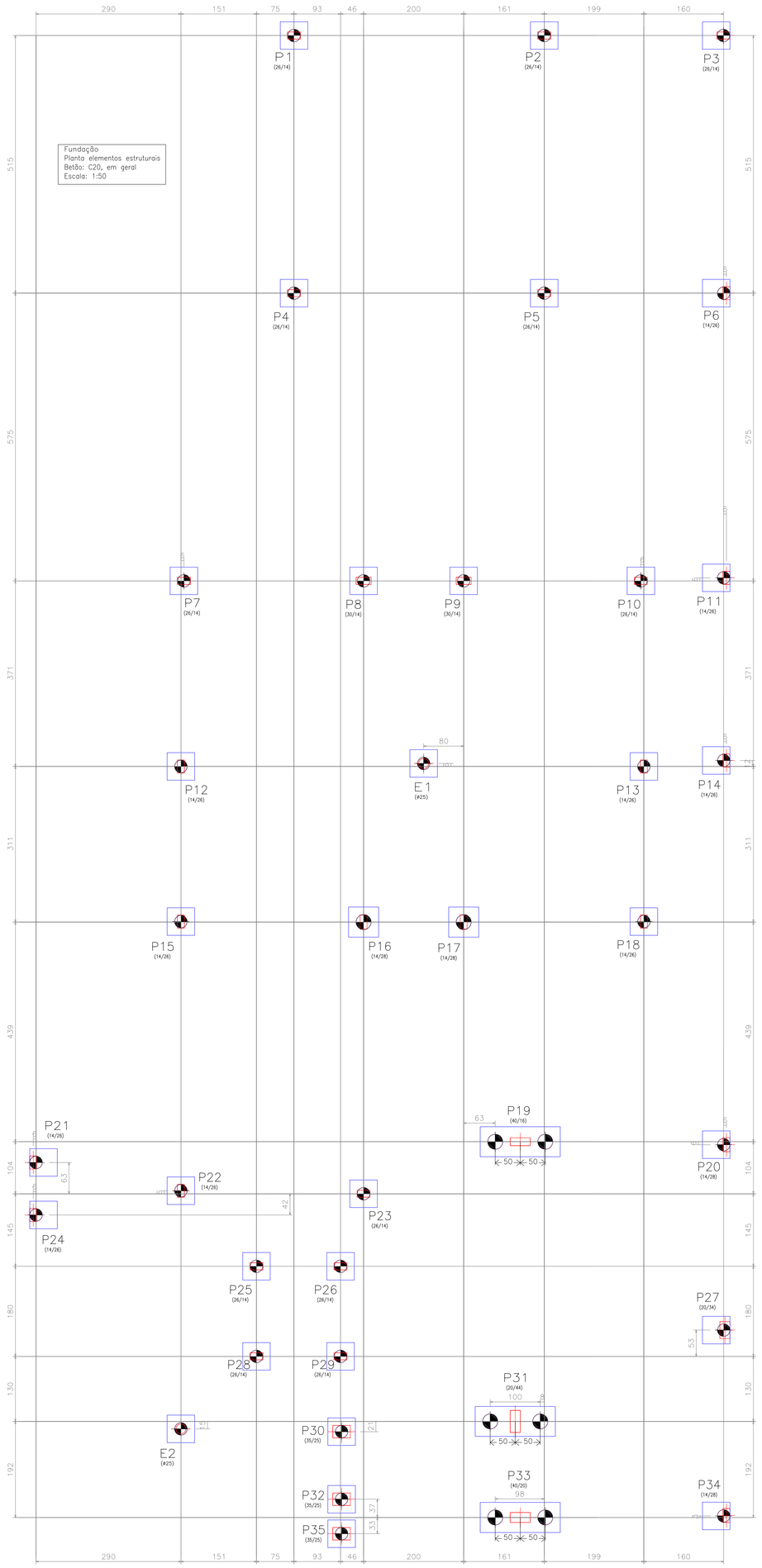
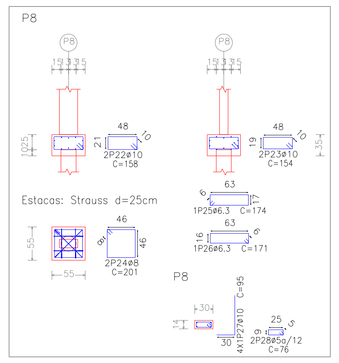
Tabela de estacas

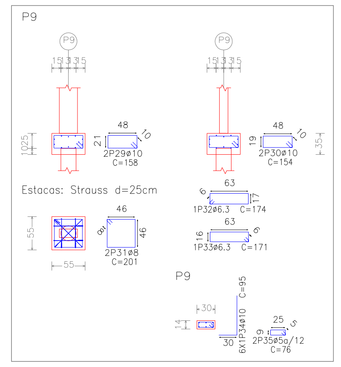
8xStrauss d=30cm — Betão circular: ø30.0 cm; Capacidade de carga em combinações fundamentais: 30.0 kN; Capacidade de carga em combinações acidentais: 30.0 kN

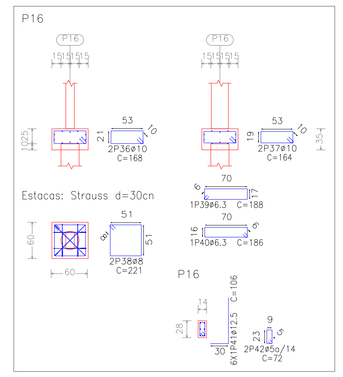
32xStrauss d=25cm — Betão circular: ø25.0 cm; Capacidade de carga em combinações fundamentais: 25.0 kN; Capacidade de carga em combinações acidentais: 25.0 kN

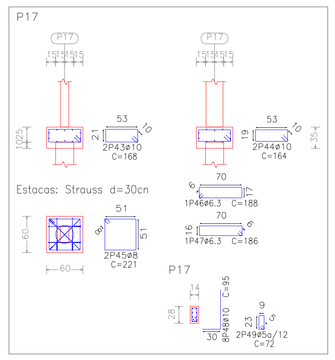


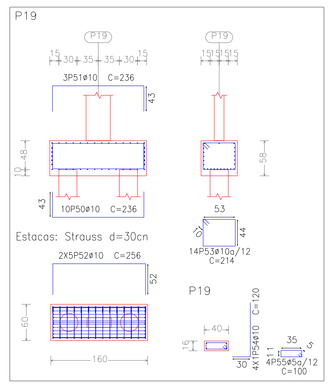
Elemento	Pos.	Diâm.	Q	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1=P2=P3=P4=P5 P7=P10=P23=P25 P26=P28=P29	8	ø10	2		158		158	316	2.0	
	9	ø10	2		154		154	308	1.9	
	10	ø8	2		201		201	402	1.6	
	11	ø6.3	1		174		174	174	0.4	
	12	ø6.3	1		171		171	171	0.4	
	13	ø10	4	30	65		95	380	2.4	
	14	ø5	2		68		68	136		0.2
							Total+10%	9.6		0.2
								(x12)		115.2	2.4
P6=P11=P12=P13 P14=P15=P18=P21 P24	15	ø10	2		158		158	316	2.0	
	16	ø10	2		154		154	308	1.9	
	17	ø8	2		201		201	402	1.6	
	18	ø6.3	1		174		174	174	0.4	
	19	ø6.3	1		171		171	171	0.4	
	20	ø10	4	30	65		95	380	2.4	
	21	ø5	2		68		68	136		0.2
							Total+10%	9.6		
								(x9)		86.4	1.8
P8	22	ø10	2		158		158	316	2.0	
	23	ø10	2		154		154	308	1.9	
	24	ø8	2		201		201	402	1.6	
	25	ø6.3	1		174		174	174	0.4	
	26	ø6.3	1		171		171	171	0.4	
	27	ø10	4	30	65		95	380	2.4	
	28	ø5	2		76		76	152		0.2
							Total+10%	9.6		0.2
P9	29	ø10	2		158		158	316	2.0	
	30	ø10	2		154		154	308	1.9	
	31	ø8	2		201		201	402	1.6	
	32	ø6.3	1		174		174	174	0.4	
	33	ø6.3	1		171		171	171	0.4	
	34	ø10	6	30	65		95	570	3.6	
	35	ø5	2		76		76	152		0.2
							Total+10%	10.9		0.2
P16	36	ø10	2		168		168	336	2.1	
	37	ø10	2		164		164	328	2.1	
	38	ø8	2		221		221	442	1.7	
	39	ø6.3	1		188		188	188	0.5	
	40	ø6.3	1		186		186	186	0.5	
	41	ø12.5	6	30	76		106	636	6.2	
	42	ø5	2		72		72	144		0.2
							Total+10%	14.4		0.2
P17	43	ø10	2		168		168	336	2.1	
	44	ø10	2		164		164	328	2.1	
	45	ø8	2		221		221	442	1.7	
	46	ø6.3	1		188		188	188	0.5	
	47	ø6.3	1		186		186	186	0.5	
	48	ø10	8	30	65		95	760	4.8	
	49	ø5	2		72		72	144		0.2
							Total+10%	12.9		0.2
P19	50	ø10	10	43	150	43	236	2360	14.8	
	51	ø10	3	43	150	43	236	708	4.4	
	52	ø10	10		256		256	2560	16.1	
	53	ø10	14		214		214	2996	18.8	
	54	ø10	4	30	90		120	480	3.0	
	55	ø5	4		100		100	400		0.6
							Total+10%	62.8		0.7
P20	1	ø10	2		158		158	316	2.0	
	2	ø10	2		154		154	308	1.9	
	3	ø8	2		201		201	402	1.6	
	4	ø6.3	1		174		174	174	0.4	
	5	ø6.3	1		171		171	171	0.4	
	6	ø10	4	30	65		95	380	2.4	
	7	ø5	2		72		72	144		0.2
							Total+10%	9.6		0.2
P22	8	ø10	2		158		158	316	2.0	
	9	ø10	2		154		154	308	1.9	
	10	ø8	2		201		201	402	1.6	
	11	ø6.3	1		174		174	174	0.4	
	12	ø6.3	1		171		171	171	0.4	
	13	ø10	6	30	65		95	570	3.6	
	14	ø5	2		68		68	136		0.2
							Total+10%	10.9		0.2
P27	1	ø10	2		158		158	316	2.0	
	2	ø10	2		154		154	308	1.9	
	3	ø8	2		201		201	402	1.6	
	4	ø6.3	1		174		174	174	0.4	
	5	ø6.3	1		171		171	171	0.4	
	6	ø10	4	30	65		95	380	2.4	
	7	ø5	2		96		96	192		0.3
							Total+10%	9.6		0.3
P30	8	ø10	2		158		158	316	2.0	
	9	ø10	2		154		154	308	1.9	
	10	ø8	2		201		201	402	1.6	
	11	ø6.3	1		174		174	174	0.4	
	12	ø6.3	1		171		171	171	0.4	
	13	ø10	8	30	65		95	760	4.8	
	14	ø5	2		108		108	216		0.3
							Total+10%	12.2		0.3
P31	1	ø10	10	43	150	43	236	2360	14.8	
	2	ø10	3	43	150	43	236	708	4.4	
	3	ø10	10		256		256	2560	16.1	
	4	ø10	14		214		214	2996	18.8	
	5	ø10	6	30	90		120	720	4.5	
	6	ø5	4		116		116	464		0.7
							Total+10%	64.5		0.8
P32=P35	7	ø10	2		158		158	316	2.0	
	8	ø10	2		154		154	308	1.9	
	9	ø8	2		201		201	402	1.6	
	10	ø6.3	1		174		174	174	0.4	
	11	ø6.3	1		171		171	171	0.4	
	12	ø10	6	30	65		95	570	3.6	
	13	ø5	2		108		108	216		0.3
							Total+10%	10.9		0.3
								(x2)		21.8	0.6
P33	1	ø10	10	43	150	43	236	2360	14.8	
	2	ø10	3	43	150	43	236	708	4.4	
	3	ø10	10		256		256	2560	16.1	
	4	ø10	14		214		214	2996	18.8	
	5	ø10	6	30	90		120	720	4.5	
	6	ø5	4		108		108	432		0.7
							Total+10%	64.5		0.8
P34	7	ø10	2		158		158	316	2.0	
	8	ø10	2		154		154	308	1.9	
	9	ø8	2		201		201	402	1.6	
	10	ø6.3	1		174		174	174	0.4	
	11	ø6.3	1		171		171	171	0.4	
	12	ø10	4	30	65		95	380	2.4	
	13	ø5	2		72		72	144		0.2
							Total+10%	9.6		0.2

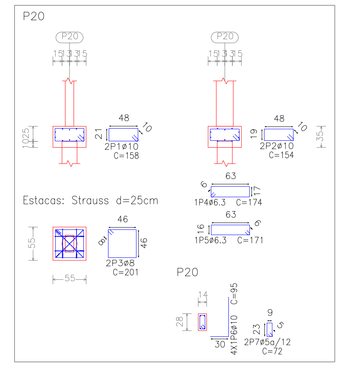


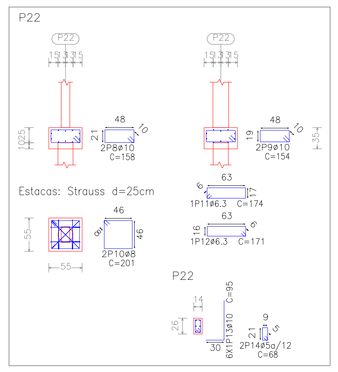


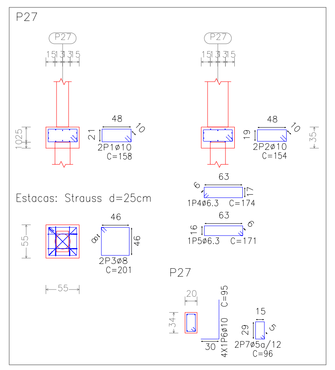


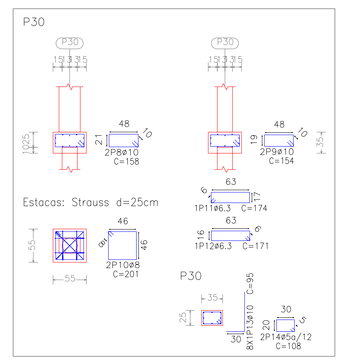


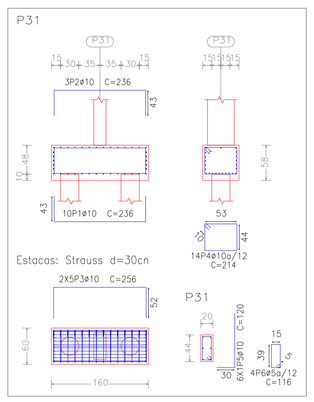


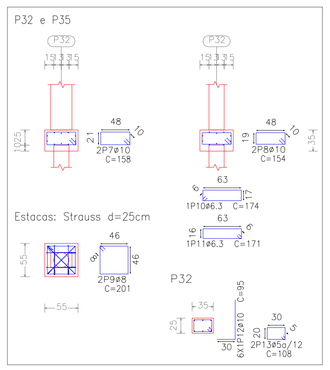


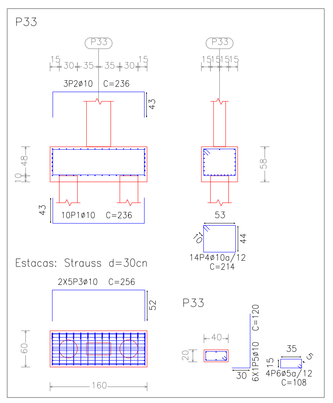


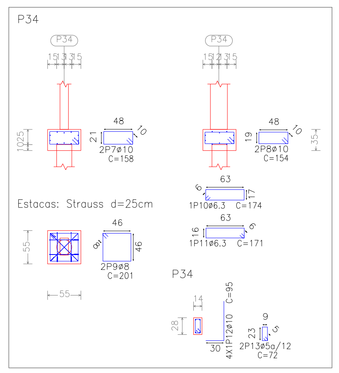


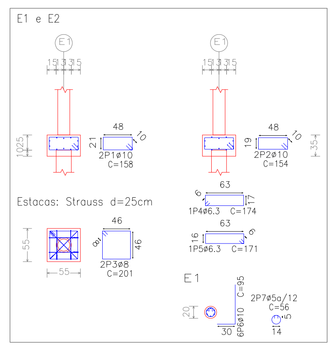


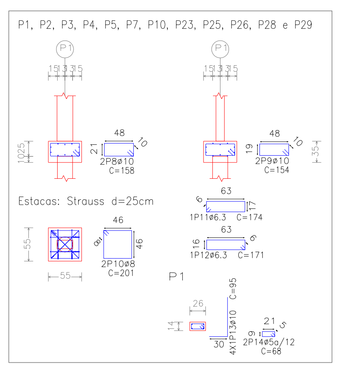


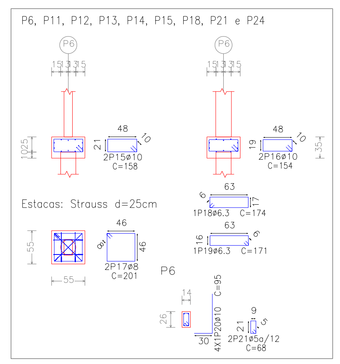












Resumo Aço Fundação Pormenor fundação		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	117.9	32	
	ø8	137.5	59	
	ø10	635.3	439	
	ø12.5	6.4	7	537
CA-60-B	ø5	62.3	11	11
Total				548

Revisão Nº	Data	Referência	Desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

Desenho: VIVIANNE
Prancha: 1

Conteúdo: PLANTA FUNDAÇÃO
DETALHAMENTO FUNDAÇÃO

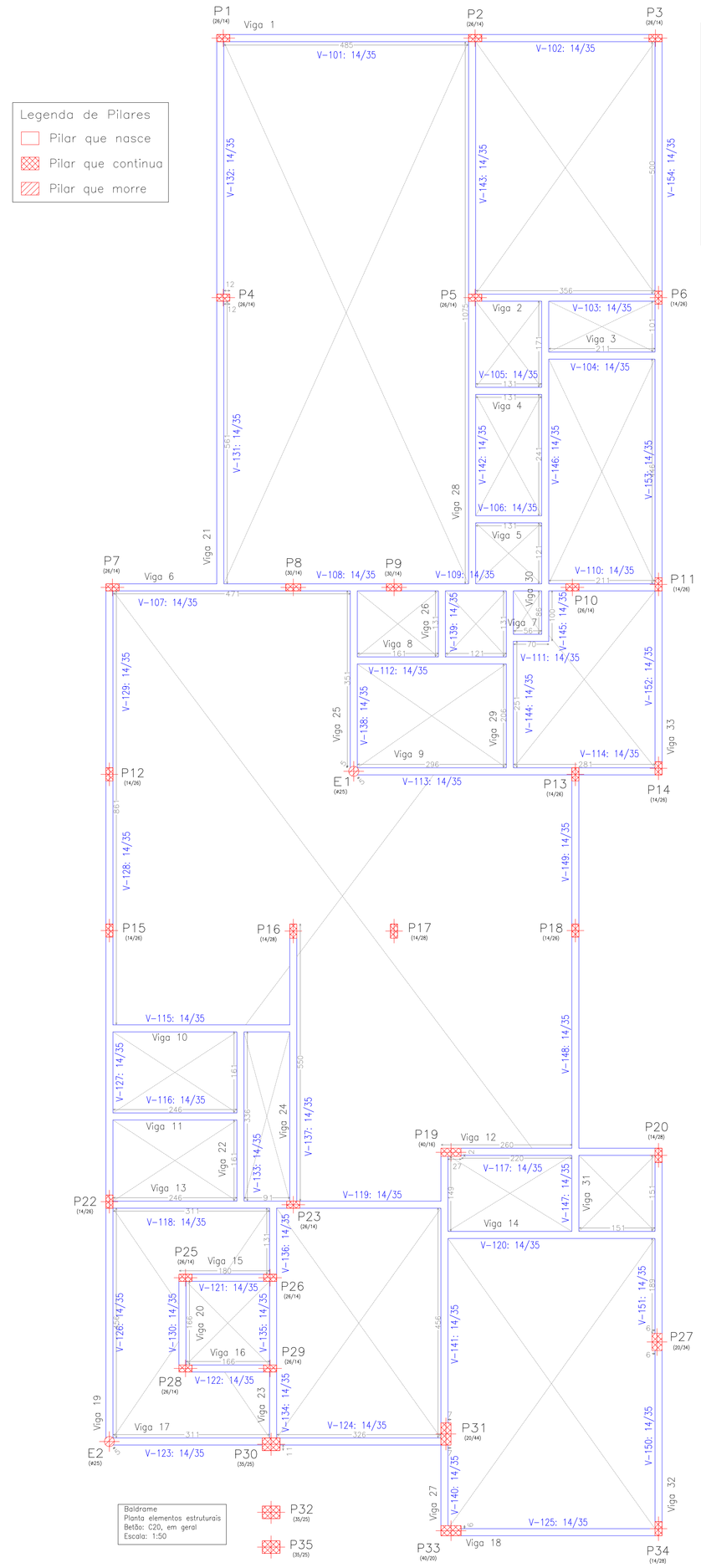
Data: FEV/2011
Escala: INDICADA

A0

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	1	ø8	2	10	879	10	899	1798	7.1	
	2	ø6.3	3	8	879	8	895	2685	6.6	
	3	ø5	55				88	4840		7.6
							Total+10%		15.1	8.4
Viga 2	4	ø8	2	10	379	10	399	798	3.1	
	5	ø6.3	3	8	379	8	395	1185	2.9	
	6	ø5	23				88	2024		3.2
							Total+10%		6.6	3.5
Viga 3	7	ø8	2	10	234	10	254	508	2.0	
	8	ø6.3	2	8	234	8	250	500	1.2	
	9	ø5	15				88	1320		2.1
							Total+10%		3.5	2.3
Viga 4=Viga 5	10	ø8	2	10	154	10	174	348	1.4	
	11	ø6.3	2	8	154	8	170	340	0.8	
	12	ø5	9				88	792		1.2
							Total+10%		2.4	1.3
							[42]		4.8	2.6
Viga 6	13	ø8	2	10	1099	10	1119	2238	8.8	
	14	ø6.3	3	8	1099	8	1115	3345	8.3	
	15	ø5	68				88	5984		9.4
							Total+10%		18.8	10.3
Viga 7	16	ø8	2	10	79	10	99	198	0.8	
	17	ø6.3	2	8	79	8	95	190	0.5	
	18	ø5	4				88	352		0.6
							Total+10%		1.4	0.7
Viga 8	19	ø8	2	10	319	10	339	678	2.7	
	20	ø6.3	2	8	319	8	335	670	1.7	
	21	ø5	20				88	1760		2.8
							Total+10%		4.8	3.1
Viga 9	1	ø8	2	10	617	10	637	1274	5.0	
	2	ø6.3	3	8	617	8	633	1899	4.7	
	3	ø5	40				88	3520		5.5
							Total+10%		10.7	6.1
Viga 10=Viga 29	4	ø8	2	10	374	10	394	788	3.1	
	5	ø6.3	2	8	374	8	390	780	1.9	
	6	ø5	24				88	2112		3.3
							Total+10%		5.5	3.6
							[42]		11.0	7.2
Viga 11	7	ø8	2	10	269	10	289	578	2.3	
	8	ø6.3	2	8	269	8	285	570	1.4	
	9	ø5	17				88	1496		2.3
							Total+10%		4.1	2.5
Viga 12	10	ø8	2	10	434	10	454	908	3.6	
	11	ø6.3	3	8	434	8	450	1350	3.3	
	12	ø5	27				88	2376		3.7
							Total+10%		7.6	4.1
Viga 13	13	ø8	2	10	674	10	694	1388	5.4	
	14	ø6.3	3	8	674	8	690	2070	5.1	
	15	ø5	42				88	3696		5.8
							Total+10%		11.6	6.4
Viga 14	16	ø8	2	10	434	10	454	908	3.6	
	17	ø6.3	2	8	434	8	450	900	2.2	
	18	ø5	28				88	2464		3.9
							Total+10%		6.4	4.3
Viga 15=Viga 16	19	ø8	2	10	189	10	209	418	1.6	
	20	ø6.3	3	8	189	8	205	615	1.5	
	21	ø5	10				88	880		1.4
							Total+10%		3.4	1.5
							[42]		6.8	3.0
Viga 17	22	ø8	2	10	683	10	703	1406	5.5	
	23	ø6.3	3	8	683	8	699	2097	5.2	
	24	ø5	42				88	3696		5.8
							Total+10%		11.8	6.4
Viga 18	25	ø8	2	10	434	10	454	908	3.6	
	26	ø6.3	3	8	434	8	450	1350	3.3	
	27	ø5	26				88	2288		3.6
							Total+10%		7.6	4.0
Viga 19	1	ø8	2	10	1035		1045	2090	8.2	
	2	ø8	2				710	1420	5.6	
	3	ø6.3	3	8	1037		1045	3135	7.8	
	4	ø8	2			10	825	1650	6.5	
	5	ø5	109				88	9592		15.1
							Total+10%		30.9	16.6
Viga 20	6	ø8	2	10	189	10	209	418	1.6	
	7	ø6.3	3	8	189	8	205	615	1.5	
	8	ø5	12				88	1056		1.7
							Total+10%		3.4	1.9
Viga 21	9	ø8	2	10	1099	10	1119	2238	8.8	
	10	ø6.3	3	8	1099	8	1115	3345	8.3	
	11	ø5	72				88	6336		9.9
							Total+10%		18.8	10.9
Viga 22	12	ø8	2	10	359	10	379	758	3.0	
	13	ø6.3	3	8	359	8	375	750	1.9	
	14	ø5	23				88	2024		3.2
							Total+10%		5.4	3.5
Viga 23	15	ø8	2	10	490	10	510	1020	4.0	
	16	ø6.3	3	8	490	8	506	1518	3.8	
	17	ø5	30				88	2640		4.1
							Total+10%		8.6	4.5
Viga 24	18	ø8	2	10	559	10	579	1158	4.5	
	19	ø6.3	3	8	559	8	575	1725	4.3	
	20	ø5	35				88	3080		4.8
							Total+10%		9.7	5.3
Viga 25	21	ø8	2	10	377	10	397	794	3.1	
	22	ø6.3	3	8	377	8	393	1179	2.9	
	23	ø5	24				88	2112		3.3
							Total+10%		6.6	3.6
Viga 26	24	ø8	2	10	154	10	174	348	1.4	
	25	ø6.3	2	8	154	8	170	340	0.8	
	26	ø5	9				88	792		1.2
							Total+10%		2.4	1.3
Viga 27	28	ø8	2	10	764	10	784	1568	6.2	
	29	ø6.3	3	8	764	8	780	2340	5.8	
	30	ø5	47				88	4136		6.5
							Total+10%		13.2	7.2
Viga 28	1	ø8	2	10	1099	10	1119	2238	8.8	
	2	ø6.3	3	8	1099	8	1115	3345	8.3	
	3	ø5	72				88	6336		9.9
							Total+10%		18.8	10.9
Viga 30	4	ø8	2	10	684	10	704	1408	5.5	
	5	ø6.3	3	8	684	8	700	2100	5.2	
	6	ø5	45				88	3960		6.2
							Total+10%		11.8	6.8
Viga 31	31	ø8	2	10	929	10	949	1898	7.4	
	32	ø6.3	3	8	929	8	945	2835	7.0	
	33	ø5	58				88	5104		8.0
							Total+10%		15.8	8.8
Viga 32	34	ø8	2	10	764	10	784	1568	6.2	
	35	ø6.3	3	8	764	8	780	2340	5.8	
	36	ø5	46				88	4048		6.4
							Total+10%		13.2	7.2
Viga 33	1	ø8	2	10	955		965	1930	7.6	
	2	ø8	2		530	10	540	1080	4.2	
	3	ø6.3	3	8	957		965	2895	7.2	
	4	ø8	2		660	10	670	1340	5.3	
	5	ø5	93				88	8184		12.8
							Total+10%		26.7	14.1

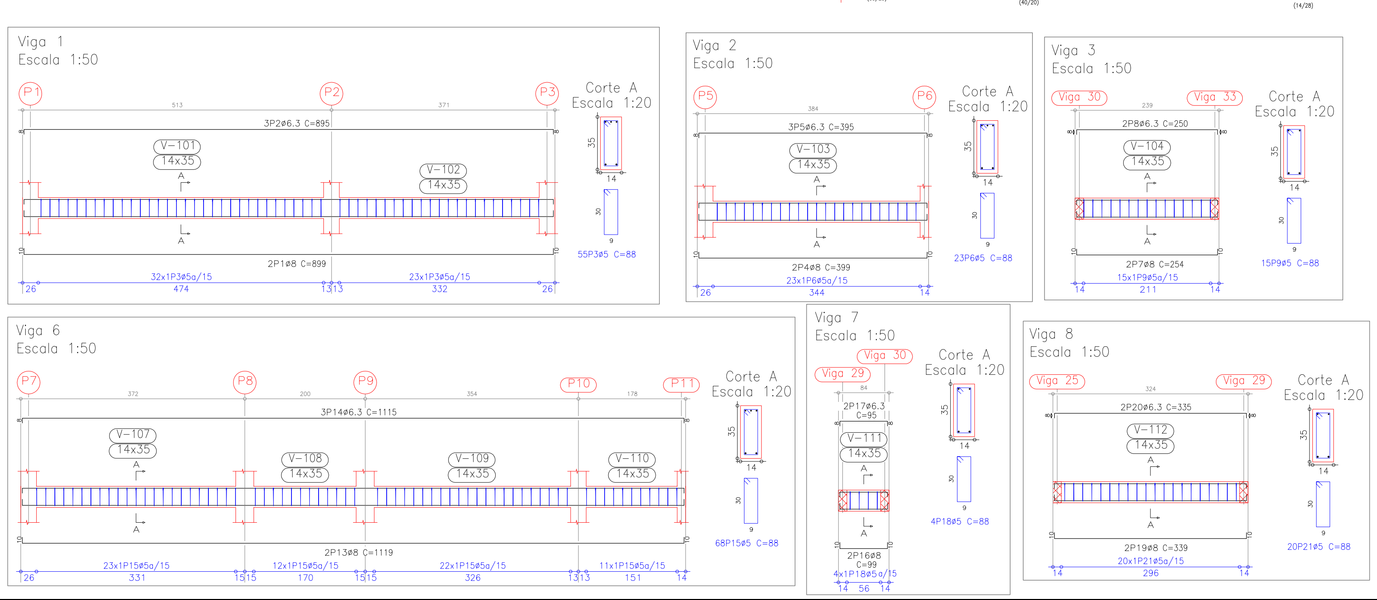
Resumo Aço Baldrame Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	507.4	138	
ø8	416.2	180	318
CA-60-B ø5	1027.8	178	178
Total			496

Baldrame – Superfície total: 25.56 m2			
Elemento	Superfícies (m2)	Volume (m3)	Vardes (Kg)
Vigas	23.93	8.99	495
Cofragem lateral	118.16		
Pilares (Sup. Cofragem)	0.80	0.03	39
Total	142.89	9.02	534
Índices (por m2)	5.590	0.353	20.89



Baldrame
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

Baldrame
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20



Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

APROVAÇÕES

SUZANA OLESKOVICZ
ARQUITETA E URBANISTA - CREA/SC 068.249-5
KAROLINE A. CRESTANI
ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
ENGENHEIRA CIVIL - CREA/SC 073.045-2

PROJETO: EST
ÁREA: 465,67M²

OBRA: INSPETORIA DE CANOINHAS
PROPRIETÁRIO: CREA/SC
ENDEREÇO: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

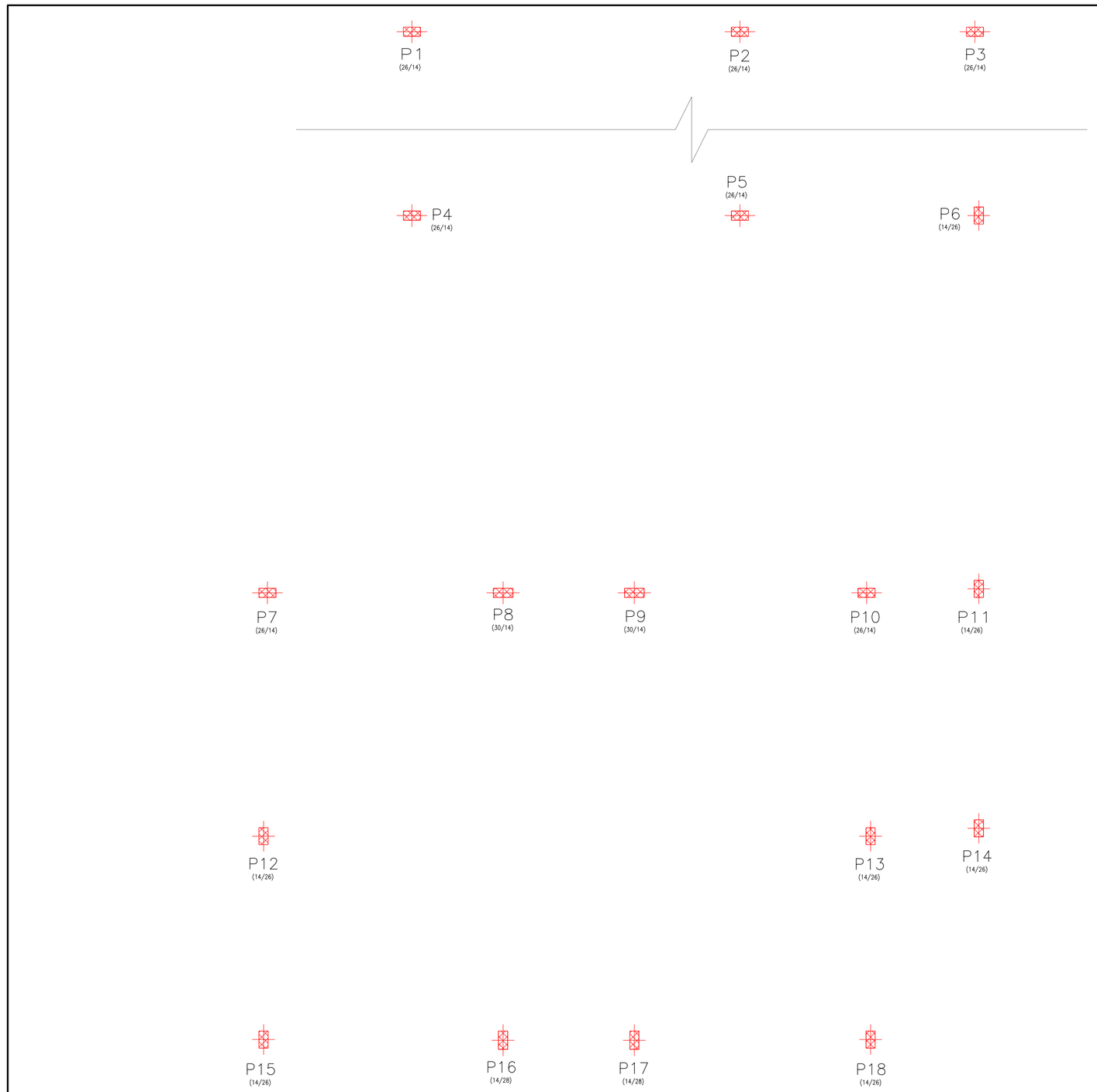
AUTOR DO PROJETO
SUZANA OLESKOVICZ ARQUITETA E URBANISTA - CREA/SC 068.249-5
KAROLINE A. CRESTANI ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES ENGENHEIRA CIVIL - CREA/SC 073.045-2

DESENHO: VIVIANNE
PRANCHA: 2

CONTEÚDO: PLANTA BALDRAME
VIGAS BALDRAME

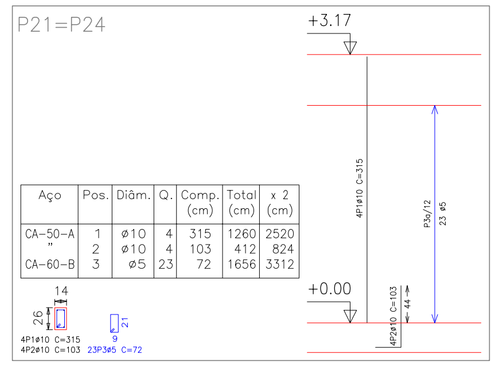
DATA: FEV/2011
ESCALA: INDICADA

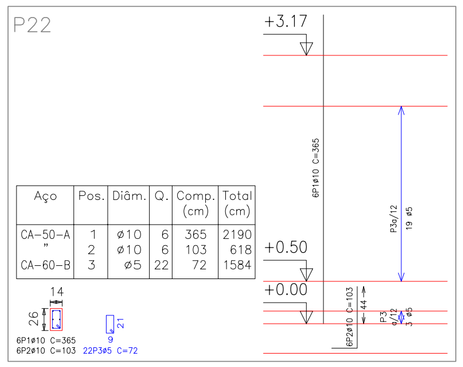
A0



Pilares que terminam em
Cobertura Acesso de Veículos
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre





Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	315	1260	2520
"	2	ø10	4	103	412	824
CA-60-B	3	ø5	23	72	1656	3312

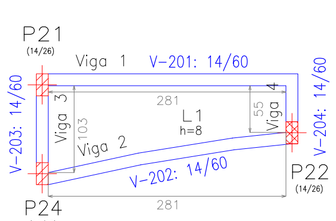
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	365	2190
"	2	ø10	6	103	618
CA-60-B	3	ø5	22	72	1584

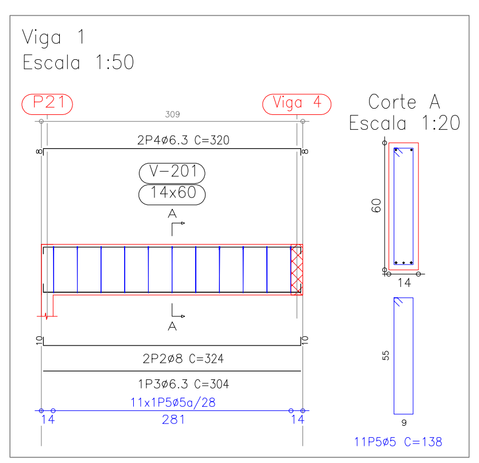
Resumo Aço Cobertura Acesso de Veículos Pilares		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø10	61.5	42	42
CA-60-B	ø5	49.0	8	8
Total				50

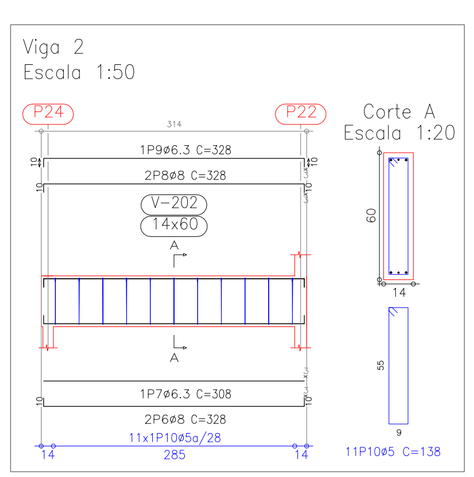
Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	2	ø8	2	10	304	10	324	648	2.5	
	3	ø6.3	1		304		304	304	0.8	
	4	ø6.3	2	8	304	8	320	640	1.6	
	5	ø5	11				138	1518		2.4
								Total+10%	5.4	2.6
Viga 2	6	ø8	2	10	308	10	328	656	2.6	
	7	ø6.3	1		308		308	308	0.8	
	8	ø8	2	10	308	10	328	656	2.6	
	9	ø6.3	1	10	308	10	328	328	0.8	
	10	ø5	11				138	1518		2.4
								Total+10%	7.5	2.6
Viga 3	11	ø8	2	10	126	10	146	292	1.1	
	12	ø6.3	1	10	126	10	146	146	0.4	
	13	ø8	2	10	126	10	146	292	1.1	
	14	ø6.3	1	10	126	10	146	146	0.4	
	15	ø5	3				138	414		0.6
								Total+10%	3.3	0.7
Viga 4	16	ø6.3	2	8	77	8	93	186	0.5	
	17	ø8	3	10	77	10	97	291	1.1	
	18	ø5	2				138	276		0.4
								Total+10%	1.8	0.4

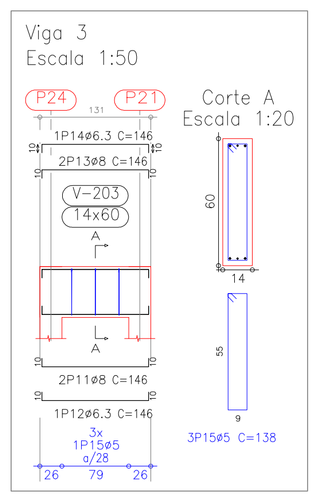
Resumo Aço Cobertura Acesso de Veículos Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	20.6	6	
	ø8	28.4	12	18
CA-60-B	ø5	37.3	6	6
Total				24

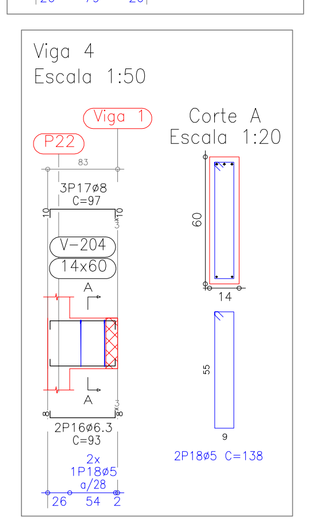
Cobertura Acesso de Veículos – Superfície total: 4.70 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Lajes	2.13	0.17	11
Vigas	0.98	0.68	24
Cofragem lateral	7.91		
Pilares (Sup. Cofragem)	6.00	0.26	51
Total	17.02	1.11	86
Índices (por m2)	3.621	0.236	18.30



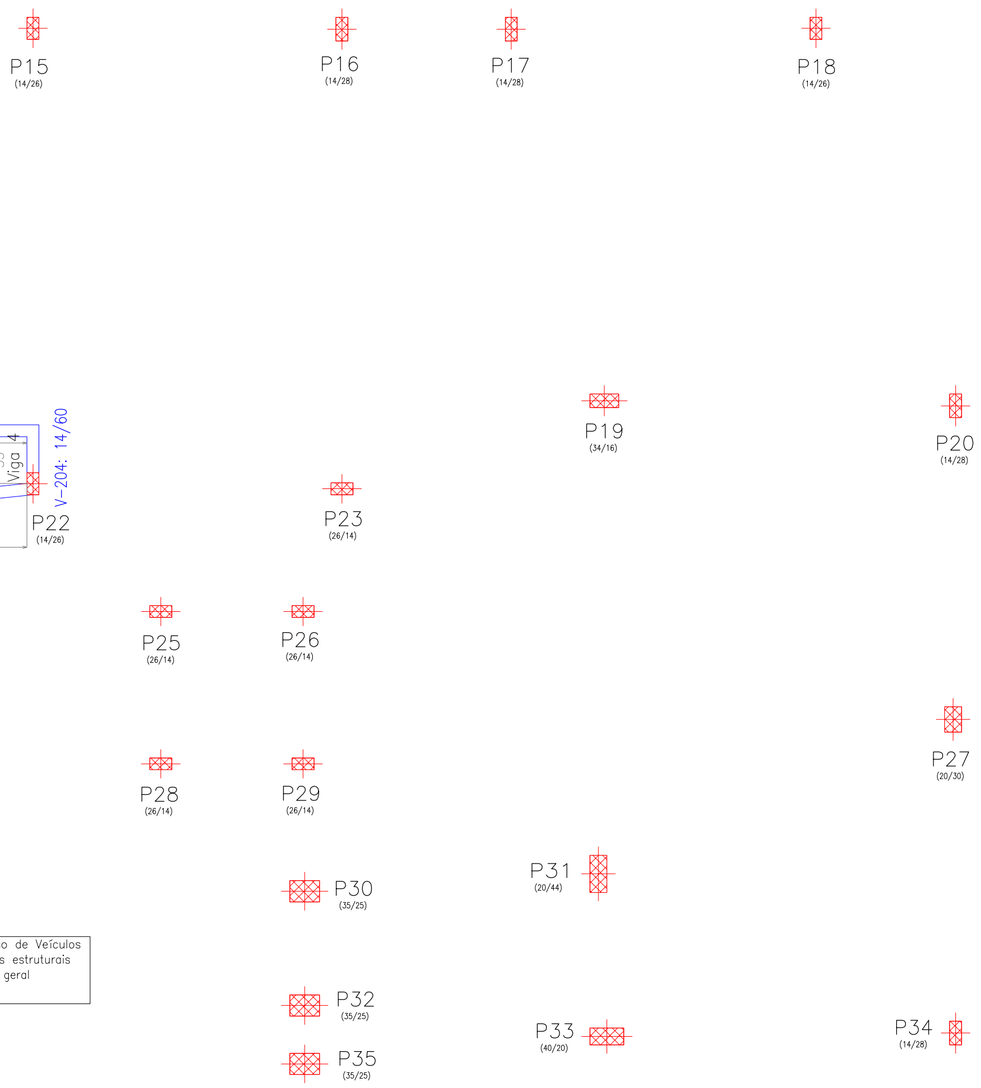








Cobertura Acesso de Veículos
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20



Cobertura Acesso de Veículos
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

APROVAÇÕES

SUZANA OLESKOVICZ
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KAROLINE A. CRESTANI
ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
ENGENHEIRA CIVIL - CREA/SC 073.045-2

PROJETO: EST

ÁREA: 465,67M²

OBRA: INSPETORIA DE CANOINHAS

PROPRIETÁRIO: CREA/SC

ENDEREÇO: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

AUTOR DO PROJETO
SUZANA OLESKOVICZ ARQUITETA E URBANISTA - CREA/SC 068.249-5
KAROLINE A. CRESTANI ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES ENGENHEIRA CIVIL - CREA/SC 073.045-2

DESENHO: VIVIANNE

PRANCHA: 3

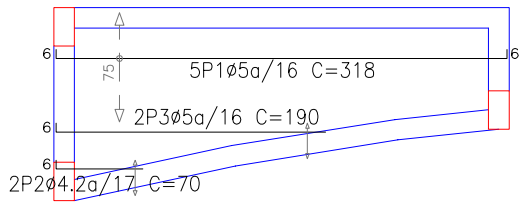
CONTEÚDO: PLANTA COBERT. ACESSO DE VEÍCULOS VIGAS E PILARES C. ACES. VEÍCULOS

DATA: FEV/2011

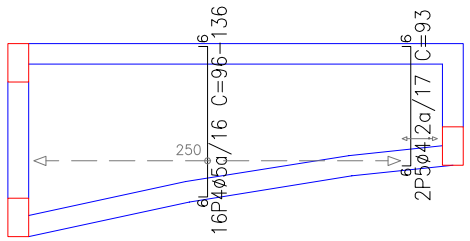
ESCALA: INDICADA

A1

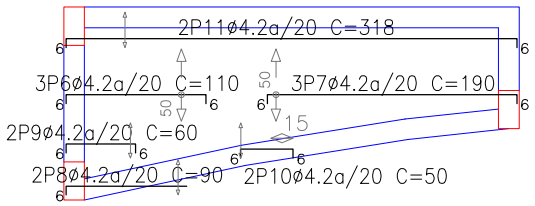
Cobertura Acesso de Veículos
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



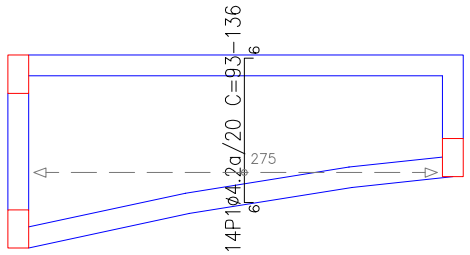
Cobertura Acesso de Veículos
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Cobertura Acesso de Veículos
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Cobertura Acesso de Veículos
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	1	ø5	5	6	306	6	318	1590		2.5
	2	ø4.2	2	6	64		70	140		0.2
	3	ø5	2	6	184		190	380		0.6
								Total+10%:		3.6
Armadura transversal inferior	4	ø5	16	6	VAR.	6	VAR.	1824		2.9
	5	ø4.2	2	6	81	6	93	186		0.2
								Total+10%:		3.4
Armadura longitudinal superior	6	ø4.2	3	6	98	6	110	330		0.4
	7	ø4.2	3	6	178	6	190	570		0.6
	8	ø4.2	2	6	84		90	180		0.2
	9	ø4.2	2	6	48	6	60	120		0.1
	10	ø4.2	2	6	38	6	50	100		0.1
	11	ø4.2	2	6	306	6	318	636		0.7
								Total+10%:		2.3
Armadura transversal superior	1	ø4.2	14	6	VAR.	6	VAR.	1568		1.7
								Total+10%:		1.9

Revisão Nº	Data	Referência	Desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST

Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS

Proprietário: CREA/SC

Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

Desenho: VIVIANNE

Prancha: 4

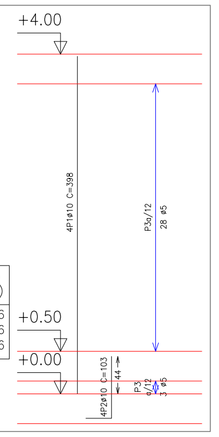
Conteúdo: ARMADURAS DE LAJES
COBERTURA ACESSO DE VEÍCULOS

Data: FEV/2011

Escala: INDICADA

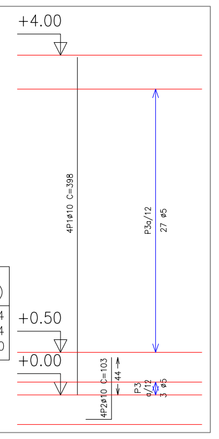
A3

P1=P3=P4



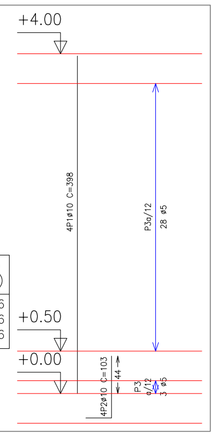
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 3 (cm)
CA-50-A	1	ø10	4	398	1592	4776
"	2	ø10	4	103	412	1236
CA-60-B	3	ø5	31	72	2232	6696

P2=P5



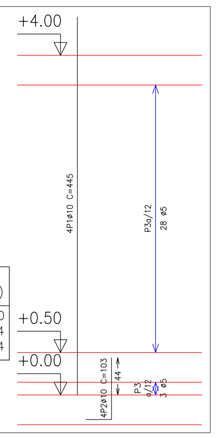
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	398	1592	3184
"	2	ø10	4	103	412	824
CA-60-B	3	ø5	30	72	2160	4320

P6=P11=P14



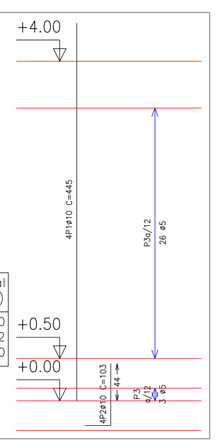
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 3 (cm)
CA-50-A	1	ø10	4	398	1592	4776
"	2	ø10	4	103	412	1236
CA-60-B	3	ø5	31	72	2232	6696

P7=P10



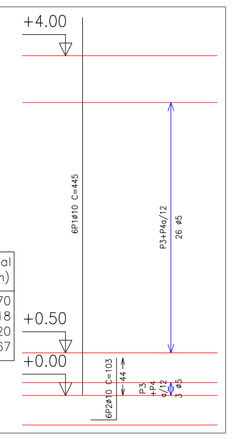
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	445	1780	3560
"	2	ø10	4	103	412	824
CA-60-B	3	ø5	31	72	2232	4464

P8



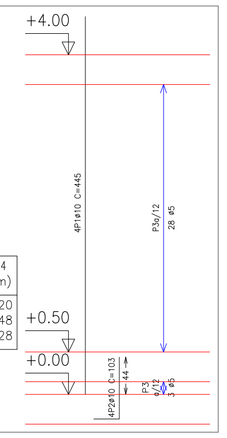
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	445	1780
"	2	ø10	4	103	412
CA-60-B	3	ø5	29	80	2320

P9



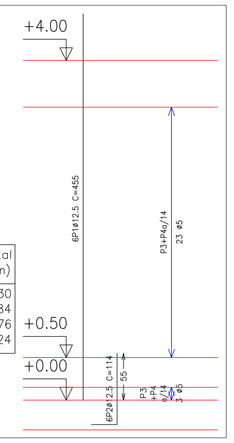
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	445	2670
"	2	ø10	6	103	618
CA-60-B	3	ø5	29	80	2320
"	4	ø5	29	23	667

P12=P13=P15=P18



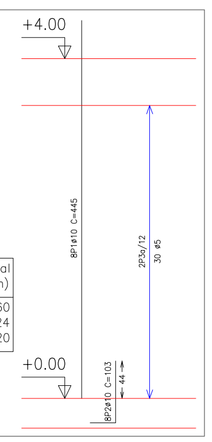
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 4 (cm)
CA-50-A	1	ø10	4	445	1780	7120
"	2	ø10	4	103	412	1648
CA-60-B	3	ø5	31	72	2232	8928

P16



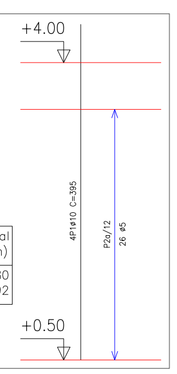
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø12.5	6	455	2730
"	2	ø12.5	6	114	684
CA-60-B	3	ø5	26	76	1976
"	4	ø5	26	24	624

P17



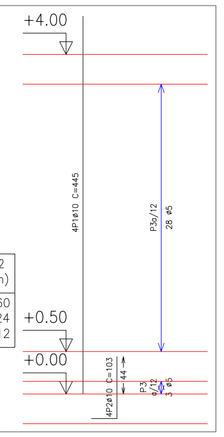
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	8	445	3560
"	2	ø10	8	103	824
CA-60-B	3	ø5	60	62	3720

P19



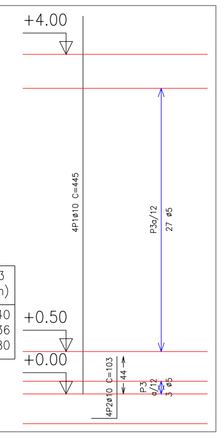
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	395	1580
CA-60-B	2	ø5	26	92	2392

P20=P34



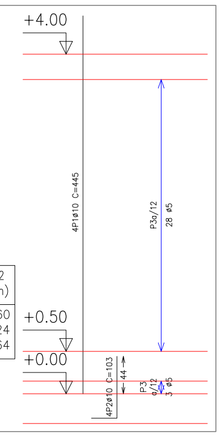
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	445	1780	3560
"	2	ø10	4	103	412	824
CA-60-B	3	ø5	31	76	2356	4712

P23=P26=P29



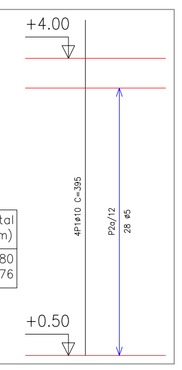
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 3 (cm)
CA-50-A	1	ø10	4	445	1780	5340
"	2	ø10	4	103	412	1236
CA-60-B	3	ø5	30	72	2160	6480

P25=P28



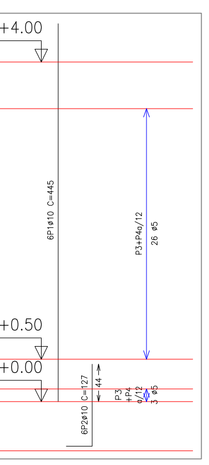
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	445	1780	3560
"	2	ø10	4	103	412	824
CA-60-B	3	ø5	31	72	2232	4464

P27



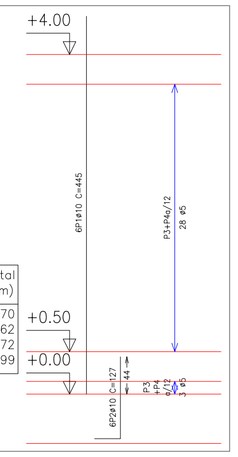
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	395	1580
CA-60-B	2	ø5	28	92	2576

P31



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	445	2670
"	2	ø10	6	127	762
CA-60-B	3	ø5	29	120	3480
"	4	ø5	29	29	841

P33



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	445	2670
"	2	ø10	6	127	762
CA-60-B	3	ø5	31	112	3472
"	4	ø5	31	29	899

Resumo Aço Pavimento Superior Pilares		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø10	644.2	445	
	ø12.5	34.1	37	482
CA-60-B	ø5	720.5	124	124
Total				606

Pilares que terminam em Pavimento Superior
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

Desenho: VIVIANNE
Prancha: 5

Conteúdo: PILARES PAVIMENTO SUPERIOR
Data: FEV/2011
Escala: INDICADA

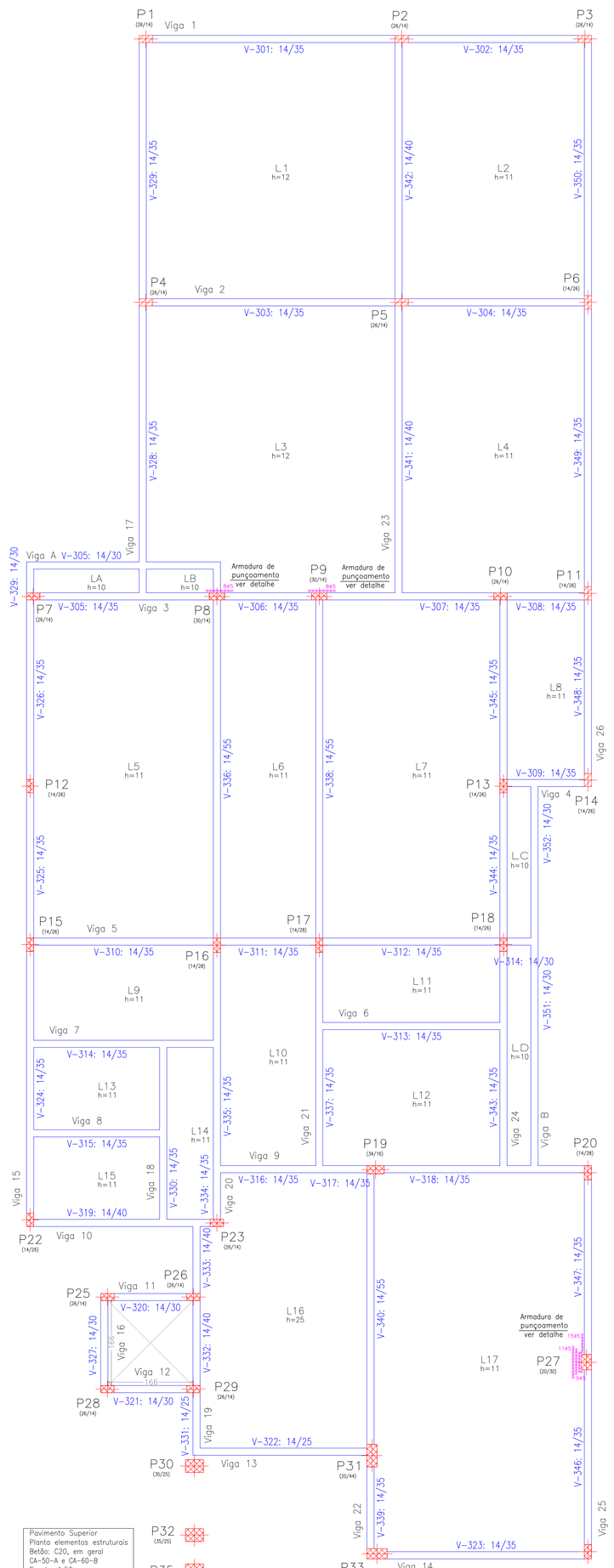
A1

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	58	ø8	2	10	879	10	899	1798	7.1	
	59	ø8	1		350		350	350	1.4	
	60	ø8	3	10	879	10	899	2697	10.6	
	61	ø6.3	1	10	879	10	899	899	2.2	
	62	ø5	55				88	4840		7.6
							Total+10%		23.4	8.4
Viga 2	63	ø10	2	12	528		540	1080	6.8	
	64	ø8	1		395	10	405	810	3.2	
	65	ø8	1		380		380	380	1.5	
	66	ø10	1		365		365	365	2.3	
	67	ø8	3	10	879	10	899	2697	10.6	
	68	ø10	2		265		265	530	3.3	
	69	ø5	55				88	4840		7.6
							Total+10%		30.5	8.4
Viga 3	41	ø8	2	10	1099	10	1119	2238	8.8	
	42	ø10	1		380		380	380	2.4	
	43	ø6.3	1		220		220	220	0.5	
	44	ø8	2	10	940		950	1900	7.5	
	45	ø8	1		395		395	395	1.6	
	46	ø8	1		280	10	290	870	3.4	
	47	ø5	68				88	5984		9.4
							Total+10%		26.6	10.3
Viga 4	48	ø8	2	10	174	10	194	388	1.5	
	49	ø6.3	3	8	174	8	190	570	1.4	
	50	ø5	11				88	968		1.5
							Total+10%		3.2	1.7
Viga 5	51	ø8	2		570	10	580	1160	4.6	
	52	ø8	2	10	390		400	800	3.1	
	53	ø10	1		310		310	310	1.9	
	54	ø8	1		240		240	240	0.9	
	55	ø8	2		70	10	80	160	0.6	
	56	ø8	2	10	994	10	1014	2028	8.0	
	57	ø6.3	2		380		380	760	1.9	
	58	ø5	61				88	5368		8.4
	59	ø5	5				78	390		0.6
							Total+10%		23.1	9.9
Viga 6	85	ø8	2	10	369	10	389	778	3.1	
	86	ø6.3	3	8	369	8	385	1155	2.9	
	87	ø5	24				88	2112		3.3
							Total+10%		6.6	3.6
Viga 7	88	ø8	2	10	374	10	394	788	3.1	
	89	ø6.3	1		220		220	220	0.5	
	90	ø6.3	2	8	374	8	390	780	1.9	
	91	ø5	24				88	2112		3.3
							Total+10%		6.1	3.6
Viga 8	92	ø8	2	10	269	10	289	578	2.3	
	93	ø6.3	2	8	269	8	285	570	1.4	
	94	ø5	17				88	1496		2.3
							Total+10%		4.1	2.5
Viga 9	71	ø8	2	10	734	10	754	2262	8.9	
	72	ø8	1		310		310	620	2.4	
	73	ø8	3	10	734	10	754	2262	8.9	
	74	ø10	2		295		295	590	3.7	
	75	ø5	48				88	4224		6.6
							Total+10%		26.3	7.3
Viga 10	100	ø8	2	10	380	10	400	800	3.1	
	101	ø8	2	10	380	10	400	1200	4.7	
	102	ø5	20				88	1960		3.1
							Total+10%		8.6	3.4
Viga 11=Viga 12	103	ø8	2	10	189	10	209	418	1.6	
	104	ø6.3	3	8	189	8	205	615	1.5	
	105	ø5	11				78	858		1.3
							Total+10%		3.4	1.8
							(x2)		6.8	2.8
Viga 13	106	ø8	2	10	355	10	375	750	2.9	
	107	ø6.3	2	8	355	8	371	742	1.8	
	108	ø5	33				68	2244		3.5
							Total+10%		5.2	3.9
Viga 14	109	ø8	2	10	434	10	454	908	3.6	
	110	ø6.3	1		250		250	250	0.6	
	111	ø8	2	10	434	10	454	908	3.6	
	112	ø6.3	1	10	434	10	454	454	1.1	
	113	ø5	26				88	2288		3.6
							Total+10%		9.8	4.0
Viga 15	66	ø8	3	10	870		880	2640	10.4	
	67	ø8	2		390	10	400	800	3.1	
	68	ø6.3	2		385		385	770	1.9	
	69	ø6.3	1		72	8	80	160	0.4	
	70	ø8	3	10	875		885	2655	10.4	
	71	ø6.3	1		452	8	460	1380	3.4	
	72	ø6.3	2		520		520	1040	2.6	
	73	ø5	78				88	6864		10.8
	74	ø5	5				78	390		0.6
							Total+10%		35.4	12.5
Viga 16	24	ø8	2	10	189	10	209	418	1.6	
	25	ø6.3	2	8	189	8	205	410	1.0	
	26	ø5	13				78	1014		1.6
							Total+10%		2.9	1.8
Viga 17	79	ø8	2	10	590		600	1200	4.7	
	80	ø10	1		528	12	540	1080	6.8	
	81	ø6.3	1		310		310	310	0.8	
	82	ø8	3	10	1099	10	1119	3357	13.2	
	83	ø6.3	2		260		260	520	1.3	
	84	ø5	72				88	6336		9.9
							Total+10%		29.5	10.9
Viga 18	33	ø8	2	10	359	10	379	758	3.0	
	34	ø6.3	1		210		210	210	0.5	
	35	ø6.3	2	8	359	8	375	750	1.9	
	36	ø5	23				88	2024		3.2
							Total+10%		5.9	3.5
Viga 19	37	ø8	2	10	334	10	354	708	2.8	
	38	ø6.3	2	8	137		145	290	0.7	
	39	ø6.3	3	8	456	8	472	1416	3.5	
	40	ø5	11				68	748		1.2
	41	ø5	18				98	1764		2.8
							Total+10%		7.7	4.4
Viga 20	1	ø10	3	12	698	12	722	2166	13.6	
	2	ø10	1		563		575	1725	10.8	
	3	ø6.3	2		505		505	1010	2.5	
	4	ø8	2		410		410	820	3.2	
	5	ø8	1		100	10	110	220	0.9	
	6	ø8	3		785	10	795	2385	9.4	
	7	ø8	1		480		480	1440	5.7	
	8	ø8	3		340		340	1020	4.0	
	9	ø8	3	10	225		235	705	2.8	
	10	ø10	3		223	12	235	705	4.4	
	11	ø5	36				88	3168		5.0
	12	ø5	27				128	3456		5.4
	13	ø5	5				78	390		0.6
							Total+10%		63.0	12.1
Viga 21	1	ø10	3	12	698	12	722	2166	13.6	
	2	ø8	2	10	465		475	950	3.7	
	3	ø6.3	1		455		455	455	1.1	
	4	ø8	2		410		410	820	3.2	
	5	ø8	3		700	10	710	2130	8.4	
	6	ø10	3	12	463		475	1425	8.9	
	7	ø10	3		345		345	1035	6.5	
	8	ø5	28				88	2464		3.9
	9	ø5	27				128	3456		5.4
							Total+10%		49.9	10.2
Viga 22	1	ø10	3	12	584	12	608	1824	11.5	
	2	ø8	2	10	215		225	450	1.8	
	3	ø8	3	10	764	10	784	2352	9.2	
	4	ø10	2		280		280	560	3.5	
	5	ø5	11				88	968		1.5
	6	ø5	25				128	3300		5.0
							Total+10%		28.6	7.2
Viga 23	1	ø10	2	12	608		620	1240	7.8	
	2	ø10	1		543	12	555	1665	10.5	
	3	ø6.3	2		543	12	555	1110	2.7	
	4	ø8	1		345		345	345	1.4	
	5	ø6.3	3	8	1099	8	1115	3345	8.3	
	6	ø10	1		305		305	915	5.7	
	7	ø5	60				98	5880		9.2
							Total+10%		40.0	10.1
Viga 24	1	ø8	2	10	1129	10	1149	2298	9.0	
	2	ø6.3	1		700		700	700	1.7	
	3	ø8	2	10	1129	10	1149	2298	9.0	
	4	ø10	1		215		215	215	1.4	
	5	ø8	1		185		185	185	0.7	
	6	ø5	71				88	6248		9.8
							Total+10%		24.0	10.8
Viga 25	42	ø8	2	10	764	10	784	1568	6.2	
	43	ø6.3	3	8	764	8	780	2340	5.8	
	44	ø6.3	2		200		200	400	1.0	
	45	ø5	46				88	4048		6.4
							Total+10%		14.3	7.0
Viga 26	1	ø8	2	10	955		965	1930	7.6	
	2	ø8	1		530	10	540	1080	4.2	
	3	ø6.3	1		345		345	345	0.9	
	4	ø6.3	1		325		325	325	0.8	
	5	ø8	2	10	960		970	1940	7.6	
	6	ø8	3		650	10	660	1980	7.8	
	7	ø5	93				88	8184		12.8
							Total+10%		31.8	14.1
Viga A	38	ø8	2	10	374	10	394	788	3.1	
	39	ø6.3	2	8	374	8	390	780	1.9	
	40	ø5	27				78	2106		3.3
							Total+10%		5.5	3.6
Viga B	13	ø8	2	10	764	10	784	1568	6.2	
	14	ø5	2	8	764	6	778	1556	2.4	
	15	ø6.3	2		417	8	425	850	2.1	
	16	ø5	58				78	4524		7.1
							Total+10%		9.1	10.5

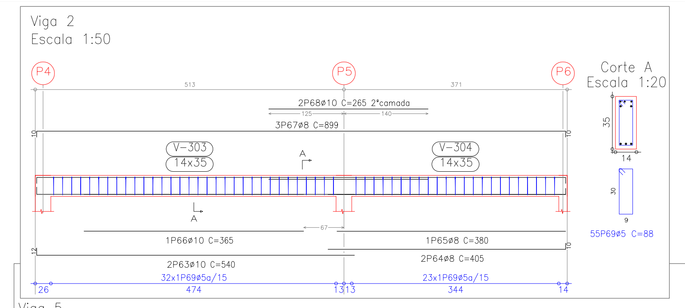
Resumo Aço Pavimento Superior Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	251.4	68	
	ø8	710.5	309	
	ø10	199.7	136	513
CA-60-B	ø5	1011.4	172	172
Total				685

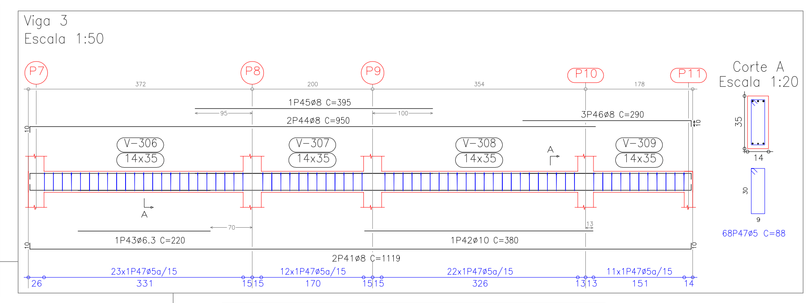
Pavimento Superior - Superfície total: 271,48 m2			
Elemento	Superfície (m2)	Volume (m3)	Tarifas (Kg)
Lajes	244.63	29.76	1513
Vigas	25.34	9.92	688
Cofragem lateral	99.87		
Pilares (Sup. Cofragem)	80.20	3.94	405
Total	450.04	43.62	2606
Índices (por m2)	1.658	0.161	10.56

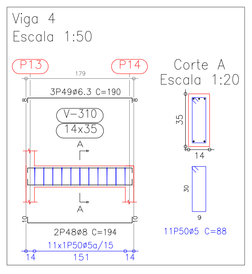
Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre

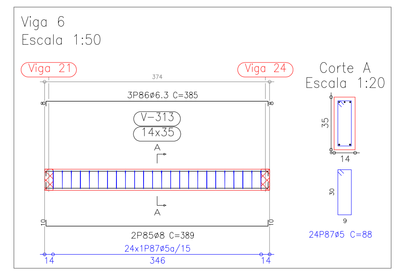


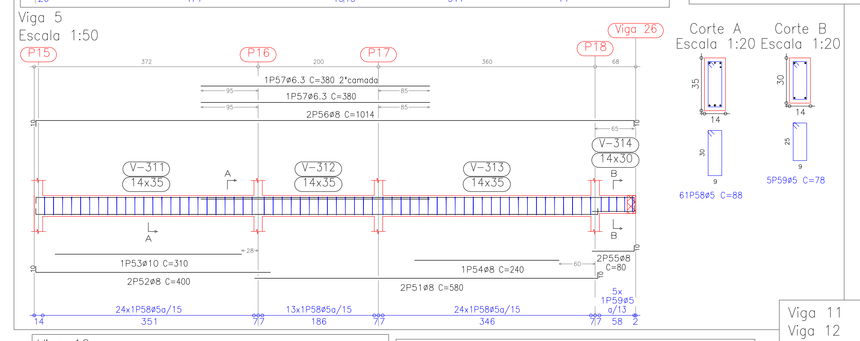
Pavimento Superior
Planta elementos estruturais
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

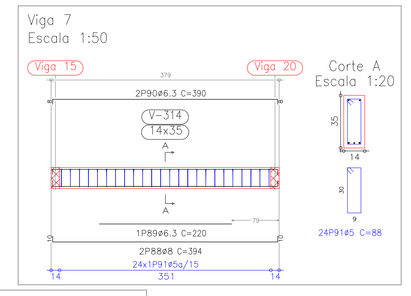


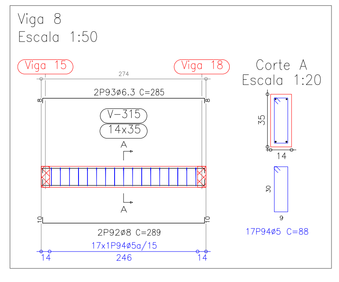


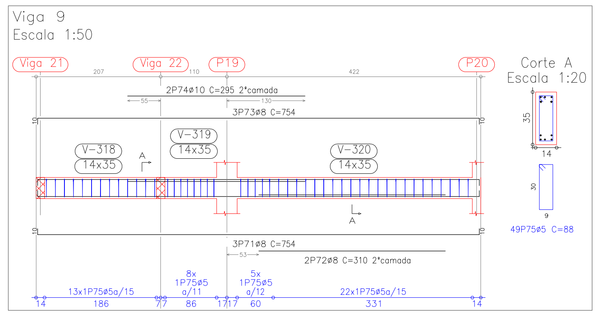


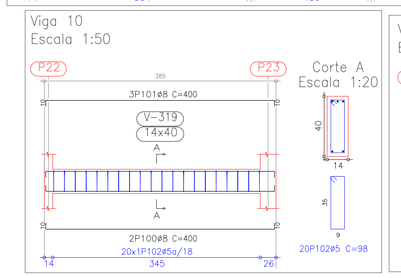


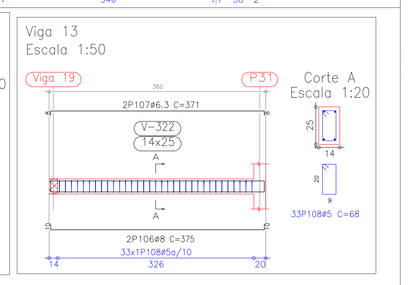


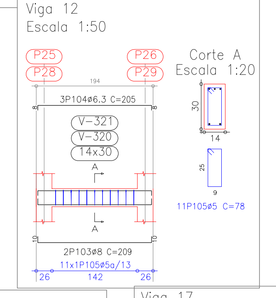


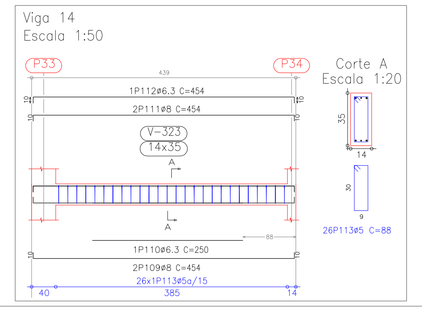


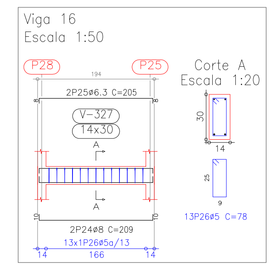


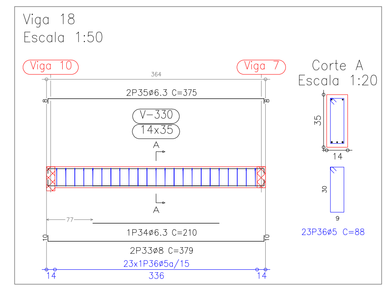


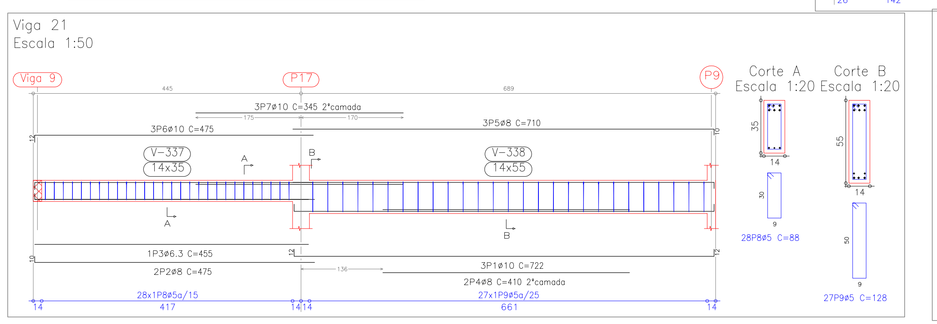


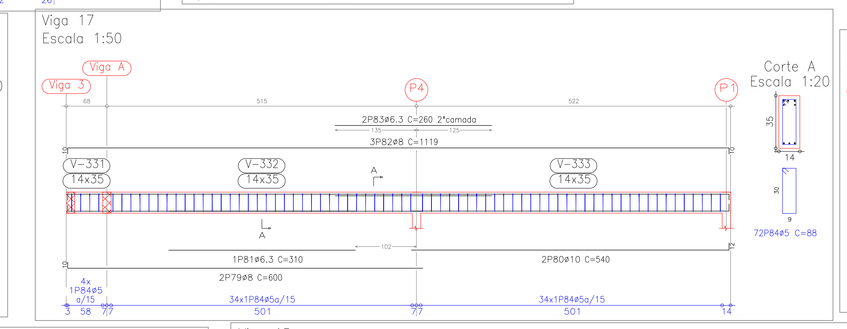


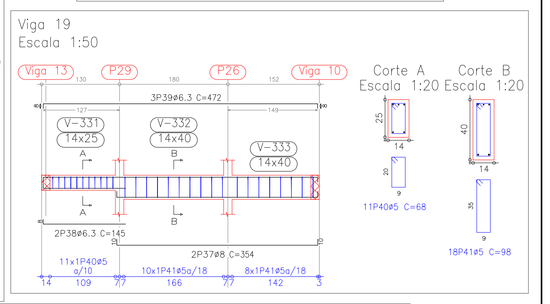


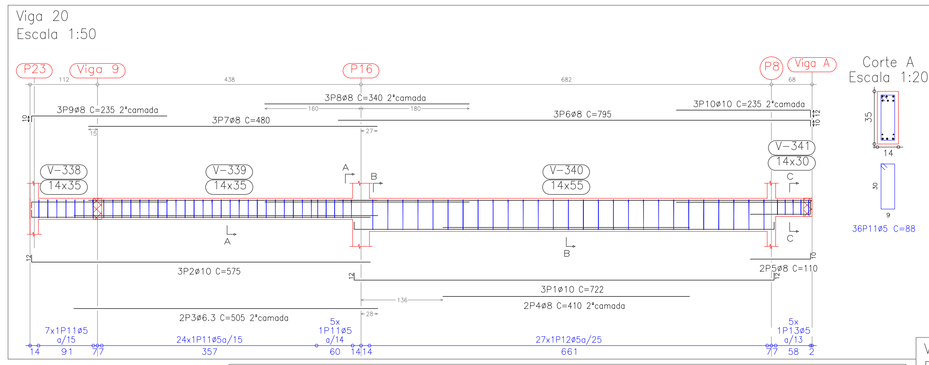


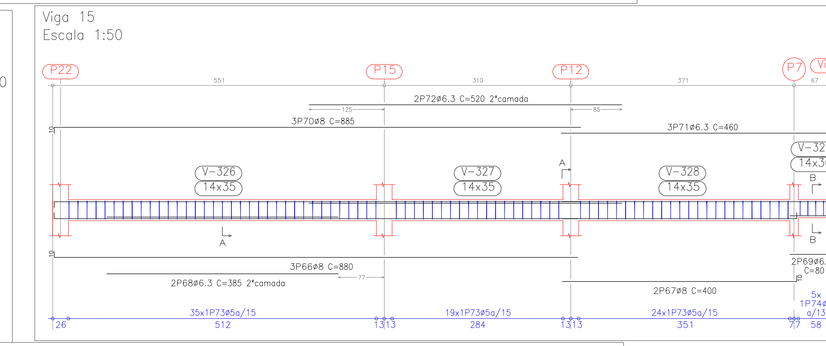


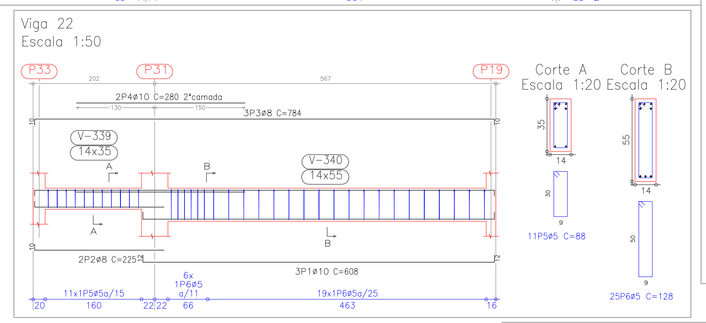


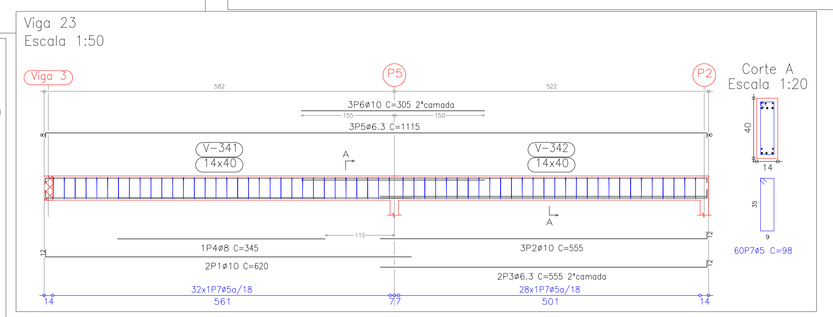


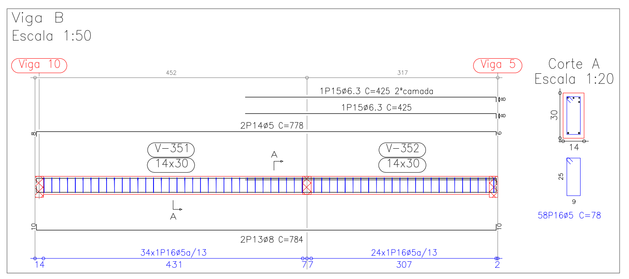


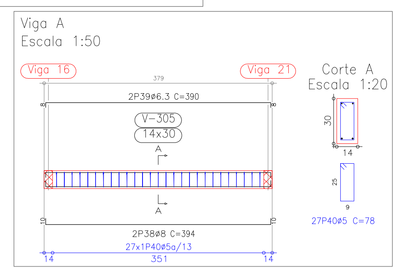


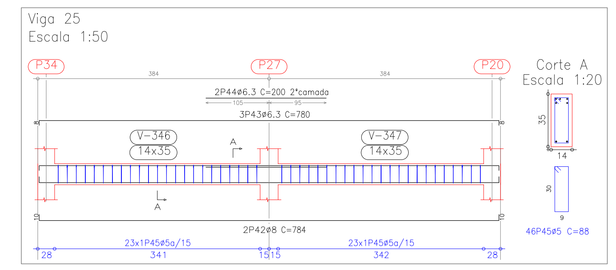


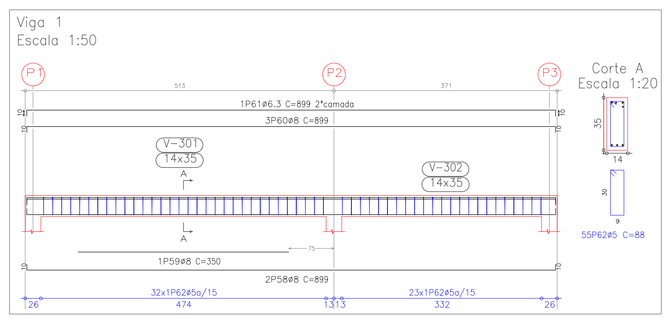


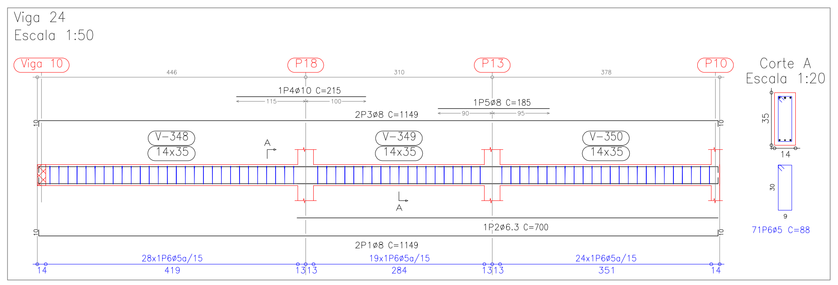


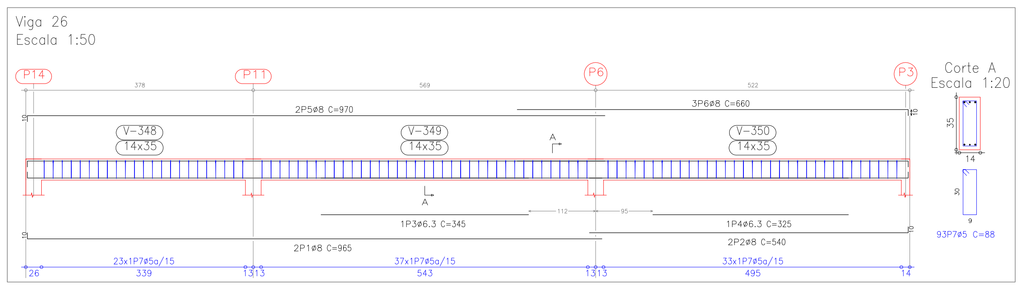












Pavimento Superior
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES

Projeto: EST
Área: 465,67m²

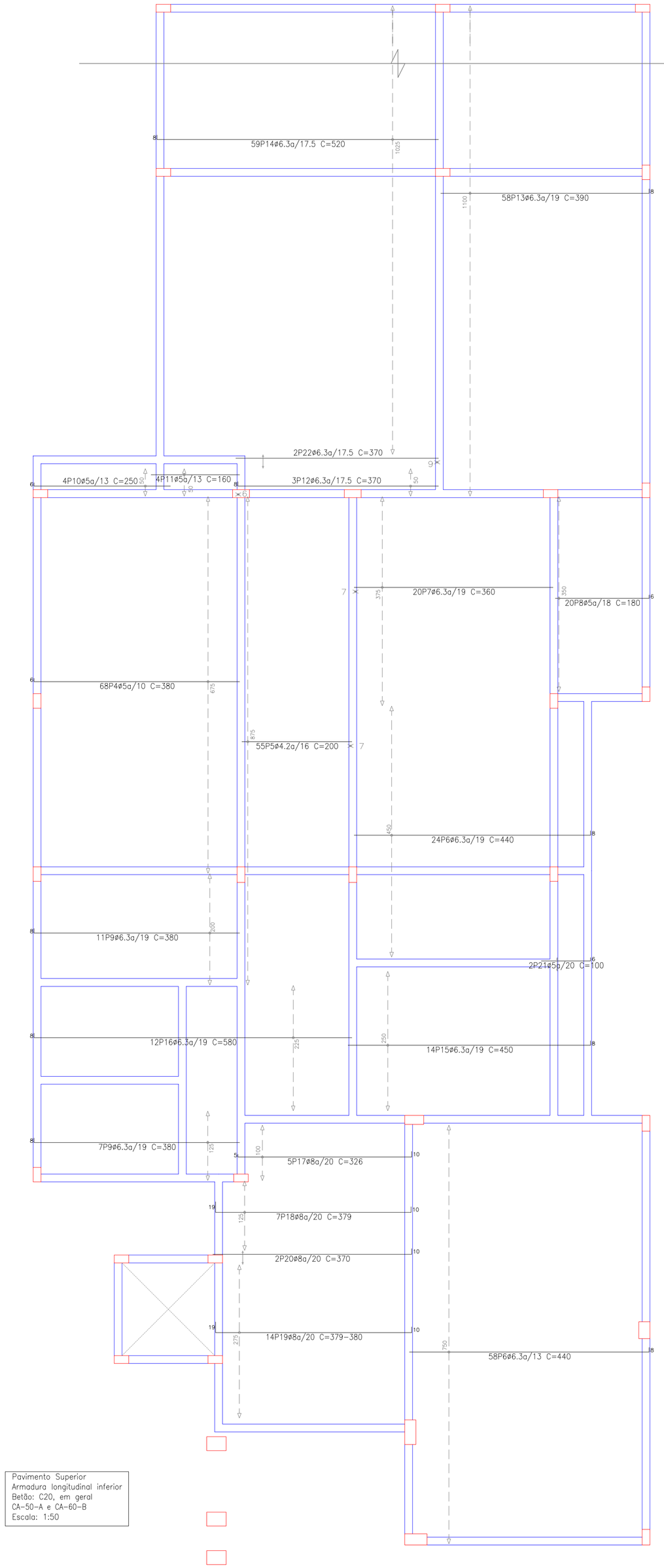
Obra: INSPETORIA DE CANOINHAS
Engenheira Civil - CREA/SC 073.045-2
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

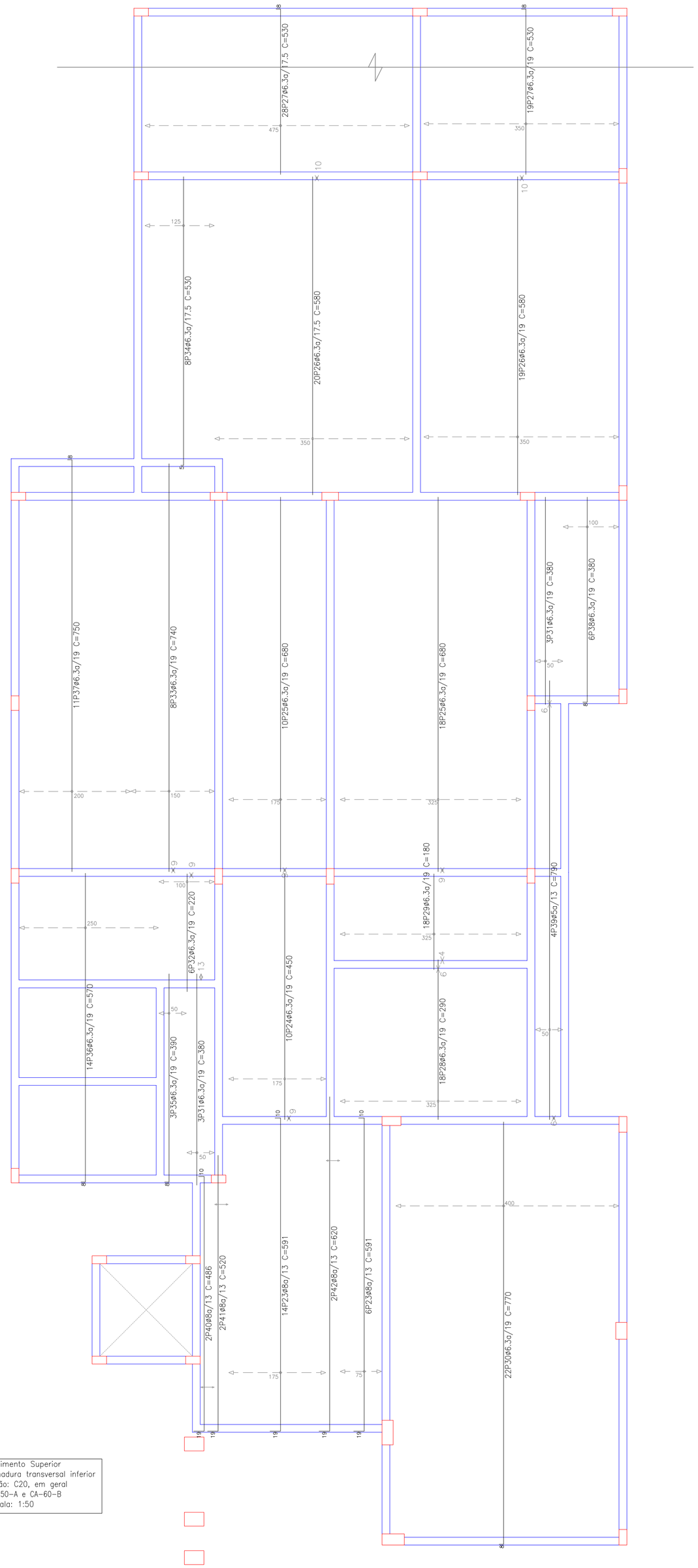
Desenho: VIVIANNE
Prancha: 6

Conteúdo: PLANTA PAVIMENTO SUPERIOR
VIGAS PAVIMENTO SUPERIOR

Data: FEV/2011
Escala: INDICADA



Pavimento Superior
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Pavimento Superior
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	4	ø5	68	6	374		380	25840		40.6
	5	ø4.2	55		200		200	11000		12.0
	6	ø6.3	82	8	432		440	36080	89.2	
	7	ø6.3	20		360		360	7200	17.8	
	8	ø5	20	6	174		180	3600		5.7
	9	ø6.3	18	8	372		380	6840	16.9	
	10	ø5	4	6	244		250	1000		1.6
	11	ø5	4		160		160	640		1.0
	12	ø6.3	3	8	362		370	1110	2.7	
	13	ø6.3	58	8	382		390	22620	55.9	
	14	ø6.3	59	8	512		520	30680	75.9	
	15	ø6.3	14	8	442		450	6300	15.6	
	16	ø6.3	12	8	572		580	6960	17.2	
	17	ø8	5	5	311	10	326	1630	6.4	
	18	ø8	7	19	350	10	379	2653	10.4	
	19	ø8	14	19	351	10	380	5320	20.9	
	20	ø8	2	10	360		370	740	2.9	
	21	ø5	2	6	94		100	200		0.3
	22	ø6.3	2		370		370	740	1.8	
							Total+10%	367.0		67.3
Armadura transversal inferior	23	ø8	20	19	562	10	591	11820	46.4	
	24	ø6.3	10		450		450	4500	11.1	
	25	ø6.3	28		680		680	19040	47.1	
	26	ø6.3	39		580		580	22620	55.9	
	27	ø6.3	47	8	522		530	24910	61.6	
	28	ø6.3	18		290		290	5220	12.9	
	29	ø6.3	18		180		180	3240	8.0	
	30	ø6.3	22	8	762		770	16940	41.9	
	31	ø6.3	6		380		380	2280	5.6	
	32	ø6.3	6		220		220	1320	3.3	
	33	ø6.3	8		740		740	5920	14.6	
	34	ø6.3	8	5	525		530	4240	10.5	
	35	ø6.3	3	8	382		390	1170	2.9	
	36	ø6.3	14	8	562		570	7980	19.7	
	37	ø6.3	11	8	742		750	8250	20.4	
	38	ø6.3	6	8	372		380	2280	5.6	
	39	ø5	4		790		790	3160		5.0
	40	ø8	2	19	457	10	486	972	3.8	
	41	ø8	2	19	501		520	1040	4.1	
	42	ø8	2	19	601		620	1240	4.9	
							Total+10%	418.3		5.5

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

APROVAÇÕES

SUZANA OLESKOVICZ
ARQUITETA E URBANISTA - CREA/SC 068.249-5
KAROLINE A. CRESTANI
ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
ENGENHEIRA CIVIL - CREA/SC 073.045-2

PROJETO: EST

ÁREA: 465,67M²

OBRA: INSPETORIA DE CANOINHAS

PROPRIETÁRIO: CREA/SC

ENDEREÇO: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

AUTOR DO PROJETO
SUZANA OLESKOVICZ ARQUITETA E URBANISTA - CREA/SC 068.249-5
KAROLINE A. CRESTANI ARQUITETA E URBANISTA - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES ENGENHEIRA CIVIL - CREA/SC 073.045-2

DESENHO: VIVIANNE

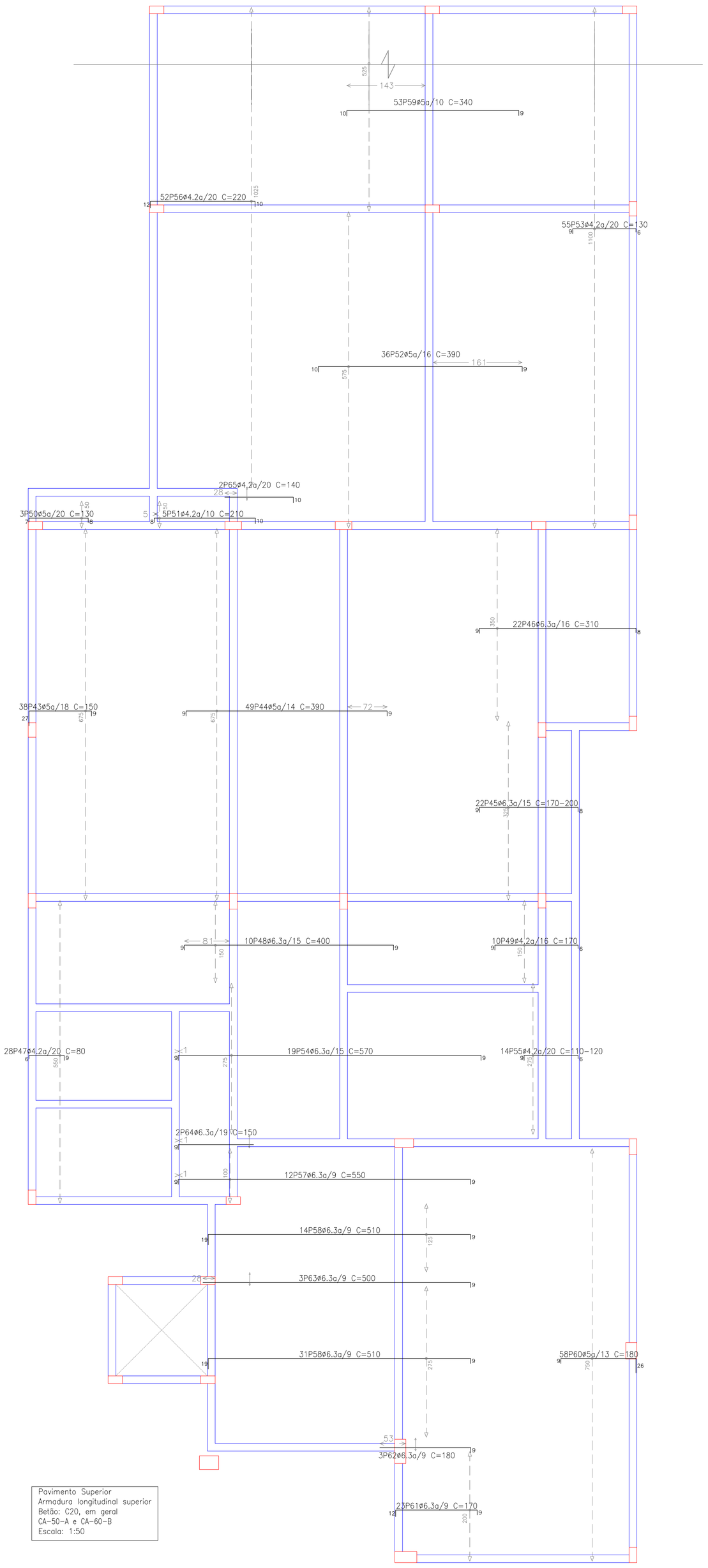
PRANCHA: 7

CONTEÚDO: ARMADURA DE LAJES PAVIMENTO SUPERIOR

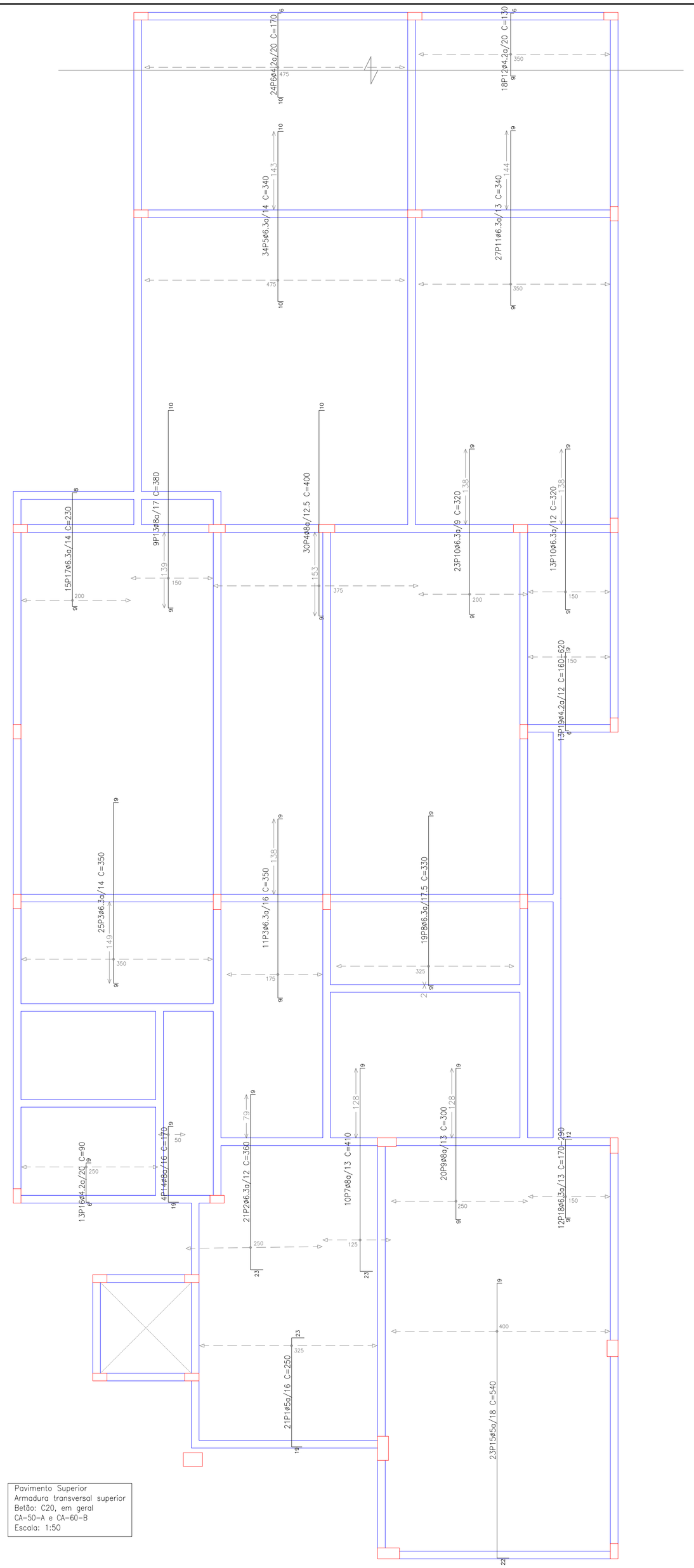
DATA: FEV/2011

ESCALA: INDICADA

A1



Pavimento Superior
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Pavimento Superior
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal superior	43	ø5	38	27	114	9	150	5700		8.9
	44	ø5	49	9	372	9	390	19110		30.0
	45	ø6.3	22	9	VAR.	8	VAR.	4356	10.8	
	46	ø6.3	22	9	293	8	310	6820	16.9	
	47	ø4.2	28	6	65	9	80	2240		2.4
	48	ø6.3	10	9	382	9	400	4000	9.9	
	49	ø4.2	10	9	155	6	170	1700		1.9
	50	ø5	3	7	115	8	130	390		0.6
	51	ø4.2	5	8	192	10	210	1050		1.1
	52	ø5	36	10	371	9	390	14040		22.0
	53	ø4.2	55	9	115	6	130	7150		7.8
	54	ø6.3	19	9	552	9	570	10830	26.8	
	55	ø4.2	14	9	VAR.	6	VAR.	1666		1.8
	56	ø4.2	52	12	198	10	220	11440		12.5
	57	ø6.3	12	9	532	9	550	6600	16.3	
	58	ø6.3	45	19	482	9	510	22950	56.7	
	59	ø5	53	10	321	9	340	18020		28.3
	60	ø5	58	9	145	26	180	10440		16.4
	61	ø6.3	23	12	149	9	170	3910	9.7	
	62	ø6.3	3	9	171		180	540	1.3	
	63	ø6.3	3	9	491		500	1500	3.7	
	64	ø6.3	2	9	141		150	300	0.7	
	65	ø4.2	2	10	130		140	280		0.3
								Total+10%	168.1	147.4
Armadura transversal superior	1	ø5	21	19	208	23	250	5250		8.2
	2	ø6.3	21	23	328	9	360	7560	18.7	
	3	ø6.3	36	9	332	9	350	12600	31.2	
	4	ø8	30	9	381	10	400	12000	47.1	
	5	ø6.3	34	10	320	10	340	11560	28.6	
	6	ø4.2	24	10	154	6	170	4080		4.4
	7	ø8	10	23	378	9	410	4100	16.1	
	8	ø6.3	19	9	312	9	330	6270	15.5	
	9	ø8	20	9	282	9	300	6000	23.6	
	10	ø6.3	36	9	302	9	320	11520	28.5	
	11	ø6.3	27	9	322	9	340	9180	22.7	
	12	ø4.2	18	9	115	6	130	2340		2.6
	13	ø8	9	9	361	10	380	3420	13.4	
	14	ø8	4	19	142	9	170	680	2.7	
	15	ø5	23	22	509	9	540	12420		19.5
	16	ø4.2	13	6	75	9	90	1170		1.3
	17	ø6.3	15	9	213	8	230	3450	8.5	
	18	ø6.3	12	9	VAR.	12	VAR.	2520	6.2	
	19	ø4.2	13	6	VAR.	9	VAR.	4069		4.4
								Total+10%	289.1	44.4

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
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Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m²

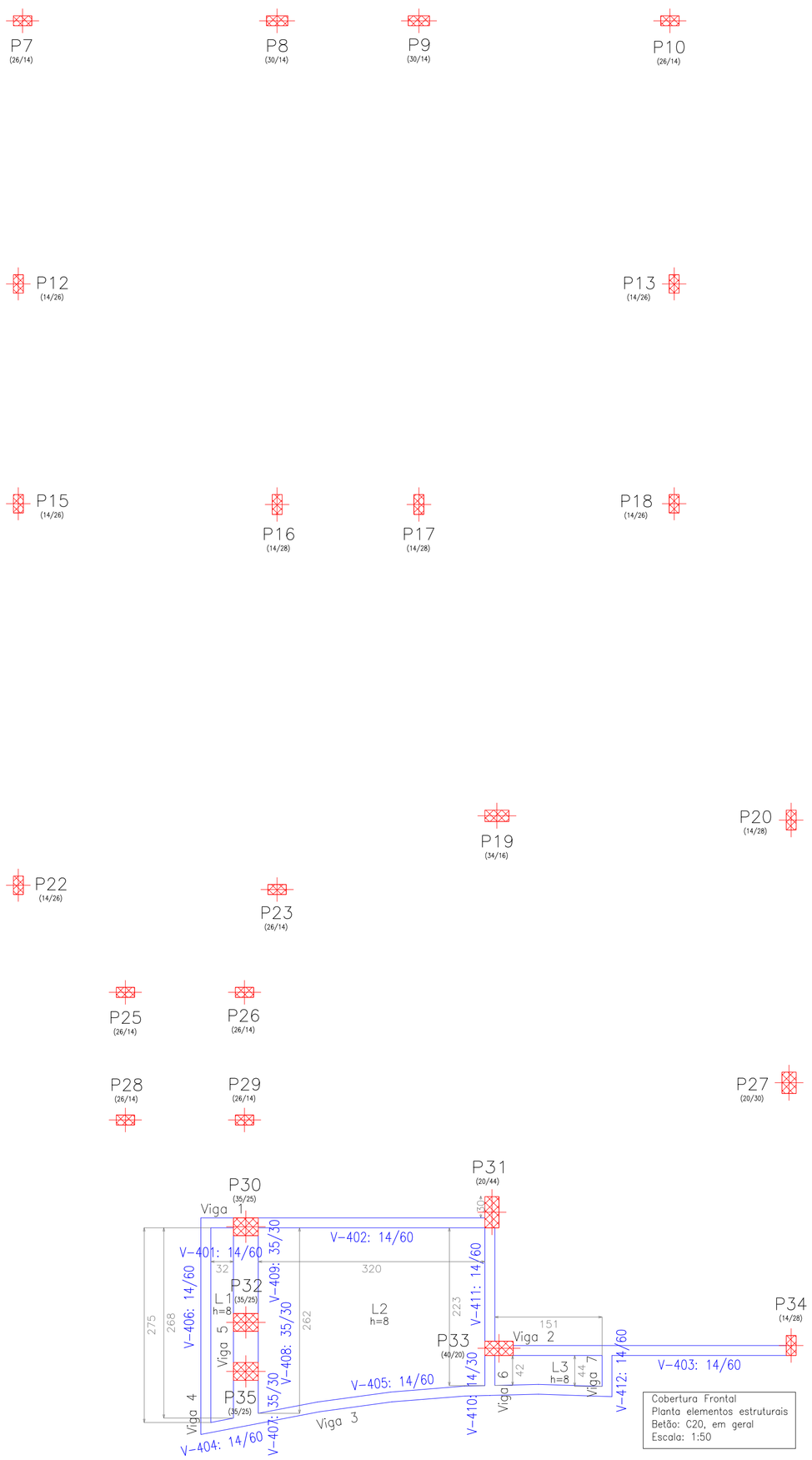
Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

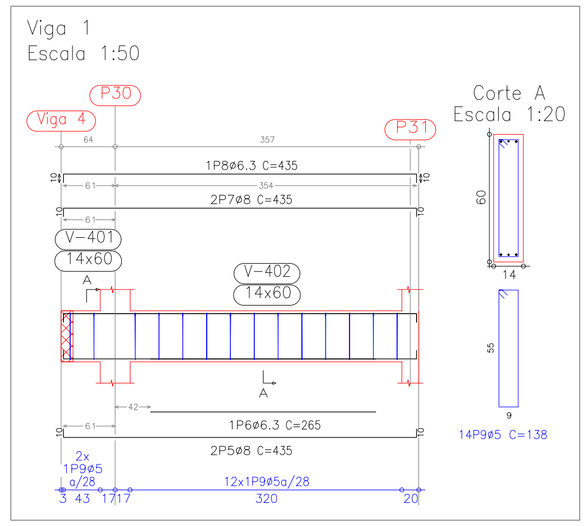
Desenho: VIVIANNE
Prancha: 8

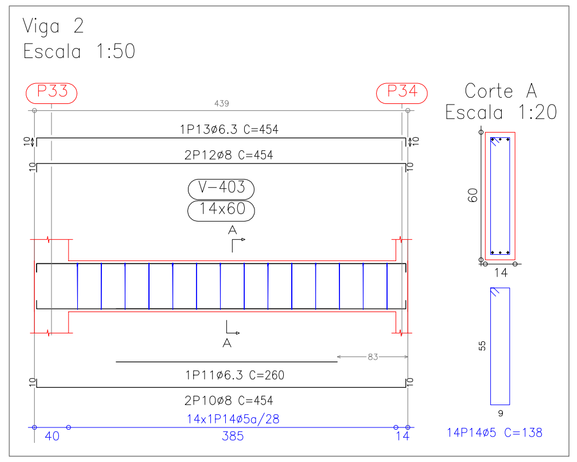
Conteúdo: ARMADURAS DE LAJES PAVIMENTO SUPERIOR
Data: FEV/2011
Escala: INDICADA

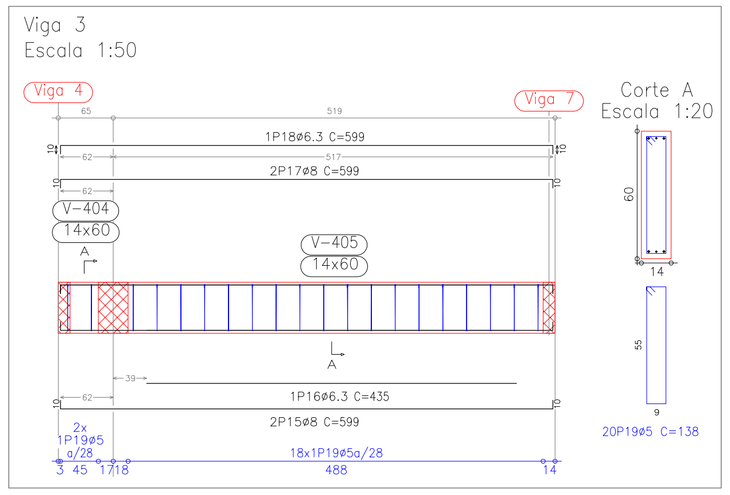
A1

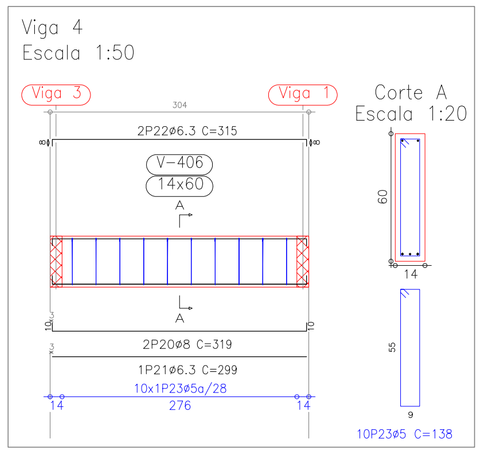


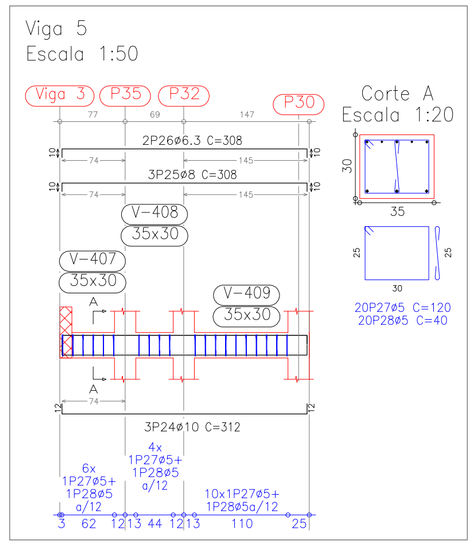
Cobertura Frontal
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

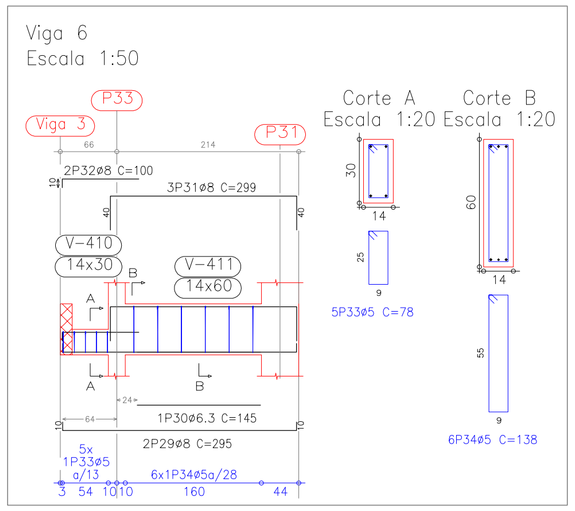


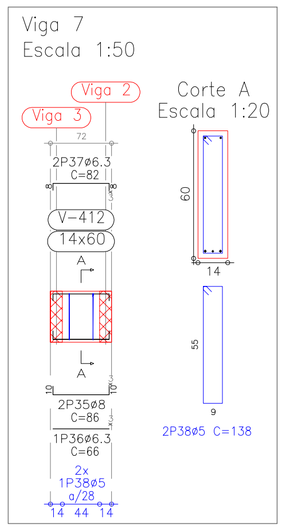












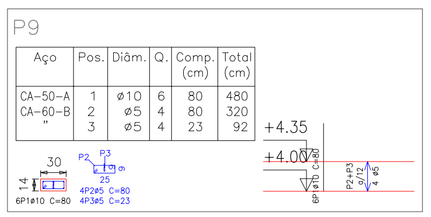
Cobertura Frontal
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre

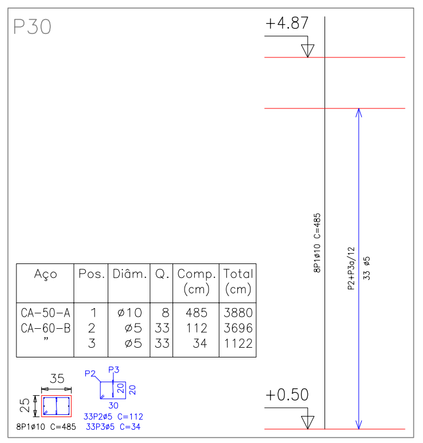
Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	5	ø8	2	10	415	10	435	870	3.4	
	6	ø6.3	1		265		265	265	0.7	
	7	ø8	2	10	415	10	435	870	3.4	
	8	ø6.3	1	10	415	10	435	435	1.1	
	9	ø5	14				138	1932		3.0
							Total+10%:		9.5	3.3
Viga 2	10	ø8	2	10	434	10	454	908	3.6	
	11	ø6.3	1		260		260	260	0.6	
	12	ø8	2	10	434	10	454	908	3.6	
	13	ø6.3	1	10	434	10	454	454	1.1	
	14	ø5	14				138	1932		3.0
							Total+10%:		9.8	3.3
Viga 3	15	ø8	2	10	579	10	599	1198	4.7	
	16	ø6.3	1		435		435	435	1.1	
	17	ø8	2	10	579	10	599	1198	4.7	
	18	ø6.3	1	10	579	10	599	599	1.5	
	19	ø5	20				138	2760		4.3
							Total+10%:		13.2	4.7
Viga 4	20	ø8	2	10	299	10	319	638	2.5	
	21	ø6.3	1		299		299	299	0.7	
	22	ø6.3	2	8	299	8	315	630	1.6	
	23	ø5	10				138	1380		2.2
							Total+10%:		5.3	2.4
Viga 5	24	ø10	3	12	288	12	312	936	5.9	
	25	ø8	3	10	288	10	308	924	3.6	
	26	ø6.3	2	10	288	10	308	616	1.5	
	27	ø5	20				120	2400		3.8
	28	ø5	20				40	800		1.3
							Total+10%:		12.1	5.6
Viga 6	29	ø8	2	10	275	10	295	590	2.3	
	30	ø6.3	1		145		145	145	0.4	
	31	ø8	3	40	219	40	299	897	3.5	
	32	ø8	2	10	90		100	200	0.8	
	33	ø5	5				78	390		0.6
	34	ø5	6				138	828		1.3
							Total+10%:		7.7	2.1
Viga 7	35	ø8	2	10	66	10	86	172	0.7	
	36	ø6.3	1		66		66	66	0.2	
	37	ø6.3	2	8	66	8	82	164	0.4	
	38	ø5	2				138	276		0.4
							Total+10%:		1.4	0.4

Resumo Aço Cobertura Frontal Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	43.7	12	
	ø8	93.7	40	
	ø10	9.4	6	58
CA-60-B	ø5	127.0	22	22
Total				80

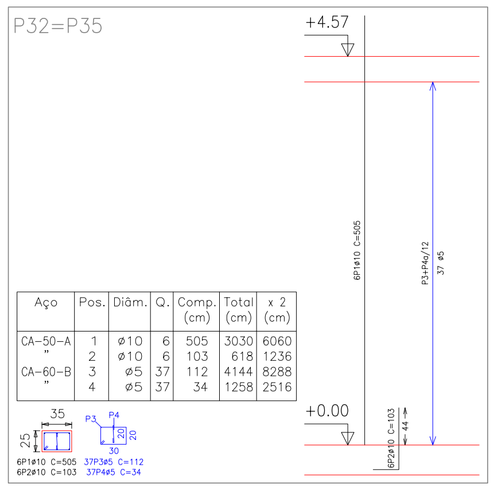
Cobertura Frontal - Superfície total: 13.63 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Lajes	9.09	0.73	41
Vigas	3.32	1.91	81
Cofragem lateral	21.31		
Pilares (Sup. Cofragem)	15.00	1.08	109
Total	48.72	3.72	231
Índices (por m2)	3.574	0.273	16.95



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	80	480
CA-60-B	2	ø5	4	80	320
"	3	ø5	4	23	92



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	8	485	3880
CA-60-B	2	ø5	33	112	3696
"	3	ø5	33	34	1122



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	6	505	3030	6060
"	2	ø10	6	103	618	1236
CA-60-B	3	ø5	37	112	4144	8288
"	4	ø5	37	34	1258	2516

Pilares que terminam em
Cobertura Frontal
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço Cobertura Frontal Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	116.6	81	81
CA-60-B ø5	160.3	28	28
Total			109

Revisão Nº	Data	Referência	Desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m2

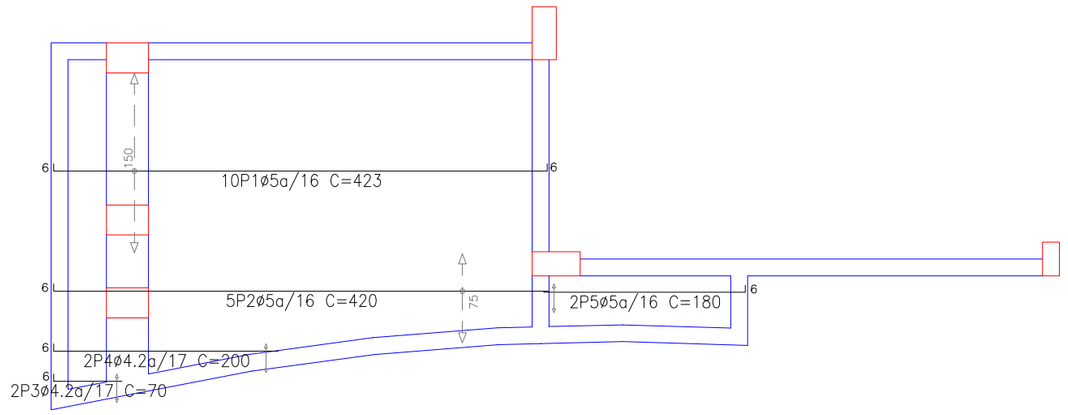
Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

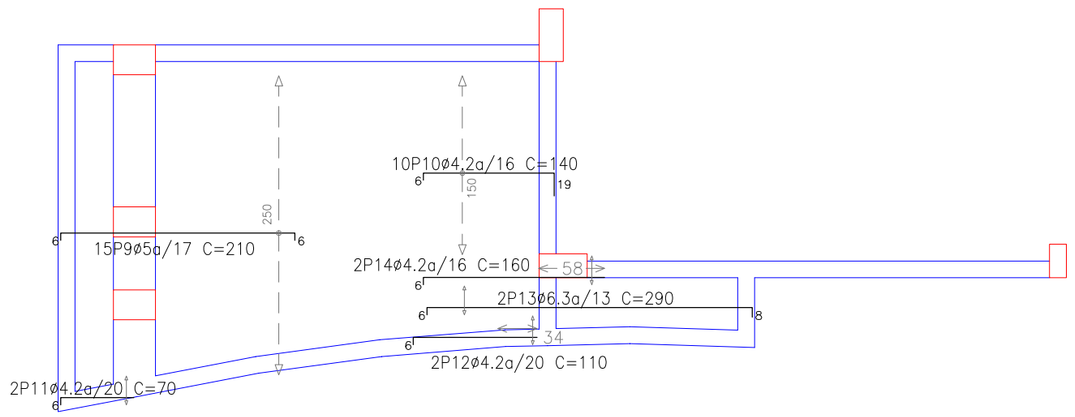
Desenho: VIVIANNE
Prancha: 9

Conteúdo: PLANTA COBERTURA FRONTAL
VIGAS E PILARES COBERTURA FRONTAL

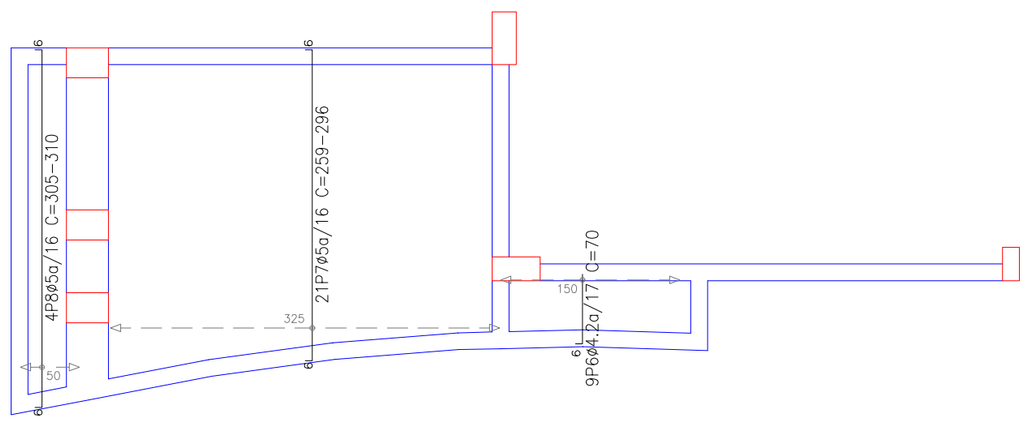
Data: FEV/2011
Escala: INDICADA



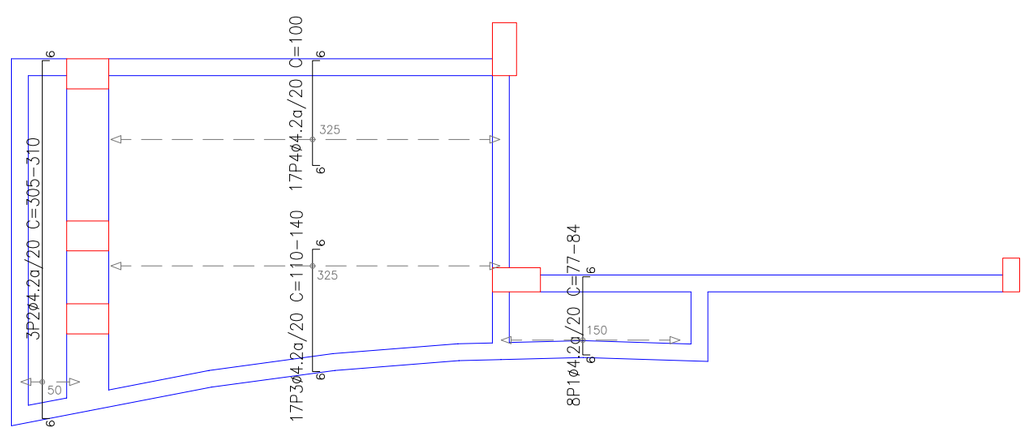
Cobertura Frontal
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Cobertura Frontal
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Cobertura Frontal
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Cobertura Frontal
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	1	ø5	10	6	411	6	423	4230		6.6
	2	ø5	5	6	414		420	2100		3.3
	3	ø4.2	2	6	64		70	140		0.2
	4	ø4.2	2	6	194		200	400		0.4
	5	ø5	2	6	174		180	360		0.6
								Total+10%:		12.2
Armadura transversal inferior	6	ø4.2	9	6	64		70	630		0.7
	7	ø5	21	6	VAR.	6	VAR.	5754		9.0
	8	ø5	4	6	VAR.	6	VAR.	1232		1.9
								Total+10%:		12.8
Armadura longitudinal superior	9	ø5	15	6	198	6	210	3150		4.9
	10	ø4.2	10	6	115	19	140	1400		1.5
	11	ø4.2	2	6	64		70	140		0.2
	12	ø4.2	2	6	104		110	220		0.2
	13	ø6.3	2	6	276	8	290	580	1.4	
	14	ø4.2	2	6	154		160	320		0.3
								Total+10%:	1.5	7.8
Armadura transversal superior	1	ø4.2	8	6	VAR.	6	VAR.	632		0.7
	2	ø4.2	3	6	VAR.	6	VAR.	924		1.0
	3	ø4.2	17	6	VAR.	6	VAR.	2074		2.3
	4	ø4.2	17	6	88	6	100	1700		1.9
								Total+10%:		6.5

Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
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VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

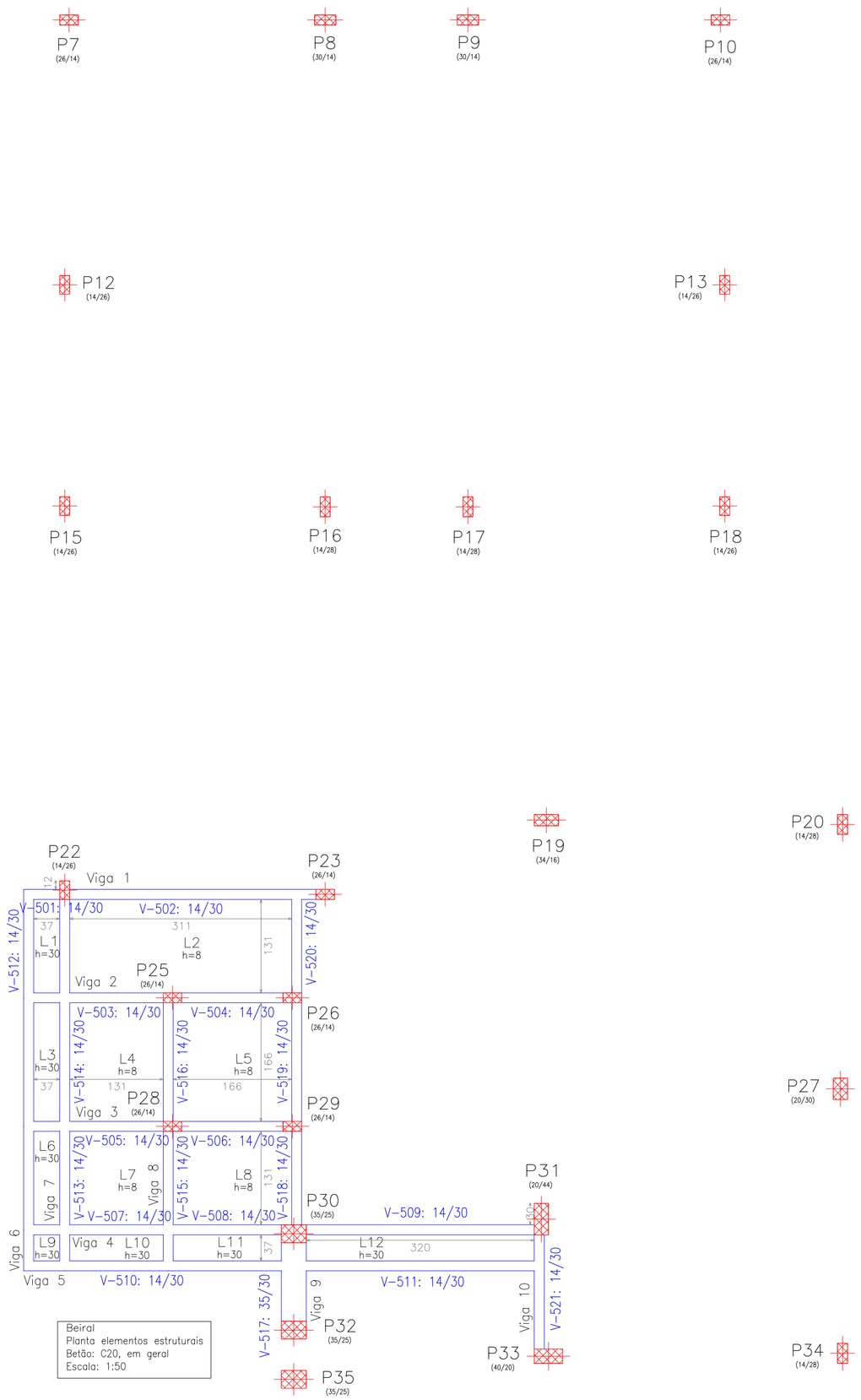
Desenho: VIVIANNE

Conteúdo
ARMADURAS DE LAJES
COBERTURA FRONTAL

Data: FEV/2011
Escala: INDICADA

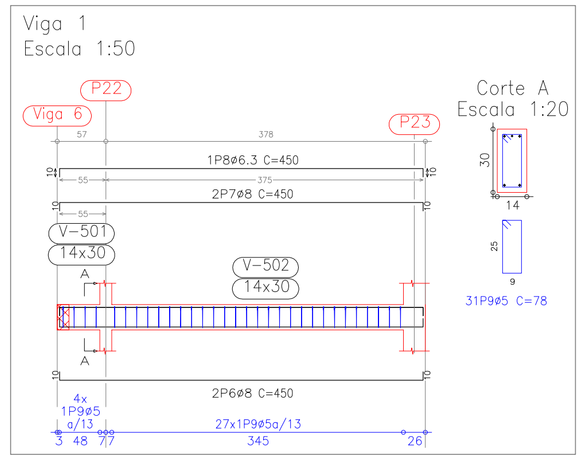
Prancha: 10

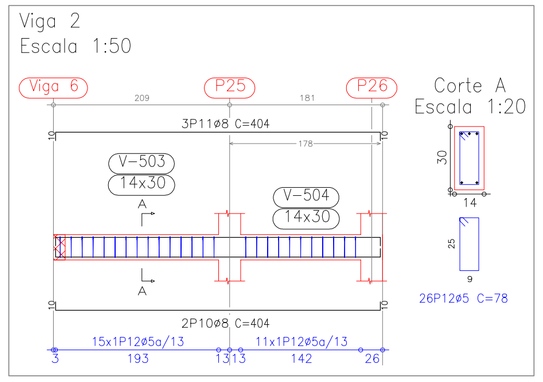
A2



Beiral
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

Pilares que terminam em
Beiral
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50



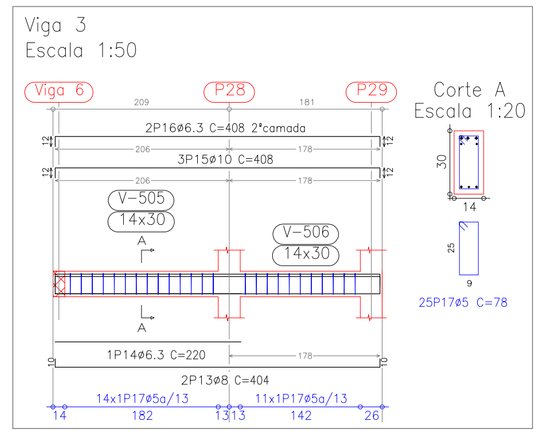


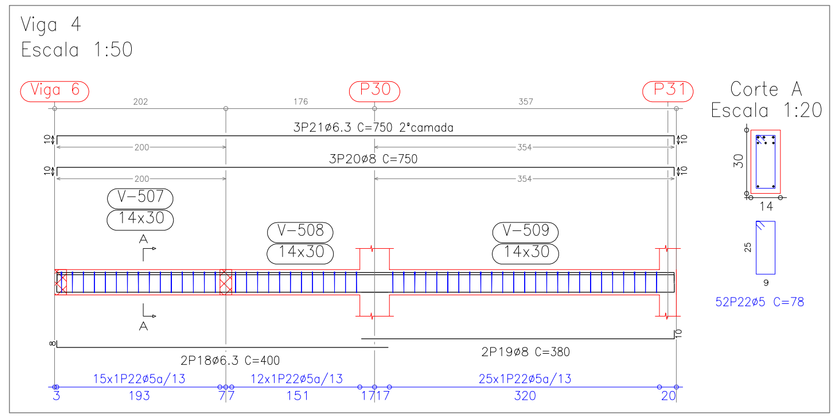
Beiral
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

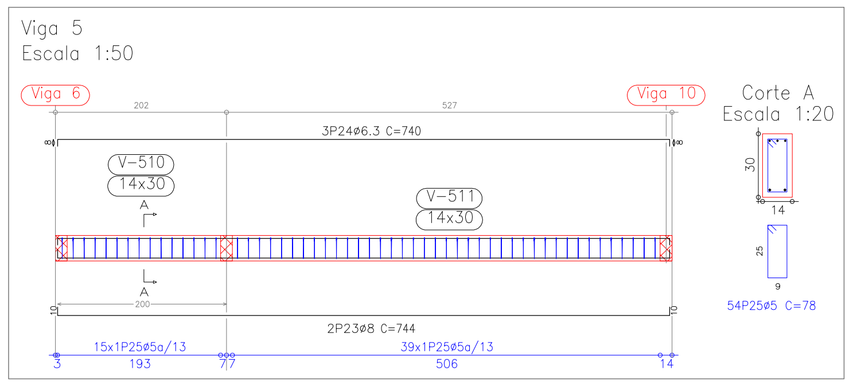
Beiral - Superfície total: 24.39 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Lajes	16.79	2.20	153
Vigas	6.38	2.12	158
Cofragem lateral	15.26		
Pilares (Sup. Cofragem)	11.20	0.50	74
Total	49.63	4.82	385
Índices (por m2)	2.035	0.198	15.79

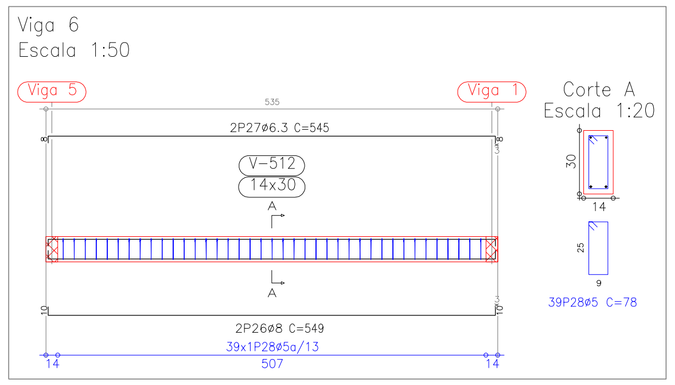
Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	6	ø8	2	10	430	10	450	900	3.5	
	7	ø8	2	10	430	10	450	900	3.5	
	8	ø6.3	1	10	430	10	450	450	1.1	
	9	ø5	31				78	2418		3.8
							Total+10%		8.9	4.2
Viga 2	10	ø8	2	10	384	10	404	808	3.2	
	11	ø8	3	10	384	10	404	1212	4.8	
	12	ø5	26				78	2028		3.2
							Total+10%		8.8	3.5
Viga 3	13	ø8	2	10	384	10	404	808	3.2	
	14	ø6.3	1		220		220	220	0.5	
	15	ø10	3	12	384	12	408	1224	7.7	
	16	ø6.3	2	12	384	12	408	816	2.0	
	17	ø5	25				78	1950		3.1
							Total+10%		14.7	3.4
Viga 4	18	ø6.3	2	8	392		400	800	2.0	
	19	ø8	2		370	10	380	760	3.0	
	20	ø8	3	10	730	10	750	2250	8.8	
	21	ø6.3	3	10	730	10	750	2250	5.6	
	22	ø5	52				78	4056		6.4
							Total+10%		21.3	7.0
Viga 5	23	ø8	2	10	724	10	744	1488	5.8	
	24	ø6.3	3	8	724	8	740	2220	5.5	
	25	ø5	54				78	4212		6.6
							Total+10%		12.4	7.3
Viga 6	26	ø8	2	10	529	10	549	1098	4.3	
	27	ø6.3	2	8	529	8	545	1090	2.7	
	28	ø5	39				78	3042		4.8
							Total+10%		7.7	5.3
Viga 7	29	ø8	2	10	541	10	561	1122	4.4	
	30	ø6.3	3	8	541	8	557	1671	4.1	
	31	ø5	38				78	2964		4.7
							Total+10%		9.4	5.2
Viga 8	32	ø8	2	10	384	10	404	808	3.2	
	33	ø8	2	10	384	10	404	808	3.2	
	34	ø6.3	1	10	384	10	404	404	1.0	
	35	ø5	27				78	2106		3.3
							Total+10%		8.1	3.6
Viga 9	36	ø8	2	10	625	10	645	1290	5.1	
	37	ø8	2	10	145		155	310	1.2	
	38	ø8	2	10	625	10	645	1290	5.1	
	39	ø8	1		245		245	245	1.0	
	40	ø6.3	2	10	150		160	320	0.8	
	41	ø5	10				120	1200		1.9
	42	ø5	10				40	400		0.6
	43	ø5	35				78	2730		4.3
							Total+10%		14.5	7.5
Viga 10	44	ø8	2	10	219	10	239	478	1.9	
	45	ø6.3	2	8	219	8	235	470	1.2	
	46	ø5	13				78	1014		1.6
							Total+10%		3.4	1.8

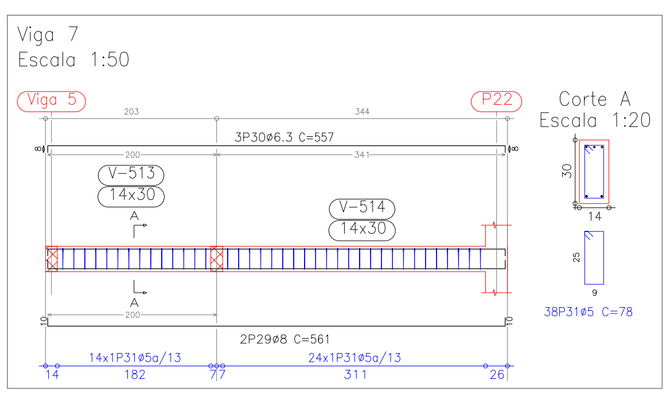


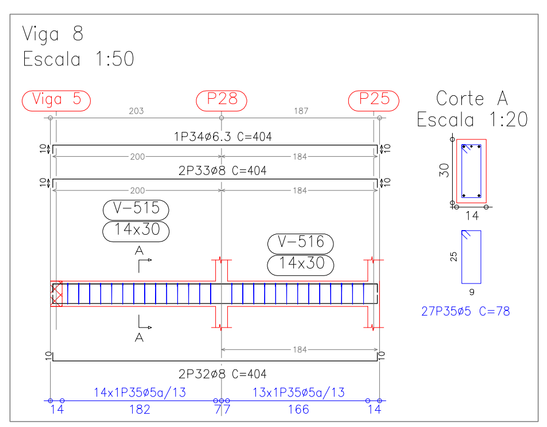


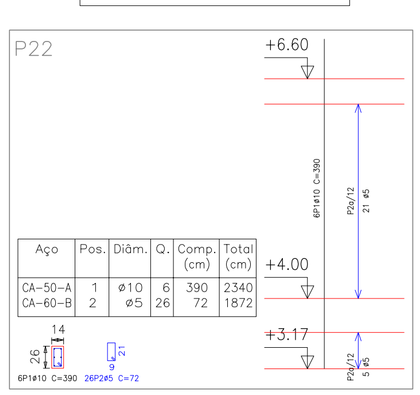




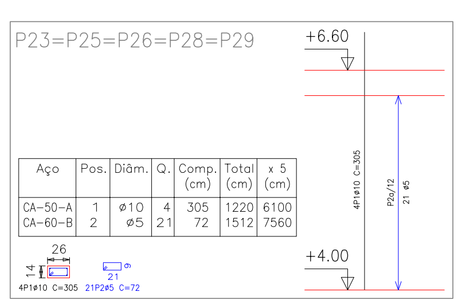
Resumo Aço Beiral Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	107.1	29	
ø8	165.8	72	
ø10	12.2	8	109
CA-60-B ø5	281.2	49	49
Total			158





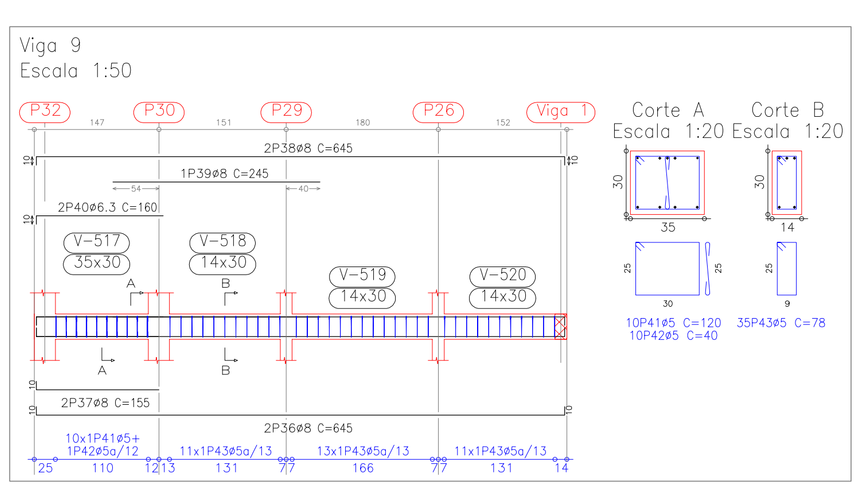


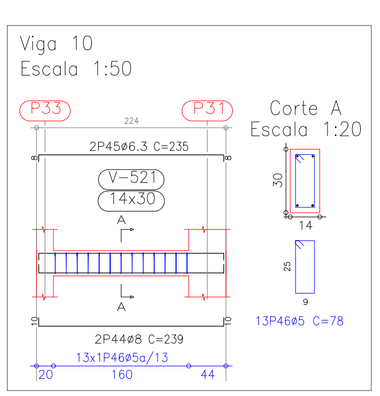
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	390	2340
CA-60-B	2	ø5	26	72	1872



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 5 (cm)
CA-50-A	1	ø10	4	305	1220	6100
CA-60-B	2	ø5	21	72	1512	7560

Resumo Aço Beiral Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	84.4	58	58
CA-60-B ø5	94.3	16	16
Total			74





Revisão Nº	DATA	REFERÊNCIA	DESENHO

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m²

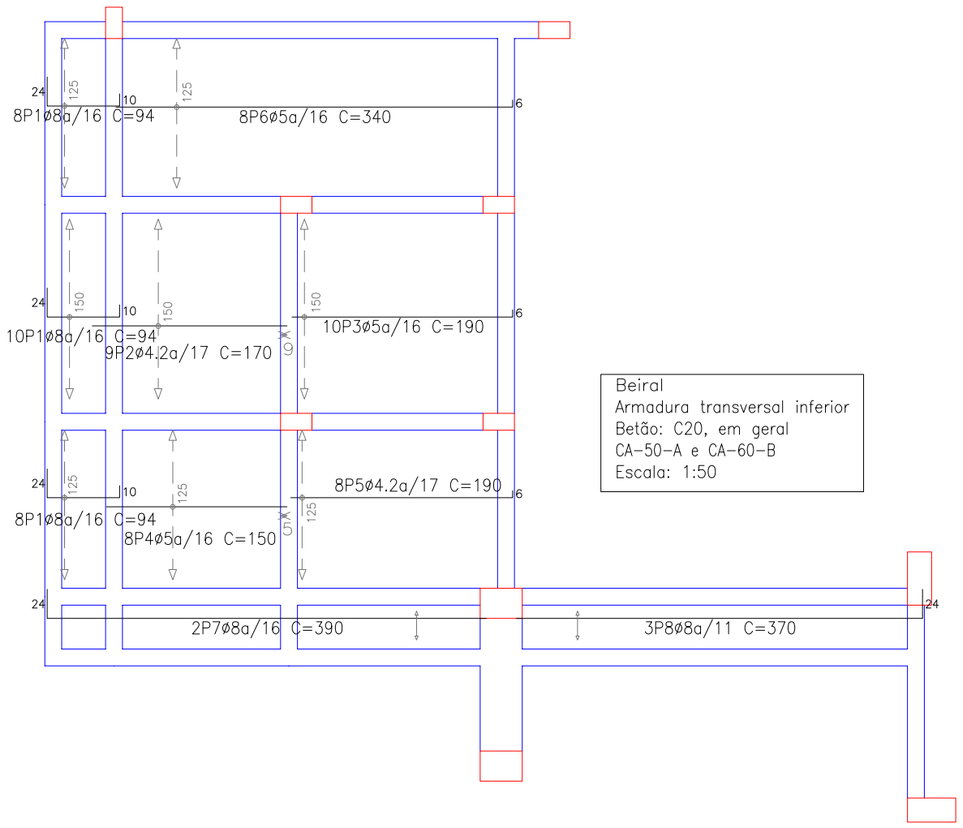
Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - CREA/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista - CREA/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

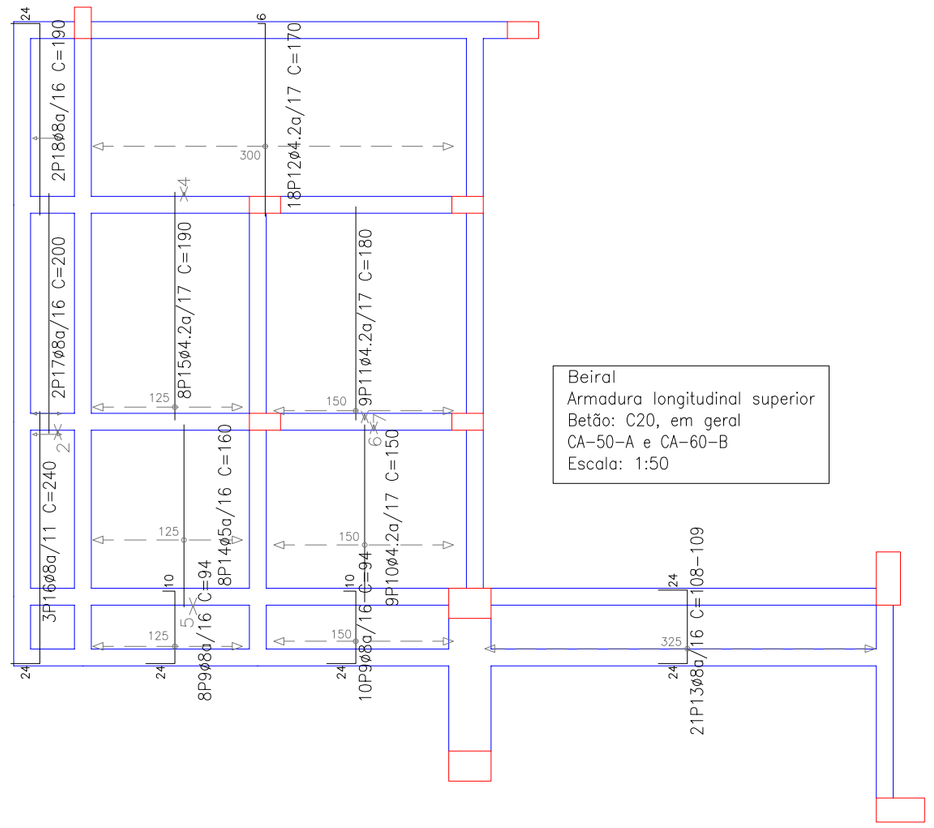
Desenho: VIVIANNE
Prancha: 11

Conteúdo: PLANTA BEIRAL
VIGAS E PILARES BEIRAL

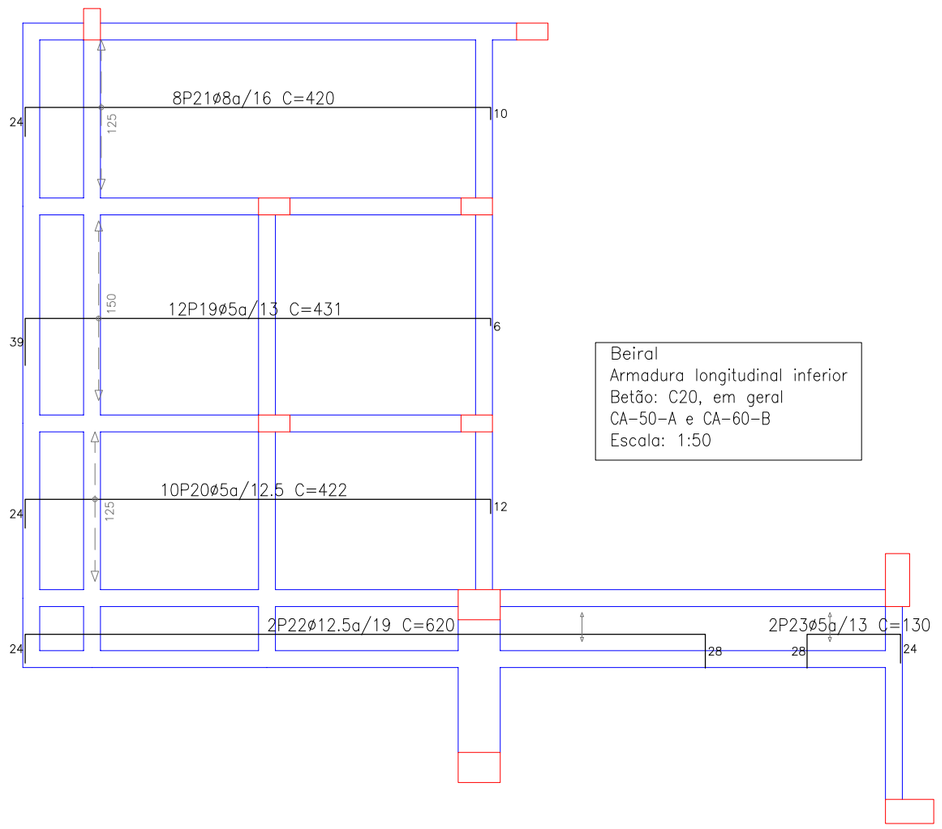
Data: FEV/2011
Escala: INDICADA



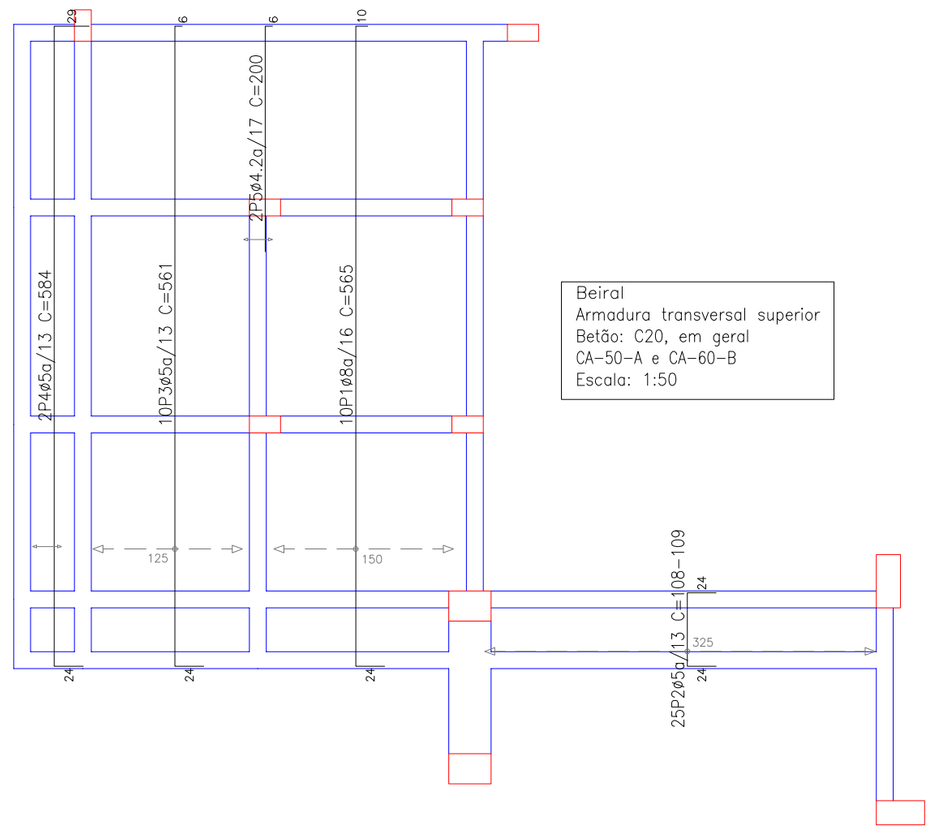
Beiral
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Beiral
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Beiral
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50



Beiral
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	1	ø8	26	24	60	10	94	2444	9.6	
	2	ø4.2	9		170		170	1530		1.7
	3	ø5	10	6	184		190	1900		3.0
	4	ø5	8		150		150	1200		1.9
	5	ø4.2	8	6	184		190	1520		1.7
	6	ø5	8	6	334		340	2720		4.3
	7	ø8	2	24	366		390	780	3.1	
	8	ø8	3	24	346		370	1110	4.4	
								Total+10%:	18.8	13.9
Armadura transversal inferior	9	ø8	18	24	60	10	94	1692	6.6	
	10	ø4.2	9		150		150	1350		1.5
	11	ø4.2	9		180		180	1620		1.8
	12	ø4.2	18	6	164		170	3060		3.3
	13	ø8	21	24	61	24	109	2289	9.0	
	14	ø5	8		160		160	1280		2.0
	15	ø4.2	8		190		190	1520		1.7
	16	ø8	3	24	216		240	720	2.8	
	17	ø8	2		200		200	400	1.6	
	18	ø8	2	24	166		190	380	1.5	
								Total+10%:	23.7	11.3

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal superior	19	ø5	12	39	386	6	431	5172		8.1
	20	ø5	10	24	386	12	422	4220		6.6
	21	ø8	8	24	386	10	420	3360	13.2	
	22	ø12.5	2	24	568	28	620	1240	12.2	
	23	ø5	2	28	78	24	130	260		0.4
								Total+10%:	27.9	16.6
Armadura transversal superior	1	ø8	10	24	531	10	565	5650	22.2	
	2	ø5	25	24	61	24	109	2725		4.3
	3	ø5	10	24	531	6	561	5610		8.8
	4	ø5	2	24	531	29	584	1168		1.8
	5	ø4.2	2	6	194		200	400		0.4
								Total+10%:	24.4	16.8

Revisão Nº	Data	Referência	Desenho

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Aprovações

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VIVIANNE PAILO COLLARES
Engenheira Civil - CREA/SC 073.045-2

Projeto: EST
Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
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Autor do Projeto
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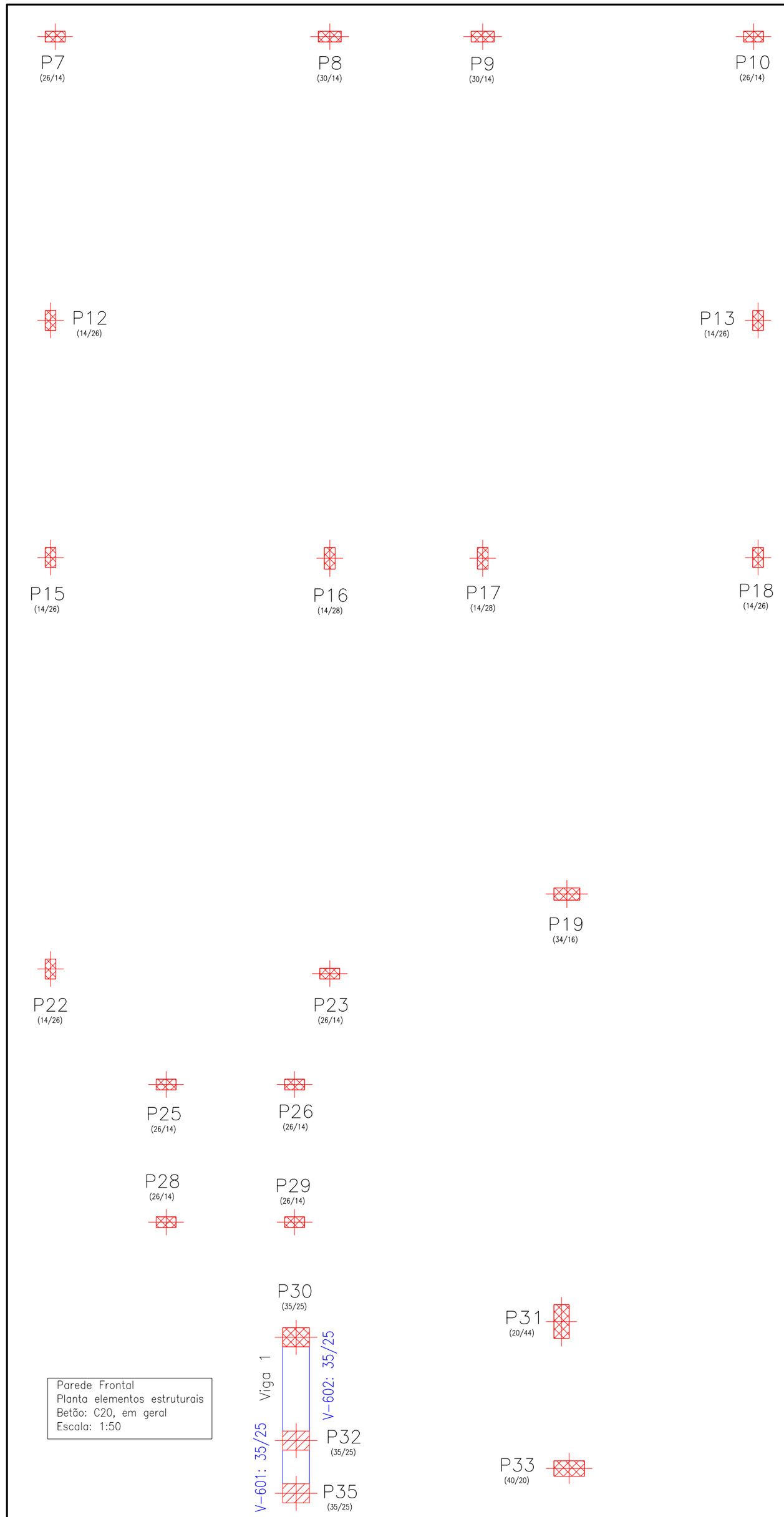
VIVIANNE PAILO COLLARES Engenheira Civil - CREA/SC 073.045-2

Desenho: VIVIANNE
Prancha: 12

Conteúdo: ARMADURAS DE LAJES
BEIRAL

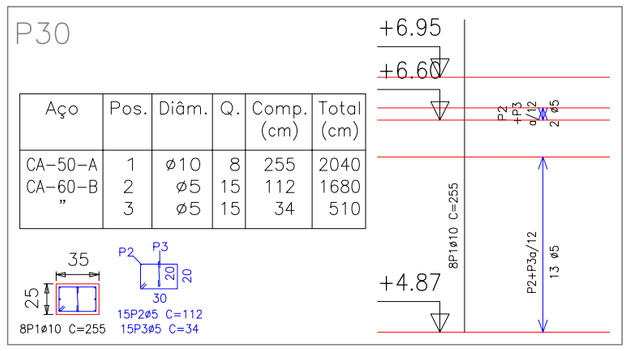
Data: FEV/2011
Escala: INDICADA



Parede Frontal
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

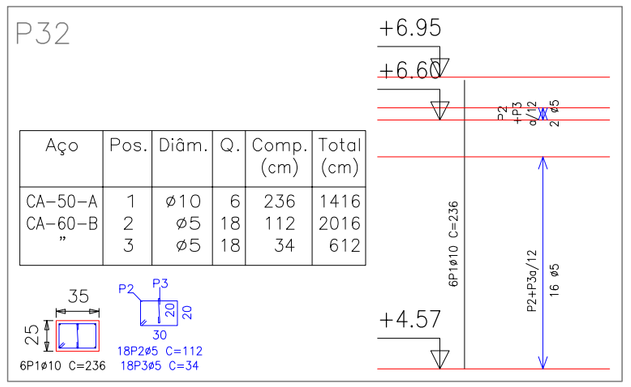
P30

Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	8	255	2040
CA-60-B	2	ø5	15	112	1680
"	3	ø5	15	34	510



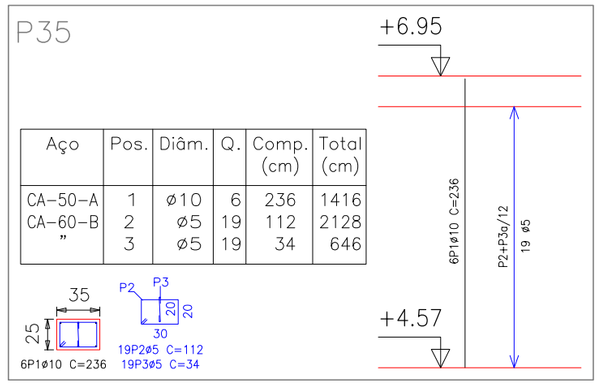
P32

Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	236	1416
CA-60-B	2	ø5	18	112	2016
"	3	ø5	18	34	612



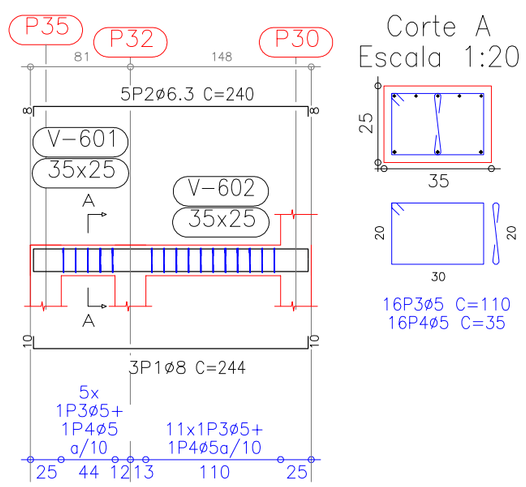
P35

Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	236	1416
CA-60-B	2	ø5	19	112	2128
"	3	ø5	19	34	646



Resumo Aço Parede Frontal Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-Aø10	48.7	34	34
CA-60-Bø5	75.9	13	13
Total			47

Viga 1
Escala 1:50



Parede Frontal
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	1	ø8	3	10	224	10	244	732	2.9	
	2	ø6.3	5	8	224	8	240	1200	3.0	
	3	ø5	16				110	1760		2.8
	4	ø5	16				35	560		0.9
								Total+10%:	6.5	4.1

Pilares que terminam em Parede Frontal
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço Parede Frontal Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	12.0	3	
ø8	7.3	3	6
CA-60-B ø5	23.2	4	4
Total			10

Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre

Parede Frontal – Superfície total: 1.76 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Vigas	0.54	0.20	11
Cofragem lateral	0.77		
Pilares (Sup. Cofragem)	6.60	0.48	47
Total	7.91	0.68	58
Índices (por m2)	4.494	0.386	32.95

Revisão n°	data	referência	desenho

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VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto: est

Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS

Proprietário: CREA/SC

Endereço: RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
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VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho: VIVIANNE

Prancha: 13

Conteúdo: PLANTA PAREDE FRONTAL
VIGAS E PILARES PAREDE FRONTAL

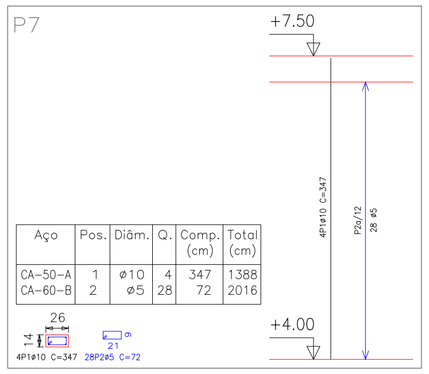
Data: FEV/2011

Escala: INDICADA

A2

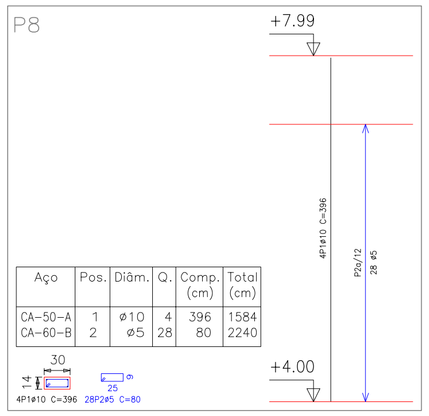
Pilares que terminam em Cobertura
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

P7



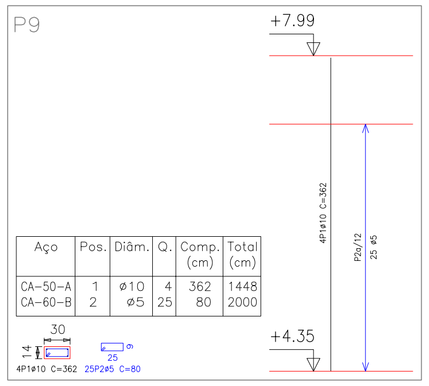
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	347	1388
CA-60-B	2	ø5	28	72	2016

P8



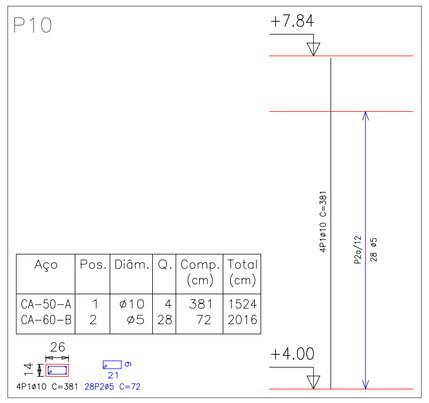
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	396	1584
CA-60-B	2	ø5	28	80	2240

P9



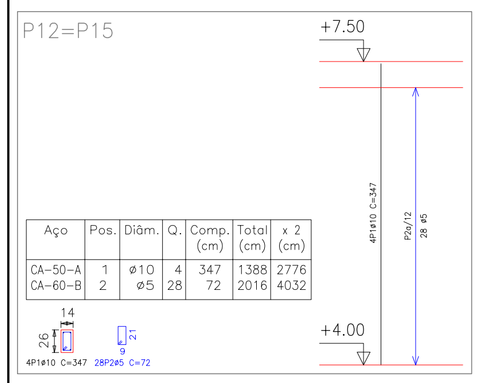
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	362	1448
CA-60-B	2	ø5	25	80	2000

P10



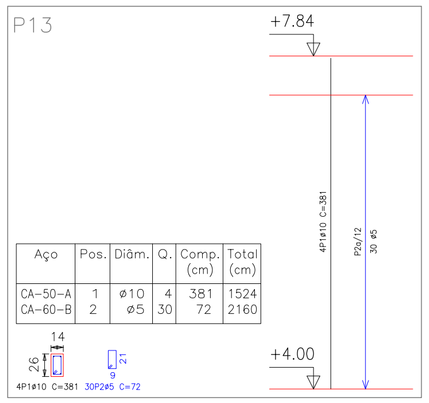
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	381	1524
CA-60-B	2	ø5	28	72	2016

P12=P15



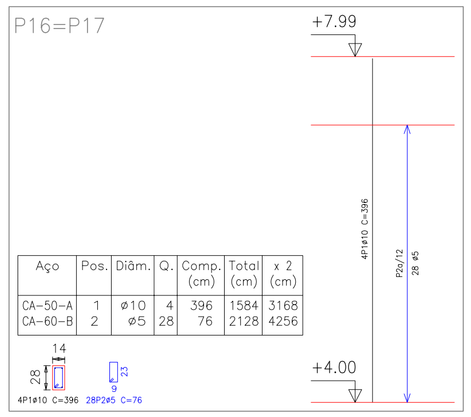
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	347	1388	2776
CA-60-B	2	ø5	28	72	2016	4032

P13



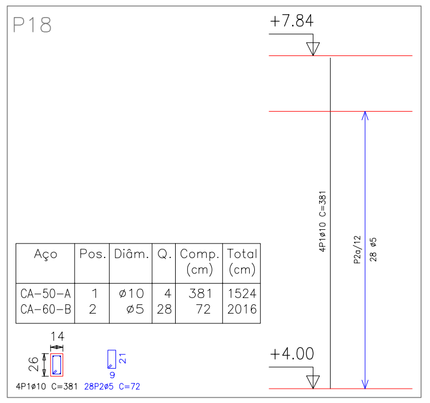
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	381	1524
CA-60-B	2	ø5	30	72	2160

P16=P17



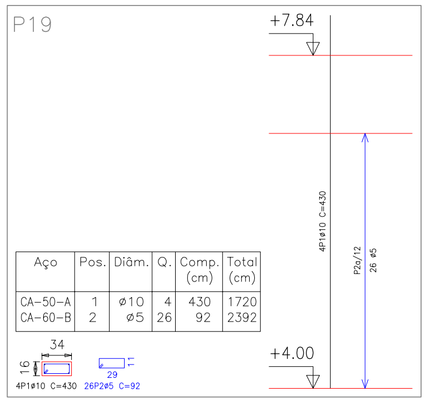
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	396	1584	3168
CA-60-B	2	ø5	28	76	2128	4256

P18



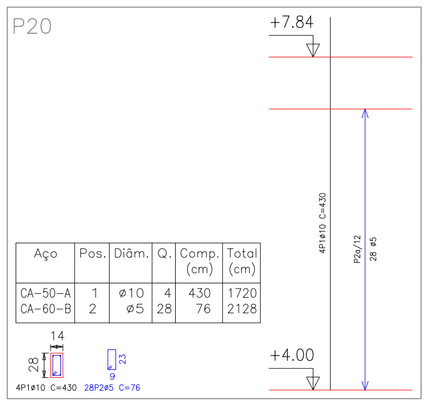
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	381	1524
CA-60-B	2	ø5	28	72	2016

P19



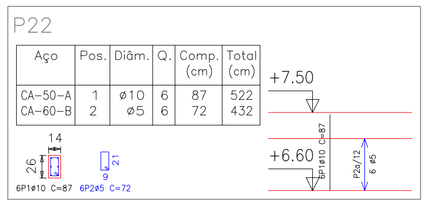
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	430	1720
CA-60-B	2	ø5	26	92	2392

P20



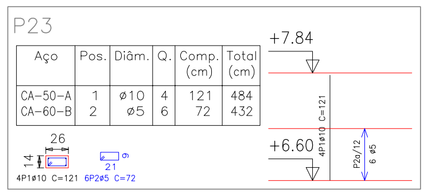
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	430	1720
CA-60-B	2	ø5	28	76	2128

P22



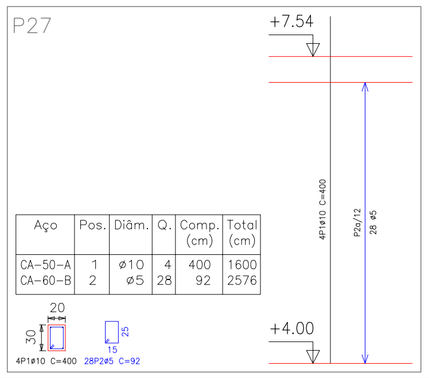
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	87	522
CA-60-B	2	ø5	6	72	432

P23



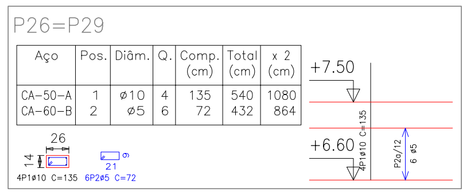
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	121	484
CA-60-B	2	ø5	6	72	432

P27



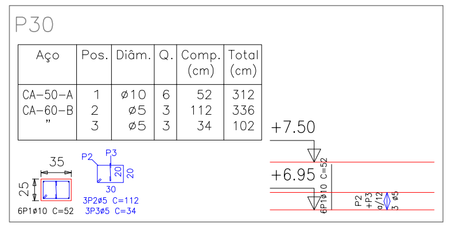
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	400	1600
CA-60-B	2	ø5	28	92	2576

P26=P29



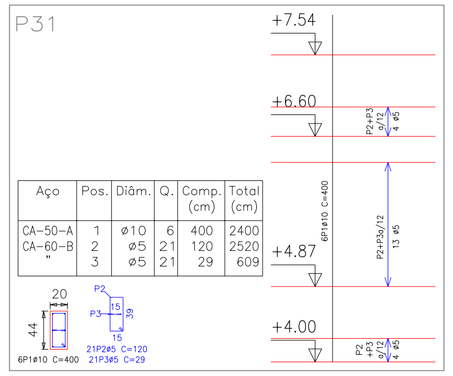
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	135	540	1080
CA-60-B	2	ø5	6	72	432	864

P30



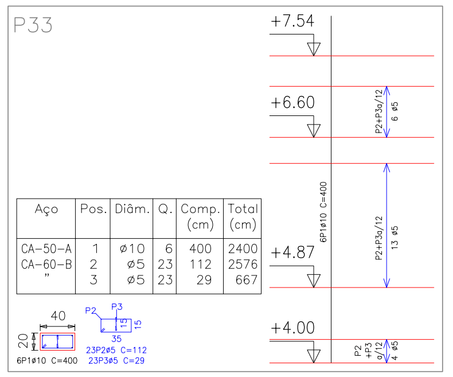
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	52	312
CA-60-B	2	ø5	3	112	336
"	3	ø5	3	34	102

P31



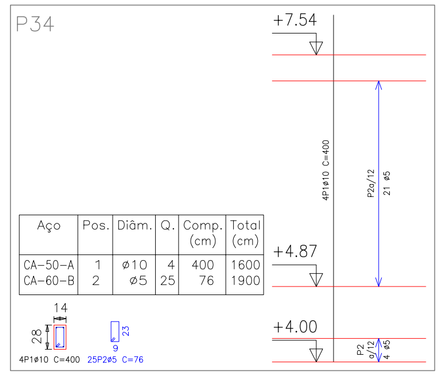
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	400	2400
CA-60-B	2	ø5	21	120	2520
"	3	ø5	21	29	609

P33



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	400	2400
CA-60-B	2	ø5	23	112	2576
"	3	ø5	23	29	667

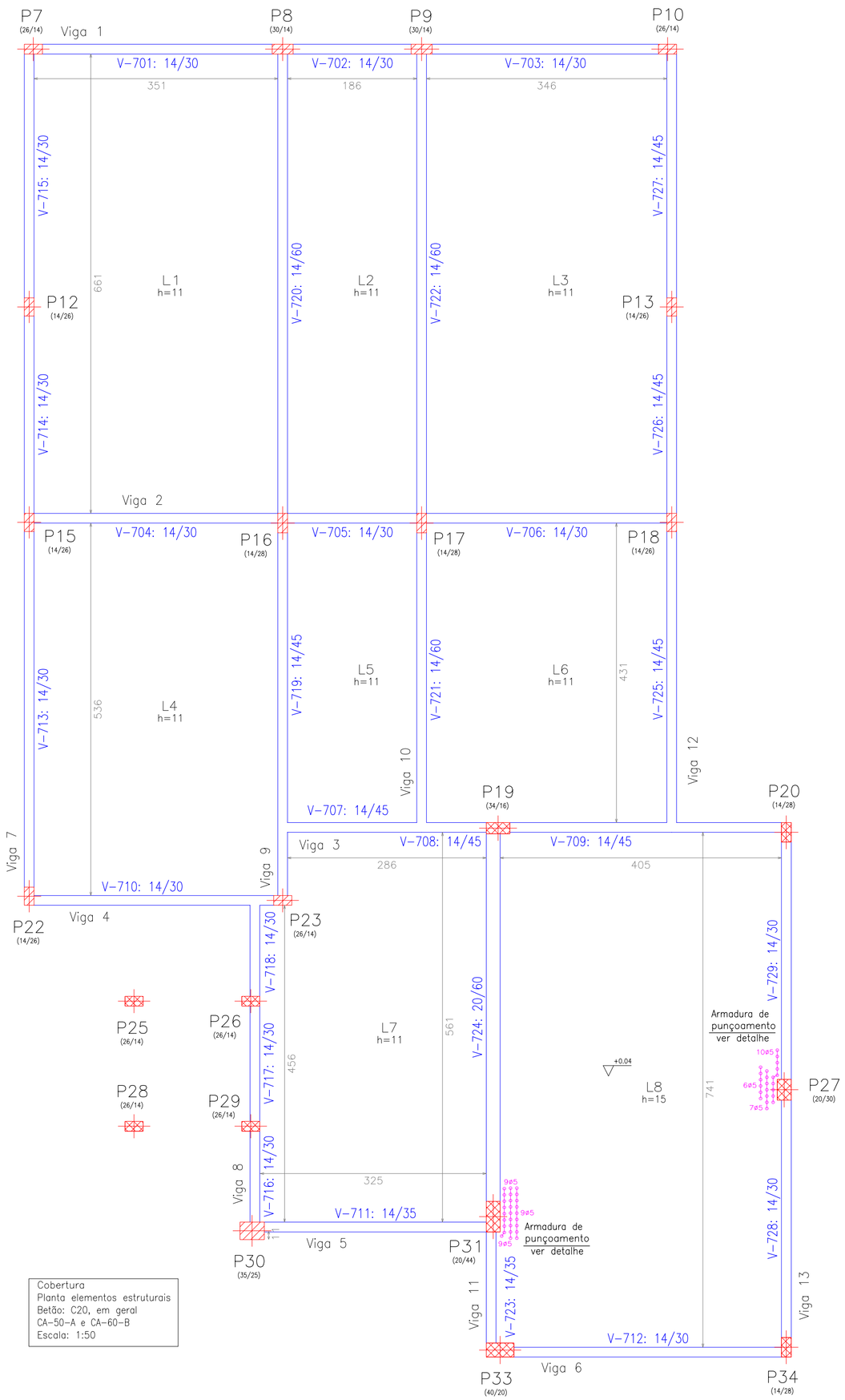
P34



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	4	400	1600
CA-60-B	2	ø5	25	76	1900

Resumo Aço Cobertura Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	287.7	199	199
CA-60-B ø5	382.7	66	66
Total			265

Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre



Cobertura
Planta elementos estruturais
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	15	ø8	2	10	934	10	954	1908	7.5	
	16	ø6.3	2	8	934	8	950	1900	4.7	
	17	ø5	66				78	5148		8.1
							Total+10%		13.4	8.9
Viga 2	18	ø8	2	10	934	10	954	1908	7.5	
	19	ø6.3	1		250		250	250	0.6	
	20	ø6.3	1		220		220	220	0.5	
	21	ø6.3	2	8	934	8	950	1900	4.7	
	22	ø8	1		365		365	365	1.4	
	23	ø5	69				78	5382		8.4
							Total+10%		16.2	9.2
Viga 3	24	ø8	3	10	734	10	754	2262	8.9	
	25	ø8	2		440		440	880	3.5	
	26	ø8	3	15	734	10	759	2277	8.9	
	27	ø10	3	15	455		470	1410	8.9	
	28	ø5	38				108	4104		6.4
							Total+10%		33.2	7.0
Viga 4	29	ø8	2	10	380	10	400	800	3.1	
	30	ø6.3	2	8	380	8	396	792	2.0	
	31	ø5	27				78	2106		3.3
							Total+10%		5.6	3.6
Viga 5	32	ø8	2	10	369	10	389	778	3.1	
	33	ø6.3	3	8	369	8	385	1155	2.9	
	34	ø5	22				88	1936		3.0
							Total+10%		6.6	3.3
Viga 6	35	ø10	2	12	434	12	458	916	5.8	
	36	ø8	3	10	434	10	454	1362	5.3	
	37	ø6.3	2	10	434	10	454	908	2.2	
	38	ø5	30				78	2340		3.7
							Total+10%		14.6	4.1
Viga 7	39	ø8	2	10	870		880	1760	6.9	
	40	ø8	2		390	10	400	800	3.1	
	41	ø8	1		325		325	325	1.3	
	42	ø8	3	10	875		885	2655	10.4	
	43	ø6.3	2		387	8	395	790	2.0	
	44	ø6.3	2		515		515	1030	2.5	
	45	ø5	89				78	6942		10.9
							Total+10%		28.8	12.0
Viga 8	46	ø8	2	10	490	10	510	1020	4.0	
	47	ø6.3	2	8	490	8	506	1012	2.5	
	48	ø5	35				78	2730		4.3
							Total+10%		7.2	4.7
Viga 9	6	ø10	3		708	12	720	2160	13.6	
	7	ø10	2	12	568		580	1160	7.3	
	8	ø8	2		435		435	870	3.4	
	9	ø8	1		380		380	380	1.5	
	10	ø8	3	10	698	10	718	2154	8.5	
	11	ø6.3	3	8	562		570	1710	4.2	
	12	ø10	3		245		245	735	4.6	
	13	ø8	3	30	190		220	660	2.6	
	14	ø5	27				108	2916		4.6
	15	ø5	24				138	3312		5.2
							Total+10%		50.3	10.8
Viga 10	1	ø10	3		708	12	720	2160	13.6	
	2	ø8	2	10	465		475	950	3.7	
	3	ø6.3	1		455		455	455	1.1	
	4	ø8	2		440		440	880	3.5	
	5	ø8	3	10	1129	10	1149	3447	13.5	
	6	ø8	3		350		350	1050	4.1	
	7	ø5	39				138	5382		8.4
							Total+10%		43.5	9.2
Viga 11	1	ø10	3	12	584	12	608	1824	11.5	
	2	ø10	2		580		580	1160	7.3	
	3	ø6.3	1	10	220		230	230	0.6	
	4	ø8	2	10	215		225	450	1.8	
	5	ø10	3	12	764	30	806	2418	15.2	
	6	ø10	2		310		310	620	3.9	
	7	ø5	11				88	968		1.5
	8	ø5	26				150	3900		6.1
							Total+10%		44.3	8.4
Viga 12	49	ø8	2	10	765		775	1550	6.1	
	50	ø8	2		390	10	400	800	3.1	
	51	ø6.3	3	8	1129	8	1145	3435	8.5	
	52	ø6.3	2		520		520	1040	2.6	
	53	ø5	54				108	5832		9.2
							Total+10%		22.3	10.1
Viga 13	16	ø8	2	10	764	10	784	1568	6.2	
	17	ø8	1		260		260	260	1.0	
	18	ø8	1		235		235	235	0.9	
	19	ø8	3	10	764	10	784	2352	9.2	
	20	ø6.3	2		210		210	420	1.0	
	21	ø5	54				78	4212		6.6
							Total+10%		20.1	7.3

Resumo Aço Cobertura Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	172.5	47	
ø8	367.1	158	
ø10	145.6	101	306
CA-60-B ø5	572.1	99	99
Total			405

Cobertura – Superfície total: 162.99 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Lajes	148.04	17.49	907
Vigas	13.90	6.17	405
Cofragem lateral	62.68		
Pilares (Sup. Cofragem)	44.90	2.27	265
Total	269.52	25.93	1577
Índices (por m2)	1.654	0.159	9.68

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto: est
Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS
Proprietário: CREA/SC
Endereço: RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

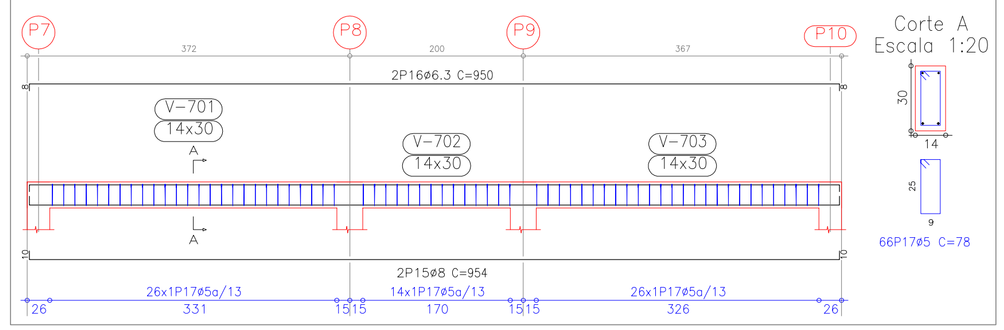
Desenho: VIVIANNE
Prancha: 14

Conteúdo: PLANTA COBERTURA
PILARES COBERTURA

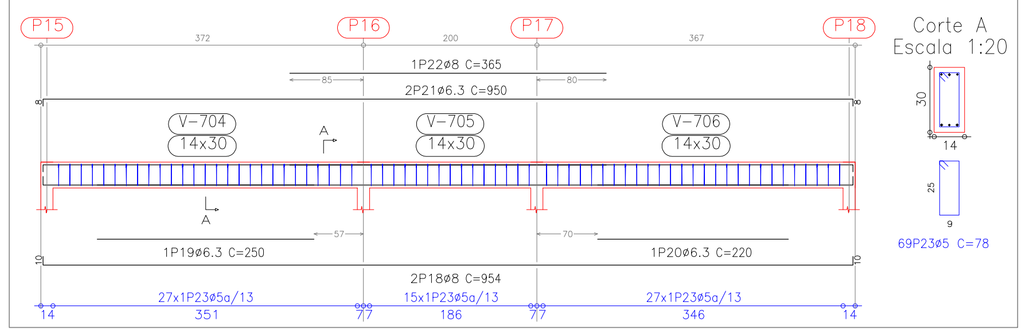
Data: FEV/2011
Escala: INDICADA

A1

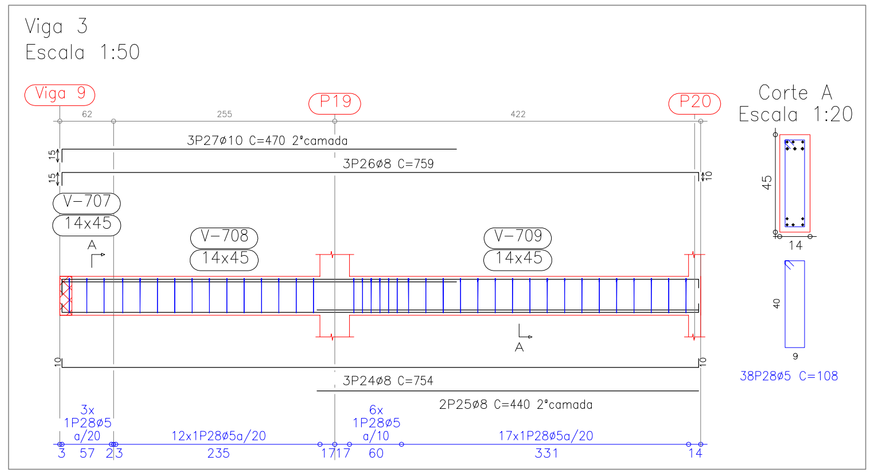
Viga 1
Escala 1:50



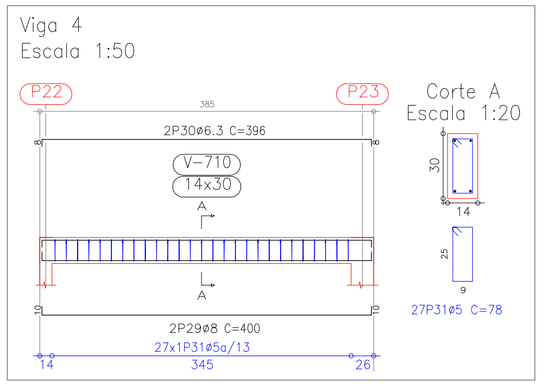
Viga 2
Escala 1:50



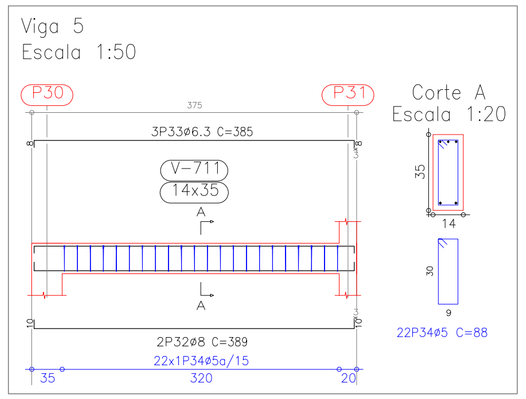
Viga 3
Escala 1:50



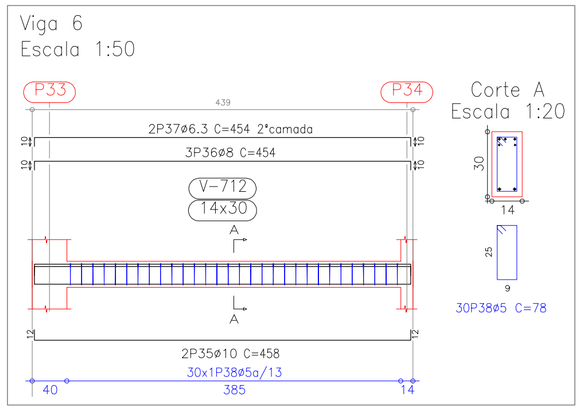
Viga 4
Escala 1:50



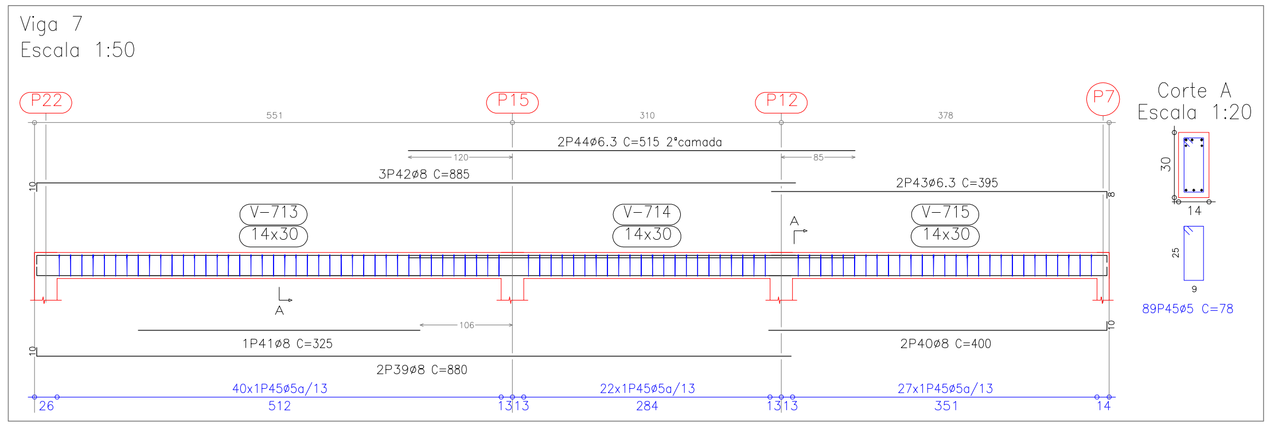
Viga 5
Escala 1:50



Viga 6
Escala 1:50

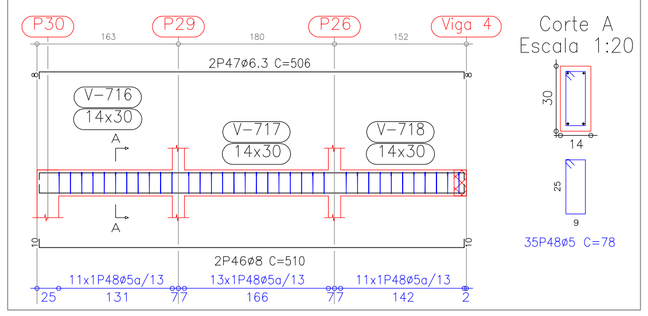


Viga 7
Escala 1:50

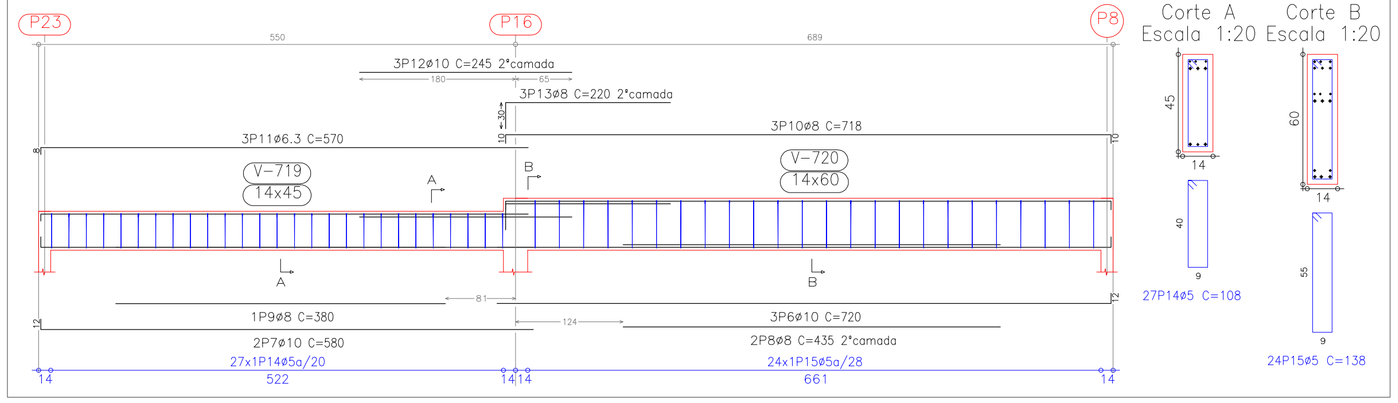


Cobertura
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

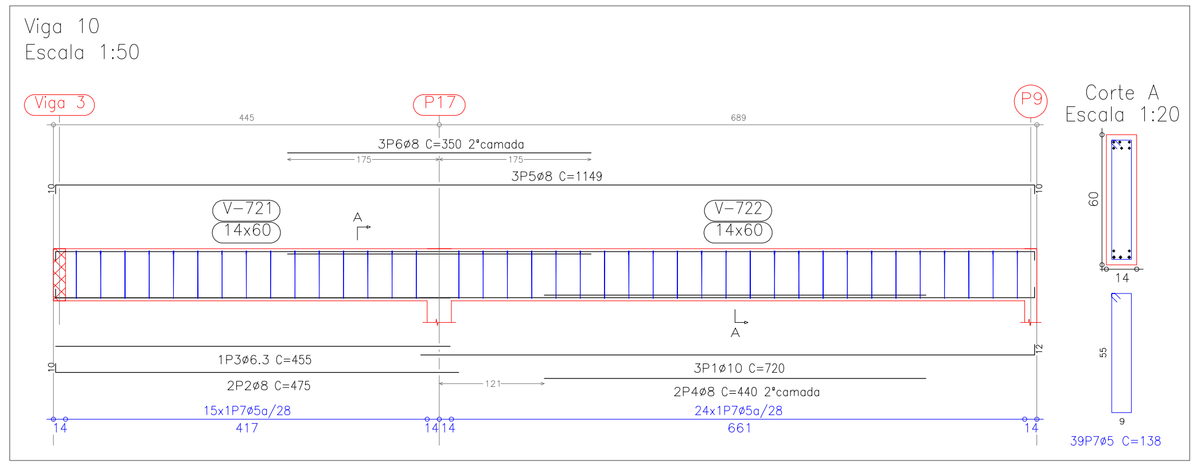
Viga 8
Escala 1:50



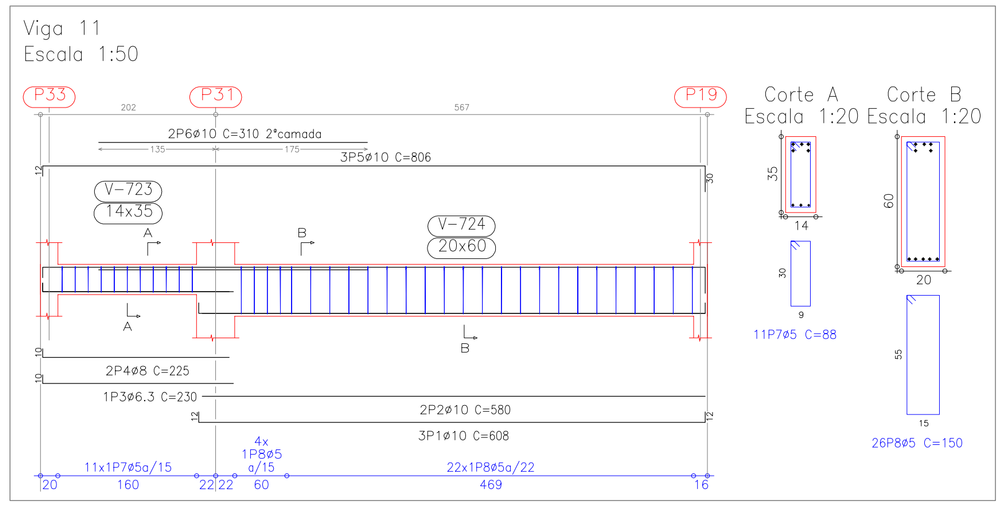
Viga 9
Escala 1:50



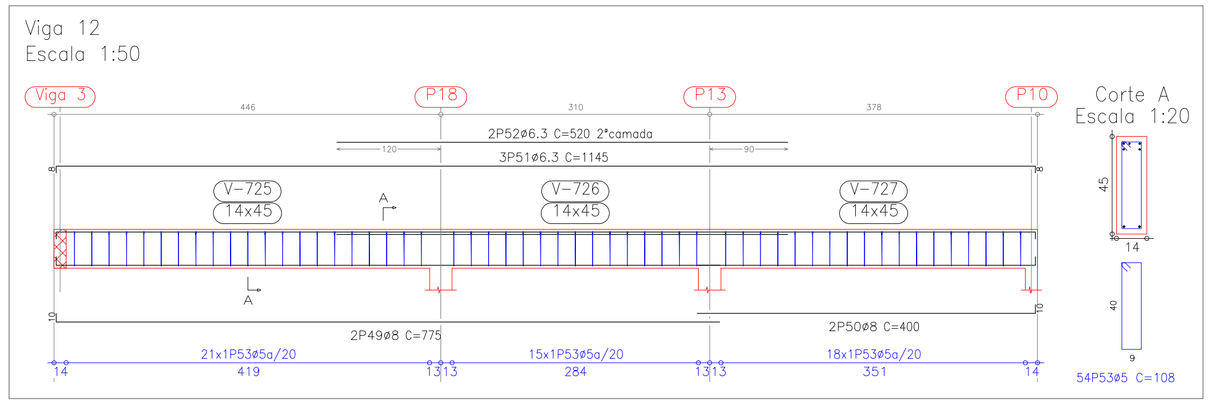
Viga 10
Escala 1:50



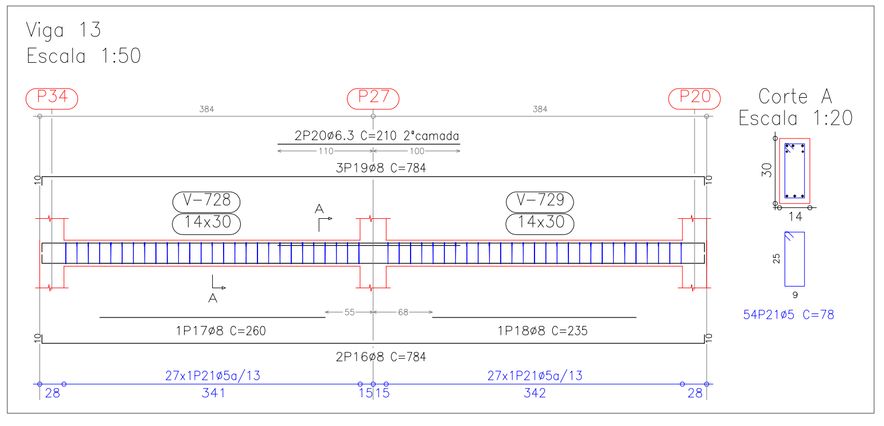
Viga 11
Escala 1:50



Viga 12
Escala 1:50



Viga 13
Escala 1:50



Revisão nº	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto Estrutural

Área 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
CREA/SC

Endereço
RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
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Desenho
VIVIANNE

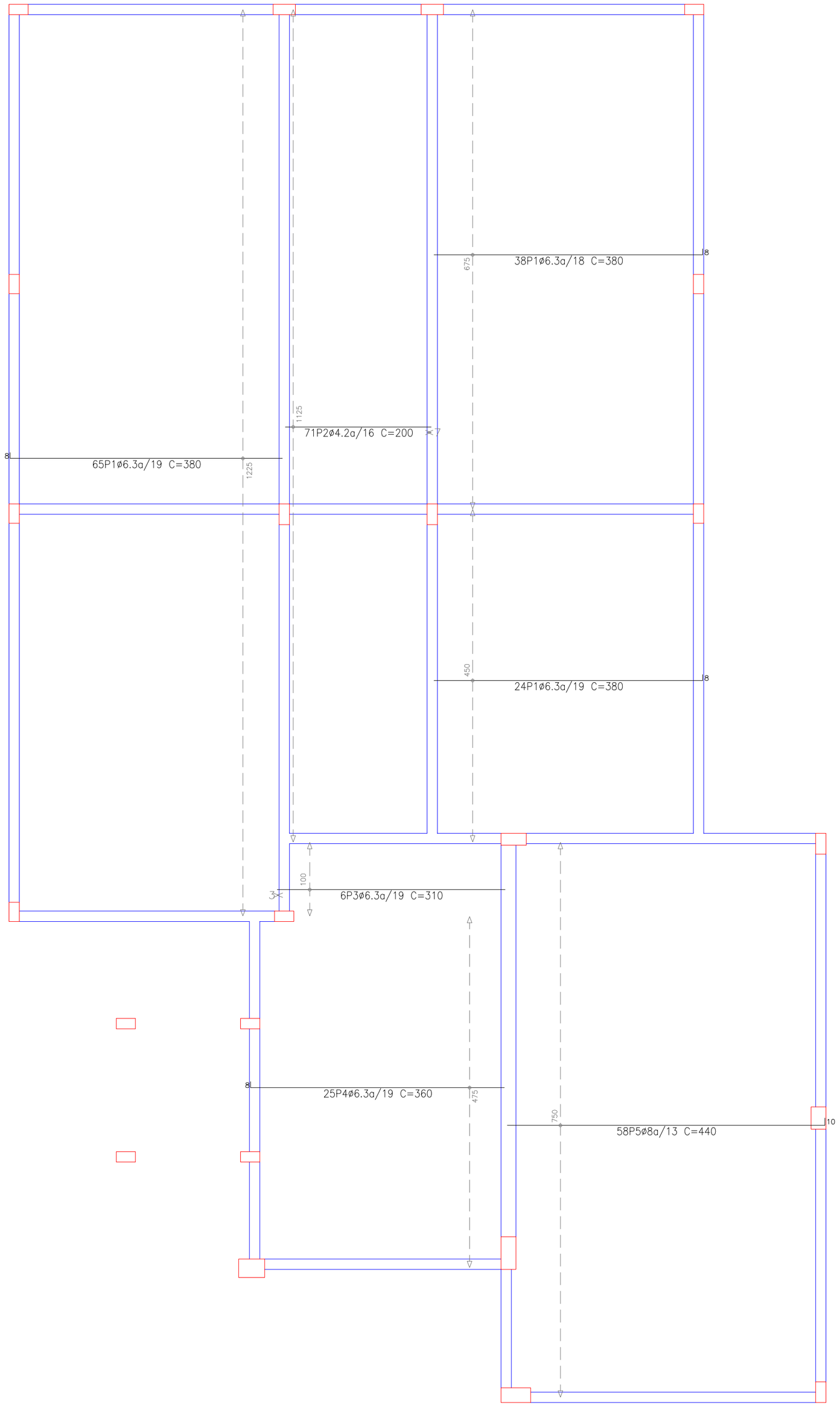
Prancha
15

Conteúdo
VIGAS
COBERTURA

Data
FEV/2011

Escala
INDICADA

A1



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	1	ø6.3	127	8	372		380	48260	119.3	
	2	ø4.2	71		200		200	14200		15.5
	3	ø6.3	6		310		310	1860	4.6	
	4	ø6.3	25	8	352		360	9000	22.3	
	5	ø8	58	10	430		440	25520	100.2	
								Total+10%:	271.0	17.1

Cobertura
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
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Engenheira Civil – Crea/SC 073.045-2

Projeto Estrutural

Área 465,67m²

Obra
INSPETORIA DE CANOINHAS

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Desenho
VIVIANNE

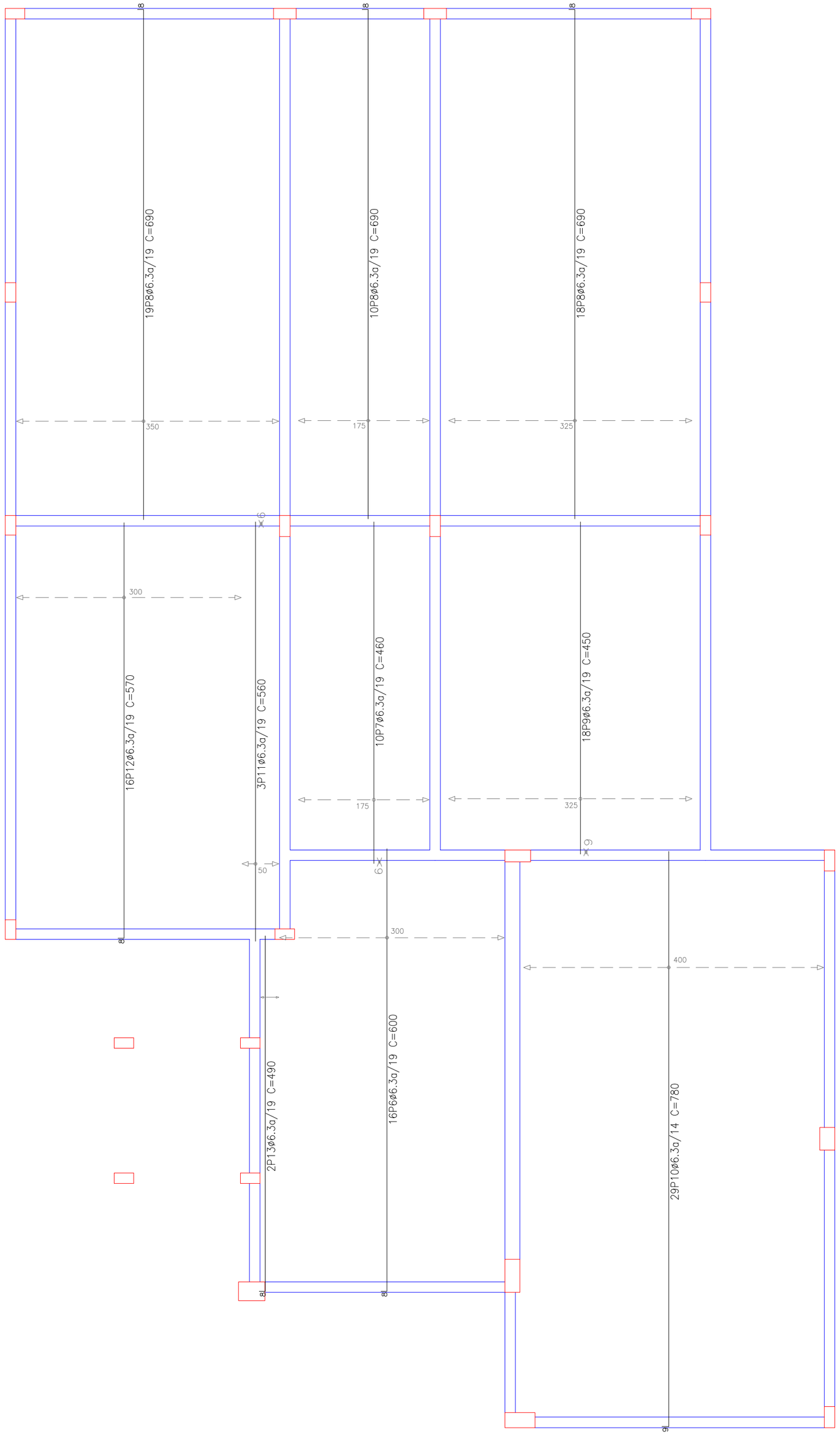
Prancha
16

Conteúdo
PLANTA DE LAJES – COBERTURA
ARMADURA LONGITUDINAL INFERIOR

Data
FEV/2011

Escala
INDICADA

A2



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura transversal inferior	6	ø6.3	16	8	592		600	9600	23.7	
	7	ø6.3	10		460		460	4600	11.4	
	8	ø6.3	47	8	682		690	32430	80.2	
	9	ø6.3	18		450		450	8100	20.0	
	10	ø6.3	29	9	771		780	22620	55.9	
	11	ø6.3	3		560		560	1680	4.2	
	12	ø6.3	16	8	562		570	9120	22.6	
	13	ø6.3	2	8	482		490	980	2.4	
								Total+10%:	242.4	

Cobertura
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
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VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto Estrutural

Área 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
CREA/SC

Endereço
RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho
VIVIANNE

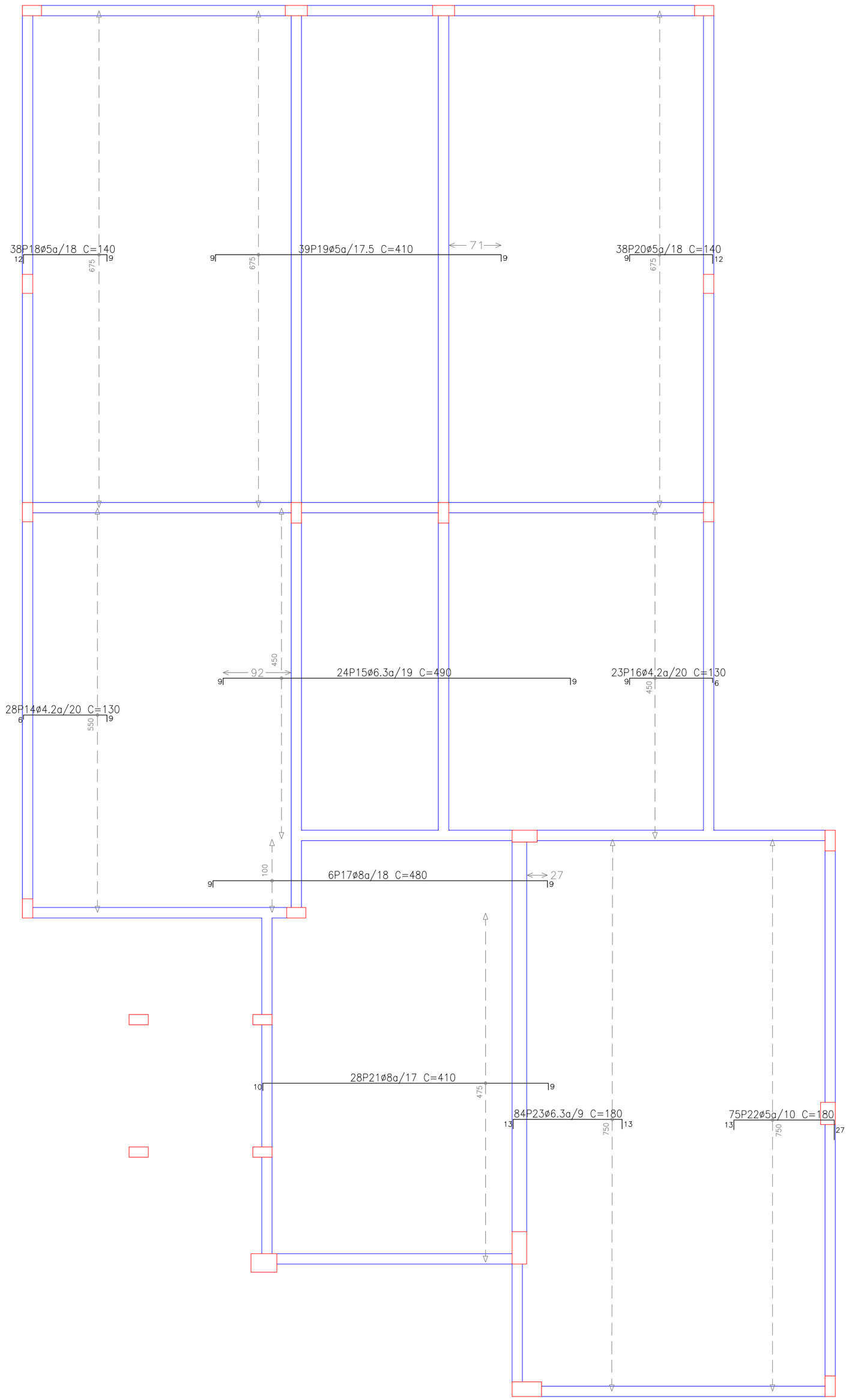
Conteúdo
PLANTA DE LAJES – COBERTURA
ARMADURA TRANSVERSAL INFERIOR

Data
FEV/2011

Escala
INDICADA

Prancha
17

A2



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal superior	14	ø4.2	28	6	115	9	130	3640		4.0
	15	ø6.3	24	9	472	9	490	11760	29.1	
	16	ø4.2	23	9	115	6	130	2990		3.3
	17	ø8	6	9	462	9	480	2880	11.3	
	18	ø5	38	12	119	9	140	5320		8.4
	19	ø5	39	9	392	9	410	15990		25.1
	20	ø5	38	9	119	12	140	5320		8.4
	21	ø8	28	10	391	9	410	11480	45.1	
	22	ø5	75	13	140	27	180	13500		21.2
	23	ø6.3	84	13	154	13	180	15120	37.4	
								Total+10%:	135.2	77.4

Cobertura
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto: Estudo

Área: 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
CREA/SC

Endereço
RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho
VIVIANNE

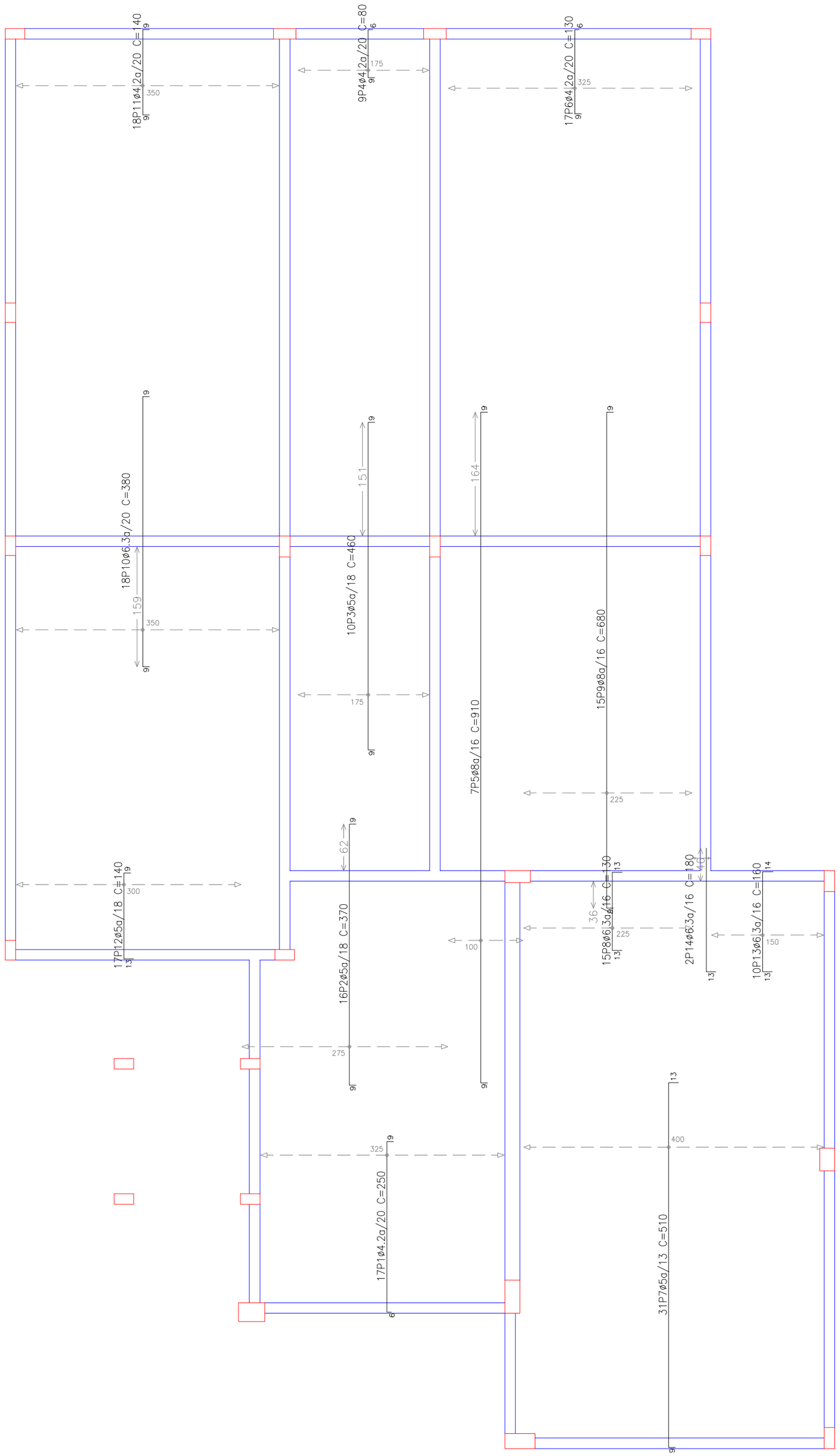
Prancha
18

Conteúdo
PLANTA DE LAJES – COBERTURA
ARMADURA LONGITUDINAL SUPERIOR

Data
FEV/2011

Escala
INDICADA

A2



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura transversal superior	1	ø4.2	17	6	235	9	250	4250		4.6
	2	ø5	16	9	352	9	370	5920		9.3
	3	ø5	10	9	442	9	460	4600		7.2
	4	ø4.2	9	9	65	6	80	720		0.8
	5	ø8	7	9	892	9	910	6370	25.0	
	6	ø4.2	17	9	115	6	130	2210		2.4
	7	ø5	31	9	488	13	510	15810		24.8
	8	ø6.3	15	13	104	13	130	1950	4.8	
	9	ø8	15	9	662	9	680	10200	40.0	
	10	ø6.3	18	9	362	9	380	6840	16.9	
	11	ø4.2	18	9	122	9	140	2520		2.7
	12	ø5	17	13	118	9	140	2380		3.7
	13	ø6.3	10	13	133	14	160	1600	4.0	
	14	ø6.3	2	13	167		180	360	0.9	
								Total+10%:	100.8	61.1

Cobertura
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto: Restaurante

Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS

Proprietário: CREA/SC

Endereço: RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho: VIVIANNE

Conteúdo: PLANTA DE LAJES – COBERTURA
ARMADURA TRANSVERSAL SUPERIOR

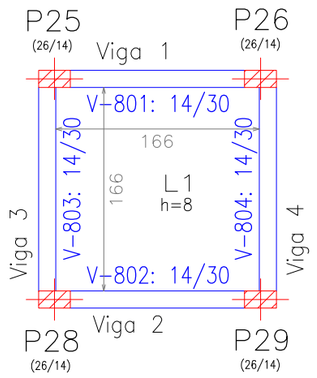
Data: FEV/2011

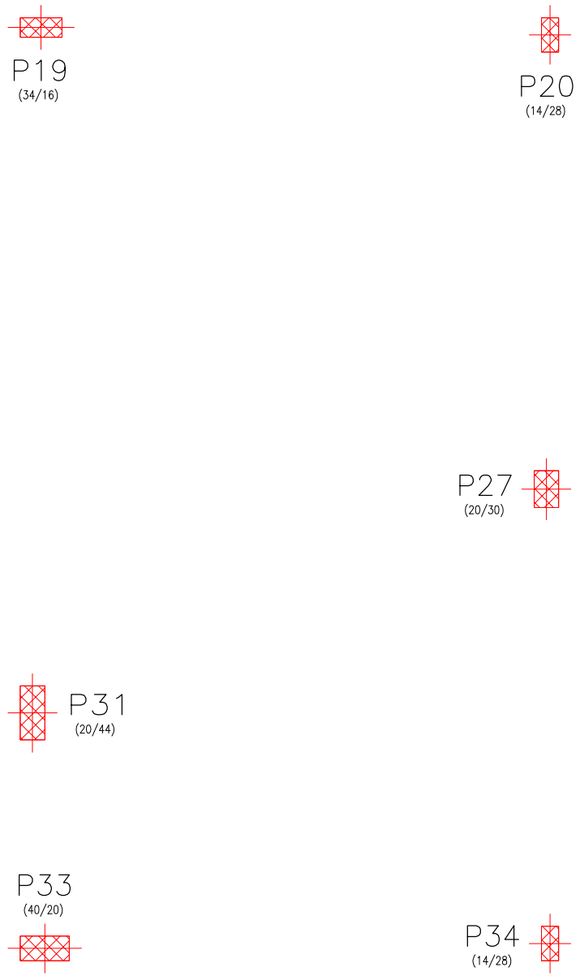
Escala: INDICADA

Prancha: 19

A2

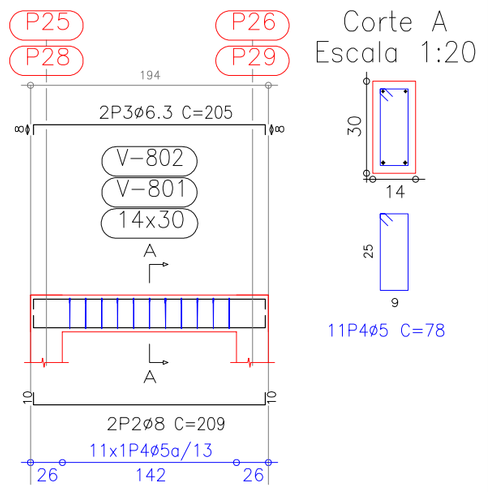
Volume I
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50





Volume I
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

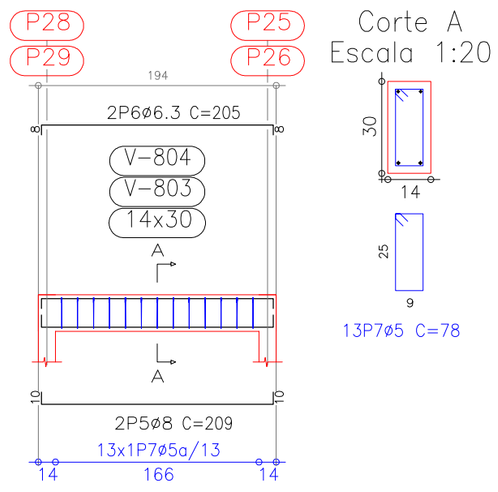
Viga 1
Viga 2
Escala 1:50



Corte A
Escala 1:20

11P4ø5 C=78

Viga 3
Viga 4
Escala 1:50



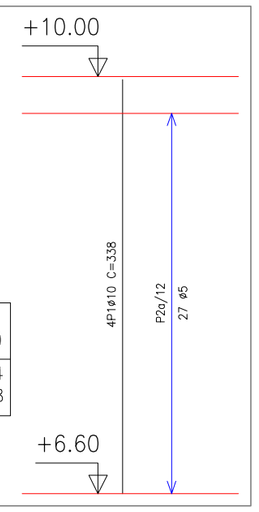
Corte A
Escala 1:20

13P7ø5 C=78

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1=Viga 2	2	ø8	2	10	189	10	209	418	1.6	
	3	ø6.3	2	8	189	8	205	410	1.0	
	4	ø5	11				78	858		1.3
								Total+10%:	2.9	1.4
								(x2):	5.8	2.8
Viga 3=Viga 4	5	ø8	2	10	189	10	209	418	1.6	
	6	ø6.3	2	8	189	8	205	410	1.0	
	7	ø5	13				78	1014		1.6
								Total+10%:	2.9	1.8
								(x2):	5.8	3.6

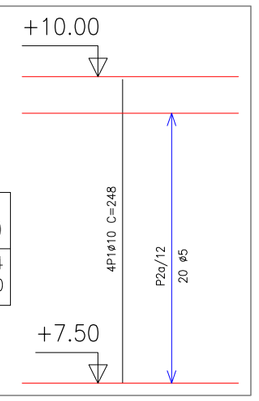
Resumo Aço Volume I Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	16.4	4	
ø8	16.7	7	11
CA-60-B ø5	37.4	6	6
Total			17

P25=P28

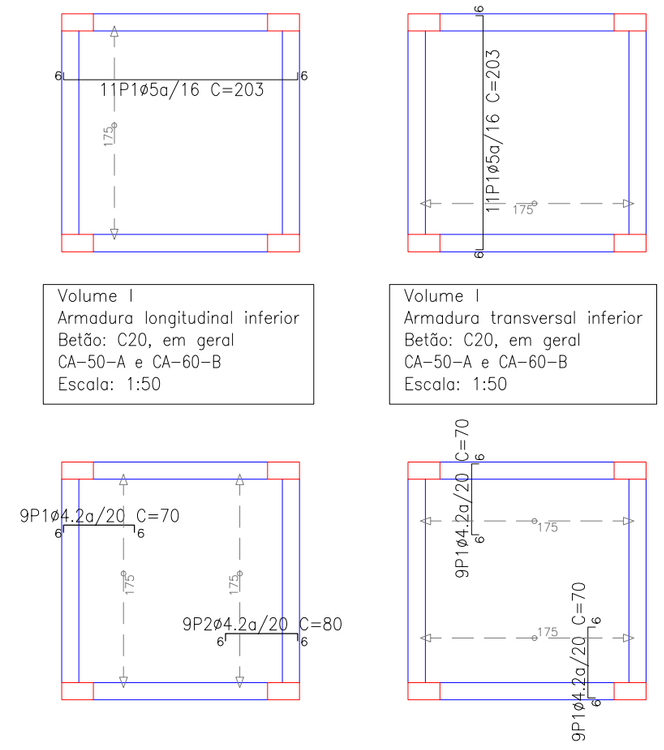


Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	338	1352	2704
CA-60-B	2	ø5	27	72	1944	3888

P26=P29



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	4	248	992	1984
CA-60-B	2	ø5	20	72	1440	2880



Volume I
Armadura longitudinal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Volume I
Armadura transversal inferior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Volume I
Armadura longitudinal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Volume I
Armadura transversal superior
Betão: C20, em geral
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal inferior	1	ø5	11	6	191	6	203	2233		3.5
								Total+10%:		3.9
Armadura transversal inferior	1	ø5	11	6	191	6	203	2233		3.5
								Total+10%:		3.9
Armadura longitudinal superior	1	ø4.2	9	6	58	6	70	630		0.7
	2	ø4.2	9	6	68	6	80	720		0.8
								Total+10%:		1.7
Armadura transversal superior	1	ø4.2	18	6	58	6	70	1260		1.4
								Total+10%:		1.5

Pilares que terminam em
Volume I
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço Volume I Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-Aø10	46.9	32	32
CA-60-Bø5	67.7	12	12
Total			44

Legenda de Pilares
- Pilar que nasce
- Pilar que continua
- Pilar que morre

Volume I – Superfície total: 4.12 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Lajes	2.76	0.22	11
Vigas	0.85	0.32	18
Cofragem lateral	3.20		
Pilares (Sup. Cofragem)	8.60	0.38	44
Total	15.41	0.92	73
Índices (por m2)	3.740	0.223	17.72

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto arquitetônico

Área 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
CREA/SC

Endereço
RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista – Crea/SC 068.249-5
KAROLINE A. CRESTANI Arquiteta e Urbanista – Crea/SC 098.629-5
VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho
VIVIANNE

Prancha
20

Conteúdo
PLANTA VOLUME I
VIGAS VOLUME I – PILARES VOLUME I

Data
FEV/2011

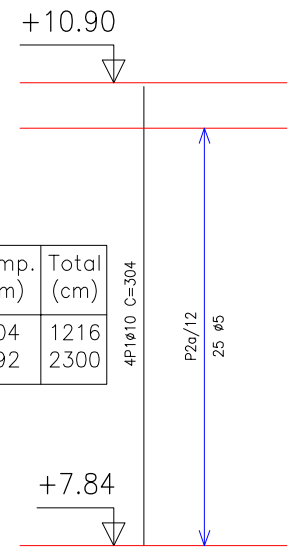
Escala
INDICADA

A2

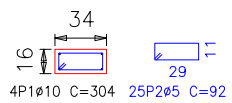
Resumo Aço Volume II Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-AØ10	91.1	63	63
CA-60-BØ5	165.7	29	29
Total			92

Pilares que terminam em Volume II
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

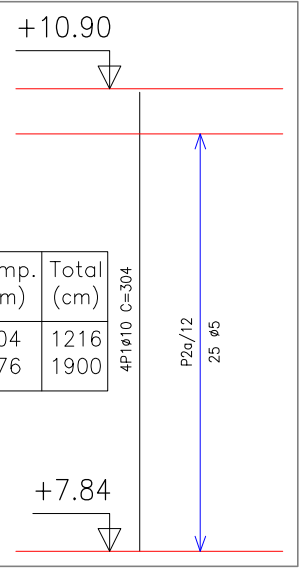
P19



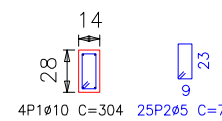
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	4	304	1216
CA-60-B	2	Ø5	25	92	2300



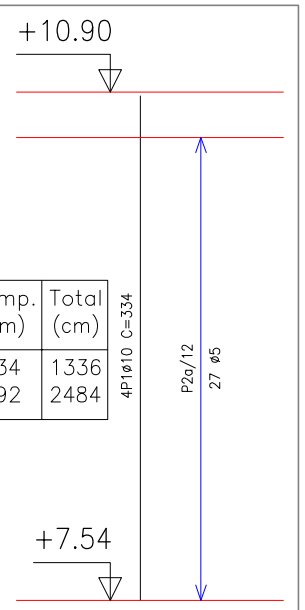
P20



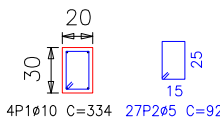
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	4	304	1216
CA-60-B	2	Ø5	25	76	1900



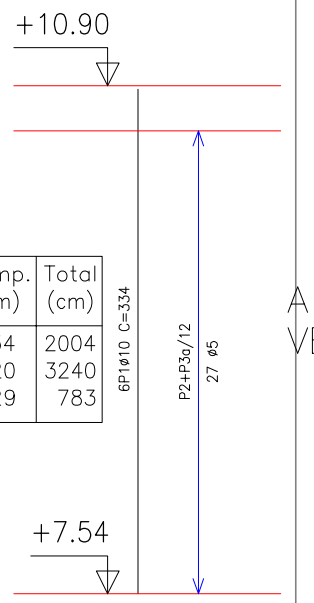
P27



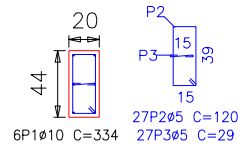
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	4	334	1336
CA-60-B	2	Ø5	27	92	2484



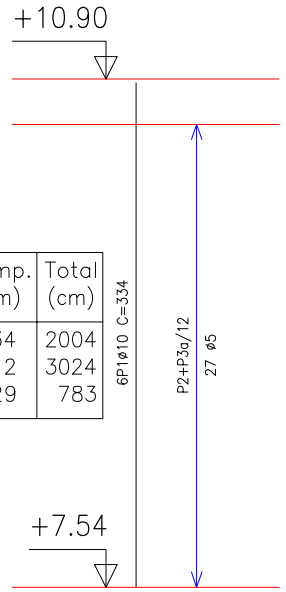
P31



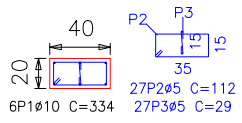
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	6	334	2004
CA-60-B	2	Ø5	27	120	3240
"	3	Ø5	27	29	783



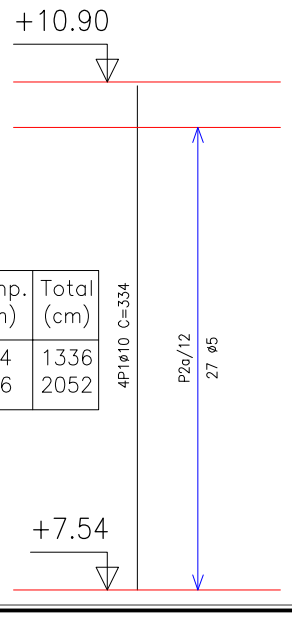
P33



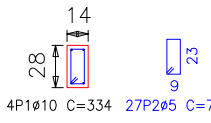
Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	6	334	2004
CA-60-B	2	Ø5	27	112	3024
"	3	Ø5	27	29	783



P34



Aço	Pos.	Diâm.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	Ø10	4	334	1336
CA-60-B	2	Ø5	27	76	2052



Revisão n°	data	referência	desenho

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DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

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VIVIANNE PAILO COLLARES
Engenheira Civil – Crea/SC 073.045-2

Projeto estrutural

Área 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
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Autor do Projeto
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VIVIANNE PAILO COLLARES Engenheira Civil – Crea/SC 073.045-2

Desenho
VIVIANNE

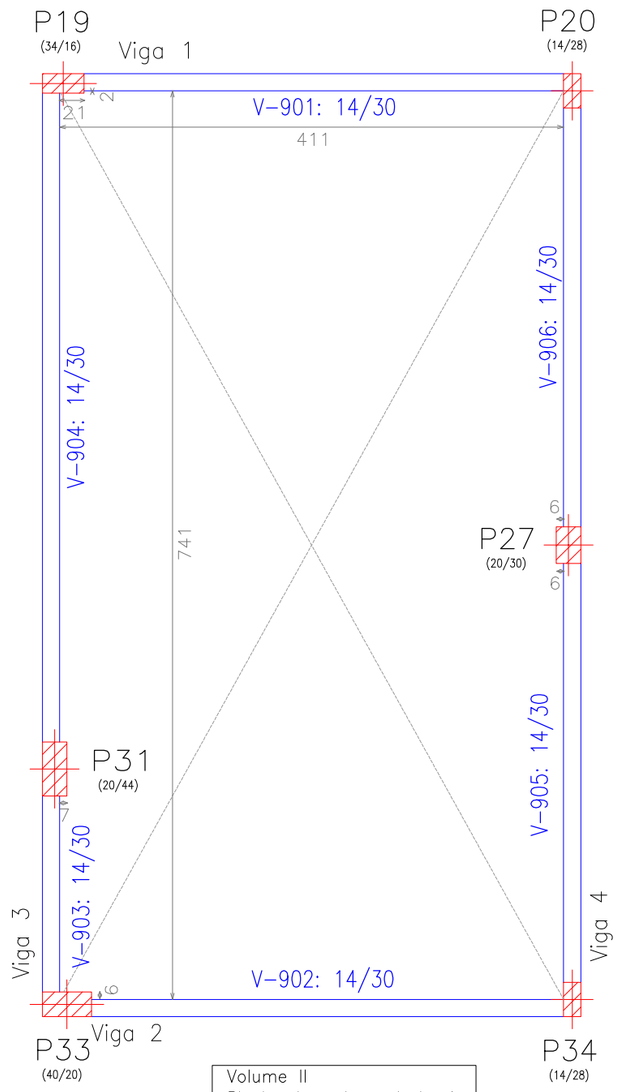
Conteúdo
PILARES
VOLUME II

Data
FEV/2011

Escala
INDICADA

Prancha
21

A3



Volume II
Planta elementos estruturais
Betão: C20, em geral
Escala: 1:50

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Viga 1	1	ø8	2	10	434	10	454	908	3.6	
	2	ø6.3	2	8	434	8	450	900	2.2	
	3	ø5	31				78	2418		3.8
								Total+10%:	6.4	4.2
Viga 2	4	ø8	2	10	434	10	454	908	3.6	
	5	ø6.3	2	8	434	8	450	900	2.2	
	6	ø5	30				78	2340		3.7
								Total+10%:	6.4	4.1
Viga 3	1	ø8	2	10	764	10	784	1568	6.2	
	2	ø6.3	2	8	764	8	780	1560	3.9	
	3	ø5	54				78	4212		6.6
								Total+10%:	11.1	7.3
Viga 4	4	ø8	2	10	764	10	784	1568	6.2	
	5	ø6.3	2	8	764	8	780	1560	3.9	
	6	ø5	54				78	4212		6.6
								Total+10%:	11.1	7.3

Legenda de Pilares

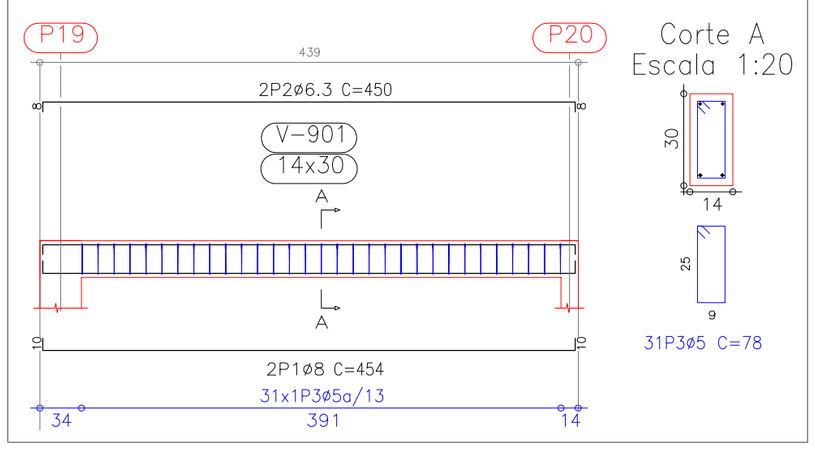
- Pilar que nasce
- Pilar que continua
- Pilar que morre

Volume II - Superfície total: 3.37 m2			
Elemento	Superfícies (m2)	Volume (m3)	Varões (Kg)
Vigas	3.01	1.00	58
Cofragem lateral	12.89		
Pilares (Sup. Cofragem)	18.40	1.07	92
Total	34.30	2.07	150
Índices (por m2)	10.178	0.614	44.51

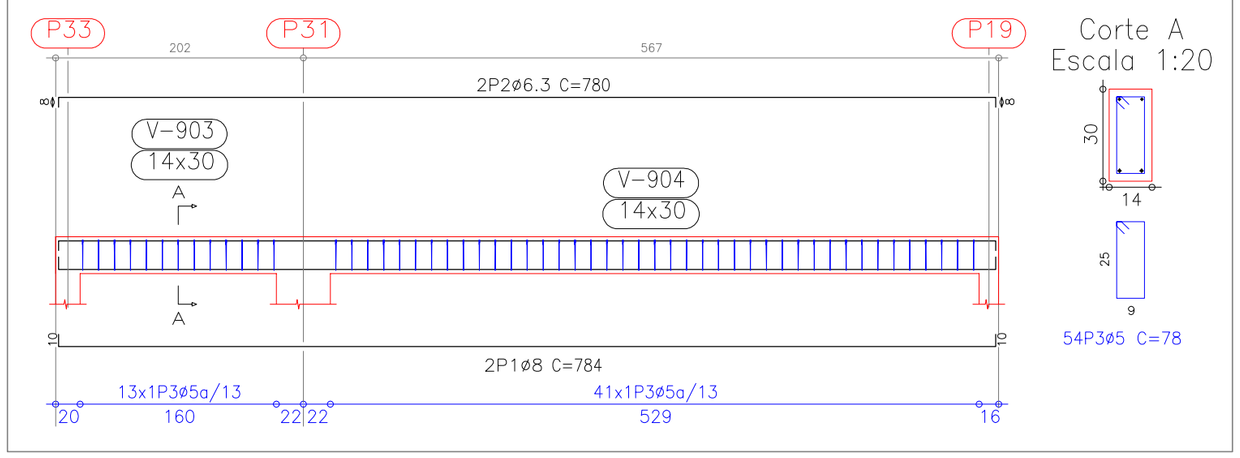
Resumo Aço Volume II Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	49.2	13	
ø8	49.5	21	34
CA-60-B ø5	131.8	23	23
Total			57

Volume II
Desenho de vigas
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala pórticos: 1:50
Escala secções: 1:20

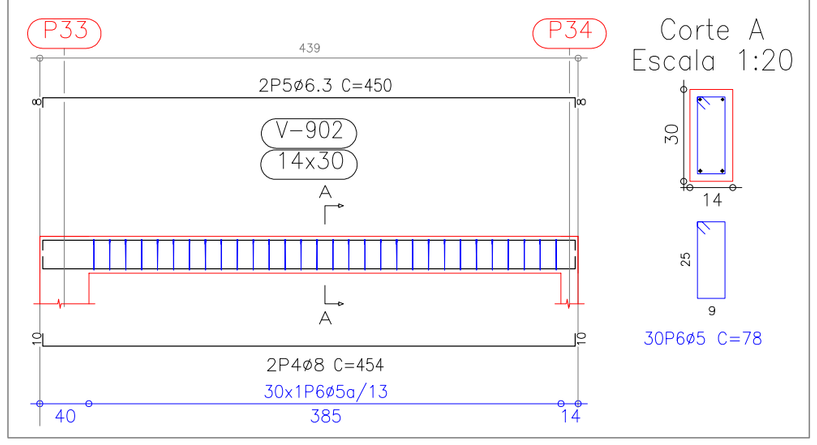
Viga 1
Escala 1:50



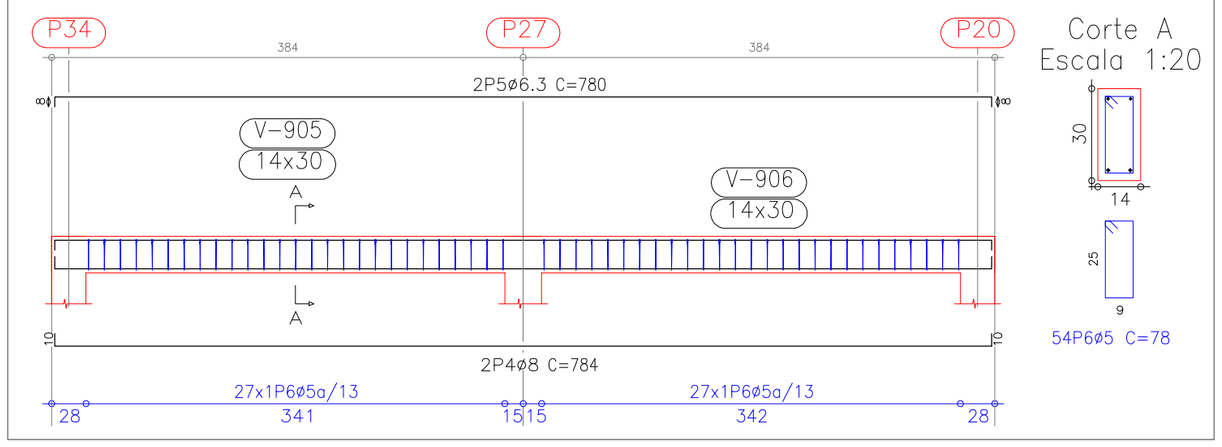
Viga 3
Escala 1:50



Viga 2
Escala 1:50



Viga 4
Escala 1:50



Revisão nº	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

SUZANA OLESKOVICZ
Arquiteta e Urbanista - Crea/SC 068.249-5
KAROLINE A. CRESTANI
Arquiteta e Urbanista - Crea/SC 098.629-5
VIVIANNE PAILO COLLARES
Engenheira Civil - Crea/SC 073.045-2

Projeto: est

Área: 465,67m²

Obra
INSPETORIA DE CANOINHAS

Proprietário
CREA/SC

Endereço
RUA GETÚLIO VARGAS - CENTRO - CANOINHAS/SC

Autor do Projeto
SUZANA OLESKOVICZ Arquiteta e Urbanista - Crea/SC 068.249-5
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Desenho
VIVIANNE

Prancha
22

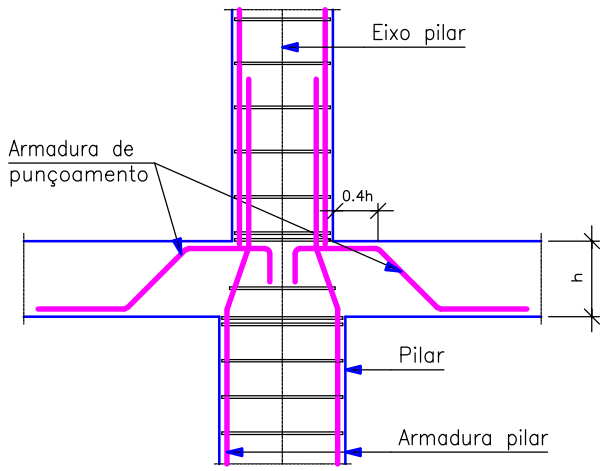
Conteúdo
PLANTA VOLUME II
DETALHAMENTO DE VIGAS VOLUME II

Data
FEV/2011

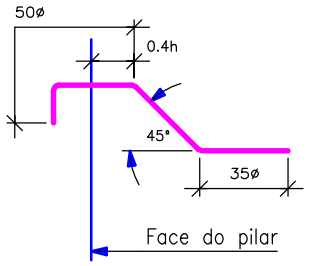
Escala
INDICADA

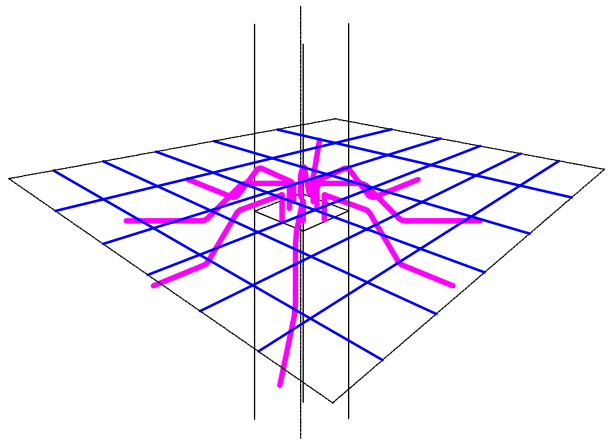
A2

Reforço ao punçoamento com varões a 45° dispostos radialmente.



Esquema de armadura de punçoamento





Nota:
O número e o diâmetro dos varões indicar-se-á em planta ou tabela à parte.

Revisão n°	data	referência	desenho

OBSERVAR DATAS DA ÚLTIMA REVISÃO/ELIMINAR PRANCHAS ANTERIORES
DOCUMENTO CONTROLADO SE COM CARIMBO EM VERMELHO

Aprovações

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Projeto: est

Área: 465,67m²

Obra: INSPETORIA DE CANOINHAS

Proprietário: CREA/SC

Endereço: RUA GETÚLIO VARGAS – CENTRO – CANOINHAS/SC

Autor do Projeto
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Desenho: VIVIANNE

Prancha: 23

Conteúdo: DETALHE DA ARMADURA DE PUNÇOAMENTO

Data: FEV/2011

Escala: INDICADA

A3