MEMORIA DE CÁLCULO

ESTRUCTURA DE HORMIGÓN Y METAL PARA NAVE DEPÓSITO

MARZO 2025

ADRIANO NAHUEL SILKE

Contenido

1. INTRODUCCIÓN	3
2. BASES DE DISEÑO	
3. DISEÑO ESTRUCTURAL	
4. ANÁLISIS Y VERIFICACIÓN DE ELEMENTOS DE H°A°	4
4.1 ELEMENTOS METÁLICOS:	9
4.2. PORTICOS:	19
4.3. COLUMNAS:	28
ΛΛ ΒΔSES·	30

1. INTRODUCCIÓN

La presente memoria tiene como objeto poner de manifiesto los criterios de análisis y verificación estructural de una estructura de H°A° y metal, prevista para una nave industrial para depósitos.

En la presente memoria se verificarán las estructuras a las situaciones de carga últimas y de servicio.

2. BASES DE DISEÑO

El proceso de verificación y diseño se inicia determinando las cargas actuantes según los reglamentos vigentes correspondientes:

- CIRSOC 101/05. Reglamento Argentino de Cargas Permanentes y Sobrecargas de Diseño.
- CIRSOC 102/05. Reglamento Argentino de Acción del Viento sobre las Construcciones.

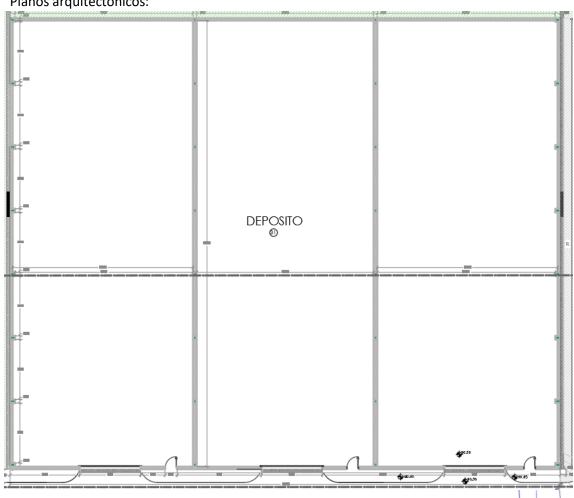
Luego se modela la estructura en un software en base al cálculo mediante elementos finitos, se obtienen las solicitaciones en barras, y se contrastan con las resistencias nominales establecidas en los siguientes reglamentos:

- -CIRSOC 201-2005. Reglamento Argentino de Estructuras de Hormigón.
- -CIRSOC 303-2005. Reglamento Argentino de Estructuras de Acero conformado en frío.
- -CIRSOC 301-2005. Reglamento Argentino de Estructuras de Acero laminadas en caliente.

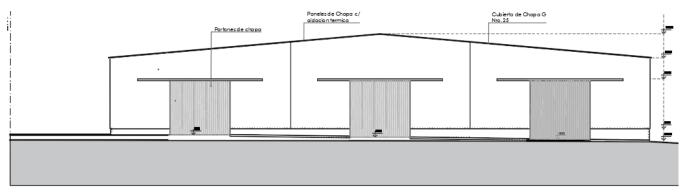
3. DISEÑO ESTRUCTURAL

La estructura posee tres niveles, donde el primero se compone de bases aisladas y zapatas corridas, unidas a nivel de encadenado inferior mediante vigas de fundación, luego, un nivel de encadenados intermedios y luego, un tercer nivel compuesto de encadenados superiores donde apoya la estructura de techo.

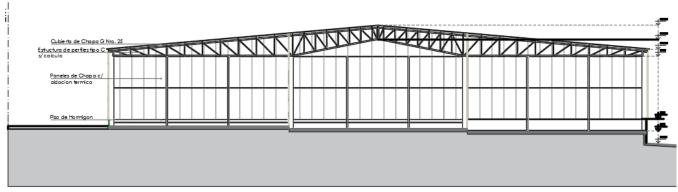
Planos arquitectónicos:



ADRIANO NAHUEL SILKE M. P. N. 3316



CORTE B-B Esc 1:100



CORTE A-A Esc 1:100

-Niveles

Grupo	Nombre del grupo	Planta	Nombre planta	Altura	Cota
3	Enc Superior	3	Enc Superior	2.60	6.20
2	Enc Intermedio	2	Enc Intermedio	3.60	3.60
1	Enc Inferior	1	Enc Inferior	1.50	0.00
0	Fundación				-1.50

4. ANÁLISIS Y VERIFICACIÓN DE ELEMENTOS DE H°A°

- MATERIALES UTILIZADOS

- Hormigones

Elemento	Hormidon	fck (kp/cm²)	gc		Ec (kp/cm²)
Todos	H-20	204	1.00	19	214261

- Aceros por elemento y posición

- Aceros en barras

Elemento	Acero	f _{yk} (kp/cm²)	g _s
Todos	ADN 420	4281	1.00

- ACCIONES CONSIDERADAS

- Gravitatorias:

Planta	S.C.U (t/m²)	Cargas permanentes (t/m²)	
Enc Superior	0.00	0.00	
Enc Intermedio	0.40	0.19	
Enc Inferior	0.00	0.00	
Fundación	0.00	0.00	1

ADRIANO NAHUEL SILKE INSENIERO CIVIL 4

-Cargas especiales introducidas (en t, t/m y t/m²)

Grupo	Hipótesis	Tipo	Valor	Coordenadas
Enc Intermedio	Cargas permanentes	Lineal	0.10	(5.00,0.05) (10.00,0.05)
	Cargas permanentes	Lineal	0.10	(5.00,36.75) (10.00,36.75)
	Cargas permanentes	Lineal	0.10	(0.03,26.22) (0.03,31.43)
	Cargas permanentes	Lineal	0.10	(0.20,0.05) (5.00,0.05)
	Cargas permanentes	Lineal	0.10	(10.00,0.05) (15.15,0.05)
	Cargas permanentes	Lineal	0.10	(0.03,0.15) (0.03,5.36)
	Cargas permanentes	Lineal	0.10	(0.03,5.36) (0.03,10.58)
	Cargas permanentes	Lineal	0.10	(0.03,10.58) (0.03,15.79)
	Cargas permanentes	Lineal	0.10	(0.03,15.79) (0.03,21.01)
	Cargas permanentes	Lineal	0.10	(0.03,21.01) (0.03,26.22)
	Cargas permanentes	Lineal	0.10	(0.03,31.43) (0.03,36.65)
	Cargas permanentes	Lineal	0.10	(0.20,36.75) (5.00,36.75)
	Cargas permanentes	Lineal	0.10	(10.00,36.75) (15.15,36.75)
	Cargas permanentes	Lineal	0.10	(15.15,0.05) (20.15,0.05)
	Cargas permanentes	Lineal	0.10	(20.15,0.05) (25.15,0.05)
	Cargas permanentes	Lineal	0.10	(25.15,0.05) (29.96,0.05)
	Cargas permanentes	Lineal	0.10	(15.15,36.75) (20.15,36.75)
	Cargas permanentes	Lineal	0.10	(20.15,36.75) (25.15,36.75)
	Cargas permanentes	Lineal	0.10	(25.15,36.75) (29.96,36.75)
	Cargas permanentes	Lineal	0.10	(45.08,31.43) (45.08,26.22)
	Cargas permanentes	Lineal	0.10	(29.96,0.05) (34.96,0.05)
	Cargas permanentes	Lineal	0.10	(34.96,0.05) (39.96,0.05)
	Cargas permanentes	Lineal	0.10	(39.96,0.05) (44.91,0.05)
	Cargas permanentes	Lineal	0.10	(45.08,31.43) (45.08,36.65)
	Cargas permanentes	Lineal	0.10	(45.08,0.15) (45.08,5.36)
	Cargas permanentes	Lineal	0.10	(45.08,5.36) (45.08,10.58)
	Cargas permanentes	Lineal	0.10	(45.08,10.58) (45.08,15.79)
	Cargas permanentes	Lineal	0.10	(45.08,15.79) (45.08,21.01)
	Cargas permanentes	Lineal	0.10	(45.08,21.01) (45.08,26.22)
	Cargas permanentes	Lineal	0.10	(29.96,36.75) (34.96,36.75)
	Cargas permanentes	Lineal	0.10	(34.96,36.75) (39.96,36.75)
	Cargas permanentes	Lineal	0.10	(39.96,36.75) (44.91,36.75)
	Cargas permanentes	Lineal	0.50	(15.15,0.15) (15.15,5.36)
	Cargas permanentes	Lineal	0.50	(15.15,5.36) (15.15,10.58)
	Cargas permanentes	Lineal	0.50	(15.15,10.58) (15.15,15.79)
	Cargas permanentes	Lineal	0.50	(15.15,15.79) (15.15,21.01)
	Cargas permanentes	Lineal	0.50	(15.15,21.01) (15.15,26.22)
	Cargas permanentes	Lineal	0.50	(15.15,26.22) (15.15,31.43)
	Cargas permanentes	Lineal	0.50	(15.15,31.43) (15.15,36.65)
	Cargas permanentes	Lineal	0.50	(29.96,36.65) (29.96,31.43)
	Cargas permanentes	Lineal	0.50	(29.96,31.43) (29.96,26.22)
	Cargas permanentes	Lineal	0.50	(29.96,26.22) (29.96,21.01)
	Cargas permanentes	Lineal	0.50	(29.96,21.01) (29.96,15.79)
	Cargas permanentes	Lineal	0.50	(29.96,15.79) (29.96,10.58)
	Cargas permanentes	Lineal	0.50	(29.96,10.58) (29.96,5.36)
	Cargas permanentes	Lineal	0.50	(29.96,5.36) (29.96,0.15)

- Cargas horizontales en columnas

Referencia columna	Dirección de la carga	Tipo de carga	Hipótesis	Valor	Cota (m)
C1	X Local Y Local				Desde: 0.00 Hasta: 6.00 Desde: 0.00 Hasta: 6.00
C2	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C3	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C4	X Local Y Local				Desde: 0.00 Hasta: 6.00 Desde: 0.00 Hasta: 6.00
C5	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C8	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C9	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C12	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C13	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C16	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C17	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C20	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C21	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C24	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C25	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C28	X Local	Carga trapecial	Vx	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C29	X Local Y Local				Desde: 0.00 Hasta: 6.00 Desde: 0.00 Hasta: 6.00
C30	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C31	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
C32	X Local Y Local				Desde: 0.00 Hasta: 6.00 Desde: 0.00 Hasta: 6.00
CM3	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM1	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM4	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM2	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM11	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM12	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM5	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM6	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM7	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM8	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM9	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00
CM10	Y General	Carga trapecial	Vy	0.00 t/m - 0.40 t/m	Desde: 0.00 Hasta: 6.00

- Cargas en cabeza de pilar

Referencia columna	Hipótesis	N (t)	Mx (t·m)	My (t·m)	Qx (t)	Qy (t)	T (t·m)
C1	Cargas permanentes	0.75	0.00	0.00	0.00	0.00	0.00
C2	Cargas permanentes	2.40	0.00	0.00	0.00	0.00	0.00
C3	Cargas permanentes	2.40	0.00	0.00	0.00	0.00	0.00
C4	Cargas permanentes	0.75	0.00	0.00	0.00	0.00	0.00
C5	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C6	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C7	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C8	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C9	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C10	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C11	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C12	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C13	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C14	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C15	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C16	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C17	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00

Referencia columna	Hipótesis	N (t)	Mx (t·m)	My (t·m)	Qx (t)	Qy (t)	T (t·m)
C18	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C19	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C20	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C21	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C22	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C23	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C24	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C25	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C26	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C27	Cargas permanentes	4.77	0.00	0.00	0.00	0.00	0.00
C28	Cargas permanentes	1.57	0.00	0.00	0.00	0.00	0.00
C29	Cargas permanentes	0.75	0.00	0.00	0.00	0.00	0.00
C30	Cargas permanentes	2.40	0.00	0.00	0.00	0.00	0.00
C31	Cargas permanentes	2.40	0.00	0.00	0.00	0.00	0.00
C32	Cargas permanentes	0.75	0.00	0.00	0.00	0.00	0.00

-Viento

REGLAMENTO

Método de cálculo: Método 2 (Analítico) - Procedimiento Direccional

DATOS DE ENTRADA

EDIFICIO

Elevación sobre terreno: 0.00 m

Ancho: 44.00 m Longitud: 37.00 m Altura de alero: 6.00 m Altura de cumbrera: 10.00 m Tipo de cubierta: Dos aguas

Categoría: II

Clasificación de cerramiento: Cerrado

VIENTO

Velocidad básica: 45.00 m/s Categoría de exposición: C

FACTOR DE RÁFAGA

Se adopta el factor de ráfaga igual a 0.85 de acuerdo al artículo 5.8.1.

TOPOGRAFÍA

Topografía no considerada.

RESULTADOS

PARÁMETROS DE CÁLCULO

Ángulo de cubierta: 10.30° Altura media de cubierta: 8.00 m Coeficiente de presión interna, GC,: ±0.18 Factor de direccionalidad, K,: 0.85

CONSTANTES DE EXPOSICIÓN DEL TERRENO

α	Z _s (m)	â	ĥ	ā	Б	С	ι (m)	Ē	Z _{min} (m)
9.50	274.00	0.11	1.00	0.15	0.65	0.20	152.00	0.20	4.60

FACTOR DE RÁFAGA

Factor de ráfaga: 0.85

FACTOR TOPOGRÁFICO

Factor topográfico, K_x: 1.00

ADRIANO NAHUEL SILKE INGENIERO CIVIL 7 M. P. Nº 8316

PRESIONES - SPRFV

VIENTO PARALELO A LA CUMBRERA

		F	PARED BARLO	VENTO (Ref: Figura	3 cont.)	
Alturas (m)	K,	K _{zt}	C _p	q. (kG/m²)	$p_{\scriptscriptstyle n}$ [+GC _{pi}] (kG/m²)	$p_{\scriptscriptstyle n}$ [-GC _{pi}] (kG/m ²)
0.00	0.87	1.00	0.80	93.09	44.80	81.80
1.00	0.87	1.00	0.80	93.09	44.80	81.80
2.00	0.87	1.00	0.80	93.09	44.80	81.80
3.00	0.87	1.00	0.80	93.09	44.80	81.80
4.00	0.87	1.00	0.80	93.09	44.80	81.80
5.00	0.87	1.00	0.80	93.09	44.80	81.80
6.00	0.90	1.00	0.80	96.74	47.28	84.28
7.00	0.93	1.00	0.80	99.93	49.45	86.45
8.00	0.96	1.00	0.80	102.78	51.39	88.39
9.00	0.98	1.00	0.80	105.36	53.14	90.14
10.00	1.00	1.00	0.80	107.72	54.75	91.75
			PARED LATE	RAL (Ref: Figura 3 c	ont.)	
Alturas (m)	K,	K_{zth}	C,	q, (kG/m²)	p_n [+GC $_{\mu}$] (kG/m 2)	p_n [-GC _{pl}] (kG/m ²)
Total	0.96	1.00	-0.70	102.78	-79.65	-42.65
			PARED SOTAV	'ENTO (Ref: Figura 3	cont.)	
Alturas (m)	K,	K_{zth}	C,	q₁ (kG/m²)	p, [+GC,] (kG/m²)	p_n [-GC _{pl}] (kG/m ²)
Total	0.96	1.00	-0.50	102.78	-62.18	-25.18
			CUBIERTA	A (Ref: Figura 3 con	t.)	
Distancias (m)	K,	$\mathbf{K}_{\mathrm{zth}}$	C,	q, (kG/m²)	$p_{_{n}}$ [+GC $_{_{pl}}$] (kG/m 2)	p, [-GC,] (kG/m²)
0.00 a 4.00	0.96	1.00	-0.90	102.78	-97.12	-60.12
4.00 a 8.00	0.96	1.00	-0.90	102.78	-97.12	-60.12
8.00 a 16.00	0.96	1.00	-0.50	102.78	-62.18	-25.18
16.00 a 37.00	0.96	1.00	-0.30	102.78	-44.71	-7.71

VIENTO NORMAL A LA CUMBRERA

VIO NORIVIAL A	(E) (COIVIDI					
			PARED BARLO	VENTO (Ref: Figura .	3 cont.)	
Alturas (m)	K,	K _{zt}	C _p	q. (kG/m²)	$p_{_{n}}$ [+GC $_{_{\mathrm{Pl}}}$] (kG/m 2)	$p_{\scriptscriptstyle n}$ [-GC $_{\scriptscriptstyle m pl}$] (kG/m $^{\scriptscriptstyle 2}$)
0.00	0.87	1.00	0.80	93.09	44.80	81.80
1.00	0.87	1.00	0.80	93.09	44.80	81.80
2.00	0.87	1.00	0.80	93.09	44.80	81.80
3.00	0.87	1.00	0.80	93.09	44.80	81.80
4.00	0.87	1.00	0.80	93.09	44.80	81.80
5.00	0.87	1.00	0.80	93.09	44.80	81.80
6.00	0.90	1.00	0.80	96.74	47.28	84.28
			PARED LATE	ERAL <i>(Ref: Figura 3 c</i>	ont.)	
Alturas (m)	K,	$\mathbf{K}_{\mathrm{zth}}$	C _p	q, (kG/m²)	p, [+GC,] (kG/m²)	p, [-GC,] (kG/m²)
Total	0.96	1.00	-0.70	102.78	-79.65	-42.65
			PARED SOTA	VENTO (Ref: Figura 3	cont.)	
Alturas (m)	K,	$\mathbf{K}_{\mathrm{zth}}$	C,	q, (kG/m²)	p, [+GC,] (kG/m²)	p, [-GC,] (kG/m²)
Total	0.96	1.00	-0.46	102.78	-58.87	-21.87

	Cl	JBIERTA BAR	LOVENTO - PF	resión negativa <i>(i</i>	Ref: Figura 3 cont.)	
Distancias (m)	K _h	\mathbf{K}_{zth}	C _p	q _h (kG/m²)	$p_{\scriptscriptstyle n}$ [+GC $_{\scriptscriptstyle \mu}$] (kG/m $^{\scriptscriptstyle 2}$)	$p_{\scriptscriptstyle n}$ [-GC $_{\scriptscriptstyle m pl}$] (kG/m $^{\scriptscriptstyle 2}$)
Total	0.96	1.00	-0.69	102.78	-78.59	-41.59
	С	UBIERTA BAF	RLOVENTO - P	RESIÓN POSITIVA <i>(R</i>	ef: Figura 3 cont.)	
Distancias (m)	K _h	K_{zth}	C,	q, (kG/m²)	p_n [+GC _{pl}] (kG/m²)	p_n [-GC $_{\mu}$] (kG/m 2)
Total	0.96	1.00	0.00	102.78	-18.50	18.50
		CUI	BIERTA SOTAV	/ENTO (Ref: Figura 3	3 cont.)	
Distancias (m)	K,	\mathbf{K}_{zth}	C _p	q, (kG/m²)	$p_{_{\scriptscriptstyle n}}$ [+GC $_{_{\scriptscriptstyle m M}}$] (kG/m $^{\scriptscriptstyle 2}$)	$p_{_{n}}$ [- $GC_{_{pl}}$] (kG/ $m^{_{2}}$)
Total	0.96	1.00	-0.31	102.78	-45.77	-8.77

4.1 ELEMENTOS METÁLICOS:

CARGAS EN CORREA

Luz máx del tramo: 5.00 m Pend de la cubierta: 6.00° Separación: 0.95 m

Análisis de carga:

Carga muerta:

cubierta de chapa------ 4.50 kg/m2 Cubierta de paneles PIR 100mm------ 12.00 kg/m2

Carga de uso:

 L_r "Sobrecarga de uso en techos" (CIRSOC 101/05)----- 96.00 kg/m2

Carga de viento:

W(-) "succión" (CIRSOC 102/05)-----

Carga lineal muerta en el elemento:

D= 15.68 kg/m

Carga lineal viva en el elemento:

L= 85.50 kg/m

Carga lineal de viento en el elemento:

W(-) = -86.39 kg/m

	0.085					0.085	
1	0.085					0.085	

			N	lud	os					
	Co	ordenada	as	Vin	cula	ació	n e	xte	rior	
Referencia	Χ	Υ	Z			Δ_{z}	Δ	Δ	Δ	Vinculación interior
	(m)	(m)	(m)	Δx	Δу	Δz	Ох	θу	θz	
N2	-12.345	-17.133	-0.119	Χ	Χ	Χ	Χ	Χ	Χ	Empotrado
N3	-17.445	-17.133	-0.119	Χ	Χ	Χ	Χ	Χ	Χ	Empotrado

		Ca	racterísticas mecán	icas					
Materia	al	Ref.	Descripción	Α	Avy	Avz	lyy	lzz	It
Tipo	Designación	r∖ei.	Descripcion	(cm²)	(cm²)	(cm²)	(cm4)	(cm4)	(cm4)
Acero conformado	A36	1	C 120x50x15x2, (C)	4.73	1.60	2.43	105.72	15.93	0.06

Notación:

Ref.: Referencia

Rei: Referencia
Av. Área de la sección transversal
Avy: Área de cortante de la sección según el eje local 'Y'
Avz: Área de cortante de la sección según el eje local 'Z'
lyy: Inercia de la sección alrededor del eje local 'Y'

Izz: Inercia de la sección alrededor del eje local 'Z'

Las características mecánicas de las piezas corresponden a la sección en el punto medio de las mismas.

ADRIANO NAHUEL SILKE INCENIERO CIVIL 9 M. P. Nº 2316

	Comprobación de resistencia												
		Docición			Esfuerzos	s pésimos							
Barra	Barra η Posición (%) (m)		N	Vy	Vz	Mt	Му	Mz	Origen	Estado			
	(70)	(111)	(t)	(t)	(t)	(t·m)	(t·m)	(t·m)					
N3/N2	92.72	0.000	0.000	0.000	-0.404	0.000	-0.343	0.000	G	Cumple			

Barra		COMPROBACIONES (AISI S100-07 (2007))														Estado
Dalla	w/t	T	Р	Tr	M _x	My	V _x	Vy	M_xTr	M_yTr	M_xV_y	M_yV_x	MT	MP	TPTrMV	Estado
N3/N2	$w / t \le (w / t)_{Máx.}$	N.P. ⁽¹⁾	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m	N.P. ⁽⁸⁾	x: 0 m	N P (9)	N.P. ⁽¹⁰⁾	CUMPLE
INS/INZ	Cumple	IN.F.	IN.F.(-)	IN.F.(°)	$\eta = 92.7$	IN.F.	IN.F.(°)	$\eta = 12.4$	IN.F.(°)	IN.F.	$\eta = 87.5$	IN.F.(°)	$\eta = 92.7$	IN.F.(°)	IN.F.(1.9)	$\eta = 92.7$

Notación:

- w / t: Limitaciones geométricas
- T: Resistencia a tracción
- P: Resistencia a compresión
- Tr: Resistencia a torsión
- M_x: Resistencia a flexión alrededor del eje X
- My: Resistencia a flexión alrededor del eje Y Vx: Resistencia a corte en la dirección del eje X Vy: Resistencia a corte en la dirección del eje Y

- MxTr: Resistencia a flexión alrededor del eje X combinada con torsión MyTr: Resistencia a flexión alrededor del eje Y combinada con torsión
- M_xV_y: Resistencia a flexión alrededor del eje X combinada con corte en la dirección del eje Y
- M_yV_x: Resistencia a flexión alrededor del eje Y combinada con corte en la dirección del eje X
- MT: Resistencia a flexión combinada con tracción
- MP: Resistencia a flexión combinada con compresión
- TPTrMV: Flexión combinada con cortante, axil y torsión Comprobación de Von Mises
- x: Distancia al origen de la barra
- η: Coeficiente de aprovechamiento (%) N.P.: No procede

CARGAS EN CORREA LATERAL

Luz máx del tramo: 4.90 m Pend de la cubierta: 6.00° Separación: 1.50 m

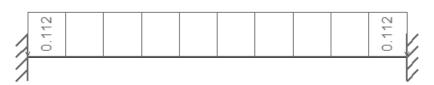
Análisis de carga:

Carga de viento:

W(-) "succión" (CIRSOC 102/05)------- 80.00 kg/m2

Carga lineal de viento en el elemento:

W(-)= 112.50 kg/m



			N	lud	os					
	Co	ordenada	as	Vin	cula	ació	n e	xte	rior	
Referencia	, ,	Υ	Z	٨٠	۸.,	۸-	A۷	A.	Α-	Vinculación interior
	(m)	(m)	(m)	$\begin{array}{c c} Z \\ (m) \end{array} \begin{vmatrix} \Delta_x & \Delta_y & \Delta_z & \theta_x & \theta_y \end{vmatrix}$				02		
N39	-17.445	-17.133	-3.553	Χ	Χ	Χ	Χ	Χ	Χ	Empotrado
N40	-12.550	-17.133	-3.553	Χ	Χ	Χ	Χ	Χ	Χ	Empotrado

		Ca	racterísticas mecán	icas					
Materia	al	Ref.	Descripción			Avz		lzz	It
Tipo	Designación	Rei.	Descripcion	(cm²)	(cm²)	(cm²)	(cm4)	(cm4)	(cm4)
Acero conformado	A36	1	C 120x50x15x2, (C)	4.73	1.60	2.43	105.72	15.93	0.06

ADRIANO NAHUEL SILKE INCENIERO CIVIL 10 M. P. N. 3316

				Comprob	ación de resis	tencia				
		Posición			Esfuerzos	s pésimos				
Barra η (%)	η (%)	(m)	N	Vy	Vz	Mt	Му	Mz	Origen	Estado
	(70)	(111)	(t)	(t)	(t)	(t·m)	(t·m)	(t·m)		
N39/N40	99.89	0.000	0.000	0.000	-0.449	0.000	-0.367	0.000	GV	Cumple

Barra					COI	MPROB	ACIONE	ES (AISI S	100-07 (2007))						Estado
Dalla	w/t	T	Р	Tr	M _x	My	Vx	Vy	M _x Tr	M_yTr	M_xV_y	M_yV_x	MT	MP	TPTrMV	Estado
N39/N40	$w/t \le (w/t)_{Máx}$	N.P. ⁽¹⁾	N.P. ⁽²⁾	N.P.(3)	x: 0 m	N D (4)	N.P. ⁽⁵⁾	x: 0 m	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m	N.P.(8)	x: 0 m	N.P.(9)	N.P.(10)	CUMPLE
1433/1440	Cumple	IN.F .**	IN.F.(=)	IN.F.(°)	$\eta = 99.0$	14.5.49	14.1.(0)	$\eta = 13.8$	IN.F.(°)	IN.F.(*/	$\eta = 99.9$	IN.F.(°)	$\eta = 99.0$	IN.F.(°)	IN.F.(10)	η = 99.9

CARGAS EN CERCHA

Luz máx del tramo: 10.42 m
Pend de la cubierta: 10.00 °
Separación: 3.60 m

Análisis de carga:

Carga muerta:

Peso chapa G° N° 24 + correas------ 5.50 kg/m2 Cubierta de paneles PIR 100mm------ 12.00 kg/m2

Carga de uso:

L_r "Cubiertas" (CIRSOC 101/05)------57.00 kg/m2

Carga de viento (normal a cumbrera):

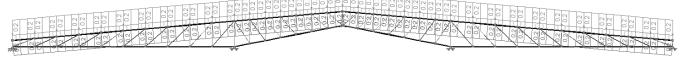
 $D = 63.00 \, kg/m$

Carga lineal viva en el elemento:

 L_r = 205.20 kg/m

Carga lineal de viento en el elemento:

W1= -202.50 kg/m



								١	lud	los				
	Co	ordenada	as						Vi	nculación exteri	or			
Referencia	X (m)	Y (m)	Z (m)	Δх	Δу	Δz	θχ	θу	θz	Dependencias	Ux	Uy	Uz	Vinculación interior
N1	-10.202	-17.133	-0.119	Х	Χ	Χ	-	-	-	-	-	-	-	Empotrado
N4	4.648	-17.133	-0.119	-	Х	Χ	-	-	-	Recta	1.000	0.000	0.000	Empotrado
N5	11.898	-17.133	1.281	-	-	-	-	-	-	-	-	-	-	Empotrado
N6	11.898	-17.133	2.211	-	-	-	-	-	-	-	-	-	-	Empotrado
N7	-10.202	-17.133	0.291	-	-	-	-	-	-	-	-	-	-	Empotrado
N8	4.648	-17.133	1.581	-	-	-	-	-	-	-	-	-	-	Empotrado
N9	-8.717	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N10	-7.232	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N11	-5.747	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N12	-4.262	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N13	-2.777	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N14	-1.292	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N15	0.193	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N16	1.678	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N17	3.163	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N18	5.684	-17.133	0.081	-	-	-	-	-	-	-	-	-	-	Empotrado
N19	6.720	-17.133	0.281	-	-	-	-	-	-	-	-	-	-	Empotrado
N20	7.755	-17.133	0.481	-	-	-	-	-	-	-	-	-	-	Empotrado
N21	8.791	-17.133	0.681	-	-	-	-	-	-	-	-	-	-	Empotrado
N22	9.827	-17.133	0.881	-	-	-	-	-	-	-	-	-	-	Empotrado
N23	10.862	-17.133	1.081	-	-	-	-	-	-	-	-	-	-	Empotrado
N24	10.862	-17.133	2.121	-	-	-	-	-	-	-	-	-	-	Empotrado

ADRIANO NAHUEL SILKE INSENIERO CIVIL 11 M. P. Nº 3316

Nudos														
	Co	ordenada	as						Vi	nculación exteri	or			
Referencia	X	Y	Z	Δ_{x}	Δ_{y}	Δ_{z}	θχ	θу	θ_z	Dependencias	Ux	Uy	Uz	Vinculación interior
NOE	(m) 9.827	(m) -17.133	(m) 2.031		_	_		-	-		_	•	-	Constrada
N25				-			-			-	-	-		Empotrado
N26	8.791	-17.133	1.941	-	-	-	-	-	-	-	-	-	-	Empotrado
N27	7.755	-17.133	1.851	-	-	-	-	-	-	-	-	-	-	Empotrado
N28	6.720	-17.133	1.761	-	-	-	-	-	-	-	-	-	-	Empotrado
N29	5.684	-17.133	1.671	-	-	-	-	-	-	-	-	-	-	Empotrado
N30	3.163	-17.133	1.452	-	-	-	-	-	-	-	-	-	-	Empotrado
N31	1.678	-17.133	1.323	-	-	-	-	-	-	-	-	-	-	Empotrado
N32	0.193	-17.133	1.194	-	-	-	-	-	-	-	-	-	-	Empotrado
N33	-1.292	-17.133	1.065	-	-	-	-	-	-	-	-	-	-	Empotrado
N34	-2.777	-17.133	0.936	-	-	-	-	-	-	-	-	-	-	Empotrado
N35	-4.262	-17.133	0.807	-	-	-	-	-	-	-	-	-	-	Empotrado
N36	-5.747	-17.133	0.678	-	-	-	-	-	-	-	-	-	-	Empotrado
N37	-7.232	-17.133	0.549	-	-	-	-	-	-	-	-	-	-	Empotrado
N38	-8.717	-17.133	0.420	-	-	-	-	-	-	-	-	-	-	Empotrado
N41	33.998	-17.133	-0.119	-	Χ	Χ	-	-	-	Recta	1.000	0.000	0.000	Empotrado
N42	32.513	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N43	31.028	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N44	29.543	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N45	28.058	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N46	26.573	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N47	25.088	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N48	23.603	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N49	22.118	-17.133	-0.119	-	-	-	-	-	-	-	-	-	-	Empotrado
N50	20.633	-17.133	-0.119	-	-	-	-	-	-	-	_	_	-	Empotrado
N51	19.148	-17.133	-0.119	-	Х	Х	-	-	-	Recta	1.000	0.000	0.000	Empotrado
N52	18.112	-17.133	0.081	_	_	_	_	-	_	-	_	_	_	Empotrado
N53	17.077	-17.133	0.281	_	_	_	_	-	_	_	_	_	_	Empotrado
N54	16.041	-17.133	0.481	_	_	_	_	_	_	_	_	_	-	Empotrado
N55	15.005	-17.133	0.681	_	_	_	_	_	_	_	_	_	-	Empotrado
N56	13.970	-17.133	0.881	_	_	_	_		_	_	_	_	_	Empotrado
N57	12.934	-17.133	1.081	_	_	_	_	_	_	_	_	_	-	Empotrado
N58	33.998	-17.133	0.291	_	_	_	_		_	_	_	_	_	Empotrado
N59	32.513	-17.133	0.420	_	_	_	_		_	_	_	_	_	Empotrado
N60	31.028	-17.133	0.549	_	_	_	_	_	_	_	_	_	_	Empotrado
N61	29.543	-17.133	0.678	_	_	_	_	_	_	_	_	_	_	Empotrado
N62	28.058	-17.133	0.807	_	_	_	_	_	_	_	_	_	_	Empotrado
N63	26.573	-17.133	0.936		_					-	_			Empotrado
N64	25.088	-17.133	1.065	_	-	-	_		_	-	_	_	_	Empotrado
N65	23.603		1.194	-	_	-	-	-	-	-	-	-	_	
N66	22.118		1.323	_	-		-	-	-	_	-	_	-	Empotrado Empotrado
	20.633			-	-		-	-	-	-	_	_		· ·
N67			1.452	-		-	-	-	-	-	_	_		Empotrado
N68		-17.133	1.581	-	-	-	-	-		-	-	-	-	Empotrado
N69		-17.133	1.671	-	-	-	-	-	-	-	-	-	-	Empotrado
N70		-17.133	1.761	-	-	-	-	-	-	-	-	-	-	Empotrado
N71		-17.133	1.851	-	-	-	-	-	-	-	-	-	-	Empotrado
N72		-17.133	1.941	-	-	-	-	-	-	-	-	-	-	Empotrado
N73	13.970			-	-	-	-	-	-	-	-	-	-	Empotrado
N74	12.934	-17.133	2.121	-	-	-	-	-	-	-	-	-	-	Empotrado

	Tipos de pieza
Ref.	Piezas
1	N1/N4, N4/N5, N5/N6, N1/N7, N7/N6, N51/N41, N51/N5, N41/N58 y N58/N6
	N4/N8, N5/N24, N23/N24, N23/N25, N22/N25, N22/N26, N21/N26, N21/N27, N20/N27, N20/N28, N19/N28, N19/N29, N18/N8, N17/N8,
	N17/N30, N16/N30, N16/N31, N15/N31, N15/N32, N14/N32, N14/N33, N13/N33, N13/N34, N12/N34, N12/N35, N11/N35, N11/N36, N10/N36, N10/N37, N9/N37, N9/N38, N1/N38, N5/N74, N5/N74, N57/N74, N57/N73, N56/N72, N55/N72, N55/N71, N54/N71, N54/N70, N53/N70, N55/N70, N55/N50, N55/N70,
	N53/N69, N52/N69, N52/N68, N50/N68, N50/N67, N49/N67, N49/N66, N48/N66, N48/N65, N47/N64, N46/N64, N46/N63, N45/N63,
	N45/N62, N44/N61, N43/N61, N43/N60, N42/N60, N42/N59 y N41/N59

			Características mecánicas						
Materia	al	Dof	Dogorinoión	Α	Avy		lyy	lzz	lt
Tipo							(cm4)		
Acero conformado	A36	1	C 120x50x15x2, Doble en cajón soldado, (C) Cordón continuo	9.47	3.20	4.87	211.43	142.12	250.42
		2	C 100x50x15x2, (C)	4.33	1.60	2.10	69.17	14.96	0.06

				Comp	robación de resis	tencia				
	n	Posición			Esfuera	zos pésimos				
Barra	η (%)	(m)	N (t)	Vy (t)	Vz (t)	Mt (t·m)	My (t·m)	Mz (t·m)	Origen	Estado
N1/N9	52.18	0.000	5.157	0.000	-0.231	0.000	-0.186	0.000	G	Cumple
N9/N10	50.83	0.000	7.473	0.000	0.008	0.000	0.091	0.000	G	Cumple
N10/N11	47.96	0.186	7.728	0.000	0.000	0.000	0.061	0.000	G	Cumple
N11/N12	43.27	0.000	6.911	0.000	0.007	0.000	0.057	0.000	G	Cumple
N12/N13	34.09	0.000	5.403	0.000	0.010	0.000	0.047	0.000	G	Cumple
N13/N14	22.72	0.000	3.434	0.000	0.012	0.000	0.037	0.000	G	Cumple
N14/N15	9.64	0.000	1.135	0.000	0.010	0.000	0.028	0.000	G	Cumple
N15/N16	13.16	0.000	-1.390	0.000	0.022	0.000	0.023	0.000	G	Cumple
N16/N17	34.03	1.485	-4.159	0.000	-0.013	0.000	0.030	0.000	G	Cumple
N17/N4	77.75	1.485	-6.808	0.000	0.180	0.000	-0.199	0.000	G	Cumple
N4/N18	76.94	0.000	-6.985	0.000	-0.260	0.000	-0.198	0.000	G	Cumple
N18/N19	46.89	0.000	-5.769	0.000	0.055	0.000	0.049	0.000	G	Cumple
N19/N20	34.46	0.000	-4.416	0.000	-0.037	0.000	-0.028	0.000	G	Cumple
N20/N21	23.45	0.000	-3.256	0.000	-0.014	0.000	-0.007	0.000	G	Cumple
N21/N22	16.52	0.000	-2.250	0.000	-0.016	0.000	-0.007	0.000	G	Cumple
N22/N23	10.73	1.055	-1.457	0.000	-0.003	0.000	0.005	0.000	G	Cumple
N23/N5	6.99	0.879	-0.944	0.000	0.000	0.000	0.004	0.000	G	Cumple
N5/N6	3.87	0.000	-0.567	0.000	0.000	0.000	0.000	0.000	G	Cumple
N1/N7	37.29	0.410	-0.590	0.000	1.050	0.000	-0.233	0.000	G	Cumple
N7/N38	41.16	0.000	-1.097	0.000	-0.497	0.000	-0.233	0.000	G	Cumple
N38/N37	55.48	0.745	-5.358	0.000	0.015	0.000	0.118	0.000	G	Cumple
N37/N36	67.83	0.745	-7.519	0.000	0.008	0.000	0.096	0.000	G	Cumple
N36/N35	67.81	0.745	-7.745	0.000	0.016	0.000	0.086	0.000	G	Cumple
N35/N34	60.02	0.745	-6.915	0.000	0.017	0.000	0.073	0.000	G	Cumple
N34/N33	47.56	0.745	-5.399	0.000	0.018	0.000	0.062	0.000	G	Cumple
N33/N32	34.60	1.491	-3.397	0.000	0.318	0.000	-0.072	0.000	G	Cumple
N32/N31	19.74	1.491	-1.089	0.000	0.321	0.000	-0.084	0.000	G	Cumple
N31/N30	17.07	1.491	1.441	0.000	0.303	0.000	-0.070	0.000	G	Cumple
N30/N8	49.16	1.491	4.235	0.000	0.403	0.000	-0.198	0.000	G	Cumple
N8/N29	56.23	0.000	5.679	0.000	-0.389	0.000	-0.196	0.000	G	Cumple
N29/N28	27.65	1.040	4.374	0.000	0.219	0.000	-0.038	0.000	G	Cumple
N28/N27	23.28	0.000	3.197	0.000	-0.226	0.000	-0.050	0.000	G	Cumple
N27/N26	17.32	0.000	2.204	0.000	-0.220	0.000	-0.044	0.000	G	Cumple
N26/N25	12.89	0.000	1.424	0.000	-0.218	0.000	-0.040	0.000	G	Cumple
N25/N24	9.83	0.000	0.916	0.000	-0.214	0.000	-0.037	0.000	G	Cumple
N24/N6	9.01	1.040	0.813	0.000	0.210	0.000	-0.035	0.000	G	Cumple
14/N8	90.04	1.700	-5.282	0.001	0.000	0.000	0.000	-0.002	G	Cumple
N5/N24	2.60	0.000	0.172	-0.003	0.000	0.000	0.000	-0.001	G	Cumple
N23/N24	8.93	0.000	-0.543	-0.003	0.000	0.000	0.000	-0.001	G	Cumple
N23/N25	8.89	0.000	0.673	-0.004	0.000	0.000	0.000	-0.002	G	Cumple
N22/N25	15.54	0.000	-0.923	-0.003	0.000	0.000	0.000	-0.002	G	Cumple
N22/N26	14.37	0.000	1.094	-0.007	0.000	0.000	0.000	-0.004	G	Cumple
N21/N26	21.60	0.000	-1.275	-0.000	0.000	0.000	0.000	-0.004	G	Cumple
N21/N27	19.32	0.000	1.469	-0.009	0.000	0.000	0.000	-0.005	G	Cumple
N20/N27	27.71	0.000	-1.608	-0.007	0.000	0.000	0.000	-0.003	G	Cumple
N20/N28	23.72	0.000	1.776	-0.010	0.000	0.000	0.000	-0.007	G	Cumple
N19/N28	32.58	1.480	-1.927	-0.009	0.000	0.000	0.000	0.007	G	Cumple
N19/N20 N19/N29	29.11	0.000	2.223	-0.010	0.000	0.000	0.000	-0.007	G	Cumple
			-2.138					-0.007	G A	
N18/N29	42.37	0.000		-0.016	0.000	0.000	0.000	-	G	Cumple
N18/N8	27.47	0.000	1.958	-0.007	0.000		0.000	-0.008		Cumple
N17/N8	48.19	0.000	3.980	-0.007	0.000	0.000	0.000	-0.009	G	Cumple
N17/N30	62.92	0.000	-3.173	0.025	0.000	0.000	0.000	0.020	G	Cumple
N16/N30	46.98	0.000	3.994	-0.009	0.000	0.000	0.000	-0.007	G	Cumple

				Comp	robación de resis	tencia				
	n	Posición			Esfuera	zos pésimos				
Barra	η (%)	(m)	N (t)	Vy (t)	Vz (t)	Mt (t·m)	My (t·m)	Mz (t·m)	Origen	Estado
N16/N31	50.96	1.442	-2.829	0.019	0.000	0.000	0.000	-0.014	G	Cumple
N15/N31	40.58	0.000	3.481	-0.008	0.000	0.000	0.000	-0.006	G	Cumple
N15/N32	44.80	0.000	-2.418	0.022	0.000	0.000	0.000	0.014	G	Cumple
N14/N32	34.50	0.000	3.033	-0.007	0.000	0.000	0.000	-0.004	G	Cumple
N14/N33 N13/N33	37.44 27.39	1.184 0.000	-1.984 2.485	0.022 -0.006	0.000	0.000	0.000	-0.013 -0.003	G G	Cumple
N13/N34	30.09	1.055	-1.529	0.023	0.000	0.000	0.000	-0.003	G	Cumple Cumple
N12/N34	19.83	1.457	1.824	0.023	0.000	0.000	0.000	0.003	G	Cumple
N12/N35	21.54	0.926	-1.035	0.021	0.000	0.000	0.000	-0.010	G	Cumple
N11/N35	11.18	1.094	0.950	0.000	0.000	0.000	0.000	0.003	G	Cumple
N11/N36	9.97	0.797	-0.491	0.011	0.000	0.000	0.000	-0.004	G	Cumple
N10/N36	7.69	0.843	-0.269	0.000	0.000	0.000	0.000	0.004	G	Cumple
N10/N37	7.23	0.000	0.153	-0.018	0.000	0.000	0.000	-0.006	G	Cumple
N9/N37	41.75	0.000	-2.340	0.000	0.000	0.000	0.000	0.007	G	Cumple
N9/N38	54.11	0.000	0.735	-0.182	0.000	0.000	0.000	-0.049	G	Cumple
N1/N38	73.31	0.000	-4.374	-0.015	0.000	0.000	0.000	-0.011	G	Cumple
N51/N50	77.83	0.000	-6.806	0.000	-0.181	0.000	-0.200	0.000	G	Cumple
N50/N49	34.05	0.000	-4.159	0.000	0.013	0.000	0.031	0.000	G	Cumple
N49/N48	13.16	1.485	-1.390	0.000	-0.022	0.000	0.023	0.000	G	Cumple
N48/N47	9.64	1.485	1.135	0.000	-0.010	0.000	0.028	0.000	G	Cumple
N47/N46	22.72	1.485	3.434	0.000	-0.012	0.000	0.037	0.000	G	Cumple
N46/N45	34.09	1.485	5.403	0.000	-0.010	0.000	0.047	0.000	G	Cumple
N45/N44	43.27	1.485	6.911	0.000	-0.007	0.000	0.057	0.000	G	Cumple
N44/N43	47.96	1.299	7.728	0.000	0.000	0.000	0.061	0.000	G	Cumple
N43/N42 N42/N41	50.83 52.18	1.485	7.473 5.157	0.000	-0.008 0.231	0.000	0.091 -0.186	0.000	G G	Cumple
N51/N52	76.84	0.000	-6.987	0.000	-0.259	0.000	-0.100	0.000	G	Cumple Cumple
N52/N53	46.85	0.000	-5.768	0.000	0.055	0.000	0.049	0.000	G	Cumple
N53/N54	34.45	0.000	-4.416	0.000	-0.037	0.000	-0.028	0.000	G	Cumple
N54/N55	23.45	0.000	-3.256	0.000	-0.014	0.000	-0.007	0.000	G	Cumple
N55/N56	16.52	0.000	-2.250	0.000	-0.016	0.000	-0.007	0.000	G	Cumple
N56/N57	10.73	1.055	-1.457	0.000	-0.003	0.000	0.005	0.000	G	Cumple
N57/N5	6.99	0.879	-0.944	0.000	0.000	0.000	0.004	0.000	G	Cumple
N41/N58	37.29	0.410	-0.590	0.000	1.050	0.000	-0.233	0.000	G	Cumple
N58/N59	41.16	0.000	-1.097	0.000	-0.497	0.000	-0.233	0.000	G	Cumple
N59/N60	55.48	0.745	-5.358	0.000	0.015	0.000	0.118	0.000	G	Cumple
N60/N61	67.83	0.745	-7.519	0.000	0.008	0.000	0.096	0.000	G	Cumple
N61/N62	67.81	0.745	-7.745	0.000	0.016	0.000	0.086	0.000	G	Cumple
N62/N63	60.02	0.745	-6.915	0.000	0.017	0.000	0.073	0.000	G	Cumple
N63/N64	47.56	0.745	-5.399	0.000	0.018	0.000	0.062	0.000	G	Cumple
N64/N65	34.60	1.491	-3.397	0.000	0.318	0.000	-0.072	0.000	G	Cumple
N65/N66	19.76	1.491	-1.089	0.000	0.321	0.000	-0.084	0.000	G	Cumple
N66/N67 N67/N68	17.00 49.49	1.491	1.440 4.235	0.000	0.303	0.000	-0.069 -0.201	0.000	G G	Cumple Cumple
N68/N69	55.80	0.000	5.678	0.000	-0.386	0.000	-0.201	0.000	G	Cumple
N69/N70	27.63	1.040	4.374	0.000	0.218	0.000	-0.193	0.000	G	Cumple
N70/N71	23.26	0.000	3.197	0.000	-0.226	0.000	-0.050	0.000	G	Cumple
N71/N72	17.32	0.000	2.204	0.000	-0.220	0.000	-0.030	0.000	G	Cumple
N72/N73	12.89	0.000	1.424	0.000	-0.218	0.000	-0.040	0.000	G	Cumple
N73/N74	9.83	0.000	0.916	0.000	-0.214	0.000	-0.037	0.000	G	Cumple
N74/N6	9.01	1.040	0.813	0.000	0.210	0.000	-0.035	0.000	G	Cumple
N51/N68	89.62	1.700	-5.282	0.000	-0.006	0.000	0.008	0.000	G	Cumple
N5/N74	2.60	0.000	0.172	-0.003	0.000	0.000	0.000	-0.001	G	Cumple
N57/N74	8.93	0.000	-0.543	-0.004	0.000	0.000	0.000	-0.002	G	Cumple
N57/N73	8.89	0.000	0.673	-0.005	0.000	0.000	0.000	-0.002	G	Cumple
N56/N73	15.54	0.000	-0.922	-0.007	0.000	0.000	0.000	-0.004	G	Cumple
N56/N72	14.37	0.000	1.094	-0.006	0.000	0.000	0.000	-0.004	G	Cumple
N55/N72	21.60	0.000	-1.275	-0.009	0.000	0.000	0.000	-0.006	G	Cumple
N55/N71	19.32	0.000	1.469	-0.007	0.000	0.000	0.000	-0.005	G	Cumple
N54/N71	27.71	0.000	-1.608	-0.010	0.000	0.000	0.000	-0.007	G	Cumple
N54/N70	23.72	0.000	1.776	-0.009	0.000	0.000	0.000	-0.006	G	Cumple
N53/N70	32.58	1.480	-1.927	-0.010	0.000	0.000	0.000	0.007	G	Cumple

				Compi	robación de resis	tencia				
		Posición			Esfuerz	zos pésimos				
Barra	η (%)	(m)	N (t)	Vy (t)	Vz (t)	Mt (t·m)	My (t·m)	Mz (t·m)	Origen	Estado
N53/N69	29.09	0.000	2.222	-0.010	0.000	0.000	0.000	-0.007	G	Cumple
N52/N69	42.40	0.000	-2.141	-0.016	0.000	0.000	0.000	-0.014	G	Cumple
N52/N68	27.59	0.000	1.963	-0.007	0.000	0.000	0.000	-0.008	G	Cumple
N50/N68	48.11	0.000	3.977	-0.007	0.000	0.000	0.000	-0.009	G	Cumple
N50/N67	62.92	0.000	-3.171	0.025	0.000	0.000	0.000	0.020	G	Cumple
N49/N67	47.00	0.000	3.995	-0.009	0.000	0.000	0.000	-0.007	G	Cumple
N49/N66	50.95	1.442	-2.830	0.019	0.000	0.000	0.000	-0.014	G	Cumple
N48/N66	40.58	0.000	3.481	-0.008	0.000	0.000	0.000	-0.006	G	Cumple
N48/N65	44.80	0.000	-2.418	0.022	0.000	0.000	0.000	0.014	G	Cumple
N47/N65	34.50	0.000	3.033	-0.007	0.000	0.000	0.000	-0.004	G	Cumple
N47/N64	37.44	1.184	-1.984	0.022	0.000	0.000	0.000	-0.013	G	Cumple
N46/N64	27.39	0.000	2.485	-0.006	0.000	0.000	0.000	-0.003	G	Cumple
N46/N63	30.09	1.055	-1.529	0.023	0.000	0.000	0.000	-0.012	G	Cumple
N45/N63	19.83	1.457	1.824	0.000	0.000	0.000	0.000	0.003	G	Cumple
N45/N62	21.54	0.926	-1.035	0.021	0.000	0.000	0.000	-0.010	G	Cumple
N44/N62	11.18	1.094	0.950	0.000	0.000	0.000	0.000	0.003	G	Cumple
N44/N61	9.97	0.797	-0.491	0.011	0.000	0.000	0.000	-0.004	G	Cumple
N43/N61	7.69	0.843	-0.269	0.000	0.000	0.000	0.000	0.004	G	Cumple
N43/N60	7.24	0.000	0.153	-0.018	0.000	0.000	0.000	-0.006	G	Cumple
N42/N60	41.75	0.000	-2.340	0.000	0.000	0.000	0.000	0.007	G	Cumple
N42/N59	54.11	0.000	0.735	-0.182	0.000	0.000	0.000	-0.049	G	Cumple
N41/N59	73.31	0.000	-4.374	-0.015	0.000	0.000	0.000	-0.011	G	Cumple

_						COMP	ROBACION	ES (AISI S10	0-07 (20	007))						
Barras	w/t	Т	Р	Tr	M _x	M _y	V _x	V _y	M _x Tr	M _y Tr	M_xV_y	M_yV_x	MT	MP	TPTrMV	Estado
N1/N9	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	η = 26.3	η = 21.3	N.P. ⁽¹⁾	x: 0 m η = 26.6	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 7.2	N.P. ⁽⁶⁾	x: 0 m η = 50.9	x: 0 m η = 36.8	x: 0 m η = 52.2	CUMPLE η = 52.2
N9/N10	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	η = 38.2	η = 30.9	N.P. ⁽¹⁾	x: 0 m η = 13.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 1.7	N.P. ⁽⁶⁾	x: 0 m η = 50.2	x: 0 m η = 39.0	x: 0 m η = 50.8	CUMPLE η = 50.8
N10/N11	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	η = 39.5	η = 31.8	N.P. ⁽¹⁾	x: 0.186 m η = 8.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.186 m η = 0.8	N.P. ⁽⁶⁾	x: 0.186 m η = 47.6	x: 0 m η = 37.3	x: 0.186 m η = 48.0	CUMPLE η = 48.0
N11/N12	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	η = 35.3	η = 28.4	N.P. ⁽¹⁾	x: 0 m η = 8.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.7	N.P. ⁽⁶⁾	x: 0 m η = 42.9	x: 0 m η = 33.5	x: 0 m η = 43.3	CUMPLE η = 43.3
N12/N13	$w / t \le (w / t)_{Máx.}$ Cumple	η = 27.6	η = 22.1	N.P. ⁽¹⁾	x: 0 m η = 6.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.4	N.P. ⁽⁶⁾	x: 0 m η = 33.8	x: 0 m η = 26.3	x: 0 m η = 34.1	CUMPLE η = 34.1
N13/N14	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	η = 17.5	η = 13.9	N.P. ⁽¹⁾	x: 0 m η = 5.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.3	N.P. ⁽⁶⁾	x: 0 m η = 22.5	x: 0 m η = 17.3	x: 0 m η = 22.7	CUMPLE η = 22.7
N14/N15	$w \ / \ t \leq (w \ / \ t)_{M\acute{a}x.}$ Cumple	η = 5.8	η = 4.3	N.P. ⁽¹⁾	x: 0 m η = 4.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.2	N.P. ⁽⁶⁾	x: 0 m η = 9.5	x: 0 m η = 6.9	x: 0 m η = 9.6	CUMPLE η = 9.6
N15/N16	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	η = 4.4	η = 9.9	N.P. ⁽¹⁾	x: 0 m η = 3.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.1	N.P. ⁽⁶⁾	x: 0 m η = 6.4	x: 0 m η = 13.2	x: 0 m η = 13.1	CUMPLE η = 13.2
N16/N17	$w / t \le (w / t)_{Máx.}$ Cumple	η = 12.6	η = 29.6	N.P. ⁽¹⁾	x: 1.485 m η = 4.4	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.2	N.P. ⁽⁶⁾	x: 1.485 m η = 15.3	x: 1.485 m η = 34.0	x: 1.485 m η = 33.8	CUMPLE η = 34.0
N17/N4	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	η = 20.5	η = 48.4	N.P. ⁽¹⁾	x: 1.485 m η = 28.4	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 2.8	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 8.2	N.P. ⁽⁶⁾	x: 1.485 m η = 35.2	x: 1.485 m η = 77.8	x: 1.485 m η = 76.0	CUMPLE η = 77.8
N4/N18	$w \ / \ t \leq (w \ / \ t)_{M\acute{a}x.}$ Cumple	x: 1.055 m η = 21.0	x: 0 m η = 48.1	N.P. ⁽¹⁾	x: 0 m η = 28.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 4.0	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 8.2	N.P. ⁽⁶⁾	x: 0 m η = 35.7	x: 0 m η = 76.9	x: 0 m η = 75.6	CUMPLE η = 76.9
N18/N19	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	x: 1.055 m η = 17.7	x: 0 m η = 39.7	N.P. ⁽¹⁾	x: 0 m η = 7.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.055 m η = 1.0	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.5	N.P. ⁽⁶⁾	x: 0 m η = 21.6	x: 0 m η = 46.9	x: 0 m η = 46.6	CUMPLE η = 46.9
N19/N20	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	x: 1.055 m η = 14.0	x: 0 m η = 30.4	N.P. ⁽¹⁾	x: 0 m η = 4.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.6	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.2	N.P. ⁽⁶⁾	x: 0 m η = 15.9	x: 0 m η = 34.5	x: 0 m η = 34.3	CUMPLE η = 34.5
N20/N21	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.055 m η = 10.9	x: 0 m η = 22.4	N.P. ⁽¹⁾	x: 0 m η = 1.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m η = 23.4	x: 0 m η = 23.4	CUMPLE η = 23.4
N21/N22	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.055 m η = 8.3	x: 0 m η = 15.5	N.P. ⁽¹⁾	x: 0 m η = 1.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m η = 16.5	x: 0 m η = 16.5	CUMPLE η = 16.5
N22/N23	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.055 m η = 6.4	x: 0 m η = 10.0	N.P. ⁽¹⁾	x: 1.055 m η = 0.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.055 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 1.055 m η = 10.7	x: 1.055 m η = 10.7	CUMPLE η = 10.7
N23/N5	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.055 m η = 5.4	x: 0 m η = 6.5	N.P. ⁽¹⁾	x: 1.055 m η = 0.5	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.1	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.055 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0.879 m η = 7.0	x: 0.879 m η = 7.0	CUMPLE η = 7.0
N5/N6	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.93 m η = 1.8	x: 0 m η = 3.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	N.P. ⁽²⁾	N.P. ⁽³⁾	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	N.P. ⁽¹¹⁾	N.P. ⁽¹²⁾	CUMPLE η = 3.9
N1/N7	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 0.41 m η = 1.8	x: 0 m η = 4.0	N.P. ⁽¹⁾	x: 0.41 m η = 33.3	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 16.1	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.41 m η = 13.7	N.P. ⁽⁶⁾	x: 0.41 m η = 20.1	x: 0.41 m η = 37.3	x: 0.41 m η = 36.3	CUMPLE η = 37.3
N7/N38	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 3.3	x: 0 m η = 7.8	N.P. ⁽¹⁾	x: 0 m η = 33.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 7.6	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 11.7	N.P. ⁽⁶⁾	x: 0 m η = 21.6	x: 0 m η = 41.2	x: 0 m η = 40.2	CUMPLE η = 41.2

						COMPE	ROBACIONE	ES (AISI S10	n-07 (20	10711						
Barras	w/t	Т	Р	Tr	M _x	My	V _x	V _y	,		M_xV_y	M_yV_x	MT	MP	TPTrMV	Estado
N38/N37	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 16.3	x: 0 m n = 38.3	N.P. ⁽¹⁾	x: 0.745 m η = 16.9	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.745 m η = 2.8	N.P. ⁽⁶⁾	x: 0.745 m η = 25.7	x: 0.745 m η = 55.5	x: 0.745 m η = 54.5	CUMPLE η = 55.5
N37/N36	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.491 m η = 22.9	x: 0 m η = 53.6	N.P. ⁽¹⁾	x: 0.745 m η = 13.8	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.7	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.745 m η = 1.9	N.P. ⁽⁶⁾	x: 0.745 m η = 30.6	x: 0.745 m η = 67.8	x: 0.745 m η = 66.8	CUMPLE η = 67.8
N36/N35	$w / t \le (w / t)_{Máx.}$	x: 1.491 m	x: 0 m	N.P. ⁽¹⁾	x: 0.745 m	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.745 m	N.P. ⁽⁶⁾	x: 0.745 m	x: 0.745 m	x: 0.745 m	CUMPLE
N35/N34	Cumple $w / t \le (w / t)_{Máx.}$	η = 23.7 x: 1.491 m	η = 55.2 x: 0 m	N.P. ⁽¹⁾	η = 12.2 x: 0.745 m	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 4.9 x: 1.491 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	η = 1.5 x: 0.745 m	N.P. ⁽⁶⁾	η = 30.6 x: 0.745 m	η = 67.8 x: 0.745 m	η = 66.9 x: 0.745 m	η = 67.8 CUMPLE
	Cumple $w / t \le (w / t)_{Máx.}$	η = 21.4 x: 1.491 m	$\eta = 49.3$ x: 0 m	N.P. ⁽¹⁾	η = 10.5 x: 1.491 m			η = 4.9 x: 1.491 m			η = 1.1 x: 1.491 m		η = 27.3 x: 1.491 m	η = 60.0 x: 0.745 m	η = 59.3 x: 0.745 m	η = 60.0 CUMPLE
N34/N33	Cumple $w / t \le (w / t)_{Máx}$	η = 17.0 x: 1.491 m	η = 38.5 x: 0 m		η = 8.9 x: 1.491 m	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 4.9 x: 1.491 m	N.P. ⁽⁴⁾		η = 1.0 x: 1.491 m	N.P. ⁽⁶⁾	η = 22.5 x: 1.491 m	η = 47.6 x: 1.491 m	η = 47.0 x: 1.491 m	η = 47.6 CUMPLE
N33/N32	Cumple	η = 11.3	η = 24.5	N.P. ⁽¹⁾	η = 10.3	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	η = 1.3	N.P. ⁽⁶⁾	η = 17.5 x: 1.491 m	η = 34.6	η = 34.1	η = 34.6 CUMPLE
N32/N31	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 4.7	x: 0 m η = 8.1	N.P. ⁽¹⁾	x: 1.491 m η = 12.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.7	N.P. ⁽⁶⁾	η = 11.7	x: 1.491 m η = 19.7	x: 1.491 m η = 19.4	η = 19.7
N31/N30	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 7.4	x: 0 m η = 3.8	N.P. ⁽¹⁾	x: 1.491 m η = 10.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.7	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.2	N.P. ⁽⁶⁾	x: 1.491 m η = 16.6	x: 1.491 m η = 10.2	x: 1.491 m η = 17.1	CUMPLE η = 17.1
N30/N8	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 1.491 m η = 21.6	x: 0 m η = 15.0	N.P. ⁽¹⁾	x: 1.491 m η = 28.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 6.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 8.4	N.P. ⁽⁶⁾	x: 1.491 m η = 47.8	x: 1.491 m η = 31.8	x: 1.491 m η = 49.2	CUMPLE η = 49.2
N8/N29	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.04 m η = 29.2	x: 0 m η = 20.6	N.P. ⁽¹⁾	x: 0 m η = 28.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 6.0	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 8.2	N.P. ⁽⁶⁾	x: 0 m η = 54.9	x: 0 m η = 37.2	x: 0 m η = 56.2	CUMPLE η = 56.2
N29/N28	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.04 m η = 22.3	x: 0 m η = 15.5	N.P. ⁽¹⁾	x: 1.04 m η = 5.5	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.04 m η = 3.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.04 m η = 0.4	N.P. ⁽⁶⁾	x: 1.04 m η = 27.4	x: 1.04 m η = 18.9	x: 1.04 m η = 27.6	CUMPLE η = 27.6
N28/N27	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.04 m η = 16.5	x: 0 m n = 11.2	N.P. ⁽¹⁾	x: 0 m η = 7.1	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.6	N.P. ⁽⁶⁾	x: 0 m η = 22.9	x: 0 m η = 15.6	x: 0 m η = 23.3	CUMPLE η = 23.3
N27/N26	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.04 m η = 11.4	x: 0 m η = 7.5	N.P. ⁽¹⁾	x: 0 m η = 6.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.5	N.P. ⁽⁶⁾	x: 0 m η = 17.0	x: 0 m η = 11.4	x: 0 m η = 17.3	CUMPLE η = 17.3
N26/N25	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.04 m η = 7.5	x: 0 m η = 4.8	N.P. ⁽¹⁾	x: 0 m	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m	N.P. ⁽⁶⁾	x: 0 m η = 12.6	x: 0 m	x: 0 m η = 12.9	CUMPLE
N25/N24	$w / t \le (w / t)_{Máx.}$	x: 1.04 m	x: 0 m	N.P. ⁽¹⁾	η = 5.8 x: 0 m	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 3.3 x: 0 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	η = 0.4 x: 0 m	N.P. ⁽⁶⁾	x: 0 m	η = 8.5 x: 0 m	x: 0 m	η = 12.9 CUMPLE
N24/N6	Cumple $w / t \le (w / t)_{Máx.}$	η = 4.9 x: 1.04 m	η = 3.2 x: 0 m	N.P. ⁽¹⁾	η = 5.3 x: 1.04 m	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 3.3 x: 1.04 m	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	η = 0.4 x: 1.04 m	N.P. ⁽⁶⁾	η = 9.6 x: 1.04 m	η = 6.7 x: 1.04 m	η = 9.8 x: 1.04 m	η = 9.8 CUMPLE
N4/N8	Cumple $w / t \le (w / t)_{Máx.}$	η = 4.2 x: 1.7 m	η = 3.3 x: 0 m	N.P. ⁽¹⁾	η = 5.0 N.P. ⁽⁸⁾	x: 1.7 m	η = 0.1	η = 3.2 N.P. ⁽⁹⁾	N.P. ⁽⁴⁾		η = 0.4 N.P. ⁽¹⁰⁾	x: 1.7 m	η = 8.8 N.P. ⁽⁷⁾	η = 6.9 x: 1.7 m	η = 9.0 x: 1.7 m	η = 9.0 CUMPLE
N5/N24	Cumple $w / t \le (w / t)_{Máx.}$	η = 30.2 x: 1.334 m	η = 87.2 N.P. ⁽¹³⁾	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 1.7 x: 0 m	x: 0 m	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾		N.P. ⁽¹⁰⁾	η < 0.1 x: 0 m	N.P. ⁽⁷⁾	η = 90.0 N.P. ⁽¹¹⁾	η = 88.8 x: 0 m	η = 90.0 CUMPLE
	Cumple $w / t \le (w / t)_{Máx}$	η = 1.8 x: 1.04 m	x: 0 m			η = 0.8 x: 0 m	η = 0.1					η < 0.1 x: 0 m		x: 0 m	η = 2.6 x: 0 m	η = 2.6 CUMPLE
N23/N24	Cumple $w / t \le (w / t)_{Máx.}$	η = 2.3 x: 1.405 m	η = 6.7 x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 2.2 x: 0 m	η = 0.2 x: 0 m	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾		N.P. ⁽¹⁰⁾	η < 0.1 x: 0 m	N.P. ⁽⁷⁾	η = 8.9 x: 1.405 m	η = 8.9 x: 0 m	η = 8.9 CUMPLE
N23/N25	Cumple	η = 6.8 x: 1.15 m	η = 3.4 x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 2.1 x: 0 m	η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η < 0.1 x: 0 m	N.P. ⁽⁷⁾	η = 4.3 x: 0 m	η = 8.9 x: 0 m	η = 8.9 CUMPLE
N22/N25	$w / t \le (w / t)_{Máx.}$ Cumple	$\eta = 4.6$	η = 11.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 3.9	η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η = 0.2	N.P. ⁽⁷⁾	η = 15.4	η = 15.5	η = 15.5
N22/N26	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.482 m η = 11.0	x: 0 m η = 6.8	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 3.3	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.1	N.P. ⁽⁷⁾	x: 1.482 m η = 8.4	x: 0 m η = 14.4	CUMPLE η = 14.4
N21/N26	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.26 m η = 6.7	x: 0 m η = 16.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.2	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 0 m η = 21.5	x: 0 m η = 21.6	CUMPLE η = 21.6
N21/N27	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 1.563 m η = 14.8	x: 0 m η = 10.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 4.4	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 1.563 m η = 12.2	x: 0 m η = 19.3	CUMPLE η = 19.3
N20/N27	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.37 m η = 8.7	x: 0 m η = 20.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.6	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 0 m η = 27.7	x: 0 m η = 27.7	CUMPLE η = 27.7
N20/N28	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.647 m η = 17.9	x: 0 m η = 12.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.7	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 1.647 m η = 15.5	x: 0 m η = 23.7	CUMPLE η = 23.7
N19/N28	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.48 m η = 10.6	x: 0 m η = 25.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.48 m η = 6.7	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.48 m η = 0.4	N.P. ⁽⁷⁾	x: 1.48 m η = 32.6	x: 0 m η = 32.4	CUMPLE η = 32.6
N19/N29	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.734 m η = 22.4	x: 0 m η = 16.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.5	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 1.734 m η = 20.7	x: 0 m η = 29.1	CUMPLE η = 29.1
N18/N29	$w / t \le (w / t)_{Máx.}$	x: 1.59 m	x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m	$\eta = 0.4$ $\eta = 0.7$	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m	N.P. ⁽⁷⁾	x: 0 m	x: 0 m	CUMPLE
NAORIO	x: 1.641 m	η = 11.8 x: 1.823 m	η = 29.2 x: 0 m		N D /º	η = 12.6 x: 0 m	x: 0 m	N.D.	N.D.	N.D.	N.D.(10)	η = 1.6 x: 0 m	N.D. W	η = 42.4 x: 0 m	η = 42.1 x: 0 m	η = 42.4 CUMPLE
N18/N8	$w / t \le (w / t)_{Máx.}$ Cumple	η = 19.8	η = 14.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 7.5	η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η = 0.6	N.P. ⁽⁷⁾	η = 18.1	η = 27.5	η = 27.5
N17/N8	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.257 m η = 40.1	x: 0 m η = 37.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 7.9	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.6	N.P. ⁽⁷⁾	x: 0 m η = 40.9	x: 0 m η = 48.2	CUMPLE η = 48.2
N17/N30	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 1.571 m η = 18.8	x: 0 m η = 43.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 18.3	η = 1.0	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 3.4	x: 0 m η = 29.5	x: 0 m η = 62.9	x: 1.571 m η = 61.0	CUMPLE η = 62.9
N16/N30	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.162 m η = 40.2	x: 0 m η = 36.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.6	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 2.162 m η = 41.8	x: 0 m η = 47.0	CUMPLE η = 47.0
N16/N31	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.442 m η = 16.8	x: 0 m η = 37.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.442 m η = 12.8	η = 0.8	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.442 m η = 1.6	N.P. ⁽⁷⁾	x: 1.442 m η = 51.0	x: 1.442 m η = 50.6	CUMPLE η = 51.0
N15/N31	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.07 m η = 35.1	x: 0 m η = 31.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.4	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 2.07 m η = 35.6	x: 0 m η = 40.6	CUMPLE η = 40.6
	oumpie	11 - 00.1	11 - 01.0	1	l .	11 - 0.4	11 - 0.0	1		l		11 - 0.0	1	11 - 00.0	11 -40.0	11 - 40.0

						COMP	ROBACIONE	S (AISI S10	n-n7 (20	107))						
Barras	w/t	T	Р	Tr	M _x	M _y			. `		M_xV_y	M _y V _x	МТ	MP	TPTrMV	Estado
N15/N32	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.313 m η = 14.4	x: 0 m η = 31.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m n = 13.1	η = 0.9	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾		N.P. ⁽¹⁰⁾	x: 0 m η = 1.7	N.P. ⁽⁷⁾	x: 0 m η = 44.8	x: 1.313 m n = 44.6	CUMPLE n = 44.8
N14/N32	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.982 m η = 30.6	x: 0 m η = 27.3	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 3.9	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 1.982 m η = 30.9	x: 0 m η = 34.5	CUMPLE
N14/N33	$w / t \le (w / t)_{Máx.}$	x: 1.184 m	x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.184 m	$\eta = 0.9$	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P.(10)	x: 1.184 m	N.P. ⁽⁷⁾	x: 0 m	x: 1.184 m	η = 34.5 CUMPLE
N13/N33	Cumple $w / t \le (w / t)_{Máx.}$	η = 12.0 x: 1.899 m	η = 25.0 x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 12.1 x: 1.899 m	x: 0 m	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η = 1.5 x: 1.899 m	N.P. ⁽⁷⁾	η = 37.4 x: 1.899 m	η = 37.4 x: 0 m	η = 37.4 CUMPLE
N13/N34	Cumple $w / t \le (w / t)_{Máx.}$	η = 25.0 x: 1.055 m	η = 22.2 x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 3.0 x: 1.055 m	$\eta = 0.3$ $\eta = 0.9$	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P.(10)	η = 0.1 x: 1.055 m	N.P. ⁽⁷⁾	η = 25.4 x: 0 m	η = 27.4 x: 1.055 m	η = 27.4 CUMPLE
	Cumple x: 0 m	η = 9.3 x: 1.822 m	η = 18.9 x: 0 m	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 10.9 x: 1.457 m	x: 0 m	N.P. ⁽⁹⁾		N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η = 1.2 x: 1.457 m	N.P.(7)	η = 29.9 x: 1.822 m	η = 30.1 x: 1.457 m	η = 30.1 CUMPLE
N12/N34	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple $w / t \le (w / t)_{M\acute{a}x.}$	η = 18.4 x: 0.926 m	η = 16.2 x: 0 m			η = 2.8 x: 0.926 m	η = 0.2					η = 0.1 x: 0.926 m		η = 19.1 x: 0 m	η = 19.8 x: 0.926 m	η = 19.8 CUMPLE
N12/N35	Cumple	η = 6.4	η = 12.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	η = 8.8	η = 0.8	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	η = 0.8	N.P. ⁽⁷⁾	η = 21.3	η = 21.5	η = 21.5
N11/N35	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.75 m η = 9.6	x: 0 m η = 8.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.094 m η = 3.1	x: 0 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.094 m η = 0.1	N.P. ⁽⁷⁾	x: 1.75 m η = 11.0	x: 1.094 m η = 11.2	CUMPLE η = 11.2
N11/N36	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 0.797 m $\eta = 3.2$	x: 0 m η = 5.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 4.1	η = 0.5	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 0 m η = 9.9	x: 0.797 m η = 10.0	CUMPLE η = 10.0
N10/N36	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.685 m η = 1.5	x: 0 m η = 4.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0.843 m $\eta = 3.7$	x: 1.685 m $\eta = 0.1$	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0.632 m η = 0.1	N.P. ⁽⁷⁾	x: 0.843 m η = 7.7	x: 0.632 m η = 5.9	CUMPLE η = 7.7
N10/N37	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.668 m η = 1.6	x: 0 m η = 0.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0.668 m η = 5.6	η = 0.7	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0.668 m η = 0.3	N.P. ⁽⁷⁾	x: 0.668 m η = 3.8	x: 0 m η = 7.2	CUMPLE η = 7.2
N9/N37	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.628 m η = 13.6	x: 0 m η = 34.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.1	x: 1.628 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 0 m η = 41.7	x: 0 m η = 37.9	CUMPLE η = 41.7
N9/N38	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.539 m η = 7.4	x: 0 m η = 4.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 45.3	η = 7.5	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 21.1	x: 0 m η = 51.9	x: 0.539 m η = 30.7	x: 0 m η = 54.1	CUMPLE η = 54.1
N1/N38	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.58 m η = 25.6	x: 0 m η = 60.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 10.4	x: 0 m η = 0.6	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 1.1	N.P. ⁽⁷⁾	x: 0 m η = 73.3	x: 0 m η = 71.2	CUMPLE η = 73.3
N51/N50	$w / t \le (w / t)_{Máx.}$ Cumple	η = 20.5	η = 48.3	N.P. ⁽¹⁾	x: 0 m η = 28.5	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 2.8	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 8.2	N.P. ⁽⁶⁾	x: 0 m η = 35.3	x: 0 m η = 77.8	x: 0 m η = 76.0	CUMPLE η = 77.8
N50/N49	$w / t \le (w / t)_{Máx.}$ Cumple	η = 12.6	η = 29.6	N.P. ⁽¹⁾	x: 0 m η = 4.4	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.2	N.P. ⁽⁶⁾	x: 0 m η = 15.3	x: 0 m η = 34.0	x: 0 m η = 33.8	CUMPLE η = 34.0
N49/N48	$w / t \le (w / t)_{Máx.}$ Cumple	η = 4.4	η = 9.9	N.P. ⁽¹⁾	x: 1.485 m η = 3.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.1	N.P. ⁽⁶⁾	x: 1.485 m η = 6.4	x: 1.485 m η = 13.2	x: 1.485 m η = 13.1	CUMPLE η = 13.2
N48/N47	w / t ≤ (w / t) _{Máx.} Cumple	η = 5.8	η = 4.3	N.P. ⁽¹⁾	x: 1.485 m η = 4.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.2	N.P. ⁽⁶⁾	x: 1.485 m η = 9.5	x: 1.485 m η = 6.9	x: 1.485 m η = 9.6	CUMPLE η = 9.6
N47/N46	$w / t \le (w / t)_{Máx.}$ Cumple	η = 17.5	η = 13.9	N.P. ⁽¹⁾	x: 1.485 m η = 5.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.3	N.P. ⁽⁶⁾	x: 1.485 m η = 22.5	x: 1.485 m η = 17.3	x: 1.485 m η = 22.7	CUMPLE η = 22.7
N46/N45	$w / t \le (w / t)_{Máx.}$ Cumple	η = 27.6	η = 22.1	N.P. ⁽¹⁾	x: 1.485 m η = 6.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.4	N.P. ⁽⁶⁾	x: 1.485 m η = 33.8	x: 1.485 m η = 26.3	x: 1.485 m η = 34.1	CUMPLE η = 34.1
N45/N44	$w / t \le (w / t)_{Máx.}$ Cumple	η = 35.3	η = 28.4	N.P. ⁽¹⁾	x: 1.485 m η = 8.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 0.7	N.P. ⁽⁶⁾	x: 1.485 m η = 42.9	x: 1.485 m η = 33.5	x: 1.485 m η = 43.3	CUMPLE η = 43.3
N44/N43	w / t ≤ (w / t) _{Máx.} Cumple	η = 39.5	η = 31.8	N.P. ⁽¹⁾	x: 1.299 m η = 8.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.299 m η = 0.8	N.P. ⁽⁶⁾	x: 1.299 m η = 47.6	x: 1.485 m η = 37.3	x: 1.299 m η = 48.0	CUMPLE η = 48.0
N43/N42	w / t ≤ (w / t) _{Máx.} Cumple	η = 38.2	η = 30.9	N.P. ⁽¹⁾	x: 1.485 m η = 13.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.485 m η = 1.7	N.P. ⁽⁶⁾	x: 1.485 m η = 50.2	x: 1.485 m η = 39.0	x: 1.485 m η = 50.8	CUMPLE η = 50.8
N42/N41	$w / t \le (w / t)_{Máx.}$ Cumple	η = 26.3	η = 21.3	N.P. ⁽¹⁾	x: 1.485 m η = 26.6	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.485 m η = 3.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	1 10E m	N.P. ⁽⁶⁾	x: 1.485 m η = 50.9	x: 1.485 m η = 36.8	x: 1.485 m η = 52.2	CUMPLE η = 52.2
N51/N52	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 21.0	x: 0 m η = 48.1	N.P. ⁽¹⁾	x: 0 m η = 28.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 4.0	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 8.1	N.P. ⁽⁶⁾	x: 0 m η = 35.6	x: 0 m η = 76.8	x: 0 m η = 75.5	CUMPLE η = 76.8
N52/N53	w / t ≤ (w / t) _{Máx.} Cumple	x: 1.055 m η = 17.7	x: 0 m η = 39.7	N.P. ⁽¹⁾	x: 0 m η = 7.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.055 m η = 1.0	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.5	N.P. ⁽⁶⁾	x: 0 m η = 21.6	x: 0 m η = 46.9	x: 0 m η = 46.5	CUMPLE η = 46.9
N53/N54	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 14.0	x: 0 m η = 30.4	N.P. ⁽¹⁾	x: 0 m η = 4.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.6	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.2	N.P. ⁽⁶⁾	x: 0 m η = 15.9	x: 0 m η = 34.5	x: 0 m η = 34.3	CUMPLE η = 34.5
N54/N55	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 10.9	x: 0 m η = 22.4	N.P. ⁽¹⁾	x: 0 m η = 1.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m η = 23.4	x: 0 m η = 23.4	CUMPLE η = 23.4
N55/N56	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 8.3	x: 0 m η = 15.5	N.P. ⁽¹⁾	x: 0 m η = 1.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0 m η = 16.5	x: 0 m η = 16.5	CUMPLE η = 16.5
N56/N57	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 6.4	x: 0 m η = 10.0	N.P. ⁽¹⁾	x: 1.055 m η = 0.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.055 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 1.055 m η = 10.7	x: 1.055 m η = 10.7	CUMPLE η = 10.7
N57/N5	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.055 m η = 5.4	x: 0 m η = 6.5	N.P. ⁽¹⁾	x: 1.055 m η = 0.5	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 0.1	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.055 m η < 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 0.879 m η = 7.0	x: 0.879 m η = 7.0	CUMPLE η = 7.0
N41/N58	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.41 m η = 1.8	x: 0 m η = 4.0	N.P. ⁽¹⁾	x: 0.41 m η = 33.3	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 16.1	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	v: 0.41 m	N.P. ⁽⁶⁾	x: 0.41 m η = 20.1	x: 0.41 m η = 37.3	x: 0.41 m η = 36.3	CUMPLE η = 37.3
N58/N59	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 3.3	x: 0 m η = 7.8	N.P. ⁽¹⁾	x: 0 m η = 33.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 7.6	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 11.7	N.P. ⁽⁶⁾	x: 0 m η = 21.6	x: 0 m η = 41.2	x: 0 m η = 40.2	CUMPLE η = 41.2
N59/N60	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 16.3	x: 0 m η = 38.3	N.P. ⁽¹⁾	x: 0.745 m η = 16.9	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0.745 m η = 2.8	N.P. ⁽⁶⁾	x: 0.745 m η = 25.7	x: 0.745 m η = 55.5	x: 0.745 m η= 54.5	CUMPLE η = 55.5
N60/N61	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m $\eta = 22.9$	x: 0 m	N.P. ⁽¹⁾	x: 0.745 m	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.7	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	v: 0.745 m	N.P. ⁽⁶⁾	x: 0.745 m	x: 0.745 m	x: 0.745 m η = 66.8	CUMPLE
	Cumple	η - 22.9	$\eta = 53.6$		η = 13.8			η = 4.7			η = 1.9		$\eta = 30.6$	η = 67.8	71 - 00.8	η = 67.8

						COMPE	ROBACIONE	ES (AISI S10)-07 (20	07))						
Barras	w/t	т	Р	Tr	M _x		V _x	V _y	,	M _y Tr	M_xV_y	M_yV_x	МТ	MP	TPTrMV	Estado
N61/N62	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.491 m η = 23.7	x: 0 m η = 55.2	N.P. ⁽¹⁾	x: 0.745 m η = 12.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9		N.P. ⁽⁵⁾	v: 0.745 m	N.P. ⁽⁶⁾	x: 0.745 m η = 30.6	x: 0.745 m η = 67.8	x: 0.745 m η = 66.9	CUMPLE η = 67.8
N62/N63	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 21.4	x: 0 m η = 49.3	N.P. ⁽¹⁾	x: 0.745 m η = 10.5	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	v. 0 745 m	N.P. ⁽⁶⁾	x: 0.745 m η = 27.3	x: 0.745 m η = 60.0	x: 0.745 m η = 59.3	CUMPLE η = 60.0
N63/N64	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.491 m η = 17.0	x: 0 m η = 38.5	N.P. ⁽¹⁾	x: 1.491 m η = 8.9	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.0	N.P. ⁽⁶⁾	x: 1.491 m η = 22.5	x: 0.745 m η = 47.6	x: 0.745 m η = 47.0	CUMPLE η = 47.6
N64/N65	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 11.3	x: 0 m η = 24.5	N.P. ⁽¹⁾	x: 1.491 m η = 10.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.3	N.P. ⁽⁶⁾	x: 1.491 m η = 17.5	x: 1.491 m η = 34.6	x: 1.491 m η = 34.1	CUMPLE η = 34.6
N65/N66	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 4.7	x: 0 m η = 8.1	N.P. ⁽¹⁾	x: 1.491 m η = 12.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.7	N.P. ⁽⁶⁾	x: 1.491 m η = 11.7	x: 1.491 m η = 19.8	x: 1.491 m η = 19.4	CUMPLE η = 19.8
N66/N67	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.491 m η = 7.4	x: 0 m η = 3.7	N.P. ⁽¹⁾	x: 1.491 m η = 9.9	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 4.7	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 1.2	N.P. ⁽⁶⁾	x: 1.491 m η = 16.5	x: 1.491 m η = 10.2	x: 1.491 m η = 17.0	CUMPLE η = 17.0
N67/N68	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.491 m η = 21.6	x: 0 m η = 15.0	N.P. ⁽¹⁾	x: 1.491 m η = 28.7	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.491 m η = 6.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.491 m η = 8.6	N.P. ⁽⁶⁾	x: 1.491 m η = 48.2	x: 1.491 m η = 32.0	x: 1.491 m η = 49.5	CUMPLE η = 49.5
N68/N69	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.04 m η = 29.2	x: 0 m η = 20.6	N.P. ⁽¹⁾	x: 0 m η = 27.6	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 5.9	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 8.0	N.P. ⁽⁶⁾	x: 0 m η = 54.5	x: 0 m η = 36.9	x: 0 m η = 55.8	CUMPLE η = 55.8
N69/N70	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.04 m η = 22.3	x: 0 m η = 15.5	N.P. ⁽¹⁾	x: 1.04 m η = 5.4	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.04 m η = 3.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.04 m η = 0.4	N.P. ⁽⁶⁾	x: 1.04 m η = 27.4	x: 1.04 m η = 18.9	x: 1.04 m η = 27.6	CUMPLE η = 27.6
N70/N71	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	x: 1.04 m η = 16.5	x: 0 m η = 11.2	N.P. ⁽¹⁾	x: 0 m η = 7.1	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.5	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.6	N.P. ⁽⁶⁾	x: 0 m η = 22.9	x: 0 m η = 15.6	x: 0 m η = 23.3	CUMPLE η = 23.3
N71/N72	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.04 m η = 11.4	x: 0 m η = 7.5	N.P. ⁽¹⁾	x: 0 m η = 6.2	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.4	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.5	N.P. ⁽⁶⁾	x: 0 m η = 17.0	x: 0 m η = 11.4	x: 0 m η = 17.3	CUMPLE η = 17.3
N72/N73	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}} \\ \text{Cumple} \end{array}$	x: 1.04 m η = 7.5	x: 0 m η = 4.8	N.P. ⁽¹⁾	x: 0 m η = 5.8	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.4	N.P. ⁽⁶⁾	x: 0 m η = 12.6	x: 0 m η = 8.5	x: 0 m η = 12.9	CUMPLE η = 12.9
N73/N74	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 1.04 m η = 4.9	x: 0 m η = 3.2	N.P. ⁽¹⁾	x: 0 m η = 5.3	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 0 m η = 3.3	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 0 m η = 0.4	N.P. ⁽⁶⁾	x: 0 m η = 9.6	x: 0 m η = 6.7	x: 0 m η = 9.8	CUMPLE η = 9.8
N74/N6	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}} \\ \text{Cumple} \end{array}$	x: 1.04 m η = 4.2	x: 0 m η = 3.3	N.P. ⁽¹⁾	x: 1.04 m η = 5.0	N.P. ⁽²⁾	N.P. ⁽³⁾	x: 1.04 m η = 3.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.04 m η = 0.4	N.P. ⁽⁶⁾	x: 1.04 m η = 8.8	x: 1.04 m η = 6.9	x: 1.04 m η = 9.0	CUMPLE η = 9.0
N51/N68	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}} \\ \text{Cumple} \end{array}$	x: 1.7 m η = 30.2	x: 0 m η = 87.2	N.P. ⁽¹⁾	x: 1.7 m η = 2.4	N.P. ⁽²⁾	N.P. ⁽³⁾	η = 0.2	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	x: 1.7 m η = 0.1	N.P. ⁽⁶⁾	N.P. ⁽⁷⁾	x: 1.7 m η = 89.6	x: 1.7 m η = 89.4	CUMPLE η = 89.6
N5/N74	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.334 m η = 1.8	N.P. ⁽¹³⁾	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 0.8	x: 0 m η = 0.1	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η < 0.1	N.P. ⁽⁷⁾	N.P. ⁽¹¹⁾	x: 0 m η = 2.6	CUMPLE η = 2.6
N57/N74	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.04 m η = 2.3	x: 0 m η = 6.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 2.2	η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η < 0.1	N.P. ⁽⁷⁾	x: 0 m η = 8.9	x: 0 m η = 8.9	CUMPLE η = 8.9
N57/N73	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.405 m η = 6.8	x: 0 m η = 3.4	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 2.1	x: 0 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η < 0.1	N.P. ⁽⁷⁾	x: 1.405 m η = 4.3	x: 0 m η = 8.9	CUMPLE η = 8.9
N56/N73	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.15 m η = 4.6	x: 0 m η = 11.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 3.9	η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 0 m η = 15.4	x: 0 m η = 15.5	CUMPLE η = 15.5
N56/N72	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.482 m η = 11.0	x: 0 m η = 6.8	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 3.3	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.1	N.P. ⁽⁷⁾	x: 1.482 m η = 8.4	x: 0 m η = 14.4	CUMPLE η = 14.4
N55/N72	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.26 m η = 6.7	x: 0 m η = 16.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.2	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 0 m η = 21.5	x: 0 m η = 21.6	CUMPLE η = 21.6
N55/N71	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.563 m η = 14.8	x: 0 m η = 10.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 4.4	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 1.563 m η = 12.2	x: 0 m η = 19.3	CUMPLE η = 19.3
N54/N71	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 1.37 m η = 8.7	x: 0 m η = 20.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.6	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 0 m η = 27.7	x: 0 m η = 27.7	CUMPLE η = 27.7
N54/N70	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.647 m η = 17.9	x: 0 m η = 12.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.7	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 1.647 m η = 15.5	x: 0 m η = 23.7	CUMPLE η = 23.7
N53/N70	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.48 m η = 10.6	x: 0 m η = 25.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.48 m η = 6.7	η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.48 m η = 0.4	N.P. ⁽⁷⁾	x: 1.48 m η = 32.6	x: 0 m η = 32.4	CUMPLE η = 32.6
N53/N69	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.734 m η = 22.4	x: 0 m η = 16.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.5	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 1.734 m η = 20.6	x: 0 m η = 29.1	CUMPLE η = 29.1
N52/N69	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.59 m η = 11.8	x: 0 m η = 29.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 12.6	η = 0.7	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 1.6	N.P. ⁽⁷⁾	x: 0 m η = 42.4	x: 0 m η = 42.1	CUMPLE η = 42.4
N52/N68	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.823 m η = 19.8	x: 0 m η = 14.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 7.6	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.6	N.P. ⁽⁷⁾	x: 0 m η = 18.2	x: 0 m η = 27.6	CUMPLE η = 27.6
N50/N68	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.257 m η = 40.1	x: 0 m η = 37.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 7.9	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.6	N.P. ⁽⁷⁾	x: 0 m η = 40.8	x: 0 m η = 48.1	CUMPLE η = 48.1
N50/N67	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.571 m η = 18.8	x: 0 m η = 43.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 18.4	η = 1.0	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 3.4	x: 0 m η = 29.5	x: 0 m η = 62.9	x: 1.571 m η = 61.0	CUMPLE η = 62.9
N49/N67	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.162 m η = 40.2	x: 0 m η = 36.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.6	x: 0 m η = 0.4	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 2.162 m η = 41.8	x: 0 m η = 47.0	CUMPLE η = 47.0
N49/N66	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.442 m η = 16.9	x: 0 m η = 37.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.442 m η = 12.8	η = 0.8	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.442 m η = 1.6	N.P. ⁽⁷⁾	x: 1.442 m η = 51.0	x: 1.442 m η = 50.6	CUMPLE η = 51.0
N48/N66	$w / t \le (w / t)_{Máx.}$ Cumple	x: 2.07 m η = 35.1	x: 0 m η = 31.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 5.4	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.3	N.P. ⁽⁷⁾	x: 2.07 m η = 35.6	x: 0 m η = 40.6	CUMPLE η = 40.6
N48/N65	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.313 m η = 14.4	x: 0 m η = 31.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 13.1	η = 0.9	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 1.7	N.P. ⁽⁷⁾	x: 0 m η = 44.8	x: 1.313 m η = 44.6	CUMPLE η = 44.8
N47/N65	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.982 m η = 30.6	x: 0 m η = 27.3	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 3.9	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 1.982 m η = 30.9	x: 0 m η = 34.5	CUMPLE η = 34.5
N47/N64	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.184 m η = 12.0	x: 0 m η = 25.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.184 m η = 12.1	η = 0.9	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.184 m η = 1.5	N.P. ⁽⁷⁾	x: 0 m η = 37.4	x: 1.184 m η = 37.4	CUMPLE η = 37.4
		, .2.0	, _0.0	1	1			I.			l .	,	1	1	7	

Barras						COMPF	ROBACIONE	S (AISI S10	0-07 (20	007))						Estado
Ballas	w/t	T	Р	Tr	M _x	My	V_x	V_y	M_xTr	$M_y Tr$	M_xV_y	M_yV_x	MT	MP	TPTrMV	Estado
N46/N64	$w \ / \ t \leq (w \ / \ t)_{\text{M\'ax.}}$ Cumple	x: 1.899 m η = 25.0	x: 0 m η = 22.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.899 m η = 3.0	x: 0 m η = 0.3	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.899 m η = 0.1	N.P. ⁽⁷⁾	x: 1.899 m η = 25.4	x: 0 m η = 27.4	CUMPLE η = 27.4
N46/N63	$\begin{array}{c} w \ / \ t \leq (w \ / \ t)_{\text{Máx.}} \\ \text{Cumple} \end{array}$	x: 1.055 m η = 9.3	x: 0 m η = 18.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.055 m η = 10.9	η = 0.9	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.055 m η = 1.2	N.P. ⁽⁷⁾	x: 0 m η = 29.9	x: 1.055 m η = 30.1	CUMPLE η = 30.1
N45/N63	$ \begin{array}{c} x{:}~0~m\\ w~/~t \leq (w~/~t)_{M\acute{a}x.}\\ Cumple \end{array} $	x: 1.822 m η = 18.4	x: 0 m η = 16.2	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.457 m η = 2.8	x: 0 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.457 m η = 0.1	N.P. ⁽⁷⁾	x: 1.822 m η = 19.1	x: 1.457 m η = 19.8	CUMPLE η = 19.8
N45/N62	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 0.926 m η = 6.4	x: 0 m η = 12.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0.926 m η = 8.8	η = 0.8	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0.926 m η = 0.8	N.P. ⁽⁷⁾	x: 0 m η = 21.3	x: 0.926 m η = 21.5	CUMPLE η = 21.5
N44/N62	$w \ / \ t \leq (w \ / \ t)_{\text{Máx.}}$ Cumple	x: 1.75 m η = 9.6	x: 0 m η = 8.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 1.094 m η = 3.1	x: 0 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 1.094 m η = 0.1	N.P. ⁽⁷⁾	x: 1.75 m η = 11.0	x: 1.094 m η = 11.2	CUMPLE η = 11.2
N44/N61	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.797 m η = 3.2	x: 0 m η = 5.9	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 4.1	η = 0.5	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.2	N.P. ⁽⁷⁾	x: 0 m η = 9.9	x: 0.797 m η = 10.0	CUMPLE η = 10.0
N43/N61	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.685 m η = 1.5	x: 0 m η = 4.0	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0.843 m η = 3.7	x: 1.685 m η = 0.1	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0.632 m η = 0.1	N.P. ⁽⁷⁾	x: 0.843 m η = 7.7	x: 0.632 m η = 5.9	CUMPLE η = 7.7
N43/N60	$w / t \le (w / t)_{Máx.}$ Cumple	x: 0.668 m η = 1.6	x: 0 m η = 0.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0.668 m η = 5.6	η = 0.7	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0.668 m η = 0.3	N.P. ⁽⁷⁾	x: 0.668 m η = 3.8	x: 0 m η = 7.2	CUMPLE η = 7.2
N42/N60	$w / t \le (w / t)_{Máx.}$ Cumple	x: 1.628 m η = 13.6	x: 0 m η = 34.7	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 6.1	x: 1.628 m η = 0.2	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 0.4	N.P. ⁽⁷⁾	x: 0 m η = 41.7	x: 0 m η = 37.9	CUMPLE η = 41.7
N42/N59	$w / t \le (w / t)_{M\acute{a}x.}$ Cumple	x: 0.539 m η = 7.4	x: 0 m η = 4.6	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 45.3	η = 7.5	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 21.1	x: 0 m η = 51.9	x: 0.539 m η = 30.7	x: 0 m η = 54.1	CUMPLE η = 54.1
N41/N59	$w \ / \ t \leq (w \ / \ t)_{M\acute{a}x.}$ Cumple	x: 1.58 m η = 25.6	x: 0 m η = 60.5	N.P. ⁽¹⁾	N.P. ⁽⁸⁾	x: 0 m η = 10.4	x: 0 m η = 0.6	N.P. ⁽⁹⁾	N.P. ⁽⁴⁾	N.P. ⁽⁵⁾	N.P. ⁽¹⁰⁾	x: 0 m η = 1.1	N.P. ⁽⁷⁾	x: 0 m η = 73.3	x: 0 m η = 71.2	CUMPLE η = 73.3

4.2. PORTICOS:

- ENCADENADO INFERIOR

Pórtico 1			Tramo: V-10	1		Tramo: V-1	02		Tramo: V-10	03	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.27		-1.26	-0.46		-0.81	-0.46	-0.18	-1.49
x	[m]		0.00		4.50	0.00		4.80	0.00	3.15	4.90
Momento máx.	[t·m]		1.03	0.80	0.16	0.33	0.39	0.20	0.43	0.39	0.18
x	[m]		0.00	1.61	3.21	1.37	2.40	3.43	1.05	2.45	3.50
Cortante mín.	[t]		-0.28	-0.67	-1.10		-0.33	-0.80	-0.14	-0.55	-1.02
x	[m]		1.29	2.89	4.50		3.09	4.80	1.40	3.15	4.90
Cortante máx.	[t]		0.64	0.13		0.73	0.19		0.73	0.18	
x	[m]		0.00	1.61		0.00	1.71		0.00	1.75	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
á c	F 22	Real	1.01	1.01	1.79	1.79	1.01	1.56	1.56	1.01	2.01
Årea Sup.	[cm²]	Nec.	0.35	0.00	1.65	0.60	0.00	1.07	0.60	0.24	1.96
Áuss Tuf	[am 2]	Real	1.51	1.51	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Årea Inf.	[cm²]	Nec.	1.34	1.04	0.21	0.43	0.51	0.26	0.56	0.51	0.23
á 	F 2 / 1	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Area Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa	<u> </u>		0.20 m	m, L/22984 (L	: 4.50 m)	0.20 m	ım, L/24418 (L: 4.80 m)	0.19 m	ım, L/23588 (L: 4.55 m)
Pórtico 1			Tramo: V-10	4		Tramo: V-1	05		Tramo: V-10	06	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.38		-1.17	-0.48		-0.79	-0.40	-0.24	-1.48
x	[m]		0.00		4.75	0.00		4.80	0.00	2.93	4.56
Momento máx.	[t·m]		0.76	0.69	0.19	0.35	0.40	0.22	0.43	0.33	0.14
x	[m]		1.02	1.70	3.39	1.37	2.40	3.43	0.33	2.28	3.26
Cortante mín.	[t]		-0.16	-0.56	-1.02		-0.33	-0.80	-0.19	-0.57	-1.01
x	[m]		1.36	3.05	4.75		3.09	4.80	1.30	2.93	4.56
Cortante máx.	[t]		0.70	0.17		0.74	0.20		0.68	0.17	
x	[m]		0.00	1.70		0.00	1.71		0.00	1.63	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
Área Sup.	[cm2]	Real	2.01	1.01	2.00	2.00	1.01	1.51	1.51	1.01	2.10
Aica Sup.	[cm²]	Nec.	0.49	0.00	1.55	0.63	0.00	1.03	0.52	0.31	1.97
Área Inf.	[cm2]	Real	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
AICO IIII.	[cm²]	Nec.	0.99	0.90	0.25	0.46	0.51	0.28	0.56	0.43	0.19
		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Áron Trancu											
Área Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36

Pórtico 1			Tramo: V-10	7		Tramo: V-10	าด		Tramo: V-10	19	
Sección			30x30	•		30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.37		-1.18	-0.48		-0.77	-0.41	-0.32	-1.68
x	[m]		0.00		4.75	0.00		4.80	0.00	2.99	4.65
Momento máx.	[t·m]		0.76	0.69	0.19	0.35	0.40	0.21	0.49	0.35	0.15
x	[m]		1.02	1.70	3.39	1.37	2.40	3.43	0.00	2.33	3.32
Cortante mín.	[t]		-0.17	-0.57	-1.02		-0.33	-0.79	-0.24	-0.63	-1.07
X Southern to see for	[m]		1.36	3.05	4.75		3.09	4.80	1.33	2.99	4.65
Cortante máx.	[t]		0.70	0.17		0.74	0.20		0.69	0.17	
X Torsor mín.	[m]		0.00	1.70		0.00	1.71		0.00	1.66	
x	[t] [m]										
Torsor máx.	[t]		<u> </u>								-
x	[m]										
	[]	Real	2.16	1.01	1.79	1.79	1.01	1.31	1.39	1.01	2.52
Área Sup.	[cm ²]	Nec.	0.49	0.00	1.54	0.62	0.00	1.01	0.54	0.41	2.21
· - •		Real	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Àrea Inf.	[cm ²]	Nec.	0.99	0.90	0.25	0.46	0.51	0.28	0.63	0.45	0.20
	5 2/ 3	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Årea Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa	,		0.22 m	m, L/21763 (L	: 4.75 m)	0.20 m	ım, L/23781 (I	L: 4.80 m)	0.15 m	m, L/29036 (I	: 4.24 m)
Pórtico 2			Tramo: V-11	0		Tramo: V-1	l 1		Tramo: V-11	.2	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.27		-1.26	-0.46		-0.81	-0.46	-0.18	-1.49
x	[m]		0.00		4.50	0.00		4.80	0.00	3.15	4.90
Momento máx.	[t·m]		1.03	0.80	0.17	0.33	0.39	0.20	0.43	0.39	0.18
x	[m]		0.00	1.61	3.21	1.37	2.40	3.43	1.05	2.45	3.50
Cortante mín.	[t]		-0.28	-0.67	-1.10		-0.33	-0.80	-0.14	-0.55	-1.02
X Contractor ([m]		1.29	2.89	4.50		3.09	4.80	1.40	3.15	4.90
Cortante máx.	[t]		0.64	0.14		0.73	0.19		0.73	0.18	
X Tanan min	[m]		0.00	1.61		0.00	1.71		0.00	1.75	
Torsor mín.	[t]										
Torsor máy	[m]										
Torsor máx.	[t]		<u></u>								
x	[m]	Real	1.01	1.01	1.79	1.79	1.01	1.56	1.56	1.01	2.01
Área Sup.	[cm²]	Nec.	0.35	0.00	1.65	0.60	0.00	1.07	0.60	0.24	1.96
		Real	1.51	1.51	1.01	1.01	1.01	1.07	1.01	1.01	1.96
Área Inf.	[cm²]	Nec.	1.34	1.04	0.21	0.43	0.51	0.26	0.56	0.51	0.23
,		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Área Transv.	[cm ² /m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa				m, L/23012 (L	-		ım, L/24349 (I			m, L/23624 (I	
Pórtico 2			Tramo: V-11			Tramo: V-11			Tramo: V-11		
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.38		-1.17	-0.48		-0.79	-0.40	-0.24	-1.49
x	[m]		0.00		4.75	0.00		4.80	0.00	2.93	4.56
Momento máx.	[t·m]		0.76	0.69	0.19	0.35	0.40	0.22	0.43	0.33	0.14
x	[m]		1.02	1.70	3.39	1.37	2.40	3.43	0.33	2.28	3.26
Cortante mín.	[t]		-0.16	-0.56	-1.02		-0.33	-0.80	-0.19	-0.58	-1.02
x	[m]		1.36	3.05	4.75		3.09	4.80	1.30	2.93	4.56
Cortante máx.	[t]		0.70	0.17		0.74	0.20		0.68	0.17	
X Tanan min	[m]		0.00	1.70		0.00	1.71		0.00	1.63	
Torsor mín.	[t]										
X Torsor máy	[m]										
Torsor máx. x	[t]										
	[m]	Real	2.01	1.01	2.00	2.00	1.01	1.51	1.51	1.01	2.10
Área Sup.	[cm²]	Nec.	0.49	0.00	1.55	0.63	0.00	1.03	0.52	0.31	1.97
		Real	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Área Inf.		. «Cai	0.99	0.90	0.25	0.46	0.51	0.28	0.56	0.43	0.18
	[cm²]	Nec	0.55	0.90	0.23				4.35		4.35
		Nec. Real	4.35	4.35	4.35	4.35	4.35	4.33		4.35	
Área Transv.	[cm²]	Real	4.35 2.36	4.35 2.36	4.35 2.36	4.35 2.36	4.35 2.36	4.35 2.36	2.36	4.35 2.36	2.36
			2.36		2.36	2.36		2.36	2.36		2.36
		Real	2.36	2.36 m, L/ 22038 (L	2.36	2.36	2.36 nm, L/ 23612 (I	2.36	2.36	2.36 m, L/31395 (I	2.36
F. Activa Pórtico 2		Real	2.36 0.22 m	2.36 m, L/ 22038 (L	2.36	2.36 0.20 m	2.36 nm, L/ 23612 (I	2.36	2.36 0.13 m	2.36 m, L/31395 (I	2.36
F. Activa Pórtico 2 Sección		Real	2.36 0.22 m Tramo: V-11	2.36 m, L/ 22038 (L	2.36	2.36 0.20 m Tramo: V-11	2.36 nm, L/ 23612 (I	2.36	2.36 0.13 m Tramo: V-11	2.36 m, L/31395 (I	2.36
F. Activa Pórtico 2 Sección Zona		Real	2.36 0.22 m Tramo: V-11 30x30	2.36 m, L/22038 (L	2.36 : 4.75 m)	2.36 0.20 m Tramo: V-11 30x30	2.36 nm, L/23612 (I	2.36 L: 4.80 m)	2.36 0.13 m Tramo: V-11 30x30	2.36 m, L/31395 (I	2.36 L: 4.16 m)
F. Activa Pórtico 2 Sección Zona Momento mín.	[cm²/m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L	2.36 m, L/22038 (L 6	2.36 : 4.75 m)	2.36 0.20 m Tramo: V-11 30x30 1/3L	2.36 nm, L/23612 (I	2.36 L: 4.80 m)	2.36 0.13 m Tramo: V-11 30x30 1/3L	2.36 m, L/31395 (I	2.36 L: 4.16 m)
F. Activa Pórtico 2 Sección Zona Momento mín. x	[cm²/m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38	2.36 m, L/22038 (L 6	2.36 :: 4.75 m) 3/3L -1.17	2.36 0.20 m Tramo: V-13 30x30 1/3L -0.48	2.36 nm, L/23612 (I	2.36 L: 4.80 m) 3/3L -0.77	2.36 0.13 m Tramo: V-11 30x30 1/3L -0.41	2.36 m, L/31395 (I .8 2/3L -0.32	2.36 L: 4.16 m) 3/3L -1.68
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx.	[t·m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00	2.36 mr, L/22038 (L 6 2/3L 	2.36 :: 4.75 m) 3/3L -1.17 4.75	2.36 0.20 m Tramo: V-13 30×30 1/3L -0.48 0.00	2.36 im, L/23612 (I 17 2/3L 	2.36 L: 4.80 m) 3/3L -0.77 4.80	2.36 0.13 m Tramo: V-11 30x30 1/3L -0.41 0.00	2.36 m, L/31395 (I .88 2/3L -0.32 2.99	2.36 L: 4.16 m) 3/3L -1.68 4.65
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx.	[t·m] [t·m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76	2.36 mr, L/22038 (L 6 2/3L 0.69	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19	2.36 0.20 m Tramo: V-13 30×30 1/3L -0.48 0.00 0.35	2.36 im, L/23612 (I 17 2/3L 0.40	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21	2.36 0.13 m Tramo: V-11 30x30 1/3L -0.41 0.00 0.49	2.36 m, L/31395 (I .88 2/3L -0.32 2.99 0.35	2.36 L: 4.16 m) 3/3L -1.68 4.65 0.15
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx.	[t·m] [m] [t·m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76 1.02	2.36 m, L/22038 (L 6 2/3L 0.69 1.70	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19 3.39	2.36 0.20 m Tramo: V-13 30x30 1/3L -0.48 0.00 0.35 1.37	2.36 nm, L/23612 (I	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21 3.43	2.36 0.13 m Tramo: V-11 30x30 1/3L -0.41 0.00 0.49 0.00	2.36 m, L/31395 (I 8 2/3L -0.32 2.99 0.35 2.33	2.36 2.36 m) 3/3L -1.68 4.65 0.15 3.32
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx.	[t·m] [m] [tm]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76 1.02 -0.17	2.36 m, L/22038 (L 6 2/3L 0.69 1.700.56	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19 3.39 -1.02	2.36 0.20 m Tramo: V-13 30x30 1/3L -0.48 0.00 0.35 1.37	2.36 mm, L/23612 (I 17 2/3L 0.40 2.40 -0.33	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21 3.43 -0.79	2.36 0.13 m Tramo: V-13 30x30 1/3L -0.41 0.00 0.49 0.00 -0.24	2.36 m, L/31395 (188 2/3L -0.32 2.99 0.35 2.33 -0.63	2.36 2.4.16 m) 3/3L -1.68 4.65 0.15 3.32 -1.07
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx.	[t·m] [m] [t·m] [m] [t] [m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76 1.02 -0.17 1.36	2.36 m, L/22038 (L 6 2/3L 0.69 1.70 -0.56 3.05	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19 3.39 -1.02 4.75	2.36 0.20 m Tramo: V-1: 30x30 1/3L -0.48 0.00 0.35 1.37	2.36 mm, L/23612 (I 17 2/3L 0.40 2.40 -0.33 3.09	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21 3.43 -0.79 4.80	2.36 0.13 m Tramo: V-13 30x30 1/3L -0.41 0.00 0.49 0.00 -0.24 1.33	2.36 m, L/31395 (I 8 2/3L -0.32 2.99 0.35 2.33 -0.63	2.36 2.4.16 m) 3/3L -1.68 4.65 0.15 3.32 -1.07 4.65
Sección Zona Momento mín. x Momento máx. x Cortante mín.	[t·m] [m] [t·m] [m] [t] [t] [t]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76 1.02 -0.17 1.36 0.70	2.36 m, L/22038 (L 6 2/3L 0.69 1.70 -0.56 3.05 0.17	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19 3.39 -1.02 4.75	2.36 0.20 m Tramo: V-1: 30x30 1/3L -0.48 0.00 0.35 1.37 0.74	2.36 mm, L/23612 (I 17 2/3L 0.40 2.40 -0.33 3.09 0.20	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21 3.43 -0.79 4.80	2.36 0.13 m Tramo: V-13 30x30 1/3L -0.41 0.00 0.49 0.00 -0.24 1.33 0.69	2.36 m, L/31395 (188 2/3L -0.32 2.99 0.35 2.33 -0.63 2.99 0.17	2.36 2: 4.16 m) 3/3L -1.68 4.65 0.15 3.32 -1.07 4.65
F. Activa Pórtico 2 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx.	[t·m] [m] [t·m] [m] [t] [m] [t] [m]	Real	2.36 0.22 m Tramo: V-11 30x30 1/3L -0.38 0.00 0.76 1.02 -0.17 1.36 0.70 0.00	2.36 m, L/22038 (L 6 2/3L 0.69 1.70 -0.56 3.05 0.17 1.70	2.36 : 4.75 m) 3/3L -1.17 4.75 0.19 3.39 -1.02 4.75 	2.36 0.20 m Tramo: V-1: 30x30 1/3L -0.48 0.00 0.35 1.37 0.74 0.00	2.36 m, L/23612 (I 17 2/3L 0.40 2.40 -0.33 3.09 0.20 1.71	2.36 L: 4.80 m) 3/3L -0.77 4.80 0.21 3.43 -0.79 4.80	2.36 0.13 m Tramo: V-13 30x30 1/3L -0.41 0.00 0.49 0.00 -0.24 1.33 0.69 0.00	2.36 m, L/31395 (1.8 2/3L -0.32 2.99 0.35 2.33 -0.63 2.99 0.17 1.66	2.36 2.4.16 m) 3/3L -1.68 4.65 0.15 3.32 -1.07 4.65

Pórtico 2			Tramo: V-11	6		Tramo: V-11	7		Tramo: V-11	.8	
Sección			30x30		_	30x30			30x30	1	
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
x	[m]	ln			4.70						
Área Sup.	[cm ²]	Real	2.16	1.01	1.79	1.79	1.01	1.31	1.39	1.01	2.52
		Nec.	0.49	0.00	1.54	0.62	0.00	1.01	0.54	0.41	2.21
Área Inf.	[cm²]	Real	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
		Nec.	0.99	0.90	0.25	0.46	0.51	0.28	0.63	0.45	0.20
Área Transv.	[cm²/m]	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
		Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa				n, L/21792 (L -	: 4.75 m)		m, L/23716 (L	: 4.80 m)		m, L/29019 (L	.: 4.24 m)
Pórtico 3			Tramo: V-11	9		Tramo: V-12	:0		Tramo: V-12	!1	
Sección			30x30			30x30	1		30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.39		-1.58	-0.45		-1.51	-0.45		-1.51
x	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.81	0.63	0.24	0.69	0.56	0.24	0.70	0.56	0.24
x	[m]		0.31	1.84	3.38	0.31	1.84	3.38	0.31	1.84	3.38
Cortante mín.	[t]		-0.27	-0.63	-1.13	-0.23	-0.59	-1.09	-0.23	-0.59	-1.09
x	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.72	0.14		0.74	0.16		0.74	0.16	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
		Real	1.01	1.01	2.14	2.14	1.01	2.07	2.17	1.01	2.01
Årea Sup.	[cm ²]	Nec.	0.51	0.00	2.08	0.59	0.00	2.00	0.59	0.00	1.99
,		Real	1.51	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Área Inf.	[cm²]	Nec.	1.06	0.81	0.31	0.90	0.73	0.32	0.91	0.73	0.32
		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Área Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F A ations		Nec.				+			_	-1	
F. Activa				n, L/20481 (L -	: 4.91 m)		m, L/22662 (L	: 4.91 m)		m, L/22569 (L	.: 4.91 m)
Pórtico 3			Tramo: V-12	2		Tramo: V-12	.3		Tramo: V-12	:4	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.45		-1.51	-0.45		-1.51	-0.45		-1.51
ĸ	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.70	0.56	0.24	0.70	0.56	0.24	0.70	0.56	0.24
x	[m]		0.31	1.84	3.38	0.31	1.84	3.38	0.31	1.84	3.38
Cortante mín.	[t]		-0.23	-0.59	-1.09	-0.23	-0.59	-1.09	-0.23	-0.59	-1.09
ĸ	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.74	0.16		0.74	0.16		0.74	0.16	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
- /	Lini								+		
i orsor máx.				-							
	[t] [m]										
x	[t] [m]	Real									
Torsor máx. x Área Sup.	[t]	Real Nec.	 2.01	 1.01	 2.08	 2.13	1.01	2.01	2.01	1.01	2.07
x Área Sup.	[t] [m]	Nec.	 2.01 0.58	 1.01 0.00	 2.08 2.01	 2.13 0.59	1.01 0.00	2.01 1.99	2.01 0.58	1.01 0.00	2.07 2.00
x Área Sup.	[t] [m]	Nec. Real	 2.01 0.58 1.01	 1.01 0.00 1.01	2.08 2.01 1.01	 2.13 0.59 1.01	1.01 0.00 1.01	2.01 1.99 1.01	2.01 0.58 1.01	1.01 0.00 1.01	2.07 2.00 1.01
x	[t] [m] [cm ²]	Nec. Real Nec.	 2.01 0.58 1.01 0.91	 1.01 0.00 1.01 0.73	2.08 2.01 1.01 0.32	2.13 0.59 1.01	1.01 0.00 1.01 0.73	2.01 1.99 1.01 0.32	2.01 0.58 1.01 0.91	1.01 0.00 1.01 0.73	2.07 2.00 1.01 0.31
x Área Sup. Área Inf.	[t] [m] [cm ²]	Nec. Real Nec. Real	 2.01 0.58 1.01 0.91 4.35	1.01 0.00 1.01 0.73 4.35	2.08 2.01 1.01 0.32 4.35	2.13 0.59 1.01 0.91 4.35	1.01 0.00 1.01 0.73 4.35	2.01 1.99 1.01 0.32 4.35	2.01 0.58 1.01 0.91 4.35	1.01 0.00 1.01 0.73 4.35	2.07 2.00 1.01 0.31 4.35
x Área Sup. Área Inf. Área Transv.	[t] [m] [cm²]	Nec. Real Nec.	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36	2.07 2.00 1.01 0.31 4.35 2.36
área Sup. Área Inf. Área Transv. F. Activa	[t] [m] [cm²]	Nec. Real Nec. Real	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3	[t] [m] [cm²]	Nec. Real Nec. Real		1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección	[t] [m] [cm²]	Nec. Real Nec. Real		1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona	[t] [m] [cm²] [cm²]	Nec. Real Nec. Real		 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín.	[t] [m] [cm²] [cm²/m]	Nec. Real Nec. Real		 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín.	[t] [m] [cm²] [cm²/m] [t·m] [m]	Nec. Real Nec. Real		1.01 0.00 1.01 0.73 4.35 2.36 m, L/22574 (L 5	2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín.	[t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx.	[t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [tm] [t] [m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [tm] [t]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [tm] [t] [m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 -1.01 -1.01 -1.57 4.91 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. K Momento máx. C Cortante mín. C Cortante máx.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m] [t] [t]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07 0.17	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Cortante máx.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m] [t] [m] [t] [m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07 0.17	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. X Momento máx. X Cortante mín. X Cortante máx. X Torsor mín.	[t] [m] [cm²] [cm²/m] [t·m] [m] [t·m] [m] [t] [m] [t] [m] [t] [t]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07 0.17	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín.	[t] [m] [cm²] [cm²/m] [t·m] [m] [t] [m]	Nec. Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07 0.17 1.84	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m	1.01 0.00 1.01 0.73 4.35 2.36 m, L/22571 (L 0.56 1.84 -0.61 3.07 0.17 1.84	2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x	[t] [m] [cm²] [cm²/m] [t·m] [m] [t] [m]	Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91 2.14	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec. Real Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91 2.14 2.07	2.07 2.00 1.01 0.31 4.35 2.36
Área Sup. Área Inf. Área Inf. F. Activa Pórtico 3 Sección Zona Momento mín. x Cortante mín. x Cortante máx. x Torsor mín. x Área Sup.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec. Real Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91 2.14 2.07	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m]	Real Nec. Real Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 -1.11 4.91 -1.21 -1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x Torsor máx. x Área Sup.	[t] [m] [cm²] [cm²] [cm²/m] [t·m] [m] [t·m] [t] [m]	Real Nec. Real			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 0.26 3.38 -1.11 4.91 2.14 2.07 1.01	2.07 2.00 1.01 0.31 4.35 2.36
x Área Sup. Área Inf. Área Transv. F. Activa Pórtico 3 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x Torsor máx. x	[t] [m] [cm²] [cm²/m] [t·m] [t·m] [t] [m]	Real Nec. Real Nec. Real Nec. Real Nec.			2.08 2.01 1.01 0.32 4.35 2.36	2.13 0.59 1.01 0.91 4.35 2.36 0.22 m		2.01 1.99 1.01 0.32 4.35 2.36 2.491 m)	2.01 0.58 1.01 0.91 4.35 2.36 0.22 m	-1.57 4.91 -1.11 4.91 -1.21 -1.01 0.00 1.01 0.73 4.35 2.36 m, L/22620 (L	2.07 2.00 1.01 0.31 4.35 2.36

Portico 4								1-	_		
Pórtico 4			Tramo: V-120	5		Tramo: V-12	27		Tramo: V-12	28	
Sección			30x30	1		30x30	I		30x30	1	1
Zona	5h 3		1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín. x	[t·m]		-0.42 0.00		-1.59 4.91	-0.44 0.00		-1.53 4.91	-0.45 0.00		-1.53 4.91
Momento máx.	[m]		0.82	0.62	0.24	0.00	0.57	0.24	0.00	0.57	0.24
x	[t·m]		0.31	1.84	3.38	0.71	1.84	3.38	0.71	1.84	3.38
	[m]										
Cortante mín.	[t]		-0.27	-0.64	-1.13	-0.24	-0.60	-1.10	-0.24	-0.60	-1.10
X Soutoutourée	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.73	0.15		0.74	0.16		0.74	0.16	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
K	[m]	1									
Área Sup.	[cm²]	Real	1.01	1.01	2.14	2.14	1.01	2.07	2.16	1.01	2.01
		Nec.	0.55	0.00	2.10	0.58	0.00	2.03	0.59	0.00	2.01
Área Inf.	[cm²]	Real	1.51	1.01	1.01	1.01	1.01	1.04	1.01	1.01	1.01
	[c]	Nec.	1.07	0.81	0.31	0.93	0.74	0.32	0.93	0.74	0.32
Area Transv.	[cm2/m]	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
irea Italisv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
. Activa			0.21 mr	n, L/23035 (L:	: 4.91 m)	0.22 m	ım, L/22197 (L	: 4.91 m)	0.22 m	m, L/22632 (I	L: 4.91 m)
Pórtico 4			Tramo: V-129	9		Tramo: V-13	30		Tramo: V-13	31	
Sección			30x30			30x30			30x30		
lona .			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
1omento mín.	[t·m]		-0.45		-1.53	-0.45		-1.53	-0.45		-1.52
([m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.71	0.57	0.24	0.71	0.57	0.24	0.71	0.57	0.25
([m]		0.31	1.84	3.38	0.31	1.84	3.38	0.31	1.84	3.38
Cortante mín.	[t]		-0.24	-0.60	-1.10	-0.24	-0.60	-1.10	-0.24	-0.60	-1.10
,								+			
Contanto más	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.74	0.16		0.74	0.16		0.74	0.16	
. ,	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
orsor mín.	[t]							-			
•	[m]										
orsor máx.	[t]										
1	[m]										
S	Fam. 21	Real	2.01	1.01	2.07	2.13	1.01	2.01	2.01	1.01	2.07
Area Sup.	[cm²]	Nec.	0.58	0.00	2.03	0.59	0.00	2.01	0.58	0.00	2.02
		Real	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Area Inf.	[cm²]	Nec.	0.93	0.74	0.32	0.93	0.74	0.31	0.92	0.74	0.32
		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Área Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa		-		n, L/22558 (L:			ım, L/22631 (L			m, L/22179 (I	
Pórtico 4			Tramo: V-13		,	-	, _, (, _, (,
Sección			30x30	<u> </u>							
Zona			1/3L			2/3L			3/3L		
Momento mín.	[t·m]		1,32	-0.45		2,32			3/32	-1.63	
	[c m]										
([m]									4.01	
Momento máy	[m]			0.00			 0 F6			4.91	
	[t·m]			0.75			0.56			0.25	
([t·m] [m]			0.75 0.31			0.56 1.84			0.25 3.38	
Cortante mín.	[t·m] [m] [t]			0.75 0.31 -0.27			0.56 1.84 -0.63			0.25 3.38 -1.13	
c Cortante mín. c	[t·m] [m] [t] [m]			0.75 0.31 -0.27 1.54			0.56 1.84 -0.63 3.07			0.25 3.38 -1.13 4.91	
Cortante mín. Cortante máx.	[t·m] [m] [t] [m]			0.75 0.31 -0.27 1.54 0.74			0.56 1.84 -0.63 3.07 0.16			0.25 3.38 -1.13 4.91	
c Cortante mín. C Cortante máx.	[t·m] [m] [t] [m] [t] [m]			0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91	
Cortante mín. Cortante máx. Cortante máx. Corsor mín.	[t·m] [m] [t] [m] [t] [m] [t]			0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91 	
Cortante mín. Cortante máx. Cortante máx. Corsor mín.	[t·m] [m] [t] [m] [t] [m]			0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91 	
Cortante mín. Cortante máx. Cortante máx. Corton mín.	[t·m] [m] [t] [m] [t] [m] [t]			0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91 	
Cortante mín. Cortante máx. Cortante máx. Corton mín. Corton máx.	[t·m] [m] [t] [m] [t] [m] [t] [m]			0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91	
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Real		0.75 0.31 -0.27 1.54 0.74 0.00 			0.56 1.84 -0.63 3.07 0.16 1.84 			0.25 3.38 -1.13 4.91	
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t]	Real Nec.		0.75 0.31 -0.27 1.54 0.74 0.00			0.56 1.84 -0.63 3.07 0.16 1.84			0.25 3.38 -1.13 4.91	
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]			0.75 0.31 -0.27 1.54 0.74 0.00 2.12			0.56 1.84 -0.63 3.07 0.16 1.84 1.01			0.25 3.38 -1.13 4.91 2.52	
Cortante mín. Cortante máx. Corsor mín. Corsor máx. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec.		0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59			0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00			0.25 3.38 -1.13 4.91 2.52 2.14	
Cortante mín. Cortante máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm ²]	Nec. Real		0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01			0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01			0.25 3.38 -1.13 4.91 2.52 2.14 1.01	
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx. Corsor máx. Corsor máx. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec. Real Nec.		0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01			0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73			0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32	
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm ²]	Nec. Real Nec. Real		0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35		0.21 m	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36	.: 4.61 m)		0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35	
Cortante mín. Cortante máx. Corsor mín. Corsor máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm ²]	Nec. Real Nec. Real	Tramo: V-13	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36			0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 um, L/22209 (L	.: 4.61 m)	Tramo: V-13	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	
cortante mín. cortante máx. corsor mín. corsor máx. co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm ²]	Nec. Real Nec. Real	Tramo: V-13:	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36		Tramo: V-13	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 um, L/22209 (L	.: 4.61 m)	Tramo: V-13	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	
cortante mín. cortante máx. corsor mín. corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm ²]	Nec. Real Nec. Real	30x30	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	3/3L	Tramo: V-13 30x30	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 cm, L/22209 (L		30x30	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	3/31
cortante mín. cortante máx. corsor mín. corsor máx. co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²]	Nec. Real Nec. Real	30x30 1/3L	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	3/3L -1.59	Tramo: V-13 30x30 1/3L	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 cm, L/22209 (L	3/3L	30x30 1/3L	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	3/3L
Cortante mín. Cortante máx. Corsor mín. Corsor máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real	30x30 1/3L -0.42	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59	Tramo: V-13 30x30 1/3L -0.44	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 im, L/22209 (L	3/3L -1.53	30x30 1/3L -0.45	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	-1.53
Cortante mín. Cortante máx. Corsor mín. Corsor máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59 4.91	Tramo: V-13 30x30 1/3L -0.44 0.00	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 im, L/22209 (L 34	3/3L -1.53 4.91	30x30 1/3L -0.45 0.00	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	-1.53 4.91
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59 4.91 0.24	Tramo: V-13 30x30 1/3L -0.44 0.00 0.71	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 um, L/22209 (L 34	3/3L -1.53 4.91 0.24	30x30 1/3L -0.45 0.00 0.71	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	-1.53 4.91 0.24
Cortante mín. Cortante máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m] [f·m] [f·m] [m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59 4.91 0.24 3.38	7ramo: V-13 30x30 1/3L -0.44 0.00 0.71 0.31	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22209 (L 34	3/3L -1.53 4.91 0.24 3.38	30x30 1/3L -0.45 0.00 0.71 0.31	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 1.84	-1.53 4.91 0.24 3.38
Cortante mín. Cortante máx. Co	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59 4.91 0.24	Tramo: V-13 30x30 1/3L -0.44 0.00 0.71	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 um, L/22209 (L 34	3/3L -1.53 4.91 0.24	30x30 1/3L -0.45 0.00 0.71	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36	-1.53 4.91 0.24
Cortante mín. Cortante máx. Cortante máx. Corsor mín. Corsor máx. Cortante mín. Cortante mín.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m] [f·m] [f·m] [m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36	-1.59 4.91 0.24 3.38	7ramo: V-13 30x30 1/3L -0.44 0.00 0.71 0.31	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22209 (L 34	3/3L -1.53 4.91 0.24 3.38	30x30 1/3L -0.45 0.00 0.71 0.31	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 1.84	-1.53 4.91 0.24 3.38
Cortante mín. Cortante máx. Cortante mín. Cortante mín. Cortante mín. Cortante mín. Cortante mín. Cortante mín.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [cm²] [cm²] [cm²/m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31 -0.27	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36 3 2/3L 0.62 1.84 -0.64	-1.59 4.91 0.24 3.38 -1.13	7ramo: V-13 30x30 1/3L -0.44 0.00 0.71 0.31 -0.24	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 mm, L/22209 (L 34 2/3L 1.84 -0.60	3/3L -1.53 4.91 0.24 3.38 -1.10	30x30 1/3L -0.45 0.00 0.71 0.31 -0.24	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 0.57 1.84 -0.60	-1.53 4.91 0.24 3.38 -1.10
Cortante mín. Cortante máx. Cortante máx. Cortante máx. Cortante máx. Cortante máx. Cortante máx. Cortante mín. Cortante mín. Cortante mín. Cortante máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m] [f·m] [m] [t·m] [m] [t·m] [m]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31 -0.27 1.54	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36 3 2/3L 0.62 1.84 -0.64 3.07	-1.59 4.91 0.24 3.38 -1.13 4.91	Tramo: V-13 30x30 1/3L -0.44 0.00 0.71 0.31 -0.24 1.54	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22209 (L 34 2/3L 0.57 1.84 -0.60 3.07	3/3L -1.53 4.91 0.24 3.38 -1.10 4.91	30x30 1/3L -0.45 0.00 0.71 0.31 -0.24 1.54	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 0.57 1.84 -0.60	-1.53 4.91 0.24 3.38 -1.10 4.91
Cortante mín. Cortante máx. Cortante mín. Cortante mín. Cortante máx. Cortante máx. Cortante máx. Cortante máx.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²] [cm²/m] [i·m] [i·m] [i·m] [i·m] [i·m] [t] [im] [t] [t]	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31 -0.27 1.54 0.73	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36 3 2/3L 0.62 1.84 -0.64 3.07 0.15	-1.59 4.91 0.24 3.38 -1.13 4.91	Tramo: V-1:3 30x30 1/3L -0.44 0.00 0.71 0.31 -0.24 1.54 0.74	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22209 (L 34 2/3L 0.57 1.84 -0.60 3.07 0.16	3/3L -1.53 4.91 0.24 3.38 -1.10 4.91	30x30 1/3L -0.45 0.00 0.71 0.31 -0.24 1.54 0.74	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 0.57 1.84 -0.60 3.07 0.16	-1.53 4.91 0.24 3.38 -1.10 4.91
Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x Forsor máx. x Área Sup. Área Transv. F. Activa Pórtico 5 Sección Zona Momento mín. c Cortante mín. c Cortante mín. c Cortante mín.	[t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²] [cm²/m] [im] [im] [im] [im] [im] [im] [im] [i	Nec. Real Nec. Real	30x30 1/3L -0.42 0.00 0.82 0.31 -0.27 1.54 0.73 0.00	0.75 0.31 -0.27 1.54 0.74 0.00 2.12 0.59 1.01 0.98 4.35 2.36 3 2/3L	-1.59 4.91 0.24 3.38 -1.13 4.91	Tramo: V-1: 30x30 1/3L -0.44 0.00 0.71 0.31 -0.24 1.54 0.00	0.56 1.84 -0.63 3.07 0.16 1.84 1.01 0.00 1.01 0.73 4.35 2.36 m, L/22209 (t 34 2/3L 1.84 -0.60 3.07 0.16 1.84	3/3L -1.53 4.91 0.24 3.38 -1.10 4.91	30x30 1/3L -0.45 0.00 0.71 0.31 -0.24 1.54 0.74 0.00	0.25 3.38 -1.13 4.91 2.52 2.14 1.01 0.32 4.35 2.36 2/3L 0.57 1.84 -0.60 3.07 0.16 1.84	-1.53 4.91 0.24 3.38 -1.10 4.91

			Tramo: V-13	3		Tramo: V-13	34		Tramo: V-13	5	
Sección			30x30	1		30x30	T	I	30x30	1	l=
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
x	[m]	Post	1.01	1.01	2 14	2 14	1.01	2.07	2 16	1.01	2.01
Área Sup.	[cm ²]	Real	1.01	1.01	2.14	2.14	1.01	2.07	2.16	1.01	2.01
		Nec. Real	0.55 1.51	0.00 1.01	2.10 1.01	0.58 1.01	0.00 1.01	2.03 1.04	0.59 1.01	0.00 1.01	2.01 1.01
Área Inf.	[cm ²]	Nec.	1.06	0.81	0.31	0.93	0.74	0.32	0.93	0.74	0.32
		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Área Transv.	[cm ² /m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa		IVEC.		1						1	_
Pórtico 5			Tramo: V-13	n, L/23041 (L	: 4.91 m)		m, L/22196 (L	.: 4.91 m)		m, L/22632 (L: 4.91 m)
Sección				•		Tramo: V-13	o /		Tramo: V-13	0	
			30x30	12/21	2 /21	30x30	2 /21	2 /21	30x30	2/21	2/21
Zona Mamanta mín	[4 m]		1/3L	2/3L 	3/3L	1/3L	2/3L 	3/3L	1/3L	2/3L 	3/3L
Momento mín.	[t·m]		-0.45		-1.53	-0.45		-1.53	-0.45		-1.52
X Mamanta máu	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.71	0.57	0.24	0.71	0.57	0.24 3.38	0.71	0.57	0.25 3.38
X Contouto mán	[m]		0.31	1.84	3.38	0.31	1.84	+	0.31	1.84	
Cortante mín.	[t]		-0.24	-0.60	-1.10	-0.24	-0.60	-1.10	-0.24	-0.60	-1.10
X Soutoute más	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.74	0.16		0.74	0.16		0.74	0.16	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]			-		-	-	-			
x	[m]										
Torsor máx.	[t]										
x	[m]										
Área Sup.	[cm2]	Real	2.01	1.01	2.07	2.13	1.01	2.01	2.01	1.01	2.07
Area Sup.	[cm ²]	Nec.	0.58	0.00	2.03	0.59	0.00	2.01	0.58	0.00	2.02
:		Real	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Área Inf.	[cm ²]	Nec.	0.93	0.74	0.32	0.93	0.74	0.31	0.92	0.74	0.32
		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Área Transv.	[cm ² /m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa		ivec.		1	1					-	_
			1	n, L/22558 (L	: 4.91 m)	0.22 m	m, L/22631 (L	.: 4.91 m)	0.22 m	m, L/22178 (L: 4.91 m)
Pórtico 5			Tramo: V-13	9							
Sección			30x30								
Zona			1/3L			2/3L			3/3L		
Momento mín.	[t·m]			-0.45						-1.62	
x	[m]			0.00						4.91	
Momento máx.	[t·m]			0.75			0.56			0.25	
x	[m]			0.31			1.84	_		3.38	
Cortante mín.	[t]			-0.27			-0.63			-1.13	
x	[m]			1.54			3.07			4.91	
Cortante máx.	[t]			0.74			0.16				
x	[m]			0.00		1	1.84				
Torsor mín.	[t]								1		
x	[m]										
Torsor máx.	[t]										
X	[m]										
X	[111]	Incol									
Área Sup.	[cm ²]	Real		2.12			1.01			2.52	
		Nec.		0.59			0.00		+	2.14	
Área Inf.	[cm²]	Real		1.01			1.01		+	1.01	
		Nec.		0.98			0.73			0.32	
		Real		4.35			4.35		1	4.35	
Área Transv.	[cm ² /m]										
Área Transv.	[cm²/m]	Nec.		2.36			2.36			2.36	
Área Transv. F. Activa	[cm²/m]					0.21 m	2.36 m, L/22214 (L	.: 4.61 m)		2.36	
	[cm²/m]		Tramo: V-14			0.21 m Tramo: V-14	m, L/22214 (L	.: 4.61 m)	Tramo: V-14		
F. Activa Pórtico 6	[cm²/m]		Tramo: V-14 30x30				m, L/22214 (L	.: 4.61 m)	Tramo: V-14		
F. Activa Pórtico 6 Sección	[cm²/m]				3/3L	Tramo: V-14	m, L/22214 (L	: 4.61 m)			3/3L
F. Activa Pórtico 6 Sección Zona	[cm²/m]		30x30	0	3/3L -1.57	Tramo: V-14 30x30	m, L/22214 (L		30x30	2	3/3L -1.51
F. Activa Pórtico 6 Sección Zona Momento mín.			30x30 1/3L	2/3L		Tramo: V-14 30x30 1/3L	m, L/22214 (L 11 2/3L	3/3L	30x30 1/3L	2 2/3L	
F. Activa Pórtico 6 Sección Zona Momento mín.	[t·m]		30x30 1/3L -0.39	2/3L 	-1.57	Tramo: V-14 30x30 1/3L -0.45	m, L/22214 (L i1 2/3L 	3/3L -1.51	30x30 1/3L -0.45	2/3L	-1.51
F. Activa Pórtico 6 Sección Zona Momento mín.	[t·m] [m] [t·m]		30x30 1/3L -0.39 0.00	2/3L	-1.57 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00	m, L/22214 (L s1 2/3L 	3/3L -1.51 4.91	30x30 1/3L -0.45 0.00	2/3L	-1.51 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx.	[t·m] [m] [t·m] [m]		30x30 1/3L -0.39 0.00 0.81	2/3L 0.62	-1.57 4.91 0.24	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69	m, L/22214 (L	3/3L -1.51 4.91 0.24	30x30 1/3L -0.45 0.00 0.70	2/3L 0.56	-1.51 4.91 0.24
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx.	[t·m] [m] [t·m] [m]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27	2/3L 0.62 1.840.63	-1.57 4.91 0.24 3.38 -1.13	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23	2/3L 0.56 1.84 -0.59	3/3L -1.51 4.91 0.24 3.38 -1.09	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23	2/3L 0.56 1.84 -0.59	-1.51 4.91 0.24 3.38 -1.09
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín.	[t·m] [m] [t·m] [m] [t]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27	2/3L 0.62 1.84 -0.63 3.07	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23	2/3L 0.56 1.84 -0.59 3.07	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23	2/3L 0.56 1.84 -0.59 3.07	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín.	[t·m] [m] [t·m] [m] [t] [t]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54	2/3L 0.62 1.84 -0.63 3.07 0.14	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74	2/3L 0.56 1.84 -0.59 3.07 0.16	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74	2/3L 0.56 1.84 -0.59 3.07 0.16	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx.	[t·m] [m] [t·m] [t] [m] [t] [m]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.84 -0.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00	2/3L	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín.	[t·m] [m] [tm] [t] [m] [t] [m] [t] [t]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.84 -0.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74	m, L/22214 (L 11 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91 	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín.	[t·m] [m] [t·m] [m] [tt] [m] [tt] [m]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.84 0.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00	m, L/22214 (Last terms of the content of the conten	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín.	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.840.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00	m, L/22214 (L 31 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín.	[t·m] [m] [t·m] [m] [tt] [m] [tt] [m]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.84 0.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00	m, L/22214 (Last terms of the content of the conten	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]		30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00	2/3L 0.62 1.840.63 3.07 0.14 1.84	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00	m, L/22214 (L 31 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t]	Nec.	30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00 	0 2/3L	-1.57 4.91 0.24 3.38 -1.13 4.91	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 -0.74 0.00	m, L/22214 (L 31 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x Torsor máx. x	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Nec.	30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00 1.01	2/3L 0.62 1.84 -0.63 3.07 0.14 1.84 1.01	-1.57 4.91 0.24 3.38 -1.13 4.91 2.14	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00 2.14	m, L/22214 (Last 1812) 2/3L	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91 2.08	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00 2.17	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01	-1.51 4.91 0.24 3.38 -1.09 4.91
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Real Nec.	30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00 1.01 0.51 1.51	2/3L 0.62 1.84 -0.63 3.07 0.14 1.84 1.01 0.00 1.01	-1.57 4.91 0.24 3.38 -1.13 4.91 2.14 2.08 1.01	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00 2.14 0.59 1.01	m, L/22214 (List 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01 0.00 1.01	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91 2.08 2.00 1.01	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00 2.17 0.59	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01 0.00 1.01	-1.51 4.91 0.24 3.38 -1.09 4.91 2.01 1.98 1.01
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x Torsor máx. x Área Sup.	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [cm²]	Real Nec.	30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00 1.01 0.51 1.51	2/3L	-1.57 4.91 0.24 3.38 -1.13 4.91 2.14 2.08 1.01 0.32	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00 2.14 0.59 1.01	m, L/22214 (List 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01 0.00 1.01 0.73	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91 2.08 2.00 1.01 0.32	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00 2.17 0.59 1.01	2/3L 1.01	-1.51 4.91 0.24 3.38 -1.09 4.91 2.01 1.98 1.01 0.32
F. Activa Pórtico 6 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x Torsor máx. x	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Real Nec.	30x30 1/3L -0.39 0.00 0.81 0.31 -0.27 1.54 0.72 0.00 1.01 0.51 1.51	2/3L 0.62 1.84 -0.63 3.07 0.14 1.84 1.01 0.00 1.01	-1.57 4.91 0.24 3.38 -1.13 4.91 2.14 2.08 1.01	Tramo: V-14 30x30 1/3L -0.45 0.00 0.69 0.31 -0.23 1.54 0.74 0.00 2.14 0.59 1.01	m, L/22214 (List 2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01 0.00 1.01	3/3L -1.51 4.91 0.24 3.38 -1.09 4.91 2.08 2.00 1.01	30x30 1/3L -0.45 0.00 0.70 0.31 -0.23 1.54 0.74 0.00 2.17 0.59	2/3L 0.56 1.84 -0.59 3.07 0.16 1.84 1.01 0.00 1.01	-1.51 4.91 0.24 3.38 -1.09 4.91 2.01 1.98 1.01

Pórtico 6			Tramo: V-14	3		Tramo: V-14	14		Tramo: V-14	15	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.45		-1.51	-0.45		-1.51	-0.45		-1.51
x	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.70	0.56	0.24	0.70	0.56	0.24	0.69	0.56	0.24
x	[m]		0.31	1.84	3.38	0.31	1.84	3.38	0.31	1.84	3.38
Cortante mín.	[t]		-0.23	-0.59	-1.09	-0.23	-0.59	-1.09	-0.23	-0.59	-1.09
x	[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.74	0.16		0.74	0.16		0.74	0.16	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
á o	F 23	Real	2.01	1.01	2.08	2.13	1.01	2.01	2.01	1.01	2.07
Àrea Sup.	[cm ²]	Nec.	0.58	0.00	2.00	0.59	0.00	1.98	0.58	0.00	2.00
Área Inf.	[cm²] Real		1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Area Int.	Nec.		0.90	0.73	0.32	0.90	0.73	0.32	0.90	0.73	0.31
	5 2/ 3	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Àrea Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa			0.22 mi	n, L/22574 (L	: 4.91 m)	0.22 m	m, L/22571 (I	L: 4.91 m)	0.22 m	m, L/22620 (I	.: 4.91 m)
Pórtico 6			Tramo: V-14	6							
Sección			30x30								
Zona			1/3L			2/3L			3/3L		
Momento mín.	[t·m]			-0.46						-1.57	
x	[m]			0.00						4.91	
Momento máx.	[t·m]			0.72			0.56			0.26	
x	[m]			0.31			1.84			3.38	
Cortante mín.	[t]			-0.25			-0.61			-1.11	
x	[m]			1.54			3.07			4.91	
Cortante máx.	[t]			0.75			0.17				
x	[m]			0.00			1.84				
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
Ánna Sum	Fam. 23	Real		2.12			1.01			2.14	
Área Sup.	[cm ²]	Nec.		0.61			0.00	·		2.07	
Áran Inf	[cm2]	Real		1.01			1.01			1.01	
Àrea Inf.	[cm ²]	Nec.		0.94			.73			0.34	
Áron Transv	[cm²/m³	Real		4.35			4.35			4.35	
Àrea Transv.	[cm ² /m]	Nec.		2.36			2.36			2.36	
F. Activa	,					0.23 m	m, L/21408 (I	L: 4.91 m)	•		
			T.					-			

- ENC INTERMEDIO

Pórtico 4			Tramo: V-22	26		Tramo: V-2	27		Tramo: V-2	28	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-1.37		-3.54	-1.86		-3.24	-1.81		-3.27
x	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		1.82	1.81	0.97	1.43	1.48	0.95	1.47	1.51	0.96
x	[m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante mín.	[t]		-0.13	-1.43	-3.27		-1.23	-3.07		-1.25	-3.09
x	[m]		1.54	3.07	4.91		3.07	4.91		3.07	4.91
Cortante máx.	[t]		2.60	0.52		2.74	0.66		2.73	0.65	
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
Área Sup.	[cm²]	Real	2.01	1.01	3.80	3.80	1.01	3.60	3.69	1.01	3.52
мгеа эцр.	[ciii-]	Nec.	1.79	0.00	3.61	2.46	0.00	3.31	2.41	0.00	3.32
Área Inf.	[cm²]	Real	2.70	2.70	2.31	2.01	2.01	2.01	2.01	2.01	2.01
Alea IIII.	[ciii-]	Nec.	2.42	2.40	1.27	1.88	1.94	1.25	1.93	1.99	1.25
Área Transv.	[cm²/m]	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Area Transv.	[CIII-/III]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa		·	2.15 m	nm, L/2280 (L	: 4.91 m)	1.78	mm, L/2766 (I	.: 4.91 m)	1.82 r	nm, L/2701 (L	: 4.91 m)
Pórtico 4			Tramo: V-22	19		Tramo: V-2	30		Tramo: V-2	31	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-1.82		-3.27	-1.82		-3.27	-1.80		-3.27
x	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		1.47	1.51	0.96	1.47	1.51	0.96	1.47	1.51	0.93
x	[m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante mín.	[t]			-1.25	-3.09		-1.25	-3.09		-1.25	-3.09
x	[m]			3.07	4.91		3.07	4.91		3.07	4.91
Cortante máx.	[t]		2.73	0.65		2.73	0.65		2.72	0.64	

Pórtico 4			Tramo: V-22)		Tramo: V-23	0		Tramo: V-23	1	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
x	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]	1									
Área Sup.	[cm²]	Real	3.52	1.01	3.60	3.63	1.01	3.52	3.52	1.01	3.68
		Nec.	2.40	0.00	3.34	2.42	0.00	3.32	2.38	0.00	3.34
Área Inf.	[cm²]	Real	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
		Nec.	1.93	1.98	1.25	1.93	1.98	1.25	1.93	1.98	1.22
Área Transv.	[cm²/m]	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
F. Activa		Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
Pórtico 4			Tramo: V-23	m, L/2703 (L:	4.91 m)	1.62 M	m, L/2697 (L:	4.91 m)	1.77 m	m, L/2769 (L	: 4.91 m)
Sección			30x30	2							
Zona			1/3L			2/3L			3/3L		
Momento mín.	[t·m]		1/3L	-1.99		2/3L			3/3L	-3.16	
x	[m]			0.00						4.91	
Momento máx.	[t·m]			1.47			1.60			1.19	
X Cortante mín	[m]			1.54			2.46			3.38	
Cortante mín.	[t]						-1.22			-3.06	
X Cortanto máy	[m]			 2 0E			3.07			4.91	
Cortante máx.	[t]			2.85			0.77				
X	[m]			0.00			1.84				
Forsor mín.	[t]										
	[m]										
Forsor máx.	[t]										
•	[m]										
Área Sup.	[cm²]	Real		3.71			1.01			3.52	
		Nec.		2.66			0.00			3.20	
Área Inf.	[cm²]	Real		2.14			2.14			2.14	
		Nec.		1.94			2.11			1.56	
Área Transv.	[cm²/m]	Real		4.35			4.35			4.35	
	[6 7]	Nec.		2.36			2.36			2.36	
F. Activa						2.13 m	m, L/2302 (L:	4.91 m)			
Pórtico 5			Tramo: V-23	3		Tramo: V-23	4		Tramo: V-23	5	
Sección			30x30			30x30	_		30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-1.37		-3.54	-1.86		-3.24	-1.81		-3.27
¢	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		1.82	1.81	0.97	1.43	1.48	0.95	1.47	1.51	0.96
¢	[m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante mín.	[t]		-0.13	-1.43	-3.27		-1.23	-3.07		-1.25	-3.09
•	[m]		1.54	3.07	4.91		3.07	4.91		3.07	4.91
Cortante máx.	[t]		2.60	0.52		2.74	0.66		2.73	0.65	
•	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Forsor mín.	[t]										
•	[m]										
Torsor máx.	[t]										
ĸ	[m]										
Áwan Sum		Real	2.01	1.01	3.80	3.80	1.01	3.60	3.70	1.01	3.52
Area Sup.	[cm ²]	Nec.	1.79	0.00	3.61	2.46	0.00	3.31	2.41	0.00	3.32
		Real	2.70	2.70	2.31	2.01	2.01	2.01	2.01	2.01	2.01
Área Inf.	[cm ²]	Nec.	2.42	2.40	1.27	1.88	1.94	1.25	1.93	1.99	1.25
_		Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Area Transv.	[cm ² /m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
											: 4.91 m)
F. Activa		1100	2.16 m	m, L/2280 (L:	4.91 m)	1.78 m	m, L/2766 (L:	4.91 m)	1.82 m	III, L/ 2/01 (L	
		i i cc.	2.16 m Tramo: V-230		4.91 m)	1.78 m Tramo: V-23		4.91 m)	1.82 m		
Pórtico 5		, rec.			4.91 m)			4.91 m)			
Pórtico 5 Sección		, rec.	Tramo: V-230 30x30	5		Tramo: V-23 30x30	7		Tramo: V-23 30x30	8	3/3L
Pórtico 5 Sección Yona	[t·m]	, recei	Tramo: V-230		4.91 m) 3/3L -3.27	Tramo: V-23		3/3L -3.27	Tramo: V-23		3/3L -3.27
Pórtico 5 Sección Cona Homento mín.		rices	Tramo: V-230 30x30 1/3L	2/3L	3/3L	Tramo: V-23 30x30 1/3L	7 2/3L	3/3L	Tramo: V-23 30x30 1/3L	2/3L	-3.27
Pórtico 5 Sección Kona Momento mín.	[t·m] [m]	, recei	Tramo: V-230 30x30 1/3L -1.82	2/3L 	3/3L -3.27	Tramo: V-23 30x30 1/3L -1.82 0.00	7 2/3L 	3/3L -3.27	Tramo: V-23 30x30 1/3L -1.80	8 2/3L	-3.27 4.91
rórtico 5 Sección Cona Momento mín. Secondo Momento máx.	[t·m] [m] [t·m]	THE STATE OF THE S	Tramo: V-236 30x30 1/3L -1.82 0.00	2/3L 1.51	3/3L -3.27 4.91 0.96	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47	7 2/3L 1.51	3/3L -3.27 4.91 0.96	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47	2/3L 1.51	-3.27 4.91 0.93
rórtico 5 dección dona domento mín. domento máx.	[t·m] [m] [t·m] [m]		Tramo: V-236 30x30 1/3L -1.82 0.00 1.47	2/3L 1.51 1.84	3/3L -3.27 4.91 0.96 3.38	Tramo: V-23 30x30 1/3L -1.82 0.00	7	3/3L -3.27 4.91 0.96 3.38	Tramo: V-23 30x30 1/3L -1.80 0.00	2/3L 1.51 1.84	-3.27 4.91 0.93 3.38
rórtico 5 Sección Sona Momento mín. Momento máx.	[t·m] [m] [t·m] [m]		Tramo: V-236 30x30 1/3L -1.82 0.00 1.47 1.54	2/3L 1.51 1.84 -1.25	3/3L -3.27 4.91 0.96 3.38 -3.09	7ramo: V-23 30x30 1/3L -1.82 0.00 1.47	7	3/3L -3.27 4.91 0.96 3.38 -3.09	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54	2/3L 1.51 1.841.25	-3.27 4.91 0.93 3.38 -3.09
Pórtico 5 Sección Cona Momento mín. Momento máx.	[t·m] [m] [t·m] [m] [t] [m]		Tramo: V-23(30x30 1/3L -1.82 0.00 1.47 1.54	2/3L 1.51 1.84 -1.25 3.07	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Sona Momento mín. Momento máx. Secretante mín. Secortante máx.	[t·m] [m] [t·m] [m] [t] [m]		Tramo: V-23(30x30 1/3L -1.82 0.00 1.47 1.54 2.73	2/3L 1.51 1.84 -1.25 3.07 0.65	3/3L -3.27 4.91 0.96 3.38 -3.09	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73	7 2/3L 1.51 1.84 -1.25 3.07 0.65	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72	2/3L	-3.27 4.91 0.93 3.38 -3.09
Pórtico 5 Sección Cona Momento mín. Momento máx. Cortante mín. Cortante máx.	[t·m] [m] [t·m] [m] [t] [m]	100	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	1.51 1.84 -1.25 3.07 0.65 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 2.72 0.00	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Gección Cona Momento mín. Cortante mín. Cortante máx. Cortante máx.	[t·m] [m] [tm] [t] [m] [t] [m] [t] [t] [m]	100	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	1.51 1.84 -1.25 3.07 0.65 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Homento mín. Homento máx. Cortante mín. Cortante máx. Cortante máx.	[t·m] [m] [t·m] [t] [m] [t] [t] [t] [m] [t] [m]	1100	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 	1.51 1.51 1.84 -1.25 3.07 0.65 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	7	3/3L -3.27 4.91 0.96 3.38 -3.09	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. Momento máx. Cortante mín. Cortante máx. Cororor mín.	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t]		Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	1.51 1.84 -1.25 3.07 0.65 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	7 2/3L 1.51 1.84 1.25 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. Momento máx. Cortante mín. Cortante máx. Cortante máx. Cortante máx.	[t·m] [m] [t·m] [t] [m] [t] [t] [t] [m] [t] [m]		Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	1.51 1.84 -1.25 3.07 0.65 1.84 	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00	7 2/3L 1.51 1.84 1.25 3.07 0.65 1.84	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. Momento máx. C Cortante mín. C Cortante máx. C Forsor mín. C	[t·m] [m] [t·m] [t] [m] [t] [m] [t] [m] [t] [m] [t]	Real	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.52	1.51 1.84 -1.25 3.07 0.65 1.84 	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.60	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.63	7 2/3L 1.51 1.84 1.25 3.07 0.65 1.84 1.01	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.52	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00 3.52	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. Momento máx. Cortante mín. Cortante máx. Torsor mín.	[t·m] [m] [t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Real Nec.	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.52 2.40	1.51 1.84 -1.25 3.07 0.65 1.84 1.01 0.00	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.60 3.34	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.63 2.42	7 2/3L 1.51 1.84 -1.25 3.07 0.65 1.84 1.01 0.00	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.52 3.32	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00 3.52 2.38	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Cortante máx. x Torsor mín. x Torsor máx. x	[t·m] [m] [t·m] [m] [t] [m] [t] [m] [t] [m] [t] [m]	Real Nec. Real	Tramo: V-23i 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.52 2.40 2.01	1.51 1.84 -1.25 3.07 0.65 1.84 1.01 0.00 2.01	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.60 3.34 2.01	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.63 2.42 2.01	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.52 3.32 2.01	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00 3.52 2.38 2.01	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
Pórtico 5 Sección Zona Momento mín. k Momento máx. cCortante mín. k Cortante máx. k Torsor mín. k Torsor máx. k	[t·m] [m] [t·m] [t] [m]	Real Nec. Real Nec.	Tramo: V-23t 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.52 2.40 2.01 1.93	2/3L	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.60 3.34 2.01 1.25	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.63 2.42 2.01 1.93	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.52 3.32 2.01 1.25	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00 3.52 2.38 2.01 1.93	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91
F. Activa Pórtico 5 Sección Zona Momento mín. x Momento máx. x Cortante mín. x Torsor mín. x forsor máx. x Afrea Sup. Área Inf.	[t·m] [m] [t·m] [t] [m]	Real Nec. Real	Tramo: V-23i 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.52 2.40 2.01	1.51 1.84 -1.25 3.07 0.65 1.84 1.01 0.00 2.01	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.60 3.34 2.01	Tramo: V-23 30x30 1/3L -1.82 0.00 1.47 1.54 2.73 0.00 3.63 2.42 2.01	7	3/3L -3.27 4.91 0.96 3.38 -3.09 4.91 3.52 3.32 2.01	Tramo: V-23 30x30 1/3L -1.80 0.00 1.47 1.54 2.72 0.00 3.52 2.38 2.01	2/3L	-3.27 4.91 0.93 3.38 -3.09 4.91

Pórtico 5			Tramo: V-	236		Tramo: V	-237		Tramo: V	-238	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
F. Activa			1.82	mm, L/2703	(L: 4.91 m)	1.83	2 mm, L/2697	(L: 4.91 m)	1.7	7 mm, L/2769 (L: 4.91 m)
Pórtico 5			Tramo: V-	239		·			<u>'</u>		
Sección			30x30								
Zona			1/3L			2/3L			3/3L		
Momento mín.	[t·m]			-1.99						-3.16	
x	[m]			0.00						4.91	
Momento máx.	[t·m]			1.47			1.60			1.19	
x	[m]	[m]		1.54			2.46			3.38	
Cortante mín.	[t]						-1.22			-3.06	
x	[m]						3.07			4.91	
Cortante máx.	[t]			2.85			0.77				
x	[m]			0.00			1.84				
Torsor mín.	[t]										
x	[m]										
Torsor máx.	[t]										
x	[m]										
Á 5	Fann 21	Real		3.71			1.01			3.52	
Área Sup.	[cm²]	Nec.		2.66			0.00			3.20	
Área Inf.	[cm²]	Real		2.14			2.14			2.14	
AICO IIII.	[ciii=]	Nec.		1.94			2.11			1.56	
Área Transv.	[cm²/m]	Real		4.35			4.35			4.35	
Area IransV.	[cm²/m]	Nec.		2.36			2.36			2.36	
F. Activa						2.13	3 mm, L/2302	(L: 4.91 m)	•		

- ENC SUPERIOR

Pórtico 10			Tramo: V-34	14		Tramo: V-3	45		Tramo: V-34	16	
Sección			30x30			30x30			30×30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
Momento mín.	[t·m]		-0.32		-1.11	-0.50		-1.10	-0.48		-1.09
c	[m]		0.00		4.91	0.00		4.91	0.00		4.91
Momento máx.	[t·m]		0.49	0.48	0.27	0.49	0.47	0.26	0.47	0.46	0.26
c	[m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante mín.	[t]		-0.07	-0.43	-0.93	-0.07	-0.43	-0.93	-0.06	-0.42	-0.92
([m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.71	0.12		0.76	0.17		0.75	0.17	
	[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
1	[m]										
Torsor máx.	[t]										
([m]										
Área Sup.	[cm²]	Real	1.01	1.01	1.51	1.51	1.01	1.59	1.68	1.01	1.51
nea sup.	[CIII*]	Nec.	0.41	0.00	1.45	0.64	0.00	1.46	0.64	0.00	1.43
Área Inf.	[cm2]	Real	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Area Int.	[cm²]	Nec.	0.64	0.62	0.35	0.63	0.61	0.33	0.61	0.59	0.33
-	F 2 / 2	Real	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
rea Transv.	[cm²/m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa	<u>.</u>		0.25 m	m, L/19345 (I	: 4.91 m)	0.23 n	ım, L/21639 (L: 4.91 m)	0.21 m	ım, L/22871 (L: 4.91 m)
Pórtico 10			Tramo: V-34	17		Tramo: V-3	48		Tramo: V-34	19	
Sección			30x30			30x30			30x30		
Zona			1/3L	2/3L	3/3L	1/3L	2/3L	3/3L	1/3L	2/3L	3/3L
lomento mín.	[t·m]		-0.48		-1.10	-0.49		-1.09	-0.48		-1.13
([m]		0.00		4.91	0.00		4.91	0.00		4.91
Iomento máx.	[t·m]		0.48	0.46	0.26	0.48	0.46	0.26	0.47	0.46	0.25
([m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante mín.	[t]		-0.07	-0.42	-0.92	-0.06	-0.42	-0.92	-0.08	-0.43	-0.93
([m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Cortante máx.	[t]		0.75	0.17		0.75	0.17		0.75	0.17	
([m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor mín.	[t]										
([m]										
	[t]										
orsor máx.											
	[m]				1.58	1.61	1.01	1.51	1.51	1.01	1.67
		Real	1.51	1.01	1.50		0.00	1.42	0.62	0.00	1.50
	[m] [cm²]	Real Nec.	1.51 0.63	1.01 0.00	1.45	0.64	0.00		0.02	0.00	
rea Sup.	[cm ²]					0.64 1.01	1.01	1.01	1.01	1.01	
ć Área Sup.		Nec.	0.63	0.00	1.45			_			
Torsor máx. x Área Sup. Área Inf.	[cm ²]	Nec. Real	0.63 1.01	0.00 1.01	1.45 1.01	1.01	1.01	1.01	1.01	1.01	1.01 0.33
ć Área Sup.	[cm ²]	Nec. Real Nec.	0.63 1.01 0.62	0.00 1.01 0.60	1.45 1.01 0.33	1.01 0.62	1.01 0.60	1.01 0.33	1.01 0.61	1.01 0.59	1.01

ADRIANO NAHUEL SILKE INSENIERO CIVIL 26 M. P. N. 2316

Section	dian 10		T V 25	•								
Memoration in				Tramo: V-35	U							
Momento min. Mom							2/3L			3/3L		
Momente max		[t·m]		-,	-0.55		_, -, -			3,52	-0.85	
Centante min. Centante mi												
Cotate min.	mento máx.	[t·m]			0.49			0.50			0.35	
Test		[m]			1.54			1.84			3.38	
Cortaine max. 1	tante mín.	[t]			-0.01			-0.36			-0.85	
Marser min. 1		[m]			1.54			3.07			4.91	
Tersor min.	tante máx.	[t]			0.80			0.22				
Tersor máx Carlon Carlo		[m]			0.00			1.84				
Tersor máx,	sor mín.	[t]										
Area Sup.		[m]										
Area Sup.	sor máx.	[t]										
Area Sup. [cm²] Nec. 0.72 0.00 1.111 1.0		[m]										
Nec	a Sup.	[cm²]										
Area Inf.	· ·	. ,	+									
Real	a Inf.	[cm ²]										
Area Trans. Cm3/m Nec			1									
F. Activa Portico 11	a Transv.	[cm ² /m]										
Particol 11	Activa		wec.		2.30		0.25 m		· 4 91 m)		2.30	
Sección Sección Socion				Tramo: V-35	1				4.91 111)	Tramo: V-35	2	
Momento min. Company Momento min. Comp							-	-				
Nomento min.					2/3L	3/3L		2/3L	3/3L		2/3L	3/3L
		[t·m]										-1.09
Momento máx. Itml									+			4.91
Cortante min. Cortante min	mento máx.				0.48			0.47			0.46	0.26
Cortante min.				1.54	1.84	3.38	1.54	1.84	+	1.54	1.84	3.38
Cortante máx. (1)	tante mín.			-0.07	-0.43	-0.93	-0.07	-0.43	-0.93	-0.06	-0.42	-0.92
Torsor min. [t]		[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Torsor min.	tante máx.	[t]		0.71	0.12		0.76	0.17		0.75	0.17	
X		[m]		0.00	1.84		0.00	1.84		0.00	1.84	
Torsor máx. [t]	sor mín.	[t]										
x												
Ârea Sup. Real [cm²] [cm²] Real [cm²] Real [n.] 1.01 1.51 1.51 1.01 1.59 1.68 1.01 Área Inf. [cm²] [cm²] Real [cm²] 1.01 1.02 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36 <th< th=""><th>sor máx.</th><th>[t]</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	sor máx.	[t]										
Area Sup.		[m]	1 .									
Nec. 0.41 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.00 1.45 0.64 0.01 1.01	a Sup.	[cm ²]										1.51
Area Inf.							+					1.43
Área Transv. [cm²/m] Real 4.35	a Inf.	[cm ²]				+						1.01
Composition Composition Rec. 2.36			+									0.33
F. Activa 0.25 mm, L/19358 (L: 4.91 m) 0.23 mm, L/21633 (L: 4.91 m) 0.21 mm, L/22872 (L: 4.91 m)	a Transv.	[cm²/m]	-									4.35
Pértico 11 Tramo: V-354 Tramo: V-355 Tramo: V-356 Sección 30x30 30x30 30x30 30x30 Zona 1/3L 2/3L 3/3L 1/3L 2/3L 3/3L 1/3L 2/3L 3/3 Momento mín. [tm] -0.48 -1.09 -0.49 -1.09 -0.48	Activa		ivec.					-				2.36
Sección 30x30 30x50 30x30 30						. 4.51,			4.52,			4.51 111)
1/3L 2/3L 3/3L 1/3L 2/3L 3/3L 1/3L 2/3L 3/3L 1/3L 2/3L 3/3L 3/3L 1/3L 2/3L 3/3L 3/3L 3/3L 1/3L 2/3L 3/3L					 *						•	
Momento mín.					2/3L	3/3L		2/3L	3/3L		2/3L	3/3L
Momento máx. [t·m] 0.48 0.46 0.26 0.48 0.46 0.26 0.47 0.46 0.46 0.26 0.47 0.46 0.46 0.46 0.26 0.47 0.46 0.45 0.46 0.45		[t·m]		-0.48		-1.09	-0.49			-0.48		-1.13
X [m]				0.00		4.91	0.00		4.91	0.00		4.91
Cortante mín. [t]	mento máx.	[t·m]		0.48	0.46	0.26	0.48	0.46	0.26	0.47	0.46	0.25
X		[m]		1.54	1.84	3.38	1.54	1.84	3.38	1.54	1.84	3.38
Cortante máx. [t] 0.75 0.17 0.75 0.17 0.75 0.17 x [m] 0.00 1.84 0.00 1.84 0.00 1.84 Torsor mín. [t] x [m] Torsor máx. [t] x [m] Area Sup. Real 1.51 1.01 1.58 1.61 1.01 1.51 1.51 1.01 Nec. 0.63 0.00 1.45 0.64 0.00 1.42 0.62 0.00 Area Inf. [cm²] Real 1.01 1.01 1.01 1.01 1.01 1.01 Nec. 0.62 0.60 0.33 0.62 0.60 0.33 0.61 0.59 Area Transv. [cm²/m] Real 4.35 4.35 4.35 4.35 4.35 4.35 4.35 4.35 4.35 4.35 4.35 4.35 Area Transv. [cm²/m] [cm	tante mín.	[t]		-0.07	-0.42	-0.92	-0.06	-0.42	-0.92	-0.08	-0.43	-0.93
x [m] 0.00 1.84 0.00 1.84 0.00 1.84 Torsor mín. [t] Im		[m]		1.54	3.07	4.91	1.54	3.07	4.91	1.54	3.07	4.91
Torsor mín. x [t]	tante máx.	[t]		0.75	0.17		0.75	0.17		0.75	0.17	
x [m] <									+			
Torsor máx. x [t]	sor mín.											
X [m] <	,											
Área Sup. Real Nec. 1.51 1.01 1.58 1.61 1.01 1.51 1.51 1.01 Área Inf. [cm²] Real Nec. 1.01 1.0	sor max.											
Area Sup. [cm²] Nec. 0.63 0.00 1.45 0.64 0.00 1.42 0.62 0.00 Área Inf. [cm²] Real 1.01		[m]	Darl									1.67
Área Inf. Real Nec. 1.01	a Sup.	[cm²]										1.67 1.50
Area Inf. Icm2 Nec. 0.62 0.60 0.33 0.62 0.60 0.33 0.61 0.59 Área Transv. Real 4.35 4.35 4.35 4.35 4.35 4.35 4.35			+									1.01
Área Transv. Real 4.35 4.35 4.35 4.35 4.35 4.35 4.35	a Inf.	[cm²]	-									0.33
Area Transv. [cm²/m]				-	+							4.35
	a Transv.	[cm ² /m]	Nec.	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
F. Activa 0.22 mm, L/22455 (L: 4.91 m) 0.21 mm, L/22856 (L: 4.91 m) 0.23 mm, L/21688 (L: 4.91	ctiva				l.	1		- I	-1		1	
Pórtico 11 Tramo: V-357												,
Sección 30x30												
Zona 1/3L 2/3L 3/3L							2/3L			3/3L		
Momento mín. [t·m] -0.550.85		[t·m]			-0.55						-0.85	
x [m] 0.00 4.91												
Momento máx. [t·m] 0.49 0.50 0.35	mento máx.	[t·m]			0.49			0.50			0.35	
x [m] 1.54 1.84 3.38		[m]			1.54			1.84			3.38	
Cortante mín. [t] -0.01 -0.36 -0.85	tante mín.				-0.01			-0.36			-0.85	
x [m] 1.54 3.07 \(\sqrt{4.91} \)		[m]			1.54			3.07	-		4.91	
Cortante máx. [t] 0.80 0.22	tante máx.	[t]			0.80			0.22				
x [m] 0.00 1.84												
Torsor mín. [t]	sor mín.	[t]										
x [m]												
Torsor máx. [t]										7.4		1

Pórtico 11			Tramo: V-357		
Sección			30x30		
Zona			1/3L	2/3L	3/3L
x	[m]				
Área Sup.	Fam 23	Real	1.72	1.01	1.51
Area Sup.	[cm²]	Nec.	0.72	0.00	1.11
Área Inf.	Fam 23	Real	1.01	1.01	1.01
Area Int.	[cm ²]	Nec.	0.64	0.65	0.46
Área Transv.	[cm²/m]	Real	4.35	4.35	4.35
Area Iransv.	[[[]]	Nec.	2.36	2.36	2.36
F. Activa		Ů		0.25 mm, L/19381 (L: 4.91 m)	

4.3. COLUMNAS:

		JEUWINAS.															
Haumiaka	. H 20					Arn	nado de p	ilares									
Hormigón	: H-20	Casmatula					A was a di iu				Faf.		á al ma a a				
		Geometría	1		Bar	rac	Armadur	as Estri	hoc		ESTU	erzos pe	esimos	1	1	Aprov	
Columna	Planta	Dimensiones (cm)	Tramo (m)	Esquina	Cara X	Cara Y	Cuantía (%)	Descripción ⁽¹⁾	Separación (cm)	Naturaleza	N (t)	Mxx (t·m)	Myy (t·m)	Qx (t)	Qy (t)	Aprov. (%)	Estado
C1	Enc Superior	40x30	3.60/6.04	4Ø16	2Ø16	-	1.01	1eØ6	19	G, Q, V	1.84	0.20	-1.19	-0.20	0.31	12.9	Cumpl
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.83	0.25	3.07	1.22	0.16	34.5	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.83	0.25	3.07	1.22	0.16	34.5	Cumpl
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	3.72	0.22	2.96	0.61	0.33	31.7	Cumpl
C2	Enc Superior	30x30	3.60/5.90	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	4.45	1.63	-0.05	-0.01	1.63	46.8	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	9.33	2.26	0.19	0.08	1.46	42.3	Cumpl
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	7.98	0.12	1.87	1.65	0.15	46.6	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, V	10.65	0.16	1.93	1.70	0.20	31.1	Cumple
C3	Enc Superior	30x30	3.60/5.90	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	4.45	1.63	-0.07	-0.02	1.63	46.8	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	9.30	2.26	0.17	0.07	1.46	42.3	Cumple
	Enc Inferior Fundación	30x30	-1.50/-0.30	4Ø12 4Ø12	2Ø12 2Ø12	2Ø12 2Ø12	1.01	1eØ6 1eØ6	14	G, V G, V	7.97 10.62	0.12	1.87	1.66	0.15	46.9 31.1	Cumple
		-				2012	-			_		-			-	_	Cumple
C4	Enc Superior	40x30	3.60/6.04	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	1.01	-0.04	-0.18	-0.58	-0.16	11.2	Cumple
	Enc Intermedio Enc Inferior	40x30 40x30	0.00/3.44	4Ø16 4Ø16	2Ø16 2Ø16	_	1.01	1eØ6 1eØ6	19	G, Q, V	4.00	0.34	3.41	1.41	0.22	37.5 37.5	Cumple
	Fundación		-1.50/-0.30	4Ø16 4Ø16	2Ø16 2Ø16		1.01	1eØ6	17	G, Q, V G, V	4.00	0.34	3.41	1.41	0.22	37.5	Cumple
C5		40x30	3 60/5 66	-			1.01		19		2.14	+		0.73	+		
C3	Enc Superior Enc Intermedio	40x30 40x30	3.60/5.66 0.00/3.44	4Ø16 4Ø16	2Ø16 2Ø16	_	1.01	1eØ6 1eØ6	19	G, V G, V	3.65	-0.05 0.12	-0.48 2.89	1.19	-0.02 0.05	14.1 30.8	Cumple
	Enc Intermedio	40x30	-1.50/-0.30	4Ø16	2Ø16	_	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-1.30/-0.30	4Ø16	2Ø16	_	1.01	1eØ6	-	G, V	5.06	0.12	2.65	-0.13	0.03	25.6	Cumple
C6	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.19	1.09	0.00	0.06	0.91	24.7	Cumple
CO	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.35		0.00	0.03	1.19	39.2	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.35		0.11	0.03	1.19	39.2	Cumple
	Fundación	-	-1.30/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	16.05		0.11	0.03	1.05	26.3	Cumple
C7	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.18	1.09	-0.01	0.02	0.91	24.7	Cumple
C/	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.33		0.12	0.03	1.19	39.1	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.33		0.12	0.04	1.19	39.1	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	_	G, Q, V	16.03	+	0.13	0.01	1.05	26.3	Cumple
C8	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16		1.01	1eØ6	19	G, V	3.04	-0.06	-0.70	0.91	-0.02	17.5	Cumple
CO	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	_	1.01	1eØ6	-	G, V	5.33	0.11	2.66	-0.09	0.08	25.4	Cumple
C9	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.14	-0.05	-0.48	0.73	-0.02	14.1	Cumple
03	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.05	0.11	2.65	-0.13	0.09	25.6	Cumple
C10	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.10	1.13	0.00	0.06	0.95	26.1	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.09	0.11	0.03	1.19	39.0	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.09	0.11	0.03	1.19	39.0	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.92	1.31	0.14	0.02	1.01	26.0	Cumple
C11	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.08	1.13	-0.01	0.03	0.95	26.0	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.17	2.08	0.12	0.04	1.19	39.0	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.17	2.08	0.12	0.04	1.19	39.0	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.91	1.31	0.13	0.01	1.01	26.0	Cumple
C12	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.04	-0.06	-0.70	0.91	-0.02	17.5	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.32	0.11	2.66	-0.09	0.09	25.4	Cumple
C13	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.14	-0.05	-0.48	0.73	-0.02	14.1	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.05	0.11	2.65	-0.13	_	25.6	Cumple
C14	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.11	1.12	0.00	0.06	0.94	25.9	Cumpl
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.20	2.09	0.11	0.03	1.19	39.0	Cumpl
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.20	2.09	0.11	0.03	1.19	39.0	Cumpl
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.94	1.31	0.14	0.02	1.01	26.0	Cumpl
C15	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.10	1.12	-0.01	0.03	0.94	25.8	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.08	0.12	0.04	1.19	39.0	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.08	0.12	0.04	1.19	39.0	Cumple

Hormigón	· H-20					Arn	nado de pi	liares									
normigon	. 11-20	Geometría					Armadur	as			Esfue	erzos pe	ésimos				
Columna			Tuomo		Bar	ras		Estrit	oos			1	1	0.4	0	Aprov.	Estado
Columna	Planta	Dimensiones (cm)	Tramo (m)	Esquina	Cara X	Cara Y	Cuantía (%)	Descripción ⁽¹⁾	Separación (cm)	Naturaleza	N (t)	Mxx (t·m)	Myy (t·m)	Qx (t)	Qy (t)	(%)	LStaut
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.92	1.31	0.13	0.01	1.01	26.0	Cumple
C16	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.04	-0.06	-0.70	0.91	-0.02	17.5	Cumple
	Enc Intermedio Enc Inferior	40x30 40x30	0.00/3.44	4Ø16 4Ø16	2Ø16 2Ø16	_	1.01	1eØ6 1eØ6	19 19	G, V G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Fundación	-	-1.30/-0.30	4Ø16	2Ø16	_	1.01	1eØ6	-	G, V	5.32	0.12	2.66	-0.09	0.03	25.4	Cumple
C17	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.14	-0.05	-0.48	0.73	-0.02	14.1	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.05	0.11	2.65	-0.13	0.09	25.6	Cumple
C18	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.11	1.12	0.00	0.06	0.94	25.9	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.20	2.09	0.11	0.03	1.19	39.0	Cumple
	Enc Inferior Fundación	30x30	-1.50/-0.30	4Ø12 4Ø12	2Ø12 2Ø12	2Ø12 2Ø12	1.01	1eØ6 1eØ6	14	G, Q, V G, Q, V	14.20 15.93	2.09	0.11	0.03	1.19	39.0 26.0	Cumple
C19	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	6.10	1.12	-0.01	0.02	0.94	25.9	Cumple
C19	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.08	0.12	0.03	1.19	39.0	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.19	2.08	0.12	0.04	1.19	39.0	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.92	1.31	0.13	0.01	1.01	26.0	Cumple
C20	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.04	-0.06	-0.70	0.91	-0.02	17.5	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Fundación	-	- D 66 /= ' '	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.32	0.11	2.66	-0.09	0.09	25.4	Cumple
C21	Enc Superior	40x30	3.60/5.66	4Ø16 4Ø16	2Ø16 2Ø16	-	1.01	1eØ6 1eØ6	19 19	G, V	2.14 3.65	-0.05 0.12	-0.48 2.89	0.73 1.19	-0.02 0.05	14.1 30.8	Cumple
	Enc Intermedio Enc Inferior	40x30 40x30	0.00/3.44	4Ø16 4Ø16	2Ø16 2Ø16	-	1.01	1eØ6	19	G, V G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.05	0.11	2.65	-0.13	0.09	25.6	Cumple
C22	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.11	1.12	0.00	0.06	0.94	25.8	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.18	2.08	0.11	0.03	1.19	38.9	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.18	2.08	0.11	0.03	1.19	38.9	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	15.92	1.31	0.14	0.02	1.01	26.0	Cumple
C23	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.10	1.11	-0.01	0.03	0.94	25.7	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.17	2.08	0.12	0.04	1.19	38.9	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.17	2.08	0.12	0.04	1.19	38.9	Cumple
C24	Fundación	40.20	2 60/5 66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	19	G, Q, V	15.90	1.31	0.13	0.01	1.01	26.0	Cumple
C24	Enc Superior Enc Intermedio	40x30 40x30	3.60/5.66 0.00/3.44	4Ø16 4Ø16	2Ø16 2Ø16	_	1.01	1eØ6 1eØ6	19	G, V G, V	3.04	-0.06 0.12	-0.70 2.75	0.91	-0.02 0.05	17.5 28.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.32	0.11	2.66	-0.09	0.09	25.4	Cumple
C25	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.14	-0.05	-0.48	0.73	-0.02	14.1	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.65	0.12	2.89	1.19	0.05	30.8	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	5.06	0.12	2.65	-0.13	0.11	25.6	Cumple
C26	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.11	_	0.00	0.05	0.99	27.8	Cumple
	Enc Intermedio Enc Inferior	30x30 30x30	0.00/3.30	4Ø12 4Ø12	2Ø12 2Ø12	2Ø12 2Ø12	1.01	1eØ6 1eØ6	14	G, Q, V G, Q, V	14.44	2.15	0.11	0.03	1.25	40.1 40.1	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	16.21	1.31	0.14	0.02	1.01	26.2	Cumple
C27	Enc Superior	30x30	3.60/5.66	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	6.10	1.22	-0.01	0.03	0.99	27.7	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.43	2.15	0.12	0.04	1.25	40.1	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	14.43	2.15	0.12	0.04	1.25	40.1	Cumple
	Fundación	-	-	4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	16.20	1.31	0.13	0.01	1.01	26.1	Cumple
C28	Enc Superior	40x30	3.60/5.66	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.04	-0.06	-0.70	0.91	-0.02	17.5	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.92	0.12	2.75	1.07	0.05	28.8	Cumple
	Enc Inferior Fundación	40x30	-1.50/-0.30	4Ø16 4Ø16	2Ø16 2Ø16	-	1.01	1eØ6 1eØ6	19	G, V G, V	5.01	-0.01 0.12	2.77	-0.09 -0.09	0.11	29.3 25.4	Cumple
C29	Enc Superior	40x30	3.60/6.04	4Ø16	2Ø16		1.01	1eØ6	19	G, Q, V	0.96	-0.03	-0.17	-0.66	-0.26	13.0	Cumple
C29	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	_	1.01	1eØ6	19	G, Q, V	2.82	0.02	3.07	1.22	0.02	34.0	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	2.82	0.02	3.07	1.22	0.02	34.0	Cumple
	Fundación	-		4Ø16	2Ø16	-	1.01	1eØ6		G, V	3.65	-0.06	2.96	0.61	-0.29	32.9	Cumple
C30	Enc Superior	30x30	3.60/5.90	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	4.20	-0.90	-0.52	-0.15	-0.50	20.1	Cumple
	Enc Intermedio	30x30	0.00/3.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	8.30	-0.32	1.66	0.67	-0.30	29.6	Cumple
	Enc Inferior	30x30	-1.50/-0.30	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, V	7.80	0.01	1.87	1.65	-0.10	46.7	Cumple
	Fundación	-		4Ø12	2Ø12	2Ø12	1.01	1eØ6	-	G, Q, V	10.60	0.02	1.93	1.70	-0.12	29.6	Cumple
C31	Enc Superior	30x30	3.60/5.90	4Ø12	2Ø12	2Ø12	1.01	1eØ6	14	G, Q, V	4.20	-0.90	-0.53	-0.15	-0.50	20.3	Cumple
	Enc Intermedio Enc Inferior	30x30 30x30	0.00/3.30	4Ø12 4Ø12	2Ø12 2Ø12	2Ø12 2Ø12	1.01	1eØ6 1eØ6	14	G, Q, V G, V	8.28 7.79	-0.32 0.01	1.64	0.66 1.66	-0.30 -0.10	29.4 47.0	Cumple
	Fundación	-	- 1.50/-0.50	4Ø12	2Ø12 2Ø12	2Ø12 2Ø12	1.01	1eØ6	-	G, V G, Q, V	10.57	0.01	1.92	1.70	-0.10	29.6	Cumple
C32	Enc Superior	40x30	3.60/6.04	4Ø16	2Ø12		1.01	1eØ6	19	G, Q, V	1.38	_	0.08	0.21	-0.12	11.6	Cumple
	Enc Intermedio	40x30	0.00/3.44	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.93	0.03	3.40	1,41	0.03	36.7	Cumple
	Enc Inferior	40x30	-1.50/-0.30	4Ø16	2Ø16	-	1.01	1eØ6	19	G, V	3.93	0.03	3.40	1.41	0.03	36.7	Cumple
	Fundación	-	-	4Ø16	2Ø16	-	1.01	1eØ6	-	G, V	6.16	_	3.30	1.24	-0.39	34.6	Cumple
CM1	Enc Superior	2xC 120x50x15x2([])	3.60/6.04						_	G, V	0.04	0.33	0.00	0.00	0.74	39.1	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	-	-	-	-		G, Q, V	0.80	0.28	0.00	0.00	-0.46	40.7	Cumple
				4Ø12	i	1	1.13	1eØ6	14	G, V	2.59	0.06	0.84	1.33	0.09	76.4	Cumple

						Arn	nado de p	ilares									
Hormigón	: H-20																
	Geometría						Armadur	as		Esfuerzos pésimos							
Columna	Planta	Dimensiones (cm)	Tramo (m)	Esquina	Bar Cara X	1	Cuantía (%)	Estril Descripción ⁽¹⁾	Separación (cm)	Naturaleza	N (t)	Mxx (t·m)	Myy (t·m)	Qx (t)	Qy (t)	Aprov. (%)	Estado
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	2.03	0.04	0.82	1.30	0.07	51.6	Cumple
CM2	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, V	0.04	0.33	0.00	0.00	0.74	39.9	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	-	-	-	-	-	G, Q, V	0.82	0.29	-0.01	0.00	-0.46	41.5	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.05	0.05	0.80	1.24	0.07	71.6	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.48	0.03	0.78	1.21	0.05	51.1	Cumple
CM3	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, V	0.04	0.33	0.00	0.00	0.74	39.4	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	-	-	-	-	-	G, Q, V	0.82	0.29	0.00	0.00	-0.46	40.7	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.52	0.06	0.81	1.27	0.09	72.8	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.95	0.04	0.79	1.24	0.07	49.8	Cumple
CM4	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.06	0.32	0.02	0.01	0.74	42.2	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	-	_	_	_	-	G, Q, V	0.79	0.28	-0.02	0.01	-0.46	43.3	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	1.93	0.04	0.83	1.30	0.07	75.1	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.38	0.03	0.80	1.27	0.05	53.4	Cumple
CM5	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, V	0.04	0.33	0.00	0.00	0.74	39.5	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	_	_	_	-	-	G, Q, V	0.82	0.29	0.00	0.00	-0.46	40.8	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.53	0.06	0.81	1.26	0.09	72.5	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.95	0.04	0.79	1.23	0.07	49.5	Cumple
CM6	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, V	0.06	0.32	0.01	0.01	0.74	41.5	Cumple
CITO	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	1_	_	_	_	_	-	G, Q, V	0.80	0.29	-0.01	0.01	-0.46	42.7	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	_	_	1.13	1eØ6	14	G, V	1.89	0.04	0.84	1.34	0.06	77.3	Cumple
	Fundación	-	-	4Ø12	_	_	1.13	1eØ6	_	G, V	1.34	0.03	0.82	1.30	0.04	54.9	Cumple
CM7	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.06	0.36	0.00	0.00	0.75	43.5	Cumple
CITI	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	1_	_	_	_	_	-	G, Q, V	0.79	0.25	0.00	0.00	-0.45	36.6	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.59	-0.02	0.84	1.33	-0.07	76.4	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	_	G, V	2.03	-0.02	0.82	1.30	-0.06	52.5	Cumple
CM8	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.05	0.36	0.01	0.01	0.75	44.2	Cumple
CITO	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	1_	_	_	_	_	-	G, Q, V	0.82	0.25	-0.01	0.00	-0.45	37.1	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.05	-0.01	0.80	1.25	-0.05	71.7	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	_	G, V	1.48	0.00	0.78	1.21	-0.03	51.7	Cumple
CM9	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.06	0.36	0.00	0.00	0.75	43.0	Cumple
CMA	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	1_	_	_	_	_	-	G, Q, V	0.81	0.25	0.00	0.00	-0.45	36.6	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.52	-0.02	0.81	1.27	-0.07	72.8	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.95	-0.01	0.79	1.24	-0.05	50.6	Cumple
CM10	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.05	0.36	0.02	0.01	0.75	46.6	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	-	_	_	_	_	-	G, Q, V	0.79	0.25	-0.02	0.01	-0.45	39.1	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	_	_	1.13	1eØ6	14	G, V	1.93	-0.01	0.83	1.31	-0.04	75.2	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6	-	G, V	1.38	0.00	0.80	1.27	-0.03	53.9	Cumple
CM11	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.06	0.36	0.00	0.00	0.75	43.0	Cumple
	Enc Intermedio	2xC 120x50x15x2([])	0.00/3.44	1_	_	_	_	_	-	G, Q, V	0.81	0.30	0.00	0.00	-0.45	36.7	Cumple
	Enc Inferior	20x20	-1.50/-0.30	4Ø12	-	-	1.13	1eØ6	14	G, V	2.53	-0.02	0.81	1.26	-0.43	72.4	Cumple
	Fundación	-	-	4Ø12	-	-	1.13	1eØ6		G, V	1.95	-0.02	0.79	1.23	-0.05	50.4	Cumple
CM12	Enc Superior	2xC 120x50x15x2([])	3.60/6.04							G, Q, V	0.05	0.36	0.02	0.01	0.75	46.0	Cumple
	Enc Superior Enc Intermedio	2xC 120x50x15x2([]) 2xC 120x50x15x2([])	0.00/3.44	1_	_	_		_	-	G, Q, V G, Q, V	0.05	0.36	-0.01	0.01	-0.45	38.5	Cumple
	Enc Intermedio	20x20	-1.50/-0.30	- 4Ø12			1.13	1eØ6	14	G, Q, V G, V	1.89	0.23	0.84	1.34	-0.45	77.3	Cumple
	Fundación	-	-	4Ø12	_	_	1.13	1eØ6	_	G, V	1.34	0.00	0.82	1.30	-0.04	55.4	Cumple
	. arraucioni	1	1	1012	1	i .	1.10		1	٧, ٧	1.57	0.00	0.02	1.50	0.03	JJ.T	Carrible

4.4. BASES:

Referencias	Geometría	Armado
C1, C4, C29, C32	Zapata cuadrada piramidal Anchura: 140.0 cm Ancho pedestal: 50.0 cm Altura borde: 25.0 cm Altura pedestal: 30.0 cm	Sup X: 6Ø12c/21 Sup Y: 6Ø12c/21 Inf X: 6Ø12c/21 Inf Y: 6Ø12c/21
C2, C3, C6, C7, C10, C11, C14, C15, C18, C19, C22, C23, C26, C27	Zapata cuadrada piramidal Anchura: 130.0 cm Ancho pedestal: 40.0 cm Altura borde: 25.0 cm Altura pedestal: 30.0 cm	X: 6Ø12c/22 Y: 6Ø12c/22
C5, C8, C9, C12, C13, C16, C17, C20, C21, C24, C25, C28	Zapata cuadrada piramidal Anchura: 120.0 cm Ancho pedestal: 50.0 cm Altura borde: 25.0 cm Altura pedestal: 30.0 cm	X: 5Ø12c/21 Y: 5Ø12c/21

ADRIANO NAHUEL SILKE INSENIERO CIVIL 30 M. P. Nº 2316

Referencias	Geometría	Armado				
C30, C31	Zapata cuadrada piramidal Anchura: 120.0 cm Ancho pedestal: 40.0 cm Altura borde: 25.0 cm Altura pedestal: 30.0 cm	X: 5Ø12c/22 Y: 5Ø12c/22				
CM4, CM5, CM6, CM7, CM8, CM9,	Zapata cuadrada piramidal Anchura: 120.0 cm Ancho pedestal: 30.0 cm Altura borde: 25.0 cm Altura pedestal: 30.0 cm	Sup X: 5Ø12c/22 Sup Y: 5Ø12c/22 Inf X: 5Ø12c/22 Inf Y: 5Ø12c/22				