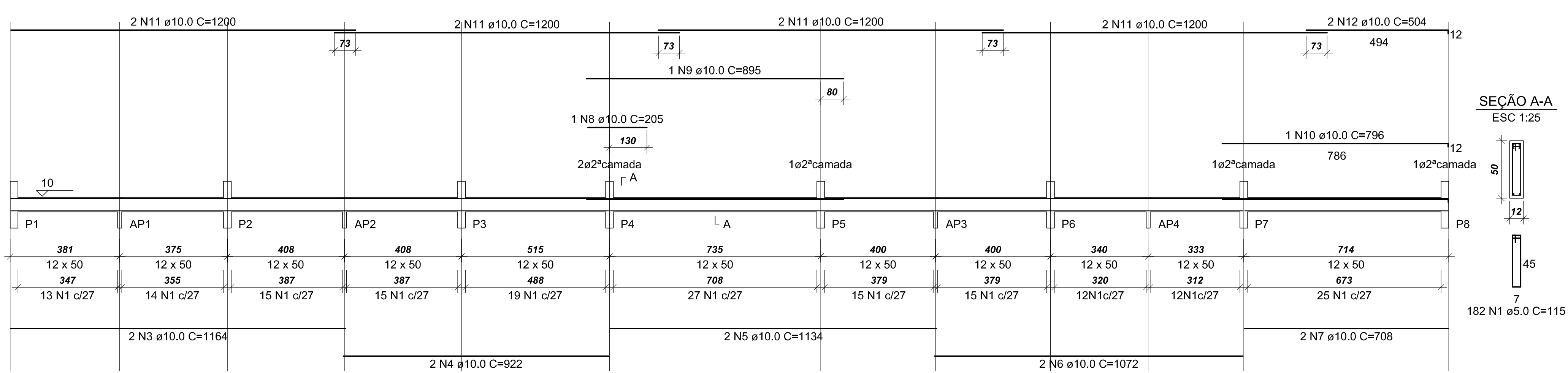
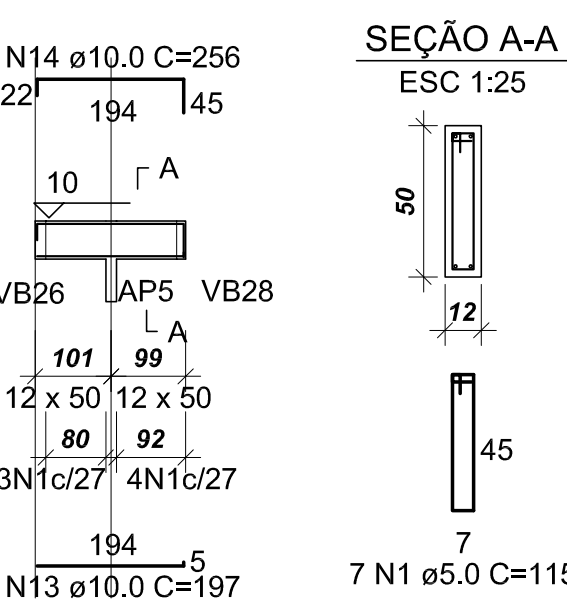


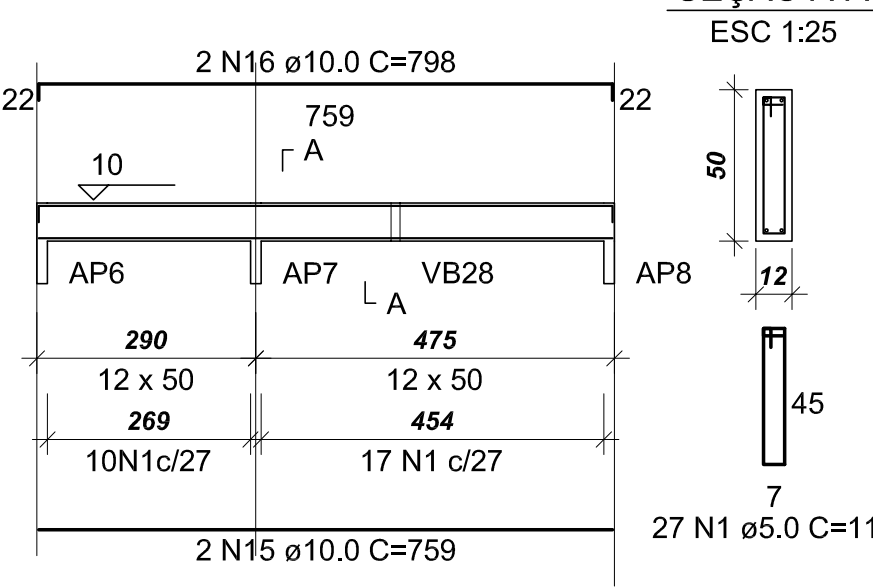
VB1 (12 x 50)



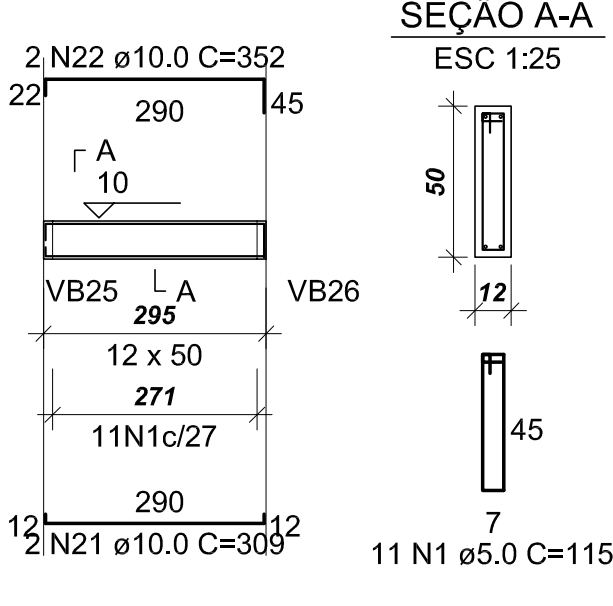
VB2 (12 x 50)



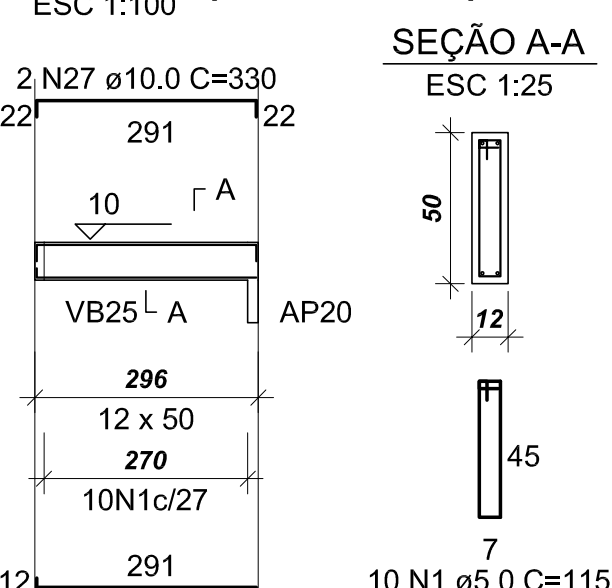
VB3 (12 x 50)



VB5 (12 x 50)



VB8 (12 x 50)



RELAÇÃO DO AÇO

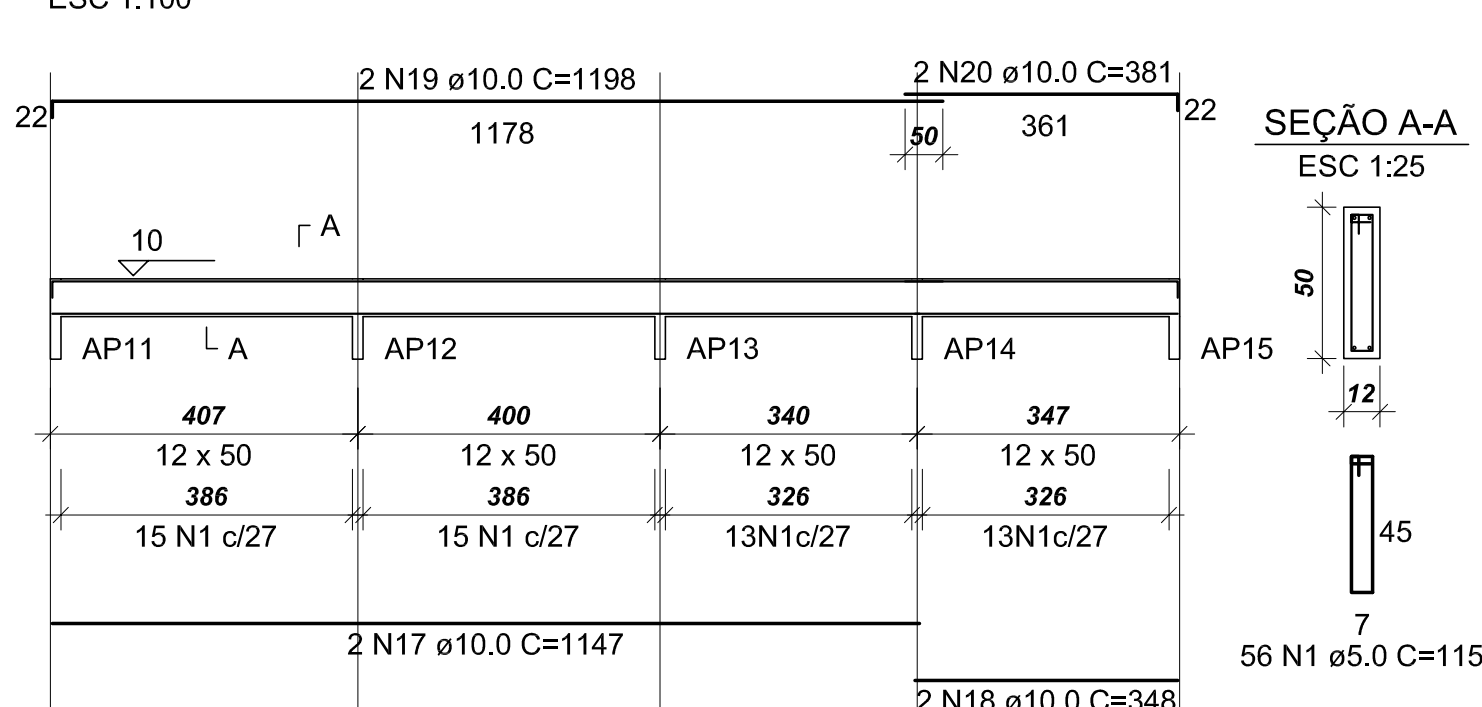
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
60	1	5.0	1003	115	115345
50	2	5.0	6	75	450
	3	10.0	2	1164	2328
	4	10.0	2	922	1844
	5	10.0	2	1134	2268
	6	10.0	2	1072	2144
	7	10.0	2	708	1416
	8	10.0	1	205	205
	9	10.0	1	895	895
	10	10.0	1	796	796
	11	10.0	20	1200	24000
	12	10.0	2	504	1008
	13	10.0	2	197	394
	14	10.0	2	256	512
	15	10.0	2	759	1518
	16	10.0	2	798	1596
	17	10.0	2	1147	2294
	18	10.0	2	348	696
	19	10.0	2	309	618
	20	10.0	2	381	762
	21	10.0	2	309	618
	22	10.0	2	722	1444
	23	10.0	2	1002	2004
	24	10.0	4	1022	4088
	25	10.0	4	722	2888
	26	10.0	2	301	602
	27	10.0	2	330	660
	28	10.0	2	993	1986
	29	10.0	2	823	1646
	30	10.0	2	889	1778
	31	10.0	2	375	750
	32	10.0	2	971	1942
	33	10.0	4	270	1080
	34	10.0	4	1198	4792
	35	10.0	2	1001	2002
	36	10.0	2	815	1630
	37	10.0	2	1135	2270
	38	10.0	2	751	1502
	39	10.0	2	1180	2360
	40	10.0	2	364	728
	41	10.0	1	265	265
	42	10.0	2	1199	2398
	43	10.0	4	507	2028
	44	10.0	4	427	1708
	45	10.0	1	220	220
	46	10.0	4	507	2028
	47	10.0	6	852	5112
	48	10.0	2	871	1742
	49	10.0	4	79	316
	50	10.0	4	102	408
	51	10.0	2	431	862
	52	10.0	2	451	902
	53	10.0	2	255	510
	54	10.0	2	446	892
	55	10.0	2	427	854
	56	10.0	2	1150	2300
	57	10.0	2	416	832
	58	10.0	1	180	180
	59	10.0	2	452	904
	60	10.0	2	723	1446
	61	10.0	2	765	1530
	62	10.0	1	310	310
	63	10.0	1	954	954
	64	10.0	2	1198	2396
	65	10.0	2	412	824
	66	10.0	2	152	304
	67	10.0	2	232	464
	68	10.0	2	618	1236
	69	10.0	2	1051	2102
	70	10.0	2	770	1540
	71	10.0	1	185	185
	72	10.0	1	240	240
	73	10.0	2	202	404

RESUMO DO AÇO

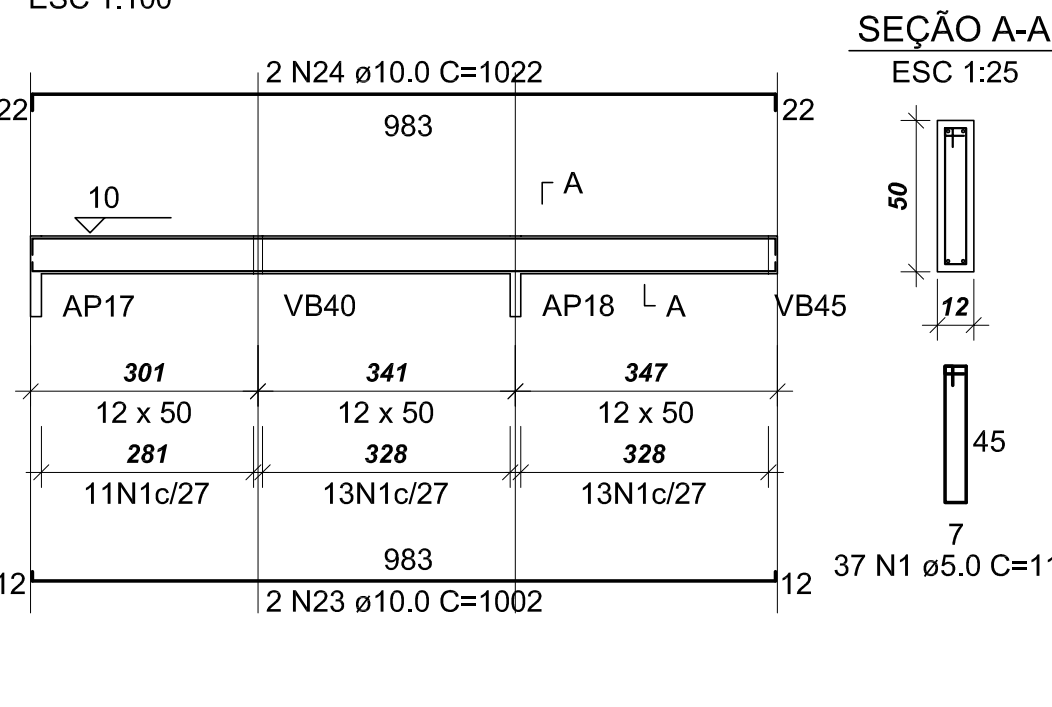
AÇO	DIAM	C.TOTAL (m)	PESO+0% (kg)
CA50	10.0	1199.0	739.4
CA60	5.0	1163.0	179.1
PESO TOTAL			
CA50		739.4	
CA60		179.1	

Vol. de concreto total (C-25) = 16.7 m³
Área de forma total = 311.80 m²

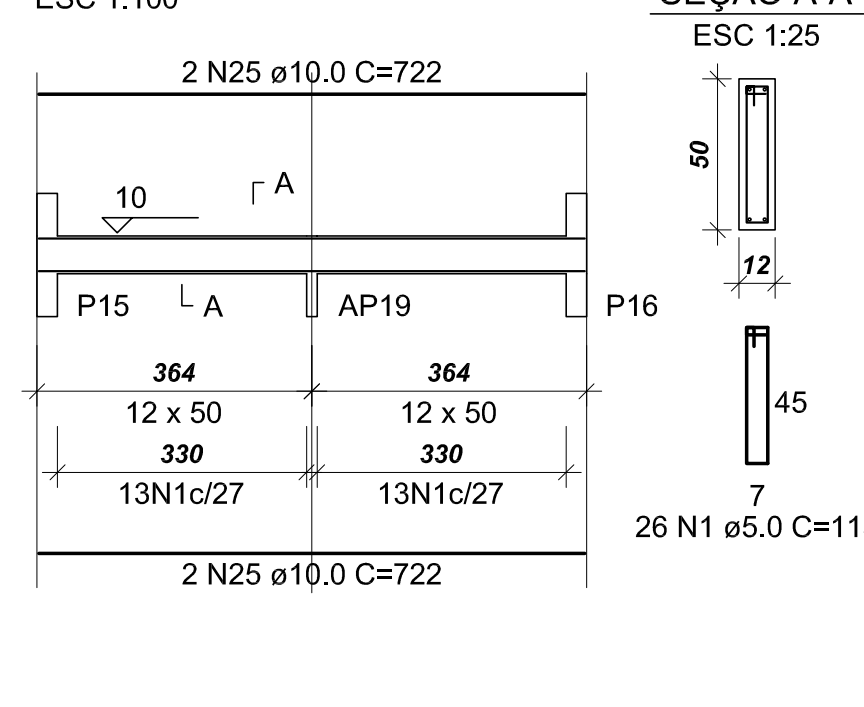
VB4 (12 x 50)



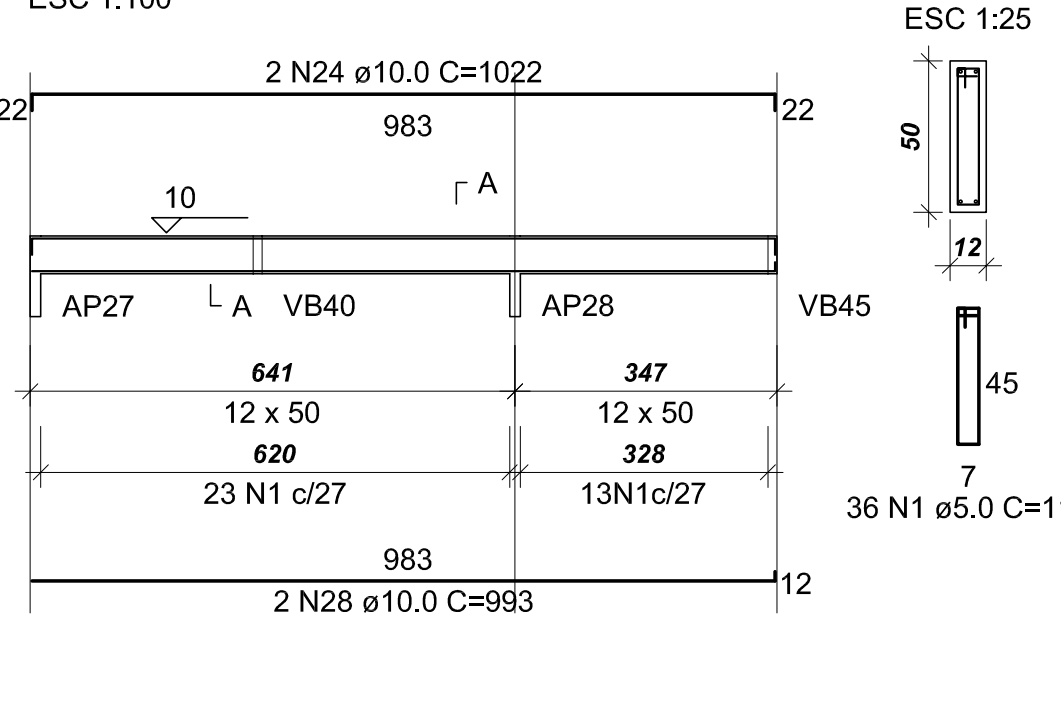
VB6 (12 x 50)



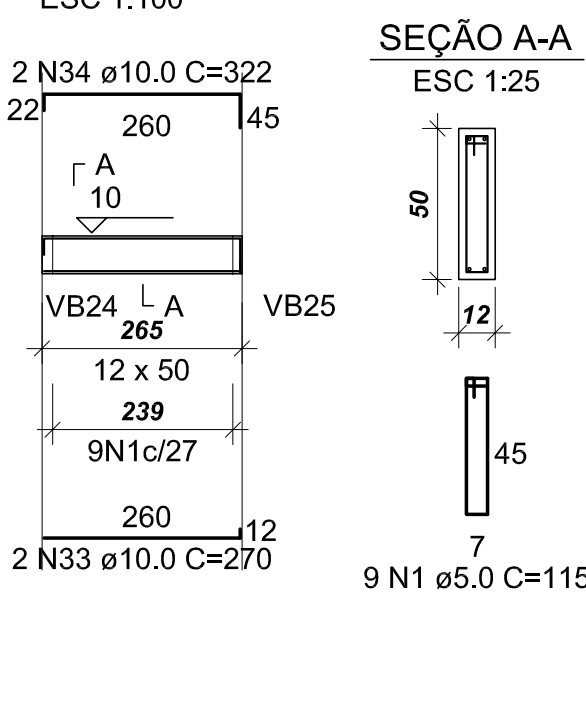
VB7 (12 x 50)



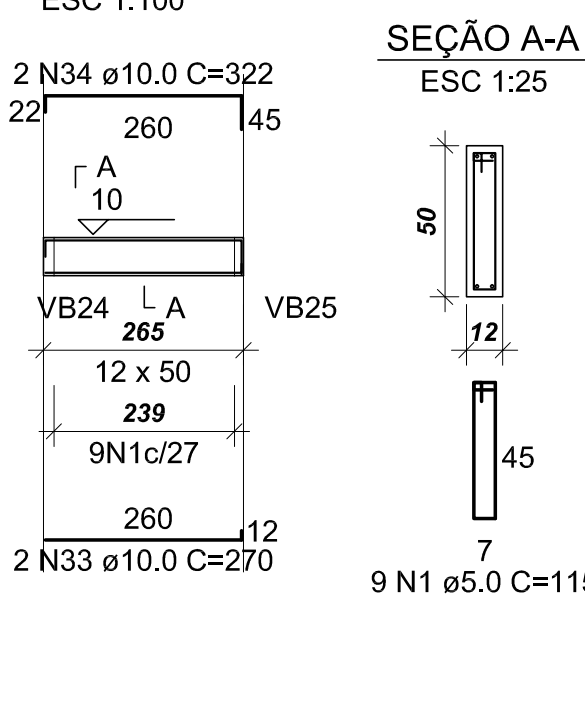
VB9 (12 x 50)



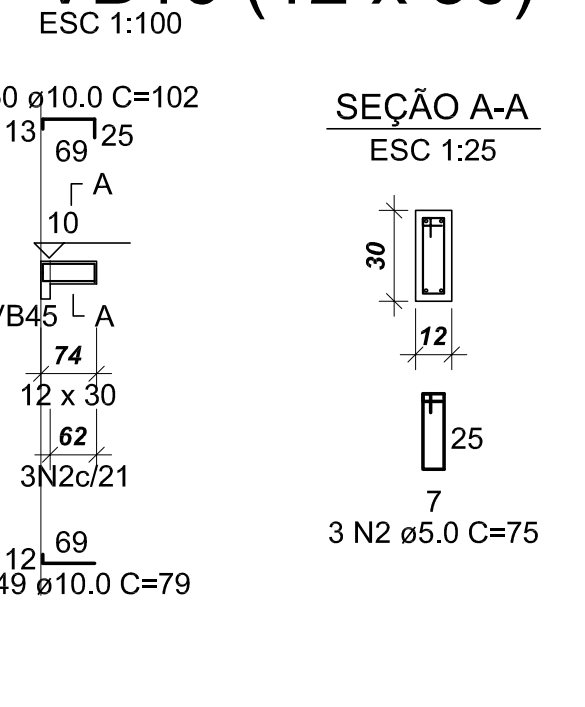
VB11 (12 x 50)



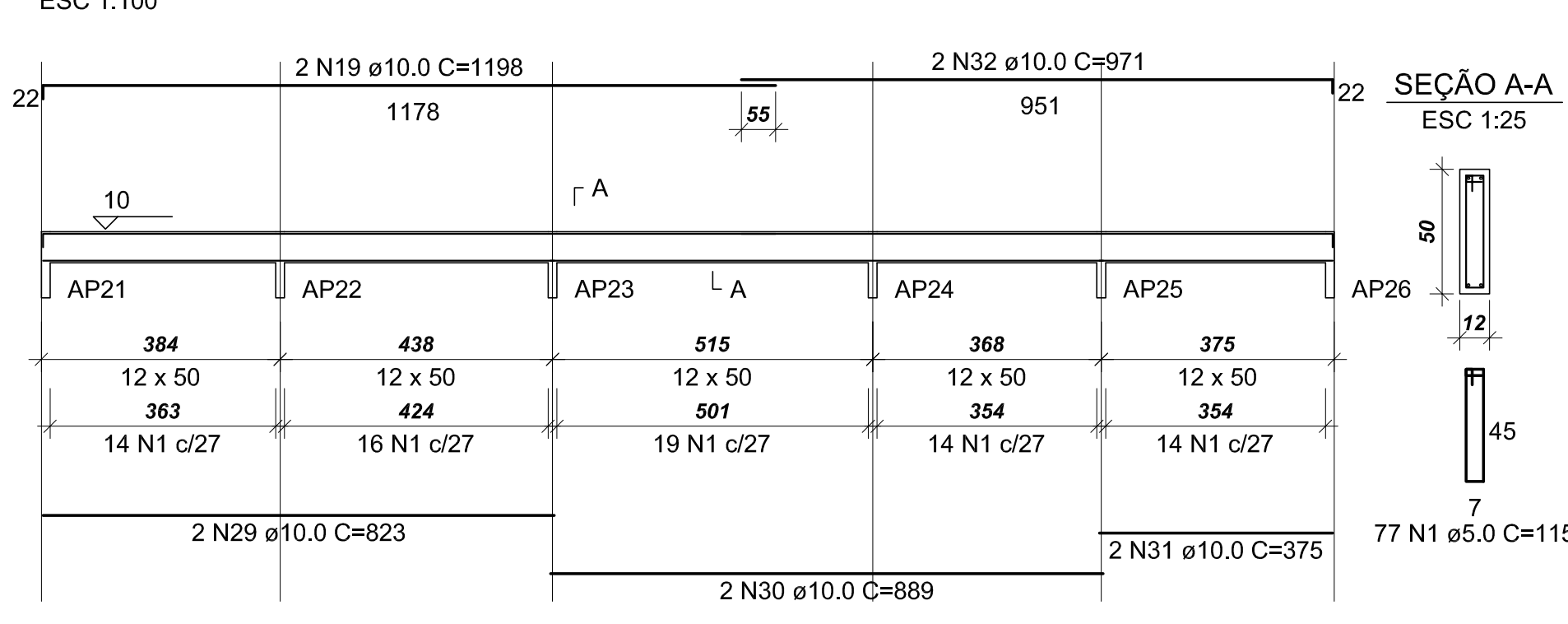
VB13 (12 x 50)



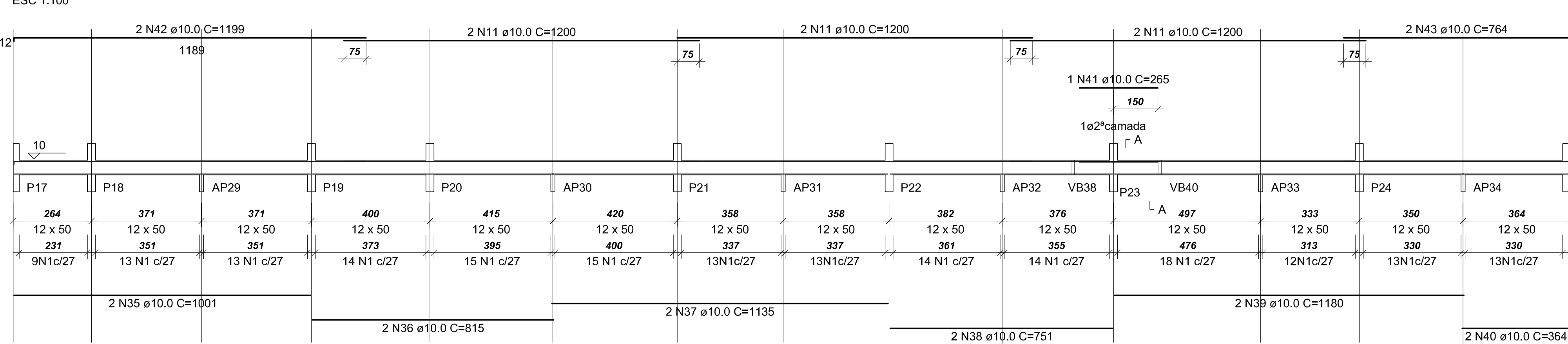
VB16 (12 x 30)



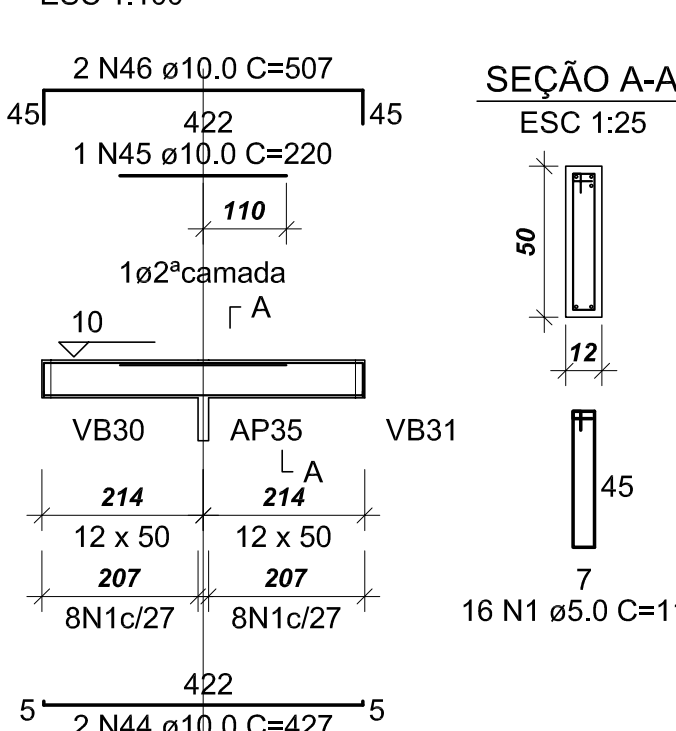
VB10 (12 x 50)



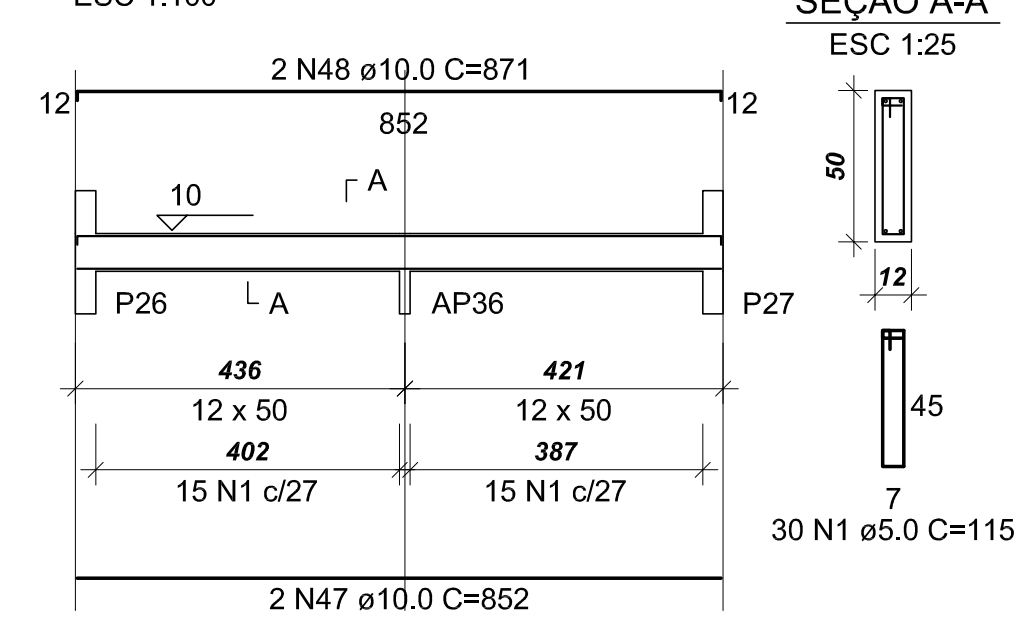
VB12 (12 x 50)



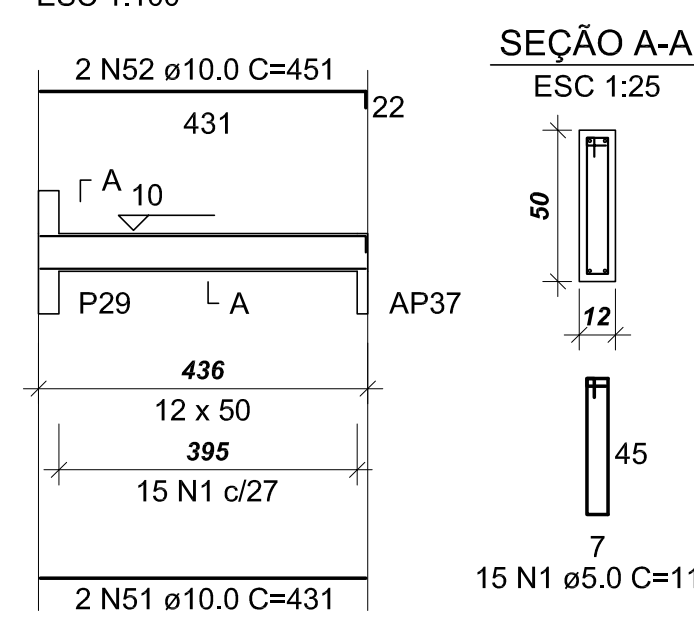
VB14 (12 x 50)



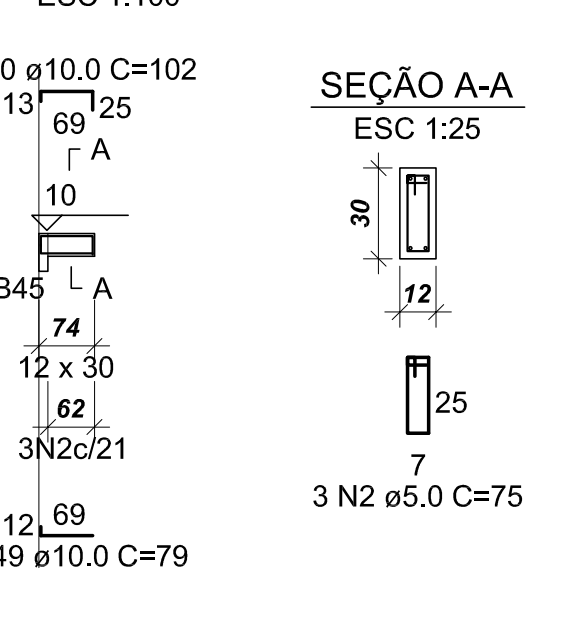
VB15 (12 x 50)



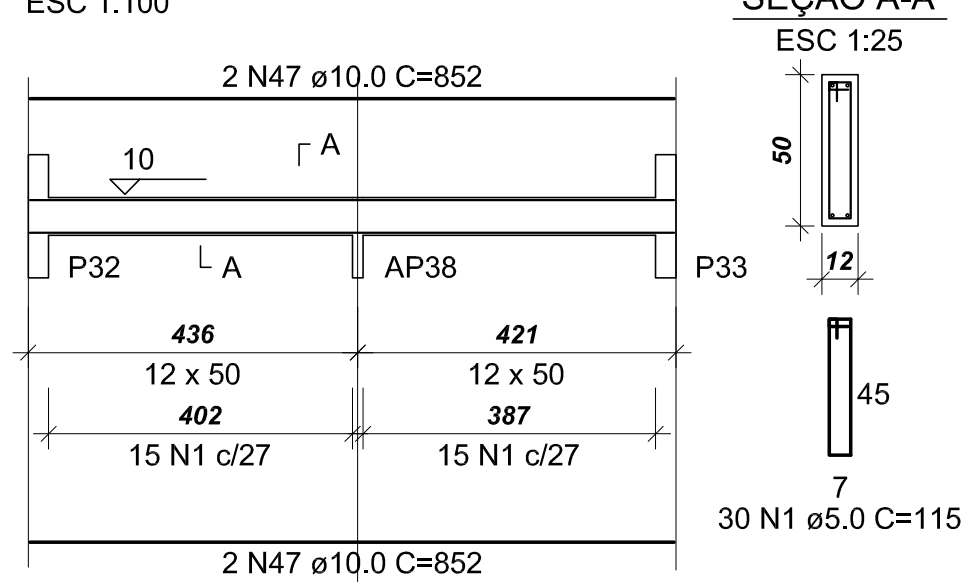
VB17 (12 x 50)



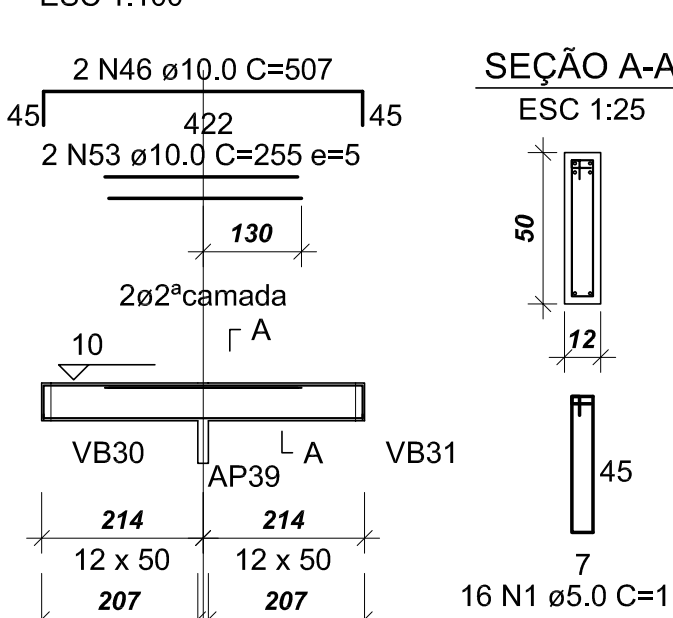
VB18 (12 x 30)



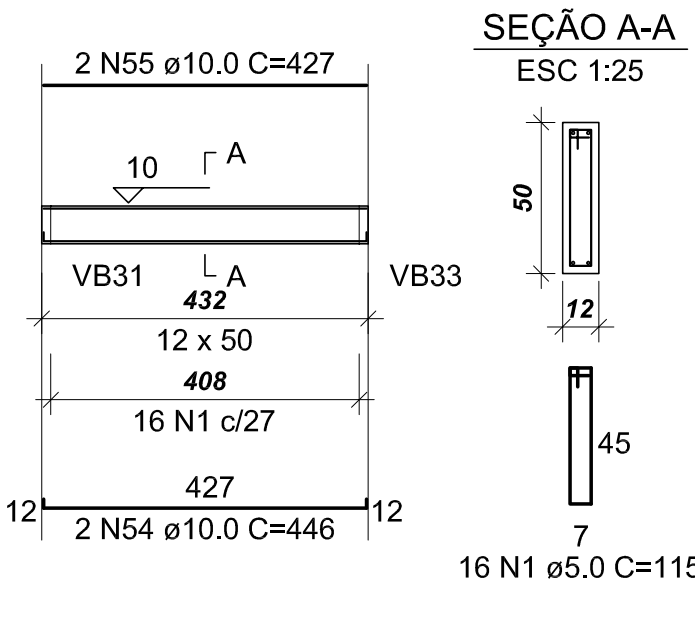
VB19 (12 x 50)



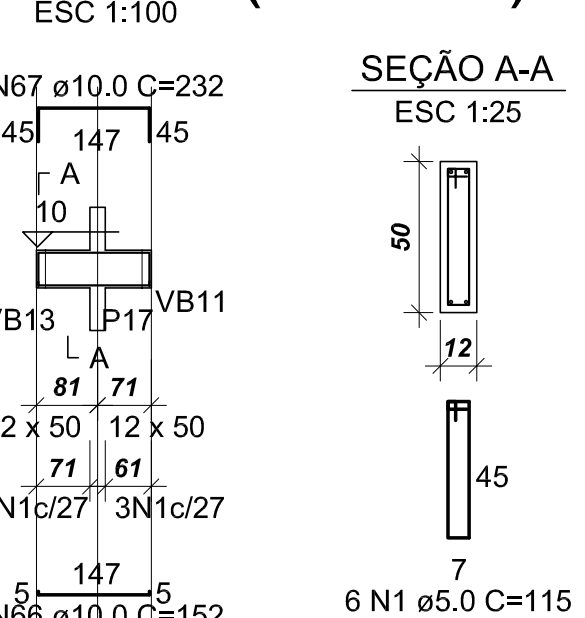
VB20 (12 x 50)



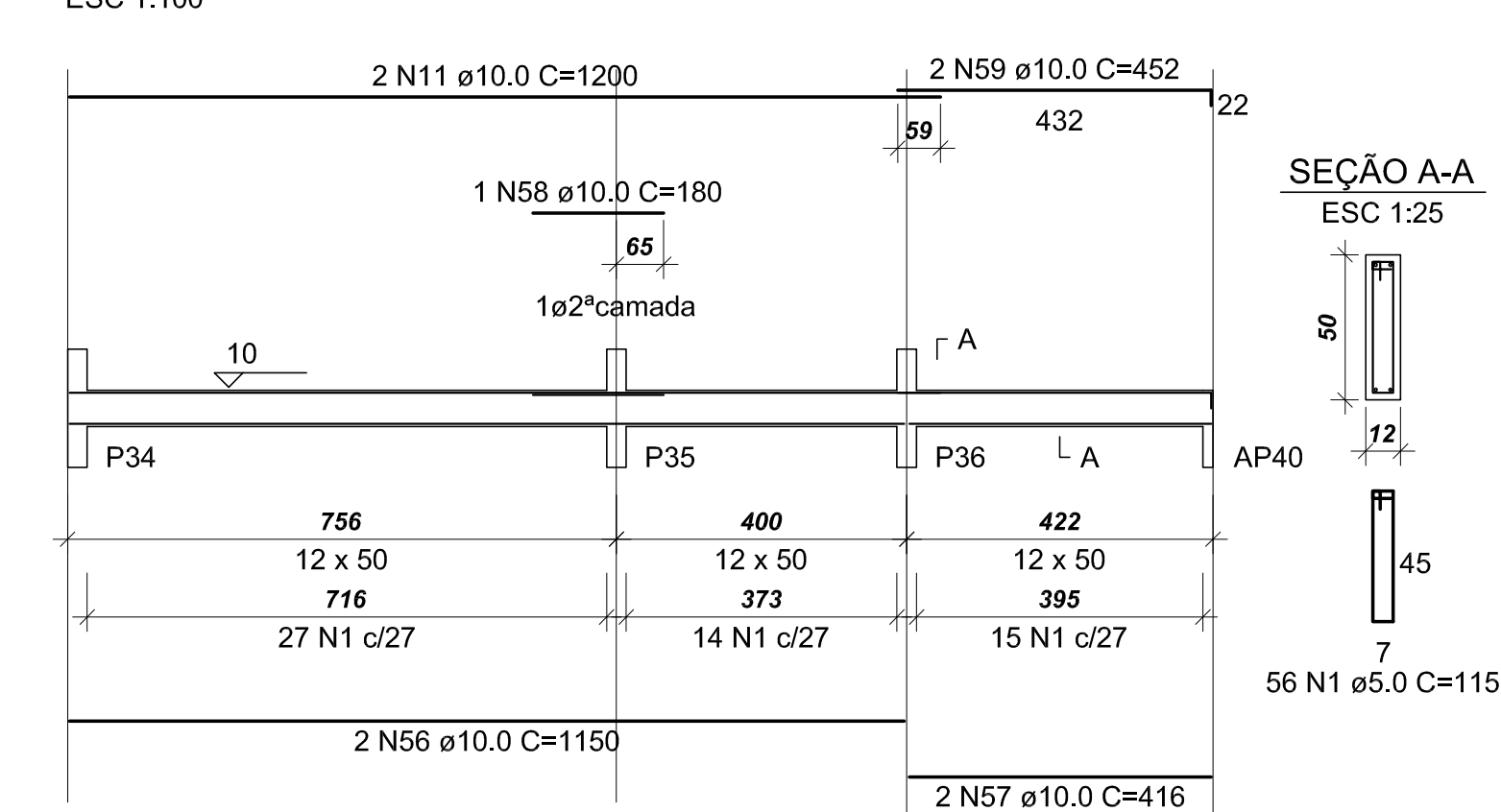
VB21 (12 x 50)



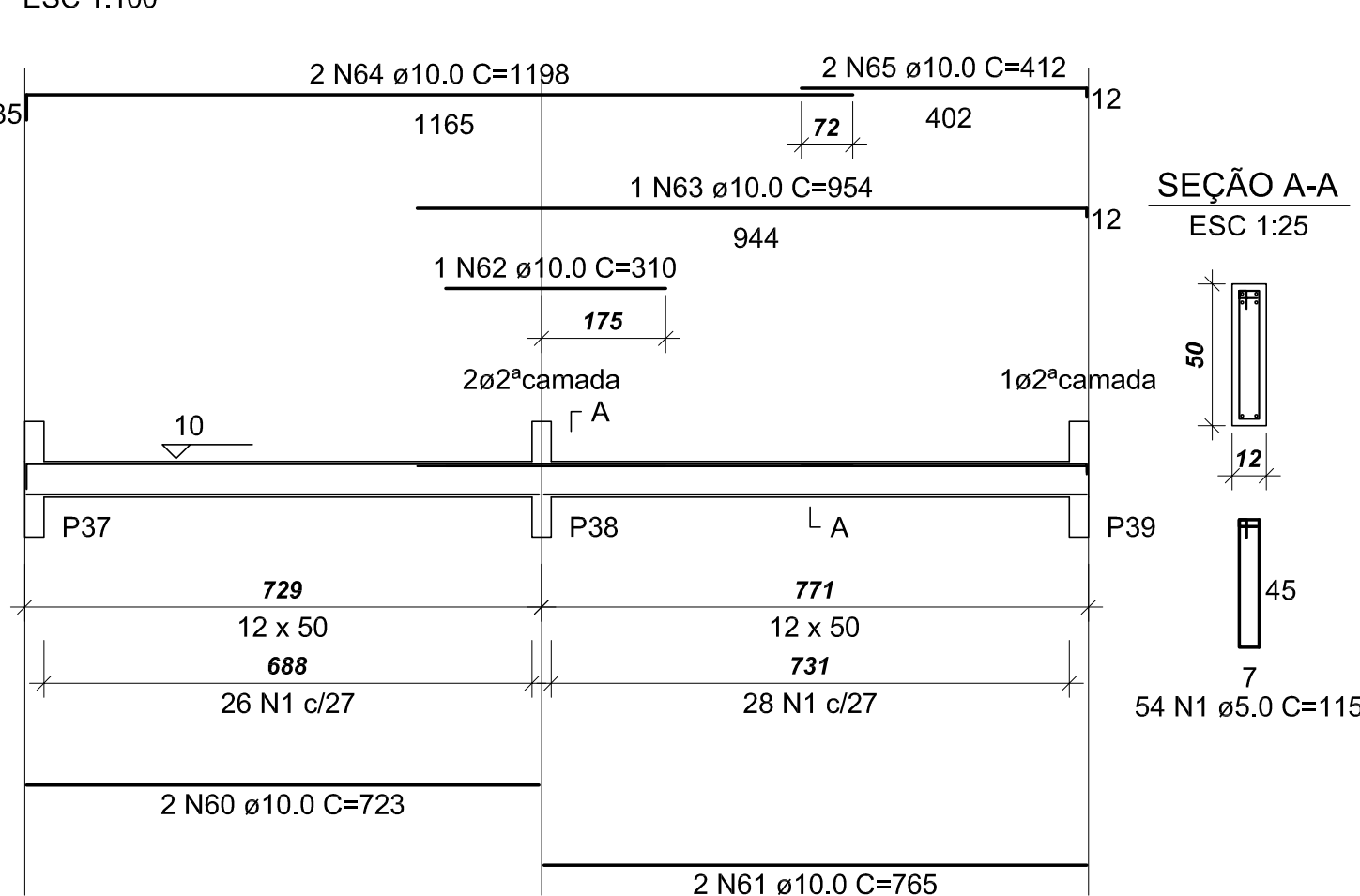
VB24 (12 x 50)



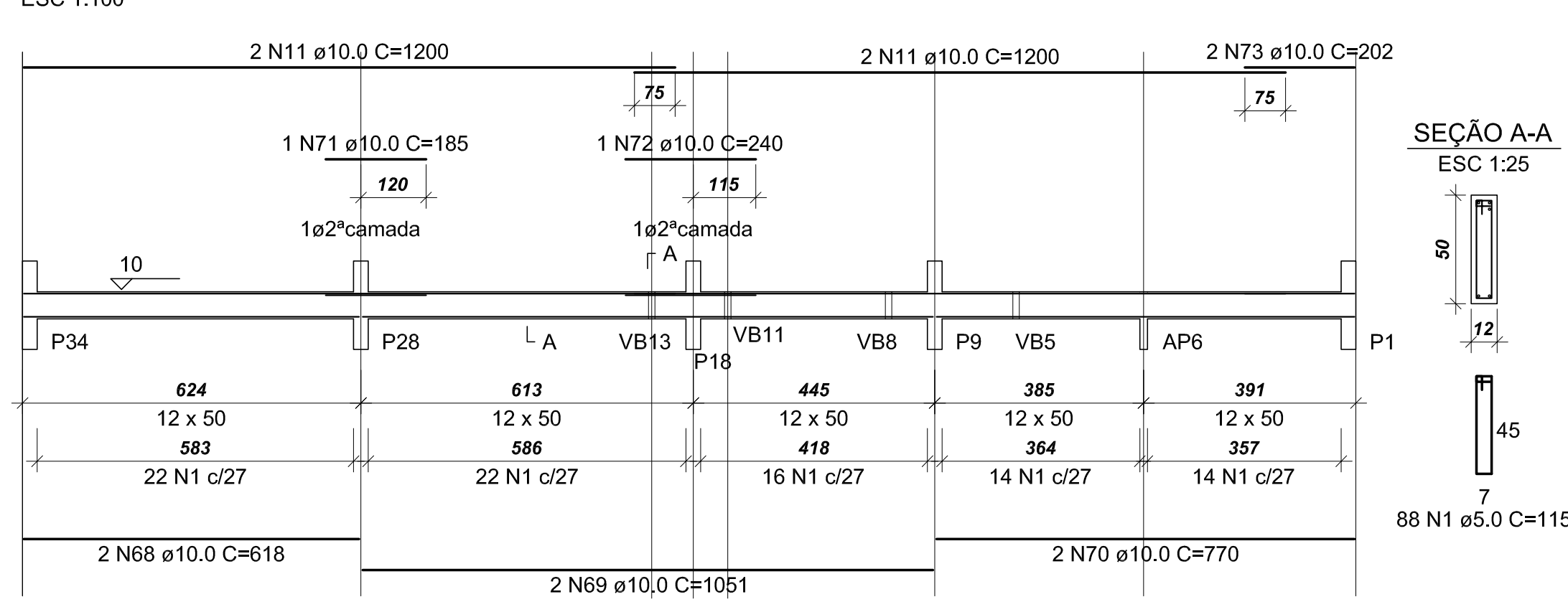
VB22 (12 x 50)



VB23 (12 x 50)



VB25 (12 x 50)



CD	17.07.2013	PROJETO ESTRUTURAL
DT	DATA	RESPONSÁVEL
DT	DATA	DESCRIÇÃO DA REVISÃO
AS BUILT ENGENHARIA DE PROJETOS LTDA Rua João do Rosário, 1564 - Boa Vista CEP 82560-435 - Curitiba - Paraná asbuiltprojetos@gmail.com - (41) 3088-4048		
PÁGE: PROJETO ESTRUTURAL		
CONFERIR MEDIDAS NA OBRA		
BIBLIOTECA CAMPUS UNAI		
PRÓPRIETÁRIO	UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI	CNPJ 16.886.315/0001-57
FRANCHA	FERRAGEM DAS VIGAS: BALDRAMES (I)	
AUTOR PROJETO	CARLOS HENRIQUE DE SOUZA GONÇALVES CREA 7902/D - Pr	
ESCALA:	INDICADA	DESENHO: EQUIPE
VERSÃO	DATA	ÁREA CONSTRUÍDA
VERSAOQ 1	17/07/2013	4,127,32 m²
ARQUIVO:	EST 07/26	