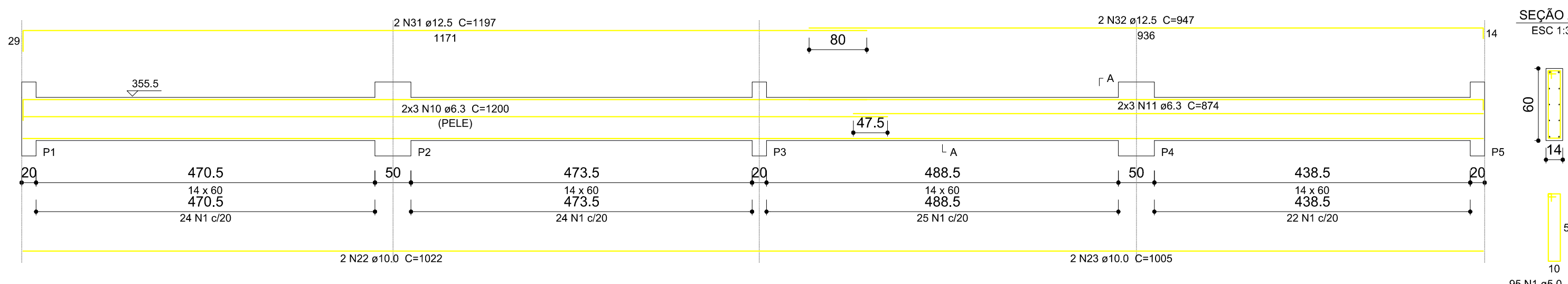
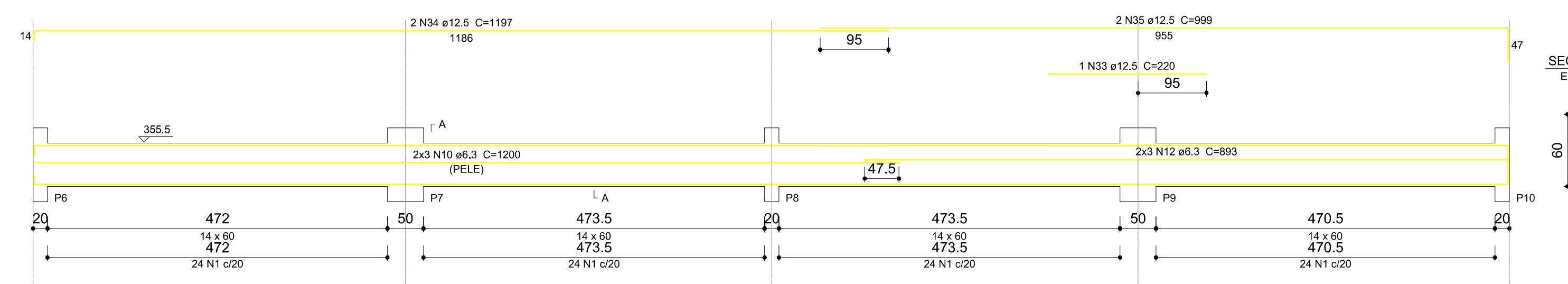


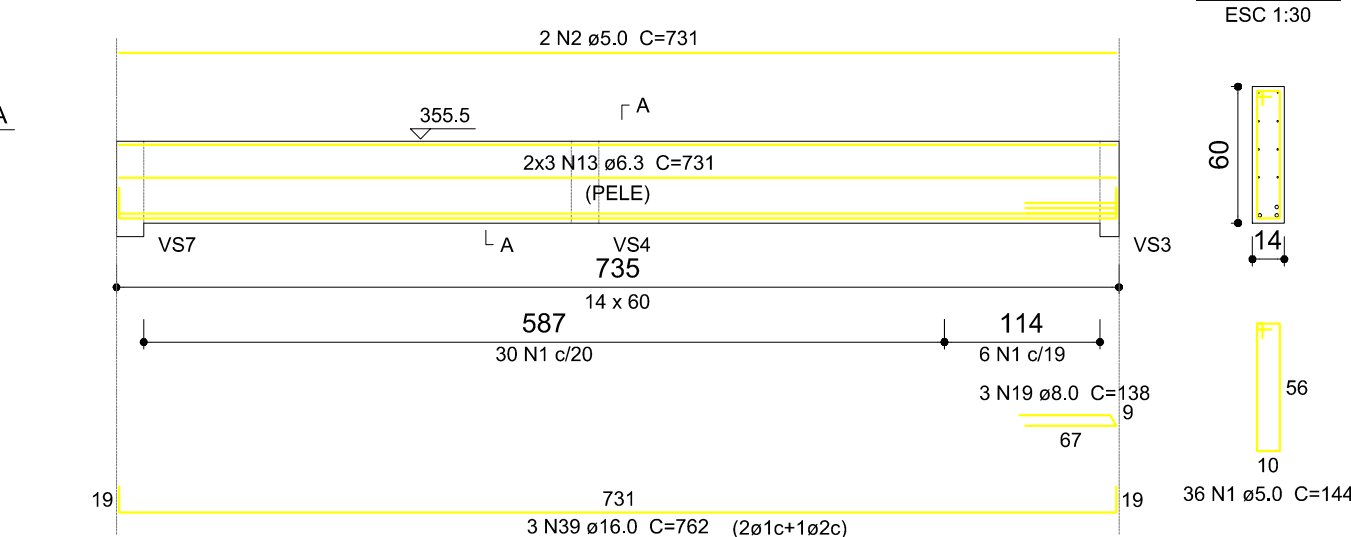
**VS1 (14 x 60)**



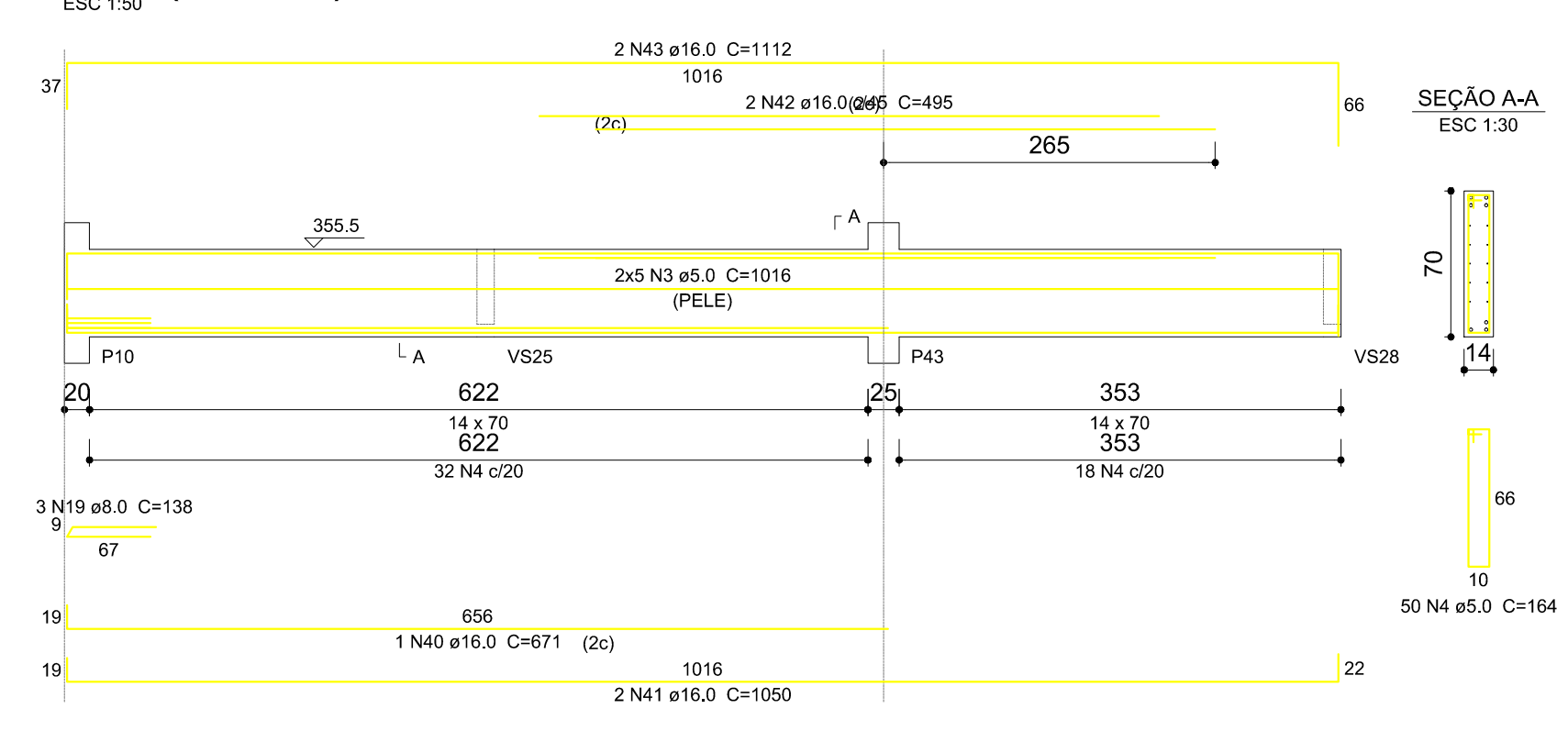
**VS2 (14 x 60)**



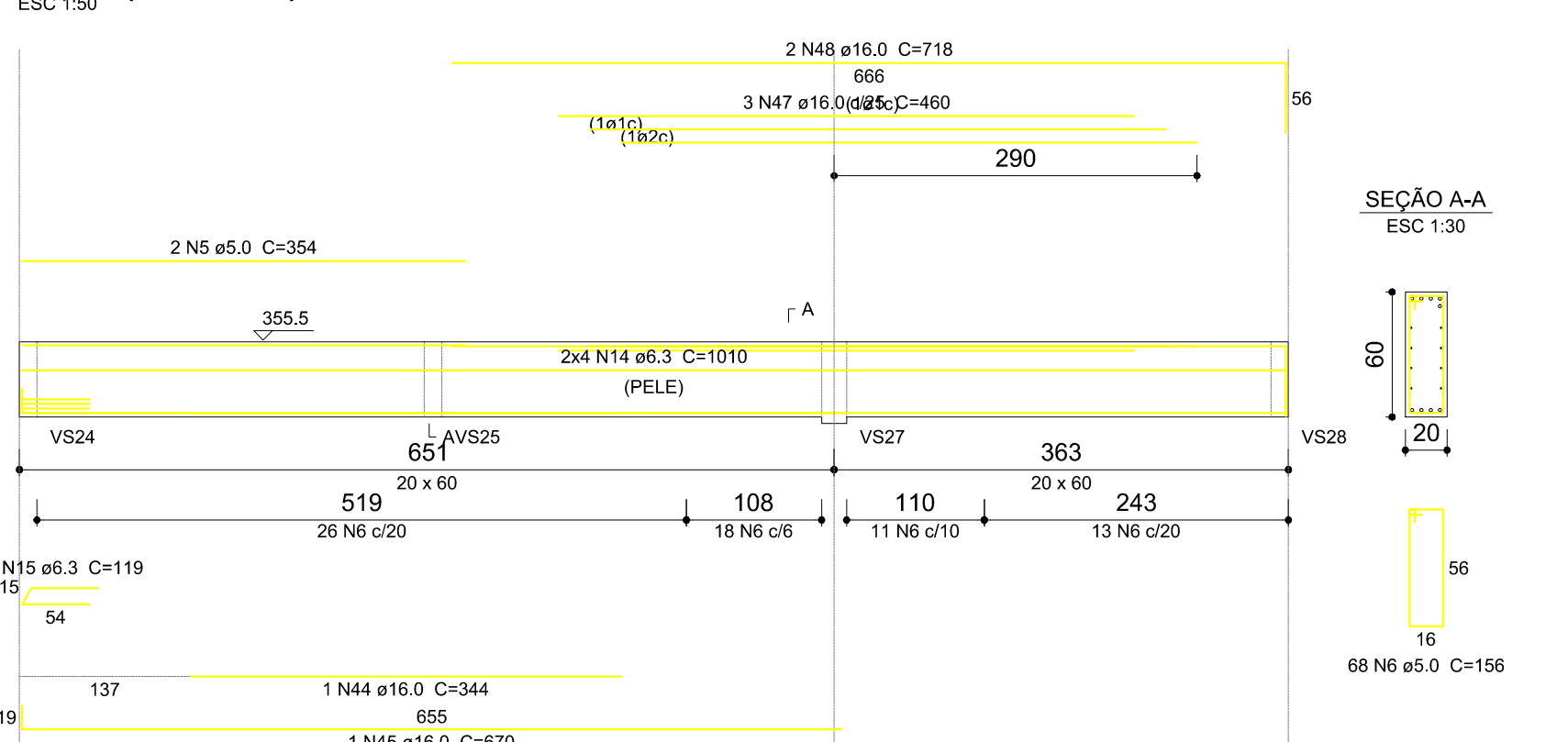
**VS25 (14 x 60)**



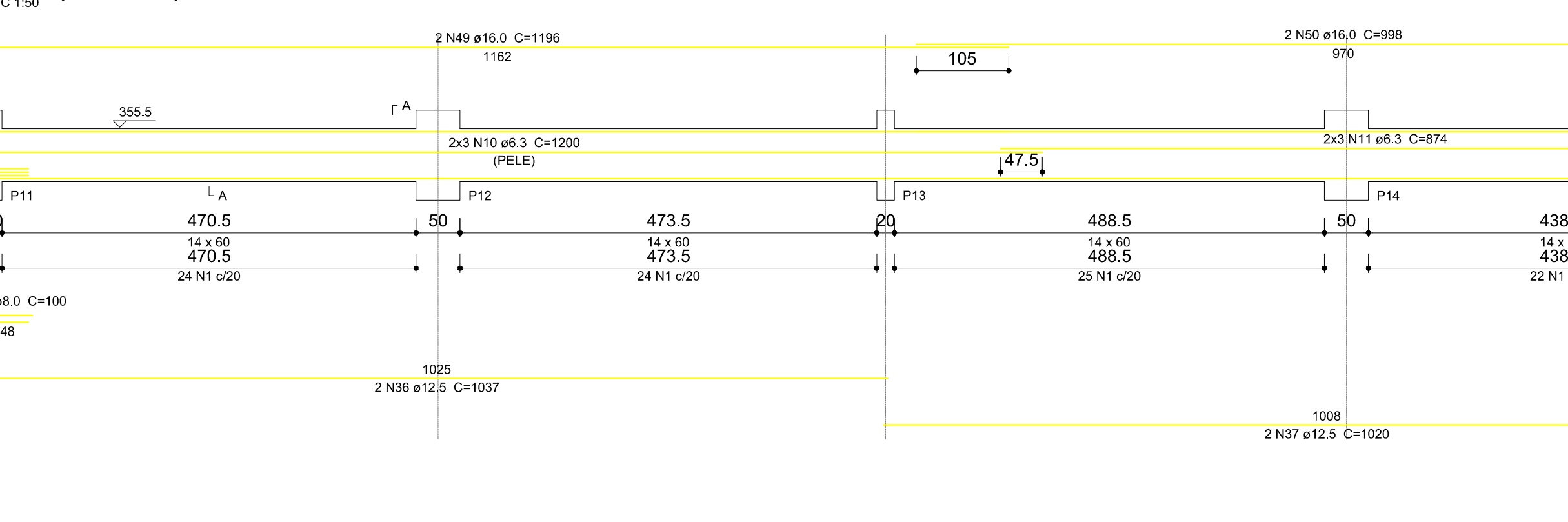
**VS3 (14 x 70)**



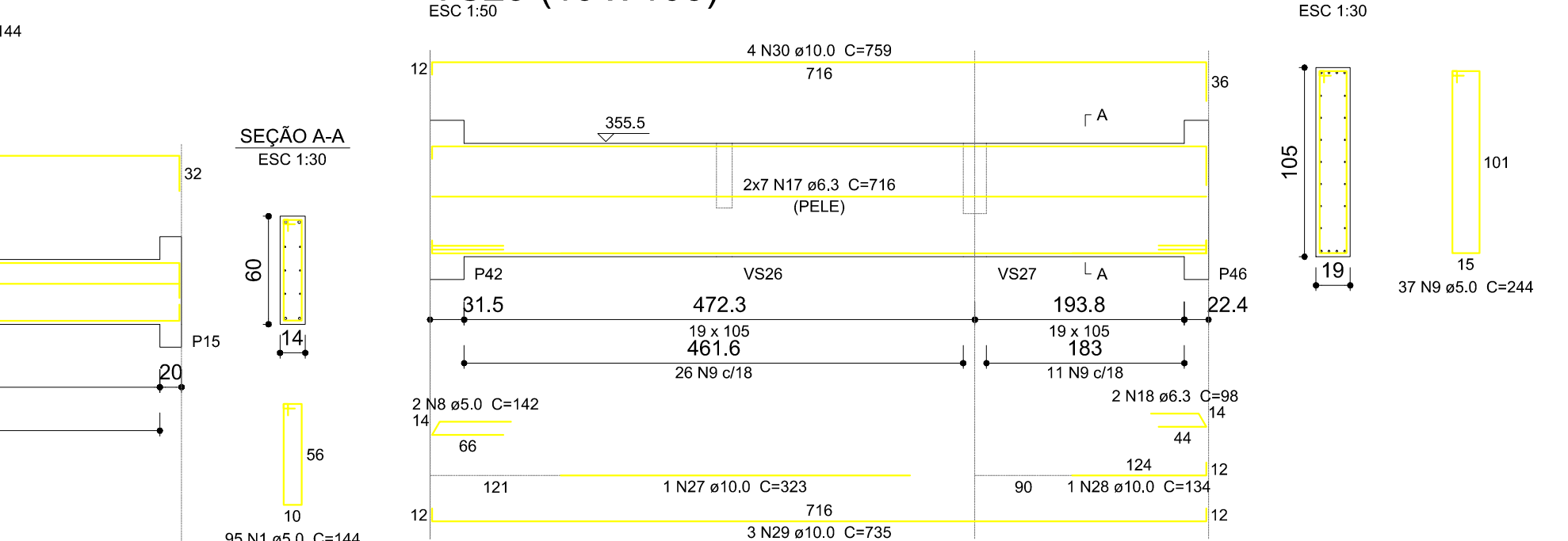
**VS4 (20 x 60)**



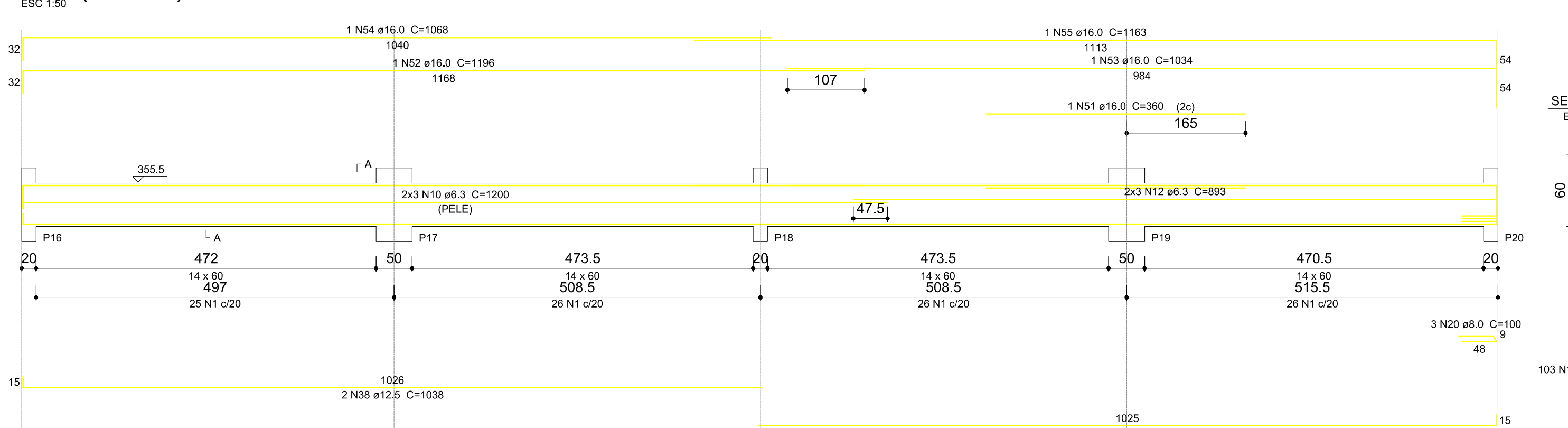
**VS5 (14 x 60)**



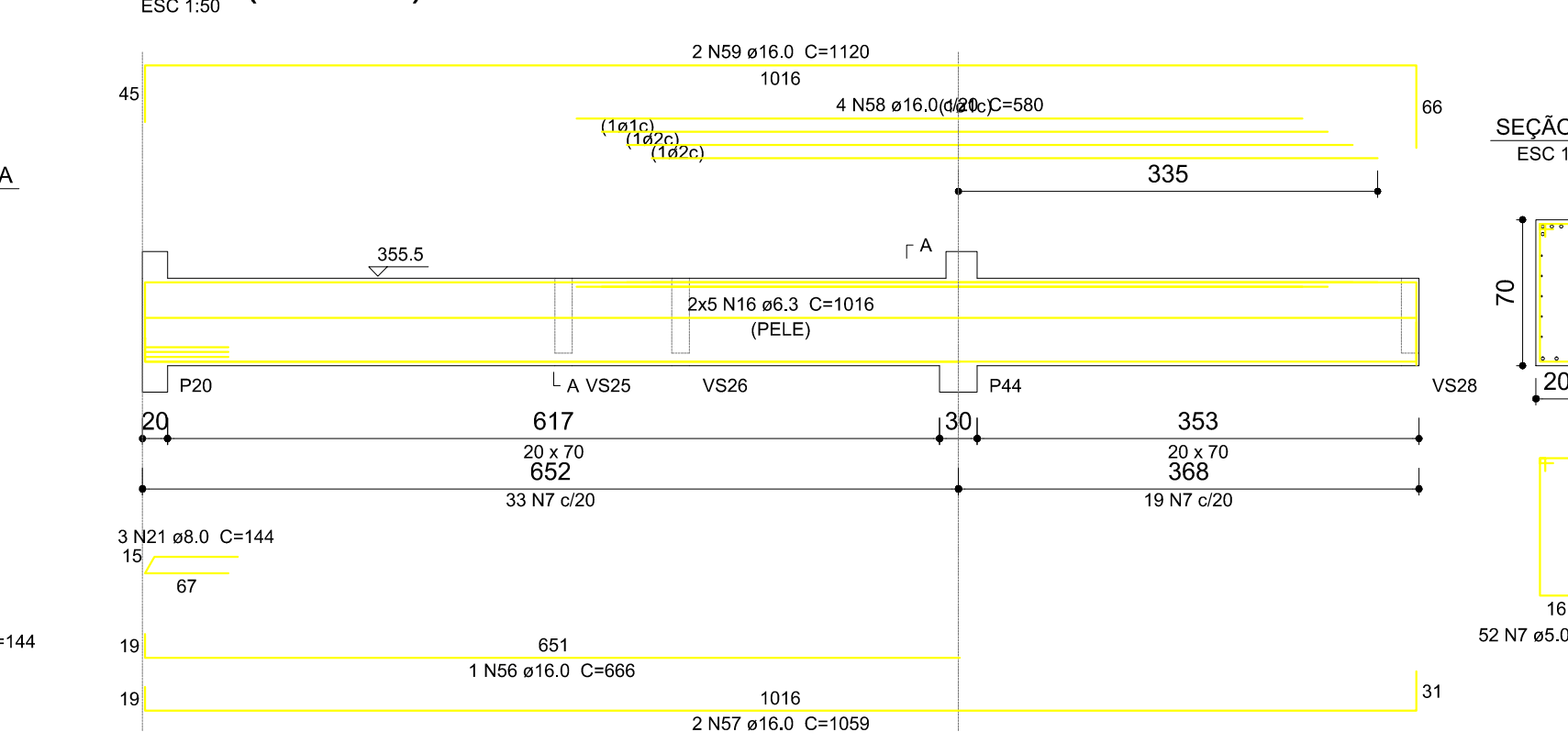
**VS29 (19 x 105)**



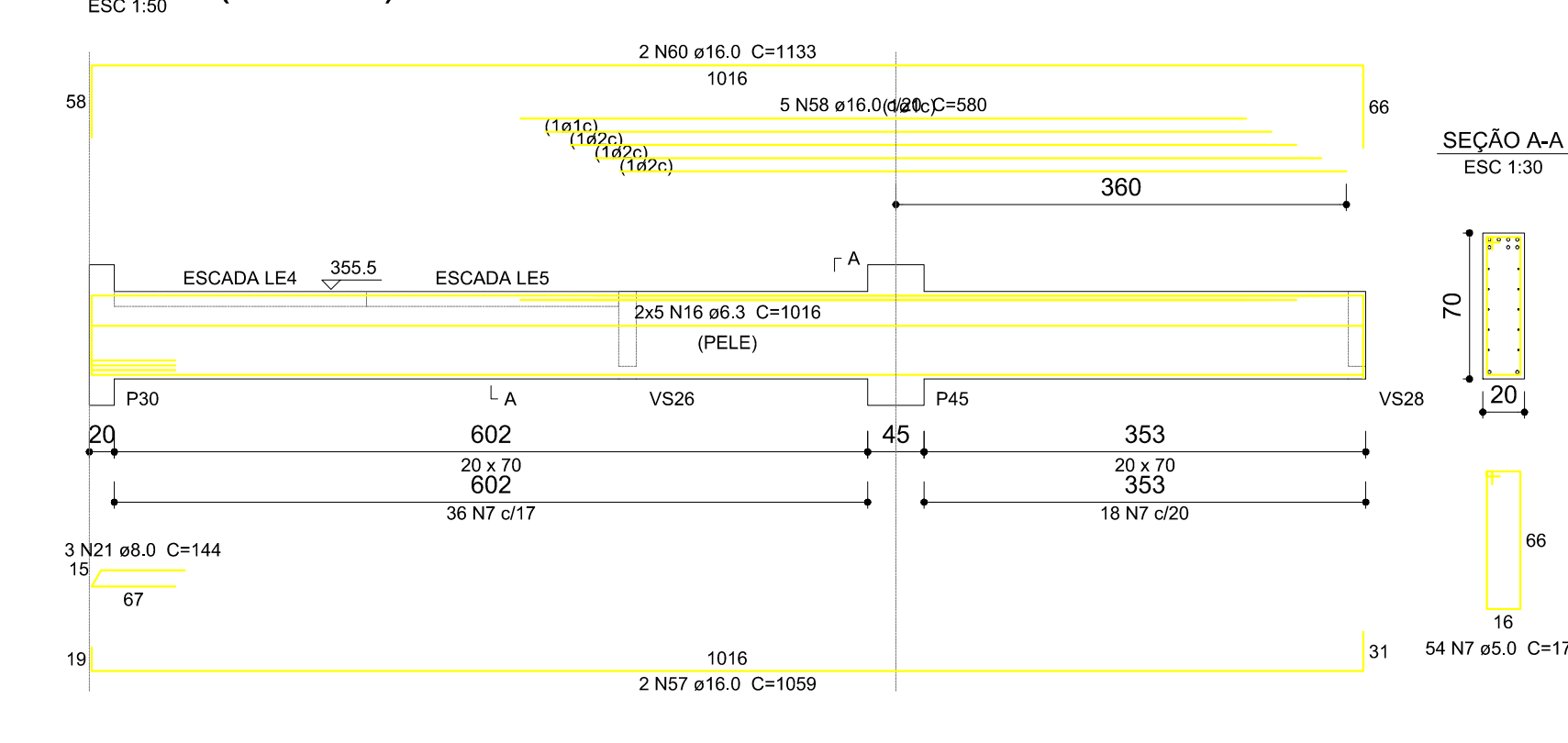
**VS6 (14 x 60)**



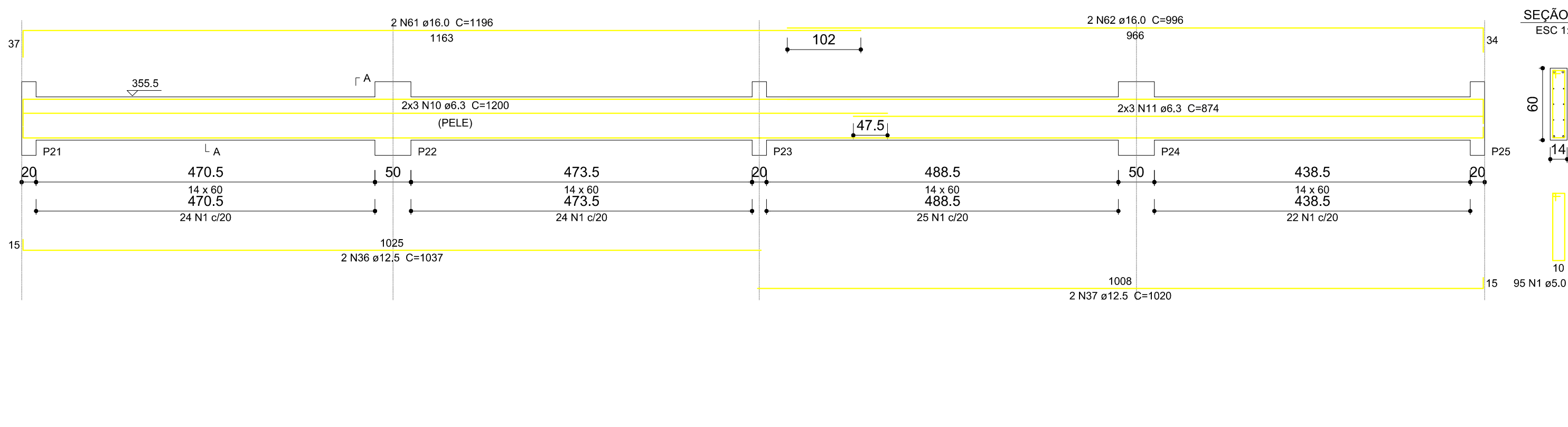
**VS7 (20 x 70)**



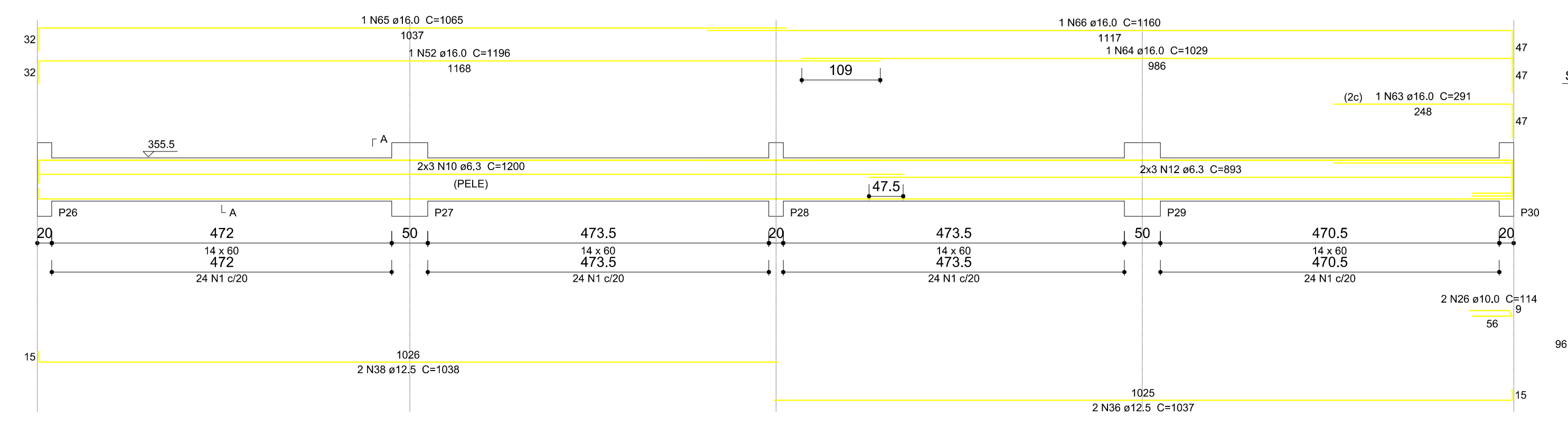
**VS10 (20 x 70)**



**VS8 (14 x 60)**



**VS9 (14 x 60)**



**Relação do aço**

CAÇO	N	DIAM	Q	UNID	C.TOTAL
CA00	1	5.0	616	144	88734
CA00	2	5.0	2	2	1402
CA00	3	5.0	10	1018	10180
CA00	4	5.0	50	164	8200
CA00	5	5.0	2	364	708
CA00	6	5.0	86	156	13608
CA00	7	5.0	106	176	18606
CA00	8	5.0	2	142	284
CA00	9	5.0	37	244	9028
CA00	10	6.3	36	1200	43200
CA00	11	6.3	18	244	4392
CA00	12	6.3	18	893	16074
CA00	13	6.3	6	119	4386
CA00	14	6.3	8	1010	8080
CA00	15	6.3	3	119	357
CA00	16	6.3	20	1018	20320
CA00	17	6.3	14	716	10024
CA00	18	6.3	2	98	196
CA00	19	6.3	14	716	10024
CA00	20	8.0	6	100	600
CA00	21	8.0	6	144	864
CA00	22	10.0	2	1022	2044
CA00	23	10.0	2	1005	2010
CA00	24	10.0	2	1034	2068
CA00	25	10.0	2	1032	2064
CA00	26	10.0	2	114	228
CA00	27	10.0	1	323	323
CA00	28	10.0	1	134	134
CA00	29	10.0	3	733	2205
CA00	30	10.0	4	750	3000
CA00	31	12.5	2	1197	2394
CA00	32	12.5	2	947	1894
CA00	33	12.5	1	220	220
CA00	34	12.5	2	1197	2394
CA00	35	12.5	2	960	1920
CA00	36	12.5	8	1037	8296
CA00	37	12.5	4	1000	4000
CA00	38	12.5	4	1038	4152
CA00	39	16.0	3	762	2286
CA00	40	16.0	1	471	471
CA00	41	16.0	2	1050	2100
CA00	42	16.0	2	499	998
CA00	43	16.0	2	1112	2224
CA00	44	16.0	1	344	344
CA00	45	16.0	1	670	670
CA00	46	16.0	1	1040	1040
CA00	47	16.0	3	460	1380
CA00	48	16.0	2	718	1436
CA00	49	16.0	2	1196	2392
CA00	50	16.0	2	960	1920
CA00	51	16.0	1	360	360
CA00	52	16.0	2	1196	2392
CA00	53	16.0	1	1034	1034
CA00	54	16.0	1	1058	1058
CA00	55	16.0	1	1163	1163
CA00	56	16.0	1	696	696
CA00	57	16.0	4	1059	4236
CA00	58	16.0	9	760	6840
CA00	59	16.0	2	1120	2240
CA00	60	16.0	2	1133	2266
CA00	61	16.0	2	1196	2392
CA00	62	16.0	2	998	1996
CA00	63	16.0	1	291	291
CA00	64	16.0	1	1029	1029
CA00	65	16.0	1	1065	1065
CA00	66	16.0	1	1160	1160

**Resumo do aço**

CAÇO	DIAM	C.TOTAL	PESO • 10%
CA00	6.3	11837	590
CA00	8.0	23	216.6
CA00	10.0	1412	67.7
CA00	12.5	2543	269.5
CA00	16.0	8717	818.8
CA00	5.0	14781	250.6
CA00	1513.5		
CA00	250.6		

Vol. de concreto total (C-25) = 17.41 m³  
 Área de forma total = 252.82 m²



**FB ENGENHARIA LTDA**  
 Felisberto & Biava Associados

Cliente: <b>INSTITUTO FEDERAL CATARINENSE</b>	Projeto: <b>425</b>
Obra: <b>EDIFICAÇÃO PARA SALAS DE AULA E OFICINAS</b>	Planilha: <b>19/32</b>
Responsável Técnico: <b>Eng. Civil FABIANO BIAVA</b> CRM: 49484	Assinatura Proprietário: _____
<b>VIGAS SUPERIOR (01/03)</b>	
Escala: <b>1:50</b>	Data: <b>15/03/2013</b>