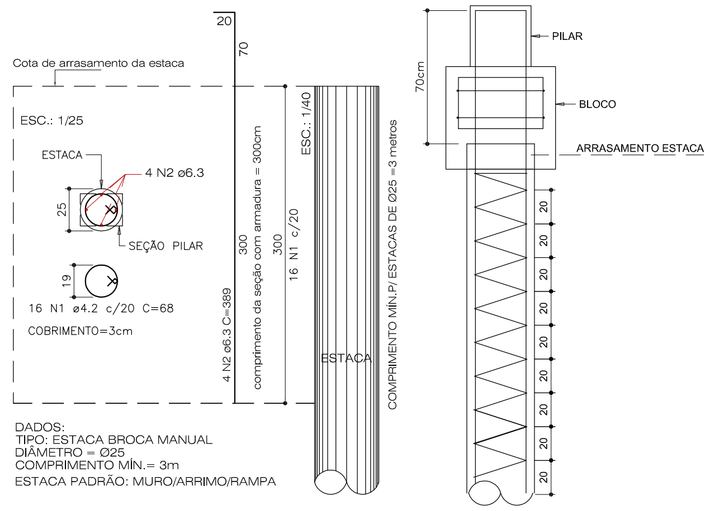


DADOS:
TIPO: ESTACA BROCA MANUAL
DIÂMETRO = Ø25
COMPRIMENTO MÍN.= 3m
ESTACA PADRÃO: MURO/ARRIMO/RAMPA

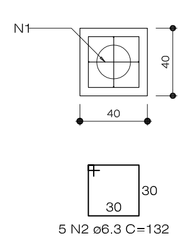
ESTACAS ARMAÇÕES (57X)

ESCALA: ind.

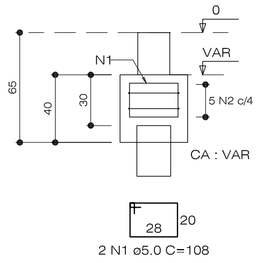
SEM ESCALA

BLOCOS - ARMAÇÃO (49X)

1xC25
PLANTA
ESC 1:25

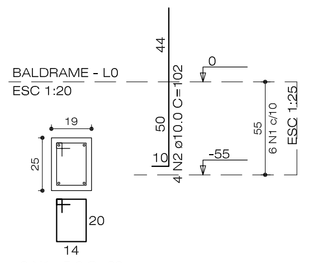


CORTE
ESC 1:25



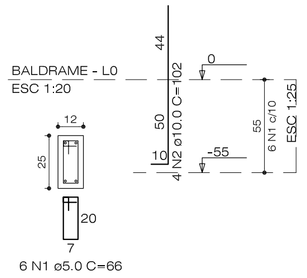
PILAR 19x25 (30X)

P1 P6 P8 P10 P12 P25 P26 P27 P28 P29 P30 P31 P32 P33
P34 P35 P36 P37 P38 P39 P40 P41 P42 P43 P44
P45 P46 P47 P48 P49



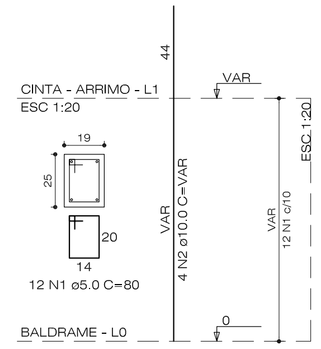
PILAR 12x25 (19X)

P2 P3 P4 P5 P7 P9 P11
P13 P14 P15 P16 P17 P18
P19 P20 P21 P22 P23 P24



PILAR 19x25 (30X)

P1 P6 P8 P10 P12 P25 P26 P27 P28 P29 P30 P31 P32 P33
P34 P35 P36 P37 P38 P39 P40 P41 P42 P43 P44
P45 P46 P47 P48 P49



Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
57xESTACAS	CA60	1	4.2	912	68	62016
	CA50	2	6.3	228	389	88692

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	887	238.7
CA60	4.2	620.2	74.2
PESO TOTAL (kg)			
CA50	238.7		
CA60	74.2		

Volume de concreto (C-20) = 8.38 m³

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
49xBLOCOS	CA60	1	5.0	98	108	10584
	CA50	2	6.3	245	132	32340

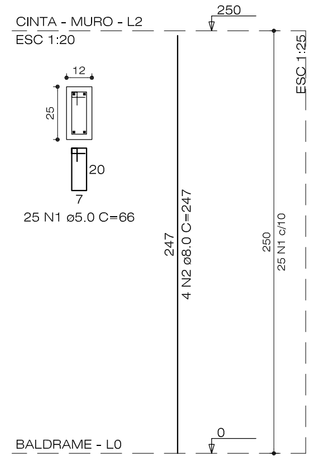
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	323.4	87.1
CA60	5.0	105.9	17.9
PESO TOTAL (kg)			
CA50	87.1		
CA60	17.9		

Volume de concreto (C-20) = 2.98 m³
Área de forma = 31.36 m²

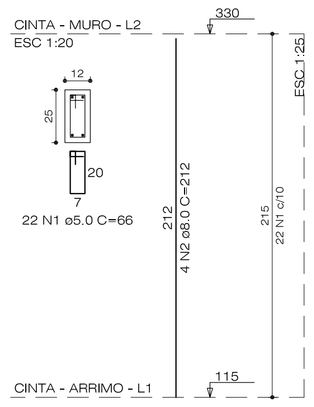
PILAR 12x25 (19X)

P2 P3 P4 P5 P7 P9 P11
P13 P14 P15 P16 P17 P18
P19 P20 P21 P22 P23 P24

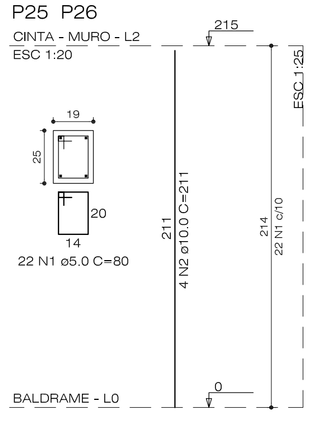


PILAR 12x25 (13X)

P1 P6 P8 P10 P12 P27 P28
P29 P30 P31 P32 P33 P34

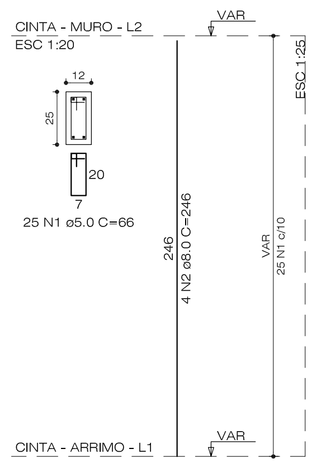


P25 P26

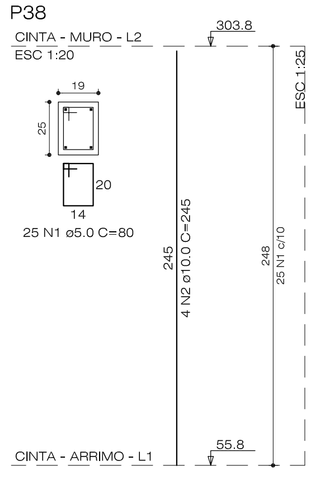


PILAR 12x25 (13X)

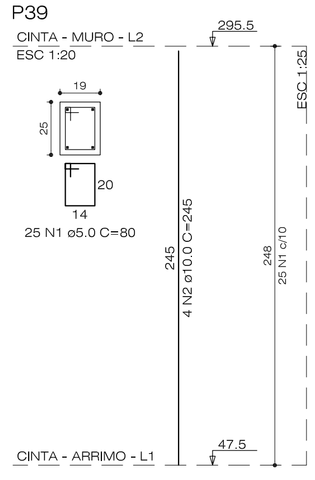
P35 P36 P37 P40 P41 P42 P43
P44 P45 P46 P47 P48 P49



P38



P39



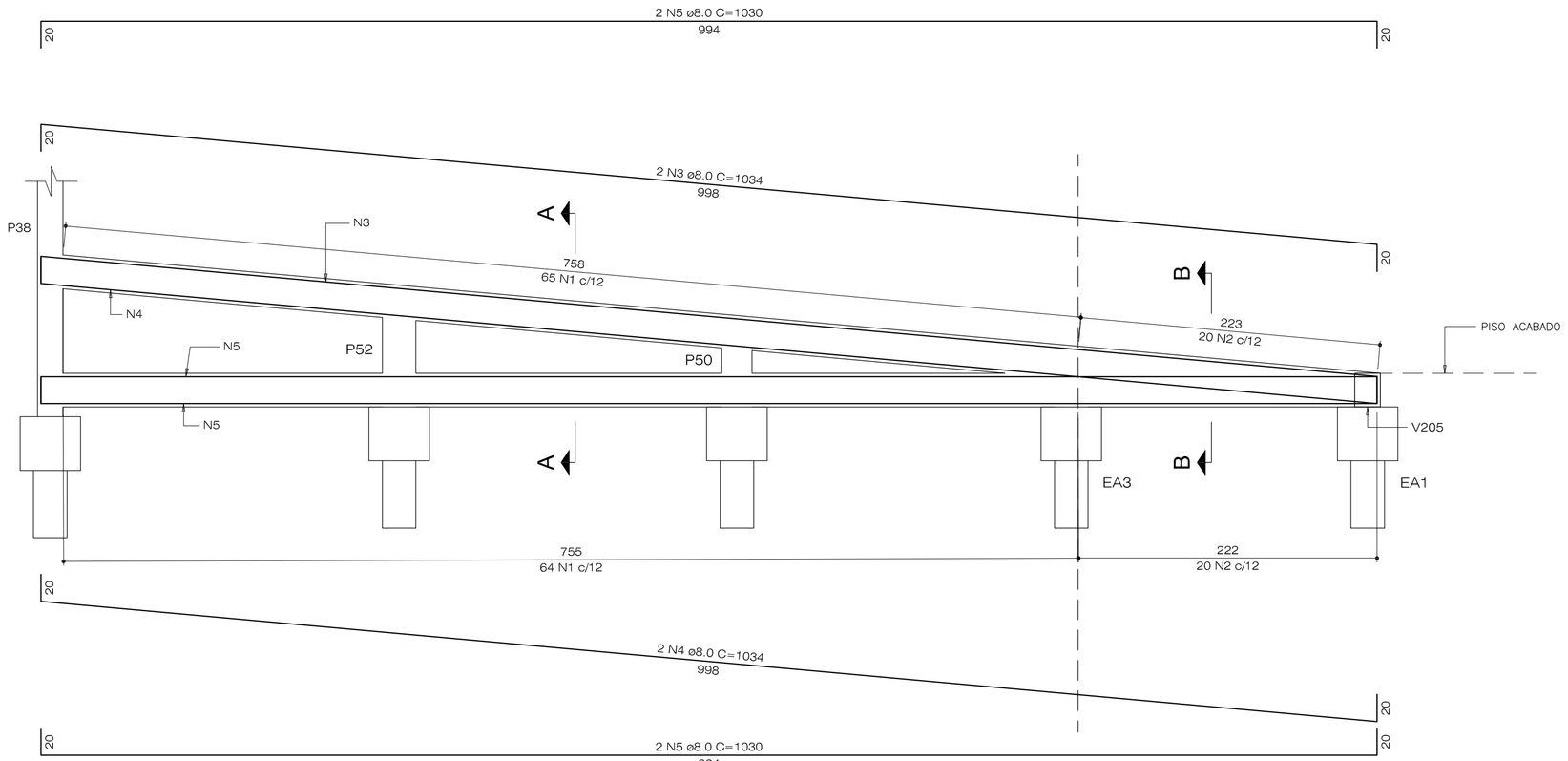
Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
BALDRAME						
30xP1	CA60	1	5.0	180	80	14400
	CA50	2	10.0	120	102	12240
19xP2	CA60	1	5.0	114	66	7524
	CA50	2	10.0	76	102	7752
CINTA - ARRIMO						
30xP1	CA60	1	5.0	360	80	28800
	CA50	2	10.0	120	VAR	VAR
CINTA - MURO						
13xP1	CA60	1	5.0	286	66	18876
	CA50	2	8.0	52	212	11024
19xP2	CA60	1	5.0	475	66	31350
	CA50	2	8.0	76	247	18772
2xP25	CA60	1	5.0	44	80	3520
	CA50	2	10.0	8	211	1688
13xP35	CA60	1	5.0	325	66	21450
	CA50	2	8.0	52	246	12792
P38	CA60	1	5.0	25	80	2000
	CA50	2	10.0	4	245	980
P39	CA60	1	5.0	25	80	2000
	CA50	2	10.0	4	245	980

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	425.9	184.8
	10.0	427.2	289.7
CA60	5.0	1299.2	220.3
PESO TOTAL (kg)			
CA50	474.6		
CA60	220.3		

Volume de concreto (C-20) = 6.44 m³
Área de forma = 141.15 m²

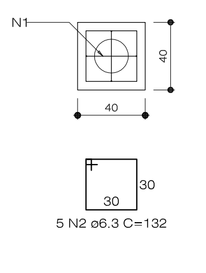


RAMPA 1 - ARMAÇÃO (2X)

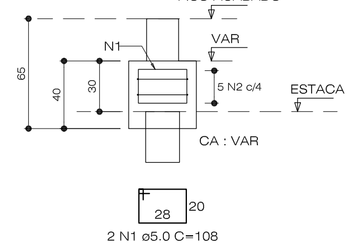
ESCALA: 1/30

BLOCOS RAMPA - ARMAÇÃO (8X)

1xC25
PLANTA
ESC 1:25

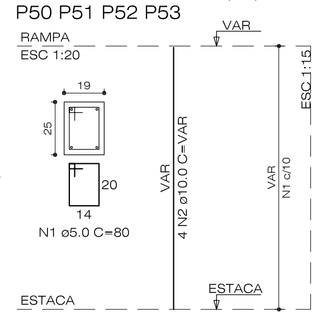


CORTE
ESC 1:25



PILARETES - RAMPA (4X)

P50 P51 P52 P53



Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
2xRAMPA ARM	CA60	1	4.2	258	79	20382
	CA60	2	4.2	80	VAR	VAR
	CA50	3	8.0	4	1034	4136
	CA50	4	8.0	4	1034	4136
	CA50	5	8.0	8	1030	8240
BALDRAME						
8xBL RAMPA	CA60	1	5.0	16	108	1728
	CA50	2	6.3	40	132	5280
V205	CA60	1	4.2	26	79	2054
	CA50	2	8.0	4	386	1544
PIL RAMPA						
4xP8	CA60	1	5.0	40	80	3200
	CA50	2	10.0	16	VAR	VAR

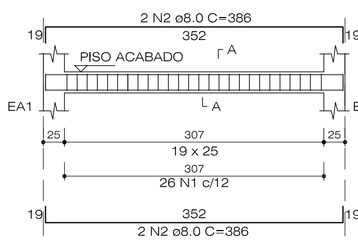
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	52.8	14.2
	8.0	180.6	78.4
	10.0	14.9	10.1
CA60	4.2	303.6	36.3
	5.0	49.3	8.4
PESO TOTAL (kg)			
CA50	102.7		
CA60	44.7		

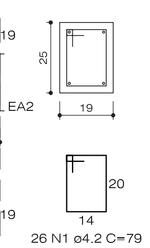
Volume de concreto (C-20) = 4.29 m³
Área de forma = 46.42 m²

V205

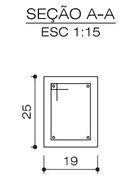
ESC 1:50



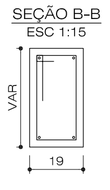
SEÇÃO A-A
ESC 1:15



SEÇÃO A-A
ESC 1:15



SEÇÃO B-B
ESC 1:15



Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
2xRAMPA ARM	CA60	1	4.2	258	79	20382
	CA60	2	4.2	80	VAR	VAR
	CA50	3	8.0	4	1034	4136
	CA50	4	8.0	4	1034	4136
	CA50	5	8.0	8	1030	8240
BALDRAME						
8xBL RAMPA	CA60	1	5.0	16	108	1728
	CA50	2	6.3	40	132	5280
V205	CA60	1	4.2	26	79	2054
	CA50	2	8.0	4	386	1544
PIL RAMPA						
4xP8	CA60	1	5.0	40	80	3200
	CA50	2	10.0	16	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	52.8	14.2
	8.0	180.6	78.4
	10.0	14.9	10.1
CA60	4.2	303.6	36.3
	5.0	49.3	8.4
PESO TOTAL (kg)			
CA50	102.7		
CA60	44.7		

Volume de concreto (C-20) = 4.29 m³
Área de forma = 46.42 m²

Nº	DATA	REVISÃO	EXECUTADO	APROVADO	DESENHOS DE REFERÊNCIA	NÚMEROS

CONTRATANTE
VISTO E ACEITO
ESTA ACEITAÇÃO NÃO ISENTA A CONTRATADA DAS RESPONSABILIDADES E OBRIGAÇÕES ESTABELECIDAS NO CONTRATO
ANALISADO
ACEITO
VISTO

ELABORAÇÃO
2WL ENGENHARIA LTDA
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Campo Grande - MS - Fone: (67) 3042.9684
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RESP. TÉCNICO
Engº Civil - Walter Radich Júnior
CREA nº 8.039/D - MS
VISTO
RESP. TÉCNICO
Engº Civil - Luiz André Radich
CREA nº 15.500/D - MS
VISTO

DATA: AGOSTO/2016
ESCALA: INDICADA
ART: 1320160003214
PRANCHA Nº: 18/20

TRIBUNAL REGIONAL ELEITORAL MATO GROSSO DO SUL
CARTÓRIO ELEITORAL - CASSILÂNDIA/MS
PROJETO ESTRUTURAL
MURO DE FECHAMENTO E RAMPA DE ACESSO VEÍCULOS
ARMAÇÕES ESTACAS, BLOCOS, PILARES e RAMPA
REVISÃO 0
LOCAL: RUA OLIMPIO DIAS DOS SANTOS - QUADRA "F" - LOTES 01,04 e 28 LOTEAMENTO ALTO IZAMÓPOLIS

CONFERIR MEDIDAS NO LOCAL DA OBRA