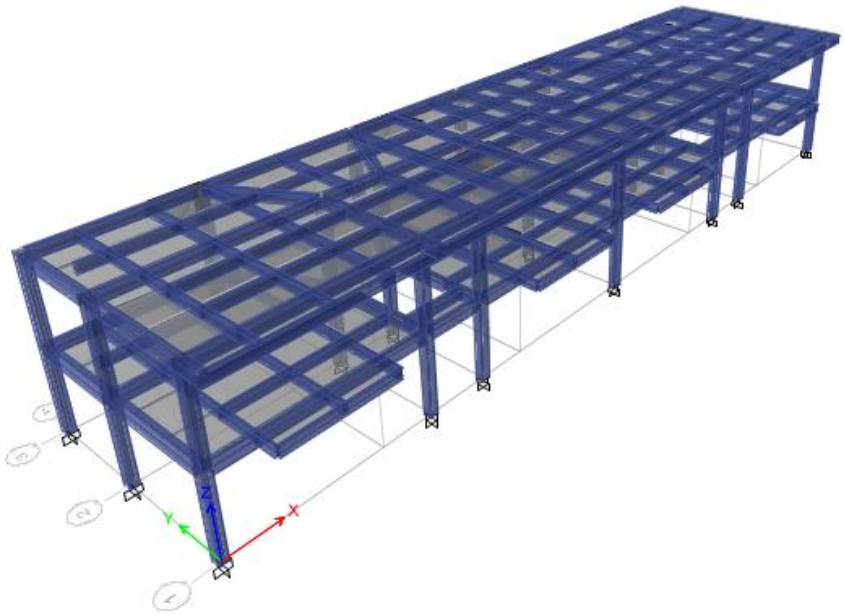
CONSTRUCCION, ADECUACIÓN Y MEJORAMIENTO DE LA ESTACIÓN DE POLICIA DEL MUNICIPIO DE PUERTO GAITAN – META.

MUNICIPIO DE PUERTO GAITAN – DEPARTAMENTO DEL META



Puerto Gaitan – Meta.

Se siguieron los lineamientos de los Títulos A, B, C y D de la Norma Colombiana de Diseño y Construcción SismoResistente NSR-10 y sus decretos reglamentarios 2525 de 2010, 092 de 2011 y 0340 de 2012.

CONTENIDO

INTRODUCCIÓN 3
1. DESCRIPCIÓN DEL PROYECTO 4
2. MATERIALES Y COEFICIENTES DE SEGURIDAD 5
MATERIALES 5
COEFICIENTES DE SEGURIDAD PARA DISEÑO DE CONCRETO 5
COEFICIENTES DE SEGURIDAD PARA DISEÑO DE ACERO 5
3. EDIFICACIÓN DE DOS PISOS 6
3.1. EVALUACIÓN DE CARGAS 6
3.1.1. EVALUACIÓN DE CARGAS N+3.00 6
3.1.2. EVALUACIÓN DE CARGAS N+6.00 8
3.2. ESPECTRO ELÁSTICO DE ACELERACIONES DE DISEÑO 10
3.3. ANÁLISIS SÍSMICO 11
3.4. CÁLCULO DE LA DERIVA 14
3.5. REVISIÓN DE IRREGULARIDADES 16
3.6. HIPOTESIS DE CARGA 18
3.7. IMÁGENES DEL MODELO MATEMÁTICO 19
3.8. DATOS DE ENTRADA 22
3.9. DATOS DE SALIDA 32
3.10. DISEÑO DE ESCALERA 62
3.11. DISEÑO DE VIGAS DE CIMENTACIÓN 64
3.12. DISEÑO DE ZAPATAS 68
3.13. DISEÑO DE ELEMENTOS NO ESTRUCTURALES 70
3.14. DISEÑO DE CERRAMIENTO 72

INTRODUCCIÓN

Diseño estructural de una edificacion de dos (2) niveles, usando el sistema estructural de porticos de concreto reforzado con capacidad de disipación de energía especial (DES) y de un Cerramiento Perimetral con tubos galvanizados de 2Ø".

Localizada en el municipio de Puerto Gaitan, zona de amenaza sísmica BAJA, con los siguientes parámetros sísmicos:

Perfil de Suelo=D
Aa= 0.05
Av= 0.10
Fa=1.60
Fv= 2.40
I= 1.25

Se siguieron los lineamientos de los Títulos A, B, C y D de la Norma Colombiana de Diseño y Construcción SismoResistente NSR-10 y sus decretos reglamentarios 2525 de 2010, 092 de 2011 y 0340 de 2012.

Carga viva de entrepiso= 1.80 kN/m2
Carga viva de cubierta= 1.80 kN/m2

Unidades: kN-m

Método de Análisis: Modelo matemático tridimensional de dos niveles utilizando el software ETABS. Fuerza sísmica calculada mediante método de fuerza horizontal equivalente. El método de diseño utilizado es el de la resistencia última.

1.DESCRIPCIÓN DEL PROYECTO

BLOQUE ALOJAMIENTOS NUEVOS

- Número de pisos: 2
- Grupo de uso: Edificaciones de atención a la comunidad.
- Sistema estructural: Porticos en concreto reforzado.

BLOQUE CERRAMIENTO

- Longitud de cerramiento: 335m.
- Grupo de uso: Edificaciones de atención a la comunidad.

2.MATERIALES Y COEFICIENTES DE SEGURIDAD

MATERIALES

Concretos:

- Concreto de limpieza: f´c=11MPa.
- Concreto para zapatas, columnas y vigas f´c=21Mpa.

Aceros:

- Acero para barras de refuerzo$\phi \geq 3/8''$ fy=420MPa.
- Acero para barras de refuerzo $\phi \leq 3/8''$ fy=240MPa.

Módulo de elasticidad para el concreto: E =17.872MPa.
Módulo de elasticidad para el acero: E = 200.000Mpa.

COEFICIENTES DE SEGURIDAD PARA DISEÑO DE CONCRETO

- Secciones controladas por tracción $\phi = 0.90$
- Secciones controladas por compresión
  - Elementos con refuerzo en espiral según C.10.9.3 $\phi = 0.75$
  - Otros elementos reforzados $\phi = 0.65$
- Cortante y torsión $\phi = 0.75$
- Aplastamiento en el concreto (excepto para anclajes de postensado y modelos puntales – tensor) $\phi = 0.65$

COEFICIENTES DE SEGURIDAD PARA DISEÑO DE ACERO

- Fluencia por tensión sobre el área bruta $\phi\tau = 0.90$
- Rotura por tensión sobre el área neta $\phi\tau = 0.75$
- Rotura por cortante sobre el área neta efectiva $\phi\tau = 0.75$
- Flexión $\phi\beta = 0.90$
- Cortante $\phi\varpi = 0.90$
- Torsión $\phi\tau = 0.90$

3. EDIFICACIÓN DE DOS PISOS

3.1. EVALUACIÓN DE CARGAS

3.1.1. EVALUACIÓN DE CARGAS N+3.00

NIVEL: ***N+3.00***

Área total = **284.16 m²**

Área de Vacios = **12.24 m²**

% de Área con entrepiso = **96 %**

Volumen de columnas= **5.67 m³**

Volumen de vigas= **21.96 m³**

ρ Muros de concreto = $\frac{5.67 \times 2.4\ T/m^3}{284.16}$ = **.048 T/m²**

ρ Vigas de concreto = $\frac{21.96 \times 2.4\ T/m^3}{284.16}$ = **.185 T/m²**

Muros de Mamposteria (Culatas)

	Item	L [m]	e [m]	H. [m]	γ [T/m³]	W [T]
Internos	Sentido X	19.12	0.15	2.65	1.70	12.92
	Sentido Y	40.54	0.15	2.65	1.70	27.39
Fachadas	Sentido X	46.32	0.15	2.65	1.70	31.30
	Sentido Y	13.36	0.15	2.65	1.70	9.03
						80.64

ρ Muros Internos= $\frac{40.32}{284.16}$ = **.142 T/m²**

ρ Fachadas= $\frac{40.33}{284.16}$ = **.142 T/m²**

EVALUACIÓN DE CARGAS

NIVEL: ***N+3.00***

Loseta e=0.10 m(96% del A.T)	0.10	x	2.40	=	0.240	T/m²
Cielo Falso (96% del A.T)				=	0.010	T/m²
Muros internos				=	0.142	T/m²
Baldosa ceramica e=0.02 m (96% del A.T)	0.02	x	2.40	=	0.048	T/m²
Alistado e=0.03m (96% del A.T)	0.03	x	2.10	=	0.063	T/m²

(Carga Muerta)	**D**	=	0.503	T/m²
Carga Viva	**L**	=	0.180	T/m²
Carga Viva (Balcones)	**L**	=	0.500	T/m²

Resumen de Densidades

ρ Columnas de concreto	0.048	T/m²
ρ Vigas de concreto	0.185	T/m²
ρ Muros de mamposteria	0.142	T/m²

C.R. = ***1.044*** T/m² (Carga Real)

C.S. = ***0.864*** T/m² (Carga Muerta Total para Análisis Sísmico)

3.1.2. EVALUACIÓN DE CARGAS N+6.00

NIVEL: ***N+6.00***

Área total = **283.16 m²**

Volumen de columnas= **2.84 m³**

Volumen de Vigas = **17.80 m³**

ρ Columnas de concreto = $\frac{2.84 \times 2.4\ T/m^3}{283.16}$ = **.024 T/m²**

ρ Vigas de Concreto = $\frac{17.80 \times 2.4\ T/m^3}{283.16}$ = **.151 T/m²**

Muros de Mamposteria (Culatas)

	Item	L [m]	e [m]	H. [m]	γ [T/m³]	W [T]
Internos	Sentido X	0.00	0.15	1.25	1.70	0.00
	Sentido Y	42.50	0.15	1.25	1.70	13.55
Fachadas	Sentido X	67.16	0.15	1.25	1.70	21.41
	Sentido Y	17.60	0.15	1.25	1.70	5.61
						40.56

ρ Internos= $\frac{13.55}{283.16}$ = **.048 T/m²**

ρ Fachadas= $\frac{27.02}{283.16}$ = **.095 T/m²**

EVALUACIÓN DE CARGAS

NIVEL: ***N+3.00***

Loseta e=0.10 m	0.10	x	2.40	=	0.240	T/m²
Cielo Falso				=	0.010	T/m²
Muros internos				=	0.048	T/m²
Baldosa ceramica e=0.02 m	0.02	x	2.40	=	0.048	T/m²
Alistado e=0.03m	0.03	x	2.10	=	0.063	T/m²
	(Carga Muerta)		**D**	=	0.409	T/m²
	Carga Viva		**L**	=	0.180	T/m²

Resumen de Densidades

ρ Columnas de concreto	0.048	T/m²
ρ Vigas de concreto	0.185	T/m²
ρ Muros de mamposteria	0.142	T/m²

C.R. = ***0.964*** T/m² (Carga Real)

C.S. = ***0.784*** T/m² (Carga Muerta Total para Análisis Sísmico)

3.2. ESPECTRO ELÁSTICO DE ACELERACIONES DE DISEÑO

Localización = **Puerto Gaitán**
Tipo de Suelo = **D**

T (seg)	Sa (g)
0	0.41
0.05	0.41
0.1	0.41
0.13	0.41
0.2	0.41
0.25	0.41
0.3	0.41
0.4	0.41
0.5	0.41
0.64	0.41
0.7	0.41
0.8	0.36
0.9	0.32
1	0.29
1.1	0.26
1.2	0.24
1.3	0.22
1.4	0.21
1.5	0.19
1.8	0.16
2	0.14
2.2	0.13
2.4	0.12
2.8	0.10
3.2	0.09
3.8	0.08
4.32	0.07

Tabla A.2.4-3
Valores del coeficiente F_a, para la zona de periodos cortos del espectro

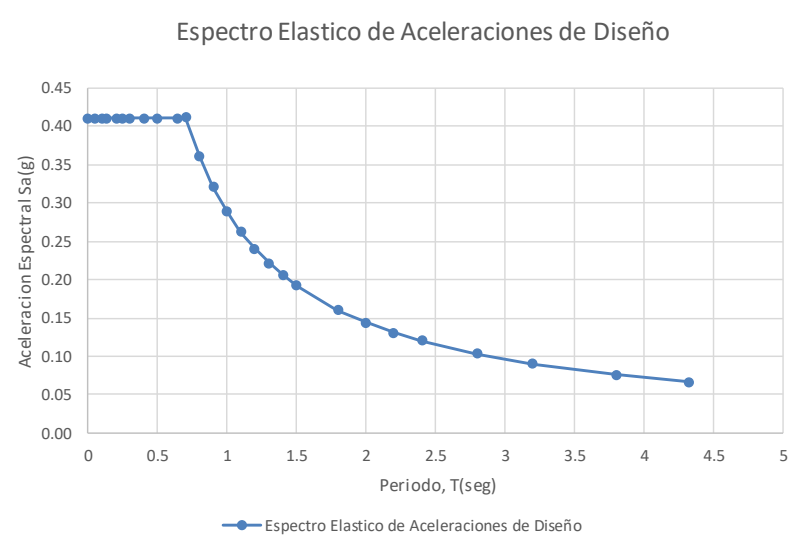
Tipo de Perfil	Intensidad de los movimientos sísmicos				
	$A_a \leq 0.1$	$A_a = 0.2$	$A_a = 0.3$	$A_a = 0.4$	$A_a \geq 0.5$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	véase nota	véase nota	véase nota	Véase nota	véase nota

Tabla A.2.4-4
Valores del coeficiente F_V, para la zona de períodos intermedios del espectro

Tipo de Perfil	Intensidad de los movimientos sísmicos				
	$A_V \leq 0.1$	$A_V = 0.2$	$A_V = 0.3$	$A_V = 0.4$	$A_V \geq 0.5$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	véase nota	véase nota	véase nota	Véase nota	véase nota

I	=	**1.25**
To	=	**0.30**
Tc	=	**1.44**
TL	=	**5.76**

Aa	=	**0.05**
Av	=	**0.10**
Fa	=	**1.60**
Fv	=	**2.40**



3.3. ANÁLISIS SÍSMICO

El Analisis Sísmico se realizará por el método de la Fuerza Horizontal Equivalente.
El programa de análisis estructural ETABS V18 realiza diréctamente el análisis sísmico utilizando
Las fuerzas elásticas de diseño construidas con los siguientes parámetros:

Generalidades :

Localización	=	**Puerto Gaitán**	
Tipo de Suelo	=	**D**	*(Según Estudio de Suelos)*
Grupo de Importancia	=	**3**	*Edificaciónes de Atención a la comunidad*
Sistema Estructural	=	**Sistema de pórtico**	
Zona de Amenaza Sísmica	=	**Baja**	
Capacidad de disipación de Energía	=	**DMI**	*Capacidad mínima de disipación de energía*

Parámetros Sísmicos:

I	=	**1.25**	*Coeficiente de Importancia*
Aa	=	**0.05**	*Coeficiente de aceleración horizontal pico efectiva*
Fa	=	**1.60**	*Coeficiente de amplificación*
Av	=	**0.10**	*Coeficiente de velocidad horizontal pico efectiva*
Fv	=	**2.40**	*Coeficiente de amplificación*

Peso por nivel para el Análisis Sísmico:

NIVEL	C.S. (T/m²)	Area (m²)	Masa (kg)
N+6.00	0.78	283.16	222040.29
N+3.00	0.86	284.16	245441.69
		Σ	467481.98

Método de la Fuerza Horizontal Equivalente

Periodo Fundamental de la Estructura T :

Tx	=	**0.245 seg**	*(Obtenido del Análisis modal de la estructura)*
Ty	=	**0.201 seg**	*(Obtenido del Análisis modal de la estructura)*

Cálculo del periodo aproximado Ta:

Ta	=	$C_t h_n^{(\alpha)}$	
Ct	=	**0.072**	*(Pórticos de acero estructural)*
α	=	**0.80**	*(Pórticos de acero estructural)*
hn	=	**6.00 m**	
Ta	=	**0.302 seg**	*(Periodo aproximado)*

CuTa :

Cu	=	**1.46**	≤	**1.20**
Cu (def)	=	**1.462**		

Cu.Ta = **0.441 seg**

El periodo T no debe exceder CuTa :

T	≤	**CuTa**	
0.245 seg	≤	**0.441 seg**	**OK**

T (def) = 0.245 seg *(Periodo definitivo para el análisis)*

Cálculo de To, Tc y TL:

$$T_0 = 0.1\frac{A_v F_v}{A_a F_a}$$ = **0.300 seg**

$$T_C = 0.48\frac{A_v F_v}{A_a F_a}$$ = **1.440 seg**

$$T_L = 2.4 F_v$$ = **5.760 seg**

Máxima aceleración horizontal de diseño Sa:

$$S_a = 2.5 A_a F_a I$$: *(Para periodos de vibración menores a Tc)* = **0.25**

$$S_a = \frac{1.2 A_v F_v I}{T}$$: *(Para periodos de vibración entre Tc y TL)* = **1.47**

$$S_a = \frac{1.2 A_v F_v T_L I}{T^2}$$: *(Para periodos de vibración mayores a TL)* = **34.55**

Como : **T < Tc** **Entonces :** **Sa = 2.5 Aa Fa I**

Sa = ***0.25*** *(Máxima Aceleración horizontal de diseño)*

Cortante Sísmico en la base Vs :

$$V_S = S_a g M$$ = **116.87 Ton**

Cálculo de la fuerza Sísmica :

CÁLCULO DE LA FUERZA SISMICA POR NIVEL									
NIVEL	W(T)	hi (m)	hn(m)	K	hn^k	Mn*hn^k	Cvn	Fx,y (Ton)	Fx,y (KN)
N+6.00	*222.0*	3.00	6.00	1.000	6.00	1332.24	0.64	75.27	*752.69*
N+3.00	*245.4*	3.00	3.00	1.000	3.00	736.33	0.36	41.60	*416.01*
Σ	467.5					2068.57	1.00	116.87	1168.70

Centros de Masa por nivel y Torsión accidental:

NIVEL	CENTROS DE MASA		TORSIÓN ACCIDENTAL (5%L)					
	X	Y	LX	LY	CRX	CRY	ex	ey
N+6.00	4.70	11.27	33.88	8.00	4.71	11.77	1.69	0.40
N+3.00	4.78	10.95	33.88	8.00	4.71	11.77	1.69	0.40

Efecto de torsión accidental sobre centros de masa:

CENTROS DE MASA CORREGIDOS		
Nivel	X	Y
N+6.00	3.01	10.87
N+3.00	6.48	10.55

3.4. CÁLCULO DE LA DERIVA

$$\Delta_a = \sqrt{(\delta_{x1} - \delta_{x2})^2 + (\delta_{y1} - \delta_{y2})^2}$$

Δα = Deriva del análisis.

Δρ = Deriva permitida. (0.01 hi)

SISMO EN X **Nudo :** ***15***
Caso de Carga: ***DER 1***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0379	-0.0038	2.04	3.00	OK	0.68
N+3.00	3.00	0.0176	-0.0019	1.78	3.00	OK	0.59

SISMO EN Y **Nudo :** ***15***
Caso de Carga: ***DER 3***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0015	0.0390	1.67	3.00	OK	0.56
N+3.00	3.00	0.0005	0.0224	2.24	3.00	OK	0.75

SISMO EN X **Nudo :** ***21***
Caso de Carga: ***DER 1***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0379	0.0038	2.04	3.00	OK	0.68
N+3.00	3.00	0.0176	0.0019	1.77	3.00	OK	0.59

SISMO EN Y **Nudo :** ***21***
Caso de Carga: ***DER 3***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0015	0.0373	1.56	3.00	OK	0.52
N+3.00	3.00	0.0005	0.0217	2.17	3.00	OK	0.72

1. El análisis se realizó con la inercia de las vigas y las columnas completa.

% Indica INDICE DE FLEXIBILIDAD

$$\Delta_a = \sqrt{(\delta_{x1} - \delta_{x2})^2 + (\delta_{y1} - \delta_{y2})^2}$$

Δα = Deriva del análisis.

Δρ = Deriva permitida. (0.01 hi)

SISMO EN X **Nudo :** ***7***

Caso de Carga: ***DER 1***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0563	0.0038	2.99	3.00	OK	1.00
N+3.00	3.00	0.0265	0.0019	2.65	3.00	OK	0.88

SISMO EN Y **Nudo :** ***7***

Caso de Carga: ***DER 3***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	-0.0026	0.0373	1.57	3.00	OK	0.52
N+3.00	3.00	-0.0011	0.0217	2.17	3.00	OK	0.72

SISMO EN X **Nudo :** ***1***

Caso de Carga: ***DER 1***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	0.0563	-0.0038	2.98	3.00	OK	0.99
N+3.00	3.00	0.0265	-0.0019	2.65	3.00	OK	0.88

SISMO EN Y **Nudo :** ***1***

Caso de Carga: ***DER 3***

Nivel	hi [m]	*d x* [m]	*d y* [m]	Δα [cm]	Δρ [cm]		%
N+6.00	3.00	-0.0026	0.0390	1.67	3.00	OK	0.56
N+3.00	3.00	-0.0011	0.0224	2.24	3.00	OK	0.75

1. El análisis se realizó con la inercia de las vigas y las columnas completa.

% Indica INDICE DE FLEXIBILIDAD

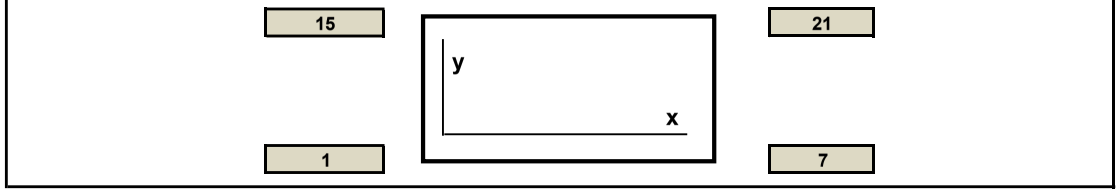
3.5. REVISIÓN DE IRREGULARIDADES

ESQUEMA ESTRUCTURAL - REVISIÓN DE IRREGULARIDADES

REVISION DE LA IRREGULARIDAD TORSIONAL

Tipo 1aP — Irregularidad torsional	Tipo 1bP — Irregularidad torsional extrema
$\phi_p = 0.9$	$\phi_p = 0.8$
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right) \geq \Delta_1 > 1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$	$\Delta_1 > 1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$

Ubicación de puntos extremos de la estructura enumerados según el modelo matemático



Δ = Deriva del análisis.

SISMO EN X Caso de Carga: DER 1

Nudo	21	7					15	1				
Nivel	Δ1 [cm]	Δ2 [cm]	1.2x(Δ1+ Δ2) / 2		1.4x(Δ1+ Δ2) / 2		Δ1 (cm)	Δ2 (cm)	1.2x(Δ1+ Δ2) / 2		1.4x(Δ1+ Δ2) / 2	
N+6.00	2.04	2.99	3.01	OK	3.52	OK	2.04	2.98	3.01	OK	3.51	OK
N+3.00	1.77	2.65	2.66	OK	3.10	OK	1.78	2.65	2.66	OK	3.10	OK

SISMO EN Y Caso de Carga: DER 3

Nudo	15	21					1	7				
Nivel	Δ1 [cm]	Δ2 [cm]	1.2x(Δ1+ Δ2) / 2		1.4x(Δ1+ Δ2) / 2		Δ1 (cm)	Δ2 (cm)	1.2x(Δ1+ Δ2) / 2		1.4x(Δ1+ Δ2) / 2	
N+6.00	1.67	1.56	1.94	OK	2.26	OK	1.67	1.57	1.94	OK	2.27	OK
N+3.00	2.24	2.17	2.64	OK	3.08	OK	2.24	2.17	2.65	OK	3.09	OK

IRREGULARIDADES EN PLANTA - (Ver Página A-59 - NSR-10)

PARAMETRO	SI	NO	Factor de Reducción
1aP) Irregularidad Torsional		x	0.9
1bP) Irregularidad Torsional Extrema		x	0.8
2P) Retrocesos en las Esquinas		x	0.9
3P) Discontinuidades en el Diafragma		x	0.9
4P) Desplazamiento del Plano de Acción		x	0.8
5P) Sistemas no Paralelos		x	0.9

ϕp = ***1.00***

(Si existen varias irregularidades se escoge el menor valor de ϕp)

IRREGULARIDADES EN ALTURA - (Ver Página A-60 - NSR-10)

PARAMETRO	SI	NO	Factor de Reducción
1aA) Piso Flexible (Irregularidad en rigidez)		x	0.9
1bA) Piso Flexible (Irregularidad Extrema en rigidez)		x	0.8
2A)Distribución de Masas		x	0.9
3A)Geométrica		x	0.9
4A)Desplazamiento del Plano de Acción		x	0.8
5aA)Piso Débil (Discontinuidad en la resistencia)		x	0.9
5bA) Piso Débil (Discontinuidad Extrema en la resistencia)		x	0.8

ϕa = ***1.00***

Cuando para todos los pisos, la deriva de cualquier piso es menor de 1.3veces la deriva del piso siguiente hacia arriba, puede considerarse que no existen irregularidades en altura de los tipos 1aA, 1bA, 2A o 3A.

(Si existen varias irregularidades se escoge el menor valor de $\phi\alpha$)

FACTOR DE REDUCCION DE RESISTENCIA POR AUSENCIA DE REDUNDANCIA - (Ver Página A-43-44 - NSR-10)

Tipo C)	Porticos resistentes a momentos

ϕr= ***1.00***

3.6. HIPOTESIS DE CARGA

D	=		*Carga Muerta*
L	=		*Carga Viva*
LR	=		*Carga Viva de Cubierta*
S.X.	=		*Fuerzas Sismicas Elásticas en X*
S.Y.	=		*Fuerzas Sismicas Elásticas en Y*
Ro	=	***7.00***	**Sistema de pórtico**
ϕ p	=	**1.00**	**DMI**
ϕ a	=	**1.00**	
ϕ r	=	**1.00**	
R	=	**7.00**	

COMBINACIONES PARA LA REVISIÓN DE DERIVAS

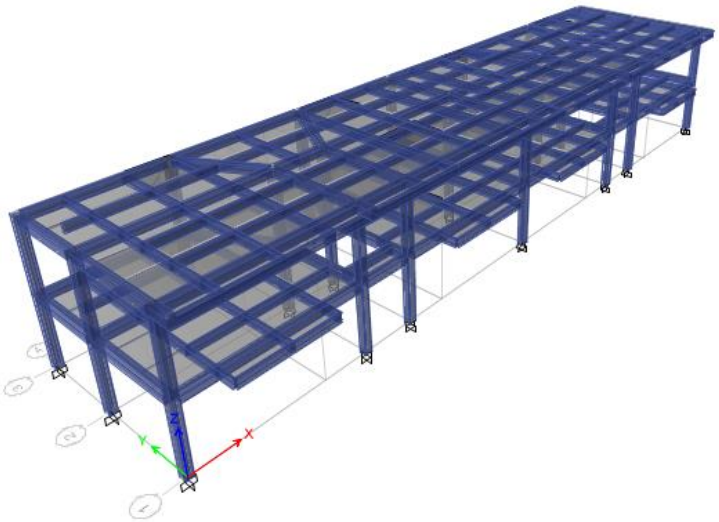
COMB1	1.40 D					
DER 1	1.20 D	+	1.00 L	+	1.00	S.X.
DER 2	1.20 D	+	1.00 L	-	1.00	S.X.
DER 3	1.20 D	+	1.00 L	+	1.00	S.Y.
DER 4	1.20 D	+	1.00 L	-	1.00	S.Y.
DER 5	0.90 D	+		+	1.00	S.X.
DER 6	0.90 D	+		-	1.00	S.X.
DER 7	0.90 D	+		+	1.00	S.Y.
DER 8	0.90 D	+		-	1.00	S.Y.

COMBINACIONES DE CARGA PARA DISEÑO DE VIGAS Y COLUMNAS

	D		L		S.X.		S.Y.
COMB1	1.40						
COMB2	1.20	+	1.60				
COMB3	1.20	+	1.00	+	0.14	+	0.04
COMB4	1.20	+	1.00	+	0.14	-	0.04
COMB5	1.20	+	1.00	-	0.14	+	0.04
COMB6	1.20	+	1.00	-	0.14	-	0.04
COMB7	1.20	+	1.00	+	0.04	+	0.14
COMB8	1.20	+	1.00	+	0.04	-	0.14
COMB9	1.20	+	1.00	-	0.04	+	0.14
COMB10	1.20	+	1.00	-	0.04	-	0.14
COMB11	0.90	+		+	0.14	+	0.04
COMB12	0.90	+		+	0.14	-	0.04
COMB13	0.90	+		-	0.14	+	0.04
COMB14	0.90	+		-	0.14	-	0.04
COMB15	0.90	+		+	0.04	+	0.14
COMB16	0.90	+		+	0.04	-	0.14
COMB17	0.90	+		-	0.04	+	0.14
COMB18	0.90	+		-	0.04	-	0.14

3.7. IMÁGENES DEL MODELO MATEMÁTICO

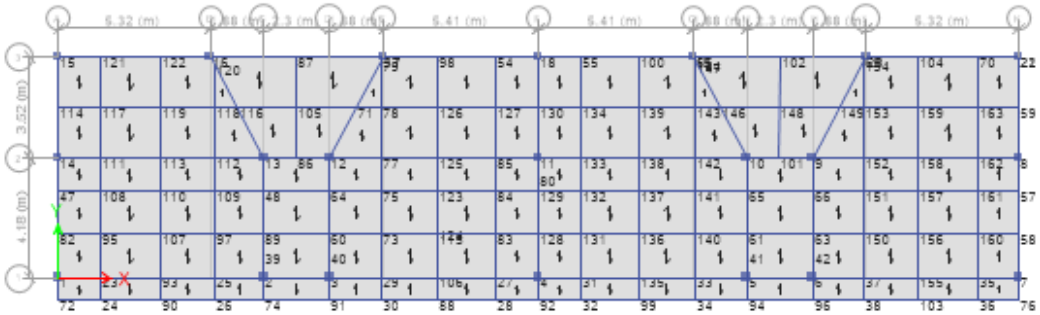
- VISTA 3D DEL MODELO MATEMÁTICO



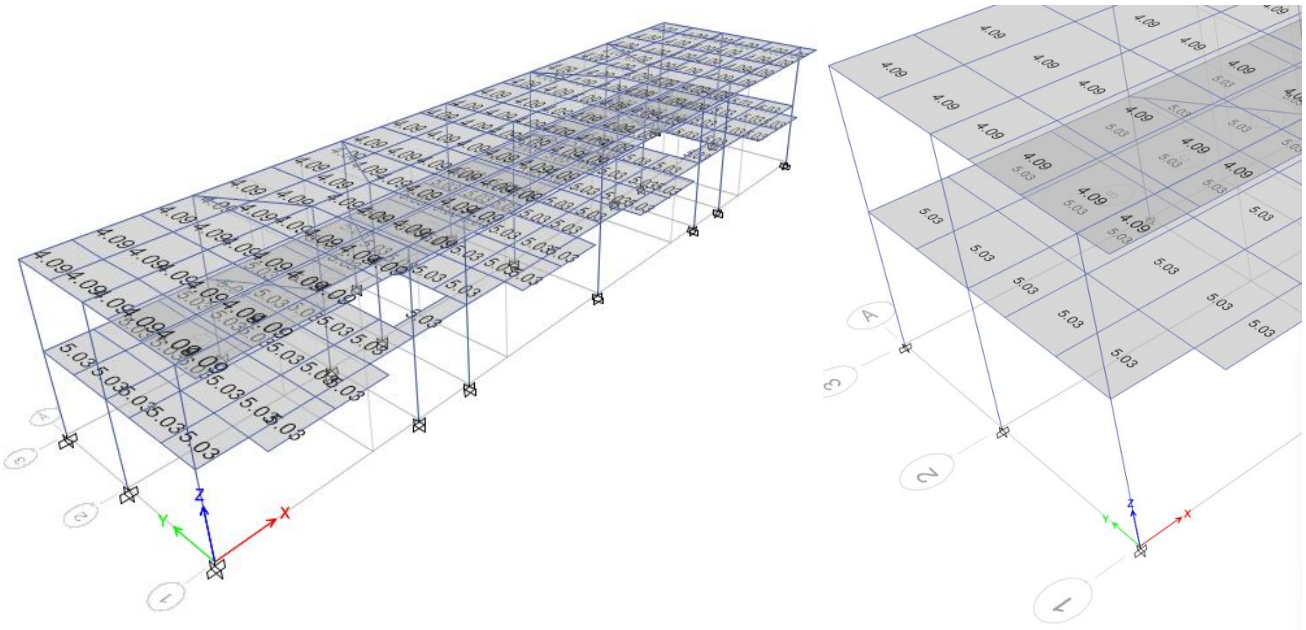
- VISTA DE ELEMENTOS EN LA BASE

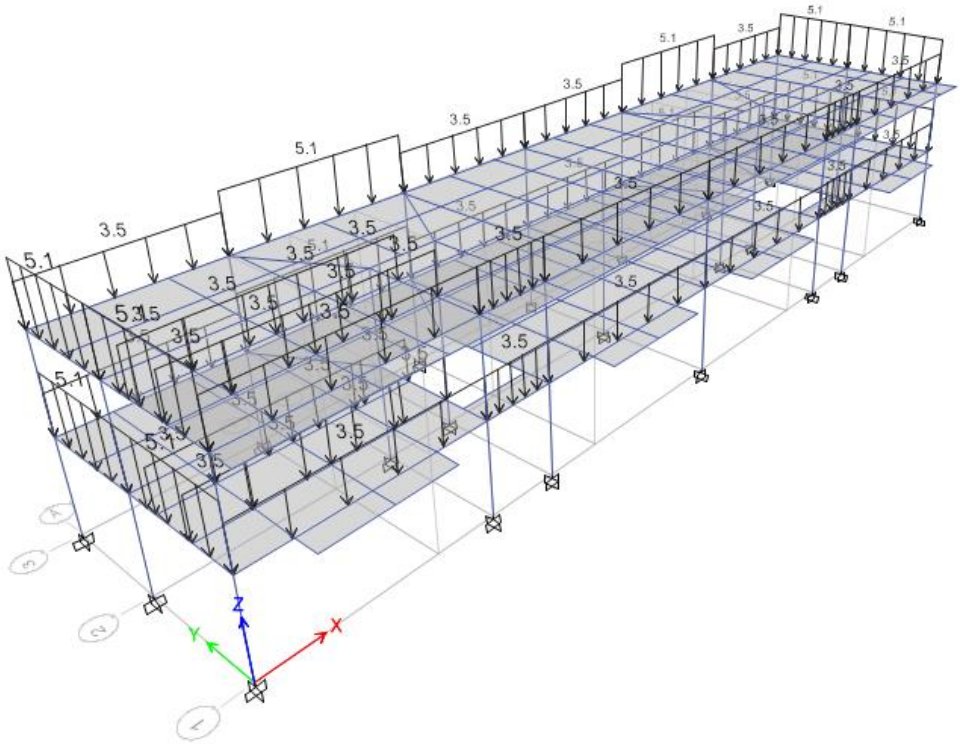


- VISTA DE ELEMENTOS DE CUBIERTA

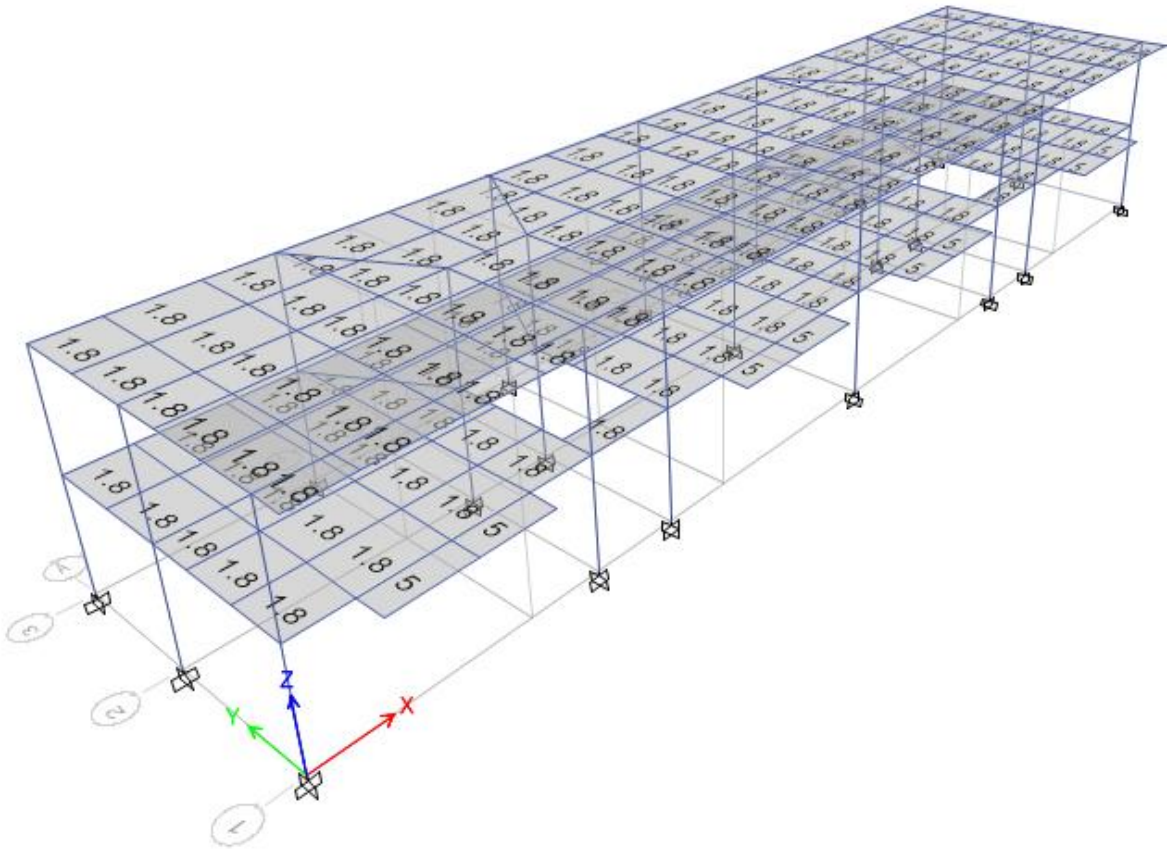


- CARGAS MUERTAS APLICADAS SOBRE LA ESTRUCTURA (kN)





- CARGAS VIVAS APLICADAS SOBRE LA ESTRUCTURA (kN)



3.8. DATOS DE ENTRADA

1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height m	Master Story	Similar To	Splice Story	Color
T1	N+6.00	3.4	Yes	None	No	Blue
T1	N+3.00	3.42	No	N+6.00	No	Green

1.2 Grid Data

Table 1.2 - Grid Definitions - General

Tower	Name	Type	Ux m	Uy m	Rz deg	Story Range	Bubble Size m	Color
T1	G1	Cartesian	0	0	0	Default	0.7	Gray6

Table 1.3 - Grid Definitions - Grid Lines

Name	Grid Line Type	Ordinate m	Bubble Location	Visible
G1	X (Cartesian)	0	End	Yes
G1	X (Cartesian)	2.62	End	Yes
G1	X (Cartesian)	4.15	End	Yes
G1	X (Cartesian)	7.95	End	Yes
G1	Y (Cartesian)	0	Start	Yes
G1	Y (Cartesian)	0.91	Start	Yes
G1	Y (Cartesian)	2.32	Start	Yes
G1	Y (Cartesian)	5.12	Start	Yes
G1	Y (Cartesian)	9.93	Start	Yes

1.3 Point Coordinates

Table 1.4 - Point Bays

Label	Is Auto Point	X m	Y m	DZBelow m
1	No	0	9.93	0
2	No	3	6.3225	0
3	No	7.95	9.93	0
4	No	0	5.12	0
5	No	4.15	5.12	0
6	No	7.95	5.12	0
7	No	0	2.32	0
8	No	4.15	2.32	0
9	No	7.95	2.32	0
10	No	0	0.91	0
11	No	2.62	0	0
12	No	3.95	9.93	0
13	No	2.62	2.32	0
14	No	0	7.525	0

Label	Is Auto Point	X m	Y m	DZBelow m
15	No	4.05	7.525	0
16	No	0	8.3267	0
17	No	3	7.525	0
19	No	2.62	6.3225	0
20	No	0	9.1283	0
21	No	4.1	6.3225	0
22	No	7.95	6.3225	0
23	No	4.0167	8.3267	0
24	No	3.9833	9.1283	0
25	No	7.95	9.1283	0
26	No	7.95	8.3267	0
27	No	7.95	7.525	0
28	No	4.075	6.9238	0
30	No	7.95	6.9238	0
31	No	3	6.9238	0
32	No	2.62	5.12	0
33	No	2.62	5.7213	0
34	Yes	3.993	5.9979	0
35	No	4.125	5.7213	0
36	No	7.95	5.7213	0
37	Yes	3.9315	5.8511	0
38	No	0	3.02	0
40	No	0	3.72	0
42	No	0	4.42	0
43	No	7.95	3.02	0
44	No	4.15	3.02	0
45	No	7.95	3.72	0
46	No	4.15	3.72	0
47	No	7.95	4.42	0
48	No	4.15	4.42	0

1.4 Mass

Table 1.5 - Mass Source Definition

Name	Is Default	Include Lateral Mass?	Include Vertical Mass?	Lump Mass?	Source Self Mass?	Source Added Mass?	Source Load Patterns?	Move Mass Centroid?	Load Pattern	Multiplier
MsSrc1	Yes	Yes	No	Yes	Yes	Yes	Yes	No	DEAD	1

Table 1.6 - Centers Of Mass And Rigidity

Story	Diaphragm	Mass X ton	Mass Y ton	XCM m	YCM m	Cum Mass X ton	Cum Mass Y ton	XCCM m	YCCM m	XCR m	YCR m
N+3.00	D1	66.2882	66.2882	3.9315	5.8511	66.2882	66.2882	3.9315	5.8511	3.552	4.9744
N+6.00	D2	21.2613	21.2613	3.993	5.9979	21.2613	21.2613	3.993	5.9979	3.7682	5.4076

Table 1.7 - Mass Summary by Diaphragm

Story	Diaphragm	Mass X ton	Mass Y ton	Mass Moment of Inertia ton-m2	X Mass Center m	Y Mass Center m
N+6.00	D2	21.2613	21.2613	396.4018	3.993	5.9979
N+3.00	D1	66.2882	66.2882	1214.7435	3.9315	5.8511

Table 1.8 - Mass Summary by Story

Story	UX ton	UY ton	UZ ton
N+6.00	21.2613	21.2613	0
N+3.00	66.2882	66.2882	0
Base	4.3708	4.3708	0

Table 1.9 - Mass Summary by Group

Group	Self Mass ton	Self Weight kN	Mass X ton	Mass Y ton	Mass Z ton
All	41.3711	0	91.9202	91.9202	0

1.5 Groups

Table 1.10 - Group Definitions

Name	Color	Steel Design?	Concrete Design?	Composite Design?
All	Yellow	No	No	No

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
21MPA	Concrete	Isotropic	Unknown	Cyan	
21MPASM	Concrete	Isotropic	Unknown	Magenta	
A416Gr270	Tendon	Uniaxial	Grade 270	Green	
A615Gr60	Rebar	Uniaxial	Unknown	Blue	
MAMP	Other	Isotropic	Unknown	Blue	
STEEL	Steel	Isotropic	Unknown	Green	

2.2 Frame Sections

Table 2.2 - Frame Section Property Definitions - Summary (Part 1 of 3)

Name	Material	Shape	Color	Area m2	J m4	I33 m4	I22 m4	As2 m2	As3 m2	S33Pos m3	S33Neg m3	S22Pos m3
COL30X30	21MPA	Concrete Rectangular	16744576	0.09	0.001141	0.000675	0.000675	0.075	0.075	0.0045	0.0045	0.0045
V25X30	21MPA	Concrete Rectangular	16711808	0.075	0.000775	0.000563	0.000391	0.0625	0.0625	0.00375	0.00375	0.003125
V30X30	21MPA	Concrete Rectangular	Cyan	0.09	0.001141	0.000675	0.000675	0.075	0.075	0.0045	0.0045	0.0045

Table 2.2 - Frame Section Property Definitions - Summary (Part 2 of 3)

S22Neg m3	Z33 m3	Z22 m3	R33 m	R22 m	CG Offset 3 m	CG Offset 2 m	PNA Offset 3 m	PNA Offset 2 m	Area Modifier	As2 Modifier	As3 Modifier	J Modifier
0.0045	0.00675	0.00675	0.0866	0.0866	0	0	0	0	1	1	1	1

S22Neg m3	Z33 m3	Z22 m3	R33 m	R22 m	CG Offset 3 m	CG Offset 2 m	PNA Offset 3 m	PNA Offset 2 m	Area Modifier	As2 Modifier	As3 Modifier	J Modifier
0.006125	0.007875	0.009188	0.0866	0.10104	0	0	0	0	1	1	1	1
0.003125	0.005625	0.004688	0.0866	0.07217	0	0	0	0	1	1	1	1

Table 2.2 - Frame Section Property Definitions - Summary (Part 3 of 3)

I33 Modifier	I22 Modifier	Mass Modifier	Weight Modifier
1	1	1	1
1	1	1	1
1	1	1	1

2.3 Shell Sections

Table 2.3 - Area Section Property Definitions - Summary

Name	Type	Element Type	Material	Total Thickness m
CUBIERTA	Deck	Membrane	21MPASM	0.001
LOSA	Deck	Membrane	21MPASM	0.001
Stiff1	Slab	Shell-Thin	21MPA	0.1

3 Assignments

This chapter provides a listing of the assignments applied to the model.

3.1 Joint Assignments

Table 3.1 - Joint Assignments - Summary

Story	Label	UniqueName	Diaphragm	Restraints
N+6.00	1	60	D2	
N+6.00	3	62	D2	
N+6.00	4	63	D2	
N+6.00	5	64	D2	
N+6.00	6	65	D2	
N+6.00	7	66	D2	
N+6.00	8	67	D2	
N+6.00	9	68	D2	
N+6.00	12	61	D2	
N+6.00	34	3	D2	
N+3.00	1	2	D1	
N+3.00	3	6	D1	
N+3.00	4	8	D1	
N+3.00	5	10	D1	
N+3.00	6	12	D1	
N+3.00	7	14	D1	
N+3.00	8	16	D1	
N+3.00	9	18	D1	
N+3.00	10	20	D1	
N+3.00	11	22	D1	
N+3.00	12	4	D1	
N+3.00	13	24	D1	
N+3.00	14	27	D1	
N+3.00	15	29	D1	
N+3.00	19	42	D1	

Story	Label	UniqueName	Diaphragm	Restraints
N+3.00	21	34	D1	
N+3.00	22	35	D1	
N+3.00	16	25	D1	
N+3.00	20	28	D1	
N+3.00	23	30	D1	
N+3.00	24	31	D1	
N+3.00	25	33	D1	
N+3.00	26	37	D1	
N+3.00	27	38	D1	
N+3.00	28	39	D1	
N+3.00	30	41	D1	
N+3.00	32	43	D1	
N+3.00	2	32	D1	
N+3.00	17	36	D1	
N+3.00	31	40	D1	
N+3.00	33	44	D1	
N+3.00	35	46	D1	
N+3.00	36	47	D1	
N+3.00	38	49	D1	
N+3.00	40	51	D1	
N+3.00	42	53	D1	
N+3.00	43	54	D1	
N+3.00	44	55	D1	
N+3.00	45	56	D1	
N+3.00	46	57	D1	
N+3.00	47	58	D1	
N+3.00	48	59	D1	
N+3.00	37	26	D1	
Base	1	1	From Area	UX; UY; UZ; RX; RY; RZ
Base	3	5	From Area	UX; UY; UZ; RX; RY; RZ
Base	4	7	From Area	UX; UY; UZ; RX; RY; RZ
Base	5	9	From Area	UX; UY; UZ; RX; RY; RZ
Base	6	11	From Area	UX; UY; UZ; RX; RY; RZ
Base	7	13	From Area	UX; UY; UZ; RX; RY; RZ
Base	8	15	From Area	UX; UY; UZ; RX; RY; RZ
Base	9	17	From Area	UX; UY; UZ; RX; RY; RZ
Base	10	19	From Area	UX; UY; UZ; RX; RY; RZ
Base	11	21	From Area	UX; UY; UZ; RX; RY; RZ
Base	12	23	From Area	UX; UY; UZ; RX; RY; RZ

3.2 Frame Assignments

Table 3.2 - Frame Assignments - Summary

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Min Number Stations	Releases
N+6.00	B1	59	Beam	3.95	V30X30	V30X30		11	
N+6.00	B2	60	Beam	4	V30X30	V30X30		11	
N+6.00	B3	61	Beam	4.15	V30X30	V30X30		11	
N+6.00	B4	62	Beam	3.8	V30X30	V30X30		11	

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Min Number Stations	Releases
N+6.00	B5	63	Beam	4.15	V30X30	V30X30		11	
N+6.00	B6	64	Beam	3.8	V30X30	V30X30		11	
N+6.00	B8	65	Beam	2.8	V30X30	V30X30		11	
N+6.00	B9	66	Beam	4.81	V30X30	V30X30		11	
N+6.00	B12	67	Beam	2.8	V30X30	V30X30		11	
N+6.00	B13	68	Beam	4.8142	V30X30	V30X30		11	
N+6.00	B14	69	Beam	2.8	V30X30	V30X30		11	
N+6.00	B15	70	Beam	4.81	V30X30	V30X30		11	
N+6.00	C1	50	Column	3.4	COL30X30	COL30X30		11	
N+6.00	C3	52	Column	6	COL30X30	COL30X30		11	
N+6.00	C7	56	Column	6	COL30X30	COL30X30		11	
N+6.00	C9	58	Column	6	COL30X30	COL30X30		11	
N+3.00	B1	12	Beam	6	V30X30	V30X30		11	
N+3.00	B2	13	Beam	4	V30X30	V30X30		11	
N+3.00	B3	14	Beam	4.15	V30X30	V30X30		11	
N+3.00	B4	15	Beam	3.8	V30X30	V30X30		11	
N+3.00	B5	16	Beam	4.15	V30X30	V30X30		11	
N+3.00	B6	17	Beam	3.8	V30X30	V30X30		11	
N+3.00	B7	18	Beam	1.41	V30X30	V30X30		11	
N+3.00	B8	19	Beam	2.8	V30X30	V30X30		11	
N+3.00	B9	20	Beam	4.81	V30X30	V30X30		11	
N+3.00	B10	21	Beam	2.7735	V30X30	V30X30		11	
N+3.00	B11	22	Beam	2.32	V30X30	V30X30		11	
N+3.00	B12	23	Beam	2.8	V30X30	V30X30		11	
N+3.00	B13	24	Beam	4.8142	V30X30	V30X30		11	
N+3.00	B14	25	Beam	2.8	V30X30	V30X30		11	
N+3.00	B15	26	Beam	4.81	V30X30	V30X30		11	
N+3.00	B16	28	Beam	4.05	V25X30	V25X30		11	
N+3.00	B17	28	Beam	4.05	V25X30	V25X30		11	
N+3.00	C1	1	Column	3	COL30X30	COL30X30		11	
N+3.00	C7	7	Column	3	COL30X30	COL30X30		11	
N+3.00	C9	9	Column	3	COL30X30	COL30X30		11	
N+3.00	C10	10	Column	3	COL30X30	COL30X30		11	
N+3.00	C11	11	Column	3	COL30X30	COL30X30		11	

3.3 Shell Assignments

Table 3.3 - Area Assignments - Summary

Story	Label	UniqueName	Section Property	Property Type	Axis Angle deg
N+6.00	F3	1	CUBIERTA	Deck	
N+6.00	F4	9	CUBIERTA	Deck	
N+3.00	F9	2	LOSA	Deck	90
N+3.00	F10	3	LOSA	Deck	90
N+3.00	F11	4	LOSA	Deck	90
N+3.00	F12	5	LOSA	Deck	90
N+3.00	F13	6	LOSA	Deck	90
N+3.00	F14	7	LOSA	Deck	90
N+3.00	F15	8	CUBIERTA	Deck	

4 Loads

This chapter provides loading information as applied to the model.

4.1 Load Patterns

Table 4.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
~LLRF	Yes	Other	0	

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
DEAD	No	Dead	0	
LIVE	No	Live	0	
PP	No	Dead	1	
SX	No	Seismic	0	User Loads
SY	No	Seismic	0	User Loads

4.2 Auto Seismic Loading
User Loads Auto Seismic Load Calculation
Lateral Forces

Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
N+6.00	6.00	339.62	0
N+3.00	3.00	483.96	0
Base	0	0	0

User Loads Auto Seismic Load Calculation

This calculation presents the user defined lateral seismic loads for load pattern SY.
Lateral Forces

Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
N+6.00	6.00	0	339.62
N+3.00	3.00	0	483.96
Base	0	0	0

4.3 Applied Loads
4.3.1 Line Loads

Table 4.4 - Frame Loads Assignments - Distributed

Story	Label	UniqueName	Load Pattern	Load Type	Direction	Distance Type	Relative Distance A	Relative Distance B	Absolute Distance A m	Absolute Distance B m	Force A kN/m	Force B kN/m
N+6.00	B1	59	DEAD	Force	Gravity	Relative	0	1	0	3.95	1.53	1.53
N+6.00	B2	60	DEAD	Force	Gravity	Relative	0	1	0	4	1.53	1.53
N+6.00	B5	63	DEAD	Force	Gravity	Relative	0	1	0	4.15	1.53	1.53
N+6.00	B6	64	DEAD	Force	Gravity	Relative	0	1	0	3.8	1.53	1.53
N+6.00	B8	65	DEAD	Force	Gravity	Relative	0	1	0	2.8	1.53	1.53
N+6.00	B9	66	DEAD	Force	Gravity	Relative	0	1	0	4.81	1.53	1.53
N+6.00	B12	67	DEAD	Force	Gravity	Relative	0	1	0	2.8	1.53	1.53
N+6.00	B13	68	DEAD	Force	Gravity	Relative	0	1	0	4.8142	1.53	1.53
N+6.00	B14	69	DEAD	Force	Gravity	Relative	0	1	0	2.8	1.53	1.53
N+6.00	B15	70	DEAD	Force	Gravity	Relative	0	1	0	4.81	1.53	1.53
N+3.00	B1	12	DEAD	Force	Gravity	Relative	0	1	0	3.95	6.32	6.32
N+3.00	B2	13	DEAD	Force	Gravity	Relative	0	1	0	4	6.32	6.32
N+3.00	B5	16	DEAD	Force	Gravity	Relative	0	1	0	4.15	6.32	6.32
N+3.00	B6	17	DEAD	Force	Gravity	Relative	0	1	0	3.8	6.32	6.32
N+3.00	B7	18	DEAD	Force	Gravity	Relative	0	1	0	1.41	1.28	1.28
N+3.00	B8	19	DEAD	Force	Gravity	Relative	0	1	0	2.8	7.9	7.9
N+3.00	B9	20	DEAD	Force	Gravity	Relative	0	1	0	4.81	7.9	7.9
N+3.00	B10	21	DEAD	Force	Gravity	Relative	0	1	0	2.7735	1.28	1.28
N+3.00	B11	22	DEAD	Force	Gravity	Relative	0	1	0	2.32	1.28	1.28
N+3.00	B14	25	DEAD	Force	Gravity	Relative	0	1	0	2.8	7.9	7.9
N+3.00	B15	26	DEAD	Force	Gravity	Relative	0	1	0	4.81	7.9	7.9
N+3.00	B18	32	DEAD	Force	Gravity	Relative	0	1	0	1.2025	16.4	16.4
N+3.00	B18	32	LIVE	Force	Gravity	Relative	0	1	0	1.2025	6.7	6.7

4.3.2 Area Loads

Table 4.5 - Area Load Assignments - Uniform

Story	Label	UniqueName	Load Pattern	Direction	Load kN/m2
N+6.00	F3	1	DEAD	Gravity	0.38
N+6.00	F4	9	DEAD	Gravity	0.38
N+3.00	F9	2	DEAD	Gravity	3.03
N+3.00	F10	3	DEAD	Gravity	3.03
N+3.00	F11	4	DEAD	Gravity	3.03
N+3.00	F12	5	DEAD	Gravity	3.03
N+3.00	F13	6	DEAD	Gravity	3.03
N+3.00	F14	7	DEAD	Gravity	3.03
N+3.00	F15	8	DEAD	Gravity	0.38
N+6.00	F3	1	LIVE	Gravity	0.5
N+6.00	F4	9	LIVE	Gravity	0.5
N+3.00	F9	2	LIVE	Gravity	2
N+3.00	F10	3	LIVE	Gravity	2
N+3.00	F11	4	LIVE	Gravity	2
N+3.00	F12	5	LIVE	Gravity	2
N+3.00	F13	6	LIVE	Gravity	2
N+3.00	F14	7	LIVE	Gravity	2
N+3.00	F15	8	LIVE	Gravity	0.5

4.4 Load Cases

Table 4.6 - Load Case Definitions - Summary

Name	Type
Modal	Modal - Eigen
DEAD	Linear Static
LIVE	Linear Static
PP	Linear Static
SX	Linear Static
SY	Linear Static

4.5 Load Combinations

Table 4.7 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
CIM	Linear Add	No	DEAD	1	
CIM			LIVE	1	
CIM			PP	1	
COMB1	Linear Add	No	DEAD	1.4	
COMB1			PP	1.4	
COMB2	Linear Add	No	DEAD	1.2	
COMB2			LIVE	1.6	
COMB2			PP	1.2	
COMB3	Linear Add	No	DEAD	1.2	
COMB3			LIVE	1	
COMB3			PP	1.2	
COMB3			SX	0.21	
COMB3			SY	0.06	
COMB4	Linear Add	No	DEAD	1.2	
COMB4			LIVE	1	
COMB4			PP	1.2	

Name	Type	Is Auto	Load Name	SF	Notes
COMB4			SX	0.21	
COMB4			DEAD	-0.06	
COMB5	Linear Add	No	DEAD	1.2	
COMB5			LIVE	1	
COMB5			PP	1.2	
COMB5			SX	-0.21	
COMB5			SY	0.06	
COMB6	Linear Add	No	DEAD	1.2	
COMB6			LIVE	1	
COMB6			PP	1.2	
COMB6			SX	-0.21	
COMB6			DEAD	-0.06	
COMB7	Linear Add	No	DEAD	1.2	
COMB7			LIVE	1	
COMB7			PP	1.2	
COMB7			SX	0.06	
COMB7			SY	0.21	
COMB8	Linear Add	No	DEAD	1.2	
COMB8			LIVE	1	
COMB8			PP	1.2	
COMB8			SX	0.06	
COMB8			SY	-0.21	
COMB9	Linear Add	No	DEAD	1.2	
COMB9			LIVE	1	
COMB9			PP	1.2	
COMB9			SX	-0.06	
COMB9			SY	0.21	
COMB10	Linear Add	No	DEAD	1.2	
COMB10			LIVE	1	
COMB10			PP	1.2	
COMB10			SX	-0.06	
COMB10			SY	-0.21	
COMB11	Linear Add	No	DEAD	0.9	
COMB11			PP	0.9	
COMB11			SX	0.21	
COMB11			SY	0.06	
COMB12	Linear Add	No	DEAD	0.9	
COMB12			PP	0.9	
COMB12			SX	0.21	
COMB12			SY	-0.06	
COMB13	Linear Add	No	DEAD	0.9	
COMB13			PP	0.9	
COMB13			SX	-0.21	
COMB13			SY	0.06	
COMB14	Linear Add	No	DEAD	0.9	
COMB14			PP	0.9	
COMB14			SX	-0.21	
COMB14			SY	-0.06	
COMB15	Linear Add	No	DEAD	0.9	
COMB15			PP	0.9	
COMB15			SX	0.06	
COMB15			SY	0.21	
COMB16	Linear Add	No	DEAD	0.9	
COMB16			PP	0.9	
COMB16			SX	0.06	
COMB16			SY	-0.21	
COMB17	Linear Add	No	DEAD	0.9	
COMB17			PP	0.9	
COMB17			SX	-0.06	
COMB17			SY	0.21	

Name	Type	Is Auto	Load Name	SF	Notes
COMB18	Linear Add	No	DEAD	0.9	
COMB18			PP	0.9	
COMB18			SX	-0.06	
COMB18			SY	-0.21	
DER1	Linear Add	No	DEAD	1.2	
DER1			LIVE	1	
DER1			PP	1.2	
DER1			SX	1	
DER2	Linear Add	No	DEAD	1.2	
DER2			LIVE	1	
DER2			PP	1.2	
DER2			SX	-1	
DER3	Linear Add	No	DEAD	1.2	
DER3			LIVE	1	
DER3			PP	1.2	
DER3			SY	1	
DER4	Linear Add	No	DEAD	1.2	
DER4			LIVE	1	
DER4			PP	1.2	
DER4			SY	-1	
DER5	Linear Add	No	DEAD	0.9	
DER5			PP	0.9	
DER5			SX	1	
DER6	Linear Add	No	DEAD	0.9	
DER6			PP	0.9	
DER6			SX	-1	
DER7	Linear Add	No	DEAD	0.9	
DER7			PP	0.9	
DER7			SY	1	
DER8	Linear Add	No	DEAD	0.9	
DER8			PP	0.9	
DER8			SY	-1	
ENVOLVENTE	Envelope	No	COMB1	1	
ENVOLVENTE			COMB2	1	
ENVOLVENTE			COMB3	1	
ENVOLVENTE			COMB4	1	
ENVOLVENTE			COMB5	1	
ENVOLVENTE			COMB6	1	
ENVOLVENTE			COMB7	1	
ENVOLVENTE			COMB8	1	
ENVOLVENTE			COMB15	1	
ENVOLVENTE			COMB16	1	
ENVOLVENTE			COMB17	1	
ENVOLVENTE			COMB18	1	

3.9. DATOS DE SALIDA

1 Analysis Results

This chapter provides analysis results.

1.1 Line Results

Table 1.1 - Element Forces - Columns (Part 1 of 2)

Story	Column	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+6.00	C1	50	ENVOLVENTE	Combination	Max	0	-13.5733	4.0433	11.9642	0.4648	20.6409	2.4662
N+6.00	C1	50	ENVOLVENTE	Combination	Max	1.55	-10.5601	4.0433	11.9642	0.4648	6.0498	2.6404
N+6.00	C1	50	ENVOLVENTE	Combination	Max	3.1	-7.5469	4.0433	11.9642	0.4648	1.8192	17.9692
N+6.00	C1	50	ENVOLVENTE	Combination	Min	0	-39.8772	-10.0634	1.8773	-0.3829	7.3273	-13.3347
N+6.00	C1	50	ENVOLVENTE	Combination	Min	1.55	-35.8596	-10.0634	1.8773	-0.3829	0.4816	-4.006
N+6.00	C1	50	ENVOLVENTE	Combination	Min	3.1	-31.842	-10.0634	1.8773	-0.3829	-16.7521	-10.1688
N+6.00	C3	52	ENVOLVENTE	Combination	Max	0	-13.7225	9.3101	13.266	0.4648	22.0544	12.305
N+6.00	C3	52	ENVOLVENTE	Combination	Max	1.55	-10.7093	9.3101	13.266	0.4648	7.3469	4.1452
N+6.00	C3	52	ENVOLVENTE	Combination	Max	3.1	-7.6961	9.3101	13.266	0.4648	3.917	10.5331
N+6.00	C3	52	ENVOLVENTE	Combination	Min	0	-39.2392	-4.2868	1.2078	-0.3829	7.3938	-2.8598
N+6.00	C3	52	ENVOLVENTE	Combination	Min	1.55	-35.2216	-4.2868	1.2078	-0.3829	-0.3171	-2.6896
N+6.00	C3	52	ENVOLVENTE	Combination	Min	3.1	-31.204	-4.2868	1.2078	-0.3829	-19.3348	-16.7832
N+6.00	C4	53	ENVOLVENTE	Combination	Max	0	-17.8274	6.8022	8.0582	0.6216	8.9752	7.5404
N+6.00	C4	53	ENVOLVENTE	Combination	Max	1.55	-14.312	6.8022	8.0582	0.6216	4.9851	1.3426
N+6.00	C4	53	ENVOLVENTE	Combination	Max	3.1	-10.7966	6.8022	8.0582	0.6216	10.3285	23.9839
N+6.00	C4	53	ENVOLVENTE	Combination	Min	0	-47.8851	-14.7345	-3.6369	-0.5121	-1.0746	-21.7905
N+6.00	C4	53	ENVOLVENTE	Combination	Min	1.55	-43.1979	-14.7345	-3.6369	-0.5121	-3.9608	-3.296
N+6.00	C4	53	ENVOLVENTE	Combination	Min	3.1	-38.5107	-14.7345	-3.6369	-0.5121	-16.1282	-13.632
N+6.00	C5	54	ENVOLVENTE	Combination	Max	0	-23.8064	13.8798	7.1937	0.6216	6.0124	21.3853
N+6.00	C5	54	ENVOLVENTE	Combination	Max	1.55	-20.291	13.8798	7.1937	0.6216	0.3656	3.3929
N+6.00	C5	54	ENVOLVENTE	Combination	Max	3.1	-16.7756	13.8798	7.1937	0.6216	32.2633	19.5621
N+6.00	C5	54	ENVOLVENTE	Combination	Min	0	-58.1768	-10.8204	-21.6299	-0.5121	-34.9174	-14.1197
N+6.00	C5	54	ENVOLVENTE	Combination	Min	1.55	-53.4896	-10.8204	-21.6299	-0.5121	-6.9032	-0.8689
N+6.00	C5	54	ENVOLVENTE	Combination	Min	3.1	-48.8024	-10.8204	-21.6299	-0.5121	-16.4066	-21.777
N+6.00	C6	55	ENVOLVENTE	Combination	Max	0	-16.4848	7.6099	9.0536	0.6216	8.9352	9.0717
N+6.00	C6	55	ENVOLVENTE	Combination	Max	1.55	-12.9694	7.6099	9.0536	0.6216	1.7383	3.0148
N+6.00	C6	55	ENVOLVENTE	Combination	Max	3.1	-9.454	7.6099	9.0536	0.6216	30.6974	10.4858
N+6.00	C6	55	ENVOLVENTE	Combination	Min	0	-47.1222	-4.847	-19.2748	-0.5121	-29.1623	-4.6434
N+6.00	C6	55	ENVOLVENTE	Combination	Min	1.55	-42.435	-4.847	-19.2748	-0.5121	-6.1274	-2.8908
N+6.00	C6	55	ENVOLVENTE	Combination	Min	3.1	-37.7478	-4.847	-19.2748	-0.5121	-19.2345	-14.6211
N+6.00	C7	56	ENVOLVENTE	Combination	Max	0	-5.3516	2.691	7.6685	0.4648	12.5223	2.0308
N+6.00	C7	56	ENVOLVENTE	Combination	Max	1.55	-2.3384	2.691	7.6685	0.4648	0.61	1.3899
N+6.00	C7	56	ENVOLVENTE	Combination	Max	3.1	0.6748	2.691	7.6685	0.4648	17.2113	14.2144
N+6.00	C7	56	ENVOLVENTE	Combination	Min	0	-38.2821	-8.6884	-12.0674	-0.3829	-20.2592	-12.8945
N+6.00	C7	56	ENVOLVENTE	Combination	Min	1.55	-34.2645	-8.6884	-12.0674	-0.3829	-1.5265	-2.9597
N+6.00	C7	56	ENVOLVENTE	Combination	Min	3.1	-30.2469	-8.6884	-12.0674	-0.3829	-11.3042	-6.8099
N+6.00	C8	57	ENVOLVENTE	Combination	Max	0	-14.9235	12.0352	6.2685	0.6216	6.8808	17.7358
N+6.00	C8	57	ENVOLVENTE	Combination	Max	1.55	-11.4081	12.0352	6.2685	0.6216	2.658	1.9906
N+6.00	C8	57	ENVOLVENTE	Combination	Max	3.1	-7.8927	12.0352	6.2685	0.6216	21.1482	18.3934
N+6.00	C8	57	ENVOLVENTE	Combination	Min	0	-52.137	-10.8089	-12.0317	-0.5121	-16.34	-15.2186
N+6.00	C8	57	ENVOLVENTE	Combination	Min	1.55	-47.4498	-10.8089	-12.0317	-0.5121	-3.1809	-1.3728
N+6.00	C8	57	ENVOLVENTE	Combination	Min	3.1	-42.7626	-10.8089	-12.0317	-0.5121	-12.7329	-19.6776
N+6.00	C9	58	ENVOLVENTE	Combination	Max	0	-4.266	8.4821	6.2968	0.4648	7.3657	11.8724
N+6.00	C9	58	ENVOLVENTE	Combination	Max	1.55	-1.2528	8.4821	6.2968	0.4648	1.8887	2.5686
N+6.00	C9	58	ENVOLVENTE	Combination	Max	3.1	1.7604	8.4821	6.2968	0.4648	17.8122	7.958
N+6.00	C9	58	ENVOLVENTE	Combination	Min	0	-38.066	-3.513	-10.3413	-0.3829	-14.3157	-2.9938
N+6.00	C9	58	ENVOLVENTE	Combination	Min	1.55	-34.0484	-3.513	-10.3413	-0.3829	-2.5691	-1.5464
N+6.00	C9	58	ENVOLVENTE	Combination	Min	3.1	-30.0308	-3.513	-10.3413	-0.3829	-12.2208	-14.4844
N+6.00	C12	51	ENVOLVENTE	Combination	Max	0	-27.6065	15.7983	14.4965	0.6216	17.7508	27.7403
N+6.00	C12	51	ENVOLVENTE	Combination	Max	1.55	-24.0911	15.7983	14.4965	0.6216	4.1061	8.825
N+6.00	C12	51	ENVOLVENTE	Combination	Max	3.1	-20.5757	15.7983	14.4965	0.6216	25.3831	2.1605

Story	Column	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+6.00	C12	51	ENVOLVENTE	Combination	Min	0	-50.8097	2.6825	-13.6829	-0.5121	-17.1874	10.3574
N+6.00	C12	51	ENVOLVENTE	Combination	Min	1.55	-46.1225	2.6825	-13.6829	-0.5121	-4.8094	0.4698
N+6.00	C12	51	ENVOLVENTE	Combination	Min	3.1	-41.4353	2.6825	-13.6829	-0.5121	-27.3504	-21.5319
N+3.00	C1	1	ENVOLVENTE	Combination	Max	0	-52.4101	15.4357	19.0335	0.8715	29.7573	31.1074
N+3.00	C1	1	ENVOLVENTE	Combination	Max	1.56	-49.3775	15.4357	19.0335	0.8715	1.4736	6.9445
N+3.00	C1	1	ENVOLVENTE	Combination	Max	3.12	-46.3448	15.4357	19.0335	0.8715	-0.8263	27.7515
N+3.00	C1	1	ENVOLVENTE	Combination	Min	0	-140.0727	-20.6945	-3.98	-0.826	-13.5672	-37.364
N+3.00	C1	1	ENVOLVENTE	Combination	Min	1.56	-136.0291	-20.6945	-3.98	-0.826	-8.8419	-5.1912
N+3.00	C1	1	ENVOLVENTE	Combination	Min	3.12	-131.9856	-20.6945	-3.98	-0.826	-29.9744	-17.5718
N+3.00	C3	3	ENVOLVENTE	Combination	Max	0	-53.5515	19.3322	23.6102	0.8715	38.0196	35.4532
N+3.00	C3	3	ENVOLVENTE	Combination	Max	1.56	-50.5189	19.3322	23.6102	0.8715	2.6624	5.0731
N+3.00	C3	3	ENVOLVENTE	Combination	Max	3.12	-47.4862	19.3322	23.6102	0.8715	3.6962	17.8401
N+3.00	C3	3	ENVOLVENTE	Combination	Min	0	-139.0117	-15.7035	-7.6055	-0.826	-20.4638	-31.6842
N+3.00	C3	3	ENVOLVENTE	Combination	Min	1.56	-134.9681	-15.7035	-7.6055	-0.826	-10.1565	-7.4271
N+3.00	C3	3	ENVOLVENTE	Combination	Min	3.12	-130.9246	-15.7035	-7.6055	-0.826	-36.1121	-25.9472
N+3.00	C4	4	ENVOLVENTE	Combination	Max	0	-74.4314	12.2392	19.8933	1.1655	39.1362	23.8077
N+3.00	C4	4	ENVOLVENTE	Combination	Max	1.56	-70.8934	12.2392	19.8933	1.1655	8.3064	4.9307
N+3.00	C4	4	ENVOLVENTE	Combination	Max	3.12	-67.3553	12.2392	19.8933	1.1655	15.9451	27.8914
N+3.00	C4	4	ENVOLVENTE	Combination	Min	0	-161.0176	-19.1069	-16.044	-1.1046	-34.602	-32.1692
N+3.00	C4	4	ENVOLVENTE	Combination	Min	1.56	-156.3002	-19.1069	-16.044	-1.1046	-9.7395	-2.534
N+3.00	C4	4	ENVOLVENTE	Combination	Min	3.12	-151.5827	-19.1069	-16.044	-1.1046	-23.4247	-14.7793
N+3.00	C5	5	ENVOLVENTE	Combination	Max	0	-99.7251	21.6008	16.3115	1.1655	33.514	36.4362
N+3.00	C5	5	ENVOLVENTE	Combination	Max	1.56	-96.1871	21.6008	16.3115	1.1655	9.561	3.0118
N+3.00	C5	5	ENVOLVENTE	Combination	Max	3.12	-92.649	21.6008	16.3115	1.1655	49.2578	22.4184
N+3.00	C5	5	ENVOLVENTE	Combination	Min	0	-232.8731	-17.1158	-32.1932	-1.1046	-51.8652	-31.6693
N+3.00	C5	5	ENVOLVENTE	Combination	Min	1.56	-228.1557	-17.1158	-32.1932	-1.1046	-3.0405	-5.2469
N+3.00	C5	5	ENVOLVENTE	Combination	Min	3.12	-223.4383	-17.1158	-32.1932	-1.1046	-17.9831	-31.652
N+3.00	C6	6	ENVOLVENTE	Combination	Max	0	-74.3236	15.1771	22.4125	1.1655	43.5727	29.2254
N+3.00	C6	6	ENVOLVENTE	Combination	Max	1.56	-70.7855	15.1771	22.4125	1.1655	9.3802	5.5756
N+3.00	C6	6	ENVOLVENTE	Combination	Max	3.12	-67.2474	15.1771	22.4125	1.1655	48.7382	15.5082
N+3.00	C6	6	ENVOLVENTE	Combination	Min	0	-184.7538	-13.7232	-33.47	-1.1046	-56.323	-27.8445
N+3.00	C6	6	ENVOLVENTE	Combination	Min	1.56	-180.0363	-13.7232	-33.47	-1.1046	-4.8272	-6.4429
N+3.00	C6	6	ENVOLVENTE	Combination	Min	3.12	-175.3189	-13.7232	-33.47	-1.1046	-26.9477	-18.6588
N+3.00	C7	7	ENVOLVENTE	Combination	Max	0	-43.6788	8.4315	15.3932	0.8715	25.8452	18.6023
N+3.00	C7	7	ENVOLVENTE	Combination	Max	1.56	-40.6461	8.4315	15.3932	0.8715	1.9502	5.7579
N+3.00	C7	7	ENVOLVENTE	Combination	Max	3.12	-37.6135	8.4315	15.3932	0.8715	29.2695	18.2967
N+3.00	C7	7	ENVOLVENTE	Combination	Min	0	-104.1172	-13.408	-19.0849	-0.826	-30.5593	-23.9349
N+3.00	C7	7	ENVOLVENTE	Combination	Min	1.56	-100.0736	-13.408	-19.0849	-0.826	-0.8864	-3.4848
N+3.00	C7	7	ENVOLVENTE	Combination	Min	3.12	-96.0301	-13.408	-19.0849	-0.826	-22.4416	-7.9617
N+3.00	C8	8	ENVOLVENTE	Combination	Max	0	-56.3748	17.0631	18.4892	1.1655	35.8757	29.7406
N+3.00	C8	8	ENVOLVENTE	Combination	Max	1.56	-52.8367	17.0631	18.4892	1.1655	7.2272	3.2134
N+3.00	C8	8	ENVOLVENTE	Combination	Max	3.12	-49.2986	17.0631	18.4892	1.1655	29.7043	21.3578
N+3.00	C8	8	ENVOLVENTE	Combination	Min	0	-154.1749	-15.8605	-22.5547	-1.1046	-41.0882	-28.5152
N+3.00	C8	8	ENVOLVENTE	Combination	Min	1.56	-149.4574	-15.8605	-22.5547	-1.1046	-6.0785	-3.8692
N+3.00	C8	8	ENVOLVENTE	Combination	Min	3.12	-144.74	-15.8605	-22.5547	-1.1046	-22.2077	-23.8843
N+3.00	C9	9	ENVOLVENTE	Combination	Max	0	-11.0881	13.0999	15.5487	0.8715	29.0768	23.7642
N+3.00	C9	9	ENVOLVENTE	Combination	Max	1.56	-8.0554	13.0999	15.5487	0.8715	4.9444	3.5633
N+3.00	C9	9	ENVOLVENTE	Combination	Max	3.12	-5.0228	13.0999	15.5487	0.8715	25.883	9.3901
N+3.00	C9	9	ENVOLVENTE	Combination	Min	0	-119.724	-9.1864	-18.7542	-0.826	-32.9435	-19.5023
N+3.00	C9	9	ENVOLVENTE	Combination	Min	1.56	-115.6805	-9.1864	-18.7542	-0.826	-3.7975	-5.2377
N+3.00	C9	9	ENVOLVENTE	Combination	Min	3.12	-111.637	-9.1864	-18.7542	-0.826	-19.7356	-17.3436
N+3.00	C10	10	ENVOLVENTE	Combination	Max	0	31.428	10.3149	14.7362	0.8715	25.049	19.9593
N+3.00	C10	10	ENVOLVENTE	Combination	Max	1.56	34.4606	10.3149	14.7362	0.8715	2.0666	4.0269
N+3.00	C10	10	ENVOLVENTE	Combination	Max	3.12	37.4932	10.3149	14.7362	0.8715	24.1721	16.9781
N+3.00	C10	10	ENVOLVENTE	Combination	Min	0	-63.9532	-12.4572	-16.6247	-0.826	-27.7472	-22.3271
N+3.00	C10	10	ENVOLVENTE	Combination	Min	1.56	-59.9097	-12.4572	-16.6247	-0.826	-1.8166	-2.9352
N+3.00	C10	10	ENVOLVENTE	Combination	Min	3.12	-55.8661	-12.4572	-16.6247	-0.826	-20.9745	-12.2671
N+3.00	C11	11	ENVOLVENTE	Combination	Max	0	-2.5339	13.3157	10.501	0.8715	20.7772	22.8514
N+3.00	C11	11	ENVOLVENTE	Combination	Max	1.56	0.4988	13.3157	10.501	0.8715	4.8191	2.1581

Story	Column	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	C11	11	ENVOLVENTE	Combination	Max	3.12	3.5314	13.3157	10.501	0.8715	22.3335	15.9128
N+3.00	C11	11	ENVOLVENTE	Combination	Min	0	-36.3588	-11.9085	-15.7254	-0.826	-27.0879	-21.2957
N+3.00	C11	11	ENVOLVENTE	Combination	Min	1.56	-32.3153	-11.9085	-15.7254	-0.826	-2.9742	-2.6955
N+3.00	C11	11	ENVOLVENTE	Combination	Min	3.12	-28.2718	-11.9085	-15.7254	-0.826	-12.3385	-18.7482
N+3.00	C12	2	ENVOLVENTE	Combination	Max	0	-99.5651	25.6094	30.5322	1.1655	56.5781	39.6214
N+3.00	C12	2	ENVOLVENTE	Combination	Max	1.56	-96.027	25.6094	30.5322	1.1655	8.6292	2.101
N+3.00	C12	2	ENVOLVENTE	Combination	Max	3.12	-92.4889	25.6094	30.5322	1.1655	40.2916	-1.4595
N+3.00	C12	2	ENVOLVENTE	Combination	Min	0	-187.6764	-4.785	-30.6406	-1.1046	-56.0869	-16.9019
N+3.00	C12	2	ENVOLVENTE	Combination	Min	1.56	-182.959	-4.785	-30.6406	-1.1046	-7.9606	-12.0016
N+3.00	C12	2	ENVOLVENTE	Combination	Min	3.12	-178.2415	-4.785	-30.6406	-1.1046	-39.6458	-40.8483

Table 1.1 - Element Forces - Columns (Part 2 of 2)

Element	Elem Station m	Location
50	0	
50	1.55	
50	3.1	
50	0	
50	1.55	
50	3.1	
52	0	
52	1.55	
52	3.1	
52	0	
52	1.55	
52	3.1	
53	0	
53	1.55	
53	3.1	
53	0	
53	1.55	
53	3.1	
54	0	
54	1.55	
54	3.1	
54	0	
54	1.55	
54	3.1	
55	0	
55	1.55	
55	3.1	
55	0	
55	1.55	
55	3.1	
56	0	
56	1.55	
56	3.1	
56	0	
56	1.55	

Element	Elem Station m	Location
56	3.1	
57	0	
57	1.55	
57	3.1	
57	0	
57	1.55	
57	3.1	
58	0	
58	1.55	
58	3.1	
58	0	
58	1.55	
58	3.1	
51	0	
51	1.55	
51	3.1	
51	0	
51	1.55	
51	3.1	
1	0	
1	1.56	
1	3.12	
1	0	
1	1.56	
1	3.12	
3	0	
3	1.56	
3	3.12	
3	0	
3	1.56	
3	3.12	
4	0	
4	1.56	
4	3.12	
4	0	
4	1.56	
4	3.12	
5	0	
5	1.56	
5	3.12	
5	0	
5	1.56	
5	3.12	
6	0	
6	1.56	
6	3.12	
6	0	

Element	Elem Station m	Location
6	1.56	
6	3.12	
7	0	
7	1.56	
7	3.12	
7	0	
7	1.56	
7	3.12	
8	0	
8	1.56	
8	3.12	
8	0	
8	1.56	
8	3.12	
9	0	
9	1.56	
9	3.12	
9	0	
9	1.56	
9	3.12	
10	0	
10	1.56	
10	3.12	
10	0	
10	1.56	
10	3.12	
11	0	
11	1.56	
11	3.12	
11	0	
11	1.56	
11	3.12	
2	0	
2	1.56	
2	3.12	
2	0	
2	1.56	
2	3.12	

Table 1.2 - Element Forces - Beams (Part 1 of 2)

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+6.00	B1	59	ENVOLVENTE	Combination	Max	0.15	0	1.8703	0	0.0791	0	11.1301
N+6.00	B1	59	ENVOLVENTE	Combination	Max	1.9625	0	7.8896	0	0.0791	0	3.0986
N+6.00	B1	59	ENVOLVENTE	Combination	Max	3.775	0	15.5328	0	0.0791	0	9.8779
N+6.00	B1	59	ENVOLVENTE	Combination	Min	0.15	0	-15.6248	0	-0.2545	0	-18.7217
N+6.00	B1	59	ENVOLVENTE	Combination	Min	1.9625	0	-7.5991	0	-0.2545	0	1.6988
N+6.00	B1	59	ENVOLVENTE	Combination	Min	3.775	0	-1.503	0	-0.2545	0	-18.167
N+6.00	B2	60	ENVOLVENTE	Combination	Max	0.175	0	1.0102	0	0.1469	0	9.3693

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+6.00	B2	60	ENVOLVENTE	Combination	Max	2.0125	0	7.1126	0	0.1469	0	3.4174
N+6.00	B2	60	ENVOLVENTE	Combination	Max	3.85	0	14.8486	0	0.1469	0	11.4232
N+6.00	B2	60	ENVOLVENTE	Combination	Min	0.175	0	-16.1454	0	-0.1767	0	-18.955
N+6.00	B2	60	ENVOLVENTE	Combination	Min	2.0125	0	-8.009	0	-0.1767	0	1.9064
N+6.00	B2	60	ENVOLVENTE	Combination	Min	3.85	0	-1.8118	0	-0.1767	0	-17.3344
N+6.00	B3	61	ENVOLVENTE	Combination	Max	0.175	0	2.6194	0	0.4321	0	10.6959
N+6.00	B3	61	ENVOLVENTE	Combination	Max	2.0875	0	6.3373	0	0.4321	0	2.4984
N+6.00	B3	61	ENVOLVENTE	Combination	Max	4	0	11.1876	0	0.4321	0	8.4376
N+6.00	B3	61	ENVOLVENTE	Combination	Min	0.175	0	-11.1536	0	-0.2311	0	-15.9387
N+6.00	B3	61	ENVOLVENTE	Combination	Min	2.0875	0	-6.1964	0	-0.2311	0	0.3009
N+6.00	B3	61	ENVOLVENTE	Combination	Min	4	0	-2.3851	0	-0.2311	0	-14.1768
N+6.00	B4	62	ENVOLVENTE	Combination	Max	0.15	0	3.3545	0	0.1533	0	9.4253
N+6.00	B4	62	ENVOLVENTE	Combination	Max	1.9	0	6.8859	0	0.1533	0	2.5234
N+6.00	B4	62	ENVOLVENTE	Combination	Max	3.65	0	11.4219	0	0.1533	0	11.32
N+6.00	B4	62	ENVOLVENTE	Combination	Min	0.15	0	-11.4044	0	-0.2165	0	-13.4827
N+6.00	B4	62	ENVOLVENTE	Combination	Min	1.9	0	-7.0179	0	-0.2165	0	0.5548
N+6.00	B4	62	ENVOLVENTE	Combination	Min	3.65	0	-3.6159	0	-0.2165	0	-14.9565
N+6.00	B5	63	ENVOLVENTE	Combination	Max	0.15	0	-0.5801	0	0.1506	0	7.9287
N+6.00	B5	63	ENVOLVENTE	Combination	Max	2.075	0	5.8584	0	0.1506	0	3.6353
N+6.00	B5	63	ENVOLVENTE	Combination	Max	4	0	14.3823	0	0.1506	0	5.6143
N+6.00	B5	63	ENVOLVENTE	Combination	Min	0.15	0	-13.4187	0	-0.2796	0	-15.3176
N+6.00	B5	63	ENVOLVENTE	Combination	Min	2.075	0	-5.202	0	-0.2796	0	1.6543
N+6.00	B5	63	ENVOLVENTE	Combination	Min	4	0	1.1909	0	-0.2796	0	-15.8464
N+6.00	B6	64	ENVOLVENTE	Combination	Max	0.15	0	0.2074	0	0.1718	0	6.8523
N+6.00	B6	64	ENVOLVENTE	Combination	Max	1.9	0	6.0192	0	0.1718	0	3.1901
N+6.00	B6	64	ENVOLVENTE	Combination	Max	3.65	0	13.7148	0	0.1718	0	9.0764
N+6.00	B6	64	ENVOLVENTE	Combination	Min	0.15	0	-14.1665	0	-0.2146	0	-15.0338
N+6.00	B6	64	ENVOLVENTE	Combination	Min	1.9	0	-6.6772	0	-0.2146	0	1.343
N+6.00	B6	64	ENVOLVENTE	Combination	Min	3.65	0	-0.8654	0	-0.2146	0	-15.1641
N+6.00	B8	65	ENVOLVENTE	Combination	Max	0.15	0	5.8709	0	0.209	0	12.8104
N+6.00	B8	65	ENVOLVENTE	Combination	Max	1.4	0	11.0545	0	0.209	0	2.8272
N+6.00	B8	65	ENVOLVENTE	Combination	Max	2.65	0	19.0692	0	0.209	0	9.6814
N+6.00	B8	65	ENVOLVENTE	Combination	Min	0.15	0	-18.4539	0	-0.5521	0	-17.9541
N+6.00	B8	65	ENVOLVENTE	Combination	Min	1.4	0	-10.5846	0	-0.5521	0	-0.4003
N+6.00	B8	65	ENVOLVENTE	Combination	Min	2.65	0	-5.5462	0	-0.5521	0	-16.0001
N+6.00	B9	66	ENVOLVENTE	Combination	Max	0.15	0	-5.893	0	0.1629	0	-0.1071
N+6.00	B9	66	ENVOLVENTE	Combination	Max	2.405	0	3.1756	0	0.1629	0	6.7085
N+6.00	B9	66	ENVOLVENTE	Combination	Max	4.66	0	17.3734	0	0.1629	0	2.1304
N+6.00	B9	66	ENVOLVENTE	Combination	Min	0.15	0	-17.9844	0	-0.0777	0	-17.5902
N+6.00	B9	66	ENVOLVENTE	Combination	Min	2.405	0	-3.5833	0	-0.0777	0	2.9499
N+6.00	B9	66	ENVOLVENTE	Combination	Min	4.66	0	5.5515	0	-0.0777	0	-17.8859
N+6.00	B12	67	ENVOLVENTE	Combination	Max	0.175	0	6.2411	0	0.2614	0	13.3104
N+6.00	B12	67	ENVOLVENTE	Combination	Max	1.4	0	11.9747	0	0.2614	0	3.1689
N+6.00	B12	67	ENVOLVENTE	Combination	Max	2.625	0	21.7101	0	0.2614	0	12.4987
N+6.00	B12	67	ENVOLVENTE	Combination	Min	0.175	0	-23.0344	0	-0.0635	0	-20.473
N+6.00	B12	67	ENVOLVENTE	Combination	Min	1.4	0	-12.955	0	-0.0635	0	0.5549
N+6.00	B12	67	ENVOLVENTE	Combination	Min	2.625	0	-6.8774	0	-0.0635	0	-17.2595
N+6.00	B13	68	ENVOLVENTE	Combination	Max	0.15	0	-6.2483	0	0.2773	0	2.3301
N+6.00	B13	68	ENVOLVENTE	Combination	Max	2.3946	0	4.3159	0	0.2773	0	8.2044
N+6.00	B13	68	ENVOLVENTE	Combination	Max	4.6392	0	22.7771	0	0.2773	0	0.5678
N+6.00	B13	68	ENVOLVENTE	Combination	Min	0.15	0	-22.3242	0	-0.3778	0	-22.7432
N+6.00	B13	68	ENVOLVENTE	Combination	Min	2.3946	0	-3.9241	0	-0.3778	0	3.5421
N+6.00	B13	68	ENVOLVENTE	Combination	Min	4.6392	0	6.5789	0	-0.3778	0	-22.7396
N+6.00	B14	69	ENVOLVENTE	Combination	Max	0.15	0	7.1156	0	0.2561	0	13.1614
N+6.00	B14	69	ENVOLVENTE	Combination	Max	1.3875	0	12.0295	0	0.2561	0	2.0434
N+6.00	B14	69	ENVOLVENTE	Combination	Max	2.625	0	19.7023	0	0.2561	0	12.9361
N+6.00	B14	69	ENVOLVENTE	Combination	Min	0.15	0	-19.8419	0	-0.2211	0	-18.0354
N+6.00	B14	69	ENVOLVENTE	Combination	Min	1.3875	0	-12.1145	0	-0.2211	0	1.0525
N+6.00	B14	69	ENVOLVENTE	Combination	Min	2.625	0	-7.1461	0	-0.2211	0	-17.5997

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+6.00	B15	70	ENVOLVENTE	Combination	Max	0.175	0	-4.5365	0	0.058	0	2.9575
N+6.00	B15	70	ENVOLVENTE	Combination	Max	2.4175	0	4.3887	0	0.058	0	6.0532
N+6.00	B15	70	ENVOLVENTE	Combination	Max	4.66	0	18.488	0	0.058	0	4.1643
N+6.00	B15	70	ENVOLVENTE	Combination	Min	0.175	0	-18.7273	0	-0.1785	0	-20.3393
N+6.00	B15	70	ENVOLVENTE	Combination	Min	2.4175	0	-4.6664	0	-0.1785	0	3.1299
N+6.00	B15	70	ENVOLVENTE	Combination	Min	4.66	0	4.356	0	-0.1785	0	-20.4018
N+3.00	B1	12	ENVOLVENTE	Combination	Max	0.15	0	1.8842	0	1.0891	0	24.0791
N+3.00	B1	12	ENVOLVENTE	Combination	Max	1.9625	0	17.6984	0	1.0891	0	8.7275
N+3.00	B1	12	ENVOLVENTE	Combination	Max	3.775	0	39.4867	0	1.0891	0	19.4265
N+3.00	B1	12	ENVOLVENTE	Combination	Min	0.15	0	-38.2247	0	-0.5421	0	-41.5437
N+3.00	B1	12	ENVOLVENTE	Combination	Min	1.9625	0	-15.9279	0	-0.5421	0	4.8887
N+3.00	B1	12	ENVOLVENTE	Combination	Min	3.775	0	-0.1137	0	-0.5421	0	-42.7739
N+3.00	B2	13	ENVOLVENTE	Combination	Max	0.175	0	-1.1592	0	0.5114	0	17.4597
N+3.00	B2	13	ENVOLVENTE	Combination	Max	2.0125	0	14.8731	0	0.5114	0	8.6922
N+3.00	B2	13	ENVOLVENTE	Combination	Max	3.85	0	36.0184	0	0.5114	0	24.4923
N+3.00	B2	13	ENVOLVENTE	Combination	Min	0.175	0	-41.4862	0	-1.0513	0	-46.5539
N+3.00	B2	13	ENVOLVENTE	Combination	Min	2.0125	0	-18.6367	0	-1.0513	0	4.86
N+3.00	B2	13	ENVOLVENTE	Combination	Min	3.85	0	-1.8759	0	-1.0513	0	-38.5141
N+3.00	B3	14	ENVOLVENTE	Combination	Max	0.175	0	5.6048	0	0.0871	0	20.6866
N+3.00	B3	14	ENVOLVENTE	Combination	Max	2.0875	0	11.1481	0	0.0871	0	6.6788
N+3.00	B3	14	ENVOLVENTE	Combination	Max	2.62	0	12.6915	0	0.0871	0	10.7766
N+3.00	B3	14	ENVOLVENTE	Combination	Max	2.62	0	12.8863	0	0.0871	0	7.8582
N+3.00	B3	14	ENVOLVENTE	Combination	Max	4	0	21.4768	0	0.0871	0	19.1596
N+3.00	B3	14	ENVOLVENTE	Combination	Min	0.175	0	-23.2447	0	-1.1701	0	-32.4131
N+3.00	B3	14	ENVOLVENTE	Combination	Min	2.0875	0	-14.5149	0	-1.1701	0	1.6744
N+3.00	B3	14	ENVOLVENTE	Combination	Min	2.62	0	-12.0843	0	-1.1701	0	-1.6805
N+3.00	B3	14	ENVOLVENTE	Combination	Min	2.62	0	-11.8288	0	-1.1701	0	-1.7877
N+3.00	B3	14	ENVOLVENTE	Combination	Min	4	0	-6.6976	0	-1.1701	0	-23.9708
N+3.00	B4	15	ENVOLVENTE	Combination	Max	0.15	0	5.4355	0	0.9099	0	15.1492
N+3.00	B4	15	ENVOLVENTE	Combination	Max	1.9	0	11.9424	0	0.9099	0	4.1088
N+3.00	B4	15	ENVOLVENTE	Combination	Max	3.65	0	21.9224	0	0.9099	0	23.4664
N+3.00	B4	15	ENVOLVENTE	Combination	Min	0.15	0	-26.755	0	-0.2824	0	-33.1285
N+3.00	B4	15	ENVOLVENTE	Combination	Min	1.9	0	-15.8019	0	-0.2824	0	-0.0565
N+3.00	B4	15	ENVOLVENTE	Combination	Min	3.65	0	-8.3968	0	-0.2824	0	-27.8062
N+3.00	B5	16	ENVOLVENTE	Combination	Max	0.15	0	-5.4541	0	0.9001	0	11.3682
N+3.00	B5	16	ENVOLVENTE	Combination	Max	2.075	0	11.0748	0	0.9001	0	12.0832
N+3.00	B5	16	ENVOLVENTE	Combination	Max	2.62	0	17.1102	0	0.9001	0	12.7813
N+3.00	B5	16	ENVOLVENTE	Combination	Max	2.62	0	25.2722	0	6.9136	0	13.7685
N+3.00	B5	16	ENVOLVENTE	Combination	Max	4	0	42.0373	0	6.9136	0	8.6845
N+3.00	B5	16	ENVOLVENTE	Combination	Min	0.15	0	-32.8428	0	-1.6358	0	-31.2818
N+3.00	B5	16	ENVOLVENTE	Combination	Min	2.075	0	-9.643	0	-1.6358	0	3.3066
N+3.00	B5	16	ENVOLVENTE	Combination	Min	2.62	0	-4.9633	0	-1.6358	0	-1.3528
N+3.00	B5	16	ENVOLVENTE	Combination	Min	2.62	0	-8.3235	0	-5.1663	0	-0.3719
N+3.00	B5	16	ENVOLVENTE	Combination	Min	4	0	3.5258	0	-5.1663	0	-38.4211
N+3.00	B6	17	ENVOLVENTE	Combination	Max	0.15	0	-4.9553	0	0.2454	0	8.0454
N+3.00	B6	17	ENVOLVENTE	Combination	Max	1.9	0	10.071	0	0.2454	0	7.8252
N+3.00	B6	17	ENVOLVENTE	Combination	Max	3.65	0	30.6741	0	0.2454	0	15.7362
N+3.00	B6	17	ENVOLVENTE	Combination	Min	0.15	0	-34.5695	0	-0.487	0	-34.0689
N+3.00	B6	17	ENVOLVENTE	Combination	Min	1.9	0	-13.399	0	-0.487	0	3.5692
N+3.00	B6	17	ENVOLVENTE	Combination	Min	3.65	0	2.0399	0	-0.487	0	-29.4997
N+3.00	B7	18	ENVOLVENTE	Combination	Max	0.15	0	38.4124	0	2.7463	0	22.9733
N+3.00	B7	18	ENVOLVENTE	Combination	Max	0.705	0	40.4131	0	2.7463	0	1.6848
N+3.00	B7	18	ENVOLVENTE	Combination	Max	1.26	0	43.3992	0	2.7463	0	19.7373
N+3.00	B7	18	ENVOLVENTE	Combination	Min	0.15	0	-43.8878	0	-1.0733	0	-26.4606
N+3.00	B7	18	ENVOLVENTE	Combination	Min	0.705	0	-40.9355	0	-1.0733	0	-3.12
N+3.00	B7	18	ENVOLVENTE	Combination	Min	1.26	0	-38.9686	0	-1.0733	0	-22.6448
N+3.00	B8	19	ENVOLVENTE	Combination	Max	0.15	0	-1.5544	0	0.762	0	10.7858
N+3.00	B8	19	ENVOLVENTE	Combination	Max	0.7	0	3.4253	0	0.762	0	11.7079
N+3.00	B8	19	ENVOLVENTE	Combination	Max	0.7	0	8.7309	0	0.762	0	11.7201

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	B8	19	ENVOLVENTE	Combination	Max	1.4	0	15.0687	0	0.762	0	8.9363
N+3.00	B8	19	ENVOLVENTE	Combination	Max	1.4	0	24.2857	0	0.762	0	8.9572
N+3.00	B8	19	ENVOLVENTE	Combination	Max	2.1	0	32.7361	0	0.762	0	9.394
N+3.00	B8	19	ENVOLVENTE	Combination	Max	2.1	0	42.7152	0	0.762	0	9.4283
N+3.00	B8	19	ENVOLVENTE	Combination	Max	2.65	0	49.3548	0	0.762	0	5.8646
N+3.00	B8	19	ENVOLVENTE	Combination	Min	0.15	0	-38.7906	0	-1.8351	0	-23.1001
N+3.00	B8	19	ENVOLVENTE	Combination	Min	0.7	0	-32.151	0	-1.8351	0	-5.0279
N+3.00	B8	19	ENVOLVENTE	Combination	Min	0.7	0	-22.1719	0	-1.8351	0	-5.0609
N+3.00	B8	19	ENVOLVENTE	Combination	Min	1.4	0	-13.7215	0	-1.8351	0	1.9557
N+3.00	B8	19	ENVOLVENTE	Combination	Min	1.4	0	-7.6539	0	-1.8351	0	1.9222
N+3.00	B8	19	ENVOLVENTE	Combination	Min	2.1	0	-1.3161	0	-1.8351	0	-15.3327
N+3.00	B8	19	ENVOLVENTE	Combination	Min	2.1	0	3.9895	0	-1.8351	0	-15.3408
N+3.00	B8	19	ENVOLVENTE	Combination	Min	2.65	0	8.9692	0	-1.8351	0	-40.6601
N+3.00	B9	20	ENVOLVENTE	Combination	Max	0.15	0	-21.5013	0	0.6246	0	-9.3173
N+3.00	B9	20	ENVOLVENTE	Combination	Max	2.405	0	-1.0845	0	0.6246	0	27.9374
N+3.00	B9	20	ENVOLVENTE	Combination	Max	2.405	0	8.0478	0	0.6246	0	27.4794
N+3.00	B9	20	ENVOLVENTE	Combination	Max	3.2067	0	17.7255	0	0.6246	0	27.6253
N+3.00	B9	20	ENVOLVENTE	Combination	Max	3.2067	0	28.5347	0	0.6246	0	27.5038
N+3.00	B9	20	ENVOLVENTE	Combination	Max	4.0083	0	38.2124	0	0.6246	0	12.0927
N+3.00	B9	20	ENVOLVENTE	Combination	Max	4.0083	0	48.9318	0	0.6246	0	11.9646
N+3.00	B9	20	ENVOLVENTE	Combination	Max	4.66	0	56.7987	0	0.6246	0	-2.8829
N+3.00	B9	20	ENVOLVENTE	Combination	Min	0.15	0	-48.6324	0	-0.1348	0	-52.0298
N+3.00	B9	20	ENVOLVENTE	Combination	Min	2.405	0	-21.41	0	-0.1348	0	16.1482
N+3.00	B9	20	ENVOLVENTE	Combination	Min	2.405	0	-6.3554	0	-0.1348	0	15.8109
N+3.00	B9	20	ENVOLVENTE	Combination	Min	3.2067	0	0.9029	0	-0.1348	0	6.6531
N+3.00	B9	20	ENVOLVENTE	Combination	Min	3.2067	0	6.5948	0	-0.1348	0	6.5914
N+3.00	B9	20	ENVOLVENTE	Combination	Min	4.0083	0	13.8531	0	-0.1348	0	-12.9481
N+3.00	B9	20	ENVOLVENTE	Combination	Min	4.0083	0	19.4977	0	-0.1348	0	-12.9893
N+3.00	B9	20	ENVOLVENTE	Combination	Min	4.66	0	25.3979	0	-0.1348	0	-47.2209
N+3.00	B10	21	ENVOLVENTE	Combination	Max	0.15	0	9.4822	0	1.2082	0	17.4415
N+3.00	B10	21	ENVOLVENTE	Combination	Max	1.3868	0	13.4427	0	1.2082	0	4.0062
N+3.00	B10	21	ENVOLVENTE	Combination	Max	2.6235	0	18.536	0	1.2082	0	15.9137
N+3.00	B10	21	ENVOLVENTE	Combination	Min	0.15	0	-19.5998	0	-1.9509	0	-19.4355
N+3.00	B10	21	ENVOLVENTE	Combination	Min	1.3868	0	-14.2504	0	-1.9509	0	0.6296
N+3.00	B10	21	ENVOLVENTE	Combination	Min	2.6235	0	-10.371	0	-1.9509	0	-15.7761
N+3.00	B11	22	ENVOLVENTE	Combination	Max	0.15	0	5.7248	0	3.1459	0	14.4282
N+3.00	B11	22	ENVOLVENTE	Combination	Max	1.235	0	9.4279	0	3.1459	0	6.5157
N+3.00	B11	22	ENVOLVENTE	Combination	Max	2.32	0	14.201	0	3.1459	0	8.5494
N+3.00	B11	22	ENVOLVENTE	Combination	Min	0.15	0	-20.5211	0	-5.114	0	-24.0753
N+3.00	B11	22	ENVOLVENTE	Combination	Min	1.235	0	-15.0808	0	-5.114	0	-4.913
N+3.00	B11	22	ENVOLVENTE	Combination	Min	2.32	0	-10.1709	0	-5.114	0	-6.0664
N+3.00	B12	23	ENVOLVENTE	Combination	Max	0.175	0	12.366	0	-0.0572	0	27.6901
N+3.00	B12	23	ENVOLVENTE	Combination	Max	0.7	0	13.3866	0	-0.0572	0	23.0618
N+3.00	B12	23	ENVOLVENTE	Combination	Max	0.7	0	23.5503	0	-0.0572	0	23.0481
N+3.00	B12	23	ENVOLVENTE	Combination	Max	1.4	0	24.9111	0	-0.0572	0	7.0169
N+3.00	B12	23	ENVOLVENTE	Combination	Max	1.4	0	43.2831	0	-0.0572	0	7.0336
N+3.00	B12	23	ENVOLVENTE	Combination	Max	2.1	0	45.0975	0	-0.0572	0	11.8329
N+3.00	B12	23	ENVOLVENTE	Combination	Max	2.1	0	64.2141	0	-0.0572	0	11.7842
N+3.00	B12	23	ENVOLVENTE	Combination	Max	2.625	0	65.5749	0	-0.0572	0	12.9604
N+3.00	B12	23	ENVOLVENTE	Combination	Min	0.175	0	-47.4751	0	-0.9485	0	-37.7246
N+3.00	B12	23	ENVOLVENTE	Combination	Min	0.7	0	-46.1143	0	-0.9485	0	-15.2891
N+3.00	B12	23	ENVOLVENTE	Combination	Min	0.7	0	-26.9977	0	-0.9485	0	-15.2434
N+3.00	B12	23	ENVOLVENTE	Combination	Min	1.4	0	-25.1833	0	-0.9485	0	2.3401
N+3.00	B12	23	ENVOLVENTE	Combination	Min	1.4	0	-14.2751	0	-0.9485	0	2.3166
N+3.00	B12	23	ENVOLVENTE	Combination	Min	2.1	0	-12.9143	0	-0.9485	0	-24.1235
N+3.00	B12	23	ENVOLVENTE	Combination	Min	2.1	0	-2.7506	0	-0.9485	0	-24.1123
N+3.00	B12	23	ENVOLVENTE	Combination	Min	2.625	0	-1.73	0	-0.9485	0	-58.1819
N+3.00	B13	24	ENVOLVENTE	Combination	Max	0.15	0	-27.5215	0	6.7103	0	-6.4235
N+3.00	B13	24	ENVOLVENTE	Combination	Max	0.8024	0	-26.2238	0	6.7103	0	11.106

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	B13	24	ENVOLVENTE	Combination	Max	0.8024	0	-14.9944	0	6.7195	0	11.0196
N+3.00	B13	24	ENVOLVENTE	Combination	Max	1.6047	0	-13.3982	0	6.7195	0	34.0828
N+3.00	B13	24	ENVOLVENTE	Combination	Max	1.6047	0	-2.1688	0	6.7287	0	33.8591
N+3.00	B13	24	ENVOLVENTE	Combination	Max	2.3946	0	-0.5974	0	6.7287	0	44.7914
N+3.00	B13	24	ENVOLVENTE	Combination	Max	2.4071	0	-0.5726	0	6.7287	0	45.0065
N+3.00	B13	24	ENVOLVENTE	Combination	Max	2.4071	0	25.3824	0	6.7384	0	44.5282
N+3.00	B13	24	ENVOLVENTE	Combination	Max	3.0088	0	26.9845	0	6.7384	0	32.223
N+3.00	B13	24	ENVOLVENTE	Combination	Max	3.0088	0	37.4677	0	6.7272	0	32.809
N+3.00	B13	24	ENVOLVENTE	Combination	Max	3.6106	0	39.0698	0	6.7272	0	19.7526
N+3.00	B13	24	ENVOLVENTE	Combination	Max	3.6106	0	74.6938	0	-7.1917	0	19.5987
N+3.00	B13	24	ENVOLVENTE	Combination	Max	4.2124	0	76.3049	0	-7.1917	0	-2.6372
N+3.00	B13	24	ENVOLVENTE	Combination	Max	4.2124	0	93.7722	0	-9.0607	0	-2.7159
N+3.00	B13	24	ENVOLVENTE	Combination	Max	4.6392	0	94.915	0	-9.0607	0	-19.2677
N+3.00	B13	24	ENVOLVENTE	Combination	Min	0.15	0	-73.6188	0	1.8356	0	-65.8653
N+3.00	B13	24	ENVOLVENTE	Combination	Min	0.8024	0	-71.8537	0	1.8356	0	-19.3278
N+3.00	B13	24	ENVOLVENTE	Combination	Min	0.8024	0	-49.1468	0	1.8394	0	-19.5548
N+3.00	B13	24	ENVOLVENTE	Combination	Min	1.6047	0	-46.9918	0	1.8394	0	7.3414
N+3.00	B13	24	ENVOLVENTE	Combination	Min	1.6047	0	-25.6727	0	1.8441	0	7.234
N+3.00	B13	24	ENVOLVENTE	Combination	Min	2.3946	0	-23.5511	0	1.8441	0	21.4341
N+3.00	B13	24	ENVOLVENTE	Combination	Min	2.4071	0	-23.5176	0	1.8441	0	21.6481
N+3.00	B13	24	ENVOLVENTE	Combination	Min	2.4071	0	1.0741	0	1.867	0	21.1663
N+3.00	B13	24	ENVOLVENTE	Combination	Min	3.0088	0	2.2644	0	1.867	0	12.2417
N+3.00	B13	24	ENVOLVENTE	Combination	Min	3.0088	0	7.9059	0	1.8459	0	12.5109
N+3.00	B13	24	ENVOLVENTE	Combination	Min	3.6106	0	9.0962	0	1.8459	0	-2.6497
N+3.00	B13	24	ENVOLVENTE	Combination	Min	3.6106	0	28.9805	0	-14.6308	0	-2.8882
N+3.00	B13	24	ENVOLVENTE	Combination	Min	4.2124	0	30.1709	0	-14.6308	0	-43.315
N+3.00	B13	24	ENVOLVENTE	Combination	Min	4.2124	0	38.3579	0	-20.186	0	-43.4141
N+3.00	B13	24	ENVOLVENTE	Combination	Min	4.6392	0	39.2022	0	-20.186	0	-82.2263
N+3.00	B14	25	ENVOLVENTE	Combination	Max	0.15	0	12.7959	0	1.1488	0	29.7345
N+3.00	B14	25	ENVOLVENTE	Combination	Max	0.7	0	17.7756	0	1.1488	0	22.9857
N+3.00	B14	25	ENVOLVENTE	Combination	Max	0.7	0	22.6337	0	1.1488	0	22.9906
N+3.00	B14	25	ENVOLVENTE	Combination	Max	1.3875	0	29.2824	0	1.1488	0	6.1406
N+3.00	B14	25	ENVOLVENTE	Combination	Max	1.4	0	29.4333	0	1.1488	0	6.1093
N+3.00	B14	25	ENVOLVENTE	Combination	Max	1.4	0	38.5708	0	1.1488	0	6.1033
N+3.00	B14	25	ENVOLVENTE	Combination	Max	2.1	0	47.0212	0	1.1488	0	15.1266
N+3.00	B14	25	ENVOLVENTE	Combination	Max	2.1	0	56.1586	0	1.1488	0	15.1413
N+3.00	B14	25	ENVOLVENTE	Combination	Max	2.625	0	62.4964	0	1.1488	0	18.2567
N+3.00	B14	25	ENVOLVENTE	Combination	Min	0.15	0	-48.1305	0	-0.395	0	-38.5461
N+3.00	B14	25	ENVOLVENTE	Combination	Min	0.7	0	-41.4909	0	-0.395	0	-15.5585
N+3.00	B14	25	ENVOLVENTE	Combination	Min	0.7	0	-32.3534	0	-0.395	0	-15.5746
N+3.00	B14	25	ENVOLVENTE	Combination	Min	1.3875	0	-24.4779	0	-0.395	0	3.3937
N+3.00	B14	25	ENVOLVENTE	Combination	Min	1.4	0	-24.3647	0	-0.395	0	3.2685
N+3.00	B14	25	ENVOLVENTE	Combination	Min	1.4	0	-19.5066	0	-0.395	0	3.2729
N+3.00	B14	25	ENVOLVENTE	Combination	Min	2.1	0	-13.1688	0	-0.395	0	-24.6105
N+3.00	B14	25	ENVOLVENTE	Combination	Min	2.1	0	-8.3107	0	-0.395	0	-24.614
N+3.00	B14	25	ENVOLVENTE	Combination	Min	2.625	0	-3.5574	0	-0.395	0	-55.761
N+3.00	B15	26	ENVOLVENTE	Combination	Max	0.175	0	-28.8507	0	0.1451	0	-8.7217
N+3.00	B15	26	ENVOLVENTE	Combination	Max	0.6013	0	-24.9914	0	0.1451	0	2.7534
N+3.00	B15	26	ENVOLVENTE	Combination	Max	0.6013	0	-20.6164	0	0.1451	0	2.7794
N+3.00	B15	26	ENVOLVENTE	Combination	Max	1.2025	0	-15.1727	0	0.1451	0	15.0148
N+3.00	B15	26	ENVOLVENTE	Combination	Max	1.2025	0	-9.5217	0	0.1451	0	15.6094
N+3.00	B15	26	ENVOLVENTE	Combination	Max	1.8038	0	-4.0779	0	0.1451	0	25.3769
N+3.00	B15	26	ENVOLVENTE	Combination	Max	1.8038	0	0.3543	0	0.1451	0	25.4371
N+3.00	B15	26	ENVOLVENTE	Combination	Max	2.405	0	5.798	0	0.1451	0	29.281
N+3.00	B15	26	ENVOLVENTE	Combination	Max	2.405	0	12.2755	0	0.1451	0	29.2603
N+3.00	B15	26	ENVOLVENTE	Combination	Max	2.4175	0	12.4264	0	0.1451	0	29.2176
N+3.00	B15	26	ENVOLVENTE	Combination	Max	3.2067	0	21.9532	0	0.1451	0	29.2195
N+3.00	B15	26	ENVOLVENTE	Combination	Max	3.2067	0	32.5381	0	0.1451	0	29.108
N+3.00	B15	26	ENVOLVENTE	Combination	Max	4.0083	0	42.2158	0	0.1451	0	14.9964

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	B15	26	ENVOLVENTE	Combination	Max	4.0083	0	52.8904	0	0.1451	0	14.9634
N+3.00	B15	26	ENVOLVENTE	Combination	Max	4.66	0	60.7573	0	0.1451	0	1.7473
N+3.00	B15	26	ENVOLVENTE	Combination	Min	0.175	0	-69.4337	0	-0.8686	0	-66.4936
N+3.00	B15	26	ENVOLVENTE	Combination	Min	0.6013	0	-64.288	0	-0.8686	0	-37.9942
N+3.00	B15	26	ENVOLVENTE	Combination	Min	0.6013	0	-56.1549	0	-0.8686	0	-37.8812
N+3.00	B15	26	ENVOLVENTE	Combination	Min	1.2025	0	-48.8966	0	-0.8686	0	-7.7764
N+3.00	B15	26	ENVOLVENTE	Combination	Min	1.2025	0	-39.0471	0	-0.8686	0	-7.552
N+3.00	B15	26	ENVOLVENTE	Combination	Min	1.8038	0	-31.7888	0	-0.8686	0	8.064
N+3.00	B15	26	ENVOLVENTE	Combination	Min	1.8038	0	-23.5493	0	-0.8686	0	8.0694
N+3.00	B15	26	ENVOLVENTE	Combination	Min	2.405	0	-16.291	0	-0.8686	0	16.0304
N+3.00	B15	26	ENVOLVENTE	Combination	Min	2.405	0	-8.3809	0	-0.8686	0	16.0301
N+3.00	B15	26	ENVOLVENTE	Combination	Min	2.4175	0	-8.2678	0	-0.8686	0	15.8945
N+3.00	B15	26	ENVOLVENTE	Combination	Min	3.2067	0	-1.1227	0	-0.8686	0	4.4694
N+3.00	B15	26	ENVOLVENTE	Combination	Min	3.2067	0	4.4511	0	-0.8686	0	4.4327
N+3.00	B15	26	ENVOLVENTE	Combination	Min	4.0083	0	11.7094	0	-0.8686	0	-17.8972
N+3.00	B15	26	ENVOLVENTE	Combination	Min	4.0083	0	17.3304	0	-0.8686	0	-18.0086
N+3.00	B15	26	ENVOLVENTE	Combination	Min	4.66	0	23.2306	0	-0.8686	0	-55.0388
N+3.00	B16	28	ENVOLVENTE	Combination	Max	0	0	-8.631	0	0.7108	0	0
N+3.00	B16	28	ENVOLVENTE	Combination	Max	2.025	0	-3.137	0	0.7108	0	24.6051
N+3.00	B16	28	ENVOLVENTE	Combination	Max	3	0	-0.4918	0	0.7108	0	29.2856
N+3.00	B16	28	ENVOLVENTE	Combination	Max	3	0	18.7122	0	0.7108	0	23.4813
N+3.00	B16	28	ENVOLVENTE	Combination	Max	4.05	0	25.9694	0	0.7108	0	0
N+3.00	B16	28	ENVOLVENTE	Combination	Min	0	0	-17.112	0	-0.0432	0	0
N+3.00	B16	28	ENVOLVENTE	Combination	Min	2.025	0	-7.1893	0	-0.0432	0	11.9151
N+3.00	B16	28	ENVOLVENTE	Combination	Min	3	0	-2.4117	0	-0.0432	0	13.6841
N+3.00	B16	28	ENVOLVENTE	Combination	Min	3	0	9.4574	0	-0.0432	0	11.8775
N+3.00	B16	28	ENVOLVENTE	Combination	Min	4.05	0	13.1487	0	-0.0432	0	0
N+3.00	B20	30	ENVOLVENTE	Combination	Max	0	0	0.303	0	0	0	1.3278
N+3.00	B20	30	ENVOLVENTE	Combination	Max	0.38	0	1.6973	0	0	0	0.9559
N+3.00	B20	30	ENVOLVENTE	Combination	Max	0.38	0	21.8807	0	0	0	7.1662
N+3.00	B20	30	ENVOLVENTE	Combination	Max	0.74	0	23.9825	0	0	0	0.4644
N+3.00	B20	30	ENVOLVENTE	Combination	Max	1.48	0	28.277	0	0	0	-9.1552
N+3.00	B20	30	ENVOLVENTE	Combination	Min	0	0	0.1948	0	0	0	0.5908
N+3.00	B20	30	ENVOLVENTE	Combination	Min	0.38	0	0.9988	0	0	0	0.364
N+3.00	B20	30	ENVOLVENTE	Combination	Min	0.38	0	10.8566	0	0	0	1.8423
N+3.00	B20	30	ENVOLVENTE	Combination	Min	0.74	0	11.9134	0	0	0	-2.8555
N+3.00	B20	30	ENVOLVENTE	Combination	Min	1.48	0	14.0755	0	0	0	-20.8405
N+3.00	B21	31	ENVOLVENTE	Combination	Max	0	0	-5.6408	0	0.7674	0	0
N+3.00	B21	31	ENVOLVENTE	Combination	Max	1.925	0	-2.218E-05	0	0.7674	0	10.8169
N+3.00	B21	31	ENVOLVENTE	Combination	Max	3.85	0	11.2384	0	0.7674	0	0
N+3.00	B21	31	ENVOLVENTE	Combination	Min	0	0	-11.2128	0	0.2201	0	0
N+3.00	B21	31	ENVOLVENTE	Combination	Min	1.925	0	-0.0001	0	0.2201	0	5.4391
N+3.00	B21	31	ENVOLVENTE	Combination	Min	3.85	0	5.651	0	0.2201	0	0
N+3.00	B19	27	ENVOLVENTE	Combination	Max	0	0	-5.6919	0	0.1603	0	0
N+3.00	B19	27	ENVOLVENTE	Combination	Max	2.0083	0	0.0001	0	0.1603	0	12.7941
N+3.00	B19	27	ENVOLVENTE	Combination	Max	4.0167	0	12.6957	0	0.1603	0	0
N+3.00	B19	27	ENVOLVENTE	Combination	Min	0	0	-12.7411	0	0.0362	0	0
N+3.00	B19	27	ENVOLVENTE	Combination	Min	2.0083	0	0.0001	0	0.0362	0	5.7155
N+3.00	B19	27	ENVOLVENTE	Combination	Min	4.0167	0	5.6737	0	0.0362	0	0
N+3.00	B23	29	ENVOLVENTE	Combination	Max	0	0	-5.6446	0	0.1623	0	0
N+3.00	B23	29	ENVOLVENTE	Combination	Max	1.9917	0	0.0001	0	0.1623	0	12.5826
N+3.00	B23	29	ENVOLVENTE	Combination	Max	3.9833	0	12.59	0	0.1623	0	0
N+3.00	B23	29	ENVOLVENTE	Combination	Min	0	0	-12.6354	0	0.0363	0	0
N+3.00	B23	29	ENVOLVENTE	Combination	Min	1.9917	0	0.0001	0	0.0363	0	5.6211
N+3.00	B23	29	ENVOLVENTE	Combination	Min	3.9833	0	5.6265	0	0.0363	0	0
N+3.00	B24	33	ENVOLVENTE	Combination	Max	0	0	-5.6029	0	-0.0247	0	0
N+3.00	B24	33	ENVOLVENTE	Combination	Max	1.9833	0	-0.0001	0	-0.0247	0	12.4775
N+3.00	B24	33	ENVOLVENTE	Combination	Max	3.9667	0	12.5825	0	-0.0247	0	0

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	B24	33	ENVOLVENTE	Combination	Min	0	0	-12.5371	0	-0.1365	0	0
N+3.00	B24	33	ENVOLVENTE	Combination	Min	1.9833	0	-0.0001	0	-0.1365	0	5.5741
N+3.00	B24	33	ENVOLVENTE	Combination	Min	3.9667	0	5.621	0	-0.1365	0	0
N+3.00	B25	34	ENVOLVENTE	Combination	Max	0	0	-5.5557	0	-0.0367	0	0
N+3.00	B25	34	ENVOLVENTE	Combination	Max	1.9667	0	-0.0001	0	-0.0367	0	12.2687
N+3.00	B25	34	ENVOLVENTE	Combination	Max	3.9333	0	12.4768	0	-0.0367	0	0
N+3.00	B25	34	ENVOLVENTE	Combination	Min	0	0	-12.4314	0	-0.1279	0	0
N+3.00	B25	34	ENVOLVENTE	Combination	Min	1.9667	0	-0.0001	0	-0.1279	0	5.4808
N+3.00	B25	34	ENVOLVENTE	Combination	Min	3.9333	0	5.5738	0	-0.1279	0	0
N+3.00	B26	35	ENVOLVENTE	Combination	Max	0	0	-4.9835	0	0.0002	0	0
N+3.00	B26	35	ENVOLVENTE	Combination	Max	1.95	0	-2.19E-05	0	0.0002	0	10.7594
N+3.00	B26	35	ENVOLVENTE	Combination	Max	3.9	0	11.0353	0	0.0002	0	0
N+3.00	B26	35	ENVOLVENTE	Combination	Min	0	0	-11.0097	0	-0.0342	0	0
N+3.00	B26	35	ENVOLVENTE	Combination	Min	1.95	0	-0.0001	0	-0.0342	0	4.8688
N+3.00	B26	35	ENVOLVENTE	Combination	Min	3.9	0	4.9937	0	-0.0342	0	0
N+3.00	B29	37	ENVOLVENTE	Combination	Max	0	0	-4.422	0	0.0686	0	0
N+3.00	B29	37	ENVOLVENTE	Combination	Max	1.9375	0	-2.204E-05	0	0.0686	0	9.3361
N+3.00	B29	37	ENVOLVENTE	Combination	Max	3.875	0	9.6374	0	0.0686	0	0
N+3.00	B29	37	ENVOLVENTE	Combination	Min	0	0	-9.6118	0	0.0055	0	0
N+3.00	B29	37	ENVOLVENTE	Combination	Min	1.9375	0	-0.0001	0	0.0055	0	4.2937
N+3.00	B29	37	ENVOLVENTE	Combination	Min	3.875	0	4.4322	0	0.0055	0	0
N+3.00	B18	32	ENVOLVENTE	Combination	Max	0	0	-9.8578	0	6.2279	0	0
N+3.00	B18	32	ENVOLVENTE	Combination	Max	0.6013	0	-0.2041	0	6.2279	0	6.3281
N+3.00	B18	32	ENVOLVENTE	Combination	Max	0.6013	0	1.8069	0	6.2279	0	6.8936
N+3.00	B18	32	ENVOLVENTE	Combination	Max	1.2025	0	21.1239	0	6.2279	0	0
N+3.00	B18	32	ENVOLVENTE	Combination	Min	0	0	-20.1834	0	1.4782	0	0
N+3.00	B18	32	ENVOLVENTE	Combination	Min	0.6013	0	-0.9565	0	1.4782	0	3.0249
N+3.00	B18	32	ENVOLVENTE	Combination	Min	0.6013	0	0.6082	0	1.4782	0	3.2678
N+3.00	B18	32	ENVOLVENTE	Combination	Min	1.2025	0	10.2618	0	1.4782	0	0
N+3.00	B28	36	ENVOLVENTE	Combination	Max	0	0	-1.2295	0	0.0079	0	0
N+3.00	B28	36	ENVOLVENTE	Combination	Max	0.5375	0	0.0002	0	0.0079	0	0.7184
N+3.00	B28	36	ENVOLVENTE	Combination	Max	1.075	0	2.6481	0	0.0079	0	0
N+3.00	B28	36	ENVOLVENTE	Combination	Min	0	0	-2.6734	0	-0.7137	0	0
N+3.00	B28	36	ENVOLVENTE	Combination	Min	0.5375	0	0.0001	0	-0.7137	0	0.3304
N+3.00	B28	36	ENVOLVENTE	Combination	Min	1.075	0	1.2194	0	-0.7137	0	0
N+3.00	B34	40	ENVOLVENTE	Combination	Max	0	0	0.6061	0	0	0	1.6343
N+3.00	B34	40	ENVOLVENTE	Combination	Max	0.7525	0	4.2625	0	0	0	0.3667
N+3.00	B34	40	ENVOLVENTE	Combination	Max	1.505	0	7.9799	0	0	0	-1.8695
N+3.00	B34	40	ENVOLVENTE	Combination	Min	0	0	0.3896	0	0	0	-0.4836
N+3.00	B34	40	ENVOLVENTE	Combination	Min	0.7525	0	2.111	0	0	0	-1.7471
N+3.00	B34	40	ENVOLVENTE	Combination	Min	1.505	0	3.8222	0	0	0	-5.7499
N+3.00	B35	41	ENVOLVENTE	Combination	Max	0	0	-4.3648	0	0.1243	0	0
N+3.00	B35	41	ENVOLVENTE	Combination	Max	1.9125	0	-2.233E-05	0	0.1243	0	9.0967
N+3.00	B35	41	ENVOLVENTE	Combination	Max	3.825	0	9.513	0	0.1243	0	0
N+3.00	B35	41	ENVOLVENTE	Combination	Min	0	0	-9.4874	0	0.0225	0	0
N+3.00	B35	41	ENVOLVENTE	Combination	Min	1.9125	0	-0.0001	0	0.0225	0	4.1836
N+3.00	B35	41	ENVOLVENTE	Combination	Min	3.825	0	4.375	0	0.0225	0	0
N+3.00	B39	45	ENVOLVENTE	Combination	Max	0	0	-4.8581	0	0.0049	0	0
N+3.00	B39	45	ENVOLVENTE	Combination	Max	1.9	0	0	0	0.0049	0	10.1968
N+3.00	B39	45	ENVOLVENTE	Combination	Max	3.8	0	10.7335	0	0.0049	0	0
N+3.00	B39	45	ENVOLVENTE	Combination	Min	0	0	-10.7335	0	-0.0161	0	0
N+3.00	B39	45	ENVOLVENTE	Combination	Min	1.9	0	0	0	-0.0161	0	4.6152
N+3.00	B39	45	ENVOLVENTE	Combination	Min	3.8	0	4.8581	0	-0.0161	0	0
N+3.00	B40	46	ENVOLVENTE	Combination	Max	0	0	-4.8581	0	0.0139	0	0
N+3.00	B40	46	ENVOLVENTE	Combination	Max	1.9	0	0	0	0.0139	0	10.1968
N+3.00	B40	46	ENVOLVENTE	Combination	Max	3.8	0	10.7335	0	0.0139	0	0
N+3.00	B40	46	ENVOLVENTE	Combination	Min	0	0	-10.7335	0	-0.0203	0	0

Story	Beam	Unique Name	Output Case	Case Type	Step Type	Station m	P kN	V2 kN	V3 kN	T kN-m	M2 kN-m	M3 kN-m
N+3.00	B40	46	ENVOLVENTE	Combination	Min	1.9	0	0	0	-0.0203	0	4.6152
N+3.00	B40	46	ENVOLVENTE	Combination	Min	3.8	0	4.8581	0	-0.0203	0	0
N+3.00	B41	47	ENVOLVENTE	Combination	Max	0	0	-4.8581	0	0.0148	0	0
N+3.00	B41	47	ENVOLVENTE	Combination	Max	1.9	0	0	0	0.0148	0	10.1968
N+3.00	B41	47	ENVOLVENTE	Combination	Max	3.8	0	10.7335	0	0.0148	0	0
N+3.00	B41	47	ENVOLVENTE	Combination	Min	0	0	-10.7335	0	-0.0036	0	0
N+3.00	B41	47	ENVOLVENTE	Combination	Min	1.9	0	0	0	-0.0036	0	4.6152
N+3.00	B41	47	ENVOLVENTE	Combination	Min	3.8	0	4.8581	0	-0.0036	0	0
N+3.00	B42	42	ENVOLVENTE	Combination	Max	0	0	-5.3056	0	0.0352	0	0
N+3.00	B42	42	ENVOLVENTE	Combination	Max	2.075	0	0	0	0.0352	0	12.1617
N+3.00	B42	42	ENVOLVENTE	Combination	Max	4.15	0	11.7221	0	0.0352	0	0
N+3.00	B42	42	ENVOLVENTE	Combination	Min	0	0	-11.7221	0	-0.0143	0	0
N+3.00	B42	42	ENVOLVENTE	Combination	Min	2.075	0	0	0	-0.0143	0	5.5045
N+3.00	B42	42	ENVOLVENTE	Combination	Min	4.15	0	5.3056	0	-0.0143	0	0
N+3.00	B43	43	ENVOLVENTE	Combination	Max	0	0	-5.3056	0	0.045	0	0
N+3.00	B43	43	ENVOLVENTE	Combination	Max	2.075	0	0	0	0.045	0	12.1617
N+3.00	B43	43	ENVOLVENTE	Combination	Max	4.15	0	11.7221	0	0.045	0	0
N+3.00	B43	43	ENVOLVENTE	Combination	Min	0	0	-11.7221	0	-0.0323	0	0
N+3.00	B43	43	ENVOLVENTE	Combination	Min	2.075	0	0	0	-0.0323	0	5.5045
N+3.00	B43	43	ENVOLVENTE	Combination	Min	4.15	0	5.3056	0	-0.0323	0	0
N+3.00	B44	44	ENVOLVENTE	Combination	Max	0	0	-5.3056	0	0.0132	0	0
N+3.00	B44	44	ENVOLVENTE	Combination	Max	2.075	0	0	0	0.0132	0	12.1617
N+3.00	B44	44	ENVOLVENTE	Combination	Max	4.15	0	11.7221	0	0.0132	0	0
N+3.00	B44	44	ENVOLVENTE	Combination	Min	0	0	-11.7221	0	-0.0395	0	0
N+3.00	B44	44	ENVOLVENTE	Combination	Min	2.075	0	0	0	-0.0395	0	5.5045
N+3.00	B44	44	ENVOLVENTE	Combination	Min	4.15	0	5.3056	0	-0.0395	0	0
N+3.00	B45	48	ENVOLVENTE	Combination	Max	0	0	-0.1948	0	-0.1072	0	0
N+3.00	B45	48	ENVOLVENTE	Combination	Max	0.3006	0	0	0	-0.1072	0	0.0455
N+3.00	B45	48	ENVOLVENTE	Combination	Max	0.6013	0	0.303	0	-0.1072	0	0
N+3.00	B45	48	ENVOLVENTE	Combination	Min	0	0	-0.303	0	-2.9184	0	0
N+3.00	B45	48	ENVOLVENTE	Combination	Min	0.3006	0	0	0	-2.9184	0	0.0293
N+3.00	B45	48	ENVOLVENTE	Combination	Min	0.6013	0	0.1948	0	-2.9184	0	0
N+3.00	B46	49	ENVOLVENTE	Combination	Max	0	0	-0.1948	0	-0.5908	0	0
N+3.00	B46	49	ENVOLVENTE	Combination	Max	0.3006	0	0	0	-0.5908	0	0.0455
N+3.00	B46	49	ENVOLVENTE	Combination	Max	0.6013	0	0.303	0	-0.5908	0	0
N+3.00	B46	49	ENVOLVENTE	Combination	Min	0	0	-0.303	0	-1.3278	0	0
N+3.00	B46	49	ENVOLVENTE	Combination	Min	0.3006	0	0	0	-1.3278	0	0.0293
N+3.00	B46	49	ENVOLVENTE	Combination	Min	0.6013	0	0.1948	0	-1.3278	0	0

Table 1.2 - Element Forces - Beams (Part 2 of 2)

Element	Elem Station m	Location
59	0.15	
59	1.9625	
59	3.775	
59	0.15	
59	1.9625	
59	3.775	
60	0.175	
60	2.0125	
60	3.85	
60	0.175	
60	2.0125	
60	3.85	
61	0.175	
61	2.0875	
61	4	
61	0.175	

Element	Elem Station m	Location
61	2.0875	
61	4	
62	0.15	
62	1.9	
62	3.65	
62	0.15	
62	1.9	
62	3.65	
63	0.15	
63	2.075	
63	4	
63	0.15	
63	2.075	
63	4	
64	0.15	
64	1.9	
64	3.65	
64	0.15	
64	1.9	
64	3.65	
65	0.15	
65	1.4	
65	2.65	
65	0.15	
65	1.4	
65	2.65	
66	0.15	
66	2.405	
66	4.66	
66	0.15	
66	2.405	
66	4.66	
67	0.175	
67	1.4	
67	2.625	
67	0.175	
67	1.4	
67	2.625	
68	0.15	
68	2.3946	
68	4.6392	
68	0.15	
68	2.3946	
68	4.6392	
69	0.15	
69	1.3875	
69	2.625	
69	0.15	
69	1.3875	
69	2.625	
70	0.175	
70	2.4175	
70	4.66	
70	0.175	
70	2.4175	
70	4.66	
12	0.15	
12	1.9625	

Element	Elem Station m	Location
12	3.775	
12	0.15	
12	1.9625	
12	3.775	
13	0.175	
13	2.0125	
13	3.85	
13	0.175	
13	2.0125	
13	3.85	
14-1	0.175	
14-1	2.0875	
14-1	2.62	
14-2	0	
14-2	1.38	
14-1	0.175	
14-1	2.0875	
14-1	2.62	
14-2	0	
14-2	1.38	
15	0.15	
15	1.9	
15	3.65	
15	0.15	
15	1.9	
15	3.65	
16-1	0.15	
16-1	2.075	
16-1	2.62	
16-2	0	
16-2	1.38	
16-1	0.15	
16-1	2.075	
16-1	2.62	
16-2	0	
16-2	1.38	
17	0.15	
17	1.9	
17	3.65	
17	0.15	
17	1.9	
17	3.65	
18	0.15	
18	0.705	
18	1.26	
18	0.15	
18	0.705	
18	1.26	
19-1	0.15	
19-1	0.7	
19-2	0	
19-2	0.7	
19-3	0	
19-3	0.7	
19-4	0	
19-4	0.55	
19-1	0.15	
19-1	0.7	

Element	Elem Station m	Location
19-2	0	
19-2	0.7	
19-3	0	
19-3	0.7	
19-4	0	
19-4	0.55	
20-1	0.15	
20-1	2.405	
20-2	0	
20-2	0.8017	
20-3	0	
20-3	0.8017	
20-4	0	
20-4	0.6517	
20-1	0.15	
20-1	2.405	
20-2	0	
20-2	0.8017	
20-3	0	
20-3	0.8017	
20-4	0	
20-4	0.6517	
21	0.15	
21	1.3868	
21	2.6235	
21	0.15	
21	1.3868	
21	2.6235	
22	0.15	
22	1.235	
22	2.32	
22	0.15	
22	1.235	
22	2.32	
23-1	0.175	
23-1	0.7	
23-2	0	
23-2	0.7	
23-3	0	
23-3	0.7	
23-4	0	
23-4	0.525	
23-1	0.175	
23-1	0.7	
23-2	0	
23-2	0.7	
23-3	0	
23-3	0.7	
23-4	0	
23-4	0.525	
24-1	0.15	
24-1	0.8024	
24-2	0	
24-2	0.8024	
24-3	0	
24-3	0.7899	
24-3	0.8024	
24-4	0	

Element	Elem Station m	Location
24-4	0.6018	
24-5	0	
24-5	0.6018	
24-6	0	
24-6	0.6018	
24-7	0	
24-7	0.4268	
24-1	0.15	
24-1	0.8024	
24-2	0	
24-2	0.8024	
24-3	0	
24-3	0.7899	
24-3	0.8024	
24-4	0	
24-4	0.6018	
24-5	0	
24-5	0.6018	
24-6	0	
24-6	0.6018	
24-7	0	
24-7	0.4268	
25-1	0.15	
25-1	0.7	
25-2	0	
25-2	0.6875	
25-2	0.7	
25-3	0	
25-3	0.7	
25-4	0	
25-4	0.525	
25-1	0.15	
25-1	0.7	
25-2	0	
25-2	0.6875	
25-2	0.7	
25-3	0	
25-3	0.7	
25-4	0	
25-4	0.525	
26-1	0.175	
26-1	0.6013	
26-2	0	
26-2	0.6013	
26-3	0	
26-3	0.6013	
26-4	0	
26-4	0.6013	
26-5	0	
26-5	0.0125	
26-5	0.8017	
26-6	0	
26-6	0.8017	
26-7	0	
26-7	0.6517	
26-1	0.175	
26-1	0.6013	
26-2	0	

Element	Elem Station m	Location
26-2	0.6013	
26-3	0	
26-3	0.6013	
26-4	0	
26-4	0.6013	
26-5	0	
26-5	0.0125	
26-5	0.8017	
26-6	0	
26-6	0.8017	
26-7	0	
26-7	0.6517	
28-1	0	
28-1	2.025	
28-1	3	
28-2	0	
28-2	1.05	
28-1	0	
28-1	2.025	
28-1	3	
28-2	0	
28-2	1.05	
30-1	0	
30-1	0.38	
30-2	0	
30-2	0.36	
30-2	1.1	
30-1	0	
30-1	0.38	
30-2	0	
30-2	0.36	
30-2	1.1	
31	0	
31	1.925	
31	3.85	
31	0	
31	1.925	
31	3.85	
27	0	
27	2.0083	
27	4.0167	
27	0	
27	2.0083	
27	4.0167	
29	0	
29	1.9917	
29	3.9833	
29	0	
29	1.9917	
29	3.9833	
33	0	
33	1.9833	
33	3.9667	
33	0	
33	1.9833	
33	3.9667	
34	0	
34	1.9667	

Element	Elem Station m	Location
34	3.9333	
34	0	
34	1.9667	
34	3.9333	
35	0	
35	1.95	
35	3.9	
35	0	
35	1.95	
35	3.9	
37	0	
37	1.9375	
37	3.875	
37	0	
37	1.9375	
37	3.875	
32-1	0	
32-1	0.6013	
32-2	0	
32-2	0.6012	
32-1	0	
32-1	0.6013	
32-2	0	
32-2	0.6012	
36	0	
36	0.5375	
36	1.075	
36	0	
36	0.5375	
36	1.075	
40	0	
40	0.7525	
40	1.505	
40	0	
40	0.7525	
40	1.505	
41	0	
41	1.9125	
41	3.825	
41	0	
41	1.9125	
41	3.825	
45	0	
45	1.9	
45	3.8	
45	0	
45	1.9	
45	3.8	
46	0	
46	1.9	
46	3.8	
46	0	
46	1.9	
46	3.8	
47	0	
47	1.9	
47	3.8	
47	0	

Element	Elem Station m	Location
47	1.9	
47	3.8	
42	0	
42	2.075	
42	4.15	
42	0	
42	2.075	
42	4.15	
43	0	
43	2.075	
43	4.15	
43	0	
43	2.075	
43	4.15	
44	0	
44	2.075	
44	4.15	
44	0	
44	2.075	
44	4.15	
48	0	
48	0.3006	
48	0.6013	
48	0	
48	0.3006	
48	0.6013	
49	0	
49	0.3006	
49	0.6013	
49	0	
49	0.3006	
49	0.6013	

1 Analysis Results

This chapter provides analysis results.

1.1 Structure Results

Table 1.1 - Diaphragm Center Of Mass Displacements

Story	Diaphragm	Output Case	Case Type	UX m	UY m	RZ rad	Point	X m	Y m	Z m
N+6.00	D2	DER1	Combination	0.046423	-0.000855	-0.002004	3	3.993	5.9979	6.82
N+6.00	D2	DER2	Combination	-0.046753	0.0002	0.002068	3	3.993	5.9979	6.82
N+6.00	D2	DER3	Combination	-0.000969	0.03996	0.001317	3	3.993	5.9979	6.82
N+6.00	D2	DER4	Combination	0.00064	-0.040616	-0.001253	3	3.993	5.9979	6.82
N+6.00	D2	DER5	Combination	0.046498	-0.000715	-0.002017	3	3.993	5.9979	6.82
N+6.00	D2	DER6	Combination	-0.046677	0.00034	0.002055	3	3.993	5.9979	6.82
N+6.00	D2	DER7	Combination	-0.000894	0.0401	0.001304	3	3.993	5.9979	6.82
N+6.00	D2	DER8	Combination	0.000715	-0.040475	-0.001266	3	3.993	5.9979	6.82
N+3.00	D1	DER1	Combination	0.025144	-0.000395	-0.001368	26	3.9315	5.8511	3.42
N+3.00	D1	DER2	Combination	-0.02529	0.000117	0.001391	26	3.9315	5.8511	3.42
N+3.00	D1	DER3	Combination	-0.000506	0.021919	0.000837	26	3.9315	5.8511	3.42
N+3.00	D1	DER4	Combination	0.00036	-0.022197	-0.000814	26	3.9315	5.8511	3.42
N+3.00	D1	DER5	Combination	0.025178	-0.000332	-0.001373	26	3.9315	5.8511	3.42
N+3.00	D1	DER6	Combination	-0.025257	0.00018	0.001386	26	3.9315	5.8511	3.42
N+3.00	D1	DER7	Combination	-0.000472	0.021982	0.000832	26	3.9315	5.8511	3.42
N+3.00	D1	DER8	Combination	0.000393	-0.022133	-0.000819	26	3.9315	5.8511	3.42

Table 1.2 - Diaphragm Max Over Avg Drifts

Story	Output Case	Case Type	Item	Max Drift	Avg Drift	Ratio	Label	Max Loc X m	Max Loc Y m	Max Loc Z m
N+6.00	DER1	Combination	Diaph D2 X	0.006935	0.006223	1.114	3	7.95	9.93	6.82
N+6.00	DER2	Combination	Diaph D2 X	0.007036	0.006278	1.121	3	7.95	9.93	6.82
N+6.00	DER3	Combination	Diaph D2 Y	0.00585	0.005289	1.106	9	7.95	2.32	6.82
N+6.00	DER4	Combination	Diaph D2 Y	0.005914	0.0054	1.095	9	7.95	2.32	6.82
N+6.00	DER5	Combination	Diaph D2 X	0.006957	0.006235	1.116	3	7.95	9.93	6.82
N+6.00	DER6	Combination	Diaph D2 X	0.007014	0.006265	1.12	3	7.95	9.93	6.82
N+6.00	DER7	Combination	Diaph D2 Y	0.005863	0.005311	1.104	9	7.95	2.32	6.82
N+6.00	DER8	Combination	Diaph D2 Y	0.0059	0.005377	1.097	9	7.95	2.32	6.82
N+3.00	DER1	Combination	Diaph D1 X	0.008983	0.006998	1.284	3	7.95	9.93	3.42
N+3.00	DER2	Combination	Diaph D1 X	0.009054	0.007034	1.287	3	7.95	9.93	3.42
N+3.00	DER3	Combination	Diaph D1 Y	0.007393	0.00642	1.152	9	7.95	2.32	3.42
N+3.00	DER4	Combination	Diaph D1 Y	0.007447	0.006501	1.146	9	7.95	2.32	3.42
N+3.00	DER5	Combination	Diaph D1 X	0.008999	0.007006	1.284	3	7.95	9.93	3.42
N+3.00	DER6	Combination	Diaph D1 X	0.009038	0.007026	1.286	3	7.95	9.93	3.42
N+3.00	DER7	Combination	Diaph D1 Y	0.007405	0.006438	1.15	9	7.95	2.32	3.42
N+3.00	DER8	Combination	Diaph D1 Y	0.007434	0.006482	1.147	9	7.95	2.32	3.42

1.2 Point Results

Table 1.3 - Joint Displacements

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+6.00	1	60	DER1	Combination	0.054303	0.007147	4E-06	-0.000125	0.003397	-0.002004
N+6.00	1	60	DER2	Combination	-0.054885	-0.008059	-0.000588	0.00041	-0.003274	0.002068
N+6.00	1	60	DER3	Combination	-0.006149	0.0347	-0.000453	-0.002563	-0.000182	0.001317
N+6.00	1	60	DER4	Combination	0.005566	-0.035612	-0.000131	0.002848	0.000305	-0.001253
N+6.00	1	60	DER5	Combination	0.05443	0.00734	9.8E-05	-0.000187	0.00339	-0.002017
N+6.00	1	60	DER6	Combination	-0.054758	-0.007866	-0.000494	0.000348	-0.003281	0.002055
N+6.00	1	60	DER7	Combination	-0.006022	0.034893	-0.000359	-0.002625	-0.000189	0.001304
N+6.00	1	60	DER8	Combination	0.005694	-0.035419	-3.7E-05	0.002786	0.000298	-0.001266
N+6.00	3	62	DER1	Combination	0.054303	-0.008785	-0.000573	0.000375	0.003203	-0.002004
N+6.00	3	62	DER2	Combination	-0.054885	0.008384	-1E-05	-0.000217	-0.003474	0.002068
N+6.00	3	62	DER3	Combination	-0.006149	0.045173	-0.000443	-0.00295	-0.000375	0.001317
N+6.00	3	62	DER4	Combination	0.005566	-0.045574	-0.00014	0.003108	0.000104	-0.001253
N+6.00	3	62	DER5	Combination	0.05443	-0.008697	-0.000479	0.000345	0.003241	-0.002017
N+6.00	3	62	DER6	Combination	-0.054758	0.008472	8.5E-05	-0.000248	-0.003436	0.002055
N+6.00	3	62	DER7	Combination	-0.006022	0.045261	-0.000349	-0.00298	-0.000338	0.001304
N+6.00	3	62	DER8	Combination	0.005694	-0.045486	-4.5E-05	0.003077	0.000142	-0.001266
N+6.00	4	63	DER1	Combination	0.044664	0.007147	-0.000121	-0.000211	0.003566	-0.002004
N+6.00	4	63	DER2	Combination	-0.044937	-0.008059	-0.000496	8.1E-05	-0.003498	0.002068
N+6.00	4	63	DER3	Combination	0.000187	0.0347	-0.000487	-0.00145	4.5E-05	0.001317
N+6.00	4	63	DER4	Combination	-0.000461	-0.035612	-0.00013	0.001321	2.3E-05	-0.001253
N+6.00	4	63	DER5	Combination	0.044727	0.00734	-1.9E-05	-0.000181	0.003565	-0.002017
N+6.00	4	63	DER6	Combination	-0.044873	-0.007866	-0.000394	0.000111	-0.003499	0.002055
N+6.00	4	63	DER7	Combination	0.000251	0.034893	-0.000385	-0.001421	4.4E-05	0.001304
N+6.00	4	63	DER8	Combination	-0.000397	-0.035419	-2.8E-05	0.00135	2.2E-05	-0.001266
N+6.00	5	64	DER1	Combination	0.044664	-0.00117	-0.000432	2.4E-05	0.002187	-0.002004
N+6.00	5	64	DER2	Combination	-0.044937	0.000525	-0.000468	-3.2E-05	-0.002114	0.002068
N+6.00	5	64	DER3	Combination	0.000187	0.040167	-0.000733	-0.002055	9.9E-05	0.001317
N+6.00	5	64	DER4	Combination	-0.000461	-0.040812	-0.000168	0.002047	-2.7E-05	-0.001253
N+6.00	5	64	DER5	Combination	0.044727	-0.001032	-0.000253	3E-05	0.002171	-0.002017
N+6.00	5	64	DER6	Combination	-0.044873	0.000663	-0.000289	-2.6E-05	-0.00213	0.002055
N+6.00	5	64	DER7	Combination	0.000251	0.040305	-0.000554	-0.002049	8.4E-05	0.001304
N+6.00	5	64	DER8	Combination	-0.000397	-0.040674	1.1E-05	0.002053	-4.3E-05	-0.001266

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+6.00	6	65	DER1	Combination	0.044664	-0.008785	-0.000529	0.000268	0.003062	-0.002004
N+6.00	6	65	DER2	Combination	-0.044937	0.008384	-0.000142	-0.000304	-0.003256	0.002068
N+6.00	6	65	DER3	Combination	0.000187	0.045173	-0.000605	-0.002387	-9E-05	0.001317
N+6.00	6	65	DER4	Combination	-0.000461	-0.045574	-6.5E-05	0.002351	-0.000103	-0.001253
N+6.00	6	65	DER5	Combination	0.044727	-0.008697	-0.000413	0.000275	0.003091	-0.002017
N+6.00	6	65	DER6	Combination	-0.044873	0.008472	-2.6E-05	-0.000298	-0.003228	0.002055
N+6.00	6	65	DER7	Combination	0.000251	0.045261	-0.000489	-0.002381	-6.2E-05	0.001304
N+6.00	6	65	DER8	Combination	-0.000397	-0.045486	5E-05	0.002358	-7.5E-05	-0.001266
N+6.00	7	66	DER1	Combination	0.039052	0.007147	-8.7E-05	-0.000401	0.003079	-0.002004
N+6.00	7	66	DER2	Combination	-0.039145	-0.008059	-0.000357	0.000357	-0.002877	0.002068
N+6.00	7	66	DER3	Combination	0.003876	0.0347	-0.000261	-0.002685	8.6E-05	0.001317
N+6.00	7	66	DER4	Combination	-0.003969	-0.035612	-0.000183	0.00264	0.000117	-0.001253
N+6.00	7	66	DER5	Combination	0.039079	0.00734	-1.7E-05	-0.000396	0.00306	-0.002017
N+6.00	7	66	DER6	Combination	-0.039119	-0.007866	-0.000287	0.000362	-0.002896	0.002055
N+6.00	7	66	DER7	Combination	0.003902	0.034893	-0.000191	-0.002679	6.7E-05	0.001304
N+6.00	7	66	DER8	Combination	-0.003943	-0.035419	-0.000113	0.002646	9.7E-05	-0.001266
N+6.00	8	67	DER1	Combination	0.039052	-0.00117	-0.000285	-5.1E-05	0.002033	-0.002004
N+6.00	8	67	DER2	Combination	-0.039145	0.000525	-0.000279	-8.2E-05	-0.002042	0.002068
N+6.00	8	67	DER3	Combination	0.003876	0.040167	6.9E-05	-0.00289	0.000244	0.001317
N+6.00	8	67	DER4	Combination	-0.003969	-0.040812	-0.000633	0.002758	-0.000253	-0.001253
N+6.00	8	67	DER5	Combination	0.039079	-0.001032	-0.000193	-2E-05	0.002033	-0.002017
N+6.00	8	67	DER6	Combination	-0.039119	0.000663	-0.000187	-5.1E-05	-0.002042	0.002055
N+6.00	8	67	DER7	Combination	0.003902	0.040305	0.000161	-0.00286	0.000244	0.001304
N+6.00	8	67	DER8	Combination	-0.003943	-0.040674	-0.000541	0.002788	-0.000253	-0.001266
N+6.00	9	68	DER1	Combination	0.039052	-0.008785	-0.000514	0.000216	0.00272	-0.002004
N+6.00	9	68	DER2	Combination	-0.039145	0.008384	0.000119	-0.000365	-0.002922	0.002068
N+6.00	9	68	DER3	Combination	0.003876	0.045173	0.000277	-0.002571	3.965E-07	0.001317
N+6.00	9	68	DER4	Combination	-0.003969	-0.045574	-0.000672	0.002421	-0.000202	-0.001253
N+6.00	9	68	DER5	Combination	0.039079	-0.008697	-0.000453	0.000244	0.002745	-0.002017
N+6.00	9	68	DER6	Combination	-0.039119	0.008472	0.000179	-0.000337	-0.002896	0.002055
N+6.00	9	68	DER7	Combination	0.003902	0.045261	0.000337	-0.002543	2.6E-05	0.001304
N+6.00	9	68	DER8	Combination	-0.003943	-0.045486	-0.000612	0.00245	-0.000177	-0.001266
N+6.00	12	61	DER1	Combination	0.054303	-0.000769	-0.000383	7E-05	0.002931	-0.002004
N+6.00	12	61	DER2	Combination	-0.054885	0.000111	-0.00038	0.000111	-0.002925	0.002068
N+6.00	12	61	DER3	Combination	-0.006149	0.039903	-0.000523	-0.002859	-0.000197	0.001317
N+6.00	12	61	DER4	Combination	0.005566	-0.040562	-0.000241	0.00304	0.000203	-0.001253
N+6.00	12	61	DER5	Combination	0.05443	-0.000628	-0.000248	3E-05	0.00293	-0.002017
N+6.00	12	61	DER6	Combination	-0.054758	0.000252	-0.000246	7.1E-05	-0.002926	0.002055
N+6.00	12	61	DER7	Combination	-0.006022	0.040044	-0.000388	-0.002899	-0.000198	0.001304
N+6.00	12	61	DER8	Combination	0.005694	-0.040421	-0.000106	0.003	0.000202	-0.001266
N+6.00	18	3	DER1	Combination	0.046423	-0.000855	0	0	0	-0.002004
N+6.00	18	3	DER2	Combination	-0.046753	0.0002	0	0	0	0.002068
N+6.00	18	3	DER3	Combination	-0.000969	0.03996	0	0	0	0.001317
N+6.00	18	3	DER4	Combination	0.00064	-0.040616	0	0	0	-0.001253
N+6.00	18	3	DER5	Combination	0.046498	-0.000715	0	0	0	-0.002017
N+6.00	18	3	DER6	Combination	-0.046677	0.00034	0	0	0	0.002055
N+6.00	18	3	DER7	Combination	-0.000894	0.0401	0	0	0	0.001304
N+6.00	18	3	DER8	Combination	0.000715	-0.040475	0	0	0	-0.001266
N+3.00	1	2	DER1	Combination	0.030723	0.004982	-1E-05	2.4E-05	0.007456	-0.001368
N+3.00	1	2	DER2	Combination	-0.030964	-0.005352	-0.000458	0.002285	-0.006858	0.001391
N+3.00	1	2	DER3	Combination	-0.003921	0.018627	-0.000357	-0.003885	-0.000478	0.000837
N+3.00	1	2	DER4	Combination	0.00368	-0.018996	-0.000111	0.006193	0.001077	-0.000814
N+3.00	1	2	DER5	Combination	0.030777	0.005065	6.5E-05	-0.000385	0.007368	-0.001373
N+3.00	1	2	DER6	Combination	-0.03091	-0.005269	-0.000382	0.001877	-0.006946	0.001386
N+3.00	1	2	DER7	Combination	-0.003867	0.01871	-0.000282	-0.004293	-0.000566	0.000832
N+3.00	1	2	DER8	Combination	0.003734	-0.018914	-3.6E-05	0.005785	0.000988	-0.000819
N+3.00	3	6	DER1	Combination	0.030723	-0.005891	-0.000447	0.002435	0.006818	-0.001368
N+3.00	3	6	DER2	Combination	-0.030964	0.005707	-2.2E-05	-6.4E-05	-0.00754	0.001391
N+3.00	3	6	DER3	Combination	-0.003921	0.025284	-0.000348	-0.005285	-0.001142	0.000837

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	3	6	DER4	Combination	0.00368	-0.025468	-0.000121	0.007656	0.00042	-0.000814
N+3.00	3	6	DER5	Combination	0.030777	-0.005848	-0.000371	0.001996	0.006933	-0.001373
N+3.00	3	6	DER6	Combination	-0.03091	0.00575	5.4E-05	-0.000502	-0.007425	0.001386
N+3.00	3	6	DER7	Combination	-0.003867	0.025326	-0.000272	-0.005723	-0.001027	0.000832
N+3.00	3	6	DER8	Combination	0.003734	-0.025425	-4.5E-05	0.007217	0.000535	-0.000819
N+3.00	4	8	DER1	Combination	0.024145	0.004982	-0.000103	-0.001068	0.006973	-0.001368
N+3.00	4	8	DER2	Combination	-0.024273	-0.005352	-0.00039	0.000455	-0.006684	0.001391
N+3.00	4	8	DER3	Combination	0.000107	0.018627	-0.000364	-0.003819	0.000219	0.000837
N+3.00	4	8	DER4	Combination	-0.000235	-0.018996	-0.000129	0.003207	7E-05	-0.000814
N+3.00	4	8	DER5	Combination	0.024174	0.005065	-2.2E-05	-0.000984	0.006917	-0.001373
N+3.00	4	8	DER6	Combination	-0.024243	-0.005269	-0.000309	0.000538	-0.00674	0.001386
N+3.00	4	8	DER7	Combination	0.000136	0.01871	-0.000283	-0.003736	0.000163	0.000832
N+3.00	4	8	DER8	Combination	-0.000205	-0.018914	-4.8E-05	0.00329	1.4E-05	-0.000819
N+3.00	5	10	DER1	Combination	0.024145	-0.000694	-0.000356	-0.000632	0.003716	-0.001368
N+3.00	5	10	DER2	Combination	-0.024273	0.000421	-0.000383	-0.000707	-0.004346	0.001391
N+3.00	5	10	DER3	Combination	0.000107	0.022102	-0.000581	-0.004864	-0.000267	0.000837
N+3.00	5	10	DER4	Combination	-0.000235	-0.022374	-0.000157	0.003525	-0.000363	-0.000814
N+3.00	5	10	DER5	Combination	0.024174	-0.000632	-0.000207	-0.000352	0.003847	-0.001373
N+3.00	5	10	DER6	Combination	-0.024243	0.000483	-0.000233	-0.000427	-0.004216	0.001386
N+3.00	5	10	DER7	Combination	0.000136	0.022164	-0.000432	-0.004584	-0.000137	0.000832
N+3.00	5	10	DER8	Combination	-0.000205	-0.022312	-8E-06	0.003805	-0.000232	-0.000819
N+3.00	6	12	DER1	Combination	0.024145	-0.005891	-0.000417	0.000486	0.006071	-0.001368
N+3.00	6	12	DER2	Combination	-0.024273	0.005707	-0.000134	-0.001389	-0.006322	0.001391
N+3.00	6	12	DER3	Combination	0.000107	0.025284	-0.000482	-0.00529	-7.7E-05	0.000837
N+3.00	6	12	DER4	Combination	-0.000235	-0.025468	-7E-05	0.004387	-0.000174	-0.000814
N+3.00	6	12	DER5	Combination	0.024174	-0.005848	-0.000321	0.000649	0.006124	-0.001373
N+3.00	6	12	DER6	Combination	-0.024243	0.00575	-3.9E-05	-0.001225	-0.006269	0.001386
N+3.00	6	12	DER7	Combination	0.000136	0.025326	-0.000386	-0.005127	-2.4E-05	0.000832
N+3.00	6	12	DER8	Combination	-0.000205	-0.025425	2.6E-05	0.004551	-0.000121	-0.000819
N+3.00	7	14	DER1	Combination	0.020315	0.004982	-0.000111	-0.000371	0.005503	-0.001368
N+3.00	7	14	DER2	Combination	-0.020378	-0.005352	-0.000243	3.5E-05	-0.004812	0.001391
N+3.00	7	14	DER3	Combination	0.002451	0.018627	-0.000325	-0.001707	0.001305	0.000837
N+3.00	7	14	DER4	Combination	-0.002514	-0.018996	-2.9E-05	0.001371	-0.000614	-0.000814
N+3.00	7	14	DER5	Combination	0.020331	0.005065	-5.5E-05	-0.00031	0.005399	-0.001373
N+3.00	7	14	DER6	Combination	-0.020363	-0.005269	-0.000187	9.6E-05	-0.004916	0.001386
N+3.00	7	14	DER7	Combination	0.002467	0.01871	-0.000268	-0.001646	0.001201	0.000832
N+3.00	7	14	DER8	Combination	-0.002498	-0.018914	2.7E-05	0.001432	-0.000718	-0.000819
N+3.00	8	16	DER1	Combination	0.020315	-0.000694	-0.000229	6.5E-05	0.003502	-0.001368
N+3.00	8	16	DER2	Combination	-0.020378	0.000421	-0.00021	-0.000309	-0.003679	0.001391
N+3.00	8	16	DER3	Combination	0.002451	0.022102	2.5E-05	-0.005082	-0.00031	0.000837
N+3.00	8	16	DER4	Combination	-0.002514	-0.022374	-0.000464	0.004837	0.000134	-0.000814
N+3.00	8	16	DER5	Combination	0.020331	-0.000632	-0.000157	0.000123	0.003534	-0.001373
N+3.00	8	16	DER6	Combination	-0.020363	0.000483	-0.000138	-0.000252	-0.003647	0.001386
N+3.00	8	16	DER7	Combination	0.002467	0.022164	9.7E-05	-0.005024	-0.000279	0.000832
N+3.00	8	16	DER8	Combination	-0.002498	-0.022312	-0.000392	0.004895	0.000165	-0.000819
N+3.00	9	18	DER1	Combination	0.020315	-0.005891	-0.000395	0.000772	0.004861	-0.001368
N+3.00	9	18	DER2	Combination	-0.020378	0.005707	8.6E-05	-0.001132	-0.005426	0.001391
N+3.00	9	18	DER3	Combination	0.002451	0.025284	0.000208	-0.005129	0.00032	0.000837
N+3.00	9	18	DER4	Combination	-0.002514	-0.025468	-0.000517	0.004769	-0.000886	-0.000814
N+3.00	9	18	DER5	Combination	0.020331	-0.005848	-0.000348	0.000836	0.004947	-0.001373
N+3.00	9	18	DER6	Combination	-0.020363	0.00575	0.000134	-0.001068	-0.00534	0.001386
N+3.00	9	18	DER7	Combination	0.002467	0.025326	0.000255	-0.005065	0.000406	0.000832
N+3.00	9	18	DER8	Combination	-0.002498	-0.025425	-0.00047	0.004833	-0.000799	-0.000819
N+3.00	10	20	DER1	Combination	0.018387	0.004982	0.000239	-0.001118	0.003977	-0.001368
N+3.00	10	20	DER2	Combination	-0.018417	-0.005352	-0.0003	0.001046	-0.003649	0.001391
N+3.00	10	20	DER3	Combination	0.003632	0.018627	0.000349	-0.0021	0.001437	0.000837
N+3.00	10	20	DER4	Combination	-0.003662	-0.018996	-0.000411	0.002029	-0.00111	-0.000814
N+3.00	10	20	DER5	Combination	0.018395	0.005065	0.000247	-0.001111	0.003931	-0.001373
N+3.00	10	20	DER6	Combination	-0.018408	-0.005269	-0.000291	0.001053	-0.003695	0.001386

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	10	20	DER7	Combination	0.00364	0.01871	0.000358	-0.002093	0.001392	0.000832
N+3.00	10	20	DER8	Combination	-0.003653	-0.018914	-0.000402	0.002036	-0.001155	-0.000819
N+3.00	11	22	DER1	Combination	0.017142	0.001399	-0.00015	-0.001194	0.002497	-0.001368
N+3.00	11	22	DER2	Combination	-0.017151	-0.001707	7.2E-05	0.000636	-0.002689	0.001391
N+3.00	11	22	DER3	Combination	0.004394	0.020821	6.6E-05	-0.00462	0.001283	0.000837
N+3.00	11	22	DER4	Combination	-0.004403	-0.021129	-0.000144	0.004061	-0.001476	-0.000814
N+3.00	11	22	DER5	Combination	0.017146	0.001468	-0.000139	-0.001113	0.002524	-0.001373
N+3.00	11	22	DER6	Combination	-0.017147	-0.001638	8.3E-05	0.000717	-0.002663	0.001386
N+3.00	11	22	DER7	Combination	0.004398	0.02089	7.7E-05	-0.004538	0.00131	0.000832
N+3.00	11	22	DER8	Combination	-0.004399	-0.021059	-0.000133	0.004143	-0.001449	-0.000819
N+3.00	12	4	DER1	Combination	0.030723	-0.00042	-0.000308	0.001419	0.006095	-0.001368
N+3.00	12	4	DER2	Combination	-0.030964	0.000143	-0.000305	0.001369	-0.006233	0.001391
N+3.00	12	4	DER3	Combination	-0.003921	0.021934	-0.000412	-0.004585	-0.000706	0.000837
N+3.00	12	4	DER4	Combination	0.00368	-0.022212	-0.0002	0.007373	0.000568	-0.000814
N+3.00	12	4	DER5	Combination	0.030777	-0.000357	-0.000198	0.000818	0.006125	-0.001373
N+3.00	12	4	DER6	Combination	-0.03091	0.000206	-0.000195	0.000768	-0.006204	0.001386
N+3.00	12	4	DER7	Combination	-0.003867	0.021997	-0.000303	-0.005186	-0.000677	0.000832
N+3.00	12	4	DER8	Combination	0.003734	-0.022149	-9.1E-05	0.006772	0.000598	-0.000819
N+3.00	13	24	DER1	Combination	0.020315	0.001399	-0.000528	0.000352	-0.002352	-0.001368
N+3.00	13	24	DER2	Combination	-0.020378	-0.001707	-0.001387	-0.000951	0.001527	0.001391
N+3.00	13	24	DER3	Combination	0.002451	0.020821	-0.002339	-0.000307	-0.001174	0.000837
N+3.00	13	24	DER4	Combination	-0.002514	-0.021129	0.000424	-0.000292	0.000349	-0.000814
N+3.00	13	24	DER5	Combination	0.020331	0.001468	-0.000232	0.000449	-0.00223	-0.001373
N+3.00	13	24	DER6	Combination	-0.020363	-0.001638	-0.001091	-0.000853	0.001649	0.001386
N+3.00	13	24	DER7	Combination	0.002467	0.02089	-0.002043	-0.000209	-0.001052	0.000832
N+3.00	13	24	DER8	Combination	-0.002498	-0.021059	0.000721	-0.000194	0.000471	-0.000819
N+3.00	14	27	DER1	Combination	0.027434	0.004982	-0.002863	0.00019	0.007215	-0.001368
N+3.00	14	27	DER2	Combination	-0.027618	-0.005352	-0.003847	-0.0009	-0.006771	0.001391
N+3.00	14	27	DER3	Combination	-0.001907	0.018627	-0.002499	0.00214	-0.000129	0.000837
N+3.00	14	27	DER4	Combination	0.001723	-0.018996	-0.004211	-0.00285	0.000573	-0.000814
N+3.00	14	27	DER5	Combination	0.027476	0.005065	-0.001732	0.000337	0.007142	-0.001373
N+3.00	14	27	DER6	Combination	-0.027577	-0.005269	-0.002716	-0.000753	-0.006843	0.001386
N+3.00	14	27	DER7	Combination	-0.001865	0.01871	-0.001368	0.002287	-0.000201	0.000832
N+3.00	14	27	DER8	Combination	0.001764	-0.018914	-0.00308	-0.002703	0.000501	-0.000819
N+3.00	15	29	DER1	Combination	0.027434	-0.000557	-0.005182	-0.000365	0.002715	-0.001368
N+3.00	15	29	DER2	Combination	-0.027618	0.000282	-0.004938	0.000235	-0.006085	0.001391
N+3.00	15	29	DER3	Combination	-0.001907	0.022018	-0.00416	0.002949	-0.001659	0.000837
N+3.00	15	29	DER4	Combination	0.001723	-0.022293	-0.00596	-0.003079	-0.001712	-0.000814
N+3.00	15	29	DER5	Combination	0.027476	-0.000494	-0.003026	-0.00033	0.00342	-0.001373
N+3.00	15	29	DER6	Combination	-0.027577	0.000344	-0.002783	0.000271	-0.005381	0.001386
N+3.00	15	29	DER7	Combination	-0.001865	0.02208	-0.002005	0.002985	-0.000954	0.000832
N+3.00	15	29	DER8	Combination	0.001764	-0.022231	-0.003804	-0.003043	-0.001007	-0.000819
N+3.00	19	42	DER1	Combination	0.025789	0.001399	-0.003482	-0.002961	-0.00076	-0.001368
N+3.00	19	42	DER2	Combination	-0.025946	-0.001707	-0.01225	-0.002437	-0.005869	0.001391
N+3.00	19	42	DER3	Combination	-0.0009	0.020821	-0.009914	-0.001568	-0.003256	0.000837
N+3.00	19	42	DER4	Combination	0.000744	-0.021129	-0.005818	-0.003831	-0.003373	-0.000814
N+3.00	19	42	DER5	Combination	0.025825	0.001468	-0.000192	-0.001808	0.000609	-0.001373
N+3.00	19	42	DER6	Combination	-0.02591	-0.001638	-0.00896	-0.001283	-0.004499	0.001386
N+3.00	19	42	DER7	Combination	-0.000865	0.02089	-0.006624	-0.000414	-0.001886	0.000832
N+3.00	19	42	DER8	Combination	0.00078	-0.021059	-0.002528	-0.002677	-0.002004	-0.000819
N+3.00	21	34	DER1	Combination	0.025789	-0.000625	-0.002895	-0.002961	0.000955	-0.001368
N+3.00	21	34	DER2	Combination	-0.025946	0.000351	-0.003026	-0.002437	-0.006105	0.001391
N+3.00	21	34	DER3	Combination	-0.0009	0.02206	-0.005111	-0.001568	-0.002486	0.000837
N+3.00	21	34	DER4	Combination	0.000744	-0.022334	-0.00081	-0.003831	-0.002664	-0.000814
N+3.00	21	34	DER5	Combination	0.025825	-0.000563	-0.001643	-0.001808	0.002032	-0.001373
N+3.00	21	34	DER6	Combination	-0.02591	0.000414	-0.001774	-0.001283	-0.005028	0.001386
N+3.00	21	34	DER7	Combination	-0.000865	0.022122	-0.003859	-0.000414	-0.001409	0.000832
N+3.00	21	34	DER8	Combination	0.00078	-0.022272	0.000442	-0.002677	-0.001587	-0.000819
N+3.00	22	35	DER1	Combination	0.025789	-0.005891	-0.001789	-0.002281	0.006258	-0.001368

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	22	35	DER2	Combination	-0.025946	0.005707	-0.002397	-0.001812	-0.006626	0.001391
N+3.00	22	35	DER3	Combination	-0.0009	0.025284	-0.004637	-0.000897	-0.000343	0.000837
N+3.00	22	35	DER4	Combination	0.000744	-0.025468	0.000451	-0.003195	-2.5E-05	-0.000814
N+3.00	22	35	DER5	Combination	0.025825	-0.005848	-0.001031	-0.001531	0.006326	-0.001373
N+3.00	22	35	DER6	Combination	-0.02591	0.00575	-0.001639	-0.001061	-0.006558	0.001386
N+3.00	22	35	DER7	Combination	-0.000865	0.025326	-0.003879	-0.000147	-0.000275	0.000832
N+3.00	22	35	DER8	Combination	0.00078	-0.025425	0.001209	-0.002445	4.3E-05	-0.000819
N+3.00	16	25	DER1	Combination	0.02853	0.004982	-0.00212	0.001508	0.007295	-0.001368
N+3.00	16	25	DER2	Combination	-0.028733	-0.005352	-0.003828	0.00096	-0.0068	0.001391
N+3.00	16	25	DER3	Combination	-0.002579	0.018627	-0.000417	0.002586	-0.000245	0.000837
N+3.00	16	25	DER4	Combination	0.002375	-0.018996	-0.00553	-0.000118	0.000741	-0.000814
N+3.00	16	25	DER5	Combination	0.028576	0.005065	-0.0011	0.001101	0.007217	-0.001373
N+3.00	16	25	DER6	Combination	-0.028688	-0.005269	-0.002808	0.000554	-0.006877	0.001386
N+3.00	16	25	DER7	Combination	-0.002533	0.01871	0.000603	0.002179	-0.000323	0.000832
N+3.00	16	25	DER8	Combination	0.002421	-0.018914	-0.004511	-0.000524	0.000663	-0.000819
N+3.00	20	28	DER1	Combination	0.029627	0.004982	-0.000707	0.001606	0.007376	-0.001368
N+3.00	20	28	DER2	Combination	-0.029849	-0.005352	-0.002418	0.002312	-0.006829	0.001391
N+3.00	20	28	DER3	Combination	-0.00325	0.018627	0.001099	0.000472	-0.000362	0.000837
N+3.00	20	28	DER4	Combination	0.003028	-0.018996	-0.004224	0.003446	0.000909	-0.000814
N+3.00	20	28	DER5	Combination	0.029676	0.005065	-0.000166	0.000929	0.007293	-0.001373
N+3.00	20	28	DER6	Combination	-0.029799	-0.005269	-0.001878	0.001635	-0.006912	0.001386
N+3.00	20	28	DER7	Combination	-0.0032	0.01871	0.001639	-0.000205	-0.000445	0.000832
N+3.00	20	28	DER8	Combination	0.003078	-0.018914	-0.003683	0.002769	0.000826	-0.000819
N+3.00	23	30	DER1	Combination	0.02853	-0.000511	-0.004396	0.001863	0.00391	-0.001368
N+3.00	23	30	DER2	Combination	-0.028733	0.000235	-0.004016	0.002351	-0.006061	0.001391
N+3.00	23	30	DER3	Combination	-0.002579	0.02199	-0.00122	0.003815	-0.0012	0.000837
N+3.00	23	30	DER4	Combination	0.002375	-0.022266	-0.007192	0.000399	-0.000951	-0.000814
N+3.00	23	30	DER5	Combination	0.028576	-0.000449	-0.002602	0.000961	0.004359	-0.001373
N+3.00	23	30	DER6	Combination	-0.028688	0.000298	-0.002222	0.001449	-0.005612	0.001386
N+3.00	23	30	DER7	Combination	-0.002533	0.022053	0.000575	0.002913	-0.000751	0.000832
N+3.00	23	30	DER8	Combination	0.002421	-0.022203	-0.005398	-0.000503	-0.000502	-0.000819
N+3.00	24	31	DER1	Combination	0.029627	-0.000466	-0.002235	0.002678	0.005046	-0.001368
N+3.00	24	31	DER2	Combination	-0.029849	0.000189	-0.0019	0.00292	-0.006103	0.001391
N+3.00	24	31	DER3	Combination	-0.00325	0.021962	0.001116	0.001115	-0.00089	0.000837
N+3.00	24	31	DER4	Combination	0.003028	-0.022239	-0.005251	0.004482	-0.000166	-0.000814
N+3.00	24	31	DER5	Combination	0.029676	-0.000403	-0.001362	0.001467	0.005266	-0.001373
N+3.00	24	31	DER6	Combination	-0.029799	0.000252	-0.001028	0.001709	-0.005883	0.001386
N+3.00	24	31	DER7	Combination	-0.0032	0.022025	0.001989	-9.5E-05	-0.00067	0.000832
N+3.00	24	31	DER8	Combination	0.003078	-0.022176	-0.004379	0.003272	5.4E-05	-0.000819
N+3.00	25	33	DER1	Combination	0.029627	-0.005891	-0.002514	0.00242	0.006693	-0.001368
N+3.00	25	33	DER2	Combination	-0.029849	0.005707	-0.000738	0.001762	-0.007337	0.001391
N+3.00	25	33	DER3	Combination	-0.00325	0.025284	0.00178	0.000332	-0.000964	0.000837
N+3.00	25	33	DER4	Combination	0.003028	-0.025468	-0.005031	0.00385	0.000321	-0.000814
N+3.00	25	33	DER5	Combination	0.029676	-0.005848	-0.001925	0.001651	0.006798	-0.001373
N+3.00	25	33	DER6	Combination	-0.029799	0.00575	-0.000149	0.000994	-0.007232	0.001386
N+3.00	25	33	DER7	Combination	-0.0032	0.025326	0.002369	-0.000437	-0.00086	0.000832
N+3.00	25	33	DER8	Combination	0.003078	-0.025425	-0.004442	0.003082	0.000426	-0.000819
N+3.00	26	37	DER1	Combination	0.02853	-0.005891	-0.003992	0.001028	0.006569	-0.001368
N+3.00	26	37	DER2	Combination	-0.028733	0.005707	-0.002351	0.001812	-0.007134	0.001391
N+3.00	26	37	DER3	Combination	-0.002579	0.025284	-5.7E-05	0.003367	-0.000787	0.000837
N+3.00	26	37	DER4	Combination	0.002375	-0.025468	-0.006286	-0.000527	0.000222	-0.000814
N+3.00	26	37	DER5	Combination	0.028576	-0.005848	-0.002837	0.000509	0.006663	-0.001373
N+3.00	26	37	DER6	Combination	-0.028688	0.00575	-0.001196	0.001292	-0.00704	0.001386
N+3.00	26	37	DER7	Combination	-0.002533	0.025326	0.001098	0.002847	-0.000693	0.000832
N+3.00	26	37	DER8	Combination	0.002421	-0.025425	-0.005131	-0.001047	0.000316	-0.000819
N+3.00	27	38	DER1	Combination	0.027434	-0.005891	-0.004054	-0.000862	0.006445	-0.001368
N+3.00	27	38	DER2	Combination	-0.027618	0.005707	-0.003344	0.000465	-0.006931	0.001391
N+3.00	27	38	DER3	Combination	-0.001907	0.025284	-0.002925	0.003154	-0.000609	0.000837
N+3.00	27	38	DER4	Combination	0.001723	-0.025468	-0.004473	-0.003551	0.000123	-0.000814

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	27	38	DER5	Combination	0.027476	-0.005848	-0.002707	-0.000788	0.006529	-0.001373
N+3.00	27	38	DER6	Combination	-0.027577	0.00575	-0.001996	0.000539	-0.006847	0.001386
N+3.00	27	38	DER7	Combination	-0.001865	0.025326	-0.001577	0.003228	-0.000525	0.000832
N+3.00	27	38	DER8	Combination	0.001764	-0.025425	-0.003126	-0.003477	0.000207	-0.000819
N+3.00	28	39	DER1	Combination	0.026611	-0.000591	-0.004455	-0.002069	0.001819	-0.001368
N+3.00	28	39	DER2	Combination	-0.026782	0.000317	-0.0044	-0.001385	-0.00611	0.001391
N+3.00	28	39	DER3	Combination	-0.001404	0.022039	-0.005336	0.000931	-0.002063	0.000837
N+3.00	28	39	DER4	Combination	0.001233	-0.022313	-0.003519	-0.004385	-0.002227	-0.000814
N+3.00	28	39	DER5	Combination	0.02665	-0.000529	-0.002574	-0.001325	0.002717	-0.001373
N+3.00	28	39	DER6	Combination	-0.026743	0.000379	-0.002519	-0.00064	-0.005212	0.001386
N+3.00	28	39	DER7	Combination	-0.001365	0.022101	-0.003455	0.001676	-0.001166	0.000832
N+3.00	28	39	DER8	Combination	0.001272	-0.022251	-0.001638	-0.003641	-0.00133	-0.000819
N+3.00	30	41	DER1	Combination	0.026611	-0.005891	-0.003155	-0.001969	0.006351	-0.001368
N+3.00	30	41	DER2	Combination	-0.026782	0.005707	-0.003233	-0.00082	-0.006779	0.001391
N+3.00	30	41	DER3	Combination	-0.001404	0.025284	-0.00441	0.001503	-0.000476	0.000837
N+3.00	30	41	DER4	Combination	0.001233	-0.025468	-0.001978	-0.004292	4.9E-05	-0.000814
N+3.00	30	41	DER5	Combination	0.02665	-0.005848	-0.001993	-0.001457	0.006427	-0.001373
N+3.00	30	41	DER6	Combination	-0.026743	0.00575	-0.002071	-0.000307	-0.006702	0.001386
N+3.00	30	41	DER7	Combination	-0.001365	0.025326	-0.003248	0.002016	-0.0004	0.000832
N+3.00	30	41	DER8	Combination	0.001272	-0.025425	-0.000816	-0.00378	0.000125	-0.000819
N+3.00	32	43	DER1	Combination	0.024145	0.001399	-0.000594	-0.000793	-0.002971	-0.001368
N+3.00	32	43	DER2	Combination	-0.024273	-0.001707	-0.001073	-0.000279	0.002678	0.001391
N+3.00	32	43	DER3	Combination	0.000107	0.020821	-0.001013	-0.004479	-0.000145	0.000837
N+3.00	32	43	DER4	Combination	-0.000235	-0.021129	-0.000655	0.003408	-0.000148	-0.000814
N+3.00	32	43	DER5	Combination	0.024174	0.001468	-0.000267	-0.000585	-0.002923	-0.001373
N+3.00	32	43	DER6	Combination	-0.024243	-0.001638	-0.000747	-7.1E-05	0.002725	0.001386
N+3.00	32	43	DER7	Combination	0.000136	0.02089	-0.000686	-0.004271	-9.7E-05	0.000832
N+3.00	32	43	DER8	Combination	-0.000205	-0.021059	-0.000328	0.003615	-0.0001	-0.000819
N+3.00	2	32	DER1	Combination	0.025789	0.000879	-0.003187	-0.002961	-0.000786	-0.001368
N+3.00	2	32	DER2	Combination	-0.025946	-0.001179	-0.010005	-0.002437	-0.005942	0.001391
N+3.00	2	32	DER3	Combination	-0.0009	0.021139	-0.008666	-0.001568	-0.003305	0.000837
N+3.00	2	32	DER4	Combination	0.000744	-0.021438	-0.004525	-0.003831	-0.003423	-0.000814
N+3.00	2	32	DER5	Combination	0.025825	0.000947	-0.000422	-0.001808	0.000604	-0.001373
N+3.00	2	32	DER6	Combination	-0.02591	-0.001111	-0.007239	-0.001283	-0.004552	0.001386
N+3.00	2	32	DER7	Combination	-0.000865	0.021207	-0.005901	-0.000414	-0.001914	0.000832
N+3.00	2	32	DER8	Combination	0.00078	-0.021371	-0.00176	-0.002677	-0.002033	-0.000819
N+3.00	17	36	DER1	Combination	0.027434	0.000879	-0.007205	-0.000221	-0.001106	-0.001368
N+3.00	17	36	DER2	Combination	-0.027618	-0.001179	-0.008037	-5.9E-05	-0.002187	0.001391
N+3.00	17	36	DER3	Combination	-0.001907	0.021139	-0.006717	0.002739	-0.001644	0.000837
N+3.00	17	36	DER4	Combination	0.001723	-0.021438	-0.008524	-0.003019	-0.001649	-0.000814
N+3.00	17	36	DER5	Combination	0.027476	0.000947	-0.004058	-0.000157	-0.000493	-0.001373
N+3.00	17	36	DER6	Combination	-0.027577	-0.001111	-0.00489	5E-06	-0.001575	0.001386
N+3.00	17	36	DER7	Combination	-0.001865	0.021207	-0.00357	0.002804	-0.001031	0.000832
N+3.00	17	36	DER8	Combination	0.001764	-0.021371	-0.005377	-0.002955	-0.001037	-0.000819
N+3.00	31	40	DER1	Combination	0.026611	0.000879	-0.005317	-0.003331	-0.000946	-0.001368
N+3.00	31	40	DER2	Combination	-0.026782	-0.001179	-0.009142	0.001613	-0.004065	0.001391
N+3.00	31	40	DER3	Combination	-0.001404	0.021139	-0.007813	0.001615	-0.002474	0.000837
N+3.00	31	40	DER4	Combination	0.001233	-0.021438	-0.006646	-0.003334	-0.002536	-0.000814
N+3.00	31	40	DER5	Combination	0.02665	0.000947	-0.002309	-0.003011	5.6E-05	-0.001373
N+3.00	31	40	DER6	Combination	-0.026743	-0.001111	-0.006133	0.001933	-0.003063	0.001386
N+3.00	31	40	DER7	Combination	-0.001365	0.021207	-0.004804	0.001936	-0.001473	0.000832
N+3.00	31	40	DER8	Combination	0.001272	-0.021371	-0.003637	-0.003013	-0.001535	-0.000819
N+3.00	33	44	DER1	Combination	0.024967	0.001399	4E-06	-0.002389	-7.2E-05	-0.001368
N+3.00	33	44	DER2	Combination	-0.025109	-0.001707	-0.008719	-0.002162	-0.004148	0.001391
N+3.00	33	44	DER3	Combination	-0.000397	0.020821	-0.006392	-0.003845	-0.00206	0.000837
N+3.00	33	44	DER4	Combination	0.000254	-0.021129	-0.002323	-0.000707	-0.002161	-0.000814
N+3.00	33	44	DER5	Combination	0.025	0.001468	0.001828	-0.00142	0.000806	-0.001373
N+3.00	33	44	DER6	Combination	-0.025077	-0.001638	-0.006895	-0.001194	-0.00327	0.001386
N+3.00	33	44	DER7	Combination	-0.000364	0.02089	-0.004568	-0.002876	-0.001182	0.000832

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	33	44	DER8	Combination	0.000287	-0.021059	-0.000499	0.000262	-0.001283	-0.000819
N+3.00	35	46	DER1	Combination	0.024967	-0.00066	-0.001145	-0.002389	0.001988	-0.001368
N+3.00	35	46	DER2	Combination	-0.025109	0.000386	-0.001338	-0.002162	-0.005271	0.001391
N+3.00	35	46	DER3	Combination	-0.000397	0.022081	-0.003363	-0.003845	-0.001576	0.000837
N+3.00	35	46	DER4	Combination	0.000254	-0.022354	0.00088	-0.000707	-0.001707	-0.000814
N+3.00	35	46	DER5	Combination	0.025	-0.000597	-0.000626	-0.00142	0.002676	-0.001373
N+3.00	35	46	DER6	Combination	-0.025077	0.000448	-0.000819	-0.001194	-0.004583	0.001386
N+3.00	35	46	DER7	Combination	-0.000364	0.022143	-0.002844	-0.002876	-0.000888	0.000832
N+3.00	35	46	DER8	Combination	0.000287	-0.022292	0.001399	0.000262	-0.001019	-0.000819
N+3.00	36	47	DER1	Combination	0.024967	-0.005891	-0.000586	-0.001278	0.006165	-0.001368
N+3.00	36	47	DER2	Combination	-0.025109	0.005707	-0.001163	-0.001998	-0.006474	0.001391
N+3.00	36	47	DER3	Combination	-0.000397	0.025284	-0.003306	-0.003533	-0.00021	0.000837
N+3.00	36	47	DER4	Combination	0.000254	-0.025468	0.001557	0.000256	-9.9E-05	-0.000814
N+3.00	36	47	DER5	Combination	0.025	-0.005848	-0.000273	-0.000682	0.006225	-0.001373
N+3.00	36	47	DER6	Combination	-0.025077	0.00575	-0.000849	-0.001401	-0.006413	0.001386
N+3.00	36	47	DER7	Combination	-0.000364	0.025326	-0.002993	-0.002936	-0.000149	0.000832
N+3.00	36	47	DER8	Combination	0.000287	-0.025425	0.00187	0.000853	-3.9E-05	-0.000819
N+3.00	38	49	DER1	Combination	0.021273	0.004982	-0.000287	3.119E-07	0.00587	-0.001368
N+3.00	38	49	DER2	Combination	-0.021352	-0.005352	-0.000432	-0.000476	-0.00528	0.001391
N+3.00	38	49	DER3	Combination	0.001865	0.018627	-0.000798	0.000594	0.001033	0.000837
N+3.00	38	49	DER4	Combination	-0.001944	-0.018996	7.9E-05	-0.00107	-0.000443	-0.000814
N+3.00	38	49	DER5	Combination	0.021292	0.005065	-0.00016	9.8E-05	0.005778	-0.001373
N+3.00	38	49	DER6	Combination	-0.021333	-0.005269	-0.000305	-0.000379	-0.005372	0.001386
N+3.00	38	49	DER7	Combination	0.001884	0.01871	-0.000671	0.000692	0.000941	0.000832
N+3.00	38	49	DER8	Combination	-0.001925	-0.018914	0.000206	-0.000973	-0.000535	-0.000819
N+3.00	40	51	DER1	Combination	0.02223	0.004982	-9.9E-05	0.000445	0.006238	-0.001368
N+3.00	40	51	DER2	Combination	-0.022326	-0.005352	-0.000741	-0.000234	-0.005748	0.001391
N+3.00	40	51	DER3	Combination	0.001279	0.018627	0.00021	0.001674	0.000762	0.000837
N+3.00	40	51	DER4	Combination	-0.001375	-0.018996	-0.001051	-0.001463	-0.000272	-0.000814
N+3.00	40	51	DER5	Combination	0.022253	0.005065	5.8E-05	0.000415	0.006158	-0.001373
N+3.00	40	51	DER6	Combination	-0.022303	-0.005269	-0.000584	-0.000264	-0.005828	0.001386
N+3.00	40	51	DER7	Combination	0.001301	0.01871	0.000367	0.001644	0.000682	0.000832
N+3.00	40	51	DER8	Combination	-0.001352	-0.018914	-0.000894	-0.001493	-0.000352	-0.000819
N+3.00	42	53	DER1	Combination	0.023187	0.004982	0.000211	0.00016	0.006605	-0.001368
N+3.00	42	53	DER2	Combination	-0.023299	-0.005352	-0.000709	0.000307	-0.006216	0.001391
N+3.00	42	53	DER3	Combination	0.000693	0.018627	0.001065	-3.4E-05	0.000491	0.000837
N+3.00	42	53	DER4	Combination	-0.000805	-0.018996	-0.001564	0.000501	-0.000101	-0.000814
N+3.00	42	53	DER5	Combination	0.023213	0.005065	0.000307	6.7E-05	0.006537	-0.001373
N+3.00	42	53	DER6	Combination	-0.023273	-0.005269	-0.000613	0.000214	-0.006284	0.001386
N+3.00	42	53	DER7	Combination	0.000719	0.01871	0.001161	-0.000127	0.000423	0.000832
N+3.00	42	53	DER8	Combination	-0.000779	-0.018914	-0.001468	0.000408	-0.000169	-0.000819
N+3.00	43	54	DER1	Combination	0.021273	-0.005891	-0.000227	-0.000261	0.005163	-0.001368
N+3.00	43	54	DER2	Combination	-0.021352	0.005707	-0.000415	-0.000112	-0.00565	0.001391
N+3.00	43	54	DER3	Combination	0.001865	0.025284	-0.001708	0.000167	0.000221	0.000837
N+3.00	43	54	DER4	Combination	-0.001944	-0.025468	0.001066	-0.00054	-0.000708	-0.000814
N+3.00	43	54	DER5	Combination	0.021292	-0.005848	-0.000119	-0.000191	0.005241	-0.001373
N+3.00	43	54	DER6	Combination	-0.021333	0.00575	-0.000307	-4.3E-05	-0.005572	0.001386
N+3.00	43	54	DER7	Combination	0.001884	0.025326	-0.0016	0.000237	0.000299	0.000832
N+3.00	43	54	DER8	Combination	-0.001925	-0.025425	0.001174	-0.000471	-0.00063	-0.000819
N+3.00	44	55	DER1	Combination	0.021273	-0.000694	-0.000279	-0.000117	0.003556	-0.001368
N+3.00	44	55	DER2	Combination	-0.021352	0.000421	-0.000435	-0.000197	-0.003845	0.001391
N+3.00	44	55	DER3	Combination	0.001865	0.022102	-0.002032	-6.3E-05	-0.000299	0.000837
N+3.00	44	55	DER4	Combination	-0.001944	-0.022374	0.001317	-0.00025	1E-05	-0.000814
N+3.00	44	55	DER5	Combination	0.021292	-0.000632	-0.000141	-3.5E-05	0.003612	-0.001373
N+3.00	44	55	DER6	Combination	-0.021333	0.000483	-0.000296	-0.000115	-0.003789	0.001386
N+3.00	44	55	DER7	Combination	0.001884	0.022164	-0.001893	1.9E-05	-0.000243	0.000832
N+3.00	44	55	DER8	Combination	-0.001925	-0.022312	0.001456	-0.000168	6.6E-05	-0.000819
N+3.00	45	56	DER1	Combination	0.02223	-0.005891	-0.000548	-0.000399	0.005466	-0.001368
N+3.00	45	56	DER2	Combination	-0.022326	0.005707	-0.00014	0.00067	-0.005874	0.001391

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
N+3.00	45	56	DER3	Combination	0.001279	0.025284	-0.000212	0.002877	0.000122	0.000837
N+3.00	45	56	DER4	Combination	-0.001375	-0.025468	-0.000477	-0.002607	-0.00053	-0.000814
N+3.00	45	56	DER5	Combination	0.022253	-0.005848	-0.00043	-0.000445	0.005536	-0.001373
N+3.00	45	56	DER6	Combination	-0.022303	0.00575	-2.2E-05	0.000624	-0.005804	0.001386
N+3.00	45	56	DER7	Combination	0.001301	0.025326	-9.3E-05	0.002831	0.000191	0.000832
N+3.00	45	56	DER8	Combination	-0.001352	-0.025425	-0.000358	-0.002653	-0.00046	-0.000819
N+3.00	46	57	DER1	Combination	0.02223	-0.000694	-0.000298	0.000107	0.003609	-0.001368
N+3.00	46	57	DER2	Combination	-0.022326	0.000421	-0.00042	0.000226	-0.004012	0.001391
N+3.00	46	57	DER3	Combination	0.001279	0.022102	-0.000642	0.002841	-0.000288	0.000837
N+3.00	46	57	DER4	Combination	-0.001375	-0.022374	-7.6E-05	-0.002508	-0.000114	-0.000814
N+3.00	46	57	DER5	Combination	0.022253	-0.000632	-0.000149	4.4E-05	0.00369	-0.001373
N+3.00	46	57	DER6	Combination	-0.022303	0.000483	-0.000271	0.000163	-0.003932	0.001386
N+3.00	46	57	DER7	Combination	0.001301	0.022164	-0.000493	0.002778	-0.000208	0.000832
N+3.00	46	57	DER8	Combination	-0.001352	-0.022312	7.3E-05	-0.002571	-3.4E-05	-0.000819
N+3.00	47	58	DER1	Combination	0.023187	-0.005891	-0.000676	0.000109	0.005769	-0.001368
N+3.00	47	58	DER2	Combination	-0.023299	0.005707	0.00031	0.000208	-0.006098	0.001391
N+3.00	47	58	DER3	Combination	0.000693	0.025284	0.001431	0.000402	2.2E-05	0.000837
N+3.00	47	58	DER4	Combination	-0.000805	-0.025468	-0.001796	-8.5E-05	-0.000352	-0.000814
N+3.00	47	58	DER5	Combination	0.023213	-0.005848	-0.000614	5.3E-05	0.00583	-0.001373
N+3.00	47	58	DER6	Combination	-0.023273	0.00575	0.000372	0.000152	-0.006036	0.001386
N+3.00	47	58	DER7	Combination	0.000719	0.025326	0.001492	0.000347	8.4E-05	0.000832
N+3.00	47	58	DER8	Combination	-0.000779	-0.025425	-0.001735	-0.000141	-0.00029	-0.000819
N+3.00	48	59	DER1	Combination	0.023187	-0.000694	-0.000172	7.7E-05	0.003663	-0.001368
N+3.00	48	59	DER2	Combination	-0.023299	0.000421	-0.000201	0.000169	-0.004179	0.001391
N+3.00	48	59	DER3	Combination	0.000693	0.022102	0.001073	0.000646	-0.000278	0.000837
N+3.00	48	59	DER4	Combination	-0.000805	-0.022374	-0.001446	-0.0004	-0.000239	-0.000814
N+3.00	48	59	DER5	Combination	0.023213	-0.000632	-9.6E-05	2E-05	0.003768	-0.001373
N+3.00	48	59	DER6	Combination	-0.023273	0.000483	-0.000125	0.000112	-0.004074	0.001386
N+3.00	48	59	DER7	Combination	0.000719	0.022164	0.001149	0.000589	-0.000172	0.000832
N+3.00	48	59	DER8	Combination	-0.000779	-0.022312	-0.00137	-0.000457	-0.000133	-0.000819
N+3.00	29	26	DER1	Combination	0.025144	-0.000395	0	0	0	-0.001368
N+3.00	29	26	DER2	Combination	-0.02529	0.000117	0	0	0	0.001391
N+3.00	29	26	DER3	Combination	-0.000506	0.021919	0	0	0	0.000837
N+3.00	29	26	DER4	Combination	0.00036	-0.022197	0	0	0	-0.000814
N+3.00	29	26	DER5	Combination	0.025178	-0.000332	0	0	0	-0.001373
N+3.00	29	26	DER6	Combination	-0.025257	0.00018	0	0	0	0.001386
N+3.00	29	26	DER7	Combination	-0.000472	0.021982	0	0	0	0.000832
N+3.00	29	26	DER8	Combination	0.000393	-0.022133	0	0	0	-0.000819
Base	1	1	DER1	Combination	0	0	0	0	0	0
Base	1	1	DER2	Combination	0	0	0	0	0	0
Base	1	1	DER3	Combination	0	0	0	0	0	0
Base	1	1	DER4	Combination	0	0	0	0	0	0
Base	1	1	DER5	Combination	0	0	0	0	0	0
Base	1	1	DER6	Combination	0	0	0	0	0	0
Base	1	1	DER7	Combination	0	0	0	0	0	0
Base	1	1	DER8	Combination	0	0	0	0	0	0
Base	3	5	DER1	Combination	0	0	0	0	0	0
Base	3	5	DER2	Combination	0	0	0	0	0	0
Base	3	5	DER3	Combination	0	0	0	0	0	0
Base	3	5	DER4	Combination	0	0	0	0	0	0
Base	3	5	DER5	Combination	0	0	0	0	0	0
Base	3	5	DER6	Combination	0	0	0	0	0	0
Base	3	5	DER7	Combination	0	0	0	0	0	0
Base	3	5	DER8	Combination	0	0	0	0	0	0
Base	4	7	DER1	Combination	0	0	0	0	0	0
Base	4	7	DER2	Combination	0	0	0	0	0	0
Base	4	7	DER3	Combination	0	0	0	0	0	0
Base	4	7	DER4	Combination	0	0	0	0	0	0
Base	4	7	DER5	Combination	0	0	0	0	0	0

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
Base	4	7	DER6	Combination	0	0	0	0	0	0
Base	4	7	DER7	Combination	0	0	0	0	0	0
Base	4	7	DER8	Combination	0	0	0	0	0	0
Base	5	9	DER1	Combination	0	0	0	0	0	0
Base	5	9	DER2	Combination	0	0	0	0	0	0
Base	5	9	DER3	Combination	0	0	0	0	0	0
Base	5	9	DER4	Combination	0	0	0	0	0	0
Base	5	9	DER5	Combination	0	0	0	0	0	0
Base	5	9	DER6	Combination	0	0	0	0	0	0
Base	5	9	DER7	Combination	0	0	0	0	0	0
Base	5	9	DER8	Combination	0	0	0	0	0	0
Base	6	11	DER1	Combination	0	0	0	0	0	0
Base	6	11	DER2	Combination	0	0	0	0	0	0
Base	6	11	DER3	Combination	0	0	0	0	0	0
Base	6	11	DER4	Combination	0	0	0	0	0	0
Base	6	11	DER5	Combination	0	0	0	0	0	0
Base	6	11	DER6	Combination	0	0	0	0	0	0
Base	6	11	DER7	Combination	0	0	0	0	0	0
Base	6	11	DER8	Combination	0	0	0	0	0	0
Base	7	13	DER1	Combination	0	0	0	0	0	0
Base	7	13	DER2	Combination	0	0	0	0	0	0
Base	7	13	DER3	Combination	0	0	0	0	0	0
Base	7	13	DER4	Combination	0	0	0	0	0	0
Base	7	13	DER5	Combination	0	0	0	0	0	0
Base	7	13	DER6	Combination	0	0	0	0	0	0
Base	7	13	DER7	Combination	0	0	0	0	0	0
Base	7	13	DER8	Combination	0	0	0	0	0	0
Base	8	15	DER1	Combination	0	0	0	0	0	0
Base	8	15	DER2	Combination	0	0	0	0	0	0
Base	8	15	DER3	Combination	0	0	0	0	0	0
Base	8	15	DER4	Combination	0	0	0	0	0	0
Base	8	15	DER5	Combination	0	0	0	0	0	0
Base	8	15	DER6	Combination	0	0	0	0	0	0
Base	8	15	DER7	Combination	0	0	0	0	0	0
Base	8	15	DER8	Combination	0	0	0	0	0	0
Base	9	17	DER1	Combination	0	0	0	0	0	0
Base	9	17	DER2	Combination	0	0	0	0	0	0
Base	9	17	DER3	Combination	0	0	0	0	0	0
Base	9	17	DER4	Combination	0	0	0	0	0	0
Base	9	17	DER5	Combination	0	0	0	0	0	0
Base	9	17	DER6	Combination	0	0	0	0	0	0
Base	9	17	DER7	Combination	0	0	0	0	0	0
Base	9	17	DER8	Combination	0	0	0	0	0	0
Base	10	19	DER1	Combination	0	0	0	0	0	0
Base	10	19	DER2	Combination	0	0	0	0	0	0
Base	10	19	DER3	Combination	0	0	0	0	0	0
Base	10	19	DER4	Combination	0	0	0	0	0	0
Base	10	19	DER5	Combination	0	0	0	0	0	0
Base	10	19	DER6	Combination	0	0	0	0	0	0
Base	10	19	DER7	Combination	0	0	0	0	0	0
Base	10	19	DER8	Combination	0	0	0	0	0	0
Base	11	21	DER1	Combination	0	0	0	0	0	0
Base	11	21	DER2	Combination	0	0	0	0	0	0
Base	11	21	DER3	Combination	0	0	0	0	0	0
Base	11	21	DER4	Combination	0	0	0	0	0	0
Base	11	21	DER5	Combination	0	0	0	0	0	0
Base	11	21	DER6	Combination	0	0	0	0	0	0
Base	11	21	DER7	Combination	0	0	0	0	0	0
Base	11	21	DER8	Combination	0	0	0	0	0	0

Story	Label	Unique Name	Output Case	Case Type	Ux m	Uy m	Uz m	Rx rad	Ry rad	Rz rad
Base	12	23	DER1	Combination	0	0	0	0	0	0
Base	12	23	DER2	Combination	0	0	0	0	0	0
Base	12	23	DER3	Combination	0	0	0	0	0	0
Base	12	23	DER4	Combination	0	0	0	0	0	0
Base	12	23	DER5	Combination	0	0	0	0	0	0
Base	12	23	DER6	Combination	0	0	0	0	0	0
Base	12	23	DER7	Combination	0	0	0	0	0	0
Base	12	23	DER8	Combination	0	0	0	0	0	0

1.3 Modal Results

Table 1.4 - Modal Periods And Frequencies

Case	Mode	Period sec	Frequency cyc/sec	CircFreq rad/sec	Eigenvalue rad2/sec2
Modal	1	0.361	2.768	17.3931	302.5212
Modal	2	0.33	3.031	19.0448	362.7037
Modal	3	0.283	3.539	22.2344	494.3668
Modal	4	0.135	7.411	46.5631	2168.1185
Modal	5	0.131	7.646	48.0437	2308.1968
Modal	6	0.123	8.147	51.1904	2620.4527

Table 1.5 - Modal Participating Mass Ratios (Part 1 of 2)

Case	Mode	Period sec	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ	SumRX
Modal	1	0.361	0.7543	0.0231	0	0.7543	0.0231	0	0.0038	0.1314	0.1638	0.0038
Modal	2	0.33	0.0531	0.8507	0	0.8074	0.8737	0	0.1434	0.0095	0.0261	0.1473
Modal	3	0.283	0.1148	0.054	0	0.9222	0.9277	0	0.0112	0.0248	0.7285	0.1585
Modal	4	0.135	0.0695	0.0016	0	0.9917	0.9294	0	0.0186	0.7864	0.0012	0.1771
Modal	5	0.131	0.0036	0.0685	0	0.9953	0.9978	0	0.7785	0.0282	0.0053	0.9556
Modal	6	0.123	0.0047	0.0022	0	1	1	0	0.0444	0.0197	0.0751	1

Table 1.5 - Modal Participating Mass Ratios (Part 2 of 2)

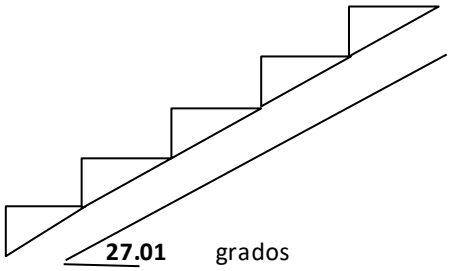
SumRY	SumRZ
0.1314	0.1638
0.1409	0.1898
0.1657	0.9184
0.9521	0.9196
0.9803	0.9249
1	1

TABLE: Joint Reactions										
Story	Label	Unique Name	Output Case	Case Type	FX	FY	FZ	MX	MY	MZ
					kN	kN	kN	kN-m	kN-m	kN-m
Base	1	1	CIM	Combination	2,6634	-7,7708	97,1821	8,328	3,1917	-0,025
Base	3	15	CIM	Combination	-2,153	-8,4126	97,5435	9,2135	-2,18	-0,025
Base	4	14	CIM	Combination	2,102	3,4532	119,528	-4,2482	2,5219	-0,034
Base	5	2	CIM	Combination	-2,446	8,7713	180,153	-10,147	-2,594	-0,034
Base	6	13	CIM	Combination	-0,794	5,8471	133,544	-6,7637	-0,747	-0,034

Base	7	16	CIM	Combination	2,644	1,9921	74,323	-2,5593	3,0056	-0,025
Base	8	3	CIM	Combination	-0,608	2,3322	106,866	-2,9867	-0,61	-0,034
Base	9	12	CIM	Combination	-1,933	1,7035	65,1981	-2,0677	-2,095	-0,025
Base	10	17	CIM	Combination	1,2511	1,0061	15,7904	-1,4569	1,4204	-0,025
Base	11	4	CIM	Combination	-0,677	2,6605	19,1704	-3,2425	-0,744	-0,025
Base	12	11	CIM	Combination	-0,05	-11,583	148,363	12,6303	0,2949	-0,034
Base	8	18	CIM	Combination	-0,608	2,3322	106,866	-2,9867	-0,61	-0,034
Base	5	5	CIM	Combination	-2,446	8,7713	180,153	-10,147	-2,594	-0,034
Base	3	10	CIM	Combination	-2,153	-8,4126	97,5435	9,2135	-2,18	-0,025
Base	8	19	CIM	Combination	-0,608	2,3322	106,866	-2,9867	-0,61	-0,034
Base	1	6	CIM	Combination	2,6634	-7,7708	97,1821	8,328	3,1917	-0,025
Base	9	9	CIM	Combination	-1,933	1,7035	65,1981	-2,0677	-2,095	-0,025
Base	8	20	CIM	Combination	-0,608	2,3322	106,866	-2,9867	-0,61	-0,034
Base	10	7	CIM	Combination	1,2511	1,0061	15,7904	-1,4569	1,4204	-0,025
Base	11	8	CIM	Combination	-0,677	2,6605	19,1704	-3,2425	-0,744	-0,025
Base	12	22	CIM	Combination	-0,05	-11,583	148,363	12,6303	0,2949	-0,034

3.10. DISEÑO DE ESCALERA

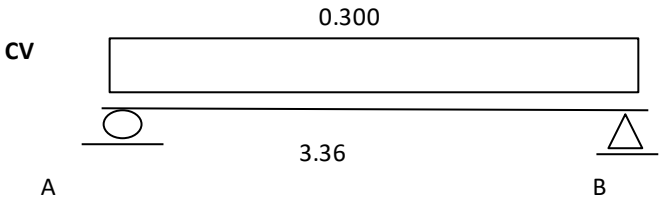
Longitud de la viga=	**3.06**	m
Espesor viga=	**0.20**	m
Altura de diseño=	**1.56**	m
Numero de contrahuellas=	**9**	
Contrahuella=	**0.173**	m
Huella=	**0.28**	m
Ancho de la escalera=	**1.00**	m
Angulo de inclinacion=	**0.47**	rad



Peso propio losa=	**0.539**	Ton/m2
Peso peldaños=	**0.208**	Ton/m2
Acabados en huella y cthuella=	**0.142**	Ton/m2
CM=	**0.889**	Ton/m2
CV=	**0.300**	Ton/m2



RA= 1.49 Ton/mL
RB= 1.49 Ton/mL



RA= 0.50 Ton/mL
RB= 0.50 Ton/mL

DISEÑO DE ESCALERA

DISEÑO A FLEXION

Wmayorada=	1.55	Ton/mL	
Mmax=	2.183	Ton*m/m	
K=	85.284	Ton/m2	
Ro=	0.0023		
Romin=	0.0018		
Aslong=	4.630	cm2/m	1#5 C/.20
Astrans=	3.593	cm2/m	1#3 C/.20

REVISION DE CORTANTES

V=	3.00	Ton/mL	
v=	19.97	Ton/m2/ml	
Φvc=	58.43	Ton/m2/ml	OK

3.11. DISEÑO DE VIGAS DE CIMENTACIÓN

Generalidades

Zona de amenza sísmica	=	BAJA	
Aa	=	**0.05**	*(Coeficiente de aceleración horizontal pico efectiva)*
Longitud Max.	=	**7.00 m**	
Pu	=	**359.00 KN**	*(Valor de la fuerza axial mayorada)*
f´c	=	**21 MPa**	
fy	=	**420 MPa**	

Predimensionamiento

Altura mínima de viga	=	**0.18 m**
Altura adoptada	=	**0.35 m**
Ancho	=	**0.30 m**
Ag	=	**1050 cm2**

A.3.6.4.2. Las vigas de cimentación deben ser capaces de resistir en tensión o en compresión una fuerza no menor de (0.25 Aa) veces la carga vertical total del elemento que tenga la mayor carga entre los que interconecta, además de las fuerzas que le transmita la superestructura.

C ó T	=	**0.25 Aa x Pu**	
C ó T	=	**4.49 KN**	*(Fuerza que debe resistir la viga)*

Refuerzo de la Viga

Barra #	=	**#5**
No. De Barras	=	**2 barras**
Ast	=	**3.98 cm2**

Resistencia a la compresión =

$$C = 0.75\,\phi\,[0.85\,f'c\,(Ag - Ast) + fy\,Ast]$$

ϕ = 0.65

C	=	**991.72 KN**	*(Fuerza de compresión capaz de resistir la viga)*

991.72 KN	**>**	**4.49 KN**	**OK**

Resistencia a la Tensión =

$T = 0.90\ fy\ Ast$

T = 150.44 KN *(Fuerza de Tensión capaz de resistir la viga)*

150.44 KN **>** 4.49 KN **OK**

Diseño de la viga de cimentación para momento trasmitido por las columnas:

Momento máximo en el nudo columna -- zapata :

M max = **22.15 KN.m** *(momento máximo en la base)*

Momento que resiste la viga =

ρ	=	0.005102564
b	=	0.30 m
d	=	0.26 m

$M = \phi \rho fy[1 - 0.59p\ fy/(f'c)$ = **36.8 KN.m**

36.76 KN **>** 22.15 KN **OK**

Generalidades

Zona de amenza sísmica	=	**BAJA**	
Aa	=	**0.05**	*(Coeficiente de aceleración horizontal pico efectiva)*
Longitud Max.	=	**4.00 m**	
Pu	=	**359.00 KN**	*(Valor de la fuerza axial mayorada)*
f´c	=	**21 MPa**	
fy	=	**420 MPa**	

Predimensionamiento

Altura mínima de viga	=	**0.10 m**
Altura adoptada	=	**0.30 m**
Ancho	=	**0.30 m**
Ag	=	**900 cm2**

A.3.6.4.2. Las vigas de cimentación deben ser capaces de resistir en tensión o en compresión una fuerza no menor de (0.25 Aa) veces la carga vertical total del elemento que tenga la mayor carga entre los que interconecta, además de las fuerzas que le transmita la superestructura.

C ó T	=	**0.25 Aa x Pu**	
C ó T	=	**4.49 KN**	*(Fuerza que debe resistir la viga)*

Refuerzo de la Viga

Barra #	=	**#5**
No. De Barras	=	**2 barras**
Ast	=	**3.98 cm2**

Resistencia a la compresión =

$$C = 0.75\,\phi\,[0.85\,f'c\,(Ag - Ast) + fy\,Ast]$$

ϕ = 0.65

C	=	**861.20 KN**	*(Fuerza de compresión capaz de resistir la viga)*

861.20 KN	**>**	**4.49 KN**	**OK**

Resistencia a la Tensión =

$T = 0.90\ fy\ Ast$

T = 150.44 KN *(Fuerza de Tensión capaz de resistir la viga)*

150.44 KN > 4.49 KN **OK**

Diseño de la viga de cimentación para momento trasmitido por las columnas:

Momento máximo en el nudo columna -- zapata :

M max = **22.15 KN.m** *(momento máximo en la base)*

Momento que resiste la viga =

ρ	=	0.00631746
b	=	0.30 m
d	=	0.21 m

$M = \phi \rho fy[1 - 0.59p\ fy/(f'c)$ = **29.2 KN.m**

29.24 KN > 22.15 KN **OK**

3.12. DISEÑO DE ZAPATAS

REVISIÓN BIAXIAL DE ZAPATA CUADRADA AISLADA

TIPO	1
Cant.	21

Materiales y Solicitaciones

Pu =	12.3 kN
MuL =	1.10 kN·m
MuB =	1.34 kN·m
σad =	0.1000 MPa
f y =	420 MPa
f'c =	21 MPa
b =	300 mm
l =	300 mm
F.C.S =	1.5
P =	11 kN
ML =	1 kN·m
MB =	1 kN·m
eL =	0.09 m
eB =	0.11 m

Punzonamiento

α s =	40
βc =	1.0
b0 =	2100 mm
Vu2 =	10 kN
ν n2 =	0.02 MPa
ν p1 =	1.53 MPa
ν p2 =	2.40 MPa
ν p3 =	2.29 MPa
ν p =	1.53 MPa

Distribución del Acero

β =	1
2 / (β+1) =	1

Flexión por Pu + MuL

Directo

ML =	1 kN·m
ρ L =	0.0001
AsL =	720 mm²
	Acero Mínimo

Indirecto

MB =	1 kN·m
ρ B =	0.0001
AsB =	720 mm²
	Acero Mínimo

Flexión por Pu + MuB

Directo

MB =	1 kN·m
ρ B =	0.0001
AsB =	486 mm²
	Acero Mínimo

Indirecto

ML =	1 kN·m
ρ L =	0.0001
AsL =	486 mm²
	Acero Mínimo

Cortante por Pu + MuL

Directo

h =	300 mm
d'=	75 mm
d =	225 mm
ν c =	0.76 MPa
ν nL =	0.01 MPa

Indirecto

ν nB =	0.01 MPa

Cortante por Pu + MuB

Directo

ν nB =	0.01 MPa

Indirecto

ν nL =	0.01 MPa

Dimensiones en Planta

L min =	537 mm
B min =	654 mm
L =	1200 mm
B =	1200 mm
Área =	1440000 mm²
σ máx =	0.015 MPa
σ min =	0.000 MPa

σ para MuL

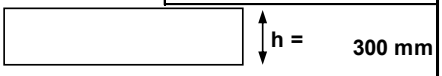
σ máx =	0.011 MPa
σ min =	0.004 MPa

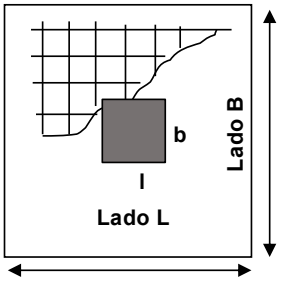
σ para MuB

σ máx =	0.012 MPa
σ min =	0.004 MPa

Aplastamiento

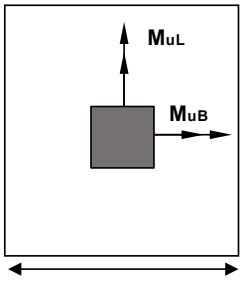
A1 =	90000 mm²
A2 =	2250000 mm²
Puc =	2249 kN





AsB = 720 mm²

AsL = 720 mm²

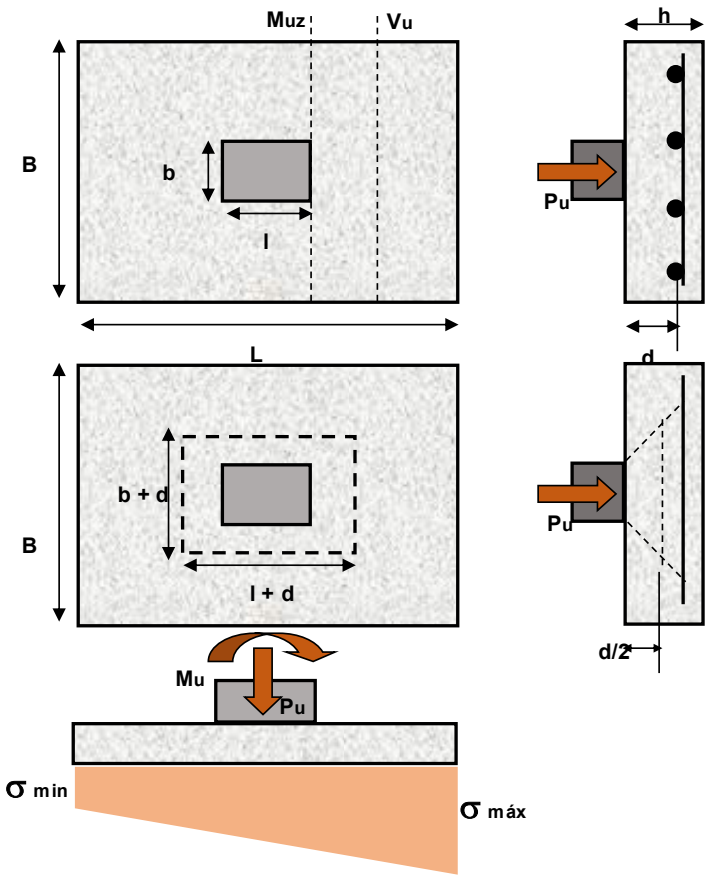


B = 1200 mm

L = 1200 mm

				C/ (m)	Longitud (m)
Colocar	6	#	4	0.21	1.05
Colocar	6	#	4	0.21	1.05

ESQUEMAS DE CIMENTACION



3.13. DISEÑO DE ELEMENTOS NO ESTRUCTURALES

Sa = Valor del espectro de aceleraciones de diseño para un periodo de vibración dado.
Vs = Cortante sísmico en la base
Aa = Coeficiente de aceleración pico efectiva
g = Gravedad
As= Aceleracion Maxima correspondiente a un T=0
M = Masa total de la edificación
hx= Altura en metros medida desde la base, del nivel del apoyo del elemento no estructural
heq= altura equivalente del sistema de un grado de libertad que simula la edificacion
ax = Aceleración horizontal que ocurre en el punto donde el elemento no estructural está soportado.
L = Longitud del elemento no estructural
E = Fuerzas sísmicas reducidas de diseño (E=Fp/Rp)
H = Altura del elemento no estructural
W = Densidad de la mampostería
Mp = Masa de elemento no estructural
ap = Coeficiente de amplificación dinámica del elemento no estructural
Rp = Coeficiente de capacidad de disipación de energía del elemento no estructural
Fp = fuerza sísmica horizontal sobre el elemento no estructural (A.9-2)
Mdis = momento de diseño
hn= Altura en metros medida desde la base, del piso más alto de la edificación
I= Coeficiente de importancia

DATOS DE ENTRADA SEGÚN NSR-10 A.9

TIPO DE ELEMENTO A DISEÑAR: Muros interiores y de fachada

I = 1.00 **Sa(g) =** 1.01 **hn=** 6.00 **Aa=** 0.05

GRADO DE DESEMPEÑO: BAJO **hx=** 3.00 **heq (0.75*hn)=** 4.5

Vs (kN) = 6.70

FUERZAS SISMICAS DE DISEÑO:

Aa = 0.05
As= 0.40

$ax = As + \frac{(Sa - As)hx}{heq}$ ax = 0.81 hx≤ heq

g(m/s2) = 9.81

$ax = \frac{Sa\ hx}{heq}$ ax = 0.67 hx ≥ heq

mx(kg) = 675.75

Tomamos : ax = 0.81

L(m) = 1 **Rp =** 1.50 **ap =** 2.50 **Mp(kg) =** 675.75

H(m) = 2.65

$Fp1 = \frac{ax*ap*g*Mp}{Rp}$ **Fp1=** 891.25

$Fp2 = \frac{Aa*I*g*Mp}{2}$ **Fp2=** 16.57

Fp1 ≥ Fp2 se escoge el mayor de los dos valores

Fp Def= 891.25

E = 594.164

$Mdis = \frac{Fp*H^2}{2}$ Mdis = 3129.39kg.m As = 0.799cm2 1#4 c/ 100 cm

$Vdis = \frac{Fp}{2}$ Vdis = 445.62kg

DATOS DE ENTRADA SEGÚN NSR-10 A.9

TIPO DE ELEMENTO A DISEÑAR: Culatas

I = 1.00 **Sa(g) =** 1.01 **hn=** 6.00 **Aa=** 0.05

GRADO DE DESEMPEÑO: BAJO **hx=** 6.00 **heq (0.75*hn)=** 4.5

Vs (kN) = 2.53

FUERZAS SISMICAS DE DISEÑO:

Aa = 0.05
As= 0.40

$ax = As + \frac{(Sa - As)hx}{heq}$ ax = 1.21 hx≤ heq

g(m/s2) = 9.81

$ax = \frac{Sa\ hx}{heq}$ ax = 1.35 hx ≥ heq

mx(kg) = 255

Tomamos : ax = 1.35

L(m) = 1 **Rp =** 1.50 **ap =** 2.50 **Mp(kg) =** 255

H(m) = 1

$Fp1 = \frac{ax*ap*g*Mp}{Rp}$ **Fp1=** 561.46

$Fp2 = \frac{Aa*I*g*Mp}{2}$ **Fp2=** 6.25

Fp1 ≥ Fp2 se escoge el mayor de los dos valores

Fp Def= 561.46

E = 374.306

$Mdis = \frac{Fp*H^2}{2}$ Mdis = 280.73kg.m As = 0.070cm2 1#3 c/ 100 cm

$Vdis = \frac{Fp}{2}$ Vdis = 280.73kg

3.14. DISEÑO DE CERRAMIENTO

DISEÑO ESTRUCTURAL DE CERRAMIENTO

Factores de Zona:		
Coeficiente Sismco	0.60	
Factor de Zona (Z)	1.00	
Factor de uso (U)	1.50	
Datos para el diseño Estructural del Cerco Perimetrico:		
Peso especifico de elementos prefabricados (ɣm)	2.40	Tn/m3
Peso especifico de concreto armado (ɣca)	2.80	Tn/m3
Espesor del muro (t)	0.25	m
Altura del muro (h=a)	0.20	m
Separacion entre tramos de cerco (L=2b)	0.10	m
Resistencia admisible a traccion por flexion de Concreto (ft)	15.00	Ton/m2

Verificacion de Espesor de Muro		
Valor de "a" - Altura del cerco	2.00	
Valor de "b" - Ancho del cerco	0.25	
b / a :	0.13	
Valor de "m" - Momento	0.132	
Valor de s= 6 Z C1 ɣ / ft	0.58	/m
Valor de "t" = 0.8 U s m a^2	0.36	m

TABLA 12
VALORES DEL COEFICIENTE DE MOMENTOS «m» y DIMENSION CRITICA «a»

CASO 1. MURO CON CUATRO BORDES ARRIOSTRADOS
a = Menor dimensión

b/a =	1,0	1,2	1,4	1,6	1,8	2,0	3,0	∞
m =	0,0479	0,0627	0,0755	0,0862	0,0948	0,1017	0,118	0,125

CASO 2. MURO CON TRES BORDES ARRIOSTRADOS
a = Longitud del borde libre

b/a =	0,5	0,6	0,7	0,8	0,9	1,0	1,5	2,0	∞
m =	0,060	0,074	0,087	0,097	0,106	0,112	0,128	0,132	0,133

CASO 3.MURO ARRIOSTRADO SOLO EN SUS BORDES HORIZONTALES
a = Altura del muro
m = 0,125

CASO 4. MURO EN VOLADIZO
a = Altura del muro
m = 0,5

Datos para el diseño Estructural del Cerco Perimetrico:				
Altura Libre de muro	a =	2.00	m	
Espesor de muro	t =	0.25	m	
Factor de Zona	Z =	1.0		
Factor de Uso	U =	1.50		
Resistencia a la compresion	f'm =	71.40	Kg/cm2	

Datos para el diseño del refuerzo del Cerco Perimetrico:

Calculo de fuerza sismica "w_u" actuante en contra del plano del muro

$$w_u = 1.25\ (0.8\ Z\ U\ C1\ \gamma c\ e\ )$$

w_u =	**540.00**	**Kg/m2**

Para el diseño del refuerzo (As) para este caso, puede realizarse con el metodo de la rotura (como si el muro fuese una viga de concreto armado).

Se trabajara por metro de ancho, dandose el refuerzo vertical (As) que se inciara a iterar desde el minimo; luego, asumiendo que este refuerzo fluye (fy), es posible calcular la distancia "a" por equilibrio de fuerzas verticales (As fy = 0.85 f'm a), Finalmente se debera verificarse que MR < Mu.

$Mu = w_u\ h^2 / 2$			**Mu =** **1080**	**Kg-m**
Evaluacion x metro =	100	cm		
As requerida =	1.75	cm2/m	(Cuantia minima ρ = 0.07%)	
Obtenermos a =	1.21	cm		
MR = 0.9 As fy (t-a)/2		>	Mu	
	78,681.88	>	1080.00	**OK !!!**

Por lo que se debera usar refuerzo vertical minimo :			
As usar =	***1.40***	***cm2***	***1 Ø3/8"@.20***
As usar =	***0.96***	***cm2***	***1 Ø3/8"@.22***

Diseño de Cerco Perimetrico

Datos del Suelo de Fundacion

Peso Especifico del suelo	γ_s =	1,800	Kg/m3
Angulo de Friccion	ϕ =	30	°
Coeficiente de Friccion	μ =	0.60	
Capacidad Portante	σ =	12.85	Kg/cm2

Datos del Muro

Espesor del muro (t)	0.15	m
Coeficiente Sismico C1	0.60	
Factor de Zona (Z)	1.00	
Factor de Uso (U)	4	
Ancho de sobrecimiento	0.3	m
Peralte de Sobrecimiento	0.30	m
Peso especifico del material de cerco: Concreto (γm)	2400.00	Kg/cm3
Peso especifico del concreto armado (γca)	2800.00	Kg/cm4
Peso especifico del concreto simple (γcs)	2800.00	Kg/cm5

Datos del Cimiento

Ancho Base de la Cimentacion	0.40	m
Peralte de la Cimentacion	0.30	m
Profundidad de Desplante	0.60	m
Altura de Relleno	-	m

Calculo de Empujes

Donde:

Coeficiente de resistencia activa	$K_a = tg^2 (45° - \phi/2)$
Coeficiente de resistencia pasiva	$K_p = tg^2 (45° + \phi/2)$
Empuje activo	$E_a = 1/2 \ K_a \ \gamma_s \ h_a^2 \ B$
Empuje pasivo	$E_p = 1/2 \ K_p \ \gamma_s \ h_p^2 \ B$

K_a	=	0.33
K_p	=	3.00
E_a	=	27.00 Kg
E_p	=	243.00 Kg

Calculo del Peso Total

P Muro (Pm)	120.00	Kg
P Sobrecimiento (Psc)	216.00	Kg
P Cimiento (Pc)	336.00	Kg
P Total	**672.00**	**Kg**

Empuje sismico sobre el muro (Hm= Z U C1 Pm)	108.00	Kg
Empuje sismico sobre el sobrecimiento (Hm= Z U C1 Psc)	194.40	Kg
Empuje sismico sobre la Cimentacion (Hc= Z U C1 Pc)	302.40	Kg
	604.80	Kg

Calculo la Fuerza Resistente (Fr)

$Fr = \mu * Ptotal + Ep$ = 646.20

Calculo la Fuerza Actuante (Fa)

$Fa = Hm + Hc$ = 631.80

F.S.D. = Fr / Fa 1.02 > 1 **Ok**

Chequeando Momentos Izquierda

Mv = Hi*di + Ea*ha

Elemento	Hi (Kg)	di(m)	Mi (Kg-m)
Cerco de Elementos prefabricados	80.00	0.70	56.00
Sobrecimiento	130.00	0.35	45.50
Cimiento	100.00	0.15	15.00
Empuje Activo	10.00	0.10	1.00

M_a = 117.50 Kg - m

Momento Resistente (Mr)

Mr = Pc*a/2 + Pm*t/2 + Ep*hf/3 = **163.20 Kg - m**

Luego

F.S.V. = Mr / Ma **1.39** > **1.30** **OK !!!**

Esfuerzos sobre el Terreno

Xo = (Mr - Mv) / Ptotal = 0.068 m

e = Xo - a/2 = 0.132

σt = Ptotal / (2*B (a/2 - e)) = **2.40 Kg / cm2** < **12.85** **OK !!!**

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