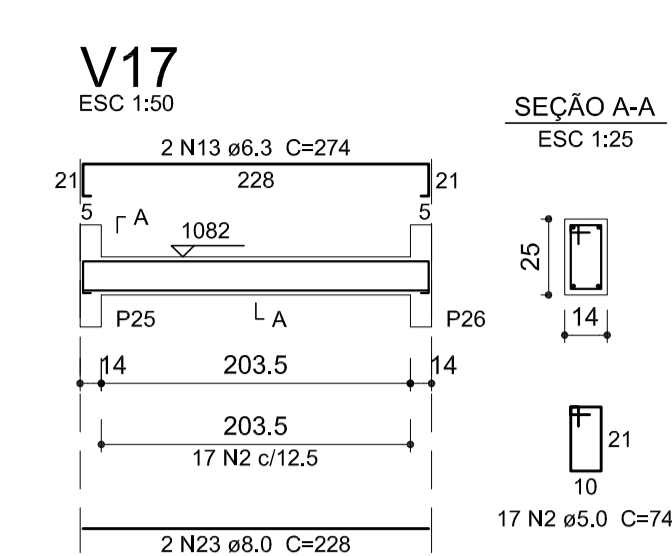
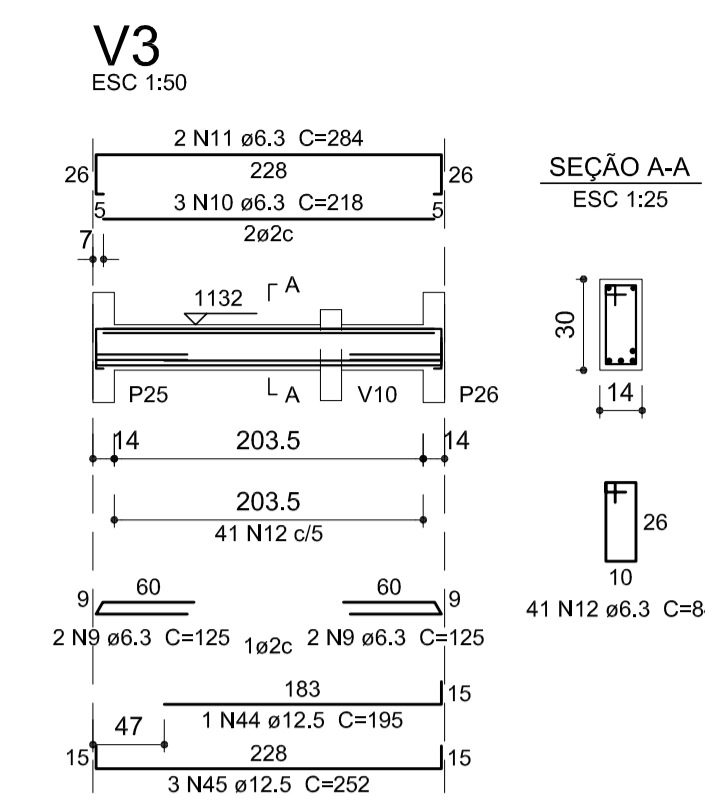
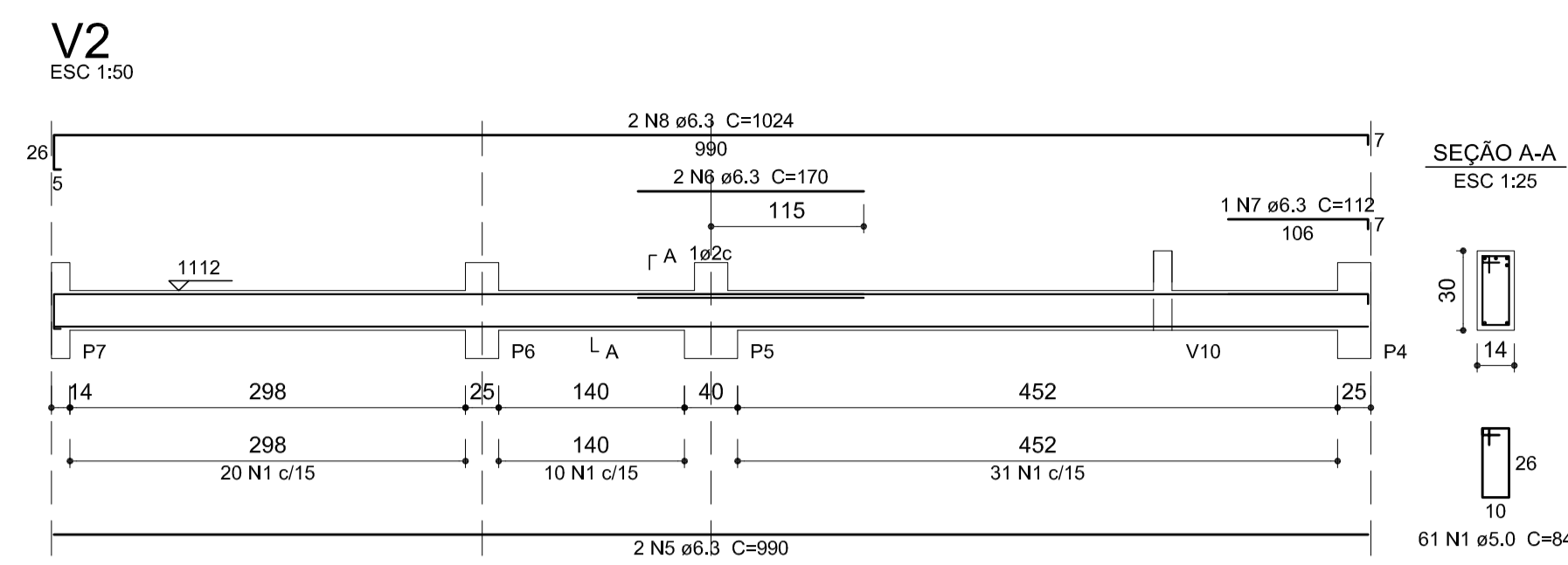
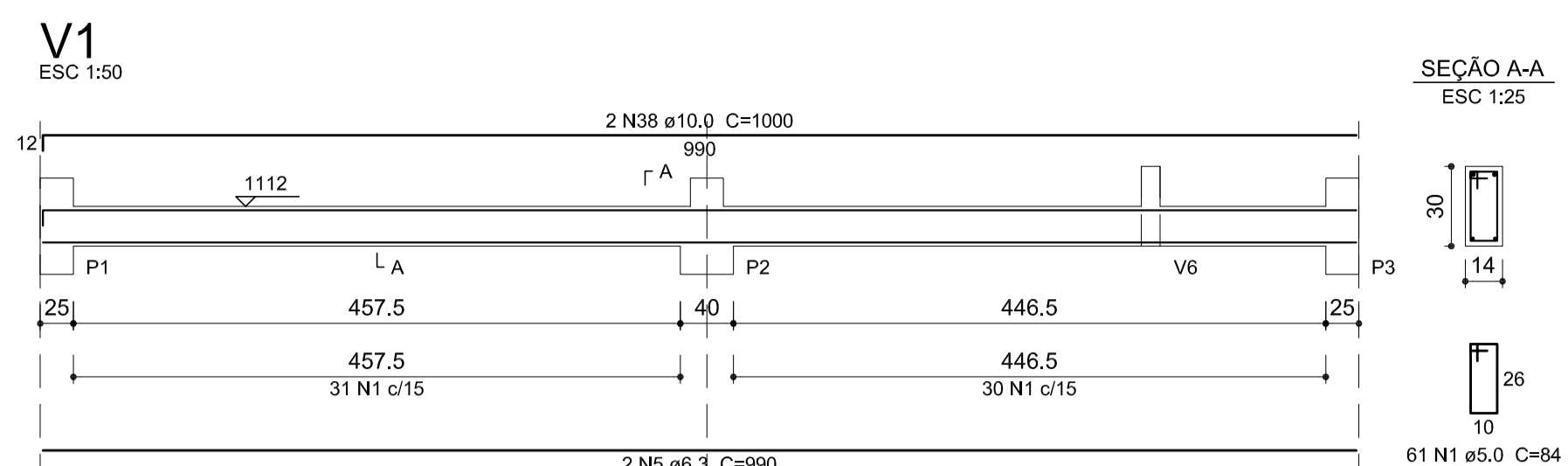


CONFIGURAÇÃO DE PENAS EM PRETO  
 0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19 0.20 0.21 0.22 0.23 0.24 0.25 0.26 0.27 0.28 0.29 0.30 0.31 0.32 0.33 0.34 0.35 0.36 0.37 0.38 0.39 0.40 0.41 0.42 0.43 0.44 0.45 0.46 0.47 0.48 0.49 0.50 0.51 0.52 0.53 0.54 0.55 0.56 0.57 0.58 0.59 0.60 0.61 0.62 0.63 0.64 0.65 0.66 0.67 0.68 0.69 0.70 0.71 0.72 0.73 0.74 0.75 0.76 0.77 0.78 0.79 0.80 0.81 0.82 0.83 0.84 0.85 0.86 0.87 0.88 0.89 0.90 0.91 0.92 0.93 0.94 0.95 0.96 0.97 0.98 0.99 1.00

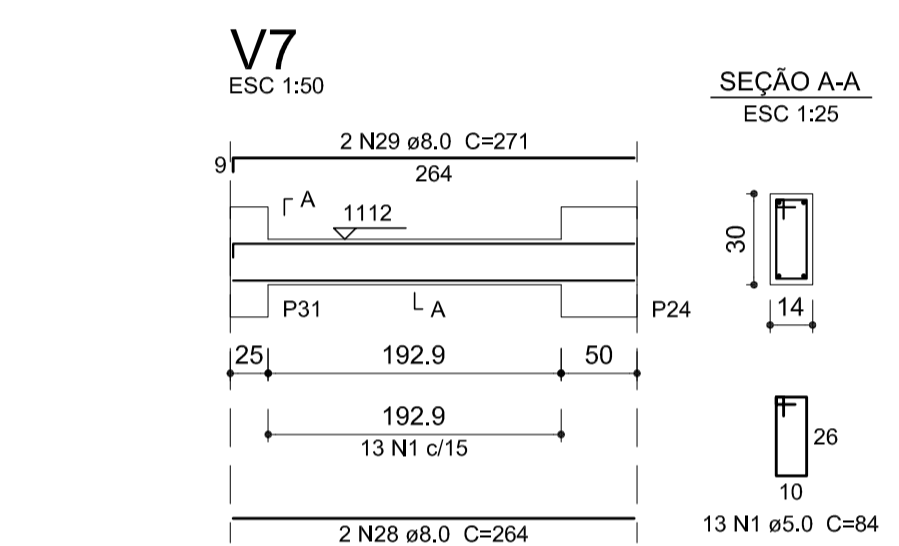
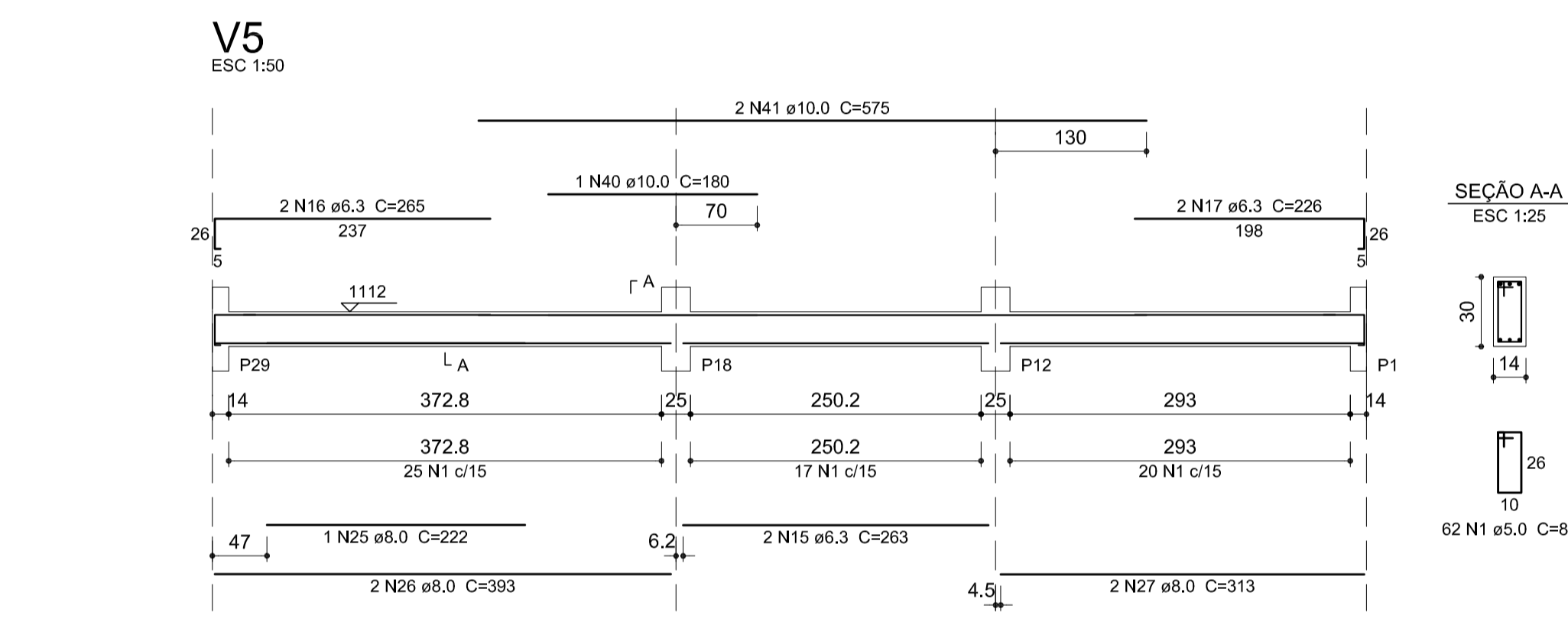
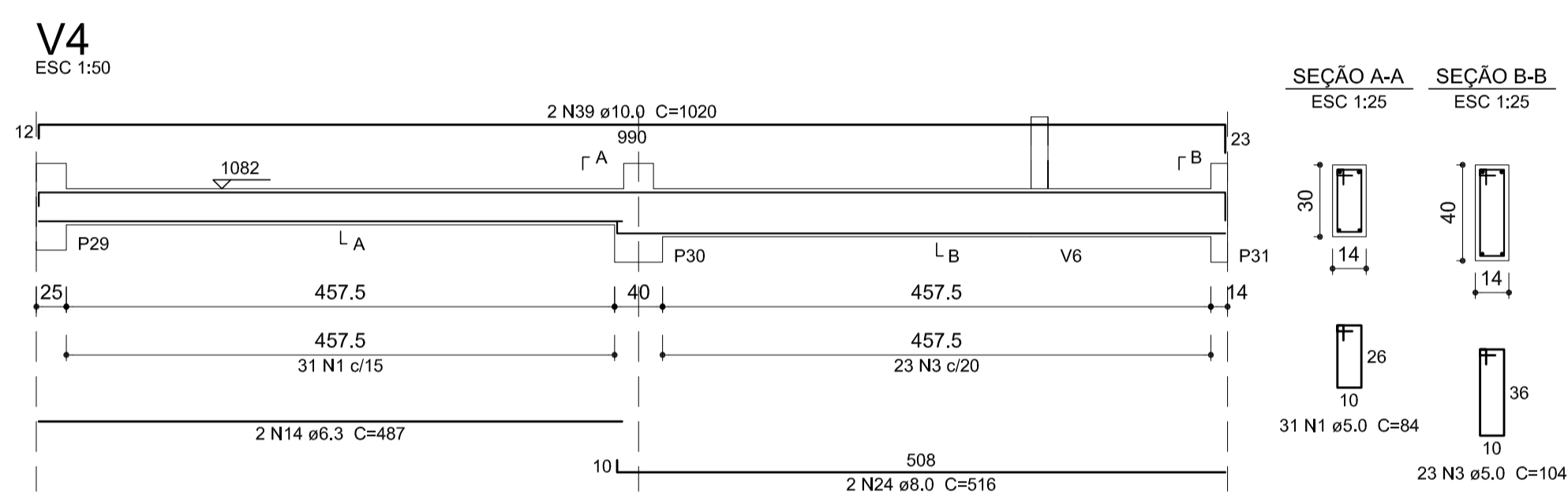
COLOR 70% DA COR  
 0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19 0.20 0.21 0.22 0.23 0.24 0.25 0.26 0.27 0.28 0.29 0.30 0.31 0.32 0.33 0.34 0.35 0.36 0.37 0.38 0.39 0.40 0.41 0.42 0.43 0.44 0.45 0.46 0.47 0.48 0.49 0.50 0.51 0.52 0.53 0.54 0.55 0.56 0.57 0.58 0.59 0.60 0.61 0.62 0.63 0.64 0.65 0.66 0.67 0.68 0.69 0.70 0.71 0.72 0.73 0.74 0.75 0.76 0.77 0.78 0.79 0.80 0.81 0.82 0.83 0.84 0.85 0.86 0.87 0.88 0.89 0.90 0.91 0.92 0.93 0.94 0.95 0.96 0.97 0.98 0.99 1.00

FORMATO A1 - 841x594 mm



**Relação do aço**

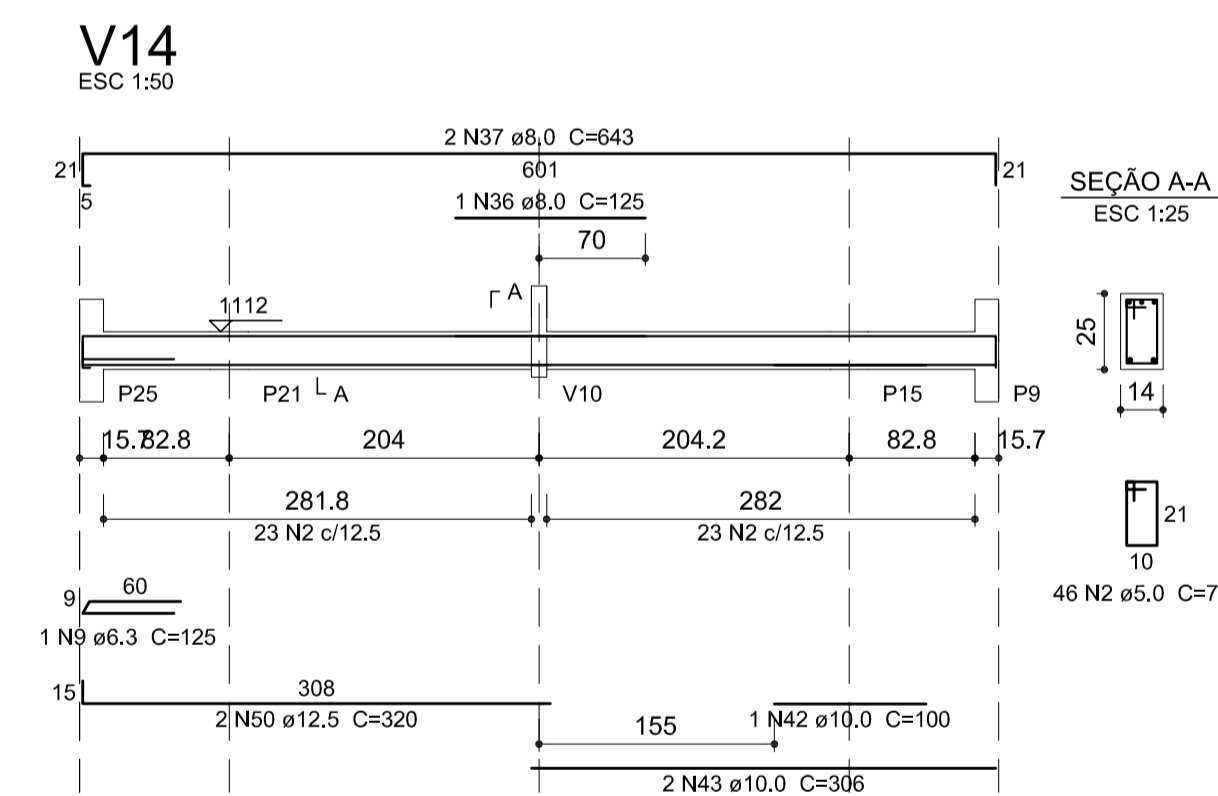
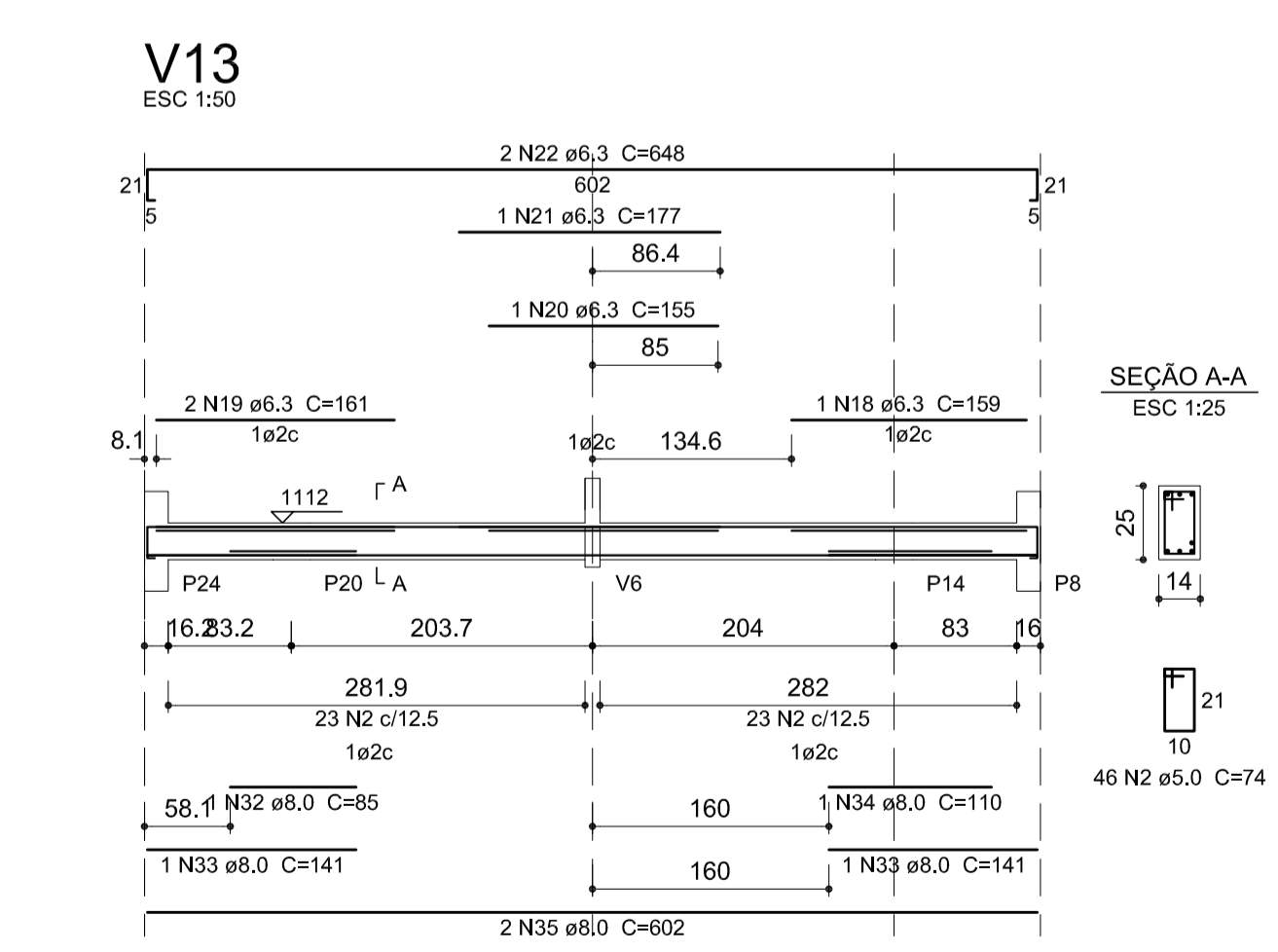
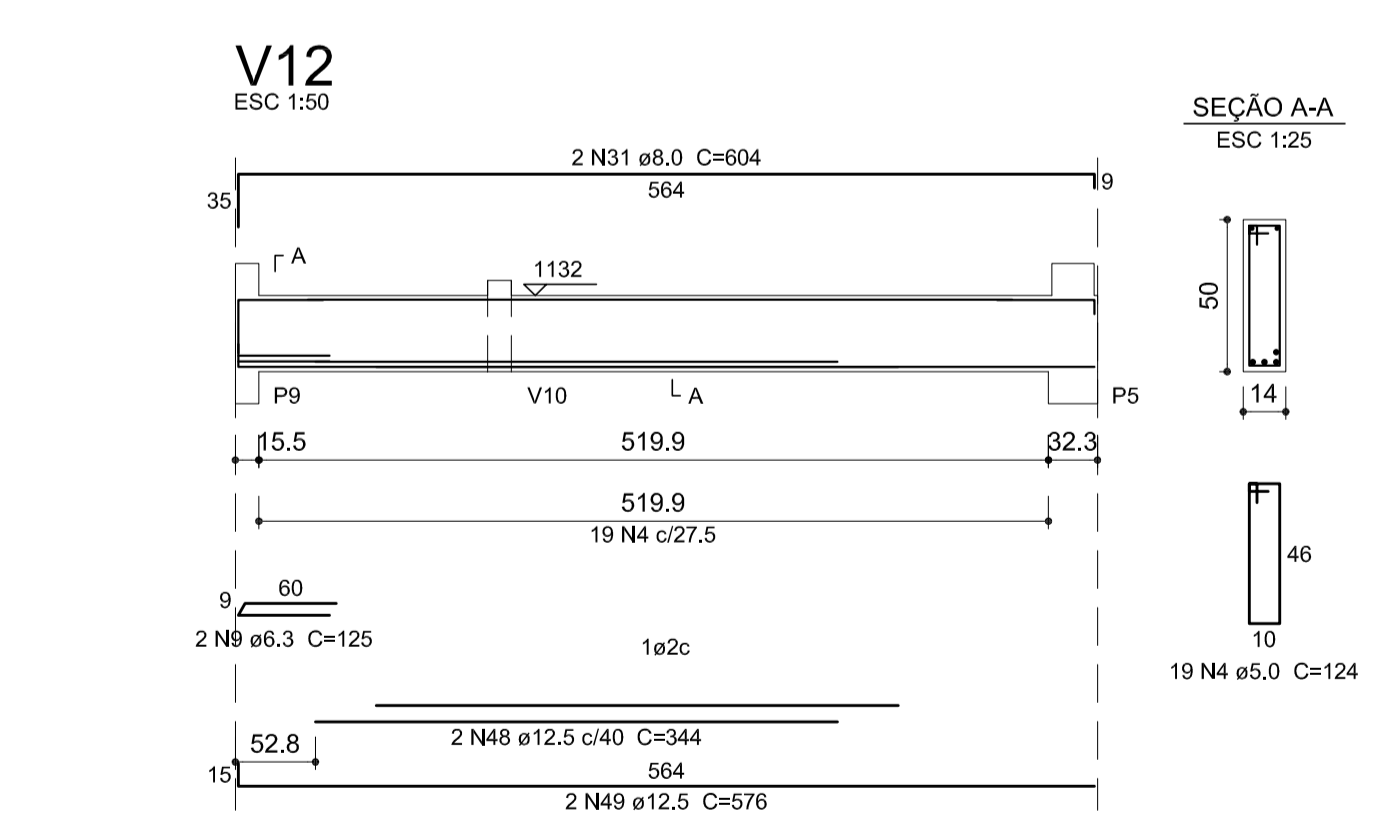
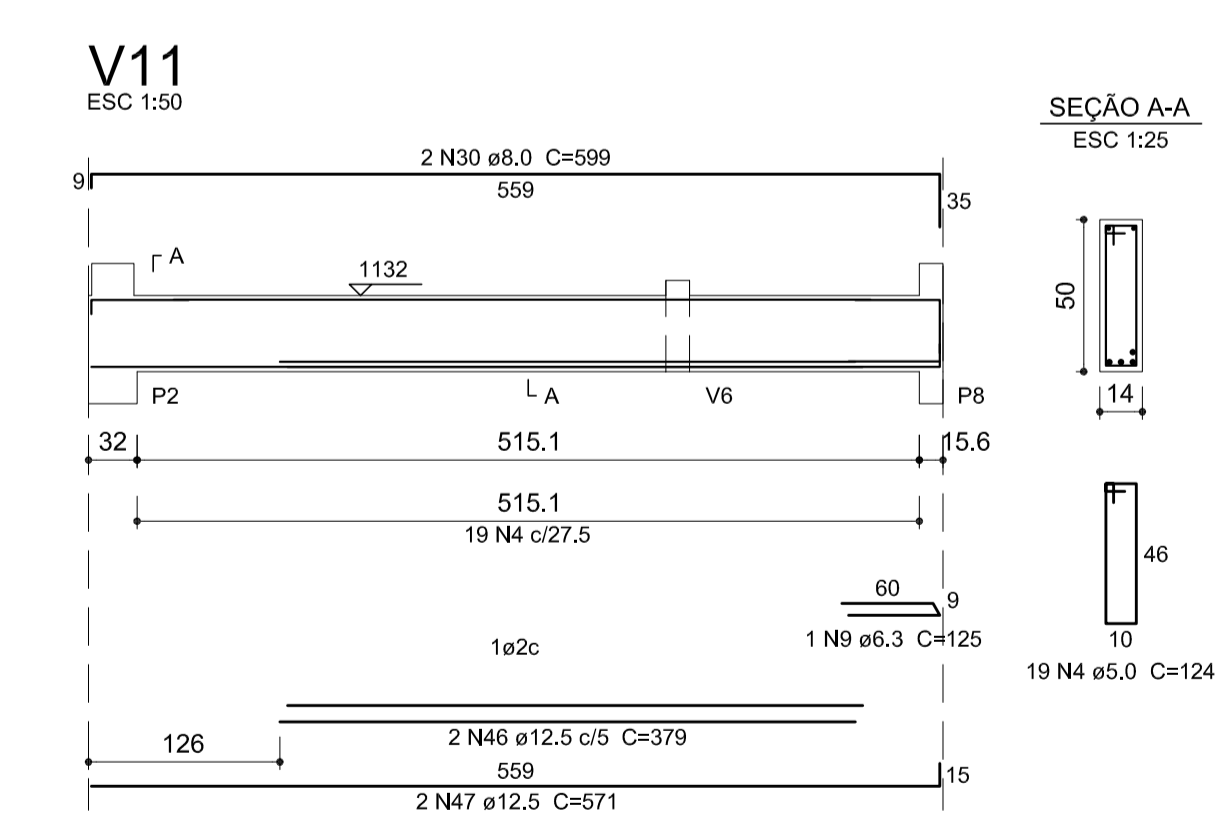
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	228	84	19152
	2	5.0	109	74	8066
	3	5.0	23	104	2392
	4	5.0	38	124	4712
CA50	5	6.3	4	990	3960
	6	6.3	2	170	340
	7	6.3	1	112	112
	8	6.3	2	1024	2048
	9	6.3	8	125	1000
	10	6.3	3	218	654
	11	6.3	2	284	568
	12	6.3	41	84	3444
	13	6.3	2	274	548
	14	6.3	2	487	974
	15	6.3	2	263	526
	16	6.3	2	265	530
	17	6.3	2	226	452
	18	6.3	1	159	159
	19	6.3	2	161	322
	20	6.3	1	155	155
	21	6.3	1	177	177
	22	6.3	2	648	1296
	23	8.0	2	228	456
	24	8.0	2	516	1032
	25	8.0	1	222	222
	26	8.0	2	393	786
	27	8.0	2	313	626
	28	8.0	2	264	528
	29	8.0	2	271	542
	30	8.0	2	599	1198
	31	8.0	2	604	1208
	32	8.0	1	85	85
	33	8.0	2	141	282
	34	8.0	1	110	110
	35	8.0	2	602	1204
	36	8.0	1	125	125
	37	8.0	2	643	1286
	38	10.0	2	1000	2000
	39	10.0	2	1020	2040
	40	10.0	1	180	180
	41	10.0	2	575	1150
	42	10.0	1	100	100
	43	10.0	2	306	612
	44	12.5	1	195	195
	45	12.5	3	252	756
	46	12.5	2	379	758
	47	12.5	2	571	1142
	48	12.5	2	344	688
	49	12.5	2	576	1152
	50	12.5	2	320	640



**Resumo do aço**

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	172.7	46.5
	8.0	96.9	42.1
	10.0	60.9	41.2
	12.5	53.4	56.5
CA60	5.0	343.3	58.2
<b>PESO TOTAL (kg)</b>			
CA50		186.3	
CA60		58.2	

Volume de concreto (C-20) = 3.24 m³  
 Área de forma = 56.22 m²



3			
2			
1			
Nº	Data	Versão/Revisão	

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Proprietário: **PREFEITURA MUNICIPAL DE PAPAGAIOS**

Projeto: **PROJETO ESTRUTURAL**

Ref.: **VIGAS - COBERTURA FL.01**

Endereço: **PRAÇA ALEXANDRE MACIEL nº 86 - SANTO ANTÔNIO - PAPAGAIOS - MG** Data: **MAI/2017**

Autores: **MARLON BATISTA DA COSTA** Eng. Civil - S/21474/D Escala: **INDICADA**

**SIMÔNIA C. FERREIRA COSTA** Eng. Civil - CREA 177925/D Folha: **11**