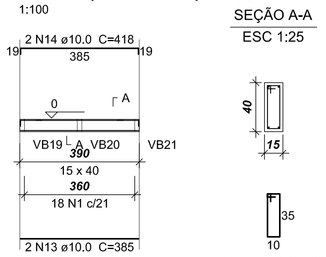
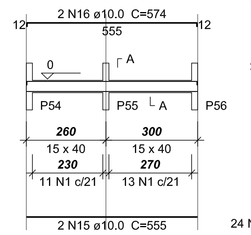
VB1 (15 x 40)
1:100

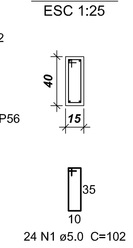


SEÇÃO A-A
ESC 1:25

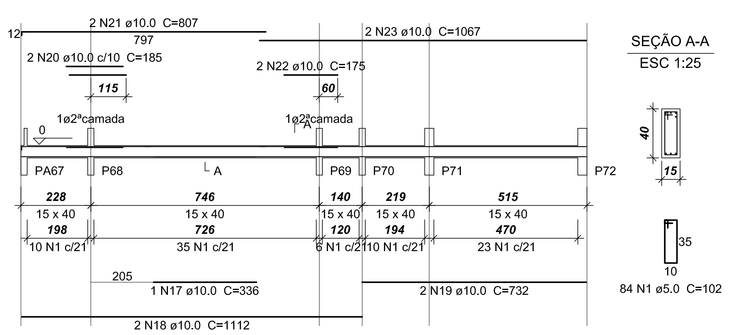
VB2 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25

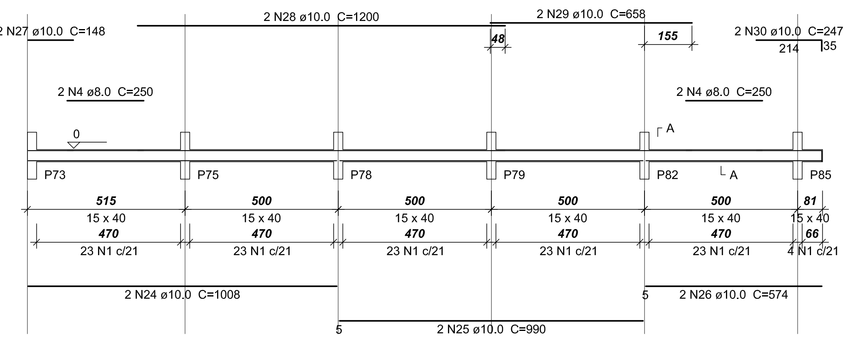


VB3 (15 x 40)
1:100

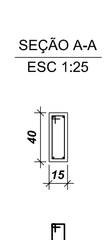


SEÇÃO A-A
ESC 1:25

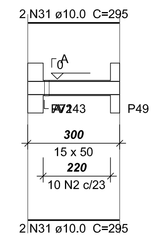
VB4 (15 x 40)
1:100



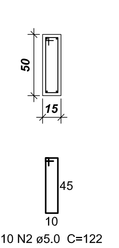
SEÇÃO A-A
ESC 1:25



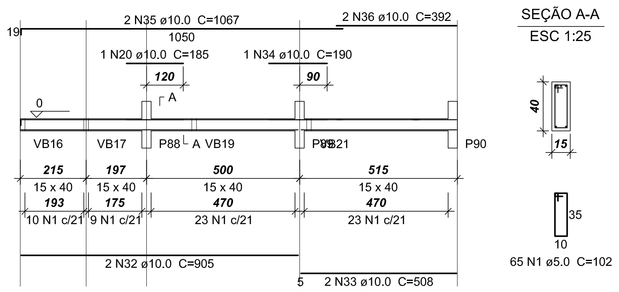
VB10 (15 x 50)
1:100



SEÇÃO A-A
ESC 1:25

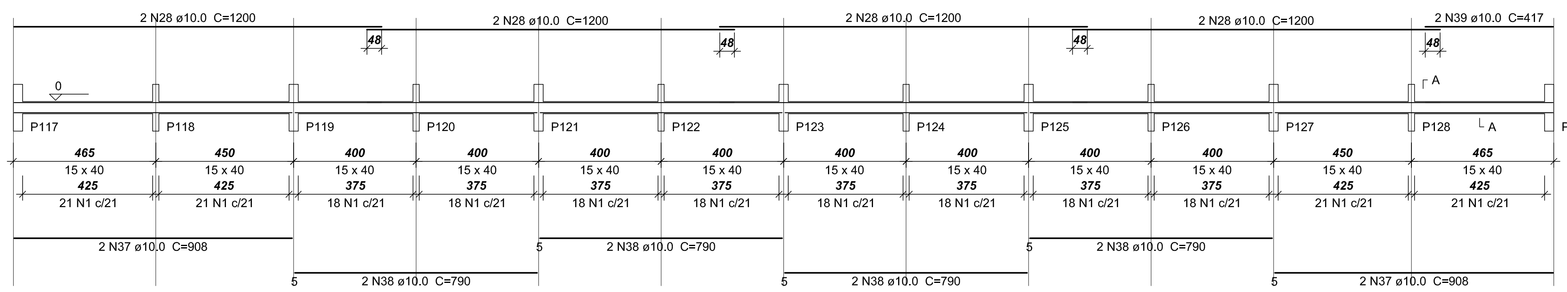


VB5 (15 x 40)
1:100

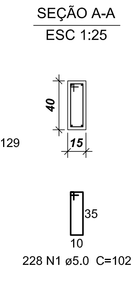


SEÇÃO A-A
ESC 1:25

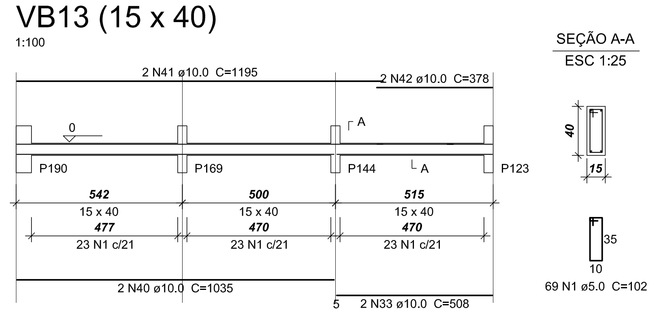
VB6 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25

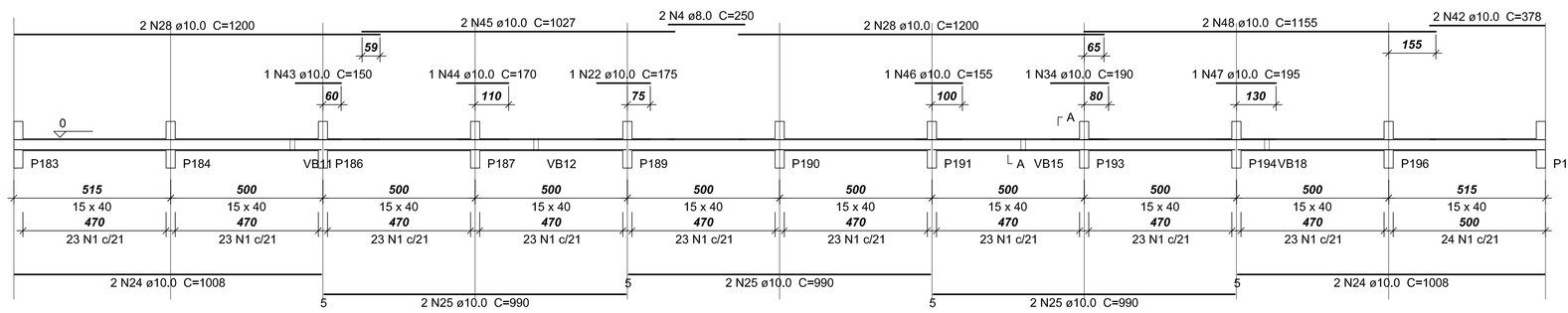


VB13 (15 x 40)
1:100

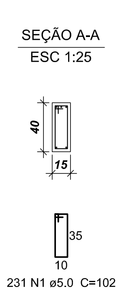


SEÇÃO A-A
ESC 1:25

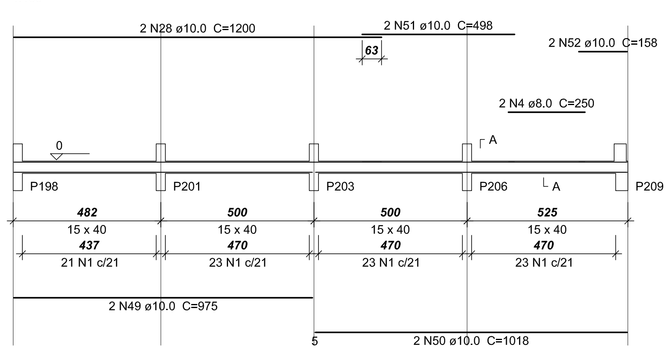
VB7 (15 x 40)
1:100



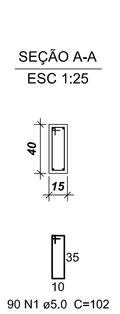
SEÇÃO A-A
ESC 1:25



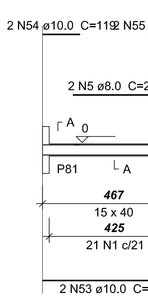
VB8 (15 x 40)
1:100



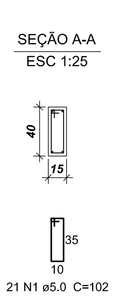
SEÇÃO A-A
ESC 1:25



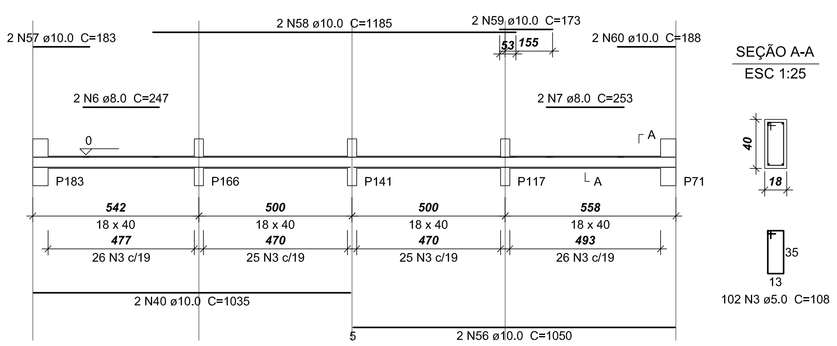
VB14 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25

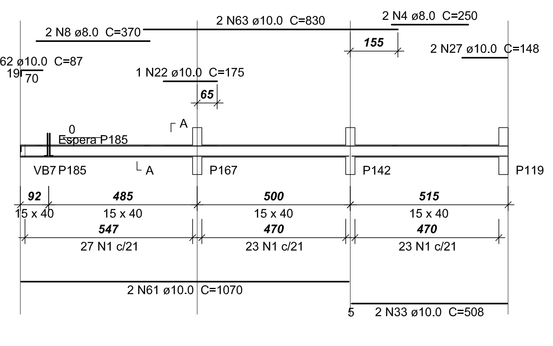


VB9 (18 x 40)
1:100



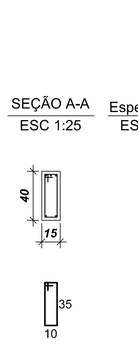
SEÇÃO A-A
ESC 1:25

VB11 (15 x 40)
1:100

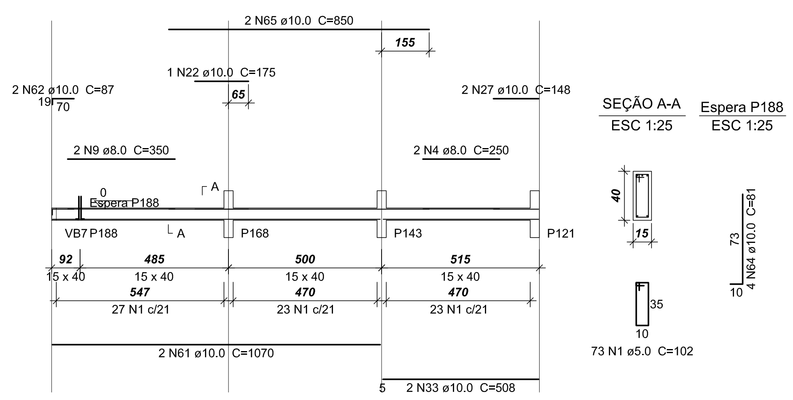


SEÇÃO A-A
ESC 1:25

Espera P185
ESC 1:25



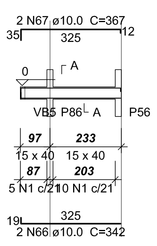
VB12 (15 x 40)
1:100



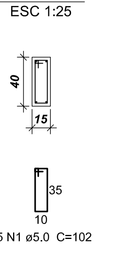
SEÇÃO A-A
ESC 1:25

Espera P188
ESC 1:25

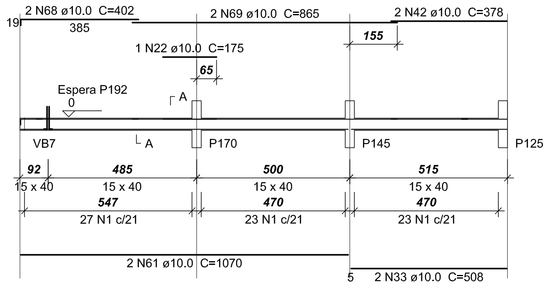
VB16 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25

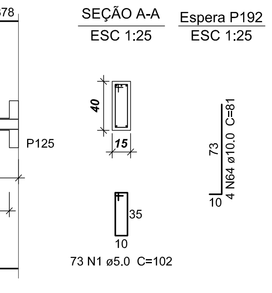


VB15 (15 x 40)
1:100

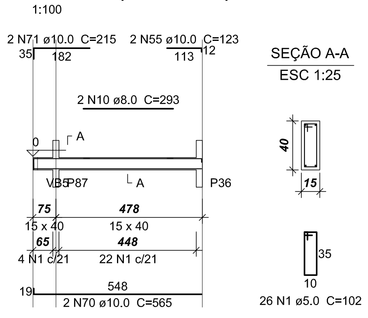


SEÇÃO A-A
ESC 1:25

Espera P192
ESC 1:25

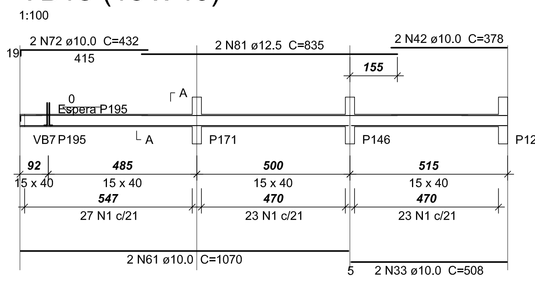


VB17 (15 x 40)
1:100



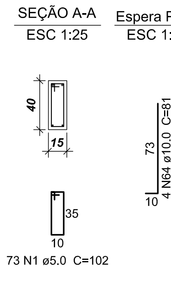
SEÇÃO A-A
ESC 1:25

VB18 (15 x 40)
1:100

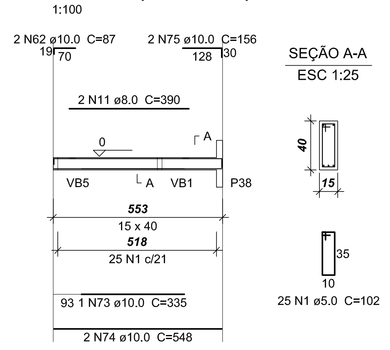


SEÇÃO A-A
ESC 1:25

Espera P195
ESC 1:25

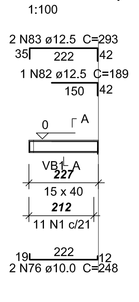


VB19 (15 x 40)
1:100

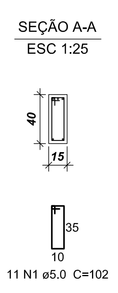


SEÇÃO A-A
ESC 1:25

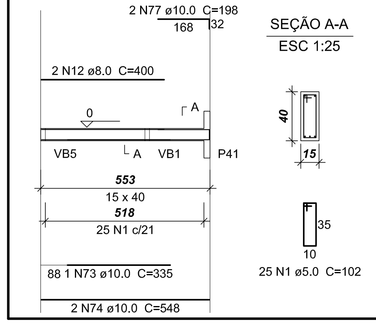
VB20 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25

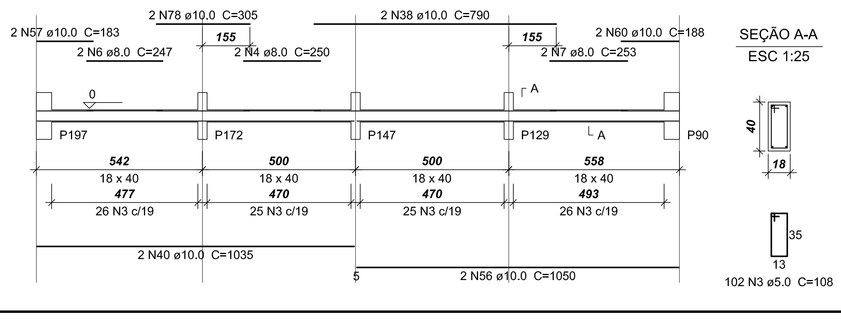


VB21 (15 x 40)
1:100



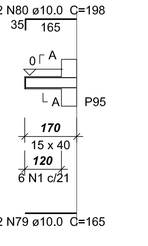
SEÇÃO A-A
ESC 1:25

VB22 (18 x 40)
1:100

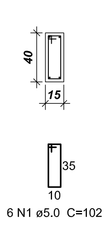


SEÇÃO A-A
ESC 1:25

VB23 (15 x 40)
1:100



SEÇÃO A-A
ESC 1:25



Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	1349	102	137598
	2	5.0	10	122	1220
	3	5.0	204	108	22032
CA50	4	8.0	14	250	3500
	5	8.0	2	271	542
	6	8.0	4	247	988
	7	8.0	4	253	1012
	8	8.0	2	370	740
	9	8.0	2	350	700
	10	8.0	2	293	586
	11	8.0	2	390	780
	12	8.0	2	400	800
	13	10.0	2	385	770
	14	10.0	2	418	836
	15	10.0	2	555	1110
	16	10.0	2	574	1148
	17	10.0	1	336	336
	18	10.0	2	1112	2224
	19	10.0	2	732	1464
	20	10.0	3	185	555
	21	10.0	2	807	1614
	22	10.0	6	175	1050
	23	10.0	2	1067	2134
	24	10.0	6	1008	6048
	25	10.0	8	990	7920
	26	10.0	2	574	1148
	27	10.0	6	148	888
	28	10.0	16	1200	19200
	29	10.0	2	658	1316
	30	10.0	2	247	494
	31	10.0	2	295	1180
	32	10.0	2	905	1810
	33	10.0	12	508	6096
	34	10.0	2	190	380
	35	10.0	2	1067	2134
	36	10.0	2	392	784
	37	10.0	4	908	3632
	38	10.0	10	790	7900
	39	10.0	2	417	834
	40	10.0	6	1035	6210
	41	10.0	2	1195	2390
	42	10.0	8	378	3024
	43	10.0	1	150	150
	44	10.0	1	170	170
	45	10.0	2	1027	2054
	46	10.0	1	155	155
	47	10.0	1	195	195
	48	10.0	2	1155	2310
	49	10.0	2	975	1950
	50	10.0	2	1018	2036
	51	10.0	2	498	996
	52	10.0	2	158	316
	53	10.0	2	462	924
	54	10.0	2	119	238
	55	10.0	4	123	492
	56	10.0	4	1050	4200
	57	10.0	4	183	732
	58	10.0	2	1185	2370
	59	10.0	2	173	346
	60	10.0	4	188	752
	61	10.0	8	1070	8560
	62	10.0	6	87	522
	63	10.0	2	830	1660
	64	10.0	16	81	1296
	65	10.0	2	850	1700
	66	10.0	2	342	684
	67	10.0	2	367	734
	68	10.0	2	402	804
	69	10.0	2	865	1730
	70	10.0	2	565	1130
	71	10.0	2	215	430
	72	10.0	2	432	864
	73	10.0	2	335	670
	74	10.0	4	548	2192
	75	10.0	2	156	312
	76	10.0	2	248	496
	77	10.0	2	198	396
	78	10.0	2	305	610
	79	10.0	2	165	330
	80	10.0	2	198	396
	81	12.5	2	835	1670
	82	12.5	1	189	189
	83	12.5	2	293	586

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	8.0	96.5	38.1
	10.0	1325.4	817.1
	12.5	24.5	23.6
CA60	5.0	1608.5	247.9
PESO TOTAL			
CA50	878.7		
CA60	247.9		

Vol. de concreto total (C-30) = 21.05 m³
Área de forma total = 326.46 m²

VB1	VB2	VB3
VB4	VB5	VB6
VB7	VB8	VB9
VB10	VB11	VB12
VB13	VB14	VB15
VB16	VB17	VB18
VB19	VB20	VB21
VB22	VB23	

AS BUILT PROJETOS
Rua Jovino do Rosário, 1564 – Boa Vista
CEP 82560-435 – Curitiba – Paraná

OBRA: GALPÃO DE ENGENHARIA – TEÓFILO OTONI
PROPRIETÁRIO: UNIVERSIDADE DOS VALES DO JEQUITINHONHA E MUCURI – UFVJM
ENDEREÇO: AVENIDA DR. LUIS BOALI PORTO SALMAN, S/Nº – BAIRRO IPIRANGA – TEÓFILO OTONI/MG

PROJETO ESTRUTURAL

REFERÊNCIA: FERREGEM DOS BALDRAMES

PRANCHA: EST 08 /08

ARQUIVO: –

DESENHO: CARLOS

DATA: 27/09/2012

ESCALA: INDICADA

AUTOR DO PROJETO: ENG. CIVIL CARLOS HENRIQUE DE S. GONÇALVES — CREA: 7.982-D/PR