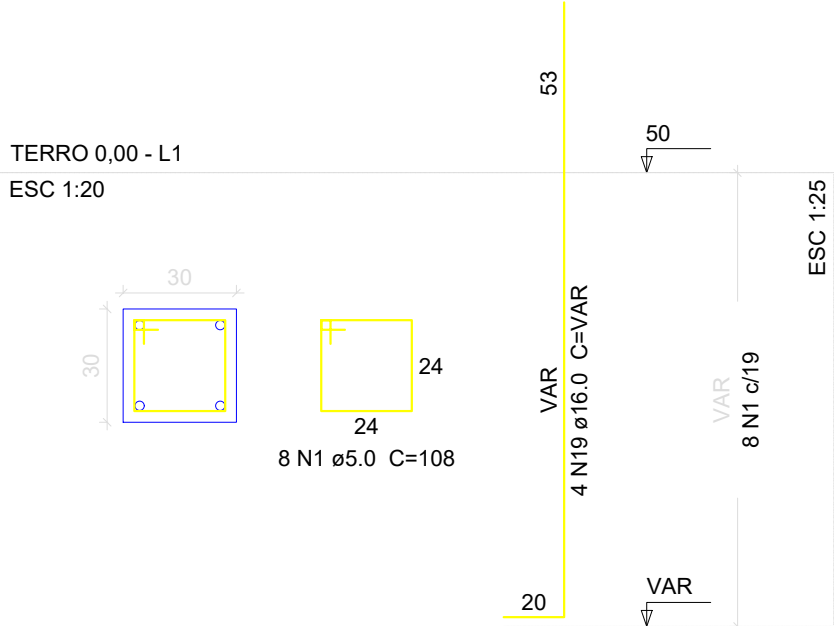
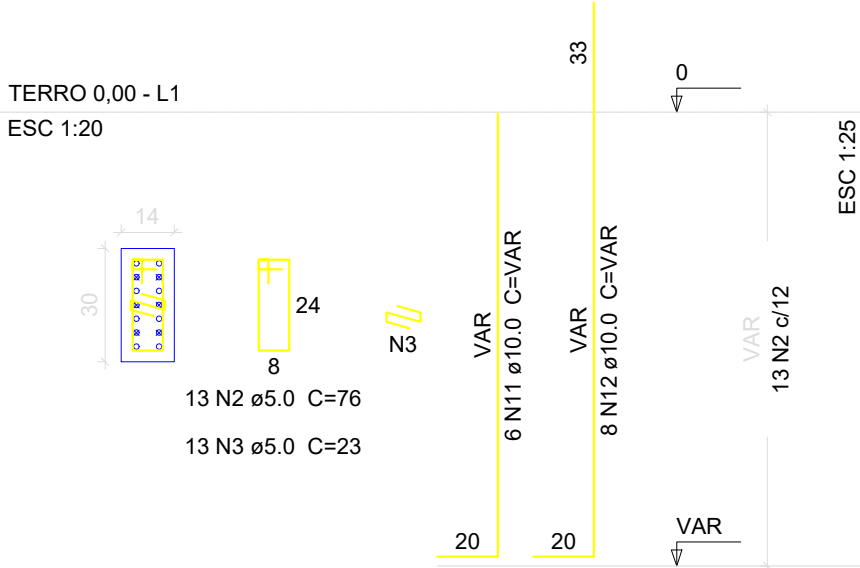


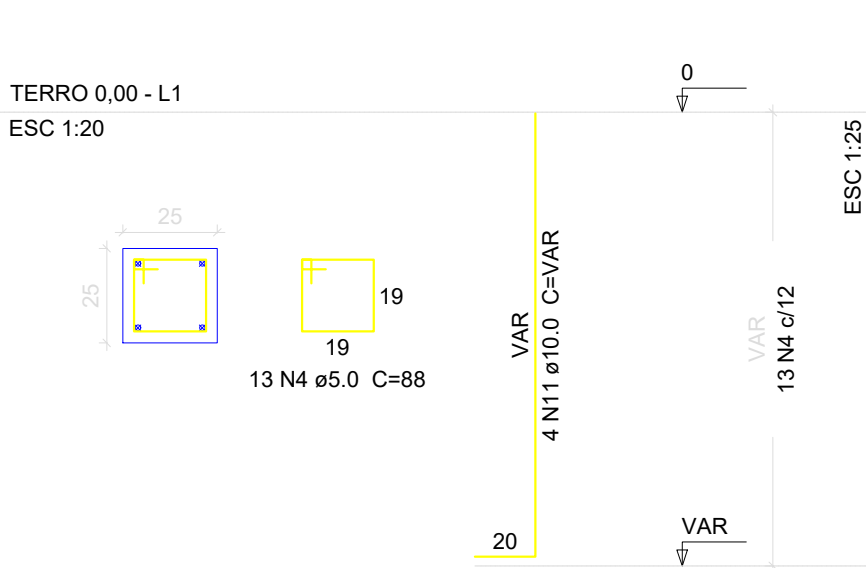
P102



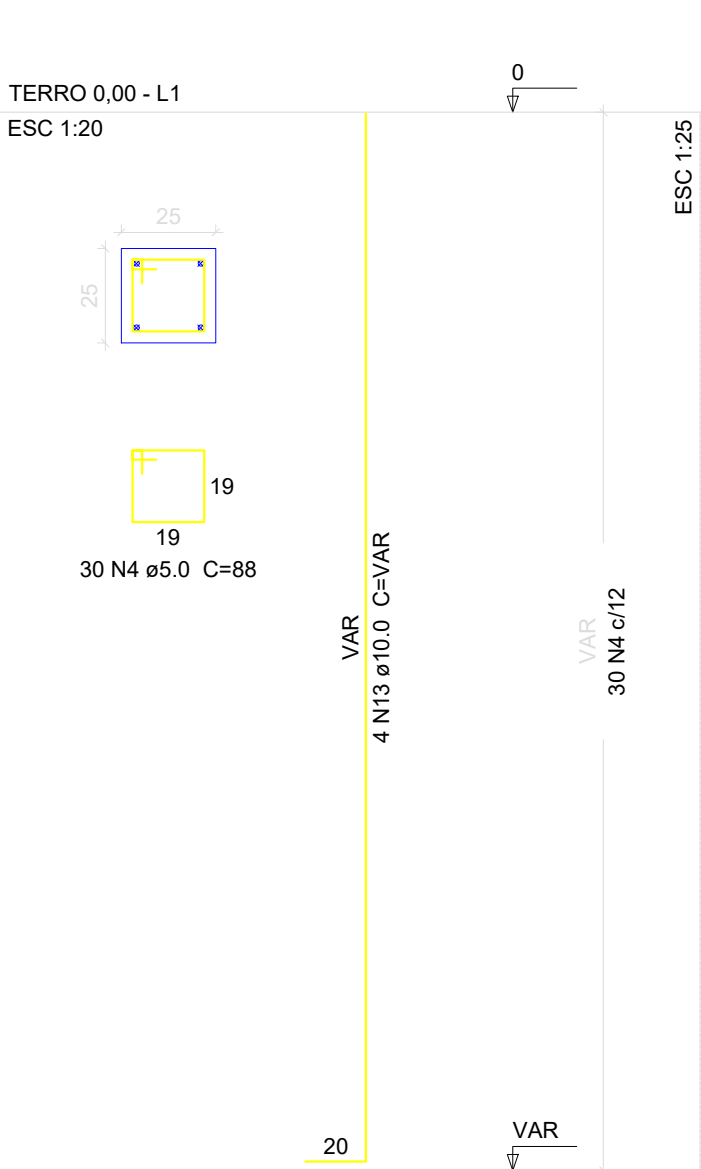
P111



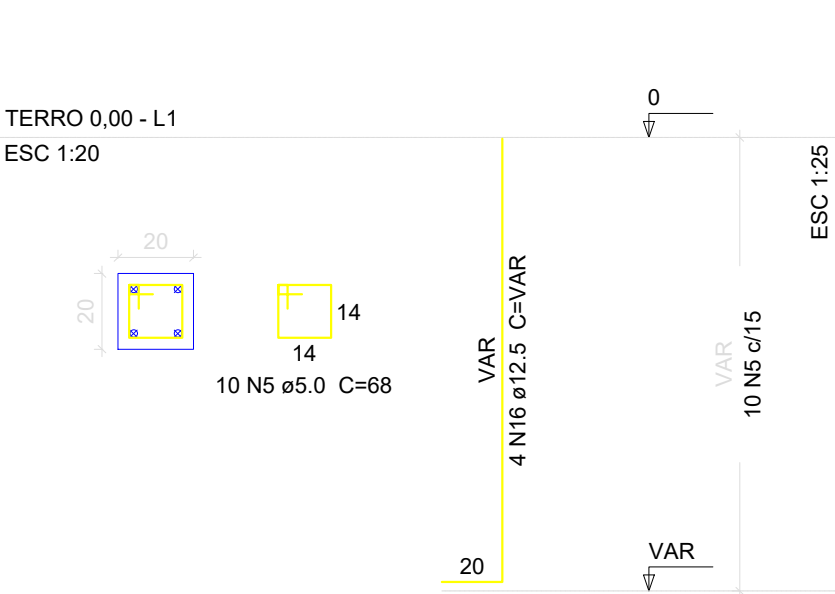
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Relação do aço

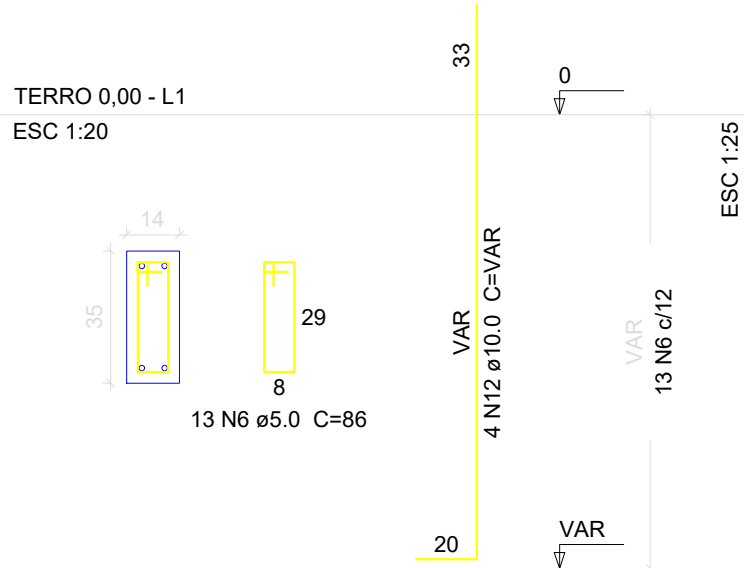
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	8	108	864
	2	5.0	26	76	1976
	3	5.0	73	23	1679
	4	5.0	43	88	3784
	5	5.0	268	68	18224
	6	5.0	13	86	1118
	7	5.0	71	96	6816
	8	5.0	11	23	253
	9	5.0	43	88	3784
CA50	10	5.0	13	29	377
	11	10.0	36	VAR	VAR
	12	10.0	16	VAR	VAR
	13	10.0	10	VAR	VAR
	14	10.0	18	VAR	VAR
	15	10.0	16	VAR	VAR
	16	12.5	14	VAR	VAR
	17	12.5	6	VAR	VAR
	18	12.5	4	VAR	VAR
	19	16.0	4	VAR	VAR

Resumo do aço

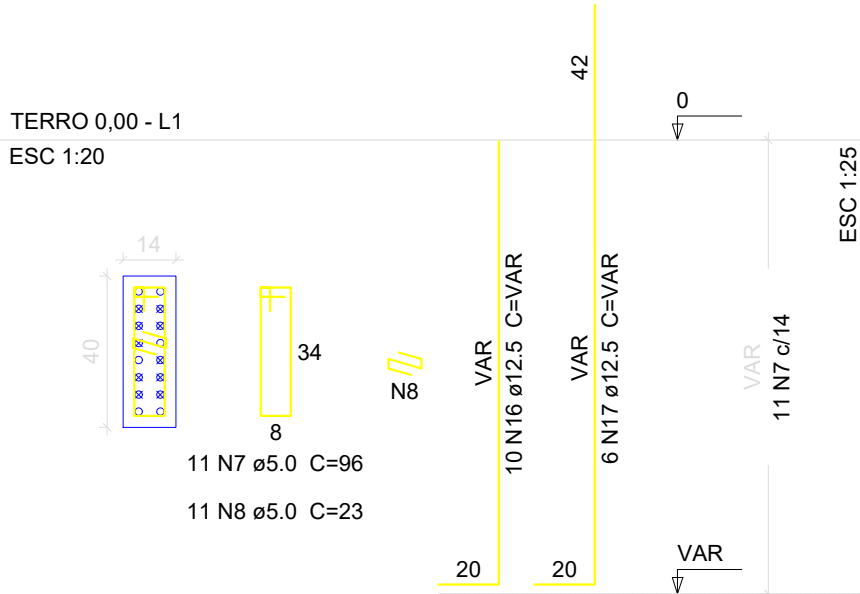
AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	266.7	180.8
CA60	12.5	52.1	55.2
CA60	16.0	8.8	15.2
CA60	5.0	388.8	65.9
PESO TOTAL			
CA50		251.2	
CA60		65.9	

Vol. de concreto total (C-30) = 2.72 m³
Área de forma total = 51.09 m²

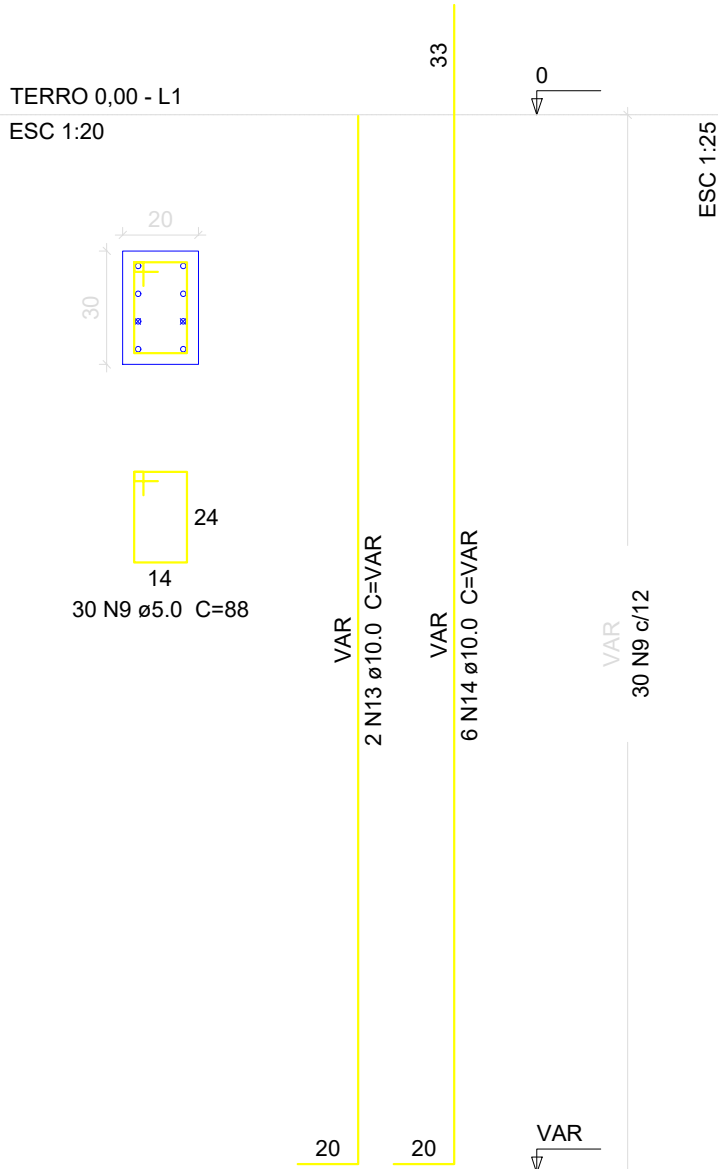
P116



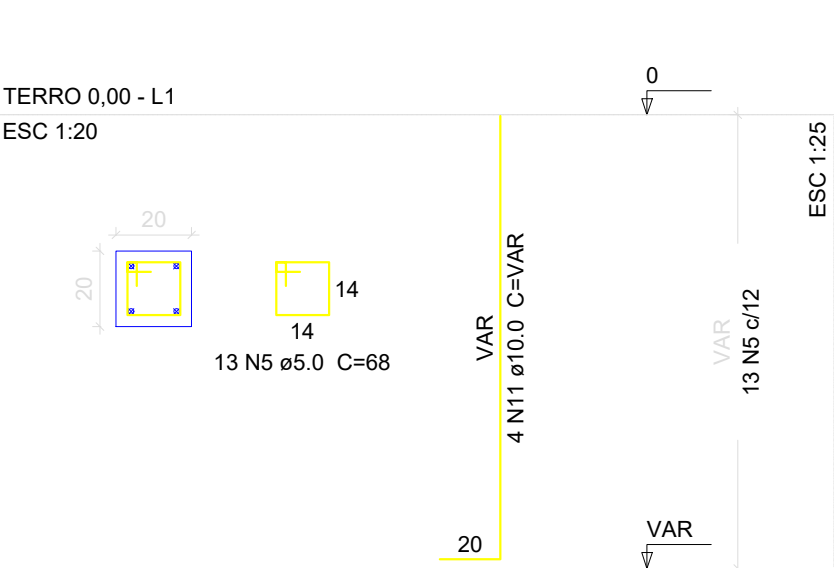
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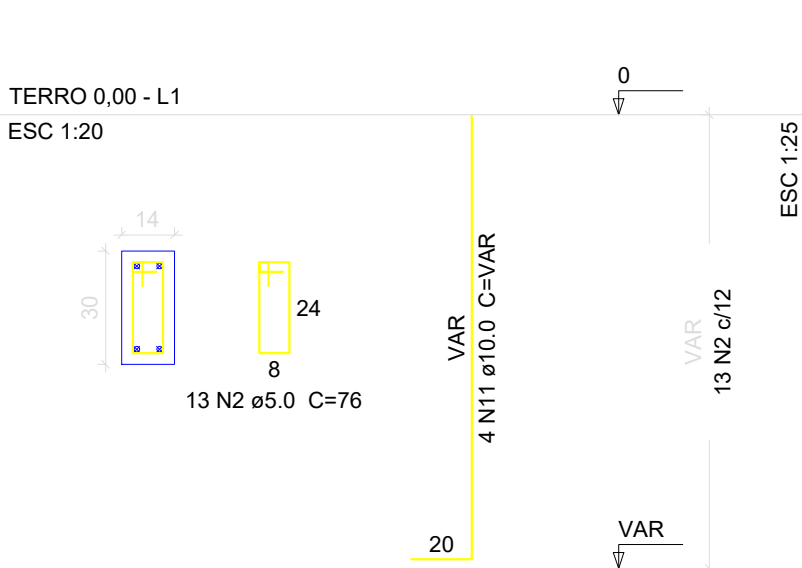
P121



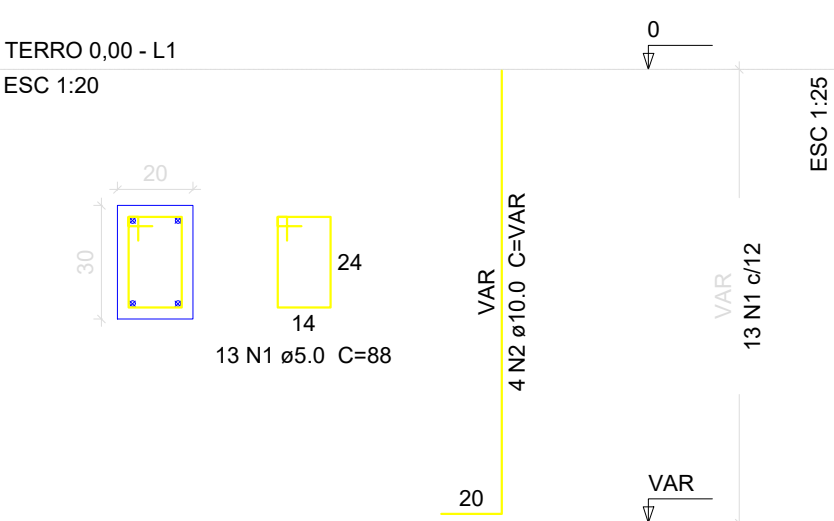
P127=P130=P131=P133=P134



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Relação do aço

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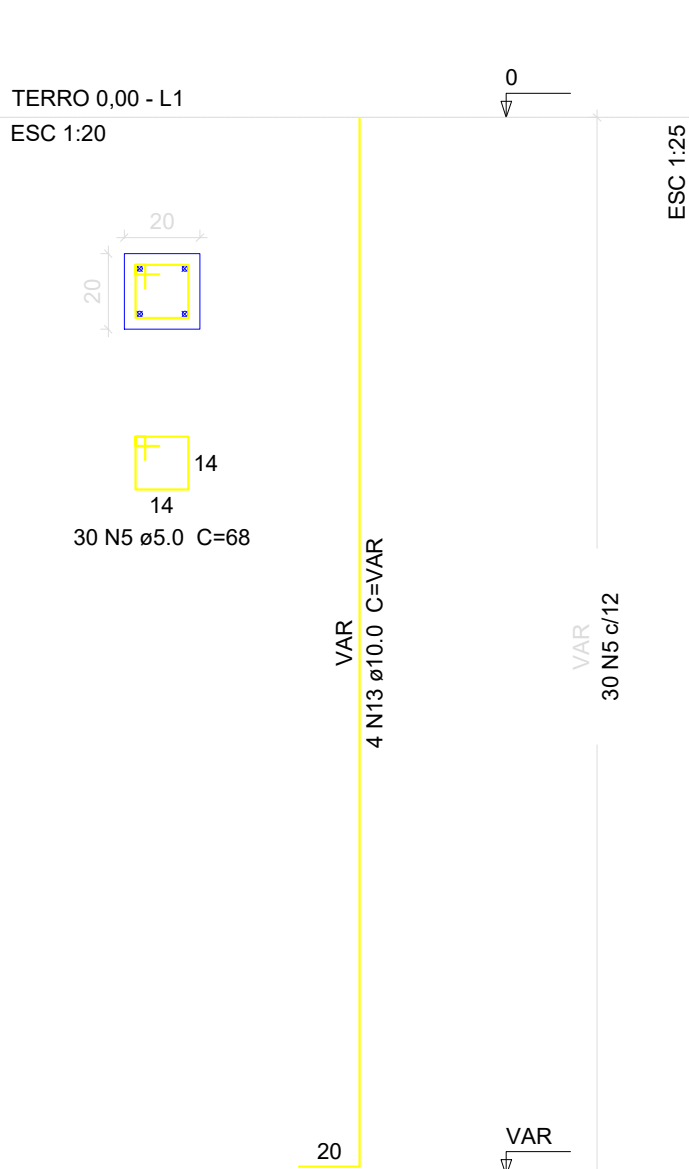
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	13	88	1144
CA50	2	10.0	4	VAR	VAR

Resumo do aço

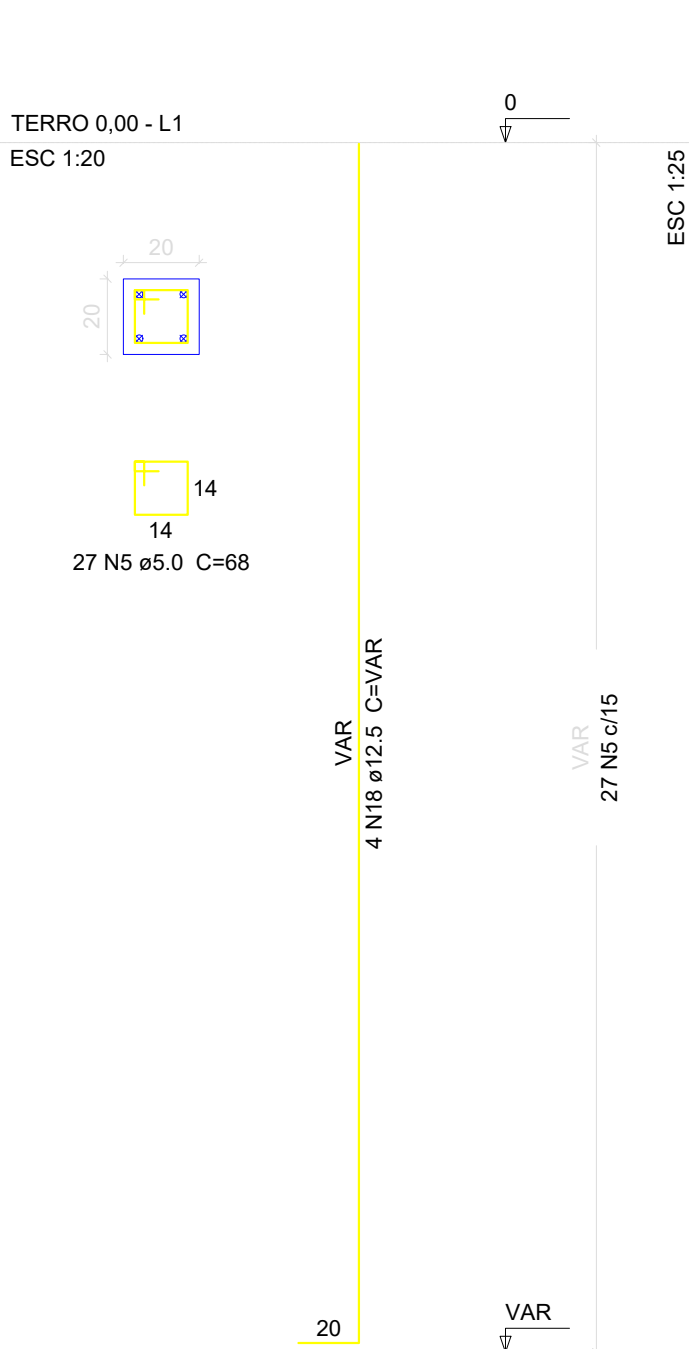
AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	6.6	4.5
CA60	5.0	11.5	1.9
PESO TOTAL			
CA50		4.5	
CA60		1.9	

Vol. de concreto total (C-30) = 0.09 m³
Área de forma total = 1.5 m²

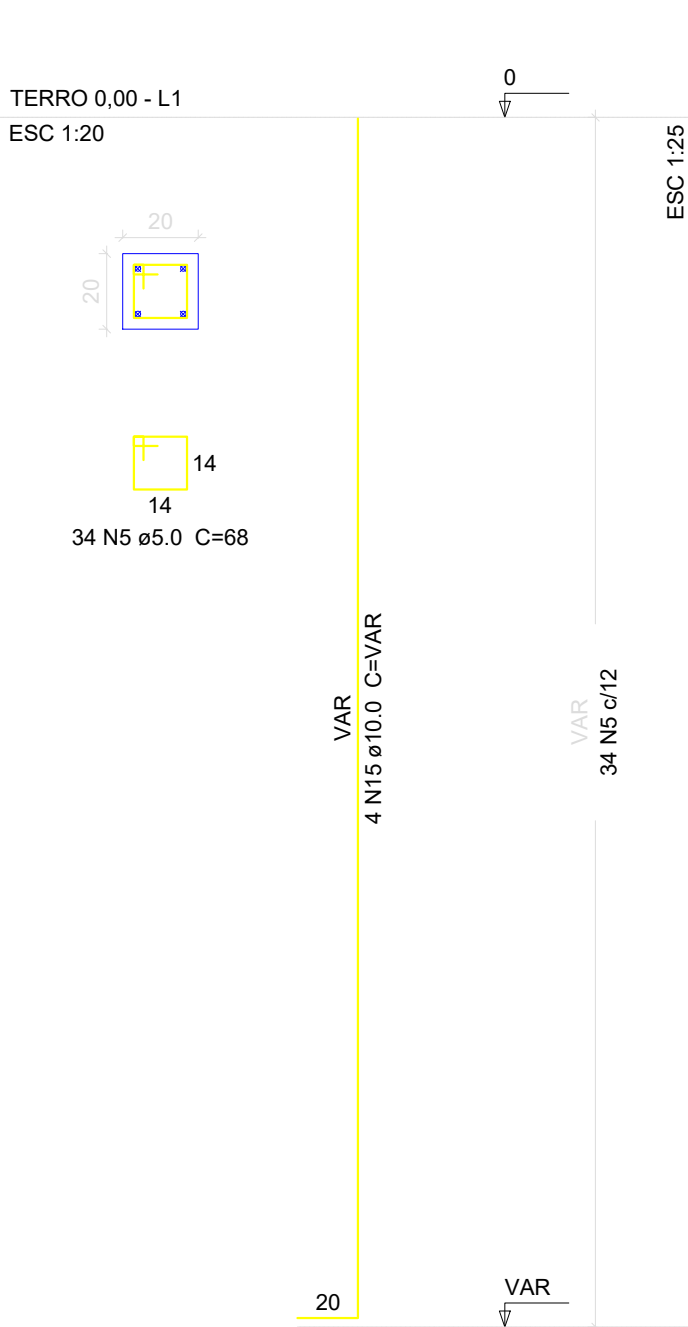
P132



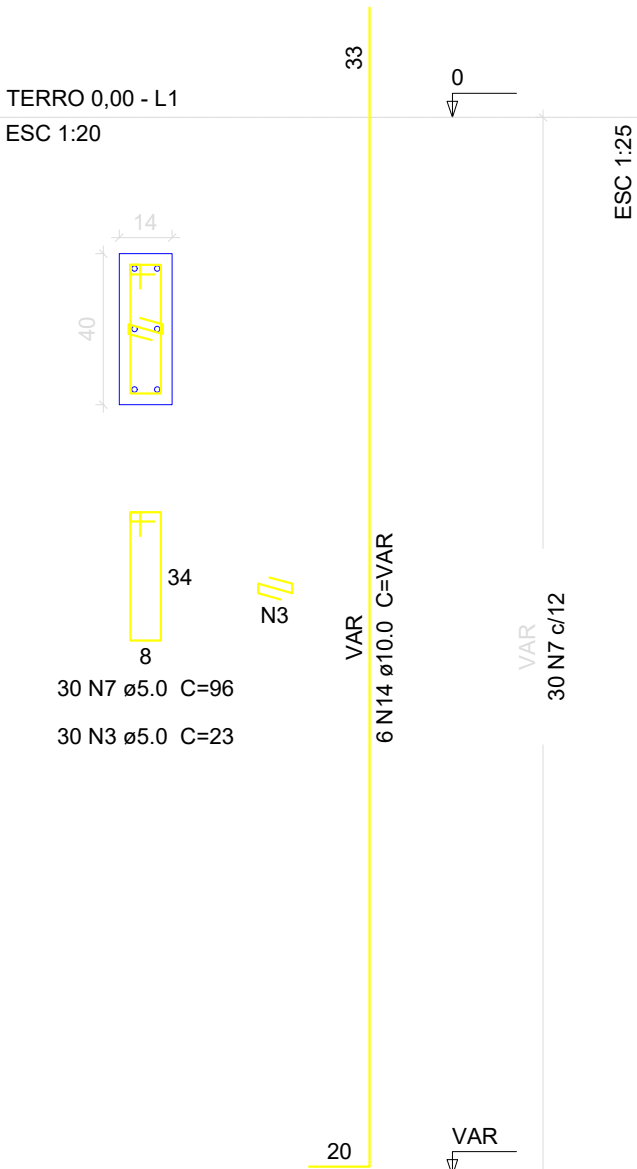
P142



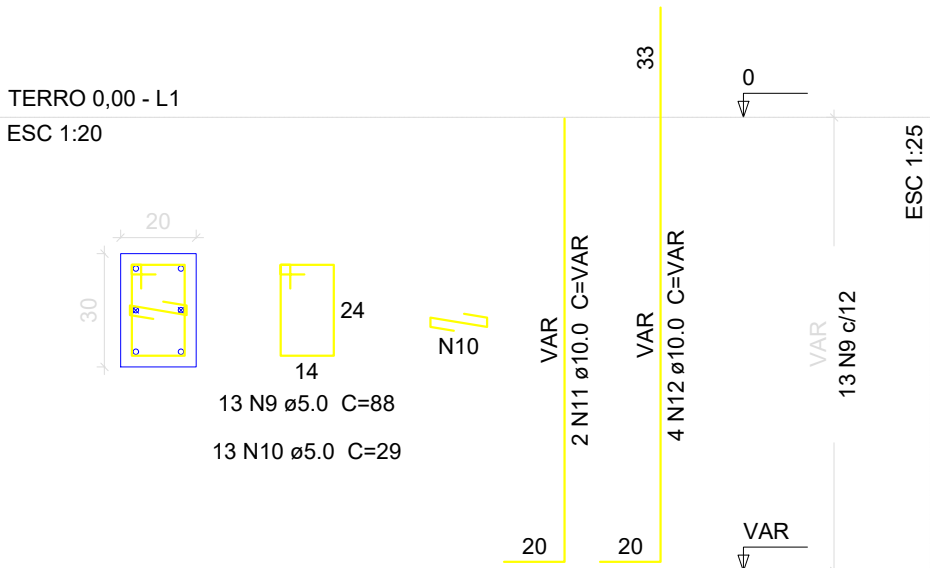
P143=P144=P145=P146



P147=P148



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 ARQUITETURA E ENGENHARIA > PROJETOS INDUSTRIAIS / COMERCIAIS / RESIDENCIAIS E PÚBLICAS > ASSESSORIA / CONSULTORIA > GESTÃO DE OBRAS > PERÍCIAS > EXECUÇÃO DE OBRAS		AV. BRASIL, 1225 - SALA 03 UNIVERSITÁRIO CSP 04699-011 - JARDIM TEL. (49) 39923 2944 CNPJ 23.270.410/0001-49	
RESP. TÉCN.: James André Clauberg Eng. Civil - CREA 45.160-6		OBRA: PROJETO ESTRUTURAL ESCOLA MUNICIPAL DE RIO RUFINO	
RESP. TÉCN.: Indiamara de Oliveira Ribeiro Eng. Civil - CREA 13.4548-3		PLANTA DE PILARES- TÉRREO	
CLIENTE: Prefeitura Municipal de Rio Rufino			
DESENHO:		ESCALA:	DATA: OUT/2022