

1 ESCALA 1/15
1 LOCAÇÃO DE OBRA E PLANTA DE CARGAS

Nome	Seção	X (cm)	Y (cm)	Carga Max. (kgf)	Carga Min. (kgf)	Mx (kgf.m)	My (kgf.m)	Fx (kgf)	Fy (kgf)
P1	13x40	431.50	-432.50	6750	6000	650	400	1600	2450
P2	13x40	431.50	-432.50	5200	5200	510	440	1600	2100
P3	13x40	287.00	-432.50	5100	5100	510	440	1600	2100
P4	13x40	287.00	-432.50	5980	5800	200	450	1680	720
P5	13x40	187.50	-432.50	4300	3200	80	190	600	830
P6	13x40	187.50	-432.50	4480	4380	420	150	600	1560
P7	13x40	199.50	-432.50	4480	4380	420	150	600	1560
P8	13x40	312.00	-432.50	3330	3180	130	130	480	470
P9	13x40	421.00	-432.50	7890	7890	280	600	2300	3100
P10	13x40	421.00	-432.50	7890	7890	280	600	2300	3100
P11	13x40	1034.00	-1027.50	6880	6790	320	440	1600	1180
P12	20x20	1034.00	-1027.50	4470	4470	30	30	1140	1140
P13	13x40	2274.50	-1027.50	6620	6620	330	400	1480	1210
P14	13x40	2274.50	-1027.50	5460	5460	140	500	1670	500
P15	13x40	187.50	-1000.00	3800	3460	10	50	180	30
P16	13x40	187.50	-1000.00	3800	3460	10	50	180	30
P17	13x40	421.00	-1302.50	6150	6150	150	600	2250	550
P18	13x40	421.00	-1302.50	6150	6150	150	600	2250	550
P19	20x20	1314.00	-1302.50	2570	2580	110	10	20	230
P20	20x20	1314.00	-1302.50	2570	2580	110	10	20	230
P21	20x20	1944.50	-1302.50	2470	2380	100	10	20	380
P22	13x40	2274.50	-1301.50	9480	8100	480	510	1610	3110
P23	13x40	2274.50	-1301.50	9480	8100	480	510	1610	3110
P24	13x40	3121.00	-1300.00	3740	3590	30	40	140	170
P25	13x40	3121.00	-1300.00	3740	3590	30	40	140	170
P26	13x40	966.00	-1422.50	4580	4510	50	50	160	170
P27	13x40	187.50	-1815.00	3420	3270	130	230	830	480
P28	13x40	187.50	-1815.00	3420	3270	130	230	830	480
P29	20x20	1047.00	-1815.00	8620	8780	110	620	2320	1520
P30	20x20	1047.00	-1815.00	8620	8780	110	620	2320	1520
P31	20x20	1944.50	-1815.00	3800	3800	180	190	470	500
P32	13x40	2274.50	-1815.00	3800	3800	180	190	470	500
P33	13x40	2274.50	-1815.00	10250	10250	140	240	10	180
P34	13x40	2261.00	-1717.50	1000	40	240	240	10	180
P35	30x34	2714.50	-2144.50	3230	3020	190	40	140	770
P36	30x34	2714.50	-2144.50	3230	3020	190	40	140	770
P37	30x34	2714.50	-2555.50	2130	1830	60	30	80	230
P38	13x40	431.50	-2591.00	8440	8230	110	620	2310	420
P39	13x40	431.50	-2591.00	8440	8230	110	620	2310	420
P40	13x40	1314.00	-2591.00	5320	5100	20	240	280	180
P41	20x20	1944.50	-2581.00	3260	3180	10	140	510	40
P42	13x40	2261.00	-2591.00	3260	2950	120	110	410	450
P43	13x40	2261.00	-2591.00	3260	2950	120	110	410	450
P44	13x40	2862.50	-2665.00	3180	3000	80	140	400	320
P45	13x40	2862.50	-2665.00	3180	3000	80	140	400	320
P46	13x40	187.50	-3002.50	3800	3450	10	50	180	30
P47	13x40	187.50	-3002.50	3800	3450	10	50	180	30
P48	13x40	966.00	-3077.50	3800	3800	60	80	270	170
P49	13x40	966.00	-3077.50	3800	3800	60	80	270	170
P50	13x40	2274.50	-3252.50	6430	6230	110	520	1880	280
P51	13x40	2274.50	-3252.50	6430	6230	110	520	1880	280
P52	13x40	187.50	-3202.50	5480	5270	30	60	220	110
P53	13x40	187.50	-3202.50	5480	5270	30	60	220	110
P54	13x40	1034.00	-3197.50	3840	3730	10	140	2000	20
P55	20x20	1314.00	-3197.50	2560	2480	20	40	540	60
P56	13x40	1944.50	-3201.00	5960	5880	20	40	540	60
P57	13x40	1944.50	-3201.00	5960	5880	20	40	540	60
P58	13x40	3121.00	-3258.50	5960	5880	210	500	1880	780
P59	13x40	3121.00	-3258.50	5960	5880	210	500	1880	780
P60	13x40	187.50	-3470.00	3800	3460	10	50	180	30

Nome	Seção	X (cm)	Y (cm)	Carga Max. (kgf)	Carga Min. (kgf)	Mx (kgf.m)	My (kgf.m)	Fx (kgf)	Fy (kgf)
P60	13x40	421.00	-3472.50	6140	6040	30	380	2710	330
P61	13x40	421.00	-3472.50	6140	6040	30	380	2710	330
P62	20x20	1314.00	-3476.00	4950	4870	370	30	100	1360
P63	20x20	1944.50	-3476.00	5250	5170	400	10	20	1490
P64	13x40	2274.50	-3472.50	7200	7200	220	450	1680	820
P65	13x40	2274.50	-3472.50	7200	7200	220	450	1680	820
P66	13x40	2862.50	-3477.00	3740	3590	30	40	140	100
P67	13x40	2862.50	-3477.00	3740	3590	30	40	140	100
P68	13x40	3121.00	-3872.50	3110	3030	70	280	970	250
P69	13x40	3121.00	-3872.50	3110	3030	70	280	970	250
P70	13x40	2876.00	-3880.70	6250	6040	330	30	80	190
P71	13x40	2876.00	-3880.70	6250	6040	330	30	80	190
P72	13x40	187.50	-3885.00	2880	2710	30	130	350	180
P73	13x40	187.50	-3885.00	2880	2710	30	130	350	180
P74	13x40	1989.50	-3885.00	4430	4340	470	100	350	1730
P75	13x40	1989.50	-3885.00	4430	4340	470	100	350	1730
P76	13x40	431.50	-4067.50	5870	5720	130	420	430	460
P77	13x40	431.50	-4067.50	5870	5720	130	420	430	460
P78	13x40	1048.50	-4072.50	7080	6960	810	440	1650	3030
P79	13x40	1048.50	-4072.50	7080	6960	810	440	1650	3030
P80	13x40	2274.50	-4067.50	5900	5450	70	840	3120	240

OBSERVAÇÕES IMPORTANTES:
 1. O PAVILHÃO DISPONIBILIZA FUNDADORES DO TIPO DE BLOCOS SOBRE ESTACAS PARA A RESISTÊNCIA DO SOLO UTILIZANDO O MÉTODO DE CÁLCULO DE BLOCOS SOBRE ESTACAS. A RESISTÊNCIA DO SOLO UTILIZADA PARA O CÁLCULO DE BLOCOS SOBRE ESTACAS É DE 100 KGF/CM². OS CÁLCULOS DE BLOCOS SOBRE ESTACAS SÃO REALIZADOS DE ACORDO COM O MÉTODO DE CÁLCULO DE BLOCOS SOBRE ESTACAS. A RESISTÊNCIA DO SOLO UTILIZADA PARA O CÁLCULO DE BLOCOS SOBRE ESTACAS É DE 100 KGF/CM². OS CÁLCULOS DE BLOCOS SOBRE ESTACAS SÃO REALIZADOS DE ACORDO COM O MÉTODO DE CÁLCULO DE BLOCOS SOBRE ESTACAS.

2. TANTO PARA A APROVAÇÃO DESTA PLANTA DE CARGAS QUANTO PARA A ELABORAÇÃO DE NOVO PROJETO DEVERÁ SER ENTREGUE A PLANILHA DE CÁLCULO DE BLOCOS SOBRE ESTACAS.
 3. PARA O RECALCULO DAS FUNDAÇÕES, DISPONIBILIZAMOS AS CARGAS NAS FUNDAÇÕES.
 4. RECOMENDAMOS QUE SEJA REALIZADA A SONDAAGEM DO TERRENO PELO MÉTODO SPT PARA DETERMINAÇÃO DA RESISTÊNCIA DO SOLO E ANÁLISE DO PERIL GEOTÉCNICO.
 5. A PROFUNDIDADE DAS ESTACAS FOI CALCULADA UTILIZANDO-SE O MÉTODO KONIGELSON PARA ESTACAS.

CONTROLE DE REVISÕES
 Nº DATA DESCRIÇÃO
 01 JULHO 2016
 02 JANEIRO 2017

ANEXO 3 A NBR 9080 2015
 Análise de segurança estrutural, considerando os efeitos de combinação de ações, com os pontos de aplicação, mobilidade e equipamento, altura da estrutura nos sanitários, com dois pontos de aplicação, e altura da porta PA1.
 Acreditação: Vige nº 002, 068, 080 e Vige nº 310, V61 e V62, V112 e V115.
 Endereço: Rua Santa Helena, 100 - Vila Santa Helena - Curitiba - PR - CEP: 81210-000 - Fone: (41) 3333-3333 - Fax: (41) 3333-3333

PROPRIETÁRIO: FUNDE
 ENDEREÇO: Rua Santa Helena, 100 - Vila Santa Helena - Curitiba - PR - CEP: 81210-000 - Fone: (41) 3333-3333 - Fax: (41) 3333-3333
 MUNICÍPIO - UF: Curitiba - PR

PROPRIETÁRIO: FUNDE
 RESP. TÉCNICO: CREA

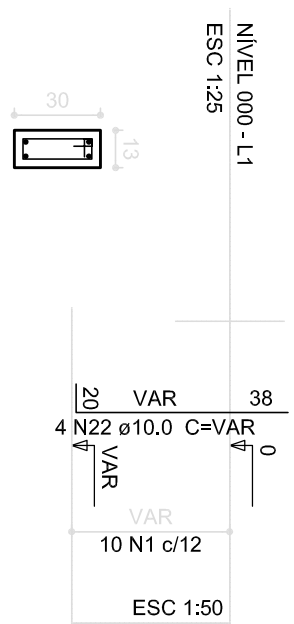
AUTOR DO PROJETO: CAU

DILFO: CREA

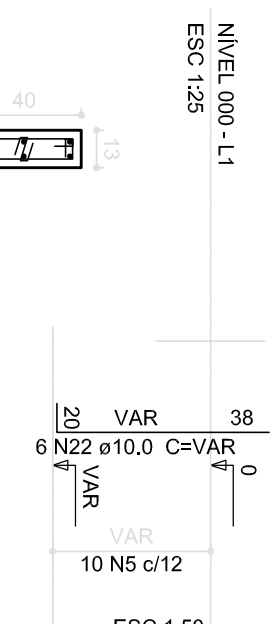
PROGRAMA PROINFÂNCIA - PROJETO TIPO 2
 PROJETO DE ESTRUTURA
 FUNDAÇÃO DIRETA
 OPÇÃO 2: FUNDAÇÃO SAPATAS
 LOCAÇÃO DE OBRA E PLANTA DE CARGAS

CONSEQUÊNCIA: CATEGORIA: C-1
 FUNDAÇÃO DIRETA
 OPÇÃO 2: FUNDAÇÃO SAPATAS
 LOCAÇÃO DE OBRA E PLANTA DE CARGAS
 SFS
 03/17

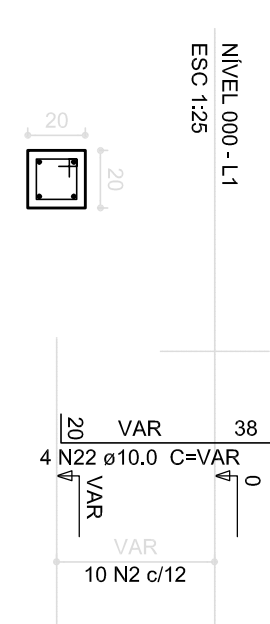
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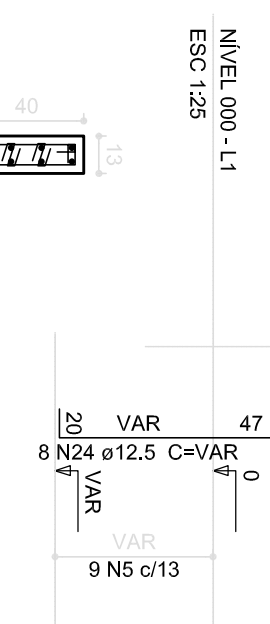
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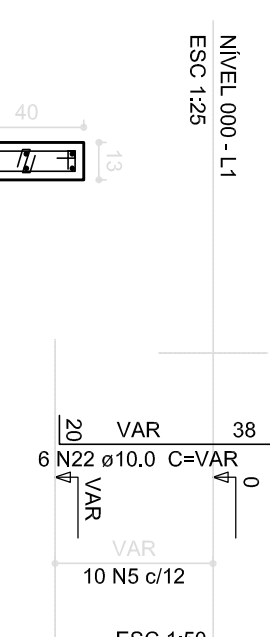
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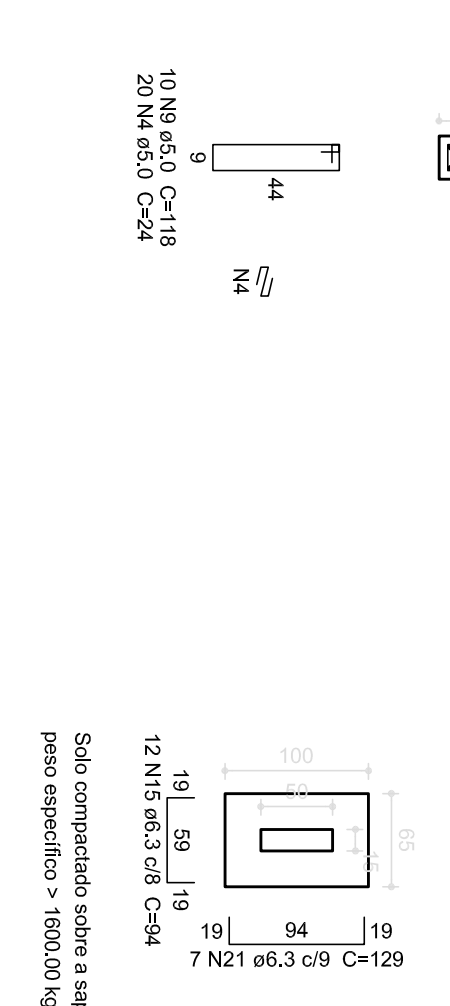
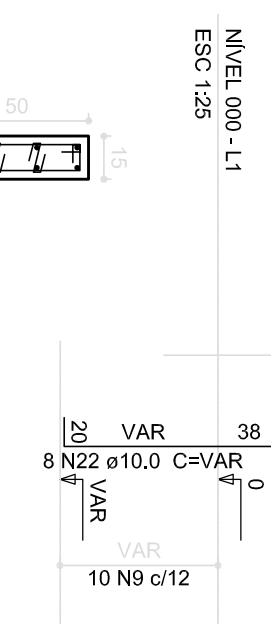
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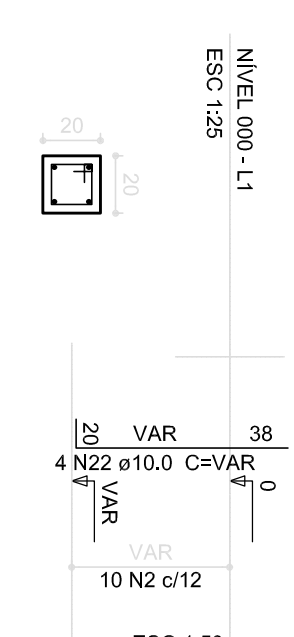
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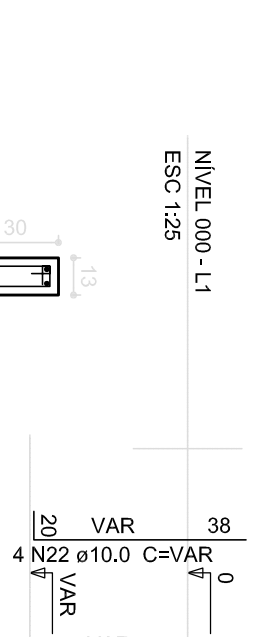
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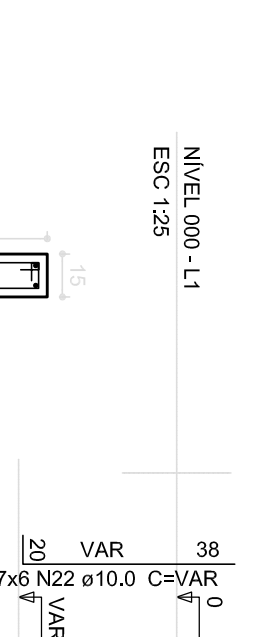
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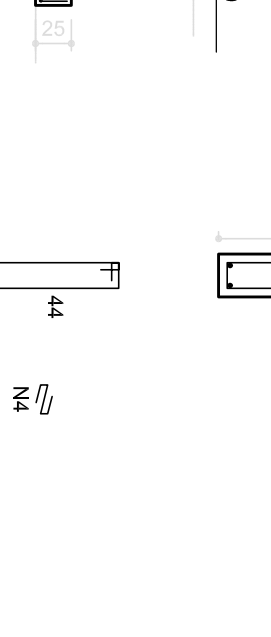
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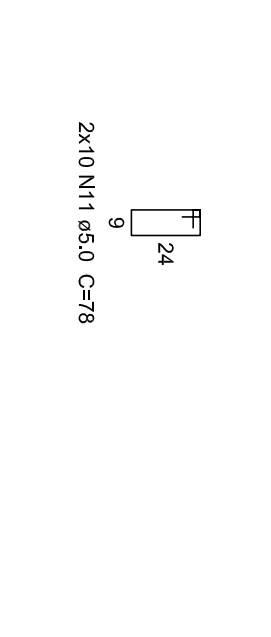
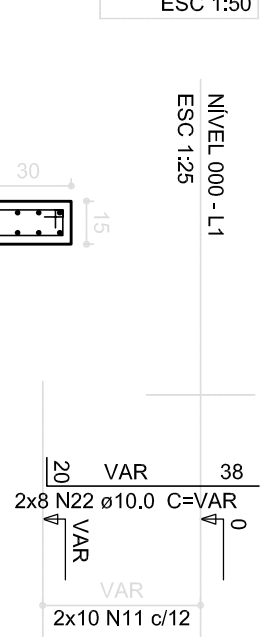
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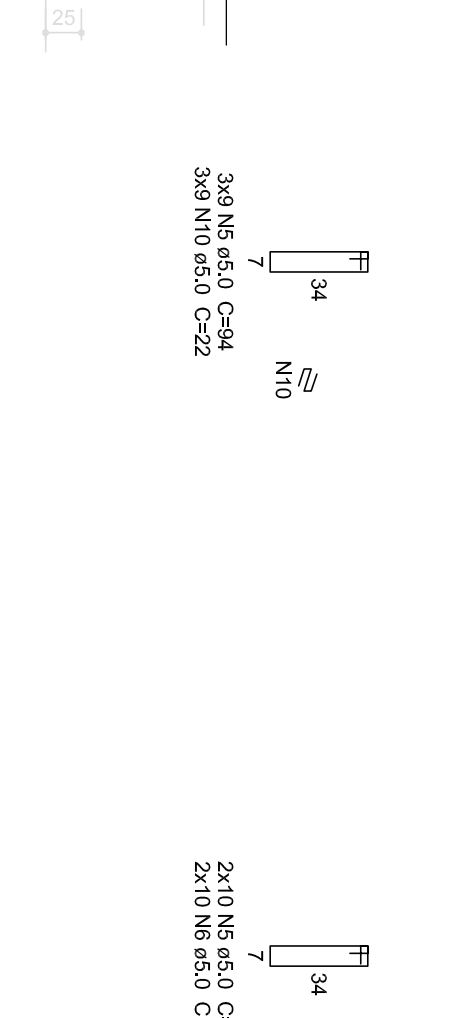
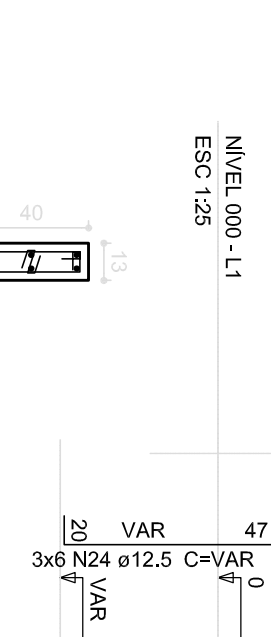
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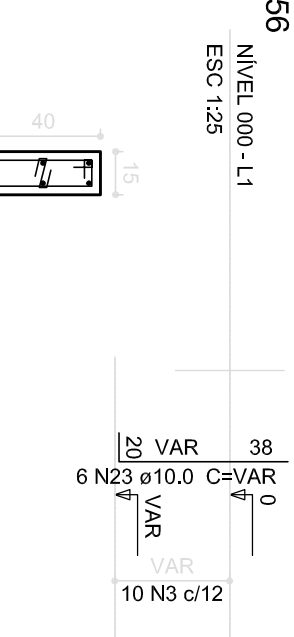
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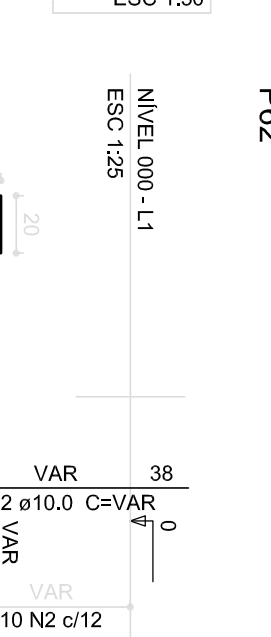
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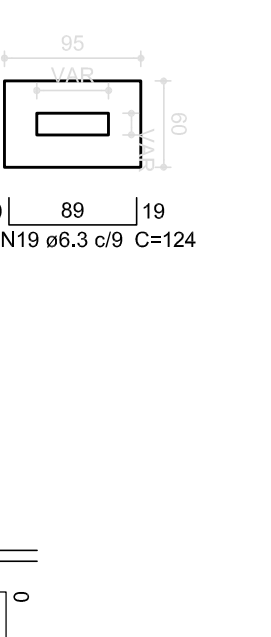
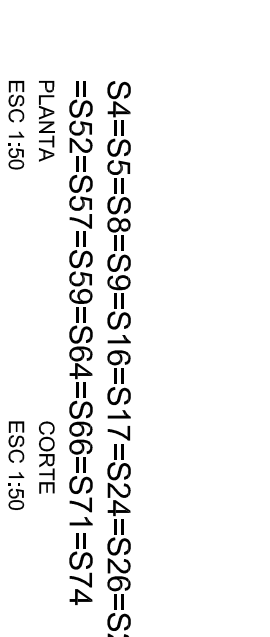
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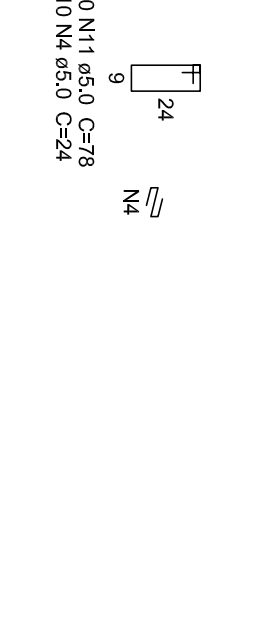
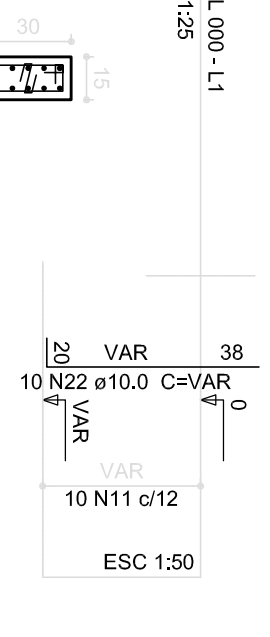
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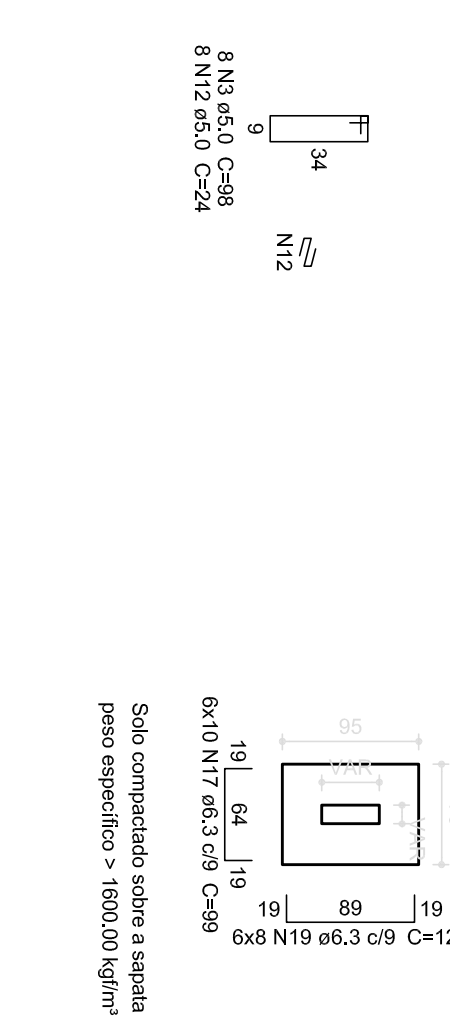
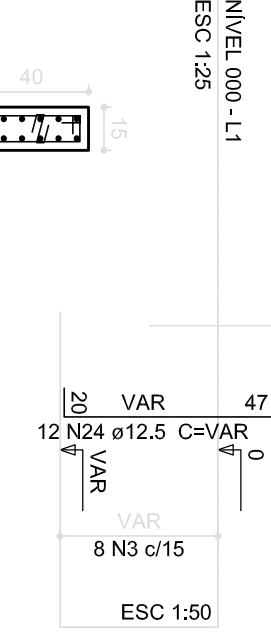
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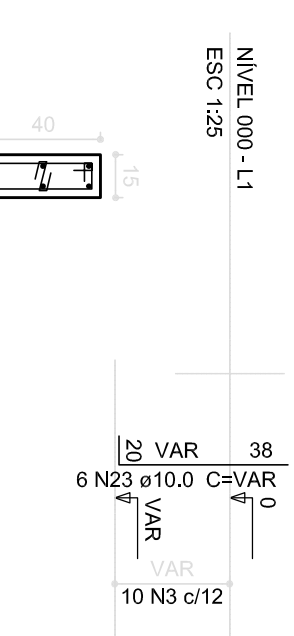
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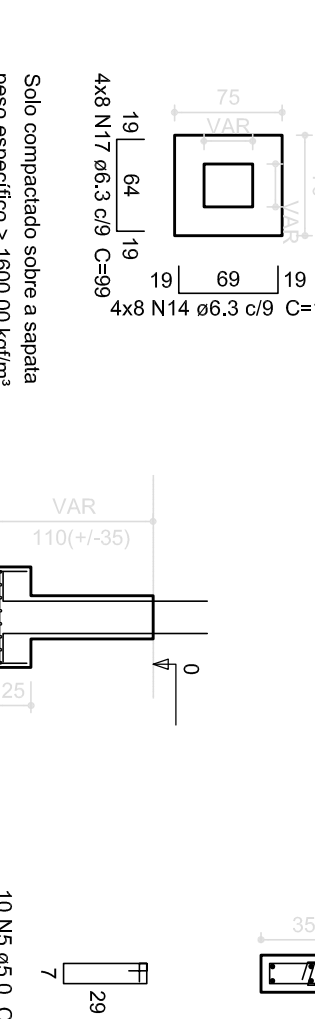
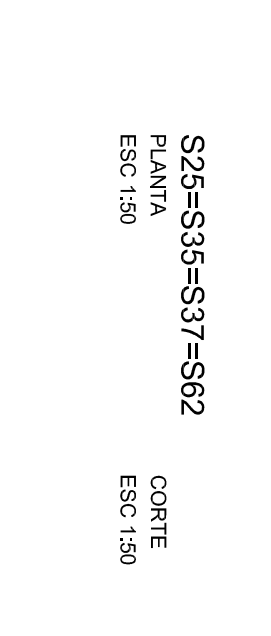
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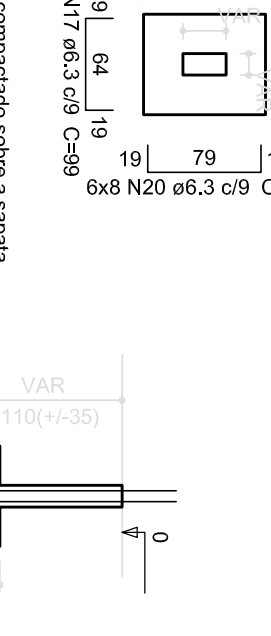
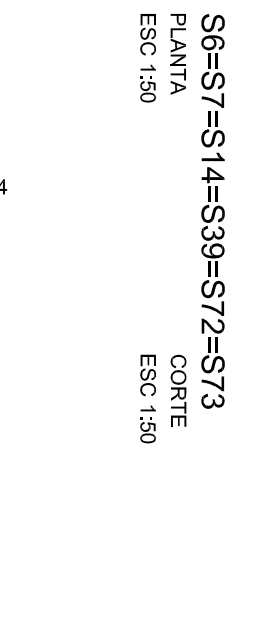
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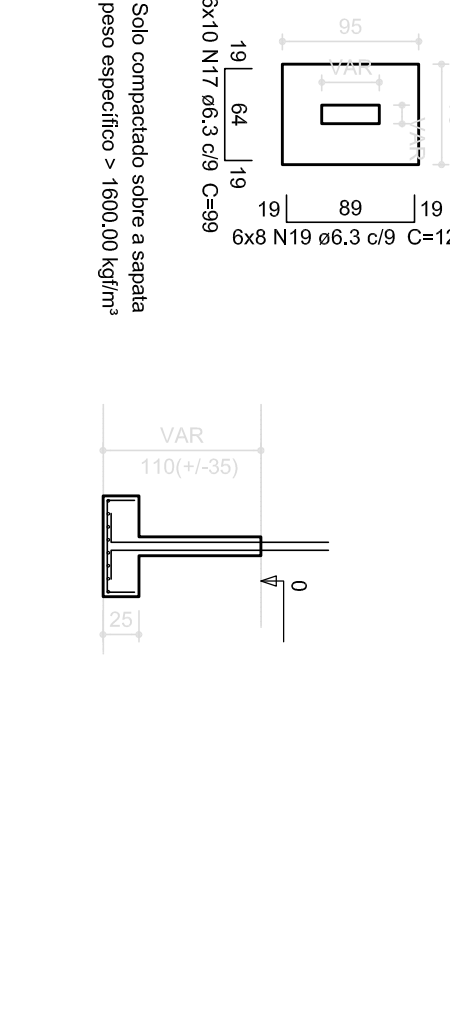
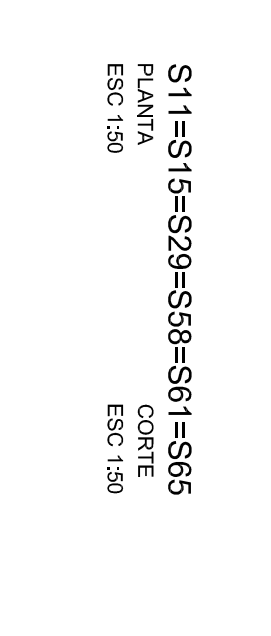
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P45



P45



ACO	DIAM	CTOTAL	PESO
CA80	10,3	842,3	231,6
CA80	12,5	477,9	75,0
CA80	5,0	648,2	99,8
CA80	613,4		99,8

Volume de concreto (C-25) = 10,44 m³
Área da forma = 86,34 m²

Resumo do aço

02 JANEIRO 2017
Atendimento a NBR 9060/2015
Equipamento, altura da cortina nos sanitários, cor dos portões dos sanitários e altura da porta PK.
Suprimento: Vigor nível 000, V110 e V114 e Vigor nível 310, V11 e V15.
Redimensionamento: Vigor nível 000, V111 e V114 e Vigor nível 310, V112 e V115.
Atenção: parâmetros - shift para tubulação hidráulica e detalhamento: alteração da altura da palanqueta.
Comando - Blocos: B13 e B14; Pilares: P95, P96, P98, P101 e P102; Vigas nível 310, V61.

FNDE *Fundo Nacional de Desenvolvimento da Educação*

Ministério da Educação

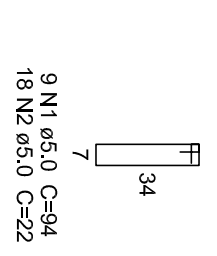
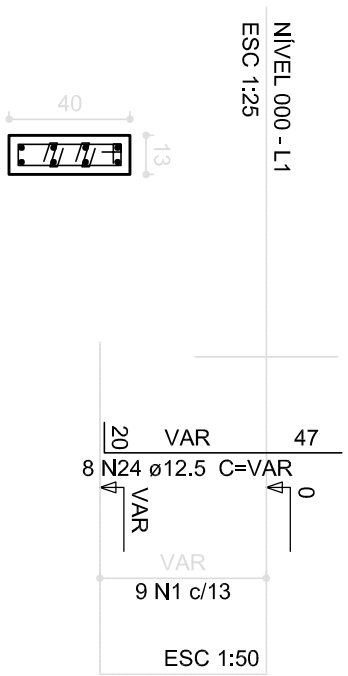
PROJETO PADRÃO - FNDE

PROPRIETÁRIO:	
ENDEREÇO:	
MUNICÍPIO - UF:	
PROPRIETÁRIO	
RESP. TÉCNICO	CREA
AUTOR DO PROJETO	CAU
DILFO	CREA
PROPRIETÁRIO	
RESP. TÉCNICO	CREA
AUTOR DO PROJETO	CAU
DILFO	CREA
PROPRIETÁRIO	
RESP. TÉCNICO	CREA
AUTOR DO PROJETO	CAU
DILFO	CREA

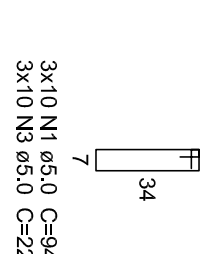
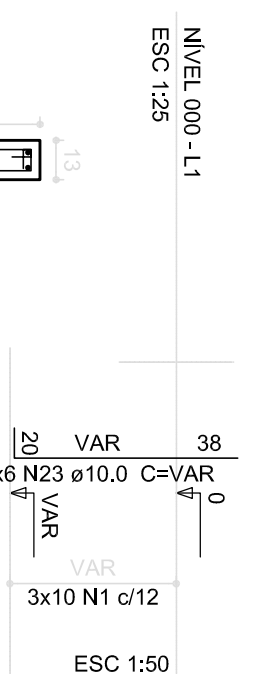
PROGRAMA PROINFÂNCIA - PROJETO TIPO 2

CONCEPCÃO	COORDENADOR	OPÇÃO 2: FUNDAÇÃO SAPATA	SFS
GERAL DE INFRAESTRUTURA EDUCACIONAL	DESENVOLVIDOR	DETAHAMENTO DAS SAPATAS	
FORMULADO	AT (RUBENSI)	INDICAÇÃO	PRONUNCIA
R01	R02	JANEIRO/2017	04/17

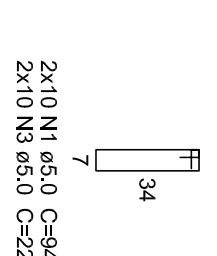
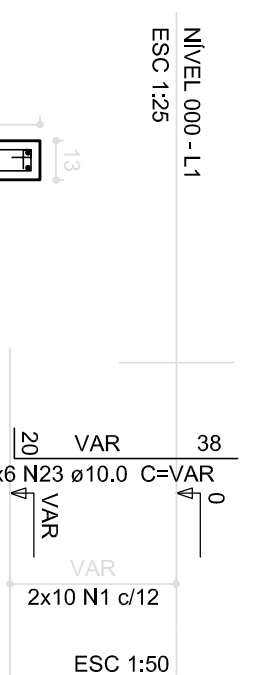
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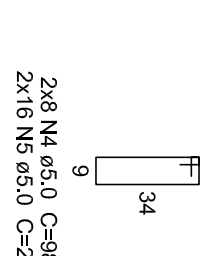
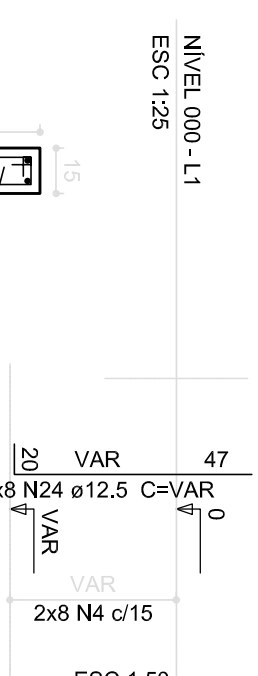
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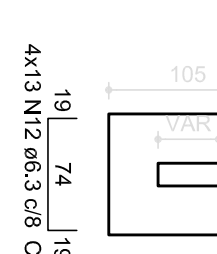
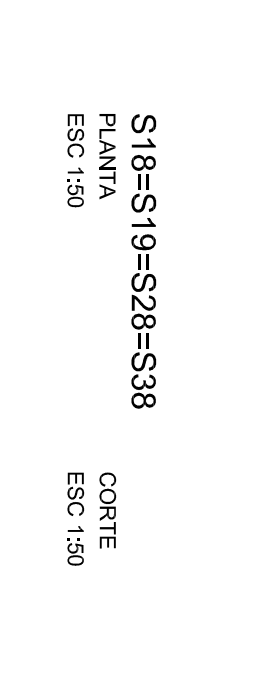
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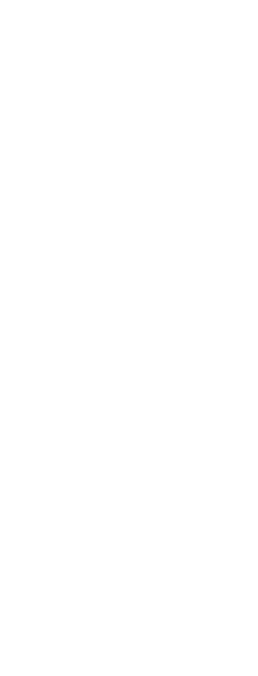
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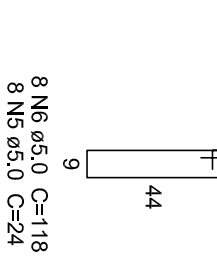
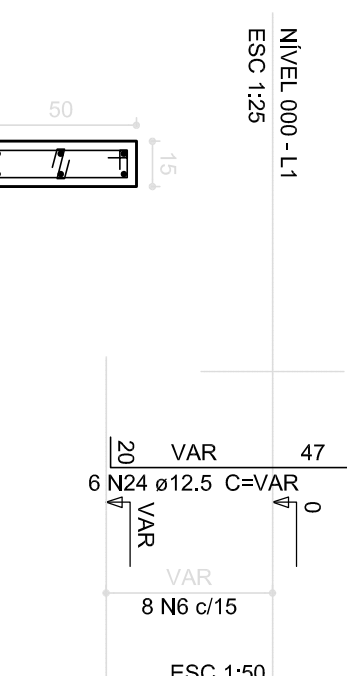
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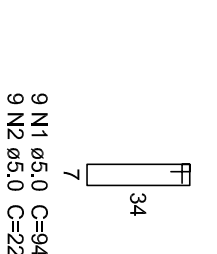
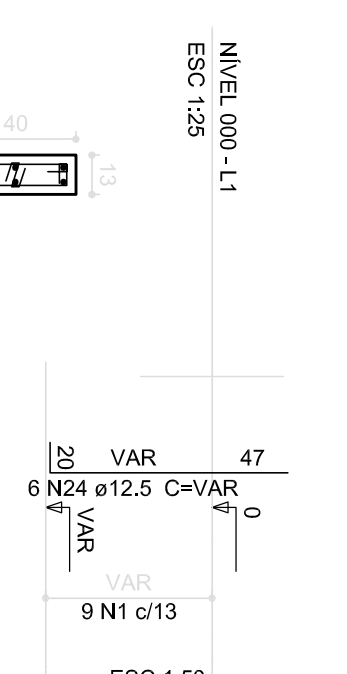
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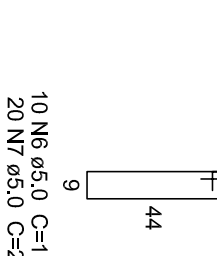
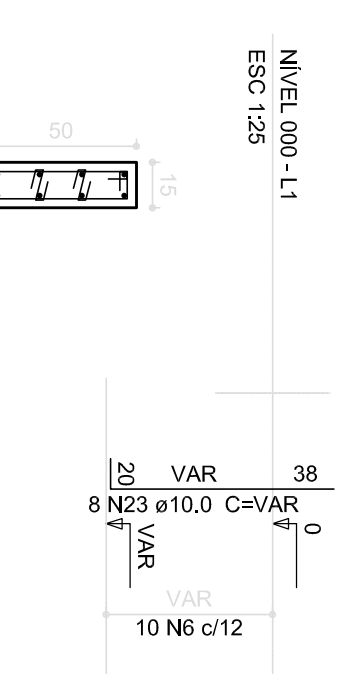
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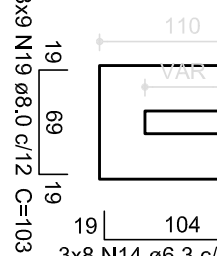
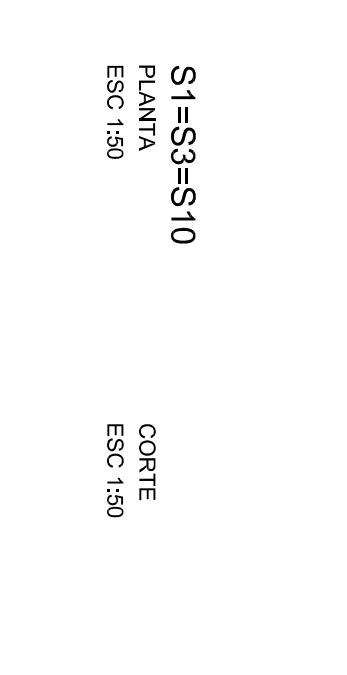
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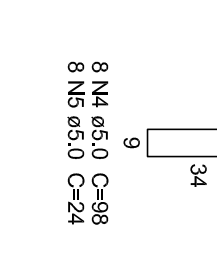
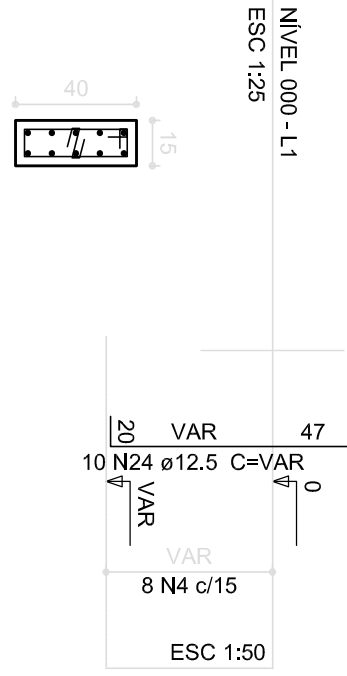
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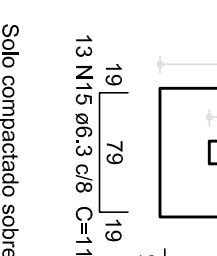
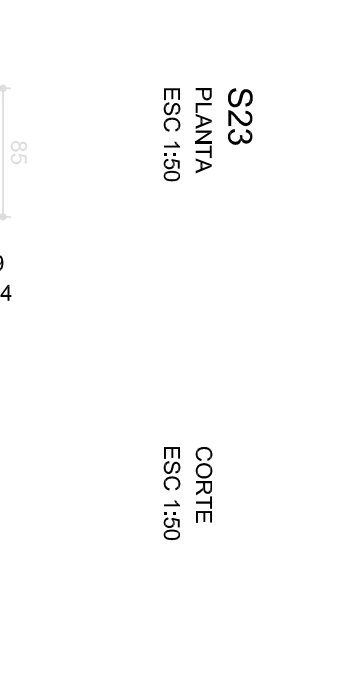
P76



P23



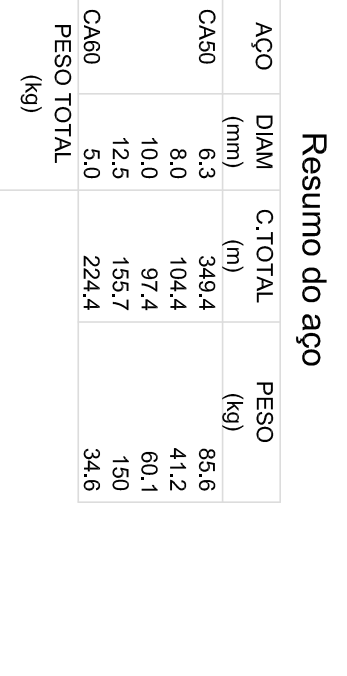
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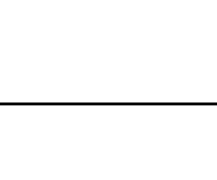
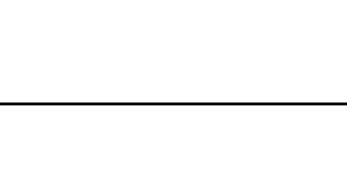
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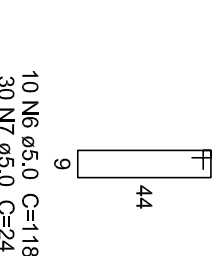
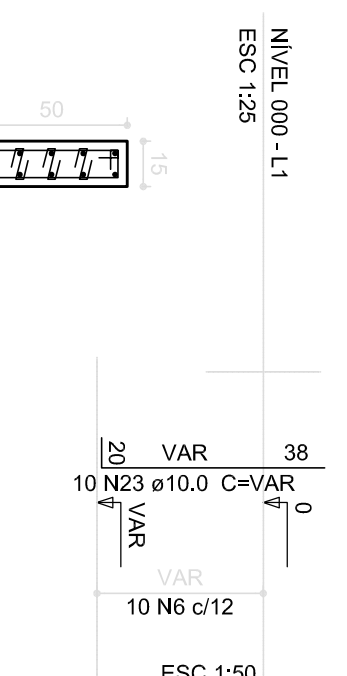
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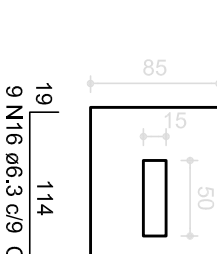
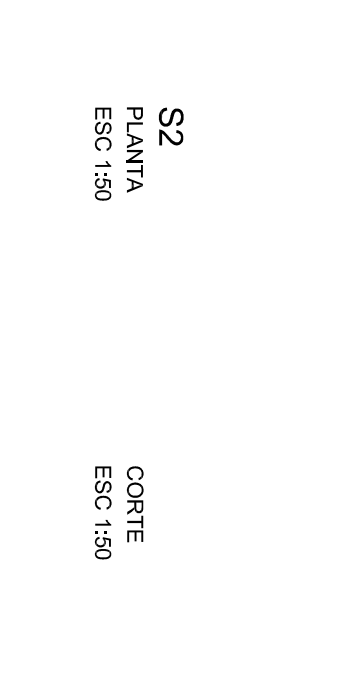
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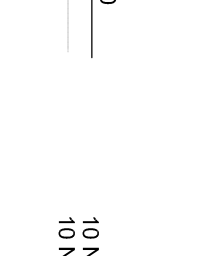
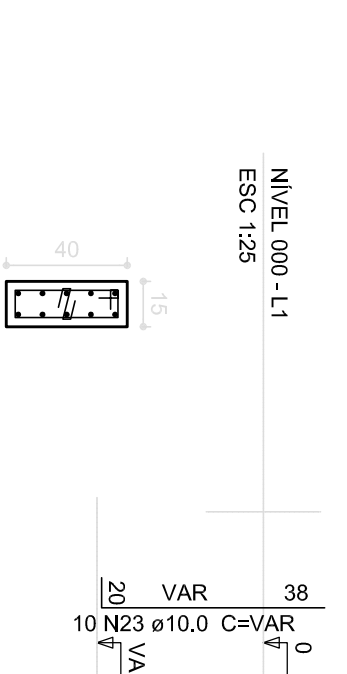
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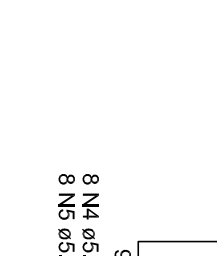
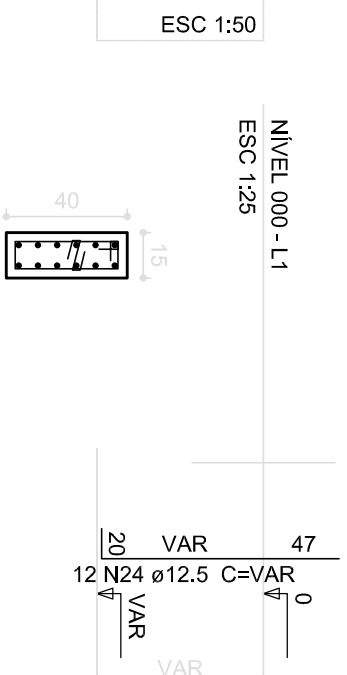
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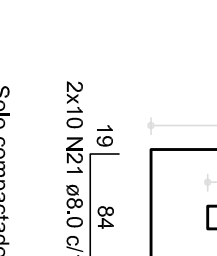
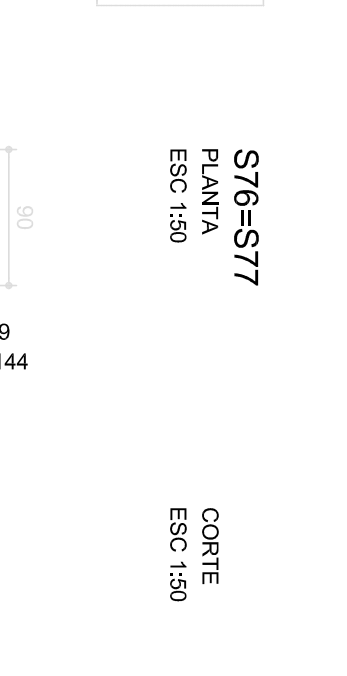
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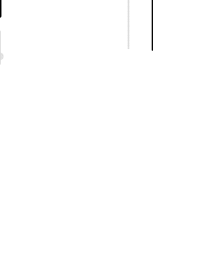
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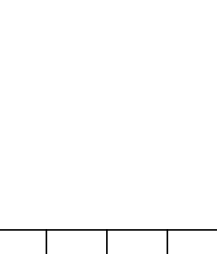
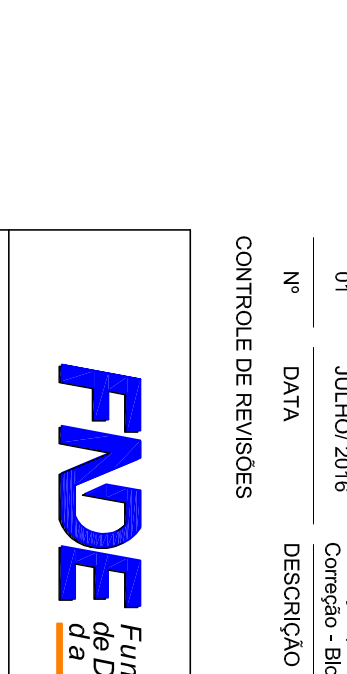
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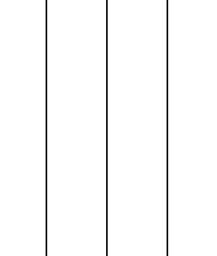
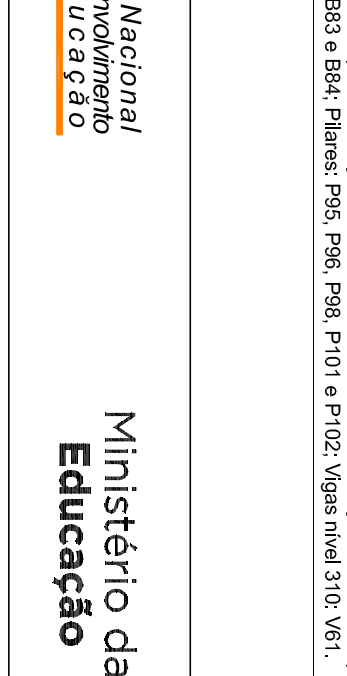
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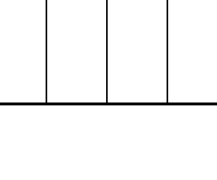
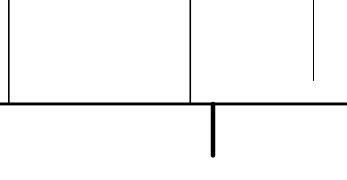
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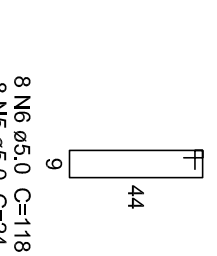
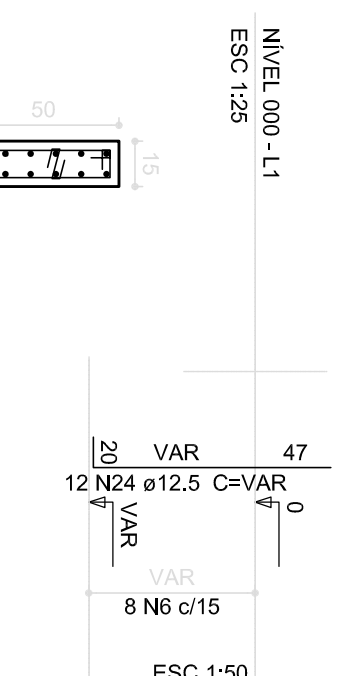
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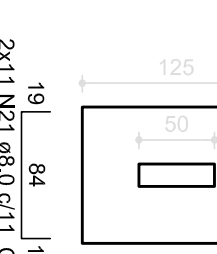
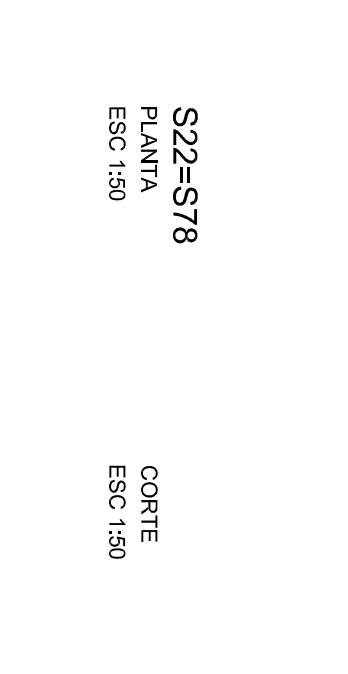
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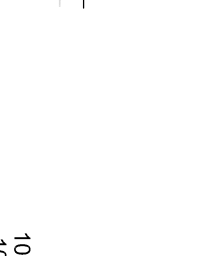
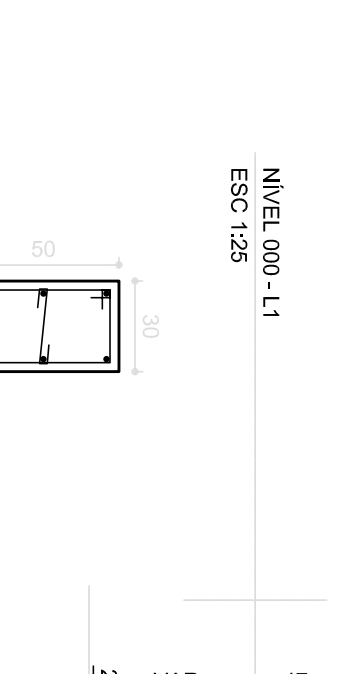
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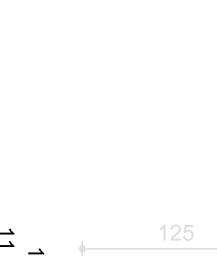
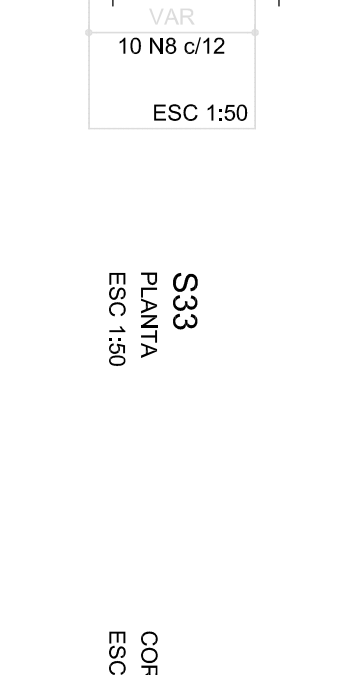
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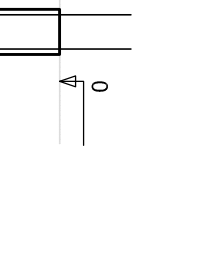
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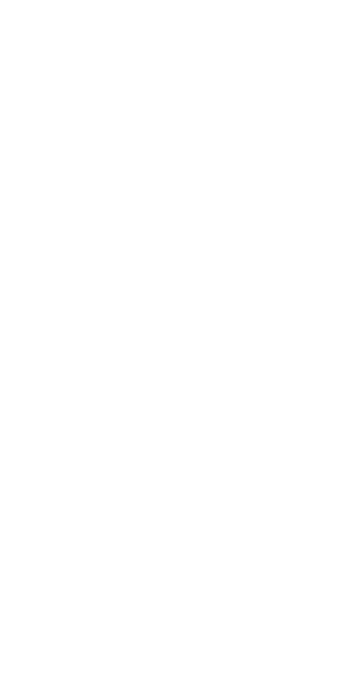
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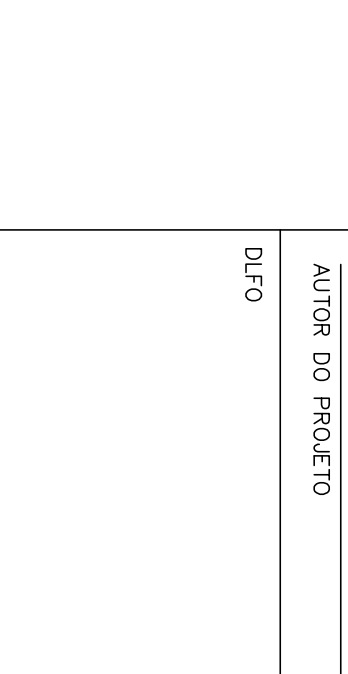
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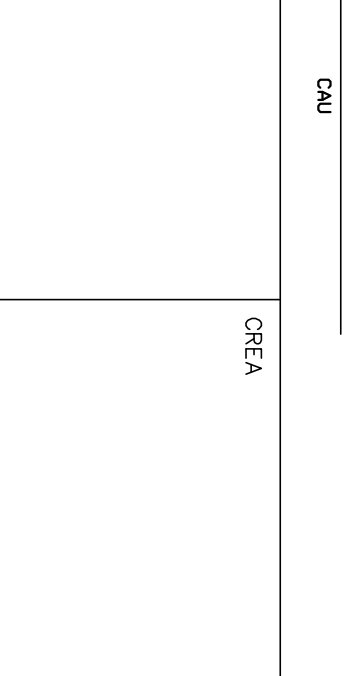
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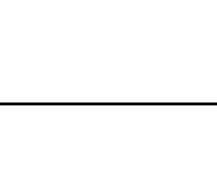
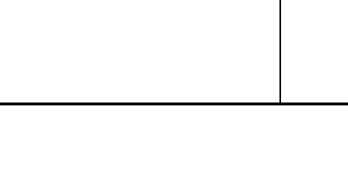
P33



P33



P33



Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA60	6,3	249,4	85,6
CA60	10,0	97,4	60,1
CA60	12,5	155,7	150
CA60	5,0	224,4	34,6
PESO TOTAL			330,3
CA50			338,9
CA60			34,6

Volume de concreto (C-25) = 5,1 m³

Área de forma = 35,17 m²



PROJETO PADRÃO - FUNDE

PROPRIETÁRIO:	
ENDEREÇO:	
MUNICÍPIO - UF:	
PROPRIETÁRIO	
RESP. TÉCNICO	CREA
AUTOR DO PROJETO	CAU
DUFO	CREA
RA	

PROGRAMA PROINFÂNCIA - PROJETO TIPO 2		FUNDAÇÃO DIRETA	
PROJETO DE ESTRUTURA		OPÇÃO 2: FUNDAÇÃO SAPATA	
		DETALHAMENTO DAS SAPATAS	
COSELECÇÃO	CGEST - Coordenação Geral de Infraestrutura Educacional	ESCALA	INDICAÇÃO
REVISÃO	R.00 R.01 R.02	DATA EMISSÃO	JAN/FEV/2017
FORMATO	A1 (48x34)	PRONUNCIA	05/17

