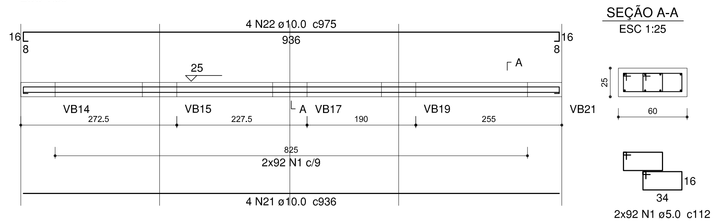
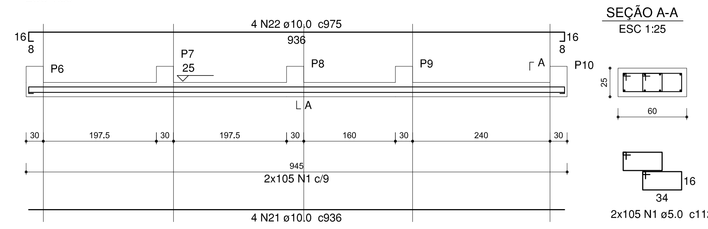
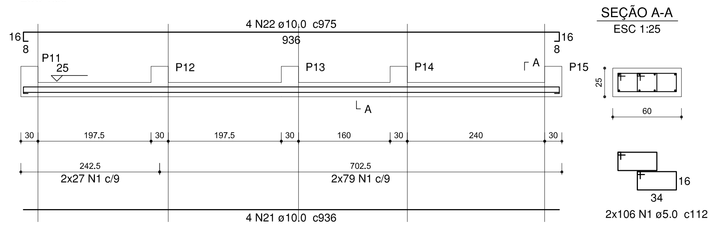
VB1 (60 x 25)
ESC 1:50



VB2 (60 x 25)
ESC 1:50



VB3 (60 x 25)
ESC 1:50

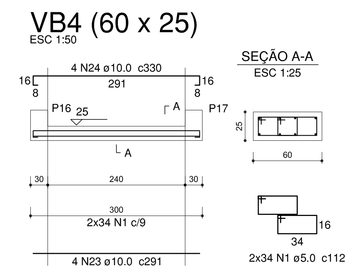


Relação do aço

EV1	VB1	VB2
VB3	VB4	VB5
VB6	VB7	VB8
VB9	VB10	VB11
VB12	VB13	VB14
VB15	VB16	VB17
VB18	VB19	VB20
VB21	VB22	

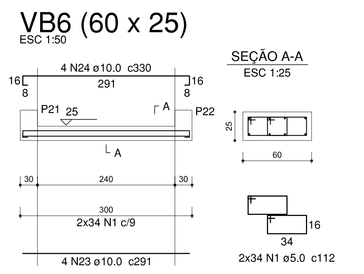
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2184	112	244608
	2	5.0	120	98	11760
	3	5.0	23	56	1288
	4	5.0	170	72	11136
	5	5.0	44	86	3784
CA50	6	6.3	320	42	13440
	7	6.3	2	241	482
	8	6.3	2	274	548
	9	6.3	4	274	1096
	10	6.3	2	60	120
	11	6.3	2	96	192
	12	6.3	4	190	760
	13	6.3	4	226	904
	14	8.0	4	681	2724
	15	8.0	4	709	2836
	16	8.0	3	119	357
	17	8.0	5	237	1185
	18	8.0	8	256	2048
	19	8.0	4	161	644
	20	8.0	4	204	816
	21	10.0	12	936	11232
	22	10.0	12	975	11700
	23	10.0	8	291	2328
	24	10.0	8	330	2640
	25	10.0	4	681	2724
	26	10.0	4	714	2856
	27	10.0	4	496	1984
	28	10.0	4	535	2140
	29	10.0	4	186	744
	30	10.0	4	219	876
	31	10.0	8	21	168
	32	10.0	4	309	1236
	33	10.0	4	266	1064
	34	10.0	4	966	3864
	35	10.0	4	999	3996
	36	10.0	4	1008	4032
	37	10.0	4	995	3980
	38	10.0	4	1109	4436
	39	10.0	4	1113	4452
	40	10.0	2	250	500
	41	10.0	4	1055	4220
	42	10.0	4	1059	4236
	43	10.0	1	236	236
	44	10.0	4	1171	4684
	45	10.0	4	1115	4460
	46	10.0	4	183	732
	47	10.0	4	261	1044
	48	10.0	4	294	1176
	49	10.0	64	38	2432

VB4 (60 x 25)
ESC 1:50

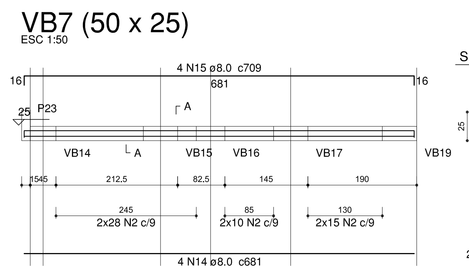


VB5 (60 x 25)
ESC 1:50

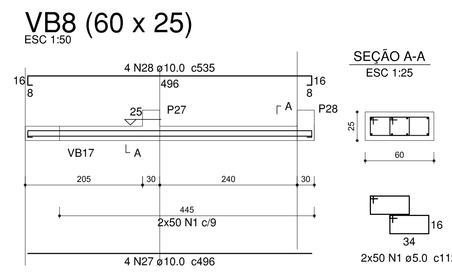
VB6 (60 x 25)
ESC 1:50



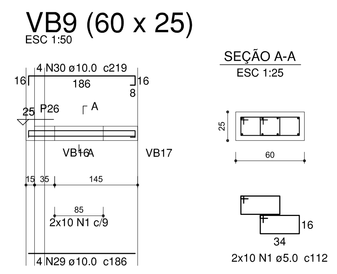
VB7 (50 x 25)
ESC 1:50



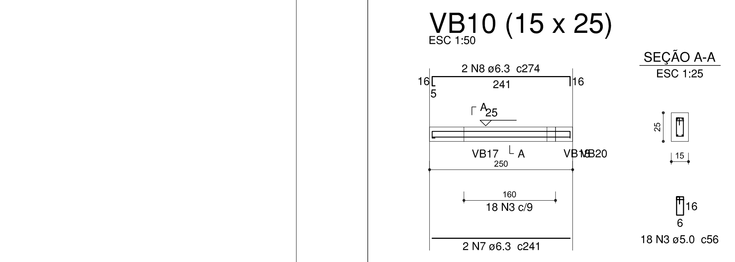
VB8 (60 x 25)
ESC 1:50



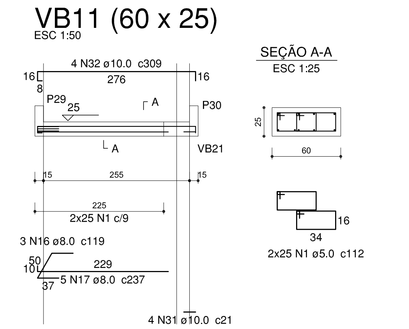
VB9 (60 x 25)
ESC 1:50



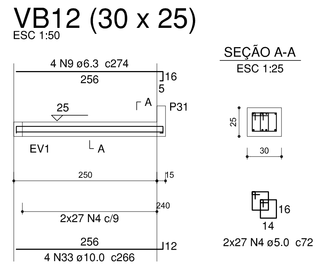
VB10 (15 x 25)
ESC 1:50



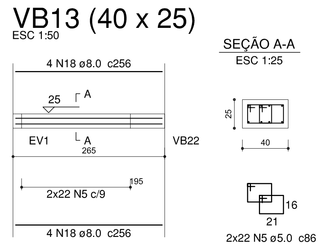
VB11 (60 x 25)
ESC 1:50



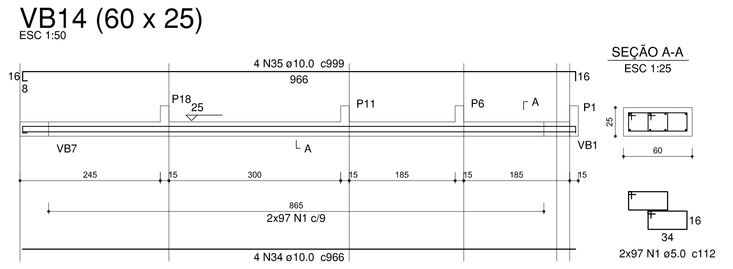
VB12 (30 x 25)
ESC 1:50



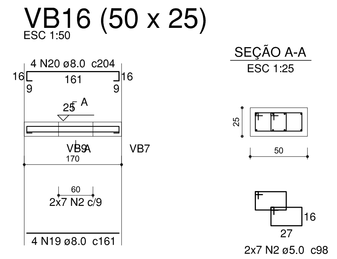
VB13 (40 x 25)
ESC 1:50



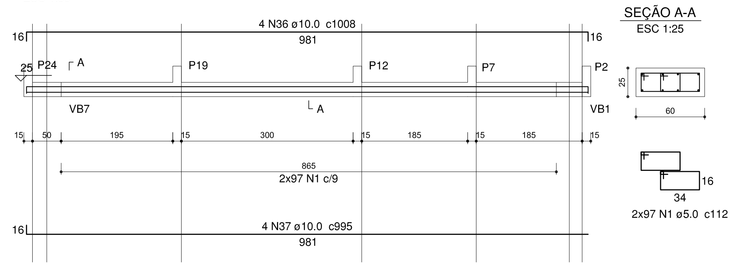
VB14 (60 x 25)
ESC 1:50



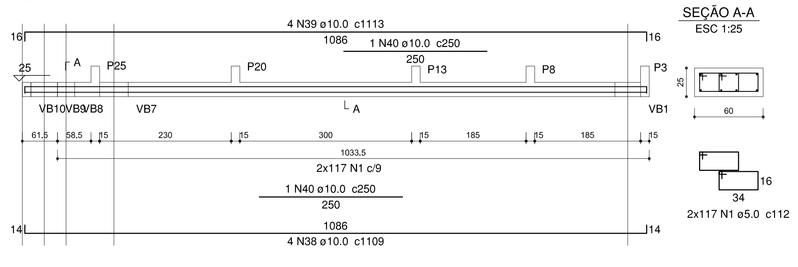
VB16 (50 x 25)
ESC 1:50



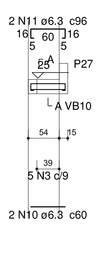
VB15 (60 x 25)
ESC 1:50



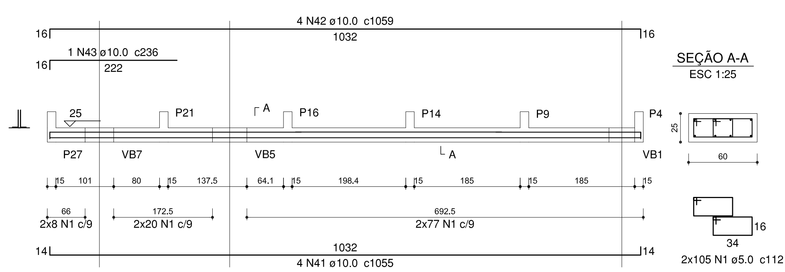
VB17 (60 x 25)
ESC 1:50



VB18 (15 x 25)
ESC 1:50



VB19 (60 x 25)
ESC 1:50



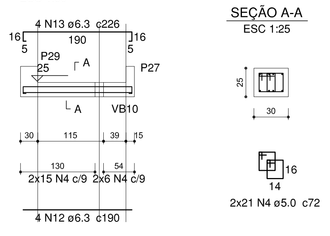
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	175.5	47.2
	8.0	106.1	46.1
	10.0	901.8	611.5
CA60	5.0	2725.9	462.2

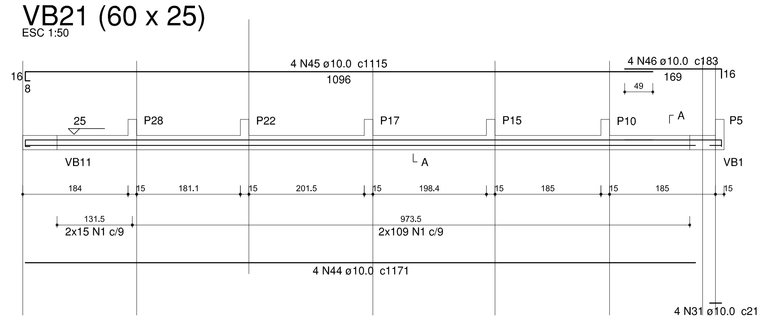
PESO TOTAL (kg)	
CA50	704.8
CA60	462.2

Volume de concreto (C-30) = 18 m³
Área de forma = 64.81 m²

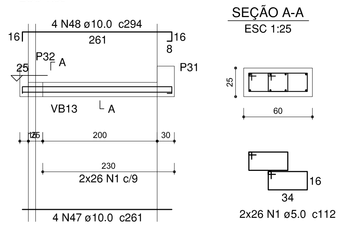
VB20 (30 x 25)
ESC 1:50



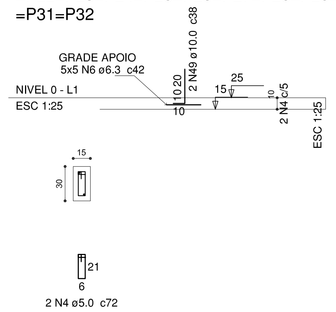
VB21 (60 x 25)
ESC 1:50



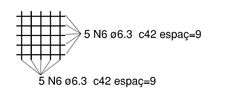
VB22 (60 x 25)
ESC 1:50



ESPERAS PARA OS PILARES:
P1=P2=P3=P4=P5=P6=P7=P8=P9=P10=P11=P12
=P13=P14=P15=P16=P17=P18=P19=P20=P21
=P22=P23=P24=P25=P26=P27=P28=P29=P30
=P31=P32



Grade
ESC 1:25



Será posta, na base dos pilares a grade conforme detalhe acima.

-O ENGENHEIRO PROJETISTA ESTARÁ À DISPOSIÇÃO PARA QUALQUER ESCLARECIMENTO E APOIO TÉCNICO EM QUALQUER FASE DA OBRA, PORTANTO, EM CASO DE DUVIDA NÃO DEIXE DE CONSULTAR O ENGENHEIRO

IPPUJ
FUNDAÇÃO INSTITUTO DE PESQUISA E PLANEJAMENTO PARA O DESENVOLVIMENTO SUSTENTÁVEL DE JOINVILLE
Rua Visconde de Taunay, 1333 - Joinville, SC — CEP: 89.221-901
Tel. (47)431-3267 • Fax (47)431-3197 — projetos.ippuj@joinville.sc.gov.br

PROJETO DE ESTRUTURA

Nome da Obra e Endereço:
UBSF PARANAGUAMIRIM
Rua Elizabeth Rech, Paranaguamirim, Joinville/SC

Requerente:
SECRETARIA DA SAÚDE

Proprietário:
PREFEITURA MUNICIPAL DE JOINVILLE

Autores:
ENG. ALEXANDRE SMORE SILVA
CREA SC 42999-7

Co-Autores:

Conteúdo:
– VIGAS BALDRAME
– ESPERAS PARA PILARES QUE NASCEM EM VIGAS BALDRAMES

Data: SET/2013
Escala: INDICADA
Arq. R.T.: SgpmirSc-03-A0.pln
Nom. Projeto:
Arq.Cad: SgpmirSc.dwg
Sco 03/04

Revisado por:
Desenhista CAD:
Modificação: 0