

Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
S33	2xS36	2xS62			
S63	VB1	VB2			
VB3	VB4	VB5			
VB6	VB7	VB8			
VB9	VB10				

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	66	218	14388	
	2	5,0	66	44	2904
	3	5,0	26	218	5668
	4	5,0	26	94	2444
	5	5,0	104	39	4056
	6	5,0	39	98	3822
	7	5,0	39	24	936
	8	5,0	291	78	22698
	9	5,0	4	261	1044
CA50	10	8,0	44	91	4004
	11	8,0	24	136	3264
	12	8,0	20	171	3420
	13	8,0	30	116	3480
	14	8,0	18	161	2898
	15	8,0	30	106	3160
	16	8,0	24	126	3024
	17	8,0	9	653	5877
	18	8,0	8	277	2216
	19	8,0	4	303	1212
	20	8,0	2	240	480
	21	8,0	2	266	532
	22	8,0	4	905	3620
	23	8,0	4	931	3724
	24	8,0	1	256	256
	25	10,0	50	201	10050
	26	10,0	22	125	2750
	27	10,0	24	165	3960
	28	10,0	2	671	1342
	29	10,0	4	678	2712
	30	10,0	1	273	273
	31	10,0	2	688	1376
	32	16,0	36	219	7884


Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	411,9	178,8
	10,0	224,7	152,3
	16,0	78,9	136,9
CA60	5,0	579,6	98,3

PESO TOTAL (kg)
CA50 468
CA60 98,3

Volume de concreto (C-30) = 9,03 m³
Área de forma = 82,18 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:

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PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE: INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA

ENDEREÇO: ROD. DEP. REINALDO MOURA, S/N - JAPARATUBA/SE

PLANTA: BLOCO ADMINISTRATIVO
ARMAÇÃO SAPATAS E DAS VIGAS BALDRAMES

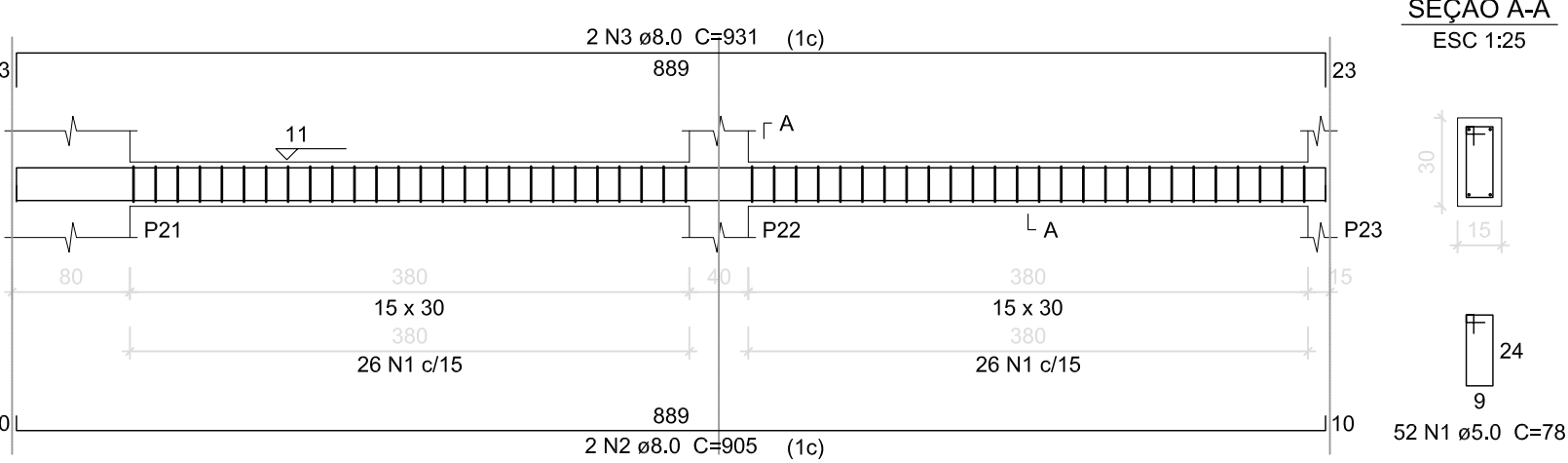
ESCALA: 1:100

DATA: MAIO/2025

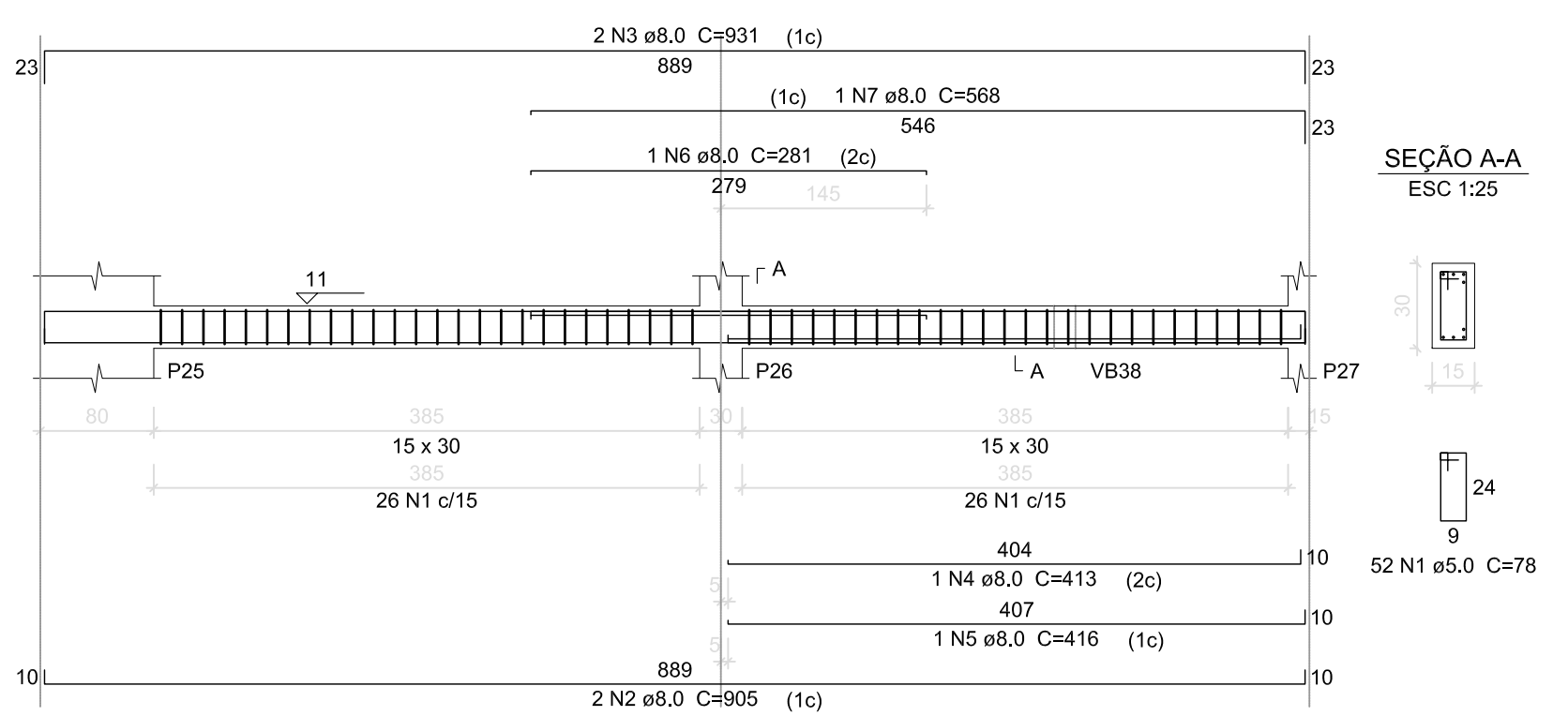
PRANCHA: 04/14

CAMPUS	SERIAL	ESPECIALIDADE	PAGE	SERIAL	QUANTIDADE	REVISÃO
JAP	CAM	EST	PE	004	014	R01

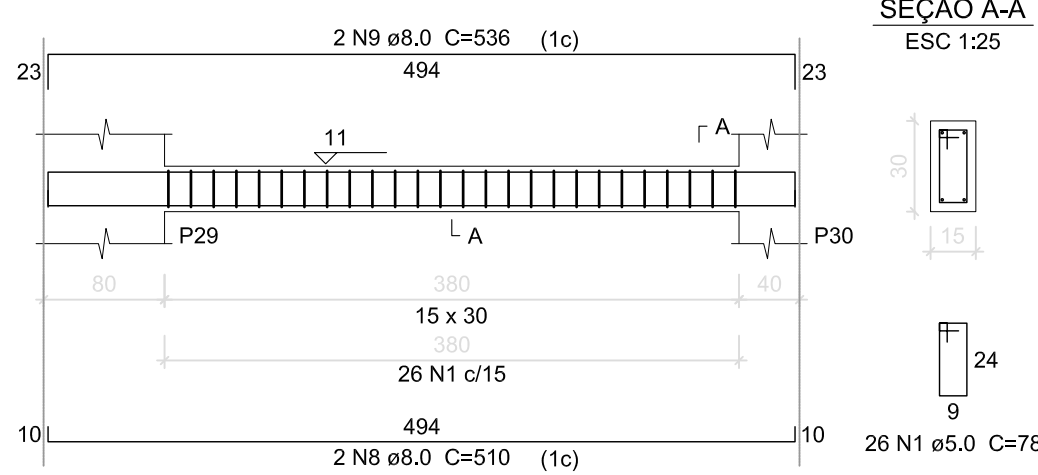
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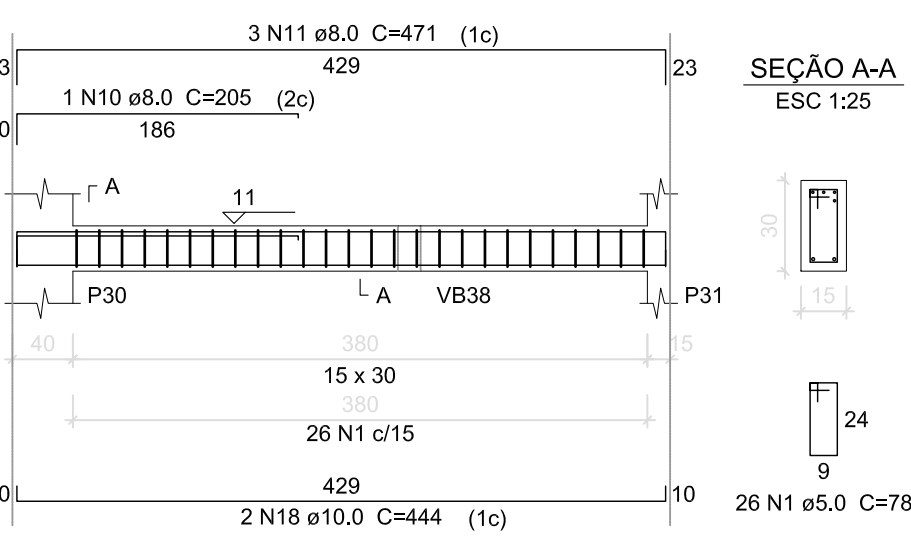
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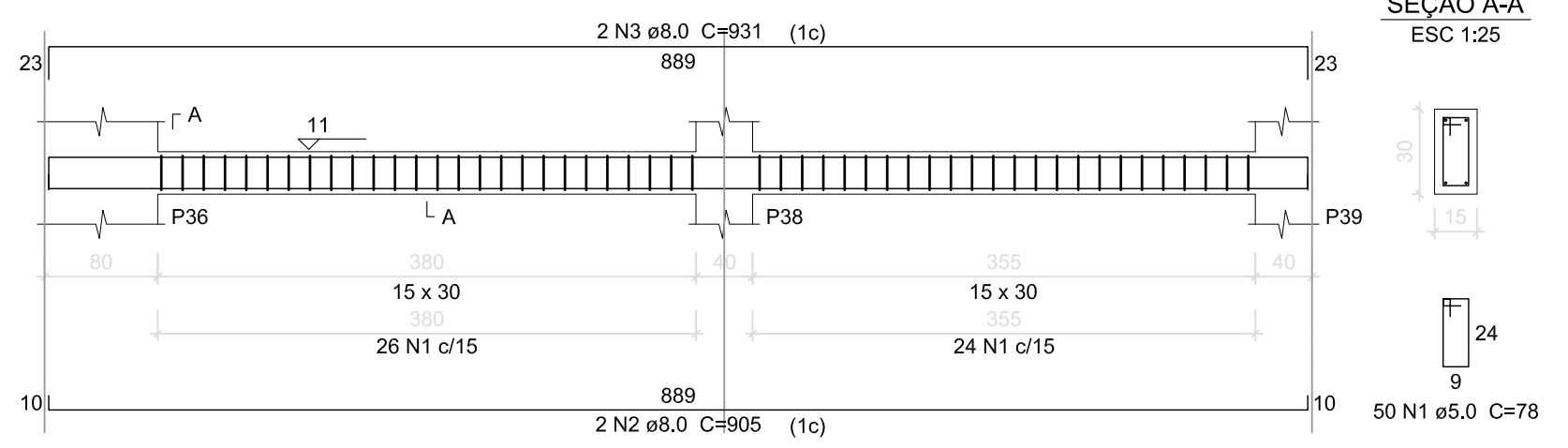
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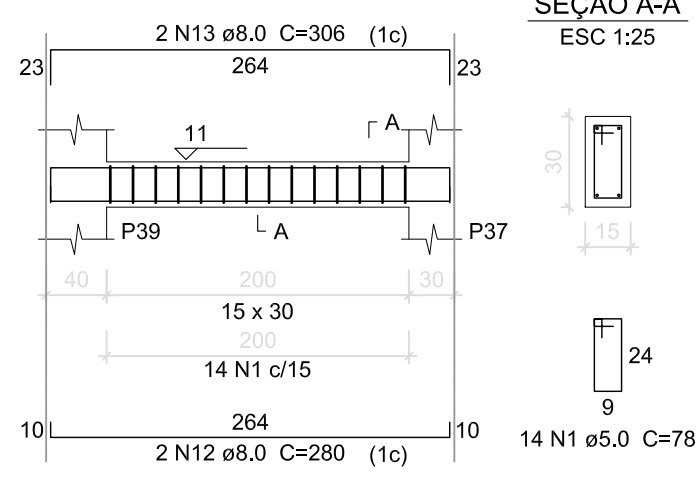
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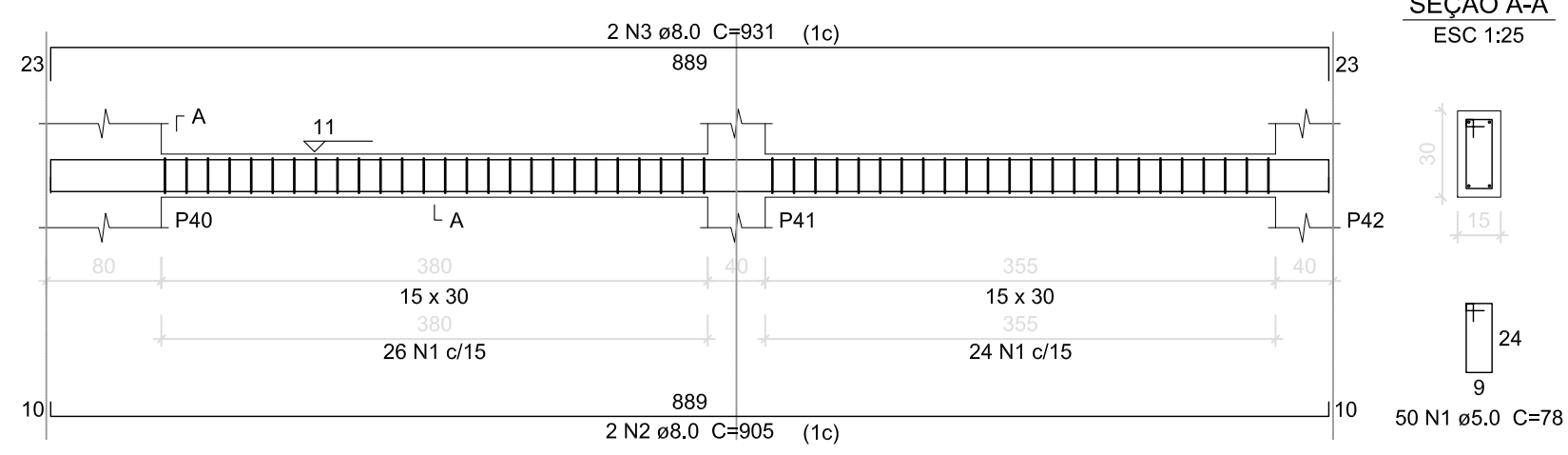
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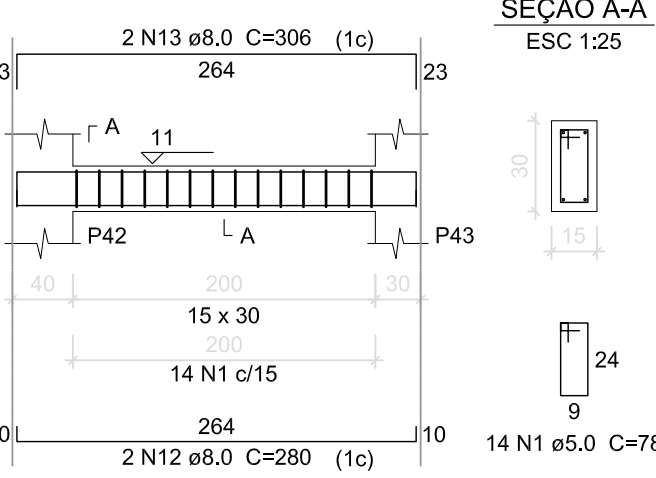
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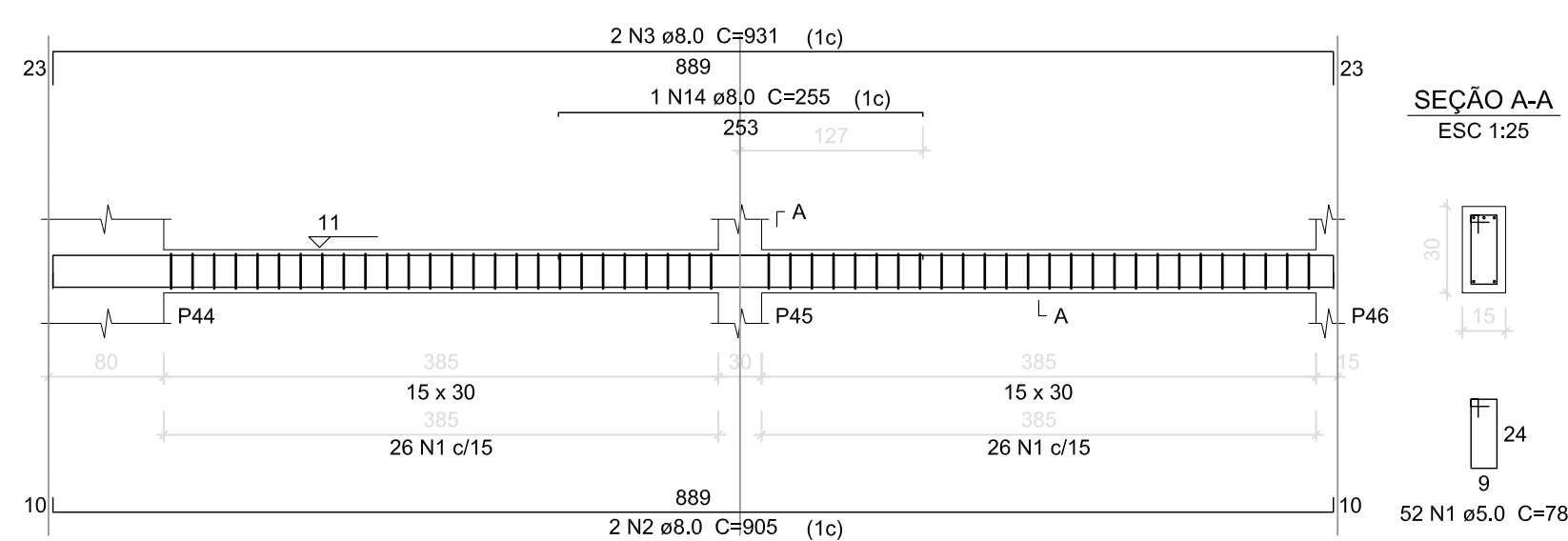
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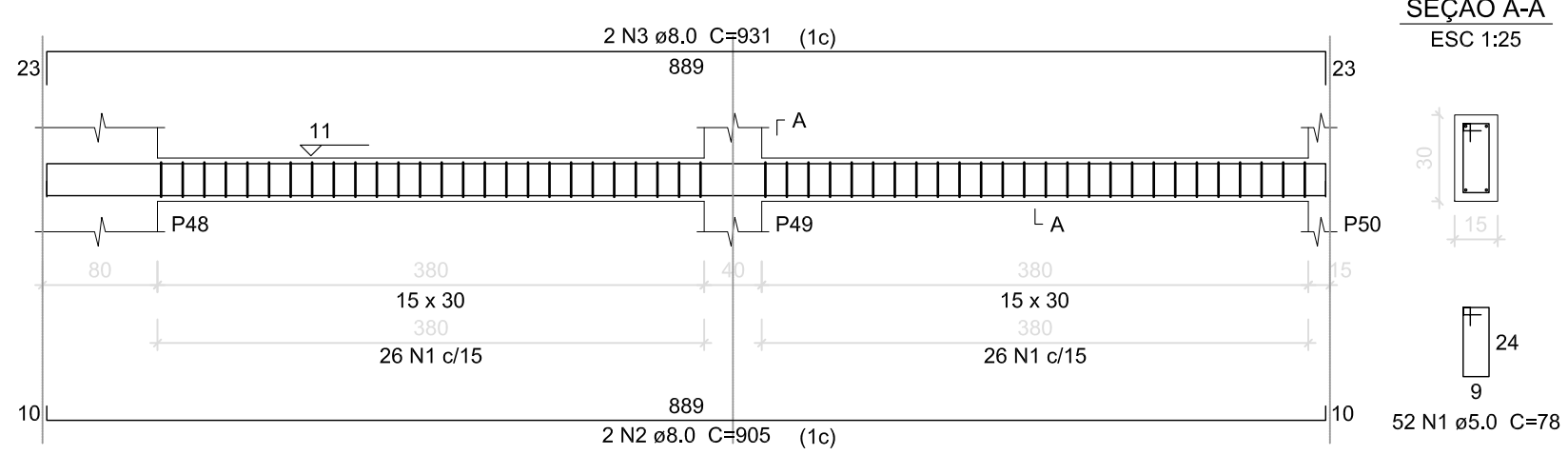
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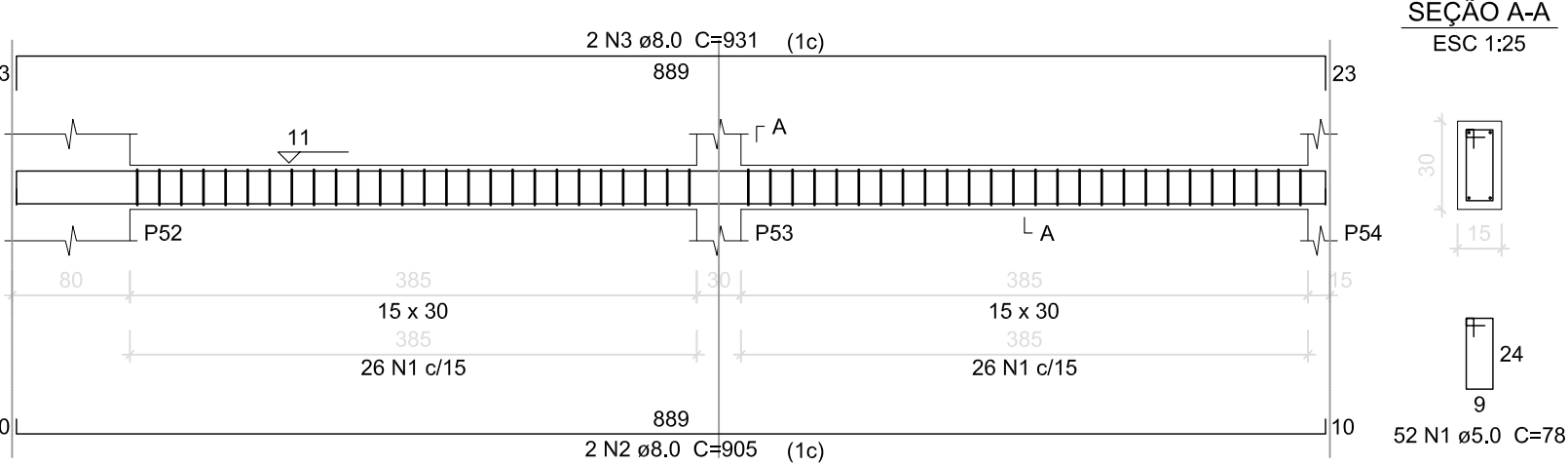
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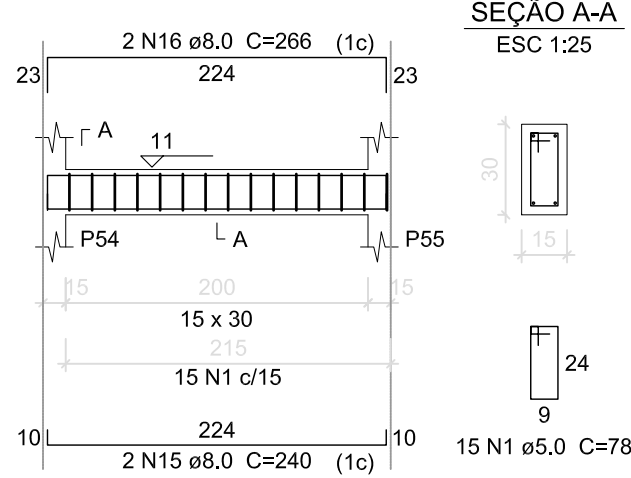
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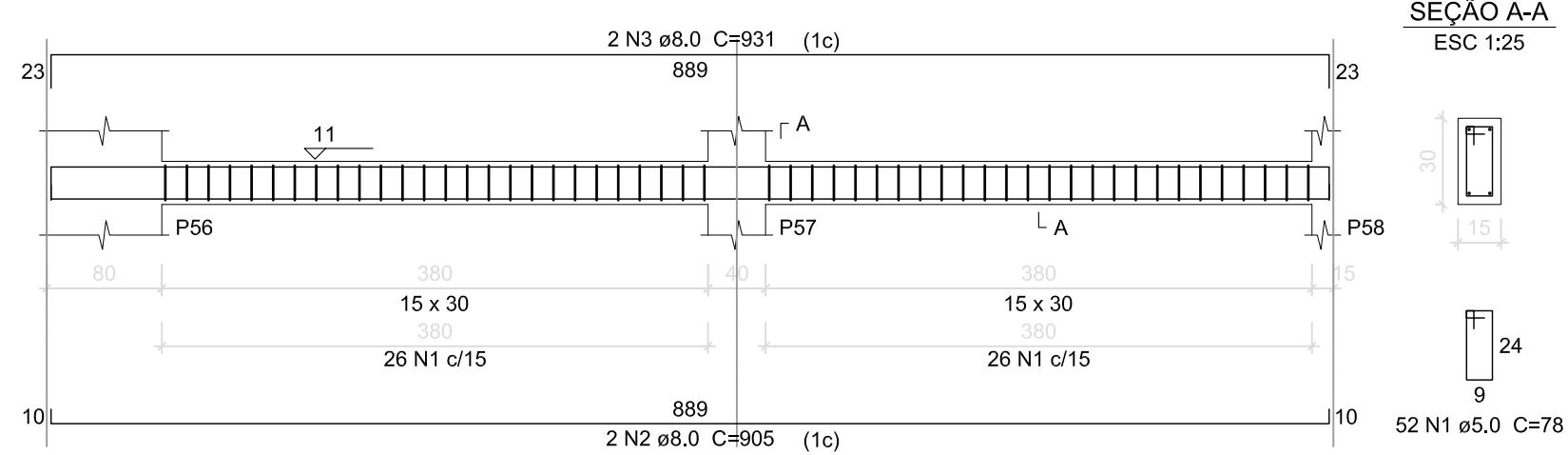
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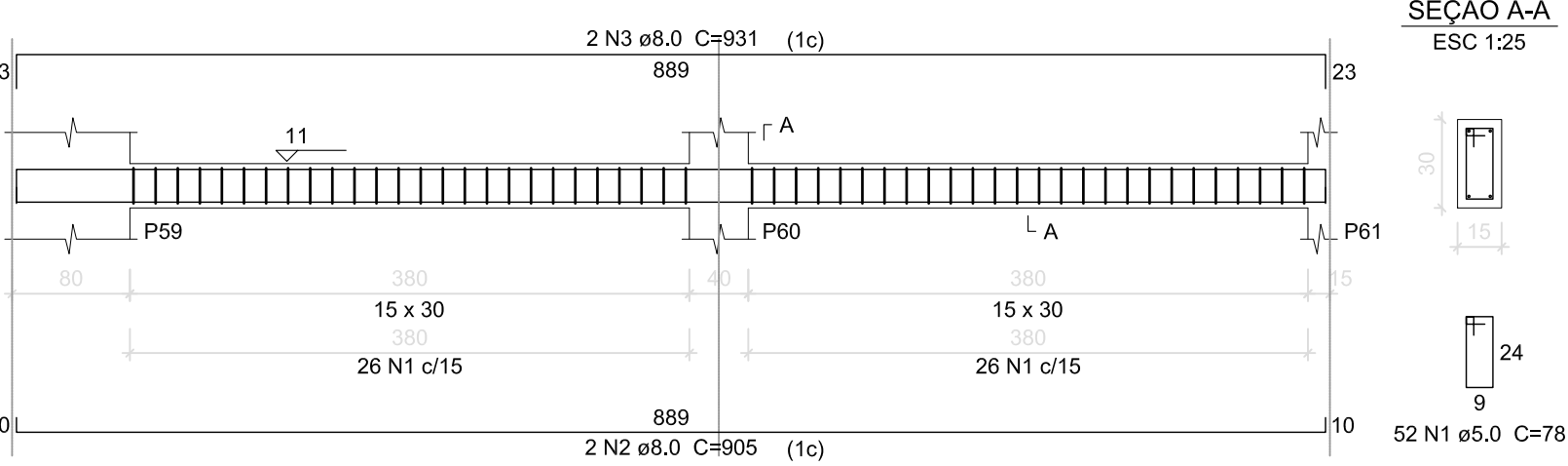
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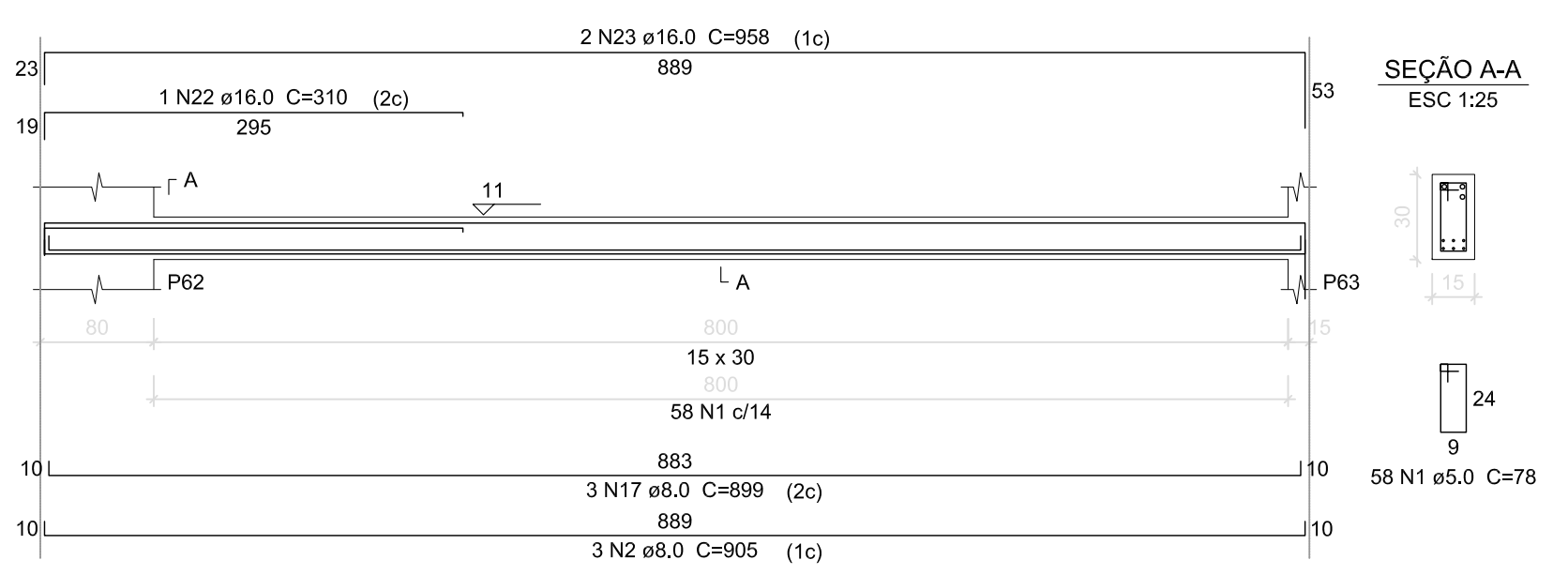
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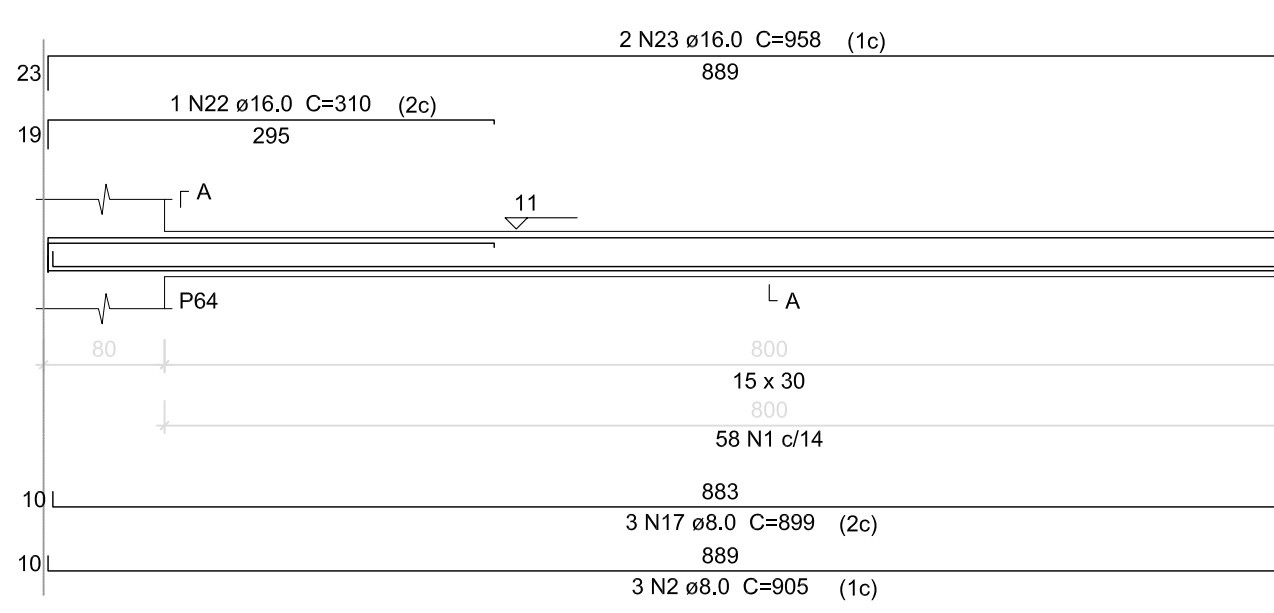
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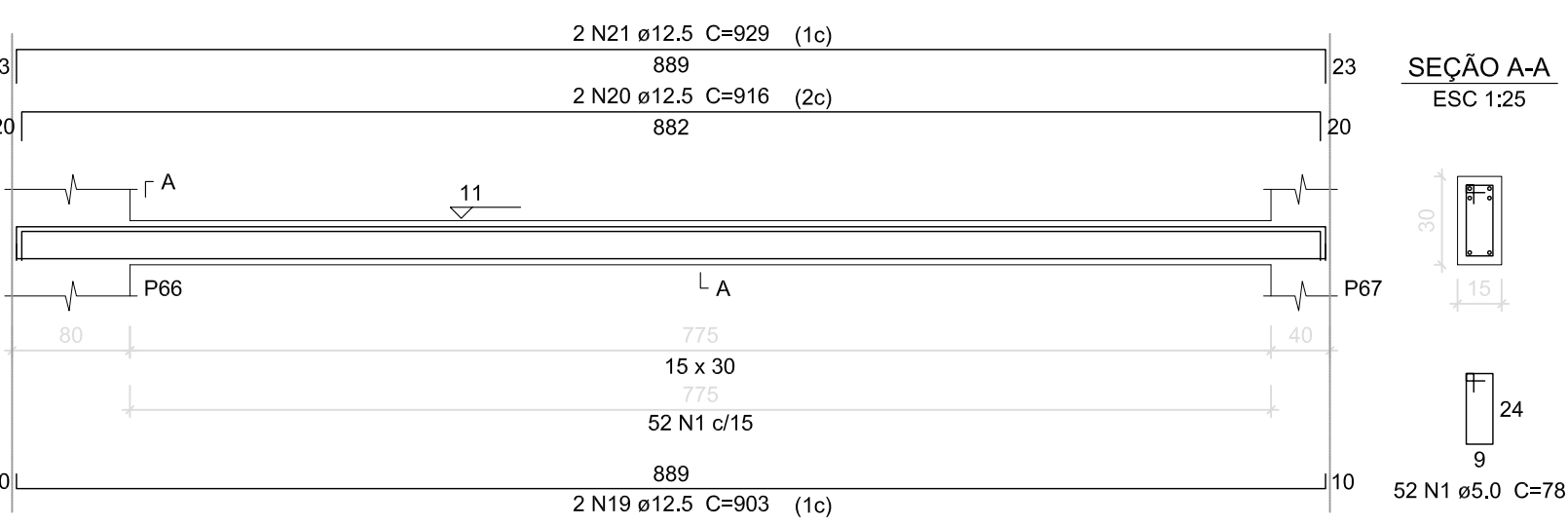
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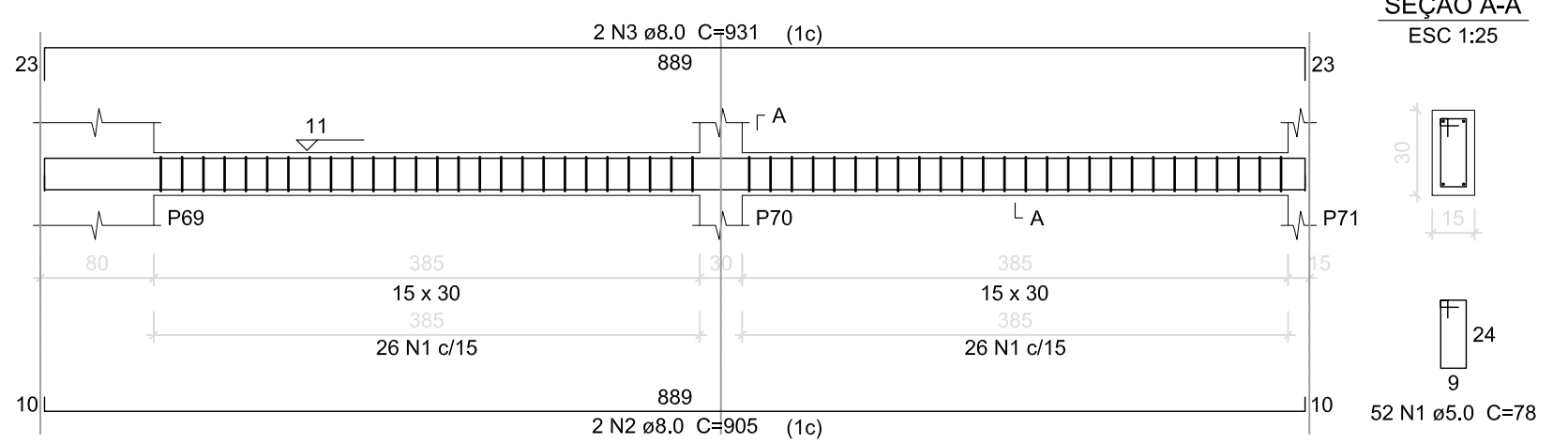
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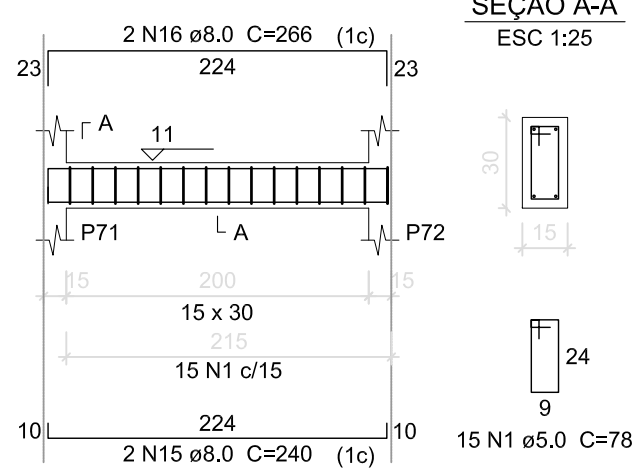
VB27 (15 x 30)



VB28 (15 x 30)



VB29 (15 x 30)



Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	794	78	61932
CA50	2	8.0	26	905	23530
	3	8.0	20	931	18620
	4	8.0	1	413	413
	5	8.0	1	416	416
	6	8.0	1	251	251
	7	8.0	1	568	568
	8	8.0	2	510	1020
	9	8.0	2	536	1072
	10	8.0	1	205	205
	11	8.0	3	471	1413
	12	8.0	4	280	1120
	13	8.0	4	306	1224
	14	8.0	1	255	255
	15	8.0	4	240	960
	16	8.0	4	266	1064
	17	8.0	6	899	5394
	18	10.0	2	444	888
	19	12.5	2	903	1806
	20	12.5	2	916	1832
	21	12.5	2	929	1858
	22	16.0	2	310	620
	23	16.0	4	958	3832

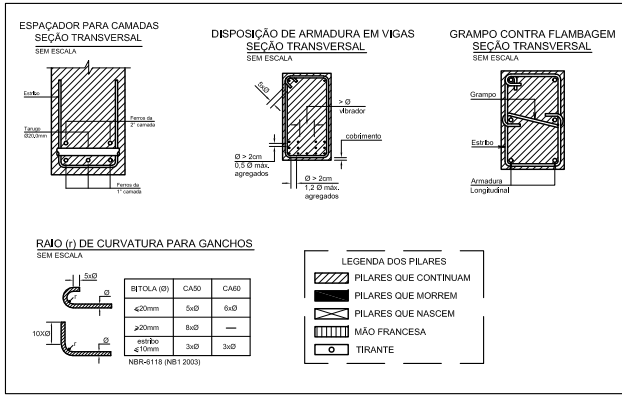
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	575.6	249.8
	10.0	8.9	6
	12.5	55	55.2
	16.0	44.6	77.3
CA60	5.0	619.4	105

PESO TOTAL (kg)

CA50	391.4
CA60	105

Volume de concreto (C=30) = 6.11 m³
Área de forma = 101.78 m²



CLASSE DE AGRESSIVIDADE AMBIENTAL (NBR 6118:2014)	
II - MODERADA URBANA	FATORES ATENUANTES: - Condições favoráveis ao ambiente e materiais de alta qualidade. - Ambiente moderado com argamassa e gesso.
COBRIMENTOS:	CONCRETO ADOTADO:
PLUMBUM 3.0mm	C20 Fck = 30MPa
PLUMBUM 3.0mm	Ecc = 200718 (mm)
PLUMBUM 3.0mm	FATOR AGRAVAMENTO DO CONCRETO: 0.85 ≤ 0.95

ALTERAÇÃO/REVISÕES

REVISADO POR DATA

AUTOR DO PROJETO:

Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3



ENDEREÇO:

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PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE:

INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA

ENDEREÇO:

ROD. DEP. REINALDO MOURA, S/N - JAPARATUBA/SE

PLANTA:

BLOCO ADMINISTRATIVO
ARMAÇÃO DAS VIGAS BALDRAMES 1-3

CAMPUS:	OPR:	ESPECIALIDADE:	FASE:	SERIAL:	QUANTITATIVO:	REVISÃO:
JAP	CAM	EST	PE	005	014	R01

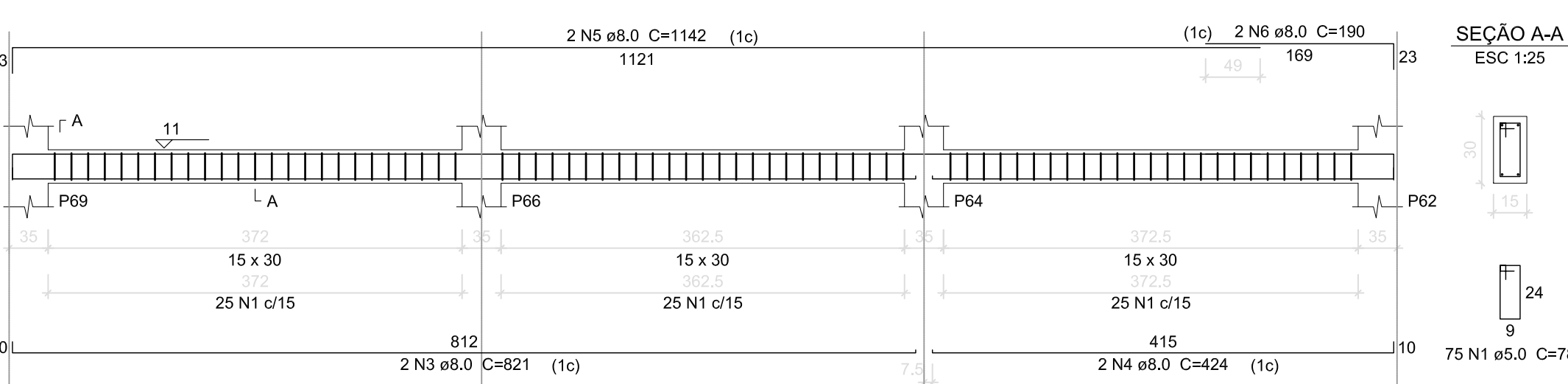
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DATA: MAIO/2025

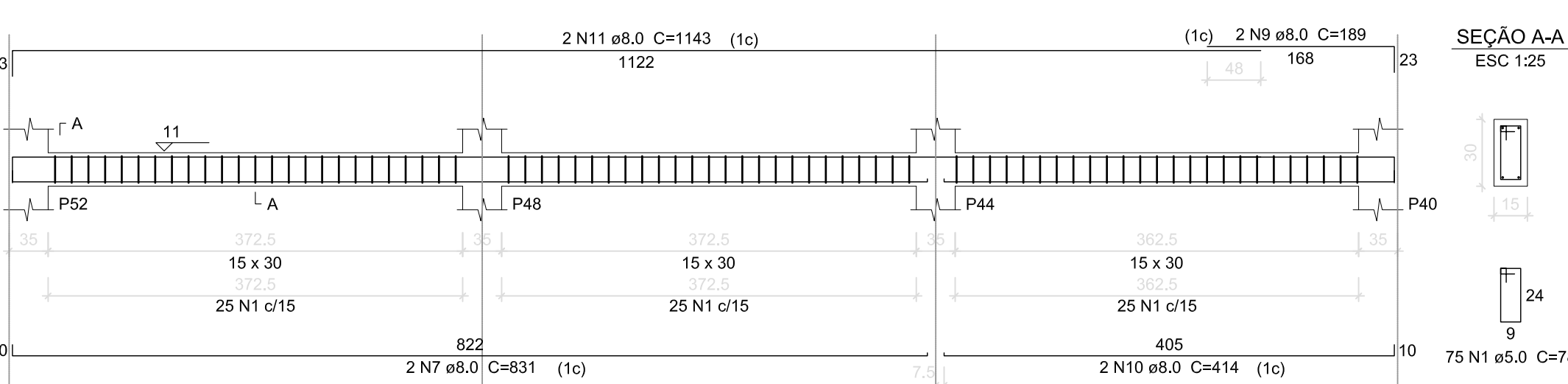
PRANCHA:

05/14

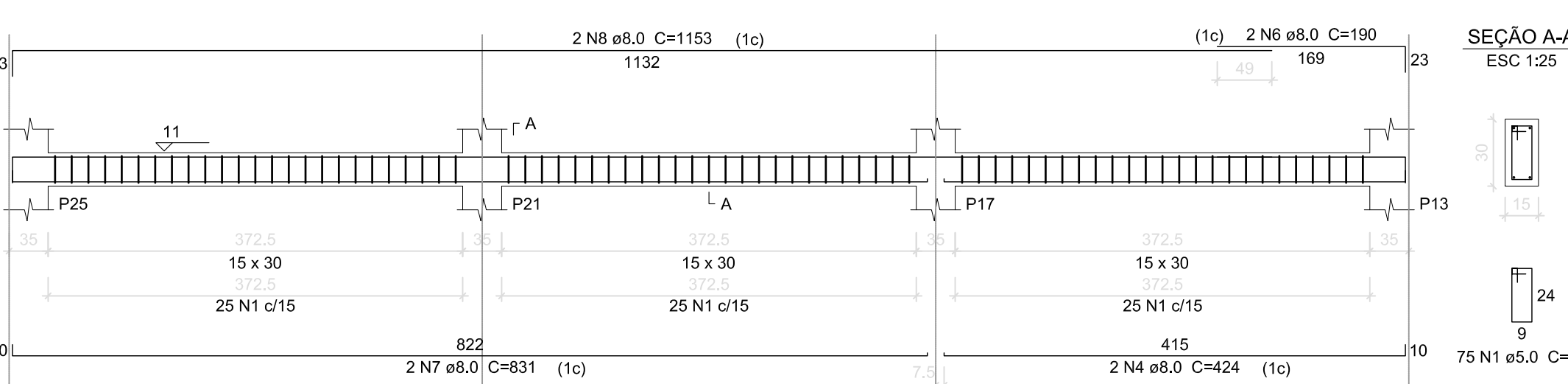
VB30 (15 x 30)



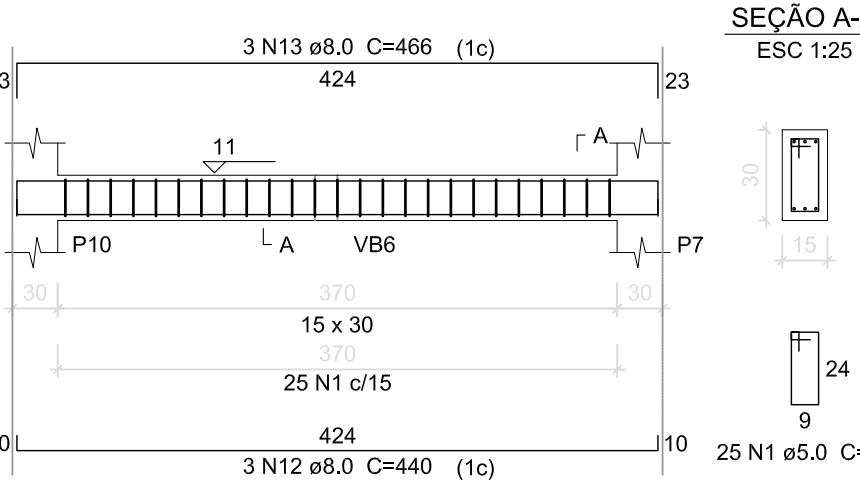
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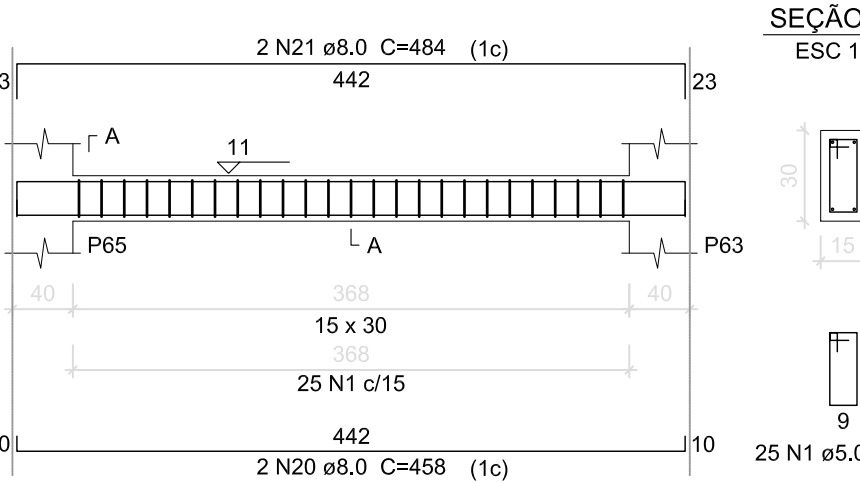
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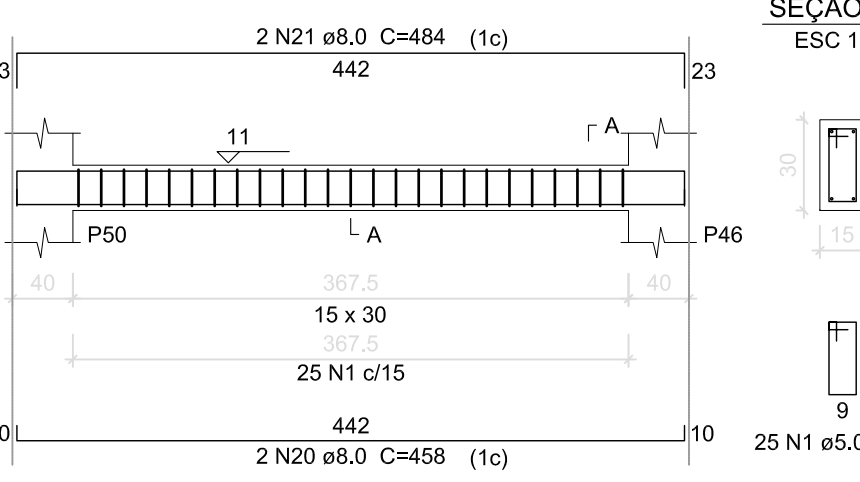
VB36 (15 x 30)



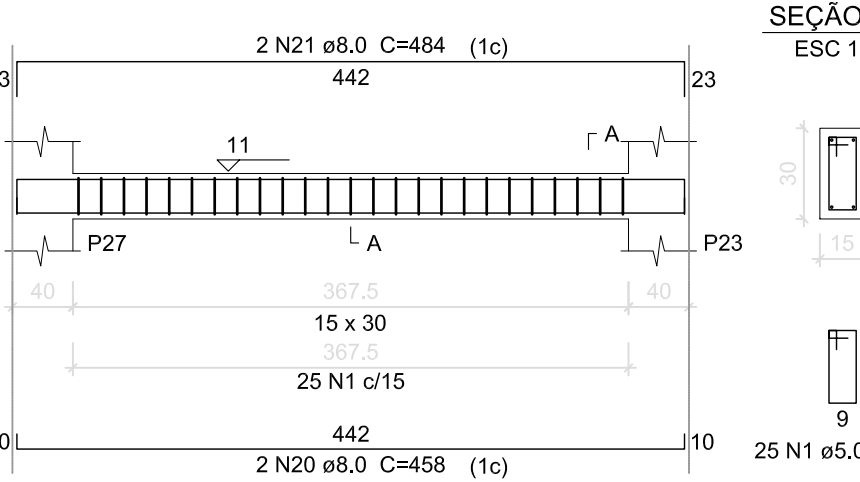
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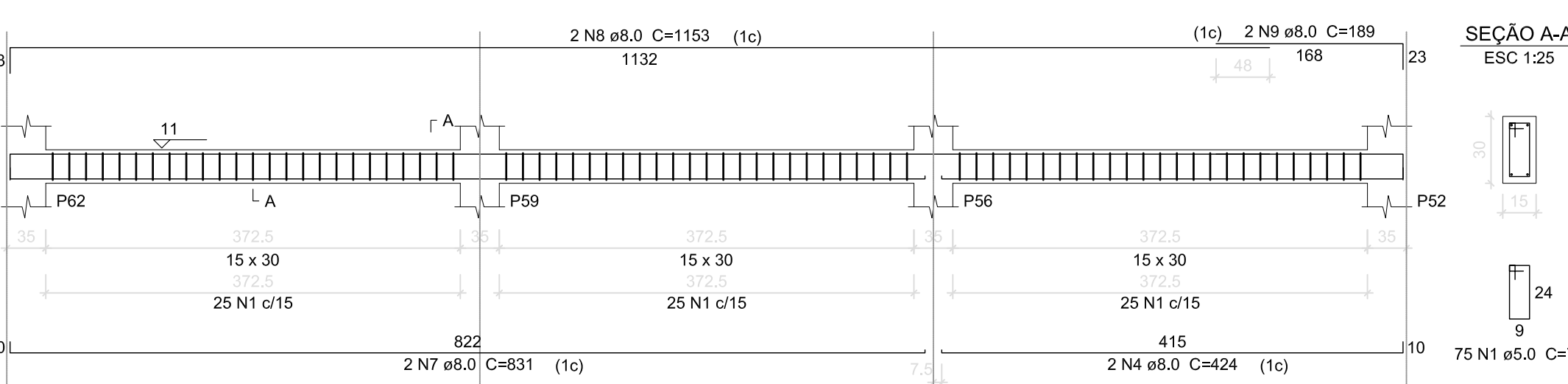
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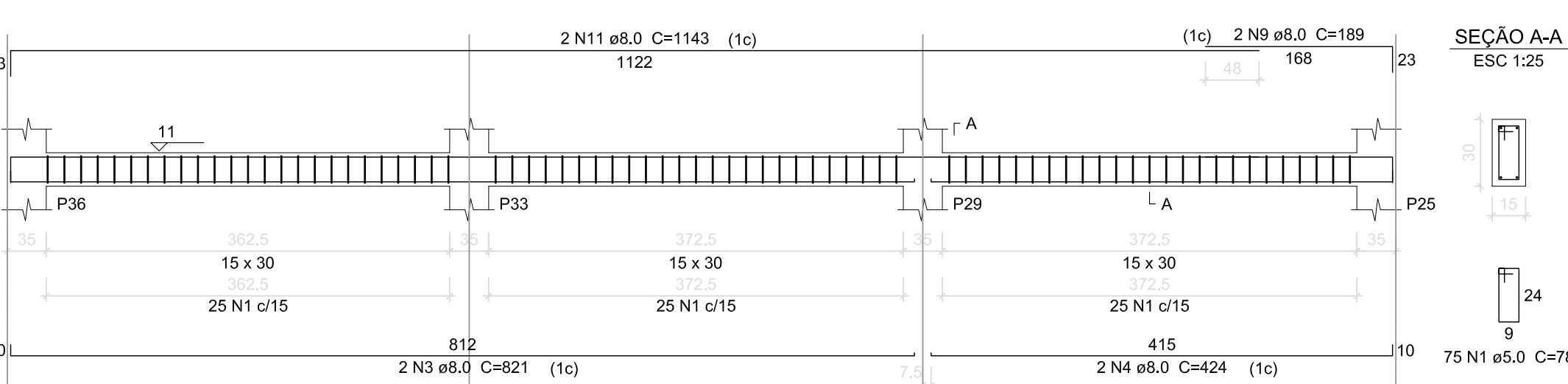
VB51 (15 x 30)



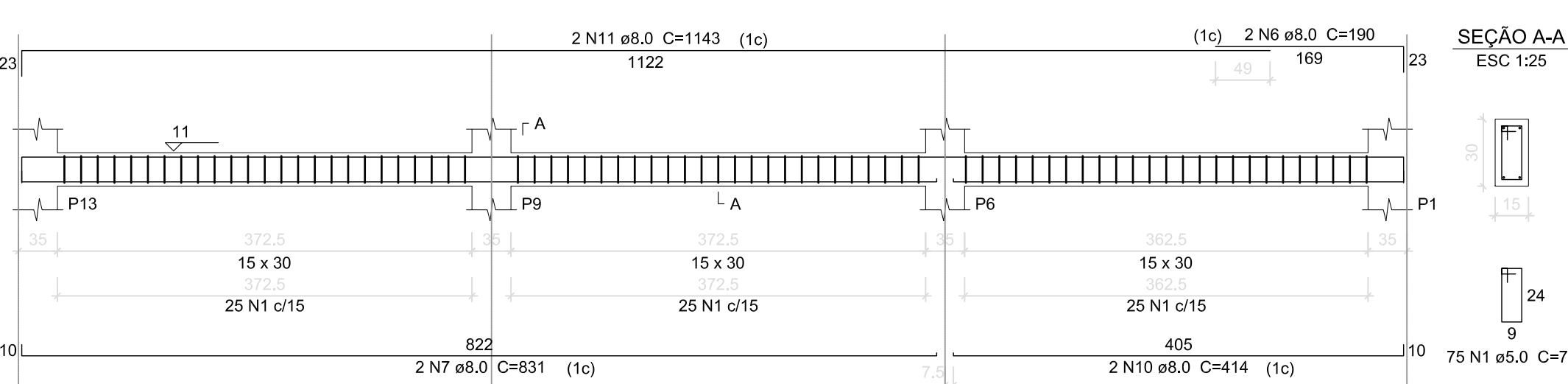
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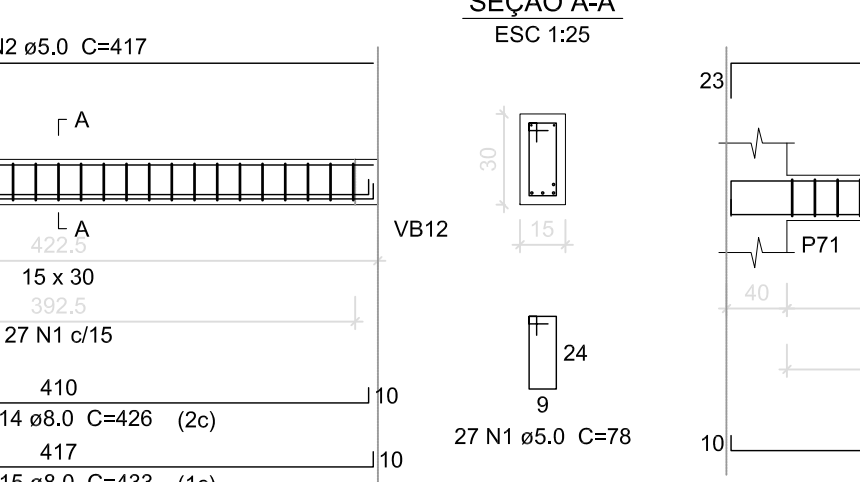
VB33 (15 x 30)



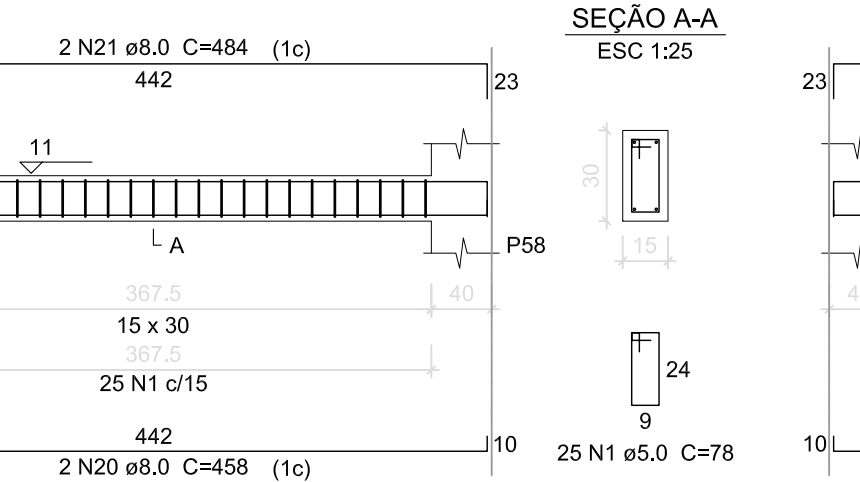
VB35 (15 x 30)



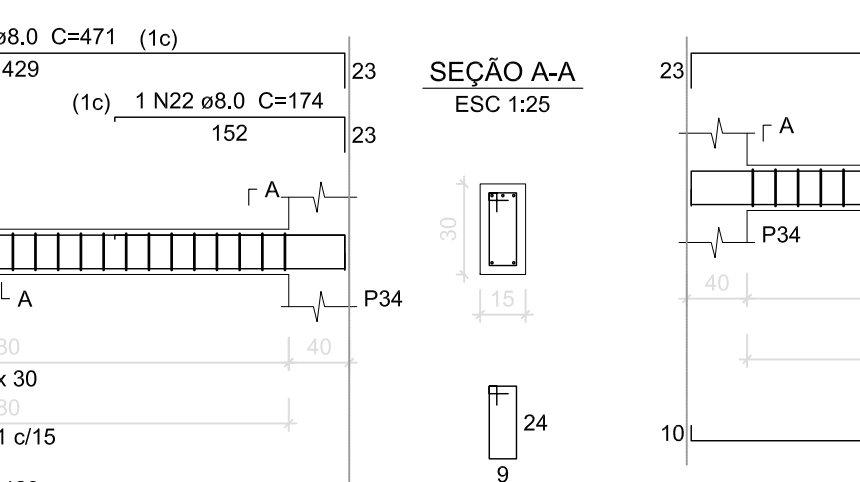
VB38 (15 x 30)



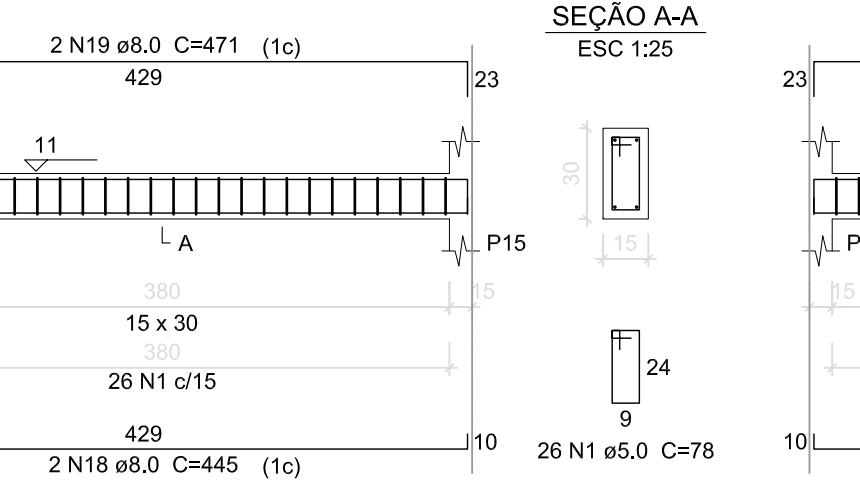
VB43 (15 x 30)



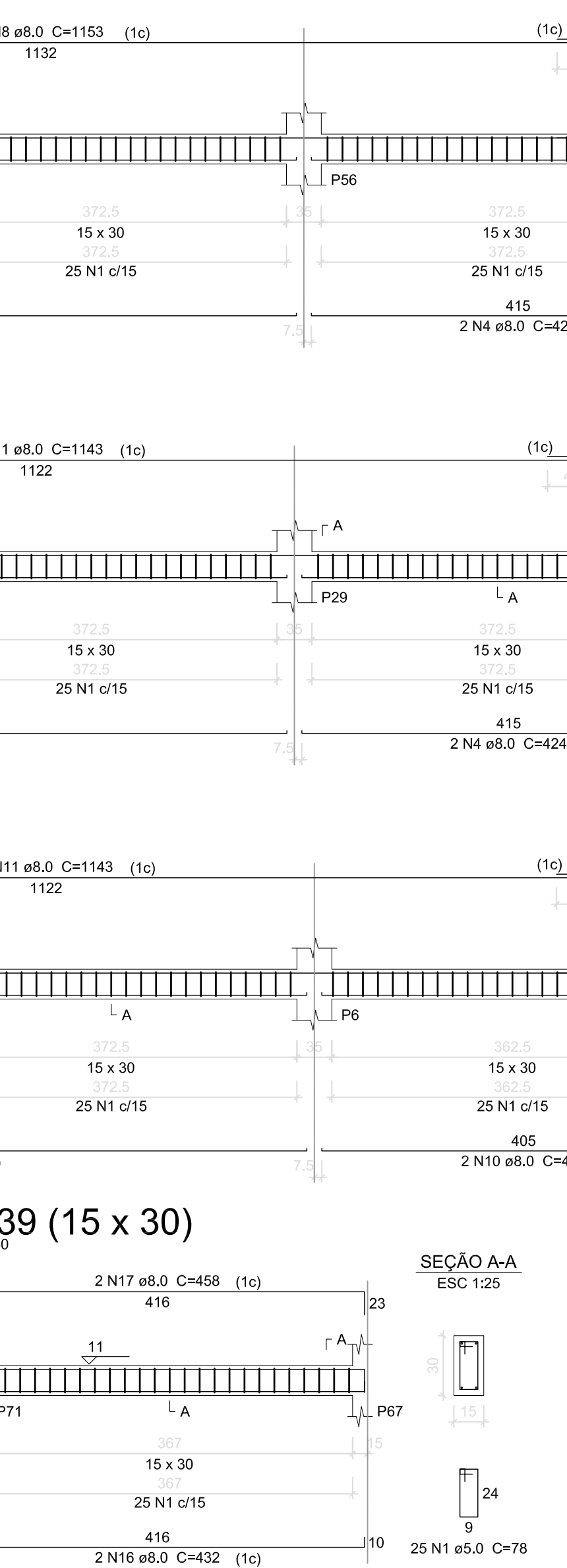
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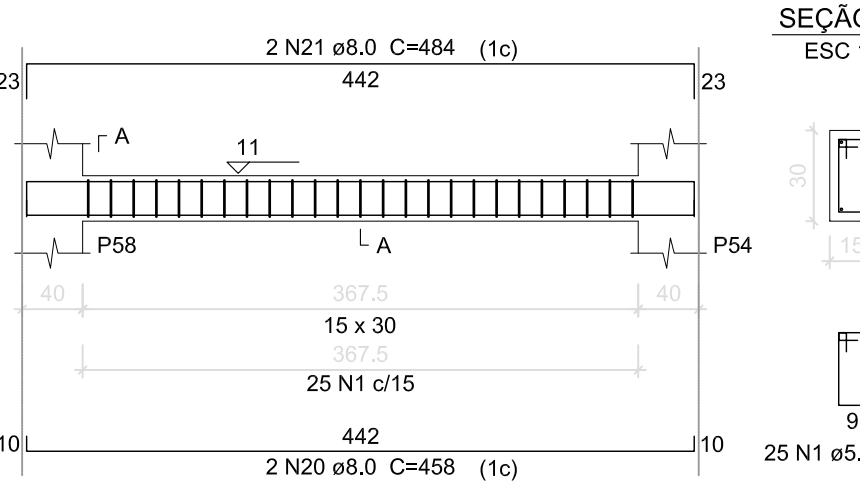
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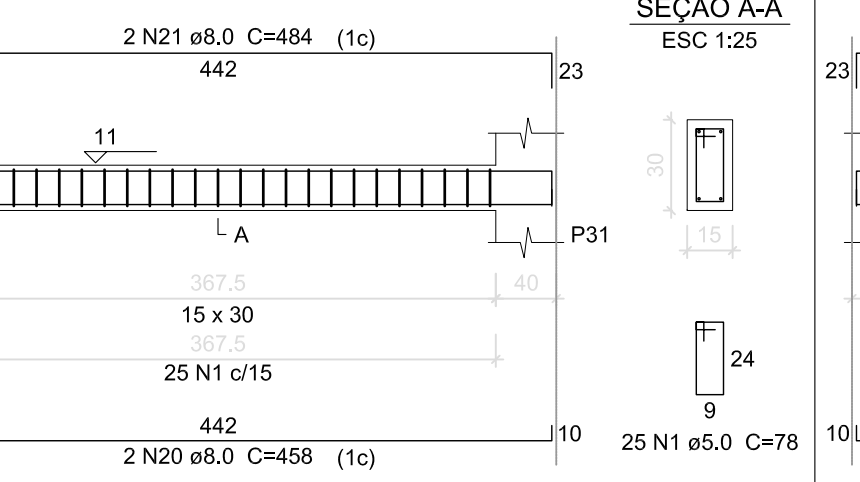
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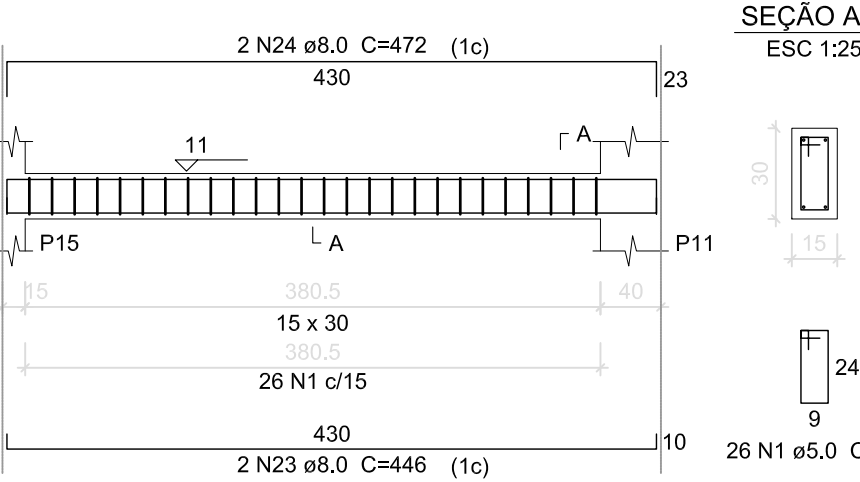
VB44 (15 x 30)



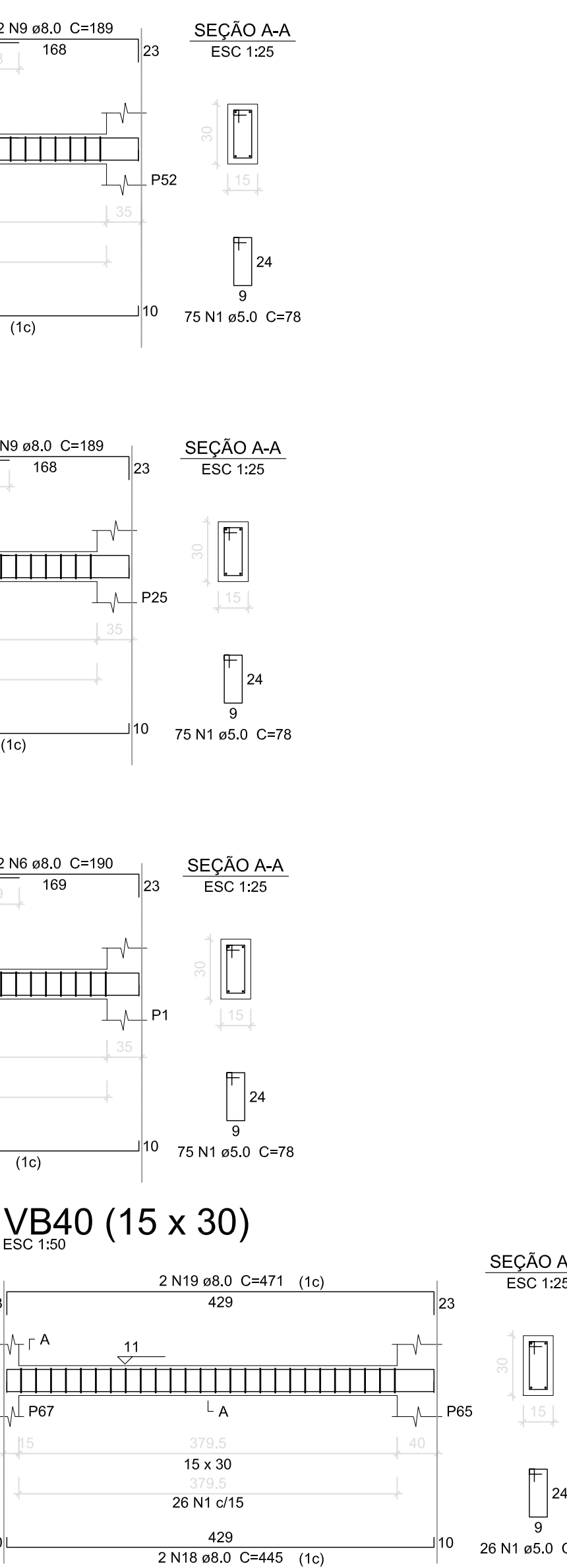
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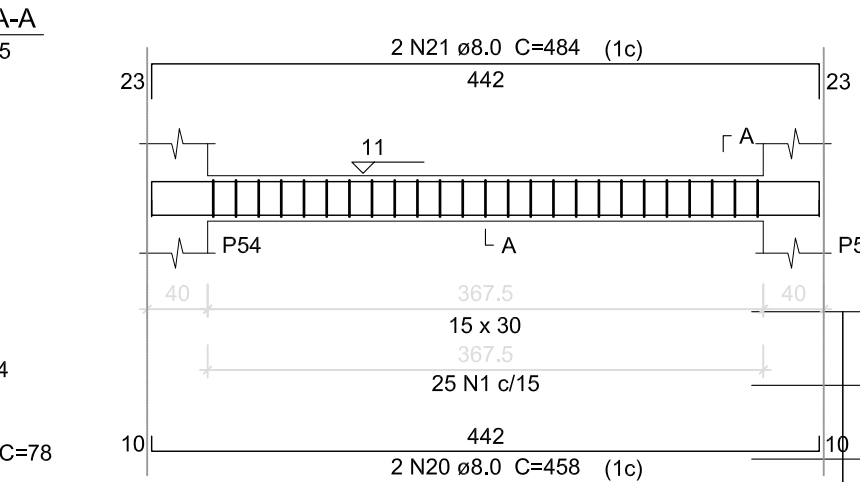
VB54 (15 x 30)



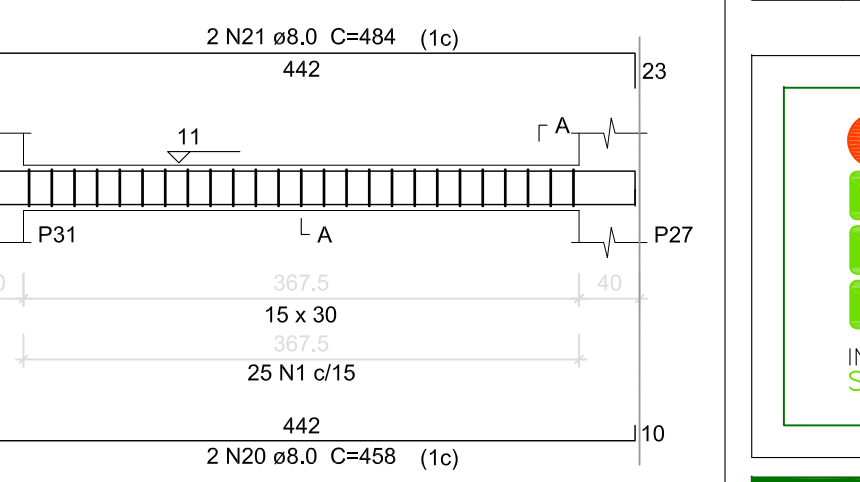
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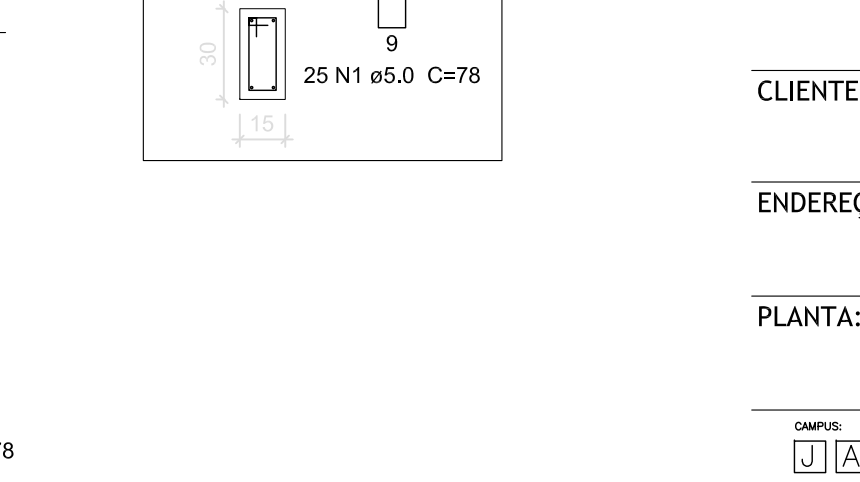
VB45 (15 x 30)



VB50 (15 x 30)



VB52 (15 x 30)



Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
VB30	1	5,0	932	78	72696
VB33	2	5,0	2	417	834
VB36	3	8,0	4	821	3284
VB39	4	8,0	6	424	3392
VB42	5	8,0	2	1142	2284
VB45	6	8,0	6	190	1140
VB48	7	8,0	8	831	6648
VB51	8	8,0	4	1153	4612
VB54	9	8,0	6	189	1134
VB57	10	8,0	4	414	1656
VB60	11	8,0	6	1143	6856
VB63	12	8,0	6	440	2640
VB66	13	8,0	6	466	2796
VB69	14	8,0	1	426	426
VB72	15	8,0	3	433	1299
VB75	16	8,0	2	432	864
VB78	17	8,0	2	458	916
VB81	18	8,0	8	445	3560
VB84	19	8,0	8	471	3768
VB87	20	8,0	20	458	9160
VB90	21	8,0	20	484	9680
VB93	22	8,0	2	174	348
VB96	23	8,0	2	446	892
VB99	24	8,0	2	472	944

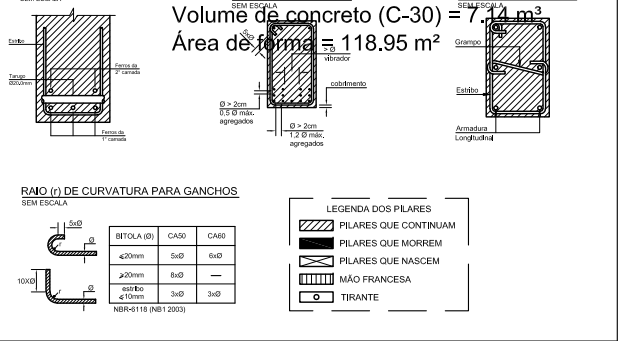
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	883,1	296,5
CA60	5,0	735,3	124,7

PESO TOTAL (kg)

CA50 296,5

CA60 124,7



CLASSE DE AGRESSIVIDADE AMBIENTAL (NBR 6150:2011)
• MODERADA URBANA
• Fatores Atenuantes: - Controle rígido de qualidade e monitoria de obra. - Ambiente moderado com exposição a garagens.
CORRIMENTOS:
PLANEJAMENTO: PLANEJAMENTO
VELOCIDADE: VELOCIDADE
TEMPERATURA: TEMPERATURA
PARÂMETROS DO CONCRETO:
DO CONCRETO: 0,45

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA
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AUTOR DO PROJETO:
Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3

ENDEREÇO:
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PROJETO ESTRUTURAL
CAMPUS JAPARATUBA/SE

CLIENTE:	INSTITUTO FEDERAL DE SERGIPE - CAMPUS JAPARATUBA	ESCALA:	1:100
ENDEREÇO:	ROD. DEP. REINALDO MOURA, S/N - JAPARATUBA/SE	DATA:	MAIO/2025
PLANTA:	BLOCO ADMINISTRATIVO ARMAÇÃO DAS VIGAS BALDRAMES 2-3	PRANCHA:	06/14
CAMPO:	OPERAÇÃO:	ESPECIALIDADE:	FASE:
JAP	CAM	EST	PE
006	014	001	001