

CONSÓRCIO SAÚDE

CONCREMAT | MEP

MEMORIAL DE CÁLCULO DE QUANTITATIVO PROJETO EXECUTIVO DE FUNDAÇÃO

CER
TIPO 04

SETEMBRO/2026
VERSÃO R00

ASSUNTO:	MEMORIAL DESCRITIVO – PROJETO EXECUTIVO – ESTRUTURA	
OBRA:	CER - TIPO 04	
LOCAL:	LOTEAMENTO CIDADE NOVA, TERRENO 81A, RUA PRESIDENTE KENNEDY JEQUIÉ/BA	
CONTRATANTE:	SECRETARIA DE SAÚDE DO ESTADO DA BAHIA - SESAB	CNPJ: 13.937.131/0001-41
CONTRATADA:	CONSÓRCIO SAÚDE CONCREMAT-MEP	CNPJ: 60.255.454/0001-35
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TEXTO: CONSÓRCIO SAÚDE CONCREMAT-MEP		

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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, Loteamento Cidade Nova, Terreno 81a, Rua Presidente Kennedy, no município de Jequié/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:

Relatório de Cálculos das Sapatas

Esforços e pressões

Nome	MB MH (kN.m)	FB FH (kN)	Carga Carga total (kN)	Pressão Sig1 (kN/m²)	Pressão Sig2 (kN/m²)	Pressão Sig3 (kN/m²)	Pressão Sig4 (kN/m²)
S1	2.07 2.91	3.22 4.09	94.30 106.03	284.16 (lim = 300.00)	242.78 (lim = 300.00)	141.04 (lim = 300.00)	182.42 (lim = 300.00)
S2	0.61 2.23	0.31 3.41	121.61 134.63	277.75 (lim = 300.00)	299.34 (lim = 300.00)	240.07 (lim = 300.00)	218.48 (lim = 300.00)
S3	0.57 2.04	0.49 3.13	113.31 125.46	276.91 (lim = 300.00)	298.37 (lim = 300.00)	237.81 (lim = 300.00)	216.36 (lim = 300.00)
S4	3.03 3.18	5.10 4.10	162.81 180.67	297.79 (lim = 300.00)	259.44 (lim = 300.00)	202.33 (lim = 300.00)	240.68 (lim = 300.00)
S5	2.35 2.80	3.96 1.93	195.74 217.15	257.66 (lim = 300.00)	286.58 (lim = 300.00)	250.29 (lim = 300.00)	221.38 (lim = 300.00)
S6	1.28 2.97	1.39 3.99	122.38 136.07	297.69 (lim = 300.00)	262.88 (lim = 300.00)	186.13 (lim = 300.00)	220.94 (lim = 300.00)
S7	1.61 3.00	2.50 5.42	86.17 96.96	253.47 (lim = 300.00)	285.12 (lim = 300.00)	163.27 (lim = 300.00)	131.62 (lim = 300.00)
S8	0.97 2.78	1.76 4.68	132.72 147.74	290.05 (lim = 300.00)	268.65 (lim = 300.00)	206.56 (lim = 300.00)	227.96 (lim = 300.00)
S9	3.07 2.80	5.62 4.05	153.57 171.44	241.76 (lim = 300.00)	283.66 (lim = 300.00)	228.89 (lim = 300.00)	186.99 (lim = 300.00)
S10	4.15 4.37	6.65 6.45	142.25 160.11	290.86 (lim = 300.00)	234.89 (lim = 300.00)	149.46 (lim = 300.00)	205.43 (lim = 300.00)
S11	4.23 2.54	8.18 3.64	103.88 117.58	194.97 (lim = 300.00)	293.87 (lim = 300.00)	221.84 (lim = 300.00)	122.94 (lim = 300.00)
S12	1.35 0.53	2.23 0.69	105.26 116.41	268.45 (lim = 300.00)	225.54 (lim = 300.00)	248.93 (lim = 300.00)	291.84 (lim = 300.00)
S13	0.84 1.68	0.36 2.29	167.96 187.38	224.31 (lim = 300.00)	240.89 (lim = 300.00)	268.80 (lim = 300.00)	252.23 (lim = 300.00)
S14	0.69 1.38	0.29 2.31	137.61 151.70	263.00 (lim = 300.00)	241.94 (lim = 300.00)	278.80 (lim = 300.00)	299.86 (lim = 300.00)
S15	0.97 1.94	0.31 1.84	194.17 216.00	232.35 (lim = 300.00)	248.47 (lim = 300.00)	275.89 (lim = 300.00)	259.76 (lim = 300.00)
S16	0.79 1.59	0.96 2.18	158.51 175.67	235.20 (lim = 300.00)	253.98 (lim = 300.00)	285.29 (lim = 300.00)	266.51 (lim = 300.00)
S17	0.83 1.25	1.09 2.20	58.41 67.96	133.10 (lim = 300.00)	160.75 (lim = 300.00)	215.40 (lim = 300.00)	187.75 (lim = 300.00)
S18	0.87 2.15	1.59 3.90	173.49 192.91	246.91 (lim = 300.00)	229.79 (lim = 300.00)	260.75 (lim = 300.00)	277.87 (lim = 300.00)
S19	3.41 2.33	5.72 3.51	156.87 174.73	191.98 (lim = 300.00)	238.77 (lim = 300.00)	284.23 (lim = 300.00)	237.45 (lim = 300.00)
S20	3.08 2.14	5.23 4.08	176.65 195.65	257.35 (lim = 300.00)	216.29 (lim = 300.00)	248.49 (lim = 300.00)	289.55 (lim = 300.00)
S21	3.87 1.46	6.59 1.90	133.87 149.52	171.20 (lim = 300.00)	258.87 (lim = 300.00)	289.78 (lim = 300.00)	202.10 (lim = 300.00)

S22	6.36 2.95	11.87 4.07	164.42 184.63	291.73 (lim = 300.00)	204.67 (lim = 300.00)	164.15 (lim = 300.00)	251.20 (lim = 300.00)
S23	5.00 2.08	9.11 2.49	201.53 224.21	230.66 (lim = 300.00)	290.88 (lim = 300.00)	262.88 (lim = 300.00)	202.66 (lim = 300.00)
S24	0.61 1.72	0.54 2.66	121.31 134.33	288.74 (lim = 300.00)	267.20 (lim = 300.00)	227.93 (lim = 300.00)	249.47 (lim = 300.00)
S25	1.85 2.29	2.34 2.90	171.99 189.85	296.38 (lim = 300.00)	262.77 (lim = 300.00)	229.17 (lim = 300.00)	262.77 (lim = 300.00)
S26	2.66 5.49	2.46 7.65	266.26 295.41	295.26 (lim = 300.00)	270.11 (lim = 300.00)	216.28 (lim = 300.00)	241.43 (lim = 300.00)
S27	3.15 2.45	5.62 3.08	122.09 136.80	228.23 (lim = 300.00)	282.43 (lim = 300.00)	227.76 (lim = 300.00)	173.57 (lim = 300.00)
S28	1.45 2.55	1.41 3.66	142.22 157.87	254.90 (lim = 300.00)	288.23 (lim = 300.00)	238.45 (lim = 300.00)	205.12 (lim = 300.00)
S29	1.53 2.49	2.40 3.60	136.30 151.02	296.10 (lim = 300.00)	262.76 (lim = 300.00)	197.56 (lim = 300.00)	230.91 (lim = 300.00)
S30	4.11 2.64	7.58 3.70	192.82 215.50	272.11 (lim = 300.00)	227.46 (lim = 300.00)	200.77 (lim = 300.00)	245.42 (lim = 300.00)
S31	6.95 1.97	12.31 2.41	153.18 172.18	182.65 (lim = 300.00)	295.76 (lim = 300.00)	267.49 (lim = 300.00)	154.39 (lim = 300.00)
S32	5.99 3.18	11.27 5.24	119.74 136.47	216.50 (lim = 300.00)	110.06 (lim = 300.00)	178.95 (lim = 300.00)	285.39 (lim = 300.00)
S33	5.04 1.76	9.08 2.32	175.93 196.13	187.66 (lim = 300.00)	263.82 (lim = 300.00)	292.50 (lim = 300.00)	216.35 (lim = 300.00)
S34	0.55 1.49	0.50 2.48	109.38 122.40	228.23 (lim = 300.00)	208.81 (lim = 300.00)	242.53 (lim = 300.00)	261.94 (lim = 300.00)
S35	1.73 1.93	2.23 2.74	145.64 161.29	252.02 (lim = 300.00)	217.89 (lim = 300.00)	252.02 (lim = 300.00)	286.15 (lim = 300.00)
S36	1.65 1.73	2.02 3.98	147.83 163.48	255.43 (lim = 300.00)	220.79 (lim = 300.00)	255.43 (lim = 300.00)	290.08 (lim = 300.00)
S37	2.79 2.35	4.80 2.88	155.31 172.03	244.19 (lim = 300.00)	296.05 (lim = 300.00)	261.79 (lim = 300.00)	209.93 (lim = 300.00)
S38	4.73 1.91	8.36 2.10	190.81 212.22	295.34 (lim = 300.00)	230.83 (lim = 300.00)	201.07 (lim = 300.00)	265.59 (lim = 300.00)
S39	3.52 2.21	6.08 3.14	152.77 169.50	196.62 (lim = 300.00)	262.73 (lim = 300.00)	295.99 (lim = 300.00)	229.88 (lim = 300.00)
S40	6.58 2.36	11.82 3.62	174.00 195.41	247.38 (lim = 300.00)	168.75 (lim = 300.00)	205.50 (lim = 300.00)	284.13 (lim = 300.00)
S41	8.08 2.17	16.01 3.32	121.93 139.79	101.44 (lim = 300.00)	240.95 (lim = 300.00)	283.42 (lim = 300.00)	143.92 (lim = 300.00)
S42	4.25 4.96	3.97 3.74	104.90 120.34	283.74 (lim = 300.00)	208.47 (lim = 300.00)	92.33 (lim = 300.00)	167.60 (lim = 300.00)
S43	1.93 7.86	1.03 0.94	105.95 120.56	263.53 (lim = 300.00)	296.54 (lim = 300.00)	112.21 (lim = 300.00)	79.20 (lim = 300.00)
S44	4.82 5.23	5.05 4.69	103.88 119.32	209.07 (lim = 300.00)	286.38 (lim = 300.00)	163.79 (lim = 300.00)	86.48 (lim = 300.00)
S45	4.14 3.80	4.92 3.41	118.62 134.28	299.81 (lim = 300.00)	207.52 (lim = 300.00)	118.52 (lim = 300.00)	210.81 (lim = 300.00)
S46	0.78 2.98	1.08 3.84	132.35 147.37	271.43 (lim = 300.00)	290.50 (lim = 300.00)	223.93 (lim = 300.00)	204.87 (lim = 300.00)
S47	1.51 3.08	2.30 4.26	94.12 105.86	284.45 (lim = 300.00)	251.68 (lim = 300.00)	145.76 (lim = 300.00)	178.53 (lim = 300.00)

S48	0.50 1.98	0.48 3.13	99.78 110.93	268.13 (lim = 300.00)	290.10 (lim = 300.00)	220.76 (lim = 300.00)	198.80 (lim = 300.00)
S49	1.33 3.12	1.88 4.03	125.86 140.57	290.05 (lim = 300.00)	258.81 (lim = 300.00)	175.53 (lim = 300.00)	206.77 (lim = 300.00)
S50	0.48 2.75	0.78 4.47	95.99 107.14	274.51 (lim = 300.00)	295.68 (lim = 300.00)	198.54 (lim = 300.00)	177.37 (lim = 300.00)
S51	1.42 5.47	1.60 8.65	100.99 114.69	266.36 (lim = 300.00)	294.92 (lim = 300.00)	139.43 (lim = 300.00)	110.86 (lim = 300.00)
S52	0.84 1.71	1.24 3.20	79.50 89.85	269.28 (lim = 300.00)	237.08 (lim = 300.00)	155.65 (lim = 300.00)	187.85 (lim = 300.00)
S53	1.55 4.33	1.89 6.83	110.40 124.10	265.05 (lim = 300.00)	296.30 (lim = 300.00)	174.32 (lim = 300.00)	143.07 (lim = 300.00)
S54	0.56 4.27	0.37 7.83	112.72 127.74	270.84 (lim = 300.00)	254.80 (lim = 300.00)	153.98 (lim = 300.00)	170.02 (lim = 300.00)
S55	1.66 3.28	1.58 4.72	165.66 183.52	264.75 (lim = 300.00)	297.00 (lim = 300.00)	241.59 (lim = 300.00)	209.33 (lim = 300.00)
S56	2.62 1.80	4.31 1.91	178.52 197.52	294.91 (lim = 300.00)	254.43 (lim = 300.00)	221.49 (lim = 300.00)	261.97 (lim = 300.00)
S57	0.61 2.00	0.96 3.25	122.80 135.82	274.29 (lim = 300.00)	296.09 (lim = 300.00)	248.08 (lim = 300.00)	226.29 (lim = 300.00)
S58	0.54 2.06	0.66 3.36	108.27 121.29	267.55 (lim = 300.00)	248.33 (lim = 300.00)	198.96 (lim = 300.00)	218.18 (lim = 300.00)
S59	0.67 1.90	0.36 3.03	133.94 148.96	259.00 (lim = 300.00)	278.29 (lim = 300.00)	241.72 (lim = 300.00)	222.42 (lim = 300.00)
S60	0.66 1.91	0.35 3.07	131.07 146.09	254.66 (lim = 300.00)	273.54 (lim = 300.00)	236.40 (lim = 300.00)	217.52 (lim = 300.00)
S61	2.51 3.00	3.79 4.42	92.59 104.33	232.92 (lim = 300.00)	286.90 (lim = 300.00)	185.47 (lim = 300.00)	131.48 (lim = 300.00)
S62	7.28 2.14	5.88 1.19	102.51 117.95	235.61 (lim = 300.00)	82.39 (lim = 300.00)	132.53 (lim = 300.00)	285.76 (lim = 300.00)
S63	2.23 0.92	1.84 0.40	33.34 41.62	192.67 (lim = 300.00)	69.00 (lim = 300.00)	38.47 (lim = 300.00)	162.15 (lim = 300.00)
S64	4.72 1.86	6.49 1.22	99.45 112.72	114.42 (lim = 300.00)	248.66 (lim = 300.00)	286.38 (lim = 300.00)	152.13 (lim = 300.00)
S65	3.73 2.76	4.22 2.74	160.71 179.71	234.12 (lim = 300.00)	173.79 (lim = 300.00)	224.26 (lim = 300.00)	284.59 (lim = 300.00)
S66	2.55 1.23	3.59 1.72	158.38 175.54	226.76 (lim = 300.00)	267.34 (lim = 300.00)	293.28 (lim = 300.00)	252.70 (lim = 300.00)
S67	1.74 2.43	2.28 3.67	93.34 104.13	194.89 (lim = 300.00)	160.54 (lim = 300.00)	253.26 (lim = 300.00)	287.61 (lim = 300.00)
S68	0.57 1.59	0.34 2.68	114.88 127.90	237.72 (lim = 300.00)	217.32 (lim = 300.00)	254.19 (lim = 300.00)	274.59 (lim = 300.00)
S69	1.80 1.76	2.45 2.69	143.93 159.58	248.70 (lim = 300.00)	212.17 (lim = 300.00)	245.58 (lim = 300.00)	282.10 (lim = 300.00)
S70	0.57 2.22	0.84 4.15	114.42 127.44	207.27 (lim = 300.00)	227.58 (lim = 300.00)	282.88 (lim = 300.00)	262.57 (lim = 300.00)
S71	1.56 4.18	1.98 7.88	108.51 122.21	169.40 (lim = 300.00)	139.31 (lim = 300.00)	255.41 (lim = 300.00)	285.50 (lim = 300.00)
S72	0.81 1.58	1.01 3.04	81.26 91.61	199.14 (lim = 300.00)	165.97 (lim = 300.00)	237.10 (lim = 300.00)	270.26 (lim = 300.00)
S73	1.41 3.69	1.69 6.49	110.99 124.69	180.86 (lim = 300.00)	150.09 (lim = 300.00)	252.47 (lim = 300.00)	283.24 (lim = 300.00)

S74	0.56 4.07	0.39 7.60	112.58 127.60	177.16 (lim = 300.00)	160.95 (lim = 300.00)	251.76 (lim = 300.00)	267.98 (lim = 300.00)
S75	1.57 3.34	2.14 6.01	117.66 131.35	175.07 (lim = 300.00)	208.54 (lim = 300.00)	291.96 (lim = 300.00)	258.50 (lim = 300.00)
S76	2.42 2.33	4.40 3.61	135.68 150.39	256.99 (lim = 300.00)	206.25 (lim = 300.00)	242.27 (lim = 300.00)	293.01 (lim = 300.00)
S77	0.68 1.70	1.04 2.91	135.74 150.76	227.50 (lim = 300.00)	247.05 (lim = 300.00)	279.26 (lim = 300.00)	259.71 (lim = 300.00)
S78	0.62 1.72	0.53 2.96	123.20 136.22	253.81 (lim = 300.00)	231.94 (lim = 300.00)	270.12 (lim = 300.00)	291.99 (lim = 300.00)
S79	0.78 1.56	0.45 2.62	155.50 172.66	231.22 (lim = 300.00)	249.65 (lim = 300.00)	280.37 (lim = 300.00)	261.94 (lim = 300.00)
S80	0.77 1.60	0.52 2.70	153.22 170.38	246.21 (lim = 300.00)	228.06 (lim = 300.00)	258.31 (lim = 300.00)	276.45 (lim = 300.00)
S81	2.65 1.93	3.63 2.90	119.92 133.62	186.26 (lim = 300.00)	254.72 (lim = 300.00)	288.83 (lim = 300.00)	220.37 (lim = 300.00)
S82	7.28 2.14	5.88 1.19	102.51 117.95	285.76 (lim = 300.00)	132.53 (lim = 300.00)	82.39 (lim = 300.00)	235.61 (lim = 300.00)
S83	2.23 0.92	1.84 0.40	33.34 41.62	162.15 (lim = 300.00)	38.47 (lim = 300.00)	69.00 (lim = 300.00)	192.67 (lim = 300.00)
S86	1.99 1.92	2.12 2.13	181.48 200.91	295.50 (lim = 300.00)	265.34 (lim = 300.00)	233.22 (lim = 300.00)	263.38 (lim = 300.00)
S87	2.68 5.25	5.40 9.27	265.05 295.67	252.42 (lim = 300.00)	276.32 (lim = 300.00)	236.29 (lim = 300.00)	212.39 (lim = 300.00)
S88	0.87 5.09	1.45 9.50	118.00 133.02	288.35 (lim = 300.00)	270.31 (lim = 300.00)	158.78 (lim = 300.00)	176.82 (lim = 300.00)
S89	3.41 5.90	6.74 1.19	248.98 276.75	266.32 (lim = 300.00)	292.06 (lim = 300.00)	234.51 (lim = 300.00)	208.77 (lim = 300.00)
S90	3.04 4.04	4.41 6.48	236.72 261.77	295.75 (lim = 300.00)	267.39 (lim = 300.00)	227.10 (lim = 300.00)	255.46 (lim = 300.00)
S91	1.56 5.89	1.43 2.14	149.73 168.73	284.06 (lim = 300.00)	257.97 (lim = 300.00)	156.89 (lim = 300.00)	182.97 (lim = 300.00)
S92	2.35 5.86	2.95 2.13	185.14 206.55	297.74 (lim = 300.00)	270.39 (lim = 300.00)	185.42 (lim = 300.00)	212.77 (lim = 300.00)
S93	1.80 4.95	1.80 8.52	180.20 200.41	267.28 (lim = 300.00)	296.87 (lim = 300.00)	226.40 (lim = 300.00)	196.81 (lim = 300.00)
S94	1.78 4.83	1.91 8.23	178.11 198.32	263.73 (lim = 300.00)	293.03 (lim = 300.00)	225.73 (lim = 300.00)	196.43 (lim = 300.00)
S95	4.83 2.10	8.91 2.26	209.61 233.56	285.29 (lim = 300.00)	231.28 (lim = 300.00)	203.59 (lim = 300.00)	257.60 (lim = 300.00)
S96	2.80 2.34	4.26 1.67	234.37 259.42	256.27 (lim = 300.00)	287.45 (lim = 300.00)	259.51 (lim = 300.00)	228.33 (lim = 300.00)
S97	3.49 4.11	5.83 6.55	178.56 198.77	251.20 (lim = 300.00)	292.37 (lim = 300.00)	235.17 (lim = 300.00)	194.00 (lim = 300.00)
S98	0.86 1.72	0.08 1.55	172.23 191.83	228.97 (lim = 300.00)	245.92 (lim = 300.00)	274.45 (lim = 300.00)	257.51 (lim = 300.00)
S99	0.85 1.70	0.06 1.55	169.86 189.46	242.79 (lim = 300.00)	226.08 (lim = 300.00)	254.22 (lim = 300.00)	270.92 (lim = 300.00)
S100	4.25 4.96	3.97 3.74	104.90 120.34	167.60 (lim = 300.00)	92.33 (lim = 300.00)	208.47 (lim = 300.00)	283.74 (lim = 300.00)
S101	1.93 7.86	1.03 0.94	105.95 120.56	79.20 (lim = 300.00)	112.21 (lim = 300.00)	296.54 (lim = 300.00)	263.53 (lim = 300.00)

S104	1.77 1.75	1.93 2.02	138.56 153.58	250.25 (lim = 300.00)	215.33 (lim = 300.00)	262.94 (lim = 300.00)	297.87 (lim = 300.00)
S105	3.36 6.00	6.13 9.98	170.18 190.39	166.18 (lim = 300.00)	200.76 (lim = 300.00)	297.69 (lim = 300.00)	263.10 (lim = 300.00)
S106	0.73 5.02	1.23 9.34	100.45 113.47	154.47 (lim = 300.00)	136.77 (lim = 300.00)	279.15 (lim = 300.00)	296.85 (lim = 300.00)
S107	2.29 2.29	1.14 3.54	229.17 253.13	296.16 (lim = 300.00)	267.21 (lim = 300.00)	236.74 (lim = 300.00)	265.69 (lim = 300.00)
S108	2.66 2.93	4.12 3.93	265.69 293.46	237.95 (lim = 300.00)	265.41 (lim = 300.00)	292.86 (lim = 300.00)	265.41 (lim = 300.00)
S109	1.96 4.51	1.79 8.51	196.09 218.77	259.27 (lim = 300.00)	286.68 (lim = 300.00)	224.91 (lim = 300.00)	197.51 (lim = 300.00)
S110	2.22 4.46	3.06 8.32	206.67 229.35	298.82 (lim = 300.00)	269.93 (lim = 300.00)	208.96 (lim = 300.00)	237.85 (lim = 300.00)
S111	2.18 3.39	3.56 5.06	204.43 225.84	227.60 (lim = 300.00)	257.56 (lim = 300.00)	296.75 (lim = 300.00)	266.80 (lim = 300.00)
S112	3.52 2.92	6.25 4.55	212.95 235.64	267.59 (lim = 300.00)	223.66 (lim = 300.00)	253.39 (lim = 300.00)	297.32 (lim = 300.00)
S113	2.20 1.90	3.41 2.12	189.70 209.91	259.15 (lim = 300.00)	227.92 (lim = 300.00)	259.15 (lim = 300.00)	290.37 (lim = 300.00)
S114	2.08 1.87	3.16 1.98	187.04 207.25	225.07 (lim = 300.00)	255.86 (lim = 300.00)	286.65 (lim = 300.00)	255.86 (lim = 300.00)
S115	3.99 4.34	7.22 7.95	137.07 154.93	145.37 (lim = 300.00)	218.19 (lim = 300.00)	283.09 (lim = 300.00)	210.27 (lim = 300.00)
S116	1.51 1.48	2.23 1.99	140.91 156.27	244.18 (lim = 300.00)	211.15 (lim = 300.00)	244.18 (lim = 300.00)	277.20 (lim = 300.00)
S117	0.38 0.78	0.45 1.28	6.96 15.77	66.81 (lim = 300.00)	64.28 (lim = 300.00)	20.78 (lim = 300.00)	23.30 (lim = 300.00)
S118	0.34 1.42	0.35 2.60	10.54 19.35	91.10 (lim = 300.00)	93.77 (lim = 300.00)	15.13 (lim = 300.00)	12.46 (lim = 300.00)
S119	0.38 0.78	0.45 1.28	6.96 15.77	64.28 (lim = 300.00)	66.81 (lim = 300.00)	23.30 (lim = 300.00)	20.78 (lim = 300.00)
S120	0.38 0.78	0.45 1.28	6.96 15.77	66.81 (lim = 300.00)	64.28 (lim = 300.00)	20.78 (lim = 300.00)	23.30 (lim = 300.00)
S121	0.34 1.42	0.35 2.60	10.54 19.35	91.10 (lim = 300.00)	93.77 (lim = 300.00)	15.13 (lim = 300.00)	12.46 (lim = 300.00)
S122	0.38 0.78	0.45 1.28	6.96 15.77	64.28 (lim = 300.00)	66.81 (lim = 300.00)	23.30 (lim = 300.00)	20.78 (lim = 300.00)
S123	2.64 3.11	1.92 4.66	263.54 291.30	290.94 (lim = 300.00)	263.68 (lim = 300.00)	236.42 (lim = 300.00)	263.68 (lim = 300.00)
S130	2.27 3.62	2.20 5.54	227.35 251.30	296.88 (lim = 300.00)	268.33 (lim = 300.00)	229.48 (lim = 300.00)	258.04 (lim = 300.00)
S131	2.76 3.81	4.80 5.72	230.31 254.26	298.89 (lim = 300.00)	270.02 (lim = 300.00)	232.70 (lim = 300.00)	261.57 (lim = 300.00)
S132	2.20 6.39	3.15 9.02	203.04 227.00	263.28 (lim = 300.00)	288.93 (lim = 300.00)	214.61 (lim = 300.00)	188.96 (lim = 300.00)
S133	1.92 6.39	1.88 8.95	192.22 214.90	290.91 (lim = 300.00)	264.00 (lim = 300.00)	185.33 (lim = 300.00)	212.23 (lim = 300.00)
S134	1.96 6.78	1.32 9.62	196.18 218.86	271.56 (lim = 300.00)	299.02 (lim = 300.00)	213.45 (lim = 300.00)	185.99 (lim = 300.00)
S135	2.72 5.66	4.48 9.74	125.48 142.20	247.09 (lim = 300.00)	285.72 (lim = 300.00)	171.09 (lim = 300.00)	132.46 (lim = 300.00)

S142	0.38 0.78	0.45 1.28	6.96 15.76	23.31 (lim = 300.00)	20.78 (lim = 300.00)	64.28 (lim = 300.00)	66.80 (lim = 300.00)
S143	0.34 1.42	0.35 2.60	10.54 19.35	15.13 (lim = 300.00)	12.46 (lim = 300.00)	91.10 (lim = 300.00)	93.77 (lim = 300.00)
S144	0.38 0.78	0.45 1.28	6.96 15.76	20.78 (lim = 300.00)	23.31 (lim = 300.00)	66.80 (lim = 300.00)	64.27 (lim = 300.00)
S145	0.38 0.78	0.45 1.28	6.96 15.76	23.31 (lim = 300.00)	20.78 (lim = 300.00)	64.27 (lim = 300.00)	66.80 (lim = 300.00)
S146	0.34 1.42	0.35 2.60	10.54 19.35	12.46 (lim = 300.00)	15.13 (lim = 300.00)	93.77 (lim = 300.00)	91.10 (lim = 300.00)
S147	0.38 0.78	0.45 1.28	6.96 15.76	20.78 (lim = 300.00)	23.31 (lim = 300.00)	66.80 (lim = 300.00)	64.27 (lim = 300.00)
S150	1.68 1.59	2.59 1.14	159.06 176.62	244.00 (lim = 300.00)	212.99 (lim = 300.00)	244.00 (lim = 300.00)	275.02 (lim = 300.00)
S153	1.60 2.41	1.36 1.48	73.28 83.19	277.12 (lim = 300.00)	221.83 (lim = 300.00)	116.68 (lim = 300.00)	171.98 (lim = 300.00)
S154	1.13 2.65	0.41 1.67	112.79 125.47	265.06 (lim = 300.00)	299.44 (lim = 300.00)	212.94 (lim = 300.00)	178.56 (lim = 300.00)
S155	1.76 2.13	1.76 1.62	121.44 135.14	288.02 (lim = 300.00)	253.11 (lim = 300.00)	192.48 (lim = 300.00)	227.39 (lim = 300.00)
S156	2.56 2.77	3.19 2.64	117.43 131.13	249.13 (lim = 300.00)	295.80 (lim = 300.00)	217.10 (lim = 300.00)	170.43 (lim = 300.00)
S157	4.30 1.93	7.37 2.23	123.19 137.90	292.53 (lim = 300.00)	218.63 (lim = 300.00)	167.15 (lim = 300.00)	241.05 (lim = 300.00)
S158	5.13 1.55	9.14 1.69	95.61 108.29	131.08 (lim = 300.00)	287.32 (lim = 300.00)	258.11 (lim = 300.00)	101.86 (lim = 300.00)
S159	5.18 1.40	9.17 1.43	128.73 144.38	292.31 (lim = 300.00)	171.34 (lim = 300.00)	142.41 (lim = 300.00)	263.38 (lim = 300.00)
S160	3.37 6.73	5.64 11.50	235.89 263.65	194.16 (lim = 300.00)	218.61 (lim = 300.00)	284.11 (lim = 300.00)	259.66 (lim = 300.00)
S164	1.65 2.58	2.23 3.96	162.09 179.95	208.40 (lim = 300.00)	239.84 (lim = 300.00)	286.52 (lim = 300.00)	255.07 (lim = 300.00)
S165	2.18 3.21	3.07 5.20	168.61 187.61	230.33 (lim = 300.00)	201.17 (lim = 300.00)	256.81 (lim = 300.00)	285.97 (lim = 300.00)
S169	3.06 6.36	5.10 11.01	160.14 180.35	156.24 (lim = 300.00)	189.67 (lim = 300.00)	287.66 (lim = 300.00)	254.23 (lim = 300.00)
S170	2.71 4.90	4.83 9.00	186.63 208.04	224.03 (lim = 300.00)	196.50 (lim = 300.00)	261.97 (lim = 300.00)	289.50 (lim = 300.00)
S171	2.35 3.12	2.91 6.85	235.18 260.23	231.69 (lim = 300.00)	259.87 (lim = 300.00)	288.04 (lim = 300.00)	259.87 (lim = 300.00)
S172	2.26 2.94	1.52 6.57	225.76 249.72	233.21 (lim = 300.00)	261.68 (lim = 300.00)	291.64 (lim = 300.00)	263.18 (lim = 300.00)
S173	2.53 3.06	1.70 7.02	252.54 278.91	236.92 (lim = 300.00)	264.34 (lim = 300.00)	293.13 (lim = 300.00)	265.71 (lim = 300.00)
S174	2.32 4.39	3.66 8.07	158.51 176.37	188.40 (lim = 300.00)	218.91 (lim = 300.00)	293.19 (lim = 300.00)	262.69 (lim = 300.00)
S175	1.60 3.98	0.28 3.04	125.37 140.09	290.63 (lim = 300.00)	260.90 (lim = 300.00)	154.72 (lim = 300.00)	184.44 (lim = 300.00)
S176	1.55 3.15	0.85 2.15	150.88 167.60	253.93 (lim = 300.00)	284.35 (lim = 300.00)	226.21 (lim = 300.00)	195.79 (lim = 300.00)
S177	2.87 3.39	1.58 3.03	209.50 232.18	288.86 (lim = 300.00)	250.57 (lim = 300.00)	221.52 (lim = 300.00)	259.80 (lim = 300.00)

S178	2.35 4.27	0.38 4.77	203.70 225.11	269.71 (lim = 300.00)	299.19 (lim = 300.00)	247.17 (lim = 300.00)	217.69 (lim = 300.00)
S179	3.82 3.82	2.51 5.72	231.68 256.73	290.23 (lim = 300.00)	246.47 (lim = 300.00)	218.93 (lim = 300.00)	262.68 (lim = 300.00)
S180	2.10 3.63	1.18 5.98	209.57 232.25	286.30 (lim = 300.00)	257.01 (lim = 300.00)	227.72 (lim = 300.00)	257.01 (lim = 300.00)
S181	6.55 3.77	12.76 6.04	244.40 272.17	288.12 (lim = 300.00)	225.32 (lim = 300.00)	200.29 (lim = 300.00)	263.09 (lim = 300.00)
S182	6.30 8.08	11.92 14.25	239.05 268.21	241.24 (lim = 300.00)	291.68 (lim = 300.00)	223.19 (lim = 300.00)	172.75 (lim = 300.00)
S183	1.22 2.36	1.48 1.04	99.97 111.71	245.32 (lim = 300.00)	279.10 (lim = 300.00)	196.68 (lim = 300.00)	162.90 (lim = 300.00)
S184	1.66 2.86	1.84 4.41	165.68 183.54	245.76 (lim = 300.00)	213.38 (lim = 300.00)	262.33 (lim = 300.00)	294.70 (lim = 300.00)
S185	1.69 4.31	1.68 7.35	169.12 188.12	264.89 (lim = 300.00)	294.24 (lim = 300.00)	225.04 (lim = 300.00)	195.69 (lim = 300.00)
S186	2.12 2.12	2.73 6.50	212.20 234.88	289.05 (lim = 300.00)	259.45 (lim = 300.00)	229.86 (lim = 300.00)	259.45 (lim = 300.00)
S187	2.32 3.09	1.03 5.40	231.56 255.51	269.22 (lim = 300.00)	298.41 (lim = 300.00)	267.69 (lim = 300.00)	238.50 (lim = 300.00)
S188	2.26 2.90	1.38 5.07	226.01 251.06	250.59 (lim = 300.00)	277.65 (lim = 300.00)	250.59 (lim = 300.00)	223.52 (lim = 300.00)
S189	0.62 1.25	0.56 1.45	124.57 137.59	292.98 (lim = 300.00)	270.92 (lim = 300.00)	235.07 (lim = 300.00)	257.13 (lim = 300.00)
S190	2.70 7.39	4.70 12.96	171.16 192.57	261.18 (lim = 300.00)	289.84 (lim = 300.00)	184.37 (lim = 300.00)	155.71 (lim = 300.00)
S191	1.16 0.70	2.91 0.60	139.56 154.73	236.20 (lim = 300.00)	263.79 (lim = 300.00)	283.89 (lim = 300.00)	256.30 (lim = 300.00)
S192	1.62 0.81	5.72 0.44	162.37 179.52	272.38 (lim = 300.00)	240.30 (lim = 300.00)	259.55 (lim = 300.00)	291.62 (lim = 300.00)
S193	1.75 0.56	1.41 0.42	84.69 95.04	269.81 (lim = 300.00)	202.90 (lim = 300.00)	182.74 (lim = 300.00)	249.65 (lim = 300.00)
S194	1.18 0.59	0.84 0.28	118.47 131.49	246.30 (lim = 300.00)	280.47 (lim = 300.00)	259.44 (lim = 300.00)	225.27 (lim = 300.00)
S195	0.58 0.18	1.00 0.09	9.11 18.00	36.31 (lim = 300.00)	67.63 (lim = 300.00)	63.27 (lim = 300.00)	31.95 (lim = 300.00)
S196	1.38 2.24	2.84 2.14	224.28 247.45	268.32 (lim = 300.00)	250.78 (lim = 300.00)	280.63 (lim = 300.00)	298.17 (lim = 300.00)
S197	1.99 2.87	1.58 2.41	137.99 153.64	215.27 (lim = 300.00)	178.34 (lim = 300.00)	244.87 (lim = 300.00)	281.80 (lim = 300.00)
S198	1.25 2.17	0.74 1.22	125.40 139.09	290.97 (lim = 300.00)	255.38 (lim = 300.00)	202.57 (lim = 300.00)	238.16 (lim = 300.00)
S199	2.51 3.27	1.95 3.16	251.38 277.76	262.64 (lim = 300.00)	235.28 (lim = 300.00)	266.43 (lim = 300.00)	293.79 (lim = 300.00)
S200	2.58 3.29	1.71 4.46	258.22 285.98	231.68 (lim = 300.00)	258.45 (lim = 300.00)	287.08 (lim = 300.00)	260.31 (lim = 300.00)
S201	6.04 3.33	9.25 5.57	274.21 304.82	263.28 (lim = 300.00)	214.80 (lim = 300.00)	239.47 (lim = 300.00)	287.94 (lim = 300.00)
S202	5.19 4.73	10.25 8.06	211.06 235.02	194.85 (lim = 300.00)	251.28 (lim = 300.00)	298.95 (lim = 300.00)	242.52 (lim = 300.00)
S203	1.63 1.63	2.60 2.02	162.53 179.26	262.26 (lim = 300.00)	228.56 (lim = 300.00)	264.37 (lim = 300.00)	298.07 (lim = 300.00)

S204	7.13 7.37	11.95 13.76	200.15 226.53	221.85 (lim = 300.00)	145.45 (lim = 300.00)	209.63 (lim = 300.00)	286.03 (lim = 300.00)
S205	4.89 2.56	10.42 1.38	256.00 283.77	220.85 (lim = 300.00)	267.38 (lim = 300.00)	293.92 (lim = 300.00)	247.39 (lim = 300.00)
S206	4.54 3.85	10.28 6.22	309.40 342.99	264.41 (lim = 300.00)	229.89 (lim = 300.00)	254.30 (lim = 300.00)	288.82 (lim = 300.00)
S207	6.57 8.94	10.70 3.06	163.82 188.87	101.56 (lim = 300.00)	168.88 (lim = 300.00)	276.19 (lim = 300.00)	208.86 (lim = 300.00)
S208	1.89 4.94	1.50 7.47	164.71 183.71	186.76 (lim = 300.00)	215.47 (lim = 300.00)	293.53 (lim = 300.00)	264.83 (lim = 300.00)
S209	2.24 4.57	2.81 6.69	223.71 248.76	239.34 (lim = 300.00)	212.50 (lim = 300.00)	258.17 (lim = 300.00)	285.01 (lim = 300.00)
S210	1.19 1.53	2.12 3.67	152.87 170.03	224.60 (lim = 300.00)	248.32 (lim = 300.00)	278.47 (lim = 300.00)	254.75 (lim = 300.00)
S211	2.08 6.85	1.83 13.63	88.98 102.68	67.43 (lim = 300.00)	126.70 (lim = 300.00)	292.14 (lim = 300.00)	232.88 (lim = 300.00)
S212	2.08 4.41	1.80 3.47	122.83 138.48	282.92 (lim = 300.00)	242.38 (lim = 300.00)	139.07 (lim = 300.00)	179.62 (lim = 300.00)
S213	1.59 5.79	1.09 5.08	159.16 178.16	267.32 (lim = 300.00)	294.51 (lim = 300.00)	190.26 (lim = 300.00)	163.07 (lim = 300.00)
S214	1.34 3.77	0.90 2.96	134.13 149.78	287.05 (lim = 300.00)	256.17 (lim = 300.00)	173.57 (lim = 300.00)	204.45 (lim = 300.00)
S215	1.86 1.34	1.54 1.71	185.89 205.03	296.73 (lim = 300.00)	265.92 (lim = 300.00)	241.52 (lim = 300.00)	272.34 (lim = 300.00)
S216	3.33 3.66	4.33 4.15	175.63 195.83	247.47 (lim = 300.00)	283.82 (lim = 300.00)	228.75 (lim = 300.00)	192.39 (lim = 300.00)
S217	1.80 1.66	2.71 3.31	124.62 138.51	288.15 (lim = 300.00)	256.30 (lim = 300.00)	213.24 (lim = 300.00)	245.08 (lim = 300.00)
S218	1.93 4.84	1.99 8.66	193.00 215.69	281.57 (lim = 300.00)	254.56 (lim = 300.00)	196.40 (lim = 300.00)	223.41 (lim = 300.00)
S219	1.26 0.63	0.87 1.12	126.49 139.51	297.76 (lim = 300.00)	261.27 (lim = 300.00)	238.82 (lim = 300.00)	275.31 (lim = 300.00)
S220	0.65 1.25	1.34 2.11	82.96 92.51	190.11 (lim = 300.00)	214.52 (lim = 300.00)	273.52 (lim = 300.00)	249.10 (lim = 300.00)
S221	0.82 1.42	0.79 1.10	93.86 105.01	218.77 (lim = 300.00)	188.17 (lim = 300.00)	238.56 (lim = 300.00)	269.17 (lim = 300.00)
S222	1.74 2.65	1.72 4.29	173.85 194.06	203.69 (lim = 300.00)	231.87 (lim = 300.00)	268.95 (lim = 300.00)	240.76 (lim = 300.00)
S223	2.52 2.20	4.09 5.44	132.19 147.85	220.32 (lim = 300.00)	187.17 (lim = 300.00)	238.79 (lim = 300.00)	271.94 (lim = 300.00)
S224	1.88 2.09	3.06 3.11	122.72 136.42	195.17 (lim = 300.00)	230.04 (lim = 300.00)	289.37 (lim = 300.00)	254.50 (lim = 300.00)
S225	1.45 3.79	2.06 1.27	98.76 112.46	130.18 (lim = 300.00)	157.96 (lim = 300.00)	265.79 (lim = 300.00)	238.01 (lim = 300.00)
S226	1.34 2.71	1.59 1.06	93.50 105.23	179.97 (lim = 300.00)	147.85 (lim = 300.00)	242.68 (lim = 300.00)	274.81 (lim = 300.00)
S227	1.15 2.55	1.02 2.91	76.93 86.13	127.15 (lim = 300.00)	163.79 (lim = 300.00)	282.98 (lim = 300.00)	246.35 (lim = 300.00)
S228	1.67 4.36	1.38 3.91	99.46 113.16	156.91 (lim = 300.00)	120.28 (lim = 300.00)	243.95 (lim = 300.00)	280.57 (lim = 300.00)
S229	1.35 5.83	0.61 5.11	134.99 151.71	143.18 (lim = 300.00)	170.91 (lim = 300.00)	298.89 (lim = 300.00)	271.16 (lim = 300.00)

S230	1.35 3.47	0.85 2.86	134.87 150.52	210.01 (lim = 300.00)	178.78 (lim = 300.00)	255.23 (lim = 300.00)	286.46 (lim = 300.00)
S231	2.14 6.92	2.06 5.86	213.90 238.95	211.77 (lim = 300.00)	186.10 (lim = 300.00)	266.14 (lim = 300.00)	291.81 (lim = 300.00)
S232	3.25 3.43	4.47 4.11	184.81 205.01	204.17 (lim = 300.00)	242.82 (lim = 300.00)	295.23 (lim = 300.00)	256.59 (lim = 300.00)
S233	3.31 7.35	4.68 10.74	158.29 178.50	189.83 (lim = 300.00)	142.17 (lim = 300.00)	247.95 (lim = 300.00)	295.61 (lim = 300.00)
S234	1.99 6.07	3.33 9.93	151.63 171.84	147.77 (lim = 300.00)	172.45 (lim = 300.00)	272.33 (lim = 300.00)	247.65 (lim = 300.00)
S235	1.34 1.97	1.92 2.92	69.42 77.71	141.98 (lim = 300.00)	180.55 (lim = 300.00)	289.73 (lim = 300.00)	251.16 (lim = 300.00)
S84-85	14.07 16.55	5.42 5.02	215.74 243.95	195.65 (lim = 300.00)	296.59 (lim = 300.00)	165.99 (lim = 300.00)	65.05 (lim = 300.00)
S102-103	5.96 18.38	4.08 9.15	188.71 218.91	64.91 (lim = 300.00)	101.58 (lim = 300.00)	289.61 (lim = 300.00)	252.94 (lim = 300.00)
SM1	18.44 2.68	3.64 5.23	61.95 102.24	7.12 (lim = 300.00)	100.06 (lim = 300.00)	91.67 (lim = 300.00)	-1.27 (lim = 300.00)
SM2	18.44 2.68	3.64 5.23	61.95 102.24	7.12 (lim = 300.00)	100.06 (lim = 300.00)	91.67 (lim = 300.00)	-1.27 (lim = 300.00)

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	34.14 2.07	16.52 (lim = 1.50)	34.39 2.89	11.91 (lim = 1.50)	35.95 4.87	7.39 lim = (1.50)		
S2	43.76 0.61	71.96 (lim = 1.50)	48.08 2.17	22.20 (lim = 1.50)	43.98 3.34	13.16 lim = (1.50)		
S3	40.78 0.57	71.97 (lim = 1.50)	42.04 2.02	20.78 (lim = 1.50)	41.03 3.14	13.05 lim = (1.50)		
S4	67.35 3.03	22.20 (lim = 1.50)	68.42 2.99	22.84 (lim = 1.50)	57.99 5.96	9.74 lim = (1.50)		
S5	87.61 2.35	37.22 (lim = 1.50)	83.78 2.80	29.87 (lim = 1.50)	67.50 4.17	16.18 lim = (1.50)		
S6	45.45 1.28	35.38 (lim = 1.50)	46.10 2.84	16.24 (lim = 1.50)	44.99 3.93	11.44 lim = (1.50)		
S7	30.60 1.58	19.32 (lim = 1.50)	30.81 3.00	10.26 (lim = 1.50)	32.39 5.44	5.96 lim = (1.50)		
S8	48.03 0.97	49.61 (lim = 1.50)	59.57 2.71	22.00 (lim = 1.50)	51.29 4.81	10.67 lim = (1.50)		
S9	68.25 3.04	22.45 (lim = 1.50)	69.94 2.80	24.94 (lim = 1.50)	58.76 6.28	9.36 lim = (1.50)		
S10	64.31 4.15	15.50 (lim = 1.50)	67.60 4.37	15.46 (lim = 1.50)	55.37 8.36	6.63 lim = (1.50)		
S11	42.29 4.23	10.01 (lim = 1.50)	42.90 2.54	16.91 (lim = 1.50)	41.22 8.65	4.77 lim = (1.50)		
S12	39.18 1.35	29.00 (lim = 1.50)	34.92 0.53	66.36 (lim = 1.50)	38.23 2.25	17.00 lim = (1.50)		

S13	74.95 0.84	89.25 (lim = 1.50)	89.01 1.68	52.99 (lim = 1.50)	56.41 2.29	24.67 lim = (1.50)		
S14	53.10 0.69	77.17 (lim = 1.50)	50.77 1.34	37.86 (lim = 1.50)	46.45 2.32	20.06 lim = (1.50)		
S15	91.80 0.97	94.56 (lim = 1.50)	108.00 1.94	55.62 (lim = 1.50)	63.03 1.84	34.19 lim = (1.50)		
S16	65.87 0.79	83.12 (lim = 1.50)	64.48 1.32	48.89 (lim = 1.50)	52.44 2.30	22.82 lim = (1.50)		
S17	18.07 0.75	23.97 (lim = 1.50)	17.14 1.25	13.73 (lim = 1.50)	20.90 2.21	9.48 lim = (1.50)		
S18	68.84 0.86	79.69 (lim = 1.50)	82.82 2.15	38.58 (lim = 1.50)	63.81 4.13	15.46 lim = (1.50)		
S19	67.99 3.37	20.18 (lim = 1.50)	69.57 2.31	30.17 (lim = 1.50)	58.54 6.28	9.33 lim = (1.50)		
S20	80.21 3.08	26.03 (lim = 1.50)	77.09 2.14	36.08 (lim = 1.50)	65.22 6.03	10.81 lim = (1.50)		
S21	57.03 3.87	14.72 (lim = 1.50)	56.57 1.46	38.69 (lim = 1.50)	52.13 6.60	7.90 lim = (1.50)		
S22	75.22 6.36	11.83 (lim = 1.50)	75.28 2.95	25.55 (lim = 1.50)	61.11 12.08	5.06 lim = (1.50)		
S23	90.05 5.00	18.01 (lim = 1.50)	91.10 2.08	43.85 (lim = 1.50)	69.37 9.22	7.52 lim = (1.50)		
S24	43.66 0.61	71.98 (lim = 1.50)	45.24 1.72	26.37 (lim = 1.50)	41.39 2.67	15.51 lim = (1.50)		
S25	66.30 1.78	37.26 (lim = 1.50)	67.44 2.29	29.40 (lim = 1.50)	58.07 3.18	18.27 lim = (1.50)		
S26	162.48 2.66	61.02 (lim = 1.50)	147.21 5.49	26.80 (lim = 1.50)	102.61 7.60	13.51 lim = (1.50)		
S27	45.44 3.15	14.44 (lim = 1.50)	43.19 2.45	17.66 (lim = 1.50)	41.57 5.99	6.93 lim = (1.50)		
S28	59.62 1.45	41.19 (lim = 1.50)	53.29 2.55	20.86 (lim = 1.50)	48.75 3.69	13.21 lim = (1.50)		
S29	54.79 1.53	35.90 (lim = 1.50)	52.22 2.49	20.98 (lim = 1.50)	50.96 3.75	13.58 lim = (1.50)		
S30	93.91 4.11	22.87 (lim = 1.50)	95.38 2.63	36.32 (lim = 1.50)	72.35 8.06	8.98 lim = (1.50)		
S31	73.46 6.95	10.57 (lim = 1.50)	69.01 1.97	34.96 (lim = 1.50)	59.71 12.31	4.85 lim = (1.50)		
S32	53.50 5.99	8.94 (lim = 1.50)	50.96 3.18	16.00 (lim = 1.50)	45.97 12.02	3.83 lim = (1.50)		
S33	78.67 5.04	15.61 (lim = 1.50)	79.77 1.71	46.73 (lim = 1.50)	63.97 9.15	6.99 lim = (1.50)		
S34	39.78 0.55	72.74 (lim = 1.50)	43.51 1.49	29.15 (lim = 1.50)	39.80 2.49	16.01 lim = (1.50)		
S35	56.75 1.71	33.09 (lim = 1.50)	57.79 1.93	29.87 (lim = 1.50)	52.87 3.03	17.47 lim = (1.50)		
S36	59.47 1.61	36.97 (lim = 1.50)	60.19 1.73	34.82 (lim = 1.50)	55.06 4.05	13.60 lim = (1.50)		
S37	63.40 2.79	22.76 (lim = 1.50)	58.90 2.28	25.85 (lim = 1.50)	53.89 4.94	10.92 lim = (1.50)		
S38	88.44 4.73	18.71 (lim = 1.50)	83.50 1.79	46.69 (lim = 1.50)	68.10 8.36	8.14 lim = (1.50)		

S39	67.51 3.49	19.32 (lim = 1.50)	64.70 2.21	29.27 (lim = 1.50)	58.13 6.41	9.06 lim = (1.50)		
S40	87.21 6.58	13.25 (lim = 1.50)	84.24 2.30	36.64 (lim = 1.50)	67.19 12.06	5.57 lim = (1.50)		
S41	56.81 8.08	7.03 (lim = 1.50)	57.51 2.17	26.56 (lim = 1.50)	48.85 16.20	3.01 lim = (1.50)		
S42	47.95 4.25	11.28 (lim = 1.50)	48.14 4.96	9.71 (lim = 1.50)	44.04 5.19	8.49 lim = (1.50)		
S43	48.15 1.93	24.94 (lim = 1.50)	48.09 7.86	6.12 (lim = 1.50)	44.05 1.12	39.33 lim = (1.50)		
S44	47.58 4.82	9.88 (lim = 1.50)	47.73 5.23	9.12 (lim = 1.50)	43.53 6.41	6.79 lim = (1.50)		
S45	51.69 4.14	12.49 (lim = 1.50)	52.41 3.79	13.85 (lim = 1.50)	47.95 5.92	8.10 lim = (1.50)		
S46	49.00 0.78	63.15 (lim = 1.50)	60.27 2.91	20.73 (lim = 1.50)	51.89 3.91	13.27 lim = (1.50)		
S47	34.63 1.50	23.11 (lim = 1.50)	35.81 3.08	11.62 (lim = 1.50)	37.45 4.39	8.53 lim = (1.50)		
S48	33.28 0.50	66.71 (lim = 1.50)	39.95 1.98	20.15 (lim = 1.50)	38.99 3.13	12.44 lim = (1.50)		
S49	53.13 1.30	40.74 (lim = 1.50)	50.87 3.10	16.42 (lim = 1.50)	49.64 4.12	12.04 lim = (1.50)		
S50	30.34 0.48	63.86 (lim = 1.50)	38.79 2.75	14.11 (lim = 1.50)	37.85 4.49	8.42 lim = (1.50)		
S51	40.65 1.42	28.64 (lim = 1.50)	41.73 5.44	7.67 (lim = 1.50)	40.72 8.66	4.70 lim = (1.50)		
S52	30.02 0.82	36.41 (lim = 1.50)	26.11 1.71	15.25 (lim = 1.50)	31.85 3.21	9.93 lim = (1.50)		
S53	44.64 1.55	28.89 (lim = 1.50)	45.21 4.33	10.43 (lim = 1.50)	44.12 6.87	6.42 lim = (1.50)		
S54	44.71 0.56	79.33 (lim = 1.50)	51.99 4.27	12.18 (lim = 1.50)	44.76 7.83	5.72 lim = (1.50)		
S55	78.00 1.66	47.08 (lim = 1.50)	68.44 3.28	20.87 (lim = 1.50)	58.93 4.83	12.20 lim = (1.50)		
S56	75.85 2.62	28.91 (lim = 1.50)	71.34 1.80	39.74 (lim = 1.50)	61.65 4.33	14.25 lim = (1.50)		
S57	38.95 0.57	68.31 (lim = 1.50)	48.29 2.00	24.13 (lim = 1.50)	44.18 3.31	13.35 lim = (1.50)		
S58	39.42 0.54	72.82 (lim = 1.50)	43.17 2.06	20.96 (lim = 1.50)	39.49 3.38	11.69 lim = (1.50)		
S59	52.14 0.67	77.85 (lim = 1.50)	55.79 1.90	29.43 (lim = 1.50)	48.03 3.03	15.84 lim = (1.50)		
S60	51.13 0.66	78.02 (lim = 1.50)	54.74 1.91	28.65 (lim = 1.50)	47.14 3.07	15.33 lim = (1.50)		
S61	33.39 2.49	13.40 (lim = 1.50)	33.77 3.00	11.27 (lim = 1.50)	35.31 5.37	6.58 lim = (1.50)		
S62	47.18 7.28	6.48 (lim = 1.50)	47.12 2.14	22.02 (lim = 1.50)	43.14 5.88	7.33 lim = (1.50)		
S63	12.48 2.23	5.61 (lim = 1.50)	12.49 0.92	13.64 (lim = 1.50)	15.23 1.86	8.19 lim = (1.50)		
S64	42.27 4.72	8.96 (lim = 1.50)	42.20 1.86	22.64 (lim = 1.50)	41.23 6.50	6.35 lim = (1.50)		

S65	76.05 3.73	20.38 (lim = 1.50)	71.27 2.76	25.80 (lim = 1.50)	61.37 5.01	12.24 lim = (1.50)		
S66	70.51 2.55	27.70 (lim = 1.50)	59.80 1.23	48.59 (lim = 1.50)	57.34 3.88	14.78 lim = (1.50)		
S67	32.04 1.71	18.78 (lim = 1.50)	30.96 2.43	12.74 (lim = 1.50)	34.86 3.82	9.12 lim = (1.50)		
S68	41.57 0.57	72.37 (lim = 1.50)	45.86 1.59	28.89 (lim = 1.50)	41.96 2.68	15.64 lim = (1.50)		
S69	56.25 1.72	32.62 (lim = 1.50)	57.08 1.76	32.38 (lim = 1.50)	52.22 3.08	16.97 lim = (1.50)		
S70	41.42 0.57	72.40 (lim = 1.50)	45.80 2.22	20.65 (lim = 1.50)	41.90 4.19	10.00 lim = (1.50)		
S71	41.73 1.52	27.50 (lim = 1.50)	42.01 4.18	10.05 (lim = 1.50)	40.99 7.91	5.18 lim = (1.50)		
S72	28.92 0.76	38.23 (lim = 1.50)	24.96 1.58	15.83 (lim = 1.50)	30.45 3.04	10.02 lim = (1.50)		
S73	41.53 1.36	30.46 (lim = 1.50)	42.65 3.69	11.57 (lim = 1.50)	41.62 6.51	6.39 lim = (1.50)		
S74	44.66 0.56	79.34 (lim = 1.50)	49.79 4.07	12.24 (lim = 1.50)	42.88 7.60	5.64 lim = (1.50)		
S75	42.81 1.57	27.21 (lim = 1.50)	42.99 3.34	12.88 (lim = 1.50)	41.95 6.21	6.76 lim = (1.50)		
S76	49.13 2.42	20.27 (lim = 1.50)	46.39 2.33	19.93 (lim = 1.50)	44.96 5.23	8.60 lim = (1.50)		
S77	43.77 0.64	68.64 (lim = 1.50)	53.49 1.70	31.39 (lim = 1.50)	46.05 3.00	15.36 lim = (1.50)		
S78	44.27 0.62	71.87 (lim = 1.50)	45.53 1.72	26.49 (lim = 1.50)	41.65 2.97	14.00 lim = (1.50)		
S79	64.75 0.78	83.28 (lim = 1.50)	64.29 1.55	41.35 (lim = 1.50)	52.28 2.63	19.89 lim = (1.50)		
S80	63.85 0.77	83.40 (lim = 1.50)	63.48 1.60	39.77 (lim = 1.50)	51.62 2.70	19.10 lim = (1.50)		
S81	45.00 2.63	17.08 (lim = 1.50)	44.30 1.93	22.94 (lim = 1.50)	43.23 4.10	10.54 lim = (1.50)		
S82	47.18 7.28	6.48 (lim = 1.50)	47.12 2.14	22.02 (lim = 1.50)	43.14 5.88	7.33 lim = (1.50)		
S83	12.48 2.23	5.61 (lim = 1.50)	12.49 0.92	13.64 (lim = 1.50)	15.23 1.86	8.19 lim = (1.50)		
S86	80.57 1.94	41.61 (lim = 1.50)	69.03 1.92	35.87 (lim = 1.50)	62.08 2.83	21.96 lim = (1.50)		
S87	139.90 2.67	52.39 (lim = 1.50)	141.11 5.25	26.87 (lim = 1.50)	93.89 10.18	9.22 lim = (1.50)		
S88	41.65 0.87	47.83 (lim = 1.50)	51.47 5.09	10.12 (lim = 1.50)	44.32 9.57	4.63 lim = (1.50)		
S89	123.39 3.27	37.76 (lim = 1.50)	123.15 5.55	22.19 (lim = 1.50)	86.01 6.52	13.20 lim = (1.50)		
S90	111.11 3.00	37.00 (lim = 1.50)	110.87 4.04	27.46 (lim = 1.50)	81.15 7.20	11.27 lim = (1.50)		
S91	65.49 1.56	41.91 (lim = 1.50)	61.81 5.59	11.06 (lim = 1.50)	53.23 1.99	26.68 lim = (1.50)		
S92	83.75 2.35	35.57 (lim = 1.50)	79.46 5.55	14.32 (lim = 1.50)	64.52 3.25	19.87 lim = (1.50)		

S93	90.18 1.80	50.05 (lim = 1.50)	75.95 4.95	15.34 (lim = 1.50)	61.76 8.59	7.19 lim = (1.50)		
S94	89.20 1.78	50.11 (lim = 1.50)	70.54 4.83	14.61 (lim = 1.50)	57.36 8.29	6.92 lim = (1.50)		
S95	93.70 4.83	19.39 (lim = 1.50)	89.93 1.72	52.32 (lim = 1.50)	68.58 9.01	7.61 lim = (1.50)		
S96	105.44 2.60	40.50 (lim = 1.50)	129.71 2.34	55.34 (lim = 1.50)	77.17 4.10	18.84 lim = (1.50)		
S97	78.61 3.49	22.51 (lim = 1.50)	77.48 4.11	18.87 (lim = 1.50)	63.01 8.37	7.53 lim = (1.50)		
S98	76.73 0.86	89.11 (lim = 1.50)	91.12 1.72	52.91 (lim = 1.50)	54.29 1.41	38.46 lim = (1.50)		
S99	75.79 0.85	89.23 (lim = 1.50)	89.99 1.70	52.98 (lim = 1.50)	53.68 1.37	39.14 lim = (1.50)		
S100	47.95 4.25	11.28 (lim = 1.50)	48.14 4.96	9.71 (lim = 1.50)	44.04 5.19	8.49 lim = (1.50)		
S101	48.15 1.93	24.94 (lim = 1.50)	48.09 7.86	6.12 (lim = 1.50)	44.05 1.12	39.33 lim = (1.50)		
S104	60.50 1.75	34.57 (lim = 1.50)	50.76 1.75	28.95 (lim = 1.50)	52.10 2.64	19.74 lim = (1.50)		
S105	80.21 3.36	23.86 (lim = 1.50)	81.33 6.00	13.55 (lim = 1.50)	66.14 11.10	5.96 lim = (1.50)		
S106	35.43 0.72	48.99 (lim = 1.50)	44.17 5.02	8.80 (lim = 1.50)	40.41 9.38	4.31 lim = (1.50)		
S107	126.56 2.29	55.23 (lim = 1.50)	112.08 2.23	50.23 (lim = 1.50)	86.34 3.44	25.11 lim = (1.50)		
S108	141.82 2.48	57.20 (lim = 1.50)	141.71 2.93	48.39 (lim = 1.50)	98.78 4.87	20.27 lim = (1.50)		
S109	103.84 1.96	53.00 (lim = 1.50)	101.04 4.51	22.40 (lim = 1.50)	80.05 8.52	9.39 lim = (1.50)		
S110	99.11 2.11	46.97 (lim = 1.50)	105.88 4.46	23.75 (lim = 1.50)	81.63 8.35	9.78 lim = (1.50)		
S111	94.72 2.10	45.16 (lim = 1.50)	88.69 3.39	26.18 (lim = 1.50)	72.12 5.67	12.71 lim = (1.50)		
S112	95.08 3.52	27.01 (lim = 1.50)	94.23 2.92	32.29 (lim = 1.50)	72.60 7.29	9.97 lim = (1.50)		
S113	82.80 2.20	37.64 (lim = 1.50)	94.46 1.90	49.79 (lim = 1.50)	67.34 3.56	18.94 lim = (1.50)		
S114	81.72 2.02	40.36 (lim = 1.50)	93.26 1.87	49.86 (lim = 1.50)	66.46 3.22	20.62 lim = (1.50)		
S115	59.42 3.99	14.89 (lim = 1.50)	59.53 4.34	13.73 (lim = 1.50)	51.08 10.33	4.94 lim = (1.50)		
S116	56.80 1.51	37.62 (lim = 1.50)	57.67 1.41	40.89 (lim = 1.50)	52.76 2.73	19.34 lim = (1.50)		
S117	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S118	5.48 0.34	16.27 (lim = 1.50)	5.74 1.42	4.05 (lim = 1.50)	7.00 2.60	2.69 lim = (1.50)		
S119	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S120	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		

S121	5.48 0.34	16.27 (lim = 1.50)	5.74 1.42	4.05 (lim = 1.50)	7.00 2.60	2.69 lim = (1.50)		
S122	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S123	152.93 2.64	58.03 (lim = 1.50)	138.89 3.11	44.66 (lim = 1.50)	96.81 4.84	20.01 lim = (1.50)		
S130	125.60 2.27	55.27 (lim = 1.50)	105.29 3.62	29.06 (lim = 1.50)	81.12 5.82	13.93 lim = (1.50)		
S131	107.12 2.76	38.77 (lim = 1.50)	101.00 3.81	26.52 (lim = 1.50)	77.81 7.17	10.85 lim = (1.50)		
S132	97.56 2.12	45.95 (lim = 1.50)	93.17 6.39	14.58 (lim = 1.50)	71.78 9.23	7.78 lim = (1.50)		
S133	102.08 1.92	53.10 (lim = 1.50)	88.27 6.39	13.82 (lim = 1.50)	68.01 8.99	7.56 lim = (1.50)		
S134	103.96 1.96	52.99 (lim = 1.50)	89.91 6.78	13.25 (lim = 1.50)	69.27 9.62	7.20 lim = (1.50)		
S135	54.55 2.72	20.03 (lim = 1.50)	51.36 5.66	9.08 (lim = 1.50)	46.87 10.42	4.50 lim = (1.50)		
S142	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S143	5.48 0.34	16.27 (lim = 1.50)	5.74 1.42	4.05 (lim = 1.50)	7.00 2.60	2.69 lim = (1.50)		
S144	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S145	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S146	5.48 0.34	16.27 (lim = 1.50)	5.74 1.42	4.05 (lim = 1.50)	7.00 2.60	2.69 lim = (1.50)		
S147	4.58 0.38	12.17 (lim = 1.50)	4.64 0.77	6.01 (lim = 1.50)	5.77 1.29	4.48 lim = (1.50)		
S150	68.03 1.68	40.37 (lim = 1.50)	74.92 1.59	47.20 (lim = 1.50)	58.55 2.62	22.39 lim = (1.50)		
S153	25.78 1.59	16.18 (lim = 1.50)	27.04 2.41	11.24 (lim = 1.50)	29.98 1.90	15.74 lim = (1.50)		
S154	47.05 1.13	41.72 (lim = 1.50)	43.92 2.65	16.58 (lim = 1.50)	45.92 1.67	27.41 lim = (1.50)		
S155	48.49 1.75	27.67 (lim = 1.50)	50.09 2.12	23.59 (lim = 1.50)	49.45 2.17	22.77 lim = (1.50)		
S156	47.12 2.56	18.38 (lim = 1.50)	49.17 2.77	17.77 (lim = 1.50)	45.98 3.50	13.14 lim = (1.50)		
S157	52.75 4.29	12.29 (lim = 1.50)	51.34 1.93	26.54 (lim = 1.50)	48.26 7.40	6.52 lim = (1.50)		
S158	38.31 5.13	7.47 (lim = 1.50)	37.90 1.55	24.40 (lim = 1.50)	37.39 9.16	4.08 lim = (1.50)		
S159	53.99 5.18	10.41 (lim = 1.50)	55.60 1.39	39.96 (lim = 1.50)	49.40 9.17	5.39 lim = (1.50)		
S160	127.55 3.37	37.86 (lim = 1.50)	129.20 6.52	19.80 (lim = 1.50)	90.06 11.98	7.52 lim = (1.50)		
S164	70.05 1.62	43.16 (lim = 1.50)	69.74 2.46	28.37 (lim = 1.50)	60.31 4.04	14.93 lim = (1.50)		
S165	77.93 2.10	37.14 (lim = 1.50)	73.17 3.04	24.06 (lim = 1.50)	66.93 5.83	11.47 lim = (1.50)		

S169	73.87 2.96	24.98 (lim = 1.50)	73.52 6.19	11.88 (lim = 1.50)	59.79 11.38	5.25 lim = (1.50)		
S170	79.97 2.71	29.47 (lim = 1.50)	75.59 4.90	15.43 (lim = 1.50)	61.47 9.99	6.16 lim = (1.50)		
S171	105.48 2.06	51.23 (lim = 1.50)	105.75 3.12	33.85 (lim = 1.50)	77.40 7.10	10.91 lim = (1.50)		
S172	124.65 2.25	55.31 (lim = 1.50)	96.64 2.94	32.89 (lim = 1.50)	74.46 6.59	11.30 lim = (1.50)		
S173	146.43 2.53	57.98 (lim = 1.50)	112.39 3.06	36.73 (lim = 1.50)	82.26 7.03	11.70 lim = (1.50)		
S174	65.90 2.32	28.39 (lim = 1.50)	64.61 4.39	14.70 (lim = 1.50)	55.63 8.63	6.44 lim = (1.50)		
S175	54.75 1.60	34.22 (lim = 1.50)	48.18 3.97	12.15 (lim = 1.50)	47.02 3.04	15.49 lim = (1.50)		
S176	64.07 1.50	42.77 (lim = 1.50)	58.94 3.07	19.19 (lim = 1.50)	53.92 2.19	24.64 lim = (1.50)		
S177	96.56 2.65	36.51 (lim = 1.50)	95.07 3.39	28.03 (lim = 1.50)	73.25 3.27	22.42 lim = (1.50)		
S178	92.83 2.24	41.50 (lim = 1.50)	86.70 4.27	20.31 (lim = 1.50)	70.51 4.77	14.79 lim = (1.50)		
S179	122.43 3.82	32.06 (lim = 1.50)	109.40 3.82	28.64 (lim = 1.50)	80.07 6.01	13.31 lim = (1.50)		
S180	110.18 2.09	52.65 (lim = 1.50)	94.62 3.63	26.05 (lim = 1.50)	72.89 5.98	12.18 lim = (1.50)		
S181	131.01 6.55	20.00 (lim = 1.50)	130.72 3.77	34.67 (lim = 1.50)	91.32 13.51	6.76 lim = (1.50)		
S182	136.66 6.30	21.70 (lim = 1.50)	132.03 8.08	16.35 (lim = 1.50)	90.96 17.80	5.11 lim = (1.50)		
S183	36.15 1.16	31.19 (lim = 1.50)	35.96 2.24	16.03 (lim = 1.50)	39.83 1.61	24.77 lim = (1.50)		
S184	78.01 1.66	47.08 (lim = 1.50)	69.53 2.64	26.37 (lim = 1.50)	65.07 4.47	14.56 lim = (1.50)		
S185	84.66 1.69	50.06 (lim = 1.50)	70.04 4.31	16.24 (lim = 1.50)	60.31 7.37	8.18 lim = (1.50)		
S186	91.98 1.92	47.84 (lim = 1.50)	92.75 1.82	50.89 (lim = 1.50)	71.01 6.57	10.81 lim = (1.50)		
S187	127.76 2.32	55.17 (lim = 1.50)	99.76 3.09	32.32 (lim = 1.50)	76.85 5.40	14.23 lim = (1.50)		
S188	125.53 2.26	55.54 (lim = 1.50)	102.87 2.90	35.50 (lim = 1.50)	75.29 5.09	14.79 lim = (1.50)		
S189	44.72 0.62	71.79 (lim = 1.50)	47.97 1.21	39.79 (lim = 1.50)	43.88 1.47	29.85 lim = (1.50)		
S190	83.32 2.70	30.82 (lim = 1.50)	77.60 7.39	10.50 (lim = 1.50)	63.10 13.65	4.62 lim = (1.50)		
S191	65.76 1.16	56.54 (lim = 1.50)	54.15 0.70	77.61 (lim = 1.50)	49.01 2.92	16.78 lim = (1.50)		
S192	80.79 1.62	49.76 (lim = 1.50)	67.32 0.81	82.93 (lim = 1.50)	53.43 5.47	9.77 lim = (1.50)		
S193	29.20 1.65	17.72 (lim = 1.50)	24.79 0.55	44.70 (lim = 1.50)	30.53 1.34	22.70 lim = (1.50)		
S194	52.60 1.18	44.40 (lim = 1.50)	42.74 0.59	72.14 (lim = 1.50)	40.77 0.85	47.77 lim = (1.50)		

S195	5.38 0.58	9.33 (lim = 1.50)	5.39 0.18	29.45 (lim = 1.50)	6.59 1.00	6.60 lim = (1.50)		
S196	97.70 1.37	71.05 (lim = 1.50)	123.51 2.24	55.17 (lim = 1.50)	79.46 3.27	24.30 lim = (1.50)		
S197	57.36 1.99	28.90 (lim = 1.50)	55.99 2.87	19.53 (lim = 1.50)	51.23 2.81	18.22 lim = (1.50)		
S198	52.16 1.25	41.60 (lim = 1.50)	47.70 2.12	22.51 (lim = 1.50)	46.55 1.25	37.24 lim = (1.50)		
S199	125.63 2.20	57.07 (lim = 1.50)	120.10 3.27	36.74 (lim = 1.50)	87.90 3.50	25.12 lim = (1.50)		
S200	149.94 2.58	58.15 (lim = 1.50)	129.06 3.29	39.20 (lim = 1.50)	89.96 4.55	19.77 lim = (1.50)		
S201	143.28 6.04	23.71 (lim = 1.50)	143.78 3.33	43.21 (lim = 1.50)	95.33 10.51	9.07 lim = (1.50)		
S202	100.42 5.19	19.36 (lim = 1.50)	95.72 4.73	20.24 (lim = 1.50)	73.50 12.69	5.79 lim = (1.50)		
S203	76.10 1.62	46.88 (lim = 1.50)	65.57 1.59	41.19 (lim = 1.50)	60.19 2.59	23.21 lim = (1.50)		
S204	106.19 6.77	15.68 (lim = 1.50)	100.87 7.37	13.69 (lim = 1.50)	73.77 17.23	4.28 lim = (1.50)		
S205	127.53 4.89	26.10 (lim = 1.50)	148.98 2.56	58.19 (lim = 1.50)	88.90 10.42	8.53 lim = (1.50)		
S206	173.04 4.45	38.85 (lim = 1.50)	171.97 3.85	44.65 (lim = 1.50)	109.45 11.41	9.59 lim = (1.50)		
S207	82.10 6.42	12.78 (lim = 1.50)	90.90 8.78	10.35 (lim = 1.50)	60.09 10.70	5.61 lim = (1.50)		
S208	71.40 1.78	40.03 (lim = 1.50)	67.81 4.94	13.74 (lim = 1.50)	58.39 7.47	7.82 lim = (1.50)		
S209	124.38 2.24	55.60 (lim = 1.50)	107.43 4.57	23.50 (lim = 1.50)	78.63 6.99	11.25 lim = (1.50)		
S210	55.83 1.18	47.23 (lim = 1.50)	76.51 1.53	50.05 (lim = 1.50)	55.27 3.93	14.07 lim = (1.50)		
S211	36.07 2.02	17.86 (lim = 1.50)	35.91 6.85	5.24 (lim = 1.50)	34.93 13.62	2.56 lim = (1.50)		
S212	54.00 2.07	26.04 (lim = 1.50)	52.97 4.41	12.00 (lim = 1.50)	48.46 3.87	12.53 lim = (1.50)		
S213	80.17 1.59	50.37 (lim = 1.50)	70.95 5.79	12.25 (lim = 1.50)	61.09 5.14	11.89 lim = (1.50)		
S214	59.91 1.34	44.67 (lim = 1.50)	56.52 3.77	14.99 (lim = 1.50)	51.70 3.02	17.14 lim = (1.50)		
S215	97.39 1.86	52.39 (lim = 1.50)	76.66 1.34	57.37 (lim = 1.50)	70.14 2.09	33.58 lim = (1.50)		
S216	82.53 3.33	24.80 (lim = 1.50)	83.33 3.66	22.79 (lim = 1.50)	67.12 5.49	12.22 lim = (1.50)		
S217	54.81 1.80	30.41 (lim = 1.50)	42.29 1.66	25.43 (lim = 1.50)	47.19 3.98	11.86 lim = (1.50)		
S218	95.04 1.83	52.03 (lim = 1.50)	95.49 4.84	19.74 (lim = 1.50)	73.57 8.67	8.49 lim = (1.50)		
S219	55.80 1.26	44.12 (lim = 1.50)	42.83 0.63	67.55 (lim = 1.50)	47.34 1.20	39.51 lim = (1.50)		
S220	26.69 0.65	41.27 (lim = 1.50)	29.38 1.25	23.58 (lim = 1.50)	33.08 2.38	13.91 lim = (1.50)		

S221	29.06 0.81	35.66 (lim = 1.50)	36.56 1.41	25.88 (lim = 1.50)	35.67 1.31	27.16 lim = (1.50)		
S222	87.32 1.74	50.23 (lim = 1.50)	84.58 2.65	31.89 (lim = 1.50)	66.27 4.24	15.61 lim = (1.50)		
S223	56.39 2.52	22.40 (lim = 1.50)	58.77 2.20	26.68 (lim = 1.50)	52.66 6.17	8.54 lim = (1.50)		
S224	49.25 1.87	26.33 (lim = 1.50)	51.10 2.09	24.50 (lim = 1.50)	48.06 3.69	13.01 lim = (1.50)		
S225	40.06 1.44	27.84 (lim = 1.50)	41.76 3.79	11.02 (lim = 1.50)	39.10 2.19	17.83 lim = (1.50)		
S226	34.92 1.34	26.09 (lim = 1.50)	34.89 2.63	13.26 (lim = 1.50)	36.51 1.72	21.24 lim = (1.50)		
S227	29.53 1.15	25.67 (lim = 1.50)	25.40 2.55	9.97 (lim = 1.50)	30.98 2.96	10.47 lim = (1.50)		
S228	41.56 1.66	24.99 (lim = 1.50)	41.60 4.36	9.53 (lim = 1.50)	40.59 4.10	9.90 lim = (1.50)		
S229	64.48 1.35	47.77 (lim = 1.50)	58.41 5.83	10.01 (lim = 1.50)	53.44 5.12	10.44 lim = (1.50)		
S230	60.21 1.35	44.64 (lim = 1.50)	57.56 3.47	16.61 (lim = 1.50)	52.66 2.91	18.12 lim = (1.50)		
S231	112.15 2.10	53.33 (lim = 1.50)	117.62 6.92	17.00 (lim = 1.50)	82.59 6.04	13.68 lim = (1.50)		
S232	86.33 3.25	26.58 (lim = 1.50)	87.59 3.43	25.56 (lim = 1.50)	71.23 5.56	12.80 lim = (1.50)		
S233	75.48 3.31	22.81 (lim = 1.50)	79.19 7.35	10.77 (lim = 1.50)	61.38 10.80	5.68 lim = (1.50)		
S234	72.96 1.99	36.70 (lim = 1.50)	74.26 6.01	12.36 (lim = 1.50)	60.39 10.07	6.00 lim = (1.50)		
S235	21.81 1.30	16.75 (lim = 1.50)	23.31 1.97	11.86 (lim = 1.50)	28.44 2.99	9.52 lim = (1.50)		
S84-85	136.64 13.99	9.77 (lim = 1.50)	137.50 16.55	8.31 (lim = 1.50)	85.94 7.18	11.98 lim = (1.50)		
S102-103	139.23 5.96	23.35 (lim = 1.50)	103.00 18.35	5.61 (lim = 1.50)	79.35 9.81	8.09 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	131.47	2250.00	OK
S2	169.73	3000.00	OK
S3	158.14	2812.50	OK
S4	227.25	2250.00	OK
S5	273.73	2250.00	OK
S6	170.68	2250.00	OK
S7	120.18	2250.00	OK

S8	185.29	3187.50	OK
S9	214.22	2250.00	OK
S10	198.37	2250.00	OK
S11	144.71	2250.00	OK
S12	147.09	2812.50	OK
S13	234.70	3562.50	OK
S14	192.19	3000.00	OK
S15	271.15	3712.50	OK
S16	221.19	3375.00	OK
S17	81.40	2437.50	OK
S18	242.45	3562.50	OK
S19	218.87	2250.00	OK
S20	246.61	2250.00	OK
S21	187.17	2250.00	OK
S22	229.82	2250.00	OK
S23	281.33	2250.00	OK
S24	169.35	3000.00	OK
S25	239.96	2250.00	OK
S26	372.28	2250.00	OK
S27	170.27	2250.00	OK
S28	198.63	2250.00	OK
S29	190.08	2250.00	OK
S30	269.23	2250.00	OK
S31	214.28	2250.00	OK
S32	166.80	2250.00	OK
S33	245.45	2250.00	OK
S34	152.60	3000.00	OK
S35	203.03	2250.00	OK
S36	206.30	2250.00	OK
S37	217.03	2250.00	OK
S38	266.98	2250.00	OK
S39	213.11	2250.00	OK
S40	242.78	2250.00	OK
S41	169.99	2250.00	OK
S42	146.30	4000.00	OK
S43	148.26	4000.00	OK
S44	144.89	4000.00	OK
S45	165.41	2250.00	OK
S46	184.98	3187.50	OK
S47	131.02	2250.00	OK
S48	139.21	2812.50	OK
S49	175.50	2250.00	OK
S50	133.88	2812.50	OK
S51	140.81	2250.00	OK
S52	111.01	2625.00	OK
S53	153.89	2250.00	OK
S54	157.45	3187.50	OK
S55	231.70	2250.00	OK
S56	249.80	2250.00	OK
S57	171.51	3000.00	OK
S58	151.10	3000.00	OK

S59	187.05	3187.50	OK
S60	183.06	3187.50	OK
S61	129.00	2250.00	OK
S62	143.39	4000.00	OK
S63	46.65	2250.00	OK
S64	139.09	4000.00	OK
S65	224.72	2250.00	OK
S66	221.35	3375.00	OK
S67	130.09	2250.00	OK
S68	160.37	3000.00	OK
S69	200.98	2250.00	OK
S70	159.71	3000.00	OK
S71	151.52	2250.00	OK
S72	113.56	2625.00	OK
S73	154.79	2250.00	OK
S74	157.24	3187.50	OK
S75	164.51	2250.00	OK
S76	189.73	2250.00	OK
S77	189.65	3187.50	OK
S78	172.06	3000.00	OK
S79	217.29	3375.00	OK
S80	214.13	3375.00	OK
S81	167.55	2250.00	OK
S82	143.39	4000.00	OK
S83	46.65	2250.00	OK
S86	253.37	3562.50	OK
S87	370.74	2250.00	OK
S88	164.86	3187.50	OK
S89	348.44	2250.00	OK
S90	331.21	2250.00	OK
S91	209.55	2250.00	OK
S92	259.15	2250.00	OK
S93	252.08	2250.00	OK
S94	249.33	2250.00	OK
S95	293.02	2250.00	OK
S96	327.69	2250.00	OK
S97	249.63	2250.00	OK
S98	240.90	1125.00	OK
S99	237.56	1125.00	OK
S100	146.30	4000.00	OK
S101	148.26	4000.00	OK
S104	193.43	3187.50	OK
S105	237.80	2250.00	OK
S106	140.39	3000.00	OK
S107	320.12	2250.00	OK
S108	371.63	2250.00	OK
S109	274.46	2250.00	OK
S110	289.30	2250.00	OK
S111	285.86	2250.00	OK
S112	297.79	2250.00	OK
S113	264.85	2250.00	OK

S114	261.07	2250.00	OK
S115	191.46	2250.00	OK
S116	196.72	4685.49	OK
S117	9.66	2100.00	OK
S118	14.72	2100.00	OK
S119	9.66	2100.00	OK
S120	9.66	2100.00	OK
S121	14.72	2100.00	OK
S122	9.66	2100.00	OK
S123	368.71	2250.00	OK
S130	318.04	2250.00	OK
S131	322.08	2250.00	OK
S132	283.94	2250.00	OK
S133	268.72	2250.00	OK
S134	274.28	2250.00	OK
S135	175.26	2250.00	OK
S142	9.66	2100.00	OK
S143	14.72	2100.00	OK
S144	9.66	2100.00	OK
S145	9.66	2100.00	OK
S146	14.72	2100.00	OK
S147	9.66	2100.00	OK
S150	222.55	4978.33	OK
S153	101.06	2250.00	OK
S154	156.87	2250.00	OK
S155	168.46	2250.00	OK
S156	162.77	2250.00	OK
S157	170.74	2250.00	OK
S158	132.27	2250.00	OK
S159	179.64	2250.00	OK
S160	329.75	2250.00	OK
S164	226.69	2250.00	OK
S165	235.80	2250.00	OK
S169	223.86	2250.00	OK
S170	261.22	2250.00	OK
S171	329.11	2250.00	OK
S172	315.91	2250.00	OK
S173	353.30	2250.00	OK
S174	221.43	2250.00	OK
S175	174.83	2250.00	OK
S176	210.36	2250.00	OK
S177	292.50	2250.00	OK
S178	284.35	2250.00	OK
S179	323.48	2250.00	OK
S180	292.62	2250.00	OK
S181	341.51	2250.00	OK
S182	334.14	2250.00	OK
S183	139.79	2250.00	OK
S184	231.64	2250.00	OK
S185	236.56	2250.00	OK
S186	296.79	2250.00	OK

S187	323.99	2250.00	OK
S188	316.23	2250.00	OK
S189	174.06	3000.00	OK
S190	239.20	2250.00	OK
S191	195.10	3093.75	OK
S192	227.05	3375.00	OK
S193	118.24	2625.00	OK
S194	165.48	3000.00	OK
S195	12.74	2250.00	OK
S196	313.83	3712.50	OK
S197	192.65	2250.00	OK
S198	175.39	2250.00	OK
S199	351.76	2250.00	OK
S200	361.35	2250.00	OK
S201	383.76	2250.00	OK
S202	295.30	2250.00	OK
S203	227.47	2250.00	OK
S204	279.79	2250.00	OK
S205	357.97	2250.00	OK
S206	432.86	2250.00	OK
S207	229.23	2250.00	OK
S208	230.20	2250.00	OK
S209	312.77	2250.00	OK
S210	213.68	3375.00	OK
S211	124.03	2250.00	OK
S212	171.54	2250.00	OK
S213	222.53	2250.00	OK
S214	187.50	2250.00	OK
S215	260.05	4750.00	OK
S216	245.60	2250.00	OK
S217	174.29	3187.50	OK
S218	269.93	2250.00	OK
S219	176.44	3000.00	OK
S220	115.97	2437.50	OK
S221	131.22	2812.50	OK
S222	242.75	2250.00	OK
S223	184.62	2250.00	OK
S224	171.08	2250.00	OK
S225	137.99	2250.00	OK
S226	130.83	2250.00	OK
S227	107.05	5250.00	OK
S228	138.80	2250.00	OK
S229	188.62	2250.00	OK
S230	188.40	2250.00	OK
S231	299.16	2250.00	OK
S232	258.30	2250.00	OK
S233	221.36	2250.00	OK
S234	211.86	2250.00	OK
S235	96.02	2250.00	OK
S84-85	162.82	5025.00	OK
S102-103	144.89	9200.00	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	56.85 7.63	56.85 7.63	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	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S5	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S6	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S7	57.29 7.69	56.85 8.72	0.00 0.00	0.00 0.00
S8	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S9	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S10	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S11	56.46 6.73	56.46 6.73	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	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S14	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S15	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S16	35.77 5.76	35.77 5.76	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	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S19	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S20	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S21	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00

S22	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S23	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S24	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S25	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S26	50.60 5.82	50.27 5.78	0.00 0.00	0.00 0.00
S27	56.46 6.49	56.12 6.69	0.00 0.00	0.00 0.00
S28	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S29	56.46 6.49	56.12 6.69	0.00 0.00	0.00 0.00
S30	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S31	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S32	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00
S33	53.21 6.12	53.22 6.12	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	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S36	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S37	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00
S38	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S39	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00
S40	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S41	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S42	91.62 12.29	91.62 12.29	0.00 0.00	0.00 0.00
S43	57.80 7.76	57.80 7.76	0.00 0.00	0.00 0.00
S44	91.62 12.29	91.62 12.29	0.00 0.00	0.00 0.00
S45	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S46	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S47	56.85 7.63	56.85 7.63	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	56.46 6.49	56.12 6.69	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	56.46 6.73	56.46 6.73	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	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S54	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S55	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S56	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S57	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S58	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S59	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S60	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S61	56.85 7.63	56.85 7.63	0.00 0.00	0.00 0.00
S62	91.62 12.29	91.62 12.29	0.00 0.00	0.00 0.00
S63	60.18 10.76	60.18 10.76	0.00 0.00	0.00 0.00
S64	92.18 14.14	92.18 14.13	0.00 0.00	0.00 0.00
S65	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S66	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S67	57.29 7.69	56.85 8.72	0.00 0.00	0.00 0.00
S68	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S69	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S70	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S71	56.46 6.73	56.46 6.73	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	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00

S74	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S75	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S76	56.46 6.49	56.12 6.69	0.00 0.00	0.00 0.00
S77	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S78	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S79	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S80	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S81	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S82	91.62 12.29	91.62 12.29	0.00 0.00	0.00 0.00
S83	60.18 10.76	60.18 10.76	0.00 0.00	0.00 0.00
S86	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S87	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S88	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S89	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S90	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S91	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S92	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S93	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S94	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S95	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S96	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S97	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S98	52.87 6.08	50.16 5.77	0.00 0.00	0.00 0.00
S99	52.87 6.08	50.16 5.77	0.00 0.00	0.00 0.00
S100	91.62 12.29	91.62 12.29	0.00 0.00	0.00 0.00
S101	57.80 7.76	57.80 7.76	0.00 0.00	0.00 0.00

S104	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S105	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S106	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S107	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S108	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S109	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S110	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S111	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S112	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S113	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S114	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S115	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S116	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S117	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S118	35.77 5.76	35.77 6.40	0.00 4.50	0.36 4.50
S119	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S120	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S121	35.77 5.76	35.77 6.40	0.00 4.50	0.36 4.50
S122	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S123	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S130	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S131	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S132	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S133	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S134	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S135	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00

S142	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S143	35.77 5.76	35.77 6.40	0.00 4.50	0.36 4.50
S144	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S145	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S146	35.77 5.76	35.77 6.40	0.00 4.50	0.36 4.50
S147	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S150	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S153	57.29 8.79	57.30 8.78	0.00 0.00	0.00 0.00
S154	56.85 6.78	56.46 7.58	0.00 0.00	0.00 0.00
S155	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S156	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S157	56.46 6.49	56.12 6.69	0.00 0.00	0.00 0.00
S158	56.85 6.78	56.46 7.58	0.00 0.00	0.00 0.00
S159	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S160	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S164	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S165	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S169	53.21 6.12	53.22 6.12	0.00 0.00	0.00 0.00
S170	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S171	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S172	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S173	50.95 5.86	50.60 5.82	0.00 0.00	0.00 0.00
S174	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S175	56.46 6.49	56.12 6.69	0.00 0.00	0.00 0.00
S176	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00
S177	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00

S178	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S179	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S180	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S181	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S182	50.60 5.82	50.27 5.78	0.00 0.00	0.00 0.00
S183	56.85 7.63	56.85 7.63	0.00 0.00	0.00 0.00
S184	53.60 6.16	53.60 6.16	0.00 0.00	0.00 0.00
S185	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S186	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S187	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S188	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S189	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S190	53.21 6.12	52.87 6.08	0.00 0.00	0.00 0.00
S191	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S192	35.77 5.76	35.77 5.76	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	35.77 5.76	35.77 5.76	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	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S197	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S198	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S199	50.95 5.86	50.60 5.82	0.00 0.00	0.00 0.00
S200	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S201	50.27 5.78	50.27 5.78	0.00 0.00	0.00 0.00
S202	52.87 6.08	52.55 6.04	0.00 0.00	0.00 0.00
S203	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00

S204	50.95 5.86	50.60 5.82	0.00 0.00	0.00 0.00
S205	50.60 5.82	50.60 5.82	0.00 0.00	0.00 0.00
S206	49.96 5.75	49.96 5.75	0.00 0.00	0.00 0.00
S207	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S208	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S209	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S210	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S211	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S212	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S213	53.60 6.16	53.22 6.12	0.00 0.00	0.00 0.00
S214	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S215	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S216	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S217	35.77 5.76	35.77 5.76	0.00 0.00	0.00 0.00
S218	52.87 6.08	52.87 6.08	0.00 0.00	0.00 0.00
S219	35.77 5.76	35.77 5.76	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	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S223	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S224	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S225	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S226	56.85 7.63	56.85 7.63	0.00 0.00	0.00 0.00
S227	35.77 5.76	35.77 6.40	0.00 0.00	0.00 0.00
S228	56.46 6.73	56.46 6.73	0.00 0.00	0.00 0.00
S229	54.02 6.21	53.60 6.16	0.00 0.00	0.00 0.00

S230	54.02 6.21	54.02 6.21	0.00 0.00	0.00 0.00
S231	50.95 5.86	50.95 5.86	0.00 0.00	0.00 0.00
S232	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S233	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S234	53.22 6.12	53.21 6.12	0.00 0.00	0.00 0.00
S235	60.18 10.76	60.18 10.76	0.00 0.00	0.00 0.00
S84-85	99.36 14.41	99.36 13.67	0.00 7.50	0.00 7.50
S102-103	99.36 10.25	99.36 9.69	0.00 7.50	0.00 7.50
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:

Dados				Resultados					
Pilar	Seção (cm)	Nível Altura (cm)	le b v í n c le b 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	131.47 79.06	3.96 2.57	4.68 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
P2 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	169.73 101.62	0.26 0.22	3.87 2.85	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	158.14 94.63	0.51 0.36	3.59 2.58	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	227.25 134.73	4.09 4.00	6.30 3.85	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	15.00 150.00	150.00 RR	273.73 159.15	4.82 2.87	2.30 3.52	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P6 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.68 101.09	1.10 1.33	4.20 3.72	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	120.18 70.90	2.72 1.79	7.19 3.77	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	185.29 119.61	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	214.22 137.57	7.37 3.90	4.40 3.41	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
P10 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	198.37 127.52	7.93 5.36	7.25 5.61	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	144.71 91.96	11.54 5.61	4.06 3.15	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
P12 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	147.09 89.64	0.73 0.47	2.73 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	34.60 17.30
P13 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	234.70 129.79	0.34 0.27	2.86 1.54	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
P14 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	192.19 107.71	0.26 0.22	2.86 1.61	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	271.15 143.64	0.28 0.24	2.22 1.20	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
P16 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	221.19 119.12	1.19 0.70	2.56 1.55	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
P17 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	81.40 43.18	2.75 1.64	0.95 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
P18 1:20	15.00 X	20.00 150.00	150.00 RR	242.45 150.06	2.07 1.13	5.05 2.74	1.57 2 ø 10.0 1.57 2 ø 10.0	ø 5.0 c/12	34.60 17.30

	30.00		150.00 RR				0.7 4 ø 10.0		
P19 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	218.87 137.02	7.16 4.39	4.03 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
P20 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	246.61 153.84	6.46 3.89	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	187.17 121.76	1.58 1.49	8.54 5.11	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
P22 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	229.82 140.93	16.02 8.56	4.07 3.50	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
P23 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	281.33 159.78	11.95 6.58	2.20 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	17.30 17.30
P24 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	169.35 94.79	0.56 0.41	3.05 2.14	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	239.96 131.39	2.78 2.73	2.17 2.17	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
P26 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	372.28 208.00	2.27 2.16	8.25 7.21	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
P27 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.27 92.34	7.36 4.05	2.97 2.97	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
P28 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	198.63 110.72	1.24 1.69	4.05 3.13	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
P29 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	190.08 115.66	2.73 1.66	3.95 3.00	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
P30 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	269.23 169.45	3.99 3.22	9.98 5.30	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	15.00 150.00	150.00 RR	214.28 139.59	16.28 9.39	1.93 2.20	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P32 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	166.80 101.08	15.34 8.04	6.45 3.96	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	245.45 147.44	11.82 6.62	2.31 1.86	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
P34 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	152.60 90.23	0.52 0.37	2.96 1.82	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	203.03 119.08	2.87 2.20	2.11 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
P36 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	206.30 126.65	1.64 1.84	5.82 1.94	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
P37 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	217.03 126.15	6.14 3.54	2.41 2.71	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
P38 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	266.98 160.30	11.07 6.26	1.54 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
P39 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	213.11 136.07	7.59 4.43	3.33 2.60	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
P40 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	242.78 156.46	15.38 8.73	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	169.99 108.87	22.65 10.97	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	146.30 90.10	8.60 6.23	10.80 5.56	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	1600.00 EL 250.00 RR	148.26 95.63	10.24 9.98	0.80 2.04	2.45 2 ø 12.5 2.45 2 ø 12.5 0.3 4 ø 12.5	ø 5.0 c/15	138.40 21.63
P44 1:20	40.00 X	20.00 150.00	150.00 RR	144.89 91.21	9.05 6.68	10.87 6.16	4.02 2 ø 16.0 4.02 2 ø 16.0	ø 5.0 c/19	12.97 12.97

	40.00		150.00 RR				0.5 4 ø 16.0		
P45 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	165.41 104.83	11.78 5.72	6.35 4.74	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
P46 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	184.98 122.27	1.88 1.03	6.45 3.87	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	131.02 81.77	2.49 1.64	4.47 3.77	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	139.21 90.19	0.45 0.38	3.65 2.50	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	175.50 112.40	1.93 1.45	3.94 3.83	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	133.88 86.90	0.89 0.58	5.38 3.57	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	140.81 90.01	1.10 1.53	10.37 7.12	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 72.89	4.25 2.30	1.16 0.87	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	153.89 98.61	1.56 1.72	8.12 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
P54 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	157.45 103.08	0.34 0.25	10.33 5.70	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	231.70 139.10	1.40 1.67	4.97 4.01	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
P56 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.80 145.21	5.49 3.30	1.15 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
P57 1:20	15.00 X	20.00 150.00	150.00 RR	171.51 103.04	1.13 0.70	3.87 2.54	1.57 2 ø 10.0 1.57 2 ø 10.0	ø 5.0 c/12	34.60 17.30

	30.00		150.00 RR				0.7 4 ø 10.0		
P58 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	151.10 89.68	0.75 0.47	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	187.05 111.10	0.32 0.29	3.57 2.39	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	183.06 108.91	0.29 0.26	3.64 2.41	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
P61 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	129.00 76.73	4.48 3.11	5.06 3.77	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	143.39 89.86	1.60 2.20	15.22 9.92	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
P63 1:20	30.00 X 30.00	20.00 150.00	300.00 EL 150.00 RR	46.65 27.61	0.13 1.13	2.95 2.77	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	139.09 88.73	1.37 1.88	16.62 6.16	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 12.97
P65 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	224.72 142.51	9.95 5.14	5.17 3.14	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
P66 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	221.35 137.26	3.00 1.62	6.35 3.39	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	130.09 76.75	2.11 1.96	4.18 2.87	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
P68 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	160.37 96.60	0.29 0.24	3.29 1.96	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	200.98 119.87	2.49 2.11	3.10 1.96	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	20.00 150.00	150.00 RR	159.71 96.32	1.00 0.60	5.49 2.83	1.57 2 ø 10.0 1.57 2 ø 10.0	ø 5.0 c/12	34.60 17.30

	30.00		150.00 RR				0.7 4 ø 10.0		
P71 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	151.52 92.05	1.70 1.74	10.61 5.35	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
P72 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	113.56 69.69	4.10 2.11	0.80 0.77	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	154.79 92.36	1.33 1.55	8.36 4.66	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	157.24 97.72	0.35 0.29	10.13 5.42	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	164.51 96.02	2.34 1.88	7.95 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
P76 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	189.73 104.08	5.95 3.04	4.32 2.83	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	189.65 106.33	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	172.06 96.05	0.62 0.34	3.70 2.16	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	217.29 121.00	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	214.13 119.42	0.49 0.43	3.32 1.98	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	167.55 100.53	3.93 3.33	2.99 2.11	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
P82 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	143.39 89.86	1.60 2.20	15.22 9.92	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
P83 1:20	30.00 X	20.00 150.00	150.00 RR	46.65 27.61	2.95 2.77	0.13 1.13	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 34.60

	30.00		300.00 EL				0.5 4 ø 12.5		
P84 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	139.09 88.73	1.37 1.88	16.62 6.16	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 12.97
P85 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	162.82 100.04	2.61 2.00	7.78 5.45	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
P86 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	253.37 147.39	4.72 2.59	4.56 2.66	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
P87 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	370.74 220.04	12.19 6.82	7.38 3.29	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	164.86 101.94	1.73 1.13	12.73 6.84	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	348.44 203.44	9.34 4.36	5.36 7.61	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	331.21 192.36	4.80 3.82	8.00 5.13	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
P91 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	209.55 122.70	1.08 1.73	3.41 7.54	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 66.32
P92 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	259.15 151.43	2.60 2.82	3.37 7.50	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 66.32
P93 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	252.08 144.41	2.16 1.25	10.97 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
P94 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.33 133.04	2.09 1.85	10.76 6.33	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	293.02 158.83	11.73 6.32	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	15.00 150.00	150.00 RR	327.69 181.56	4.87 3.50	1.59 1.58	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P97 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	249.63 148.60	7.32 4.53	7.68 5.19	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 0.25	1.30 1.24	2.45 2 ø 12.5 7.36 6 ø 12.5 3.3 12 ø 12.5	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	237.56 125.39	0.08 0.19	1.33 1.22	2.45 2 ø 12.5 7.36 6 ø 12.5 3.3 12 ø 12.5	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	146.30 90.10	8.60 6.23	10.80 5.56	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	250.00 RR 1600.00 EL	148.26 95.63	0.80 2.04	10.24 9.98	2.45 2 ø 12.5 2.45 2 ø 12.5 0.3 4 ø 12.5	ø 5.0 c/15	21.63 138.40
P102 1:20	40.00 X 40.00	20.00 150.00	150.00 RR 150.00 RR	144.89 91.21	9.05 6.68	10.87 6.16	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 12.97
P103 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	120.05 72.79	2.08 1.58	10.22 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
P104 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	193.43 124.53	4.55 2.35	4.17 2.36	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
P105 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	237.80 153.86	12.43 7.83	7.91 4.22	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	140.39 94.01	1.47 0.93	12.45 6.73	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	320.12 203.27	0.84 1.23	4.44 2.70	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	371.63 238.78	4.92 3.01	3.70 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
P109 1:20	30.00 X	20.00 150.00	150.00 RR	274.46 173.30	1.59 1.33	12.73 6.02	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P110 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	289.30 182.44	12.40 5.94	2.95 2.60	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
P111 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	285.86 172.30	4.38 2.66	5.42 4.00	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
P112 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	297.79 172.33	8.27 4.57	5.11 3.46	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	264.85 158.25	3.87 2.62	1.88 2.11	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
P114 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	261.07 155.57	3.51 2.46	1.73 1.96	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	191.46 115.52	9.60 5.22	10.93 5.69	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	196.72 122.13	2.96 1.94	1.81 1.67	4.71 6 ø 10.0 0.7	ø 5.0 c/12	20.00
P117 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P118 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P119 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P120 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P121 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P122 1:20	14.00 X	20.00 150.00	200.00 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	ø 5.0 c/12	49.43 23.07

	30.00		200.00 RR				0.7 4 ø 10.0		
P123 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	368.71 233.42	2.96 1.72	4.96 3.59	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
P130 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	318.04 194.34	3.40 1.77	6.07 4.31	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
P131 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	322.08 185.30	6.31 3.55	6.32 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
P132 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	283.94 166.45	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	268.72 156.95	9.74 8.41	1.73 1.59	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
P134 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	274.28 160.48	0.90 1.20	10.61 8.97	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
P135 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	175.26 105.29	5.60 3.48	12.82 7.53	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	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P143 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P144 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P145 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P146 1:20	14.00 X 30.00	20.00 150.00	200.00 RR 200.00 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	49.43 23.07
P147 1:20	14.00 X	20.00 150.00	200.00 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	ø 5.0 c/12	49.43 23.07

	30.00		200.00 RR				0.7 4 ø 10.0		
P150 1:20	Circ 0.00 30.00	20.00 150.00	150.00 RR	222.55 139.79	3.43 2.18	0.75 1.13	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	101.06 57.59	3.55 2.11	2.39 2.72	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	156.87 96.27	0.75 0.68	2.83 3.03	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
P155 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	168.46 106.45	3.58 2.24	2.28 2.35	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
P156 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	162.77 103.50	5.15 3.24	3.22 3.28	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
P157 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	170.74 110.20	9.17 5.47	1.77 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
P158 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	132.27 82.35	11.67 6.63	1.24 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
P159 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	179.64 115.96	11.65 6.72	0.85 1.44	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
P160 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	329.75 211.32	14.63 8.82	6.86 4.22	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	226.69 142.85	1.98 1.77	6.17 3.33	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
P165 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	235.80 149.80	2.99 2.50	7.98 4.18	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
P169 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	223.86 138.15	6.30 3.85	14.13 8.32	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
P170 1:20	30.00 X	15.00 150.00	150.00 RR	261.22 143.19	6.44 3.50	12.34 6.43	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P171 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	329.11 181.99	3.01 2.47	10.10 3.88	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	315.91 174.90	1.35 1.24	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	353.30 193.17	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	221.43 130.79	4.39 2.93	10.44 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
P175 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	174.83 107.01	1.62 1.98	6.65 4.86	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	210.36 123.87	1.71 1.86	4.10 3.68	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	292.50 171.85	2.03 3.67	5.32 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	66.32 17.30
P178 1:20	30.00 X 30.00	15.00 150.00	575.00 RR 150.00 RR	284.35 166.76	2.06 2.89	6.88 5.29	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	323.48 190.37	1.33 4.87	6.24 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	66.32 17.30
P180 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	292.62 173.14	1.52 1.14	7.08 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	17.30 17.30
P181 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	341.51 217.85	17.39 8.77	7.06 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
P182 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	334.14 215.12	16.07 8.46	18.60 10.78	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	15.00 150.00	150.00 RR	139.79 87.62	1.16 1.30	3.35 2.68	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 66.32

	30.00		575.00 RR				0.5 4 ø 12.5		
P184 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	231.64 140.03	1.73 1.53	5.46 3.46	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	236.56 141.98	1.56 1.33	9.61 5.59	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
P186 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	296.79 167.59	2.83 2.30	11.79 1.94	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
P187 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	323.99 181.26	0.70 0.99	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	316.23 176.01	6.70 3.58	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	174.06 102.79	0.61 0.41	1.26 1.42	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	239.20 147.66	6.23 3.50	16.50 9.74	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	195.10 116.25	0.55 0.50	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	227.05 125.85	0.50 0.25	10.66 1.24	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
P193 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	118.24 67.43	0.92 0.67	3.27 2.22	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	165.48 92.37	0.56 0.45	2.00 1.13	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
P195 1:20	15.00 X 25.00	20.00 150.00	300.00 EL 150.00 RR	12.74 7.62	0.13 0.21	2.44 0.75	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	20.00 150.00	150.00 RR	313.83 192.21	4.00 1.85	3.16 1.08	1.57 2 ø 10.0 1.57 2 ø 10.0	ø 5.0 c/12	34.60 17.30

	30.00		150.00 RR				0.7 4 ø 10.0		
P197 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	192.65 117.58	3.84 2.62	5.58 3.31	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
P198 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	175.39 105.99	1.43 1.39	2.64 2.58	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 66.32
P199 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	351.76 206.92	3.63 2.81	6.35 4.05	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
P200 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	361.35 212.49	2.75 1.38	7.86 4.14	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
P201 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	383.76 226.52	10.54 7.75	7.50 4.24	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
P202 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	295.30 172.82	14.20 6.74	10.62 6.21	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	227.47 143.83	3.35 1.71	1.83 1.71	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
P204 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	279.79 169.58	15.23 9.59	18.54 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
P205 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 575.00 RR	357.97 208.77	15.13 6.45	2.52 2.11	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 66.32
P206 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	432.86 261.81	15.45 6.05	7.31 4.74	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	229.23 135.61	5.85 12.10	13.00 8.77	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	230.20 134.24	1.19 2.23	8.65 6.37	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
P209 1:20	30.00 X	20.00 150.00	150.00 RR	312.77 183.38	4.07 1.41	7.53 5.87	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P210 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	213.68 130.05	2.69 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	124.03 75.27	0.99 2.59	19.35 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	171.54 109.72	4.62 2.74	7.84 5.46	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	222.53 139.07	2.60 1.59	12.97 7.52	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
P214 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	187.50 116.95	2.00 1.40	6.87 4.72	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	260.05 167.31	3.98 1.65	3.11 1.94	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	245.60 158.45	6.40 4.60	7.24 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
P217 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	174.29 113.21	4.52 2.21	2.79 2.08	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
P218 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	269.93 172.95	11.41 6.22	1.21 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
P219 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	176.44 112.41	1.39 0.79	0.46 1.15	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
P220 1:20	15.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	115.97 76.73	1.85 0.84	2.40 1.35	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	131.22 81.58	2.15 1.10	2.43 1.64	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	20.00 150.00	150.00 RR	242.75 156.85	4.98 3.13	1.72 1.41	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
P223 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	184.62 121.96	8.51 2.62	4.79 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
P224 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	171.08 111.65	3.58 2.42	3.62 2.26	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	137.99 89.06	2.31 4.73	2.07 1.63	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	130.83 84.23	1.28 3.31	1.19 1.46	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	107.05 67.25	2.58 3.01	1.12 1.21	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	138.80 87.45	3.46 2.20	10.08 5.55	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
P229 1:20	30.00 X 30.00	15.00 150.00	150.00 RR 150.00 RR	188.62 119.87	1.37 0.87	12.95 7.55	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
P230 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	188.40 118.45	6.85 4.27	1.85 1.38	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
P231 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	299.16 192.76	10.84 9.15	4.15 2.70	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	258.30 166.77	6.51 4.24	7.74 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
P233 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	221.36 144.06	12.65 9.81	4.77 4.00	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
P234 1:20	30.00 X 30.00	20.00 150.00	150.00 RR 150.00 RR	211.86 138.35	12.35 7.91	3.76 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
P235 1:20	30.00 X	15.00 150.00	150.00 RR	96.02 58.89	1.91 1.35	3.30 2.29	2.45 2 ø 12.5 2.45 2 ø 12.5	ø 5.0 c/15	17.30 17.30

	30.00		150.00 RR				0.5 4 ø 12.5		
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	7.65	2.65	As = 2.16 cm²/m (ø8.0 c/10 - 5.03 cm²/m)	As = 2.30 cm²/m (ø8.0 c/10 - 5.03 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 (kN/m²)	Pressão Sig2 (kN/m²)	Pressão Sig3 (kN/m²)	Pressão Sig4 (kN/m²)
S1	0.85 0.80	0.99 1.41	24.09 33.78	123.97 (lim = 300.00)	83.67 (lim = 300.00)	49.26 (lim = 300.00)	89.56 (lim = 300.00)
S2	0.88 0.50	1.04 0.81	23.85 33.55	98.11 (lim = 300.00)	56.52 (lim = 300.00)	73.93 (lim = 300.00)	115.52 (lim = 300.00)
S3	1.13 0.64	1.14 0.99	50.35 61.44	163.58 (lim = 300.00)	127.77 (lim = 300.00)	109.49 (lim = 300.00)	145.29 (lim = 300.00)
S4	1.21 0.53	1.21 0.79	53.05 64.15	132.14 (lim = 300.00)	165.54 (lim = 300.00)	152.96 (lim = 300.00)	119.56 (lim = 300.00)
S5	0.91 1.11	1.01 2.17	28.39 38.09	101.39 (lim = 300.00)	144.26 (lim = 300.00)	93.92 (lim = 300.00)	51.04 (lim = 300.00)
S6	0.84 0.60	1.03 1.14	22.99 32.69	51.50 (lim = 300.00)	91.49 (lim = 300.00)	116.12 (lim = 300.00)	76.14 (lim = 300.00)

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	10.98 0.85	12.90 (lim = 1.50)	9.38 0.80	11.67 (lim = 1.50)	10.33 1.36	7.61 lim = (1.50)		

S2	10.90 0.88	12.41 (lim = 1.50)	9.34 0.50	18.81 (lim = 1.50)	12.28 1.21	10.12 lim = (1.50)		
S3	20.51 1.13	18.12 (lim = 1.50)	17.40 0.64	27.17 (lim = 1.50)	20.01 1.35	14.85 lim = (1.50)		
S4	21.52 1.21	17.75 (lim = 1.50)	18.20 0.53	34.38 (lim = 1.50)	21.00 1.30	16.17 lim = (1.50)		
S5	12.38 0.91	13.67 (lim = 1.50)	10.63 1.11	9.62 (lim = 1.50)	11.87 2.10	5.66 lim = (1.50)		
S6	10.62 0.84	12.58 (lim = 1.50)	9.03 0.60	15.11 (lim = 1.50)	11.96 1.45	8.23 lim = (1.50)		

Verificação de tensão em área reduzida

Nome	Interface pilar-fundação		
	Força solicitante (kN)	Força resistente (kN)	Condição
S1	33.72	2437.50	OK
S2	33.40	2437.50	OK
S3	70.48	3000.00	OK
S4	74.27	3000.00	OK
S5	39.75	2437.50	OK
S6	32.19	2437.50	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:

Dados				Resultados					
Pilar	Seção (cm)	Nível Altura (cm)	leb vínc leh vínc (cm)	Nd máx Nd mín	MBd topo	MHd topo	As b Armaduras As h	Estribo Topo Base	Esb b Esb h

				(kN)	MBd base (kN.m)	MHd base (kN.m)	% armad total	cota	
P1 1:20	15.00 X 25.00	25.00 150.00	150.00 RR 150.00 RR	33.72 16.21	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	33.40 15.99	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 41.13	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	74.27 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	39.75 20.47	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	32.19 15.08	1.56 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 DO RADIER DA CASA DE GASES:

Nome	Espessura (cm)	Carga (kN/m²)	Mdx (kN.m/m)	Mdy (kN.m/m)	Asx	Asy
L1	16	8.82	1.03	1.38	(ø5.0 c/10 - 1.96 cm²/m)	(ø5.0 c/10 - 1.96 cm²/m)

11. RESULTADOS DO RADIER DO RESERVATÓRIO:

Cálculos do Fundação do Reservatório

ARMADURAS (RADIER)					
Seção	Direção	Flexão Positiva		Flexão Negativa	
h = 60 cm	X	Md = 16,08 kN.m/m	As = 0,68 cm²/m As,min = 6,03 cm²/m	Md = 0,60 kN.m/m	As = 0,03 cm²/m As,min = 6,03 cm²/m
	Y	Md = 21,73 kN.m/m	As = 0,92 cm²/m As,min = 6,03 cm²/m	Md = 0,64 kN.m/m	As = 0,03 cm²/m As,min = 6,03 cm²/m

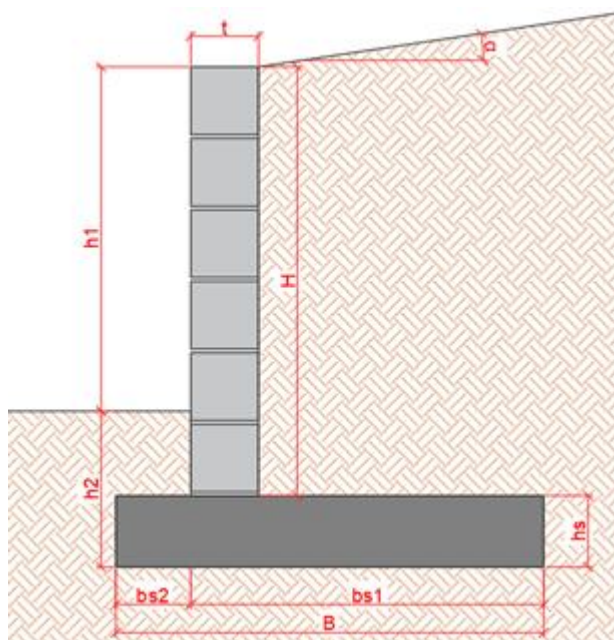
Pressão de contato mínima: 0,32 kgf/cm²

Pressão de contato máxima: 0,56 kgf/cm²

12. RESULTADOS DA CONTENÇÃO:

Para a contenção foi considerado:

- Carga acidental uniformemente distribuída: $q = 3,0 \text{ kN/m}^2$;
- Ângulo de atrito do solo: $\phi = 30^\circ$;
- Coesão do solo: $c = 0$ (Não considerado);
- Coeficiente de atrito solo x sapata: $\mu = 0,4$
- Bloco de concreto espessura 19 cm $f_{bk} = 8,0 \text{ MPa}$
- Graute: $f_{gk} = 20 \text{ MPa}$
- Argamassa: $f_{ak} = 6,0 \text{ MPa}$
- Resistência da parede: $f_d = 3,68 \text{ MPa}$



Geometria - TIPO 1			
Altura de contenção	h1	1,35	m
Altura enterrada	h2	0,45	m
Largura da Sapata	bs1	0,80	m
Largura da Sapata	bs2	0,00	m
Largura da Sapata	B	0,80	m
Espessura da parede	t	0,19	m
Espessura Sapata	hs	0,20	m

Resultados			
Coef. De empuxo ativo	Ka	0,33	-
Momento resistente	Mr	11,55	kN.m/m
Momento de tombamento	M	5,48	kN.m/m
FS Tombamento	FS_Tomb	2,11	-
Força Resistente de deslizamento	Fr	27,56	kN/m
Força de Deslizamento	F	11,02	kN/m
FS Deslizamento	FS_Des	1,68	-
Momento de cálculo da parede	Msd.par	7,67	kN.m/m
Momento de cálculo da Sapata	Msd.sap	2,77	kN.m/m

Armadura da parede		
Posição	Diâm	espaç
Armadura Vertical na base	10.0	c/20
Armadura horizontal na cinta	8.0	c/100
Armadura da Sapata		
Posição	Diâm	espaç
Armadura Superior	8.0	c/20
Armadura Inferior	8.0	c/20
Armadura sec. Superior	6.3	c/18
Armadura sec. Inferior	6.3	c/18