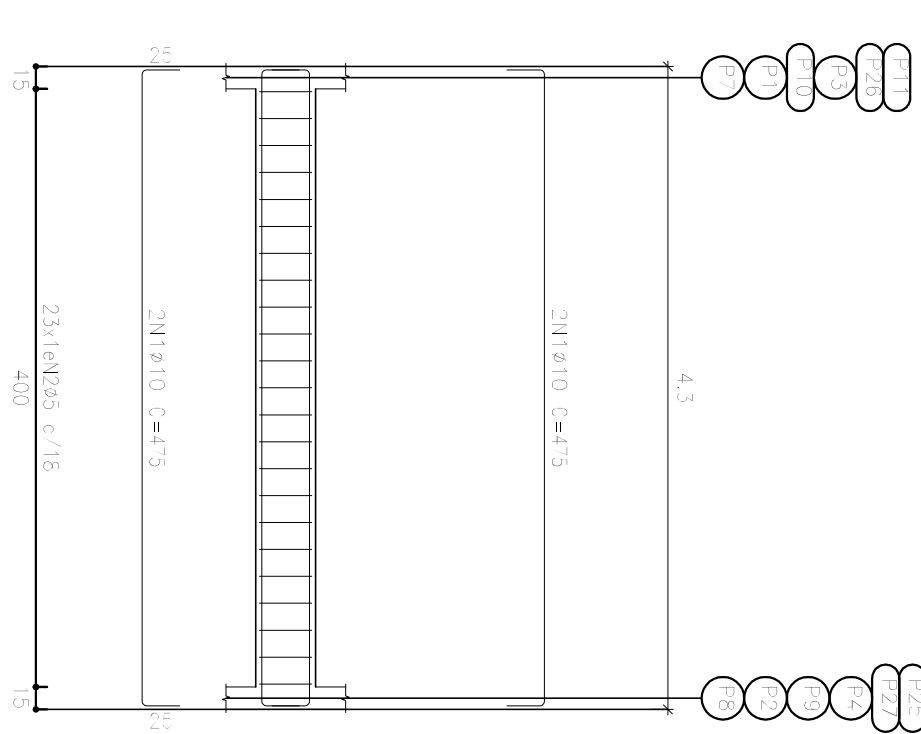
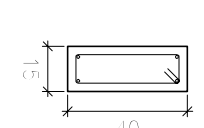
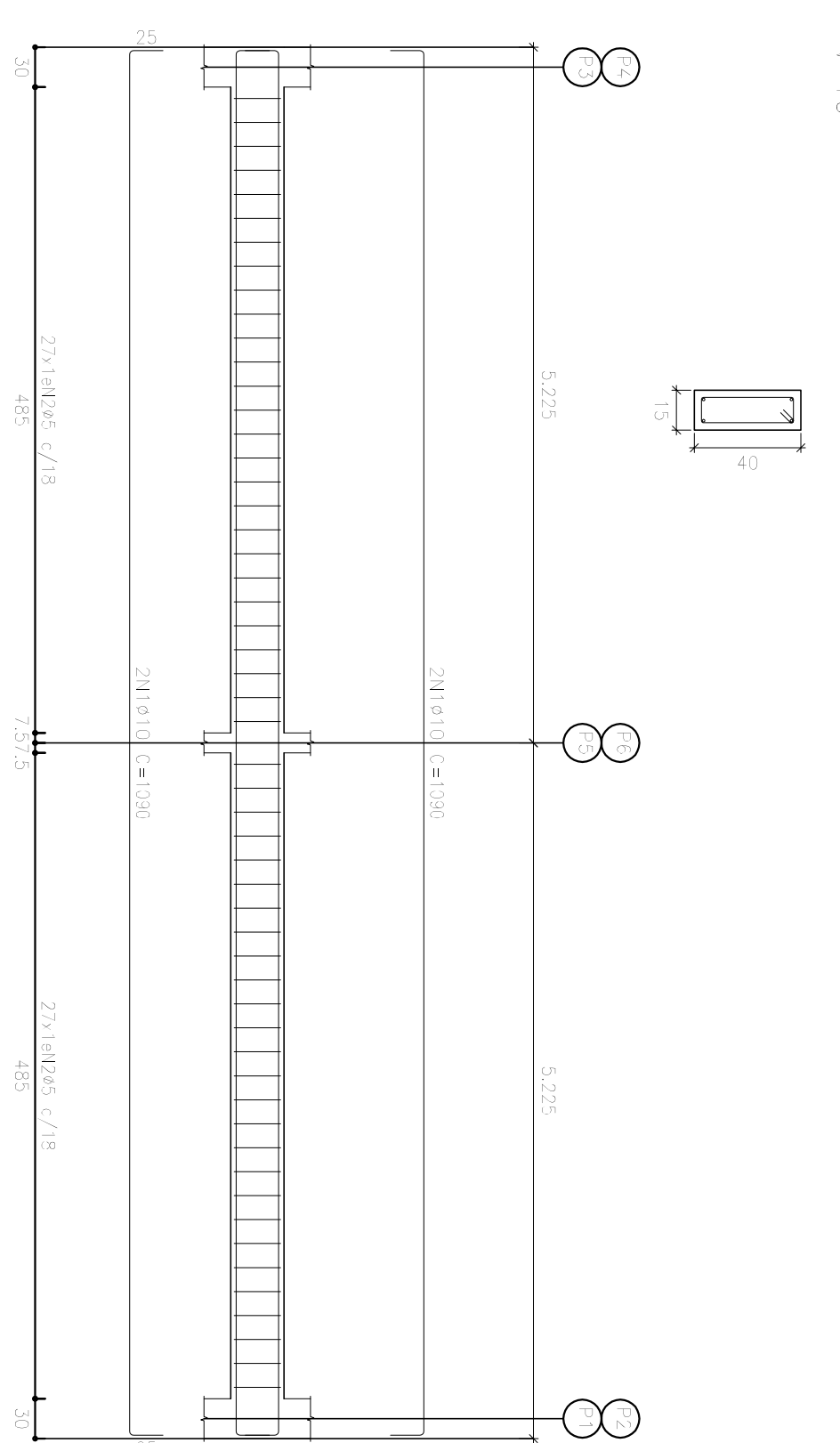
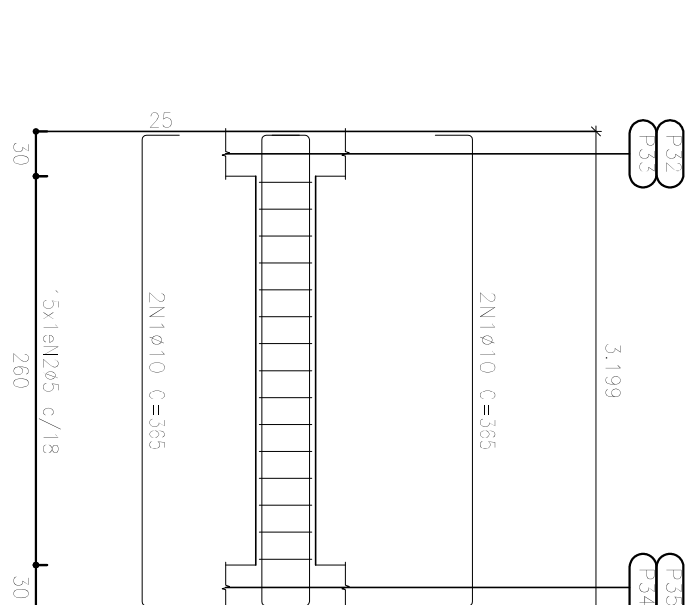
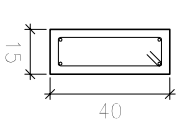


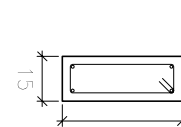
V 1
V 2
V 3
V 8
V 10
V 12



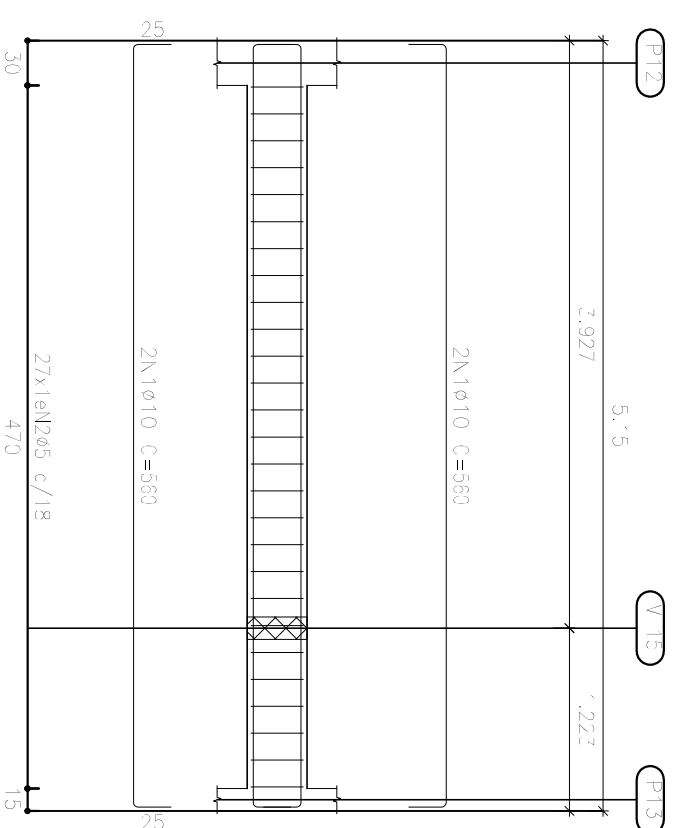
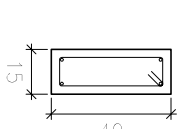
V 4
V 5



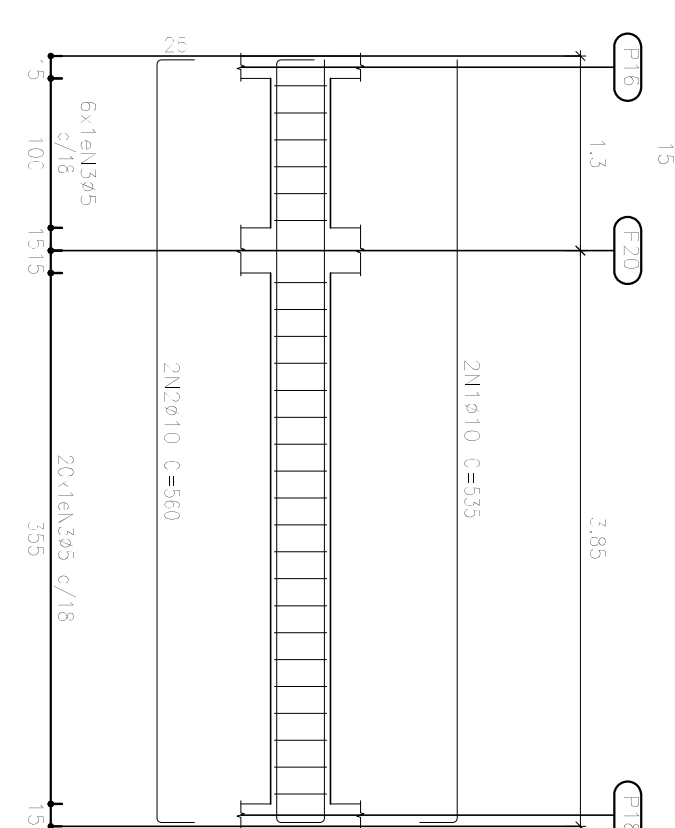
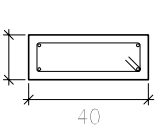
V 18
V 19



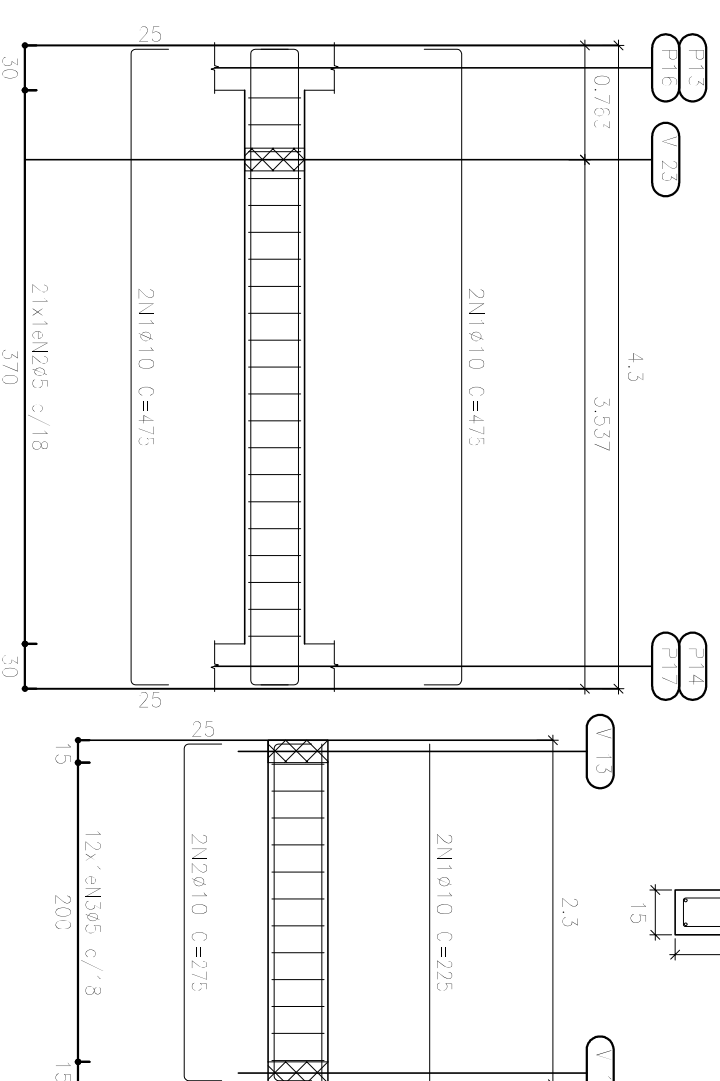
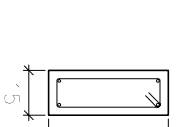
V 21



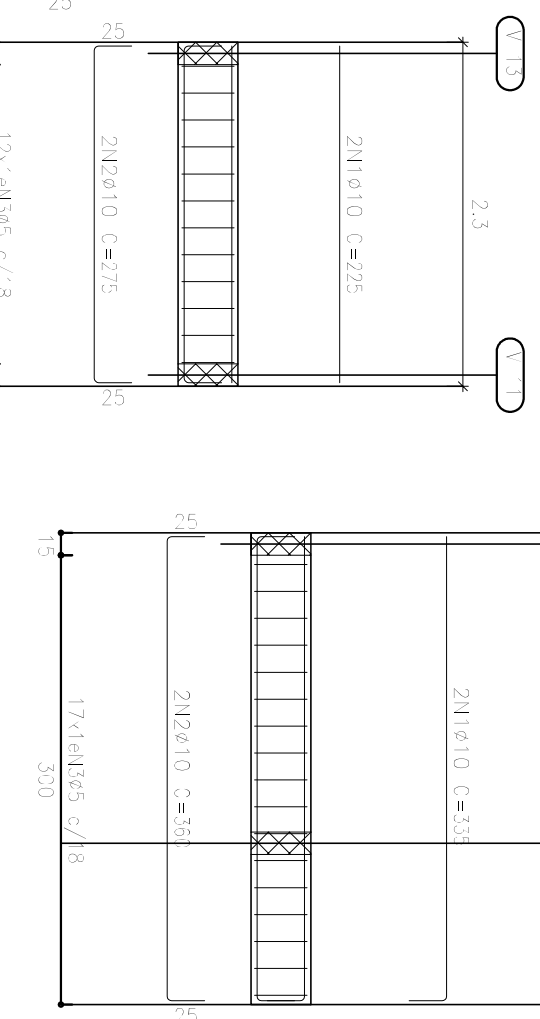
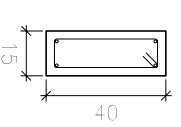
V 22



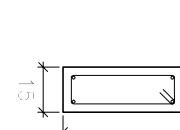
V 11
V 13



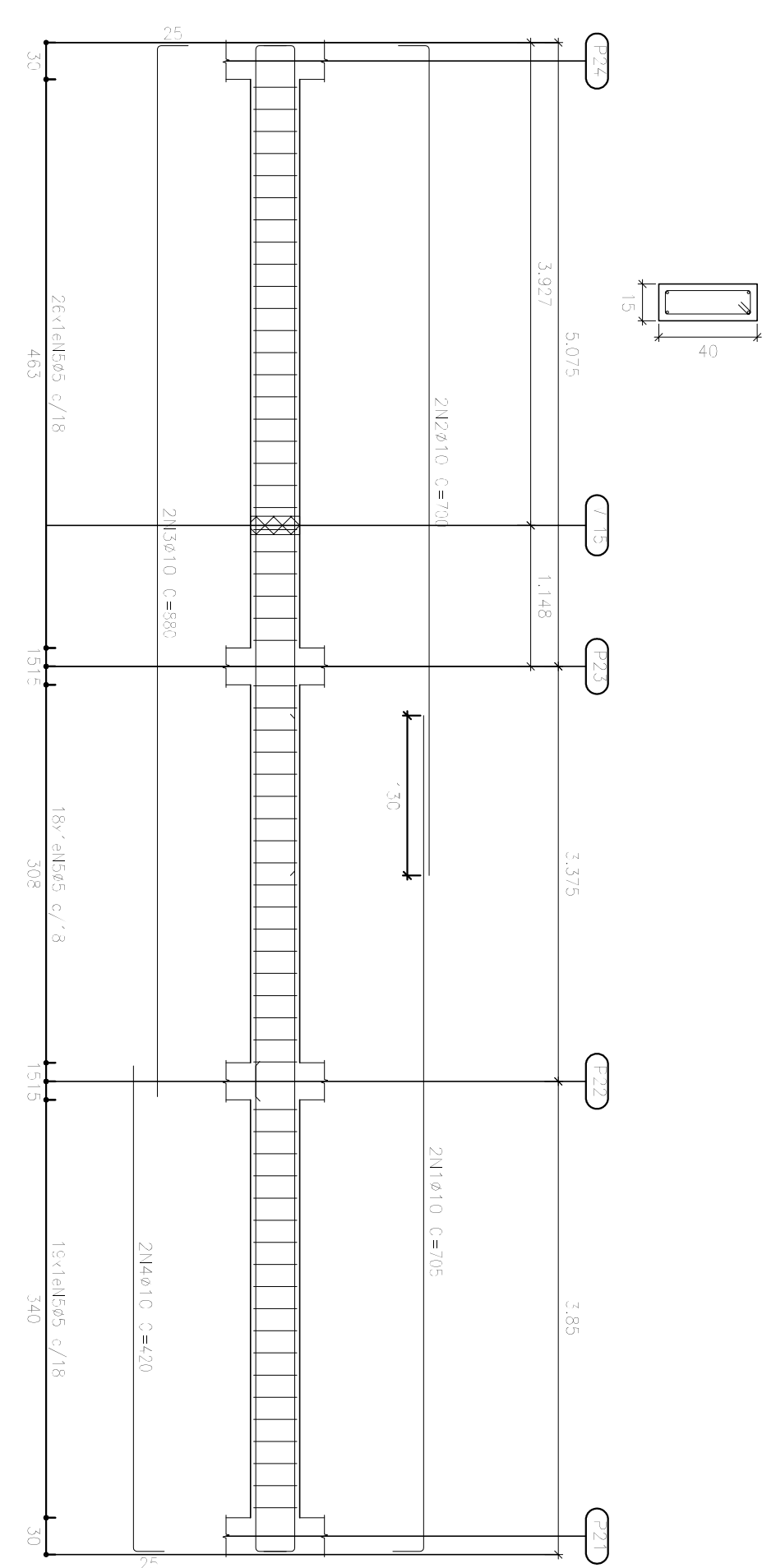
V 23



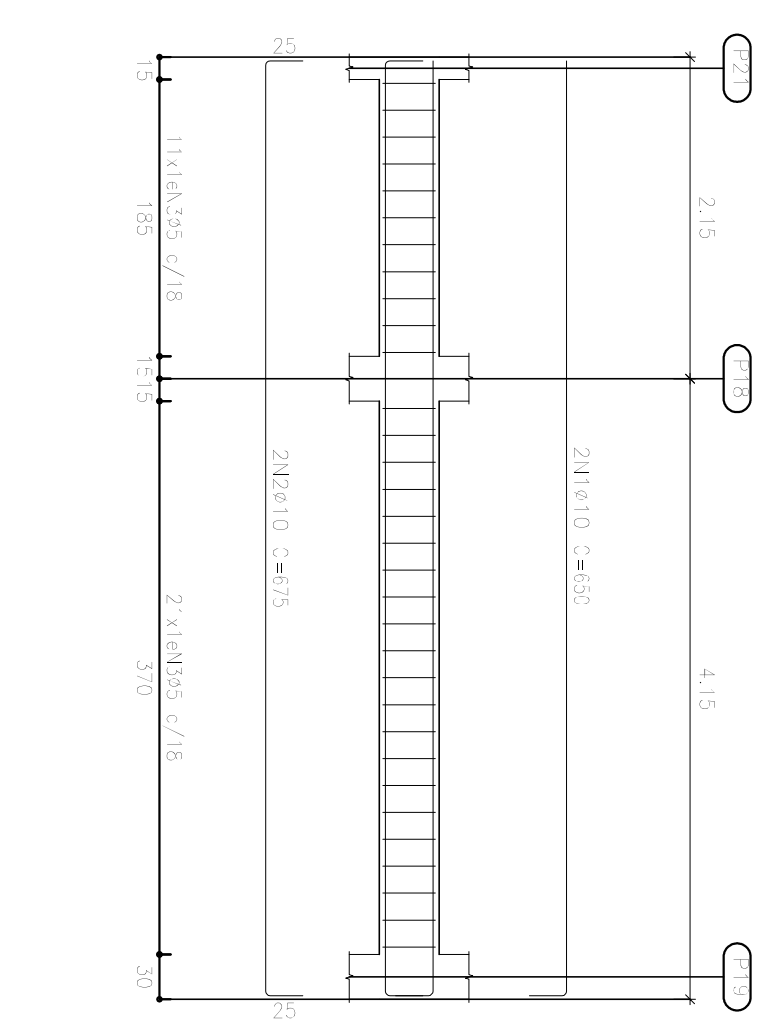
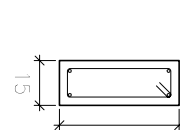
V 15



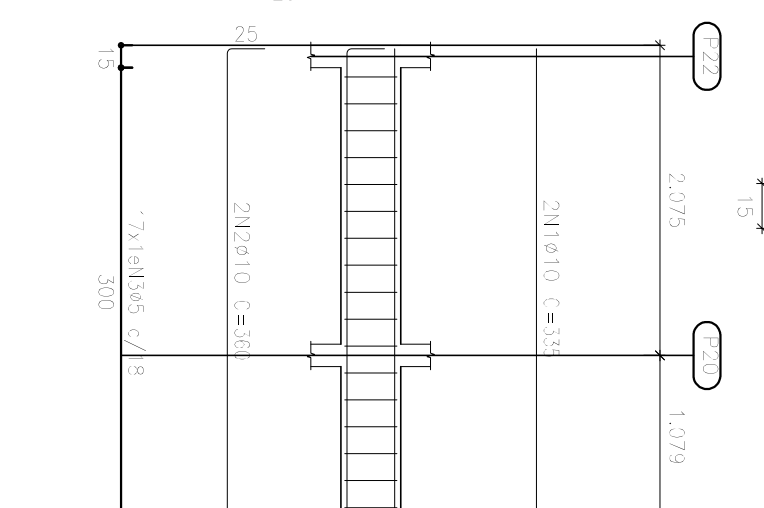
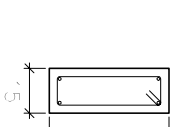
Desenho de vigas
Concreto: C20, em geral
Aço das barras: CA-50 e CA-60
Aço das estibas: CA-50 e CA-60
Escada vigas: 1:50
Escada seções: 1:25



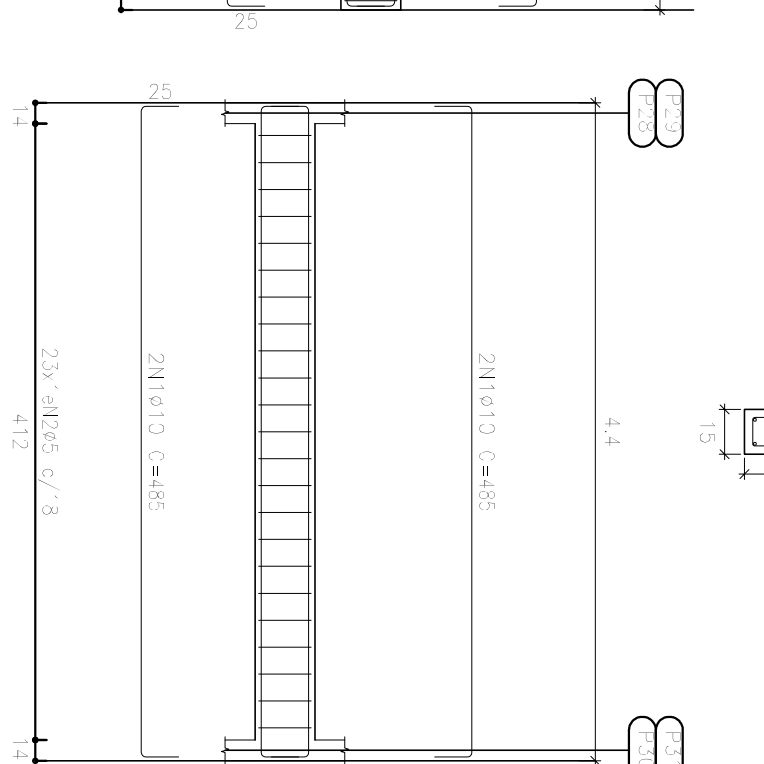
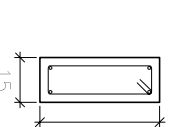
V 20



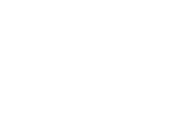
V 7



V 9



V 14
V 16



Elemento	Pos.	Diâm.	Q.	Esquema	Comp. (cm)	Total (kg)
V 1=V 2=V 3	1 Ø10	4	4	4	475	1900 11.7
V 8=V 10=V 12	2 Ø5	23	23	23	98	225.4 3.5
					Total + 10%:	12.9 3.9
					(x6):	77.4 23.4
V 4=V 5	1 Ø10	4	4	4	355	1460 9.0
	2 Ø5	15	15	15	98	1470 2.3
					Total + 10%:	9.9 2.5
					(x2):	19.8 5.0
V 6	1 Ø10	4	4	4	475	1900 11.7
	2 Ø5	21	21	21	98	2058 3.2
					Total + 10%:	12.9 3.5
					(x2):	25.8 7.0
V 7	1 Ø10	2	2	2	650	1300 8.0
	2 Ø10	2	2	2	675	1350 8.3
	3 Ø5	32	32	32	98	3136 4.9
					Total + 10%:	17.9 5.4
V 9	1 Ø10	2	2	2	335	670 4.1
	2 Ø10	2	2	2	360	720 4.4
	3 Ø5	17	17	17	98	1666 2.6
					Total + 10%:	9.4 2.9
V 11=V 13	1 Ø10	4	4	4	475	1900 11.7
	2 Ø5	21	21	21	98	2058 3.2
					Total + 10%:	12.9 3.5
					(x2):	25.8 7.0
V 14=V 16	1 Ø10	4	4	4	485	1940 12.0
	2 Ø5	23	23	23	98	225.4 3.5
					Total + 10%:	13.2 3.9
					(x2):	26.4 7.8
V 15	1 Ø10	2	2	2	335	670 4.1
	2 Ø10	2	2	2	360	720 4.4
	3 Ø5	17	17	17	98	1666 2.6
					Total + 10%:	9.4 2.9
V 17	1 Ø10	2	2	2	650	1300 8.0
	2 Ø10	2	2	2	675	1350 8.3
	3 Ø5	34	34	34	98	3332 5.2
					Total + 10%:	17.9 5.7
V 18=V 19	1 Ø10	4	4	4	1090	4360 26.9
	2 Ø5	54	54	54	98	5292 8.3
					Total + 10%:	29.6 9.1
					(x2):	59.2 18.2
V 20	1 Ø10	2	2	2	705	1410 8.7
	2 Ø10	2	2	2	700	1400 8.6
	3 Ø10	2	2	2	880	1760 10.8
	4 Ø10	2	2	2	420	840 5.2
	5 Ø5	63	63	63	98	6174 9.7
					Total + 10%:	36.6 10.7
V 21	1 Ø10	4	4	4	560	2240 13.8
	2 Ø5	27	27	27	98	2646 4.2
					Total + 10%:	15.2 4.6
V 22	1 Ø10	2	2	2	535	1070 6.6
	2 Ø10	2	2	2	560	1120 6.9
	3 Ø5	26	26	26	98	2548 4.0
					Total + 10%:	14.9 4.4
V 23	1 Ø10	2	2	2	225	450 2.8
	2 Ø10	2	2	2	275	550 3.4
	3 Ø5	12	12	12	98	1176 1.8
					Total + 10%:	6.8 2.0
					Ø55:	0.0 0.35
					Ø10:	149.6 0.0
					Total:	149.6 0.35

REVISÃO	DATA	DESCRIÇÃO	RESP.

EXATA

ENGENHARIA E COMÉRCIO LTDA.

R. Ruychade 240 - Centro
Campinas - SP - CEP: 13015-520
Fone / Fax: (19) 3256 - 1054

Site: www.exatacampinas.com.br
e-mail: contato@exatacampinas.com.br

CONTRATANTE			
PREFEITURA MUNICIPAL DE HORTOLÂNDIA			
CENTRO DE CONVIVÊNCIA DA MELHOR IDADE			
RUA EUCLIDES PIRES DE ASSIS, Nº 200			
REMANSO CAMPEINEIRO			
OBRA	TÍTULO	FOLHA	
MUNICIPAL	PROJETO ESTRUTURAL		
Nº OBRA	-		
Nº ART	DETALHAMENTO VIGAS BALDRAMES		
28027230211821242			
AUTOR DO PROJETO	DATA		
EDUARDO PRATA	11/2021		
DESENHO	ESCALA		
EXATA ENGENHARIA	INDICADA		

E05
08