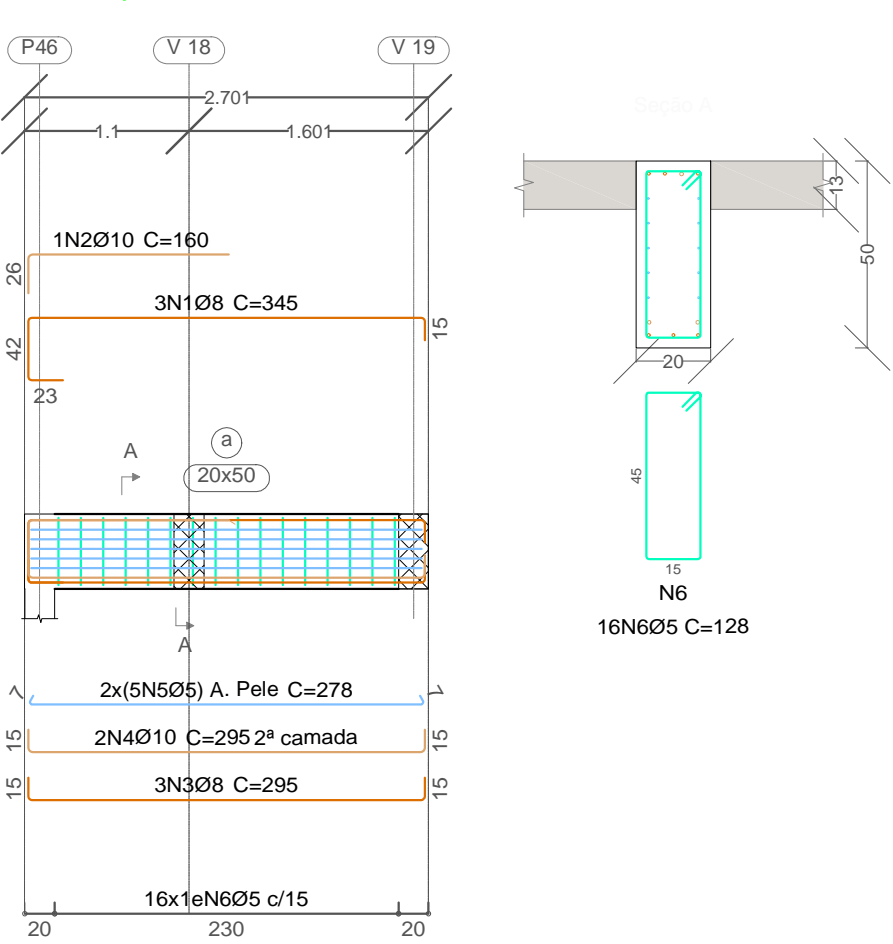


VIGAS COBERTURA 2

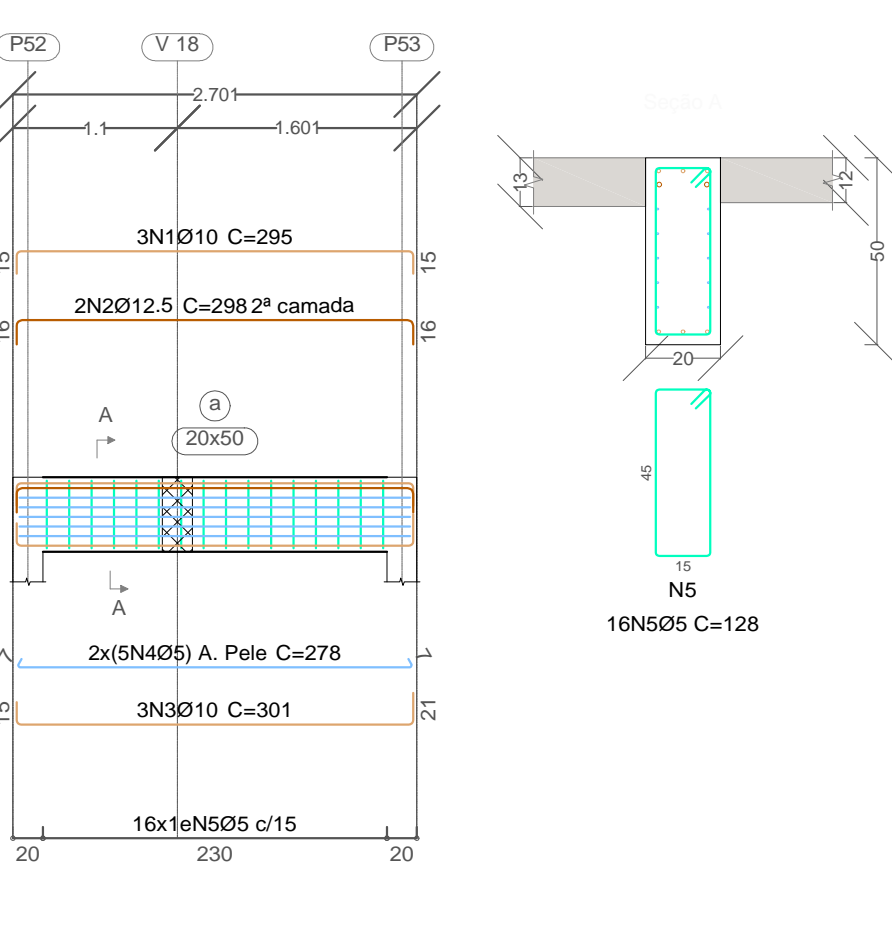
V 7

Escala vigas 1:50
Escala seções 1:20



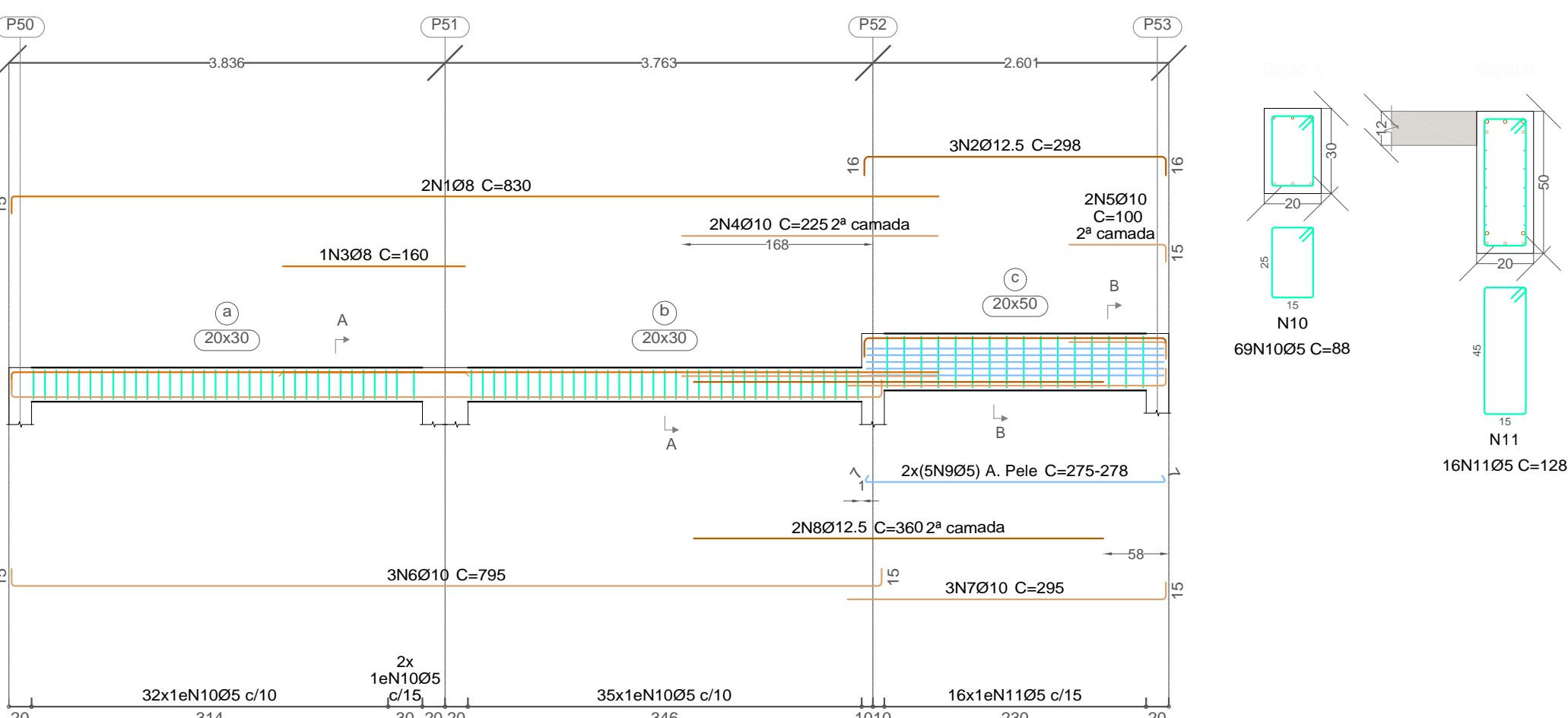
V 8

Escala vigas 1:50
Escala seções 1:20



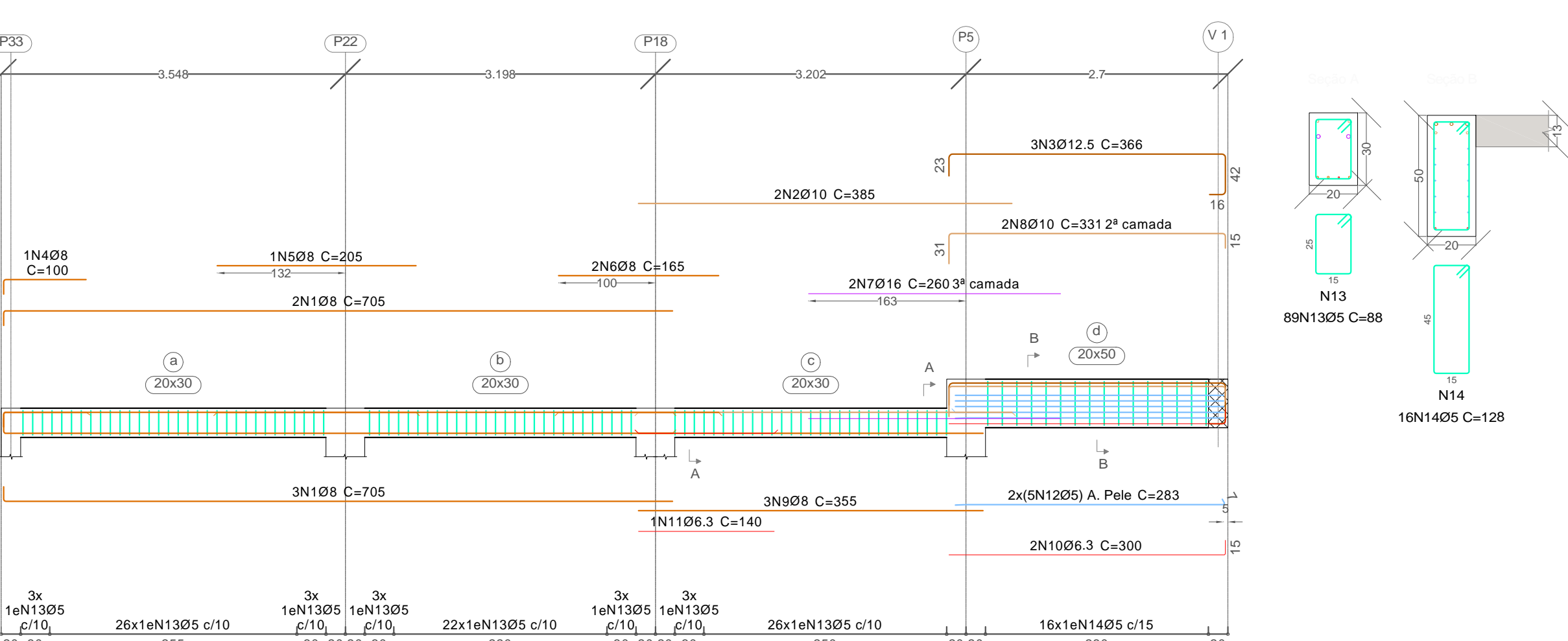
V 9

Escala vigas 1:50
Escala seções 1:20



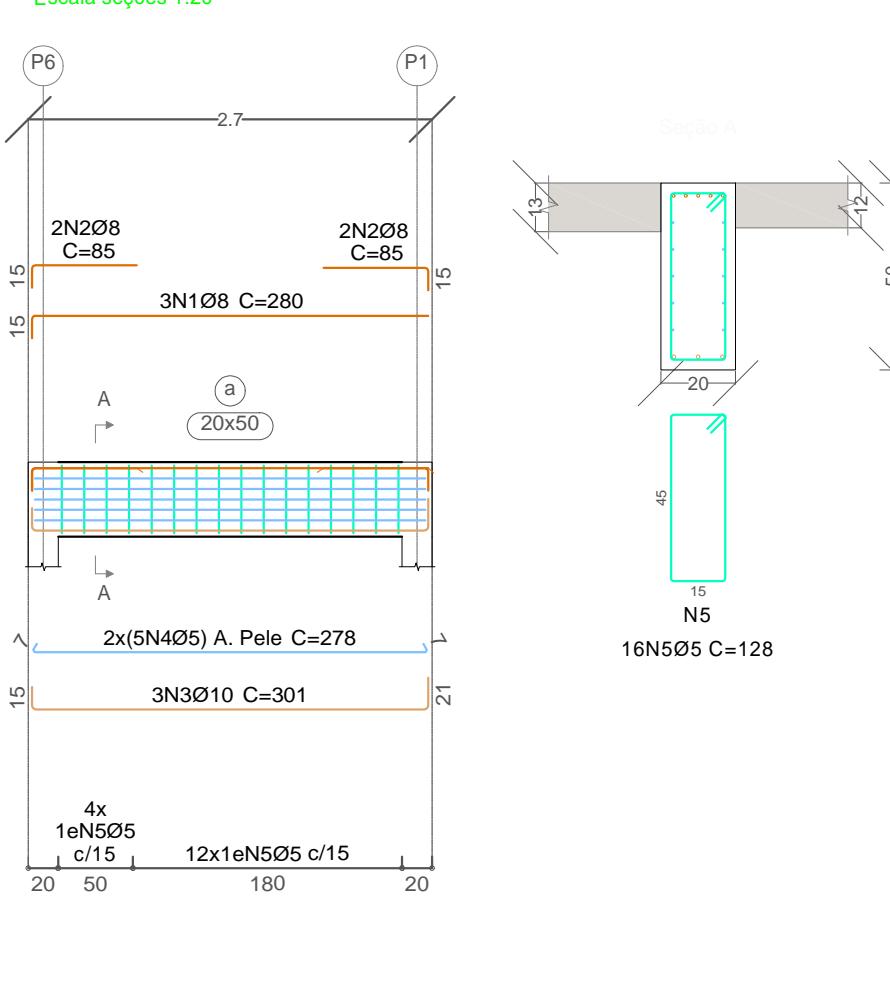
V 10

Escala vigas 1:50
Escala seções 1:20



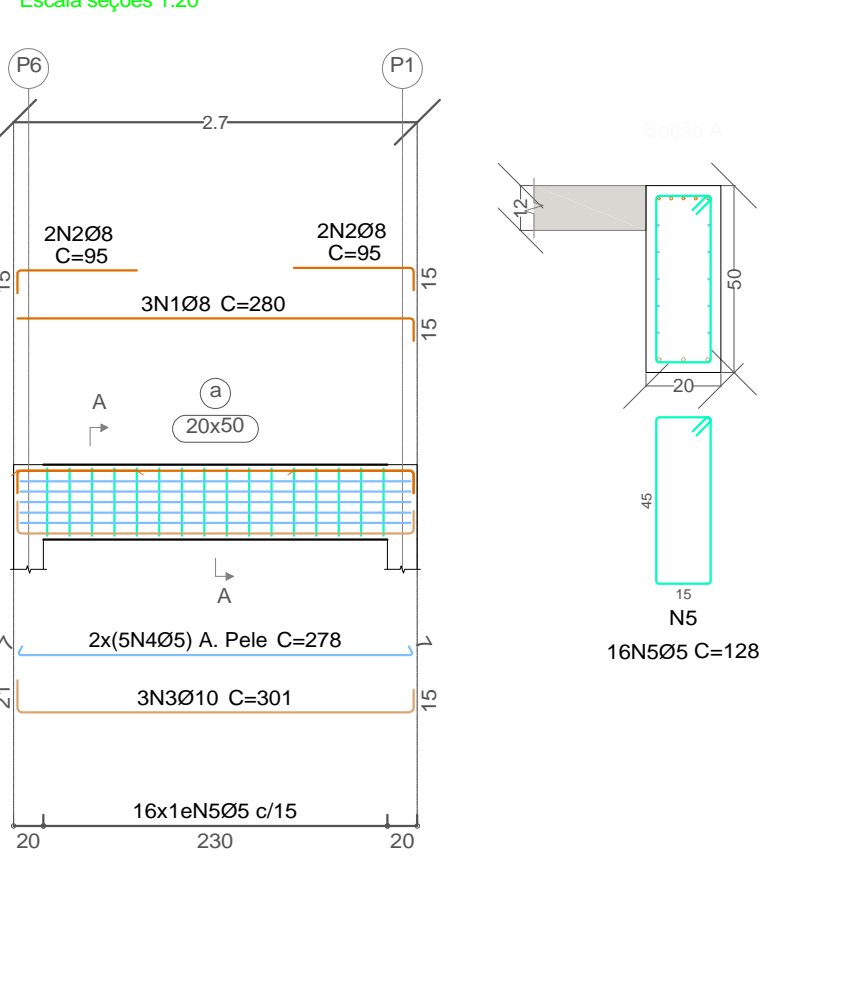
V 11

Escala vigas 1:50
Escala seções 1:20



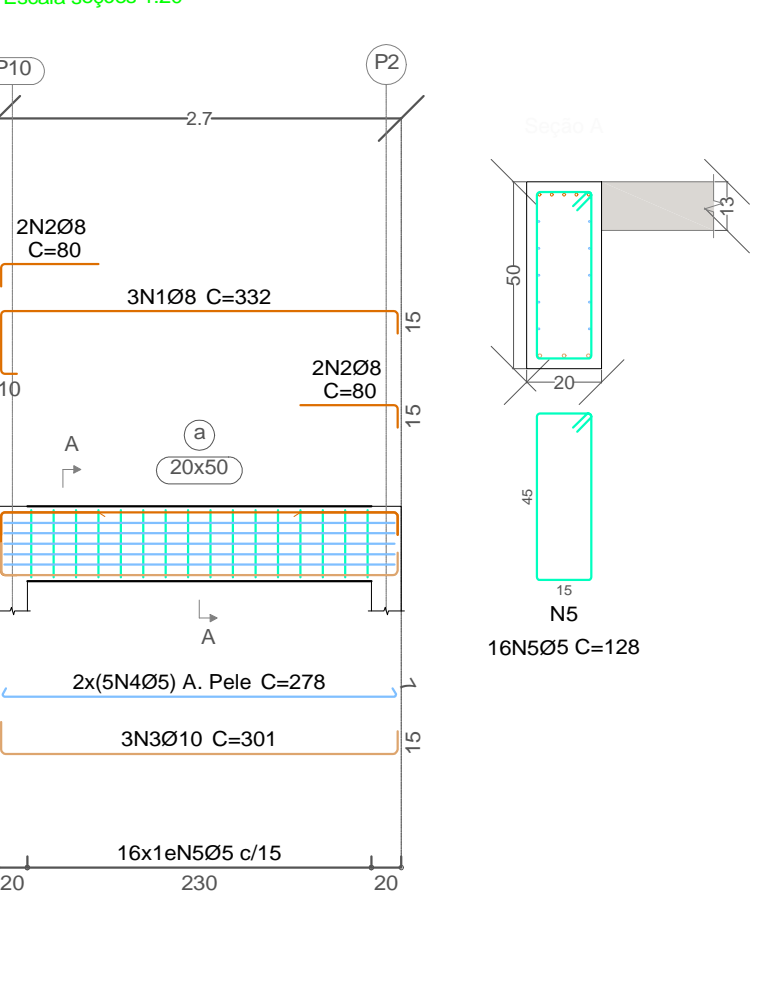
V 12

Escala vigas 1:50
Escala seções 1:20



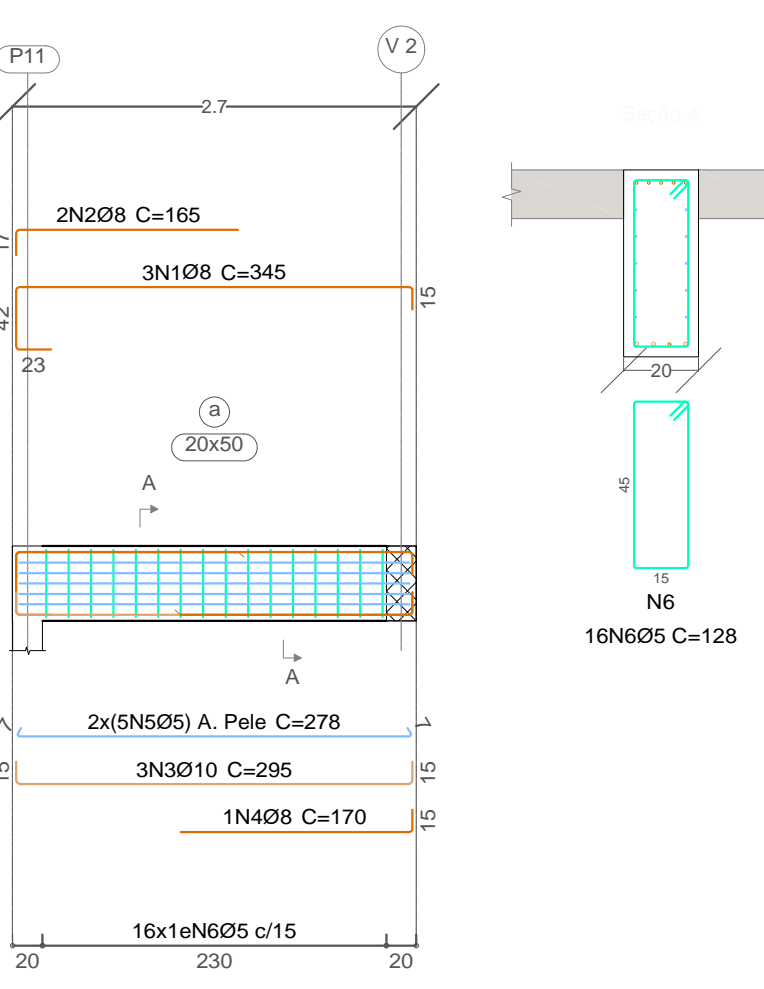
V 13

Escala vigas 1:50
Escala seções 1:20



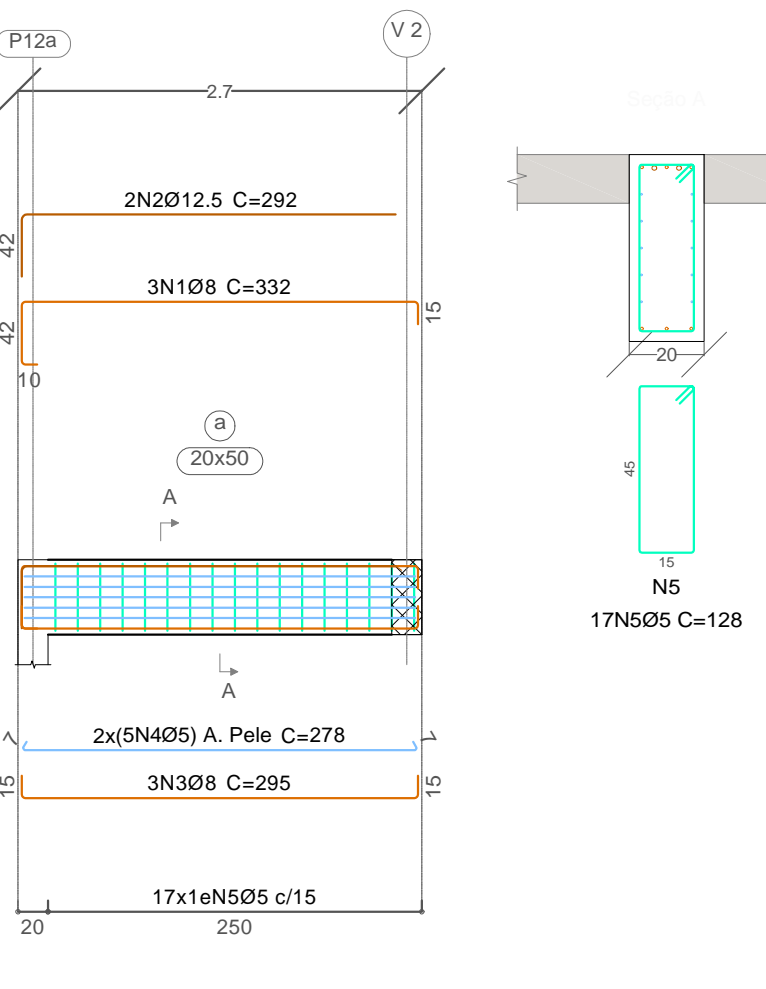
V 14

Escala vigas 1:50
Escala seções 1:20



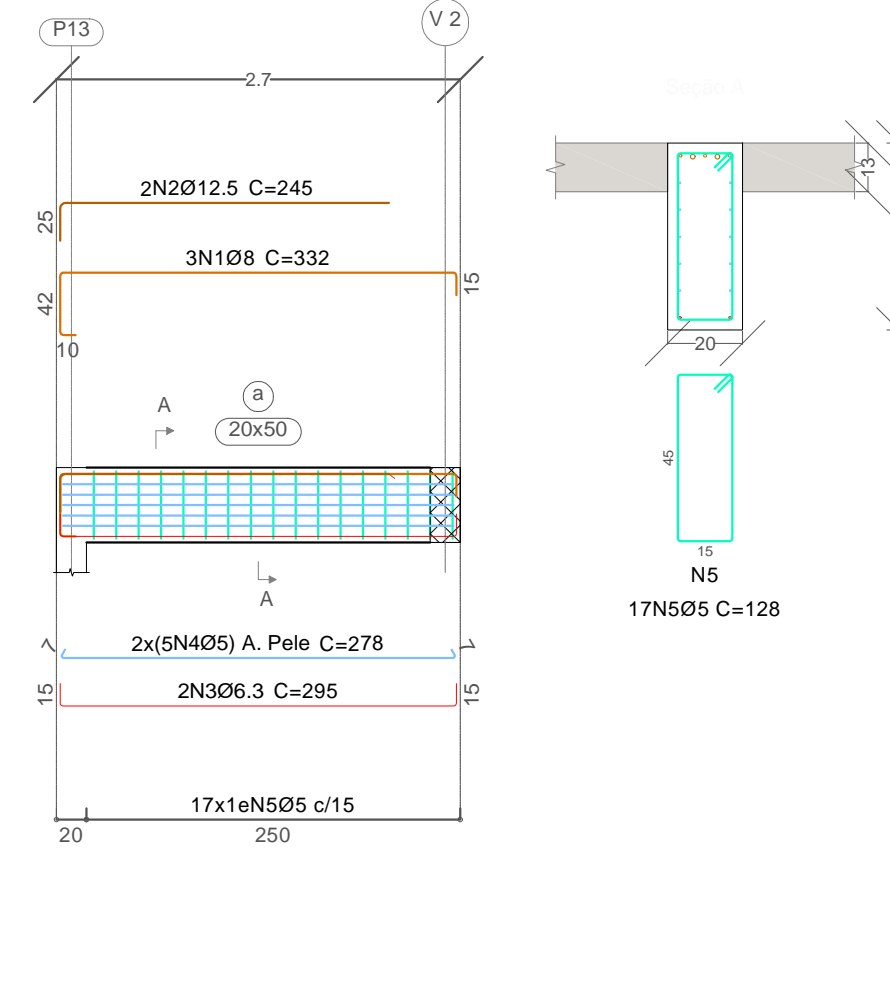
V 15

Escala vigas 1:50
Escala seções 1:20

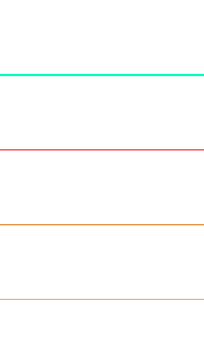


V 16

Escala vigas 1:50
Escala seções 1:20



LEGENDA



NOTAS

- 1 - A EXECUÇÃO DO ESCORAMENTO, DO RE-ESCORAMENTO E DO CIMBRAMENTO DEVE RESPEITAR A NBR 15696.
- 2 - RETIRAR ESCORAMENTO APÓS 28 DIAS DA CONCRETAGEM
- 3 - QUALQUER MODIFICAÇÃO OU DÚVIDA NO PROJETO DEVERÁ SER IMEDIATAMENTE INFORMADA AO PROJETISTA ESTRUTURAL

COBRIMENTOS MÍNIMOS

LAJE E ESCADA: 2,5cm
PILAR: 2,5cm
PILAR (CONTATO COM O SOLO): 2,5cm

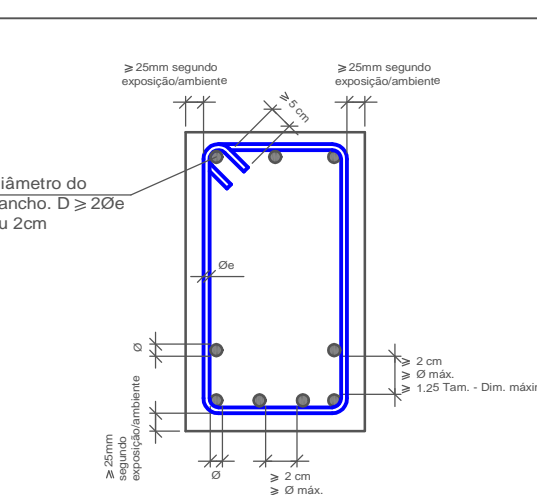
SAPATA: 4cm
VIGA: 2,5cm

CONCRETO

fck = 30 MPa

AÇO: CA-50 E CA-60

COBRIMENTOS E ESPAÇAMENTOS ENTRE BARRAS EM VIGAS



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 7	1 Ø8	3	65	265.1		15	345	1035	4.1	
	2 Ø10	3	125.9	134.1		15	160	160	1.0	
	3 Ø8	3	15	265.1		15	295	885	3.5	
	4 Ø10	2	15	265.1		15	295	590	3.6	
	5 Ø5	10	6.5	265.1	6.5	5	278	2780		4.4
	6 Ø5	16	5	118	5	5	128	2048		3.2
Total+10%:									13.4	8.4
V 8	1 Ø10	3	15	265.1		15	295	885	5.5	
	2 Ø12.5	2	16.3	265.1	16.3		298	596	5.7	
	3 Ø10	3	15	265.1	21.3		301	903	5.6	
	4 Ø5	10	6.5	265.1	6.5	5	278	2780		4.4
	5 Ø5	16	5	118	5	5	128	2048		3.2
	Total+10%:									18.5
V 9	1 Ø8	2	15	815			830	1660	6.6	
	2 Ø12.5	3	16.3	265.1	16.3		298	894	8.6	
	3 Ø8	1		160			160	160	0.6	
	4 Ø10	2		225			225	450	2.8	
	5 Ø10	2		85	15		100	200	1.2	
	6 Ø10	3	15	764.9	15		795	2385	14.7	
	7 Ø10	3		280	15		295	885	5.5	
	8 Ø12.5	2		360			360	720	6.9	
	9 Ø5	10	6.5	VAR.	6.5	5	VAR.	2780		4.4
	10 Ø5	69	5	78	5	5	88	6072		9.5
	11 Ø5	16	5	118	5	5	128	2048		3.2
Total+10%:									51.6	18.8
V 10	1 Ø8	5	15	689.6			705	3525	13.9	
	2 Ø10	2		385			385	770	4.7	
	3 Ø12.5	3	22.5	285	58.1		366	1098	10.6	
	4 Ø8	1	15	85			100	100	0.4	
	5 Ø8	1		205			205	205	0.8	
	6 Ø8	2		165			165	330	1.3	
	7 Ø16	2		260			260	520	8.2	
	8 Ø10	2	31	285	15		331	662	4.1	
	9 Ø8	3		355.2			355	1065	4.2	
	10 Ø6.3	2		285	15		300	600	1.5	
	11 Ø6.3	1		140			140	140	0.3	
	12 Ø5	10		276.5	6.5		283	2830		4.4
	13 Ø5	89	5	78	5		88	7832		12.3
	14 Ø5	16	5	118	5		128	2048		3.2
Total+10%:									55.0	21.9
V 11	1 Ø8	3	15	265			280	840	3.3	
	2 Ø8	4	15	70			85	340	1.3	
	3 Ø10	3	15	265	21.3		301	903	5.6	
	4 Ø5	10	6.5	265	6.5		278	2780		4.4
	5 Ø5	16	5	118	5		128	2048		3.2
Total+10%:									11.2	8.4
V 12	1 Ø8	3		265	15		280	840	3.3	
	2 Ø8	4	15	80			95	380	1.5	
	3 Ø10	3	21.3	265	15		301	903	5.6	
	4 Ø5	10	6.5	265	6.5		278	2780		4.4
	5 Ø5	16	5	118	5		128	2048		3.2
Total+10%:									11.4	8.4
V 13	1 Ø8	3	52.2	265	15		332	996	3.9	
	2 Ø8	4	15	65			80	320	1.3	
	3 Ø10	3	21.3	265	15		301	903	5.6	
	4 Ø5	10	6.5	265	6.5		278	2780		4.4
	5 Ø5	16	5	118	5		128	2048		3.2
Total+10%:									11.9	8.4
V 14	1 Ø8	3	65	265	15		345	1035	4.1	
	2 Ø8	2	16.8	148.2			165	330	1.3	
	3 Ø10	3	15	265	15		295	885	5.5	
	4 Ø8	1		155	15		170	170	0.7	
	5 Ø5	10	6.5	265	6.5		278	2780		4.4
	6 Ø5	16	5	118	5		128	2048		3.2
Total+10%:									12.8	8.4
V 15	1 Ø8	3	352.2	265	15		332	996	3.9	
	2 Ø12.5	2	241.6	250			292	584	5.6	
	3 Ø8	3	15	265	15		295	885	3.5	
	4 Ø5	10	6.5	265	6.5		278	2780		4.4
	5 Ø5	17	5	118	5		128	2176		3.4
Total+10%:									14.3	8.6
V 16	1 Ø8	3	352.2	265	15		332	996	3.9	
	2 Ø12.5	2	225.3	219.7			245	490	4.7	
	3 Ø6.3	2	15	265	15		295	590	1.4	
	4 Ø5	10	6.5	265	6.5		278	2780		4.4
	5 Ø5	17	5	118	5		128	2176		3.4
Total+10%:									11.0	8.6
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