



CONSÓRCIO SAÚDE

CONCREMAT | MEP

MEMORIAL DE CÁLCULO DE QUANTITATIVO PROJETO EXECUTIVO DE FUNDAÇÃO

CER
TIPO 04

JUNHO/2026
VERSÃO R00

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1. INTRODUÇÃO

Este documento tem como objetivo estabelecer parâmetros, especificações e critérios a serem considerados na concepção do projeto da estrutura como parte integrante de um projeto executivo para construção do CER - TIPO 04, no município de Feira de Santana/BA.

A concepção do projeto estrutural contempla as características e objetivos de uso fornecidos nos documentos de referências informados dos tópicos subsequentes. Quaisquer alterações nas premissas adotadas podem impactar na concepção estrutural e deverão ser devidamente verificadas.

O presente Memorial Descritivo se refere ao Projeto Executivo Estrutural e compreende informações técnicas relativas ao projeto executivo de FUNDAÇÃO do prédio.

2. DOCUMENTOS DE REFERÊNCIA

2.1. NORMAS DE REFERÊNCIA

ABNT NBR 6118:2023	Projeto de Estruturas de Concreto - Procedimento
ABNT NBR 6120:2019	Cargas para cálculo de estruturas de edificações
ABNT NBR 6122:2022	Projeto e Execução de Fundações
ABNT NBR 6123:2023	Forças Devidas ao Vento em Edificações
ABNT NBR 8681:2003	Ações e Segurança nas Estruturas – Procedimento
ABNT NBR 12655:2022	Controle de cimento Portland
ABNT NBR 5674:2024	Manutenção de edificação – procedimentos
ABNT NBR 14931:2023	Execução de estruturas de concreto armado, protendido e com fibras
ABNT NBR 15575:2024	Edificações habitacionais — Desempenho

3. EXIGENCIAS DE DURABILIDADE

3.1. CONCRETO ARMADO

Na tabela abaixo, seguem propriedades e características do concreto adotado para elementos em geral do projeto.

Tabela 1 – Concreto Adotado na fundação

Propriedade	Valor Adotado
Resistência Característica do concreto (f_{ck})	35 MPa
Módulo de deformação tangente inicial mínimo (E_{ci})	33 GPa
Módulo de deformação secante (E_{cs})	29 GPa
Fator água-cimento máximo (a/c)	0,6
Diâmetro máximo agregado graúdo	19 mm

Para a produção do concreto foi considerada a utilização de agregado graúdo de origem granítica (granito), em especial na avaliação do módulo de elasticidade. Caso sejam utilizados outros tipos de agregados graúdos, o valor do módulo de elasticidade deverá ser ajustado.

3.2. ARMADURA PASSIVA

A ABNT NBR 6118 (2023) define como armadura passiva aquela que não é utilizada para produzir forças de protensão. Nos projetos de estruturas de concreto armado, deve ser utilizado aço classificado pela ABNT NBR 7480, com diâmetros e seções transversais nominais pré-estabelecidos e valor característico de resistência ao escoamento nas categorias CA-50 ($f_{yk}=500$ Mpa) e CA-60 ($f_{yk} = 600$ Mpa).

4. COMBINAÇÕES DE AÇÕES

Para as distintas situações de projeto, as combinações de ações serão definidas. Para o ELU será utilizado a combinação última normal. Para o ELS serão utilizadas as combinações quase permanente, combinação frequente e combinação rara.

Combinação última normal

$$F_d = \sum_{i=1}^m \gamma_{gi} \cdot F_{Gi,k} + \gamma_q \left[F_{Q1,k} \sum_{j=2}^n \psi_{0j} \cdot F_{Qj,k} \right]$$

Combinação Quase Permanente De Serviço

Nas combinações quase permanentes de serviço, todas as ações variáveis são consideradas com seus valores quase permanentes $\psi_2 F_{Qk}$

$$F_d = \sum_{i=1}^m F_{Gi,k} + \sum_{j=1}^n \psi_{2j} \cdot F_{Qj,k}$$

Combinação Frequente De Serviço

Nas combinações frequentes de serviço, a ação variável principal F_{Q1} é tomada com seu valor frequente $\psi_1 F_{Q1,k}$ e todas as demais ações variáveis são tomadas com seus valores quase-permanentes $\psi_2 F_{Qk}$

$$F_d = \sum_{i=1}^m F_{Gi,k} + \psi_1 \cdot F_{Q1,k} + \sum_{j=2}^n \psi_{2j} \cdot F_{Qj,k}$$

Combinação Rara De Serviço

Nas combinações raras de serviço, a ação variável principal F_{Q1} é tomada com seu valor característico $F_{Q1,k}$ e todas as demais ações são tomadas com seus valores frequentes $\psi_1 F_{Qk}$:

$$F_d = \sum_{i=1}^m F_{Gi,k} + F_{Q1,k} + \sum_{j=2}^n \psi_{1j} \cdot F_{Qj,k}$$

- Onde:

F_{Gk}	Valor característico das ações permanentes
F_{Q1k}	Valor característico da ação variável, considerada como principal
F_{Qjk}	Valor característico das ações variáveis
γ_g	Coefficiente parcial de segurança das ações permanentes
γ_q	Coefficiente parcial de segurança das ações variáveis
ψ_0	Fator de combinação
ψ_1	Fator de redução frequente
ψ_2	Fator de redução quase permanente

As ações devem ser ponderadas pelo coeficiente Y_f , calculado conforme $Y_f = Y_{f1} \cdot Y_{f2} \cdot Y_{f3}$.

Onde, Y_{f1} considera a variabilidade das ações, Y_{f2} considera simultaneidade das ações e Y_{f3} considera possíveis erros da avaliação das ações, seja por problemas construtivos, seja por deficiência do método de cálculo empregado

A seguir são apresentados os coeficientes de ponderação das ações (Y_{f1} , Y_{f3}) para combinação normal do ELU.

Tabela 1: Coeficientes de ponderação das ações para cargas permanentes (Y_g)

Ação	Exemplo	Desfavorável	Favorável
Peso próprio de estruturas de aço e de equipamentos	PP estrutura metálica	1,25	1,00
Peso próprio de estruturas pré-moldadas, de madeira e de elementos construtivos industrializados	PP concreto pré-moldado PP madeira	1,30	1,00
Peso próprio de estruturas moldadas in loco e empuxos permanentes	PP concreto moldado in loco Empuxo de solo	1,40	1,00
Peso próprio de elementos construtivos em geral	Telha Instalações Fotovoltaica	1,40	1,00
Outras	-	1,40	1,00

Tabela 2: Coeficientes de ponderação das ações para cargas variáveis (γ_q)

Ação	Exemplo	Desfavorável	Favorável
Vento	Vento	1,40	0,00
Ações truncadas	Reservatório de água Boiler	1,20	0,00
Demais ações variáveis	Sobrecargas em geral	1,50	0,00
Efeito de temperatura	Devido variação térmica da atmosfera	1,20	0,00

Em geral para o ELS, $\gamma_f = 1,00$.

Os fatores de combinação e de redução ψ para ações variáveis que representam o coeficiente γ_{f2} é apresentado na tabela a seguir

Tabela 3: Valores dos fatores de combinação e de redução das ações variáveis

Ação	ψ_0	ψ_1	ψ_2	
Ações variáveis causadas pelo uso e ocupação	Locais em que não há predominância de pesos de equipamentos, nem de elevadas concentrações de pessoas	0,5	0,4	0,3
	Locais em que há predominância de pesos de equipamentos ou de elevadas concentrações de pessoas	0,7	0,6	0,4
	Biblioteca, arquivos, oficinas e garagens	0,8	0,7	0,6
Vento	Pressão dinâmica do vento nas estruturas em geral	0,6	0,3	0,0
Temperatura	Variações uniformes de temperatura em relação à média anual local	0,6	0,5	0,3
Cargas móveis e seus efeitos dinâmicos	Passarelas de pedestres	0,6	0,4	0,3
	Vigas de rolamento de pontes rolantes	1,0	0,8	0,5
	Pilares e outros elementos que suportam vigas de pontes rolantes	0,7	0,6	0,4

Em atendimento ao disposto no item 13.3 da ABNT NBR 6118:2014 (revisão 2023), procedeu-se à verificação do Estado Limite de Serviço (ELS) para todos os elementos estruturais da edificação, com análise específica dos deslocamentos verticais (flechas) em comparação com os respectivos limites normativos de serviço.

As verificações foram realizadas considerando as combinações quase permanentes de ações, incluindo os efeitos de fluência e a consideração do estágio II de fissuração do concreto armado, conforme preconizado pela norma. Os deslocamentos obtidos foram comparados com os limites aplicáveis, tais como $L/250$ para flecha total e $L/500$ para situações envolvendo

elementos sensíveis, como alvenarias e revestimentos, conforme critérios normativos pertinentes.

Após a análise global e individualizada dos elementos estruturais, conclui-se que todos atendem integralmente aos limites de deslocamentos estabelecidos pela ABNT NBR 6118, não sendo identificada nenhuma situação de não conformidade quanto às flechas de serviço.

Dessa forma, atesto, sob responsabilidade técnica, que foram devidamente realizadas as verificações do Estado Limite de Serviço (ELS) de deslocamentos limites em todos os elementos estruturais, estando a estrutura dimensionada com rigidez adequada para garantir funcionalidade, desempenho e integridade dos elementos estruturais e vedação, em plena conformidade com as exigências normativas vigentes.

5. RESULTADOS DAS SAPATAS DO EDIFÍCIO PRINCIPAL:

Esforços e pressões

Nome	MB MH (kN.m)	FB FH (kN)	Carga Carga total (kN)	Pressão Sig1 (kgf/cm²)	Pressão Sig2 (kgf/cm²)	Pressão Sig3 (kgf/cm²)	Pressão Sig4 (kgf/cm²)
S1	2.06 2.83	3.22 4.05	94.27 127.87	1.12 (lim = 1.20)	1.02 (lim = 1.20)	0.82 (lim = 1.20)	0.92 (lim = 1.20)
S2	0.61 2.19	0.30 3.37	121.47 160.03	1.15 (lim = 1.20)	1.11 (lim = 1.20)	0.99 (lim = 1.20)	1.03 (lim = 1.20)
S3	0.57 2.01	0.49 3.10	113.29 148.69	1.12 (lim = 1.20)	1.17 (lim = 1.20)	1.04 (lim = 1.20)	1.00 (lim = 1.20)
S4	3.03 3.13	5.09 4.06	162.73 213.19	1.19 (lim = 1.20)	1.07 (lim = 1.20)	0.97 (lim = 1.20)	1.09 (lim = 1.20)
S5	2.33 2.77	3.94 1.92	195.75 258.44	1.07 (lim = 1.20)	1.14 (lim = 1.20)	1.07 (lim = 1.20)	1.01 (lim = 1.20)
S6	1.27 2.95	1.37 3.97	122.37 162.31	1.16 (lim = 1.20)	1.08 (lim = 1.20)	0.92 (lim = 1.20)	0.99 (lim = 1.20)
S7	1.59 2.99	2.48 5.42	86.13 116.74	1.05 (lim = 1.20)	1.13 (lim = 1.20)	0.88 (lim = 1.20)	0.80 (lim = 1.20)
S8	0.97 2.78	1.76 4.68	132.65 174.49	1.17 (lim = 1.20)	1.13 (lim = 1.20)	0.98 (lim = 1.20)	1.03 (lim = 1.20)
S9	3.05 2.81	5.60 4.06	153.64 204.11	1.04 (lim = 1.20)	1.13 (lim = 1.20)	1.02 (lim = 1.20)	0.93 (lim = 1.20)
S10	4.14 4.39	6.64 6.47	142.26 192.72	1.13 (lim = 1.20)	1.00 (lim = 1.20)	0.82 (lim = 1.20)	0.95 (lim = 1.20)
S11	4.21 2.57	8.18 3.67	103.88 140.59	0.94 (lim = 1.20)	1.17 (lim = 1.20)	1.00 (lim = 1.20)	0.77 (lim = 1.20)
S12	1.34 0.53	2.23 0.67	105.26 138.04	1.12 (lim = 1.20)	1.02 (lim = 1.20)	1.07 (lim = 1.20)	1.17 (lim = 1.20)
S13	0.84 1.68	0.36 2.26	167.95 220.83	1.03 (lim = 1.20)	1.07 (lim = 1.20)	1.14 (lim = 1.20)	1.10 (lim = 1.20)
S14	0.69 1.38	0.28 2.29	137.57 179.41	1.08 (lim = 1.20)	1.04 (lim = 1.20)	1.12 (lim = 1.20)	1.16 (lim = 1.20)
S15	0.97 1.94	0.30 1.82	194.13 255.26	1.11 (lim = 1.20)	1.14 (lim = 1.20)	1.08 (lim = 1.20)	1.04 (lim = 1.20)
S16	0.79 1.58	0.96 2.17	158.44 207.62	1.04 (lim = 1.20)	1.08 (lim = 1.20)	1.15 (lim = 1.20)	1.11 (lim = 1.20)
S17	0.82 1.24	1.08 2.19	58.38 77.81	0.87 (lim = 1.20)	0.97 (lim = 1.20)	1.18 (lim = 1.20)	1.08 (lim = 1.20)
S18	0.87 2.14	1.59 3.89	173.50 226.38	1.10 (lim = 1.20)	1.06 (lim = 1.20)	1.13 (lim = 1.20)	1.17 (lim = 1.20)
S19	3.40 2.32	5.71 3.51	156.80 207.27	0.96 (lim = 1.20)	1.07 (lim = 1.20)	1.15 (lim = 1.20)	1.05 (lim = 1.20)
S20	3.07 2.14	5.22 4.08	176.68 230.91	1.10 (lim = 1.20)	1.01 (lim = 1.20)	1.08 (lim = 1.20)	1.17 (lim = 1.20)
S21	3.86 1.48	6.59 1.92	133.86 177.18	0.90 (lim = 1.20)	1.10 (lim = 1.20)	1.17 (lim = 1.20)	0.97 (lim = 1.20)
S22	6.34 2.84	11.86 3.96	164.40 218.63	1.19 (lim = 1.20)	0.96 (lim = 1.20)	0.89 (lim = 1.20)	1.12 (lim = 1.20)

S23	4.98 2.01	9.09 2.43	201.39 264.08	1.06 (lim = 1.20)	1.19 (lim = 1.20)	1.13 (lim = 1.20)	0.99 (lim = 1.20)
S24	0.61 1.68	0.54 2.63	121.25 159.81	1.13 (lim = 1.20)	1.09 (lim = 1.20)	1.01 (lim = 1.20)	1.05 (lim = 1.20)
S25	1.83 2.24	2.32 2.86	171.92 226.15	1.14 (lim = 1.20)	1.08 (lim = 1.20)	1.01 (lim = 1.20)	1.08 (lim = 1.20)
S26	2.66 5.45	2.44 7.61	266.24 351.87	1.17 (lim = 1.20)	1.11 (lim = 1.20)	1.00 (lim = 1.20)	1.06 (lim = 1.20)
S27	3.13 2.42	5.61 3.07	122.01 161.96	1.03 (lim = 1.20)	1.16 (lim = 1.20)	1.04 (lim = 1.20)	0.91 (lim = 1.20)
S28	1.43 2.54	1.41 3.65	142.20 185.52	1.12 (lim = 1.20)	1.19 (lim = 1.20)	1.08 (lim = 1.20)	1.00 (lim = 1.20)
S29	1.51 2.49	2.38 3.60	136.32 179.64	1.16 (lim = 1.20)	1.08 (lim = 1.20)	0.97 (lim = 1.20)	1.04 (lim = 1.20)
S30	4.09 2.65	7.57 3.72	192.82 250.96	1.20 (lim = 1.20)	1.08 (lim = 1.20)	1.02 (lim = 1.20)	1.13 (lim = 1.20)
S31	6.93 2.02	12.30 2.46	153.18 207.41	0.87 (lim = 1.20)	1.14 (lim = 1.20)	1.08 (lim = 1.20)	0.81 (lim = 1.20)
S32	5.97 3.13	11.26 5.20	119.61 162.93	1.01 (lim = 1.20)	0.73 (lim = 1.20)	0.89 (lim = 1.20)	1.17 (lim = 1.20)
S33	5.02 1.76	9.06 2.28	175.86 234.00	0.92 (lim = 1.20)	1.08 (lim = 1.20)	1.15 (lim = 1.20)	0.98 (lim = 1.20)
S34	0.55 1.47	0.50 2.46	109.33 142.11	1.11 (lim = 1.20)	1.06 (lim = 1.20)	1.15 (lim = 1.20)	1.20 (lim = 1.20)
S35	1.71 1.90	2.21 2.71	145.56 188.88	1.12 (lim = 1.20)	1.04 (lim = 1.20)	1.12 (lim = 1.20)	1.20 (lim = 1.20)
S36	1.62 1.70	1.99 3.96	147.75 194.58	1.06 (lim = 1.20)	0.99 (lim = 1.20)	1.06 (lim = 1.20)	1.13 (lim = 1.20)
S37	2.77 2.32	4.79 2.84	155.31 205.78	1.03 (lim = 1.20)	1.14 (lim = 1.20)	1.07 (lim = 1.20)	0.96 (lim = 1.20)
S38	4.71 1.91	8.35 2.08	190.80 253.49	1.16 (lim = 1.20)	1.02 (lim = 1.20)	0.95 (lim = 1.20)	1.09 (lim = 1.20)
S39	3.50 2.20	6.07 3.13	152.74 199.57	0.95 (lim = 1.20)	1.12 (lim = 1.20)	1.19 (lim = 1.20)	1.02 (lim = 1.20)
S40	6.56 2.36	11.80 3.62	174.01 232.15	1.09 (lim = 1.20)	0.86 (lim = 1.20)	0.92 (lim = 1.20)	1.15 (lim = 1.20)
S41	8.07 2.19	16.01 3.33	121.96 168.79	0.69 (lim = 1.20)	1.04 (lim = 1.20)	1.15 (lim = 1.20)	0.80 (lim = 1.20)
S42	3.53 4.80	8.38 7.81	98.97 136.11	1.19 (lim = 1.20)	1.03 (lim = 1.20)	0.70 (lim = 1.20)	0.86 (lim = 1.20)
S43	1.99 9.40	1.43 0.83	101.59 145.17	1.08 (lim = 1.20)	1.15 (lim = 1.20)	0.64 (lim = 1.20)	0.56 (lim = 1.20)
S44	4.44 5.06	8.71 7.99	99.97 140.09	0.95 (lim = 1.20)	1.15 (lim = 1.20)	0.84 (lim = 1.20)	0.64 (lim = 1.20)
S45	4.60 3.93	9.56 5.96	116.15 159.47	1.15 (lim = 1.20)	0.94 (lim = 1.20)	0.73 (lim = 1.20)	0.94 (lim = 1.20)
S46	1.13 2.82	1.99 5.16	133.10 174.95	1.12 (lim = 1.20)	1.17 (lim = 1.20)	1.02 (lim = 1.20)	0.97 (lim = 1.20)
S47	1.32 2.86	1.47 4.04	92.20 122.81	1.10 (lim = 1.20)	1.18 (lim = 1.20)	0.93 (lim = 1.20)	0.84 (lim = 1.20)
S48	0.50 1.94	0.60 3.09	100.03 132.81	1.09 (lim = 1.20)	1.14 (lim = 1.20)	0.99 (lim = 1.20)	0.95 (lim = 1.20)

S49	1.26 3.05	1.09 3.96	125.70 165.65	1.10 (lim = 1.20)	1.18 (lim = 1.20)	1.00 (lim = 1.20)	0.92 (lim = 1.20)
S50	0.53 2.72	0.86 4.44	95.92 128.70	1.10 (lim = 1.20)	1.14 (lim = 1.20)	0.93 (lim = 1.20)	0.89 (lim = 1.20)
S51	1.77 5.40	2.04 8.59	100.88 137.58	1.10 (lim = 1.20)	1.16 (lim = 1.20)	0.80 (lim = 1.20)	0.73 (lim = 1.20)
S52	0.84 1.70	0.93 3.19	79.49 106.53	1.07 (lim = 1.20)	1.15 (lim = 1.20)	0.95 (lim = 1.20)	0.87 (lim = 1.20)
S53	1.83 4.28	2.25 6.78	110.37 150.32	1.05 (lim = 1.20)	1.11 (lim = 1.20)	0.86 (lim = 1.20)	0.80 (lim = 1.20)
S54	0.56 4.25	0.33 7.81	112.68 151.24	1.11 (lim = 1.20)	1.15 (lim = 1.20)	0.89 (lim = 1.20)	0.85 (lim = 1.20)
S55	1.67 3.25	1.88 4.69	165.71 216.18	1.13 (lim = 1.20)	1.20 (lim = 1.20)	1.07 (lim = 1.20)	1.00 (lim = 1.20)
S56	2.60 1.79	4.30 1.89	178.51 232.74	1.19 (lim = 1.20)	1.10 (lim = 1.20)	1.03 (lim = 1.20)	1.12 (lim = 1.20)
S57	0.61 2.00	0.96 3.25	122.78 161.34	1.11 (lim = 1.20)	1.15 (lim = 1.20)	1.05 (lim = 1.20)	1.01 (lim = 1.20)
S58	0.54 2.06	0.65 3.36	108.28 143.68	1.13 (lim = 1.20)	1.08 (lim = 1.20)	0.96 (lim = 1.20)	1.01 (lim = 1.20)
S59	0.67 1.90	0.36 3.04	133.95 175.80	1.11 (lim = 1.20)	1.15 (lim = 1.20)	1.06 (lim = 1.20)	1.02 (lim = 1.20)
S60	0.66 1.92	0.35 3.09	131.11 172.96	1.09 (lim = 1.20)	1.13 (lim = 1.20)	1.04 (lim = 1.20)	1.00 (lim = 1.20)
S61	2.49 3.03	3.78 4.45	92.62 126.21	1.00 (lim = 1.20)	1.12 (lim = 1.20)	0.88 (lim = 1.20)	0.76 (lim = 1.20)
S62	7.41 1.74	12.87 1.59	96.88 137.01	1.06 (lim = 1.20)	0.61 (lim = 1.20)	0.69 (lim = 1.20)	1.14 (lim = 1.20)
S63	1.72 0.60	2.40 0.41	29.52 43.21	1.07 (lim = 1.20)	0.58 (lim = 1.20)	0.47 (lim = 1.20)	0.96 (lim = 1.20)
S64	5.84 1.56	13.40 1.47	96.11 133.25	0.68 (lim = 1.20)	1.08 (lim = 1.20)	1.17 (lim = 1.20)	0.77 (lim = 1.20)
S65	4.62 2.82	8.84 4.95	159.25 213.49	1.07 (lim = 1.20)	0.90 (lim = 1.20)	0.96 (lim = 1.20)	1.13 (lim = 1.20)
S66	3.38 1.60	6.09 2.96	159.75 210.65	0.99 (lim = 1.20)	1.10 (lim = 1.20)	1.16 (lim = 1.20)	1.05 (lim = 1.20)
S67	1.26 2.35	1.85 3.61	91.03 121.65	0.93 (lim = 1.20)	0.85 (lim = 1.20)	1.05 (lim = 1.20)	1.13 (lim = 1.20)
S68	0.58 1.56	0.40 2.65	115.36 150.76	1.03 (lim = 1.20)	1.08 (lim = 1.20)	1.16 (lim = 1.20)	1.12 (lim = 1.20)
S69	1.44 1.72	1.85 2.66	143.80 187.12	1.10 (lim = 1.20)	1.02 (lim = 1.20)	1.10 (lim = 1.20)	1.18 (lim = 1.20)
S70	0.57 2.19	0.88 4.13	114.36 149.76	1.00 (lim = 1.20)	1.05 (lim = 1.20)	1.18 (lim = 1.20)	1.13 (lim = 1.20)
S71	1.15 4.13	1.47 7.85	108.43 145.13	0.92 (lim = 1.20)	0.84 (lim = 1.20)	1.10 (lim = 1.20)	1.17 (lim = 1.20)
S72	0.84 1.57	1.12 3.03	81.26 108.30	0.90 (lim = 1.20)	0.99 (lim = 1.20)	1.17 (lim = 1.20)	1.08 (lim = 1.20)
S73	1.11 3.65	1.26 6.46	111.00 147.70	0.95 (lim = 1.20)	0.88 (lim = 1.20)	1.10 (lim = 1.20)	1.17 (lim = 1.20)
S74	0.56 4.06	0.32 7.59	112.54 151.10	0.91 (lim = 1.20)	0.87 (lim = 1.20)	1.11 (lim = 1.20)	1.15 (lim = 1.20)

S75	1.69 3.32	2.28 6.00	117.70 157.65	0.88 (lim = 1.20)	0.96 (lim = 1.20)	1.13 (lim = 1.20)	1.06 (lim = 1.20)
S76	2.40 2.31	4.39 3.61	135.66 178.98	1.07 (lim = 1.20)	0.96 (lim = 1.20)	1.04 (lim = 1.20)	1.15 (lim = 1.20)
S77	0.68 1.70	1.04 2.91	135.74 177.59	1.03 (lim = 1.20)	1.07 (lim = 1.20)	1.15 (lim = 1.20)	1.11 (lim = 1.20)
S78	0.62 1.72	0.52 2.96	123.19 161.75	1.06 (lim = 1.20)	1.02 (lim = 1.20)	1.10 (lim = 1.20)	1.14 (lim = 1.20)
S79	0.78 1.56	0.44 2.62	155.51 204.69	1.03 (lim = 1.20)	1.07 (lim = 1.20)	1.13 (lim = 1.20)	1.10 (lim = 1.20)
S80	0.77 1.60	0.52 2.70	153.19 198.80	1.07 (lim = 1.20)	1.11 (lim = 1.20)	1.19 (lim = 1.20)	1.15 (lim = 1.20)
S81	2.64 1.95	3.62 2.92	119.92 159.86	0.91 (lim = 1.20)	1.06 (lim = 1.20)	1.13 (lim = 1.20)	0.99 (lim = 1.20)
S82	7.41 1.74	12.87 1.59	96.88 137.01	1.14 (lim = 1.20)	0.69 (lim = 1.20)	0.61 (lim = 1.20)	1.06 (lim = 1.20)
S83	1.72 0.60	2.40 0.41	29.52 43.21	0.96 (lim = 1.20)	0.47 (lim = 1.20)	0.58 (lim = 1.20)	1.07 (lim = 1.20)
S86	2.87 2.66	5.02 5.05	185.59 244.59	1.17 (lim = 1.20)	1.09 (lim = 1.20)	1.00 (lim = 1.20)	1.07 (lim = 1.20)
S87	2.88 5.14	5.49 9.20	262.66 343.54	1.14 (lim = 1.20)	1.20 (lim = 1.20)	1.10 (lim = 1.20)	1.04 (lim = 1.20)
S88	0.74 5.04	1.27 9.45	118.88 160.73	1.14 (lim = 1.20)	1.10 (lim = 1.20)	0.85 (lim = 1.20)	0.88 (lim = 1.20)
S89	3.69 5.79	7.09 1.15	248.98 329.86	1.10 (lim = 1.20)	1.17 (lim = 1.20)	1.05 (lim = 1.20)	0.98 (lim = 1.20)
S90	2.50 4.03	3.76 6.51	236.67 312.93	1.15 (lim = 1.20)	1.09 (lim = 1.20)	1.01 (lim = 1.20)	1.07 (lim = 1.20)
S91	1.50 5.82	1.44 2.12	149.72 200.19	1.11 (lim = 1.20)	1.17 (lim = 1.20)	0.94 (lim = 1.20)	0.87 (lim = 1.20)
S92	1.93 5.80	2.42 2.12	185.14 247.83	1.15 (lim = 1.20)	1.09 (lim = 1.20)	0.91 (lim = 1.20)	0.97 (lim = 1.20)
S93	1.80 4.90	1.97 8.47	180.25 238.39	1.10 (lim = 1.20)	1.16 (lim = 1.20)	1.01 (lim = 1.20)	0.95 (lim = 1.20)
S94	1.78 4.81	1.91 8.22	178.10 236.24	1.09 (lim = 1.20)	1.15 (lim = 1.20)	1.01 (lim = 1.20)	0.95 (lim = 1.20)
S95	4.80 2.10	8.87 2.27	209.61 276.49	1.17 (lim = 1.20)	1.04 (lim = 1.20)	0.98 (lim = 1.20)	1.11 (lim = 1.20)
S96	2.79 2.34	4.25 1.68	234.40 305.61	1.12 (lim = 1.20)	1.18 (lim = 1.20)	1.12 (lim = 1.20)	1.06 (lim = 1.20)
S97	3.48 4.15	5.82 6.60	178.59 236.73	1.04 (lim = 1.20)	1.15 (lim = 1.20)	1.06 (lim = 1.20)	0.95 (lim = 1.20)
S98	0.86 1.72	0.08 1.54	172.23 225.90	1.06 (lim = 1.20)	1.10 (lim = 1.20)	1.17 (lim = 1.20)	1.13 (lim = 1.20)
S99	0.85 1.70	0.06 1.55	169.86 223.53	1.09 (lim = 1.20)	1.05 (lim = 1.20)	1.12 (lim = 1.20)	1.15 (lim = 1.20)
S100	3.53 4.80	8.38 7.81	98.97 136.11	0.86 (lim = 1.20)	0.70 (lim = 1.20)	1.03 (lim = 1.20)	1.19 (lim = 1.20)
S101	1.99 9.40	1.43 0.83	101.59 145.17	0.56 (lim = 1.20)	0.64 (lim = 1.20)	1.15 (lim = 1.20)	1.08 (lim = 1.20)
S104	2.55 2.44	4.57 4.80	142.17 187.78	1.05 (lim = 1.20)	0.96 (lim = 1.20)	1.08 (lim = 1.20)	1.18 (lim = 1.20)

S105	3.39 5.94	6.04 9.95	168.29 226.43	0.85 (lim = 1.20)	0.94 (lim = 1.20)	1.14 (lim = 1.20)	1.05 (lim = 1.20)
S106	0.63 4.98	1.09 9.30	101.03 136.43	0.84 (lim = 1.20)	0.80 (lim = 1.20)	1.13 (lim = 1.20)	1.17 (lim = 1.20)
S107	2.29 2.29	1.29 3.51	229.05 300.26	1.10 (lim = 1.20)	1.16 (lim = 1.20)	1.10 (lim = 1.20)	1.04 (lim = 1.20)
S108	2.66 2.83	4.21 3.83	265.63 346.52	1.07 (lim = 1.20)	1.13 (lim = 1.20)	1.19 (lim = 1.20)	1.13 (lim = 1.20)
S109	1.96 4.51	1.87 8.50	196.08 259.29	1.11 (lim = 1.20)	1.17 (lim = 1.20)	1.05 (lim = 1.20)	0.98 (lim = 1.20)
S110	2.07 4.44	2.71 8.29	206.66 274.09	1.16 (lim = 1.20)	1.10 (lim = 1.20)	0.98 (lim = 1.20)	1.04 (lim = 1.20)
S111	2.23 3.40	3.62 5.08	204.46 267.15	1.04 (lim = 1.20)	1.11 (lim = 1.20)	1.17 (lim = 1.20)	1.11 (lim = 1.20)
S112	3.49 2.90	6.22 4.52	212.93 279.82	1.11 (lim = 1.20)	1.01 (lim = 1.20)	1.08 (lim = 1.20)	1.17 (lim = 1.20)
S113	2.16 1.90	3.37 2.12	189.69 247.83	1.09 (lim = 1.20)	1.03 (lim = 1.20)	1.09 (lim = 1.20)	1.16 (lim = 1.20)
S114	2.07 1.87	3.15 1.98	187.03 245.17	1.02 (lim = 1.20)	1.08 (lim = 1.20)	1.15 (lim = 1.20)	1.08 (lim = 1.20)
S115	3.98 4.35	7.22 7.96	137.10 183.92	0.84 (lim = 1.20)	1.02 (lim = 1.20)	1.18 (lim = 1.20)	1.00 (lim = 1.20)
S116	1.41 1.44	2.11 1.94	140.85 183.77	1.08 (lim = 1.20)	1.00 (lim = 1.20)	1.08 (lim = 1.20)	1.16 (lim = 1.20)
S117	0.38 0.79	0.44 1.29	6.96 14.34	0.51 (lim = 1.20)	0.49 (lim = 1.20)	0.17 (lim = 1.20)	0.19 (lim = 1.20)
S118	0.34 1.42	0.35 2.60	10.54 17.93	0.56 (lim = 1.20)	0.72 (lim = 1.20)	0.27 (lim = 1.20)	0.11 (lim = 1.20)
S119	0.38 0.79	0.44 1.29	6.96 14.34	0.49 (lim = 1.20)	0.51 (lim = 1.20)	0.19 (lim = 1.20)	0.17 (lim = 1.20)
S120	0.38 0.79	0.44 1.29	6.96 14.34	0.51 (lim = 1.20)	0.49 (lim = 1.20)	0.17 (lim = 1.20)	0.19 (lim = 1.20)
S121	0.34 1.42	0.35 2.60	10.54 17.93	0.56 (lim = 1.20)	0.72 (lim = 1.20)	0.27 (lim = 1.20)	0.11 (lim = 1.20)
S122	0.38 0.79	0.44 1.29	6.96 14.34	0.49 (lim = 1.20)	0.51 (lim = 1.20)	0.19 (lim = 1.20)	0.17 (lim = 1.20)
S123	2.64 3.09	1.88 4.65	263.52 344.40	1.18 (lim = 1.20)	1.12 (lim = 1.20)	1.06 (lim = 1.20)	1.12 (lim = 1.20)
S130	2.27 3.54	2.19 5.44	227.33 299.10	1.16 (lim = 1.20)	1.10 (lim = 1.20)	1.04 (lim = 1.20)	1.10 (lim = 1.20)
S131	2.73 3.79	4.78 5.69	230.28 301.49	1.17 (lim = 1.20)	1.10 (lim = 1.20)	1.04 (lim = 1.20)	1.10 (lim = 1.20)
S132	2.20 6.39	3.15 9.02	203.05 269.93	1.11 (lim = 1.20)	1.17 (lim = 1.20)	1.00 (lim = 1.20)	0.94 (lim = 1.20)
S133	1.92 6.40	1.84 8.96	192.23 254.92	1.18 (lim = 1.20)	1.12 (lim = 1.20)	0.94 (lim = 1.20)	1.00 (lim = 1.20)
S134	1.96 6.81	1.31 9.65	196.19 263.08	1.09 (lim = 1.20)	1.15 (lim = 1.20)	0.97 (lim = 1.20)	0.91 (lim = 1.20)
S135	2.72 5.69	4.48 9.76	125.52 168.84	1.05 (lim = 1.20)	1.19 (lim = 1.20)	0.94 (lim = 1.20)	0.81 (lim = 1.20)
S142	0.38 0.79	0.44 1.29	6.96 14.34	0.19 (lim = 1.20)	0.17 (lim = 1.20)	0.49 (lim = 1.20)	0.51 (lim = 1.20)

S143	0.34 1.42	0.35 2.60	10.54 17.93	0.11 (lim = 1.20)	0.27 (lim = 1.20)	0.72 (lim = 1.20)	0.56 (lim = 1.20)
S144	0.38 0.79	0.44 1.29	6.96 14.34	0.17 (lim = 1.20)	0.19 (lim = 1.20)	0.51 (lim = 1.20)	0.49 (lim = 1.20)
S145	0.38 0.79	0.44 1.29	6.96 14.34	0.19 (lim = 1.20)	0.17 (lim = 1.20)	0.49 (lim = 1.20)	0.51 (lim = 1.20)
S146	0.34 1.42	0.35 2.60	10.54 17.93	0.11 (lim = 1.20)	0.27 (lim = 1.20)	0.72 (lim = 1.20)	0.56 (lim = 1.20)
S147	0.38 0.79	0.44 1.29	6.96 14.34	0.17 (lim = 1.20)	0.19 (lim = 1.20)	0.51 (lim = 1.20)	0.49 (lim = 1.20)
S150	1.59 1.59	2.49 1.10	159.05 209.51	1.07 (lim = 1.20)	1.00 (lim = 1.20)	1.07 (lim = 1.20)	1.14 (lim = 1.20)
S153	2.15 2.00	3.67 2.20	69.84 94.89	1.15 (lim = 1.20)	0.99 (lim = 1.20)	0.75 (lim = 1.20)	0.91 (lim = 1.20)
S154	1.66 1.37	2.01 1.55	109.86 143.45	1.10 (lim = 1.20)	1.18 (lim = 1.20)	1.07 (lim = 1.20)	0.99 (lim = 1.20)
S155	2.19 1.89	3.73 2.28	118.90 155.60	1.19 (lim = 1.20)	1.10 (lim = 1.20)	0.97 (lim = 1.20)	1.06 (lim = 1.20)
S156	3.14 2.58	5.07 3.25	116.00 155.94	1.01 (lim = 1.20)	1.14 (lim = 1.20)	0.98 (lim = 1.20)	0.85 (lim = 1.20)
S157	3.69 1.80	6.65 2.11	122.79 162.73	1.18 (lim = 1.20)	1.01 (lim = 1.20)	0.90 (lim = 1.20)	1.07 (lim = 1.20)
S158	4.95 1.47	8.92 1.63	95.22 128.81	0.88 (lim = 1.20)	1.18 (lim = 1.20)	1.07 (lim = 1.20)	0.76 (lim = 1.20)
S159	4.81 1.32	8.71 1.36	128.71 172.03	1.15 (lim = 1.20)	0.90 (lim = 1.20)	0.83 (lim = 1.20)	1.08 (lim = 1.20)
S160	3.28 6.66	5.54 11.44	235.83 312.09	0.97 (lim = 1.20)	1.03 (lim = 1.20)	1.19 (lim = 1.20)	1.13 (lim = 1.20)
S164	1.62 2.57	2.14 3.92	162.05 213.40	1.01 (lim = 1.20)	1.08 (lim = 1.20)	1.16 (lim = 1.20)	1.09 (lim = 1.20)
S165	1.95 3.21	2.78 5.20	168.58 223.75	1.05 (lim = 1.20)	0.98 (lim = 1.20)	1.08 (lim = 1.20)	1.14 (lim = 1.20)
S169	3.00 6.38	5.03 11.04	160.15 214.39	0.87 (lim = 1.20)	0.97 (lim = 1.20)	1.17 (lim = 1.20)	1.06 (lim = 1.20)
S170	2.68 4.88	4.81 8.99	186.61 244.75	1.05 (lim = 1.20)	0.98 (lim = 1.20)	1.13 (lim = 1.20)	1.19 (lim = 1.20)
S171	2.35 3.11	2.91 6.84	235.18 306.39	1.06 (lim = 1.20)	1.12 (lim = 1.20)	1.19 (lim = 1.20)	1.12 (lim = 1.20)
S172	2.26 2.94	1.47 6.57	225.76 296.97	1.03 (lim = 1.20)	1.09 (lim = 1.20)	1.15 (lim = 1.20)	1.09 (lim = 1.20)
S173	2.53 3.07	1.70 7.03	252.53 328.80	1.07 (lim = 1.20)	1.14 (lim = 1.20)	1.20 (lim = 1.20)	1.14 (lim = 1.20)
S174	2.32 4.41	3.66 8.09	158.60 209.07	0.96 (lim = 1.20)	1.05 (lim = 1.20)	1.17 (lim = 1.20)	1.08 (lim = 1.20)
S175	3.20 4.33	0.71 6.93	122.20 165.52	1.12 (lim = 1.20)	0.95 (lim = 1.20)	0.79 (lim = 1.20)	0.97 (lim = 1.20)
S176	1.48 2.11	1.25 2.96	147.63 194.46	0.99 (lim = 1.20)	1.07 (lim = 1.20)	1.14 (lim = 1.20)	1.07 (lim = 1.20)
S177	2.88 3.61	2.04 5.43	207.32 270.01	1.19 (lim = 1.20)	1.11 (lim = 1.20)	1.04 (lim = 1.20)	1.13 (lim = 1.20)
S178	2.97 4.28	0.62 6.44	202.44 265.14	1.09 (lim = 1.20)	1.18 (lim = 1.20)	1.10 (lim = 1.20)	1.01 (lim = 1.20)

S179	3.76 3.67	2.48 5.55	231.54 302.75	1.18 (lim = 1.20)	1.09 (lim = 1.20)	1.03 (lim = 1.20)	1.12 (lim = 1.20)
S180	2.10 3.53	1.15 5.87	209.53 276.41	1.07 (lim = 1.20)	1.13 (lim = 1.20)	1.07 (lim = 1.20)	1.01 (lim = 1.20)
S181	6.50 3.68	12.71 5.94	244.32 325.20	1.14 (lim = 1.20)	1.02 (lim = 1.20)	0.97 (lim = 1.20)	1.09 (lim = 1.20)
S182	6.30 8.02	11.91 14.21	238.92 319.81	1.06 (lim = 1.20)	1.18 (lim = 1.20)	1.03 (lim = 1.20)	0.91 (lim = 1.20)
S183	1.21 2.30	1.48 1.03	99.96 133.55	1.04 (lim = 1.20)	1.12 (lim = 1.20)	0.97 (lim = 1.20)	0.89 (lim = 1.20)
S184	1.66 2.85	1.79 4.41	165.66 216.13	1.08 (lim = 1.20)	1.01 (lim = 1.20)	1.12 (lim = 1.20)	1.19 (lim = 1.20)
S185	1.69 4.29	1.68 7.34	169.09 223.32	1.10 (lim = 1.20)	1.17 (lim = 1.20)	1.02 (lim = 1.20)	0.95 (lim = 1.20)
S186	2.12 2.12	2.68 6.48	212.20 279.09	1.15 (lim = 1.20)	1.09 (lim = 1.20)	1.03 (lim = 1.20)	1.09 (lim = 1.20)
S187	2.32 3.08	1.02 5.40	231.55 302.76	1.11 (lim = 1.20)	1.17 (lim = 1.20)	1.11 (lim = 1.20)	1.05 (lim = 1.20)
S188	2.26 2.91	1.38 5.08	226.02 297.23	1.09 (lim = 1.20)	1.15 (lim = 1.20)	1.09 (lim = 1.20)	1.03 (lim = 1.20)
S189	0.62 1.25	0.55 1.47	124.56 163.12	1.15 (lim = 1.20)	1.10 (lim = 1.20)	1.03 (lim = 1.20)	1.07 (lim = 1.20)
S190	2.70 7.44	4.70 13.02	171.17 229.31	1.08 (lim = 1.20)	1.16 (lim = 1.20)	0.96 (lim = 1.20)	0.87 (lim = 1.20)
S191	1.16 0.70	2.91 0.59	139.54 181.82	1.11 (lim = 1.20)	1.17 (lim = 1.20)	1.13 (lim = 1.20)	1.06 (lim = 1.20)
S192	1.62 0.81	5.71 0.44	162.37 211.55	1.13 (lim = 1.20)	1.06 (lim = 1.20)	1.10 (lim = 1.20)	1.17 (lim = 1.20)
S193	1.90 0.51	3.25 0.90	82.73 109.76	1.17 (lim = 1.20)	0.98 (lim = 1.20)	0.93 (lim = 1.20)	1.12 (lim = 1.20)
S194	1.42 0.59	2.58 0.66	118.03 153.43	1.10 (lim = 1.20)	1.18 (lim = 1.20)	1.14 (lim = 1.20)	1.05 (lim = 1.20)
S195	0.58 0.19	0.94 0.09	9.10 18.79	0.37 (lim = 1.20)	0.63 (lim = 1.20)	0.59 (lim = 1.20)	0.33 (lim = 1.20)
S196	1.37 2.24	2.83 2.11	224.28 294.28	1.10 (lim = 1.20)	1.07 (lim = 1.20)	1.13 (lim = 1.20)	1.16 (lim = 1.20)
S197	2.60 3.06	4.19 5.66	135.80 179.12	1.08 (lim = 1.20)	0.95 (lim = 1.20)	1.04 (lim = 1.20)	1.17 (lim = 1.20)
S198	1.51 1.57	1.90 1.13	120.95 157.65	1.09 (lim = 1.20)	1.01 (lim = 1.20)	1.09 (lim = 1.20)	1.18 (lim = 1.20)
S199	2.49 3.30	3.63 5.64	249.24 325.50	1.13 (lim = 1.20)	1.06 (lim = 1.20)	1.13 (lim = 1.20)	1.19 (lim = 1.20)
S200	2.57 3.36	2.91 6.35	257.02 337.91	1.04 (lim = 1.20)	1.10 (lim = 1.20)	1.16 (lim = 1.20)	1.10 (lim = 1.20)
S201	4.32 3.28	7.20 5.56	273.88 359.51	1.11 (lim = 1.20)	1.05 (lim = 1.20)	1.11 (lim = 1.20)	1.17 (lim = 1.20)
S202	5.33 4.70	10.44 8.05	211.25 282.46	0.92 (lim = 1.20)	1.04 (lim = 1.20)	1.15 (lim = 1.20)	1.04 (lim = 1.20)
S203	1.62 1.62	2.53 1.97	162.43 212.89	1.09 (lim = 1.20)	1.01 (lim = 1.20)	1.09 (lim = 1.20)	1.16 (lim = 1.20)
S204	7.07 7.33	11.91 13.73	200.08 271.29	1.01 (lim = 1.20)	0.83 (lim = 1.20)	0.98 (lim = 1.20)	1.16 (lim = 1.20)

S205	4.88 2.56	10.42 1.37	256.01 336.89	1.02 (lim = 1.20)	1.12 (lim = 1.20)	1.18 (lim = 1.20)	1.08 (lim = 1.20)
S206	4.49 3.82	10.25 6.19	309.36 405.61	1.13 (lim = 1.20)	1.06 (lim = 1.20)	1.12 (lim = 1.20)	1.18 (lim = 1.20)
S207	6.57 8.93	10.70 3.06	163.82 226.51	0.71 (lim = 1.20)	0.92 (lim = 1.20)	1.17 (lim = 1.20)	0.97 (lim = 1.20)
S208	1.89 4.93	1.50 7.46	164.70 218.94	0.93 (lim = 1.20)	0.99 (lim = 1.20)	1.16 (lim = 1.20)	1.09 (lim = 1.20)
S209	2.24 4.57	2.77 6.69	223.70 294.91	1.06 (lim = 1.20)	1.00 (lim = 1.20)	1.10 (lim = 1.20)	1.16 (lim = 1.20)
S210	1.19 1.53	2.12 3.67	152.80 198.41	1.06 (lim = 1.20)	1.12 (lim = 1.20)	1.19 (lim = 1.20)	1.14 (lim = 1.20)
S211	2.08 6.86	1.83 13.64	88.99 125.70	0.59 (lim = 1.20)	0.73 (lim = 1.20)	1.13 (lim = 1.20)	0.99 (lim = 1.20)
S212	2.63 5.44	4.67 8.78	118.08 161.40	1.13 (lim = 1.20)	0.99 (lim = 1.20)	0.77 (lim = 1.20)	0.91 (lim = 1.20)
S213	2.64 6.84	4.08 12.52	155.73 209.96	1.06 (lim = 1.20)	1.15 (lim = 1.20)	0.93 (lim = 1.20)	0.84 (lim = 1.20)
S214	1.49 4.40	2.36 6.90	130.50 173.82	1.16 (lim = 1.20)	1.09 (lim = 1.20)	0.87 (lim = 1.20)	0.94 (lim = 1.20)
S215	1.85 2.21	3.21 4.49	184.80 241.72	1.18 (lim = 1.20)	1.11 (lim = 1.20)	1.05 (lim = 1.20)	1.11 (lim = 1.20)
S216	3.62 3.76	6.31 5.73	174.28 228.52	1.08 (lim = 1.20)	1.19 (lim = 1.20)	1.06 (lim = 1.20)	0.95 (lim = 1.20)
S217	1.24 1.63	1.85 3.27	124.49 163.05	1.17 (lim = 1.20)	1.10 (lim = 1.20)	1.01 (lim = 1.20)	1.08 (lim = 1.20)
S218	1.93 4.74	0.86 8.59	193.07 255.76	1.10 (lim = 1.20)	1.16 (lim = 1.20)	1.03 (lim = 1.20)	0.97 (lim = 1.20)
S219	1.26 0.63	0.84 1.11	126.41 164.97	1.16 (lim = 1.20)	1.09 (lim = 1.20)	1.04 (lim = 1.20)	1.12 (lim = 1.20)
S220	0.65 1.22	1.34 2.08	82.96 110.00	0.96 (lim = 1.20)	1.04 (lim = 1.20)	1.12 (lim = 1.20)	1.05 (lim = 1.20)
S221	0.47 0.96	1.26 1.90	93.41 123.25	1.05 (lim = 1.20)	1.00 (lim = 1.20)	1.09 (lim = 1.20)	1.13 (lim = 1.20)
S222	1.74 2.59	1.70 4.23	173.71 227.95	1.08 (lim = 1.20)	1.02 (lim = 1.20)	1.08 (lim = 1.20)	1.15 (lim = 1.20)
S223	2.44 2.16	4.01 5.42	132.22 175.54	1.01 (lim = 1.20)	0.94 (lim = 1.20)	1.05 (lim = 1.20)	1.13 (lim = 1.20)
S224	1.87 2.05	3.06 3.08	122.66 162.60	0.94 (lim = 1.20)	1.02 (lim = 1.20)	1.13 (lim = 1.20)	1.06 (lim = 1.20)
S225	1.44 3.75	2.06 1.26	98.74 132.33	0.81 (lim = 1.20)	0.88 (lim = 1.20)	1.18 (lim = 1.20)	1.10 (lim = 1.20)
S226	1.26 2.68	1.51 1.06	93.48 124.10	0.94 (lim = 1.20)	0.86 (lim = 1.20)	1.08 (lim = 1.20)	1.17 (lim = 1.20)
S227	1.15 2.52	1.02 2.90	76.84 102.86	0.79 (lim = 1.20)	0.89 (lim = 1.20)	1.17 (lim = 1.20)	1.07 (lim = 1.20)
S228	2.30 4.59	3.73 9.16	95.87 132.58	0.87 (lim = 1.20)	0.71 (lim = 1.20)	0.97 (lim = 1.20)	1.13 (lim = 1.20)
S229	1.97 6.99	2.86 12.63	131.41 178.24	0.77 (lim = 1.20)	0.84 (lim = 1.20)	1.16 (lim = 1.20)	1.10 (lim = 1.20)
S230	1.64 3.94	2.45 6.66	131.70 175.02	0.96 (lim = 1.20)	0.89 (lim = 1.20)	1.08 (lim = 1.20)	1.15 (lim = 1.20)

S231	2.62 6.20	4.36 8.90	211.65 282.86	0.99 (lim = 1.20)	0.93 (lim = 1.20)	1.09 (lim = 1.20)	1.15 (lim = 1.20)
S232	3.68 3.52	6.77 5.71	183.87 242.01	0.96 (lim = 1.20)	1.06 (lim = 1.20)	1.17 (lim = 1.20)	1.07 (lim = 1.20)
S233	2.27 7.28	3.44 10.69	157.74 211.98	0.90 (lim = 1.20)	0.84 (lim = 1.20)	1.12 (lim = 1.20)	1.18 (lim = 1.20)
S234	1.70 6.00	2.96 9.88	151.69 202.15	0.86 (lim = 1.20)	0.93 (lim = 1.20)	1.18 (lim = 1.20)	1.12 (lim = 1.20)
S235	1.08 1.92	1.61 2.88	69.32 94.37	0.79 (lim = 1.20)	0.87 (lim = 1.20)	1.10 (lim = 1.20)	1.02 (lim = 1.20)
S84-85	18.44 17.99	12.67 9.16	206.20 300.30	0.86 (lim = 1.20)	1.19 (lim = 1.20)	0.86 (lim = 1.20)	0.54 (lim = 1.20)
S102-103	7.98 21.81	8.44 16.56	179.56 268.45	0.53 (lim = 1.20)	0.66 (lim = 1.20)	1.19 (lim = 1.20)	1.06 (lim = 1.20)
SM1	18.44 2.68	3.64 5.23	61.95 102.24	0.07 (lim = 1.20)	1.00 (lim = 1.20)	0.92 (lim = 1.20)	-0.01 (lim = 1.20)
SM2	18.44 2.68	3.64 5.23	61.95 102.24	0.07 (lim = 1.20)	1.00 (lim = 1.20)	0.92 (lim = 1.20)	-0.01 (lim = 1.20)

Estabilidade

Nome	Tombamento B		Tombamento H		Deslizamento		Arrancamento	
	Mrd Msd (kN.m)	Mrd / Msd	Mrd Msd (kN.m)	Mrd / Msd	Frd Fsd (kN)	Frd / Fsd	Nt (kN)	Ns (kN)
S1	68.63 2.06	33.33 (lim = 1.50)	69.04 2.81	24.55 (lim = 1.50)	43.94 4.85	9.06 lim = (1.50)		
S2	92.02 0.61	151.50 (lim = 1.50)	94.59 2.13	44.47 (lim = 1.50)	53.26 3.30	16.12 lim = (1.50)		
S3	81.78 0.57	144.37 (lim = 1.50)	84.59 1.99	42.52 (lim = 1.50)	49.53 3.11	15.94 lim = (1.50)		
S4	133.75 3.03	44.21 (lim = 1.50)	135.43 2.95	45.97 (lim = 1.50)	69.92 5.95	11.76 lim = (1.50)		
S5	174.94 2.33	74.94 (lim = 1.50)	176.30 2.77	63.58 (lim = 1.50)	82.60 4.15	19.90 lim = (1.50)		
S6	92.15 1.27	72.28 (lim = 1.50)	93.23 2.81	33.12 (lim = 1.50)	54.59 3.91	13.94 lim = (1.50)		
S7	58.98 1.56	37.73 (lim = 1.50)	63.01 2.99	21.07 (lim = 1.50)	39.61 5.41	7.32 lim = (1.50)		
S8	98.45 0.97	101.86 (lim = 1.50)	112.64 2.70	41.66 (lim = 1.50)	61.07 4.81	12.69 lim = (1.50)		
S9	135.24 3.02	44.76 (lim = 1.50)	138.09 2.81	49.14 (lim = 1.50)	70.70 6.26	11.29 lim = (1.50)		
S10	128.77 4.14	31.12 (lim = 1.50)	134.17 4.39	30.54 (lim = 1.50)	67.32 8.36	8.05 lim = (1.50)		
S11	81.46 4.21	19.34 (lim = 1.50)	82.43 2.57	32.07 (lim = 1.50)	49.63 8.64	5.74 lim = (1.50)		
S12	75.66 1.34	56.26 (lim = 1.50)	72.47 0.53	137.70 (lim = 1.50)	46.15 2.24	20.56 lim = (1.50)		
S13	149.06 0.84	177.51 (lim = 1.50)	165.62 1.68	98.62 (lim = 1.50)	68.65 2.26	30.34 lim = (1.50)		

S14	107.65 0.69	156.50 (lim = 1.50)	104.36 1.32	79.07 (lim = 1.50)	56.58 2.29	24.66 lim = (1.50)		
S15	185.06 0.97	190.66 (lim = 1.50)	204.21 1.94	105.19 (lim = 1.50)	77.39 1.82	42.55 lim = (1.50)		
S16	134.95 0.79	170.35 (lim = 1.50)	150.52 1.58	95.00 (lim = 1.50)	64.12 2.29	28.01 lim = (1.50)		
S17	31.11 0.74	41.87 (lim = 1.50)	26.79 1.24	21.53 (lim = 1.50)	24.51 2.20	11.12 lim = (1.50)		
S18	138.75 0.86	161.09 (lim = 1.50)	155.88 2.14	72.82 (lim = 1.50)	76.06 4.12	18.48 lim = (1.50)		
S19	134.83 3.35	40.21 (lim = 1.50)	137.35 2.30	59.64 (lim = 1.50)	70.48 6.26	11.25 lim = (1.50)		
S20	154.75 3.07	50.45 (lim = 1.50)	157.09 2.14	73.41 (lim = 1.50)	78.11 6.01	12.99 lim = (1.50)		
S21	110.65 3.86	28.66 (lim = 1.50)	109.94 1.48	74.39 (lim = 1.50)	62.25 6.60	9.44 lim = (1.50)		
S22	145.83 6.34	22.99 (lim = 1.50)	145.93 2.84	51.47 (lim = 1.50)	73.55 12.07	6.09 lim = (1.50)		
S23	177.90 4.98	35.71 (lim = 1.50)	179.49 2.00	89.68 (lim = 1.50)	84.00 9.20	9.13 lim = (1.50)		
S24	91.89 0.61	151.57 (lim = 1.50)	90.06 1.68	53.47 (lim = 1.50)	50.71 2.64	19.21 lim = (1.50)		
S25	139.46 1.76	79.04 (lim = 1.50)	141.34 2.24	63.09 (lim = 1.50)	71.34 3.16	22.58 lim = (1.50)		
S26	316.69 2.66	118.95 (lim = 1.50)	303.16 5.45	55.67 (lim = 1.50)	123.27 7.56	16.31 lim = (1.50)		
S27	86.75 3.13	27.68 (lim = 1.50)	87.69 2.42	36.20 (lim = 1.50)	50.79 5.98	8.49 lim = (1.50)		
S28	114.87 1.43	80.05 (lim = 1.50)	104.56 2.54	41.21 (lim = 1.50)	58.87 3.68	16.01 lim = (1.50)		
S29	107.64 1.51	71.37 (lim = 1.50)	109.12 2.49	43.84 (lim = 1.50)	61.44 3.77	16.28 lim = (1.50)		
S30	174.91 4.09	42.78 (lim = 1.50)	177.18 2.64	67.10 (lim = 1.50)	85.34 8.05	10.61 lim = (1.50)		
S31	143.89 6.93	20.75 (lim = 1.50)	143.24 2.02	70.92 (lim = 1.50)	72.60 12.30	5.90 lim = (1.50)		
S32	99.12 5.97	16.60 (lim = 1.50)	99.97 3.13	31.95 (lim = 1.50)	55.71 12.01	4.64 lim = (1.50)		
S33	159.58 5.02	31.76 (lim = 1.50)	161.33 1.66	97.44 (lim = 1.50)	77.86 9.13	8.53 lim = (1.50)		
S34	74.61 0.55	136.48 (lim = 1.50)	77.07 1.47	52.38 (lim = 1.50)	47.01 2.46	19.08 lim = (1.50)		
S35	110.21 1.69	65.07 (lim = 1.50)	111.82 1.90	58.95 (lim = 1.50)	62.95 2.98	21.14 lim = (1.50)		
S36	121.40 1.58	76.61 (lim = 1.50)	122.54 1.70	72.06 (lim = 1.50)	66.43 4.02	16.53 lim = (1.50)		
S37	128.04 2.77	46.19 (lim = 1.50)	126.68 2.24	56.47 (lim = 1.50)	66.94 4.95	13.53 lim = (1.50)		
S38	176.28 4.71	37.42 (lim = 1.50)	175.82 1.77	99.52 (lim = 1.50)	83.20 8.36	9.96 lim = (1.50)		
S39	127.55 3.48	36.69 (lim = 1.50)	129.49 2.20	58.79 (lim = 1.50)	69.15 6.40	10.81 lim = (1.50)		

S40	165.23 6.56	25.19 (lim = 1.50)	167.97 2.30	73.04 (lim = 1.50)	80.62 12.03	6.70 lim = (1.50)		
S41	109.77 8.07	13.61 (lim = 1.50)	110.92 2.18	50.95 (lim = 1.50)	59.45 16.20	3.67 lim = (1.50)		
S42	81.48 3.53	23.07 (lim = 1.50)	81.66 4.80	17.00 (lim = 1.50)	49.69 10.97	4.53 lim = (1.50)		
S43	94.27 1.99	47.28 (lim = 1.50)	94.18 9.40	10.02 (lim = 1.50)	53.08 1.45	36.53 lim = (1.50)		
S44	87.36 4.44	19.67 (lim = 1.50)	87.56 5.06	17.31 (lim = 1.50)	51.15 11.34	4.51 lim = (1.50)		
S45	100.49 4.59	21.88 (lim = 1.50)	101.58 3.93	25.86 (lim = 1.50)	56.54 10.83	5.22 lim = (1.50)		
S46	100.51 1.13	88.70 (lim = 1.50)	114.26 2.75	41.56 (lim = 1.50)	61.94 5.39	11.49 lim = (1.50)		
S47	64.61 1.32	48.81 (lim = 1.50)	65.62 2.86	22.93 (lim = 1.50)	43.66 4.06	10.74 lim = (1.50)		
S48	69.72 0.50	139.41 (lim = 1.50)	77.02 1.94	39.61 (lim = 1.50)	46.97 3.11	15.12 lim = (1.50)		
S49	103.53 1.26	82.36 (lim = 1.50)	100.43 3.02	33.26 (lim = 1.50)	58.80 3.97	14.80 lim = (1.50)		
S50	64.44 0.53	121.20 (lim = 1.50)	74.98 2.72	27.61 (lim = 1.50)	45.73 4.47	10.22 lim = (1.50)		
S51	78.81 1.77	44.64 (lim = 1.50)	80.49 5.37	14.98 (lim = 1.50)	49.09 8.64	5.68 lim = (1.50)		
S52	56.59 0.84	67.05 (lim = 1.50)	49.25 1.70	28.90 (lim = 1.50)	37.94 3.19	11.89 lim = (1.50)		
S53	90.81 1.83	49.57 (lim = 1.50)	91.71 4.28	21.41 (lim = 1.50)	53.70 6.89	7.80 lim = (1.50)		
S54	86.96 0.56	154.35 (lim = 1.50)	94.77 4.25	22.31 (lim = 1.50)	53.36 7.82	6.83 lim = (1.50)		
S55	136.21 1.67	81.41 (lim = 1.50)	135.58 3.25	41.70 (lim = 1.50)	70.88 4.89	14.50 lim = (1.50)		
S56	147.74 2.60	56.77 (lim = 1.50)	147.24 1.77	83.08 (lim = 1.50)	74.54 4.32	17.27 lim = (1.50)		
S57	83.60 0.57	147.46 (lim = 1.50)	95.05 2.00	47.52 (lim = 1.50)	53.51 3.31	16.18 lim = (1.50)		
S58	79.02 0.54	145.97 (lim = 1.50)	81.44 2.06	39.50 (lim = 1.50)	47.68 3.38	14.10 lim = (1.50)		
S59	105.48 0.67	157.49 (lim = 1.50)	106.71 1.90	56.04 (lim = 1.50)	57.85 3.04	19.02 lim = (1.50)		
S60	103.77 0.66	158.30 (lim = 1.50)	105.09 1.92	54.61 (lim = 1.50)	56.97 3.09	18.45 lim = (1.50)		
S61	67.41 2.48	27.21 (lim = 1.50)	68.07 3.03	22.46 (lim = 1.50)	43.32 5.38	8.05 lim = (1.50)		
S62	85.63 7.41	11.56 (lim = 1.50)	85.55 1.74	49.29 (lim = 1.50)	50.12 12.87	3.89 lim = (1.50)		
S63	16.19 1.72	9.44 (lim = 1.50)	16.21 0.60	26.98 (lim = 1.50)	15.80 2.41	6.54 lim = (1.50)		
S64	79.95 5.84	13.70 (lim = 1.50)	79.87 1.56	51.27 (lim = 1.50)	48.74 13.39	3.64 lim = (1.50)		
S65	147.07 4.62	31.82 (lim = 1.50)	145.96 2.82	51.67 (lim = 1.50)	73.68 9.73	7.57 lim = (1.50)		

S66	143.62 3.38	42.52 (lim = 1.50)	126.20 1.60	78.73 (lim = 1.50)	70.07 6.64	10.56 lim = (1.50)		
S67	60.20 1.22	49.46 (lim = 1.50)	62.19 2.35	26.45 (lim = 1.50)	41.38 3.70	11.19 lim = (1.50)		
S68	82.92 0.58	143.76 (lim = 1.50)	85.89 1.56	55.12 (lim = 1.50)	50.29 2.66	18.94 lim = (1.50)		
S69	121.63 1.44	84.58 (lim = 1.50)	110.65 1.72	64.38 (lim = 1.50)	62.29 2.86	21.76 lim = (1.50)		
S70	82.37 0.57	144.05 (lim = 1.50)	85.50 2.19	38.95 (lim = 1.50)	50.06 4.18	11.99 lim = (1.50)		
S71	80.54 1.11	72.68 (lim = 1.50)	80.96 4.13	19.58 (lim = 1.50)	49.38 7.86	6.28 lim = (1.50)		
S72	54.64 0.84	64.98 (lim = 1.50)	47.45 1.57	30.16 (lim = 1.50)	36.55 3.05	12.00 lim = (1.50)		
S73	80.29 1.02	78.79 (lim = 1.50)	82.04 3.65	22.50 (lim = 1.50)	50.04 6.46	7.74 lim = (1.50)		
S74	86.88 0.56	154.40 (lim = 1.50)	91.42 4.06	22.54 (lim = 1.50)	51.47 7.59	6.78 lim = (1.50)		
S75	87.77 1.69	51.89 (lim = 1.50)	88.08 3.32	26.52 (lim = 1.50)	51.57 6.26	8.24 lim = (1.50)		
S76	98.42 2.40	41.01 (lim = 1.50)	98.99 2.31	42.80 (lim = 1.50)	55.42 5.22	10.63 lim = (1.50)		
S77	91.13 0.63	143.57 (lim = 1.50)	103.06 1.70	60.63 (lim = 1.50)	55.87 3.00	18.64 lim = (1.50)		
S78	93.00 0.62	150.99 (lim = 1.50)	90.58 1.72	52.74 (lim = 1.50)	50.99 2.97	17.15 lim = (1.50)		
S79	133.05 0.78	171.11 (lim = 1.50)	126.80 1.56	81.47 (lim = 1.50)	64.00 2.63	24.32 lim = (1.50)		
S80	124.25 0.77	162.22 (lim = 1.50)	118.64 1.60	74.09 (lim = 1.50)	62.02 2.71	22.89 lim = (1.50)		
S81	91.40 2.62	34.86 (lim = 1.50)	90.26 1.95	46.32 (lim = 1.50)	52.85 4.13	12.80 lim = (1.50)		
S82	85.63 7.41	11.56 (lim = 1.50)	85.55 1.74	49.29 (lim = 1.50)	50.12 12.87	3.89 lim = (1.50)		
S83	16.19 1.72	9.44 (lim = 1.50)	16.21 0.60	26.98 (lim = 1.50)	15.80 2.41	6.54 lim = (1.50)		
S86	169.30 2.85	59.35 (lim = 1.50)	150.47 2.66	56.58 (lim = 1.50)	77.45 6.88	11.26 lim = (1.50)		
S87	264.83 2.86	92.55 (lim = 1.50)	266.67 5.14	51.93 (lim = 1.50)	111.53 10.29	10.84 lim = (1.50)		
S88	88.00 0.74	119.03 (lim = 1.50)	100.34 5.04	19.91 (lim = 1.50)	54.40 9.51	5.72 lim = (1.50)		
S89	252.14 3.53	71.37 (lim = 1.50)	251.78 5.44	46.32 (lim = 1.50)	105.45 6.84	15.42 lim = (1.50)		
S90	232.37 2.49	93.50 (lim = 1.50)	232.00 4.03	57.54 (lim = 1.50)	99.88 7.05	14.17 lim = (1.50)		
S91	140.13 1.50	93.59 (lim = 1.50)	123.84 5.52	22.43 (lim = 1.50)	64.74 1.98	32.75 lim = (1.50)		
S92	168.63 1.93	87.56 (lim = 1.50)	168.83 5.49	30.74 (lim = 1.50)	79.63 2.77	28.79 lim = (1.50)		
S93	178.79 1.80	99.19 (lim = 1.50)	155.08 4.90	31.65 (lim = 1.50)	75.67 8.59	8.81 lim = (1.50)		

S94	177.18 1.78	99.48 (lim = 1.50)	146.00 4.81	30.33 (lim = 1.50)	71.24 8.28	8.60 lim = (1.50)		
S95	184.28 4.80	38.40 (lim = 1.50)	221.20 2.10	105.53 (lim = 1.50)	84.30 8.98	9.38 lim = (1.50)		
S96	212.06 2.59	81.84 (lim = 1.50)	252.12 2.34	107.56 (lim = 1.50)	94.06 4.09	23.02 lim = (1.50)		
S97	159.45 3.48	45.80 (lim = 1.50)	157.55 4.15	37.95 (lim = 1.50)	76.87 8.40	9.15 lim = (1.50)		
S98	152.48 0.86	177.07 (lim = 1.50)	169.42 1.72	98.37 (lim = 1.50)	66.75 1.40	47.58 lim = (1.50)		
S99	150.89 0.85	177.66 (lim = 1.50)	167.65 1.70	98.70 (lim = 1.50)	66.15 1.38	48.08 lim = (1.50)		
S100	81.48 3.53	23.07 (lim = 1.50)	81.66 4.80	17.00 (lim = 1.50)	49.69 10.97	4.53 lim = (1.50)		
S101	94.27 1.99	47.28 (lim = 1.50)	94.18 9.40	10.02 (lim = 1.50)	53.08 1.45	36.53 lim = (1.50)		
S104	122.90 2.53	48.66 (lim = 1.50)	111.66 2.44	45.80 (lim = 1.50)	64.25 6.40	10.04 lim = (1.50)		
S105	160.91 3.39	47.42 (lim = 1.50)	162.65 5.94	27.37 (lim = 1.50)	79.36 11.17	7.10 lim = (1.50)		
S106	72.63 0.62	116.61 (lim = 1.50)	83.34 4.98	16.72 (lim = 1.50)	48.80 9.33	5.23 lim = (1.50)		
S107	247.72 2.29	108.15 (lim = 1.50)	233.50 2.17	107.70 (lim = 1.50)	103.58 3.43	30.20 lim = (1.50)		
S108	282.84 2.55	110.83 (lim = 1.50)	282.67 2.83	99.81 (lim = 1.50)	118.22 4.94	23.95 lim = (1.50)		
S109	200.95 1.96	102.48 (lim = 1.50)	196.27 4.51	43.54 (lim = 1.50)	94.88 8.53	11.13 lim = (1.50)		
S110	219.27 2.07	106.10 (lim = 1.50)	214.13 4.44	48.27 (lim = 1.50)	100.26 8.44	11.88 lim = (1.50)		
S111	186.53 2.14	86.96 (lim = 1.50)	184.79 3.40	54.37 (lim = 1.50)	87.26 5.77	15.13 lim = (1.50)		
S112	195.49 3.49	56.04 (lim = 1.50)	194.07 2.90	67.02 (lim = 1.50)	88.78 7.26	12.22 lim = (1.50)		
S113	166.46 2.16	77.13 (lim = 1.50)	185.88 1.90	97.99 (lim = 1.50)	81.22 3.51	23.11 lim = (1.50)		
S114	164.66 2.01	81.72 (lim = 1.50)	183.88 1.87	98.31 (lim = 1.50)	80.34 3.21	25.00 lim = (1.50)		
S115	113.92 3.98	28.61 (lim = 1.50)	114.13 4.35	26.25 (lim = 1.50)	61.68 10.33	5.97 lim = (1.50)		
S116	110.22 1.39	79.05 (lim = 1.50)	117.35 1.44	81.30 (lim = 1.50)	62.81 2.65	23.69 lim = (1.50)		
S117	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S118	5.06 0.34	15.09 (lim = 1.50)	6.20 1.42	4.37 (lim = 1.50)	6.48 2.60	2.49 lim = (1.50)		
S119	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S120	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S121	5.06 0.34	15.09 (lim = 1.50)	6.19 1.42	4.37 (lim = 1.50)	6.48 2.60	2.49 lim = (1.50)		

S122	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S123	301.35 2.64	114.36 (lim = 1.50)	278.01 3.09	89.99 (lim = 1.50)	116.27 4.81	24.17 lim = (1.50)		
S130	246.76 2.27	108.55 (lim = 1.50)	222.34 3.54	62.75 (lim = 1.50)	98.62 5.71	17.27 lim = (1.50)		
S131	215.71 2.73	79.00 (lim = 1.50)	214.41 3.79	56.64 (lim = 1.50)	95.10 7.14	13.31 lim = (1.50)		
S132	190.43 2.12	90.03 (lim = 1.50)	191.26 6.39	29.94 (lim = 1.50)	87.49 9.23	9.48 lim = (1.50)		
S133	197.56 1.92	102.77 (lim = 1.50)	175.04 6.40	27.35 (lim = 1.50)	82.65 9.00	9.19 lim = (1.50)		
S134	210.46 1.96	107.27 (lim = 1.50)	186.80 6.81	27.43 (lim = 1.50)	85.45 9.65	8.86 lim = (1.50)		
S135	100.71 2.72	37.06 (lim = 1.50)	100.79 5.69	17.72 (lim = 1.50)	56.74 10.49	5.41 lim = (1.50)		
S142	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S143	5.06 0.34	15.09 (lim = 1.50)	6.19 1.42	4.37 (lim = 1.50)	6.48 2.60	2.49 lim = (1.50)		
S144	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S145	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S146	5.06 0.34	15.09 (lim = 1.50)	6.19 1.42	4.37 (lim = 1.50)	6.48 2.60	2.49 lim = (1.50)		
S147	4.15 0.37	11.09 (lim = 1.50)	4.92 0.78	6.34 (lim = 1.50)	5.14 1.27	4.05 lim = (1.50)		
S150	135.08 1.58	85.36 (lim = 1.50)	146.63 1.59	92.22 (lim = 1.50)	70.60 2.56	27.54 lim = (1.50)		
S153	45.52 2.14	21.24 (lim = 1.50)	47.44 2.00	23.72 (lim = 1.50)	33.32 3.81	8.74 lim = (1.50)		
S154	79.25 1.66	47.87 (lim = 1.50)	82.49 1.37	60.26 (lim = 1.50)	50.43 2.03	24.90 lim = (1.50)		
S155	89.92 2.18	41.30 (lim = 1.50)	92.52 1.89	48.84 (lim = 1.50)	55.35 3.87	14.30 lim = (1.50)		
S156	94.27 3.14	29.98 (lim = 1.50)	97.46 2.58	37.73 (lim = 1.50)	55.19 5.45	10.13 lim = (1.50)		
S157	98.12 3.69	26.61 (lim = 1.50)	101.09 1.80	56.04 (lim = 1.50)	57.45 6.69	8.59 lim = (1.50)		
S158	70.76 4.95	14.31 (lim = 1.50)	74.07 1.47	50.22 (lim = 1.50)	45.04 8.93	5.04 lim = (1.50)		
S159	105.83 4.81	22.01 (lim = 1.50)	108.31 1.31	82.65 (lim = 1.50)	59.58 8.71	6.84 lim = (1.50)		
S160	247.75 3.28	75.43 (lim = 1.50)	250.34 6.45	38.80 (lim = 1.50)	107.78 11.94	9.02 lim = (1.50)		
S164	138.81 1.55	89.46 (lim = 1.50)	138.33 2.44	56.61 (lim = 1.50)	76.27 4.20	18.17 lim = (1.50)		
S165	151.77 1.87	81.28 (lim = 1.50)	158.12 3.21	49.21 (lim = 1.50)	80.16 5.69	14.08 lim = (1.50)		
S169	143.68 2.90	49.59 (lim = 1.50)	143.14 6.21	23.07 (lim = 1.50)	72.25 11.44	6.32 lim = (1.50)		

S170	153.81 2.68	57.44 (lim = 1.50)	153.53 4.88	31.43 (lim = 1.50)	74.91 9.98	7.51 lim = (1.50)		
S171	212.13 2.05	103.27 (lim = 1.50)	212.57 3.11	68.26 (lim = 1.50)	94.29 7.09	13.30 lim = (1.50)		
S172	245.00 2.26	108.52 (lim = 1.50)	206.84 2.94	70.42 (lim = 1.50)	91.75 6.59	13.93 lim = (1.50)		
S173	279.48 2.53	110.67 (lim = 1.50)	233.47 3.07	76.12 (lim = 1.50)	100.51 7.04	14.28 lim = (1.50)		
S174	131.36 2.32	56.69 (lim = 1.50)	129.23 4.41	29.29 (lim = 1.50)	67.56 8.65	7.81 lim = (1.50)		
S175	105.53 3.20	32.94 (lim = 1.50)	99.85 4.32	23.09 (lim = 1.50)	56.21 6.93	8.11 lim = (1.50)		
S176	119.83 1.40	85.76 (lim = 1.50)	117.42 2.06	56.90 (lim = 1.50)	63.66 3.03	21.00 lim = (1.50)		
S177	201.49 2.88	70.06 (lim = 1.50)	184.23 3.61	51.08 (lim = 1.50)	86.99 5.62	15.47 lim = (1.50)		
S178	182.48 2.84	64.20 (lim = 1.50)	180.41 4.28	42.16 (lim = 1.50)	85.19 6.44	13.22 lim = (1.50)		
S179	240.10 3.76	63.83 (lim = 1.50)	218.78 3.67	59.62 (lim = 1.50)	97.04 5.85	16.59 lim = (1.50)		
S180	221.13 2.10	105.54 (lim = 1.50)	194.80 3.53	55.16 (lim = 1.50)	89.11 5.88	15.16 lim = (1.50)		
S181	264.93 6.50	40.76 (lim = 1.50)	264.57 3.68	71.94 (lim = 1.50)	110.80 13.46	8.23 lim = (1.50)		
S182	262.67 6.30	41.73 (lim = 1.50)	265.17 8.02	33.08 (lim = 1.50)	110.90 18.02	6.15 lim = (1.50)		
S183	75.16 1.21	62.10 (lim = 1.50)	74.85 2.30	32.56 (lim = 1.50)	47.83 1.60	29.82 lim = (1.50)		
S184	151.29 1.66	91.32 (lim = 1.50)	147.27 2.85	51.72 (lim = 1.50)	76.99 4.47	17.21 lim = (1.50)		
S185	161.91 1.69	95.76 (lim = 1.50)	145.00 4.29	33.82 (lim = 1.50)	73.19 7.36	9.94 lim = (1.50)		
S186	190.32 1.87	101.69 (lim = 1.50)	223.27 2.12	105.21 (lim = 1.50)	87.21 6.54	13.33 lim = (1.50)		
S187	249.78 2.32	107.87 (lim = 1.50)	212.24 3.08	68.85 (lim = 1.50)	94.14 5.40	17.43 lim = (1.50)		
S188	245.21 2.26	108.49 (lim = 1.50)	207.85 2.91	71.45 (lim = 1.50)	92.20 5.10	18.06 lim = (1.50)		
S189	93.79 0.62	150.60 (lim = 1.50)	94.54 1.22	77.46 (lim = 1.50)	53.23 1.48	35.91 lim = (1.50)		
S190	159.10 2.70	58.92 (lim = 1.50)	156.89 7.44	21.09 (lim = 1.50)	76.55 13.71	5.58 lim = (1.50)		
S191	122.73 1.16	105.54 (lim = 1.50)	109.09 0.70	156.36 (lim = 1.50)	58.94 2.92	20.19 lim = (1.50)		
S192	153.37 1.62	94.46 (lim = 1.50)	137.51 0.81	169.38 (lim = 1.50)	65.13 5.45	11.96 lim = (1.50)		
S193	54.05 1.82	29.63 (lim = 1.50)	46.23 0.50	92.66 (lim = 1.50)	35.96 3.16	11.37 lim = (1.50)		
S194	83.24 1.42	58.77 (lim = 1.50)	84.39 0.59	142.99 (lim = 1.50)	48.74 2.60	18.73 lim = (1.50)		
S195	6.08 0.58	10.51 (lim = 1.50)	5.63 0.19	30.08 (lim = 1.50)	6.87 0.94	7.29 lim = (1.50)		

S196	204.59 1.37	149.85 (lim = 1.50)	250.14 2.24	111.53 (lim = 1.50)	96.61 3.25	29.70 lim = (1.50)		
S197	109.70 2.60	42.11 (lim = 1.50)	107.36 3.06	35.06 (lim = 1.50)	60.45 6.72	8.99 lim = (1.50)		
S198	91.86 1.51	61.02 (lim = 1.50)	87.16 1.57	55.58 (lim = 1.50)	56.03 2.06	27.20 lim = (1.50)		
S199	243.99 2.41	101.39 (lim = 1.50)	244.68 3.30	74.07 (lim = 1.50)	105.04 6.30	16.67 lim = (1.50)		
S200	295.67 2.57	115.04 (lim = 1.50)	260.50 3.36	77.54 (lim = 1.50)	108.95 6.66	16.37 lim = (1.50)		
S201	283.74 4.32	65.68 (lim = 1.50)	284.49 3.28	86.60 (lim = 1.50)	115.37 8.78	13.13 lim = (1.50)		
S202	204.74 5.33	38.40 (lim = 1.50)	205.36 4.70	43.70 (lim = 1.50)	91.09 12.92	7.05 lim = (1.50)		
S203	149.01 1.62	91.75 (lim = 1.50)	138.32 1.53	90.30 (lim = 1.50)	72.31 2.52	28.70 lim = (1.50)		
S204	203.80 6.72	30.35 (lim = 1.50)	203.42 7.33	27.76 (lim = 1.50)	90.23 17.27	5.23 lim = (1.50)		
S205	259.03 4.88	53.04 (lim = 1.50)	294.78 2.56	115.14 (lim = 1.50)	108.33 10.42	10.40 lim = (1.50)		
S206	345.37 4.41	78.30 (lim = 1.50)	343.68 3.82	89.98 (lim = 1.50)	132.39 11.40	11.61 lim = (1.50)		
S207	156.44 6.42	24.36 (lim = 1.50)	170.07 8.76	19.41 (lim = 1.50)	73.87 10.70	6.90 lim = (1.50)		
S208	140.58 1.78	78.89 (lim = 1.50)	141.20 4.93	28.66 (lim = 1.50)	71.27 7.46	9.55 lim = (1.50)		
S209	243.30 2.24	108.76 (lim = 1.50)	215.33 4.57	47.10 (lim = 1.50)	95.51 6.99	13.66 lim = (1.50)		
S210	110.84 1.18	93.77 (lim = 1.50)	138.88 1.53	90.90 (lim = 1.50)	65.69 3.93	16.71 lim = (1.50)		
S211	71.52 2.02	35.43 (lim = 1.50)	71.25 6.86	10.39 (lim = 1.50)	43.34 13.63	3.18 lim = (1.50)		
S212	102.96 2.63	39.18 (lim = 1.50)	100.90 5.44	18.54 (lim = 1.50)	56.81 9.80	5.80 lim = (1.50)		
S213	143.22 2.64	54.31 (lim = 1.50)	143.96 6.84	21.05 (lim = 1.50)	72.67 12.89	5.64 lim = (1.50)		
S214	106.10 1.48	71.78 (lim = 1.50)	107.49 4.40	24.41 (lim = 1.50)	60.52 7.02	8.62 lim = (1.50)		
S215	176.12 1.84	95.82 (lim = 1.50)	159.83 2.21	72.20 (lim = 1.50)	83.56 5.15	16.22 lim = (1.50)		
S216	156.80 3.62	43.37 (lim = 1.50)	157.93 3.76	42.05 (lim = 1.50)	79.14 8.03	9.85 lim = (1.50)		
S217	105.98 1.24	85.13 (lim = 1.50)	88.94 1.63	54.57 (lim = 1.50)	56.18 3.44	16.34 lim = (1.50)		
S218	198.21 1.93	102.67 (lim = 1.50)	186.83 4.74	39.45 (lim = 1.50)	88.22 8.59	10.27 lim = (1.50)		
S219	107.23 1.26	84.83 (lim = 1.50)	90.40 0.62	144.80 (lim = 1.50)	56.68 1.17	48.27 lim = (1.50)		
S220	50.56 0.65	78.28 (lim = 1.50)	59.35 1.22	48.77 (lim = 1.50)	39.49 2.35	16.81 lim = (1.50)		
S221	61.63 0.47	131.95 (lim = 1.50)	66.45 0.94	71.00 (lim = 1.50)	42.29 2.17	19.46 lim = (1.50)		

S222	165.26 1.74	95.14 (lim = 1.50)	161.03 2.59	62.19 (lim = 1.50)	81.28 4.32	18.82 lim = (1.50)		
S223	109.70 2.44	44.92 (lim = 1.50)	113.41 2.16	52.48 (lim = 1.50)	62.83 6.12	10.27 lim = (1.50)		
S224	98.50 1.87	52.75 (lim = 1.50)	101.52 2.05	49.63 (lim = 1.50)	58.50 3.75	15.58 lim = (1.50)		
S225	72.87 1.44	50.70 (lim = 1.50)	75.46 3.75	20.14 (lim = 1.50)	46.38 2.19	21.16 lim = (1.50)		
S226	65.25 1.26	51.64 (lim = 1.50)	65.21 2.60	25.08 (lim = 1.50)	43.42 1.64	26.44 lim = (1.50)		
S227	53.13 1.15	46.31 (lim = 1.50)	50.70 2.52	20.11 (lim = 1.50)	37.10 2.94	12.60 lim = (1.50)		
S228	78.32 2.29	34.19 (lim = 1.50)	78.25 4.59	17.05 (lim = 1.50)	47.61 9.67	4.92 lim = (1.50)		
S229	115.14 1.97	58.44 (lim = 1.50)	116.47 6.99	16.66 (lim = 1.50)	63.15 12.75	4.95 lim = (1.50)		
S230	107.95 1.63	66.33 (lim = 1.50)	109.48 3.94	27.80 (lim = 1.50)	61.64 6.81	9.06 lim = (1.50)		
S231	221.22 2.62	84.47 (lim = 1.50)	230.26 6.20	37.11 (lim = 1.50)	98.63 9.60	10.28 lim = (1.50)		
S232	171.69 3.68	46.60 (lim = 1.50)	173.71 3.52	49.40 (lim = 1.50)	83.77 8.23	10.18 lim = (1.50)		
S233	145.94 2.27	64.29 (lim = 1.50)	151.81 7.28	20.86 (lim = 1.50)	74.25 10.71	6.93 lim = (1.50)		
S234	134.79 1.70	79.46 (lim = 1.50)	136.74 5.94	23.02 (lim = 1.50)	71.48 10.07	7.10 lim = (1.50)		
S235	46.16 1.08	42.64 (lim = 1.50)	47.18 1.92	24.59 (lim = 1.50)	34.53 3.03	11.41 lim = (1.50)		
S84-85	271.34 18.44	14.72 (lim = 1.50)	273.14 17.99	15.18 (lim = 1.50)	106.69 15.13	7.05 lim = (1.50)		
S102-103	256.74 7.98	32.17 (lim = 1.50)	213.13 21.80	9.78 (lim = 1.50)	97.49 18.12	5.38 lim = (1.50)		
SM1	58.79 18.44	3.19 (lim = 1.50)	92.02 2.68	34.28 (lim = 1.50)	37.42 6.27	5.97 lim = (1.50)		
SM2	58.79 18.44	3.19 (lim = 1.50)	92.02 2.68	34.28 (lim = 1.50)	37.42 6.27	5.97 lim = (1.50)		

Verificação de tensão em área reduzida

Nome	Interface pilar-fundação		
	Força solicitante (kN)	Força resistente (kN)	Condição
S1	131.45	2250.00	OK
S2	169.58	1125.00	OK
S3	158.12	1125.00	OK
S4	227.17	2250.00	OK
S5	273.74	2250.00	OK
S6	170.67	2250.00	OK
S7	120.13	2250.00	OK
S8	185.21	1125.00	OK
S9	214.29	2250.00	OK

S10	198.39	2250.00	OK
S11	144.72	2250.00	OK
S12	147.09	3712.50	OK
S13	234.69	1125.00	OK
S14	192.15	1125.00	OK
S15	271.12	1125.00	OK
S16	221.12	1125.00	OK
S17	81.38	3562.50	OK
S18	242.46	1125.00	OK
S19	218.81	2250.00	OK
S20	246.63	2250.00	OK
S21	187.16	2250.00	OK
S22	229.78	2250.00	OK
S23	281.18	2250.00	OK
S24	169.29	1125.00	OK
S25	239.88	2250.00	OK
S26	372.26	2250.00	OK
S27	170.19	2250.00	OK
S28	198.62	2250.00	OK
S29	190.10	2250.00	OK
S30	269.23	2250.00	OK
S31	214.27	2250.00	OK
S32	166.68	2250.00	OK
S33	245.39	2250.00	OK
S34	152.56	3712.50	OK
S35	202.95	2250.00	OK
S36	206.23	2250.00	OK
S37	217.03	2250.00	OK
S38	266.97	2250.00	OK
S39	213.08	2250.00	OK
S40	242.79	2250.00	OK
S41	170.02	2250.00	OK
S42	138.11	4000.00	OK
S43	142.17	4000.00	OK
S44	139.51	4000.00	OK
S45	161.96	2250.00	OK
S46	186.04	1125.00	OK
S47	128.40	2250.00	OK
S48	139.59	3712.50	OK
S49	175.32	2250.00	OK
S50	133.80	3712.50	OK
S51	140.67	2250.00	OK
S52	111.01	3712.50	OK
S53	153.88	2250.00	OK
S54	157.40	1125.00	OK
S55	231.78	2250.00	OK
S56	249.78	2250.00	OK
S57	171.50	1125.00	OK
S58	151.11	1125.00	OK
S59	187.06	1125.00	OK
S60	183.11	1125.00	OK

S61	129.04	2250.00	OK
S62	135.53	4000.00	OK
S63	41.31	2250.00	OK
S64	134.46	4000.00	OK
S65	222.67	2250.00	OK
S66	223.26	1125.00	OK
S67	126.89	2250.00	OK
S68	161.07	1125.00	OK
S69	200.82	2250.00	OK
S70	159.65	1125.00	OK
S71	151.43	2250.00	OK
S72	113.57	3712.50	OK
S73	154.82	2250.00	OK
S74	157.19	1125.00	OK
S75	164.57	2250.00	OK
S76	189.72	2250.00	OK
S77	189.66	1125.00	OK
S78	172.05	1125.00	OK
S79	217.29	1125.00	OK
S80	214.09	1125.00	OK
S81	167.55	2250.00	OK
S82	135.53	4000.00	OK
S83	41.31	2250.00	OK
S86	259.01	1125.00	OK
S87	367.39	2250.00	OK
S88	166.13	1125.00	OK
S89	348.44	2250.00	OK
S90	331.13	2250.00	OK
S91	209.55	2250.00	OK
S92	259.14	2250.00	OK
S93	252.15	2250.00	OK
S94	249.30	2250.00	OK
S95	293.02	2250.00	OK
S96	327.72	2250.00	OK
S97	249.66	2250.00	OK
S98	240.90	1125.00	OK
S99	237.57	1125.00	OK
S100	138.11	4000.00	OK
S101	142.17	4000.00	OK
S104	198.37	1125.00	OK
S105	235.19	2250.00	OK
S106	141.22	1125.00	OK
S107	319.99	2250.00	OK
S108	371.56	2250.00	OK
S109	274.46	2250.00	OK
S110	289.29	2250.00	OK
S111	285.91	2250.00	OK
S112	297.76	2250.00	OK
S113	264.84	2250.00	OK
S114	261.05	2250.00	OK
S115	191.48	2250.00	OK

S116	196.66	1757.06	OK
S117	9.66	2450.00	OK
S118	14.72	2450.00	OK
S119	9.66	2450.00	OK
S120	9.66	2450.00	OK
S121	14.72	2450.00	OK
S122	9.66	2450.00	OK
S123	368.70	2250.00	OK
S130	318.01	2250.00	OK
S131	322.05	2250.00	OK
S132	283.94	2250.00	OK
S133	268.73	2250.00	OK
S134	274.29	2250.00	OK
S135	175.32	2250.00	OK
S142	9.66	2450.00	OK
S143	14.72	2450.00	OK
S144	9.66	2450.00	OK
S145	9.66	2450.00	OK
S146	14.72	2450.00	OK
S147	9.66	2450.00	OK
S150	222.54	1757.06	OK
S153	96.20	2250.00	OK
S154	152.64	2250.00	OK
S155	164.91	2250.00	OK
S156	160.85	2250.00	OK
S157	170.29	2250.00	OK
S158	131.83	2250.00	OK
S159	179.65	2250.00	OK
S160	329.68	2250.00	OK
S164	226.64	2250.00	OK
S165	235.77	2250.00	OK
S169	223.88	2250.00	OK
S170	261.21	2250.00	OK
S171	329.10	2250.00	OK
S172	315.90	2250.00	OK
S173	353.29	2250.00	OK
S174	221.54	2250.00	OK
S175	170.34	2250.00	OK
S176	205.77	2250.00	OK
S177	289.44	2250.00	OK
S178	282.63	2250.00	OK
S179	323.34	2250.00	OK
S180	292.59	2250.00	OK
S181	341.45	2250.00	OK
S182	334.00	2250.00	OK
S183	139.78	2250.00	OK
S184	231.62	2250.00	OK
S185	236.52	2250.00	OK
S186	296.80	2250.00	OK
S187	323.98	2250.00	OK
S188	316.24	2250.00	OK

S189	174.05	1125.00	OK
S190	239.22	2250.00	OK
S191	195.07	937.50	OK
S192	227.04	1125.00	OK
S193	115.45	3712.50	OK
S194	164.81	1125.00	OK
S195	12.72	2437.50	OK
S196	313.84	1125.00	OK
S197	189.57	2250.00	OK
S198	169.15	2250.00	OK
S199	348.80	2250.00	OK
S200	359.71	2250.00	OK
S201	383.30	2250.00	OK
S202	295.57	2250.00	OK
S203	227.32	2250.00	OK
S204	279.70	2250.00	OK
S205	357.99	2250.00	OK
S206	432.80	2250.00	OK
S207	229.22	2250.00	OK
S208	230.19	2250.00	OK
S209	312.77	2250.00	OK
S210	213.58	1125.00	OK
S211	124.06	2250.00	OK
S212	164.84	2250.00	OK
S213	217.81	2250.00	OK
S214	182.37	2250.00	OK
S215	258.53	1500.00	OK
S216	243.75	2250.00	OK
S217	174.11	1125.00	OK
S218	270.03	2250.00	OK
S219	176.36	1125.00	OK
S220	115.98	3712.50	OK
S221	130.59	3712.50	OK
S222	242.58	2250.00	OK
S223	184.67	2250.00	OK
S224	171.03	2250.00	OK
S225	137.97	2250.00	OK
S226	130.82	2250.00	OK
S227	107.03	7875.00	OK
S228	133.75	2250.00	OK
S229	183.60	2250.00	OK
S230	183.97	2250.00	OK
S231	296.03	2250.00	OK
S232	256.98	2250.00	OK
S233	220.61	2250.00	OK
S234	211.94	2250.00	OK
S235	95.99	2250.00	OK
S84-85	153.77	7425.00	OK
S102-103	139.51	13200.00	OK
SM1	86.73	27000.00	OK
SM2	86.73	27000.00	OK

Dimensionamento

Nome	Armaduras inferiores		Armaduras superiores	
	Dir. B	Dir. H	Dir. B	Dir. H
	Md (kN.m/m) As (cm ² /m)	Md (kN.m/m) As (cm ² /m)	Md (kN.m/m) A's (cm ² /m)	Md (kN.m/m) A's (cm ² /m)
S1	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S2	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S3	38.58 5.18	36.60 4.91	0.00 0.00	0.00 0.00
S4	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S5	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S6	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S7	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S8	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S9	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S10	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S11	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S12	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S13	48.33 5.56	45.72 5.26	0.00 0.00	0.00 0.00
S14	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S15	59.82 6.02	56.39 5.67	0.00 0.00	0.00 0.00
S16	48.52 5.58	45.85 5.27	0.00 0.00	0.00 0.00
S17	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S18	48.33 5.56	45.72 5.26	0.00 0.00	0.00 0.00
S19	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S20	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S21	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S22	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00

S23	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S24	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S25	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S26	72.03 6.44	72.03 6.44	0.00 0.00	0.00 0.00
S27	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S28	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S29	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S30	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S31	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S32	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S33	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S34	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S35	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S36	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S37	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S38	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S39	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S40	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S41	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S42	82.60 7.39	82.60 7.39	0.00 0.00	0.00 0.00
S43	79.91 7.15	79.91 7.15	0.00 0.00	0.00 0.00
S44	80.38 7.19	80.38 7.19	0.00 0.00	0.00 0.00
S45	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S46	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S47	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S48	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00

S49	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S50	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S51	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S52	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S53	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S54	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S55	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S56	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S57	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S58	38.58 5.18	36.60 4.91	0.00 0.00	0.00 0.00
S59	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S60	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S61	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S62	80.38 7.19	80.38 7.19	0.00 0.00	0.00 0.00
S63	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S64	82.60 7.39	82.60 7.39	0.00 0.00	0.00 0.00
S65	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S66	45.85 5.27	48.33 5.56	0.00 0.00	0.00 0.00
S67	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S68	38.58 5.18	36.60 4.91	0.00 0.00	0.00 0.00
S69	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S70	38.58 5.18	36.60 4.91	0.00 0.00	0.00 0.00
S71	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S72	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S73	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S74	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00

S75	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S76	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S77	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S78	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S79	48.52 5.58	45.85 5.27	0.00 0.00	0.00 0.00
S80	48.72 5.60	45.99 5.29	0.00 0.00	0.00 0.00
S81	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S82	80.38 7.19	80.38 7.19	0.00 0.00	0.00 0.00
S83	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S86	56.55 5.69	59.82 6.02	0.00 0.00	0.00 0.00
S87	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S88	38.25 5.13	36.36 4.88	0.00 0.00	0.00 0.00
S89	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S90	72.54 6.49	72.54 6.49	0.00 0.00	0.00 0.00
S91	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S92	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S93	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S94	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S95	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S96	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S97	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S98	73.71 6.59	69.04 6.18	0.00 0.00	0.00 0.00
S99	73.71 6.59	69.04 6.18	0.00 0.00	0.00 0.00
S100	82.60 7.39	82.60 7.39	0.00 0.00	0.00 0.00
S101	79.91 7.15	79.91 7.15	0.00 0.00	0.00 0.00
S104	45.99 5.29	48.72 5.60	0.00 0.00	0.00 0.00

S105	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S106	38.58 5.18	36.60 4.91	0.00 0.00	0.00 0.00
S107	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S108	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S109	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S110	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S111	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S112	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S113	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S114	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S115	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S116	38.41 5.15	38.41 5.15	0.00 0.00	0.00 0.00
S117	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S118	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S119	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S120	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S121	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S122	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S123	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S130	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S131	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S132	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S133	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S134	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S135	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S142	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00

S143	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S144	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S145	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S146	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S147	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S150	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S153	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S154	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S155	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S156	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S157	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S158	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S159	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S160	72.54 6.49	72.54 6.49	0.00 0.00	0.00 0.00
S164	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S165	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S169	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S170	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S171	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S172	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S173	72.54 6.49	72.54 6.49	0.00 0.00	0.00 0.00
S174	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S175	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S176	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S177	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S178	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00

S179	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S180	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S181	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S182	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S183	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S184	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S185	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S186	59.82 6.02	59.82 6.02	0.00 0.00	0.00 0.00
S187	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S188	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S189	38.41 5.15	36.48 4.89	0.00 0.00	0.00 0.00
S190	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S191	46.14 5.31	47.91 5.51	0.00 0.00	0.00 0.00
S192	45.85 5.27	48.52 5.58	0.00 0.00	0.00 0.00
S193	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S194	36.60 4.91	38.58 5.18	0.00 0.00	0.00 0.00
S195	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S196	72.54 6.49	68.23 6.10	0.00 0.00	0.00 0.00
S197	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S198	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S199	72.54 6.49	72.54 6.49	0.00 0.00	0.00 0.00
S200	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S201	72.03 6.44	72.03 6.44	0.00 0.00	0.00 0.00
S202	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S203	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S204	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00

S205	72.28 6.46	72.28 6.46	0.00 0.00	0.00 0.00
S206	85.86 6.91	85.86 6.91	0.00 0.00	0.00 0.00
S207	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S208	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S209	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S210	48.72 5.60	45.99 5.29	0.00 0.00	0.00 0.00
S211	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S212	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S213	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S214	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S215	58.05 5.84	60.05 6.04	0.00 0.00	0.00 0.00
S216	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S217	36.48 4.89	38.41 5.15	0.00 0.00	0.00 0.00
S218	60.05 6.04	60.05 6.04	0.00 0.00	0.00 0.00
S219	36.48 4.89	38.41 5.15	0.00 0.00	0.00 0.00
S220	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S221	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S222	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S223	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00
S224	49.41 5.68	49.41 5.68	0.00 0.00	0.00 0.00
S225	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S226	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S227	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S228	49.68 5.71	49.68 5.71	0.00 0.00	0.00 0.00
S229	48.94 5.63	48.94 5.63	0.00 0.00	0.00 0.00
S230	49.17 5.65	49.17 5.65	0.00 0.00	0.00 0.00

S231	59.60 6.00	59.60 6.00	0.00 0.00	0.00 0.00
S232	48.33 5.56	48.33 5.56	0.00 0.00	0.00 0.00
S233	48.52 5.58	48.52 5.58	0.00 0.00	0.00 0.00
S234	48.72 5.60	48.72 5.60	0.00 0.00	0.00 0.00
S235	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S84-85	167.91 11.26	167.91 11.26	0.00 9.75	0.00 9.75
S102-103	167.91 11.26	167.91 11.26	0.00 9.75	0.00 9.75
SM1	35.77 5.76	35.77 5.76	1.21 4.50	0.00 4.50
SM2	35.77 5.76	35.77 5.76	1.21 4.50	0.00 4.50

6. RESULTADOS DOS PILARES DO EDIFÍCIO PRINCIPAL:

Resultados dos Pilares

Dados				Resultados					
Pilar	Seção (cm)	Nível Altura (cm)	le b v í n c le h v í n c (cm)	Nd máx Nd mín (kN)	MBd topo MBd base (kN.m)	MHd topo MHd base (kN.m)	As b Armaduras As h % armad total	Estribo Topo Base cota	Esb b Esb h
P1 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	131.45 79.06	3.96 2.56	4.68 3.56	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P2 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	169.58 101.77	0.26 0.21	3.85 2.81	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P3 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	158.12 94.64	0.51 0.36	3.57 2.55	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P4 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	227.17 134.82	4.08 3.95	6.30 3.84	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P5 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	273.74 159.13	4.81 2.85	2.30 3.49	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P6 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.67 101.10	1.09 1.33	4.20 3.69	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P7 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	120.13 70.97	2.71 1.77	7.19 3.76	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P8 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	185.21 119.71	2.26 1.27	5.78 3.62	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P9 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	214.29 137.51	7.36 3.88	4.40 3.42	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P10 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	198.39 127.55	7.93 5.36	7.26 5.64	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P11 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	144.72 92.00	11.54 5.59	4.07 3.18	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P12 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	147.09 89.66	0.71 0.45	2.73 1.69	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P13 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	234.69 129.84	0.33 0.27	2.85 1.52	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P14 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	192.15 107.80	0.26 0.21	2.85 1.60	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P15 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	271.12 143.73	0.28 0.24	2.21 1.18	2.45 2 ø 12.5 3.68 3 ø 12.5 1.6 6 ø 12.5	ø 5.0 c/15	34.60 17.30
P16 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	221.12 119.23	1.18 0.70	2.55 1.54	1.57 2 ø 10.0 2.36 3 ø 10.0 1.0 6 ø 10.0	ø 5.0 c/12	34.60 17.30
P17 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	81.38 43.22	2.75 1.63	0.94 0.89	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P18 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	242.46 150.03	2.07 1.13	5.05 2.74	1.57 2 ø 10.0 2.36 3 ø 10.0 1.0 6 ø 10.0	ø 5.0 c/12	34.60 17.30
P19 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	218.81 137.08	7.15 4.37	4.03 2.78	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P20 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	246.63 153.77	6.46 3.88	5.54 2.52	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P21 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	187.16 121.78	1.58 1.50	8.54 5.10	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P22 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	229.78 140.93	16.02 8.54	4.00 3.38	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P23 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	281.18 159.93	11.94 6.56	2.19 2.32	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P24 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	169.29 94.85	0.55 0.40	3.04 2.11	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P25 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	239.88 131.46	2.77 2.67	2.16 2.16	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P26 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	372.26 208.01	2.25 2.14	8.23 7.18	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P27 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.19 92.43	7.36 4.04	2.97 2.95	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P28 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	198.62 110.75	1.24 1.68	4.05 3.11	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P29 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	190.10 115.66	2.72 1.64	3.95 3.01	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P30 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	269.23 169.49	4.00 3.23	9.97 5.28	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P31 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	214.27 139.59	16.27 9.38	1.97 2.26	3.68 3 ø 12.5 3.68 3 ø 12.5 1.1 8 ø 12.5	ø 5.0 c/15	17.30 17.30
P32 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	166.68 101.33	15.34 8.03	6.44 3.91	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P33 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	245.39 147.60	11.81 6.61	2.30 1.82	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P34 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	152.56 90.32	0.51 0.36	2.95 1.80	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P35 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	202.95 119.23	2.86 2.16	2.10 1.98	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P36 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	206.23 126.77	1.62 1.81	5.81 1.92	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P37 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	217.03 126.18	6.13 3.52	2.38 2.67	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P38 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	266.97 160.31	11.07 6.25	1.53 1.90	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P39 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	213.08 136.08	7.58 4.41	3.33 2.59	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P40 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	242.79 156.41	15.37 8.71	4.14 2.79	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P41 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.02 108.77	22.65 10.96	3.89 2.64	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P42 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	138.11 90.75	10.48 6.19	13.33 4.51	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	12.97 12.97
P43 1:20	40.00 X 40.00	20.00 150.00	1472.00 EL 150.00 RR	142.17 95.32	11.88 12.16	0.19 2.31	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	127.33 12.97
P44 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	139.51 91.75	10.51 6.55	12.75 5.78	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	12.97 12.97
P45 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	161.96 104.71	13.97 6.16	6.99 5.08	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P46 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	186.04 123.49	2.52 1.50	6.81 3.68	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P47 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	128.40 80.33	1.88 1.44	4.34 3.52	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P48 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	139.59 90.58	0.59 0.51	3.63 2.46	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P49 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	175.32 112.48	1.23 1.30	3.92 3.75	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P50 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	133.80 86.93	0.97 0.66	5.37 3.53	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P51 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	140.67 90.01	1.56 2.05	10.35 7.05	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P52 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	111.01 72.95	4.24 2.29	0.80 0.90	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P53 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	153.88 98.77	1.94 2.15	8.11 5.50	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P54 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	157.40 103.08	0.25 0.27	10.32 5.68	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P55 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	231.78 139.18	1.70 2.04	4.95 3.98	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P56 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.78 145.20	5.49 3.28	1.13 1.90	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P57 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	171.50 103.09	1.13 0.70	3.87 2.54	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P58 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	151.11 89.68	0.74 0.46	4.03 2.62	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P59 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	187.06 111.11	0.32 0.28	3.58 2.40	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P60 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	183.11 108.87	0.28 0.26	3.65 2.43	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P61 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	129.04 76.76	4.48 3.10	5.06 3.81	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P62 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	135.53 90.37	0.88 1.85	18.20 10.06	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19 ø 5.0 c/19	12.97 12.97

								0	
P63 1:20	30.00 X 30.00	20.00 150.00	300.00 EL 150.00 RR	41.31 26.08	0.07 0.76	2.30 2.09	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	34.60 17.30
P64 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	134.46 89.60	0.87 1.61	21.52 7.86	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19 ø 5.0 c/19 0	12.97 12.97
P65 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	222.67 143.23	12.17 6.19	6.04 3.35	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P66 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	223.26 138.90	3.89 2.14	7.84 4.47	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P67 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	126.89 75.01	1.94 1.37	4.18 2.82	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P68 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	161.07 97.18	0.37 0.32	3.27 1.93	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P69 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	200.82 119.90	1.98 1.47	3.11 1.93	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P70 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	159.65 96.41	1.05 0.64	5.48 2.81	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P71 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	151.43 92.09	1.24 1.20	10.61 5.31	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P72 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	113.57 69.73	4.10 2.11	0.94 0.91	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P73 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	154.82 92.46	0.95 1.10	8.34 4.62	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P74 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	157.19 97.75	0.28 0.22	10.12 5.41	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P75 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	164.57 96.09	2.51 2.08	7.95 4.23	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P76 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	189.72 104.08	5.95 3.01	4.32 2.82	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P77 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	189.66 106.33	1.21 0.80	3.61 2.13	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P78 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	172.05 96.05	0.62 0.33	3.70 2.15	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P79 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	217.29 120.98	0.41 0.39	3.22 1.93	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P80 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	214.09 119.41	0.49 0.43	3.32 1.99	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P81 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	167.55 100.57	3.93 3.32	3.00 2.13	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P82 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	135.53 90.37	0.88 1.85	18.20 10.06	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19 ø 5.0 c/19 0	12.97 12.97
P83 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 300.00 EL	41.31 26.08	2.30 2.09	0.07 0.76	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 34.60
P84 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	134.46 89.60	0.87 1.61	21.52 7.85	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19 ø 5.0 c/19 0	12.97 12.97
P85 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	153.77 96.01	1.94 2.18	9.48 6.41	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P86 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	259.01 150.94	6.82 3.63	6.31 3.77	1.57 2 ø 10.0 3.14 4 ø 10.0 1.4 8 ø 10.0	ø 5.0 c/12	34.60 17.30
P87 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	367.39 218.09	12.22 6.70	7.38 3.67	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P88 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	166.13 102.84	1.55 0.96	12.70 6.79	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30

P89 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	348.44 203.49	9.76 4.84	5.30 7.49	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P90 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	331.13 192.35	4.22 3.14	8.03 5.14	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P91 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	209.55 122.70	1.37 1.14	3.37 7.47	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P92 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	259.14 151.44	2.11 2.28	3.34 7.44	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P93 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	252.15 144.52	2.37 1.49	10.94 6.35	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P94 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.30 133.04	2.09 1.84	10.75 6.31	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P95 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	293.02 158.86	11.72 6.28	2.38 1.99	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P96 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	327.72 181.55	4.88 3.49	1.59 1.60	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P97 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.66 148.55	7.32 4.52	7.71 5.24	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P98 1:20	15.00 X 30.00	20.00 150.00	570.00 RR 150.00 RR	240.90 127.05	0.09 0.24	1.29 1.23	4.02 2 ø 16.0 8.04 4 ø 16.0 3.6 8 ø 16.0	ø 5.0 c/15	131.48 17.30
P99 1:20	15.00 X 30.00	20.00 150.00	570.00 RR 150.00 RR	237.57 125.39	0.07 0.18	1.33 1.22	4.02 2 ø 16.0 8.04 4 ø 16.0 3.6 8 ø 16.0	ø 5.0 c/15	131.48 17.30
P100 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	138.11 90.75	10.48 6.19	13.33 4.51	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	12.97 12.97
P101 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 1472.00 EL	142.17 95.32	0.19 2.31	11.88 12.16	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	12.97 127.33

P102 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	139.51 91.75	10.51 6.55	12.75 5.78	4.02 2 ø 16.0 4.02 2 ø 16.0 0.5 4 ø 16.0	ø 5.0 c/19	12.97 12.97
P103 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	112.80 69.50	1.51 1.65	12.42 6.03	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P104 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	198.37 128.27	6.60 3.32	5.79 3.31	1.57 2 ø 10.0 2.36 3 ø 10.0 1.0 6 ø 10.0	ø 5.0 c/12	34.60 17.30
P105 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	235.19 152.26	12.47 7.79	7.76 4.37	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P106 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	141.22 94.66	1.33 0.80	12.42 6.69	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P107 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	319.99 203.39	1.04 1.22	4.45 2.63	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P108 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	371.56 238.79	5.06 3.16	3.62 3.23	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P109 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	274.46 173.30	1.71 1.46	12.71 6.02	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P110 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	289.29 182.45	12.36 5.92	2.65 2.25	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P111 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	285.91 172.37	4.49 2.77	5.45 4.03	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P112 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	297.76 172.33	8.27 4.54	5.10 3.44	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P113 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	264.84 158.26	3.85 2.57	1.88 2.10	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P114 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	261.05 155.53	3.51 2.45	1.73 1.97	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P115 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	191.48 115.49	9.60 5.22	10.93 5.70	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P116 1:20	Circ 0.00 30.00	20.00 150.00	150.00 RR	196.66 122.27	2.94 1.80	1.79 1.63	4.71 6 ø 10.0 0.7	ø 5.0 c/12	20.00
P117 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P118 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	14.72 8.25	0.02 0.34	1.74 1.86	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P119 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P120 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P121 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	14.72 8.25	0.02 0.34	1.74 1.86	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P122 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P123 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	368.70 233.47	2.94 1.51	4.98 3.58	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P130 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	318.01 194.35	3.38 1.56	6.00 4.21	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P131 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	322.05 185.30	6.31 3.51	6.31 4.68	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P132 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	283.94 166.47	3.29 2.65	9.89 8.41	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P133 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	268.73 156.95	9.75 8.43	1.71 1.54	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P134 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	274.29 160.47	0.90 1.20	10.61 9.00	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P135 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	175.32 105.30	5.60 3.48	12.82 7.56	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P142 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P143 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	14.72 8.25	0.02 0.34	1.74 1.86	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P144 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P145 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P146 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	14.72 8.25	0.02 0.34	1.74 1.86	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P147 1:20	14.00 X 30.00	20.00 100.00	150.00 RR 150.00 RR	9.66 4.96	0.09 0.40	0.65 0.92	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	37.07 17.30
P150 1:20	Circ 0.00 30.00	20.00 150.00	150.00 RR	222.54 139.82	3.43 2.06	0.73 1.10	4.71 6 ø 10.0 0.7	ø 5.0 c/12	20.00
P153 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	96.20 57.37	4.66 2.69	1.68 2.34	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P154 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	152.64 96.36	1.64 1.89	1.15 1.43	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P155 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	164.91 106.39	4.61 2.68	1.95 2.15	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P156 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	160.85 103.70	6.06 4.01	3.02 3.11	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P157 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.29 110.36	8.64 4.78	1.71 2.01	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P158 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	131.83 82.54	11.55 6.50	1.23 1.57	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P159 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	179.65 116.12	11.30 6.30	0.82 1.35	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P160 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	329.68 211.34	14.59 8.73	6.81 4.17	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P164 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	226.64 142.89	1.95 1.73	6.10 3.31	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P165 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	235.77 149.83	2.76 2.23	7.94 4.19	6.03 3 ø 16.0 6.03 3 ø 16.0 1.8 8 ø 16.0	ø 5.0 c/19	17.30 17.30
P169 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	223.88 138.24	6.30 3.82	14.18 8.36	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P170 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	261.21 143.19	6.44 3.46	12.33 6.41	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P171 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	329.10 181.99	3.01 2.47	10.10 3.87	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P172 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	315.90 174.90	1.32 1.19	9.78 3.63	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P173 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	353.29 193.14	1.41 1.59	10.55 3.81	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P174 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	221.54 130.77	4.39 2.93	10.45 5.57	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P175 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	170.34 106.92	2.79 4.07	8.17 5.52	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	66.32 17.30

P176 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	205.77 123.76	1.87 1.58	2.99 2.40	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	66.32 17.30
P177 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	289.44 171.65	1.58 3.57	5.98 4.45	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	66.32 17.30
P178 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	282.63 166.72	2.62 3.69	7.16 5.39	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	66.32 17.30
P179 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	323.34 190.60	1.33 4.80	6.13 4.52	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	66.32 17.30
P180 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	292.59 173.25	1.52 1.14	7.01 4.35	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P181 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	341.45 218.11	17.36 8.71	7.01 4.58	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P182 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	334.00 215.20	16.07 8.47	18.59 10.71	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P183 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	139.78 87.64	1.16 1.30	3.30 2.62	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P184 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	231.62 140.10	1.69 1.47	5.47 3.45	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P185 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	236.52 141.98	1.56 1.33	9.60 5.56	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P186 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	296.80 167.65	2.79 2.24	11.79 1.92	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P187 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	323.98 181.26	0.70 0.95	7.06 3.82	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P188 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	316.24 176.04	6.70 3.59	1.32 1.16	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P189 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	174.05 102.79	0.60 0.40	1.27 1.44	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P190 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	239.22 147.68	6.22 3.51	16.54 9.79	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P191 1:20	15.00 X 25.00	20.00 150.00	150.00 RR 150.00 RR	195.07 116.30	0.55 0.49	4.76 1.18	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	34.60 20.76
P192 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	227.04 125.80	0.50 0.25	10.66 1.22	1.57 2 ø 10.0 2.36 3 ø 10.0 1.0 6 ø 10.0	ø 5.0 c/12	34.60 17.30
P193 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	115.45 66.96	1.09 0.62	4.03 2.48	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P194 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	164.81 93.05	0.74 0.43	3.32 1.80	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P195 1:20	15.00 X 25.00	20.00 150.00	300.00 EL 150.00 RR	12.72 7.62	0.13 0.22	2.40 0.76	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	69.20 20.76
P196 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	313.84 192.25	3.99 1.84	3.14 1.03	2.45 2 ø 12.5 3.68 3 ø 12.5 1.6 6 ø 12.5	ø 5.0 c/15	34.60 17.30
P197 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	189.57 118.48	5.08 3.33	7.30 3.75	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P198 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	169.15 104.93	1.71 1.71	2.82 1.65	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P199 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	348.80 207.23	4.09 3.00	7.67 4.25	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P200 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	359.71 212.54	3.45 2.12	9.05 4.32	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P201 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	383.30 226.25	8.89 5.66	7.48 4.21	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P202 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	295.57 173.05	14.85 7.21	10.62 6.19	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P203 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	227.32 143.77	3.32 1.62	1.81 1.65	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P204 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	279.70 169.59	15.22 9.53	18.54 9.75	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P205 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	357.99 208.86	15.13 6.46	2.49 2.06	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 66.32
P206 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	432.80 261.81	15.45 6.00	7.30 4.71	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P207 1:20	30.00 X 30.00	20.00 150.00	570.00 RR 150.00 RR	229.22 135.58	5.84 12.09	13.01 8.78	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	65.74 17.30
P208 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	230.19 134.29	1.15 2.24	8.65 6.36	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P209 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	312.77 183.42	4.06 1.35	7.53 5.86	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P210 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	213.58 130.05	2.70 1.59	5.80 1.59	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P211 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	124.06 75.35	0.99 2.60	19.36 9.20	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P212 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	164.84 108.35	6.21 3.40	10.49 7.06	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P213 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	217.81 139.43	4.63 3.31	16.77 9.08	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P214 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	182.37 116.54	2.64 1.72	8.31 5.68	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30

P215 1:20	20.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	258.53 167.76	6.21 2.91	4.03 2.32	1.57 2 ø 10.0 1.57 2 ø 10.0 0.5 4 ø 10.0	ø 5.0 c/12	25.95 17.30
P216 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	243.75 158.42	6.86 4.79	8.07 4.73	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P217 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	174.11 113.13	4.48 2.17	2.13 1.34	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P218 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	270.03 173.10	11.40 6.11	0.47 0.94	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P219 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	176.36 112.49	1.39 0.78	0.47 1.11	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P220 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	115.98 76.74	1.85 0.85	2.38 1.32	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P221 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	130.59 82.71	2.21 0.33	2.55 1.08	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	34.60 17.30
P222 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	242.58 156.81	4.95 3.07	1.71 1.41	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P223 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	184.67 122.08	8.51 2.58	4.73 3.02	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P224 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	171.03 111.78	3.58 2.38	3.62 2.27	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P225 1:20	30.00 X 30.00	20.00 150.00	570.00 RR 150.00 RR	137.97 89.07	2.29 4.69	2.08 1.65	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	65.74 17.30
P226 1:20	30.00 X 30.00	20.00 150.00	570.00 RR 150.00 RR	130.82 84.23	1.26 3.28	1.13 1.37	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	65.74 17.30
P227 1:20	30.00 X 35.00	20.00 150.00	150.00 RR 150.00 RR	107.03 67.47	2.58 2.99	1.10 1.22	1.57 2 ø 10.0 2.36 3 ø 10.0 0.4 6 ø 10.0	ø 5.0 c/12	17.30 14.83

P228 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	133.75 87.08	4.65 2.94	13.31 6.07	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P229 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	183.60 119.60	2.97 2.36	16.62 9.25	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/10	17.30 17.30
P230 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	183.97 118.73	8.40 5.01	2.62 1.91	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P231 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	296.03 192.79	10.43 8.26	5.38 3.34	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P232 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	256.98 166.93	6.97 4.42	8.88 4.81	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P233 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	220.61 143.69	12.65 9.78	3.84 2.81	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P234 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	211.94 138.39	12.34 7.85	3.62 2.00	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
P235 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	95.99 59.39	1.80 1.21	3.30 2.25	2.45 2 ø 12.5 2.45 2 ø 12.5 0.5 4 ø 12.5	ø 5.0 c/15	17.30 17.30
PM1 1:20	60.00 X 130.00	20.00 150.00	300.00 EL 300.00 EL	86.73 32.70	18.17 25.75	8.90 1.99	5.50 7 ø 10.0 11.78 15 ø 10.0 0.4 40 ø 10.0	ø 5.0 c/12	17.30 7.98
PM2 1:20	60.00 X 130.00	20.00 150.00	300.00 EL 300.00 EL	86.73 32.70	18.17 25.75	8.90 1.99	5.50 7 ø 10.0 11.78 15 ø 10.0 0.4 40 ø 10.0	ø 5.0 c/12	17.30 7.98

7. RESULTADOS DO RADIER DO EDIFÍCIO PRINCIPAL:

Nome	Espessura (cm)	Carga (kN/m²)	Mdx (kN.m/m)	Mdy (kN.m/m)	Asx	Asy
LA1	18	7.36	7.61	2.64	As = 1.96 cm²/m	As = 1.96 cm²/m

8. RESULTADOS DAS SAPATAS DA EDÍCULA:

Esforços e pressões

Nome	MB MH (kN.m)	FB FH (kN)	Carga Carga total (kN)	Pressão Sig1 (kgf/cm²)	Pressão Sig2 (kgf/cm²)	Pressão Sig3 (kgf/cm²)	Pressão Sig4 (kgf/cm²)
S1	0.85 0.80	0.99 1.41	24.23 36.53	0.48 (lim = 1.20)	0.76 (lim = 1.20)	1.02 (lim = 1.20)	0.74 (lim = 1.20)
S2	0.88 0.50	1.04 0.81	24.01 36.30	0.82 (lim = 1.20)	0.54 (lim = 1.20)	0.66 (lim = 1.20)	0.95 (lim = 1.20)
S3	1.13 0.64	1.14 0.99	50.34 67.44	0.85 (lim = 1.20)	1.05 (lim = 1.20)	1.15 (lim = 1.20)	0.95 (lim = 1.20)
S4	1.21 0.53	1.22 0.79	53.06 70.16	1.10 (lim = 1.20)	0.91 (lim = 1.20)	0.98 (lim = 1.20)	1.17 (lim = 1.20)
S5	0.91 1.11	1.01 2.17	28.24 40.54	0.87 (lim = 1.20)	1.17 (lim = 1.20)	0.79 (lim = 1.20)	0.50 (lim = 1.20)
S6	0.84 0.60	1.03 1.14	22.85 35.14	0.95 (lim = 1.20)	0.67 (lim = 1.20)	0.49 (lim = 1.20)	0.77 (lim = 1.20)

Estabilidade

Nome	Tombamento B		Tombamento H		Deslizamento		Arrancamento	
	Mrd Msd (kN.m)	Mrd / Msd	Mrd Msd (kN.m)	Mrd / Msd	Frd Fsd (kN)	Frd / Fsd	Nt (kN)	Ns (kN)
S1	13.70 0.85	16.08 (lim = 1.50)	11.05 0.80	13.75 (lim = 1.50)	13.37 1.61	8.29 lim = (1.50)		
S2	13.61 0.88	15.48 (lim = 1.50)	11.01 0.50	22.17 (lim = 1.50)	13.28 1.21	10.95 lim = (1.50)		
S3	27.31 1.13	24.14 (lim = 1.50)	24.00 0.64	37.47 (lim = 1.50)	22.21 1.35	16.49 lim = (1.50)		
S4	28.53 1.21	23.53 (lim = 1.50)	25.00 0.53	47.22 (lim = 1.50)	23.20 1.30	17.85 lim = (1.50)		
S5	15.20 0.91	16.79 (lim = 1.50)	12.31 1.11	11.14 (lim = 1.50)	12.77 2.10	6.09 lim = (1.50)		
S6	13.18 0.84	15.61 (lim = 1.50)	10.58 0.60	17.70 (lim = 1.50)	12.86 1.45	8.85 lim = (1.50)		

Verificação de tensão em área reduzida

Nome	Interface pilar-fundação		
	Força solicitante	Força resistente	Condição

	(kN)	(kN)	
S1	33.93	2812.50	OK
S2	33.61	2812.50	OK
S3	70.48	3600.00	OK
S4	74.28	3600.00	OK
S5	39.54	2812.50	OK
S6	31.98	2812.50	OK

Dimensionamento

Nome	Armaduras inferiores		Armaduras superiores	
	Dir. B	Dir. H	Dir. B	Dir. H
	Md (kN.m/m) As (cm²/m)	Md (kN.m/m) As (cm²/m)	Md (kN.m/m) A's (cm²/m)	Md (kN.m/m) A's (cm²/m)
S1	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S2	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S3	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S4	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S5	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S6	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00

9. RESULTADOS DOS PILARES DA EDÍCULA:

Resultados dos Pilares

Dados				Resultados					
Pilar	Seção (cm)	Nível Altura (cm)	le b vinc le h vinc (cm)	Nd máx Nd mín (kN)	MBd topo MBd base (kN.m)	MHd topo MHd base (kN.m)	As b Armaduras As h % armad total	Estribo Topo Base cota	Esb b Esb h
P1 1:20	15.00 X 25.00	25.00 150.00	150.00 RR 150.00 RR	33.93 16.37	1.84 1.12	0.89 1.19	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	34.60 20.76
P2 1:20	15.00 X 25.00	25.00 150.00	150.00 RR 150.00 RR	33.61 16.15	1.01 0.70	0.97 1.23	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	34.60 20.76
P3 1:20	16.00 X 30.00	25.00 150.00	150.00 RR 150.00 RR	70.48 41.12	1.18 0.90	0.81 1.58	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	32.44 17.30

P4 1:20	16.00 X 30.00	25.00 150.00	150.00 RR 150.00 RR	74.28 43.82	0.92 0.74	0.86 1.70	1.57 2 ø 10.0 1.57 2 ø 10.0 0.7 4 ø 10.0	ø 5.0 c/12	32.44 17.30
P5 1:20	15.00 X 25.00	25.00 150.00	150.00 RR 150.00 RR	39.54 20.31	3.01 1.55	0.86 1.27	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	34.60 20.76
P6 1:20	15.00 X 25.00	25.00 150.00	150.00 RR 150.00 RR	31.98 14.93	1.57 0.84	0.98 1.18	1.57 2 ø 10.0 1.57 2 ø 10.0 0.8 4 ø 10.0	ø 5.0 c/12	34.60 20.76

10. RESULTADOS DAS SAPATAS DA CASA DE GASES:

Esforços e pressões

Nome	MB MH (kN.m)	FB FH (kN)	Carga Carga total (kN)	Pressão Sig1 (kgf/cm²)	Pressão Sig2 (kgf/cm²)	Pressão Sig3 (kgf/cm²)	Pressão Sig4 (kgf/cm²)
S1	0.29 0.22	0.31 0.27	9.79 19.53	0.58 (lim = 1.20)	0.45 (lim = 1.20)	0.42 (lim = 1.20)	0.55 (lim = 1.20)
S2	0.29 0.22	0.31 0.27	10.66 20.40	0.47 (lim = 1.20)	0.60 (lim = 1.20)	0.58 (lim = 1.20)	0.44 (lim = 1.20)
S3	0.29 0.22	0.31 0.27	9.79 19.53	0.55 (lim = 1.20)	0.42 (lim = 1.20)	0.45 (lim = 1.20)	0.58 (lim = 1.20)
S4	0.29 0.22	0.31 0.27	10.66 20.40	0.44 (lim = 1.20)	0.58 (lim = 1.20)	0.60 (lim = 1.20)	0.47 (lim = 1.20)

Estabilidade

Nome	Tombamento B		Tombamento H		Deslizamento		Arrancamento	
	Mrd Msd (kN.m)	Mrd / Msd	Mrd Msd (kN.m)	Mrd / Msd	Frd Fsd (kN)	Frd / Fsd	Nt (kN)	Ns (kN)
S1	5.19 0.29	18.08 (lim = 1.50)	5.05 0.21	24.06 (lim = 1.50)	5.85 0.31	19.07 lim = (1.50)		
S2	5.48 0.28	19.73 (lim = 1.50)	5.31 0.21	25.03 (lim = 1.50)	6.17 0.31	20.13 lim = (1.50)		
S3	5.19 0.29	18.08 (lim = 1.50)	5.05 0.21	24.07 (lim = 1.50)	5.85 0.31	19.07 lim = (1.50)		
S4	5.48 0.28	19.73 (lim = 1.50)	5.31 0.21	25.03 (lim = 1.50)	6.17 0.31	20.13 lim = (1.50)		

Verificação de tensão em área reduzida

Nome	Interface pilar-fundação		
	Força solicitante (kN)	Força resistente (kN)	Condição

S1	13.70	2275.00	OK
S2	14.93	2275.00	OK
S3	13.70	2275.00	OK
S4	14.93	2275.00	OK

Dimensionamento

Nome	Armaduras inferiores		Armaduras superiores	
	Dir. B	Dir. H	Dir. B	Dir. H
	Md (kN.m/m) As (cm²/m)	Md (kN.m/m) As (cm²/m)	Md (kN.m/m) A's (cm²/m)	Md (kN.m/m) A's (cm²/m)
S1	35.77	35.77	0.00	0.00
	5.76	5.76	0.00	0.00
S2	35.77	35.77	0.00	0.00
	5.76	5.76	0.00	0.00
S3	35.77	35.77	0.00	0.00
	5.76	5.76	0.00	0.00
S4	35.77	35.77	0.00	0.00
	5.76	5.76	0.00	0.00

11. RESULTADOS DOS PILARES DA CASA DE GASES:

Resultados dos Pilares

Dados				Resultados					
Pilar	Seção (cm)	Nível Altura (cm)	leb vinc leh vinc (cm)	Nd máx Nd mín (kN)	MBd topo MBd base (kN.m)	MHd topo MHd base (kN.m)	As b Armaduras As h % armad total	Estribo Topo Base cota	Esb b Esb h
P1 1:20	14.00	25.00	150.00	13.70	0.26	0.26	1.57 2 ø 10.0	ø 5.0 c/12	37.07 20.76
	X	150.00	150.00	4.39	0.31	0.40	1.57 2 ø 10.0		
	25.00		RR				0.9 4 ø 10.0		
P2 1:20	14.00	25.00	150.00	14.93	0.25	0.26	1.57 2 ø 10.0	ø 5.0 c/12	37.07 20.76
	X	150.00	150.00	5.32	0.31	0.40	1.57 2 ø 10.0		
	25.00		RR				0.9 4 ø 10.0		
P3 1:20	14.00	25.00	150.00	13.70	0.26	0.26	1.57 2 ø 10.0	ø 5.0 c/12	37.07 20.76
	X	150.00	150.00	4.39	0.31	0.40	1.57 2 ø 10.0		
	25.00		RR				0.9 4 ø 10.0		
P4 1:20	14.00	25.00	150.00	14.93	0.25	0.26	1.57 2 ø 10.0	ø 5.0 c/12	37.07 20.76
	X	150.00	150.00	5.32	0.31	0.40	1.57 2 ø 10.0		
	25.00		RR				0.9 4 ø 10.0		

12. RESULTADOS DO RADIER DO RESERVATÓRIO:

Cálculos do Fundação do Reservatório

ARMADURAS (RADIER)					
Seção	Direção	Flexão Positiva		Flexão Negativa	
h = 60 cm	X	Md = 17,80 kN.m/m	As = 6,03 cm ¹ /m	Md = 0,70 kN.m/m	As = 6,03 cm ¹ /m
	Y	Md = 23,60 kN.m/m	As = 6,03 cm ¹ /m	Md = 0,70 kN.m/m	As = 6,03 cm ¹ /m

Pressão de contato mínima: 0,37 kgf/cm²

Pressão de contato máxima: 0,58 kgf/cm²