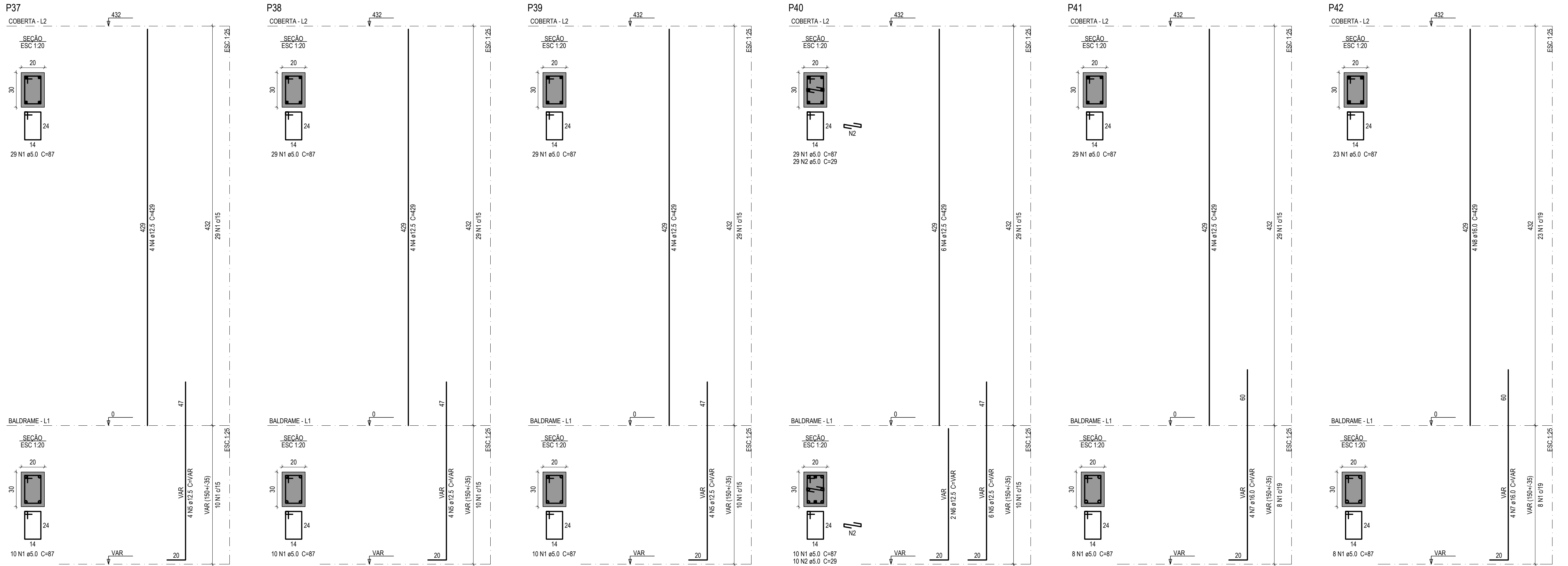




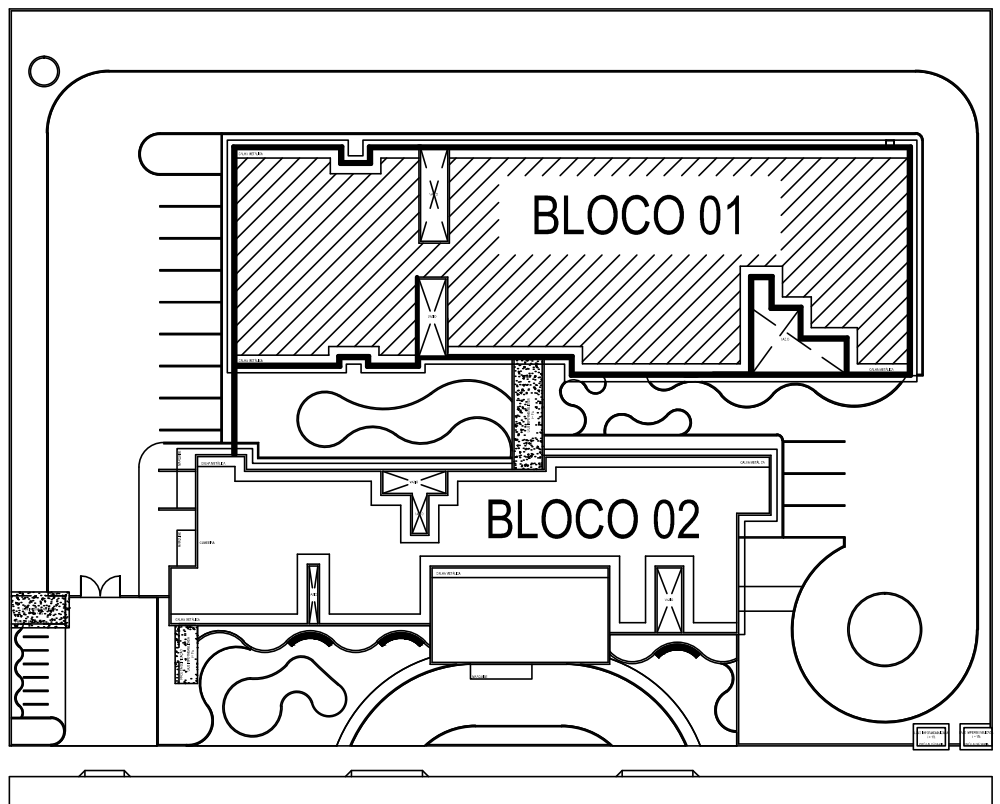
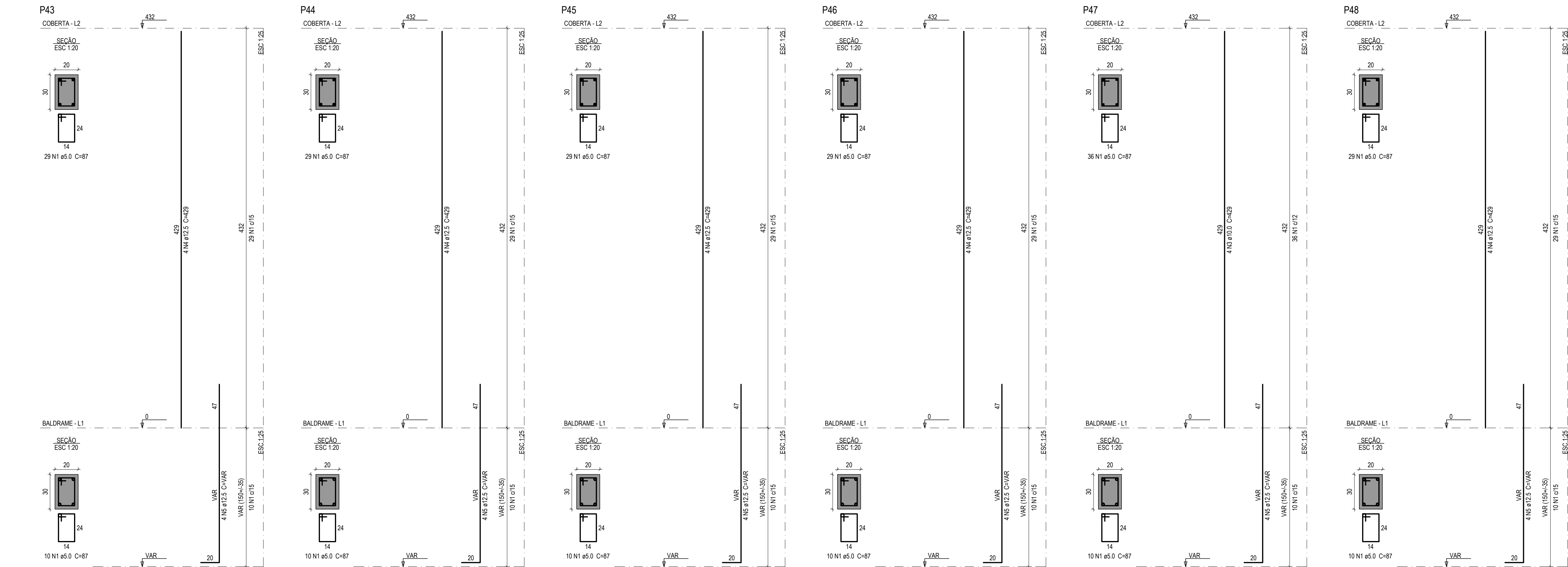
Relação do aço

ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	465	87	40455
	2	5.0	39	29	1131
CASO	3	10.0	4	429	1716
	4	12.5	42	429	18018
	5	12.5	2	VAR	VAR
	6	12.5	2	VAR	VAR
	7	16.0	8	VAR	VAR
	8	16.0	4	429	1716

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CASO	10.0	17.2	11.6
	12.5	271.6	287.8
	16.0	35	60.6
CA60	5.0	415.9	70.5
PESO TOTAL (kg)			
CASO	360		
CA60	70.5		

Volume de concreto (C-25) = 3.92 m³
Área de forma = 65.39 m²



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO: _____

MUNICÍPIO: SOBRAL

ASSUNTO: FORMA E ARMAÇÃO DOS PILARES - FL 04

ESCALA: INDICADA

DATA: ABR/2026

REVISÃO: 02

ARQUIVO: _____

PRANCHA: 07/45

Relação do aço

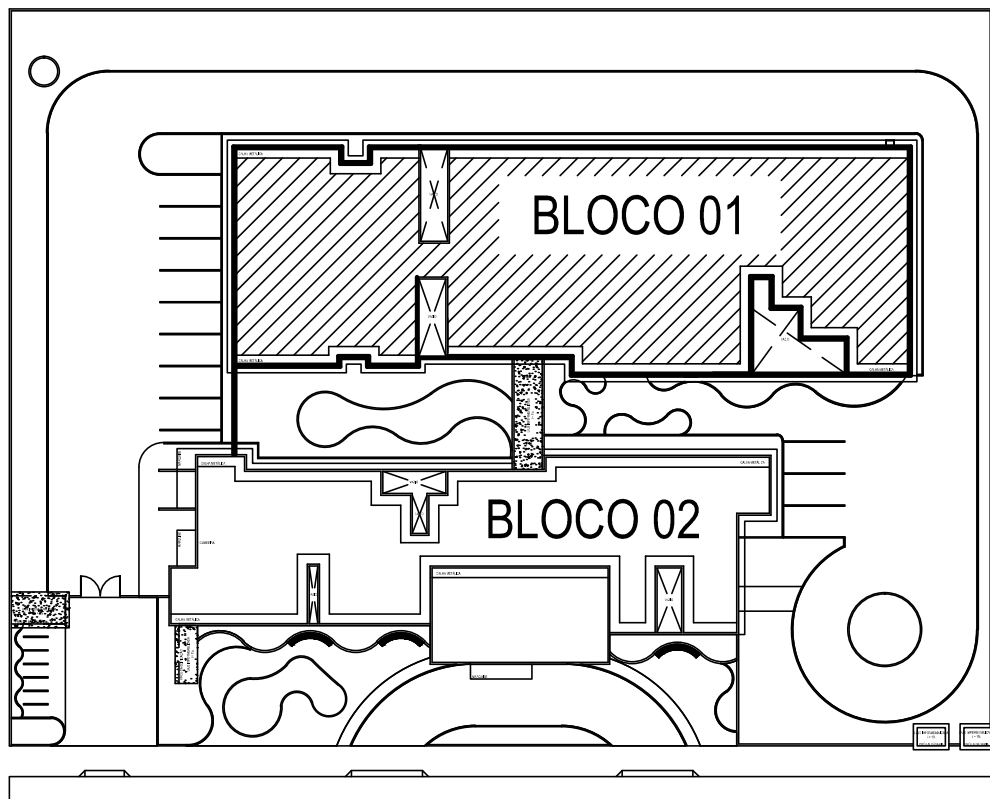
P49	P50	P51
P52	P53	P54
P55	P56	P57
P58	P59	P60

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	468	87	40716
	2	5.0	108	29	3132
	3	12.5	52	429	22308
	4	12.5	52	VAR	VAR
	5	12.5	6	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	12.5	341.9	362.2
CA60	5.0	438.5	74.3
PESO TOTAL (kg)			
CA50		362.2	
CA60		74.3	

Volume de concreto (C-25) = 3.91 m³
Área de forma = 65.24 m²



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:
PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:
SOBRAL



SOBRAL
PREFEITURA

ASSUNTO:
FORMA E ARMAÇÃO DOS PILARES - FL 05

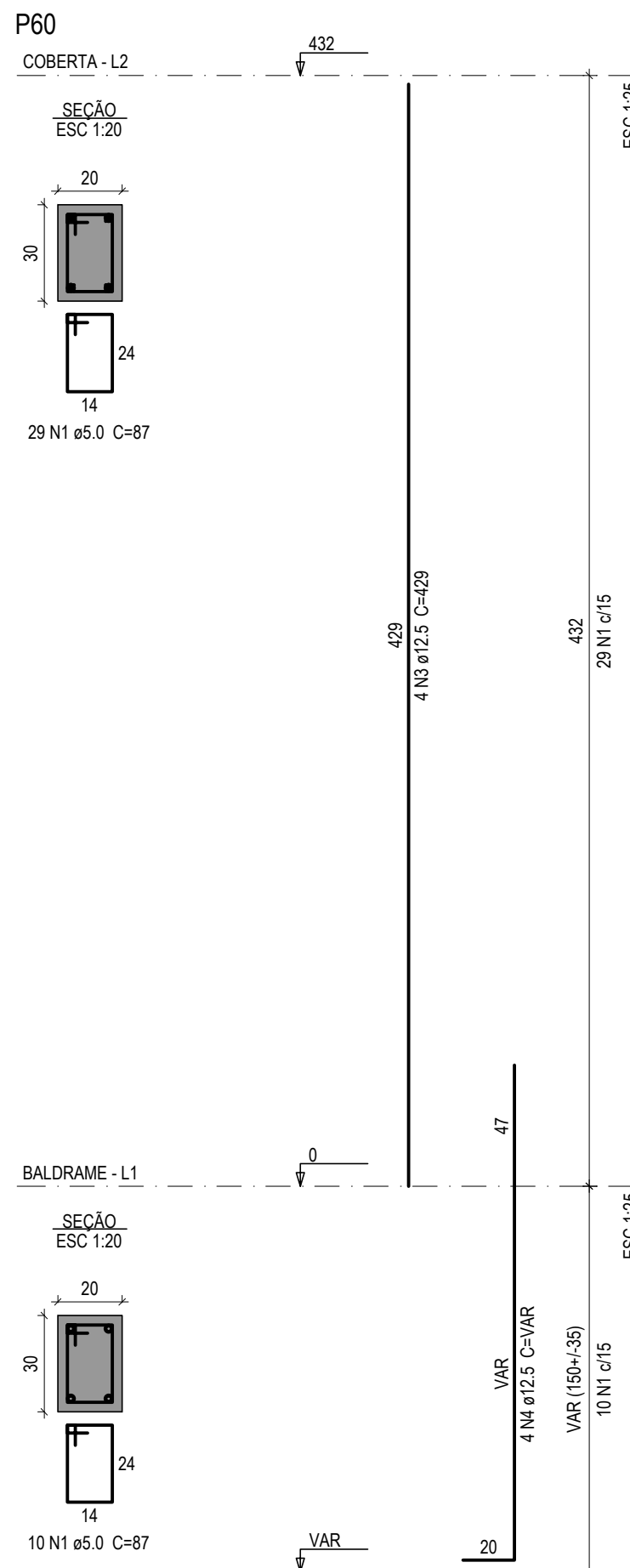
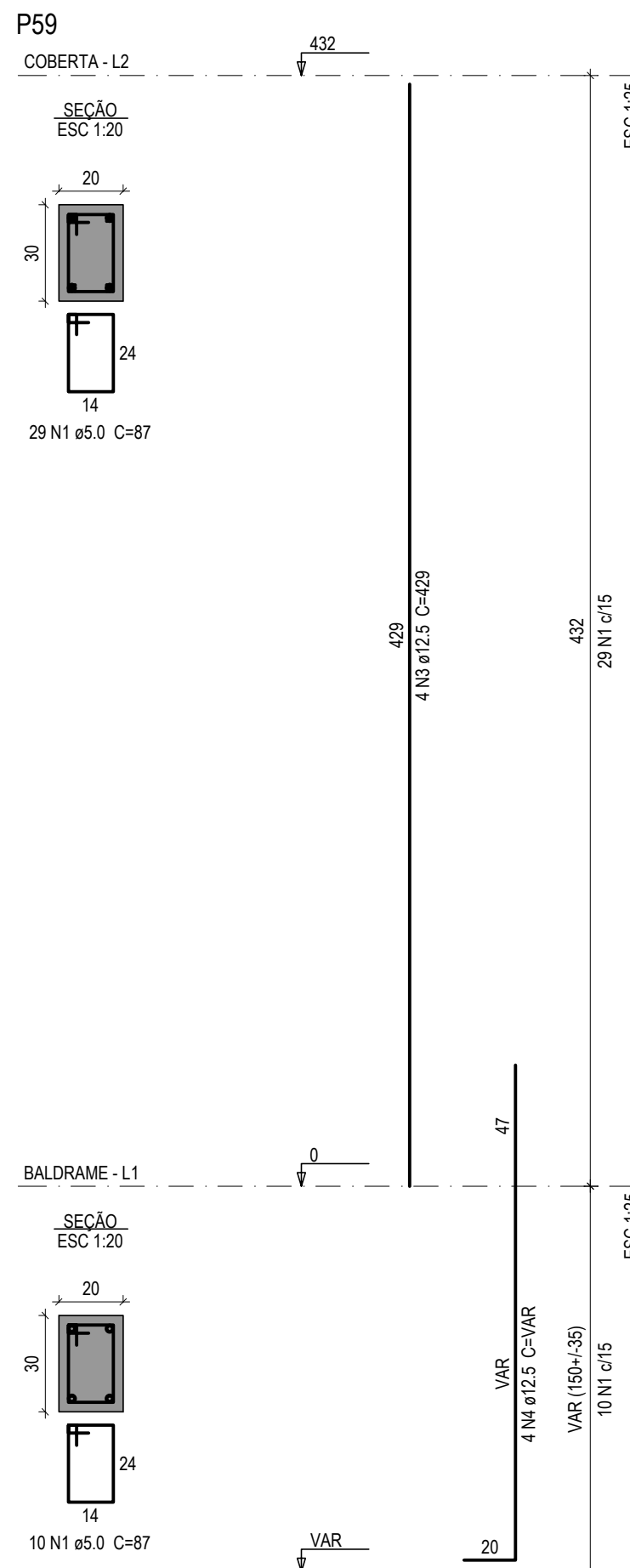
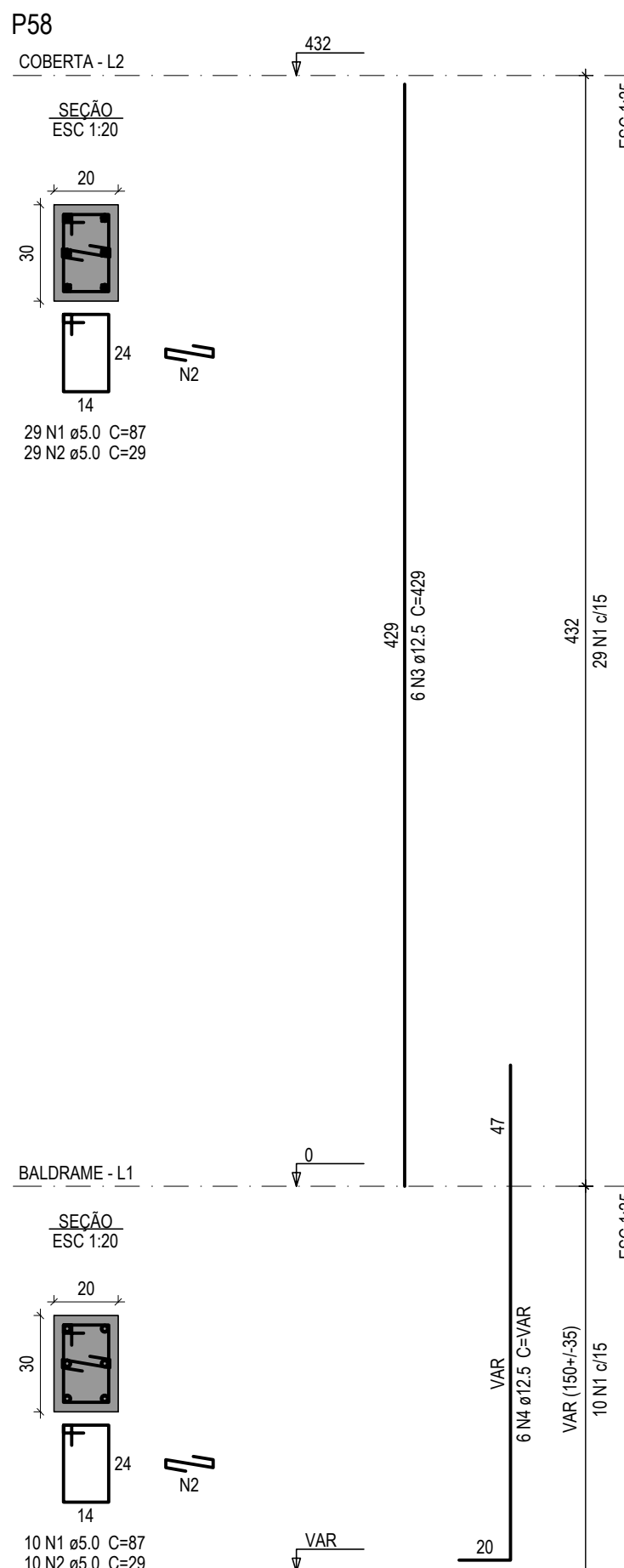
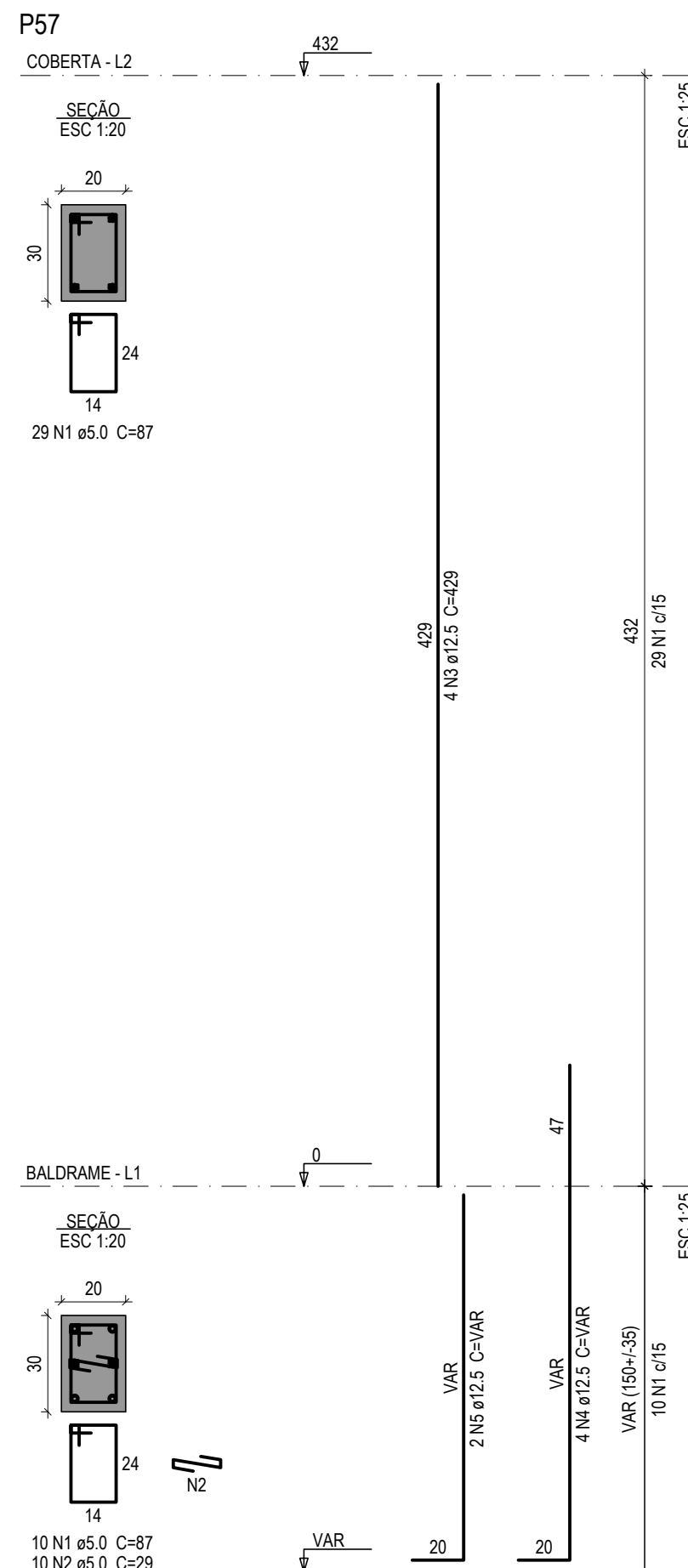
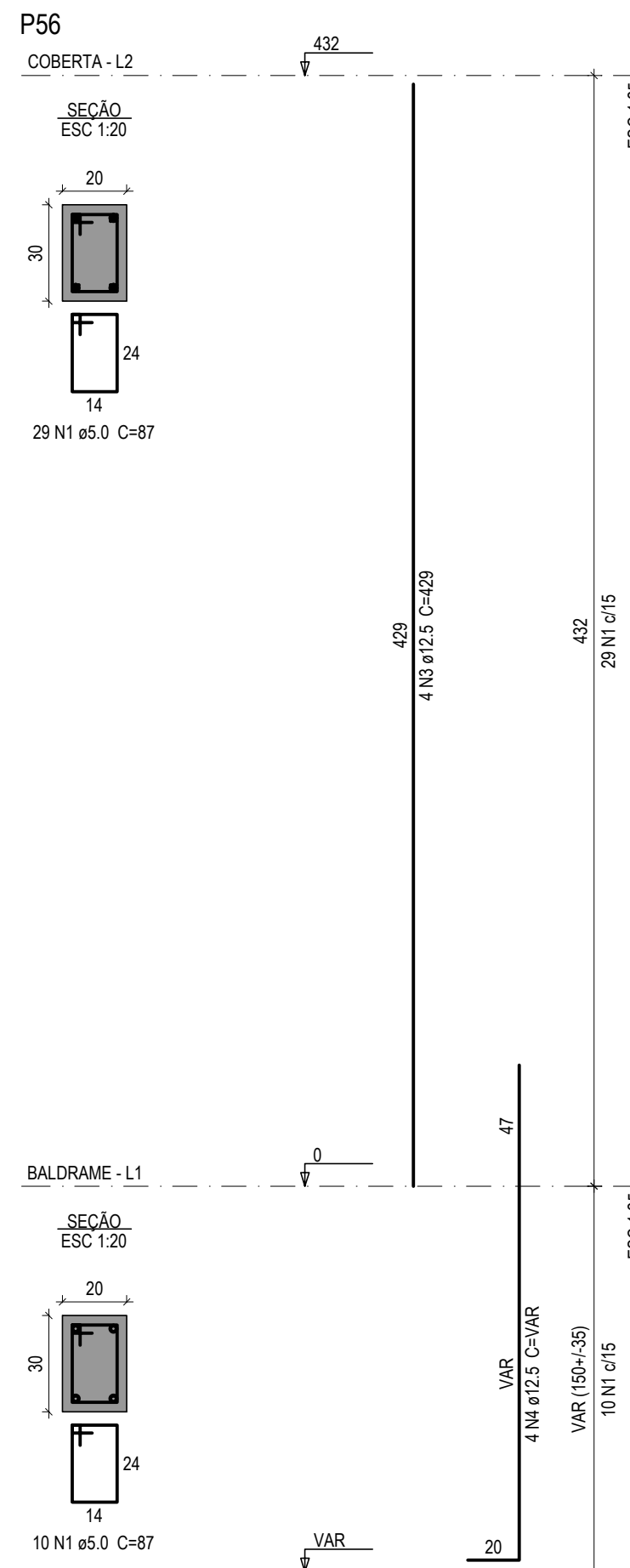
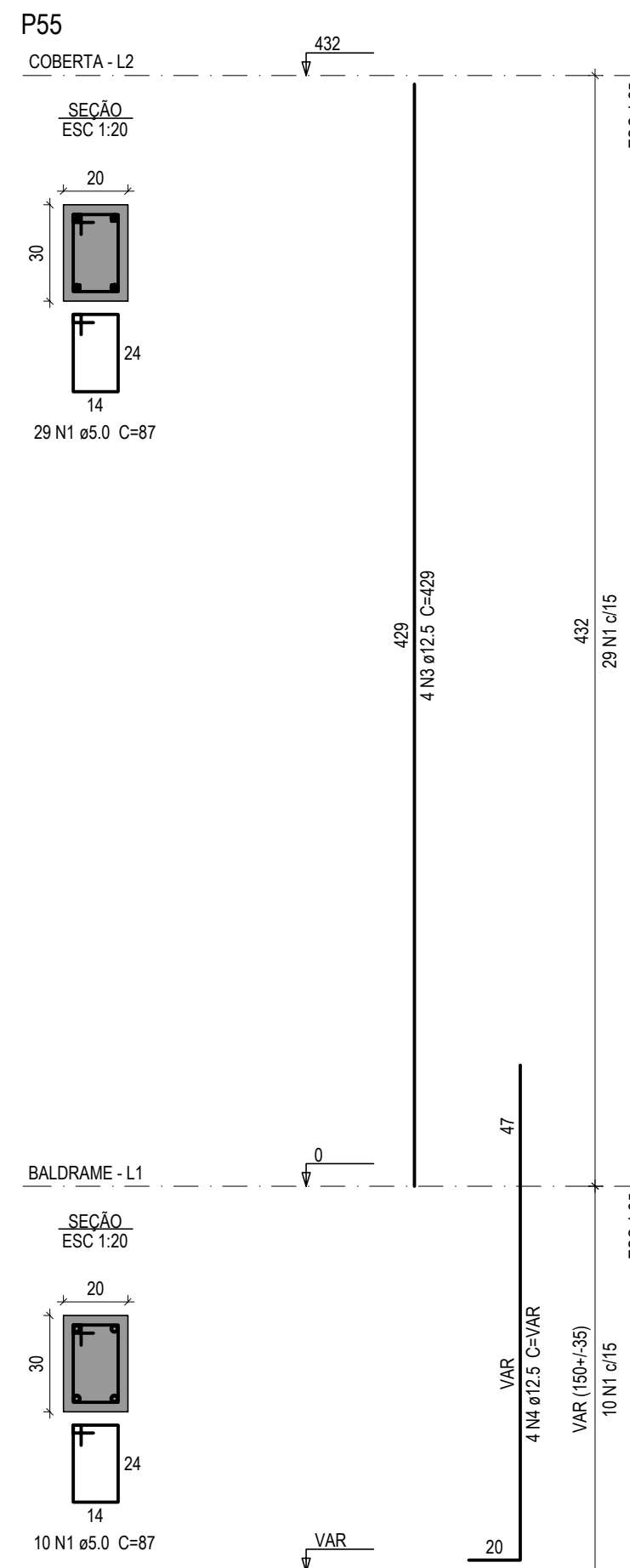
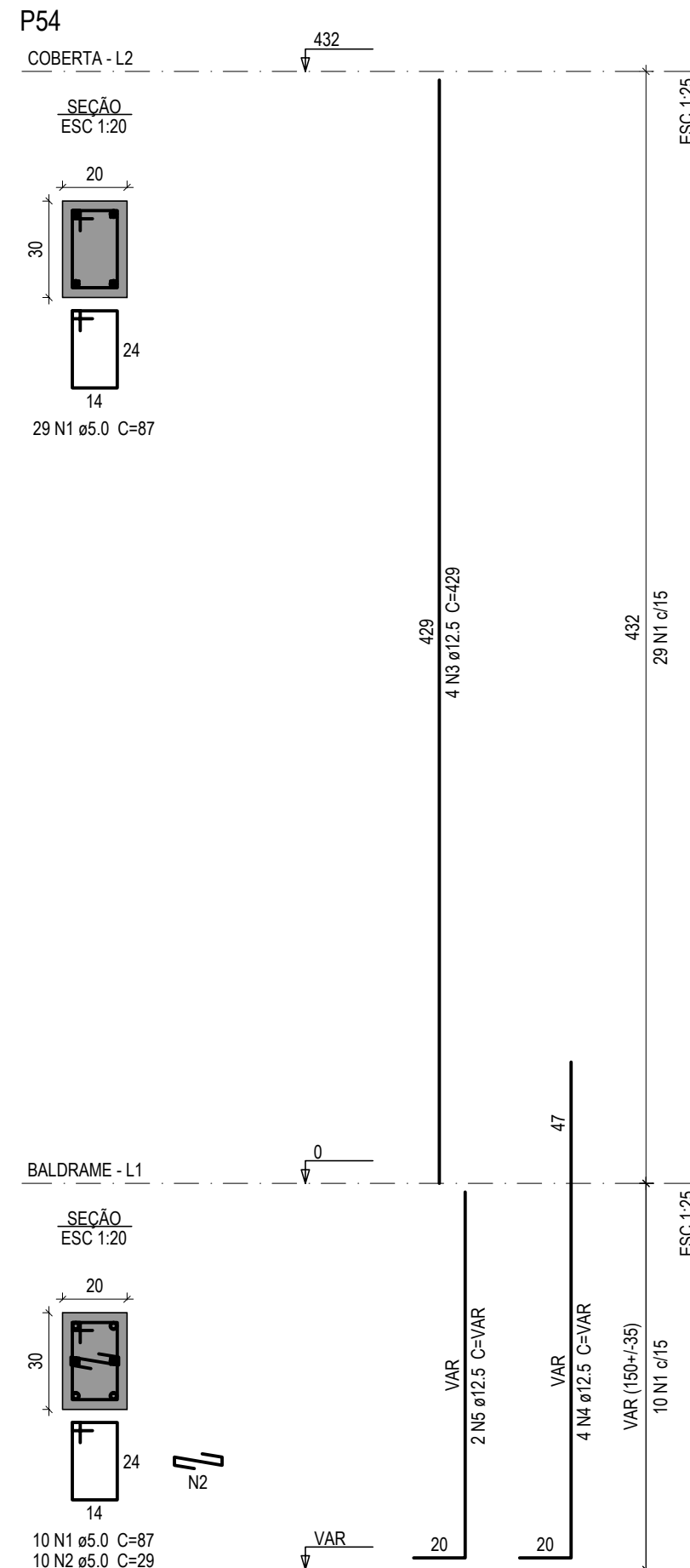
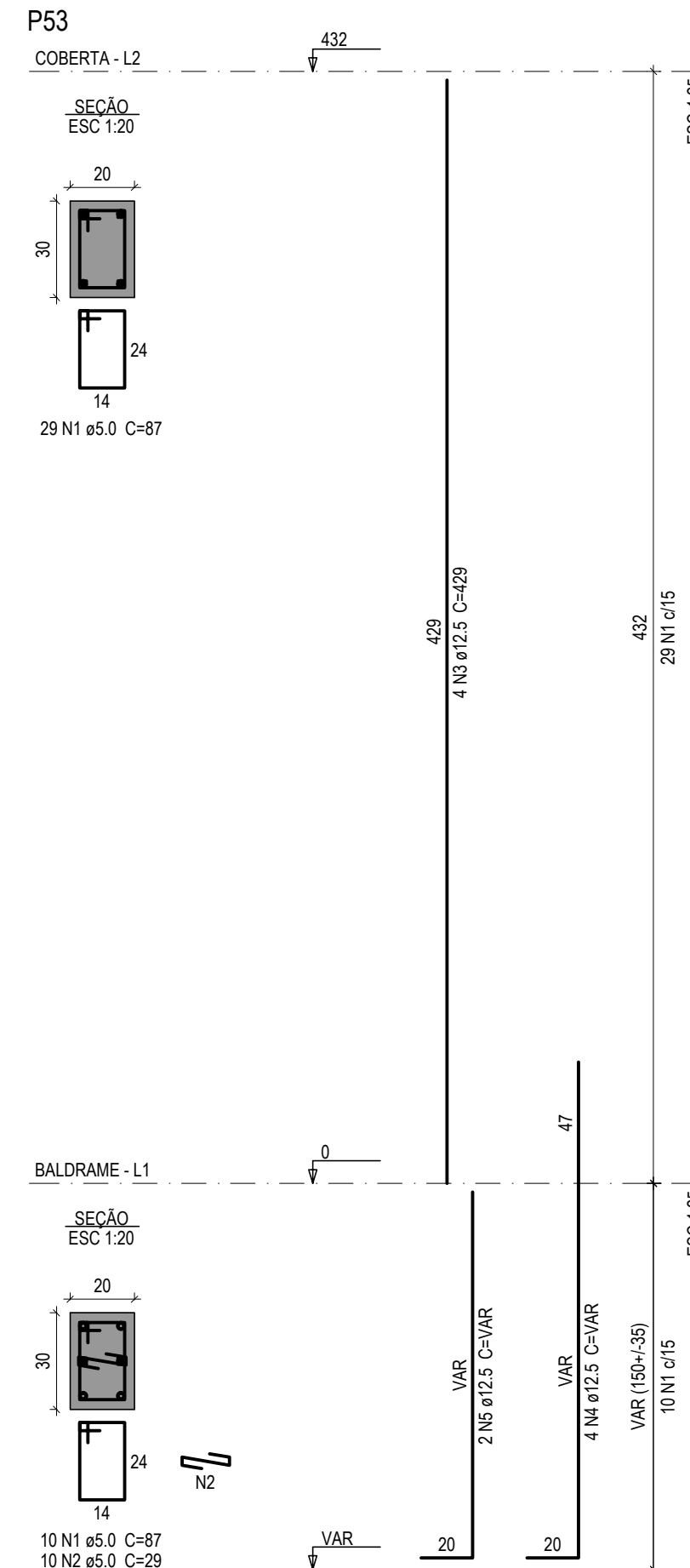
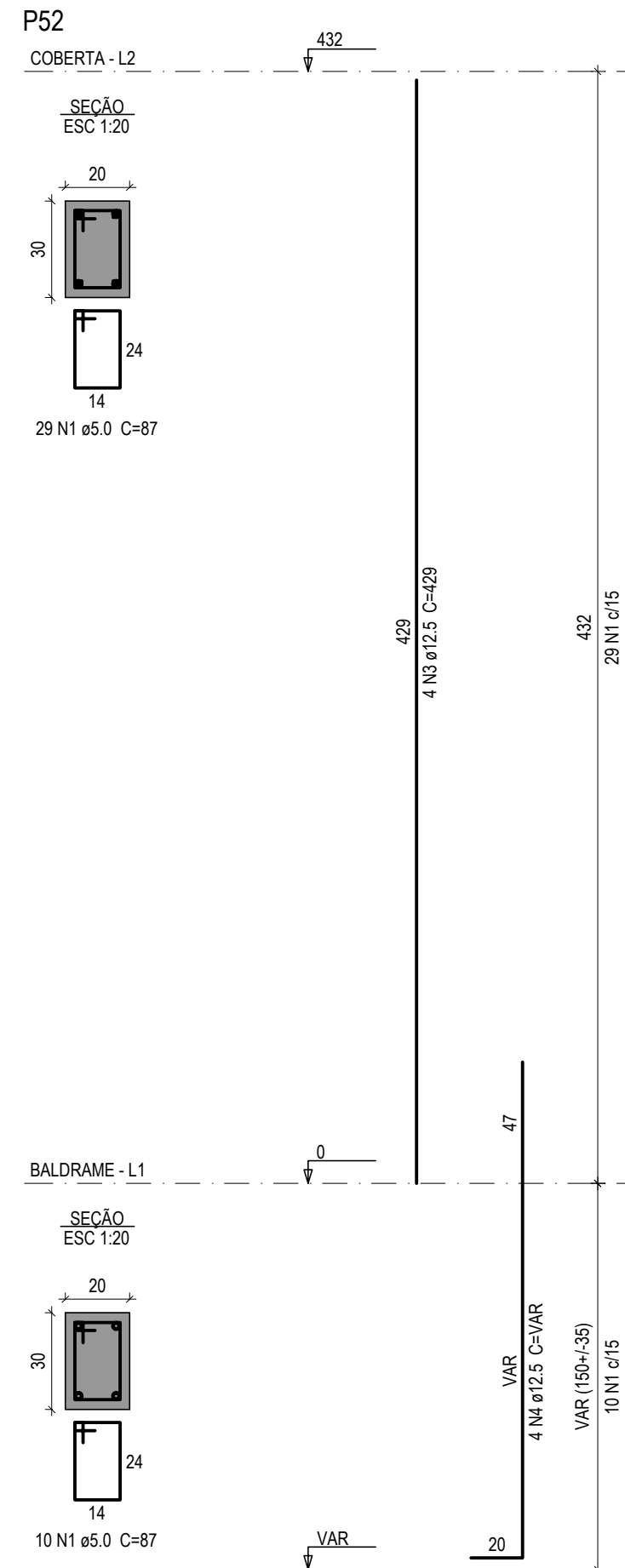
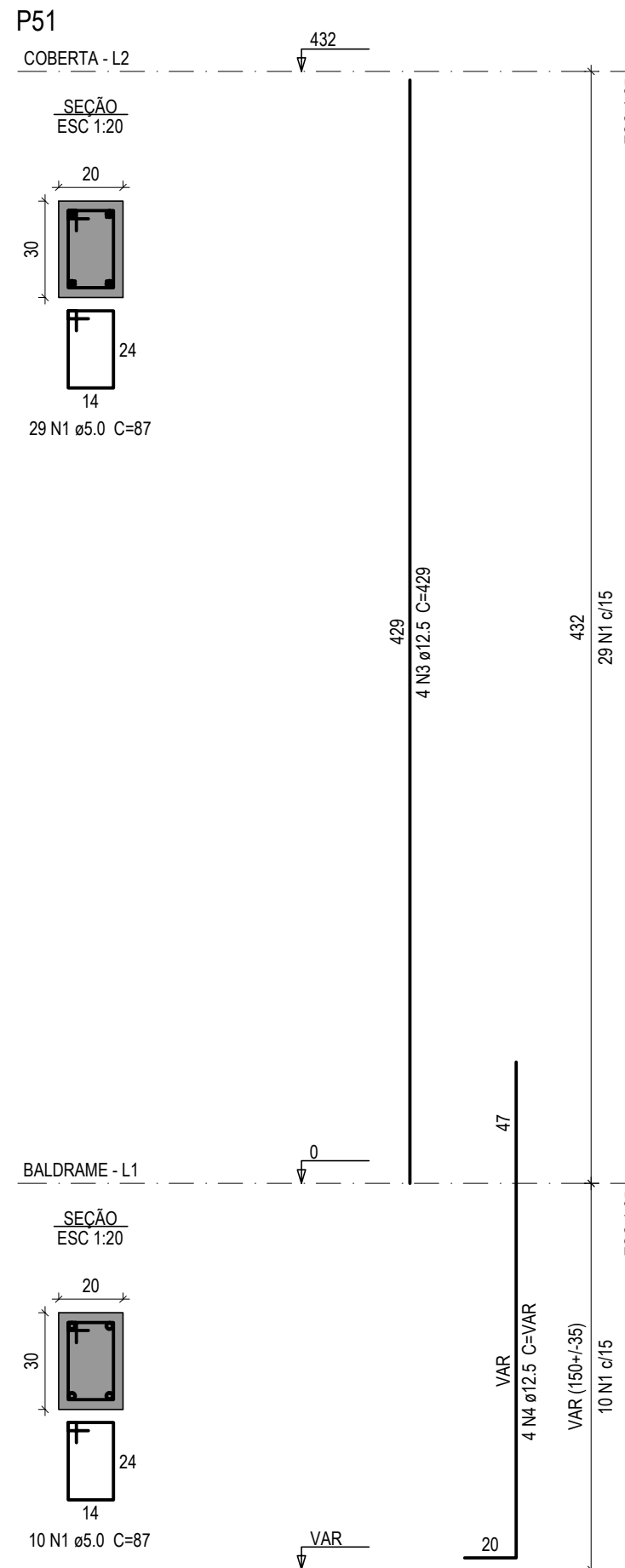
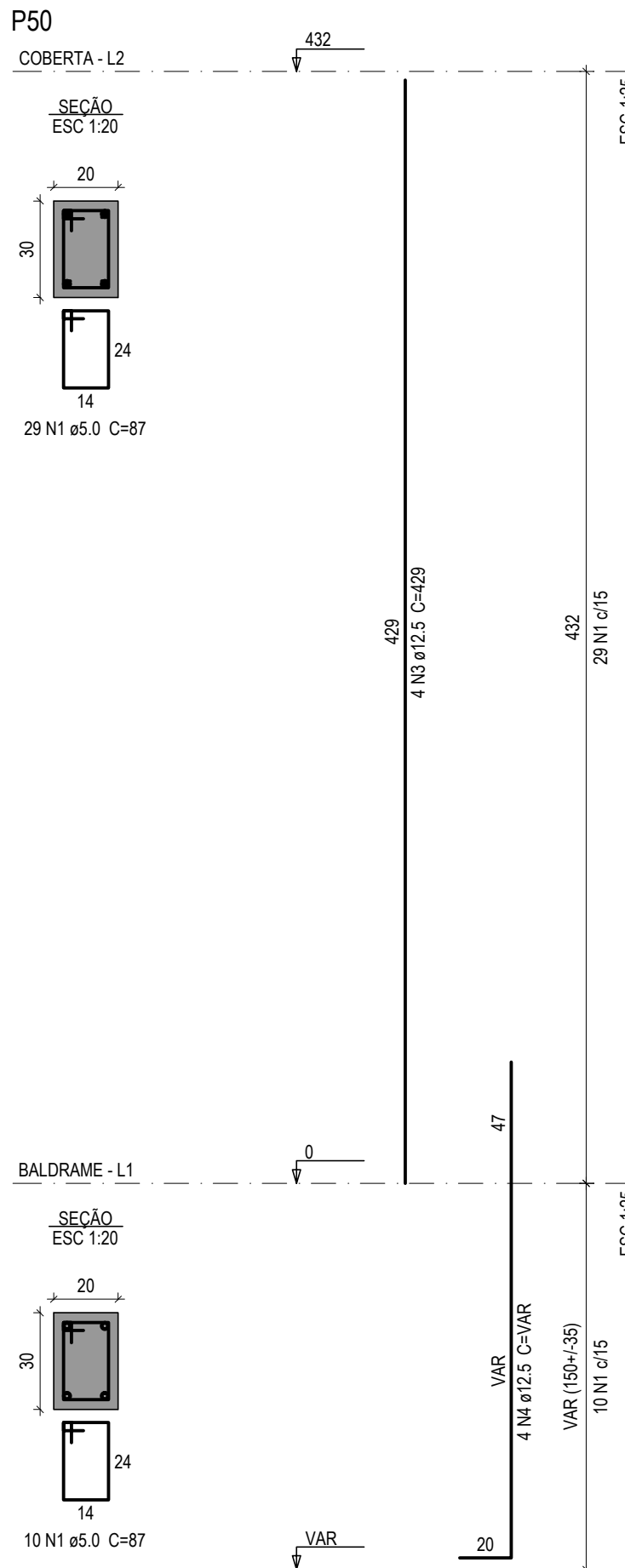
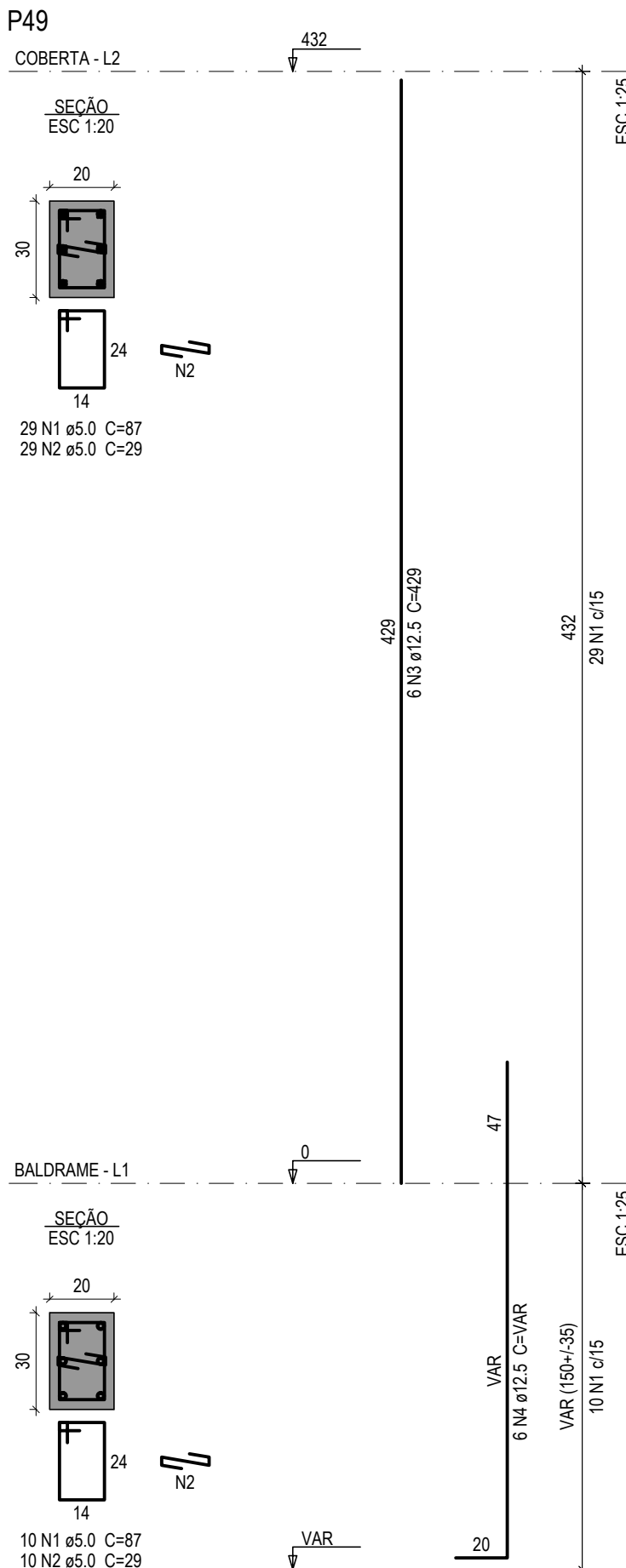
ESCALA
INDICADA

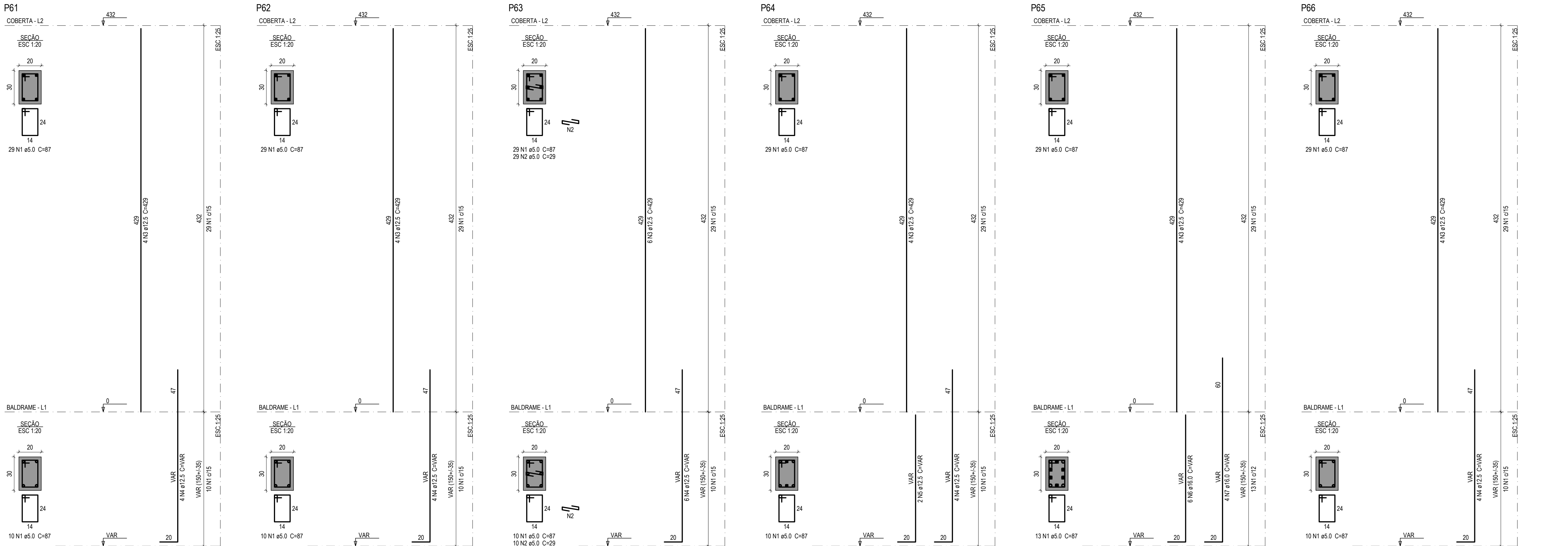
DATA
ABR/2026

REVISÃO
02

ARQUIVO

PRANCHA
08/45





Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	463	87	40281
	2	5.0	68	29	1972
	3	12.5	48	429	20592
CA50	4	12.5	44	VAR	VAR
	5	12.5	8	VAR	VAR
	6	16.0	6	VAR	VAR
	7	16.0	8	VAR	VAR
	8	16.0	4	429	1716

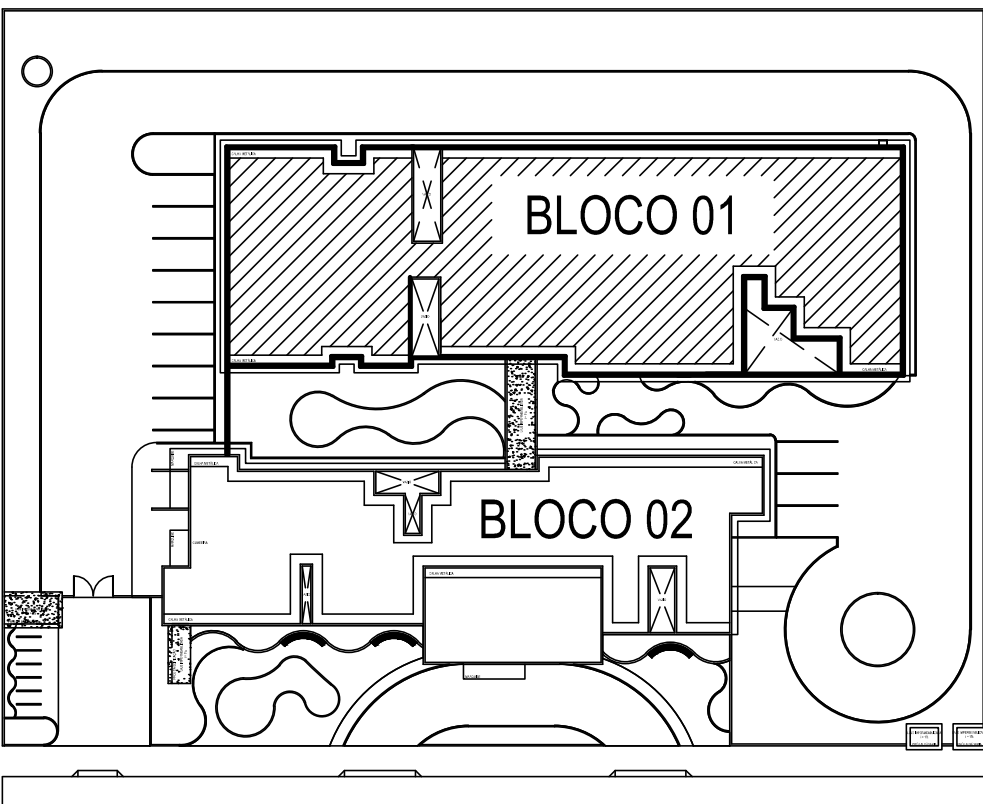
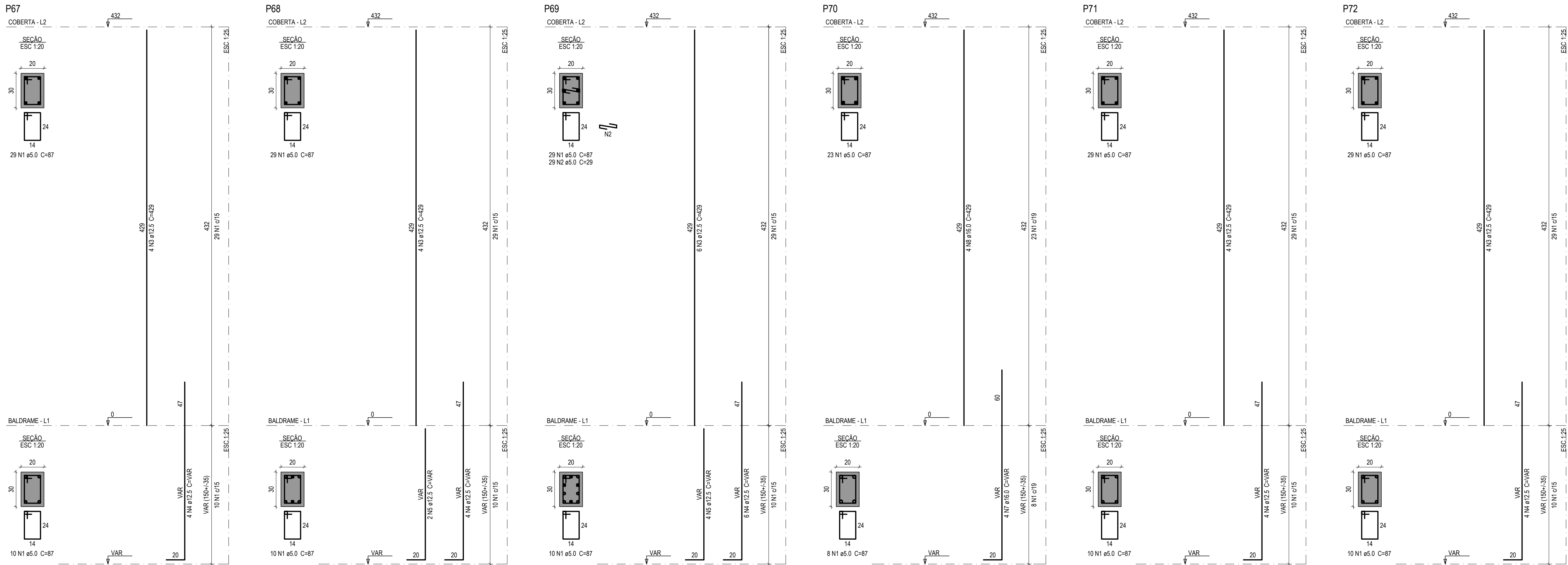
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	12.5	311.1	329.6
CA60	16.0	44.4	77.1
	5.0	422.6	71.6

PESO TOTAL (kg)

CA50 406.7
CA60 71.6

Volume de concreto (C-25) = 3.93 m³
Área de forma = 65.49 m²



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL

ASSUNTO:

FORMA E ARMAÇÃO DOS PILARES - FL 06

ESCALA

INDICADA



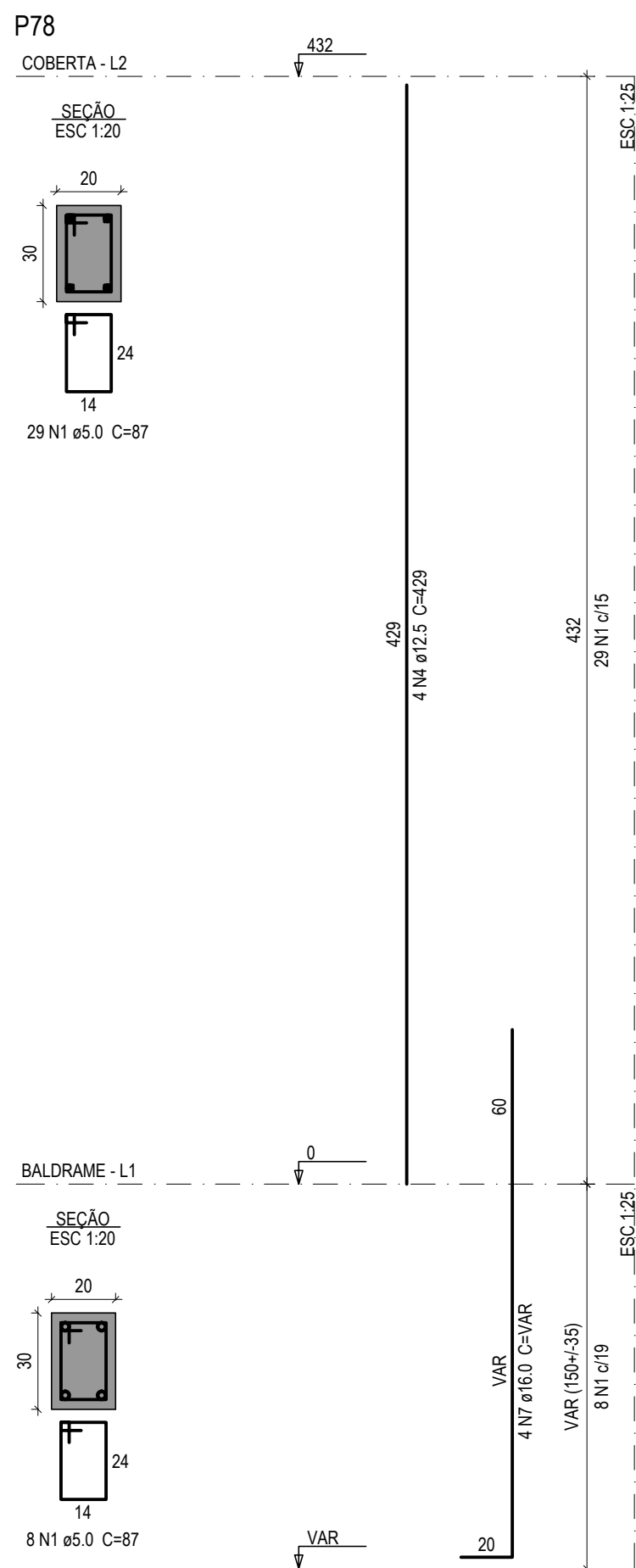
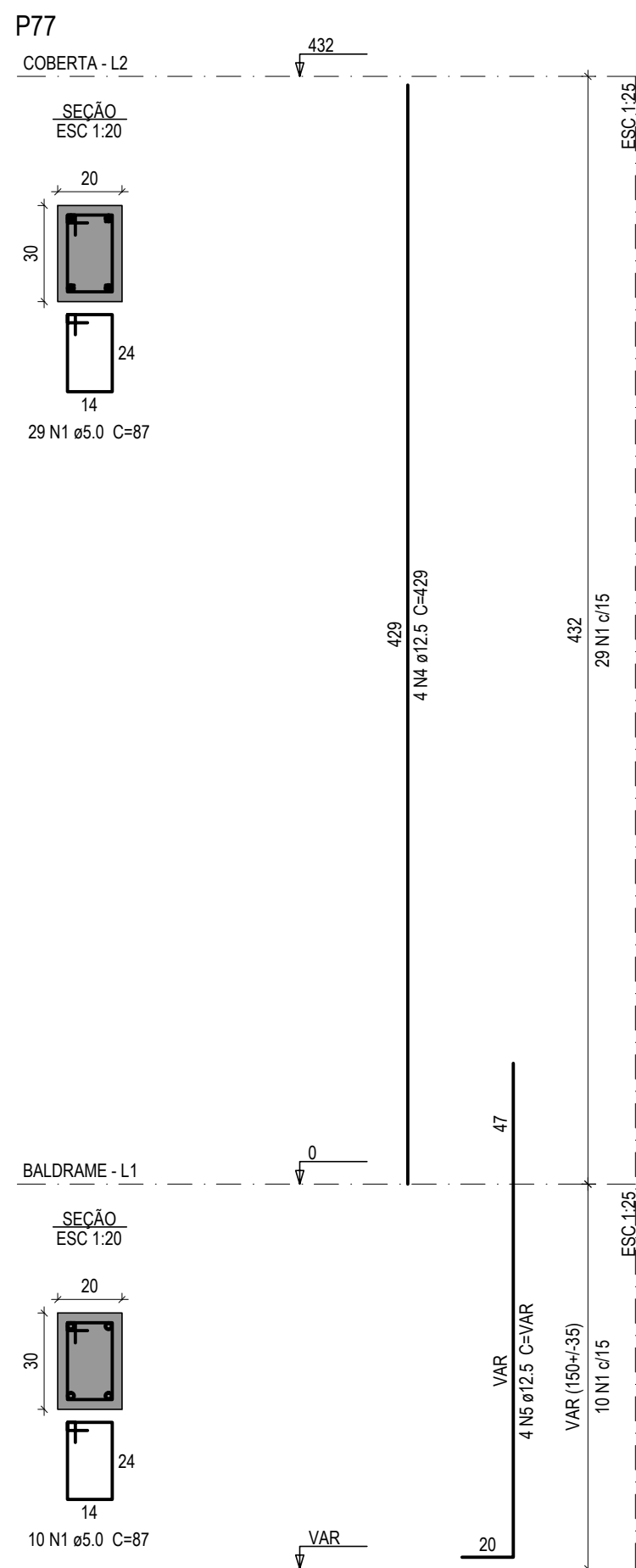
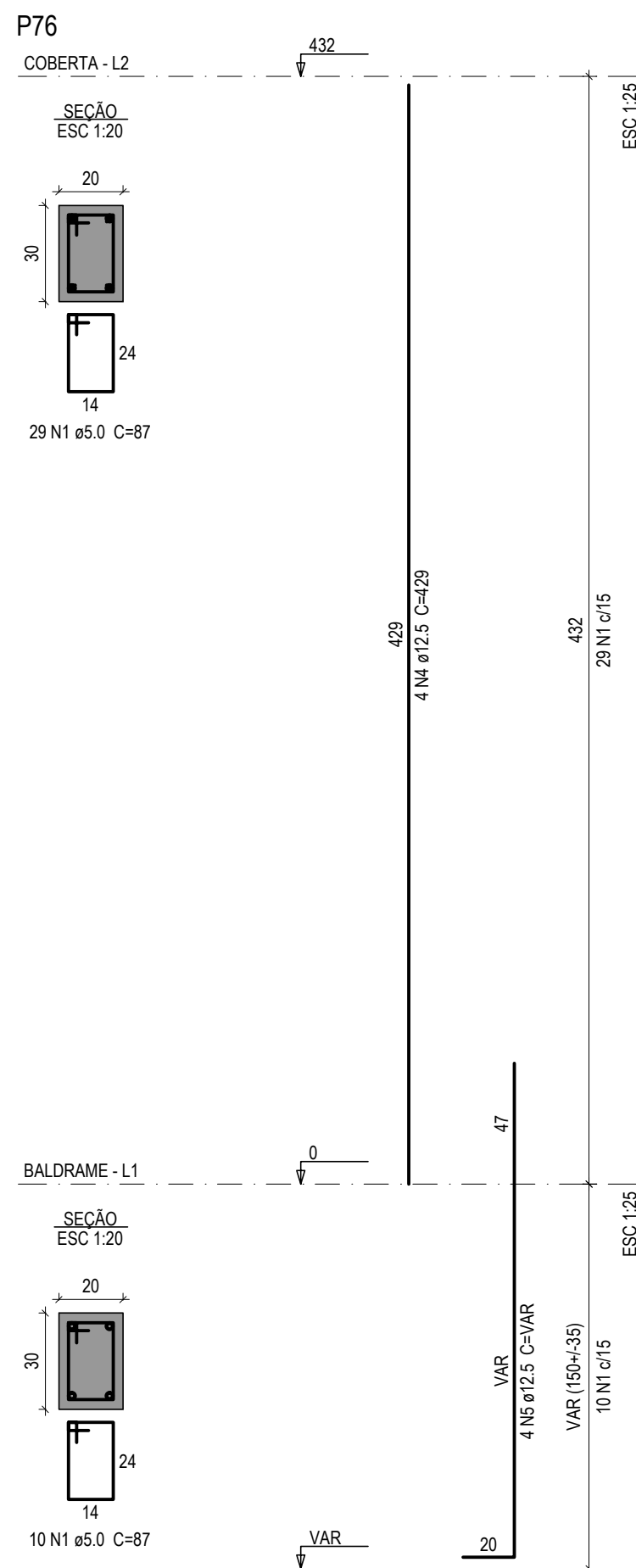
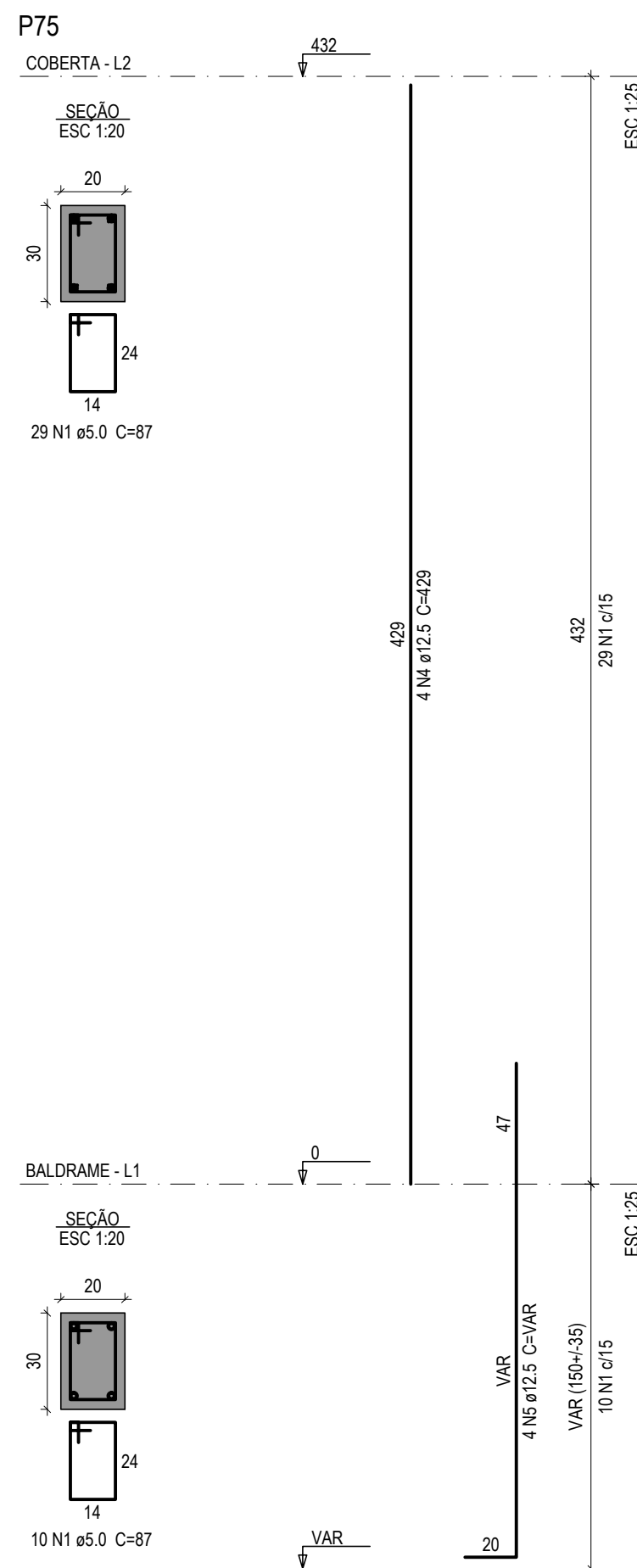
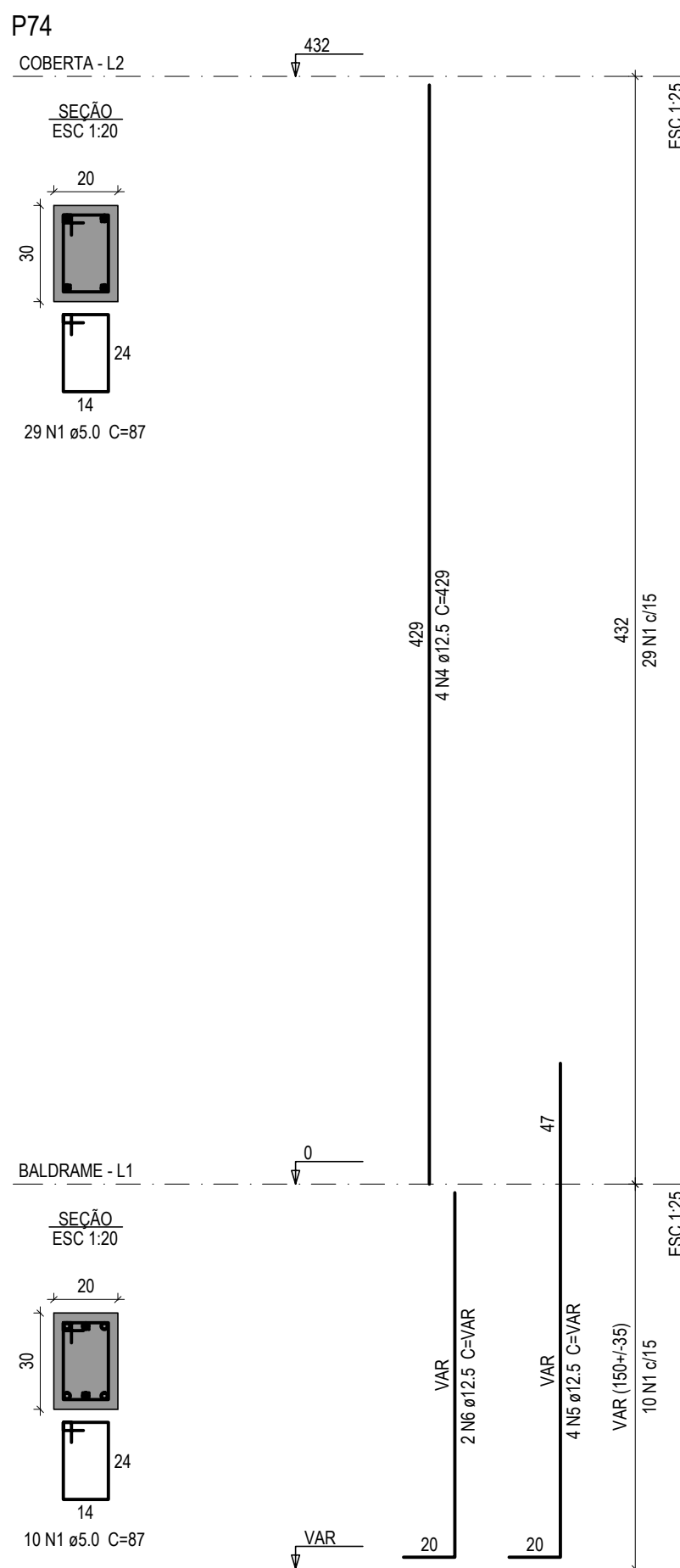
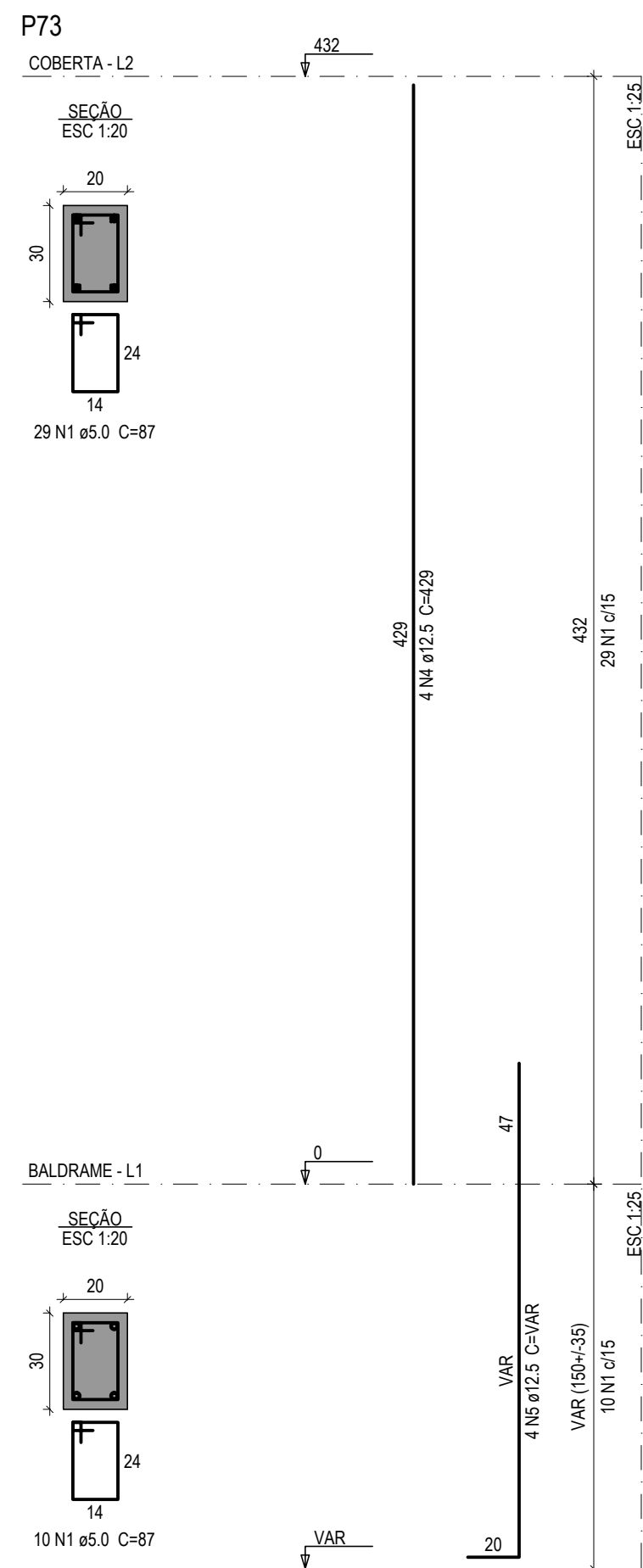
SOBRAL
PREFEITURA

DATA
ABR/2026

REVISÃO
02

ARQUIVO

PRANCHA
09/45



Relação do aço

BALDRAME:	69xS1	10xS14
COBERTA:	P73 P75 P77	P74 P76 P78

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	232	87	20184
CA50	2	8.0	1656	129	213624
	3	10.0	200	148	29600
	4	12.5	24	429	10296
	5	12.5	20	VAR	VAR
	6	12.5	2	VAR	VAR
	7	16.0	4	VAR	VAR

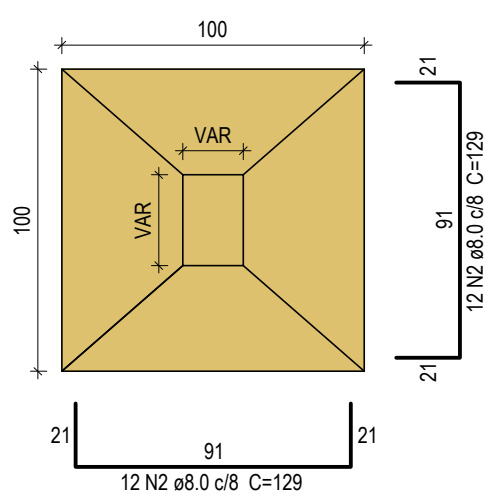
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	2136.3	927.2
	10.0	296	200.7
	12.5	148.2	157
	16.0	6.9	15.4
CA60	5.0	201.9	34.2
PESO TOTAL (kg)			
CA50		1300.4	
CA60		34.2	

Volume de concreto (C-25) = 33.53 m³
Área de forma = 131.42 m²

S1=S2=S3=S4=S5=S6=S7=S8=S9=S10=S11=S12
=S13=S16=S17=S18=S19=S20=S21=S24=S25
=S26=S28=S29=S30=S31=S32=S33=S34=S35
=S36=S37=S38=S39=S40=S43=S44=S45=S46
=S47=S48=S49=S50=S51=S52=S53=S54=S55
=S56=S57=S58=S59=S60=S61=S62=S63=S64
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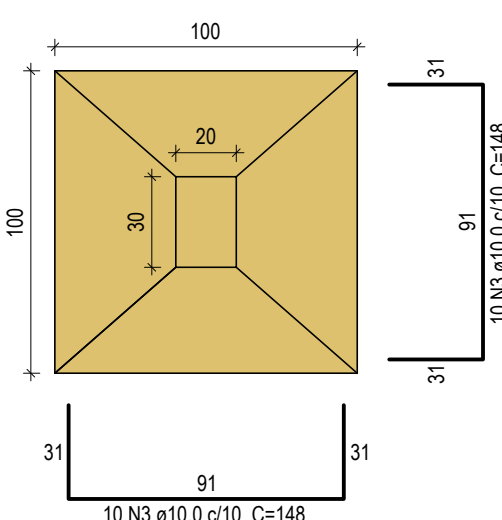
PLANTA
ESC 1:25



Solo com capacidade de suporte > 6.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 2040.00 kgf/m³

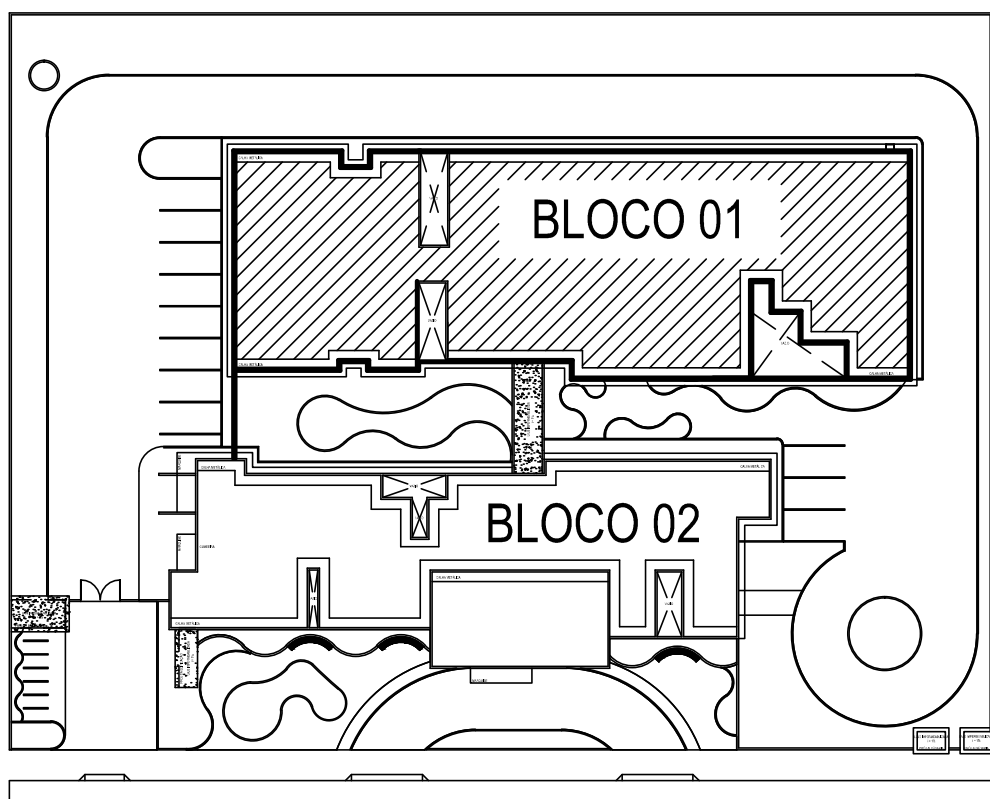
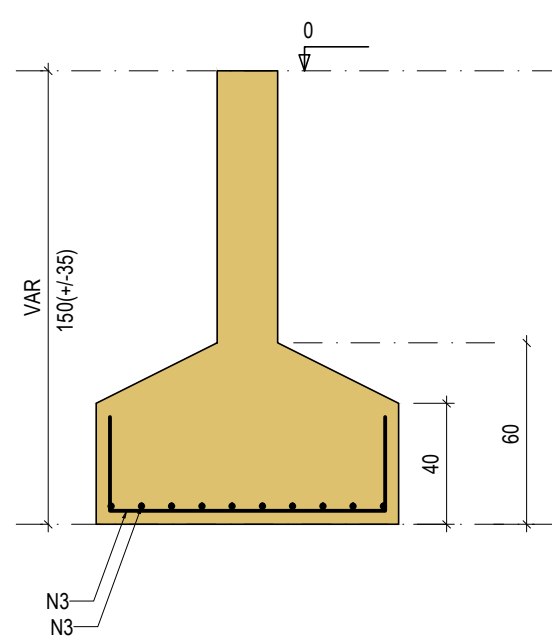
S14=S15=S22=S23=S27=S41=S42=S65=S70=S78

PLANTA
ESC 1:25



Solo com capacidade de suporte > 6.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 2040.00 kgf/m³

CORTE
ESC 1:25



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL

ASSUNTO:

FORMA E ARMAÇÃO DOS PILARES - FL 07
FORMA E ARMAÇÃO DAS SAPATAS

ESCALA

INDICADA

INDICADA



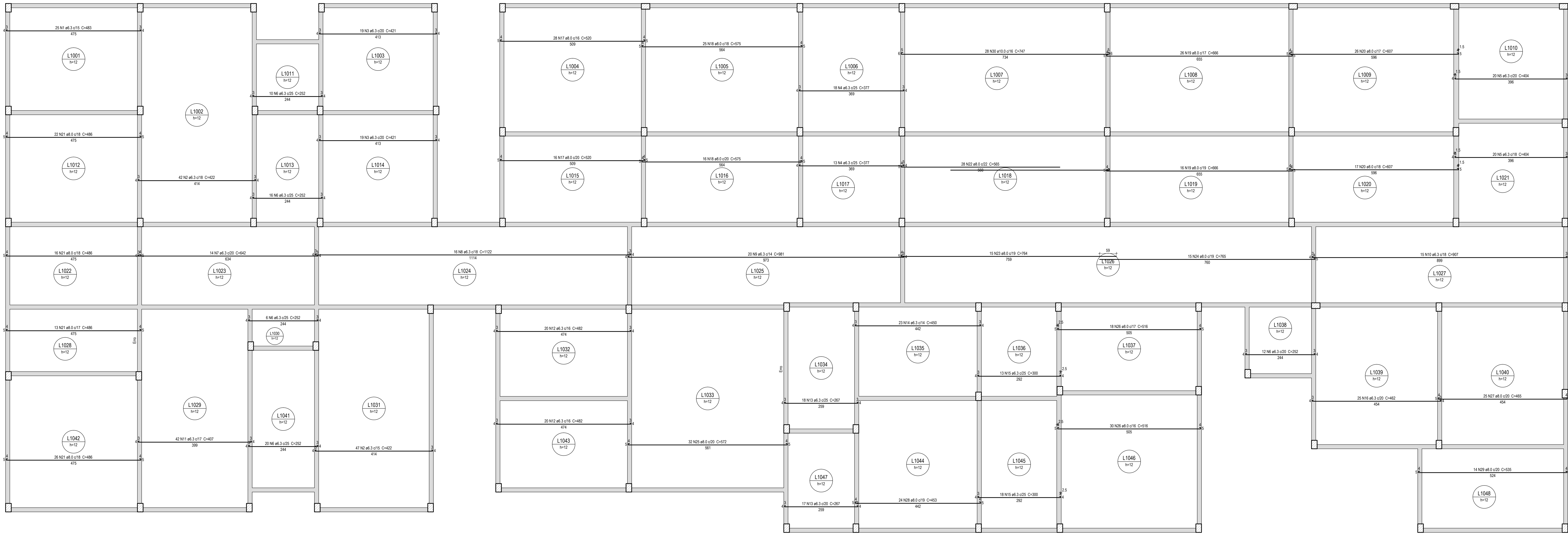
SOBRAL
PREFEITURA

DATA
ABR/2026

REVISÃO
02

ARQUIVO

PRANCHA
10/45



ARMAÇÃO POSITIVA DAS LAJES DO PAVIMENTO BALDRAME (EIXO X)

Escala 1:50

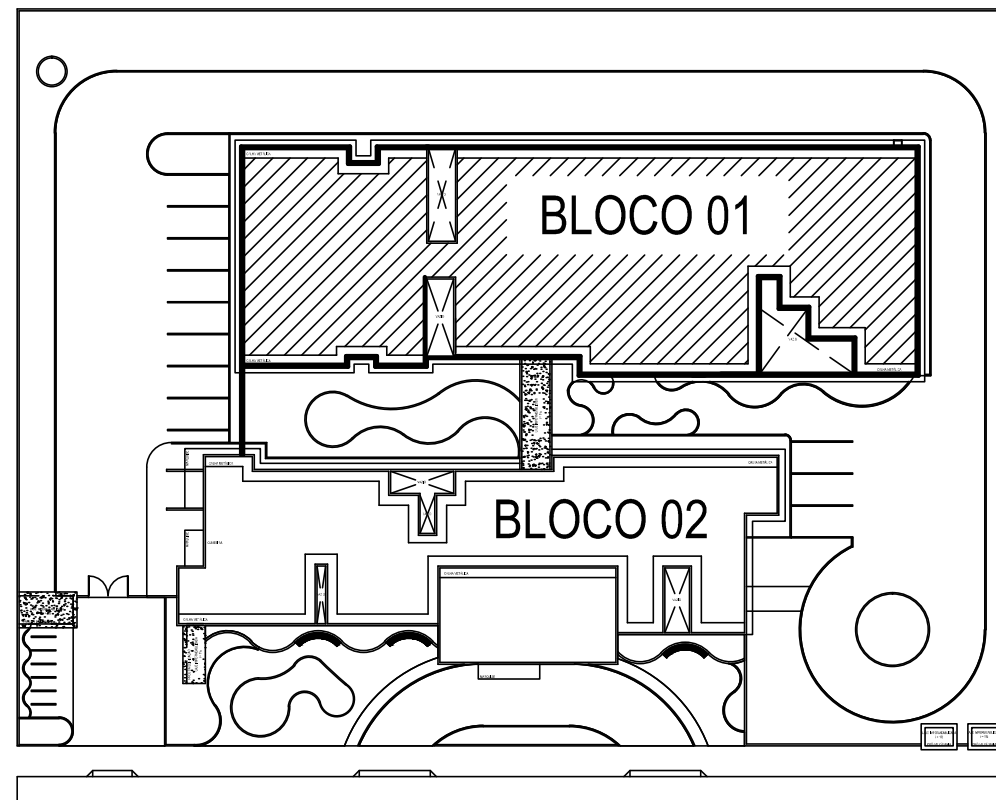
Relação do aço

Posições X	ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C. TOTAL (cm)
CASO	1	6.3	25	483	12075	
	2	6.3	89	422	37558	
	3	6.3	38	421	15988	
	4	6.3	31	377	11687	
	5	6.3	40	404	16160	
	6	6.3	64	252	16128	
	7	6.3	14	642	8988	
	8	6.3	16	1122	17352	
	9	6.3	20	981	19620	
	10	6.3	15	907	13605	
	11	6.3	42	407	17094	
	12	6.3	40	482	19280	
	13	6.3	35	267	9345	
	14	6.3	23	450	10350	
	15	6.3	31	300	9300	
	16	6.3	25	462	11550	
	17	8.0	44	320	22880	
	18	8.0	41	575	23575	
	19	8.0	42	666	27972	
	20	8.0	43	637	28101	
	21	8.0	77	488	37422	
	22	8.0	28	565	15820	
	23	8.0	15	154	11440	
	24	8.0	15	765	11475	
	25	8.0	32	572	18304	
	26	8.0	48	516	24768	
	27	8.0	25	465	11625	
	28	8.0	24	453	10872	
	29	8.0	14	535	7490	
	30	10.0	28	747	20916	

Resumo do aço

ACO	DIAM (mm)	C. TOTAL (m)	PESO + 10 % (kg)
CASO	6.3	2466.9	664
	8.0	2497.7	1084.1
	10.0	209.2	141.9
PESO TOTAL (kg)			
CASO	1890		

Volume de concreto (C-25) = 101.86 m³
Área de forma = 848.84 m²



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL
ENDEREÇO: _____

MUNICÍPIO: SOBRAL



ASSUNTO: FORMA E ARMAÇÃO DAS LAJES
BALDRAME - FL 01

ESCALA

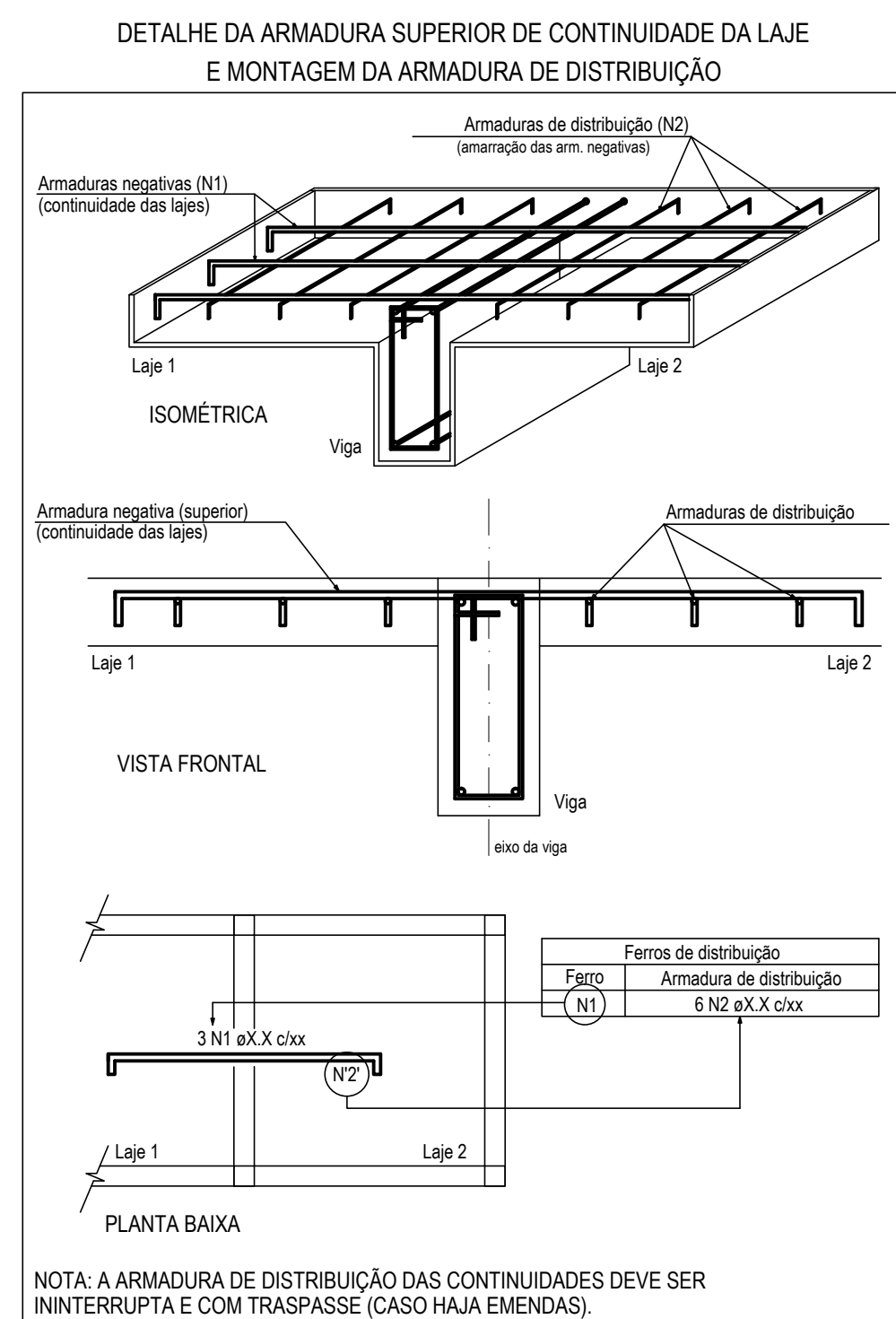
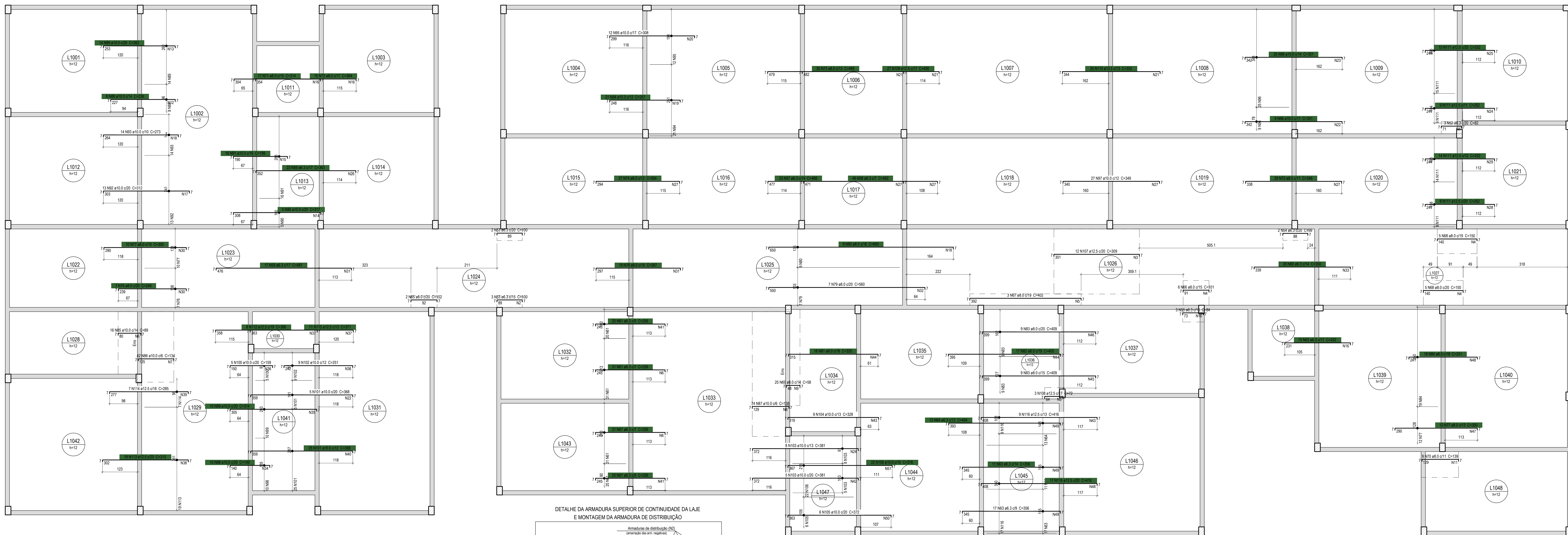
INDICADA

DATA: ABR/2025

REVISÃO: 02

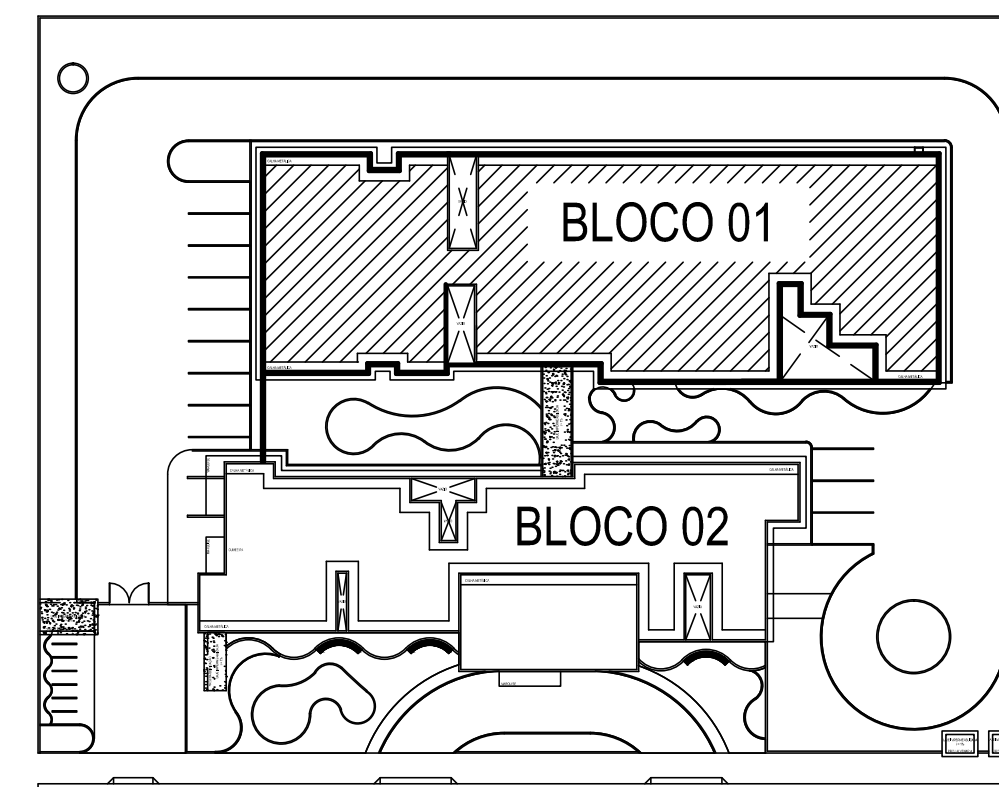
ARQUIVO

PRANCHA: 11/45



ARMAÇÃO NEGATIVA DAS LAJES DO PAVIMENTO BALDRAME (EIXO X)

Escala 1:50



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO: SOBRAL

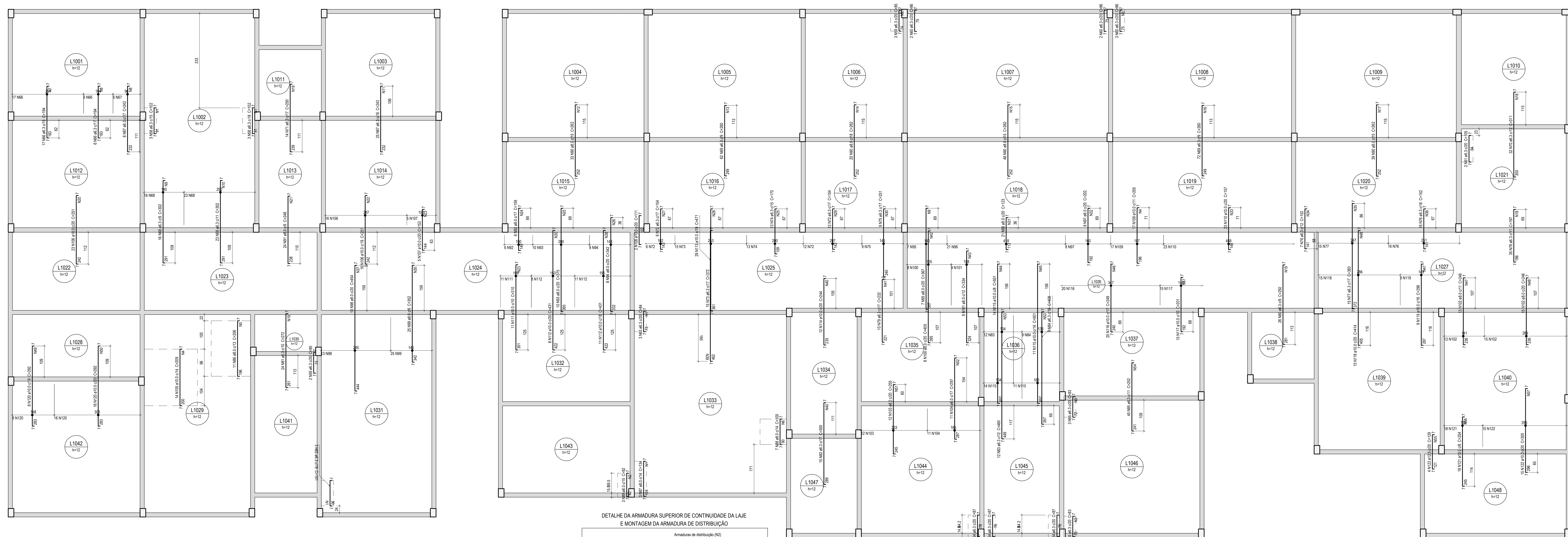
ASSUNTO: FORMA E ARMAÇÃO DAS LAJES BALDRAME - FL 03

ESCALA: INDICADA

PRANCHA: 13/45

Armadura		Armadura de distribuição	
N52	4 N1 ø5.0 c20 C=43	N52	4 N1 ø5.0 c20 C=43
N53	5 N2 ø5.0 c20 C=41	N53	5 N2 ø5.0 c20 C=41
N107	19 N3 ø5.0 c16 C=229	N107	19 N3 ø5.0 c16 C=229
N66	5 N4 ø5.0 c20 C=87	N66	5 N4 ø5.0 c20 C=87
N67	20 N4 ø5.0 c20 C=40	N67	20 N4 ø5.0 c20 C=40
N68	7 N4 ø5.0 c20 C=87	N68	7 N4 ø5.0 c20 C=87
N68	7 N4 ø5.0 c20 C=87	N68	7 N4 ø5.0 c20 C=87
N85	5 N6 ø5.0 c17 C=220	N85	5 N6 ø5.0 c17 C=220
N86	18 N7 ø5.0 c7 C=248	N86	18 N7 ø5.0 c7 C=248
N87	19 N8 ø5.0 c7 C=439	N87	19 N8 ø5.0 c7 C=439
N89	3 N9 ø5.0 c20 C=338	N89	3 N9 ø5.0 c20 C=338
N108	5 N5 ø5.0 c13 C=40	N108	5 N5 ø5.0 c13 C=40
N55	4 N10 ø5.0 c20 C=44	N55	4 N10 ø5.0 c20 C=44
N70	7 N11 ø5.0 c20 C=91	N70	7 N11 ø5.0 c20 C=91
N88	14 N12 ø5.0 c17 C=106	N88	14 N12 ø5.0 c17 C=106
N89	13 N13 ø5.0 c20 C=271	N89	13 N13 ø5.0 c20 C=271
N90	16 N14 ø5.0 c20 C=100	N90	16 N14 ø5.0 c20 C=100
N91	10 N15 ø5.0 c20 C=295	N91	10 N15 ø5.0 c20 C=295
N71	16 N16 ø5.0 c20 C=250	N71	16 N16 ø5.0 c20 C=250
N92	16 N17 ø5.0 c20 C=252	N92	16 N17 ø5.0 c20 C=252
N93	22 N18 ø5.0 c12 C=143	N93	22 N18 ø5.0 c12 C=143
N72	16 N16 ø5.0 c20 C=250	N72	16 N16 ø5.0 c20 C=250
N94	17 N19 ø5.0 c15 C=251	N94	17 N19 ø5.0 c15 C=251
N95	15 N20 ø5.0 c20 C=201	N95	15 N20 ø5.0 c20 C=201
N73	24 N21 ø5.0 c20 C=452	N73	24 N21 ø5.0 c20 C=452
N109	37 N21 ø5.0 c13 C=452	N109	37 N21 ø5.0 c13 C=452
N110	39 N21 ø5.0 c10 C=452	N110	39 N21 ø5.0 c10 C=452
N96	27 N22 ø5.0 c13 C=191	N96	27 N22 ø5.0 c13 C=191
N96	21 N23 ø5.0 c17 C=352	N96	21 N23 ø5.0 c17 C=352
N111	31 N24 ø5.0 c8 C=104	N111	31 N24 ø5.0 c8 C=104
N111	16 N25 ø5.0 c16 C=303	N111	16 N25 ø5.0 c16 C=303
N95	16 N25 ø5.0 c20 C=395	N95	16 N25 ø5.0 c20 C=395
N74	15 N27 ø5.0 c20 C=320	N74	15 N27 ø5.0 c20 C=320
N97	24 N27 ø5.0 c20 C=320	N97	24 N27 ø5.0 c20 C=320
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N97	23 N27 ø5.0 c15 C=320	N97	23 N27 ø5.0 c15 C=320
N75	17 N27 ø5.0 c20 C=320	N75	17 N27 ø5.0 c20 C=320
N111	16 N28 ø5.0 c16 C=158	N111	16 N28 ø5.0 c16 C=158
N111	28 N29 ø5.0 c9 C=162	N111	28 N29 ø5.0 c9 C=162
N76	12 N30 ø5.0 c20 C=146	N76	12 N30 ø5.0 c20 C=146
N77	15 N30 ø5.0 c20 C=146	N77	15 N30 ø5.0 c20 C=146
N59	24 N31 ø5.0 c20 C=291	N59	24 N31 ø5.0 c20 C=291
N78	15 N31 ø5.0 c20 C=291	N78	15 N31 ø5.0 c20 C=291
N79	28 N32 ø5.0 c20 C=140	N79	28 N32 ø5.0 c20 C=140
N80	33 N18 ø5.0 c20 C=143	N80	33 N18 ø5.0 c20 C=143
N90	17 N33 ø5.0 c20 C=263	N90	17 N33 ø5.0 c20 C=263
N68	7 N34 ø5.0 c20 C=193	N68	7 N34 ø5.0 c20 C=193
N99	16 N35 ø5.0 c20 C=202	N99	16 N35 ø5.0 c20 C=202
N100	9 N36 ø5.0 c20 C=105	N100	9 N36 ø5.0 c20 C=105
N112	24 N37 ø5.0 c15 C=145	N112	24 N37 ø5.0 c15 C=145
N113	19 N38 ø5.0 c16 C=372	N113	19 N38 ø5.0 c16 C=372
N114	23 N39 ø5.0 c12 C=108	N114	23 N39 ø5.0 c12 C=108
N115	37 N37 ø5.0 c15 C=145	N115	37 N37 ø5.0 c15 C=145
N101	24 N40 ø5.0 c15 C=294	N101	24 N40 ø5.0 c15 C=294
N101	18 N22 ø5.0 c20 C=101	N101	18 N22 ø5.0 c20 C=101
N102	17 N36 ø5.0 c15 C=105	N102	17 N36 ø5.0 c15 C=105
N61	13 N6 ø5.0 c20 C=220	N61	13 N6 ø5.0 c20 C=220
N61	17 N41 ø5.0 c15 C=102	N61	17 N41 ø5.0 c15 C=102
N103	19 N42 ø5.0 c20 C=103	N103	19 N42 ø5.0 c20 C=103
N103	24 N24 ø5.0 c16 C=104	N103	24 N24 ø5.0 c16 C=104
N61	17 N41 ø5.0 c15 C=102	N61	17 N41 ø5.0 c15 C=102
N61	13 N6 ø5.0 c20 C=220	N61	13 N6 ø5.0 c20 C=220
N104	20 N43 ø5.0 c16 C=115	N104	20 N43 ø5.0 c16 C=115
N61	16 N44 ø5.0 c20 C=320	N61	16 N44 ø5.0 c20 C=320
N82	20 N44 ø5.0 c20 C=320	N82	20 N44 ø5.0 c20 C=320
N83	20 N45 ø5.0 c20 C=137	N83	20 N45 ø5.0 c20 C=137
N83	20 N46 ø5.0 c20 C=173	N83	20 N46 ø5.0 c20 C=173
N62	12 N16 ø5.0 c20 C=260	N62	12 N16 ø5.0 c20 C=260
N77	15 N47 ø5.0 c20 C=150	N77	15 N47 ø5.0 c20 C=150
N84	12 N48 ø5.0 c20 C=350	N84	12 N48 ø5.0 c20 C=350
N63	18 N49 ø5.0 c20 C=155	N63	18 N49 ø5.0 c20 C=155
N64	18 N49 ø5.0 c20 C=155	N64	18 N49 ø5.0 c20 C=155
N105	19 N50 ø5.0 c20 C=127	N105	19 N50 ø5.0 c20 C=127
N106	31 N51 ø5.0 c12 C=223	N106	31 N51 ø5.0 c12 C=223
N116	26 N48 ø5.0 c16 C=350	N116	26 N48 ø5.0 c16 C=350
N116	41 N43 ø5.0 c10 C=115	N116	41 N43 ø5.0 c10 C=115

Relação do aço	
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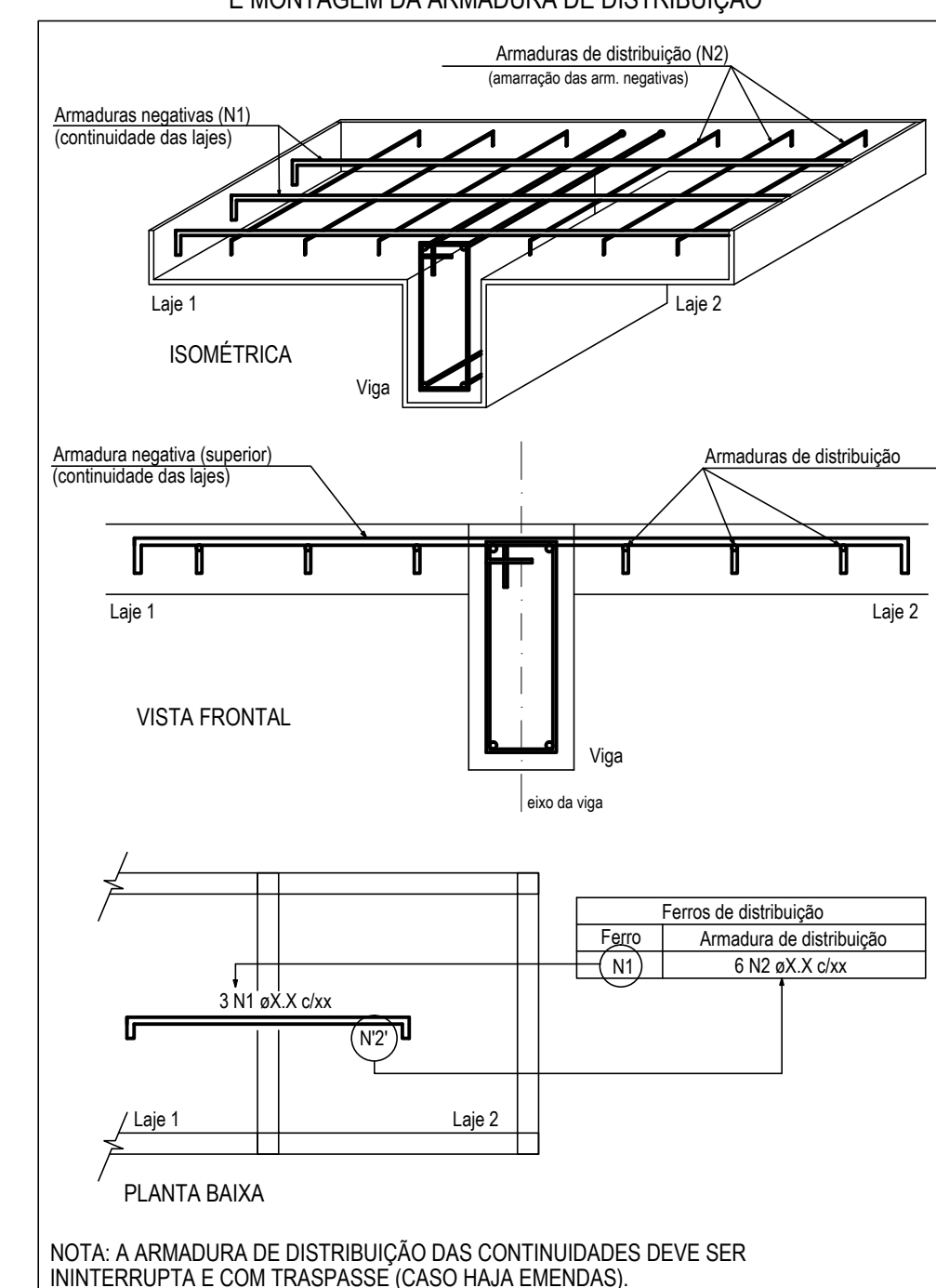
ARMAÇÃO NEGATIVA DAS LAJES DO PAVIMENTO BALDRAME (EIXO Y)

Escala 1:5

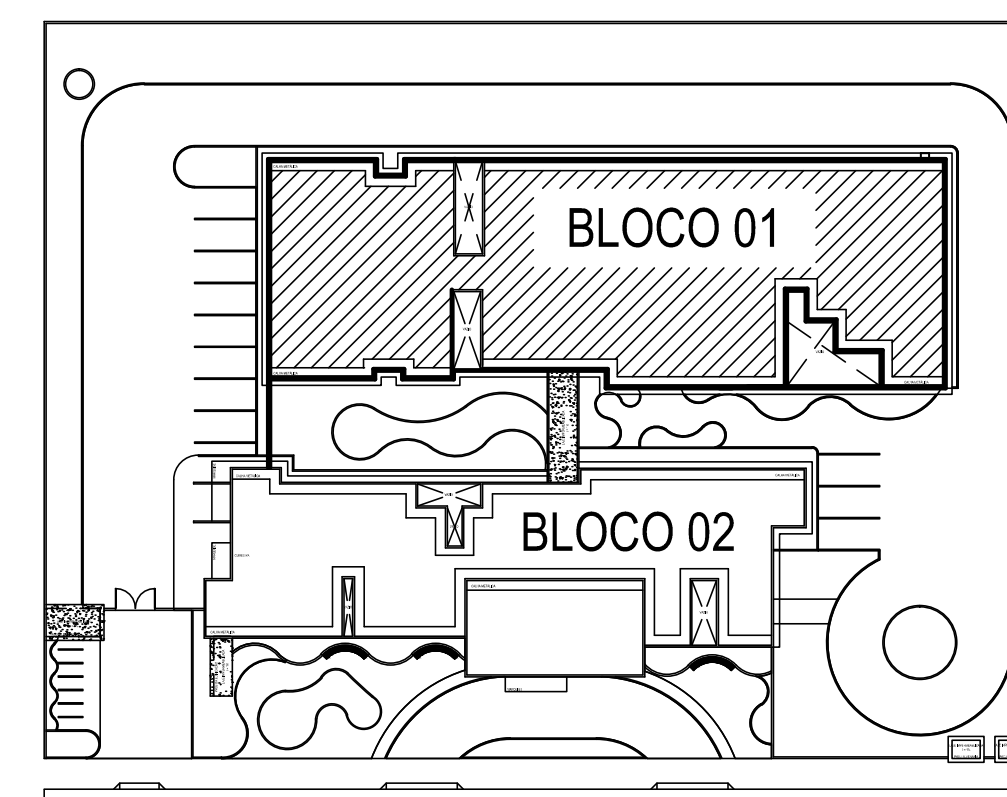
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N64	4 N20 04/05/041
N65	5 N11 05/20/042
N66	12 N14 05/20/043
N67	10 N15 05/20/043
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N72	5 N11 05/20/043
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ACO	N	DMM	DM	QJAVT	CLINT	CR	CITOTAL
CADZ	1	1	10	26	43	1118	
	2	10	8		44	306	
	3	10	8		44	306	
	4	10	27	187	1048		
	5	10	10		130	158	
	6	10	5		93	465	
	7	10	10		100	259	
	8	10	22	133	2246		
	9	10	10		481	147	
	10	10	15		238	301	
	11	10	10		187	162	
	12	10	13		100	650	
	13	10	10		100	650	
	14	10	13		260	486	
	15	10	10		100	650	
	16	10	13		166	508	
	17	10	10		100	650	
	18	10	25	285	9625		
	19	10	26		100	650	
	20	10	13		468	608	
	21	10	10		100	650	
	22	10	13		226	330	
	23	10	10		100	650	
	24	10	8		100	80	
	25	10	27		100	650	
	26	10	17	151	2647		
	27	10	10		100	650	
	28	10	18		253	404	
	29	10	10		100	650	
	30	10	66	133	9945		
	31	10	10		100	650	
	32	10	10		158	156	
	33	10	10		100	650	
	34	10	7		85	56	
	35	10	10		254	428	
	36	10	7		251	137	
	37	10	23		100	650	
	38	10	22	203	4468		
	39	10	10		100	650	
	40	10	27	200	4730		
	41	10	11		100	650	
	42	10	20	163	320		
	43	10	10		100	650	
	44	10	10		100	650	
	45	10	10		100	650	
	46	10	12	347	4174		
	47	10	10		100	650	
	48	10	13	297	881		
	49	10	10		100	650	
	50	10	10	133	4650		
	51	10	10	341	341		
	52	10	15	192	260		
	53	10	12		100	650	
	54	10	12		940	940	
	55	10	10		100	650	
	56	10	25	143	3078		
	57	10	10		100	650	
	58	10	6		102	61	
	59	10	10		100	650	
	60	10	7		60	60	
CADD	61	10	3		101	30	
	62	10	3		101	30	
	63	10	6		101	30	
	64	10	6		87	522	
	65	10	6		68	428	
	66	10	6		101	30	
	67	10	23	194	3078		
	68	10	10		100	650	
	69	10	26	302	11778		
	70	10	10	124	100	650	
	71	10	32	311	9662		
	72	10	13		100	650	
	73	10	18	154	2772		
	74	10	13		100	650	
	75	10	13	170	212		
	76	10	23	127	3486		
	77	10	10		100	650	
	78	10	30	197	6586		
	79	10	12		100	650	
	80	10	6		292	790	
	81	10	12		100	650	
	82	10	15		100	650	
	83	10	12		100	650	
	84	10	8		498	3672	
85	10	13	461	2124			
86	10	11	206	100	650		
87	10	10		134	422		
88	10	7		100	100		
89	10	10		100	650		
90	10	140	262	96860			
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92	10	6		139	94		
93	10	10		100	650		
94	10	8		242	738		
95	10	10		100	650		
96	10	21	123	2583			
97	10	10		100	650		
98	10	13	464	5602			
99	10	10		100	650		
100	10	8		405	240		
101	10	12		100	650		
102	10	26	148	6888			
103	10	10		100	650		
104	10	11		297	307		
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106	10	10		251	9789		
107	10	10		100	650		
108	10	10	2	111	222		
109	10	23	127	3611			
110	10	11		100	650		
111	10	10		421	819		
112	10	10		100	650		
113	10	10		100	650		
114	10	12	241	2628			
115	10	10		100	650		
116	10	10		249	889		
117	10	10		100	650		
118	10	10		414	6210		
119	10	10		100	650		
120	10	10		268	7008		
121	10	10		100	650		
122	10	10		262	835		

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6,3	1499,2	392,8
	8,0	946,5	410,8
	10,0	946,4	641,1
	12,5	5,2	5,5
CA60	5,0	2479,8	419,8
PESO TOTAL (kg)			
CA50		1450,2	
CA60		419,8	



NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO: _____
PREFEITURA DE SOBRAL

ENDEREÇO: _____

INTERESSADO:
PREFEITURA DE SOBRAL

ENDEREÇO:

ENDEREÇO:

MUNICÍPIO
SOBRAL

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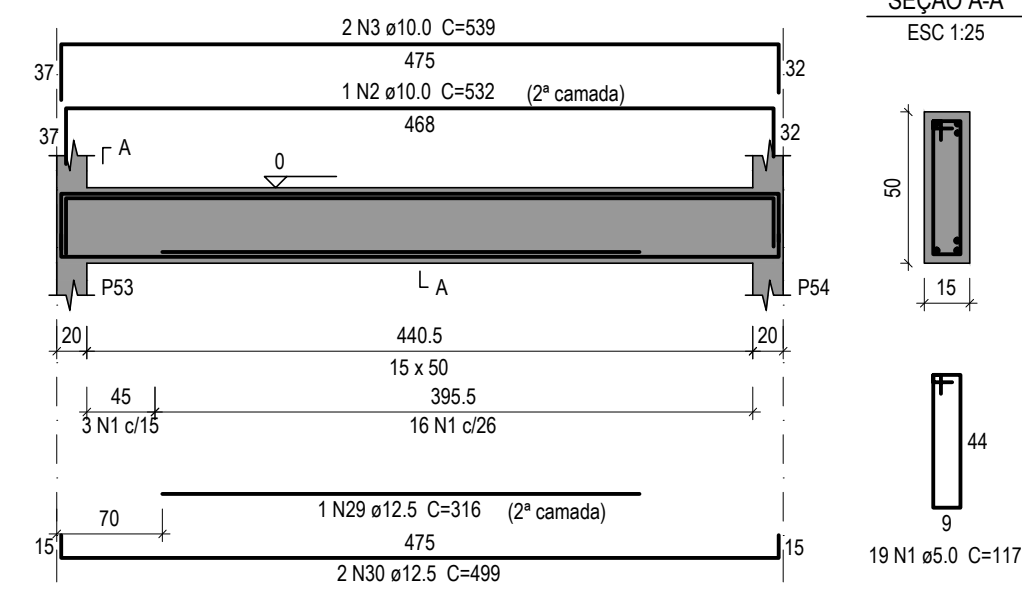
ASSUNTO:
FORMA E ARMAÇÃO DAS LAJES

BALDRAME - FL 04

PRANCHA
14/45

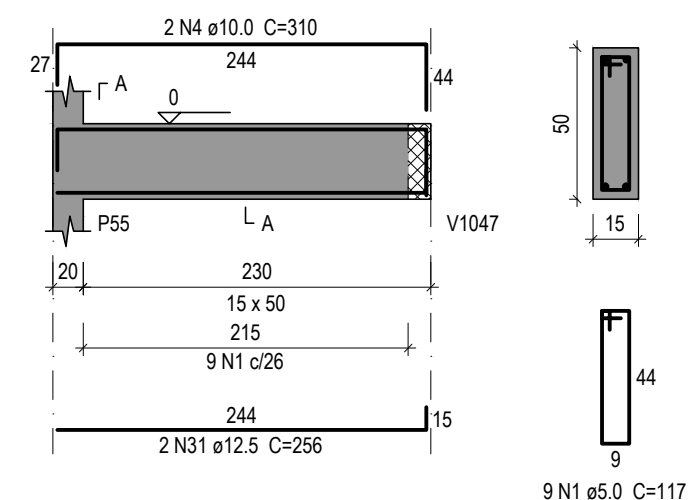
V1012

ESC 1:50



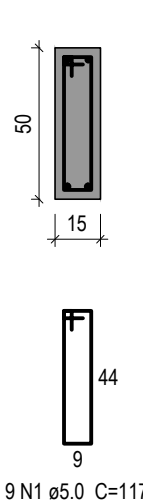
V1013

ESC 1:50



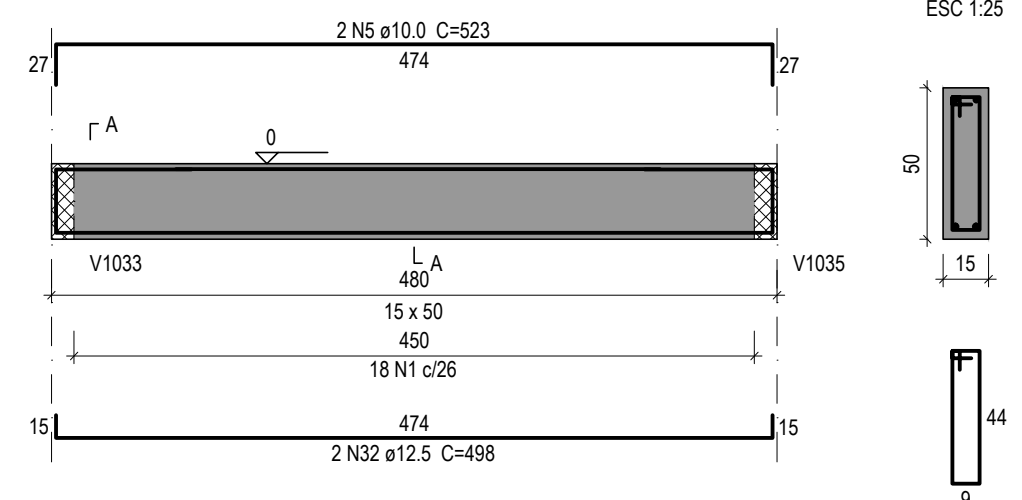
SEÇÃO A-A

ESC 1:25



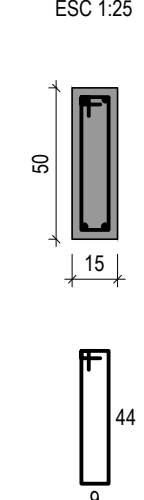
V1014

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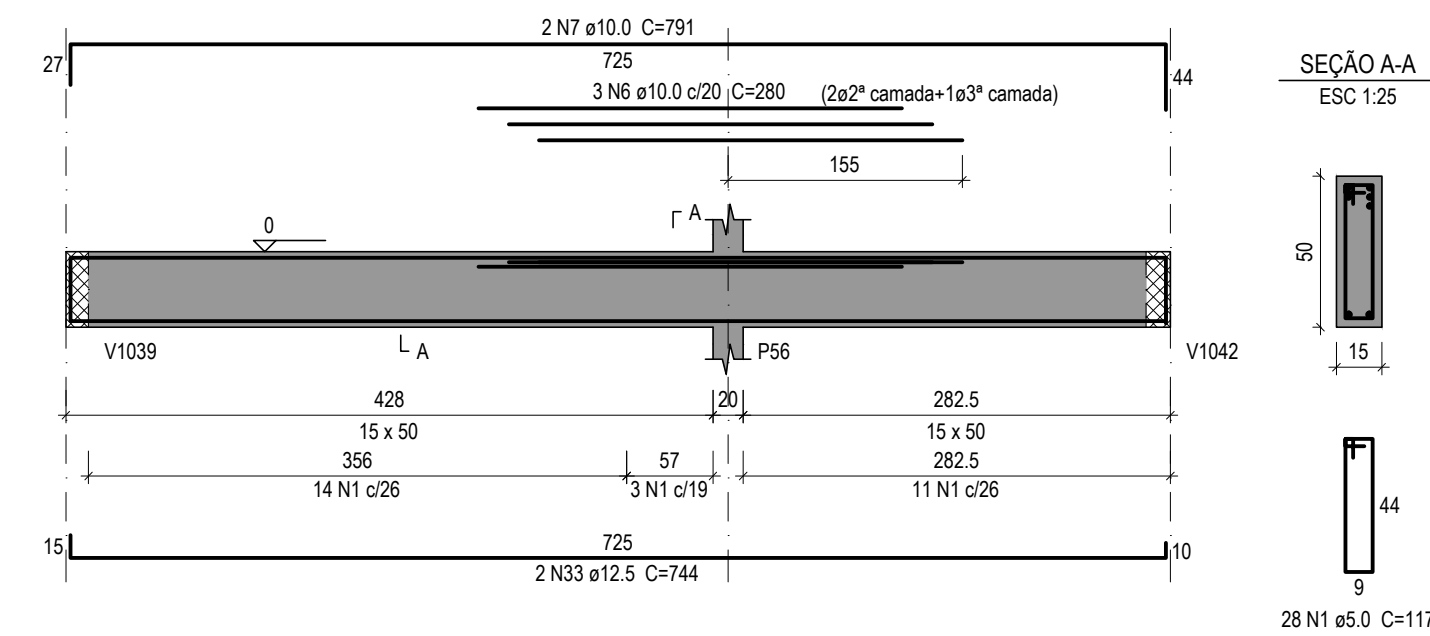
SEÇÃO A-A

ESC 1:25



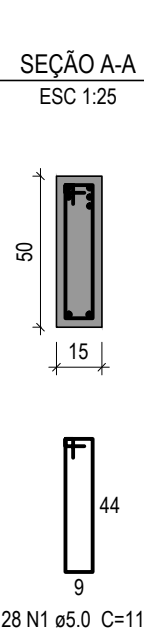
V1015

ESC 1:50



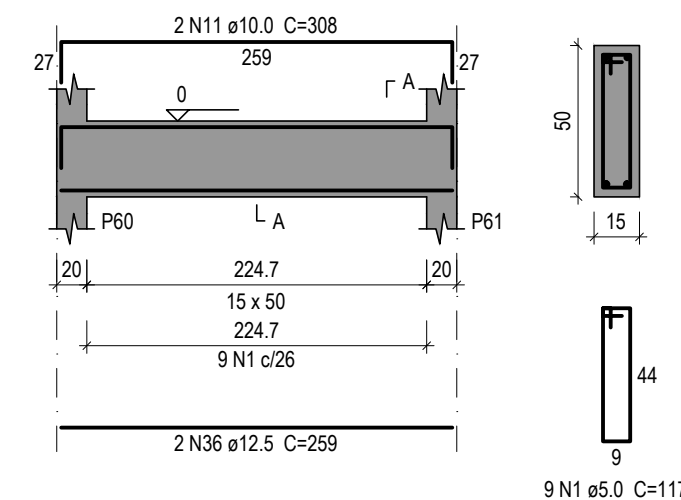
SEÇÃO A-A

ESC 1:25



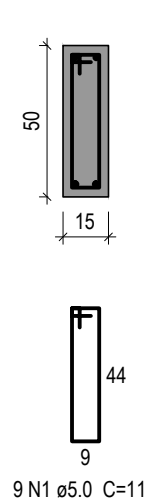
V1017

ESC 1:50



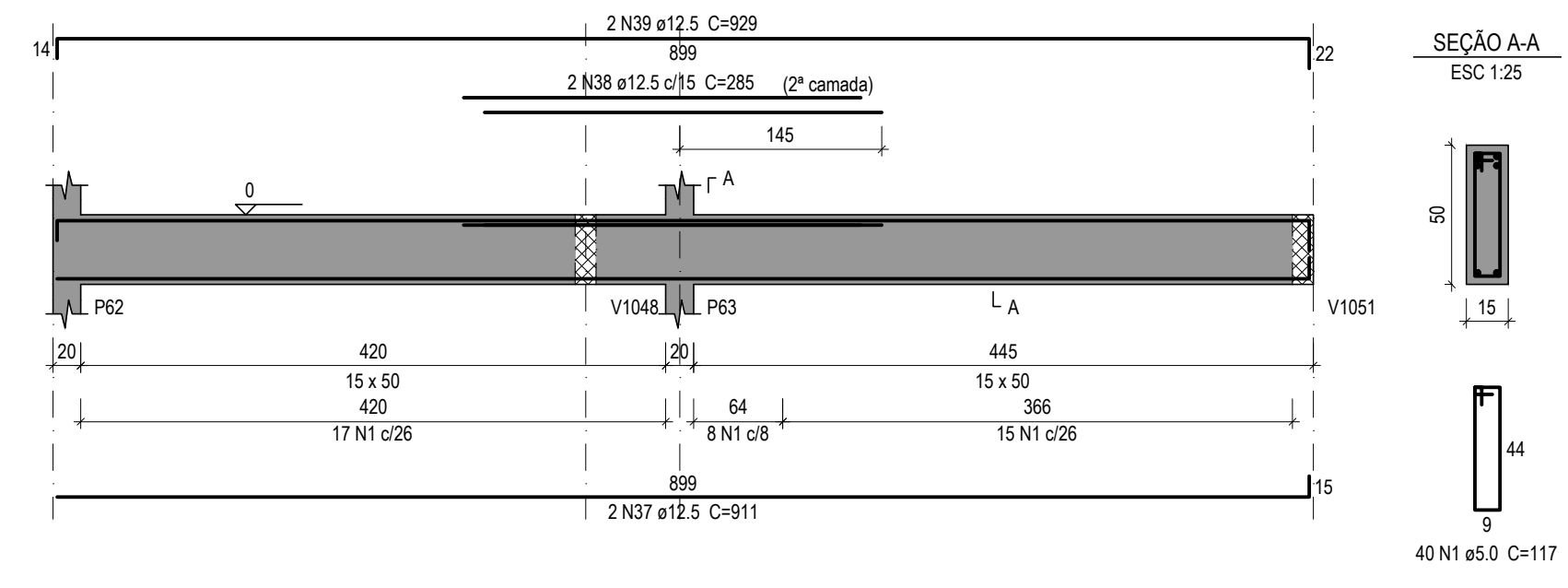
SEÇÃO A-A

ESC 1:25



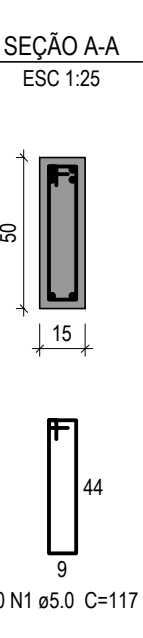
V1018

ESC 1:50



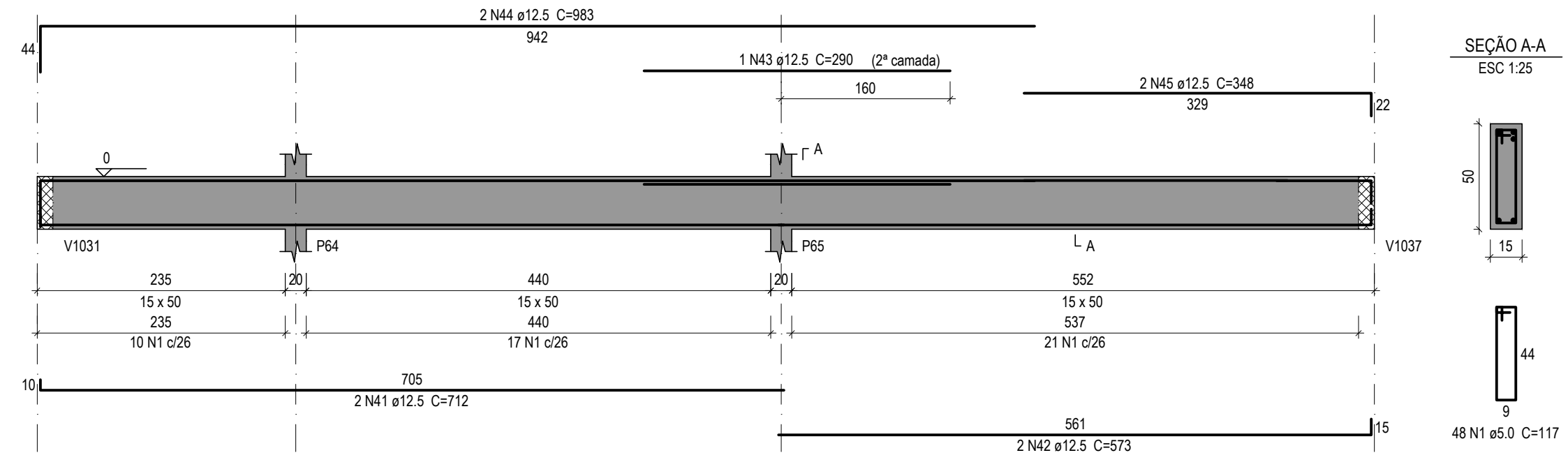
SEÇÃO A-A

ESC 1:25



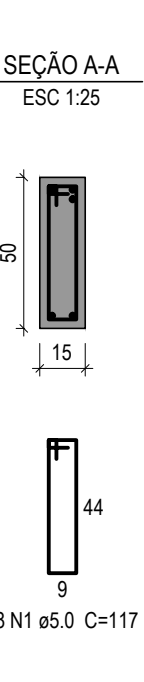
V1020

ESC 1:50



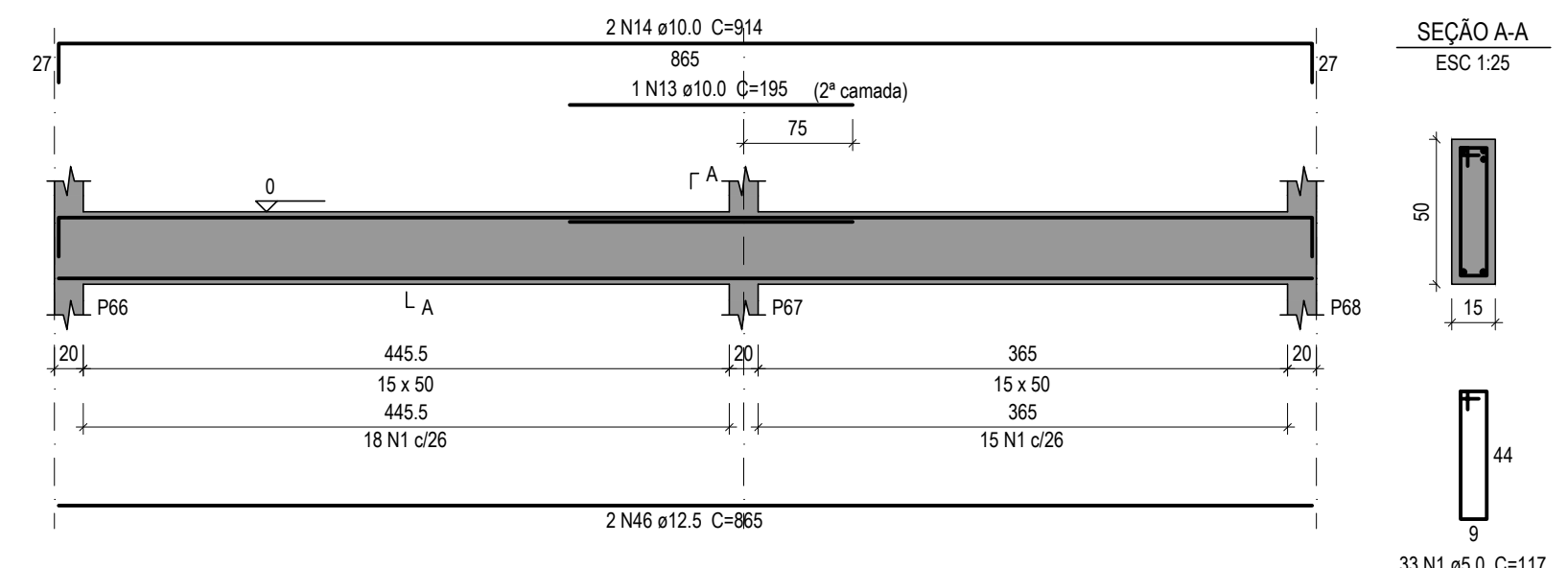
SEÇÃO A-A

ESC 1:25



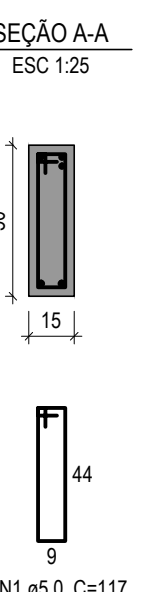
V1021

ESC 1:50



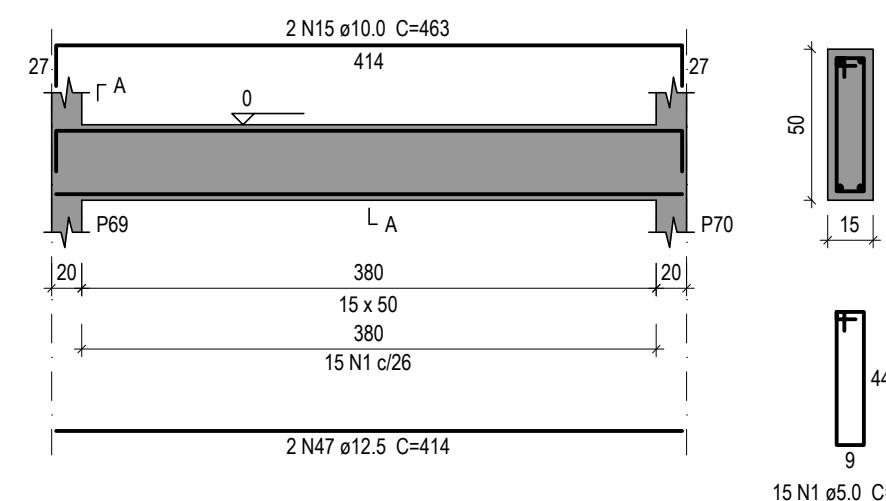
SEÇÃO A-A

ESC 1:25



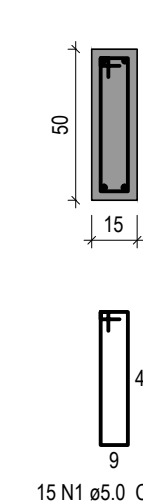
V1022

ESC 1:50



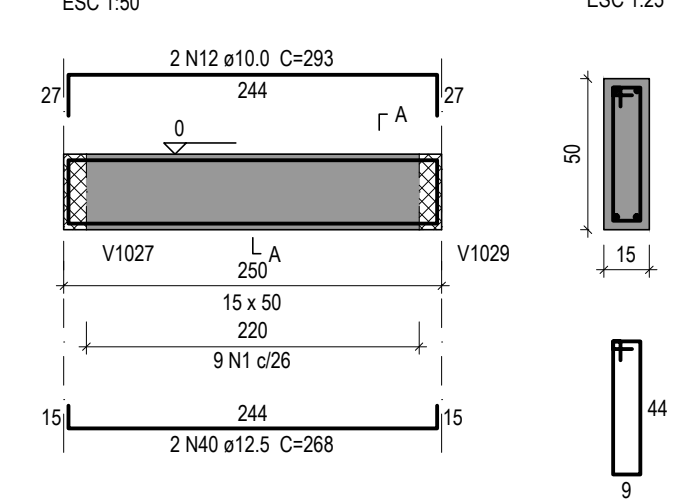
SEÇÃO A-A

ESC 1:25



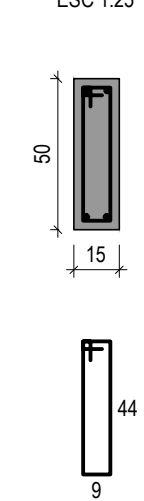
V1019

ESC 1:50



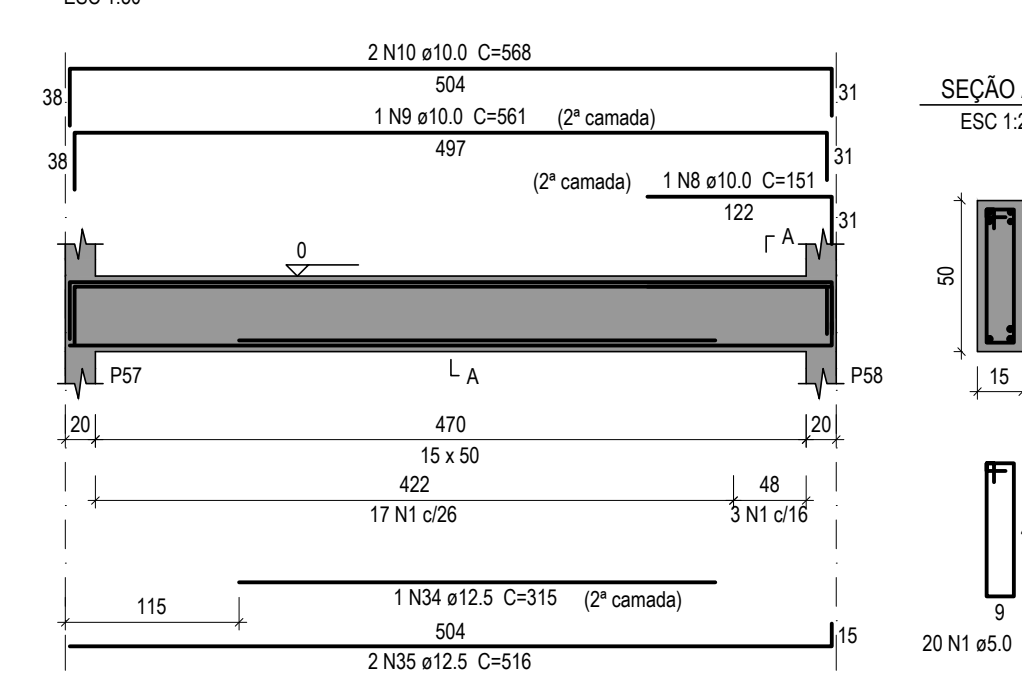
SEÇÃO A-A

ESC 1:25



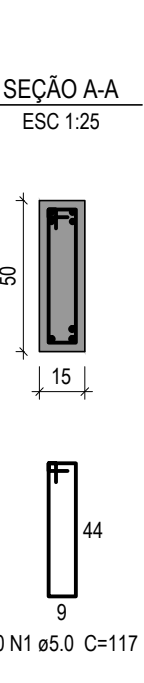
V1016

ESC 1:50



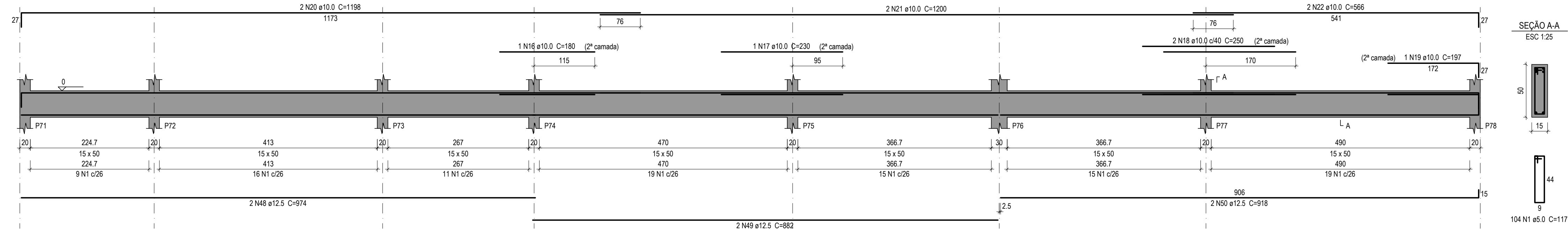
SEÇÃO A-A

ESC 1:25



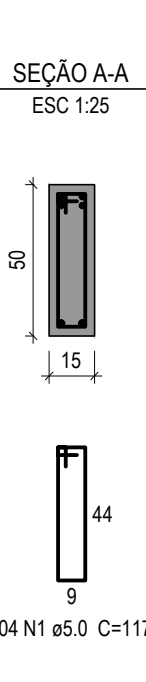
V1023

ESC 1:50



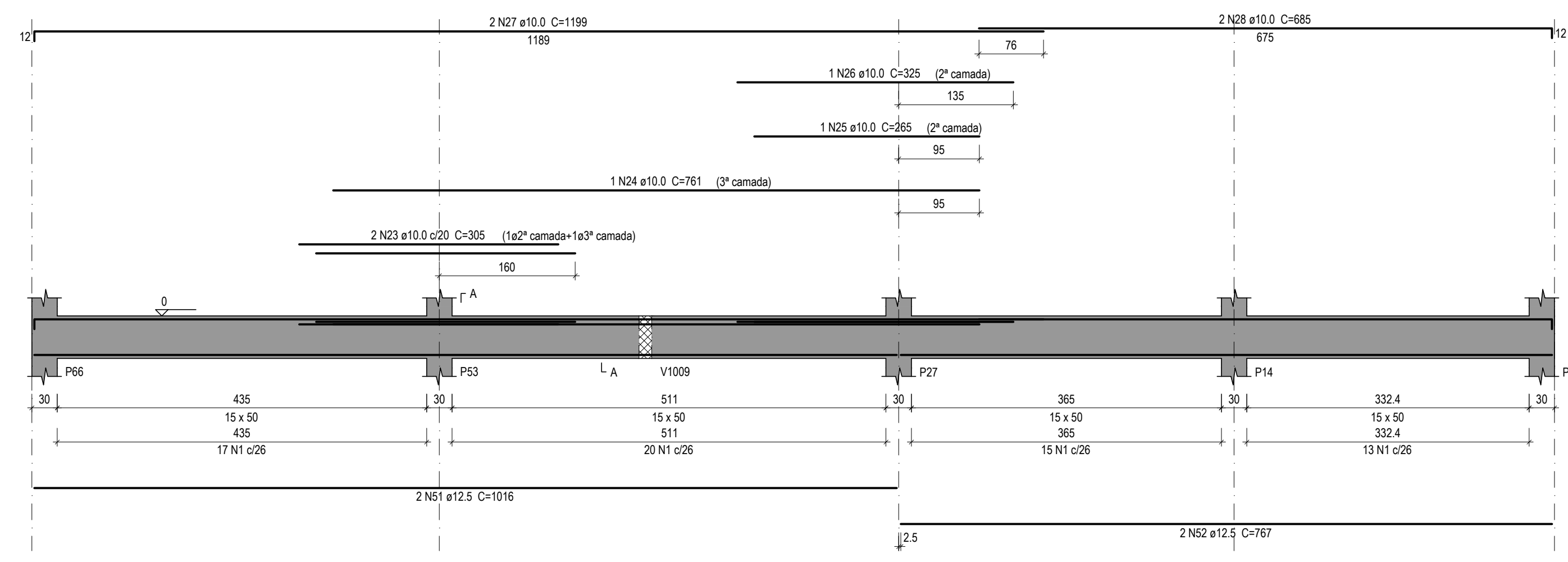
SEÇÃO A-A

ESC 1:25



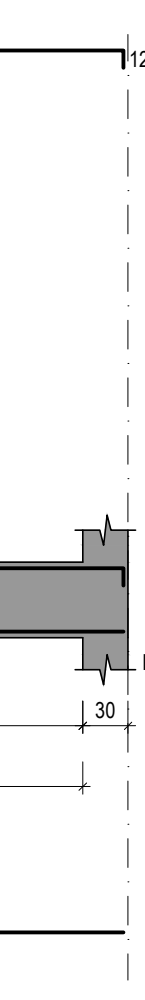
V1024

ESC 1:50



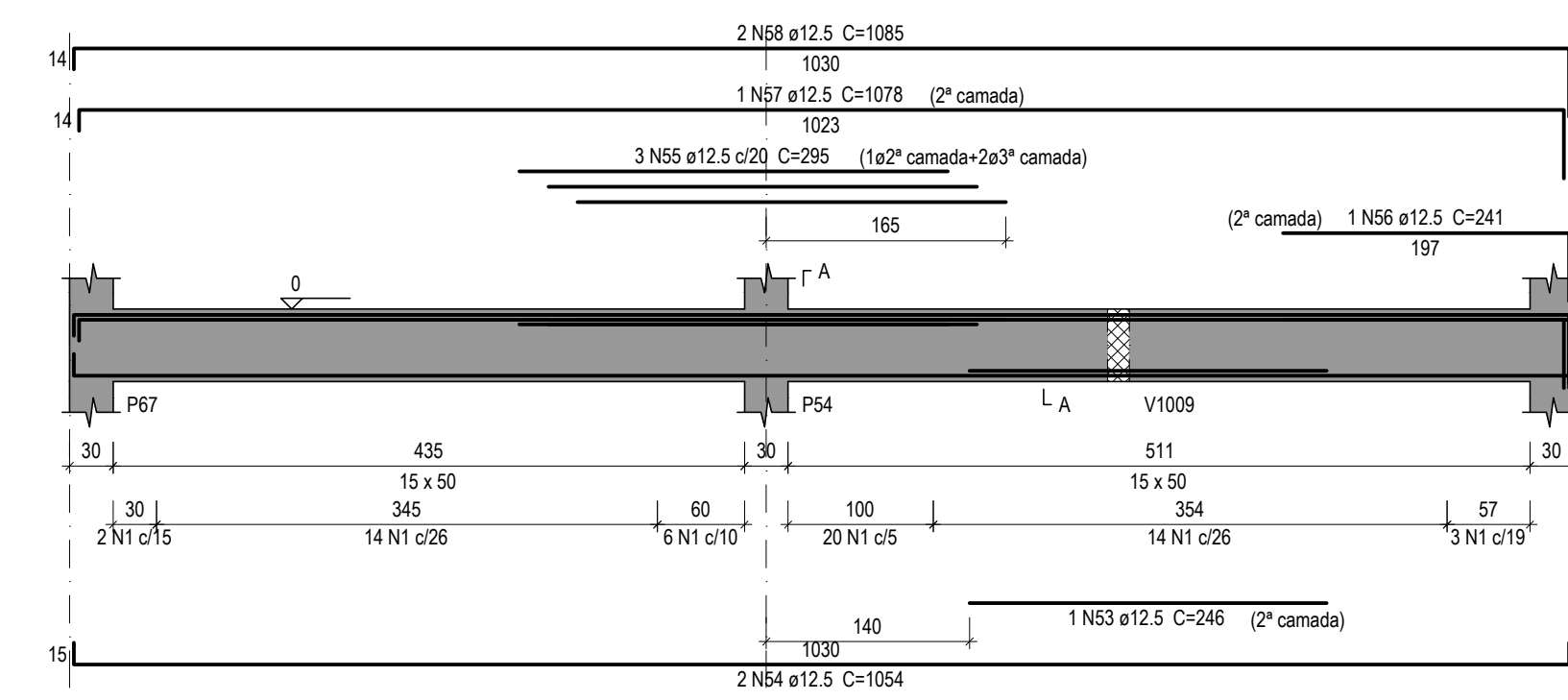
SEÇÃO A-A

ESC 1:25



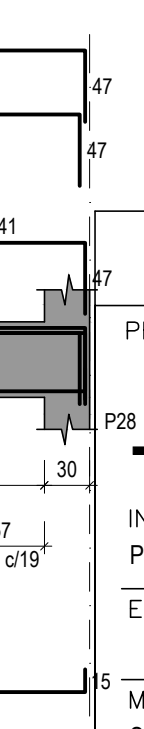
V1025

ESC 1:50



SEÇÃO A-A

ESC 1:25



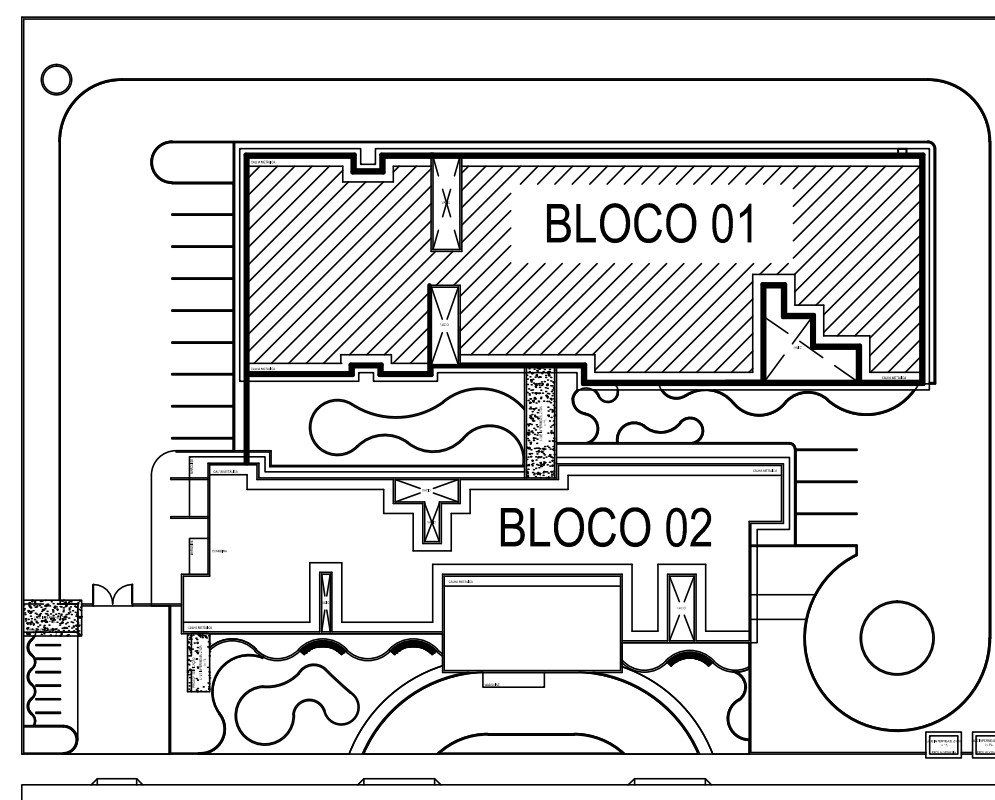
Relação do aço

ÁÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
V1012	1	5.0	476	117	55692
V1013	2	10.0	1	532	532
V1014	3	10.0	2	539	1078
V1015	4	10.0	2	310	620
V1016	5	10.0	2	523	1046
V1017	6	10.0	3	280	840
V1018	7	10.0	2	791	1582
V1019	8	10.0	1	151	151
V1020	9	10.0	1	561	561
V1021	10	10.0	2	568	1136
V1022	11	10.0	2	308	616
V1023	12	10.0	2	293	586
V1024	13	10.0	1	195	195
V1025	14	10.0	2	914	1828
	15	10.0	2	463	926
	16	10.0	1	180	180
	17	10.0	1	230	230
	18	10.0	2	250	500
	19	10.0	1	197	197
	20	10.0	2	1198	2396
	21	10.0	2	1200	2400
	22	10.0	2	566	1132
	23	10.0	2	305	610
	24	10.0	1	761	761
	25	10.0	1	265	265
	26	10.0	1	325	325
	27	10.0	2	1199	2398
	28	10.0	2	685	1370
	29	12.5	1	316	316
	30	12.5	2	499	998
	31	12.5	2	296	592
	32	12.5	2	498	996
	33	12.5	2	744	1488
	34	12.5	1	315	315
	35	12.5	2	516	1032
	36	12.5	2	299	598
	37	12.5	2	911	1822
	38	12.5	2	285	570
	39	12.5	2	999	1998
	40	12.5	2	268	536
	41	12.5	2	712	1424
	42	12.5	2	573	1146
	43	12.5	1	290	290
	44	12.5	2	963	1926
	45	12.5	2	348	696
	46	12.5	2	865	1730
	47	12.5	2	414	828
	48	12.5	2	974	1948
	49	12.5	2	882	1764
	50	12.5	2	918	1836
	51	12.5	2	1016	2032
	52	12.5	2	767	1534
	53	12.5	1	246	246
	54	12.5	2	1054	2108
	55	12.5	3	205	615
	56	12.5	1	241	241
	57	12.5	1	1078	1078
	58	12.5	2	1085	2170

Resumo do aço

ÁÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	244.7	165.9
CA60	12.5	348.9	369.6
PESO TOTAL (kg)		557	94.4
CA50	535.5		
CA60	94.4		

Volume de concreto (C=25) = 8.39 m³
Área de forma = 111.93 m²



SECRETARIA DE SAÚDE

PROJETO ESTRUTURAL HOSPITAL DISTRIAL

INTERESSADO:
PREFEITURA DE SOBRAL
ENDEREÇO:
MUNICÍPIO DE SOBRAL



ASSUNTO: **FORMA E ARMAÇÃO DAS VIGAS**
BALDRAME - FL 02
ESCALA: **INDICADA**

DATA
ABR/2026

REVISÃO
02

ARQUIVO
-

PRANCHA
16/45

Relação do aço					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
V1026	1	5.0	568	117	66456
V1029	2	6.3	6	594	3564
V1032	3	6.3	5	107	535
V1035	4	6.3	6	386	2316
V1038	5	6.3	12	118	1416
	6	6.3	6	374	2244
	7	6.3	6	454	2724
	8	8.0	4	598	2392
	9	10.0	2	164	328
	10	10.0	1	167	167
	11	10.0	1	222	222
	12	10.0	2	255	510
	13	10.0	2	355	710
	14	10.0	2	361	722
	15	10.0	2	775	1550
	16	10.0	1	524	524
	17	10.0	4	800	3200
	18	10.0	1	260	260
	19	10.0	1	794	794
	20	10.0	2	781	1562
	21	10.0	1	564	564
	22	10.0	2	791	1582
	23	12.5	2	805	1610
	24	12.5	1	578	578
	25	12.5	2	833	1666
	26	12.5	2	743	1486
	27	12.5	8	781	6248
	28	12.5	1	592	592
	29	12.5	2	1040	2080
	30	12.5	1	201	201
	31	12.5	1	205	205
	32	12.5	1	260	260
	33	12.5	3	295	885
	34	12.5	3	335	1005
	35	12.5	2	1078	2156
	36	12.5	2	748	1496
	37	12.5	2	240	480
	38	12.5	2	808	1616
	39	12.5	2	253	506
	40	12.5	2	678	1356
	41	12.5	2	241	482
	42	12.5	2	251	502
	43	12.5	2	742	1484
	44	12.5	1	255	255
	45	12.5	1	652	652
	46	12.5	2	970	1940
	47	12.5	1	263	263
	48	12.5	2	806	1612
	49	12.5	3	265	795
	50	12.5	1	325	325
	51	12.5	2	820	1640
	52	12.5	2	804	1608
	53	12.5	1	270	270
	54	12.5	2	854	1708
	55	12.5	2	794	1588
	56	12.5	1	604	604
	57	12.5	2	821	1642
	58	12.5	2	828	1656
	59	12.5	1	598	598
	60	12.5	2	826	1652
	61	12.5	2	1089	2178
	62	12.5	1	581	581
	63	12.5	1	601	601
	64	12.5	2	1117	2234
	65	16.0	2	248	496
	66	16.0	2	265	530
	67	16.0	1	310	310
	68	16.0	2	1017	2034

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	128	34.5
	8.0	24	10.4
	10.0	127	86.1
	12.5	513.2	543.8
	16.0	33.7	56.5
CA60	5.0	664.6	112.7
PESO TOTAL (kg)			
CA50	733.2		
CA60	112.7		

Volume de concreto (C-25) = 8.34 m³
Área de forma = 105.33 m²

SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL

ASSUNTO:

FORMA E ARMAÇÃO DAS VIGAS

BALDRAME - FL 03

SOBRAL
PREFEITURA

ESCALA

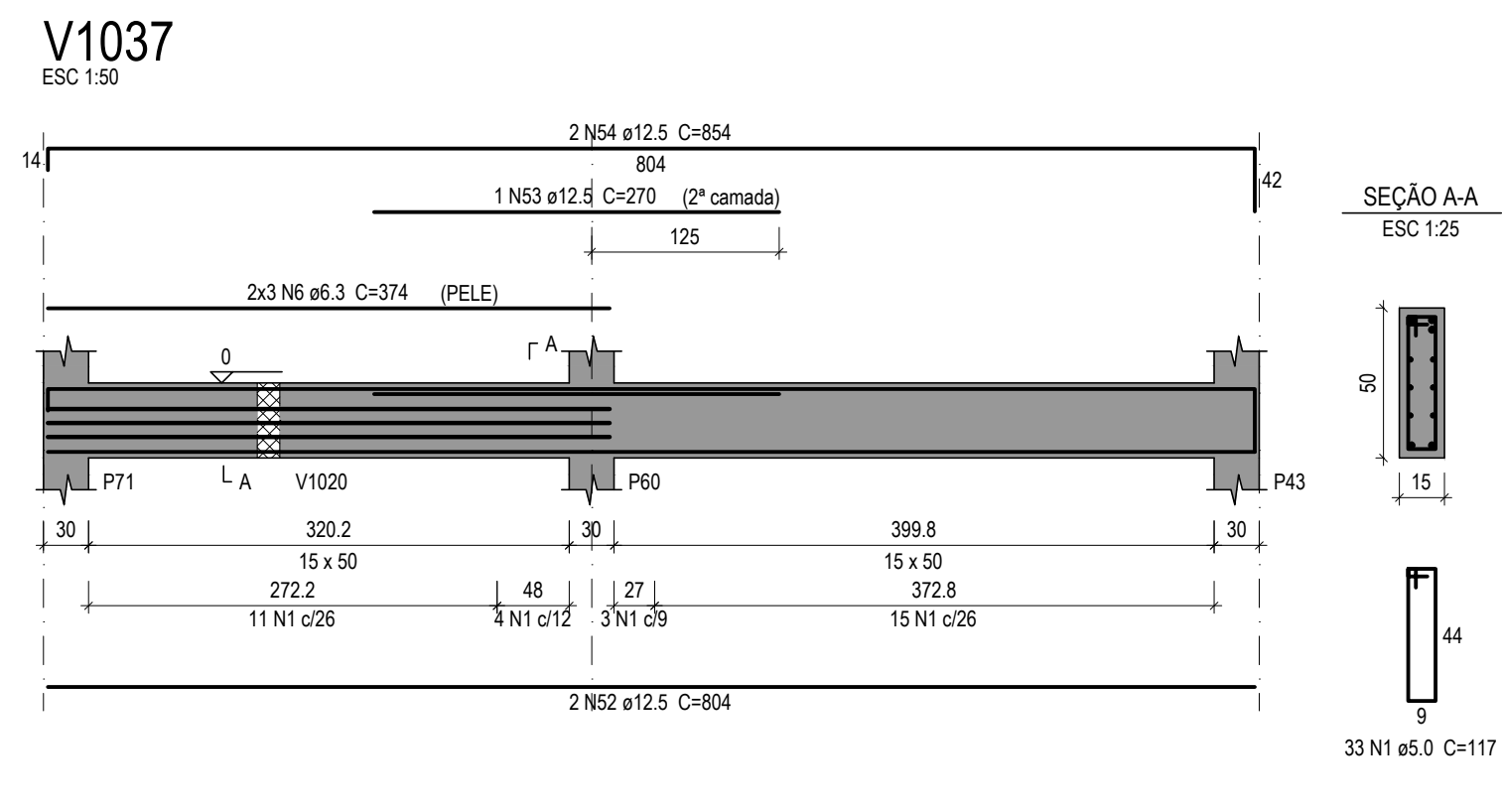
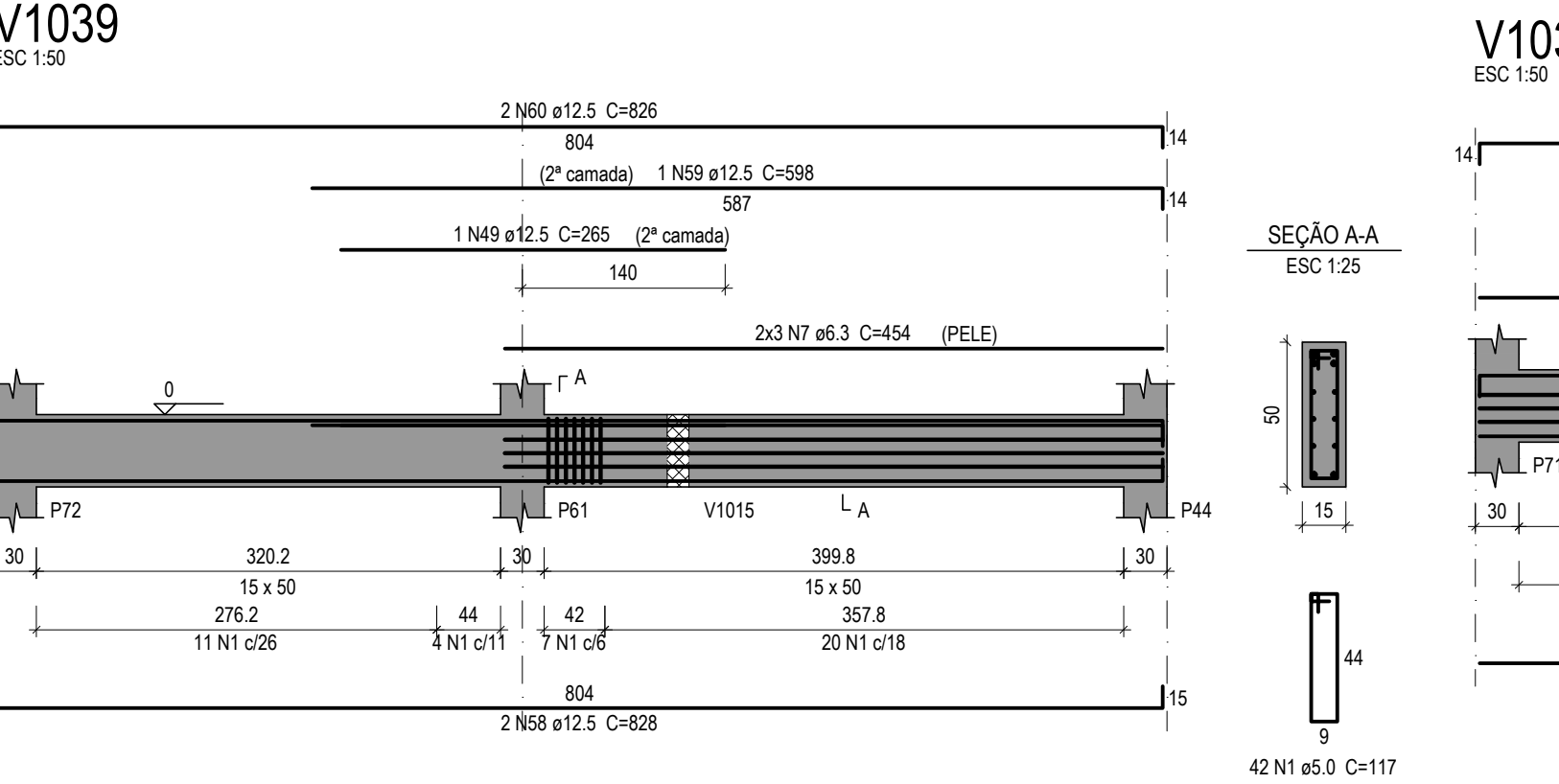
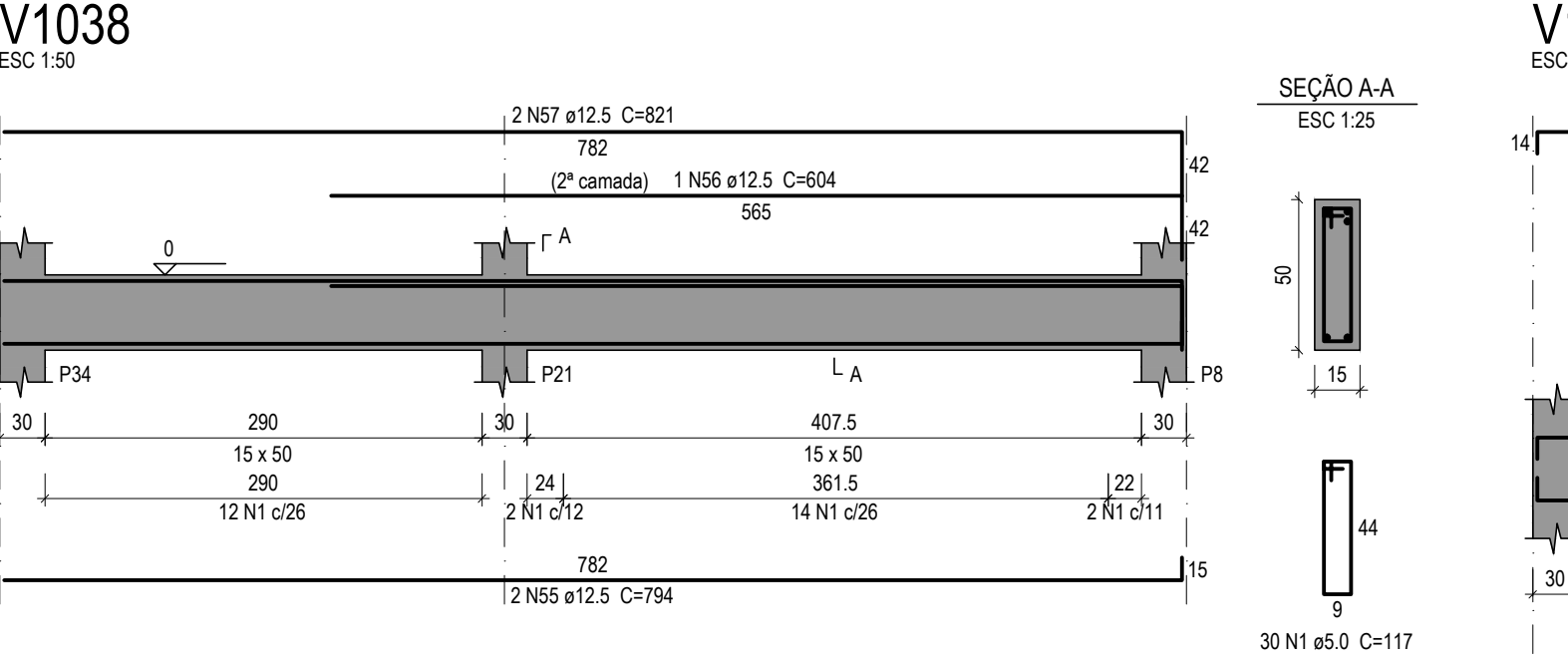
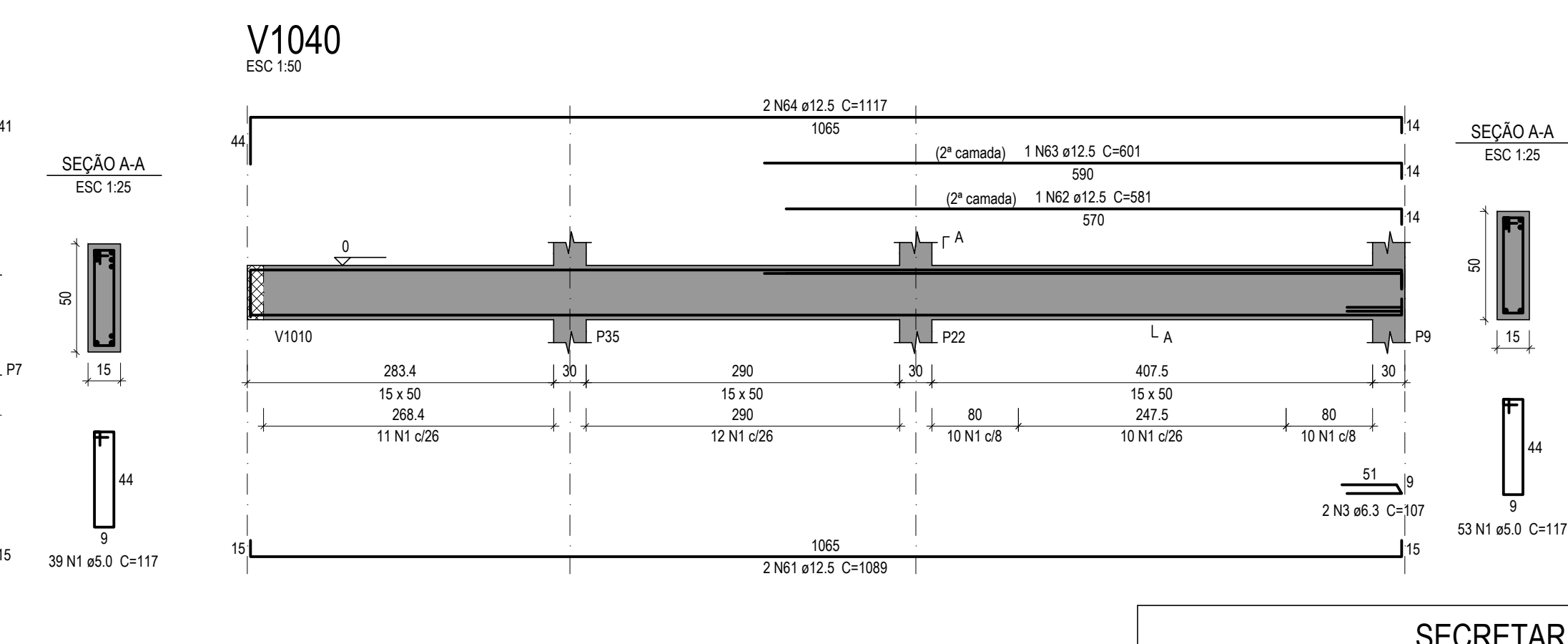
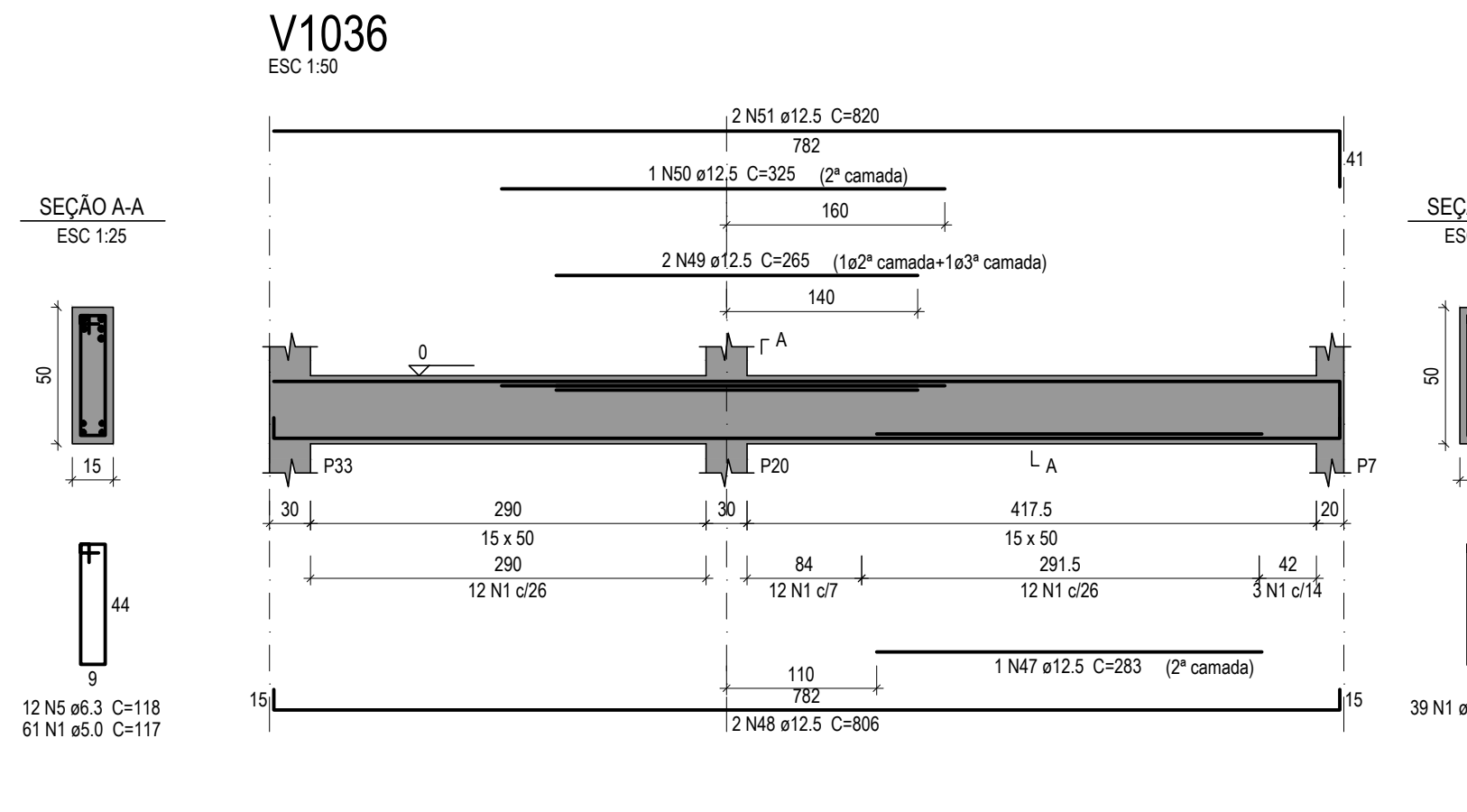
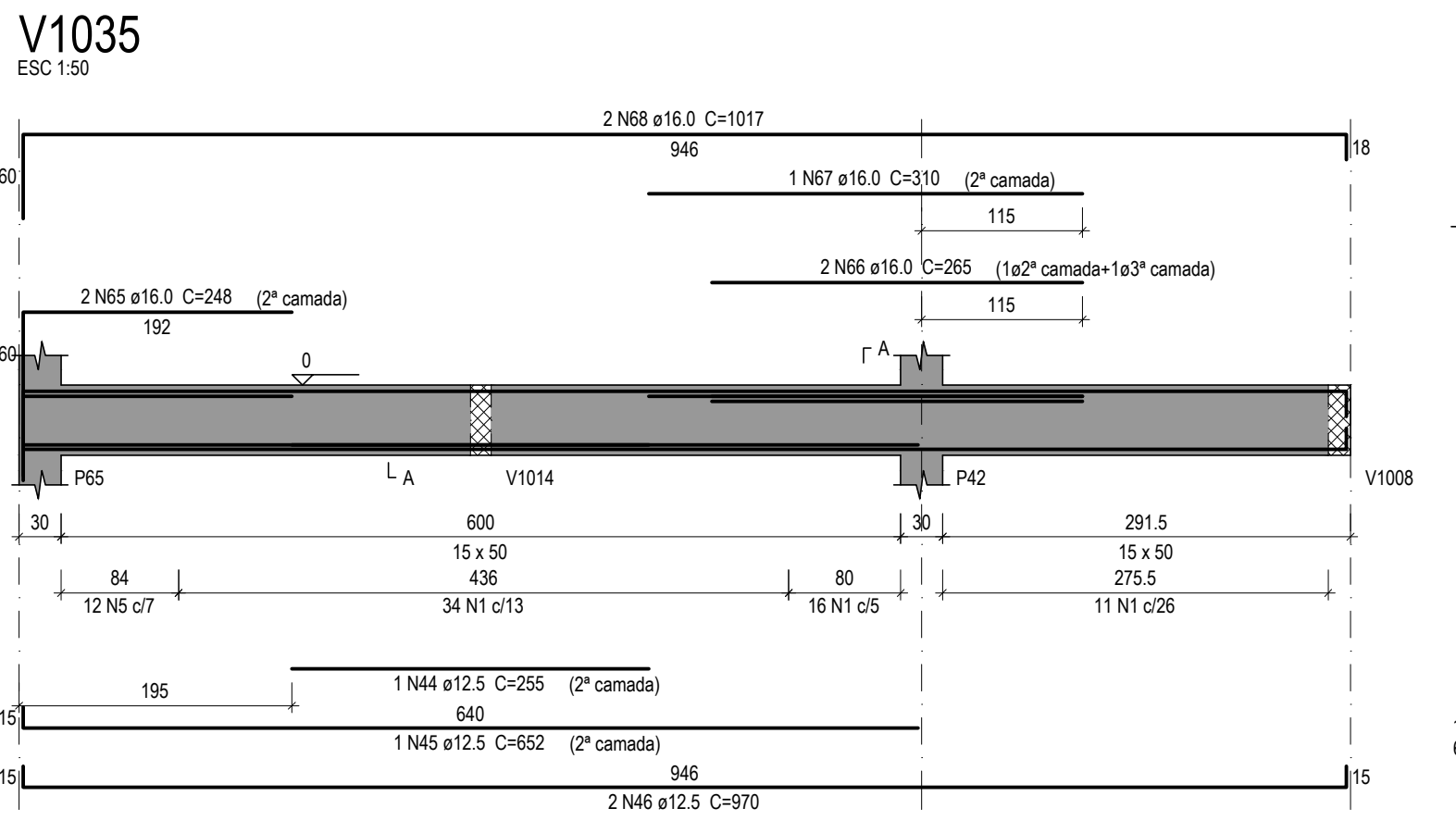
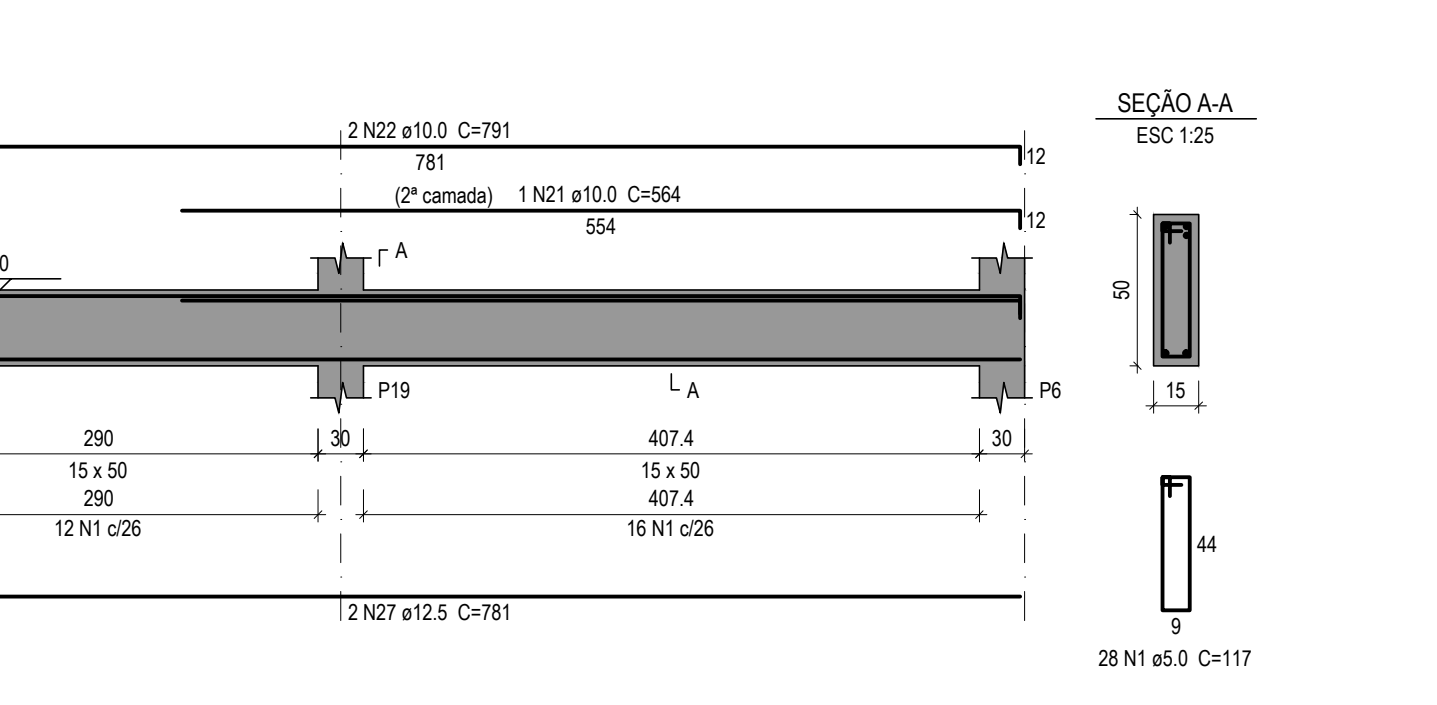
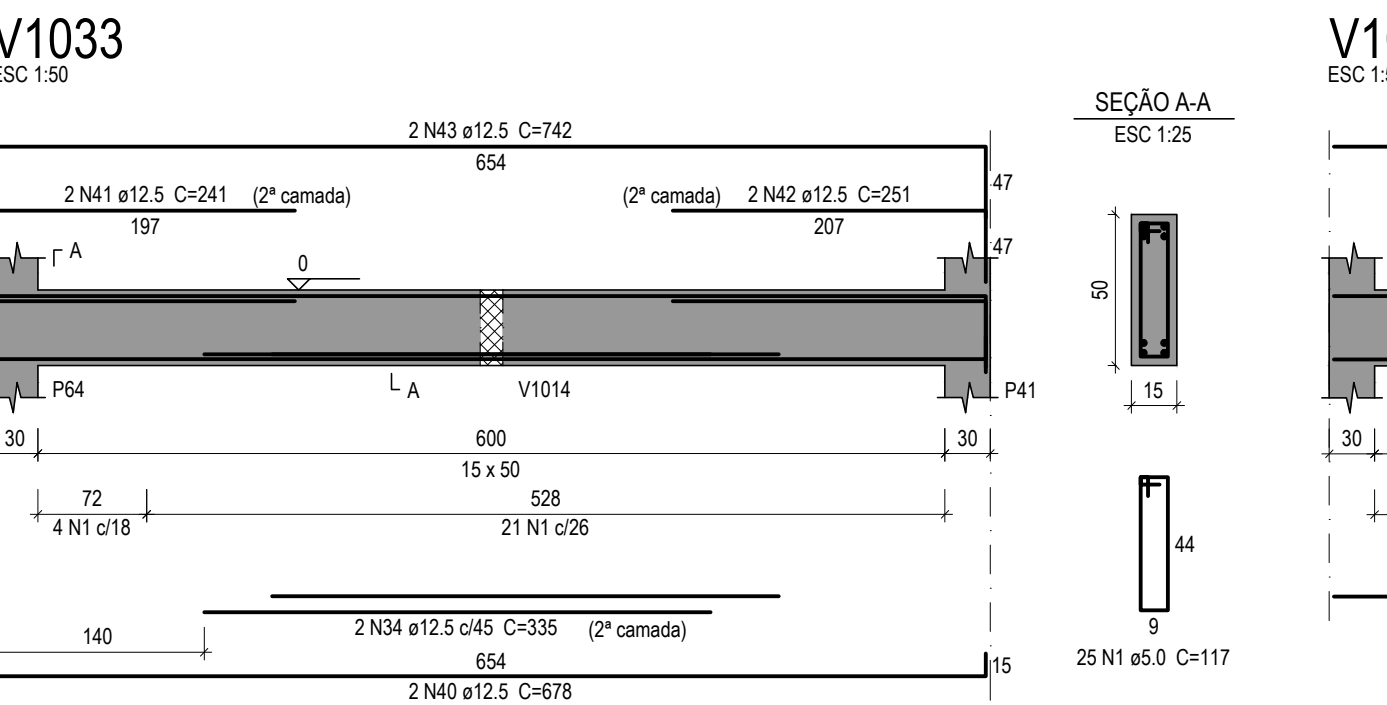
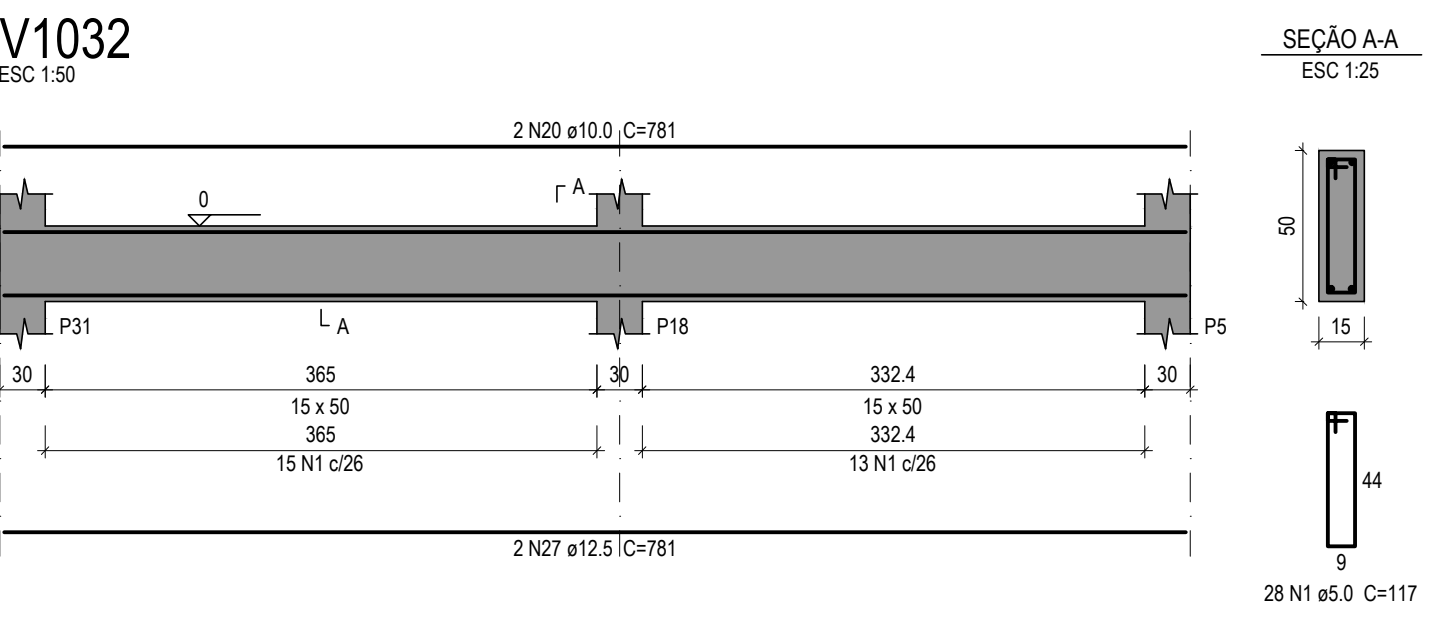
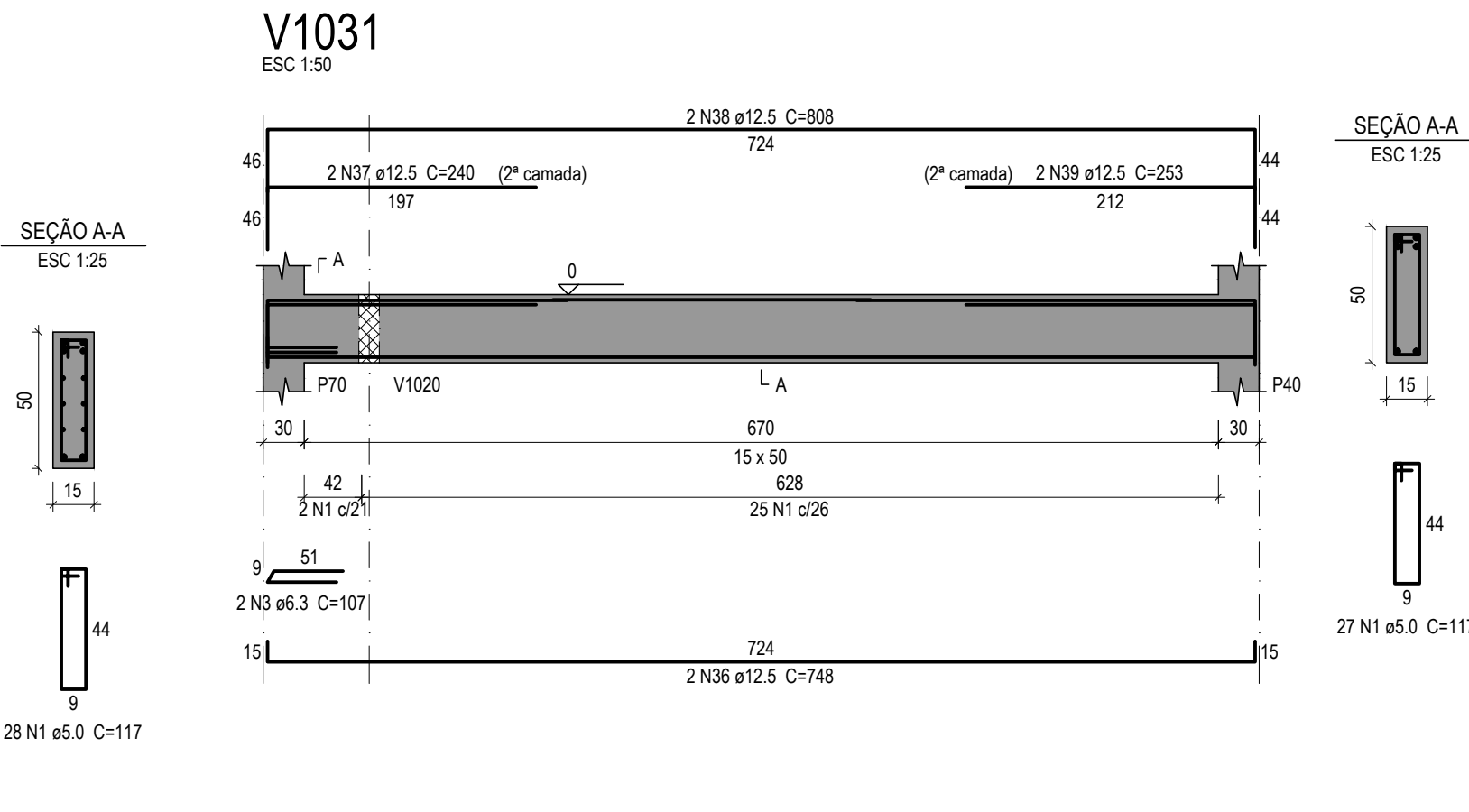
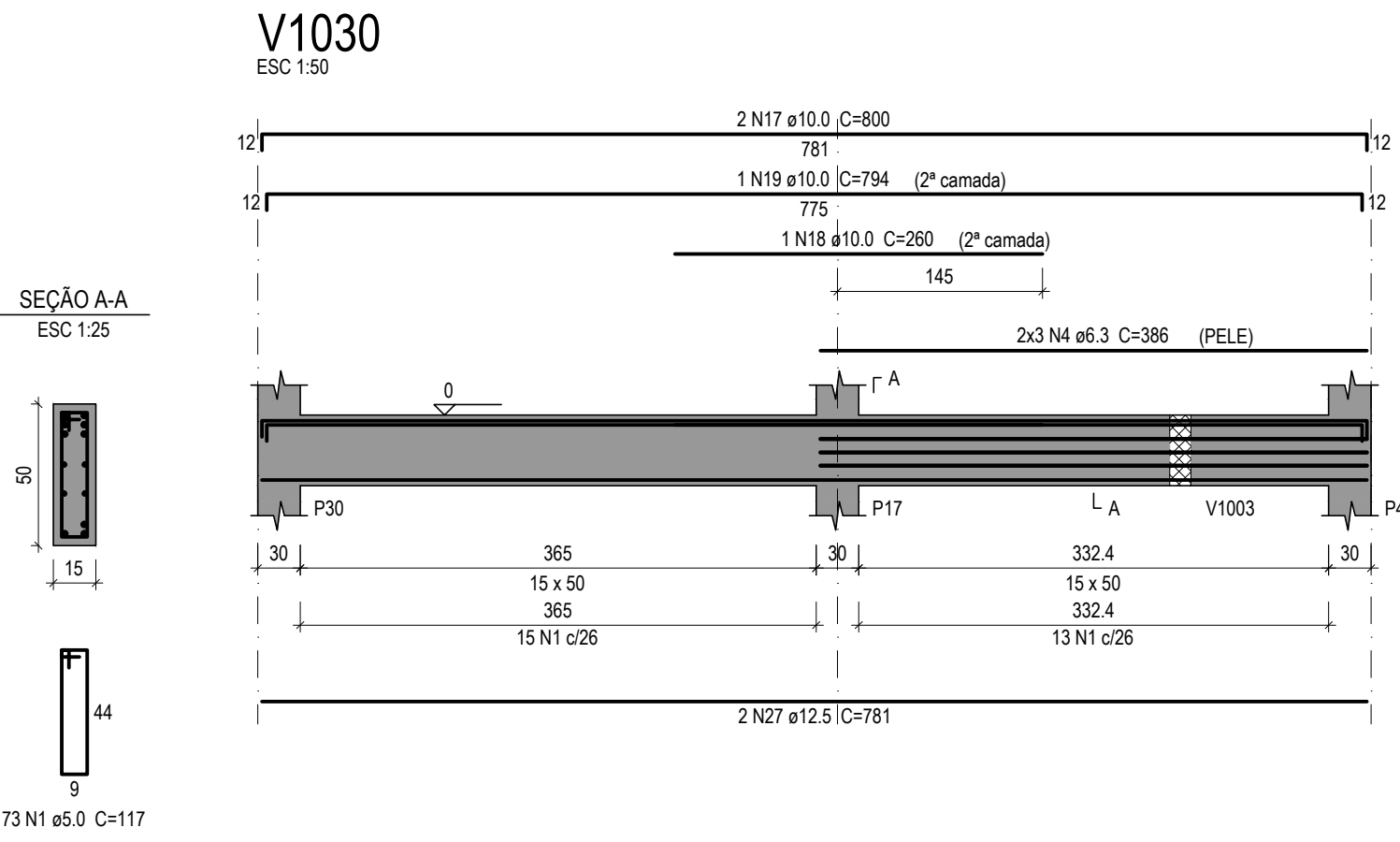
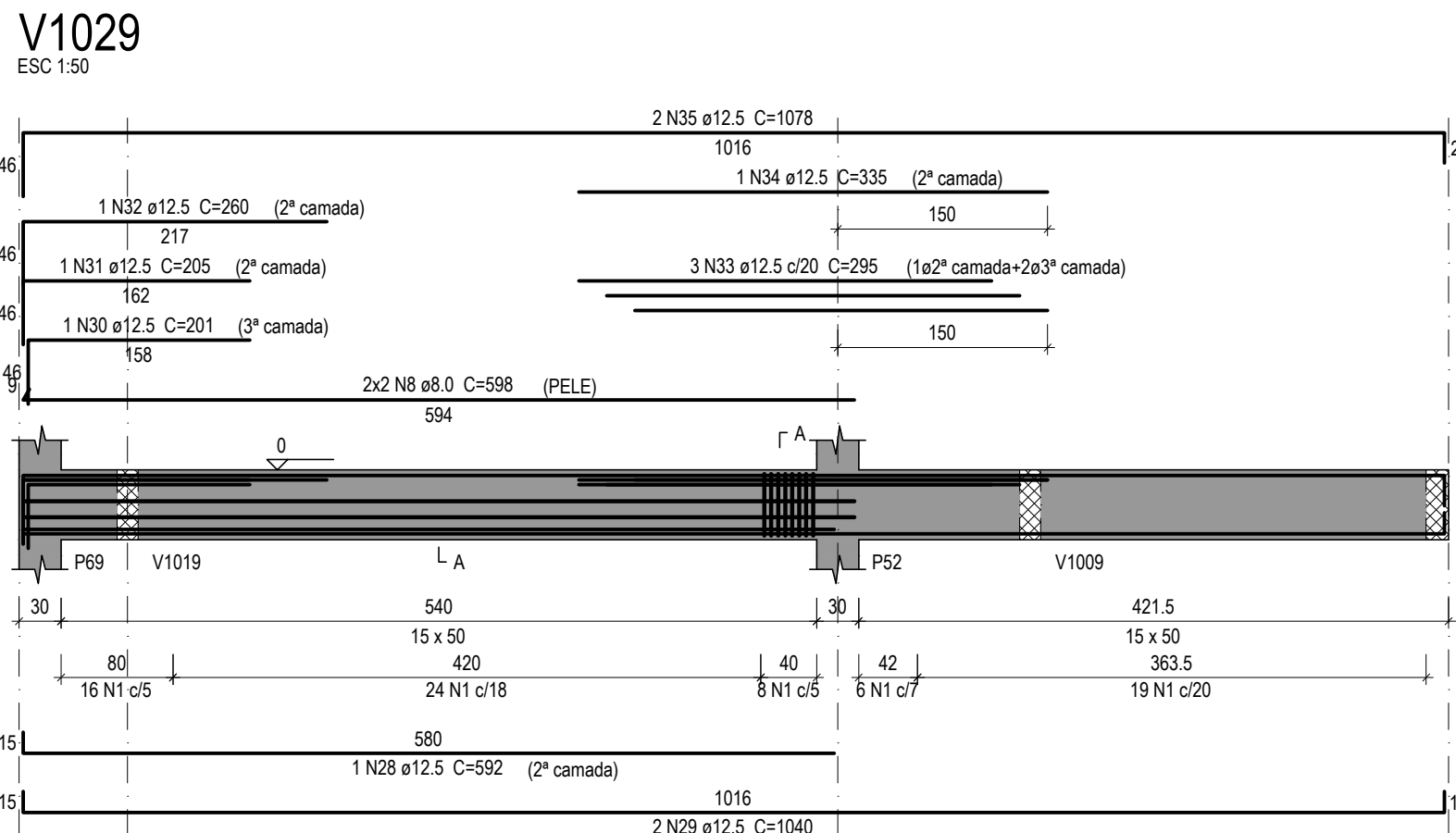
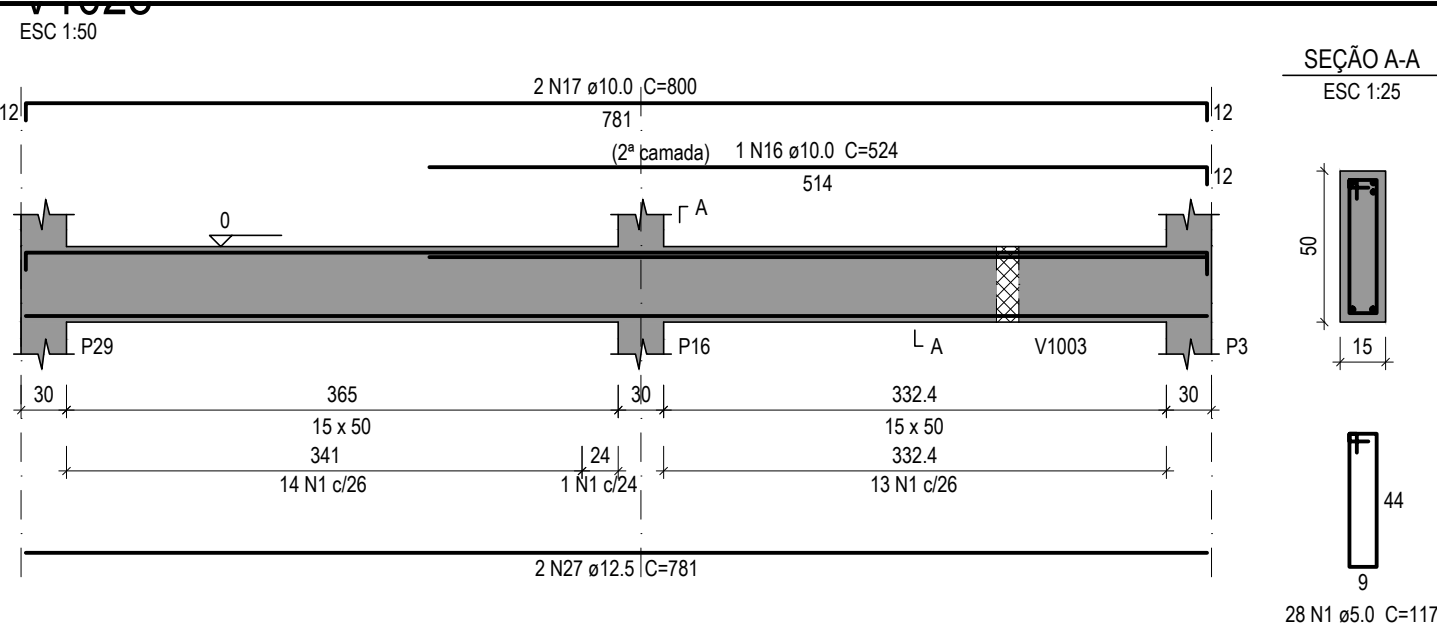
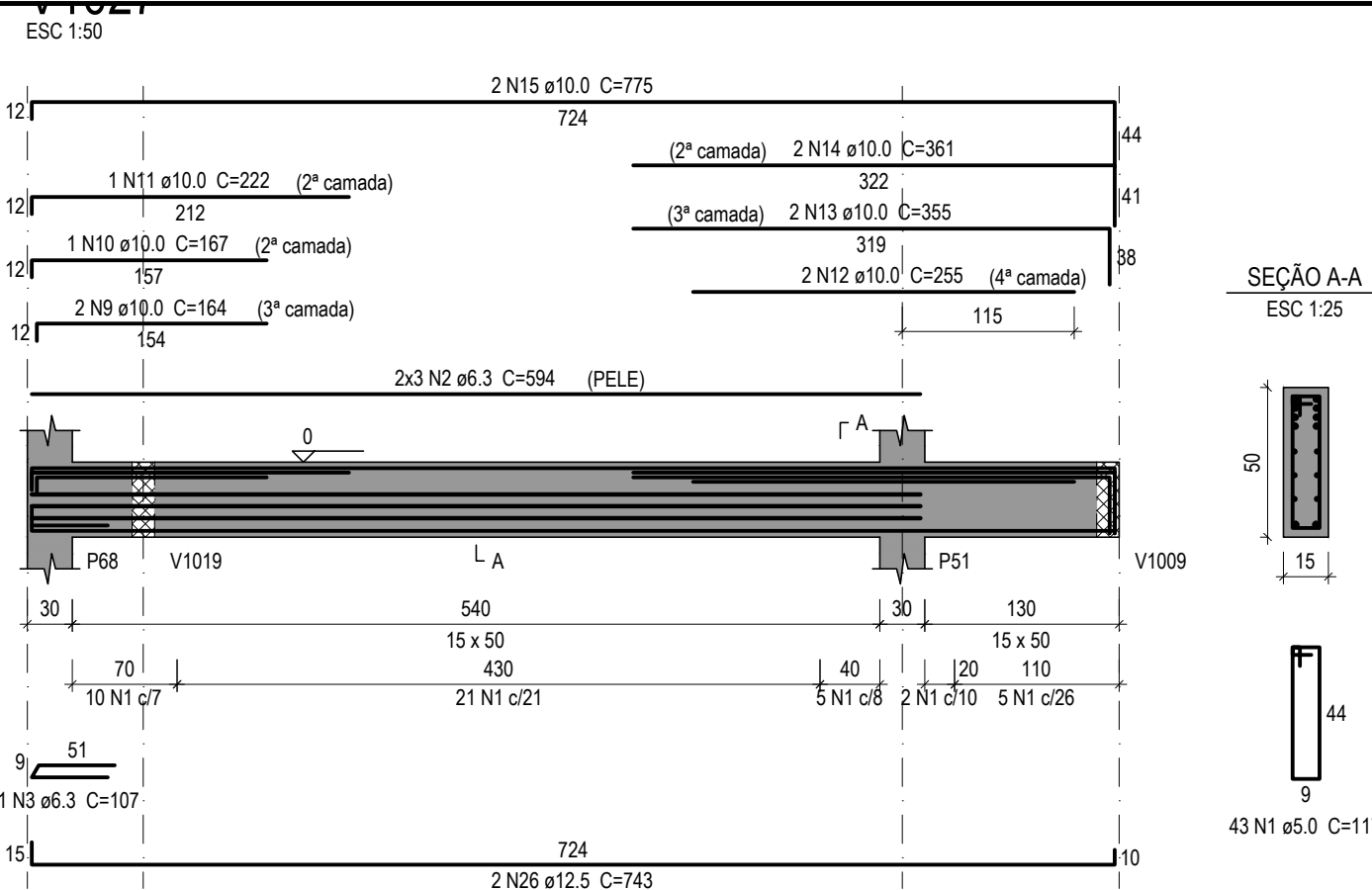
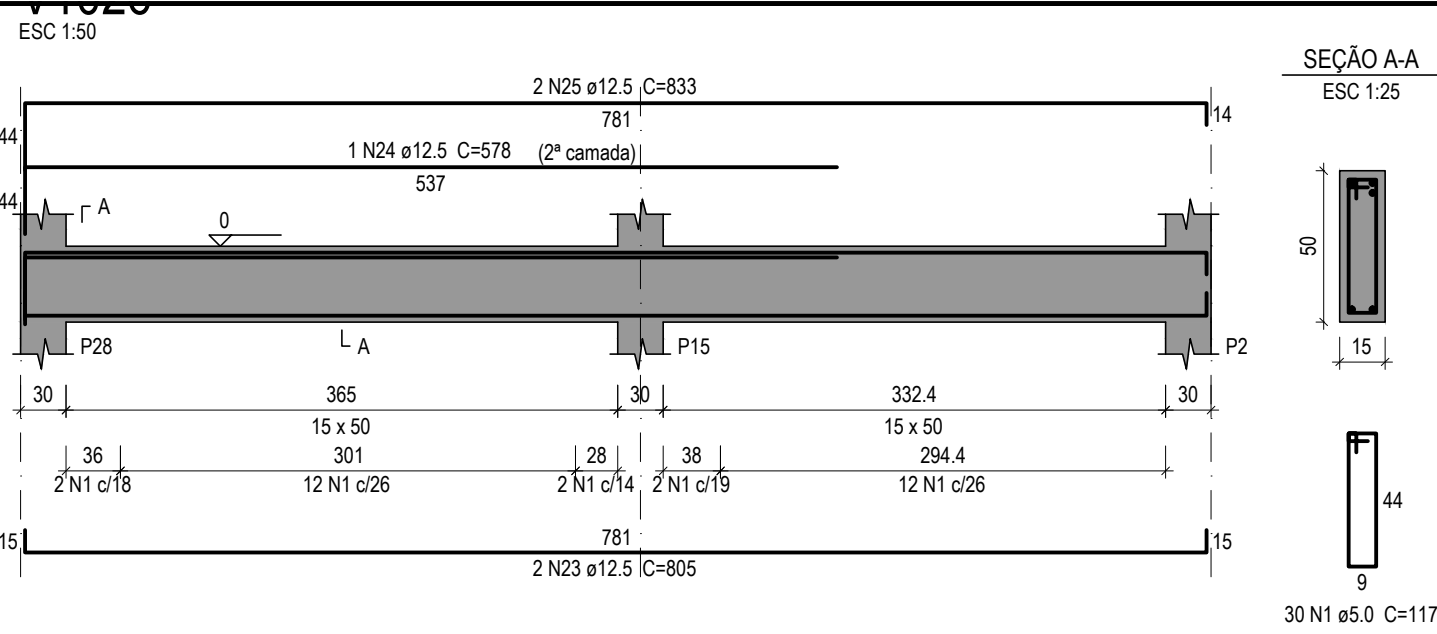
INDICADA

DATA
ABR/2026

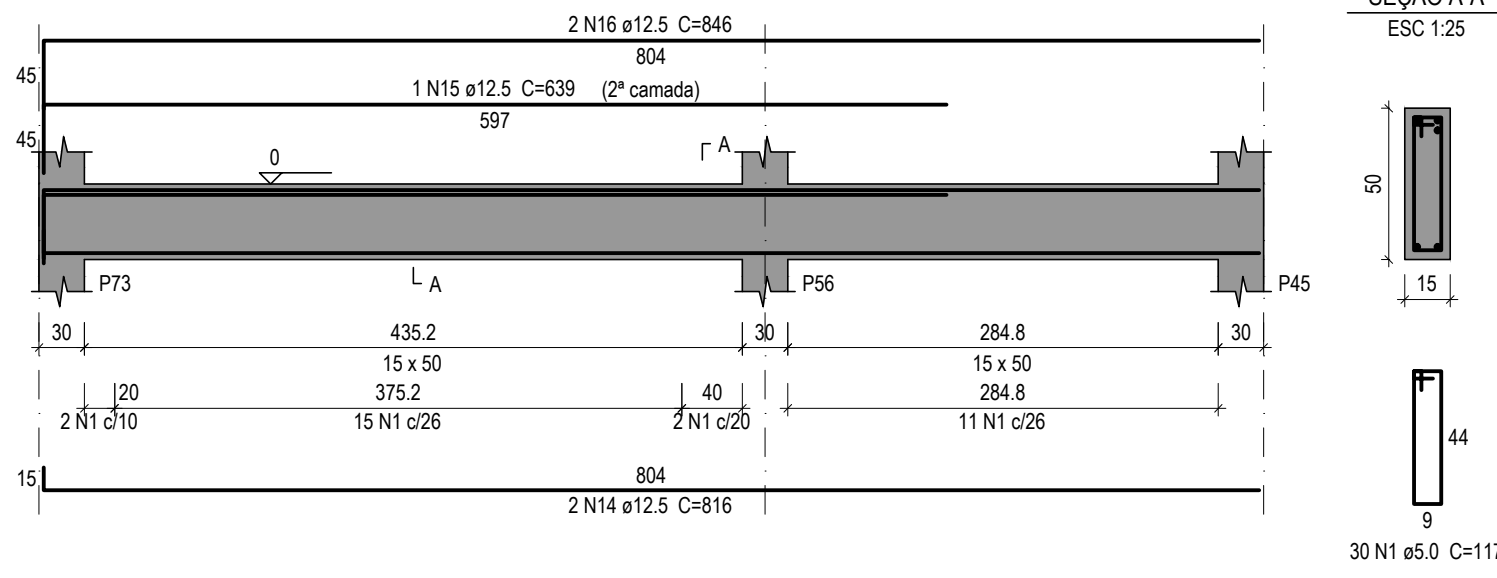
REVISÃO
02

ARQUIVO
-

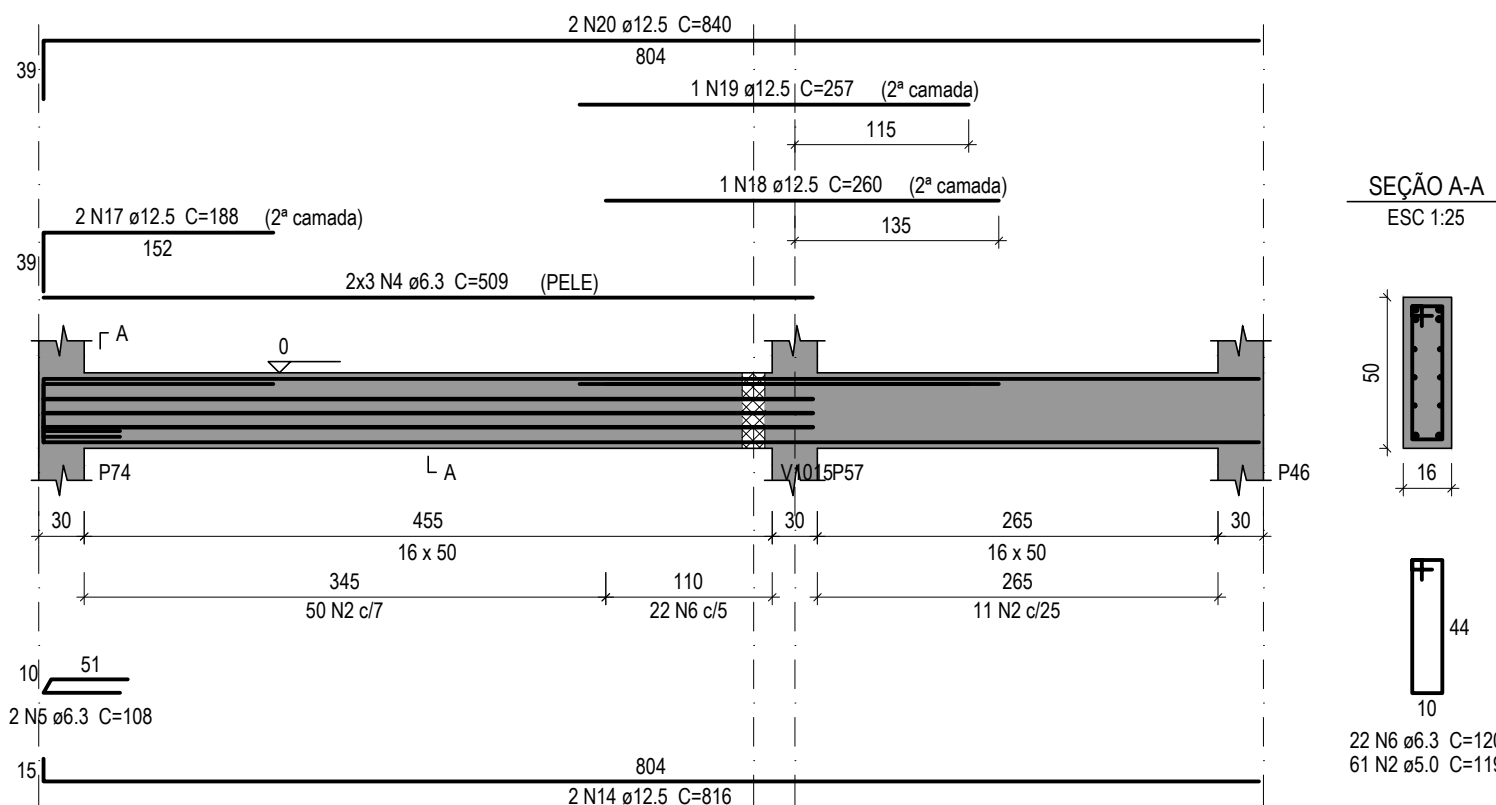
PRANCHA
17/45



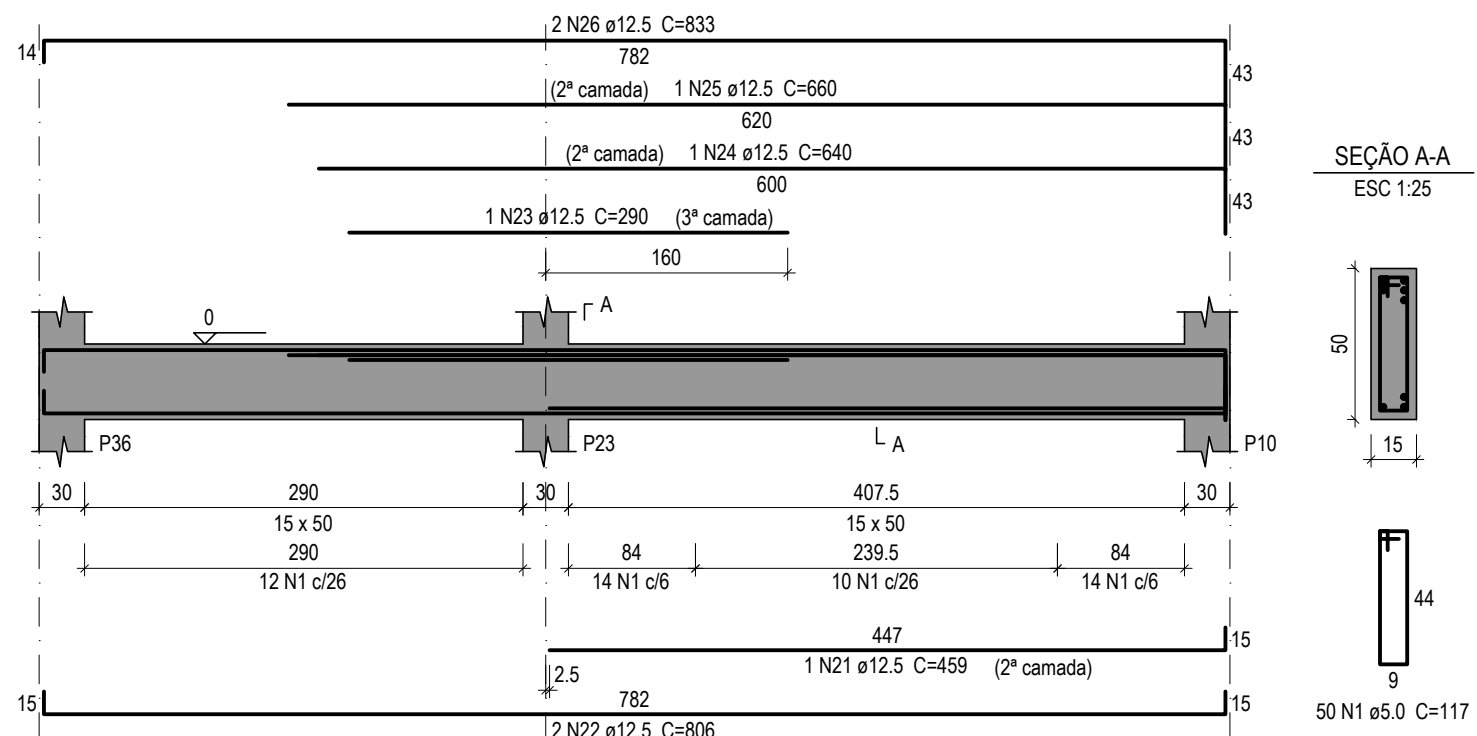
V1041
ESC 1:50



V1042
ESC 1:50



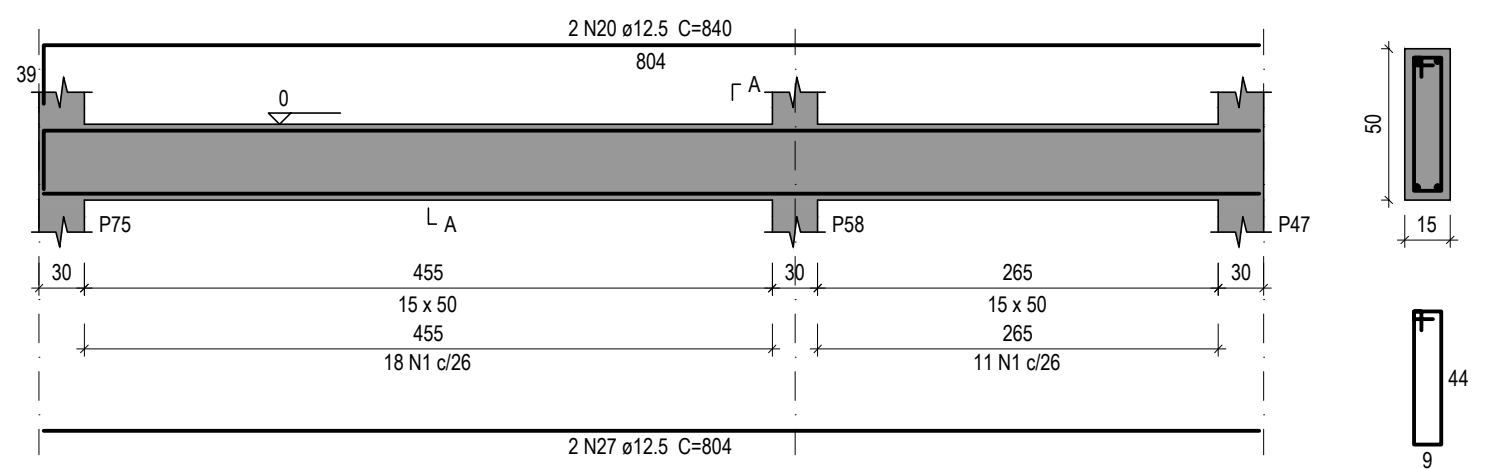
V1043
ESC 1:50



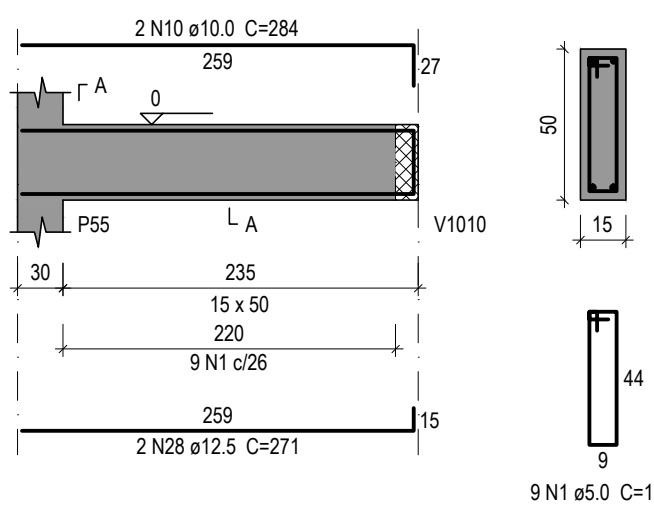
Relação do aço

ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
V1041					
V1044					
V1047					
V1050					
V1046					
V1049					
VEE1					
CA60	1	5.0	295	117	34515
CA50	2	5.0	61	119	7259
	3	5.0	94	123	11562
	4	6.3	6	509	3054
	5	6.3	2	108	216
	6	6.3	22	120	2640
	7	6.3	3	107	321
	8	6.3	6	499	2994
	9	8.0	4	470	1880
	10	10.0	2	284	568
	11	10.0	2	346	692
	12	10.0	2	273	546
	13	10.0	2	303	606
	14	12.5	4	816	3264
	15	12.5	1	639	639
	16	12.5	2	846	1692
	17	12.5	2	188	376
	18	12.5	1	260	260
	19	12.5	1	257	257
	20	12.5	4	840	3360
	21	12.5	2	459	918
	22	12.5	4	806	3224
	23	12.5	1	290	290
	24	12.5	1	640	640
	25	12.5	1	660	660
	26	12.5	2	833	1666
	27	12.5	2	804	1608
	28	12.5	2	271	542
	29	12.5	1	283	283
	30	12.5	3	270	810
	31	12.5	1	330	330
	32	12.5	2	820	1640
	33	12.5	2	805	1610
	34	12.5	2	852	1704
	35	12.5	2	311	622
	36	12.5	2	533	1066
	37	12.5	1	583	583
	38	12.5	2	590	1180
	39	12.5	2	794	1588
	40	12.5	2	250	500
	41	12.5	1	315	315
	42	12.5	1	639	639
	43	12.5	2	816	1632
	44	12.5	2	1100	2200
	45	12.5	2	767	1534
	46	12.5	1	620	620
	47	12.5	2	1197	2394
	48	12.5	2	795	1590

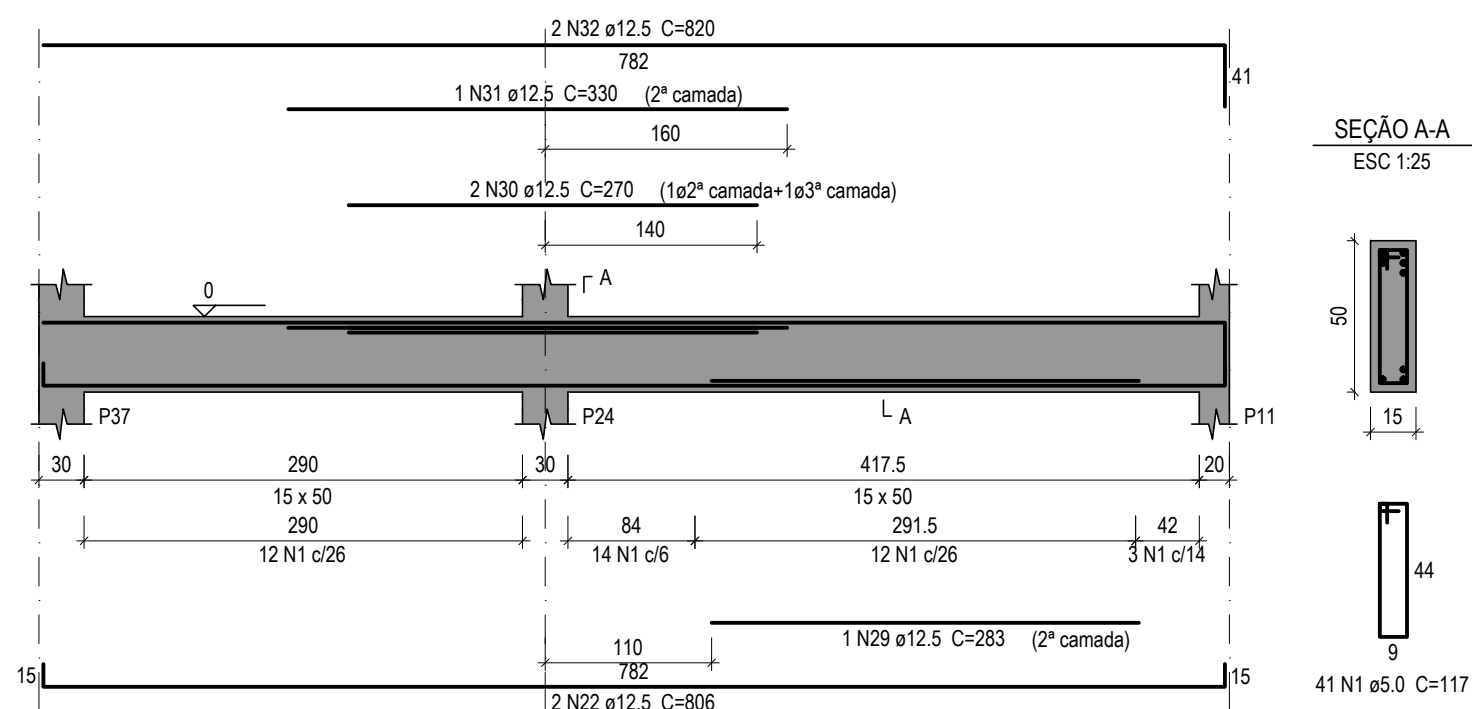
V1044
ESC 1:50



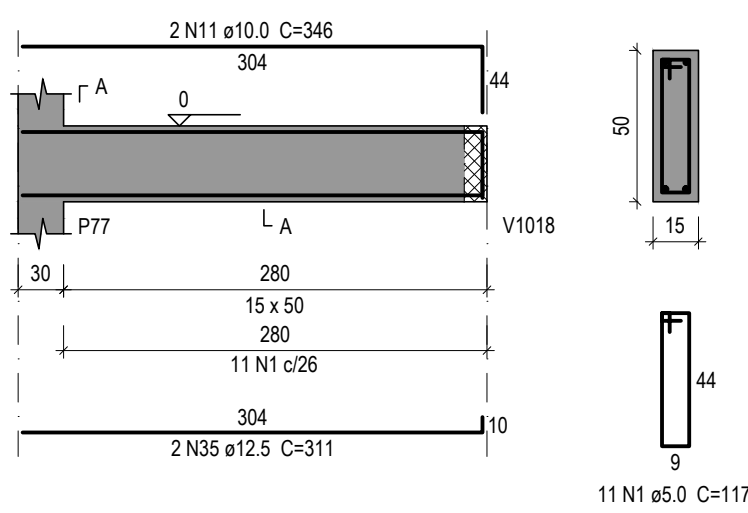
V1045
ESC 1:50



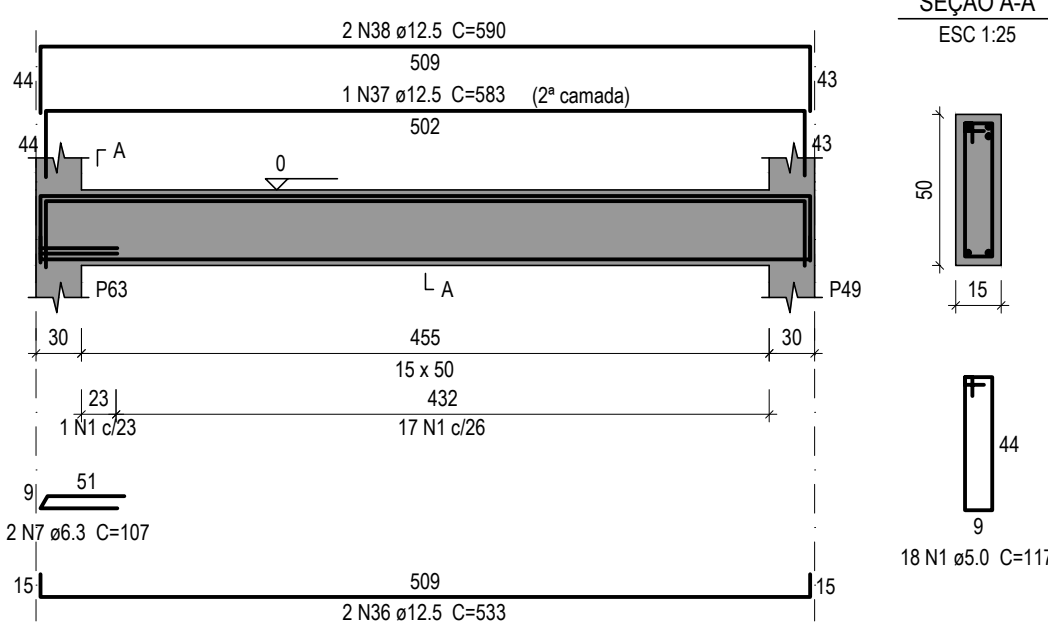
V1046
ESC 1:50



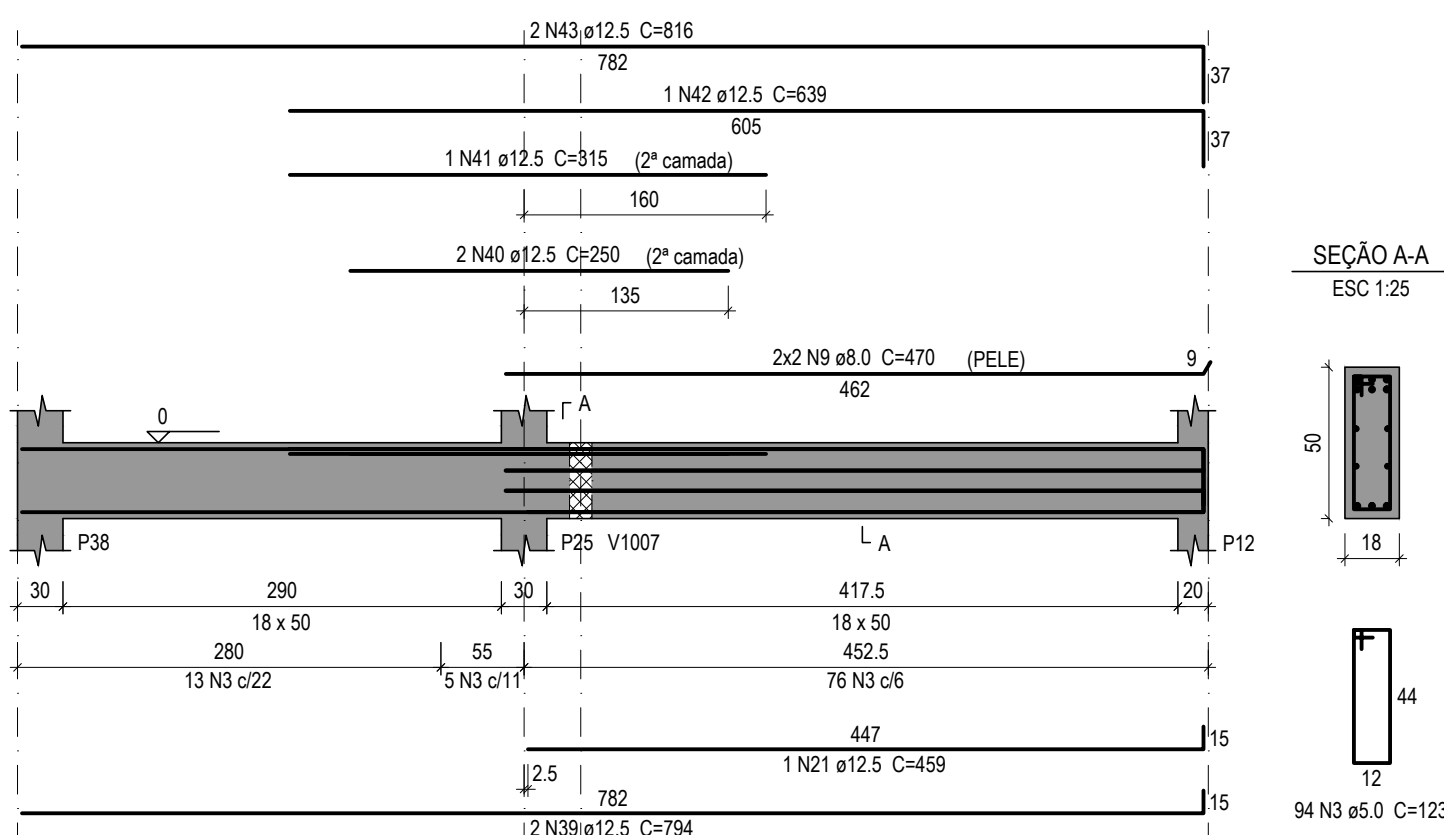
V1048
ESC 1:50



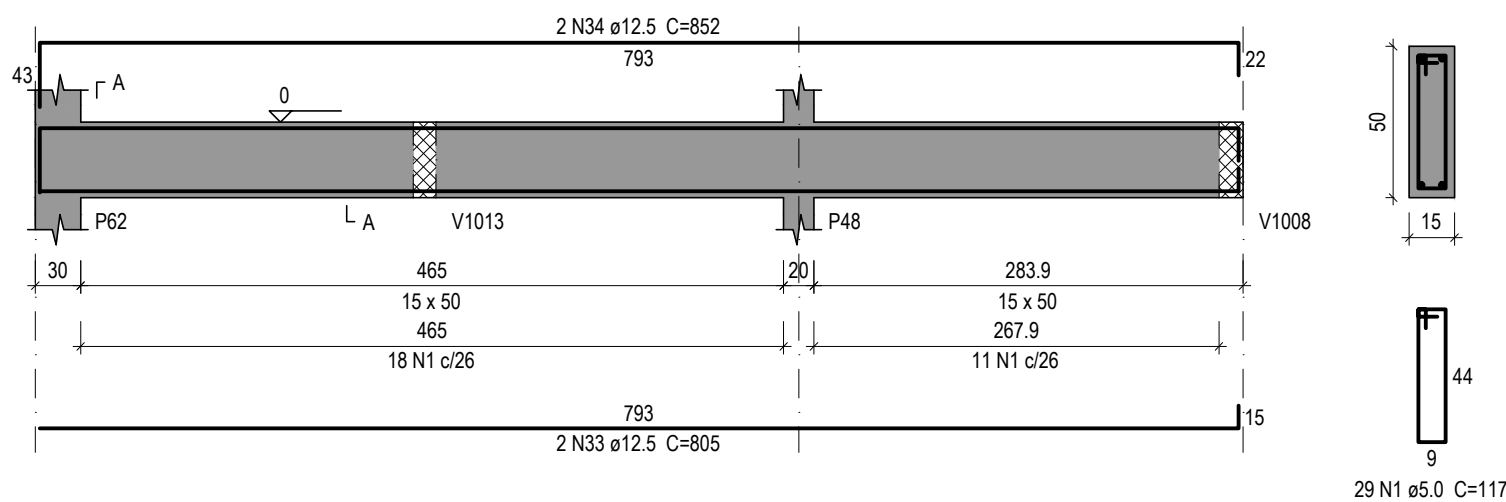
V1049
ESC 1:50



V1050
ESC 1:50



V1047
ESC 1:50

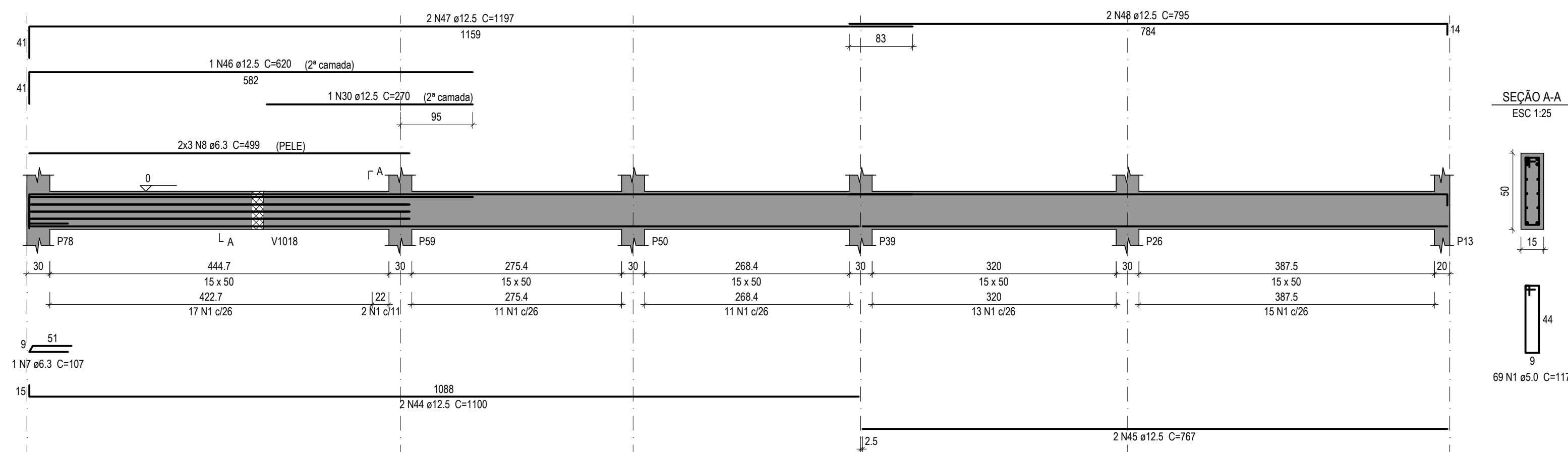


Resumo do aço

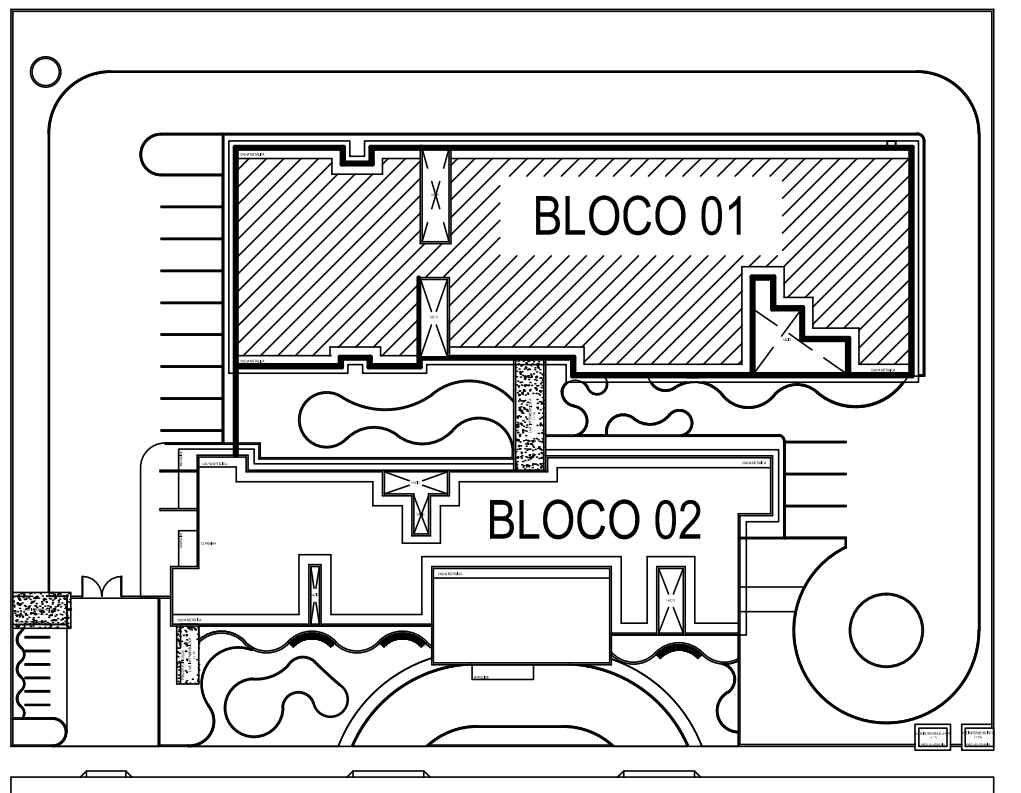
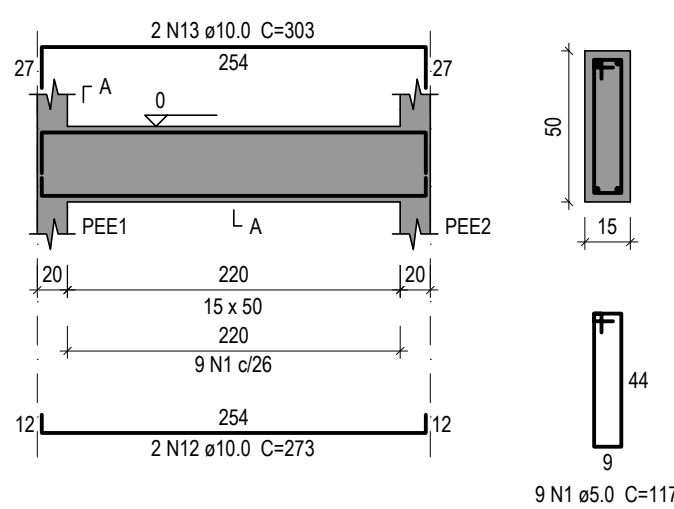
ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	92.3	24.8
	8.0	18.8	8.2
	10.0	24.2	16.4
	12.5	422.4	447.6
CA60	5.0	533.4	90.4
PESO TOTAL (kg)			
CA50		496.9	
CA60		90.4	

Volume de concreto (C-25) = 6.07 m³
Área de forma = 76.46 m²

V1051
ESC 1:50



VEE1
ESC 1:50



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRIAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL

ASSUNTO:

FORMA E ARMAÇÃO DAS VIGAS

BALDRAME - FL 04

ESCALA

INDICADA

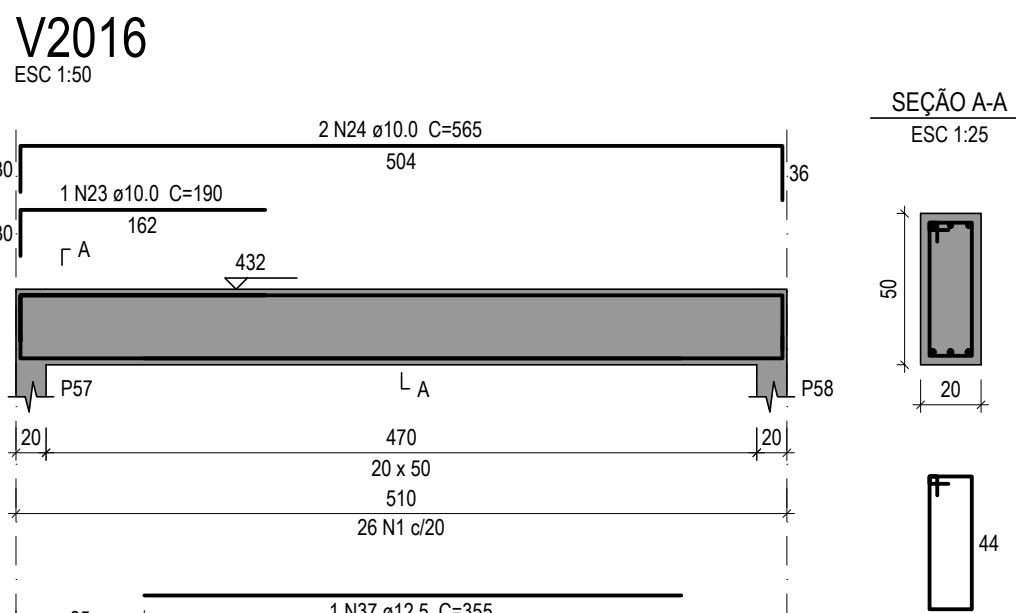
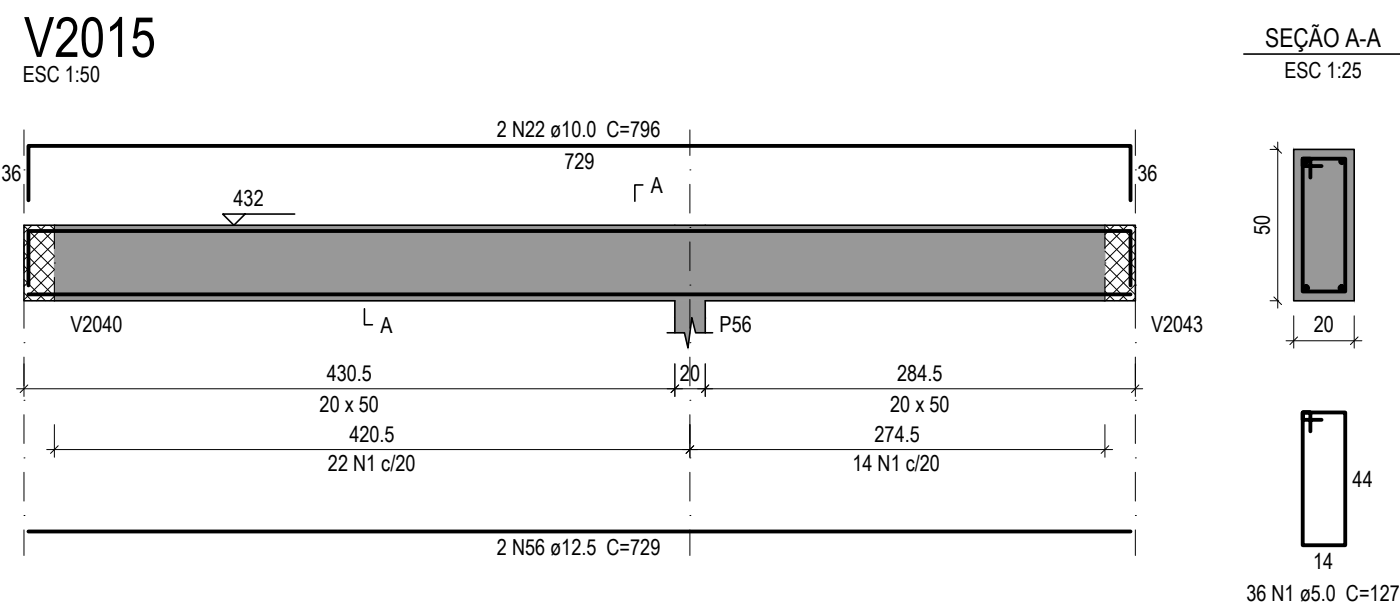
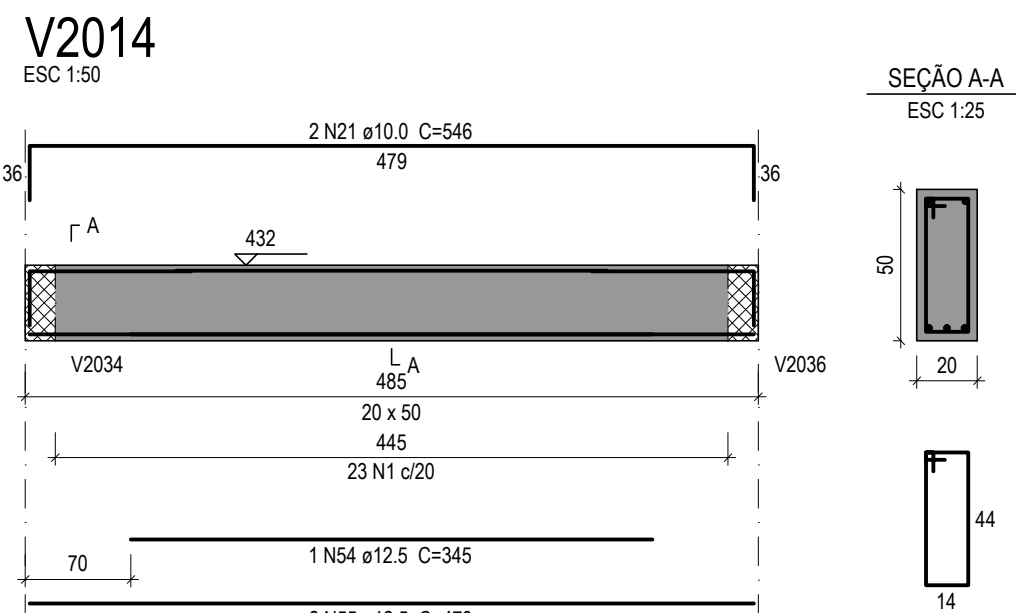
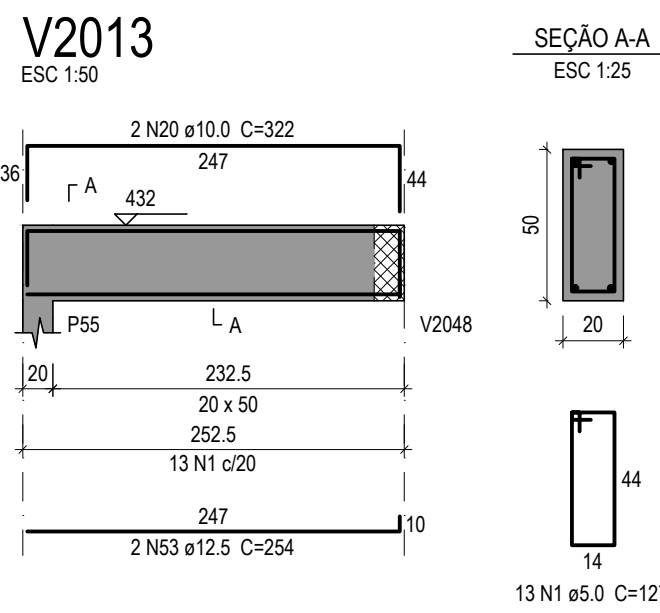
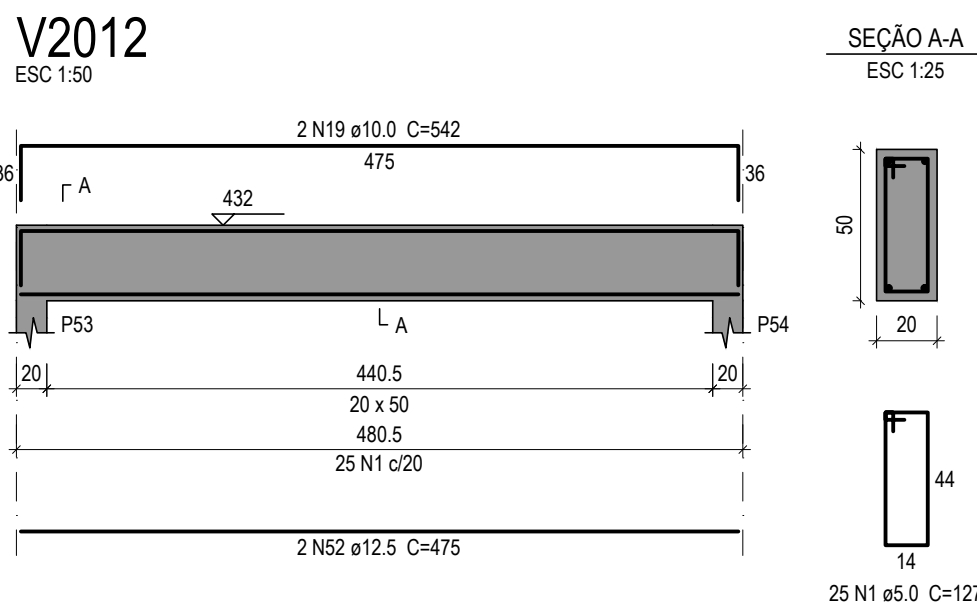
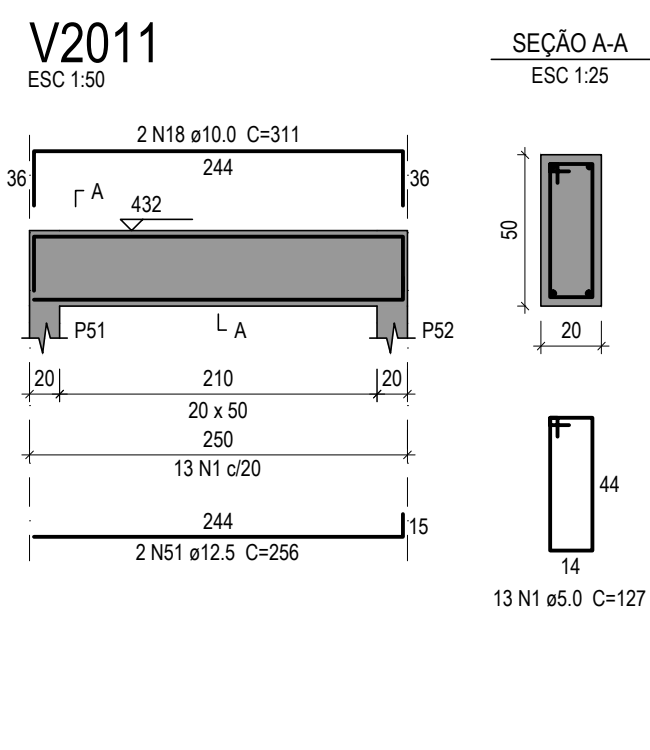
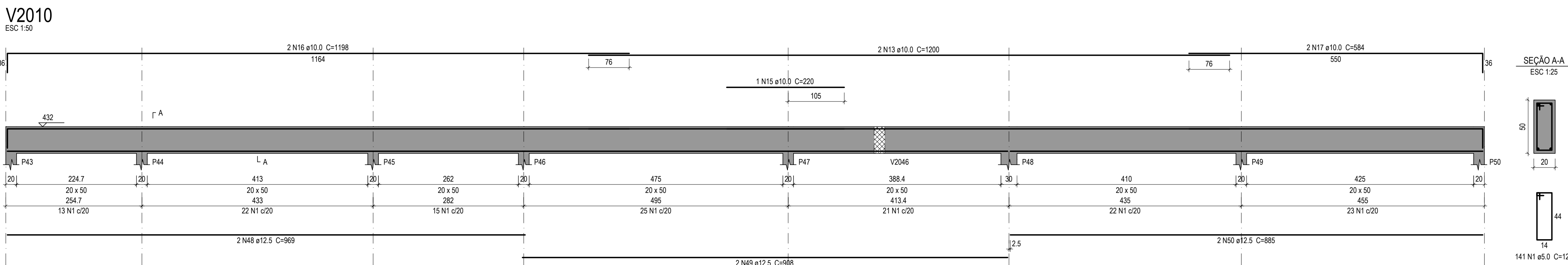
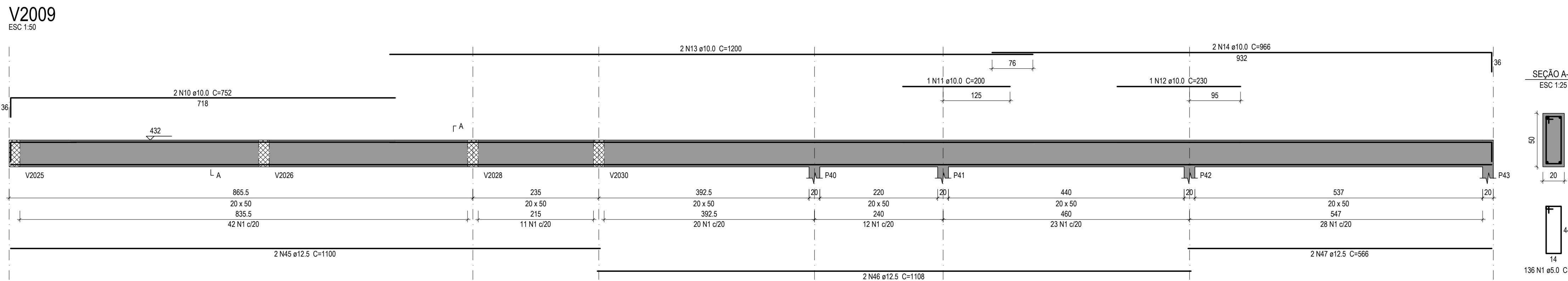
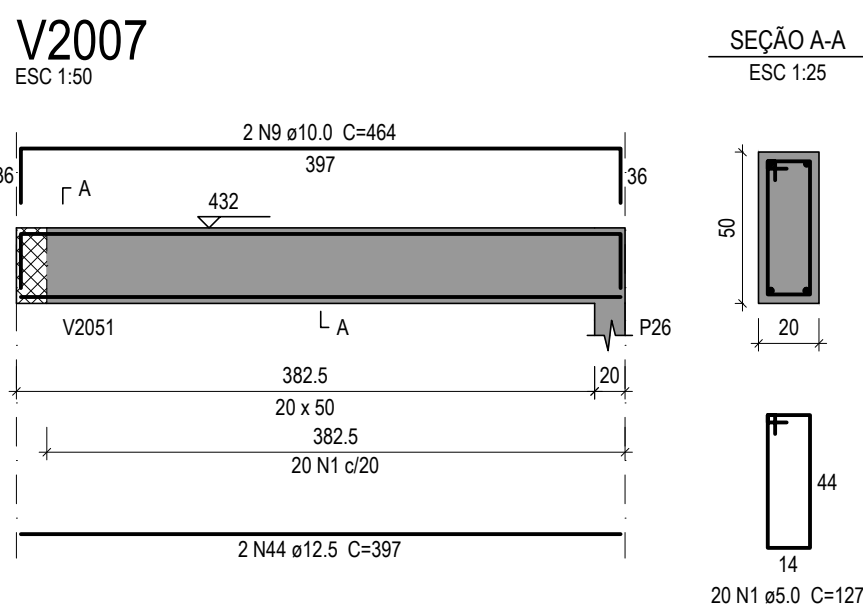
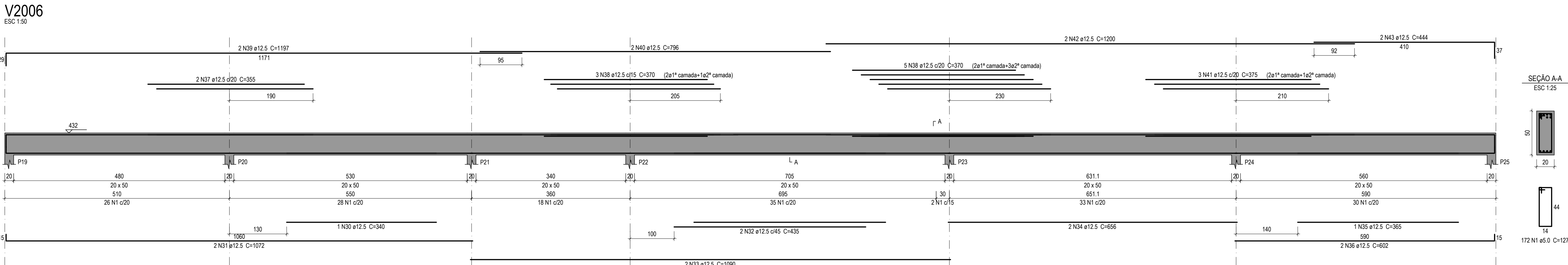
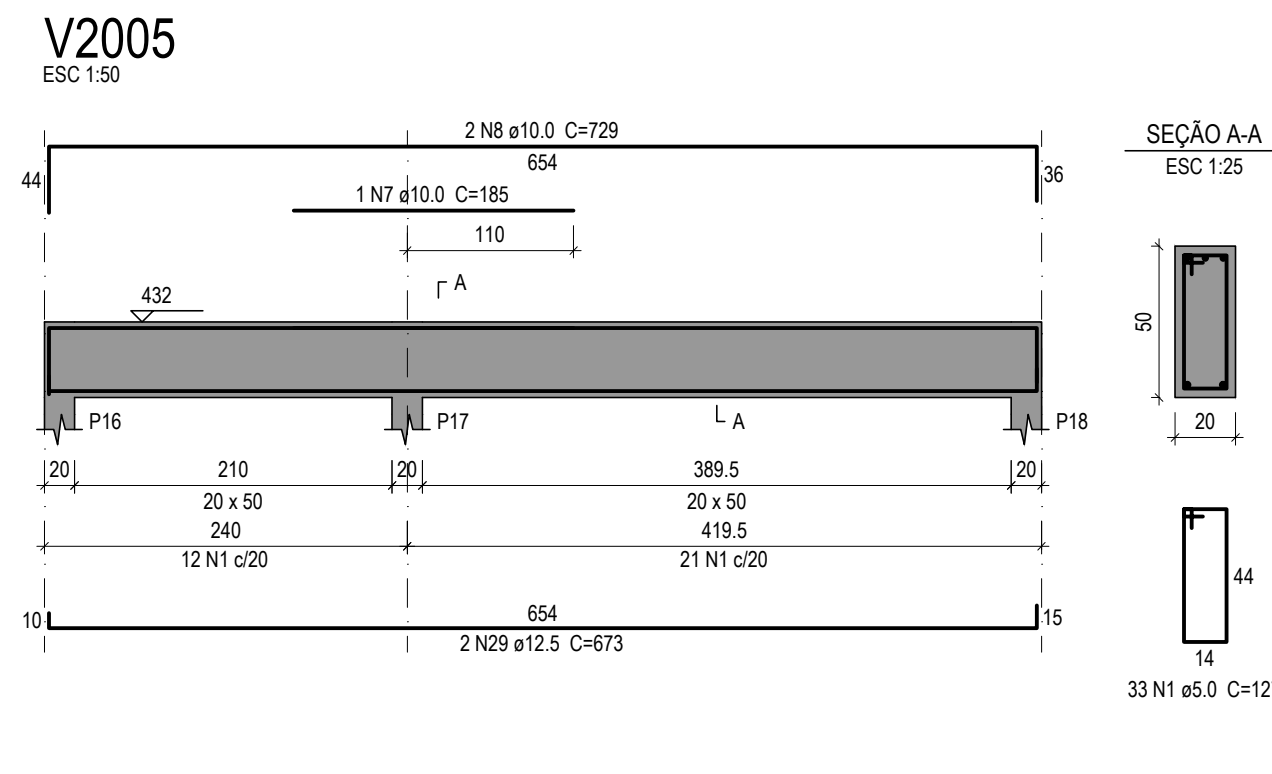
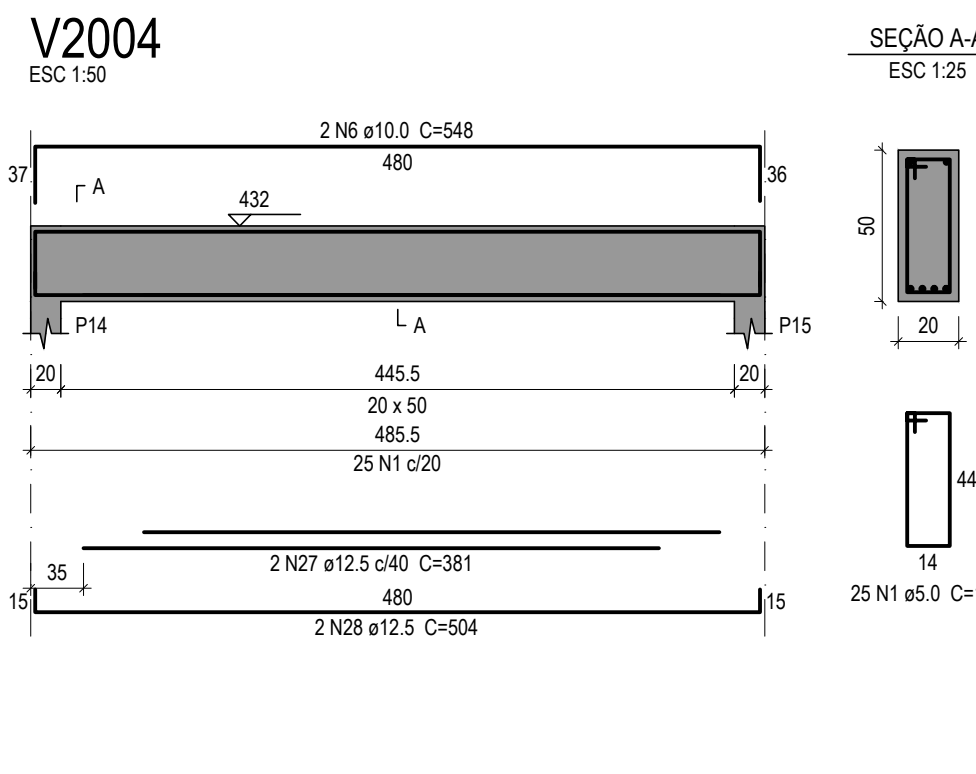
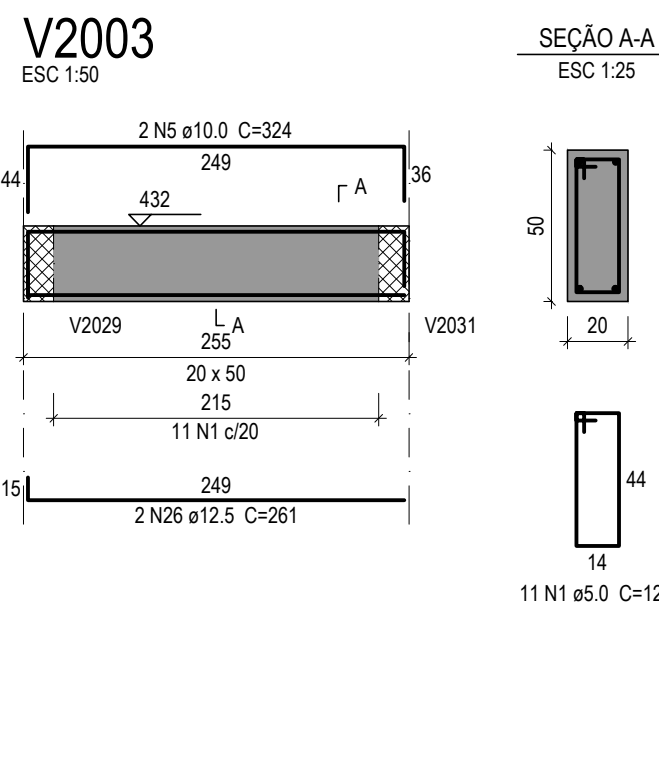
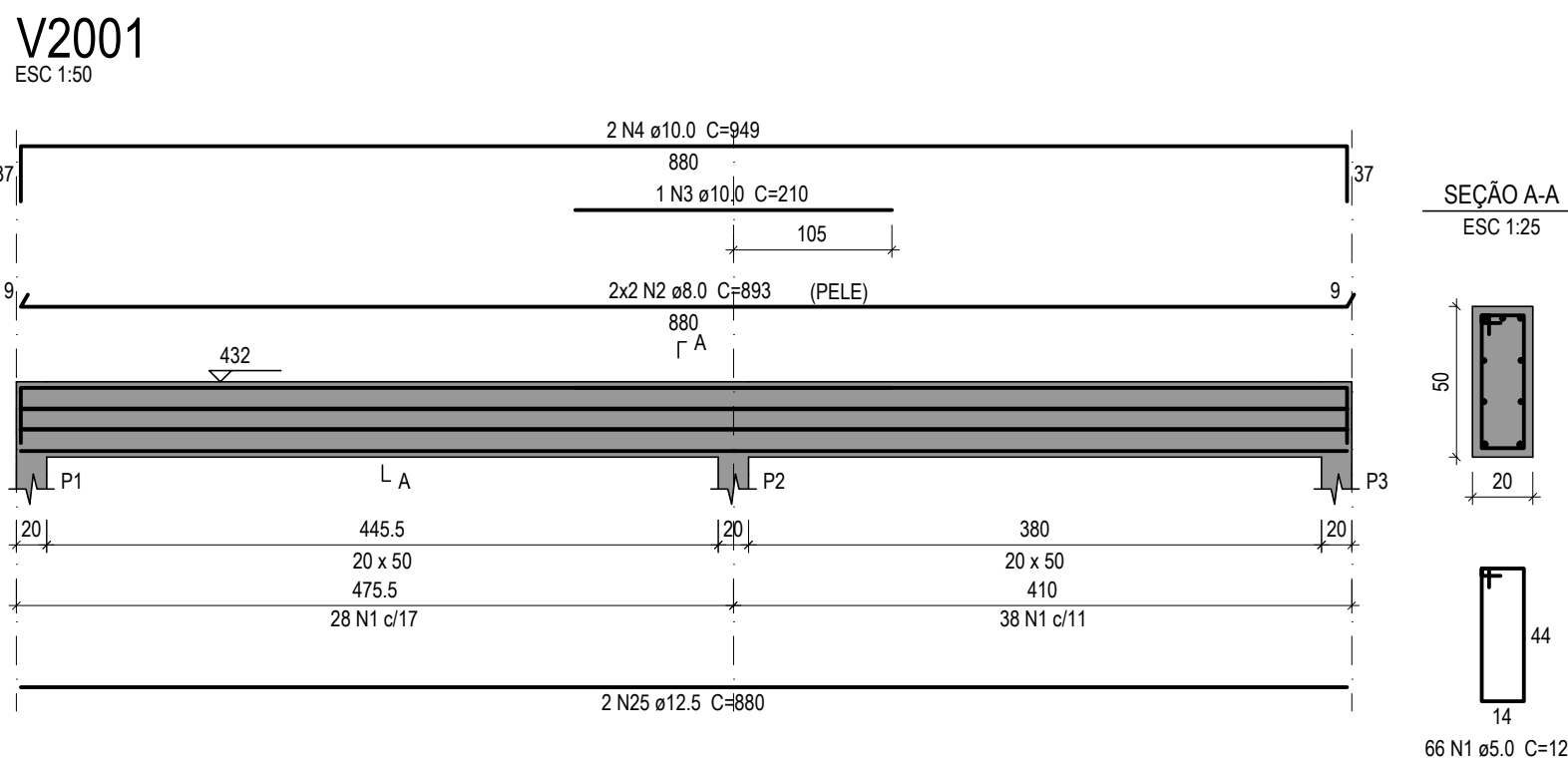


DATA
ABR/2026

REVISÃO
02

ARQUIVO
-

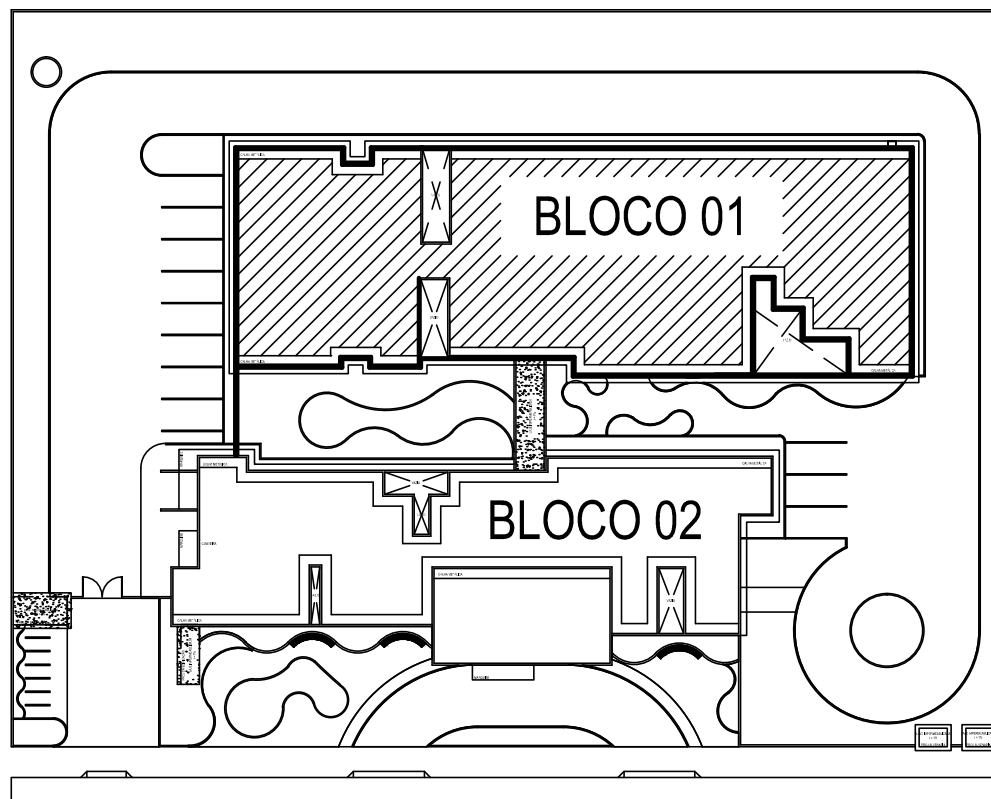
PRANCHA
18/45



Relação do aço					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	740	127	93980
CA50	2	8.0	4	893	3572
	3	10.0	1	210	210
	4	10.0	2	949	1898
	5	10.0	2	324	648
	6	10.0	2	548	1096
	7	10.0	1	185	185
	8	10.0	2	729	1458
	9	10.0	2	464	928
	10	10.0	2	752	1504
	11	10.0	1	200	200
	12	10.0	1	230	230
	13	10.0	4	1200	4800
	14	10.0	2	966	1932
	15	10.0	1	220	220
	16	10.0	2	1198	2396
	17	10.0	2	584	1168
	18	10.0	2	311	622
	19	10.0	2	542	1084
	20	10.0	2	322	644
	21	10.0	2	546	1092
	22	10.0	2	736	1472
	23	10.0	1	190	190
	24	10.0	2	565	1130
	25	10.0	2	800	1600
	26	12.5	2	261	522
	27	12.5	2	381	762
	28	12.5	2	504	1008
	29	12.5	2	673	1346
	30	12.5	1	340	340
	31	12.5	2	1072	2144
	32	12.5	2	435	870
	33	12.5	2	1096	2192
	34	12.5	2	656	1312
	35	12.5	1	365	365
	36	12.5	2	602	1204
	37	12.5	3	355	1065
	38	12.5	8	370	2960
	39	12.5	2	1197	2394
	40	12.5	2	796	1592
	41	12.5	3	375	1125
	42	12.5	2	1200	2400
	43	12.5	2	444	888
	44	12.5	2	397	794
	45	12.5	2	1100	2200
	46	12.5	2	1108	2216
	47	12.5	2	566	1132
	48	12.5	2	969	1938
	49	12.5	2	908	1816
	50	12.5	2	685	1370
	51	12.5	2	256	512
	52	12.5	2	475	950
	53	12.5	2	254	508
	54	12.5	2	345	690
	55	12.5	2	479	958
	56	12.5	2	729	1458
	57	12.5	2	528	1056

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO = 10 % (kg)
CA50	8.0	35.8	15.5
	10.0	252.3	171.1
	12.5	438.9	465.1
CA60	5.0	939.8	159.3
PESO TOTAL (kg)			
CA50	661.7		
CA60	159.3		

Volume de concreto (C-25) = 13.48 m³
Área de forma = 124.48 m²



SECRETARIA DE SAÚDE

PROJETO: **PROJETO ESTRUTURAL HOSPITAL DISTRITAL**

INTERESSADO: **PREFEITURA DE SOBRAL**

ENDEREÇO: _____

MUNICÍPIO: **SOBRAL**

ASSUNTO: **FORMA E ARMAÇÃO DAS VIGAS COBERTA - FL 01**

ESCALA: _____

INDICADA: _____

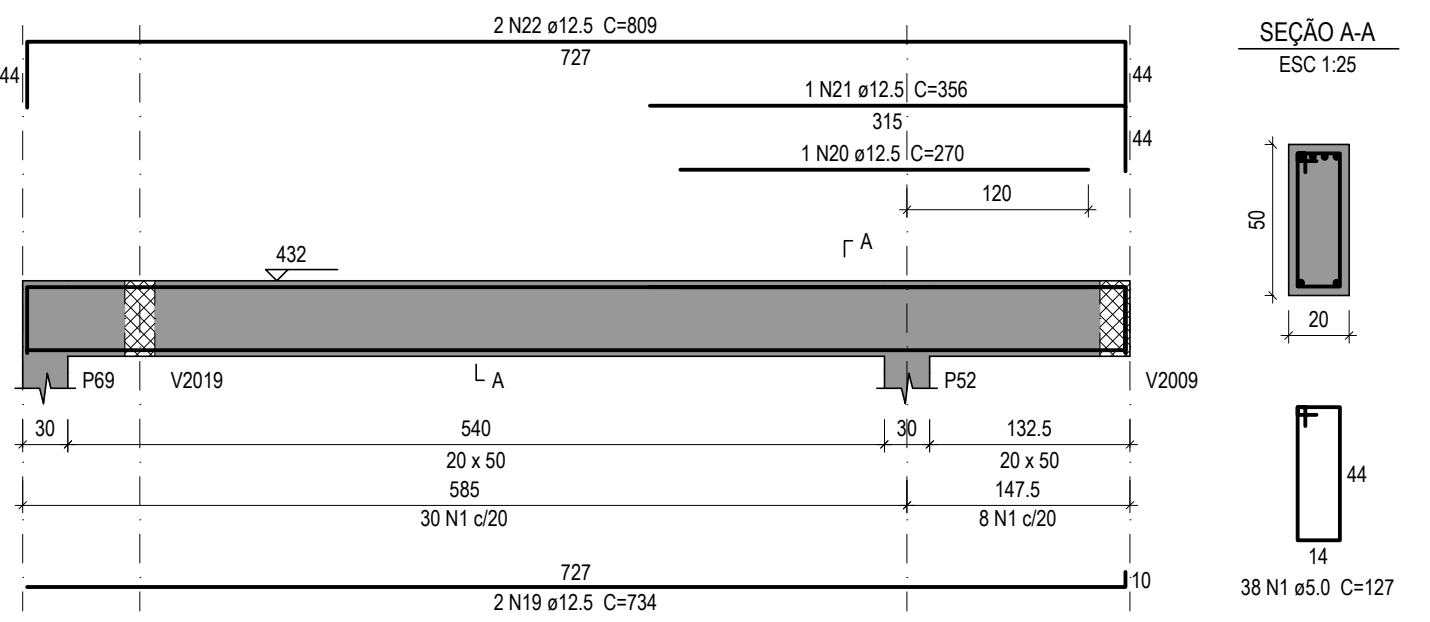
DATA: **ABR/2026**

REVISÃO: **02**

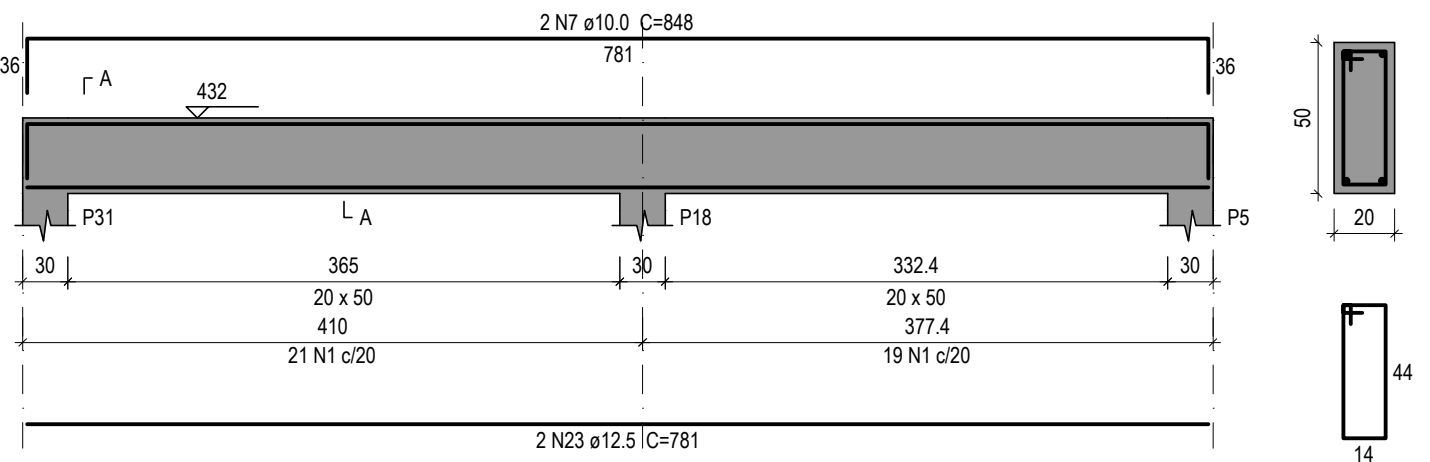
ARQUIVO: _____

PRANCHA: **20/45**

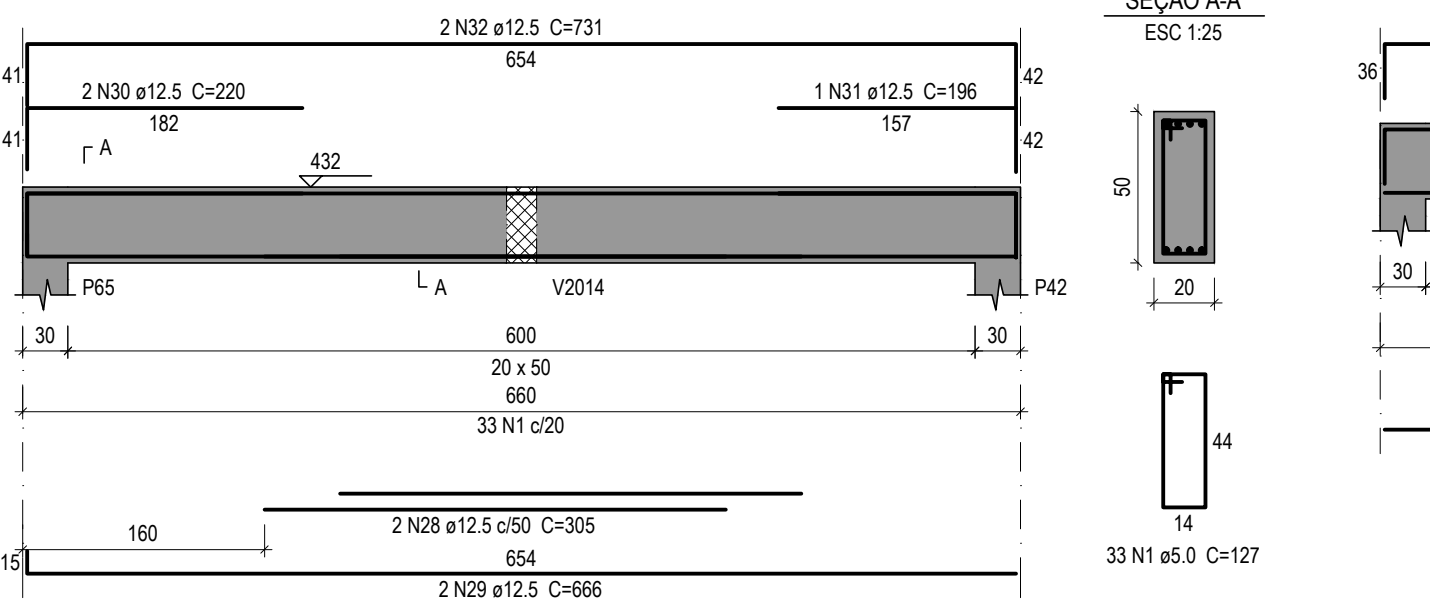
V2030
ESC 1:50



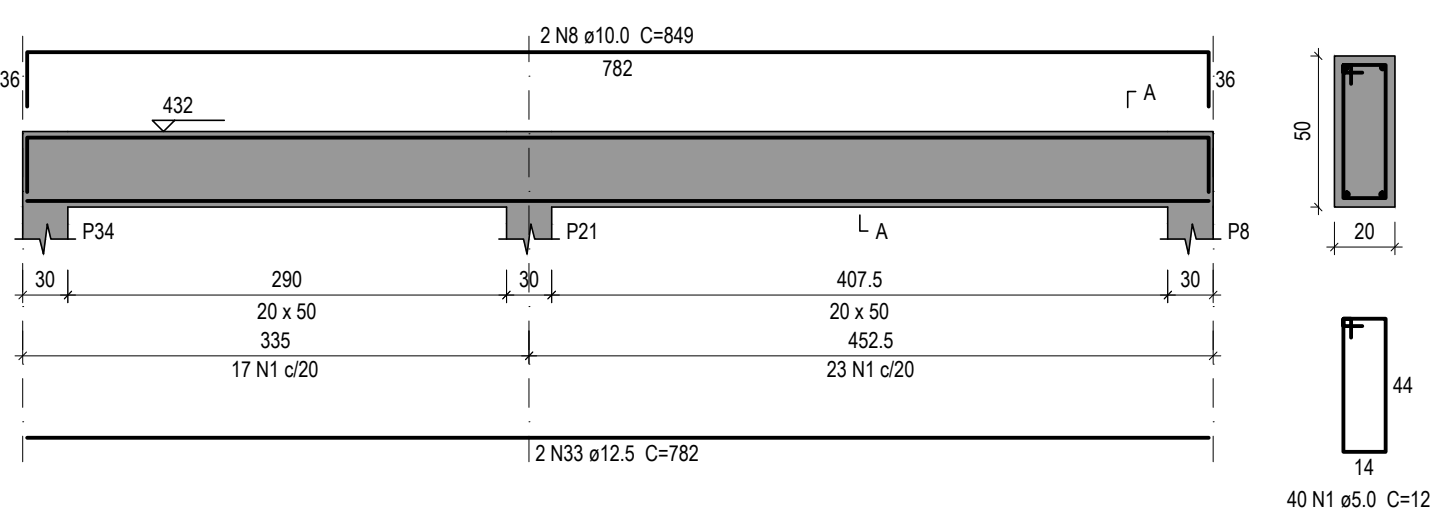
V2033
ESC 1:50



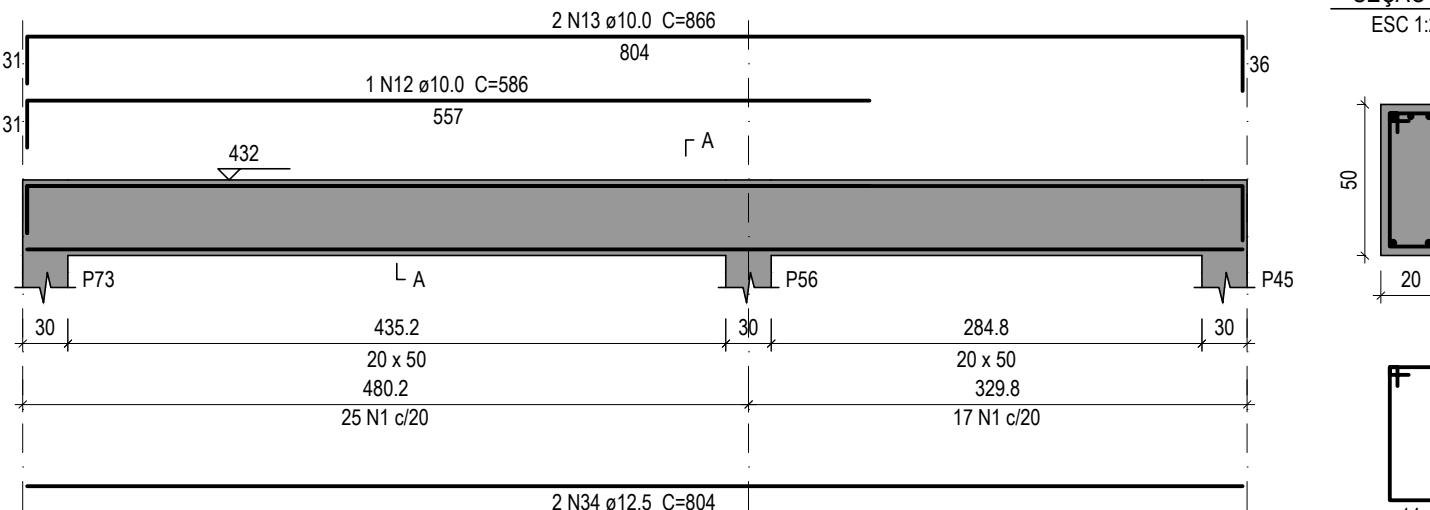
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ESC 1:50



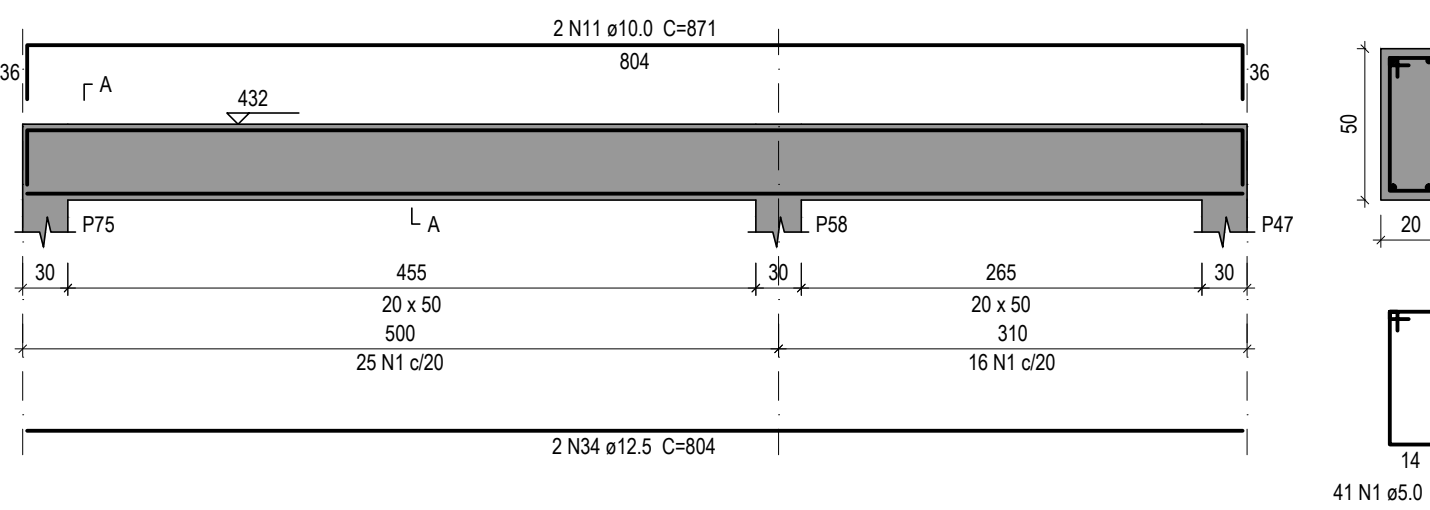
V2039
ESC 1:50



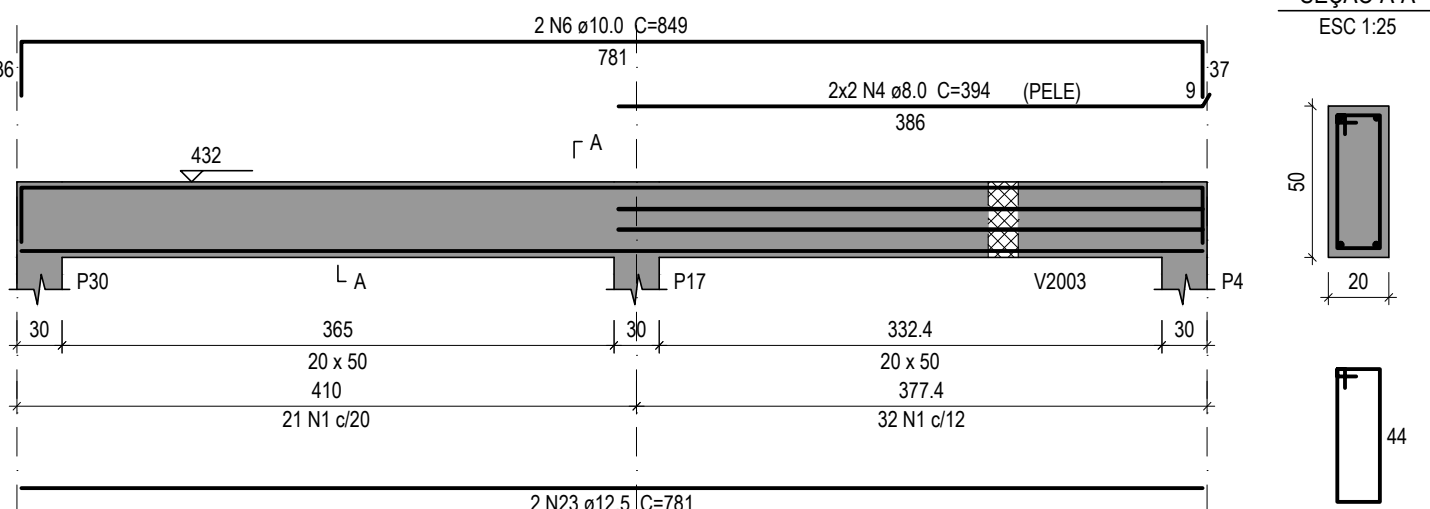
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ESC 1:50



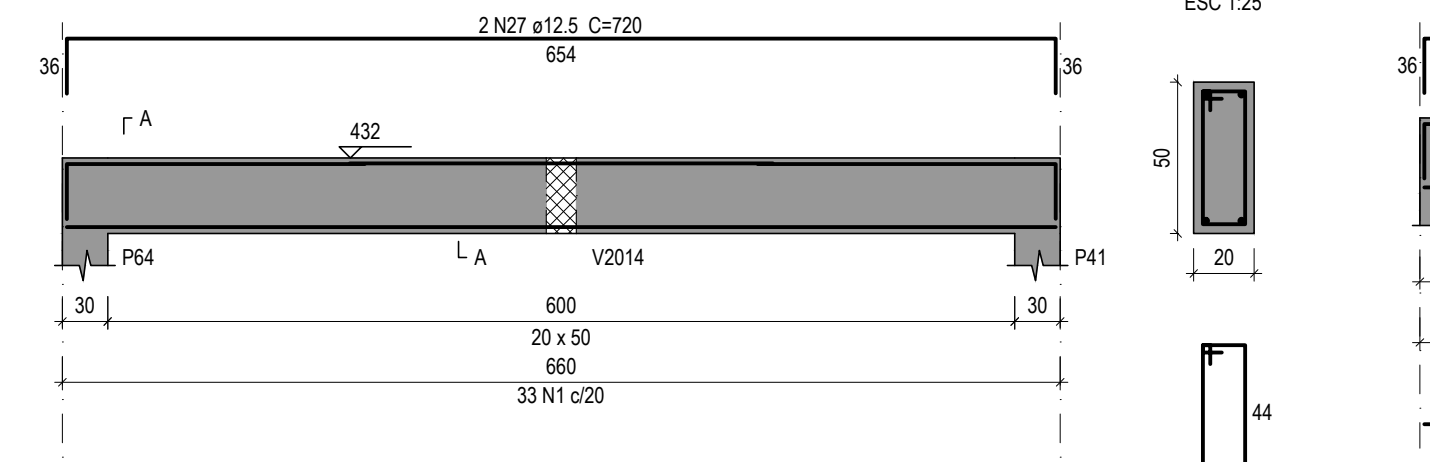
V2045
ESC 1:50



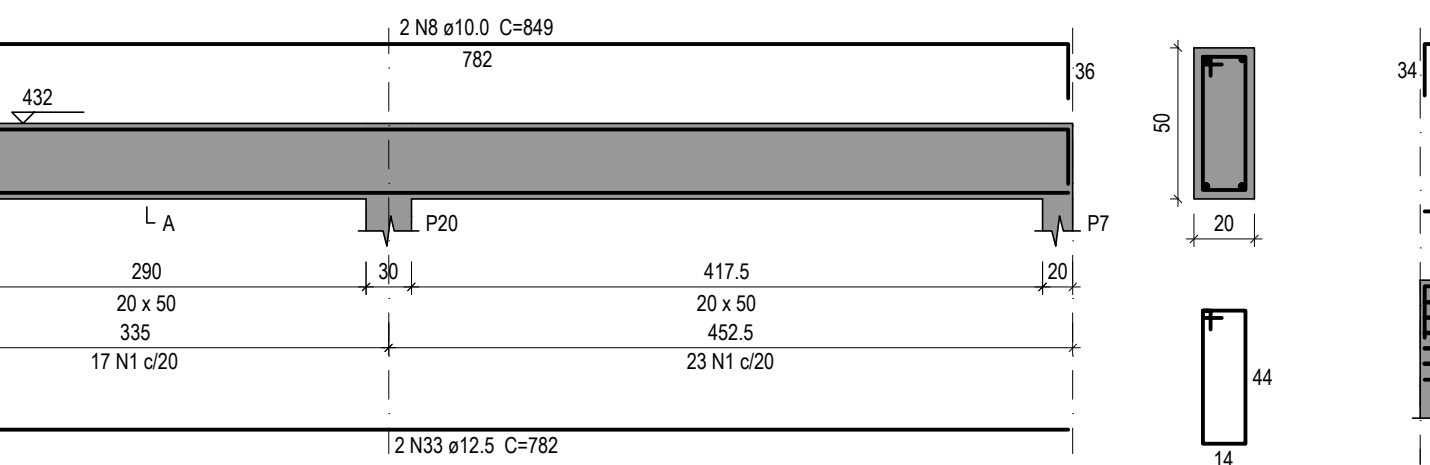
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ESC 1:50



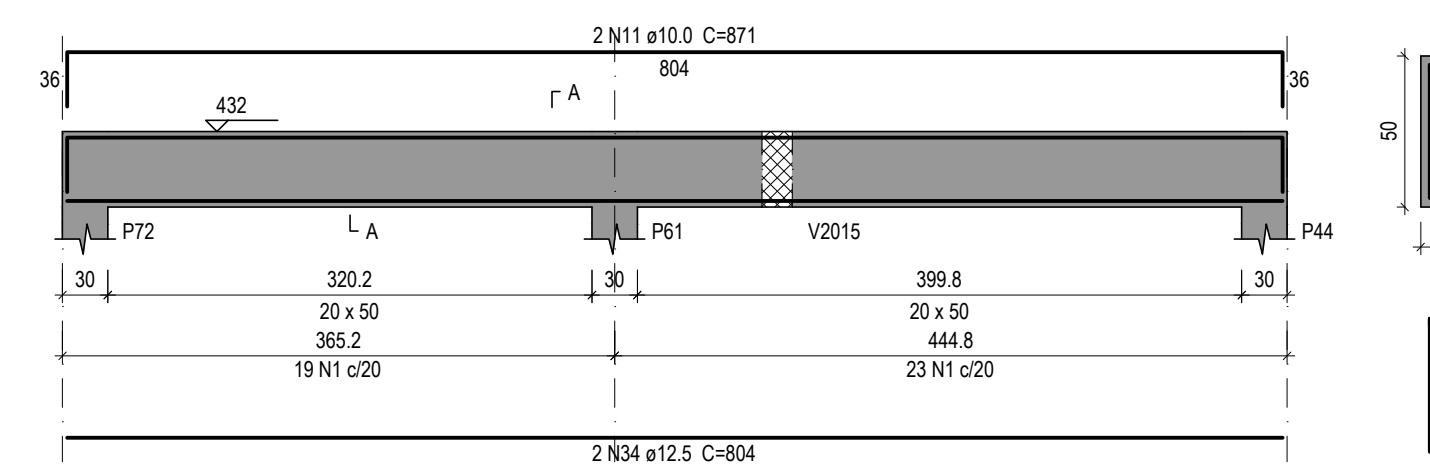
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ESC 1:50



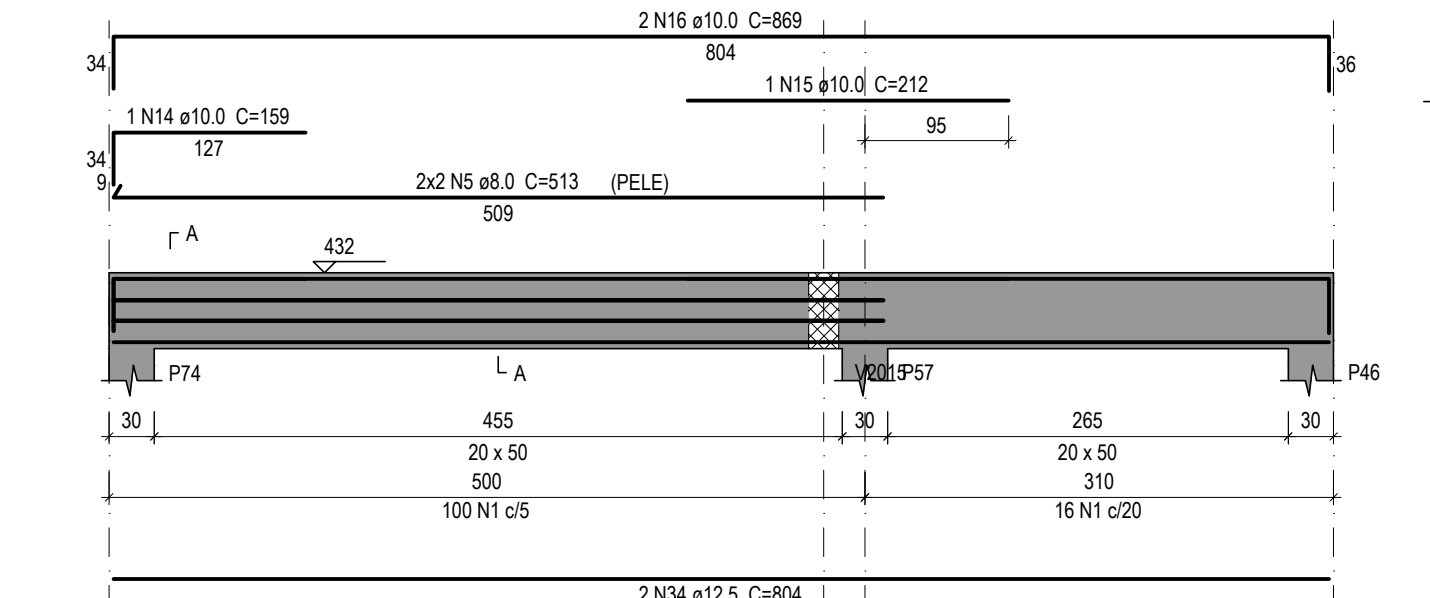
V2037
ESC 1:50



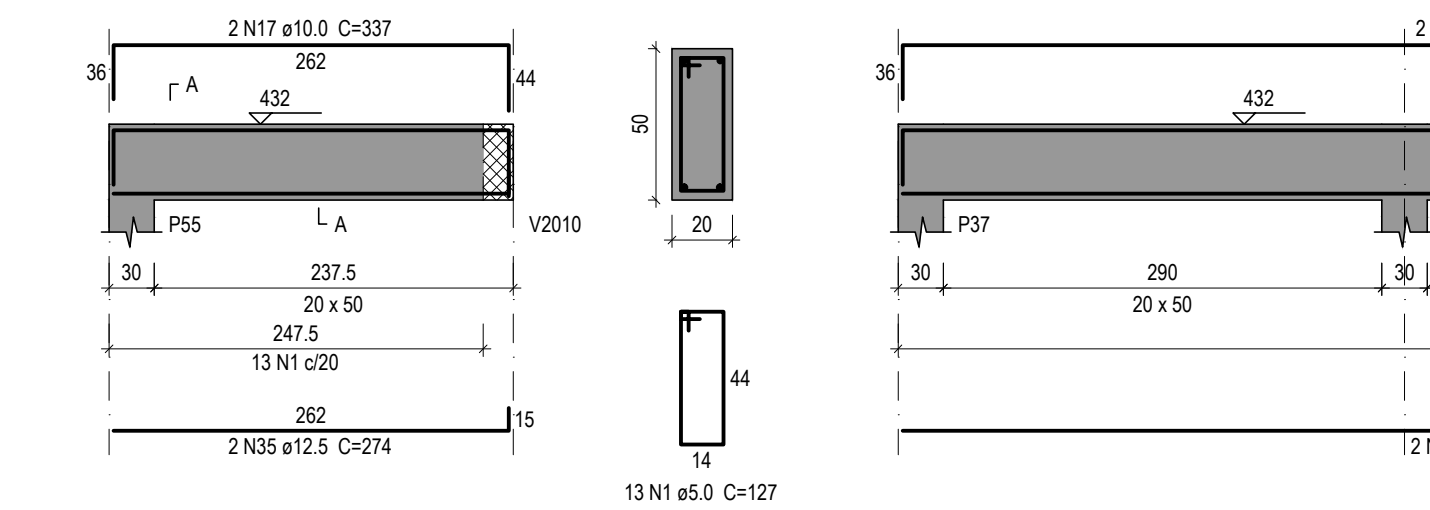
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ESC 1:50



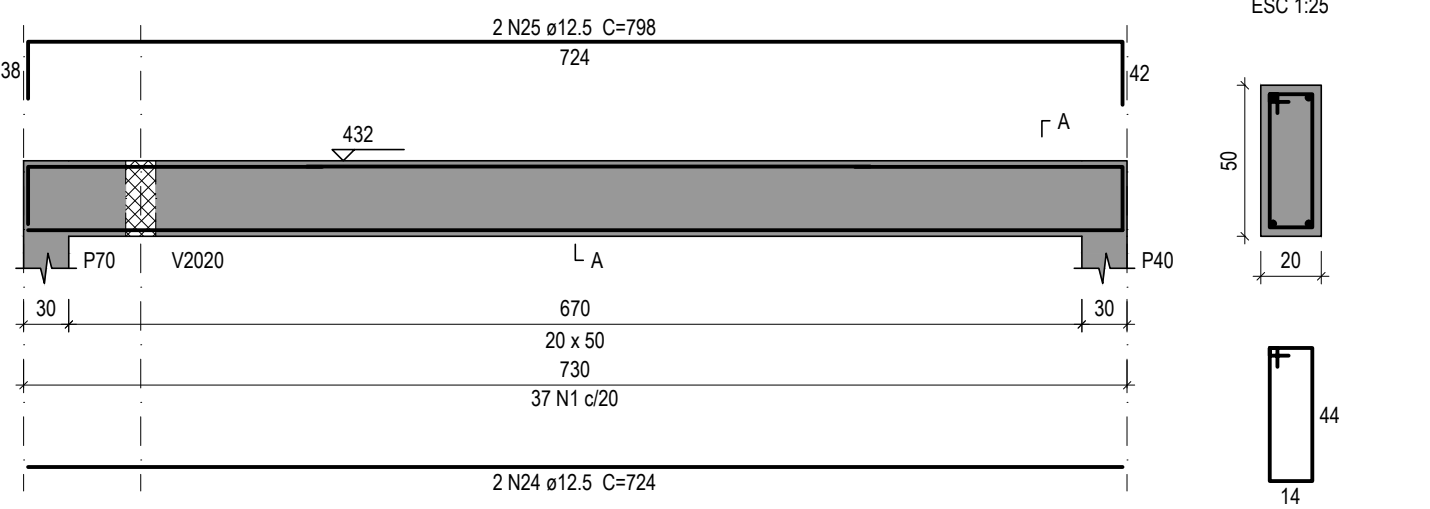
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ESC 1:50



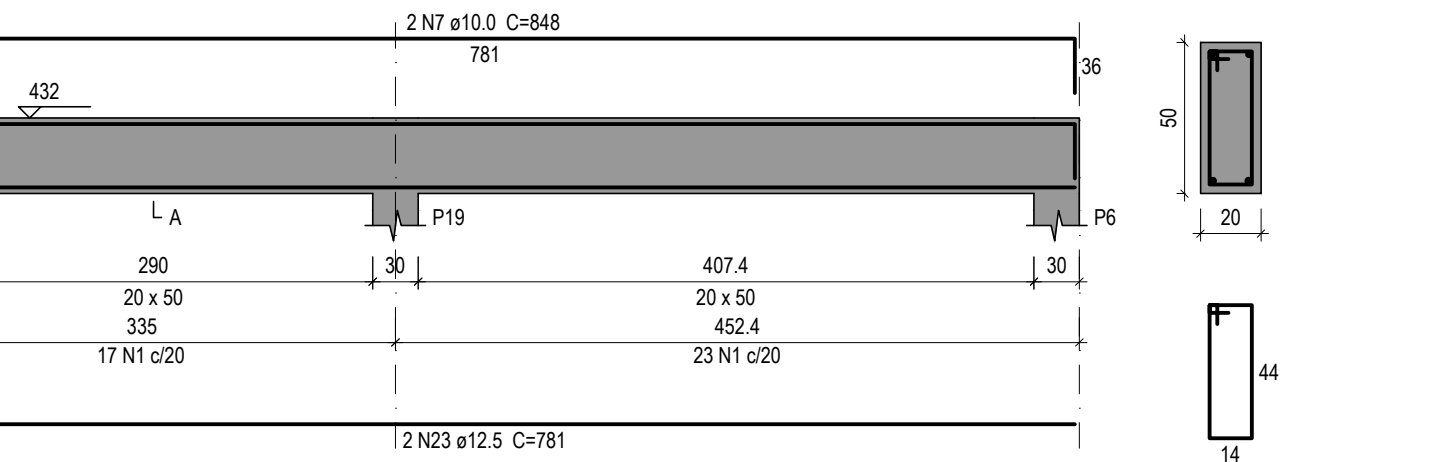
V2046
ESC 1:50



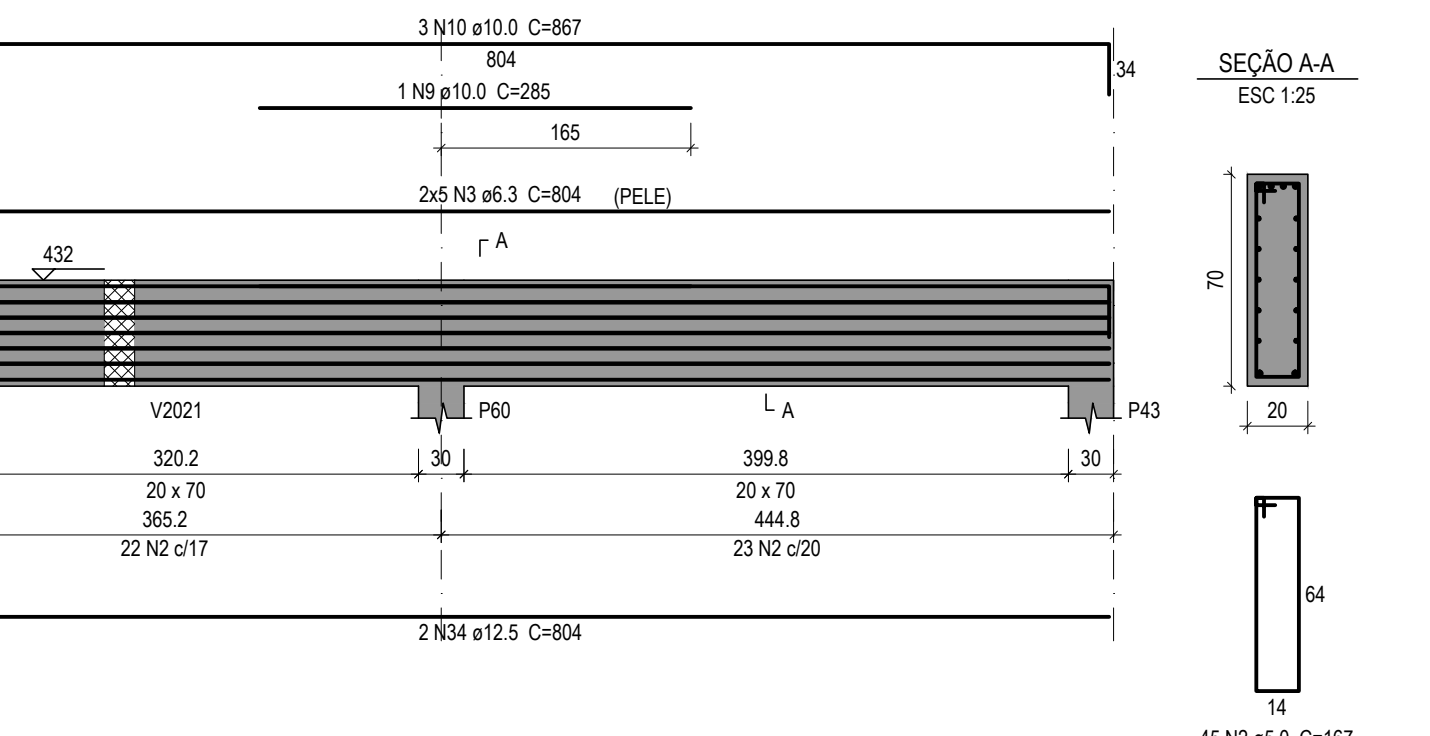
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ESC 1:50



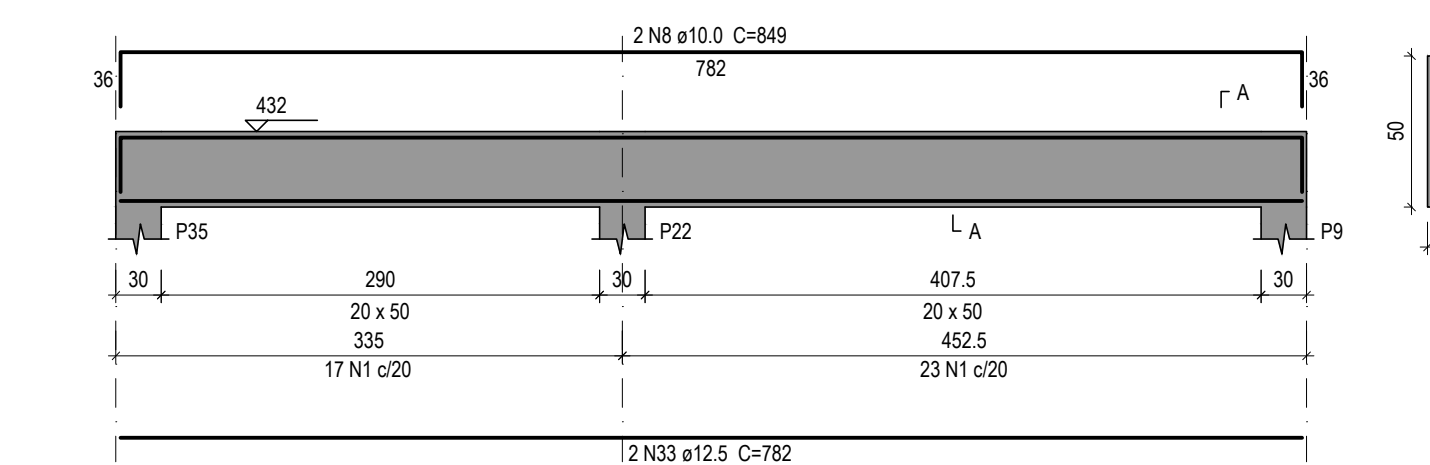
V2035
ESC 1:50



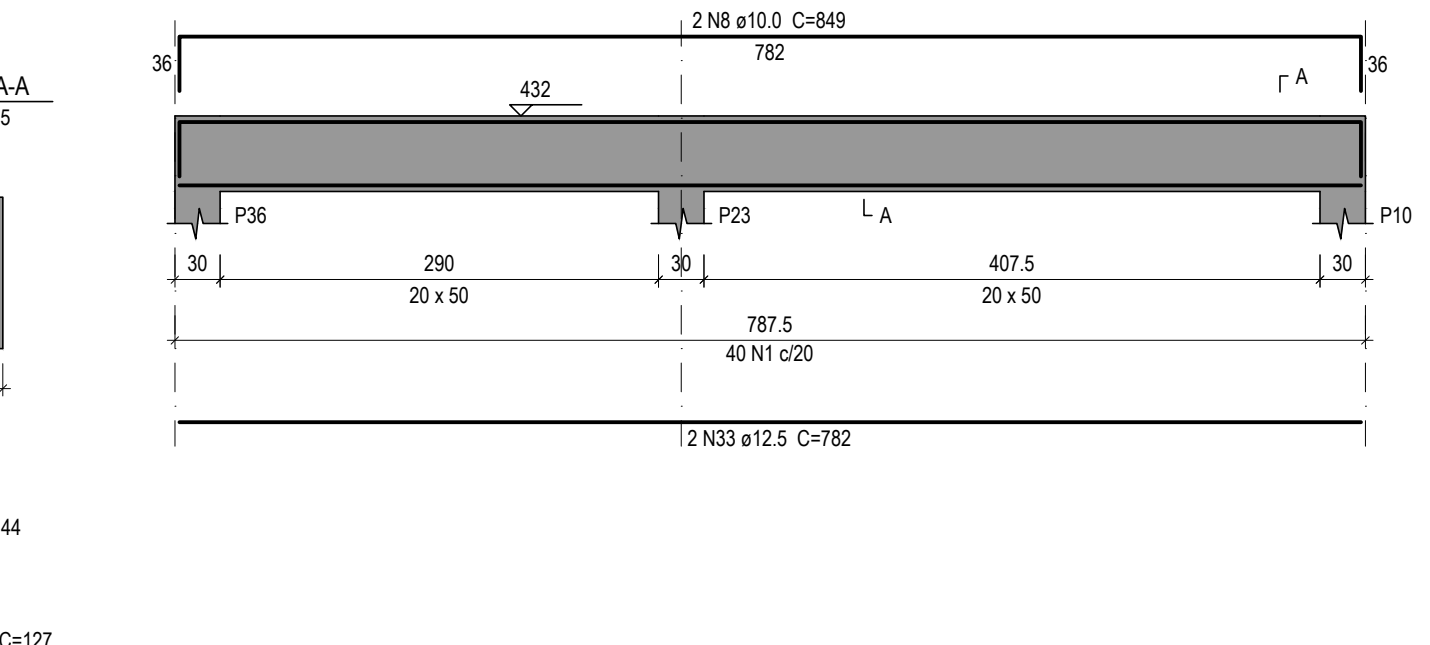
V2038
ESC 1:50



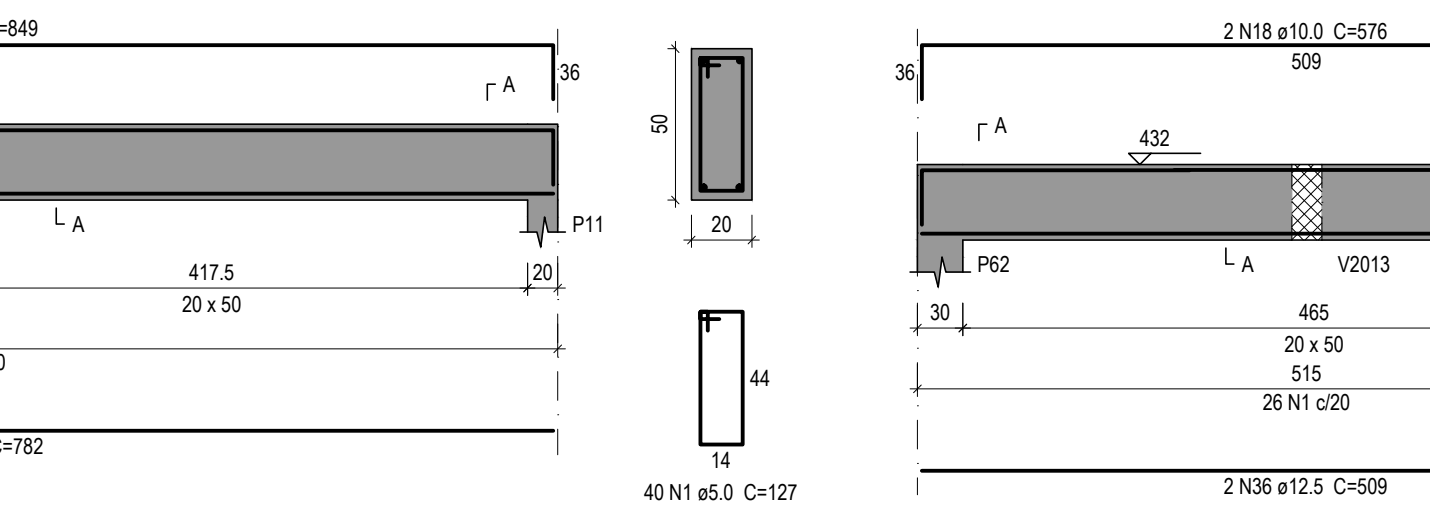
V2041
ESC 1:50



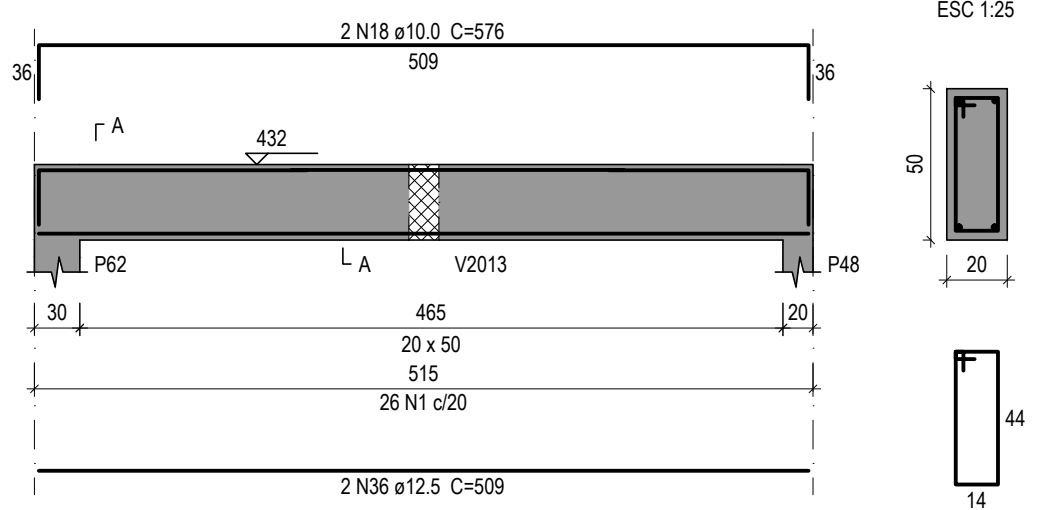
V2044
ESC 1:50



V2047
ESC 1:50



V2048
ESC 1:50



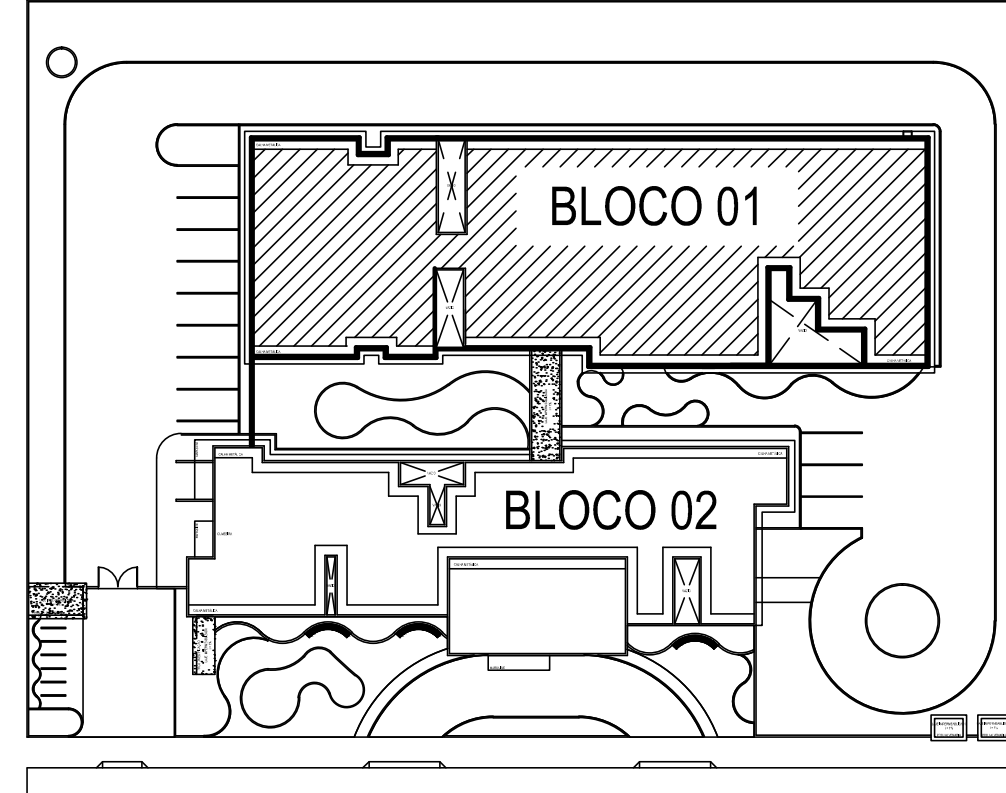
Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	754	127	95758
V2033	2	5.0	45	167	7515
V2036	3	6.3	10	804	8040
V2039	4	8.0	4	394	1576
V2042	5	8.0	4	513	2052
V2045	6	10.0	2	849	1698
V2048	7	10.0	4	848	3392
	8	10.0	10	849	8490
	9	10.0	1	285	285
	10	10.0	3	867	2601
	11	10.0	4	871	3484
	12	10.0	1	586	586
	13	10.0	2	866	1732
	14	10.0	1	159	159
	15	10.0	1	212	212
	16	10.0	2	869	1738
	17	10.0	2	337	674
	18	10.0	2	576	1152
	19	12.5	2	734	1468
	20	12.5	1	270	270
	21	12.5	1	356	356
	22	12.5	2	809	1618
	23	12.5	6	781	4686
	24	12.5	2	724	1448
	25	12.5	2	798	1596
	26	12.5	2	654	1308
	27	12.5	2	720	1440
	28	12.5	2	305	610
	29	12.5	2	666	1332
	30	12.5	2	220	440
	31	12.5	1	196	196
	32	12.5	2	731	1462
	33	12.5	10	782	7820
	34	12.5	10	804	8040
	35	12.5	2	274	548
	36	12.5	2	509	1018

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	80.4	21.6
	8.0	36.3	15.7
	10.0	262.1	177.7
	12.5	366.6	377.8
CA60	5.0	1032.8	175.1
PESO TOTAL (kg)			
CA50		592.9	
CA60		175.1	

Volume de concreto (C-25) = 12.84 m³
Área de forma = 123.91 m²



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL

ASSUNTO:

FORMA E ARMAÇÃO DAS VIGAS
COBERTA - FL 03

SOBRAL
PREFEITURA

ESCALA

INDICADA

DATA

ABR/2026

REVISÃO

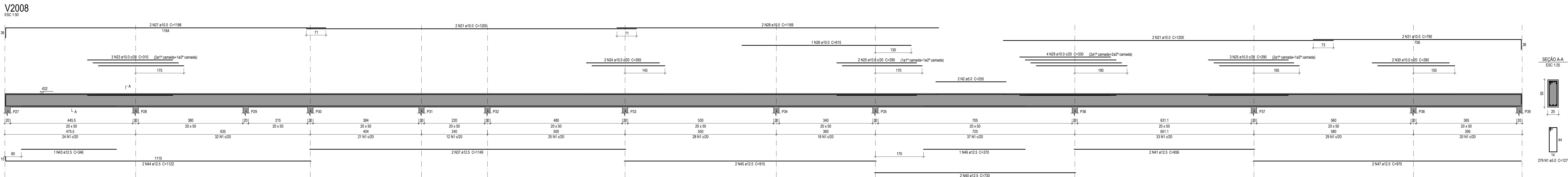
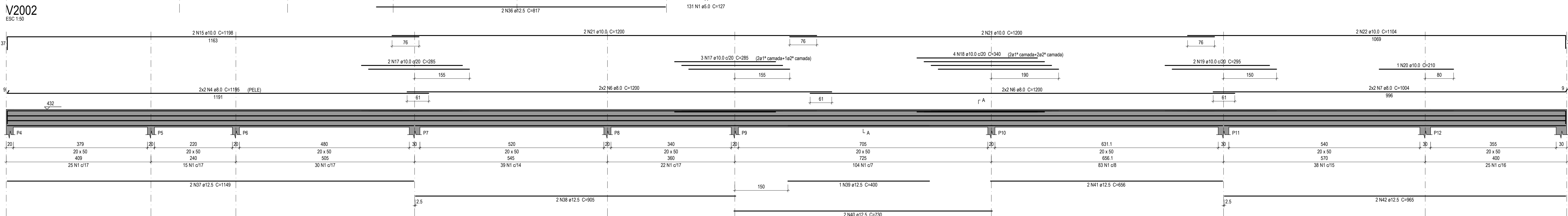
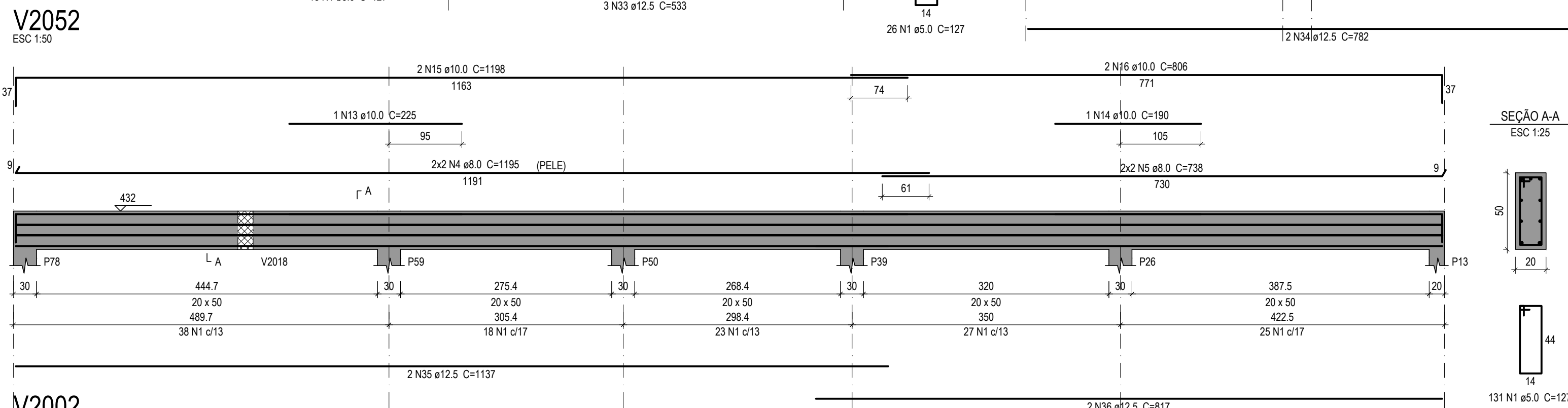
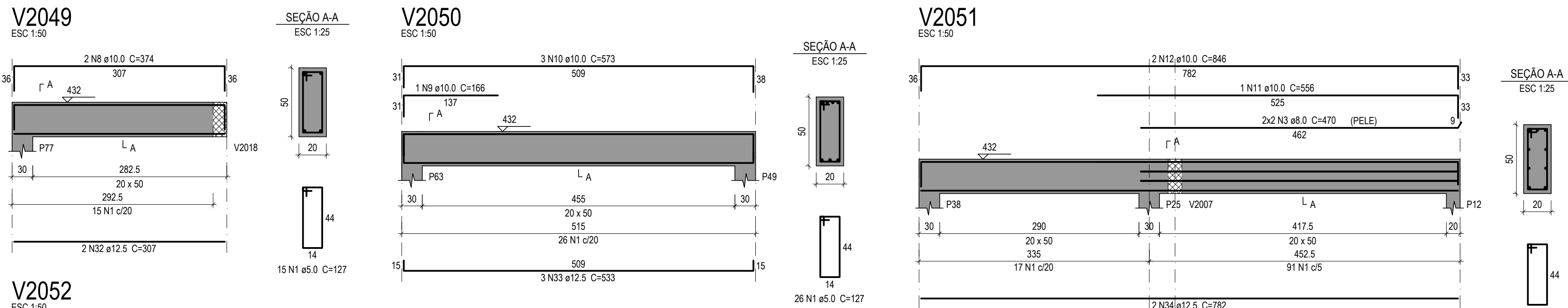
02

ARQUIVO

-

PRANCHA

22/45



Relação do aço

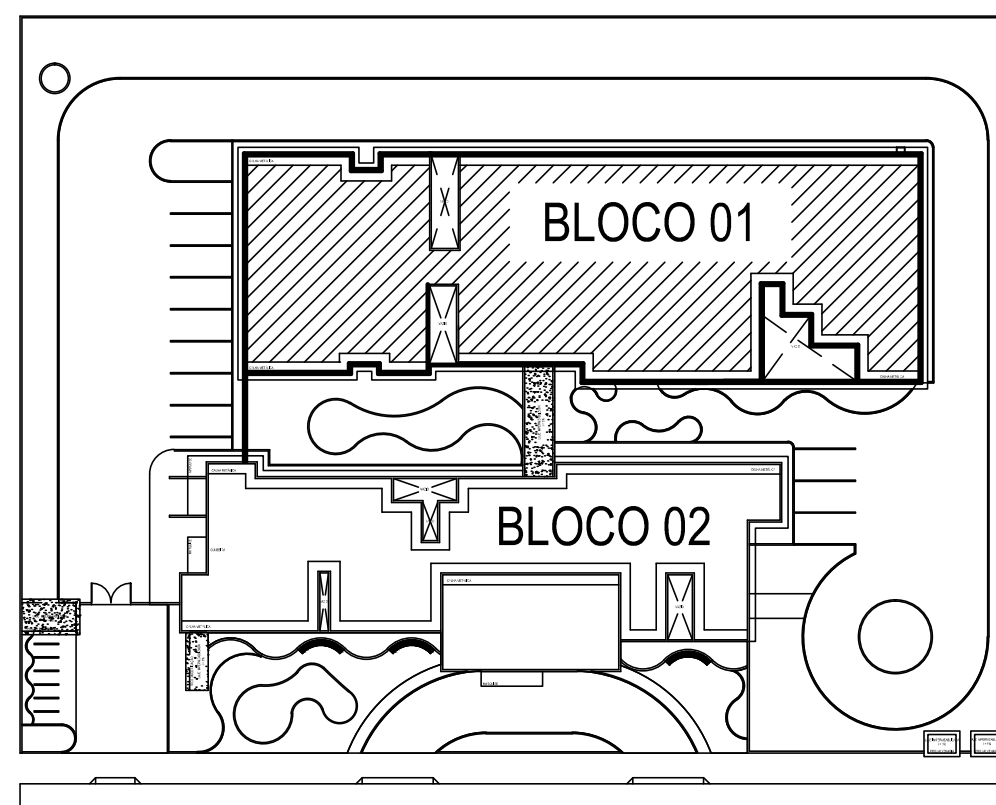
ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	8.0	940	127	119300
CA60	2	8.0	2	255	510
CA60	3	8.0	4	470	1880
CA60	4	8.0	8	1195	9560
CA60	5	8.0	4	738	2952
CA60	6	8.0	8	1200	9600
CA60	7	8.0	4	1004	4016
CA60	8	10.0	2	374	748
CA60	9	10.0	1	195	195
CA60	10	10.0	3	575	1725
CA60	11	10.0	1	556	556
CA60	12	10.0	2	846	1692
CA60	13	10.0	1	225	225
CA60	14	10.0	1	190	190
CA60	15	10.0	4	1195	4780
CA60	16	10.0	2	806	1612
CA60	17	10.0	5	285	1425
CA60	18	10.0	4	340	1360
CA60	19	10.0	2	295	590
CA60	20	10.0	1	210	210
CA60	21	10.0	8	1200	9600
CA60	22	10.0	2	1104	2208
CA60	23	10.0	3	310	930
CA60	24	10.0	2	295	590
CA60	25	10.0	5	290	1450
CA60	26	10.0	1	615	615
CA60	27	10.0	2	1198	2396
CA60	28	10.0	2	1169	2338
CA60	29	10.0	4	330	1320
CA60	30	10.0	2	280	560
CA60	31	10.0	2	790	1580
CA60	32	12.5	2	307	614
CA60	33	12.5	3	533	1599
CA60	34	12.5	2	782	1564
CA60	35	12.5	2	1137	2274
CA60	36	12.5	3	817	2451
CA60	37	12.5	4	1149	4596
CA60	38	12.5	2	905	1810
CA60	39	12.5	1	400	400
CA60	40	12.5	4	730	2920
CA60	41	12.5	4	656	2624
CA60	42	12.5	2	965	1930
CA60	43	12.5	1	346	346
CA60	44	12.5	2	1122	2244
CA60	45	12.5	2	915	1830
CA60	46	12.5	1	370	370
CA60	47	12.5	2	975	1950

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO * 10 % (kg)
CA60	8.0	280.1	121.6
CA60	10.0	388.2	253.2
CA60	12.5	287.1	304.2
CA60	5.0	1198.9	203.3

PESO TOTAL (kg)
CA50 689
CA60 203.3

Volume de concreto (C-25) = 12.55 m³
Área de forma = 115.94 m²



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL
ENDEREÇO: _____

MUNICÍPIO: SOBRAL

ASSUNTO: FORMA E ARMAÇÃO DAS VIGAS
COBERTA - FL 02
SOBRAL
PREFEITURA

ESCALA

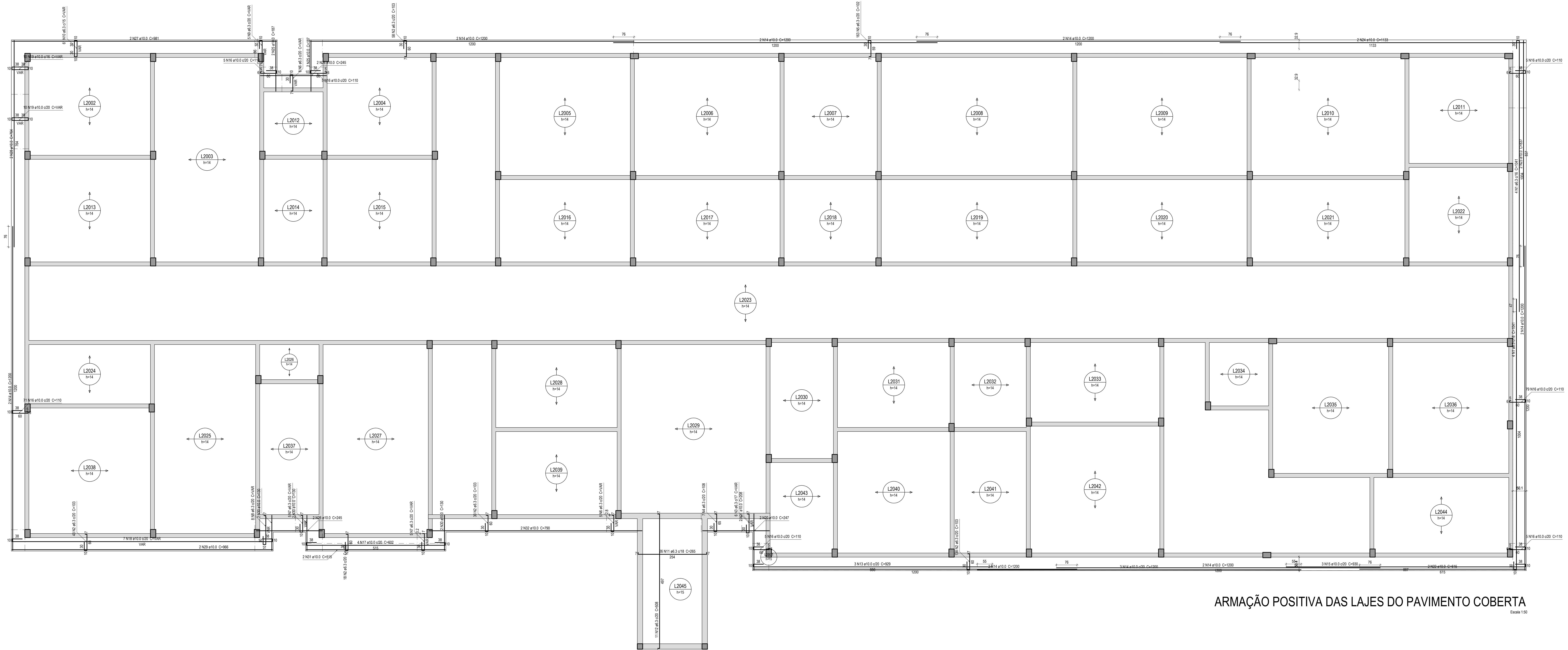
INDICADA

DATA
ABR/2026

REVISÃO
02

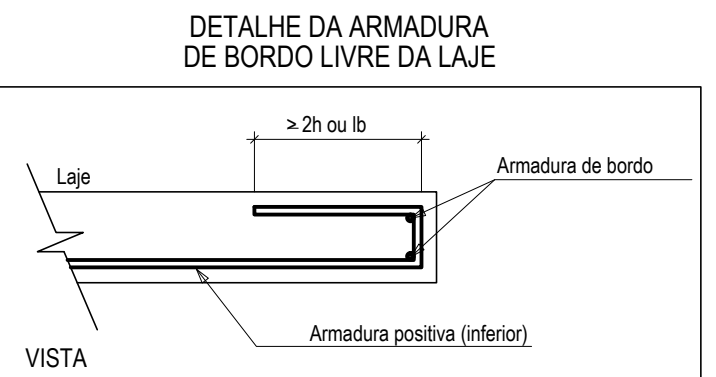
ARQUIVO

PRANCHA
23/45



ARMAÇÃO POSITIVA DAS LAJES DO PAVIMENTO COBERTA

Escala 1:50



ARMADURA COM COMPRIMENTO VARIÁVEL				
N4	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	45	88	88
B	2	84	107	214
C	1	112	155	155
E	1	207	250	250

ARMADURA COM COMPRIMENTO VARIÁVEL				
N6	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	59	102	204
B	3	84	197	321

ARMADURA COM COMPRIMENTO VARIÁVEL				
N7	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	45	88	88
B	2	59	102	204
C	2	129	172	344

ARMADURA COM COMPRIMENTO VARIÁVEL				
N7	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	45	88	88
B	2	59	102	204
C	1	122	165	165

ARMADURA COM COMPRIMENTO VARIÁVEL				
N8	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	5	59	102	510
B	1	72	115	115
C	1	99	142	142
D	1	125	168	168

ARMADURA COM COMPRIMENTO VARIÁVEL				
N3	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	5	59	102	510
B	1	131	174	174
C	1	179	222	222
D	1	187	230	230

ARMADURA COM COMPRIMENTO VARIÁVEL				
N8	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	45	88	88
B	2	59	102	204
C	1	124	167	167
D	1	187	230	230

ARMADURA COM COMPRIMENTO VARIÁVEL				
N10	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	45	122	122
B	57	59	136	7752
C	1	1453	1530	1530
D	2	1888	1965	3930

ARMADURA COM COMPRIMENTO VARIÁVEL				
N18	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	59	146	296
B	1	114	203	203
C	3	246	355	1055
D	2	788	877	1754
E	3	955	1054	3162
F	3	1149	1238	3714

ARMADURA COM COMPRIMENTO VARIÁVEL				
N19	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	12	59	148	1776
B	1	243	332	332

ARMADURA COM COMPRIMENTO VARIÁVEL				
N19	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	6	59	133	808
B	1	148	203	203
C	1	880	969	969
D	3	980	1067	3207
E	1	4595	4594	4594

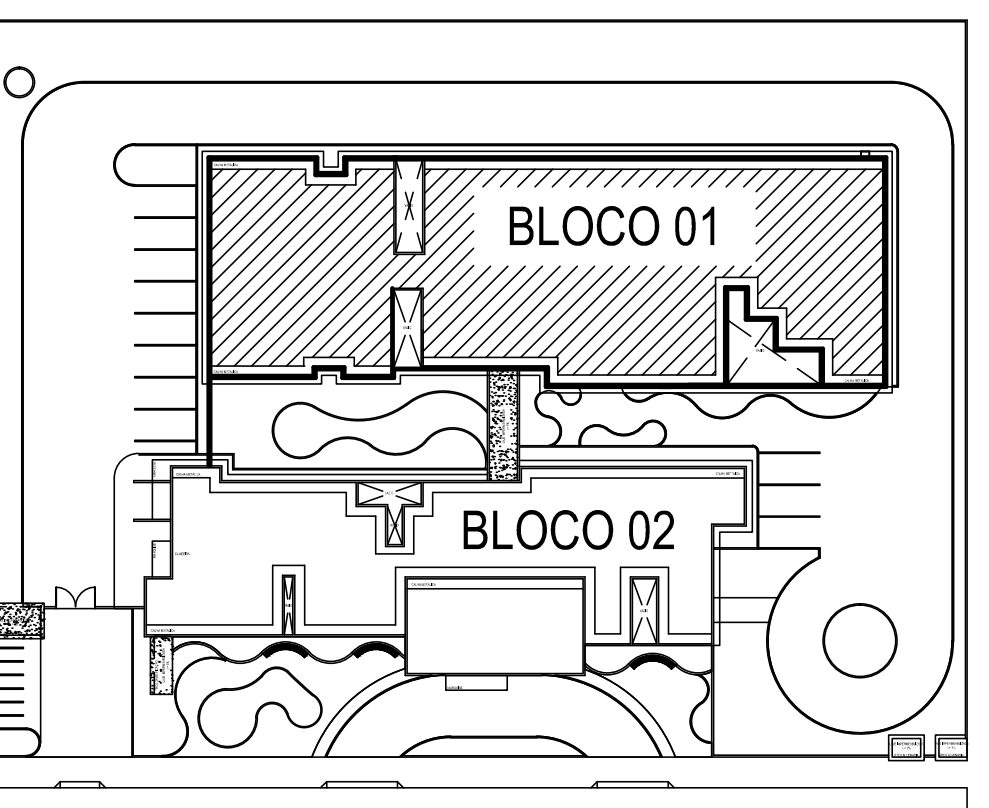
Relação do aço

Positivos						
AÇO	N	DIAM (mm)	QUANT (cm)	C.UNIT (cm)	C.TOTAL (cm)	
CA50	1	6.3	8	194	8328	
	2	6.3	287	103	29661	
	3	6.3	6	VAR	VAR	
	4	6.3	7	108	756	
	5	6.3	163	102	16626	
	6	6.3	13	VAR	VAR	
	7	6.3	10	VAR	VAR	
	8	6.3	8	VAR	VAR	
	9	6.3	5	VAR	VAR	
	10	6.3	61	VAR	VAR	
	11	6.3	26	205	6660	
	12	6.3	11	588	6988	
	13	10.0	3	929	2787	
	14	10.0	17	1200	20400	
	15	10.0	3	930	2790	
	16	10.0	175	110	19250	
	17	10.0	4	602	2408	
	18	10.0	7	VAR	VAR	
	19	10.0	20	VAR	VAR	
	20	10.0	2	247	494	
	21	10.0	2	208	416	
	22	10.0	2	615	1230	
	23	10.0	2	837	1674	
	24	10.0	2	1133	2266	
	25	10.0	4	187	748	
	26	10.0	4	245	980	
	27	10.0	2	991	1982	
	28	10.0	2	764	1528	
	29	10.0	2	966	1932	
	30	10.0	6	130	780	
	31	10.0	2	515	1030	
	32	10.0	2	790	1580	

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	805.4	217.6
D	10.0	745.7	505.7
PESO TOTAL (kg)			
CA50		723.3	

Volume de concreto (C-25) = 73.82 m³
Área de forma = 102.25 m²



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO: SOBRAL

ASSUNTO: FORMA E ARMAÇÃO DAS LAJES COBERTA - FL 01

ESCALA: INDICADA

DATA: ABR/2026

REVISÃO: 02

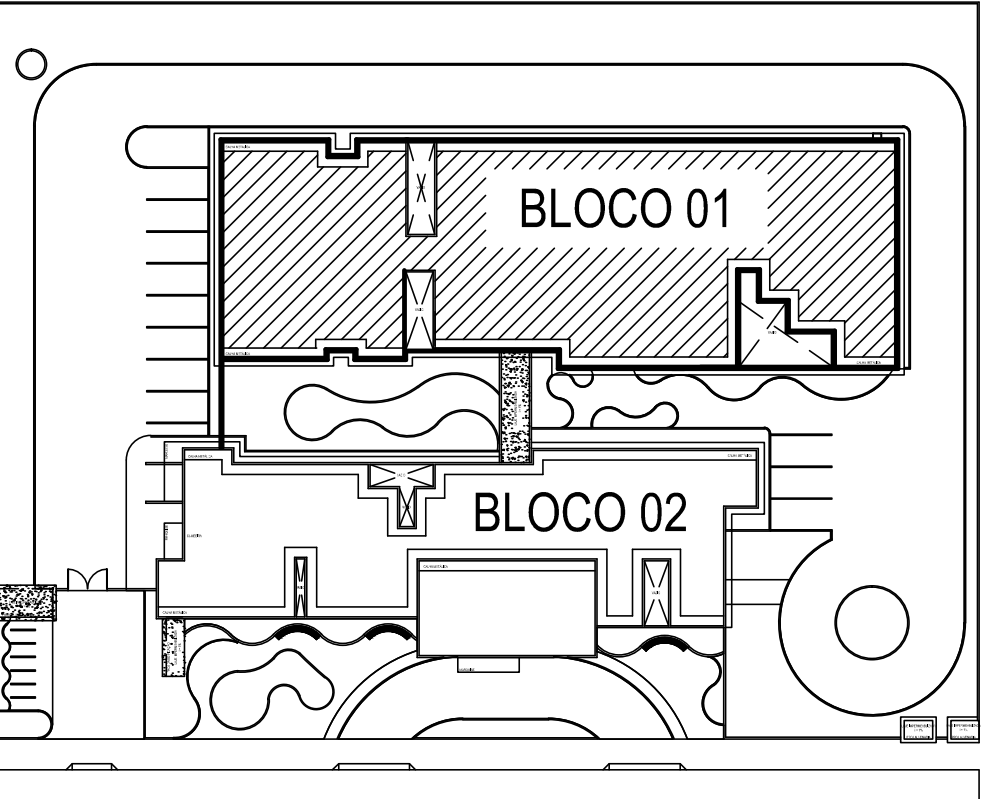
ARQUIVO:

PRANCHA: 24/45

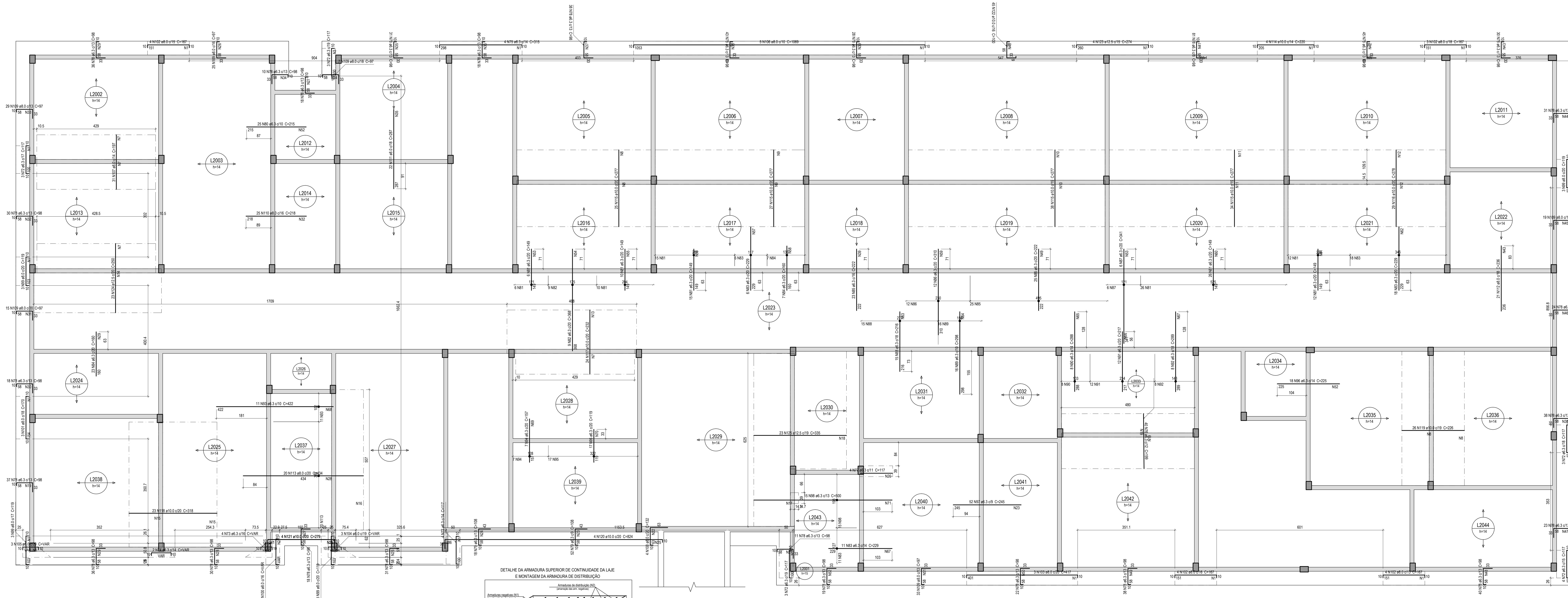


PLANTA DE VIGOTAS PRÉ-MOLDADAS

Escala 1:50



SECRETARIA DE SAÚDE		
PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL		
INTERESSADO: PREFEITURA DE SOBRAL		
ENDEREÇO: _____		
MUNICÍPIO: SOBRAL		
		
ASSUNTO: PLANTA DE VIGOTAS PREMOLDADAS	ESCALA: INDICADA	
COBERTA		
DATA: ABR/2026	REVISÃO: 02	ARQUIVO
		PRANCHA: 25/45



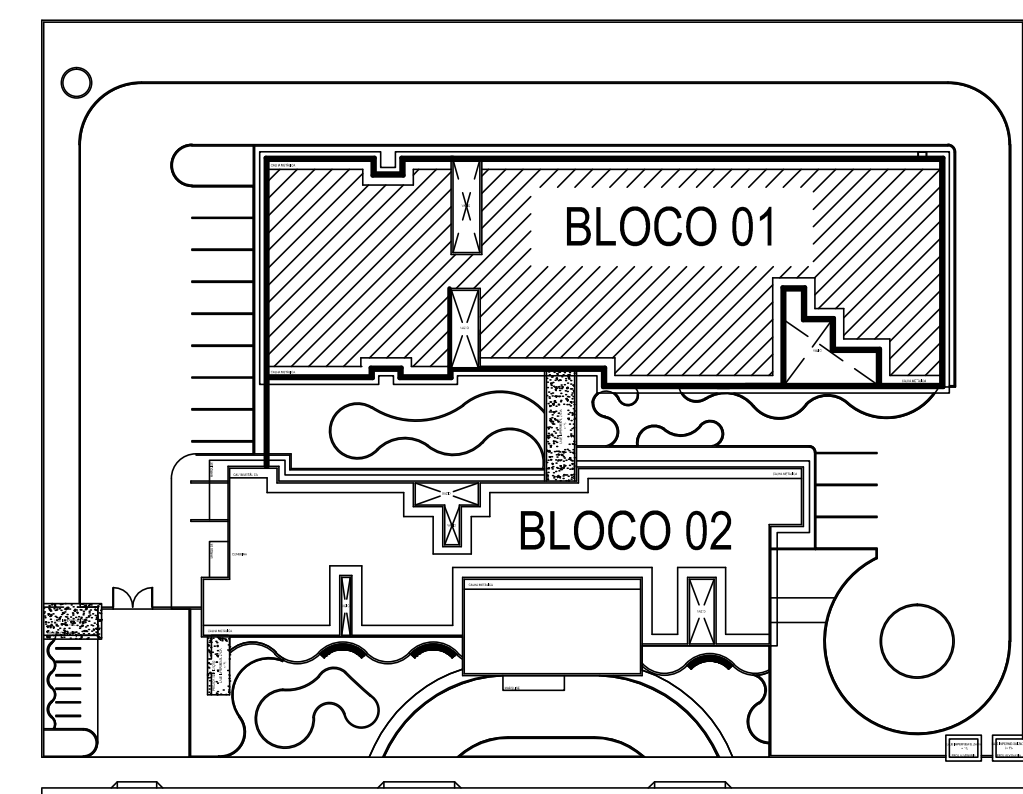
ARMAÇÃO NEGATIVA DAS LAJES DO PAVIMENTO COBERTA

Escala 1:50

[illegible]

Região	N	DATA	DIÁRIO	CLASSE	VALOR	TOTAL (R\$)
CND	2	5,6	VAR	VAR	280	280
	3	5,6	VAR	VAR	280	560
	4	5,6	3 VAR	VAR	840	1400
	5	5,6	3 VAR	VAR	840	2240
	6	5,6	VAR	VAR	280	2520
	7	5,6	VAR	VAR	280	2800
	8	5,6	28	485	13680	16480
	9	5,6	25	115	1060	17640
	10	5,6	25	115	1060	18700
	11	5,6	25	115	1060	19760
	12	5,6	25	575	880	20640
	13	5,6	25	575	880	21520
	14	5,6	10	441	4610	22980
	15	5,6	27	655	1760	24740
	16	5,6	6	507	3240	25980
	17	5,6	9	655	3900	26630
	18	5,6	10	425	4020	27050
	19	5,6	10	425	4020	27470
	20	5,6	6	38	234	27704
	21	5,6	4	VAR	VAR	27704
	22	4		77	308	28012
	23	5,6	17	461	748	28760
	24	4		VAR	VAR	28760
	25	5,6	27	655	1760	29410
	26	5,6	8	655	3040	29714
	27	5,6	10	425	4020	30139
	28	5,6	10	300	6190	30759
	29	5,6	10	300	6190	31378
	30	5,6	4	225	144	31522
	31	5,6	4	225	144	31666
	32	5,6	35	384	5825	32251
	33	5,6	39	441	7184	32969
	34	4		240	800	33769
	35	5,6	39	441	7184	34487
	36	4		585	2020	35012
	37	5,6	4	585	2020	35597
	38	4		725	2000	36322
	39	5,6	4	585	2020	36907
	40	5,6	4	585	2020	37492
	41	5,6	4	585	2020	38077
	42	5,6	4	585	2020	38662
	43	5,6	4	295	1180	39057
	44	5,6	4	295	1180	39642
	45	5,6	50	495	700	40342
	46	5,6	50	495	700	40937
	47	5,6	27	655	1760	41637
	48	5,6	4	433	1732	42070
	49	5,6	27	655	1760	42720
	50	5,6	25	115	3020	43020
	51	5,6	8	254	1622	43274
	52	5,6	8	254	1622	43528
	53	5,6	8	145	1450	43673
	54	5,6	12	117	1444	43817
	55	5,6	8	145	1450	43962
	56	5,6	9	236	3800	44342
	57	5,6	8	145	1450	44487
	58	5,6	8	231	1448	44632
	59	5,6	8	231	1448	44776
	60	5,6	11	227	2047	44921
	61	5,6	11	227	2047	45125
	62	5,6	15	111	1665	45270
	63	5,6	15	111	1665	45414
	64	5,6	11	227	2047	45618
	65	5,6	27	100	4900	46108
	66	5,6	22	100	4900	46598
	67	5,6	27	100	4900	47088
	CND	68	5,6	27		
69		5,6	27			
70		5,6	27			
71		5,6	27			
72		5,6	27			
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74		5,6	4	VAR	VAR	
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87		5,6	4	341	2048	
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89		5,6	4	288	6730	
90		5,6	4	VAR	VAR	
91		5,6	4	227	2010	
92		5,6	4	VAR	VAR	
93		5,6	4	627	4020	
94		5,6	4	17	2020	
95		5,6	4	VAR	VAR	
96		5,6	4	225	4020	
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197	5,6	4	VAR	VAR		
198	5,6	4	VAR	VAR		
199	5,6	4	VAR	VAR		
200	5,6	4	VAR	VAR		

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	1962.4	538.2
	8.0	563.4	344.5
	10.0	720.8	468.8
	12.5	145.6	154.2
CA60	5.0	2645	443.5
PESO TOTAL			



SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:
PREFEITURA DE SOBRAL

ENDEREÇO:

ENDEREÇO:

MUNICÍPIO:



SOBRAL
PREFEITURA

ASSUNTO:
FORMA E ARMAÇÃO DAS LAJES
ROBERTA - FL 03

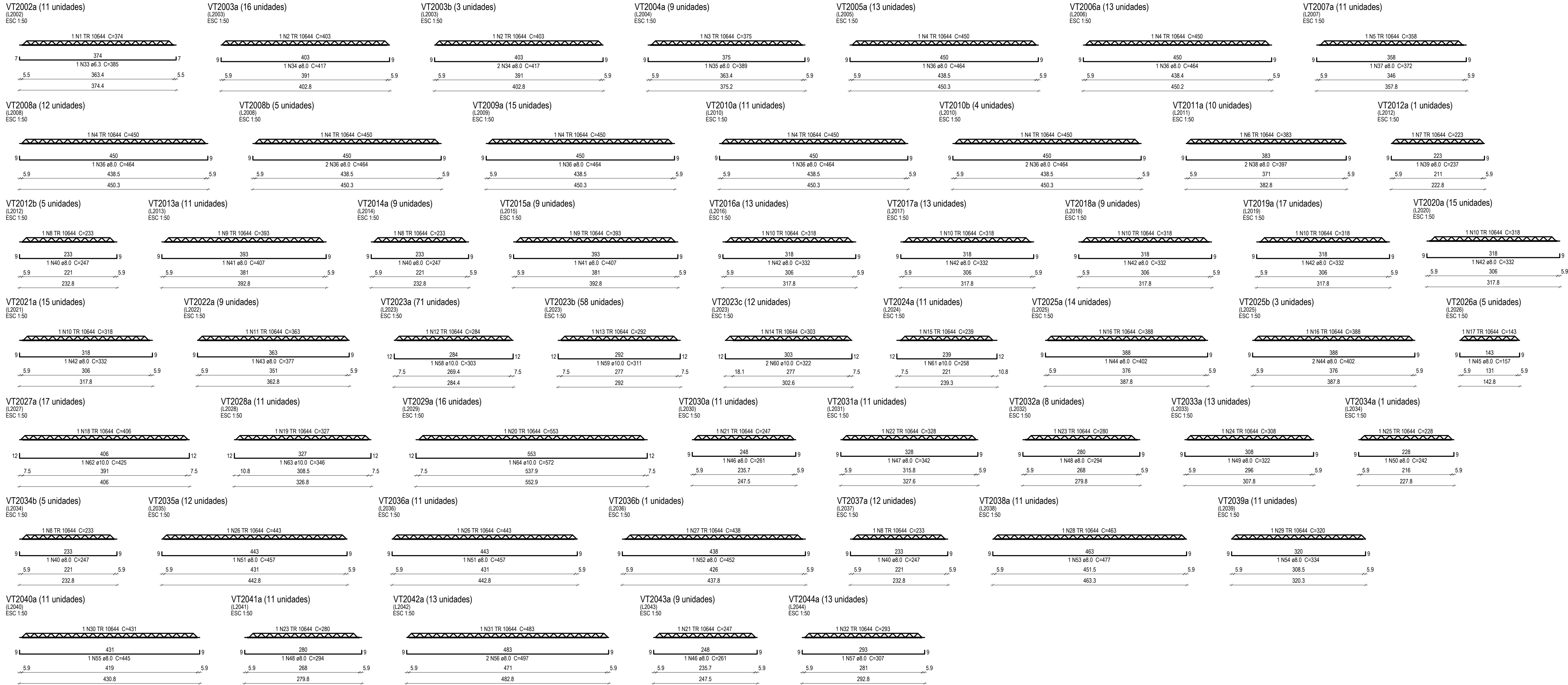
SCALA

DICADA

DATA
ABR/2026REVISÃO
02

ARQUIVO

PRANCHA
26/45



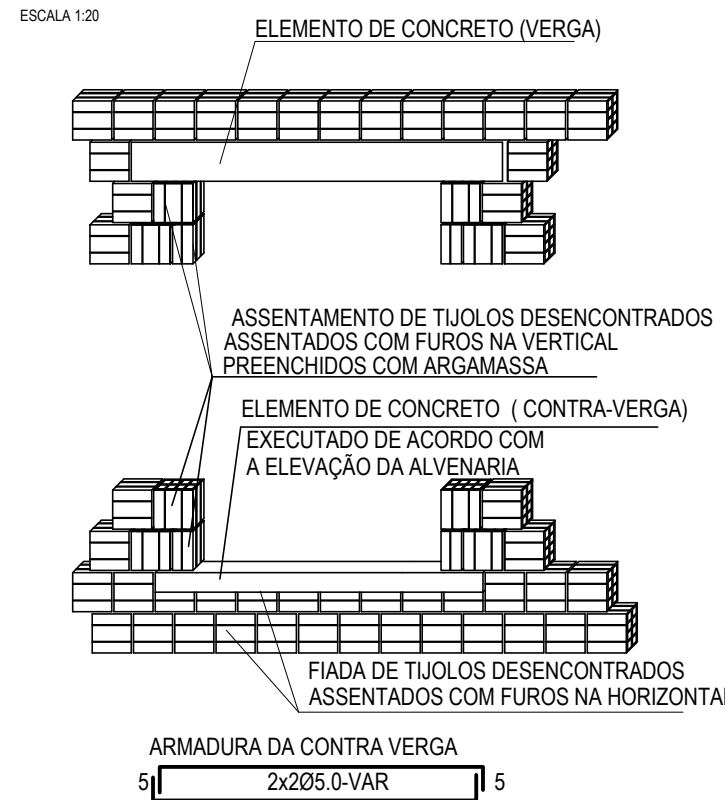
Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 10644	11	374	4114
	2	TR 10644	19	403	7657
	3	TR 10644	9	375	3375
	4	TR 10644	73	450	32850
	5	TR 10644	11	358	3938
	6	TR 10644	10	383	3830
	7	TR 10644	1	223	223
	8	TR 10644	31	233	7223
	9	TR 10644	20	393	7860
	10	TR 10644	82	318	26076
	11	TR 10644	9	363	3267
	12	TR 10644	71	284	20164
	13	TR 10644	58	292	16936
	14	TR 10644	12	303	3636
	15	TR 10644	11	239	2629
	16	TR 10644	17	388	6596
	17	TR 10644	5	143	715
	18	TR 10644	17	406	6902
	19	TR 10644	11	327	3597
	20	TR 10644	16	553	8848
	21	TR 10644	20	247	4940
	22	TR 10644	11	328	3608
	23	TR 10644	19	280	5320
	24	TR 10644	13	308	4004
	25	TR 10644	1	228	228
	26	TR 10644	23	443	10189
	27	TR 10644	1	438	438
	28	TR 10644	11	463	5093
	29	TR 10644	11	320	3520
	30	TR 10644	11	431	4741
	31	TR 10644	13	483	6279
	32	TR 10644	13	293	3809
CA50	33	6.3	11	385	4235
	34	8.0	22	417	9174
	35	8.0	9	389	3501
	36	8.0	82	464	38048
	37	8.0	11	372	4092
	38	8.0	20	397	7940
	39	8.0	1	237	237
	40	8.0	31	247	7657
	41	8.0	20	407	8140
	42	8.0	82	332	27224
	43	8.0	9	377	3393
	44	8.0	20	402	8040
	45	8.0	5	157	785
	46	8.0	20	261	5220
	47	8.0	11	342	3762
	48	8.0	19	294	5586
	49	8.0	13	322	4186
	50	8.0	1	242	242
PESO TOTAL (kg)	51	8.0	23	457	10511
	52	8.0	1	452	452
	53	8.0	11	477	5247
	54	8.0	11	334	3674
	55	8.0	11	445	4895
	56	8.0	26	497	12922
	57	8.0	13	307	3991
	58	10.0	71	303	21513
	59	10.0	58	311	18038
	60	10.0	24	322	7728
CA50	61	10.0	11	298	2838
	62	10.0	17	425	7225
	63	10.0	11	346	3806
	64	10.0	16	572	9152

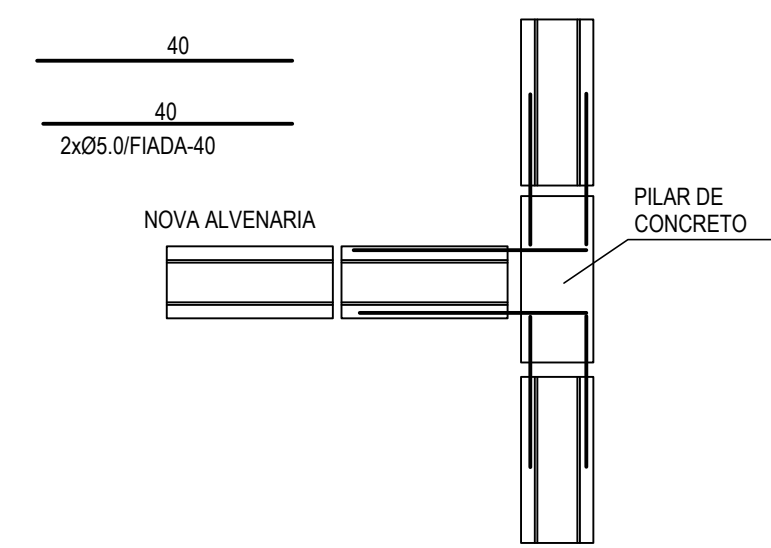
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	42.4	11.4
	8.0	1789.2	776.6
	10.0	703	476.8
CA60	TR 10644	2226.1	1865.9
PESO TOTAL (kg)			
CA50	1264.8		
CA60	1865.9		

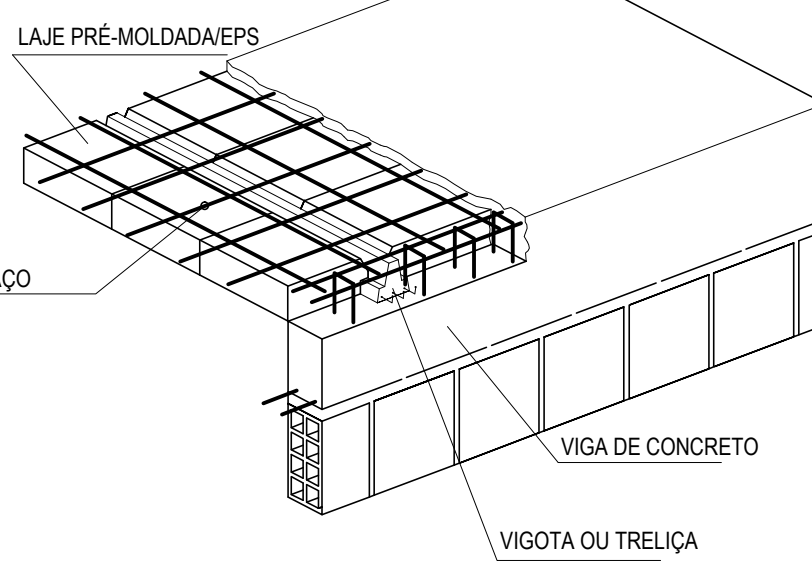
DETALHE DO ARREIMATE DE PORTAS E JANELAS



DETALHE DA LIGAÇÃO ENTRE ALVENARIA E ESTRUTURA DE CONCRETO (FERRO-CABELO)



DETALHE DA LIGAÇÃO DA LAJE x VIGA



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO: _____

MUNICÍPIO: SOBRAL

ASSUNTO: DETALHE VIGOTAS TRELIÇADAS

NÍVEL COBERTA _____

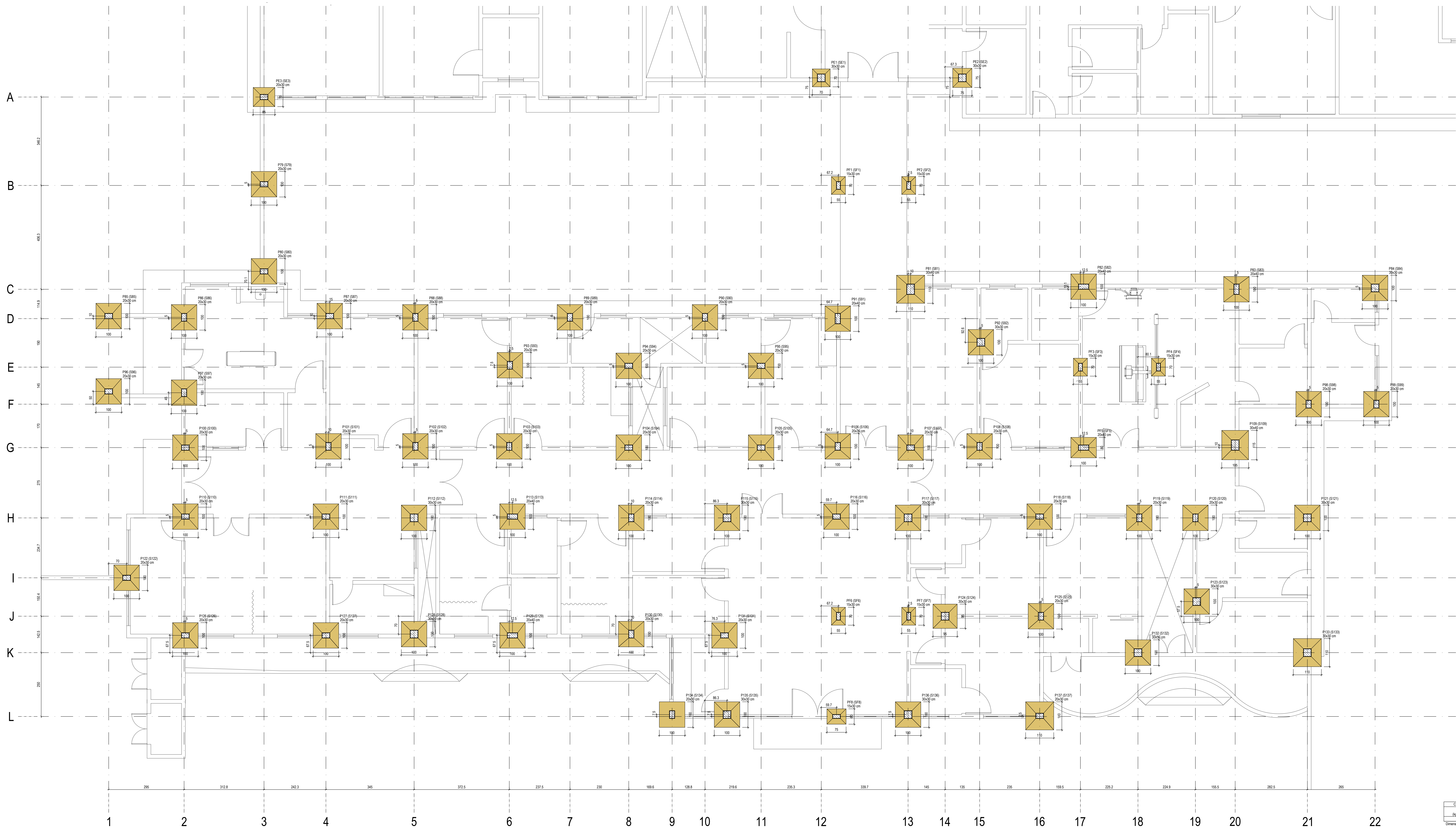
ESCALA: INDICADA

DATA: ABR/2026

REVISÃO: 02

ARQUIVO: -

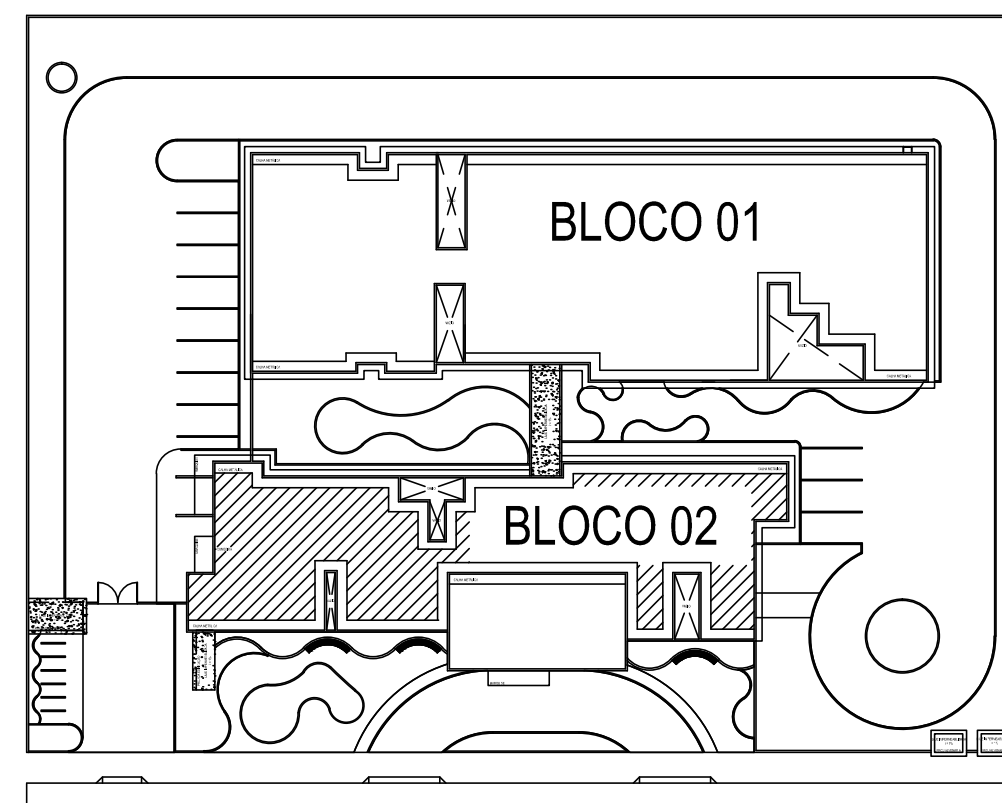
PRANCHA: 27/45



Características dos materiais	
1x	Esq
255	27300
Dimensão máxima do agregado = 19 mm	

PLANTA DE LOCAÇÃO

Escala 1:50



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL
ENDEREÇO:

MUNICÍPIO: SOBRAL

SOBRAL
PREFEITURA

ASSUNTO: PLANTA DE LOCAÇÃO
CORTE AA

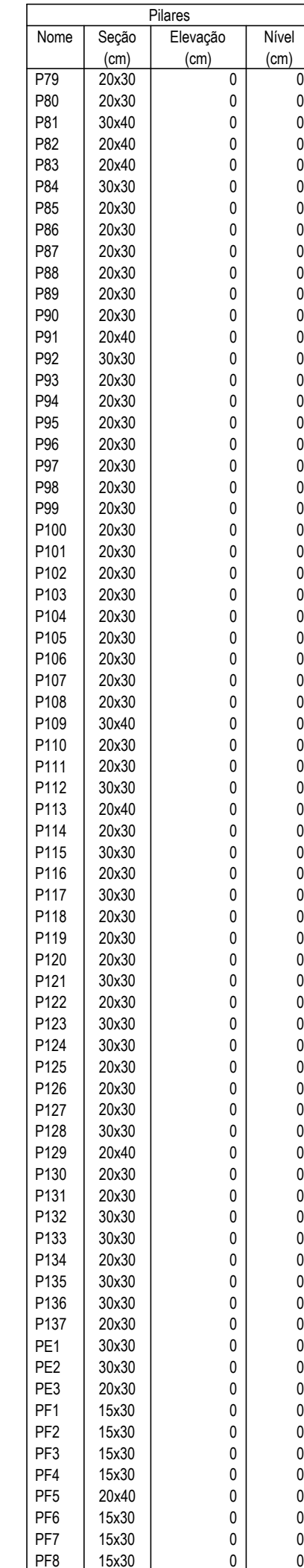
ESCALA INDICADA
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DATA: 04/02/2025

REVISÃO: 02

ARQUIVO

FRANCHA: 28/45

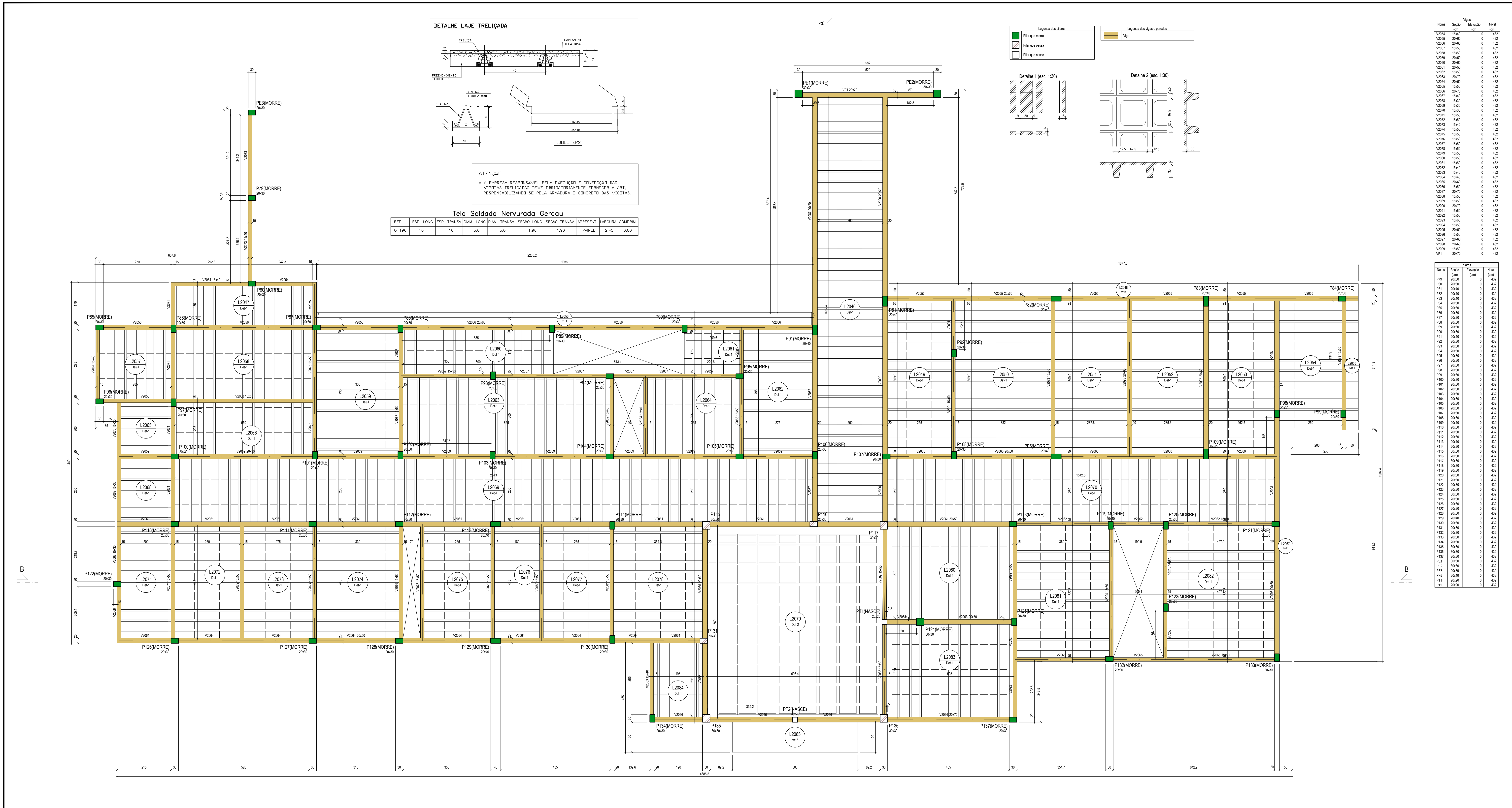


Características dos materiais	
Isk (kg/cm ³)	Ecs (kg/cm ³)
250	217350

Dimensão máxima do agregado = 19 mm

Evropa 1:50





Vigas		Nível
Nome	Seção	
	(cm)	(cm)
V2056	15x30	0
V2056	20x40	0
V2057	15x30	0
V2058	15x30	0
V2059	20x40	0
V2060	20x40	0
V2061	20x40	0
V2062	15x30	0
V2063	20x40	0
V2064	20x40	0
V2065	15x30	0
V2066	20x40	0
V2067	15x30	0
V2068	15x30	0
V2069	15x30	0
V2070	15x30	0
V2071	15x30	0
V2072	15x30	0
V2073	15x30	0
V2074	15x30	0
V2075	15x30	0
V2076	15x30	0
V2077	15x30	0
V2078	15x30	0
V2079	15x30	0
V2080	15x30	0
V2081	15x30	0
V2082	15x30	0
V2083	15x30	0
V2084	15x30	0
V2085	20x40	0
V2086	15x30	0
V2087	20x40	0
V2088	15x30	0
V2089	15x30	0
V2090	20x40	0
V2091	15x30	0
V2092	15x30	0
V2093	15x30	0
V2094	15x30	0
V2095	20x40	0
V2096	15x30	0
V2097	20x40	0
V2098	15x30	0
V2099	15x30	0
V2100	20x40	0

Pilares		Nível
Nome	Seção	
	(cm)	(cm)
P79	20x30	0
P80	20x30	0
P81	20x40	0
P82	20x40	0
P83	20x40	0
P84	20x30	0
P85	20x30	0
P86	20x30	0
P87	20x30	0
P88	20x30	0
P89	20x30	0
P90	20x30	0
P91	20x40	0
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P144	20x30	0
P145	20x30	0
P146	20x30	0
P147	20x30	0
P148	20x30	0
P149	20x30	0
P150	20x30	0

Lajes									
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Preço próprio (kg/m²)	Adicional	Acidental	Localização	
L2046	Trajetória 10	14	0	432	197	262	100	-	
L2047	Trajetória 10	14	0	432	197	262	100	-	
L2048	Margem	15	0	430	375	192	100	-	
L2049	Trajetória 10	14	0	432	197	262	100	-	
L2050	Trajetória 10	14	0	432	197	262	100	-	
L2051	Trajetória 10	14	0	432	197	262	100	-	
L2052	Trajetória 10	14	0	432	197	262	100	-	
L2053	Trajetória 10	14	0	432	197	262	100	-	
L2054	Trajetória 10	14	0	432	197	262	100	-	
L2055	Trajetória 10	14	0	432	197	180	100	-	
L2056	Margem	15	0	432	375	192	100	-	
L2057	Trajetória 10	14	0	432	197	262	100	-	
L2058	Trajetória 10	14	0	432	197	262	100	-	
L2059	Trajetória 10	14	0	432	197	262	100	-	
L2060	Trajetória 10	14	0	432	197	262	100	-	
L2061	Trajetória 10	14	0	432	197	262	100	-	
L2062	Trajetória 10	14	0	432	197	262	100	-	
L2063	Trajetória 10	14	0	432	197	262	100	-	
L2064	Trajetória 10	14	0	432	197	262	100	-	
L2065	Trajetória 10	14	0	432	197	262	100	-	
L2066	Margem	15	0	432	375	192	100	-	
L2067	Trajetória 10	14	0	432	197	262	100	-	
L2068	Trajetória 10	14	0	432	197	262	100	-	
L2069	Trajetória 10	14	0	432	197	262	100	-	
L2070	Trajetória 10	14	0	432	197	262	100	-	
L2071	Trajetória 10	14	0	432	197	262	100	-	
L2072	Trajetória 10	14	0	432	197	262	100	-	
L2073	Trajetória 10	14	0	432	197	262	100	-	
L2074	Trajetória 10	14	0	432	197	262	100	-	
L2075	Trajetória 10	14	0	432	197	262	100	-	
L2076	Trajetória 10	14	0	432	197	262	100	-	
L2077	Trajetória 10	14	0	432	197	262	100	-	
L2078	Trajetória 10	14	0	432	197	262	100	-	
L2079	Trajetória 10	14	0	432	197	262	100	-	
L2080	Trajetória 10	14	0	432	197	262	100	-	
L2081	Trajetória 10	14	0	432	197	262	100	-	
L2082	Trajetória 10	14	0	432	197	262	100	-	
L2083	Trajetória 10	14	0	432	197	262	100	-	
L2084	Trajetória 10	14	0	432	197	262	100	-	
L2085	Margem	15	0	432	375	192	100	-	

Detalhe

Bloco de enclenchimento

Detalhe	Tipo	Nome	Dimensões (cm)	Quantidade
1	EPS Unidirecional	BB32100	8 30 100	1671
2	Lubrificantes	ISO3000	30 30 80	63
		ISO3000	30 30 80	63
		ISO3000	30 30 80	63

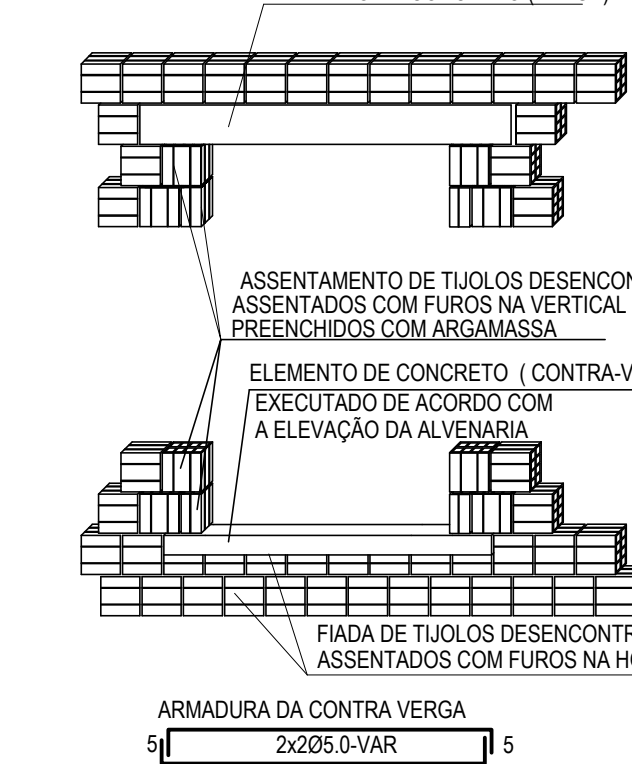
Características das matérias

Matéria	Quantidade
68	217350
250	217350

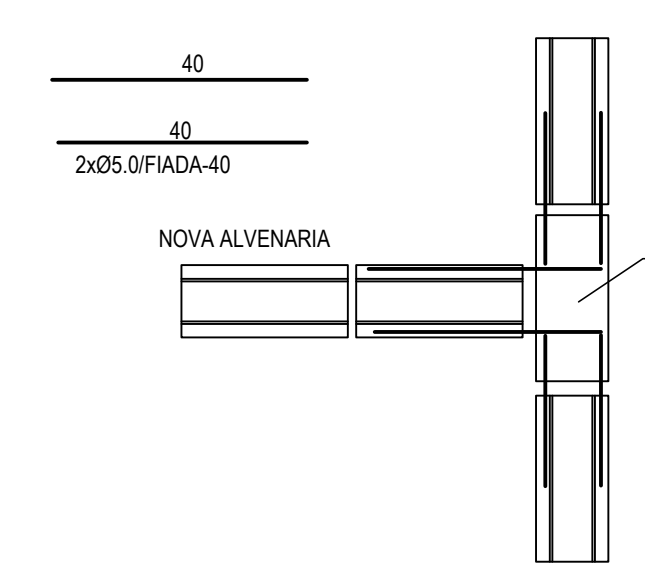
Orientação interna do agregado = 15 mm

DETALHE DO ARREIMATE DE PORTAS E JANELAS

Detalhe 1:10

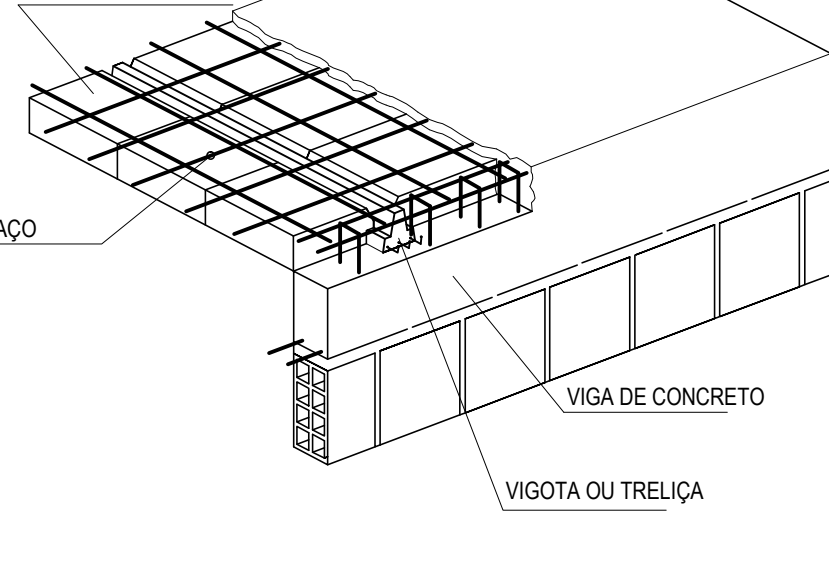


DETALHE DA LIGAÇÃO ENTRE ALVENARIA E ESTRUTURA DE CONCRETO (FERRO-CABELO)



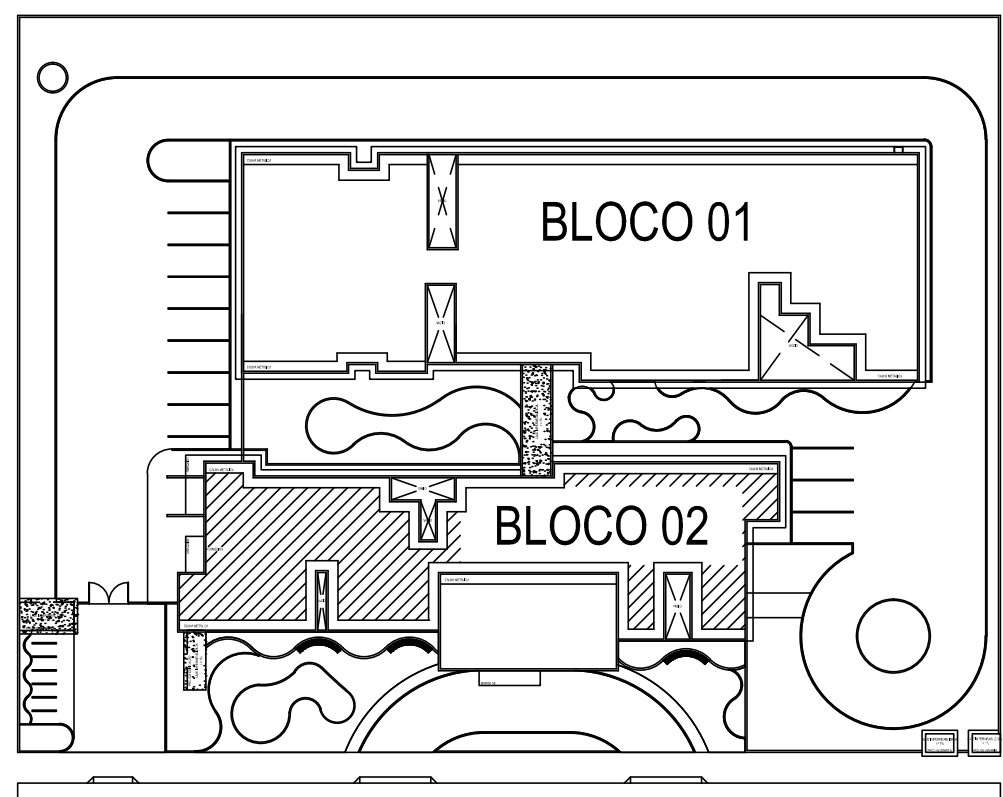
DETALHE DA LIGAÇÃO DA LAJE x VIGA

Detalhe 1:10

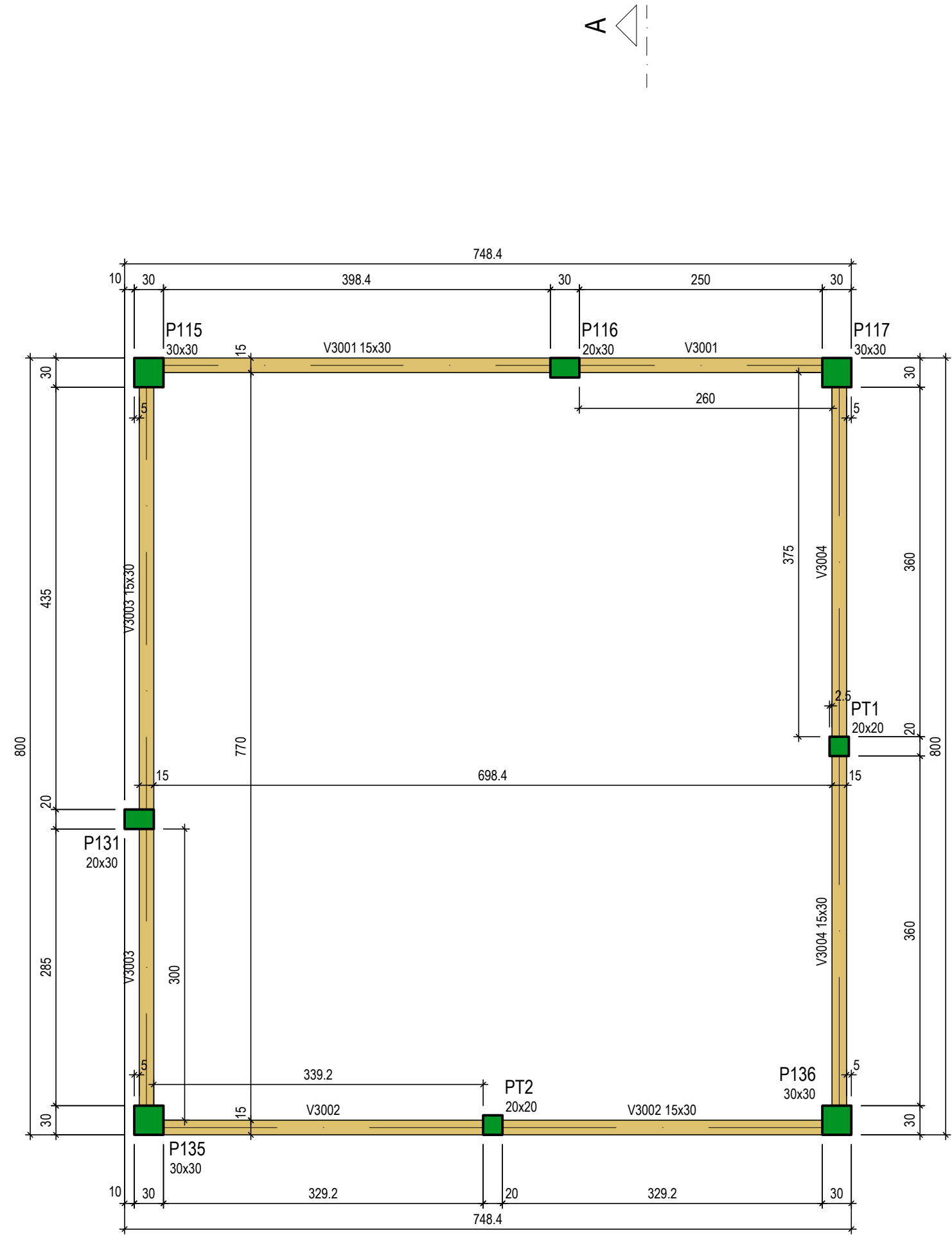


FORMA DO PAVIMENTO COBERTA

Escala 1:50



SECRETARIA DE SAÚDE	
PROJETO:	PROJETO ESTRUTURAL HOSPITAL DISTRITAL
INTERESSADO:	PREFEITURA DE SOBRAL
ENDEREÇO:	
MUNICÍPIO:	SOBRAL
ASSUNTO:	FORMA COBERTA
ESCALA:	INDICADA
DATA:	ABR/2025
REVISÃO:	02
ARQUIVO:	
FRANCHA:	30/45



Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V0001	15x30	0	747
V0002	15x30	0	747
V0003	15x30	0	747
V0004	15x30	0	747

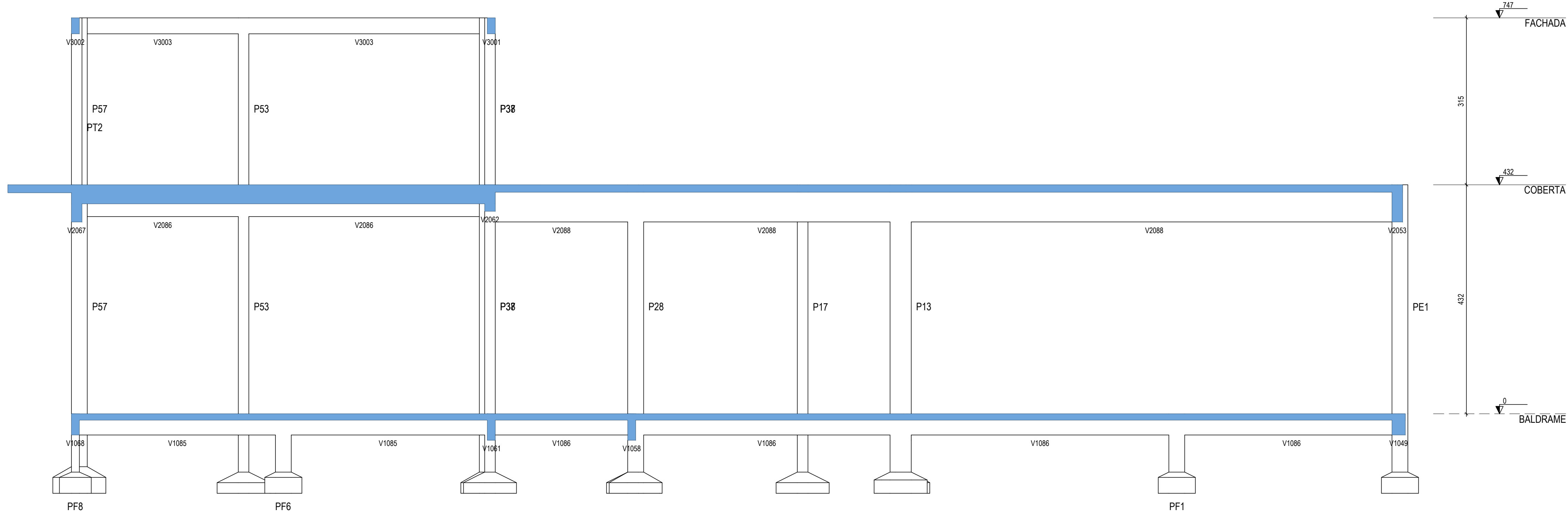
Características das armaduras			
Ar	Ar	Ar	Ar
(kg/m²)	(kg/m²)	(kg/m²)	(kg/m²)
250	21500		
Dimensão mínima do agregado = 10 mm			

Placas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P115	20x30	0	747
P116	20x30	0	747
P117	20x30	0	747
P118	20x30	0	747
P119	20x30	0	747
P120	20x30	0	747
P121	20x30	0	747
P122	20x30	0	747

Legenda das placas		Legenda das vigas e paredes	
	Pilar que nome		Viga

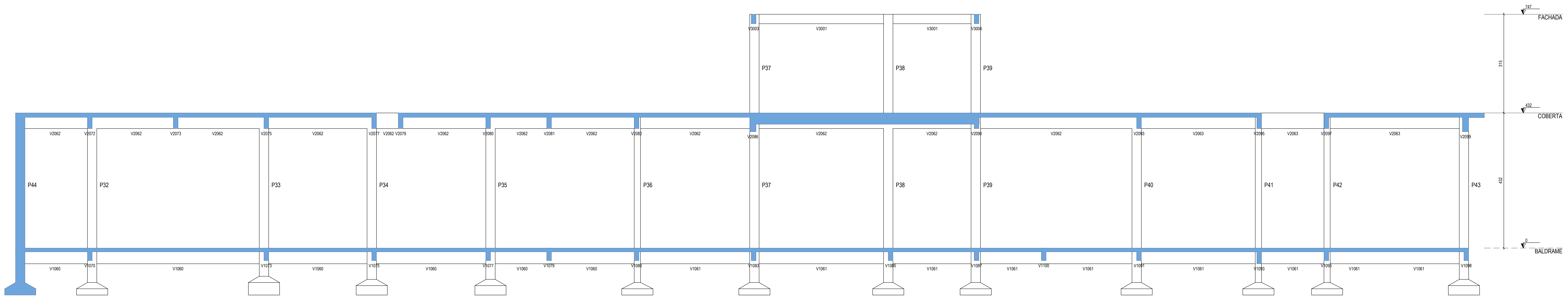
FORMA DO PAVIMENTO FACHADA

Escala 1:50



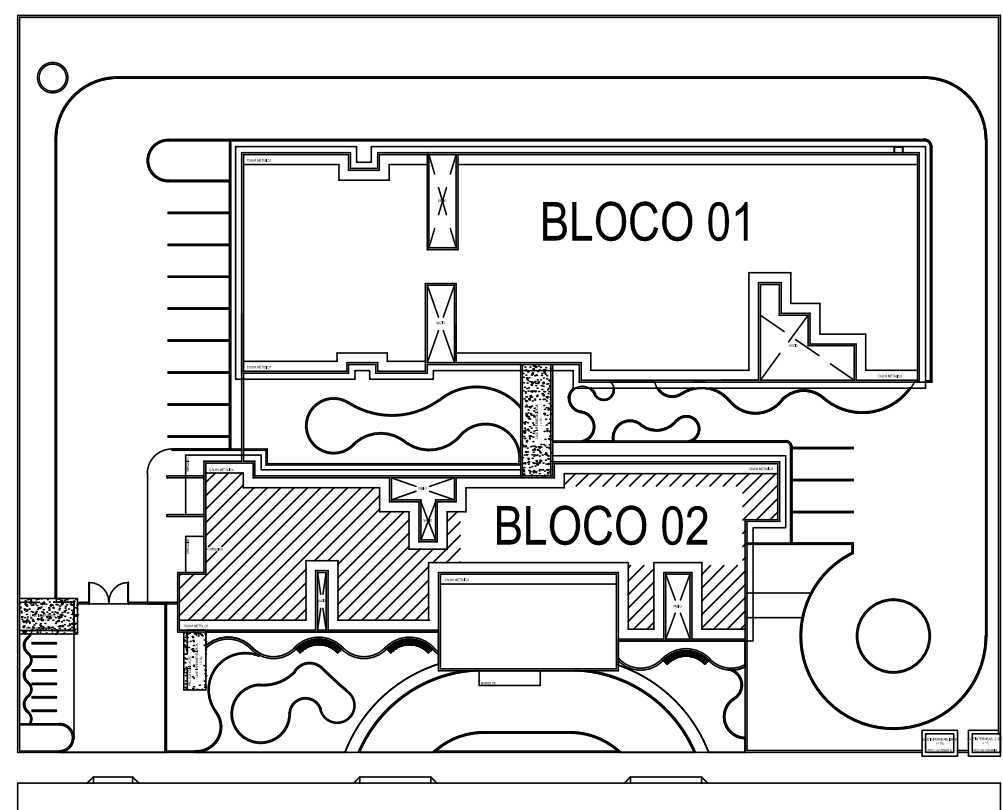
CORTE A-A

Escala 1:50

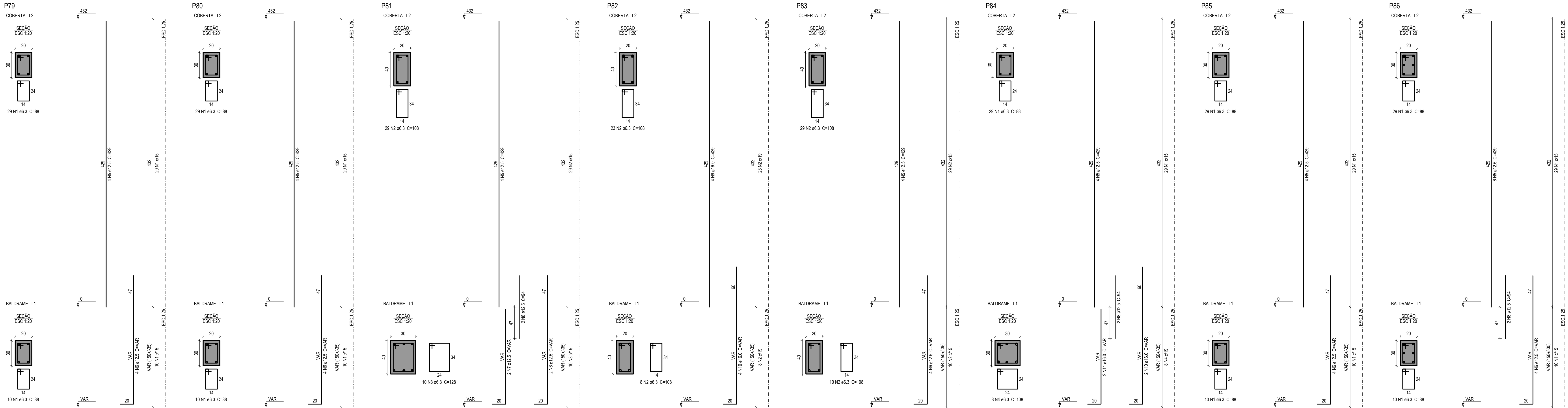


CORTE B-B

Escala 1:50



SECRETARIA DE SAÚDE			
PROJETO:	PROJETO ESTRUTURAL HOSPITAL DISTRITAL		
INTERESSADO:	PREFEITURA DE SOBRAL		
ENDEREÇO:			
MUNICÍPIO:	SOBRAL		
ASSUNTO:	FORMA FACHADA	ESCALA	INDICADA
CORTE A-A			
CORTE B-B			
DATA	REVISÃO	ARQUIVO	FRANCHA
ABR/2026	02		31/45



Relação do aço

ACO	N	DIAM	QUANT	C UNIT	C TOTAL
CASO	1	10	478	0,01	4,78
	2	12	138	0,01	1,38
	3	14	10	0,01	0,10
	4	16	18	0,01	0,18
	5	18	429	0,01	4,29
	6	20	52	0,01	0,52
	7	22	4	0,01	0,04
	8	24	8	0,01	0,08
	9	26	8	0,01	0,08
	10	28	10	0,01	0,10
	11	30	6	0,01	0,06

Resumo do aço

ACO	DIAM	C TOTAL	QUANT + 10 %	PESO + 10 %
CASO	10	4,78	5,26	62,3
	12	1,38	1,52	18,3
	14	0,10	0,11	1,3
	16	0,18	0,20	2,4
	18	4,29	4,72	56,7
	20	0,52	0,57	6,8
	22	0,04	0,04	0,5
	24	0,08	0,09	1,1
	26	0,08	0,09	1,1
	28	0,10	0,11	1,3
	30	0,06	0,07	0,8

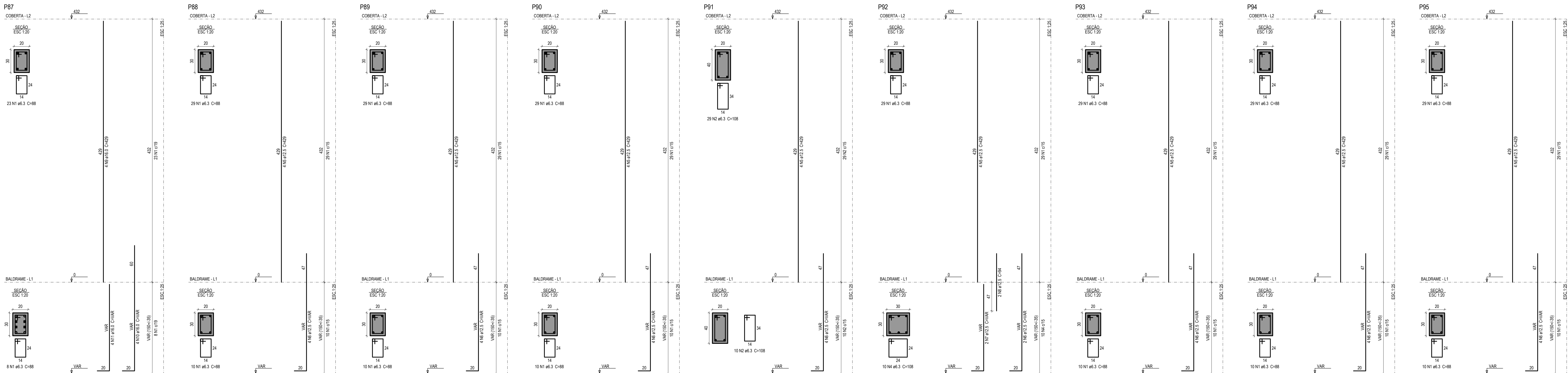
Volume de concreto [C-25] = 5,33 m³

Área de forma = 94,95 m²

Características dos materiais

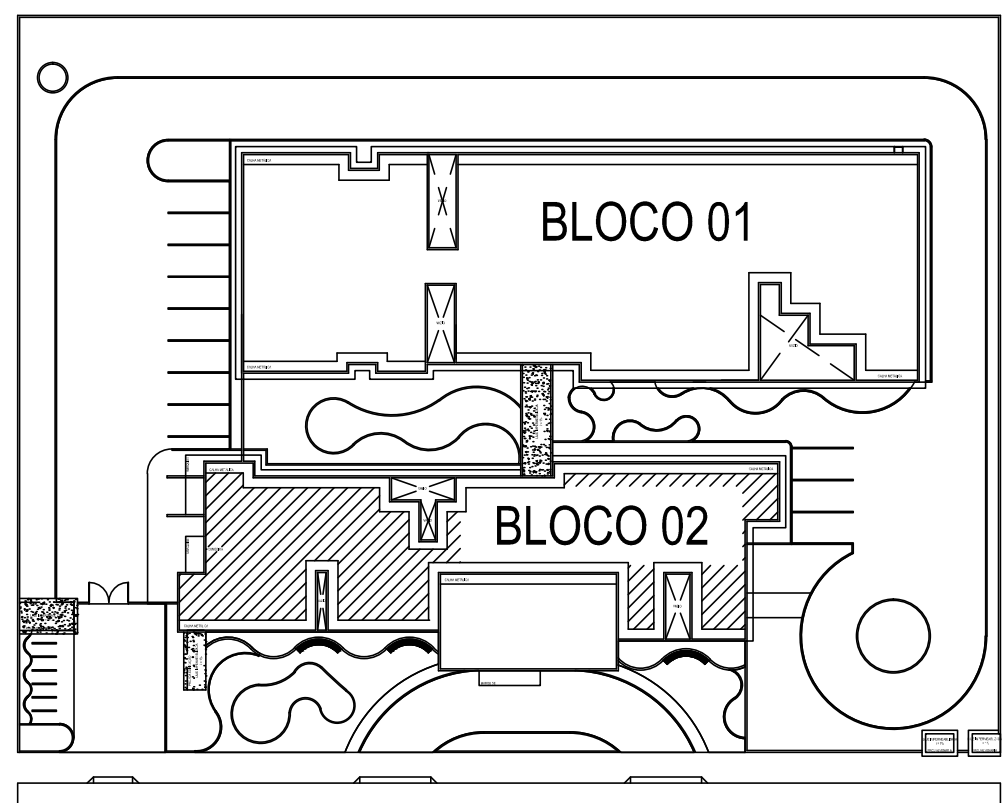
Id	Unidade	Valor
1	m³	5,33
2	m²	94,95

Dimensão mínima de laje: 150 mm



PILARES

Escala 1:20



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO: _____

MUNICÍPIO: SOBRAL

ASSUNTO: PILARES (1 DE 4)

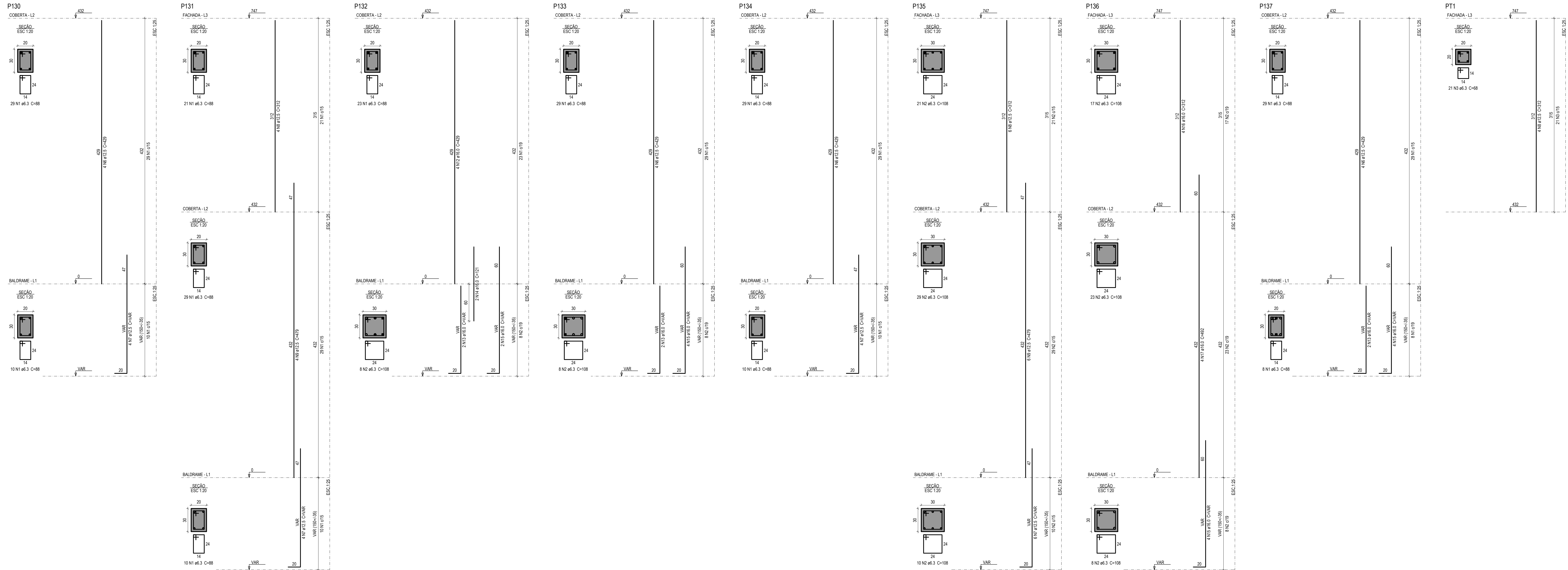
ESCALA: INDICADA

DATA: ABR/2020

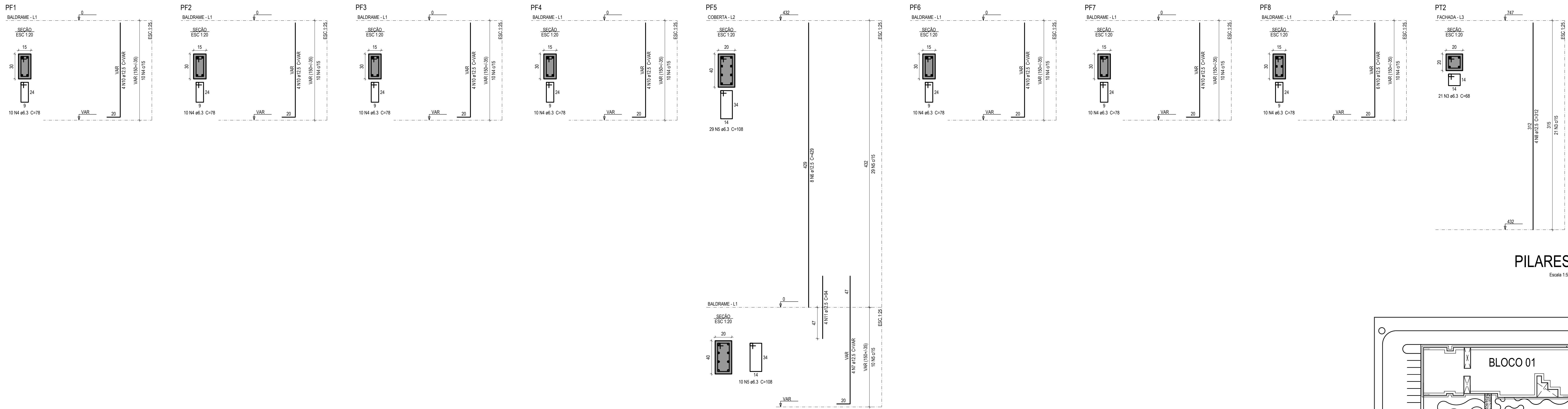
REVISÃO: 02

ARQUIVO

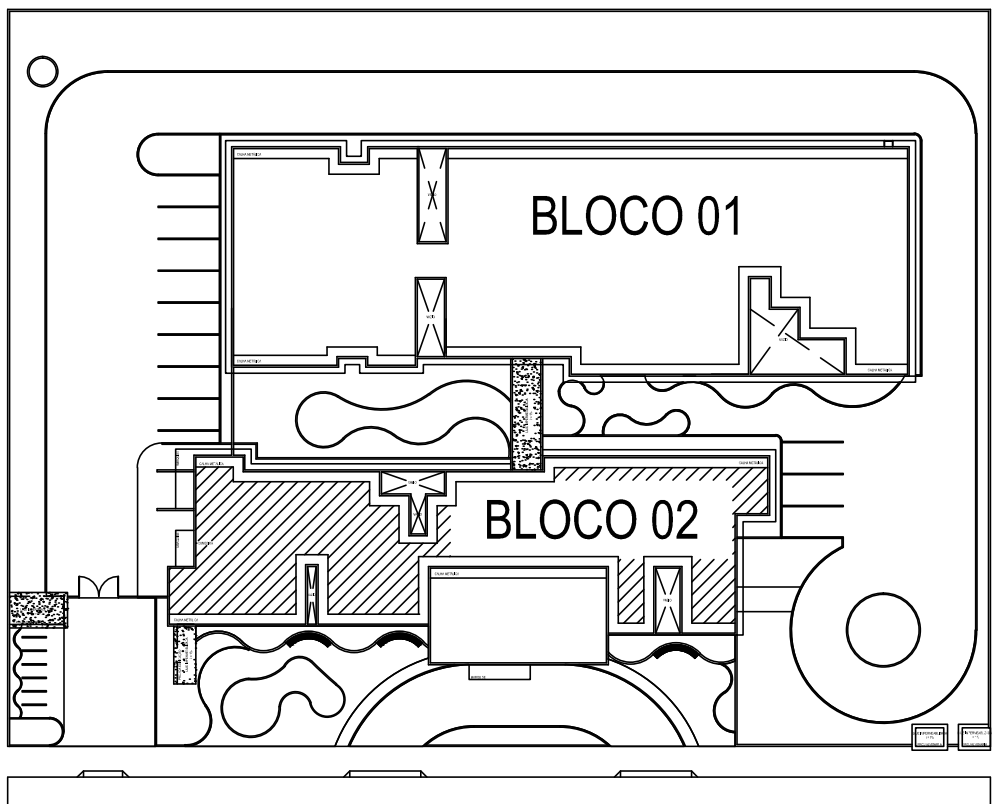
FRANCHA: 32/45



Relação do aço						
BALDRAME:			PF2			
			PF4			
COBERTA:			P132			
			P137			
FACHADA:			P131			
			P133			
			P134			
			P135			
			P136			
			PT2			
ACO	N	DIAM	QUANT	C.UNIT	C.TOTAL	
CABO	1	6.3	227	88	19976	
	2	6.3	124	108	13392	
	3	6.3	42	88	3696	
	4	6.3	70	78	5460	
	5	6.3	38	108	4072	
	6	12.5	24	429	10296	
	7	12.5	32	VAR	1344	
	8	12.5	18	312	5616	
	9	12.5	10	478	4780	
	10	12.5	30	VAR	VAR	
	11	12.5	4	84	336	
	12	16.0	4	429	1716	
	13	16.0	6	VAR	VAR	
	14	16.0	2	121	242	
	15	16.0	14	VAR	VAR	
	16	16.0	4	312	1248	
	17	16.0	4	460	1840	
Resumo do aço						
ACO	DIAM (mm)	C. TOTAL (m)	QUANT - 10% (Barra)	PESO - 10% (kg)		
CABO	6.3	459	43	123.5		
	12.5	304.7	28	322.9		
	16.0	58.3	9	180.2		
PESO TOTAL (kg)						
CABO 606.7						
Volume de concreto (C.20) = 4.85 m³						
Área da forma = 73.08 m²						
Considerações dos materiais						
Ba		Eca				
(kg/m³)		(kg/m³)				
250		21700				
Dimensão mínima da armadura = 15 mm						

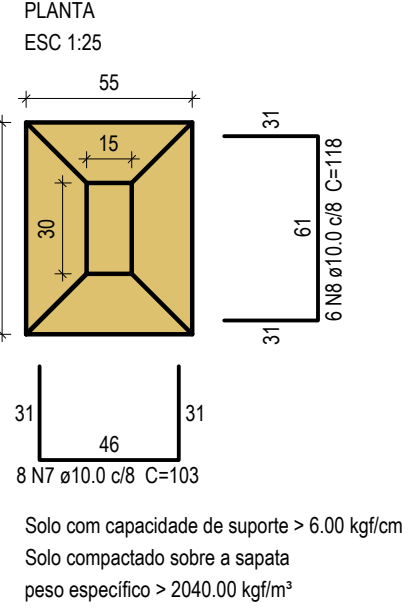


PILARES
Escala: 1:50

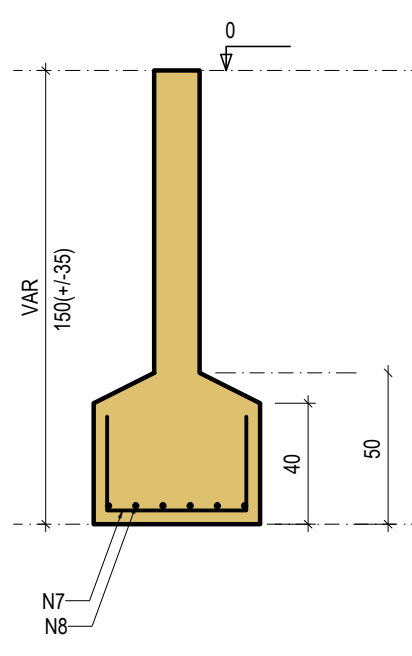


SECRETARIA DE SAÚDE		
PROJETO:	PROJETO ESTRUTURAL HOSPITAL DISTRITAL	
INTERESSADO:	PREFEITURA DE SOBRAL	
ENDEREÇO:		
MUNICÍPIO:	SOBRAL	
ASSUNTO:	PILARES (4 DE 4)	
ESCALA	INDICADA	
DATA	REVISÃO	ARQUIVO
ABR/2008	02	
FRANCHA		35/45

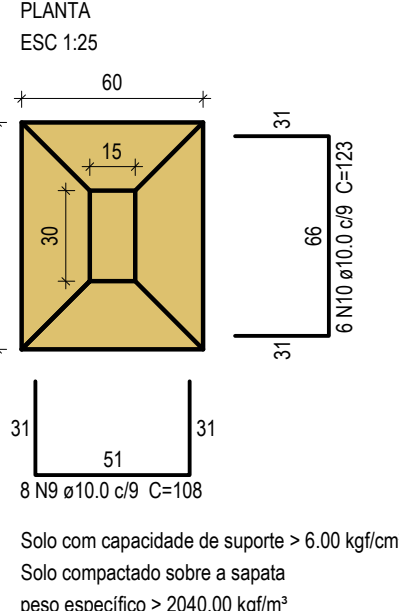
SF1-SF2-SF3-SF4-SF6-SF7



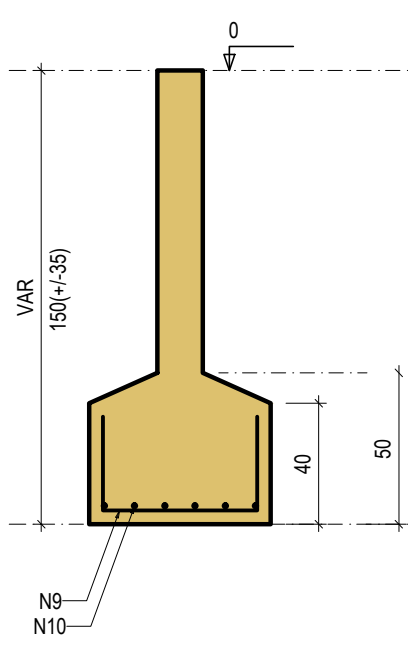
CORTE
ESC 1:25



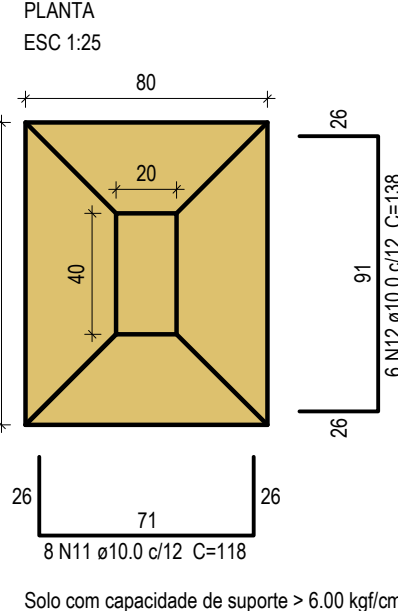
SF8



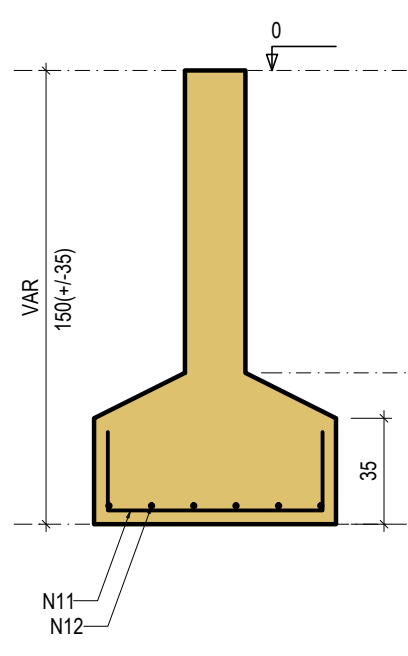
CORTE
ESC 1:25



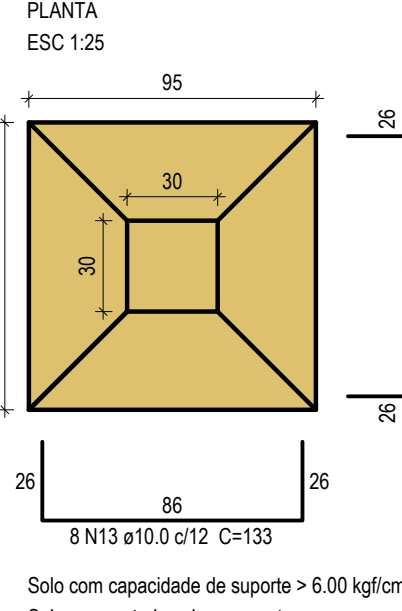
SF5



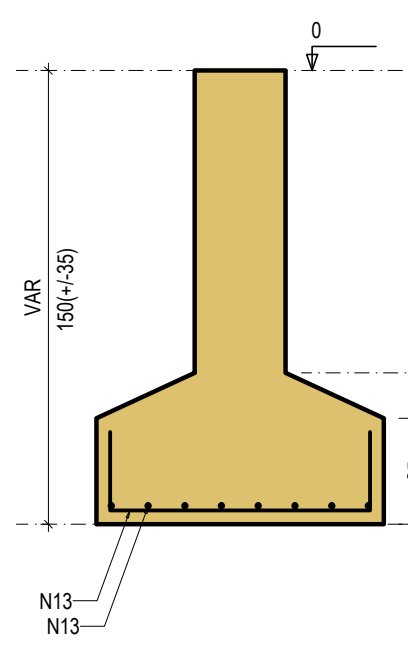
CORTE
ESC 1:25



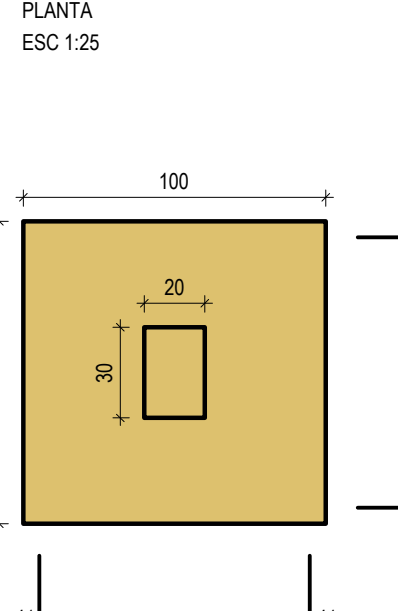
S124



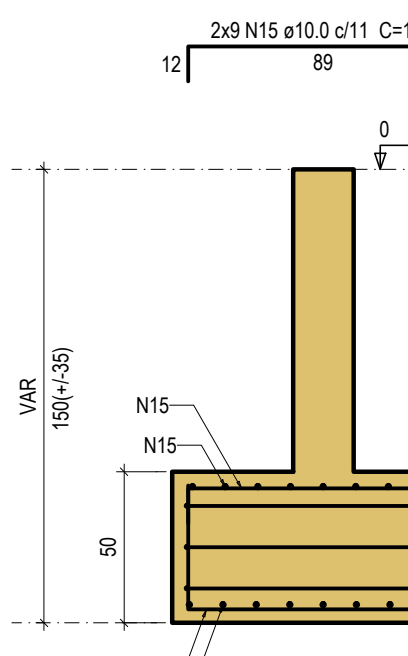
CORTE
ESC 1:25



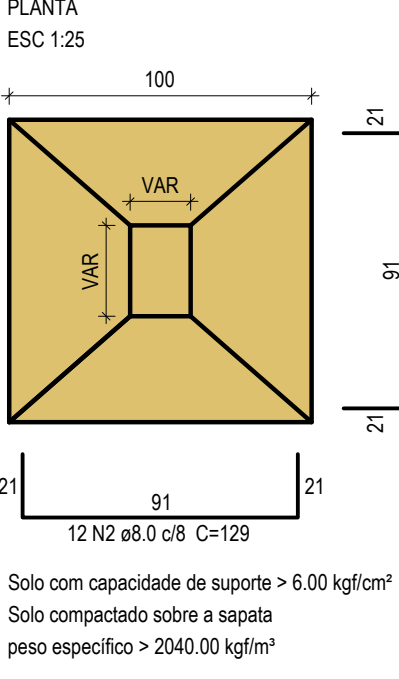
S134



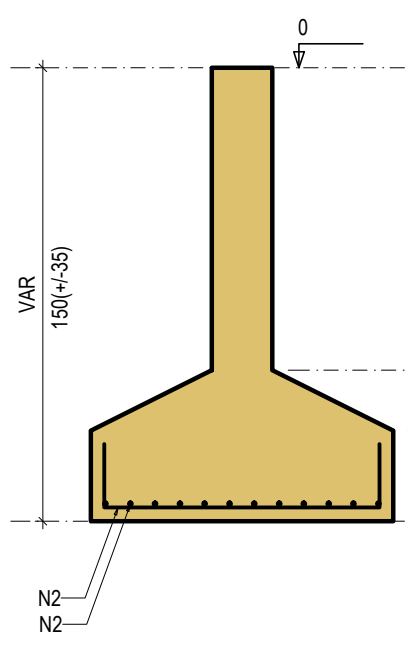
CORTE
ESC 1:25



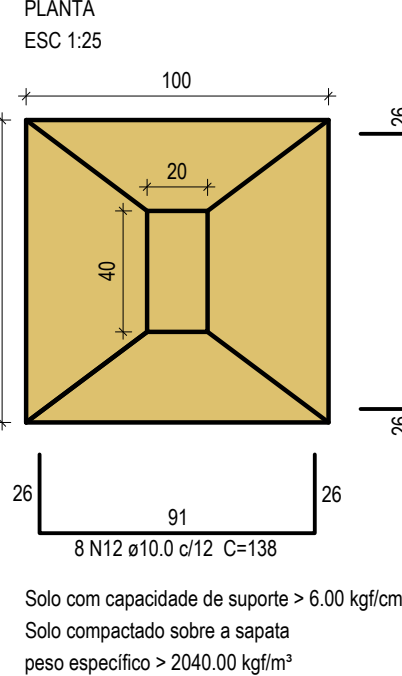
S79-S80-S85-S86-S88-S89-S90-S92-S93-S94
=S95-S96-S98-S99-S100-S102-S103-S104
=S105-S106-S107-S108-S110-S112-S114-S115
=S116-S117-S118-S119-S120-S121-S122-S125
=S126-S130-S131-S135



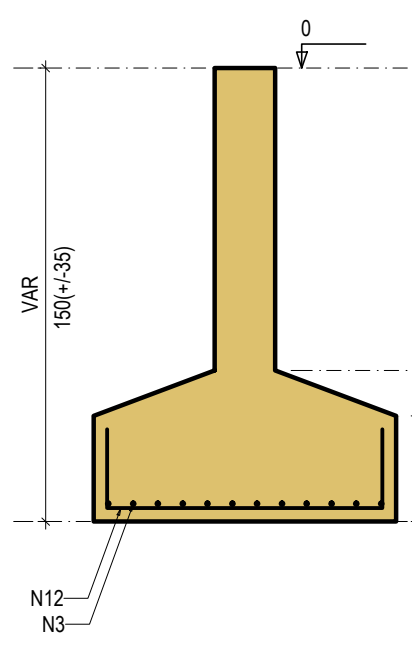
CORTE
ESC 1:25



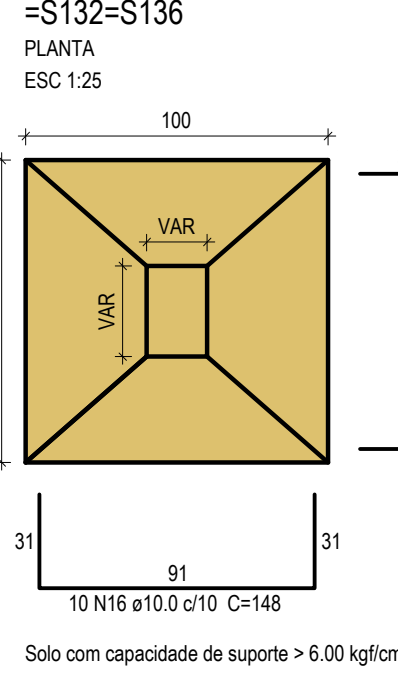
S83-S91-S113-S129



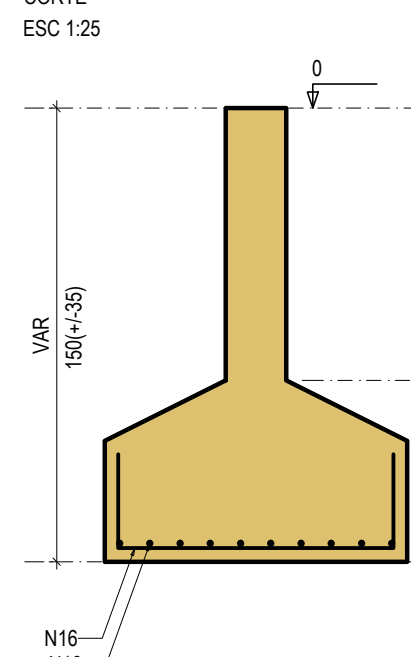
CORTE
ESC 1:25



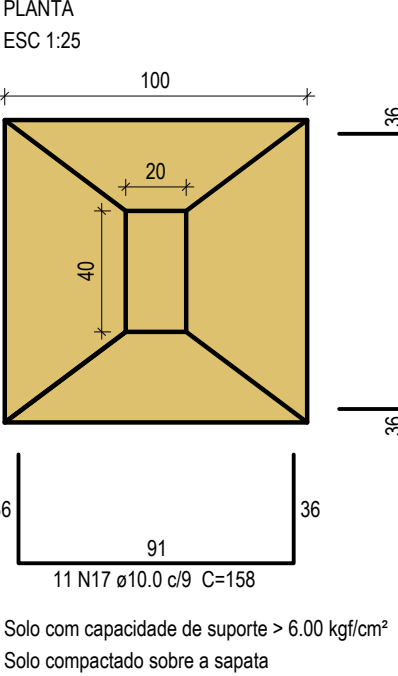
S84-S87-S97-S101-S111-S123-S127-S128
=S132-S136



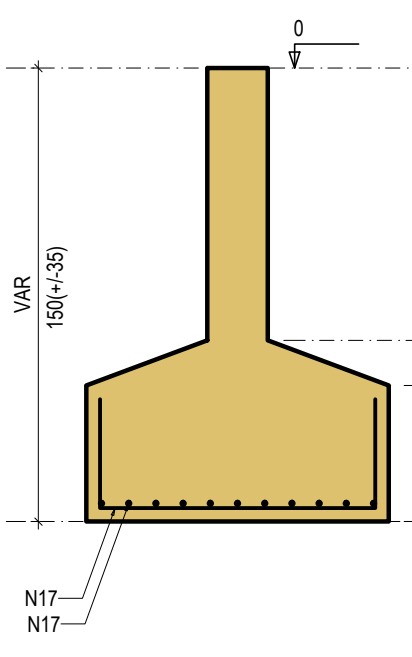
CORTE
ESC 1:25



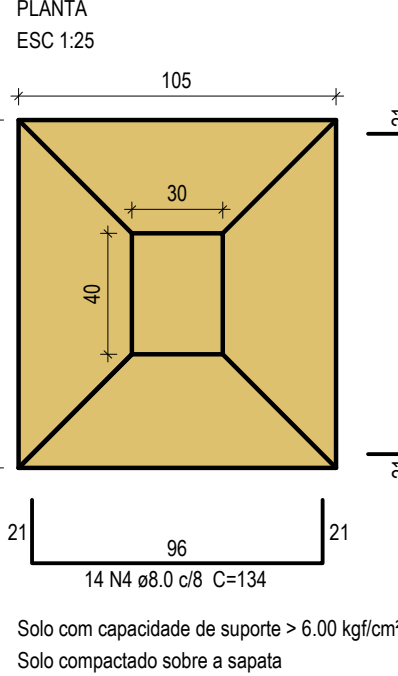
S82



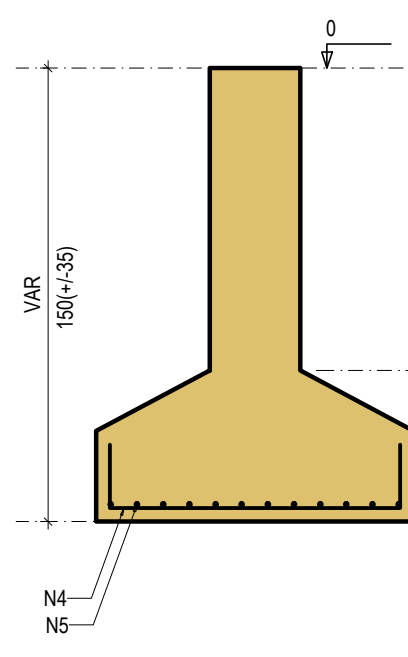
CORTE
ESC 1:25



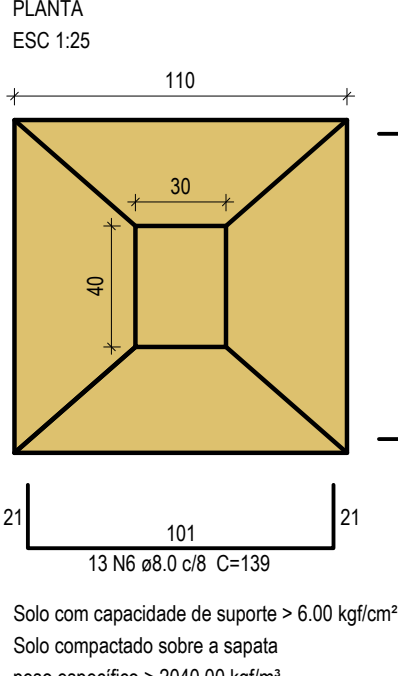
S109



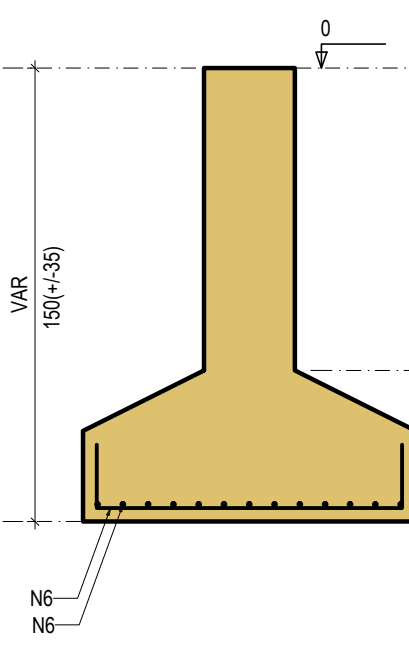
CORTE
ESC 1:25



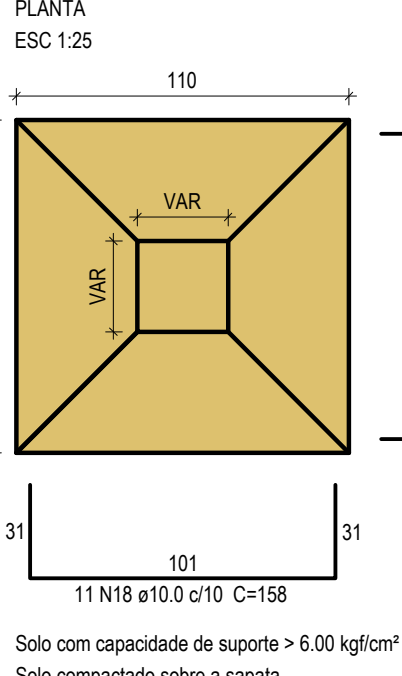
S81



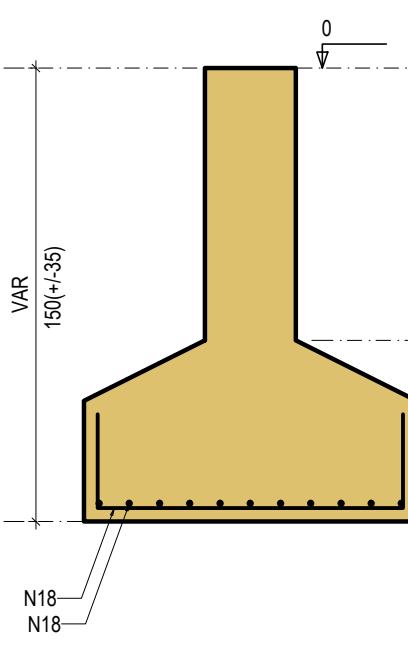
CORTE
ESC 1:25



S133-S137



CORTE
ESC 1:25



Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CASO	1	8,0	3	376	1128
	2	8,0	912	120	109368
	3	8,0	48	139	6672
	4	8,0	14	134	1876
	5	8,0	12	144	1728
	6	8,0	26	120	3116
	7	10,0	48	103	4944
	8	10,0	36	118	4248
	9	10,0	6	123	738
	10	10,0	6	118	708
	11	10,0	8	118	944
	12	10,0	38	138	5244
	13	10,0	16	133	2128
	14	10,0	16	166	2656
	15	10,0	18	160	2880
	16	10,0	200	148	29600
	17	10,0	22	160	3520
	18	10,0	44	158	6952

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10 % (Barras)	PESO + 10 % (kg)
CASO	8,0	1308,7	122	335,8
	10,0	640,7	59	434,5
PESO TOTAL (kg)				
CASO		1010,3		

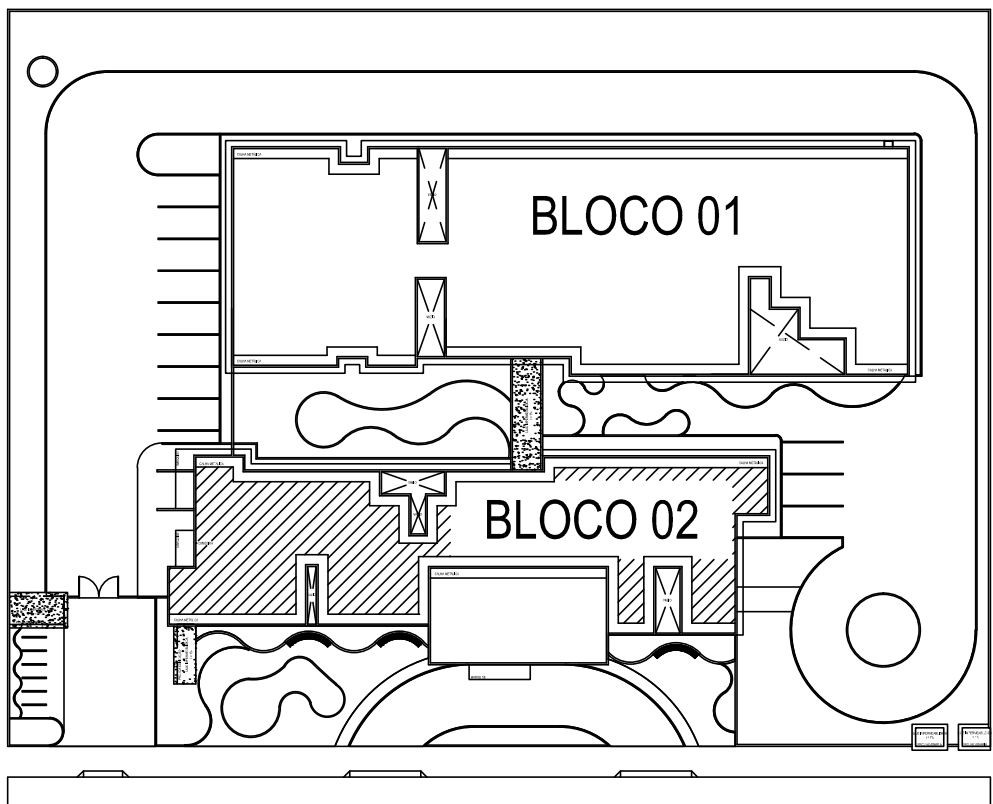
Volume de concreto (C-25) = 26,36 m³
Área de forma = 86,83 m²

Características das malhas	
lx (mm)	Ex (mm)
250	21750

Dimensão máxima da armadura = 19 mm

FUNDAÇÃO

Escala 1:50



SECRETARIA DE SAÚDE

PROJETO:
PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:
PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO:

SOBRAL



ASSUNTO:

FUNDAÇÃO

ESCALA

INDICADA

DATA

ABR/2026

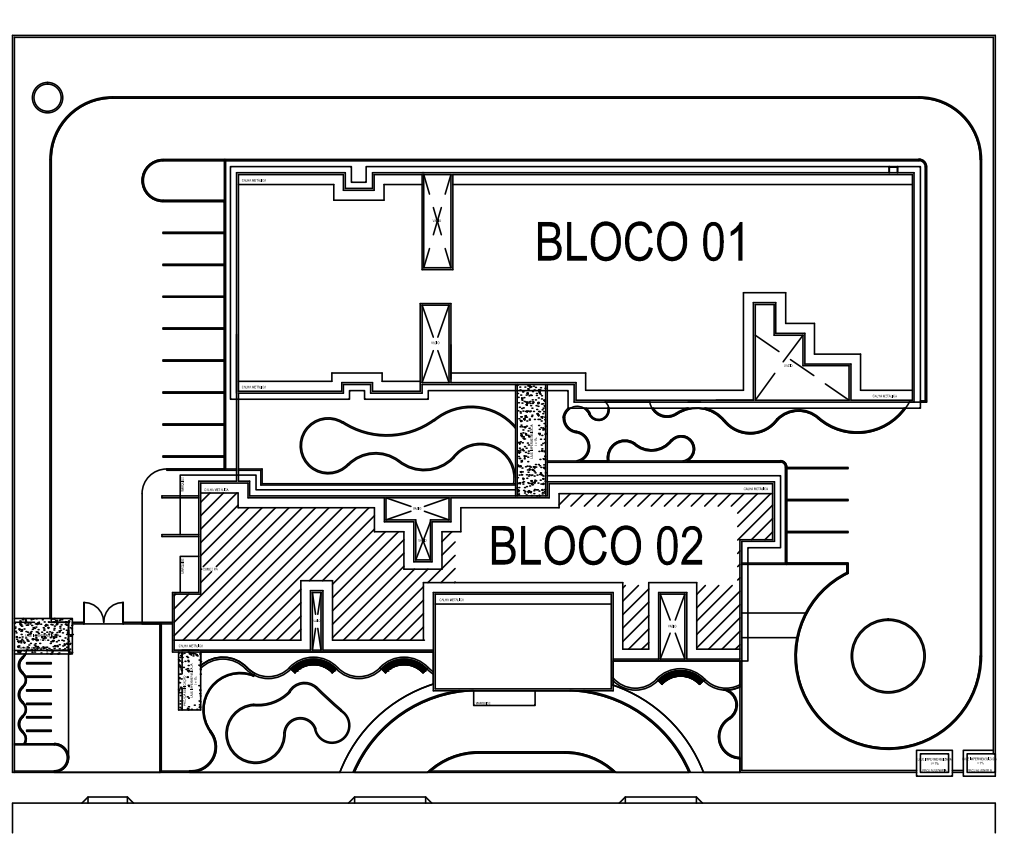
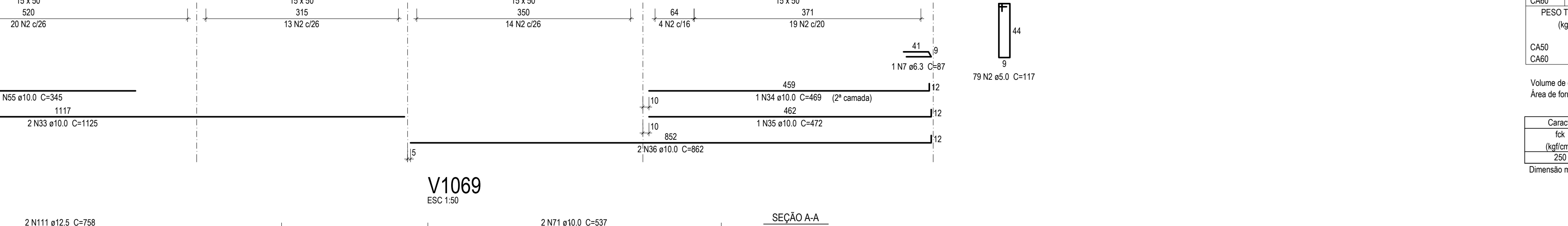
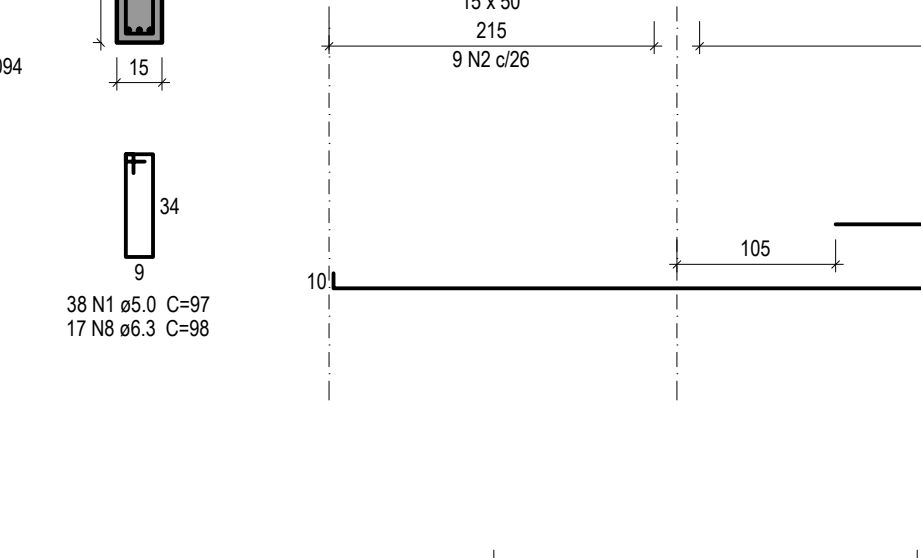
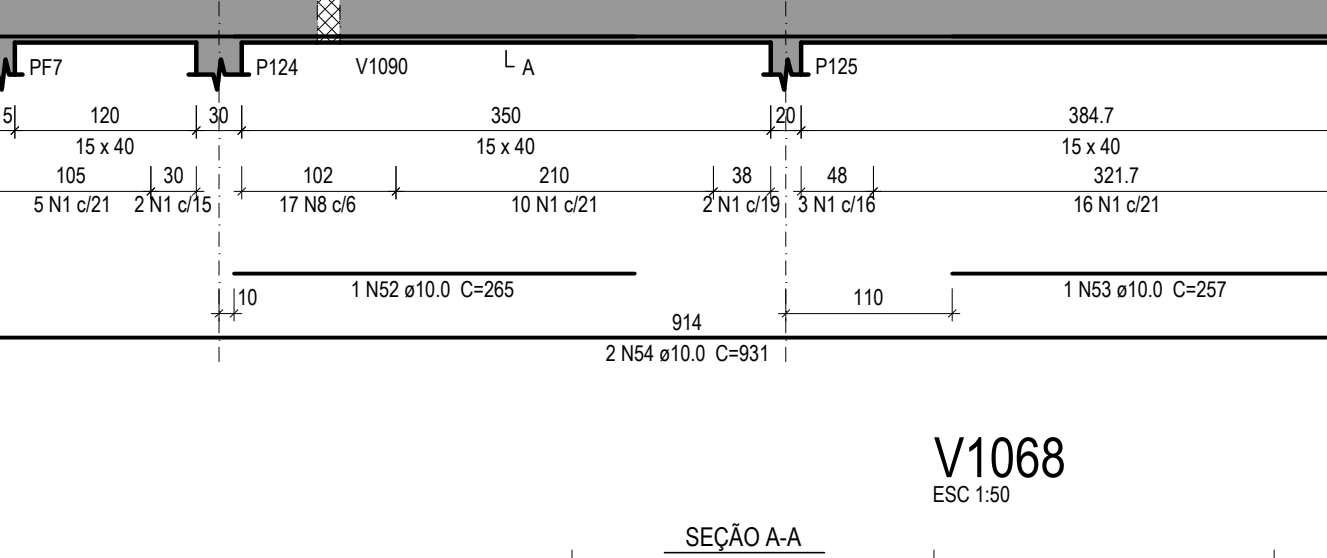
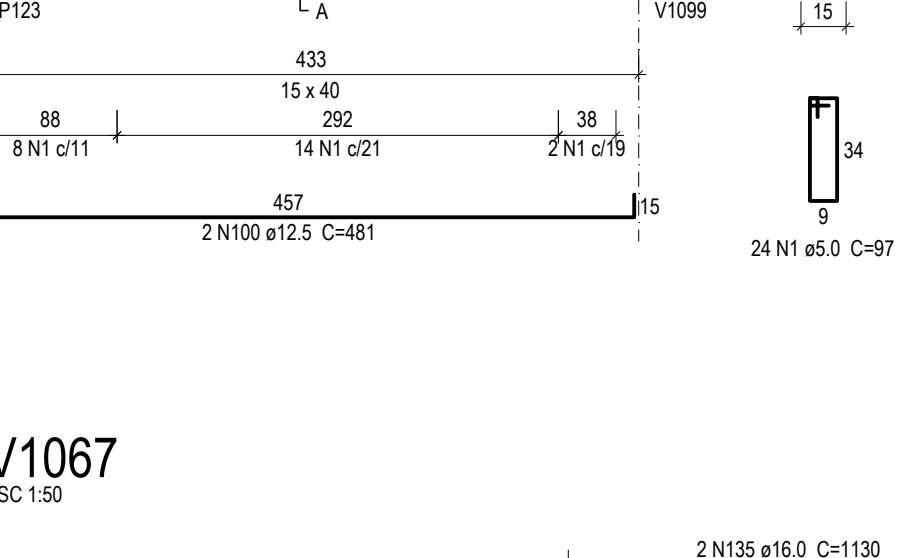
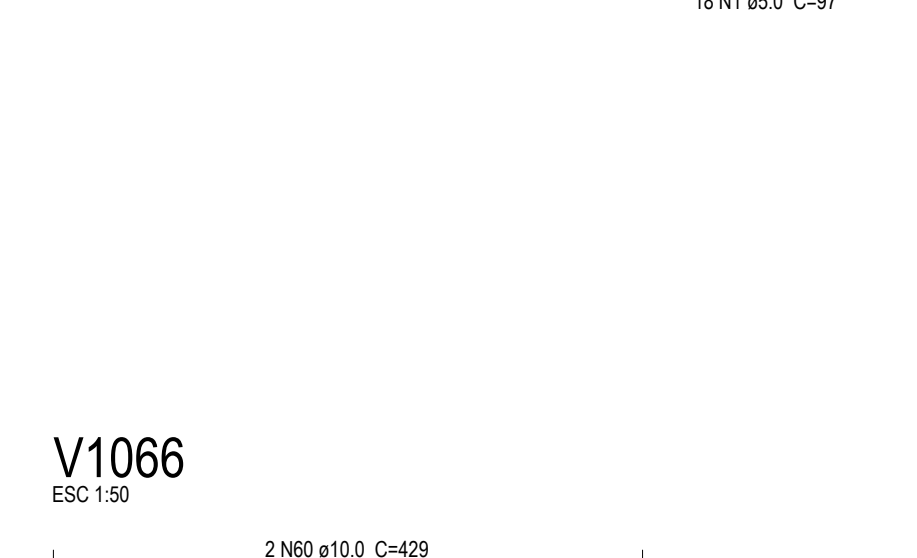
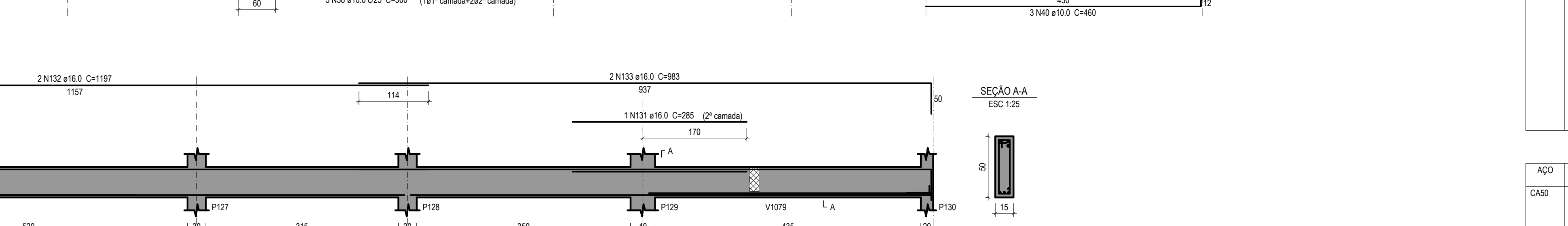
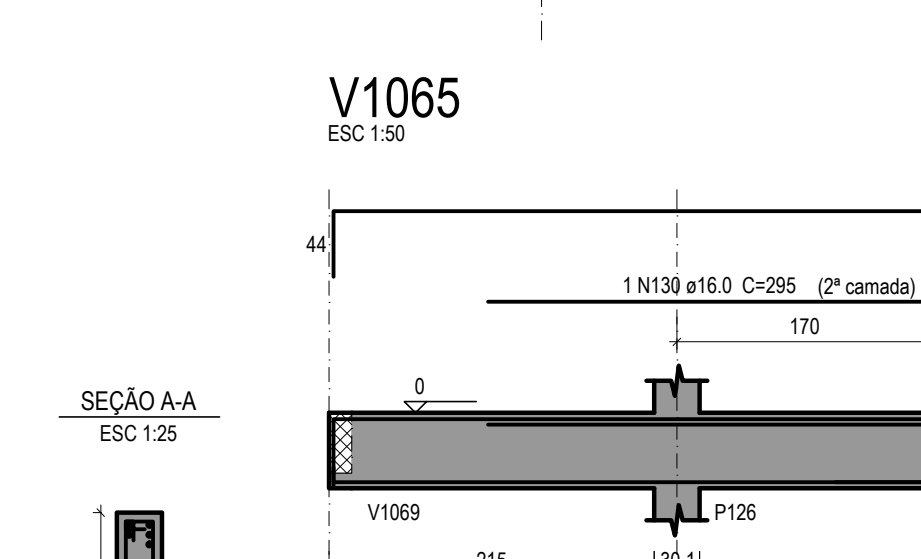
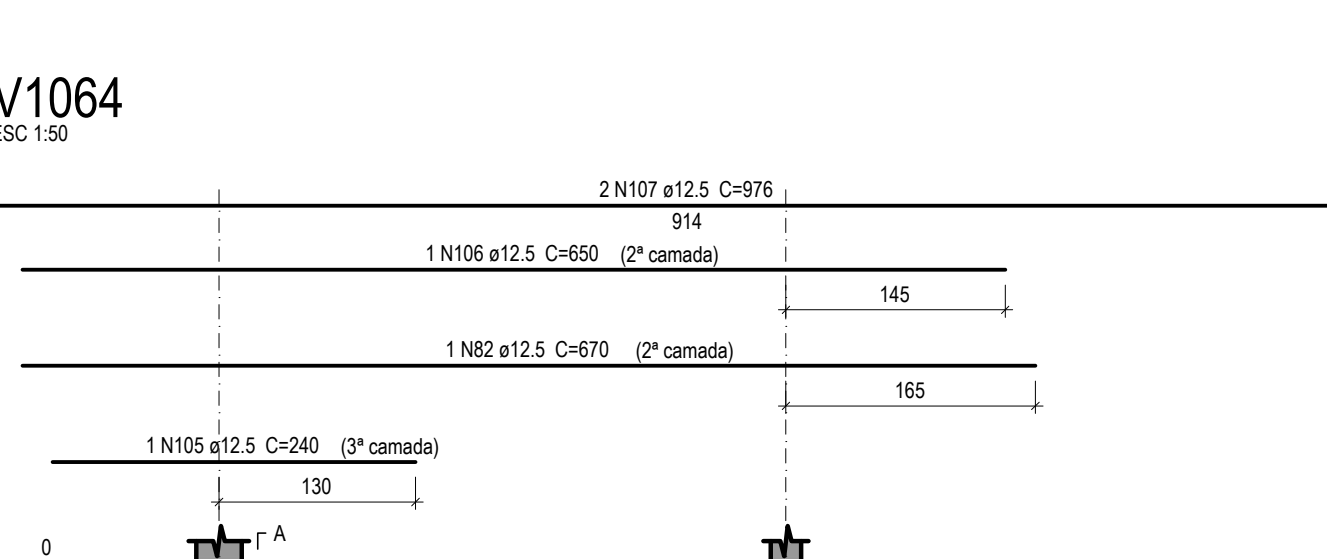
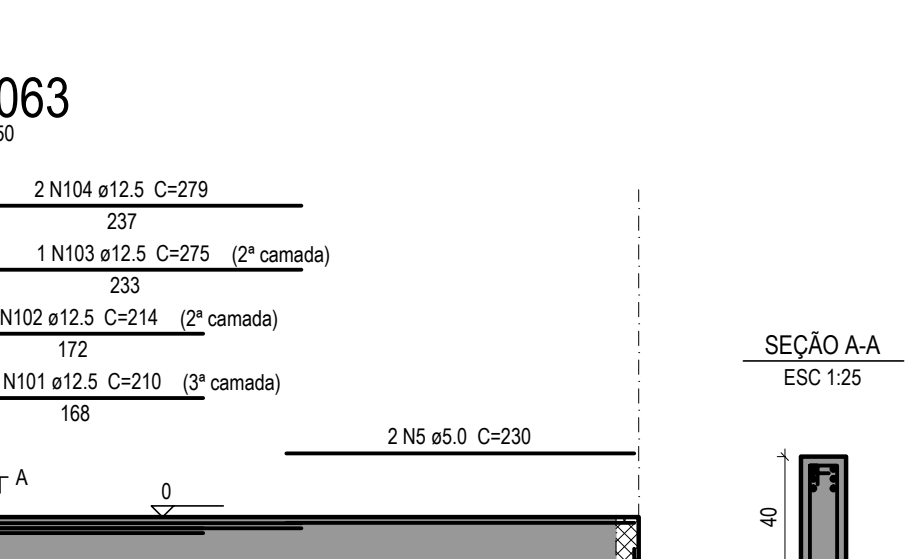
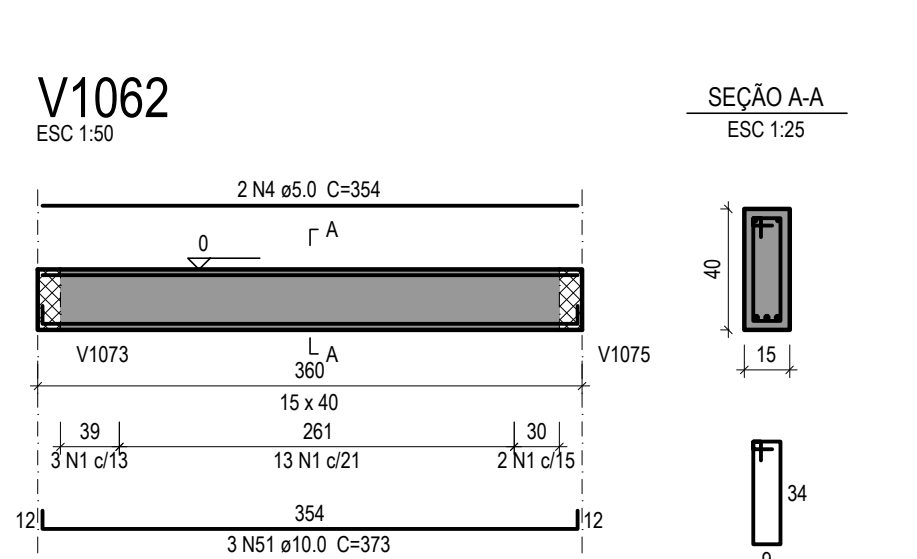
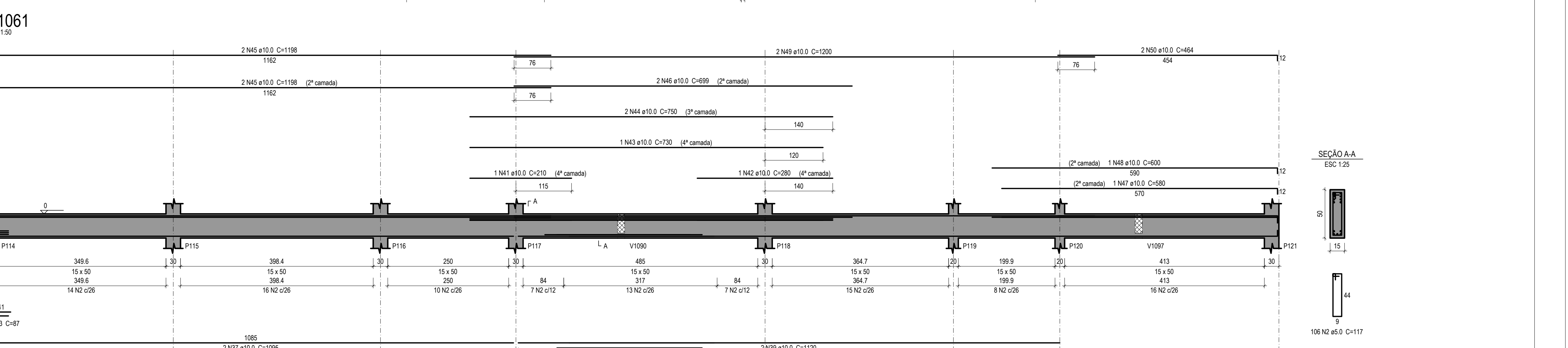
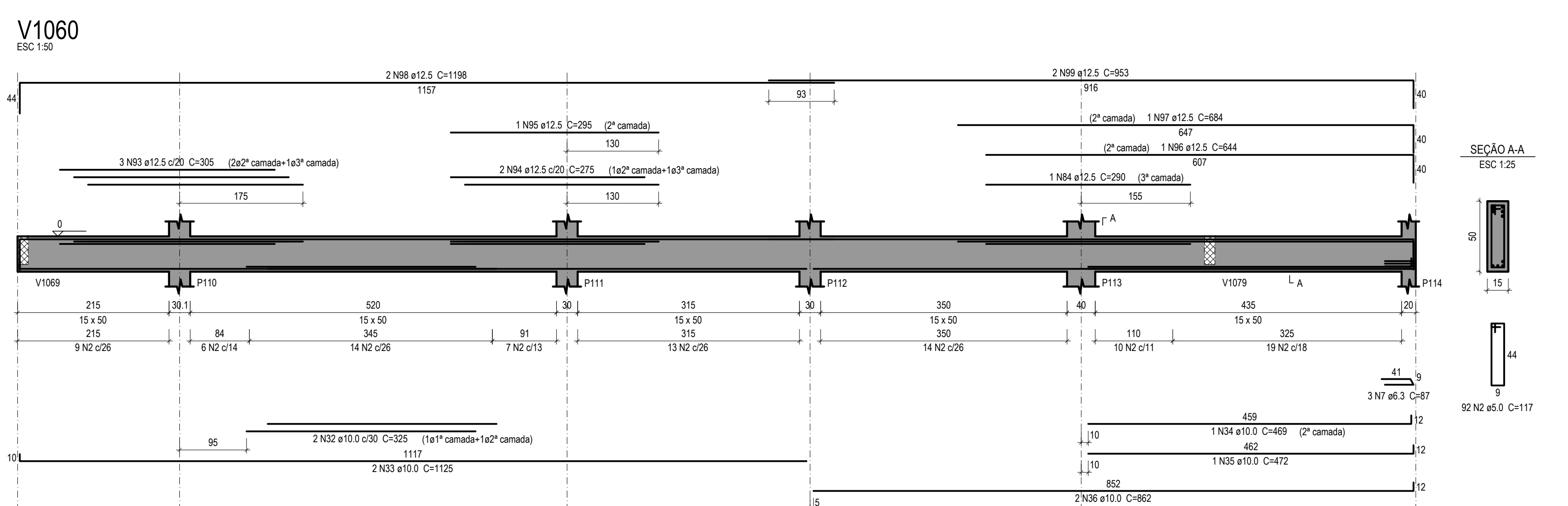
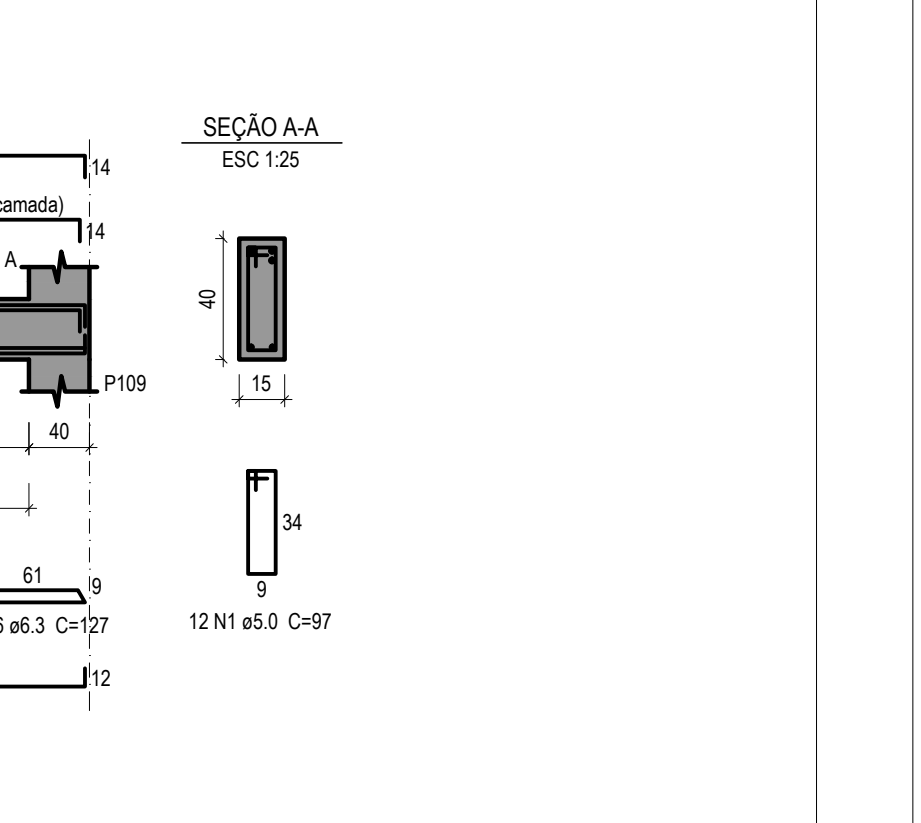
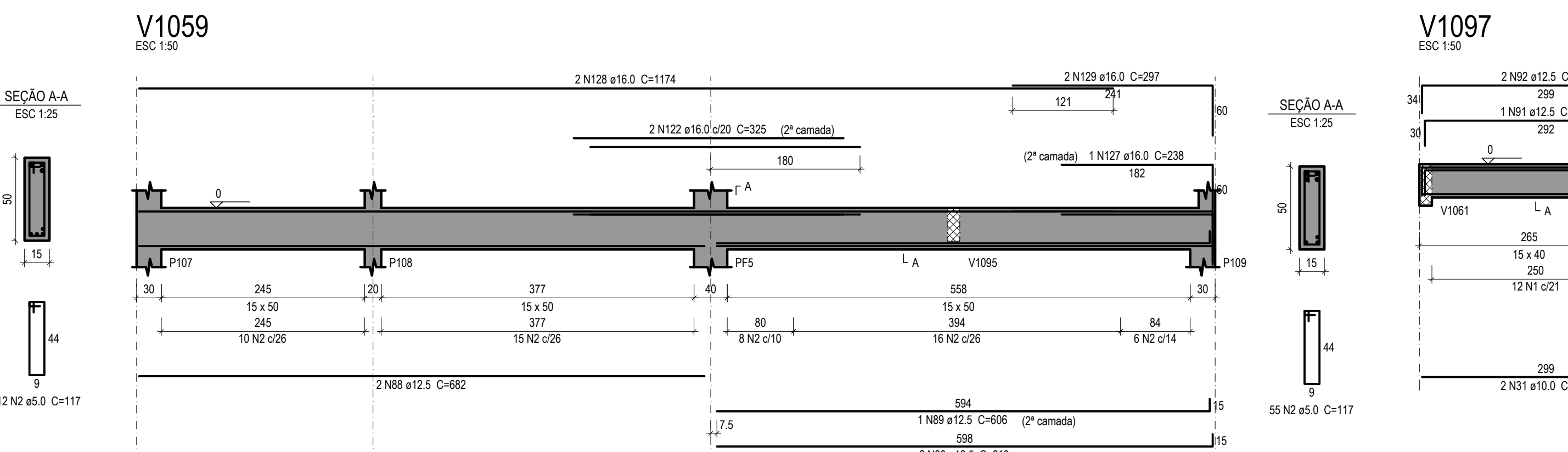
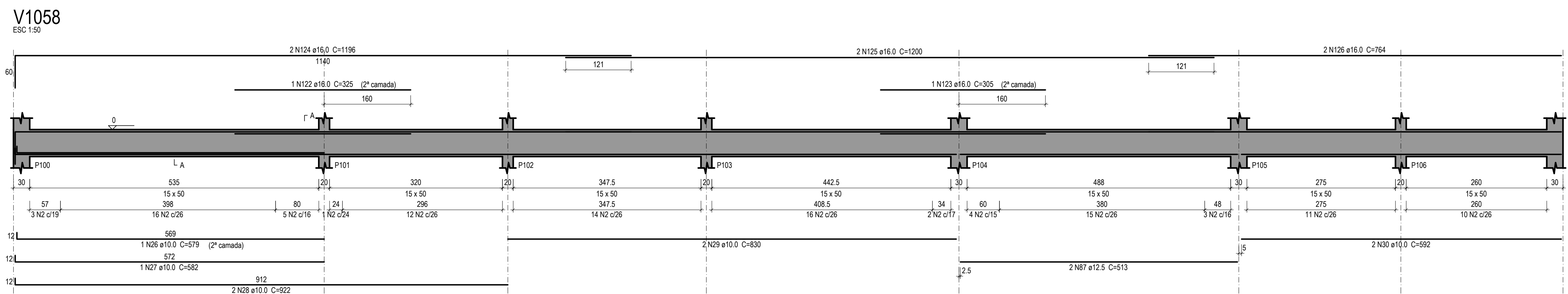
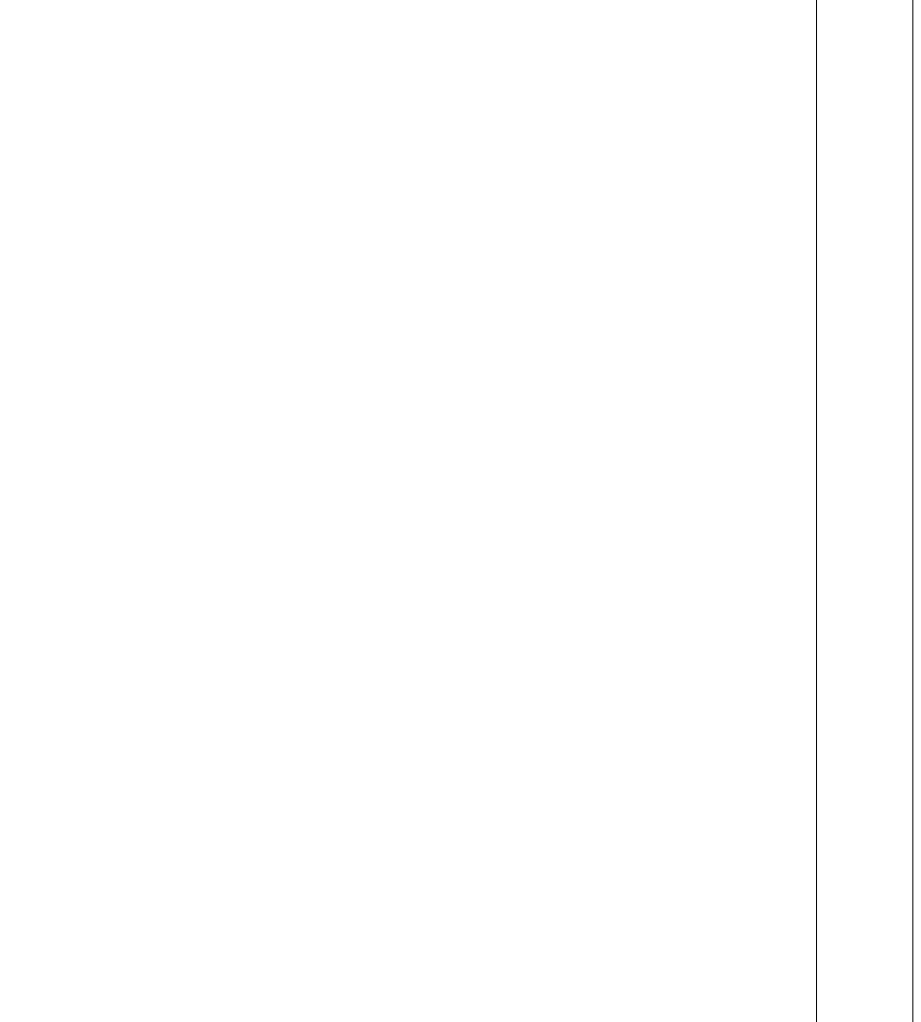
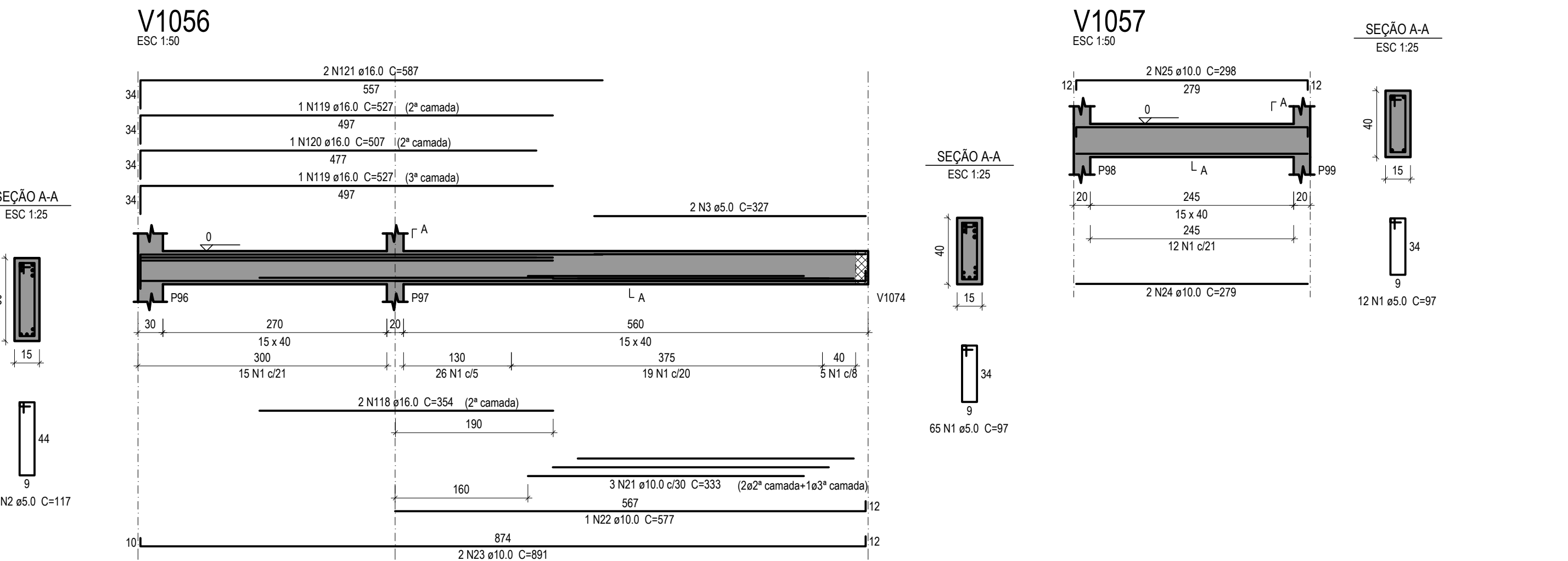
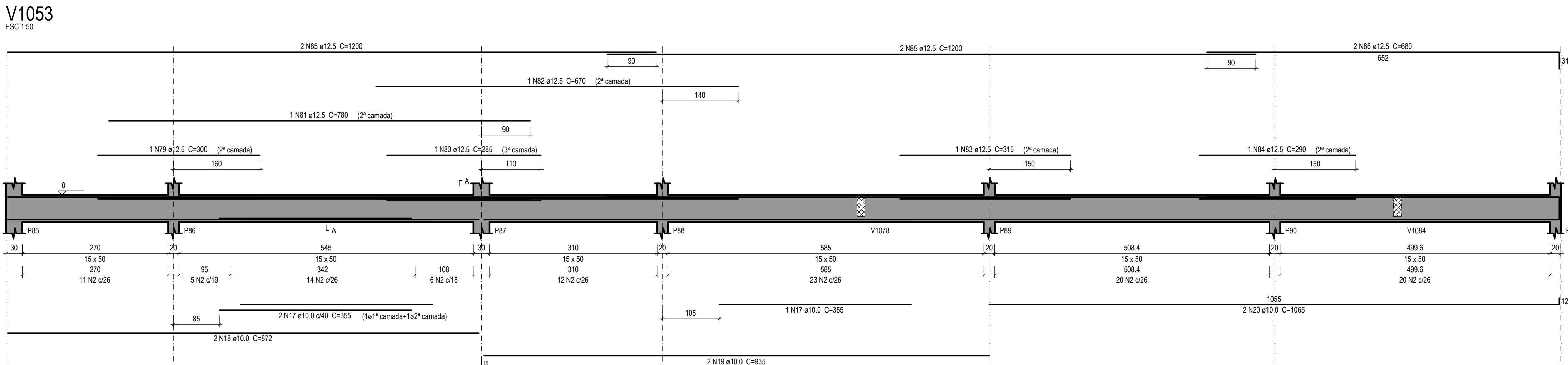
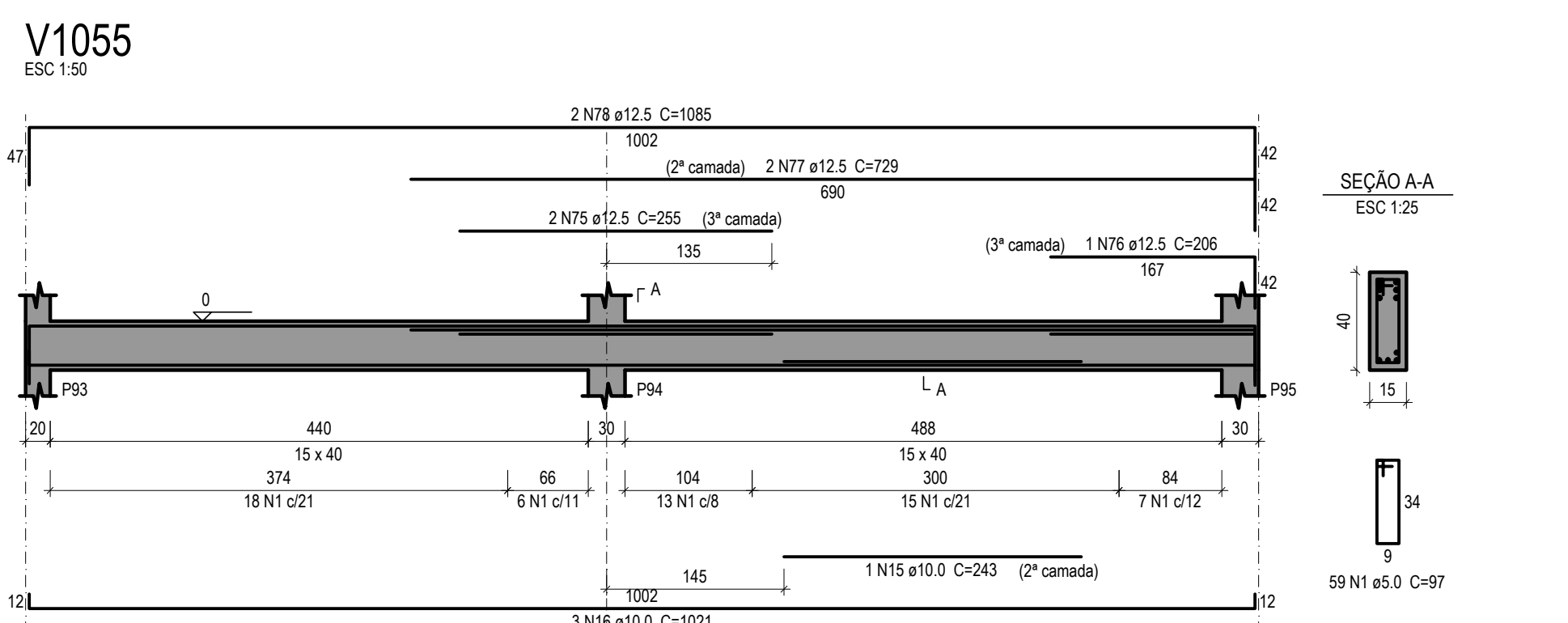
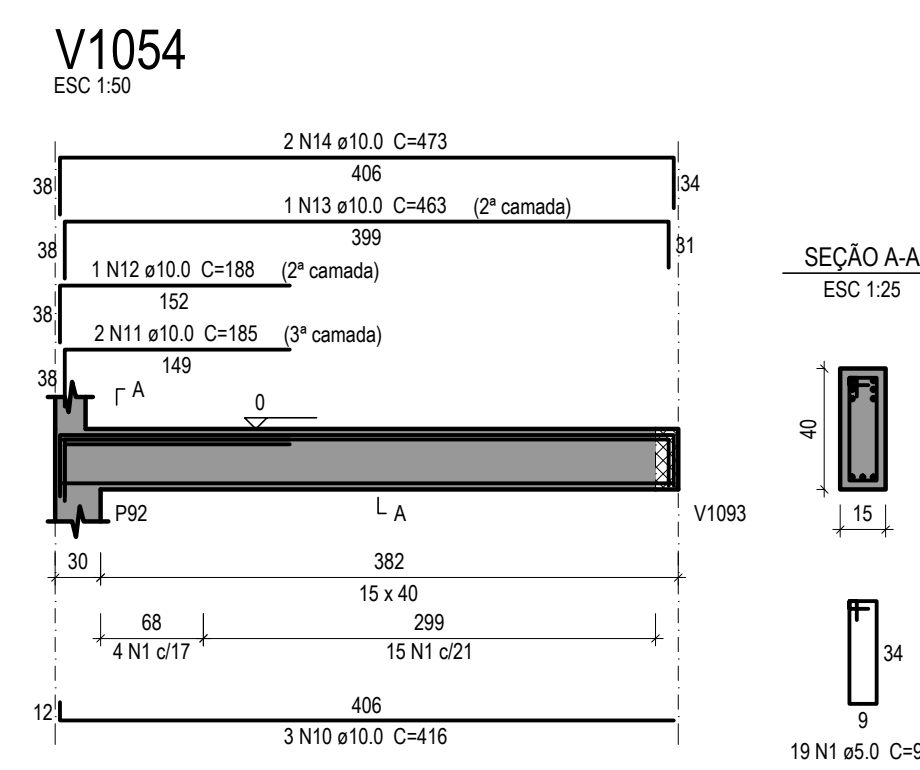
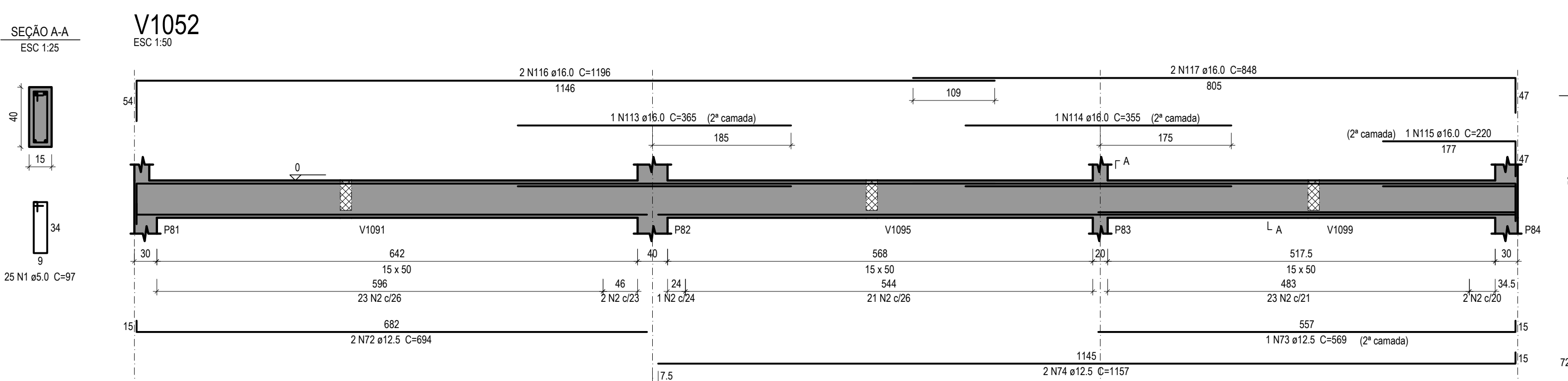
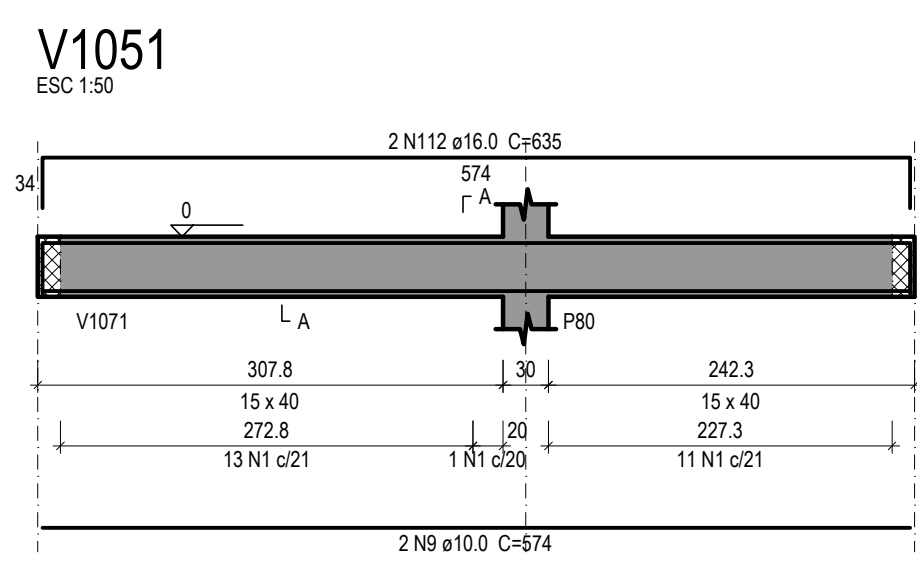
REVISÃO

02

ARQUIVO

PRANCHA

36/45



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO: SOBRAL

ASSUNTO: VIGAS BALDRAME (1 DE 2)

ESCALA: INDICADA

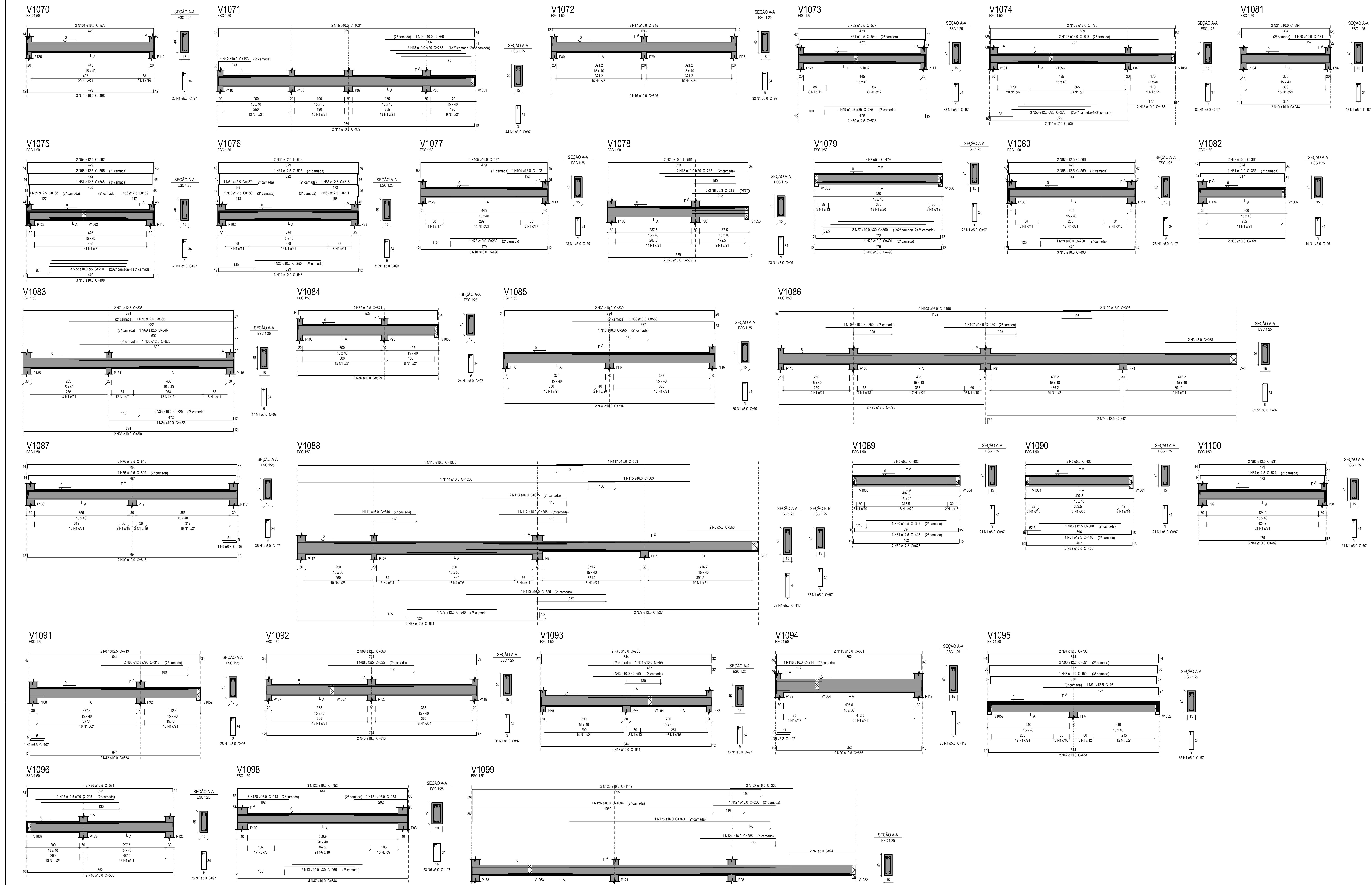
DATA: 08/02/2020

REVISÃO: 02

ARQUIVO

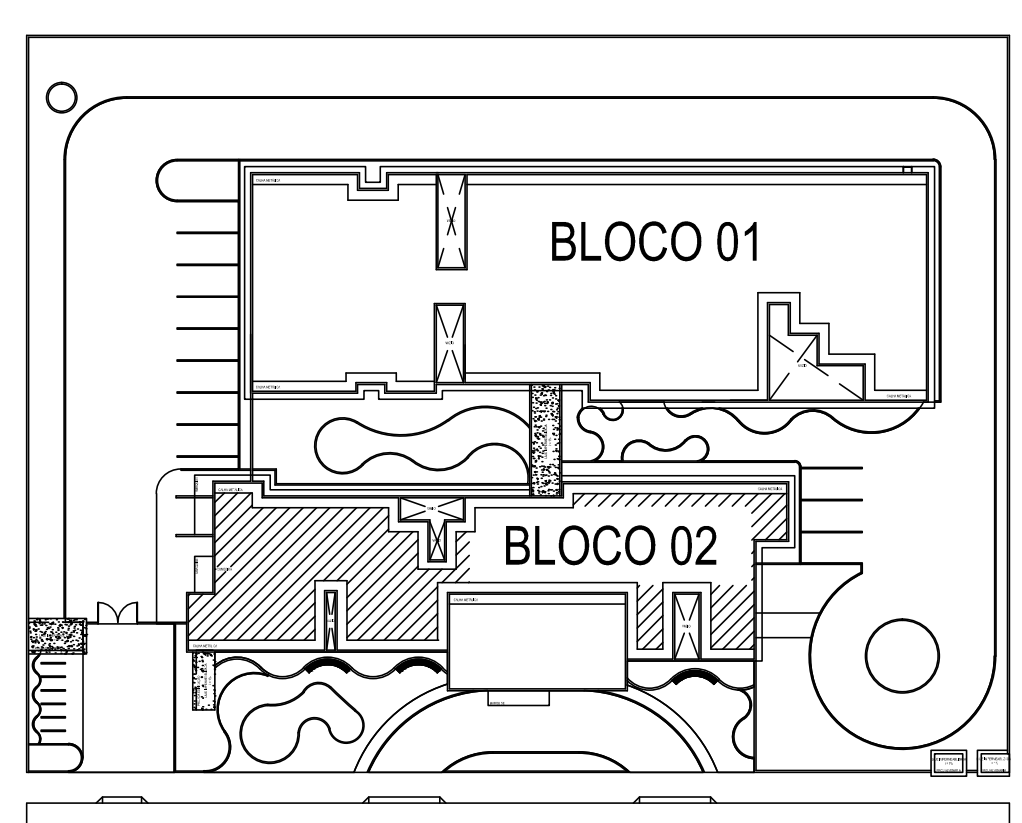
FRANCHA: 37/45

Relação do aço						
ACO	N	DIAM	QUANT	CUMUL	C TOTAL	
CABO	1	5,0	485	97	43565	
	2	5,0	627	117	73369	
	3	5,0	2	327	73704	
	4	5,0	3	344	74048	
	5	5,0	2	230	74278	
CABO	6	6,3	10	87	74365	
	8	6,3	17	98	74463	
	9	10,0	2	574	75037	
	10	10,0	3	416	75453	
	11	10,0	2	185	75638	
	12	10,0	1	188	75826	
	13	10,0	1	463	76289	
	14	10,0	2	473	76762	
	15	10,0	1	243	76905	
	16	10,0	3	1021	77926	
	17	10,0	3	350	78276	
	18	10,0	2	872	79148	
	19	10,0	2	935	80083	
	20	10,0	2	985	81068	
	21	10,0	3	333	81401	
	22	10,0	2	277	81678	
	23	10,0	2	991	82669	
	24	10,0	2	279	82948	
	25	10,0	1	579	83527	
	26	10,0	1	582	84109	
	28	10,0	2	922	85031	
	29	10,0	2	930	85961	
	30	10,0	2	992	86953	
	31	10,0	2	339	87292	
	32	10,0	2	356	87648	
	33	10,0	4	1125	88773	
	34	10,0	2	495	89268	
	35	10,0	2	297	89565	
	36	10,0	4	862	90427	
	37	10,0	2	1095	91522	
	38	10,0	3	300	91822	
	39	10,0	2	1100	92922	
	40	10,0	3	460	93382	
	41	10,0	1	210	93592	
	42	10,0	2	280	93872	
43	10,0	1	730	94602		
44	10,0	2	750	95352		
45	10,0	4	1198	96550		
46	10,0	2	699	97249		
47	10,0	1	580	97829		
48	10,0	1	600	98429		
49	10,0	2	1000	99429		
50	10,0	2	454	99883		
51	10,0	3	373	100256		
52	10,0	1	265	100521		
53	10,0	1	297	100818		
54	10,0	2	931	101749		
55	10,0	2	945	102694		
56	10,0	2	463	103157		
57	10,0	1	188	103345		
58	10,0	1	213	103558		
59	10,0	1	422	103980		
60	10,0	2	429	104409		
61	10,0	1	680	105089		
62	10,0	2	967	106056		
63	10,0	2	925	106981		
64	10,0	2	290	107271		
65	10,0	3	532	107803		
66	10,0	1	255	107958		
67	10,0	1	578	108536		
68	10,0	2	800	109336		
69	10,0	2	414	109750		
70	10,0	1	534	110284		
71	10,0	1	1034	111318		
72	12,5	2	694	112012		
73	12,5	1	569	112581		
74	12,5	2	1157	113738		
75	12,5	2	255	113993		
76	12,5	2	256	114249		
77	12,5	2	729	115078		
78	12,5	2	1085	116163		
79	12,5	1	300	116463		
80	12,5	2	365	116828		
81	12,5	1	780	117608		
82	12,5	2	670	118278		
83	12,5	1	315	118593		
84	12,5	2	290	118883		
85	12,5	2	1000	119883		
86	12,5	2	680	120563		
87	12,5	2	913	121476		
88	12,5	2	682	122158		
89	12,5	1	698	122856		
90	12,5	2	910	123766		
91	12,5	1	330	124096		
92	12,5	2	341	124437		
93	12,5	2	365	124802		
94	12,5	2	270	125072		
95	12,5	1	255	125327		
96	12,5	1	644	125971		
97	12,5	1	684	126655		
98	12,5	2	1198	127853		
99	12,5	2	953	128806		
100	12,5	2	487	129293		
101	12,5	2	210	129503		
102	12,5	1	214	129717		
103	12,5	1	275	129992		
104	12,5	2	279	130271		
105	12,5	1	240	130511		
106	12,5	1	600	131111		
107	12,5	2	916	132027		
108	12,5	2	235	132262		
109	12,5	1	213	132475		
110	12,5	2	663	133138		
111	12,5	2	738	133876		
112	16,0	2	635	134511		
113	16,0	1	355	134866		
114	16,0	1	355	135221		
115	16,0	1	220	135441		
116	16,0	2	1198	136639		
117	16,0	2	846	137485		
118	16,0	2	354	137839		
119	16,0	2	527	138366		
120	16,0	1	597	138963		
121	16,0	2	987	139950		
122	16,0	1	365	140315		
123	16,0	1	305	140620		
124						



Relação do aço									
ACO	N	DIAM (mm)	QUANT	UNID	C TOTAL (mts)	C TOTAL (mts)	RESUMO DO AÇO	QUANT + 10% (mts)	PESO + 10% (kg)
CA50	1	5.0	1012	97	97	97	RESUMO DO AÇO	QUANT + 10% (mts)	PESO + 10% (kg)
	2	5.0	2	479	958	958			
	3	5.0	4	258	1032	1032			
	4	5.0	64	117	7488	7488			
	5	5.0	4	402	1608	1608			
	6	5.0	53	107	2671	2671			
	7	5.0	2	107	404	404			
	8	6.3	4	218	872	872			
	9	6.3	5	107	221	221			
	10	10.0	16	486	1742	1742			
	11	10.0	2	977	1954	1954			
	12	10.0	1	153	153	153			
	13	10.0	8	265	2126	2126			
	14	10.0	1	365	365	365			
	15	10.0	2	1031	2062	2062			
	16	10.0	2	966	1932	1932			
	17	10.0	2	715	1430	1430			
	18	10.0	2	560	1120	1120			
	19	10.0	2	344	688	688			
	20	10.0	1	194	194	194			
	21	10.0	2	304	608	608			
	22	10.0	3	290	870	870			
	23	10.0	2	300	600	600			
	24	10.0	3	548	1644	1644			
	25	10.0	2	361	722	722			
	26	10.0	2	561	1122	1122			
	27	10.0	1	491	982	982			
	28	10.0	1	230	230	230			
	29	10.0	1	355	355	355			
	30	10.0	2	648	1296	1296			
	31	10.0	1	355	355	355			
	32	10.0	1	255	255	255			
	33	10.0	1	225	225	225			
	34	10.0	1	483	483	483			
	35	10.0	2	804	1608	1608			
	36	10.0	2	1059	2118	2118			
	37	10.0	2	794	1588	1588			
	38	10.0	1	503	503	503			
	39	10.0	2	1029	2058	2058			
	40	10.0	4	813	3252	3252			
	41	10.0	3	483	1447	1447			
	42	10.0	6	604	3624	3624			
	43	10.0	1	255	255	255			
	44	10.0	1	497	497	497			
	45	10.0	2	946	1892	1892			
	46	10.0	2	590	1180	1180			
	47	10.0	4	644	2576	2576			
	48	10.0	2	875	1750	1750			
	49	12.5	2	235	470	470			
	50	12.5	2	833	1666	1666			
	51	12.5	2	590	1180	1180			
	52	12.5	2	677	1354	1354			
	53	12.5	3	275	825	825			
	54	12.5	2	337	674	674			
	55	12.5	1	168	168	168			
	56	12.5	1	548	548	548			
	57	12.5	2	555	1110	1110			
	58	12.5	2	644	1288	1288			
	59	12.5	1	193	193	193			
	60	12.5	1	307	307	307			
	61	12.5	1	211	211	211			
	62	12.5	1	215	215	215			
	63	12.5	1	605	605	605			
	64	12.5	1	605	605	605			
	65	12.5	1	605	605	605			
	66	12.5	2	599	1198	1198			
	67	12.5	2	566	1132	1132			
	68	12.5	1	605	605	605			
	69	12.5	1	646	646	646			
	70	12.5	1	665	665	665			
	71	12.5	2	838	1676	1676			
	72	12.5	2	571	1142	1142			
	73	12.5	2	775	1550	1550			
	74	12.5	2	842	1684	1684			
	75	12.5	1	809	809	809			
	76	12.5	2	816	1632	1632			
	77	12.5	1	340	340	340			
	78	12.5	2	821	1642	1642			
	79	12.5	2	807	1614	1614			
	80	12.5	1	303	303	303			
	81	12.5	1	438	438	438			
	82	12.5	4	426	1704	1704			
	83	12.5	1	338	338	338			
	84	12.5	1	524	524	524			
	85	12.5	1	524	524	524			
	86	12.5	2	531	1062	1062			
	87	12.5	2	719	1438	1438			
	88	12.5	1	305	305	305			
	89	12.5	2	800	1600	1600			
	90	12.5	2	536	1072	1072			
	91	12.5	1	461	461	461			
	92	12.5	1	639	639	639			
	93	12.5	2	891	1782	1782			
	94	12.5	2	796	1592	1592			
	95	12.5	2	296	592	592			
	96	12.5	2	544	1088	1088			
	97	12.5	1	243	243	243			
	98	12.5	2	549	1098	1098			
	99	12.5	1	257	257	257			
	100	12.5	2	476	952	952			
	101	16.0	2	535	1070	1070			
	102	16.0	2	693	1386	1386			
	103	16.0	2	796	1592	1592			
	104	16.0	1	193	193	193			
	105	16.0	2	577	1154	1154			
	106	16.0	1	250	250	250			
	107	16.0	1	270	270	270			
	108	16.0	2	1196	2392	2392			
	109	16.0	2	398	796	796			
	110	16.0	2	535	1070	1070			
	111	16.0	1	310	310	310			
	112	16.0	1	355	355	355			
	113	16.0	2	315	630	630			
	114	16.0	1	1240	1240	1240			
	115	16.0	1	383	383	383			
	116	16.0	1	1080	1080	1080			
	117	16.0	1	933	933	933			
	118	16.0	1	214	214	214			
	119	16.0	2	651	1302	1302			
	120	16.0	3	243	729	729			
	121	16.0	2	516	1032	1032			
	122	16.0	3	752	2256	2256			
	123	16.0	1	287	287	287			
	124	16.0	1	285	285	285			
	125	16.0	1	760	760	760			
	126	16.0	1	1084	1084	1084			
	127	16.0	3	236	708	708			
	128	16.0	2	1148	2296	2296			

Resumo do aço					
ACO	DIAM (mm)	C TOTAL (mts)	QUANT + 10% (mts)	PESO + 10% (kg)	
CA50	5.0	97	97	3.2	3.2
	10.0	8031	47	341.2	341.2
	12.5	4843	43	481.9	481.9
CA60	16.0	290	29	434	434
	5.0	1154.6	-	195.8	195.8
PESO TOTAL (kg)					
CA50	12793.3				
CA60	195.8				
Volume de concreto (C-25) = 11.63 m³					
Área de forma = 143.34 m²					
Características dos materiais					
Id	Exa	kg/m³			
250	217500				
Densidade máxima do agregado = 19 mm					



SECRETARIA DE SAÚDE

PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL

INTERESSADO: PREFEITURA DE SOBRAL

ENDEREÇO:

MUNICÍPIO: SOBRAL

ASSUNTO: VIGAS BALDRAME (2 DE 2)

ESCALA: INDICADA

DATA: 08/02/2020

REVISÃO: 02

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Escala 1:50

Características dos materiais	
f_{ck} (kgf/cm ²)	Ecs (kgf/cm ²)
250	217350

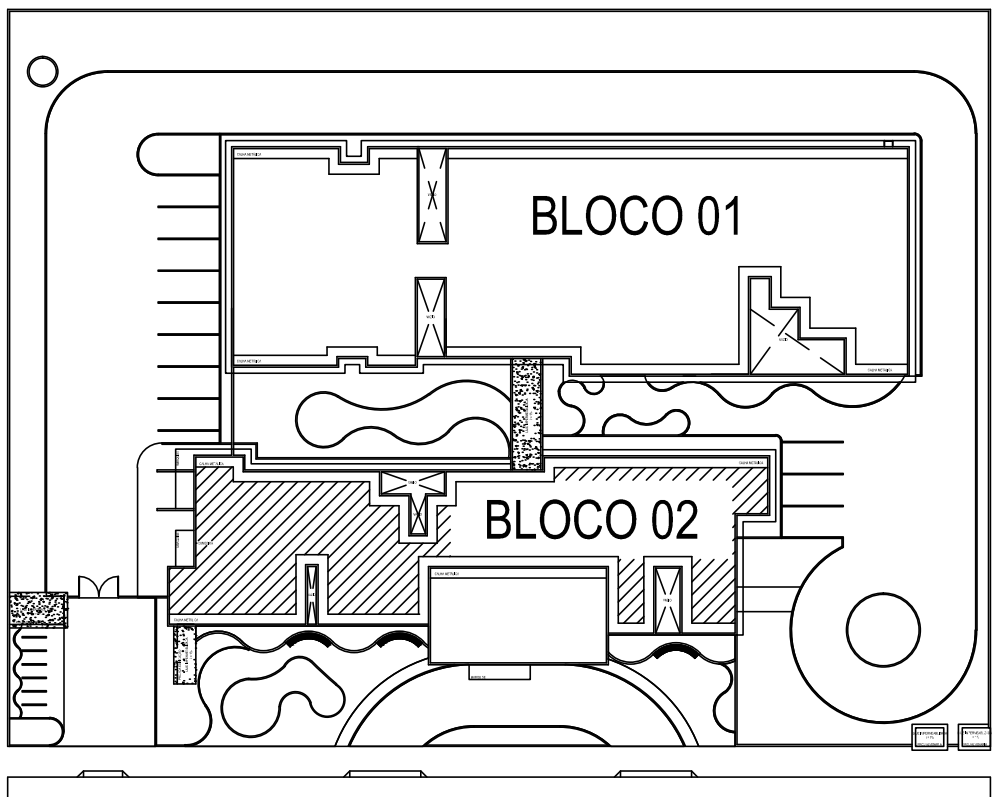
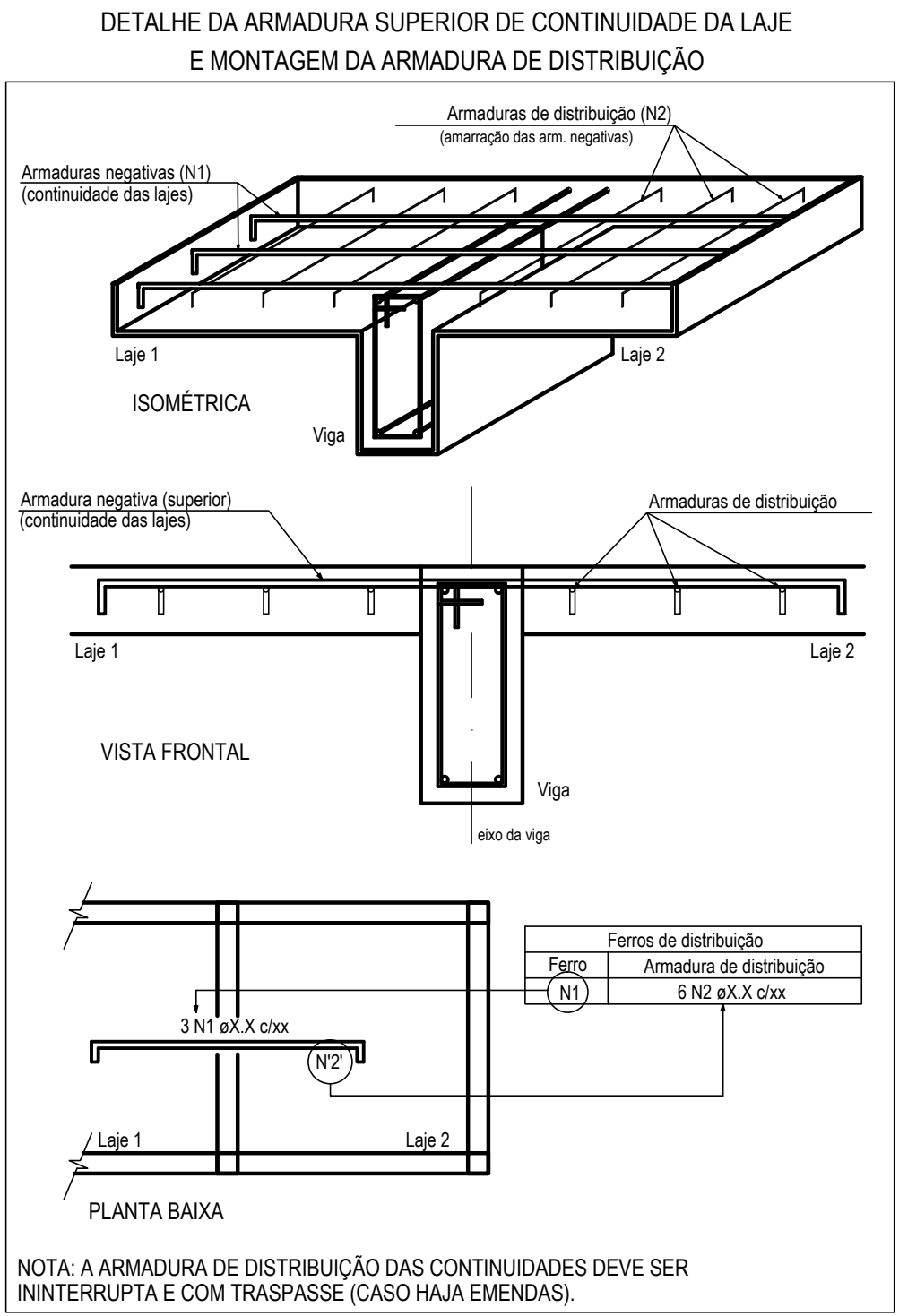
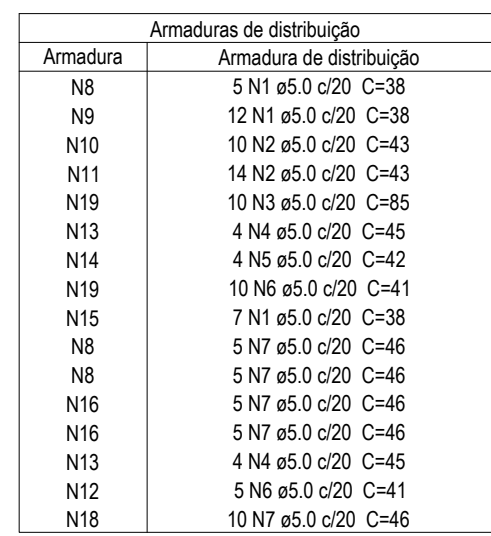
Dimensão máxima do agregado = 19 mm



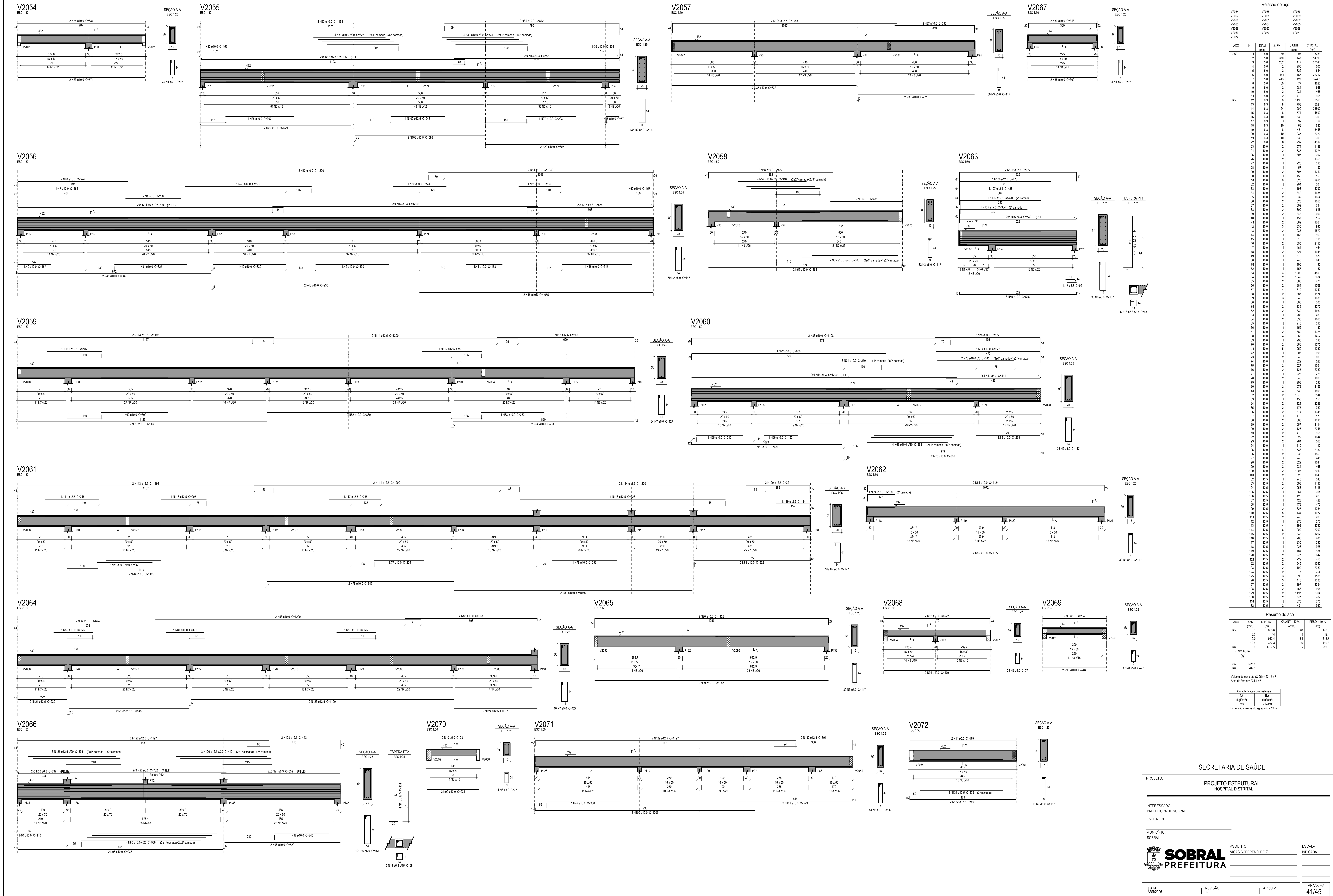
Negativos					
AÇO	N	DMM (mm)	QUANT	C.UNIT (mm)	C.TOTAL
CA50	1	5,0	24	35	912
	2	5,0	24	35	912
	3	5,0	10	85	850
	4	5,0	30	36	1080
	5	5,0	4	42	168
CA60	6	5,0	15	41	615
	7	5,0	30	48	1500
	8	5,0	3	199	1089
	9	5,0	3	243	729
	10	5,0	3	194	582
	11	6,3	3	292	876
	12	6,3	9	96	486
	13	6,3	6	88	528
	14	6,3	3	238	714
	15	6,3	3	139	414
	16	6,3	6	98	588
	17	6,3	2	148	292
	18	6,3	3	197	691
	19	6,3	20	98	1960
	20	8,0	2	193	300

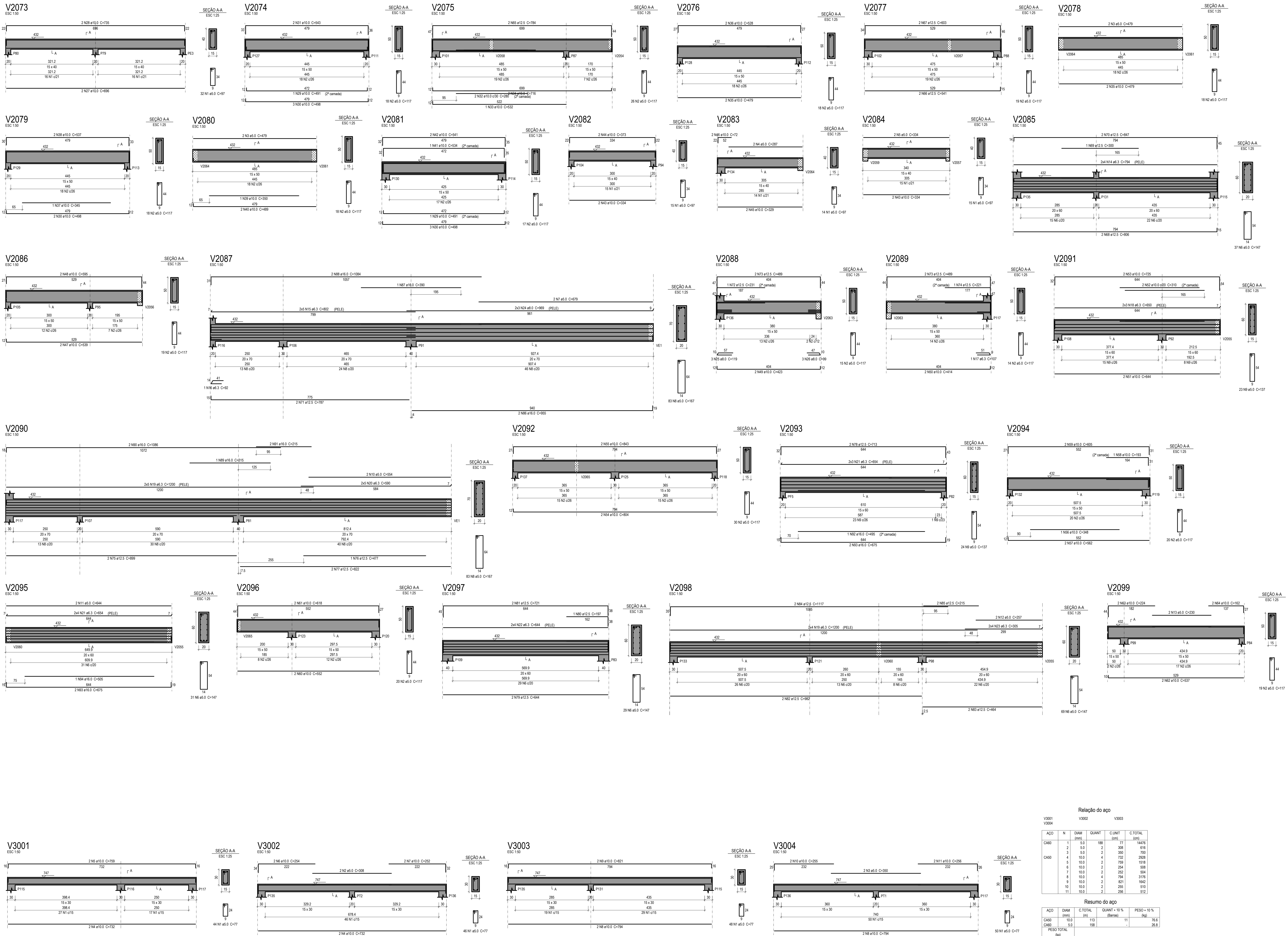
Características dos materiais	
fck (kgf/cm ²)	Ecs (kgf/cm ²)
250	217350

Dimensão máxima do agregado = 19 mm



SECRETARIA DE SAÚDE			
PROJETO: PROJETO ESTRUTURAL HOSPITAL DISTRITAL			
INTERESSADO: PREFEITURA DE SOBRAL			
ENDEREÇO: _____			
MUNICÍPIO: _____ SOBRAL			
	ASSUNTO: LAJES BALDRAME (2 DE 2)		ESCALA: INDICADA
	_____		_____
	_____		_____
	_____		_____
	_____		_____
DATA: ABR/2026	REVISÃO: 02	ARQUIVO: _____	PRANCHA: 40/45





Relação do aço										V2073	V2075
ACO	N	DIAM	QUANT	C.UNIT	C. TOTAL	ACO	N	DIAM	QUANT	C.UNIT	C. TOTAL
CABO	1	5,0	76	1071	8172	CABO	1	5,0	76	1071	8172
	2	5,0	289	117	33813		2	5,0	289	117	33813
	3	5,0	4	478	1916		3	5,0	4	478	1916
	4	5,0	2	287	574		4	5,0	2	287	574
	5	5,0	2	334	668		5	5,0	2	334	668
	6	5,0	166	147	24402		6	5,0	166	147	24402
	7	5,0	1	679	679		7	5,0	1	679	679
	8	5,0	166	167	27722		8	5,0	166	167	27722
	9	5,0	47	133	6349		9	5,0	47	133	6349
	10	5,0	2	554	1108		10	5,0	2	554	1108
	11	5,0	2	644	1288		11	5,0	2	644	1288
	12	5,0	2	257	514		12	5,0	2	257	514
	13	5,0	2	230	460		13	5,0	2	230	460
	14	5,0	8	794	1588		14	5,0	8	794	1588
	15	5,0	10	852	1702		15	5,0	10	852	1702
	16	5,0	1	82	164		16	5,0	1	82	164
	17	5,0	1	107	214		17	5,0	1	107	214
	18	5,0	6	650	1300		18	5,0	6	650	1300
	19	5,0	18	1550	3000		19	5,0	18	1550	3000
	20	5,0	10	950	1900		20	5,0	10	950	1900
	21	5,0	14	654	1308		21	5,0	14	654	1308
	22	5,0	8	644	1288		22	5,0	8	644	1288
	23	5,0	8	305	610		23	5,0	8	305	610
	24	5,0	6	969	1938		24	5,0	6	969	1938
	25	5,0	3	119	238		25	5,0	3	119	238
	26	5,0	3	99	198		26	5,0	3	99	198
	27	5,0	2	696	1392		27	5,0	2	696	1392
	28	5,0	2	735	1470		28	5,0	2	735	1470
	29	5,0	2	491	982		29	5,0	2	491	982
	30	5,0	2	468	936		30	5,0	2	468	936
	31	5,0	2	543	1086		31	5,0	2	543	1086
	32	5,0	2	280	560		32	5,0	2	280	560
	33	5,0	1	532	1064		33	5,0	1	532	1064
	34	5,0	1	716	1432		34	5,0	1	716	1432
	35	5,0	4	479	958		35	5,0	4	479	958
	36	5,0	2	528	1056		36	5,0	2	528	1056
	37	5,0	1	345	690		37	5,0	1	345	690
	38	5,0	2	537	1074		38	5,0	2	537	1074
	39	5,0	2	300	600		39	5,0	2	300	600
	40	5,0	2	489	978		40	5,0	2	489	978
	41	5,0	1	534	1068		41	5,0	1	534	1068
	42	5,0	2	541	1082		42	5,0	2	541	1082
	43	5,0	4	334	668		43	5,0	4	334	668
	44	5,0	2	373	746		44	5,0	2	373	746
	45	5,0	2	325	650		45	5,0	2	325	650
	46	5,0	2	72	144		46	5,0	2	72	144
	47	5,0	2	538	1076		47	5,0	2	538	1076
	48	5,0	2	595	1190		48	5,0	2	595	1190
	49	5,0	2	423	846		49	5,0	2	423	846
	50	5,0	2	414	828		50	5,0	2	414	828
	51	5,0	2	644	1288		51	5,0	2	644	1288
	52	5,0	2	310	620		52	5,0	2	310	620
	53	5,0	2	725	1450		53	5,0	2	725	1450
	54	5,0	2	804	1608		54	5,0	2	804	1608
	55	5,0	2	843	1686		55	5,0	2	843	1686
	56	5,0	1	348	696		56	5,0	1	348	696
	57	5,0	2	922	1844		57	5,0	2	922	1844
	58	5,0	1	153	306		58	5,0	1	153	306
	59	5,0	2	655	1310		59	5,0	2	655	1310
	60	5,0	2	552	1104		60	5,0	2	552	1104
	61	5,0	2	618	1236		61	5,0	2	618	1236
	62	5,0	2	537	1074		62	5,0	2	537	1074
	63	5,0	2	224	448		63	5,0	2	224	448
	64	5,0	2	162	324		64	5,0	2	162	324
	65	5,0	2	784	1568		65	5,0	2	784	1568
	66	5,0	2	541	1082		66	5,0	2	541	1082
	67	5,0	2	853	1706		67	5,0	2	853	1706
	68	5,0	2	806	1612		68	5,0	2	806	1612
	69	5,0	1	300	600		69	5,0	1	300	600
	70	5,0	2	847	1694		70	5,0	2	847	1694
	71	5,0	2	787	1574		71	5,0	2	787	1574
	72	5,0	1	231	462		72	5,0	1	231	462
	73	5,0	4	489	978		73	5,0	4	489	978
	74	5,0	1	231	462		74	5,0	1	231	462
	75	5,0	2	899	1798		75	5,0	2	899	1798
	76	5,0	1	477	954		76	5,0	1	477	954
	77	5,0	2	822	1644		77	5,0	2	822	1644
	78	5,0	2	713	1426		78	5,0	2	713	1426
	79	5,0	2	644	1288		79	5,0	2	644	1288
	80	5,0	1	197	394		80	5,0	1	197	394
	81	5,0	2	721	1442		81	5,0	2	721	1442
	82	5,0	2	962	1924		82	5,0	2	962	1924
	83	5,0	2	664	1328		83	5,0	2	664	1328
	84	5,0	2	1117	2234		84	5,0	2	1117	2234
	85	5,0	2	715	1430		85	5,0	2	715	1430
	86	5,0	2	955	1910		86	5,0	2	955	1910
	87	5,0	1	350	700		87	5,0	1	350	700
	88	5,0	2	1084	2168		88	5,0	2	1084	2168
	89	5,0	1	315	630		89	5,0	1	315	630
	90	5,0	2	1086	2172		90	5,0	2	1086	2172
	91	5,0	2	215	430		91	5,0	2	215	430
	92	5,0	1	495	990		92	5,0	1	495	990
	93	5,0	4	675	1350		93	5,0	4	675	1350
	94	5,0	1	595	1190		94	5,0	1	595	1190

Resumo do aço						
ACO	DIAM [mm]	C. TOTAL [m]	QUANT + 10 % [barras]	PESO + 10 % [kg]		
CABO	6,3	8072	58	68	188,8	
	5,0	847	6	1	20,1	
	10,0	303,2	37	37	295,6	
	12,5	252,8	24	24	207,4	
	16,0	116,8	11	11	182,5	
CABO	5,0	1076,4	-	-	182,5	
PESO TOTAL [kg]						
CABO	923,8					
CABO	182,5					
Volume de concreto (C-25) = 16 m³						
Área da forma = 172 m²						
Características dos materiais						
fck		fcd		fctd/fct		
(kgf/cm²)		(kgf/cm²)		(kgf/cm²)		
250		173,56		17,356		
Dimensão mínima do agregado = 10 mm						

Características das misturas									
ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %	ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %
CABO	5,0	8072	8072	188,8	CABO	5,0	8072	8072	188,8
	5,0	847	847	20,1		5,0	847	847	20,1
	10,0	303,2	37	295,6		10,0	303,2	37	295,6
	12,5	252,8	34	207,4		12,5	252,8	34	207,4
	16,0	116,8	11	182,5		16,0	116,8	11	182,5
	5,0	1076,4	11	182,5		5,0	1076,4	11	182,5

Volume de concreto (C-25) = 18 m³
Área da forma = 172 m²

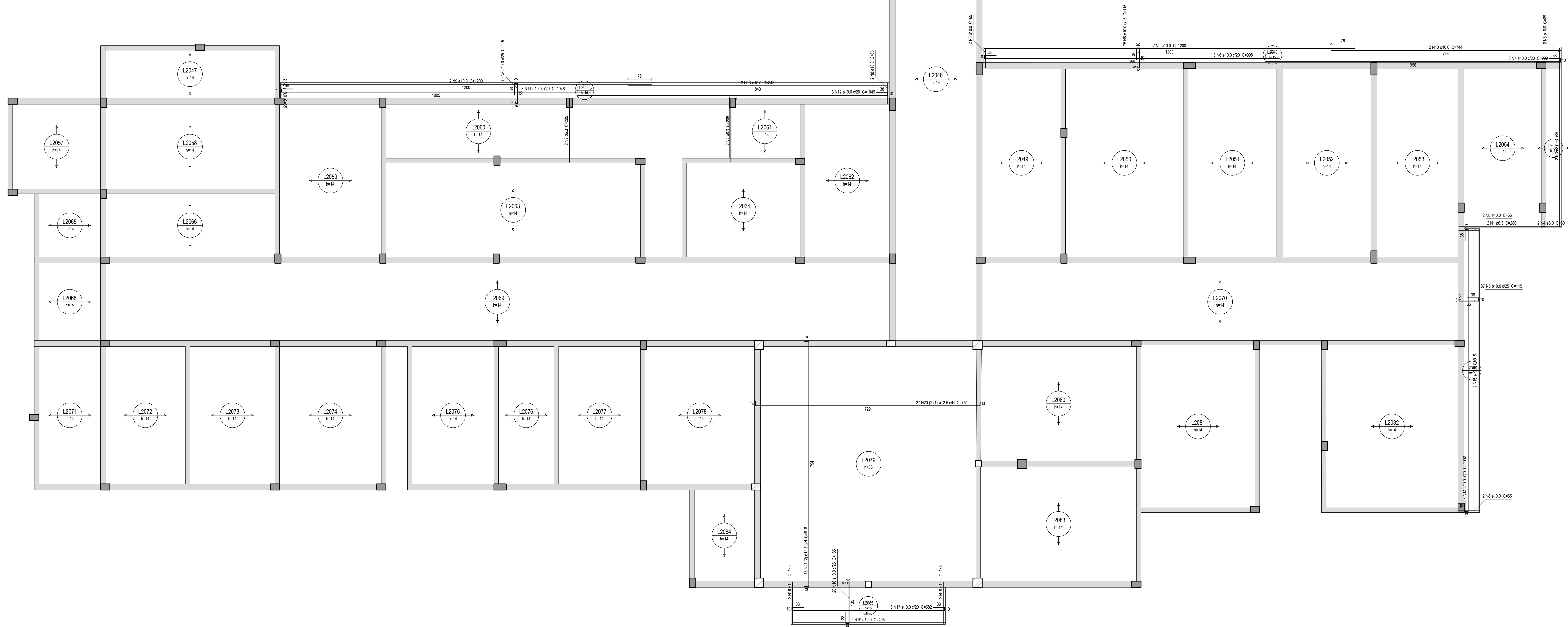
Características das misturas									
ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %	ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %
CABO	5,0	8072	8072	188,8	CABO	5,0	8072	8072	188,8
	5,0	847	847	20,1		5,0	847	847	20,1
	10,0	303,2	37	295,6		10,0	303,2	37	295,6
	12,5	252,8	34	207,4		12,5	252,8	34	207,4
	16,0	116,8	11	182,5		16,0	116,8	11	182,5
	5,0	1076,4	11	182,5		5,0	1076,4	11	182,5

Dimensão máxima do agregado = 19 mm

Características das misturas									
ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %	ACO	DIAM	C. TOTAL	QUANT + 10 %	PESO + 10 %
CABO	5,0	8072	8072	188,8	CABO	5,0	8072	8072	188,8
	5,0	847	847	20,1		5,0	847	847	20,1
	10,0	303,2	37	295,6		10,0	303,2	37	295,6
	12,5	252,8	34	207,4		12,5	252,8	34	207,4
	16,0	116,8	11	182,5		16,0	116,8	11	182,5
	5,0	1076,4	11	182,5		5,0	1076,4	11	182,5

Dimensão máxima do agregado = 19 mm

Características das misturas			
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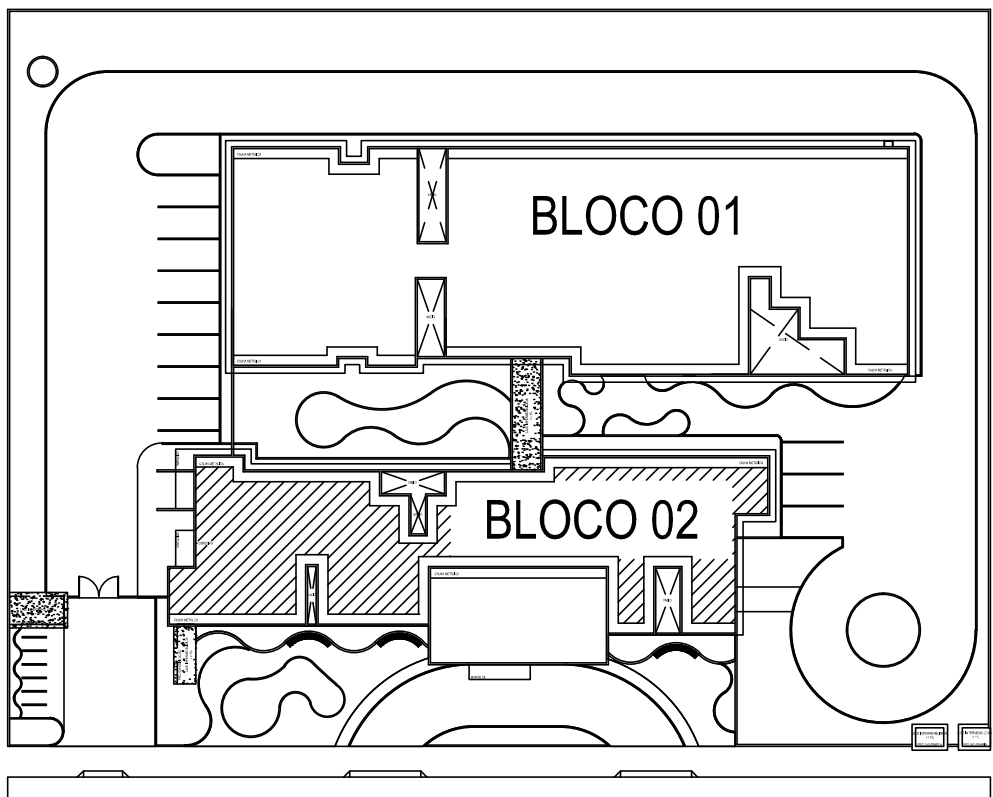
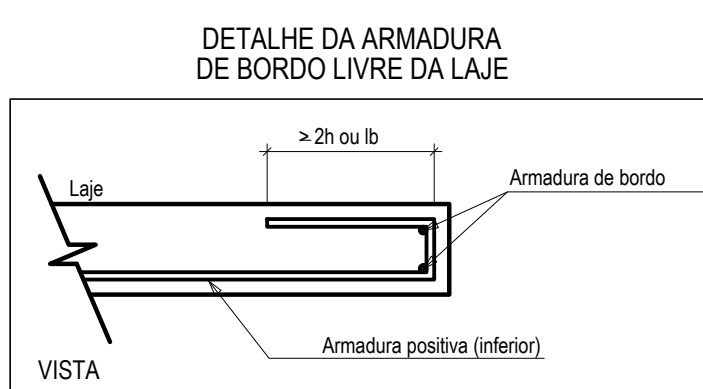
ARMAÇÃO POSITIVA DAS LAJES DO PAVIMENTO COBERTA
Escala 1:50

Relação do aço						
Posições						
AÇO	N	DIAM	QUANT	C LIMIT	C TOTAL	
CA80	1	8.3	2	280	560	
	2	8.3	4	280	800	
	3	8.0	2	530	1060	
	4	8.0	2	40	120	
	5	10.0	191	115	21665	
	6	10.0	3	889	2664	
	7	10.0	3	889	2697	
	8	10.0	12	85	760	
	9	10.0	4	1000	4000	
	10	10.0	2	744	1488	
	11	10.0	3	1048	3144	
	12	10.0	3	1048	3147	
	13	10.0	2	843	1686	
	14	10.0	3	1002	3006	
	15	10.0	2	915	1830	
	16	10.0	20	185	3700	
	17	10.0	6	382	3492	
	18	10.0	4	135	540	
	19	10.0	2	495	990	
	20	12.5	27	751	20277	
	21	12.5	18	818	14888	

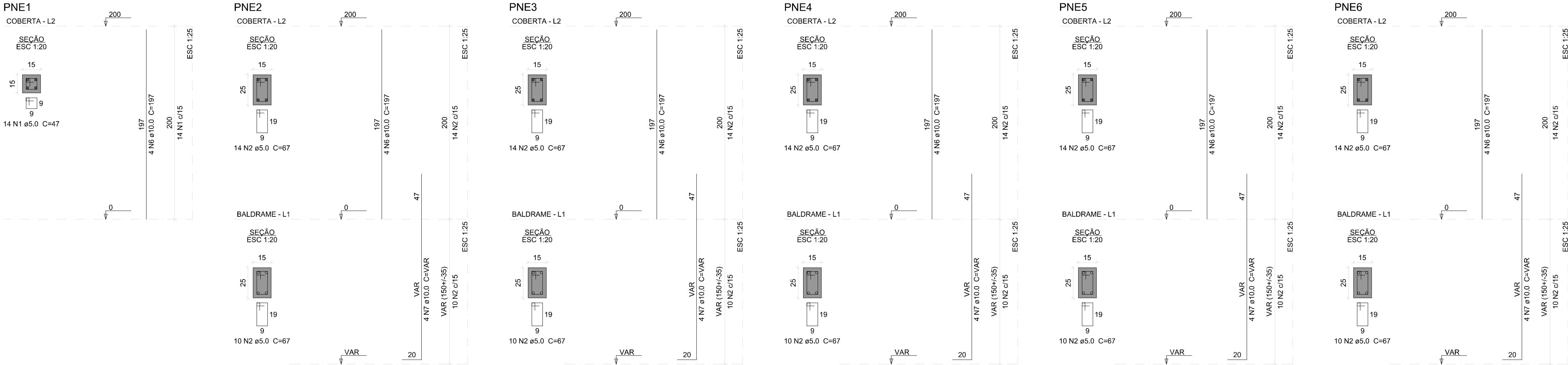
Resumo do aço				
AÇO	DIAM	C TOTAL	QUANT + 10 %	PESO + 10 %
	(mm)	(m)	(Barra)	(kg)
CA80	8.3	13.8	2	3.7
	8.0	11.8	2	5.1
	10.0	565.8	52	301.6
	12.5	349.7	33	370.5
PESO TOTAL	(kg)			780.9

Volume de concreto (C-20) = 53.83 m³
Área da forma = 38.55 m²

Considerações dos materiais	
En	Ela
En (kg/cm²)	En (kg/cm²)
250	21750
Dimensão máxima do agregado = 19 mm	



SECRETARIA DE SAÚDE			
PROJETO:	PROJETO ESTRUTURAL HOSPITAL DISTRITAL		
INTERESSADO:	PREFEITURA DE SOBRAL		
ENDEREÇO:			
MUNICÍPIO:	SOBRAL		
ASSUNTO:	LAJES COBERTA (1 DE 2)		ESCALA
			INDICADA
DATA	REVISÃO	ARQUIVO	FRANCHA
ABR/2026	02		44/45



Relação do aço

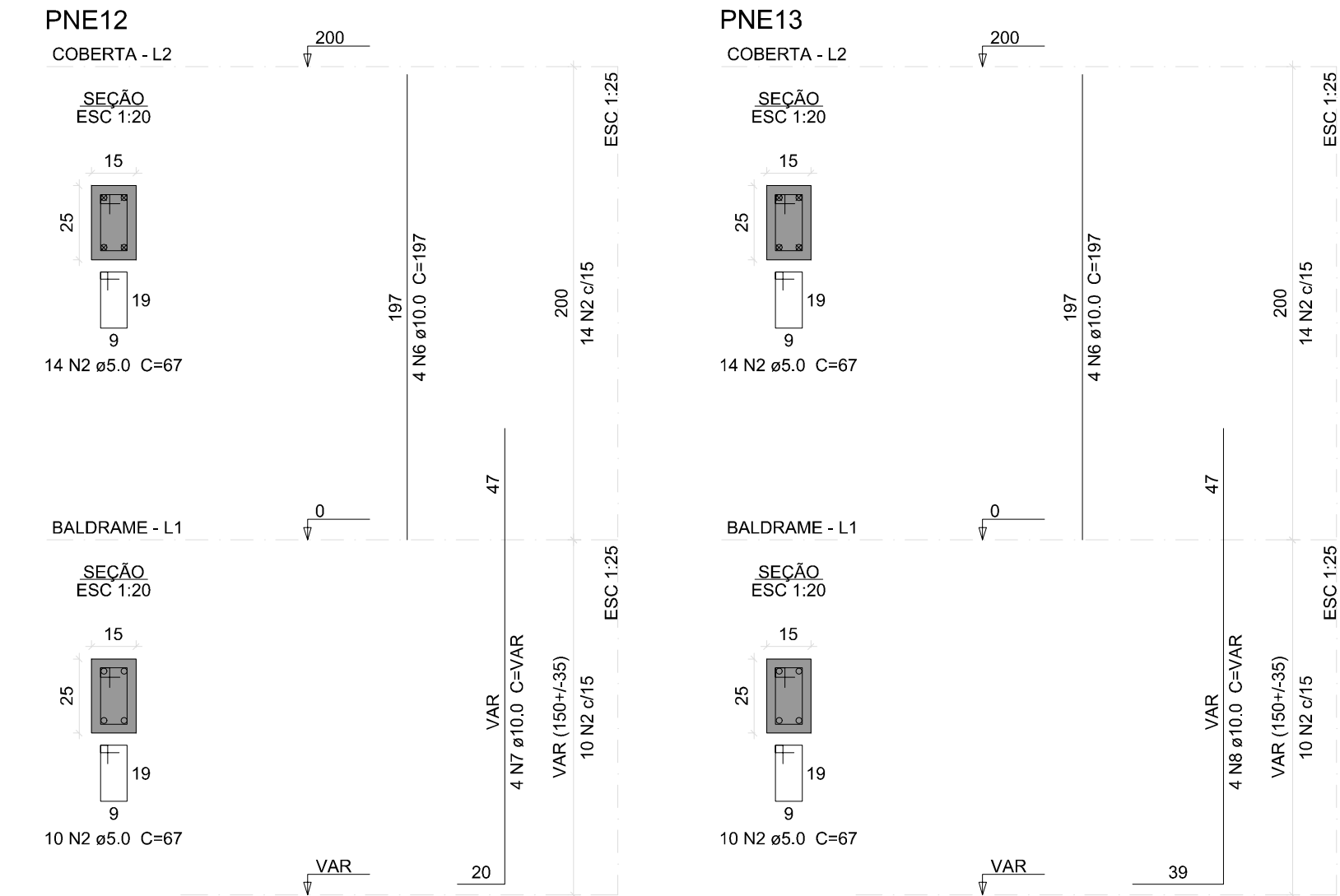
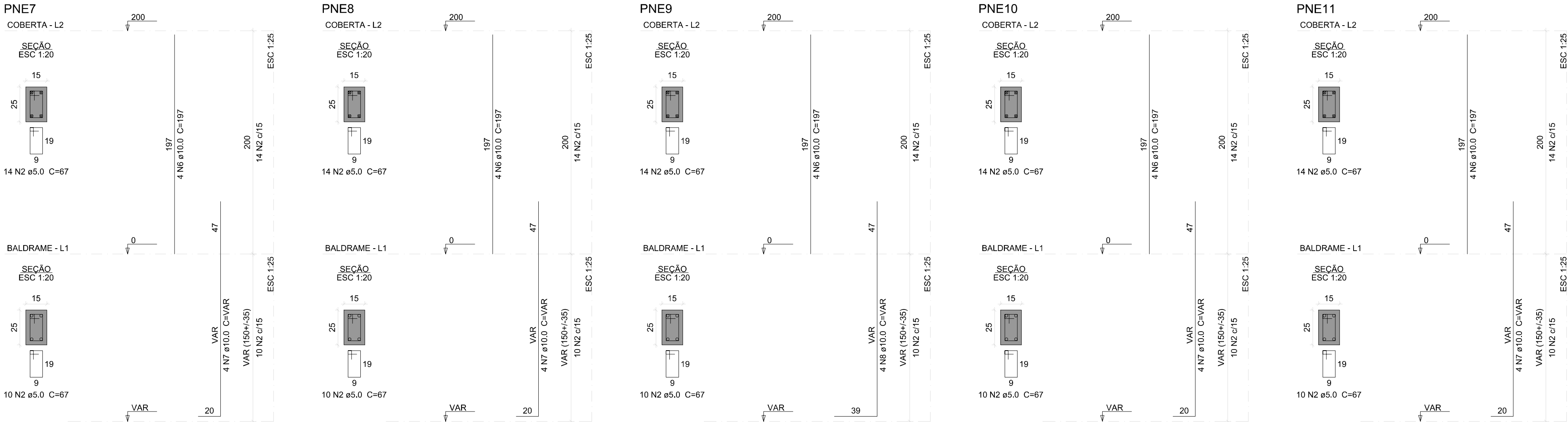
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
PNE1					
PNE4					
PNE7					
PNE10					
PNE13					
PNE2					
PNE5					
PNE8					
PNE11					
PNE3					
PNE6					
PNE9					
PNE12					

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	14	47	658
	2	5.0	288	67	19286
CA50	6	10.0	52	197	10244
	7	10.0	40	VAR	VAR
	8	10.0	8	VAR	VAR

Resumo do aço

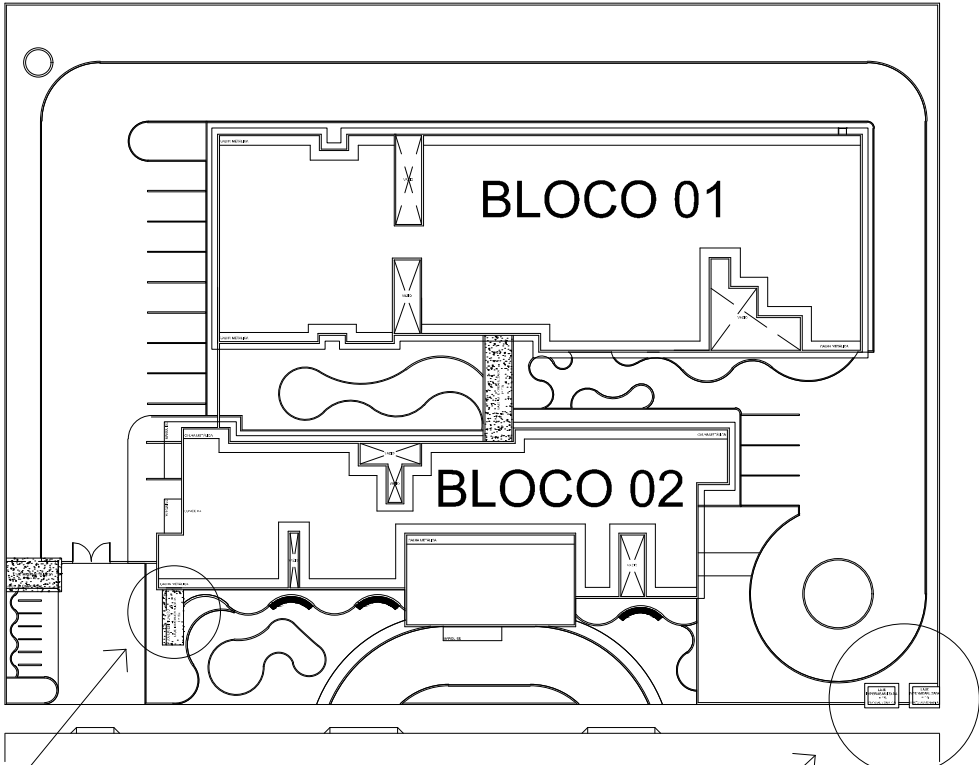
AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10 % (Barras)	PESO + 10 % (kg)
CA50	10.0	205.3	19	139.2
CA60	5.0	199.6	-	33.8
PESO TOTAL (kg)				
CA50	139.2			
CA60	33.8			

Volume de concreto (C-25) = 1.4 m³
Área de forma = 30 m²



PILARES

Escala 1:50



CENTRAL DE GASES

RESÍDUOS

SECRETARIA DE SAÚDE

PROJETO:

PROJETO ESTRUTURAL
HOSPITAL DISTRITAL

INTERESSADO:

PREFEITURA DE SOBRAL

ENDEREÇO:

-

MUNICÍPIO:

SOBRAL



SOBRAL
PREFEITURA

ASSUNTO:

EST - CENTRAL DE GASES E RESÍDUOS

ESCALA

INDICADA

DATA
ABR/2026

REVISÃO
02

ARQUIVO
-

PRANCHA

02/04

Características dos materiais	
fck (kgf/cm²)	Ecs (kgf/cm²)
250	217350

Dimensão máxima do agregado = 19 mm