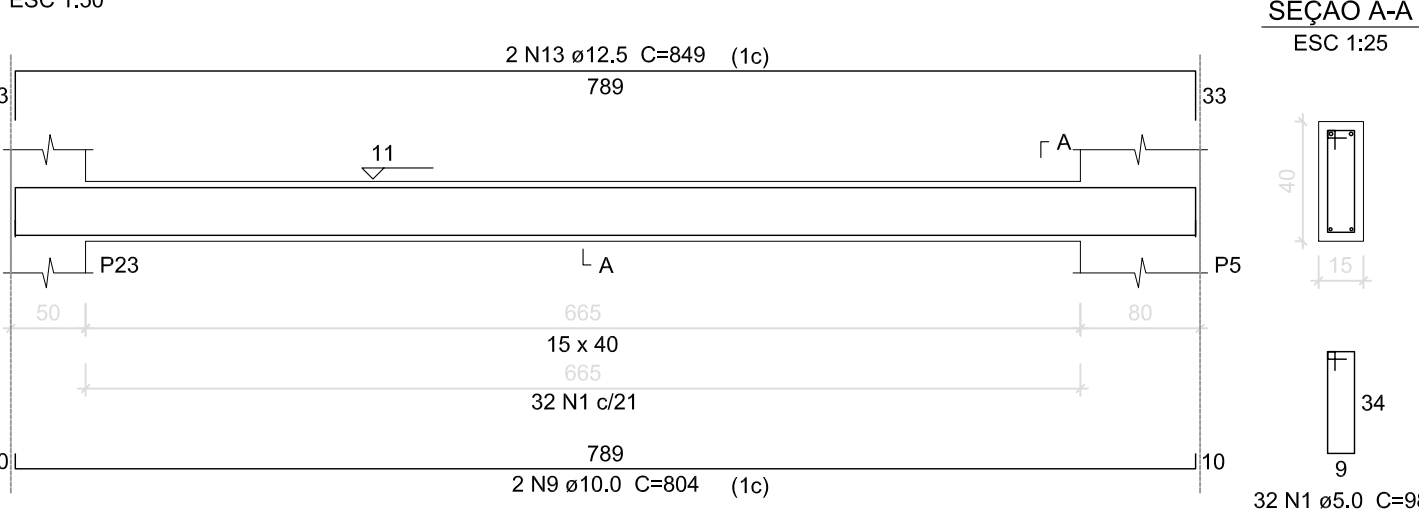
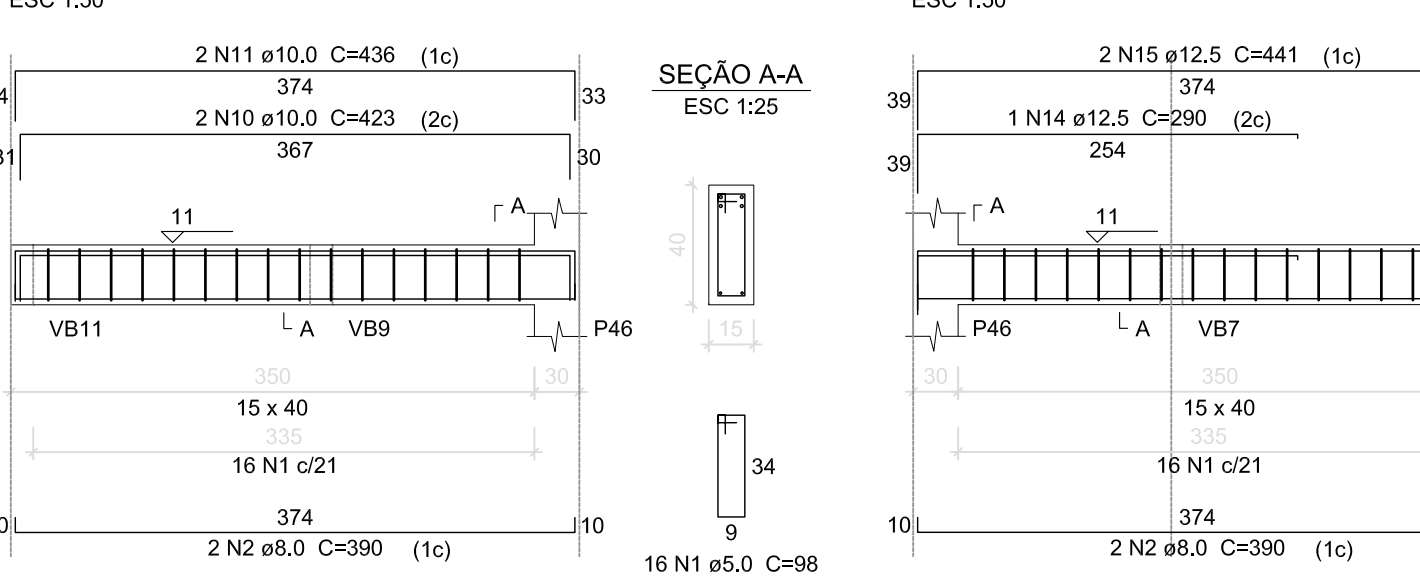


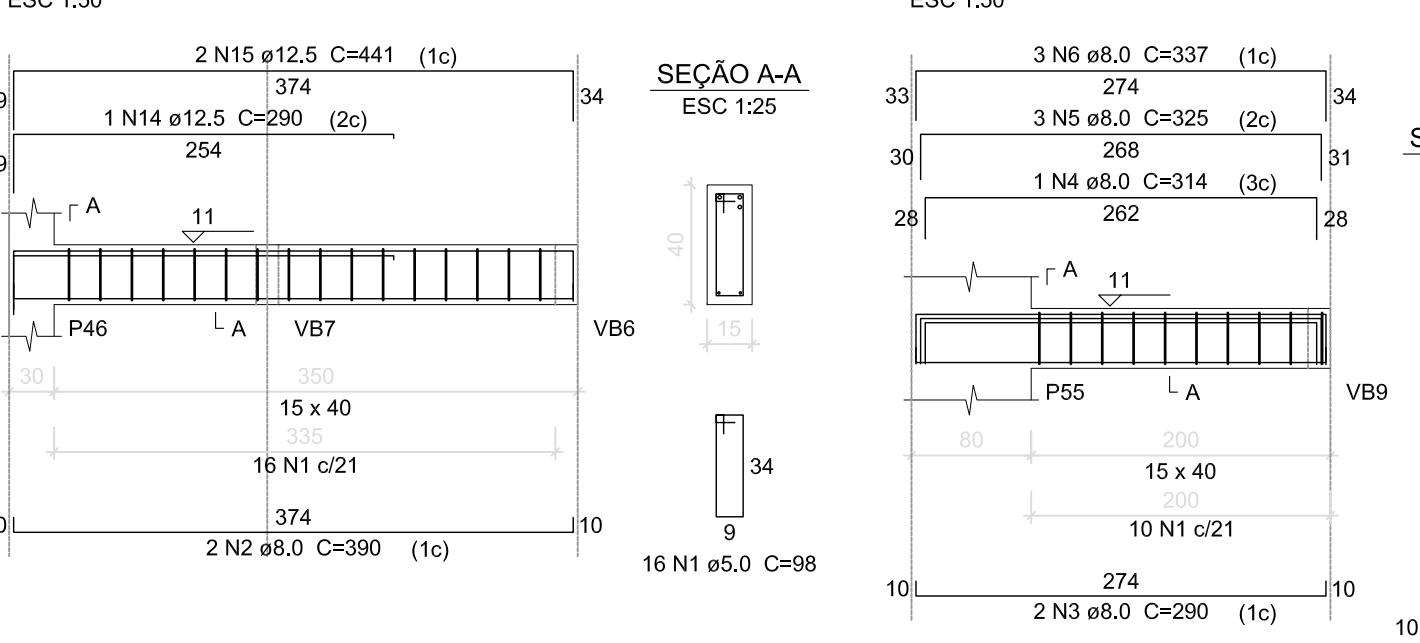
VB20 (15 x 40)



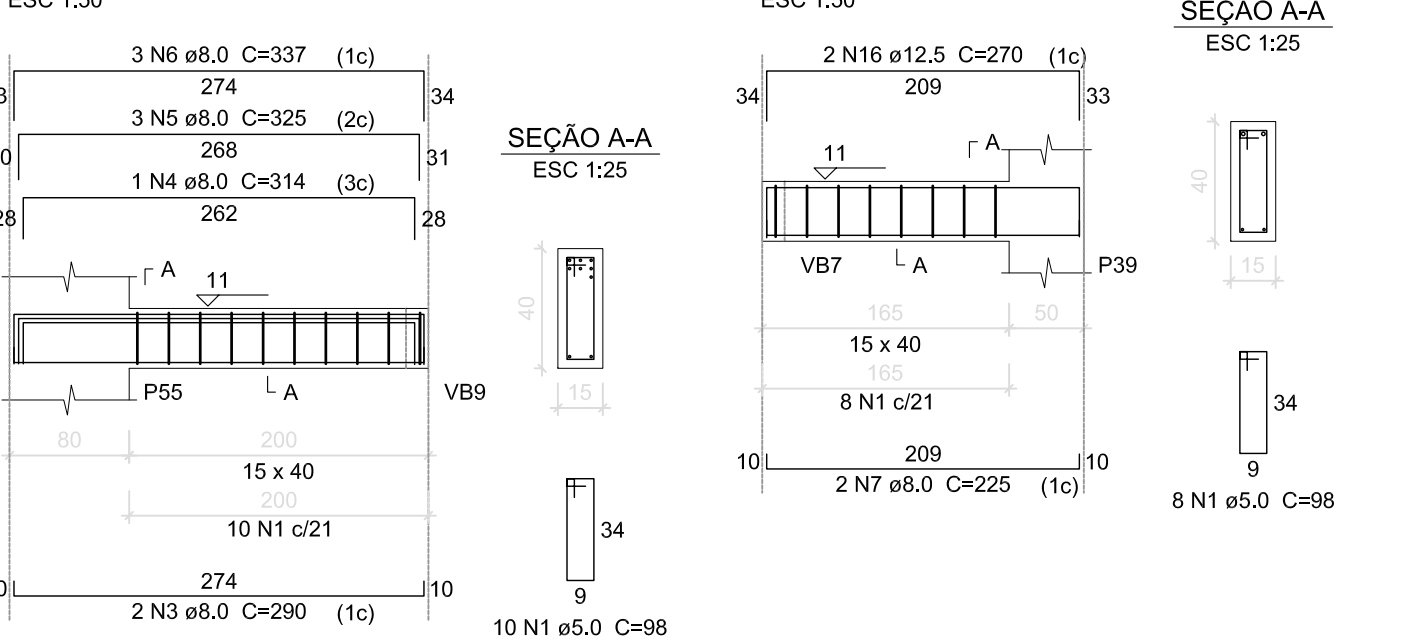
VB21 (15 x 40)



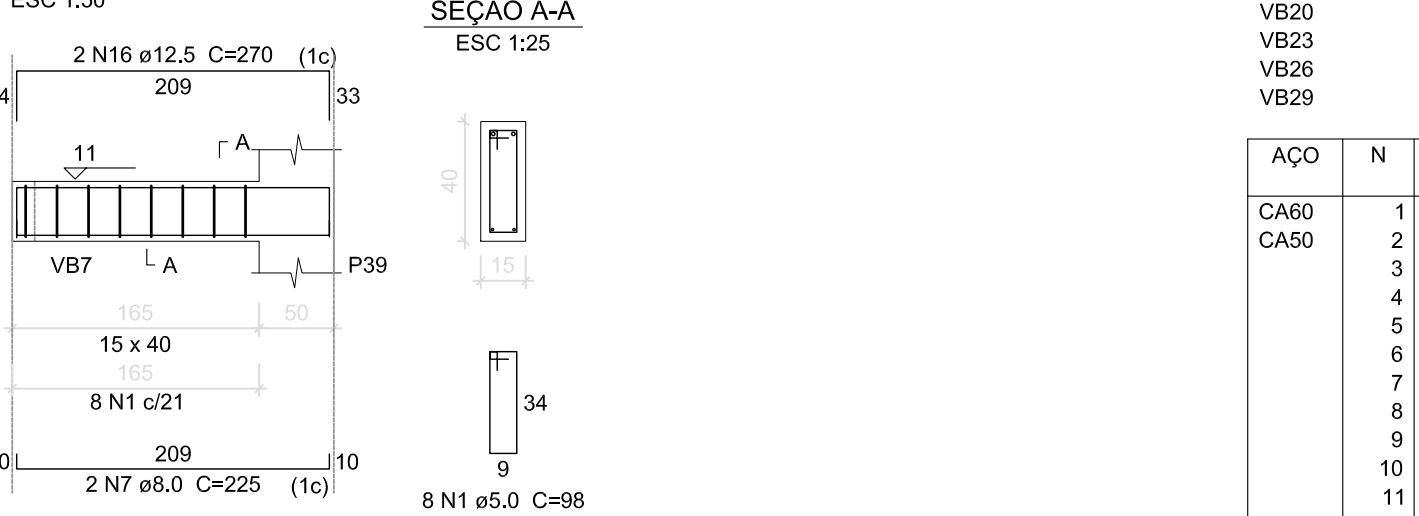
VB22 (15 x 40)



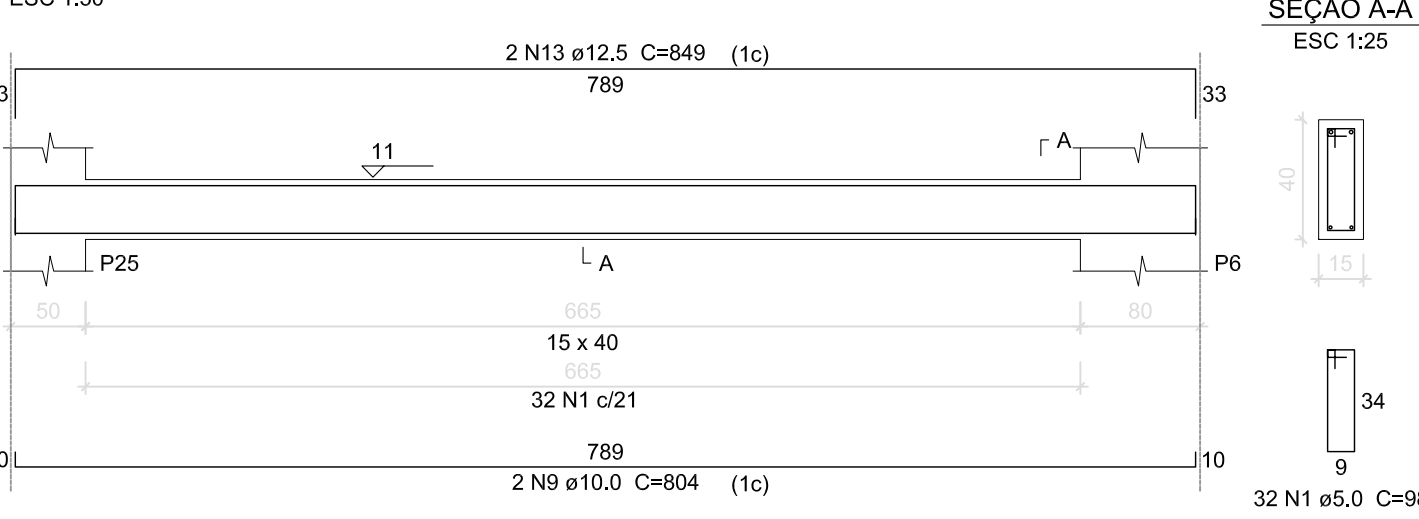
VB23 (15 x 40)



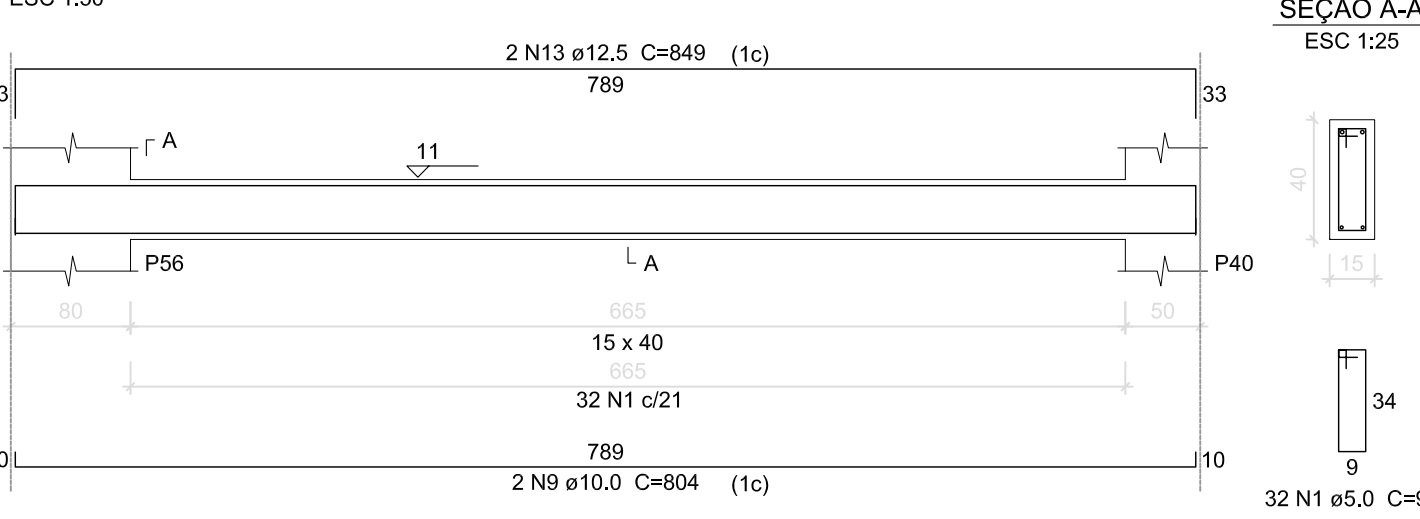
VB24 (15 x 40)



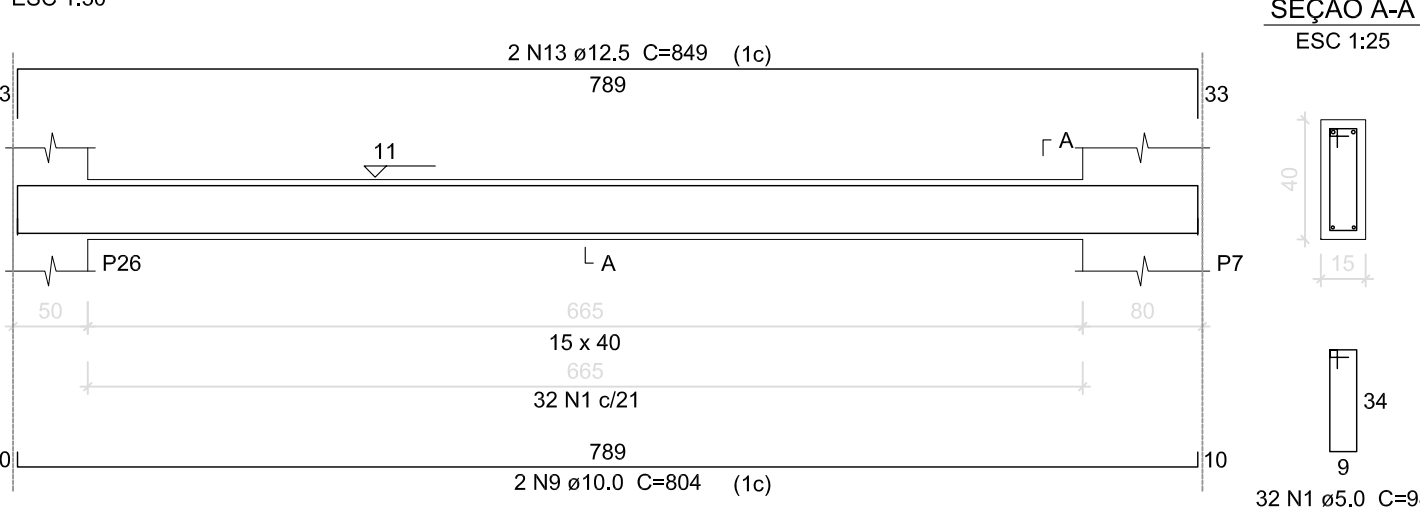
VB25 (15 x 40)



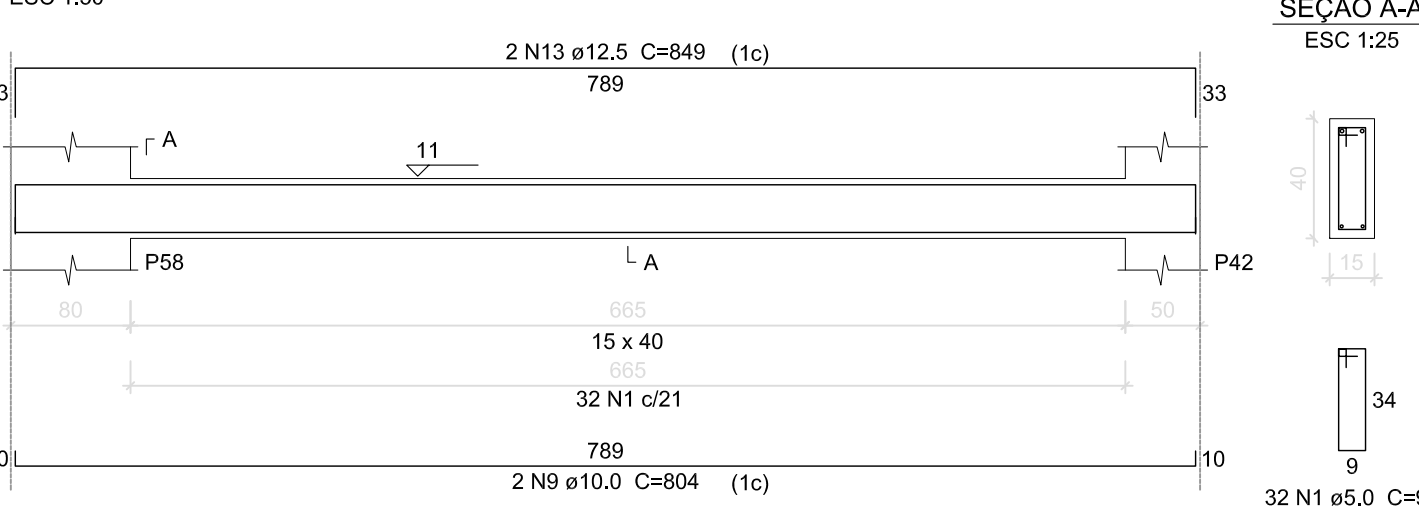
VB26 (15 x 40)



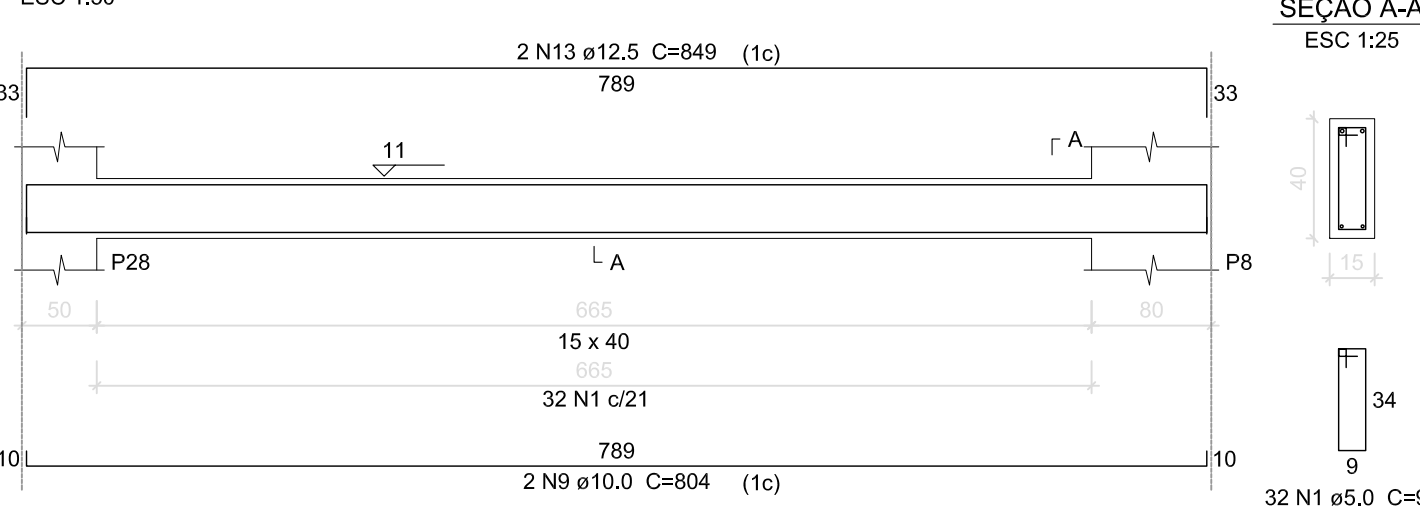
VB27 (15 x 40)



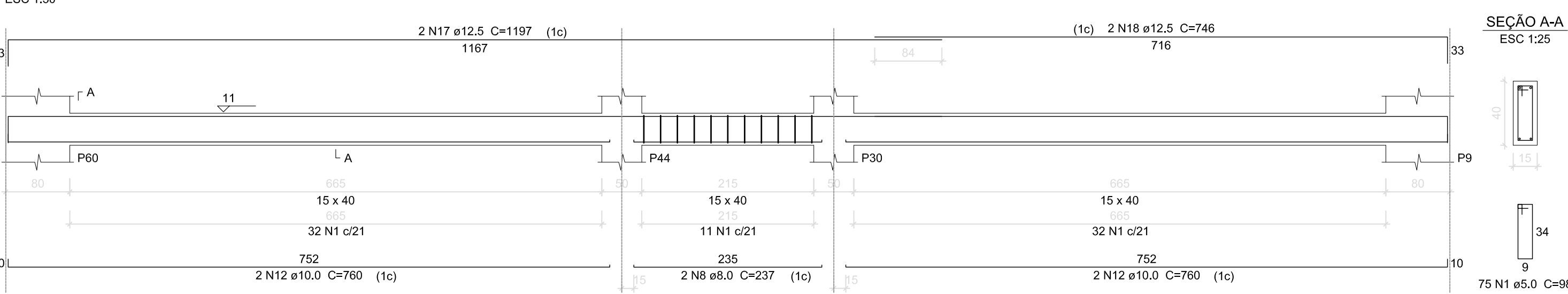
VB28 (15 x 40)



VB29 (15 x 40)



VB30 (15 x 40)



Relação do aço

VB20	VB21	VB22			
VB23	VB24	VB25			
VB26	VB27	VB28			
VB29	VB30				
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	317	98	31066
CA50	2	8.0	4	390	1560
	3	8.0	2	290	580
	4	8.0	1	314	314
	5	8.0	3	325	975
	6	8.0	3	337	1011
	7	8.0	2	225	450
	8	8.0	2	237	474
	9	10.0	12	804	9648
	10	10.0	2	423	846
	11	10.0	2	436	872
	12	10.0	4	760	3040
	13	12.5	12	849	10188
	14	12.5	1	290	290
	15	12.5	2	441	882
	16	12.5	2	270	540
	17	12.5	2	1197	2394
	18	12.5	2	746	1492

Resumo do aço


AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	53.7	23.3
	10.0	144.1	97.7
	12.5	157.9	167.3
CA60	5.0	310.7	52.7

PESO TOTAL (kg)

CA50	288.3
CA60	52.7

Volume de concreto (C-30) = 4,7 m³
Área de forma = 74,39 m²


Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA
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INSTITUTO FEDERAL
SERGIPE

AUTOR DO PROJETO:

Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3



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ENDEREÇO:

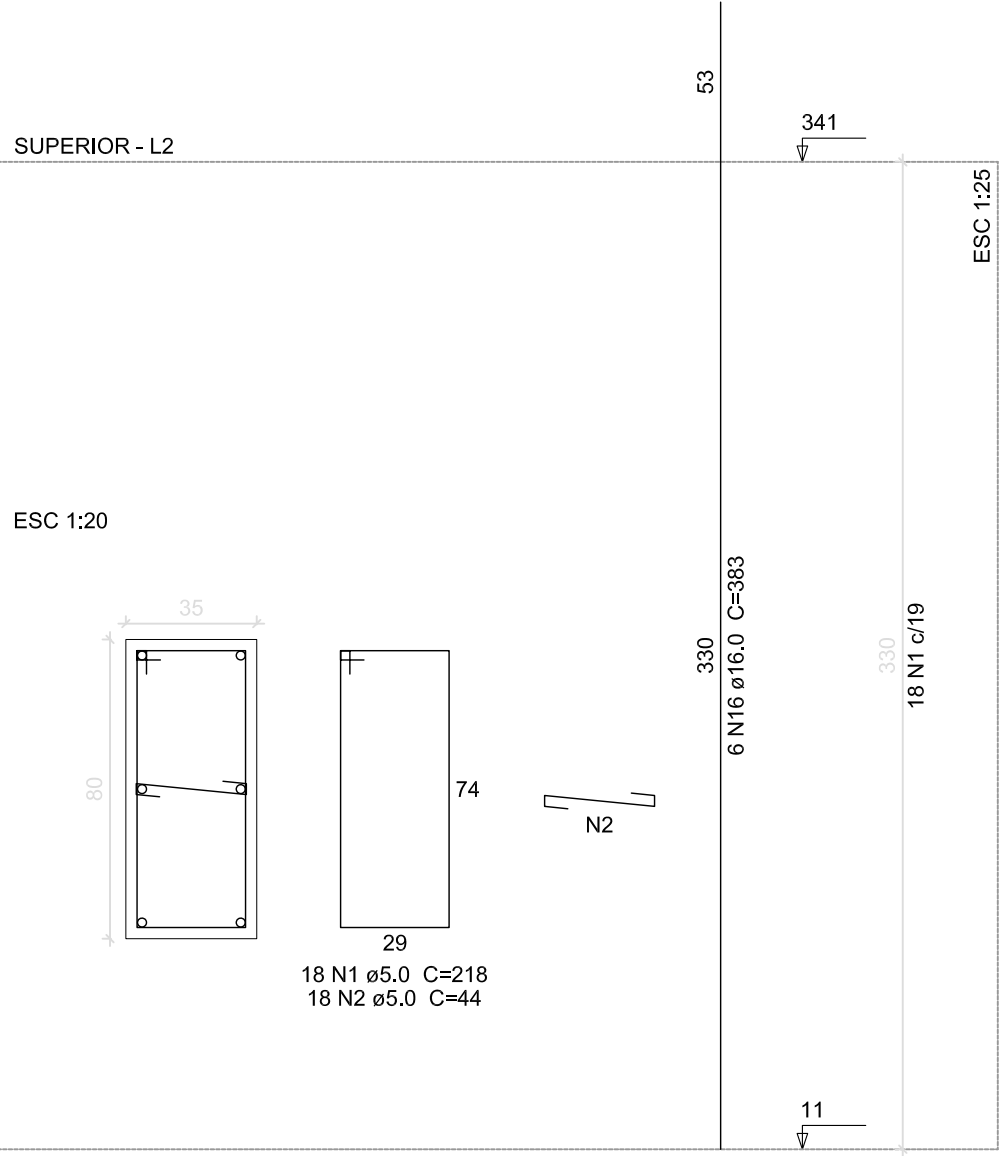
Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE
dipop@ifs.edu.br

TEL: (79)3711-3139

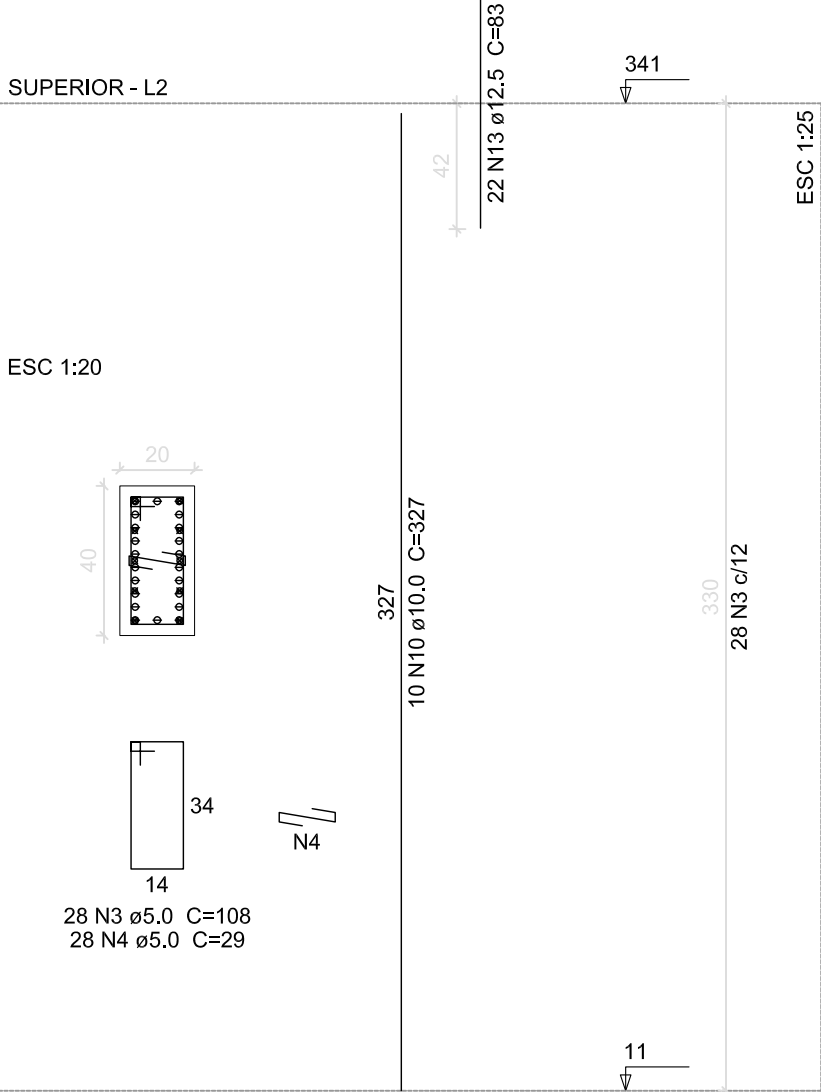
PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE:	INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA
ENDEREÇO:	ROD. LÚCIO PRADO, S/N - JAPARATUBA/SE
PLANTA:	BLOCO SALAS DE AULA ARMAÇÃO DAS VIGAS BALDRAMES 3-3
ESCALA:	1:100
DATA:	JUN/2024
PRANCHA:	07/26

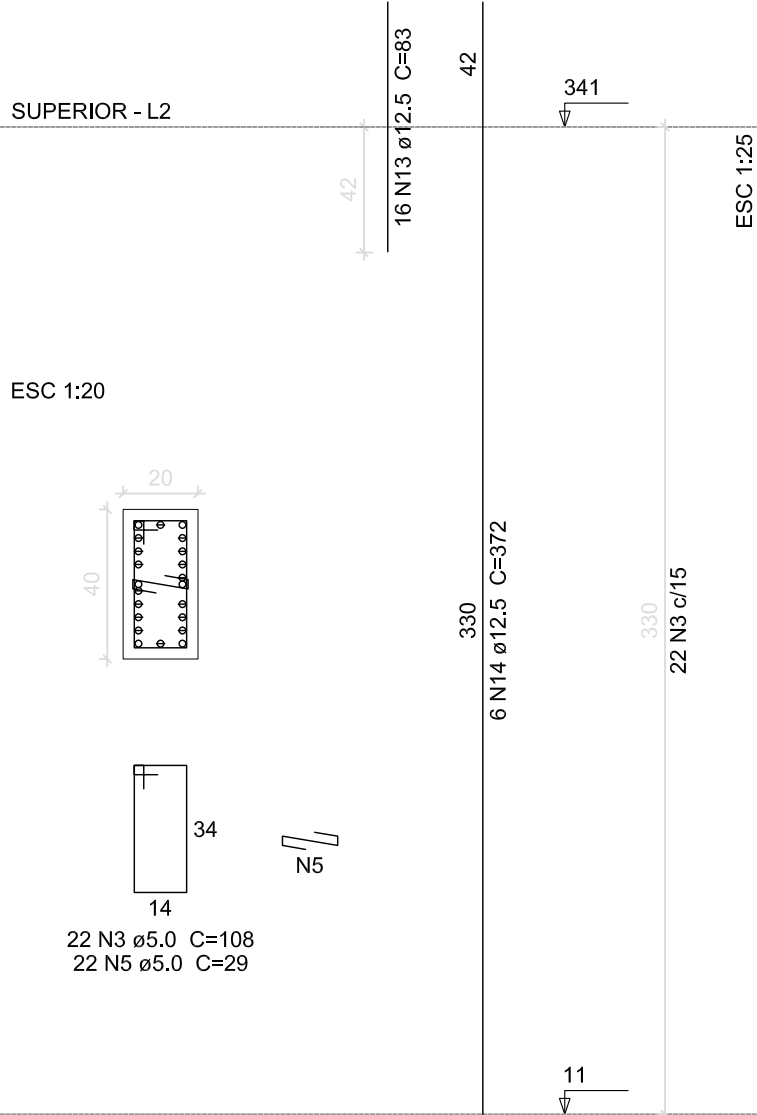
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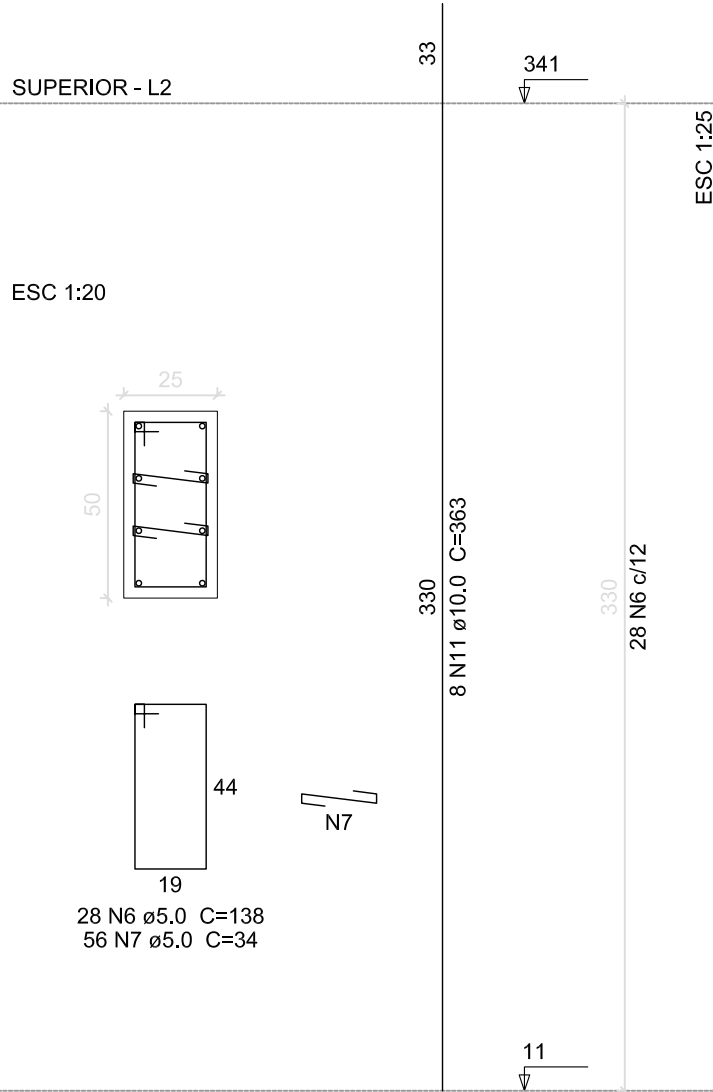
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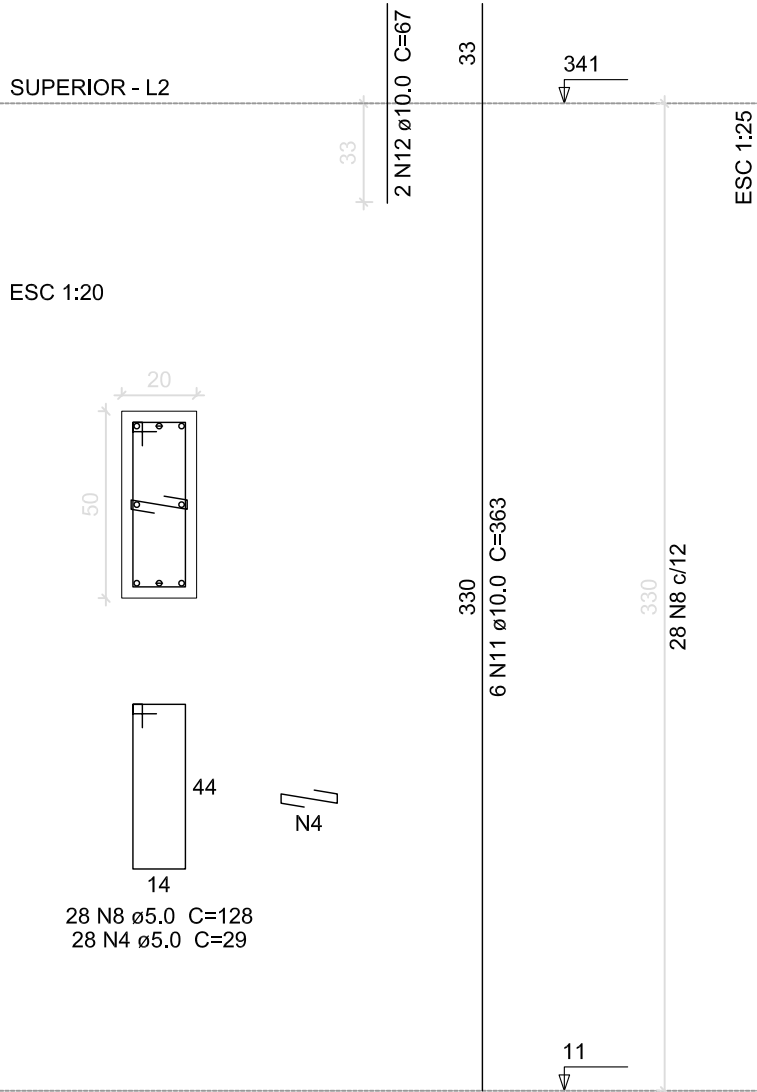
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P16=P30=P31=P44



P18=P19=P25=P26=P33=P34



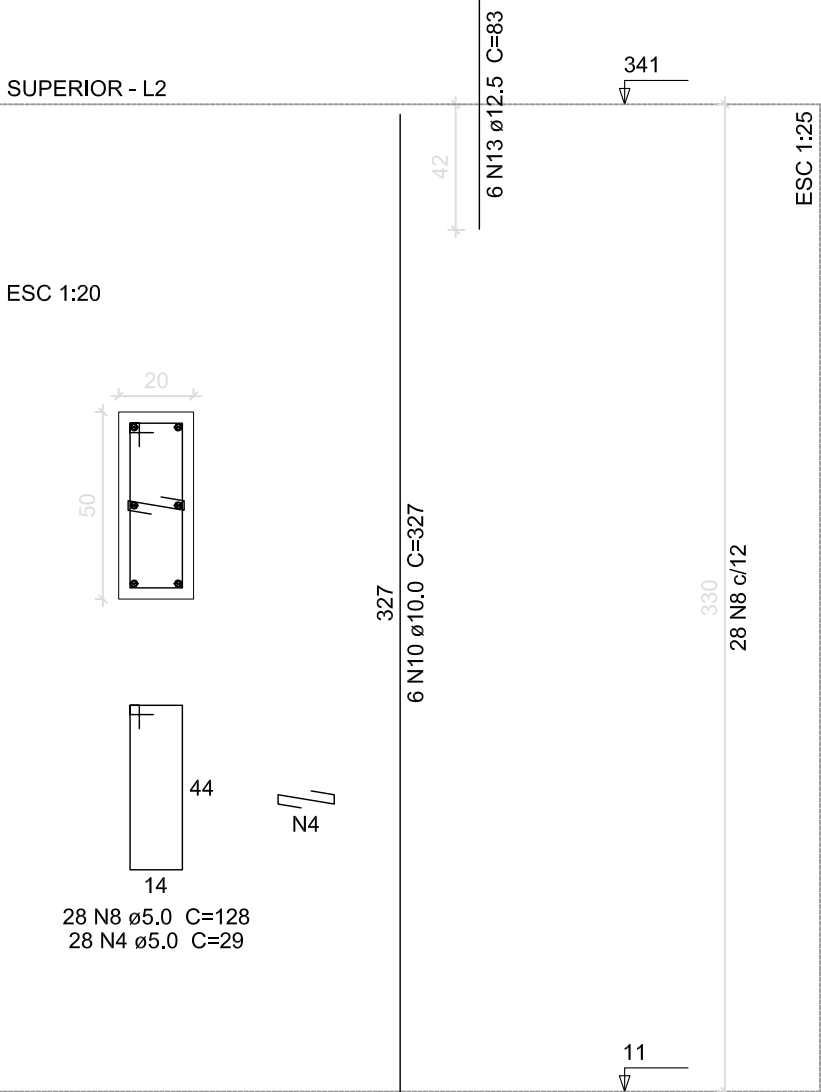
Relação do aço					
COBERTURA:		18xP1	20xP10		
SUPERIOR:		17xP1	7xP10		
		12xP11	4xP16		
		6xP18	7xP21		
		P37	P39		
		P45	P46		
		2xP51	P55		
ACO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	1009	218	219962
	2	5.0	1009	44	44396
	3	5.0	984	108	106272
	4	5.0	672	29	19488
	5	5.0	704	29	20416
	6	5.0	112	138	15456
	7	5.0	224	34	7616
	8	5.0	382	128	50176
CA50	9	5.0	56	88	4928
	10	10.0	154	327	50358
	11	10.0	72	363	26136
	12	10.0	16	67	1072
	13	12.5	464	83	38512
	14	12.5	72	372	26784
	15	12.5	440	327	143680
	16	16.0	108	383	41364
	17	16.0	108	327	35316

Resumo do aço

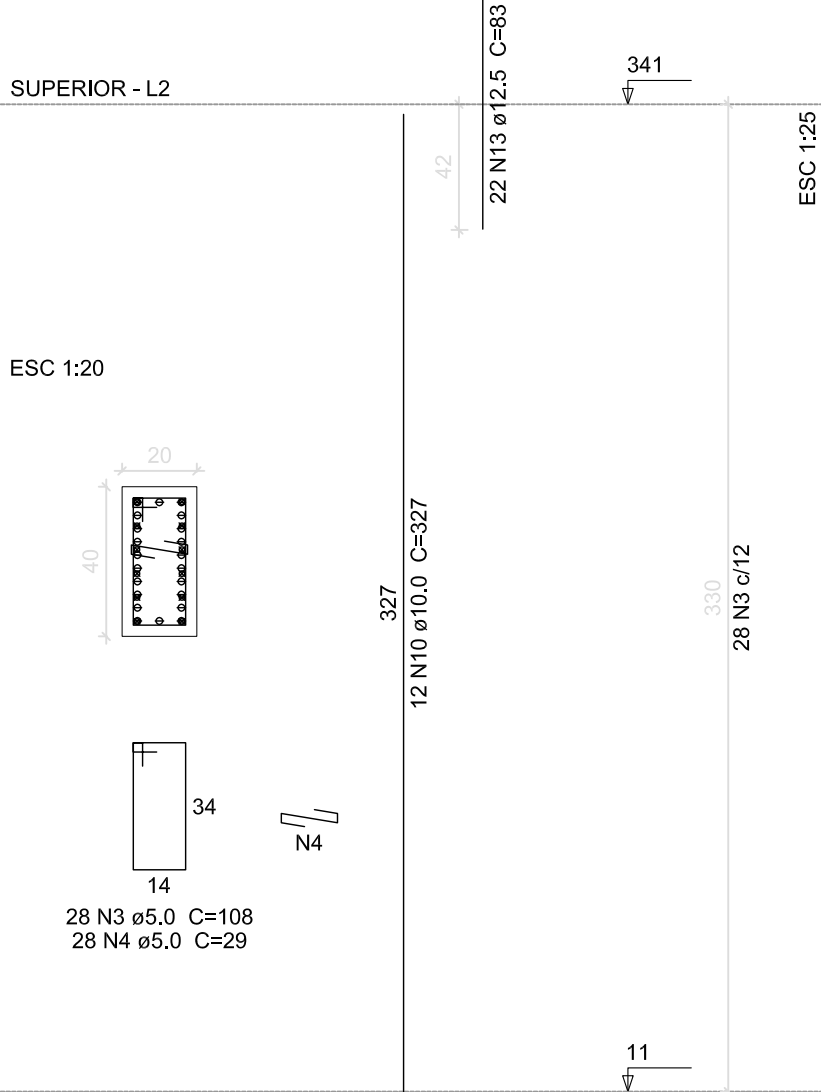
ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	775.7	526
CA50	12.5	2091.8	2216.6
CA50	16.0	766.8	1331.3
CA60	5.0	4887.1	828.6
PESO TOTAL (kg)			
CA50	4073.9		
CA60	828.6		

Volume de concreto (C-30) = 51.02 m³
Área de forma = 530.64 m²

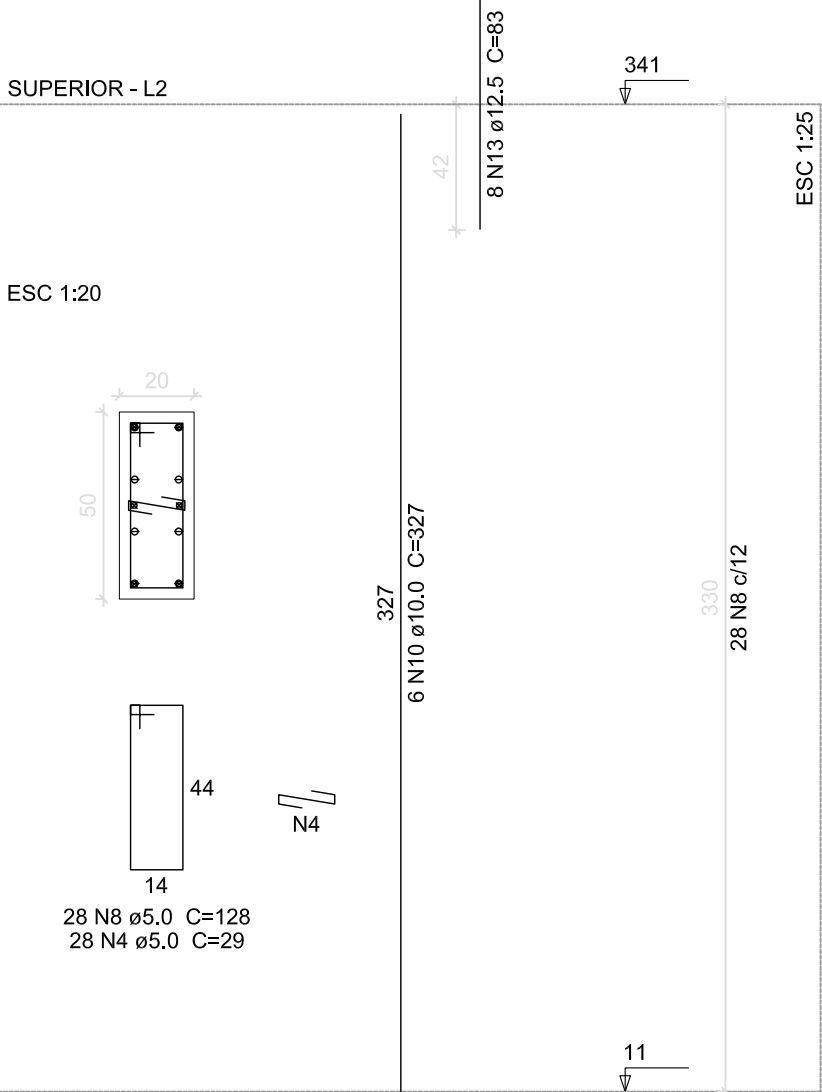
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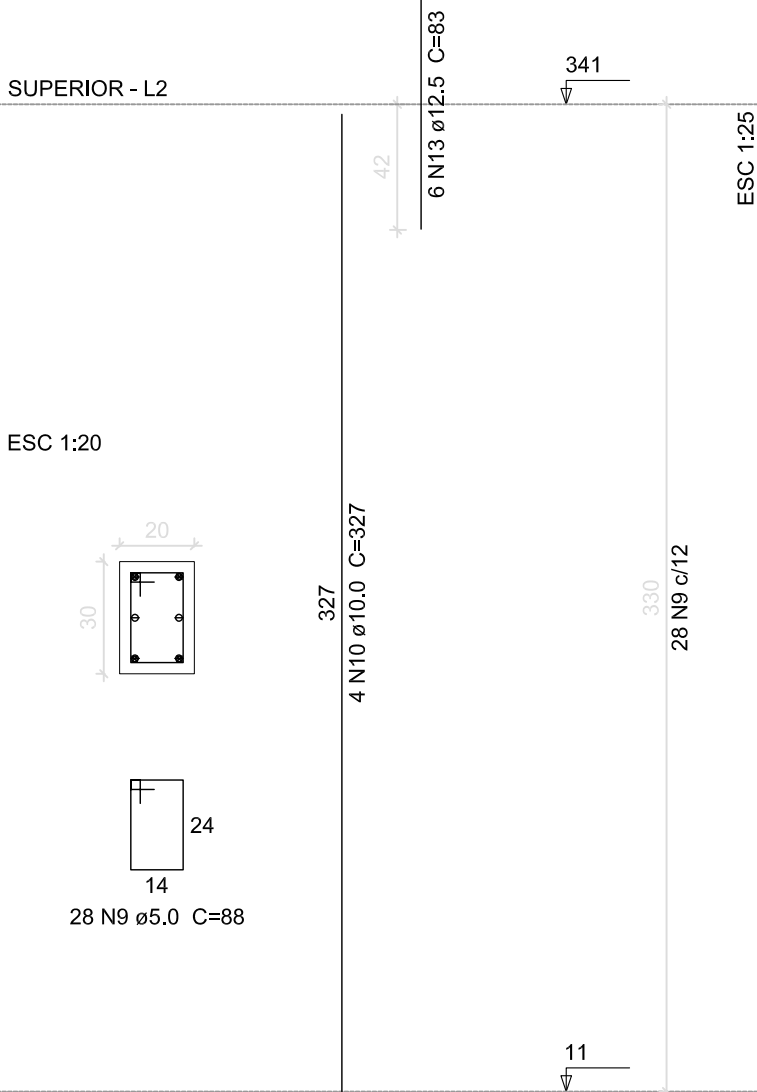
P37



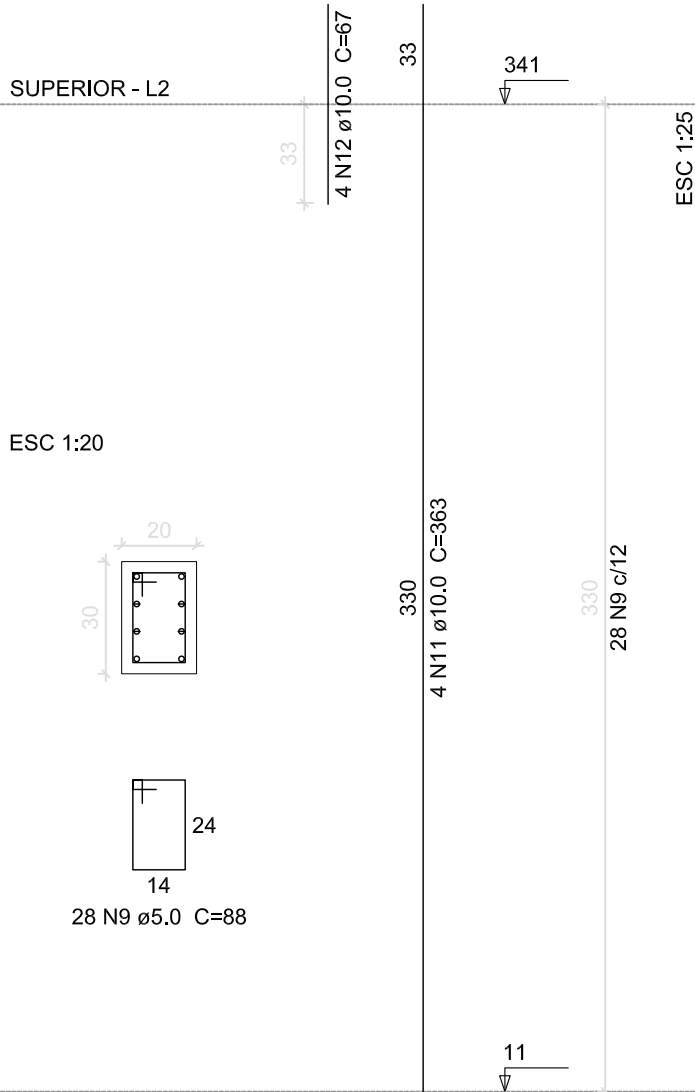
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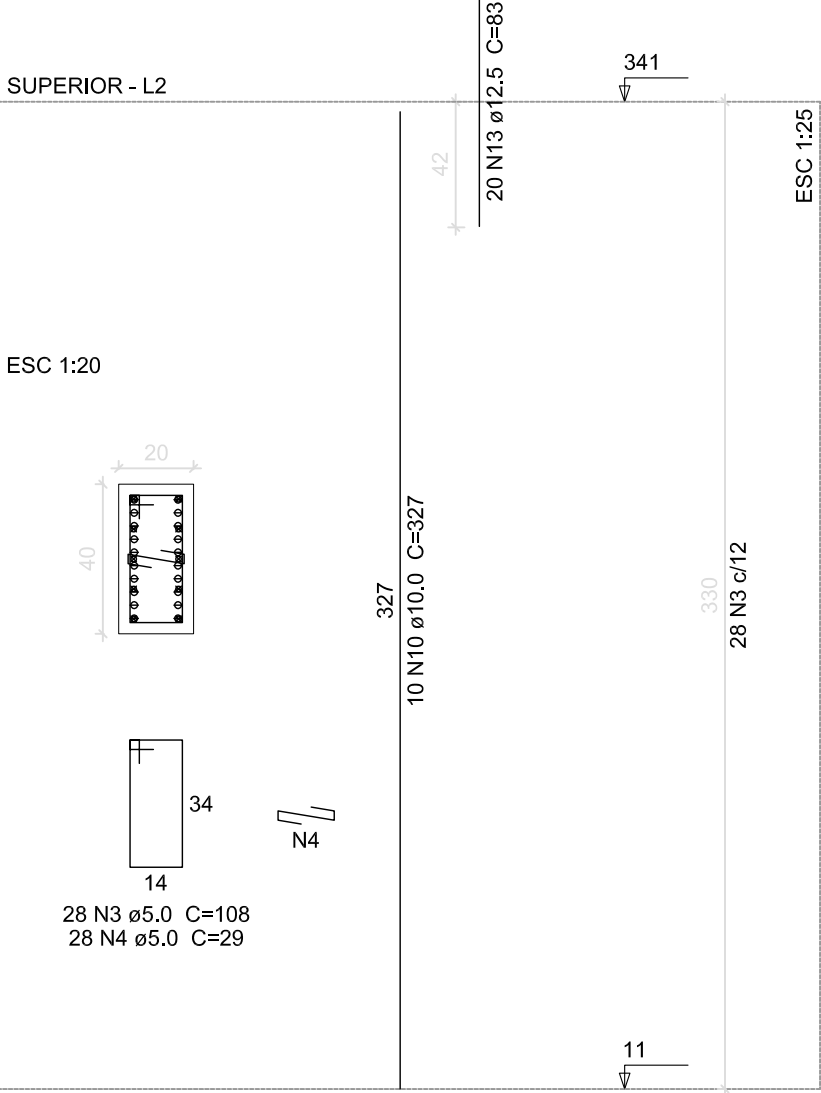
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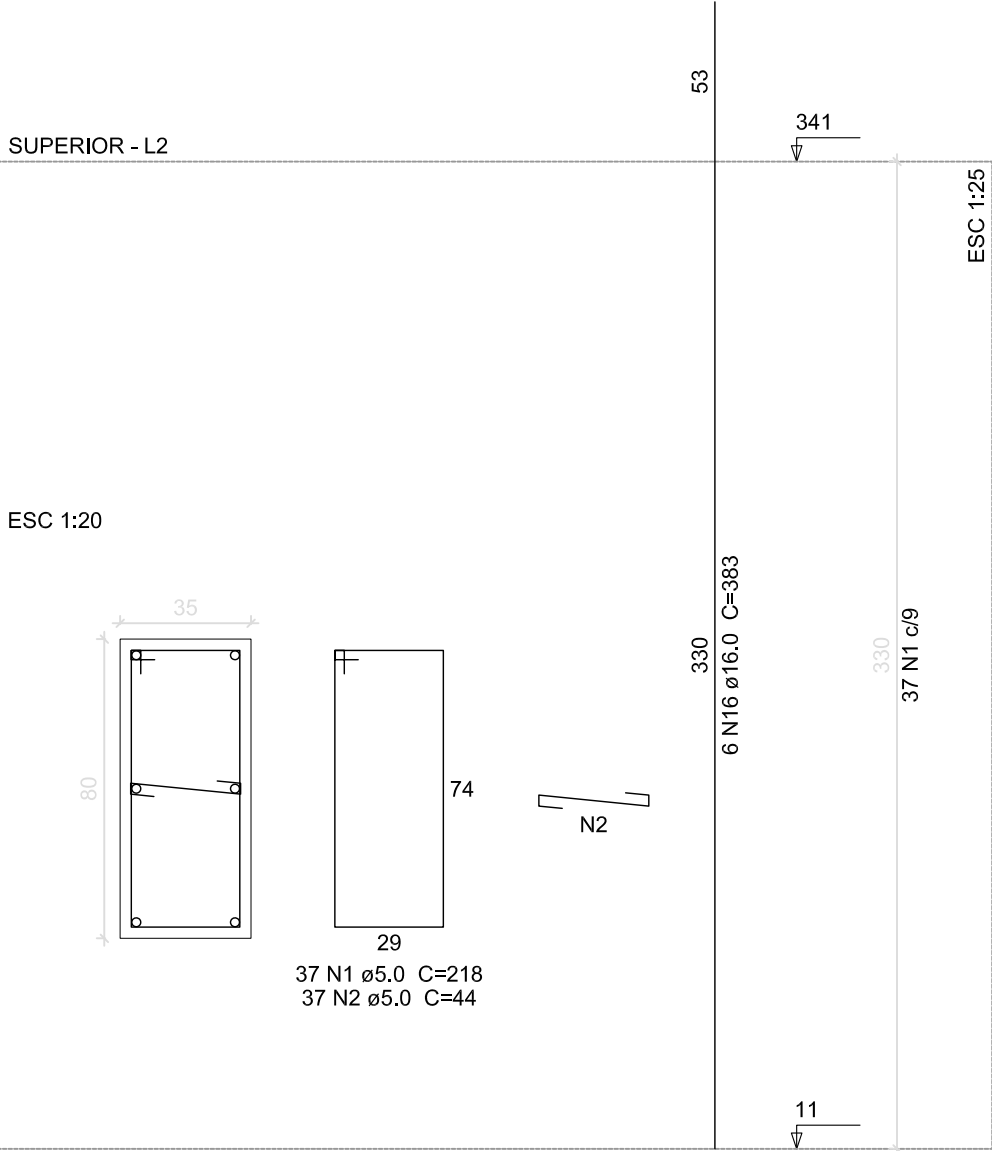
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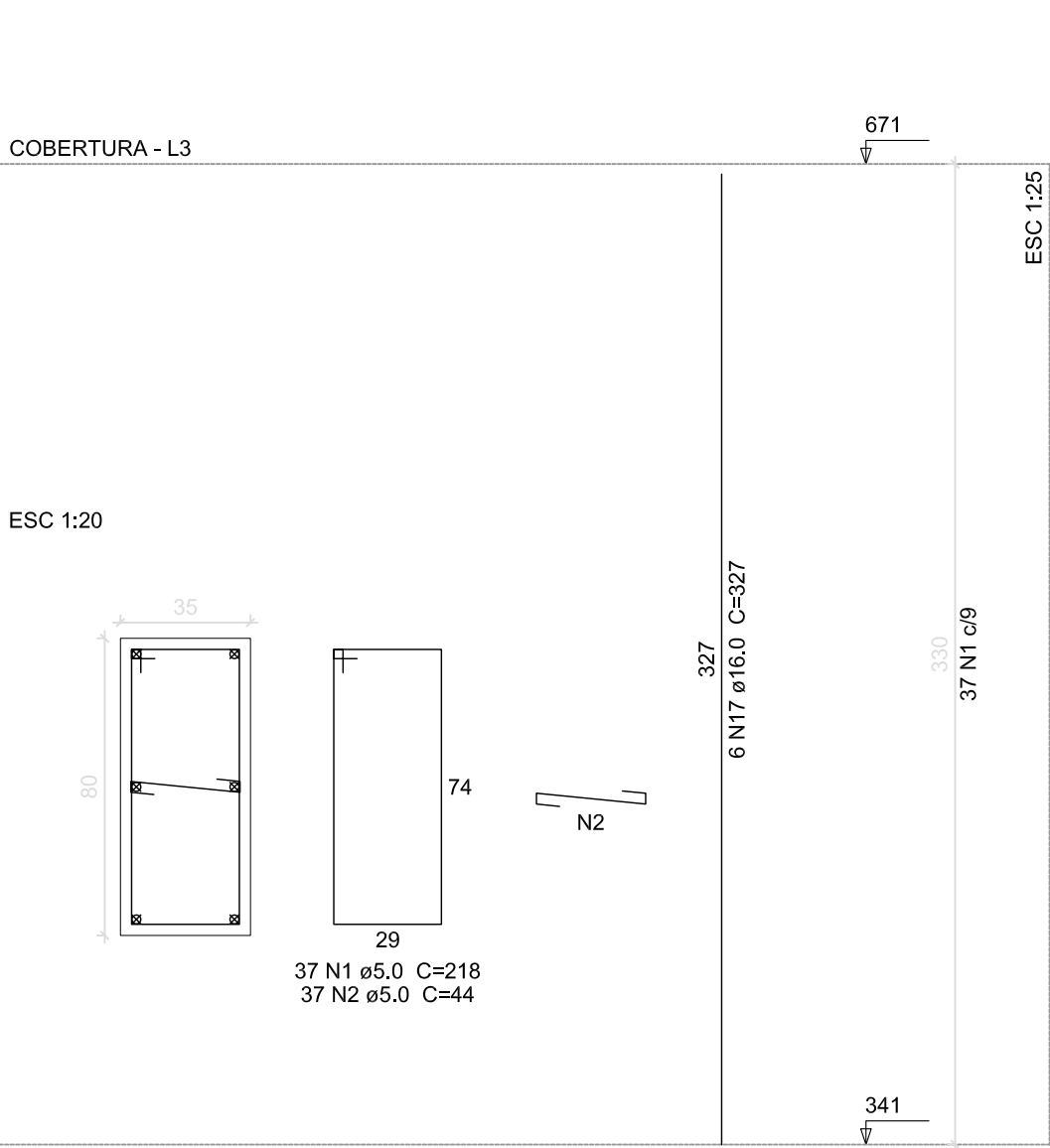
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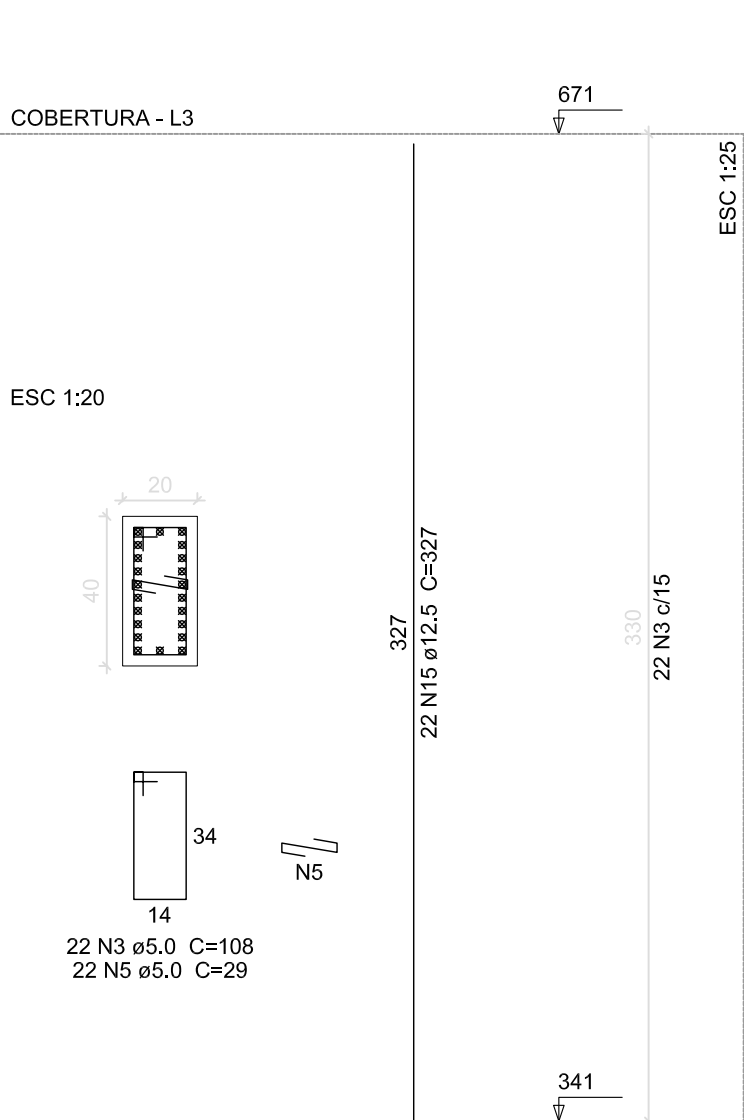
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P1=P2=P3=P4=P5=P6=P7=P8=P9=P47=P49=P50
=P52=P54=P55=P56=P58=P60



P10=P11=P12=P13=P14=P15=P17=P20=P22=P24
=P27=P29=P32=P35=P37=P41=P43=P48=P57
=P59



Nº	ALTERAÇÃO/REVISÕES	REVISADO POR DATA
<div><div></div><div><p>AUTOR DO PROJETO:</p><p>Engº. Fredrico Damasceno Pinheiro CREA 270082778-3</p></div><div></div></div>		
<div><p>ENDEREÇO:</p><p>Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE dipop@ifs.edu.br TEL: (79)3711-3139</p></div>		

PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA															
ENDEREÇO:		ROD. LÚCIO PRADO, S/N - JAPARATUBA/SE															
PLANTA:		BLOCO SALAS DE AULA ARMAÇÃO DAS PILARES SUPERIOR 1-2															
ESCALA:		1:100															
DATA:		JUN/2024															
PRANCHA:		08/26															
<table><tr><td>CAMPUS</td><td>OBRA</td><td>ESPECIALIDADE</td><td>FASE</td><td>SERIAL</td><td>QUANTITATIVO</td><td>REVISÃO</td></tr><tr><td>JAP</td><td>CAM</td><td>EST</td><td>PE</td><td>008</td><td>026</td><td>000</td></tr></table>				CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO	JAP	CAM	EST	PE	008	026	000
CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO											
JAP	CAM	EST	PE	008	026	000											

COBERTURA - L3

671

ESC 1,25

ESC 1:20

25

50

19

44

28 N1 ø5,0 C=138

56 N2 ø5,0 C=34

327

8 N11 ø10,0 C=327

170

28 N1 C/12

341

7

COBERTURA - L3

671

ESC 125

ESC 1:20

20

50

327

8 N11 ø10.0 C=327

330

28 N3 c/12

44

N4

14

28 N3 ø5.0 C=128

28 N4 ø5.0 C=29

341

7

Technical drawing of a rectangular plate. The drawing includes two views: a top view and a side view. The top view shows a rectangle with a width of 20 and a height of 50. The side view shows a rectangle with a height of 44. The part number 22 N3 ø5,0 C=128 is indicated for the top view, and 22 N5 ø5,0 C=29 is indicated for the side view. A dimension line indicates a distance of 14 from the bottom edge to the center of the hole. A note N5 is present near the side view. The drawing is labeled with 'COBERTURA - L3' and '671' in the top right corner. The scale is 'ESC 1:20'.

Technical drawing of a rectangular plate. The drawing includes the following details:

- Top View:** A rectangle with a width of 20 and a height of 50. Inside the rectangle, there are four small rectangular features arranged in a 2x2 grid.
- Side View:** A rectangle with a height of 14. A dimension line indicates a distance of 44 from the top edge to the center of the top feature.
- Part Number:** 22 N3 e5,0 C=128
- Material/Finish:** 44 N5 e5,0 C=29
- Reference:** N5 (with a small rectangular feature icon)
- Dimensions:** 20, 50, 14, 44

COBERTURA - L3

671
v

ESC 1:20

327
6 N 3 ø 12,5 C=327

330
22 N6 cr/15

ESC 1:25

341

COBERTURA - L3

671
√

ESC. 1:25

ESC 1:20

327
8 N11 ø10.0 C=327

30
20

14
24

28 N6 ø5.0 C=88

341
√

COBERTURA - L3

671

ESC 125

ESC 120

40

20

327

20 N13 ø12,5 C=327

34

14

22 N7 ø5.0 C=108

22 N5 ø5.0 C=29

N5

341

6

PLATIBANDA - L4

ESC 1:20

15

30

147

147

8 M12 ø10.0 C=147

13 N8 ø5.0 C=78

13 N9 ø5.0 C=24

9

24

N9

821

ESC

13 N8 ø12

671

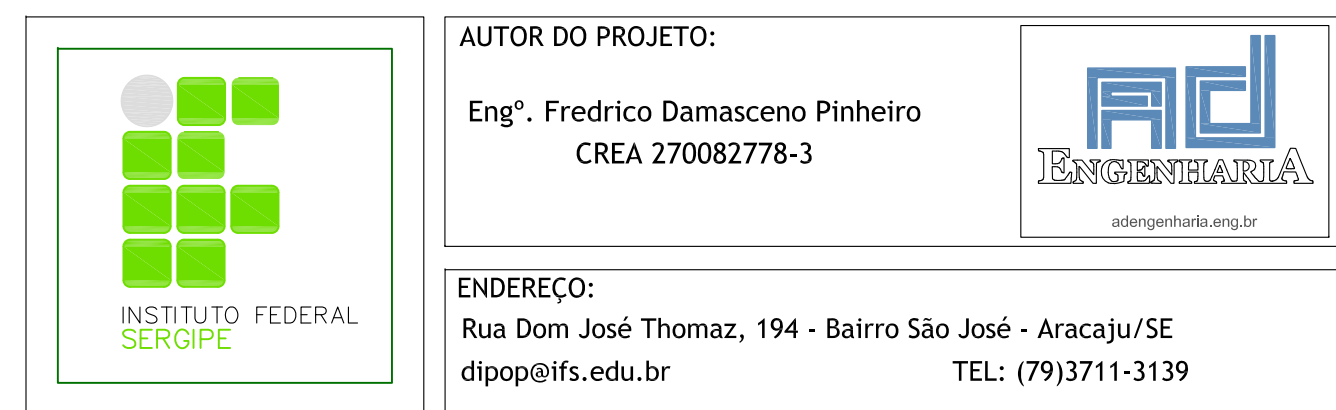
Relação do aço					
COBERTURA:		4xP16	6xP18		
		7xP21	P39		
		P45	P46		
PLATIBANDA:		2xP51	24xP62		
		4xP61			
ÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	112	138	15456
	2	5,0	224	34	7618
	3	5,0	344	128	40320
	4	5,0	168	29	4872
	5	5,0	284	29	7656
	6	5,0	50	88	4400
CA50	7	5,0	44	108	4752
	8	5,0	52	78	4056
	9	5,0	52	24	1248
	10	5,0	312	58	18096
	11	10,0	98	327	28776
	12	10,0	128	147	18816
	13	12,5	96	327	31392

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10,0	476	322,8
	12,5	314	332,7
CA60	5,0	1121,9	190,2
PESO TOTAL (kg)			
CA50	655,4		
CA60	190,2		

Volume de concreto (C-30) = 8.54 m³
Área de forma = 129.6 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

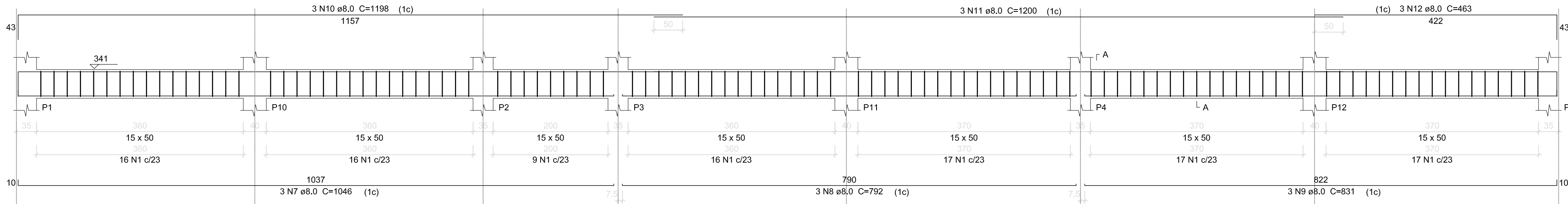


PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA			
ENDEREÇO:		ROD. LÚCIO PRADO, S/N - JAPARATUBA/SE			
PLANTA:		BLOCO SALAS DE AULA ARMAÇÃO DAS PILARES SUPERIOR 2-2			
		ESCALA: 1:100			
		DATA: JUN/2024			
		PRANCHA:			
		09/26			
CADASTRO	DATA	EPICRONECADA	FOLIO	QUANTIDADE	REVISÃO
J	A	P	C	A	M
E	S	T	I	F	E
O	0	9	0	0	2
R	0	0			

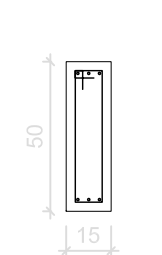
V1 (15 x 50)

ESC 1:50



SEÇÃO A-A

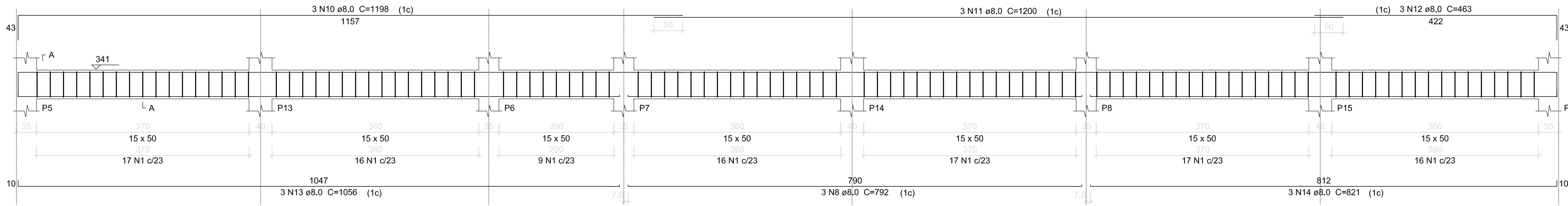
ESC 1:25



108 N1 ø5.0 C=118

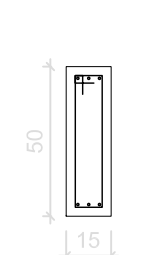
V2 (15 x 50)

ESC 1:50



SEÇÃO A-A

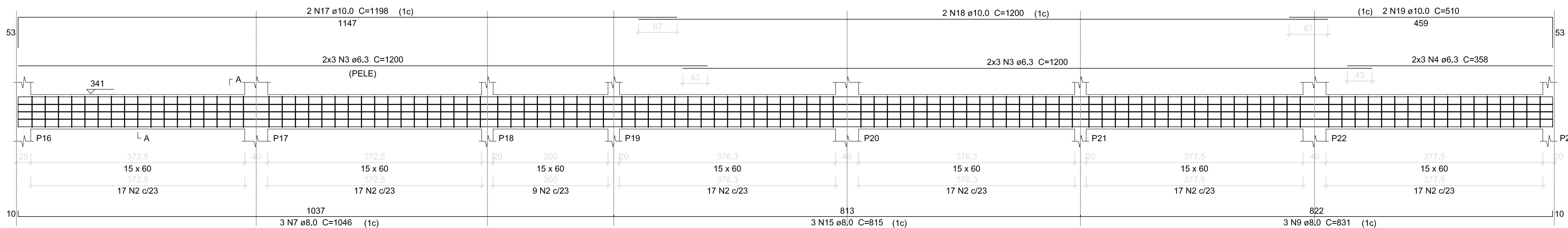
ESC 1:25



108 N1 ø5.0 C=118

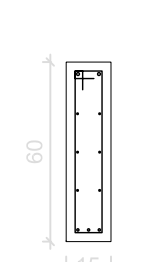
V3 (15 x 60)

ESC 1:50



SEÇÃO A-A

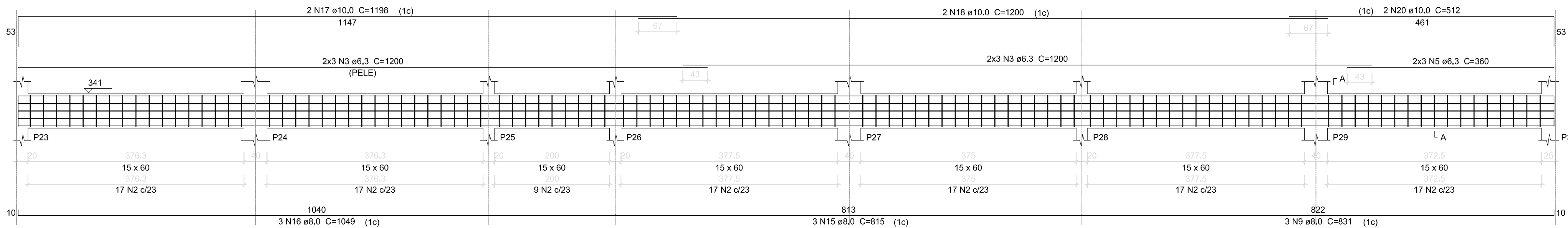
ESC 1:25



111 N2 ø5.0 C=138

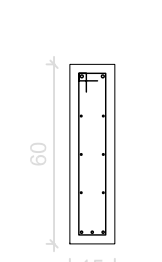
V4 (15 x 60)

ESC 1:50



SEÇÃO A-A

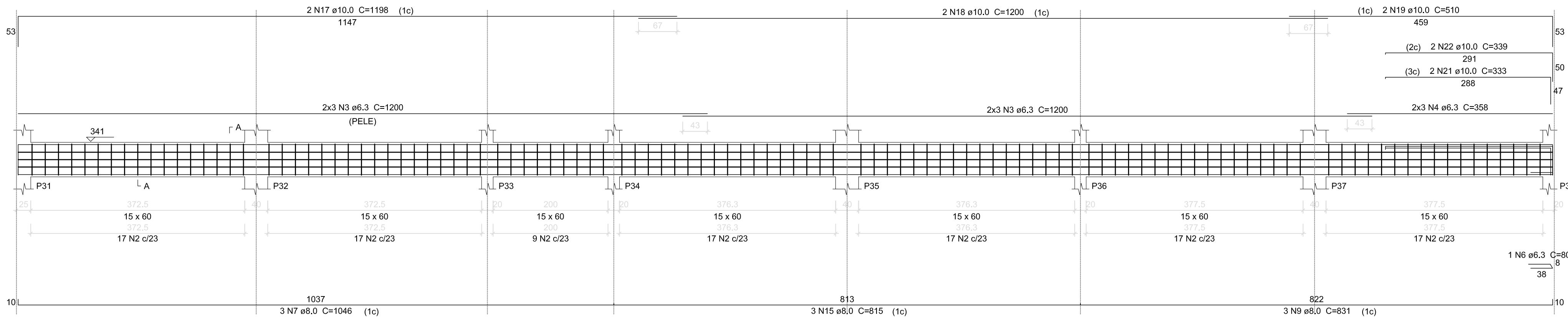
ESC 1:25



111 N2 ø5.0 C=138

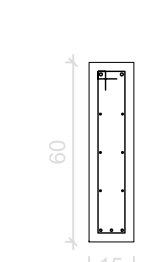
V5 (15 x 60)

ESC 1:50



SEÇÃO A-A

ESC 1:25



111 N2 ø5.0 C=138

Relação do aço


V1		V2		V3		C.TOTAL (cm)
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)		
CA60	1	5.0	216	118	25488	
CA50	2	5.0	333	138	45964	
	3	6.3	36	1200	43200	
	4	6.3	12	358	4296	
	5	6.3	6	360	2160	
	6	6.3	1	80	80	
	7	8.0	9	1046	9414	
	8	8.0	6	792	4752	
	9	8.0	12	831	9972	
	10	8.0	6	1198	7188	
	11	8.0	6	1200	7200	
	12	8.0	6	463	2778	
13	8.0	3	1056		3168	
14	8.0	3	821		2463	
15	8.0	9	815		7335	
16	8.0	3	1049		3147	
17	10.0	6	1198		7188	
18	10.0	6	1200		7200	
19	10.0	4	510		2040	
20	10.0	2	512		1024	
21	10.0	2	333		666	
22	10.0	2	339		678	

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	497.4	133.9
	8.0	574.2	249.2
	10.0	188	127.5
CA60	5.0	714.5	121.1
PESO TOTAL (kg)			
CA50	510.6		
CA60	121.1		

Volume de concreto (C-30) = 11.26 m³
Área de forma = 170.23 m²


Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA



INSTITUTO FEDERAL
SERGIPE

AUTOR DO PROJETO:

Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3



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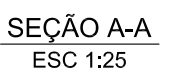
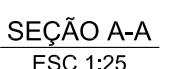
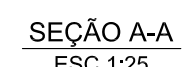
ENDEREÇO:

Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE
dipop@ifs.edu.br

TEL: (79)3711-3139

PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE



CLIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA	
ENDEREÇO:	ROD. LÚCIO PRADO, S/N - JAPARATUBA/SE	ESCALA:	1:100
		DATA:	JUN/2024
PLANTA:	BLOCO SALAS DE AULA ARMAÇÃO DAS VIGAS SUPERIOR 1-5	PRANCHA:	10/26
		CAMPUS: JAP CAM EST PE OI TO QZ B R00	



V6 V9	V7 V10	V8 V11			
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	146	138	20148
	2	5.0	4	261	1044
CA50	3	5.0	24	98	2352
	4	5.0	220	118	25960
	5	6.3	12	1200	14400
	6	6.3	6	3650	2160
	7	6.3	6	575	3450
	8	8.0	3	91	273
	9	8.0	3	1035	3105
	10	8.0	6	831	4986
	11	8.0	4	277	1198
	12	8.0	3	1046	3138
	13	8.0	3	792	2376
	14	8.0	1	218	218
	15	8.0	3	1198	3594
	16	8.0	3	1200	3600
	17	8.0	3	455	1365
	18	8.0	3	1027	3081
	19	8.0	3	821	2463
	20	10.0	1	820	820
	21	10.0	2	823	1646
	22	10.0	2	836	1652
23	10.0	2	820	1640	
24	10.0	6	101	606	
25	10.0	1	580	580	
26	10.0	2	587	1174	
27	10.0	3	594	1782	
28	10.0	1	663	663	
29	10.0	2	676	1352	
30	10.0	1	813	813	
31	10.0	2	817	1634	
32	10.0	3	820	2460	
33	12.5	2	1072	2144	
34	12.5	4	204	816	
35	12.5	2	1080	2160	
36	12.5	2	1197	2394	
37	12.5	4	1200	4800	
38	12.5	2	545	1090	
39	12.5	1	1005	1005	
40	12.5	2	1012	2024	
41	12.5	2	1020	2040	
42	12.5	2	1197	2394	
43	12.5	2	524	1048	

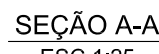
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6,3	200,1	53,9
	8,0	293,1	127,2
	10,0	176,8	119,8
	12,5	219,2	232,2
CA60	5,0	495,1	83,9
PESO TOTAL (kg)			
CA50	533,1		
CA60	83,9		

Volume de concreto (C-30) = 7.28 m³
Área de forma = 110.84 m²

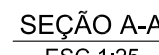
 <p data-bbox="2362 1585 2415 1591">INSTITUTO FEDERAL SERGIPE</p>	<p data-bbox="2478 1558 2665 1564">AUTOR DO PROJETO:</p> <p data-bbox="2478 1564 2665 1585">Eng°. Fredrico Damasceno Pinheiro CREA 270082778-3</p>	 <p data-bbox="2665 1585 2760 1591">adengenharia.eng.br</p>
<p data-bbox="2362 1593 2843 1600">ENDEREÇO:</p> <p data-bbox="2362 1600 2843 1610">Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE dipop@ifs.edu.br</p>		
<p data-bbox="2362 1610 2843 1614">TEL: (79)3711-3139</p>		

CLIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARUTABA																																				
ENDEREÇO:		ROD. LÚCIO PRADO, S/N - JAPARUTABA/SE	ESCALA: 1:100 DATA: JUN/2024																																			
PLANTA:		BLOCO SALAS DE AULA ARMAÇÃO DAS VIGAS SUPERIOR 2-5																																				
<table border="1"> <thead> <tr> <th>CAMPO</th> <th>OBRA</th> <th>ESPECIALIDADE</th> <th>FASE</th> <th>SERIAL</th> <th>QUANTITATIVO</th> <th>REVISÃO</th> </tr> </thead> <tbody> <tr> <td>J</td> <td>A</td> <td>P</td> <td>C</td> <td>A</td> <td>M</td> <td>E</td> </tr> <tr> <td>S</td> <td>E</td> <td>R</td> <td>V</td> <td>E</td> <td>O</td> <td>I</td> </tr> <tr> <td>T</td> <td>I</td> <td>O</td> <td>Q</td> <td>U</td> <td>2</td> <td>0</td> </tr> <tr> <td>2</td> <td>5</td> <td>R</td> <td>O</td> <td>O</td> <td></td> <td></td> </tr> </tbody> </table>		CAMPO	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO	J	A	P	C	A	M	E	S	E	R	V	E	O	I	T	I	O	Q	U	2	0	2	5	R	O	O			PRANCHA: <div style="font-size: 2em; font-weight: bold;">11/26</div>	
CAMPO	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO																																
J	A	P	C	A	M	E																																
S	E	R	V	E	O	I																																
T	I	O	Q	U	2	0																																
2	5	R	O	O																																		

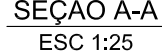
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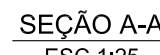
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ESC 1:50



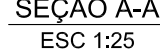
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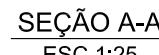
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ESC 1:50



ESC 1:50



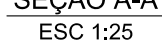
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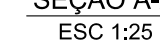
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ESC 1:50




ESC 1:50



Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	61.2	26.6
	10,0	197.6	134
	12,5	432.1	457.9
	16,0	103.2	179.2
	20,0	152.2	412.8
CA60	5,0	594	100.7
PESO TOTAL (kg)			
CA50	1210.4		
CA60	100.7		

Volume de concreto (C-30) = 6.69 m³
Área de forma = 103.52 m²



INSTITUTO FEDERAL
SERGIPE

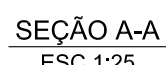


ENDEREÇO:
Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE
dipop@ifs.edu.br TEL: (79)3711-3139

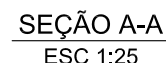
CAMPUS JAPARATUBA/SE

CLIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA	
ENDEREÇO:		ROD. LÚCIO PRADO, S/N - JAPARATUBA/SE ESCALA: 1:100	
PLANTA:		DATA: JUN/2024 PRANCHA:	
BLOCO SALAS DE AULA		12/26	
ARMAÇÃO DAS VIGAS SUPERIOR 3-5			
CAPIL:	ORÇ:	ETIQUETAGEM:	FEI:
J A P	C A M	E S T	P E
012	026	R00	

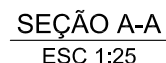
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ESC 1:50



ESC 1:50



VZJ
ESC 1:50



ESC 1:50



ESC 1:50



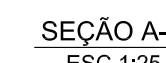
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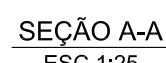
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V 30
ESC 1:50



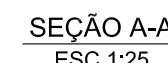
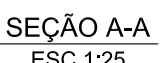
VSI
ESC 1:50

VJZ
ESC 1:50

V J J
ESC 1:50



VJ4
ESC 1:50

V 33
ESC 1:50

V30
ESC 1:50

V37
ESC 1.50VSC
ESC 1.5C


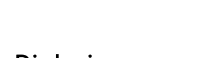
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6,3	4	1,1
	8,0	104,8	45,5
	10,0	165,7	112,3
	12,5	518,3	549,2
	16,0	94,7	164,4
	20,0	203,1	551
CA60	5,0	720,6	122,2

PESO TOTAL
(kg)

CA50	1423,4
CA60	122,2

Volume de concreto (C-30) = 7,84 m³
 Área de forma = 120,89 m²

 <p data-bbox="2362 1585 2415 1591">INSTITUTO FEDERAL SERGIPE</p>	<p data-bbox="2478 1558 2665 1564">AUTOR DO PROJETO:</p> <p data-bbox="2478 1564 2665 1585">Eng°. Fredrico Damasceno Pinheiro CREA 270082778-3</p>	 <p data-bbox="2665 1585 2760 1591">adengenharia.eng.br</p>
<p data-bbox="2362 1593 2843 1600">ENDEREÇO:</p> <p data-bbox="2362 1600 2843 1610">Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE dipop@ifs.edu.br</p>		

CIENTE:		INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARUBA	
ENDEREÇO:	ROD. LÚCIO PRADO, S/N - JAPARUBA/SE	ESCALA:	1:100
PLANTA:	BLOCO SALAS DE AULA ARMAZÉM DAS VIGAS SUPERIOR 4-5	DATA:	JUN/2024
		PRANCHA:	13/26
CAMPO:	ORIM:	EPIGRAFIA:	FABR:
QUANTIDADE:	REVISÃO:		
J	A	P	C
M	E	S	T
P	E	O	1
3	0	2	6
R	O	O	