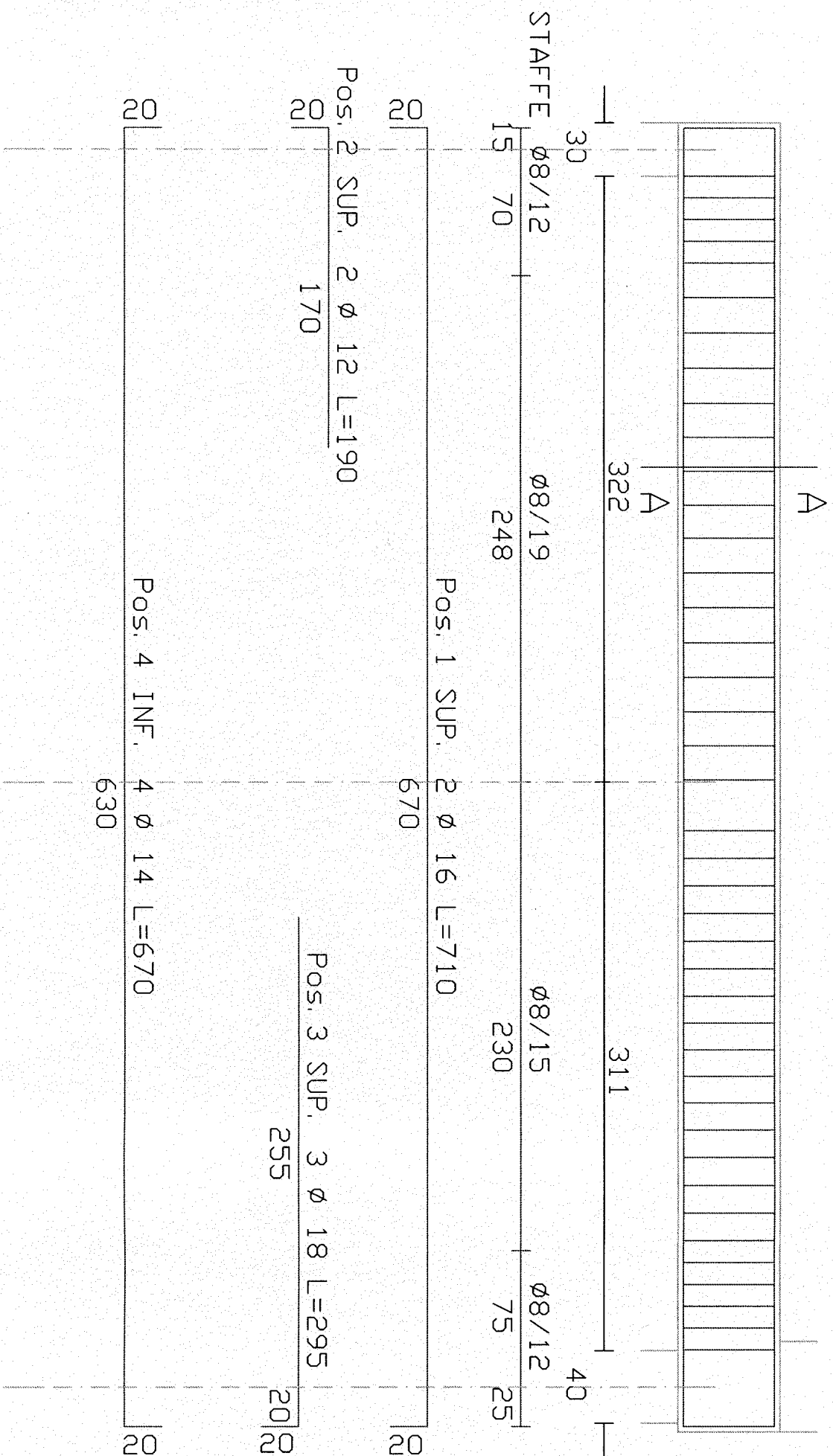


Staffe Ø 8
L=260

Travel 12 (35x55)

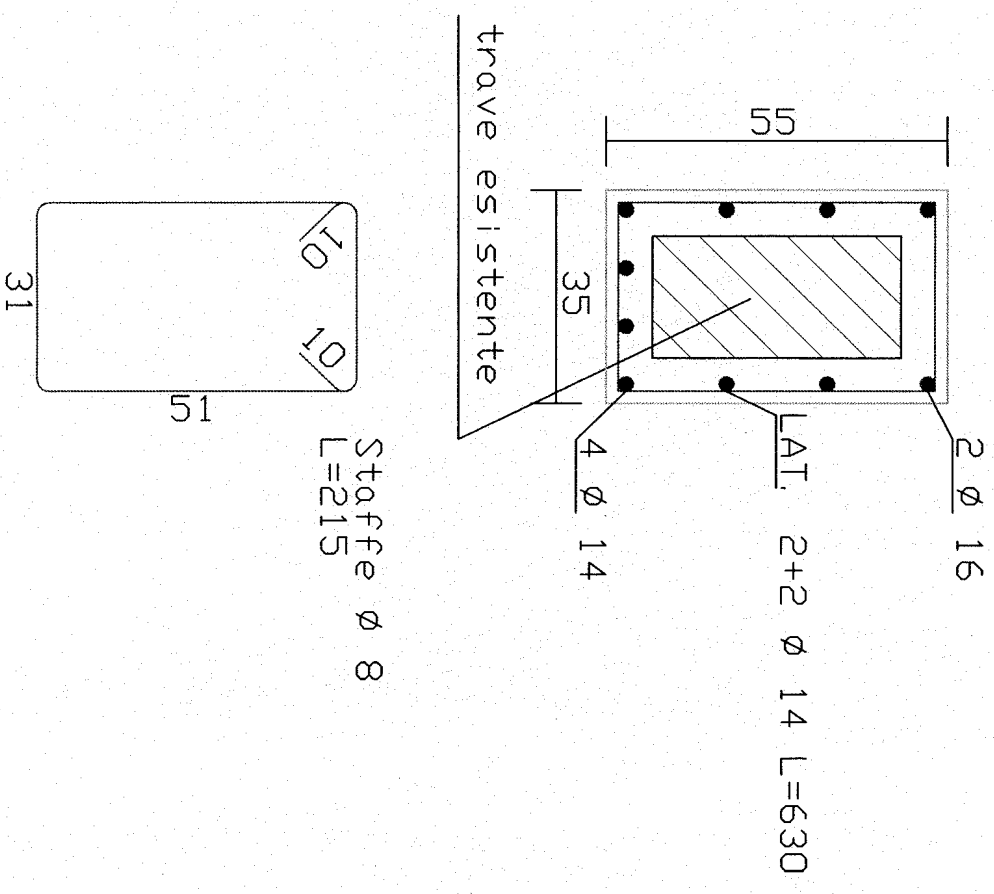
MURDOCH

2

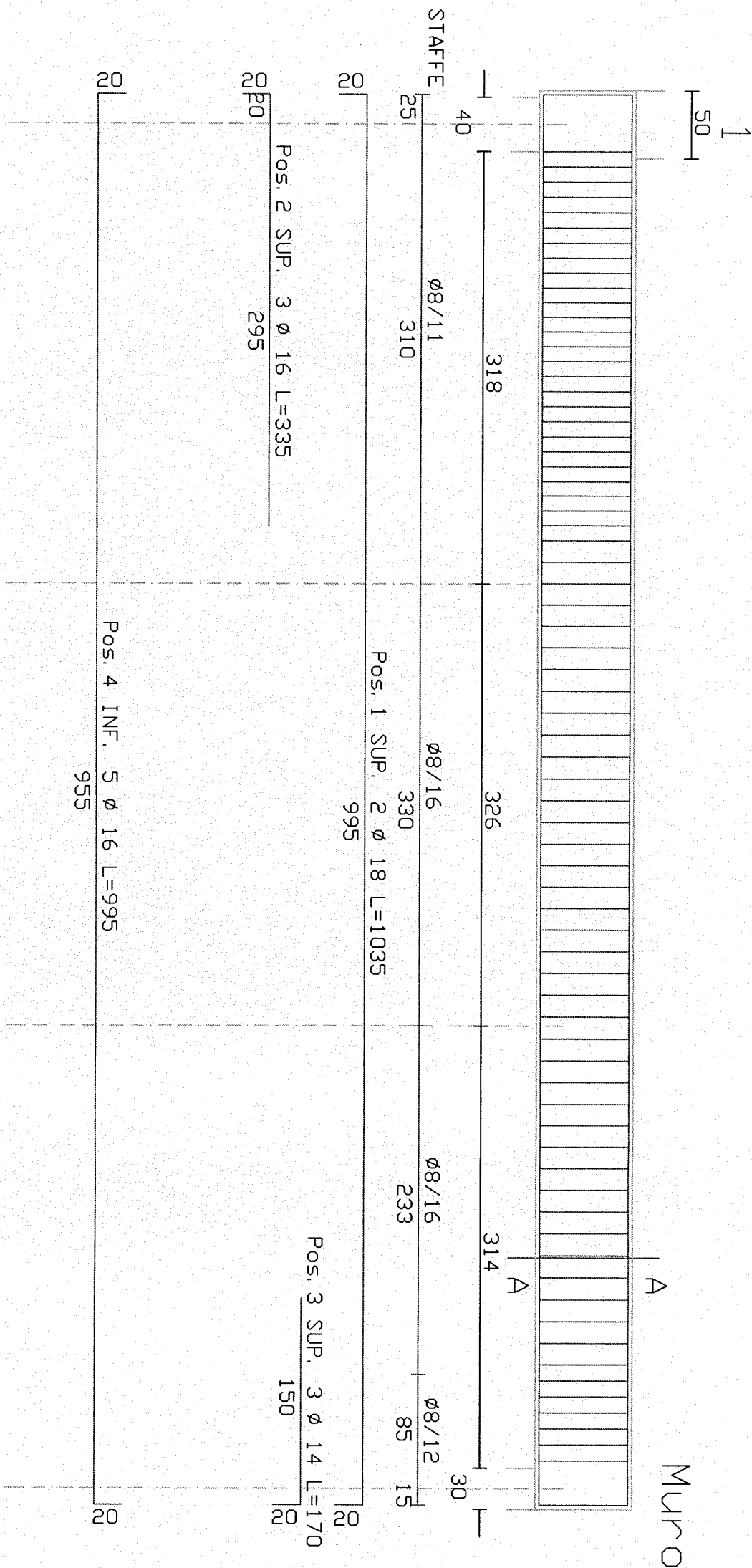


PDS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP.	2 $\varnothing$ 16	L=710
2 SUP.	2 $\varnothing$ 12	L=190
3 SUP.	3 $\varnothing$ 18	L=295
4 INF.	4 $\varnothing$ 14	L=670
5 LAT.	2 + 2 $\varnothing$ 14	L=630

Sen. A-A

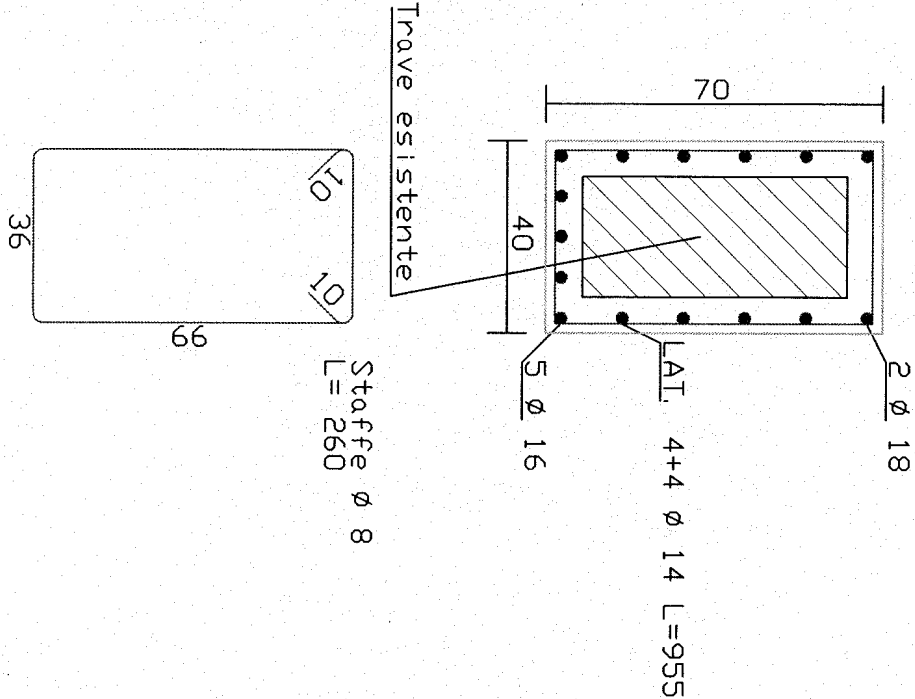


Trave 13 (40x70)

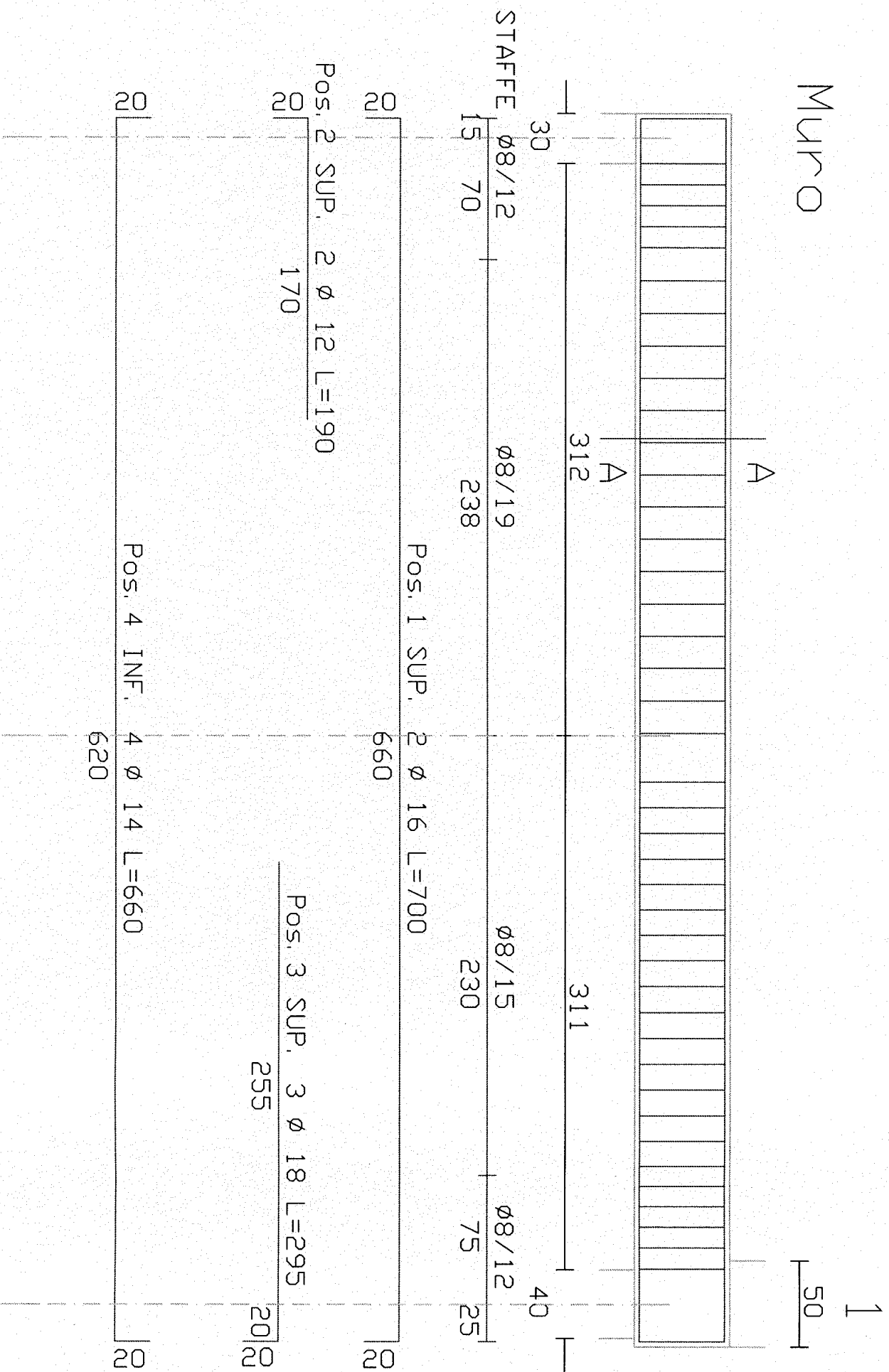


POS	DIAM ø (mm)	LUNGH (cm)
1 SUP.	2 ø 18	L=1035
2 SUP.	3 ø 16	L=335
3 SUP.	3 ø 14	L=170
4 INF.	5 ø 16	L=995
5 LAT.	4 + 4 ø 14	L=955

Sez. A-A

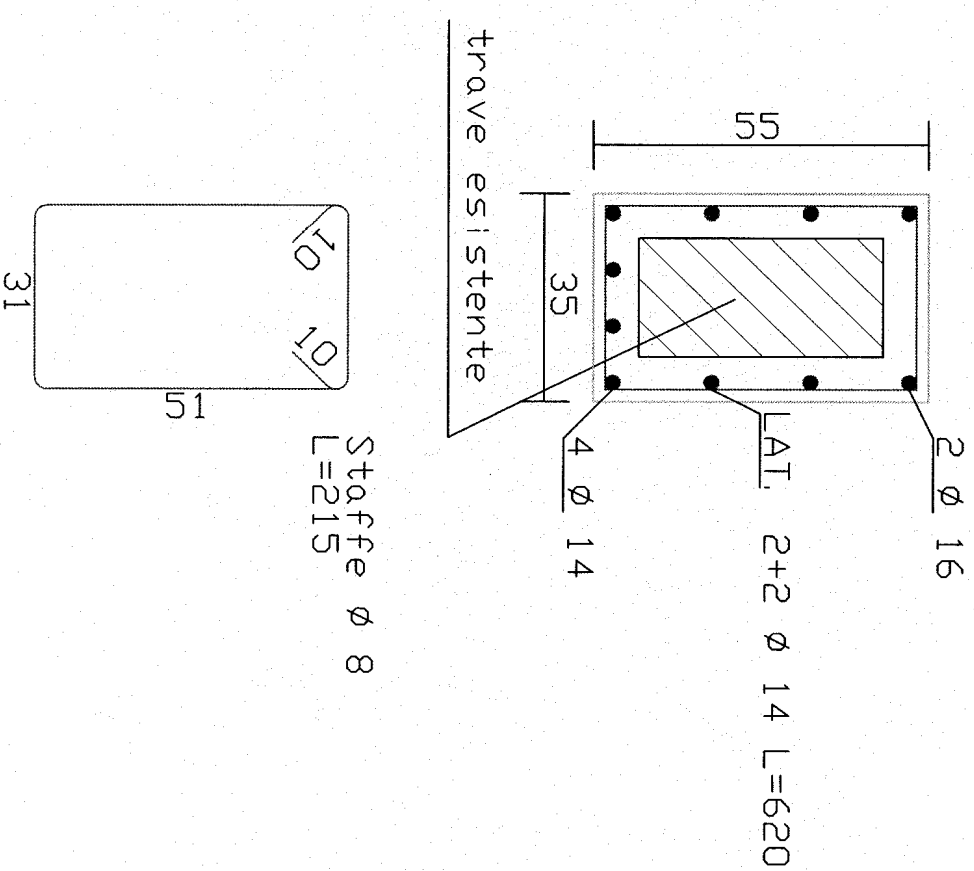


Trave 14 (35x55)



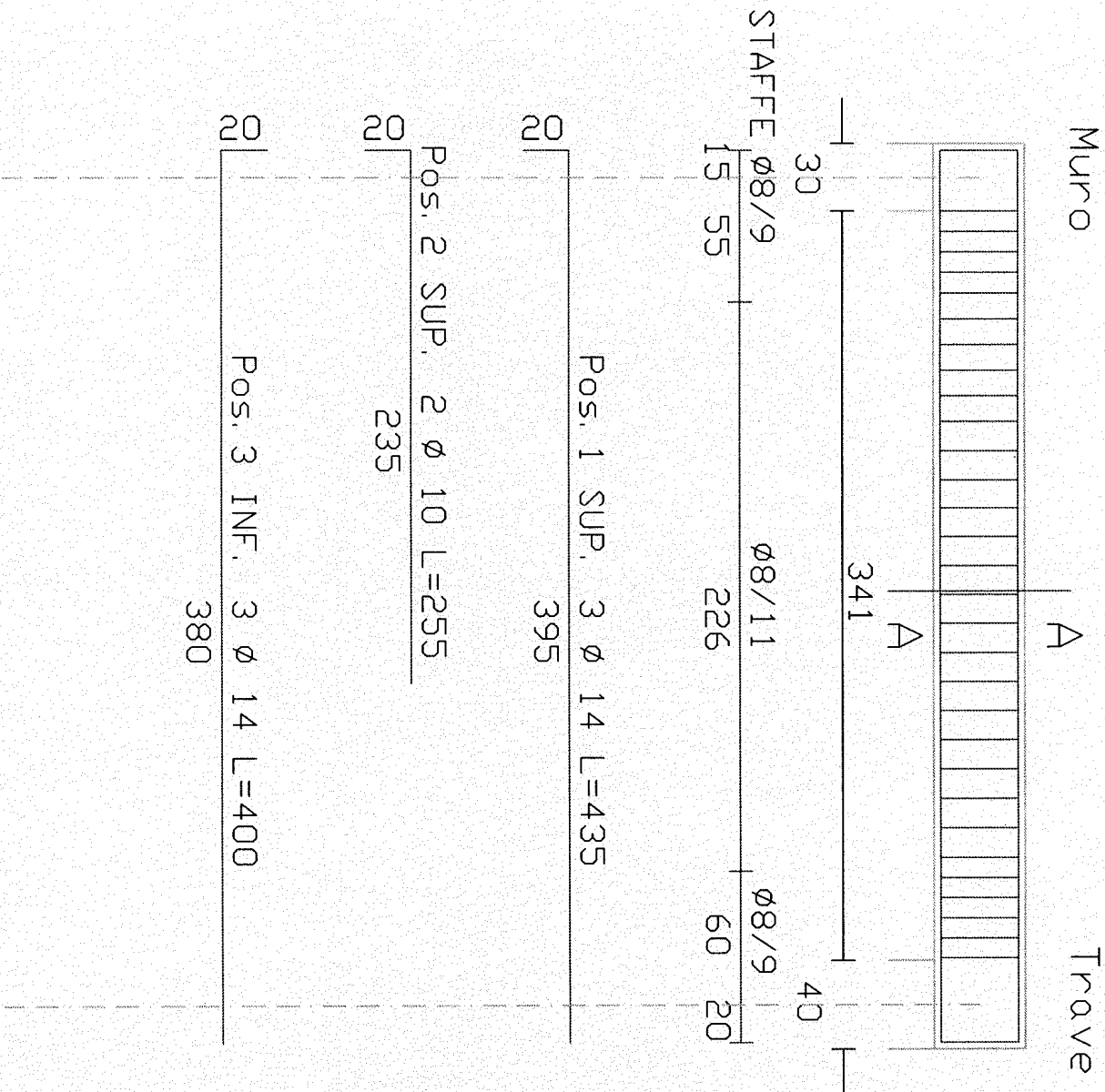
POS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP.	2 $\varnothing$ 16	L=700
2 SUP.	2 $\varnothing$ 12	L=190
3 SUP.	3 $\varnothing$ 18	L=295
4 INF.	4 $\varnothing$ 14	L=660
5 LAT.	2 + 2 $\varnothing$ 14	L=620

Sez. A-A



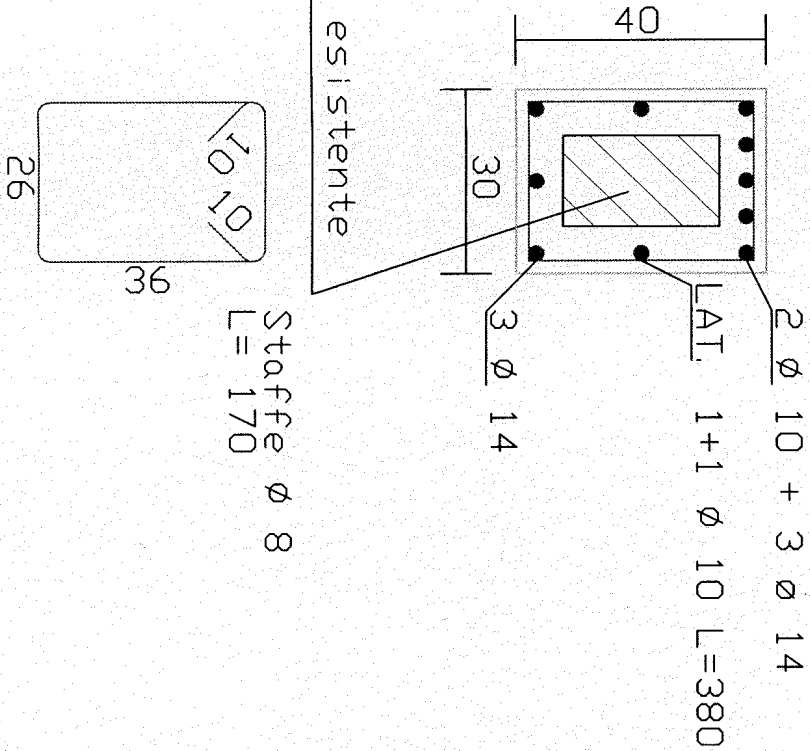
Trave 15/16/41/42 (30x40)

N. B. : lunghezze variabili. Verificare in cantiere con la D. L.

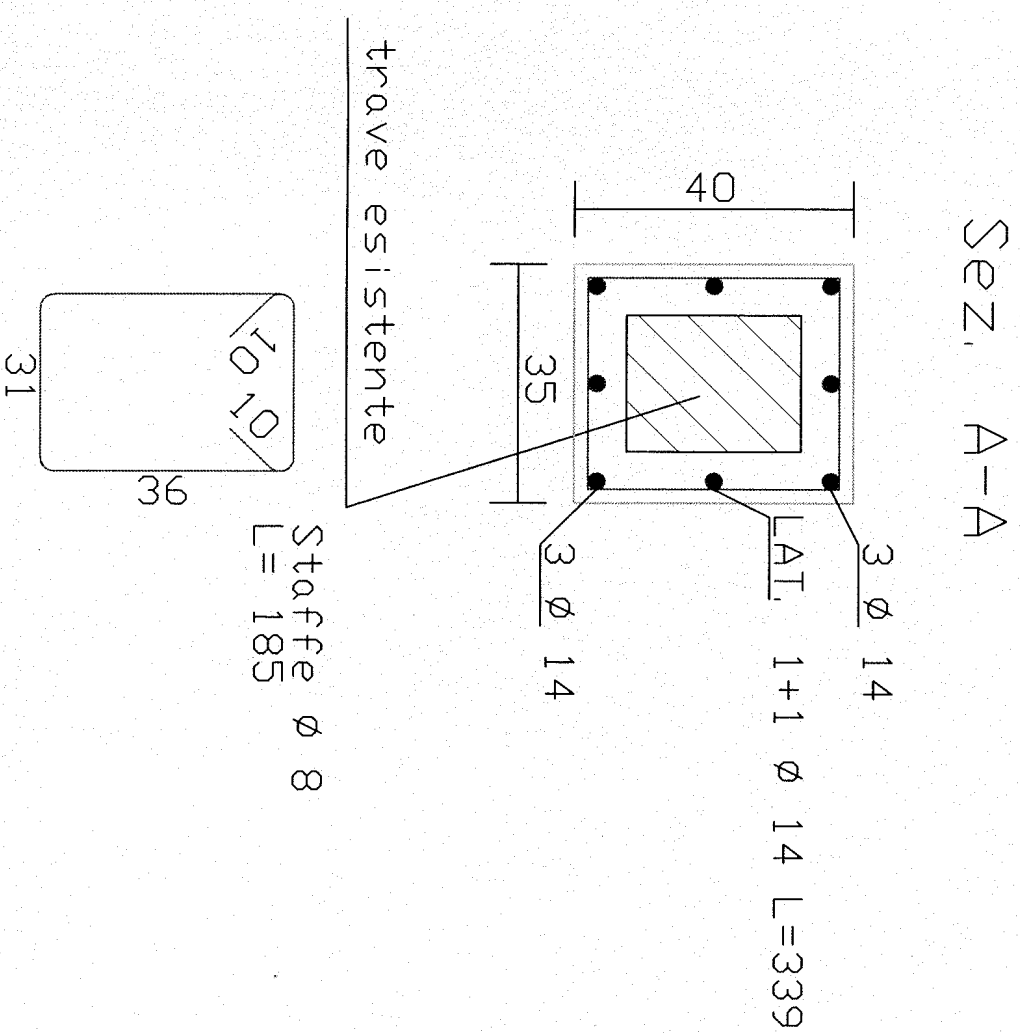
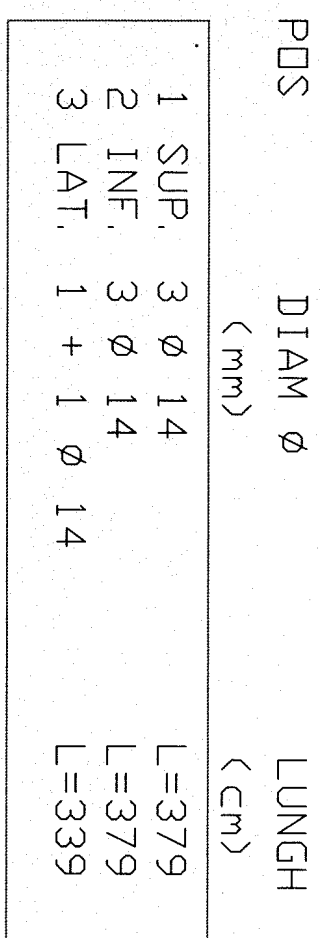


PDS	DIAM Ø < mm>	LUNGH < cm>
1 SUP. 3 Ø 14		L=435
2 SUP. 2 Ø 10		L=255
3 INF. 3 Ø 14		L=400
4 LAT. 1 + 1 Ø 10		L=380

Sez. A-A

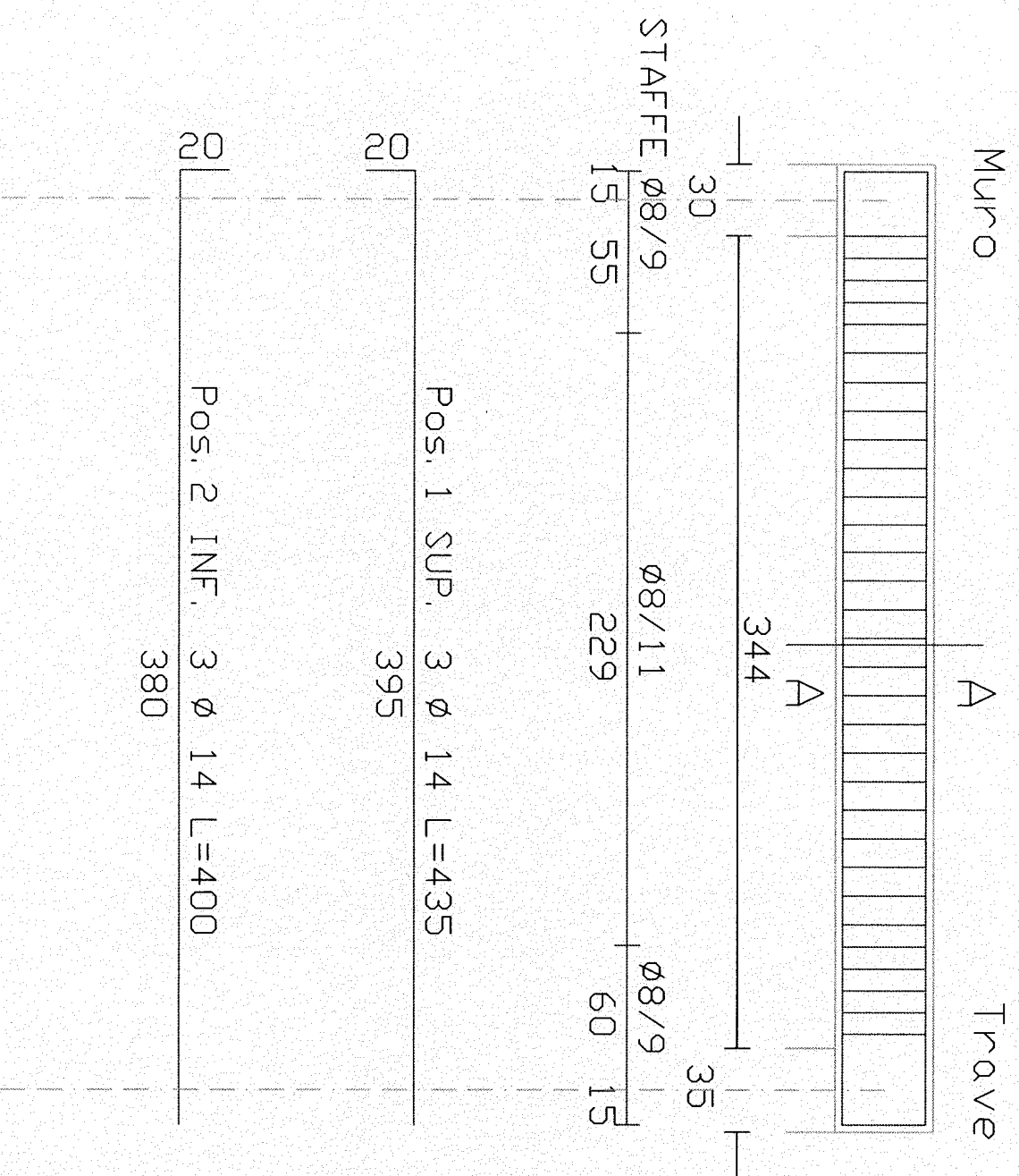


N. B.: Lunghezza variabili. Verificare in cantiere con la D.L.



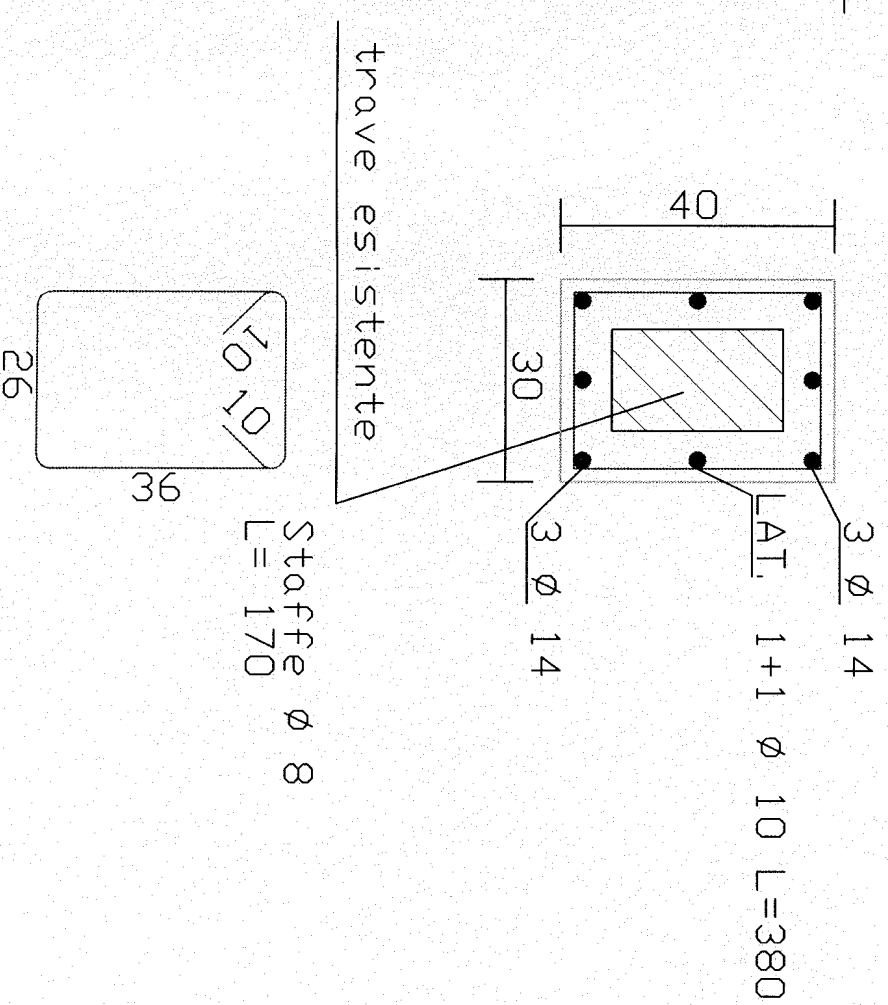
Trave 18/44 (30x40)

N. B.: Lunghezze variabili. Verificare con la D. L. in cantiere



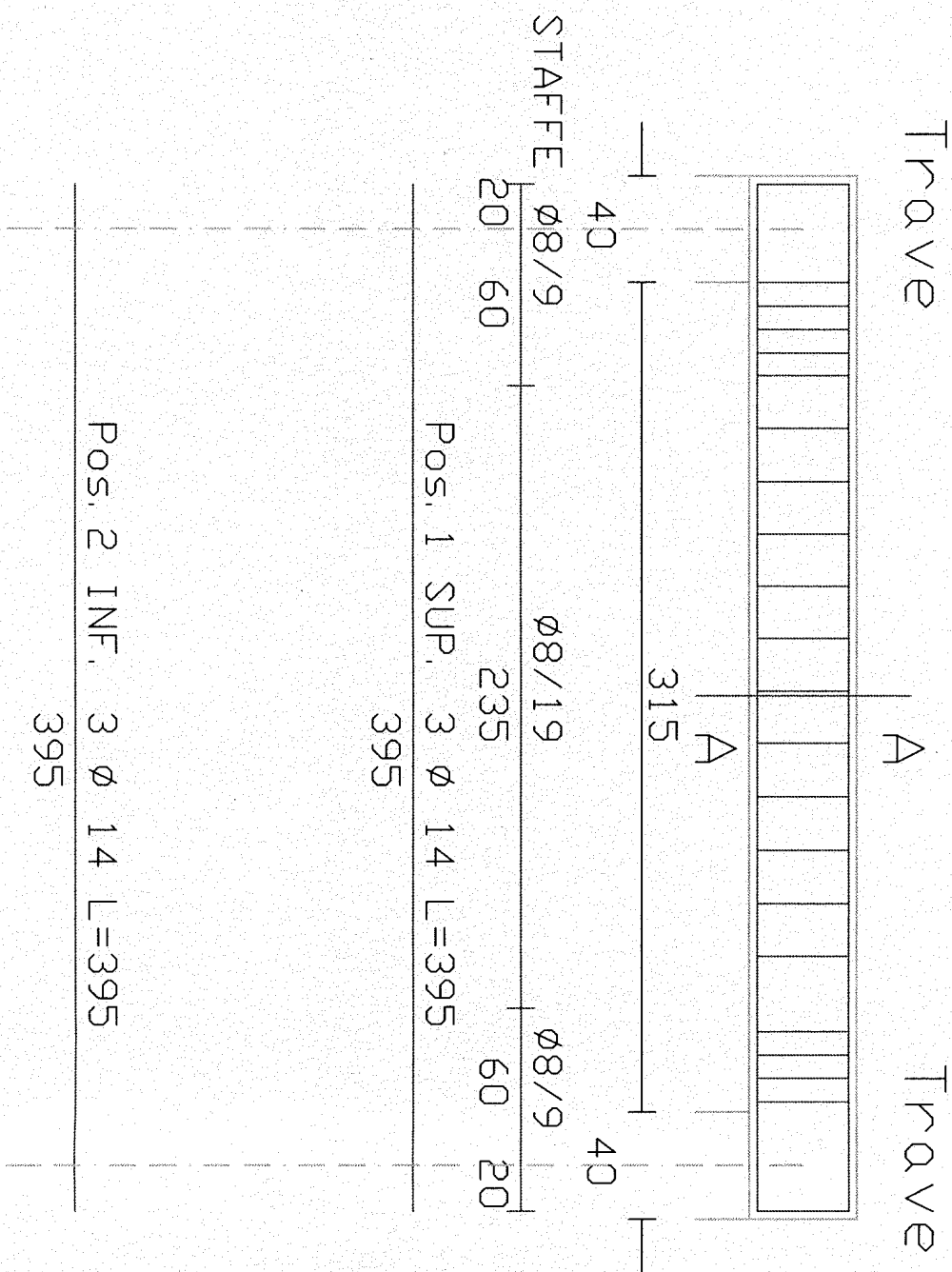
PDS	DIAM Ø (mm)	LUNGH (cm)
1 SUP. 3 Ø 14		L=435
2 INF. 3 Ø 14		L=400
3 LAT. 1 + 1 Ø 10		L=380

Sez. A-A



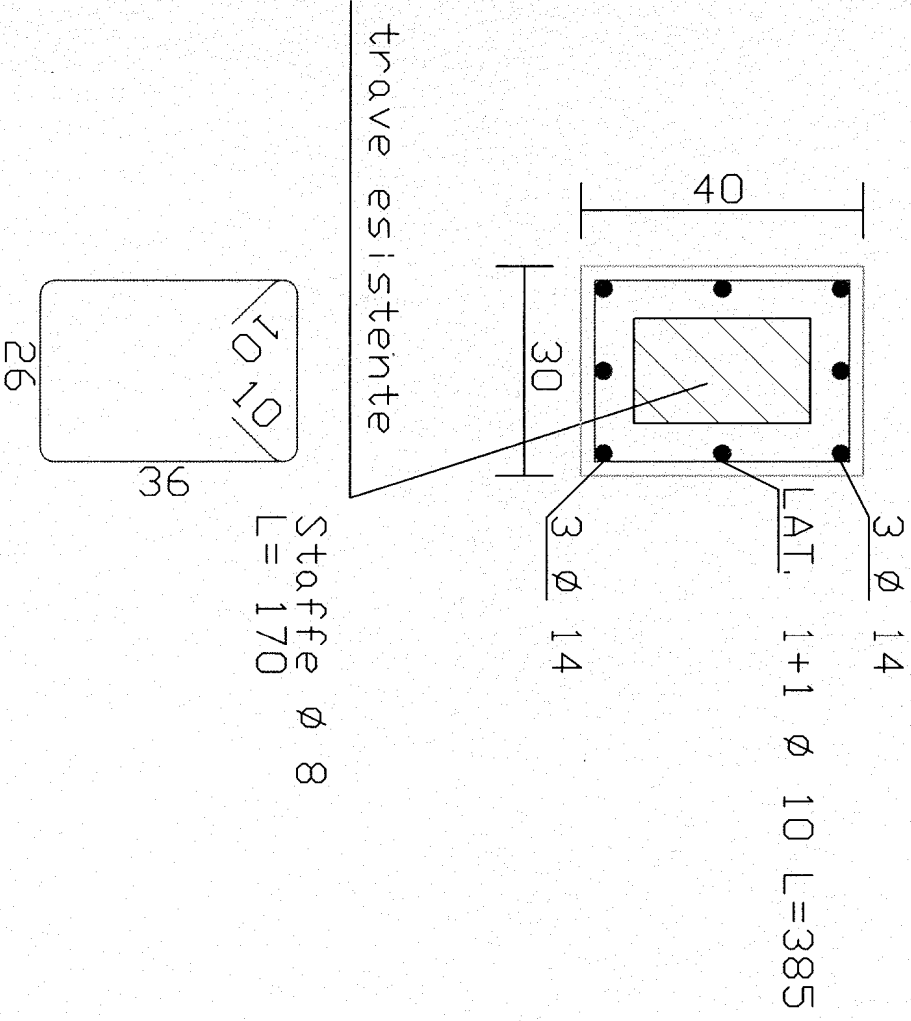
Trave 19/20/23/24/27/28/31/32/35/36 (30x40)

N. B. lunghezze variabili. Verificare in cantiere con la D.L.



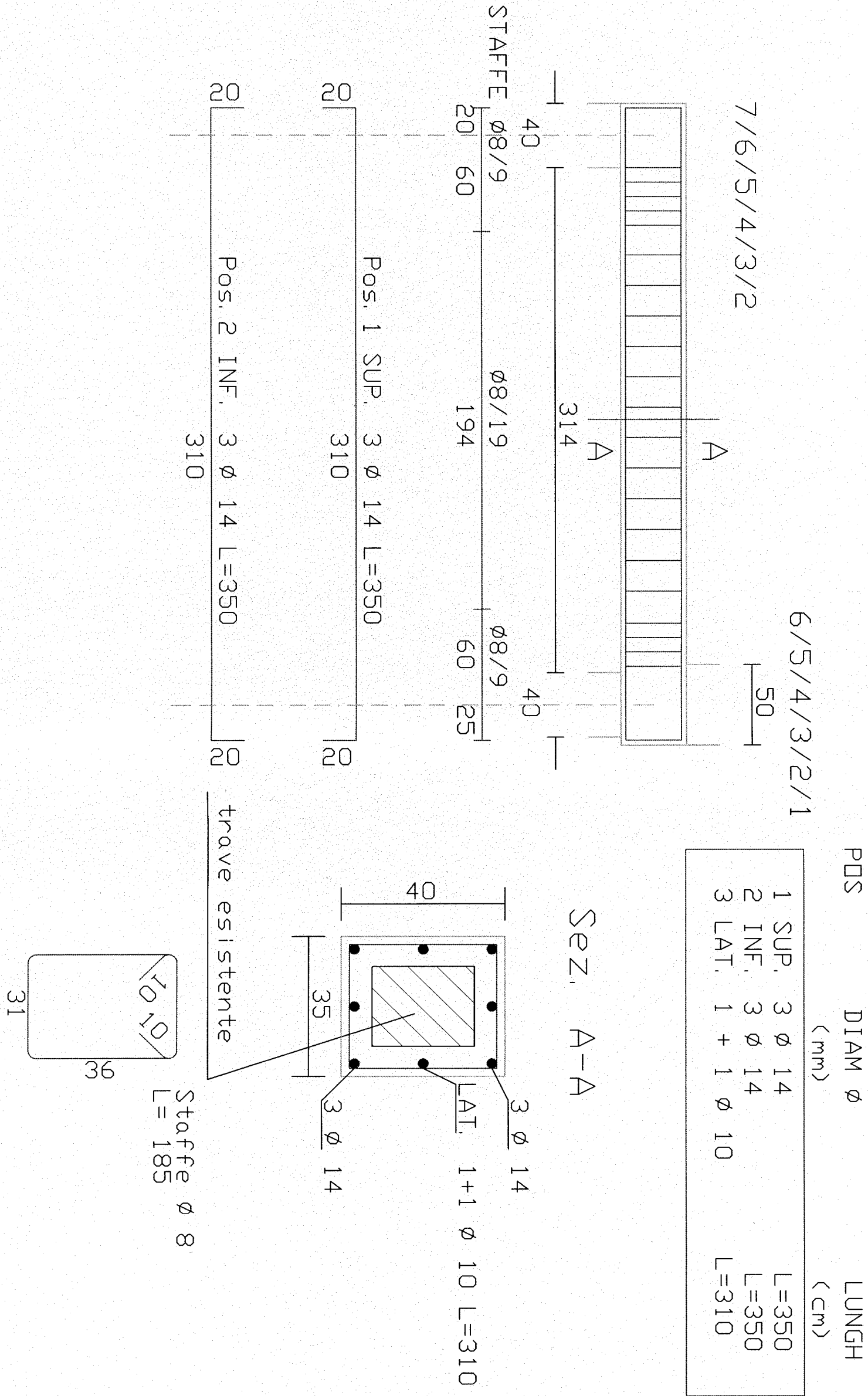
POS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP. 3 $\varnothing 14$		L=395
2 INF. 3 $\varnothing 14$		L=395
3 LAT. 1 + 1 $\varnothing 10$		L=385

Sez. A-A



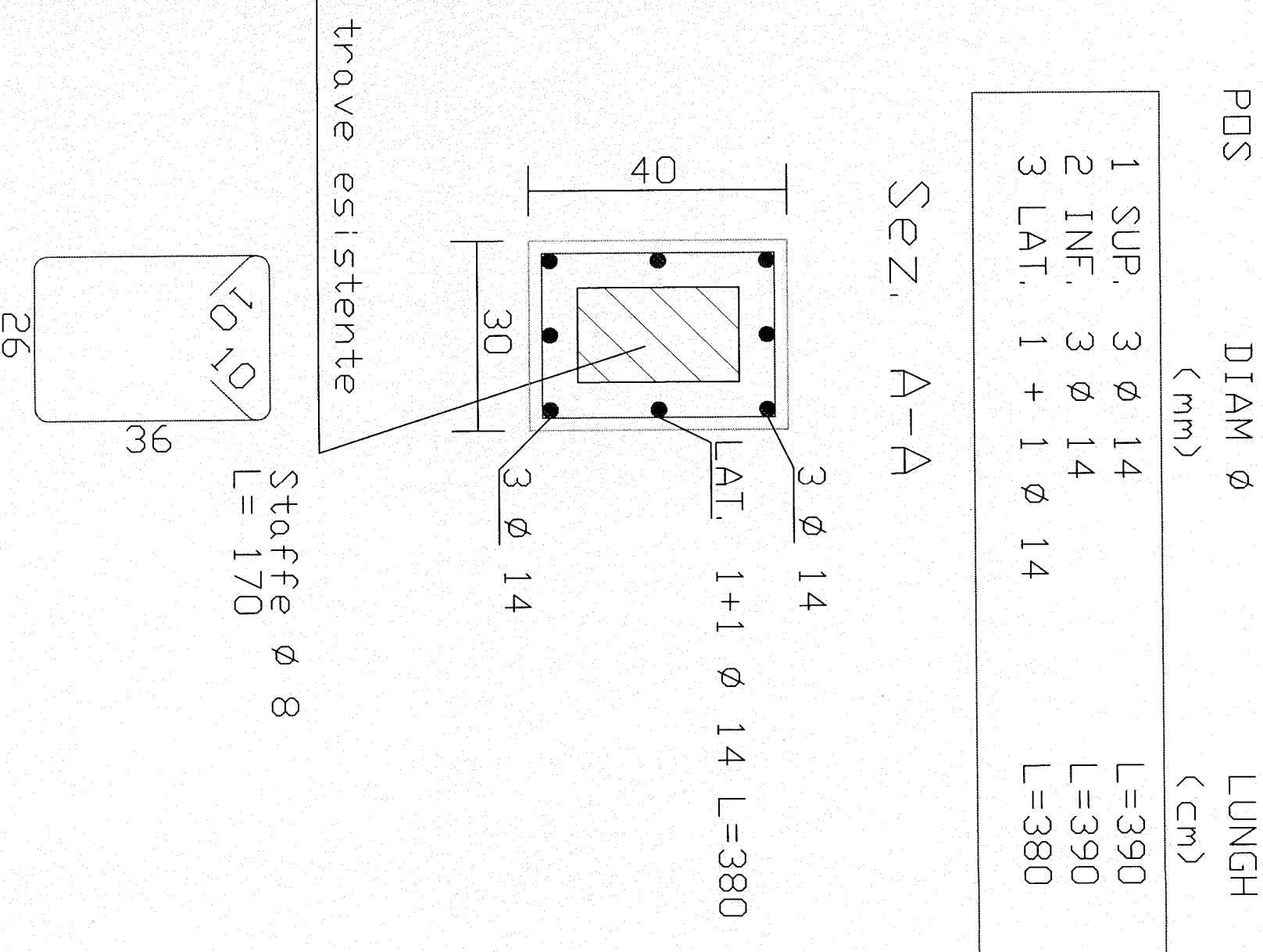
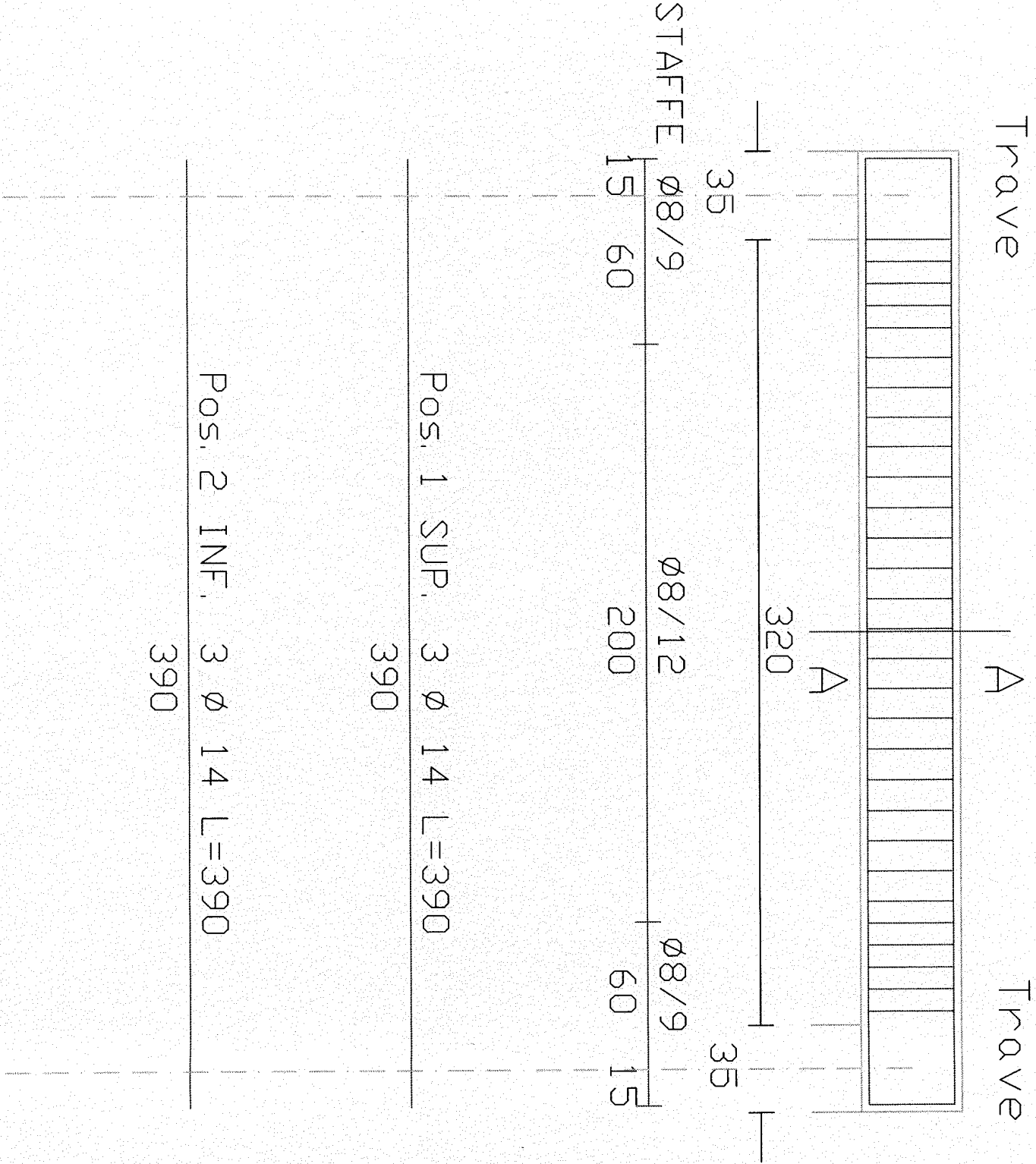
Trave 21/25/29/33/37/39 (35x40)

N. B. : Lunghezze variabili. Verificare in cantiere con la D.L.

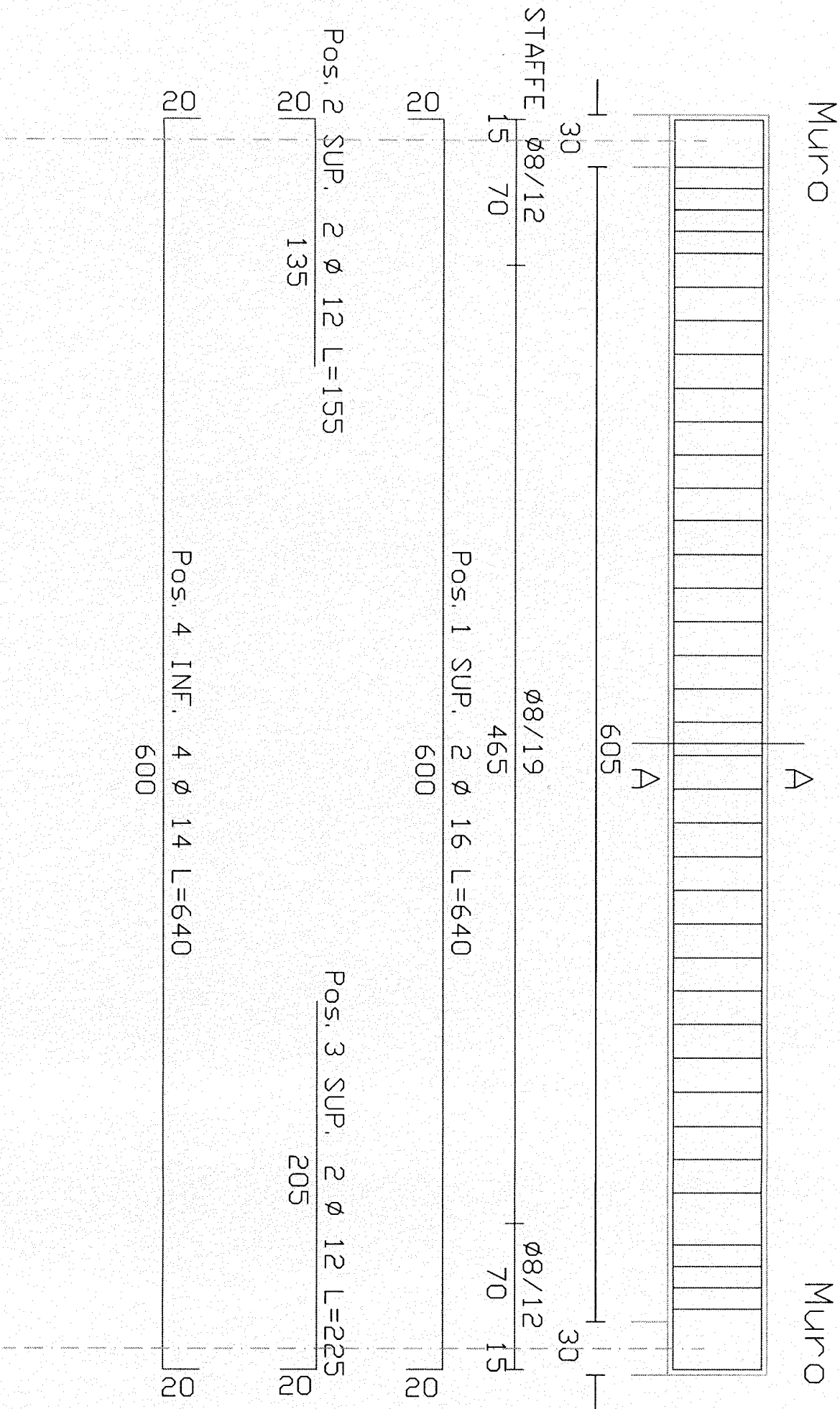


Trave 22/26/30/34/38/40 (30x40)

N. B. : Lunghezze variabili. Verificare in cantiere con la D. L.

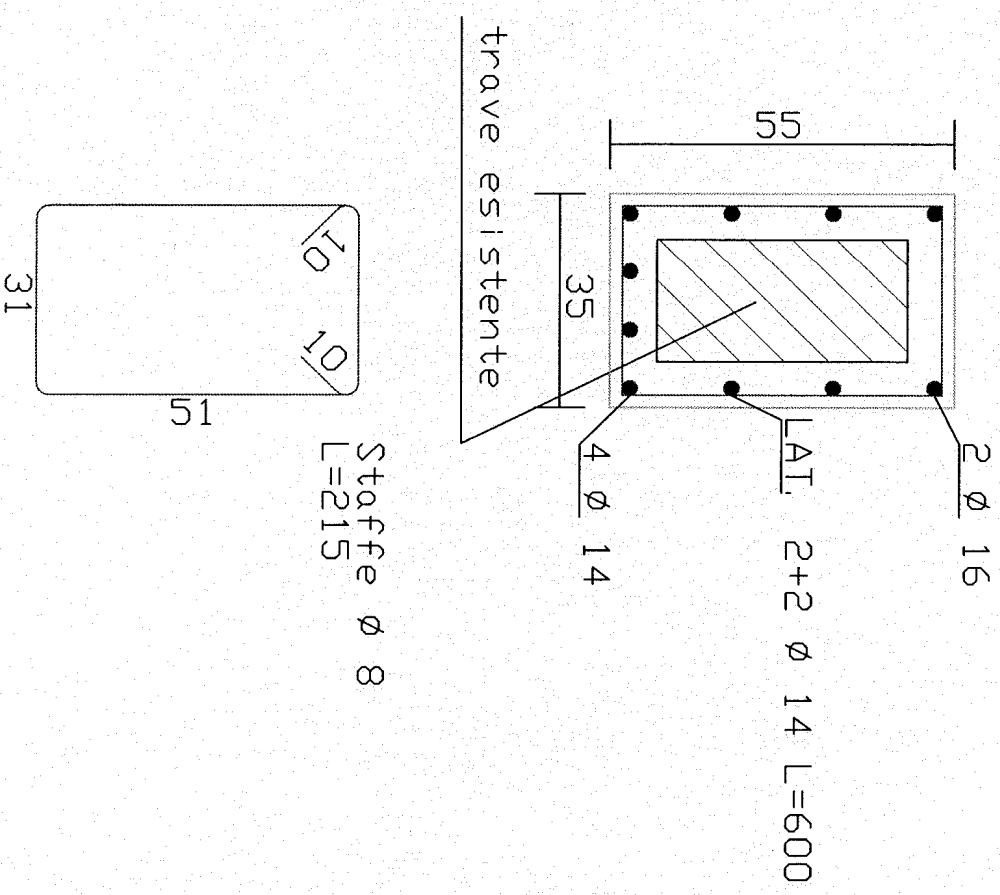


Trave 45 (35x55)

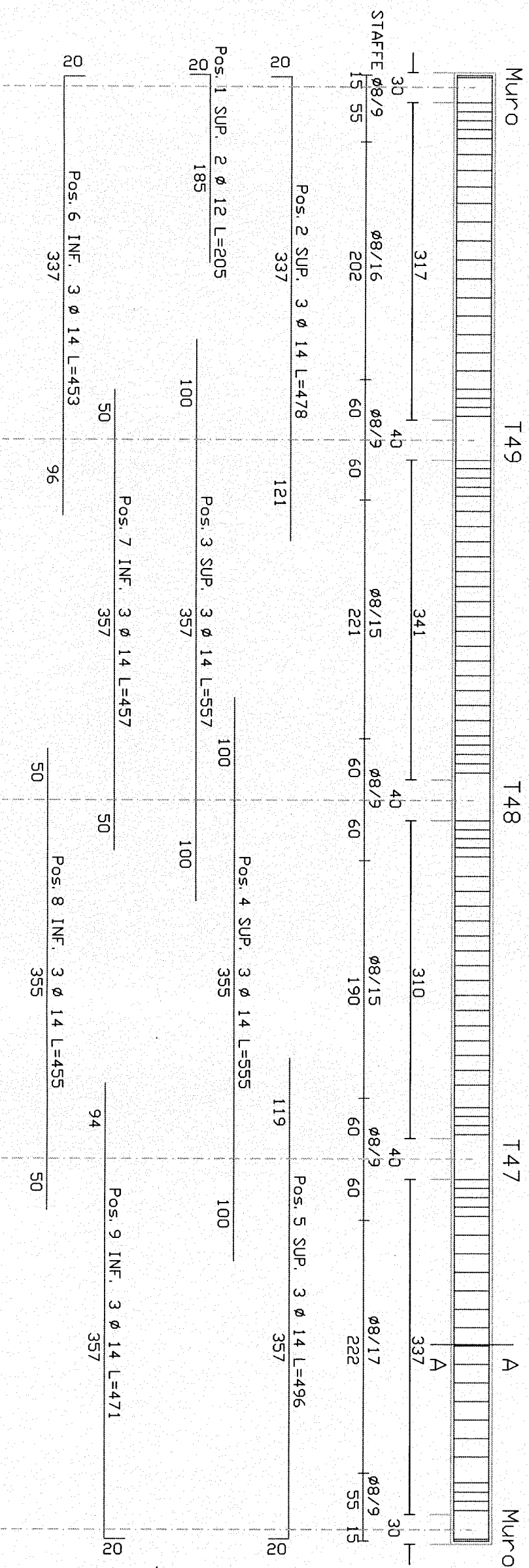


POS	DIAM ϕ (mm)	LUNGH (cm)
1 SUP. 2 $\phi 16$		L=640
2 SUP. 2 $\phi 12$		L=155
3 SUP. 2 $\phi 12$		L=225
4 INF. 4 $\phi 14$		L=640
5 LAT. 2 + 2 $\phi 14$		L=600

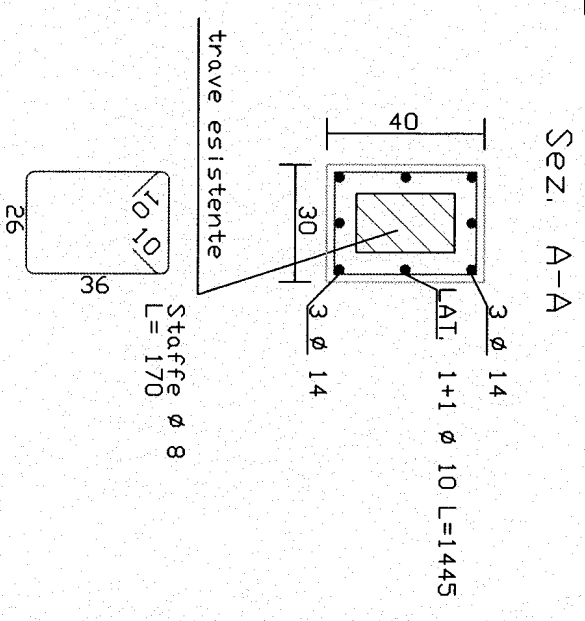
Sez. A-A



Travel 46 (30x40)

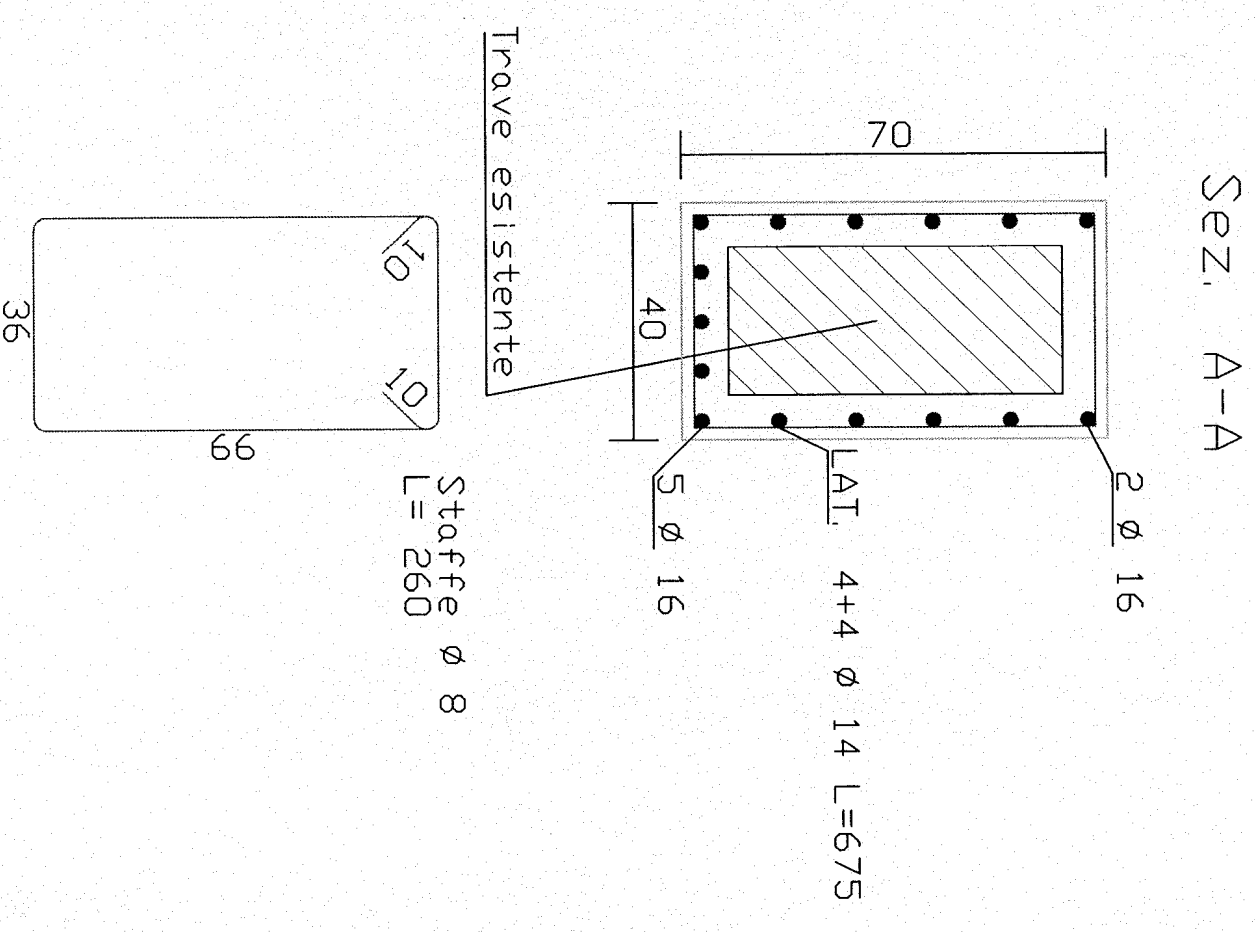
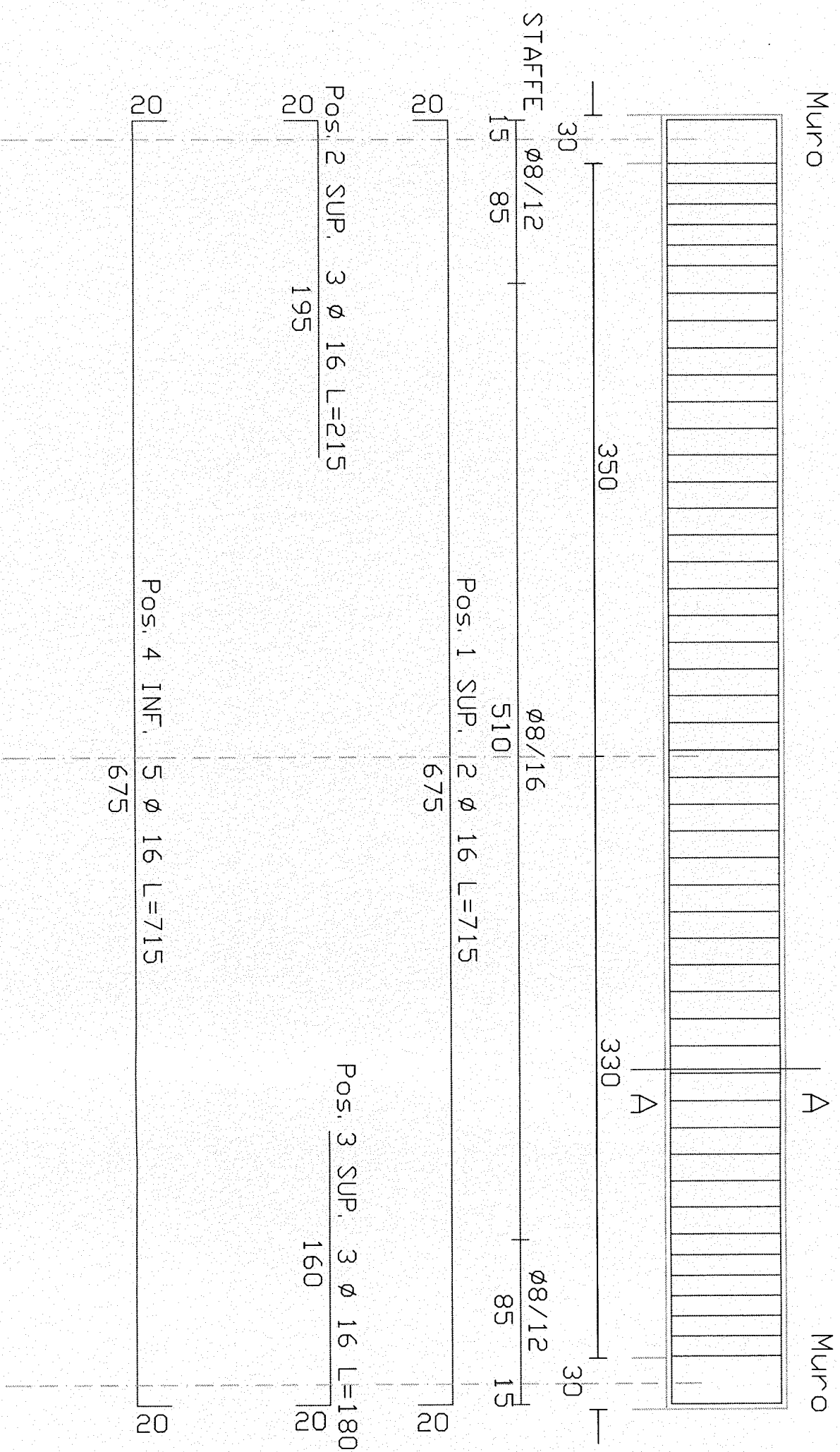


PODS	DIAM ϕ (mm)	LENGTH (cm)
1 SUP.	2 ϕ 12	L=205
2 SUP.	3 ϕ 14	L=478
3 SUP.	3 ϕ 14	L=557
4 SUP.	3 ϕ 14	L=555
5 SUP.	3 ϕ 14	L=496
6 INF.	3 ϕ 14	L=453
7 INF.	3 ϕ 14	L=457
8 INF.	3 ϕ 14	L=455
9 INF.	3 ϕ 14	L=471
10 LAT.	1 + 1 ϕ 10	L=1445



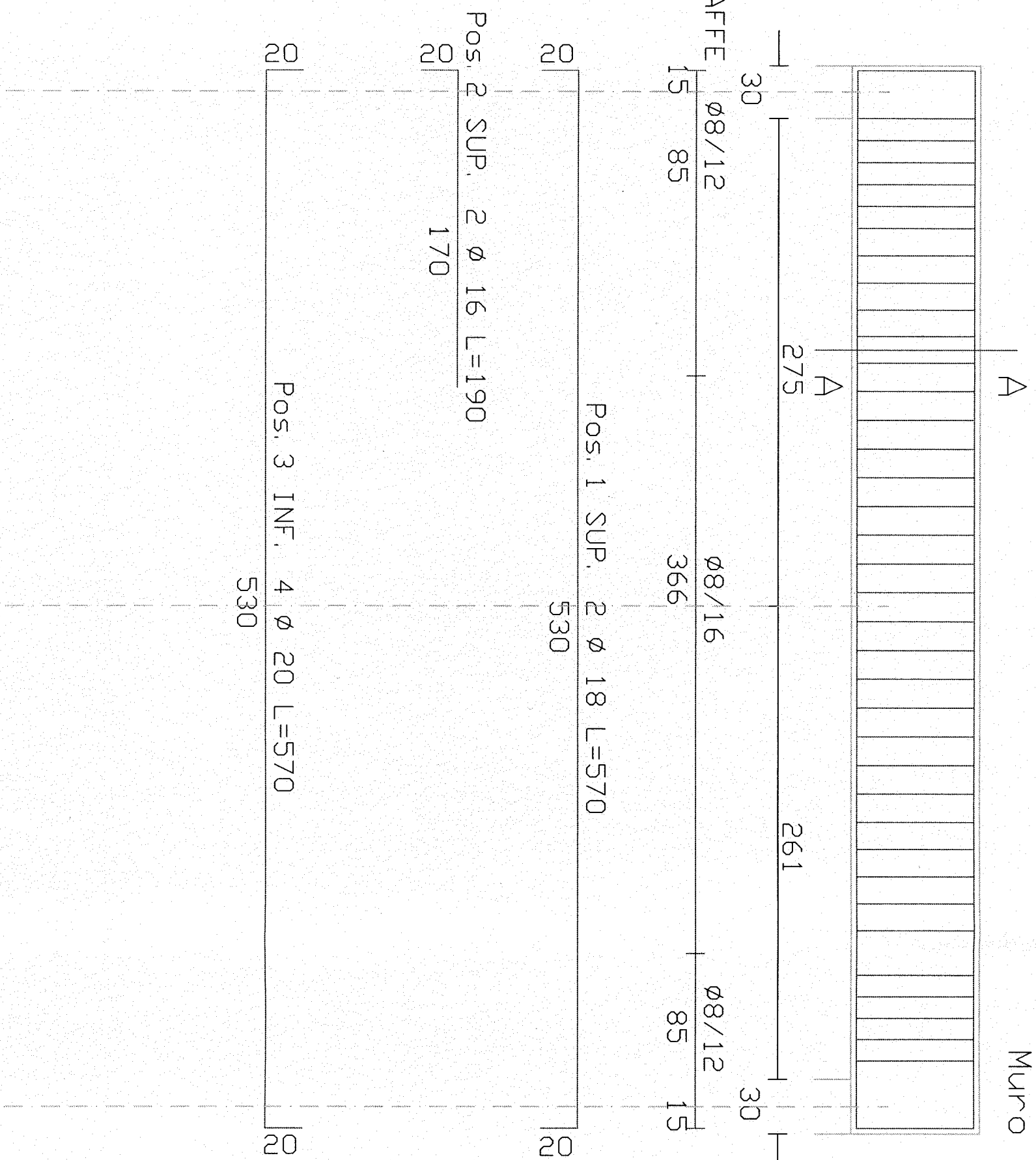
Travel 47 (40x70)

POS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	2 Ø 16	L=715
2 SUP.	3 Ø 16	L=215
3 SUP.	3 Ø 16	L=180
4 INF.	5 Ø 16	L=715
5 LAT.	4 + 4 Ø 14	L=675



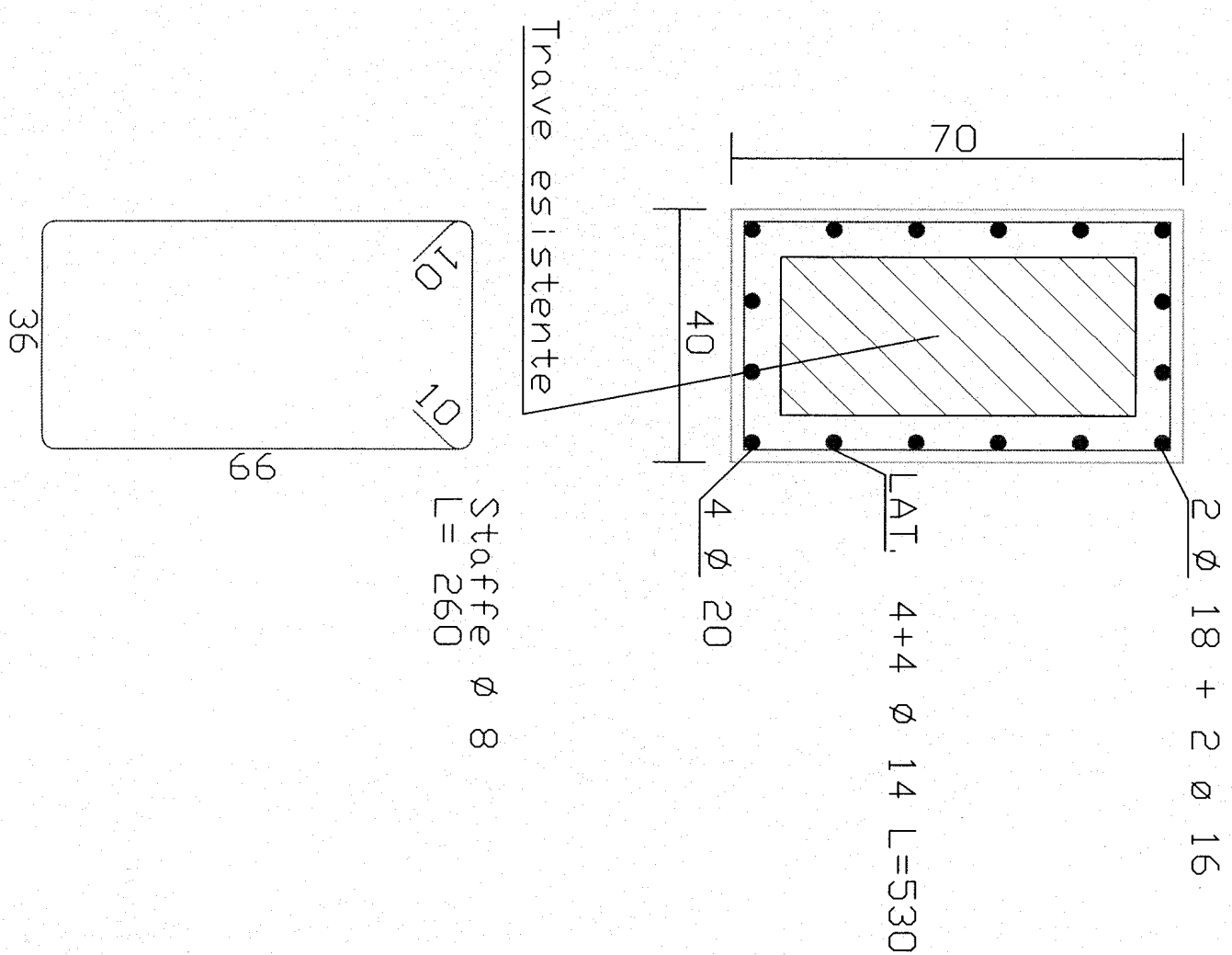
Trace 48 (40x70)

Muro (via san Domenico)

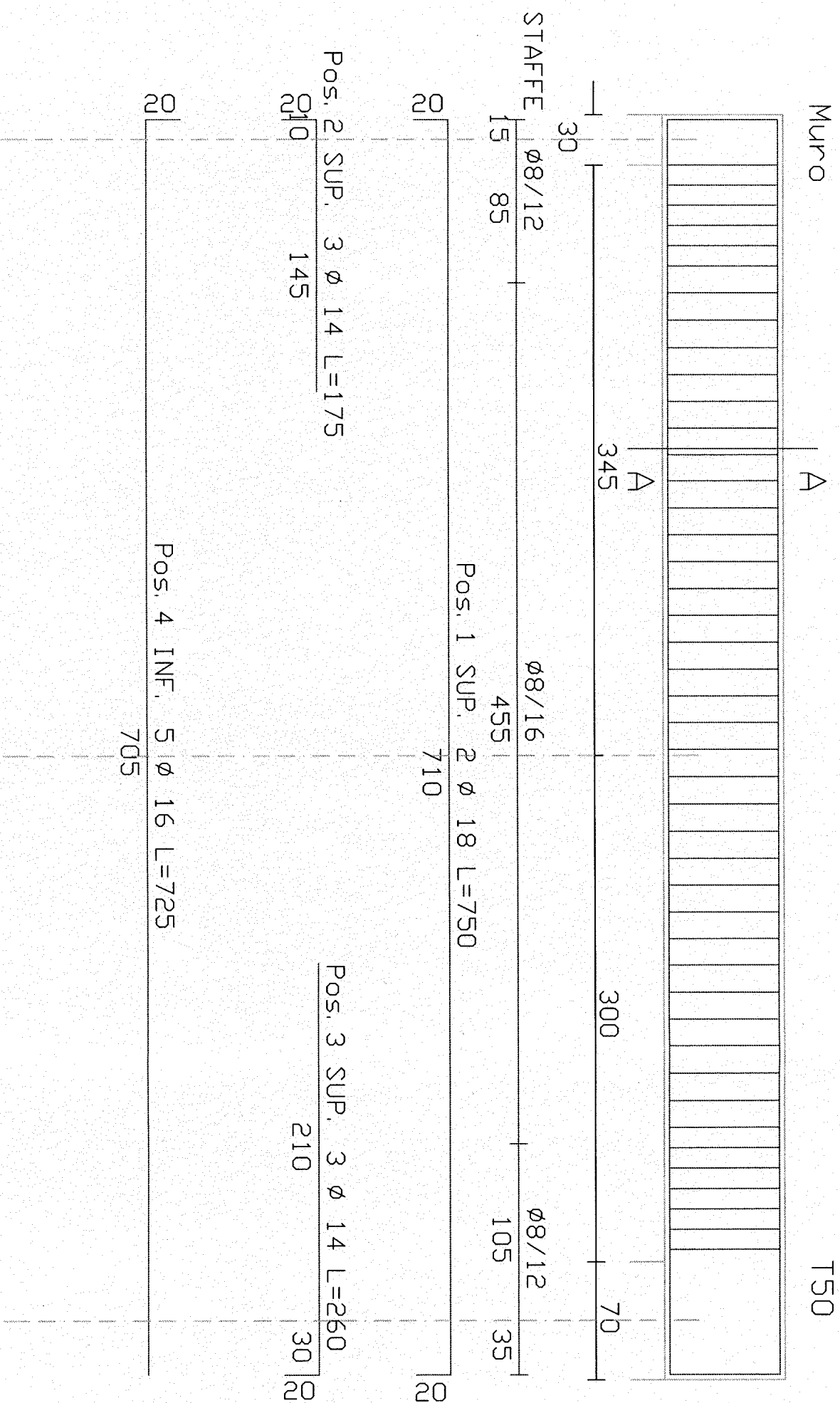


PODS	DIAM Ø < mm>	LUNGH < cm>
1 SUP.	2 Ø 18	L=570
2 SUP.	2 Ø 16	L=190
3 INF.	4 Ø 20	L=570
4 LAT.	4 + 4 Ø 14	L=530

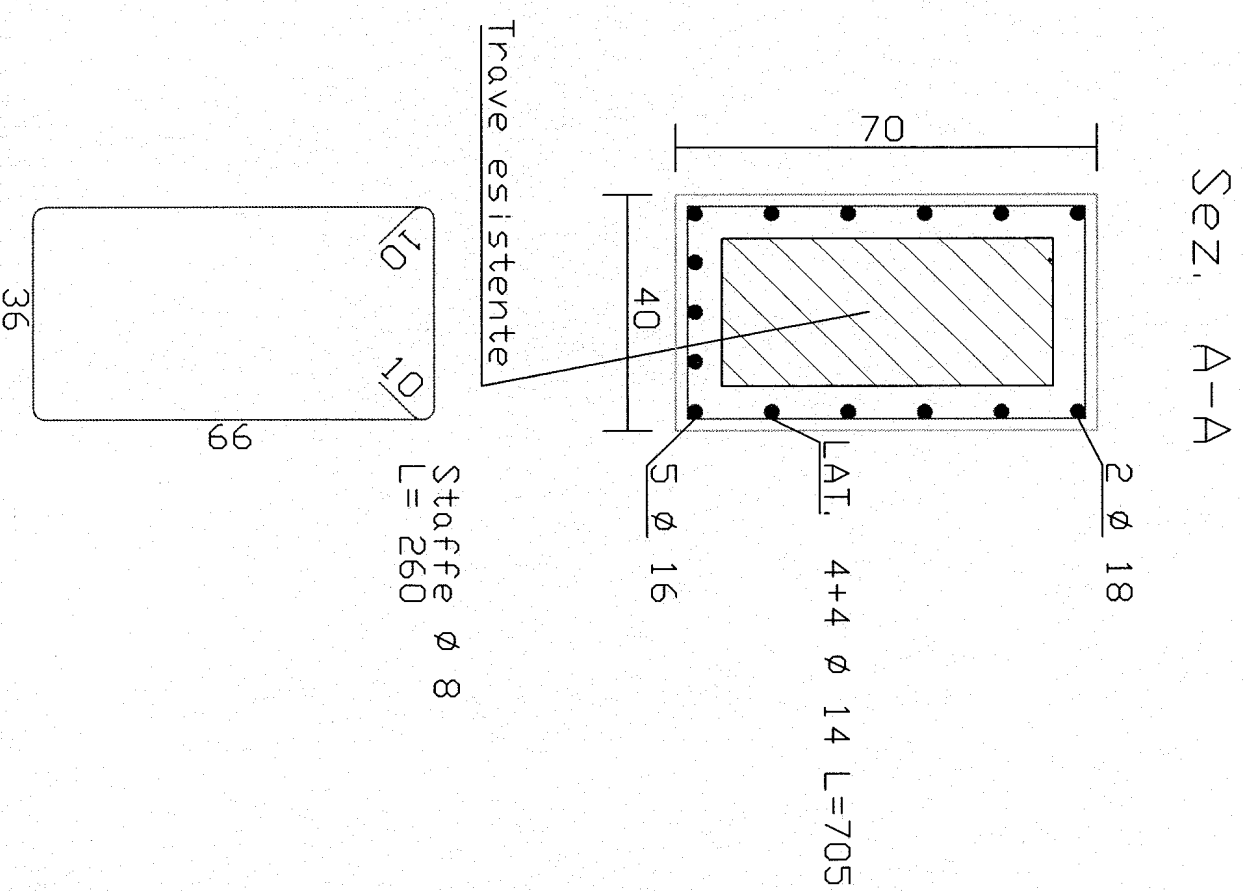
SEN. A-A



Trave 49 (40x70)



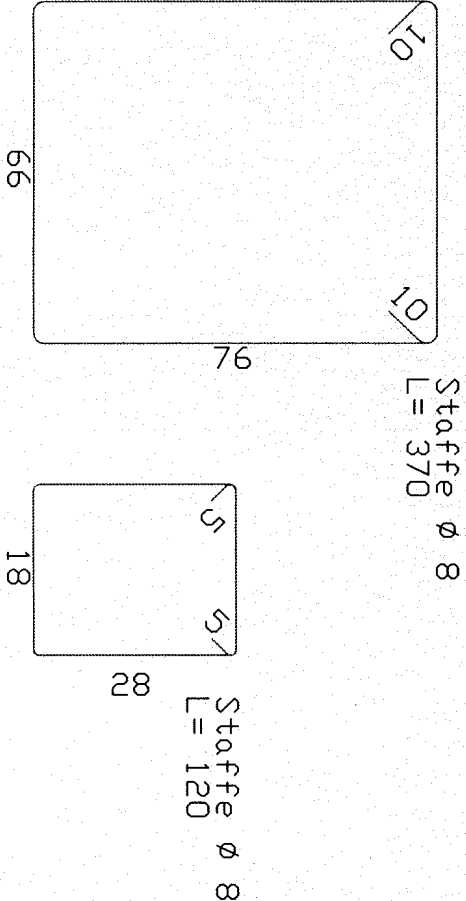
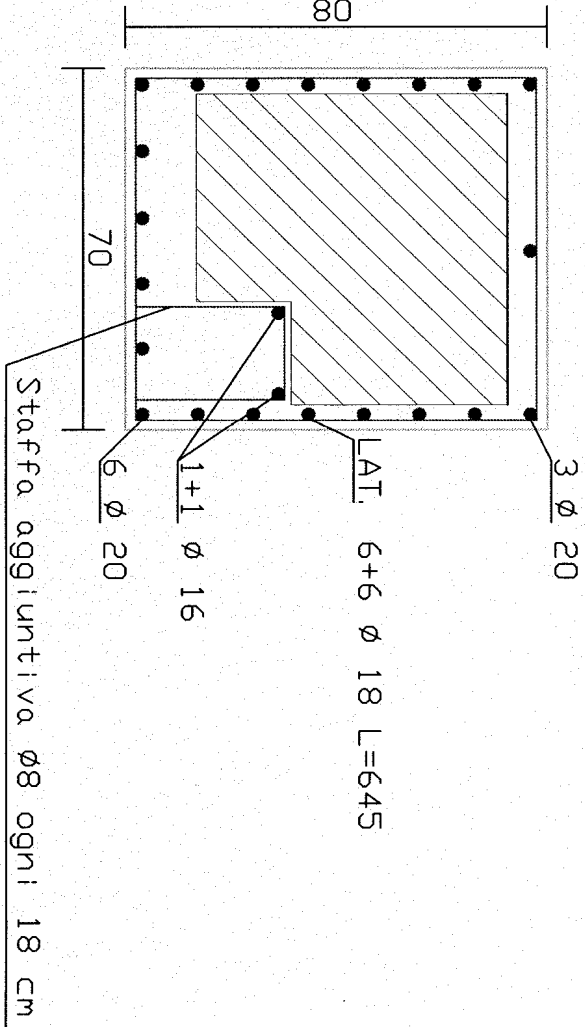
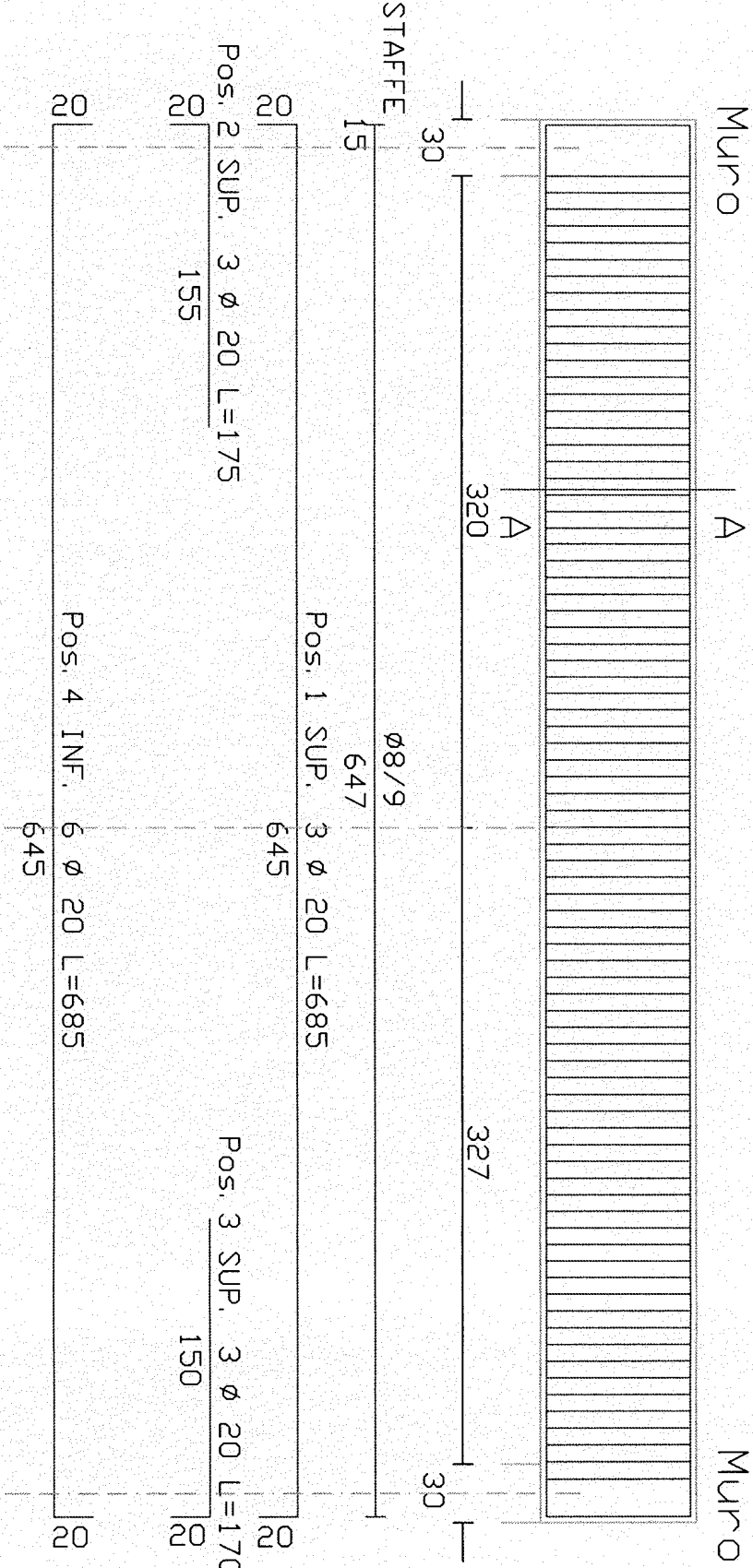
POS	DIAM Ø < mm >	LUNGH < cm >
1 SUP.	2 Ø 18	L=750
2 SUP.	3 Ø 14	L=175
3 SUP.	3 Ø 14	L=260
4 INF.	5 Ø 16	L=725
5 LAT.	4 + 4 Ø 14	L=640



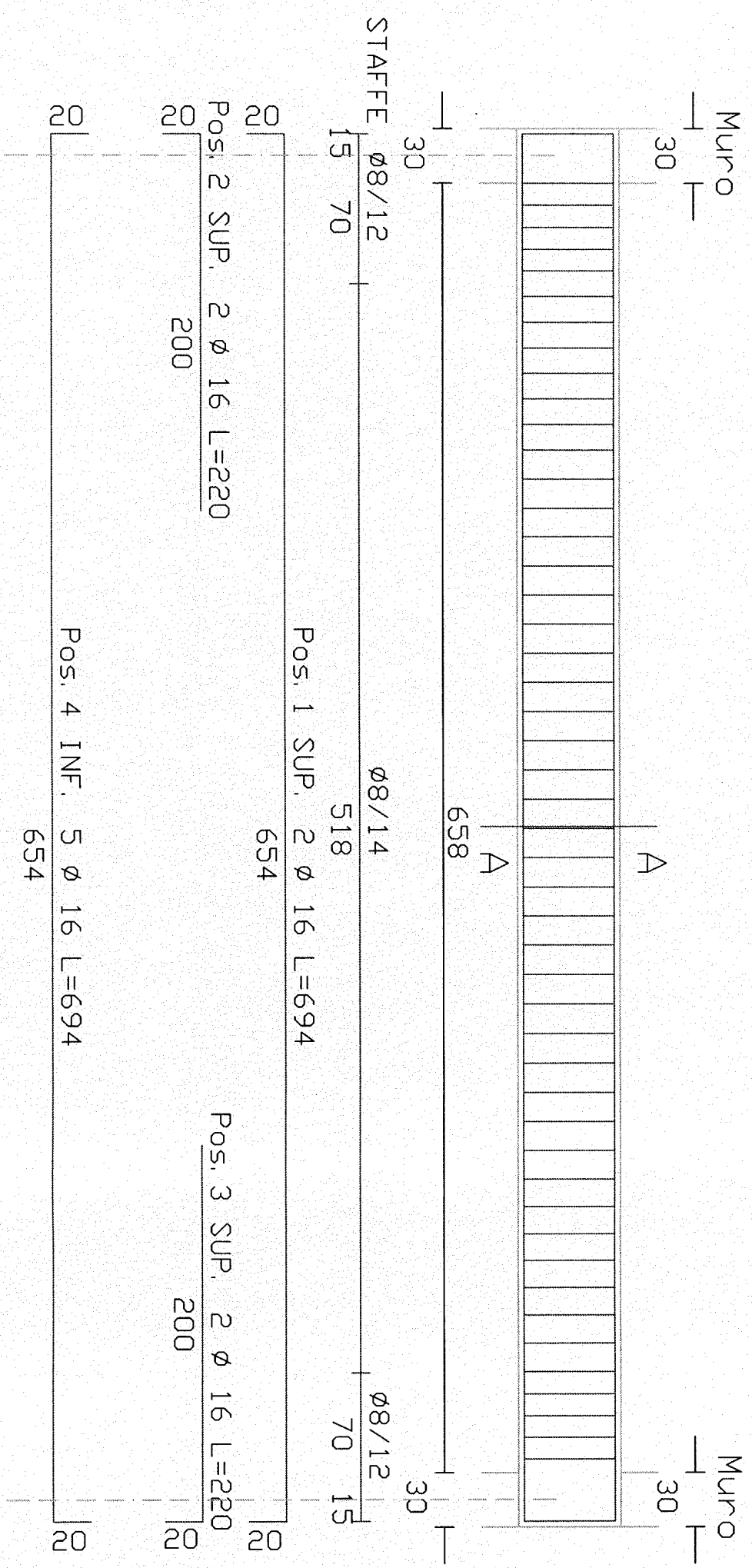
Trave 50 (70x80)

PDS	DIAM Ø (mm)		LUNGH (cm)
1 SUP.	3	Ø 20	L=685
2 SUP.	3	Ø 20	L=175
3 SUP.	3	Ø 20	L=170
4 INF.	6	Ø 20	L=685
5 LAT.	6 + 6	Ø 18	L=645

Sez. A-A

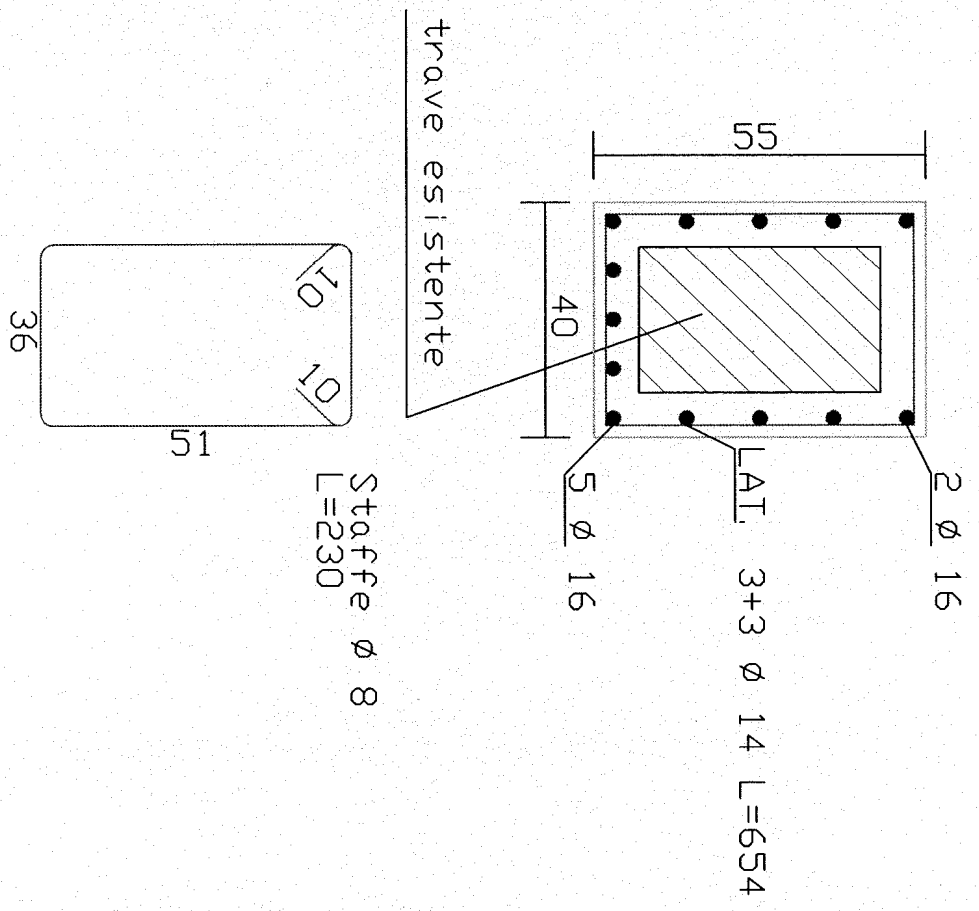


Trave 51/52 (40x55)

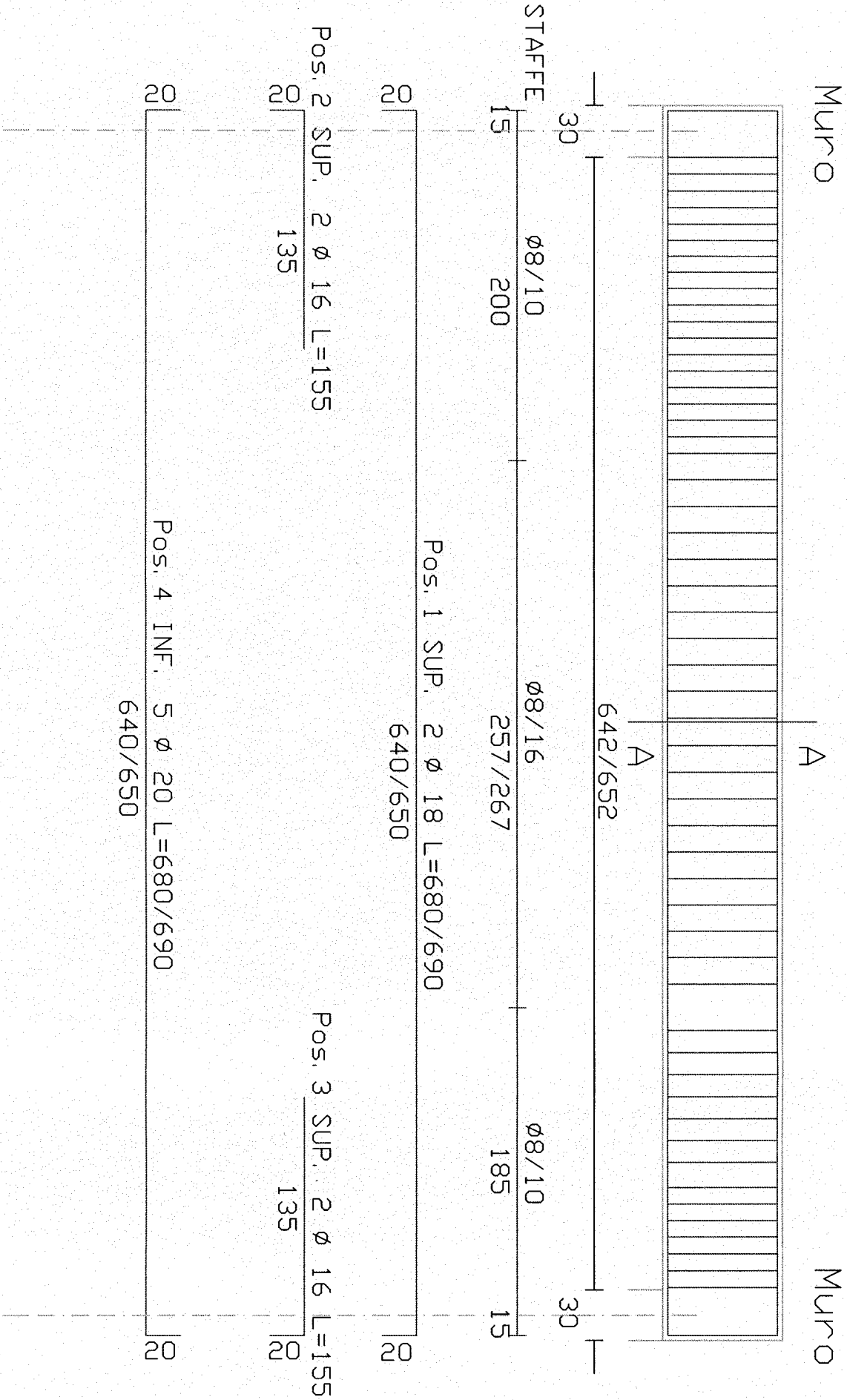


PDS	DIAM $\varnothing$ (mm)	LUNGH (cm)
1 SUP.	2 $\varnothing$ 16	L=694
2 SUP.	2 $\varnothing$ 16	L=220
3 SUP.	2 $\varnothing$ 16	L=220
4 INF.	5 $\varnothing$ 16	L=694
5 LAT.	3 + 3 $\varnothing$ 14	L=654

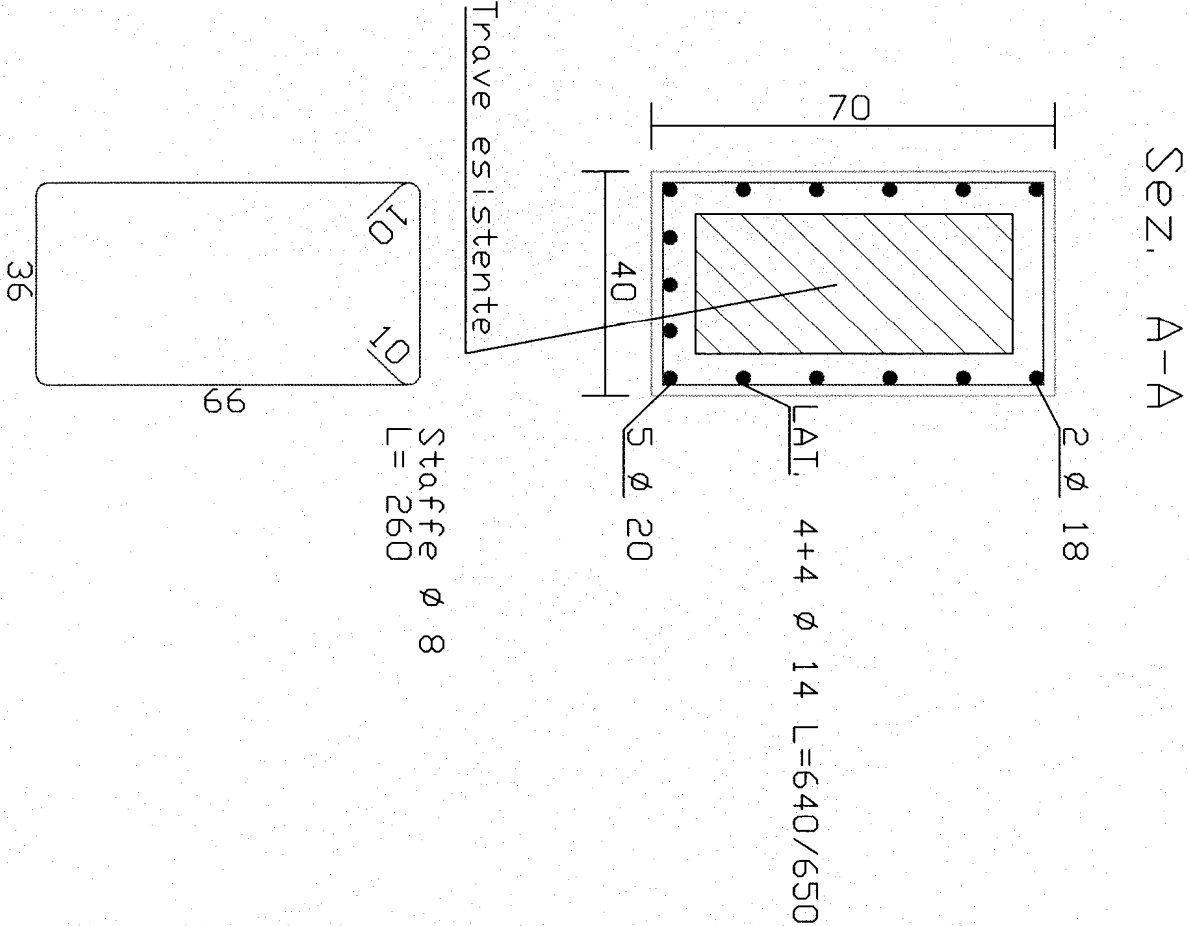
Sez. A-A

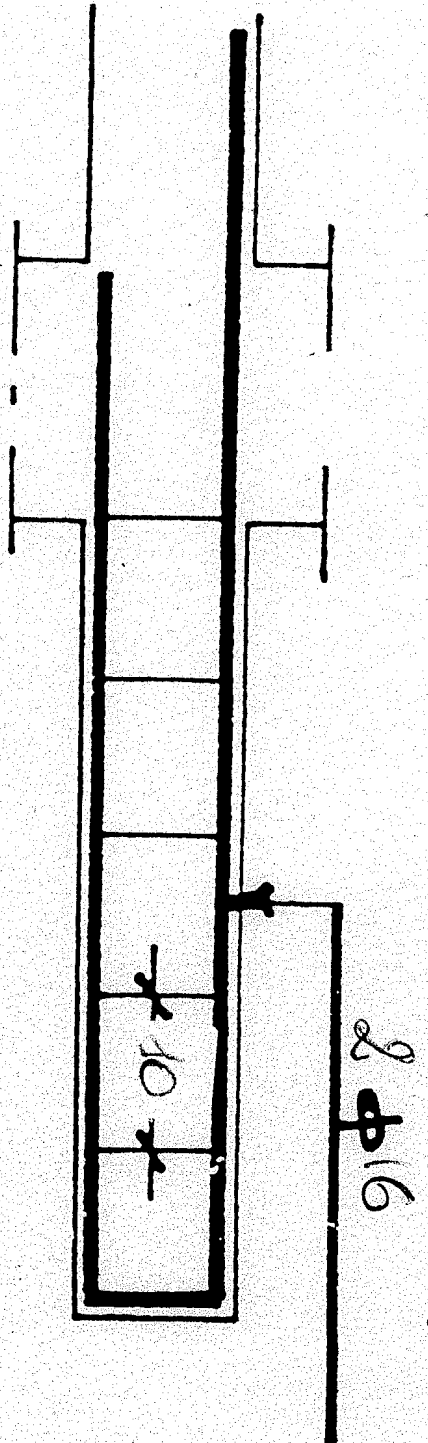
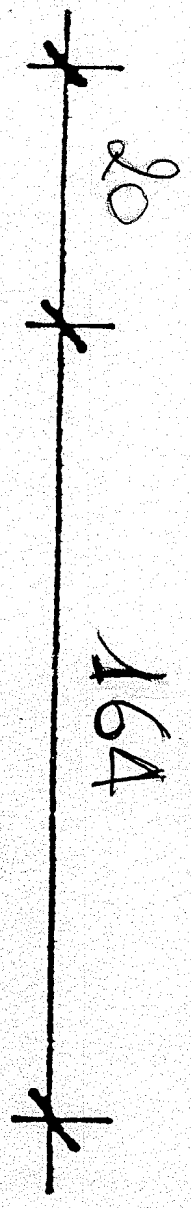


Trave 53/54 (40x70)

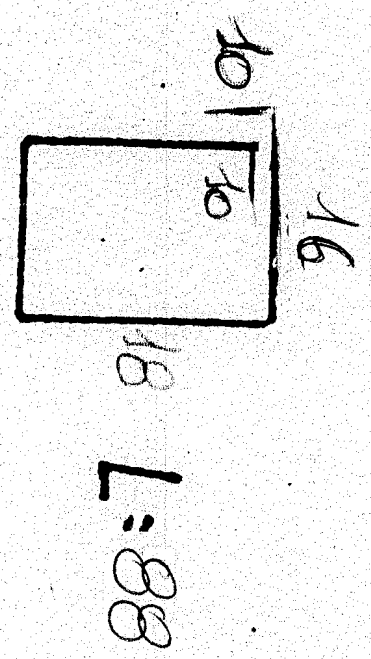
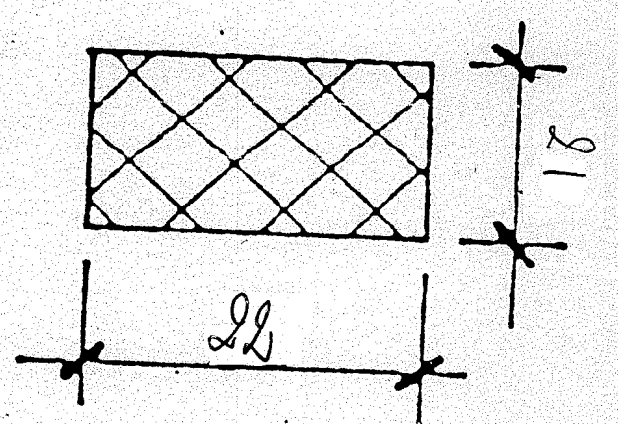


POS	DIAM Ø (mm)		LUNGH (cm)
1 SUP.	2 ø 18		L=680/690
2 SUP.	2 ø 16		L=155
3 SUP.	2 ø 16		L=155
4 INF.	5 ø 20		L=680/690
5 LAT.	4 + 4 ø 14		L=640/650



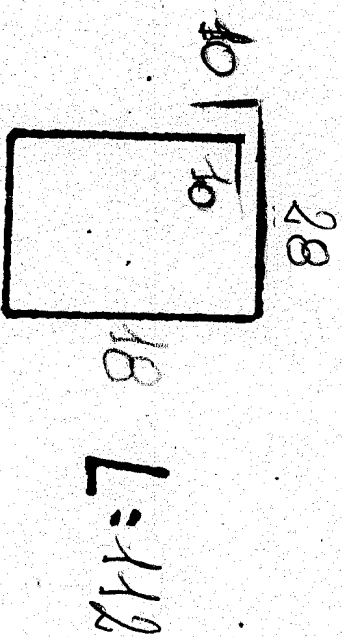
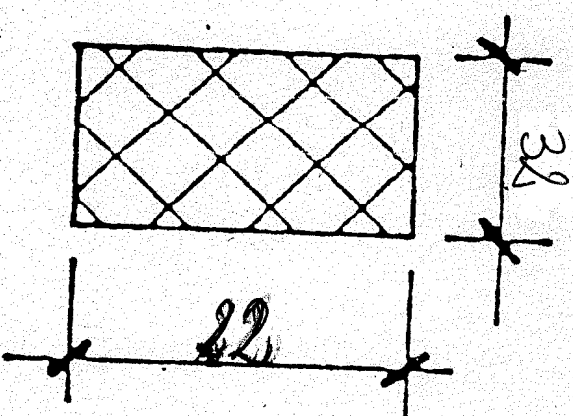
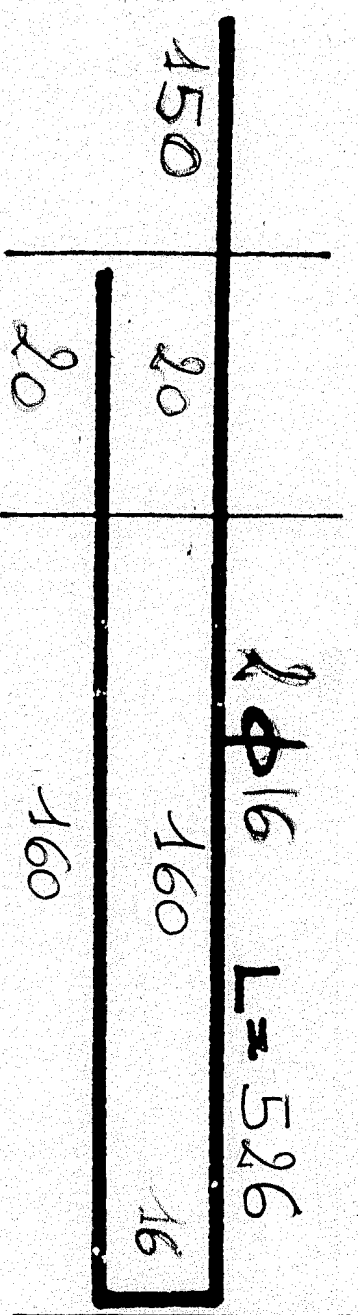
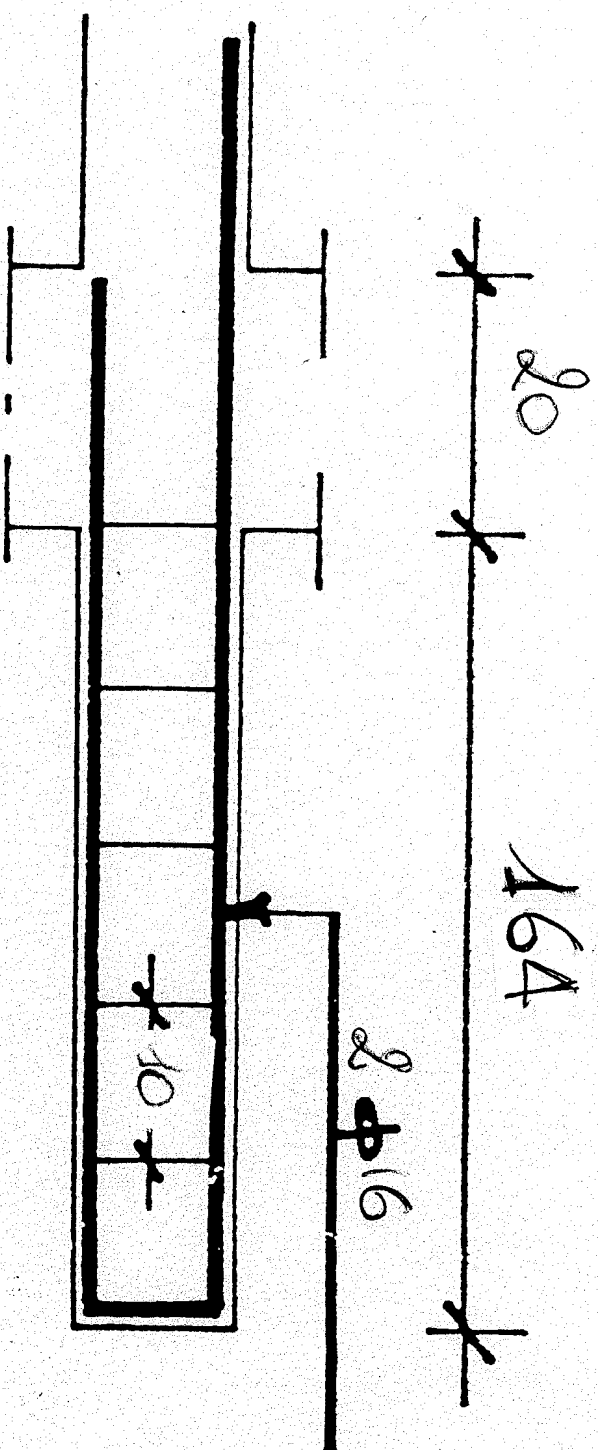


150	20	2φ16	L=526	16
20	160			



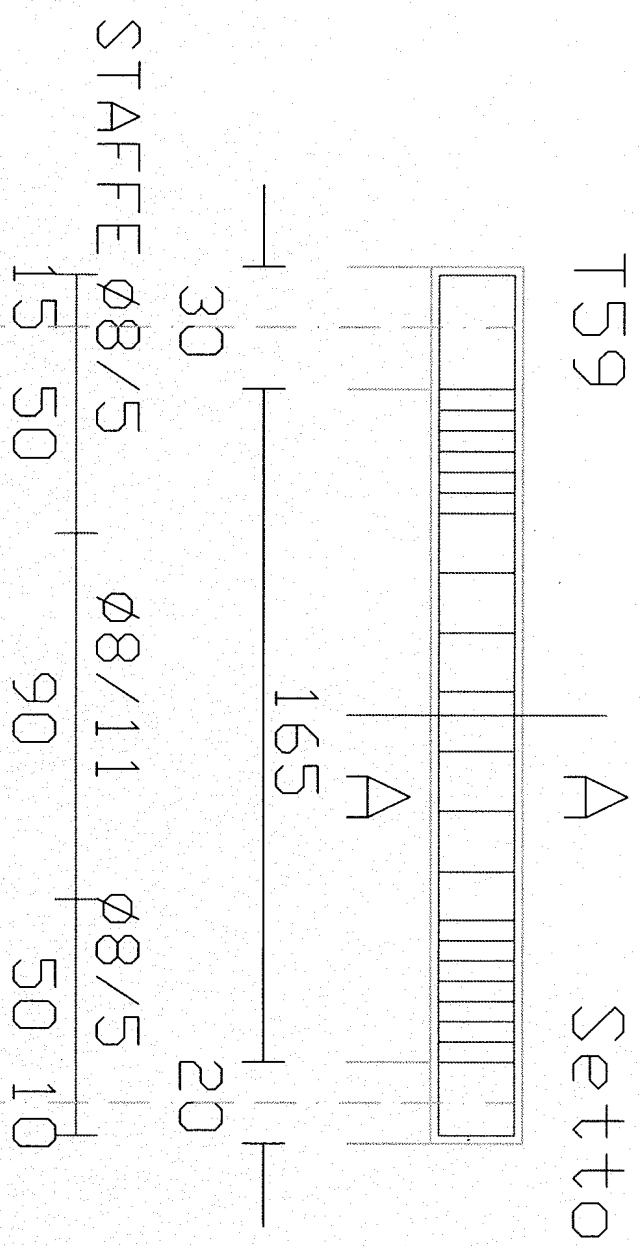
M. 18 staff φ8
pass 10 cm.

Setback A T 56 (32 x 22)



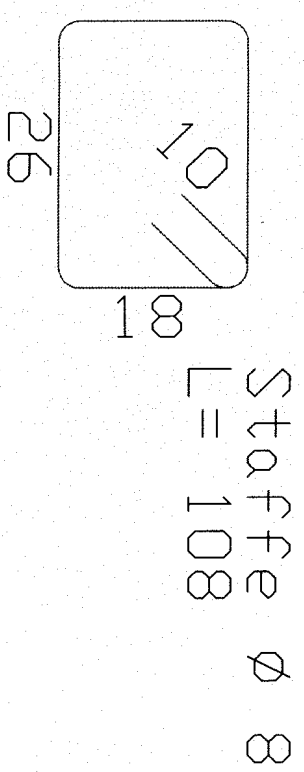
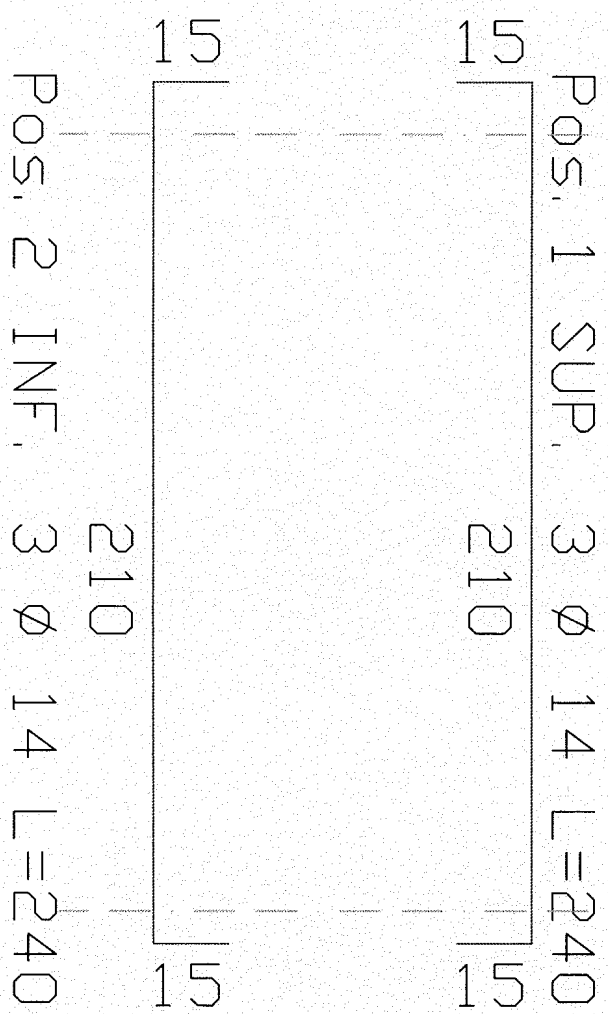
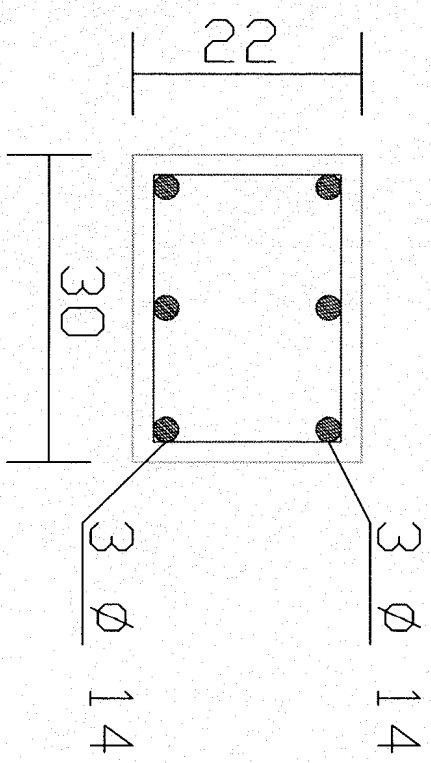
U. 18 staffs $\phi 8$
pass 10 cm.

Love 57 30X22



POS	DIAM Ø (mm)	LUNGH (cm)
1 SUP.	3 Ø 14	L=240
2 INF.	3 Ø 14	L=240

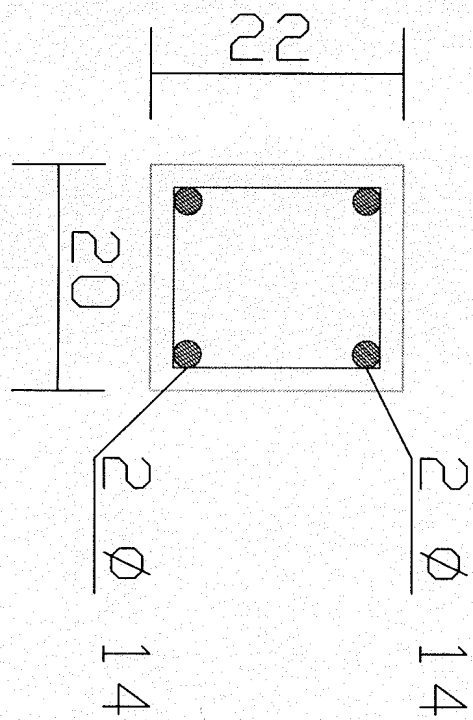
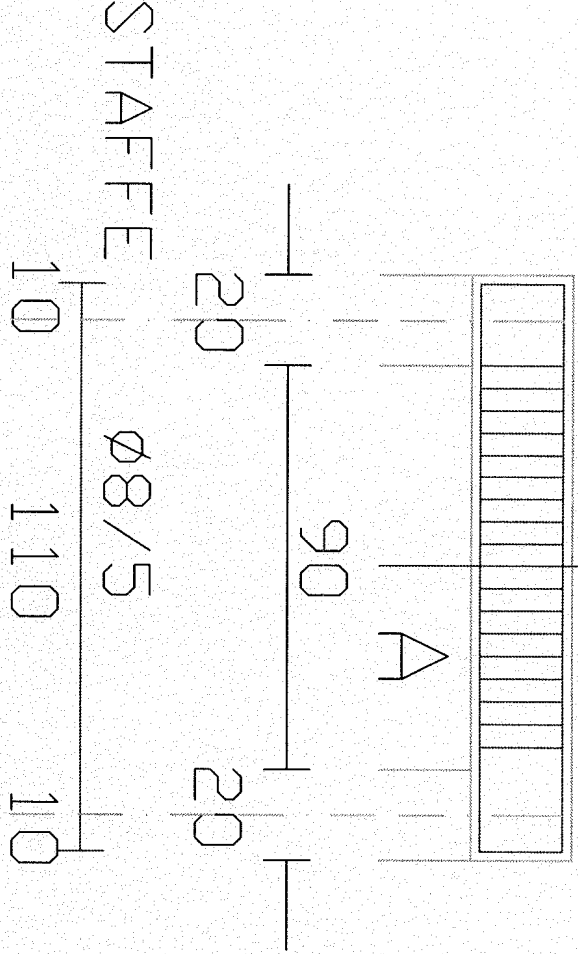
SEN - A - A



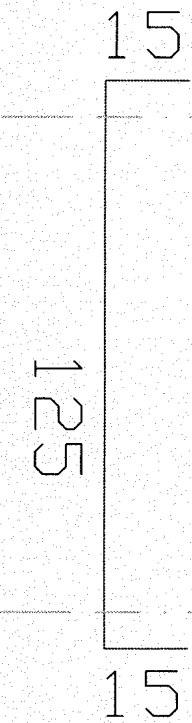
TraVe 58 (20x22)

POS	DIAM Ø (mm)	LUNGH (cm)
Setto A Setto		
1 SUP. 2 Ø 14		L=155
2 INF. 2 Ø 14		L=155

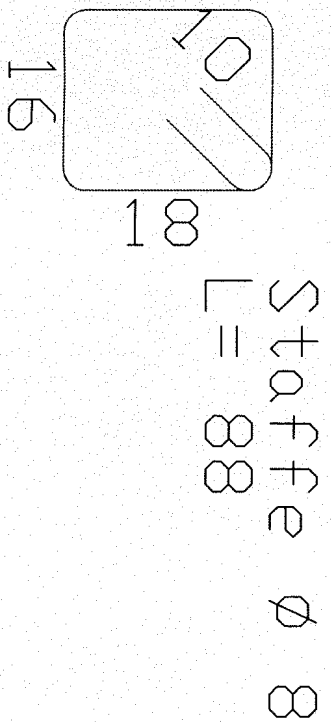
Sez. A-A



Pos. 1 SUP. 2 Ø 14 L=155

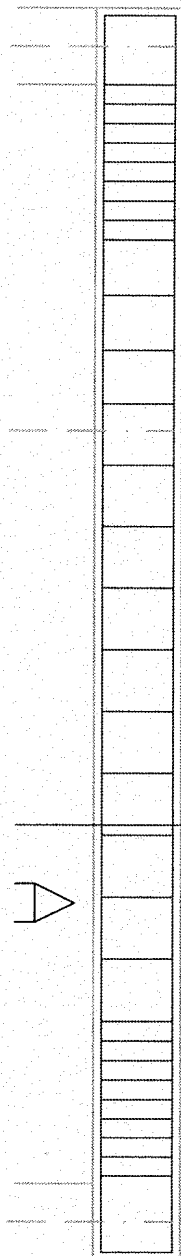


Pos. 2 INF. 2 Ø 14 L=155



Trave 59 (30X22)

Setto A Setto



20 89 195 20

STAFFE Ø8/5
10 50 205 50 10

Pos. 1 SUP. 3 Ø 14 L=350
320 15

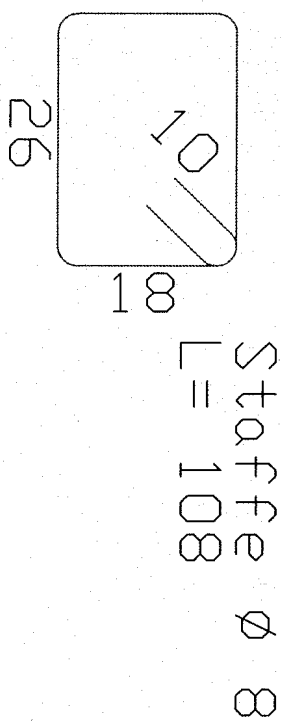
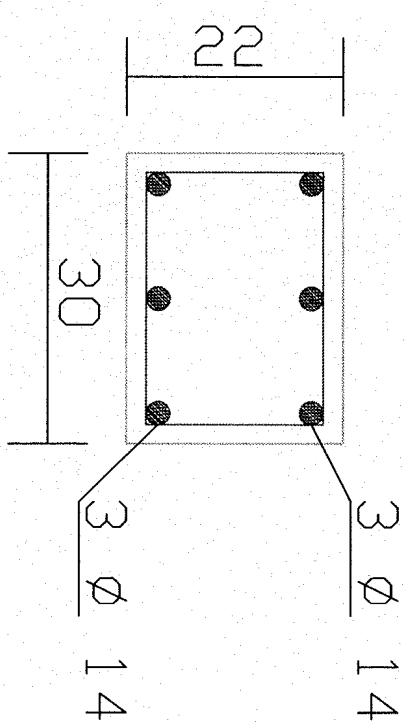
Pos. 2 INF. 3 Ø 14 L=350
320 15

POS DIAM Ø LUNGH

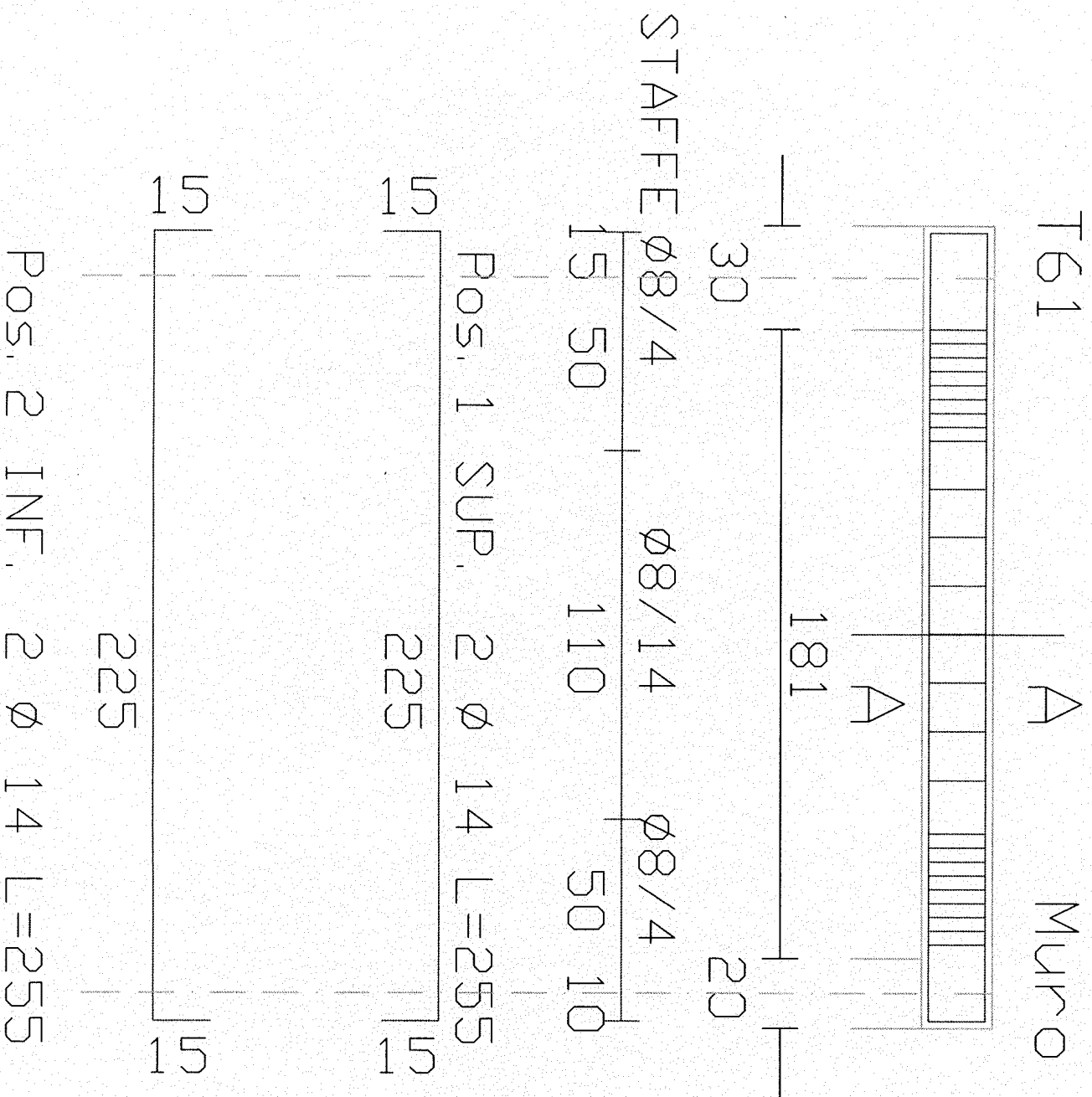
(mm) (cm)

1	SUP.	3 Ø 14	L=350
2	INF.	3 Ø 14	L=350

Sez. A-A

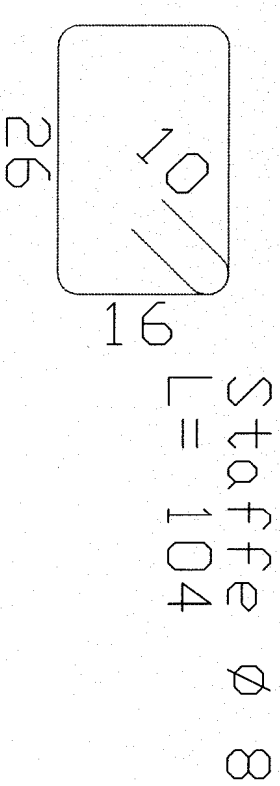
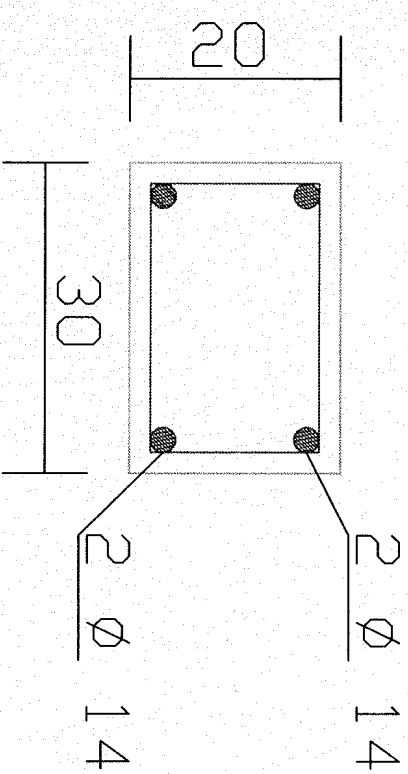


Trave 60 (30x20)



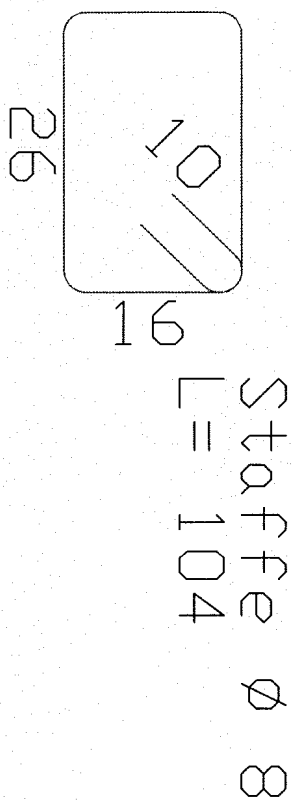
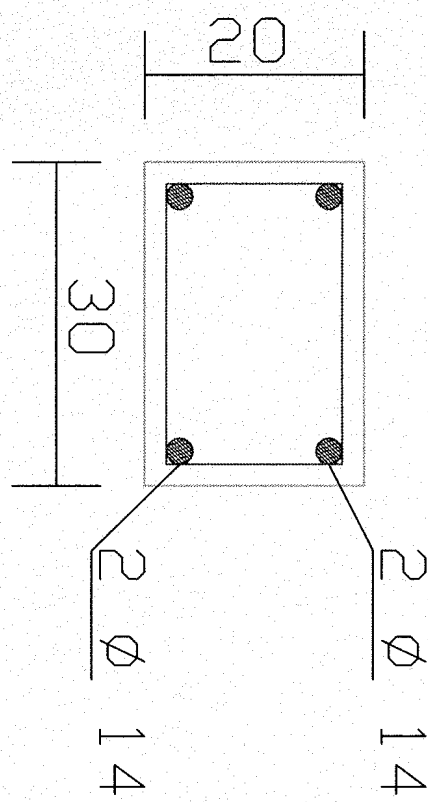
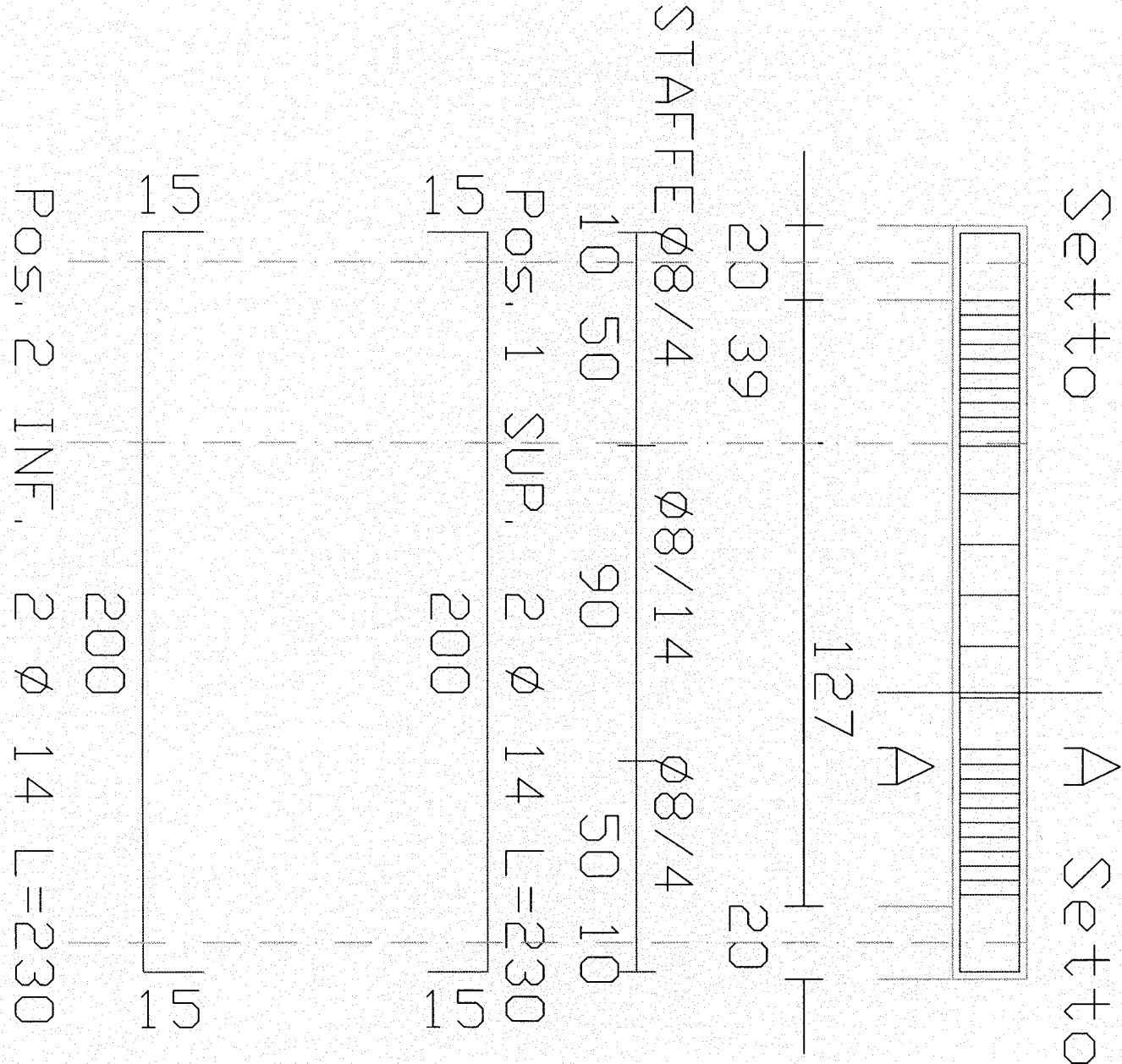
POS	DIAM Ø (mm)		LUNGH (cm)
1 SUP.	2	ø 14	L=255
2 INF.	2	ø 14	L=255

Sez. A-A



Trave 61 (30x20)

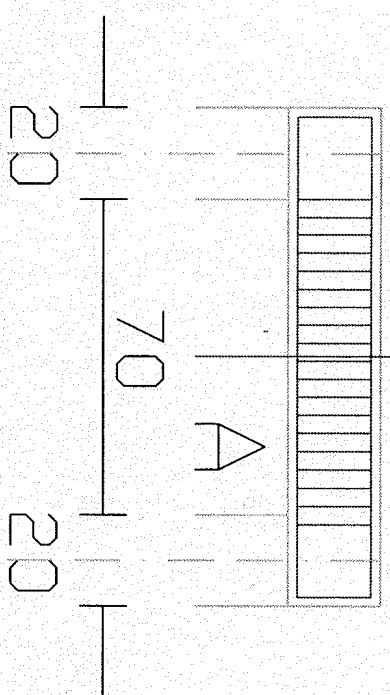
POS	DIAM Ø		LUNGH
	(mm)		(cm)
1 SUP.	2 Ø 14		L=230
2 INF.	2 Ø 14		L=230



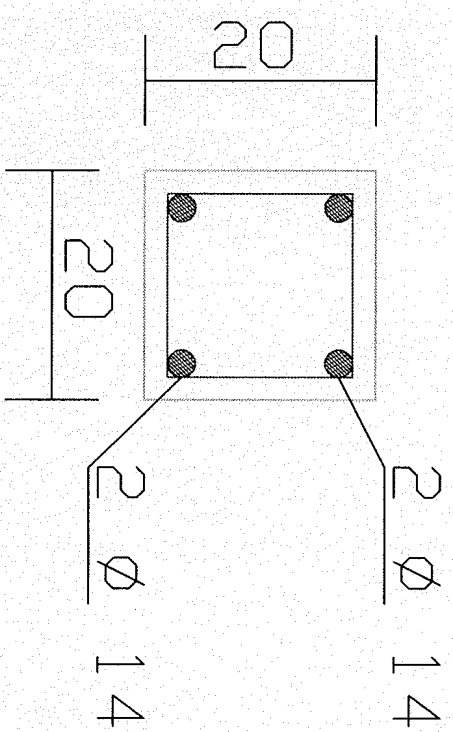
Trave 62 (20x20)

POS	DIAM Ø	LUNGH
	(mm)	(cm)
1 SUP.	2 Ø 14	L=135
2 INF.	2 Ø 14	L=135

Setto A Setto

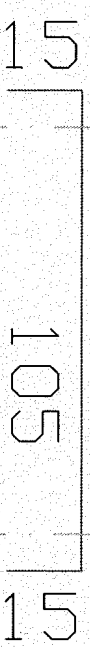


Sez. A-A

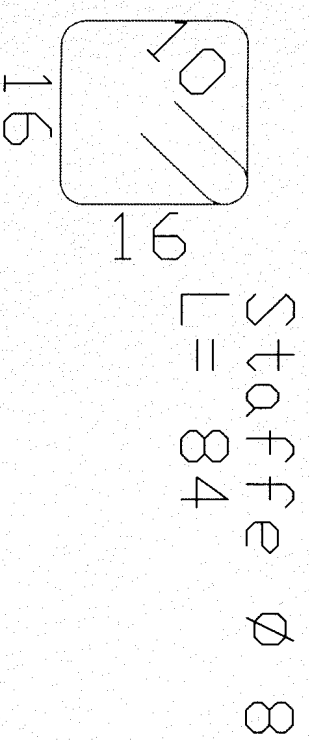


STAFFE Ø8/4
10 100

Pos. 1 SUP. 2 Ø 14 L=135



Pos. 2 INF. 2 Ø 14 L=135



Staffe Ø 8
L=84