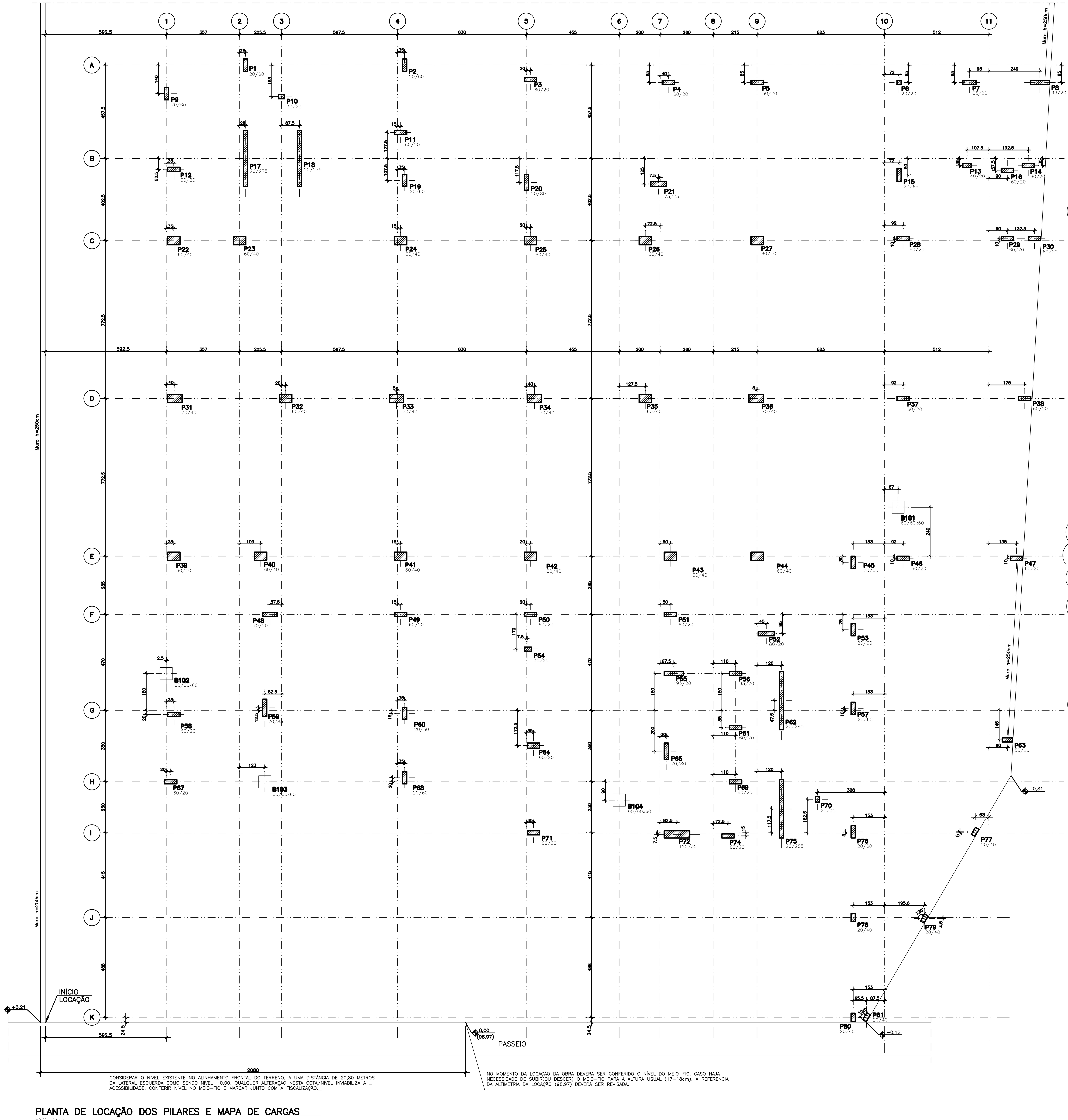

CONSIDERAR O NÍVEL EXISTENTE NO ALINHAMENTO FRONTAL DO TERRENO, A UMA DISTÂNCIA DE 20,80 METROS DA LATERAL ESQUERDA COMO SENDO NÍVEL +0,00. QUALQUER ALTERAÇÃO NESTA COTA/NÍVEL INVIABILIZA A ACESSIBILIDADE. CONFERIR NÍVEL NO MEIO-FIO E MARCAR JUNTO COM A FISCALIZAÇÃO.

NO MOMENTO DA LOCAÇÃO DA OBRA DEVERÁ SER CONFERIDO O NÍVEL DO MEIO-FIO. CASO HAJA NECESSIDADE DE SUBIR(OU DESCER) O MEIO-FIO PARA A ALTURA USUAL (17-18cm), A REFERÊNCIA DA ALTIMETRIA DA LOCAÇÃO (98,97) DEVERÁ SER REVISADA.

PLANTA DE LOCAÇÃO DOS PILARES E MAPA DE CARGAS

ESC. 1:75

CONFIGURAÇÃO DAS PENAS - FORMATO A0 (1189 x 841mm)							
RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE	101
0.25	0.50	0.13	0.30	0.40	1.0	0.80	0.18

QUADRO DE CARGAS

Elem	Empuxo					Temperatura					Retração					Vento (1) 90°				
	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm
P1	1.84	-0.01	0.14	-0.06	-0.03	5.68	-8.25	7.27	-1.53	-1.23	-1.56	8.28	-7.20	1.14	0.81	21.79	-0.01	6.29	-1.41	0.04
P2	0.31	-0.01	0.03	-0.12	-0.03	2.07	5.19	3.83	-4.26	-0.28	-0.22	-5.19	-3.87	3.71	0.68	3.81	0.01	0.75	-2.60	0.06
P3	1.19	-0.09	0.04	-0.02	-0.22	5.48	-4.97	3.36	-0.91	-2.30	-0.51	5.15	-3.24	0.57	2.26	5.02	0.17	0.75	-0.35	0.38
P4	0.51	-0.09	0.02	-0.02	-0.25	-2.57	2.24	2.97	-1.02	-1.06	0.00	-2.17	-3.05	0.71	1.14	1.42	0.16	0.31	-0.31	0.37
P5	-0.46	-0.09	0.00	-0.02	-0.22	6.09	6.54	5.71	-1.09	0.11	0.01	-6.52	-5.69	0.72	0.22	1.60	0.15	0.18	-0.25	0.34
P6	0.07	2.06	-2.91	0.01	-0.03	-0.27	-5.77	6.95	-0.62	-0.71	0.18	5.53	-6.94	0.12	0.16	0.15	0.15	0.77	-0.04	-0.01
P7	0.37	1.05	-0.03	0.02	0.96	-2.20	0.75	0.95	-1.13	1.43	2.78	-0.73	-1.24	1.29	-1.41	-0.15	-0.18	-0.05	-0.01	0.02
P8	-0.63	1.01	-0.11	0.01	0.05	5.91	0.71	0.70	-0.03	3.63	-5.01	-0.77	-0.88	0.03	-3.42	0.55	-0.23	-0.03	-0.00	0.17
P9	0.39	-0.01	0.03	-0.11	-0.02	2.78	-5.17	6.76	-2.16	-1.67	-0.57	5.21	-6.79	1.59	0.83	4.27	0.04	0.85	-3.17	0.05
P10	0.34	-0.01	0.00	-0.01	-0.03	-2.76	-1.15	0.26	-0.17	-1.42	-0.29	1.25	-0.25	0.15	0.86	3.20	0.06	0.10	-0.18	0.05
P11	0.04	-0.10	0.03	-0.02	-0.19	-0.82	2.37	3.26	-0.45	-4.03	0.08	-2.33	-3.28	0.43	4.37	1.30	0.04	0.70	-0.36	0.16
P12	0.03	-0.08	0.02	-0.01	-0.19	-2.09	-4.00	-1.34	-0.04	-6.42	0.00	4.14	1.32	0.13	6.57	-4.13	0.11	0.61	-0.33	0.24
P13	-2.94	-7.63	0.04	-0.19	-0.25	-6.28	5.06	4.38	-1.87	0.55	3.71	-5.09	-4.36	2.13	-0.94	0.07	0.41	1.63	-0.27	0.05
P14	-0.38	-1.85	2.48	-1.13	-1.85	2.19	3.54	0.72	-0.65	4.92	-2.41	-4.01	-0.41	0.50	-5.13	0.17	-0.01	-0.04	-0.01	0.06
P15	1.51	-5.39	-5.07	-0.62	-3.20	0.85	-6.15	5.72	-8.47	-1.18	-0.82	6.32	-7.75	7.67	0.77	0.53	0.37	1.00	-2.92	0.04
P16	2.33	-2.05	-4.67	2.31	-1.96	1.64	2.67	0.13	-0.36	3.85	-1.13	-3.01	-0.39	0.50	-4.01	-0.17	-0.04	-0.04	-0.01	0.04
P17	-0.84	0.03	-0.09	-3.00	0.01	2.12	-1.31	4.18	-8.15	-2.21	-1.21	1.30	-4.42	14.62	2.29	-7.43	-0.05	1.52	-77.96	-0.02
P18	-0.21	0.03	-0.08	-3.27	0.01	-4.03	-1.44	4.96	-12.32	-0.84	1.66	1.43	-4.72	12.99	0.76	-1.67	-0.05	5.75	-76.89	-0.01
P19	0.02	-0.07	0.03	-0.14	-0.02	0.31	11.76	-2.74	-3.14	0.08	0.06	-11.71	2.72	3.13	0.46	0.67	0.14	0.79	-2.77	0.13
P20	0.51	-0.06	0.06	-0.36	-0.03	-2.79	-10.33	0.02	-9.53	-0.63	-0.22	10.46	0.24	8.78	0.24	2.87	0.10	1.30	-6.17	0.04
P21	-0.14	-0.10	0.03	-0.05	-0.45	-3.23	10.41	-2.39	-1.59	-0.81	-0.00	-10.15	2.27	1.40	1.81	-0.86	0.17	0.45	-0.69	0.49
P22	0.61	-0.13	0.02	-0.08	-0.35	7.56	-11.19	-10.17	-0.09	-12.02	-1.66	11.34	10.15	0.57	11.70	-2.22	0.25	0.79	-2.40	0.36
P23	-1.47	-0.14	0.15	0.01	-0.39	-5.34	-9.66	-2.26	1.22	-11.18	2.88	9.79	2.34	-0.58	11.21	-12.51	0.15	6.47	0.18	0.02
P24	-0.33	-0.13	0.03	-0.12	-0.36	4.34	12.31	-10.00	-1.82	-7.45	0.54	-12.16	9.97	2.47	8.22	-4.43	0.19	0.84	-2.57	0.28
P25	-1.10	-0.15	0.06	-0.15	-0.38	4.19	-14.70	-6.91	-2.75	-1.79	0.64	14.94	7.11	3.09	1.74	-5.99	0.09	1.20	-2.49	0.30
P26	0.03	-0.15	0.05	-0.20	-0.41	0.19	-0.42	-8.12	-2.42	0.04	-0.10	0.62	7.87	3.52	-0.32	0.26	0.08	0.65	-2.56	0.33
P27	-0.00	-0.14	0.00	-0.10	-0.36	2.31	14.07	-10.30	-4.44	2.79	0.08	-13.72	10.36	4.76	-1.79	2.04	0.10	0.33	-1.72	0.34
P28	0.29	-0.63	1.73	-0.80	-0.05	-2.14	0.62	-0.38	0.25	-1.94	2.88	-0.45	0.37	-0.25	2.10	-0.90	0.14	-0.04	0.00	0.18
P29	-0.10	-1.18	1.91	-1.56	-0.17	-9.12	3.10	0.05	0.02	5.59	8.48	-3.21	0.12	-0.14	-5.94	-0.42	0.16	-0.03	-0.01	0.21
P30	-0.31	-1.34	0.75	-0.06	-0.70	9.67	3.18	0.13	-0.12	6.03	-9.02	-3.29	-0.08	0.09	-5.98	0.28	0.15	-0.01	-0.03	0.14
P31	0.26	-0.16	0.02	-0.09	-0.42	-3.66	-11.28	10.11	2.10	-15.04	-1.20	11.56	-10.12	-2.48	15.25	1.35	0.02	0.78	-2.77	0.09
P32	0.00	-0.15	0.05	-0.13	-0.30	-4.50	-9.04	12.15	1.23	-7.35	0.71	9.17	-12.17	-1.75	7.31	0.06	0.02	1.09	-2.99	0.08
P33	-0.12	-0.17	0.03	-0.11	-0.45	-10.00	-4.56	12.38	0.78	-8.02	0.71	4.73	-12.45	-1.06	8.36	0.09	0.03	0.77	-2.55	0.09
P34	0.18	-0.19	0.03	-0.14	-0.45	-9.09	0.02	11.05	-0.35	-2.26	0.18	0.05	-10.94	-0.22	2.22	0.26	0.03	0.77	-2.41	0.09
P35	-0.01	-0.21	0.08	-0.22	-0.31	-4.23	4.52	11.93	-1.24	1.03	0.96	-4.45	-11.94	0.92	-1.19	-0.13	0.04	1.03	-2.68	0.08
P36	-0.48	-0.31	0.04	-0.15	-0.47	-8.02	14.31	12.22	-2.18	5.32	-0.35	-14.14	-12.13	1.68	-5.28	-1.69	0.03	1.06	-2.16	0.07
P37	-0.15	-1.55	-0.26	0.19	0.30	-1.28	4.64	-0.72	0.66	8.90	0.15	-4.84	0.83	-0.71	-8.91	0.02	-0.01	-0.09	0.03	-0.00
P38	0.05	-3.05	0.22	0.00	-1.54	0.73	2.69	-0.40	0.00	1.60	-0.27	-2.92	0.42	-0.00	-1.79	0.02	-0.00	0.01	-0.00	0.02
P39	-0.08	-0.09	0.02	-0.06	-0.19	3.57	-13.15	-12.34	3.28	-8.80	-1.12	12.16	12.41	-3.15	8.55	0.36	-0.08	0.67	-2.18	-0.19
P40	0.22	-0.10	0.03	-0.10	-0.20	-1.68	-12.29	2.77	3.18	-7.43	0.43	12.25	-2.89	-3.33	7.23	2.31	-0.07	0.88	-2.53	-0.21
P41	0.05	-0.13	0.03	-0.12	-0.20	5.73	-5.35	3.47	2.35	-3.57	0.12	5.33	-3.51	-2.56	3.68	0.74	-0.08	0.75	-2.50	-0.19
P42	0.16	-0.19	0.04	-0.15	-0.20	4.55	-2.79	-11.35	1.49	-0.58	0.20	2.70	11.44	-1.21	0.10	1.04	-0.08	0.82	-2.40	-0.21
P43	-0.02	-0.33	0.05	-0.15	-0.18	1.55	3.85	-11.01	0.38	3.41	0.48	-3.91	11.00	0.00	-3.36	2.40	-0.07	0.86	-2.16	-0.18
P44	0.60	-0.53	0.06	-0.13	-0.16	6.46	7.25	2.16	-0.45	5.15	-0.30	-7.32	-2.12	0.28	-5.26	0.00	-0.08	1.58	-1.79	-0.18
P45	2.39	-1.07	0.16	-0.23	0.01	0.16	9.92	7.99	-0.51	-0.34	1.80	-10.01	-10.02	0.08	0.35	9.20	-0.04	1.37	-2.50	0.00
P46	0.11	-1.35	-0.07	0.06	-0.13	1.31	4.22	-1.26	1.16	4.89	-0.82	-4.27	1.31	-1.19	-4.91	0.44	-0.00	-0.10	0.04	-0.02
P47	-0.01	-2.35	0.22	-0.05	-0.69	0.78	4.54	-1.68	1.59	6.07	-0.67	-4.60	1.68	-1.55	-6.07	-0.13	0.02	0.04	-0.07	-0.06
P48	0.00	-0.06	0.03	-0.02	-0.13	-1.88	-2.01	-1.12	0.64	-5.40	0.15	1.95	0.97	-0.66	5.34	0.02	-0.10	0.79	-0.45	-0.24
P49	0.05	-0.05	0.03	-0.02	-0.09	-0.43	-10.53	-0.42	0.52	-1.45	-0.00	10.53	0.38	-0.44	0.92	0.74	-0.06	0.67	-0.36	-0.15
P50	-0.18	-0.05	0.29	-0.02	-0.10	-0.24	-2.44	9.02	-0.25	0.28	0.10	2.42	-9.03	-0.38	-0.42	-1.41	-0.05	0.20	-0.34	-0.17
P51	-0.64	-0.05	0.01	-0.02	-0.10	-2.08	10.78	-0.81	0.17	1.21	0.21	-10.78	0.81	-0.17	-1.77	-2.49	-0.03	0.15	-0.32	-0.18
P52	0.97	-0.07	0.09	0.01	-0.21	-5.64	1.21	-8.63	-0.57	8.36	0.25	-1.08	8.66	0.01	-8.53	3.57	-0.19	2.23	-0.09	-0.40
P53	-0.62	-0.05	0.20	-0.24	-0.01	1.99	13.47	4.59	0.13	1.07	-0.39	-13.41	-4.60	-0.20	-0.55	-4.42	-0.11	1.51	-2.52	-0.01
P54	-0.08	-0.01	0.37	-0.01	-0.02	5.21	0.57	3.76	0.24	0.09	0.01	-0.58	-3.78	-0.26	-0.10	-0.41	-0.02	0.21	-0.23	-0.04
P55	0.81	-0.23	0.20	-0.04	-0.22	-3.07	-4.69	6.54	-0.06	10.68	1.34	4.37	-6.69	-0.52	-11.35	3.95	-0.63	1.28	-0.50	-0.64
P56	1.61	0.13	-0.09	0.12	-0.05	0.02	0.90	-6.35	0.64	0.62	1.27	-0.68	6.61	-0.65	-0.46	5.55	-1.77	2.58	-0.30	-0.14
P57	0.28	0.01	0.26	-0.37	-0.02	0.90	12.56	-3.22	0.47	1.10	0.17	-12.78	3.19	-0.64	-0.38	1.21	-0.35	1.83	-3.13	-0.05
P58	-0.36	-0.02	0.00	-0.01	-0.07	4.09	-10.87	0.84	0.81	-4.23	0.56	10.83	-0.87	-0.70	3.54	-2.09	-0.05	0.10	-0.32	-0.22
P59	-0.11	-0.01	0.03	-0.27	-0.01	-4.31	-1.10	-9.86	14.78	-0.82	0.03	1.09	9.55	-14.20	0.54	-2.58	-0.03	1.07	-7.29	-0.04
P60	-0.32	0.00	0.04	-0.13	-0.01	0.03	8.88	-9.32	4.55	-0.04	1.35	-8.89	9.26	-4.66	0.23	-2.44	-0.03	0.93	-2.79	-0.04
P61	-0.02	0.43	0.02	-0.02	0.48	-8.86	4.02	-7.09	0.74	-1.24	2.02	-4.01	7.37	-0.77	1.36	-0.14	-0.55	2.84	-0.30	0.09
P62	8.48	0.28	0.07	-4.75	-0.14	-4.40	2.22	-4.71	-5.90	0.98	7.31	-2.10	4.83	5.91	-1.03	36.38	-1.14	4.16	-30.71	-0.08
P63	0.04	-1.95	0.22	0.07	-0.54	0.75	5.85	-2.67	2.58	7.94	-0.28	-6.17	2.80	-2.69	-7.95	0.14	0.05	0.07	-0.06	0.05
P64	-0.12	0.04	0.82	-0.11	-0.08	-7.35	-11.06	-13.07	0.34	1.65	0.28	10.98	13.04	-0.63	-2.30	0.59	-0.07	0.33	-0.59	-0.33
P65	0.58	0.16	0.29	-0.35	-0.01	-4.80	6.01	-6.21	7.15	-0.03	0.79	-6.13	5.97	-6.48	-0.42	2.67	-0.00	1.67	-5.03	-0.04
P67	-0.02	-0.00	0.00	-0.01	-0.02	2.47	-11.43	-10.76	1.25	-2.68	-0.64	11.73	10.76	-0.77	2.71	-0.36	0.01	0.12	-0.40	-0.13
P68	-0.09	-0.00	0.05	-0.17	-0.00	0.43	12.68	-11.03	4.90	0.25	-1.05	-12.61	11.04	-4.59	0.14	-1.27	-0.01	1.03	-3.14	-0.05
P69	-0.19	0.22	0.31	-0.02	0.57	-8.33	4.50	-6.80	0.97	1.47	1.50	-4.62	7.09	-0.99	-1.43	0.57	0.01	2.92	-0.31	-0.11
P70	-0.32	-0.01	0.03	-0.03	-0.00	-3.57	0.28	-1.89	1.39	0.29	-0.07	-0.29	1.94	-0.37	-0.31	-1.31	-0.05	0.51	-0.29	-0.02
P71	-0.63	-0.32	2.88	-0.78	-0.13	6.50	-2.68	-0.77	0.91	-6.78	0.01	2.81	0.89	-0.97	6.97	-0.84	0.13	-0.14	0.06	-0.16
P72	-2.61	-0.52	0.79	-0.23	-1.08	-1.89	2.38	-4.60	6.24	23.60	6.21	-2.84	4.79	-6.25	-25.35	-6.56	0.42	-0.35	-0.47	-2.19
P74	-1.25	-0.40	0.46	-0.15	-0.13	14.06	0.68	-5.64	1.33	4.54	-9.54	-0.87	5.92	-1.37	-4.64	-9.42	0.94	2.33	-0.28	0.01
P75	-7.94	-0.09	0.03	-6.59	-0.43	13.33	2.16	-12.11	53.29	2.19	-11.10	-2.28	12.46	-51.91	-2.28	-36.83	0.48	4.22	-61.84	0.07
P76	-1.80	-0.39	0.19	-0.08	-0.00	6.47	0.88	-5.35	4.76	1.96	-0.33	-0.96	5.19	-4.59	-1.95	-7.39	0.49	0.14	-0.45	-0.02
P77	-0.00	-0.66	0.69	-0.00	-0.30	0.97	0.80	-2.03	0.01	2.21	-0.15	-0.95	2.02	-0.01	-1.89	0.08	0.30	0.09	-0.00	0.05
P78	-0.06	-0.19	0.30	-0.03	0.21	-2.10	-0.37	-5.58	3.75	0.04	0.50	0.37	5.55	-3.74	0.02	-0.52	-0.04	0.15	-0.20	-0.08
P79	0.02	-0.87	1.04	-0.01	-0.71	-1.76	-0.54	-2.38	0.02	-0.48	-0.19	0.51	2.39	-0.02	-0.53	-0.13	-0.02	0.14	-0.00	-0.13
P80-81	-0.09	0.62	0.77	-0.47	0.24	3.56	-1.92	-7.36	10.48	-1.51	-1.60	1.92	7.52	-10.74	1.82	-0.45	0.16	0.19	-0.40	-0.03
B101	-0.01	-0.19	-0.55	0.01	0.00	-0.29	-0.41	-0.95	-0.72	-0.89	0.29	0.39	0.96	0.36	-0.02	0.05	-0.00	0.64	0.09	-0.00
B102	-0.00	-0.00	0.00	-0.00	-0.00	0.07	-0.96	0.26	-0.52	-0.59	-0.00	0.96	-0.28	0.00	0.00	-0.00	-0.01	0.07	-0.00	0.00
B103	-0.00	-0.00	0.02	0.00	-0.00	0.08	-0.16	-0.67	0.55	0.11	-0.00	0.17	0.66	0.00	-0.00	-0.00	-0.00	0.75	0.00	-0.00
B104	-0.00	-0.06	0.12	-0.00	-0.00	-0.22	-0.23	-0.57	-0.36	-0.11	0.73	0.24	0.57	0.99	0.24	0.06	-0.16	0.03	0.05	0.06
PM1	-0.00	0.00	0.00	0.00	0.00	0.09	0.07	-0.39	0.20	-0.01	-0.02	-0.07	0.50	-0.10	0.00	-0.15	-0.00	0.20	-0.37	0.01
PM1	-0.00	0.00	0.00	0.00	0.00	0.04	0.00	-0.28	0.04	0.01	0.02	0.05	0.89	-0.06	-0.00	0.04	0.00	0.21	-0.39	-0.00

Elem	Vento (3) 0°					ELU1/PERMACID/PP_V+PERM_V+EMPU+0.86RETR+ACID_V					Caso 138	Caso 139	Caso 140	Caso 141	Caso 142
	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm	Fz tf	Fx tf	Fy tf	Mx tfm	My tfm	Fx tf	Fy tf	Fz tf	Mx tfm	My tfm
P1	-0.17	0.12	-0.40	0.03	0.36	87.71	6.97	-15.13	1.80	5.88	7.09	18.33	115.27	3.22	6.25
P2	1.87	0.14	-0.04	0.08	0.37	77.86	-12.96	-11.72	3.61	-4.67	13.24	12.55	81.39	6.23	-4.32
P3	-5.40	1.00	-0.02	0.00	2.86	99.88	12.46	-11.22	0.66	1.13	13.48	12.09	106.35	1.01	4.04
P4	-3.08	1.05	0.06	-0.02	3.18	142.23	-1.81	-9.80	0.67	1.31	2.62	11.01	150.58	1.00	4.50
P5	9.36	0.98	0.01	0.01	2.74	95.93	-10.87	-11.06	1.47	-0.84	11.27	10.89	105.96	1.73	1.98
P6	-0.54	4.68	-0.44	-0.00	-0.18	17.91	7.58	-20.59	1.49	1.14	12.99	14.19	18.27	1.55	1.32
P7	-2.92	-0.34	0.08	-0.07	1.58	26.05	0.86	0.08	0.51	-1.85	2.33	2.01	28.71	0.59	1.75
P8	3.62	-0.83	0.01	0.00	1.67	22.28	1.93	0.35	0.04	5.14	3.76	1.72	34.28	0.04	12.14
P9	-1.55	0.17	-0.08	0.15	0.34	89.96	7.76	-10.94	2.33	2.38	7.94	11.55	94.54	5.54	2.73
P10	-0.84	0.20	-0.01	0.00	0.44	44.05	0.64	-0.28	0.21	2.63	0.86	0.22	47.01	0.39	3.09
P11	1.59	1.39	-0.03	0.02	2.66	91.29	-1.38	-2.52	0.18	0.65	3.47	3.52	92.37	0.55	3.29
P12	-5.17	0.98	-0.02	0.01	2.74	83.81	11.66	1.21	0.65	3.31	12.66	1.82	91.85	0.98	6.09
P13	-2.22	4.47	1.59	-0.27	0.49	40.21	-15.76	-11.72	1.38	-0.88	4.45	14.05	41.98	1.66	0.69
P14	1.94	-0.53	-0.01	0.00	0.41	20.18	-4.17	0.77	-0.03	-5.77	2.69	1.77	25.15	-0.01	3.17
P15	-0.65	3.76	-0.78	-0.09	0.68	37.13	-0.86	-12.39	9.64	-0.50	3.06	1.55	38.66	12.47	0.17
P16	0.76	-0.41	0.11	-0.11	0.46	17.30	-4.38	-4.14	2.26	-5.20	0.82	-3.64	19.96	2.37	1.88
P17	2.49	-0.44	-0.41	1.95	-0.12	164.12	0.71	-4.17	40.69	5.54	1.17	4.17	170.70	79.58	5.61
P18	1.71	-0.44	-0.81	1.94	-0.10	211.07	1.84	-14.88	48.92	-3.22	2.27	15.03	212.10	86.45	-2.95
P19	0.88	0.90	-0.04	0.14	0.46	101.36	-10.16	2.79	2.87	3.04	10.56	3.55	102.31	5.68	-2.63
P20	-1.40	0.61	-0.03	0.09	0.46	161.04	8.89	0.39	8.08	0.71	9.50	1.68	162.96	14.26	1.19
P21	-0.10	1.04	0.10	-0.02	5.77	243.76	-8.72	2.75	1.83	0.01	9.58	3.16	244.78	2.48	5.79
P22	-16.69	1.78	-0.06	0.08	5.59	147.44	14.32	8.82	-1.29	10.14	16.15	9.61	165.86	1.11	15.76
P23	10.58	1.80	-0.41	-0.05	5.98	251.50	7.63	1.68	-2.21	11.76	9.50	8.19	268.04	-0.17	17.88
P24	-3.80	1.64	-0.05	0.10	5.31	244.43	-10.41	9.30	-0.39	2.89	11.62	10.10	249.30	2.35	8.13
P25	4.49	1.84	-0.01	0.03	5.30	263.62	13.00	6.73	0.23	3.34	14.83	7.88	269.35	2.92	8.59
P26	-0.03	2.17	-0.12	-0.02	6.96	36.83	-0.27	8.58	-1.86	-0.46	1.93	9.13	37.16	0.99	6.74
P27	4.86	1.91	0.03	-0.08	5.34	331.62	-13.84	8.51	3.35	-6.85	11.32	8.86	335.71	5.04	1.73
P28	-0.54	0.12	-0.05	0.03	0.85	50.21	-3.06	1.68	-0.81	-0.41	-2.03	1.75	50.89	-0.37	0.72
P29	-4.47	0.39	0.06	-0.11	1.14	37.11	-3.20	1.35	-1.20	-3.73	2.44	1.46	40.91	-0.97	7.07
P30	5.48	0.38	-0.01	0.09	2.12	18.65	-3.50	0.45	-0.50	0.38	2.26	0.68	40.66	-0.29	11.86
P31	-7.63	2.65	-0.06	0.12	8.35	441.64	18.41	-8.88	-0.88	13.59	21.10	9.03	453.06	5.16	21.99
P32	-0.00	2.93	-0.08	0.06	7.57	73.51	7.49	-14.55	-0.85	6.02	10.43	15.65	73.55	4.29	13.58
P33	6.07	2.91	-0.05	0.13	8.91	473.06	2.98	-15.20	0.41	3.08	5.97	15.27	480.67	4.27	12.37
P34	-6.08	3.04	-0.01	0.01	8.88	493.37	0.37	-9.95	1.05	4.64	3.42	9.45	500.75	3.66	13.44
P35	-0.00	3.40	0.06	0.00	7.52	77.30	-4.20	-10.08	1.10	-0.83	5.55	11.07	77.37	3.80	8.12
P36	6.74	3.92	0.06	-0.05	8.49	492.30	-13.69	-14.82	2.25	-8.33	13.21	15.38	499.74	4.43	7.82
P37	0.21	-0.39	-0.02	0.02	0.45	56.08	-5.52	0.08	-0.22	-7.71	2.86	0.18	56.20	0.98	7.89
P38	0.27	-0.04	0.00	0.00	1.16	36.02	-5.09	0.59	-0.00	10.06	-0.28	0.61	37.45	0.00	13.20
P39	-12.01	2.06	-0.07	0.14	6.02	231.51	17.08	10.34	-3.19	7.78	19.15	11.16	241.51	3.61	13.78
P40	4.55	2.16	-0.04	0.19	6.44	249.54	10.09	-2.39	-3.21	5.47	12.26	3.08	252.27	3.90	11.97
P41	-3.65	2.29	-0.05	0.11	6.65	220.54	4.59	-3.38	-0.80	3.52	6.88	3.18	225.66	4.97	10.13
P42	3.78	2.33	0.01	0.01	6.63	232.00	2.27	8.64	0.43	2.67	4.61	9.54	236.59	4.51	9.28
P43	-5.75	2.32	-0.03	-0.04	6.34	279.77	-3.01	9.37	-0.45	-4.15	5.09	10.24	284.43	1.90	6.72
P44	10.25	2.40	0.09	-0.06	5.86	214.30	-6.31	-2.28	3.07	-0.96	7.78	2.39	224.00	4.79	11.99
P45	0.87	2.82	0.11	-0.10	-0.02	100.50	-13.87	-10.21	1.91	-1.18	13.90	11.27	107.48	4.47	-1.17
P46	0.47	-0.75	-0.02	0.01	0.27	15.71	-4.99	1.50	-1.15	-4.67	2.75	1.57	17.37	0.91	3.91
P47	0.63	-0.76	0.02	0.02	0.48	30.04	-5.91	1.62	-1.16	4.89	2.40	1.66	31.70	1.58	15.47
P48	-0.47	1.36	-0.04	0.03	4.62	161.54	1.13	1.13	0.46	3.53	2.57	2.02	162.87	1.86	8.23
P49	-2.36	1.28	-0.04	0.01	3.54	136.98	14.43	0.43	1.57	5.76	15.68	1.21	140.81	2.63	9.22
P50	2.60	1.23	-0.02	0.00	3.50	125.71	1.99	-7.47	-0.05	-0.50	3.21	8.18	129.83	0.61	3.54
P51	-2.62	1.18	-0.00	0.00	3.17	144.77	-9.10	0.69	-0.17	-0.43	10.14	0.85	149.35	0.39	4.83
P52	0.08	1.30	0.14	0.03	6.74	173.55	-1.15	7.16	-1.17	-3.70	1.70	9.43	181.22	-1.09	14.87
P53	4.26	0.93	0.11	-0.17	0.43	95.69	-11.60	-3.57	-0.41	-2.65	12.06	5.24	99.93	2.37	-1.01
P54	-0.63	0.23	-0.01	0.01	0.56	63.40	-0.71	-2.87	1.29	-0.29	0.44	3.75	66.50	1.88	0.43
P55	-9.84	3.52	0.06	0.00	10.73	177.89	5.52	-5.80	0.43	-5.49	8.96	6.38	183.79	1.38	20.24
P56	2.62	-0.31	0.18	-0.01	0.44	72.38	-0.41	6.03	0.76	1.66	2.41	8.64	76.17	2.00	2.77
P57	3.01	2.50	0.14	0.19	0.29	133.38	-18.01	3.46	21.18	-3.04	20.75	5.29	140.37	30.28	-1.55
P58	-4.98	0.52	-0.01	0.02	2.80	95.07	13.27	-0.60	0.08	4.90	14.12	0.93	101.53	1.68	8.39
P59	2.86	0.35	-0.03	0.21	0.63	201.05	0.70	8.94	-18.10	5.99	1.23	10.25	202.77	11.34	6.79
P60	1.03	0.29	-0.06	0.09	0.41	113.91	-13.77	8.88	-5.06	-4.18	13.83	10.04	121.61	4.48	-3.75
P61	-6.33	0.10	0.16	-0.01	0.26	92.80	-3.00	5.99	-0.83	5.42	4.25	8.90	100.89	0.65	5.58
P62	14.24	-0.09	0.58	-1.63	-0.01	205.00	-0.88	4.04	5.60	-4.19	3.50	8.26	236.99	66.23	-2.26
P63	0.28	-0.37	0.04	0.01	0.37	25.81	-5.61	2.43	-2.03	2.59	4.98	2.50	26.74	2.54	16.43
P64	-3.16	1.27	-0.01	-0.03	3.80	170.34	9.03	12.01	-1.69	-3.15	10.33	12.37	172.23	-0.40	3.54
P65	-2.70	1.26	0.12	-0.22	0.49	168.65	-5.01	5.08	-4.46	-0.10	6.18	6.81	180.51	10.26	0.72
P67	-0.24	0.73	-0.00	-0.00	3.42	26.16	11.75	9.44	-1.88	-1.26	12.66	9.56	28.18	0.11	2.54
P68	-0.30	0.28	-0.07	0.16	0.45	43.13	-15.51	16.73	-10.39	-4.92	15.03	17.85	45.05	0.01	-4.36
P69	-3.06	0.62	0.12	-0.01	0.85	89.73	-3.60	6.21	-0.70	2.95	4.61	9.18	99.41	1.16	5.79
P70	1.20	0.11	0.01	0.06	0.21	42.06	-0.22	1.60	-1.05	-0.22	0.35	2.11	44.23	0.90	0.42
P71	-10.15	1.50	-0.02	0.01	1.55	68.93	2.16	3.48	-1.53	5.74	3.63	3.62	80.59	0.14	7.28
P72	-18.66	1.97	-0.11	-0.06	16.67	161.69	-1.85	4.65	-5.40	-19.40	3.78	5.00	177.46	5.62	32.50
P74	16.93	1.44	-0.07	0.01	1.58	38.71	-0.66	4.74	-2.21	-2.28	1.85	7.15	70.31	0.31	6.50
P75	16.44	0.93	0.66	-0.77	0.33	149.14	-1.14	10.46	-48.95	-6.06	3.19	14.76	199.02	54.89	-1.87
P76	1.54	0.71	0.01	-0.02	0.21	81.54	-1.13	4.35	-3.87	-1.72	0.95	4.50	90.78	4.49	1.76
P77	0.28	0.43	0.07	-0.00	0.25	17.35	-1.82	2.61	-0.03	6.89	0.26	2.70	18.97	-0.01	10.44
P78	-0.26	0.18	0.03	-0.01	0.19	16.14	0.14	4.91	-3.30	0.10	0.37	5.06	16.53	3.28	0.31
P79	0.20	0.19	0.10	-0.00	0.25	18.78	-0.59	3.24	-0.04	7.96	-0.23	3.38	21.41	-0.01	8.58
P80-81	-0.19	0.44	0.07	-0.20	1.46	11.98	2.24	7.04	-9.65	4.76	2.68	7.26	16.64	8.87	6.20
B101	-0.03	0.18	-0.07	-0.06	0.01	2.70	0.27	1.13	0.19	1.17	0.48	1.05	2.77	0.29	0.19
B102	-0.00	0.10	-0.00	-0.00	0.00	1.93	0.79	-0.86	0.27	0.61	0.93	0.52	1.99	0.27	0.61
B103	0.00	0.39	-0.02	-0.00	-0.00	4.43	0.65	1.69	-0.64	0.36	1.12	1.60	4.50	-0.17	0.45
B104	-0.38	0.84	-0.15	-0.56	-0.06	3.04	0.37	0.57	0.23	0.10	1.20	0.74	3.12	0.79	0.16
PM1	-0.00	0.47	0.00	-0.00	1.43	1.51	-0.06	1.35	-0.44	-0.11	0.50	1.55	1.73	0.30	0.32
PM1	0.00	0.38	-0.00	-0.00	1.08	1.25	0.04	1.06	-0.08	-0.21	0.43	1.27	2.79	0.37	0.88

Observações:
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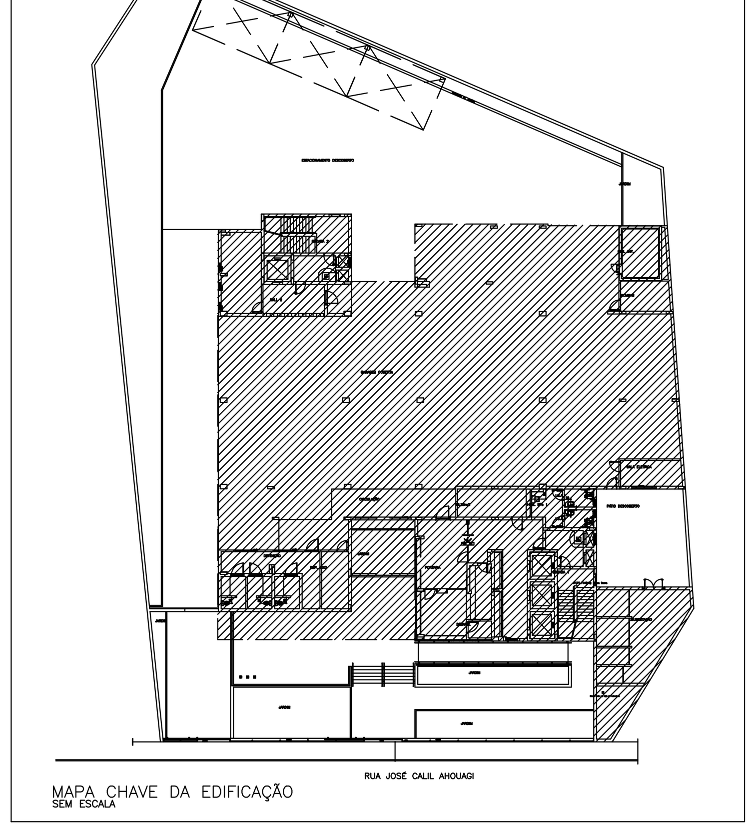
1 – Os valores apresentados referem-se às reações nos apoios
2 – Esforços com valores característicos
3 – Forças em tf
4 – Momentos em tfm
5 – Os Pilares P66 e P73 nascem sobre viga.

Y, My, Z, FZ, X, Mx

NOTAS

1. DIMENSOES EM CENTIMETROS, ELEVAÇÕES EM METROS
2. CONCRETO ESTRUTURAL:
   Fck>= 20 MPa (ESTACAS TIPO RAIZ) – ARGAMASSA; CONSUMO DE CIMENTO>=600,0kg/m3; RELAÇÃO A/C ENTRE 0,5 E 0,6; AGREGADO – AREIA.
   Fck>= 30 MPa (DEMAIS ELEMENTOS ESTRUTURAIS): CONSUMO DE CIMENTO CONSUMO DE CIMENTO >=320,0kg/m3.
3. FATOR ÁGUA/CIMENTO MÁXIMO: 0,60
4. CLASSE DE AGRESSIVIDADE II – URBANA
5. MÓDULO DE ELASTICIDADE INICIAL A 28 DIAS IGUAL A 30670 MPa
6. REALIZAR OS PROCEDIMENTOS DE CURA, RETIRADA DE FORMAS E DO ESCORAMENTO CONFORME NBR 14931:2004 E MEMORIAL DESCRITIVO. PROCEDER COM A CURA ÚMIDA POR NO MÍNIMO 07 (SETE) DIAS OU UTILIZAR A CURA QUÍMICA DOS ELEMENTOS DE CONCRETO.
7. A EXECUÇÃO DA ESTRUTURA DEVERÁ CONTAR COM O ACOMPANHAMENTO DE UM TECNOLOGISTA DE CONCRETO
8. O ENGENHEIRO RESPONSÁVEL PELA OBRA DEVERÁ OBEDECER AS RECOMENDAÇÕES DAS NORMAS TÉCNICAS APLICÁVEIS, DEDICANDO ESPECIAL ATENÇÃO ÀS SEGUINTES ATIVIDADES:
   8.1. CONCRETO: PREPARO, CONTROLE, RECEBIMENTO, TRANSPORTE, LANÇAMENTO, ADENSAMENTO E CURA
   8.2. FÔRMA: CONFERÊNCIA DAS MEDIDAS E POSIÇÕES, LIMPEZA, ESTANQUEIDADE, SATURAÇÃO DAS FÔRMAS ABSORVENTES (RETIRAR EXCESSO DE ÁGUA), CUIDADO COM O USO DOS DESMOLDANTES E RETIRADA DAS FÔRMAS
   8.3. ARMAÇÃO: LIMPEZA, MONTAGEM, COBRIMENTO (USO DE ESPAÇADORES PLÁSTICOS ADEQUADOS), E GARANTIA DA POSIÇÃO DAS ARMADURAS ANTES E DURANTE A CONCRETAGEM
9. COBRIMENTO MÍNIMO DA ARMADURA:
   LAJES=2,0cm; VIGAS E PILARES=2,5cm; BLOCOS=5,0CM; ESTACAS=4,0cm. OBRA COM RÍGIDO CONTROLE DE QUALIDADE.
10. RECOMENDA-SE QUE OS MATERIAIS (AÇO E CONCRETO) UTILIZADOS NESTE PROJETO SEJAM SUBMETIDOS A ENSAIOS TECNOLÓGICOS
11. PREVER DRENAGEM E/OU IMPERMEABILIZAÇÃO PARA AS CORTINAS (CONTENÇÕES).
12. CONFERIR MEDIDAS NO LOCAL.



MAPA CHAVE DA EDIFICAÇÃO
SEM ESCALA

TIPO	REV	DESCRIÇÃO	DESENHO	DATA
EXE	01	AVALIAÇÃO DE CONFORMIDADE	EFICÁCIA	04/03/21
EXE	00	PROJETO EXECUTIVO – LICITAÇÃO OBRA	EFICÁCIA	31/07/20
REVCOMP	02	REVISÃO PROJETO EXECUTIVO – REF EXE 2	EFICÁCIA	24/07/20
REVCOMP	01	REVISÃO PROJETO EXECUTIVO – REF EXE	EFICÁCIA	03/07/20
REVCOMP	00	EMISSÃO INICIAL EXECUTIVO	EFICÁCIA	25/04/20
ANT	01	REVISÃO ANTEPROJETO	EFICÁCIA	20/02/20
ANT	00	EMISSÃO INICIAL ANTEPROJETO	EFICÁCIA	21/11/19

REVISÕES

MINISTÉRIO PÚBLICO DO ESTADO DE MINAS GERAIS
SEDE DAS PROMOTORIAS DE JUSTIÇA DE JUIZ DE FORA

ENDEREÇO: RUA JOSÉ CALIL AHOUAGI, LOTE F, BAIXADA DO PARAIBUNA

ÁREA TERRENO: 2.996,30m2

ÁREA CONSTRUÍDA: 7.266,36m2

PROPRIETÁRIO: PROCURADORIA GERAL DE JUSTIÇA DO ESTADO DE MINAS GERAIS

CNPJ: 20.971.057/0001-45

PROJETO DE ESTRUTURA DE CONCRETO ARMADO

EMPRESA:
ENGENHEIRO FABRÍCIO SILVA LIMA
CREA: 80.082/D-MG
EFICÁCIA PROJETOS E CONSULTORIA LTDA

CNPJ: 06.301.115/0001-00

RESPONSÁVEL TÉCNICO: NELSON URIAS PINTO GARIGLIO DA SILVA

CREA: 82.624/D-MG

CONTEÚDO: LOCAÇÃO DE PILARES E MAPA DE CARGA

DATA: 04/03/21

ESCALA: 1:75

FOLHA: 01/126