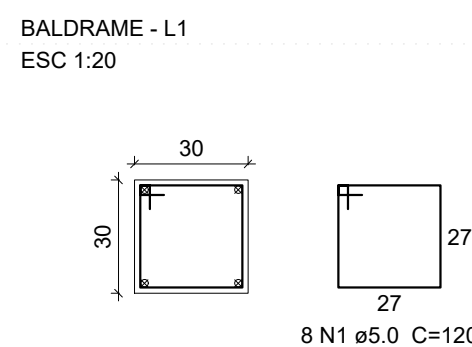
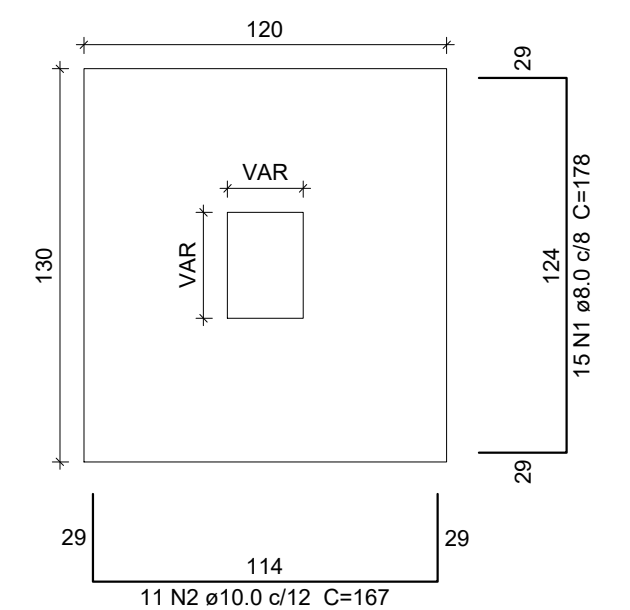
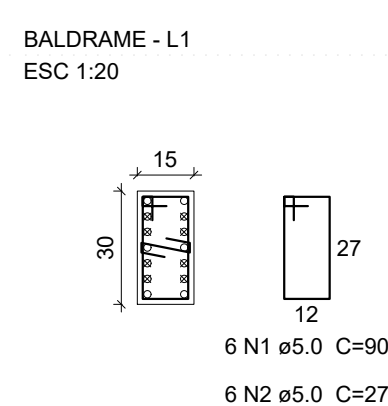


P7

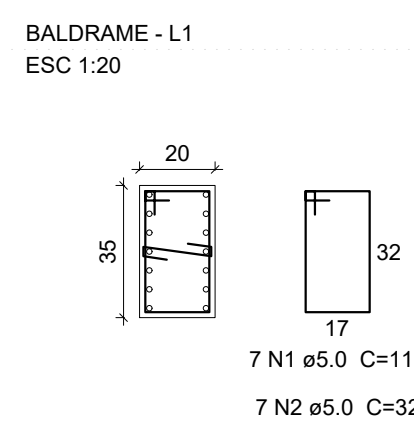
S9=S13
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

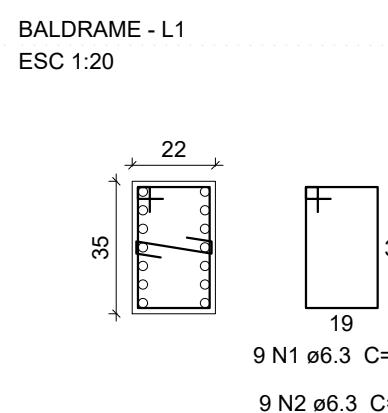
P15



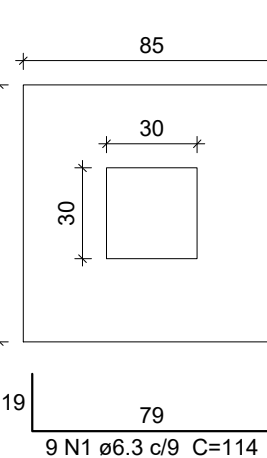
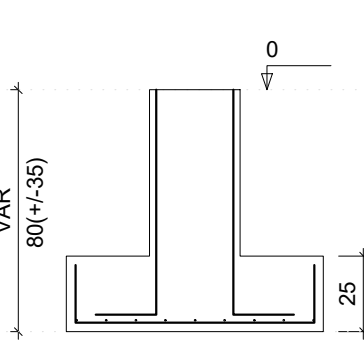
P14=P18



P20

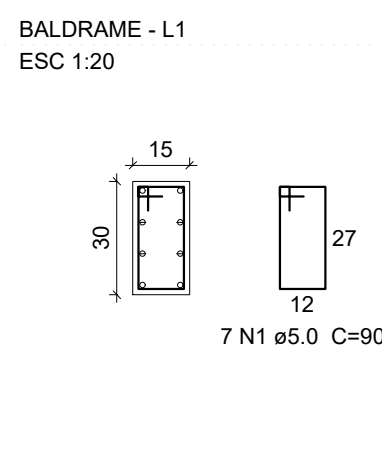


S7

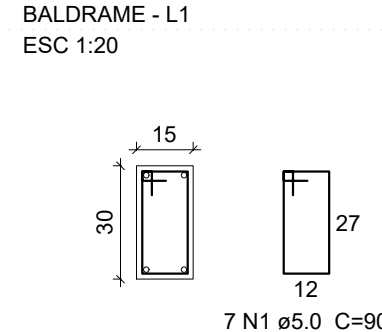
PLANTA
ESC 1:25CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

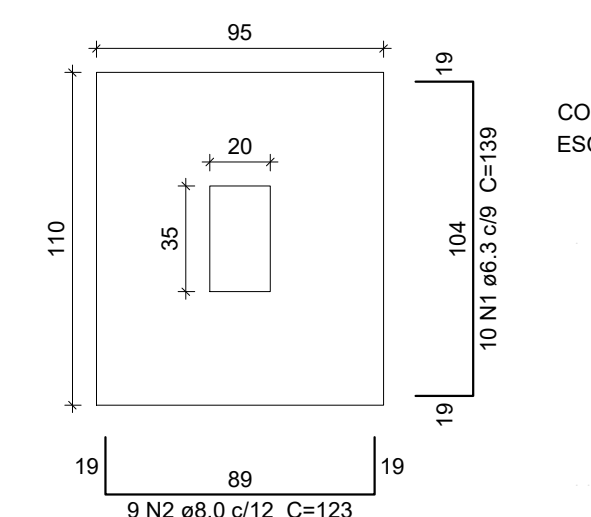
P9



P16

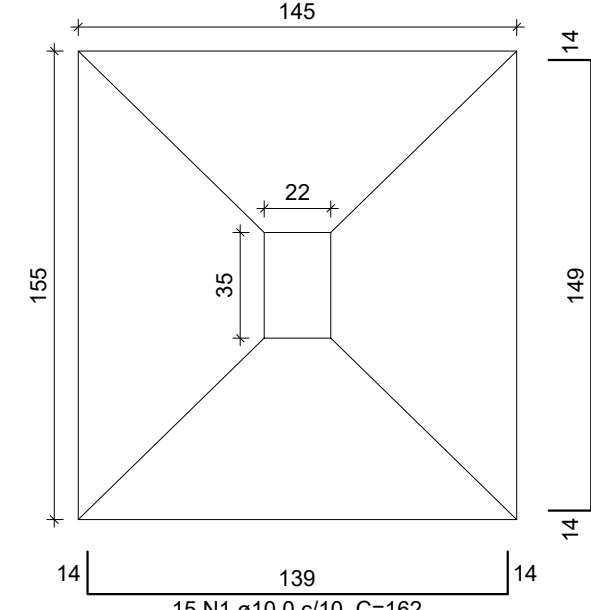


S14=S18

PLANTA
ESC 1:25

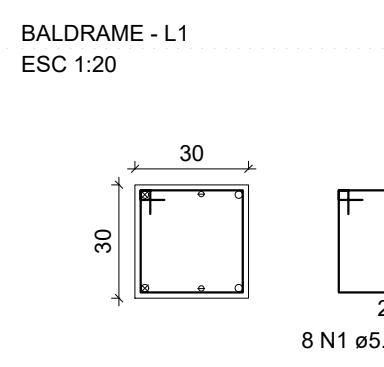
Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

S20

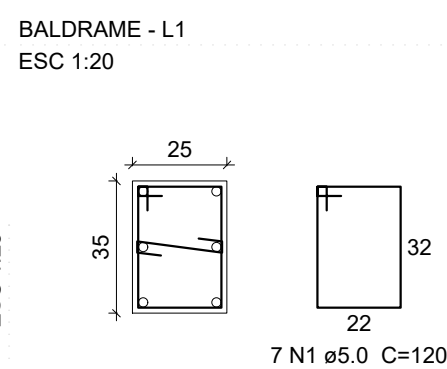
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

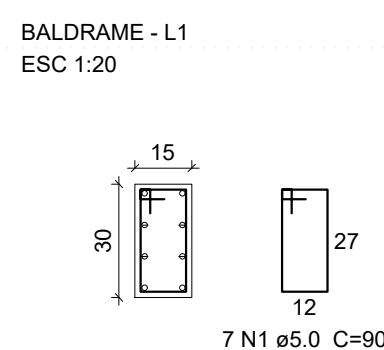
P8



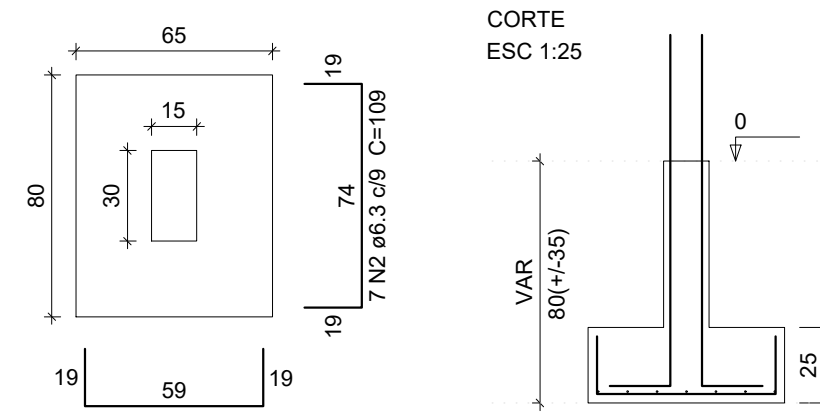
P13



P9

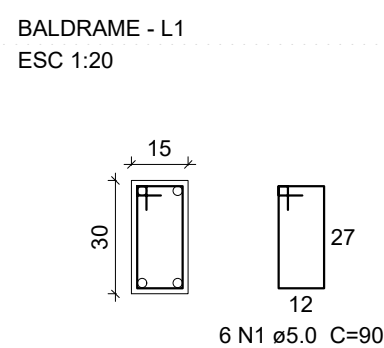
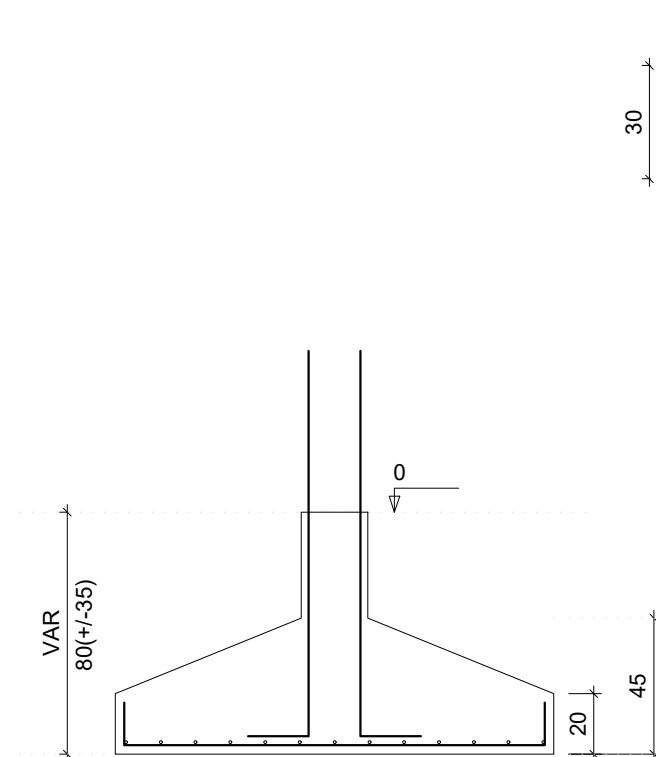


S15=S16

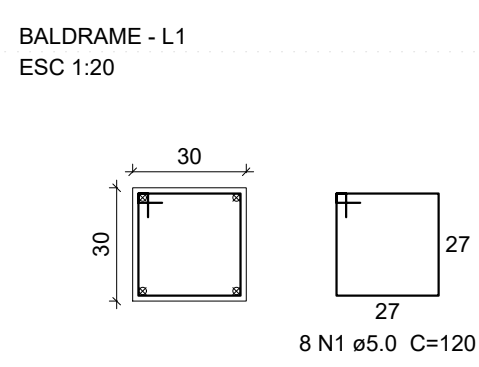
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

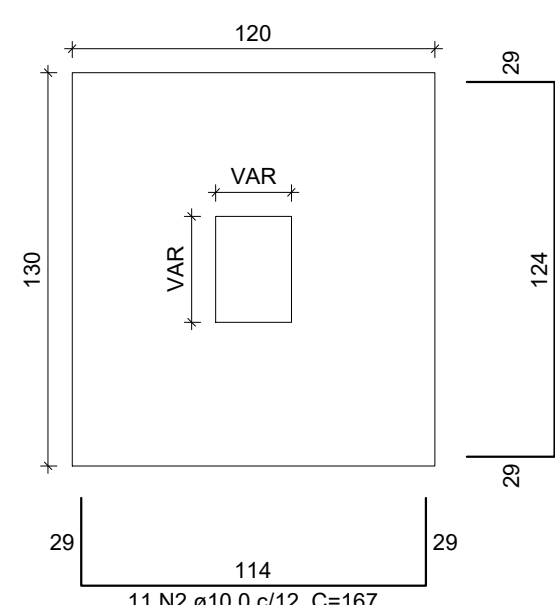
P21

CORTE
ESC 1:25

P10

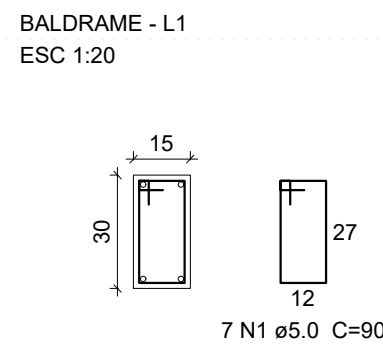


S9=S13

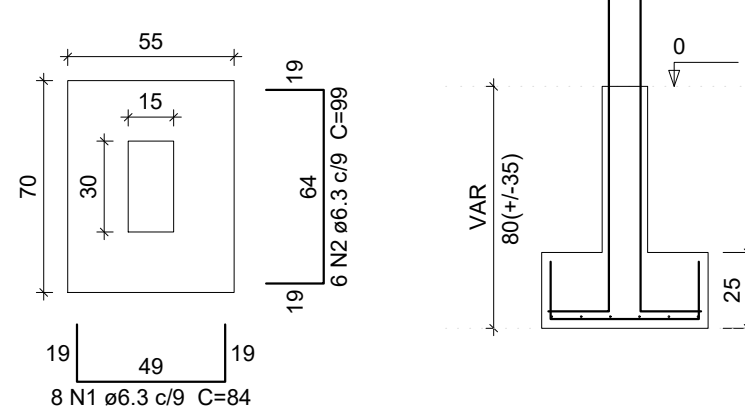
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

P17

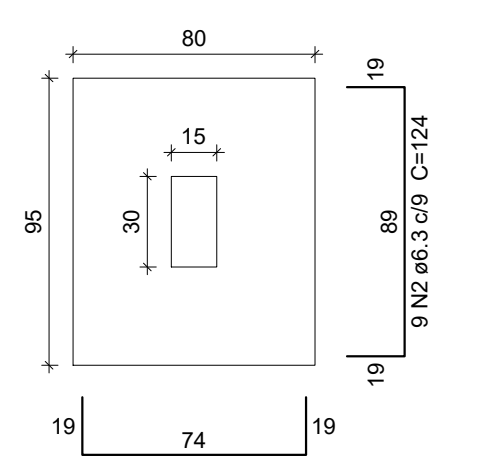


S17=S19

PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

S21

PLANTA
ESC 1:25

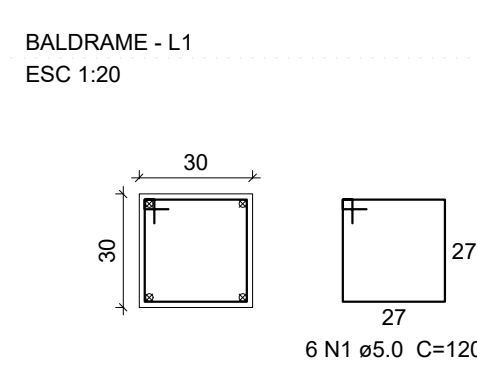
Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

Resumo do aço

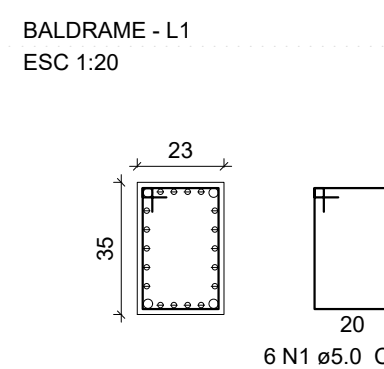
AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	220.3	59.3
	8.0	101.1	43.9
	10.0	143.4	97.2
	12.5	32.1	33.9
	16.0	41.8	72.4
CA60	5.0	103.4	17.5
PESO TOTAL			
CA50	306.8		
CA60	17.5		

Vol. de concreto total (C-30) = 0.76 m³
Vol. de concreto total (C-25) = 4 m³
Área de forma total = 26.37 m²

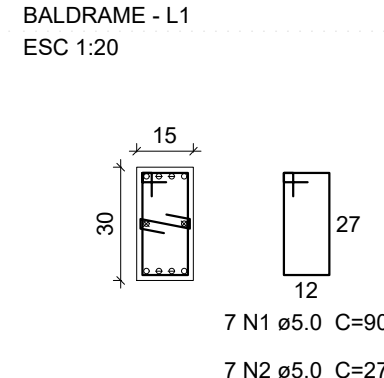
P11



P12



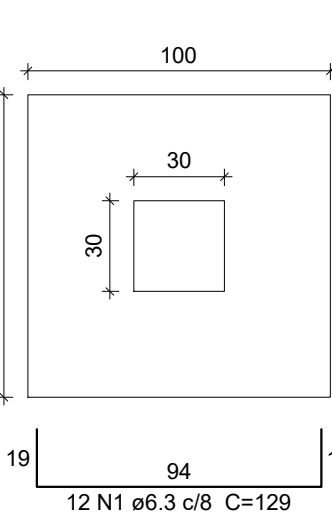
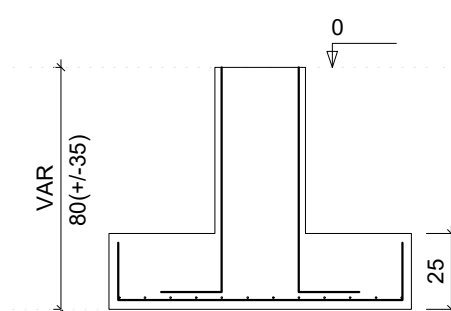
P19



Relação do aço

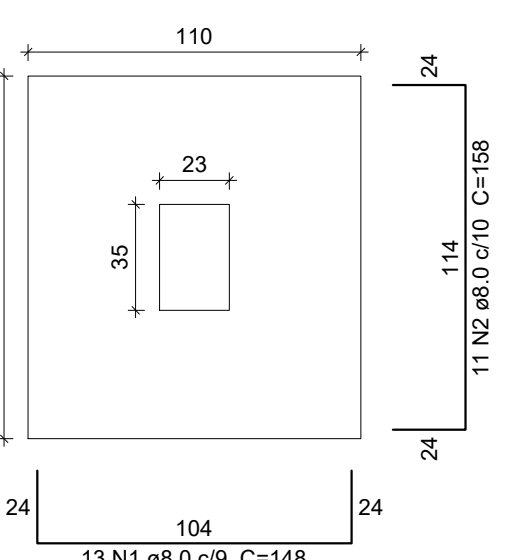
ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
P7	CA60	1	5.0	8	120	960
	CA50	2	12.5	4	VAR	VAR
P8	CA60	1	5.0	8	120	960
	CA50	2	10.0	2	67	134
	CA50	3	12.5	2	VAR	VAR
	CA50	4	12.5	2	VAR	VAR
P9	CA60	1	5.0	7	90	630
	CA50	2	10.0	4	67	268
	CA50	3	10.0	4	VAR	VAR
P10	CA60	1	5.0	8	120	960
	CA50	2	12.5	4	VAR	VAR
P11	CA60	1	5.0	6	120	720
	CA50	2	12.5	4	VAR	VAR
P12	CA60	1	5.0	6	116	696
	CA50	2	10.0	18	67	1206
	CA50	3	16.0	4	VAR	VAR
P13	CA60	1	5.0	7	120	840
	CA60	2	5.0	7	37	259
	CA50	3	16.0	6	VAR	VAR
P15	CA60	1	5.0	6	90	540
	CA60	2	5.0	6	27	162
	CA50	3	12.5	8	VAR	VAR
	CA50	4	12.5	6	VAR	VAR
P16	CA60	1	5.0	7	90	630
	CA50	2	10.0	4	VAR	VAR
P17	CA60	1	5.0	7	90	630
	CA50	2	10.0	4	VAR	VAR
P18	CA60	1	5.0	7	110	770
	CA60	2	5.0	7	32	224
	CA50	3	10.0	14	VAR	VAR
P19	CA60	1	5.0	7	90	630
	CA60	2	5.0	7	27	189
	CA50	3	10.0	2	VAR	VAR
	CA50	4	10.0	4	67	268
	CA50	5	10.0	4	VAR	VAR
P20	CA50	1	6.3	9	114	1026
	CA50	2	6.3	9	35	315
	CA50	3	16.0	14	VAR	VAR
P21	CA60	1	5.0	6	90	540
	CA50	2	16.0	4	VAR	VAR
S7	CA50	1	6.3	18	114	2052
3xS10	CA50	1	6.3	72	129	9288
S12	CA50	1	8.0	13	148	1924
	CA50	2	8.0	11	158	1738
2xS13	CA50	1	8.0	30	178	5340
	CA50	2	10.0	22	167	3674
2xS15	CA50	1	6.3	18	94	1692
	CA50	2	6.3	14	109	1526
2xS17	CA50	1	6.3	16	84	1344
	CA50	2	6.3	12	99	1368
S18	CA50	1	6.3	10	139	1390
	CA50	2	8.0	9	123	1107
S20	CA50	1	10.0	15	162	2430
	CA50	2	10.0	13	172	2236
S21	CA50	1	6.3	10	109	1090
	CA50	2	6.3	9	124	1116

S8=S10=S11

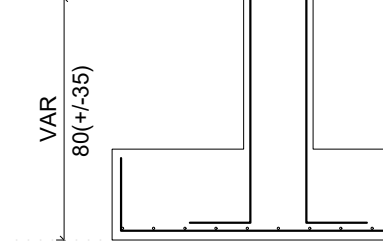
PLANTA
ESC 1:25CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³

S12

PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1700.00 kgf/m³



FUNDAÇÕES

Anotações



TRANS GABRIELLI LTDA
Engenharia e Transportes
CREA/SC 150.789-5

JULIANO DE LIMA
Engenheiro Civil | CREA/SC 147.428-0
Responsável Técnico

Proprietário

MUNICIPIO DE MARMELEIRO/PR

Projeto

Ampliação Salas de Aula Escola Municipal Perseverança

Área

132,61m²

Endereço

Rua das Grápias nº160, Bairro Araucária, Marmeleiro - PR

Conteúdo da prancha

FUNDAÇÕES
-Detalhes das Sapatas

Data

Junho/2020

Escala

Indicada

Prancha

F02
de 02

Responsável Técnico

JULIANO DE LIMA
Engenheiro Civil - CREA/SC 147.428-0

Proprietário

MUNICÍPIO DE MARMELEIRO - PR
CNPJ: 76.205.665/0001-01
Jaimir Darci Gomes da Rosa - Prefeito