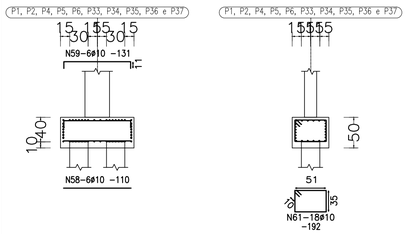
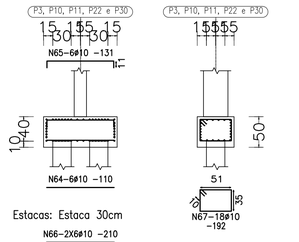
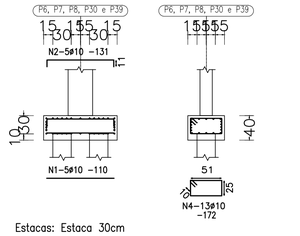
P1, P2, P4, P5, P6, P33, P34, P35, P36 e P37



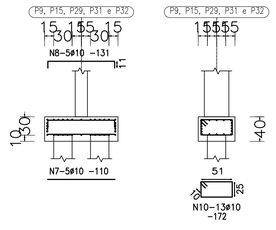
P3, P10, P11, P22 e P30



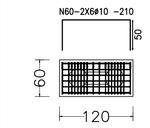
P6, P7, P8, P30 e P39



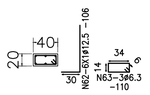
P9, P15, P29, P31 e P32



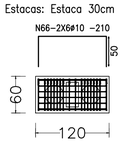
Estacas: Estaca 30cm



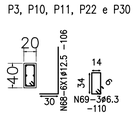
P1, P2, P4, P5, P6, P33, P34, P35, P36 e P37



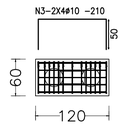
Estacas: Estaca 30cm



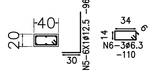
P3, P10, P11, P22 e P30



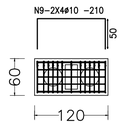
Estacas: Estaca 30cm



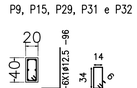
P6, P7, P8, P30 e P39



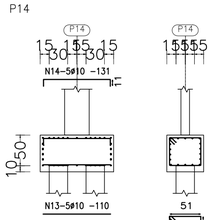
Estacas: Estaca 30cm



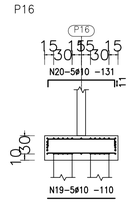
P9, P15, P29, P31 e P32



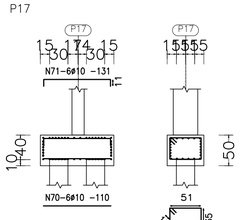
P14



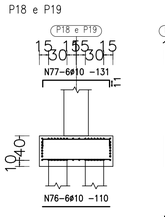
P16



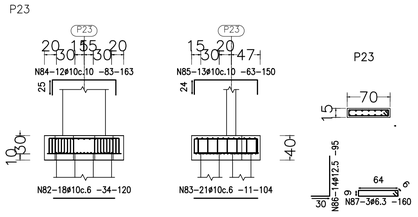
P17



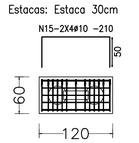
P18 e P19



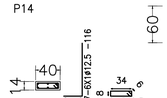
P23



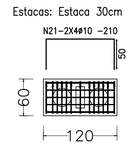
Estacas: Estaca 30cm



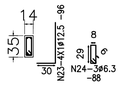
P14



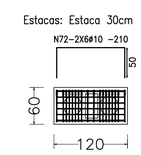
Estacas: Estaca 30cm



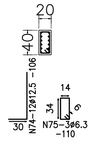
P16



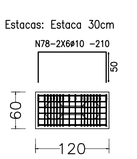
Estacas: Estaca 30cm



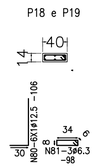
P17



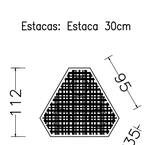
Estacas: Estaca 30cm



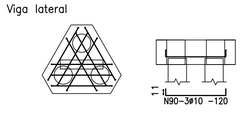
P18 e P19



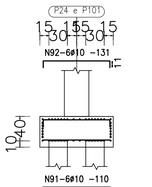
Estacas: Estaca 30cm



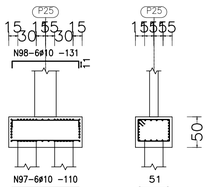
Viga lateral



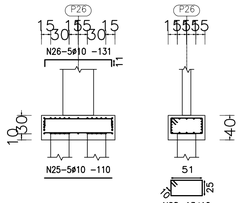
P24 e P101



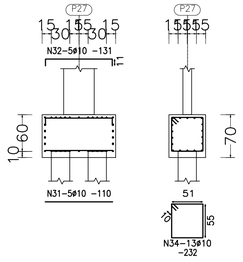
P25



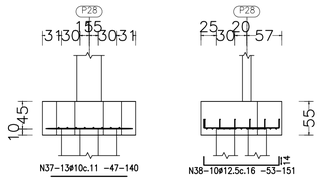
P26



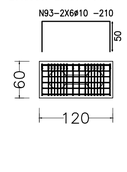
P27



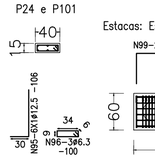
P28



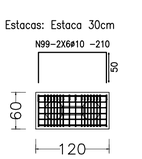
Estacas: Estaca 30cm



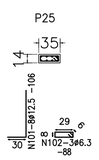
P24 e P101



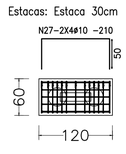
Estacas: Estaca 30cm



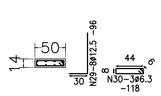
P25



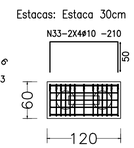
Estacas: Estaca 30cm



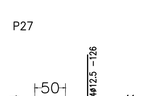
P26



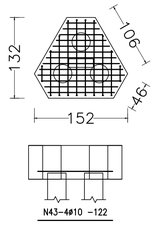
Estacas: Estaca 30cm



P27

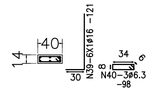


Estacas: Estaca Elevador

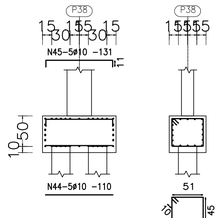


Viga lateral

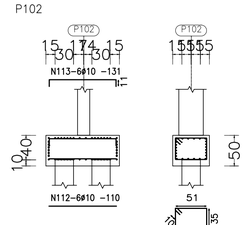
P28



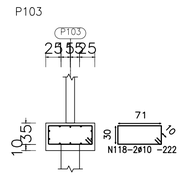
P38



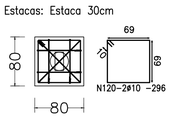
P102



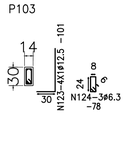
P103



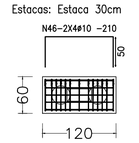
Estacas: Estaca 30cm



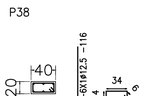
P103



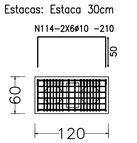
Estacas: Estaca 30cm



P38



Estacas: Estaca 30cm



P102

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P6=P7=P8 P30=P39	1	ø10	5		110		110	550	3.4	
	2	ø10	5	11	109	11	131	655	4.0	
	3	ø10	8		210		210	1680	10.4	
	4	ø10	13		172		172	2236	13.8	
	5	ø12.5	6	30	66		96	576	5.5	
	6	ø6.3	3		110		110	330	0.8	
							Total+10%:		41.7	
							(x5):		208.5	
P9=P15=P29 P31=P32	7	ø10	5		110		110	550	3.4	
	8	ø10	5	11	109	11	131	655	4.0	
	9	ø10	8		210		210	1680	10.4	
	10	ø10	13		172		172	2236	13.8	
	11	ø12.5	6	30	66		96	576	5.5	
	12	ø6.3	3		110		110	330	0.8	
							Total+10%:		41.7	
							(x5):		208.5	
P14	13	ø10	5		110		110	550	3.4	
	14	ø10	5	11	109	11	131	655	4.0	
	15	ø10	8		210		210	1680	10.4	
	16	ø10	13		212		212	2756	17.0	
	17	ø12.5	6	30	86		116	696	6.7	
	18	ø6.3	3		98		98	294	0.7	
							Total+10%:		46.4	
P16	19	ø10	5		110		110	550	3.4	
	20	ø10	5	11	109	11	131	655	4.0	
	21	ø10	8		210		210	1680	10.4	
	22	ø10	13		172		172	2236	13.8	
	23	ø12.5	4	30	66		96	384	3.7	
	24	ø6.3	3		88		88	264	0.6	
							Total+10%:		39.5	
P26	25	ø10	5		110		110	550	3.4	
	26	ø10	5	11	109	11	131	655	4.0	
	27	ø10	8		210		210	1680	10.4	
	28	ø10	13		172		172	2236	13.8	
	29	ø12.5	8	30	66		96	768	7.4	
	30	ø6.3	3		118		118	354	0.9	
							Total+10%:		43.9	
P27	31	ø10	5		110		110	550	3.4	
	32	ø10	5	11	109	11	131	655	4.0	
	33	ø10	8		210		210	1680	10.4	
	34	ø10	13		232		232	3016	18.6	
	35	ø12.5	14	30	96		126	1764	17.0	
	36	ø6.3	3		118		118	354	0.9	
							Total+10%:		59.7	
P28	37	ø10	13		VAR.		VAR.	1313	8.1	
	38	ø12.5	10		VAR.		VAR.	1160	11.2	
	39	ø16	6	30	91		121	726	11.5	
	40	ø6.3	3		98		98	294	0.7	
	41	ø10	4		122		122	488	3.0	
	42	ø10	4		122		122	488	3.0	
	43	ø10	4		122		122	488	3.0	
							Total+10%:		44.6	
P38	44	ø10	5		110		110	550	3.4	
	45	ø10	5	11	109	11	131	655	4.0	
	46	ø10	8		210		210	1680	10.4	
	47	ø10	13		212		212	2756	17.0	
	48	ø12.5	6	30	86		116	696	6.7	
	49	ø6.3	3		110		110	330	0.8	
							Total+10%:		46.5	
C.1 [(24.79, 10.46) - (27.99, 10.46)]	50	ø10	2	12	328	12	352	704	4.3	
	51	ø10	2	12	328	12	352	704	4.3	
	52	ø6.3	21		90		90	1890	4.6	
							Total+10%:		14.5	
C.1 [P6 - P7]	53	ø10	2		492		492	984	6.1	
	54	ø10	2		498		498	996	6.1	
	55	ø6.3	25		90		90	2250	5.5	
							Total+10%:		19.5	
C.1 [P7 - P8]	56	ø10	2		432		432	864	5.3	
	57	ø10	2		438		438	876	5.4	
	58	ø6.3	21		90		90	1890	4.6	
							Total+10%:		16.8	
C.1 [P8 - P9]	59	ø10	2		290		290	580	3.6	
	60	ø10	2		296		296	592	3.6	
	61	ø6.3	15		90		90	1350	3.3	
							Total+10%:		11.6	
C.1 [P28 - P16]	62	ø10	2		304		304	608	3.7	
	63	ø10	2		304		304	608	3.7	
	64	ø6.3	15		90		90	1350	3.3	
							Total+10%:		11.8	
C.1 [P16 - P8]	65	ø10	2		484		484	968	6.0	
	66	ø10	2		490		490	980	6.0	
	67	ø6.3	28		90		90	2520	6.2	
							Total+10%:		20.0	
C.1 [P15 - P9]	68	ø10	2		460		460	920	5.7	
	69	ø10	2		466		466	932	5.7	
	70	ø6.3	27		90		90	2430	6.0	
							Total+10%:		19.1	
C.1 [P28 - P29]	71	ø10	2		340		340	680	4.2	
	72	ø10	2		346		346	692	4.3	
	73	ø6.3	14		90		90	1260	3.1	
							Total+10%:		12.8	
C.1 [P29 - P15]	74	ø10	2		337		337	674	4.2	
	75	ø10	2		343		343	686	4.2	
	76	ø6.3	19		90		90	1710	4.2	
							Total+10%:		13.9	
C.1 [(24.79, 2.70) - P31]	77	ø10	2	12	334		346	692	4.3	
	78	ø10	2	12	337		349	698	4.3	
	79	ø6.3	18		90		90	1620	4.0	
							Total+10%:		13.9	
C.1 [P31 - P29]	80	ø10	2		414		414	828	5.1	
	81	ø10	2		420		420	840	5.2	
	82	ø6.3	24		90		90	2160	5.3	
							Total+10%:		17.2	
C.1 [P32 - P31]	83	ø10	2		280		280	560	3.5	
	84	ø10	2		286		286	572	3.5	
	85	ø6.3	15		90		90	1350	3.3	
							Total+10%:		11.3	
C.1 [P39 - P28]	86	ø10	2		696		696	1392	8.6	
	87	ø10	2		710		710	1420	8.8	
	88	ø6.3	40		90		90	3600	8.8	
							Total+10%:		28.8	
							ø6.3:	82.6	0.0	
							ø10:	695.6	0.0	
							ø12.5:	117.9	0.0	
							ø16:	12.7	0.0	
							Total:	908.8	0.0	

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
C.1 [P39 - P32]	1	ø10	2		304		304	608	3.7	
	2	ø10	2		310		310	620	3.8	
	3	ø6.3	15		90		90	1350	3.3	
							Total+10%:		11.9	
C.1 [P30 - P26]	4	ø10	2		668		668	1336	8.2	
	5	ø10	2		677		677	1354	8.3	
	6	ø6.3	42		90		90	3780	9.3	
							Total+10%:		28.4	
C.1 [P38 - P39]	7	ø10	2		432		432	864	5.3	
	8	ø10	2		438		438	876	5.4	
	9	ø6.3	21		90		90	1890	4.6	
							Total+10%:		16.8	
C.1 [P30 - P38]	10	ø10	2		492		492	984	6.1	
	11	ø10	2		498		498	996	6.1	
	12	ø6.3	25		90		90	2250	5.5	
							Total+10%:		19.5	
C.1 [P27 - P28]	13	ø10	2		432		432	864	5.3	
	14	ø10	2		438		438	876	5.4	
	15	ø6.3	20		90		90	1800	4.4	
							Total+10%:		16.6	
C.1 [P26 - P27]	16	ø10	2		499		499	998	6.1	
	17	ø10	2		505		505	1010	6.2	
	18	ø6.3	25		90		90	2250	5.5	
							Total+10%:		19.6	
C.1 [P38 - P27]	19	ø10	2		687		687	1374	8.5	
	20	ø10	2		696		696	1392	8.6	
	21	ø6.3	42		90		90	3780	9.3	
							Total+10%:		29.0	
C.1 [P14 - P7]	22	ø10	2		441		441	882	5.4	
	23	ø10	2		447		447	894	5.5	
	24	ø6.3	27		90		90	2430	6.0	
							Total+10%:		18.6	
C.1 [P14 - P16]	25	ø10	2		371		371	742	4.6	
	26	ø10	2		377		377	754	4.6	
	27	ø6.3	20		90		90	1800	4.4	
							Total+10%:		15.0	
C.1 [P27 - P14]	28	ø10	2		308		308	616	3.8	
	29	ø10	2		314		314	628	3.9	
	30	ø6.3	19		90		90	1710	4.2	
							Total+10%:		13.1	
							ø6.3:	62.1	0.0	
							ø10:	126.4	0.0	
							Total:	188.5	0.0	

Resumo Aço Térreo Detalhamento fundação		Comp. total (m)	Peso+10% (kg)	Total
CA-50	ø6.3	536.1	144	
	ø10	1211.3	821	
	ø12.5	112.3	119	
	ø16	7.3	13	1097

NOTAS:

1 – DIMENSÕES EM CENTÍMETRO, ELEVAÇÕES E COORDENADAS EM METRO, EXCETO ONDE INDICADO.

2 – MATERIAIS:
- CONCRETO ESTRUTURAL fck ≥30 MPa, FATOR ÁGUA./CIMENTO ≤0,6, CLASSE DE AGRESSIVIDADE AMBIENTAL I.
- CONCRETO MAGRO fck ≥10 MPa
- CONCRETO PARA ESTACA fck ≥30 MPa
- AÇO CA-50

3 – AS ELEVAÇÕES DEVEM SER CONFRONTADAS COM AS INDICADAS NO DESENHO DE ARQUITETURA.

4 – ANTES DA MONTAGEM DAS FORMAS DA FUNDAÇÃO, O FUNDO DOS ELEMENTOS DE FUNDAÇÃO DEVEM SER BEM COMPACTADOS.

5 – A ELEVAÇÃO 0,00 CORRESPONDE A ELEVAÇÃO +100,00.

PROJETO
12321/2024 - CONSTRUÇÃO SEDE GUARDA MUNICIPAL E CANIL

ASSUNTO
Projeto Estrutural - Armadura - Fundação - Bloco de Coroamento - Prédio Principal

ENDEREÇO DA OBRA
Av. Domingos José Delgado - Quadra B - Lote AI3 - Eco Park Empresarial

PROPRIETÁRIO (s)
Prefeitura de Itupeva

SECRETARIA RESPONSÁVEL PELO PROJETO
Secretaria de Obras, Planejamento e Mobilidade Urbana

RESPONSÁVEL TÉCNICO
Eng. Joyce Modesto Aderaldo

CREA/SP
506.922.591-7

ART
2620260402509

RESPONSÁVEL PELO DESENHO
Eng. Jônatas Lima de Araújo

DATA	NÚMERO	ESCALA	FOLHA
Janeiro/2026	PMI-2025-PP-ARM-002	1:50	2/3