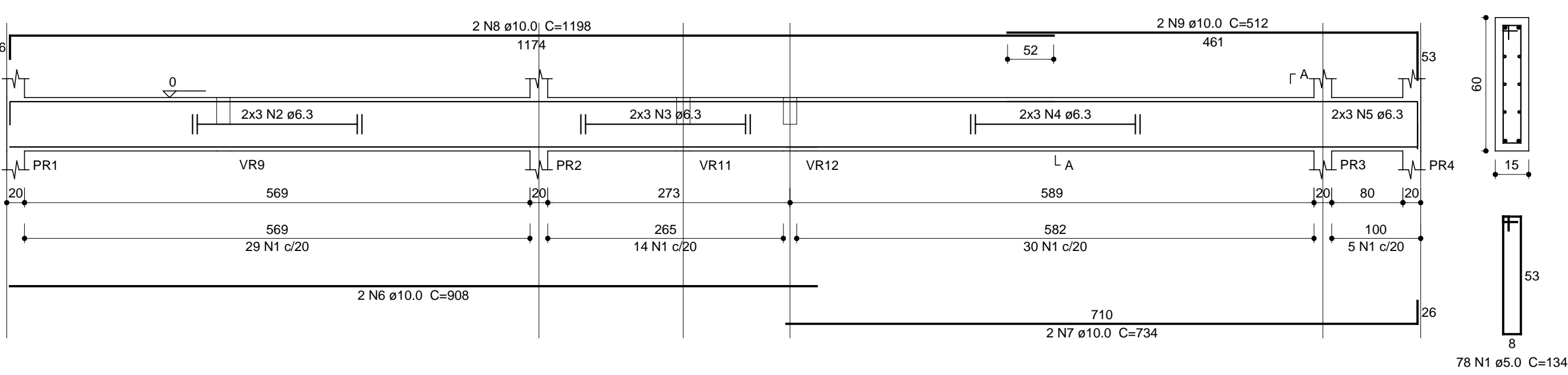
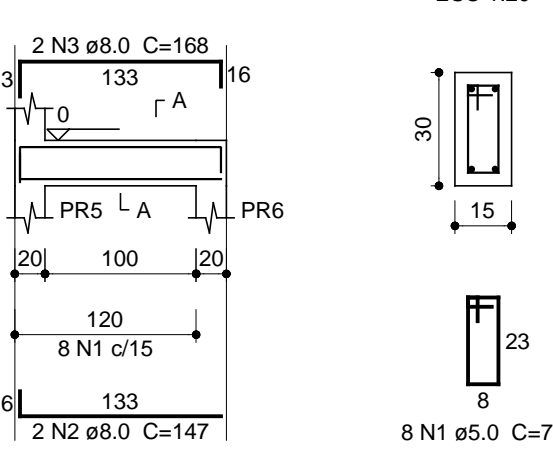


PENAS	
RED	0.1mm BLACK
YELLOW	0.2mm BLACK
GREEN	0.3mm BLACK
CYAN	0.4mm BLACK
BLUE	0.5mm BLACK
MAGENTA	0.6mm BLACK
10	0.1mm 10
42	0.1mm 42
98	0.1mm 98
156	0.1mm 156
160	0.2mm 160
254	0.1mm 254

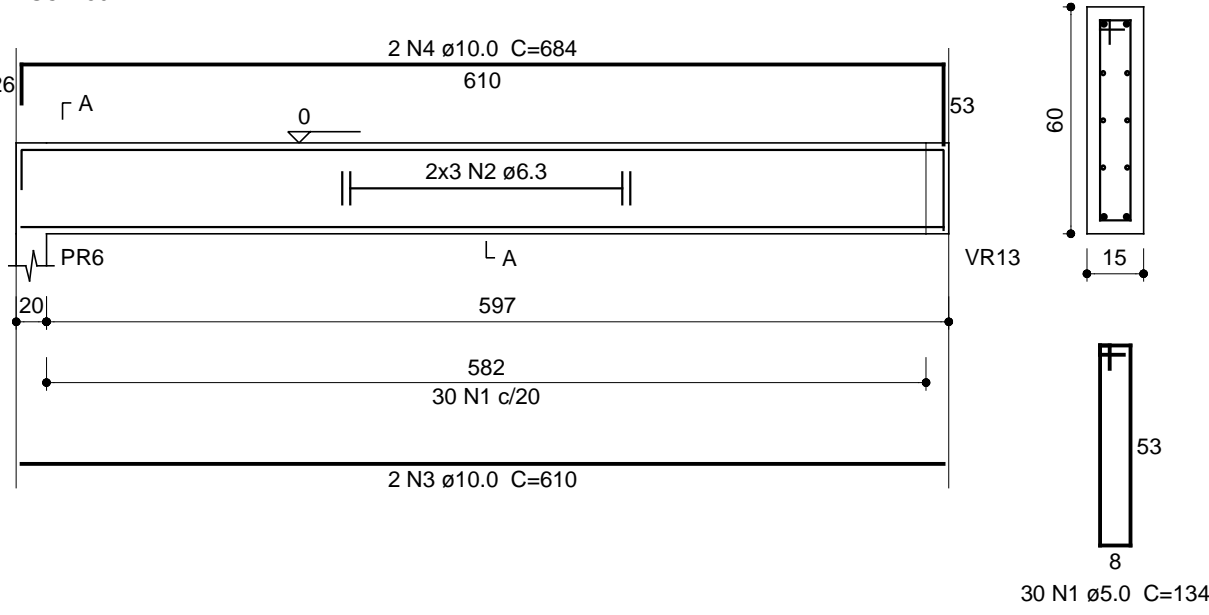
VR1 (15 x 60)



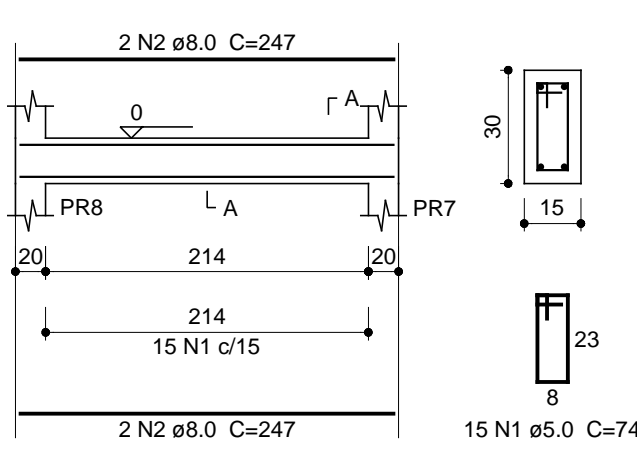
VR2 (15 x 30)



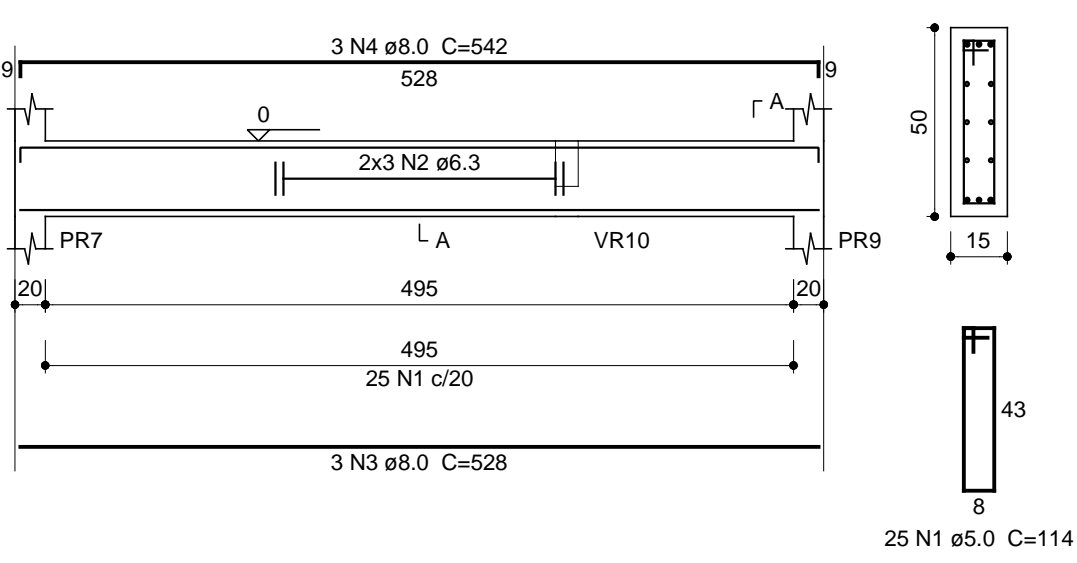
VR3 (15 x 60)



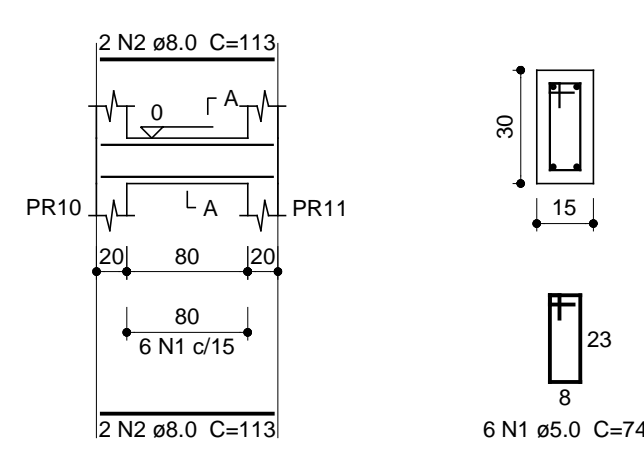
VR4 (15 x 30)



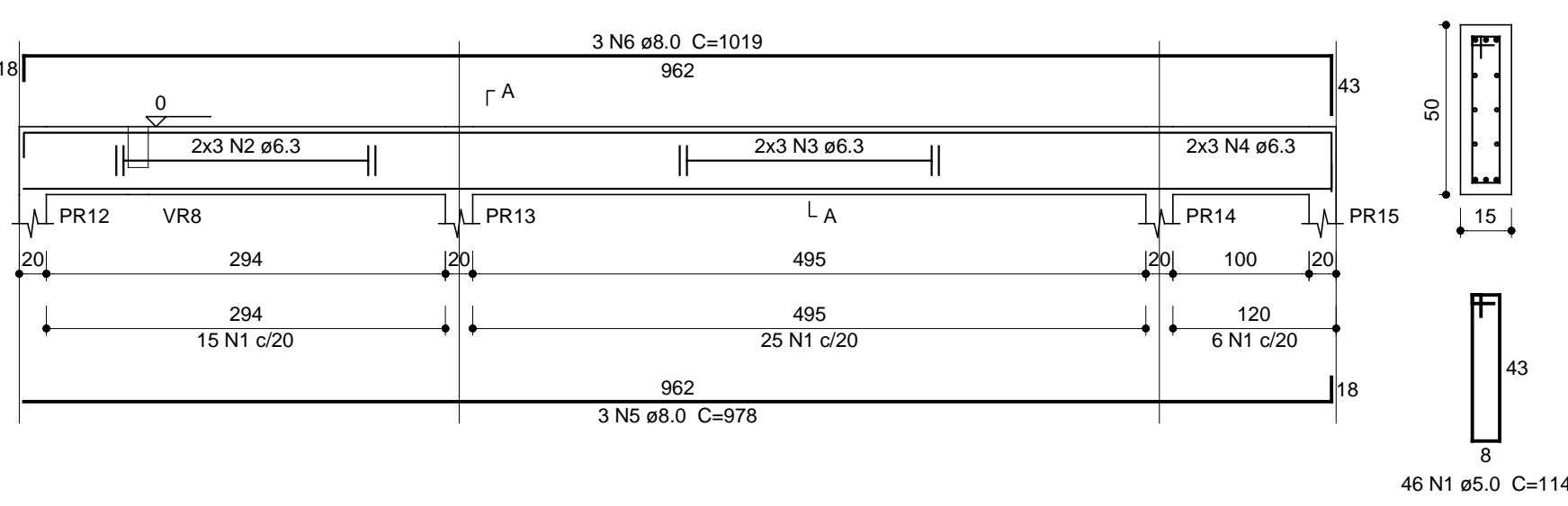
VR5 (15 x 50)



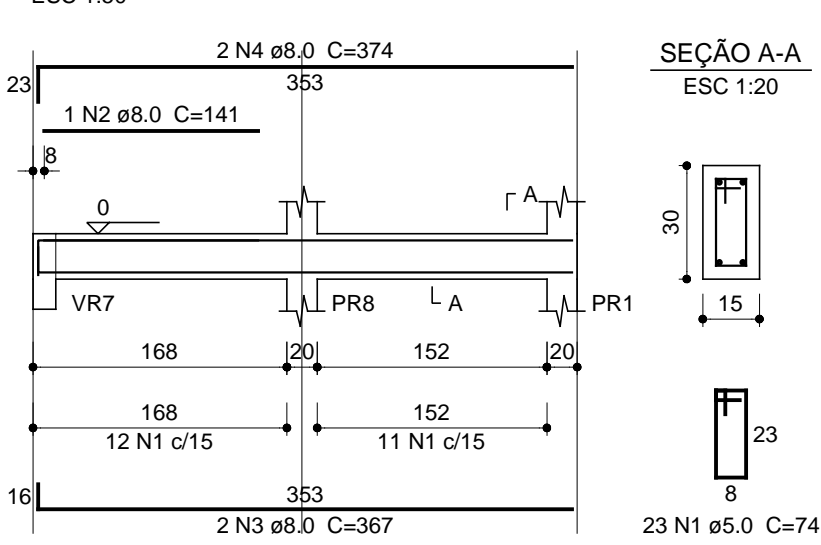
VR6 (15 x 30)



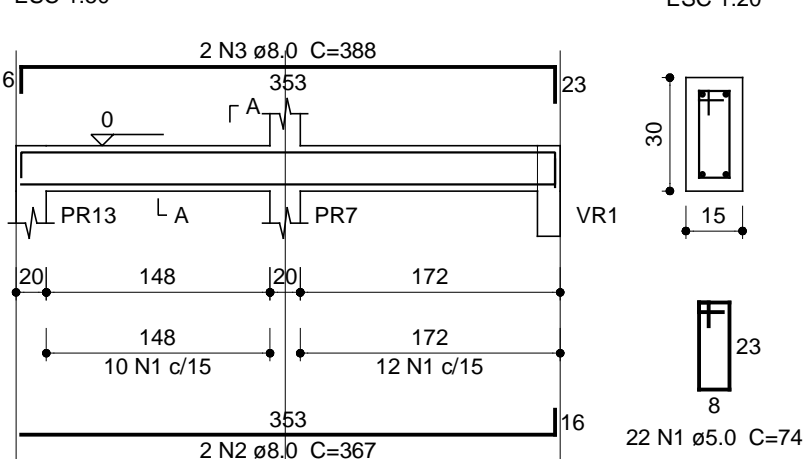
VR7 (15 x 50)



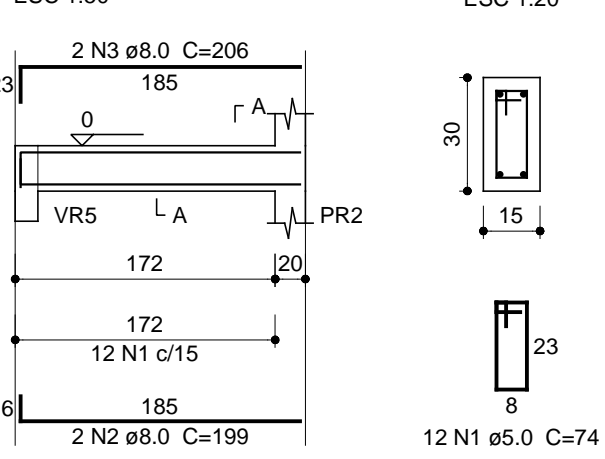
VR8 (15 x 30)



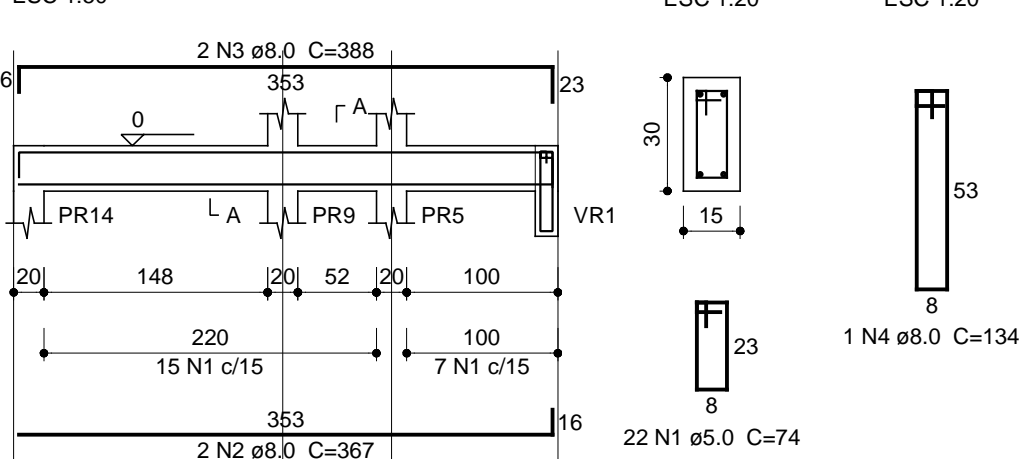
VR9 (15 x 30)



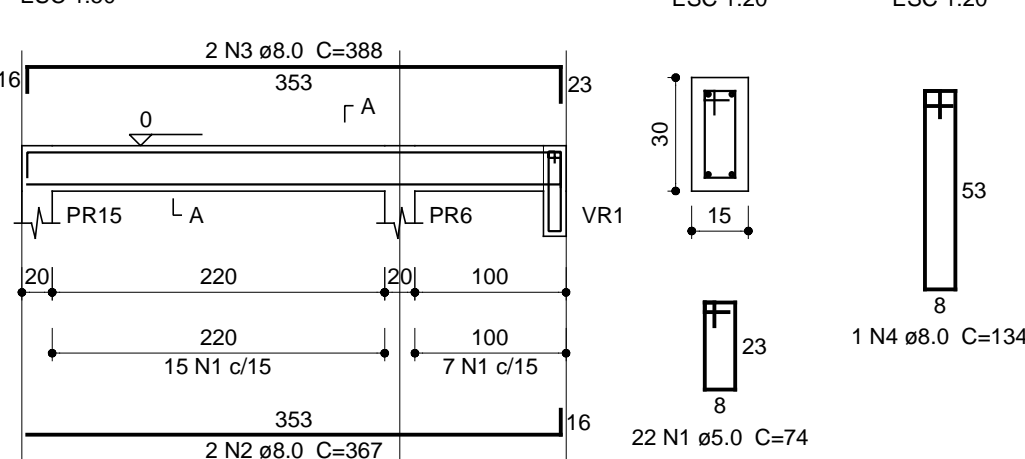
VR10 (15 x 30)



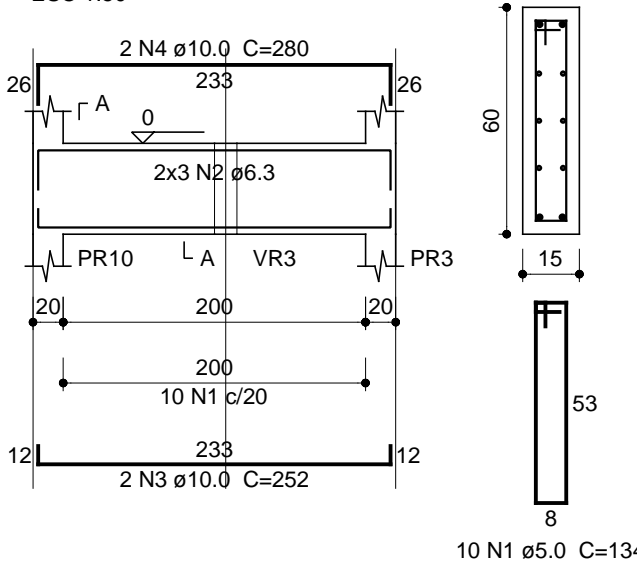
VR11 (15 x 30)



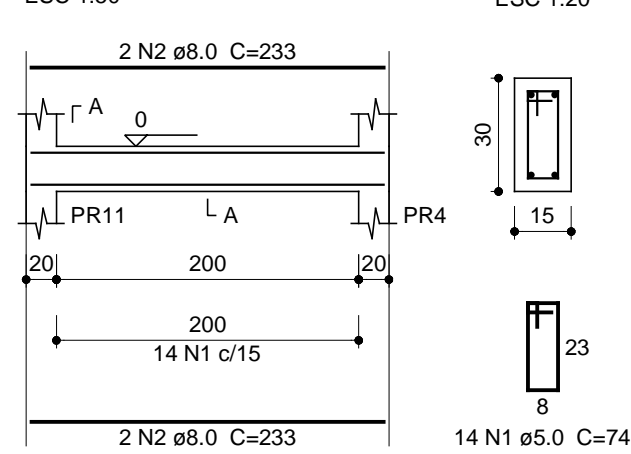
VR12 (15 x 30)



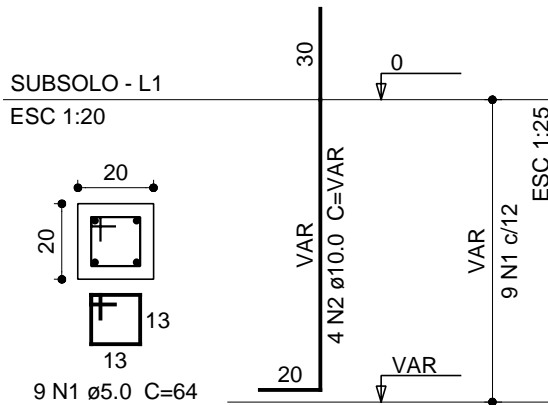
VR13 (15 x 60)



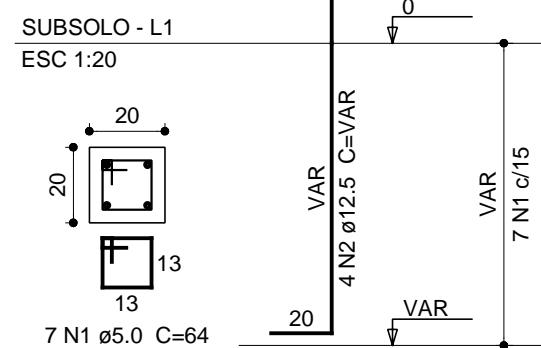
VR14 (15 x 30)



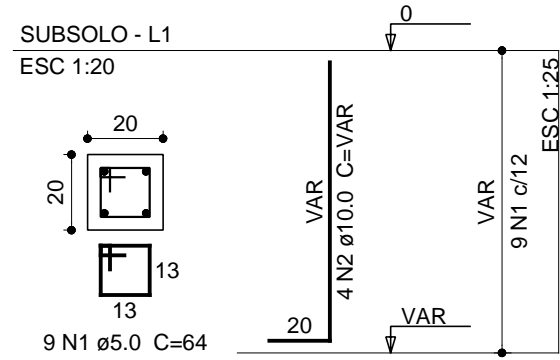
PR1=PR2=PR4=PR5=PR7=PR8=PR9=PR11



PR3=PR10

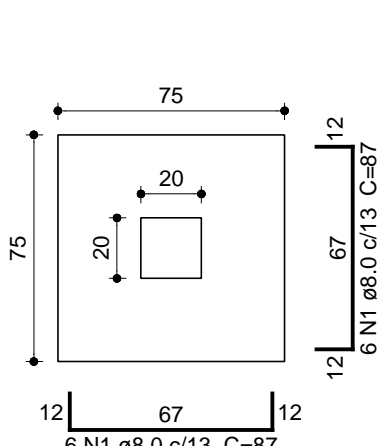


PR6=PR12=PR13=PR14=PR15

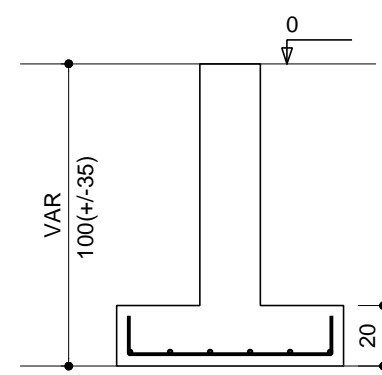


SR1=SR2=SR3=SR4=SR5=SR6=SR7=SR8=SR9=SR10=SR11=SR12=SR13=SR14=SR15

PLANTA ESC 1:25



CORTE ESC 1:25



Solo compactado sobre a sapata peso específico > 1600.00 kg/m³

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)	AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
VR1	CA60	1	5.0	78	134	10452	CA50	6.3	238.7	58.4
	CA50	2	6.3	6	CORR	3612	CA50	8.0	194.4	76.7
	CA50	3	6.3	6	CORR	1758	CA50	10.0	103.6	63.8
	CA50	4	6.3	6	CORR	3660	CA50	5.0	345.7	53.3
	CA50	5	6.3	6	CORR	678	PESO TOTAL (kg)			
	CA50	6	10.0	2	908	1816	Volume de concreto (C35) = 4.4 m³			
	CA50	7	10.0	2	734	1468	Área de forma = 68.22 m²			
	CA50	8	10.0	2	1198	2396				
	CA50	9	10.0	2	512	1024				
VR2	CA60	1	5.0	8	74	592				
	CA50	2	8.0	2	147	294				
	CA50	3	8.0	2	168	336				
VR3	CA60	1	5.0	30	134	4020				
	CA50	2	6.3	6	CORR	3660				
	CA50	3	10.0	2	610	1220				
	CA50	4	10.0	2	684	1368				
VR4	CA60	1	5.0	15	74	1110				
	CA50	2	8.0	4	247	988				
	CA60	1	5.0	25	114	2850				
VR5	CA50	2	6.3	6	CORR	3168				
	CA50	3	8.0	3	528	1584				
	CA50	4	8.0	3	542	1626				
	CA60	1	5.0	6	74	444				
VR6	CA50	2	8.0	4	113	452				
	CA60	1	5.0	46	114	5244				
	CA50	2	6.3	6	CORR	1962				
VR7	CA50	3	6.3	6	CORR	3168				
	CA50	4	6.3	6	CORR	798				
	CA50	5	8.0	3	978	2934				
	CA50	6	8.0	3	1019	3057				
VR8	CA60	1	5.0	23	74	1702				
	CA50	2	8.0	1	141	141				
	CA50	3	8.0	2	367	734				
	CA50	4	8.0	2	374	748				
VR9	CA60	1	5.0	22	74	1628				
	CA50	2	8.0	2	367	734				
	CA50	3	8.0	2	388	776				
VR10	CA60	1	5.0	12	74	888				
	CA50	2	8.0	2	199	398				
	CA50	3	8.0	2	206	412				
VR11	CA60	1	5.0	22	74	1628				
	CA50	2	8.0	2	367	734				
	CA50	3	8.0	2	388	776				
	CA50	4	8.0	1	134	134				
VR12	CA60	1	5.0	22	74	1628				
	CA50	2	8.0	2	367	734				
	CA50	3	8.0	2	388	776				
	CA50	4	8.0	1	134	134				
VR13	CA60	1	5.0	10	134	1340				
	CA50	2	6.3	6	CORR	1398				
	CA50	3	10.0	2	252	504				
	CA50	4	10.0	2	280	560				
VR14	CA60	1	5.0	14	74	1036				
	CA50	2	8.0	4	233	932				

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
15xSR2	CA50	1	8.0	180	87	15660

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	156.6	61.8
PESO TOTAL (kg)		Volume de concreto (C35) = 1.69 m³	
CA50	61.8	Área de forma = 9 m²	

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
8xPR1	CA60	1	5.0	72	64	4608
2xPR3	CA50	2	10.0	32	VAR	VAR
	CA60	1	5.0	14	64	896
	CA50	2	12.5	8	VAR	VAR
5xPR6	CA60	1	5.0	45	64	2880
	CA50	2	10.0	20	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	10.0	68.1	42
	12.5	12.1	11.6
CA60	5.0	83.9	12.9
PESO TOTAL (kg)		Volume de concreto (C35) = 0.6 m³	
CA50	53.6	Área de forma = 12 m²	
CA60	12.9		

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PROJETO N°

1280/16

PROJETO

ESTRUTURAL



MUNICÍPIO DE PARANAGUÁ

PROJETO PRÉDIO ADM. DA PREFEITURA DE PARANAGUÁ

CONTEÚDO ARMAÇÕES DA RAMPA DO SUBSOLO (FRENTE)

PRANCHA N°

19/75

RESPONSÁVEL TÉCNICO

SÉRGIO LUIZ DO AMARAL LOZOVEY

CREA/SC 13708-0

PROPRIETÁRIO

PREFEITURA DE PARANAGUÁ

UNIDADE DE GERENCIAMENTO DE PROGRAMAS

AUTOR DO PROJETO

SÉRGIO LOZOVEY

CAD

ARLINE DEPINÉ

DATA

03/2016

REVISÃO

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CONTROLE DE PROJETOS

PROJETO DEFINITIVO (X)

PROJETO NÃO DEFINITIVO ()

ÁREA

1.850,00 m²

VERIFICAÇÃO

RENATO REIS

ESCALA

IND.

ARQUIVO

1280-EST-19-R0