

PROJETO – PONTO DE ÔNIBUS

Verificação da Estabilidade Global da Estrutura

Eixo X (1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V1+0.84D1)						
Pavimento	Altura Relativa (cm)	Carga Vertical (tf)	Carga Horizontal (tf)		Desloc. Horizontal (cm)	
			Eixo X	Eixo Y	Eixo X	Eixo Y
Cobertura	466	25.79	0.09	0.47	0.03	0.00
Fundação	150	4.81	0.03	0.09	0.00	0.00

Eixo Y (1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V3+0.84D3)						
Pavimento	Altura Relativa (cm)	Carga Vertical (tf)	Carga Horizontal (tf)		Desloc. Horizontal (cm)	
			Eixo X	Eixo Y	Eixo X	Eixo Y
Cobertura	466	25.79	0.09	0.47	0.00	0.55
Fundação	150	4.81	0.03	0.09	0.00	0.08

Coeficiente Gama-Z		
	Eixo X	Eixo Y
Momento de tombamento de cálculo (tf.m)	0.45	2.30
Momento de 2a. ordem de cálculo (tf.m)	0.01	0.15
Gama-Z	1.02	1.07

Valor limite: 1.10

Gama-Z por Combinação						
Combinação	Momento de tombamento de cálculo (tf.m)		Momento de 2a. ordem de cálculo (tf.m)		Gama-Z	
	Eixo X	Eixo Y	Eixo X	Eixo Y	Eixo X	Eixo Y
1.3G1+1.4G2+1.4S+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.84V3+1.4D3	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+0.84V4+1.4D4	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+0.84V3+1.4D3	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+0.84V4+1.4D4	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V3+1.4D3	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+0.84V4+1.4D4	0.45	2.30	0.00	0.14	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+1.4V3+0.84D3	0.74	3.84	0.00	0.23	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.1AS+1.4V4+0.84D4	0.74	3.84	0.00	0.23	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.02	1.00

Gama-Z por Combinação						
Combinação	Momento de tombamento de cálculo (tf.m)		Momento de 2a. ordem de cálculo (tf.m)		Gama-Z	
	Eixo X	Eixo Y	Eixo X	Eixo Y	Eixo X	Eixo Y
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.4V3+0.84D3	0.74	3.84	0.00	0.23	1.00	1.06
1.3G1+1.4G2+1.4S+0.98Q+1.2A+1.4V4+0.84D4	0.74	3.84	0.00	0.23	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+0.84V3+1.4D3	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+0.84V4+1.4D4	0.45	2.30	0.00	0.13	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.1AS+1.4V3+0.84D3	0.74	3.84	0.00	0.21	1.00	1.06
1.3G1+1.4G2+1.4S+1.1AS+1.4V4+0.84D4	0.74	3.84	0.00	0.21	1.00	1.06
1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V3+0.84D3	0.45	2.30	0.00	0.15	1.00	1.07
1.3G1+1.4G2+1.4S+1.4Q+1.2A+0.84V4+0.84D4	0.45	2.30	0.00	0.15	1.00	1.07
1.3G1+1.4G2+1.4S+1.4Q+1.2A+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4Q+1.2A+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4Q+1.2A+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.15	1.00	1.07
1.3G1+1.4G2+1.4S+1.4Q+1.2A+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.15	1.00	1.07
1.3G1+1.4G2+1.4S+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.02	1.00
1.3G1+1.4G2+1.4S+1.4V3+0.84D3	0.74	3.84	0.00	0.21	1.00	1.06
1.3G1+1.4G2+1.4S+1.4V4+0.84D4	0.74	3.84	0.00	0.21	1.00	1.06
G1+G2+S+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.84V3+1.4D3	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+0.84V4+1.4D4	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+0.98Q+1.2A+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+0.84V3+1.4D3	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+0.84V4+1.4D4	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V3+1.4D3	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+0.84V4+1.4D4	0.45	2.30	0.00	0.11	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.1AS+1.4V3+0.84D3	0.74	3.84	0.00	0.18	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.1AS+1.4V4+0.84D4	0.74	3.84	0.00	0.18	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+0.98Q+1.2A+1.4V3+0.84D3	0.74	3.84	0.00	0.18	1.00	1.05
G1+G2+S+0.98Q+1.2A+1.4V4+0.84D4	0.74	3.84	0.00	0.18	1.00	1.05
G1+G2+S+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.1AS+0.84V1+1.4D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.1AS+0.84V2+1.4D2	0.45	2.30	0.01	0.00	1.01	1.00

Gama-Z por Combinação						
Combinação	Momento de tombamento de cálculo (tf.m)		Momento de 2a. ordem de cálculo (tf.m)		Gama-Z	
	Eixo X	Eixo Y	Eixo X	Eixo Y	Eixo X	Eixo Y
G1+G2+S+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+1.1AS+0.84V3+1.4D3	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+1.1AS+0.84V4+1.4D4	0.45	2.30	0.00	0.10	1.00	1.04
G1+G2+S+1.1AS+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+1.1AS+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+1.1AS+1.4V3+0.84D3	0.74	3.84	0.00	0.16	1.00	1.04
G1+G2+S+1.1AS+1.4V4+0.84D4	0.74	3.84	0.00	0.16	1.00	1.04
G1+G2+S+1.4Q+1.2A+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.4Q+1.2A+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.4Q+1.2A+0.84V3+0.84D3	0.45	2.30	0.00	0.12	1.00	1.05
G1+G2+S+1.4Q+1.2A+0.84V4+0.84D4	0.45	2.30	0.00	0.12	1.00	1.05
G1+G2+S+1.4Q+1.2A+1.1AS+0.84V1+0.84D1	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.4Q+1.2A+1.1AS+0.84V2+0.84D2	0.45	2.30	0.01	0.00	1.01	1.00
G1+G2+S+1.4Q+1.2A+1.1AS+0.84V3+0.84D3	0.45	2.30	0.00	0.12	1.00	1.05
G1+G2+S+1.4Q+1.2A+1.1AS+0.84V4+0.84D4	0.45	2.30	0.00	0.12	1.00	1.05
G1+G2+S+1.4V1+0.84D1	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+1.4V2+0.84D2	0.74	3.84	0.01	0.00	1.01	1.00
G1+G2+S+1.4V3+0.84D3	0.74	3.84	0.00	0.16	1.00	1.04
G1+G2+S+1.4V4+0.84D4	0.74	3.84	0.00	0.16	1.00	1.04

Relatório de Esforços na Fundação por Elementos

Pilares de Fundações

Fundação S1						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
Peso próprio (G1)	4.85	-0.04	-48.78	-0.10	0.00	0.01
Adicional (G2)	1.56	-0.02	-44.41	-0.09	0.00	0.00
Solo (S)	0.00	0.00	0.00	0.00	0.00	0.00
Acidental (Q)	0.83	-0.01	-0.56	0.00	0.00	0.00
Água (A)	0.00	0.00	0.00	0.00	0.00	0.00
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Vento X+ (V1)	-0.06	0.00	48.27	0.03	0.00	0.00
Vento X- (V2)	0.06	0.00	-48.27	-0.03	0.00	0.00
Vento Y+ (V3)	0.00	-979.86	0.00	0.00	0.22	-0.03
Vento Y- (V4)	0.00	979.86	0.00	0.00	-0.22	0.03
Desaprumo X+ (D1)	-0.04	0.00	31.43	0.02	0.00	0.00
Desaprumo X- (D2)	0.04	0.00	-31.43	-0.02	0.00	0.00
Desaprumo Y+ (D3)	0.00	-128.34	0.00	0.00	0.03	-0.19
Desaprumo Y- (D4)	0.00	128.34	0.00	0.00	-0.03	0.19
G1+G2	6.41	-0.06	-93.19	-0.20	0.00	0.02
G1+G2+0.6V1+D1	6.34	-0.06	-32.80	-0.15	0.00	0.02
G1+G2+0.6V2+D2	6.48	-0.06	-153.58	-0.24	0.00	0.02
G1+G2+0.6V3+D3	6.41	-716.31	-93.19	-0.20	0.16	-0.19
G1+G2+0.6V4+D4	6.41	716.19	-93.19	-0.20	-0.16	0.23
G1+G2+0.7Q+0.6V1+D1	6.92	-0.07	-33.19	-0.16	0.00	0.02
G1+G2+0.7Q+0.6V2+D2	7.06	-0.07	-153.98	-0.24	0.00	0.02
G1+G2+0.7Q+0.6V3+D3	6.99	-716.32	-93.58	-0.20	0.16	-0.19
G1+G2+0.7Q+0.6V4+D4	6.99	716.18	-93.59	-0.20	-0.16	0.23

Fundação S1						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
G1+G2+0.7Q+V1+0.6D1	6.91	-0.07	-26.46	-0.15	0.00	0.02
G1+G2+0.7Q+V2+0.6D2	7.07	-0.07	-160.71	-0.24	0.00	0.02
G1+G2+0.7Q+V3+0.6D3	6.99	-1056.93	-93.58	-0.20	0.24	-0.13
G1+G2+0.7Q+V4+0.6D4	6.99	1056.79	-93.59	-0.20	-0.24	0.17
G1+G2+D1	6.37	-0.06	-61.76	-0.17	0.00	0.02
G1+G2+D2	6.45	-0.06	-124.62	-0.22	0.00	0.02
G1+G2+D3	6.41	-128.40	-93.19	-0.20	0.03	-0.17
G1+G2+D4	6.41	128.28	-93.19	-0.20	-0.03	0.21
G1+G2+Q	7.24	-0.07	-93.75	-0.20	0.00	0.02
G1+G2+Q+0.6V1+0.6D1	7.19	-0.07	-45.93	-0.16	0.00	0.02
G1+G2+Q+0.6V2+0.6D2	7.30	-0.07	-141.57	-0.23	0.00	0.02
G1+G2+Q+0.6V3+0.6D3	7.24	-664.99	-93.75	-0.20	0.15	-0.11
G1+G2+Q+0.6V4+0.6D4	7.24	664.84	-93.75	-0.20	-0.15	0.16
G1+G2+Q+D1	7.20	-0.07	-62.32	-0.18	0.00	0.02
G1+G2+Q+D2	7.28	-0.07	-125.19	-0.22	0.00	0.02
G1+G2+Q+D3	7.24	-128.41	-93.75	-0.20	0.03	-0.17
G1+G2+Q+D4	7.24	128.26	-93.75	-0.20	-0.03	0.21
G1+G2+V1+0.6D1	6.33	-0.06	-26.06	-0.15	0.00	0.02
G1+G2+V2+0.6D2	6.49	-0.06	-160.32	-0.24	0.00	0.02
G1+G2+V3+0.6D3	6.41	-1056.92	-93.19	-0.20	0.24	-0.13
G1+G2+V4+0.6D4	6.41	1056.80	-93.19	-0.20	-0.24	0.17

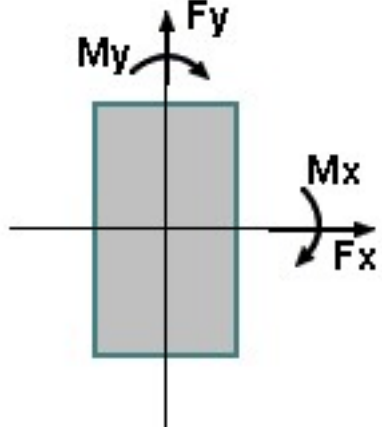
Fundação S2						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
Peso próprio (G1)	5.57	-0.04	0.00	0.00	0.00	0.01
Adicional (G2)	2.03	-0.01	0.00	0.00	0.00	0.00
Solo (S)	0.00	0.00	0.00	0.00	0.00	0.00
Acidental (Q)	0.87	-0.01	0.00	0.00	0.00	0.00
Água (A)	0.00	0.00	0.00	0.00	0.00	0.00
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Vento X+ (V1)	0.00	0.00	65.31	0.07	0.00	0.00
Vento X- (V2)	0.00	0.00	-65.31	-0.07	0.00	0.00
Vento Y+ (V3)	0.00	-980.03	0.00	0.00	0.22	-0.02
Vento Y- (V4)	0.00	980.03	0.00	0.00	-0.22	0.02
Desaprumo X+ (D1)	0.00	0.00	43.18	0.04	0.00	0.00
Desaprumo X- (D2)	0.00	0.00	-43.18	-0.04	0.00	0.00
Desaprumo Y+ (D3)	0.00	-130.77	0.00	0.00	0.03	0.00
Desaprumo Y- (D4)	0.00	130.77	0.00	0.00	-0.03	0.00
G1+G2	7.60	-0.05	0.00	0.00	0.00	0.01
G1+G2+0.6V1+D1	7.60	-0.05	82.36	0.09	0.00	0.01
G1+G2+0.6V2+D2	7.60	-0.05	-82.37	-0.09	0.00	0.01
G1+G2+0.6V3+D3	7.60	-718.84	0.00	0.00	0.16	0.00
G1+G2+0.6V4+D4	7.60	718.73	0.00	0.00	-0.16	0.03
G1+G2+0.7Q+0.6V1+D1	8.21	-0.06	82.36	0.09	0.00	0.01
G1+G2+0.7Q+0.6V2+D2	8.21	-0.06	-82.37	-0.09	0.00	0.02
G1+G2+0.7Q+0.6V3+D3	8.21	-718.84	0.00	0.00	0.16	0.00
G1+G2+0.7Q+0.6V4+D4	8.21	718.72	0.00	0.00	-0.16	0.03
G1+G2+0.7Q+V1+0.6D1	8.21	-0.06	91.21	0.10	0.00	0.01
G1+G2+0.7Q+V2+0.6D2	8.21	-0.06	-91.22	-0.10	0.00	0.02
G1+G2+0.7Q+V3+0.6D3	8.21	-1058.55	0.00	0.00	0.24	-0.01
G1+G2+0.7Q+V4+0.6D4	8.21	1058.43	0.00	0.00	-0.24	0.04
G1+G2+D1	7.60	-0.05	43.18	0.04	0.00	0.01
G1+G2+D2	7.60	-0.05	-43.18	-0.04	0.00	0.01
G1+G2+D3	7.60	-130.82	0.00	0.00	0.03	0.01
G1+G2+D4	7.60	130.71	0.00	0.00	-0.03	0.02
G1+G2+Q	8.47	-0.06	0.00	0.00	0.00	0.02
G1+G2+Q+0.6V1+0.6D1	8.47	-0.07	65.09	0.07	0.00	0.02

Fundação S2						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
G1+G2+Q+0.6V2+0.6D2	8.47	-0.06	-65.09	-0.07	0.00	0.02
G1+G2+Q+0.6V3+0.6D3	8.47	-666.54	0.00	0.00	0.15	0.00
G1+G2+Q+0.6V4+0.6D4	8.47	666.41	0.00	0.00	-0.15	0.03
G1+G2+Q+D1	8.47	-0.06	43.18	0.04	0.00	0.02
G1+G2+Q+D2	8.47	-0.06	-43.18	-0.04	0.00	0.02
G1+G2+Q+D3	8.47	-130.83	0.00	0.00	0.03	0.01
G1+G2+Q+D4	8.47	130.70	0.00	0.00	-0.03	0.02
G1+G2+V1+0.6D1	7.60	-0.05	91.21	0.10	0.00	0.01
G1+G2+V2+0.6D2	7.60	-0.05	-91.21	-0.10	0.00	0.01
G1+G2+V3+0.6D3	7.60	-1058.54	0.00	0.00	0.24	-0.01
G1+G2+V4+0.6D4	7.60	1058.43	0.00	0.00	-0.24	0.03

Fundação S3						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
Peso próprio (G1)	4.85	-0.05	48.78	0.10	0.00	0.01
Adicional (G2)	1.56	-0.02	44.41	0.09	0.00	0.00
Solo (S)	0.00	0.00	0.00	0.00	0.00	0.00
Acidental (Q)	0.83	-0.01	0.56	0.00	0.00	0.00
Água (A)	0.00	0.00	0.00	0.00	0.00	0.00
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Vento X+ (V1)	0.06	0.00	48.27	0.03	0.00	0.00
Vento X- (V2)	-0.06	0.00	-48.27	-0.03	0.00	0.00
Vento Y+ (V3)	0.00	-979.89	0.00	0.00	0.22	-0.01
Vento Y- (V4)	0.00	979.89	0.00	0.00	-0.22	0.01
Desaprumo X+ (D1)	0.04	0.00	31.43	0.02	0.00	0.00
Desaprumo X- (D2)	-0.04	0.00	-31.43	-0.02	0.00	0.00
Desaprumo Y+ (D3)	0.00	-128.34	0.00	0.00	0.03	0.19
Desaprumo Y- (D4)	0.00	128.34	0.00	0.00	-0.03	-0.19
G1+G2	6.41	-0.07	93.19	0.20	0.00	0.02
G1+G2+0.6V1+D1	6.48	-0.07	153.58	0.24	0.00	0.01
G1+G2+0.6V2+D2	6.34	-0.07	32.80	0.15	0.00	0.02
G1+G2+0.6V3+D3	6.41	-716.35	93.19	0.20	0.16	0.20
G1+G2+0.6V4+D4	6.41	716.21	93.19	0.20	-0.16	-0.16
G1+G2+0.7Q+0.6V1+D1	7.06	-0.08	153.98	0.24	0.00	0.02
G1+G2+0.7Q+0.6V2+D2	6.92	-0.07	33.19	0.16	0.00	0.02
G1+G2+0.7Q+0.6V3+D3	6.99	-716.35	93.59	0.20	0.16	0.20
G1+G2+0.7Q+0.6V4+D4	6.99	716.20	93.58	0.20	-0.16	-0.16
G1+G2+0.7Q+V1+0.6D1	7.07	-0.08	160.71	0.24	0.00	0.02
G1+G2+0.7Q+V2+0.6D2	6.91	-0.07	26.46	0.15	0.00	0.02
G1+G2+0.7Q+V3+0.6D3	6.99	-1056.97	93.59	0.20	0.24	0.12
G1+G2+0.7Q+V4+0.6D4	6.99	1056.82	93.58	0.20	-0.24	-0.08
G1+G2+D1	6.45	-0.07	124.62	0.22	0.00	0.02
G1+G2+D2	6.37	-0.07	61.76	0.17	0.00	0.02
G1+G2+D3	6.41	-128.41	93.19	0.20	0.03	0.20
G1+G2+D4	6.41	128.28	93.19	0.20	-0.03	-0.17
G1+G2+Q	7.24	-0.08	93.75	0.20	0.00	0.02
G1+G2+Q+0.6V1+0.6D1	7.30	-0.08	141.57	0.23	0.00	0.02
G1+G2+Q+0.6V2+0.6D2	7.19	-0.08	45.93	0.16	0.00	0.02
G1+G2+Q+0.6V3+0.6D3	7.24	-665.02	93.75	0.20	0.15	0.12
G1+G2+Q+0.6V4+0.6D4	7.24	664.86	93.75	0.20	-0.15	-0.09
G1+G2+Q+D1	7.28	-0.08	125.19	0.22	0.00	0.02
G1+G2+Q+D2	7.20	-0.08	62.32	0.18	0.00	0.02
G1+G2+Q+D3	7.24	-128.42	93.75	0.20	0.03	0.20
G1+G2+Q+D4	7.24	128.26	93.75	0.20	-0.03	-0.17
G1+G2+V1+0.6D1	6.49	-0.07	160.32	0.24	0.00	0.01
G1+G2+V2+0.6D2	6.33	-0.07	26.06	0.15	0.00	0.02
G1+G2+V3+0.6D3	6.41	-1056.97	93.19	0.20	0.24	0.12

Fundação S3						
COMBINAÇÃO:	N (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)	Mt (kgf/m)
G1+G2+V4+0.6D4	6.41	1056.83	93.19	0.20	-0.24	-0.09

Legenda:

	- Caso: indica o caso de carregamento no qual serão apresentados os esforços atuantes; - Elemento: nome da fundação; - N: esforço axial na fundação; - Mx: momento fletor na base do pilar, atuante em torno do eixo X global; - My: momento fletor na base do pilar, atuante em torno do eixo Y global; - Fx: esforço cortante na base do pilar, atuante no plano paralelo à direção X global; - Fy: esforço cortante na base do pilar, atuante no plano paralelo à direção Y global; - Mt: momento de torção atuante.
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Resumo de Materiais (Moldados in Loco)

Pavimento	Elemento	Peso do aço +10 % (kg)	Volume de concreto (m³)	Área de forma (m²)	Consumo de aço (kg/m³)	Peso treliças (kg)
Cobertura	Vigas	155.9	0.8	12.0	204.0	
	Pilares	51.9	0.7	8.9	77.5	
	Lajes	254.1	3.1	24.5	81.4	
	Escadas	0.0	0.0	0.0	0.0	
	Fundações	0.0	0.0	0.0	0.0	
	Total	461.9	4.6	45.5	101.4	0.0
Fundação	Vigas	23.9	0.6	7.2	38.3	
	Pilares	30.0	0.3	4.2	94.2	
	Lajes	0.0	0.0	0.0	0.0	
	Escadas	0.0	0.0	0.0	0.0	
	Fundações	23.8	0.7	2.9	35.1	
	Total	77.6	1.6	14.3	47.9	0.0

Aço	Diâmetro (mm)	Peso + 10 % (kg)					
		Vigas	Pilares	Lajes	Escadas	Fundações	Total
CA50	6.3			136.2			136.2
CA50	8.0	99.0		65.4		23.8	188.2
CA50	10.0		62.3				62.3
CA60	5.0	80.8	19.6	52.4			152.9

		Vigas	Pilares	Lajes	Escadas	Fundações	Total
Peso total + 10% (kg)	CA50	99.0	62.3	201.7		23.8	386.7
	CA60	80.8	19.6	52.4			152.9

		Vigas	Pilares	Lajes	Escadas	Fundações	Total
	Total	179.8	81.9	254.1		23.8	539.6
Volume concreto (m³)	C-30	1.4	1.0	3.1		0.7	6.2
Área de forma (m²)		19.3	13.2	24.5		2.9	59.8
Consumo de aço (kg/m³)		129.5	82.9	81.4		35.1	87.4

Lagarto/SE, 16 de julho de 2025.

Responsável Técnico:

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