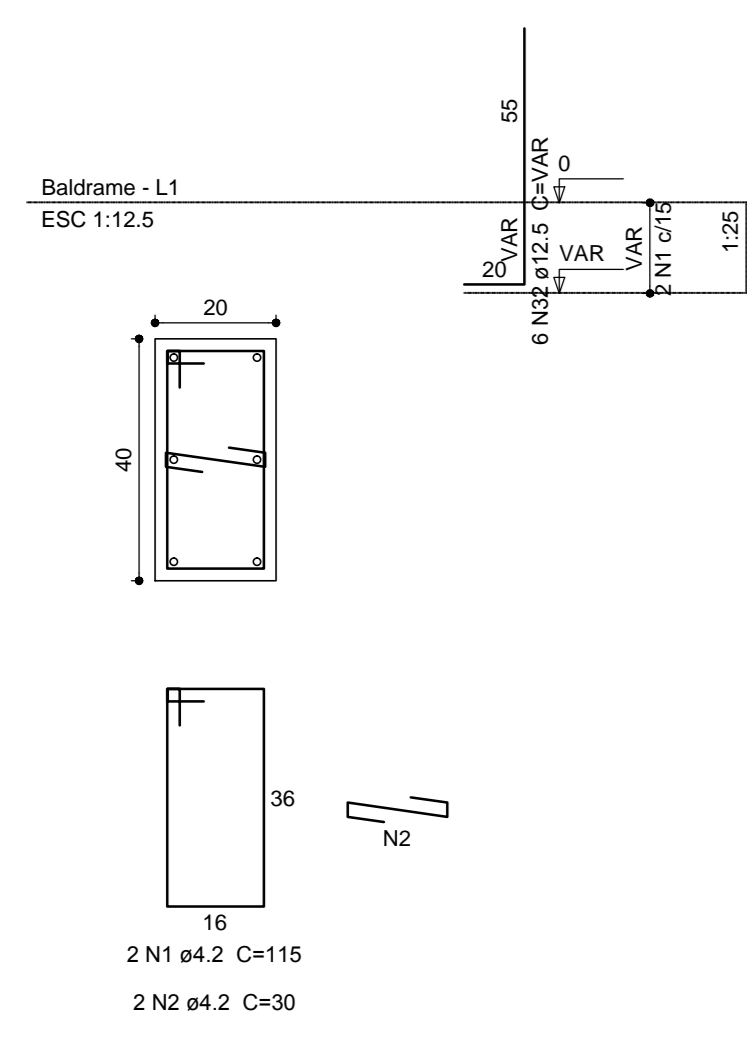
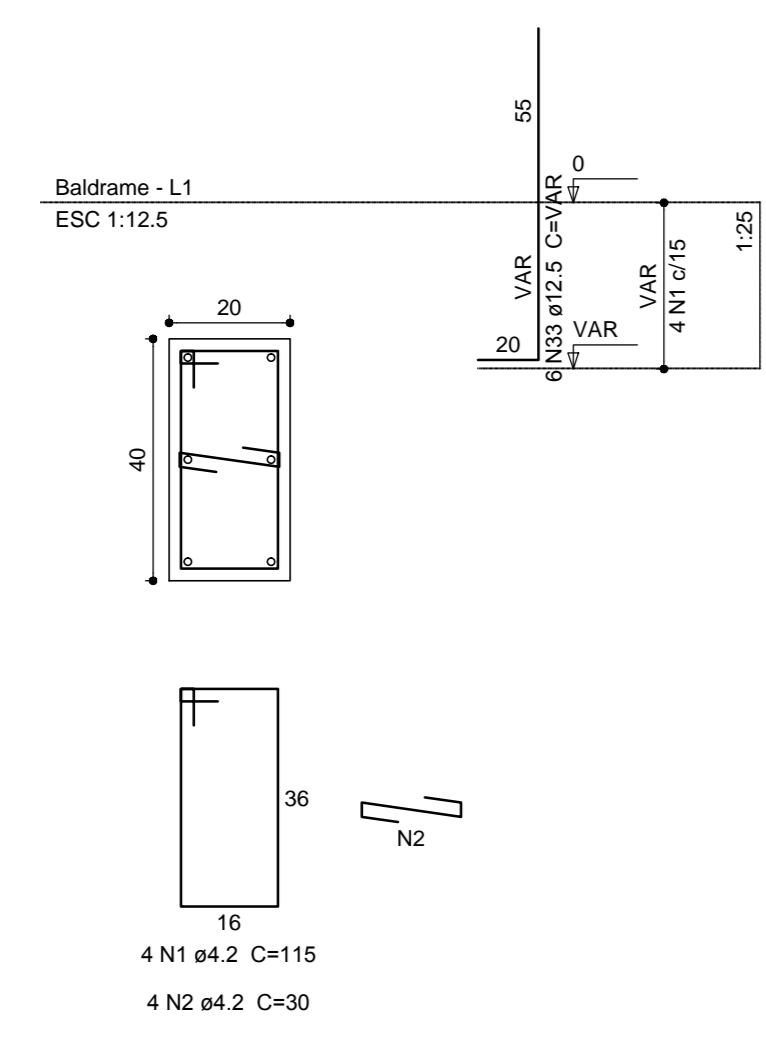


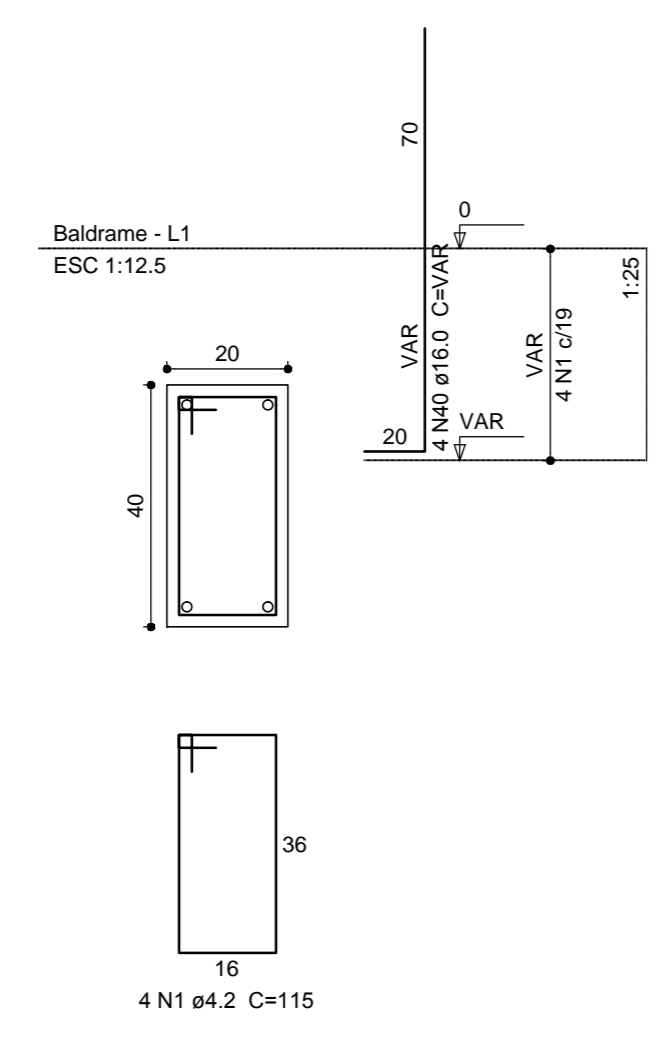
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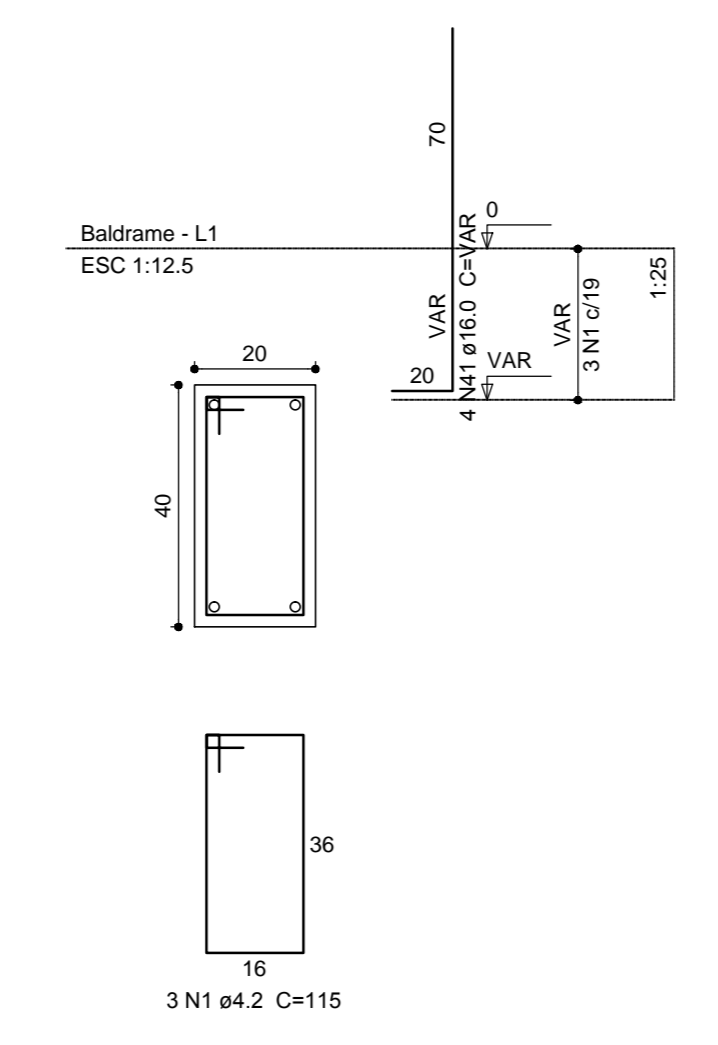
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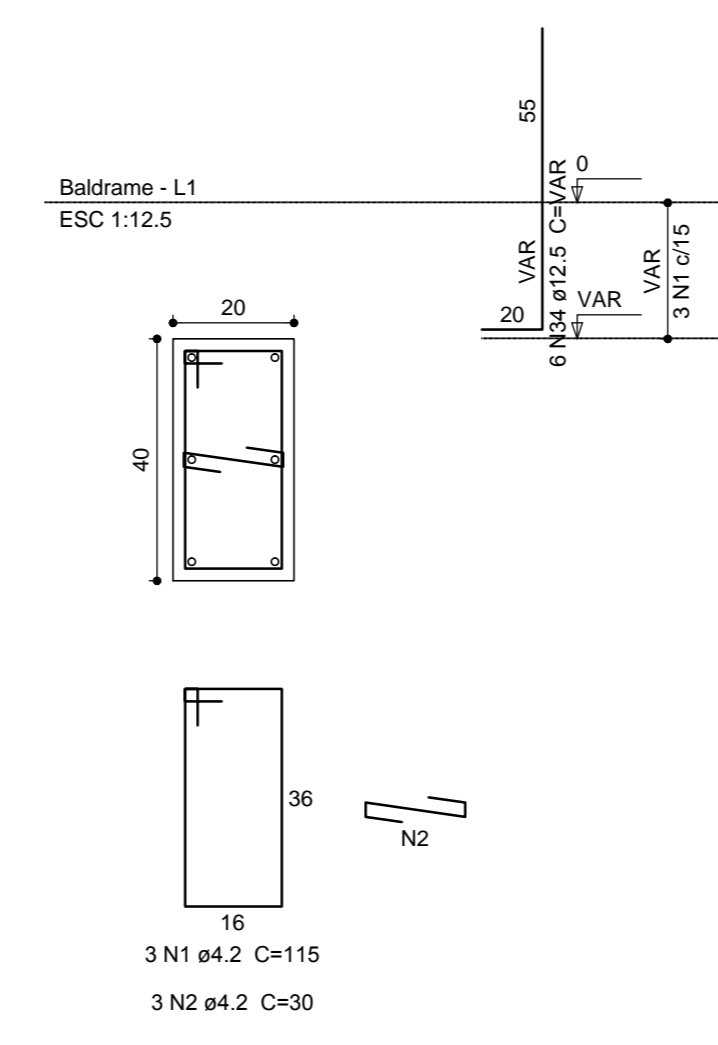
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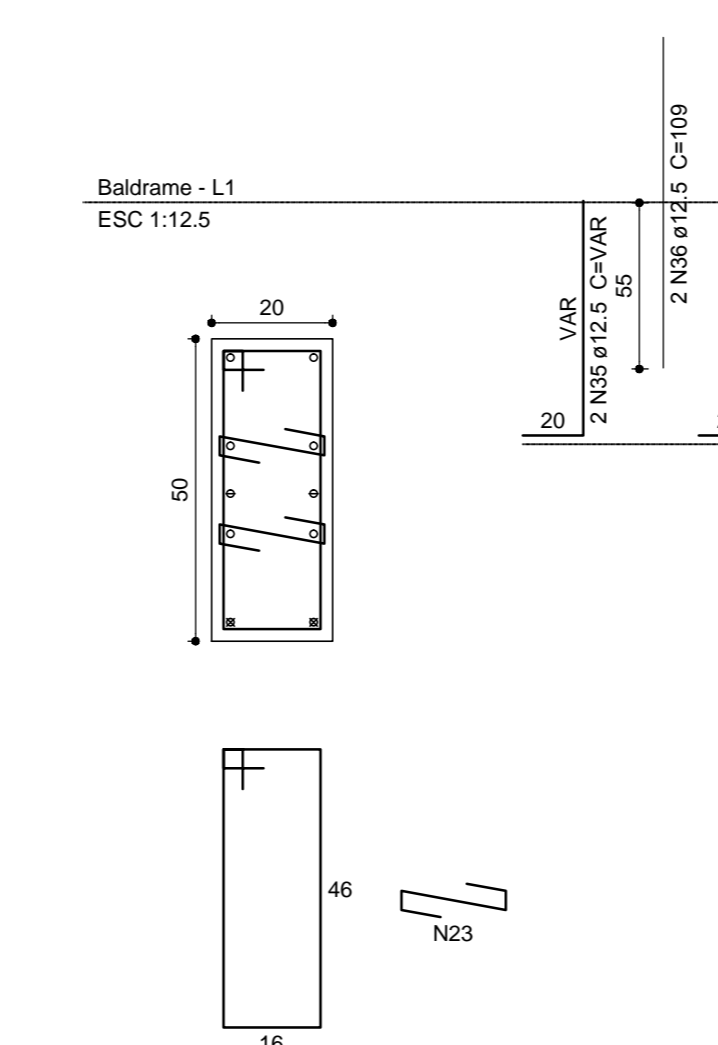
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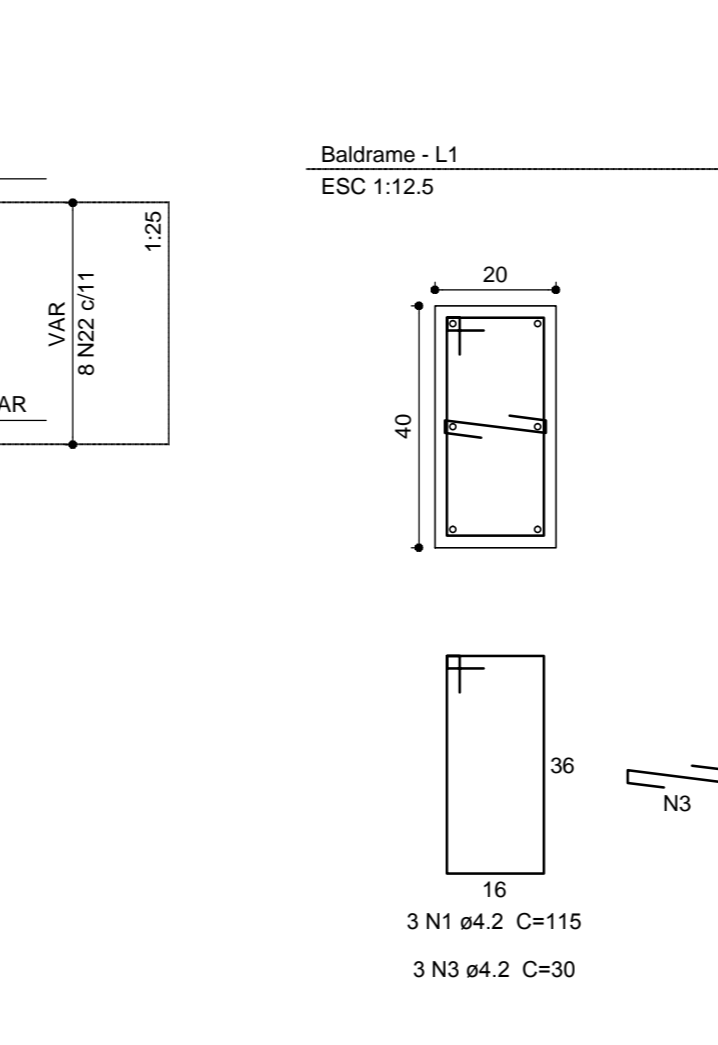
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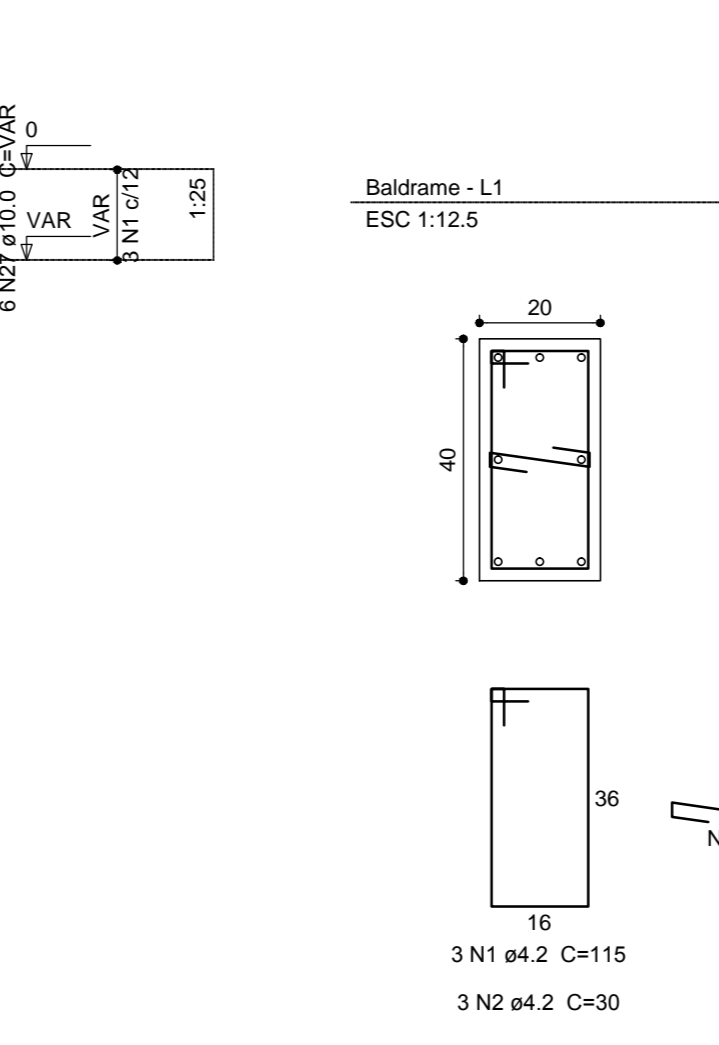
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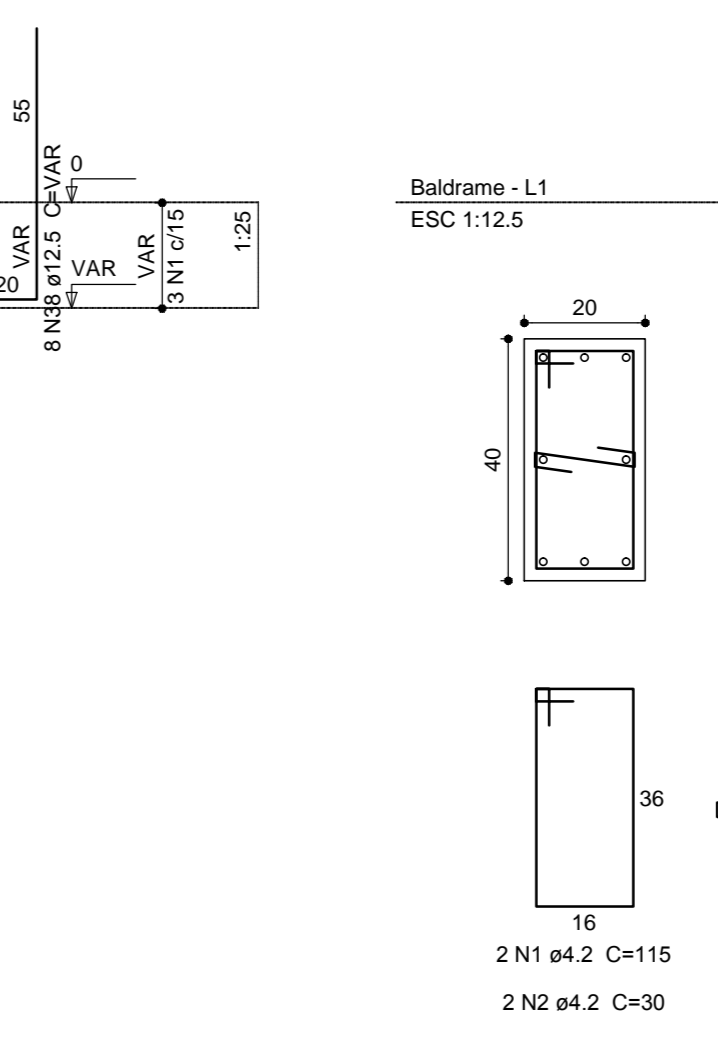
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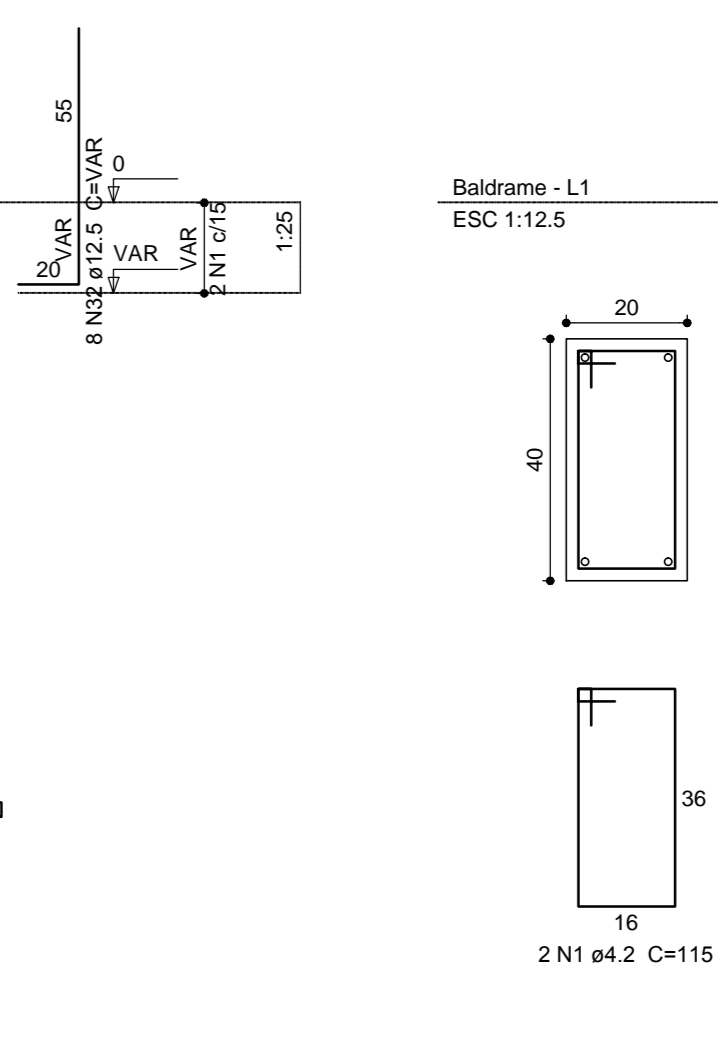
P3



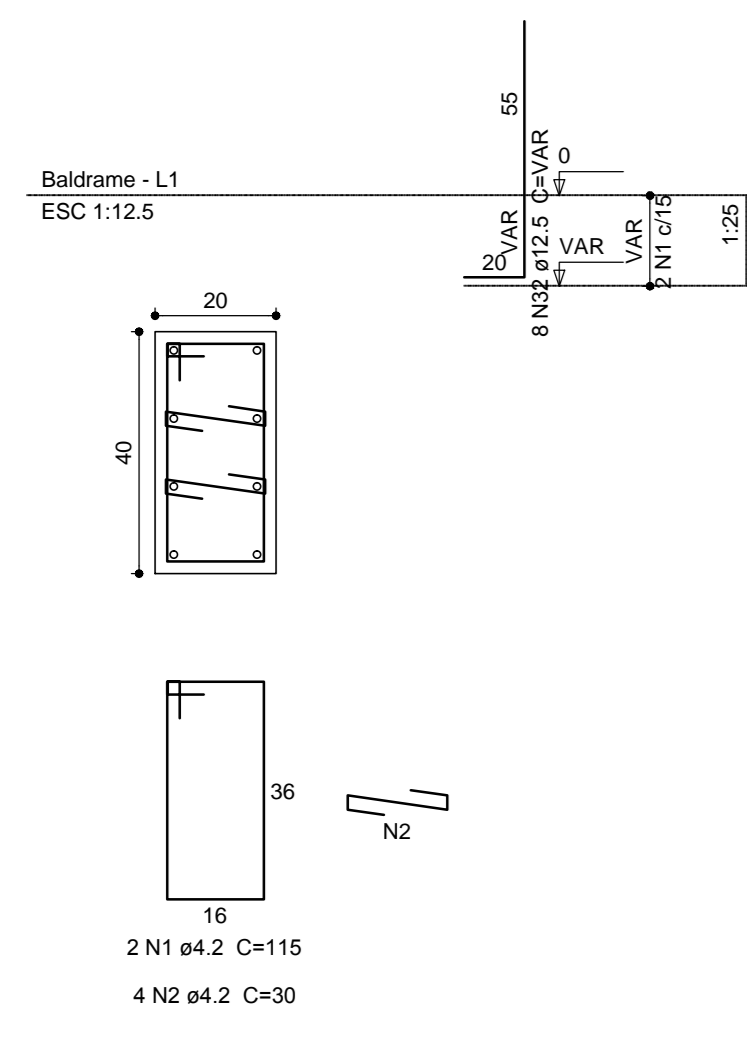
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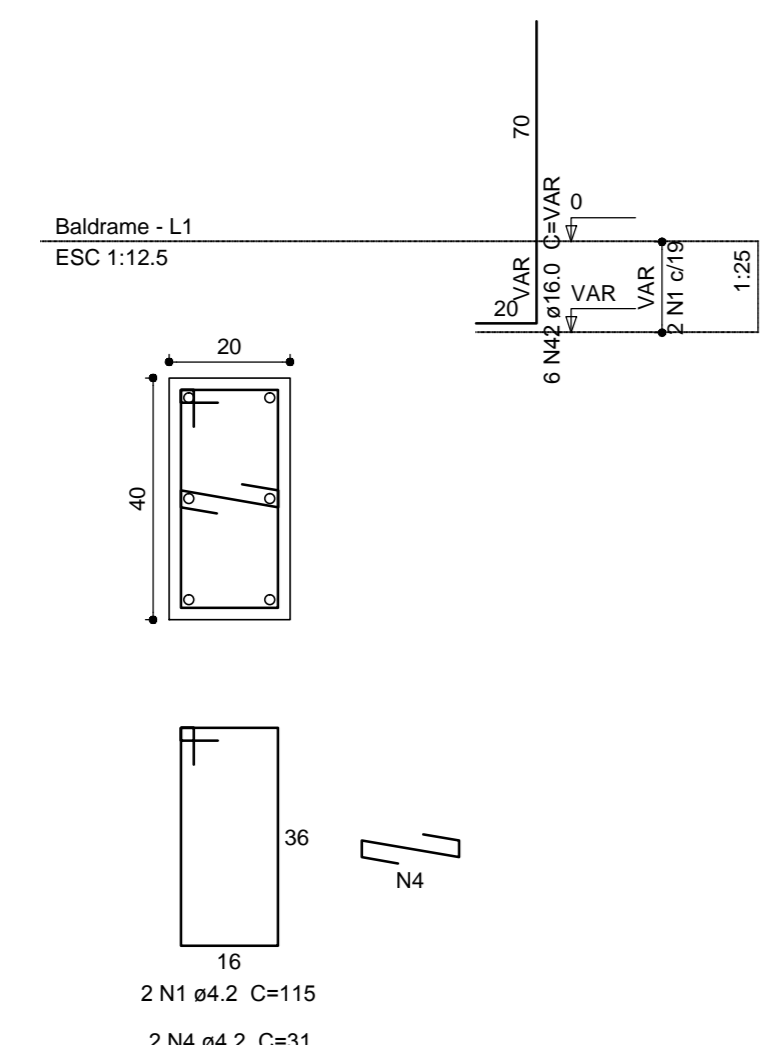
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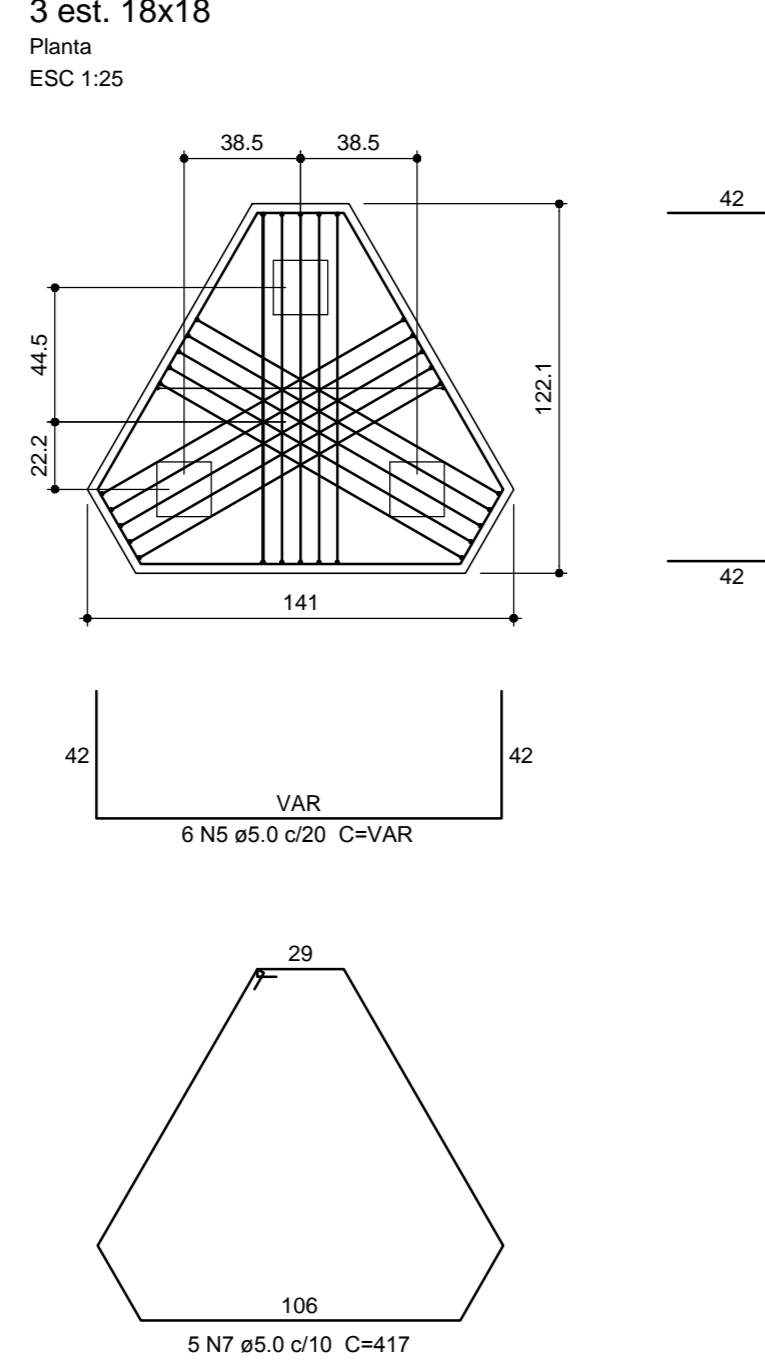
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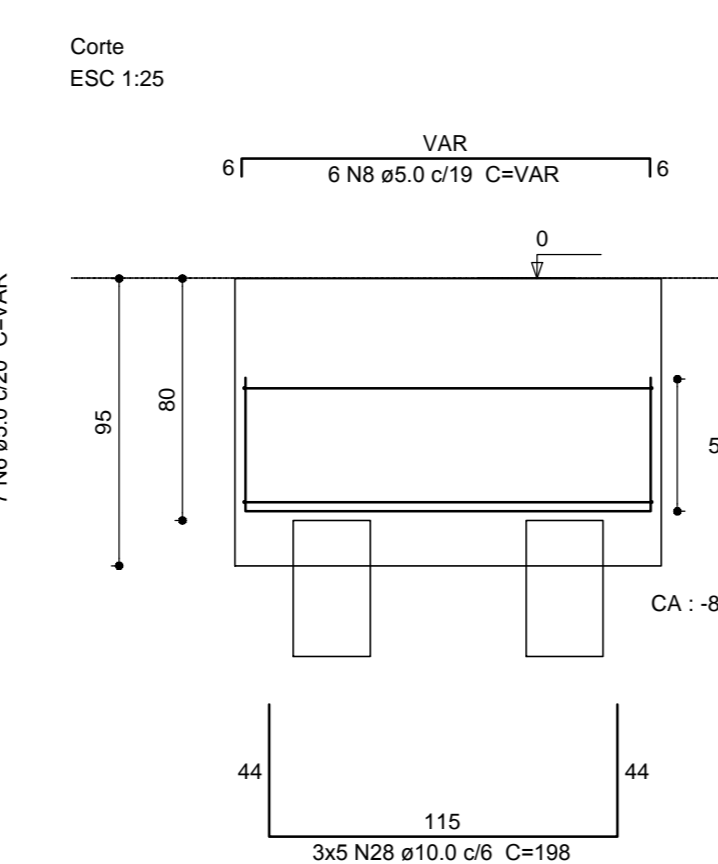
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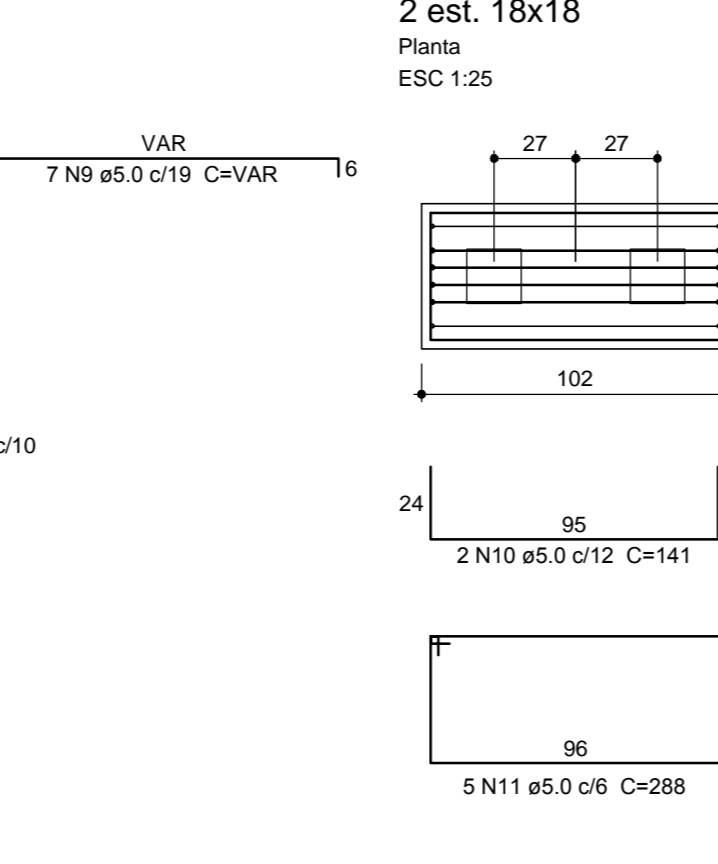
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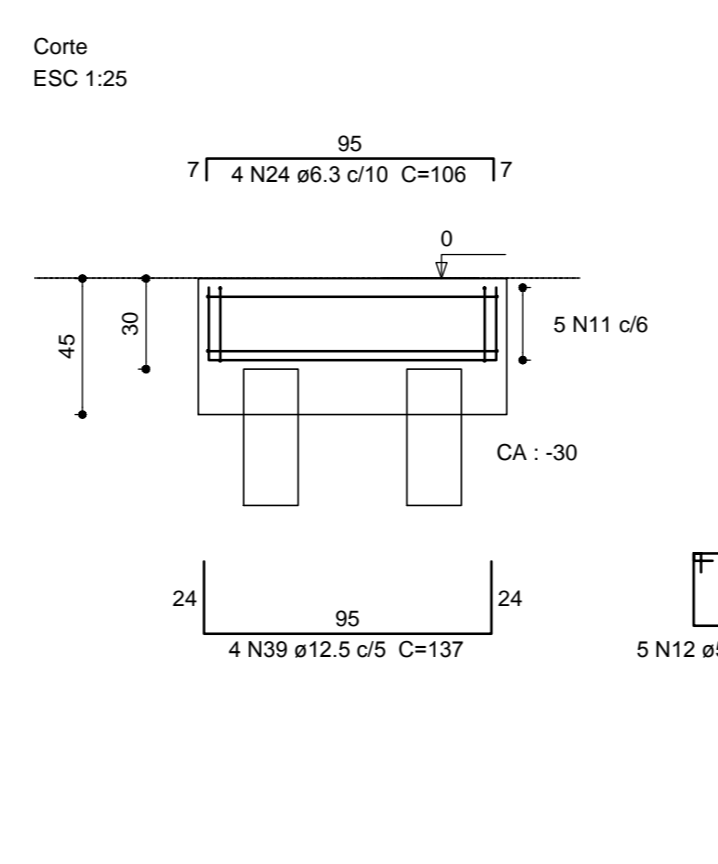
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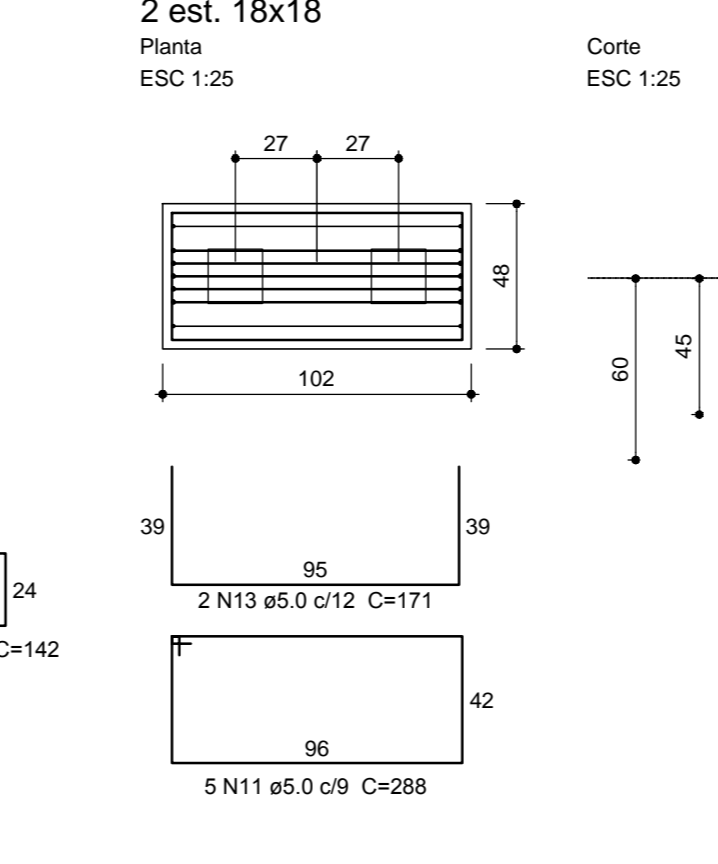
B5



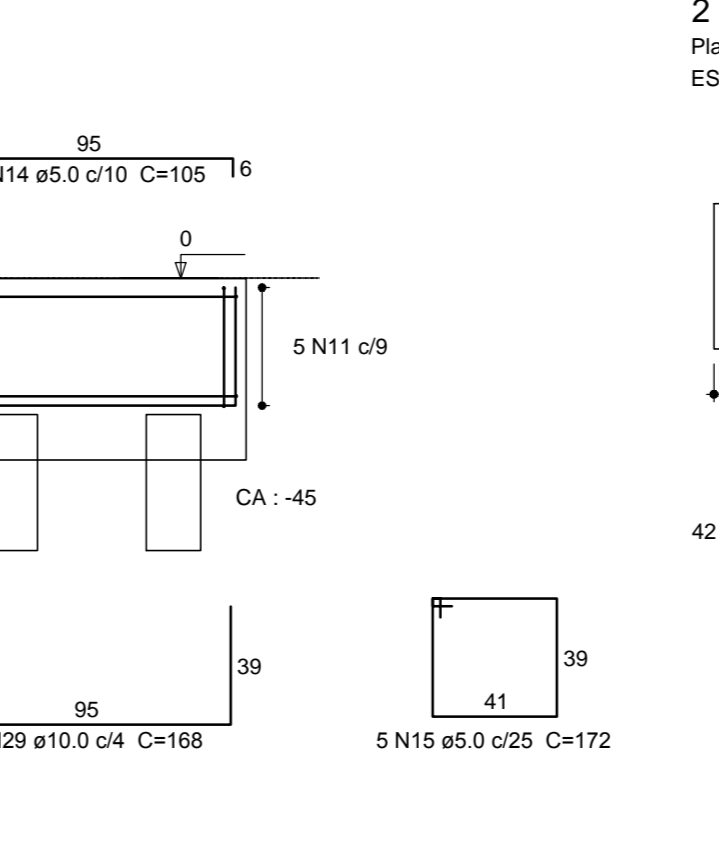
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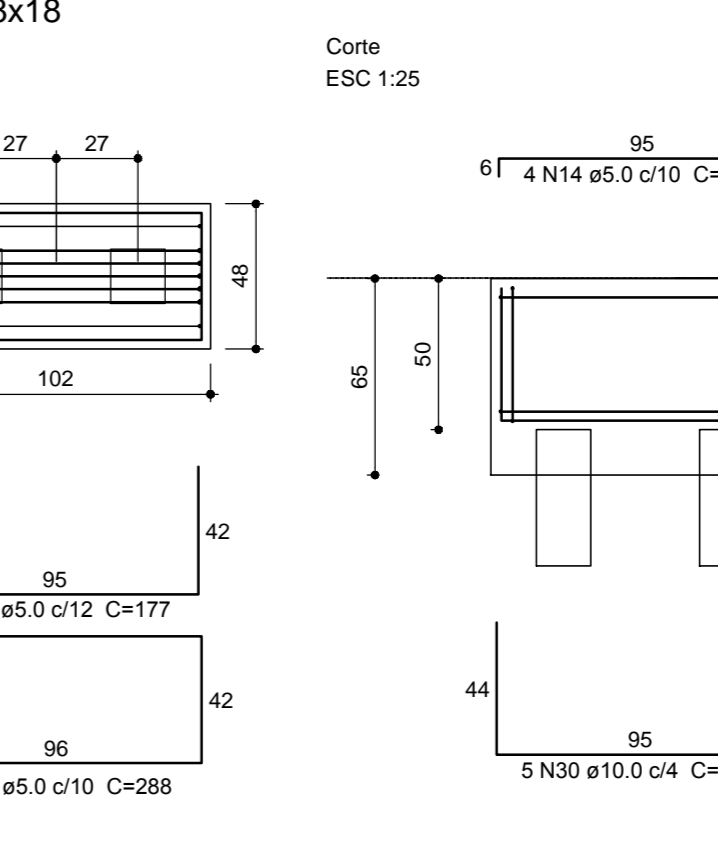
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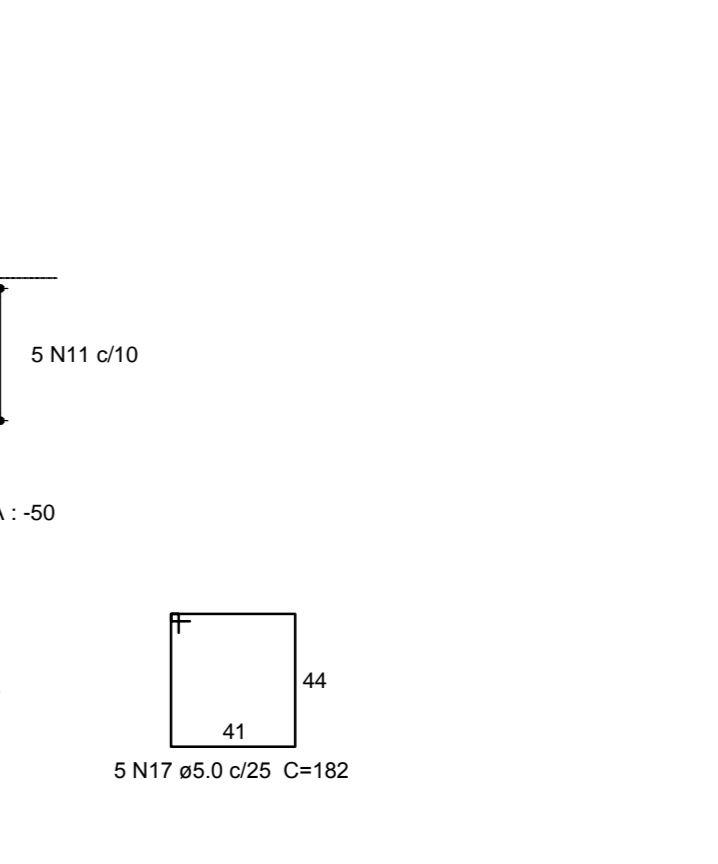
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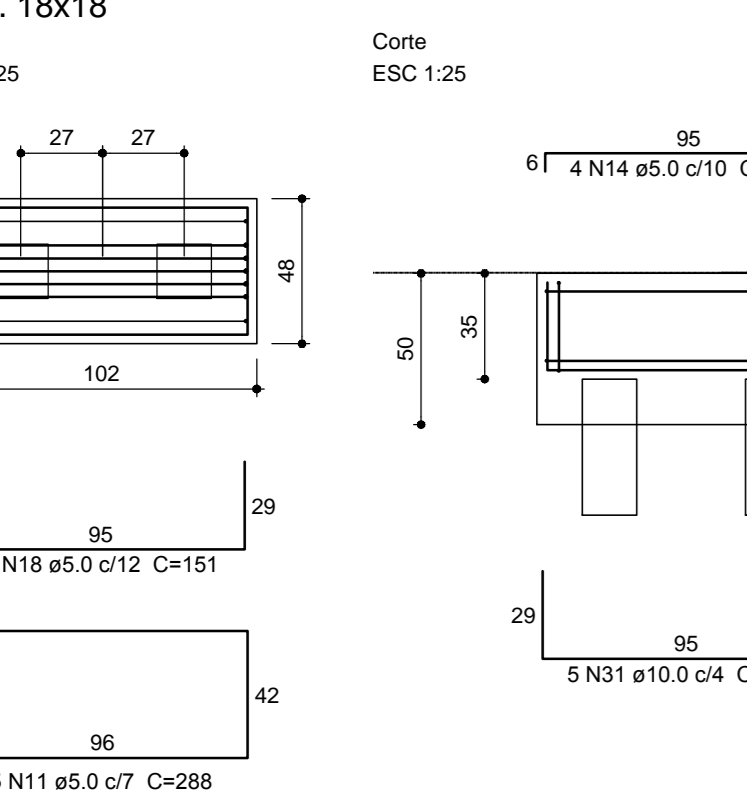
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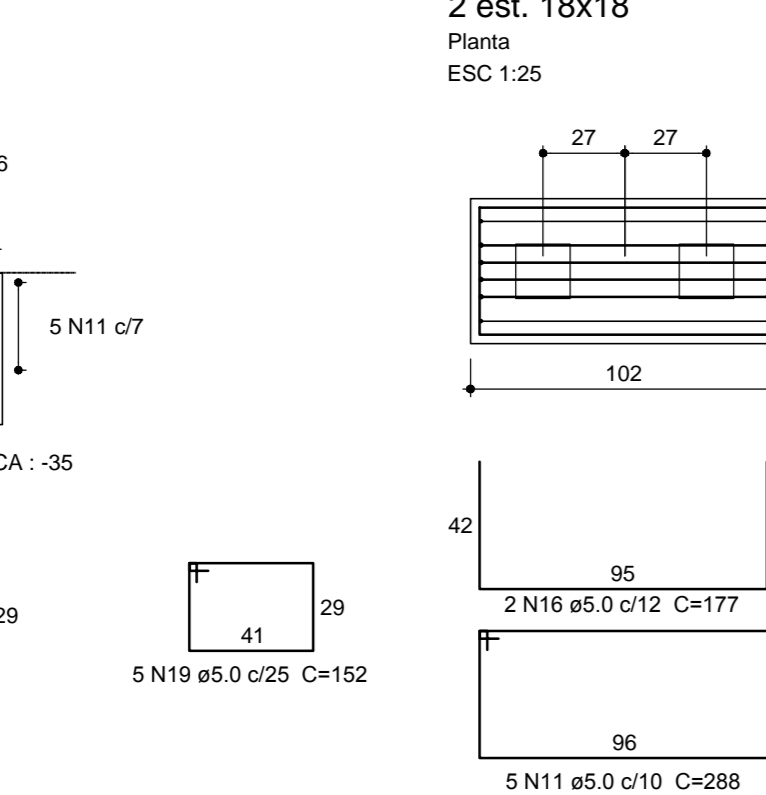
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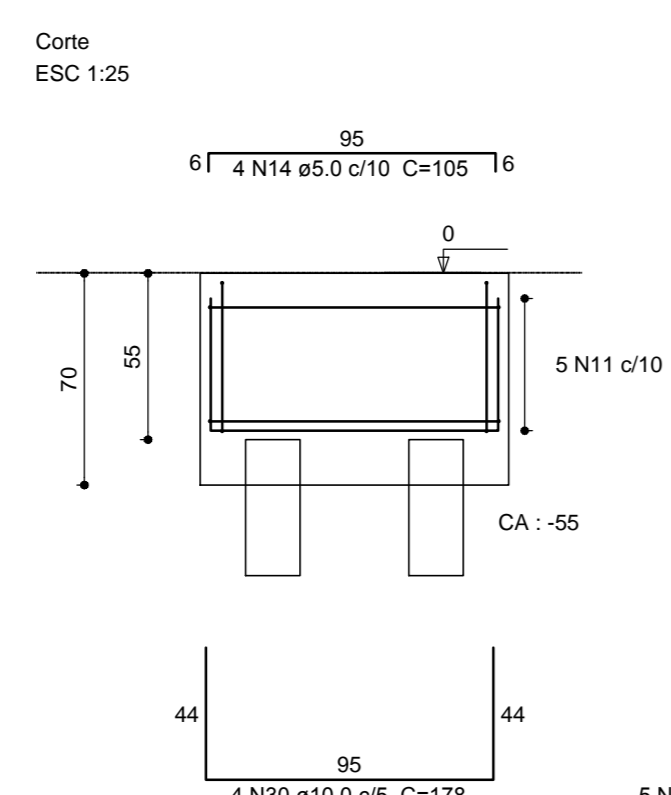
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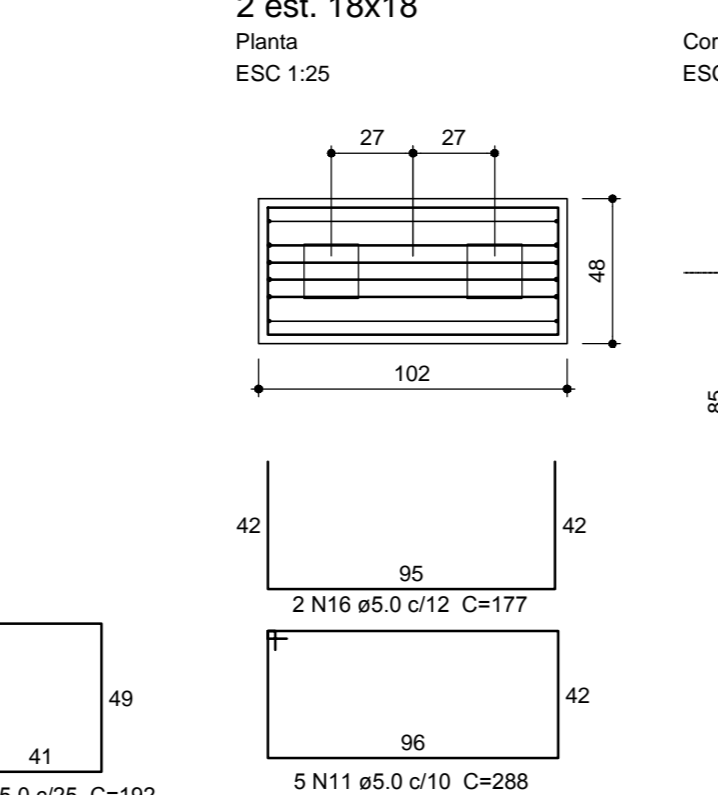
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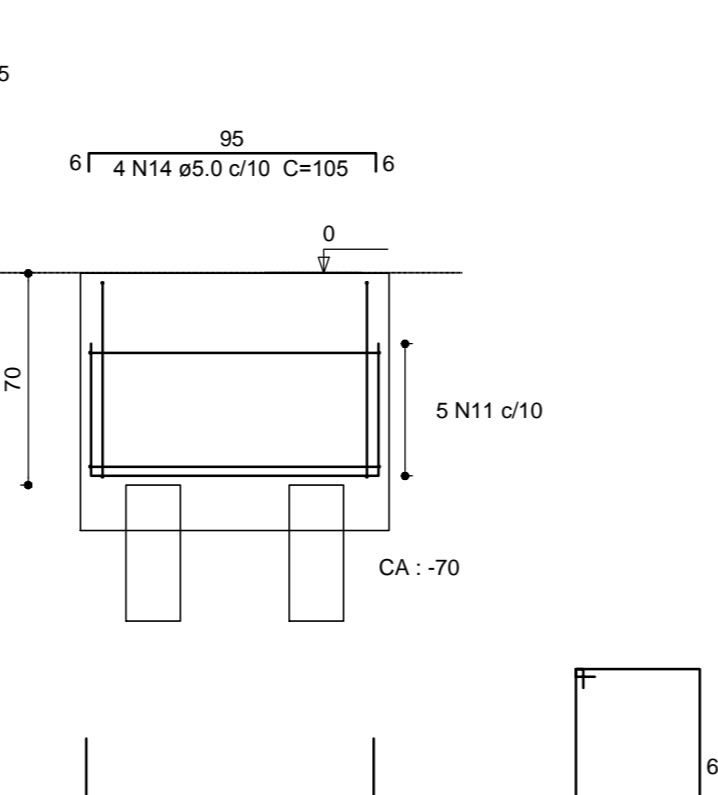
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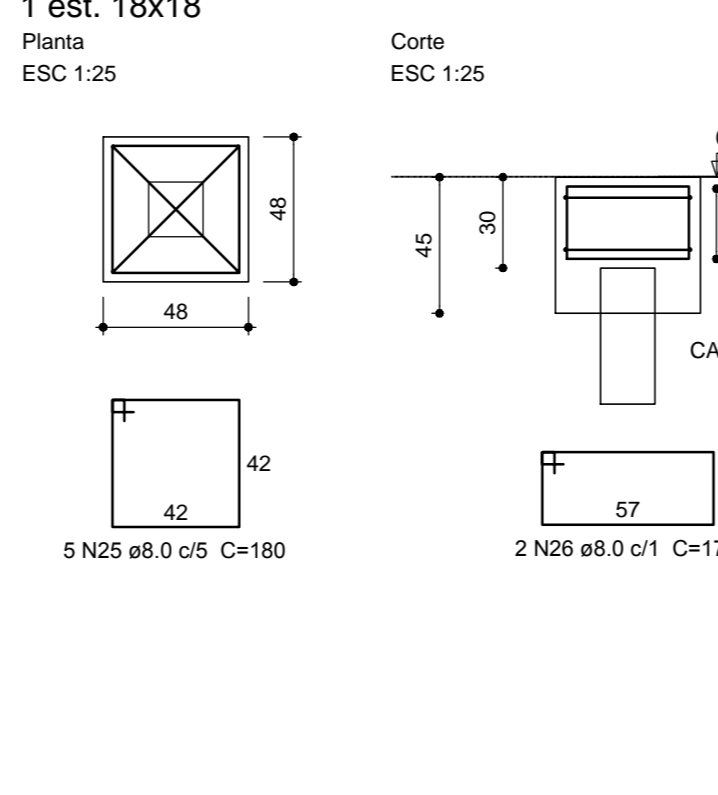
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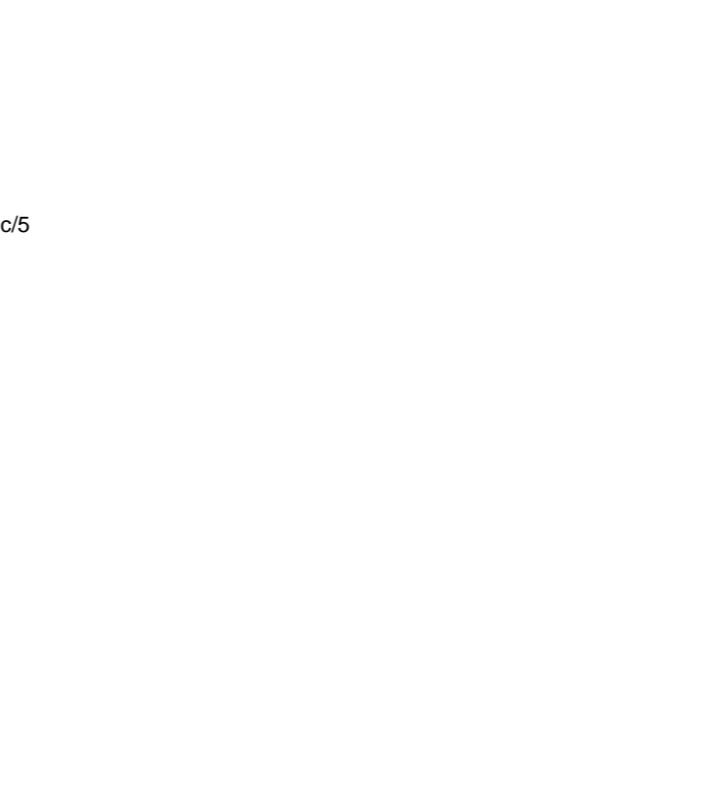
B12



B12



B12



B12



B12



B12



**Relação do aço**

AÇO	N	DIAM	Q	UNIT	C.TOTAL
CA80	1	4,2	42	115	4830
	2	4,2	42	30	900
	3	4,2	3	30	90
	4	4,2	2	31	62
	5	5,0	6	VAR	VAR
	6	5,0	7	VAR	VAR
	7	5,0	5	417	2085
	8	5,0	6	VAR	VAR
	9	5,0	7	VAR	VAR
	10	5,0	14	141	1974
	11	5,0	65	288	18720
	12	5,0	36	142	4970
	13	5,0	2	171	342
	14	5,0	24	105	2520
	15	5,0	5	172	860
	16	5,0	8	177	1416
	17	5,0	5	182	910
	18	5,0	2	151	302
	19	5,0	5	152	760
	20	5,0	10	192	1920
	21	5,0	5	222	1110
	22	6,3	8	136	1088
	23	6,3	16	33	528
	24	6,3	28	106	2968
	25	8,0	15	180	2700
	26	8,0	6	174	1044
	27	10,0	6	VAR	VAR
	28	10,0	15	198	2970
	29	10,0	5	168	840
	30	10,0	17	178	3026
	31	10,0	5	148	740
	32	12,5	50	VAR	VAR
	33	12,5	12	VAR	VAR
	34	12,5	6	VAR	VAR
	35	12,5	2	VAR	VAR
	36	12,5	2	109	218
	37	12,5	6	VAR	VAR
	38	12,5	8	VAR	VAR
	39	12,5	28	137	3808
	40	16,0	4	VAR	VAR
	41	16,0	4	VAR	VAR
	42	16,0	6	VAR	VAR

**Resumo do aço**

AÇO	DIAM	C.TOTAL	PESO + 10%
CA50	6,3	45,9	12,3
	8,0	37,5	16,3
	10,0	81,3	55,1
	12,5	133,4	141,3
	16,0	18,7	32,4
CA80	4,2	58,9	7
	5,0	423,1	71,7
<b>PESO TOTAL</b>			
CA50		257,4	
CA80		78,8	

Vol. de concreto total (C-20) = 5,33 m³  
 Área de forma total = 36,5 m²

**APROVAÇÃO/PREFEITURA**

**ESTRUTURAL**

PROJETO:

Responsável Técnico

**AMPLIAÇÃO DA ESCOLA SÃO ROQUE**  
 RODOVIA RALF KNÄSEL  
 SÃO ROQUE - TIMBÓ - SC

MUNICÍPIO DE TIMBÓ

Rua Pastor Blumet, 30 - Sala 101 -  
 Edifício Paris - Centro - Timbó - SC  
 Cep: 89120-000  
 Fone / Fax: (47) 3382 6464  
 e-mail: clicprojeto@gmail.com

Data: Novembro/2014

Área: x-x

Especificação

Escala: Indcada

Prancha

**BLOCOS E ESPERAS - NIVEL -1,97**

www.clicprojeto.com

03/17

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