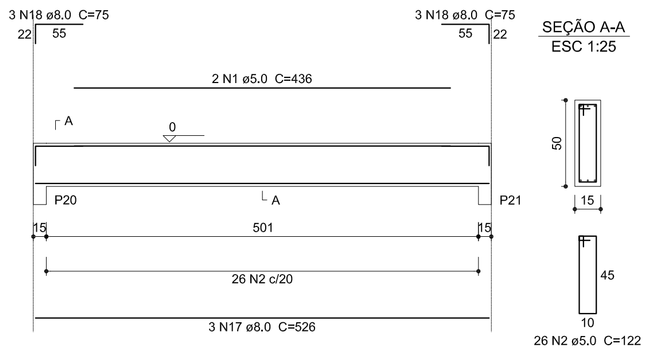
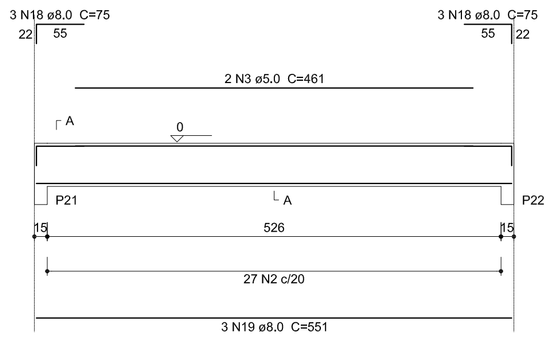
V125
1:50

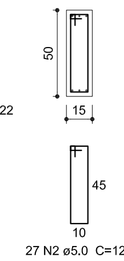


SEÇÃO A-A
ESC 1:25

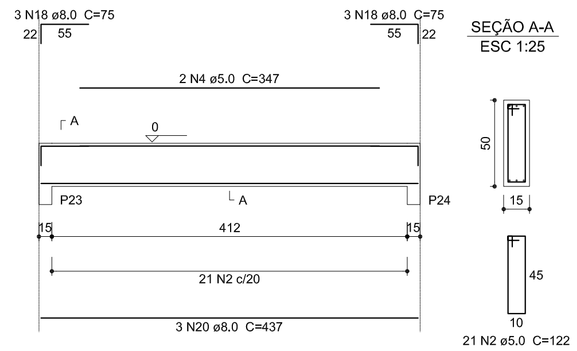
V126
1:50



SEÇÃO A-A
ESC 1:25

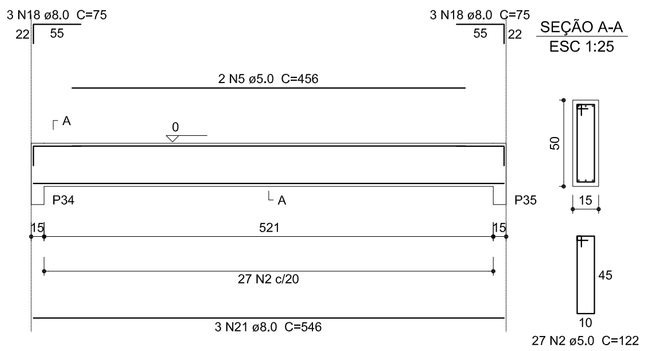


V127
1:50



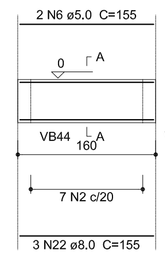
SEÇÃO A-A
ESC 1:25

V128
1:50

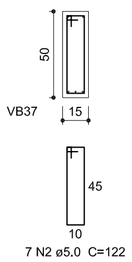


SEÇÃO A-A
ESC 1:25

VB96
1:50

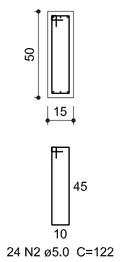


SEÇÃO A-A
ESC 1:25

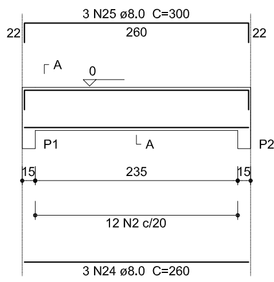


V129
1:50

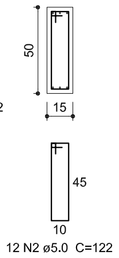
SEÇÃO A-A
ESC 1:25



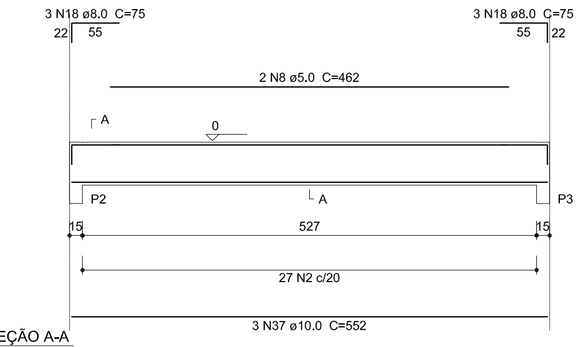
VB1
1:50



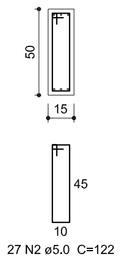
SEÇÃO A-A
ESC 1:25



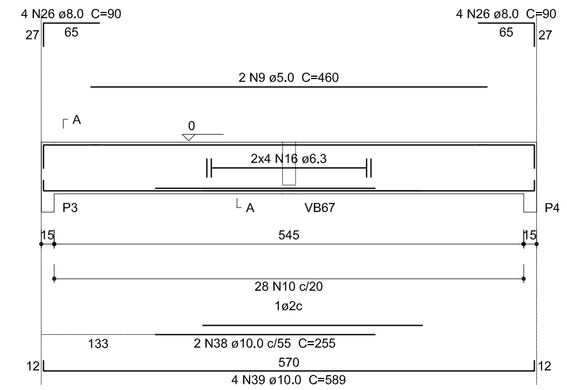
VB2
1:50



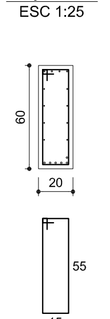
SEÇÃO A-A
ESC 1:25



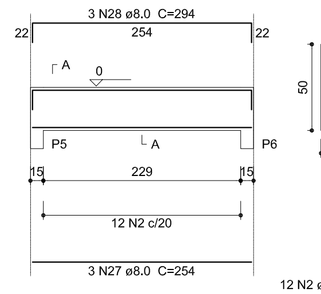
VB3
1:50



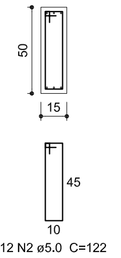
SEÇÃO A-A
ESC 1:25



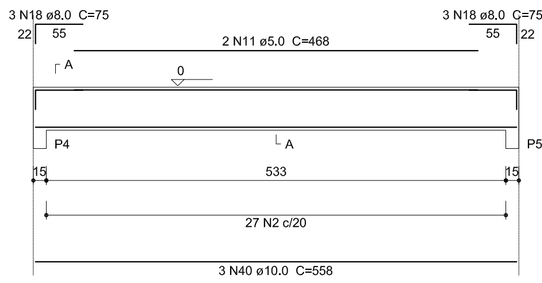
VB5
1:50



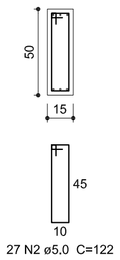
SEÇÃO A-A
ESC 1:25



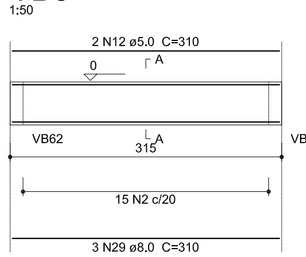
VB4
1:50



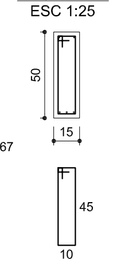
SEÇÃO A-A
ESC 1:25



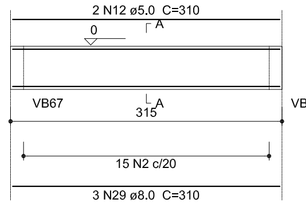
VB6
1:50



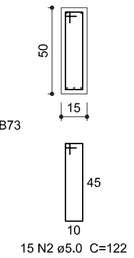
SEÇÃO A-A
ESC 1:25



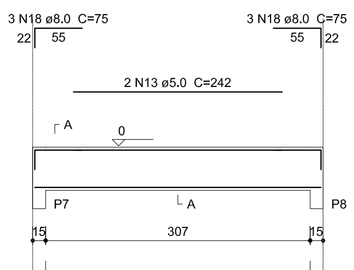
VB7
1:50



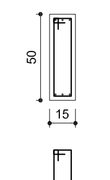
SEÇÃO A-A
ESC 1:25



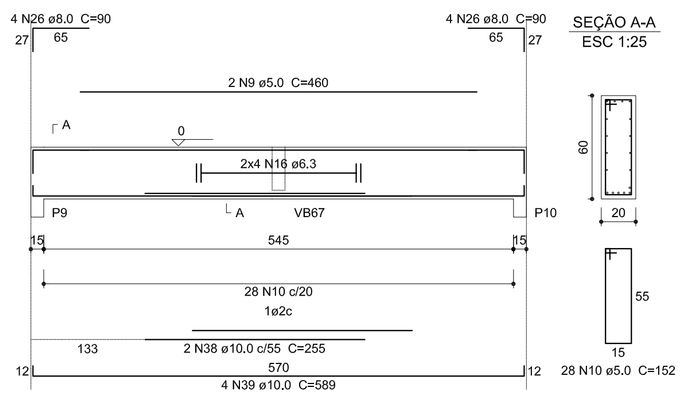
VB8
1:50



SEÇÃO A-A
ESC 1:25



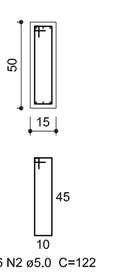
VB9
1:50



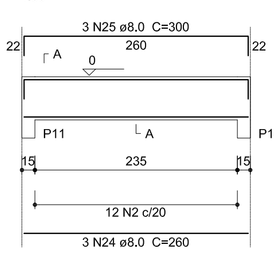
SEÇÃO A-A
ESC 1:25

VB10
1:50

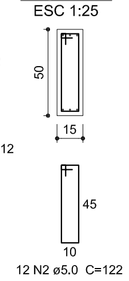
SEÇÃO A-A
ESC 1:25



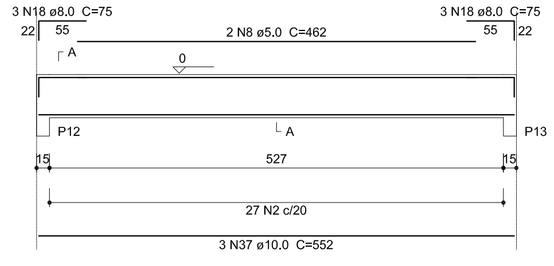
VB11
1:50



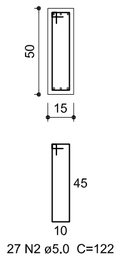
SEÇÃO A-A
ESC 1:25



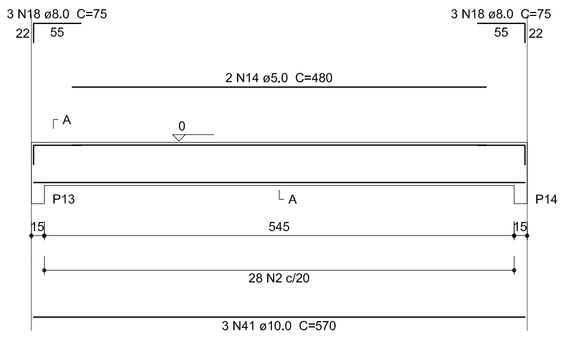
VB12
1:50



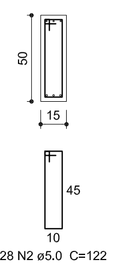
SEÇÃO A-A
ESC 1:25



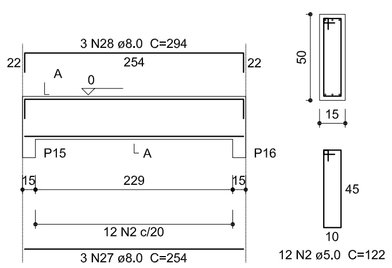
VB13
1:50



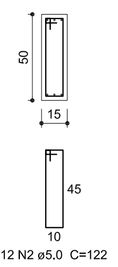
SEÇÃO A-A
ESC 1:25



VB15
1:50



SEÇÃO A-A
ESC 1:25



VB16
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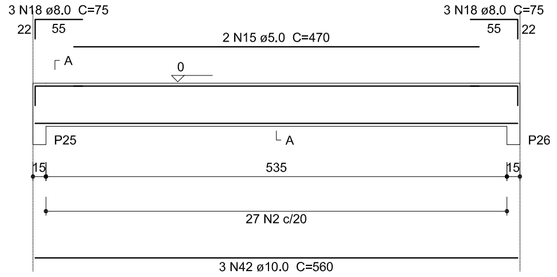
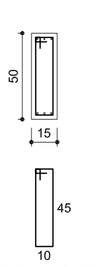
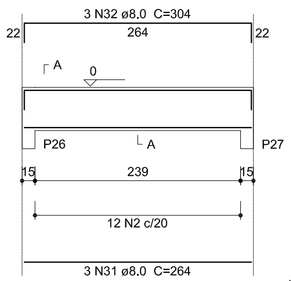


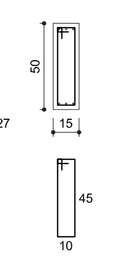
SEÇÃO A-A
ESC 1:25



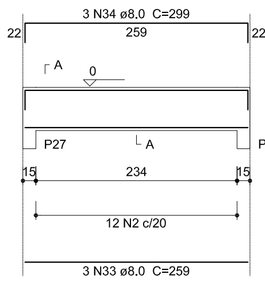
VB17
1:50



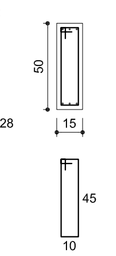
SEÇÃO A-A
ESC 1:25



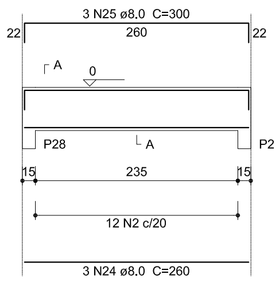
VB18
1:50



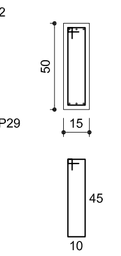
SEÇÃO A-A
ESC 1:25



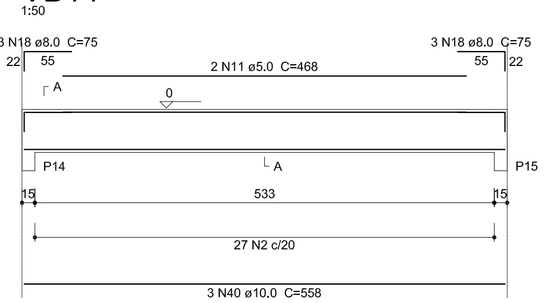
VB19
1:50



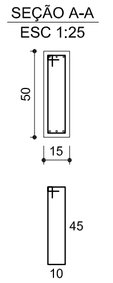
SEÇÃO A-A
ESC 1:25



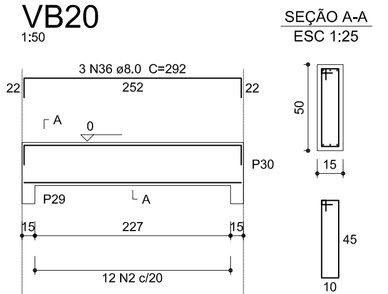
VB14
1:50



SEÇÃO A-A
ESC 1:25



VB20
1:50



SEÇÃO A-A
ESC 1:25

Relação do aço

V125	V126	V127
V128	V129	VB1
VB2	VB3	VB4
VB5	VB6	VB7
VB8	VB9	VB10
VB11	VB12	VB13
VB14	VB15	VB16
VB17	VB18	VB19
VB20	VB96	

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	436	872
	2	5.0	453	122	55266
	3	5.0	2	461	922
	4	5.0	2	347	694
	5	5.0	2	456	912
	6	5.0	2	155	310
	7	5.0	2	411	822
	8	5.0	4	462	1848
	9	5.0	4	460	1840
	10	5.0	56	152	8512
	11	5.0	4	468	1872
	12	5.0	4	310	1240
	13	5.0	4	242	968
	14	5.0	2	480	960
	15	5.0	2	470	940
CA50	16	6.3	16	CORR	8720
	17	8.0	3	526	1578
	18	8.0	78	75	5850
	19	8.0	3	551	1653
	20	8.0	3	437	1311
	21	8.0	3	546	1638
	22	8.0	3	155	465
	23	8.0	3	501	1503
	24	8.0	9	260	2340
	25	8.0	9	300	2700
	26	8.0	16	90	1440
	27	8.0	6	254	1524
	28	8.0	6	294	1764
	29	8.0	6	310	1860
	30	8.0	6	332	1992
	31	8.0	3	264	792
	32	8.0	3	304	912
	33	8.0	3	259	777
	34	8.0	3	299	897
	35	8.0	3	252	756
	36	8.0	3	292	876
	37	10.0	6	552	3312
	38	10.0	4	255	1020
	39	10.0	8	589	4712
	40	10.0	6	558	3348
	41	10.0	3	570	1710
	42	10.0	3	560	1680

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	87.2	23.5
	8.0	326.3	141.6
	10.0	157.9	107
CA60	5.0	779.8	132.2
PESO TOTAL			
CA50	272.1		
CA60	132.2		

Vol. de concreto total (C-25) = 8,53 m³
Área de forma total = 125.73 m²

AMPLIAÇÃO

SECRETARIA DE EDUCAÇÃO DE JOINVILLE

OBSERVAÇÕES

ASSINATURAS

RESPONSÁVEL TÉCNICO:

REQUERENTE:

VEGA ENGENHARIA PROJETOS
www.vegaengenharia.com.br

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RESIDENCIAL ESPANHA - SALA 01
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JARAGUÁ DO SUL - SC - BRASIL
FONE: (47) 3055 - 2905

E-MAIL: vega@vegaengenharia.com.br

PROJETO ESTRUTURAL

OBRA:	CEI ULYSSES GUIMARÃES
PROPRIETÁRIO:	PREFEITURA MUNICIPAL DE JOINVILLE - SC
REQUERENTE:	SECRETARIA DE EDUCAÇÃO
LOCAL:	RUA CIDADE DE BARRETOS
CONTEÚDO:	**VIGAS 01-05**

EQUIPE TÉCNICA:
Arq. e Urb. Letice Dal Carobbo --------- CREA/SC: 079.486-5
Eng. Civil Cíntia Busatto ---------- CREA/SC: 066.279-3
Eng. Civil João R. Lisbôa Oneda ----- CREA/SC: 069.906-6
Eng Civil Mychel Bressiani ---------- CREA/SC: 093.314-4
Eng. Civil Valdir Campos Jr. ---------- CREA/SC: 047.770-4
Eng. Elét. Ivo Gilmar Petri ---------- CREA/SC: 014.163-8

PROJETO	ADEMILSON
DESENHO	ADEMILSON
ARQUIVO	VG 1001
DATA	03/05/2010

RESPONSÁVEL TÉCNICO:
VALDIR CAMPOS JUNIOR
Engenheiro Civil - CREA 047.770-4 SC

PRANCHA Nº
ES 04
09
Nº DE PRANCHAS