Bogotá D.C.; Agosto de 2023

Srs.
FUNDACION GILBERTO ALZATE AVENDAÑO
Atn.
Ciudad.

REF: INFORME DE AVANCE VALORACIÓN Y CONSOLIDACIÓN ESTRUCTURAL TEATRO FUGA

Cordial saludo:

Por medio de la presente socializamos el informe consolidado de las actividades desarrolladas para la valoración y consolidación del proyecto estructural correspondiente al teatro de la Fundación Gilberto Álzate Avendaño dentro del marco para el contrato.

Agradecemos su atención y quedamos atentos a las observaciones derivadas de la revisión del presente informe.

Cordialmente,



JORGE ALEXANDER ROMERO LADINO
Ing Civil. – Especialista en Estructuras
M.P. 25202-153296 CND

Carrera 4 No. 23-53 Oficina 402 Bogotá D.C.
Tel.: 57 (1) 548 3233 – Cel. 313 229 9523
E-Mail consorciobassi@gmail.com

TEATRO FUNDACION GILBERTO ALZATE AVENDAÑO



INFORME 2 MEMORIAS DE DISEÑO ESTRUCTURAL DE LAS ESTRUCTURAS DE SOPORTE PARA EQUIPOS MECÁNICA TEATRAL Y PUENTE DE ILUMINACIÓN

JORGE ALEXANDER ROMERO LADINO
INGENIERO CIVIL – ESP. ESTRUCTURAS
M.P. 25202-153296 CND

BOGOTA. D.C., AGOSTO DE 2023

FORMATO DE CONTROL DE REVISIÓN DEL DOCUMENTO

No DE PROYECTO: PVS-2022-03

OBJETO CONSOLIDACION DE LA RERSTAURACION TEATRO FUNDACION GILBERTO ALZATE AVENDAÑO

MUNICIPIO: BOGOTA D.C.

CLIENTE: CONSORCIO BASSI

FECHA DE ENTREGA AL CLIENTE	REV.	OBSERVACIÓN Y/O MOTIVO DE LA MODIFICACIÓN	REALIZÓ	REVISÓ	APROBÓ
26/08/2022	0	ENTREGA PARA REVISIÓN Y APROBACIÓN	J.A.R.L.		
26/11/2022	0	ENTREGA FINAL PARA REVISIÓN Y APROBACIÓN	J.A.R.L.		

J.A.R.L.: IC Especialista en Estructuras Jorge Alexander Romero Ladino

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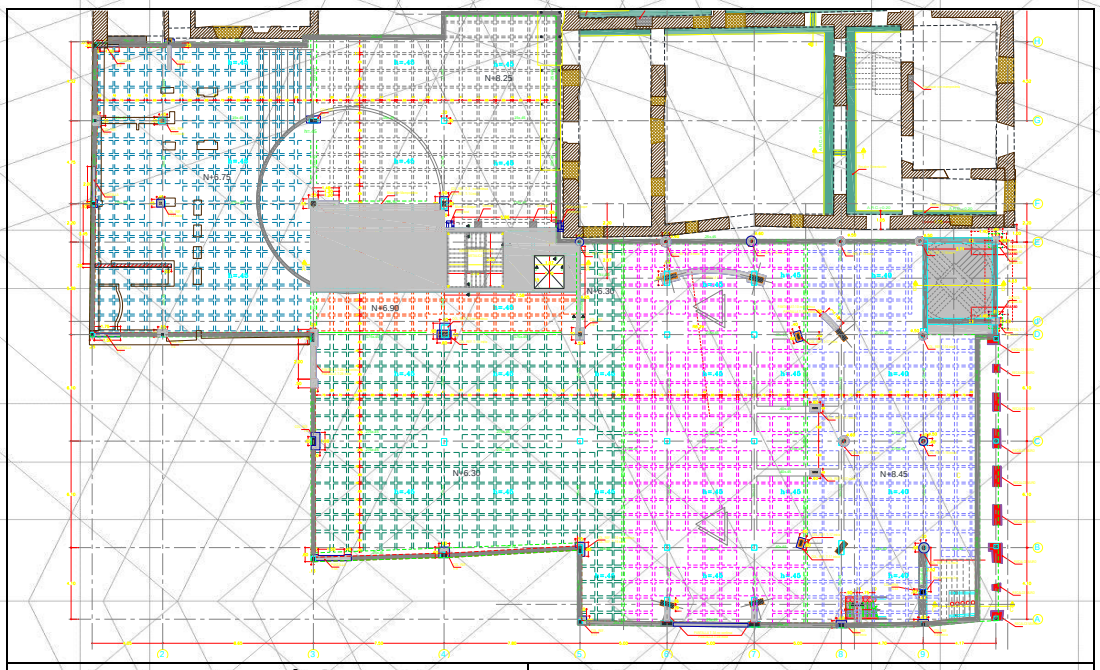
INTRODUCCIÓN

El presente informe describe las memorias de diseño de alternativas para la inclusión de elementos y sistemas que permitan la funcionalidad de otras especialidades para el correcto funcionamiento del teatro de la fundación Gilberto Álzate Avendaño ubicado en la Carrera 3 # 10 -27 de la nomenclatura de la ciudad de Bogotá D.C., ante condiciones locales como parámetros sísmicos y resistencia de la estructura existente. El Informe plantea alternativas para la solución de diseños pendientes para la funcionalidad del teatro en general. Para el desarrollo del proyecto se tuvieron en cuenta las especificaciones generales de diseño, las cuales indican que la estructura debe tener resistencia y rigidez adecuadas ante las cargas mínimas de diseño prescritas por el reglamento NSR-10 y debe, además, verificarse que dispone de rigidez adecuada para limitar la deformabilidad ante las cargas de servicio, de tal manera que no se vea afectado el funcionamiento de la edificación. Teniendo esto en cuenta, se evalúan todas las solicitaciones que pueden afectar la edificación de acuerdo con los requisitos de la norma; estas incluyen: el efecto gravitacional de la masa de los elementos estructurales, o peso propio, las cargas de acabados y elementos no estructurales, las cargas muertas, y las deformaciones impuestas por efectos reológicos de los materiales estructurales.

El diseño de los elementos y la estructura valorada y aquí contemplada se rige mediante las siguientes normas:

- Norma Sismo Resistente Colombiana NSR 10.
- ASCE-7 2016 Cap 26 a 30
- ACI-IPS-1 (NSR-10. C1.1.8)
- ACI 318
- AISC-360/10 AISI 2008.

1. DESCRIPCIÓN DE LA ESTRUCTURA



Característica	**CUBIERTA**
Uso	II Edificaciones de ocupación especial
Coeficiente de Importancia	1.10
# Niveles	3
Área Construida (m^2)	2800 Aprox
Altura máx. (m)	15.65
Sistema Estructural	Reticular Celulado
Pórticos en *x*	6
Pórticos en *y*	4

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E-Mail consorciobassi@gmail.com

2. CRITERIOS DE DISEÑO SÍSMICO SEGÚN NSR-10

En la revisión adelantada al proyecto de reforzamiento estructural realizada por la firma CONSULTEC S.A.S. Ingenieros Consultores acorde al procedimiento sugerido en la sección A.1.3 de la NSR-10, se establecieron los parámetros y criterios para el diseño y la elaboración de planos constructivos y demás documentos que hacen parte de este paquete.

Se recibió la siguiente documentación:

DOCUMENTACIÓN ENTREGADA PARA REVISIÓN				
CARPETA	CANTIDAD DE ARCHIVOS	CANTIDAD DE FOLIOS	FORMATO	FECHA O AÑO
Registro de Apiques y Calas de cimentación	12	576	.pdf	2012-2013
Memorias estructurales	9	343	.pdf	2020-2021
Planos estructurales dwg	3	22	.dwg	06/05/2021
Planos estructurales pdf	22	22	.pdf	07/05/2021
Vulnerabilidad	7	996	.pdf	2012-2020

2.1 LOCALIZACIÓN, NIVEL DE AMENAZA, VALORES AA Y AV

La estructura analizada para las propuestas de reforzamiento se encuentra ubicada en la ciudad de Bogotá, en zona de amenaza sísmica Intermedia, con valores de aceleración y velocidad pico efectiva Aa=0.15 y Av=0.20.

Los parámetros de diseño sísmico empleados fueron:

- Zona de amenaza sísmica: Intermedia
- Microzonificación sísmica de Bogotá: piedemonte
- Coeficiente de aceleración pico efectiva: 0.15
- Coeficiente de velocidad piso efectiva: 0.20

- Coeficiente de importancia: I =1.10 grupo de uso II
- Clasificación del suelo NSR-10 tabla A.2.4-1 : Suelo tipo E
- Coeficiente de amplificación de la aceleración Fa = 1.95
- Coeficiente de amplificación de la velocidad Fv = 1.70

2.2 DEFINICIÓN DE LAS CARACTERÍSTICAS DE ESTRUCTURACIÓN Y DEL MATERIAL ESTRUCTURAL EMPLEADO

- Sistema Estructural: El sistema estructural empleado corresponde a un sistema reticular celulado.

- Materiales Estructurales: Las especificaciones para los materiales empleados son:

RESISTENCIA DEL CONCRETO Y ACERO: de acuerdo a las especificaciones incluidas en los planos se tienen resistencias del concreto de 280 kg/cm² (28 MPa), para el acero de refuerzo de 4200 kg/cm² (420MPa) para diámetros mayores a ½" y 2370 kg/cm² (237MPa) para diámetros menores o iguales a 3/8".

Acero de perfiles:

Módulo de elasticidad E=200000 Mpa

PLATINAS ASTM A-36 Grado 36 Fy = 250 Mpa = 2500 Kgf/cm2

Perfiles tubulares ASTM A-500 Grado C Fy = 350 Mpa = 3500 Kgf/cm2

Perfiles IPE - HEA ASTM A-572 Grado 50 Fy = 350 Mpa = 3500 Kgf/cm2

Tornillería estructural:

ASTM A325 o SAE Gr 5

Pernos de anclaje:

ASTM A-193 Gr B-7

Soldaduras:

Procedimientos y soldadores calificados AWS D1:1, Resistencia minima del electrodo E70xx

2.3 ANALISIS DE IRREGULARIDADES

IRREGULARIDADES EN PLANTA: Øp =1.00

1. TIPO 1P (la edificación no presenta efectos torsionales significativos)
2. TIPO 2P (no presenta)
3. TIPO 3P (no presenta)
4. TIPO 4P (presente) Las columnas no son continuas hasta la cimentación.
5. TIPO 5P (no presenta)

IRREGULARIDADES EN ALTURA: Øa = 1.00

1. TIPO 1A (no presenta)
2. TIPO 2A (no hay variaciones de masa de más del 50% entre un piso y el siguiente.)
3. TIPO 3A (no presenta)
4. TIPO 4A (todas las columnas no tienen continuidad desde el primer piso hasta cubierta)
5. TIPO 5A (no presenta)

3. VALORACION DE LAS INTERVENCIONES REALIZADAS EN EL REFORZAMIENTO DE LA ESTRUCTURA

Se realizo la inspección y registro en sitio de las obras ejecutadas a la fecha en el teatro, las intervenciones realizadas en el momento no se encuentran concluidas en su totalidad, en este informe se pretende dar una valoración del estado de estas actividades, asignado una calificación porcentual a cada uno de los elementos estudiados en sitio, entendiéndose por elemento cada uno de los componentes del sistema principal de resistencia sísmica de la edificación (Vigas, Columnas, Losas, elementos de cimentación) y de los elementos estructurales y no estructurales que no hacen parte del sistema de resistencia sísmica tales como escaleras, muros divisorios rampas etc.

En la valoración se tuvieron en cuenta los siguientes aspectos:

A. Demolición de la zona de trabajo adyacente al elemento intervenido:

Consiste en valorar si se realizaron las regatas, ventanas o cajas espaciales para poder realizar las obras de reforzamiento de un elemento, el cual puede involucrar la demolición de parte de la estructura, muros, acabados adyacente al elemento. Para la valoración global del elemento esta actividad desarrollada en su totalidad tendrá un valor máximo del 20%.

B. Instalación y anclaje de las barras de refuerzo:

Se valora en porcentaje la instalación del acero de refuerzo del elemento. Para la valoración global del elemento esta actividad desarrollada en su totalidad tendrá un valor máximo del 40%.

C. Encamisado y fundida de la sección en concreto:

Se tienen en cuenta el porcentaje de elemento que ya fue encamisado y fundido nuevamente hasta la sección definitiva contemplada en el diseño de reforzamiento. Para la valoración global del elemento esta actividad desarrollada en su totalidad tendrá un valor máximo del 40%.

En la siguiente fotografía se muestra cada una de las actividades descritas para un elemento tipo columna.

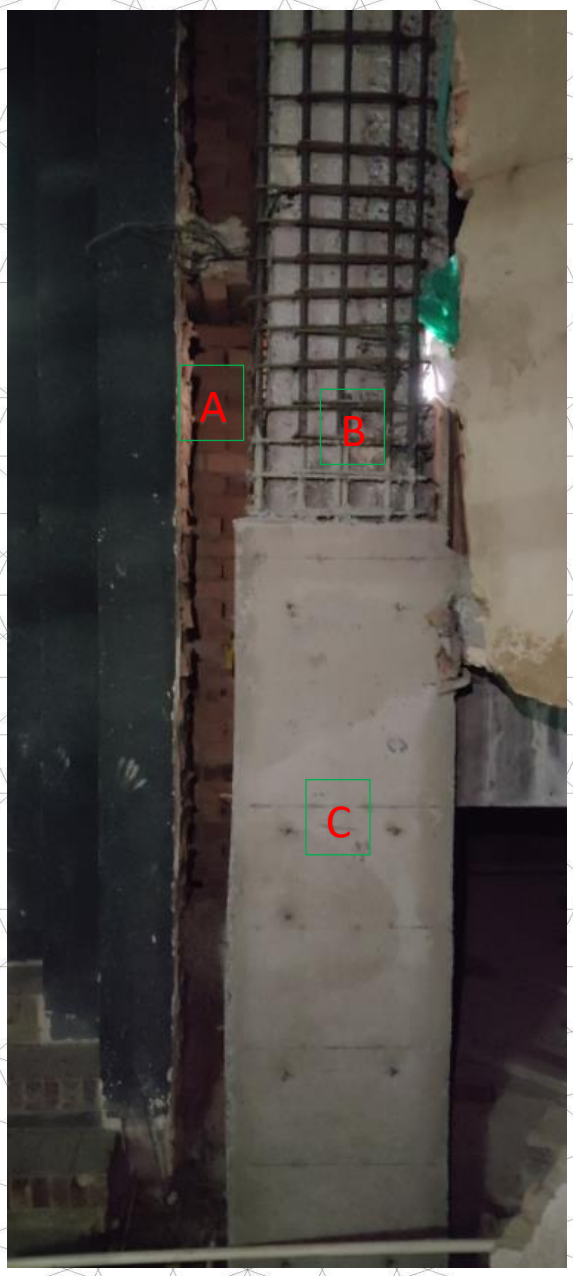


Foto N° 1 Componentes de la intervención de reforzamiento en una columna

Se elaboraron fichas de valoración para cada uno de los elementos que poseen diseño de refuerzo en el teatro de acuerdo a los planos estructurales revisados por parte de esta consultoría.

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	1
TIPO DE ELEMENTO	Columna
LOCALIZACION	C-3

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%

VALORACION TOTAL DEL ELEMENTO	60%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

Carrera 4 No. 23-53 Oficina 402 Bogotá D.C.
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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	2
TIPO DE ELEMENTO	Columna
LOCALIZACION	D-3
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%
VALORACION TOTAL DEL ELEMENTO	60%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	3
TIPO DE ELEMENTO	Columna
LOCALIZACION	B-3
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%
VALORACION TOTAL DEL ELEMENTO	60%

OBSERVACIONES:

Realizado por: J.A.R. Fecha: 03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



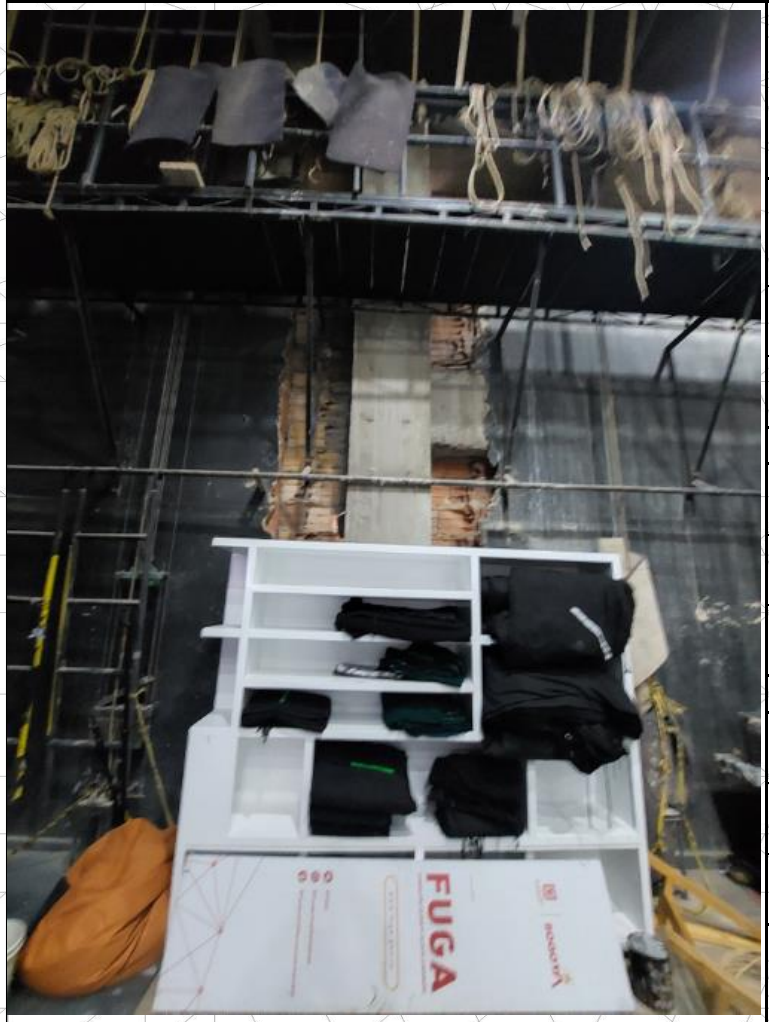
FICHA N°	4
TIPO DE ELEMENTO	Pantalla
LOCALIZACION	B-3
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	45%
VALORACION GLOBAL	18%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%
VALORACION TOTAL DEL ELEMENTO	38%

OBSERVACIONES:

Realizado por: J.A.R. Fecha: 03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	6
TIPO DE ELEMENTO	Columna
LOCALIZACION	B-4

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	90%
VALORACION GLOBAL	36%

VALORACION TOTAL DEL ELEMENTO	96%

OBSERVACIONES:

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	7
TIPO DE ELEMENTO	Columna
LOCALIZACION	B-5

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%

VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	8
TIPO DE ELEMENTO	Columna
LOCALIZACION	d-5
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	30%
VALORACION GLOBAL	12%
VALORACION TOTAL DEL ELEMENTO	72%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	9
TIPO DE ELEMENTO	Viga nivel 2
LOCALIZACION	B-4,5
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%
VALORACION TOTAL DEL ELEMENTO	60%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	10
TIPO DE ELEMENTO	Viga nivel 3
LOCALIZACION	B-4,5

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%

VALORACION TOTAL DEL ELEMENTO	60%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	11
TIPO DE ELEMENTO	Columna-P
LOCALIZACION	A-7

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	30%
VALORACION GLOBAL	12%

VALORACION TOTAL DEL ELEMENTO	72%

OBSERVACIONES:

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	12
TIPO DE ELEMENTO	Columna
LOCALIZACION	E-9

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%

VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	13
TIPO DE ELEMENTO	Columna
LOCALIZACION	D-9
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%
VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

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Carrera 4 No. 23-53 Oficina 402 Bogotá D.C.
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E-Mail consorciobassi@gmail.com

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FICHA N°	14
TIPO DE ELEMENTO	Columna
LOCALIZACION	E-8
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%
VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	15
TIPO DE ELEMENTO	Columna
LOCALIZACION	E-7
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%
VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

Realizado por: J.A.R. Fecha: 03/07/2022

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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	16
TIPO DE ELEMENTO	Columna
LOCALIZACION	E-6

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	90%
VALORACION GLOBAL	36%

VALORACION TOTAL DEL ELEMENTO	96%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	17
TIPO DE ELEMENTO	Pantalla
LOCALIZACION	D-8

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	95%
VALORACION GLOBAL	38%

VALORACION TOTAL DEL ELEMENTO	98%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	18
TIPO DE ELEMENTO	Columna
LOCALIZACION	C-9

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

VALORACION TOTAL DEL ELEMENTO	100%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	19
TIPO DE ELEMENTO	Columna-P
LOCALIZACION	A-6
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	20%
VALORACION GLOBAL	8%
VALORACION TOTAL DEL ELEMENTO	68%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	20
TIPO DE ELEMENTO	Pantalla
LOCALIZACION	E,d-6,7

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	100%
VALORACION GLOBAL	40%

VALORACION TOTAL DEL ELEMENTO	100%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	21
TIPO DE ELEMENTO	Vigas aereas
LOCALIZACION	D-4
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	70%
VALORACION GLOBAL	28%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	40%
VALORACION GLOBAL	16%
VALORACION TOTAL DEL ELEMENTO	64%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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E-Mail consorciobassi@gmail.com

VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	22
TIPO DE ELEMENTO	Viga N2
LOCALIZACION	D-3

A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%

B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	70%
VALORACION GLOBAL	28%

C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	40%
VALORACION GLOBAL	16%

VALORACION TOTAL DEL ELEMENTO	64%

OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES



FICHA N°	23
TIPO DE ELEMENTO	Columna
LOCALIZACION	D-3
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	70%
VALORACION GLOBAL	28%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	40%
VALORACION GLOBAL	16%
VALORACION TOTAL DEL ELEMENTO	64%

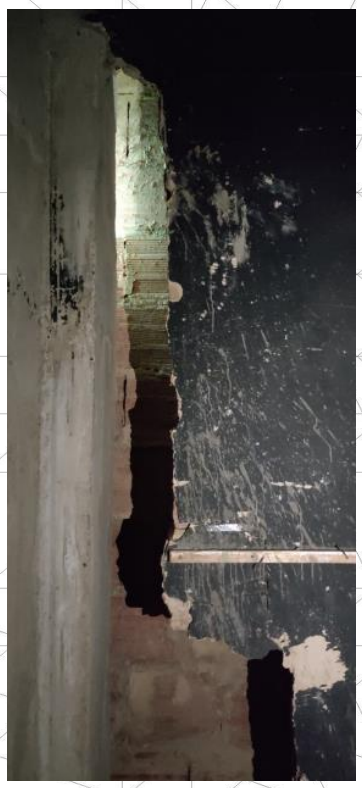
OBSERVACIONES:

Realizado por:	J.A.R.	Fecha:	03/07/2022

Carrera 4 No. 23-53 Oficina 402 Bogotá D.C.
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VALORACION DE LA INTERVENCION DE REFORZAMIENTO DE ELEMENTOS ESTRUCTURALES







FICHA N°	24
TIPO DE ELEMENTO	Elem. No Est
LOCALIZACION	D-3
A.Demolición de la zona de trabajo adyacente al elemento intervenido	
VALORACION PARCIAL	100%
VALORACION GLOBAL	20%
B.Instalación y anclaje de las barras de refuerzo	
VALORACION PARCIAL	10%
VALORACION GLOBAL	4%
C.Encamisado y fundida de la sección en concreto	
VALORACION PARCIAL	0%
VALORACION GLOBAL	0%
VALORACION TOTAL DEL ELEMENTO	24%

OBSERVACIONES:

Realizado por: J.A.R. Fecha: 03/07/2022

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E-Mail consorciobassi@gmail.com

3.1 OBSERVACIONES Y DIAGNOSTICO DE LA VALORACION

De acuerdo a las observaciones realizadas en sitio y comparando las actividades ejecutadas con los diseños de reforzamiento de la estructura se observa que:

1. Los elementos verticales tales como pantallas y columnas no se encuentran concluidos en su totalidad y aunque existe un gran avance en las actividades que estos reforzamientos involucran, es necesario concluir el reforzamiento de estos elementos ya que son los que brindan la estabilidad de la estructura por solicitaciones de carga gravitacional y por fuerzas horizontales debidas a sismo.

   A continuación, se enuncian los elementos y su estado actual de avance según localización:

ESTADO DE AVANCE REFORZAMIENTO DE COLUMNAS Y PANTALLAS			
Tipo de elemento	**Localizacion**	**Estado de avance**	**Observaciones**
Columna	A-5	Completa	Recalce completo hasta cubierta
Pantalla	A-6	Incompleta	Recalce completo hasta piso 2, armado de hierro completo, falta recalce de piso 2 a cubierta
Pantalla	A-7	Incompleta	Recalce completo hasta piso 2, armado de hierro completo, falta recalce de piso 2 a cubierta
Columna	A-8	Completa	Recalce completo hasta cubierta
Columna	A-9	Completa	Recalce completo hasta cubierta
Pantalla	B-3	Completa	Recalce completo hasta cubierta
Columna	B-4	Completa	Recalce completo hasta cubierta
Columna	B-5	Completa	Recalce completo hasta cubierta
Columna	B-7	Completa	Recalce completo hasta cubierta
Columna	B-8	Completa	Recalce completo hasta cubierta
Columna	B-9	Completa	Recalce completo hasta cubierta
Columna	C-3	Incompleta	Armado de hierro completo, falta recalce de piso 3 a cubierta
Columna	C-7	Completa	Recalce completo hasta cubierta de las dos columnas localizadas en esta area
Columna	C-8	Completa	Recalce completo hasta cubierta
Columna	C-9	Completa	Recalce completo hasta cubierta
Pantalla	D-3	Incompleta	Falta refuerzo de la pantalla y elrecalce de toda la seccion de piso 1 a cubierta.
Columna	D-4	Incompleta	Falta el recalce de toda la seccion piso 1 a cubierta
Columna	D-5	Incompleta	Falta el recalce de toda la seccion piso 1 a cubierta
Columna	D-7	Completa	Recalce completo hasta cubierta
Columna	D-8	Completa	Recalce completo hasta cubierta
Columna	D-9	Completa	Recalce completo hasta cubierta
Pantalla	D-6 D-7	Completa	Recalce completo hasta cubierta
Columna	E-5	Completa	Recalce completo hasta cubierta
Columna	E-6	Completa	Recalce completo hasta cubierta
Columna	E-7	Completa	Recalce completo hasta cubierta
Columna	E-8	Completa	Recalce completo hasta cubierta
Columna	E-9	Completa	Recalce completo hasta cubierta
Pantalla	F-3	Incompleta	Falta el recalce de toda la seccion piso 1 a cubierta
Columna	F-4	Completa	Recalce completo hasta cubierta

2. Las actividades de reforzamiento en vigas tienen en general poco avance y es recomendable concluirlas al mismo tiempo que se desarrollen las actividades de reforzamiento en columnas por cuanto es necesario tener los nudos viga-columna completamente reforzados.

   A continuación, se enuncian los elementos y su estado actual de avance según localización:

ESTADO DE AVANCE REFORZAMIENTO DE VIGAS AEREAS			
Tipo de elemento	**Localizacion**	**Estado de avance**	**Observaciones**
VIGA AEREA	EJE A	Incompleta	Falta recalce de el tramo 6 a 7 en todos los niveles
VIGA AEREA	EJE B	Completa	Recalce completo todos los niveles
VIGA AEREA	EJE C	Incompleta	Falta recalce de el tramo 5 a 6 en piso 2 y cubierta
VIGA AEREA	EJE E	Completa	Recalce completo todos los niveles
VIGA AEREA	EJE 3	Incompleta	Falta recalce del eje C a D en todos los niveles
VIGA AEREA	EJE 5	Completa	Recalce completo hasta cubierta
VIGA AEREA	EJE 8	Completa	Recalce completo hasta cubierta
VIGA AEREA	EJE 9	Completa	Recalce completo hasta cubierta

Complementario a los puntos 1 y 2 se puede observar en el plano anexo PR-01 PLANOS ESTRUCTURALES LOCALIZACIÓN Y NIVEL DE INTERVENCIÓN EN ELEMENTOS ESTRUCTURALES, el estado actual de la intervención.

3. No se evidencio reforzamiento de muros internos ni de fachadas, teniendo en cuenta que estos elementos actualmente se encuentran en su mayoría desligados a la estructura, es necesario apuntalar o restringir estos elementos temporalmente durante el desarrollo de las demás actividades mientras se determina el tipo de refuerzo o anclaje más conveniente de estos elementos.

Debe realizarse el apuntalamiento temporal de los muros y elementos no estructurales con alguna de las siguientes alternativas:

a. Apuntalamiento o apeo con elementos de madera.
b. Apuntalamiento con cerchas o perfiles metálicos.

En cualquiera de los dos casos se deberán disponer elementos de restricción a nivel de losas de entrepiso para soportar o anclar elementos inclinados que den el soporte lateral a los muros e impidan la inclinación o desviación de los muros.

3.2 REVISIÓN DE LOS ENSAYOS DEL CONCRETO FUNDIDO EN OBRA

Se reviso el informe final de interventoría del consorcio NVP en donde se estipula que fueron realizadas 117 muestras de los concretos correspondientes a las fundidas de columnas, vigas y pantallas que componen en sistema estructural del teatro.

Una vez revisados los resultados obtenidos en el ensayo de resistencia a la compresión de los cilindros se pudo establecer que:

1. En general la mayoría de las muestras obtienen la resistencia mínima especificada por el diseño estructural y correspondiente a f'c= 28 Mpa.
2. Existen muestras de algunos elementos que no alcanzaron al menos el 90% de la resistencia mínima especificada en el diseño según se relaciona a continuación:

Muestra N°	Probeta N°	Localización
1	2	VIGA EJE 9 ENTRE C Y D
2	2	COLUMNA/PANTALLA EJE 9 C-D
48-49-50-51	1	VIGA EJE 9 ENTRE C-D, T16 ((9B) 29) Y PANTALLA T3 B TERCER TRAMO
48-49-50-51	2	VIGA EJE 9 ENTRE C-D, T16 ((9B) 29) Y PANTALLA T3 B TERCER TRAMO
147, 148, 149, 150	1	TRAMO COLUMNA T3 (1p), CUELLO T9 TRAMO VIG. ESCALER. EJE A-8
147, 148, 149, 151	2	TRAMO COLUMNA T3 (1p), CUELLO T9 TRAMO VIG. ESCALER. EJE A-9

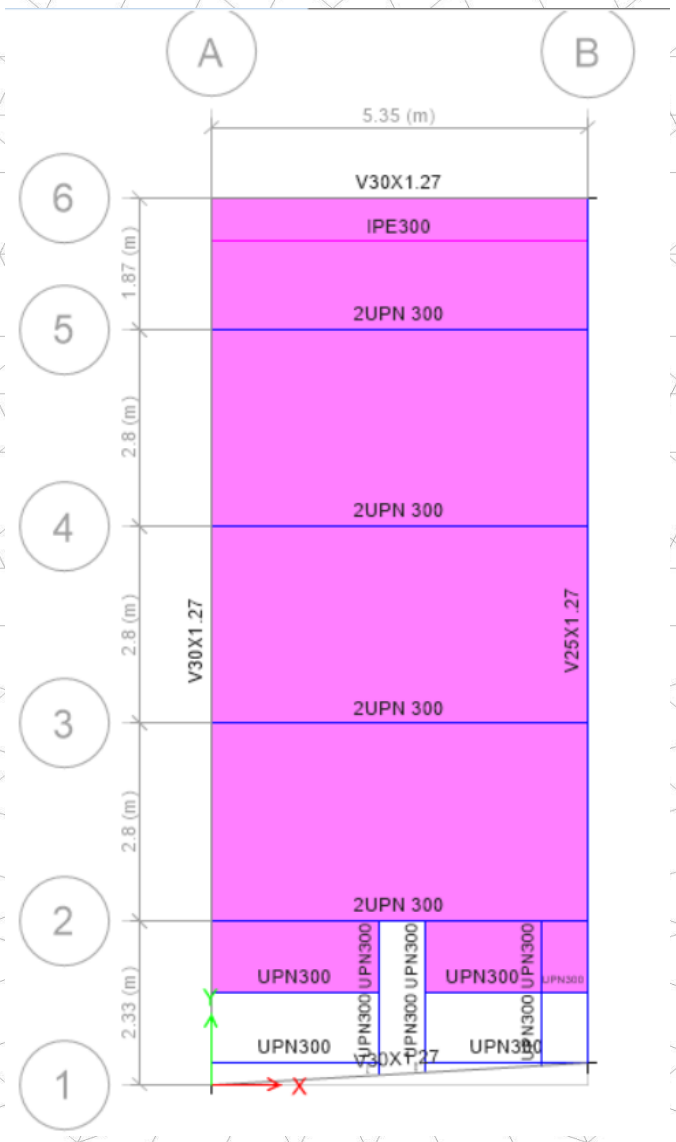
Aunque las resistencias obtenidas no son significativamente bajas, se recomienda hacer ensayos no destructivos en los elementos citados con el fin de corroborar las resistencias actuales.

4. DISEÑO ESTRUCTURAL DE ELEMENTOS COMPLEMENTARIOS

Dentro del alcance de la presente consultoría se contempla el diseño estructural de elementos complementarios que permitan la correcta funcionalidad del teatro, dentro de estos se incluye el sistema de soporte para los elementos del componente de mecánica teatral.

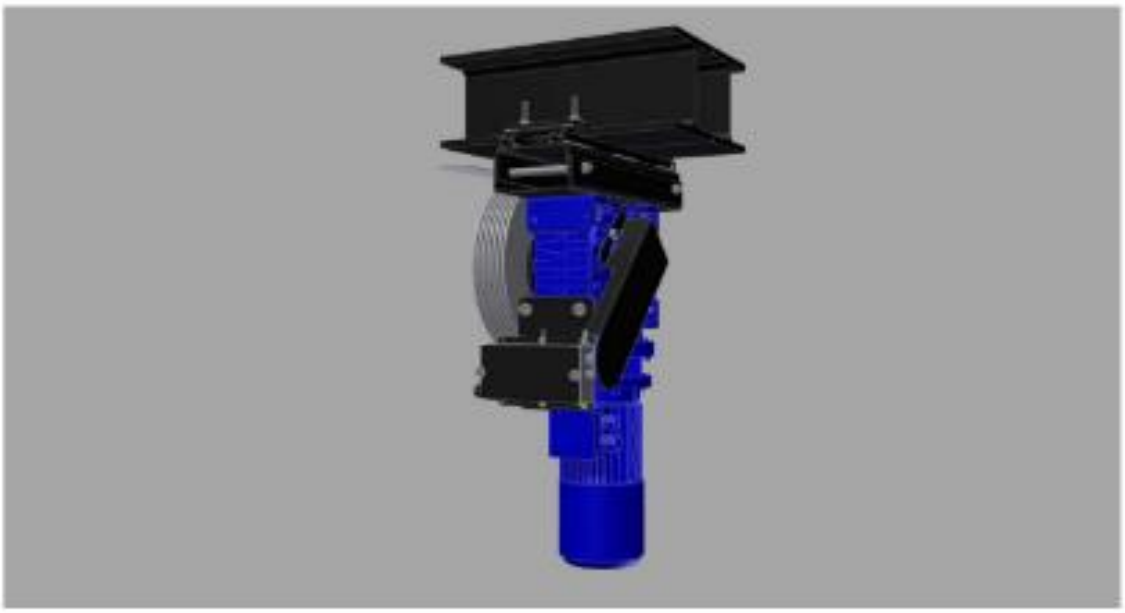
Se consideraron las siguientes cargas vivas de acuerdo a lo NSR-10 tabla B.4.2.1-1:

PERFILES ZONA DE BÓVEDA MECÁNICA TEATRAL (TRAMOYA):



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E-Mail consorciobassi@gmail.com

- **Carga muerta (SM)**: Corresponde a los equipos instalados permanentemente sobre los perfiles tales como motores y poleas, en este caso se considero una carga de 200 kg/m o 2.0 kN/m.



Multilínea SPIRO

Barra motorizada para escenarios

Descripción:

- Equipo motorizado con sistema de apilamiento de cables.
- *Spiro* puede adaptarse fácilmente a los requerimientos de montaje de cualquier espacio escénico con bajos requerimientos de recorrido y carga.
- *Spiro* permite el movimiento vertical de barras de iluminación, textiles o decorados.

Características generales:

- *Spiro* permite ser instalado en posición vertical u horizontal, tanto en configuración normal como invertida.
- Equipo para elevación de cargas en velocidad fija.
- Capacidad de carga hasta 6 kN.
- Recorrido vertical hasta 12 m.
- Hasta 6 líneas de tiro.
- Equipo eléctrico con: protecciones en coordinación tipo 2 y control redundante de potencia y frenos.
- Preparado para su utilización con los sistemas de control de motores Chemtrol [illegible]

Componentes básicos:

- Bastidor de montaje adaptable a perfiles de acero o directamente a pared (bajo pedido).
- Sistema de recogida de cables de tiro por apilamiento.
- Cables de tiro de 5 mm.
- Reductor sinfín-corona irreversible estática y dinámicamente con prerreductor. Factor de servicio mínimo: 1.
- Motor eléctrico clase "F".
- Freno simple de corriente continua negativo, doble freno opcional.
- Variador de frecuencia (opcional, solo función soft-start).
- Final de carrera de posición y seguridad.
- Célula de carga con señal en bucle de corriente (opcional).

C

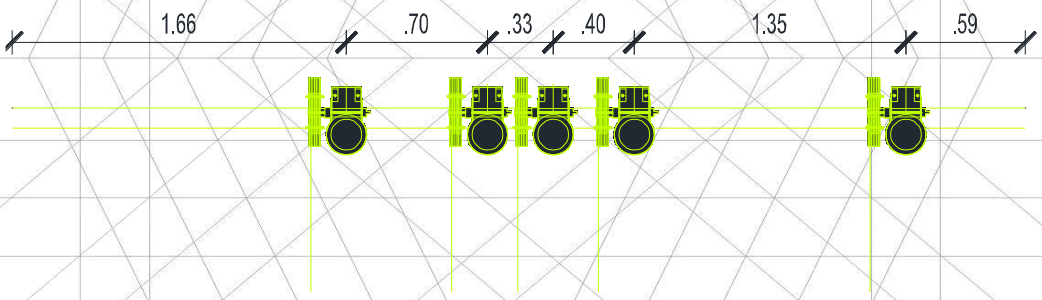
- **Carga Viva (Viva)**: Corresponde a la operación de los sistemas electromecánicos y el izaje de equipos, accesorios y demás considerados para el funcionamiento del teatro, en este caso se consideró una carga de 500 kg/m o 5.0 kN/m teniendo en cuenta la ficha técnica enviada. Se tuvo en cuenta un porcentaje adicional por carga de impacto del 20% según lo que establece la Norma NSR-10 en B.4.4:

B.4.4 — IMPACTO

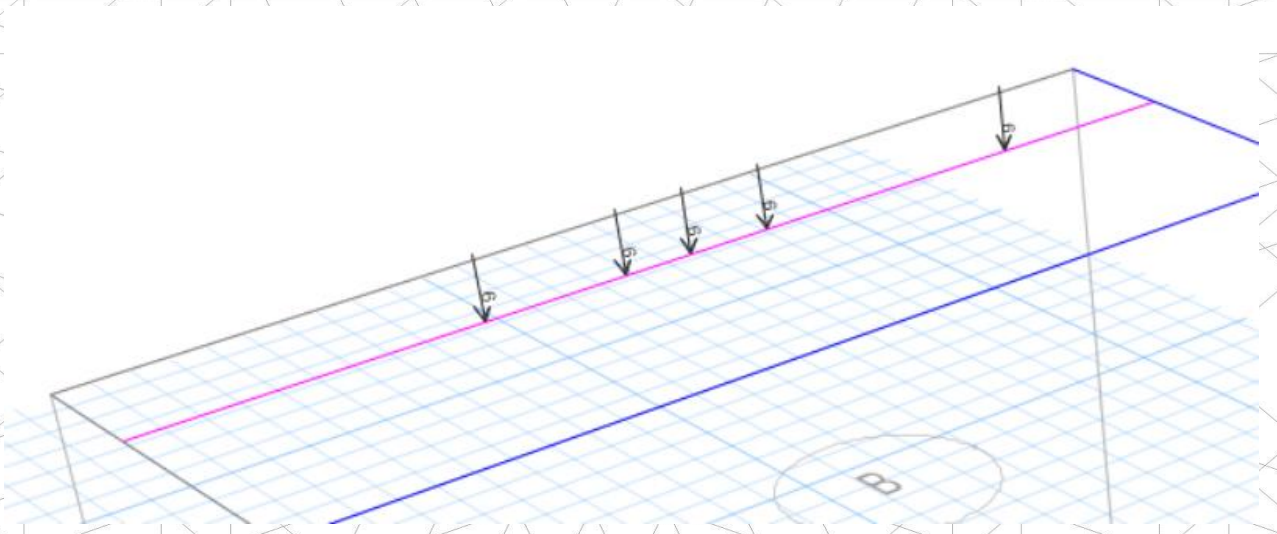
Cuando la estructura quede sometida a carga viva generadora de impacto, la carga viva debe incrementarse, para efectos de diseño, por los siguientes porcentajes:

(a) Soportes de Elevadores y Ascensores, ... 100%
(b) Vigas de puentes grúas con cabina de operación y sus conexiones, ... 25%
(c) Vigas de puentes grúas operados por control remoto y sus conexiones, ... 10%
(d) Apoyos de maquinaria liviana, movida mediante motor eléctrico o por un eje, ... 20%

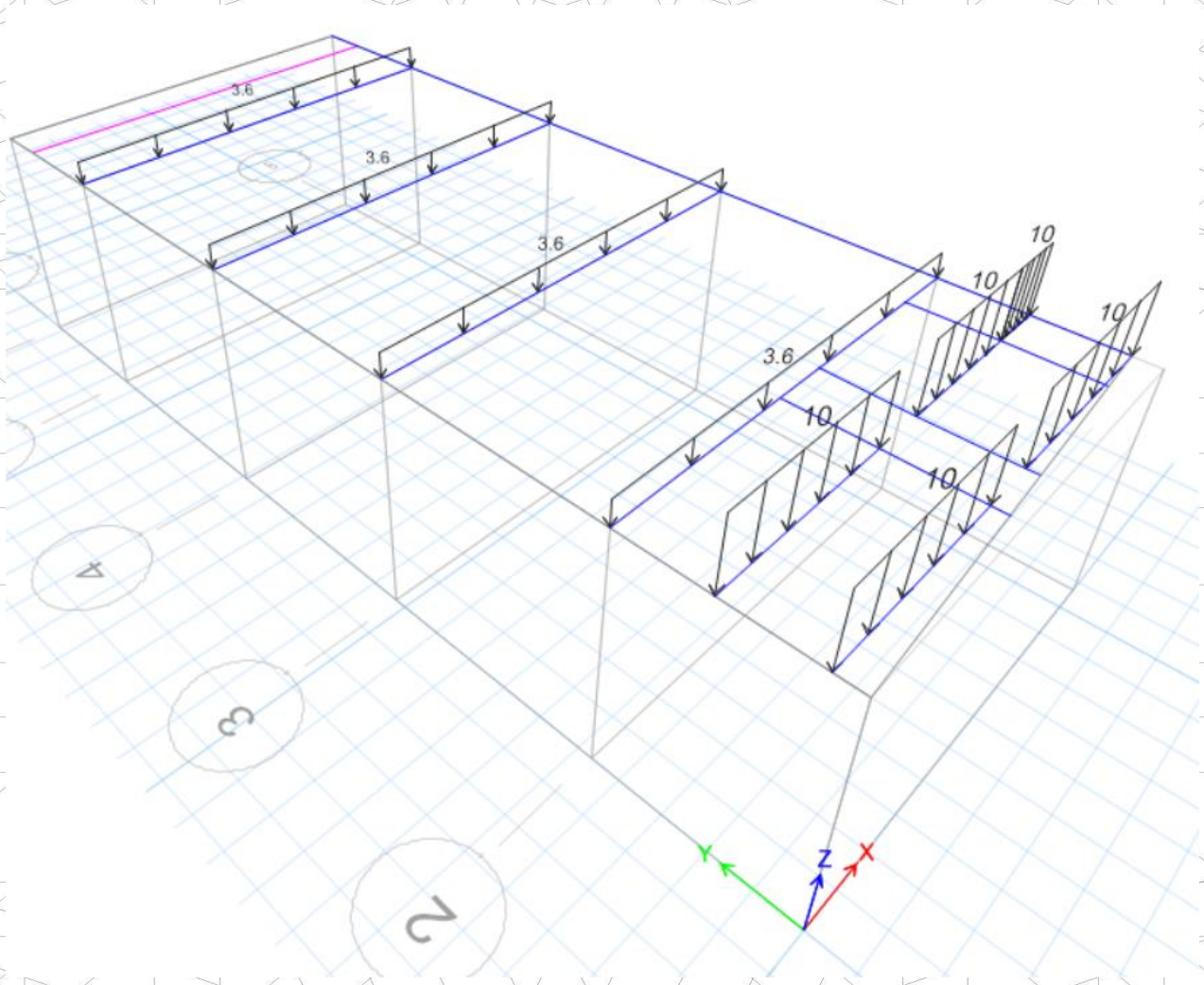
Para la asignación de esta carga se tuvo en cuenta la localización de los 5 motores sobre la viga IPE 300 enviados en los diseños de mecánica teatral con la siguiente geometría:



Carga puntual asignada por motores 5.00 kN*1.20=6.00 kN



Carga distribuida asignada por poleas 15*1.00kN*1.20/5.00m=3.60 kN

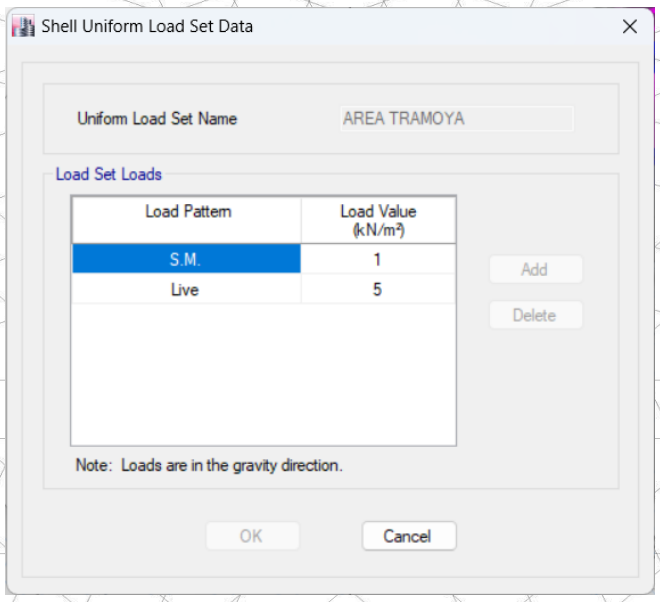


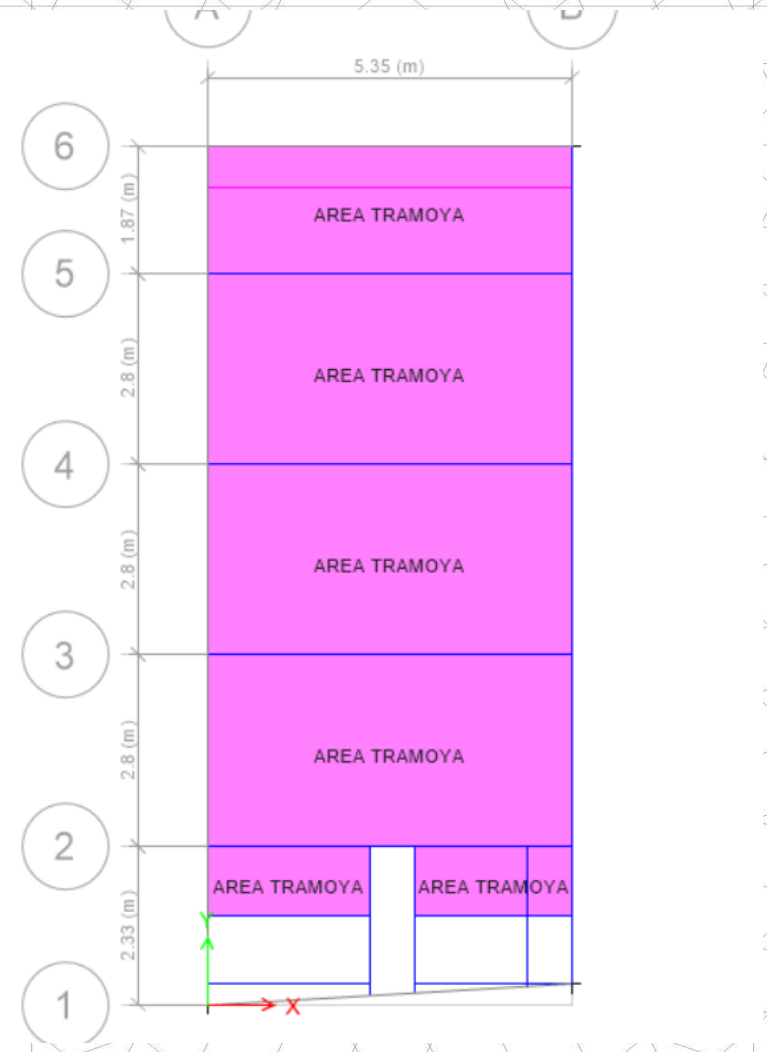
Carga distribuida asignada por sistema de perfiles UPN100x50mm para mantenimiento y operación de la tramoya:

Carga Muerta:	Perfiles UPN:	10.6kg/m/0.175m=60.57 kg/m^2
	Utileria:	40 kg/m^2
Total carga muerta:	100kg/m^2 = 1.00kN/m^2	

Carga Viva (según indicación Mecánica Teatral): 5.00 kN/m^2

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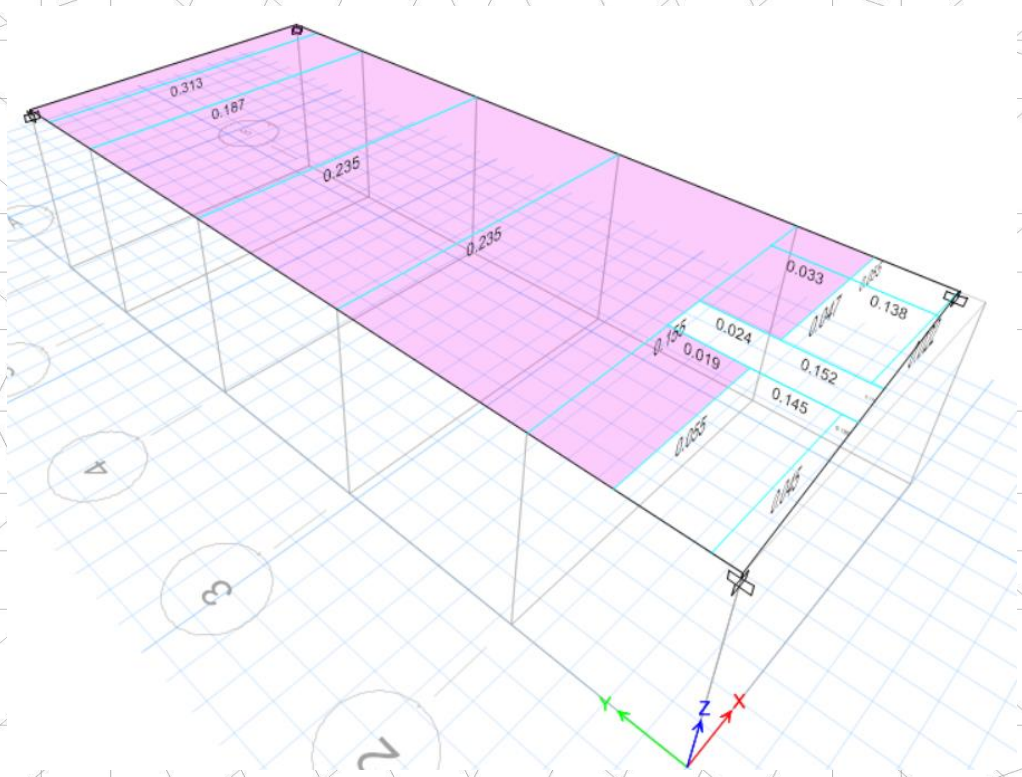




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E-Mail consorciobassi@gmail.com

VERIFICACIÓN DE ESTRUCTURA METÁLICA PARA TRAMOYA:

Se presenta la verificación a través del modulo de diseño del software en donde se establece que ninguno de los elementos presenta índices de sobre esfuerzo por encima de la unidad:

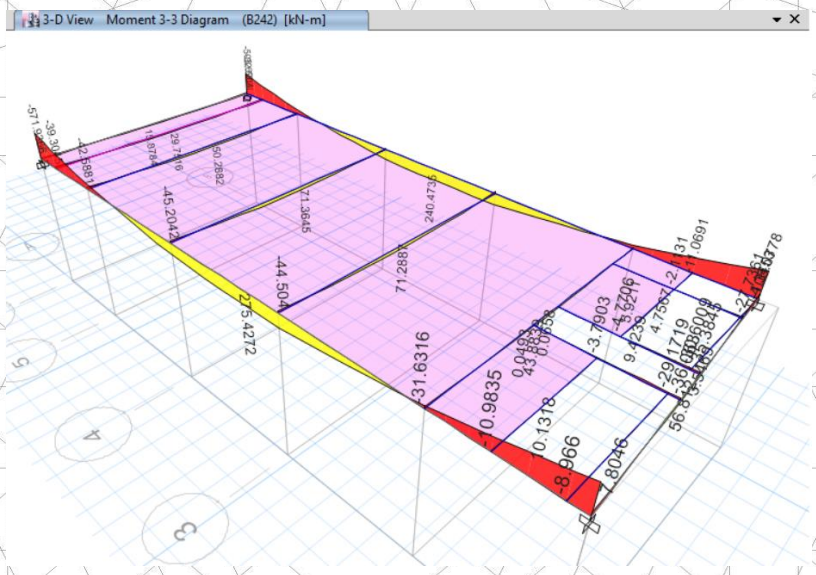


VERIFICACION DEL DISEÑO DE VIGAS METALICAS ZONA DE TRAMOYA									
Label	Story	Section	Moment Interaction Check	PMM Combo	V22 Ratio	V33 Ratio	Class	Conn. V I-End	Conn. V J-End
								kN	kN
B1	Story1	2UPN 300	0.155 = 0 + 0.155 + 0	B242	0.053	0	Non-Compact	52.0115	58.5373
B4	Story1	2UPN 300	0.235 = 0 + 0.235 + 0	B242	0.065	0	Non-Compact	72.363	67.1511
B7	Story1	2UPN 300	0.235 = 0 + 0.235 + 0	B242	0.066	0	Non-Compact	72.6289	66.8852
B8	Story1	2UPN 300	0.187 = 0 + 0.187 + 0	B242	0.054	0	Non-Compact	59.9671	55.6017
B9	Story1	IPE300	0.313 = 0 + 0.313 + 0	B242	0.093	0	Seismic HD	39.5522	41.0663
B14	Story1	UPN300	0.055 = 0 + 0.055 + 0	B242	0.054	0	Slender	0	30.2146
B16	Story1	UPN300	0.033 = 0 + 0.033 + 0	B241	0.03	0	Slender	0	13.2159
B10	Story1	UPN300	0.138 = 0 + 0.138 + 0	B242	0.103	0	Slender	57.251	0
B12	Story1	UPN300	0.024 = 0 + 0.024 + 0	B242	0.011	0	Slender	0	3.2201
B18	Story1	UPN300	0.019 = 0 + 0.019 + 0	B242	0.009	0	Slender	0	2.2476
B21	Story1	UPN300	0.055 = 0 + 0.055 + 0	B242	0.052	0	Slender	28.9273	0
B23	Story1	UPN300	0.047 = 0 + 0.047 + 0	B242	0.034	0	Slender	0	0
B25	Story1	UPN300	0.176 = 0 + 0.176 + 0	B242	0.067	0	Slender	37.2293	0
B26	Story1	UPN300	0.152 = 0 + 0.152 + 0	B242	0.047	0	Slender	0	0
B27	Story1	UPN300	0.18 = 0 + 0.18 + 0	B242	0.075	0	Slender	41.7886	0
B28	Story1	UPN300	0.145 = 0 + 0.145 + 0	B242	0.046	0	Slender	0	0
B29	Story1	UPN300	0.045 = 0 + 0.045 + 0	B242	0.042	0	Slender	23.5568	0
B31	Story1	UPN300	0.022 = 0 + 0.022 + 0	B242	0.029	0	Slender	0	0

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E-Mail consorciobassi@gmail.com

VERIFICACIÓN DE LAS VIGAS DE CONCRETO EXISTENTES DEBIDAS A LA CARGA DEL SISTEMA DE MECÁNICA TEATRAL:

El modelo de la estructura nueva contempla las vigas de concreto existentes de secciones 0.25x1.27 y 0.30x1.27, de este se establece el estado de esfuerzos debidos a la sobrecarga, teniendo en cuenta una combinación de 1.2D + 1.6L. A continuación, se muestran los diagramas de momento y cortante para las vigas objeto de estudio:





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VIGA S 0.30X1.27 CUBIERTA TRAMOYA

Geometría	
Ancho (m)	0.30
Alto (m)	1.27
Rec. Superior (m)	0.040
Rec. Inferior (m)	0.040
Inercia (m^4)	0.0512

Materiales:	
f'c (MPa)	28
fy (MPa)	420
fyv (MPa)	420
ρ_{max}	0.0206
Elasticidad (KPa)	24870062
TM Agregado (")	0.7

Diseño a flexión:		
M Diseño (kN·m)	572.00	
Cuantia requerida	0.00353	
Cuantia minima	0.00333	
Area necesaria (mm^2)	1287	
Primera fila		
Cantidad de barras	3	0
Numero de la barra	7	7
Separaciòn libre entre barras (mm)	67.20	Aceptable
Area suministrada (mm^2)	1161	
Segunda fila		
Cantidad de barras	2	0
Numero de la barra	7	3
Separaciòn entre barras (mm)	156.60	Aceptable
Area suministrada (mm^2)	774	
Separacion entre filas (mm)	40	
d equivalente (m)	1.214	
Momento resistente (kN·m)	846.20	
Indice	0.68	
	OK	

Diseño a corte:	
Fuerza Cortante (kN)	279.00
ϕvn (MPa)	0.76
ϕ vc (MPa)	0.66
ϕ vs (MPa)	0.09
Flejes	
Numero del fleje	3
Numero de ramas	2
separacion requerida (mm)	596
s por confinamiento (mm)	178
Separaciòn de diseño (mm)	100
Longitud de confinamiento (m)	2.55
Cortante resistente (kN)	867.61
Indice	0.32

VIGA S 0.25X1.27 CUBIERTA TRAMOYA

Geometría	
Ancho (m)	0.25
Alto (m)	1.27
Rec. Superior (m)	0.040
Rec. Inferior (m)	0.040
Inercia (m^4)	0.0427

Materiales:	
f'c (MPa)	28
fy (MPa)	420
fyv (MPa)	420
ρ_{max}	0.0206
Elasticidad (KPa)	24870062
TM Agregado (")	0.7

Diseño a flexión:		
M Diseño (kN·m)	504.00	
Cuantia requerida	0.00374	
Cuantia minima	0.00333	
Area necesaria (mm^2)	1136	
Primera fila		
Cantidad de barras	3	0
Numero de la barra	7	7
Separaciòn libre entre barras (mm)	42.20	Aceptable
Area suministrada (mm^2)	1161	
Segunda fila		
Cantidad de barras	2	0
Numero de la barra	7	3
Separaciòn entre barras (mm)	106.60	Aceptable
Area suministrada (mm^2)	774	
Separacion entre filas (mm)	40	
d equivalente (m)	1.214	
Momento resistente (kN·m)	837.85	
Indice	0.60	
	OK	

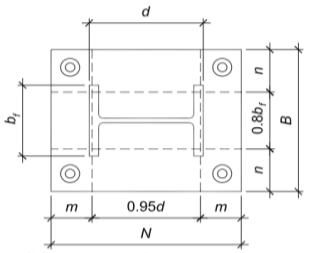
Diseño a corte:	
Fuerza Cortante (kN)	253.00
ϕvn (MPa)	0.82
ϕ vc (MPa)	0.66
ϕ vs (MPa)	0.16
Flejes	
Numero del fleje	3
Numero de ramas	2
separacion requerida (mm)	716
s por confinamiento (mm)	178
Separaciòn de diseño (mm)	100
Longitud de confinamiento (m)	2.55
Cortante resistente (kN)	826.93
Indice	0.31

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DISEÑO DE PLACA DE ANCLAJE PARA VIGA IPE 300

PLACAS DE ANCLAJE A MOMENTO Y CORTANTE

	Pu	15.00 kN
	Mu	39.00 kN
Concreto	f`c	28.00 MPa
Caracteristicas del perfil	d	300.0 mm
	bf	150.0 mm



(b) Assumed Bending Lines

Se considera la condicion A1 =A2 (Area placa base = Area de concreto)

Caracteristicas de Placa base	fy	350.00 MPa	Dimensiones definidas	A-36
	A1	1,050.42 mm2		Δ 82.5
	N	114.91 mm	400.00 mm	
	B	9.14 mm	300.00 mm	

L	m	50.00 mm	ØcPp	16250 N	OK
	n	75.00 mm	x	0.820513	
	λn'	53.03 mm	λ	1	≤ 1

tasumido	12.70 mm	1/2"

Caracteristicas del anclaje	TIPO DE ANCLAJE	A-193 G7
	Fnt	-
	Fnv (roscas incluidas)	516
	Fnv (roscas excluidas)	516

cantidad de anclajes	Diametro perno	3/4"
	Area del perno	286.5 mm2
	Cortante Vu	1.04 Kn
	Cantidad a tensión	2.00
	Brazo	1.5875
	Longitud de anclaje	250.00 mm
	Ml	825.5

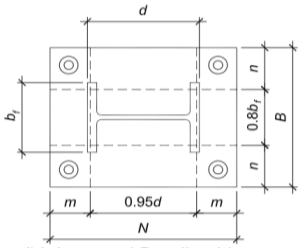
Cortante Max.	Cant.	ØRn (Cortante)	Verificación
1.56 Kn	8	879.26 Kn	CUMPLE

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DISEÑO DE PLACA DE ANCLAJE PARA PERFILES UPN 300

PLACAS DE ANCLAJE A MOMENTO Y CORTANTE

	Pu	15.00 kN
	Mu	71.36 kN
Concreto	f`c	28.00 MPa
Caracteristicas del perfil	d	300.0 mm
	bf	300.0 mm



(b) Assumed Bending Lines

Se considera la condicion A1 =A2 (Area placa base = Area de concreto)

Caracteristicas de Placa base	fy	350.00 MPa	Dimensiones definidas	A-36
	A_1	1,050.42 mm2		Δ 22.5
	N	54.91 mm	400.00 mm	
	B	19.13 mm	400.00 mm	

L	m	50.00 mm
	n	50.00 mm
	λn'	75.00 mm

Øc Pp	16250 N	OK
x	0.923077	
λ	1	≤ 1

tasumido	12.70 mm	1/2"

Caracteristicas del anclaje	TIPO DE ANCLAJE	A-193 G7
	Fnt	-
	Fnv (roscas incluidas)	516
	Fnv (roscas excluidas)	516

cantidad de anclajes	Diametro perno	3/4"
	Area del perno	286.5 mm2
	Cortante Vu	1.04 Kn
	Cantidad a tensión	2.00
	Brazo	1.5875
	Longitud de anclaje	250.00 mm
	Ml	825.5

Cortante Max.	Cant.	ØRn (Cortante)	Verificación
1.56 Kn	8	879.26 Kn	CUMPLE

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VERIFICACIÓN DE PERNOS EN TENSIÓN Y CORTANTE

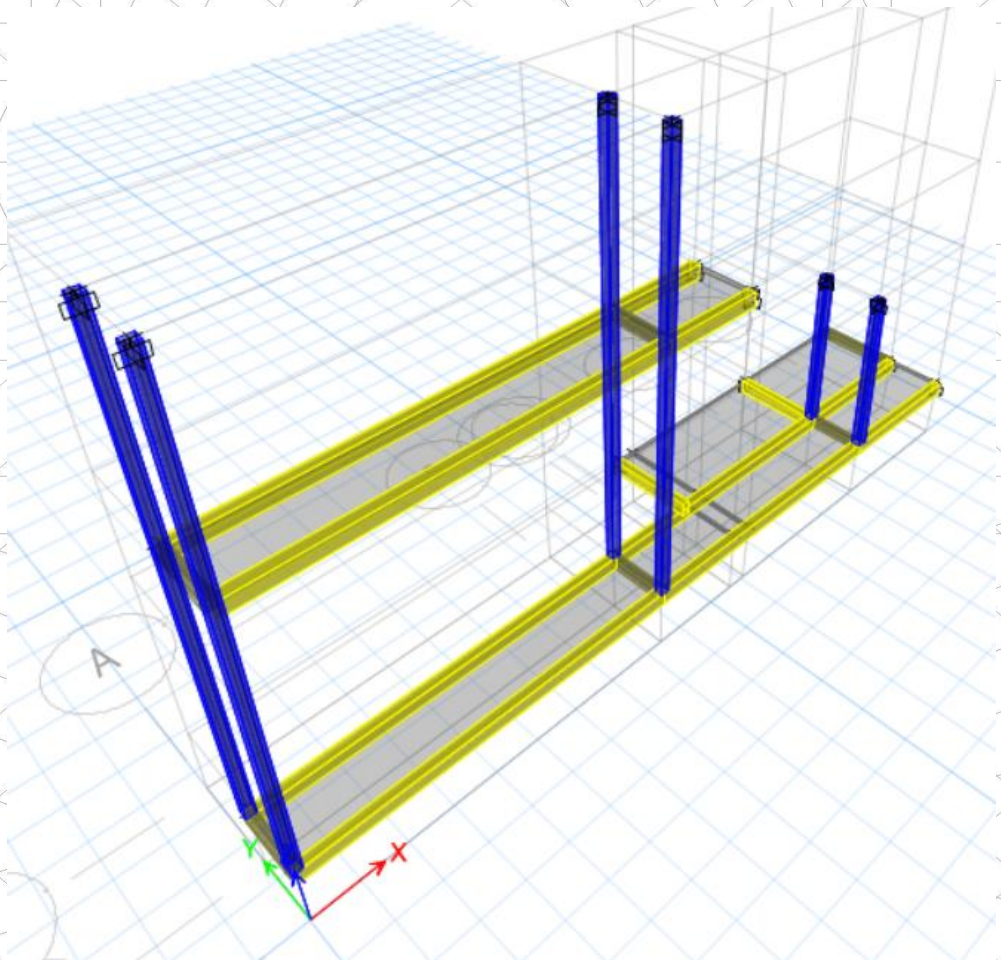
Tu (kN)	0	Vu (kN)	72	Tipo de perno	B7	Diametro perno	3/4"
				Fnt (Mpa)	700	Area perno (mm2)	285
Vn (kN)	89.99	OK		Fnv (Mpa)	421	Corte doble?	NO
fv (MPa)	252.63			F'nt (Mpa)	349.93		
		ΦT_n=	74.80	kN	OK		

$$Vn = \frac{0.75 * Ab * Fnt}{1000}$$

$$\emptyset Tn = \frac{0.75 * F'nt * Ab}{1000}$$

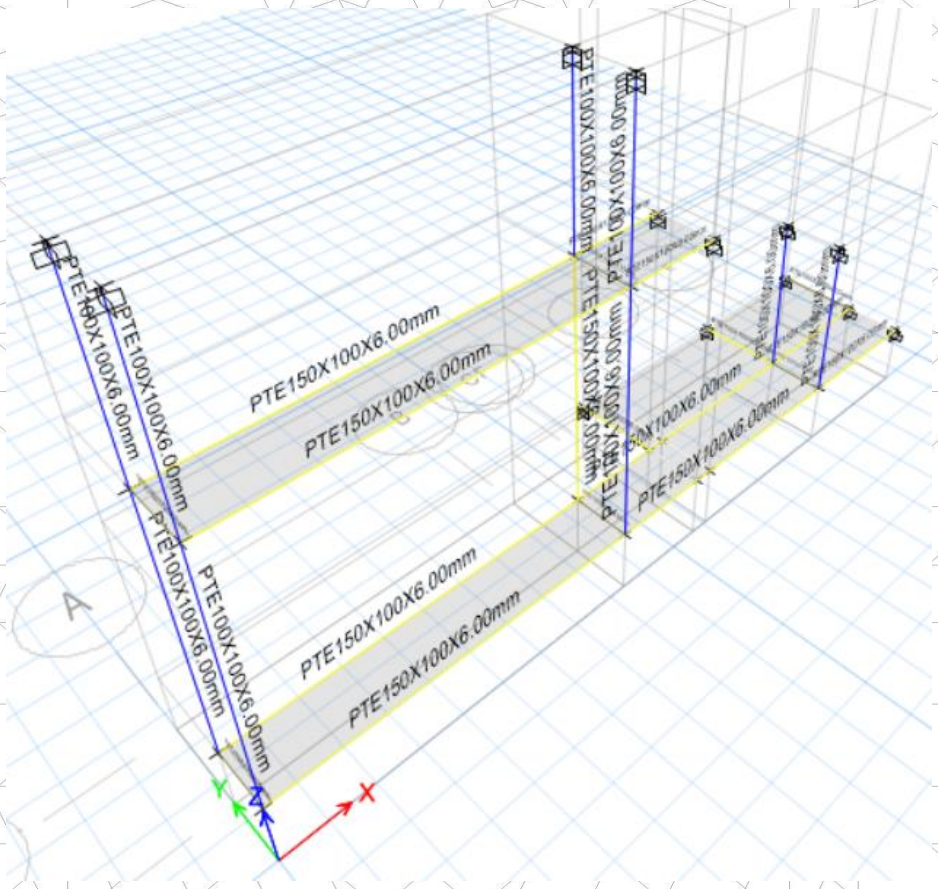
$$fv = \frac{Vu * 1000}{Ab}$$

PERFILES PUENTES DE ACCESO A TRAMOYA:



Modelo 3D puentes de acceso a la Tramoya

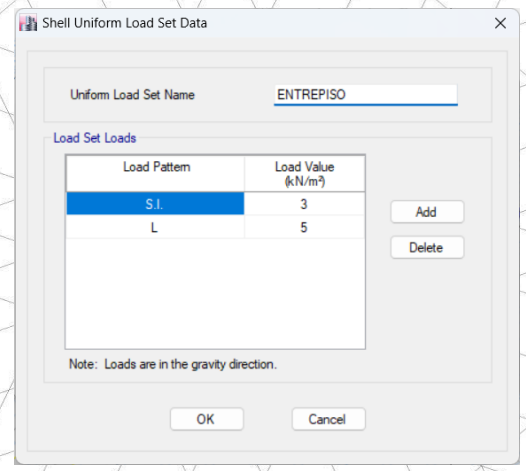
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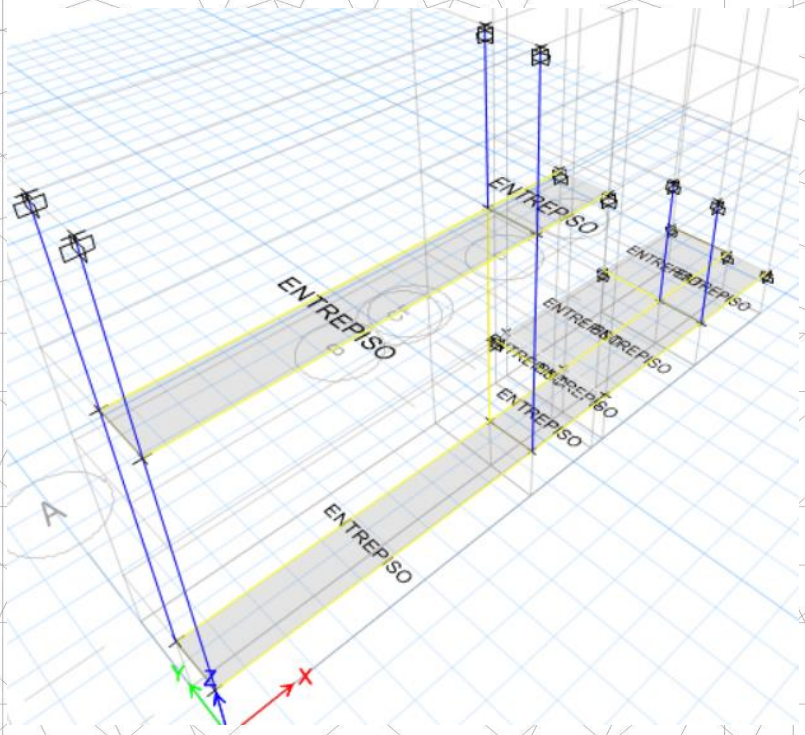
Perfilería puentes de acceso a la Tramoya

Carga Muerta: 3.00 kN/m^2

Carga Viva (según indicación Mecánica Teatral): 5.00 kN/m^2



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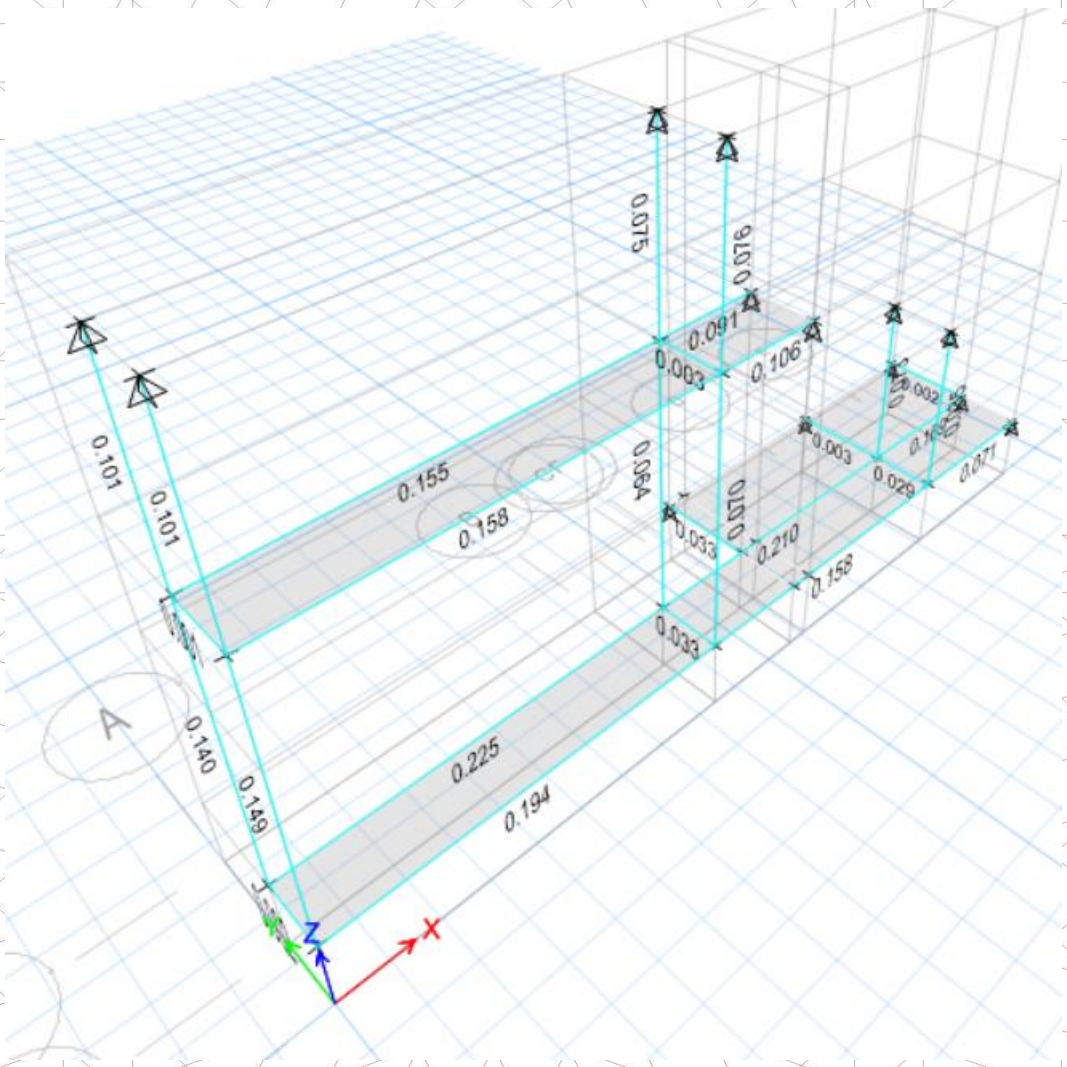
Asignación del sistema de carga para puentes de acceso tramoya

VERIFICACIÓN DE ESTRUCTURA METÁLICA PARA PUENTES DE ACCESO TRAMOYA:

Se presenta la verificación a través del módulo de diseño del software en donde se establece que ninguno de los elementos presenta índices de sobre esfuerzo por encima de la unidad:

VERIFICACION DE COLUMNAS TENSOR PARA PUENTES DE ACCESO TRAMOYA							
Label	Story	Section	Moment Interaction Check	PMM Combo	V22 Ratio	V33 Ratio	Class
C9	N +5.80	PTE100X100X6.00mm	0.101 = 0.015 + 0.086 + 1.39E-04	B242V	0.006	0	Seismic MD
C11	N +5.80	PTE100X100X6.00mm	0.101 = 0.015 + 0.086 + 2.738E-04	B242V	0.006	0	Seismic MD
C13	N +5.80	PTE100X100X6.00mm	0.075 = 0.032 + 0.041 + 0.002	B242V	0.003	0.0001304	Seismic MD
C15	N +5.80	PTE100X100X6.00mm	0.076 = 0.031 + 0.045 + 3.04E-04	B242V	0.003	0	Seismic MD
C8	N +3.83	PTE100X100X6.00mm	0.14 = 0.007 + 0.133 + 0.001	B242V	0.011	0	Seismic MD
C10	N +3.83	PTE100X100X6.00mm	0.149 = 0.007 + 0.141 + 0.001	B242V	0.012	0	Seismic MD
C12	N +3.83	PTE150X100X6.00mm	0.064 = 0.015 + 0.046 + 0.003	B242V	0.004	0.001	Seismic MD
C14	N +3.83	PTE100X100X6.00mm	0.07 = 0.016 + 0.051 + 0.003	B242V	0.005	0.0001802	Seismic MD
C6	N +2.75	PTE100X100X6.00mm	0.035 = 0.011 + 0.019 + 0.006	B242V	0.001	0.0004126	Seismic MD
C7	N +2.75	PTE100X100X6.00mm	0.073 = 0.024 + 0.044 + 0.004	B242V	0.003	0.0003041	Seismic MD

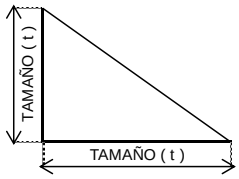
VERIFICACION DE VIGAS PARA PUENTES DE ACCESO A LA TRAMOYA									
Label	Story	Section	Moment Interaction Check	PMM Combo	V22 Ratio	V33 Ratio	Class	Conn. V I-End	Conn. V J-End
								kN	kN
B2	N +3.83	PTE150X100X6.00mm	0.158 = 0.001 + 0.157 + 0	B242V	0.038	0	Seismic MD	9.3856	10.4189
B5	N +3.83	PTE150X100X6.00mm	0.155 = 0.001 + 0.155 + 0	B242V	0.038	0	Seismic MD	9.3287	10.3554
B8	N +3.83	PTE150X100X6.00mm	0.106 = 3.174E-04 + 0.106 + 0	B242V	0.024	0	Seismic MD	6.6326	0
B9	N +3.83	PTE150X100X6.00mm	0.091 = 0 + 0.091 + 0	B242V	0.022	0	Seismic MD	6.0814	0
B10	N +3.83	PTE100X100X4.00mm	0.001 = 0 + 0.001 + 0	B242V	0.000463	0	Compact	0.0435	0.0558
B11	N +3.83	PTE100X100X4.00mm	0.003 = 0 + 0.003 + 0	B242V	0.001	0	Compact	0.0265	0.0939
B2	N +0.78	PTE150X100X6.00mm	0.194 = 0.001 + 0.194 + 0	B242V	0.041	0	Seismic MD	0	0
B3	N +0.78	PTE150X100X6.00mm	0.158 = 4.753E-04 + 0.157 + 0	B242V	0.034	0	Seismic MD	0	0
B4	N +0.78	PTE150X100X6.00mm	0.071 = 1.007E-04 + 0.07 + 0	B242V	0.021	0	Seismic MD	0	0
B5	N +0.78	PTE150X100X6.00mm	0.225 = 0.001 + 0.225 + 0	B242V	0.043	0	Seismic MD	0	0
B6	N +0.78	PTE150X100X6.00mm	0.21 = 2.722E-04 + 0.21 + 0	B242V	0.066	0	Seismic MD	0	0
B7	N +0.78	PTE150X100X6.00mm	0.169 = 0 + 0.169 + 0	B242V	0.051	0	Seismic MD	0	0
B10	N +0.78	PTE100X100X4.00mm	0.002 = 1.358E-04 + 0.002 + 0	B242V	0.001	0	Compact	0	0
B11	N +0.78	PTE100X100X4.00mm	0.033 = 0 + 0.033 + 0	B242V	0.007	0	Compact	0	0
B12	N +0.78	PTE100X100X4.00mm	0.029 = 0 + 0.029 + 0	B242V	0.008	0	Compact	0	0
B13	N +0.78	PTE150X100X6.00mm	0.003 = 0 + 0.003 + 0	B242V	0.001	0	Seismic MD	0	0
B14	N +0.78	PTE150X100X6.00mm	0.033 = 2.313E-04 + 0.033 + 0	B242V	0.005	0	Seismic MD	1.1415	0
B15	N +0.78	PTE100X100X4.00mm	0.002 = 0 + 0.002 + 0	B242V	0.001	0	Compact	0	0



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E-Mail consorciobassi@gmail.com

DISEÑO DE SOLDADURA A CORTE

t = tamaño; (longitud del cateto del triangulo de la soldadura de filete)
T = Tension total que resiste el elemento mas debil y que debe soportar la soldadura
A = Area del elemento
Fy = Esfuerzo maximo en tension del elemento
Ft = 0.60 x Fy, (Esfuerzo admisible en tension)
Ftw = Esfuerzo maximo de tension de la soldadura
Fvw = 0.30 x Ftw , (Esfuerzo admisible al corte para la soldadura)
Lw = Longitud de la soldadura



ELEMENTO					***E 60 xx***				***E 70 xx***			
ELEMENTO	**A (cm^2)**	**Fy (Kg/cm^2)**	**Ft (Kg/cm^2)**	**T (Kg)**	**Ftw (Kg/cm^2)**	**Fvw (Kg/cm^2)**	**t (cm)**	**Lw (cm)**	**Ftw (Kg/cm^2)**	**Fvw (Kg/cm^2)**	**t (cm)**	**Lw (cm)**
PTE150X150X6.00	33.63	3500	2100	12548	4200	1260	0.70	20.1	4900	1470	0.70	17.2
PTE100X100X6.00	21.36	3500	2100	8547	4200	1260	0.70	13.7	4900	1470	0.70	11.7

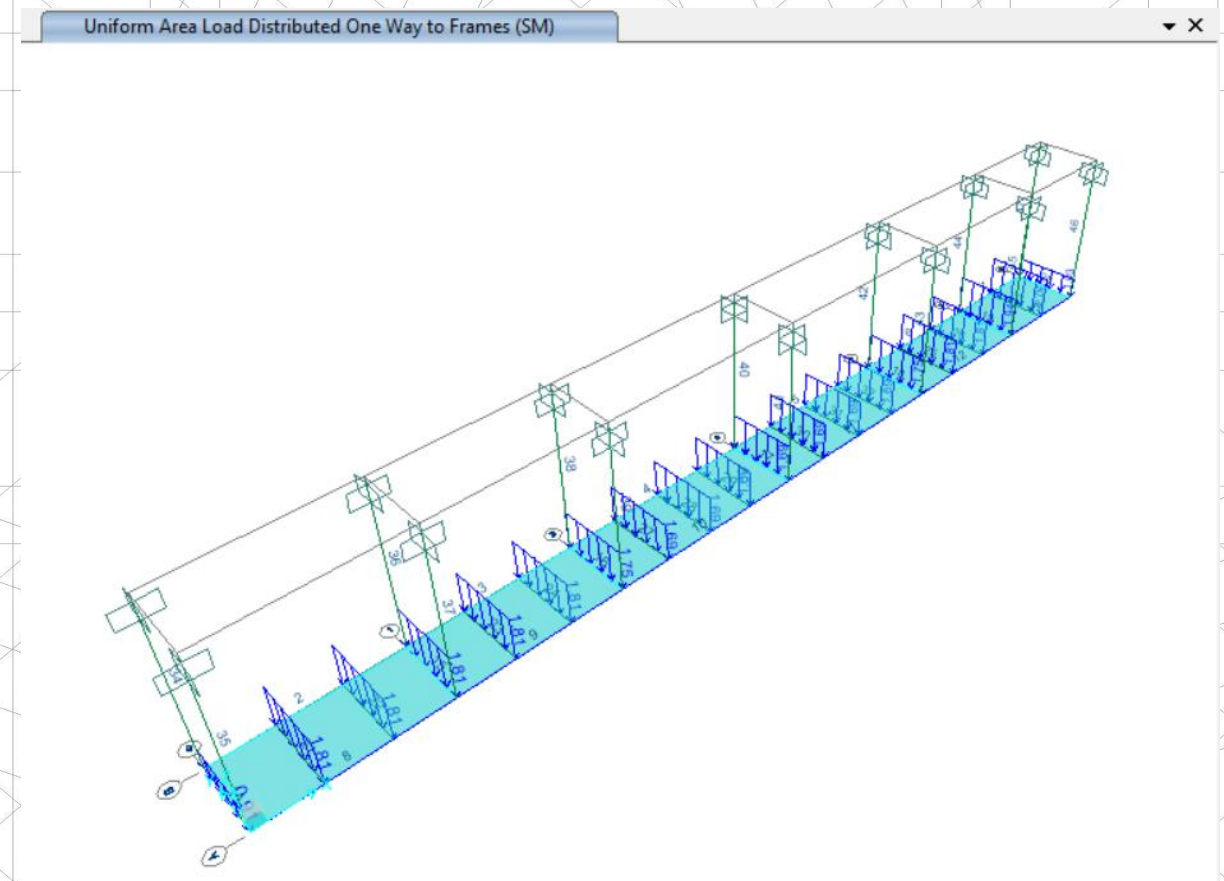
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PUENTE DE ILUMINACIÓN:

El puente de iluminación consta de una pasarela suspendida de unos tensores en perfiles tubulares, que soportan un tablero metálico en lamina galvanizada de 4.00 mm, las vigas principales de la pasarela están conformadas por perfiles IPE-200 y las viguetas están conformadas por perfiles tubulares.

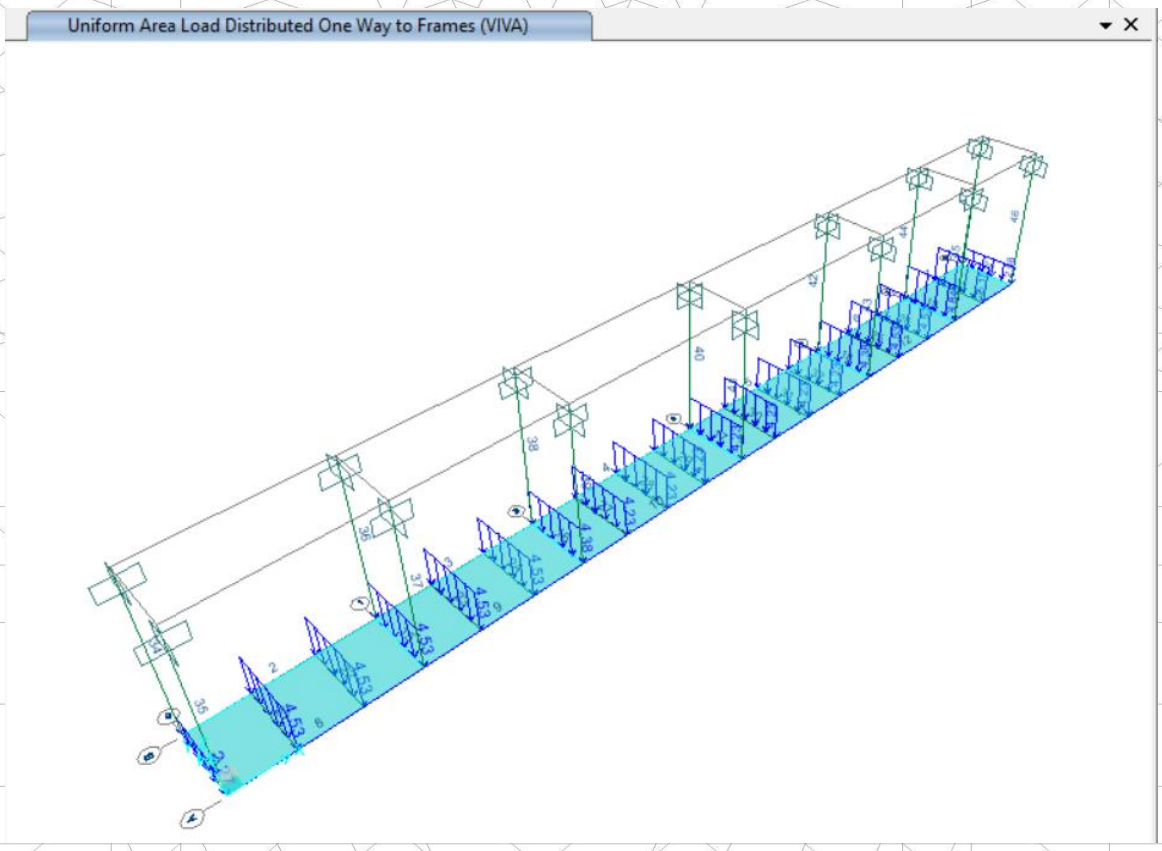
A continuación, se muestra el chequeo realizado por el módulo de diseño del programa, los datos de entrada y salida se encuentran en los anexos.

- **Carga muerta (SM)**: Se considero una carga de 200 kg/m^2 o 2.0 kN/m^2.
- **Carga Viva (Viva)**: Se consideró una carga de 500 kg/m^2 o 5.0 kN/m^2 .



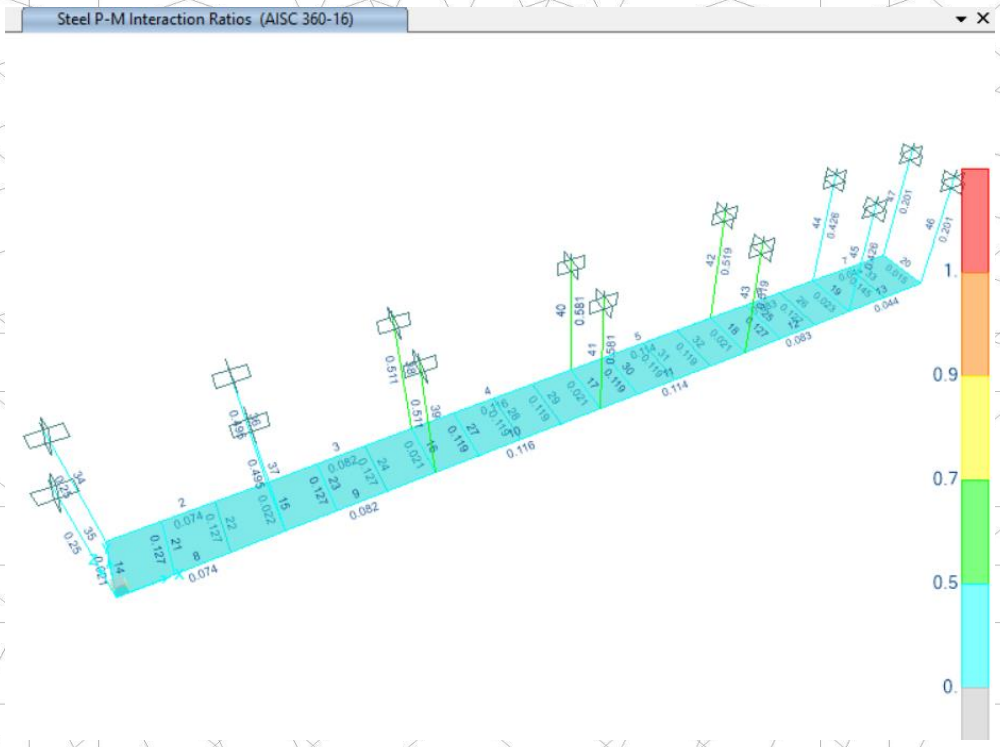
Asignación de carga Muerta sobre impuesta en PUENTE DE ILUMINACIÓN

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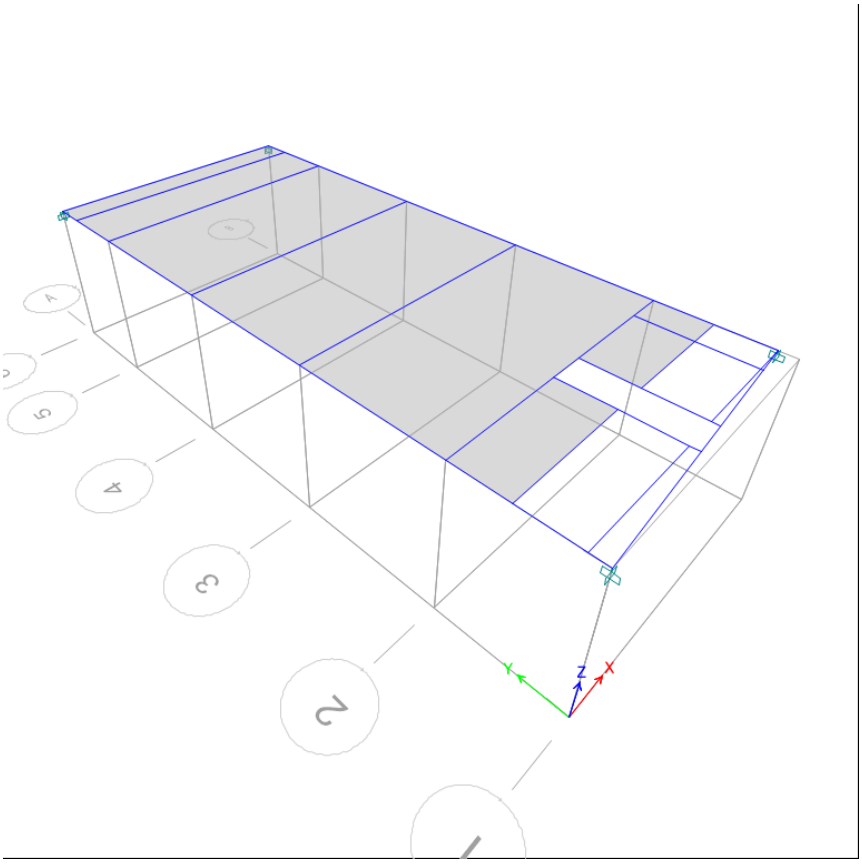
Asignación de carga Viva en PUENTE DE ILUMINACIÓN

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5. ANEXOS



Summary Report

Model File: TRAMOYA, Revision 0
20/06/2023

1 Loads

This chapter provides loading information as applied to the model.

1.1 Load Patterns

Table 1.1 - Load Patterns

Name	Type	Self Weight Multiplier
Dead	Dead	1
Live	Live	0
S.M.	Dead	0

1.2 Load Cases

Table 1.2 - Load Cases - Summary

Name	Type
Dead	Linear Static
Live	Linear Static
S.M.	Linear Static

2 Analysis Results

This chapter provides analysis results.

2.1 Structure Results

Table 2.1 - Base Reactions

Load Case/Combo	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m	X m	Y m	Z m
Dead	0	0	334.9894	2113.3685	-841.6146	0	0	0	0
Live	0	0	469.85	2673.0887	-1256.0322	0	0	0	0
S.M.	0	0	129.762	830.352	-433.45	0	0	0	0
B241	0	0	650.6519	4121.2088	-1785.0905	0	0	0	0
B242	0	0	1309.4616	7809.4066	-3539.729	0	0	0	0
DStlD1	0	0	464.7514	2943.7205	-1275.0646	0	0	0	0
DStlD2	0	0	934.6014	5616.8092	-2531.0968	0	0	0	0

2.2 Modal Results

Table 2.2 - Modal Participating Mass Ratios (Part 1 of 2)

Case	Mode	Period sec	UX	UY	UZ	Sum UX	Sum UY	Sum UZ
Modal	1	0.019	0.7604	3.298E-06	0	0.7604	3.298E-06	0
Modal	2	0.01	6.934E-07	0.0001	0	0.7604	0.0001	0
Modal	3	0.008	0.0001	0.1529	0	0.7605	0.153	0
Modal	4	0.007	0.0939	0.0005	0	0.8543	0.1535	0
Modal	5	0.005	0.0243	9.48E-06	0	0.8786	0.1535	0
Modal	6	0.004	1.439E-05	0.0078	0	0.8786	0.1614	0
Modal	7	0.004	4.982E-06	0.0009	0	0.8786	0.1623	0
Modal	8	0.004	0.0001	0.0033	0	0.8787	0.1656	0
Modal	9	0.003	0.0001	0.0001	0	0.8788	0.1657	0
Modal	10	0.003	0.011	0.0009	0	0.8898	0.1666	0
Modal	11	0.003	0.0001	0.289	0	0.8899	0.4556	0
Modal	12	0.003	1.317E-06	0.0727	0	0.8899	0.5282	0

Table 2.2 - Modal Participating Mass Ratios (Part 2 of 2)

Case	Mode	RX	RY	RZ	Sum RX	Sum RY	Sum RZ
Modal	1	1.942E-06	0.755	0.0219	1.942E-06	0.755	0.0219
Modal	2	0.0001	0.0036	0.4098	0.0001	0.7586	0.4317
Modal	3	0.1537	0.0001	4.674E-05	0.1537	0.7587	0.4317
Modal	4	0.0005	0.0682	0.0087	0.1543	0.8269	0.4404
Modal	5	7.834E-06	0.0321	0.0831	0.1543	0.859	0.5236
Modal	6	0.008	0.0018	0.0001	0.1623	0.8608	0.5236
Modal	7	0.001	2.212E-06	2.342E-06	0.1632	0.8608	0.5236
Modal	8	0.0032	0.0001	2.163E-06	0.1665	0.8609	0.5236
Modal	9	0.0001	0.0001	0.0005	0.1666	0.861	0.5241
Modal	10	0.0012	0.0064	0.02	0.1678	0.8674	0.5442
Modal	11	0.277	0.0001	0.0357	0.4447	0.8674	0.5799
Modal	12	0.0629	0.0004	0.1016	0.5076	0.8678	0.6815

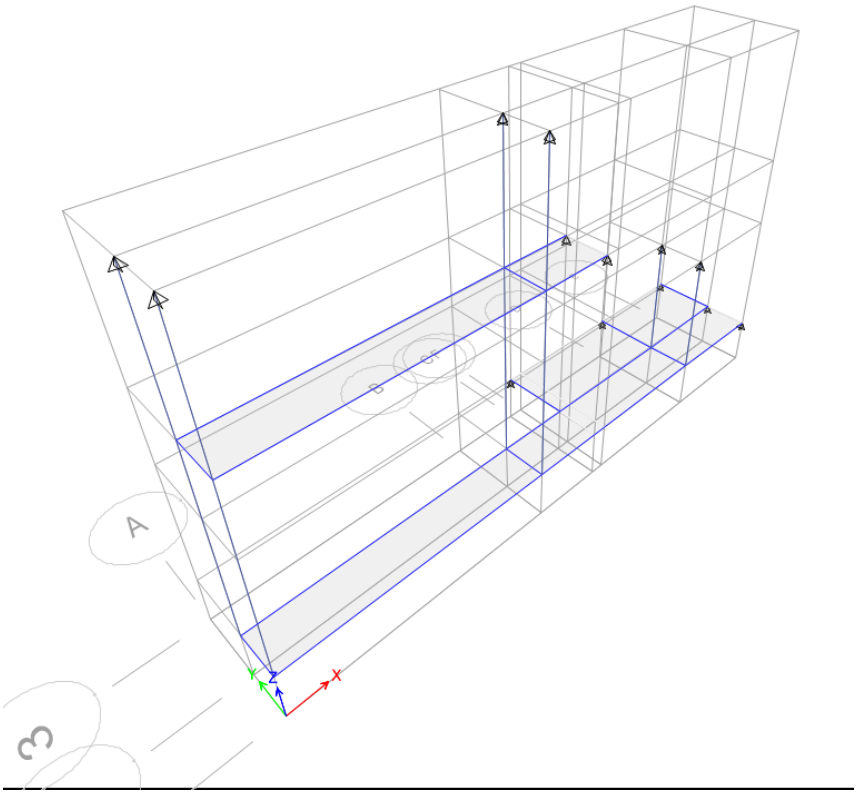
Table 2.3 - Modal Load Participation Ratios

Case	Item Type	Item	Static %	Dynamic %
Modal	Acceleration	UX	99.9	88.99
Modal	Acceleration	UY	82.82	52.82
Modal	Acceleration	UZ	0	0

Table 2.4 - Modal Direction Factors

Case	Mode	Period sec	UX	UY	UZ	RZ
Modal	1	0.019	0.99	0	0	0.01
Modal	2	0.01	0	0	0	1
Modal	3	0.008	0	0.579	0	0.421
Modal	4	0.007	0.329	0.002	0	0.669
Modal	5	0.005	0.151	0	0	0.849
Modal	6	0.004	0.001	0.763	0	0.235
Modal	7	0.004	0.005	0.896	0	0.099
Modal	8	0.004	0.009	0.353	0	0.638
Modal	9	0.003	0.06	0.1	0	0.84
Modal	10	0.003	0.017	0.001	0	0.982
Modal	11	0.003	0	0.996	0	0.004
Modal	12	0.003	0	0.717	0	0.283

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Summary Report

Model File: puentes tramoya, Revision 0
20/06/2023

1 Loads

This chapter provides loading information as applied to the model.

1.1 Load Patterns

Table 1.1 - Load Patterns

Name	Type	Self Weight Multiplier	Auto Load
P.P.	Dead	1	
L	Live	0	
Lr	Roof Live	0	
G	Snow	0	
S.I.	Dead	0	
W	Wind	0	None
FHEX	Seismic	0	User Coefficient
FHEY	Seismic	0	User Coefficient

1.2 Auto Wind Loading

1.3 Load Cases

Table 1.2 - Load Cases - Summary

Name	Type
P.P.	Linear Static
S.I.	Linear Static
L	Linear Static
Lr	Linear Static
G	Linear Static
W	Linear Static
SX	Response Spectrum
SY	Response Spectrum
FHEX	Linear Static
FHEY	Linear Static

2 Analysis Results

This chapter provides analysis results.

2.1 Structure Results

Table 2.1 - Base Reactions

Load Case/Combo	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m	X m	Y m	Z m
P.P.	0	0	28.5449	14.8135	-127.4179	0	0	0	0
S.I.	0	0	43.071	25.9345	-213.8663	0	0	0	0
L	0	0	71.785	43.2241	-356.4438	0	0	0	0
Lr	0	0	0	0	0	0	0	0	0
DEAD TOTAL	0	0	71.6159	40.748	-341.2842	0	0	0	0
B241V	0	0	100.2623	57.0472	-477.7978	0	0	0	0
B242V	0	0	200.7951	118.0562	-979.8511	0	0	0	0
B243V	0	0	157.7241	92.1217	-765.9848	0	0	0	0
B244V	0	0	157.7241	92.1217	-765.9848	0	0	0	0
B245V-X	0	0	157.7241	92.1217	-765.9848	0	0	0	0
B245V-Y	0	0	157.7241	92.1217	-765.9848	0	0	0	0
B246V	0	0	64.4543	36.6732	-307.1557	0	0	0	0
B247V-X	0	0	64.4543	36.6732	-307.1557	0	0	0	0
B247V-Y	0	0	64.4543	36.6732	-307.1557	0	0	0	0
DStlD1	0	0	71.6159	40.748	-341.2842	0	0	0	0
DStlD2	0	0	143.4009	83.9721	-697.728	0	0	0	0

2.2 Story Results

Table 2.2 - Story Drifts

Story	Load Case/Combo	Direction	Drift	Label	X m	Y m	Z m
N +5.80	P.P.	X	3.371E-07	15	0	0	5.8
N +5.80	P.P.	Y	4.216E-07	15	0	0	5.8
N +5.80	S.I.	X	1E-06	15	0	0	5.8
N +5.80	S.I.	Y	1E-06	15	0	0	5.8
N +5.80	L	X	1E-06	15	0	0	5.8
N +5.80	L	Y	1E-06	15	0	0	5.8
N +5.80	DEAD TOTAL	X	1E-06	15	0	0	5.8
N +5.80	DEAD TOTAL	Y	1E-06	15	0	0	5.8
N +5.80	B241V	X	1E-06	15	0	0	5.8
N +5.80	B241V	Y	1E-06	15	0	0	5.8
N +5.80	B242V	X	3E-06	15	0	0	5.8
N +5.80	B242V	Y	3E-06	15	0	0	5.8
N +5.80	B243V	X	2E-06	15	0	0	5.8
N +5.80	B243V	Y	2E-06	15	0	0	5.8
N +5.80	B244V	X	2E-06	15	0	0	5.8
N +5.80	B244V	Y	2E-06	15	0	0	5.8
N +5.80	B245V-X	X	2E-06	15	0	0	5.8
N +5.80	B245V-X	Y	2E-06	15	0	0	5.8
N +5.80	B245V-Y	X	2E-06	15	0	0	5.8
N +5.80	B245V-Y	Y	2E-06	15	0	0	5.8
N +5.80	B246V	X	1E-06	15	0	0	5.8
N +5.80	B246V	Y	1E-06	15	0	0	5.8
N +5.80	B247V-X	X	1E-06	15	0	0	5.8
N +5.80	B247V-X	Y	1E-06	15	0	0	5.8
N +5.80	B247V-Y	X	1E-06	15	0	0	5.8
N +5.80	B247V-Y	Y	1E-06	15	0	0	5.8
N +5.80	DStlD1	X	1E-06	15	0	0	5.8

Story	Load Case/Combo	Direction	Drift	Label	X m	Y m	Z m
N +5.80	DStlD1	Y	1E-06	15	0	0	5.8
N +5.80	DStlD2	X	2E-06	15	0	0	5.8
N +5.80	DStlD2	Y	2E-06	15	0	0	5.8
N +3.83	P.P.	X	1E-06	15	0	0	3.83
N +3.83	P.P.	Y	1E-06	15	0	0	3.83
N +3.83	S.I.	X	1E-06	15	0	0	3.83
N +3.83	S.I.	Y	2E-06	15	0	0	3.83
N +3.83	L	X	2E-06	15	0	0	3.83
N +3.83	L	Y	3E-06	15	0	0	3.83
N +3.83	DEAD TOTAL	X	2E-06	15	0	0	3.83
N +3.83	DEAD TOTAL	Y	3E-06	15	0	0	3.83
N +3.83	B241V	X	3E-06	15	0	0	3.83
N +3.83	B241V	Y	4E-06	15	0	0	3.83
N +3.83	B242V	X	6E-06	15	0	0	3.83
N +3.83	B242V	Y	8E-06	15	0	0	3.83
N +3.83	B243V	X	5E-06	15	0	0	3.83
N +3.83	B243V	Y	6E-06	15	0	0	3.83
N +3.83	B244V	X	5E-06	15	0	0	3.83
N +3.83	B244V	Y	6E-06	15	0	0	3.83
N +3.83	B245V-X	X	5E-06	15	0	0	3.83
N +3.83	B245V-X	Y	6E-06	15	0	0	3.83
N +3.83	B245V-Y	X	5E-06	15	0	0	3.83
N +3.83	B245V-Y	Y	6E-06	15	0	0	3.83
N +3.83	B246V	X	2E-06	15	0	0	3.83
N +3.83	B246V	Y	2E-06	15	0	0	3.83
N +3.83	B247V-X	X	2E-06	15	0	0	3.83
N +3.83	B247V-X	Y	2E-06	15	0	0	3.83
N +3.83	B247V-Y	X	2E-06	15	0	0	3.83
N +3.83	B247V-Y	Y	2E-06	15	0	0	3.83
N +3.83	DStlD1	X	2E-06	15	0	0	3.83
N +3.83	DStlD1	Y	3E-06	15	0	0	3.83
N +3.83	DStlD2	X	4E-06	15	0	0	3.83
N +3.83	DStlD2	Y	6E-06	15	0	0	3.83
N +2.75	P.P.	X	3E-08	4	7.58	0	2.75
N +2.75	P.P.	Y	1.06E-08	4	7.58	0	2.75
N +2.75	S.I.	X	5.446E-08	4	7.58	0	2.75
N +2.75	S.I.	Y	1.825E-08	4	7.58	0	2.75
N +2.75	L	X	9.077E-08	4	7.58	0	2.75
N +2.75	L	Y	3.042E-08	4	7.58	0	2.75
N +2.75	DEAD TOTAL	X	8.446E-08	4	7.58	0	2.75
N +2.75	DEAD TOTAL	Y	2.885E-08	4	7.58	0	2.75
N +2.75	B241V	X	1.182E-07	4	7.58	0	2.75
N +2.75	B241V	Y	4.04E-08	4	7.58	0	2.75
N +2.75	B242V	X	2.466E-07	4	7.58	0	2.75
N +2.75	B242V	Y	8.329E-08	4	7.58	0	2.75
N +2.75	B243V	X	1.921E-07	4	7.58	0	2.75
N +2.75	B243V	Y	6.504E-08	4	7.58	0	2.75
N +2.75	B244V	X	1.921E-07	4	7.58	0	2.75
N +2.75	B244V	Y	6.504E-08	4	7.58	0	2.75
N +2.75	B245V-X	X	1.921E-07	4	7.58	0	2.75
N +2.75	B245V-X	Y	6.504E-08	4	7.58	0	2.75
N +2.75	B245V-Y	X	1.921E-07	4	7.58	0	2.75
N +2.75	B245V-Y	Y	6.504E-08	4	7.58	0	2.75
N +2.75	B246V	X	7.601E-08	4	7.58	0	2.75
N +2.75	B246V	Y	2.597E-08	4	7.58	0	2.75
N +2.75	B247V-X	X	7.601E-08	4	7.58	0	2.75

Story	Load Case/Combo	Direction	Drift	Label	X m	Y m	Z m
N +2.75	B247V-X	Y	2.597E-08	4	7.58	0	2.75
N +2.75	B247V-Y	X	7.601E-08	4	7.58	0	2.75
N +2.75	B247V-Y	Y	2.597E-08	4	7.58	0	2.75
N +2.75	DStlD1	X	8.446E-08	4	7.58	0	2.75
N +2.75	DStlD1	Y	2.885E-08	4	7.58	0	2.75
N +2.75	DStlD2	X	1.752E-07	4	7.58	0	2.75
N +2.75	DStlD2	Y	5.927E-08	4	7.58	0	2.75

Table 2.3 - Story Forces

Story	Load Case/Combo	Location	P kN	VX kN	VY kN	T kN-m	MX kN-m	MY kN-m
N +5.80	P.P.	Top	-18.9862	0.1292	0.0017	-0.0377	-6.7322	51.6205
N +5.80	P.P.	Bottom	-17.6178	0.1292	0.0017	-0.0377	-6.2567	48.9946
N +5.80	S.I.	Top	-25.3578	0.2157	0.003	-0.0624	-8.9946	72.923
N +5.80	S.I.	Bottom	-25.3578	0.2157	0.003	-0.0624	-9.0005	73.348
N +5.80	L	Top	-42.2629	0.3595	0.005	-0.1039	-14.9909	121.5384
N +5.80	L	Bottom	-42.2629	0.3595	0.005	-0.1039	-15.0008	122.2466
N +5.80	Lr	Top	0	0	0	0	0	0
N +5.80	Lr	Bottom	0	0	0	0	0	0
N +5.80	DEAD TOTAL	Top	-44.344	0.345	0.0048	-0.1001	-15.7267	124.5435
N +5.80	DEAD TOTAL	Bottom	-42.9756	0.345	0.0048	-0.1001	-15.2572	122.3426
N +5.80	B241V	Top	-62.0815	0.4829	0.0067	-0.1402	-22.0174	174.3609
N +5.80	B241V	Bottom	-60.1658	0.4829	0.0067	-0.1402	-21.36	171.2797
N +5.80	B242V	Top	-120.8335	0.9892	0.0137	-0.2865	-42.8576	343.9136
N +5.80	B242V	Bottom	-119.1914	0.9892	0.0137	-0.2865	-42.3099	342.4057
N +5.80	B243V	Top	-95.4757	0.7735	0.0107	-0.2241	-33.863	270.9905
N +5.80	B243V	Bottom	-93.8336	0.7735	0.0107	-0.2241	-33.3094	269.0578
N +5.80	B244V	Top	-95.4757	0.7735	0.0107	-0.2241	-33.863	270.9905
N +5.80	B244V	Bottom	-93.8336	0.7735	0.0107	-0.2241	-33.3094	269.0578
N +5.80	B245V-X	Top	-95.4757	0.7735	0.0107	-0.2241	-33.863	270.9905
N +5.80	B245V-X	Bottom	-93.8336	0.7735	0.0107	-0.2241	-33.3094	269.0578
N +5.80	B245V-Y	Top	-95.4757	0.7735	0.0107	-0.2241	-33.863	270.9905
N +5.80	B245V-Y	Bottom	-93.8336	0.7735	0.0107	-0.2241	-33.3094	269.0578
N +5.80	B246V	Top	-39.9096	0.3105	0.0043	-0.0901	-14.1541	112.0891
N +5.80	B246V	Bottom	-38.678	0.3105	0.0043	-0.0901	-13.7315	110.1084
N +5.80	B247V-X	Top	-39.9096	0.3105	0.0043	-0.0901	-14.1541	112.0891
N +5.80	B247V-X	Bottom	-38.678	0.3105	0.0043	-0.0901	-13.7315	110.1084
N +5.80	B247V-Y	Top	-39.9096	0.3105	0.0043	-0.0901	-14.1541	112.0891
N +5.80	B247V-Y	Bottom	-38.678	0.3105	0.0043	-0.0901	-13.7315	110.1084
N +5.80	DStlD1	Top	-44.344	0.345	0.0048	-0.1001	-15.7267	124.5435
N +5.80	DStlD1	Bottom	-42.9756	0.345	0.0048	-0.1001	-15.2572	122.3426
N +5.80	DStlD2	Top	-86.6069	0.7045	0.0098	-0.2041	-30.7177	246.0818
N +5.80	DStlD2	Bottom	-85.2385	0.7045	0.0098	-0.2041	-30.258	244.5892
N +2.75	P.P.	Top	-6.0134	-0.085	0.0027	0.0606	-2.7032	45.5814
N +2.75	P.P.	Bottom	-5.3292	-0.085	0.0027	0.0606	-2.4691	40.2277
N +2.75	S.I.	Top	-9.9385	-0.1611	0.0039	0.1093	-4.8491	75.3342
N +2.75	S.I.	Bottom	-9.9385	-0.1611	0.0039	0.1093	-4.8568	75.0169
N +2.75	L	Top	-16.5642	-0.2684	0.0065	0.1821	-8.0819	125.557
N +2.75	L	Bottom	-16.5642	-0.2684	0.0065	0.1821	-8.0946	125.0282
N +2.75	Lr	Top	0	0	0	0	0	0
N +2.75	Lr	Bottom	0	0	0	0	0	0
N +2.75	DEAD TOTAL	Top	-15.9519	-0.2461	0.0066	0.1699	-7.5523	120.9156
N +2.75	DEAD TOTAL	Bottom	-15.2677	-0.2461	0.0066	0.1699	-7.3258	115.2446
N +2.75	B241V	Top	-22.3327	-0.3445	0.0092	0.2378	-10.5732	169.2818
N +2.75	B241V	Bottom	-21.3748	-0.3445	0.0092	0.2378	-10.2562	161.3425

Story	Load Case/Combo	Location	P kN	VX kN	VY kN	T kN-m	MX kN-m	MY kN-m
N +2.75	B242V	Top	-45.6451	-0.7248	0.0183	0.4953	-21.9937	345.9899
N +2.75	B242V	Bottom	-44.8241	-0.7248	0.0183	0.4953	-21.7424	338.3387
N +2.75	B243V	Top	-35.7066	-0.5638	0.0144	0.386	-17.1446	270.6557
N +2.75	B243V	Bottom	-34.8855	-0.5638	0.0144	0.386	-16.8856	263.3217
N +2.75	B244V	Top	-35.7066	-0.5638	0.0144	0.386	-17.1446	270.6557
N +2.75	B244V	Bottom	-34.8855	-0.5638	0.0144	0.386	-16.8856	263.3217
N +2.75	B245V-X	Top	-35.7066	-0.5638	0.0144	0.386	-17.1446	270.6557
N +2.75	B245V-X	Bottom	-34.8855	-0.5638	0.0144	0.386	-16.8856	263.3217
N +2.75	B245V-Y	Top	-35.7066	-0.5638	0.0144	0.386	-17.1446	270.6557
N +2.75	B245V-Y	Bottom	-34.8855	-0.5638	0.0144	0.386	-16.8856	263.3217
N +2.75	B246V	Top	-14.3567	-0.2215	0.0059	0.1529	-6.7971	108.824
N +2.75	B246V	Bottom	-13.741	-0.2215	0.0059	0.1529	-6.5932	103.7202
N +2.75	B247V-X	Top	-14.3567	-0.2215	0.0059	0.1529	-6.7971	108.824
N +2.75	B247V-X	Bottom	-13.741	-0.2215	0.0059	0.1529	-6.5932	103.7202
N +2.75	B247V-Y	Top	-14.3567	-0.2215	0.0059	0.1529	-6.7971	108.824
N +2.75	B247V-Y	Bottom	-13.741	-0.2215	0.0059	0.1529	-6.5932	103.7202
N +2.75	DStlD1	Top	-15.9519	-0.2461	0.0066	0.1699	-7.5523	120.9156
N +2.75	DStlD1	Bottom	-15.2677	-0.2461	0.0066	0.1699	-7.3258	115.2446
N +2.75	DStlD2	Top	-32.5162	-0.5145	0.0131	0.352	-15.6342	246.4726
N +2.75	DStlD2	Bottom	-31.832	-0.5145	0.0131	0.352	-15.4205	240.2728

SAP2000 Analysis Report

Prepared by

Hewlett-Packard Company

Model Name: PUENTE DE ILUMINACION.sdb

26 agosto 2022

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1. Model geometry

This section provides model geometry information, including items such as joint coordinates, joint restraints, and element connectivity.

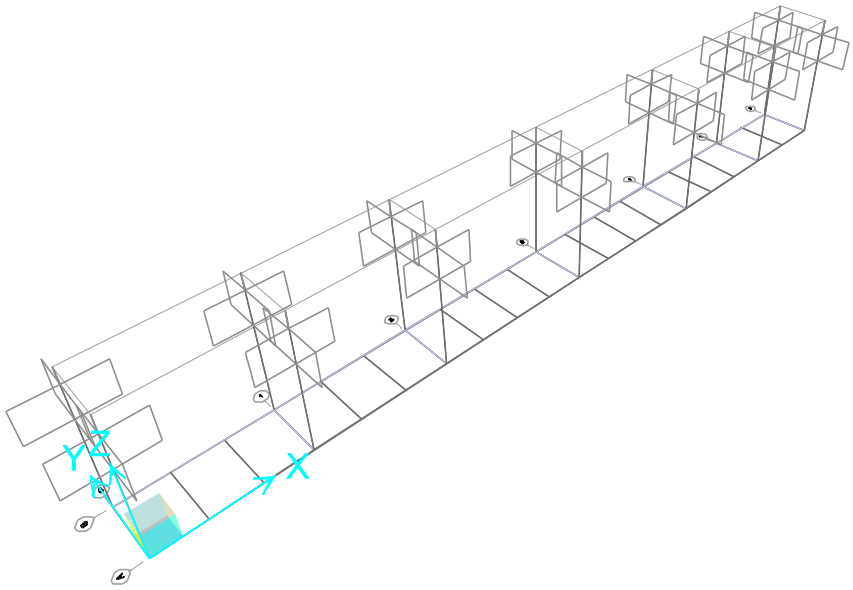


Figure 1: Finite element model

1.1. Joint coordinates

Table 1: Joint Coordinates

Table 1: Joint Coordinates

Joint	CoordSys	CoordType	GlobalX	GlobalY	GlobalZ
			m	m	m
3	GLOBAL	Cartesian	0.	1.2	0.
4	GLOBAL	Cartesian	2.72	1.2	0.
5	GLOBAL	Cartesian	5.44	1.2	0.
6	GLOBAL	Cartesian	8.82	1.2	0.
7	GLOBAL	Cartesian	12.2	1.2	0.
8	GLOBAL	Cartesian	14.92	1.2	0.
9	GLOBAL	Cartesian	16.98	1.2	0.
10	GLOBAL	Cartesian	0.	0.	0.
11	GLOBAL	Cartesian	2.72	0.	0.
12	GLOBAL	Cartesian	5.44	0.	0.
13	GLOBAL	Cartesian	8.82	0.	0.
14	GLOBAL	Cartesian	12.2	0.	0.
15	GLOBAL	Cartesian	14.92	0.	0.

Table 1: Joint Coordinates

Joint	CoordSys	CoordType	GlobalX	GlobalY	GlobalZ
			m	m	m
16	GLOBAL	Cartesian	16.98	0.	0.
17	GLOBAL	Cartesian	0.90667	1.665E-16	0.
18	GLOBAL	Cartesian	0.90667	1.2	0.
19	GLOBAL	Cartesian	1.81333	3.331E-16	0.
20	GLOBAL	Cartesian	1.81333	1.2	0.
21	GLOBAL	Cartesian	3.62667	6.662E-16	0.
22	GLOBAL	Cartesian	3.62667	1.2	0.
23	GLOBAL	Cartesian	4.53333	8.327E-16	0.
24	GLOBAL	Cartesian	4.53333	1.2	0.
25	GLOBAL	Cartesian	13.10667	2.408E-15	0.
26	GLOBAL	Cartesian	13.10667	1.2	0.
27	GLOBAL	Cartesian	14.01333	2.574E-15	0.
28	GLOBAL	Cartesian	14.01333	1.2	0.
29	GLOBAL	Cartesian	6.285	1.154E-15	0.
30	GLOBAL	Cartesian	6.285	1.2	0.
31	GLOBAL	Cartesian	7.13	1.310E-15	0.
32	GLOBAL	Cartesian	7.13	1.2	0.
33	GLOBAL	Cartesian	7.975	1.465E-15	0.
34	GLOBAL	Cartesian	7.975	1.2	0.
35	GLOBAL	Cartesian	9.665	1.775E-15	0.
36	GLOBAL	Cartesian	9.665	1.2	0.
37	GLOBAL	Cartesian	10.51	1.931E-15	0.
38	GLOBAL	Cartesian	10.51	1.2	0.
39	GLOBAL	Cartesian	11.355	2.086E-15	0.
40	GLOBAL	Cartesian	11.355	1.2	0.
41	GLOBAL	Cartesian	15.95	2.930E-15	0.
42	GLOBAL	Cartesian	15.95	1.2	0.
43	GLOBAL	Cartesian	0.	1.2	2.9
44	GLOBAL	Cartesian	0.	0.	2.9
45	GLOBAL	Cartesian	2.72	1.2	2.9
46	GLOBAL	Cartesian	2.72	0.	2.9
47	GLOBAL	Cartesian	5.44	1.2	2.9
48	GLOBAL	Cartesian	5.44	0.	2.9
49	GLOBAL	Cartesian	8.82	1.2	2.9
50	GLOBAL	Cartesian	8.82	0.	2.9
51	GLOBAL	Cartesian	12.2	1.2	2.9
52	GLOBAL	Cartesian	12.2	0.	2.9
53	GLOBAL	Cartesian	14.92	1.2	2.9
54	GLOBAL	Cartesian	14.92	0.	2.9
55	GLOBAL	Cartesian	16.98	0.	2.9
56	GLOBAL	Cartesian	16.98	1.2	2.9

1.2. Joint restraints

Table 2: Joint Restraint Assignments

Table 2: Joint Restraint Assignments

Joint	U1	U2	U3	R1	R2	R3
43	Yes	Yes	Yes	Yes	Yes	Yes
44	Yes	Yes	Yes	Yes	Yes	Yes

Table 2: Joint Restraint Assignments

Joint	U1	U2	U3	R1	R2	R3
45	Yes	Yes	Yes	Yes	Yes	Yes
46	Yes	Yes	Yes	Yes	Yes	Yes
47	Yes	Yes	Yes	Yes	Yes	Yes
48	Yes	Yes	Yes	Yes	Yes	Yes
49	Yes	Yes	Yes	Yes	Yes	Yes
50	Yes	Yes	Yes	Yes	Yes	Yes
51	Yes	Yes	Yes	Yes	Yes	Yes
52	Yes	Yes	Yes	Yes	Yes	Yes
53	Yes	Yes	Yes	Yes	Yes	Yes
54	Yes	Yes	Yes	Yes	Yes	Yes
55	Yes	Yes	Yes	Yes	Yes	Yes
56	Yes	Yes	Yes	Yes	Yes	Yes

1.3. Element connectivity

Table 3: Connectivity - Frame

Table 3: Connectivity - Frame

Frame	JointI	JointJ	Length m
2	3	4	2.72
3	4	5	2.72
4	5	6	3.38
5	6	7	3.38
6	7	8	2.72
7	8	9	2.06
8	10	11	2.72
9	11	12	2.72
10	12	13	3.38
11	13	14	3.38
12	14	15	2.72
13	15	16	2.06
14	10	3	1.2
15	11	4	1.2
16	12	5	1.2
17	13	6	1.2
18	14	7	1.2
19	15	8	1.2
20	16	9	1.2
21	17	18	1.2
22	19	20	1.2
23	21	22	1.2
24	23	24	1.2
25	25	26	1.2
26	27	28	1.2
27	29	30	1.2
28	31	32	1.2
29	33	34	1.2
30	35	36	1.2
31	37	38	1.2
32	39	40	1.2

Table 3: Connectivity - Frame

Frame	JointI	JointJ	Length
			m
33	41	42	1.2
34	3	43	2.9
35	10	44	2.9
36	4	45	2.9
37	11	46	2.9
38	5	47	2.9
39	12	48	2.9
40	6	49	2.9
41	13	50	2.9
42	7	51	2.9
43	14	52	2.9
44	8	53	2.9
45	15	54	2.9
46	16	55	2.9
47	9	56	2.9

Table 4: Frame Section Assignments

Table 4: Frame Section Assignments

Frame	AnalSect	DesignSect	MatProp
2	IPE200	IPE200	Default
3	IPE200	IPE200	Default
4	IPE200	IPE200	Default
5	IPE200	IPE200	Default
6	IPE200	IPE200	Default
7	IPE200	IPE200	Default
8	IPE200	IPE200	Default
9	IPE200	IPE200	Default
10	IPE200	IPE200	Default
11	IPE200	IPE200	Default
12	IPE200	IPE200	Default
13	IPE200	IPE200	Default
14	IPE200	IPE200	Default
15	IPE200	IPE200	Default
16	IPE200	IPE200	Default
17	IPE200	IPE200	Default
18	IPE200	IPE200	Default
19	IPE200	IPE200	Default
20	IPE200	IPE200	Default
21	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
22	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
23	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
24	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
25	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
26	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
27	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
28	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
29	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
30	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
31	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
32	PTE100X100X3.00mm	PTE100X100X3.00mm	Default

Table 4: Frame Section Assignments

Frame	AnalSect	DesignSect	MatProp
33	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
34	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
35	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
36	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
37	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
38	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
39	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
40	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
41	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
42	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
43	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
44	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
45	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
46	PTE100X100X3.00mm	PTE100X100X3.00mm	Default
47	PTE100X100X3.00mm	PTE100X100X3.00mm	Default

Table 5: Frame Release Assignments 1 - General, Part 1 of 2

Table 5: Frame Release Assignments 1 - General, Part 1 of 2

Frame	PI	V2I	V3I	TI	M2I	M3I
21	No	No	No	Yes	Yes	Yes
22	No	No	No	Yes	Yes	Yes
23	No	No	No	Yes	Yes	Yes
24	No	No	No	Yes	Yes	Yes
25	No	No	No	Yes	Yes	Yes
26	No	No	No	Yes	Yes	Yes
27	No	No	No	Yes	Yes	Yes
28	No	No	No	Yes	Yes	Yes
29	No	No	No	Yes	Yes	Yes
30	No	No	No	Yes	Yes	Yes
31	No	No	No	Yes	Yes	Yes
32	No	No	No	Yes	Yes	Yes
33	No	No	No	Yes	Yes	Yes

Table 5: Frame Release Assignments 1 - General, Part 2 of 2

Table 5: Frame Release Assignments 1 - General, Part 2 of 2

Frame	PJ	V2J	V3J	TJ	M2J	M3J
21	No	No	No	No	Yes	Yes
22	No	No	No	No	Yes	Yes
23	No	No	No	No	Yes	Yes
24	No	No	No	No	Yes	Yes
25	No	No	No	No	Yes	Yes
26	No	No	No	No	Yes	Yes
27	No	No	No	No	Yes	Yes
28	No	No	No	No	Yes	Yes
29	No	No	No	No	Yes	Yes
30	No	No	No	No	Yes	Yes
31	No	No	No	No	Yes	Yes
32	No	No	No	No	Yes	Yes

Table 5: Frame Release Assignments 1 - General, Part 2 of 2

Frame	PJ	V2J	V3J	TJ	M2J	M3J
33	No	No	No	No	Yes	Yes

Table 6: Connectivity - Area

Table 6: Connectivity - Area

Area	Joint1	Joint2	Joint3	Joint4
1	10	11	4	3
2	11	12	5	4
3	12	13	6	5
4	13	14	7	6
5	14	15	8	7
6	15	16	9	8

Table 7: Area Section Assignments

Table 7: Area Section Assignments

Area	Section	MatProp
1	LAM	Default
2	LAM	Default
3	LAM	Default
4	LAM	Default
5	LAM	Default
6	LAM	Default

2. Material properties

This section provides material property information for materials used in the model.

Table 8: Material Properties 02 - Basic Mechanical Properties

Table 8: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	KN/m3	KN-s2/m4	KN/m2	KN/m2		1/C
3000Psi	2.3563E+01	2.4028E+00	21525562.37	8968984.32	0.2	9.9000E-06
4000Psi	2.3563E+01	2.4028E+00	24855578.28	10356490.95	0.2	9.9000E-06
A36	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05
A416Gr270	7.6973E+01	7.8490E+00	196500599.9			1.1700E-05
A500GrC	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05
A572Gr50	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05
A615Gr60	7.6973E+01	7.8490E+00	199947978.8			1.1700E-05
A653SQGr50	7.6973E+01	7.8490E+00	203395357.7	78228983.75	0.3	1.1700E-05
A992Fy50	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05

Table 9: Material Properties 03a - Steel Data

Table 9: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope
	KN/m2	KN/m2	
A36	248211.28	399895.96	-0.1
A500GrC	344737.89	427474.99	-0.1
A572Gr50	344737.89	448159.26	-0.1
A992Fy50	344737.89	448159.26	-0.1

Table 10: Material Properties 03b - Concrete Data

Table 10: Material Properties 03b - Concrete Data

Material	Fc	eFc	FinalSlope
	KN/m2	KN/m2	
3000Psi	20684.27	20684.27	-0.1
4000Psi	27579.03	27579.03	-0.1

Table 11: Material Properties 03d - Cold Formed Data

Table 11: Material Properties 03d - Cold Formed Data

Material	Fy	Fu
	KN/m2	KN/m2
A653SQGr50	344737.89	448159.26

Table 12: Material Properties 03e - Rebar Data

Table 12: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope
	KN/m2	KN/m2	
A615Gr60	413685.47	620528.21	-0.1

Table 13: Material Properties 03f - Tendon Data

Table 13: Material Properties 03f - Tendon Data

Material	Fy	Fu	FinalSlope
	KN/m2	KN/m2	
A416Gr270	1689905.16	1861584.63	-0.1

3. Section properties

This section provides section property information for objects used in the model.

3.1. Frames

Table 14: Frame Section Properties 01 - General, Part 1 of 5

Table 14: Frame Section Properties 01 - General, Part 1 of 5

SectionName	Material	Shape	t3	t2	tf	tw	t2b	tfb
			m	m	m	m	m	m
IPE200	A572Gr50	I/Wide Flange	0.2	0.1	0.0085	0.0056	0.1	0.0085
PTE100X100X3.00mm	A500GrC	Box/Tube	0.1	0.1	0.003	0.003		
UPN300	A572Gr50	Channel	0.3	0.1	0.016	0.01		

Table 14: Frame Section Properties 01 - General, Part 2 of 5

Table 14: Frame Section Properties 01 - General, Part 2 of 5

SectionName	Area	TorsConst	I33	I22	I23	AS2	AS3
	m2	m4	m4	m4	m4	m2	m2
IPE200	0.00285	6.920E-08	0.000019	1.420E-06	0.	0.00112	0.001417
PTE100X100X3.00mm	0.001164	2.738E-06	1.827E-06	1.827E-06	0.	0.0006	0.0006
UPN300	0.005874	3.624E-07	0.00008	4.940E-06	0.	0.003	0.002667

Table 14: Frame Section Properties 01 - General, Part 3 of 5

Table 14: Frame Section Properties 01 - General, Part 3 of 5

SectionName	S33	S22	Z33	Z22	R33	R22
	m3	m3	m3	m3	m	m
IPE200	0.000194	0.000028	0.000221	0.000045	0.082568	0.022321
PTE100X100X3.00mm	0.000037	0.000037	0.000042	0.000042	0.039619	0.039619
UPN300	0.000535	0.000068	0.000647	0.000145	0.116862	0.029

Table 14: Frame Section Properties 01 - General, Part 4 of 5

Table 14: Frame Section Properties 01 - General, Part 4 of 5

SectionName	EccV2	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod
	m							
IPE200		1.	1.	1.	1.	1.	1.	1.
PTE100X100X3.00mm		1.	1.	1.	1.	1.	1.	1.
UPN300	0.058066	1.	1.	1.	1.	1.	1.	1.

Table 14: Frame Section Properties 01 - General, Part 5 of 5

Table 14: Frame Section Properties 01 - General, Part 5 of 5

SectionName	WMod
IPE200	1.
PTE100X100X3.00mm	1.
UPN300	1.

Table 15: Frame Property Modifiers, Part 1 of 2

Table 15: Frame Property Modifiers, Part 1 of 2

Frame	AMod	AS2Mod	AS3Mod	JMod	I22Mod	I33Mod	MassMod	WeightMod
2	1.	1.	1.	1.	1.	1.	1.	1.
3	1.	1.	1.	1.	1.	1.	1.	1.
4	1.	1.	1.	1.	1.	1.	1.	1.
5	1.	1.	1.	1.	1.	1.	1.	1.
6	1.	1.	1.	1.	1.	1.	1.	1.
7	1.	1.	1.	1.	1.	1.	1.	1.
8	1.	1.	1.	1.	1.	1.	1.	1.
9	1.	1.	1.	1.	1.	1.	1.	1.
10	1.	1.	1.	1.	1.	1.	1.	1.
11	1.	1.	1.	1.	1.	1.	1.	1.
12	1.	1.	1.	1.	1.	1.	1.	1.
13	1.	1.	1.	1.	1.	1.	1.	1.
14	1.	1.	1.	1.	1.	1.	1.	1.
15	1.	1.	1.	1.	1.	1.	1.	1.
16	1.	1.	1.	1.	1.	1.	1.	1.
17	1.	1.	1.	1.	1.	1.	1.	1.
18	1.	1.	1.	1.	1.	1.	1.	1.
19	1.	1.	1.	1.	1.	1.	1.	1.
20	1.	1.	1.	1.	1.	1.	1.	1.
21	1.	1.	1.	1.	1.	1.	1.	1.
22	1.	1.	1.	1.	1.	1.	1.	1.
23	1.	1.	1.	1.	1.	1.	1.	1.
24	1.	1.	1.	1.	1.	1.	1.	1.
25	1.	1.	1.	1.	1.	1.	1.	1.
26	1.	1.	1.	1.	1.	1.	1.	1.
27	1.	1.	1.	1.	1.	1.	1.	1.
28	1.	1.	1.	1.	1.	1.	1.	1.
29	1.	1.	1.	1.	1.	1.	1.	1.
30	1.	1.	1.	1.	1.	1.	1.	1.
31	1.	1.	1.	1.	1.	1.	1.	1.
32	1.	1.	1.	1.	1.	1.	1.	1.
33	1.	1.	1.	1.	1.	1.	1.	1.
34	1.	1.	1.	1.	1.	1.	1.	1.
35	1.	1.	1.	1.	1.	1.	1.	1.
36	1.	1.	1.	1.	1.	1.	1.	1.
37	1.	1.	1.	1.	1.	1.	1.	1.
38	1.	1.	1.	1.	1.	1.	1.	1.
39	1.	1.	1.	1.	1.	1.	1.	1.
40	1.	1.	1.	1.	1.	1.	1.	1.
41	1.	1.	1.	1.	1.	1.	1.	1.
42	1.	1.	1.	1.	1.	1.	1.	1.
43	1.	1.	1.	1.	1.	1.	1.	1.
44	1.	1.	1.	1.	1.	1.	1.	1.
45	1.	1.	1.	1.	1.	1.	1.	1.
46	1.	1.	1.	1.	1.	1.	1.	1.
47	1.	1.	1.	1.	1.	1.	1.	1.

Table 15: Frame Property Modifiers, Part 2 of 2

Table 15: Frame Property Modifiers, Part 2 of 2

Frame	EAModifier	EIModifier
2	0.8	0.8
3	0.8	0.8
4	0.8	0.8
5	0.8	0.8
6	0.8	0.8
7	0.8	0.8
8	0.8	0.8
9	0.8	0.8
10	0.8	0.8
11	0.8	0.8
12	0.8	0.8
13	0.8	0.8
14	0.8	0.8
15	0.8	0.8
16	0.8	0.8
17	0.8	0.8
18	0.8	0.8
19	0.8	0.8
20	0.8	0.8
21	0.8	0.8
22	0.8	0.8
23	0.8	0.8
24	0.8	0.8
25	0.8	0.8
26	0.8	0.8
27	0.8	0.8
28	0.8	0.8
29	0.8	0.8
30	0.8	0.8
31	0.8	0.8
32	0.8	0.8
33	0.8	0.8
34	0.8	0.8
35	0.8	0.8
36	0.8	0.8
37	0.8	0.8
38	0.8	0.8
39	0.8	0.8
40	0.8	0.8
41	0.8	0.8
42	0.8	0.8
43	0.8	0.8
44	0.8	0.8
45	0.8	0.8
46	0.8	0.8
47	0.8	0.8

3.2. Areas

Table 16: Area Section Properties, Part 1 of 3

Table 16: Area Section Properties, Part 1 of 3

Section	Material	AreaType	Type	DrillDOF	Thickness	BendThick	F11Mod
					m	m	
LAM	A572Gr50	Shell	Membrane	Yes	0.006	0.006	1.

Table 16: Area Section Properties, Part 2 of 3

Table 16: Area Section Properties, Part 2 of 3

Section	F22Mod	F12Mod	M11Mod	M22Mod	M12Mod	V13Mod	V23Mod
LAM	1.	1.	1.	1.	1.	1.	1.

Table 16: Area Section Properties, Part 3 of 3

Table 16: Area Section Properties, Part 3 of 3

Section	MMod	WMod
LAM	1.	1.

3.3. Solids

Table 17: Solid Property Definitions

Table 17: Solid Property Definitions

SolidProp	Material	MatAngleA	MatAngleB	MatAngleC
		Degrees	Degrees	Degrees
SOLID1	4000Psi	0.	0.	0.

4. Load patterns

This section provides loading information as applied to the model.

4.1. Definitions

Table 18: Load Pattern Definitions

Table 18: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	Dead	1.	
SM	Dead	0.	
VIVA	Live	0.	
VX	Wind	0.	None

Table 18: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
VY	Wind	0.	None
SX	Quake	0.	None
SY	Quake	0.	None
EX	Quake	0.	None
EY	Quake	0.	None
GRANIZO	Snow	0.	
VIVA-CUBIERTA	Roof Live	0.	

5. Load cases

This section provides load case information.

5.1. Definitions

Table 19: Load Case Definitions, Part 1 of 2

Table 19: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
DEAD	LinStatic	Zero				Prog Det
MODAL	LinModal	Zero				Prog Det
SM	LinStatic	Zero				Prog Det
VIVA	LinStatic	Zero				Prog Det
EX	LinRespSpec		MODAL			Prog Det
EY	LinRespSpec		MODAL			Prog Det

Table 19: Load Case Definitions, Part 2 of 2

Table 19: Load Case Definitions, Part 2 of 2

Case	DesignAct
DEAD	Non-Composite
MODAL	Other
SM	Non-Composite
VIVA	Short-Term Composite
EX	Short-Term Composite
EY	Short-Term Composite

5.2. Static case load assignments

Table 20: Case - Static 1 - Load Assignments

Table 20: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.
SM	Load pattern	SM	1.
VIVA	Load pattern	VIVA	1.

5.3. Response spectrum case load assignments

Table 21: Case - Response Spectrum 1 - General, Part 1 of 2

Table 21: Case - Response Spectrum 1 - General, Part 1 of 2

Case	ModalCombo	GMCf1	GMCf2	PerRigid	DirCombo	MotionType	DampingType
		Cyc/sec	Cyc/sec				
EX	SRSS	1.0000E+00	0.0000E+00	SRSS	SRSS	Acceleration	Constant
EY	SRSS	1.0000E+00	0.0000E+00	SRSS	SRSS	Acceleration	Constant

Table 21: Case - Response Spectrum 1 - General, Part 2 of 2

Table 21: Case - Response Spectrum 1 - General, Part 2 of 2

Case	ConstDamp
EX	0.05
EY	0.05

Table 22: Case - Response Spectrum 2 - Load Assignments

Table 22: Case - Response Spectrum 2 - Load Assignments

Case	LoadType	LoadName	CoordSys	Function	Angle	TransAccSF
					Degrees	m/sec2
EX	Acceleration	U1	GLOBAL	LACUSTRE-200	0.	3.
EY	Acceleration	U2	GLOBAL	LACUSTRE-200	0.	3.

Table 23: Function - Response Spectrum - User

Table 23: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
LACUSTRE-200	0.	0.45	0.05
LACUSTRE-200	0.05	0.45	
LACUSTRE-200	0.1	0.45	
LACUSTRE-200	0.15	0.45	
LACUSTRE-200	0.2	0.45	
LACUSTRE-200	0.25	0.45	

Table 23: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
LACUSTRE-200	0.3	0.45	
LACUSTRE-200	0.35	0.45	
LACUSTRE-200	0.4	0.45	
LACUSTRE-200	0.45	0.45	
LACUSTRE-200	0.5	0.45	
LACUSTRE-200	0.55	0.45	
LACUSTRE-200	0.6	0.45	
LACUSTRE-200	0.65	0.45	
LACUSTRE-200	0.7	0.45	
LACUSTRE-200	0.75	0.45	
LACUSTRE-200	0.8	0.45	
LACUSTRE-200	0.85	0.45	
LACUSTRE-200	0.9	0.45	
LACUSTRE-200	0.95	0.45	
LACUSTRE-200	1.	0.45	
LACUSTRE-200	1.05	0.45	
LACUSTRE-200	1.1	0.45	
LACUSTRE-200	1.15	0.45	
LACUSTRE-200	1.2	0.45	
LACUSTRE-200	1.25	0.45	
LACUSTRE-200	1.3	0.45	
LACUSTRE-200	1.35	0.45	
LACUSTRE-200	1.4	0.45	
LACUSTRE-200	1.45	0.45	
LACUSTRE-200	1.5	0.45	
LACUSTRE-200	1.55	0.45	
LACUSTRE-200	1.6	0.45	
LACUSTRE-200	1.65	0.45	
LACUSTRE-200	1.7	0.45	
LACUSTRE-200	1.75	0.45	
LACUSTRE-200	1.8	0.45	
LACUSTRE-200	1.85	0.45	
LACUSTRE-200	1.9	0.442	
LACUSTRE-200	1.95	0.431	
LACUSTRE-200	2.	0.42	
LACUSTRE-200	2.05	0.41	
LACUSTRE-200	2.1	0.4	
LACUSTRE-200	2.15	0.391	
LACUSTRE-200	2.2	0.382	
LACUSTRE-200	2.25	0.373	
LACUSTRE-200	2.3	0.365	
LACUSTRE-200	2.35	0.357	
LACUSTRE-200	2.4	0.35	
LACUSTRE-200	2.45	0.343	
LACUSTRE-200	2.5	0.336	
LACUSTRE-200	2.55	0.329	
LACUSTRE-200	2.6	0.323	
LACUSTRE-200	2.65	0.317	
LACUSTRE-200	2.7	0.311	
LACUSTRE-200	2.75	0.305	
LACUSTRE-200	2.8	0.3	
LACUSTRE-200	2.85	0.295	
LACUSTRE-200	2.9	0.29	
LACUSTRE-200	2.95	0.285	

Table 23: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
LACUSTRE-200	3.	0.28	
LACUSTRE-200	3.05	0.275	
LACUSTRE-200	3.1	0.271	
LACUSTRE-200	3.15	0.267	
LACUSTRE-200	3.2	0.263	
LACUSTRE-200	3.25	0.258	
LACUSTRE-200	3.3	0.255	
LACUSTRE-200	3.35	0.251	
LACUSTRE-200	3.4	0.247	
LACUSTRE-200	3.45	0.243	
LACUSTRE-200	3.5	0.24	
LACUSTRE-200	3.55	0.237	
LACUSTRE-200	3.6	0.233	
LACUSTRE-200	3.65	0.23	
LACUSTRE-200	3.7	0.227	
LACUSTRE-200	3.75	0.224	
LACUSTRE-200	3.8	0.221	
LACUSTRE-200	3.85	0.218	
LACUSTRE-200	3.9	0.215	
LACUSTRE-200	3.95	0.213	
LACUSTRE-200	4.	0.21	
LACUSTRE-200	4.05	0.207	
LACUSTRE-200	4.1	0.205	
LACUSTRE-200	4.15	0.202	
LACUSTRE-200	4.2	0.2	
LACUSTRE-200	4.25	0.198	
LACUSTRE-200	4.3	0.195	
LACUSTRE-200	4.35	0.193	
LACUSTRE-200	4.4	0.191	
LACUSTRE-200	4.45	0.189	
LACUSTRE-200	4.5	0.187	
LACUSTRE-200	4.55	0.185	
LACUSTRE-200	4.6	0.183	
LACUSTRE-200	4.65	0.181	
LACUSTRE-200	4.7	0.179	
LACUSTRE-200	4.75	0.177	
LACUSTRE-200	4.8	0.175	
LACUSTRE-200	4.85	0.173	
LACUSTRE-200	4.9	0.171	
LACUSTRE-200	4.95	0.17	
LACUSTRE-200	5.	0.168	

6. Load combinations

This section provides load combination information.

Table 24: Combination Definitions

Table 24: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
1.2CM + 0.5Lr	Linear Add	DEAD	1.2

Table 24: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
1.2CM + 0.5Lr		SM	1.2
1.2CM + 0.5Lr		VIVA	0.5
1.4D	Linear Add	DEAD	1.4
1.4D		SM	1.4
1.2D+1.6L +0.8Wx	Linear Add	DEAD	1.2
1.2D+1.6L +0.8Wx		SM	1.2
1.2D+1.6L +0.8Wx		VIVA	1.6
1.2D + 1.6L +0.8Wy	Linear Add	DEAD	1.2
1.2D + 1.6L +0.8Wy		SM	1.2
1.2D + 1.6L +0.8Wy		VIVA	1.6
1.2D +1.6Wx + 0.5Lr	Linear Add	DEAD	1.2
1.2D +1.6Wx + 0.5Lr		SM	1.2
1.2D +1.6Wx + 0.5Lr		VIVA	0.5
1.2D + 1.6Wy + 0.5Lr	Linear Add	DEAD	1.2
1.2D + 1.6Wy + 0.5Lr		SM	1.2
1.2D + 1.6Wy + 0.5Lr		VIVA	0.5
1.2D + 1.0Ex	Linear Add	DEAD	1.2
1.2D + 1.0Ex		SM	1.2
1.2D + 1.0Ex		EX	1.
1.2D + 1.0Ey	Linear Add	DEAD	1.2
1.2D + 1.0Ey		SM	1.2
1.2D + 1.0Ey		EY	1.
0.9D + 1.6Wx	Linear Add	DEAD	0.9
0.9D + 1.6Wx		SM	0.9
0.9D + 1.6Wy	Linear Add	DEAD	0.9
0.9D + 1.6Wy		SM	0.9
0.9D + 1.0Ex	Linear Add	DEAD	0.9
0.9D + 1.0Ex		SM	0.9
0.9D + 1.0Ex		EX	1.
0.9D + 1.0Ey	Linear Add	DEAD	0.9
0.9D + 1.0Ey		SM	0.9
0.9D + 1.0Ey		EY	1.
ENVOLVENTE	Envelope	0.9D + 1.0Ex	1.
ENVOLVENTE		0.9D + 1.0Ey	1.
ENVOLVENTE		0.9D + 1.6Wx	1.
ENVOLVENTE		0.9D + 1.6Wy	1.
ENVOLVENTE		1.2CM + 0.5Lr	1.
ENVOLVENTE		1.2D + 1.0Ex	1.
ENVOLVENTE		1.2D + 1.0Ey	1.
ENVOLVENTE		1.2D + 1.6L +0.8Wy	1.
ENVOLVENTE		1.2D + 1.6Wy + 0.5Lr	1.
ENVOLVENTE		1.2D +1.6Wx + 0.5Lr	1.
ENVOLVENTE		1.2D+1.6L +0.8Wx	1.
ENVOLVENTE		1.4D	1.
CIMENTACION	Linear Add	DEAD	1.
CIMENTACION		SM	1.
CIMENTACION		EX	1.
CIMENTACION		EY	1.
CIMENTACION		VIVA	1.

7. Structure results

This section provides structure results, including items such as structural periods and base reactions.

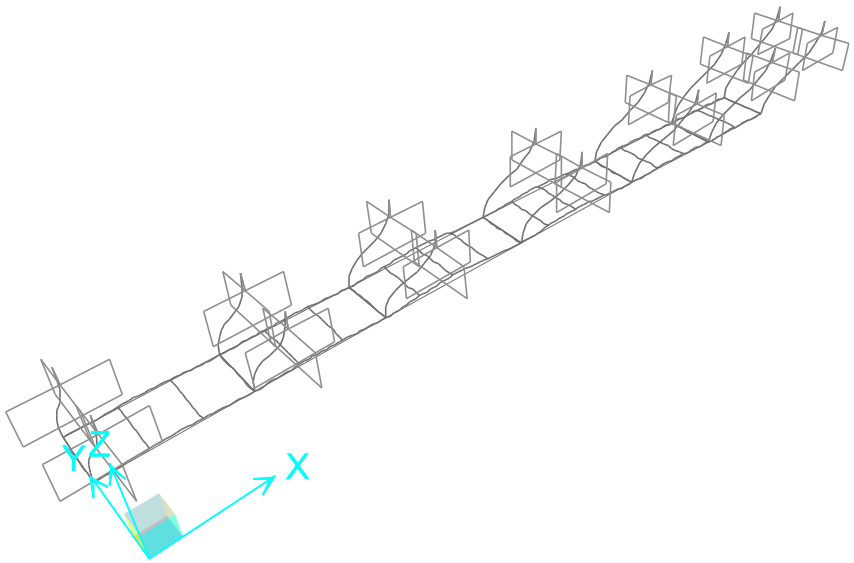


Figure 2: Deformed shape

7.1. Mass summary

Table 25: Assembled Joint Masses, Part 1 of 2

Table 25: Assembled Joint Masses, Part 1 of 2

Joint	MassSource	U1	U2	U3	R1	R2	R3	CenterX
		KN-s2/m	KN-s2/m	KN-s2/m	KN-m-s2	KN-m-s2	KN-m-s2	m
3	MSSSRC1	0.17	0.17	0.17	0.	0.	0.	0.
4	MSSSRC1	0.3	0.3	0.3	0.	0.	0.	2.72
5	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	5.44
6	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	8.82
7	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	12.2
8	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	14.92
9	MSSSRC1	0.17	0.17	0.17	0.	0.	0.	16.98
10	MSSSRC1	0.17	0.17	0.17	0.	0.	0.	0.
11	MSSSRC1	0.3	0.3	0.3	0.	0.	0.	2.72
12	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	5.44
13	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	8.82
14	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	12.2
15	MSSSRC1	0.31	0.31	0.31	0.	0.	0.	14.92
16	MSSSRC1	0.17	0.17	0.17	0.	0.	0.	16.98
17	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	0.90667
18	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	0.90667
19	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	1.81333
20	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	1.81333
21	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	3.62667
22	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	3.62667
23	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	4.53333
24	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	4.53333

Table 25: Assembled Joint Masses, Part 1 of 2

Joint	MassSource	U1	U2	U3	R1	R2	R3	CenterX
		KN-s2/m	KN-s2/m	KN-s2/m	KN-m-s2	KN-m-s2	KN-m-s2	m
25	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	13.10667
26	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	13.10667
27	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	14.01333
28	MSSSRC1	0.21	0.21	0.21	0.	0.	0.	14.01333
29	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	6.285
30	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	6.285
31	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	7.13
32	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	7.13
33	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	7.975
34	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	7.975
35	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	9.665
36	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	9.665
37	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	10.51
38	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	10.51
39	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	11.355
40	MSSSRC1	0.19	0.19	0.19	0.	0.	0.	11.355
41	MSSSRC1	0.23	0.23	0.23	0.	0.	0.	15.95
42	MSSSRC1	0.23	0.23	0.23	0.	0.	0.	15.95
43	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	0.
44	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	0.
45	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	2.72
46	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	2.72
47	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	5.44
48	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	5.44
49	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	8.82
50	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	8.82
51	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	12.2
52	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	12.2
53	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	14.92
54	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	14.92
55	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	16.98
56	MSSSRC1	1.325E-02	1.325E-02	1.325E-02	0.	0.	0.	16.98
SumAccelUX	MSSSRC1	9.17	0.	0.	0.	0.	0.	8.50018
SumAccelUY	MSSSRC1	0.	9.17	0.	0.	0.	0.	8.50018
SumAccelUZ	MSSSRC1	0.	0.	9.17	0.	0.	0.	8.50018

Table 25: Assembled Joint Masses, Part 2 of 2

Table 25: Assembled Joint Masses, Part 2 of 2

Joint	MassSource	CenterY	CenterZ
		m	m
3	MSSSRC1	1.2	0.
4	MSSSRC1	1.2	0.
5	MSSSRC1	1.2	0.
6	MSSSRC1	1.2	0.
7	MSSSRC1	1.2	0.
8	MSSSRC1	1.2	0.
9	MSSSRC1	1.2	0.
10	MSSSRC1	0.	0.
11	MSSSRC1	0.	0.
12	MSSSRC1	0.	0.
13	MSSSRC1	0.	0.
14	MSSSRC1	0.	0.

Table 25: Assembled Joint Masses, Part 2 of 2

Joint	MassSource	CenterY	CenterZ
		m	m
15	MSSSRC1	0.	0.
16	MSSSRC1	0.	0.
17	MSSSRC1	1.665E-16	0.
18	MSSSRC1	1.2	0.
19	MSSSRC1	3.331E-16	0.
20	MSSSRC1	1.2	0.
21	MSSSRC1	6.662E-16	0.
22	MSSSRC1	1.2	0.
23	MSSSRC1	8.327E-16	0.
24	MSSSRC1	1.2	0.
25	MSSSRC1	2.408E-15	0.
26	MSSSRC1	1.2	0.
27	MSSSRC1	2.574E-15	0.
28	MSSSRC1	1.2	0.
29	MSSSRC1	1.154E-15	0.
30	MSSSRC1	1.2	0.
31	MSSSRC1	1.310E-15	0.
32	MSSSRC1	1.2	0.
33	MSSSRC1	1.465E-15	0.
34	MSSSRC1	1.2	0.
35	MSSSRC1	1.775E-15	0.
36	MSSSRC1	1.2	0.
37	MSSSRC1	1.931E-15	0.
38	MSSSRC1	1.2	0.
39	MSSSRC1	2.086E-15	0.
40	MSSSRC1	1.2	0.
41	MSSSRC1	2.930E-15	0.
42	MSSSRC1	1.2	0.
43	MSSSRC1	1.2	2.9
44	MSSSRC1	0.	2.9
45	MSSSRC1	1.2	2.9
46	MSSSRC1	0.	2.9
47	MSSSRC1	1.2	2.9
48	MSSSRC1	0.	2.9
49	MSSSRC1	1.2	2.9
50	MSSSRC1	0.	2.9
51	MSSSRC1	1.2	2.9
52	MSSSRC1	0.	2.9
53	MSSSRC1	1.2	2.9
54	MSSSRC1	0.	2.9
55	MSSSRC1	0.	2.9
56	MSSSRC1	1.2	2.9
SumAccelUX	MSSSRC1	0.6	0.05863
SumAccelUY	MSSSRC1	0.6	0.05863
SumAccelUZ	MSSSRC1	0.6	0.05863

7.2. Modal results

Table 26: Modal Participating Mass Ratios

Table 26: Modal Participating Mass Ratios

OutputCase	StepNum	Period	UX	UY	UZ	SumUX	SumUY	SumUZ
		Sec						
MODAL	1.	0.391322	0.	0.9877	0.	0.	0.9877	0.
MODAL	2.	0.383595	0.99998	0.	2.317E-07	0.99998	0.9877	2.317E-07
MODAL	3.	0.326321	0.	0.01107	2.834E-20	0.99998	0.99877	2.317E-07
MODAL	4.	0.101527	0.	0.00101	1.869E-17	0.99998	0.99978	2.317E-07
MODAL	5.	0.091796	0.	2.226E-05	2.240E-17	0.99998	0.9998	2.317E-07
MODAL	6.	0.066561	0.	1.349E-06	4.351E-17	0.99998	0.9998	2.317E-07
MODAL	7.	0.058328	0.	2.055E-05	1.948E-15	0.99998	0.99983	2.317E-07
MODAL	8.	0.047872	8.094E-08	4.263E-20	0.00029	0.99998	0.99983	0.00029
MODAL	9.	0.047829	1.288E-20	6.097E-09	1.202E-17	0.99998	0.99983	0.00029
MODAL	10.	0.046076	1.456E-19	7.509E-05	3.651E-16	0.99998	0.9999	0.00029
MODAL	11.	0.040729	3.525E-18	5.349E-05	1.448E-15	0.99998	0.99995	0.00029
MODAL	12.	0.037838	5.545E-07	8.425E-19	0.13824	0.99998	0.99995	0.13853

7.3. Base reactions

Table 27: Base Reactions

Table 27: Base Reactions

OutputCase	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
	KN	KN	KN	KN-m	KN-m	KN-m
DEAD	-3.181E-15	-6.098E-16	23.738	14.243	-202.454	-1.641E-15
SM	-1.518E-14	-2.885E-15	40.752	24.4512	-345.9845	-7.397E-15
VIVA	-3.791E-14	-7.265E-15	101.88	61.128	-864.9612	-1.856E-14
EX	12.133	8.744E-10	6.739E-03	0.004	0.043	7.2801
EY	1.249E-09	11.985	1.916E-07	0.0359	1.887E-06	95.7393

8. Joint results

This section provides joint results, including items such as displacements and reactions.

Table 28: Joint Displacements

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
3	DEAD	-2.044E-06	-6.614E-10	-0.000012	3.774E-06	0.000037	2.794E-10
3	SM	-9.696E-06	-2.665E-09	-0.000017	0.000016	0.00014	6.897E-10
3	VIVA	-0.000024	-6.661E-09	-0.000043	0.000039	0.00035	1.724E-09
3	EX	0.005031	3.435E-08	8.910E-06	1.269E-09	0.000204	9.235E-09
3	EY	0.000056	0.005833	0.00003	0.000151	1.956E-06	0.000092
4	DEAD	-2.025E-06	-8.311E-10	-0.000022	3.774E-06	-8.063E-06	-1.959E-10
4	SM	-9.626E-06	-2.112E-09	-0.000043	0.000031	-0.000036	-8.048E-10
4	VIVA	-0.000024	-5.280E-09	-0.000108	0.000078	-0.00009	-2.012E-09
4	EX	0.005032	3.901E-08	3.698E-06	1.441E-09	0.00005	6.093E-09
4	EY	0.000059	0.005659	0.000029	0.000146	6.673E-08	0.000098
5	DEAD	-2.011E-06	-8.353E-10	-0.000024	3.774E-06	0.000013	2.091E-10
5	SM	-9.577E-06	-2.392E-09	-0.000045	0.00003	0.000051	9.277E-10

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
5	VIVA	-0.000024	-5.981E-09	-0.000113	0.000075	0.000128	2.319E-09
5	EX	0.005032	1.981E-08	6.930E-07	7.318E-10	0.000092	1.920E-09
5	EY	0.000066	0.005456	0.000028	0.000141	6.828E-07	0.00011
6	DEAD	-1.986E-06	-1.126E-09	-0.000027	3.774E-06	-4.836E-07	-2.119E-12
6	SM	-9.488E-06	-3.587E-09	-0.000053	0.000029	-2.320E-06	-6.697E-11
6	VIVA	-0.000024	-8.967E-09	-0.000131	0.000073	-5.799E-06	-1.674E-10
6	EX	0.005032	1.451E-08	1.749E-08	5.361E-10	0.000096	2.530E-08
6	EY	0.00008	0.005132	0.000026	0.000133	8.691E-07	0.000134
7	DEAD	-1.962E-06	-8.137E-10	-0.000024	3.774E-06	-9.951E-06	-2.224E-10
7	SM	-9.404E-06	-2.292E-09	-0.000046	0.00003	-0.000039	-8.649E-10
7	VIVA	-0.000024	-5.730E-09	-0.000116	0.000075	-0.000097	-2.162E-09
7	EX	0.005031	5.029E-08	6.893E-07	1.858E-09	0.000092	9.544E-10
7	EY	0.000095	0.004717	0.000024	0.000122	9.439E-07	0.000159
8	DEAD	-1.949E-06	-4.975E-10	-0.000019	3.774E-06	-4.685E-06	8.793E-11
8	SM	-9.361E-06	-4.937E-10	-0.000037	0.000033	-0.000017	1.235E-10
8	VIVA	-0.000023	-1.234E-09	-0.000092	0.000083	-0.000044	3.088E-10
8	EX	0.00503	6.058E-08	6.702E-06	2.238E-09	0.000048	5.196E-09
8	EY	0.000102	0.004336	0.000022	0.000112	9.987E-08	0.00017
9	DEAD	-1.942E-06	-3.169E-11	-9.248E-06	3.774E-06	-0.000017	-4.122E-11
9	SM	-9.338E-06	2.065E-10	-0.000013	0.000018	-0.000051	-3.835E-11
9	VIVA	-0.000023	5.163E-10	-0.000032	0.000044	-0.000128	-9.588E-11
9	EX	0.00503	4.004E-08	0.000012	1.480E-09	0.000167	5.413E-09
9	EY	0.000103	0.004039	0.000021	0.000105	2.566E-06	0.000173
10	DEAD	-2.044E-06	6.614E-10	-0.000012	-3.774E-06	0.000037	-2.794E-10
10	SM	-9.696E-06	2.665E-09	-0.000017	-0.000016	0.00014	-6.897E-10
10	VIVA	-0.000024	6.661E-09	-0.000043	-0.000039	0.00035	-1.724E-09
10	EX	0.005031	3.435E-08	8.910E-06	1.270E-09	0.000204	9.234E-09
10	EY	0.000056	0.005833	0.00003	0.000151	1.956E-06	0.000092
11	DEAD	-2.025E-06	8.311E-10	-0.000022	-3.774E-06	-8.063E-06	1.959E-10
11	SM	-9.626E-06	2.112E-09	-0.000043	-0.000031	-0.000036	8.048E-10
11	VIVA	-0.000024	5.280E-09	-0.000108	-0.000078	-0.00009	2.012E-09
11	EX	0.005032	3.901E-08	3.698E-06	1.442E-09	0.00005	6.094E-09
11	EY	0.000059	0.005659	0.000029	0.000146	6.673E-08	0.000098
12	DEAD	-2.011E-06	8.353E-10	-0.000024	-3.774E-06	0.000013	-2.091E-10
12	SM	-9.577E-06	2.392E-09	-0.000045	-0.00003	0.000051	-9.277E-10
12	VIVA	-0.000024	5.981E-09	-0.000113	-0.000075	0.000128	-2.319E-09
12	EX	0.005032	1.981E-08	6.930E-07	7.323E-10	0.000092	1.920E-09
12	EY	0.000066	0.005456	0.000028	0.000141	6.828E-07	0.00011
13	DEAD	-1.986E-06	1.126E-09	-0.000027	-3.774E-06	-4.836E-07	2.119E-12
13	SM	-9.488E-06	3.587E-09	-0.000053	-0.000029	-2.320E-06	6.697E-11
13	VIVA	-0.000024	8.967E-09	-0.000131	-0.000073	-5.799E-06	1.674E-10
13	EX	0.005032	1.451E-08	1.749E-08	5.364E-10	0.000096	2.530E-08
13	EY	0.00008	0.005132	0.000026	0.000133	8.691E-07	0.000134
14	DEAD	-1.962E-06	8.137E-10	-0.000024	-3.774E-06	-9.951E-06	2.224E-10
14	SM	-9.404E-06	2.292E-09	-0.000046	-0.00003	-0.000039	8.649E-10
14	VIVA	-0.000024	5.730E-09	-0.000116	-0.000075	-0.000097	2.162E-09
14	EX	0.005031	5.029E-08	6.893E-07	1.859E-09	0.000092	9.542E-10
14	EY	0.000095	0.004717	0.000024	0.000122	9.439E-07	0.000159
15	DEAD	-1.949E-06	4.975E-10	-0.000019	-3.774E-06	-4.685E-06	-8.793E-11
15	SM	-9.361E-06	4.937E-10	-0.000037	-0.000033	-0.000017	-1.235E-10
15	VIVA	-0.000023	1.234E-09	-0.000092	-0.000083	-0.000044	-3.088E-10
15	EX	0.00503	6.058E-08	6.702E-06	2.238E-09	0.000048	5.196E-09
15	EY	0.000102	0.004336	0.000022	0.000112	9.987E-08	0.00017
16	DEAD	-1.942E-06	3.169E-11	-9.248E-06	-3.774E-06	-0.000017	4.122E-11

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
16	SM	-9.338E-06	-2.065E-10	-0.000013	-0.000018	-0.000051	3.835E-11
16	VIVA	-0.000023	-5.163E-10	-0.000032	-0.000044	-0.000128	9.588E-11
16	EX	0.00503	4.004E-08	0.000012	1.480E-09	0.000167	5.414E-09
16	EY	0.000103	0.004039	0.000021	0.000105	2.566E-06	0.000173
17	DEAD	-2.037E-06	2.002E-12	-0.000041	-3.774E-06	0.000018	-6.627E-10
17	SM	-9.673E-06	1.543E-11	-0.000133	-0.000021	0.000067	-2.529E-09
17	VIVA	-0.000024	3.858E-11	-0.000333	-0.000052	0.000167	-6.323E-09
17	EX	0.005031	1.418E-10	0.000065	1.327E-09	7.870E-07	3.517E-08
17	EY	0.000057	0.005917	0.00003	0.000149	4.171E-07	0.000109
18	DEAD	-2.037E-06	-2.002E-12	-0.000041	3.774E-06	0.000018	6.627E-10
18	SM	-9.673E-06	-1.543E-11	-0.000133	0.000021	0.000067	2.529E-09
18	VIVA	-0.000024	-3.858E-11	-0.000333	0.000052	0.000167	6.323E-09
18	EX	0.005031	1.414E-10	0.000065	1.326E-09	7.870E-07	3.517E-08
18	EY	0.000057	0.005917	0.00003	0.000149	4.171E-07	0.000109
19	DEAD	-2.031E-06	4.927E-12	-0.000041	-3.774E-06	-0.000015	7.927E-10
19	SM	-9.649E-06	6.838E-12	-0.000126	-0.000026	-0.000068	2.137E-09
19	VIVA	-0.000024	1.709E-11	-0.000315	-0.000065	-0.000171	5.342E-09
19	EX	0.005032	2.268E-10	0.000023	1.384E-09	0.000051	3.891E-08
19	EY	0.000058	0.005859	0.000029	0.000148	1.125E-06	0.00023
20	DEAD	-2.031E-06	-4.927E-12	-0.000041	3.774E-06	-0.000015	-7.927E-10
20	SM	-9.649E-06	-6.838E-12	-0.000126	0.000026	-0.000068	-2.137E-09
20	VIVA	-0.000024	-1.709E-11	-0.000315	0.000065	-0.000171	-5.342E-09
20	EX	0.005032	2.271E-10	0.000023	1.384E-09	0.000051	3.891E-08
20	EY	0.000058	0.005859	0.000029	0.000148	1.125E-06	0.00023
21	DEAD	-2.020E-06	5.424E-12	-0.000027	-3.774E-06	5.643E-06	-9.581E-10
21	SM	-9.610E-06	1.359E-11	-0.000065	-0.000031	0.000023	-2.592E-09
21	VIVA	-0.000024	3.397E-11	-0.000163	-0.000077	0.000057	-6.481E-09
21	EX	0.005032	3.398E-10	3.406E-06	1.205E-09	0.000026	3.953E-08
21	EY	0.000061	0.005731	0.000029	0.000144	8.244E-07	0.000101
22	DEAD	-2.020E-06	-5.424E-12	-0.000027	3.774E-06	5.643E-06	9.581E-10
22	SM	-9.610E-06	-1.359E-11	-0.000065	0.000031	0.000023	2.592E-09
22	VIVA	-0.000024	-3.397E-11	-0.000163	0.000077	0.000057	6.481E-09
22	EX	0.005032	3.355E-10	3.406E-06	1.204E-09	0.000026	3.953E-08
22	EY	0.000061	0.005731	0.000029	0.000144	8.244E-07	0.000101
23	DEAD	-2.015E-06	5.564E-12	-0.000027	-3.774E-06	-5.289E-06	9.636E-10
23	SM	-9.593E-06	1.833E-11	-0.000063	-0.00003	-0.000025	2.804E-09
23	VIVA	-0.000024	4.583E-11	-0.000157	-0.000076	-0.000062	7.011E-09
23	EX	0.005032	1.284E-11	0.000025	9.688E-10	0.000011	2.509E-08
23	EY	0.000064	0.005663	0.000028	0.000143	6.953E-07	0.000236
24	DEAD	-2.015E-06	-5.564E-12	-0.000027	3.774E-06	-5.289E-06	-9.636E-10
24	SM	-9.593E-06	-1.833E-11	-0.000063	0.00003	-0.000025	-2.804E-09
24	VIVA	-0.000024	-4.583E-11	-0.000157	0.000076	-0.000062	-7.011E-09
24	EX	0.005032	1.738E-11	0.000025	9.681E-10	0.000011	2.510E-08
24	EY	0.000064	0.005663	0.000028	0.000143	6.953E-07	0.000236
25	DEAD	-1.958E-06	6.971E-12	-0.000031	-3.774E-06	7.687E-06	-8.738E-10
25	SM	-9.389E-06	2.480E-11	-0.000078	-0.000031	0.000037	-2.331E-09
25	VIVA	-0.000023	6.201E-11	-0.000196	-0.000078	0.000093	-5.827E-09
25	EX	0.005032	2.339E-10	0.000024	1.985E-09	0.000012	5.627E-08
25	EY	0.000097	0.004703	0.000024	0.000118	1.053E-06	0.000094
26	DEAD	-1.958E-06	-6.971E-12	-0.000031	3.774E-06	7.687E-06	8.738E-10
26	SM	-9.389E-06	-2.480E-11	-0.000078	0.000031	0.000037	2.331E-09
26	VIVA	-0.000023	-6.201E-11	-0.000196	0.000078	0.000093	5.827E-09
26	EX	0.005032	2.343E-10	0.000024	1.984E-09	0.000012	5.627E-08
26	EY	0.000097	0.004703	0.000024	0.000118	1.053E-06	0.000094

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
27	DEAD	-1.953E-06	1.646E-12	-0.000031	-3.774E-06	-8.378E-06	6.356E-10
27	SM	-9.375E-06	-5.352E-12	-0.000084	-0.000032	-0.000032	9.804E-10
27	VIVA	-0.000023	-1.338E-11	-0.000211	-0.000081	-0.000081	2.451E-09
27	EX	0.005031	4.180E-10	4.811E-06	2.112E-09	0.000027	6.438E-08
27	EY	0.000099	0.004575	0.000023	0.000115	1.407E-06	0.000275
28	DEAD	-1.953E-06	-1.646E-12	-0.000031	3.774E-06	-8.378E-06	-6.356E-10
28	SM	-9.375E-06	5.352E-12	-0.000084	0.000032	-0.000032	-9.804E-10
28	VIVA	-0.000023	1.338E-11	-0.000211	0.000081	-0.000081	-2.451E-09
28	EX	0.005031	4.183E-10	4.811E-06	2.111E-09	0.000027	6.438E-08
28	EY	0.000099	0.004575	0.000023	0.000115	1.407E-06	0.000275
29	DEAD	-2.004E-06	1.046E-11	-0.000048	-3.774E-06	0.000026	-6.718E-10
29	SM	-9.555E-06	2.864E-11	-0.000145	-0.00003	0.000107	-1.821E-09
29	VIVA	-0.000024	7.159E-11	-0.000362	-0.000075	0.000268	-4.554E-09
29	EX	0.005033	2.268E-10	0.000028	4.151E-10	8.183E-06	2.017E-08
29	EY	0.00007	0.005609	0.000028	0.000139	6.751E-07	0.000273
30	DEAD	-2.004E-06	-1.046E-11	-0.000048	3.774E-06	0.000026	6.718E-10
30	SM	-9.555E-06	-2.864E-11	-0.000145	0.00003	0.000107	1.821E-09
30	VIVA	-0.000024	-7.159E-11	-0.000362	0.000075	0.000268	4.554E-09
30	EX	0.005033	2.236E-10	0.000028	4.149E-10	8.183E-06	2.017E-08
30	EY	0.00007	0.005609	0.000028	0.000139	6.751E-07	0.000273
31	DEAD	-1.998E-06	-9.330E-12	-0.00006	-3.774E-06	-1.359E-06	-7.936E-11
31	SM	-9.532E-06	-2.798E-11	-0.000196	-0.00003	-7.430E-06	-3.270E-10
31	VIVA	-0.000024	-6.996E-11	-0.000491	-0.000074	-0.000019	-8.175E-10
31	EX	0.005033	4.821E-12	1.339E-06	9.797E-11	0.000041	9.547E-09
31	EY	0.000073	0.005705	0.000027	0.000137	1.226E-06	0.000123
32	DEAD	-1.998E-06	9.330E-12	-0.00006	3.774E-06	-1.359E-06	7.936E-11
32	SM	-9.532E-06	2.798E-11	-0.000196	0.00003	-7.430E-06	3.270E-10
32	VIVA	-0.000024	6.996E-11	-0.000491	0.000074	-0.000019	8.175E-10
32	EX	0.005033	5.069E-12	1.339E-06	9.788E-11	0.000041	9.553E-09
32	EY	0.000073	0.005705	0.000027	0.000137	1.226E-06	0.000123
33	DEAD	-1.992E-06	1.468E-11	-0.000046	-3.774E-06	-0.000025	1.015E-09
33	SM	-9.510E-06	4.603E-11	-0.000135	-0.000029	-0.000106	3.237E-09
33	VIVA	-0.000024	1.151E-10	-0.000337	-0.000073	-0.000265	8.091E-09
33	EX	0.005033	2.885E-10	0.00003	2.192E-10	6.185E-06	2.117E-08
33	EY	0.000077	0.005446	0.000026	0.000135	7.773E-07	0.00046
34	DEAD	-1.992E-06	-1.468E-11	-0.000046	3.774E-06	-0.000025	-1.015E-09
34	SM	-9.510E-06	-4.603E-11	-0.000135	0.000029	-0.000106	-3.237E-09
34	VIVA	-0.000024	-1.151E-10	-0.000337	0.000073	-0.000265	-8.091E-09
34	EX	0.005033	2.858E-10	0.00003	2.191E-10	6.185E-06	2.118E-08
34	EY	0.000077	0.005446	0.000026	0.000135	7.773E-07	0.00046
35	DEAD	-1.980E-06	1.467E-11	-0.000045	-3.774E-06	0.000024	-1.018E-09
35	SM	-9.467E-06	4.664E-11	-0.000131	-0.000029	0.000102	-3.275E-09
35	VIVA	-0.000024	1.166E-10	-0.000327	-0.000073	0.000255	-8.188E-09
35	EX	0.005033	1.039E-10	0.00003	8.669E-10	6.095E-06	4.494E-09
35	EY	0.000084	0.005246	0.000026	0.00013	7.984E-07	0.000228
36	DEAD	-1.980E-06	-1.467E-11	-0.000045	3.774E-06	0.000024	1.018E-09
36	SM	-9.467E-06	-4.664E-11	-0.000131	0.000029	0.000102	3.275E-09
36	VIVA	-0.000024	-1.166E-10	-0.000327	0.000073	0.000255	8.188E-09
36	EX	0.005033	1.046E-10	0.00003	8.664E-10	6.095E-06	4.494E-09
36	EY	0.000084	0.005246	0.000026	0.00013	7.984E-07	0.000228
37	DEAD	-1.974E-06	-9.212E-12	-0.000059	-3.774E-06	1.133E-06	8.541E-11
37	SM	-9.446E-06	-2.775E-11	-0.00019	-0.00003	6.319E-06	3.544E-10
37	VIVA	-0.000024	-6.938E-11	-0.000474	-0.000074	0.000016	8.860E-10
37	EX	0.005033	2.854E-10	1.488E-06	1.197E-09	0.000041	9.823E-09

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
37	EY	0.000087	0.005306	0.000025	0.000127	1.468E-06	0.000149
38	DEAD	-1.974E-06	9.212E-12	-0.000059	3.774E-06	1.133E-06	-8.541E-11
38	SM	-9.446E-06	2.775E-11	-0.00019	0.00003	6.319E-06	-3.544E-10
38	VIVA	-0.000024	6.938E-11	-0.000474	0.000074	0.000016	-8.860E-10
38	EX	0.005033	2.853E-10	1.488E-06	1.197E-09	0.000041	9.824E-09
38	EY	0.000087	0.005306	0.000025	0.000127	1.468E-06	0.000149
39	DEAD	-1.968E-06	1.013E-11	-0.000046	-3.774E-06	-0.000025	6.480E-10
39	SM	-9.425E-06	2.780E-11	-0.000139	-0.00003	-0.000103	1.742E-09
39	VIVA	-0.000024	6.949E-11	-0.000348	-0.000075	-0.000257	4.354E-09
39	EX	0.005032	6.279E-10	0.000028	1.528E-09	8.258E-06	4.701E-08
39	EY	0.000091	0.005037	0.000024	0.000124	9.508E-07	0.000462
40	DEAD	-1.968E-06	-1.013E-11	-0.000046	3.774E-06	-0.000025	-6.480E-10
40	SM	-9.425E-06	-2.780E-11	-0.000139	0.00003	-0.000103	-1.742E-09
40	VIVA	-0.000024	-6.949E-11	-0.000348	0.000075	-0.000257	-4.354E-09
40	EX	0.005032	6.275E-10	0.000028	1.527E-09	8.258E-06	4.701E-08
40	EY	0.000091	0.005037	0.000024	0.000124	9.508E-07	0.000462
41	DEAD	-1.945E-06	3.557E-12	-0.000022	-3.774E-06	-2.954E-06	-3.253E-10
41	SM	-9.349E-06	1.567E-12	-0.000055	-0.000026	-4.201E-06	-4.853E-10
41	VIVA	-0.000023	3.916E-12	-0.000138	-0.000064	-0.000011	-1.213E-09
41	EX	0.00503	7.306E-10	0.000028	1.859E-09	0.000023	1.490E-08
41	EY	0.000102	0.00423	0.000021	0.000108	1.369E-06	0.000172
42	DEAD	-1.945E-06	-3.557E-12	-0.000022	3.774E-06	-2.954E-06	3.253E-10
42	SM	-9.349E-06	-1.567E-12	-0.000055	0.000026	-4.201E-06	4.853E-10
42	VIVA	-0.000023	-3.916E-12	-0.000138	0.000064	-0.000011	1.213E-09
42	EX	0.00503	7.328E-10	0.000028	1.859E-09	0.000023	1.490E-08
42	EY	0.000102	0.00423	0.000021	0.000108	1.369E-06	0.000172
43	DEAD	0.	0.	0.	0.	0.	0.
43	SM	0.	0.	0.	0.	0.	0.
43	VIVA	0.	0.	0.	0.	0.	0.
43	EX	0.	0.	0.	0.	0.	0.
43	EY	0.	0.	0.	0.	0.	0.
44	DEAD	0.	0.	0.	0.	0.	0.
44	SM	0.	0.	0.	0.	0.	0.
44	VIVA	0.	0.	0.	0.	0.	0.
44	EX	0.	0.	0.	0.	0.	0.
44	EY	0.	0.	0.	0.	0.	0.
45	DEAD	0.	0.	0.	0.	0.	0.
45	SM	0.	0.	0.	0.	0.	0.
45	VIVA	0.	0.	0.	0.	0.	0.
45	EX	0.	0.	0.	0.	0.	0.
45	EY	0.	0.	0.	0.	0.	0.
46	DEAD	0.	0.	0.	0.	0.	0.
46	SM	0.	0.	0.	0.	0.	0.
46	VIVA	0.	0.	0.	0.	0.	0.
46	EX	0.	0.	0.	0.	0.	0.
46	EY	0.	0.	0.	0.	0.	0.
47	DEAD	0.	0.	0.	0.	0.	0.
47	SM	0.	0.	0.	0.	0.	0.
47	VIVA	0.	0.	0.	0.	0.	0.
47	EX	0.	0.	0.	0.	0.	0.
47	EY	0.	0.	0.	0.	0.	0.
48	DEAD	0.	0.	0.	0.	0.	0.
48	SM	0.	0.	0.	0.	0.	0.
48	VIVA	0.	0.	0.	0.	0.	0.

Table 28: Joint Displacements

Joint	OutputCase	U1	U2	U3	R1	R2	R3
		m	m	m	Radians	Radians	Radians
48	EX	0.	0.	0.	0.	0.	0.
48	EY	0.	0.	0.	0.	0.	0.
49	DEAD	0.	0.	0.	0.	0.	0.
49	SM	0.	0.	0.	0.	0.	0.
49	VIVA	0.	0.	0.	0.	0.	0.
49	EX	0.	0.	0.	0.	0.	0.
49	EY	0.	0.	0.	0.	0.	0.
50	DEAD	0.	0.	0.	0.	0.	0.
50	SM	0.	0.	0.	0.	0.	0.
50	VIVA	0.	0.	0.	0.	0.	0.
50	EX	0.	0.	0.	0.	0.	0.
50	EY	0.	0.	0.	0.	0.	0.
51	DEAD	0.	0.	0.	0.	0.	0.
51	SM	0.	0.	0.	0.	0.	0.
51	VIVA	0.	0.	0.	0.	0.	0.
51	EX	0.	0.	0.	0.	0.	0.
51	EY	0.	0.	0.	0.	0.	0.
52	DEAD	0.	0.	0.	0.	0.	0.
52	SM	0.	0.	0.	0.	0.	0.
52	VIVA	0.	0.	0.	0.	0.	0.
52	EX	0.	0.	0.	0.	0.	0.
52	EY	0.	0.	0.	0.	0.	0.
53	DEAD	0.	0.	0.	0.	0.	0.
53	SM	0.	0.	0.	0.	0.	0.
53	VIVA	0.	0.	0.	0.	0.	0.
53	EX	0.	0.	0.	0.	0.	0.
53	EY	0.	0.	0.	0.	0.	0.
54	DEAD	0.	0.	0.	0.	0.	0.
54	SM	0.	0.	0.	0.	0.	0.
54	VIVA	0.	0.	0.	0.	0.	0.
54	EX	0.	0.	0.	0.	0.	0.
54	EY	0.	0.	0.	0.	0.	0.
55	DEAD	0.	0.	0.	0.	0.	0.
55	SM	0.	0.	0.	0.	0.	0.
55	VIVA	0.	0.	0.	0.	0.	0.
55	EX	0.	0.	0.	0.	0.	0.
55	EY	0.	0.	0.	0.	0.	0.
56	DEAD	0.	0.	0.	0.	0.	0.
56	SM	0.	0.	0.	0.	0.	0.
56	VIVA	0.	0.	0.	0.	0.	0.
56	EX	0.	0.	0.	0.	0.	0.
56	EY	0.	0.	0.	0.	0.	0.

Table 29: Joint Reactions

Table 29: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		KN	KN	KN	KN-m	KN-m	KN-m
43	DEAD	-9.206E-03	9.728E-04	1.058	9.352E-04	0.0087	-2.029E-08
43	SM	-0.034	4.022E-03	1.383	0.0039	0.0322	-5.008E-08
43	VIVA	-0.086	0.01	3.457	0.0097	0.0804	-1.252E-07
43	EX	0.842	5.779E-06	0.715	8.540E-06	1.246	6.705E-07

Table 29: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		KN	KN	KN	KN-m	KN-m	KN-m
43	EY	9.438E-03	0.998	2.377	1.4661	0.0139	0.0067
44	DEAD	-9.206E-03	-9.728E-04	1.058	-9.352E-04	0.0087	2.029E-08
44	SM	-0.034	-4.022E-03	1.383	-0.0039	0.0322	5.008E-08
44	VIVA	-0.086	-0.01	3.457	-0.0097	0.0804	1.252E-07
44	EX	0.842	5.779E-06	0.715	8.539E-06	1.246	6.705E-07
44	EY	9.438E-03	0.998	2.377	1.4661	0.0139	0.0067
45	DEAD	2.438E-03	9.729E-04	1.902	9.352E-04	-0.0025	1.422E-08
45	SM	0.011	8.040E-03	3.472	0.0077	-0.0114	5.844E-08
45	VIVA	0.027	0.02	8.679	0.0193	-0.0284	1.461E-07
45	EX	0.881	6.562E-06	0.297	9.697E-06	1.2844	4.424E-07
45	EY	0.01	0.968	2.316	1.4221	0.0152	0.0071
46	DEAD	2.438E-03	-9.729E-04	1.902	-9.352E-04	-0.0025	-1.422E-08
46	SM	0.011	-8.040E-03	3.472	-0.0077	-0.0114	-5.844E-08
46	VIVA	0.027	-0.02	8.679	-0.0193	-0.0284	-1.461E-07
46	EX	0.881	6.562E-06	0.297	9.697E-06	1.2844	4.424E-07
46	EY	0.01	0.968	2.316	1.4221	0.0152	0.0071
47	DEAD	-2.890E-03	9.729E-04	2.03	9.352E-04	0.0026	-1.518E-08
47	SM	-0.012	7.768E-03	3.615	0.0075	0.0103	-6.736E-08
47	VIVA	-0.029	0.019	9.037	0.0187	0.0257	-1.684E-07
47	EX	0.871	3.333E-06	0.056	4.925E-06	1.2741	1.394E-07
47	EY	0.012	0.933	2.231	1.3712	0.0169	0.008
48	DEAD	-2.890E-03	-9.729E-04	2.03	-9.352E-04	0.0026	1.518E-08
48	SM	-0.012	-7.768E-03	3.615	-0.0075	0.0103	6.736E-08
48	VIVA	-0.029	-0.019	9.037	-0.0187	0.0257	1.684E-07
48	EX	0.871	3.333E-06	0.056	4.925E-06	1.2741	1.394E-07
48	EY	0.012	0.933	2.231	1.3712	0.0169	0.008
49	DEAD	4.776E-04	9.729E-04	2.268	9.353E-04	-6.315E-04	1.538E-10
49	SM	2.284E-03	7.494E-03	4.216	0.0072	-0.003	4.863E-09
49	VIVA	5.710E-03	0.019	10.54	0.018	-0.0075	1.216E-08
49	EX	0.87	2.441E-06	1.404E-03	3.607E-06	1.2731	1.837E-06
49	EY	0.014	0.878	2.099	1.2897	0.0205	0.0097
50	DEAD	4.776E-04	-9.729E-04	2.268	-9.353E-04	-6.315E-04	-1.538E-10
50	SM	2.284E-03	-7.494E-03	4.216	-0.0072	-0.003	-4.863E-09
50	VIVA	5.710E-03	-0.019	10.54	-0.018	-0.0075	-1.216E-08
50	EX	0.87	2.441E-06	1.404E-03	3.607E-06	1.2731	1.837E-06
50	EY	0.014	0.878	2.099	1.2897	0.0205	0.0097
51	DEAD	2.913E-03	9.729E-04	2.056	9.352E-04	-0.003	1.614E-08
51	SM	0.012	7.768E-03	3.731	0.0075	-0.012	6.280E-08
51	VIVA	0.029	0.019	9.327	0.0187	-0.0301	1.570E-07
51	EX	0.871	8.459E-06	0.055	1.250E-05	1.274	6.930E-08
51	EY	0.017	0.807	1.928	1.1855	0.0242	0.0115
52	DEAD	2.913E-03	-9.729E-04	2.056	-9.352E-04	-0.003	-1.614E-08
52	SM	0.012	-7.768E-03	3.731	-0.0075	-0.012	-6.280E-08
52	VIVA	0.029	-0.019	9.327	-0.0187	-0.0301	-1.570E-07
52	EX	0.871	8.459E-06	0.055	1.250E-05	1.274	6.928E-08
52	EY	0.017	0.807	1.928	1.1855	0.0242	0.0115
53	DEAD	1.554E-03	9.728E-04	1.683	9.351E-04	-0.0017	-6.384E-09
53	SM	6.150E-03	8.586E-03	2.944	0.0083	-0.0067	-8.970E-09
53	VIVA	0.015	0.021	7.361	0.0206	-0.0168	-2.242E-08
53	EX	0.882	1.019E-05	0.538	1.506E-05	1.2847	3.773E-07
53	EY	0.018	0.742	1.763	1.0897	0.0262	0.0124
54	DEAD	1.554E-03	-9.728E-04	1.683	-9.351E-04	-0.0017	6.384E-09
54	SM	6.150E-03	-8.586E-03	2.944	-0.0083	-0.0067	8.970E-09
54	VIVA	0.015	-0.021	7.361	-0.0206	-0.0168	2.242E-08

Table 29: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		KN	KN	KN	KN-m	KN-m	KN-m
54	EX	0.882	1.019E-05	0.538	1.506E-05	1.2847	3.772E-07
54	EY	0.018	0.742	1.763	1.0897	0.0262	0.0124
55	DEAD	4.714E-03	-9.727E-04	0.872	-9.350E-04	-0.0047	-2.993E-09
55	SM	0.015	-4.569E-03	1.016	-0.0044	-0.0151	-2.785E-09
55	VIVA	0.037	-0.011	2.54	-0.011	-0.0377	-6.962E-09
55	EX	0.851	6.736E-06	0.958	9.953E-06	1.2548	3.931E-07
55	EY	0.018	0.691	1.666	1.015	0.026	0.0125
56	DEAD	4.714E-03	9.727E-04	0.872	9.350E-04	-0.0047	2.993E-09
56	SM	0.015	4.569E-03	1.016	0.0044	-0.0151	2.785E-09
56	VIVA	0.037	0.011	2.54	0.011	-0.0377	6.962E-09
56	EX	0.851	6.735E-06	0.958	9.953E-06	1.2548	3.930E-07
56	EY	0.018	0.691	1.666	1.015	0.026	0.0125

9. Frame results

This section provides frame force results.

Table 30: Element Forces - Frames, Part 1 of 2

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
2	0.	DEAD	3.979E-03	-0.289	-1.023E-06
2	0.45333	DEAD	3.979E-03	-0.19	-1.023E-06
2	0.90667	DEAD	3.979E-03	-0.091	-1.023E-06
2	0.90667	DEAD	3.979E-03	-0.037	-2.468E-07
2	1.36	DEAD	3.979E-03	0.063	-2.468E-07
2	1.81333	DEAD	3.979E-03	0.162	-2.468E-07
2	1.81333	DEAD	3.979E-03	0.216	1.664E-06
2	2.26667	DEAD	3.979E-03	0.315	1.664E-06
2	2.72	DEAD	3.979E-03	0.415	1.664E-06
2	0.	SM	0.015	-0.839	-5.240E-06
2	0.45333	SM	0.015	-0.839	-5.240E-06
2	0.90667	SM	0.015	-0.839	-5.240E-06
2	0.90667	SM	0.015	0.249	7.456E-07
2	1.36	SM	0.015	0.249	7.456E-07
2	1.81333	SM	0.015	0.249	7.456E-07
2	1.81333	SM	0.015	1.337	3.398E-06
2	2.26667	SM	0.015	1.337	3.398E-06
2	2.72	SM	0.015	1.337	3.398E-06
2	0.	VIVA	0.037	-2.097	-1.310E-05
2	0.45333	VIVA	0.037	-2.097	-1.310E-05
2	0.90667	VIVA	0.037	-2.097	-1.310E-05
2	0.90667	VIVA	0.037	0.623	1.864E-06
2	1.36	VIVA	0.037	0.623	1.864E-06
2	1.81333	VIVA	0.037	0.623	1.864E-06
2	1.81333	VIVA	0.037	3.343	8.495E-06
2	2.26667	VIVA	0.037	3.343	8.495E-06
2	2.72	VIVA	0.037	3.343	8.495E-06
2	0.	EX	0.427	0.715	6.201E-05
2	0.45333	EX	0.427	0.715	6.201E-05
2	0.90667	EX	0.427	0.715	6.201E-05

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
2	0.90667	EX	0.149	0.718	7.089E-06
2	1.36	EX	0.149	0.718	7.089E-06
2	1.81333	EX	0.149	0.718	7.089E-06
2	1.81333	EX	0.13	0.72	8.094E-05
2	2.26667	EX	0.13	0.72	8.094E-05
2	2.72	EX	0.13	0.72	8.094E-05
2	0.	EY	0.915	7.295E-03	0.315
2	0.45333	EY	0.915	7.295E-03	0.315
2	0.90667	EY	0.915	7.295E-03	0.315
2	0.90667	EY	0.912	8.411E-03	1.671E-03
2	1.36	EY	0.912	8.411E-03	1.671E-03
2	1.81333	EY	0.912	8.411E-03	1.671E-03
2	1.81333	EY	0.91	9.607E-03	0.313
2	2.26667	EY	0.91	9.607E-03	0.313
2	2.72	EY	0.91	9.607E-03	0.313
3	0.	DEAD	2.972E-03	-0.342	-2.114E-06
3	0.45333	DEAD	2.972E-03	-0.243	-2.114E-06
3	0.90667	DEAD	2.972E-03	-0.143	-2.114E-06
3	0.90667	DEAD	2.972E-03	-0.09	-1.036E-08
3	1.36	DEAD	2.972E-03	9.888E-03	-1.036E-08
3	1.81333	DEAD	2.972E-03	0.109	-1.036E-08
3	1.81333	DEAD	2.972E-03	0.163	2.148E-06
3	2.26667	DEAD	2.972E-03	0.263	2.148E-06
3	2.72	DEAD	2.972E-03	0.362	2.148E-06
3	0.	SM	0.01	-1.046	-5.672E-06
3	0.45333	SM	0.01	-1.046	-5.672E-06
3	0.90667	SM	0.01	-1.046	-5.672E-06
3	0.90667	SM	0.01	0.042	-4.023E-07
3	1.36	SM	0.01	0.042	-4.023E-07
3	1.81333	SM	0.01	0.042	-4.023E-07
3	1.81333	SM	0.01	1.13	6.708E-06
3	2.26667	SM	0.01	1.13	6.708E-06
3	2.72	SM	0.01	1.13	6.708E-06
3	0.	VIVA	0.025	-2.615	-1.418E-05
3	0.45333	VIVA	0.025	-2.615	-1.418E-05
3	0.90667	VIVA	0.025	-2.615	-1.418E-05
3	0.90667	VIVA	0.025	0.105	-1.006E-06
3	1.36	VIVA	0.025	0.105	-1.006E-06
3	1.81333	VIVA	0.025	0.105	-1.006E-06
3	1.81333	VIVA	0.025	2.825	1.677E-05
3	2.26667	VIVA	0.025	2.825	1.677E-05
3	2.72	VIVA	0.025	2.825	1.677E-05
3	0.	EX	0.39	0.423	1.036E-04
3	0.45333	EX	0.39	0.423	1.036E-04
3	0.90667	EX	0.39	0.423	1.036E-04
3	0.90667	EX	0.112	0.423	2.741E-05
3	1.36	EX	0.112	0.423	2.741E-05
3	1.81333	EX	0.112	0.423	2.741E-05
3	1.81333	EX	0.167	0.422	3.324E-05
3	2.26667	EX	0.167	0.422	3.324E-05
3	2.72	EX	0.167	0.422	3.324E-05
3	0.	EY	2.156	4.331E-03	0.304
3	0.45333	EY	2.156	4.331E-03	0.304
3	0.90667	EY	2.156	4.331E-03	0.304

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
3	0.90667	EY	2.154	5.354E-03	1.640E-03
3	1.36	EY	2.154	5.354E-03	1.640E-03
3	1.81333	EY	2.154	5.354E-03	1.640E-03
3	1.81333	EY	2.152	6.520E-03	0.302
3	2.26667	EY	2.152	6.520E-03	0.302
3	2.72	EY	2.152	6.520E-03	0.302
4	0.	DEAD	4.207E-03	-0.431	-2.449E-06
4	0.4225	DEAD	4.207E-03	-0.339	-2.449E-06
4	0.845	DEAD	4.207E-03	-0.246	-2.449E-06
4	0.845	DEAD	4.207E-03	-0.192	1.610E-06
4	1.2675	DEAD	4.207E-03	-0.099	1.610E-06
4	1.69	DEAD	4.207E-03	-6.698E-03	1.610E-06
4	1.69	DEAD	4.207E-03	0.047	-2.009E-06
4	2.1125	DEAD	4.207E-03	0.14	-2.009E-06
4	2.535	DEAD	4.207E-03	0.232	-2.009E-06
4	2.535	DEAD	4.207E-03	0.286	3.685E-06
4	2.9575	DEAD	4.207E-03	0.379	3.685E-06
4	3.38	DEAD	4.207E-03	0.472	3.685E-06
4	0.	SM	0.015	-1.434	-6.504E-06
4	0.4225	SM	0.015	-1.434	-6.504E-06
4	0.845	SM	0.015	-1.434	-6.504E-06
4	0.845	SM	0.015	-0.42	4.604E-06
4	1.2675	SM	0.015	-0.42	4.604E-06
4	1.69	SM	0.015	-0.42	4.604E-06
4	1.69	SM	0.015	0.594	-6.250E-06
4	2.1125	SM	0.015	0.594	-6.250E-06
4	2.535	SM	0.015	0.594	-6.250E-06
4	2.535	SM	0.015	1.608	1.160E-05
4	2.9575	SM	0.015	1.608	1.160E-05
4	3.38	SM	0.015	1.608	1.160E-05
4	0.	VIVA	0.038	-3.585	-1.626E-05
4	0.4225	VIVA	0.038	-3.585	-1.626E-05
4	0.845	VIVA	0.038	-3.585	-1.626E-05
4	0.845	VIVA	0.038	-1.05	1.151E-05
4	1.2675	VIVA	0.038	-1.05	1.151E-05
4	1.69	VIVA	0.038	-1.05	1.151E-05
4	1.69	VIVA	0.038	1.485	-1.563E-05
4	2.1125	VIVA	0.038	1.485	-1.563E-05
4	2.535	VIVA	0.038	1.485	-1.563E-05
4	2.535	VIVA	0.038	4.02	2.901E-05
4	2.9575	VIVA	0.038	4.02	2.901E-05
4	3.38	VIVA	0.038	4.02	2.901E-05
4	0.	EX	0.408	0.366	6.428E-05
4	0.4225	EX	0.408	0.366	6.428E-05
4	0.845	EX	0.408	0.366	6.428E-05
4	0.845	EX	0.149	0.368	2.308E-05
4	1.2675	EX	0.149	0.368	2.308E-05
4	1.69	EX	0.149	0.368	2.308E-05
4	1.69	EX	0.111	0.368	2.499E-05
4	2.1125	EX	0.111	0.368	2.499E-05
4	2.535	EX	0.111	0.368	2.499E-05
4	2.535	EX	0.371	0.366	8.640E-05
4	2.9575	EX	0.371	0.366	8.640E-05
4	3.38	EX	0.371	0.366	8.640E-05

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
4	0.	EY	3.087	3.988E-03	0.419
4	0.4225	EY	3.087	3.988E-03	0.419
4	0.845	EY	3.087	3.988E-03	0.419
4	0.845	EY	3.085	4.937E-03	0.141
4	1.2675	EY	3.085	4.937E-03	0.141
4	1.69	EY	3.085	4.937E-03	0.141
4	1.69	EY	3.082	6.001E-03	0.143
4	2.1125	EY	3.082	6.001E-03	0.143
4	2.535	EY	3.082	6.001E-03	0.143
4	2.535	EY	3.079	7.105E-03	0.413
4	2.9575	EY	3.079	7.105E-03	0.413
4	3.38	EY	3.079	7.105E-03	0.413
5	0.	DEAD	4.005E-03	-0.469	-3.690E-06
5	0.4225	DEAD	4.005E-03	-0.376	-3.690E-06
5	0.845	DEAD	4.005E-03	-0.283	-3.690E-06
5	0.845	DEAD	4.005E-03	-0.23	2.002E-06
5	1.2675	DEAD	4.005E-03	-0.137	2.002E-06
5	1.69	DEAD	4.005E-03	-0.044	2.002E-06
5	1.69	DEAD	4.005E-03	9.604E-03	-1.572E-06
5	2.1125	DEAD	4.005E-03	0.102	-1.572E-06
5	2.535	DEAD	4.005E-03	0.195	-1.572E-06
5	2.535	DEAD	4.005E-03	0.249	2.358E-06
5	2.9575	DEAD	4.005E-03	0.341	2.358E-06
5	3.38	DEAD	4.005E-03	0.434	2.358E-06
5	0.	SM	0.014	-1.594	-1.182E-05
5	0.4225	SM	0.014	-1.594	-1.182E-05
5	0.845	SM	0.014	-1.594	-1.182E-05
5	0.845	SM	0.014	-0.58	6.274E-06
5	1.2675	SM	0.014	-0.58	6.274E-06
5	1.69	SM	0.014	-0.58	6.274E-06
5	1.69	SM	0.014	0.434	-4.491E-06
5	2.1125	SM	0.014	0.434	-4.491E-06
5	2.535	SM	0.014	0.434	-4.491E-06
5	2.535	SM	0.014	1.448	6.292E-06
5	2.9575	SM	0.014	1.448	6.292E-06
5	3.38	SM	0.014	1.448	6.292E-06
5	0.	VIVA	0.035	-3.985	-2.955E-05
5	0.4225	VIVA	0.035	-3.985	-2.955E-05
5	0.845	VIVA	0.035	-3.985	-2.955E-05
5	0.845	VIVA	0.035	-1.45	1.569E-05
5	1.2675	VIVA	0.035	-1.45	1.569E-05
5	1.69	VIVA	0.035	-1.45	1.569E-05
5	1.69	VIVA	0.035	1.085	-1.123E-05
5	2.1125	VIVA	0.035	1.085	-1.123E-05
5	2.535	VIVA	0.035	1.085	-1.123E-05
5	2.535	VIVA	0.035	3.62	1.573E-05
5	2.9575	VIVA	0.035	3.62	1.573E-05
5	3.38	VIVA	0.035	3.62	1.573E-05
5	0.	EX	0.266	0.366	9.830E-06
5	0.4225	EX	0.266	0.366	9.830E-06
5	0.845	EX	0.266	0.366	9.830E-06
5	0.845	EX	5.872E-03	0.367	3.062E-05
5	1.2675	EX	5.872E-03	0.367	3.062E-05
5	1.69	EX	5.872E-03	0.367	3.062E-05

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
5	1.69	EX	0.254	0.367	8.006E-05
5	2.1125	EX	0.254	0.367	8.006E-05
5	2.535	EX	0.254	0.367	8.006E-05
5	2.535	EX	0.514	0.366	1.634E-04
5	2.9575	EX	0.514	0.366	1.634E-04
5	3.38	EX	0.514	0.366	1.634E-04
5	0.	EY	2.91	4.971E-03	0.391
5	0.4225	EY	2.91	4.971E-03	0.391
5	0.845	EY	2.91	4.971E-03	0.391
5	0.845	EY	2.906	5.966E-03	0.13
5	1.2675	EY	2.906	5.966E-03	0.13
5	1.69	EY	2.906	5.966E-03	0.13
5	1.69	EY	2.903	6.999E-03	0.134
5	2.1125	EY	2.903	6.999E-03	0.134
5	2.535	EY	2.903	6.999E-03	0.134
5	2.535	EY	2.899	8.031E-03	0.384
5	2.9575	EY	2.899	8.031E-03	0.384
5	3.38	EY	2.899	8.031E-03	0.384
6	0.	DEAD	2.733E-03	-0.385	-2.252E-06
6	0.45333	DEAD	2.733E-03	-0.286	-2.252E-06
6	0.90667	DEAD	2.733E-03	-0.186	-2.252E-06
6	0.90667	DEAD	2.733E-03	-0.132	4.521E-07
6	1.36	DEAD	2.733E-03	-0.033	4.521E-07
6	1.81333	DEAD	2.733E-03	0.066	4.521E-07
6	1.81333	DEAD	2.733E-03	0.12	1.090E-06
6	2.26667	DEAD	2.733E-03	0.22	1.090E-06
6	2.72	DEAD	2.733E-03	0.319	1.090E-06
6	0.	SM	9.017E-03	-1.232	-7.058E-06
6	0.45333	SM	9.017E-03	-1.232	-7.058E-06
6	0.90667	SM	9.017E-03	-1.232	-7.058E-06
6	0.90667	SM	9.017E-03	-0.144	2.563E-06
6	1.36	SM	9.017E-03	-0.144	2.563E-06
6	1.81333	SM	9.017E-03	-0.144	2.563E-06
6	1.81333	SM	9.017E-03	0.944	4.869E-07
6	2.26667	SM	9.017E-03	0.944	4.869E-07
6	2.72	SM	9.017E-03	0.944	4.869E-07
6	0.	VIVA	0.023	-3.08	-1.764E-05
6	0.45333	VIVA	0.023	-3.08	-1.764E-05
6	0.90667	VIVA	0.023	-3.08	-1.764E-05
6	0.90667	VIVA	0.023	-0.36	6.408E-06
6	1.36	VIVA	0.023	-0.36	6.408E-06
6	1.81333	VIVA	0.023	-0.36	6.408E-06
6	1.81333	VIVA	0.023	2.36	1.217E-06
6	2.26667	VIVA	0.023	2.36	1.217E-06
6	2.72	VIVA	0.023	2.36	1.217E-06
6	0.	EX	0.062	0.421	1.062E-04
6	0.45333	EX	0.062	0.421	1.062E-04
6	0.90667	EX	0.062	0.421	1.062E-04
6	0.90667	EX	0.216	0.422	1.538E-05
6	1.36	EX	0.216	0.422	1.538E-05
6	1.81333	EX	0.216	0.422	1.538E-05
6	1.81333	EX	0.494	0.422	1.468E-04
6	2.26667	EX	0.494	0.422	1.468E-04
6	2.72	EX	0.494	0.422	1.468E-04

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
6	0.	EY	1.718	7.267E-03	0.249
6	0.45333	EY	1.718	7.267E-03	0.249
6	0.90667	EY	1.718	7.267E-03	0.249
6	0.90667	EY	1.713	8.296E-03	2.614E-03
6	1.36	EY	1.713	8.296E-03	2.614E-03
6	1.81333	EY	1.713	8.296E-03	2.614E-03
6	1.81333	EY	1.709	9.308E-03	0.246
6	2.26667	EY	1.709	9.308E-03	0.246
6	2.72	EY	1.709	9.308E-03	0.246
7	0.	DEAD	2.018E-03	-0.31	-8.516E-07
7	0.34333	DEAD	2.018E-03	-0.235	-8.516E-07
7	0.68667	DEAD	2.018E-03	-0.16	-8.516E-07
7	1.03	DEAD	2.018E-03	-0.084	-8.516E-07
7	1.03	DEAD	2.018E-03	-0.031	5.283E-07
7	1.37333	DEAD	2.018E-03	0.045	5.283E-07
7	1.71667	DEAD	2.018E-03	0.12	5.283E-07
7	2.06	DEAD	2.018E-03	0.195	5.283E-07
7	0.	SM	6.235E-03	-0.838	-5.408E-07
7	0.34333	SM	6.235E-03	-0.838	-5.408E-07
7	0.68667	SM	6.235E-03	-0.838	-5.408E-07
7	1.03	SM	6.235E-03	-0.838	-5.408E-07
7	1.03	SM	6.235E-03	0.398	6.686E-08
7	1.37333	SM	6.235E-03	0.398	6.686E-08
7	1.71667	SM	6.235E-03	0.398	6.686E-08
7	2.06	SM	6.235E-03	0.398	6.686E-08
7	0.	VIVA	0.016	-2.095	-1.352E-06
7	0.34333	VIVA	0.016	-2.095	-1.352E-06
7	0.68667	VIVA	0.016	-2.095	-1.352E-06
7	1.03	VIVA	0.016	-2.095	-1.352E-06
7	1.03	VIVA	0.016	0.995	1.672E-07
7	1.37333	VIVA	0.016	0.995	1.672E-07
7	1.71667	VIVA	0.016	0.995	1.672E-07
7	2.06	VIVA	0.016	0.995	1.672E-07
7	0.	EX	0.045	0.959	1.499E-04
7	0.34333	EX	0.045	0.959	1.499E-04
7	0.68667	EX	0.045	0.959	1.499E-04
7	1.03	EX	0.045	0.959	1.499E-04
7	1.03	EX	0.36	0.958	1.338E-04
7	1.37333	EX	0.36	0.958	1.338E-04
7	1.71667	EX	0.36	0.958	1.338E-04
7	2.06	EX	0.36	0.958	1.338E-04
7	0.	EY	0.522	0.019	0.128
7	0.34333	EY	0.522	0.019	0.128
7	0.68667	EY	0.522	0.019	0.128
7	1.03	EY	0.522	0.019	0.128
7	1.03	EY	0.517	0.02	0.129
7	1.37333	EY	0.517	0.02	0.129
7	1.71667	EY	0.517	0.02	0.129
7	2.06	EY	0.517	0.02	0.129
8	0.	DEAD	3.979E-03	-0.289	1.023E-06
8	0.45333	DEAD	3.979E-03	-0.19	1.023E-06
8	0.90667	DEAD	3.979E-03	-0.091	1.023E-06
8	0.90667	DEAD	3.979E-03	-0.037	2.468E-07
8	1.36	DEAD	3.979E-03	0.063	2.468E-07

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
8	1.81333	DEAD	3.979E-03	0.162	2.468E-07
8	1.81333	DEAD	3.979E-03	0.216	-1.664E-06
8	2.26667	DEAD	3.979E-03	0.315	-1.664E-06
8	2.72	DEAD	3.979E-03	0.415	-1.664E-06
8	0.	SM	0.015	-0.839	5.240E-06
8	0.45333	SM	0.015	-0.839	5.240E-06
8	0.90667	SM	0.015	-0.839	5.240E-06
8	0.90667	SM	0.015	0.249	-7.456E-07
8	1.36	SM	0.015	0.249	-7.456E-07
8	1.81333	SM	0.015	0.249	-7.456E-07
8	1.81333	SM	0.015	1.337	-3.398E-06
8	2.26667	SM	0.015	1.337	-3.398E-06
8	2.72	SM	0.015	1.337	-3.398E-06
8	0.	VIVA	0.037	-2.097	1.310E-05
8	0.45333	VIVA	0.037	-2.097	1.310E-05
8	0.90667	VIVA	0.037	-2.097	1.310E-05
8	0.90667	VIVA	0.037	0.623	-1.864E-06
8	1.36	VIVA	0.037	0.623	-1.864E-06
8	1.81333	VIVA	0.037	0.623	-1.864E-06
8	1.81333	VIVA	0.037	3.343	-8.495E-06
8	2.26667	VIVA	0.037	3.343	-8.495E-06
8	2.72	VIVA	0.037	3.343	-8.495E-06
8	0.	EX	0.427	0.715	6.201E-05
8	0.45333	EX	0.427	0.715	6.201E-05
8	0.90667	EX	0.427	0.715	6.201E-05
8	0.90667	EX	0.149	0.718	7.092E-06
8	1.36	EX	0.149	0.718	7.092E-06
8	1.81333	EX	0.149	0.718	7.092E-06
8	1.81333	EX	0.13	0.72	8.094E-05
8	2.26667	EX	0.13	0.72	8.094E-05
8	2.72	EX	0.13	0.72	8.094E-05
8	0.	EY	0.915	7.295E-03	0.315
8	0.45333	EY	0.915	7.295E-03	0.315
8	0.90667	EY	0.915	7.295E-03	0.315
8	0.90667	EY	0.912	8.411E-03	1.671E-03
8	1.36	EY	0.912	8.411E-03	1.671E-03
8	1.81333	EY	0.912	8.411E-03	1.671E-03
8	1.81333	EY	0.91	9.607E-03	0.313
8	2.26667	EY	0.91	9.607E-03	0.313
8	2.72	EY	0.91	9.607E-03	0.313
9	0.	DEAD	2.972E-03	-0.342	2.114E-06
9	0.45333	DEAD	2.972E-03	-0.243	2.114E-06
9	0.90667	DEAD	2.972E-03	-0.143	2.114E-06
9	0.90667	DEAD	2.972E-03	-0.09	1.036E-08
9	1.36	DEAD	2.972E-03	9.888E-03	1.036E-08
9	1.81333	DEAD	2.972E-03	0.109	1.036E-08
9	1.81333	DEAD	2.972E-03	0.163	-2.148E-06
9	2.26667	DEAD	2.972E-03	0.263	-2.148E-06
9	2.72	DEAD	2.972E-03	0.362	-2.148E-06
9	0.	SM	0.01	-1.046	5.672E-06
9	0.45333	SM	0.01	-1.046	5.672E-06
9	0.90667	SM	0.01	-1.046	5.672E-06
9	0.90667	SM	0.01	0.042	4.023E-07
9	1.36	SM	0.01	0.042	4.023E-07

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
9	1.81333	SM	0.01	0.042	4.023E-07
9	1.81333	SM	0.01	1.13	-6.708E-06
9	2.26667	SM	0.01	1.13	-6.708E-06
9	2.72	SM	0.01	1.13	-6.708E-06
9	0.	VIVA	0.025	-2.615	1.418E-05
9	0.45333	VIVA	0.025	-2.615	1.418E-05
9	0.90667	VIVA	0.025	-2.615	1.418E-05
9	0.90667	VIVA	0.025	0.105	1.006E-06
9	1.36	VIVA	0.025	0.105	1.006E-06
9	1.81333	VIVA	0.025	0.105	1.006E-06
9	1.81333	VIVA	0.025	2.825	-1.677E-05
9	2.26667	VIVA	0.025	2.825	-1.677E-05
9	2.72	VIVA	0.025	2.825	-1.677E-05
9	0.	EX	0.39	0.423	1.035E-04
9	0.45333	EX	0.39	0.423	1.035E-04
9	0.90667	EX	0.39	0.423	1.035E-04
9	0.90667	EX	0.112	0.423	2.738E-05
9	1.36	EX	0.112	0.423	2.738E-05
9	1.81333	EX	0.112	0.423	2.738E-05
9	1.81333	EX	0.167	0.422	3.327E-05
9	2.26667	EX	0.167	0.422	3.327E-05
9	2.72	EX	0.167	0.422	3.327E-05
9	0.	EY	2.156	4.331E-03	0.304
9	0.45333	EY	2.156	4.331E-03	0.304
9	0.90667	EY	2.156	4.331E-03	0.304
9	0.90667	EY	2.154	5.354E-03	1.640E-03
9	1.36	EY	2.154	5.354E-03	1.640E-03
9	1.81333	EY	2.154	5.354E-03	1.640E-03
9	1.81333	EY	2.152	6.520E-03	0.302
9	2.26667	EY	2.152	6.520E-03	0.302
9	2.72	EY	2.152	6.520E-03	0.302
10	0.	DEAD	4.207E-03	-0.431	2.449E-06
10	0.4225	DEAD	4.207E-03	-0.339	2.449E-06
10	0.845	DEAD	4.207E-03	-0.246	2.449E-06
10	0.845	DEAD	4.207E-03	-0.192	-1.610E-06
10	1.2675	DEAD	4.207E-03	-0.099	-1.610E-06
10	1.69	DEAD	4.207E-03	-6.698E-03	-1.610E-06
10	1.69	DEAD	4.207E-03	0.047	2.009E-06
10	2.1125	DEAD	4.207E-03	0.14	2.009E-06
10	2.535	DEAD	4.207E-03	0.232	2.009E-06
10	2.535	DEAD	4.207E-03	0.286	-3.685E-06
10	2.9575	DEAD	4.207E-03	0.379	-3.685E-06
10	3.38	DEAD	4.207E-03	0.472	-3.685E-06
10	0.	SM	0.015	-1.434	6.504E-06
10	0.4225	SM	0.015	-1.434	6.504E-06
10	0.845	SM	0.015	-1.434	6.504E-06
10	0.845	SM	0.015	-0.42	-4.604E-06
10	1.2675	SM	0.015	-0.42	-4.604E-06
10	1.69	SM	0.015	-0.42	-4.604E-06
10	1.69	SM	0.015	0.594	6.250E-06
10	2.1125	SM	0.015	0.594	6.250E-06
10	2.535	SM	0.015	0.594	6.250E-06
10	2.535	SM	0.015	1.608	-1.160E-05
10	2.9575	SM	0.015	1.608	-1.160E-05

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
10	3.38	SM	0.015	1.608	-1.160E-05
10	0.	VIVA	0.038	-3.585	1.626E-05
10	0.4225	VIVA	0.038	-3.585	1.626E-05
10	0.845	VIVA	0.038	-3.585	1.626E-05
10	0.845	VIVA	0.038	-1.05	-1.151E-05
10	1.2675	VIVA	0.038	-1.05	-1.151E-05
10	1.69	VIVA	0.038	-1.05	-1.151E-05
10	1.69	VIVA	0.038	1.485	1.563E-05
10	2.1125	VIVA	0.038	1.485	1.563E-05
10	2.535	VIVA	0.038	1.485	1.563E-05
10	2.535	VIVA	0.038	4.02	-2.901E-05
10	2.9575	VIVA	0.038	4.02	-2.901E-05
10	3.38	VIVA	0.038	4.02	-2.901E-05
10	0.	EX	0.408	0.366	6.427E-05
10	0.4225	EX	0.408	0.366	6.427E-05
10	0.845	EX	0.408	0.366	6.427E-05
10	0.845	EX	0.149	0.368	2.307E-05
10	1.2675	EX	0.149	0.368	2.307E-05
10	1.69	EX	0.149	0.368	2.307E-05
10	1.69	EX	0.111	0.368	2.499E-05
10	2.1125	EX	0.111	0.368	2.499E-05
10	2.535	EX	0.111	0.368	2.499E-05
10	2.535	EX	0.371	0.366	8.639E-05
10	2.9575	EX	0.371	0.366	8.639E-05
10	3.38	EX	0.371	0.366	8.639E-05
10	0.	EY	3.087	3.988E-03	0.419
10	0.4225	EY	3.087	3.988E-03	0.419
10	0.845	EY	3.087	3.988E-03	0.419
10	0.845	EY	3.085	4.937E-03	0.141
10	1.2675	EY	3.085	4.937E-03	0.141
10	1.69	EY	3.085	4.937E-03	0.141
10	1.69	EY	3.082	6.001E-03	0.143
10	2.1125	EY	3.082	6.001E-03	0.143
10	2.535	EY	3.082	6.001E-03	0.143
10	2.535	EY	3.079	7.105E-03	0.413
10	2.9575	EY	3.079	7.105E-03	0.413
10	3.38	EY	3.079	7.105E-03	0.413
11	0.	DEAD	4.005E-03	-0.469	3.690E-06
11	0.4225	DEAD	4.005E-03	-0.376	3.690E-06
11	0.845	DEAD	4.005E-03	-0.283	3.690E-06
11	0.845	DEAD	4.005E-03	-0.23	-2.002E-06
11	1.2675	DEAD	4.005E-03	-0.137	-2.002E-06
11	1.69	DEAD	4.005E-03	-0.044	-2.002E-06
11	1.69	DEAD	4.005E-03	9.604E-03	1.572E-06
11	2.1125	DEAD	4.005E-03	0.102	1.572E-06
11	2.535	DEAD	4.005E-03	0.195	1.572E-06
11	2.535	DEAD	4.005E-03	0.249	-2.358E-06
11	2.9575	DEAD	4.005E-03	0.341	-2.358E-06
11	3.38	DEAD	4.005E-03	0.434	-2.358E-06
11	0.	SM	0.014	-1.594	1.182E-05
11	0.4225	SM	0.014	-1.594	1.182E-05
11	0.845	SM	0.014	-1.594	1.182E-05
11	0.845	SM	0.014	-0.58	-6.274E-06
11	1.2675	SM	0.014	-0.58	-6.274E-06

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
11	1.69	SM	0.014	-0.58	-6.274E-06
11	1.69	SM	0.014	0.434	4.491E-06
11	2.1125	SM	0.014	0.434	4.491E-06
11	2.535	SM	0.014	0.434	4.491E-06
11	2.535	SM	0.014	1.448	-6.292E-06
11	2.9575	SM	0.014	1.448	-6.292E-06
11	3.38	SM	0.014	1.448	-6.292E-06
11	0.	VIVA	0.035	-3.985	2.955E-05
11	0.4225	VIVA	0.035	-3.985	2.955E-05
11	0.845	VIVA	0.035	-3.985	2.955E-05
11	0.845	VIVA	0.035	-1.45	-1.569E-05
11	1.2675	VIVA	0.035	-1.45	-1.569E-05
11	1.69	VIVA	0.035	-1.45	-1.569E-05
11	1.69	VIVA	0.035	1.085	1.123E-05
11	2.1125	VIVA	0.035	1.085	1.123E-05
11	2.535	VIVA	0.035	1.085	1.123E-05
11	2.535	VIVA	0.035	3.62	-1.573E-05
11	2.9575	VIVA	0.035	3.62	-1.573E-05
11	3.38	VIVA	0.035	3.62	-1.573E-05
11	0.	EX	0.266	0.366	9.832E-06
11	0.4225	EX	0.266	0.366	9.832E-06
11	0.845	EX	0.266	0.366	9.832E-06
11	0.845	EX	5.872E-03	0.367	3.062E-05
11	1.2675	EX	5.872E-03	0.367	3.062E-05
11	1.69	EX	5.872E-03	0.367	3.062E-05
11	1.69	EX	0.254	0.367	8.005E-05
11	2.1125	EX	0.254	0.367	8.005E-05
11	2.535	EX	0.254	0.367	8.005E-05
11	2.535	EX	0.514	0.366	1.634E-04
11	2.9575	EX	0.514	0.366	1.634E-04
11	3.38	EX	0.514	0.366	1.634E-04
11	0.	EY	2.91	4.971E-03	0.391
11	0.4225	EY	2.91	4.971E-03	0.391
11	0.845	EY	2.91	4.971E-03	0.391
11	0.845	EY	2.906	5.966E-03	0.13
11	1.2675	EY	2.906	5.966E-03	0.13
11	1.69	EY	2.906	5.966E-03	0.13
11	1.69	EY	2.903	6.999E-03	0.134
11	2.1125	EY	2.903	6.999E-03	0.134
11	2.535	EY	2.903	6.999E-03	0.134
11	2.535	EY	2.899	8.031E-03	0.384
11	2.9575	EY	2.899	8.031E-03	0.384
11	3.38	EY	2.899	8.031E-03	0.384
12	0.	DEAD	2.733E-03	-0.385	2.252E-06
12	0.45333	DEAD	2.733E-03	-0.286	2.252E-06
12	0.90667	DEAD	2.733E-03	-0.186	2.252E-06
12	0.90667	DEAD	2.733E-03	-0.132	-4.521E-07
12	1.36	DEAD	2.733E-03	-0.033	-4.521E-07
12	1.81333	DEAD	2.733E-03	0.066	-4.521E-07
12	1.81333	DEAD	2.733E-03	0.12	-1.090E-06
12	2.26667	DEAD	2.733E-03	0.22	-1.090E-06
12	2.72	DEAD	2.733E-03	0.319	-1.090E-06
12	0.	SM	9.017E-03	-1.232	7.058E-06
12	0.45333	SM	9.017E-03	-1.232	7.058E-06

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
12	0.90667	SM	9.017E-03	-1.232	7.058E-06
12	0.90667	SM	9.017E-03	-0.144	-2.563E-06
12	1.36	SM	9.017E-03	-0.144	-2.563E-06
12	1.81333	SM	9.017E-03	-0.144	-2.563E-06
12	1.81333	SM	9.017E-03	0.944	-4.869E-07
12	2.26667	SM	9.017E-03	0.944	-4.869E-07
12	2.72	SM	9.017E-03	0.944	-4.869E-07
12	0.	VIVA	0.023	-3.08	1.764E-05
12	0.45333	VIVA	0.023	-3.08	1.764E-05
12	0.90667	VIVA	0.023	-3.08	1.764E-05
12	0.90667	VIVA	0.023	-0.36	-6.408E-06
12	1.36	VIVA	0.023	-0.36	-6.408E-06
12	1.81333	VIVA	0.023	-0.36	-6.408E-06
12	1.81333	VIVA	0.023	2.36	-1.217E-06
12	2.26667	VIVA	0.023	2.36	-1.217E-06
12	2.72	VIVA	0.023	2.36	-1.217E-06
12	0.	EX	0.062	0.421	1.062E-04
12	0.45333	EX	0.062	0.421	1.062E-04
12	0.90667	EX	0.062	0.421	1.062E-04
12	0.90667	EX	0.216	0.422	1.538E-05
12	1.36	EX	0.216	0.422	1.538E-05
12	1.81333	EX	0.216	0.422	1.538E-05
12	1.81333	EX	0.494	0.422	1.468E-04
12	2.26667	EX	0.494	0.422	1.468E-04
12	2.72	EX	0.494	0.422	1.468E-04
12	0.	EY	1.718	7.267E-03	0.249
12	0.45333	EY	1.718	7.267E-03	0.249
12	0.90667	EY	1.718	7.267E-03	0.249
12	0.90667	EY	1.713	8.296E-03	2.614E-03
12	1.36	EY	1.713	8.296E-03	2.614E-03
12	1.81333	EY	1.713	8.296E-03	2.614E-03
12	1.81333	EY	1.709	9.308E-03	0.246
12	2.26667	EY	1.709	9.308E-03	0.246
12	2.72	EY	1.709	9.308E-03	0.246
13	0.	DEAD	2.018E-03	-0.31	8.516E-07
13	0.34333	DEAD	2.018E-03	-0.235	8.516E-07
13	0.68667	DEAD	2.018E-03	-0.16	8.516E-07
13	1.03	DEAD	2.018E-03	-0.084	8.516E-07
13	1.03	DEAD	2.018E-03	-0.031	-5.283E-07
13	1.37333	DEAD	2.018E-03	0.045	-5.283E-07
13	1.71667	DEAD	2.018E-03	0.12	-5.283E-07
13	2.06	DEAD	2.018E-03	0.195	-5.283E-07
13	0.	SM	6.235E-03	-0.838	5.408E-07
13	0.34333	SM	6.235E-03	-0.838	5.408E-07
13	0.68667	SM	6.235E-03	-0.838	5.408E-07
13	1.03	SM	6.235E-03	-0.838	5.408E-07
13	1.03	SM	6.235E-03	0.398	-6.686E-08
13	1.37333	SM	6.235E-03	0.398	-6.686E-08
13	1.71667	SM	6.235E-03	0.398	-6.686E-08
13	2.06	SM	6.235E-03	0.398	-6.686E-08
13	0.	VIVA	0.016	-2.095	1.352E-06
13	0.34333	VIVA	0.016	-2.095	1.352E-06
13	0.68667	VIVA	0.016	-2.095	1.352E-06
13	1.03	VIVA	0.016	-2.095	1.352E-06

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
13	1.03	VIVA	0.016	0.995	-1.672E-07
13	1.37333	VIVA	0.016	0.995	-1.672E-07
13	1.71667	VIVA	0.016	0.995	-1.672E-07
13	2.06	VIVA	0.016	0.995	-1.672E-07
13	0.	EX	0.045	0.959	1.499E-04
13	0.34333	EX	0.045	0.959	1.499E-04
13	0.68667	EX	0.045	0.959	1.499E-04
13	1.03	EX	0.045	0.959	1.499E-04
13	1.03	EX	0.36	0.958	1.339E-04
13	1.37333	EX	0.36	0.958	1.339E-04
13	1.71667	EX	0.36	0.958	1.339E-04
13	2.06	EX	0.36	0.958	1.339E-04
13	0.	EY	0.522	0.019	0.128
13	0.34333	EY	0.522	0.019	0.128
13	0.68667	EY	0.522	0.019	0.128
13	1.03	EY	0.522	0.019	0.128
13	1.03	EY	0.517	0.02	0.129
13	1.37333	EY	0.517	0.02	0.129
13	1.71667	EY	0.517	0.02	0.129
13	2.06	EY	0.517	0.02	0.129
14	0.	DEAD	-6.282E-04	-0.132	0.
14	0.4	DEAD	-6.282E-04	-0.044	0.
14	0.8	DEAD	-6.282E-04	0.044	0.
14	1.2	DEAD	-6.282E-04	0.132	0.
14	0.	SM	-2.531E-03	-0.544	0.
14	0.4	SM	-2.531E-03	-0.181	0.
14	0.8	SM	-2.531E-03	0.181	0.
14	1.2	SM	-2.531E-03	0.544	0.
14	0.	VIVA	-6.327E-03	-1.36	-6.939E-18
14	0.4	VIVA	-6.327E-03	-0.453	-6.939E-18
14	0.8	VIVA	-6.327E-03	0.453	-6.939E-18
14	1.2	VIVA	-6.327E-03	1.36	-6.939E-18
14	0.	EX	0.033	3.387E-10	3.036E-11
14	0.4	EX	0.033	3.387E-10	3.036E-11
14	0.8	EX	0.033	3.387E-10	3.036E-11
14	1.2	EX	0.033	3.387E-10	3.036E-11
14	0.	EY	1.017E-09	2.38	4.886E-03
14	0.4	EY	1.017E-09	2.38	4.886E-03
14	0.8	EY	1.017E-09	2.38	4.886E-03
14	1.2	EY	1.017E-09	2.38	4.886E-03
15	0.	DEAD	-7.893E-04	-0.132	8.674E-19
15	0.4	DEAD	-7.893E-04	-0.044	8.674E-19
15	0.8	DEAD	-7.893E-04	0.044	8.674E-19
15	1.2	DEAD	-7.893E-04	0.132	8.674E-19
15	0.	SM	-2.006E-03	-1.088	0.
15	0.4	SM	-2.006E-03	-0.363	0.
15	0.8	SM	-2.006E-03	0.363	0.
15	1.2	SM	-2.006E-03	1.088	0.
15	0.	VIVA	-5.015E-03	-2.72	1.388E-17
15	0.4	VIVA	-5.015E-03	-0.907	1.388E-17
15	0.8	VIVA	-5.015E-03	0.907	1.388E-17
15	1.2	VIVA	-5.015E-03	2.72	1.388E-17
15	0.	EX	0.037	5.014E-10	3.849E-11
15	0.4	EX	0.037	5.014E-10	3.849E-11

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
15	0.8	EX	0.037	5.014E-10	3.849E-11
15	1.2	EX	0.037	5.014E-10	3.849E-11
15	0.	EY	3.525E-09	2.309	1.183E-03
15	0.4	EY	3.525E-09	2.309	1.183E-03
15	0.8	EY	3.525E-09	2.309	1.183E-03
15	1.2	EY	3.525E-09	2.309	1.183E-03
16	0.	DEAD	-7.934E-04	-0.132	-4.337E-19
16	0.4	DEAD	-7.934E-04	-0.044	-4.337E-19
16	0.8	DEAD	-7.934E-04	0.044	-4.337E-19
16	1.2	DEAD	-7.934E-04	0.132	-4.337E-19
16	0.	SM	-2.272E-03	-1.051	3.469E-18
16	0.4	SM	-2.272E-03	-0.35	3.469E-18
16	0.8	SM	-2.272E-03	0.35	3.469E-18
16	1.2	SM	-2.272E-03	1.051	3.469E-18
16	0.	VIVA	-5.680E-03	-2.628	0.
16	0.4	VIVA	-5.680E-03	-0.876	0.
16	0.8	VIVA	-5.680E-03	0.876	0.
16	1.2	VIVA	-5.680E-03	2.628	0.
16	0.	EX	0.019	1.085E-10	4.686E-11
16	0.4	EX	0.019	1.085E-10	4.686E-11
16	0.8	EX	0.019	1.085E-10	4.686E-11
16	1.2	EX	0.019	1.085E-10	4.686E-11
16	0.	EY	5.132E-09	2.226	1.697E-03
16	0.4	EY	5.132E-09	2.226	1.697E-03
16	0.8	EY	5.132E-09	2.226	1.697E-03
16	1.2	EY	5.132E-09	2.226	1.697E-03
17	0.	DEAD	-1.069E-03	-0.132	4.337E-19
17	0.4	DEAD	-1.069E-03	-0.044	4.337E-19
17	0.8	DEAD	-1.069E-03	0.044	4.337E-19
17	1.2	DEAD	-1.069E-03	0.132	4.337E-19
17	0.	SM	-3.407E-03	-1.014	0.
17	0.4	SM	-3.407E-03	-0.338	0.
17	0.8	SM	-3.407E-03	0.338	0.
17	1.2	SM	-3.407E-03	1.014	0.
17	0.	VIVA	-8.516E-03	-2.535	6.939E-18
17	0.4	VIVA	-8.516E-03	-0.845	6.939E-18
17	0.8	VIVA	-8.516E-03	0.845	6.939E-18
17	1.2	VIVA	-8.516E-03	2.535	6.939E-18
17	0.	EX	0.014	1.916E-10	1.576E-11
17	0.4	EX	0.014	1.916E-10	1.576E-11
17	0.8	EX	0.014	1.916E-10	1.576E-11
17	1.2	EX	0.014	1.916E-10	1.576E-11
17	0.	EY	1.036E-08	2.094	2.938E-04
17	0.4	EY	1.036E-08	2.094	2.938E-04
17	0.8	EY	1.036E-08	2.094	2.938E-04
17	1.2	EY	1.036E-08	2.094	2.938E-04
18	0.	DEAD	-7.728E-04	-0.132	-4.337E-19
18	0.4	DEAD	-7.728E-04	-0.044	-4.337E-19
18	0.8	DEAD	-7.728E-04	0.044	-4.337E-19
18	1.2	DEAD	-7.728E-04	0.132	-4.337E-19
18	0.	SM	-2.177E-03	-1.051	0.
18	0.4	SM	-2.177E-03	-0.35	0.
18	0.8	SM	-2.177E-03	0.35	0.
18	1.2	SM	-2.177E-03	1.051	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
18	0.	VIVA	-5.442E-03	-2.627	0.
18	0.4	VIVA	-5.442E-03	-0.876	0.
18	0.8	VIVA	-5.442E-03	0.876	0.
18	1.2	VIVA	-5.442E-03	2.628	0.
18	0.	EX	0.048	3.914E-10	5.695E-12
18	0.4	EX	0.048	3.914E-10	5.695E-12
18	0.8	EX	0.048	3.914E-10	5.695E-12
18	1.2	EX	0.048	3.914E-10	5.695E-12
18	0.	EY	6.163E-09	1.925	1.875E-03
18	0.4	EY	6.163E-09	1.925	1.875E-03
18	0.8	EY	6.163E-09	1.925	1.875E-03
18	1.2	EY	6.163E-09	1.925	1.875E-03
19	0.	DEAD	-4.725E-04	-0.132	-8.674E-19
19	0.4	DEAD	-4.725E-04	-0.044	-8.674E-19
19	0.8	DEAD	-4.725E-04	0.044	-8.674E-19
19	1.2	DEAD	-4.725E-04	0.132	-8.674E-19
19	0.	SM	-4.689E-04	-1.162	0.
19	0.4	SM	-4.689E-04	-0.387	0.
19	0.8	SM	-4.689E-04	0.387	0.
19	1.2	SM	-4.689E-04	1.162	0.
19	0.	VIVA	-1.172E-03	-2.905	-6.939E-18
19	0.4	VIVA	-1.172E-03	-0.968	-6.939E-18
19	0.8	VIVA	-1.172E-03	0.968	-6.939E-18
19	1.2	VIVA	-1.172E-03	2.905	-6.939E-18
19	0.	EX	0.058	2.626E-10	2.274E-11
19	0.4	EX	0.058	2.626E-10	2.274E-11
19	0.8	EX	0.058	2.626E-10	2.274E-11
19	1.2	EX	0.058	2.626E-10	2.274E-11
19	0.	EY	8.847E-09	1.769	2.007E-03
19	0.4	EY	8.847E-09	1.769	2.007E-03
19	0.8	EY	8.847E-09	1.769	2.007E-03
19	1.2	EY	8.847E-09	1.769	2.007E-03
20	0.	DEAD	-3.009E-05	-0.132	-8.674E-19
20	0.4	DEAD	-3.009E-05	-0.044	-8.674E-19
20	0.8	DEAD	-3.009E-05	0.044	-8.674E-19
20	1.2	DEAD	-3.009E-05	0.132	-8.674E-19
20	0.	SM	1.962E-04	-0.618	-3.469E-18
20	0.4	SM	1.962E-04	-0.206	-3.469E-18
20	0.8	SM	1.962E-04	0.206	-3.469E-18
20	1.2	SM	1.962E-04	0.618	-3.469E-18
20	0.	VIVA	4.904E-04	-1.545	-6.939E-18
20	0.4	VIVA	4.904E-04	-0.515	-6.939E-18
20	0.8	VIVA	4.904E-04	0.515	-6.939E-18
20	1.2	VIVA	4.904E-04	1.545	-6.939E-18
20	0.	EX	0.038	5.789E-10	6.492E-11
20	0.4	EX	0.038	5.789E-10	6.492E-11
20	0.8	EX	0.038	5.789E-10	6.492E-11
20	1.2	EX	0.038	5.789E-10	6.492E-11
20	0.	EY	1.074E-09	1.648	2.567E-03
20	0.4	EY	1.074E-09	1.648	2.567E-03
20	0.8	EY	1.074E-09	1.648	2.567E-03
20	1.2	EY	1.074E-09	1.648	2.567E-03
21	0.	DEAD	-7.765E-07	-0.054	0.
21	0.4	DEAD	-7.765E-07	-0.018	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
21	0.8	DEAD	-7.765E-07	0.018	0.
21	1.2	DEAD	-7.765E-07	0.054	0.
21	0.	SM	-5.985E-06	-1.088	0.
21	0.4	SM	-5.985E-06	-0.363	0.
21	0.8	SM	-5.985E-06	0.363	0.
21	1.2	SM	-5.985E-06	1.088	0.
21	0.	VIVA	-1.496E-05	-2.72	0.
21	0.4	VIVA	-1.496E-05	-0.907	0.
21	0.8	VIVA	-1.496E-05	0.907	0.
21	1.2	VIVA	-1.496E-05	2.72	0.
21	0.	EX	5.492E-05	0.	0.
21	0.4	EX	5.492E-05	0.	0.
21	0.8	EX	5.492E-05	0.	0.
21	1.2	EX	5.492E-05	0.	0.
21	0.	EY	4.312E-09	0.	0.
21	0.4	EY	4.312E-09	0.	0.
21	0.8	EY	4.312E-09	0.	0.
21	1.2	EY	4.312E-09	0.	0.
22	0.	DEAD	-1.911E-06	-0.054	0.
22	0.4	DEAD	-1.911E-06	-0.018	0.
22	0.8	DEAD	-1.911E-06	0.018	0.
22	1.2	DEAD	-1.911E-06	0.054	0.
22	0.	SM	-2.652E-06	-1.088	0.
22	0.4	SM	-2.652E-06	-0.363	0.
22	0.8	SM	-2.652E-06	0.363	0.
22	1.2	SM	-2.652E-06	1.088	0.
22	0.	VIVA	-6.631E-06	-2.72	0.
22	0.4	VIVA	-6.631E-06	-0.907	0.
22	0.8	VIVA	-6.631E-06	0.907	0.
22	1.2	VIVA	-6.631E-06	2.72	0.
22	0.	EX	8.804E-05	0.	0.
22	0.4	EX	8.804E-05	0.	0.
22	0.8	EX	8.804E-05	0.	0.
22	1.2	EX	8.804E-05	0.	0.
22	0.	EY	5.152E-09	0.	0.
22	0.4	EY	5.152E-09	0.	0.
22	0.8	EY	5.152E-09	0.	0.
22	1.2	EY	5.152E-09	0.	0.
23	0.	DEAD	-2.104E-06	-0.054	0.
23	0.4	DEAD	-2.104E-06	-0.018	0.
23	0.8	DEAD	-2.104E-06	0.018	0.
23	1.2	DEAD	-2.104E-06	0.054	0.
23	0.	SM	-5.270E-06	-1.088	0.
23	0.4	SM	-5.270E-06	-0.363	0.
23	0.8	SM	-5.270E-06	0.363	0.
23	1.2	SM	-5.270E-06	1.088	0.
23	0.	VIVA	-1.318E-05	-2.72	0.
23	0.4	VIVA	-1.318E-05	-0.907	0.
23	0.8	VIVA	-1.318E-05	0.907	0.
23	1.2	VIVA	-1.318E-05	2.72	0.
23	0.	EX	1.310E-04	0.	0.
23	0.4	EX	1.310E-04	0.	0.
23	0.8	EX	1.310E-04	0.	0.
23	1.2	EX	1.310E-04	0.	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
23	0.	EY	3.077E-09	0.	0.
23	0.4	EY	3.077E-09	0.	0.
23	0.8	EY	3.077E-09	0.	0.
23	1.2	EY	3.077E-09	0.	0.
24	0.	DEAD	-2.158E-06	-0.054	0.
24	0.4	DEAD	-2.158E-06	-0.018	0.
24	0.8	DEAD	-2.158E-06	0.018	0.
24	1.2	DEAD	-2.158E-06	0.054	0.
24	0.	SM	-7.110E-06	-1.088	0.
24	0.4	SM	-7.110E-06	-0.363	0.
24	0.8	SM	-7.110E-06	0.363	0.
24	1.2	SM	-7.110E-06	1.088	0.
24	0.	VIVA	-1.778E-05	-2.72	0.
24	0.4	VIVA	-1.778E-05	-0.907	0.
24	0.8	VIVA	-1.778E-05	0.907	0.
24	1.2	VIVA	-1.778E-05	2.72	0.
24	0.	EX	5.862E-06	0.	0.
24	0.4	EX	5.862E-06	0.	0.
24	0.8	EX	5.862E-06	0.	0.
24	1.2	EX	5.862E-06	0.	0.
24	0.	EY	5.956E-09	0.	0.
24	0.4	EY	5.956E-09	0.	0.
24	0.8	EY	5.956E-09	0.	0.
24	1.2	EY	5.956E-09	0.	0.
25	0.	DEAD	-2.704E-06	-0.054	0.
25	0.4	DEAD	-2.704E-06	-0.018	0.
25	0.8	DEAD	-2.704E-06	0.018	0.
25	1.2	DEAD	-2.704E-06	0.054	0.
25	0.	SM	-9.621E-06	-1.088	0.
25	0.4	SM	-9.621E-06	-0.363	0.
25	0.8	SM	-9.621E-06	0.363	0.
25	1.2	SM	-9.621E-06	1.088	0.
25	0.	VIVA	-2.405E-05	-2.72	0.
25	0.4	VIVA	-2.405E-05	-0.907	0.
25	0.8	VIVA	-2.405E-05	0.907	0.
25	1.2	VIVA	-2.405E-05	2.72	0.
25	0.	EX	9.081E-05	0.	0.
25	0.4	EX	9.081E-05	0.	0.
25	0.8	EX	9.081E-05	0.	0.
25	1.2	EX	9.081E-05	0.	0.
25	0.	EY	9.969E-09	0.	0.
25	0.4	EY	9.969E-09	0.	0.
25	0.8	EY	9.969E-09	0.	0.
25	1.2	EY	9.969E-09	0.	0.
26	0.	DEAD	-6.383E-07	-0.054	0.
26	0.4	DEAD	-6.383E-07	-0.018	0.
26	0.8	DEAD	-6.383E-07	0.018	0.
26	1.2	DEAD	-6.383E-07	0.054	0.
26	0.	SM	2.076E-06	-1.088	0.
26	0.4	SM	2.076E-06	-0.363	0.
26	0.8	SM	2.076E-06	0.363	0.
26	1.2	SM	2.076E-06	1.088	0.
26	0.	VIVA	5.190E-06	-2.72	0.
26	0.4	VIVA	5.190E-06	-0.907	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
26	0.8	VIVA	5.190E-06	0.907	0.
26	1.2	VIVA	5.190E-06	2.72	0.
26	0.	EX	1.622E-04	0.	0.
26	0.4	EX	1.622E-04	0.	0.
26	0.8	EX	1.622E-04	0.	0.
26	1.2	EX	1.622E-04	0.	0.
26	0.	EY	8.250E-09	0.	0.
26	0.4	EY	8.250E-09	0.	0.
26	0.8	EY	8.250E-09	0.	0.
26	1.2	EY	8.250E-09	0.	0.
27	0.	DEAD	-4.059E-06	-0.054	0.
27	0.4	DEAD	-4.059E-06	-0.018	0.
27	0.8	DEAD	-4.059E-06	0.018	0.
27	1.2	DEAD	-4.059E-06	0.054	0.
27	0.	SM	-1.111E-05	-1.014	0.
27	0.4	SM	-1.111E-05	-0.338	0.
27	0.8	SM	-1.111E-05	0.338	0.
27	1.2	SM	-1.111E-05	1.014	0.
27	0.	VIVA	-2.777E-05	-2.535	0.
27	0.4	VIVA	-2.777E-05	-0.845	0.
27	0.8	VIVA	-2.777E-05	0.845	0.
27	1.2	VIVA	-2.777E-05	2.535	0.
27	0.	EX	8.736E-05	0.	0.
27	0.4	EX	8.736E-05	0.	0.
27	0.8	EX	8.736E-05	0.	0.
27	1.2	EX	8.736E-05	0.	0.
27	0.	EY	1.145E-08	0.	0.
27	0.4	EY	1.145E-08	0.	0.
27	0.8	EY	1.145E-08	0.	0.
27	1.2	EY	1.145E-08	0.	0.
28	0.	DEAD	3.619E-06	-0.054	0.
28	0.4	DEAD	3.619E-06	-0.018	0.
28	0.8	DEAD	3.619E-06	0.018	0.
28	1.2	DEAD	3.619E-06	0.054	0.
28	0.	SM	1.085E-05	-1.014	0.
28	0.4	SM	1.085E-05	-0.338	0.
28	0.8	SM	1.085E-05	0.338	0.
28	1.2	SM	1.085E-05	1.014	0.
28	0.	VIVA	2.714E-05	-2.535	0.
28	0.4	VIVA	2.714E-05	-0.845	0.
28	0.8	VIVA	2.714E-05	0.845	0.
28	1.2	VIVA	2.714E-05	2.535	0.
28	0.	EX	1.918E-06	0.	0.
28	0.4	EX	1.918E-06	0.	0.
28	0.8	EX	1.918E-06	0.	0.
28	1.2	EX	1.918E-06	0.	0.
28	0.	EY	9.275E-09	0.	0.
28	0.4	EY	9.275E-09	0.	0.
28	0.8	EY	9.275E-09	0.	0.
28	1.2	EY	9.275E-09	0.	0.
29	0.	DEAD	-5.695E-06	-0.054	0.
29	0.4	DEAD	-5.695E-06	-0.018	0.
29	0.8	DEAD	-5.695E-06	0.018	0.
29	1.2	DEAD	-5.695E-06	0.054	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
29	0.	SM	-1.785E-05	-1.014	0.
29	0.4	SM	-1.785E-05	-0.338	0.
29	0.8	SM	-1.785E-05	0.338	0.
29	1.2	SM	-1.785E-05	1.014	0.
29	0.	VIVA	-4.464E-05	-2.535	0.
29	0.4	VIVA	-4.464E-05	-0.845	0.
29	0.8	VIVA	-4.464E-05	0.845	0.
29	1.2	VIVA	-4.464E-05	2.535	0.
29	0.	EX	1.114E-04	0.	0.
29	0.4	EX	1.114E-04	0.	0.
29	0.8	EX	1.114E-04	0.	0.
29	1.2	EX	1.114E-04	0.	0.
29	0.	EY	4.935E-09	0.	0.
29	0.4	EY	4.935E-09	0.	0.
29	0.8	EY	4.935E-09	0.	0.
29	1.2	EY	4.935E-09	0.	0.
30	0.	DEAD	-5.691E-06	-0.054	0.
30	0.4	DEAD	-5.691E-06	-0.018	0.
30	0.8	DEAD	-5.691E-06	0.018	0.
30	1.2	DEAD	-5.691E-06	0.054	0.
30	0.	SM	-1.809E-05	-1.014	0.
30	0.4	SM	-1.809E-05	-0.338	0.
30	0.8	SM	-1.809E-05	0.338	0.
30	1.2	SM	-1.809E-05	1.014	0.
30	0.	VIVA	-4.523E-05	-2.535	0.
30	0.4	VIVA	-4.523E-05	-0.845	0.
30	0.8	VIVA	-4.523E-05	0.845	0.
30	1.2	VIVA	-4.523E-05	2.535	0.
30	0.	EX	4.046E-05	0.	0.
30	0.4	EX	4.046E-05	0.	0.
30	0.8	EX	4.046E-05	0.	0.
30	1.2	EX	4.046E-05	0.	0.
30	0.	EY	3.687E-09	0.	0.
30	0.4	EY	3.687E-09	0.	0.
30	0.8	EY	3.687E-09	0.	0.
30	1.2	EY	3.687E-09	0.	0.
31	0.	DEAD	3.573E-06	-0.054	0.
31	0.4	DEAD	3.573E-06	-0.018	0.
31	0.8	DEAD	3.573E-06	0.018	0.
31	1.2	DEAD	3.573E-06	0.054	0.
31	0.	SM	1.076E-05	-1.014	0.
31	0.4	SM	1.076E-05	-0.338	0.
31	0.8	SM	1.076E-05	0.338	0.
31	1.2	SM	1.076E-05	1.014	0.
31	0.	VIVA	2.691E-05	-2.535	0.
31	0.4	VIVA	2.691E-05	-0.845	0.
31	0.8	VIVA	2.691E-05	0.845	0.
31	1.2	VIVA	2.691E-05	2.535	0.
31	0.	EX	1.107E-04	0.	0.
31	0.4	EX	1.107E-04	0.	0.
31	0.8	EX	1.107E-04	0.	0.
31	1.2	EX	1.107E-04	0.	0.
31	0.	EY	5.413E-09	0.	0.
31	0.4	EY	5.413E-09	0.	0.

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
31	0.8	EY	5.413E-09	0.	0.
31	1.2	EY	5.413E-09	0.	0.
32	0.	DEAD	-3.930E-06	-0.054	0.
32	0.4	DEAD	-3.930E-06	-0.018	0.
32	0.8	DEAD	-3.930E-06	0.018	0.
32	1.2	DEAD	-3.930E-06	0.054	0.
32	0.	SM	-1.078E-05	-1.014	0.
32	0.4	SM	-1.078E-05	-0.338	0.
32	0.8	SM	-1.078E-05	0.338	0.
32	1.2	SM	-1.078E-05	1.014	0.
32	0.	VIVA	-2.696E-05	-2.535	0.
32	0.4	VIVA	-2.696E-05	-0.845	0.
32	0.8	VIVA	-2.696E-05	0.845	0.
32	1.2	VIVA	-2.696E-05	2.535	0.
32	0.	EX	2.435E-04	0.	0.
32	0.4	EX	2.435E-04	0.	0.
32	0.8	EX	2.435E-04	0.	0.
32	1.2	EX	2.435E-04	0.	0.
32	0.	EY	1.313E-08	0.	0.
32	0.4	EY	1.313E-08	0.	0.
32	0.8	EY	1.313E-08	0.	0.
32	1.2	EY	1.313E-08	0.	0.
33	0.	DEAD	-1.380E-06	-0.054	0.
33	0.4	DEAD	-1.380E-06	-0.018	0.
33	0.8	DEAD	-1.380E-06	0.018	0.
33	1.2	DEAD	-1.380E-06	0.054	0.
33	0.	SM	-6.077E-07	-1.236	0.
33	0.4	SM	-6.077E-07	-0.412	0.
33	0.8	SM	-6.077E-07	0.412	0.
33	1.2	SM	-6.077E-07	1.236	0.
33	0.	VIVA	-1.519E-06	-3.09	0.
33	0.4	VIVA	-1.519E-06	-1.03	0.
33	0.8	VIVA	-1.519E-06	1.03	0.
33	1.2	VIVA	-1.519E-06	3.09	0.
33	0.	EX	2.838E-04	0.	0.
33	0.4	EX	2.838E-04	0.	0.
33	0.8	EX	2.838E-04	0.	0.
33	1.2	EX	2.838E-04	0.	0.
33	0.	EY	5.177E-09	0.	0.
33	0.4	EY	5.177E-09	0.	0.
33	0.8	EY	5.177E-09	0.	0.
33	1.2	EY	5.177E-09	0.	0.
34	0.	DEAD	0.798	-9.206E-03	9.728E-04
34	1.45	DEAD	0.928	-9.206E-03	9.728E-04
34	2.9	DEAD	1.058	-9.206E-03	9.728E-04
34	0.	SM	1.383	-0.034	4.022E-03
34	1.45	SM	1.383	-0.034	4.022E-03
34	2.9	SM	1.383	-0.034	4.022E-03
34	0.	VIVA	3.457	-0.086	0.01
34	1.45	VIVA	3.457	-0.086	0.01
34	2.9	VIVA	3.457	-0.086	0.01
34	0.	EX	0.715	0.842	5.779E-06
34	1.45	EX	0.715	0.842	5.779E-06
34	2.9	EX	0.715	0.842	5.779E-06

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
34	0.	EY	2.377	9.438E-03	0.998
34	1.45	EY	2.377	9.438E-03	0.998
34	2.9	EY	2.377	9.438E-03	0.998
35	0.	DEAD	0.798	-9.206E-03	-9.728E-04
35	1.45	DEAD	0.928	-9.206E-03	-9.728E-04
35	2.9	DEAD	1.058	-9.206E-03	-9.728E-04
35	0.	SM	1.383	-0.034	-4.022E-03
35	1.45	SM	1.383	-0.034	-4.022E-03
35	2.9	SM	1.383	-0.034	-4.022E-03
35	0.	VIVA	3.457	-0.086	-0.01
35	1.45	VIVA	3.457	-0.086	-0.01
35	2.9	VIVA	3.457	-0.086	-0.01
35	0.	EX	0.715	0.842	5.779E-06
35	1.45	EX	0.715	0.842	5.779E-06
35	2.9	EX	0.715	0.842	5.779E-06
35	0.	EY	2.377	9.438E-03	0.998
35	1.45	EY	2.377	9.438E-03	0.998
35	2.9	EY	2.377	9.438E-03	0.998
36	0.	DEAD	1.642	2.438E-03	9.729E-04
36	1.45	DEAD	1.772	2.438E-03	9.729E-04
36	2.9	DEAD	1.902	2.438E-03	9.729E-04
36	0.	SM	3.472	0.011	8.040E-03
36	1.45	SM	3.472	0.011	8.040E-03
36	2.9	SM	3.472	0.011	8.040E-03
36	0.	VIVA	8.679	0.027	0.02
36	1.45	VIVA	8.679	0.027	0.02
36	2.9	VIVA	8.679	0.027	0.02
36	0.	EX	0.297	0.881	6.562E-06
36	1.45	EX	0.297	0.881	6.562E-06
36	2.9	EX	0.297	0.881	6.562E-06
36	0.	EY	2.316	0.01	0.968
36	1.45	EY	2.316	0.01	0.968
36	2.9	EY	2.316	0.01	0.968
37	0.	DEAD	1.642	2.438E-03	-9.729E-04
37	1.45	DEAD	1.772	2.438E-03	-9.729E-04
37	2.9	DEAD	1.902	2.438E-03	-9.729E-04
37	0.	SM	3.472	0.011	-8.040E-03
37	1.45	SM	3.472	0.011	-8.040E-03
37	2.9	SM	3.472	0.011	-8.040E-03
37	0.	VIVA	8.679	0.027	-0.02
37	1.45	VIVA	8.679	0.027	-0.02
37	2.9	VIVA	8.679	0.027	-0.02
37	0.	EX	0.297	0.881	6.562E-06
37	1.45	EX	0.297	0.881	6.562E-06
37	2.9	EX	0.297	0.881	6.562E-06
37	0.	EY	2.316	0.01	0.968
37	1.45	EY	2.316	0.01	0.968
37	2.9	EY	2.316	0.01	0.968
38	0.	DEAD	1.77	-2.890E-03	9.729E-04
38	1.45	DEAD	1.9	-2.890E-03	9.729E-04
38	2.9	DEAD	2.03	-2.890E-03	9.729E-04
38	0.	SM	3.615	-0.012	7.768E-03
38	1.45	SM	3.615	-0.012	7.768E-03
38	2.9	SM	3.615	-0.012	7.768E-03

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
38	0.	VIVA	9.037	-0.029	0.019
38	1.45	VIVA	9.037	-0.029	0.019
38	2.9	VIVA	9.037	-0.029	0.019
38	0.	EX	0.056	0.871	3.333E-06
38	1.45	EX	0.056	0.871	3.333E-06
38	2.9	EX	0.056	0.871	3.333E-06
38	0.	EY	2.231	0.012	0.933
38	1.45	EY	2.231	0.012	0.933
38	2.9	EY	2.231	0.012	0.933
39	0.	DEAD	1.77	-2.890E-03	-9.729E-04
39	1.45	DEAD	1.9	-2.890E-03	-9.729E-04
39	2.9	DEAD	2.03	-2.890E-03	-9.729E-04
39	0.	SM	3.615	-0.012	-7.768E-03
39	1.45	SM	3.615	-0.012	-7.768E-03
39	2.9	SM	3.615	-0.012	-7.768E-03
39	0.	VIVA	9.037	-0.029	-0.019
39	1.45	VIVA	9.037	-0.029	-0.019
39	2.9	VIVA	9.037	-0.029	-0.019
39	0.	EX	0.056	0.871	3.333E-06
39	1.45	EX	0.056	0.871	3.333E-06
39	2.9	EX	0.056	0.871	3.333E-06
39	0.	EY	2.231	0.012	0.933
39	1.45	EY	2.231	0.012	0.933
39	2.9	EY	2.231	0.012	0.933
40	0.	DEAD	2.008	4.776E-04	9.729E-04
40	1.45	DEAD	2.138	4.776E-04	9.729E-04
40	2.9	DEAD	2.268	4.776E-04	9.729E-04
40	0.	SM	4.216	2.284E-03	7.494E-03
40	1.45	SM	4.216	2.284E-03	7.494E-03
40	2.9	SM	4.216	2.284E-03	7.494E-03
40	0.	VIVA	10.54	5.710E-03	0.019
40	1.45	VIVA	10.54	5.710E-03	0.019
40	2.9	VIVA	10.54	5.710E-03	0.019
40	0.	EX	1.404E-03	0.87	2.441E-06
40	1.45	EX	1.404E-03	0.87	2.441E-06
40	2.9	EX	1.404E-03	0.87	2.441E-06
40	0.	EY	2.099	0.014	0.878
40	1.45	EY	2.099	0.014	0.878
40	2.9	EY	2.099	0.014	0.878
41	0.	DEAD	2.008	4.776E-04	-9.729E-04
41	1.45	DEAD	2.138	4.776E-04	-9.729E-04
41	2.9	DEAD	2.268	4.776E-04	-9.729E-04
41	0.	SM	4.216	2.284E-03	-7.494E-03
41	1.45	SM	4.216	2.284E-03	-7.494E-03
41	2.9	SM	4.216	2.284E-03	-7.494E-03
41	0.	VIVA	10.54	5.710E-03	-0.019
41	1.45	VIVA	10.54	5.710E-03	-0.019
41	2.9	VIVA	10.54	5.710E-03	-0.019
41	0.	EX	1.404E-03	0.87	2.441E-06
41	1.45	EX	1.404E-03	0.87	2.441E-06
41	2.9	EX	1.404E-03	0.87	2.441E-06
41	0.	EY	2.099	0.014	0.878
41	1.45	EY	2.099	0.014	0.878
41	2.9	EY	2.099	0.014	0.878

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
42	0.	DEAD	1.796	2.913E-03	9.729E-04
42	1.45	DEAD	1.926	2.913E-03	9.729E-04
42	2.9	DEAD	2.056	2.913E-03	9.729E-04
42	0.	SM	3.731	0.012	7.768E-03
42	1.45	SM	3.731	0.012	7.768E-03
42	2.9	SM	3.731	0.012	7.768E-03
42	0.	VIVA	9.327	0.029	0.019
42	1.45	VIVA	9.327	0.029	0.019
42	2.9	VIVA	9.327	0.029	0.019
42	0.	EX	0.055	0.871	8.459E-06
42	1.45	EX	0.055	0.871	8.459E-06
42	2.9	EX	0.055	0.871	8.459E-06
42	0.	EY	1.928	0.017	0.807
42	1.45	EY	1.928	0.017	0.807
42	2.9	EY	1.928	0.017	0.807
43	0.	DEAD	1.796	2.913E-03	-9.729E-04
43	1.45	DEAD	1.926	2.913E-03	-9.729E-04
43	2.9	DEAD	2.056	2.913E-03	-9.729E-04
43	0.	SM	3.731	0.012	-7.768E-03
43	1.45	SM	3.731	0.012	-7.768E-03
43	2.9	SM	3.731	0.012	-7.768E-03
43	0.	VIVA	9.327	0.029	-0.019
43	1.45	VIVA	9.327	0.029	-0.019
43	2.9	VIVA	9.327	0.029	-0.019
43	0.	EX	0.055	0.871	8.459E-06
43	1.45	EX	0.055	0.871	8.459E-06
43	2.9	EX	0.055	0.871	8.459E-06
43	0.	EY	1.928	0.017	0.807
43	1.45	EY	1.928	0.017	0.807
43	2.9	EY	1.928	0.017	0.807
44	0.	DEAD	1.423	1.554E-03	9.728E-04
44	1.45	DEAD	1.553	1.554E-03	9.728E-04
44	2.9	DEAD	1.683	1.554E-03	9.728E-04
44	0.	SM	2.944	6.150E-03	8.586E-03
44	1.45	SM	2.944	6.150E-03	8.586E-03
44	2.9	SM	2.944	6.150E-03	8.586E-03
44	0.	VIVA	7.361	0.015	0.021
44	1.45	VIVA	7.361	0.015	0.021
44	2.9	VIVA	7.361	0.015	0.021
44	0.	EX	0.538	0.882	1.019E-05
44	1.45	EX	0.538	0.882	1.019E-05
44	2.9	EX	0.538	0.882	1.019E-05
44	0.	EY	1.763	0.018	0.742
44	1.45	EY	1.763	0.018	0.742
44	2.9	EY	1.763	0.018	0.742
45	0.	DEAD	1.423	1.554E-03	-9.728E-04
45	1.45	DEAD	1.553	1.554E-03	-9.728E-04
45	2.9	DEAD	1.683	1.554E-03	-9.728E-04
45	0.	SM	2.944	6.150E-03	-8.586E-03
45	1.45	SM	2.944	6.150E-03	-8.586E-03
45	2.9	SM	2.944	6.150E-03	-8.586E-03
45	0.	VIVA	7.361	0.015	-0.021
45	1.45	VIVA	7.361	0.015	-0.021
45	2.9	VIVA	7.361	0.015	-0.021

Table 30: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	P	V2	V3
	m		KN	KN	KN
45	0.	EX	0.538	0.882	1.019E-05
45	1.45	EX	0.538	0.882	1.019E-05
45	2.9	EX	0.538	0.882	1.019E-05
45	0.	EY	1.763	0.018	0.742
45	1.45	EY	1.763	0.018	0.742
45	2.9	EY	1.763	0.018	0.742
46	0.	DEAD	0.612	4.714E-03	-9.727E-04
46	1.45	DEAD	0.742	4.714E-03	-9.727E-04
46	2.9	DEAD	0.872	4.714E-03	-9.727E-04
46	0.	SM	1.016	0.015	-4.569E-03
46	1.45	SM	1.016	0.015	-4.569E-03
46	2.9	SM	1.016	0.015	-4.569E-03
46	0.	VIVA	2.54	0.037	-0.011
46	1.45	VIVA	2.54	0.037	-0.011
46	2.9	VIVA	2.54	0.037	-0.011
46	0.	EX	0.958	0.851	6.736E-06
46	1.45	EX	0.958	0.851	6.736E-06
46	2.9	EX	0.958	0.851	6.736E-06
46	0.	EY	1.666	0.018	0.691
46	1.45	EY	1.666	0.018	0.691
46	2.9	EY	1.666	0.018	0.691
47	0.	DEAD	0.612	4.714E-03	9.727E-04
47	1.45	DEAD	0.742	4.714E-03	9.727E-04
47	2.9	DEAD	0.872	4.714E-03	9.727E-04
47	0.	SM	1.016	0.015	4.569E-03
47	1.45	SM	1.016	0.015	4.569E-03
47	2.9	SM	1.016	0.015	4.569E-03
47	0.	VIVA	2.54	0.037	0.011
47	1.45	VIVA	2.54	0.037	0.011
47	2.9	VIVA	2.54	0.037	0.011
47	0.	EX	0.958	0.851	6.735E-06
47	1.45	EX	0.958	0.851	6.735E-06
47	2.9	EX	0.958	0.851	6.735E-06
47	0.	EY	1.666	0.018	0.691
47	1.45	EY	1.666	0.018	0.691
47	2.9	EY	1.666	0.018	0.691

Table 30: Element Forces - Frames, Part 2 of 2

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
2	0.	DEAD	-1.226E-11	-5.839E-07	-0.018
2	0.45333	DEAD	-1.226E-11	-1.200E-07	0.0907
2	0.90667	DEAD	-1.226E-11	3.439E-07	0.1543
2	0.90667	DEAD	-1.226E-11	3.439E-07	0.1543
2	1.36	DEAD	-1.226E-11	4.558E-07	0.1484
2	1.81333	DEAD	-1.226E-11	5.676E-07	0.0975
2	1.81333	DEAD	-1.226E-11	5.676E-07	0.0975
2	2.26667	DEAD	-1.226E-11	-1.869E-07	-0.0229
2	2.72	DEAD	-1.226E-11	-9.415E-07	-0.1884
2	0.	SM	3.050E-05	-2.951E-06	-0.0674
2	0.45333	SM	3.050E-05	-5.761E-07	0.3128

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
2	0.90667	SM	3.050E-05	1.799E-06	0.6929
2	0.90667	SM	3.050E-05	1.799E-06	0.6929
2	1.36	SM	3.050E-05	1.461E-06	0.5799
2	1.81333	SM	3.050E-05	1.123E-06	0.4668
2	1.81333	SM	3.050E-05	1.123E-06	0.4668
2	2.26667	SM	3.050E-05	-4.171E-07	-0.1395
2	2.72	SM	3.050E-05	-1.958E-06	-0.7458
2	0.	VIVA	7.626E-05	-7.379E-06	-0.1685
2	0.45333	VIVA	7.626E-05	-1.440E-06	0.7819
2	0.90667	VIVA	7.626E-05	4.498E-06	1.7323
2	0.90667	VIVA	7.626E-05	4.498E-06	1.7323
2	1.36	VIVA	7.626E-05	3.653E-06	1.4497
2	1.81333	VIVA	7.626E-05	2.808E-06	1.167
2	1.81333	VIVA	7.626E-05	2.808E-06	1.167
2	2.26667	VIVA	7.626E-05	-1.043E-06	-0.3487
2	2.72	VIVA	7.626E-05	-4.894E-06	-1.8644
2	0.	EX	3.350E-10	3.623E-05	1.1946
2	0.45333	EX	3.350E-10	8.123E-06	0.8706
2	0.90667	EX	3.350E-10	1.999E-05	0.5466
2	0.90667	EX	3.350E-10	1.999E-05	0.5466
2	1.36	EX	3.350E-10	2.320E-05	0.221
2	1.81333	EX	3.350E-10	2.641E-05	0.1046
2	1.81333	EX	3.350E-10	2.641E-05	0.1046
2	2.26667	EX	3.350E-10	1.028E-05	0.4308
2	2.72	EX	3.350E-10	4.697E-05	0.757
2	0.	EY	1.248E-05	0.1896	0.0134
2	0.45333	EY	1.248E-05	0.0467	0.0101
2	0.90667	EY	1.248E-05	0.0962	0.0069
2	0.90667	EY	1.248E-05	0.0962	0.0069
2	1.36	EY	1.248E-05	0.0959	0.0031
2	1.81333	EY	1.248E-05	0.0956	8.769E-04
2	1.81333	EY	1.248E-05	0.0956	8.769E-04
2	2.26667	EY	1.248E-05	0.0464	0.0051
2	2.72	EY	1.248E-05	0.1885	0.0094
3	0.	DEAD	-3.176E-13	-1.320E-06	-0.1838
3	0.45333	DEAD	-3.176E-13	-3.614E-07	-0.0512
3	0.90667	DEAD	-3.176E-13	5.971E-07	0.0363
3	0.90667	DEAD	-3.176E-13	5.971E-07	0.0363
3	1.36	DEAD	-3.176E-13	6.018E-07	0.0544
3	1.81333	DEAD	-3.176E-13	6.065E-07	0.0273
3	1.81333	DEAD	-3.176E-13	6.065E-07	0.0273
3	2.26667	DEAD	-3.176E-13	-3.672E-07	-0.0691
3	2.72	DEAD	-3.176E-13	-1.341E-06	-0.2107
3	0.	SM	-2.067E-06	-3.635E-06	-0.7254
3	0.45333	SM	-2.067E-06	-1.064E-06	-0.2511
3	0.90667	SM	-2.067E-06	1.508E-06	0.2232
3	0.90667	SM	-2.067E-06	1.508E-06	0.2232
3	1.36	SM	-2.067E-06	1.690E-06	0.2042
3	1.81333	SM	-2.067E-06	1.872E-06	0.1853
3	1.81333	SM	-2.067E-06	1.872E-06	0.1853
3	2.26667	SM	-2.067E-06	-1.169E-06	-0.3269
3	2.72	SM	-2.067E-06	-4.210E-06	-0.8391
3	0.	VIVA	-5.166E-06	-9.088E-06	-1.8134
3	0.45333	VIVA	-5.166E-06	-2.660E-06	-0.6277

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
3	0.90667	VIVA	-5.166E-06	3.769E-06	0.5579
3	0.90667	VIVA	-5.166E-06	3.769E-06	0.5579
3	1.36	VIVA	-5.166E-06	4.225E-06	0.5105
3	1.81333	VIVA	-5.166E-06	4.681E-06	0.4632
3	1.81333	VIVA	-5.166E-06	4.681E-06	0.4632
3	2.26667	VIVA	-5.166E-06	-2.922E-06	-0.8173
3	2.72	VIVA	-5.166E-06	-1.052E-05	-2.0978
3	0.	EX	1.387E-09	6.124E-05	0.5149
3	0.45333	EX	1.387E-09	1.429E-05	0.3231
3	0.90667	EX	1.387E-09	3.266E-05	0.1312
3	0.90667	EX	1.387E-09	3.266E-05	0.1312
3	1.36	EX	1.387E-09	2.024E-05	0.0606
3	1.81333	EX	1.387E-09	7.812E-06	0.2525
3	1.81333	EX	1.387E-09	7.812E-06	0.2525
3	2.26667	EX	1.387E-09	7.258E-06	0.4438
3	2.72	EX	1.387E-09	2.233E-05	0.6351
3	0.	EY	1.431E-05	0.1822	0.0057
3	0.45333	EY	1.431E-05	0.0443	0.0038
3	0.90667	EY	1.431E-05	0.0937	0.0019
3	0.90667	EY	1.431E-05	0.0937	0.0019
3	1.36	EY	1.431E-05	0.0934	5.862E-04
3	1.81333	EY	1.431E-05	0.093	0.003
3	1.81333	EY	1.431E-05	0.093	0.003
3	2.26667	EY	1.431E-05	0.0438	0.0059
3	2.72	EY	1.431E-05	0.1807	0.0088
4	0.	DEAD	-1.688E-11	-1.190E-06	-0.2165
4	0.4225	DEAD	-1.688E-11	-1.555E-07	-0.0539
4	0.845	DEAD	-1.688E-11	8.793E-07	0.0696
4	0.845	DEAD	-1.688E-11	8.793E-07	0.0696
4	1.2675	DEAD	-1.688E-11	1.991E-07	0.1311
4	1.69	DEAD	-1.688E-11	-4.811E-07	0.1535
4	1.69	DEAD	-1.688E-11	-4.811E-07	0.1535
4	2.1125	DEAD	-1.688E-11	3.678E-07	0.1141
4	2.535	DEAD	-1.688E-11	1.217E-06	0.0354
4	2.535	DEAD	-1.688E-11	1.217E-06	0.0354
4	2.9575	DEAD	-1.688E-11	-3.404E-07	-0.105
4	3.38	DEAD	-1.688E-11	-1.898E-06	-0.2847
4	0.	SM	-1.670E-06	-3.048E-06	-0.8623
4	0.4225	SM	-1.670E-06	-3.003E-07	-0.2564
4	0.845	SM	-1.670E-06	2.448E-06	0.3494
4	0.845	SM	-1.670E-06	2.448E-06	0.3494
4	1.2675	SM	-1.670E-06	5.021E-07	0.5269
4	1.69	SM	-1.670E-06	-1.443E-06	0.7044
4	1.69	SM	-1.670E-06	-1.443E-06	0.7044
4	2.1125	SM	-1.670E-06	1.197E-06	0.4534
4	2.535	SM	-1.670E-06	3.838E-06	0.2025
4	2.535	SM	-1.670E-06	3.838E-06	0.2025
4	2.9575	SM	-1.670E-06	-1.065E-06	-0.4769
4	3.38	SM	-1.670E-06	-5.968E-06	-1.1563
4	0.	VIVA	-4.175E-06	-7.620E-06	-2.1558
4	0.4225	VIVA	-4.175E-06	-7.508E-07	-0.6411
4	0.845	VIVA	-4.175E-06	6.119E-06	0.8736
4	0.845	VIVA	-4.175E-06	6.119E-06	0.8736
4	1.2675	VIVA	-4.175E-06	1.255E-06	1.3173

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
4	1.69	VIVA	-4.175E-06	-3.608E-06	1.7609
4	1.69	VIVA	-4.175E-06	-3.608E-06	1.7609
4	2.1125	VIVA	-4.175E-06	2.993E-06	1.1335
4	2.535	VIVA	-4.175E-06	9.595E-06	0.5061
4	2.535	VIVA	-4.175E-06	9.595E-06	0.5061
4	2.9575	VIVA	-4.175E-06	-2.662E-06	-1.1923
4	3.38	VIVA	-4.175E-06	-1.492E-05	-2.8907
4	0.	EX	1.996E-09	3.458E-05	0.6158
4	0.4225	EX	1.996E-09	7.421E-06	0.461
4	0.845	EX	1.996E-09	1.974E-05	0.3062
4	0.845	EX	1.996E-09	1.974E-05	0.3062
4	1.2675	EX	1.996E-09	9.986E-06	0.1508
4	1.69	EX	1.996E-09	2.352E-07	0.0046
4	1.69	EX	1.996E-09	2.352E-07	0.0046
4	2.1125	EX	1.996E-09	1.033E-05	0.16
4	2.535	EX	1.996E-09	2.089E-05	0.3153
4	2.535	EX	1.996E-09	2.089E-05	0.3153
4	2.9575	EX	1.996E-09	1.562E-05	0.4701
4	3.38	EX	1.996E-09	5.212E-05	0.6248
4	0.	EY	1.673E-05	0.2925	0.0079
4	0.4225	EY	1.673E-05	0.1154	0.0062
4	0.845	EY	1.673E-05	0.0616	0.0046
4	0.845	EY	1.673E-05	0.0616	0.0046
4	1.2675	EY	1.673E-05	0.121	0.0026
4	1.69	EY	1.673E-05	0.1804	6.078E-04
4	1.69	EY	1.673E-05	0.1804	6.078E-04
4	2.1125	EY	1.673E-05	0.12	0.0021
4	2.535	EY	1.673E-05	0.0596	0.0046
4	2.535	EY	1.673E-05	0.0596	0.0046
4	2.9575	EY	1.673E-05	0.1151	0.0076
4	3.38	EY	1.673E-05	0.2897	0.0106
5	0.	DEAD	1.815E-11	-1.902E-06	-0.2839
5	0.4225	DEAD	1.815E-11	-3.426E-07	-0.1055
5	0.845	DEAD	1.815E-11	1.216E-06	0.0337
5	0.845	DEAD	1.815E-11	1.216E-06	0.0337
5	1.2675	DEAD	1.815E-11	3.706E-07	0.1111
5	1.69	DEAD	1.815E-11	-4.750E-07	0.1494
5	1.69	DEAD	1.815E-11	-4.750E-07	0.1494
5	2.1125	DEAD	1.815E-11	1.890E-07	0.1257
5	2.535	DEAD	1.815E-11	8.531E-07	0.0629
5	2.535	DEAD	1.815E-11	8.531E-07	0.0629
5	2.9575	DEAD	1.815E-11	-1.430E-07	-0.0617
5	3.38	DEAD	1.815E-11	-1.139E-06	-0.2256
5	0.	SM	1.671E-06	-6.116E-06	-1.1527
5	0.4225	SM	1.671E-06	-1.123E-06	-0.4792
5	0.845	SM	1.671E-06	3.870E-06	0.1943
5	0.845	SM	1.671E-06	3.870E-06	0.1943
5	1.2675	SM	1.671E-06	1.220E-06	0.4394
5	1.69	SM	1.671E-06	-1.431E-06	0.6845
5	1.69	SM	1.671E-06	-1.431E-06	0.6845
5	2.1125	SM	1.671E-06	4.662E-07	0.5012
5	2.535	SM	1.671E-06	2.364E-06	0.3179
5	2.535	SM	1.671E-06	2.364E-06	0.3179
5	2.9575	SM	1.671E-06	-2.946E-07	-0.2938

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
5	3.38	SM	1.671E-06	-2.953E-06	-0.9056
5	0.	VIVA	4.177E-06	-1.529E-05	-2.8817
5	0.4225	VIVA	4.177E-06	-2.808E-06	-1.1979
5	0.845	VIVA	4.177E-06	9.676E-06	0.4859
5	0.845	VIVA	4.177E-06	9.676E-06	0.4859
5	1.2675	VIVA	4.177E-06	3.049E-06	1.0986
5	1.69	VIVA	4.177E-06	-3.578E-06	1.7113
5	1.69	VIVA	4.177E-06	-3.578E-06	1.7113
5	2.1125	VIVA	4.177E-06	1.165E-06	1.253
5	2.535	VIVA	4.177E-06	5.909E-06	0.7947
5	2.535	VIVA	4.177E-06	5.909E-06	0.7947
5	2.9575	VIVA	4.177E-06	-7.366E-07	-0.7346
5	3.38	VIVA	4.177E-06	-7.382E-06	-2.2639
5	0.	EX	2.081E-09	2.839E-06	0.6241
5	0.4225	EX	2.081E-09	6.992E-06	0.4697
5	0.845	EX	2.081E-09	1.115E-05	0.3152
5	0.845	EX	2.081E-09	1.115E-05	0.3152
5	1.2675	EX	2.081E-09	1.791E-06	0.1601
5	1.69	EX	2.081E-09	1.473E-05	0.005
5	1.69	EX	2.081E-09	1.473E-05	0.005
5	2.1125	EX	2.081E-09	1.910E-05	0.1501
5	2.535	EX	2.081E-09	5.292E-05	0.3053
5	2.535	EX	2.081E-09	5.292E-05	0.3053
5	2.9575	EX	2.081E-09	1.612E-05	0.4598
5	3.38	EX	2.081E-09	8.515E-05	0.6144
5	0.	EY	2.018E-05	0.2722	0.0097
5	0.4225	EY	2.018E-05	0.1072	0.0077
5	0.845	EY	2.018E-05	0.0579	0.0056
5	0.845	EY	2.018E-05	0.0579	0.0056
5	1.2675	EY	2.018E-05	0.1128	0.0031
5	1.69	EY	2.018E-05	0.1679	6.625E-04
5	1.69	EY	2.018E-05	0.1679	6.625E-04
5	2.1125	EY	2.018E-05	0.1114	0.0024
5	2.535	EY	2.018E-05	0.055	0.0053
5	2.535	EY	2.018E-05	0.055	0.0053
5	2.9575	EY	2.018E-05	0.1072	0.0087
5	3.38	EY	2.018E-05	0.2694	0.0121
6	0.	DEAD	2.286E-11	-1.364E-06	-0.2201
6	0.45333	DEAD	2.286E-11	-3.433E-07	-0.0681
6	0.90667	DEAD	2.286E-11	6.776E-07	0.0389
6	0.90667	DEAD	2.286E-11	6.776E-07	0.0389
6	1.36	DEAD	2.286E-11	4.727E-07	0.0764
6	1.81333	DEAD	2.286E-11	2.677E-07	0.0687
6	1.81333	DEAD	2.286E-11	2.677E-07	0.0687
6	2.26667	DEAD	2.286E-11	-2.266E-07	-0.0083
6	2.72	DEAD	2.286E-11	-7.209E-07	-0.1305
6	0.	SM	6.213E-06	-4.200E-06	-0.8838
6	0.45333	SM	6.213E-06	-1.001E-06	-0.3253
6	0.90667	SM	6.213E-06	2.199E-06	0.2331
6	0.90667	SM	6.213E-06	2.199E-06	0.2331
6	1.36	SM	6.213E-06	1.037E-06	0.2983
6	1.81333	SM	6.213E-06	-1.250E-07	0.3635
6	1.81333	SM	6.213E-06	-1.250E-07	0.3635
6	2.26667	SM	6.213E-06	-3.457E-07	-0.0645

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
6	2.72	SM	6.213E-06	-5.664E-07	-0.4926
6	0.	VIVA	1.553E-05	-1.050E-05	-2.2094
6	0.45333	VIVA	1.553E-05	-2.502E-06	-0.8134
6	0.90667	VIVA	1.553E-05	5.497E-06	0.5827
6	0.90667	VIVA	1.553E-05	5.497E-06	0.5827
6	1.36	VIVA	1.553E-05	2.592E-06	0.7457
6	1.81333	VIVA	1.553E-05	-3.125E-07	0.9087
6	1.81333	VIVA	1.553E-05	-3.125E-07	0.9087
6	2.26667	VIVA	1.553E-05	-8.643E-07	-0.1614
6	2.72	VIVA	1.553E-05	-1.416E-06	-1.2314
6	0.	EX	7.450E-10	6.546E-05	0.6365
6	0.45333	EX	7.450E-10	1.732E-05	0.4456
6	0.90667	EX	7.450E-10	3.081E-05	0.2548
6	0.90667	EX	7.450E-10	3.081E-05	0.2548
6	1.36	EX	7.450E-10	3.778E-05	0.0633
6	1.81333	EX	7.450E-10	4.476E-05	0.1282
6	1.81333	EX	7.450E-10	4.476E-05	0.1282
6	2.26667	EX	7.450E-10	2.179E-05	0.3195
6	2.72	EX	7.450E-10	8.833E-05	0.5109
6	0.	EY	2.307E-05	0.1485	0.0118
6	0.45333	EY	2.307E-05	0.0357	0.0086
6	0.90667	EY	2.307E-05	0.0772	0.0053
6	0.90667	EY	2.307E-05	0.0772	0.0053
6	1.36	EY	2.307E-05	0.0763	0.0015
6	1.81333	EY	2.307E-05	0.0754	0.0023
6	1.81333	EY	2.307E-05	0.0754	0.0023
6	2.26667	EY	2.307E-05	0.0363	0.0065
6	2.72	EY	2.307E-05	0.148	0.0107
7	0.	DEAD	4.445E-11	-5.040E-07	-0.1276
7	0.34333	DEAD	4.445E-11	-2.116E-07	-0.034
7	0.68667	DEAD	4.445E-11	8.075E-08	0.0338
7	1.03	DEAD	4.445E-11	3.731E-07	0.0758
7	1.03	DEAD	4.445E-11	3.731E-07	0.0758
7	1.37333	DEAD	4.445E-11	1.917E-07	0.0734
7	1.71667	DEAD	4.445E-11	1.034E-08	0.0451
7	2.06	DEAD	4.445E-11	-1.710E-07	-0.009
7	0.	SM	-4.027E-05	-3.782E-07	-0.4815
7	0.34333	SM	-4.027E-05	-1.926E-07	-0.1937
7	0.68667	SM	-4.027E-05	-6.888E-09	0.0941
7	1.03	SM	-4.027E-05	1.788E-07	0.3818
7	1.03	SM	-4.027E-05	1.788E-07	0.3818
7	1.37333	SM	-4.027E-05	1.558E-07	0.2452
7	1.71667	SM	-4.027E-05	1.329E-07	0.1086
7	2.06	SM	-4.027E-05	1.099E-07	-0.0279
7	0.	VIVA	-1.007E-04	-9.456E-07	-1.2036
7	0.34333	VIVA	-1.007E-04	-4.814E-07	-0.4842
7	0.68667	VIVA	-1.007E-04	-1.722E-08	0.2352
7	1.03	VIVA	-1.007E-04	4.470E-07	0.9546
7	1.03	VIVA	-1.007E-04	4.470E-07	0.9546
7	1.37333	VIVA	-1.007E-04	3.896E-07	0.6131
7	1.71667	VIVA	-1.007E-04	3.322E-07	0.2716
7	2.06	VIVA	-1.007E-04	2.748E-07	-0.0699
7	0.	EX	1.958E-09	7.988E-05	0.7618
7	0.34333	EX	1.958E-09	2.841E-05	0.4324

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
7	0.68667	EX	1.958E-09	2.306E-05	0.1031
7	1.03	EX	1.958E-09	7.453E-05	0.2263
7	1.03	EX	1.958E-09	7.453E-05	0.2263
7	1.37333	EX	1.958E-09	2.858E-05	0.5551
7	1.71667	EX	1.958E-09	1.738E-05	0.8839
7	2.06	EX	1.958E-09	6.333E-05	1.2127
7	0.	EY	2.210E-05	0.0655	0.0155
7	0.34333	EY	2.210E-05	0.0214	0.0088
7	0.68667	EY	2.210E-05	0.0227	0.0022
7	1.03	EY	2.210E-05	0.0668	0.0044
7	1.03	EY	2.210E-05	0.0668	0.0044
7	1.37333	EY	2.210E-05	0.0224	0.0114
7	1.71667	EY	2.210E-05	0.0219	0.0183
7	2.06	EY	2.210E-05	0.0662	0.0253
8	0.	DEAD	1.226E-11	5.839E-07	-0.018
8	0.45333	DEAD	1.226E-11	1.200E-07	0.0907
8	0.90667	DEAD	1.226E-11	-3.439E-07	0.1543
8	0.90667	DEAD	1.226E-11	-3.439E-07	0.1543
8	1.36	DEAD	1.226E-11	-4.558E-07	0.1484
8	1.81333	DEAD	1.226E-11	-5.676E-07	0.0975
8	1.81333	DEAD	1.226E-11	-5.676E-07	0.0975
8	2.26667	DEAD	1.226E-11	1.869E-07	-0.0229
8	2.72	DEAD	1.226E-11	9.415E-07	-0.1884
8	0.	SM	-3.050E-05	2.951E-06	-0.0674
8	0.45333	SM	-3.050E-05	5.761E-07	0.3128
8	0.90667	SM	-3.050E-05	-1.799E-06	0.6929
8	0.90667	SM	-3.050E-05	-1.799E-06	0.6929
8	1.36	SM	-3.050E-05	-1.461E-06	0.5799
8	1.81333	SM	-3.050E-05	-1.123E-06	0.4668
8	1.81333	SM	-3.050E-05	-1.123E-06	0.4668
8	2.26667	SM	-3.050E-05	4.171E-07	-0.1395
8	2.72	SM	-3.050E-05	1.958E-06	-0.7458
8	0.	VIVA	-7.626E-05	7.379E-06	-0.1685
8	0.45333	VIVA	-7.626E-05	1.440E-06	0.7819
8	0.90667	VIVA	-7.626E-05	-4.498E-06	1.7323
8	0.90667	VIVA	-7.626E-05	-4.498E-06	1.7323
8	1.36	VIVA	-7.626E-05	-3.653E-06	1.4497
8	1.81333	VIVA	-7.626E-05	-2.808E-06	1.167
8	1.81333	VIVA	-7.626E-05	-2.808E-06	1.167
8	2.26667	VIVA	-7.626E-05	1.043E-06	-0.3487
8	2.72	VIVA	-7.626E-05	4.894E-06	-1.8644
8	0.	EX	3.370E-10	3.623E-05	1.1946
8	0.45333	EX	3.370E-10	8.123E-06	0.8706
8	0.90667	EX	3.370E-10	1.999E-05	0.5466
8	0.90667	EX	3.370E-10	1.999E-05	0.5466
8	1.36	EX	3.370E-10	2.320E-05	0.221
8	1.81333	EX	3.370E-10	2.642E-05	0.1046
8	1.81333	EX	3.370E-10	2.642E-05	0.1046
8	2.26667	EX	3.370E-10	1.028E-05	0.4308
8	2.72	EX	3.370E-10	4.697E-05	0.757
8	0.	EY	1.248E-05	0.1896	0.0134
8	0.45333	EY	1.248E-05	0.0467	0.0101
8	0.90667	EY	1.248E-05	0.0962	0.0069
8	0.90667	EY	1.248E-05	0.0962	0.0069

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
8	1.36	EY	1.248E-05	0.0959	0.0031
8	1.81333	EY	1.248E-05	0.0956	8.769E-04
8	1.81333	EY	1.248E-05	0.0956	8.769E-04
8	2.26667	EY	1.248E-05	0.0464	0.0051
8	2.72	EY	1.248E-05	0.1885	0.0094
9	0.	DEAD	3.176E-13	1.320E-06	-0.1838
9	0.45333	DEAD	3.176E-13	3.614E-07	-0.0512
9	0.90667	DEAD	3.176E-13	-5.971E-07	0.0363
9	0.90667	DEAD	3.176E-13	-5.971E-07	0.0363
9	1.36	DEAD	3.176E-13	-6.018E-07	0.0544
9	1.81333	DEAD	3.176E-13	-6.065E-07	0.0273
9	1.81333	DEAD	3.176E-13	-6.065E-07	0.0273
9	2.26667	DEAD	3.176E-13	3.672E-07	-0.0691
9	2.72	DEAD	3.176E-13	1.341E-06	-0.2107
9	0.	SM	2.067E-06	3.635E-06	-0.7254
9	0.45333	SM	2.067E-06	1.064E-06	-0.2511
9	0.90667	SM	2.067E-06	-1.508E-06	0.2232
9	0.90667	SM	2.067E-06	-1.508E-06	0.2232
9	1.36	SM	2.067E-06	-1.690E-06	0.2042
9	1.81333	SM	2.067E-06	-1.872E-06	0.1853
9	1.81333	SM	2.067E-06	-1.872E-06	0.1853
9	2.26667	SM	2.067E-06	1.169E-06	-0.3269
9	2.72	SM	2.067E-06	4.210E-06	-0.8391
9	0.	VIVA	5.166E-06	9.088E-06	-1.8134
9	0.45333	VIVA	5.166E-06	2.660E-06	-0.6277
9	0.90667	VIVA	5.166E-06	-3.769E-06	0.5579
9	0.90667	VIVA	5.166E-06	-3.769E-06	0.5579
9	1.36	VIVA	5.166E-06	-4.225E-06	0.5105
9	1.81333	VIVA	5.166E-06	-4.681E-06	0.4632
9	1.81333	VIVA	5.166E-06	-4.681E-06	0.4632
9	2.26667	VIVA	5.166E-06	2.922E-06	-0.8173
9	2.72	VIVA	5.166E-06	1.052E-05	-2.0978
9	0.	EX	1.388E-09	6.123E-05	0.5149
9	0.45333	EX	1.388E-09	1.429E-05	0.3231
9	0.90667	EX	1.388E-09	3.265E-05	0.1312
9	0.90667	EX	1.388E-09	3.265E-05	0.1312
9	1.36	EX	1.388E-09	2.024E-05	0.0606
9	1.81333	EX	1.388E-09	7.825E-06	0.2525
9	1.81333	EX	1.388E-09	7.825E-06	0.2525
9	2.26667	EX	1.388E-09	7.257E-06	0.4438
9	2.72	EX	1.388E-09	2.234E-05	0.6351
9	0.	EY	1.431E-05	0.1822	0.0057
9	0.45333	EY	1.431E-05	0.0443	0.0038
9	0.90667	EY	1.431E-05	0.0937	0.0019
9	0.90667	EY	1.431E-05	0.0937	0.0019
9	1.36	EY	1.431E-05	0.0934	5.862E-04
9	1.81333	EY	1.431E-05	0.093	0.003
9	1.81333	EY	1.431E-05	0.093	0.003
9	2.26667	EY	1.431E-05	0.0438	0.0059
9	2.72	EY	1.431E-05	0.1807	0.0088
10	0.	DEAD	1.688E-11	1.190E-06	-0.2165
10	0.4225	DEAD	1.688E-11	1.555E-07	-0.0539
10	0.845	DEAD	1.688E-11	-8.793E-07	0.0696
10	0.845	DEAD	1.688E-11	-8.793E-07	0.0696

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
10	1.2675	DEAD	1.688E-11	-1.991E-07	0.1311
10	1.69	DEAD	1.688E-11	4.811E-07	0.1535
10	1.69	DEAD	1.688E-11	4.811E-07	0.1535
10	2.1125	DEAD	1.688E-11	-3.678E-07	0.1141
10	2.535	DEAD	1.688E-11	-1.217E-06	0.0354
10	2.535	DEAD	1.688E-11	-1.217E-06	0.0354
10	2.9575	DEAD	1.688E-11	3.404E-07	-0.105
10	3.38	DEAD	1.688E-11	1.898E-06	-0.2847
10	0.	SM	1.670E-06	3.048E-06	-0.8623
10	0.4225	SM	1.670E-06	3.003E-07	-0.2564
10	0.845	SM	1.670E-06	-2.448E-06	0.3494
10	0.845	SM	1.670E-06	-2.448E-06	0.3494
10	1.2675	SM	1.670E-06	-5.021E-07	0.5269
10	1.69	SM	1.670E-06	1.443E-06	0.7044
10	1.69	SM	1.670E-06	1.443E-06	0.7044
10	2.1125	SM	1.670E-06	-1.197E-06	0.4534
10	2.535	SM	1.670E-06	-3.838E-06	0.2025
10	2.535	SM	1.670E-06	-3.838E-06	0.2025
10	2.9575	SM	1.670E-06	1.065E-06	-0.4769
10	3.38	SM	1.670E-06	5.968E-06	-1.1563
10	0.	VIVA	4.175E-06	7.620E-06	-2.1558
10	0.4225	VIVA	4.175E-06	7.508E-07	-0.6411
10	0.845	VIVA	4.175E-06	-6.119E-06	0.8736
10	0.845	VIVA	4.175E-06	-6.119E-06	0.8736
10	1.2675	VIVA	4.175E-06	-1.255E-06	1.3173
10	1.69	VIVA	4.175E-06	3.608E-06	1.7609
10	1.69	VIVA	4.175E-06	3.608E-06	1.7609
10	2.1125	VIVA	4.175E-06	-2.993E-06	1.1335
10	2.535	VIVA	4.175E-06	-9.595E-06	0.5061
10	2.535	VIVA	4.175E-06	-9.595E-06	0.5061
10	2.9575	VIVA	4.175E-06	2.662E-06	-1.1923
10	3.38	VIVA	4.175E-06	1.492E-05	-2.8907
10	0.	EX	1.997E-09	3.457E-05	0.6158
10	0.4225	EX	1.997E-09	7.421E-06	0.461
10	0.845	EX	1.997E-09	1.973E-05	0.3062
10	0.845	EX	1.997E-09	1.973E-05	0.3062
10	1.2675	EX	1.997E-09	9.984E-06	0.1508
10	1.69	EX	1.997E-09	2.359E-07	0.0046
10	1.69	EX	1.997E-09	2.359E-07	0.0046
10	2.1125	EX	1.997E-09	1.032E-05	0.16
10	2.535	EX	1.997E-09	2.088E-05	0.3153
10	2.535	EX	1.997E-09	2.088E-05	0.3153
10	2.9575	EX	1.997E-09	1.562E-05	0.4701
10	3.38	EX	1.997E-09	5.212E-05	0.6248
10	0.	EY	1.673E-05	0.2925	0.0079
10	0.4225	EY	1.673E-05	0.1154	0.0062
10	0.845	EY	1.673E-05	0.0616	0.0046
10	0.845	EY	1.673E-05	0.0616	0.0046
10	1.2675	EY	1.673E-05	0.121	0.0026
10	1.69	EY	1.673E-05	0.1804	6.078E-04
10	1.69	EY	1.673E-05	0.1804	6.078E-04
10	2.1125	EY	1.673E-05	0.12	0.0021
10	2.535	EY	1.673E-05	0.0596	0.0046
10	2.535	EY	1.673E-05	0.0596	0.0046

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
10	2.9575	EY	1.673E-05	0.1151	0.0076
10	3.38	EY	1.673E-05	0.2897	0.0106
11	0.	DEAD	-1.815E-11	1.902E-06	-0.2839
11	0.4225	DEAD	-1.815E-11	3.426E-07	-0.1055
11	0.845	DEAD	-1.815E-11	-1.216E-06	0.0337
11	0.845	DEAD	-1.815E-11	-1.216E-06	0.0337
11	1.2675	DEAD	-1.815E-11	-3.706E-07	0.1111
11	1.69	DEAD	-1.815E-11	4.750E-07	0.1494
11	1.69	DEAD	-1.815E-11	4.750E-07	0.1494
11	2.1125	DEAD	-1.815E-11	-1.890E-07	0.1257
11	2.535	DEAD	-1.815E-11	-8.531E-07	0.0629
11	2.535	DEAD	-1.815E-11	-8.531E-07	0.0629
11	2.9575	DEAD	-1.815E-11	1.430E-07	-0.0617
11	3.38	DEAD	-1.815E-11	1.139E-06	-0.2256
11	0.	SM	-1.671E-06	6.116E-06	-1.1527
11	0.4225	SM	-1.671E-06	1.123E-06	-0.4792
11	0.845	SM	-1.671E-06	-3.870E-06	0.1943
11	0.845	SM	-1.671E-06	-3.870E-06	0.1943
11	1.2675	SM	-1.671E-06	-1.220E-06	0.4394
11	1.69	SM	-1.671E-06	1.431E-06	0.6845
11	1.69	SM	-1.671E-06	1.431E-06	0.6845
11	2.1125	SM	-1.671E-06	-4.662E-07	0.5012
11	2.535	SM	-1.671E-06	-2.364E-06	0.3179
11	2.535	SM	-1.671E-06	-2.364E-06	0.3179
11	2.9575	SM	-1.671E-06	2.946E-07	-0.2938
11	3.38	SM	-1.671E-06	2.953E-06	-0.9056
11	0.	VIVA	-4.177E-06	1.529E-05	-2.8817
11	0.4225	VIVA	-4.177E-06	2.808E-06	-1.1979
11	0.845	VIVA	-4.177E-06	-9.676E-06	0.4859
11	0.845	VIVA	-4.177E-06	-9.676E-06	0.4859
11	1.2675	VIVA	-4.177E-06	-3.049E-06	1.0986
11	1.69	VIVA	-4.177E-06	3.578E-06	1.7113
11	1.69	VIVA	-4.177E-06	3.578E-06	1.7113
11	2.1125	VIVA	-4.177E-06	-1.165E-06	1.253
11	2.535	VIVA	-4.177E-06	-5.909E-06	0.7947
11	2.535	VIVA	-4.177E-06	-5.909E-06	0.7947
11	2.9575	VIVA	-4.177E-06	7.366E-07	-0.7346
11	3.38	VIVA	-4.177E-06	7.382E-06	-2.2639
11	0.	EX	2.082E-09	2.838E-06	0.6241
11	0.4225	EX	2.082E-09	6.992E-06	0.4697
11	0.845	EX	2.082E-09	1.115E-05	0.3152
11	0.845	EX	2.082E-09	1.115E-05	0.3152
11	1.2675	EX	2.082E-09	1.791E-06	0.1601
11	1.69	EX	2.082E-09	1.473E-05	0.005
11	1.69	EX	2.082E-09	1.473E-05	0.005
11	2.1125	EX	2.082E-09	1.910E-05	0.1501
11	2.535	EX	2.082E-09	5.292E-05	0.3053
11	2.535	EX	2.082E-09	5.292E-05	0.3053
11	2.9575	EX	2.082E-09	1.612E-05	0.4598
11	3.38	EX	2.082E-09	8.515E-05	0.6144
11	0.	EY	2.018E-05	0.2722	0.0097
11	0.4225	EY	2.018E-05	0.1072	0.0077
11	0.845	EY	2.018E-05	0.0579	0.0056
11	0.845	EY	2.018E-05	0.0579	0.0056

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
11	1.2675	EY	2.018E-05	0.1128	0.0031
11	1.69	EY	2.018E-05	0.1679	6.625E-04
11	1.69	EY	2.018E-05	0.1679	6.625E-04
11	2.1125	EY	2.018E-05	0.1114	0.0024
11	2.535	EY	2.018E-05	0.055	0.0053
11	2.535	EY	2.018E-05	0.055	0.0053
11	2.9575	EY	2.018E-05	0.1072	0.0087
11	3.38	EY	2.018E-05	0.2694	0.0121
12	0.	DEAD	-2.286E-11	1.364E-06	-0.2201
12	0.45333	DEAD	-2.286E-11	3.433E-07	-0.0681
12	0.90667	DEAD	-2.286E-11	-6.776E-07	0.0389
12	0.90667	DEAD	-2.286E-11	-6.776E-07	0.0389
12	1.36	DEAD	-2.286E-11	-4.727E-07	0.0764
12	1.81333	DEAD	-2.286E-11	-2.677E-07	0.0687
12	1.81333	DEAD	-2.286E-11	-2.677E-07	0.0687
12	2.26667	DEAD	-2.286E-11	2.266E-07	-0.0083
12	2.72	DEAD	-2.286E-11	7.209E-07	-0.1305
12	0.	SM	-6.213E-06	4.200E-06	-0.8838
12	0.45333	SM	-6.213E-06	1.001E-06	-0.3253
12	0.90667	SM	-6.213E-06	-2.199E-06	0.2331
12	0.90667	SM	-6.213E-06	-2.199E-06	0.2331
12	1.36	SM	-6.213E-06	-1.037E-06	0.2983
12	1.81333	SM	-6.213E-06	1.250E-07	0.3635
12	1.81333	SM	-6.213E-06	1.250E-07	0.3635
12	2.26667	SM	-6.213E-06	3.457E-07	-0.0645
12	2.72	SM	-6.213E-06	5.664E-07	-0.4926
12	0.	VIVA	-1.553E-05	1.050E-05	-2.2094
12	0.45333	VIVA	-1.553E-05	2.502E-06	-0.8134
12	0.90667	VIVA	-1.553E-05	-5.497E-06	0.5827
12	0.90667	VIVA	-1.553E-05	-5.497E-06	0.5827
12	1.36	VIVA	-1.553E-05	-2.592E-06	0.7457
12	1.81333	VIVA	-1.553E-05	3.125E-07	0.9087
12	1.81333	VIVA	-1.553E-05	3.125E-07	0.9087
12	2.26667	VIVA	-1.553E-05	8.643E-07	-0.1614
12	2.72	VIVA	-1.553E-05	1.416E-06	-1.2314
12	0.	EX	7.426E-10	6.546E-05	0.6365
12	0.45333	EX	7.426E-10	1.732E-05	0.4456
12	0.90667	EX	7.426E-10	3.081E-05	0.2548
12	0.90667	EX	7.426E-10	3.081E-05	0.2548
12	1.36	EX	7.426E-10	3.778E-05	0.0633
12	1.81333	EX	7.426E-10	4.476E-05	0.1282
12	1.81333	EX	7.426E-10	4.476E-05	0.1282
12	2.26667	EX	7.426E-10	2.179E-05	0.3195
12	2.72	EX	7.426E-10	8.833E-05	0.5109
12	0.	EY	2.307E-05	0.1485	0.0118
12	0.45333	EY	2.307E-05	0.0357	0.0086
12	0.90667	EY	2.307E-05	0.0772	0.0053
12	0.90667	EY	2.307E-05	0.0772	0.0053
12	1.36	EY	2.307E-05	0.0763	0.0015
12	1.81333	EY	2.307E-05	0.0754	0.0023
12	1.81333	EY	2.307E-05	0.0754	0.0023
12	2.26667	EY	2.307E-05	0.0363	0.0065
12	2.72	EY	2.307E-05	0.148	0.0107
13	0.	DEAD	-4.445E-11	5.040E-07	-0.1276

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
13	0.34333	DEAD	-4.445E-11	2.116E-07	-0.034
13	0.68667	DEAD	-4.445E-11	-8.075E-08	0.0338
13	1.03	DEAD	-4.445E-11	-3.731E-07	0.0758
13	1.03	DEAD	-4.444E-11	-3.731E-07	0.0758
13	1.37333	DEAD	-4.444E-11	-1.917E-07	0.0734
13	1.71667	DEAD	-4.444E-11	-1.034E-08	0.0451
13	2.06	DEAD	-4.444E-11	1.710E-07	-0.009
13	0.	SM	4.027E-05	3.782E-07	-0.4815
13	0.34333	SM	4.027E-05	1.926E-07	-0.1937
13	0.68667	SM	4.027E-05	6.888E-09	0.0941
13	1.03	SM	4.027E-05	-1.788E-07	0.3818
13	1.03	SM	4.027E-05	-1.788E-07	0.3818
13	1.37333	SM	4.027E-05	-1.558E-07	0.2452
13	1.71667	SM	4.027E-05	-1.329E-07	0.1086
13	2.06	SM	4.027E-05	-1.099E-07	-0.0279
13	0.	VIVA	1.007E-04	9.456E-07	-1.2036
13	0.34333	VIVA	1.007E-04	4.814E-07	-0.4842
13	0.68667	VIVA	1.007E-04	1.722E-08	0.2352
13	1.03	VIVA	1.007E-04	-4.470E-07	0.9546
13	1.03	VIVA	1.007E-04	-4.470E-07	0.9546
13	1.37333	VIVA	1.007E-04	-3.896E-07	0.6131
13	1.71667	VIVA	1.007E-04	-3.322E-07	0.2716
13	2.06	VIVA	1.007E-04	-2.748E-07	-0.0699
13	0.	EX	1.960E-09	7.989E-05	0.7618
13	0.34333	EX	1.960E-09	2.841E-05	0.4324
13	0.68667	EX	1.960E-09	2.306E-05	0.1031
13	1.03	EX	1.960E-09	7.454E-05	0.2263
13	1.03	EX	1.960E-09	7.454E-05	0.2263
13	1.37333	EX	1.960E-09	2.858E-05	0.5551
13	1.71667	EX	1.960E-09	1.738E-05	0.8839
13	2.06	EX	1.960E-09	6.334E-05	1.2127
13	0.	EY	2.210E-05	0.0655	0.0155
13	0.34333	EY	2.210E-05	0.0214	0.0088
13	0.68667	EY	2.210E-05	0.0227	0.0022
13	1.03	EY	2.210E-05	0.0668	0.0044
13	1.03	EY	2.210E-05	0.0668	0.0044
13	1.37333	EY	2.210E-05	0.0224	0.0114
13	1.71667	EY	2.210E-05	0.0219	0.0183
13	2.06	EY	2.210E-05	0.0662	0.0253
14	0.	DEAD	-2.168E-19	-1.322E-07	-0.0019
14	0.4	DEAD	-2.168E-19	-1.322E-07	0.0332
14	0.8	DEAD	-2.168E-19	-1.322E-07	0.0332
14	1.2	DEAD	-2.168E-19	-1.322E-07	-0.0019
14	0.	SM	-2.168E-19	-3.264E-07	-0.0078
14	0.4	SM	-2.168E-19	-3.264E-07	0.1373
14	0.8	SM	-2.168E-19	-3.264E-07	0.1373
14	1.2	SM	-2.168E-19	-3.264E-07	-0.0078
14	0.	VIVA	-1.301E-18	-8.159E-07	-0.0194
14	0.4	VIVA	-1.301E-18	-8.159E-07	0.3432
14	0.8	VIVA	-1.301E-18	-8.159E-07	0.3432
14	1.2	VIVA	-1.301E-18	-8.159E-07	-0.0194
14	0.	EX	6.181E-12	4.370E-06	8.220E-06
14	0.4	EX	6.181E-12	4.370E-06	8.220E-06
14	0.8	EX	6.181E-12	4.370E-06	8.220E-06

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
14	1.2	EX	6.181E-12	4.370E-06	8.220E-06
14	0.	EY	1.735E-05	0.0029	1.4281
14	0.4	EY	1.735E-05	9.771E-04	0.476
14	0.8	EY	1.735E-05	9.771E-04	0.476
14	1.2	EY	1.735E-05	0.0029	1.4281
15	0.	DEAD	1.152E-19	9.269E-08	-0.0019
15	0.4	DEAD	1.152E-19	9.269E-08	0.0332
15	0.8	DEAD	1.152E-19	9.269E-08	0.0332
15	1.2	DEAD	1.152E-19	9.269E-08	-0.0019
15	0.	SM	1.897E-19	3.809E-07	-0.0156
15	0.4	SM	1.897E-19	3.809E-07	0.2745
15	0.8	SM	1.897E-19	3.809E-07	0.2745
15	1.2	SM	1.897E-19	3.809E-07	-0.0156
15	0.	VIVA	5.963E-19	9.521E-07	-0.039
15	0.4	VIVA	5.963E-19	9.521E-07	0.6863
15	0.8	VIVA	5.963E-19	9.521E-07	0.6863
15	1.2	VIVA	5.963E-19	9.521E-07	-0.039
15	0.	EX	2.940E-12	2.883E-06	9.332E-06
15	0.4	EX	2.940E-12	2.883E-06	9.332E-06
15	0.8	EX	2.940E-12	2.883E-06	9.332E-06
15	1.2	EX	2.940E-12	2.883E-06	9.332E-06
15	0.	EY	5.919E-07	7.096E-04	1.3853
15	0.4	EY	5.919E-07	2.365E-04	0.4618
15	0.8	EY	5.919E-07	2.365E-04	0.4618
15	1.2	EY	5.919E-07	7.096E-04	1.3853
16	0.	DEAD	2.304E-19	-9.894E-08	-0.0019
16	0.4	DEAD	2.304E-19	-9.894E-08	0.0332
16	0.8	DEAD	2.304E-19	-9.894E-08	0.0332
16	1.2	DEAD	2.304E-19	-9.894E-08	-0.0019
16	0.	SM	5.692E-19	-4.390E-07	-0.0151
16	0.4	SM	5.692E-19	-4.390E-07	0.2652
16	0.8	SM	5.692E-19	-4.390E-07	0.2652
16	1.2	SM	5.692E-19	-4.390E-07	-0.0151
16	0.	VIVA	2.277E-18	-1.097E-06	-0.0376
16	0.4	VIVA	2.277E-18	-1.097E-06	0.663
16	0.8	VIVA	2.277E-18	-1.097E-06	0.663
16	1.2	VIVA	2.277E-18	-1.097E-06	-0.0376
16	0.	EX	7.669E-12	9.087E-07	4.740E-06
16	0.4	EX	7.669E-12	9.087E-07	4.740E-06
16	0.8	EX	7.669E-12	9.087E-07	4.740E-06
16	1.2	EX	7.669E-12	9.086E-07	4.740E-06
16	0.	EY	6.056E-06	0.001	1.3357
16	0.4	EY	6.056E-06	3.394E-04	0.4452
16	0.8	EY	6.056E-06	3.394E-04	0.4452
16	1.2	EY	6.056E-06	0.001	1.3357
17	0.	DEAD	-2.198E-19	1.003E-09	-0.0019
17	0.4	DEAD	-2.198E-19	1.003E-09	0.0332
17	0.8	DEAD	-2.198E-19	1.003E-09	0.0332
17	1.2	DEAD	-2.198E-19	1.003E-09	-0.0019
17	0.	SM	-3.879E-19	3.169E-08	-0.0145
17	0.4	SM	-3.879E-19	3.169E-08	0.2559
17	0.8	SM	-3.879E-19	3.169E-08	0.2559
17	1.2	SM	-3.879E-19	3.169E-08	-0.0145
17	0.	VIVA	-1.647E-18	7.923E-08	-0.0363

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
17	0.4	VIVA	-1.647E-18	7.923E-08	0.6397
17	0.8	VIVA	-1.647E-18	7.923E-08	0.6397
17	1.2	VIVA	-1.647E-18	7.923E-08	-0.0363
17	0.	EX	5.033E-12	1.197E-05	3.472E-06
17	0.4	EX	5.033E-12	1.197E-05	3.472E-06
17	0.8	EX	5.033E-12	1.197E-05	3.472E-06
17	1.2	EX	5.033E-12	1.197E-05	3.472E-06
17	0.	EY	7.708E-06	1.763E-04	1.2563
17	0.4	EY	7.708E-06	5.876E-05	0.4188
17	0.8	EY	7.708E-06	5.876E-05	0.4188
17	1.2	EY	7.708E-06	1.763E-04	1.2563
18	0.	DEAD	-6.776E-20	1.052E-07	-0.0019
18	0.4	DEAD	-6.776E-20	1.052E-07	0.0332
18	0.8	DEAD	-6.776E-20	1.052E-07	0.0332
18	1.2	DEAD	-6.776E-20	1.052E-07	-0.0019
18	0.	SM	-2.711E-19	4.093E-07	-0.0151
18	0.4	SM	-2.711E-19	4.093E-07	0.2652
18	0.8	SM	-2.711E-19	4.093E-07	0.2652
18	1.2	SM	-2.711E-19	4.093E-07	-0.0151
18	0.	VIVA	-1.084E-18	1.023E-06	-0.0376
18	0.4	VIVA	-1.084E-18	1.023E-06	0.663
18	0.8	VIVA	-1.084E-18	1.023E-06	0.663
18	1.2	VIVA	-1.084E-18	1.023E-06	-0.0376
18	0.	EX	7.376E-12	4.516E-07	1.203E-05
18	0.4	EX	7.376E-12	4.516E-07	1.203E-05
18	0.8	EX	7.376E-12	4.516E-07	1.203E-05
18	1.2	EX	7.376E-12	4.516E-07	1.203E-05
18	0.	EY	8.372E-06	0.0011	1.1548
18	0.4	EY	8.372E-06	3.750E-04	0.3849
18	0.8	EY	8.372E-06	3.750E-04	0.3849
18	1.2	EY	8.372E-06	0.0011	1.1548
19	0.	DEAD	4.743E-20	-4.161E-08	-0.0019
19	0.4	DEAD	4.743E-20	-4.161E-08	0.0332
19	0.8	DEAD	4.743E-20	-4.161E-08	0.0332
19	1.2	DEAD	4.743E-20	-4.161E-08	-0.0019
19	0.	SM	1.220E-19	-5.846E-08	-0.0167
19	0.4	SM	1.220E-19	-5.846E-08	0.2932
19	0.8	SM	1.220E-19	-5.846E-08	0.2932
19	1.2	SM	1.220E-19	-5.846E-08	-0.0167
19	0.	VIVA	2.711E-19	-1.461E-07	-0.0417
19	0.4	VIVA	2.711E-19	-1.461E-07	0.7329
19	0.8	VIVA	2.711E-19	-1.461E-07	0.7329
19	1.2	VIVA	2.711E-19	-1.461E-07	-0.0417
19	0.	EX	1.725E-11	2.459E-06	1.449E-05
19	0.4	EX	1.725E-11	2.459E-06	1.449E-05
19	0.8	EX	1.725E-11	2.459E-06	1.449E-05
19	1.2	EX	1.725E-11	2.459E-06	1.449E-05
19	0.	EY	8.858E-07	0.0012	1.0616
19	0.4	EY	8.858E-07	4.014E-04	0.3539
19	0.8	EY	8.858E-07	4.014E-04	0.3539
19	1.2	EY	8.858E-07	0.0012	1.0616
20	0.	DEAD	-6.776E-20	1.951E-08	-0.0019
20	0.4	DEAD	-6.776E-20	1.951E-08	0.0332
20	0.8	DEAD	-6.776E-20	1.951E-08	0.0332

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
20	1.2	DEAD	-6.776E-20	1.951E-08	-0.0019
20	0.	SM	-5.421E-20	1.815E-08	-0.0088
20	0.4	SM	-5.421E-20	1.815E-08	0.156
20	0.8	SM	-5.421E-20	1.815E-08	0.156
20	1.2	SM	-5.421E-20	1.815E-08	-0.0088
20	0.	VIVA	-1.084E-19	4.537E-08	-0.022
20	0.4	VIVA	-1.084E-19	4.537E-08	0.39
20	0.8	VIVA	-1.084E-19	4.537E-08	0.39
20	1.2	VIVA	-1.084E-19	4.537E-08	-0.022
20	0.	EX	1.456E-11	2.562E-06	9.582E-06
20	0.4	EX	1.456E-11	2.562E-06	9.582E-06
20	0.8	EX	1.456E-11	2.562E-06	9.582E-06
20	1.2	EX	1.456E-11	2.562E-06	9.582E-06
20	0.	EY	2.276E-05	0.0015	0.9887
20	0.4	EY	2.276E-05	5.133E-04	0.3296
20	0.8	EY	2.276E-05	5.133E-04	0.3296
20	1.2	EY	2.276E-05	0.0015	0.9887
21	0.	DEAD	0.	0.	0.
21	0.4	DEAD	0.	0.	0.0143
21	0.8	DEAD	0.	0.	0.0143
21	1.2	DEAD	0.	0.	-1.177E-17
21	0.	SM	0.	0.	0.
21	0.4	SM	0.	0.	0.2901
21	0.8	SM	0.	0.	0.2901
21	1.2	SM	0.	0.	-3.891E-16
21	0.	VIVA	0.	0.	0.
21	0.4	VIVA	0.	0.	0.7253
21	0.8	VIVA	0.	0.	0.7253
21	1.2	VIVA	0.	0.	5.510E-16
21	0.	EX	0.	0.	0.
21	0.4	EX	0.	0.	0.
21	0.8	EX	0.	0.	0.
21	1.2	EX	0.	0.	0.
21	0.	EY	0.	0.	0.
21	0.4	EY	0.	0.	0.
21	0.8	EY	0.	0.	0.
21	1.2	EY	0.	0.	0.
22	0.	DEAD	0.	0.	0.
22	0.4	DEAD	0.	0.	0.0143
22	0.8	DEAD	0.	0.	0.0143
22	1.2	DEAD	0.	0.	2.979E-18
22	0.	SM	0.	0.	0.
22	0.4	SM	0.	0.	0.2901
22	0.8	SM	0.	0.	0.2901
22	1.2	SM	0.	0.	-3.059E-16
22	0.	VIVA	0.	0.	0.
22	0.4	VIVA	0.	0.	0.7253
22	0.8	VIVA	0.	0.	0.7253
22	1.2	VIVA	0.	0.	1.624E-16
22	0.	EX	0.	0.	0.
22	0.4	EX	0.	0.	0.
22	0.8	EX	0.	0.	0.
22	1.2	EX	0.	0.	0.
22	0.	EY	0.	0.	0.

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
22	0.4	EY	0.	0.	0.
22	0.8	EY	0.	0.	0.
22	1.2	EY	0.	0.	0.
23	0.	DEAD	0.	0.	0.
23	0.4	DEAD	0.	0.	0.0143
23	0.8	DEAD	0.	0.	0.0143
23	1.2	DEAD	0.	0.	7.744E-18
23	0.	SM	0.	0.	0.
23	0.4	SM	0.	0.	0.2901
23	0.8	SM	0.	0.	0.2901
23	1.2	SM	0.	0.	5.886E-16
23	0.	VIVA	0.	0.	0.
23	0.4	VIVA	0.	0.	0.7253
23	0.8	VIVA	0.	0.	0.7253
23	1.2	VIVA	0.	0.	1.018E-15
23	0.	EX	0.	0.	0.
23	0.4	EX	0.	0.	0.
23	0.8	EX	0.	0.	0.
23	1.2	EX	0.	0.	0.
23	0.	EY	0.	0.	0.
23	0.4	EY	0.	0.	0.
23	0.8	EY	0.	0.	0.
23	1.2	EY	0.	0.	0.
24	0.	DEAD	0.	0.	0.
24	0.4	DEAD	0.	0.	0.0143
24	0.8	DEAD	0.	0.	0.0143
24	1.2	DEAD	0.	0.	-7.960E-18
24	0.	SM	0.	0.	0.
24	0.4	SM	0.	0.	0.2901
24	0.8	SM	0.	0.	0.2901
24	1.2	SM	0.	0.	-2.135E-17
24	0.	VIVA	0.	0.	0.
24	0.4	VIVA	0.	0.	0.7253
24	0.8	VIVA	0.	0.	0.7253
24	1.2	VIVA	0.	0.	-1.644E-16
24	0.	EX	0.	0.	0.
24	0.4	EX	0.	0.	0.
24	0.8	EX	0.	0.	0.
24	1.2	EX	0.	0.	0.
24	0.	EY	0.	0.	0.
24	0.4	EY	0.	0.	0.
24	0.8	EY	0.	0.	0.
24	1.2	EY	0.	0.	0.
25	0.	DEAD	0.	0.	0.
25	0.4	DEAD	0.	0.	0.0143
25	0.8	DEAD	0.	0.	0.0143
25	1.2	DEAD	0.	0.	8.324E-18
25	0.	SM	0.	0.	0.
25	0.4	SM	0.	0.	0.2901
25	0.8	SM	0.	0.	0.2901
25	1.2	SM	0.	0.	2.396E-16
25	0.	VIVA	0.	0.	0.
25	0.4	VIVA	0.	0.	0.7253
25	0.8	VIVA	0.	0.	0.7253

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
25	1.2	VIVA	0.	0.	-4.238E-16
25	0.	EX	0.	0.	0.
25	0.4	EX	0.	0.	0.
25	0.8	EX	0.	0.	0.
25	1.2	EX	0.	0.	0.
25	0.	EY	0.	0.	0.
25	0.4	EY	0.	0.	0.
25	0.8	EY	0.	0.	0.
25	1.2	EY	0.	0.	0.
26	0.	DEAD	0.	0.	0.
26	0.4	DEAD	0.	0.	0.0143
26	0.8	DEAD	0.	0.	0.0143
26	1.2	DEAD	0.	0.	-4.779E-18
26	0.	SM	0.	0.	0.
26	0.4	SM	0.	0.	0.2901
26	0.8	SM	0.	0.	0.2901
26	1.2	SM	0.	0.	4.762E-16
26	0.	VIVA	0.	0.	0.
26	0.4	VIVA	0.	0.	0.7253
26	0.8	VIVA	0.	0.	0.7253
26	1.2	VIVA	0.	0.	-1.403E-16
26	0.	EX	0.	0.	0.
26	0.4	EX	0.	0.	0.
26	0.8	EX	0.	0.	0.
26	1.2	EX	0.	0.	0.
26	0.	EY	0.	0.	0.
26	0.4	EY	0.	0.	0.
26	0.8	EY	0.	0.	0.
26	1.2	EY	0.	0.	0.
27	0.	DEAD	0.	0.	0.
27	0.4	DEAD	0.	0.	0.0143
27	0.8	DEAD	0.	0.	0.0143
27	1.2	DEAD	0.	0.	1.633E-17
27	0.	SM	0.	0.	0.
27	0.4	SM	0.	0.	0.2704
27	0.8	SM	0.	0.	0.2704
27	1.2	SM	0.	0.	3.717E-16
27	0.	VIVA	0.	0.	0.
27	0.4	VIVA	0.	0.	0.676
27	0.8	VIVA	0.	0.	0.676
27	1.2	VIVA	0.	0.	2.590E-16
27	0.	EX	0.	0.	0.
27	0.4	EX	0.	0.	0.
27	0.8	EX	0.	0.	0.
27	1.2	EX	0.	0.	0.
27	0.	EY	0.	0.	0.
27	0.4	EY	0.	0.	0.
27	0.8	EY	0.	0.	0.
27	1.2	EY	0.	0.	0.
28	0.	DEAD	0.	0.	0.
28	0.4	DEAD	0.	0.	0.0143
28	0.8	DEAD	0.	0.	0.0143
28	1.2	DEAD	0.	0.	-4.583E-18
28	0.	SM	0.	0.	0.

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
28	0.4	SM	0.	0.	0.2704
28	0.8	SM	0.	0.	0.2704
28	1.2	SM	0.	0.	-2.007E-16
28	0.	VIVA	0.	0.	0.
28	0.4	VIVA	0.	0.	0.676
28	0.8	VIVA	0.	0.	0.676
28	1.2	VIVA	0.	0.	-1.659E-16
28	0.	EX	0.	0.	0.
28	0.4	EX	0.	0.	0.
28	0.8	EX	0.	0.	0.
28	1.2	EX	0.	0.	0.
28	0.	EY	0.	0.	0.
28	0.4	EY	0.	0.	0.
28	0.8	EY	0.	0.	0.
28	1.2	EY	0.	0.	0.
29	0.	DEAD	0.	0.	0.
29	0.4	DEAD	0.	0.	0.0143
29	0.8	DEAD	0.	0.	0.0143
29	1.2	DEAD	0.	0.	-1.283E-17
29	0.	SM	0.	0.	0.
29	0.4	SM	0.	0.	0.2704
29	0.8	SM	0.	0.	0.2704
29	1.2	SM	0.	0.	2.177E-16
29	0.	VIVA	0.	0.	0.
29	0.4	VIVA	0.	0.	0.676
29	0.8	VIVA	0.	0.	0.676
29	1.2	VIVA	0.	0.	-8.795E-16
29	0.	EX	0.	0.	0.
29	0.4	EX	0.	0.	0.
29	0.8	EX	0.	0.	0.
29	1.2	EX	0.	0.	0.
29	0.	EY	0.	0.	0.
29	0.4	EY	0.	0.	0.
29	0.8	EY	0.	0.	0.
29	1.2	EY	0.	0.	0.
30	0.	DEAD	0.	0.	0.
30	0.4	DEAD	0.	0.	0.0143
30	0.8	DEAD	0.	0.	0.0143
30	1.2	DEAD	0.	0.	-4.155E-18
30	0.	SM	0.	0.	0.
30	0.4	SM	0.	0.	0.2704
30	0.8	SM	0.	0.	0.2704
30	1.2	SM	0.	0.	-1.403E-16
30	0.	VIVA	0.	0.	0.
30	0.4	VIVA	0.	0.	0.676
30	0.8	VIVA	0.	0.	0.676
30	1.2	VIVA	0.	0.	-8.074E-16
30	0.	EX	0.	0.	0.
30	0.4	EX	0.	0.	0.
30	0.8	EX	0.	0.	0.
30	1.2	EX	0.	0.	0.
30	0.	EY	0.	0.	0.
30	0.4	EY	0.	0.	0.
30	0.8	EY	0.	0.	0.

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
30	1.2	EY	0.	0.	0.
31	0.	DEAD	0.	0.	0.
31	0.4	DEAD	0.	0.	0.0143
31	0.8	DEAD	0.	0.	0.0143
31	1.2	DEAD	0.	0.	-1.639E-17
31	0.	SM	0.	0.	0.
31	0.4	SM	0.	0.	0.2704
31	0.8	SM	0.	0.	0.2704
31	1.2	SM	0.	0.	1.088E-16
31	0.	VIVA	0.	0.	0.
31	0.4	VIVA	0.	0.	0.676
31	0.8	VIVA	0.	0.	0.676
31	1.2	VIVA	0.	0.	-7.160E-16
31	0.	EX	0.	0.	0.
31	0.4	EX	0.	0.	0.
31	0.8	EX	0.	0.	0.
31	1.2	EX	0.	0.	0.
31	0.	EY	0.	0.	0.
31	0.4	EY	0.	0.	0.
31	0.8	EY	0.	0.	0.
31	1.2	EY	0.	0.	0.
32	0.	DEAD	0.	0.	0.
32	0.4	DEAD	0.	0.	0.0143
32	0.8	DEAD	0.	0.	0.0143
32	1.2	DEAD	0.	0.	-1.639E-17
32	0.	SM	0.	0.	0.
32	0.4	SM	0.	0.	0.2704
32	0.8	SM	0.	0.	0.2704
32	1.2	SM	0.	0.	1.168E-17
32	0.	VIVA	0.	0.	0.
32	0.4	VIVA	0.	0.	0.676
32	0.8	VIVA	0.	0.	0.676
32	1.2	VIVA	0.	0.	-7.766E-17
32	0.	EX	0.	0.	0.
32	0.4	EX	0.	0.	0.
32	0.8	EX	0.	0.	0.
32	1.2	EX	0.	0.	0.
32	0.	EY	0.	0.	0.
32	0.4	EY	0.	0.	0.
32	0.8	EY	0.	0.	0.
32	1.2	EY	0.	0.	0.
33	0.	DEAD	0.	0.	0.
33	0.4	DEAD	0.	0.	0.0143
33	0.8	DEAD	0.	0.	0.0143
33	1.2	DEAD	0.	0.	1.300E-17
33	0.	SM	0.	0.	0.
33	0.4	SM	0.	0.	0.3296
33	0.8	SM	0.	0.	0.3296
33	1.2	SM	0.	0.	-2.012E-16
33	0.	VIVA	0.	0.	0.
33	0.4	VIVA	0.	0.	0.824
33	0.8	VIVA	0.	0.	0.824
33	1.2	VIVA	0.	0.	5.254E-16
33	0.	EX	0.	0.	0.

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
33	0.4	EX	0.	0.	0.
33	0.8	EX	0.	0.	0.
33	1.2	EX	0.	0.	0.
33	0.	EY	0.	0.	0.
33	0.4	EY	0.	0.	0.
33	0.8	EY	0.	0.	0.
33	1.2	EY	0.	0.	0.
34	0.	DEAD	-2.029E-08	0.0019	-0.018
34	1.45	DEAD	-2.029E-08	4.755E-04	-0.0047
34	2.9	DEAD	-2.029E-08	-9.352E-04	0.0087
34	0.	SM	-5.008E-08	0.0078	-0.0674
34	1.45	SM	-5.008E-08	0.002	-0.0176
34	2.9	SM	-5.008E-08	-0.0039	0.0322
34	0.	VIVA	-1.252E-07	0.0195	-0.1685
34	1.45	VIVA	-1.252E-07	0.0049	-0.0441
34	2.9	VIVA	-1.252E-07	-0.0097	0.0804
34	0.	EX	6.705E-07	8.220E-06	1.1946
34	1.45	EX	6.705E-07	1.599E-07	0.0257
34	2.9	EX	6.705E-07	8.540E-06	1.246
34	0.	EY	0.0067	1.4281	0.0134
34	1.45	EY	0.0067	0.019	2.464E-04
34	2.9	EY	0.0067	1.4661	0.0139
35	0.	DEAD	2.029E-08	-0.0019	-0.018
35	1.45	DEAD	2.029E-08	-4.755E-04	-0.0047
35	2.9	DEAD	2.029E-08	9.352E-04	0.0087
35	0.	SM	5.008E-08	-0.0078	-0.0674
35	1.45	SM	5.008E-08	-0.002	-0.0176
35	2.9	SM	5.008E-08	0.0039	0.0322
35	0.	VIVA	1.252E-07	-0.0195	-0.1685
35	1.45	VIVA	1.252E-07	-0.0049	-0.0441
35	2.9	VIVA	1.252E-07	0.0097	0.0804
35	0.	EX	6.705E-07	8.219E-06	1.1946
35	1.45	EX	6.705E-07	1.599E-07	0.0257
35	2.9	EX	6.705E-07	8.539E-06	1.246
35	0.	EY	0.0067	1.4281	0.0134
35	1.45	EY	0.0067	0.019	2.464E-04
35	2.9	EY	0.0067	1.4661	0.0139
36	0.	DEAD	1.422E-08	0.0019	0.0046
36	1.45	DEAD	1.422E-08	4.755E-04	0.001
36	2.9	DEAD	1.422E-08	-9.352E-04	-0.0025
36	0.	SM	5.844E-08	0.0156	0.0204
36	1.45	SM	5.844E-08	0.0039	0.0045
36	2.9	SM	5.844E-08	-0.0077	-0.0114
36	0.	VIVA	1.461E-07	0.039	0.051
36	1.45	VIVA	1.461E-07	0.0098	0.0113
36	2.9	VIVA	1.461E-07	-0.0193	-0.0284
36	0.	EX	4.424E-07	9.334E-06	1.2719
36	1.45	EX	4.424E-07	1.815E-07	0.0063
36	2.9	EX	4.424E-07	9.697E-06	1.2844
36	0.	EY	0.0071	1.3853	0.0152
36	1.45	EY	0.0071	0.0184	8.407E-06
36	2.9	EY	0.0071	1.4221	0.0152
37	0.	DEAD	-1.422E-08	-0.0019	0.0046
37	1.45	DEAD	-1.422E-08	-4.755E-04	0.001

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
37	2.9	DEAD	-1.422E-08	9.352E-04	-0.0025
37	0.	SM	-5.844E-08	-0.0156	0.0204
37	1.45	SM	-5.844E-08	-0.0039	0.0045
37	2.9	SM	-5.844E-08	0.0077	-0.0114
37	0.	VIVA	-1.461E-07	-0.039	0.051
37	1.45	VIVA	-1.461E-07	-0.0098	0.0113
37	2.9	VIVA	-1.461E-07	0.0193	-0.0284
37	0.	EX	4.424E-07	9.333E-06	1.2719
37	1.45	EX	4.424E-07	1.816E-07	0.0063
37	2.9	EX	4.424E-07	9.697E-06	1.2844
37	0.	EY	0.0071	1.3853	0.0152
37	1.45	EY	0.0071	0.0184	8.407E-06
37	2.9	EY	0.0071	1.4221	0.0152
38	0.	DEAD	-1.518E-08	0.0019	-0.0058
38	1.45	DEAD	-1.518E-08	4.755E-04	-0.0016
38	2.9	DEAD	-1.518E-08	-9.352E-04	0.0026
38	0.	SM	-6.736E-08	0.0151	-0.0232
38	1.45	SM	-6.736E-08	0.0038	-0.0065
38	2.9	SM	-6.736E-08	-0.0075	0.0103
38	0.	VIVA	-1.684E-07	0.0376	-0.058
38	1.45	VIVA	-1.684E-07	0.0095	-0.0162
38	2.9	VIVA	-1.684E-07	-0.0187	0.0257
38	0.	EX	1.394E-07	4.741E-06	1.2509
38	1.45	EX	1.394E-07	9.219E-08	0.0116
38	2.9	EX	1.394E-07	4.925E-06	1.2741
38	0.	EY	0.008	1.3357	0.0167
38	1.45	EY	0.008	0.0178	8.602E-05
38	2.9	EY	0.008	1.3712	0.0169
39	0.	DEAD	1.518E-08	-0.0019	-0.0058
39	1.45	DEAD	1.518E-08	-4.755E-04	-0.0016
39	2.9	DEAD	1.518E-08	9.352E-04	0.0026
39	0.	SM	6.736E-08	-0.0151	-0.0232
39	1.45	SM	6.736E-08	-0.0038	-0.0065
39	2.9	SM	6.736E-08	0.0075	0.0103
39	0.	VIVA	1.684E-07	-0.0376	-0.058
39	1.45	VIVA	1.684E-07	-0.0095	-0.0162
39	2.9	VIVA	1.684E-07	0.0187	0.0257
39	0.	EX	1.394E-07	4.741E-06	1.2509
39	1.45	EX	1.394E-07	9.225E-08	0.0116
39	2.9	EX	1.394E-07	4.925E-06	1.2741
39	0.	EY	0.008	1.3357	0.0167
39	1.45	EY	0.008	0.0178	8.602E-05
39	2.9	EY	0.008	1.3712	0.0169
40	0.	DEAD	1.538E-10	0.0019	7.534E-04
40	1.45	DEAD	1.538E-10	4.755E-04	6.092E-05
40	2.9	DEAD	1.538E-10	-9.353E-04	-6.315E-04
40	0.	SM	4.863E-09	0.0145	0.0036
40	1.45	SM	4.863E-09	0.0037	2.922E-04
40	2.9	SM	4.863E-09	-0.0072	-0.003
40	0.	VIVA	1.216E-08	0.0363	0.009
40	1.45	VIVA	1.216E-08	0.0092	7.305E-04
40	2.9	VIVA	1.216E-08	-0.018	-0.0075
40	0.	EX	1.837E-06	3.472E-06	1.2489
40	1.45	EX	1.837E-06	6.753E-08	0.0121

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
40	2.9	EX	1.837E-06	3.607E-06	1.2731
40	0.	EY	0.0097	1.2563	0.0203
40	1.45	EY	0.0097	0.0167	1.095E-04
40	2.9	EY	0.0097	1.2897	0.0205
41	0.	DEAD	-1.538E-10	-0.0019	7.534E-04
41	1.45	DEAD	-1.538E-10	-4.755E-04	6.092E-05
41	2.9	DEAD	-1.538E-10	9.353E-04	-6.315E-04
41	0.	SM	-4.863E-09	-0.0145	0.0036
41	1.45	SM	-4.863E-09	-0.0037	2.922E-04
41	2.9	SM	-4.863E-09	0.0072	-0.003
41	0.	VIVA	-1.216E-08	-0.0363	0.009
41	1.45	VIVA	-1.216E-08	-0.0092	7.305E-04
41	2.9	VIVA	-1.216E-08	0.018	-0.0075
41	0.	EX	1.837E-06	3.472E-06	1.2489
41	1.45	EX	1.837E-06	6.757E-08	0.0121
41	2.9	EX	1.837E-06	3.607E-06	1.2731
41	0.	EY	0.0097	1.2563	0.0203
41	1.45	EY	0.0097	0.0167	1.095E-04
41	2.9	EY	0.0097	1.2897	0.0205
42	0.	DEAD	1.614E-08	0.0019	0.0055
42	1.45	DEAD	1.614E-08	4.755E-04	0.0013
42	2.9	DEAD	1.614E-08	-9.352E-04	-0.003
42	0.	SM	6.280E-08	0.0151	0.0218
42	1.45	SM	6.280E-08	0.0038	0.0049
42	2.9	SM	6.280E-08	-0.0075	-0.012
42	0.	VIVA	1.570E-07	0.0376	0.0545
42	1.45	VIVA	1.570E-07	0.0095	0.0122
42	2.9	VIVA	1.570E-07	-0.0187	-0.0301
42	0.	EX	6.930E-08	1.203E-05	1.2509
42	1.45	EX	6.930E-08	2.340E-07	0.0116
42	2.9	EX	6.930E-08	1.250E-05	1.274
42	0.	EY	0.0115	1.1548	0.0239
42	1.45	EY	0.0115	0.0153	1.189E-04
42	2.9	EY	0.0115	1.1855	0.0242
43	0.	DEAD	-1.614E-08	-0.0019	0.0055
43	1.45	DEAD	-1.614E-08	-4.755E-04	0.0013
43	2.9	DEAD	-1.614E-08	9.352E-04	-0.003
43	0.	SM	-6.280E-08	-0.0151	0.0218
43	1.45	SM	-6.280E-08	-0.0038	0.0049
43	2.9	SM	-6.280E-08	0.0075	-0.012
43	0.	VIVA	-1.570E-07	-0.0376	0.0545
43	1.45	VIVA	-1.570E-07	-0.0095	0.0122
43	2.9	VIVA	-1.570E-07	0.0187	-0.0301
43	0.	EX	6.928E-08	1.203E-05	1.2509
43	1.45	EX	6.928E-08	2.341E-07	0.0116
43	2.9	EX	6.928E-08	1.250E-05	1.274
43	0.	EY	0.0115	1.1548	0.0239
43	1.45	EY	0.0115	0.0153	1.189E-04
43	2.9	EY	0.0115	1.1855	0.0242
44	0.	DEAD	-6.384E-09	0.0019	0.0028
44	1.45	DEAD	-6.384E-09	4.755E-04	5.902E-04
44	2.9	DEAD	-6.384E-09	-9.351E-04	-0.0017
44	0.	SM	-8.970E-09	0.0166	0.0111
44	1.45	SM	-8.970E-09	0.0042	0.0022

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
44	2.9	SM	-8.970E-09	-0.0083	-0.0067
44	0.	VIVA	-2.242E-08	0.0416	0.0278
44	1.45	VIVA	-2.242E-08	0.0105	0.0055
44	2.9	VIVA	-2.242E-08	-0.0206	-0.0168
44	0.	EX	3.773E-07	1.449E-05	1.2727
44	1.45	EX	3.773E-07	2.820E-07	0.006
44	2.9	EX	3.773E-07	1.506E-05	1.2847
44	0.	EY	0.0124	1.0616	0.0261
44	1.45	EY	0.0124	0.0141	1.258E-05
44	2.9	EY	0.0124	1.0897	0.0262
45	0.	DEAD	6.384E-09	-0.0019	0.0028
45	1.45	DEAD	6.384E-09	-4.755E-04	5.902E-04
45	2.9	DEAD	6.384E-09	9.351E-04	-0.0017
45	0.	SM	8.970E-09	-0.0166	0.0111
45	1.45	SM	8.970E-09	-0.0042	0.0022
45	2.9	SM	8.970E-09	0.0083	-0.0067
45	0.	VIVA	2.242E-08	-0.0416	0.0278
45	1.45	VIVA	2.242E-08	-0.0105	0.0055
45	2.9	VIVA	2.242E-08	0.0206	-0.0168
45	0.	EX	3.772E-07	1.450E-05	1.2727
45	1.45	EX	3.772E-07	2.819E-07	0.006
45	2.9	EX	3.772E-07	1.506E-05	1.2847
45	0.	EY	0.0124	1.0616	0.0261
45	1.45	EY	0.0124	0.0141	1.258E-05
45	2.9	EY	0.0124	1.0897	0.0262
46	0.	DEAD	-2.993E-09	-0.0019	0.009
46	1.45	DEAD	-2.993E-09	-4.755E-04	0.0021
46	2.9	DEAD	-2.993E-09	9.350E-04	-0.0047
46	0.	SM	-2.785E-09	-0.0089	0.0279
46	1.45	SM	-2.785E-09	-0.0022	0.0064
46	2.9	SM	-2.785E-09	0.0044	-0.0151
46	0.	VIVA	-6.962E-09	-0.0221	0.0699
46	1.45	VIVA	-6.962E-09	-0.0056	0.0161
46	2.9	VIVA	-6.962E-09	0.011	-0.0377
46	0.	EX	3.931E-07	9.580E-06	1.2127
46	1.45	EX	3.931E-07	1.864E-07	0.0211
46	2.9	EX	3.931E-07	9.953E-06	1.2548
46	0.	EY	0.0125	0.9887	0.0253
46	1.45	EY	0.0125	0.0132	3.232E-04
46	2.9	EY	0.0125	1.015	0.026
47	0.	DEAD	2.993E-09	0.0019	0.009
47	1.45	DEAD	2.993E-09	4.755E-04	0.0021
47	2.9	DEAD	2.993E-09	-9.350E-04	-0.0047
47	0.	SM	2.785E-09	0.0089	0.0279
47	1.45	SM	2.785E-09	0.0022	0.0064
47	2.9	SM	2.785E-09	-0.0044	-0.0151
47	0.	VIVA	6.962E-09	0.0221	0.0699
47	1.45	VIVA	6.962E-09	0.0056	0.0161
47	2.9	VIVA	6.962E-09	-0.011	-0.0377
47	0.	EX	3.930E-07	9.580E-06	1.2127
47	1.45	EX	3.930E-07	1.865E-07	0.0211
47	2.9	EX	3.930E-07	9.953E-06	1.2548
47	0.	EY	0.0125	0.9887	0.0253
47	1.45	EY	0.0125	0.0132	3.232E-04

Table 30: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	T	M2	M3
	m		KN-m	KN-m	KN-m
47	2.9	EY	0.0125	1.015	0.026

10. Area results

This section provides area results, including items such as forces and stresses.

Table 31: Element Forces - Area Shells, Part 1 of 2

Table 31: Element Forces - Area Shells, Part 1 of 2

Area	AreaElem	Joint	OutputCase	F11	F22	F12
				KN/m	KN/m	KN/m
1	1	10	DEAD	8.768E-03	1.308E-03	4.805E-05
1	1	11	DEAD	8.656E-03	9.352E-04	4.805E-05
1	1	4	DEAD	8.656E-03	9.352E-04	-4.805E-05
1	1	3	DEAD	8.768E-03	1.308E-03	-4.805E-05
1	1	10	SM	3.242E-02	4.400E-03	-1.203E-04
1	1	11	SM	3.279E-02	5.614E-03	-1.203E-04
1	1	4	SM	3.279E-02	5.614E-03	1.203E-04
1	1	3	SM	3.242E-02	4.400E-03	1.203E-04
1	1	10	VIVA	8.106E-02	1.100E-02	-3.007E-04
1	1	11	VIVA	8.197E-02	1.403E-02	-3.007E-04
1	1	4	VIVA	8.197E-02	1.403E-02	3.007E-04
1	1	3	VIVA	8.106E-02	1.100E-02	3.007E-04
1	1	10	EX	0.32	2.761E-02	1.515E-03
1	1	11	EX	0.32	1.738E-02	1.515E-03
1	1	4	EX	0.32	1.738E-02	1.515E-03
1	1	3	EX	0.32	2.761E-02	1.515E-03
1	1	10	EY	2.11	0.63	1.14
1	1	11	EY	2.11	0.63	0.4
1	1	4	EY	2.11	0.63	0.4
1	1	3	EY	2.11	0.63	1.14
2	2	11	DEAD	6.328E-03	2.367E-04	3.774E-06
2	2	12	DEAD	6.325E-03	2.273E-04	3.774E-06
2	2	5	DEAD	6.325E-03	2.273E-04	-3.774E-06
2	2	4	DEAD	6.328E-03	2.367E-04	-3.774E-06
2	2	11	SM	2.213E-02	2.416E-03	7.590E-05
2	2	12	SM	2.195E-02	1.800E-03	7.590E-05
2	2	5	SM	2.195E-02	1.800E-03	-7.590E-05
2	2	4	SM	2.213E-02	2.416E-03	-7.590E-05
2	2	11	VIVA	5.533E-02	6.041E-03	1.898E-04
2	2	12	VIVA	5.486E-02	4.501E-03	1.898E-04
2	2	5	VIVA	5.486E-02	4.501E-03	-1.898E-04
2	2	4	VIVA	5.533E-02	6.041E-03	-1.898E-04
2	2	11	EX	0.23	8.267E-03	5.105E-03
2	2	12	EX	0.25	3.391E-02	5.105E-03
2	2	5	EX	0.25	3.391E-02	5.105E-03
2	2	4	EX	0.23	8.267E-03	5.105E-03
2	2	11	EY	4.98	1.49	0.52
2	2	12	EY	4.98	1.49	0.63
2	2	5	EY	4.98	1.49	0.63
2	2	4	EY	4.98	1.49	0.52
3	3	12	DEAD	9.182E-03	1.084E-03	8.739E-05

Table 31: Element Forces - Area Shells, Part 1 of 2

Area	AreaElem	Joint	OutputCase	F11	F22	F12
				KN/m	KN/m	KN/m
3	3	13	DEAD	8.990E-03	4.461E-04	8.739E-05
3	3	6	DEAD	8.990E-03	4.461E-04	-8.739E-05
3	3	5	DEAD	9.182E-03	1.084E-03	-8.739E-05
3	3	12	SM	3.341E-02	5.240E-03	3.616E-04
3	3	13	SM	3.262E-02	2.616E-03	3.616E-04
3	3	6	SM	3.262E-02	2.616E-03	-3.616E-04
3	3	5	SM	3.341E-02	5.240E-03	-3.616E-04
3	3	12	VIVA	8.353E-02	1.310E-02	9.041E-04
3	3	13	VIVA	8.156E-02	6.539E-03	9.041E-04
3	3	6	VIVA	8.156E-02	6.539E-03	-9.041E-04
3	3	5	VIVA	8.353E-02	1.310E-02	-9.041E-04
3	3	12	EX	3.028E-02	3.053E-02	1.097E-02
3	3	13	EX	5.291E-02	4.489E-02	1.097E-02
3	3	6	EX	5.291E-02	4.489E-02	1.097E-02
3	3	5	EX	3.028E-02	3.053E-02	1.097E-02
3	3	12	EY	7.13	2.14	0.41
3	3	13	EY	7.13	2.14	7.372E-02
3	3	6	EY	7.13	2.14	7.372E-02
3	3	5	EY	7.13	2.14	0.41
4	4	13	DEAD	8.523E-03	3.061E-04	-9.439E-05
4	4	14	DEAD	8.729E-03	9.917E-04	-9.439E-05
4	4	7	DEAD	8.729E-03	9.917E-04	9.439E-05
4	4	6	DEAD	8.523E-03	3.061E-04	9.439E-05
4	4	13	SM	3.039E-02	1.946E-03	-3.917E-04
4	4	14	SM	3.125E-02	4.791E-03	-3.917E-04
4	4	7	SM	3.125E-02	4.791E-03	3.917E-04
4	4	6	SM	3.039E-02	1.946E-03	3.917E-04
4	4	13	VIVA	7.598E-02	4.865E-03	-9.793E-04
4	4	14	VIVA	7.811E-02	1.198E-02	-9.793E-04
4	4	7	VIVA	7.811E-02	1.198E-02	9.793E-04
4	4	6	VIVA	7.598E-02	4.865E-03	9.793E-04
4	4	13	EX	0.28	5.419E-02	1.094E-02
4	4	14	EX	0.25	2.442E-02	1.094E-02
4	4	7	EX	0.25	2.442E-02	1.094E-02
4	4	6	EX	0.28	5.419E-02	1.094E-02
4	4	13	EY	6.72	2.02	0.2
4	4	14	EY	6.72	2.02	0.52
4	4	7	EY	6.72	2.02	0.52
4	4	6	EY	6.72	2.02	0.2
5	5	14	DEAD	5.786E-03	1.090E-04	-8.464E-05
5	5	15	DEAD	5.995E-03	8.036E-04	-8.464E-05
5	5	8	DEAD	5.995E-03	8.036E-04	8.464E-05
5	5	7	DEAD	5.786E-03	1.090E-04	8.464E-05
5	5	14	SM	1.935E-02	1.222E-03	-4.761E-04
5	5	15	SM	2.054E-02	5.174E-03	-4.761E-04
5	5	8	SM	2.054E-02	5.174E-03	4.761E-04
5	5	7	SM	1.935E-02	1.222E-03	4.761E-04
5	5	14	VIVA	4.838E-02	3.055E-03	-1.190E-03
5	5	15	VIVA	5.134E-02	1.293E-02	-1.190E-03
5	5	8	VIVA	5.134E-02	1.293E-02	1.190E-03
5	5	7	VIVA	4.838E-02	3.055E-03	1.190E-03
5	5	14	EX	0.47	3.957E-02	3.165E-03
5	5	15	EX	0.46	1.695E-02	3.165E-03
5	5	8	EX	0.46	1.695E-02	3.165E-03

Table 31: Element Forces - Area Shells, Part 1 of 2

Area	AreaElem	Joint	OutputCase	F11	F22	F12
				KN/m	KN/m	KN/m
5	5	7	EX	0.47	3.957E-02	3.165E-03
5	5	14	EY	3.96	1.19	0.67
5	5	15	EY	3.96	1.19	0.7
5	5	8	EY	3.96	1.19	0.7
5	5	7	EY	3.96	1.19	0.67
6	6	15	DEAD	4.340E-03	3.071E-04	-9.357E-05
6	6	16	DEAD	4.647E-03	1.331E-03	-9.357E-05
6	6	9	DEAD	4.647E-03	1.331E-03	9.357E-05
6	6	8	DEAD	4.340E-03	3.071E-04	9.357E-05
6	6	15	SM	1.410E-02	3.243E-03	-1.372E-04
6	6	16	SM	1.456E-02	4.781E-03	-1.372E-04
6	6	9	SM	1.456E-02	4.781E-03	1.372E-04
6	6	8	SM	1.410E-02	3.243E-03	1.372E-04
6	6	15	VIVA	3.525E-02	8.107E-03	-3.430E-04
6	6	16	VIVA	3.640E-02	1.195E-02	-3.430E-04
6	6	9	VIVA	3.640E-02	1.195E-02	3.430E-04
6	6	8	VIVA	3.525E-02	8.107E-03	3.430E-04
6	6	15	EX	0.43	7.639E-03	4.651E-03
6	6	16	EX	0.44	5.277E-02	4.651E-03
6	6	9	EX	0.44	5.277E-02	4.651E-03
6	6	8	EX	0.43	7.639E-03	4.651E-03
6	6	15	EY	1.2	0.36	0.61
6	6	16	EY	1.2	0.36	0.72
6	6	9	EY	1.2	0.36	0.72
6	6	8	EY	1.2	0.36	0.61

Table 32: Element Stresses - Area Shells, Part 1 of 3

Table 32: Element Stresses - Area Shells, Part 1 of 3

Area	AreaElem	Joint	OutputCase	S11Top	S22Top	S12Top
				KN/m2	KN/m2	KN/m2
1	1	10	DEAD	1.46	0.22	8.008E-03
1	1	11	DEAD	1.44	0.16	8.008E-03
1	1	4	DEAD	1.44	0.16	-8.008E-03
1	1	3	DEAD	1.46	0.22	-8.008E-03
1	1	10	SM	5.4	0.73	-2.005E-02
1	1	11	SM	5.46	0.94	-2.005E-02
1	1	4	SM	5.46	0.94	2.005E-02
1	1	3	SM	5.4	0.73	2.005E-02
1	1	10	VIVA	13.51	1.83	-5.012E-02
1	1	11	VIVA	13.66	2.34	-5.012E-02
1	1	4	VIVA	13.66	2.34	5.012E-02
1	1	3	VIVA	13.51	1.83	5.012E-02
1	1	10	EX	53.5	4.6	0.25
1	1	11	EX	52.99	2.9	0.25
1	1	4	EX	52.99	2.9	0.25
1	1	3	EX	53.5	4.6	0.25
1	1	10	EY	351.82	105.54	189.42
1	1	11	EY	351.82	105.54	67.07
1	1	4	EY	351.82	105.54	67.07
1	1	3	EY	351.82	105.54	189.42
2	2	11	DEAD	1.05	3.945E-02	6.290E-04

Table 32: Element Stresses - Area Shells, Part 1 of 3

Area	AreaElem	Joint	OutputCase	S11Top	S22Top	S12Top
				KN/m2	KN/m2	KN/m2
2	2	12	DEAD	1.05	3.788E-02	6.290E-04
2	2	5	DEAD	1.05	3.788E-02	-6.290E-04
2	2	4	DEAD	1.05	3.945E-02	-6.290E-04
2	2	11	SM	3.69	0.4	1.265E-02
2	2	12	SM	3.66	0.3	1.265E-02
2	2	5	SM	3.66	0.3	-1.265E-02
2	2	4	SM	3.69	0.4	-1.265E-02
2	2	11	VIVA	9.22	1.01	3.163E-02
2	2	12	VIVA	9.14	0.75	3.163E-02
2	2	5	VIVA	9.14	0.75	-3.163E-02
2	2	4	VIVA	9.22	1.01	-3.163E-02
2	2	11	EX	38.74	1.38	0.85
2	2	12	EX	40.85	5.65	0.85
2	2	5	EX	40.85	5.65	0.85
2	2	4	EX	38.74	1.38	0.85
2	2	11	EY	830.55	249.16	87.1
2	2	12	EY	830.55	249.16	104.17
2	2	5	EY	830.55	249.16	104.17
2	2	4	EY	830.55	249.16	87.1
3	3	12	DEAD	1.53	0.18	1.457E-02
3	3	13	DEAD	1.5	7.435E-02	1.457E-02
3	3	6	DEAD	1.5	7.435E-02	-1.457E-02
3	3	5	DEAD	1.53	0.18	-1.457E-02
3	3	12	SM	5.57	0.87	6.027E-02
3	3	13	SM	5.44	0.44	6.027E-02
3	3	6	SM	5.44	0.44	-6.027E-02
3	3	5	SM	5.57	0.87	-6.027E-02
3	3	12	VIVA	13.92	2.18	0.15
3	3	13	VIVA	13.59	1.09	0.15
3	3	6	VIVA	13.59	1.09	-0.15
3	3	5	VIVA	13.92	2.18	-0.15
3	3	12	EX	5.05	5.09	1.83
3	3	13	EX	8.82	7.48	1.83
3	3	6	EX	8.82	7.48	1.83
3	3	5	EX	5.05	5.09	1.83
3	3	12	EY	1188.75	356.63	68.41
3	3	13	EY	1188.75	356.63	12.29
3	3	6	EY	1188.75	356.63	12.29
3	3	5	EY	1188.75	356.63	68.41
4	4	13	DEAD	1.42	5.101E-02	-1.573E-02
4	4	14	DEAD	1.45	0.17	-1.573E-02
4	4	7	DEAD	1.45	0.17	1.573E-02
4	4	6	DEAD	1.42	5.101E-02	1.573E-02
4	4	13	SM	5.07	0.32	-6.529E-02
4	4	14	SM	5.21	0.8	-6.529E-02
4	4	7	SM	5.21	0.8	6.529E-02
4	4	6	SM	5.07	0.32	6.529E-02
4	4	13	VIVA	12.66	0.81	-0.16
4	4	14	VIVA	13.02	2.	-0.16
4	4	7	VIVA	13.02	2.	0.16
4	4	6	VIVA	12.66	0.81	0.16
4	4	13	EX	46.22	9.03	1.82
4	4	14	EX	42.29	4.07	1.82
4	4	7	EX	42.29	4.07	1.82

Table 32: Element Stresses - Area Shells, Part 1 of 3

Area	AreaElem	Joint	OutputCase	S11Top	S22Top	S12Top
				KN/m2	KN/m2	KN/m2
4	4	6	EX	46.22	9.03	1.82
4	4	13	EY	1119.92	335.98	33.52
4	4	14	EY	1119.92	335.98	87.09
4	4	7	EY	1119.92	335.98	87.09
4	4	6	EY	1119.92	335.98	33.52
5	5	14	DEAD	0.96	1.816E-02	-1.411E-02
5	5	15	DEAD	1.	0.13	-1.411E-02
5	5	8	DEAD	1.	0.13	1.411E-02
5	5	7	DEAD	0.96	1.816E-02	1.411E-02
5	5	14	SM	3.23	0.2	-7.935E-02
5	5	15	SM	3.42	0.86	-7.935E-02
5	5	8	SM	3.42	0.86	7.935E-02
5	5	7	SM	3.23	0.2	7.935E-02
5	5	14	VIVA	8.06	0.51	-0.2
5	5	15	VIVA	8.56	2.16	-0.2
5	5	8	VIVA	8.56	2.16	0.2
5	5	7	VIVA	8.06	0.51	0.2
5	5	14	EX	77.84	6.59	0.53
5	5	15	EX	76.71	2.83	0.53
5	5	8	EX	76.71	2.83	0.53
5	5	7	EX	77.84	6.59	0.53
5	5	14	EY	660.58	198.18	112.48
5	5	15	EY	660.58	198.18	116.72
5	5	8	EY	660.58	198.18	116.72
5	5	7	EY	660.58	198.18	112.48
6	6	15	DEAD	0.72	5.118E-02	-1.560E-02
6	6	16	DEAD	0.77	0.22	-1.560E-02
6	6	9	DEAD	0.77	0.22	1.560E-02
6	6	8	DEAD	0.72	5.118E-02	1.560E-02
6	6	15	SM	2.35	0.54	-2.286E-02
6	6	16	SM	2.43	0.8	-2.286E-02
6	6	9	SM	2.43	0.8	2.286E-02
6	6	8	SM	2.35	0.54	2.286E-02
6	6	15	VIVA	5.87	1.35	-5.716E-02
6	6	16	VIVA	6.07	1.99	-5.716E-02
6	6	9	VIVA	6.07	1.99	5.716E-02
6	6	8	VIVA	5.87	1.35	5.716E-02
6	6	15	EX	71.54	1.27	0.78
6	6	16	EX	73.8	8.8	0.78
6	6	9	EX	73.8	8.8	0.78
6	6	8	EX	71.54	1.27	0.78
6	6	15	EY	200.37	60.11	101.82
6	6	16	EY	200.37	60.11	119.86
6	6	9	EY	200.37	60.11	119.86
6	6	8	EY	200.37	60.11	101.82

Table 32: Element Stresses - Area Shells, Part 2 of 3

Table 32: Element Stresses - Area Shells, Part 2 of 3

Area	AreaElem	Joint	OutputCase	S11Bot	S22Bot	S12Bot
				KN/m2	KN/m2	KN/m2
1	1	10	DEAD	1.46	0.22	8.008E-03
1	1	11	DEAD	1.44	0.16	8.008E-03

Table 32: Element Stresses - Area Shells, Part 2 of 3

Area	AreaElem	Joint	OutputCase	S11Bot	S22Bot	S12Bot
				KN/m2	KN/m2	KN/m2
1	1	4	DEAD	1.44	0.16	-8.008E-03
1	1	3	DEAD	1.46	0.22	-8.008E-03
1	1	10	SM	5.4	0.73	-2.005E-02
1	1	11	SM	5.46	0.94	-2.005E-02
1	1	4	SM	5.46	0.94	2.005E-02
1	1	3	SM	5.4	0.73	2.005E-02
1	1	10	VIVA	13.51	1.83	-5.012E-02
1	1	11	VIVA	13.66	2.34	-5.012E-02
1	1	4	VIVA	13.66	2.34	5.012E-02
1	1	3	VIVA	13.51	1.83	5.012E-02
1	1	10	EX	53.5	4.6	0.25
1	1	11	EX	52.99	2.9	0.25
1	1	4	EX	52.99	2.9	0.25
1	1	3	EX	53.5	4.6	0.25
1	1	10	EY	351.82	105.54	189.42
1	1	11	EY	351.82	105.54	67.07
1	1	4	EY	351.82	105.54	67.07
1	1	3	EY	351.82	105.54	189.42
2	2	11	DEAD	1.05	3.945E-02	6.290E-04
2	2	12	DEAD	1.05	3.788E-02	6.290E-04
2	2	5	DEAD	1.05	3.788E-02	-6.290E-04
2	2	4	DEAD	1.05	3.945E-02	-6.290E-04
2	2	11	SM	3.69	0.4	1.265E-02
2	2	12	SM	3.66	0.3	1.265E-02
2	2	5	SM	3.66	0.3	-1.265E-02
2	2	4	SM	3.69	0.4	-1.265E-02
2	2	11	VIVA	9.22	1.01	3.163E-02
2	2	12	VIVA	9.14	0.75	3.163E-02
2	2	5	VIVA	9.14	0.75	-3.163E-02
2	2	4	VIVA	9.22	1.01	-3.163E-02
2	2	11	EX	38.74	1.38	0.85
2	2	12	EX	40.85	5.65	0.85
2	2	5	EX	40.85	5.65	0.85
2	2	4	EX	38.74	1.38	0.85
2	2	11	EY	830.55	249.16	87.1
2	2	12	EY	830.55	249.16	104.17
2	2	5	EY	830.55	249.16	104.17
2	2	4	EY	830.55	249.16	87.1
3	3	12	DEAD	1.53	0.18	1.457E-02
3	3	13	DEAD	1.5	7.435E-02	1.457E-02
3	3	6	DEAD	1.5	7.435E-02	-1.457E-02
3	3	5	DEAD	1.53	0.18	-1.457E-02
3	3	12	SM	5.57	0.87	6.027E-02
3	3	13	SM	5.44	0.44	6.027E-02
3	3	6	SM	5.44	0.44	-6.027E-02
3	3	5	SM	5.57	0.87	-6.027E-02
3	3	12	VIVA	13.92	2.18	0.15
3	3	13	VIVA	13.59	1.09	0.15
3	3	6	VIVA	13.59	1.09	-0.15
3	3	5	VIVA	13.92	2.18	-0.15
3	3	12	EX	5.05	5.09	1.83
3	3	13	EX	8.82	7.48	1.83
3	3	6	EX	8.82	7.48	1.83
3	3	5	EX	5.05	5.09	1.83

Table 32: Element Stresses - Area Shells, Part 2 of 3

Area	AreaElem	Joint	OutputCase	S11Bot	S22Bot	S12Bot
				KN/m2	KN/m2	KN/m2
3	3	12	EY	1188.75	356.63	68.41
3	3	13	EY	1188.75	356.63	12.29
3	3	6	EY	1188.75	356.63	12.29
3	3	5	EY	1188.75	356.63	68.41
4	4	13	DEAD	1.42	5.101E-02	-1.573E-02
4	4	14	DEAD	1.45	0.17	-1.573E-02
4	4	7	DEAD	1.45	0.17	1.573E-02
4	4	6	DEAD	1.42	5.101E-02	1.573E-02
4	4	13	SM	5.07	0.32	-6.529E-02
4	4	14	SM	5.21	0.8	-6.529E-02
4	4	7	SM	5.21	0.8	6.529E-02
4	4	6	SM	5.07	0.32	6.529E-02
4	4	13	VIVA	12.66	0.81	-0.16
4	4	14	VIVA	13.02	2.	-0.16
4	4	7	VIVA	13.02	2.	0.16
4	4	6	VIVA	12.66	0.81	0.16
4	4	13	EX	46.22	9.03	1.82
4	4	14	EX	42.29	4.07	1.82
4	4	7	EX	42.29	4.07	1.82
4	4	6	EX	46.22	9.03	1.82
4	4	13	EY	1119.92	335.98	33.52
4	4	14	EY	1119.92	335.98	87.09
4	4	7	EY	1119.92	335.98	87.09
4	4	6	EY	1119.92	335.98	33.52
5	5	14	DEAD	0.96	1.816E-02	-1.411E-02
5	5	15	DEAD	1.	0.13	-1.411E-02
5	5	8	DEAD	1.	0.13	1.411E-02
5	5	7	DEAD	0.96	1.816E-02	1.411E-02
5	5	14	SM	3.23	0.2	-7.935E-02
5	5	15	SM	3.42	0.86	-7.935E-02
5	5	8	SM	3.42	0.86	7.935E-02
5	5	7	SM	3.23	0.2	7.935E-02
5	5	14	VIVA	8.06	0.51	-0.2
5	5	15	VIVA	8.56	2.16	-0.2
5	5	8	VIVA	8.56	2.16	0.2
5	5	7	VIVA	8.06	0.51	0.2
5	5	14	EX	77.84	6.59	0.53
5	5	15	EX	76.71	2.83	0.53
5	5	8	EX	76.71	2.83	0.53
5	5	7	EX	77.84	6.59	0.53
5	5	14	EY	660.58	198.18	112.48
5	5	15	EY	660.58	198.18	116.72
5	5	8	EY	660.58	198.18	116.72
5	5	7	EY	660.58	198.18	112.48
6	6	15	DEAD	0.72	5.118E-02	-1.560E-02
6	6	16	DEAD	0.77	0.22	-1.560E-02
6	6	9	DEAD	0.77	0.22	1.560E-02
6	6	8	DEAD	0.72	5.118E-02	1.560E-02
6	6	15	SM	2.35	0.54	-2.286E-02
6	6	16	SM	2.43	0.8	-2.286E-02
6	6	9	SM	2.43	0.8	2.286E-02
6	6	8	SM	2.35	0.54	2.286E-02
6	6	15	VIVA	5.87	1.35	-5.716E-02
6	6	16	VIVA	6.07	1.99	-5.716E-02

Table 32: Element Stresses - Area Shells, Part 2 of 3

Area	AreaElem	Joint	OutputCase	S11Bot	S22Bot	S12Bot
				KN/m2	KN/m2	KN/m2
6	6	9	VIVA	6.07	1.99	5.716E-02
6	6	8	VIVA	5.87	1.35	5.716E-02
6	6	15	EX	71.54	1.27	0.78
6	6	16	EX	73.8	8.8	0.78
6	6	9	EX	73.8	8.8	0.78
6	6	8	EX	71.54	1.27	0.78
6	6	15	EY	200.37	60.11	101.82
6	6	16	EY	200.37	60.11	119.86
6	6	9	EY	200.37	60.11	119.86
6	6	8	EY	200.37	60.11	101.82

11. Material take-off

This section provides a material take-off.

Table 33: Material List 2 - By Section Property

Table 33: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			m	KN
IPE200	Frame	19	42.36	9.293
PTE100X100X3.00mm	Frame	27	56.2	5.035
LAM	Area			9.41

12. Design preferences

This section provides the design preferences for each type of design, which typically include material reduction factors, framing type, stress ratio limit, deflection limits, and other code specific items.

12.1. Steel design

Table 34: Preferences - Steel Design - AISC 360-16, Part 1 of 4

Table 34: Preferences - Steel Design - AISC 360-16, Part 1 of 4

THDesign	FrameType	PatLLF	SRatioLimit	MaxIter	SDC	SeisCode	SeisLoad	ImpFactor
Envelopes	OMF	0.75	0.95	1	C	Yes	Yes	1.

Table 34: Preferences - Steel Design - AISC 360-16, Part 2 of 4

Table 34: Preferences - Steel Design - AISC 360-16, Part 2 of 4

SystemRho	SystemSds	SystemR	SystemCd	Omega0	Provision	AMethod	SOMethod	SRMethod
1.	0.5	8.	5.5	3.	LRFD	Direct Analysis	General 2nd Order	Tau-b Fixed

Table 34: Preferences - Steel Design - AISC 360-16, Part 3 of 4

Table 34: Preferences - Steel Design - AISC 360-16, Part 3 of 4

NLCoeff	PhiB	PhiC	PhiTY	PhiTF	PhiV	PhiVRolledI	PhiVT	PlugWeld
0.002	0.9	0.9	0.9	0.75	0.9	1.	0.9	Yes

Table 34: Preferences - Steel Design - AISC 360-16, Part 4 of 4

Table 34: Preferences - Steel Design - AISC 360-16, Part 4 of 4

HSSWelding	HSSReduceT	CheckDefl	DLRat	SDLAndLLRat	LLRat	TotalRat	NetRat
ERW	No	No	120.	120.	360.	240.	240.

12.2. Concrete design

Table 35: Preferences - Concrete Design - ACI 318-08/IBC2009, Part 1 of 2

Table 35: Preferences - Concrete Design - ACI 318-08/IBC2009, Part 1 of 2

MinEccen	PatLLF	UFLimit	SeisCat
Yes	0.75	0.95	D

Table 35: Preferences - Concrete Design - ACI 318-08/IBC2009, Part 2 of 2

Table 35: Preferences - Concrete Design - ACI 318-08/IBC2009, Part 2 of 2

Rho	Sds	PhiT	PhiCTied	PhiCSpiral	PhiV	PhiVSeismic	PhiVJoint
1.	0.5	0.9	0.65	0.7	0.75	0.6	0.85

12.3. Aluminum design

Table 36: Preferences - Aluminum Design - AA-ASD 2000

Table 36: Preferences - Aluminum Design - AA-ASD 2000

FrameType	SRatioLimit	LatFact	UseLatFact
Moment Frame	1.	1.333333	No

12.4. Cold formed design

Table 37: Preferences - Cold Formed Design - AISI-ASD96

Table 37: Preferences - Cold Formed Design - AISI-ASD96

FrameType	SRatioLimit	OmegaBS	OmegaBUS	OmegaBLTB	OmegaVS	OmegaVNS	OmegaT	OmegaC
Braced Frame	1.	1.67	1.67	1.67	1.67	1.5	1.67	1.8

13. Design overwrites

This section provides the design overwrites for each type of design, which are assigned to individual members of the structure.

13.1. Steel design

Table 38: Overwrites - Steel Design - AISC 360-16, Part 1 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 1 of 7

Frame	DesignSect	FrameType	Fy	RLLF	AreaRatio	XLMajor
			KN/m2			
2	Program Determined	Program Determined	0.	0.	0.	0.
3	Program Determined	Program Determined	0.	0.	0.	0.
4	Program Determined	Program Determined	0.	0.	0.	0.
5	Program Determined	Program Determined	0.	0.	0.	0.
6	Program Determined	Program Determined	0.	0.	0.	0.
7	Program Determined	Program Determined	0.	0.	0.	0.
8	Program Determined	Program Determined	0.	0.	0.	0.
9	Program Determined	Program Determined	0.	0.	0.	0.
10	Program Determined	Program Determined	0.	0.	0.	0.
11	Program Determined	Program Determined	0.	0.	0.	0.
12	Program Determined	Program Determined	0.	0.	0.	0.
13	Program Determined	Program Determined	0.	0.	0.	0.
14	Program Determined	Program Determined	0.	0.	0.	0.
15	Program Determined	Program Determined	0.	0.	0.	0.
16	Program Determined	Program Determined	0.	0.	0.	0.
17	Program Determined	Program Determined	0.	0.	0.	0.
18	Program Determined	Program Determined	0.	0.	0.	0.
19	Program Determined	Program Determined	0.	0.	0.	0.
20	Program Determined	Program Determined	0.	0.	0.	0.
21	Program Determined	Program Determined	0.	0.	0.	0.
22	Program Determined	Program Determined	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 1 of 7

Frame	DesignSect	FrameType	Fy	RLLF	AreaRatio	XLMajor
			KN/m2			
23	Program Determined	Program Determined	0.	0.	0.	0.
24	Program Determined	Program Determined	0.	0.	0.	0.
25	Program Determined	Program Determined	0.	0.	0.	0.
26	Program Determined	Program Determined	0.	0.	0.	0.
27	Program Determined	Program Determined	0.	0.	0.	0.
28	Program Determined	Program Determined	0.	0.	0.	0.
29	Program Determined	Program Determined	0.	0.	0.	0.
30	Program Determined	Program Determined	0.	0.	0.	0.
31	Program Determined	Program Determined	0.	0.	0.	0.
32	Program Determined	Program Determined	0.	0.	0.	0.
33	Program Determined	Program Determined	0.	0.	0.	0.
34	Program Determined	Program Determined	0.	0.	0.	0.
35	Program Determined	Program Determined	0.	0.	0.	0.
36	Program Determined	Program Determined	0.	0.	0.	0.
37	Program Determined	Program Determined	0.	0.	0.	0.
38	Program Determined	Program Determined	0.	0.	0.	0.
39	Program Determined	Program Determined	0.	0.	0.	0.
40	Program Determined	Program Determined	0.	0.	0.	0.
41	Program Determined	Program Determined	0.	0.	0.	0.
42	Program Determined	Program Determined	0.	0.	0.	0.
43	Program Determined	Program Determined	0.	0.	0.	0.
44	Program Determined	Program Determined	0.	0.	0.	0.
45	Program Determined	Program Determined	0.	0.	0.	0.
46	Program Determined	Program Determined	0.	0.	0.	0.
47	Program Determined	Program Determined	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 2 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 2 of 7

Frame	XLMinor	XLLTB	K1Major	K1Minor	K2Major	K2Minor	KLTB
2	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 2 of 7

Frame	XLMinor	XLLTB	K1Major	K1Minor	K2Major	K2Minor	KLTB
24	0.	0.	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.	0.	0.
35	0.	0.	0.	0.	0.	0.	0.
36	0.	0.	0.	0.	0.	0.	0.
37	0.	0.	0.	0.	0.	0.	0.
38	0.	0.	0.	0.	0.	0.	0.
39	0.	0.	0.	0.	0.	0.	0.
40	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.
42	0.	0.	0.	0.	0.	0.	0.
43	0.	0.	0.	0.	0.	0.	0.
44	0.	0.	0.	0.	0.	0.	0.
45	0.	0.	0.	0.	0.	0.	0.
46	0.	0.	0.	0.	0.	0.	0.
47	0.	0.	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 3 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 3 of 7

Frame	CmMajor	CmMinor	Cb	B1Major	B1Minor	B2Major	B2Minor
2	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 3 of 7

Frame	CmMajor	CmMinor	Cb	B1Major	B1Minor	B2Major	B2Minor
25	0.	0.	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.	0.	0.
35	0.	0.	0.	0.	0.	0.	0.
36	0.	0.	0.	0.	0.	0.	0.
37	0.	0.	0.	0.	0.	0.	0.
38	0.	0.	0.	0.	0.	0.	0.
39	0.	0.	0.	0.	0.	0.	0.
40	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.
42	0.	0.	0.	0.	0.	0.	0.
43	0.	0.	0.	0.	0.	0.	0.
44	0.	0.	0.	0.	0.	0.	0.
45	0.	0.	0.	0.	0.	0.	0.
46	0.	0.	0.	0.	0.	0.	0.
47	0.	0.	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 4 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 4 of 7

Frame	HSSReduceT	HSSWelding	Omega0	Ry	Pnc	Pnt	Mn3
					KN	KN	KN-m
2	Program Determined	Program Determined	0.	0.	0.	0.	0.
3	Program Determined	Program Determined	0.	0.	0.	0.	0.
4	Program Determined	Program Determined	0.	0.	0.	0.	0.
5	Program Determined	Program Determined	0.	0.	0.	0.	0.
6	Program Determined	Program Determined	0.	0.	0.	0.	0.
7	Program Determined	Program Determined	0.	0.	0.	0.	0.
8	Program Determined	Program Determined	0.	0.	0.	0.	0.
9	Program Determined	Program Determined	0.	0.	0.	0.	0.
10	Program Determined	Program Determined	0.	0.	0.	0.	0.
11	Program Determined	Program Determined	0.	0.	0.	0.	0.
12	Program Determined	Program Determined	0.	0.	0.	0.	0.
13	Program Determined	Program Determined	0.	0.	0.	0.	0.
14	Program Determined	Program Determined	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 4 of 7

Frame	HSSReduceT	HSSWelding	Omega0	Ry	Pnc	Pnt	Mn3
					KN	KN	KN-m
15	Program Determined	Program Determined	0.	0.	0.	0.	0.
16	Program Determined	Program Determined	0.	0.	0.	0.	0.
17	Program Determined	Program Determined	0.	0.	0.	0.	0.
18	Program Determined	Program Determined	0.	0.	0.	0.	0.
19	Program Determined	Program Determined	0.	0.	0.	0.	0.
20	Program Determined	Program Determined	0.	0.	0.	0.	0.
21	Program Determined	Program Determined	0.	0.	0.	0.	0.
22	Program Determined	Program Determined	0.	0.	0.	0.	0.
23	Program Determined	Program Determined	0.	0.	0.	0.	0.
24	Program Determined	Program Determined	0.	0.	0.	0.	0.
25	Program Determined	Program Determined	0.	0.	0.	0.	0.
26	Program Determined	Program Determined	0.	0.	0.	0.	0.
27	Program Determined	Program Determined	0.	0.	0.	0.	0.
28	Program Determined	Program Determined	0.	0.	0.	0.	0.
29	Program Determined	Program Determined	0.	0.	0.	0.	0.
30	Program Determined	Program Determined	0.	0.	0.	0.	0.
31	Program Determined	Program Determined	0.	0.	0.	0.	0.
32	Program Determined	Program Determined	0.	0.	0.	0.	0.
33	Program Determined	Program Determined	0.	0.	0.	0.	0.
34	Program Determined	Program Determined	0.	0.	0.	0.	0.
35	Program Determined	Program Determined	0.	0.	0.	0.	0.
36	Program Determined	Program Determined	0.	0.	0.	0.	0.
37	Program Determined	Program Determined	0.	0.	0.	0.	0.
38	Program Determined	Program Determined	0.	0.	0.	0.	0.
39	Program Determined	Program Determined	0.	0.	0.	0.	0.
40	Program Determined	Program Determined	0.	0.	0.	0.	0.
41	Program Determined	Program Determined	0.	0.	0.	0.	0.
42	Program Determined	Program Determined	0.	0.	0.	0.	0.
43	Program Determined	Program Determined	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 4 of 7

Frame	HSSReduceT	HSSWelding	Omega0	Ry	Pnc	Pnt	Mn3
					KN	KN	KN-m
44	Program Determined	Program Determined	0.	0.	0.	0.	0.
45	Program Determined	Program Determined	0.	0.	0.	0.	0.
46	Program Determined	Program Determined	0.	0.	0.	0.	0.
47	Program Determined	Program Determined	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 5 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 5 of 7

Frame	Mn2	Vn2	Vn3	CheckDefl	DeflType	DLRat	SDLAndLLRat
	KN-m	KN	KN				
2	0.	0.	0.	Program Determined	Program Determined	0.	0.
3	0.	0.	0.	Program Determined	Program Determined	0.	0.
4	0.	0.	0.	Program Determined	Program Determined	0.	0.
5	0.	0.	0.	Program Determined	Program Determined	0.	0.
6	0.	0.	0.	Program Determined	Program Determined	0.	0.
7	0.	0.	0.	Program Determined	Program Determined	0.	0.
8	0.	0.	0.	Program Determined	Program Determined	0.	0.
9	0.	0.	0.	Program Determined	Program Determined	0.	0.
10	0.	0.	0.	Program Determined	Program Determined	0.	0.
11	0.	0.	0.	Program Determined	Program Determined	0.	0.
12	0.	0.	0.	Program Determined	Program Determined	0.	0.
13	0.	0.	0.	Program Determined	Program Determined	0.	0.
14	0.	0.	0.	Program Determined	Program Determined	0.	0.
15	0.	0.	0.	Program Determined	Program Determined	0.	0.
16	0.	0.	0.	Program Determined	Program Determined	0.	0.
17	0.	0.	0.	Program Determined	Program Determined	0.	0.
18	0.	0.	0.	Program Determined	Program Determined	0.	0.
19	0.	0.	0.	Program Determined	Program Determined	0.	0.
20	0.	0.	0.	Program Determined	Program Determined	0.	0.
21	0.	0.	0.	Program Determined	Program Determined	0.	0.
22	0.	0.	0.	Program Determined	Program Determined	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 5 of 7

Frame	Mn2	Vn2	Vn3	CheckDefl	DeflType	DLRat	SDLAndLLRat
	KN-m	KN	KN				
23	0.	0.	0.	Program Determined	Program Determined	0.	0.
24	0.	0.	0.	Program Determined	Program Determined	0.	0.
25	0.	0.	0.	Program Determined	Program Determined	0.	0.
26	0.	0.	0.	Program Determined	Program Determined	0.	0.
27	0.	0.	0.	Program Determined	Program Determined	0.	0.
28	0.	0.	0.	Program Determined	Program Determined	0.	0.
29	0.	0.	0.	Program Determined	Program Determined	0.	0.
30	0.	0.	0.	Program Determined	Program Determined	0.	0.
31	0.	0.	0.	Program Determined	Program Determined	0.	0.
32	0.	0.	0.	Program Determined	Program Determined	0.	0.
33	0.	0.	0.	Program Determined	Program Determined	0.	0.
34	0.	0.	0.	Program Determined	Program Determined	0.	0.
35	0.	0.	0.	Program Determined	Program Determined	0.	0.
36	0.	0.	0.	Program Determined	Program Determined	0.	0.
37	0.	0.	0.	Program Determined	Program Determined	0.	0.
38	0.	0.	0.	Program Determined	Program Determined	0.	0.
39	0.	0.	0.	Program Determined	Program Determined	0.	0.
40	0.	0.	0.	Program Determined	Program Determined	0.	0.
41	0.	0.	0.	Program Determined	Program Determined	0.	0.
42	0.	0.	0.	Program Determined	Program Determined	0.	0.
43	0.	0.	0.	Program Determined	Program Determined	0.	0.
44	0.	0.	0.	Program Determined	Program Determined	0.	0.
45	0.	0.	0.	Program Determined	Program Determined	0.	0.
46	0.	0.	0.	Program Determined	Program Determined	0.	0.
47	0.	0.	0.	Program Determined	Program Determined	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 6 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 6 of 7

Frame	LLRat	TotalRat	NetRat	DLAbs	SDLAndLLAbs	LLAbs	TotalAbs
				m	m	m	m
2	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.	0.	0.
35	0.	0.	0.	0.	0.	0.	0.
36	0.	0.	0.	0.	0.	0.	0.
37	0.	0.	0.	0.	0.	0.	0.
38	0.	0.	0.	0.	0.	0.	0.
39	0.	0.	0.	0.	0.	0.	0.
40	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.
42	0.	0.	0.	0.	0.	0.	0.
43	0.	0.	0.	0.	0.	0.	0.
44	0.	0.	0.	0.	0.	0.	0.
45	0.	0.	0.	0.	0.	0.	0.
46	0.	0.	0.	0.	0.	0.	0.
47	0.	0.	0.	0.	0.	0.	0.

Table 38: Overwrites - Steel Design - AISC 360-16, Part 7 of 7

Table 38: Overwrites - Steel Design - AISC 360-16, Part 7 of 7

Frame	NetAbs	SpecCamber	DCLimit
	m	m	
2	0.	0.	0.
3	0.	0.	0.
4	0.	0.	0.
5	0.	0.	0.
6	0.	0.	0.
7	0.	0.	0.
8	0.	0.	0.
9	0.	0.	0.
10	0.	0.	0.
11	0.	0.	0.
12	0.	0.	0.
13	0.	0.	0.
14	0.	0.	0.
15	0.	0.	0.
16	0.	0.	0.
17	0.	0.	0.
18	0.	0.	0.
19	0.	0.	0.
20	0.	0.	0.
21	0.	0.	0.
22	0.	0.	0.
23	0.	0.	0.
24	0.	0.	0.
25	0.	0.	0.
26	0.	0.	0.
27	0.	0.	0.
28	0.	0.	0.
29	0.	0.	0.
30	0.	0.	0.
31	0.	0.	0.
32	0.	0.	0.
33	0.	0.	0.
34	0.	0.	0.
35	0.	0.	0.
36	0.	0.	0.
37	0.	0.	0.
38	0.	0.	0.
39	0.	0.	0.
40	0.	0.	0.
41	0.	0.	0.
42	0.	0.	0.
43	0.	0.	0.
44	0.	0.	0.
45	0.	0.	0.
46	0.	0.	0.
47	0.	0.	0.

14. Design summary

This section provides the design summary for each type of design, which highlights the controlling demand/capacity ratio and it's associated combination and location in each member.

14.1. Steel design

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 1 of 2

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 1 of 2

Frame	DesignSect	DesignType	Status	Ratio	RatioType
2	IPE200	Beam	No Messages	0.074041	PMM
3	IPE200	Beam	No Messages	0.081745	PMM
4	IPE200	Beam	No Messages	0.115566	PMM
5	IPE200	Beam	No Messages	0.113908	PMM
6	IPE200	Beam	No Messages	0.082696	PMM
7	IPE200	Beam	No Messages	0.043817	PMM
8	IPE200	Beam	No Messages	0.074041	PMM
9	IPE200	Beam	No Messages	0.081745	PMM
10	IPE200	Beam	No Messages	0.115566	PMM
11	IPE200	Beam	No Messages	0.113908	PMM
12	IPE200	Beam	No Messages	0.082696	PMM
13	IPE200	Beam	No Messages	0.043817	PMM
14	IPE200	Beam	No Messages	0.021234	PMM
15	IPE200	Beam	No Messages	0.025103	Major Shear
16	IPE200	Beam	No Messages	0.024273	Major Shear
17	IPE200	Beam	No Messages	0.023442	Major Shear
18	IPE200	Beam	No Messages	0.024273	Major Shear
19	IPE200	Beam	No Messages	0.026764	Major Shear
20	IPE200	Beam	No Messages	0.014744	PMM
21	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
22	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
23	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
24	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
25	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
26	PTE100X100X3.00mm	Beam	No Messages	0.127389	PMM
27	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
28	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
29	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
30	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
31	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
32	PTE100X100X3.00mm	Beam	No Messages	0.118822	PMM
33	PTE100X100X3.00mm	Beam	No Messages	0.144522	PMM
34	PTE100X100X3.00mm	Column	No Messages	0.250155	PMM
35	PTE100X100X3.00mm	Column	No Messages	0.250155	PMM
36	PTE100X100X3.00mm	Column	No Messages	0.495012	PMM
37	PTE100X100X3.00mm	Column	No Messages	0.495012	PMM
38	PTE100X100X3.00mm	Column	No Messages	0.511339	PMM
39	PTE100X100X3.00mm	Column	No Messages	0.511339	PMM
40	PTE100X100X3.00mm	Column	No Messages	0.580712	PMM
41	PTE100X100X3.00mm	Column	No Messages	0.580712	PMM
42	PTE100X100X3.00mm	Column	No Messages	0.518999	PMM
43	PTE100X100X3.00mm	Column	No Messages	0.518999	PMM
44	PTE100X100X3.00mm	Column	No Messages	0.42566	PMM

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 1 of 2

Frame	DesignSect	DesignType	Status	Ratio	RatioType
45	PTE100X100X3.00mm	Column	No Messages	0.42566	PMM
46	PTE100X100X3.00mm	Column	No Messages	0.200774	PMM
47	PTE100X100X3.00mm	Column	No Messages	0.200774	PMM

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 2 of 2

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 2 of 2

Frame	Combo	Location	ErrMsg	WarnMsg
		m		
2	ENVOLVENTE	2.72	No Messages	No Messages
3	ENVOLVENTE	2.72	No Messages	No Messages
4	ENVOLVENTE	3.38	No Messages	No Messages
5	ENVOLVENTE	0.	No Messages	No Messages
6	ENVOLVENTE	0.	No Messages	No Messages
7	ENVOLVENTE	0.	No Messages	No Messages
8	ENVOLVENTE	2.72	No Messages	No Messages
9	ENVOLVENTE	2.72	No Messages	No Messages
10	ENVOLVENTE	3.38	No Messages	No Messages
11	ENVOLVENTE	0.	No Messages	No Messages
12	ENVOLVENTE	0.	No Messages	No Messages
13	ENVOLVENTE	0.	No Messages	No Messages
14	ENVOLVENTE	1.2	No Messages	No Messages
15	ENVOLVENTE	1.2	No Messages	No Messages
16	ENVOLVENTE	1.2	No Messages	No Messages
17	ENVOLVENTE	1.2	No Messages	No Messages
18	ENVOLVENTE	1.2	No Messages	No Messages
19	ENVOLVENTE	1.2	No Messages	No Messages
20	ENVOLVENTE	1.2	No Messages	No Messages
21	ENVOLVENTE	0.4	No Messages	No Messages
22	ENVOLVENTE	0.4	No Messages	No Messages
23	ENVOLVENTE	0.8	No Messages	No Messages
24	ENVOLVENTE	0.4	No Messages	No Messages
25	ENVOLVENTE	0.8	No Messages	No Messages
26	ENVOLVENTE	0.8	No Messages	No Messages
27	ENVOLVENTE	0.8	No Messages	No Messages
28	ENVOLVENTE	0.4	No Messages	No Messages
29	ENVOLVENTE	0.4	No Messages	No Messages
30	ENVOLVENTE	0.4	No Messages	No Messages
31	ENVOLVENTE	0.4	No Messages	No Messages
32	ENVOLVENTE	0.4	No Messages	No Messages
33	ENVOLVENTE	0.8	No Messages	No Messages
34	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
35	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
36	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
37	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
38	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
39	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
40	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
41	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
42	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
43	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
44	ENVOLVENTE (Sp)	2.9	No Messages	No Messages
45	ENVOLVENTE (Sp)	2.9	No Messages	No Messages

Table 39: Steel Design 1 - Summary Data - AISC 360-16, Part 2 of 2

Frame	Combo	Location	ErrMsg	WarnMsg
		m		
46	ENVOLVENTE	2.9	No Messages	No Messages
47	ENVOLVENTE	2.9	No Messages	No Messages