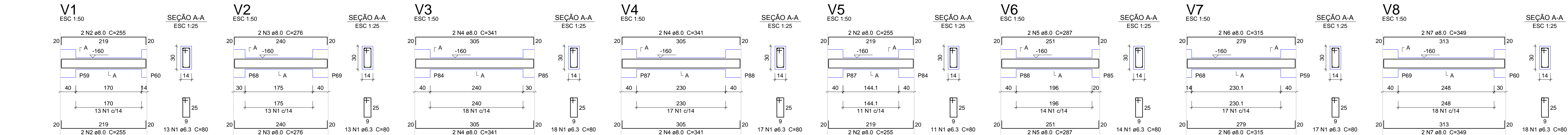


VIGAS DO FUNDO DOS POÇOS DE ELEVADOR



Relação do aço

ACO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
V1	1	6.3	121	80	9680
V4	2	8.0	8	255	2040
V7	3	8.0	4	276	1104
	4	8.0	8	341	2728
	5	8.0	4	287	1148
	6	8.0	4	315	1260
	7	8.0	4	349	1396

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	96.8	26.1
CA60	8.0	96.8	42

PESO TOTAL (kg)

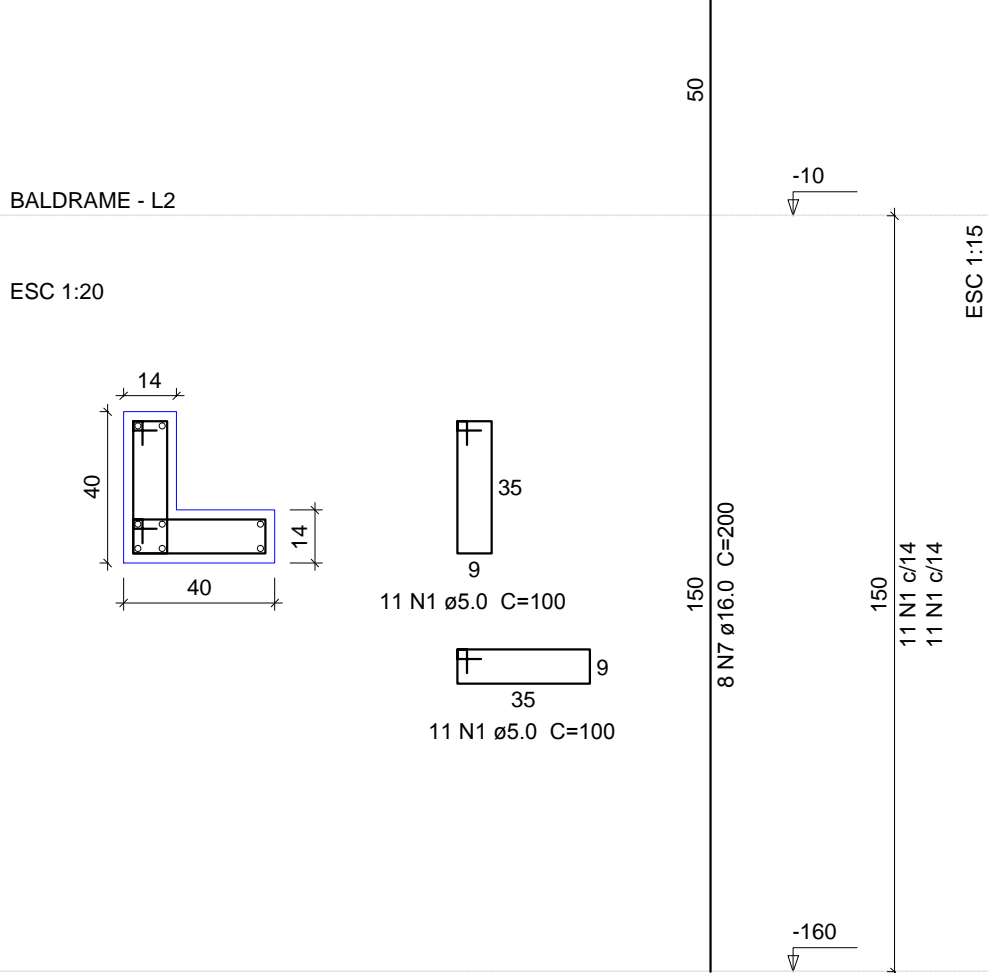
CA50 68.1

Volume de concreto (C-25) = 0.91 m³

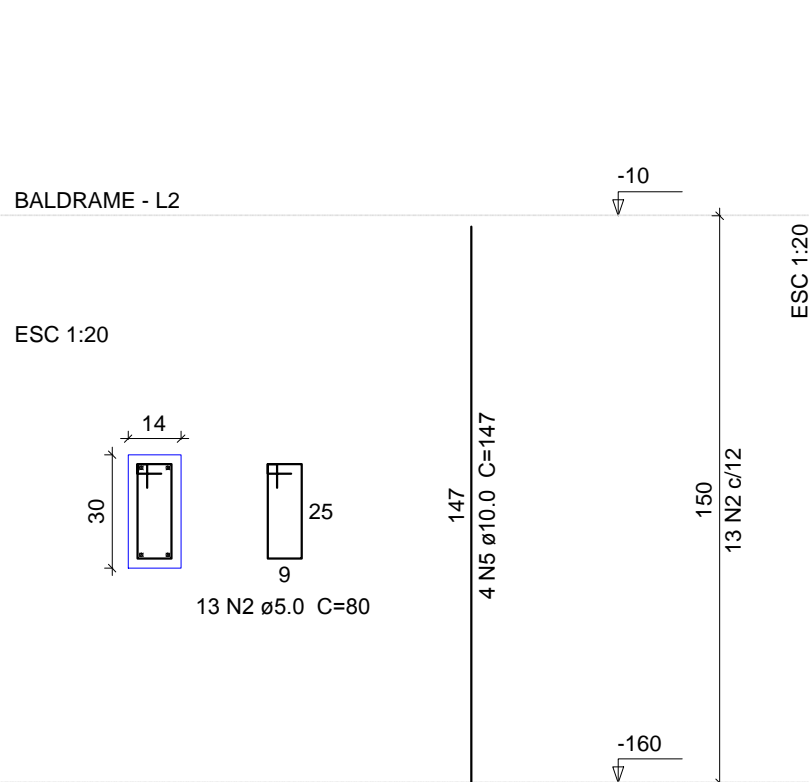
Área de forma = 18.07 m²

PILARES DO PAVIMENTO TÉRREO (POÇOS DE ELEVADOR)

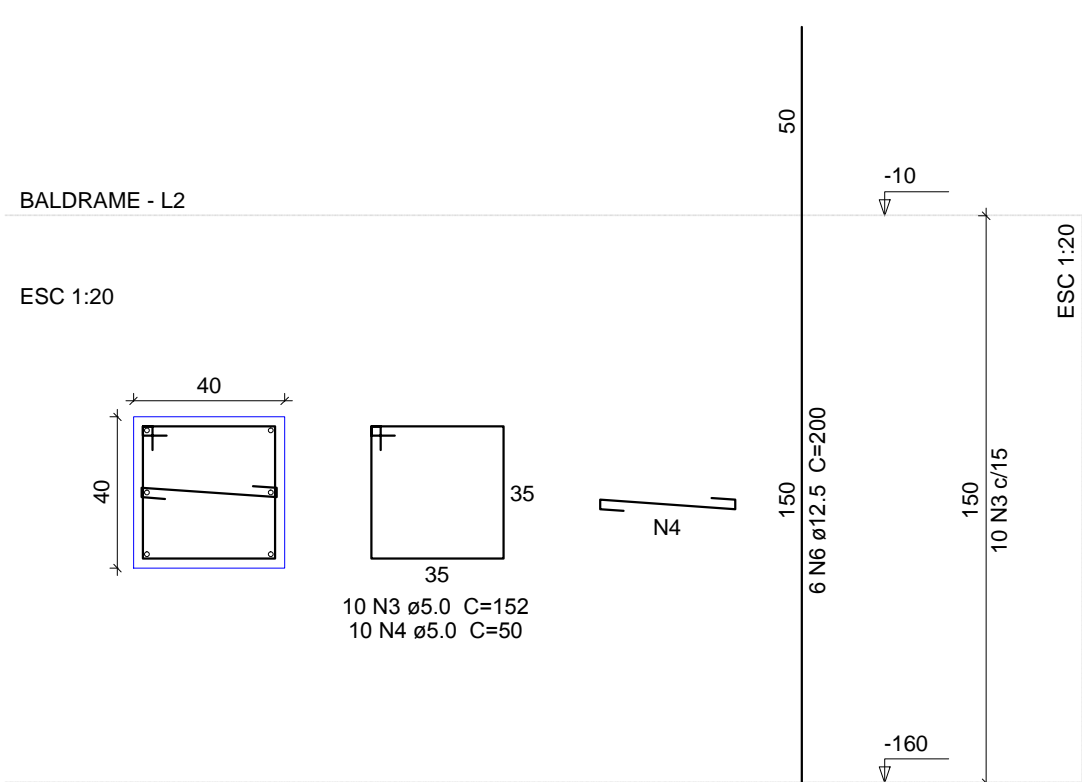
P59



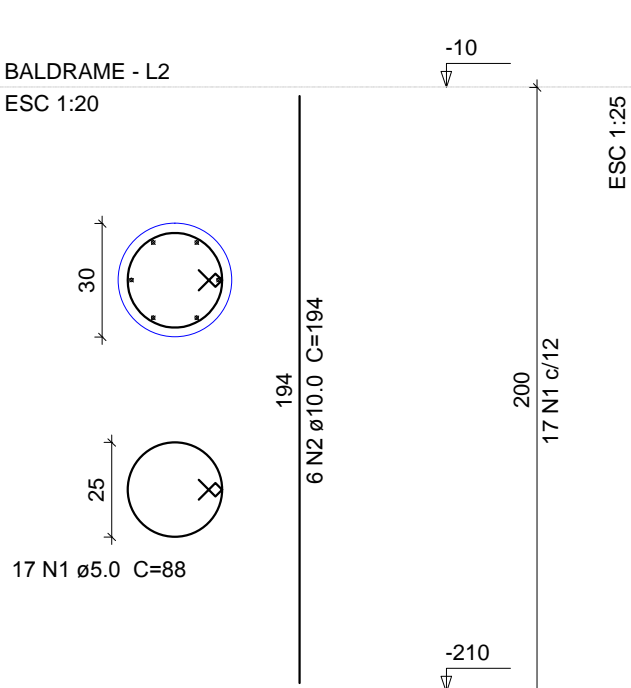
P60=P68



P69=P64=P67=P68



ESTACAS-BROCA DO PAVIMENTO TÉRREO (h=200 cm)



Relação do aço

ACO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	22	100	2200
CA50	2	5.0	26	80	2080
	3	5.0	40	152	6080
	4	5.0	40	50	2000
	5	10.0	8	147	1176
	6	12.5	24	200	4800
	7	16.0	8	200	1600

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	1722.8	1168.3
CA60	5.0	2214.1	375.4

PESO TOTAL (kg)

CA50 1168.3

CA60 375.4

Volume de concreto (C-40) = 20.92 m³

Área de forma = 278.97 m²

Relação do aço

ACO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	22	100	2200
CA50	2	5.0	26	80	2080
	3	5.0	40	152	6080
	4	5.0	40	50	2000
	5	10.0	8	147	1176
	6	12.5	24	200	4800
	7	16.0	8	200	1600

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	11.8	8
CA60	12.5	48	50.9
CA60	16.0	16	27.8

PESO TOTAL (kg)

CA50 68.1

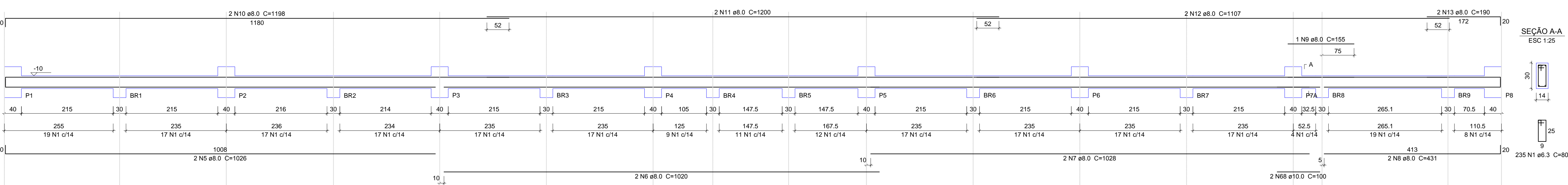
CA60 21

Volume de concreto (C-40) = 1.22 m³

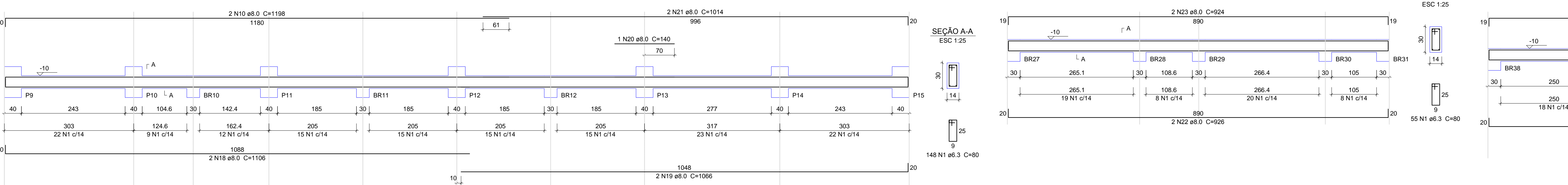
Área de forma = 14.64 m²

VIGAS DO PAVIMENTO TERREO

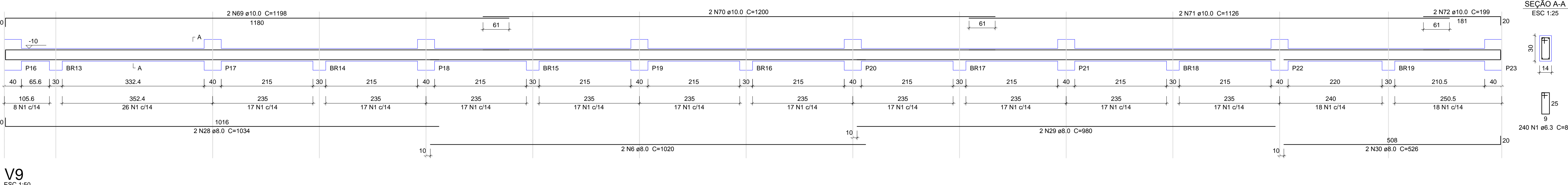
V1
ESC 1:50



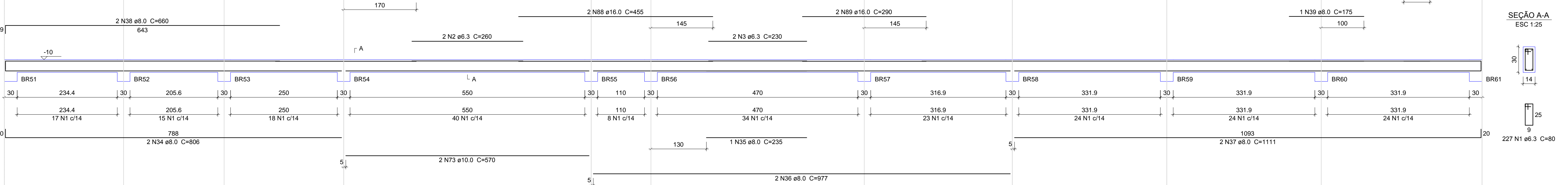
V2
ESC 1:50



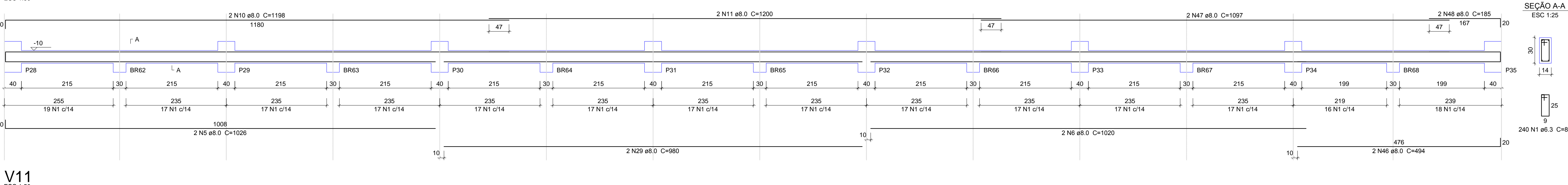
V3
ESC 1:50



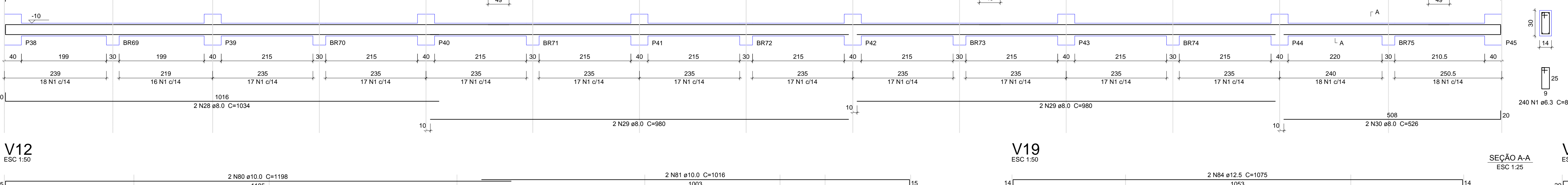
V9
ESC 1:50



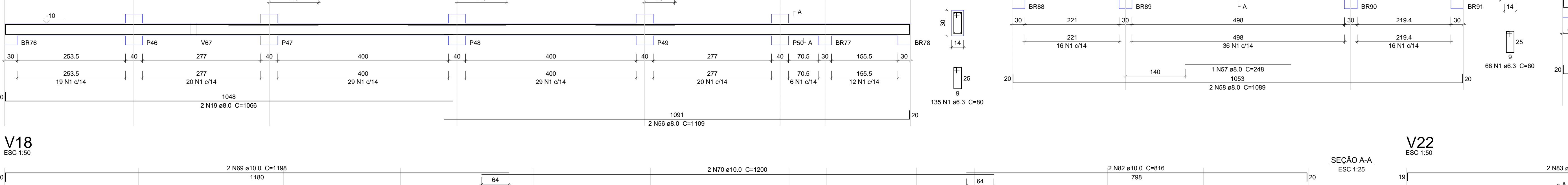
V10
ESC 1:50



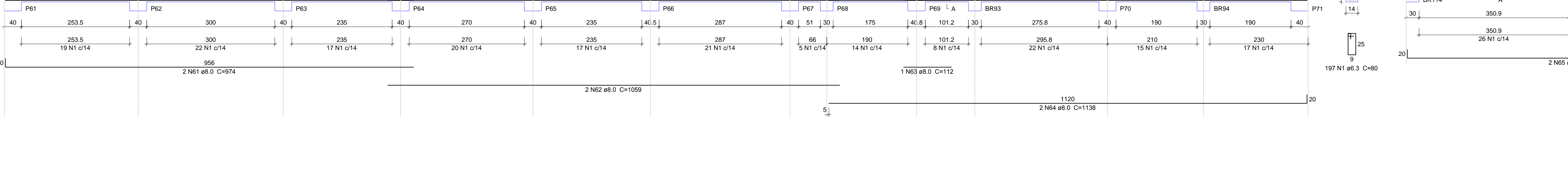
V11
ESC 1:50



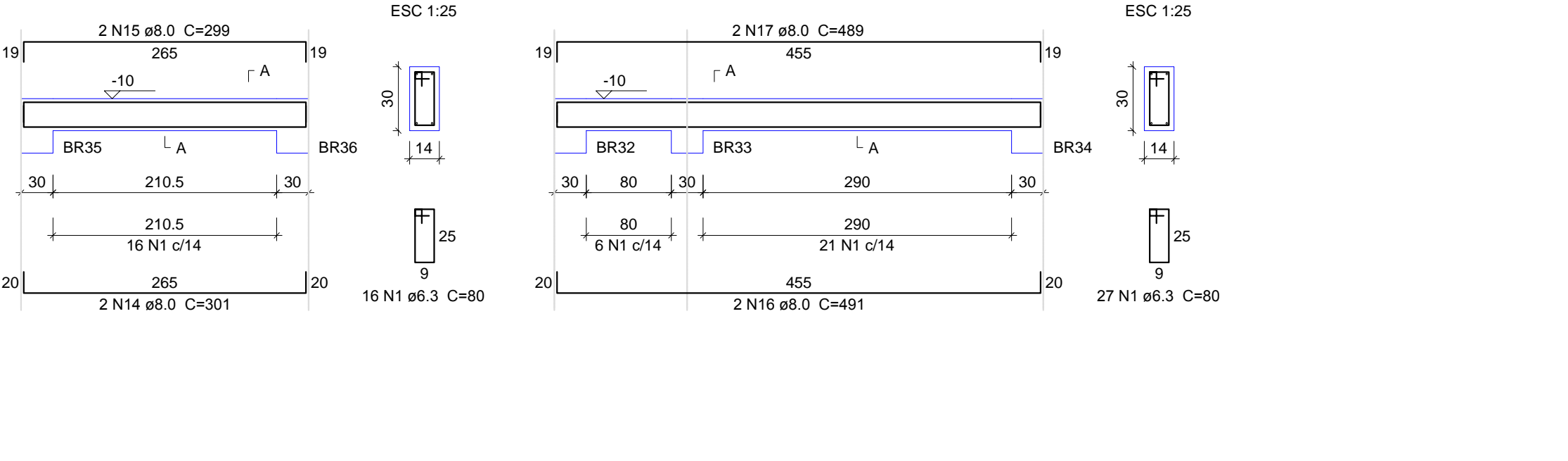
V12
ESC 1:50



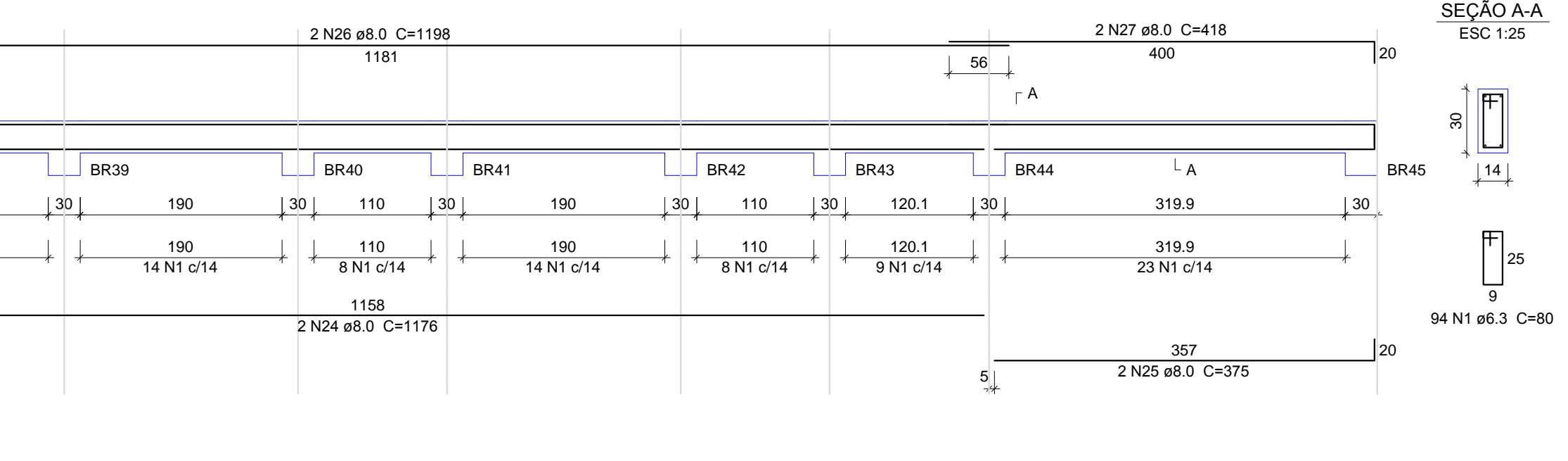
V18
ESC 1:50



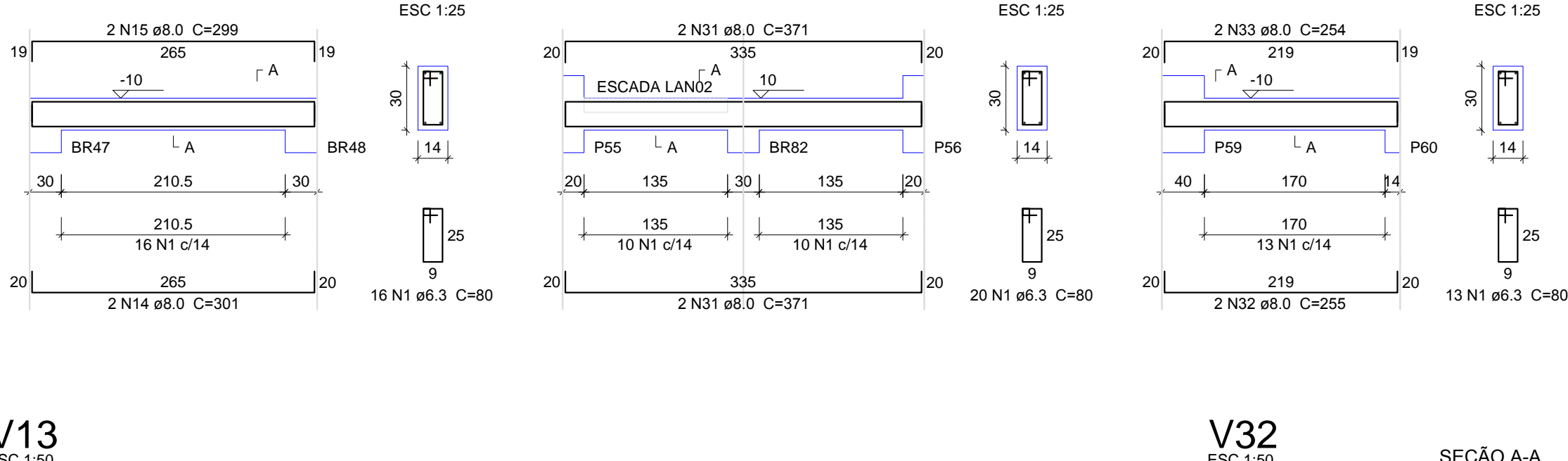
V4
ESC 1:50



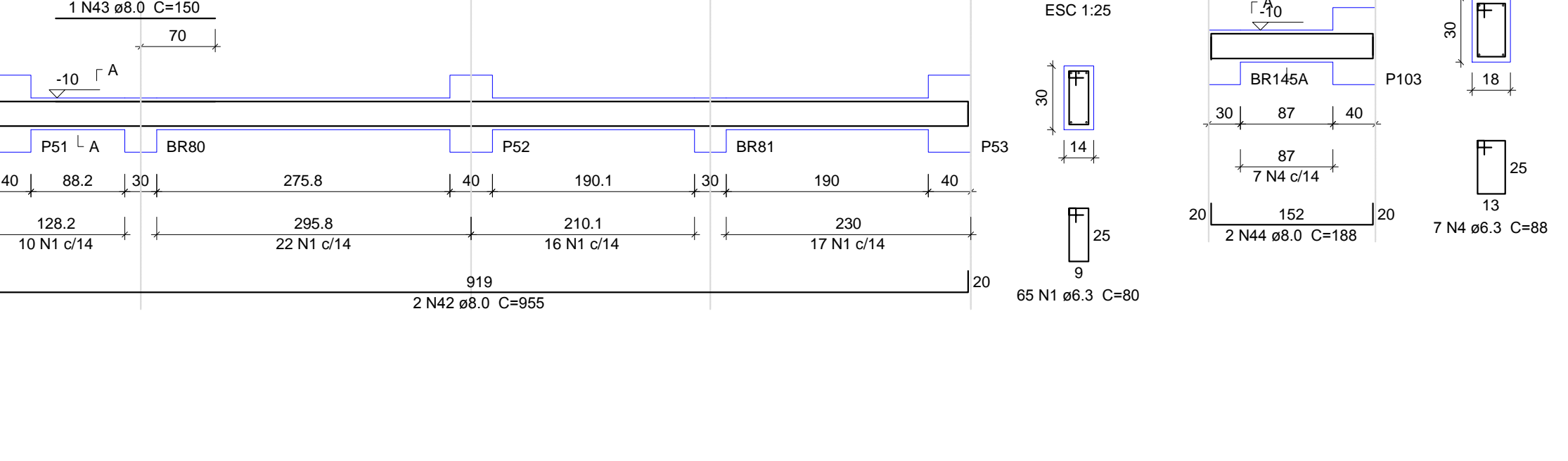
V6
ESC 1:50



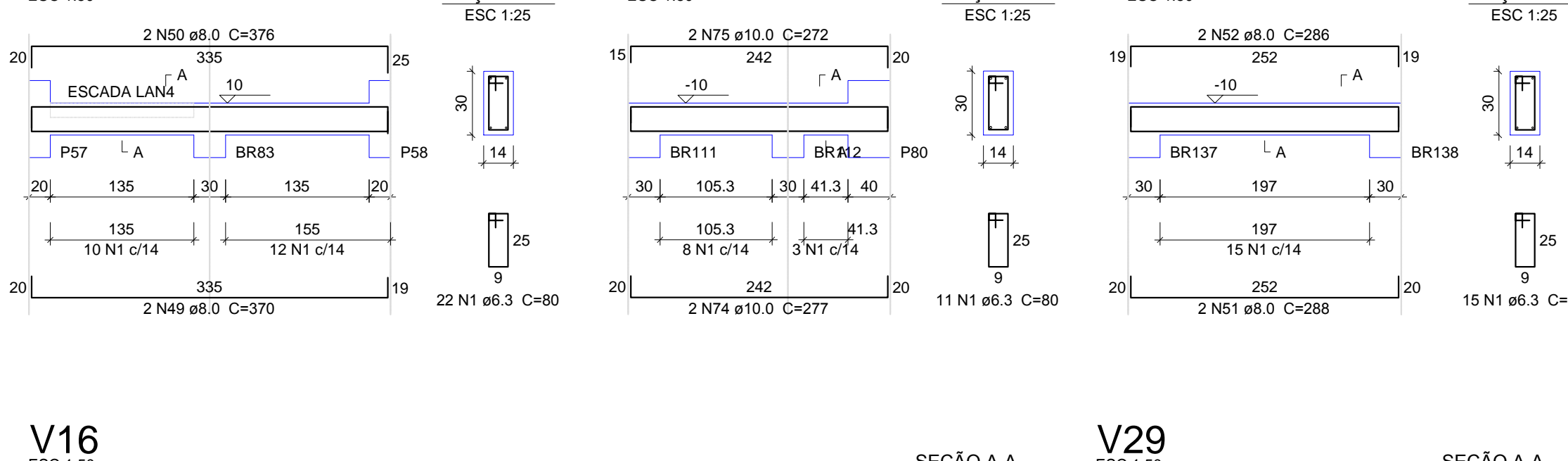
V8
ESC 1:50



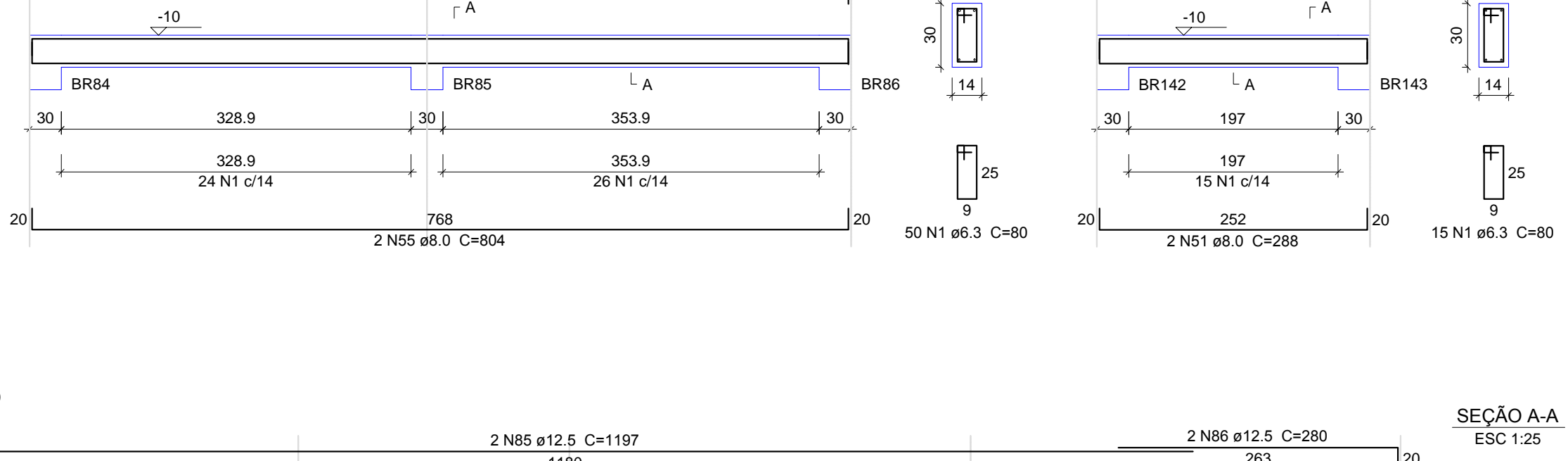
V14
ESC 1:50



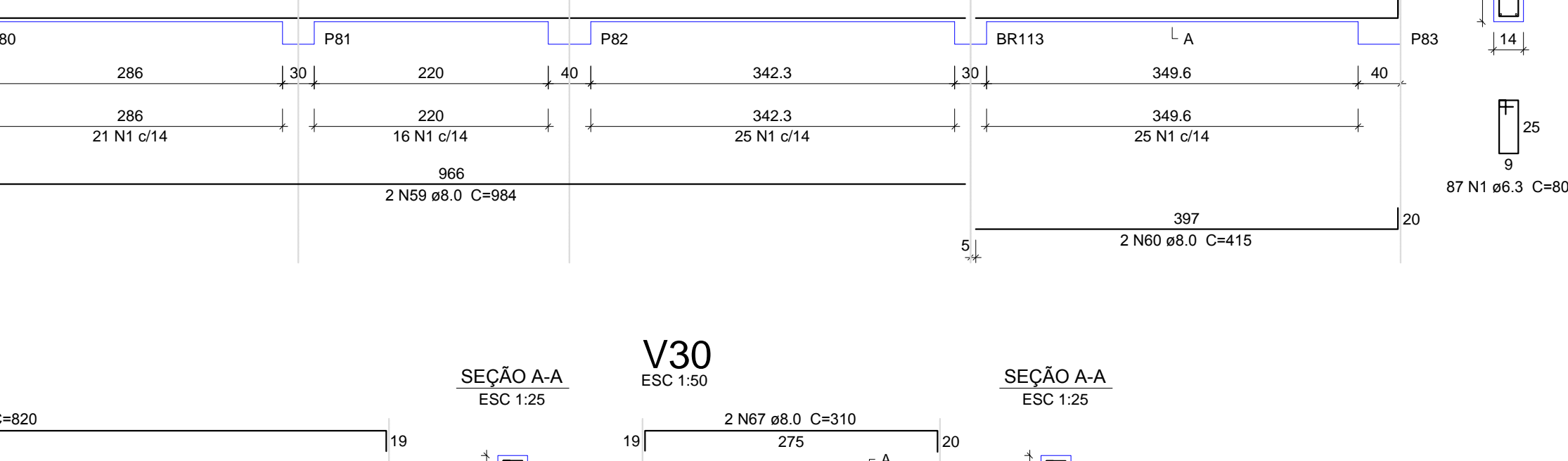
V15
ESC 1:50



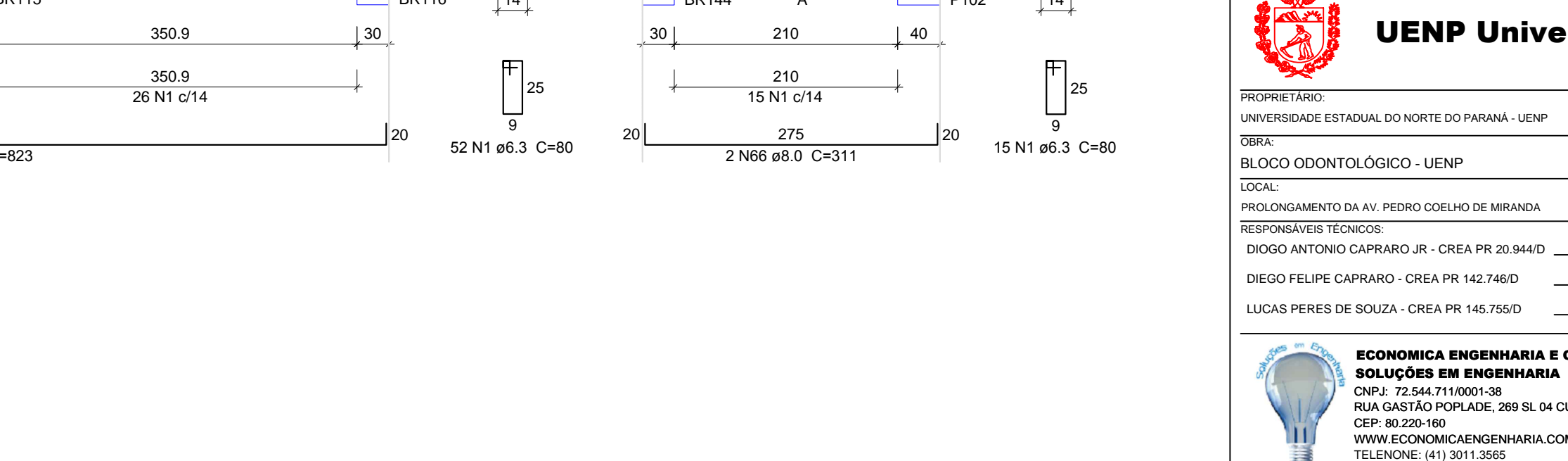
V20
ESC 1:50



V28
ESC 1:50



V29
ESC 1:50



V21
ESC 1:50

V22
ESC 1:50

V30
ESC 1:50

V1

V2

V3

V4

V5

V6

V7

V8

V9

V10

V11

V12

V13

V14

V15

V16

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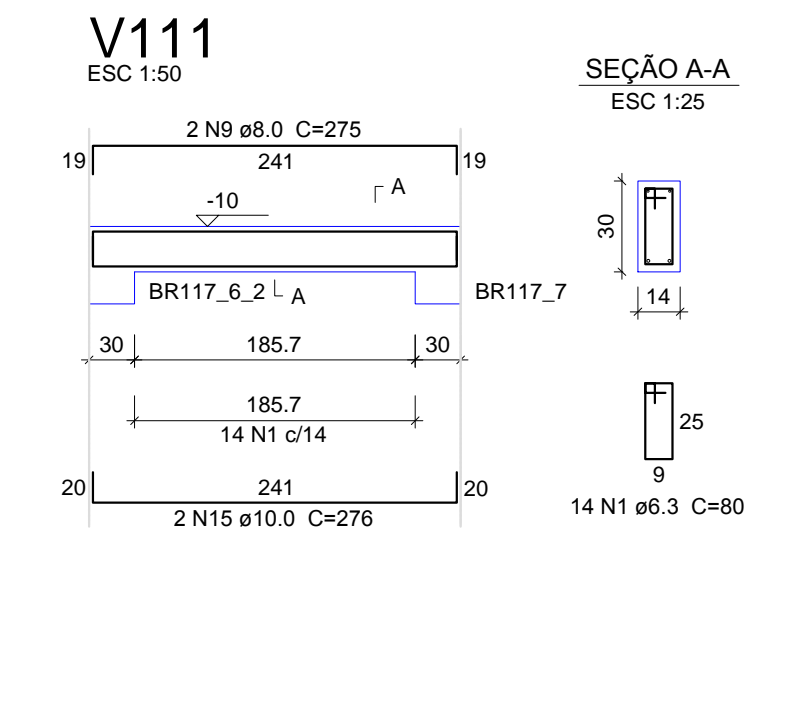
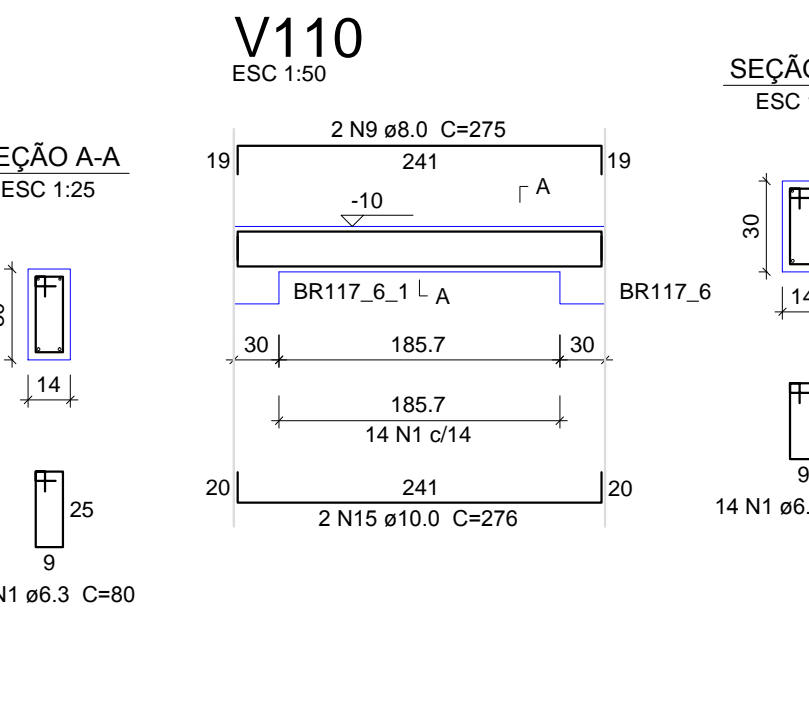
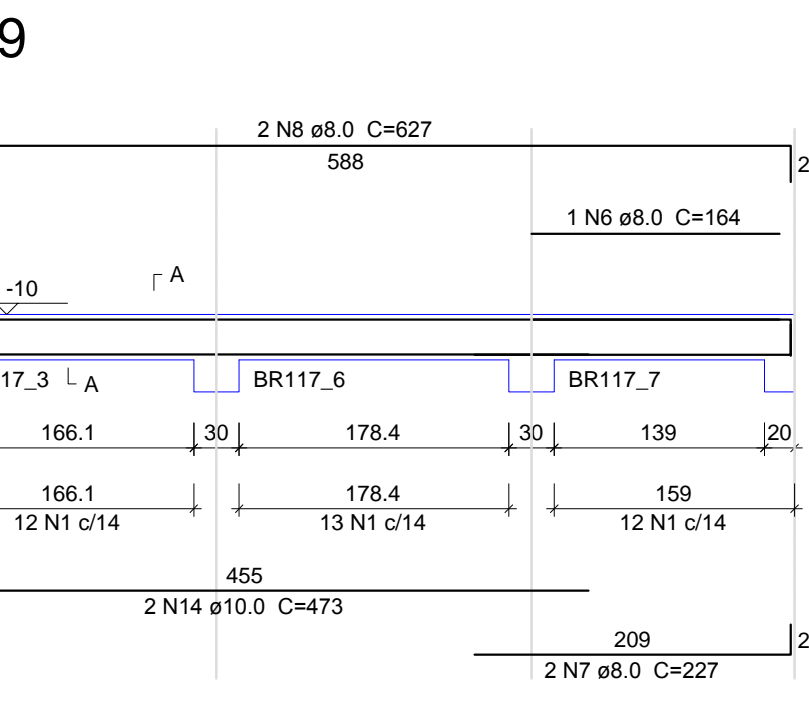
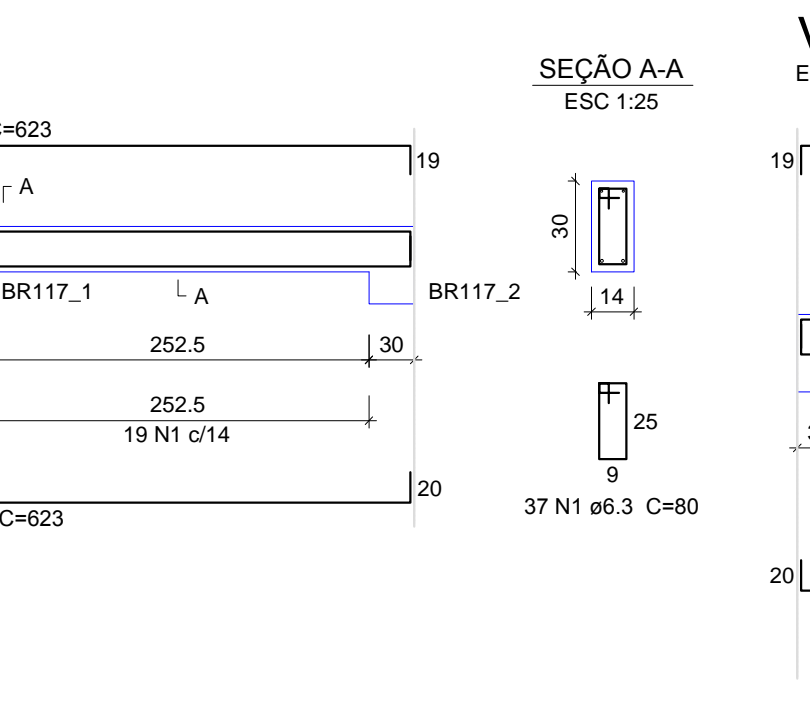
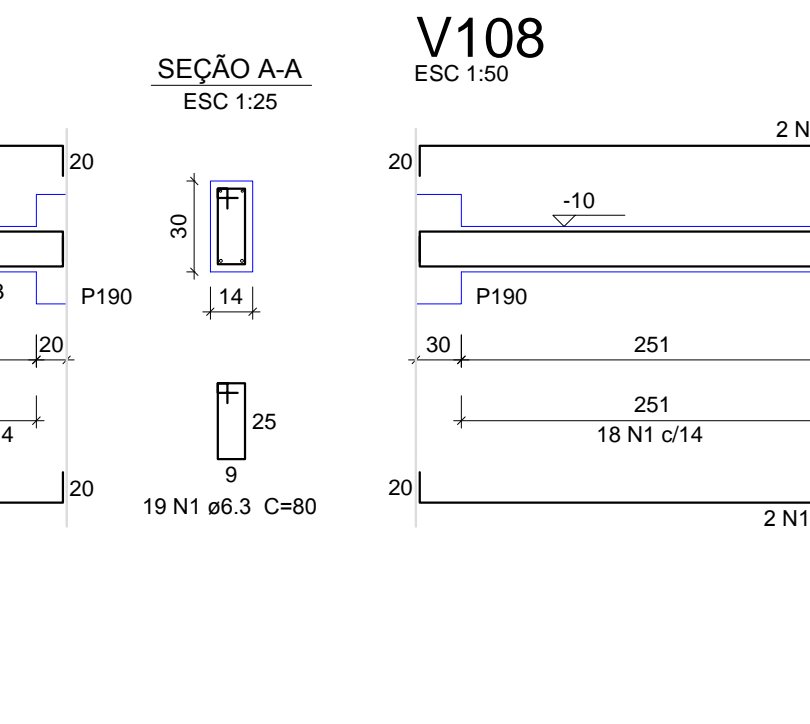
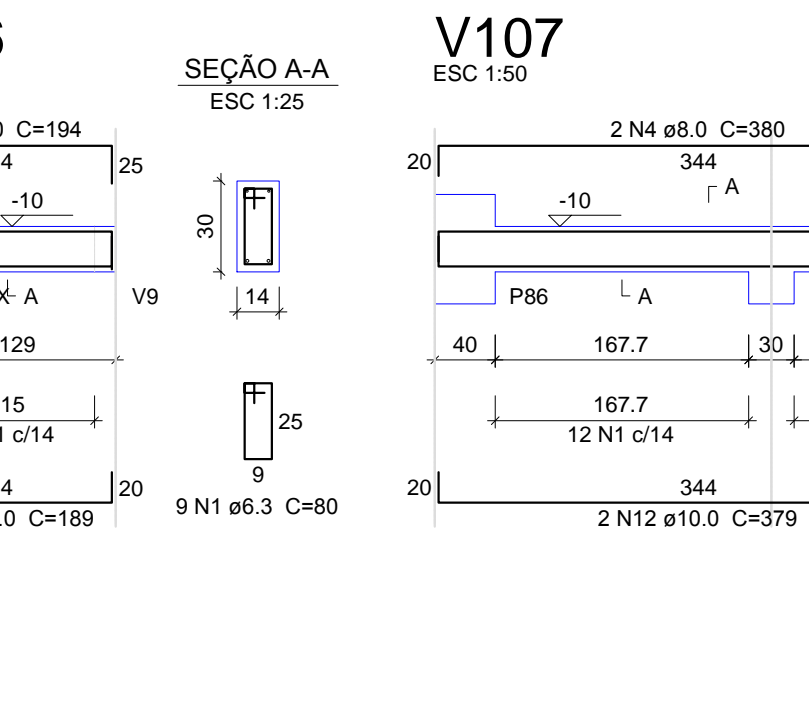
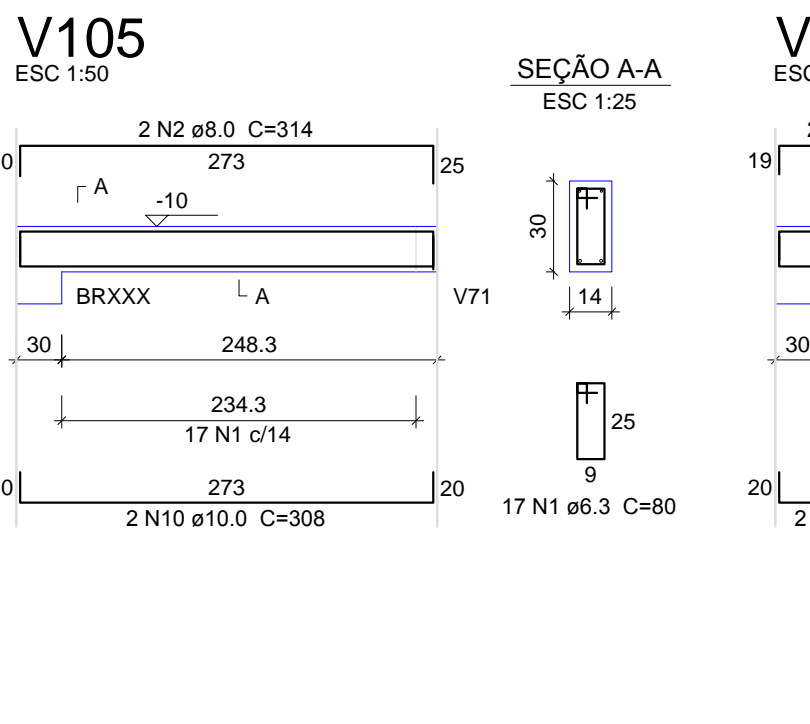
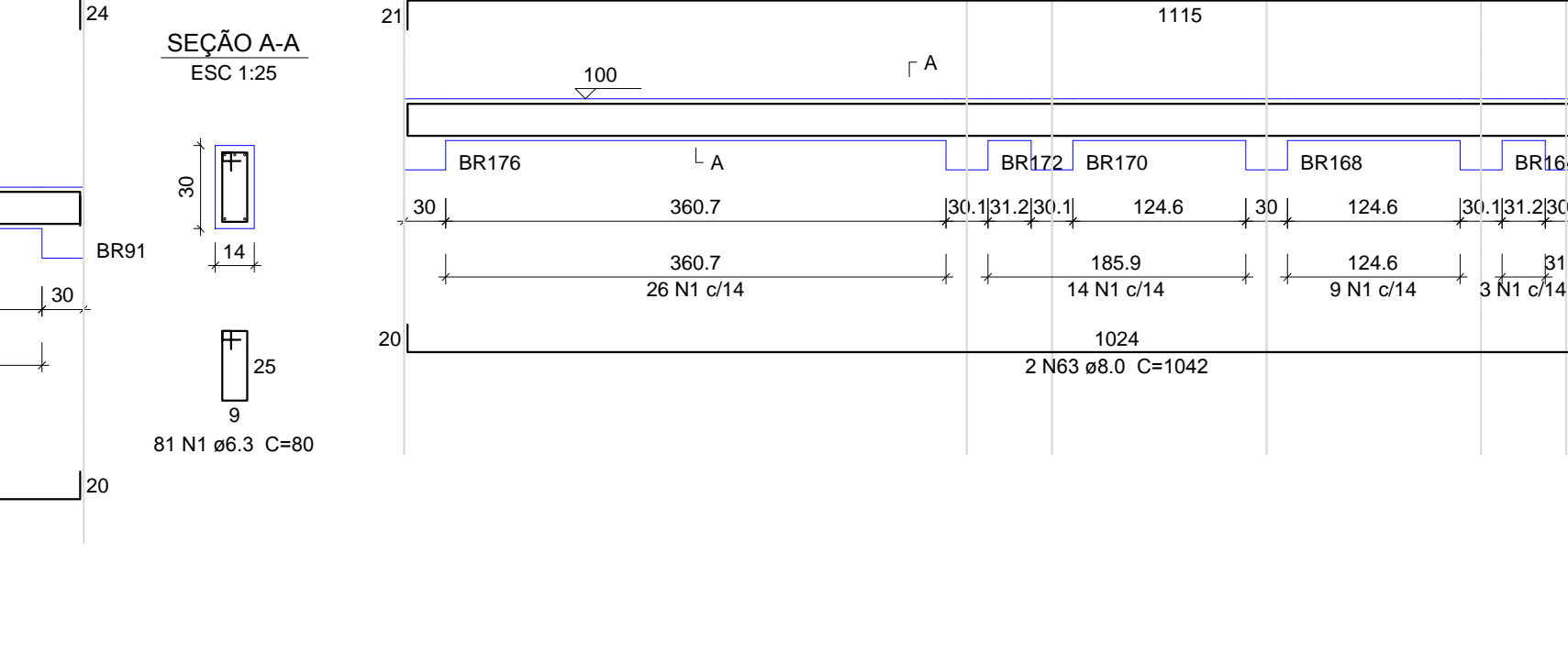
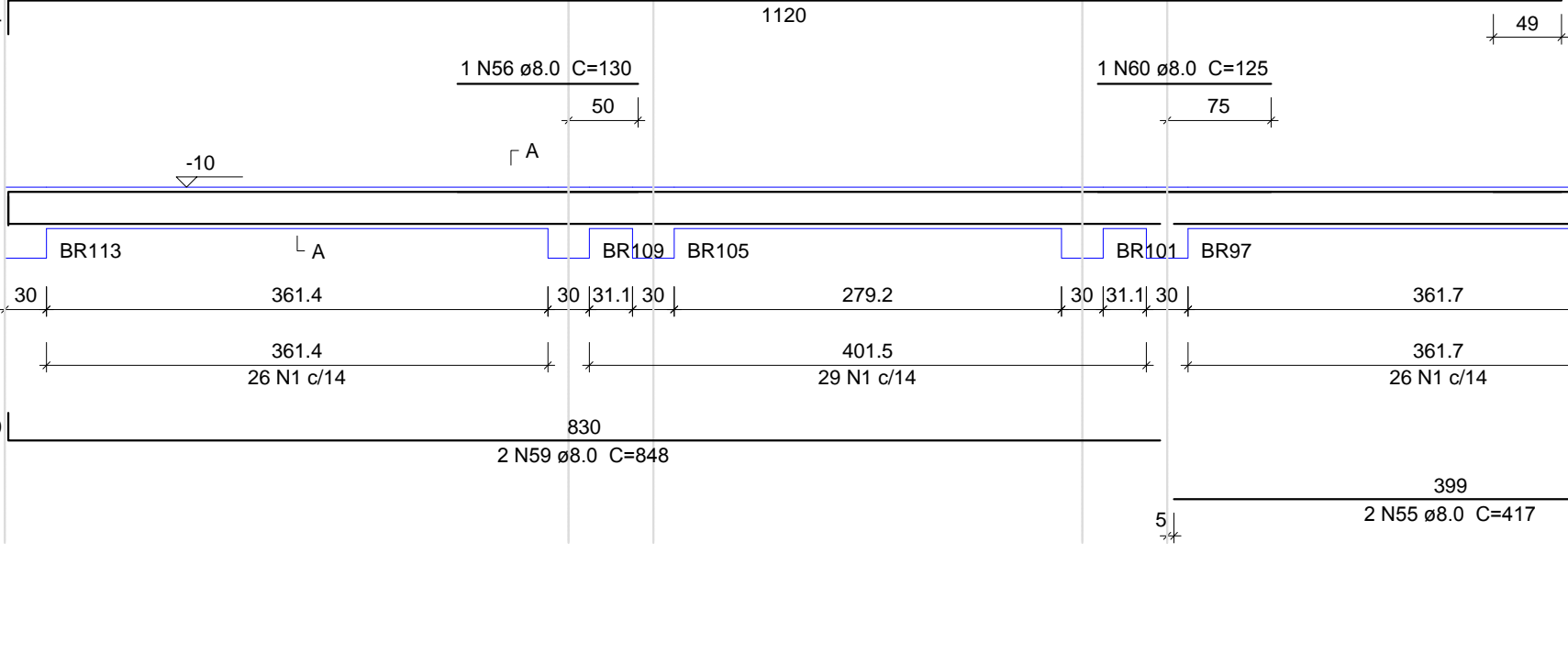
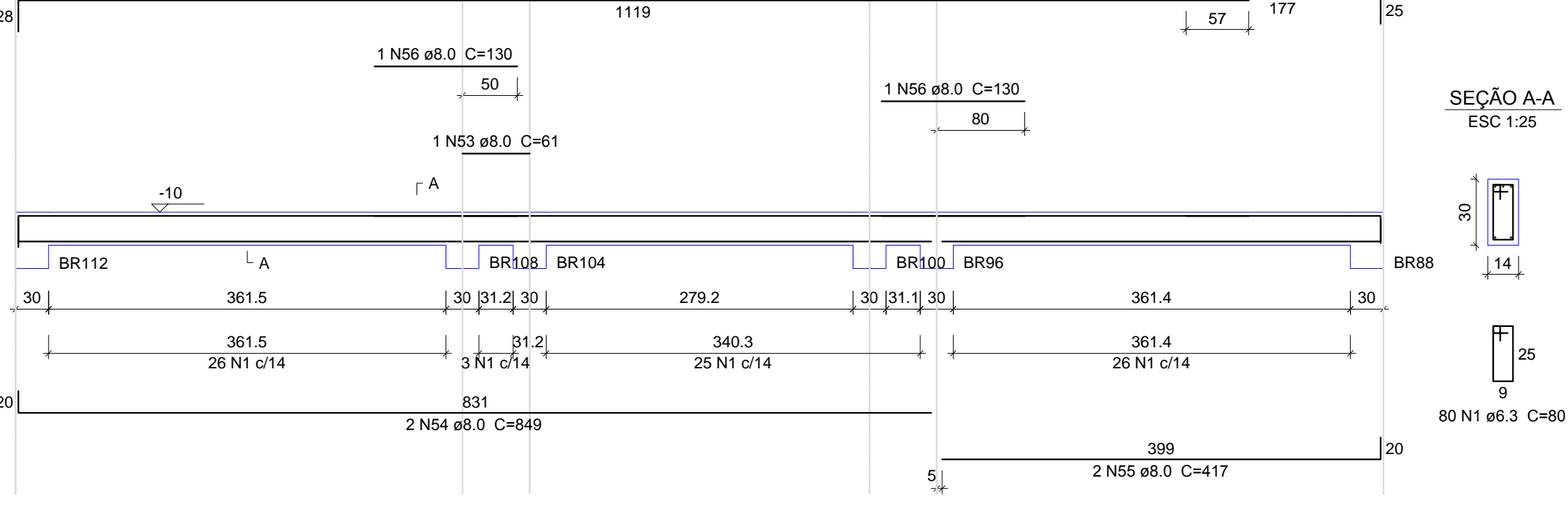
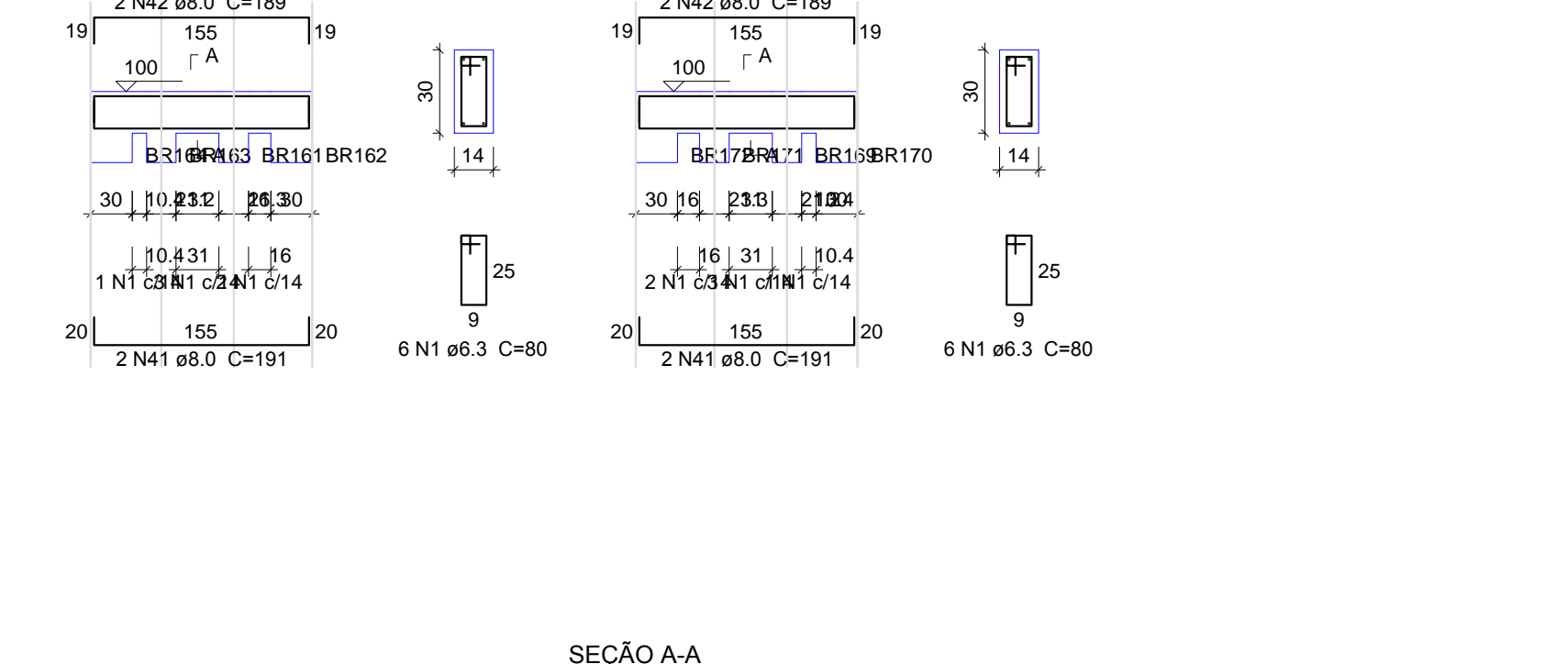
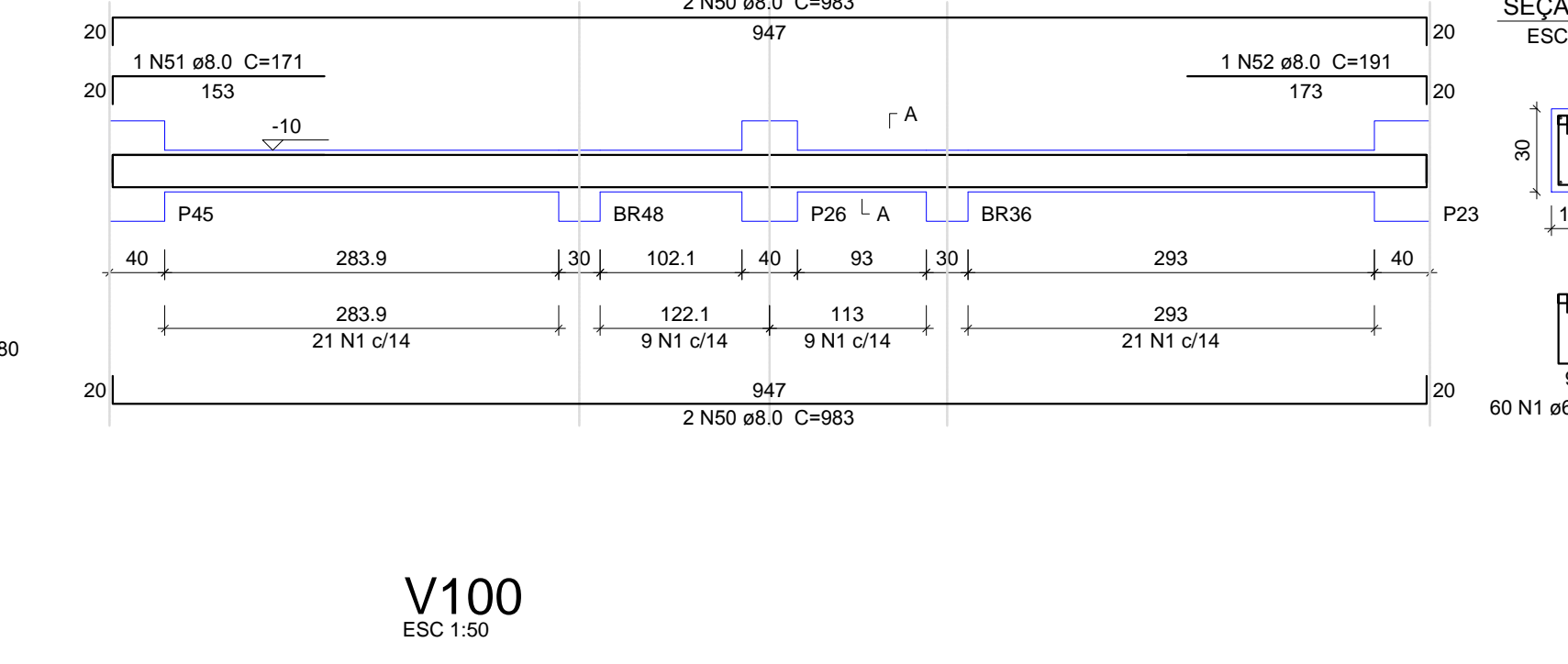
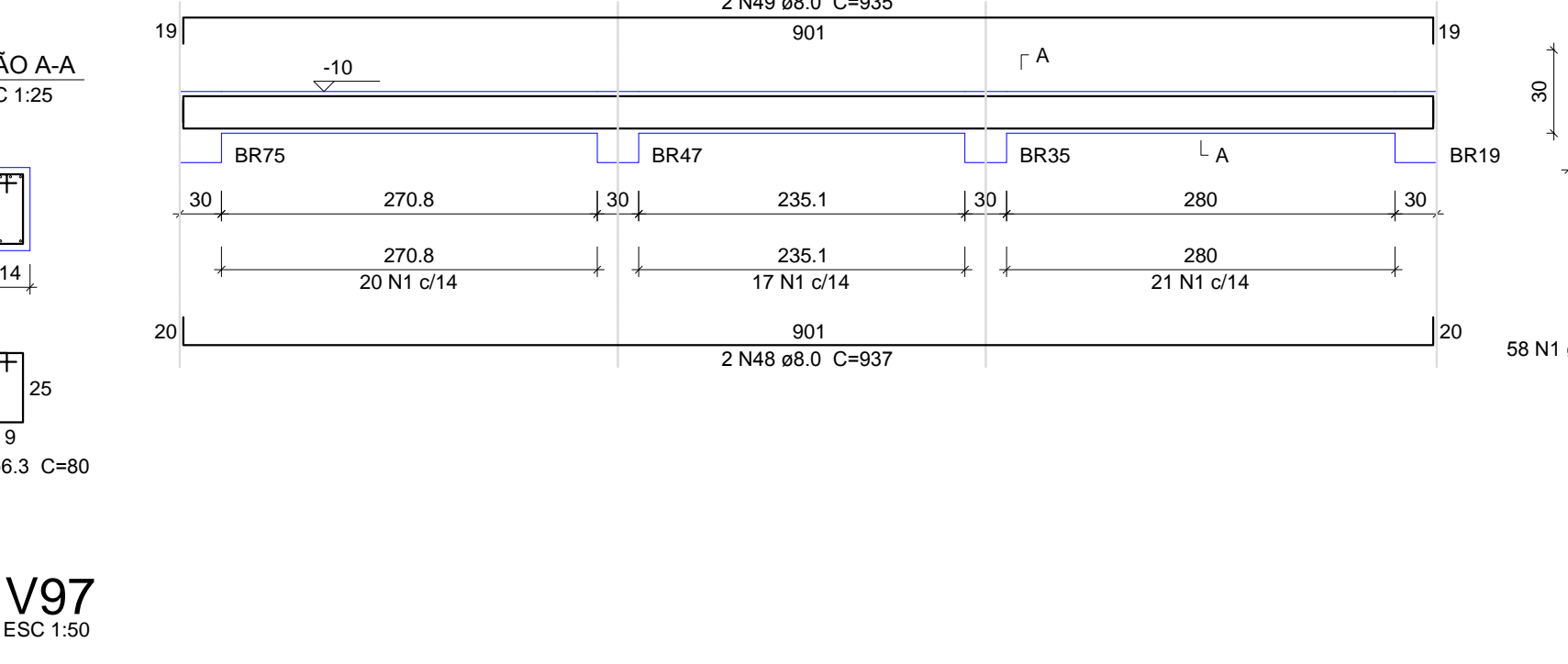
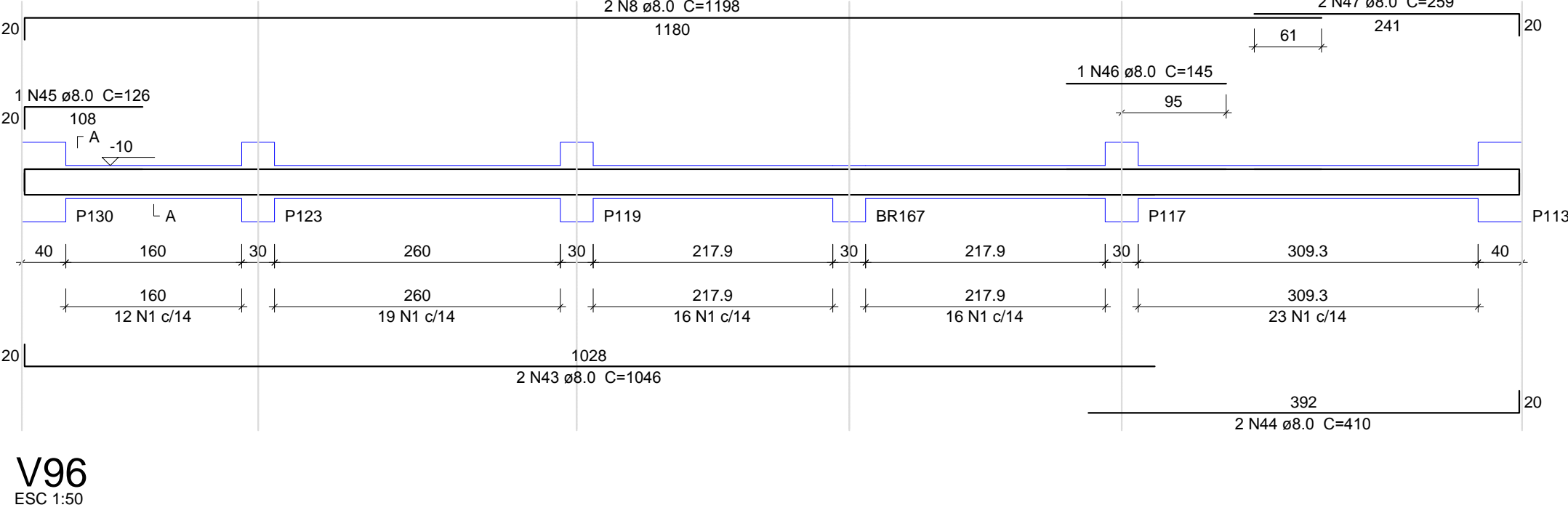
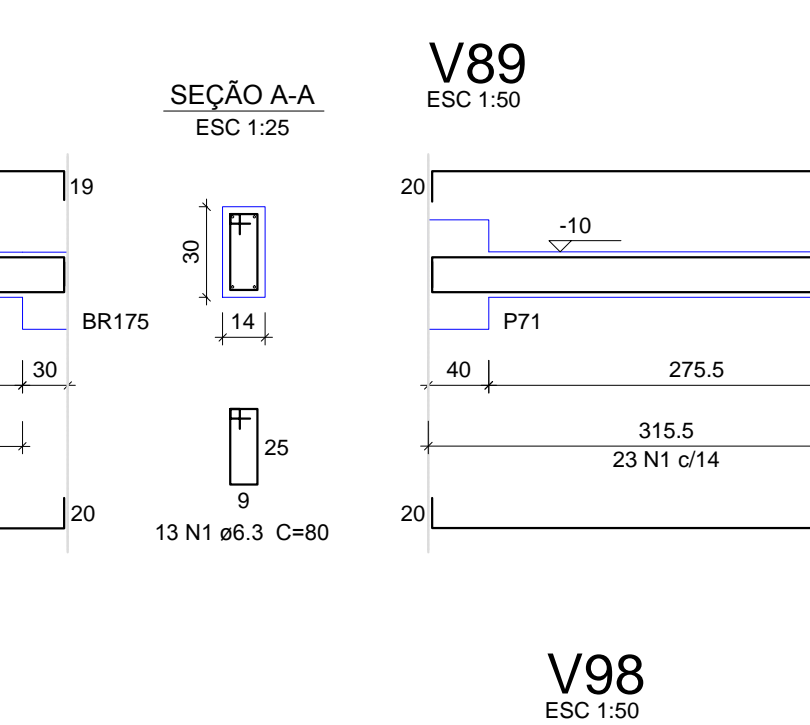
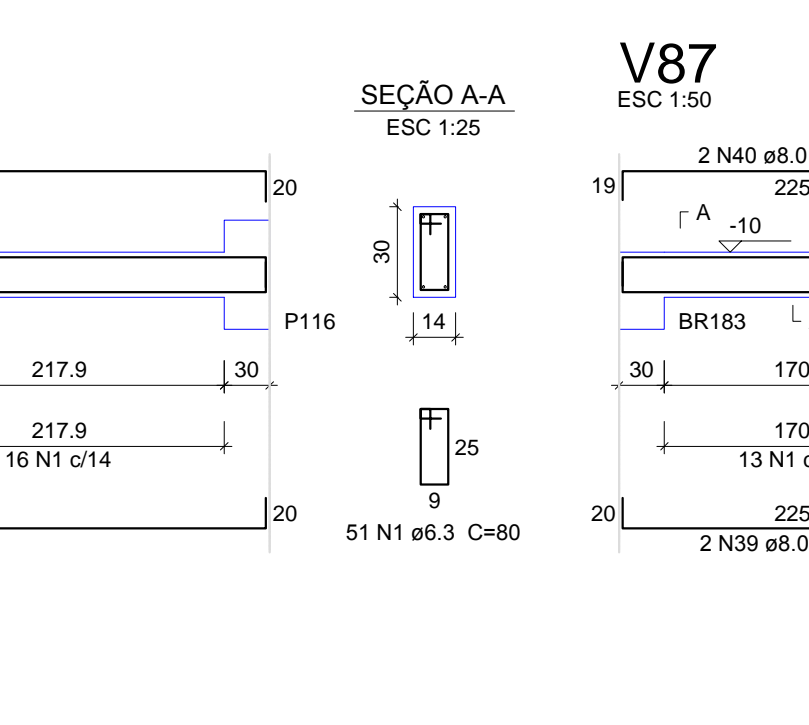
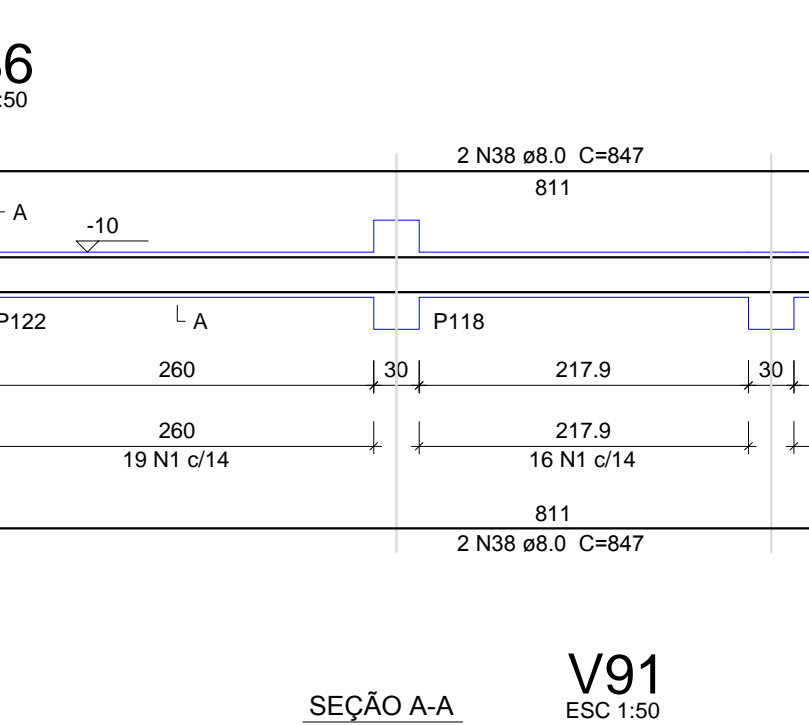
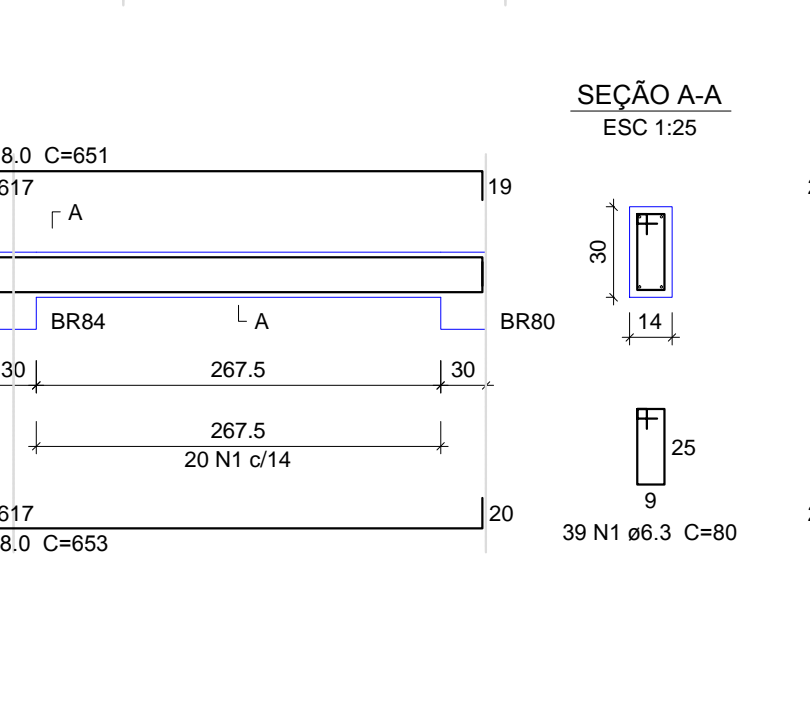
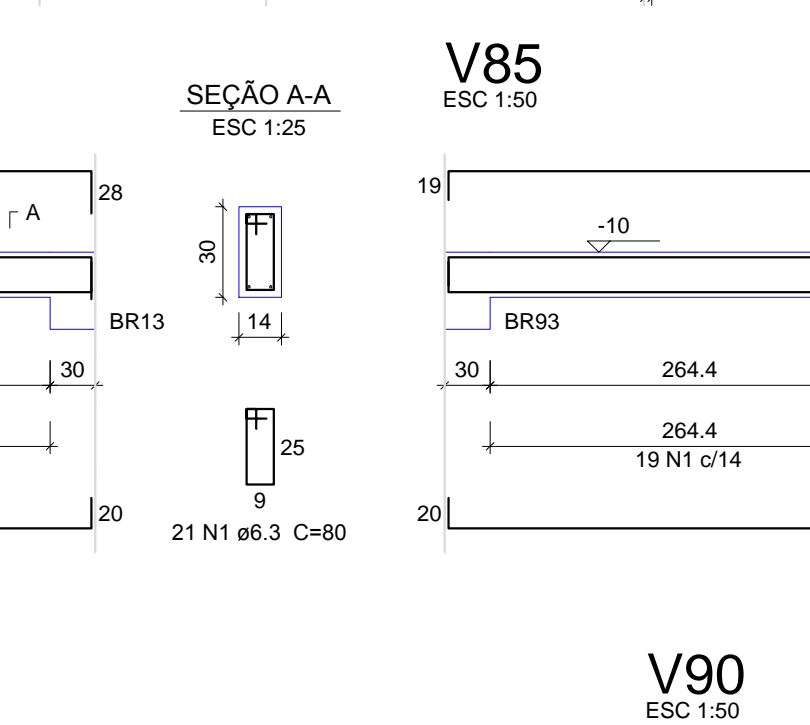
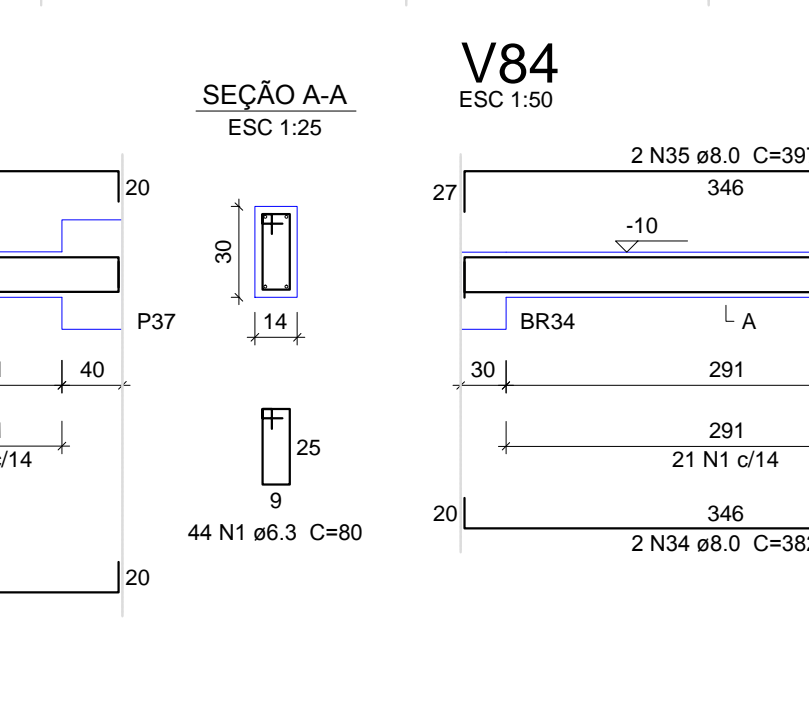
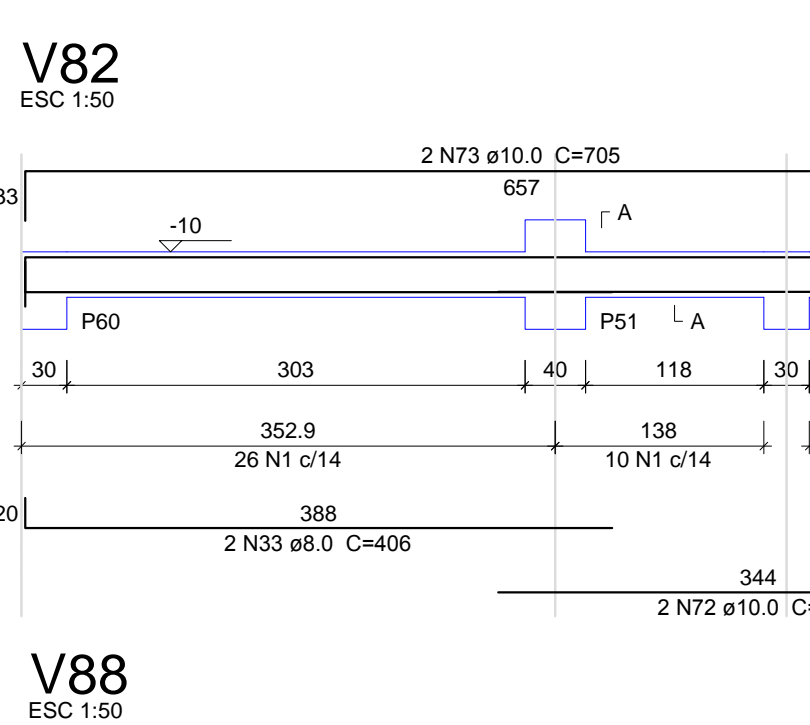
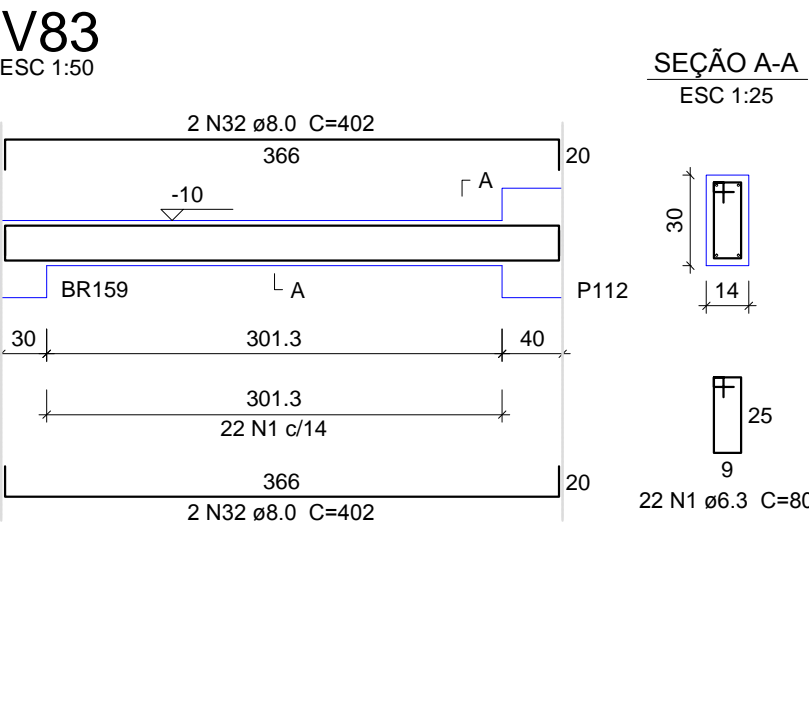
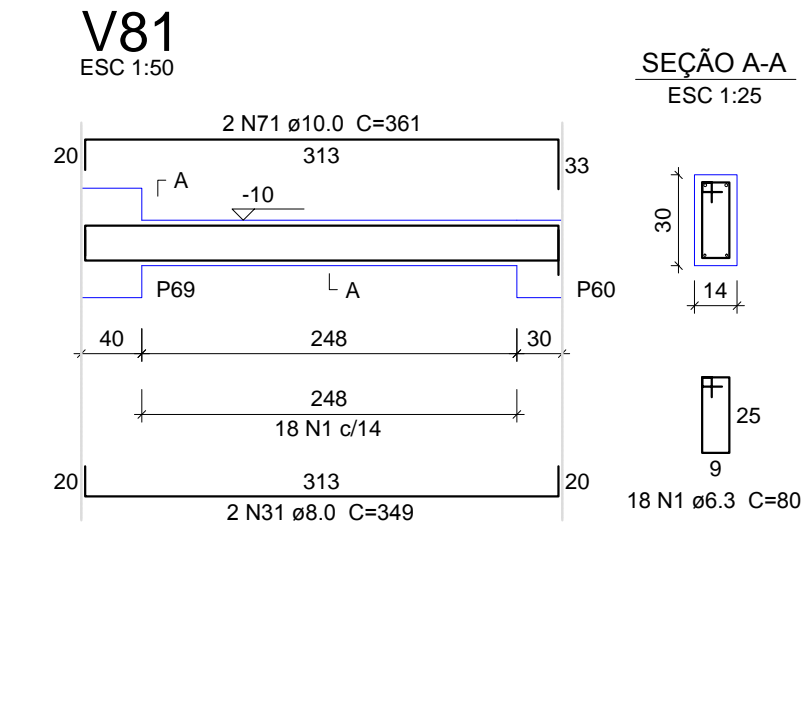
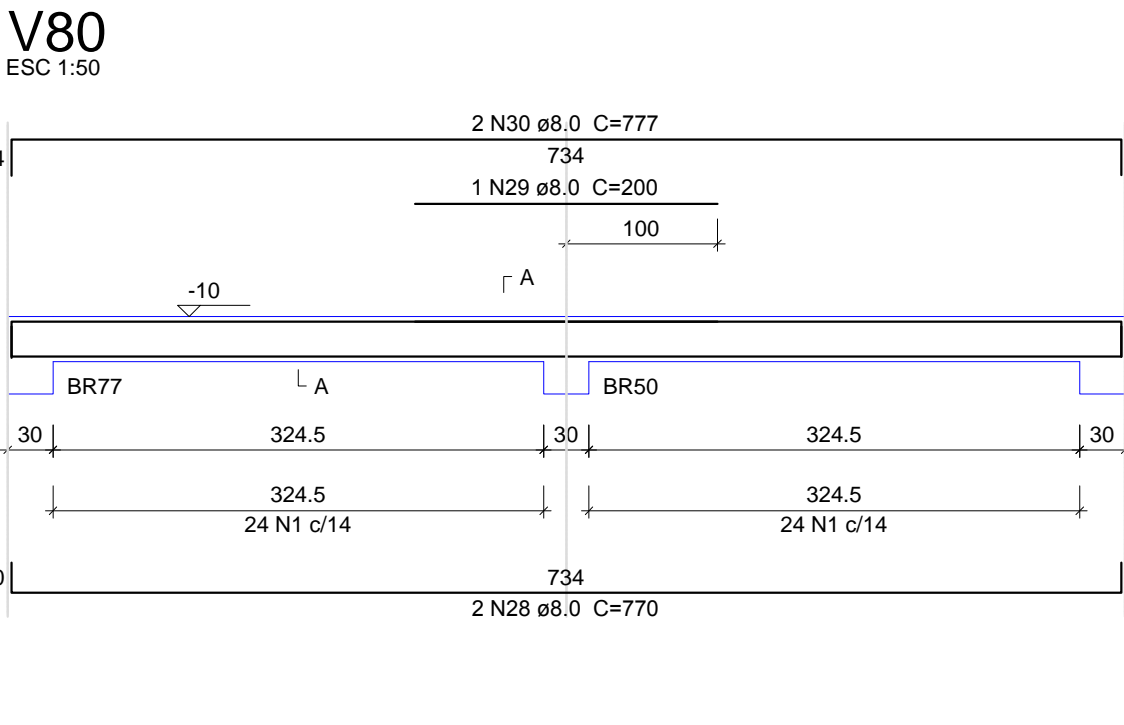
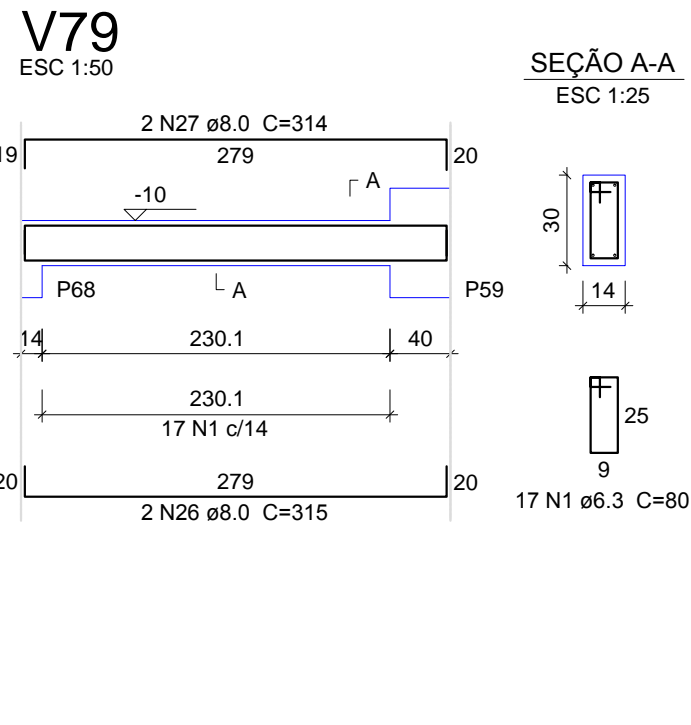
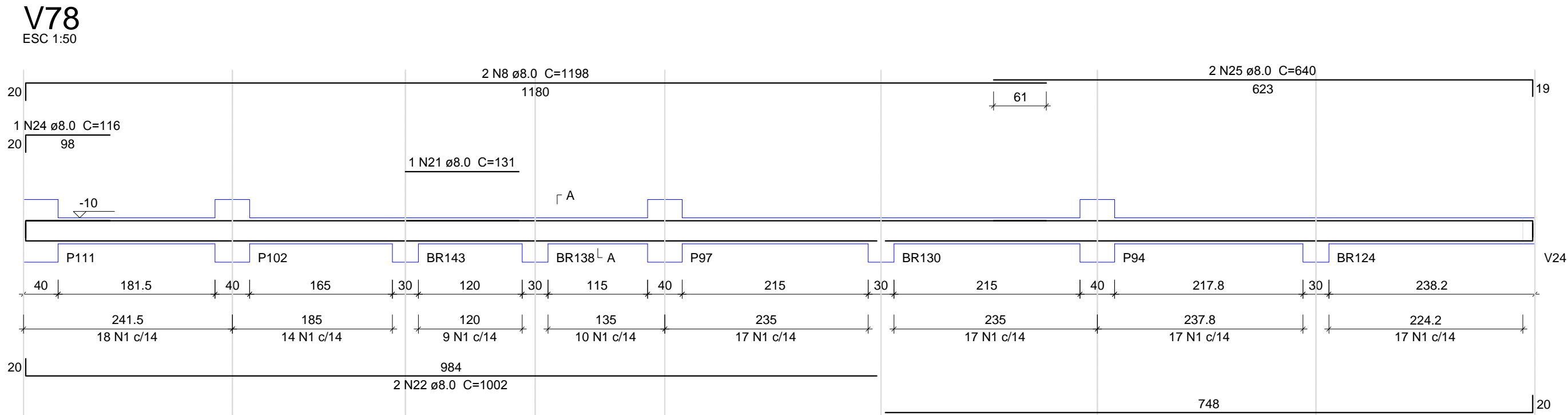
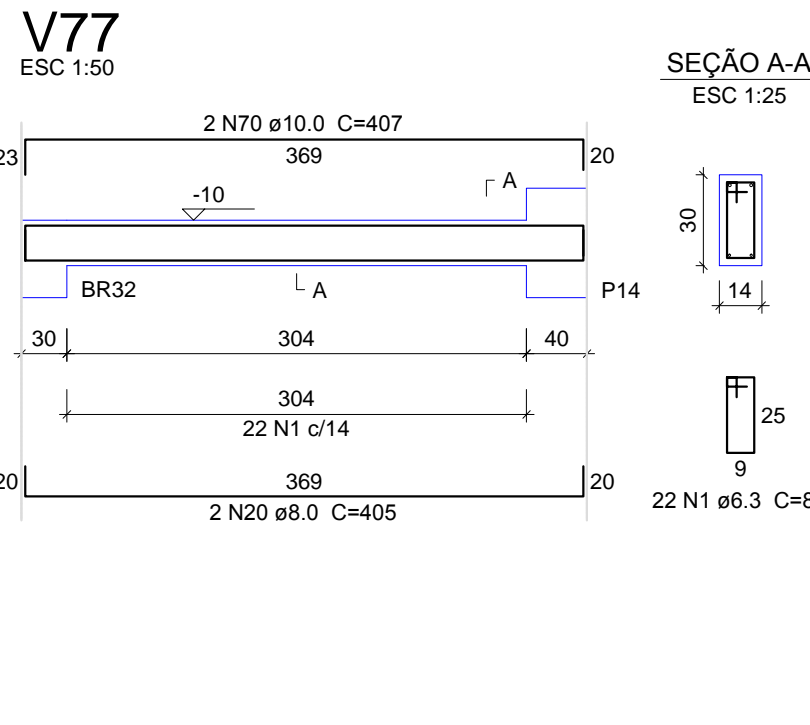
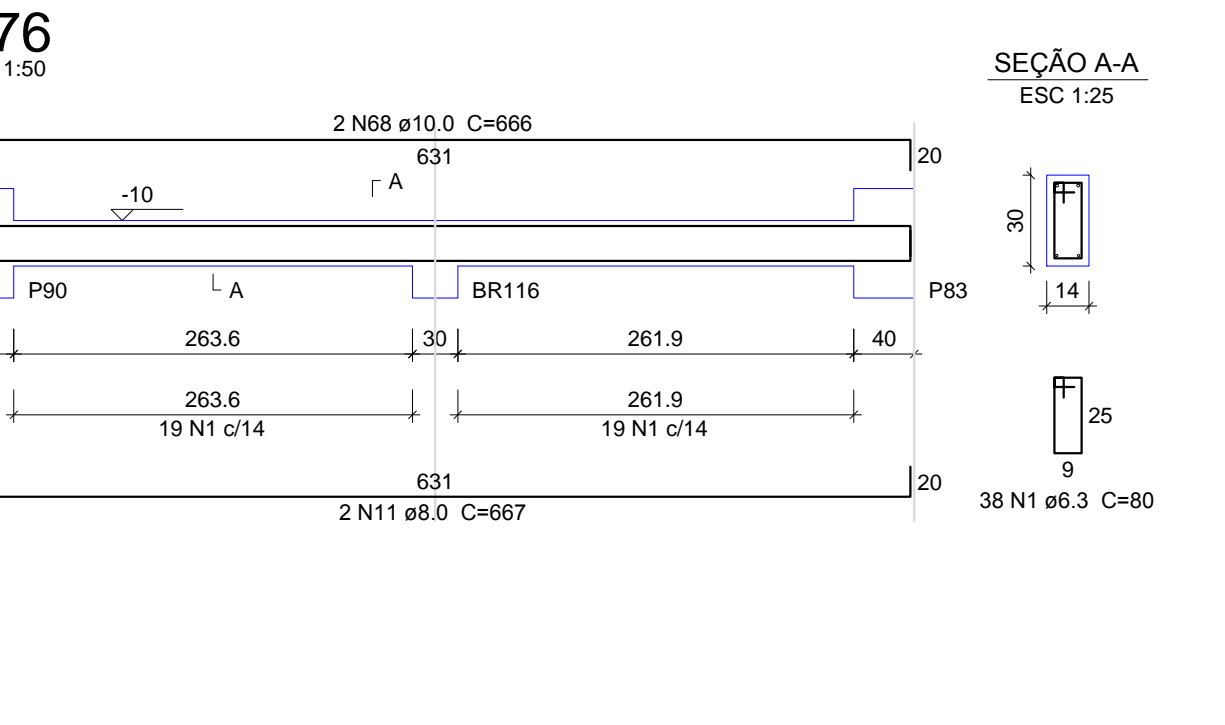
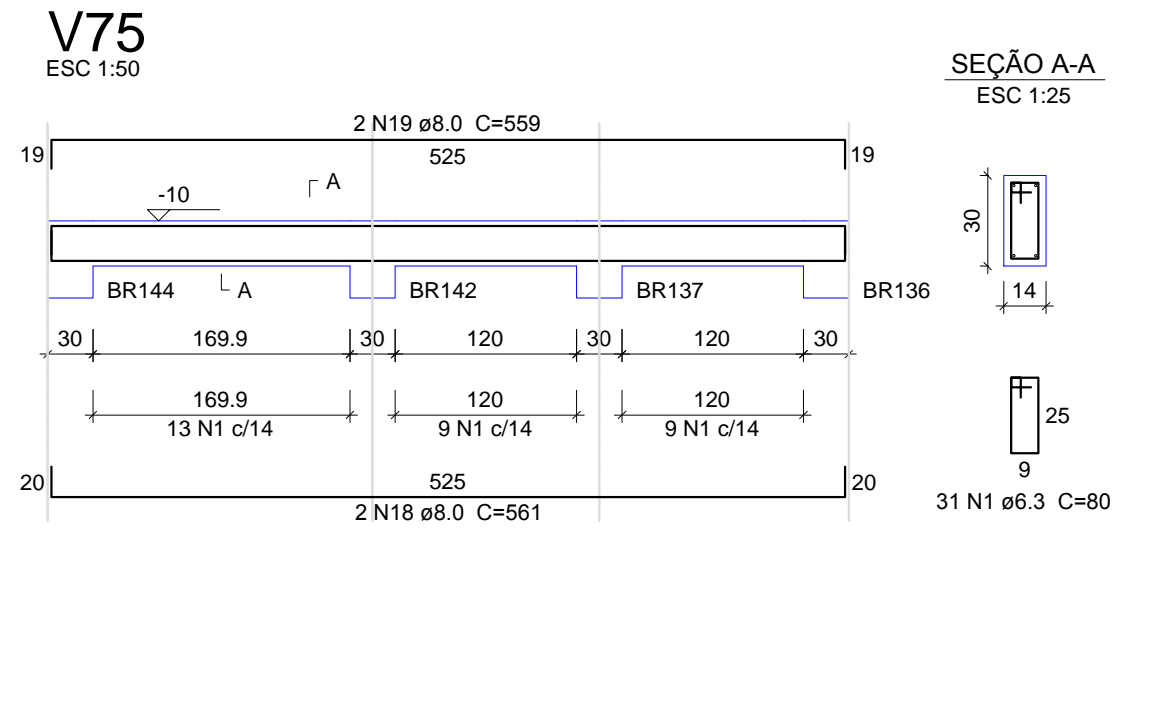
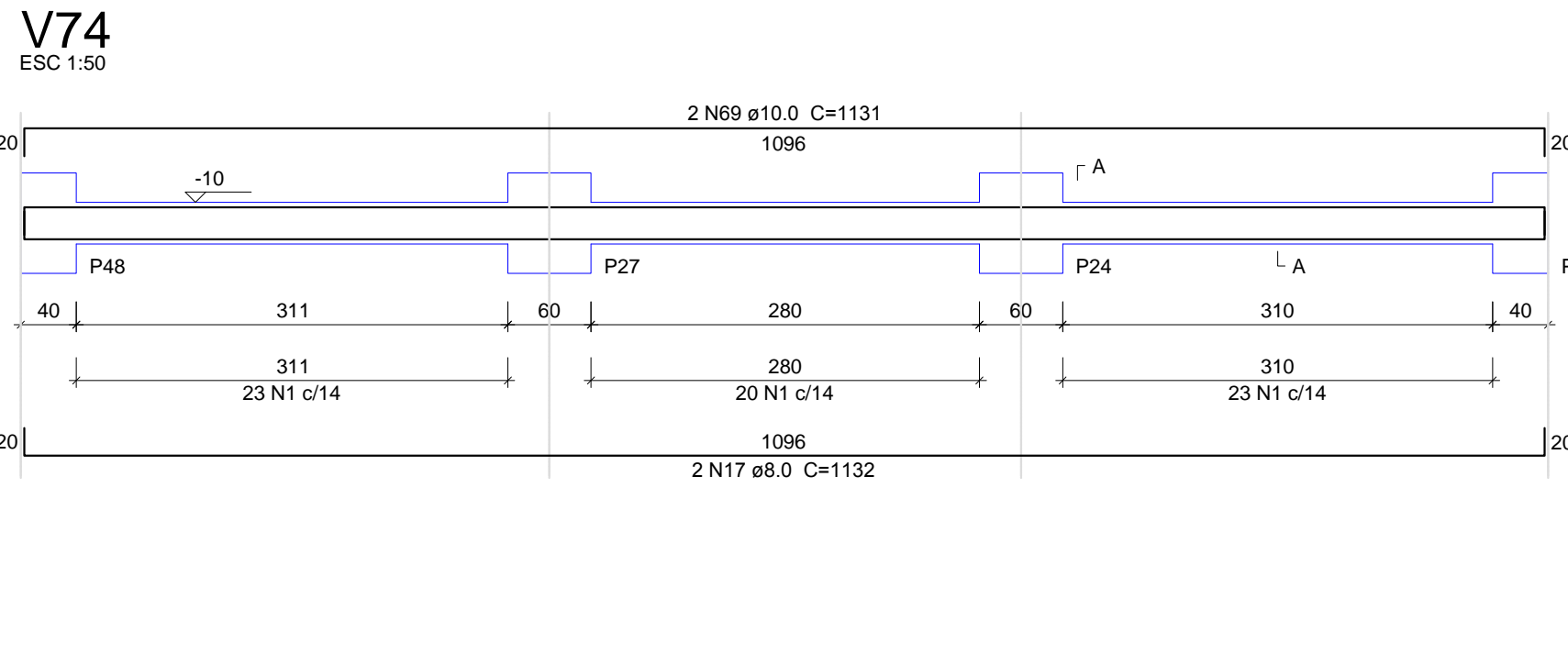
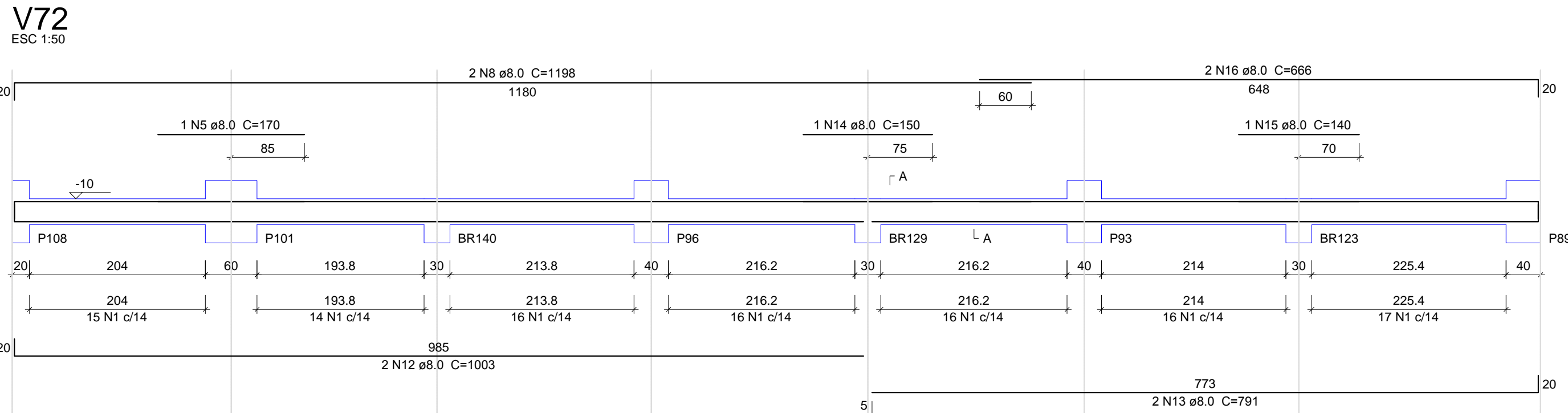
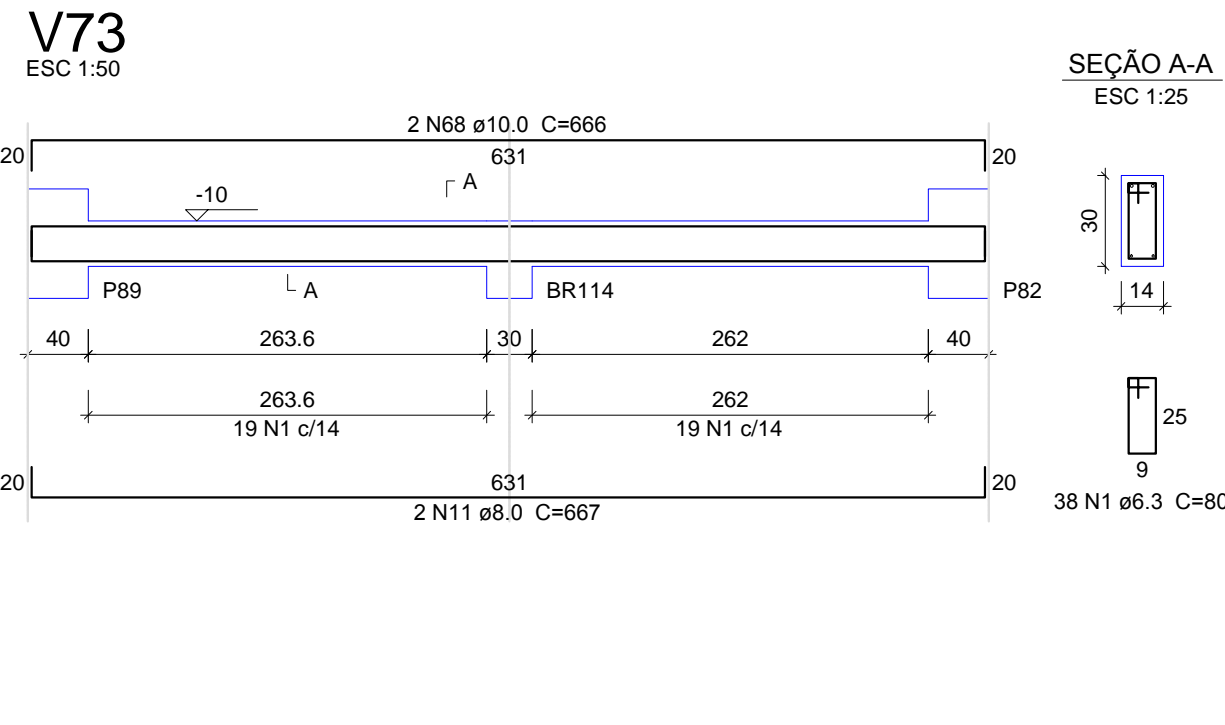
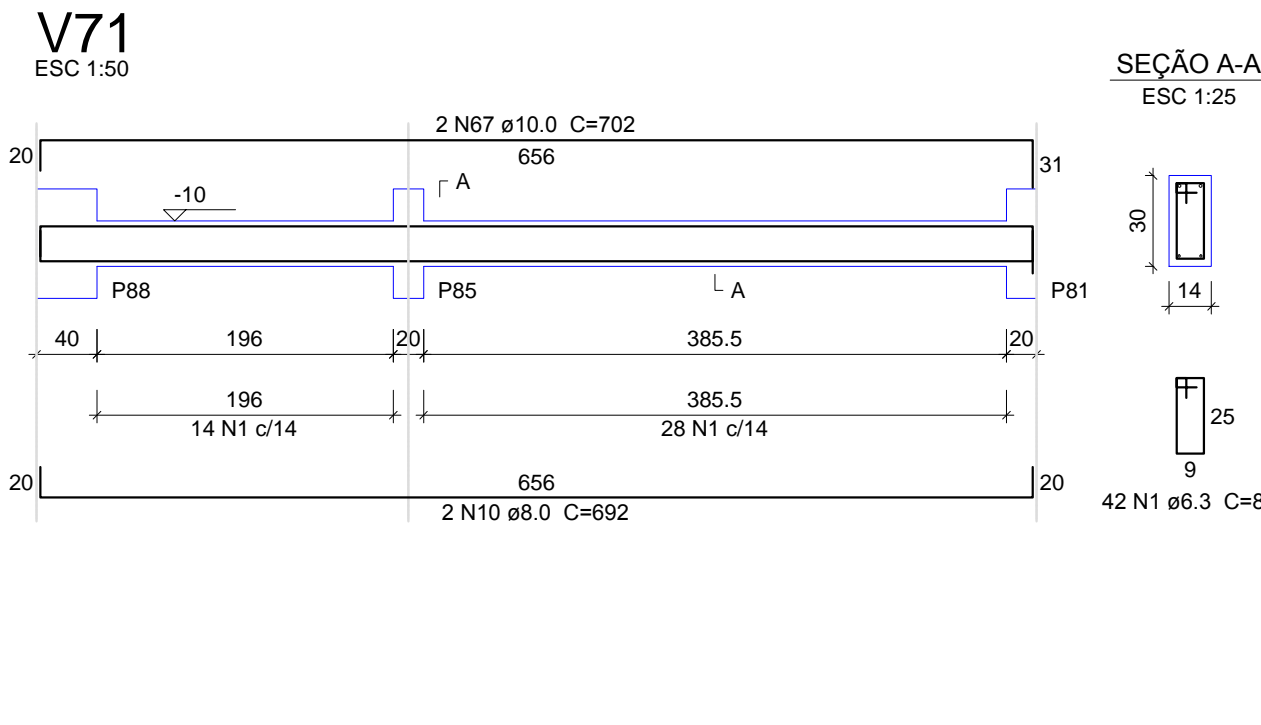
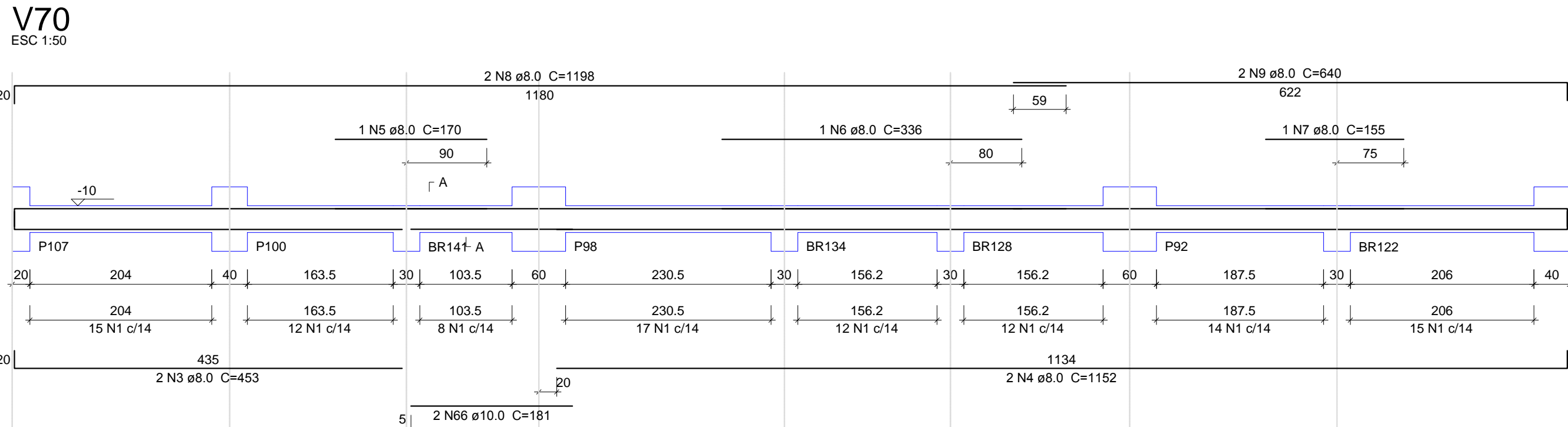
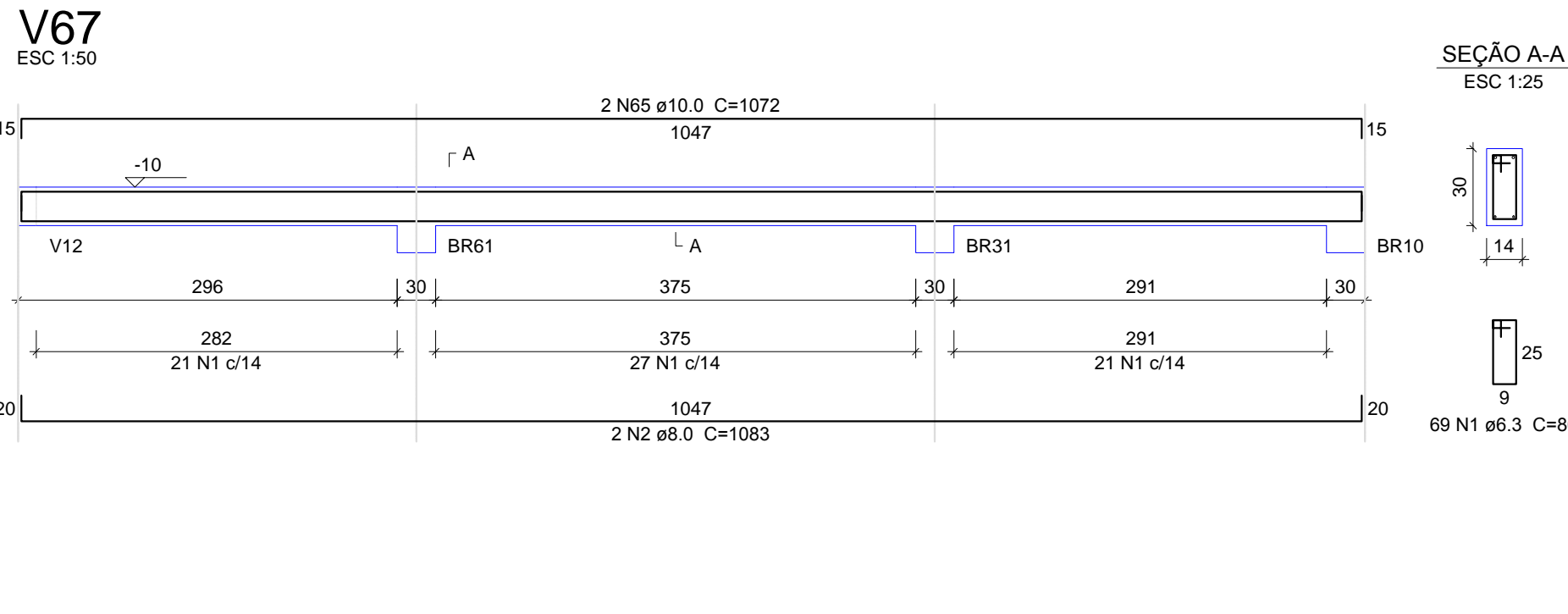
V249

V250

V251

V252

V253



Relação do aço

ACO	N	DIAM (mm)	QUANT	UNIF	C.TOTAL
CASO	1	6.3	147	kg	1170
	2	8.0	2	314	628
	3	8.0	2	194	388
	4	8.0	2	380	760
	5	8.0	2	623	1246
	6	8.0	1	164	164
	7	8.0	2	227	454
	8	8.0	2	637	1274
	9	8.0	4	275	1100
	10	10.0	2	368	736
	11	10.0	2	189	378
	12	10.0	2	379	758
	13	10.0	2	623	1246
	14	10.0	2	473	946
	15	10.0	4	276	1104

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CASO	8.3	117.6	31.7
	8.0	60	28
	10.0	50.5	34.2
PESO TOTAL (kg)			91.9

Volume de concreto (C-25) = 9.85 m³
Área de forma = 18.31 m²

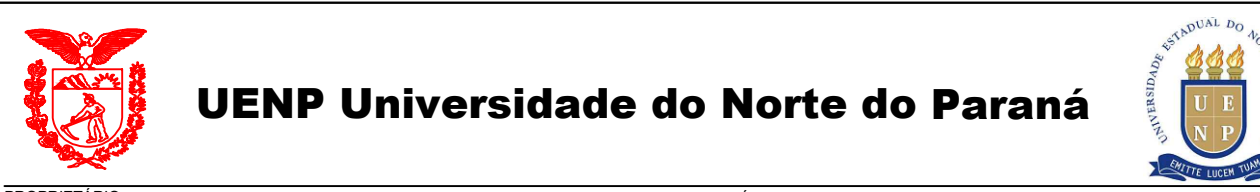
Relação do aço

ACO	N	DIAM (mm)	QUANT	UNIF	C.TOTAL
CASO	1	6.3	147	kg	113460
	2	8.0	2	1083	2166
	3	8.0	2	453	906
	4	8.0	2	1152	2304
	5	8.0	2	170	340
	6	8.0	1	336	336
	7	8.0	1	155	155
	8	8.0	8	1188	9504
	9	8.0	2	640	1280
	10	8.0	4	692	2768
	11	8.0	4	667	2668
	12	8.0	2	1093	2086
	13	8.0	2	791	1582
	14	8.0	1	150	150
	15	8.0	1	140	140
	16	8.0	2	666	1332
	17	8.0	2	1132	2264
	18	8.0	2	561	1122
	19	8.0	2	1092	2084
	20	8.0	2	405	810
	21	8.0	1	131	131
	22	8.0	2	640	1280
	23	8.0	2	766	1532
	24	8.0	2	314	628
	25	8.0	2	640	1280
	26	8.0	2	315	630
	27	8.0	2	314	628
	28	8.0	2	770	1540
	29	8.0	2	200	200
	30	8.0	2	777	1554
	31	8.0	2	349	698
	32	8.0	2	651	1302
	33	8.0	2	406	812
	34	8.0	2	382	764
	35	8.0	2	397	794
	36	8.0	2	653	1306
	37	8.0	2	651	1302
	38	8.0	4	847	3388
	39	8.0	2	251	502
	40	8.0	2	259	518
	41	8.0	6	191	1146
	42	8.0	6	189	1134
	43	8.0	2	1046	2092
	44	8.0	2	410	820
	45	8.0	1	126	126
	46	8.0	1	145	145
	47	8.0	2	259	518
	48	8.0	2	937	1874
	49	8.0	2	935	1870
	50	8.0	4	983	3932
	51	8.0	1	171	171
	52	8.0	1	191	191
	53	8.0	1	61	61
	54	8.0	2	849	1698
	55	8.0	4	417	1668
	56	8.0	3	130	390
	57	8.0	2	200	400
	58	8.0	2	848	1696
	59	8.0	1	125	125
	60	8.0	1	142	284
	61	8.0	2	191	382
	62	8.0	2	1042	2084
	63	8.0	2	219	438
	64	8.0	2	219	438
	65	10.0	2	1072	2144
	66	10.0	2	181	362
	67	10.0	2	702	1404
	68	10.0	4	686	2744
	69	10.0	2	1131	2262
	70	10.0	2	407	814
	71	10.0	2	361	722
	72	10.0	2	362	724
	73	10.0	2	705	1410
	74	10.0	2	691	1382
	75	10.0	2	1134	2268
	76	10.0	2	193	386

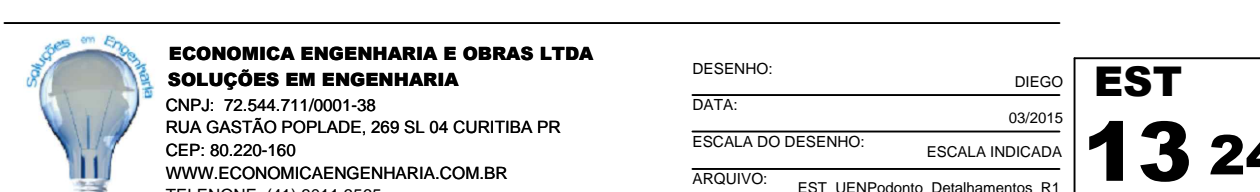
Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CASO	6.3	1134.4	305.4
	8.0	819	355.5
	10.0	165.5	112.2
PESO TOTAL (kg)			773

Volume de concreto (C-25) = 9.85 m³
Área de forma = 18.31 m²

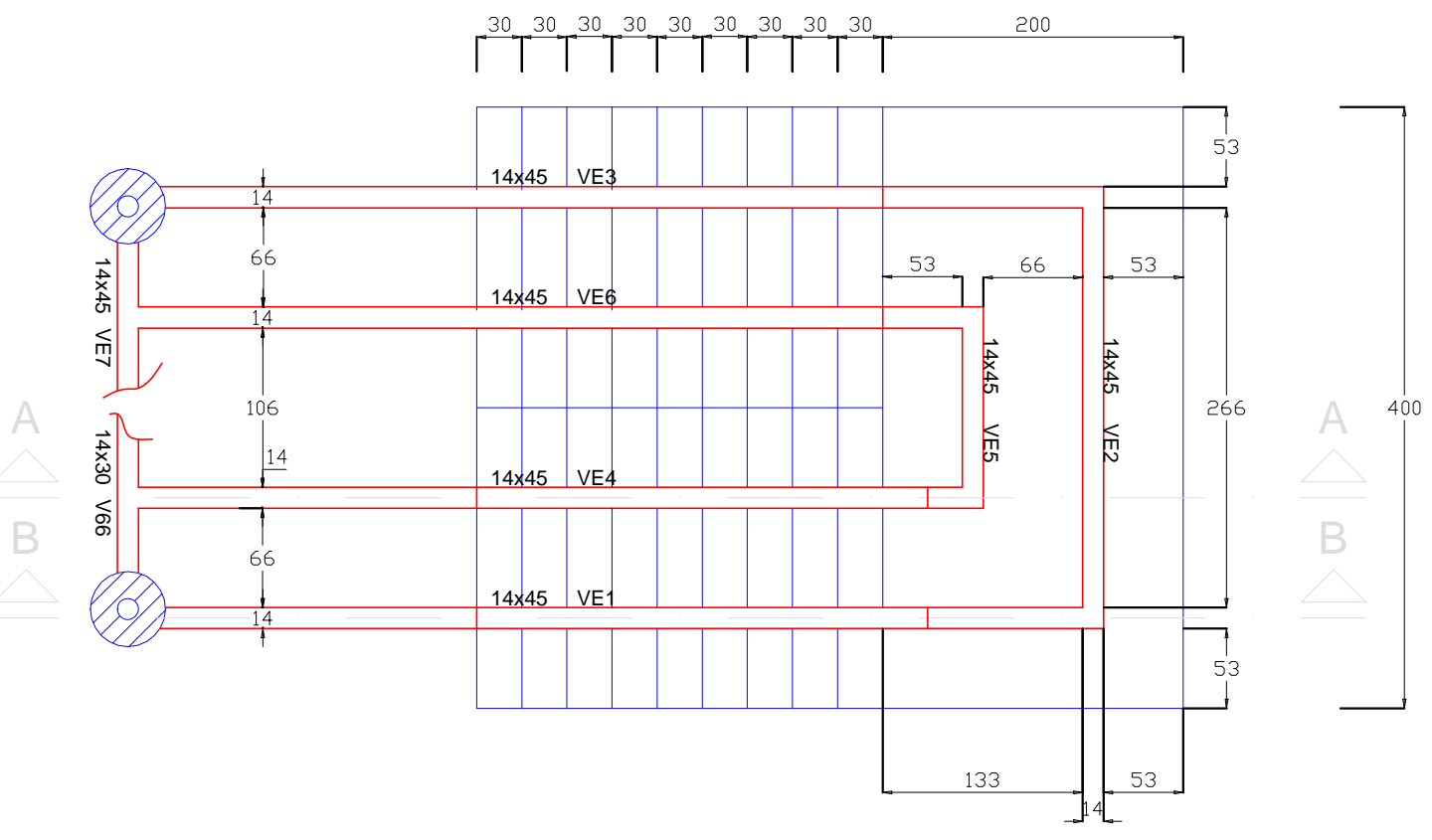


PROFESSOR: DR. DEODATO ANTONIO CARVALHO, JR. - CREA PR 30.3440
LOCAL: PROLOGAMENTO DA AV. PEDRO COELHO DE MIRANDA
SOCIAL: BLOCO ODONTOLÓGICO - UENP
PROFESSOR: DR. DEODATO ANTONIO CARVALHO, JR. - CREA PR 30.3440
SOCIAL: BLOCO ODONTOLÓGICO - UENP
PROFESSOR: DR. DEODATO ANTONIO CARVALHO, JR. - CREA PR 30.3440
SOCIAL: BLOCO ODONTOLÓGICO - UENP

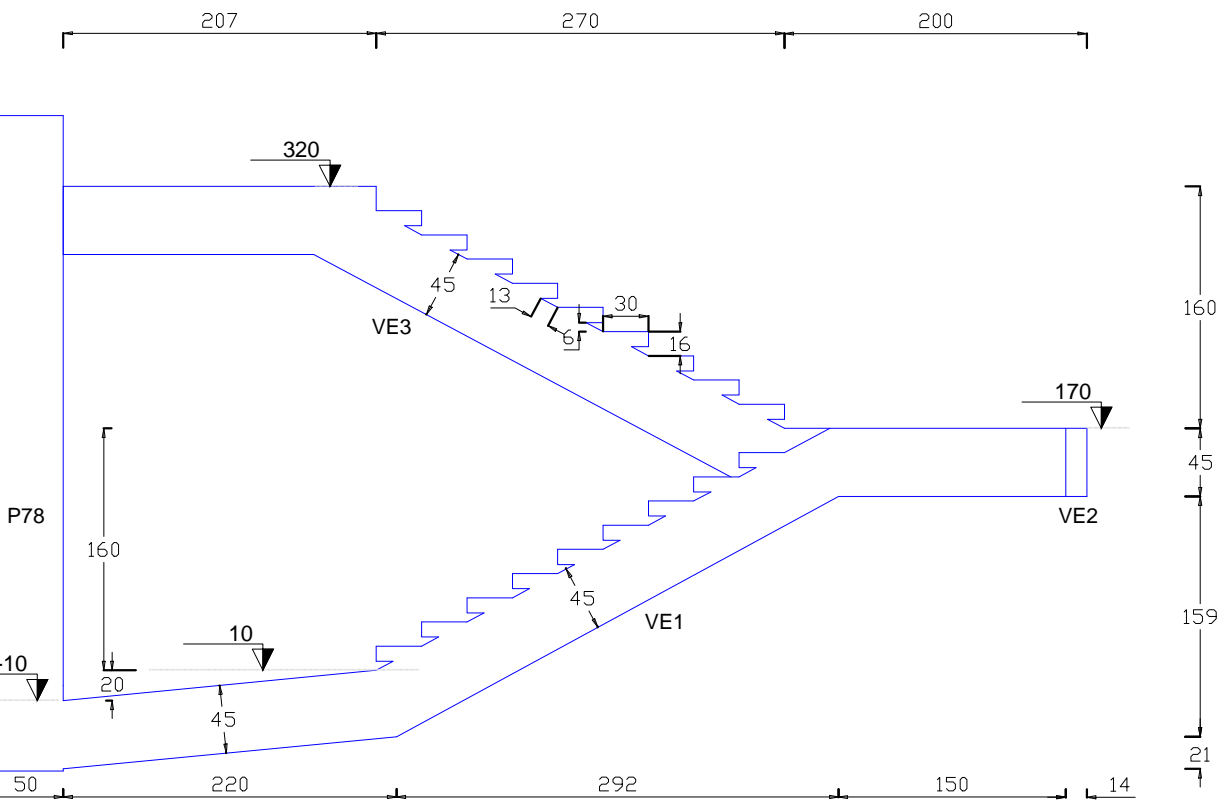


PROFESSOR: DR. DEODATO ANTONIO CARVALHO, JR. - CREA PR 30.3440
LOCAL: PROLOGAMENTO DA AV. PEDRO COELHO DE MIRANDA
SOCIAL: BLOCO ODONTOLÓGICO - UENP
PROFESSOR: DR. DEODATO ANTONIO CARVALHO, JR. - CREA PR 30.3440
SOCIAL: BLOCO ODONTOLÓGICO - UENP

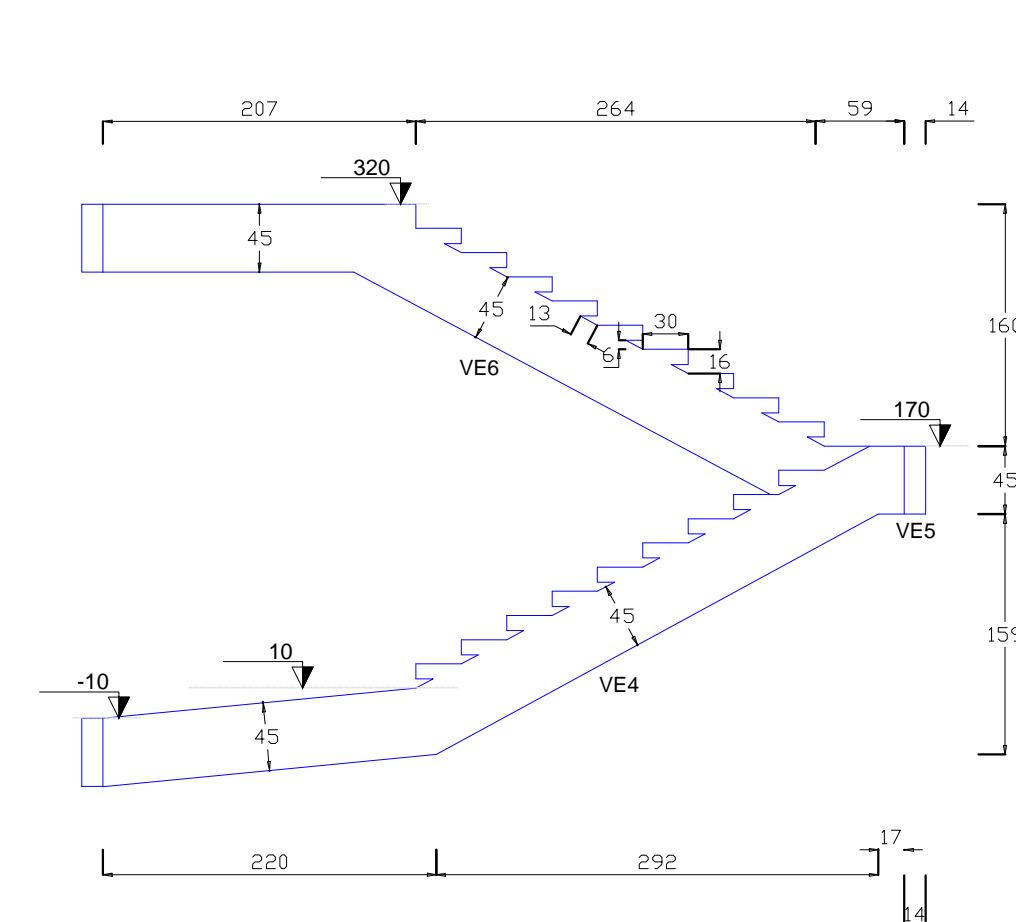
FORMAS- ESCADA CONVIVÊNCIA
escala 1:50



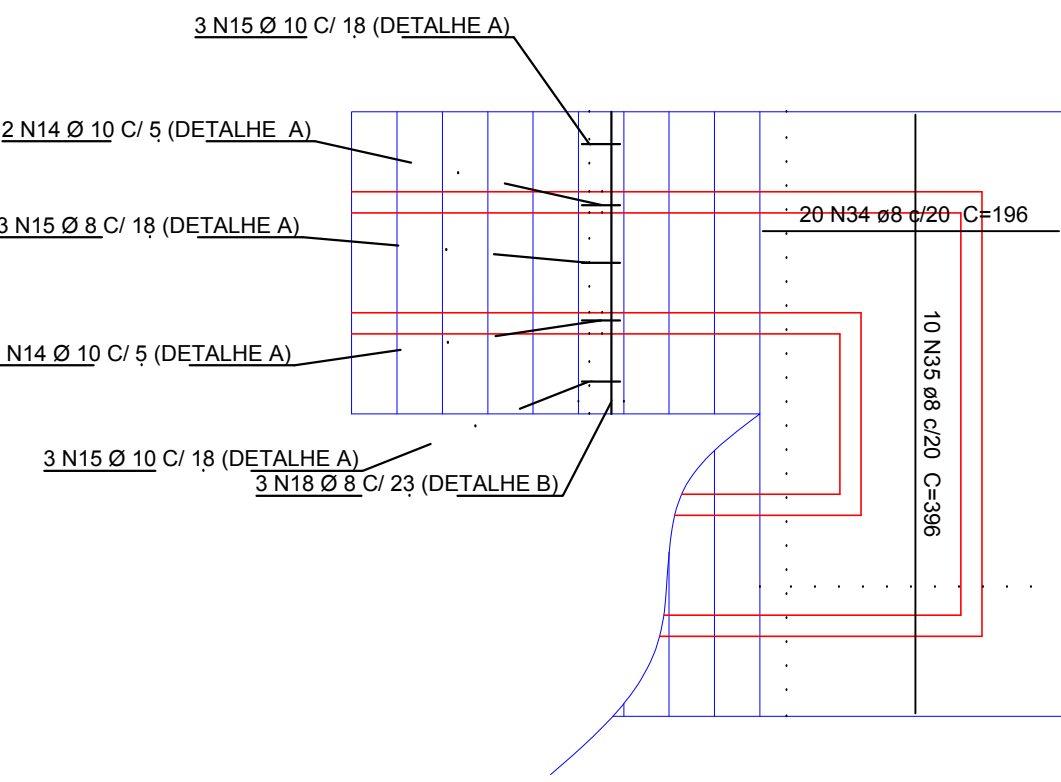
CORTE A:A
escala 1:50



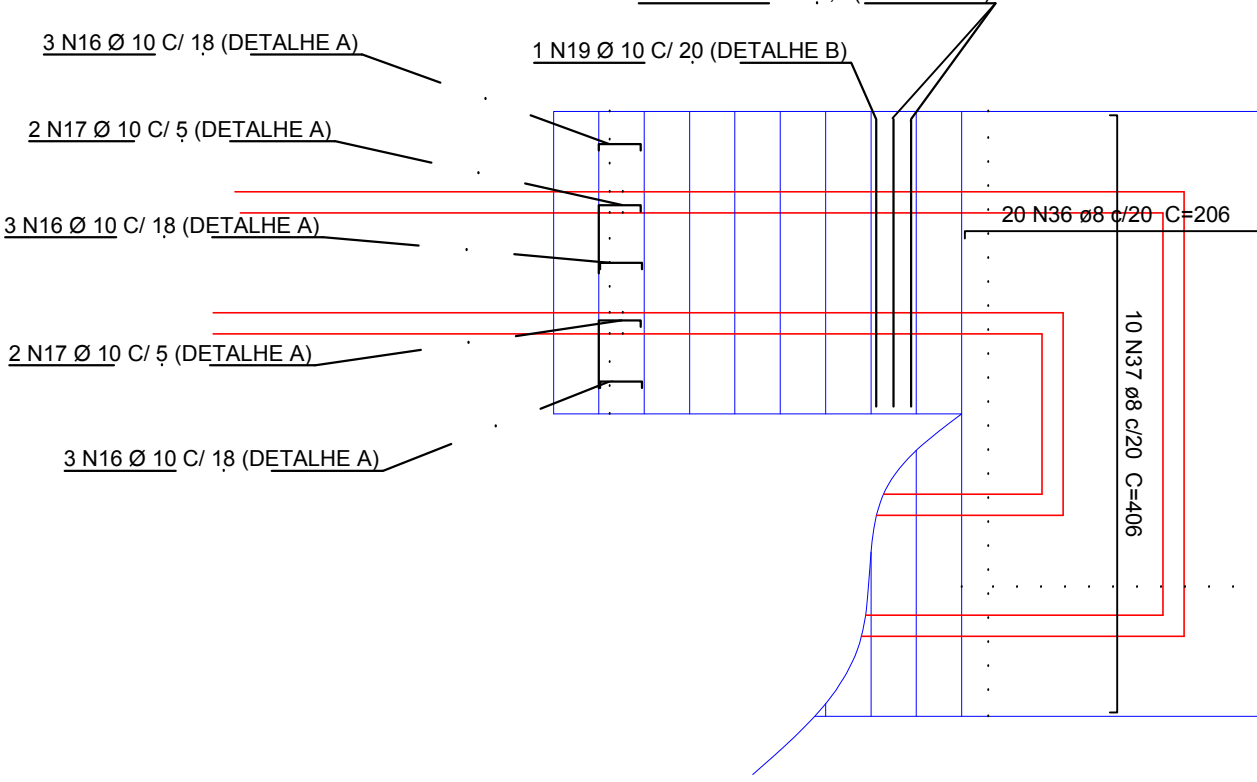
CORTE B:B
escala 1:50



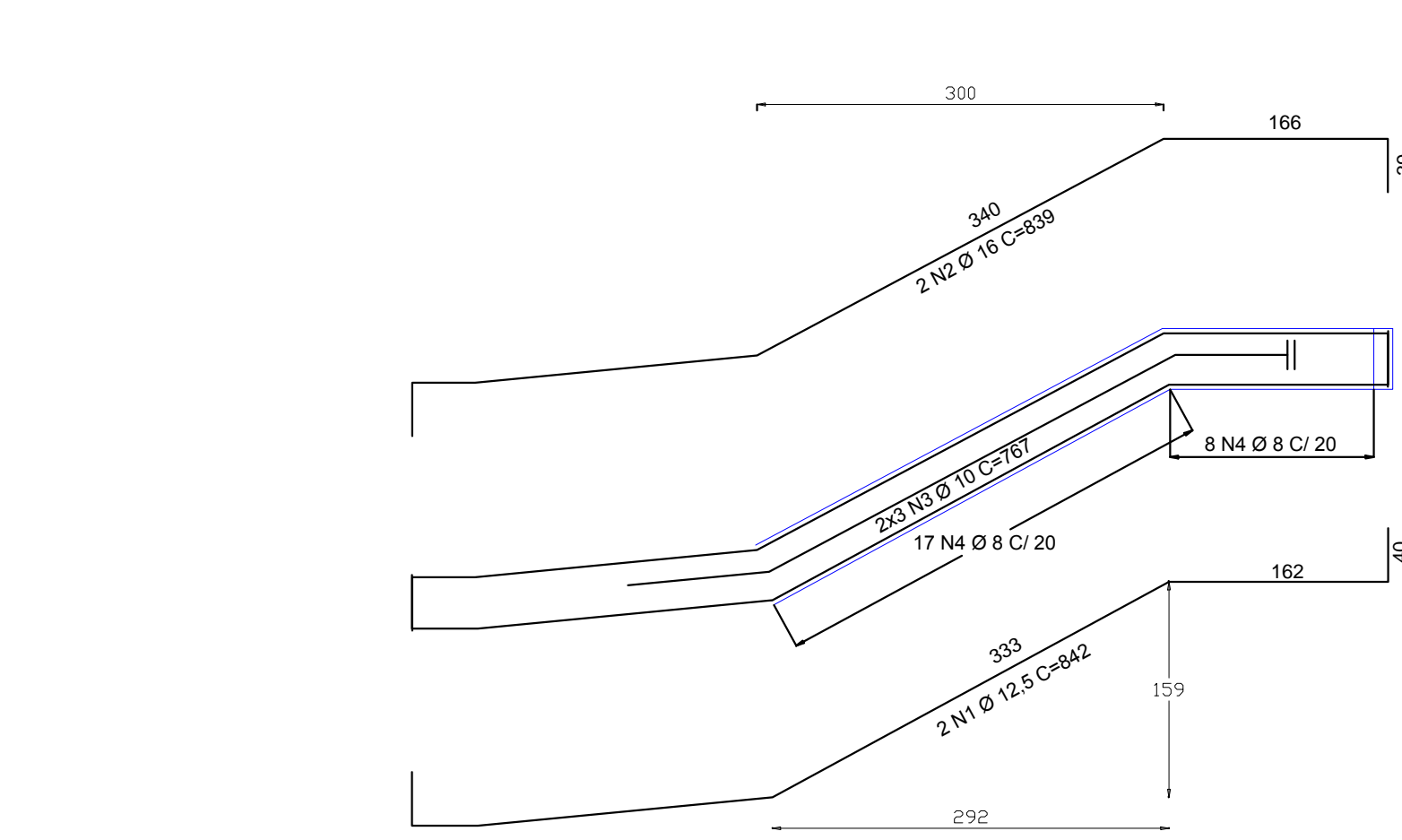
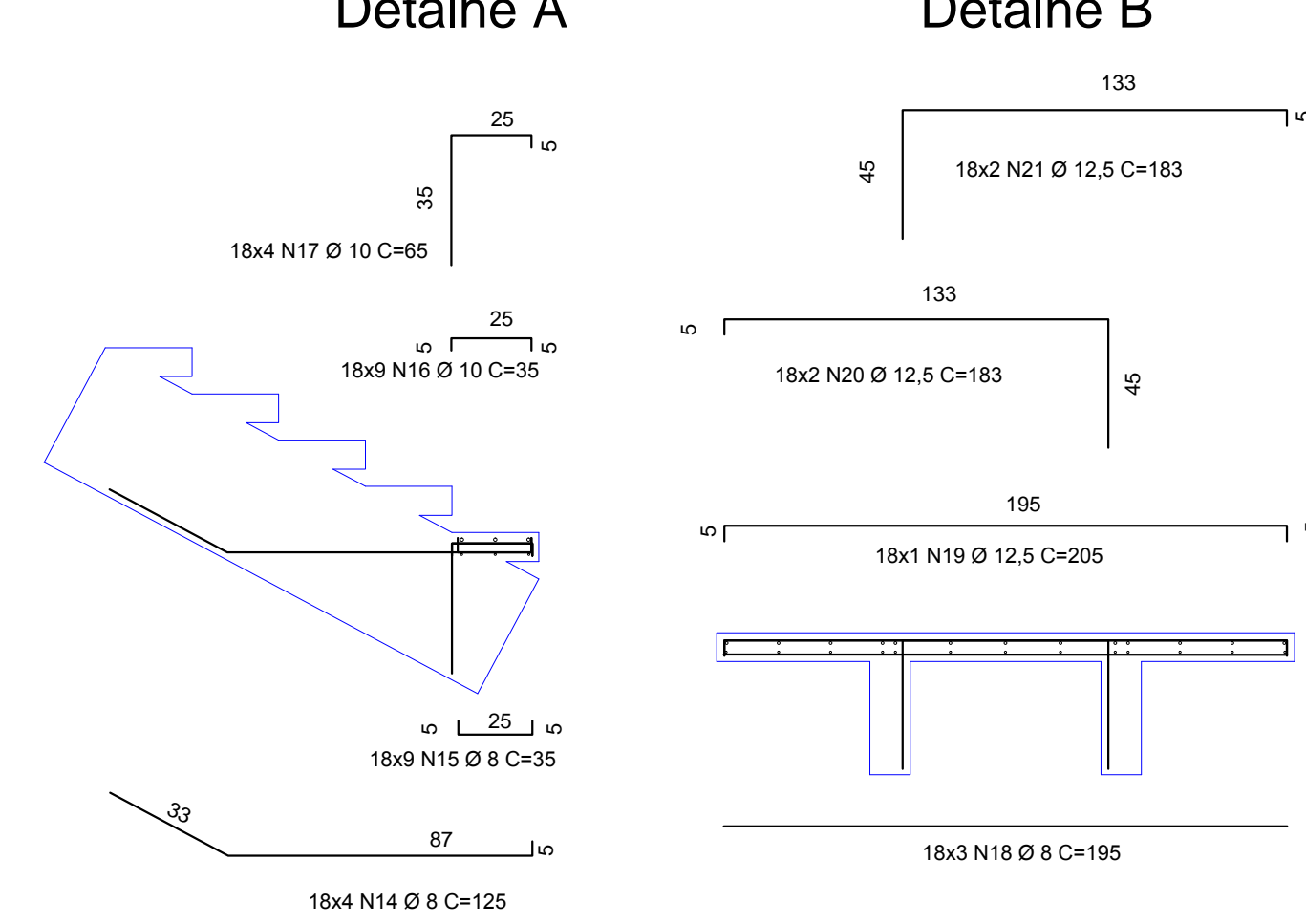
ARMADURA POSITIVA-
PATAMAR E DEGRAUS
escala 1:50



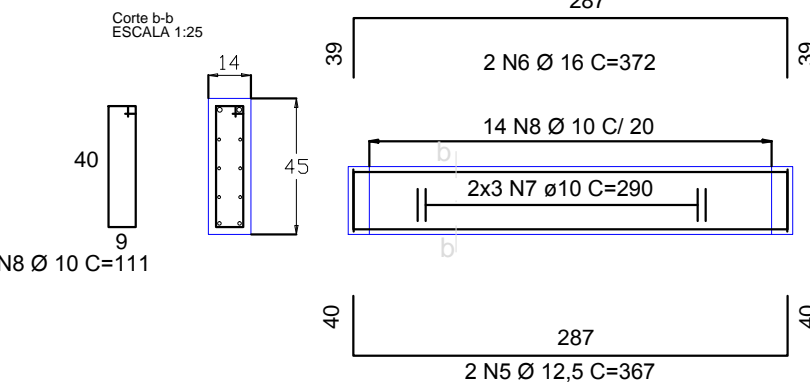
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PATAMAR E DEGRAUS
escala 1:50



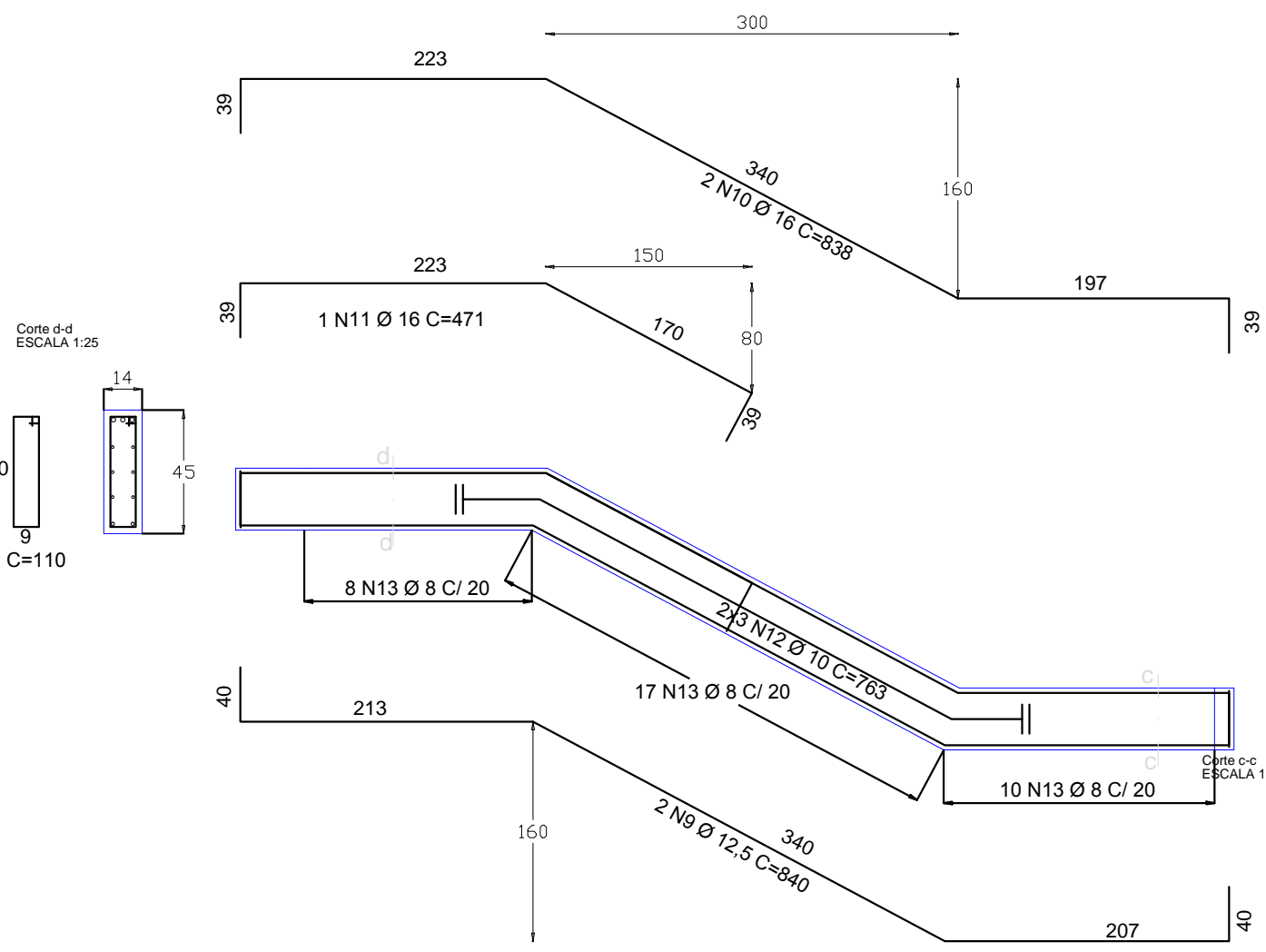
DETALHE- ARMADURA DOS
DEGRAUS
escala 1:25



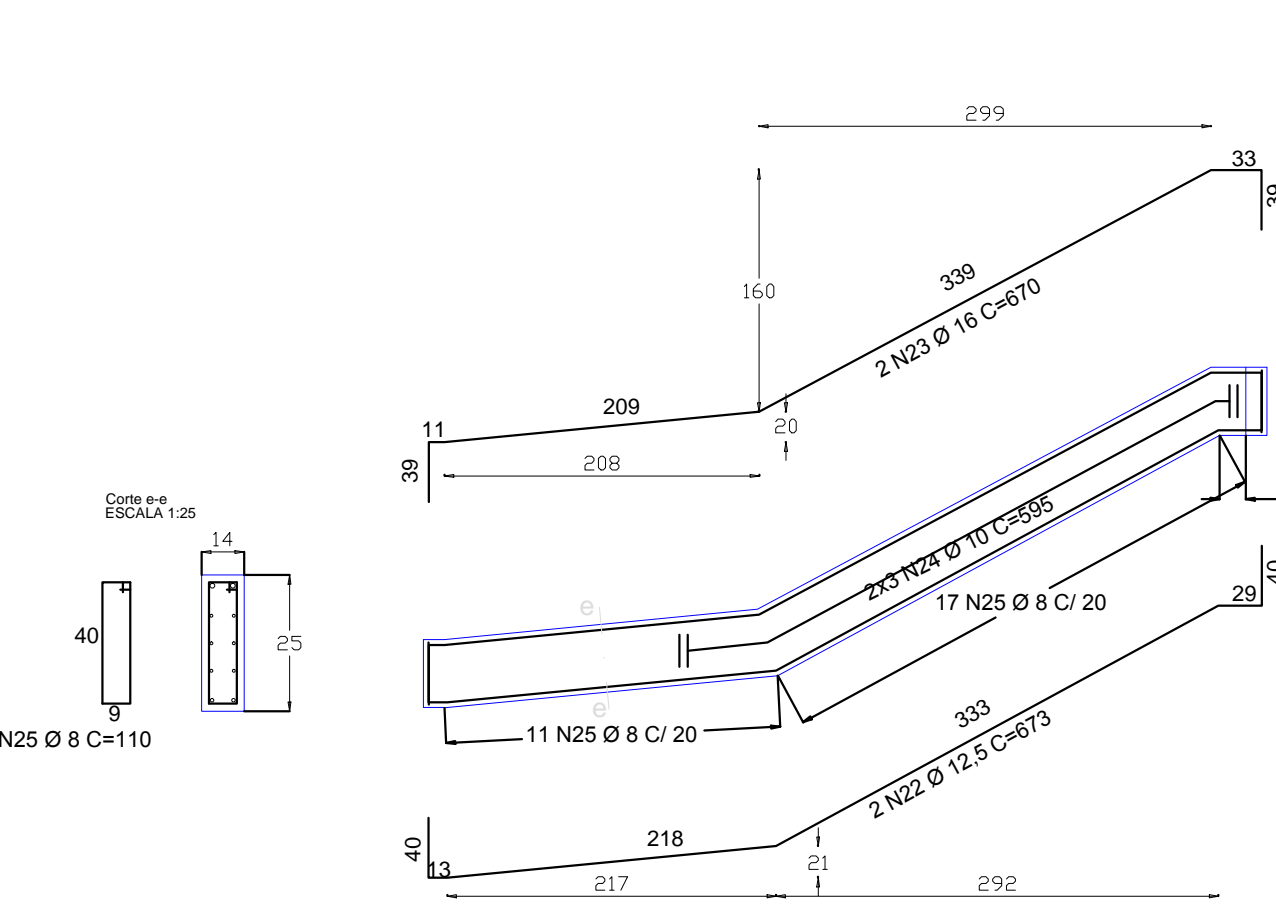
VE2



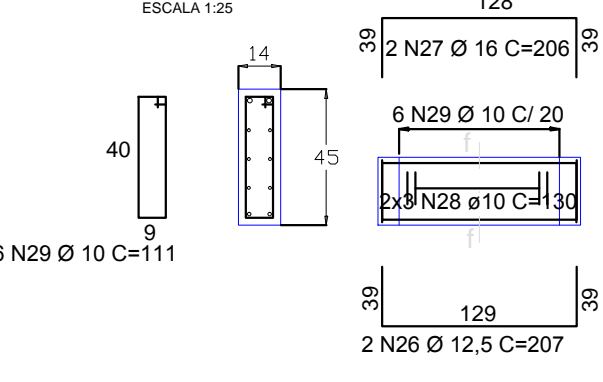
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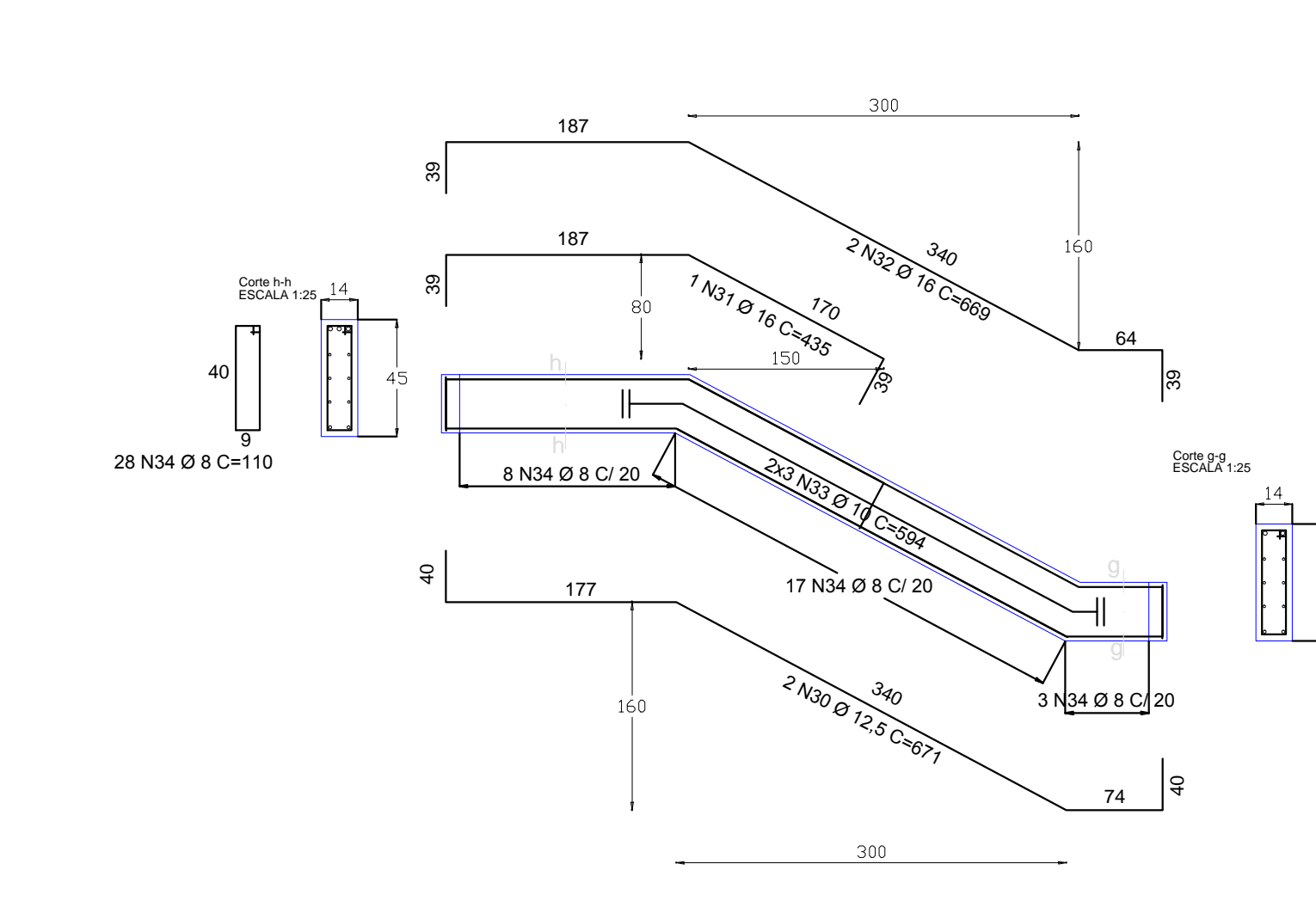
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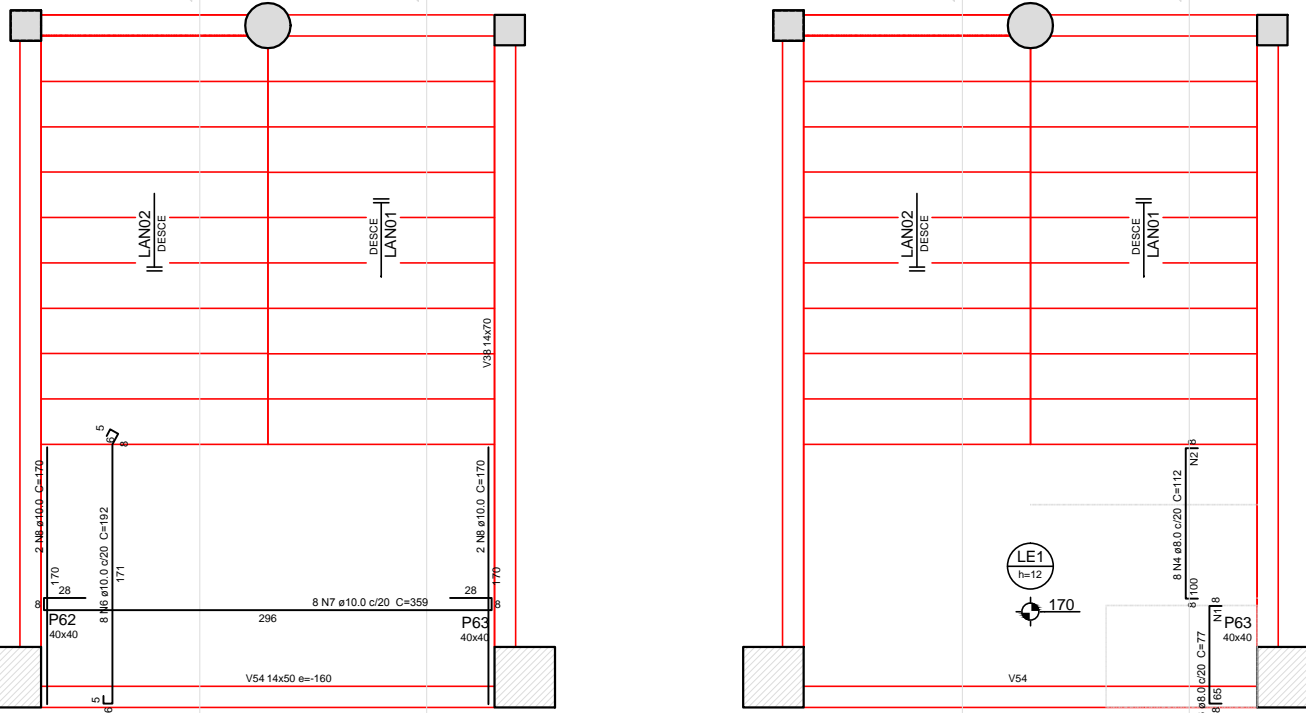
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VE6

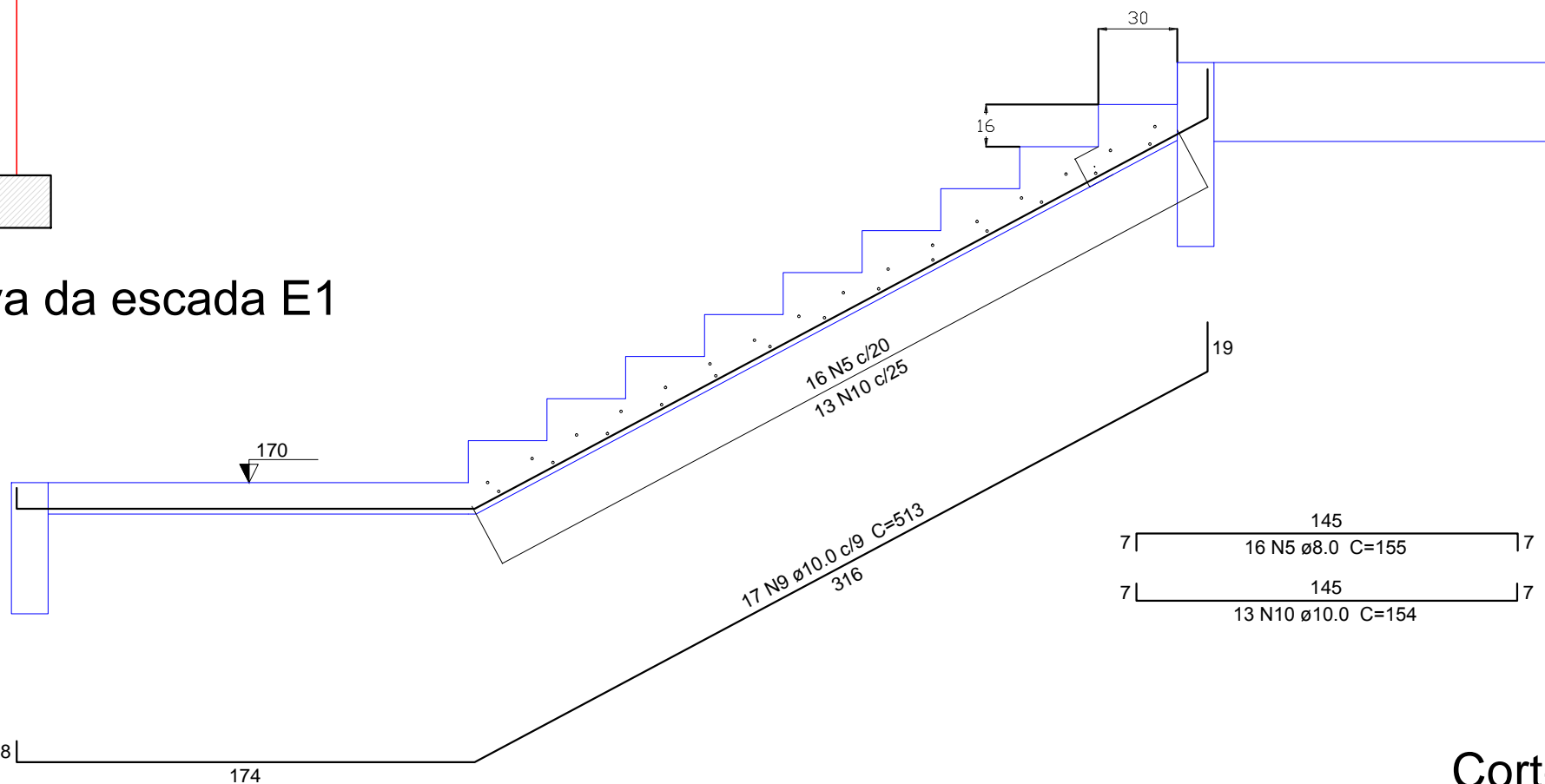


ESCADA 01- CLÍNICAS
escala 1:50

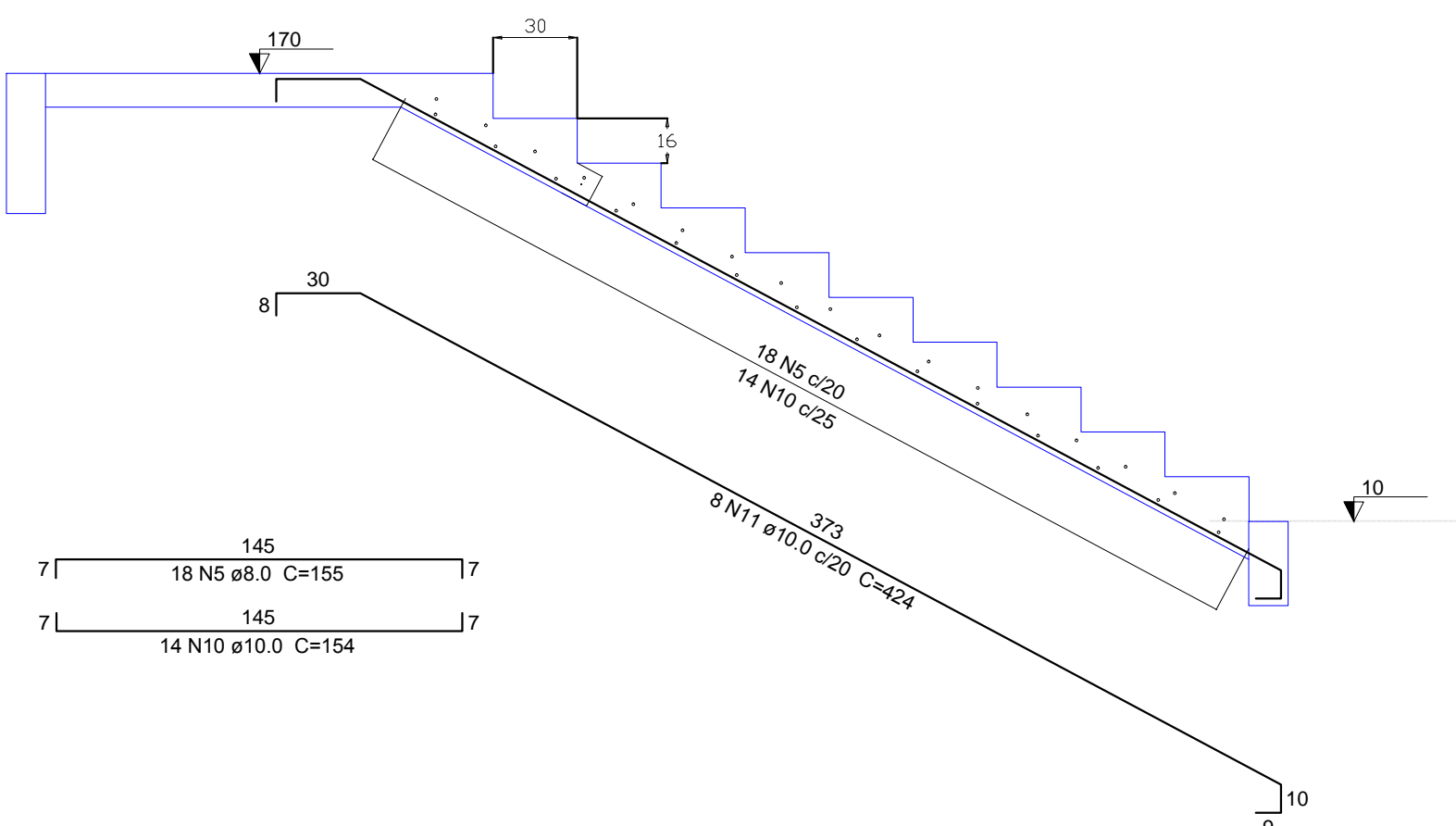


Armação positiva da escada E1
escala 1:25

Armação negativa da escada E1
escala 1:25

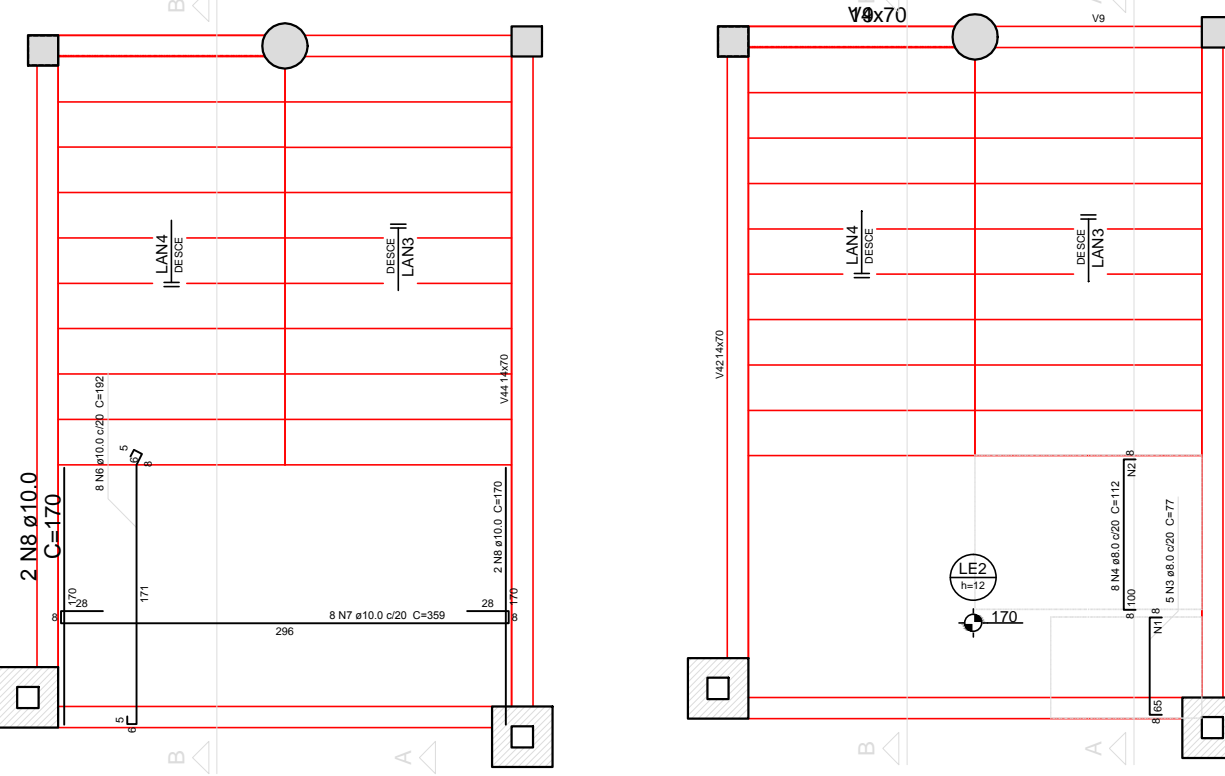


Corte A-A (LAN01)
escala 1:25



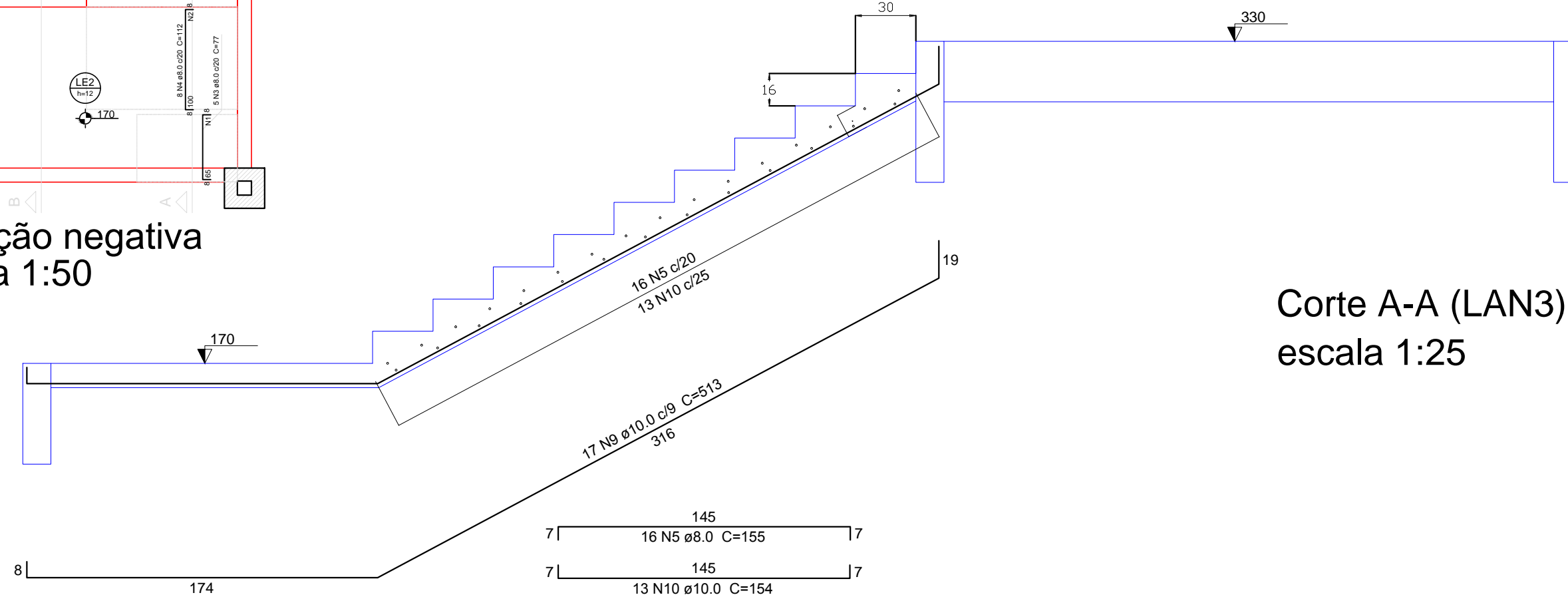
Corte B-B (LAN02)
escala 1:25

ESCADA 02- CLÍNICAS
escala 1:50

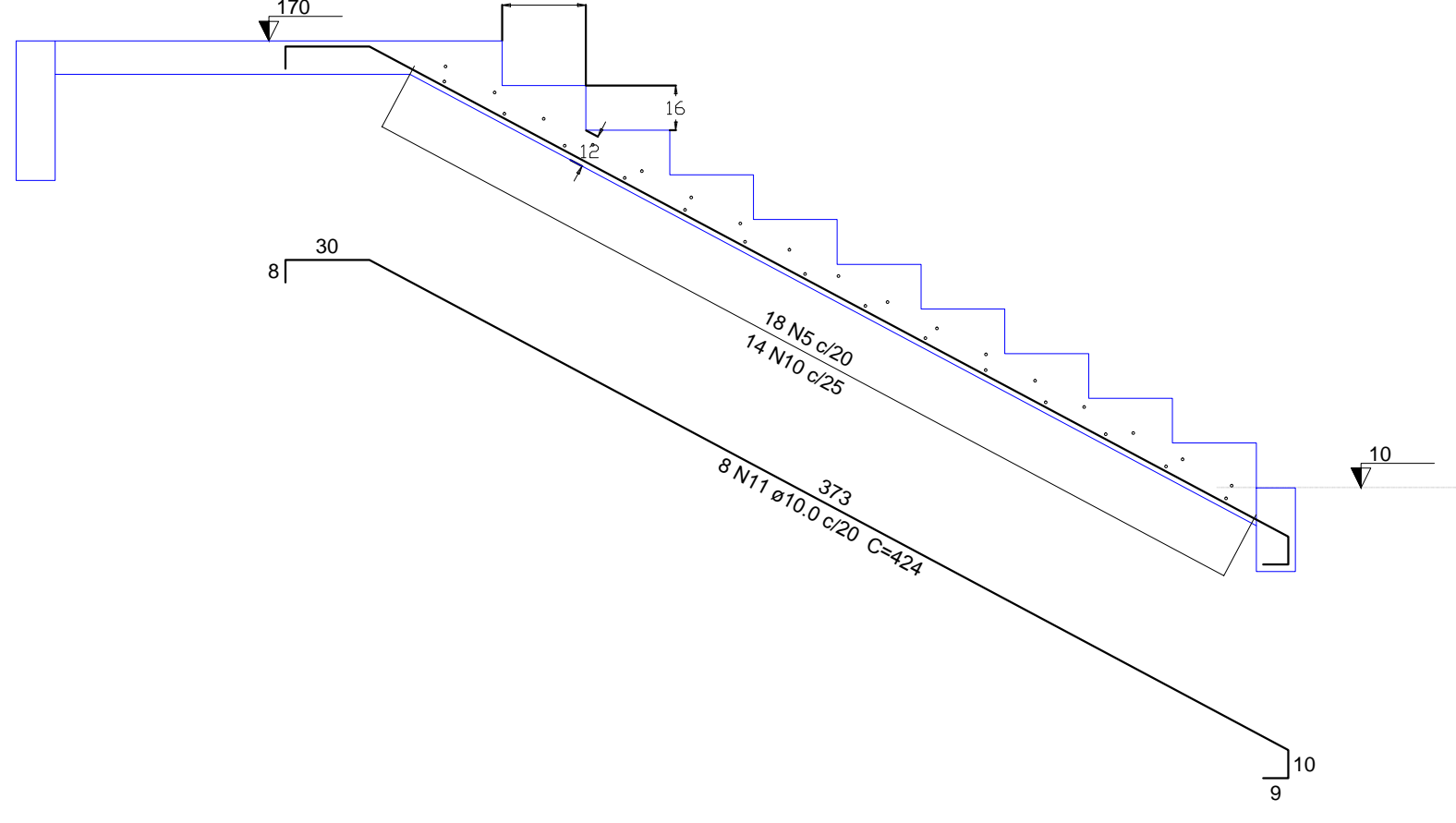


Armação positiva da escada E2
escala 1:25

Armação negativa da escada E2
escala 1:25



Corte A-A (LAN3)
escala 1:25



Corte B-B (LAN4)
escala 1:25

Relação do aço Escada Convivência

Tabela de aço					
Aço	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C TOTAL (cm)
CA-50	N1	12,5	2	842	1684
CA-50	N2	16,0	2	839	1678
CA-50	N3	10,0	6	797	4782
CA-50	N4	8,0	36	110	3960
CA-50	N5	12,5	2	367	734
CA-50	N6	10,0	2	372	744
CA-50	N7	10,0	6	290	1740
CA-50	N8	10,0	14	111	1554
CA-50	N9	12,5	2	840	1680
CA-50	N10	10,0	2	388	776
CA-50	N11	16,0	1	471	471
CA-50	N12	10,0	6	761	4566
CA-50	N13	8,0	48	110	5280
CA-50	N14	8,0	72	125	9000
CA-50	N15	8,0	142	35	4970
CA-50	N16	10,0	162	35	5670
CA-50	N17	10,0	72	65	4680
CA-50	N18	8,0	14	195	10530
CA-50	N19	12,5	18	205	3690
CA-50	N20	12,5	36	133	4788
CA-50	N21	12,5	36	183	6588
CA-50	N22	12,5	2	673	1346
CA-50	N23	10,0	2	670	1340
CA-50	N24	10,0	6	595	3570
CA-50	N25	8,0	30	110	3300
CA-50	N26	12,5	2	207	414
CA-50	N27	10,0	3	296	888
CA-50	N28	10,0	6	130	780
CA-50	N29	10,0	6	111	666
CA-50	N30	12,5	2	675	1350
CA-50	N31	16,0	1	435	435
CA-50	N32	16,0	2	665	1330
CA-50	N33	10,0	6	594	3564
CA-50	N34	8,0	48	36	1728
CA-50	N35	8,0	10	396	3960
CA-50	N36	8,0	20	206	4120
CA-50	N37	8,0	30	406	4060
CA-50	N38	12,5	3	327	981
CA-50	N39	12,5	3	425	1275
CA-50	N40	10,0	6	250	1500

Resumo do aço			
Aço	DIAM (mm)	C TOTAL (cm)	PESO (kg)
CA-50	8,0	467	255
CA-50	10,0	329	209
CA-50	12,5	260	231
CA-50	16,0	81	128
Total			823 kg

Volume de concreto (C-40) = 3,64 m³
Área de forma = 42,10 m²

Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C TOTAL (cm)
CA60	1	5,0	8	100	800
CA50	2	5,0	10	100	1000
CA50	3	8,0	10	77	770
CA50	4	8,0	16	112	1792
CA50	5	8,0	68	155	10540
CA50	6	10,0	16	192	3072
CA50	7	10,0	16	369	5904
CA50	8	10,0	8	170	1360
CA50	9	10,0	34	513	17442
CA50	10	10,0	54	154	8316
CA50	11	10,0	16	424	6784

Resumo do aço

AÇO	DIAM (mm)	C TOTAL (cm)	PESO + 10% (kg)
CA50	8,0	131,1	56,9
CA60	5,0	427,2	289,7
CA50	5,0	23	3,9
CA50	346,6		
CA60	3,9		

Volume de concreto (C-40) = 4,76 m³
Área de forma = 46,4 m²

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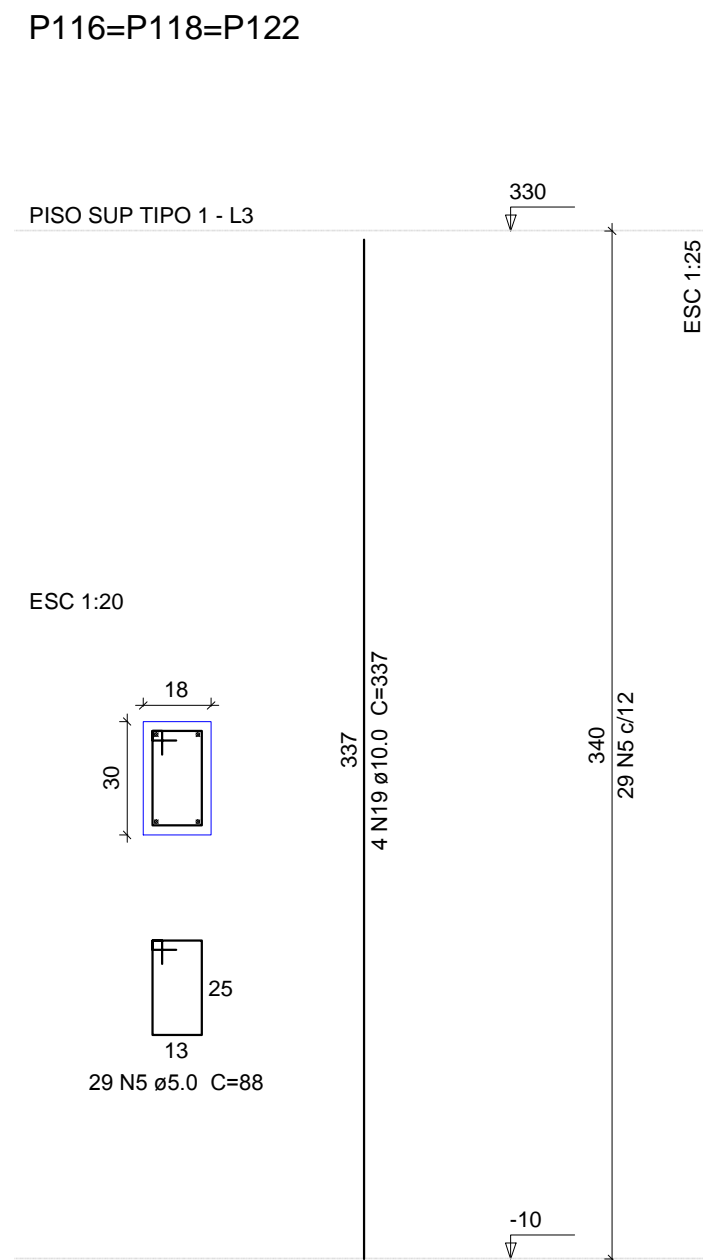
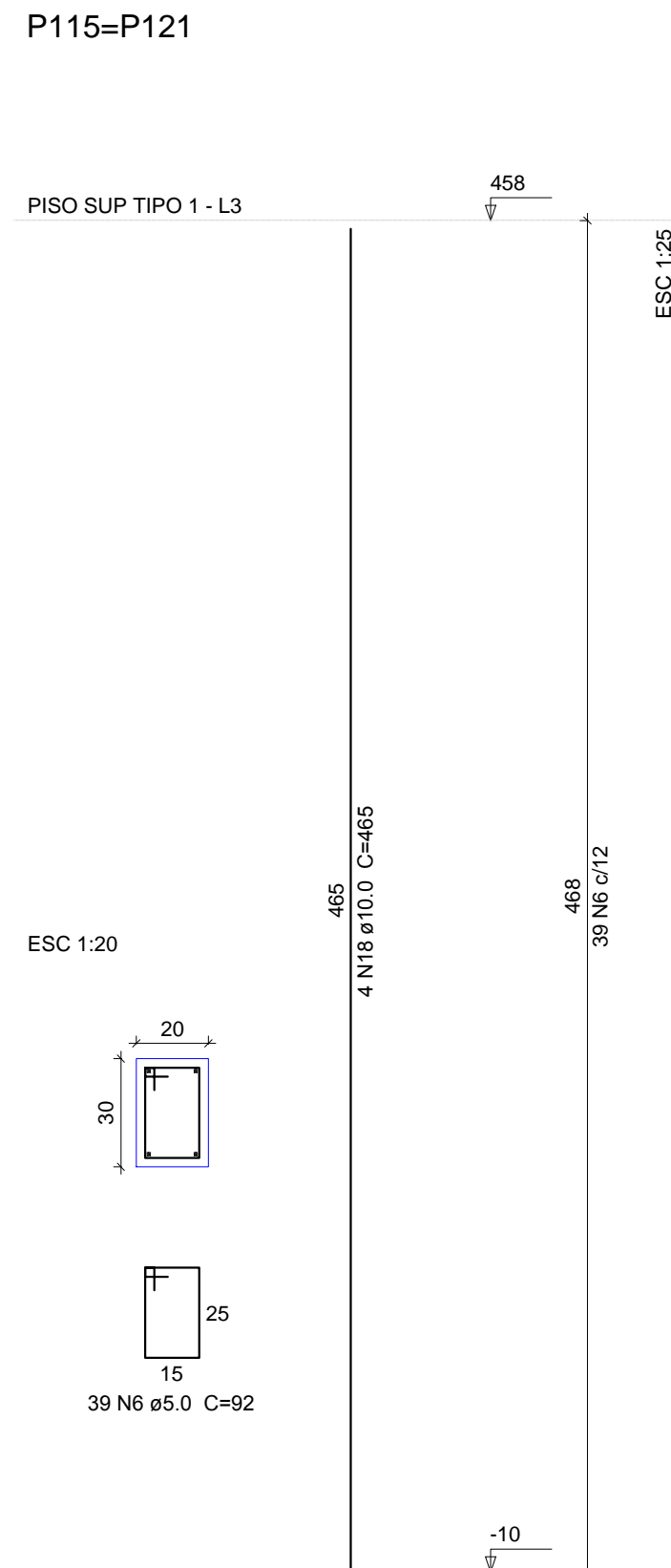
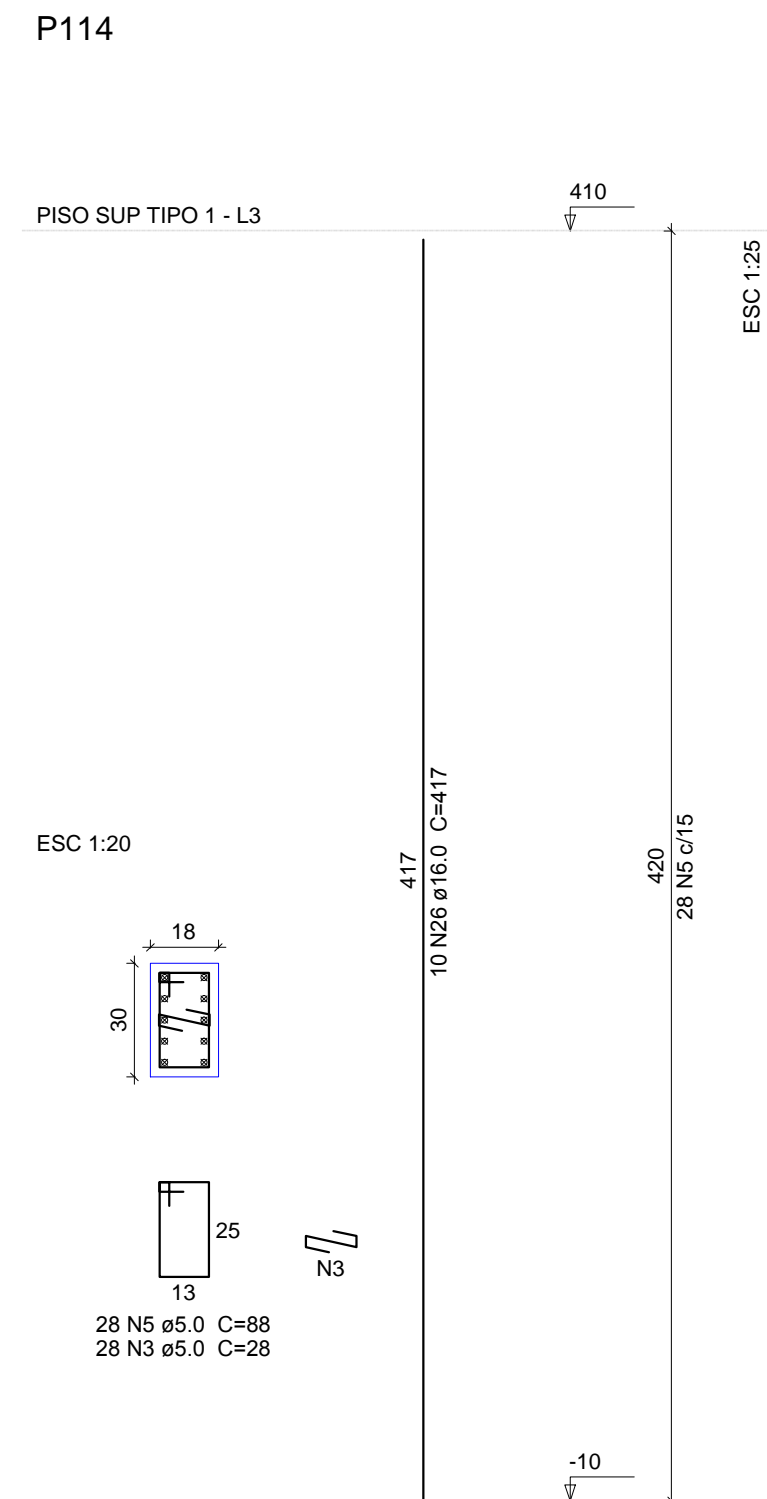
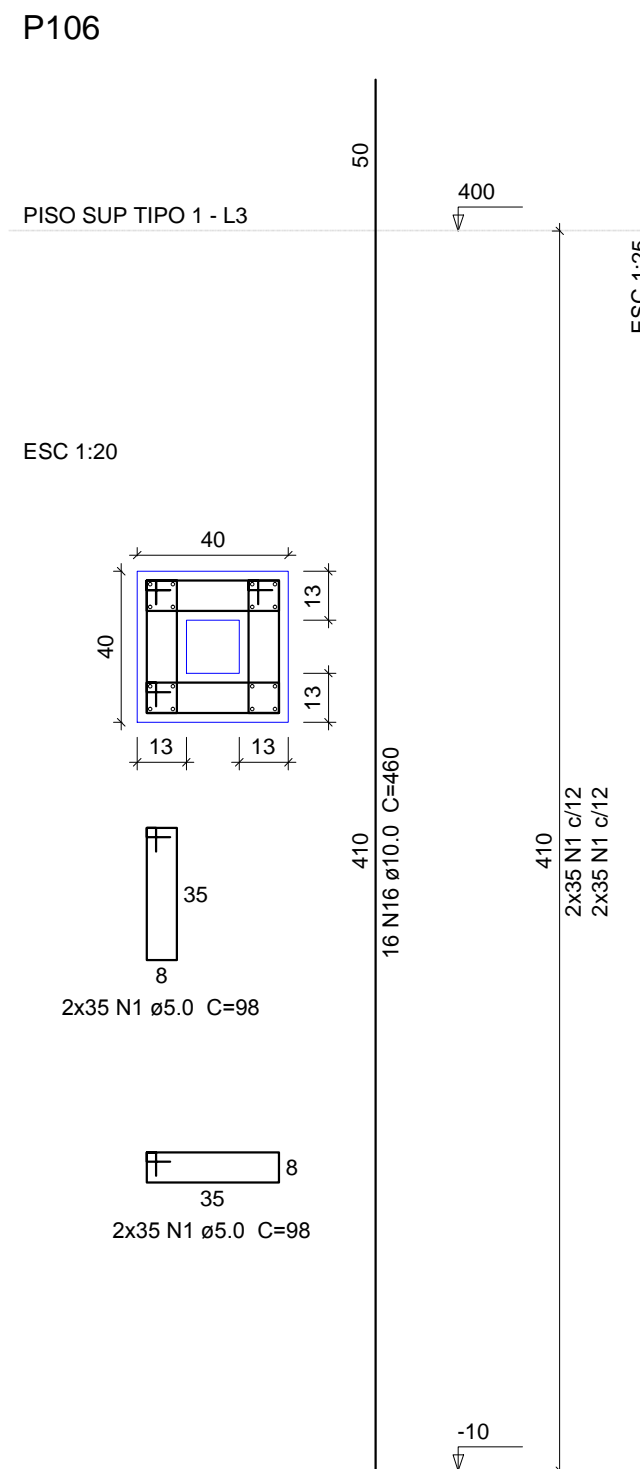
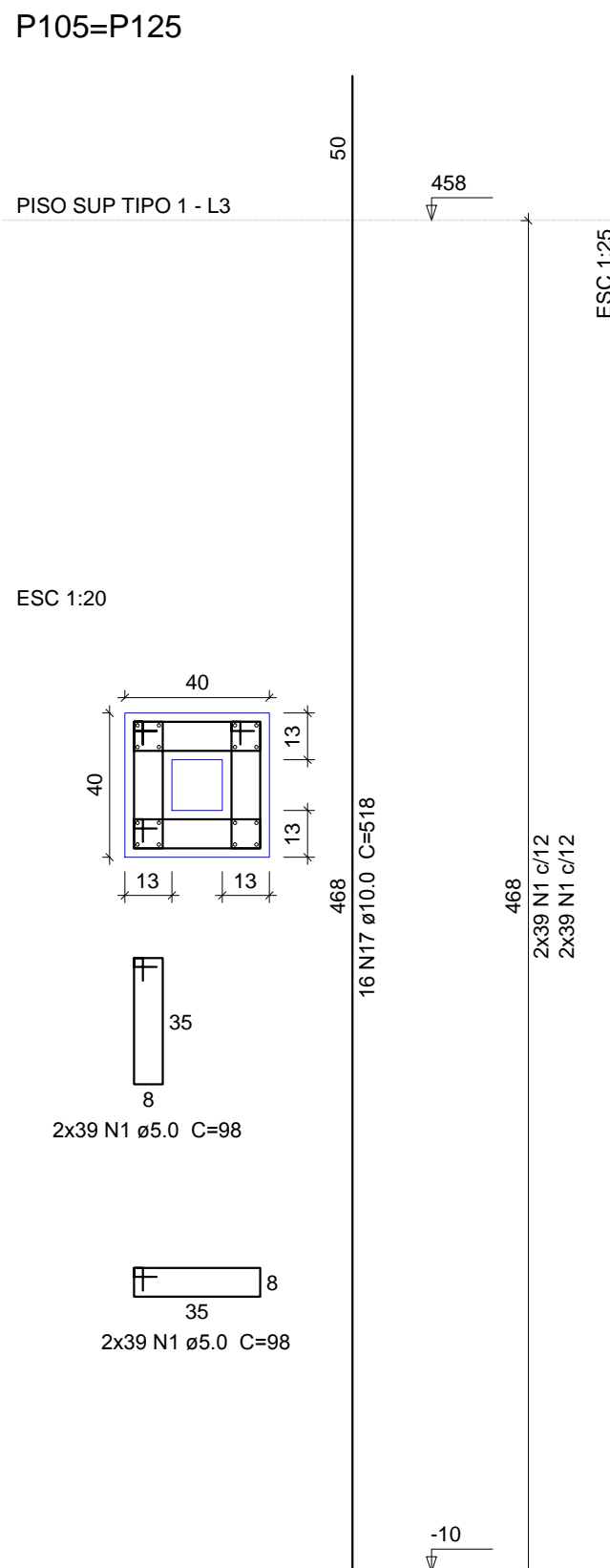
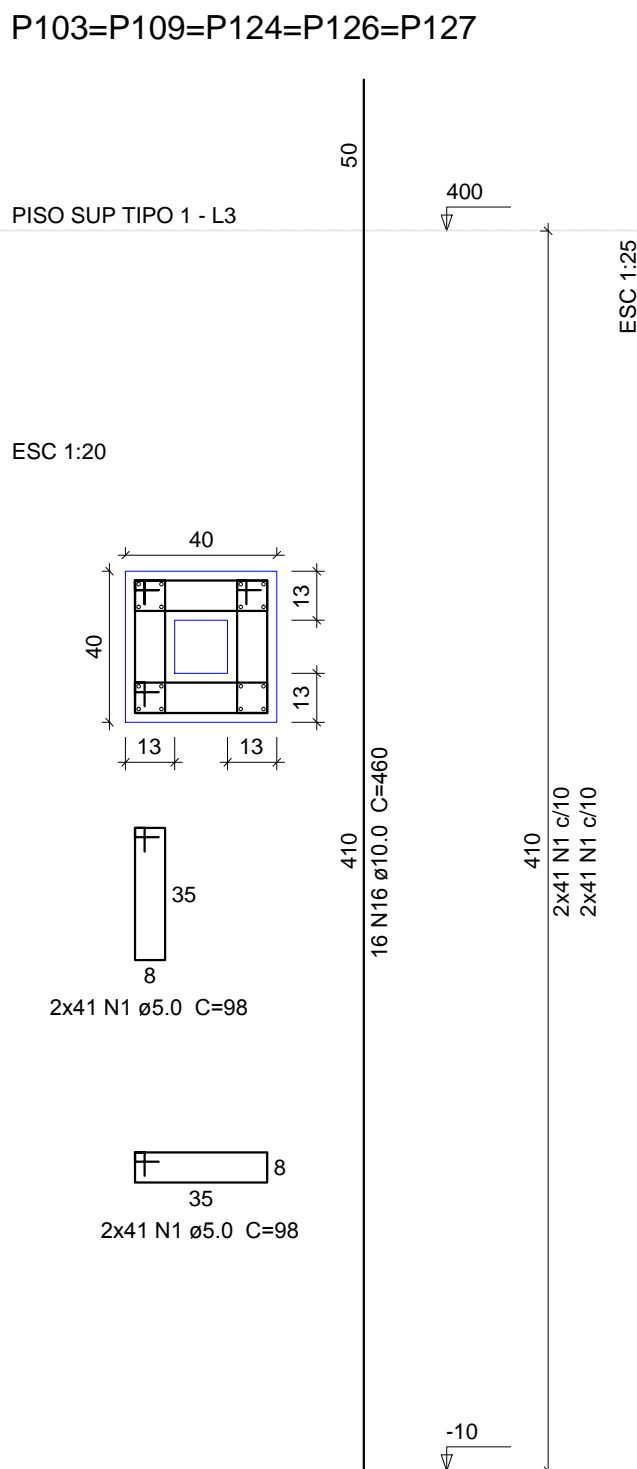
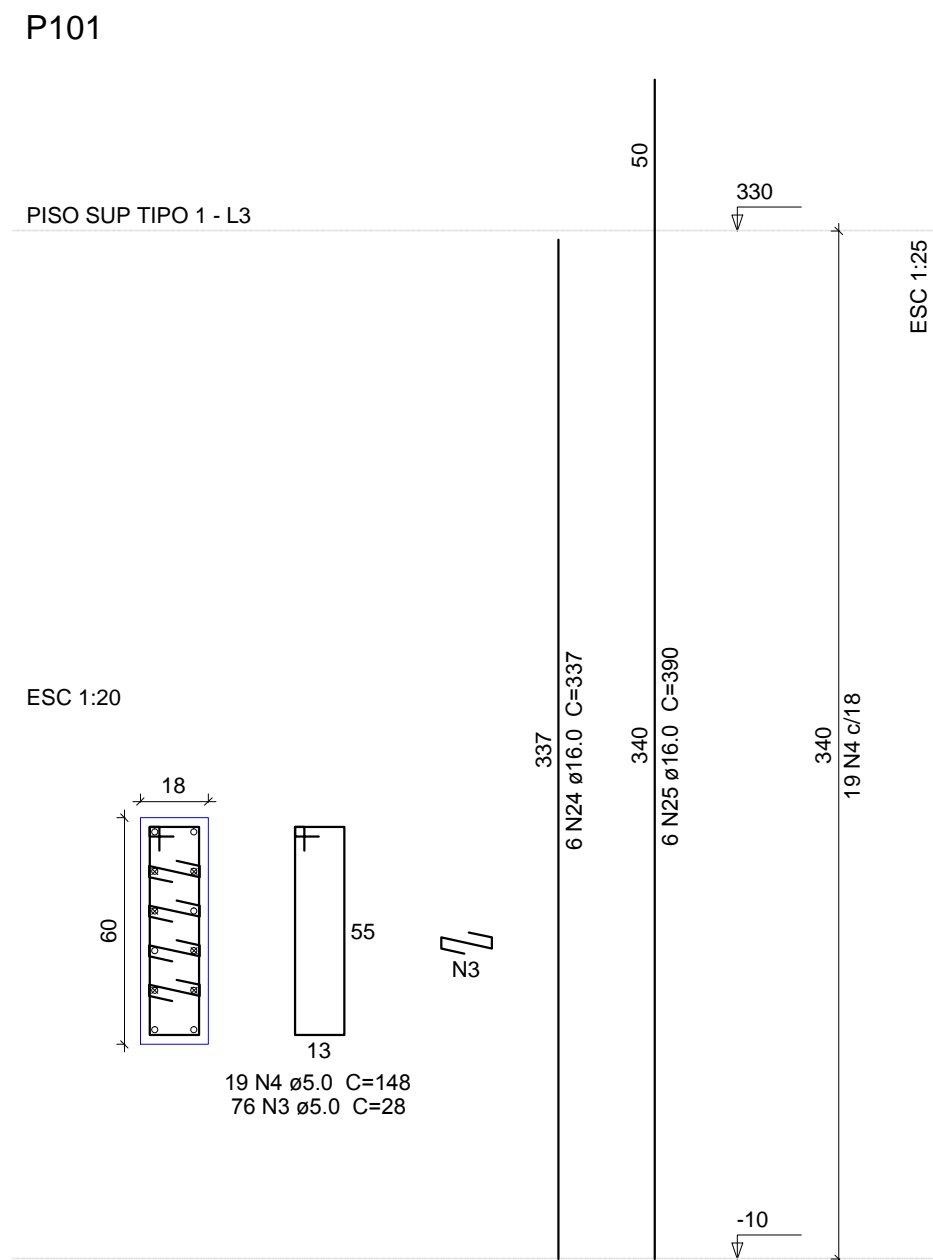
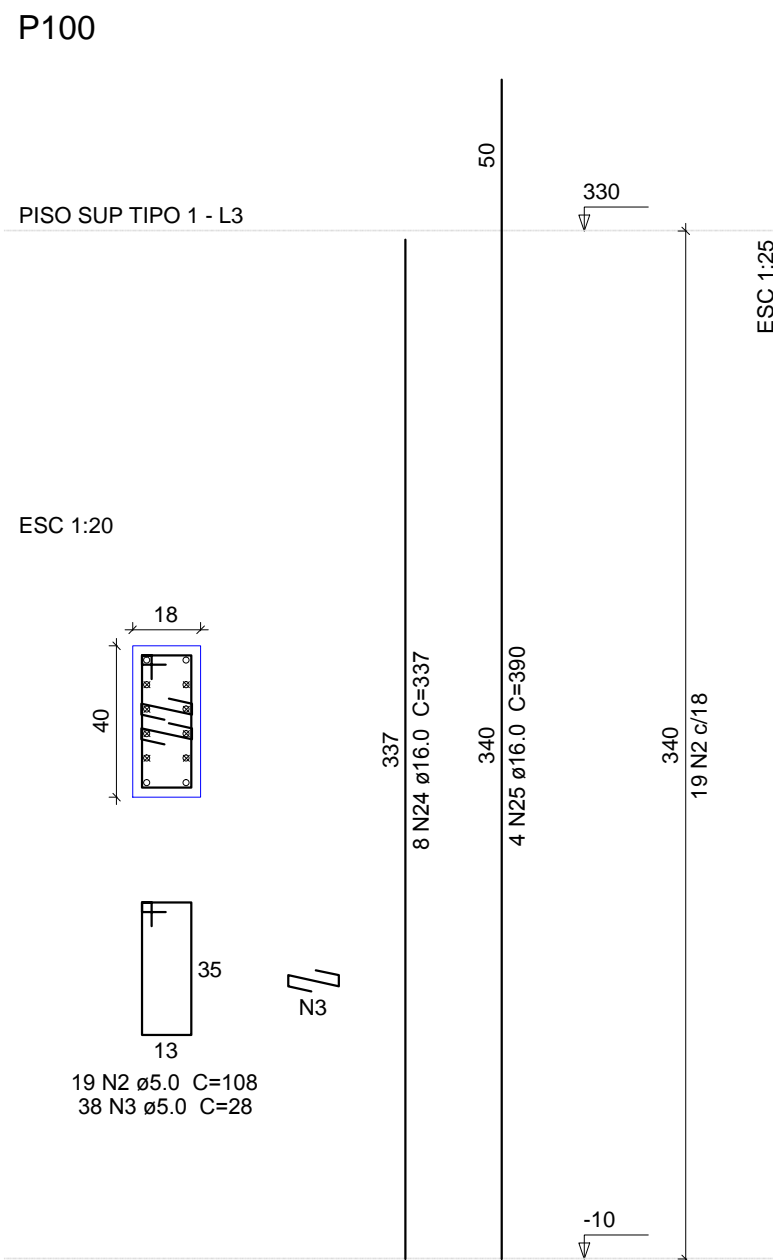
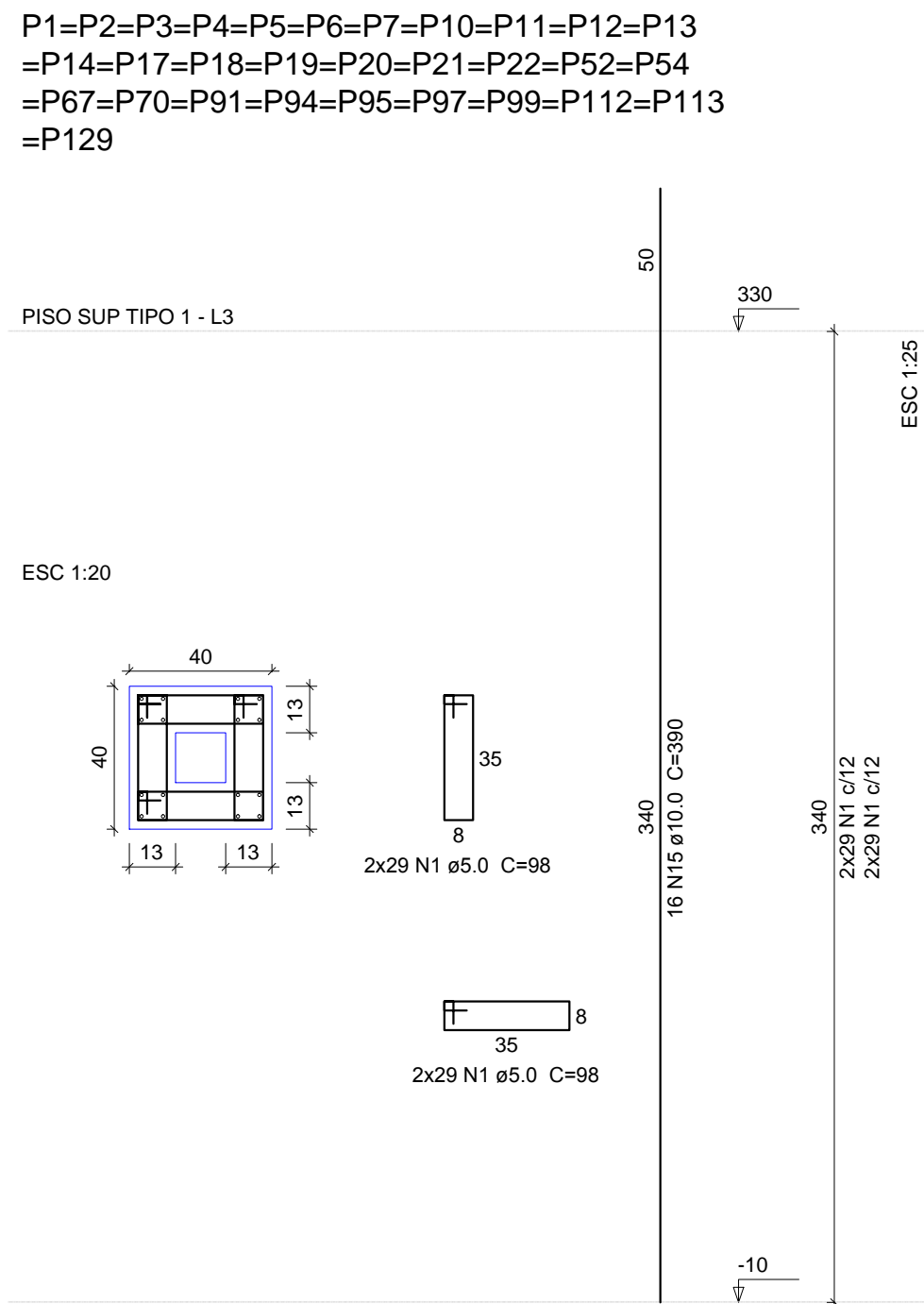
PROFESSOR: DR. ANTONIO CARLOS DE MOURA - UENP
BLOCO ODONTOLÓGICO - UENP
PROLONGAMENTO DA AV. PEDRO DE OLIVEIRA DE MIRANDA
RESERVA TÉCNICA: DR. ANTONIO CARLOS DE MOURA - UENP
DESD. FELIPE CARVALHO - CREA PR 142.746/D
LUCAS PERES DE SOUZA - CREA PR 145.755/D

MANEIRO: JACQUESINO - PR
TIPO: CONSTRUÇÃO
PROJETO: ESTRUTURAL
REVISÃO: DETALHES ESCADAS

DESENHO: DR. ANTONIO CARLOS DE MOURA
DATA: 20/09/2018
ARQUIVO: EST-UNEP-001-Desenhos-PR

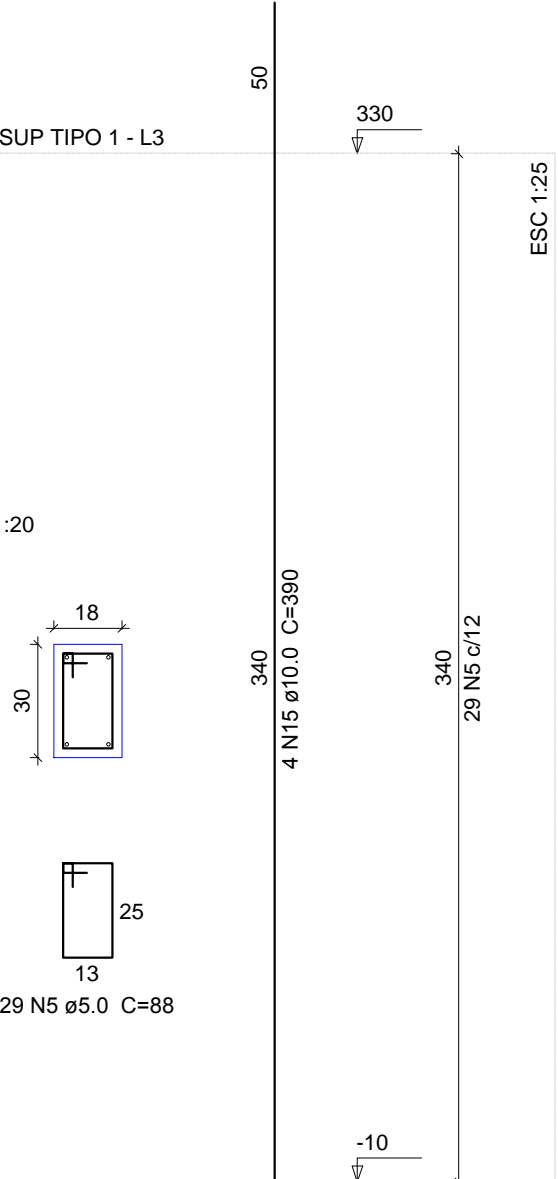
EST 14 24

PILARES DO PAVIMENTO SUPERIOR
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=P14=P17=P18=P19=P20=P21=P22=P52=P54
=P67=P70=P91=P94=P95=P97=P99=P112=P113
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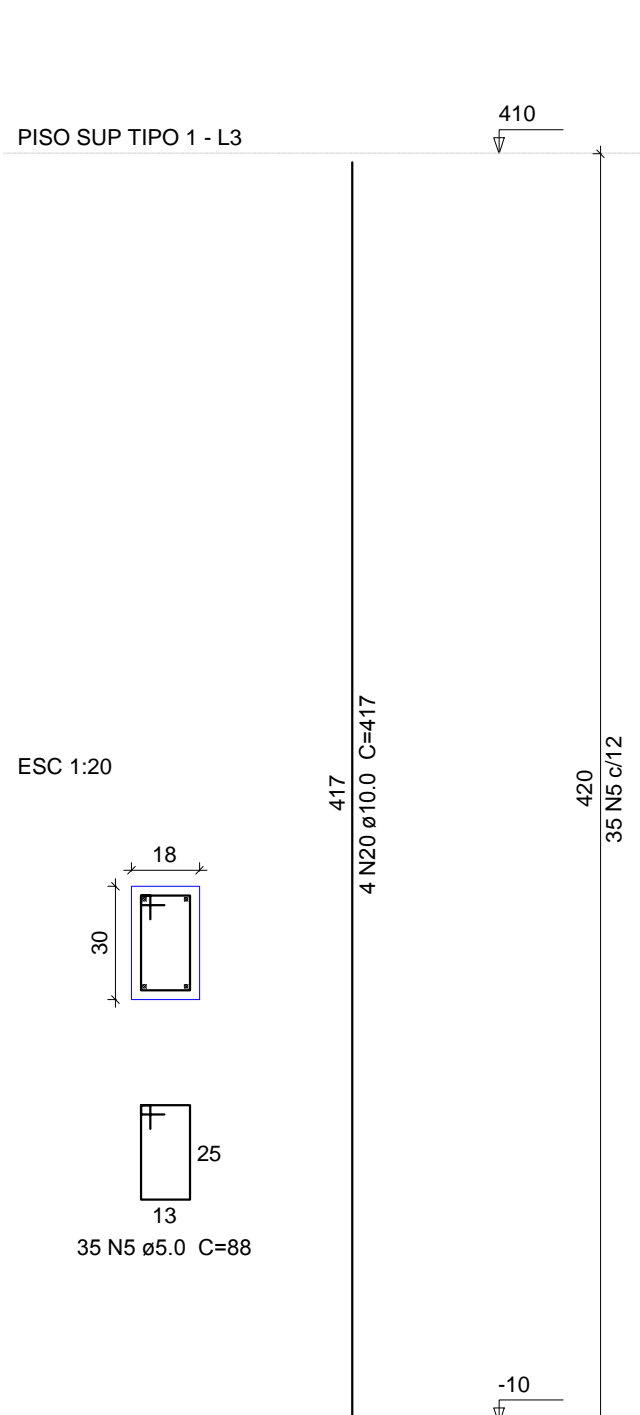


Relação do aço					
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8x23		2x924		4x95	
125		30		4x101	
P43		AP82		AP85	
P63		AP101		AP106	
P18		P100		P106	
34x103		2x1005		3x116	
P114		2x115		3x116	
34x117					
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	5840	98	572320
	2	5.0	38	108	4104
	3	5.0	427	28	11956
	4	5.0	115	148	17020
	5	5.0	237	88	20866
	6	5.0	194	92	17848
	7	5.0	58	28	1624
	8	5.0	116	72	8352
	9	5.0	30	100	3000
	10	5.0	392	150	58800
CA50	11	5.0	713	152	108376
	12	5.0	713	50	35650
	13	6.3	527	152	80104
	14	6.3	527	51	26977
	15	10.0	648	390	252720
	16	10.0	96	460	44160
	17	10.0	32	518	16576
	18	10.0	8	465	3720
	19	10.0	28	337	9436
	20	10.0	4	417	1668
CA60	21	12.5	286	390	111540
	22	12.5	2	337	674
	23	12.5	2	100	200
	24	16.0	88	337	29656
	25	16.0	122	390	47590
Resumo do aço					
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)		
CA50	6.3	1969.9	288		
	10.0	3282.8	2226.4		
	12.5	1124.2	1191.2		
	16.0	814.1	1413.3		
PESO TOTAL (kg)					
CA50	5118.9				
CA60	1461.3				
Volume de concreto (C=40) = 60.06 m³					
Área de forma = 665.24 m²					

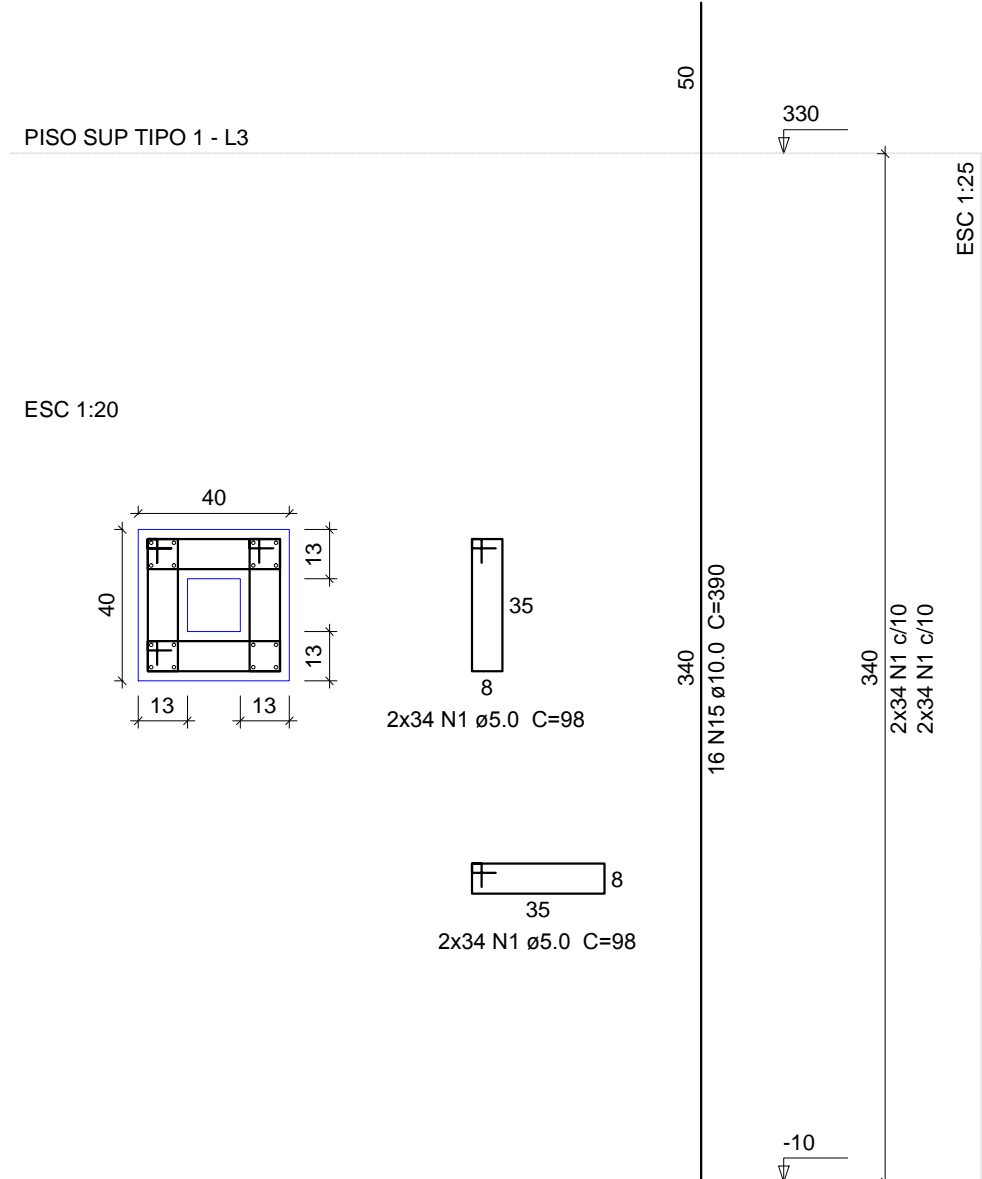
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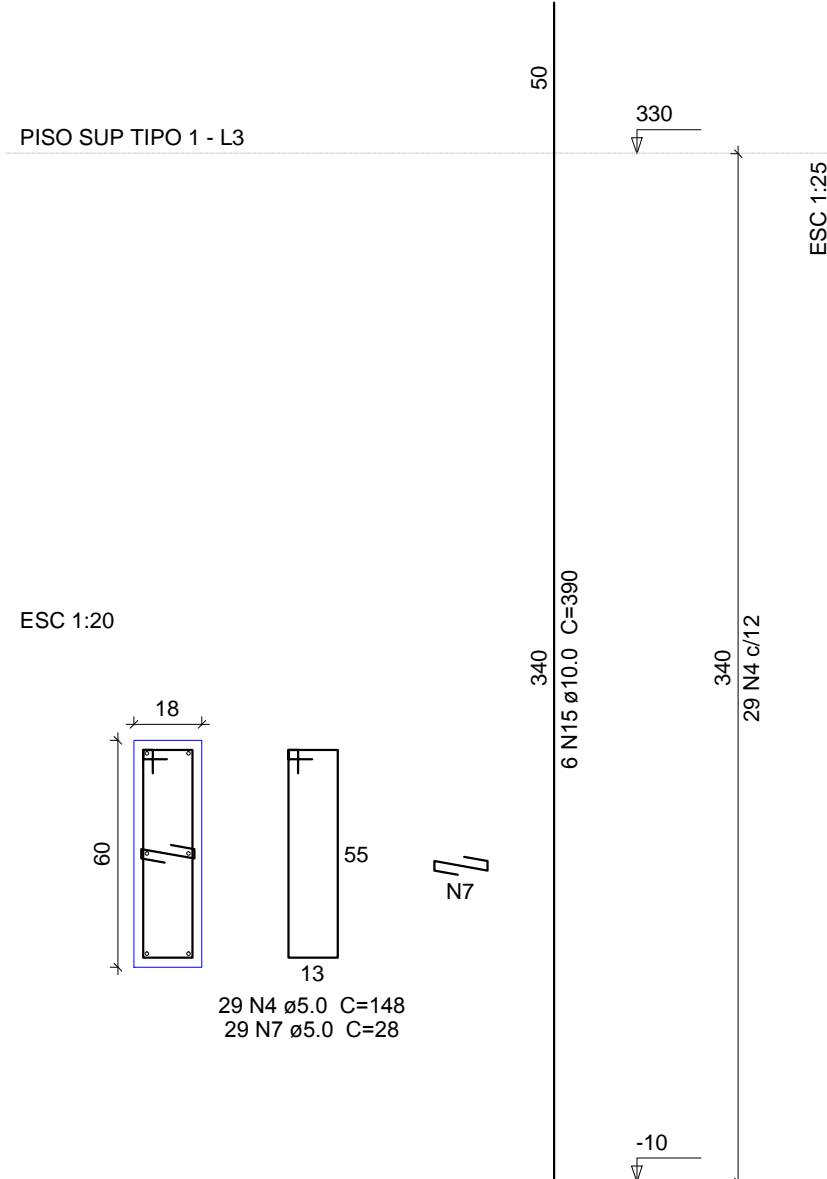
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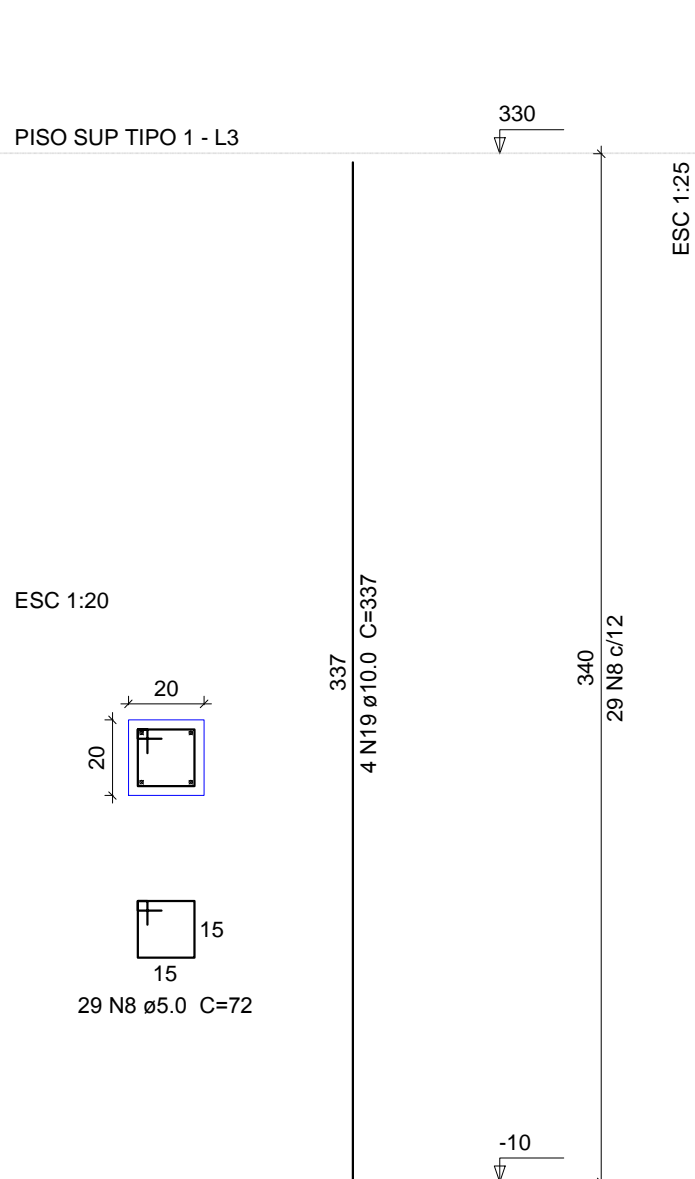
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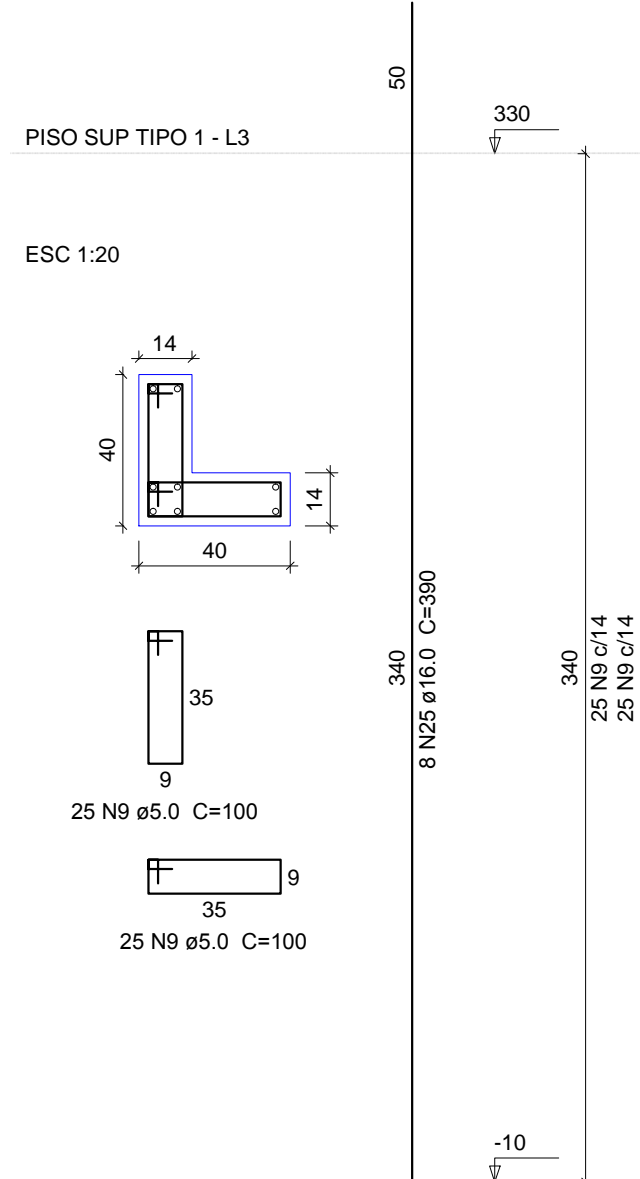
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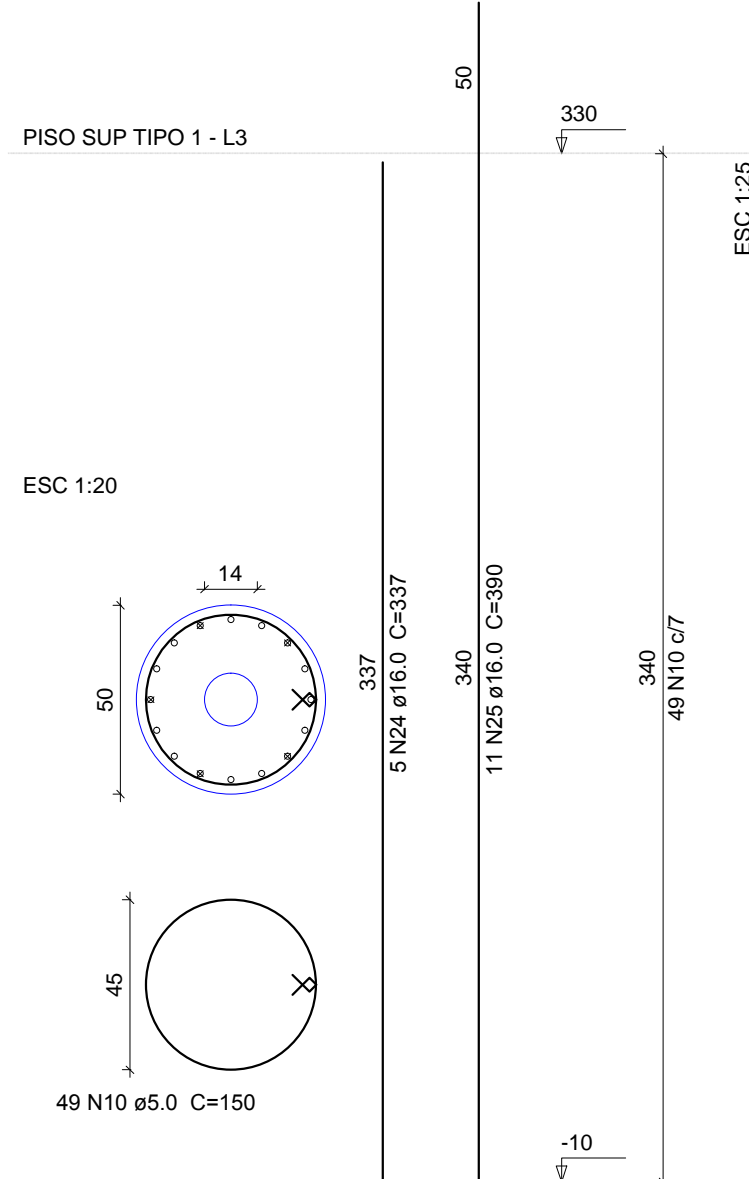
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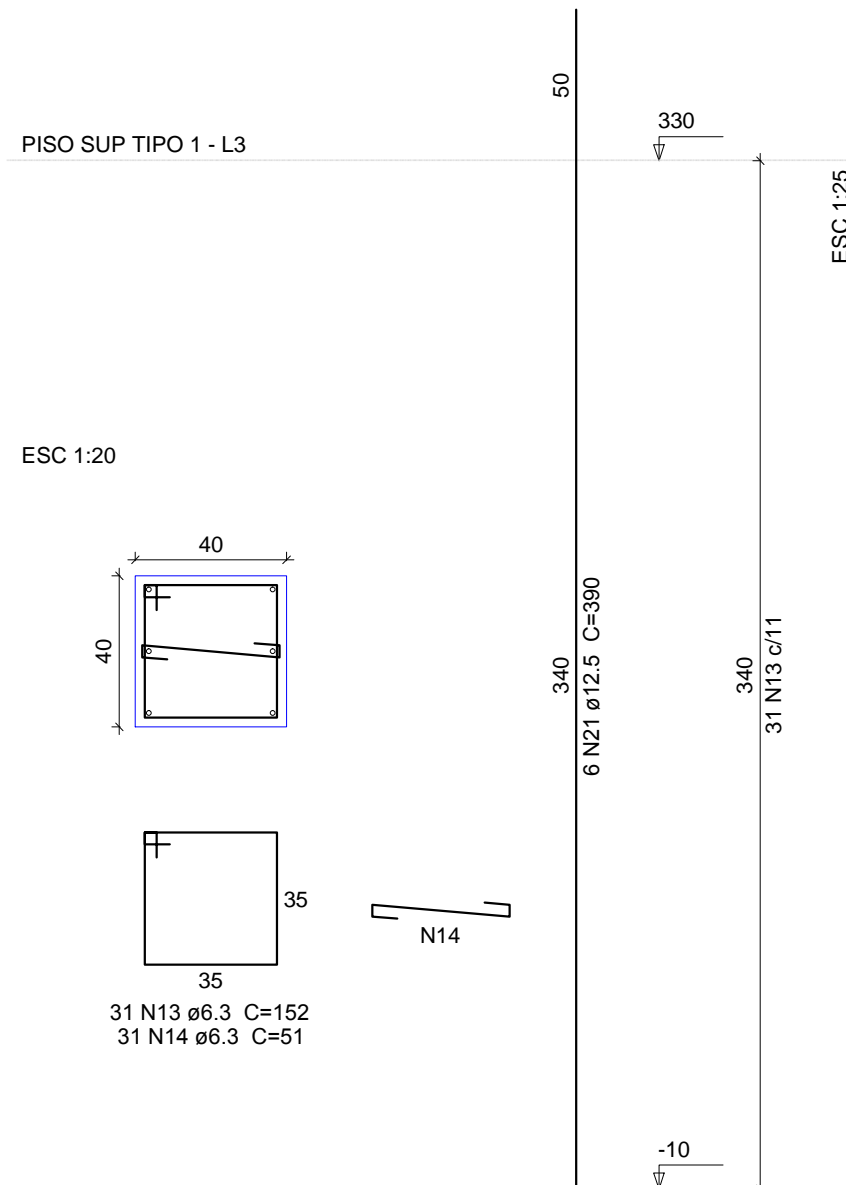
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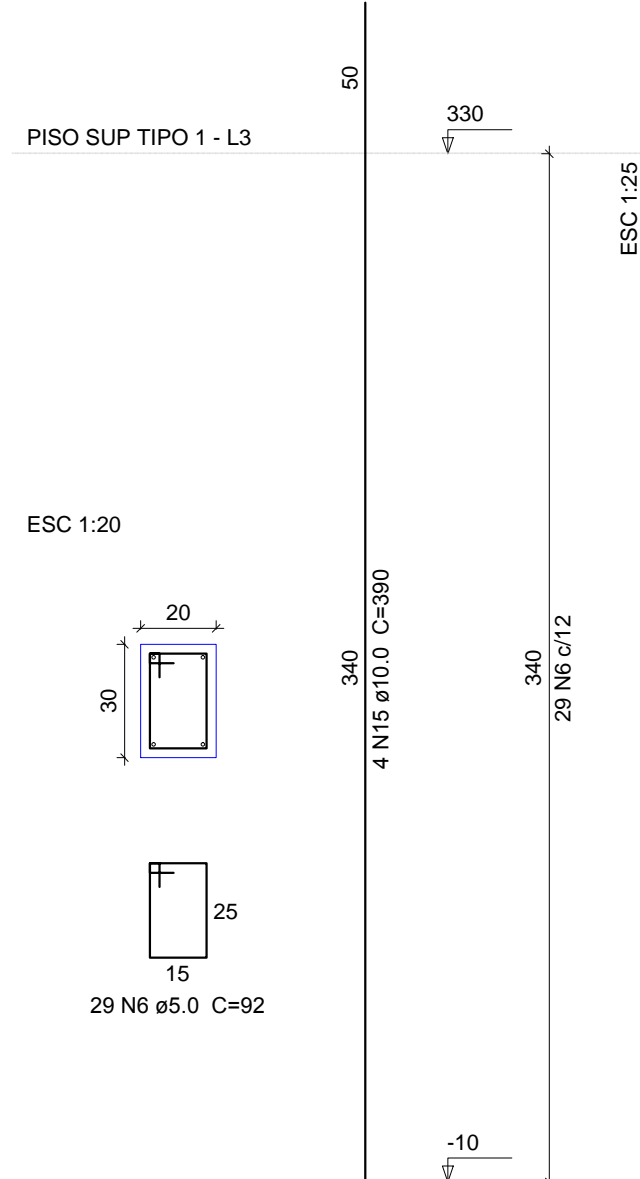
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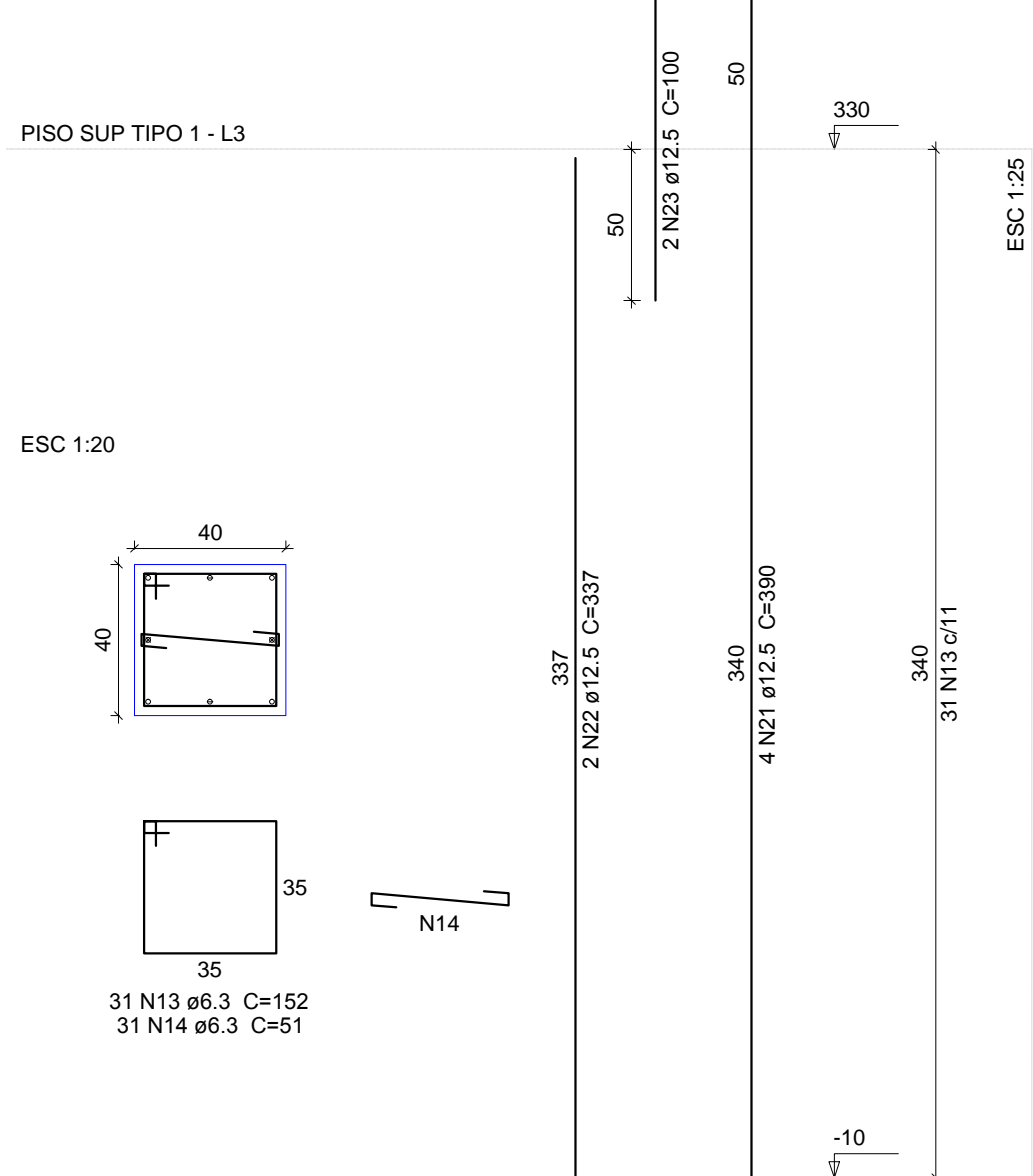
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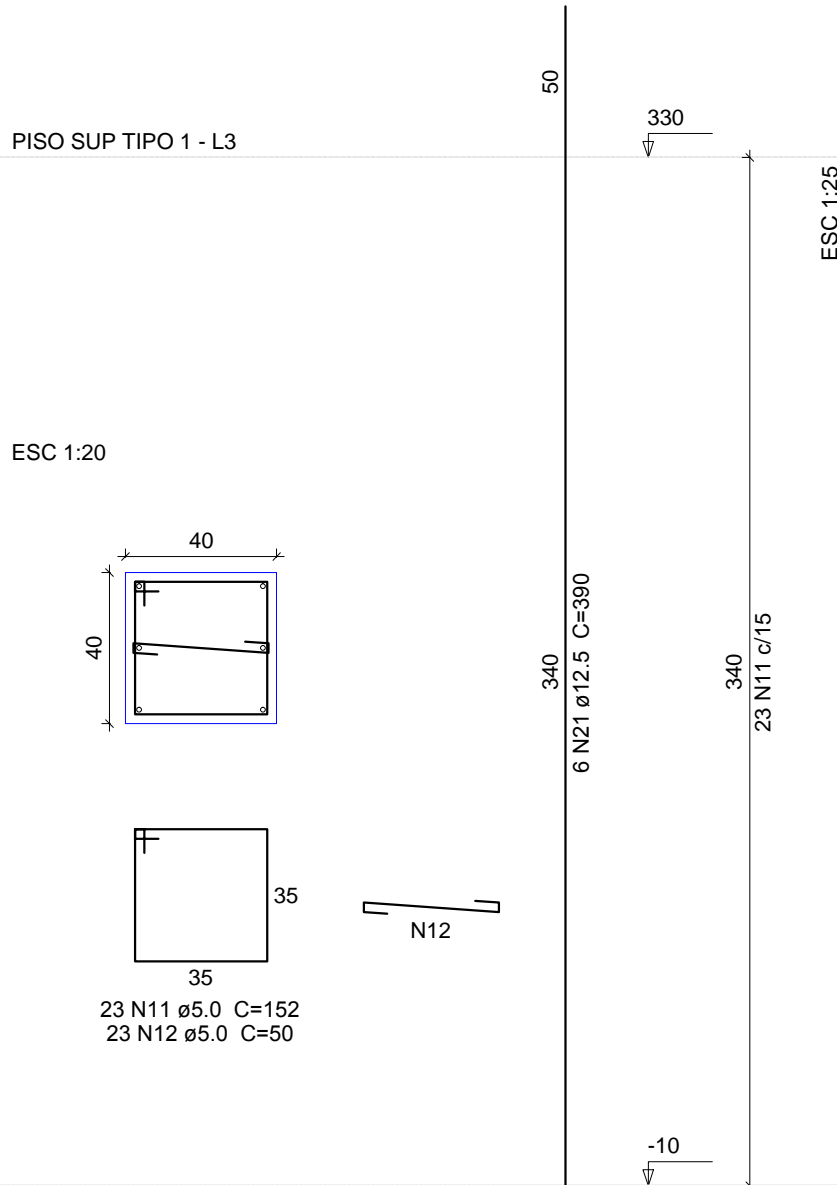
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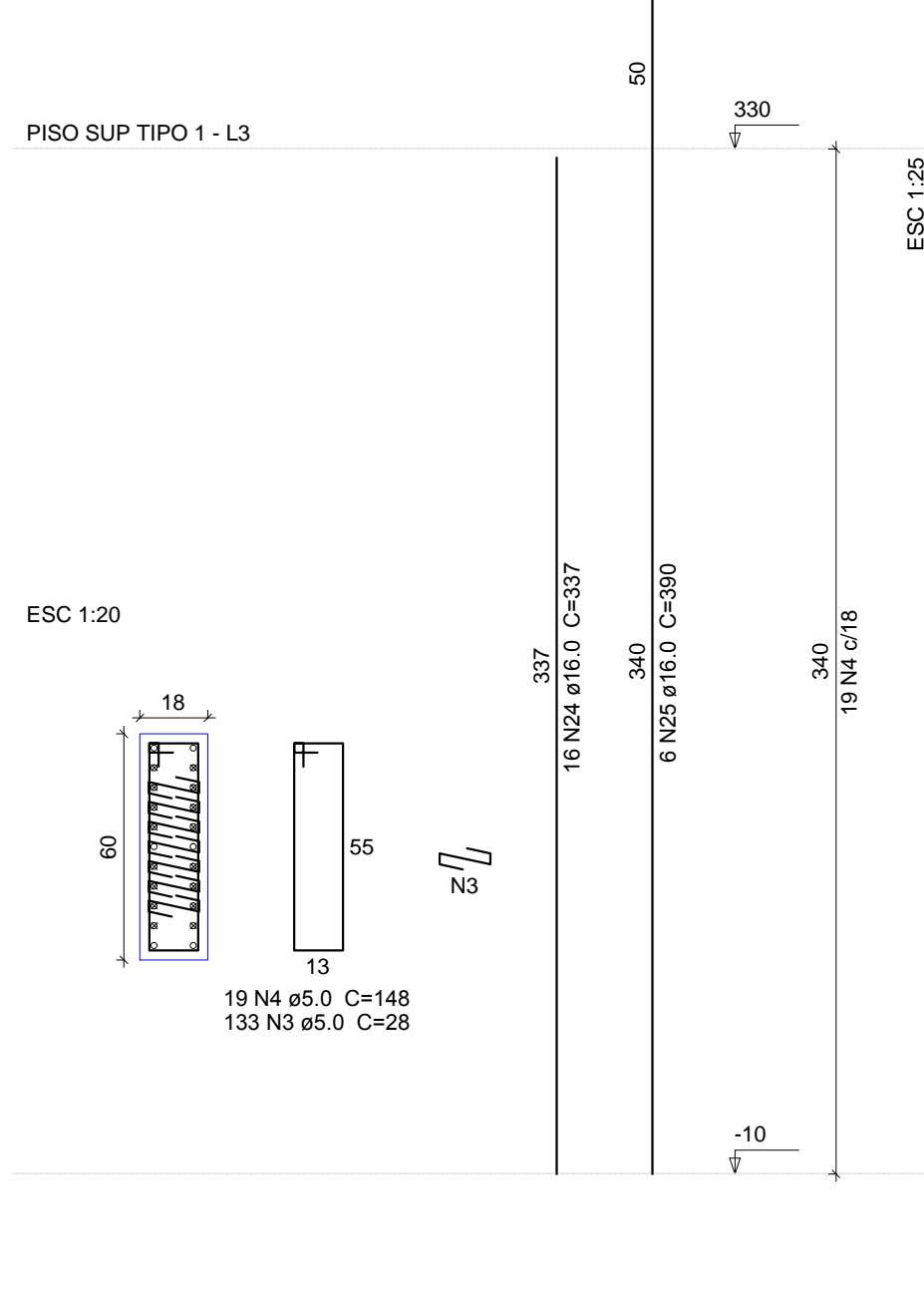
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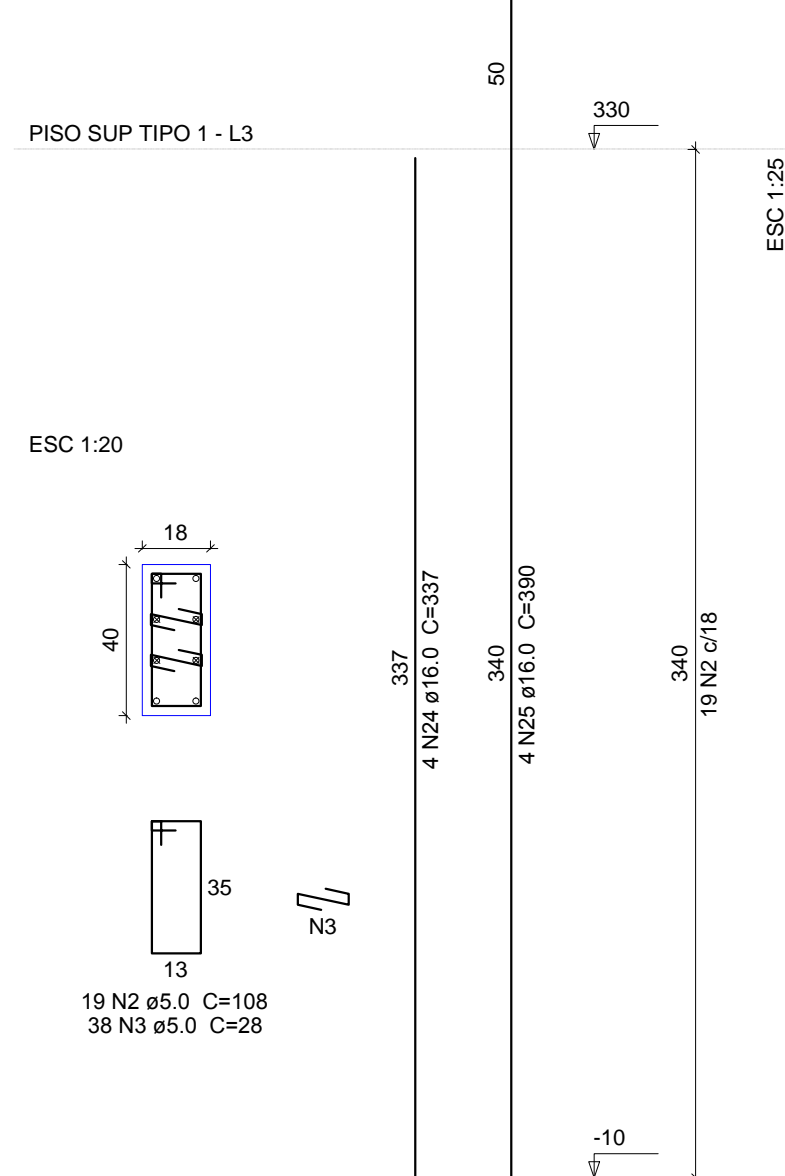
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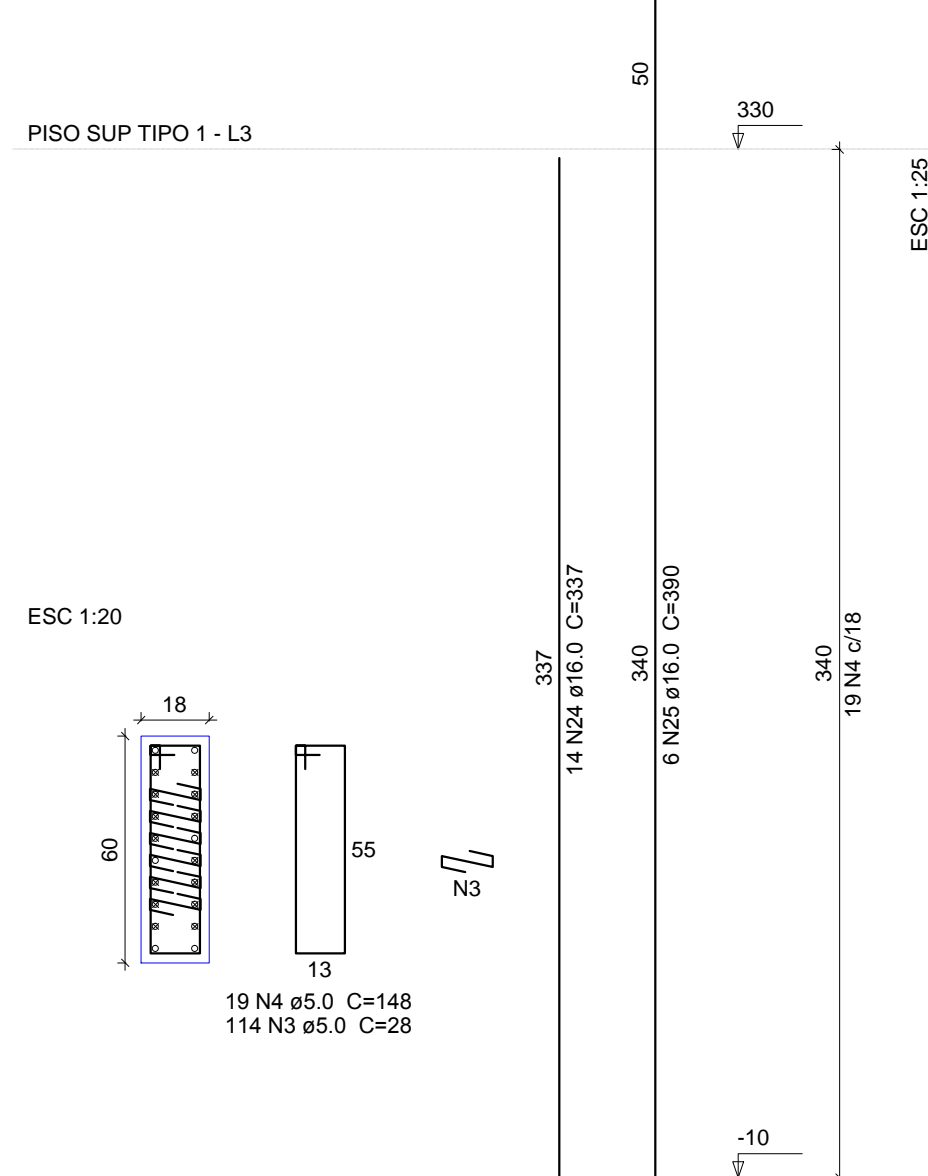
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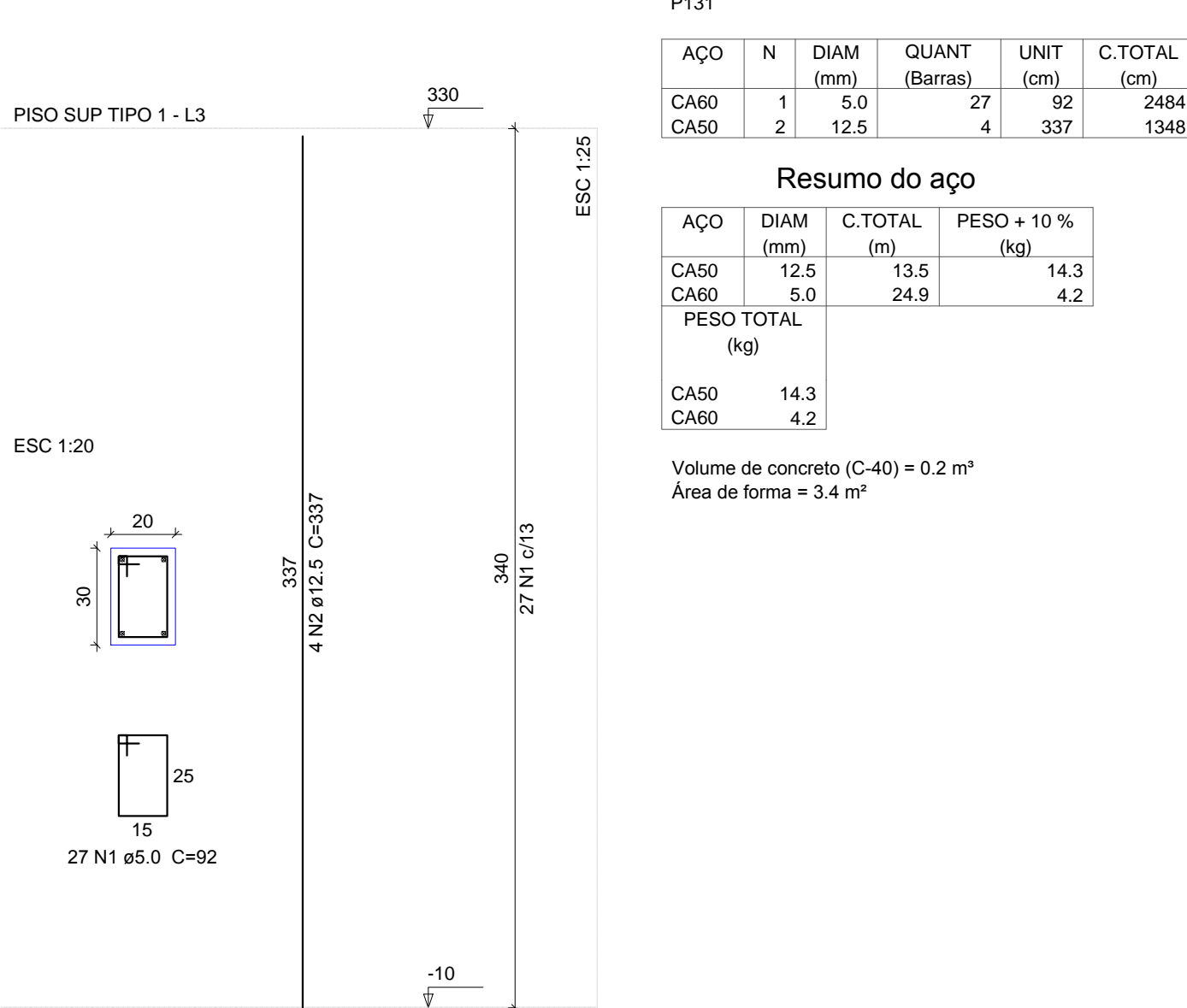
P93



P98



P131



P131

Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	27	92	2484
CA50	4	12.5	4	337	1348

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	12.5	13.5	14.3
CA60	5.0	24.9	4.2

PESO TOTAL (kg)

CA50	14.3
CA60	4.2

Volume de concreto (C=40) = 0.2 m³

Área de forma = 3.4 m²



UENP Universidade do Norte do Paraná

PROPRIETÁRIO:
UNIVERSIDADE ESTADUAL DO NORTE DO PARANÁ - UENP

MANEIRO:
JACAREZINHO - PR

USBR:
BLOCO ODONTOLÓGICO - UENP

SOCAL

PROLONGAMENTO DA AV. PEDRO COELHO DE MIRANDA

TIPO:
CONSTRUÇÃO

RESPONSÁVEL TÉCNICO:
DIOGO ANTONIO CAPRARI - JR. - CREA PR 33.9410


PROJETO:
ESTRUTURAL

DIOGO FELIPE CAPRARI - CREA PR 142.7460

REVISÃO:

LUCAS PERES DE SOUZA - CREA PR 145.7550

DETALHES PILARES PAV. SUPERIOR



ECONOMICA ENGENHARIA E OBRAS LTDA
SOLUÇÕES EM ENGENHARIA

CRN: 2.344.11.0001-98

END: 03/2010

RUA GASPAR PUPPARE, 359 - BL. 04 - CURITIBA - PR

ESCALA/TITULO/DESENHO:

CEP: 81.230-90

WWW.ECONOMICAENGENHARIA.COM.BR

TELEFONE: (41) 3211.5550

ARQUIVO: EST_UENP0004_DetalhesPilares_Pav_Superior.dwg

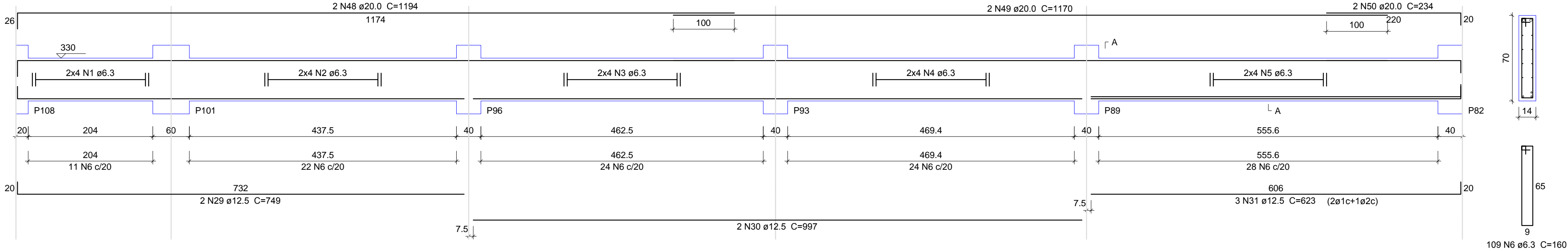
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DESENHO:

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V40

ESC 1:50



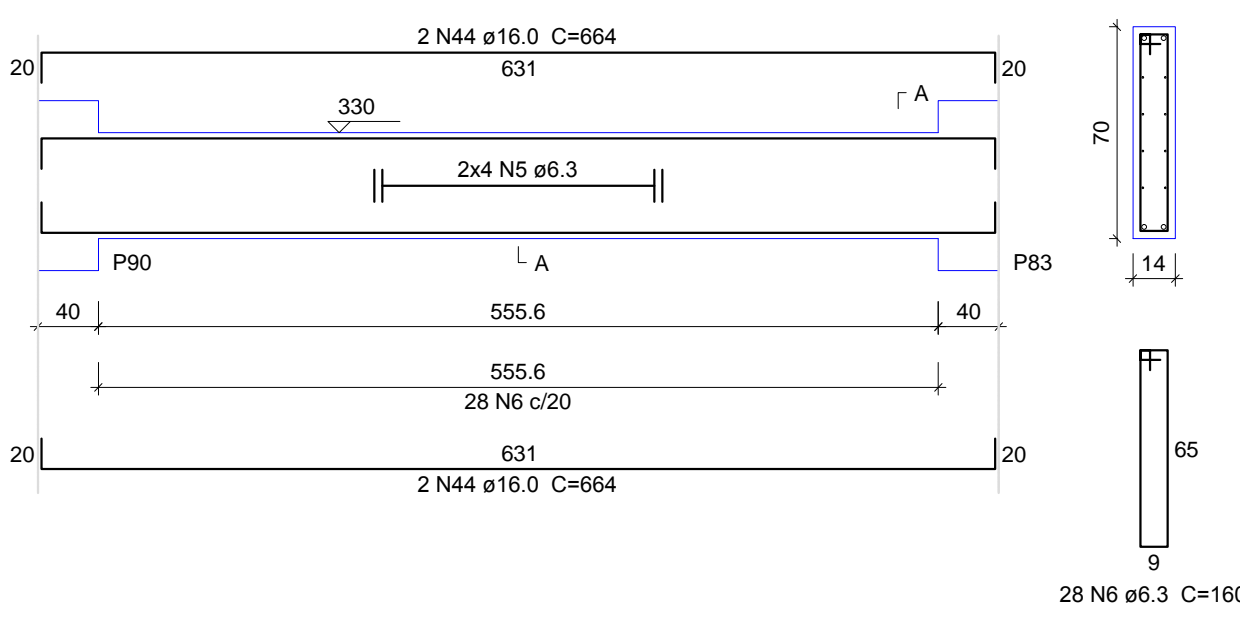
SEÇÃO A-A

ESC 1:25

109 N6 ø6.3 C=160

V43

ESC 1:50



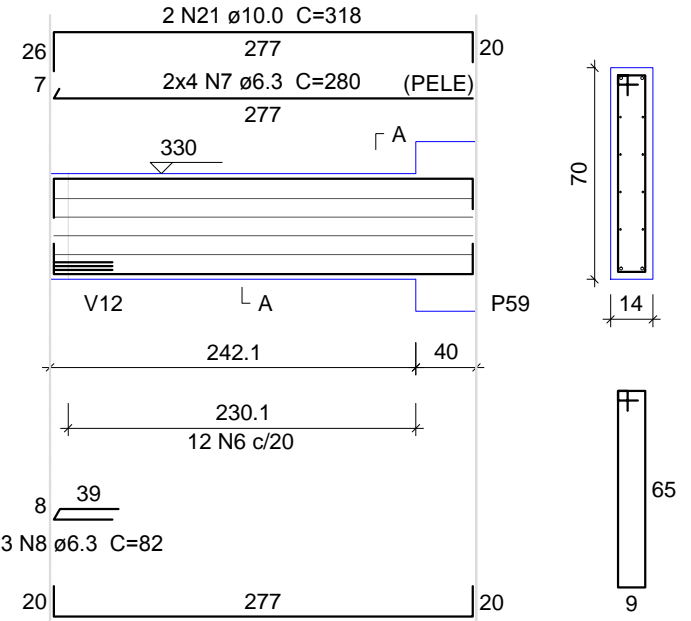
SEÇÃO A-A

ESC 1:25

28 N6 ø6.3 C=160

V46

ESC 1:50



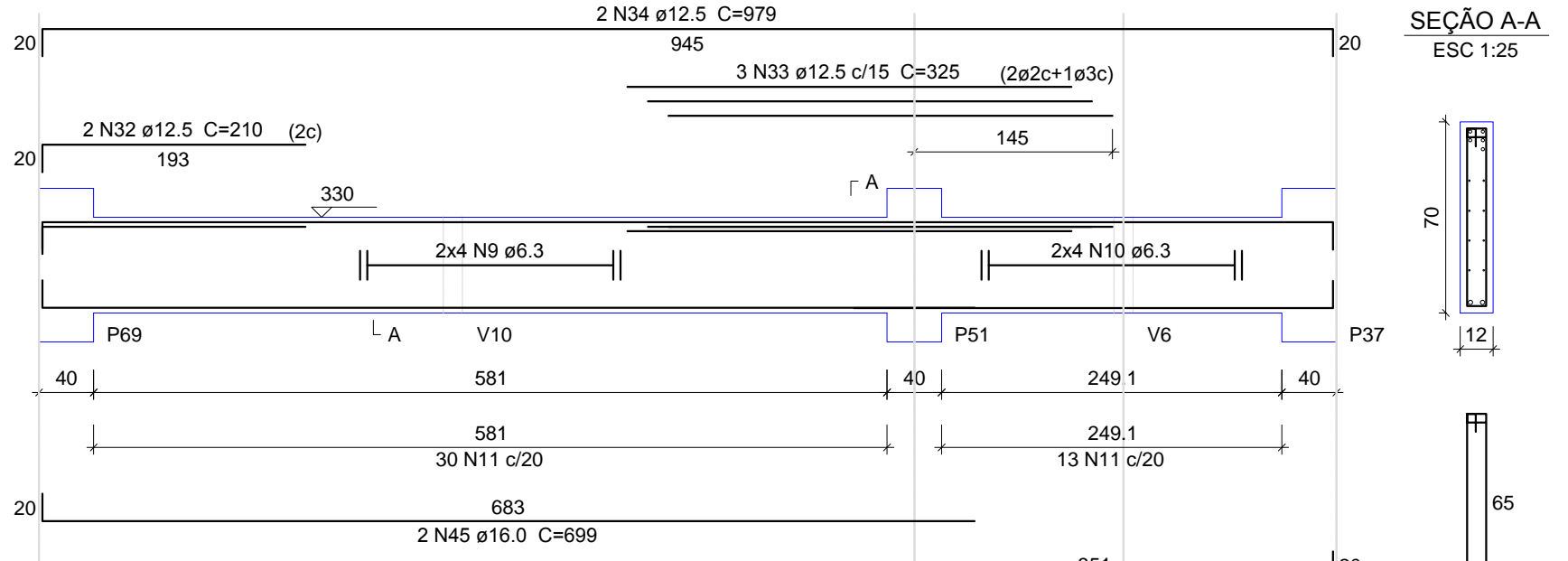
SEÇÃO A-A

ESC 1:25

12 N6 ø6.3 C=160

V47

ESC 1:50



SEÇÃO A-A

ESC 1:25

43 N11 ø6.3 C=156

Relação do aço

CAO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
1	6.3	8	CORR	223	223
2	6.3	8	CORR	426	426
3	6.3	8	CORR	426	426
4	6.3	8	CORR	426	426
5	6.3	16	CORR	1009	1009
6	6.3	211	160	3376	3376
7	6.3	8	CORR	254	254
8	6.3	3	82	246	246
9	6.3	16	CORR	1009	1009
10	6.3	8	CORR	252	252
11	6.3	195	156	3042	3042
12	6.3	8	1200	960	960
13	6.3	8	588	470	470
14	6.3	8	CORR	160	160
15	6.3	8	CORR	252	252
16	6.3	8	CORR	416	416
17	6.3	8	CORR	252	252
18	6.3	2	246	49	49
19	6.3	16	CORR	788	788
20	10.0	2	312	62	62
21	10.0	2	318	63	63
22	10.0	2	369	73	73
23	10.0	2	480	96	96
24	10.0	2	1011	202	202
25	10.0	2	375	75	75
26	10.0	2	665	133	133
27	10.0	2	605	101	101
28	10.0	2	982	196	196
29	12.5	4	749	299	299
30	12.5	2	997	199	199
31	12.5	3	623	188	188
32	12.5	2	210	42	42
33	12.5	3	325	97	97
34	12.5	2	979	195	195
35	12.5	1	375	75	75
36	12.5	2	1200	240	240
37	12.5	2	202	40	40
38	12.5	2	1197	239	239
39	12.5	2	649	129	129
40	12.5	2	235	47	47
41	12.5	2	240	48	48
42	12.5	2	690	138	138
43	12.5	2	981	196	196
44	16.0	4	664	265	265
45	16.0	2	699	139	139
46	16.0	2	520	104	104
47	16.0	2	699	137	137
48	20.0	2	1194	238	238
49	20.0	2	1170	234	234
50	20.0	2	234	46	46

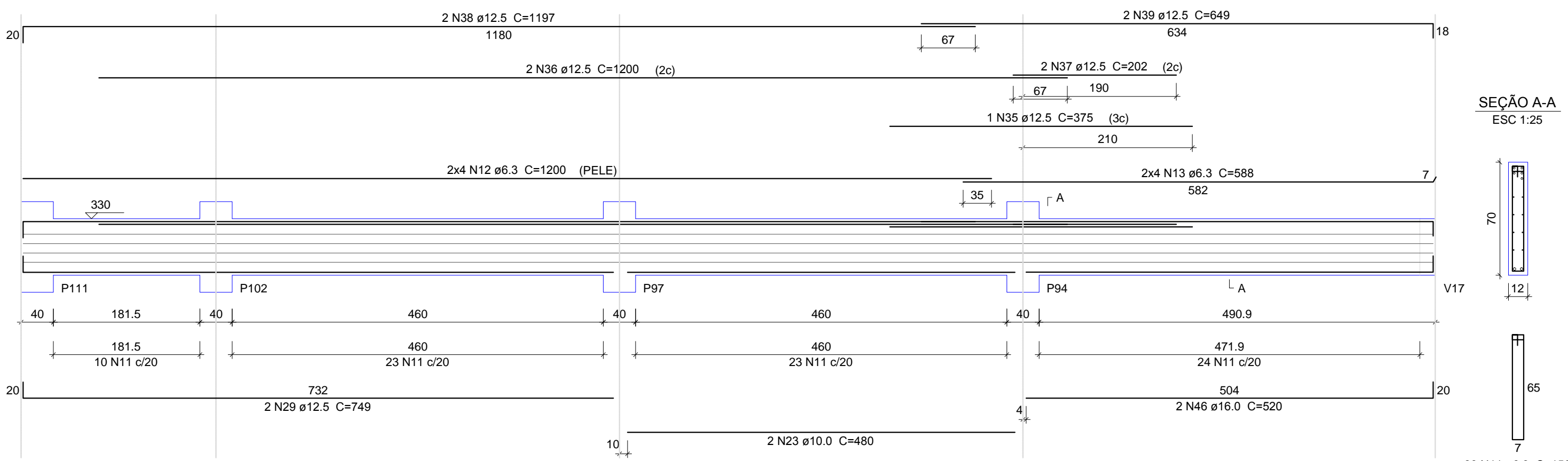
Resumo do aço

CAO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
1	6.3	1391.3	374.5
2	10.0	100.4	68
3	12.5	213.8	226.5
4	16.0	64.8	112.4
5	20.0	52	141
PESO TOTAL (kg)			822.4
CAO			822.4

Volume de concreto (C=40) = 8.18 m³
Área de forma = 137.23 m²

V45

ESC 1:50



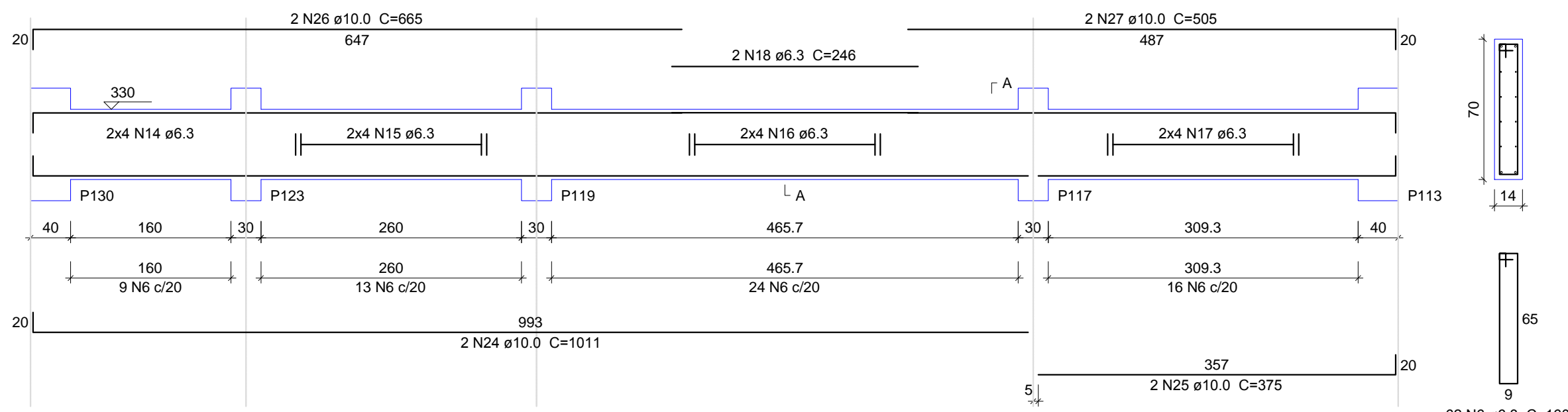
SEÇÃO A-A

ESC 1:25

80 N11 ø6.3 C=156

V51

ESC 1:50



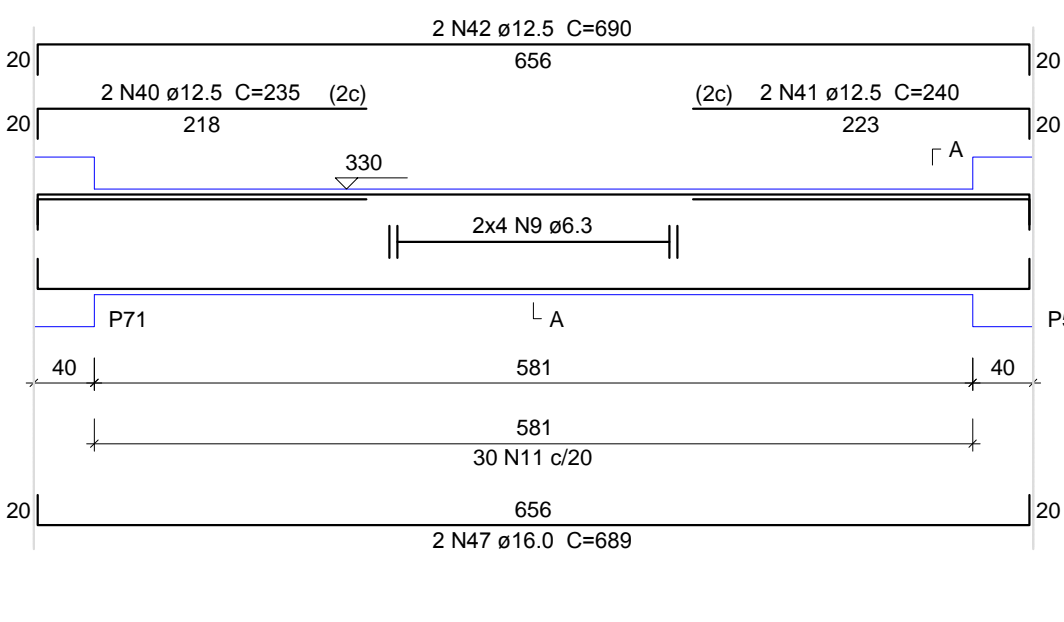
SEÇÃO A-A

ESC 1:25

62 N6 ø6.3 C=160

V52

ESC 1:50



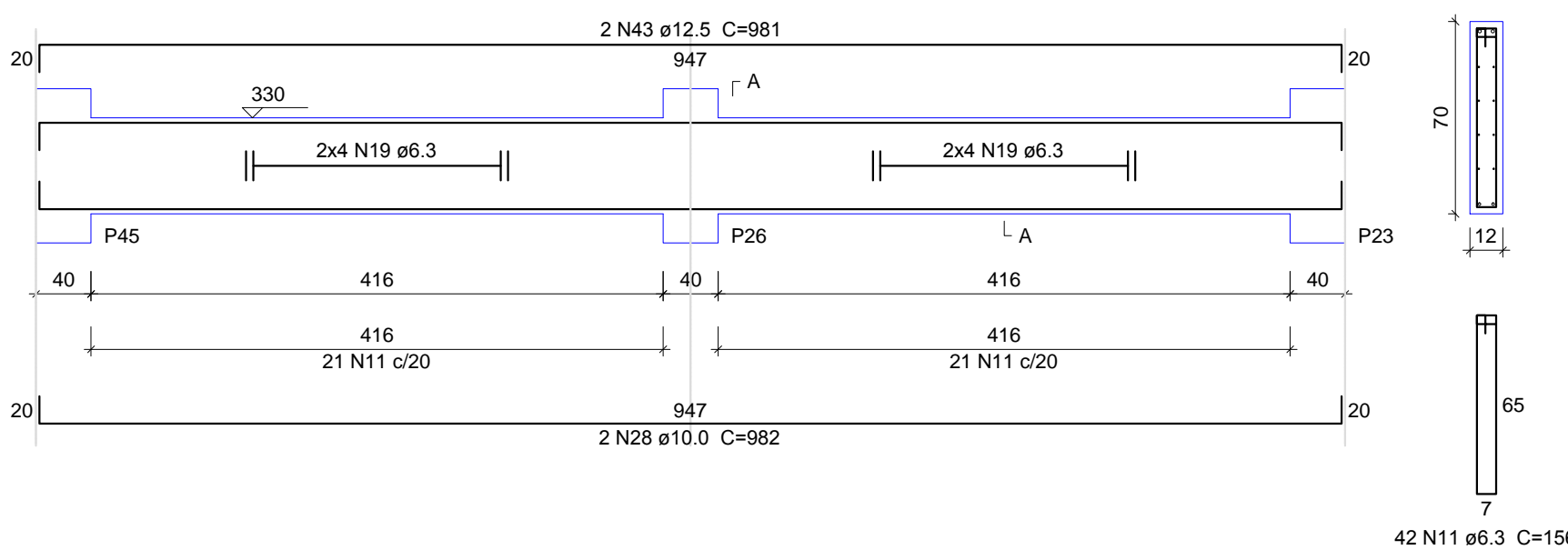
SEÇÃO A-A

ESC 1:25

30 N11 ø6.3 C=156

V53

ESC 1:50



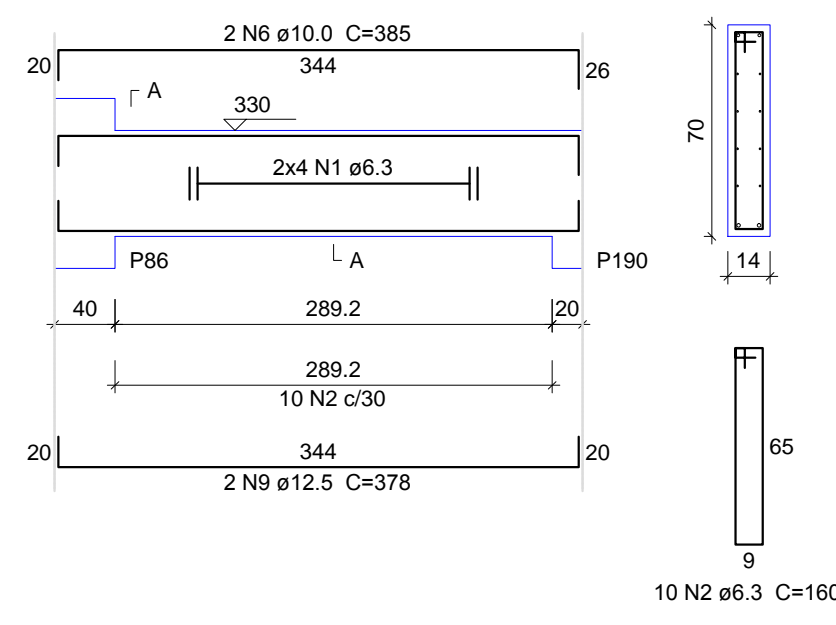
SEÇÃO A-A

ESC 1:25

42 N11 ø6.3 C=156

V56

ESC 1:50



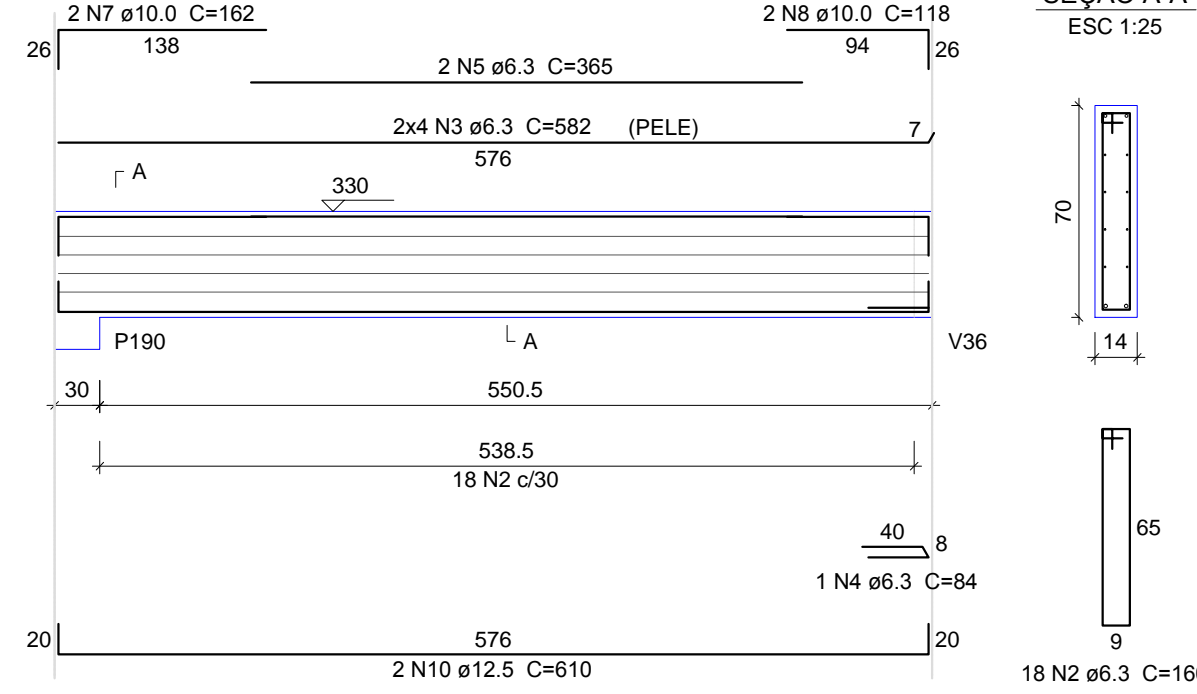
SEÇÃO A-A

ESC 1:25

10 N2 ø6.3 C=160

V57

ESC 1:50



SEÇÃO A-A

ESC 1:25

18 N2 ø6.3 C=160

Relação do aço

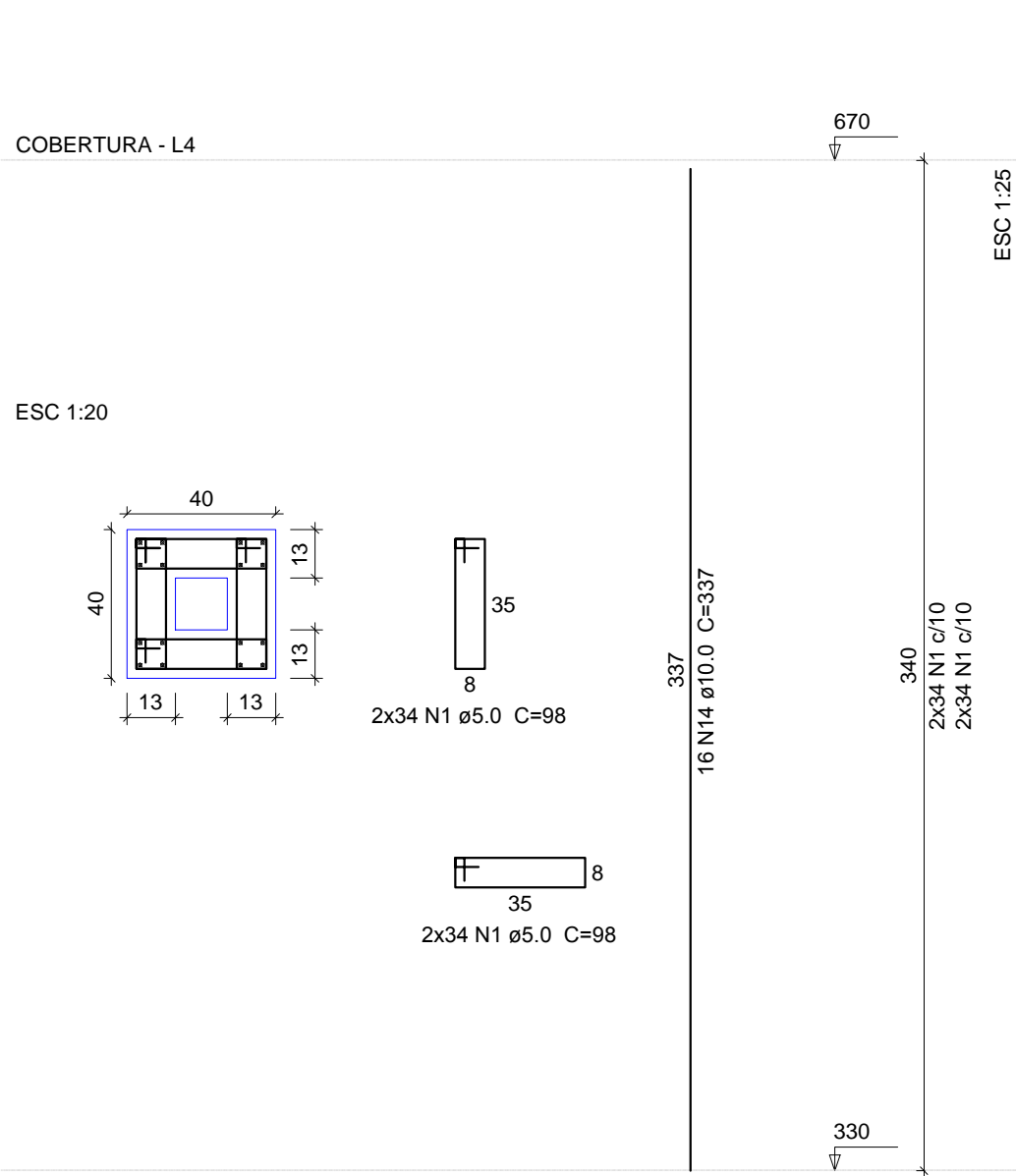
CAO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
1	6.3	8	CORR	2752	2752
2	6.3	26	160	4490	4490
3	6.3	8	582	4656	4656
4	6.3	1	84	94	94
5	6.3	2	365	730	730
6	10.0	2	385	770	770
7	10.0	2	162	324	324
8	10.0	2	118	236	236
9	12.5	2	378	756	756
10	12.5	2	610	1220	1220

Resumo do aço

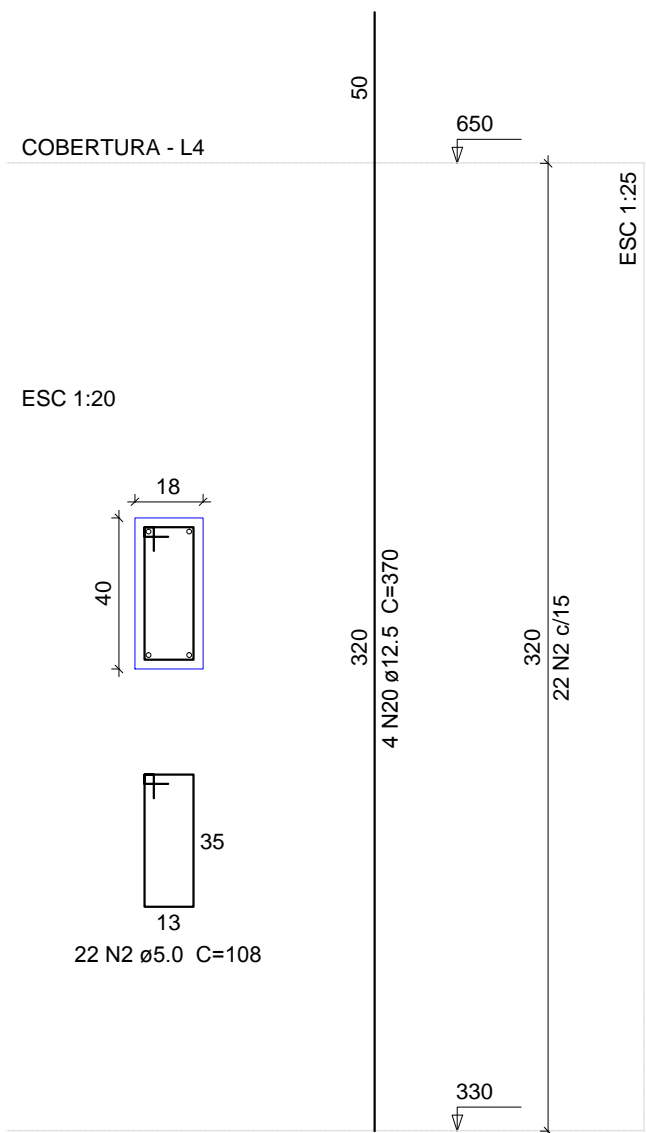
CAO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
1	6.3	127.1	34.2
2	10.0	13.3	9
3	12.5	19.8	20.9
PESO TOTAL (kg)			64.1
CAO			64.1

Volume de concreto (C=40) = 0.91 m³
Área de forma = 14.32 m²

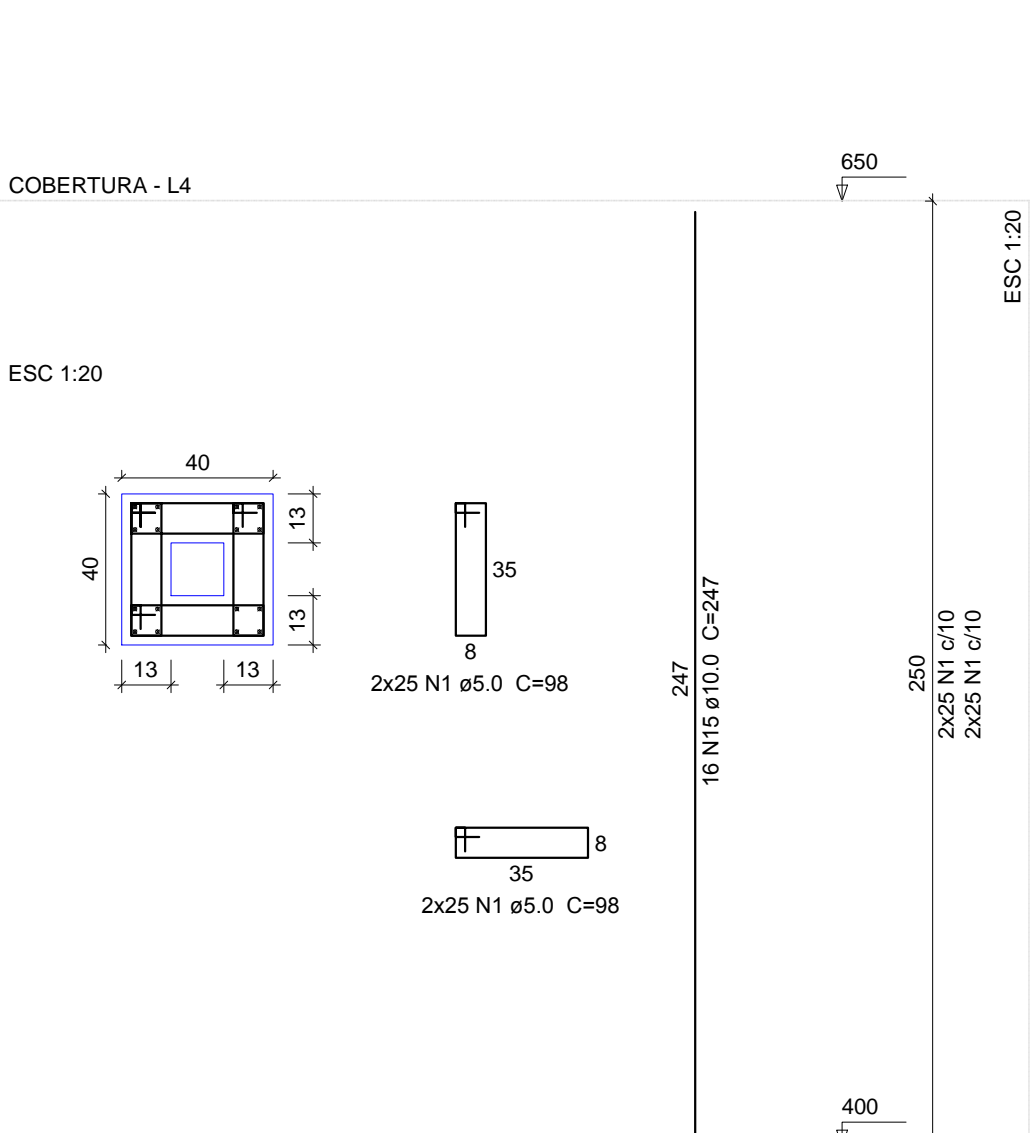
PILARES DO PAVIMENTO COBERTURA
P1=P11=P13=P22=P23=P54



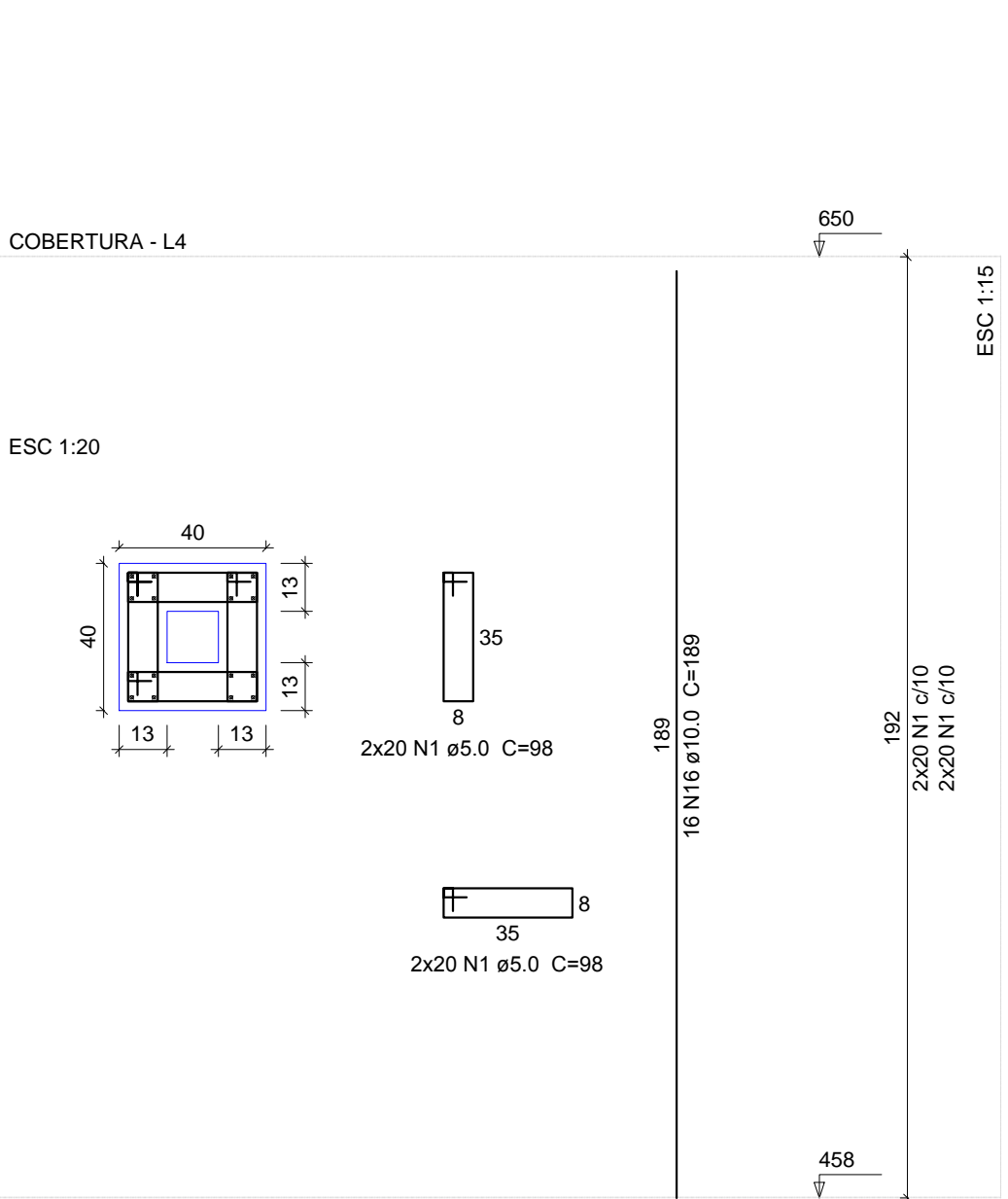
P100



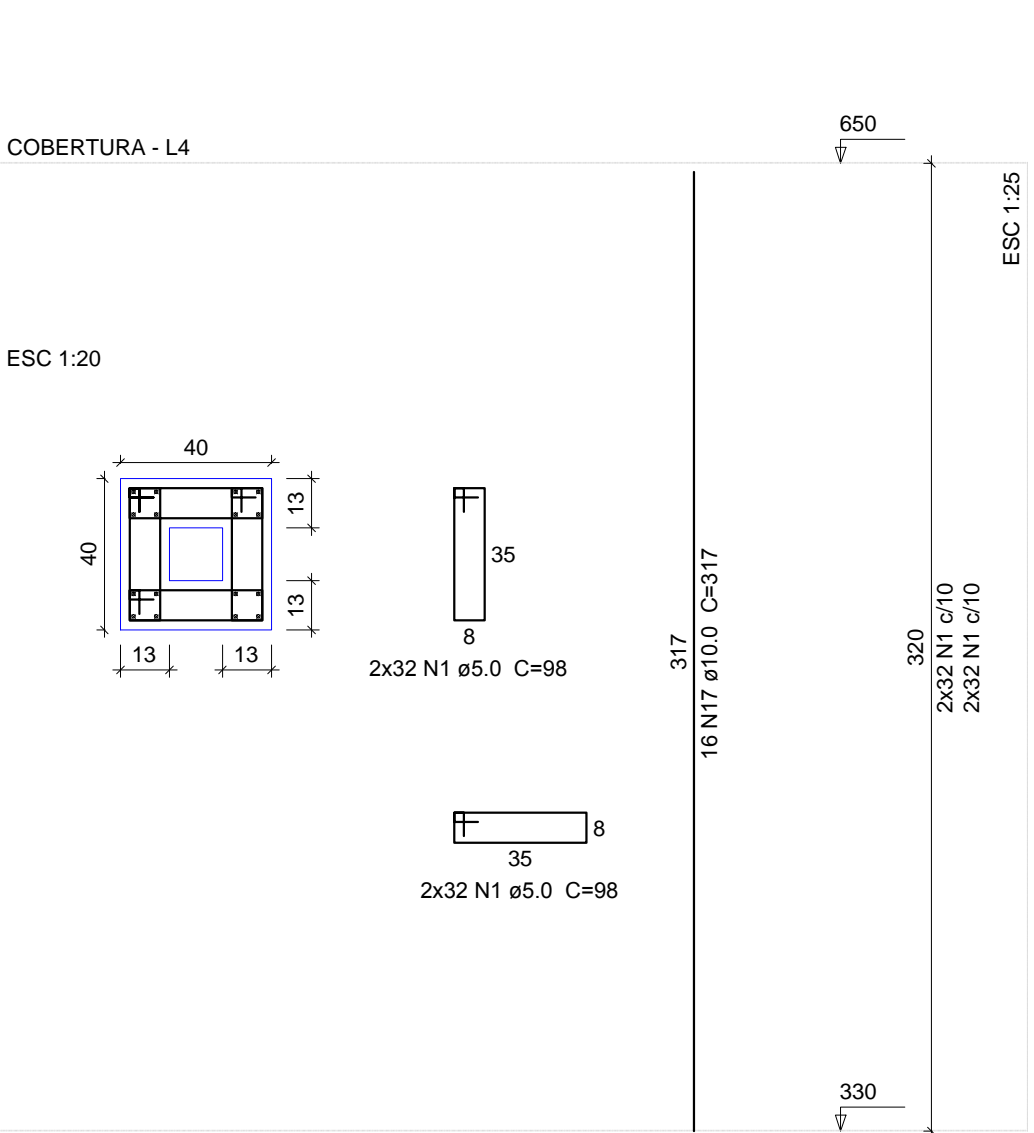
P103=P106=P109=P124



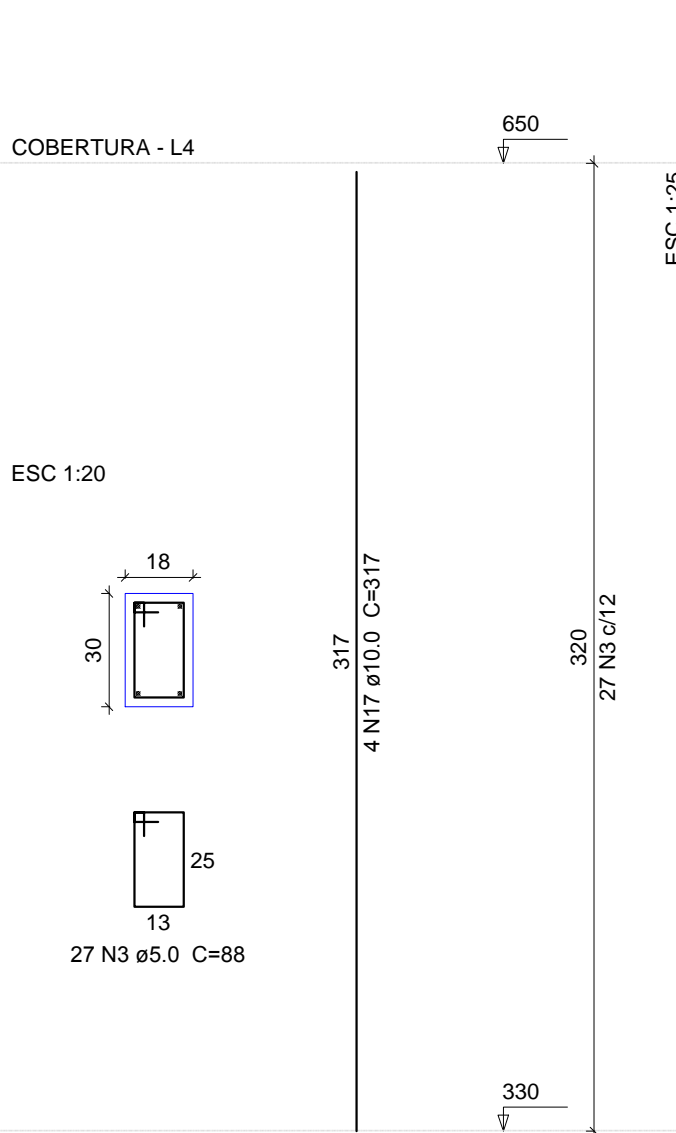
P105=P125



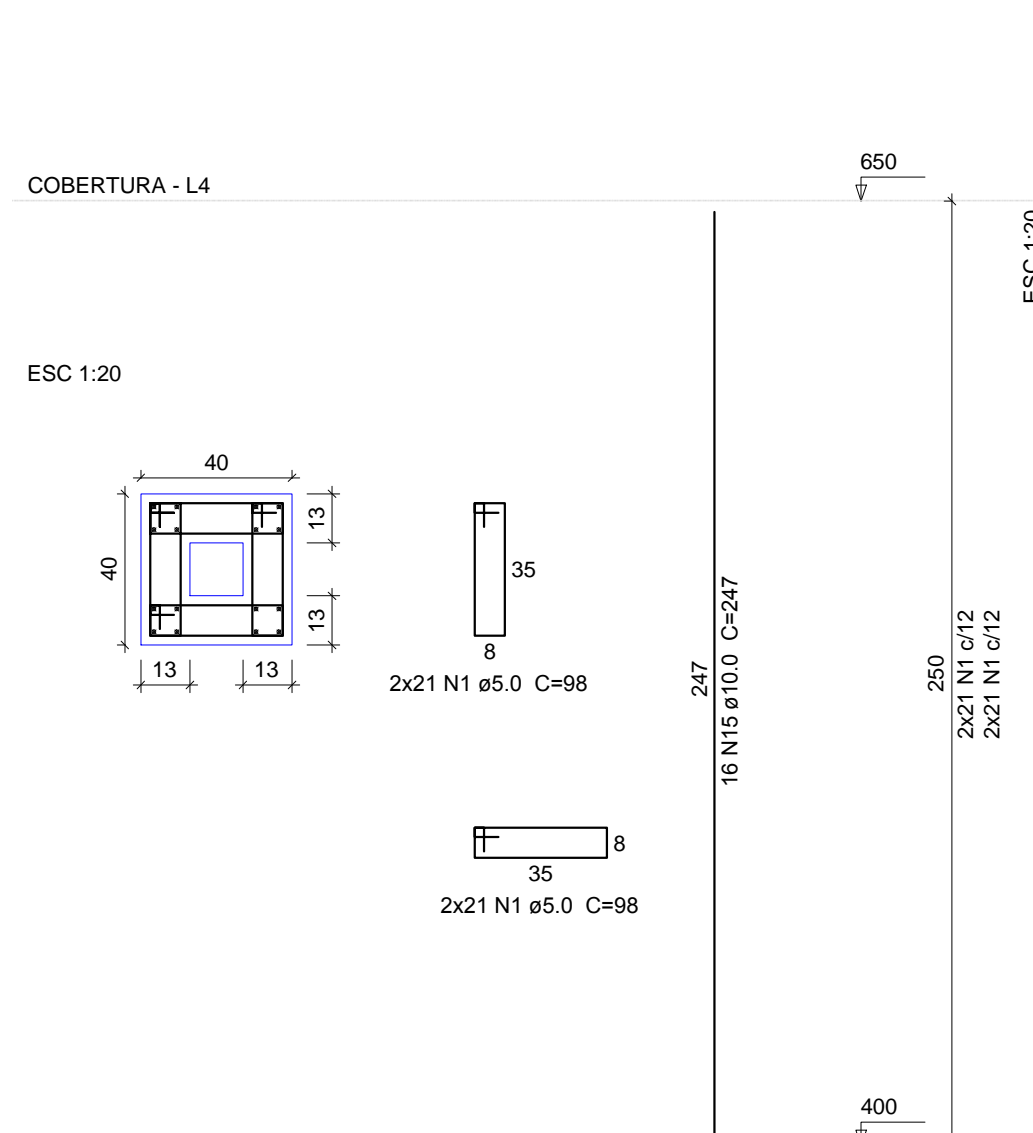
P110=P112=P129



P117=P119=P123



P126=P127



Relação do aço

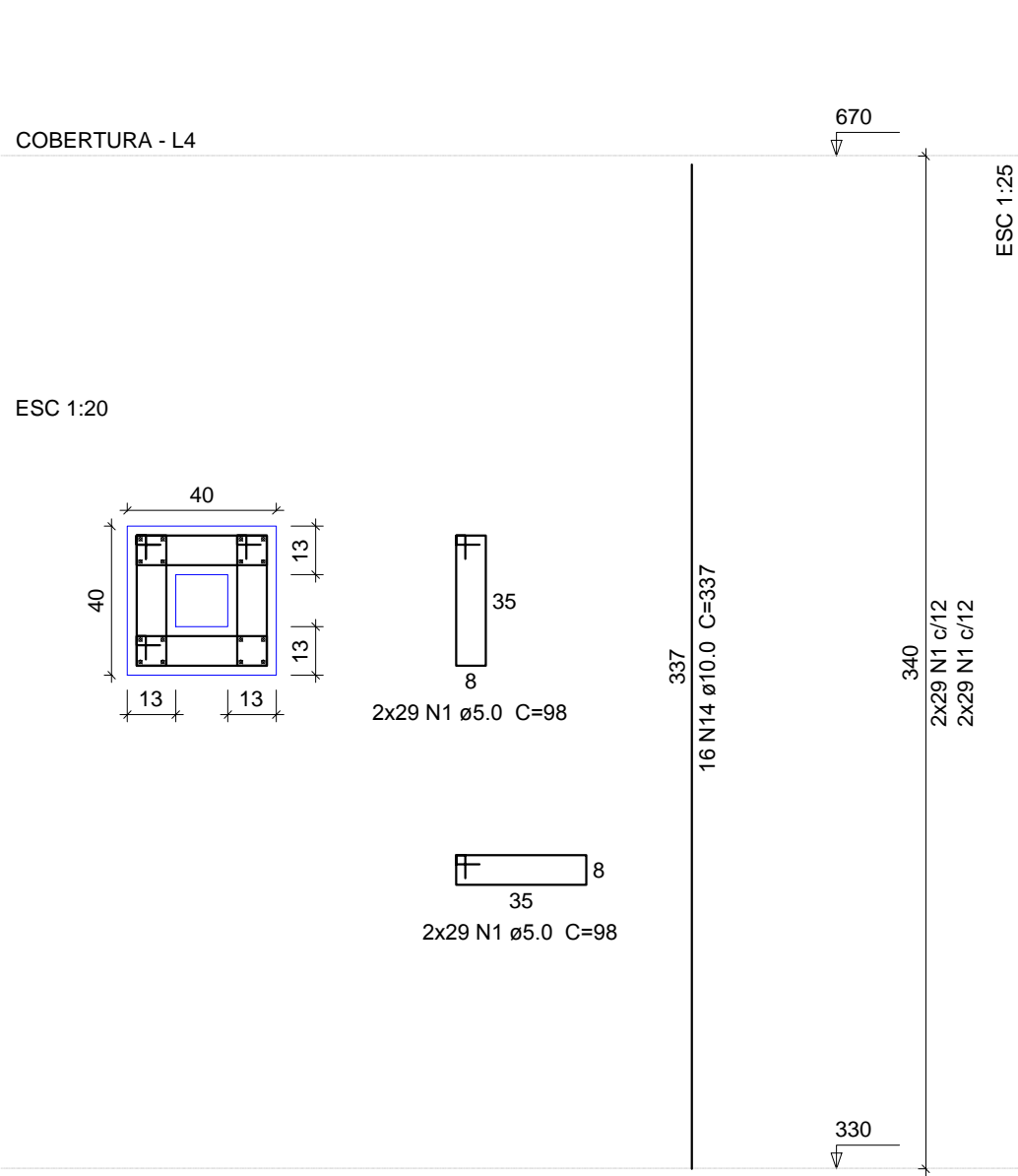
ACO	N	DIAM (mm)	QUANT (Barra)	UNIT (cm)	C.TOTAL (cm)
CA50	1	5.0	6392	98	528416
	2	5.0	49	108	5292
	3	5.0	81	98	7128
	4	5.0	120	148	17760
	5	5.0	54	28	1512
	6	5.0	364	152	55328
	7	5.0	364	50	18200
	8	5.0	46	100	4600
	9	5.0	368	150	55200
	10	5.0	108	92	9936
	11	5.0	66	28	1848
	12	6.3	885	152	149720
	13	6.3	885	51	50035
	14	10.0	336	337	113332
	15	10.0	96	247	23712
	16	10.0	32	189	6048
	17	10.0	136	317	43112
	18	10.0	144	390	56160
	19	10.0	36	370	13320
	20	12.5	40	370	14800
	21	12.5	156	337	52672
	22	12.5	48	317	15216
	23	12.5	66	390	25740
	24	12.5	2	100	200
	25	16.0	14	100	1400
	26	16.0	48	370	17760
	27	16.0	48	317	15216

Resumo do aço

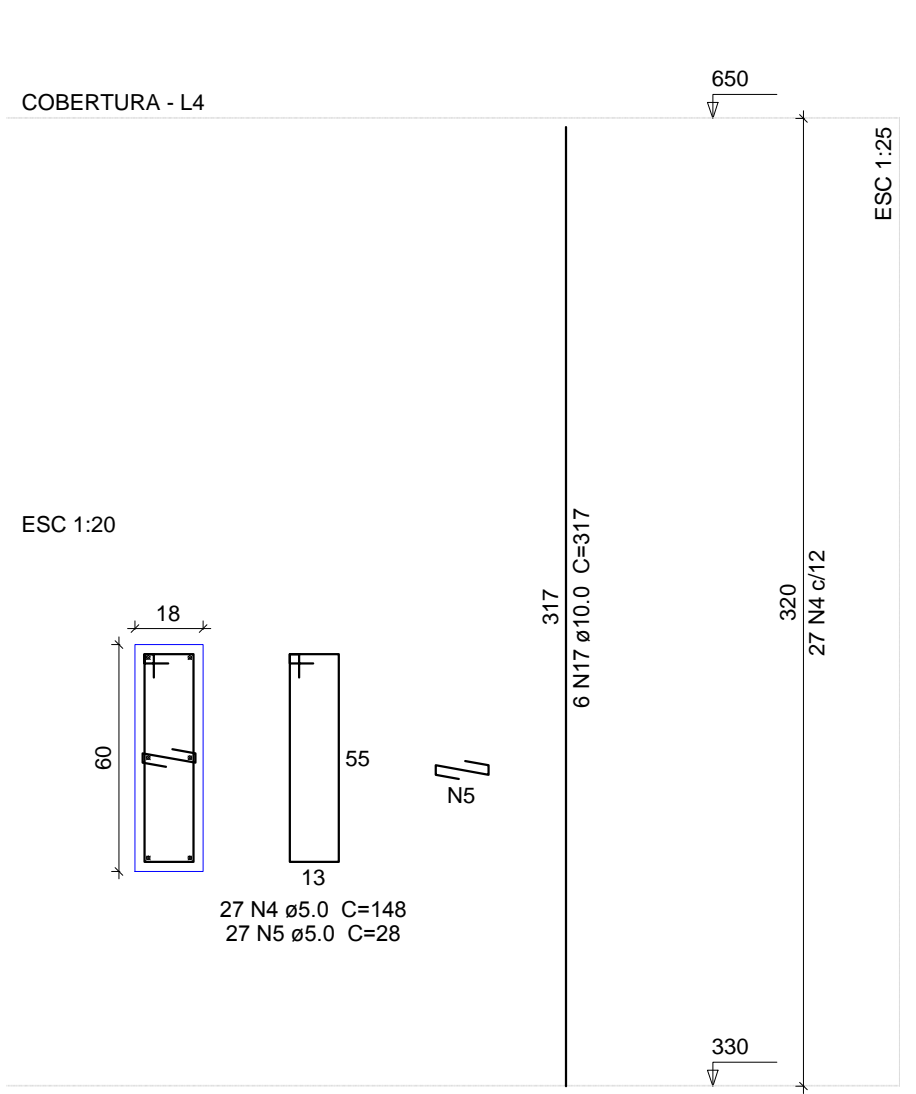
ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	5.0	15996.6	538.2
	10.0	2555.9	1733.3
	12.5	1885.3	1150
	16.0	343.8	596.8
	5.0	7552.2	1195.7
CA50			4018.4
CA50			1195.7

Volume de concreto (C=40) = 54.72 m³
Área de forma = 591.64 m²

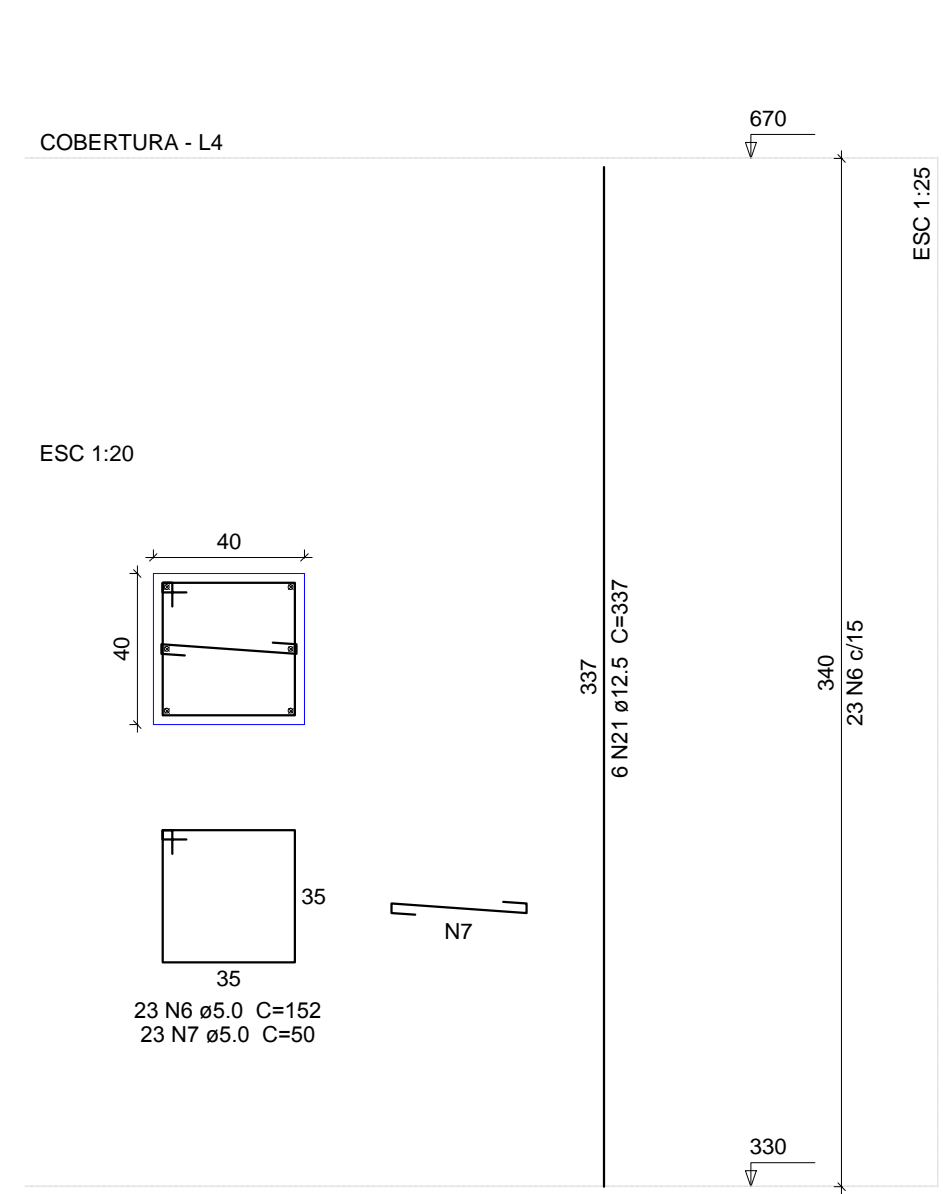
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=P19=P20=P21=P67



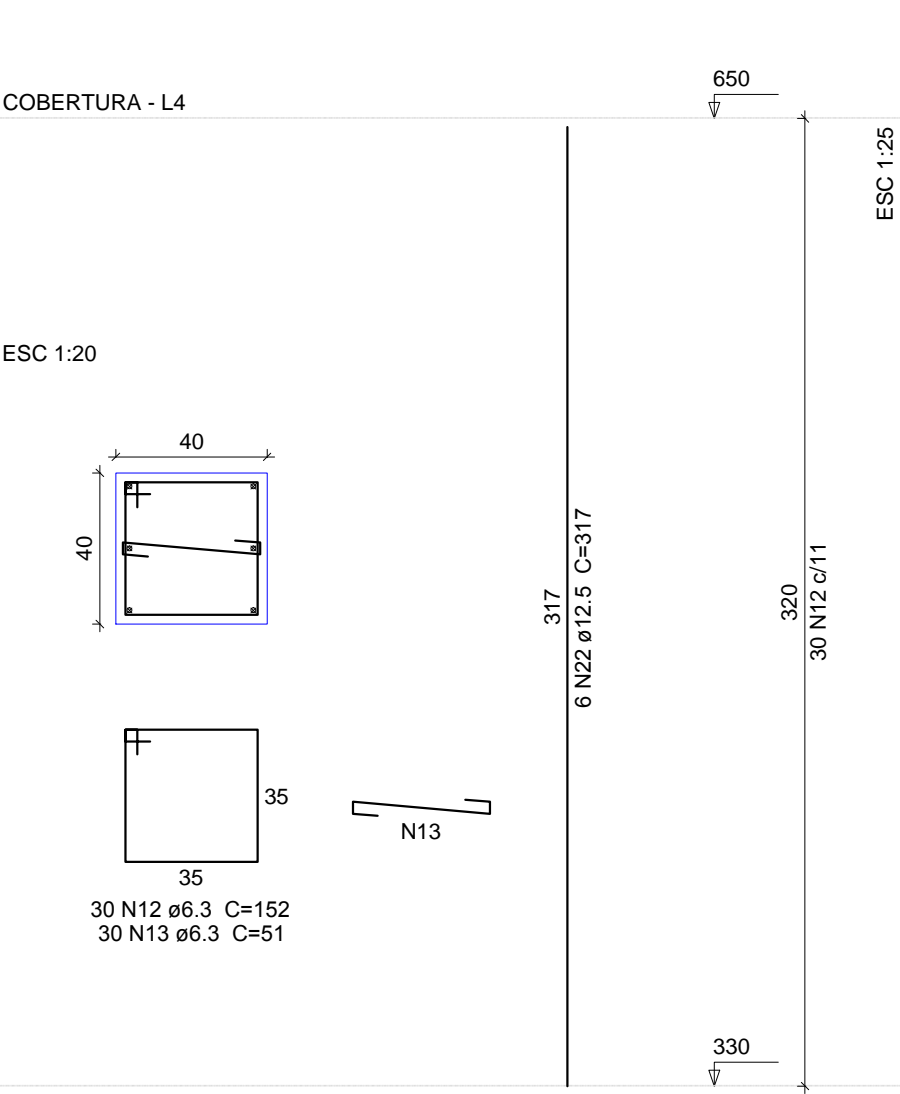
P24=P27



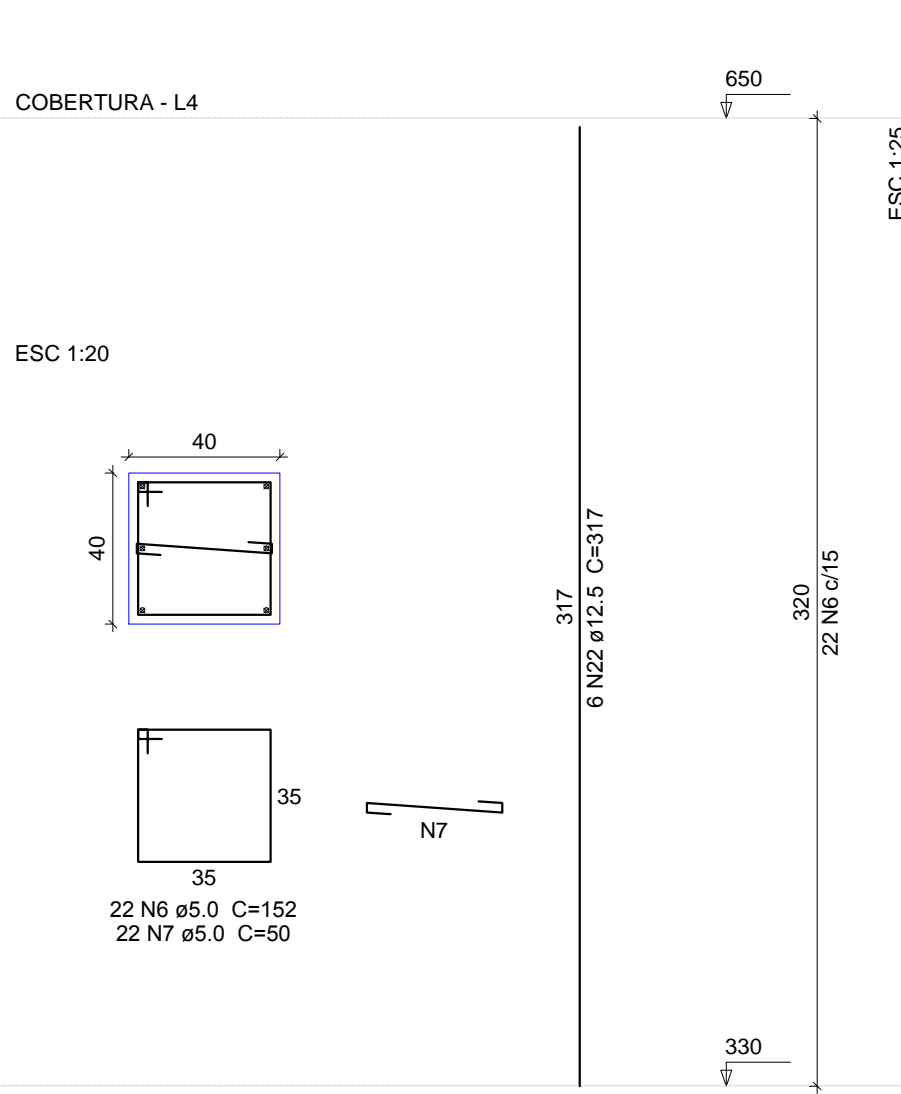
P30=P31=P32=P33=P34=P39=P40=P41=P42=P43
=P61=P62



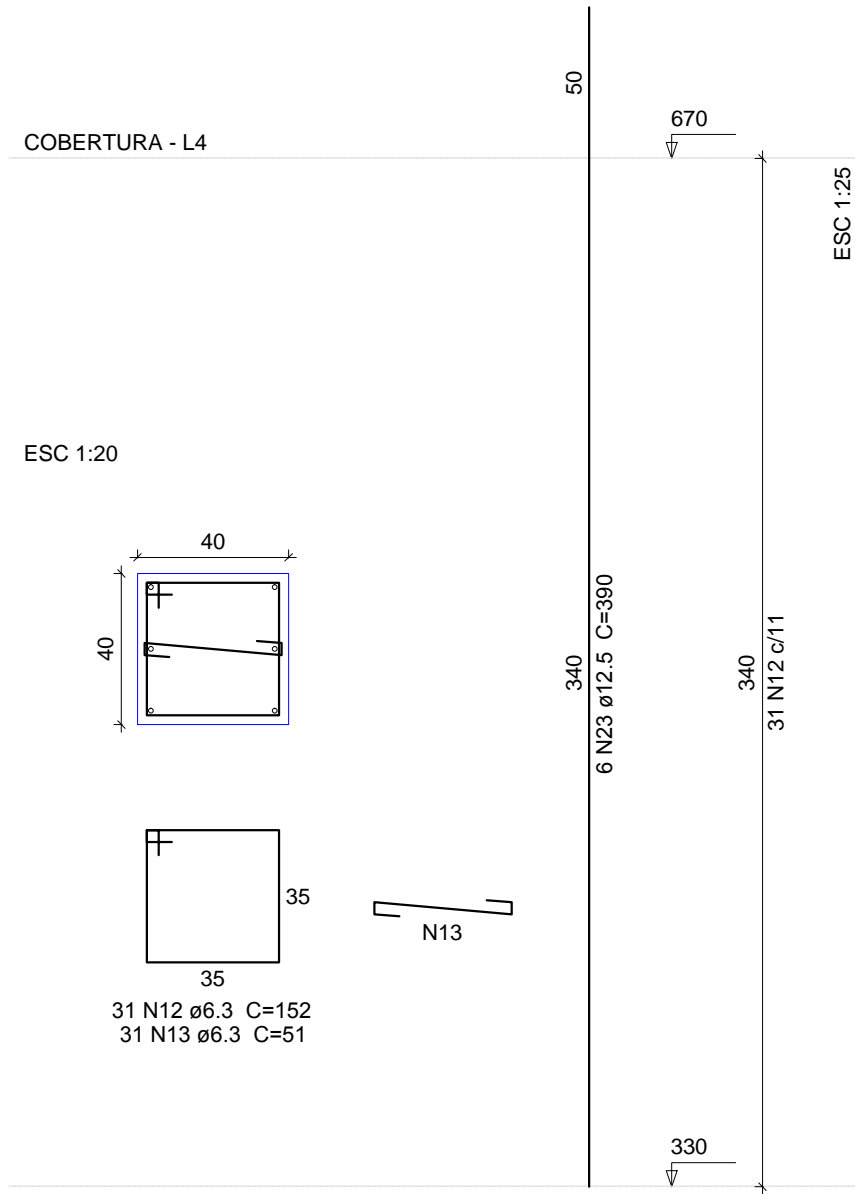
P46=P47=P49=P50



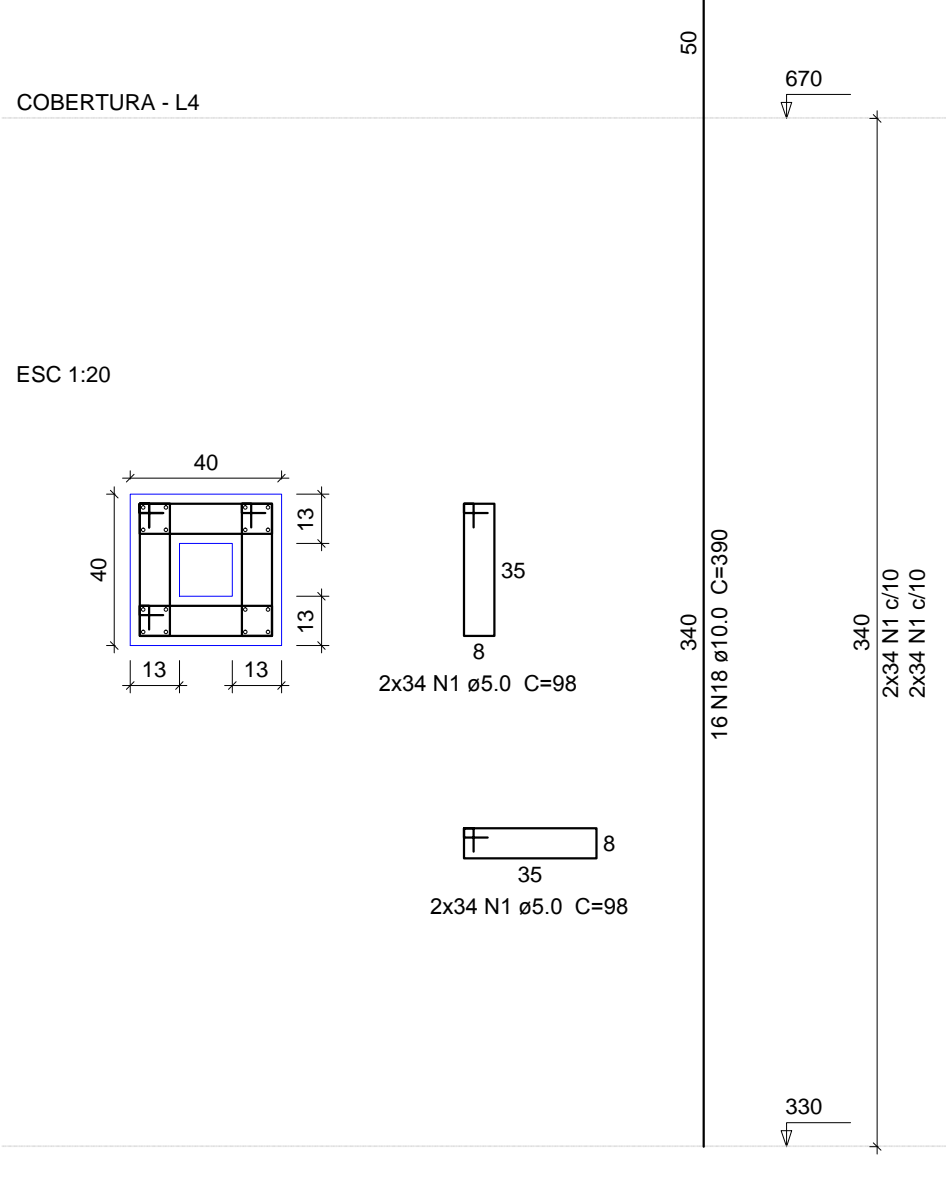
P48=P63=P64=P65



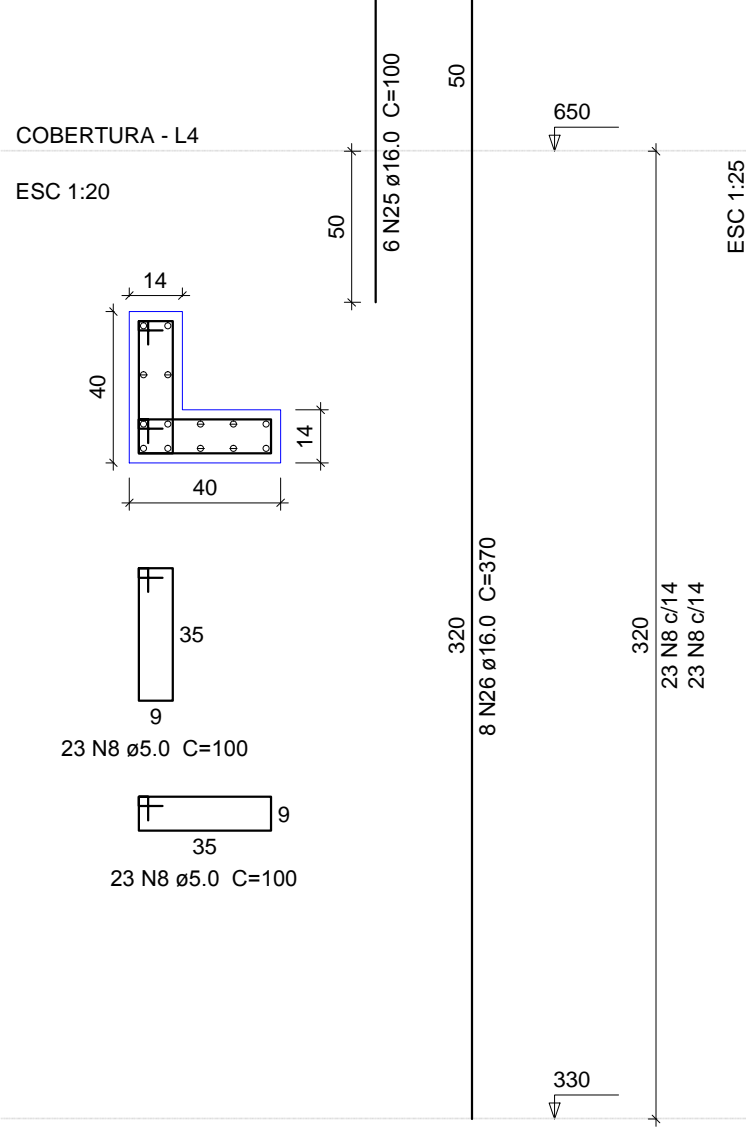
P51=P53=P69=P71=P84=P86=P87=P90=P104
=P111



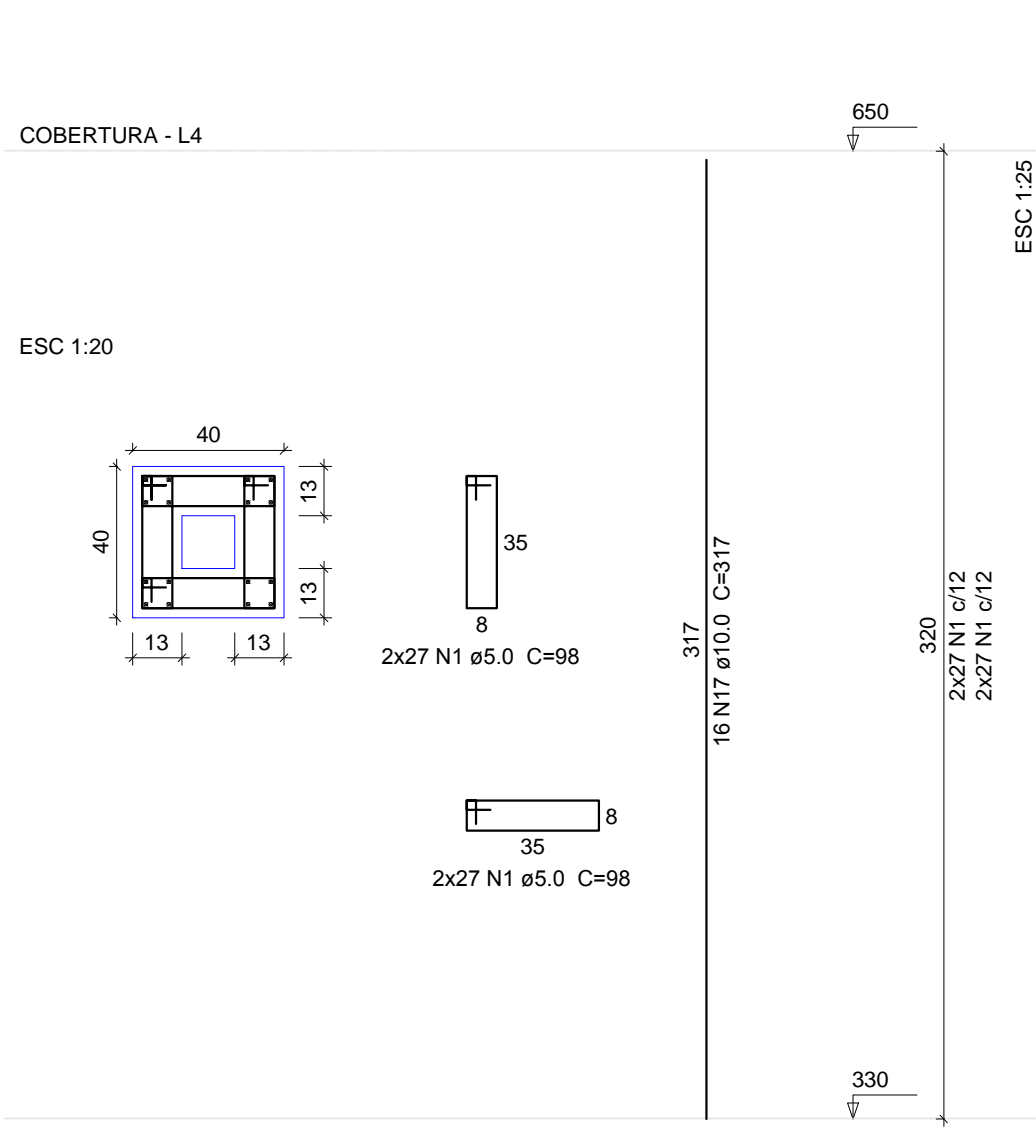
P52=P70=P80=P97=P99=P102



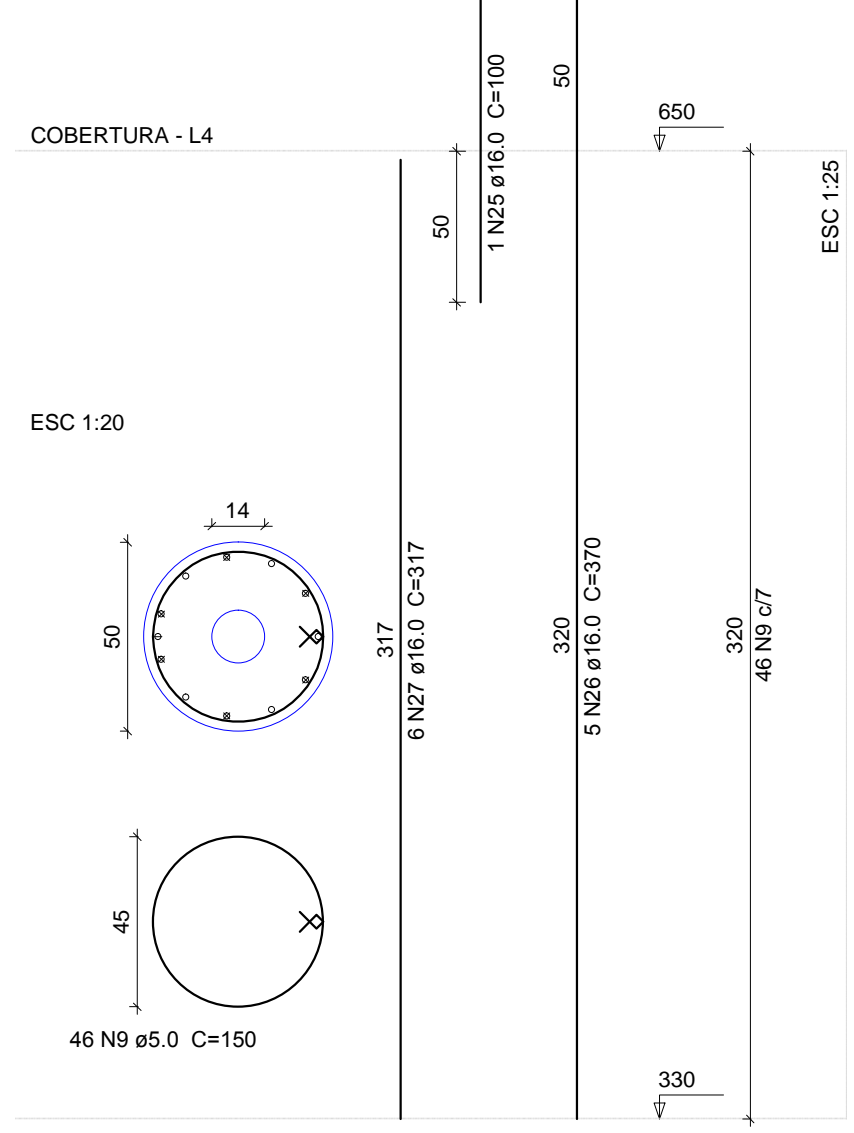
P59



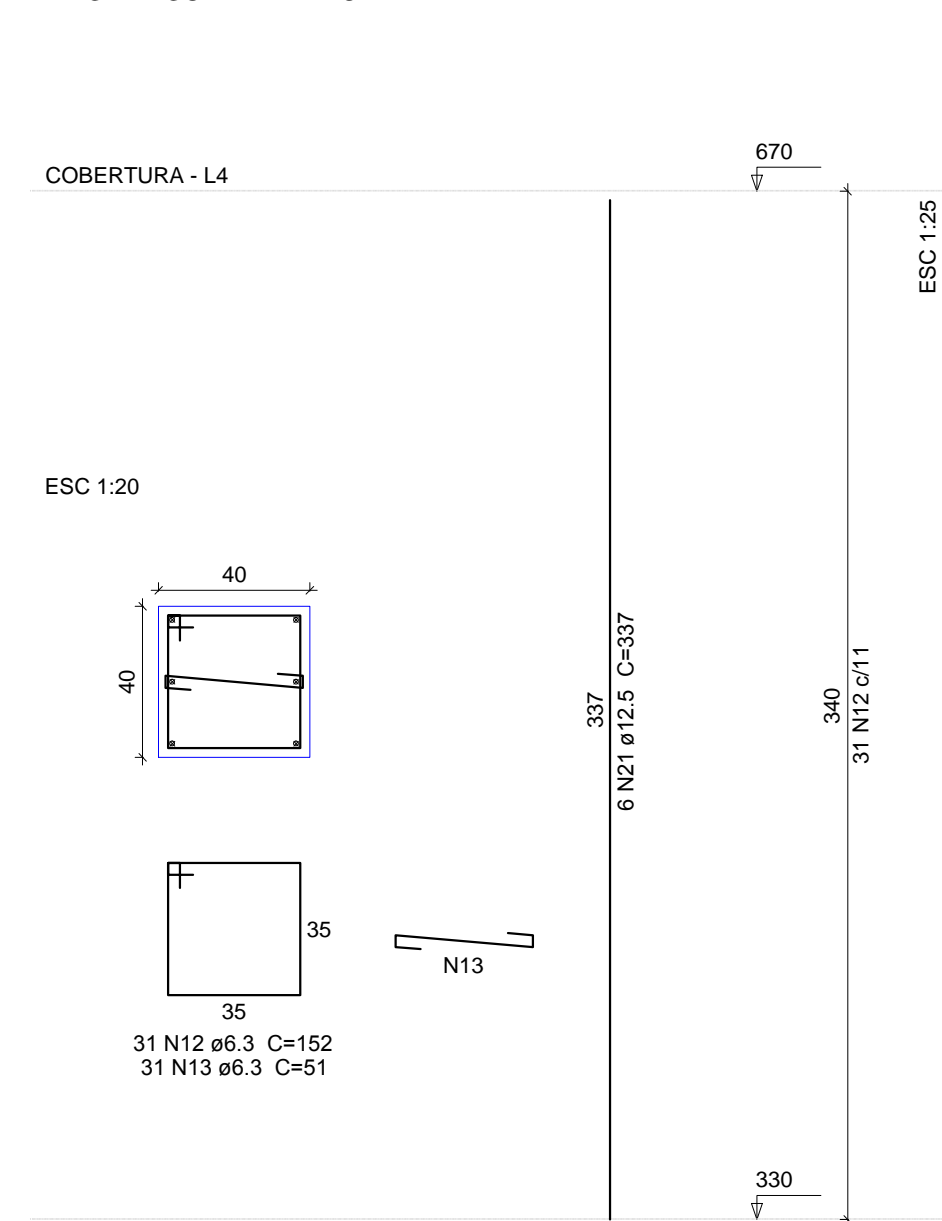
P66=P113=P128=P130



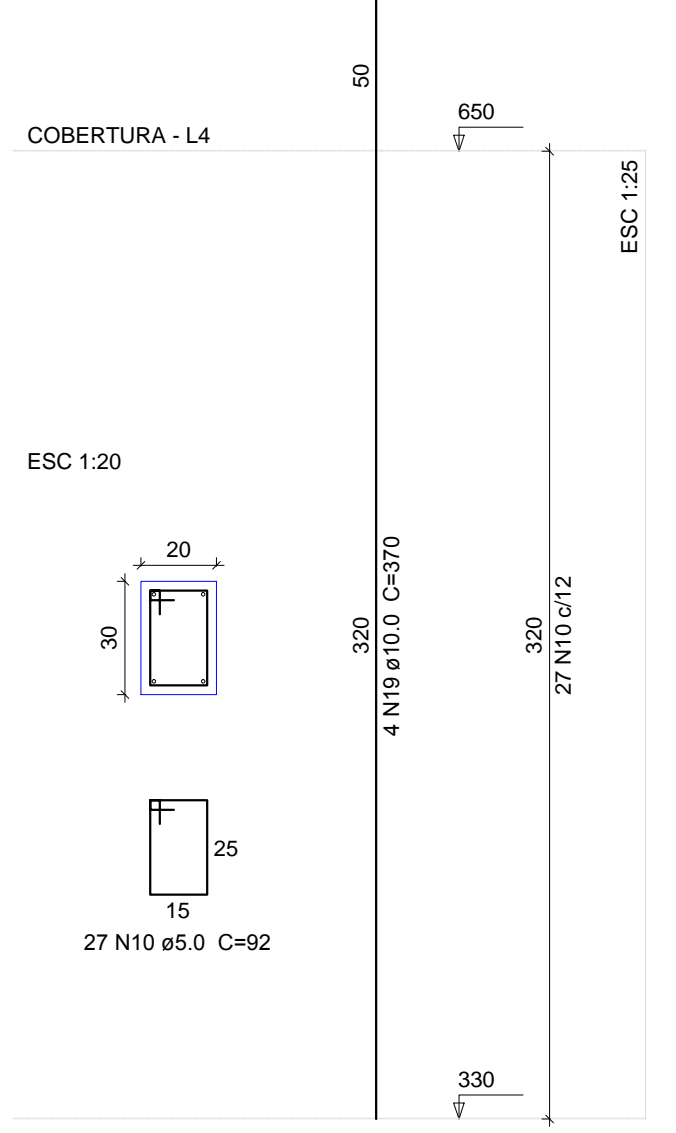
P72=P73=P74=P75=P76=P77=P78=P79



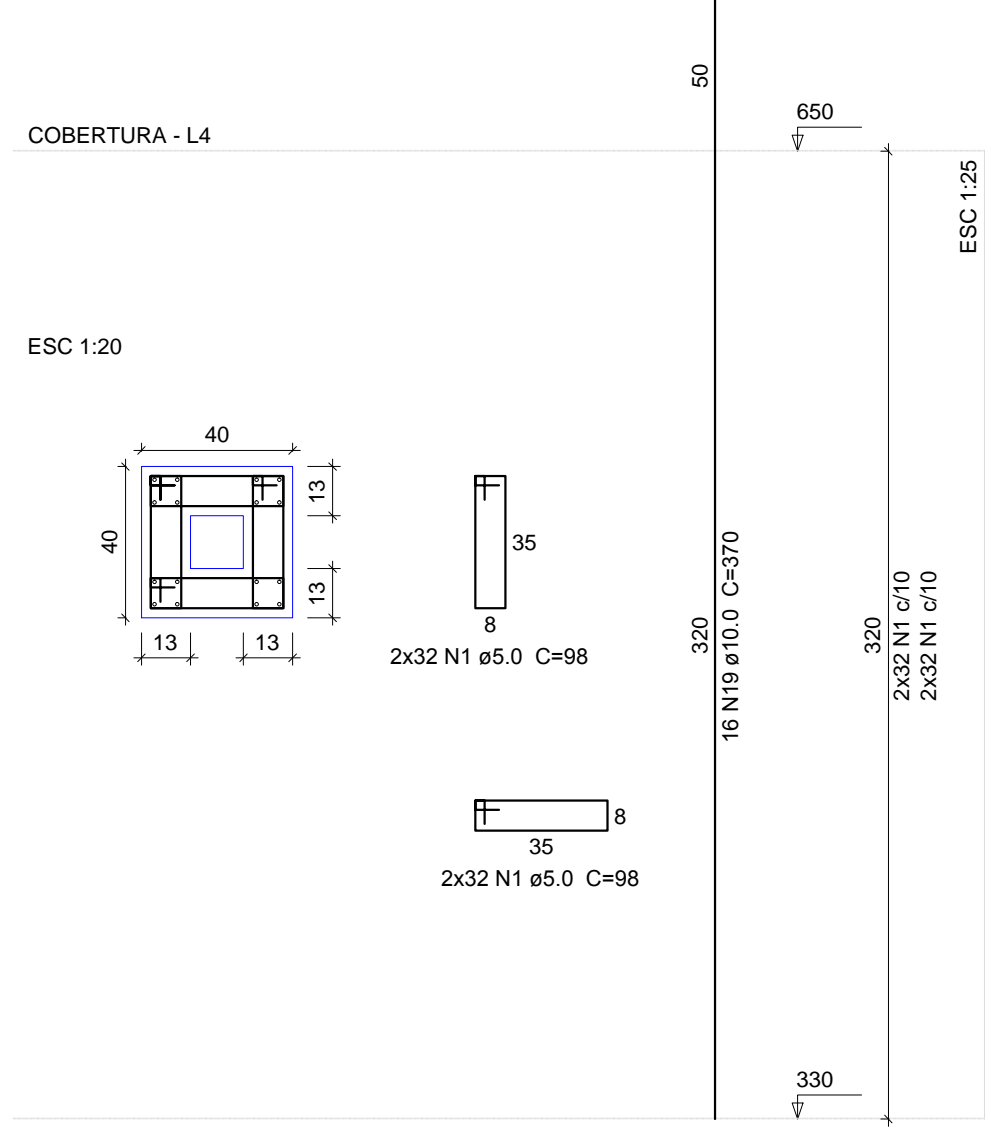
P8=P9=P15=P16=P25=P26=P28=P29=P35=P36
=P37=P38=P44=P45



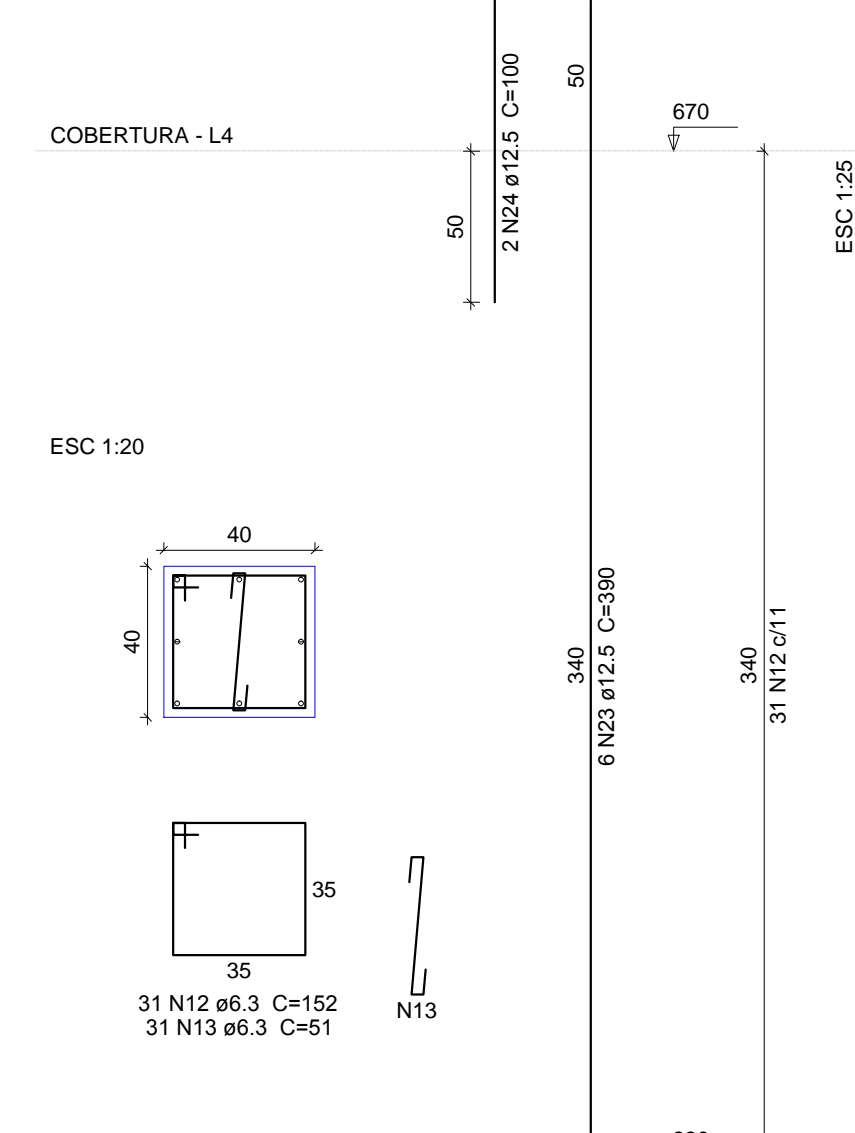
P81=P85=P107=P108



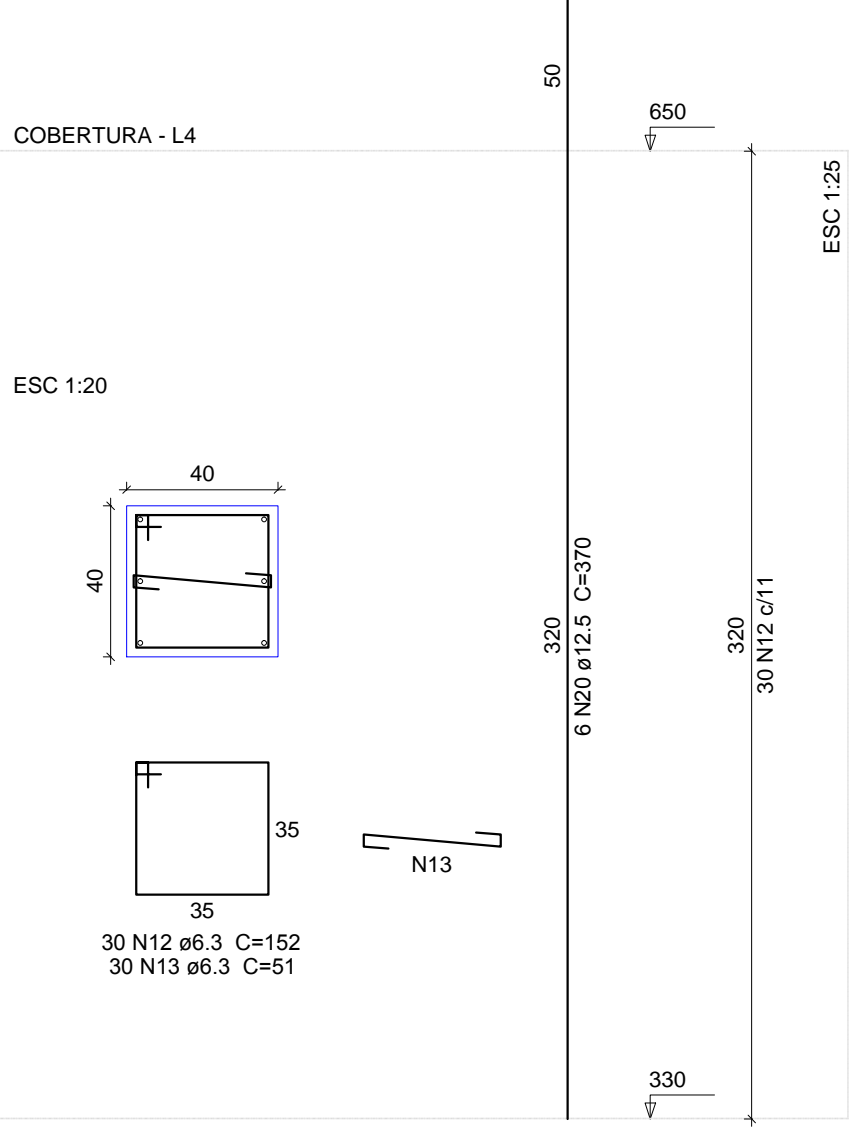
P82



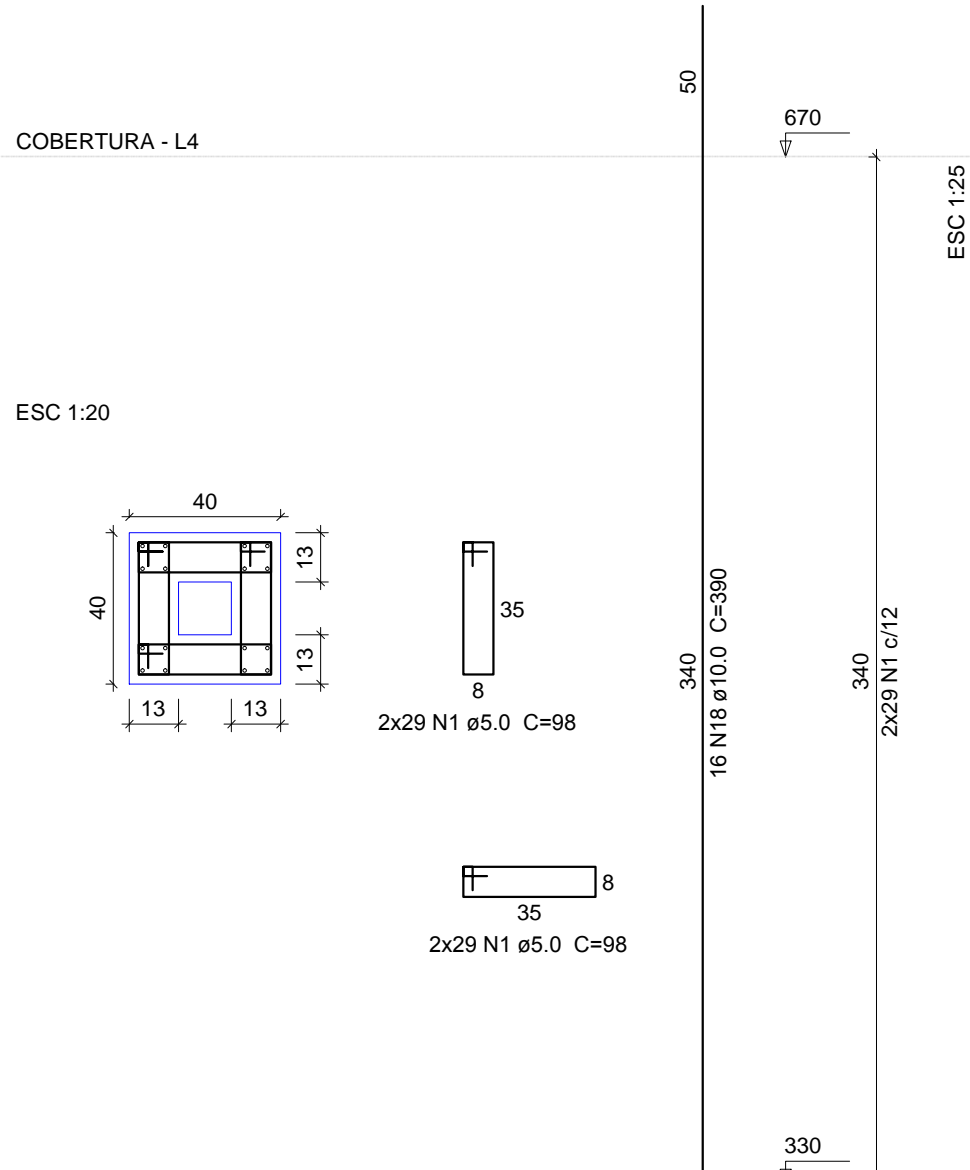
P83



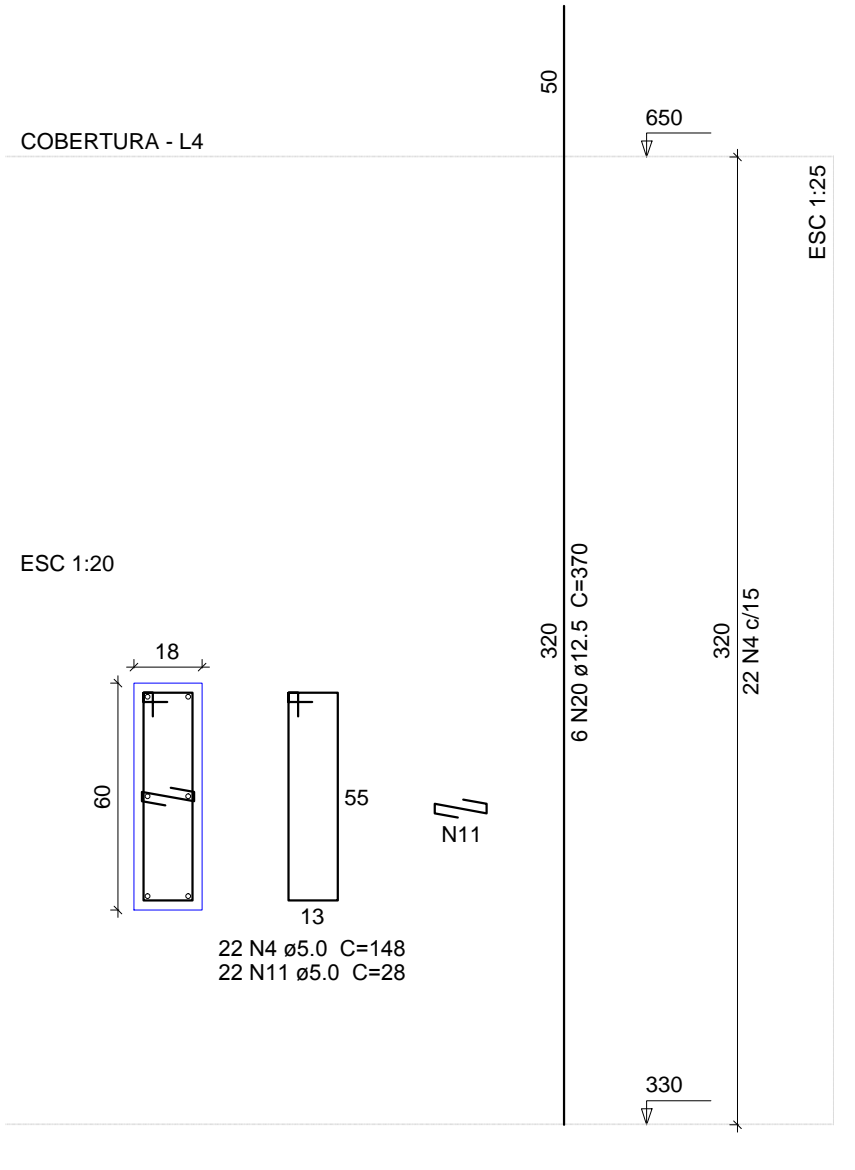
P88=P89=P96



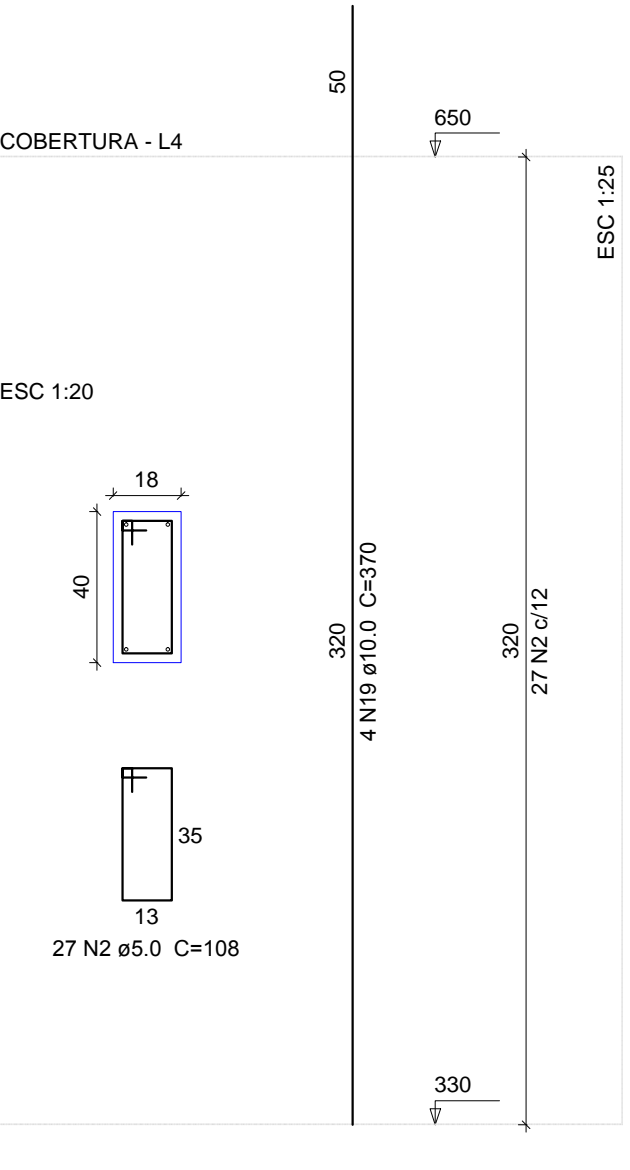
P91=P94=P95



P92=P98=P101



P93





UENP Universidade do Norte do Paraná

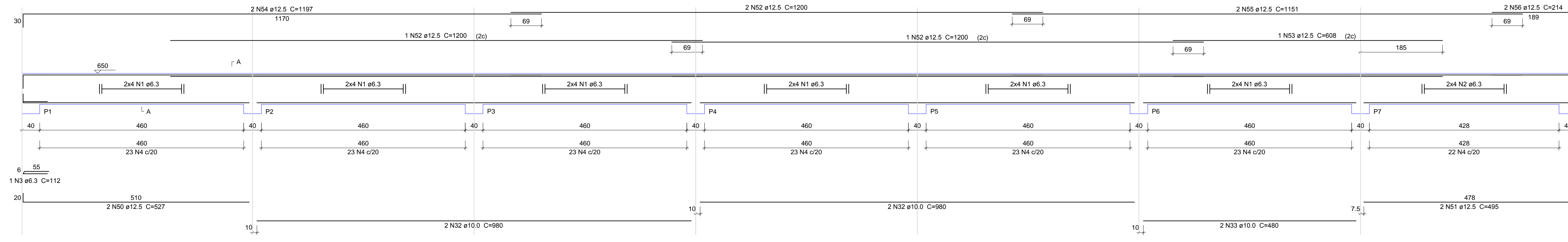
PROPRIETÁRIO: UNIVERSIDADE ESTADUAL DO NORTE DO PARANÁ - UENP
UBR: BLOCO ODONTOLÓGICO - UENP
SOCIAL: PROLONGAMENTO DA AV. PEDRO COELHO DE MIRANDA
RESPONSÁVEL TÉCNICO: DEIDEO ANTONIO CAPRARI, JR. - CREA PR 33.344/D
DEIDEO FELIPE CAPRARI - CREA PR 142.746/D
LUCAS PERES DE SOUZA - CREA PR 145.755/D

MUNICÍPIO: JARACATIQUÊ - PR
TIPO: CONSTRUÇÃO
PROJETO: **ESTRUTURAL**
REVISÃO: **DETALHES PILARES PAV. COB.**

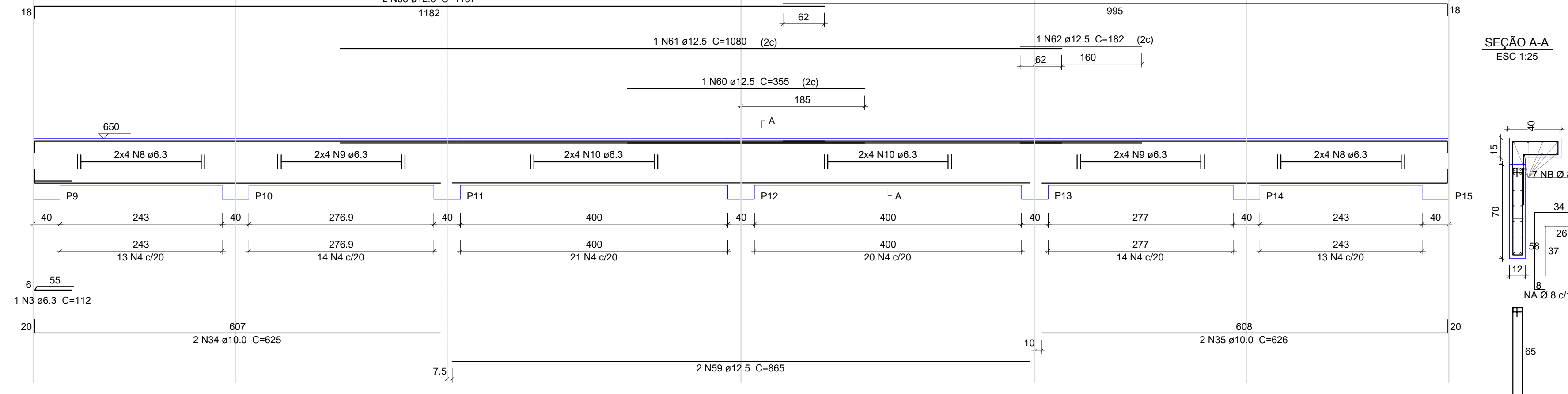
DESENHO: DEIDEO
DATA: 03/2020
ESCALA: 1:20
ARQUITETO: EST. UENP/Pré-Edifício, Pr. 11

EST 19.24

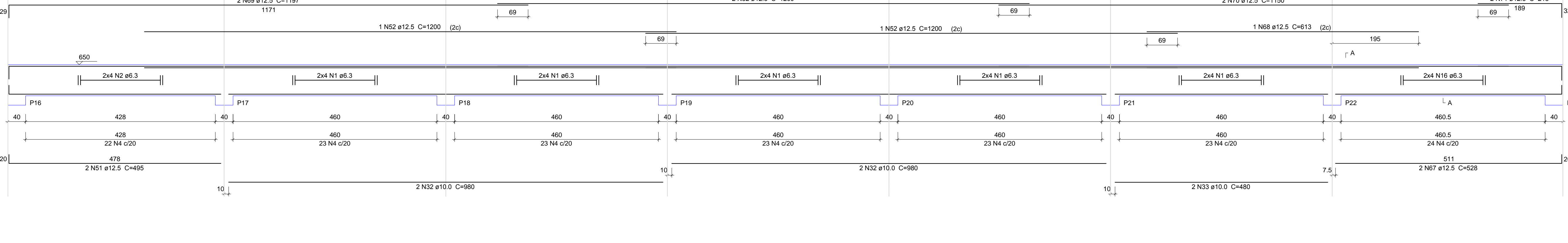
VIGAS DO PAVIMENTO COBERTURA
V1
ESC 1:50



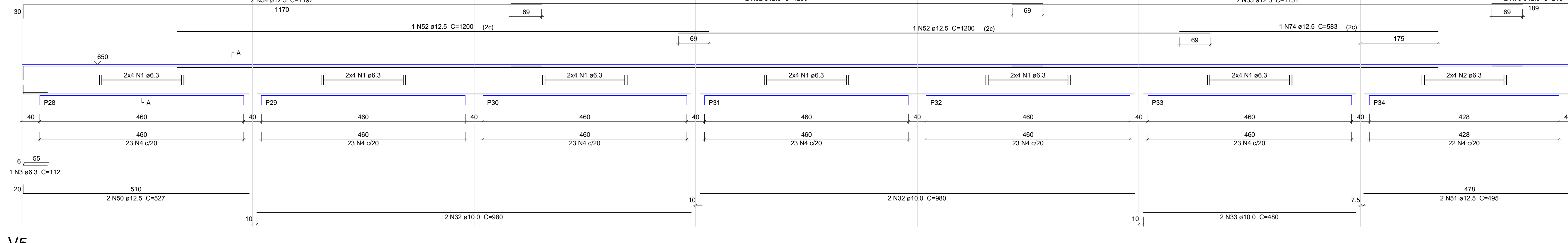
V2
ESC 1:50



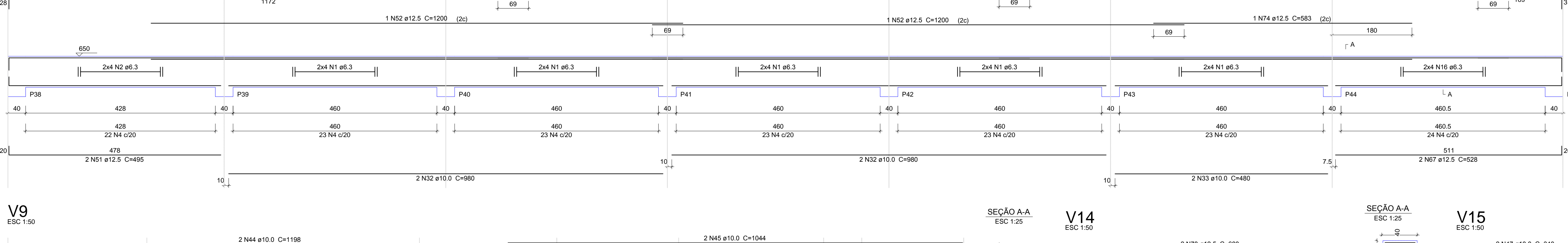
V3
ESC 1:50



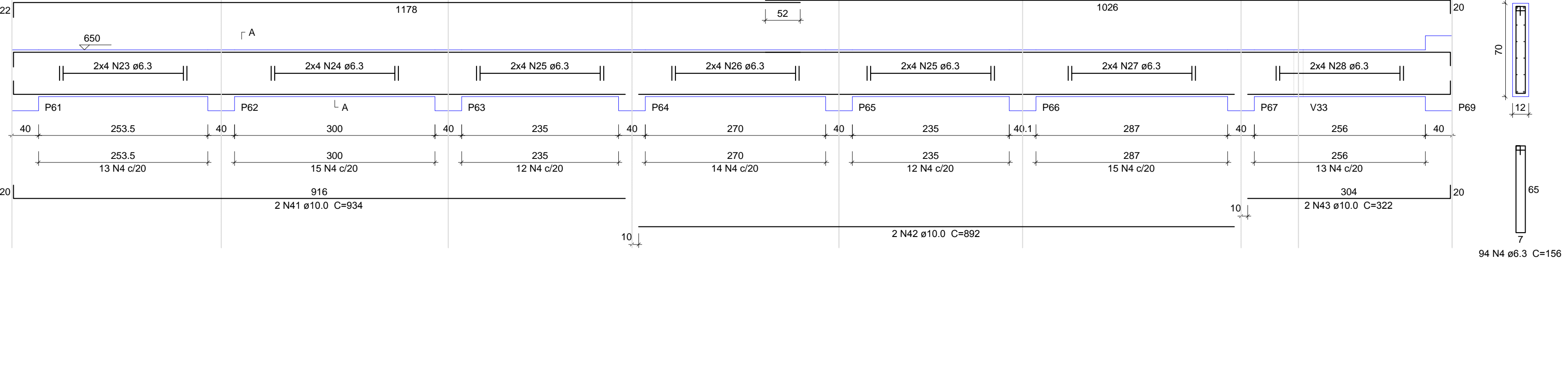
V4
ESC 1:50



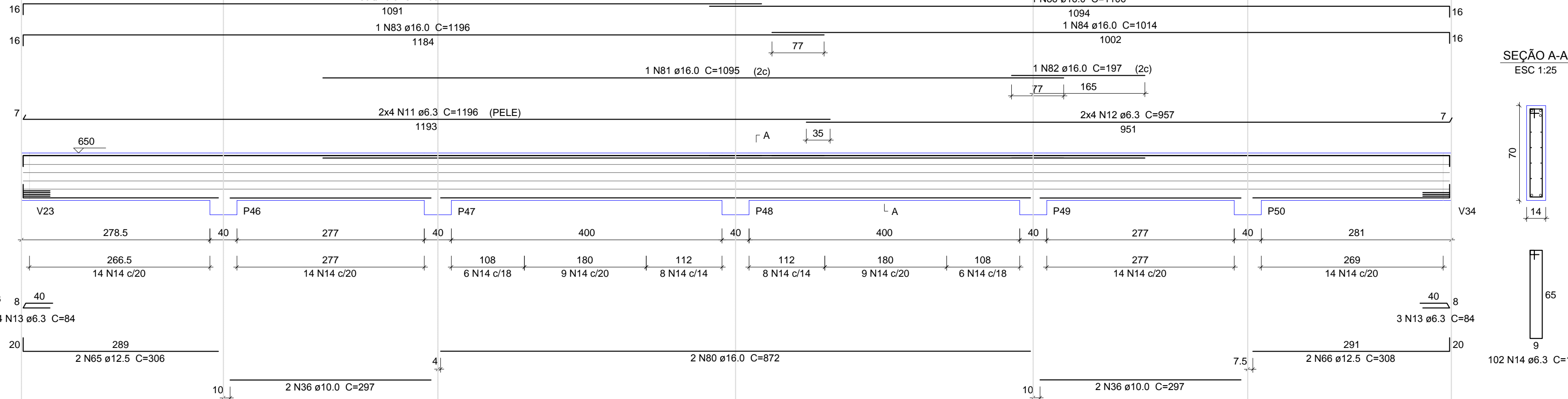
V5
ESC 1:50



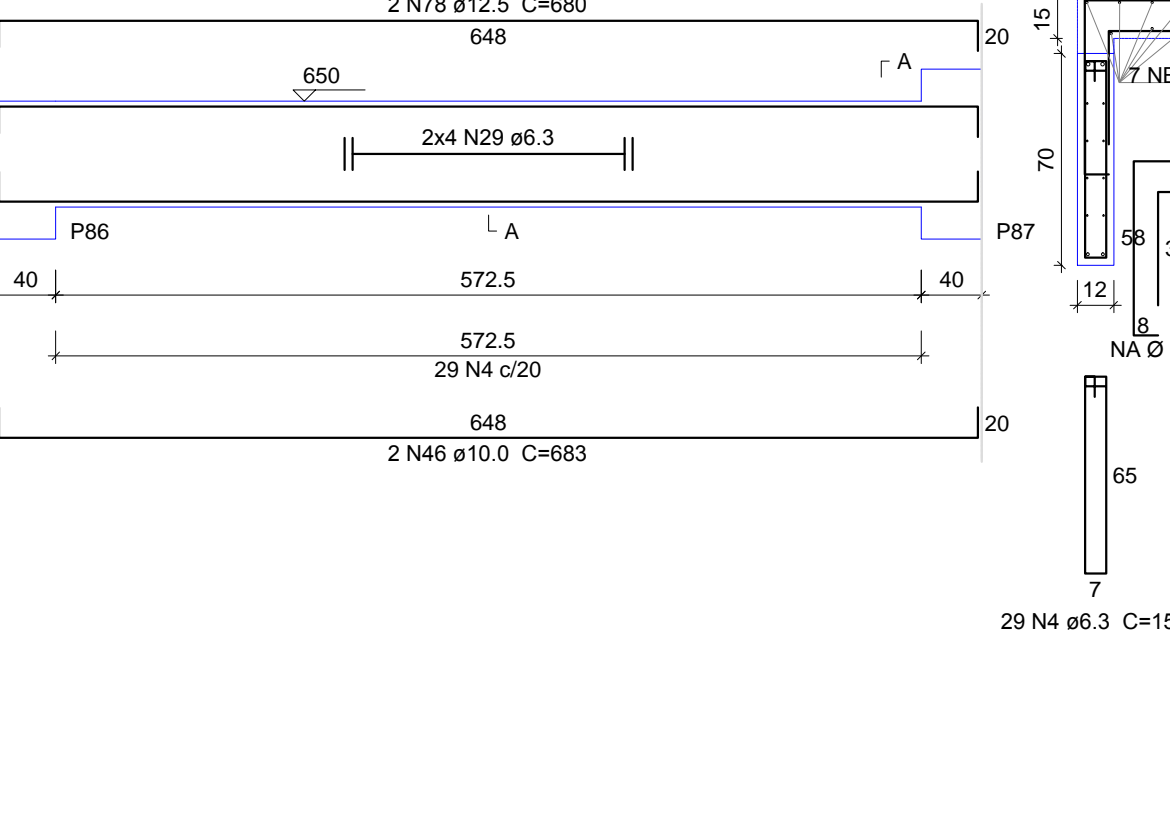
V9
ESC 1:50



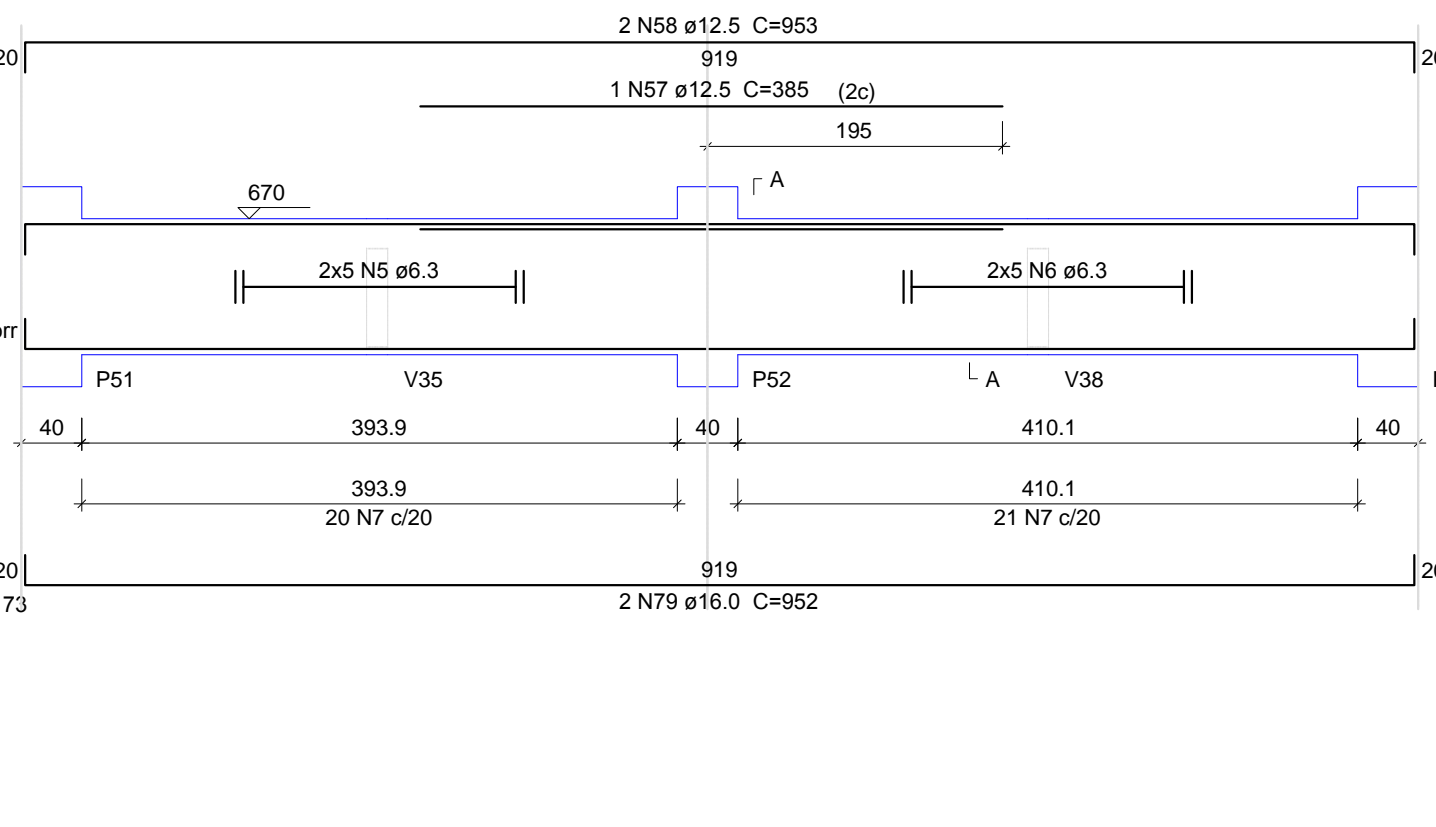
V6
ESC 1:50



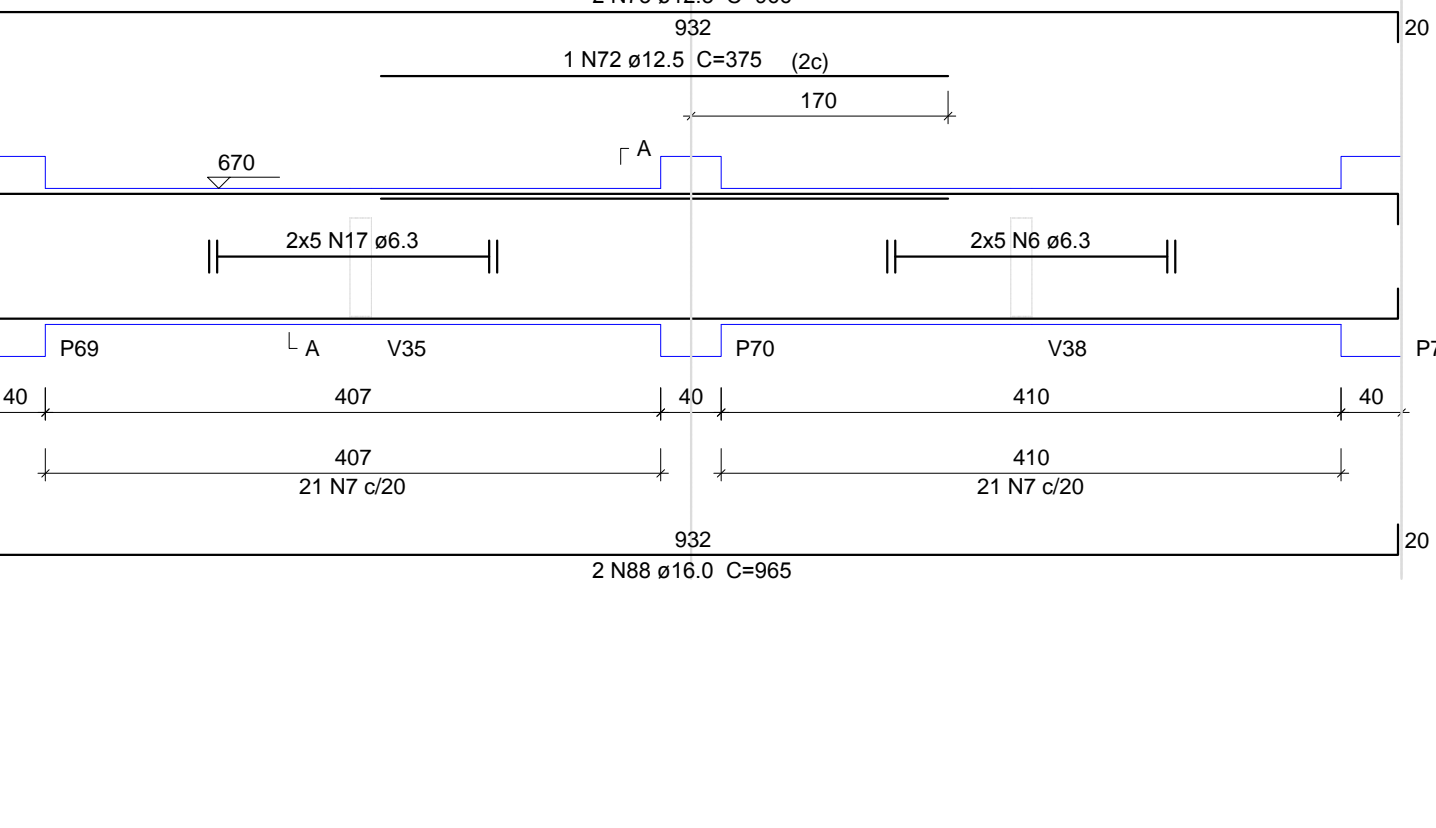
V14
ESC 1:50



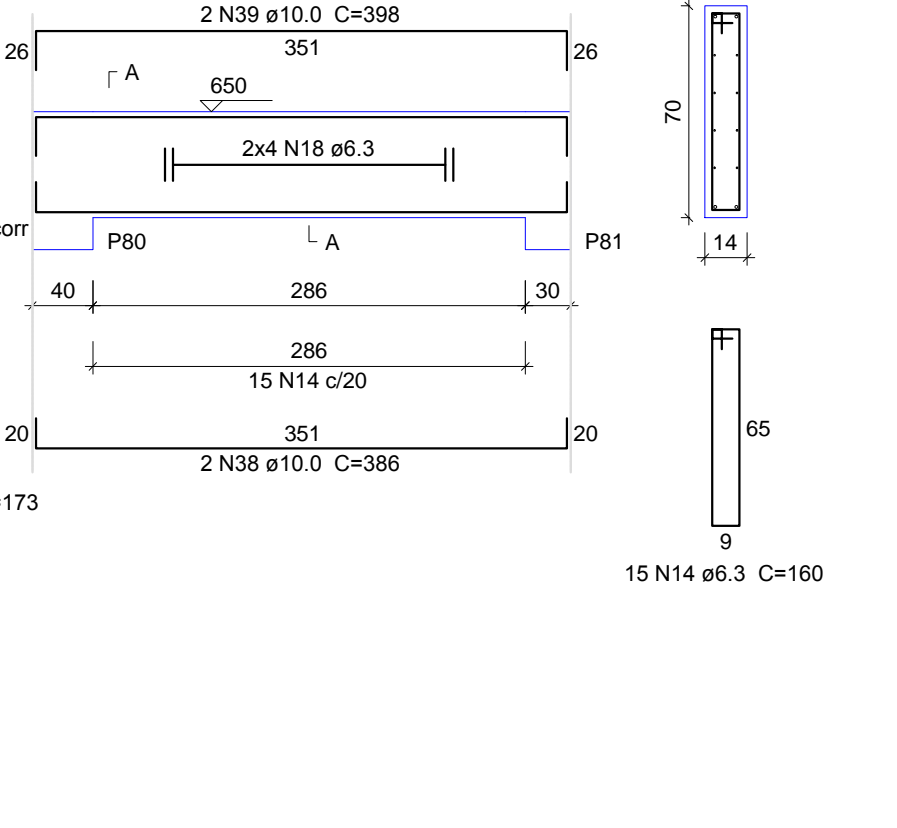
V7
ESC 1:50



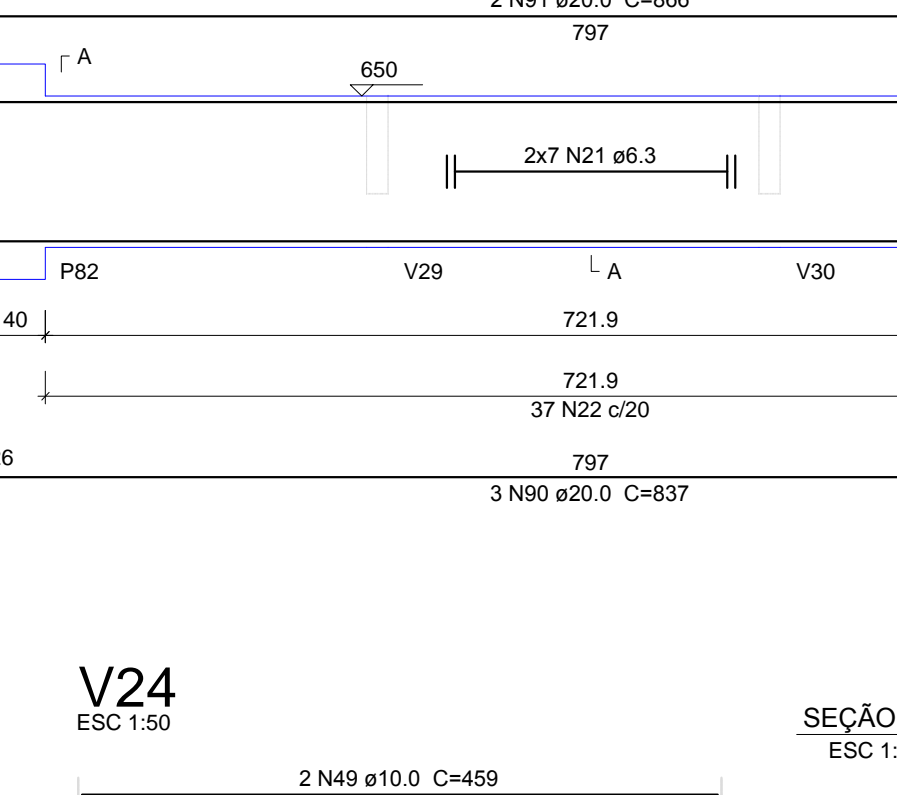
V10
ESC 1:50



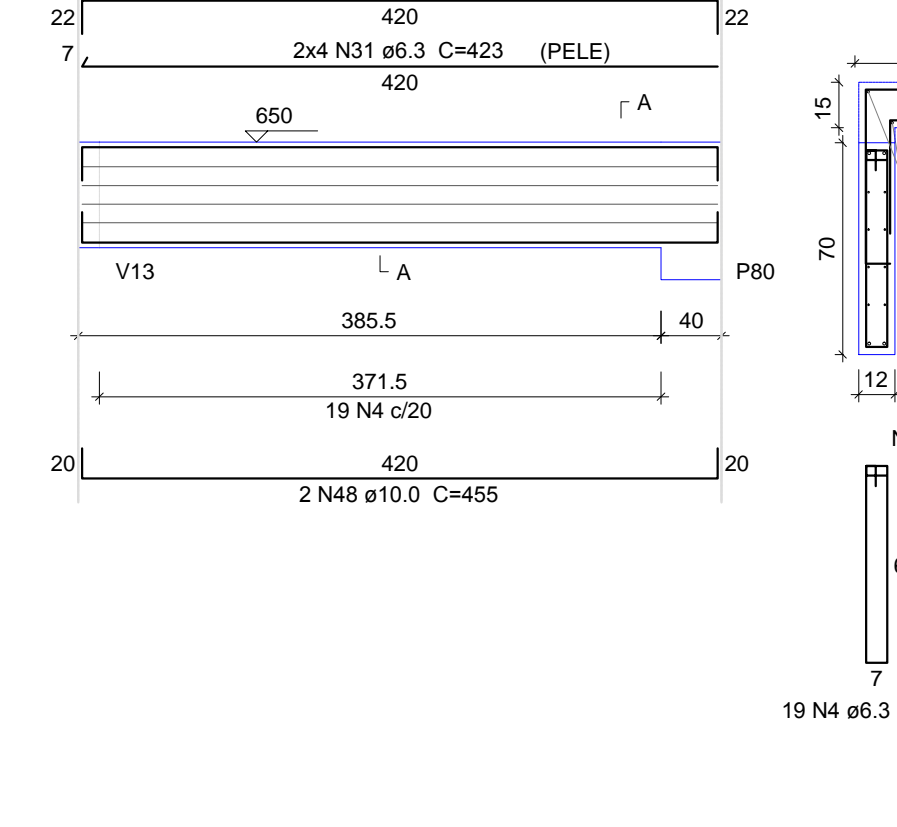
V11
ESC 1:50



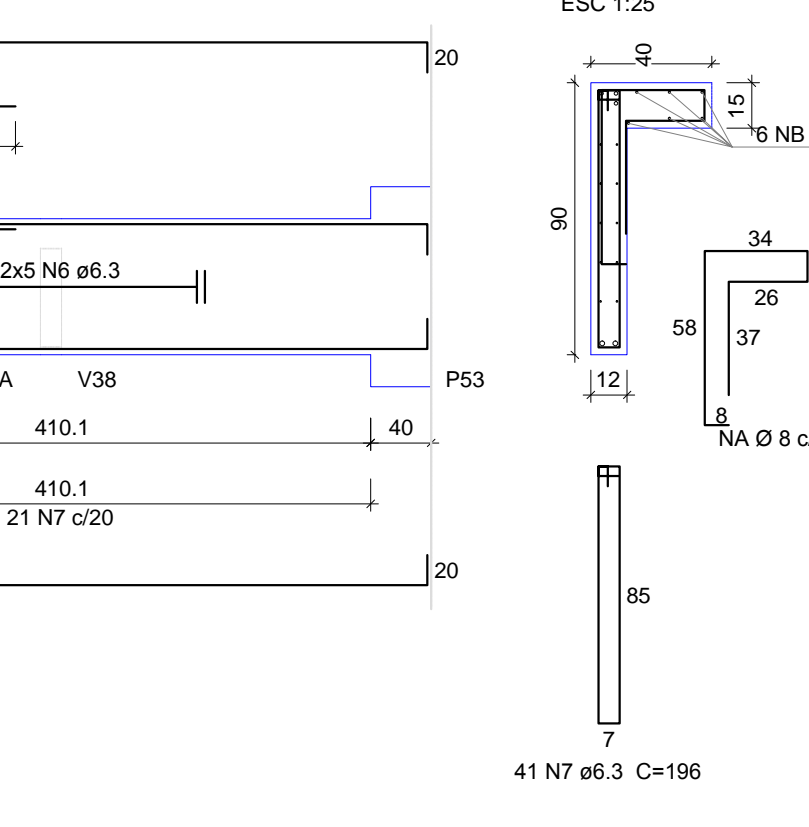
V12
ESC 1:50



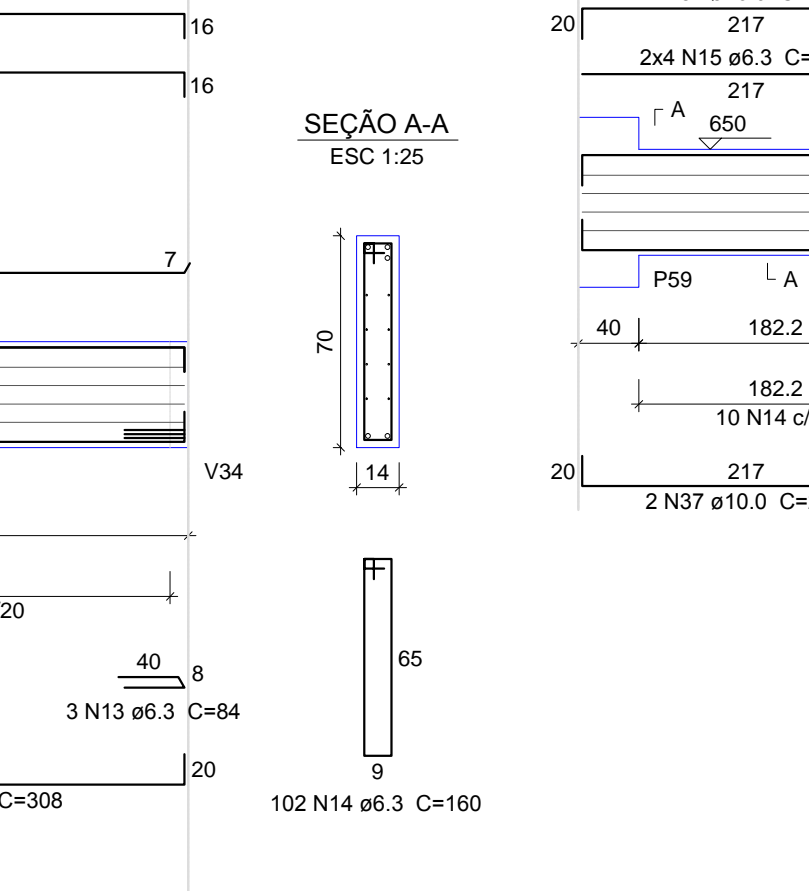
V24
ESC 1:50



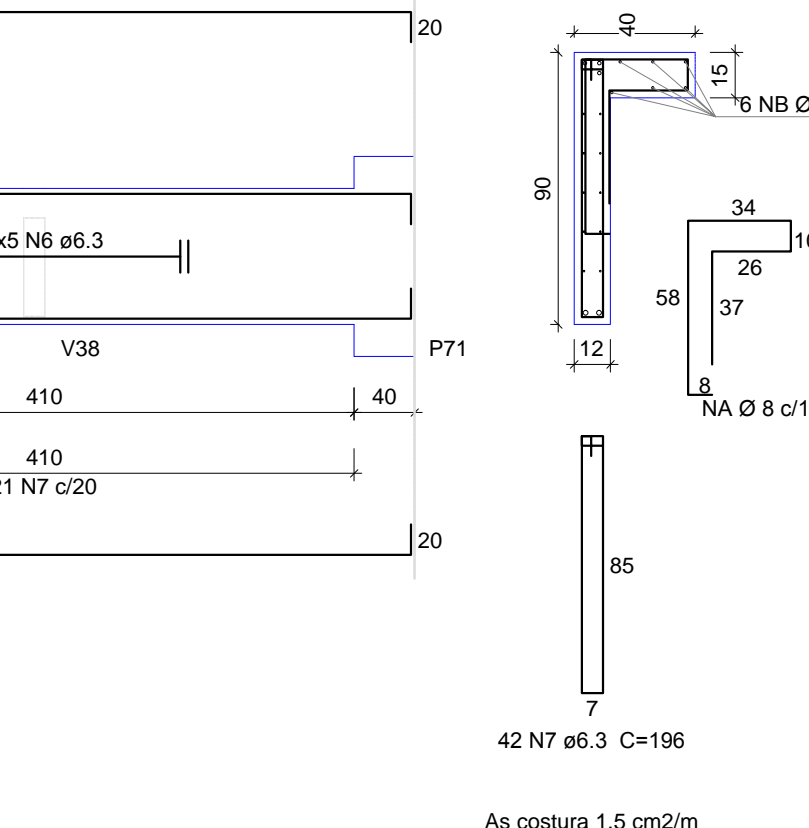
V13
ESC 1:50



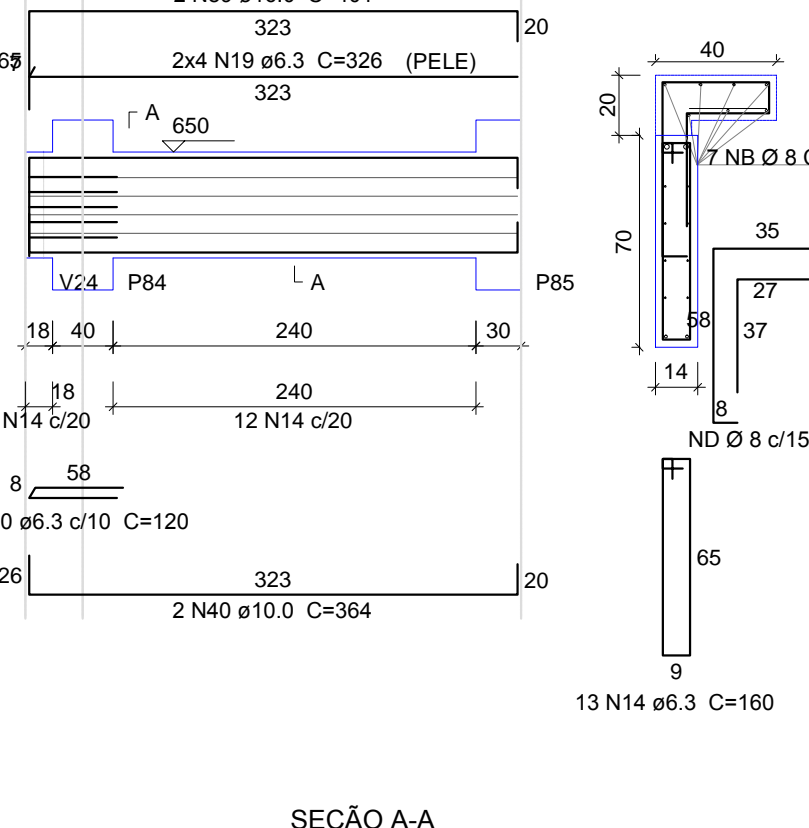
V8
ESC 1:50



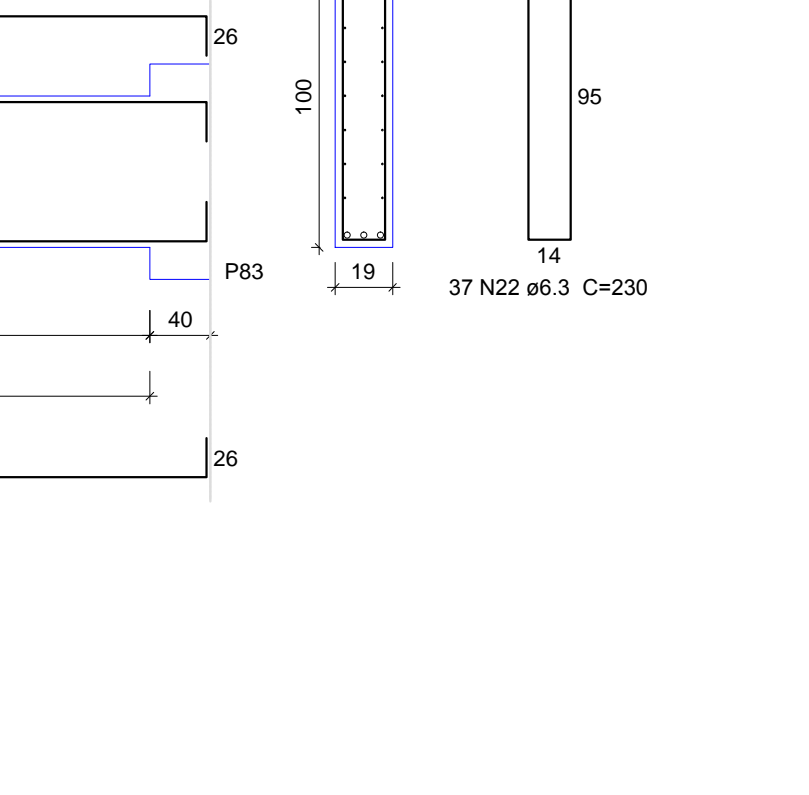
V10
ESC 1:50



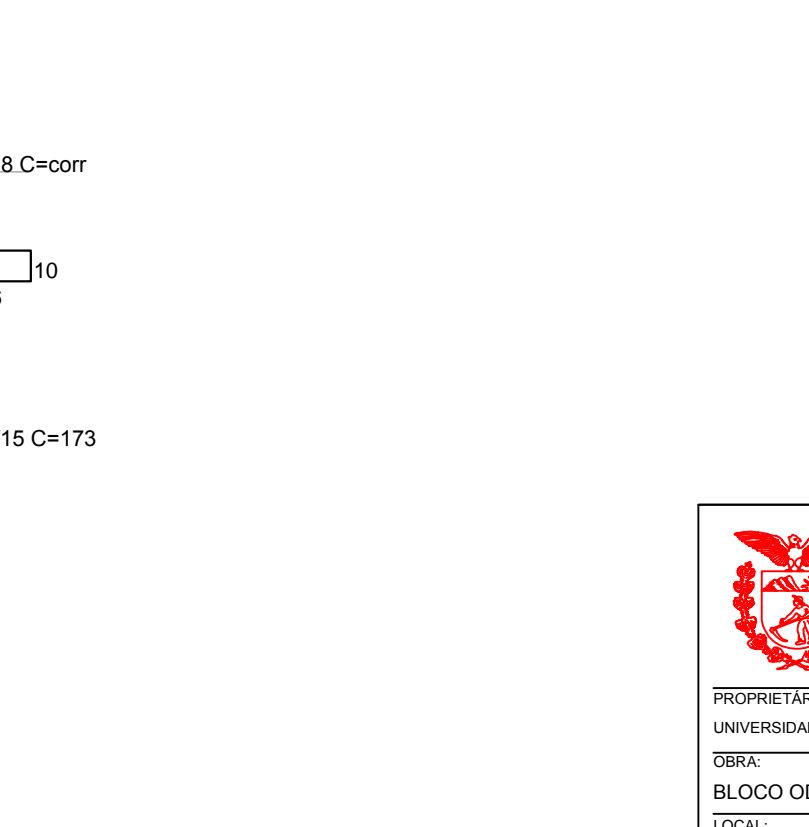
V11
ESC 1:50



V12
ESC 1:50



V24
ESC 1:50



Relação do aço					
		V2	V3		
		V8	V9		
		V11	V12		
		V14	V15		
					</

Resumo do aço			
ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CASO			
1	6.3	4096	1102.5
2	10.0	303.6	266.9
3	12.5	652.2	691.1
4	16.0	126.9	220.2
5	20.0	42.5	115.1

PESO TOTAL (kg)
CASO 2395.8

Volume de concreto (C=40) = 23.08 m³
Área de forma = 356.47 m²



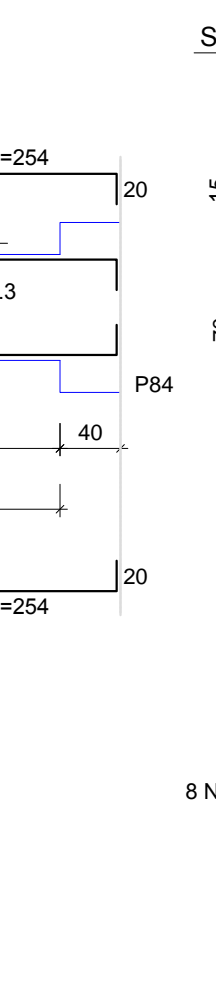
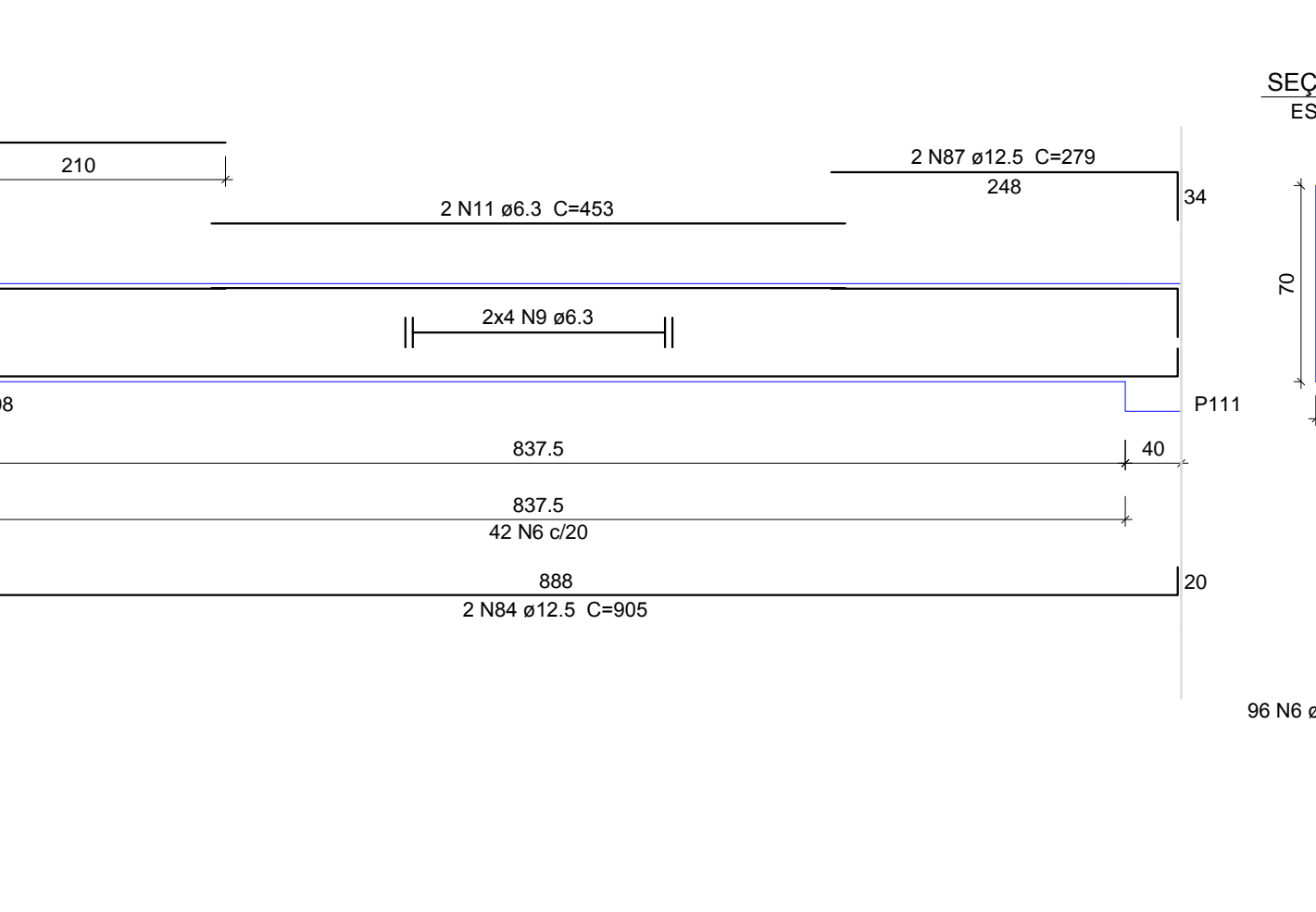
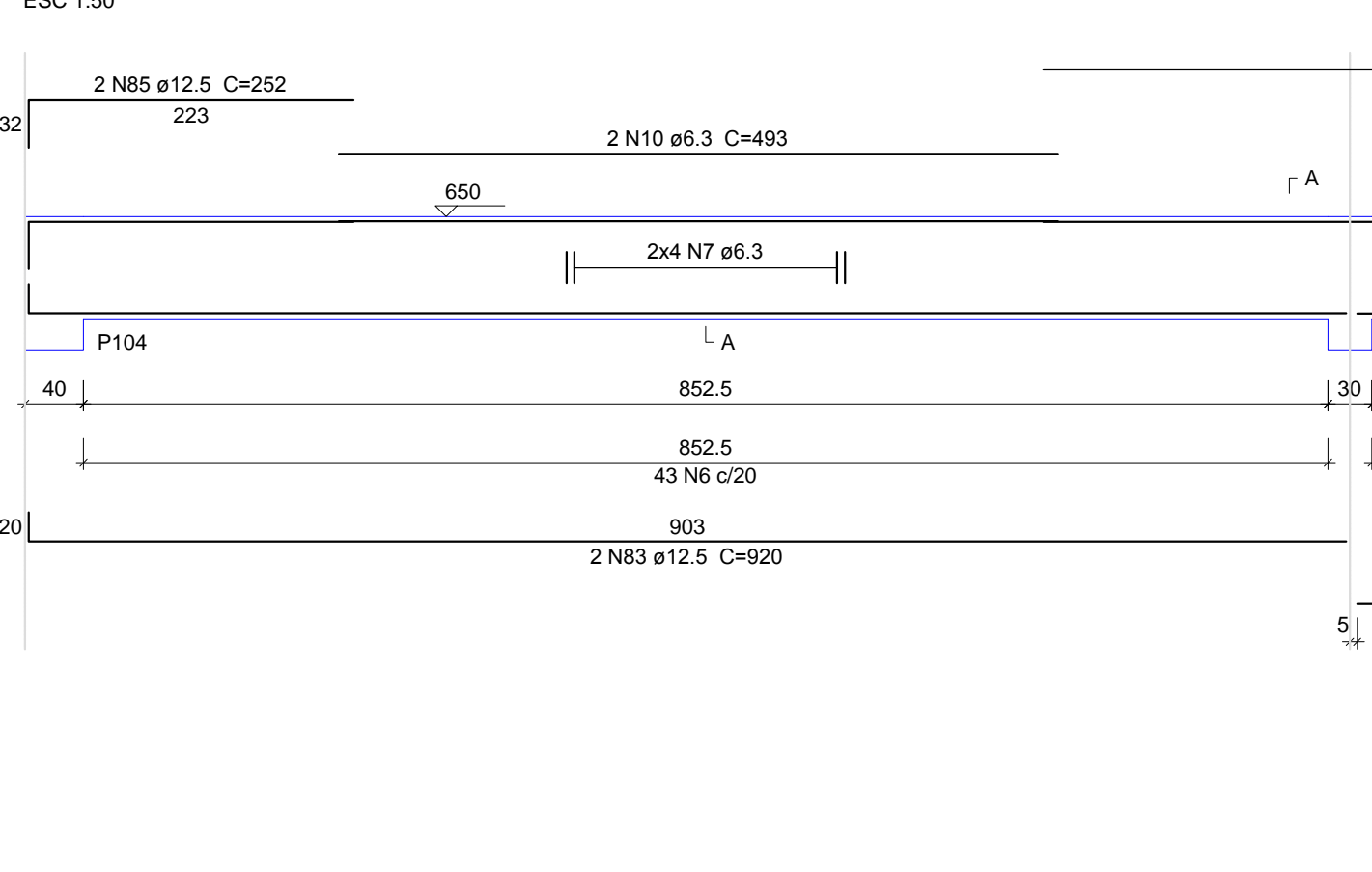
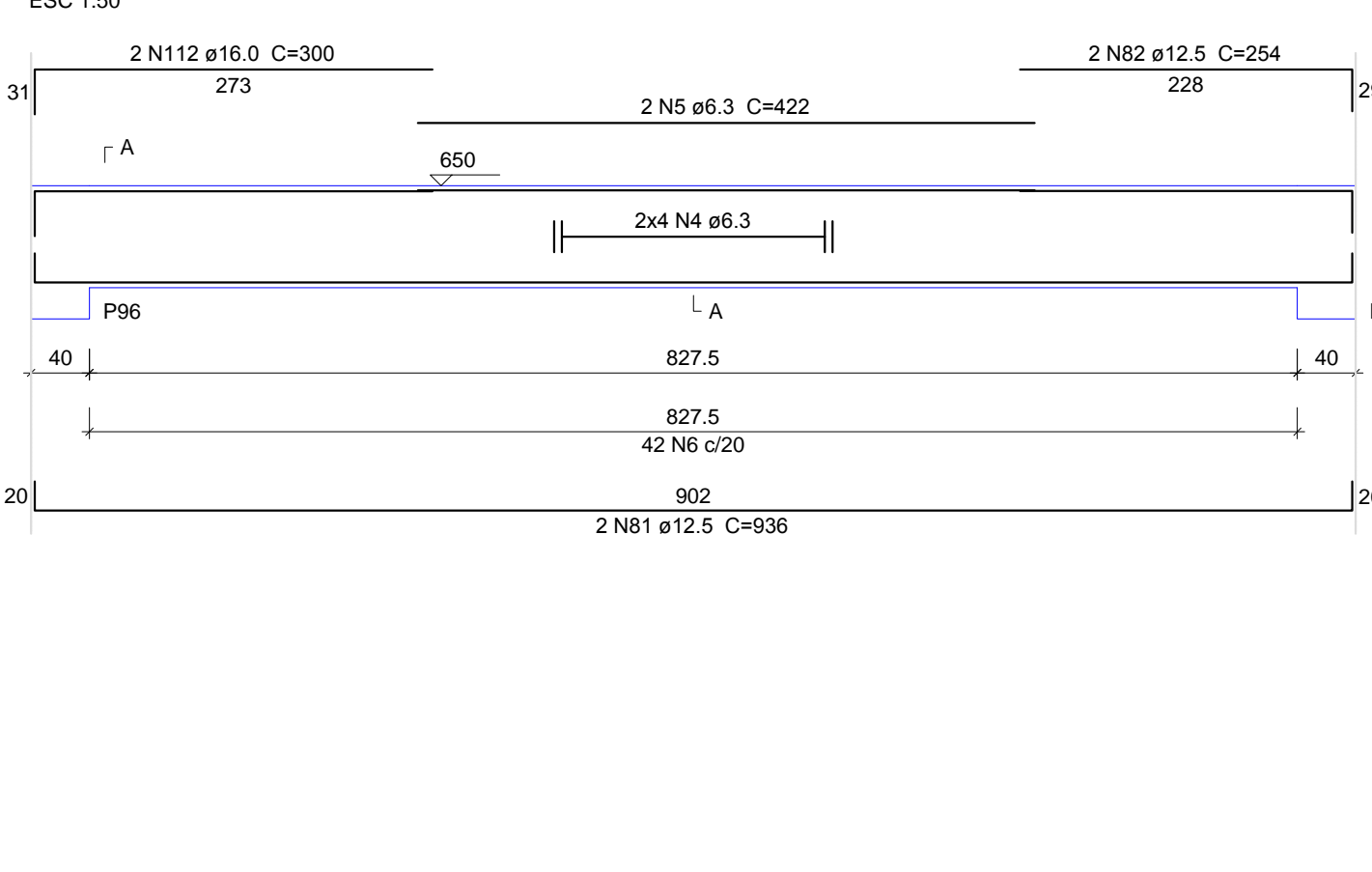
PROPRIETÁRIO: UNIVERSIDADE ESTADUAL DO NORTE DO PARANÁ - UENP
LOCAL: BLOCO ODONTOLÓGICO - UENP
PROLONGAMENTO DA AV. PEDRO COELHO DE MIRANDA
RESPONSÁVEL TÉCNICO: DIOGO ANTONIO CAPRARI, JR. - CREA PR 23.9440
DEDO FELIPE CAPRARI - CREA PR 142.7460
LUCAS PERES DE SOUZA - CREA PR 145.7550

MUNICÍPIO: JACAREZINHO - PR
TIPO: CONSTRUÇÃO
PROJETO: ESTRUTURAL
SITUAÇÃO: DETALHES VIGAS PAV. COB.

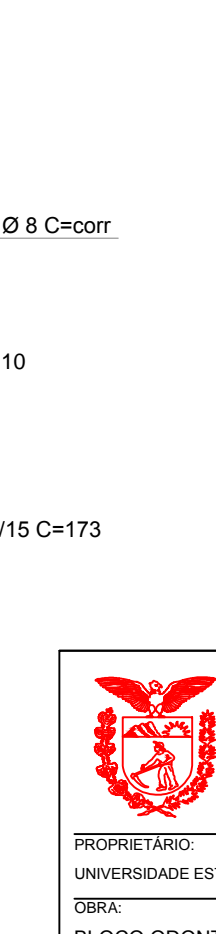
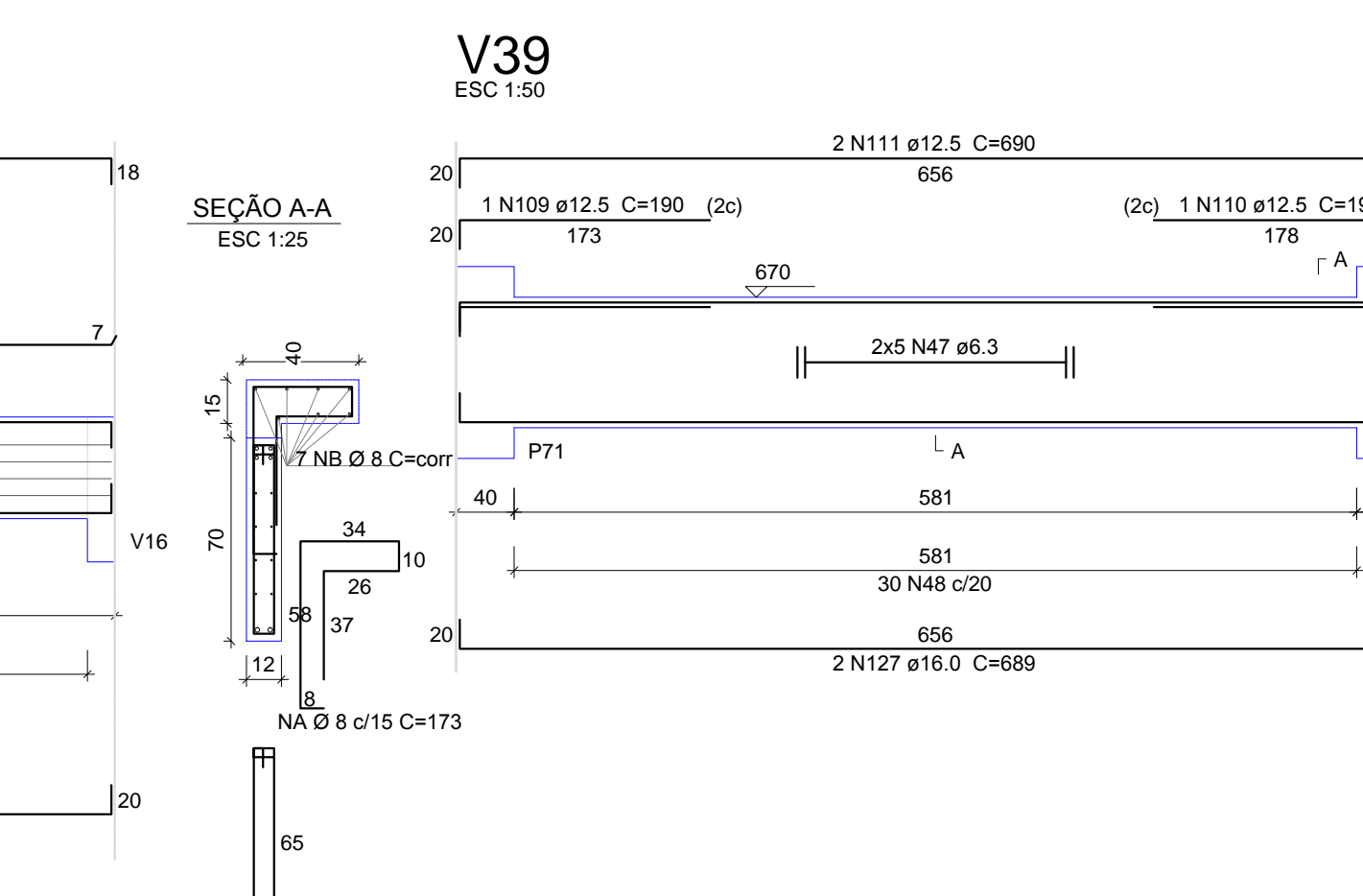
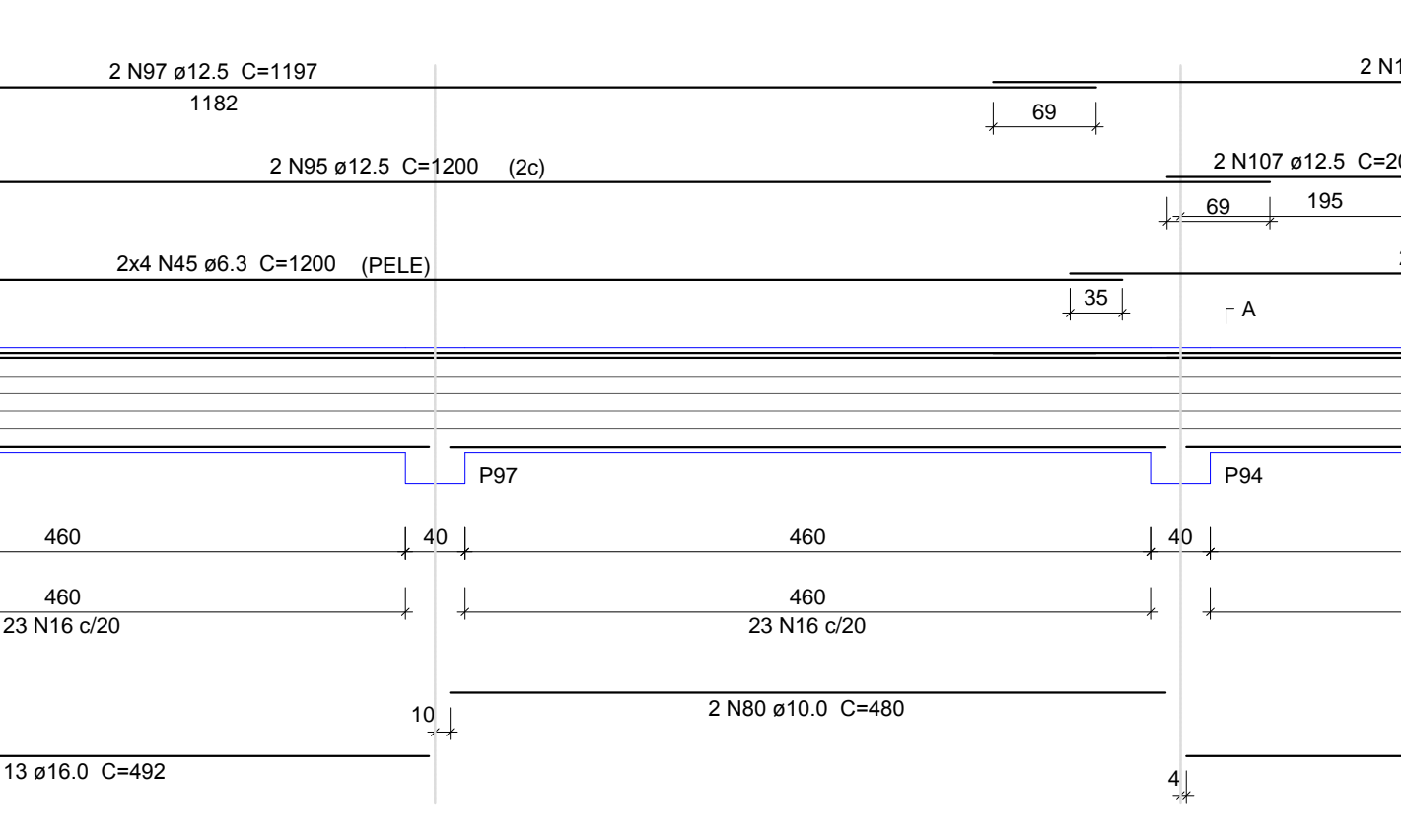
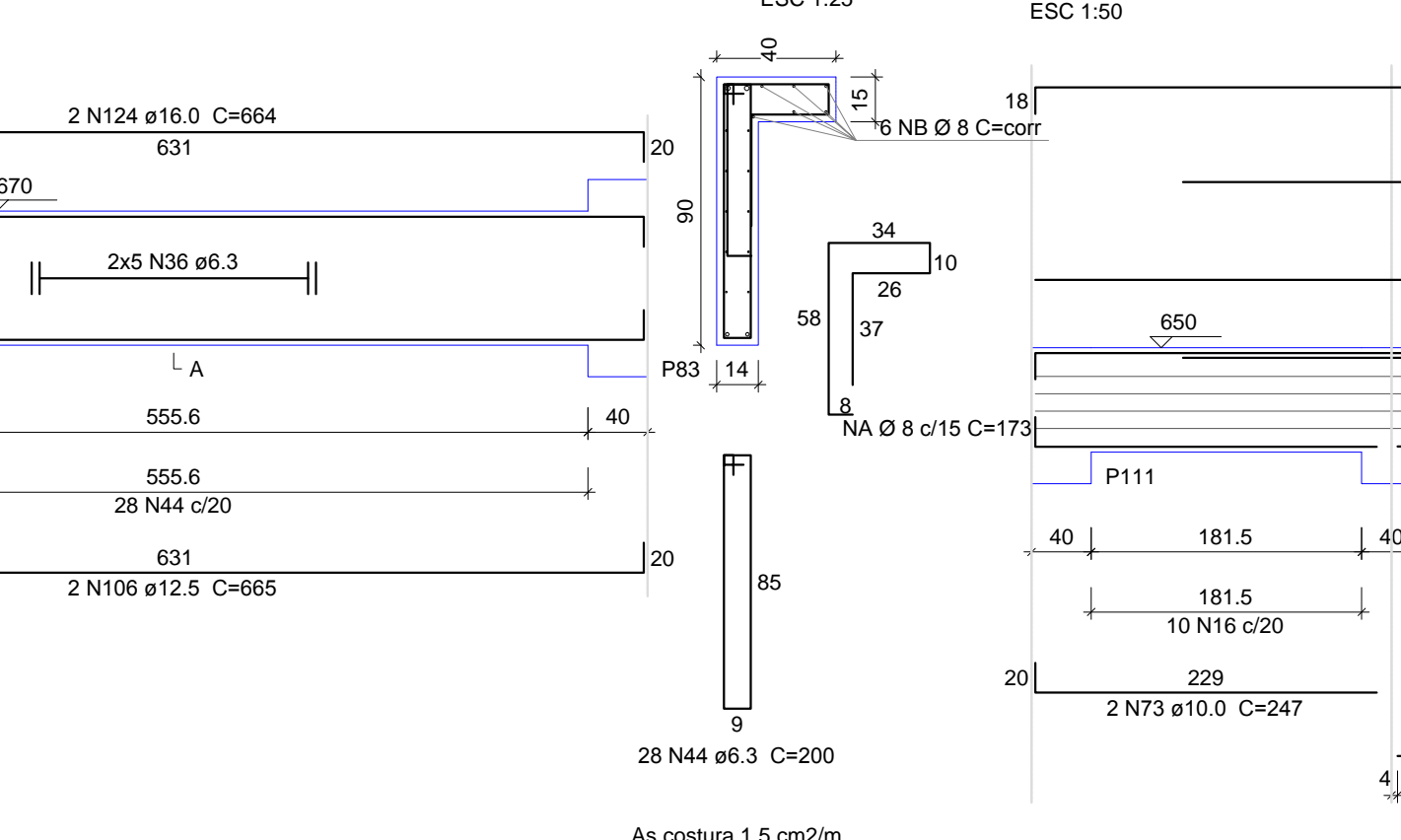
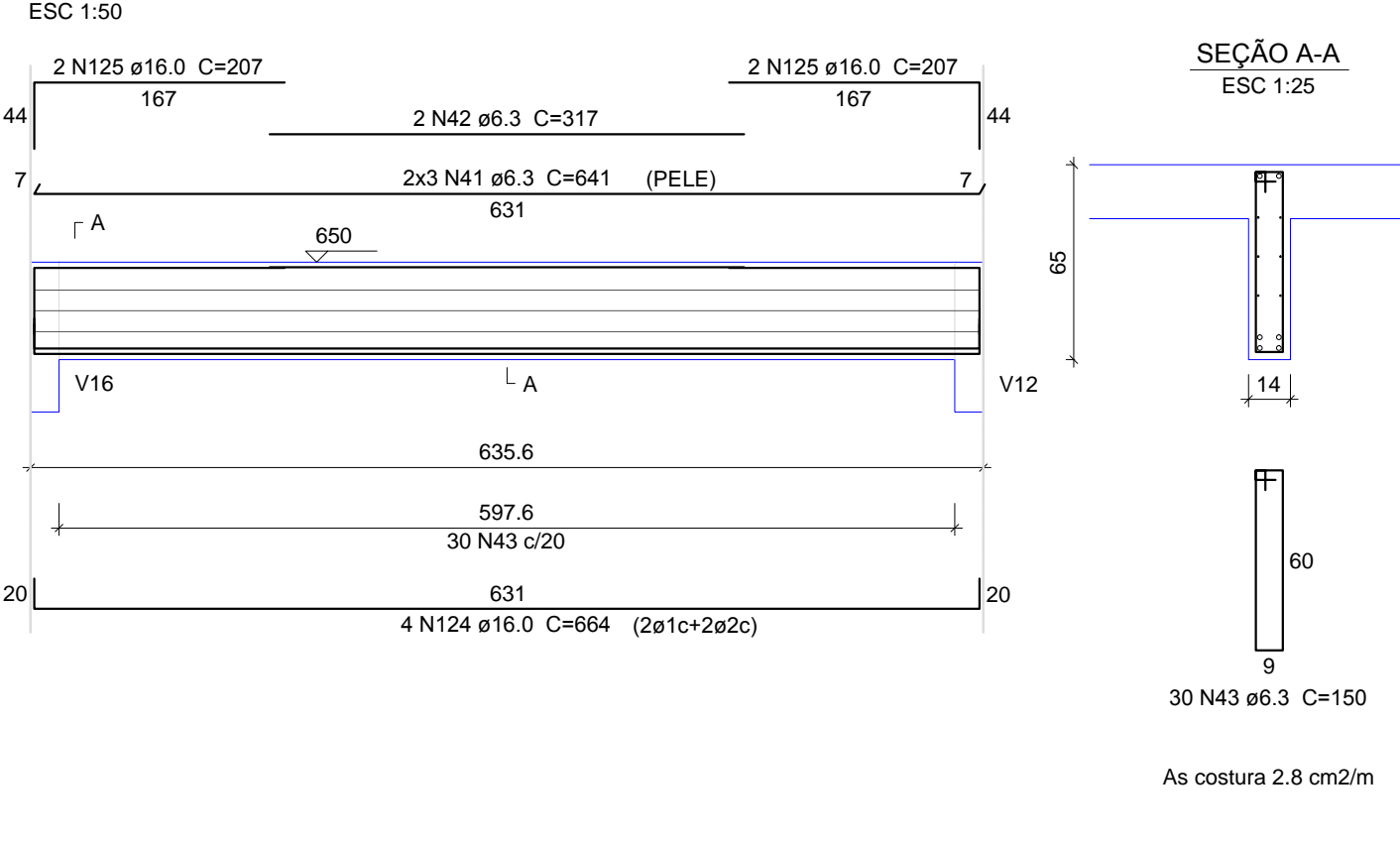
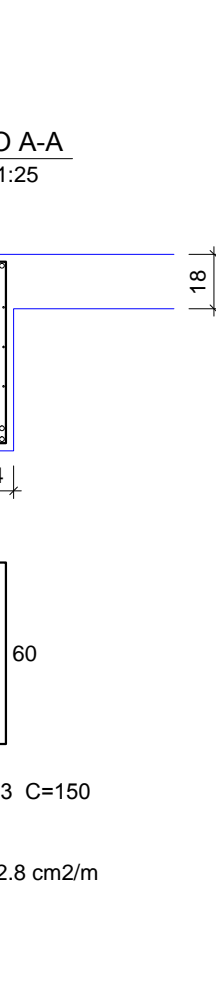
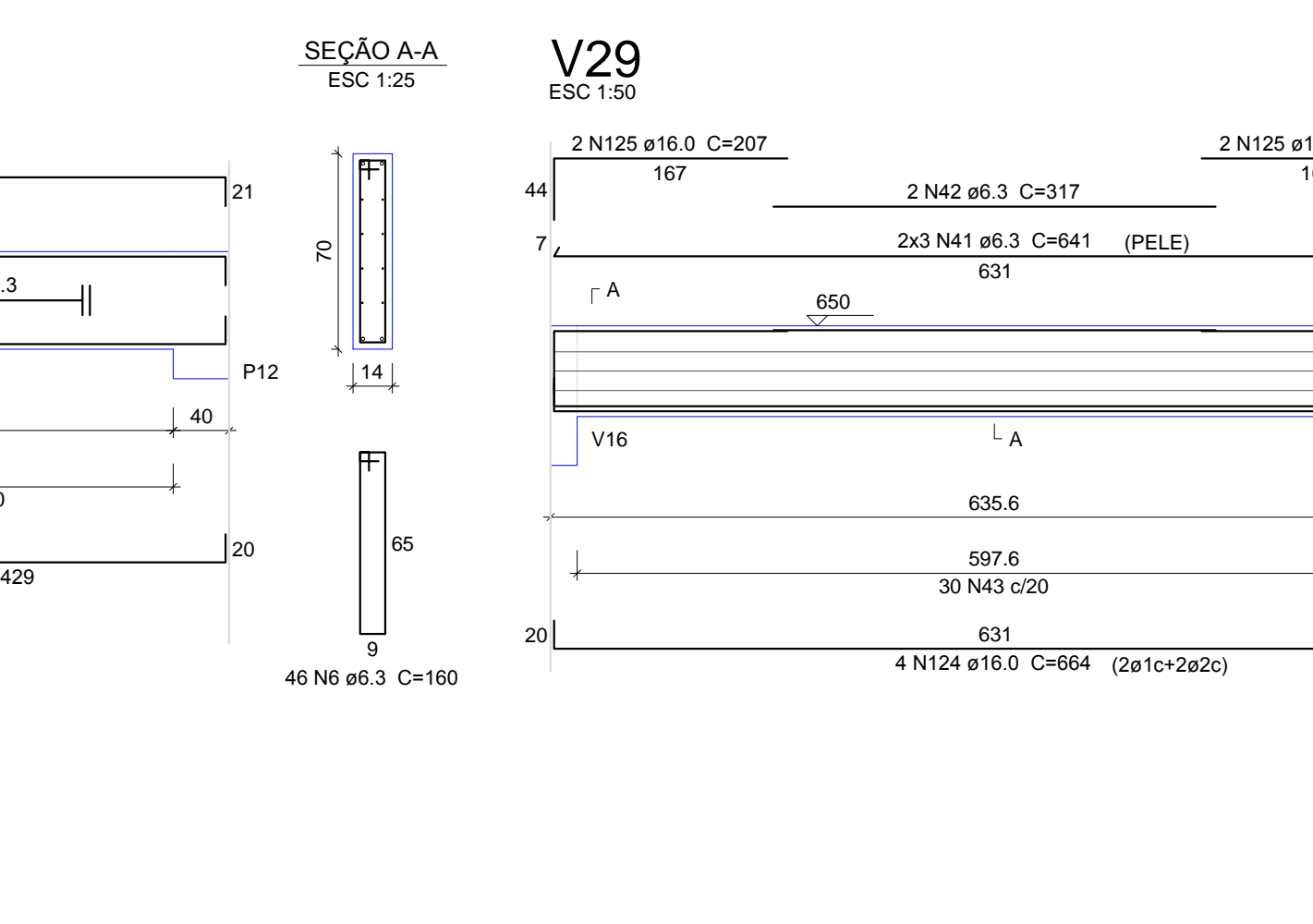
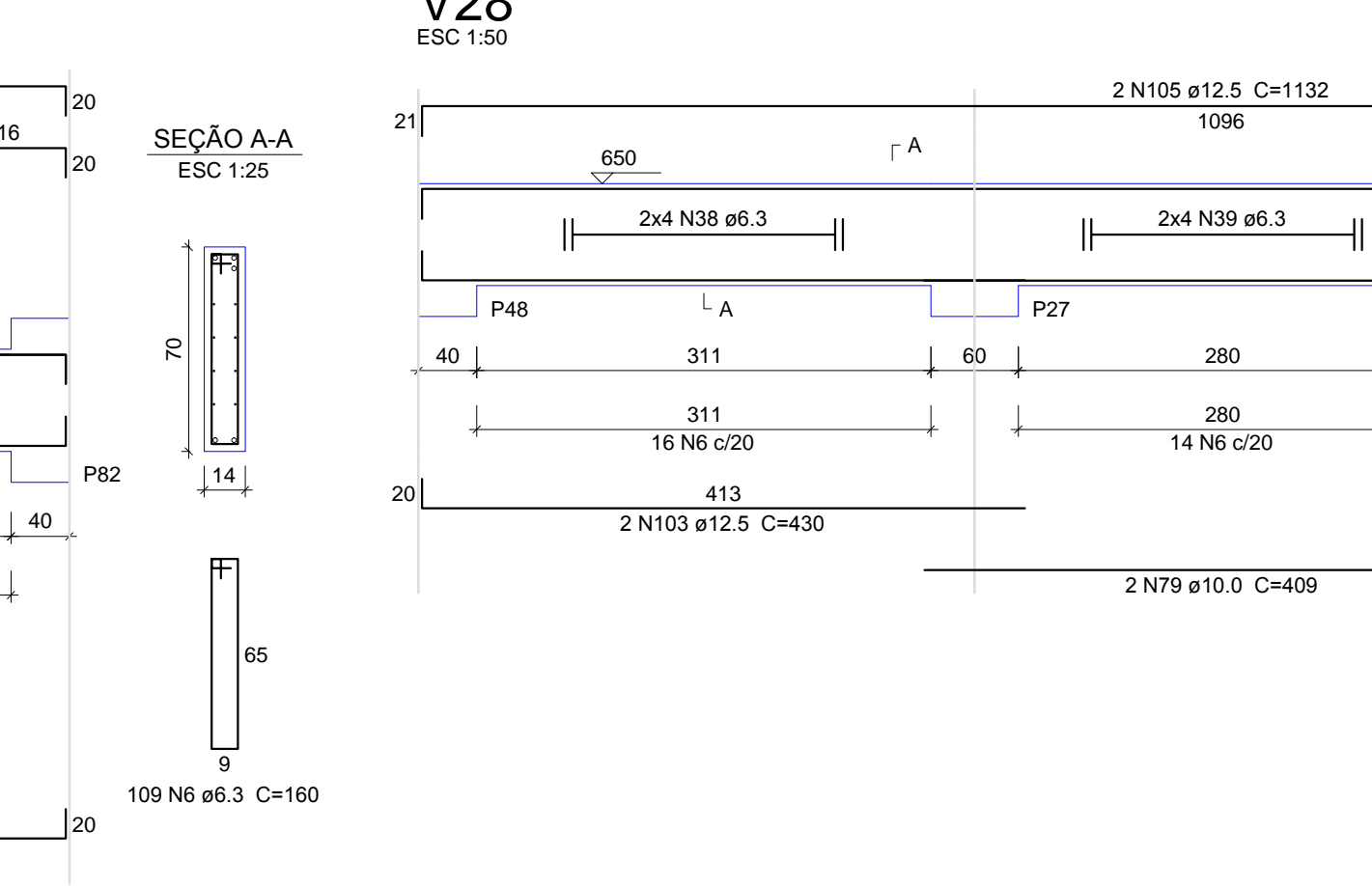
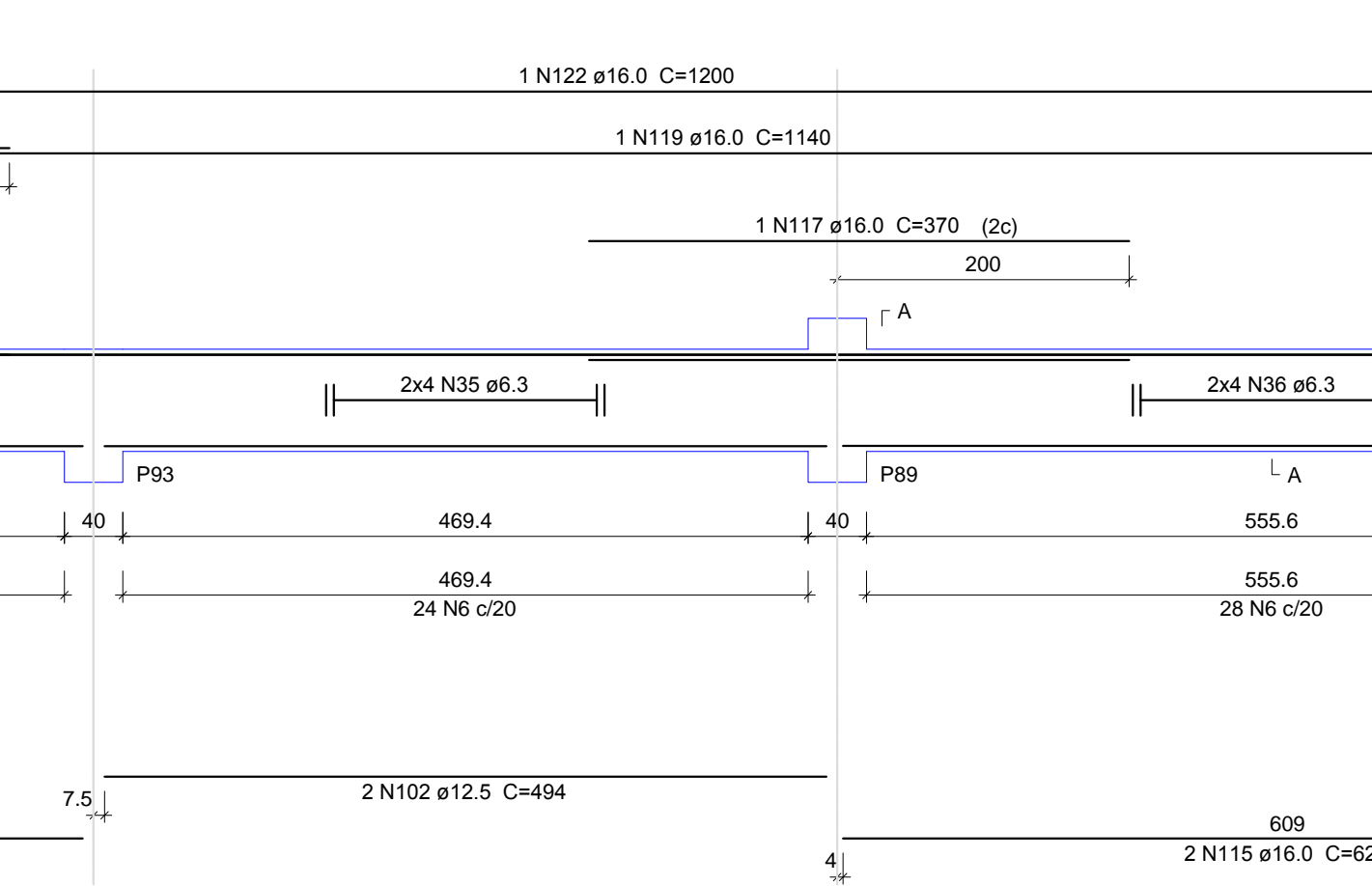
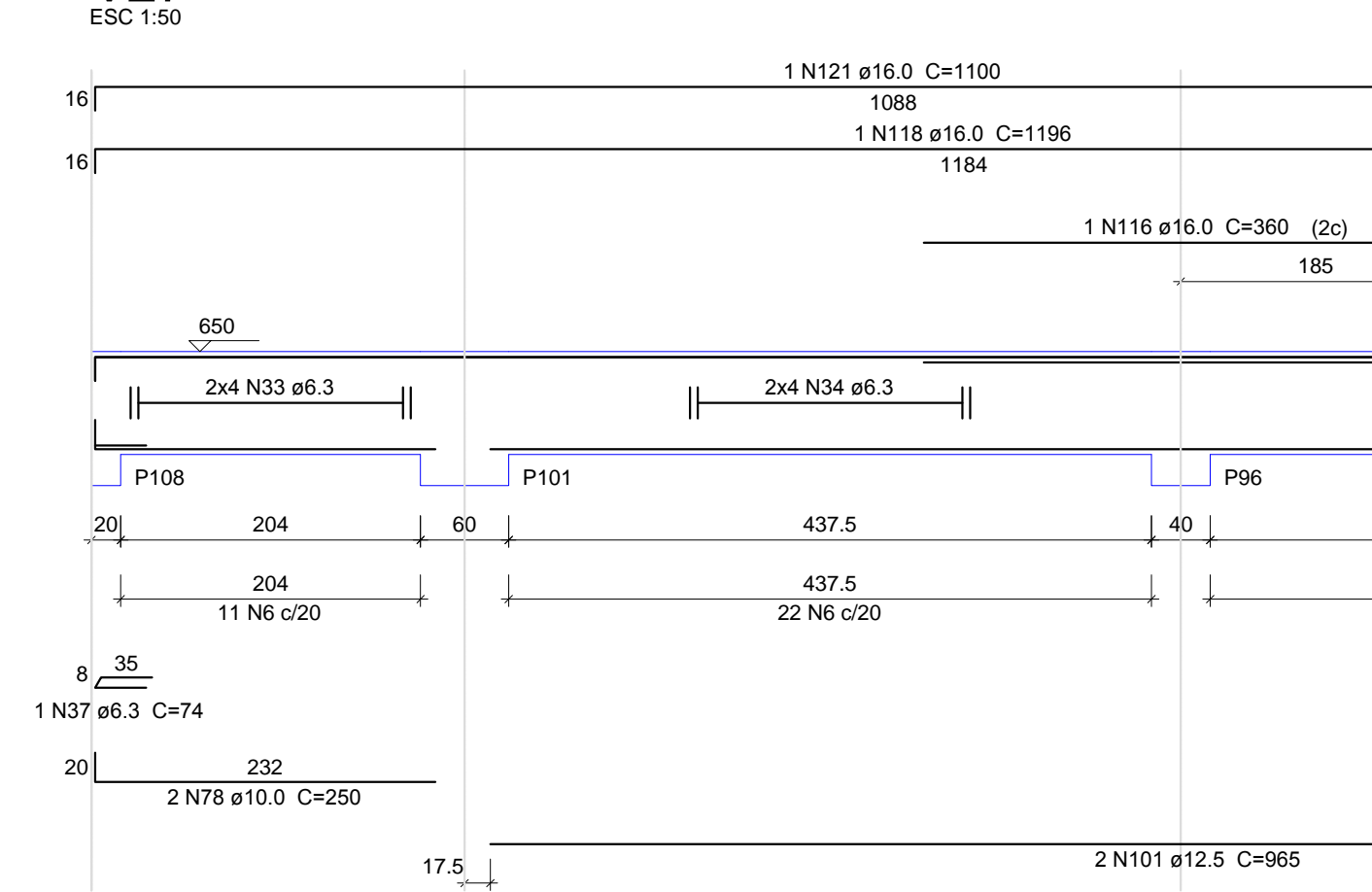
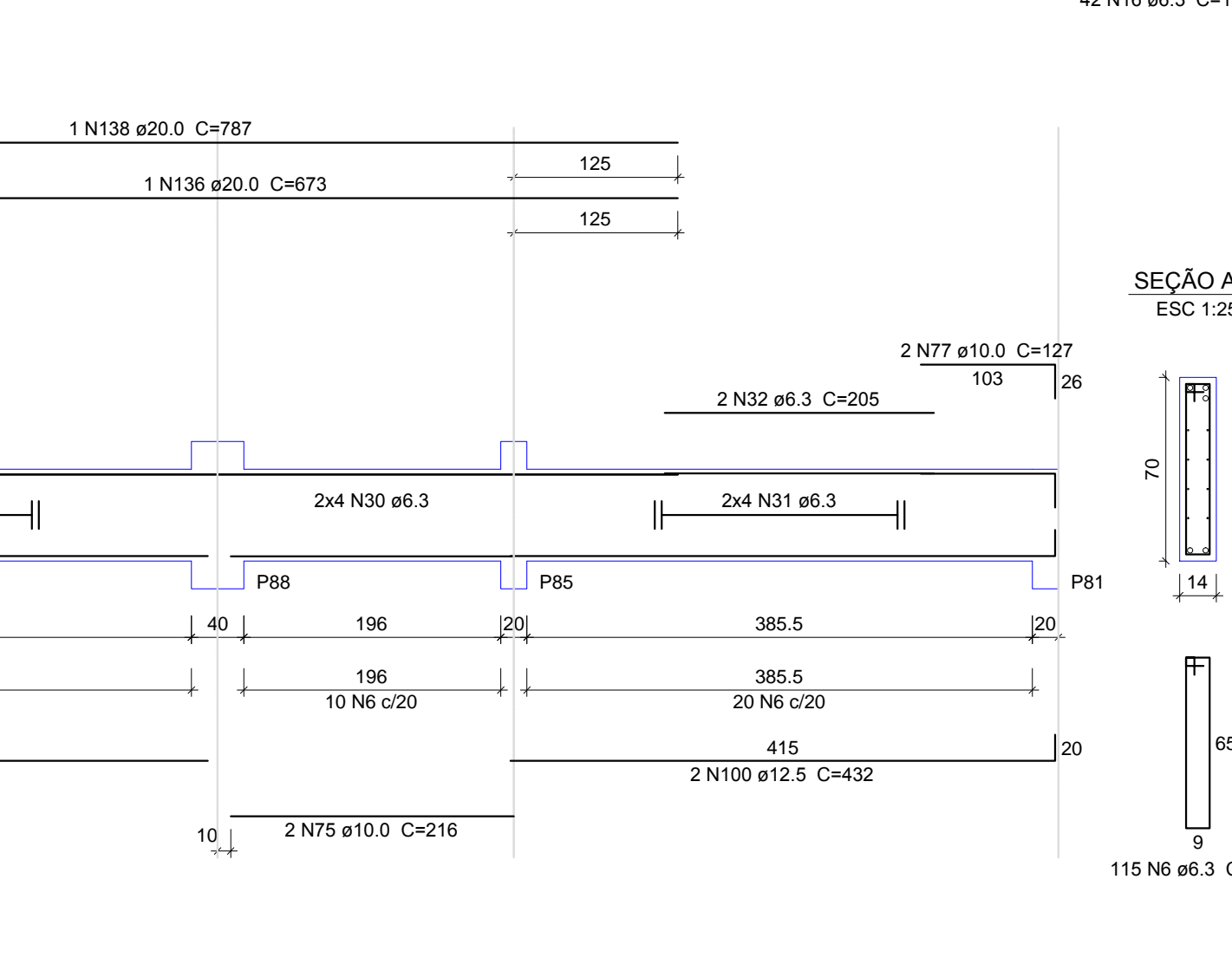
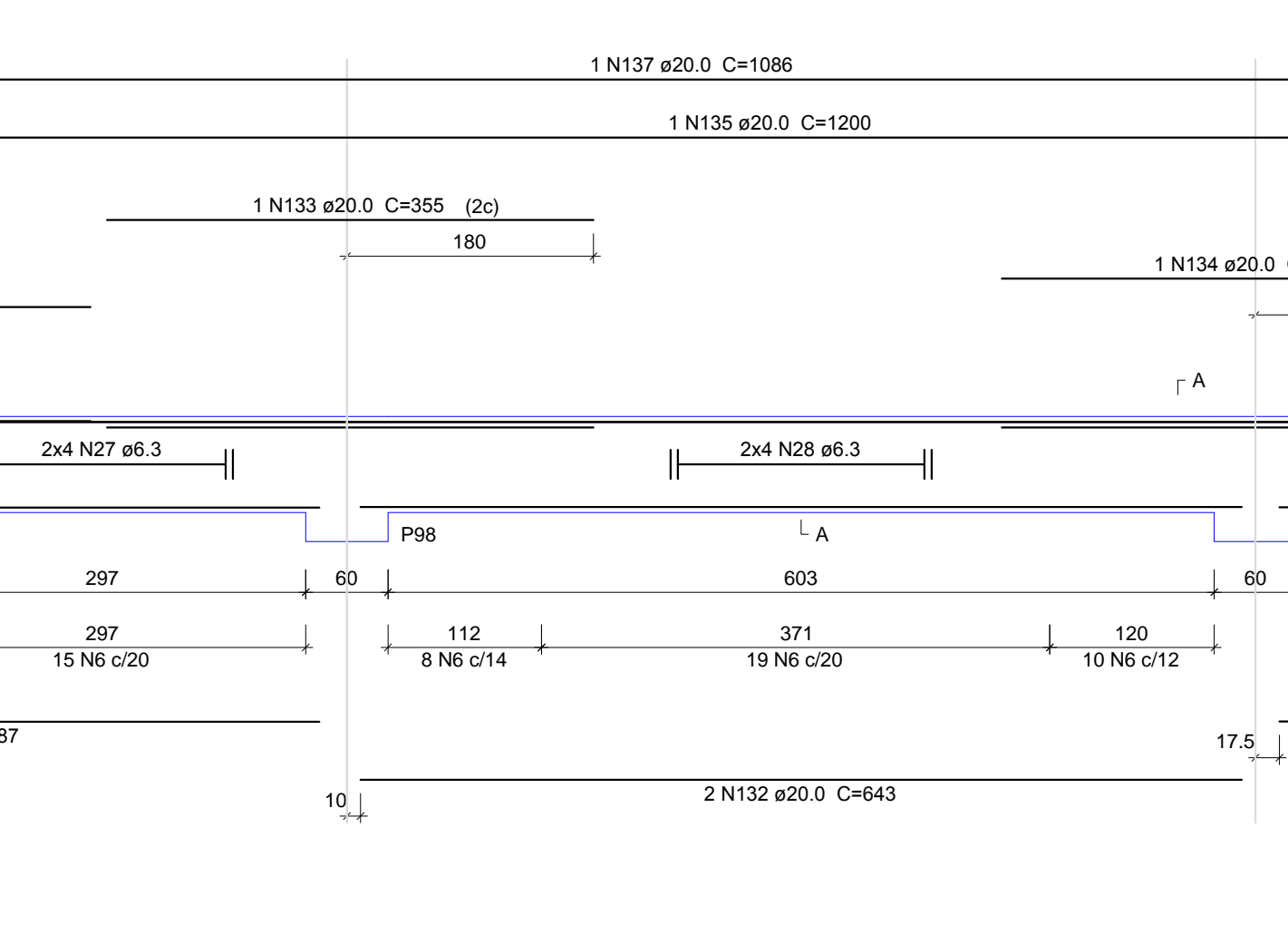
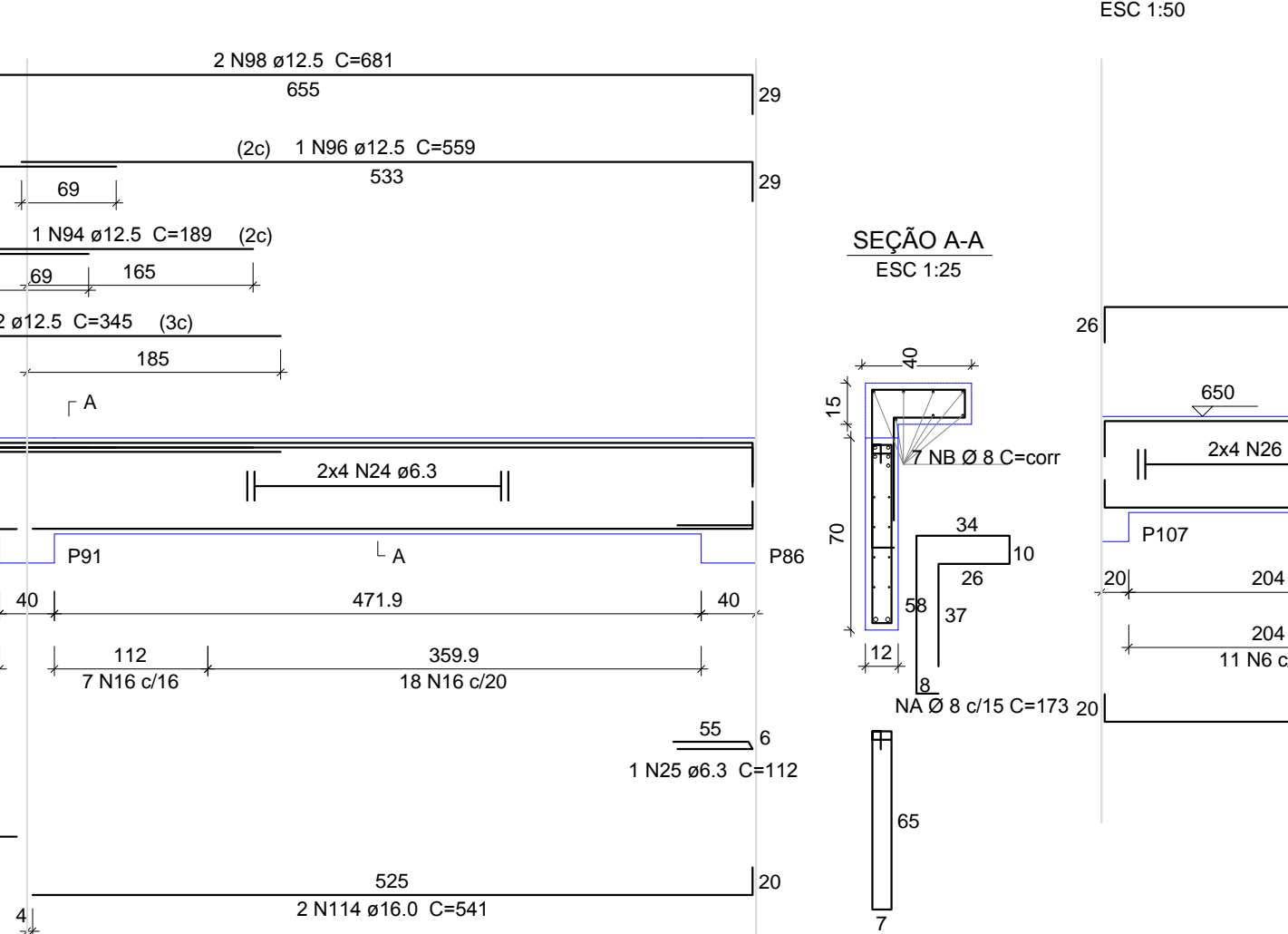
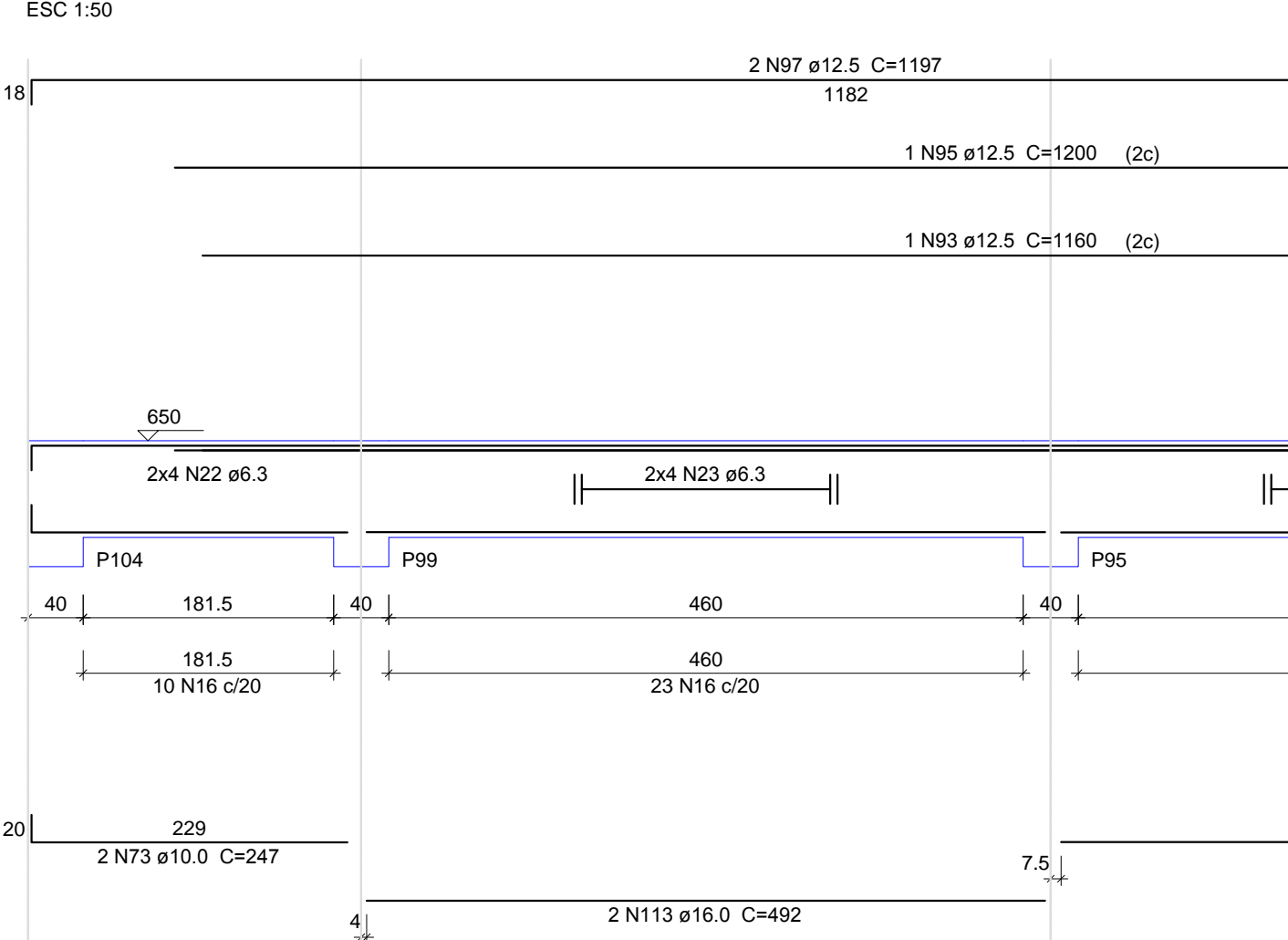
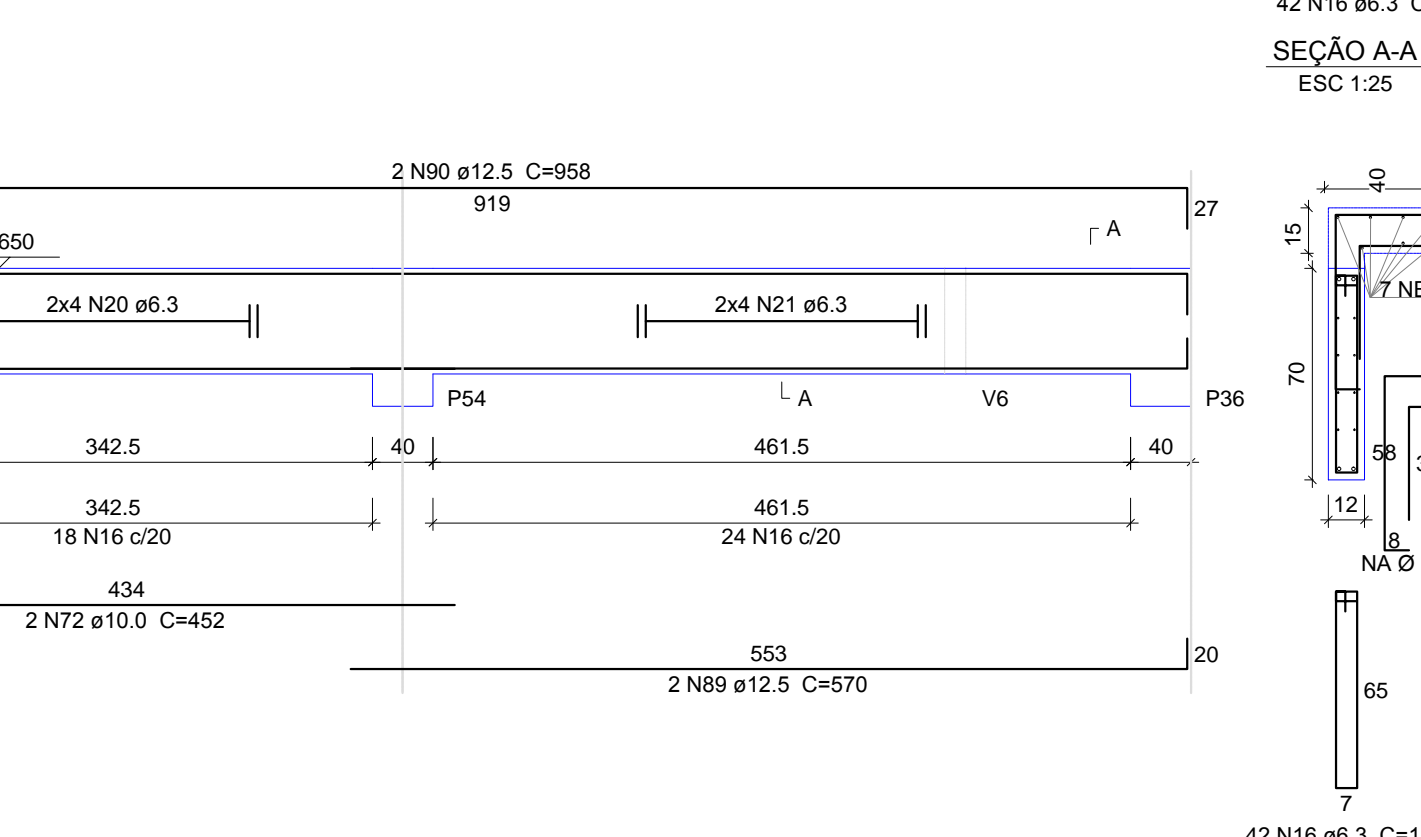
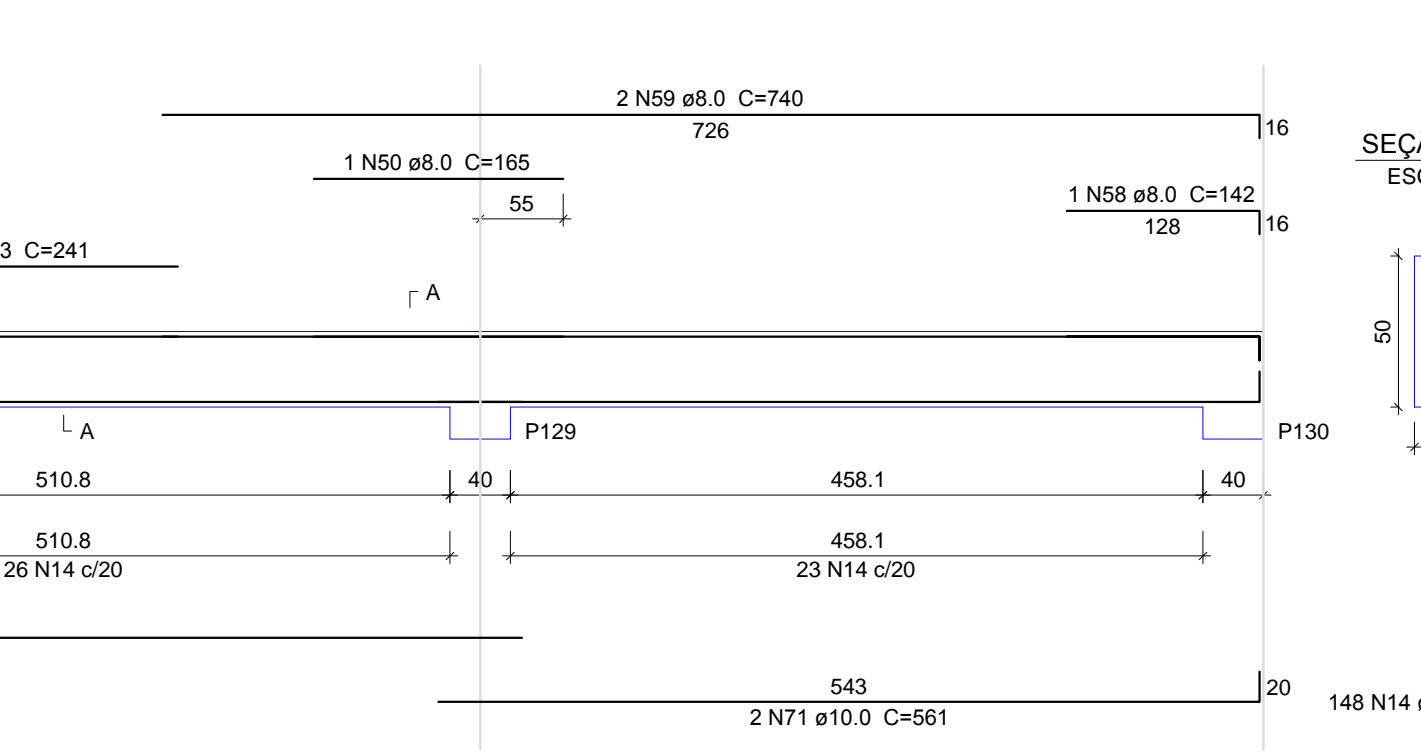
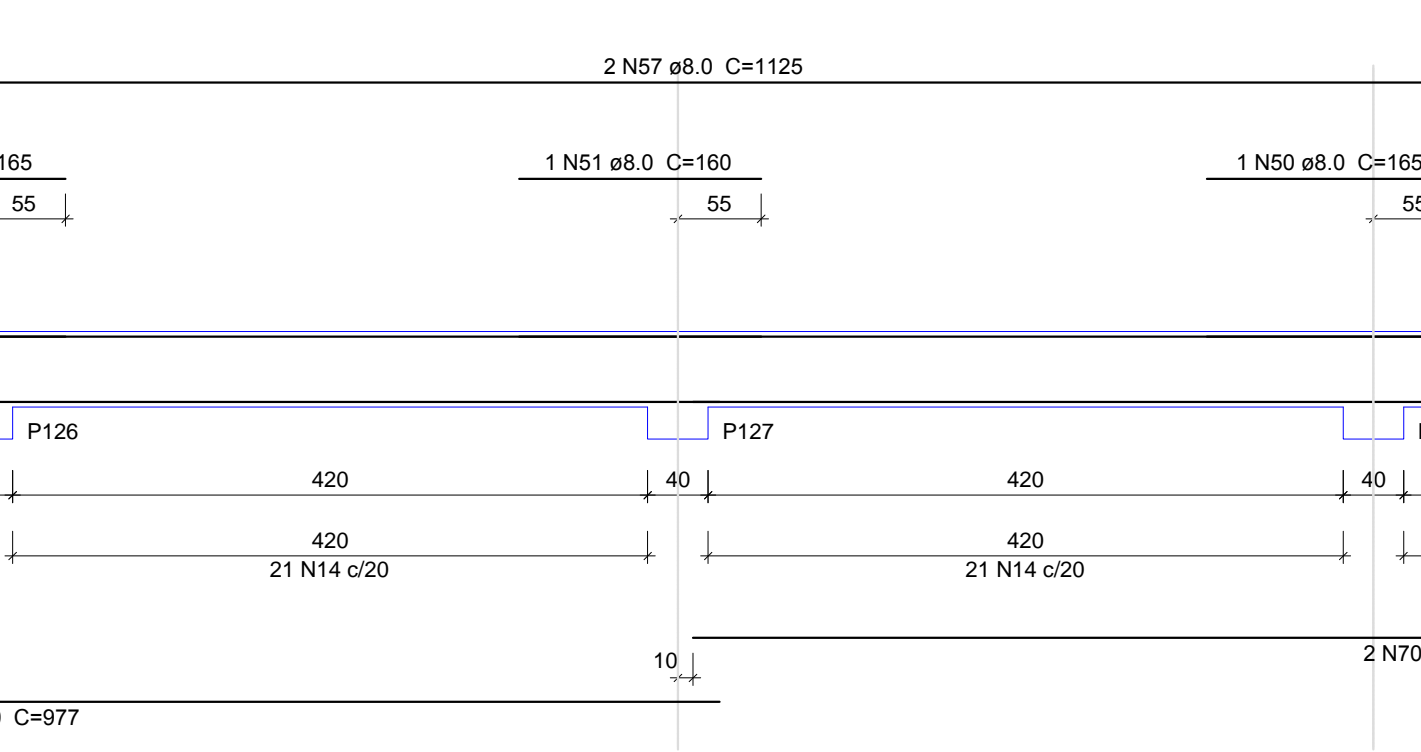
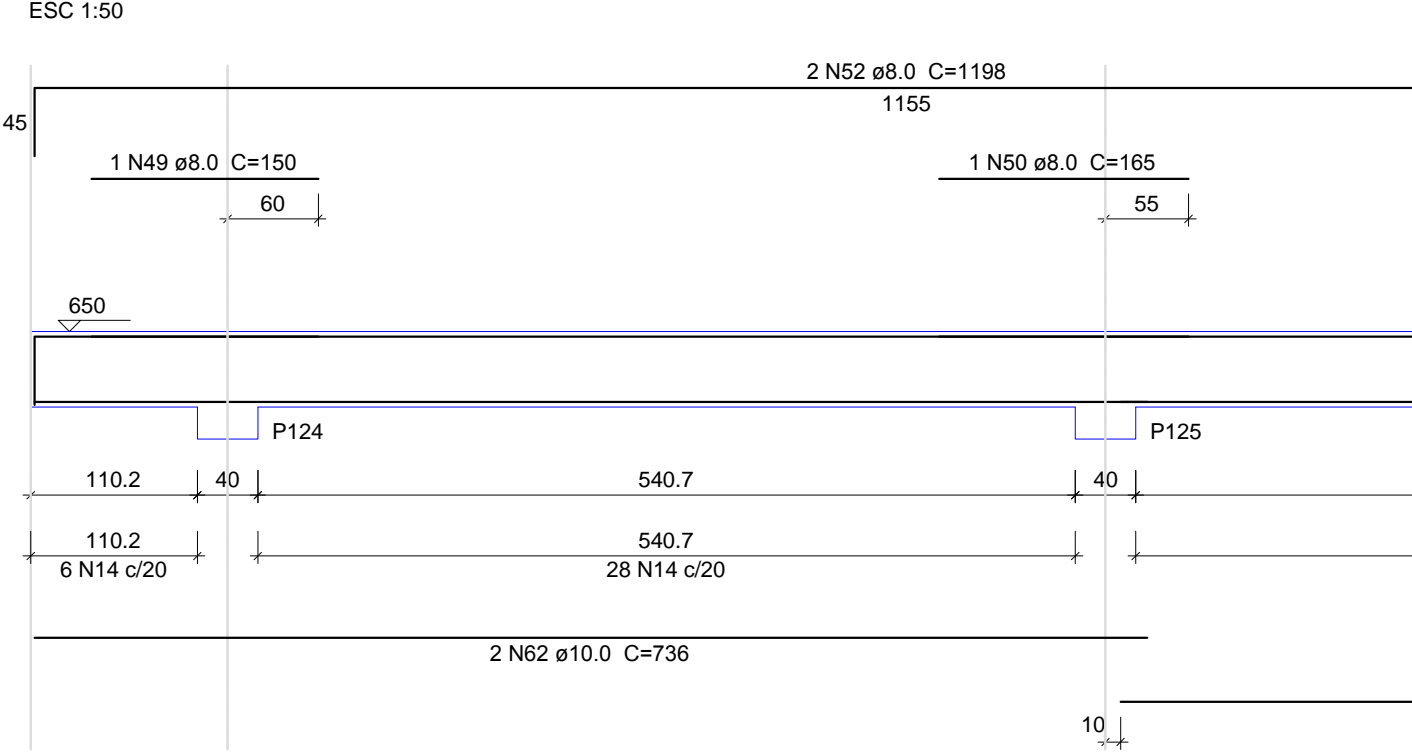
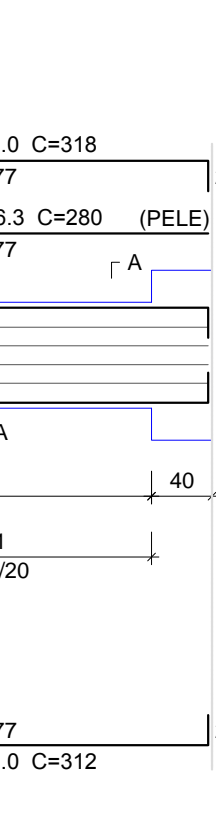
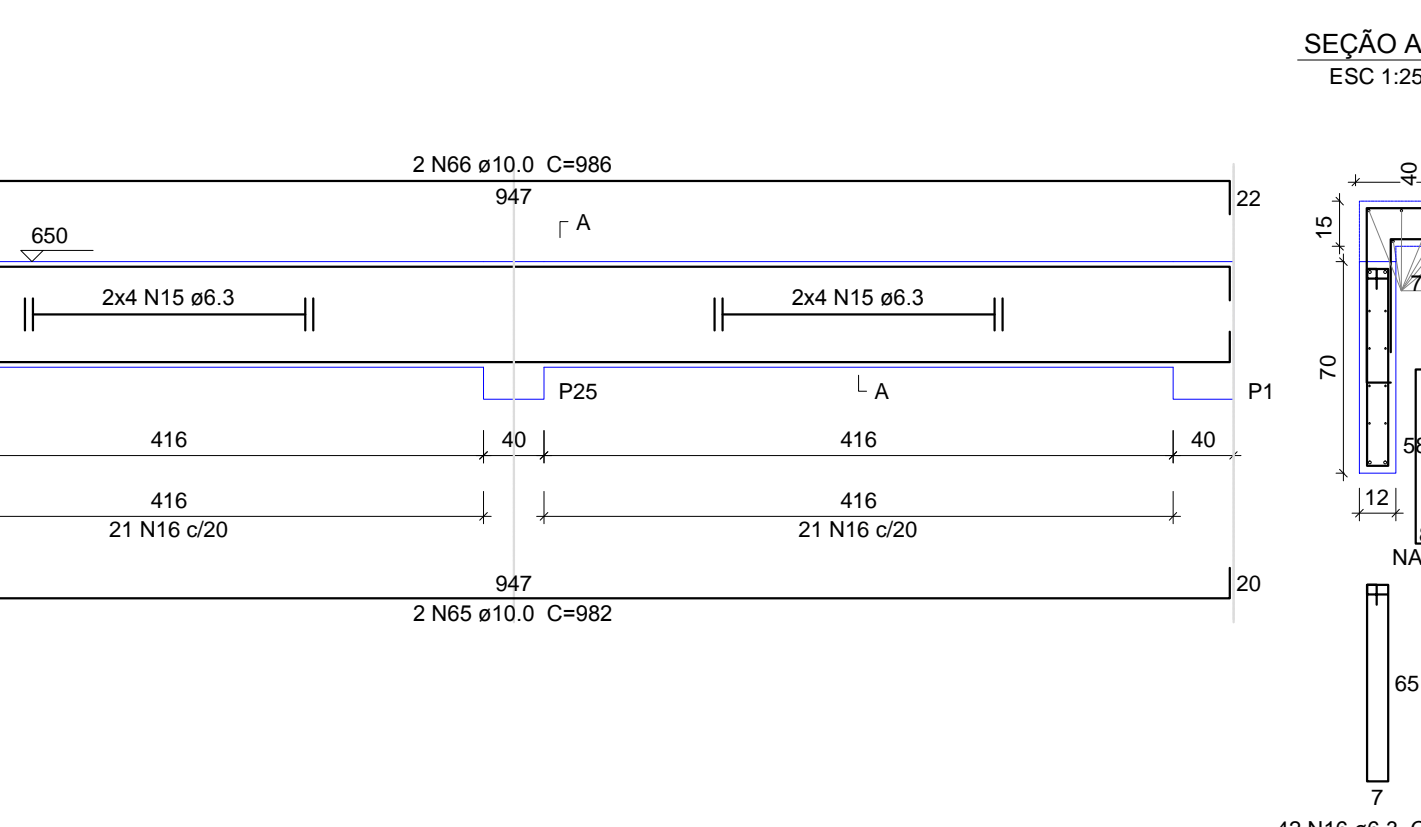
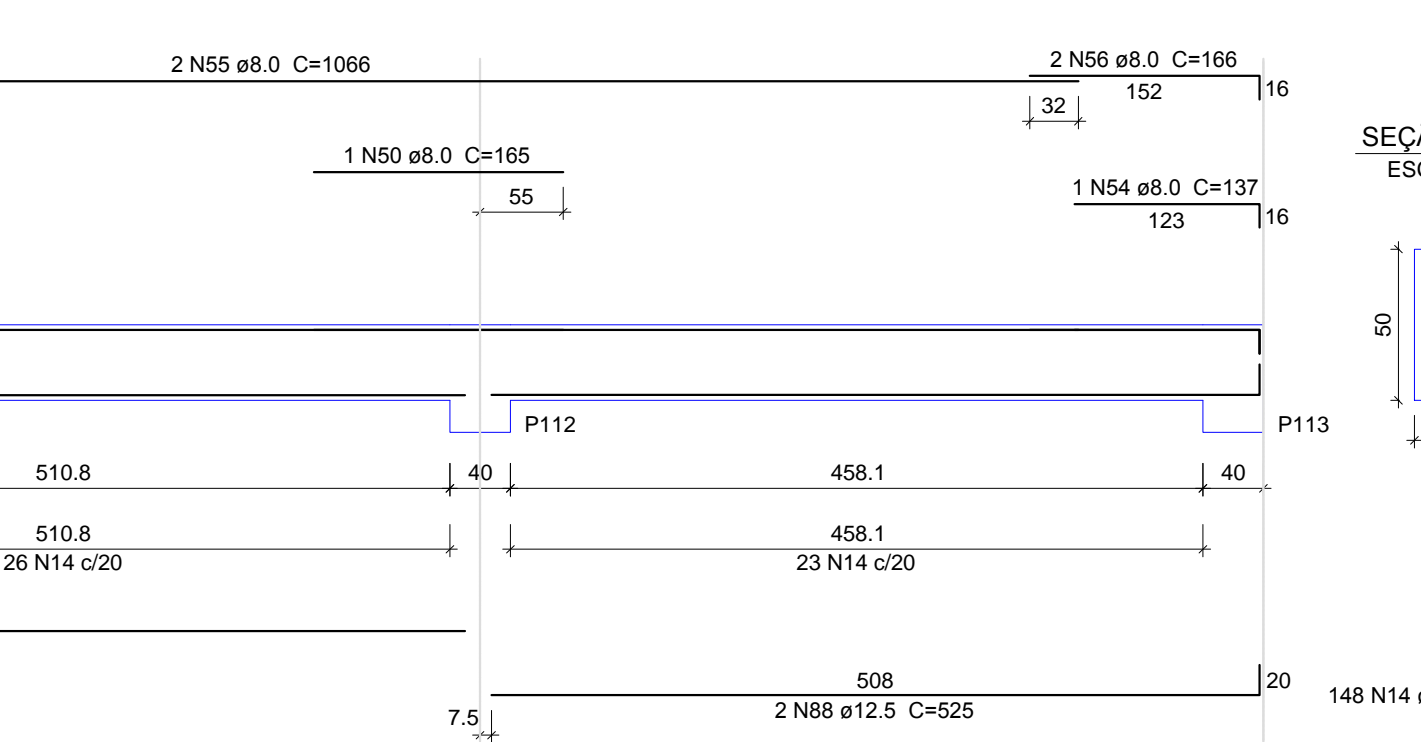
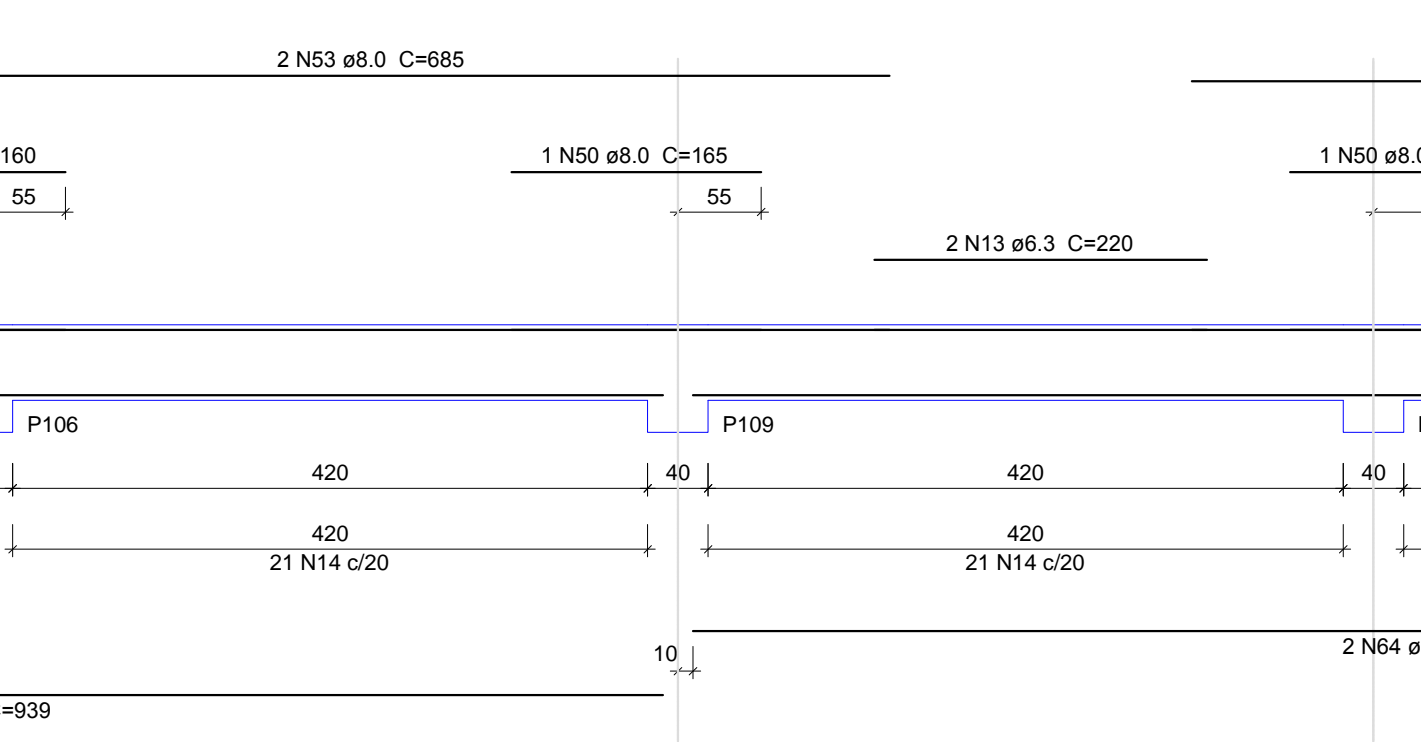
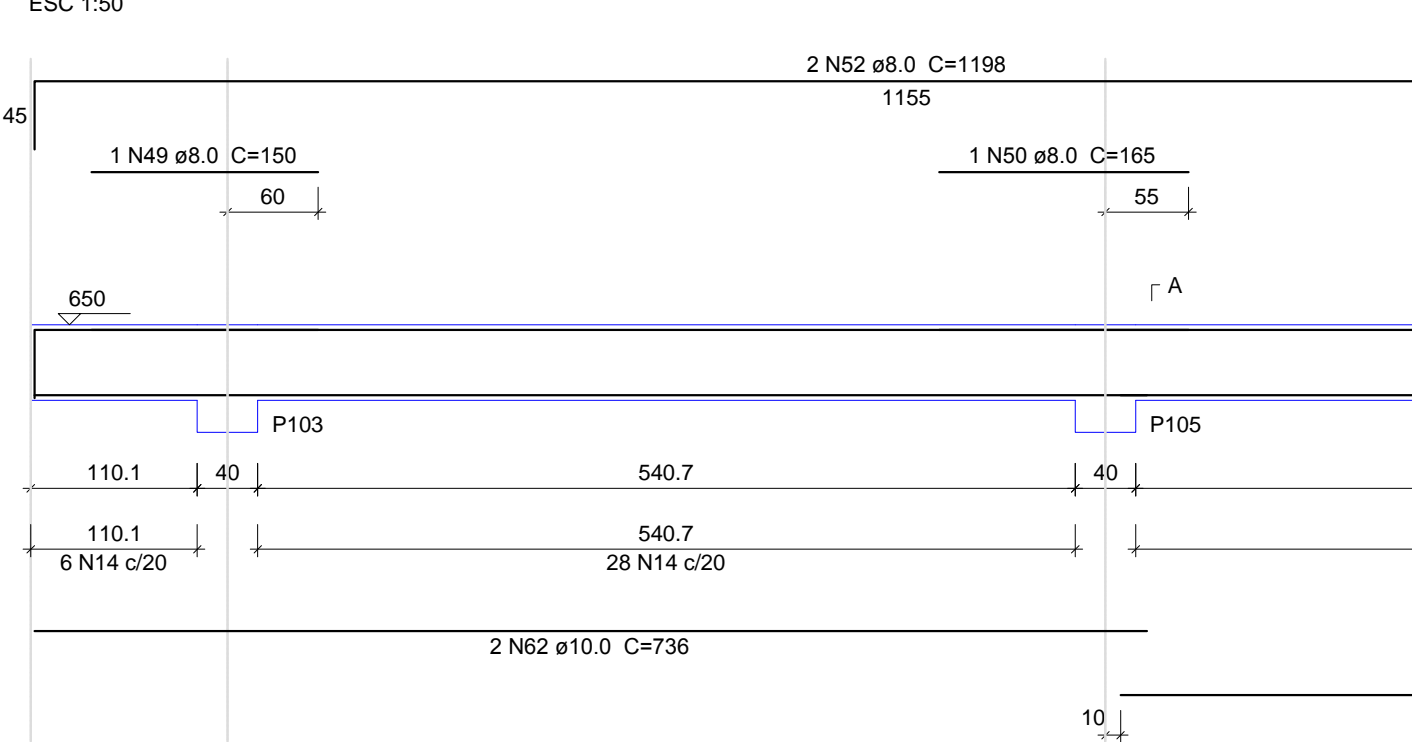
Figure 1: Schematic diagram of the 128-bit data path of the proposed architecture. The diagram illustrates a complex data path with multiple stages and components. Key elements include:

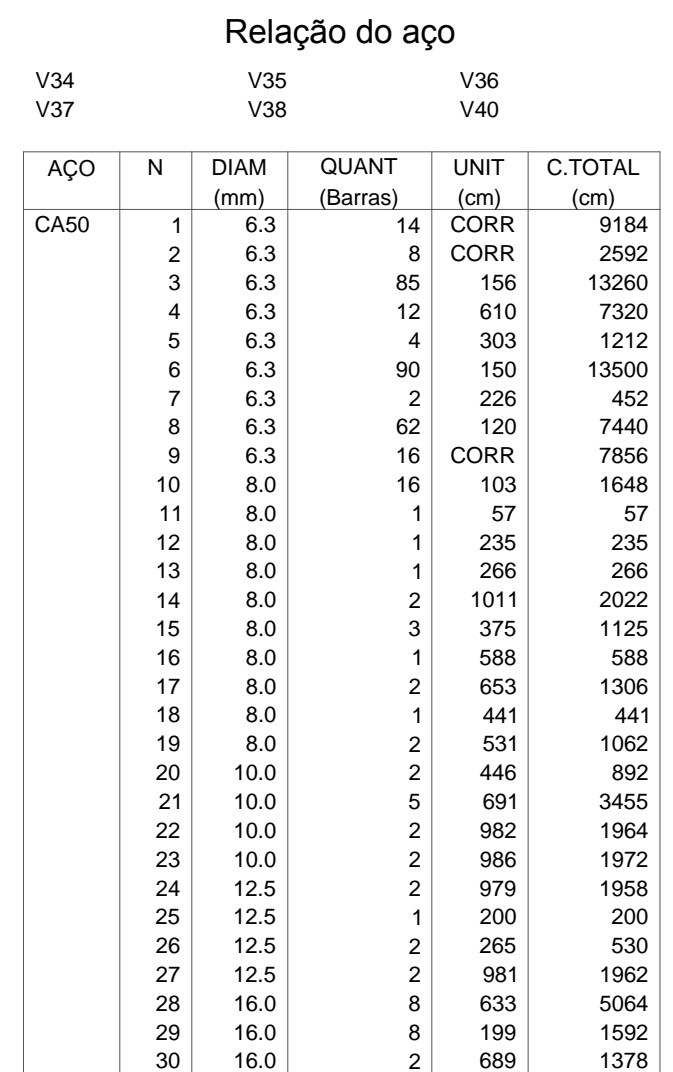
- Top Stage:** 2 N131 e20.0 C=1012
- Second Stage:** 1 N130 e20.0 C=404
- Third Stage:** 2x7 N1 e6.3 C=881 (PELE)
- Fourth Stage:** 721.9
- Fifth Stage:** 37 N3 e20
- Sixth Stage:** 4 N3 e20
- Seventh Stage:** 4 N2 e6.3 o18 C=245
- Eighth Stage:** 1 N128 e20.0 C=799
- Bottom Stage:** 2 N128 e20.0 C=914

The diagram also shows various control signals and outputs, including P89, V29, V30, P90, and A, and a 118-bit output at the bottom right.



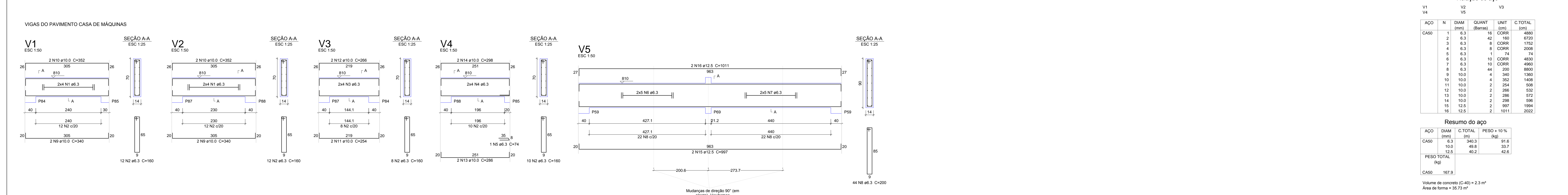
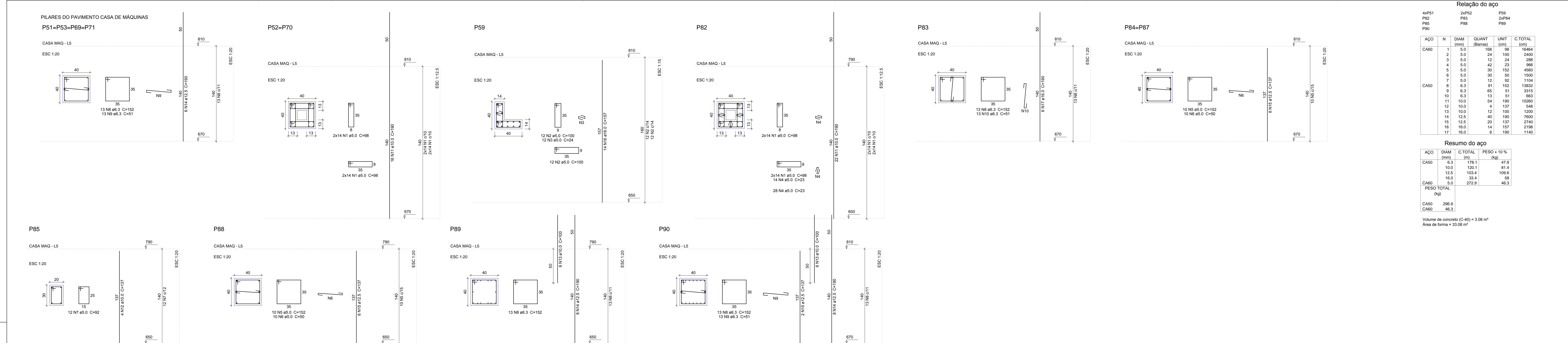
Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	3348.6	901.3
	8.0	145.8	63.3
	10.0	255.1	173
	12.5	389.8	413
	16.0	214.5	372.4
	20.0	108.1	293.2
	PESO TOTAL (kg)		
CA50	2216.1		





AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	628.2	169.1
	8.0	87.5	39
	10.0	82.9	56.2
	12.5	46.5	49.3
	16.0	80.4	139.5
PESO TOTAL (kg)			
CA50	452		

Volume de concreto (C-40) = 4.26 m³
Área de forma = 64.68 m²



Relação do aço

AÇO	N	DIAM (mm)	QUANT	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	168	98	16464
	2	5.0	24	100	2400
	3	5.0	12	24	288
	4	5.0	42	23	966
	5	5.0	30	152	4560
	6	5.0	30	50	1500
	7	5.0	12	92	1104
	8	6.3	31	152	4752
	9	6.3	65	51	3315
	10	6.3	1	51	51
	11	10.0	54	190	10260
	12	10.0	4	137	548
	13	10.0	12	100	1200
	14	12.5	40	190	7600
	15	12.5	20	137	2740
	16	16.0	14	157	2198
	17	16.0	6	190	1140

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	178.1	47.9
	10.0	120.1	81.4
	12.5	103.4	109.6
	16.0	33.4	58
PESO TOTAL (kg)		272.9	46.3

Volume de concreto (C-40) = 3.06 m³
Área de forma = 33.08 m²

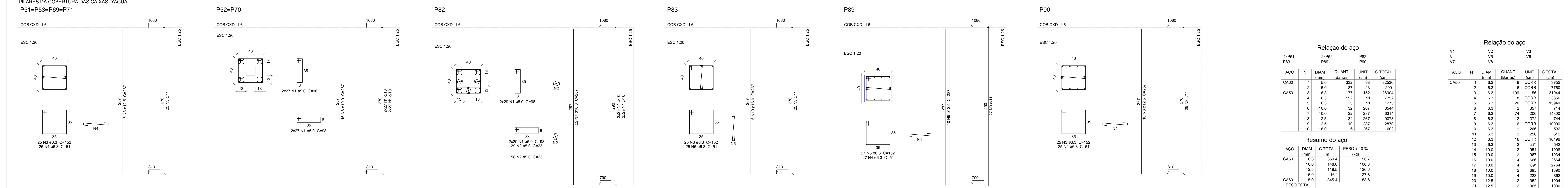
Relação do aço

AÇO	N	DIAM (mm)	QUANT	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	16	CORR	4880
	2	6.3	42	CORR	6720
	3	6.3	8	CORR	1752
	4	6.3	8	CORR	2008
	5	6.3	1	14	74
	6	6.3	10	CORR	4830
	7	6.3	10	CORR	4960
	8	6.3	44	200	8800
	9	10.0	4	340	1360
	10	10.0	4	352	1408
	11	10.0	2	254	508
	12	10.0	2	266	532
	13	10.0	2	286	572
	14	10.0	2	298	596
	15	12.5	2	297	594
	16	12.5	2	1011	2022

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	340.3	91.6
	10.0	49.8	33.7
	12.5	40.2	42.6
PESO TOTAL (kg)			167.9

Volume de concreto (C-40) = 2.3 m³
Área de forma = 35.73 m²



Relação do aço

AÇO	N	DIAM (mm)	QUANT	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	332	98	32536
	2	5.0	87	23	2001
	3	6.3	177	152	26904
	4	6.3	152	51	7752
	5	6.3	25	51	1275
	6	10.0	32	267	8544
	7	10.0	22	267	6314
	8	12.5	34	267	9078
	9	12.5	10	287	2870
	10	16.0	6	287	1602

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	359.4	96.7
	10.0	148.6	100.8
	12.5	119.5	126.6
	16.0	16.1	27.8
PESO TOTAL (kg)		345.4	58.6

Volume de concreto (C-40) = 4.22 m³
Área de forma = 43.84 m²

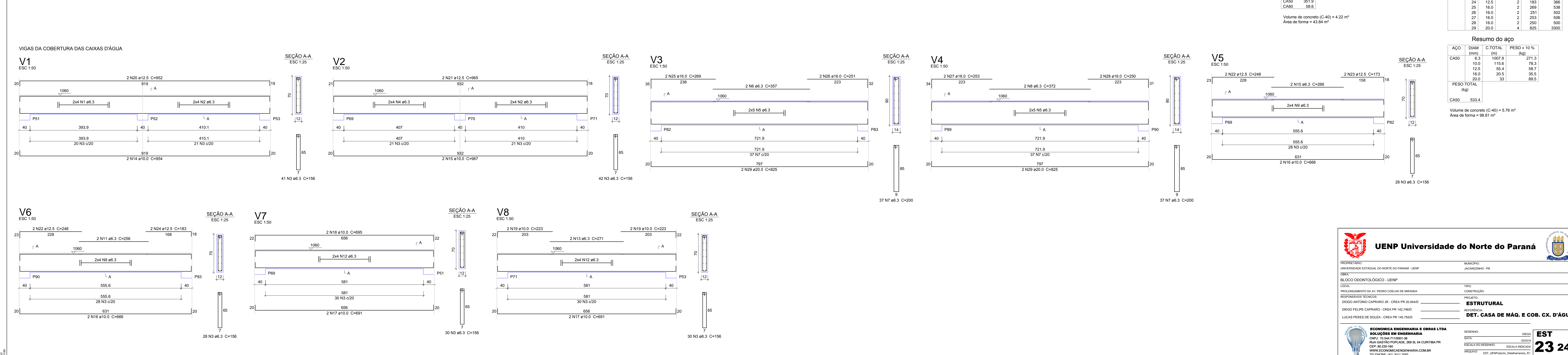
Relação do aço

AÇO	N	DIAM (mm)	QUANT	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	16	CORR	3752
	2	6.3	16	CORR	7760
	3	6.3	199	156	31044
	4	6.3	8	CORR	3656
	5	6.3	20	CORR	15940
	6	6.3	2	367	714
	7	6.3	74	200	14800
	8	6.3	2	372	744
	9	6.3	16	CORR	10096
	10	6.3	2	266	532
	11	6.3	2	256	512
	12	6.3	16	CORR	10496
	13	6.3	2	271	542
	14	10.0	2	964	1908
	15	10.0	2	967	1934
	16	10.0	4	666	2664
	17	10.0	4	691	2764
	18	10.0	2	696	1390
	19	10.0	4	223	892
	20	12.5	2	952	1904
	21	12.5	2	965	1930
	22	12.5	2	248	992
	23	12.5	2	173	346
	24	12.5	2	183	366
	25	16.0	2	269	538
	26	16.0	2	251	502
	27	16.0	2	253	508
	28	16.0	2	250	500
	29	20.0	4	825	3300

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	1007.9	271.3
	10.0	115.6	78.3
	12.5	55.4	58.7
	16.0	20.5	35.5
	20.0	33	89.5
PESO TOTAL (kg)			533.4

Volume de concreto (C-40) = 5.76 m³
Área de forma = 98.81 m²



UENP Universidade do Norte do Paraná

PROPRIETÁRIO: UNIVERSIDADE ESTADUAL DO NORTE DO PARANÁ - UENP
LOCAL: BLOCO ODONTOLÓGICO - UENP
PROLONGAMENTO DA AV. PEDRO COELHO DE MIRANDA
RESPONSÁVEL TÉCNICO: DIOGO ANTONIO CAPRARI, JR. - CREA PR 30.3440
DEDO FELIPE CAPRARI - CREA PR 142.7460
LUCAS PERES DE SOUZA - CREA PR 145.7550

MUNICÍPIO: JACAREZINHO - PR
PRF: CONSTRUÇÃO
PROJETO: ESTRUTURAL
REVISÃO: DET. CASA DE MÁQ. E COB. CX. D'ÁGUA

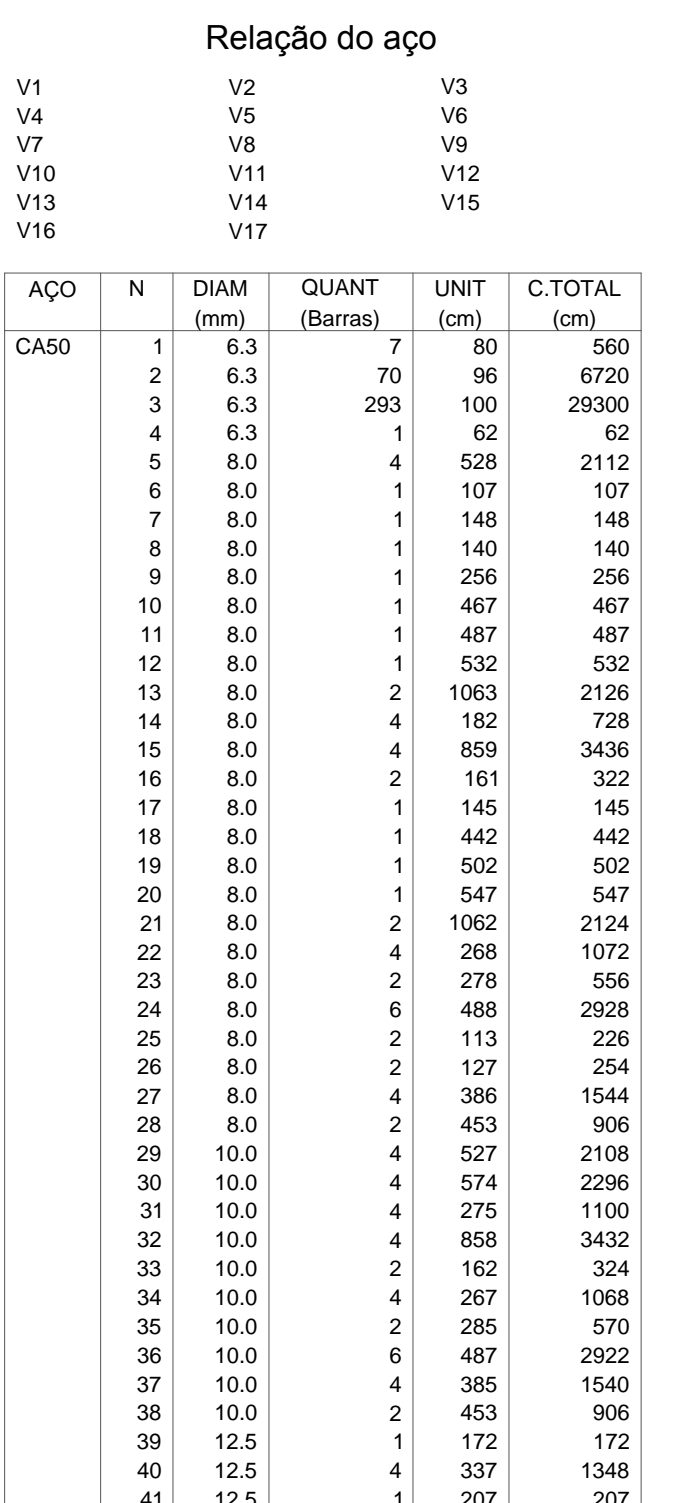
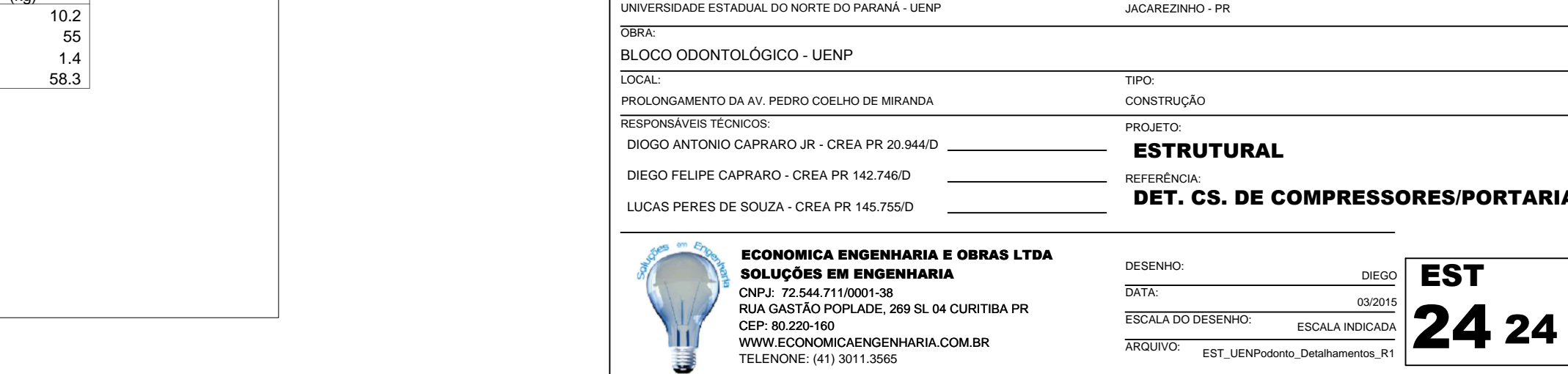
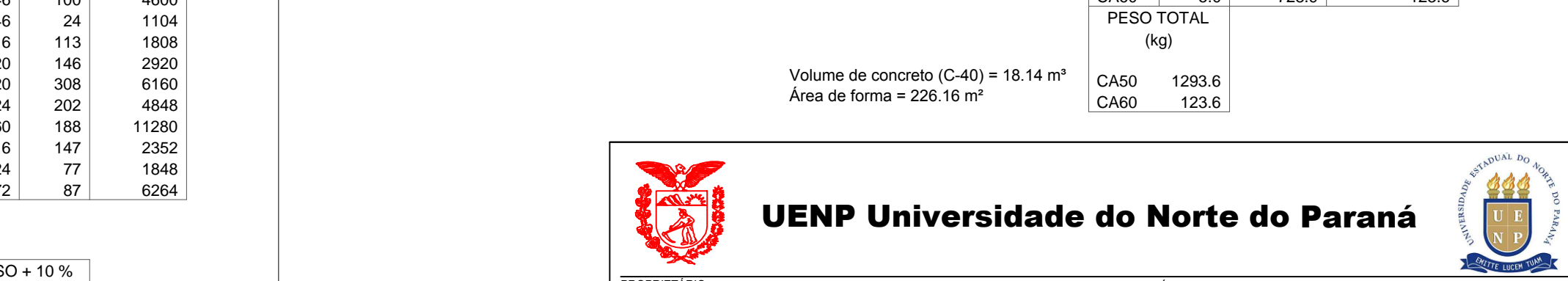
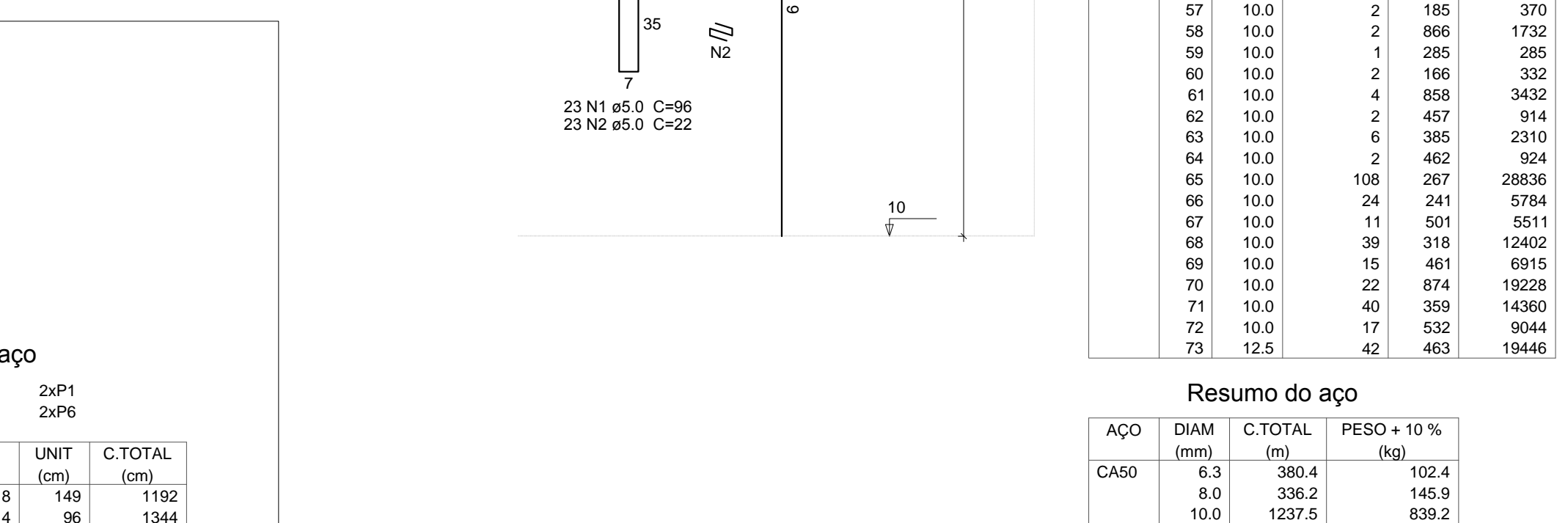
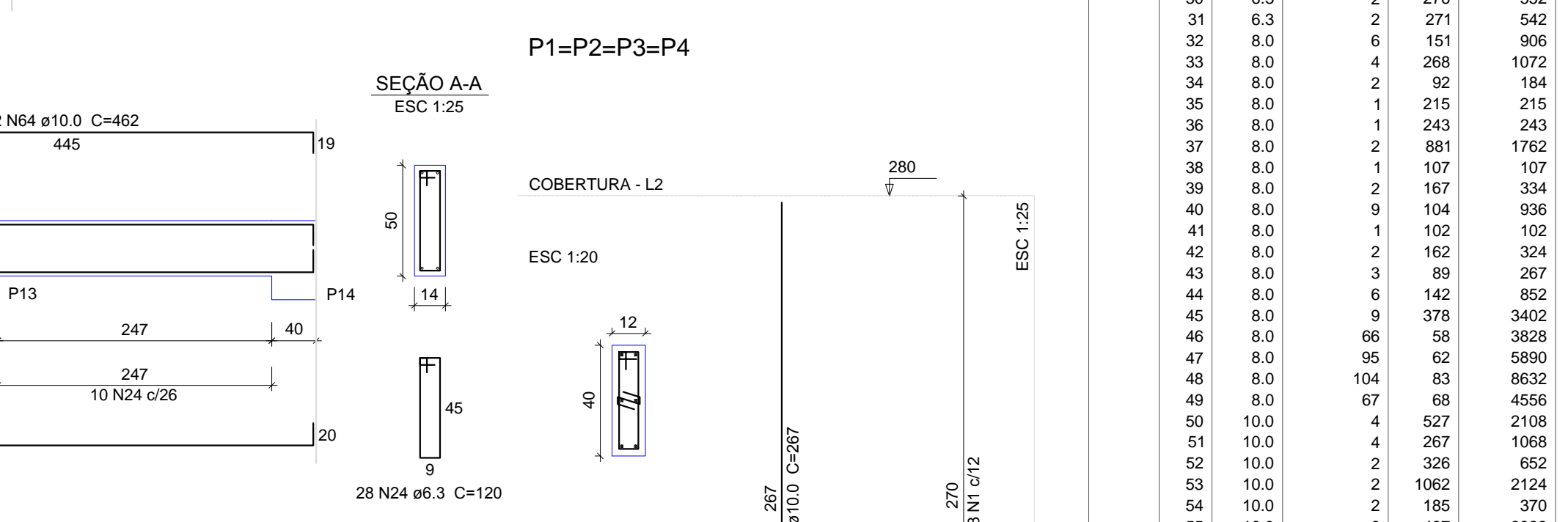
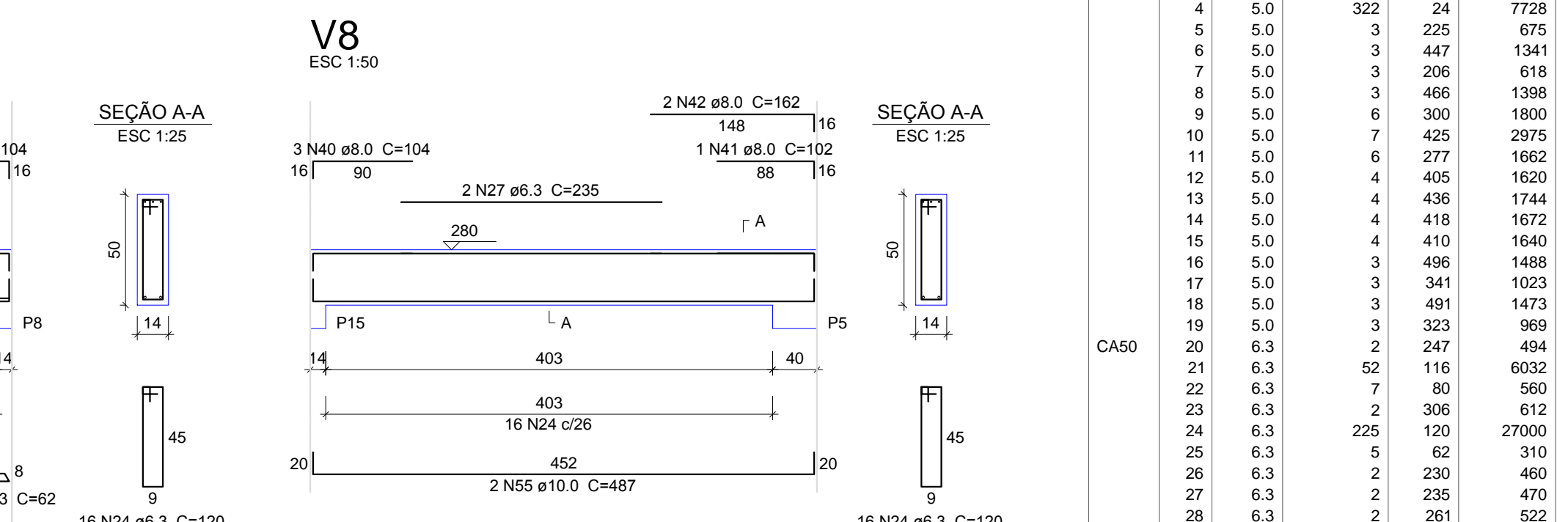
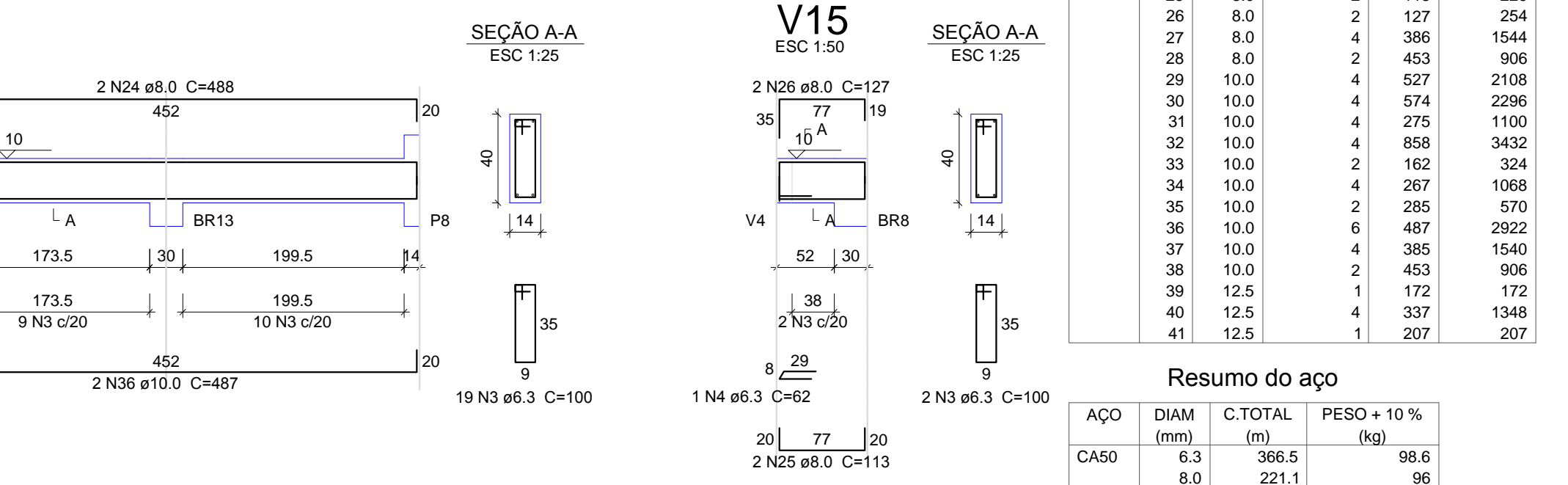
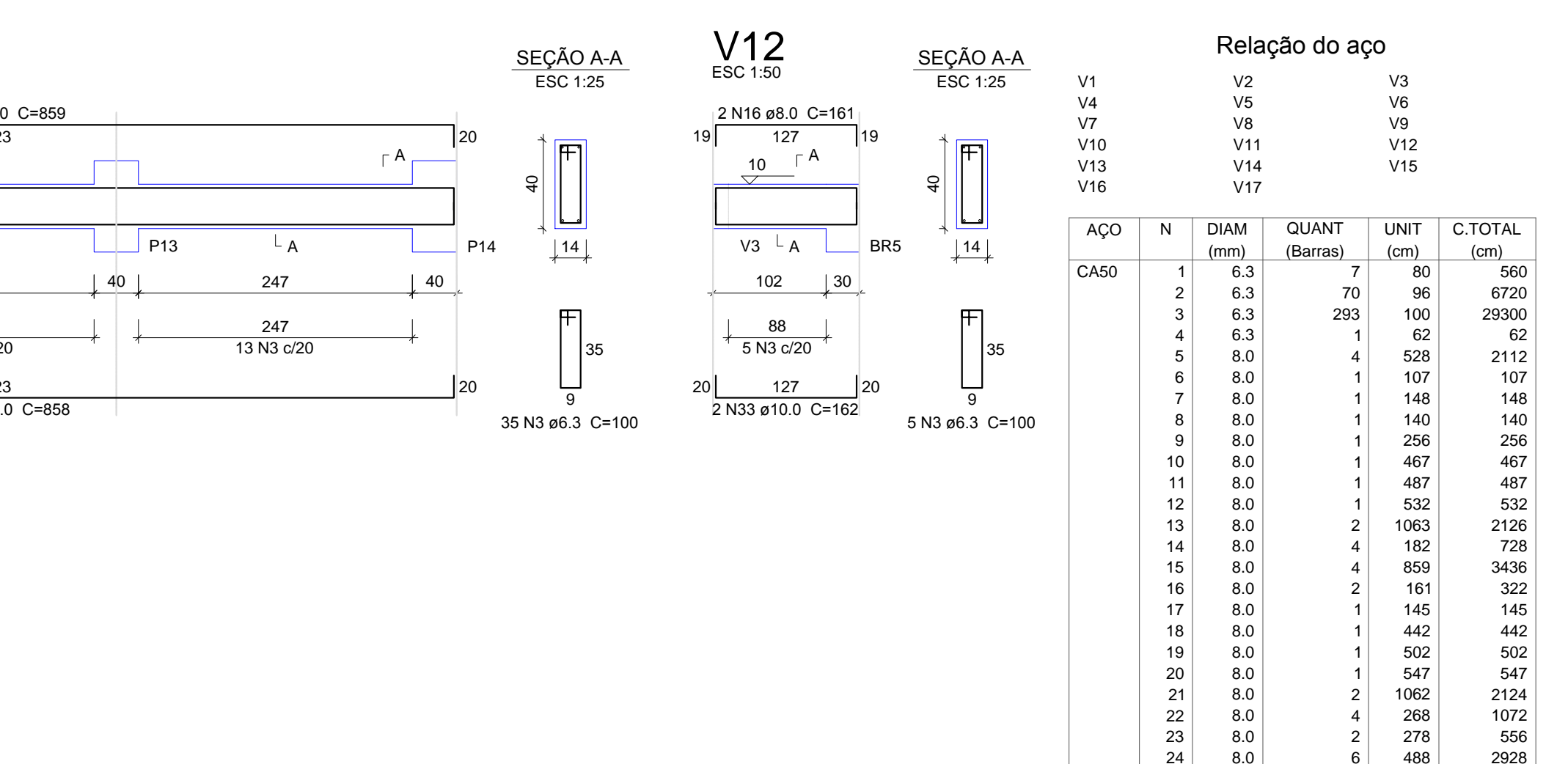
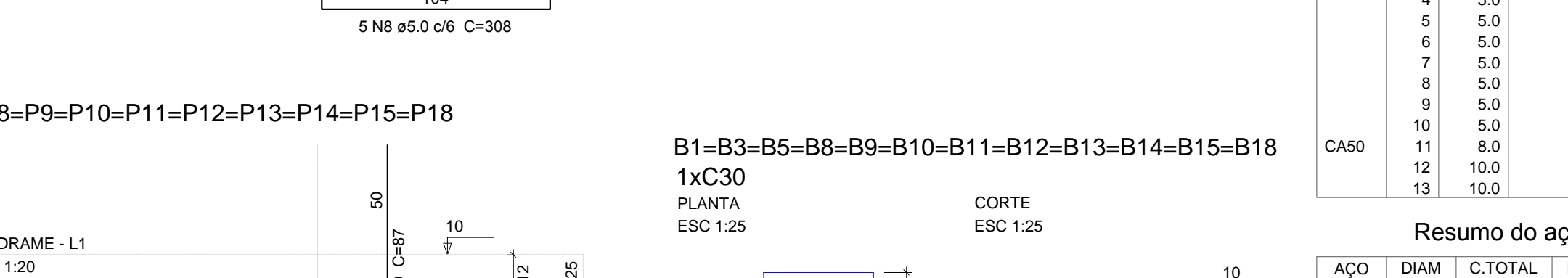
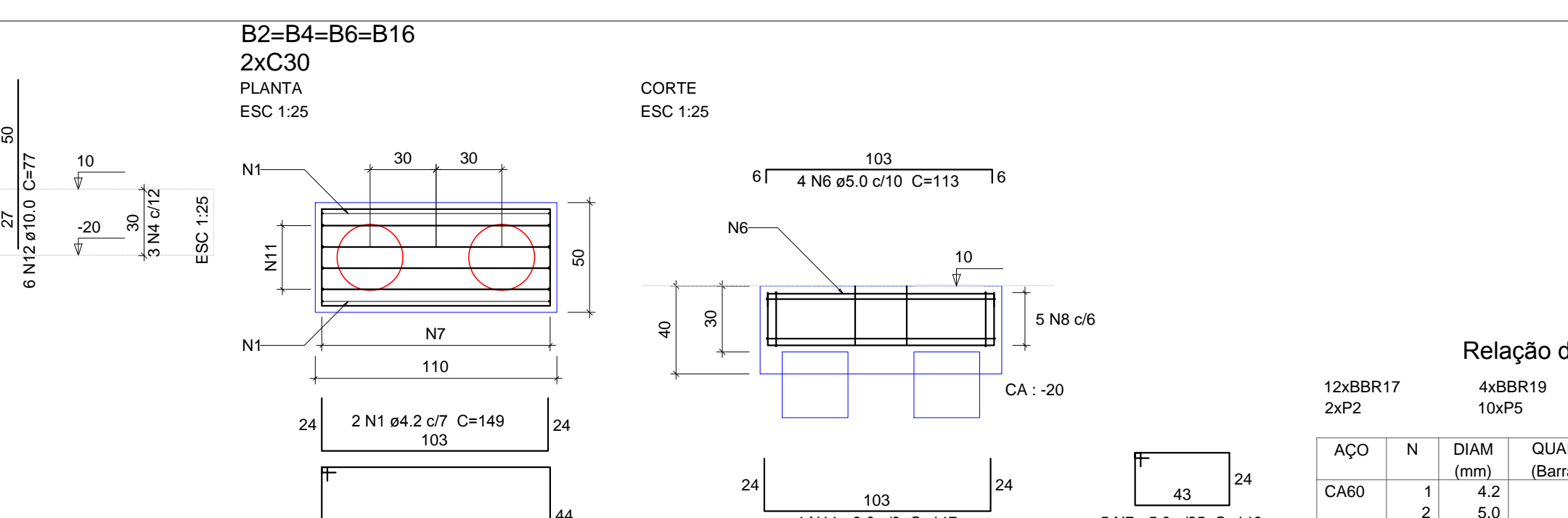
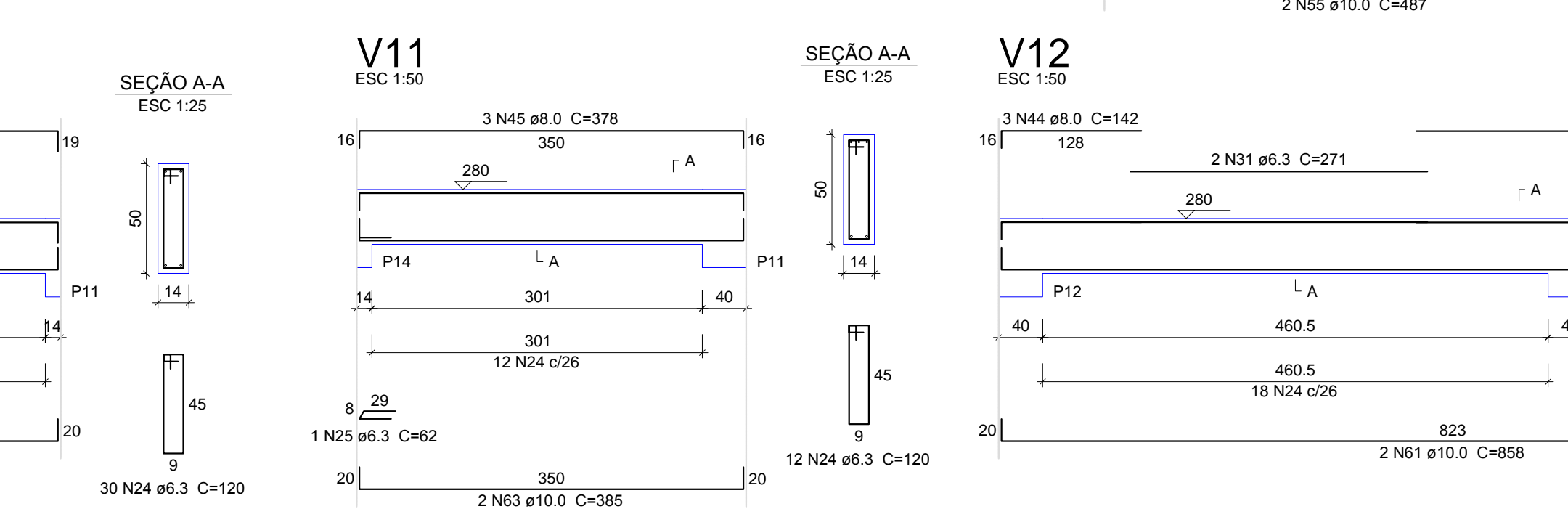
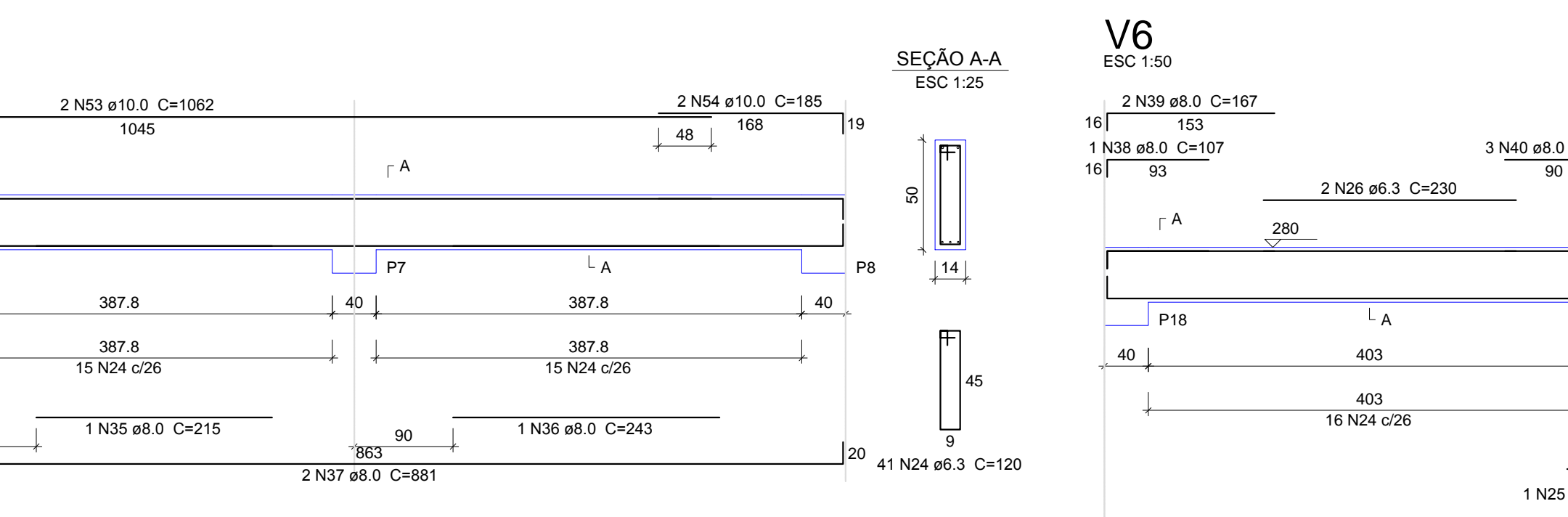
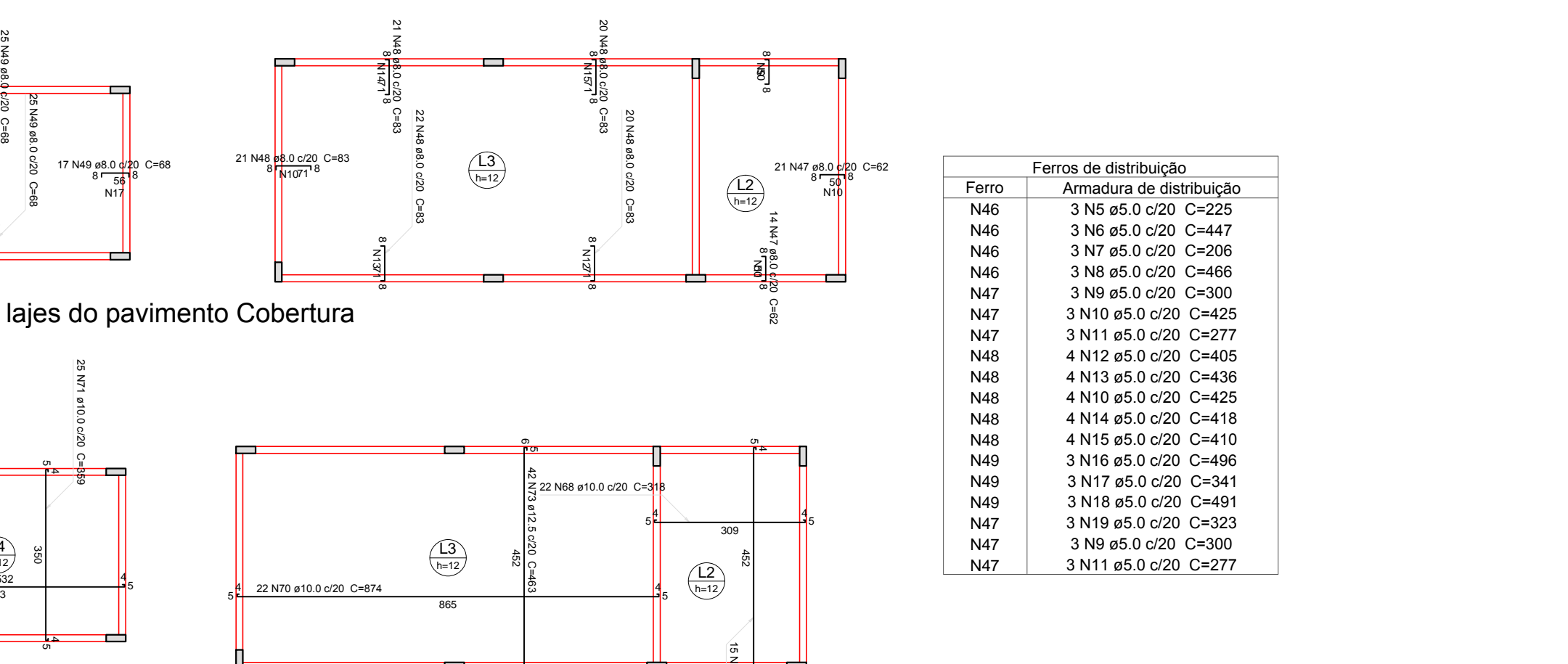
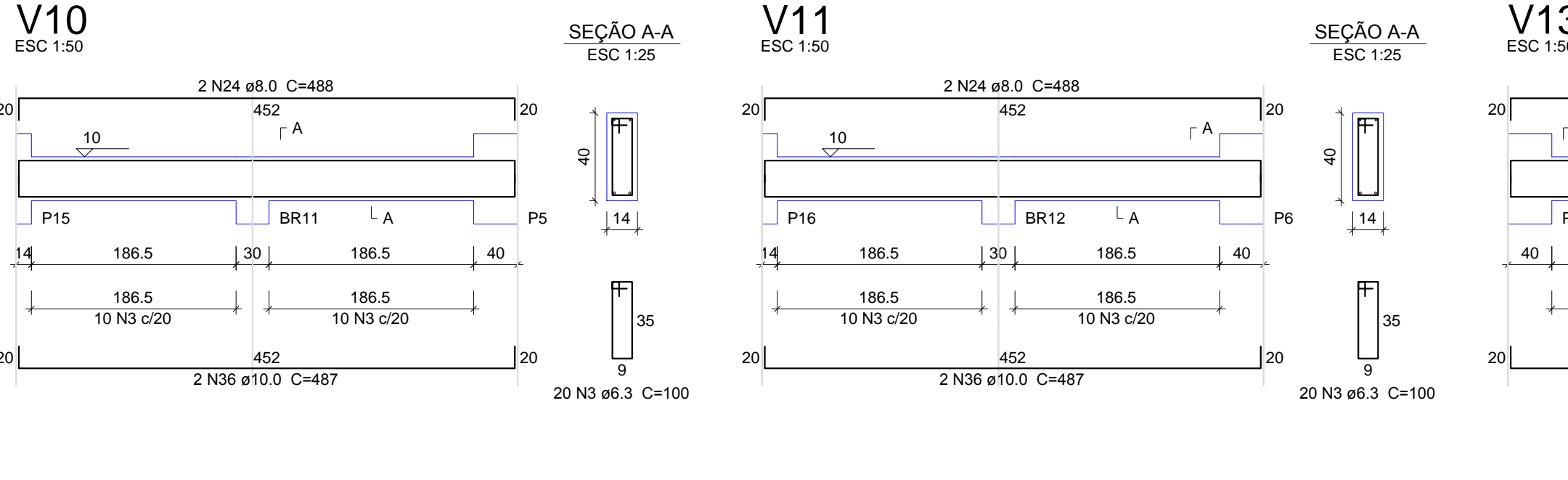
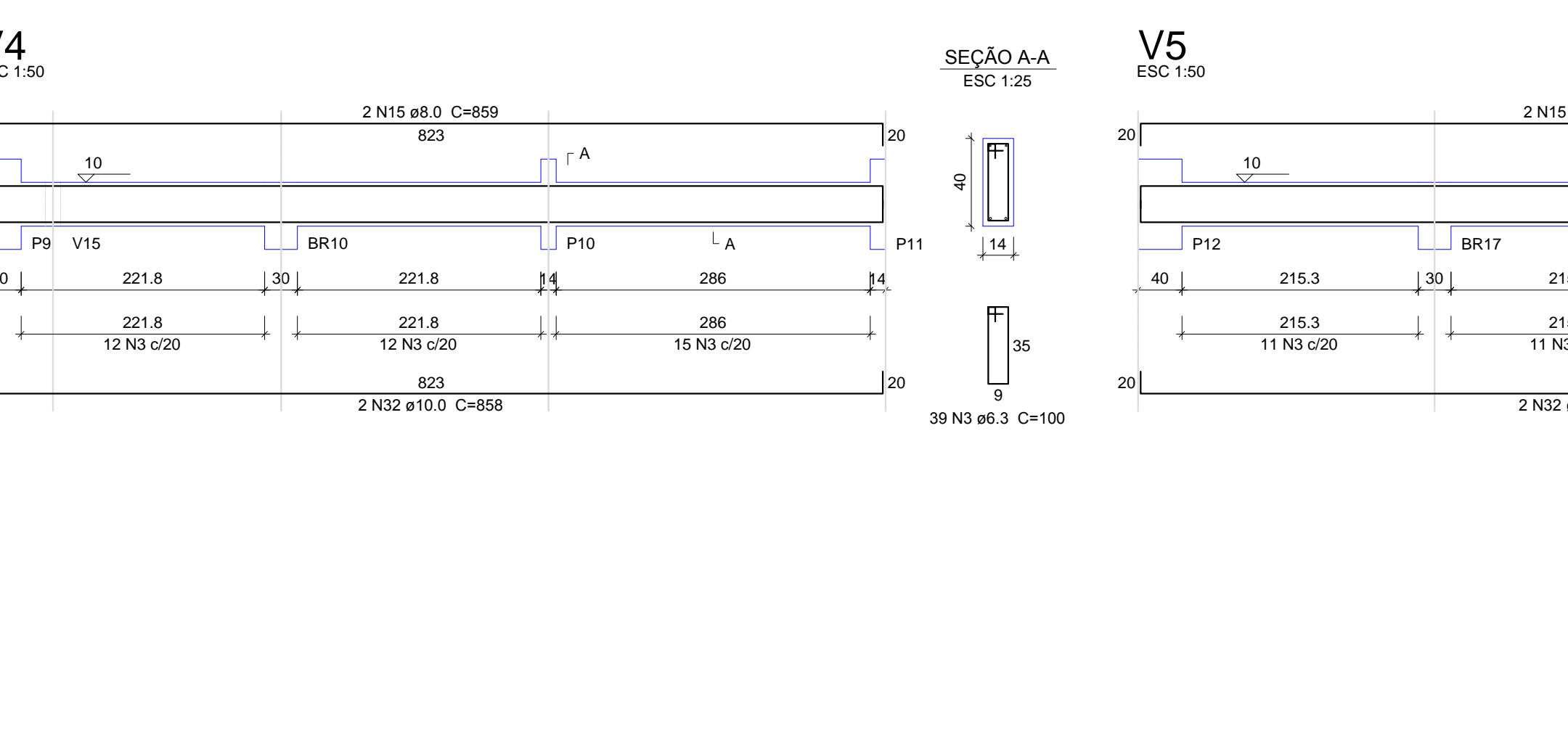
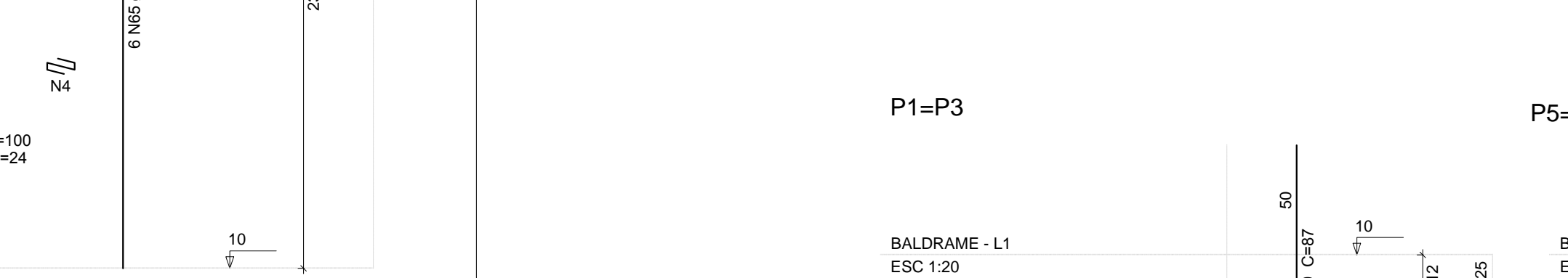
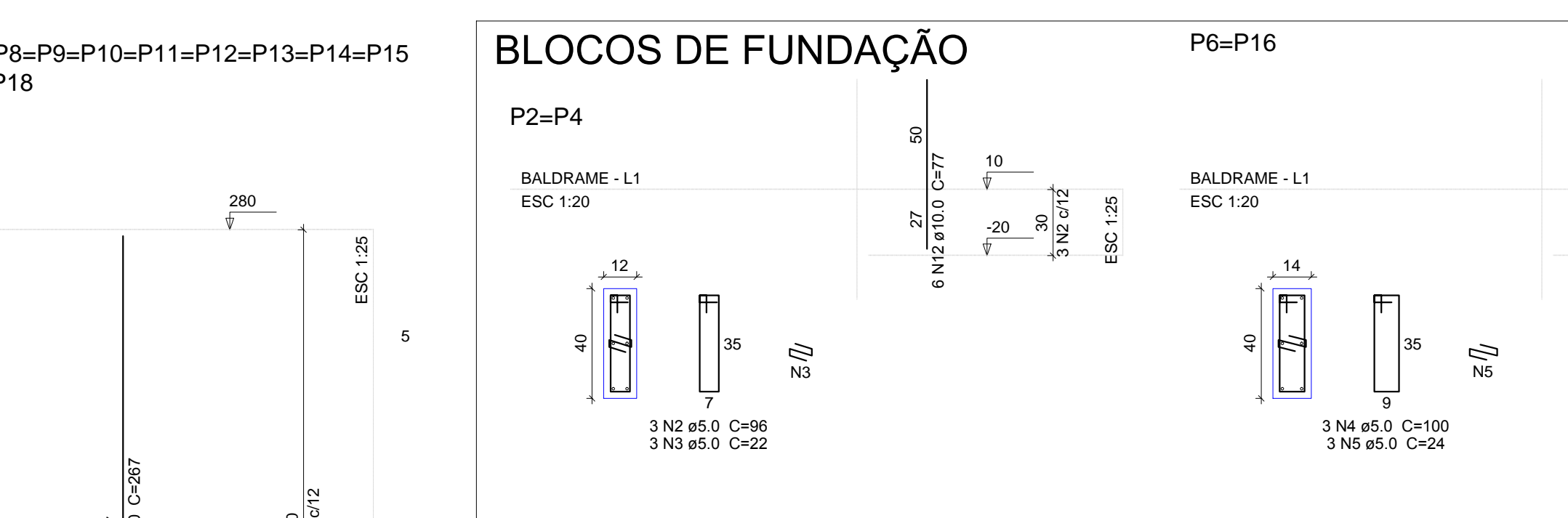
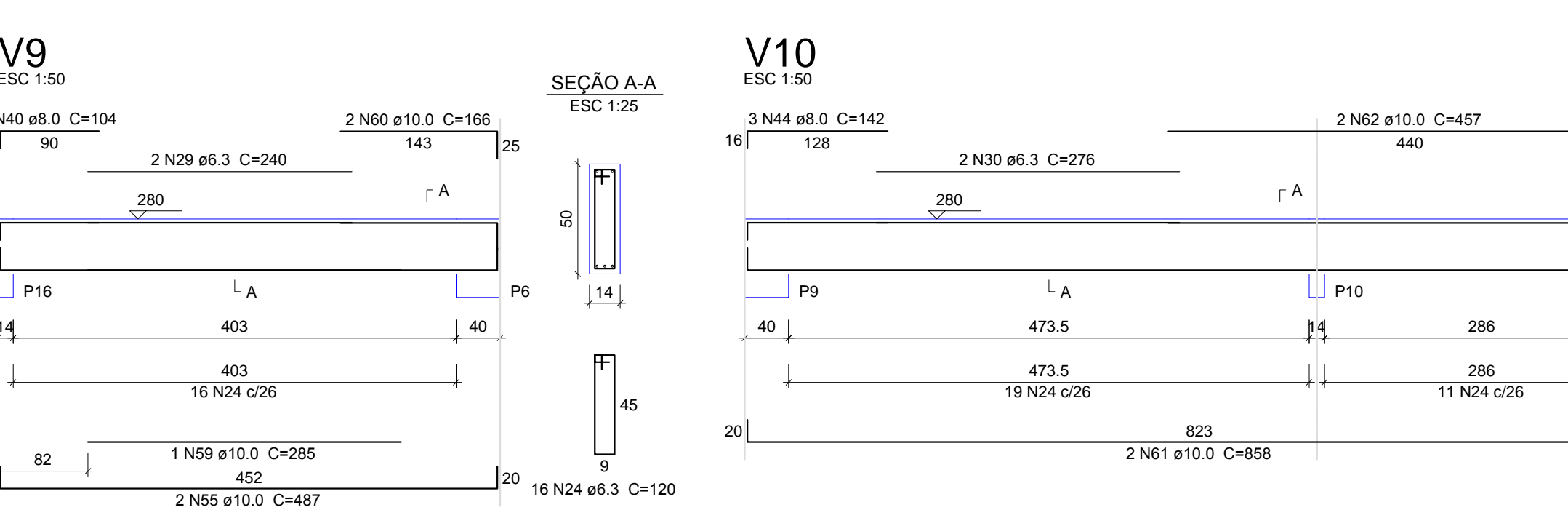
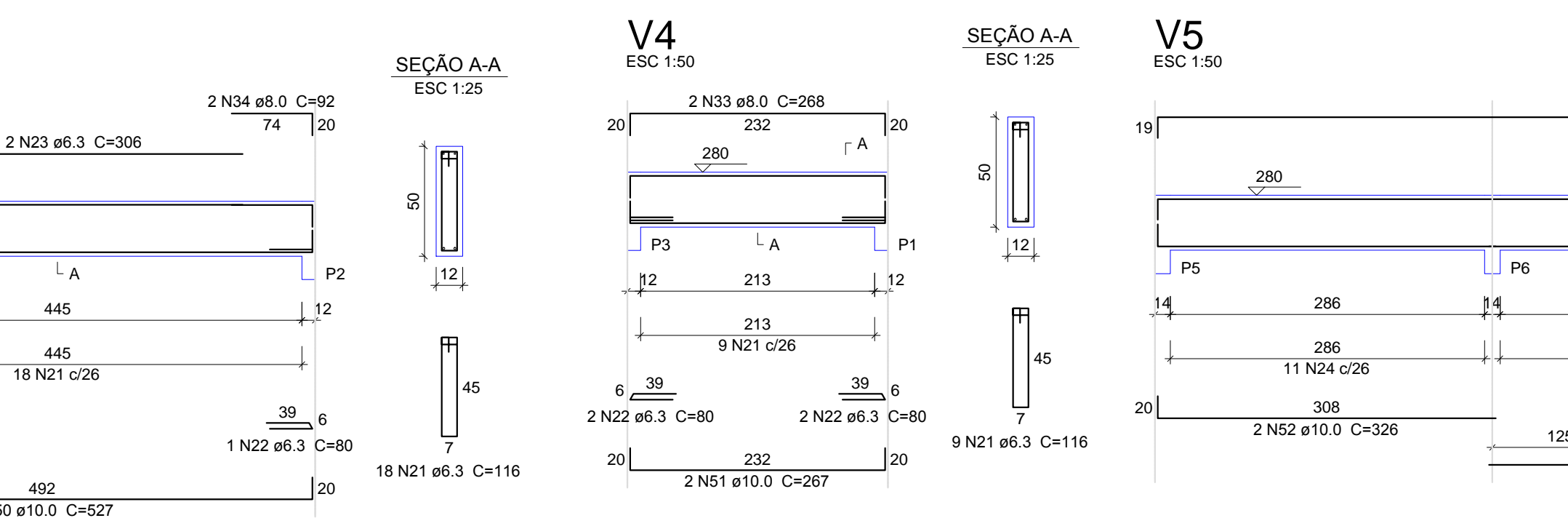
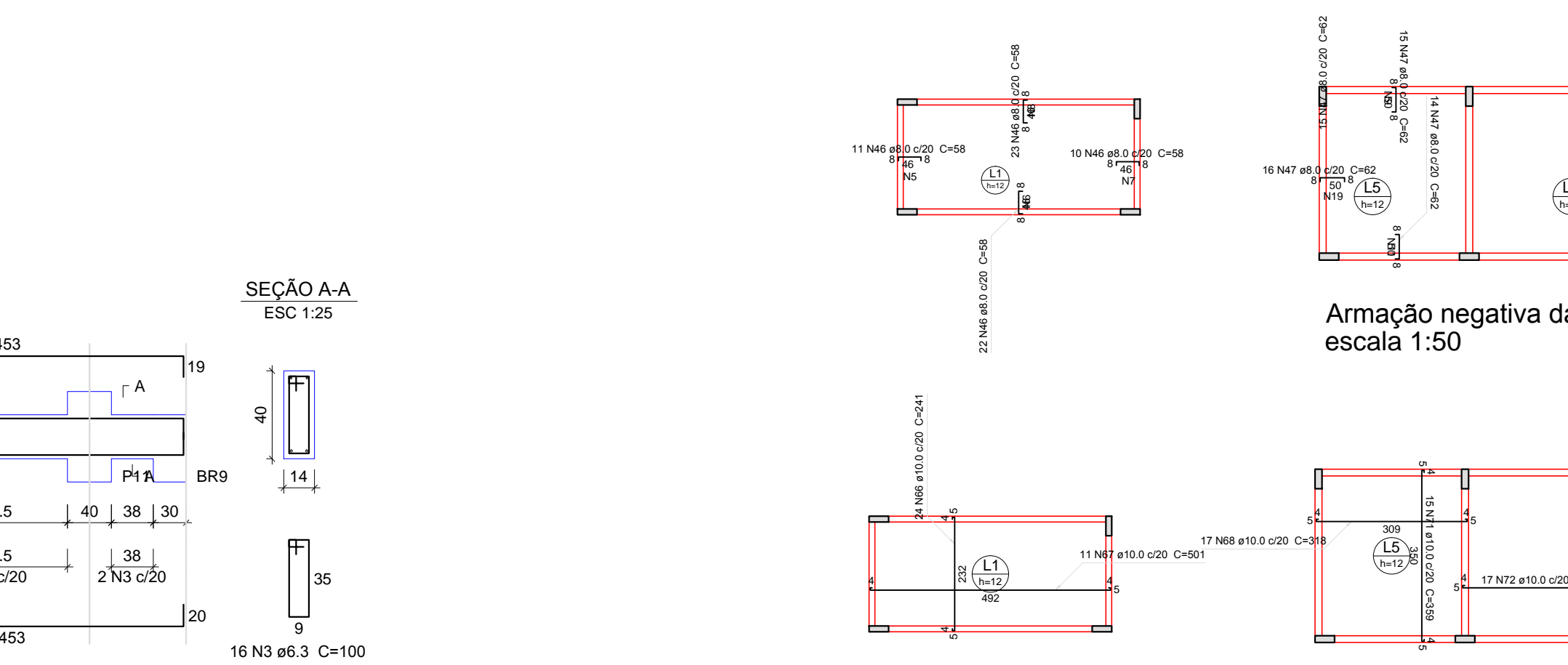
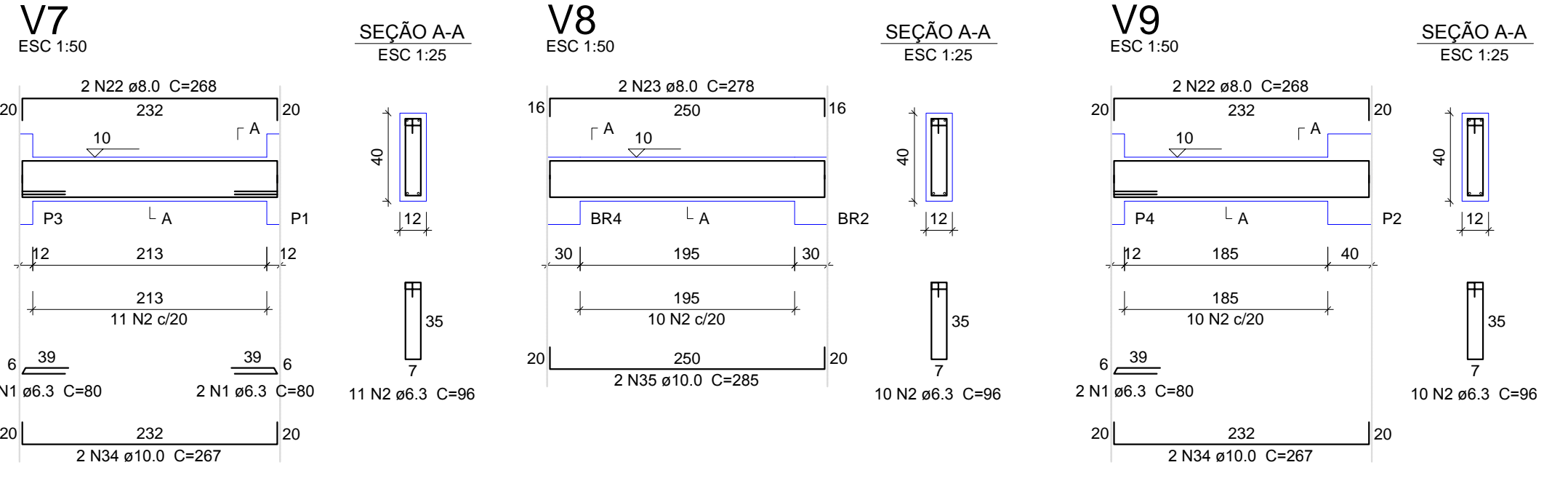
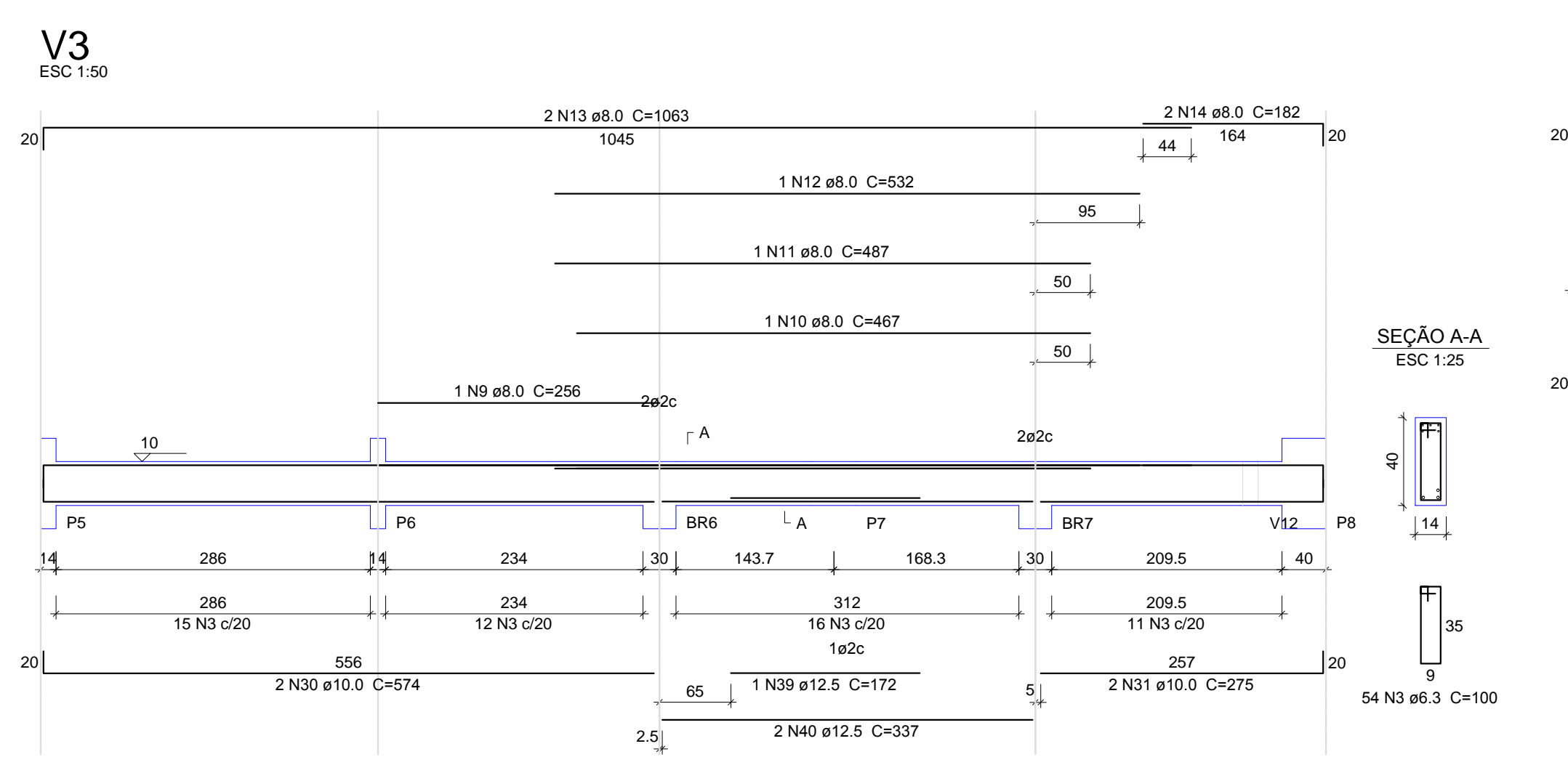
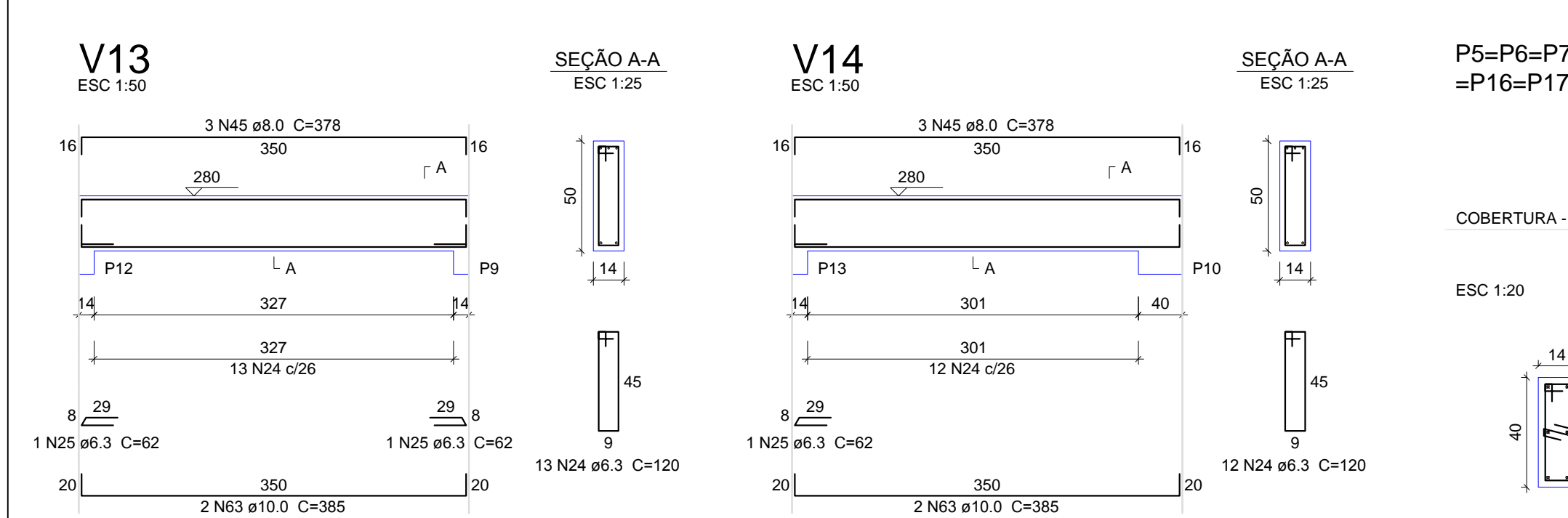
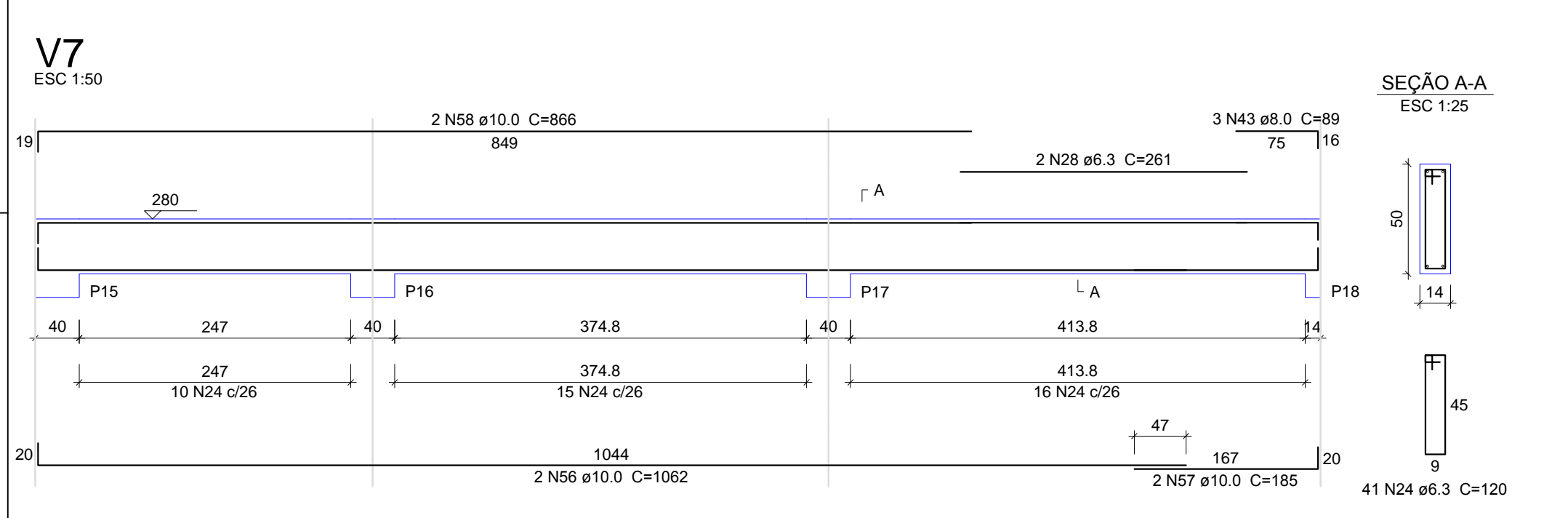
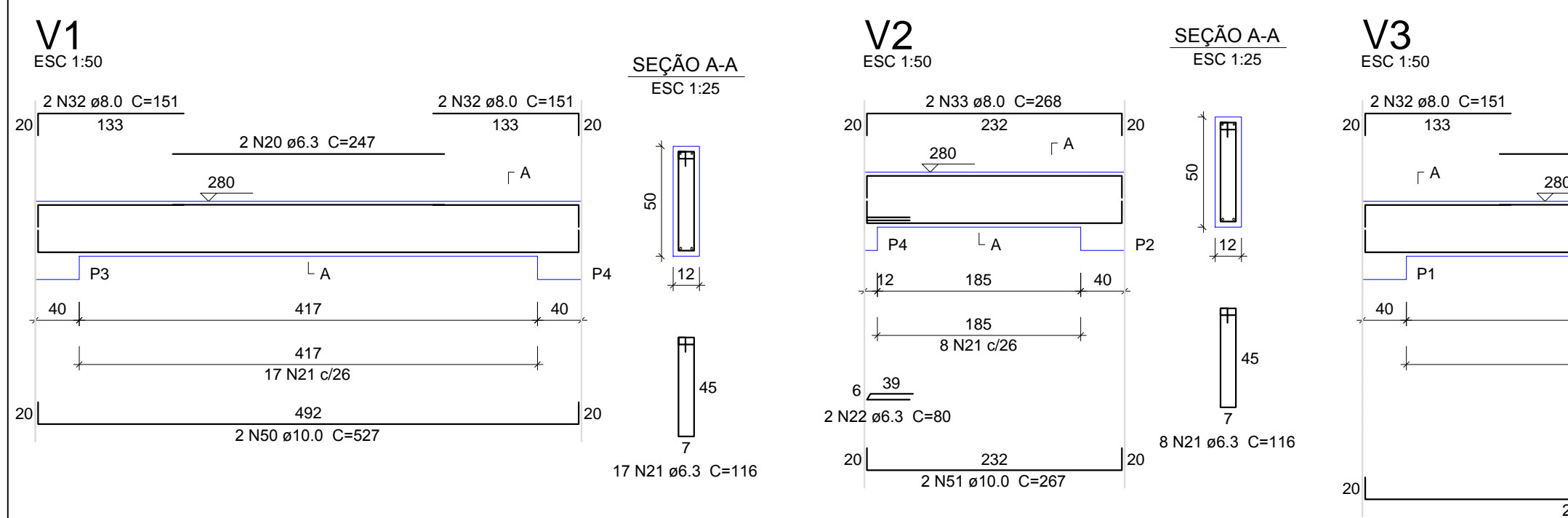
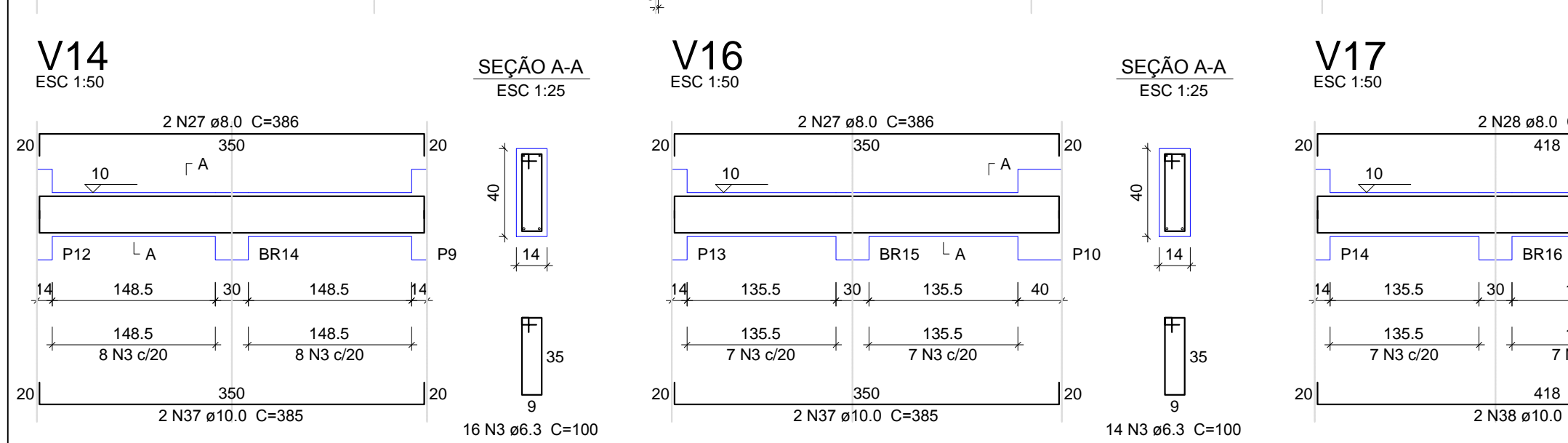
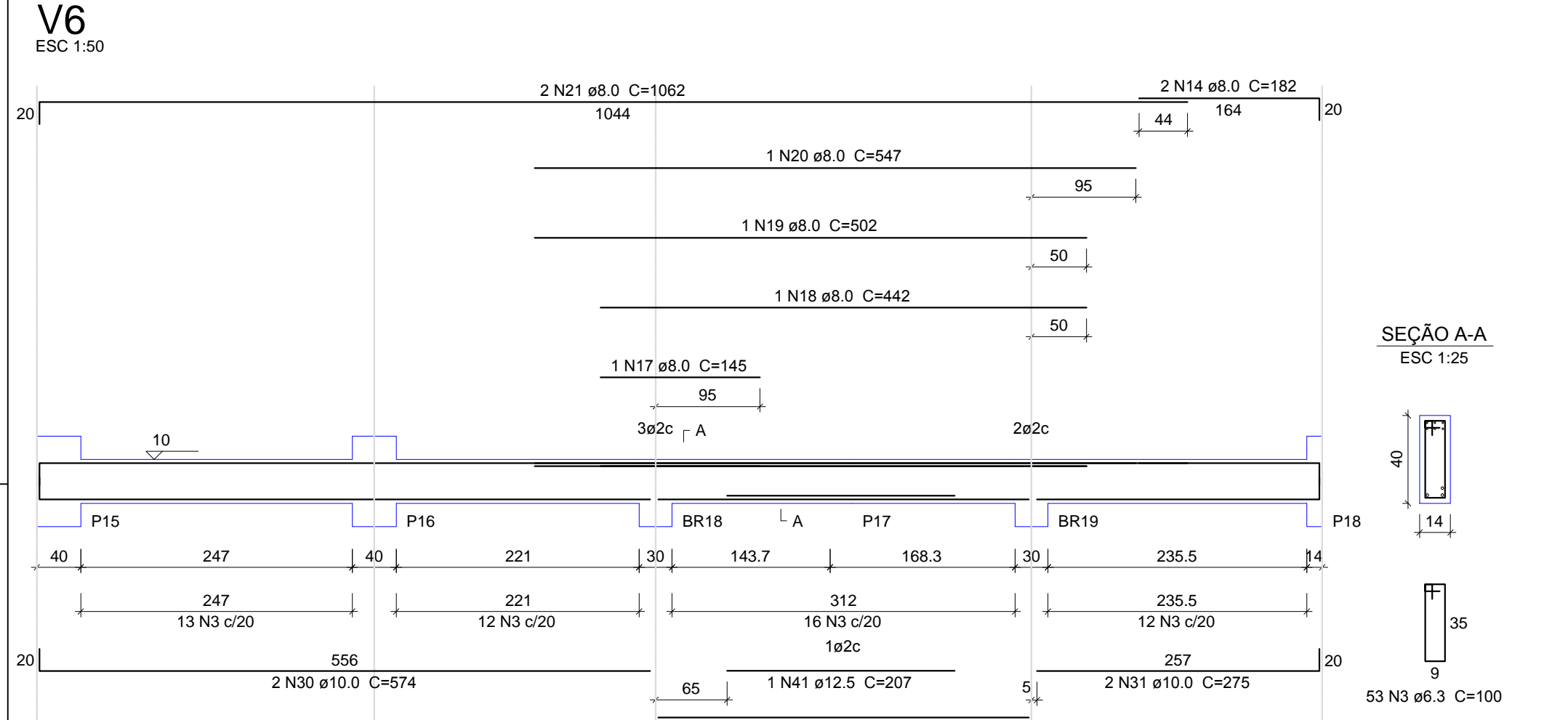
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SOLUÇÕES EM ENGENHARIA
CNPJ: 22.541.110/0001-98
RUA GASPAR PULPADO, 389 BL. 04 CURITIBA PR
CEP: 81.220-290
WWW.ECONOMICAENGENHARIA.COM.BR
TELEFONE: (41) 3111.5555

DESENHO: DEIDO
ORÇAMENTO: DEIDO
ESTRUTURAL: DEIDO
ARQUITETO: EST. UENP/Pré-Desenhado, PR

EST 23 24

The figure contains three technical drawings of a bridge structure:

- V1** (Escala 1:50): A plan view of the bridge deck. It shows a total width of 492 units. The deck is divided into sections with various reinforcement bars: 2 N5 ø8.0 C=528 at the top, 2 N2 ø10.0 C=527 at the bottom, and 1 N1 ø8.3 C=400 and 1 N1 ø8.3 C=406 near the ends. Reinforcement bars are also shown along the length of the deck: P1, BR1, BR2, and P2. Dimensions for the deck width are given as 40, 135.5, 30, 135.5, 30, 114, and 40 units. The total length of the deck is 492 units.
- SEÇÃO A-A** (Escala 1:25): A cross-section of the bridge deck. It shows a total width of 492 units. The deck is divided into sections with various reinforcement bars: 1 N8 ø8.0 C=140, 1 N7 ø8.0 C=148, and 1 N8 ø8.0 C=107 at the top, and 2 N2 ø8.3 C=406 at the bottom. Reinforcement bars are also shown along the length of the deck: P3, BR3, BR4, and P4. Dimensions for the deck width are given as 40, 135.5, 30, 135.5, 30, 66, and 40 units. The total length of the deck is 492 units.
- V2** (Escala 1:50): A plan view of the bridge deck. It shows a total width of 492 units. The deck is divided into sections with various reinforcement bars: 2 N5 ø8.0 C=528 at the top, 2 N2 ø10.0 C=527 at the bottom, and 1 N1 ø8.3 C=400 and 1 N1 ø8.3 C=406 near the ends. Reinforcement bars are also shown along the length of the deck: P3, BR3, BR4, and P4. Dimensions for the deck width are given as 40, 135.5, 30, 135.5, 30, 66, and 40 units. The total length of the deck is 492 units.



AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	366.5	98.6
	8.0	221.1	96
	10.0	162.7	110.3
	12.5	17.3	18.3
PESO TOTAL			

(kg)	
CA50	323,2

Volume de concreto (C-40) = 4,59 m³
 Área de forma = 78,94 m²

Relação de preço					
Negativos		4xP1		14xP5	
Positivos		V1		V2	
V3		V4		V5	
V6		V7		V8	
V9		V10		V11	
V12		V13		V14	

ACO	N	DIAM	QUANT	UNIT	C.TOTAL

CA60	(1)	(2)	(3)	(4)	(5)
1	5.0	92	26	8832	
2	5.0	92	22	2024	
3	5.0	322	100	32200	
4	5.0	322	24	7728	
5	5.0	3	225	675	
6	5.0	3	447	1341	
7	5.0	3	206	618	
8	5.0	3	466	1398	
9	5.0	6	300	1800	
10	5.0	7	425	2975	
11	5.0	5	277	1662	
12	5.0	4	405	1620	
13	5.0	4	436	1744	
14	5.0	4	418	1672	
15	5.0	4	410	1640	
16	5.0	3	496	1488	
17	5.0	3	341	1023	
18	5.0	3	491	1473	
19	5.0	3	323	969	

21	6.3	52	116	6032
22	6.3	7	80	560
23	6.3	2	306	612
24	6.3	225	120	27000
25	6.3	5	62	310
26	6.3	2	230	460
27	6.3	2	235	470
28	6.3	2	261	522
29	6.3	2	240	480

31	6.3	2	271	542
32	8.0	6	151	906
33	8.0	4	268	1072
34	8.0	2	92	184
35	8.0	1	215	215
36	8.0	1	243	243
37	8.0	2	881	1762
38	8.0	1	107	107
39	8.0	1	167	167

40	8.0	9	104	936
41	8.0	1	102	102
42	8.0	2	162	324
43	8.0	3	89	267
44	8.0	6	142	852
45	8.0	9	378	3402
46	8.0	66	58	3828
47	8.0	95	62	5890
48	8.0	104	83	8632

50	10.0	4	527	2108
51	10.0	4	267	1068
52	10.0	2	326	652
53	10.0	2	1062	2124
54	10.0	2	185	370
55	10.0	6	487	2922
56	10.0	2	1062	2124
57	10.0	2	185	370
58	10.0	2	866	1732

60	10.0	2	166	332
61	10.0	4	858	3432
62	10.0	2	457	914
63	10.0	6	385	2310
64	10.0	2	462	924
65	10.0	108	267	28836
66	10.0	24	241	5784
67	10.0	11	501	5511
68	10.0	30	318	13620

69	10.0	15	461	6913
70	10.0	22	874	19228
71	10.0	40	359	14360
72	10.0	17	532	9044
73	12.5	42	463	19446

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (kg)	PESO + 10 % (kg)
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CA50	6.3	380.4	102.4
	8.0	336.2	145.9
	10.0	1237.5	839.2
	12.5	194.5	206.1
CA60	5.0	728.9	123.6
PESO TOTAL (kg)			
CA50	1293.6		

MUNICÍPIO:

TIPO:
CONSTRUÇÃO

PROJETO:
ESTRUTURAL

REFERÊNCIA:
DET. CS. DE COMPRESSORES/PORTARIA

DESENHO: _____ DATA: _____
 ESCALA DO DESENHO: _____ ESCALA INDICADA: **EST 24 24**
 ARQUIVO: EST_UNPdoonorio_Detalhamentos_R11