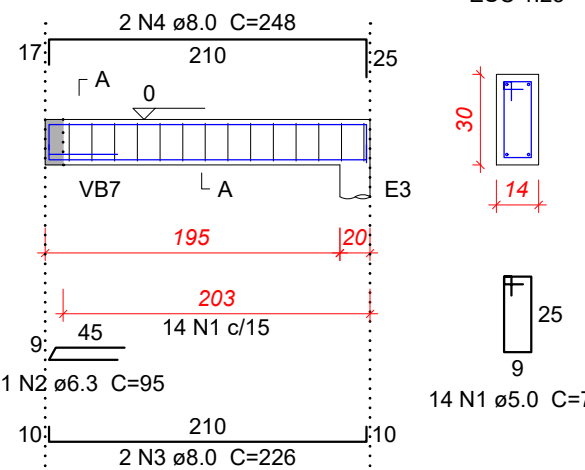


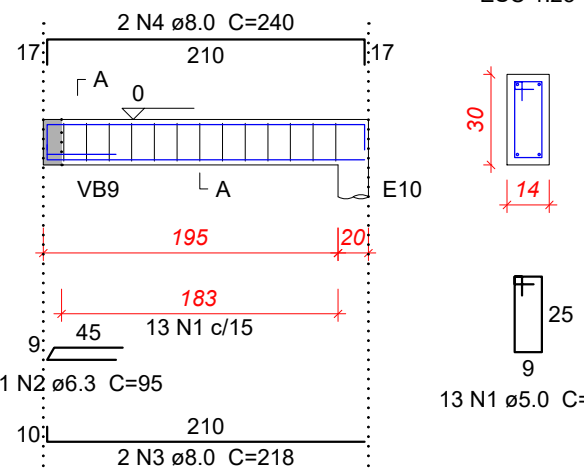
VB13 (14 x 30)

ESC 1:50



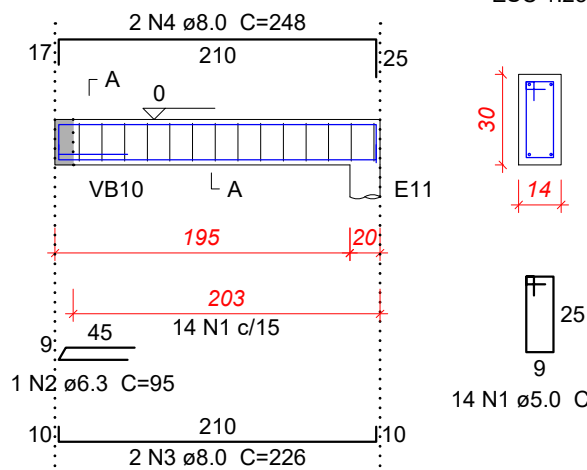
VB14 (14 x 30)

ESC 1:50



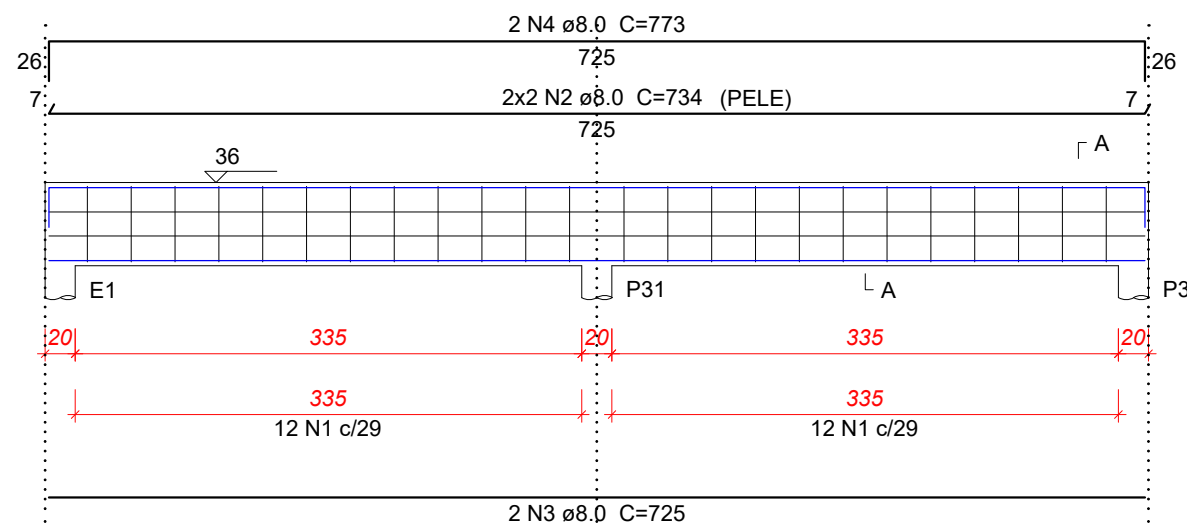
VB15 (14 x 30)

ESC 1:50



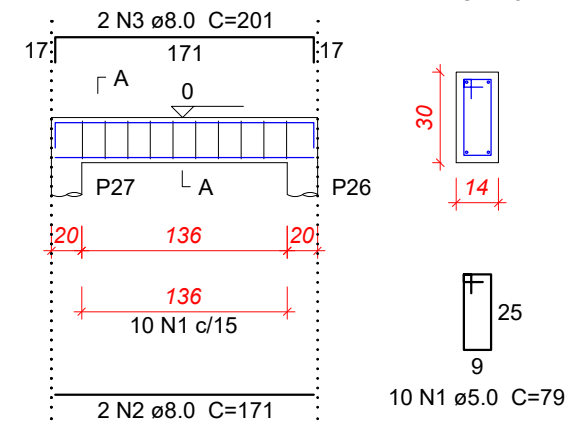
VB16 (12 x 55)

ESC 1:50



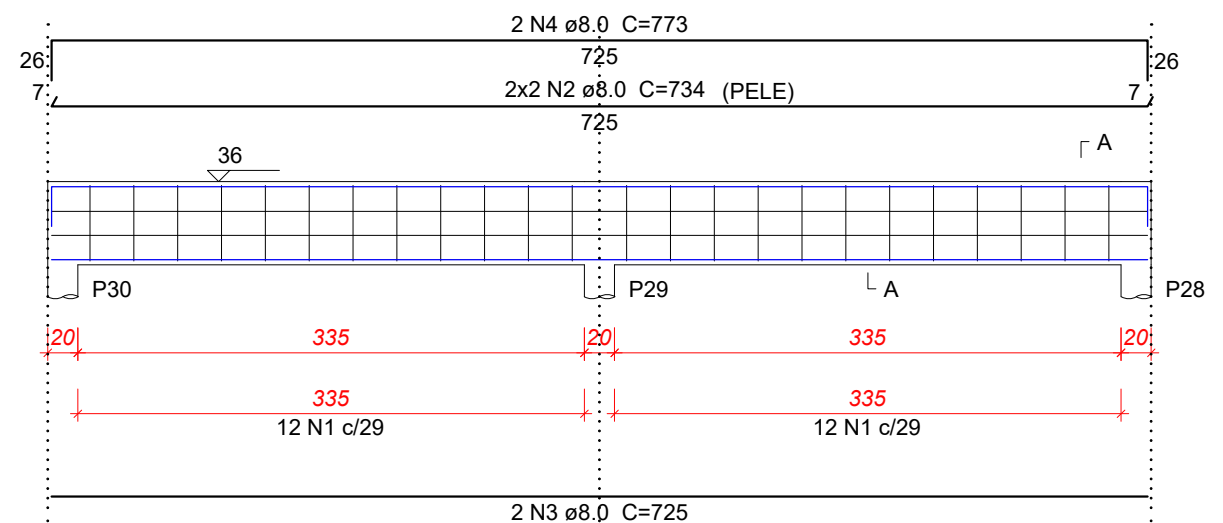
VB23 (14 x 30)

ESC 1:50



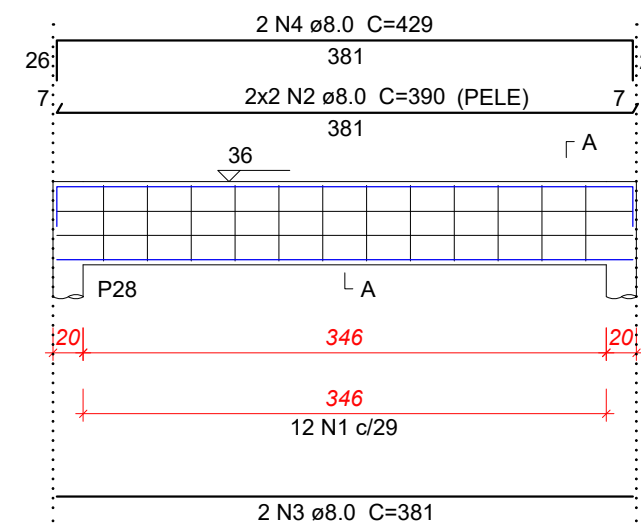
VB17 (12 x 55)

ESC 1:50



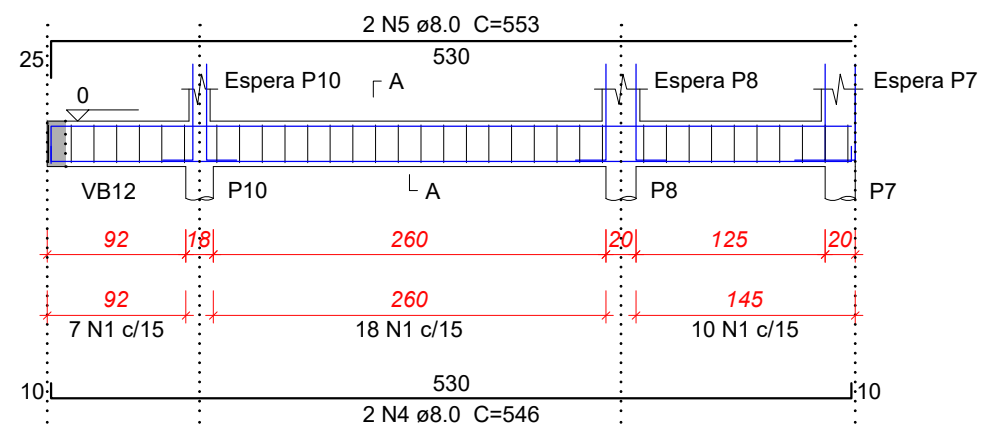
VB18 (12 x 55)

ESC 1:50



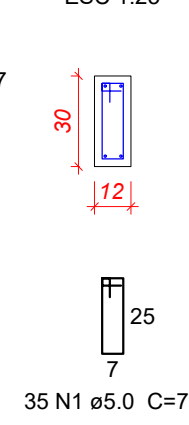
VB19 (12 x 30)

ESC 1:50



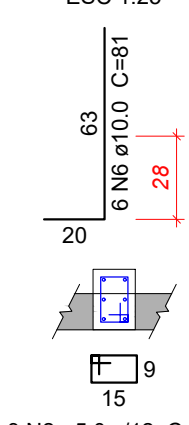
SEÇÃO A-A

ESC 1:25



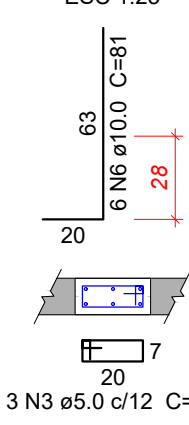
ESPERA P10

ESC 1:25



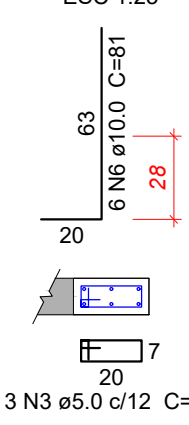
ESPERA P8

ESC 1:25



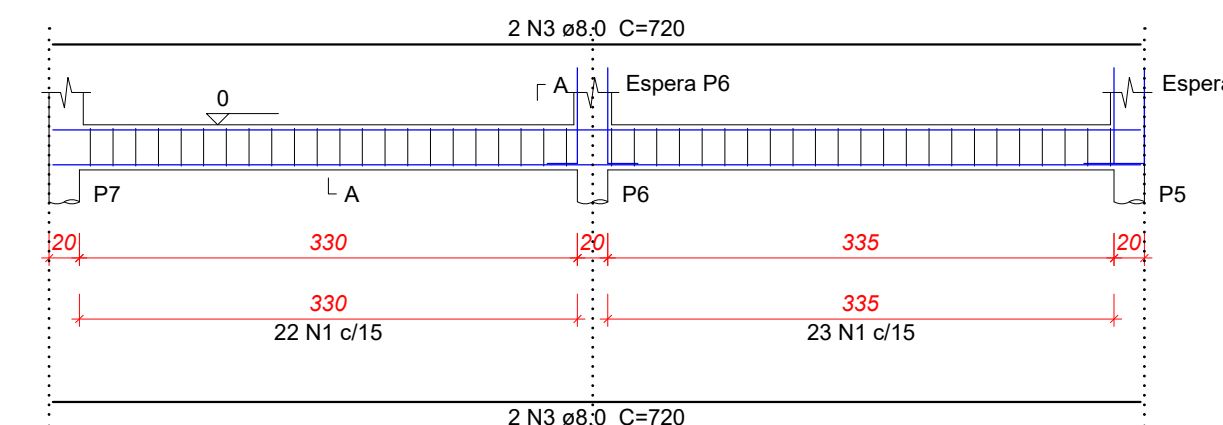
ESPERA P7

ESC 1:25



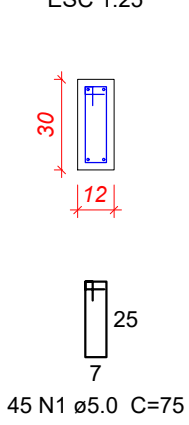
VB20 (12 x 30)

ESC 1:50



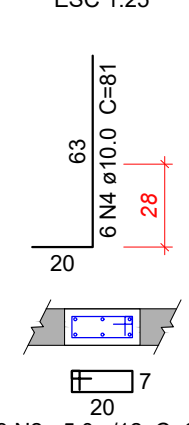
SEÇÃO A-A

ESC 1:25



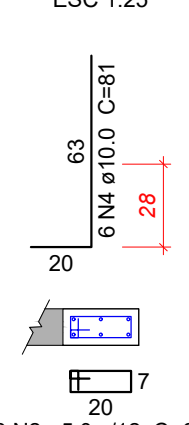
ESPERA P6

ESC 1:25



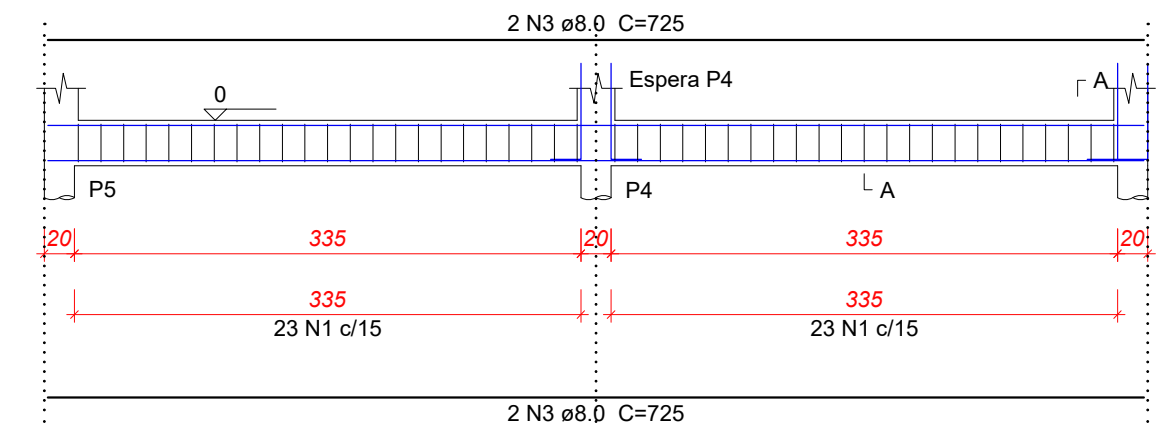
ESPERA P5

ESC 1:25



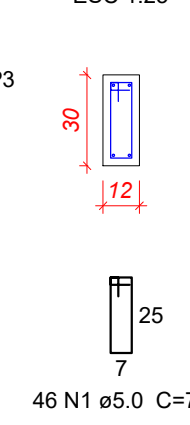
VB21 (12 x 30)

ESC 1:50



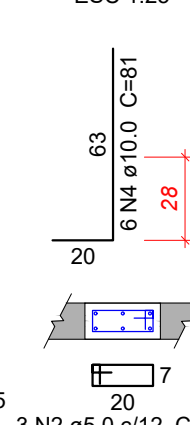
SEÇÃO A-A

ESC 1:25



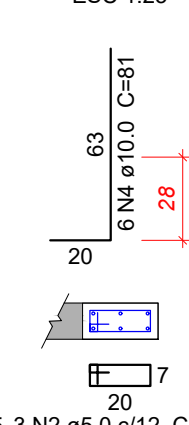
ESPERA P4

ESC 1:25



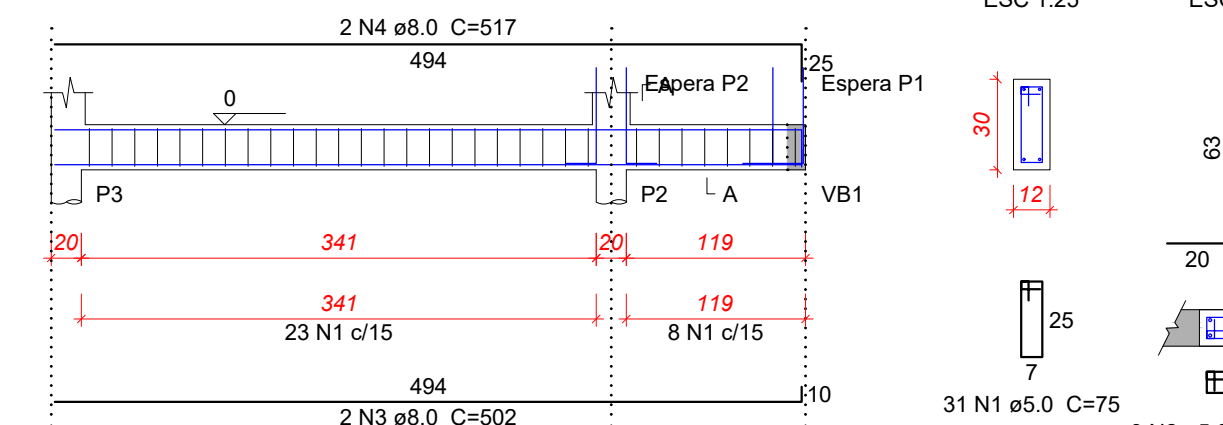
ESPERA P3

ESC 1:25



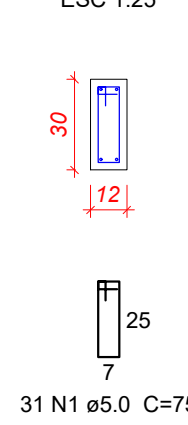
VB22 (12 x 30)

ESC 1:50



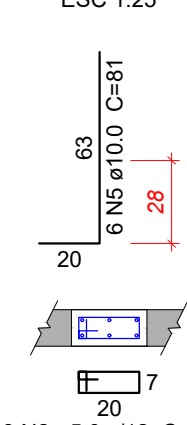
SEÇÃO A-A

ESC 1:25



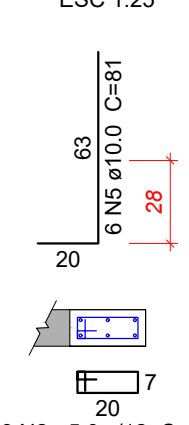
ESPERA P2

ESC 1:25



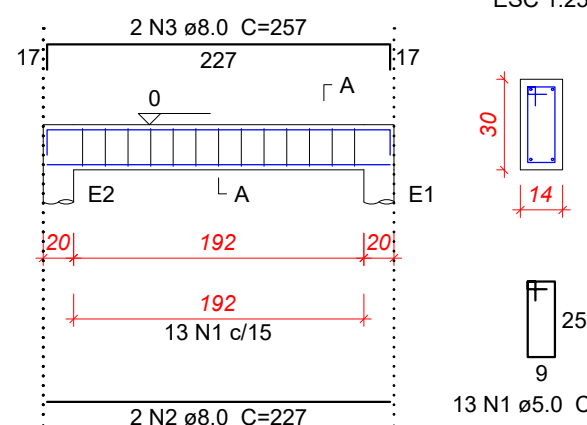
ESPERA P1

ESC 1:25



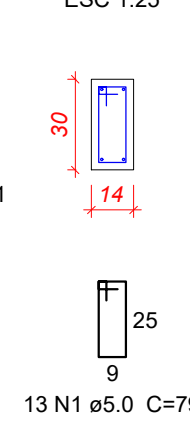
VB24 (14 x 30)

ESC 1:50



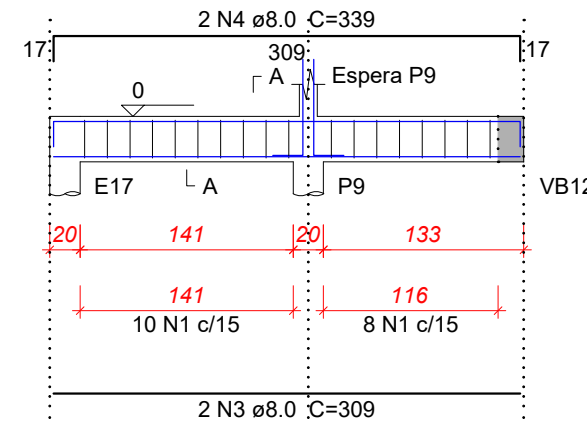
SEÇÃO A-A

ESC 1:25



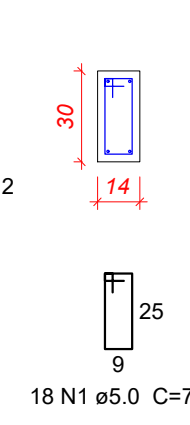
VB25 (14 x 30)

ESC 1:50



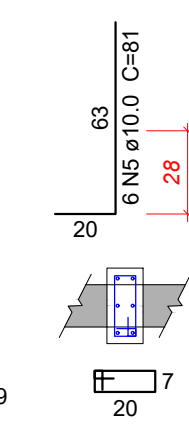
SEÇÃO A-A

ESC 1:25



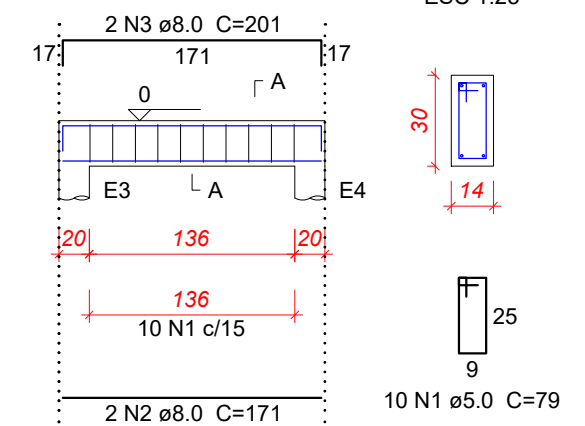
ESPERA P9

ESC 1:25



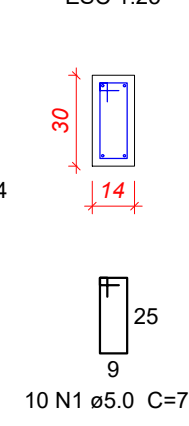
VB26 (14 x 30)

ESC 1:50



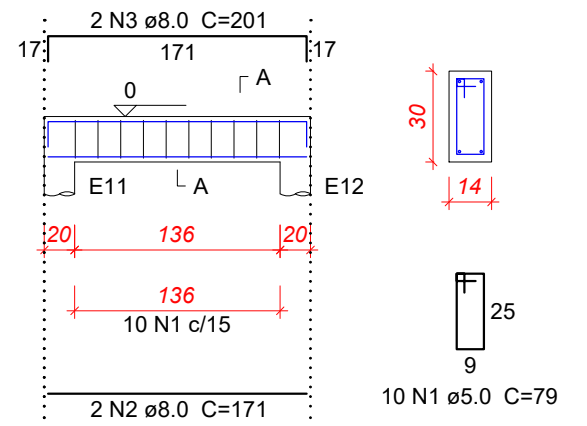
SEÇÃO A-A

ESC 1:25



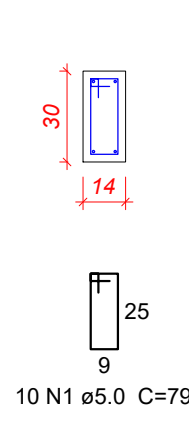
VB27 (14 x 30)

ESC 1:50



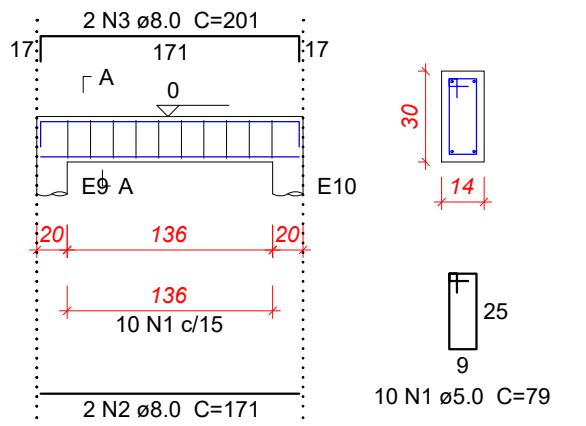
SEÇÃO A-A

ESC 1:25



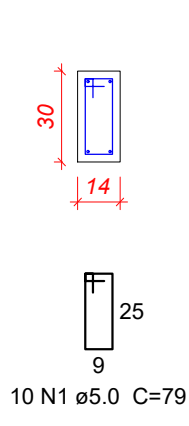
VB28 (14 x 30)

ESC 1:50



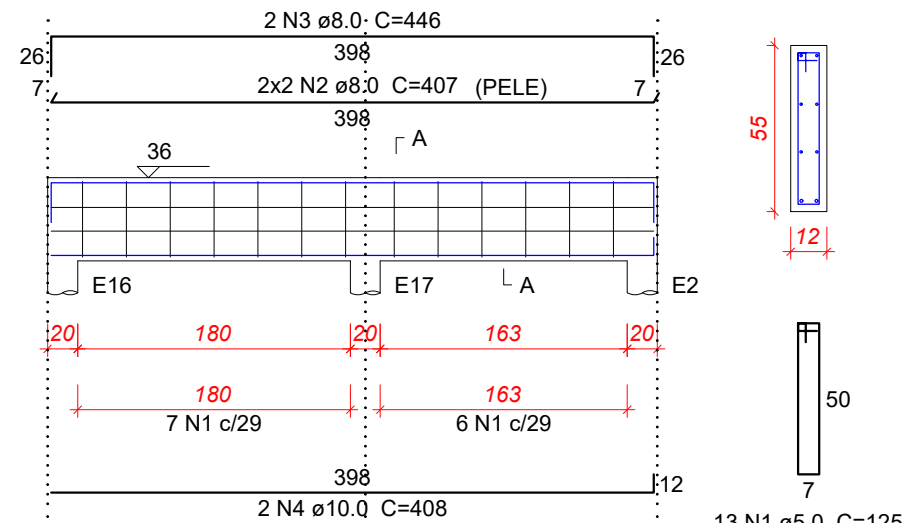
SEÇÃO A-A

ESC 1:25



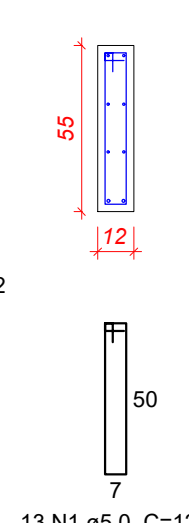
VB29 (12 x 55)

ESC 1:50



SEÇÃO A-A

ESC 1:25



Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	2.9	0.7
	8.0	356.4	140.6
	10.0	56.8	35
CA60	5.0	316.8	48.8
PESO TOTAL (kg)			
CA50	176.3		
CA60	48.8		

Volume de concreto (C-25) = 2.94 m³
Área de forma = 52.68 m²

Relação do aço

ELEMENTO	ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
VB13	CA60	1	5.0	14	79	1106
	CA50	2	6.3	1	95	95
	CA50	3	8.0	2	226	452
	CA50	4	8.0	2	248	496
VB14	CA60	1	5.0	13	79	1027
	CA50	2	6.3	1	95	95
	CA50	3	8.0	2	218	436
	CA50	4	8.0	2	240	480
VB15	CA60	1	5.0	14	79	1106
	CA50	2	6.3	1	95	95
	CA50	3	8.0	2	226	452
	CA50	4	8.0	2	248	496
VB16	CA60	1	5.0	24	125	3000
	CA50	2	8.0	4	734	2936
	CA50	3	8.0	2	725	1450
	CA50	4	8.0	2	773	1546
VB17	CA60	1	5.0	24	125	3000
	CA50	2	8.0	4	734	2936
	CA50	3	8.0	2	725	1450
	CA50	4	8.0	2	773	1546
VB18	CA60	1	5.0	12	125	1500
	CA50	2	8.0	4	390	1560
	CA50	3	8.0	2	381	762
	CA50	4	8.0	2	429	858
VB19	CA60	1	5.0	35	75	2625
	CA50	2	5.0	3	59	177
	CA60	3	5.0	6	65	390
	CA50	4	8.0	2	546	1092
VB20	CA50	5	8.0	2	553	1106
	CA50	6	10.0	18	81	1458
	CA60	1	5.0	45	75	3375
	CA60	2	5.0	6	65	390
VB21	CA50	3	8.0	4	720	2880
	CA50	4	10.0	12	81	972
	CA60	1	5.0	46	75	3450
	CA60	2	5.0	6	65	390
VB22	CA50	3	8.0	4	725	2900
	CA50	4	10.0	12	81	972
	CA60	1	5.0	31	75	2325
	CA60	2	5.0	6	65	390
VB23	CA50	3	8.0	2	502	1004
	CA50	4	8.0	2	517	1034
	CA50	5	10.0	12	81	972
	CA60	1	5.0	10	79	790
VB24	CA50	2	8.0	2	171	342
	CA50	3	8.0	2	201	402
	CA60	1	5.0	13	79	1027
	CA50	2	8.0	2	227	454
VB25	CA50	3	8.0	2	257	514
	CA60	1	5.0	18	79	1422
	CA50	2	5.0	3	65	195
	CA50	3	8.0	2	309	618
VB26	CA50	4	8.0	2	339	678
	CA50	5	10.0	6	81	486
	CA60	1	5.0	10	79	790
	CA50	2	8.0	2	171	342
VB27	CA50	3	8.0	2	201	402
	CA60	1	5.0	10	79	790
	CA50	2	8.0	2	171	342
	CA50	3	8.0	2	201	402
VB28	CA50	2	8.0	2	171	342
	CA60	1	5.0	10	79	790
	CA50	2	8.0	2	171	342
	CA50	3	8.0	2	201	402
VB29	CA60	1	5.0	13	125	1625
	CA50	2	8.0	4	407	1628
	CA50	3	8.0	2	446	892
	CA50	4	10.0	2	408	816

APROVAÇÃO PREFEITURA



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RESP. TÉCNICO - ADEMAR AMÉRICO CAMOSSATO - CREA 24.80/D-PR

PROJETO ESTRUTURAL

DBRA

GINÁSIO DE ESPORTES A REFORMAR

PROPRIETÁRIO
MUNICÍPIO DE PEROBAL
C.N.P.J.: 01.612.444/0001-40

LOCAL
RUA ALECRIM - QUADRA 46 - PEROBAL - PR

PROJETO

CONTEÚDO

- ARMADURA DAS VIGAS DE BASE (02/02)

FOLHA

04/08

ESCALA

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