



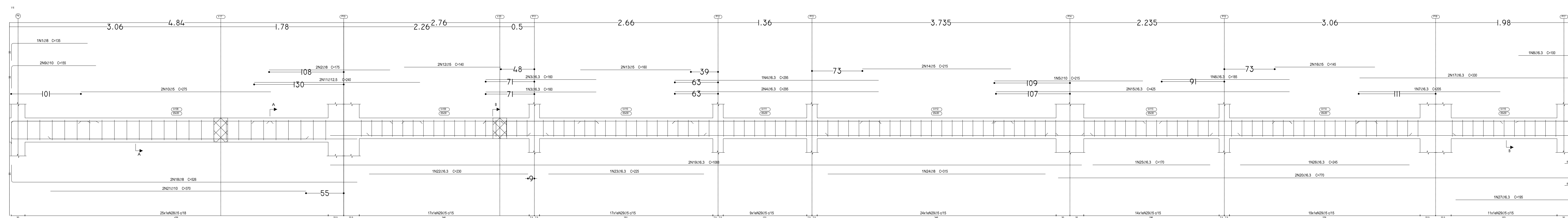
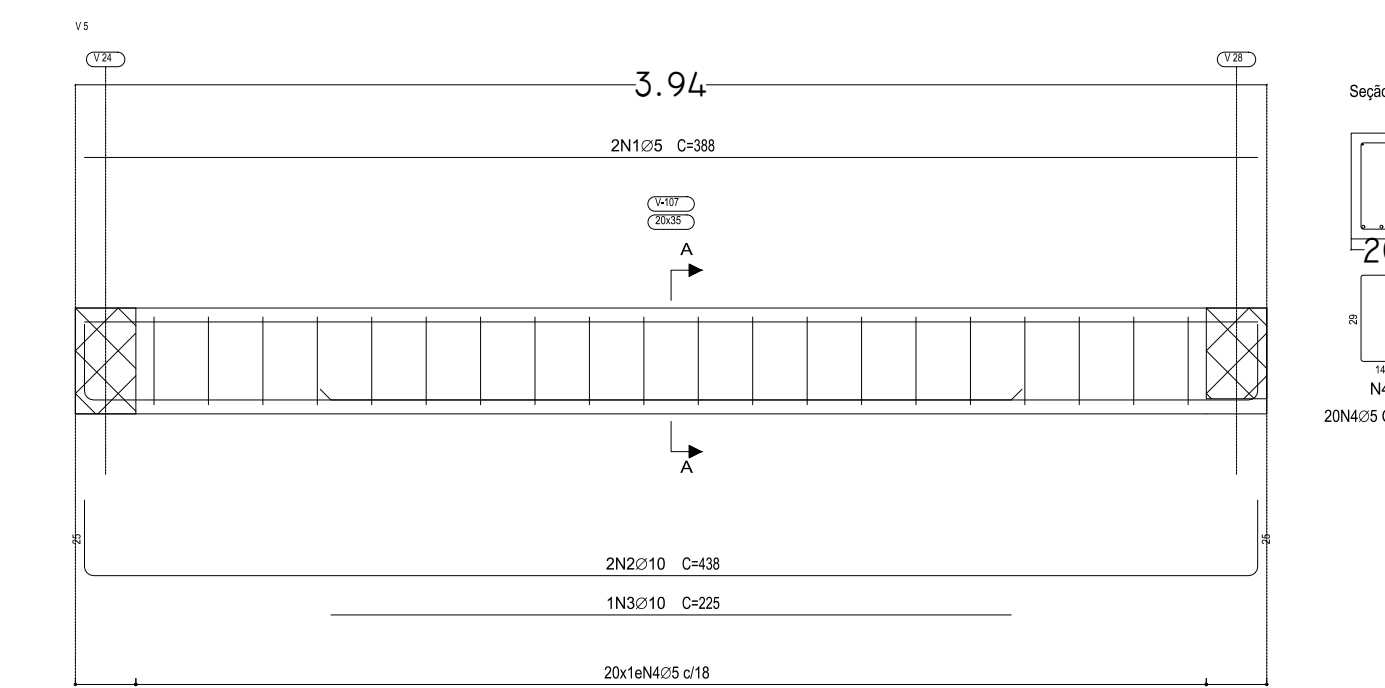
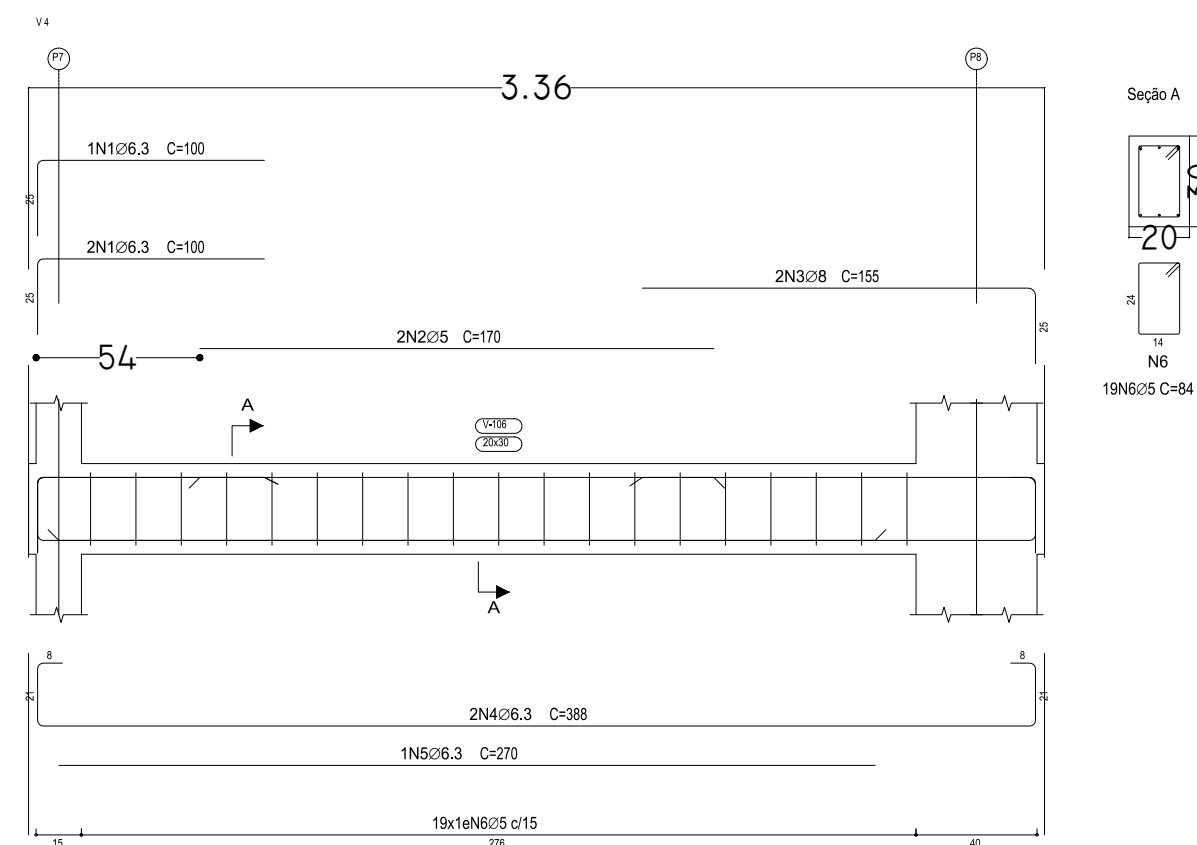
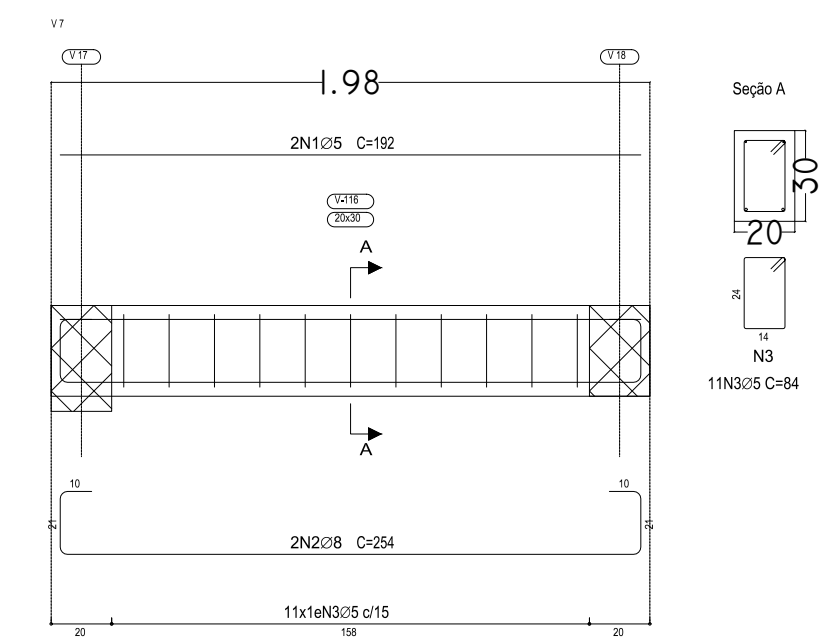
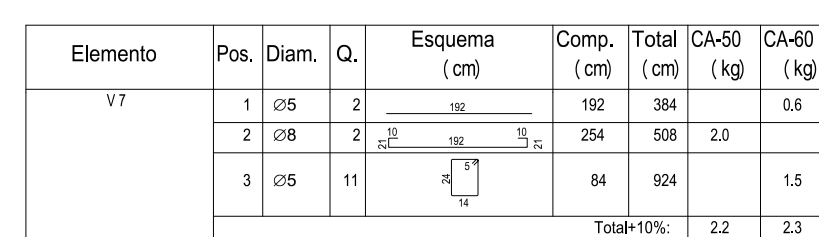
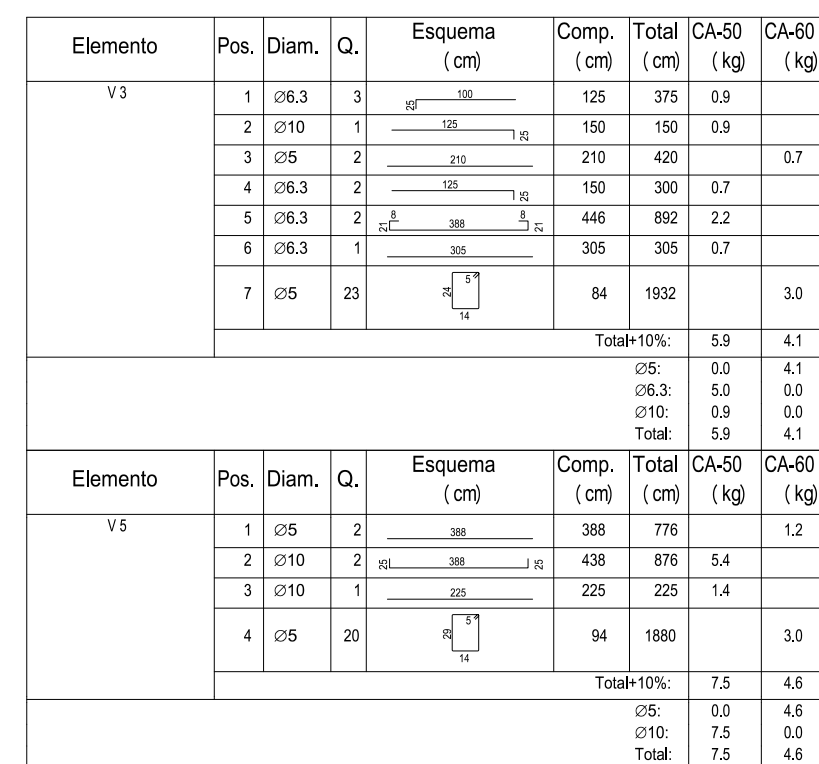
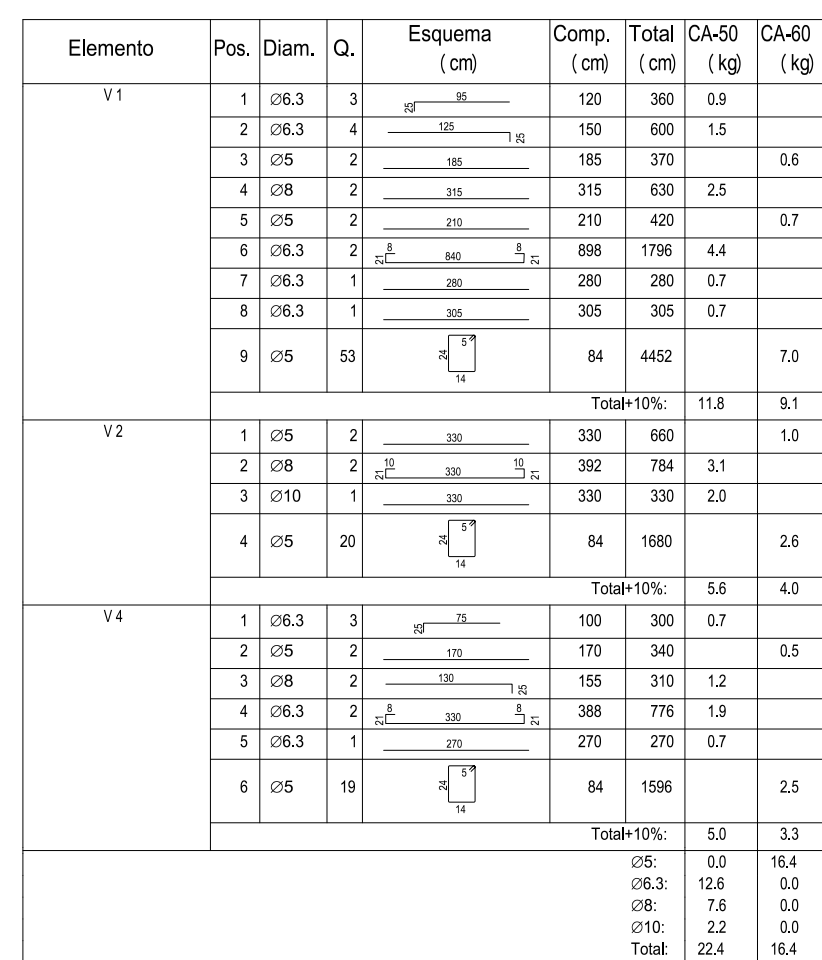
PREFEITURA DE
COLATINA
SECRETARIA DE OBRAS



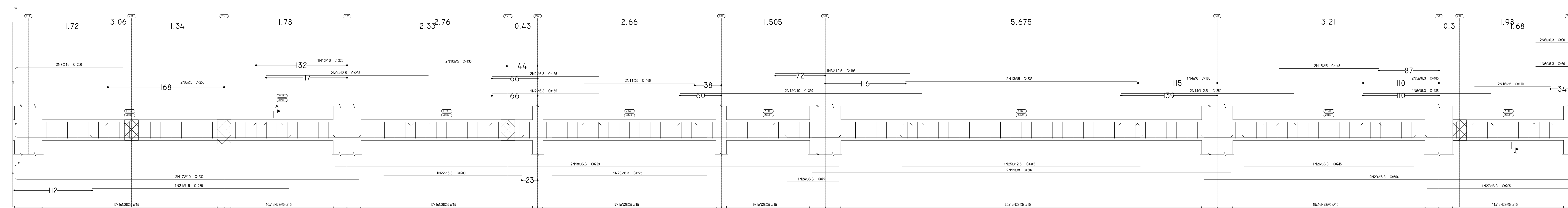
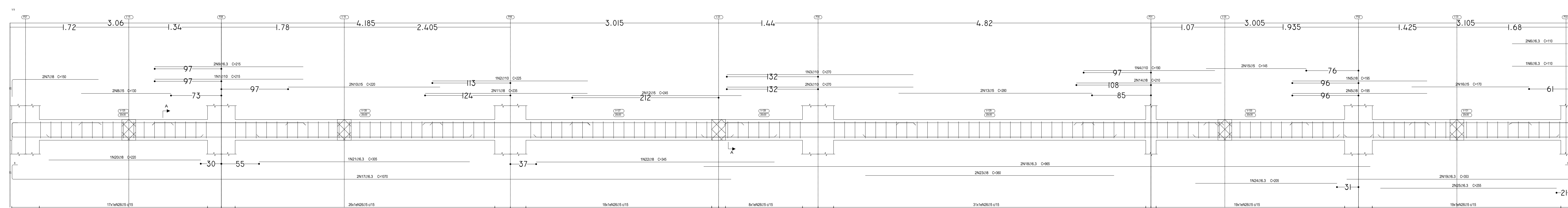
ANEXO XXI

PROJETOS ESTRUTURAIS



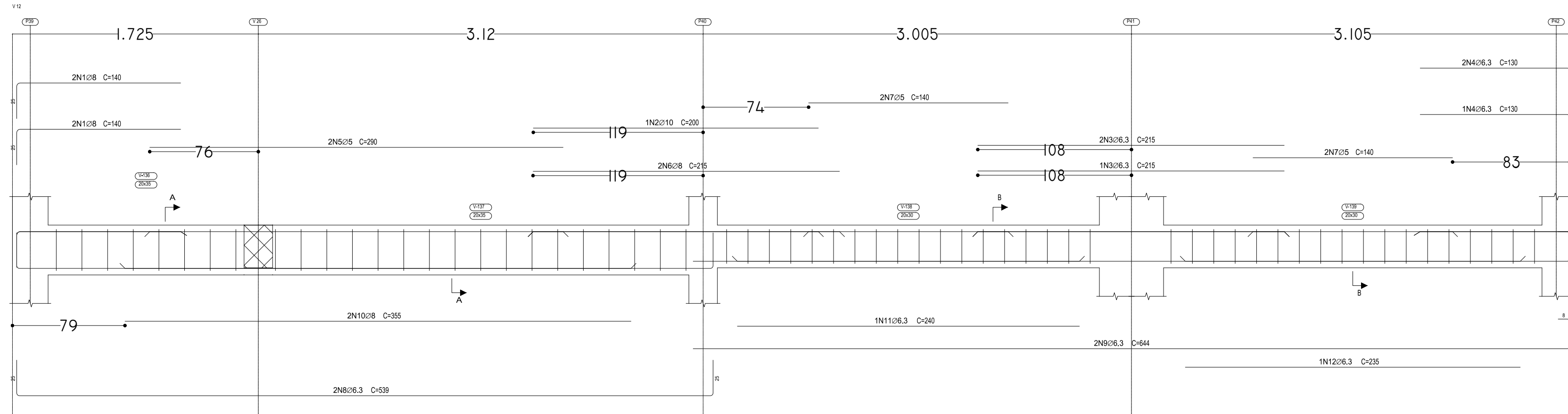
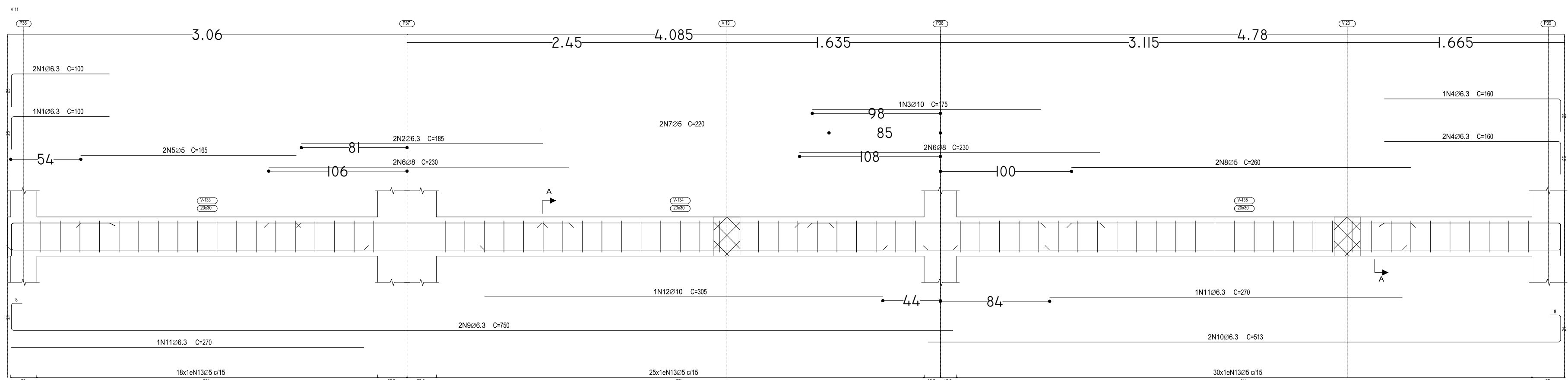


Elemento	Pos.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V-6	1	0-8		180	180	14.1	14.1
	2	0-8		155	150	14	14
	3	0-8		160	140	14	14
	4	0-8		200	200	2.2	2.2
	5	0-10		215	215	1.3	1.3
	6	0-8		185	185	0.3	0.3
	7	0-8		200	200	0.4	0.4
	8	0-8		160	160	0.2	0.2
	9	0-10		195	195	1.4	1.4
	10	0-5		275	500	4.8	4.8
	11	0-15.5		260	480	4.4	4.4
	12	0-5		410	280	14	14
	13	0-5		260	260	0.4	0.4
	14	0-5		427	427	0.7	0.7
	15	0-6.5		445	680	2.1	2.1
	16	0-5		435	290	0.7	0.7
	17	0-8		400	400	1.4	1.4
	18	0-8		506	1022	4.2	4.2
	19	0-8		170	170	1.4	1.4
	20	0-8		170	170	1.4	1.4
21	0-10		370	740	4.8	4.8	
22	0-6.5		425	425	0.8	0.8	
23	0-6.5		225	225	0.8	0.8	
24	0-8		315	315	1.3	1.3	
25	0-8		110	110	0.4	0.4	
26	0-8		245	240	0.5	0.5	
27	0-8		170	170	0.5	0.5	
28	0-5		34	226	3.7	3.7	
29	0-5		34	324	14.2	14.2	
Total=					506	0.9	25.7
					106	0.1	2.7
					696	0.2	0.8
					106	0.1	0.4
					1026	0.5	0.8
					106	0.2	0.7

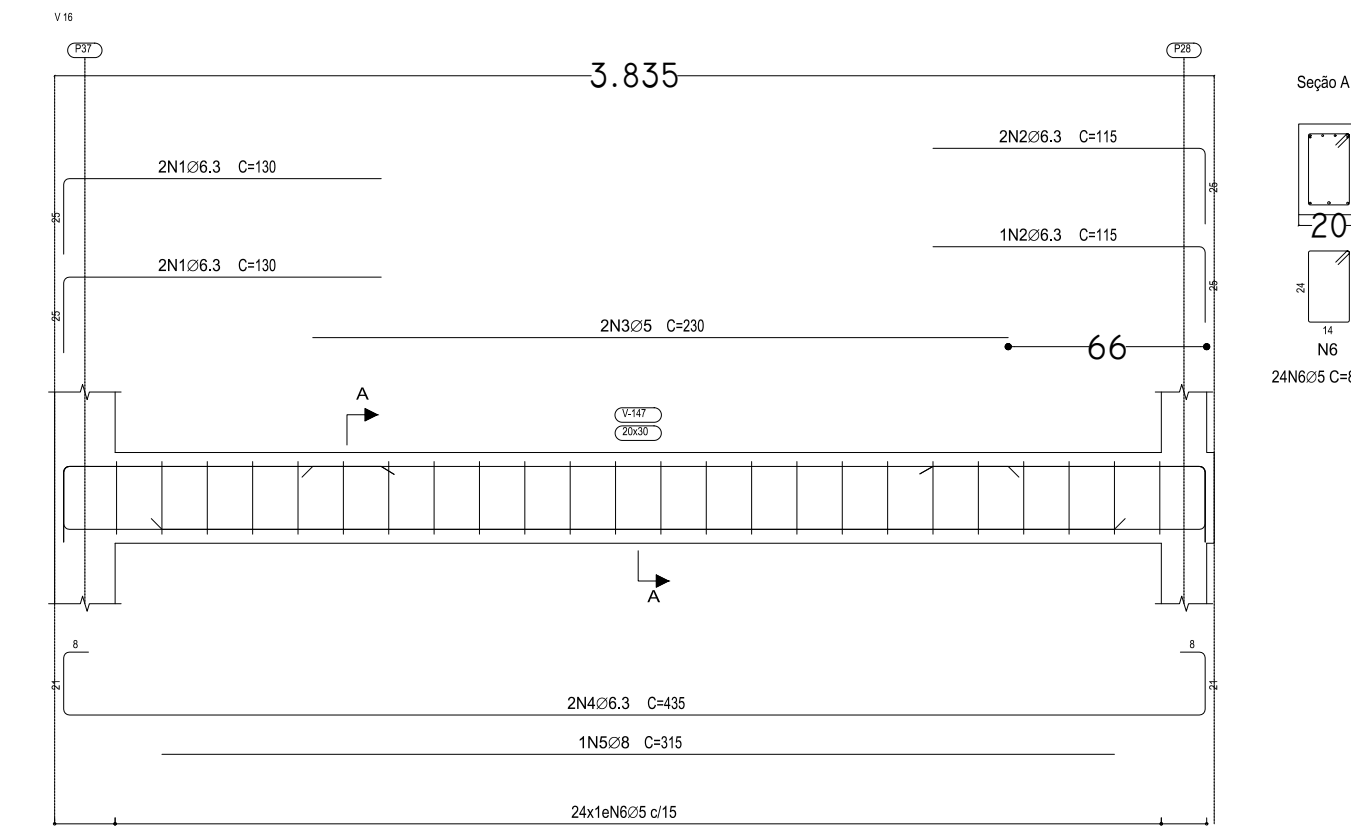
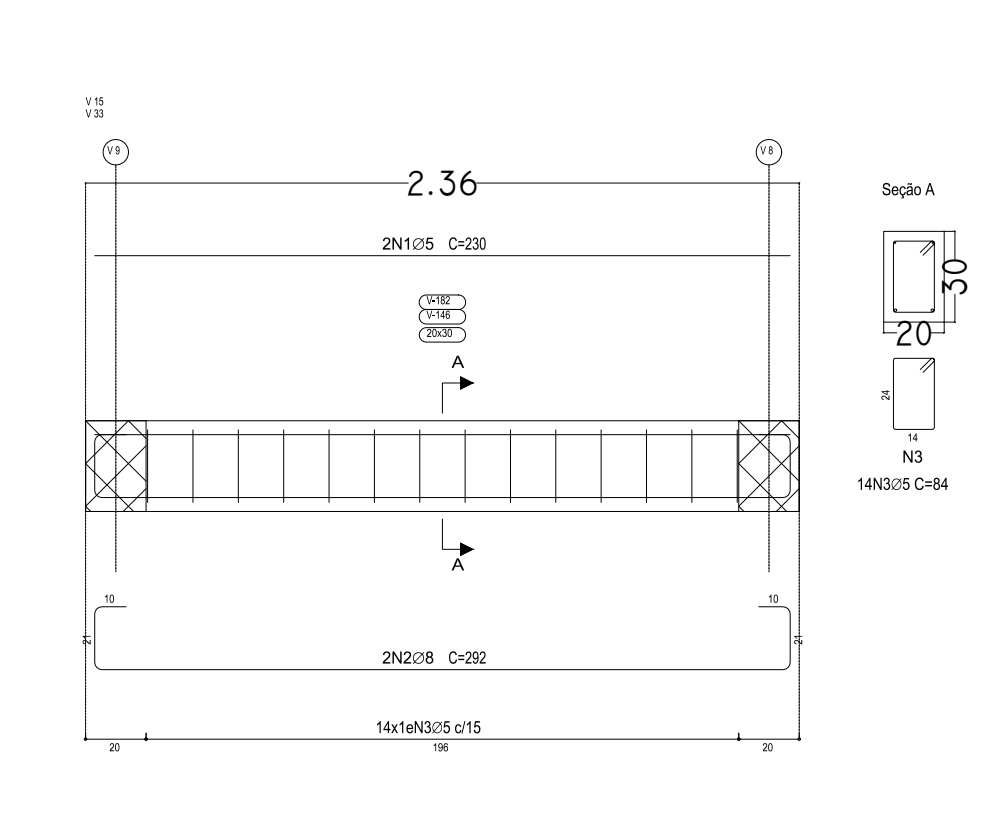
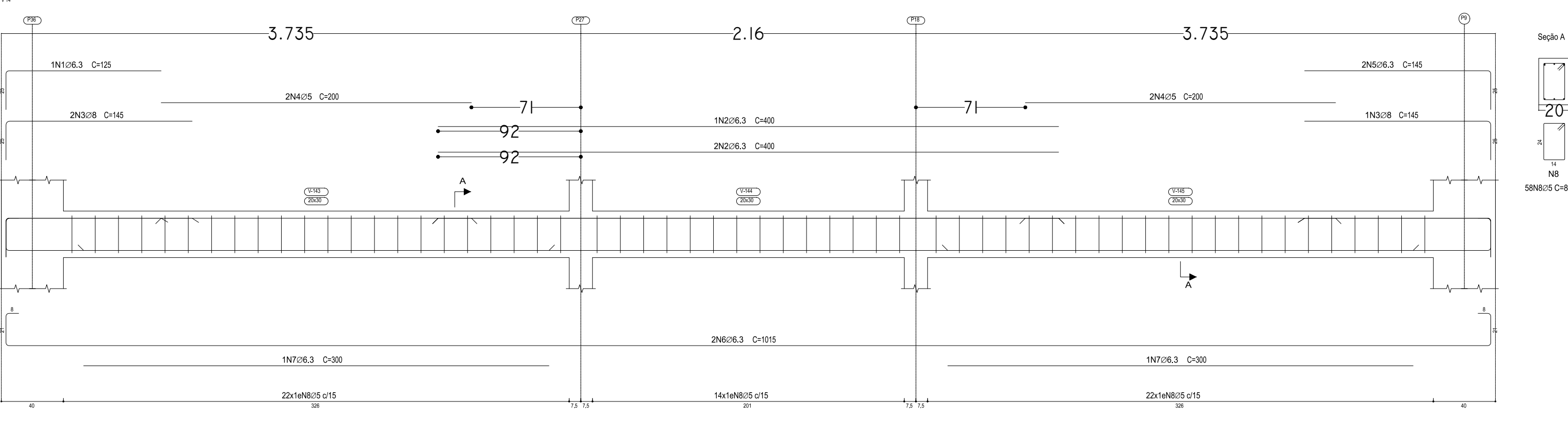
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VIGAS - TÉRREO

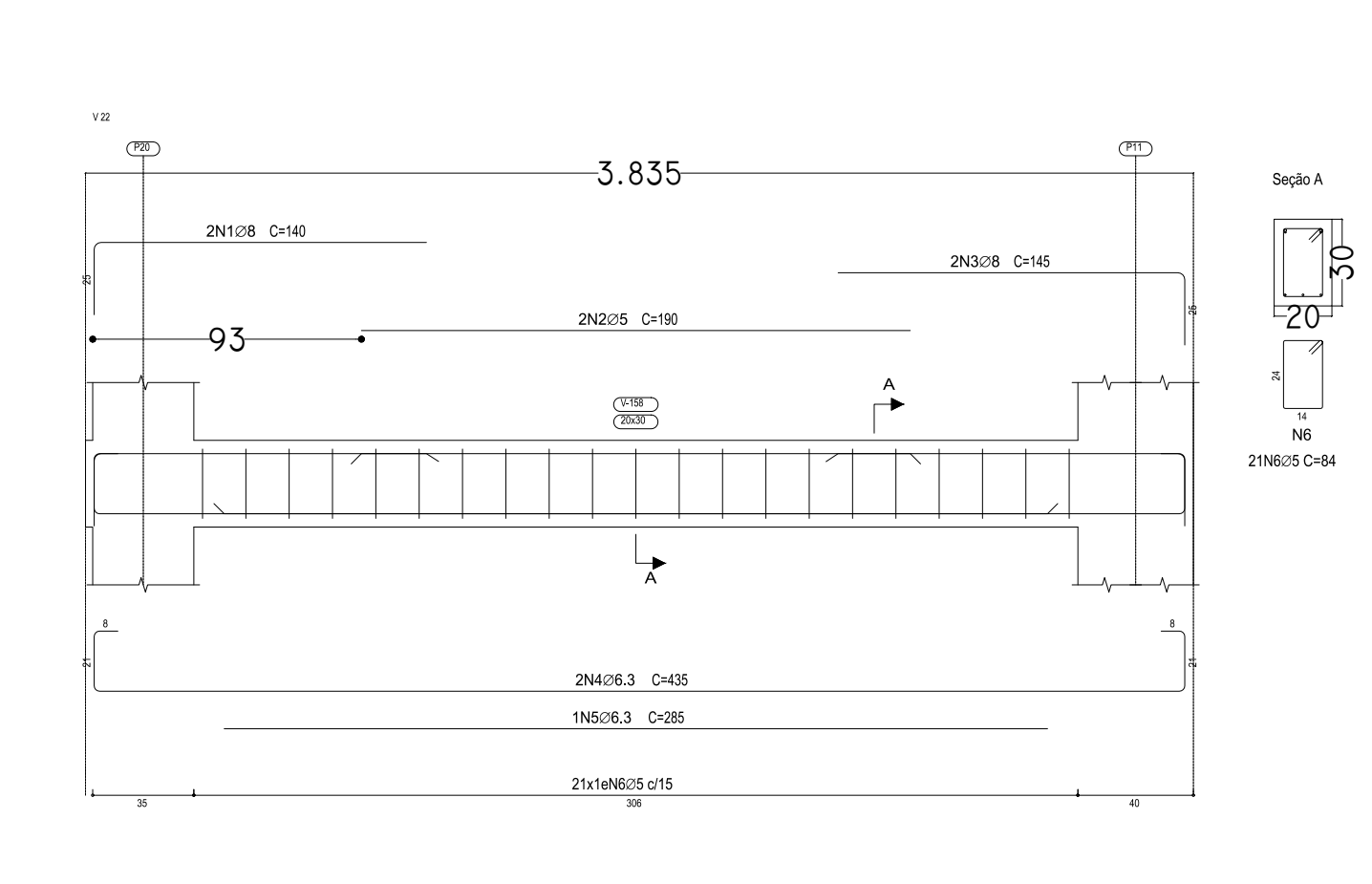
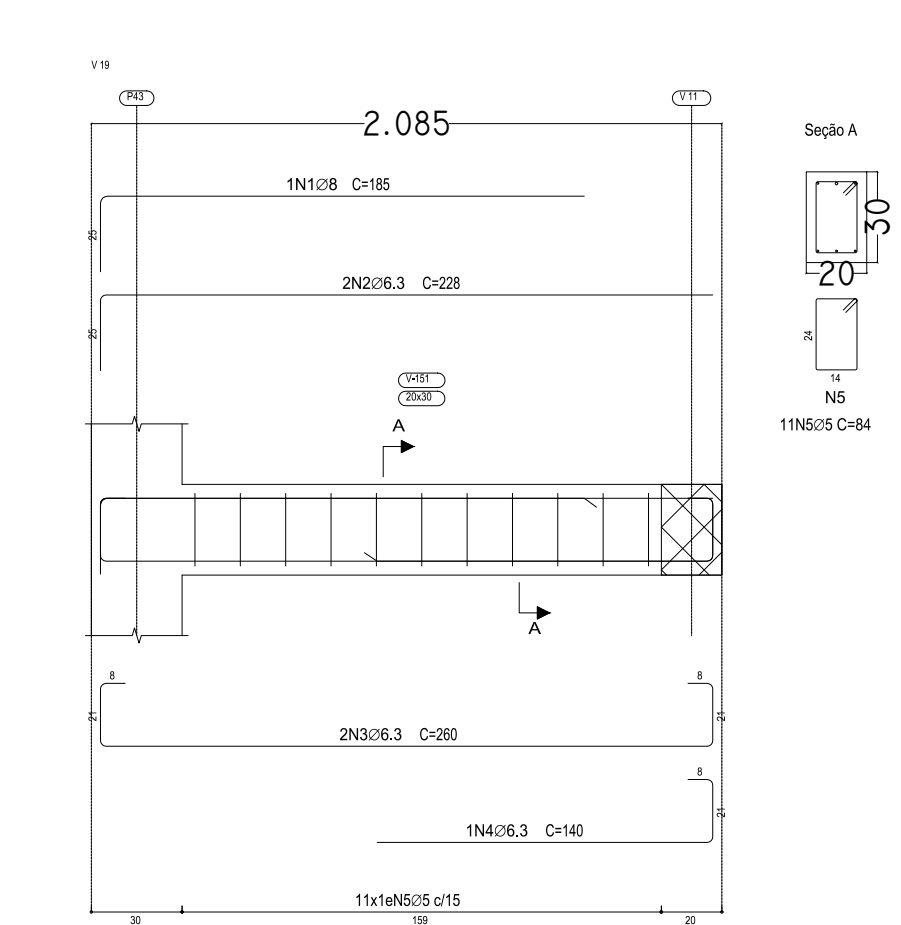
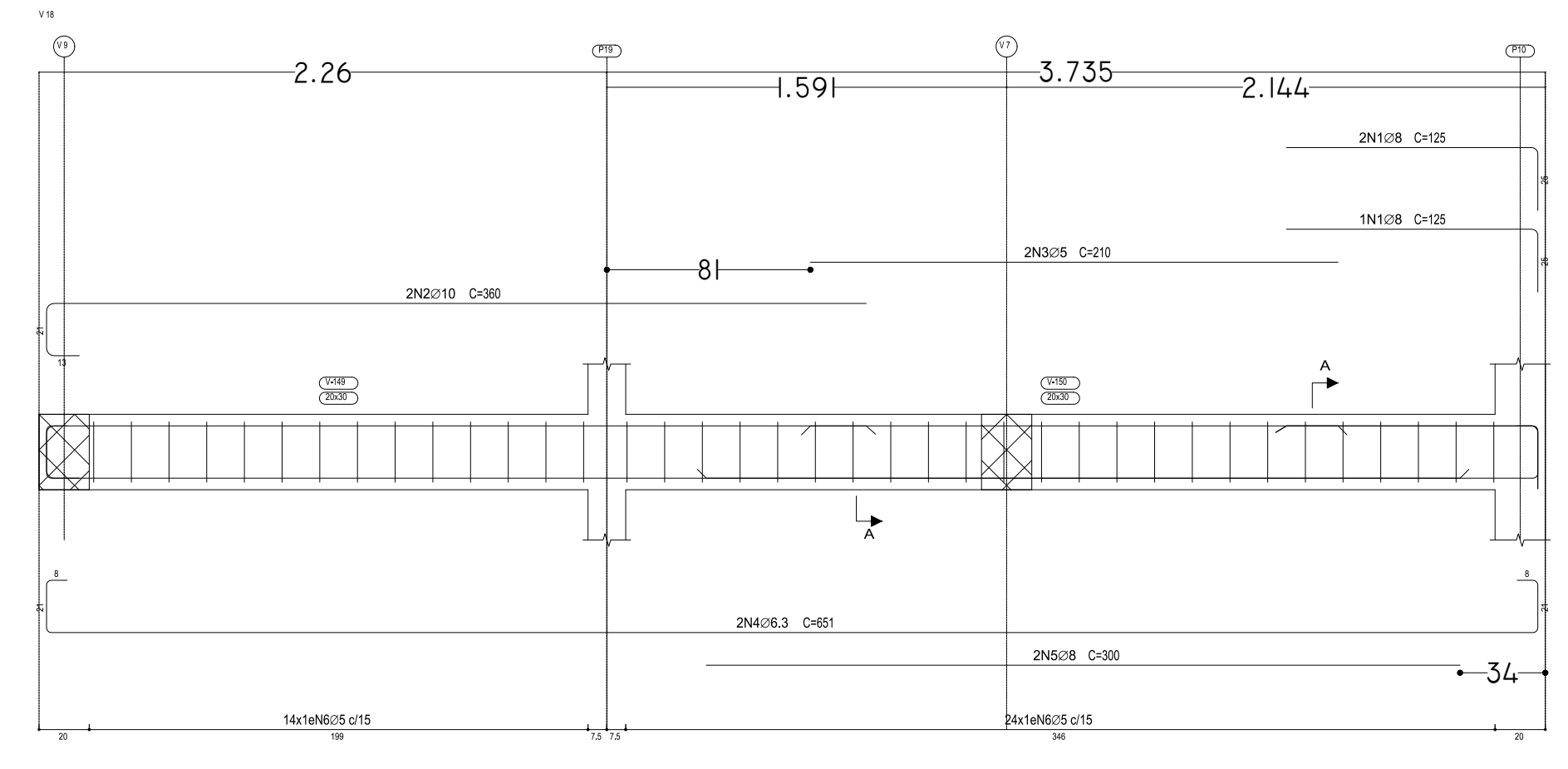
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Seção A	Seção B	Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-60 (kg)	CA-60 (kg)
		V11	1	Ø8.3	3		180	300	0.9	
		2	Ø8.3	2		180	360	0.9		
		3	Ø10.0	1		170	170	1.1		
		4	Ø8.3	3		160	480	1.2		
		5	Ø8	2		180	360	0.9		
		6	Ø8	4		220	880	2.4		
		7	Ø8	2		220	440	0.7		
		8	Ø8	2		220	440	0.7		
		9	Ø8.3	2		250	500	1.3		
		10	Ø8.3	2		310	620	2.3		
		11	Ø8.3	2		270	540	1.3		
		12	Ø10	1		300	300	1.9		
		13	Ø8	2		84	168	0.6		
Total=10%										
Ø8										
Ø8.3										
Ø10										
Total										
Ø8										
Ø8.3										
Ø10										
Total										

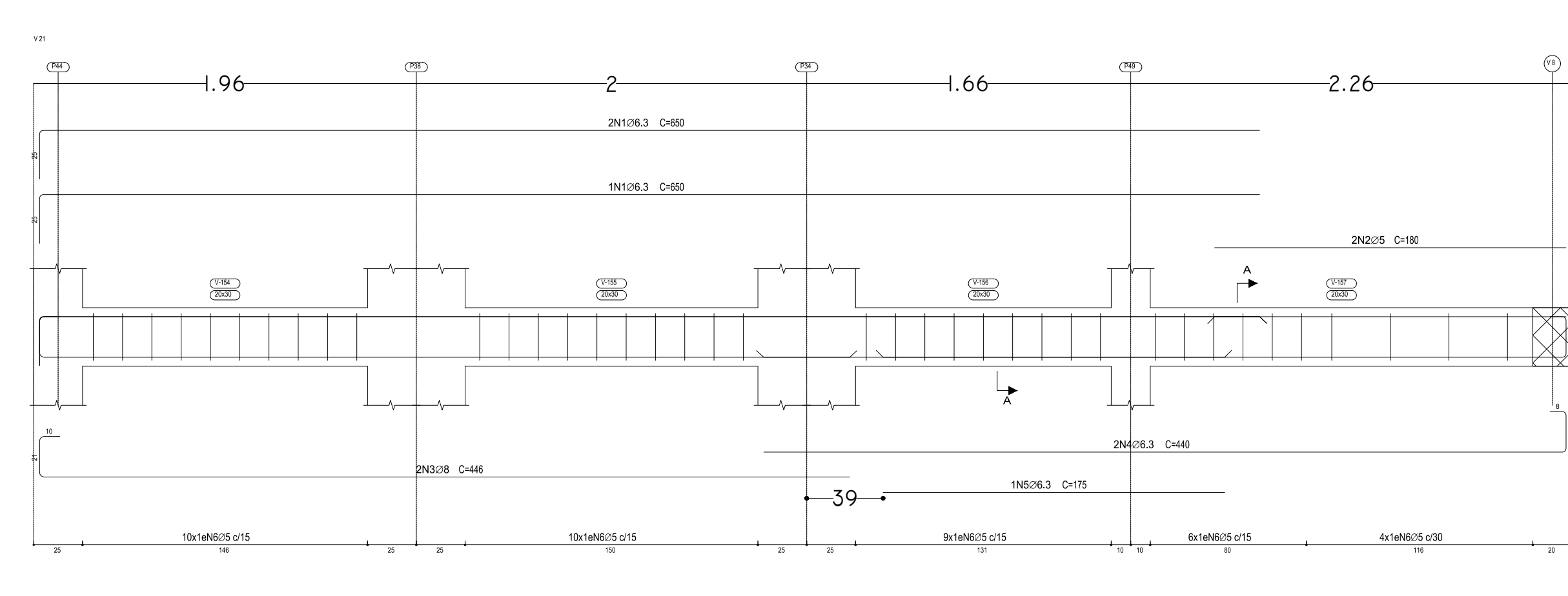
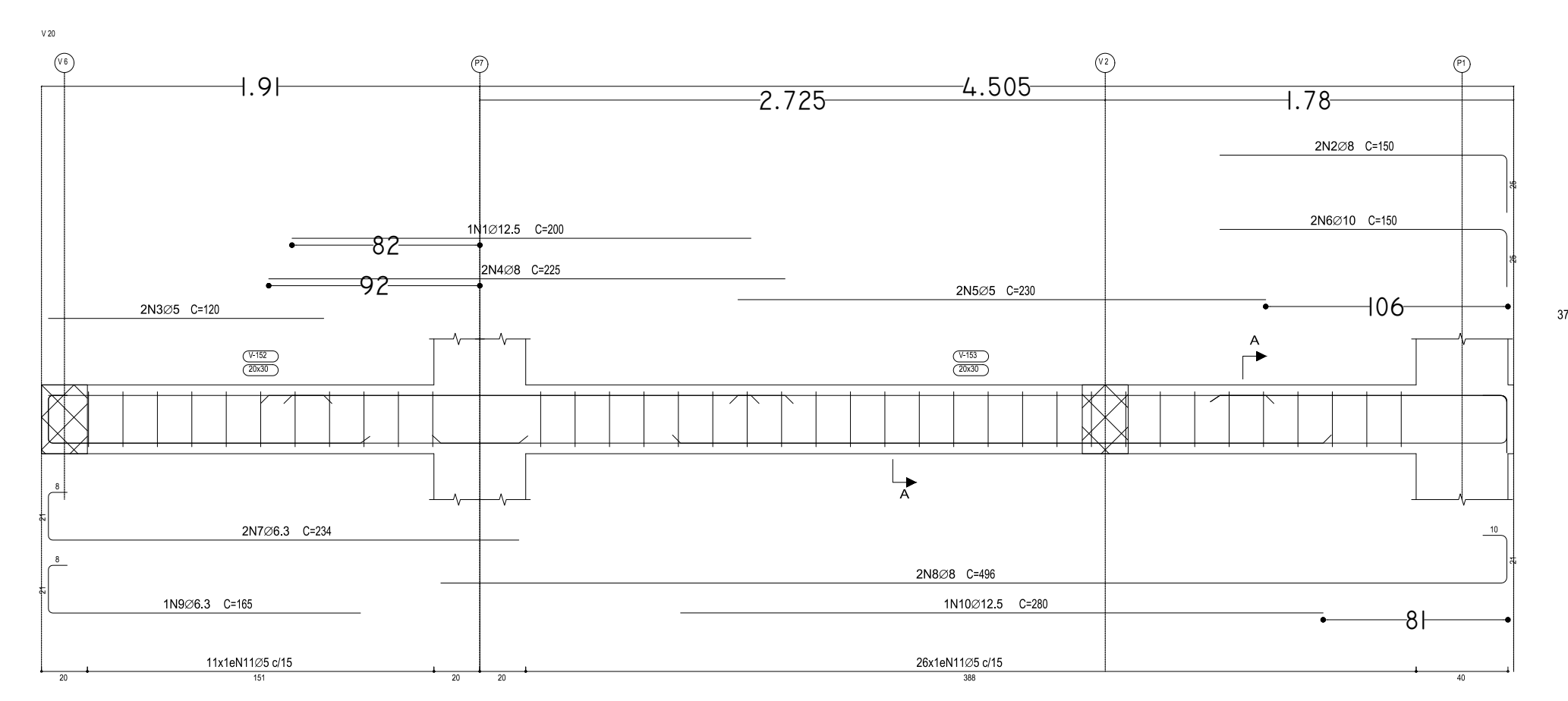


Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total CA-50 (cm)	CA-60 (kg)
V14	1	Ø8.3	1		100	100	0.3
	2	Ø8.3	2		490	980	2.5
	3	Ø8	3		140	420	1.7
	4	Ø8	4		200	800	2.4
	5	Ø8.3	2		140	280	0.7
	6	Ø8.3	2		1010	2020	5.9
	7	Ø8.3	2		200	400	1.0
	8	Ø8	36		84	3024	9.6
Total=10%							52.8
V14.01	1	Ø8	2		230	460	0.7
	2	Ø8	2		290	580	0.9
	3	Ø8	14		84	1176	3.6
Total=10%							5.2
V16	1	Ø8.3	4		130	520	1.3
	2	Ø8.3	2		170	340	0.8
	3	Ø8	2		230	460	0.7
	4	Ø8.3	2		420	840	2.1
	5	Ø8	3		270	540	1.2
	6	Ø8	24		84	2016	6.2
Total=10%							5.9
Ø8							0.0
Ø8.3							0.0
Total							167



Elemento	Pos.	Diam.	Q.	Esquema	Comp. (cm)	Total CA-50 (kg)	CA-60 (kg)
V18	1	Ø8	3		120	375	1.5
	2	Ø10	2		360	720	4.4
	3	Ø8	2		210	420	0.7
	4	Ø8.3	2		600	1200	3.2
	5	Ø8	2		300	600	0.4
	6	Ø8	36		84	3192	10.0
Total=10%						527	8.9
Ø8						8.0	8.9
Ø8.3						3.5	8.9
Ø8						4.9	8.9
Ø10						4.8	8.9
Total						127	6.9

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total CA-50 (cm)	CA-60 (kg)
V19	1	Ø8	1		180	180	0.7
	2	Ø8.3	2		228	456	1.1
	3	Ø8.3	2		200	400	1.0
	4	Ø8.3	1		140	140	0.3
	5	Ø8	11		84	924	2.8
Total=10%						3.7	1.7
V20	1	Ø8	2		140	280	0.7
	2	Ø8	2		190	380	0.6
	3	Ø8	2		140	280	0.7
	4	Ø8.3	2		430	860	2.1
	5	Ø8.3	1		280	280	0.7
V21	1	Ø8.3	3		160	480	1.2
	2	Ø8	2		160	320	0.8
	3	Ø8	2		440	880	2.2
	4	Ø8.3	2		170	340	0.4
	5	Ø8	30		84	2520	7.7
Total=10%						5.5	2.7
Ø8						0.6	0.4
Ø8.3						0.6	0.4
Ø8						1.2	0.3
Total						3.2	1.4



Elements	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V22	1	Ø12.5	1		260	260	1.6	
	2	Ø8	2		160	320	0.8	
	3	Ø8	2		120	240	0.4	0.4
	4	Ø8	2		200	400	1.0	
	5	Ø8	2		200	400	1.0	0.7
	6	Ø10	2		150	300	1.8	
	7	Ø8.3	2		290	580	1.5	
	8	Ø8	2		460	920	2.3	
	9	Ø8.3	1		160	160	0.4	
	10	Ø12.5	1		260	260	1.6	
	11	Ø8	37		84	3108	9.6	
V23					Total=10%	163	6.8	
	1	Ø8.3	3		160	480	1.2	
	2	Ø8	2		160	320	0.8	0.8
	3	Ø8	2		440	880	2.2	
	4	Ø8.3	2		170	340	0.4	
	5	Ø8	30		84	2520	7.7	5.1
					CA 20%			
					Total=10%	120	5.3	
					Ø8	120	5.3	
					Ø8.3	9.8	0.0	
					Ø8	115	5.0	
				TOTAL	1.9	0.0		
				Ø12.5	5.1	0.0		
				Ø10	28.3	0.0		

VIGAS - TÉRREO
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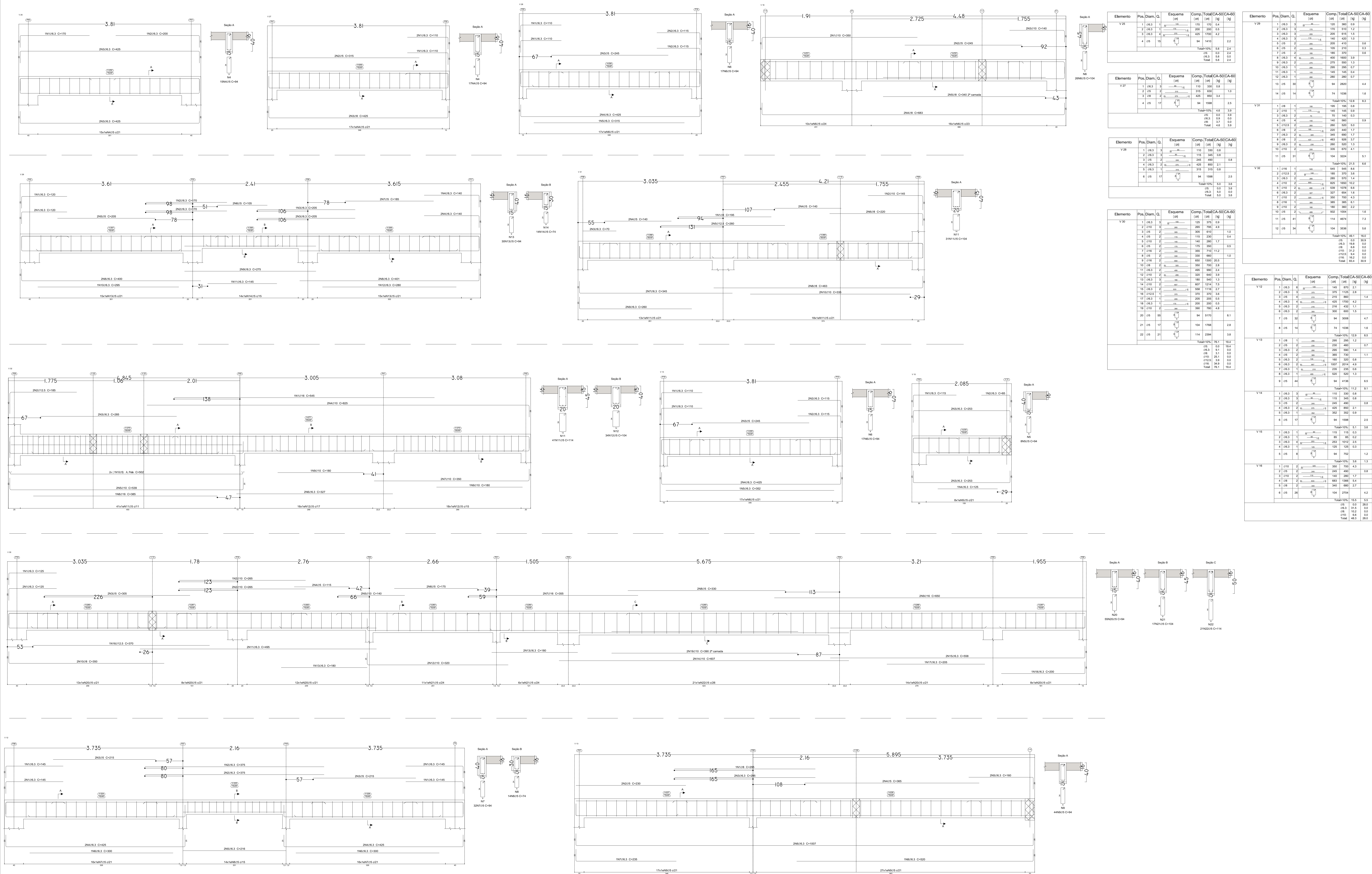
Elemento	Pos.	Diam.	Q.	Equipaço (cm)	Comp. (cm)	Total (cm)	CA-60 (kg)	CA-60 (kg)
V23	1	Ø6,3	1	—	365	365	0,8	
	2	Ø8	1	—	243	243	0,8	
	3	Ø8	4	—	372	1488	5,0	
	4	Ø16	1	—	208	208	3,2	
	5	Ø6,3	2	—	438	880	2,1	
	6	Ø5	2	—	265	530	0,8	
	7	Ø6,3	2	—	243	486	1,2	
	8	Ø5	2	—	168	336	0,8	
	9	Ø5	2	—	265	530	0,8	
	10	Ø8	2	—	158	316	1,2	
	11	Ø6,3	2	—	438	880	2,1	
	12	Ø8	2	—	215	430	1,2	
	13	Ø6,3	2	—	768	1536	3,8	
	14	Ø8	2	—	525	1050	4,2	
	15	Ø6,3	1	—	165	165	0,8	
	16	Ø6,3	1	—	465	465	1,8	
V24	17	Ø12,5	1	—	365	365	2,7	
	18	Ø5	103	—	84	8802	10,6	
	Total-VSL					34,3	10,2	
	1	Ø6,3	3	—	125	375	0,8	
	2	Ø10	1	—	265	265	1,2	
	3	Ø8	3	—	215	645	2,5	
	4	Ø6,3	3	—	145	435	1,1	
	5	Ø5	2	—	265	530	0,8	
	6	Ø8	2	—	215	430	1,2	
	7	Ø5	2	—	158	316	0,8	
	8	Ø5	2	—	265	530	0,8	
	9	Ø6,3	2	—	408	816	2,3	
	10	Ø6,3	2	—	365	730	1,8	
	11	Ø6,3	2	—	307	614	1,2	
	12	Ø6,3	1	—	265	265	0,7	
	13	Ø8	2	—	243	486	1,8	
	14	Ø6,3	1	—	225	225	0,8	
V25	15	Ø5	29	—	84	3276	5,1	
	16	Ø5	15	—	84	1264	2,4	
	Total-VSL					17,7	8,9	
	1	Ø6,3	1	—	635	635	1,8	
	2	Ø6,3	2	—	165	330	0,8	
	3	Ø6,3	2	—	622	1244	4,1	
	4	Ø8	2	—	448	896	3,5	
	5	Ø6,3	2	—	448	896	2,2	
	6	Ø6,3	1	—	265	265	0,7	
	7	Ø5	43	—	84	3612	5,7	
	Total-VSL					13,8	6,3	
V26	1	Ø6,3	2	—	168	336	0,8	
	2	Ø6,3	2	—	225	450	1,1	
	3	Ø6,3	2	—	258	516	1,3	
	4	Ø6,3	1	—	84	84	0,3	
	5	Ø5	11	—	84	1094	1,8	
	Total-VSL					3,8	1,2	
V28	1	Ø10	1	—	145	145	0,8	
	2	Ø10	1	—	175	175	1,1	
	3	Ø6,3	3	—	155	465	0,7	
	4	Ø6,3	2	—	119	238	0,8	
	5	Ø5	2	—	168	336	0,8	
	6	Ø8	2	—	215	430	1,2	
	7	Ø5	2	—	168	336	0,8	
	8	Ø8	2	—	333	666	2,8	
	9	Ø6,3	2	—	350	700	1,2	
	10	Ø12,5	1	—	243	243	2,4	
	11	Ø6,3	1	—	265	265	0,8	
	12	Ø5	40	—	84	3360	5,3	
	Total-VSL					13,9	7,8	
V29	1	Ø8	4	—	145	580	2,3	
	2	Ø5	2	—	168	336	0,8	
	3	Ø6,3	2	—	438	876	2,1	
	4	Ø6,3	1	—	265	265	0,7	
	5	Ø5	21	—	84	1764	2,8	
	Total-VSL					5,8	3,7	
V30	1	Ø8	1	—	145	145	0,8	
	2	Ø8	2	—	329	658	2,5	
	3	Ø8	2	—	225	450	0,8	
	4	Ø6,3	2	—	145	290	0,7	
	5	Ø6,3	2	—	651	1302	3,2	
	6	Ø6,3	1	—	265	265	0,7	
	7	Ø5	26	—	84	3696	4,7	
	Total-VSL					6,8	5,8	
V31	1	Ø6,3	4	—	135	540	1,3	
	2	Ø6,3	3	—	135	390	1,8	
	3	Ø8	2	—	215	430	1,2	
	4	Ø6,3	2	—	438	876	2,1	
	5	Ø8	1	—	315	315	1,2	
	6	Ø5	24	—	84	2016	3,2	
	Total-VSL					6,2	4,3	
V32	1	Ø6,3	7	—	126	816	2,2	
	2	Ø5	2	—	215	430	0,7	
	3	Ø6,3	2	—	428	856	2,1	
	4	Ø8	1	—	315	315	1,2	
	5	Ø5	24	—	84	2016	3,2	
	Total-VSL					6,1	4,3	
V34	1	Ø6,3	3	—	145	435	1,1	
	2	Ø8	1	—	145	145	0,8	
	3	Ø5	4	—	168	672	1,2	
	4	Ø8	2	—	448	896	3,5	
	5	Ø6,3	2	—	145	290	0,7	
	6	Ø6,3	2	—	1018	2036	5,3	
	7	Ø6,3	1	—	415	415	1,2	
	8	Ø6,3	1	—	265	265	0,7	
	9	Ø5	59	—	84	4704	7,4	
	Total-VSL					13,9	8,8	
	Ø6,3					87,3	0,8	
	Ø8					6,8	0,8	
	Ø10					3,5	0,8	
	Ø12,5					5,8	0,8	
	Ø16					3,8	0,8	
	Total					122,3		
Resumo Apo								
Desenho da vigas								
CA-60	Ø6,3	768,2	206					
	Ø8	275,4	120					
	Ø10	97,8	86					
	Ø12,5	45,2	48					
	Ø16	11,1	19					
CA-60	Ø5	1471,0	254					
Total			713					

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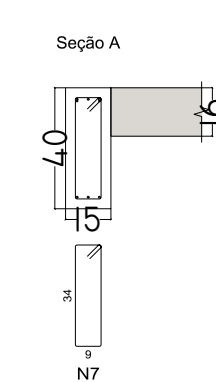
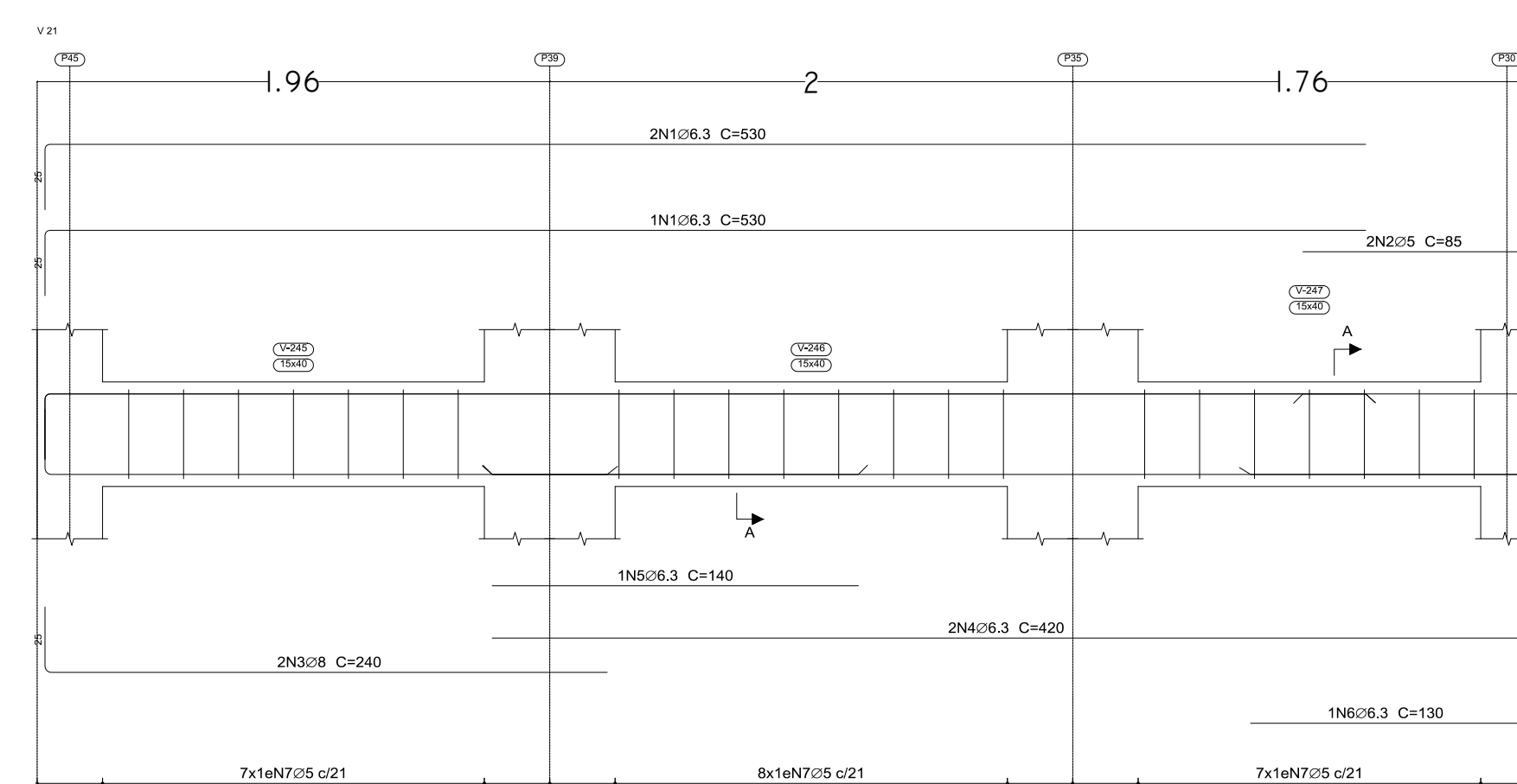
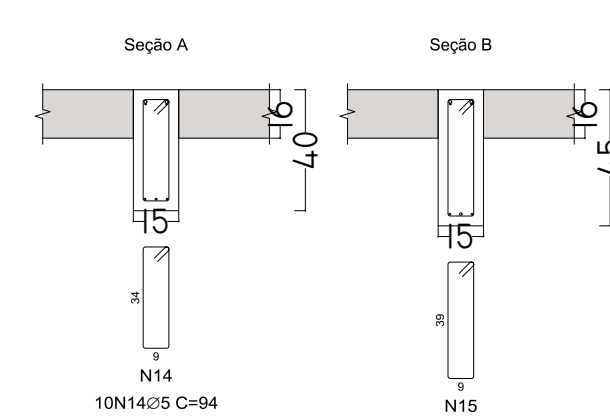
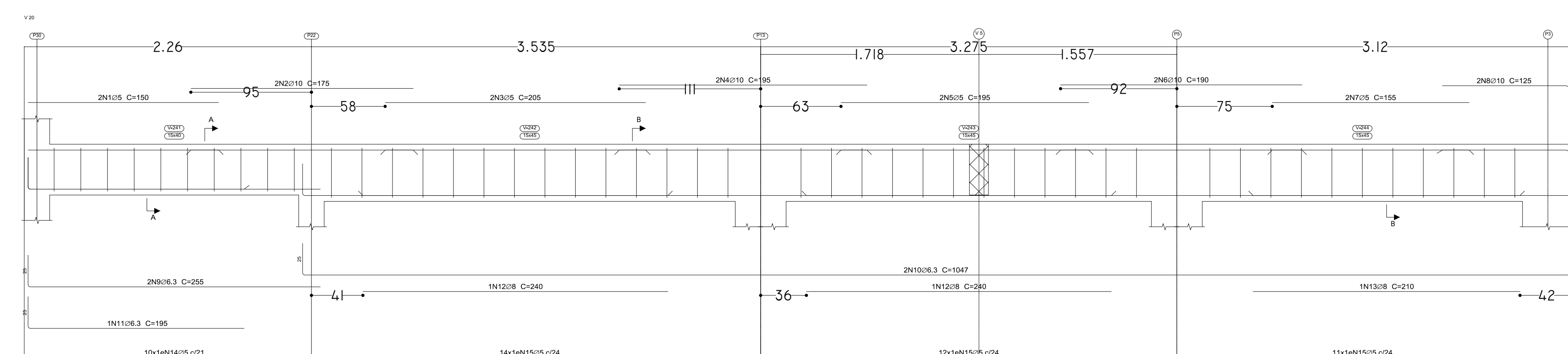
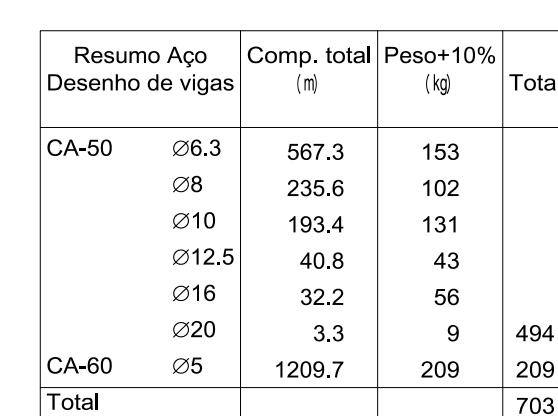
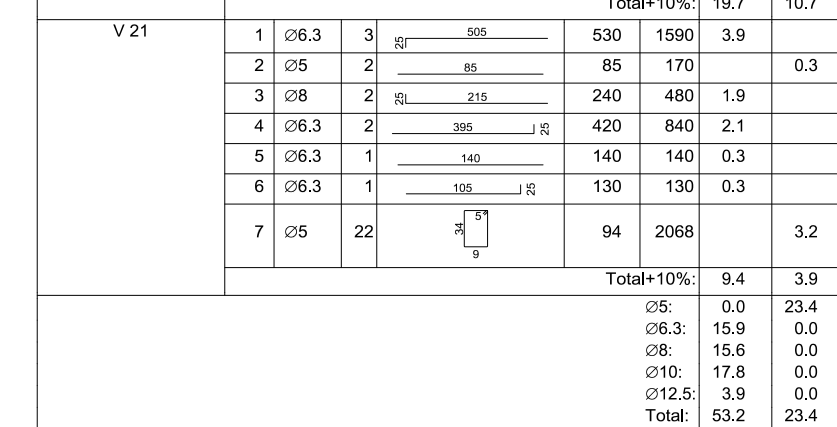
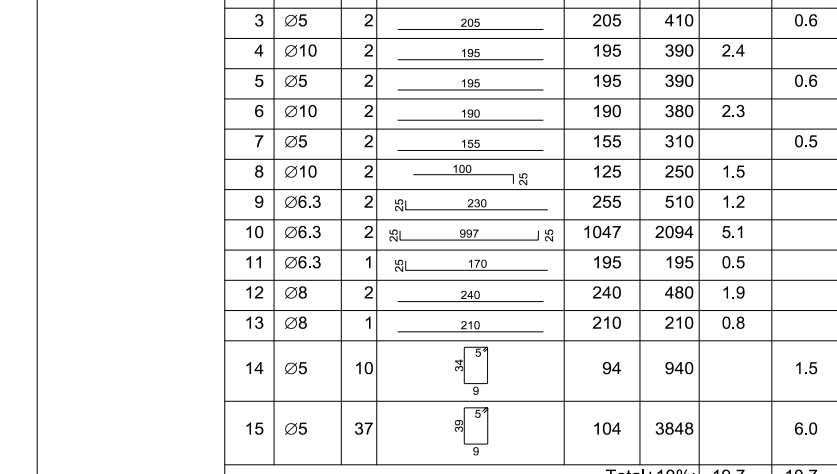
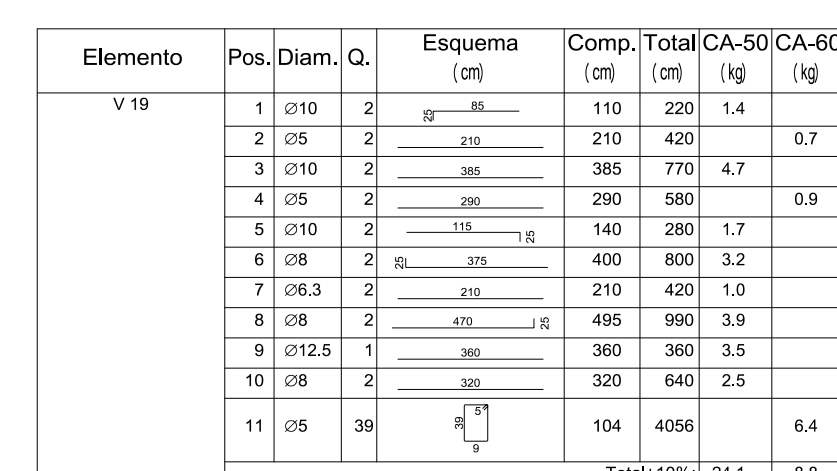
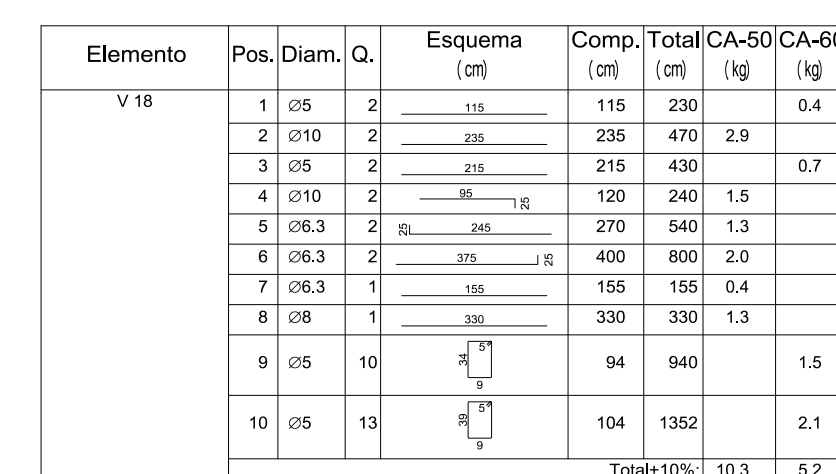
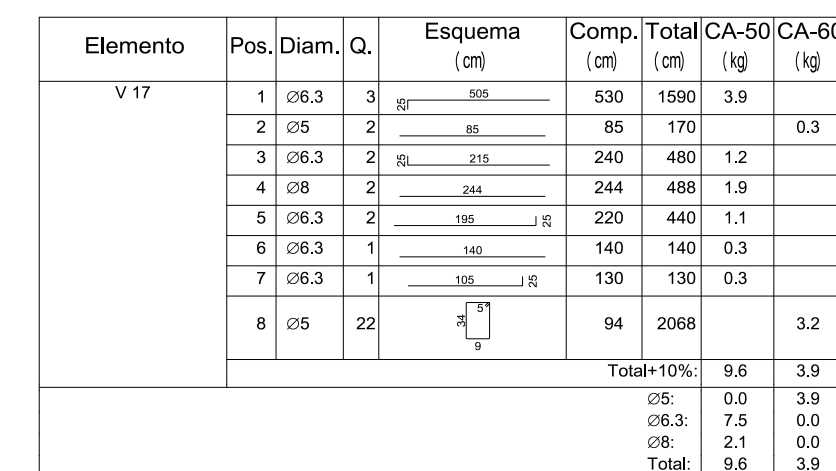
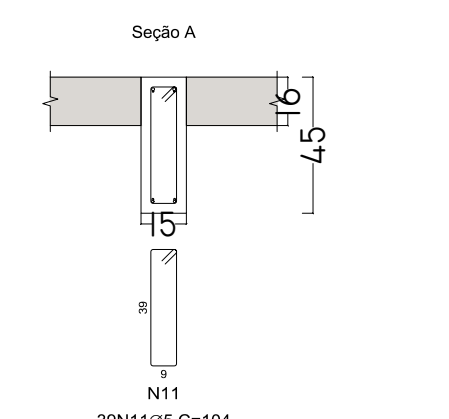
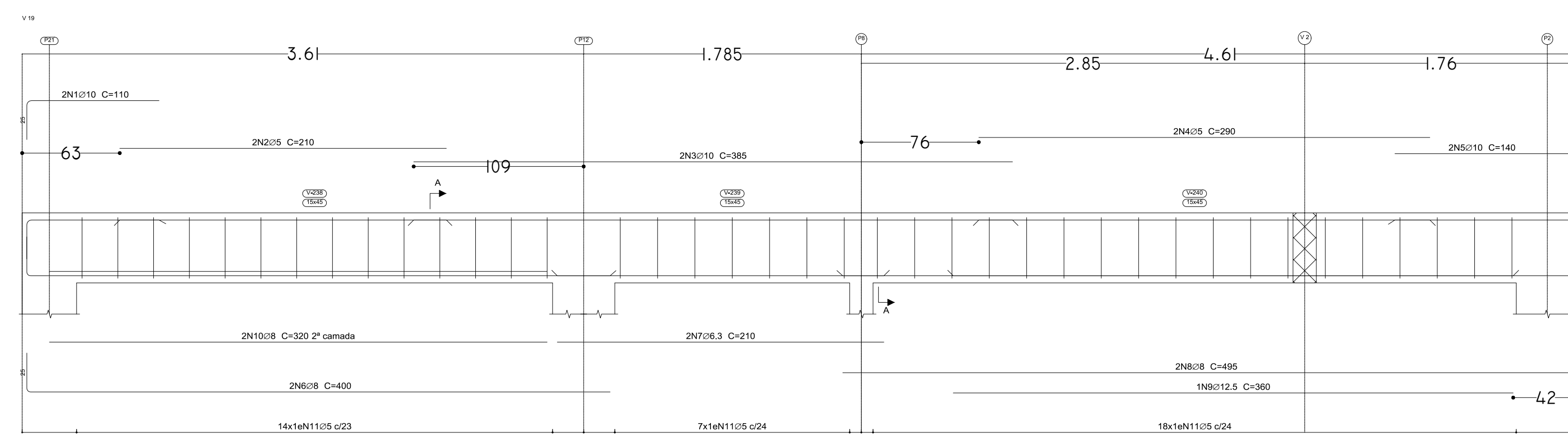
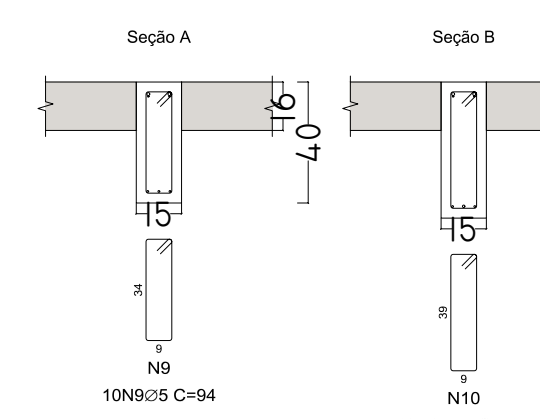
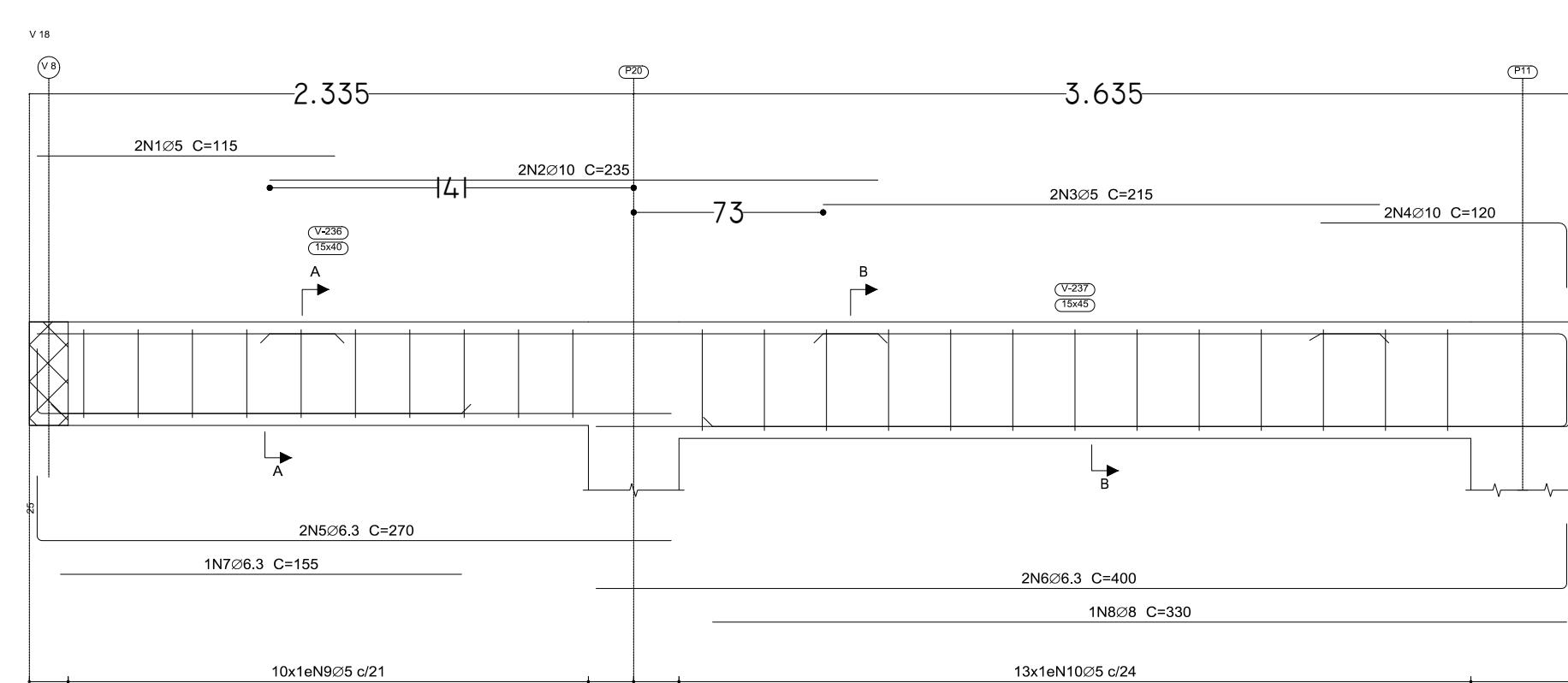
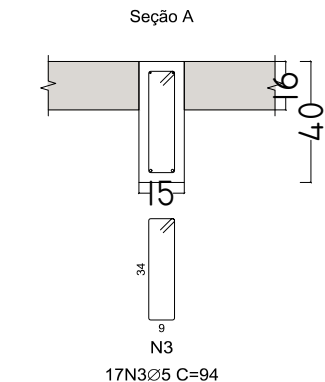
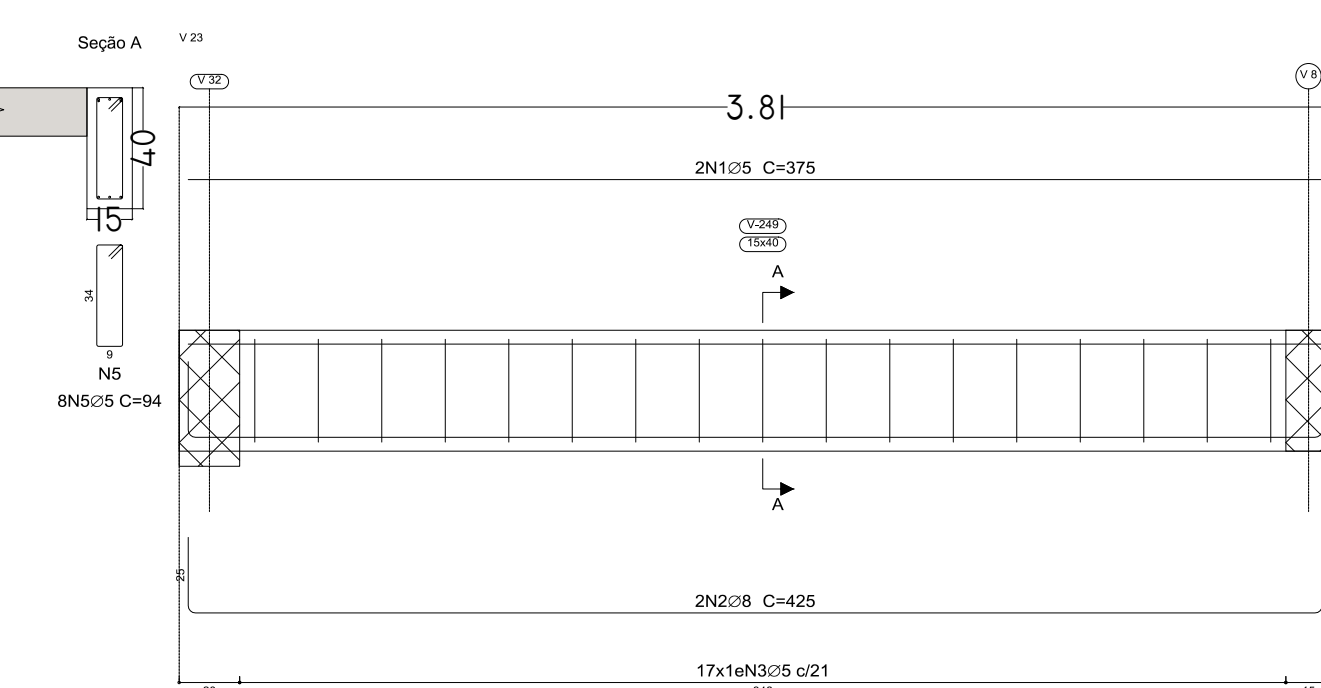
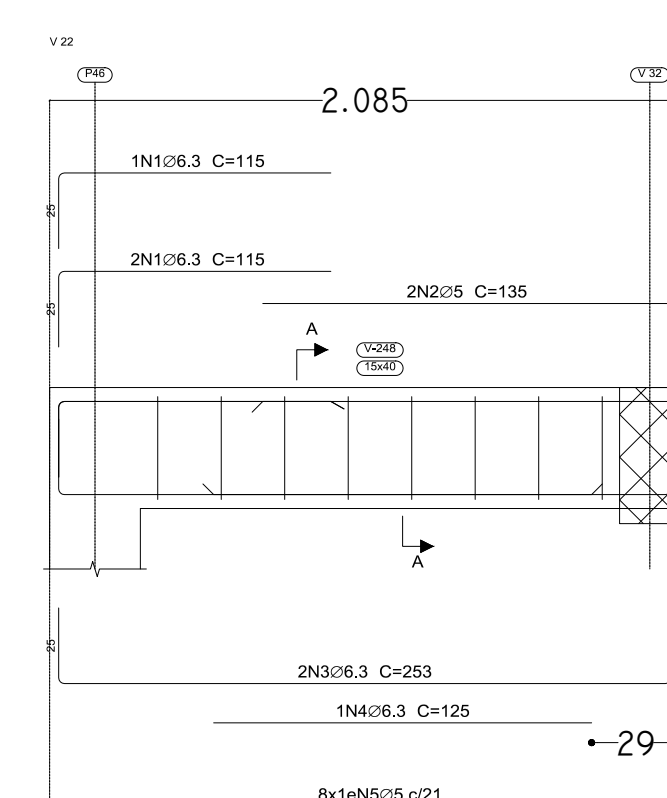
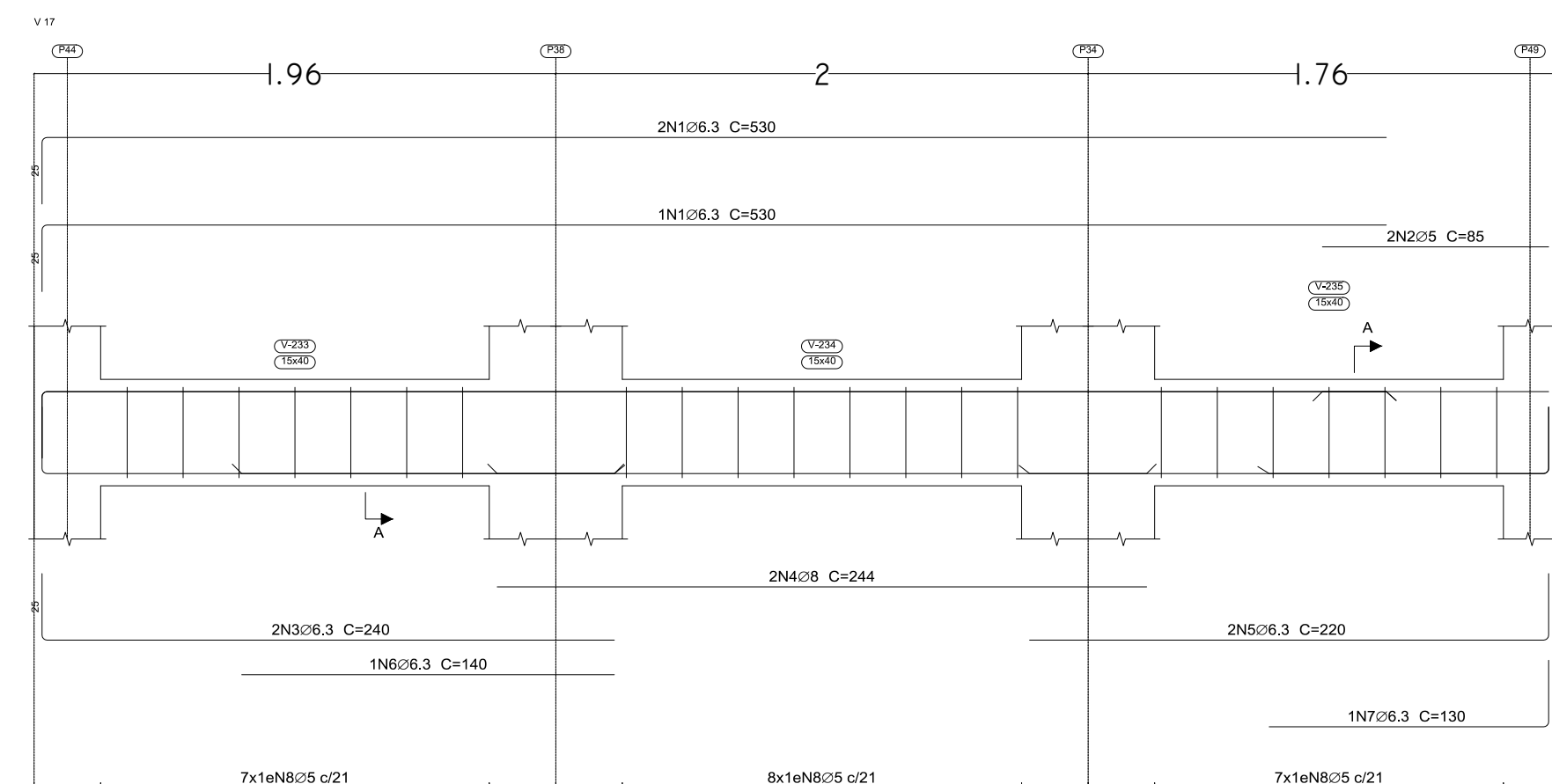


Elemento	Pos.	Diam.	Q.	Esquema	Comp.	Total	CA-50	CA-60
				(cm)	(cm)	(cm)	(kg)	(kg)
V 1								
1	08.3	1	100	175	175	0.4		
2	08.3	3	100	100	300	0.8		
3	05	2	100	250	500	2.4		
4	08	2	100	250	500	2.4		
5	05	2	100	240	480	2.0		
6	08.3	2	100	175	350	0.8		
7	010	1	100	300	300	2.2		
8	05	37	100	94	3478	5.5		
Total 100%							12.1	7.8
V 2								
1	05	2	100	300	600	2.4		
2	010	2	100	300	600	2.4		
3	010	2	100	150	300	2.3		
4	05	14	100	104	1464	2.3		
Total 100%							7.8	3.6
V 3								
1	08.3	3	100	110	330	0.8		
2	08.3	3	100	120	375	0.9		
3	05	2	100	240	480	2.0		
4	08	2	100	430	860	3.4		
5	010	1	100	370	370	2.3		
6	08.3	2	100	270	540	1.3		
7	05	14	100	94	1304	2.4		
Total 100%							8.6	3.5
V 4								
1	08.3	3	100	130	390	1.0		
2	05	2	100	240	480	2.0		
3	08.3	2	100	370	740	1.8		
4	012.5	1	100	315	315	3.0		
5	05	14	100	94	1316	2.1		
Total 100%							6.4	3.2
V 5								
1	05	2	100	175	350	0.8		
2	08	2	100	220	440	1.8		
3	05	6	100	94	564	0.9		
Total 100%							3.7	4.3
V 6								
1	08.3	3	100	130	390	1.0		
2	012.5	1	100	240	240	2.4		
3	010	1	100	275	275	4.3		
4	010	1	100	310	310	1.3		
5	012.5	1	100	235	235	2.3		
6	08.3	1	100	190	190	0.5		
7	05	2	100	140	280	0.5		
8	08	2	100	240	480	1.8		
9	08	2	100	230	460	1.4		
10	08.3	4	100	240	960	2.4		
11	012.5	2	100	285	570	5.1		
12	05	2	100	230	460	0.9		
13	08	2	100	225	450	1.8		
14	05	2	100	115	230	0.4		
15	08	2	100	420	840	4.3		
16	08.3	2	100	220	440	1.1		
17	08.3	2	100	343	686	1.7		
18	08	2	100	450	900	3.8		
19	08.3	2	100	485	970	2.4		
20	08	2	100	510	1020	4.1		
21	08.3	2	100	545	1090	3.2		
22	08.3	1	100	245	245	0.8		
23	08	1	100	315	315	1.2		
24	08	1	100	365	365	1.4		
25	08.3	1	100	180	180	0.4		
26	08.3	1	100	295	295	0.7		
27	08	4	100	290	1160	4.8		
28	05	101	100	94	9494	14.9		
Total 100%							54.5	15.9
V 24								
1	010	2	100	120	240	1.5		
2	05	2	100	175	350	0.5		
3	010	2	100	230	460	2.8		
4	05	2	100	220	440	0.7		
5	08.3	2	100	375	750	1.9		
6	08.3	2	100	260	520	1.7		
7	08	1	100	245	245	1.0		
8	08.3	1	100	290	290	0.7		
9	05	10	100	104	1040	2.1		
10	05	14	100	94	1316	2.1		
Total 100%							16.3	5.9
V 26								
1	08.3	3	100	150	450	1.1		
2	08.3	3	100	145	435	1.1		
3	05	2	100	175	350	0.8		
4	05	2	100	235	470	0.7		
5	08.3	2	100	641	1282	3.1		
6	08.3	1	100	260	260	0.8		
7	05	26	100	94	2444	3.8		
Total 100%							6.5	3.5
V 28								
1	08	2	100	240	480	1.1		
2	08	2	100	240	480	1.1		
3	08	2	100	240	480	1.1		
4	08	2	100	240	480	1.1		
5	08	2	100	240	480	1.1		
6	08	2	100	240	480	1.1		
7	08	2	100	240	480	1.1		
8	08	2	100	240	480	1.1		
9	08	2	100	240	480	1.1		
10	08	2	100	240	480	1.1		
11	08	2	100	240	480	1.1		
12	08	2	100	240	480	1.1		
13	08	2	100	240	480	1.1		
14	08	2	100	240	480	1.1		
15	08	2	100	240	480	1.1		
16	08	2	100	240	480	1.1		
17	08	2	100	240	480	1.1		
18	08	2	100	240	480	1.1		
19	08	2	100	240	480	1.1		
20	08	2	100	240	480	1.1		
21	08	2	100	240	480	1.1		
22	08	2	100	240	480	1.1		
23	08	2	100	240	480	1.1		
24	08	2	100	240	480	1.1		
25	08	2	100	240	480	1.1		
26	08	2	100	240	480	1.1		
27	08	2	100	240	480	1.1		
28	08	2	100	240	480	1.1		
29	08	2	100	240	480	1.1		
30	08	2	100	240	480	1.1		
31	08	2	100	240	480	1.1		
32	08	2	100	240	480	1.1		
33	08	2	100	240	480	1.1		
34	08	2	100	240	480	1.1		
35	08	2	100	240	480	1.1		
36	08	2	100	240	480	1.1		
37	08	2	100	240	480	1.1		
38	08	2	100	240	480	1.1		
39	08	2	100	240	480	1.1		
40	08	2	100	240	480	1.1		
41	08	2	100	240	480	1.1		
42	08	2	100	240	480	1.1		
43	08	2	100	240	480	1.1		
44	08	2	100	240	480	1.1		
45	08	2	100	240	480	1.1		
46	08	2	100	240	480	1.1		
47	08	2	100	240	480	1.1		
48	08	2	100	240	480	1.1		
49	08	2	100	240	480	1.1		
50	08	2	100	240	480	1.1		
51	08	2	100	240	480	1.1		
52	08	2	100	240	480	1.1		
53	08	2	100	240	480	1.1		
54	08	2	100	240	480	1.1		
55	08	2	100	240	480	1.1		
56	08	2	100	240	480	1.1		
57	08	2	100	240	480	1.1		
58	08	2	100	240	480	1.1		
59	08	2	100	240	480	1.1		
60	08	2	100	240	480	1.1		
61	08	2	100	240	480	1.1		
62	08	2	100	240	480	1.1		
63	08	2	100	240	480	1.1		
64	08	2	100	240	480	1.1		
65	08	2	100	240	480	1.1		
66	08	2	100	240	480	1.1		
67	08	2	100	240	480	1.1		
68	08	2	100	240	480	1.1		
69	08	2	100	240	480	1.1		
70	08	2	100	240	480	1.1		
71	08	2	100	240	480	1.1		
72	08	2	100	240	480	1.1		
73	08	2	100	240	480	1.1		
74	08	2	100	240	480	1.1		
75	08	2	100	240	480	1.1		
76	08	2	100	240	480	1.1		
77	08	2	100	240	480	1.1		
78	08	2	100	240	480	1.1		
79	08	2	100	240	480	1.1		
80	08	2	100	240	480	1.1		
81	08	2	100	240	480	1.1		
82	08	2	100	240	480	1.1		
83	08	2	100	240	480	1.1		
84	08	2	100	240	480	1.1		
85	08	2	100	240	480	1.1		
86	08	2	100	240	480	1.1		
87	08	2	100	240	480	1.1		
88	08	2	100	240	480	1.1		
89	08	2	100	240	480	1.1		
90	08	2	100	240	480	1.1		
91	08	2	100	240	480	1.1		
92	08	2	100	240	480	1.1		
93	08	2	100	240	480	1.1		
94	08	2	100	240	480	1.1		

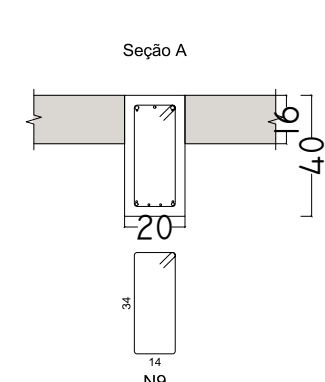
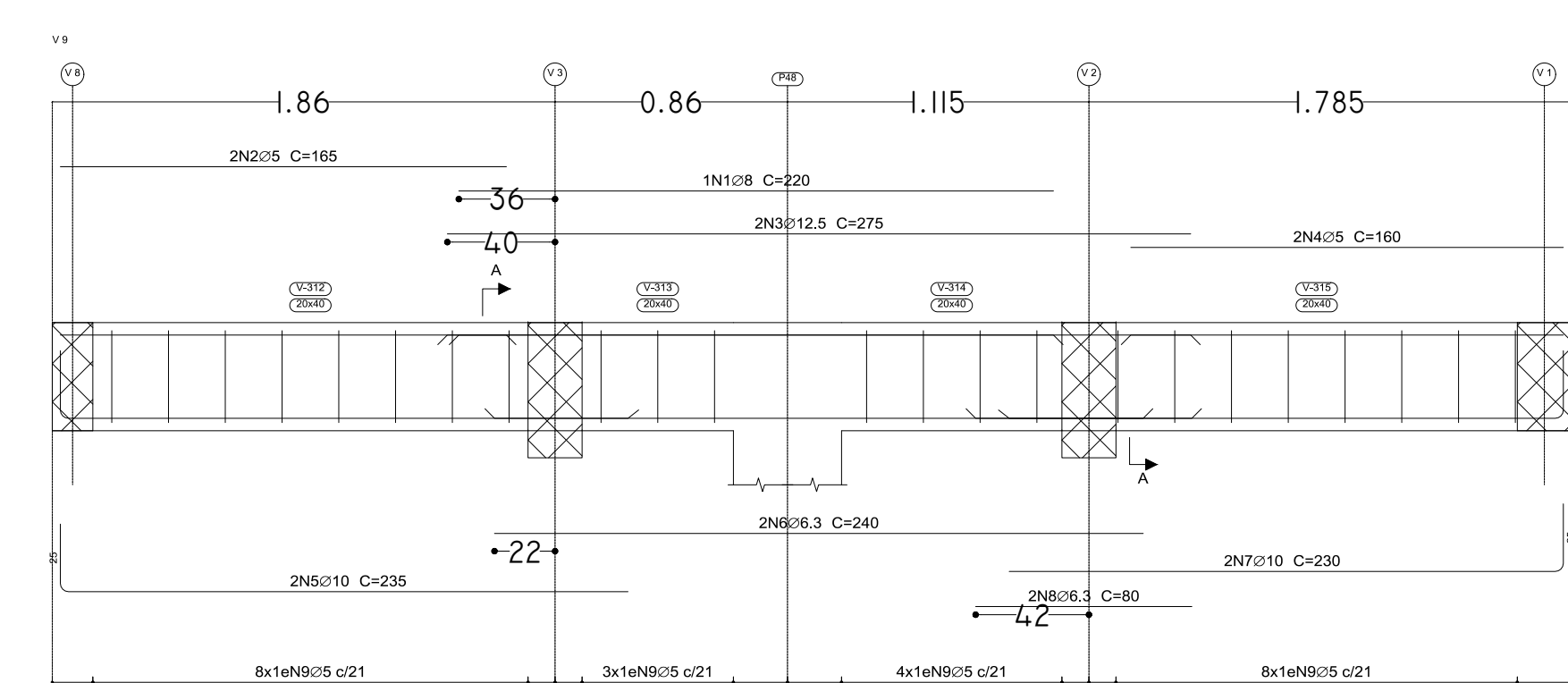
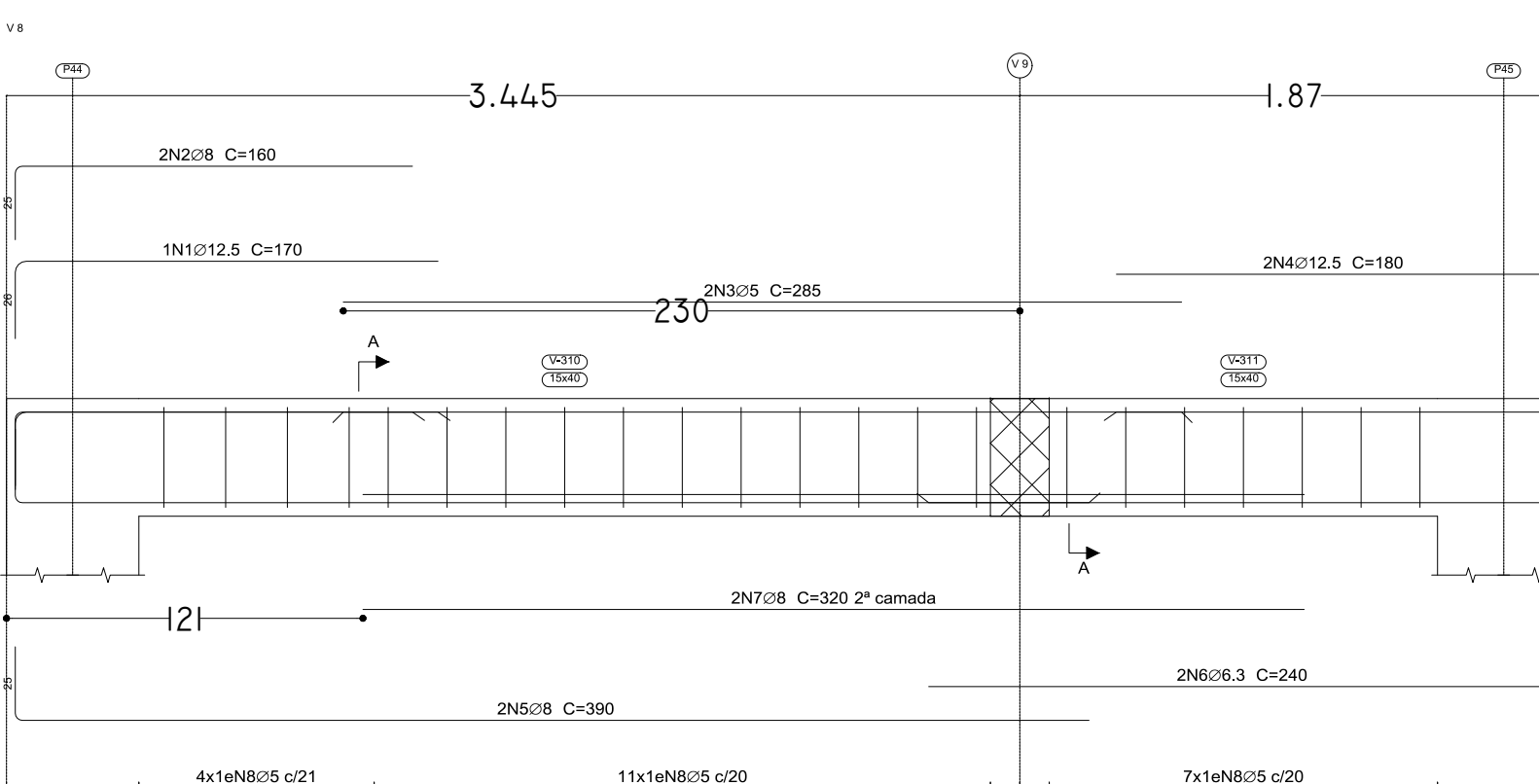
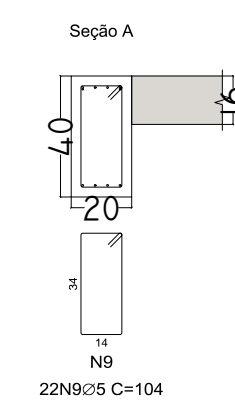
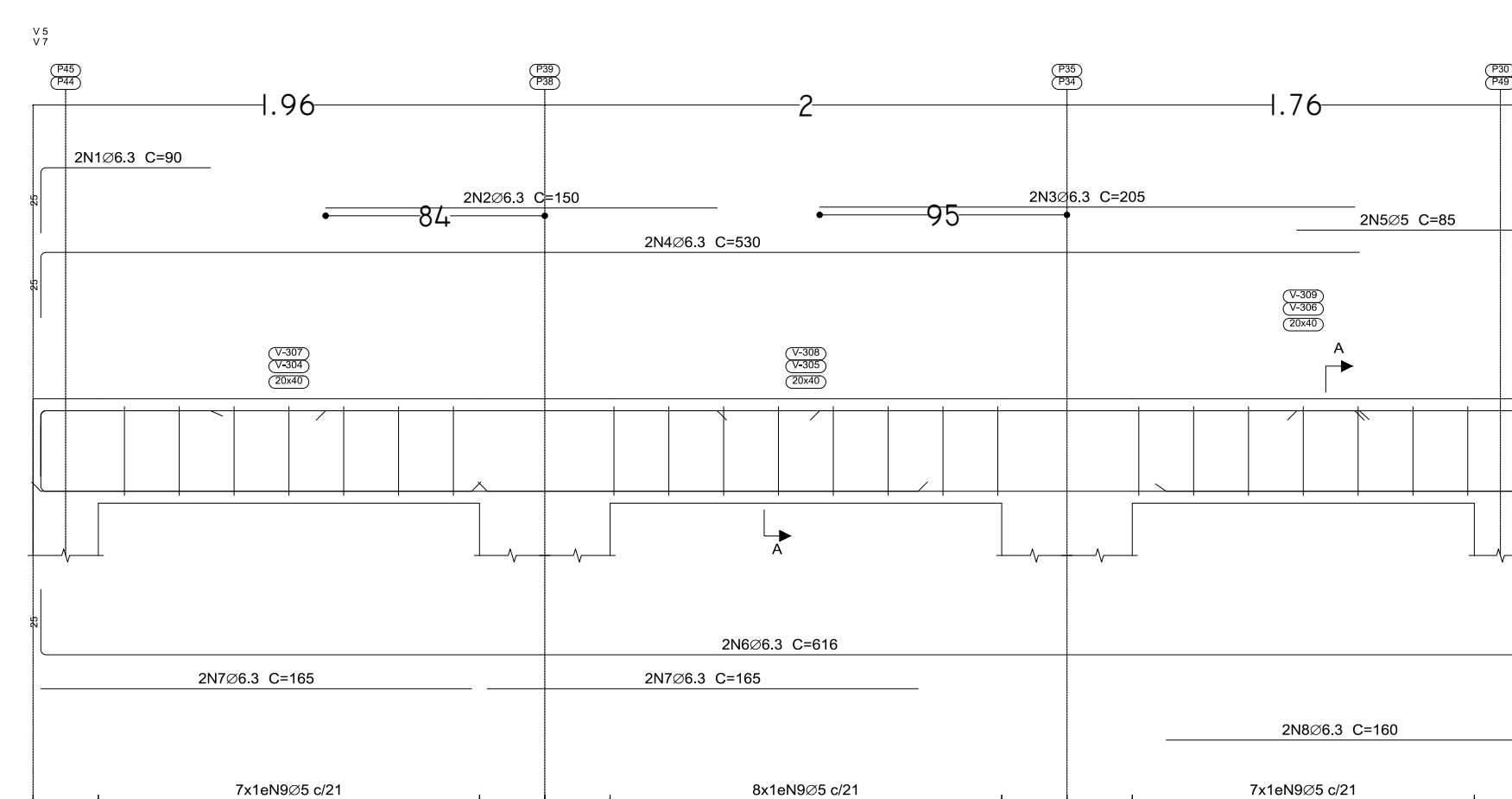
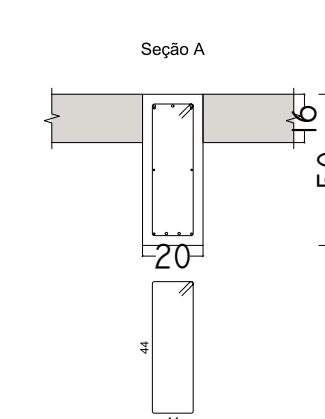
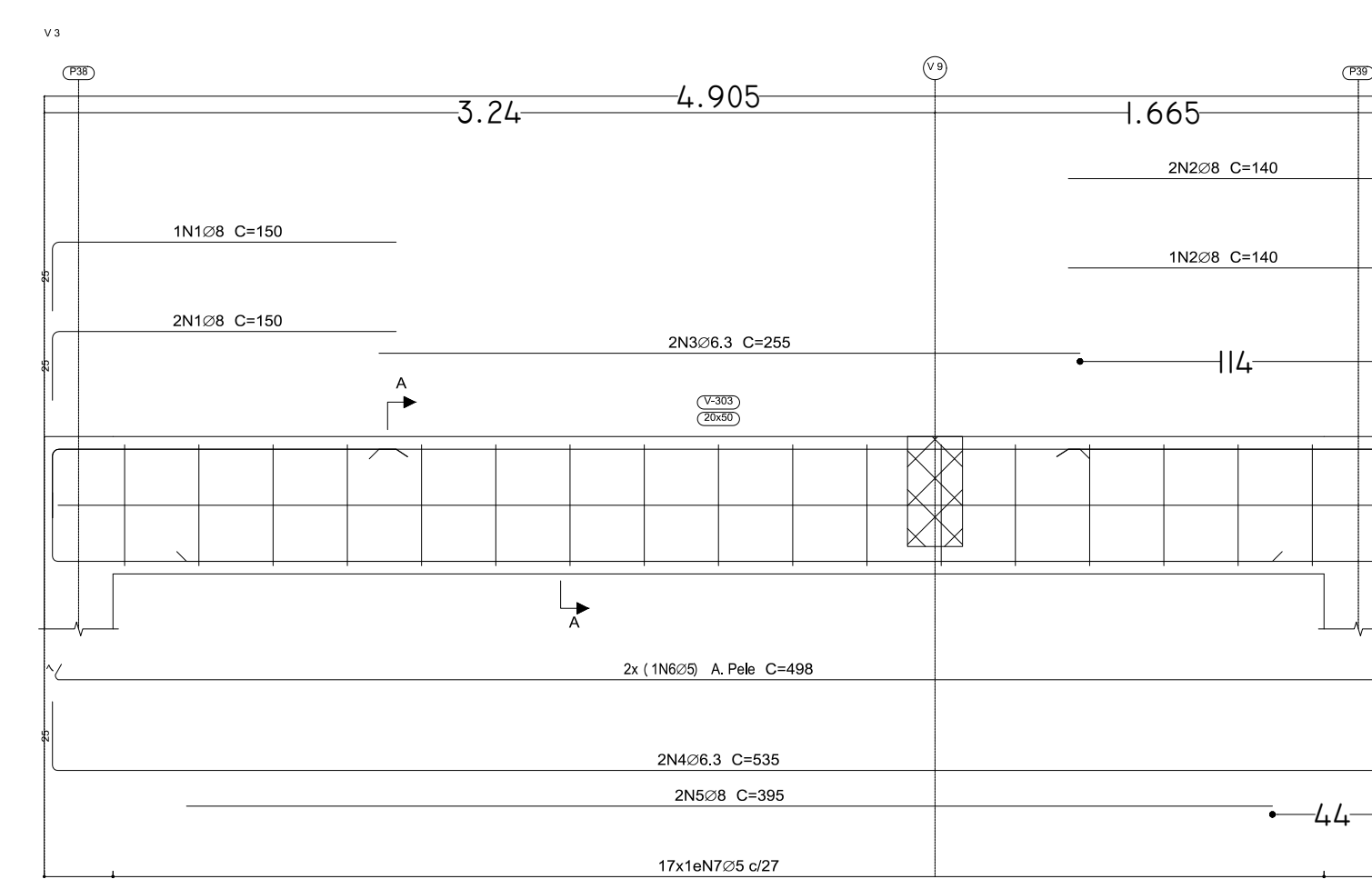
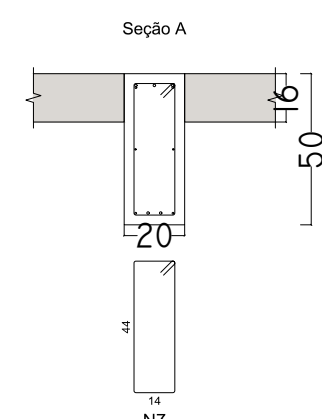
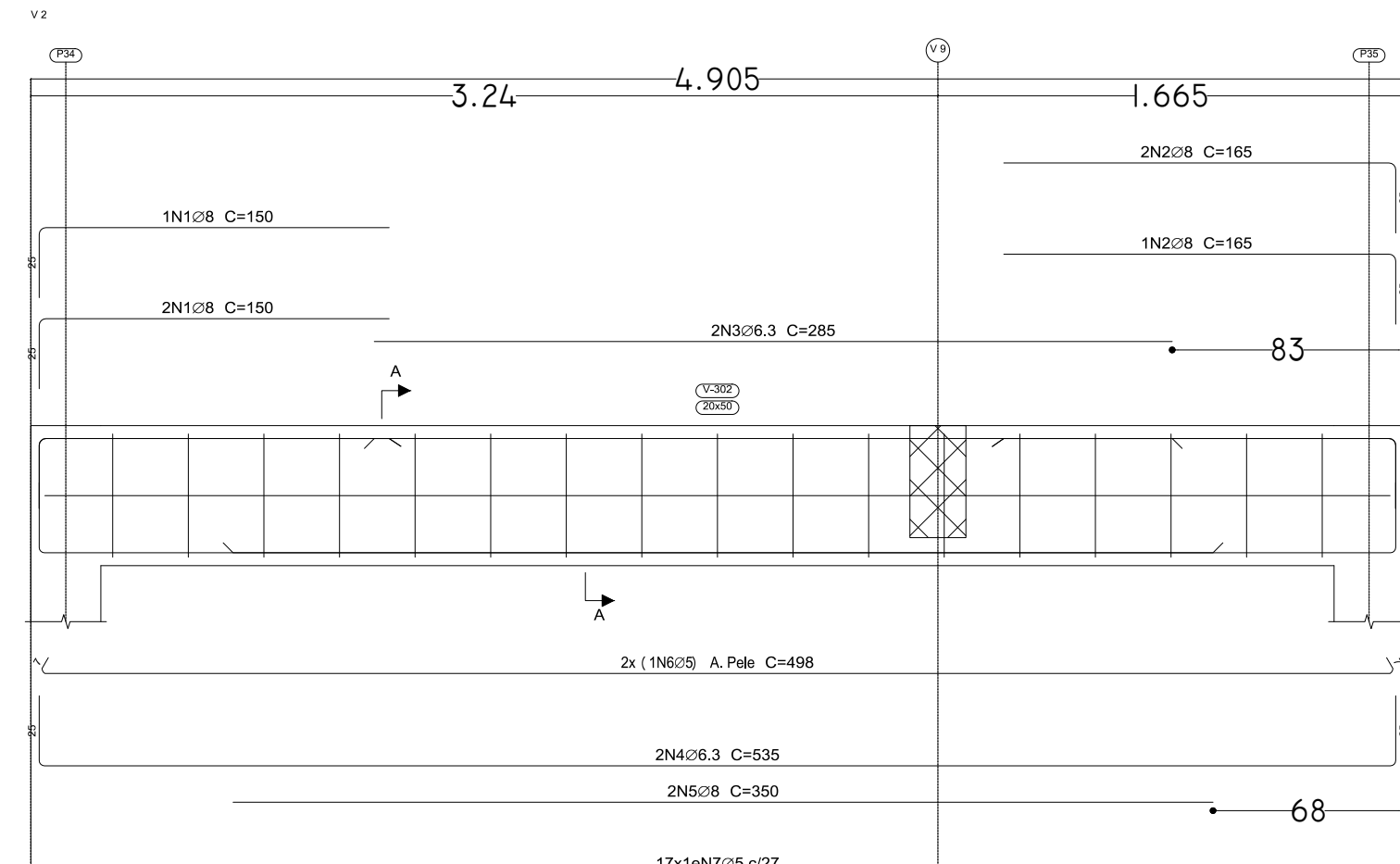
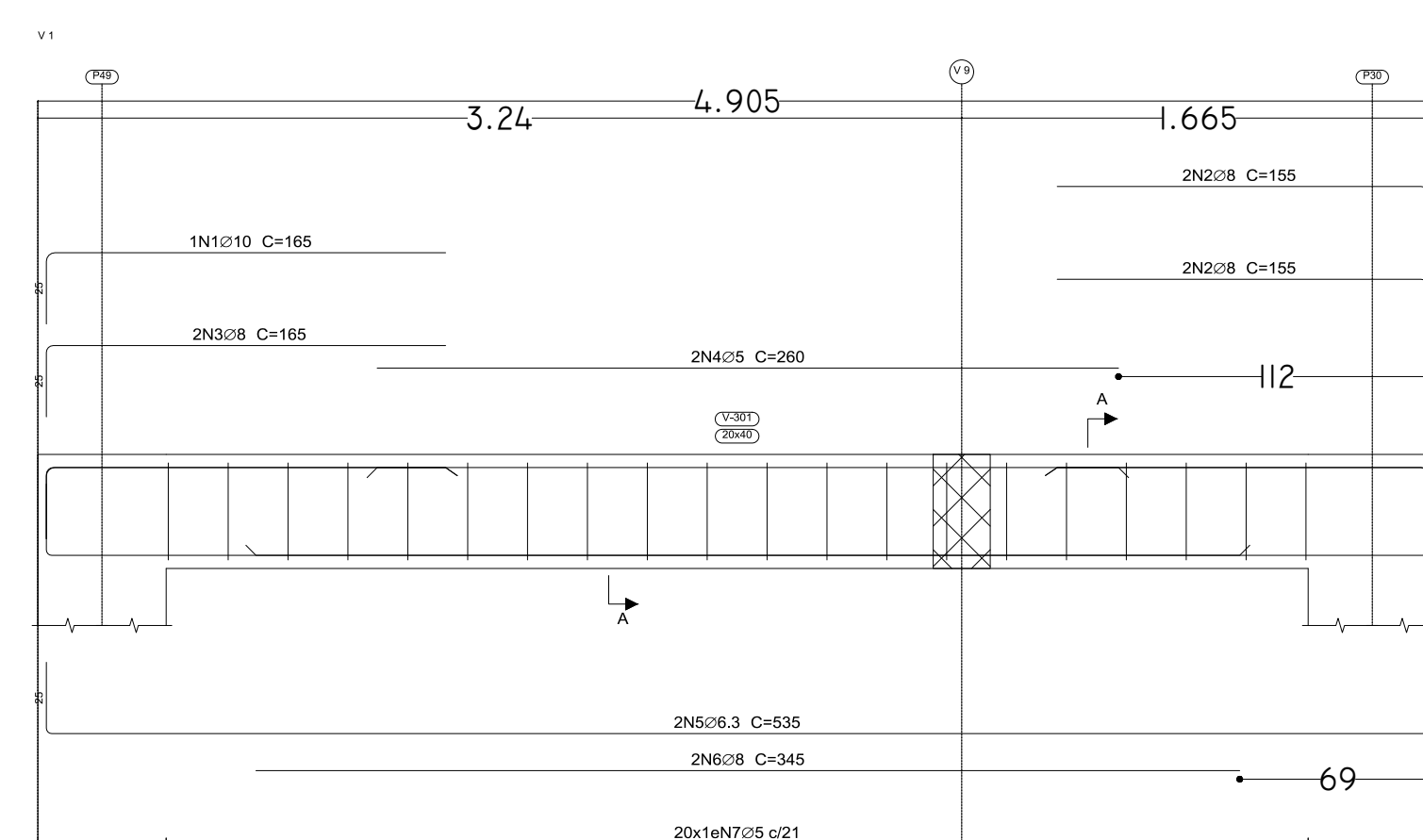


VIGAS - COBERTURA

ESC: 1/25



VIGAS - COBERTURA
ESC: 1/25



Elemento	Pos.	Diam.	Q.	Esquema	Comp.	Total	CA-50	CA-60
				(cm)	(cm)	(kg)	(kg)	(kg)
V 1	1	Ø10	1		165	165	1,0	
	2	Ø6	4		155	620	2,4	
	3	Ø6	2		165	330	1,3	
	4	Ø6	2		200	520		0,6
	5	Ø6x3	2		930	1170	2,6	
	6	Ø6	2		345	690	2,7	
	7	Ø6	20		104	2080		3,3
						Total=10%:	11,0	4,5
						Ø6:	0,0	4,5
						Ø6,3:	2,9	0,0
						Ø6:	7,0	0,0
						Ø10:	1,1	0,0

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V2	1	Ø8	3		150	420	1,8	
	2	Ø8	3		200	465	2,0	
	3	Ø6x3	2		265	570	1,4	
	4	Ø6x3	2		300	600	2,6	
	5	Ø8	2		350	700	2,9	
	6	Ø15	2		400	950		1,6
	7	Ø15	17			124	2108	
Total: 10%:						11,7	5,4	
Ø8:						0,2	0,0	5,4
Ø6x3:						4,4	0,0	0,0
Ø15:						7,3	0,0	0,0
Total:						11,7	5,4	

Elemento	Pos.	Diam.	Q.	Esquema [cm]	Comp. [cm]	Total [cm]	CA-50 [kg]	CA-60 [kg]
V3	1	Ø8	3		150	150	1.8	
	2	Ø8	3		140	140	1.7	
	3	Ø6.3	2		255	255	5.1	1.2
	4	Ø6.3	2		535	535	10.7	2.6
	5	Ø8	2		265	265	5.3	1.3
	6	Ø5	2		468	468	9.4	1.6
	7	Ø5	17		124	2108	3.3	
Total+10%						114	5.4	
						0.5	0.0	5.4
						0.63	4.1	0.0
						0.6	7.3	0.0
Total						11.4	5.4	

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp.	Total	Ca-50 (g)	Ca-60 (g)
V 5-v F	1	0x3,2	2		90	180	0,4	
	2	0x3,2	2		150	330	0,7	
	3	0x6,3	2		200	530	1,1	
	4	0x6,3	2		500	1030	2,6	
	5	0x5	2		85	1115	0,3	
	6	0x6,3	2		116	1233	3,0	
	7	0x6,3	4		130	1363	1,5	
	8	0x6,3	2		130	1493	0,8	
	9	010	22		104	2098		3,6
	Total+10%							11,1
							10	8,6
							0%	0,6

Elemento	Pos.	Diam.	Q.	Esquema (m)	Comp. (m)	Total CA-50	CA-60
V 9	1	208	1	208	220	0.9	
	2	209	2	188	165	330	0.5
	3	212.5	2	273	275	550	5.3
	4	209	2	188	160	320	0.5
	5	210	2	190	235	470	2.9
	6	216.3	2	268	240	540	1.2
	7	210	2	200	230	460	2.6
	8	216.3	2	268	80	760	0.4
	9	215	23	215	104	2292	3.6
					Total: 5500	16.9	

Resumo Apo Desenho de vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50			
$\varnothing 6,3$	137,3	37	
$\varnothing 8$	69,1	30	
$\varnothing 10$	11,0	7	
$\varnothing 12,5$	10,8	11	85
CA-60			
$\varnothing 5$	194,0	34	34
Total			119

Elemento		Pos.	Diám.	Q.	Esquema (cm)	Comp.	Total	CA-50	CA-60
							14.9	6.3	
V8	1	012/5	1			170	170	1.6	
	2	008	2			500	500	1.3	
	3	005	2			285	570		0.9
	4	012/5	2			180	360	3.5	
	5	008	2			390	780	1.1	
	6	003/3	2			240	480	1.2	
	7	008	2			320	640	2.5	
	8	005	22			4	2088		3.2
Total=10%							14.5	4.5	
							10.0	4.0	
							1.3	0.0	
							0.8	7.6	
							0.12	0.8	
							Total	14.6	4.6

	PROYECTO
	ESTRUCTURA
	CONTENIDO

VIGAS - BARRILETE
ESC: 1/25