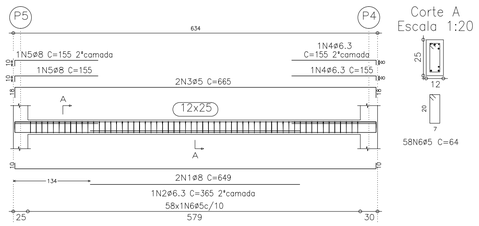
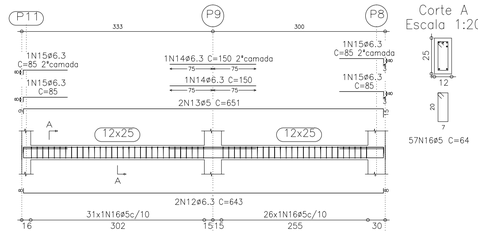
V 1
Escala 1:50



Corte A
Escala 1:20

58N6ø5 C=64

V 3
Escala 1:50



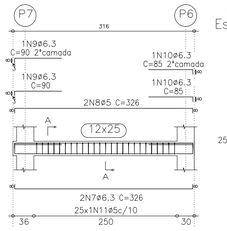
Corte A
Escala 1:20

57N16ø5 C=64

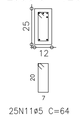
Resumo Aço		Comp. total (m)	Peso+10% (kg)	Total
Nivê inferios janelas Vigas				
CA-50-A	ø6.3	203.3	55	
	ø8	37.3	16	
	ø10	4.2	3	74
CA-60-B	ø5	611.8	106	106
Total				180

Nivê inferios janelas
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

V 2
Escala 1:50

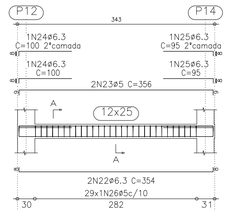


Corte A
Escala 1:20

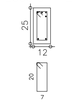


25N11ø5 C=64

V 5
Escala 1:50

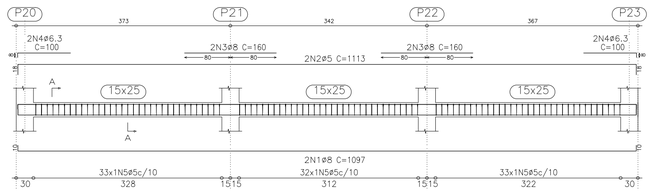


Corte A
Escala 1:20

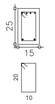


29N26ø5 C=64

V 12
Escala 1:50

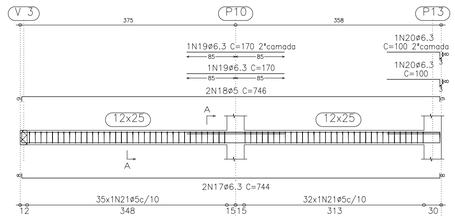


Corte A
Escala 1:20

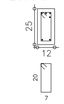


98N5ø5 C=70

V 4
Escala 1:50

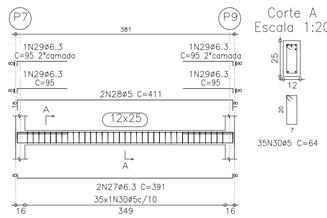


Corte A
Escala 1:20



67N21ø5 C=64

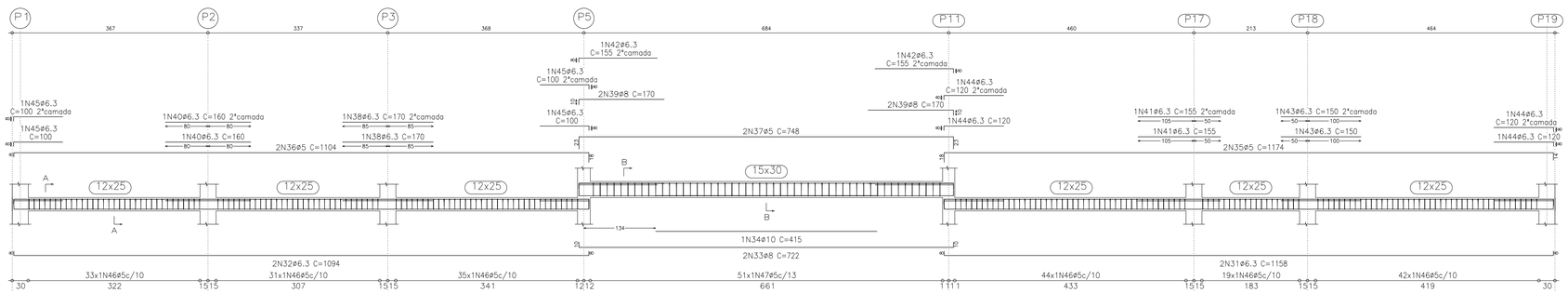
V 6
Escala 1:50



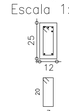
Corte A
Escala 1:20

35N30ø5 C=64

V 7
Escala 1:50

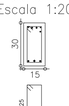


Corte A
Escala 1:20



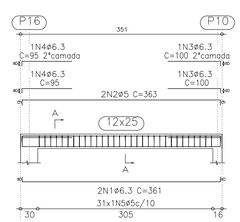
204N46ø5 C=64

Corte B
Escala 1:20

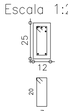


51N47ø5 C=80

V 9
Escala 1:50



Corte A
Escala 1:20

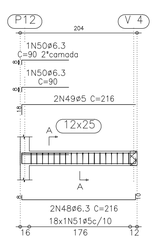


31N5ø5 C=64

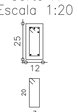
Cobertura
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

Térreo
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

V 8
Escala 1:50

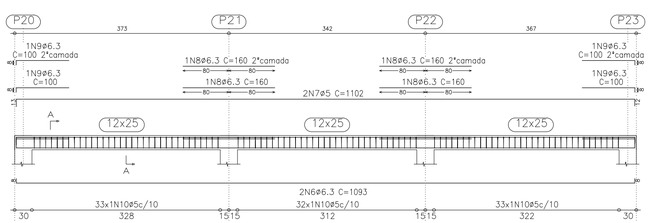


Corte A
Escala 1:20

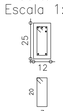


18N51ø5 C=64

V 11
Escala 1:50

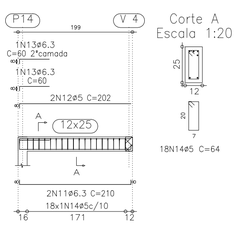


Corte A
Escala 1:20



98N10ø5 C=64

V 10
Escala 1:50



Corte A
Escala 1:20

18N14ø5 C=64

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 9	1	ø6.3	2	8	345	8	361	722	1.8	
	2	ø5	2	9	345	9	363	726		1.1
	3	ø6.3	2		92	8	100	200	0.5	
	4	ø6.3	2	8	87		95	190	0.5	
	5	ø5	31				64	1984		3.1
								Total+10%:	3.1	4.6
V 11	6	ø6.3	2	8	1077	8	1093	2186	5.4	
	7	ø5	2	13	1077	12	1102	2204		3.5
	8	ø6.3	4		160		160	640	1.6	
	9	ø6.3	4	8	92		100	400	1.0	
	10	ø5	98				64	6272		9.8
								Total+10%:	8.8	14.6
V 10	11	ø6.3	2	8	194	8	210	420	1.0	
	12	ø5	2	8	194		202	404		0.6
	13	ø6.3	2	8	52		60	120	0.3	
	14	ø5	18				64	1152		1.8
								Total+10%:	1.4	2.6
								ø5:	0.0	21.8
								ø6.3:	13.3	0.0
								Total:	13.3	21.8

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 1	1	ø8	2	10	629	10	649	1298	5.1	
	2	ø6.3	1		365		365	365	0.9	
	3	ø5	2	18	629	18	665	1330		2.1
	4	ø6.3	2		147	8	155	310	0.8	
	5	ø8	2	10	145		155	310	1.2	
	6	ø5	58				64	3712		5.8
								Total+10%:	8.8	8.7
V 2	7	ø6.3	2	8	310	8	326	652	1.6	
	8	ø5	2	8	310	8	326	652		1.0
	9	ø6.3	2	8	82		90	180	0.4	
	10	ø6.3	2		77	8	85	170	0.4	
	11	ø5	25				64	1600		2.5
								Total+10%:	2.6	3.9
V 3	12	ø6.3	2	8	627	8	643	1286	3.2	
	13	ø5	2	9	627	15	651	1302		2.0
	14	ø6.3	2		150		150	300	0.7	
	15	ø6.3	4	8	77		85	340	0.8	
	16	ø5	57				64	3648		5.7
								Total+10%:	5.2	8.5
V 4	17	ø6.3	2	8	728	8	744	1488	3.7	
	18	ø5	2	9	728	9	746	1492		2.3
	19	ø6.3	2		170		170	340	0.8	
	20	ø6.3	2		92	8	100	200	0.5	
	21	ø5	67				64	4288		6.7
								Total+10%:	5.5	9.9
V 5	22	ø6.3	2	8	338	8	354	708	1.8	
	23	ø5	2	9	338	9	356	712		1.1
	24	ø6.3	2	8	92		100	200	0.5	
	25	ø6.3	2		87	8	95	190	0.5	
	26	ø5	29				64	1856		2.9
								Total+10%:	3.1	4.4
V 6	27	ø6.3	2	8	375	8	391	782	1.9	
	28	ø5	2	18	375	18	411	822		1.3
	29	ø6.3	4	8	87		95	380	0.9	
	30	ø5	35				64	2240		3.5
								Total+10%:	3.1	5.3
V 7	31	ø6.3	2	8	1142	8	1158	2316	5.7	
	32	ø6.3	2	8	1078	8	1094	2188	5.4	
	33	ø8	2	10	702	10	722	1444	5.7	
	34	ø10	1		415		415	415	2.6	
	35	ø5	2	18	1142	14	1174	2348		3.7
	36	ø5	2	8	1078	18	1104	2208		3.5
	37	ø5	2	23	702	23	748	1496		2.3
	38	ø6.3	2		170		170	340	0.8	
	39	ø8	4	10	160		170	680	2.7	
	40	ø6.3	2		160		160	320	0.8	
	41	ø6.3	2		155		155	310	0.8	
	42	ø6.3	2	8	147		155	310	0.8	
	43	ø6.3	2		150		150	300	0.7	
	44	ø6.3	4		112	8	120	480	1.2	
	45	ø6.3	4		92	8	100	400	1.0	
	46	ø5	204				64	13056		20.5
	47	ø5	51				80	4080		6.4
								Total+10%:	31.0	40.0
V 8	48	ø6.3	2	8	198	10	216	432	1.1	
	49	ø5	2	18	198		216	432		0.7
	50	ø6.3	2	8	82		90	180	0.4	
	51	ø5	18				64	1152		1.8
								Total+10%:	1.7	2.8
								ø5:	0.0	83.5
								ø6.3:	42.0	0.0
								ø8:	16.2	0.0
								Total:	61.0	83.5

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 12	1	ø8	2	10	1077	10	1097	2194	8.6	
	2	ø5	2	18	1077	18	1113	2226		3.5
	3	ø8	4		160		160	640	2.5	
	4	ø6.3	4	8	92		100	400	1.0	
	5	ø5	98				70	6860		10.8
								Total+10%:	13.3	15.7
								ø5:	0.0	15.7
								ø6.3:	1.1	0.0
								ø8:	12.2	0.0
								ø10:	0.0	0.0
								Total:	13.3	15.7

OBRA:	Município Presidente Olegário–Reforma Parque Exposições
CNPJ/CPF:	18.602.060/0001-40
	Rua Severino Mendes, 995 – Planalto
PROJETO:	CÁLCULO ESTRUTURAL E FUNDAÇÕES–PAVILHÃO
	Célio Sebastião Franco
CREA:	1493/D-DF ART: 2384126
VIGAS	

TERRENO:	5000m2
CONSTRUÇÃO:	186,66 m2
PROJETO:	31/03/2015
REVISÃO:	02/04/2014
OBRA:	03-CYPECAD14-31032015
CLIENTE:	0331032015
FOLHA	1/3

TC-DE/R0288643-BC/2014-Reforma parque de exposições-Apoio a projeto de infraestrutura- Turismo

DES.: Célio Franco
TEL.: (34)9961.4000
ESC.: Indicados Projetos
Email: cf.celiosfranco@gmail.com

CÉLIO FRANCO

01